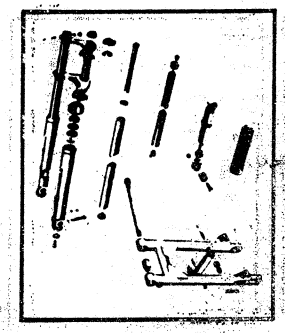
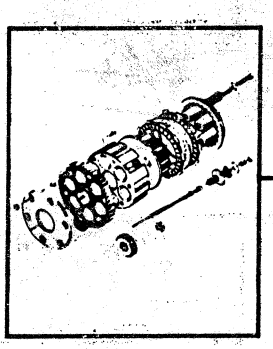
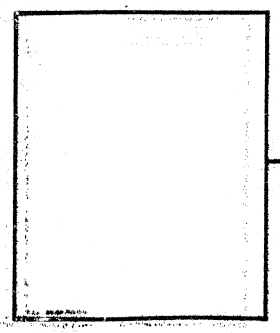
Husqvarna motorcycles

WORKSHOP MANUAL







Technical data

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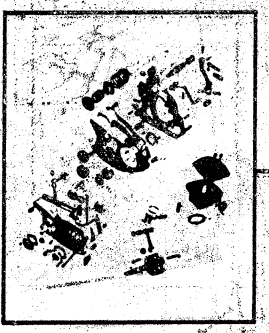

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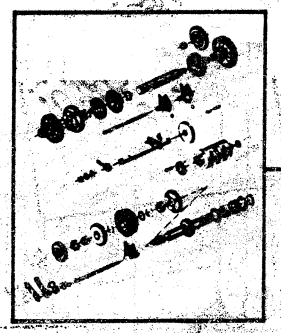

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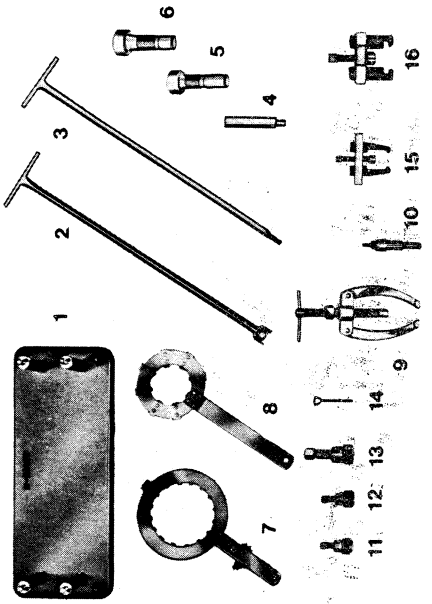
Technical data – Tools

This chapter consists of one compilation over technical data and one tool schedule.

TA. Technical data
TB. Tool schedule



Technical data

Technical data 125 CR MK 10500–19499

Suspension

Front fork:	Betor
Oil capacity per fork leg:	0.18 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	LELEU	LELEU
Brake drum Ø (mm):	120	120

Frame

Type:	MK

Engine

Displacement (cc):	124	
Bore std (mm):	55.00	Tolerance
1st over:	55.25	+0.02
2nd over:	55.50	–0.0
3rd over:	–	
Stroke (mm):	52.00	
Compression ratio:	13.2:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 84
Venturi Ø (mm):	32
Main jet:	150
Needle jet:	2.76
Idling jet:	30
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Motoplat
Contact breaker gap:	–
Ignition advance:	17°
Ignition adv. on piston before TDC:	1.43 mm
Ignition adv. on flywheel before TDC:	17.2 ± 1 mm
Spark plug:	Champion N2 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	20 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 125 CR ML 0001–5999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	LELEU
Brake drum Ø (mm):	120	120

Frame

Type:	ML

Engine

Displacement (cc):	124	
Bore std (mm):	55.00	Tolerance
1st over:	55.25	+0.02
2nd over:	55.50	–0.0
3rd over:	–	
Stroke (mm):	52.00	
Compression ratio:	13.2:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.4 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 84
Venturi Ø (mm):	32
Main jet:	160
Needle jet:	2.76
Idling jet:	30
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat
Contact breaker gap:	–
Ignition advance:	17°
Ignition adv. on piston before TDC:	1.43 mm
Ignition adv. on flywheel before TDC:	17.2 ± 1 mm
Spark plug:	Champion N2 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	20 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	8 Nm
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 125 CR ML 16000 ⟶

Suspension

Front fork:	Betor
Oil capacity per fork leg:	0.24 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	LELEU
Brake drum Ø (mm):	140	140

Frame

Type:	ML

Engine

Displacement (cc):	124	
Bore std (mm):	55.00	Tolerance
1st over:	55.25	+0.02
2nd over:	55.50	–0.0
3rd over:	–	
Stroke (mm):	52.00	
Compression ratio:	13.2:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.4 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 84 with start valve
Venturi Ø (mm):	32
Main jet:	160
Needle jet:	2.76
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat
Contact breaker gap:	–
Ignition advance:	17°
Ignition adv. on piston before TDC:	1.43 mm
Ignition adv. on flywheel before TDC:	17.2 ± 1 mm
Spark plug:	Champion N2 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	20 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	8 Nm
Screws, reed valve housing cylinder:	–
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 125 SC MK 10500–19499

Suspension

Front fork:	Betor
Oil capacity per fork leg:	0.18 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes

	Front	Rear
Type:	LELEU	LELEU
Brake drum Ø (mm):	120	120

Frame

Type:	MK

Engine

Displacement (cc):	124	
Bore std (mm):	55.00	Tolerance
1st over:	55.25	+0.02
2nd over:	55.50	–0.0
3rd over:	–	
Stroke (mm):	52.00	
Compression ratio:	13.2:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.4 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Amal
Venturi Ø (mm):	32
Main jet:	220
Needle jet:	105
Idling jet:	20
Needle position:	2
Airscrew opening:	2.5
	Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	17°
Ignition adv. on piston before TDC:	1.43 mm
Ignition adv. on flywheel before TDC:	17.2 ± 1 mm
Spark plug:	Champion N2

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	20 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 175 SC MK 10500–19499

Suspension

Front fork:	Betor
Oil capacity per fork leg:	0.18 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	LELEU	LELEU
Brake drum Ø (mm):	120	120

Frame

Type:	MK

Engine

Displacement (cc):	167	
Bore std (mm):	64.00	Tolerance
1st over:	64.25	+0.02
2nd over:	64.50	–0.0
3rd over:	–	
Stroke (mm):	52.00	
Compression ratio:	13.2:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.4 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Amal
Venturi Ø (mm):	32
Main jet:	220
Needle jet:	105
Idling jet:	20
Needle position:	2
Airscrew opening:	2.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	17°
Ignition adv. on piston before TDC:	1.43 mm
Ignition adv. on flywheel before TDC:	17.2 ± 1 mm
Spark plug:	Champion N2 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	20 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 175 CC ML 0001 ⟶

Suspension

Front fork:	Betor
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE30–SAE50
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	ML

Engine

Displacement (cc):	172	
Bore std (mm):	62.00	Tolerance
1st over:	62.25	+0.02
2nd over:	62.50	–0.0
3rd over:	62.75	
Stroke (mm):	57.00	
Compression ratio:	13.1:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Amal with start valve
Venturi Ø (mm):	34
Main jet:	290
Needle jet:	107 A
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.13 mm
Ignition adv. on flywheel before TDC:	20.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 250 CR MK 10500–19499

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	MK

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	2.85
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	18°
Ignition adv. on piston before TDC:	1.98 mm
Ignition adv. on flywheel before TDC:	18.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	40 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 250 CR ML 0001–5999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.20
Idling jet:	35
Needle position:	3
Airscrew opening:	1 Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	20.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 250 CR ML 6000–15999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.18
Idling jet:	45
Needle position:	2
Airscrew opening:	1
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	20.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 250 CR ML 16000 ⟶

Suspension

Front fork:	Husqvarna 240
Oil capacity per fork leg:	0.25 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54 with start valve
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.16
Idling jet:	55
Needle position:	1
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	20.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktie AAV
Spark plug:	40 Nm

Technical data 250 WR MK 10500–19499

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.20 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	MK

Engine

Displacement (cc):	245	
Bore std (mm):	69.55	Tolerance
1st over:	69.80	+0.02
2nd over:	70.05	–0.0
3rd over:	70.30	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	170
Needle jet:	2.85
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	23.8±1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	40 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 250 WR MK 19500 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.20 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	MK

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Husqvarna small

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	2.85
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	23.8 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 250 WR ML 6000–15999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	ML

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.18
Idling jet:	45
Needle position:	2
Airscrew opening:	1 Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.30–0.35 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	23.8 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm
Clutch ring screws/nuts:	8 Nm
Spark plug:	40 Nm

Technical data 250 WR ML 16000 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.24 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	ML

Engine

Displacement (cc):	245	
Bore std (mm):	69.50	Tolerance
1st over:	69.75	+0.02
2nd over:	70.00	–0.0
3rd over:	70.25	
Stroke (mm):	64.50	
Compression ratio:	12.3:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54 with start valve
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.16
Idling jet:	55
Needle position:	2
Airscrew opening:	1
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	23.8 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 250 RT SK 0001 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Betor, oil

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	SK

Engine

Displacement (cc):	245	
Bore std (mm):	69.55	Tolerance
1st over:	69.80	+0.05
2nd over:	70.05	–0.0
3rd over:	70.30	
Stroke (mm):	64.50	
Compression ratio:	10.5:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Amal
Venturi Ø (mm):	32
Main jet:	220
Needle jet:	105
Idling jet:	20
Needle position:	2
Airscrew opening:	2.5
	Turn from bottom position
Air filter:	SK-model

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.43 mm
Ignition adv. on flywheel before TDC:	23.8 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Husqvarna motorcycles

Technical data 360 CR ML 0001–5999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	354	
Bore std (mm):	82.05	Tolerance
1st over:	82.55	+0.02
2nd over:	83.05	–0.0
3rd over:	–	
Stroke (mm):	67.00	
Compression ratio:	10.8:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.18
Idling jet:	35
Needle position:	2
Airscrew opening:	1 Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	22°
Ignition adv. on piston before TDC:	3.02 mm
Ignition adv. on flywheel before TDC:	26.2 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 360 CR ML 6000–15999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	354	
Bore std (mm):	82.00	Tolerance
1st over:	82.50	+0.02
2nd over:	83.00	–0.0
3rd over:	–	
Stroke (mm):	67.00	
Compression ratio:	11.5:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.16
Idling jet:	45
Needle position:	2
Airscrew opening:	1 Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 139 mm
Contact breaker gap:	–
Ignition advance:	22°
Ignition adv. on piston before TDC:	3.02 mm
Ignition adv. on flywheel before TDC:	26.6 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	90 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 360 WR ML 6000–15999

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	ML

Engine

Displacement (cc):	354	
Bore std (mm):	82.00	Tolerance
1st over:	82.50	+0.02
2nd over:	83.00	–0.0
3rd over:	–	
Stroke (mm):	67.00	
Compression ratio:	11.5:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Gurtner	
Venturi Ø (mm):	38	38
Main jet:	170	180
Needle jet:	3.20	3.22
Idling jet:	75	50
Needle position:	3	3
Airscrew opening:	1.5–1	1.5–1
	Turn from bottom position	
Air filter:	ML-type	ML-type

Electrical system

Type:	Motoplat Ø 139 mm
Contact breaker gap:	–
Ignition advance:	22°
Ignition adv. on piston before TDC:	3.02 mm
Ignition adv. on flywheel before TDC:	26.6 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	90 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 360 AUTO ML 16000 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.22 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	140	160

Frame

Type:	ML

Engine

Displacement (cc):	354	
Bore std (mm):	82.00	Tolerance
1st over:	82.50	+0.02
2nd over:	83.00	–0.0
3rd over:	–	
Stroke (mm):	67.00	
Compression ratio:	11.5:1	

Clutch

Type:	—

Gearbox

Number of speeds in gearbox:	4
Oil capacity in gearbox:	1 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54 with start valve
Venturi Ø (mm):	36
Main jet:	200
Needle jet:	3.16
Idling jet:	55
Needle position:	2
Airscrew opening:	1.5 Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	16°
Ignition adv. on piston before TDC:	1.61 mm
Ignition adv. on flywheel before TDC:	16.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Nut list clutch hub:	90 Nm
Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Spark plug:	40 Nm

Technical data 360 RT SK 0001 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Betor, oil

Wheels and brakes	Front	Rear
Type:	LELEU	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	SK

Engine

Displacement (cc):	349	
Bore std (mm):	81.50	Tolerance
1st over:	82.00	+0.02
2nd over:	82.50	–0.0
3rd over:	–	
Stroke (mm):	66.00	
Compression ratio:	8.6:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Amal
Venturi Ø (mm):	32
Main jet:	220
Needle jet:	105
Idling jet:	20
Needle position:	2
Airscrew opening:	2.5 Turn from bottom position
Air filter:	SK-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	20°
Ignition adv. on piston before TDC:	2.46 mm
Ignition adv. on flywheel before TDC:	23.8 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 390 CR ML 16000 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.25 l
Oil recommendation:	Engine oil SAE10–SAE30
Rear suspension:	Girling, gas

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	ML

Engine

Displacement (cc):	384	
Bore std (mm):	83.00	Tolerance
1st over:	83.50	+0.02
2nd over:	84.00	–0.0
3rd over:	–	
Stroke (mm):	71.00	
Compression ratio:	11.5:1	

Clutch

Type:	Rubber damped

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	195
Needle jet:	3.16
Idling jet:	45
Needle position:	2
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	ML-type

Electrical system

Type:	Motoplat Ø 139 mm
Contact breaker gap:	–
Ignition advance:	18°
Ignition adv. on piston before TDC:	2.19 mm
Ignition adv. on flywheel before TDC:	21.8 ± 1.2 mm
Spark plug:	Champion N2 or equivalent

Screwed joints

Flywheel nut:	90 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	2 Nm
Screws, reed valve housing cylinder:	8 Nm
Clutch spring screws:	5 Nm+Locktite EV
Clutch ring screws/nuts:	8 Nm+Locktite AAV
Spark plug:	40 Nm

Technical data 400 CR MK 10500–19499

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	MK

Engine

Displacement (cc):	395	
Bore std (mm):	81.50	Tolerance
1st over:	82.00	+0.02
2nd over:	82.50	–0.0
3rd over:	–	
Stroke (mm):	76.00	
Compression ratio:	10.2:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	170
Needle jet:	2.85
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	22°
Ignition adv. on piston before TDC:	3.61 mm
Ignition adv. on flywheel before TDC:	22.6 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 400 WR MK 10500 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	MK

Engine

Displacement (cc):	395	
Bore std (mm):	81.50	Tolerance
1st over:	82.00	+0.02
2nd over:	82.50	–0.0
3rd over:	–	
Stroke (mm):	76.00	
Compression ratio:	10.2:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	6
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	170
Needle jet:	2.85
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	22°
Ignition adv. on piston before TDC:	3.61 mm
Ignition adv. on flywheel before TDC:	26.2 ± 1.2 mm
Spark plug:	Champion N4–N3 or

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	–
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 450 WR MK 0001 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	MK

Engine

Displacement (cc):	454	
Bore std (mm):	84.00	Tolerance
1st over:	84.50	+0.02
2nd over:	85.00	–0.0
3rd over:	–	
Stroke (mm):	82.00	
Compression ratio:	8.8:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	170
Needle jet:	2.83
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5 Turn from bottom position
Air filter:	MK-type

Electrical system

Type:	Femsa
Contact breaker gap:	0.35–0.40 mm
Ignition advance:	18°
Ignition adv. on piston before TDC:	2.54 mm
Ignition adv. on flywheel before TDC:	21.5 ± 1.2 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Technical data 450 CR, 460 CC MK 0001 ⟶

Suspension

Front fork:	Husqvarna
Oil capacity per fork leg:	0.2 l
Oil recommendation:	Engine oil SAE20–SAE50
Rear suspension:	Girling, oil

Wheels and brakes	Front	Rear
Type:	Husqvarna	Husqvarna
Brake drum Ø (mm):	160	160

Frame

Type:	MK

Engine

Displacement (cc):	454	
Bore std (mm):	84.00	Tolerance
1st over:	84.50	+0.02
2nd over:	85.00	–0.0
3rd over:	–	
Stroke (mm):	82.00	
Compression ratio:	8.8:1	

Clutch

Type:	Husqvarna big

Gearbox

Number of speeds in gearbox:	5
Oil capacity in gearbox:	1.6 l
Oil recommendation:	Engine oil SAE 20.

Fuel System

Carburettor:	Bing 54
Venturi Ø (mm):	36
Main jet:	170
Needle jet:	2.83
Idling jet:	35
Needle position:	3
Airscrew opening:	1.5
	Turn from bottom position
Air filter:	MK-type

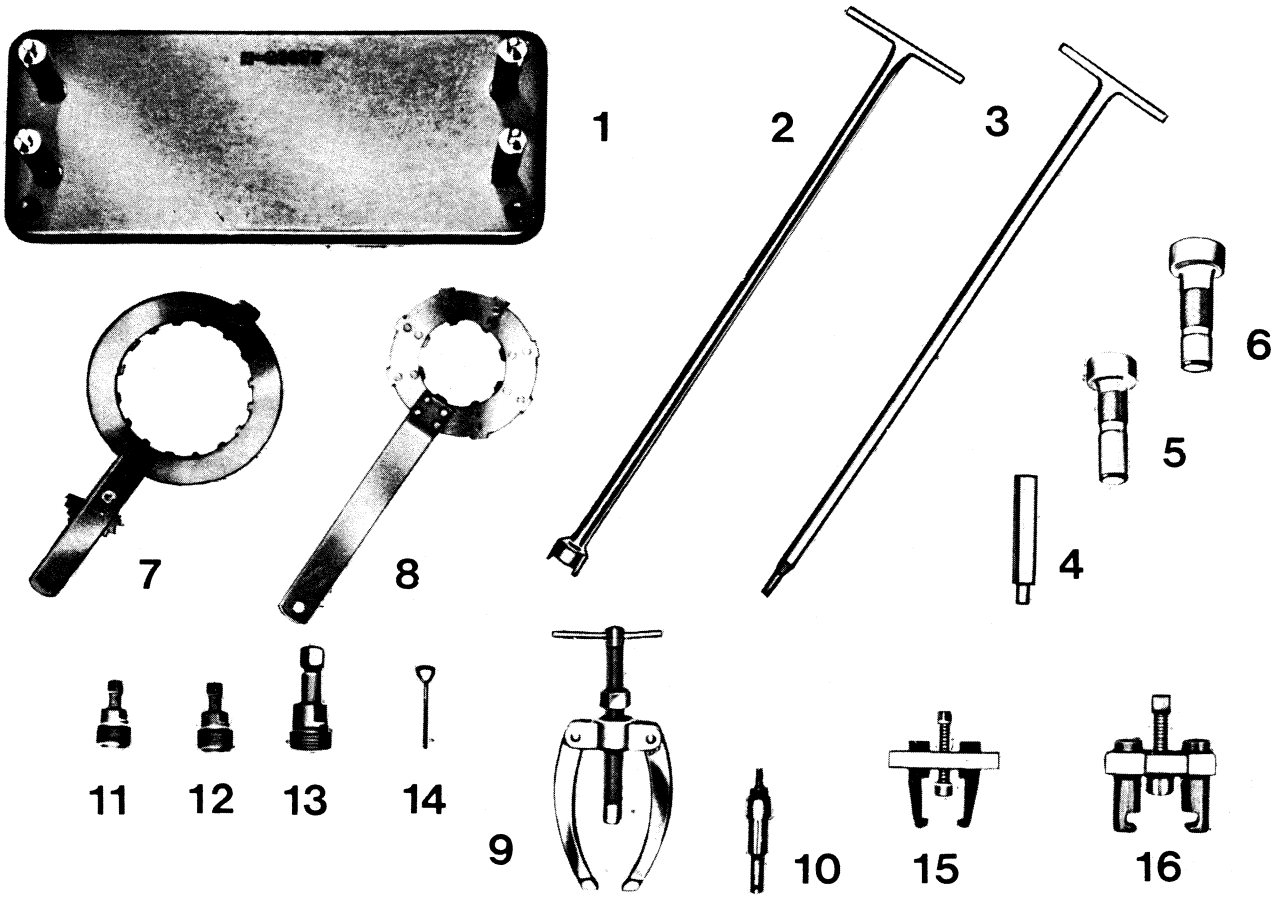
Electrical system

Type:	Motoplat Ø 116 mm
Contact breaker gap:	–
Ignition advance:	18°
Ignition adv. on piston before TDC:	2.54 mm
Ignition adv. on flywheel before TDC:	18.2 ± 1 mm
Spark plug:	Champion N4–N3 or equivalent

Screwed joints

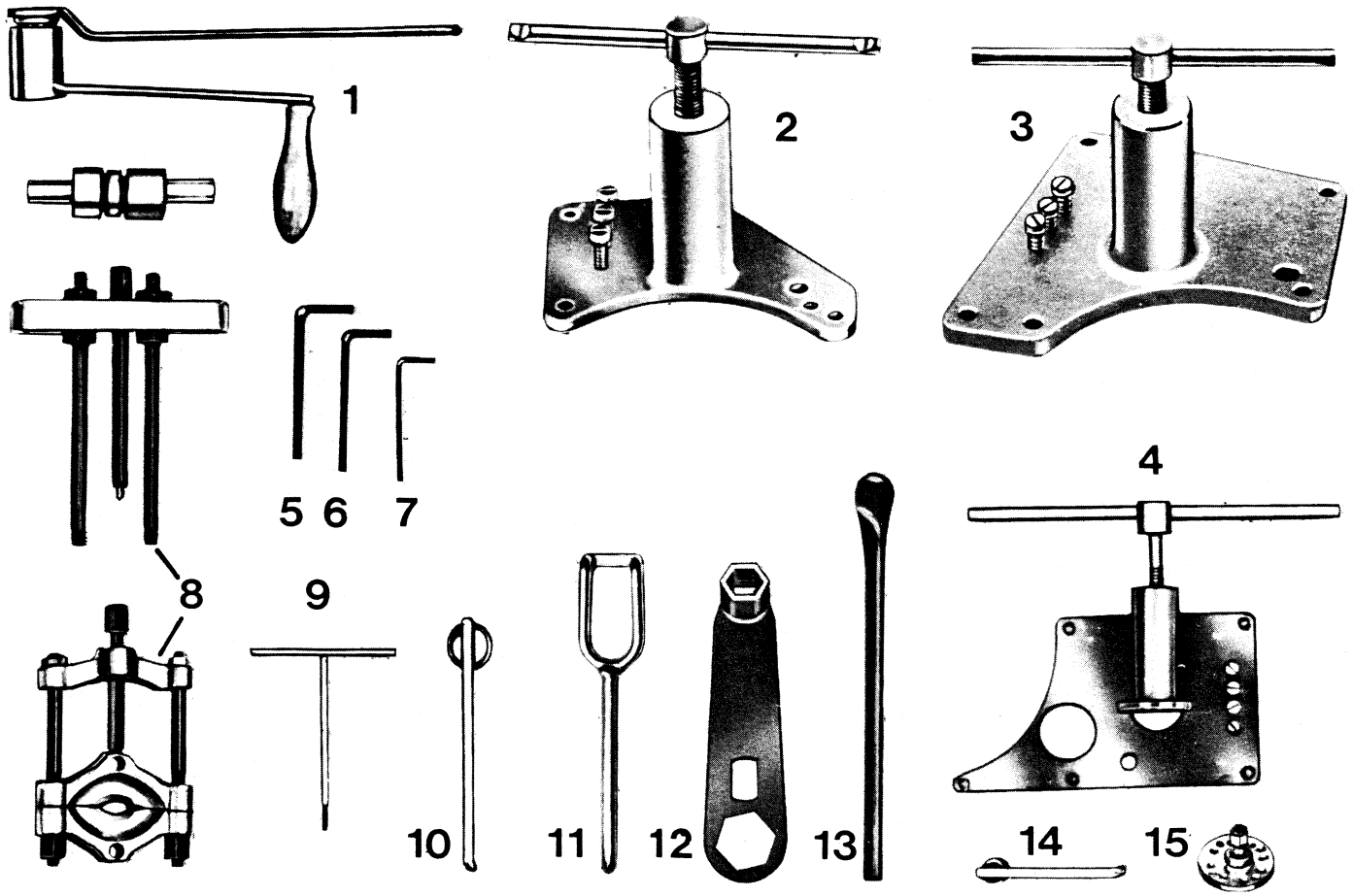
Flywheel nut:	70 Nm
Cylinder head nuts:	25 Nm
Cylinder head screws:	20 Nm
Engine mounting bolts:	35 Nm
Crankcase screws:	8 Nm
Rear fork bolt nuts:	35 Nm
Reed valve housing screws:	–
Screws, reed valve housing cylinder:	–
Clutch spring screws:	–
Clutch ring screws/nuts:	–
Spark plug:	40 Nm

Tools



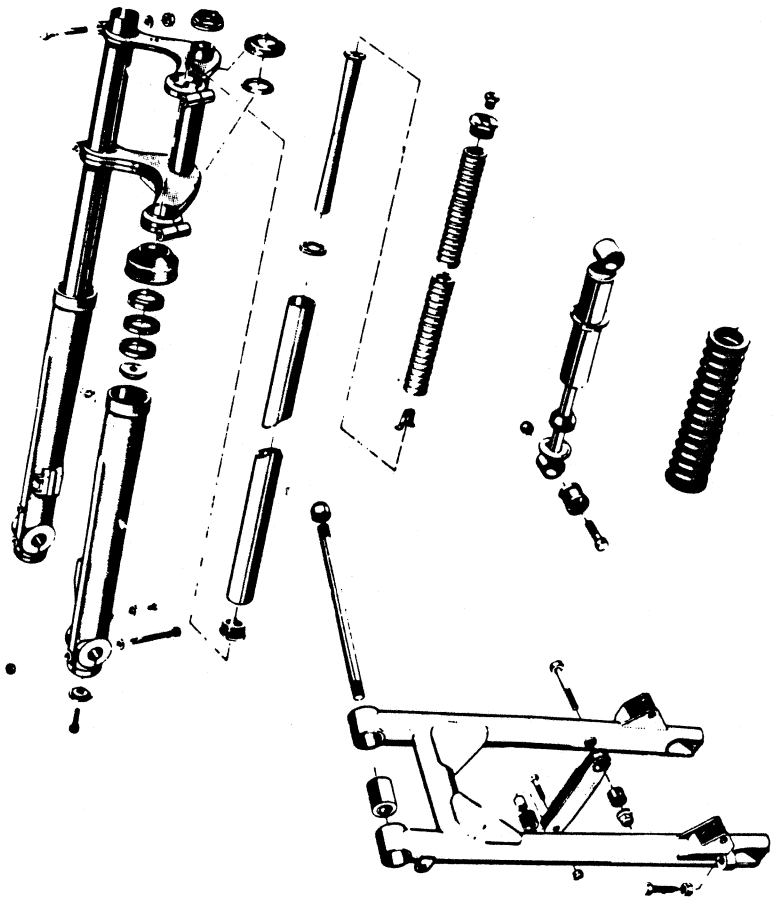
Pos	Part number	Description
1	15 19 243-01	Mounting stand
2	15 19 122-01	Holder for damping spindle Husqvarna
3	15 19 327-01	Holder for damping spindle Betor
4	15 19 248-01	Drift for piston pin 125 cc and 175 cc
4	15 19 249-01	Drift for piston pin 250 cc, 260 cc and 400 cc
4	15 19 250-01	Drift for piston pin 450 cc
5	15 19 178-01	Drift Ø 40 mm
6	15 19 179-01	Drift Ø 44 mm
7	15 19 261-01	Holder for clutch »Husqvarna big»
8	12 24 806-01	Holder for clutch »Husqvarna small»
9	15 19 105-01	Puller ball bearings
10	15 19 107-01	Supplement for holes Ø 12–14,5 mm
11	15 19 276-01	Puller for flywheel Motoplat Ø 116 mm
12	15 19 324-01	Puller for flywheel Motoplat Ø 139 mm and Ø 116 mm with light coil.
13	15 19 177-01	Puller for flywheel Femsa
14	15 19 322-01	Timing tool Motoplat
15	15 19 805-01	Puller driving wheel
16	15 19 275-01	Puller sprocket

Tools



Pos	Part number	Description
1	15 19 251-01	Mounting tool crankcase
2	15 19 280-01	Puller crankcase 125 cc and 175 sc
2	15 19 851-01	Puller crankcase 125 cc magnesium engine
3	15 19 810-01	Puller crancase 175–360 cc magnesium engines
4	15 19 257-01	Puller crankcase 400 cc, 450 cc and earlier 250 cc
5	95 02 67-109	Allen key nr 5
6	95 02 67-106	Allen key nr 4
7	95 02 67-103	Allen key nr 3
8	50 11 930-01	Puller for ball bearing
9	17 10 229-01	Allen key for M6
10	15 19 271-01	Holder for flywheel "Cone"
11	15 19 334-01	Holding tool flywheel "Splines"
12	15 19 347-01	Spark plug tool
13	15 19 087-01	Tyre bar
14	15 19 278-01	Holder for sprocket "Cone"
15	15 19 268-01	Puller for clutch ring

WORKSHOP MANUAL



SUSPENSION

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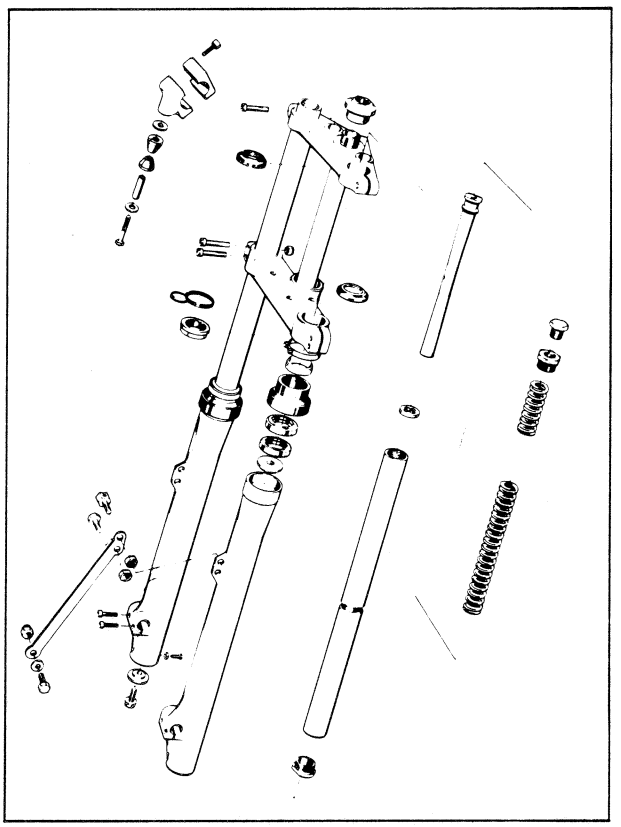
Suspension



This chapter covers the different front forks and shock absorbers which have been mounted on Husqvarna-models during 1974–1976. The rear forks are also included in the chapter.

S A. Front fork Husqvarna
125 CR ML0001–5999.
All 250–450 MK-models.
All 250–360 ML-models.

S B. Front fork Betor
All 125–175 MK-models.
175 cc ML0001–15999.
125 CR ML 16000. ⟶

S C. Girling shock absorber; oil filled
All MK-models.

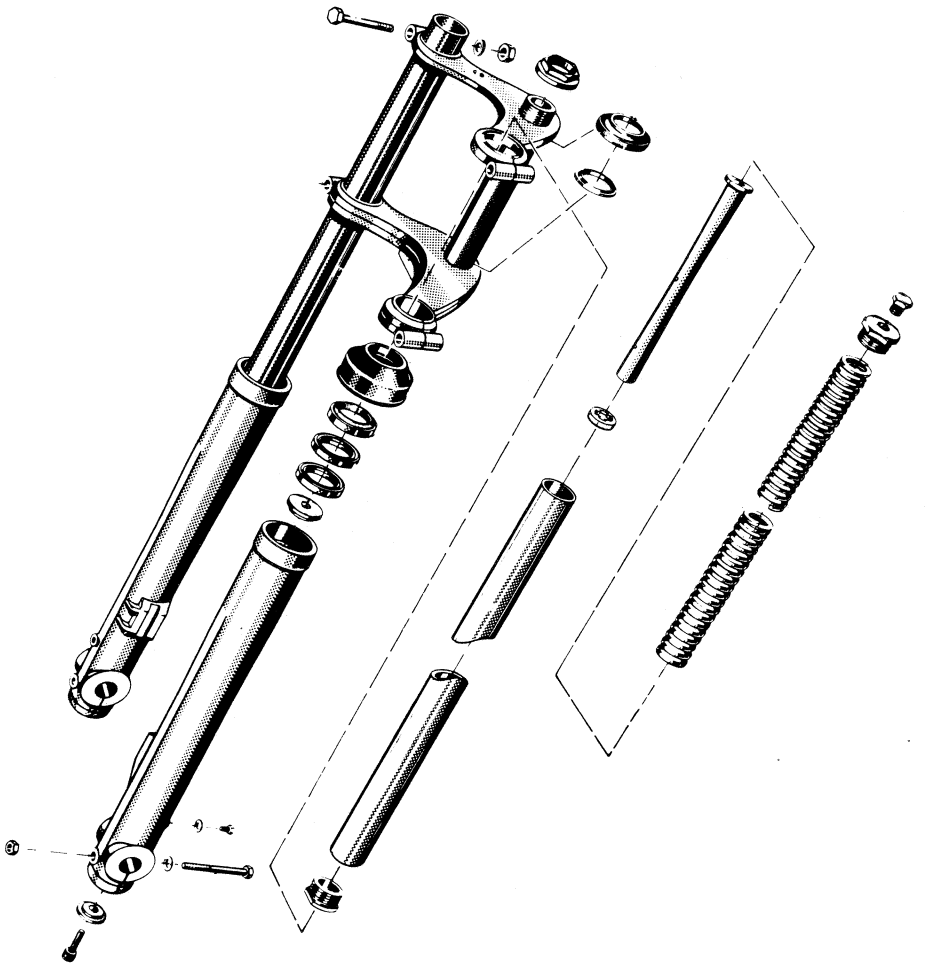
S D. Girling shock absorber; oil and gas filled.
All ML-models.

S E. Rear Fork.

S F. Front fork Husqvarna 240
250 CR ML16000 ⟶
390 CR ML16000 ⟶

Husqvarna motorcycles

Front fork Husqvarna



Function
The front fork is off telescopic type with hydraulic damping.

The damping action is obtained by means of a damping spindle which is attached to the fork leg in such a way that the fork tube runs over the spindle. The oil in the fork is thereby forced to pass through an area which alternates with the spring movement of the machine and which is dimensioned so that the correct oil flow resistance is obtained for each particular position of the suspension system.

This means that heavier oil increases the damping effect (harder suspension), whereas a thinner oil reduces the damping effect (softer suspension).

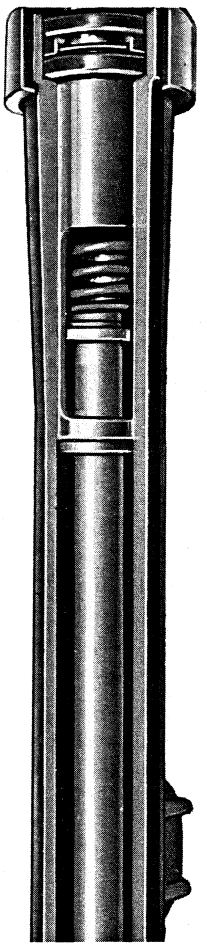


Fig. 3.1

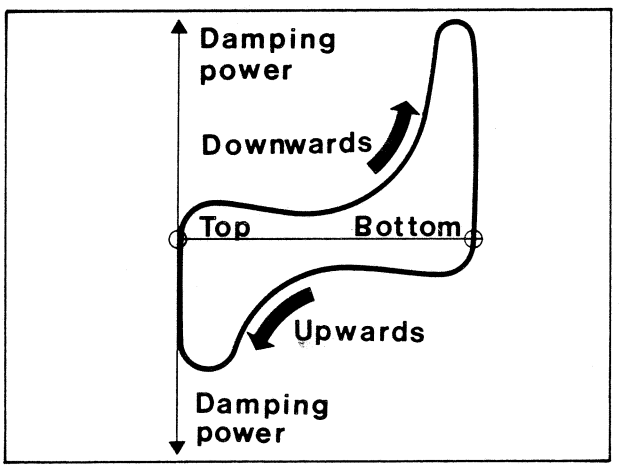


Fig. 3.2

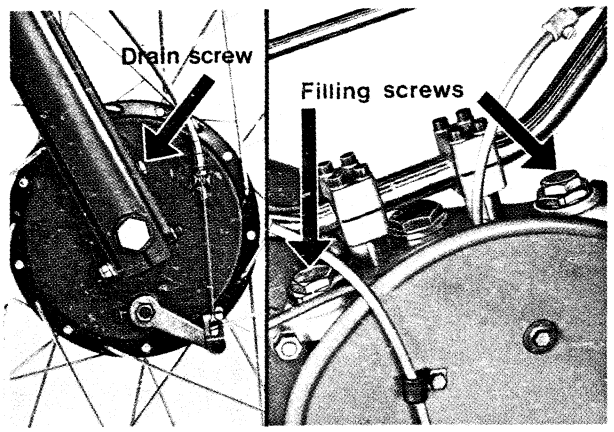


Fig. 4.1

Dismantling
Loosen the filling and drain screws.
See fig. 4.1.
Let the oil run out.

Fig. 4.2

Remove the top screw and lift out the spring.
See fig. 4.2.

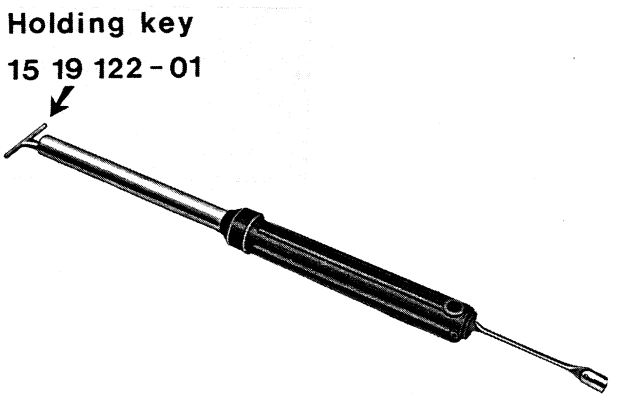


Fig. 4.3

Insert a holding key in the upper fork leg and lock the damping spindle. Loosen the holding screw in the bottom of the lower fork leg.
See fig. 4.3.
Separate the fork legs.

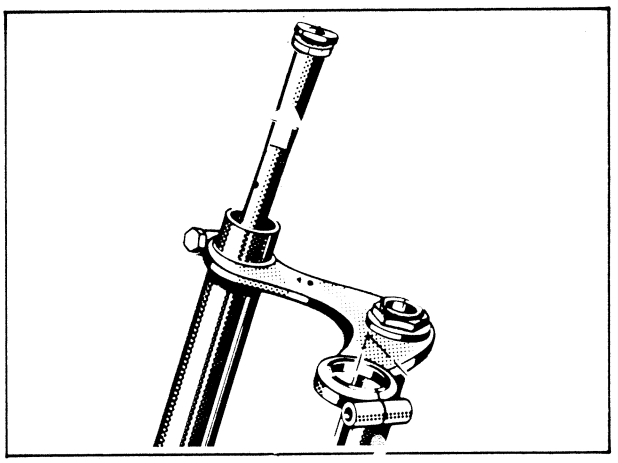


Fig. 4.4

Take out the damping spindle from the upper fork leg.
See fig. 4.4.

NOTE! Don't loosen the valve body when removing the damping spindle. If the valve body has been removed it must always be locked with Loctite when reassembling.

Fig. 5.1 and 5.2 show the two different damping spindles which have been mounted in the Husqvarna front fork.

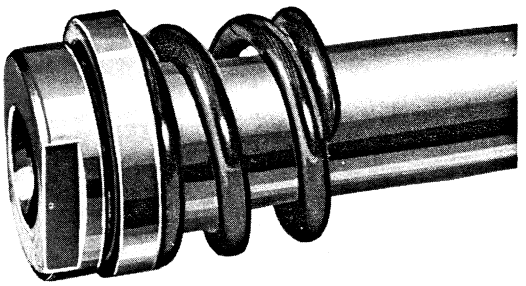


Fig. 5.1

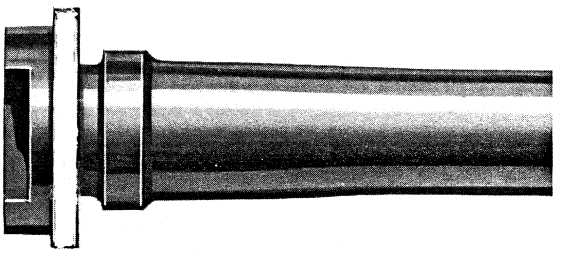


Fig. 5.2

Remove the scratch sleeve and bend out the stripper and the two sealing rings from the lower fork leg. See fig. 5.3.
Be careful not to damage the fork leg.

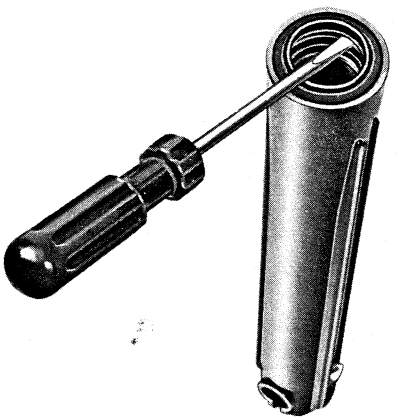


Fig. 5.3

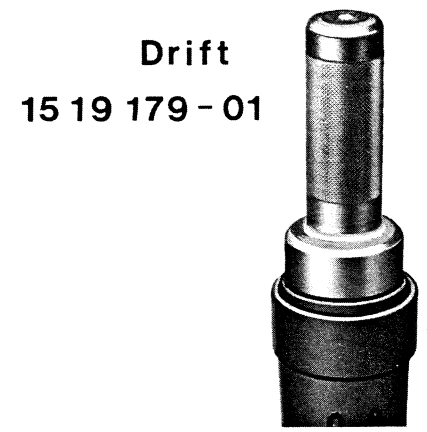


Fig. 6.1

Mounting
Use a drift and install new sealing rings and strippers.
See fig. 6.2.
NOTE! Mount the sealing rings with the springs downwards.

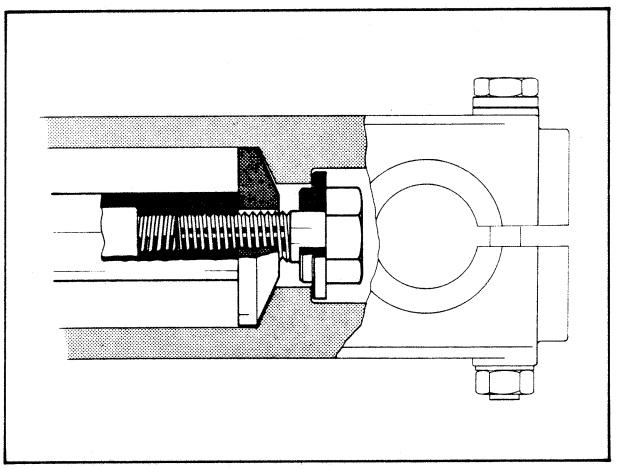


Fig. 6.2

Insert the damping spindle into the upper fork leg. Grease the sealing rings and put the lower fork leg in position.
NOTE! Make sure that the washers are assembled as shown in fig. 6.3.

Rest of the mounting should be done in opposite order.

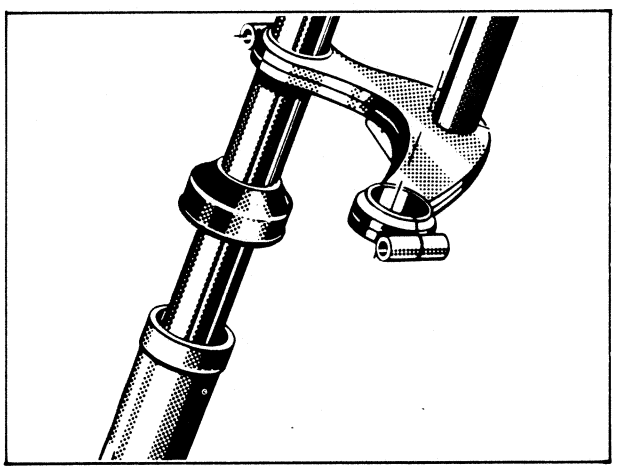


Fig. 6.3

Time for repairs and maintenance.
Lift up the scratch sleeves regularly and make sure that there is no dirt between the scratch sleeve and the stripper. Replace the sealing rings if they have started to leak.

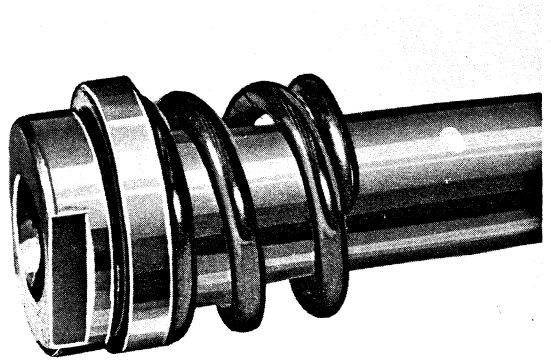


Fig. 6.4

When dismantling the fork. Check that the damping spindle is not worn and that the return spring is intact.
See fig. 6.4.
NOTE! All models are not equipped with return springs.

The plastic washer shall be replaced as soon as any wear marks can be noticed.

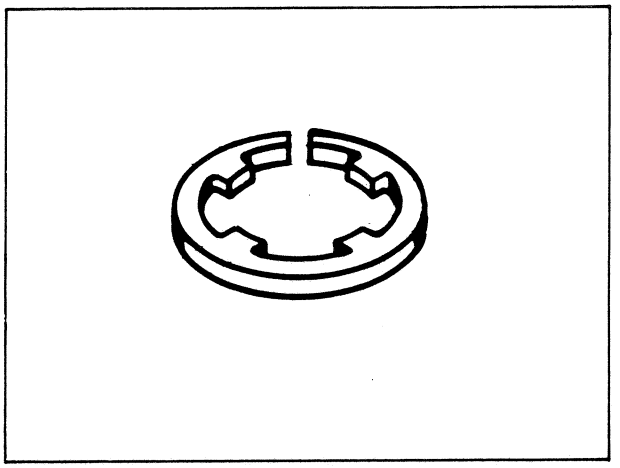


Fig. 7.1

Check that the lower fork leg slides easily on the upper fork leg.
See fig. 7.2.
If it doesn't it might help to turn the upper fork leg over as this could be installed with either end up.

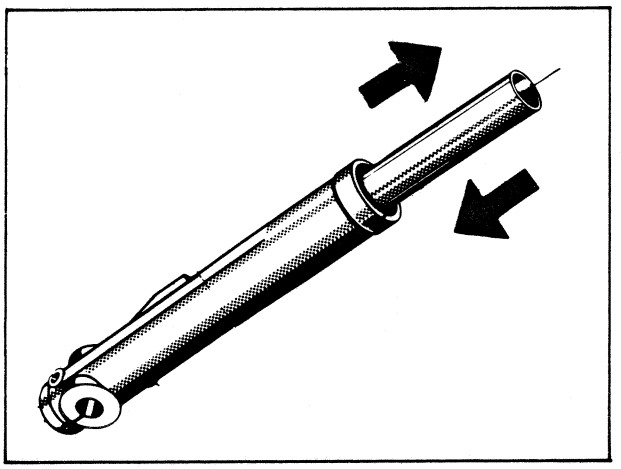


Fig. 7.2

Check the length of the spring. When a spring is shorter than 575 mm it must be replaced.
See fig. 7.3.

NOTE! Always renew both springs at the same time.

In front forks equipped with damping spindles type plastic washer (190 mm travel) there shall be 0.22 l oil in each fork leg. On fork legs with damping spindle type return spring 0.20 l oil is enough.
Use engine oil SAE 10–SAE 50 depending on temperature rider and course.

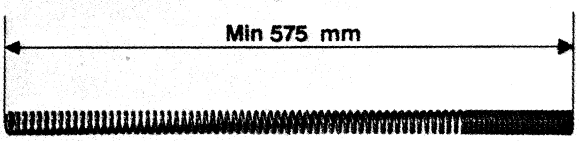
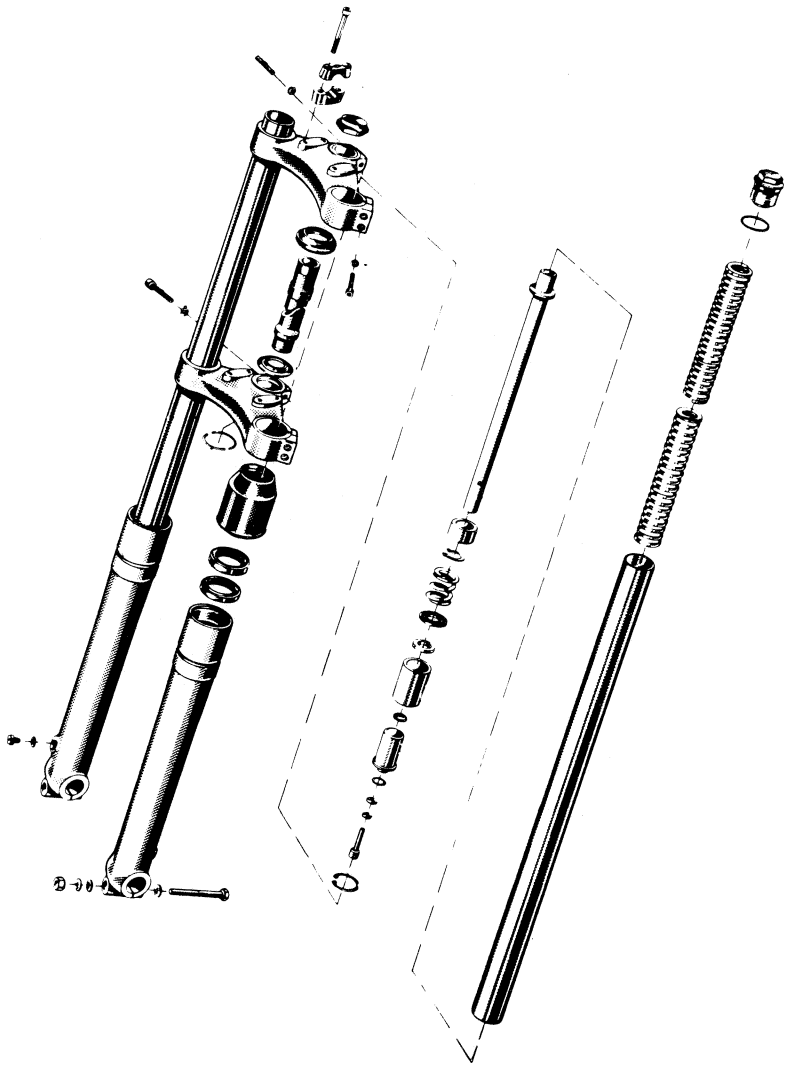


Fig. 7.3

Husqvarna motorcycles

Front fork Betor



Function
The Betor front fork is off telescopic type with hydraulic damping. See fig. 3.1

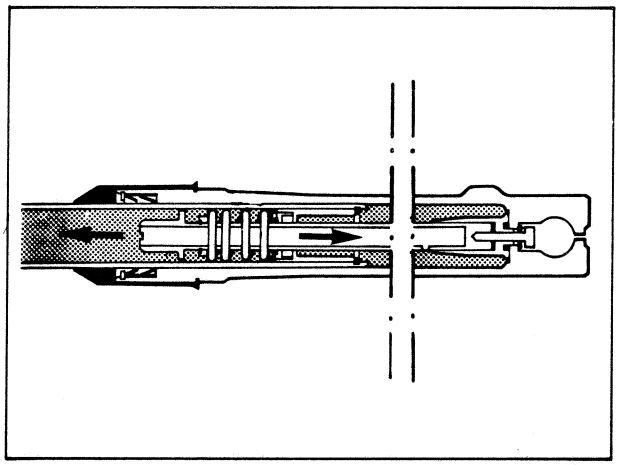


Fig. 3.1

The air valve is built-in in the top screw. The valve consists of one double-acting and one single-acting part, the latter increases the air stream into the fork at return. See fig. 3.2

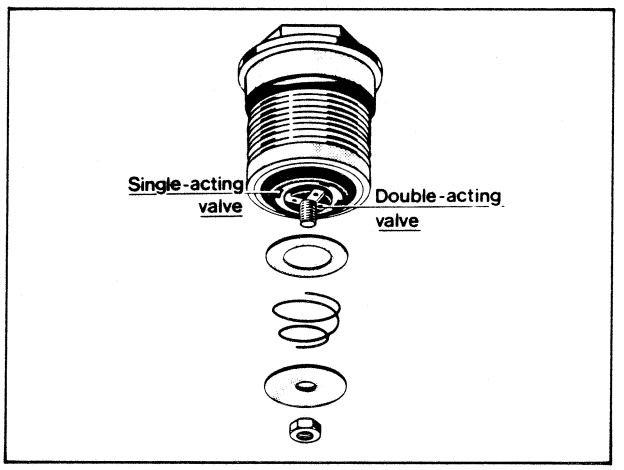


Fig. 3.2

The valve, which is located over the damping spindle, regulates the oil flow, i.e. the damping at loading. The pressure of the washer (A) against the spring of the valve (B) increases at higher suspension speed. As the valve then gets a smaller area, the damping increases. See fig. 3.3

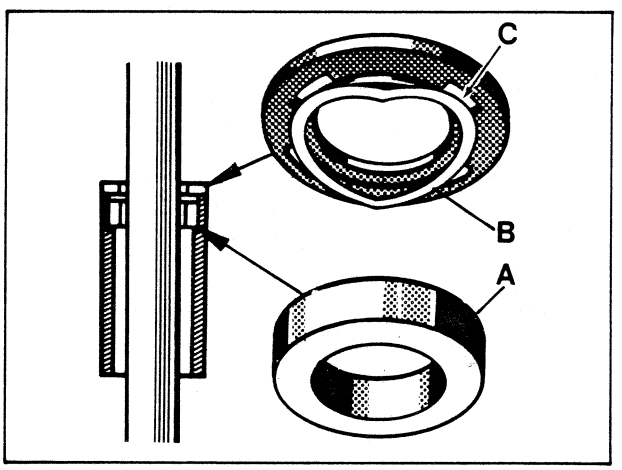


Fig. 3.3

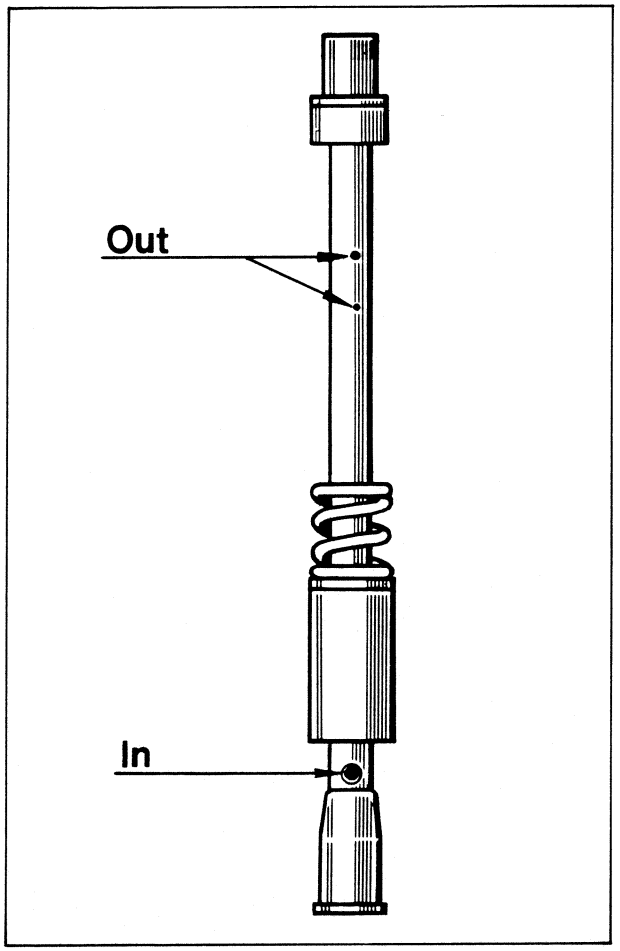


Fig. 4.1

The oil passes unregulated at the same time through the damping spindle and out through the small holes in the upper part of the spindle. See fig. 4.1

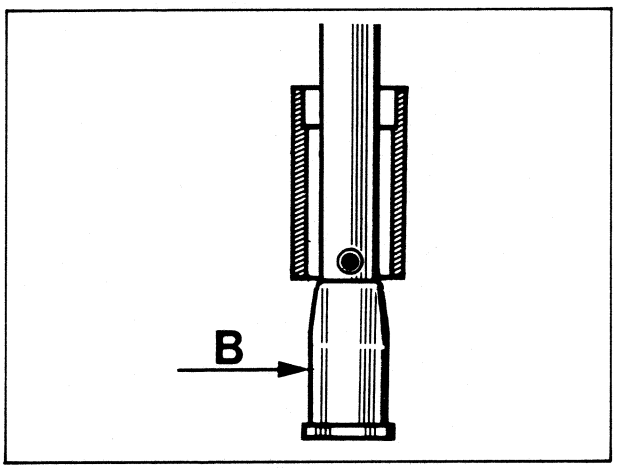


Fig. 4.2

When it is about 4 cm left to bottom the oil flow to the big hole in the spindle decreases and by that also the flow through the damping spindle, (see fig.) as the damping cylinder is moved down over the valve (B) and the oil gradually gets a smaller passage.
This partly prevents from "bottoming". See fig. 4.2

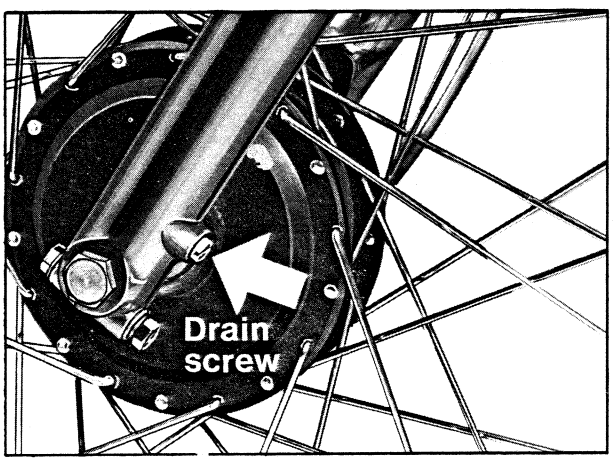


Fig. 4.3

Dismantling
Loosen the drain screw and let the oil run out.
See fig. 4.3

Remove the top screw and take out the spring.
See fig. 5.1

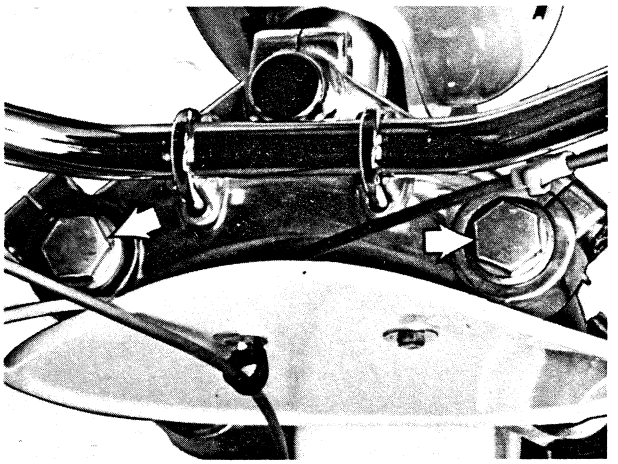


Fig. 5.1

Lock the damping spindle with a holding key and unscrew the hexagon – screw in the bottom of the forkleg.
See fig. 5.2

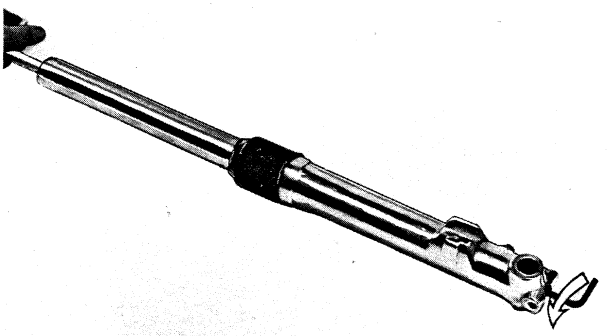


Fig. 5.2

Separate the forklegs.
See fig. 5.3

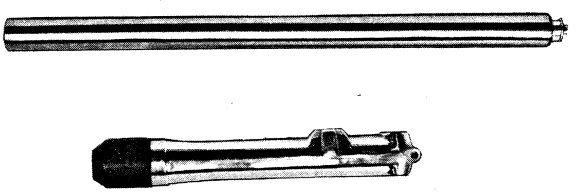


Fig. 5.3

Take out the damping spindle from the upper fork leg.
See fig. 6.1

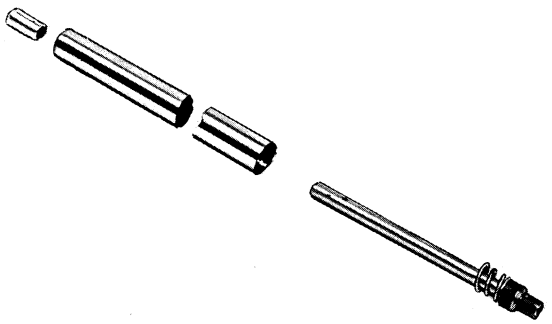


Fig. 6.1

Remove the circlip and take out the valve cylinder, valve washer and valve.
See fig 6.2

Fig. 6.2

Take away the scratch sleeve and the locking ring.
See fig. 6.3

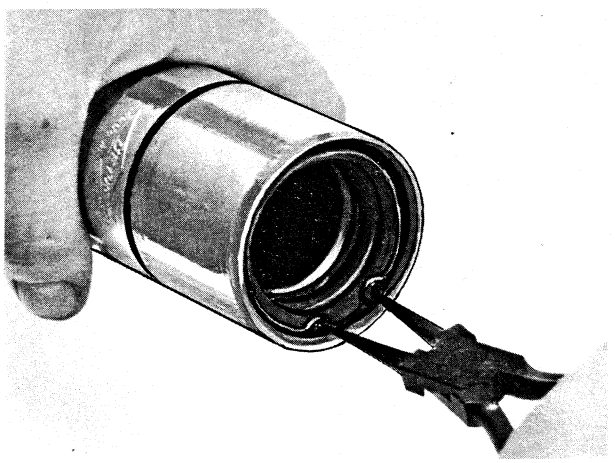


Fig. 6.3

The old sealing rings can be taken out with a screw driver.
See fig. 6.4
Careful not to damage the sealing ring seat.

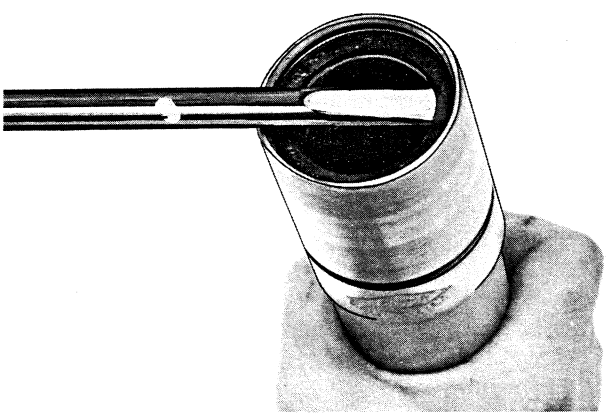


Fig. 6.4

Mounting
Mount new sealing rings with a drift.
See fig. 7.1
NOTE! Mount the sealing rings with the spring downwards.

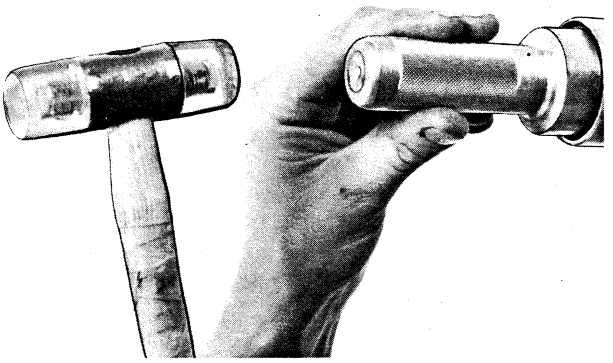


Fig. 7.1

Insert the damping cylinder with washer and valve in the upper forkleg.
See fig. 7.2
Don't forget the circlip.

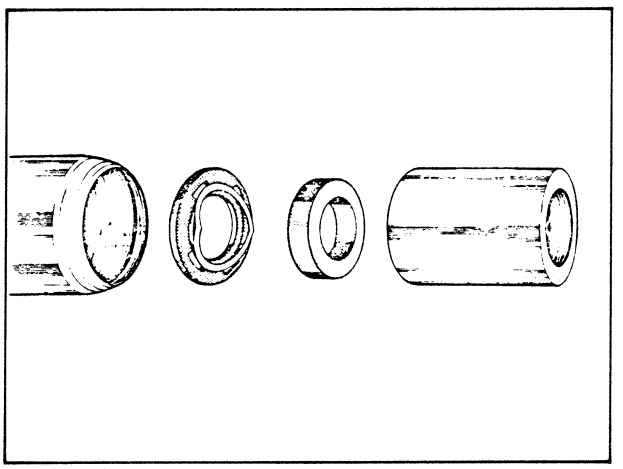


Fig. 7.2

Push in the damping spindle together with the return spring into the upper forkleg.
See fig. 7.3

NOTE! Let the damping spindle slip slowly down so that the valve is not damaged. See to it that the gaskets on the damping sleeve are correct and put in the sleeve in the damping spindle.

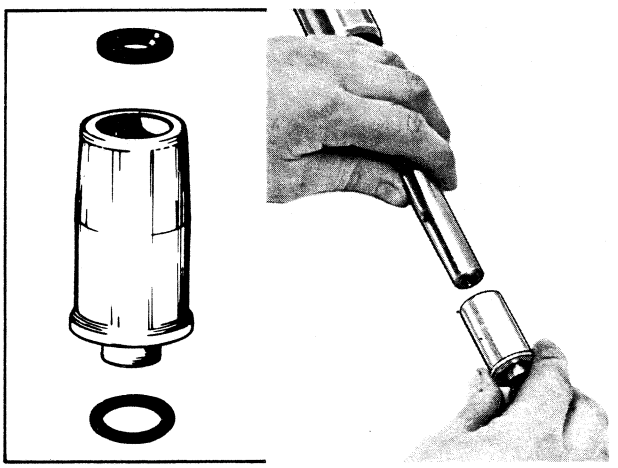


Fig. 7.3

Fig. 8.1

Put some grease on the sealing rings for smoth moving. See fig. 8.1

Rest of the mounting is done in reverse order.

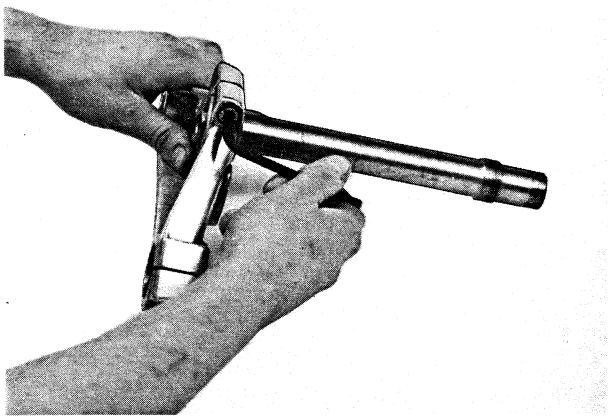


Fig. 8.2

Dismantling of fork tube and lower fork crown.
Loosen the screw with a hexagon spanner no 6. See fig. 8.2

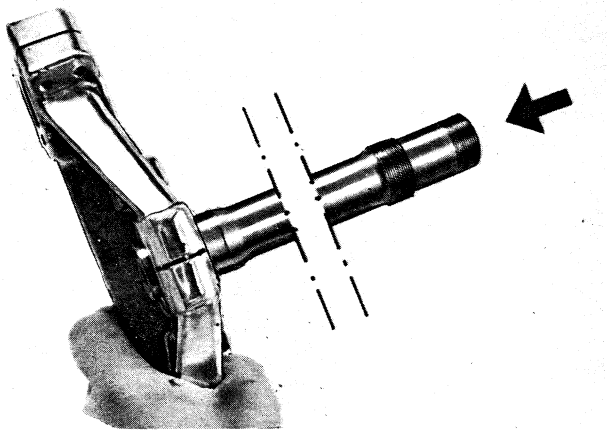


Fig. 8.3

Hit the tube down into the fork crown. See fig. 8.3

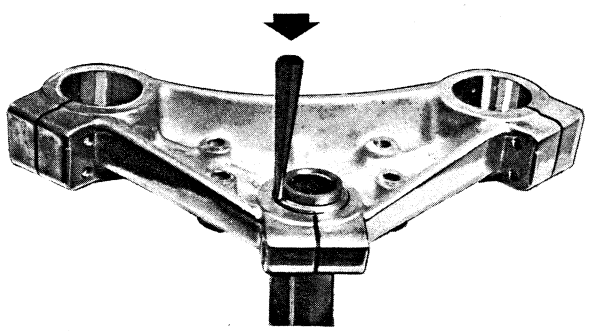


Fig. 8.4

Press in the ring. See fig 8.4

Take away the two locking ring halves. See fig. 9.1

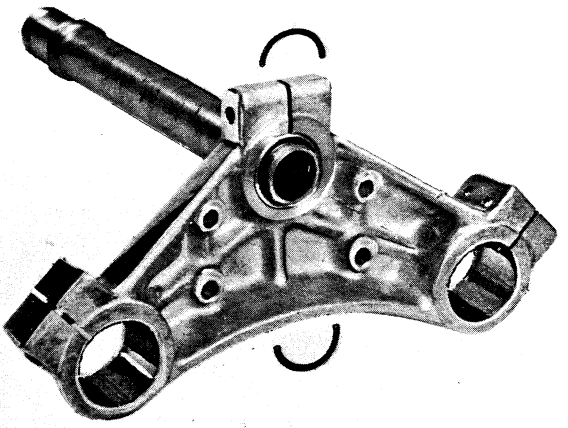


Fig. 9.1

Take out the fork tube in reverse direction.

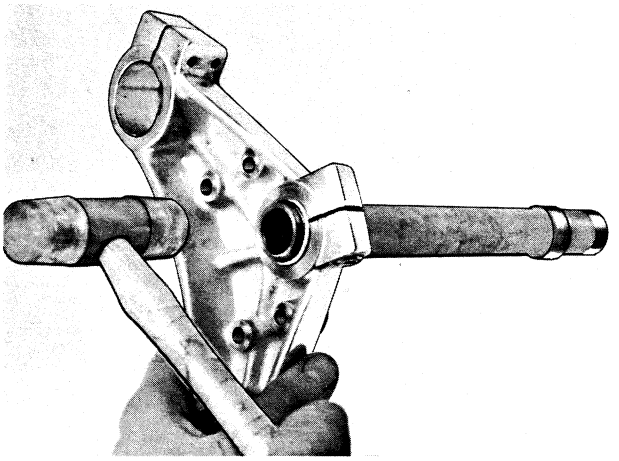


Fig. 9.2

The mounting should be done in opposite order.

a) hit the fork tube in the bottom
b) press in the ring
c) put in the locking ring halves
d) hit back the fork tube

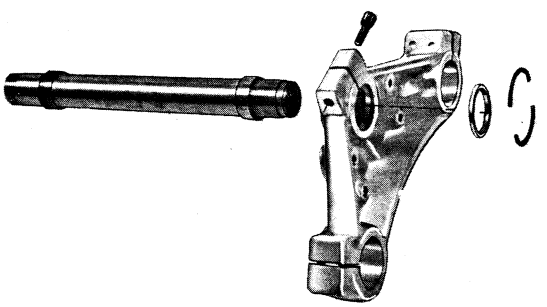


Fig. 9.3

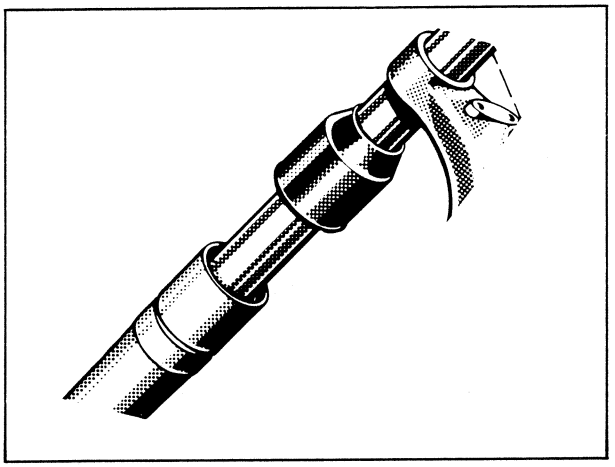


Fig. 10.1

Time for repairs-maintenance
Lift up the scratch sleeves regularly and make sure that there are no dirt between the upper sealing ring and the scratch sleeve. Replace the sealing rings if they have started to leak.

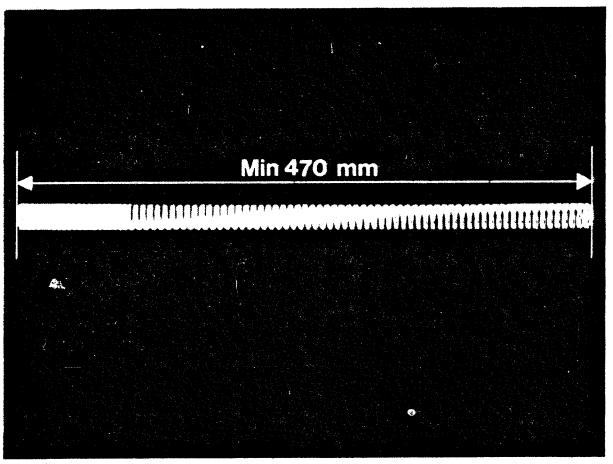


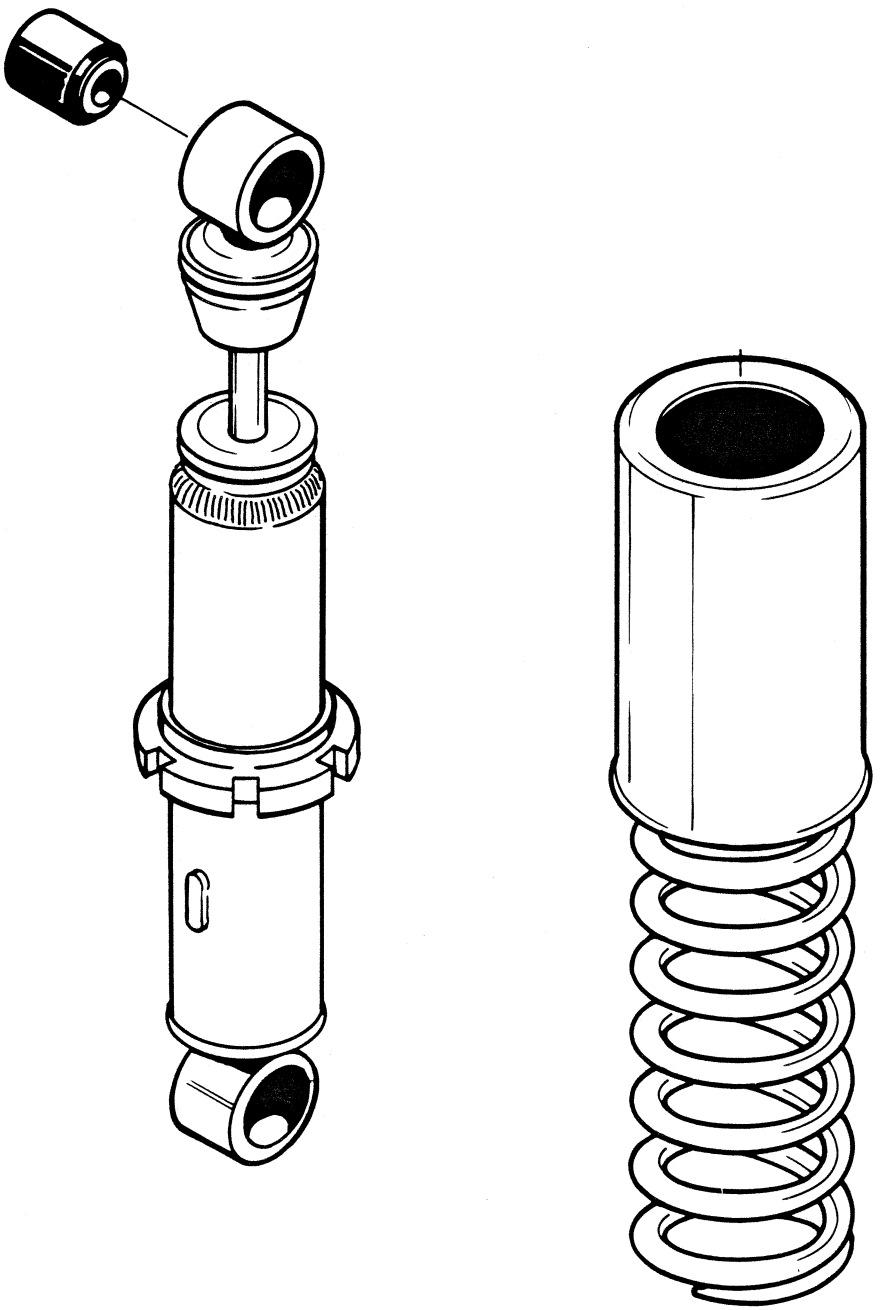
Fig. 10.2

Check the length of the springs. When a spring is shorter than 470 mm it must be replaced. See fig. 10.2.

NOTE! Always renew both springs at the same time.

Betor front forks with 160 mm travel shall have 0,20 l engine oil SAE 20–SAE 50 in each fork leg. Betor front forks with 203 mm travel have room for 0,24 l oil. Use engine oil SAE 10–SAE 30.

Girling shock absorber; oil filled



General
The shock absorber is of oil-damping-type with the damping system working in oil. The spring tension is adjustable to three different positions depending on the weight of the rider. Adjustment is done by turning the adjuster ring.

Dismantling
When dismantling, push the upper protecting sleeve downwards, after which the two clamping halves round the shock absorber can be removed. See fig. 3.1.
Take out the spring.

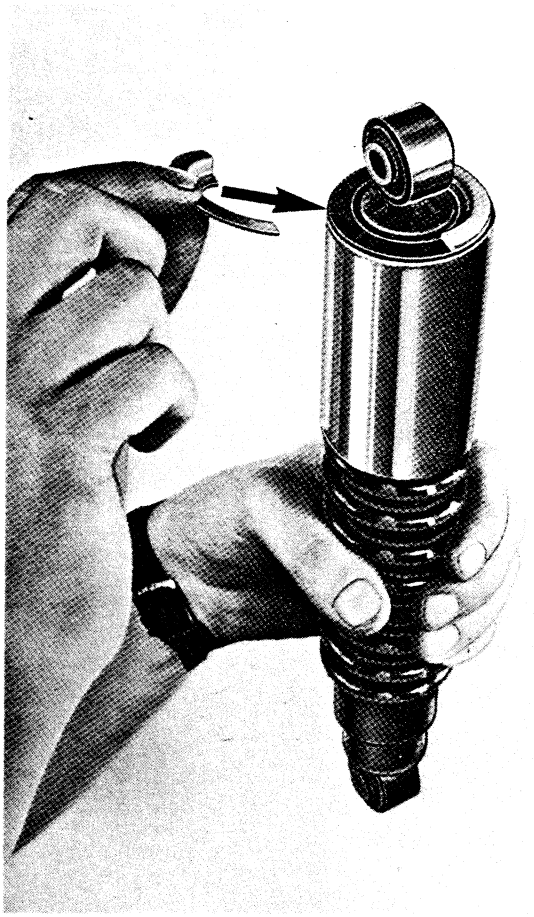


Fig. 3.1

Replacing bushing
Press out the old bushing in a vice. See fig. 3.2.

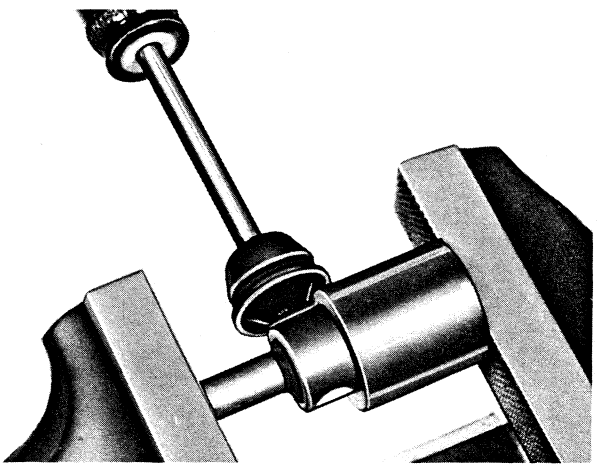


Fig. 3.2

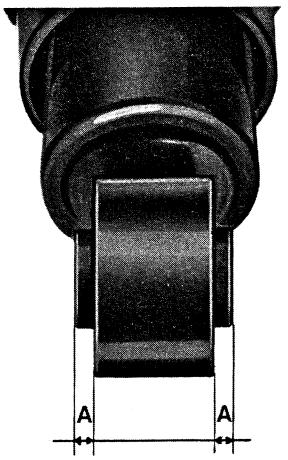


Fig. 4.1

Wet the new bushing in petrol (makes mounting easier) and press it in position.
Check that the bushing is right positioned. See fig. 4.1.

Fig. 4.2

Time for repairs-maintenance
Check that the chromium plated piston rod is straight, that no oil leakage has occured and that the shock absorber (without spring) can be easily compressed. On the other hand, when extending the shock absorber there should be strong resistance. If not, or if there is only light resistance, it may mean that there is air in the system. This may be the case when the shock absorber is new or if it has been out of use for any length of time. Venting is done by holding the shock absorber upside down and pushing in the piston rod.
Turn the shock absorber upright again and extend the unit. This should be done for about 4-strokes. If in spite of this no resistance is felt when the piston rod is pulled out, replace the shock absorber with a new one.

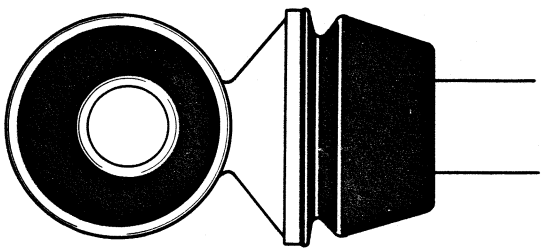
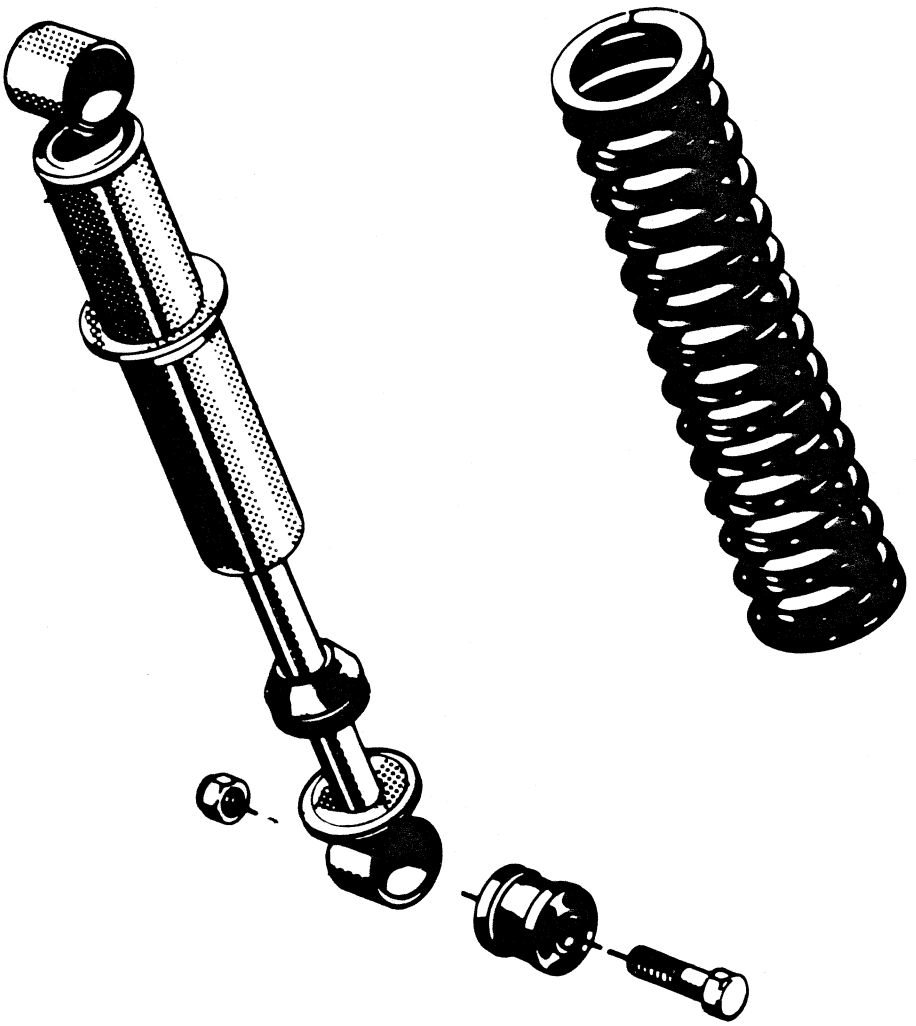


Fig. 4.3

Replace the elastic bushings of the shock absorbers when they start to get concentric. See fig. 4.3.

Husqvarna motorcycles

Girling shock absorber; oil and gas filled



Function
The shock absorber is of gasdamping-type. The damping system works in oil, but the pressure is controlled by a gas volume in the upper part of the shock absorber. See fig. 3.1

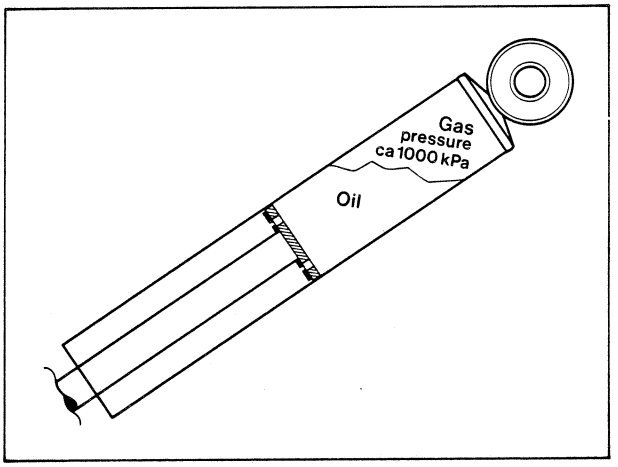


Fig. 3.1

When the unit compresses, the oil flow will bend the membran and only pass the big holes in the piston. That gives a small damping resistance at compressing. See fig. 3.2

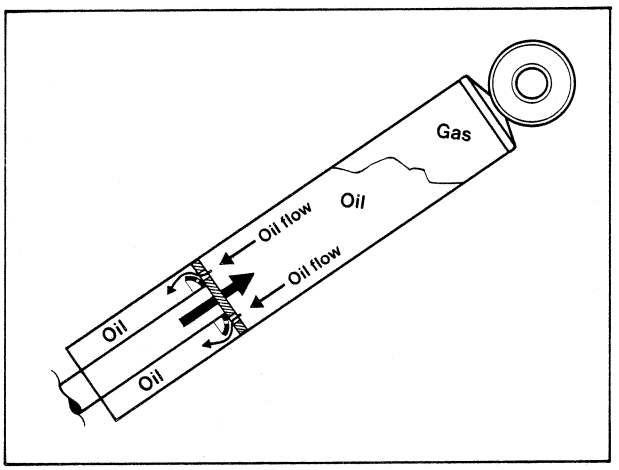


Fig. 3.2

When the unit releases, the membran lies tight to the piston and the oil must flow through the small holes in the membran when piston is moving downwards. That gives a hard damping resistance. See fig. 3.3

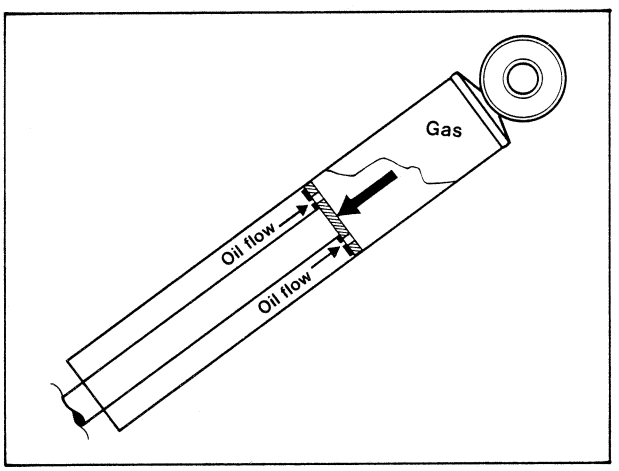


Fig. 3.3

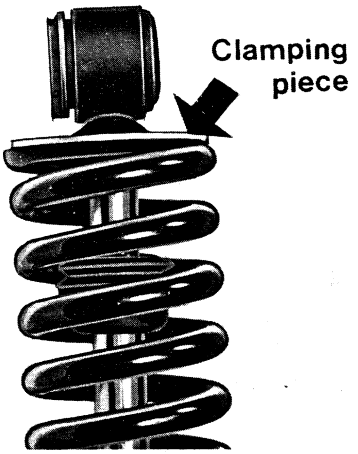


Fig. 4.1

Dismantling
Remove the shock absorber from the motorcycle. Press the spring downwards and take out the clamping piece. Lift off the spring.

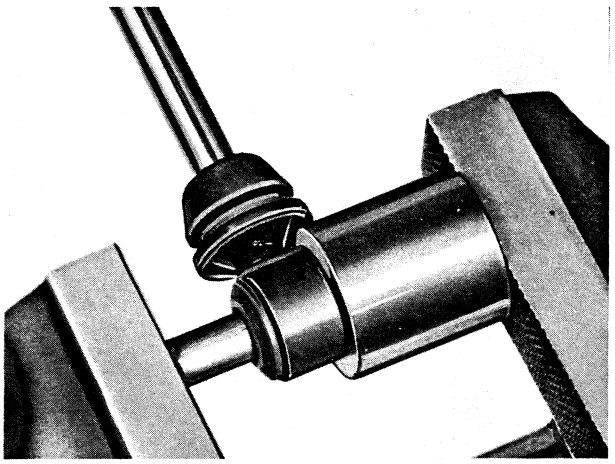


Fig. 4.2

Replacing bushing
Push out the sleeve in a vice or similar. See fig. 4.2.

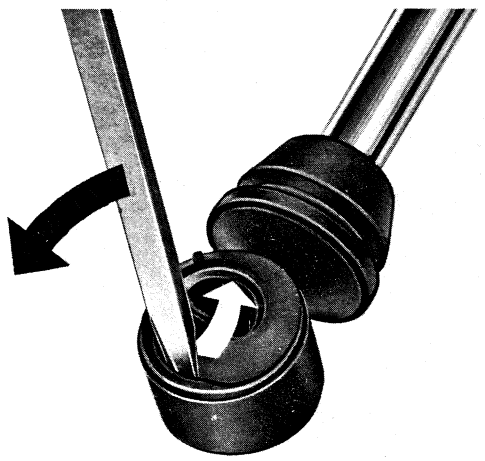


Fig. 4.3

Bend out the rubber bushing with a screw driver as shown in fig. 4.3.

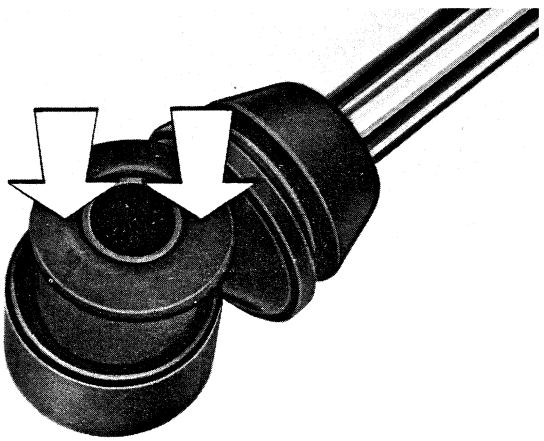


Fig. 4.4

Put a new rubber bushing in position. See fig. 4.4

Wet the sleeve in petrol (makes mounting easier) and push it in position as shown in fig. 5.1

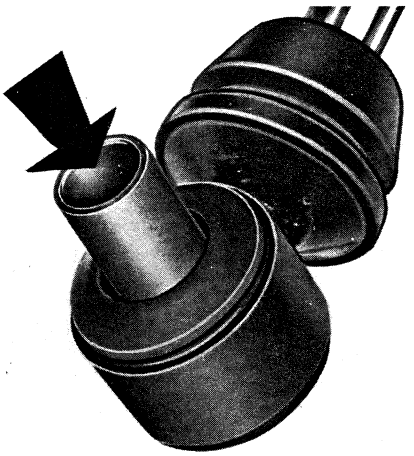


Fig. 5.1

Time for repairs-maintenance
Check that the chromium plated piston rod is straight, that no oil leakage has occured and that the shock absorber (without spring) when compressing, makes light equal resistance. Check also that compressed shock absorber extends completely all by itself. On the other hand, when extending the shock absorber fastly, there should be strong resistance. If the shock absorber fails on any of these points, replace it with a new one.

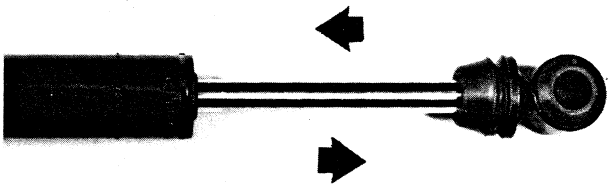


Fig. 5.2

Replace the elastic bushings of the shock absorbers when they start to get concentric. See fig. 5.3

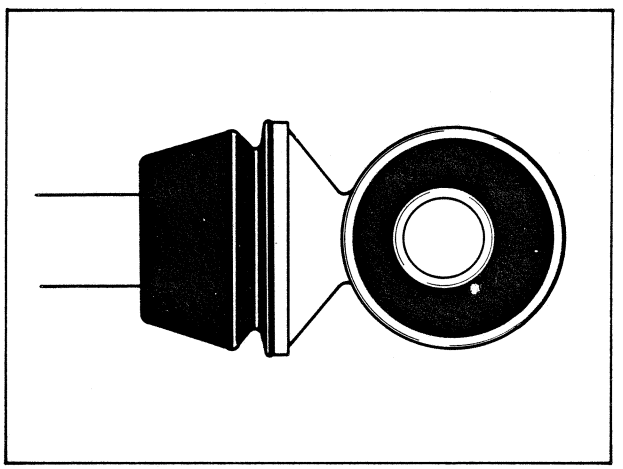
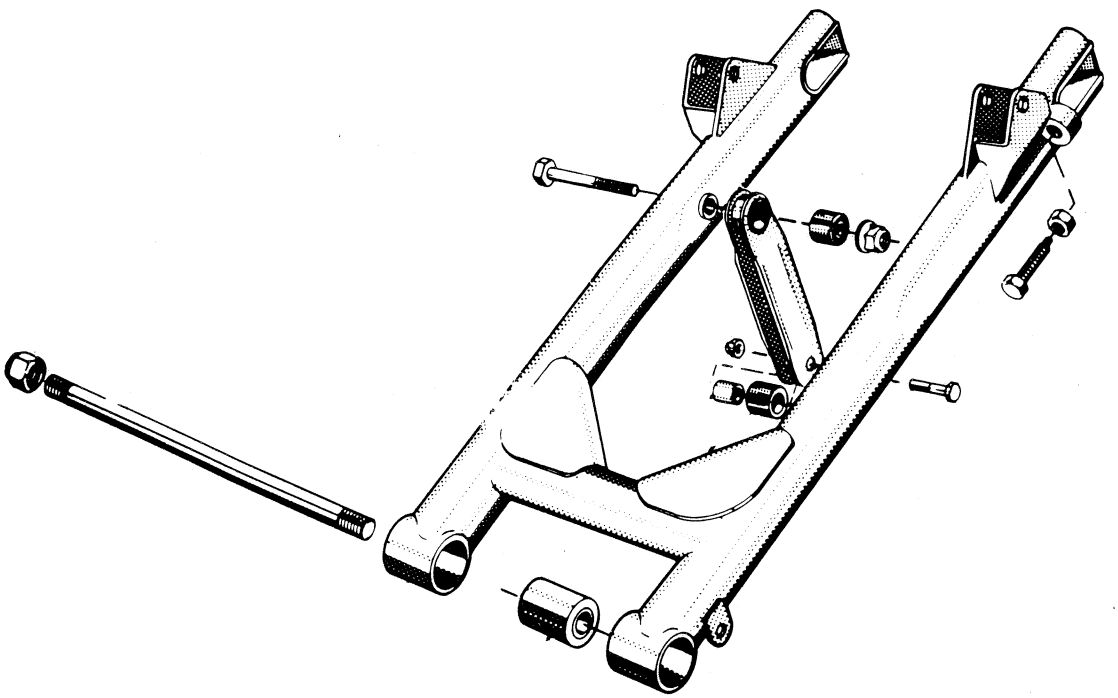


Fig. 5.3

Husqvarna motorcycles

E Rear fork



Replacing elastic bushing rear fork
Separate the rear fork from the motorcycle. See fig. 3.1

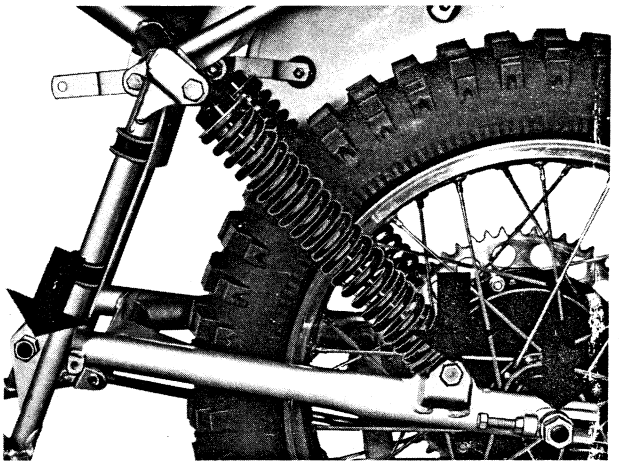


Fig. 3.1

The elastic bushing is shown in fig. 3.2

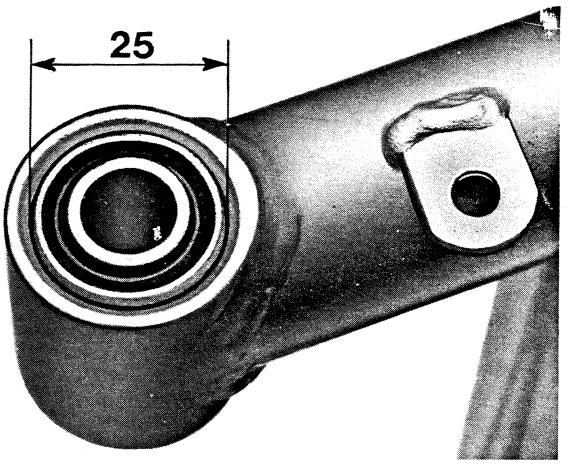


Fig. 3.2

Use two sleeves as shown in fig. 3.3

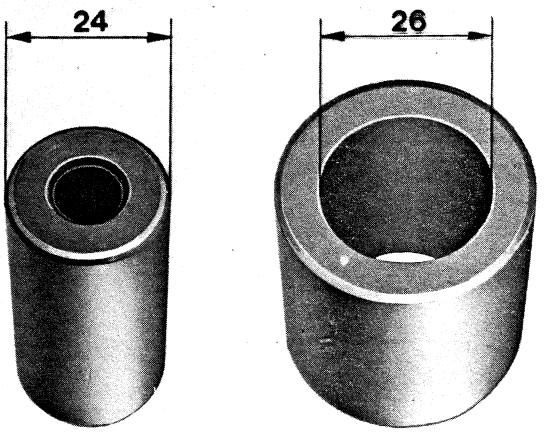


Fig. 3.3

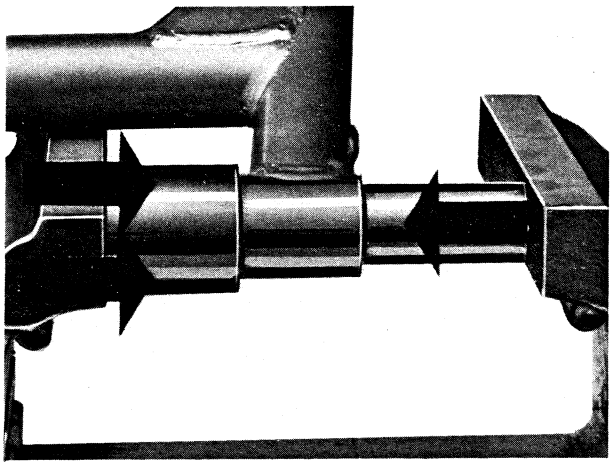


Fig. 4.1

Press out the bushing in a vice. See fig. 4.1

New bushing is inserted in the same manner.

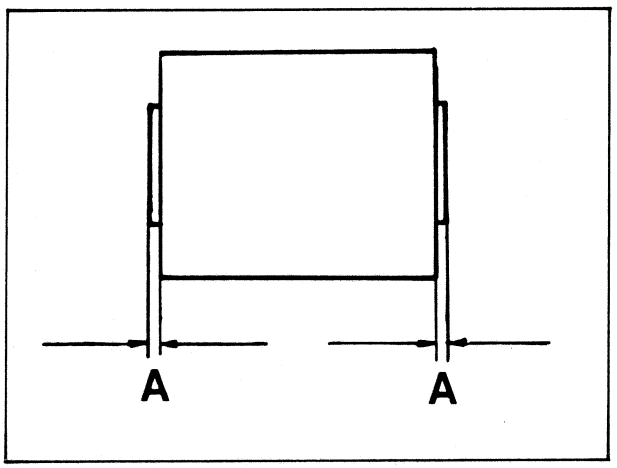


Fig. 4.2

See to it that the elastic bushing is correct positioned. See fig. 4.2

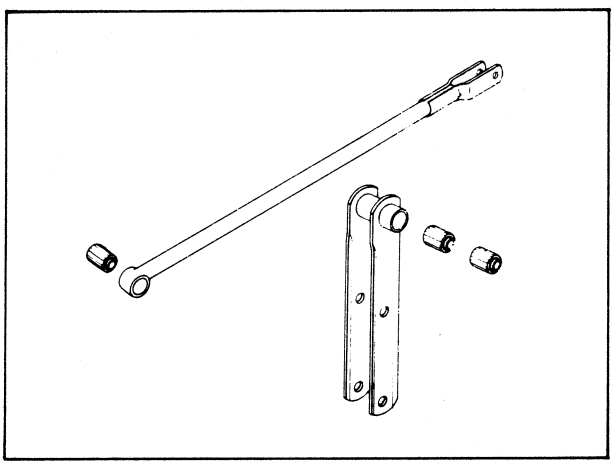


Fig. 4.3

The elastic bushings of the chain guide and the brake link are replaced in the same manner.

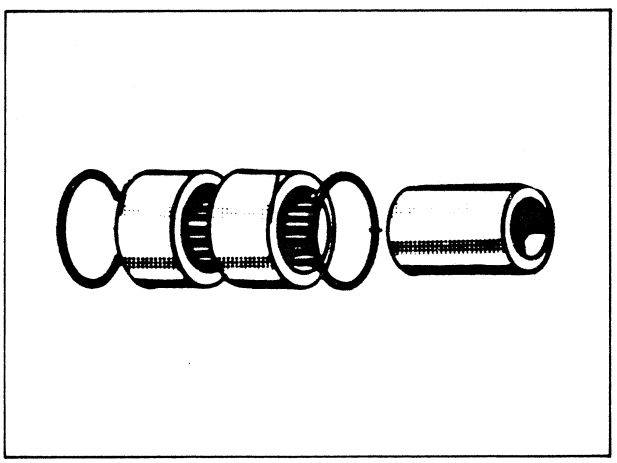


Fig. 4.4

Replacing needle bearings rear fork
Separate the rear fork from the motor cycle. See fig. 3.1

The needle bearings are shown in fig. 4.4

Remove the rubber rings and the distance. See fig. 5.1

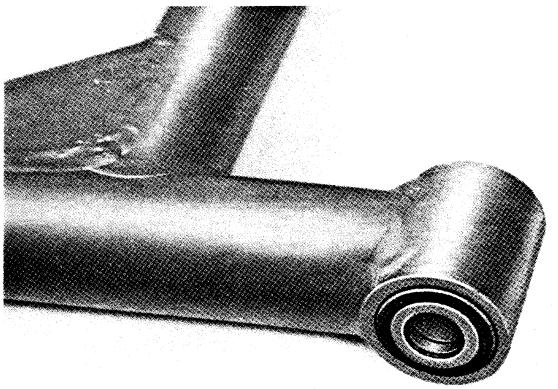


Fig. 5.1

Use a support and a drift and press out the needle bearings in a vice. See fig. 5.2

New needle bearings are inserted in the same manner.

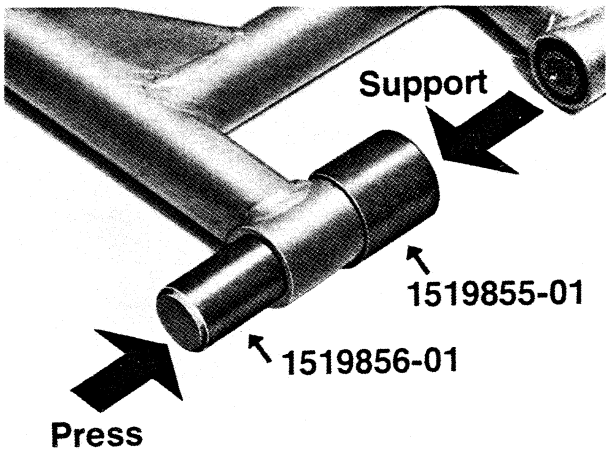


Fig. 5.2

The bearings must be positioned 3 mm inside the edge of the rear fork hole. See fig. 5.3

NOTE! The text on the bearing edge must be turned outwards.

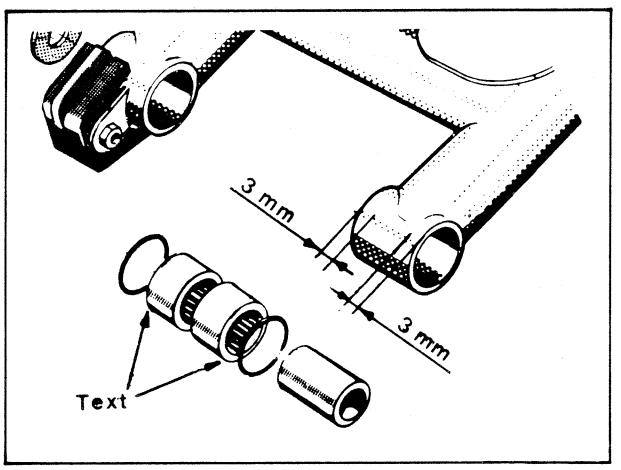


Fig. 5.3

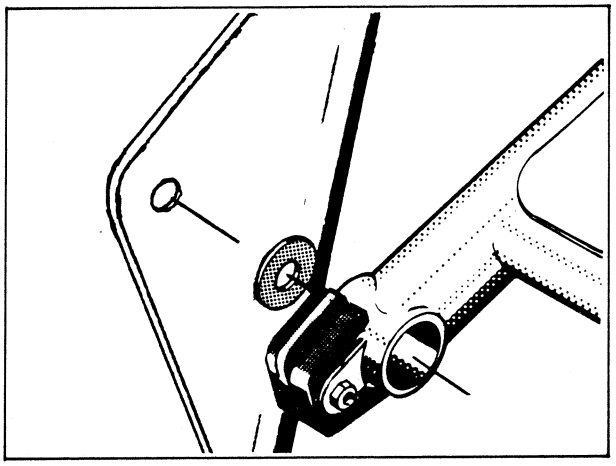


Fig. 6.1

Rest of the mounting is done in opposite order. NOTE! The washers shall be positioned between the frame and the rear fork. See fig. 6.1.

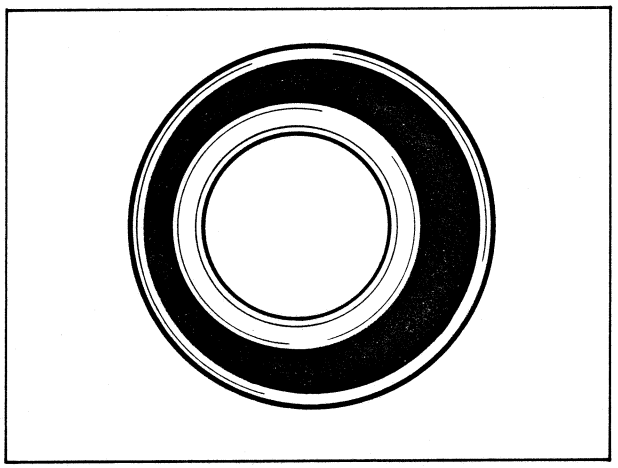


Fig. 6.2

Time for repairs – maintenance
The elastic bushings of the rear fork shall be replaced if they start to get concentric or if the internal sleeves get to short. See fig. 6.2

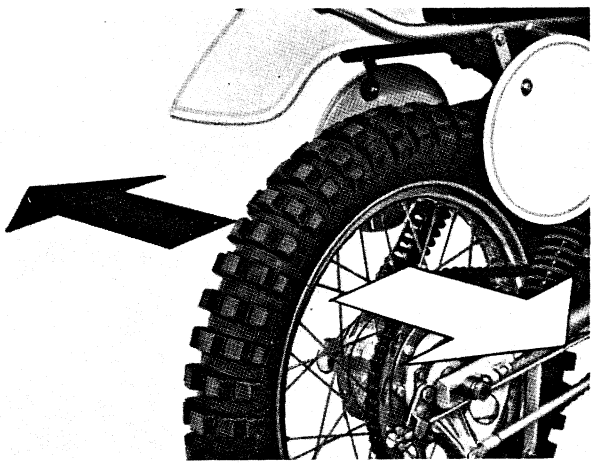
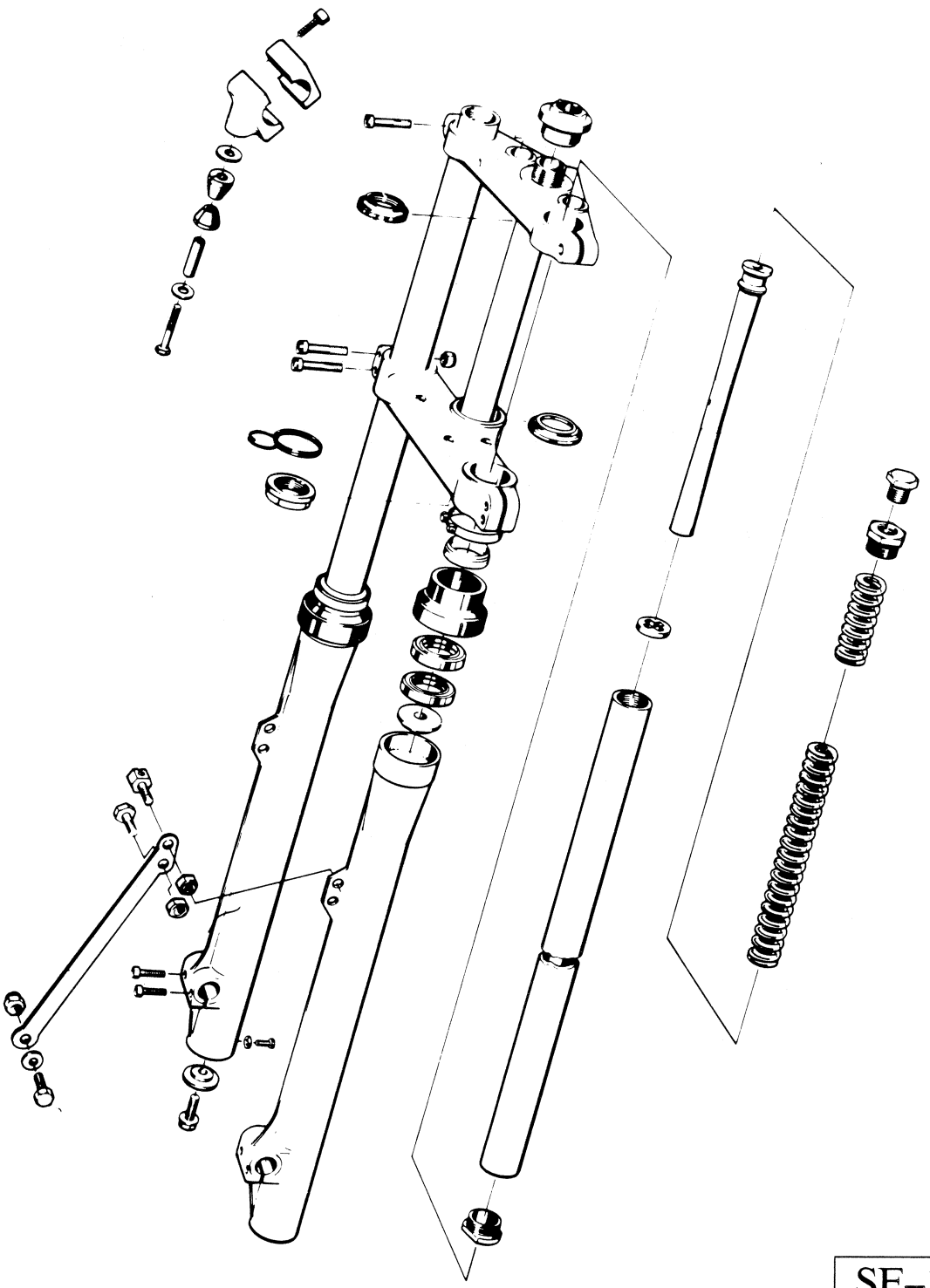


Fig. 6.3

Check that no radial play has occured in the rear fork needle bearings. If it has, replace the bearings. Dismantle, clean and grease the bearings regularly. See fig. 6.3

Front fork Husqvarna 240



Function
The front fork is of telescopic type with hydraulic damping.

The damping action is obtained by means of a damping spindle which is attached to the fork leg in such a way that the fork tube runs over the spindle. The oil in the fork is thereby forced to pass through an area which alternates with the spring movement of the machine and which is dimensioned so that the correct oil flow resistance is obtained for each particular position of the suspension system.

This means that heavier oil increases the damping effect (harder suspension), whereas a thinner oil reduces the damping effect (softer suspension).

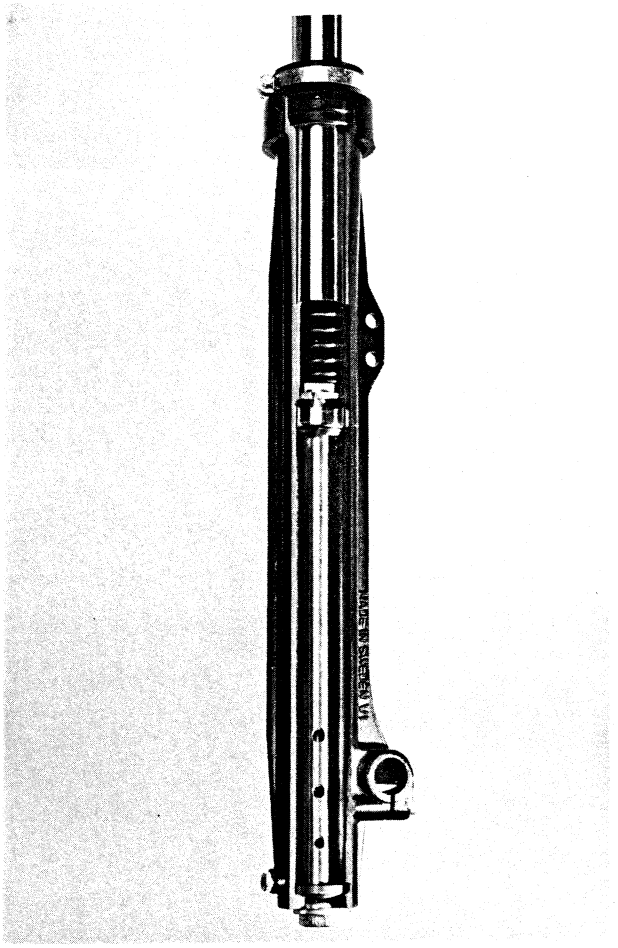


Fig. 3.1

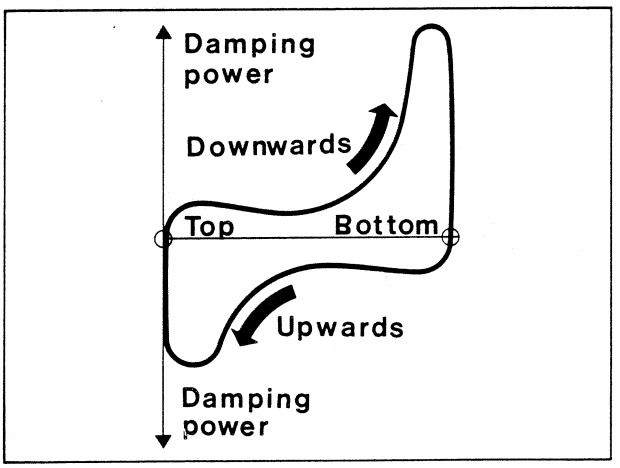


Fig. 3.2

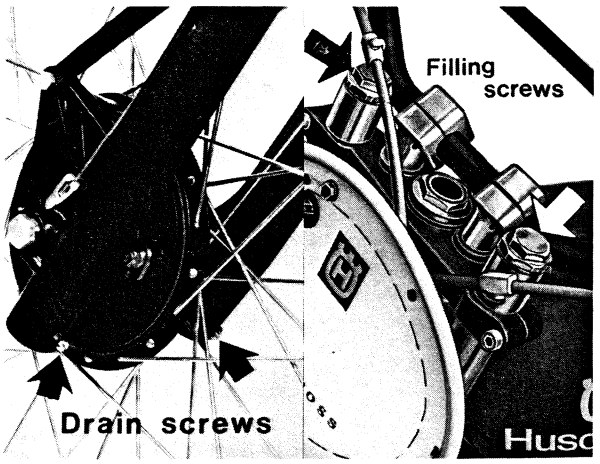


Fig. 4.1

Dismantling
Loosen the filling and drain screws.
See fig. 4.1.
Let the oil run out.

Fig. 4.2

Remove the top screw and lift out the springs.
See fig. 4.2.
Dismantle the fork legs from the fork crowns by loosening the six screws.

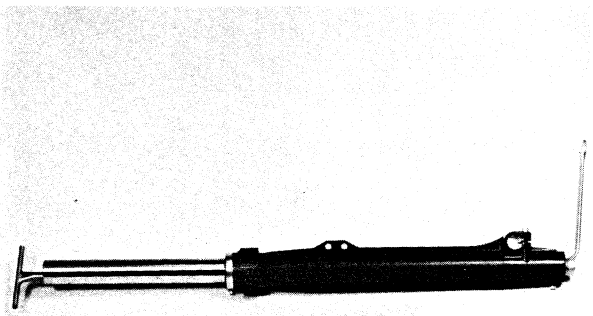


Fig. 4.3

Insert a holding key in the upper fork leg and lock the damping spindle. Loosen the holding screw in the bottom of the lower fork leg.
See fig. 4.3.
Separate the fork legs.

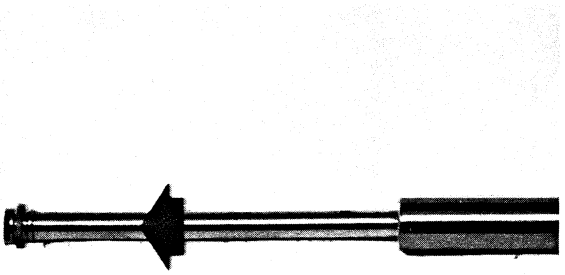


Fig. 4.4

Take out the damping spindle from the upper fork leg.
See fig. 4.4.

NOTE! Don't loosen the valve body when removing the damping spindle. If the valve body has been removed it must always be locked with Loctite when reassembling.

The plastic washer of the damping spindle is replaced by easily bending the washer ends apart and extraction of the spindle. See fig. 5.1.

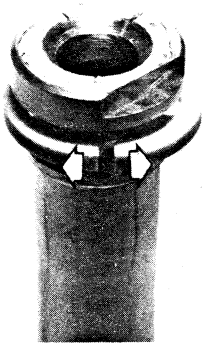


Fig. 5.1

Remove the stripper with holder and bend out the two sealing rings from the lower fork leg.
See fig. 5.2.
Be careful not to damage the fork leg.

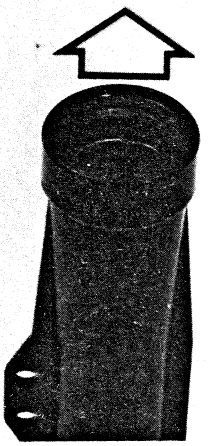


Fig. 5.2

Mounting
Use a drift and install new sealing rings. Assemble the stripper with holder.
See fig. 5.3.
NOTE! Mount the sealing rings with the springs downwards.

Fig. 5.3

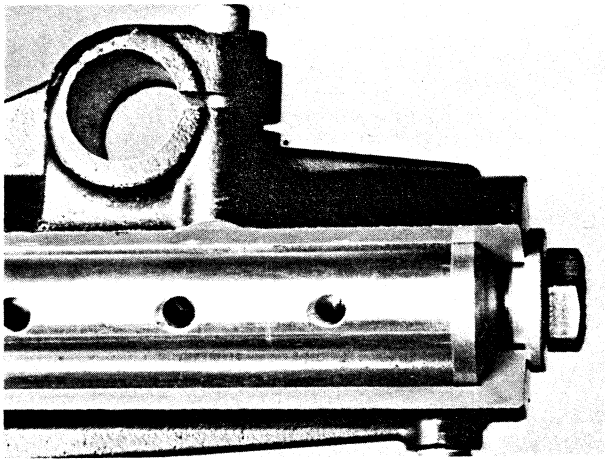


Fig. 6.1

Insert the damping spindle into the upper fork leg. Grease the sealing rings and put the lower fork leg in position.
NOTE! Make sure that the washers are assembled as shown in fig. 6.1.
Rest of the mounting should be done in opposite order.

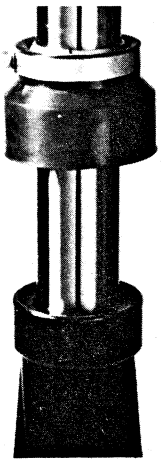


Fig. 6.2

Time for repairs and maintenance.
Lift up the scratch sleeves regularly and make sure that there is no dirt between the stripper and the sealing rings. Replace the sealing rings if they have started to leak.

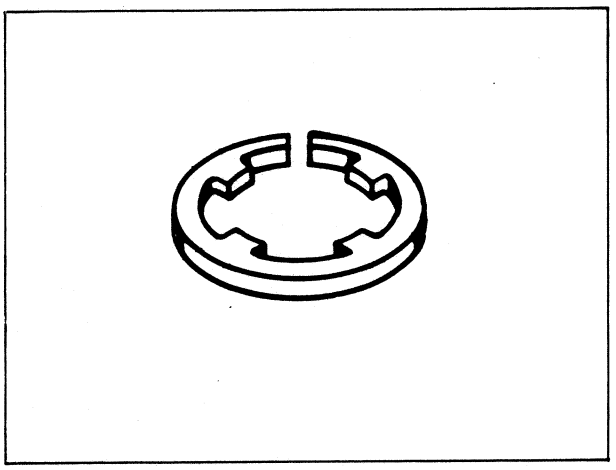


Fig. 6.3

When dismantling the fork, check that the damping spindle is not worn. Replace the plastic washer if any wear marks can be noticed.

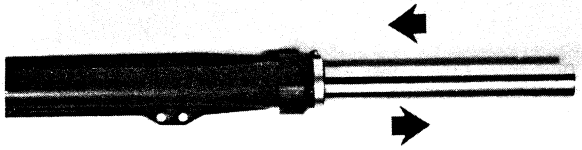


Fig. 6.4

Check that the lower fork leg slides easily on the upper fork leg.
See fig. 6.4.
If it doesn't it might help to turn the upper fork leg over as this could be installed with either end up.

Check the length of the springs. When the springs are shorter than 690 mm they must be replaced.
See fig. 7.1.
NOTE! Always renew all four springs at the same time.

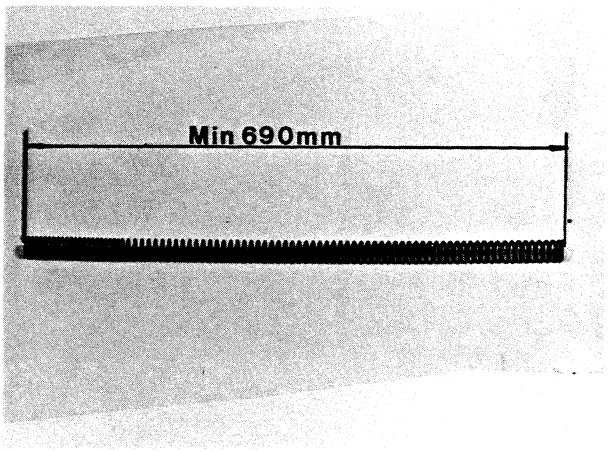


Fig. 7.1

Fig. 7.2. shows the rubber mounted handle bar arrangement. Replace the rubber element if any free play can be noticed.
NOTE! The two M10 screws must be tightened to 40 Nm.

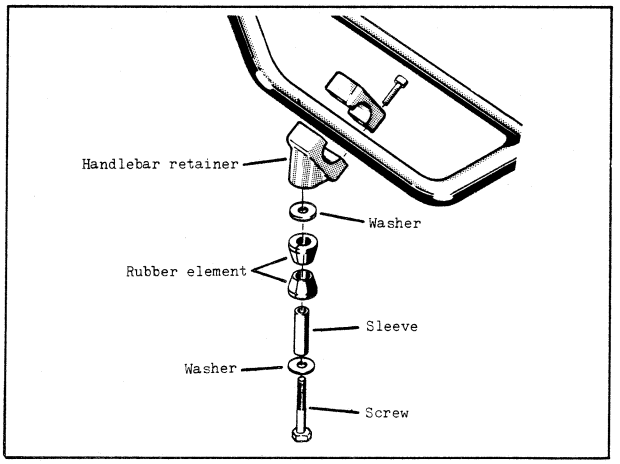
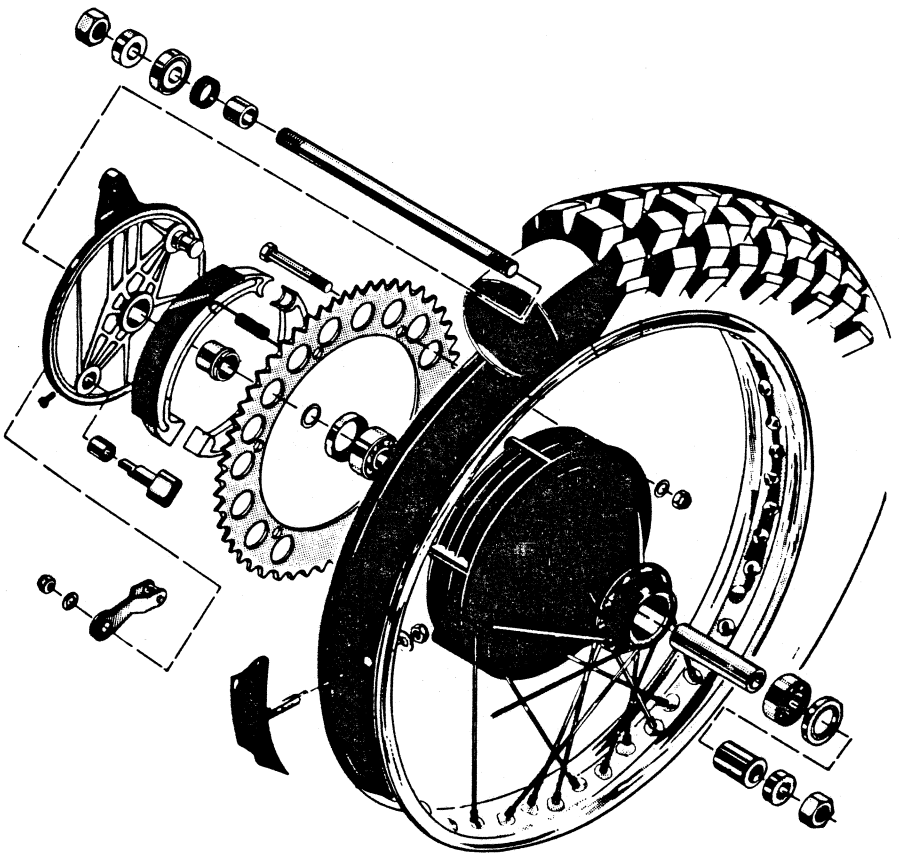


Fig. 7.2

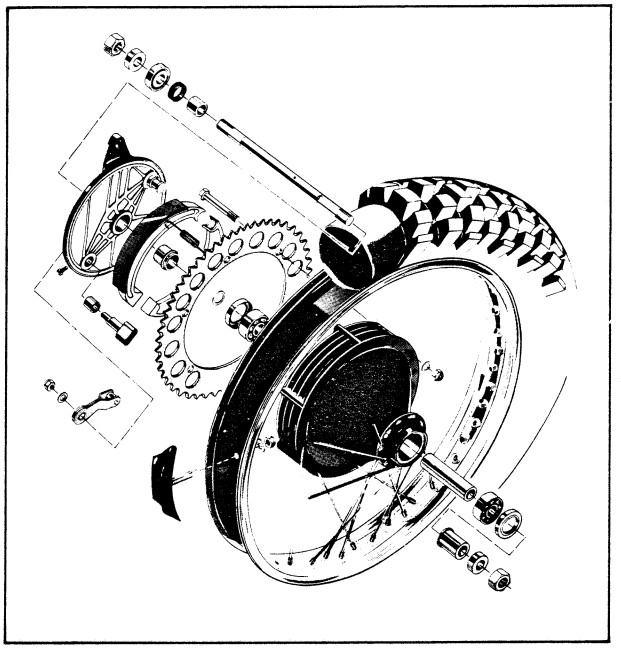
WORKSHOP MANUAL



WHEEL

W

Wheel



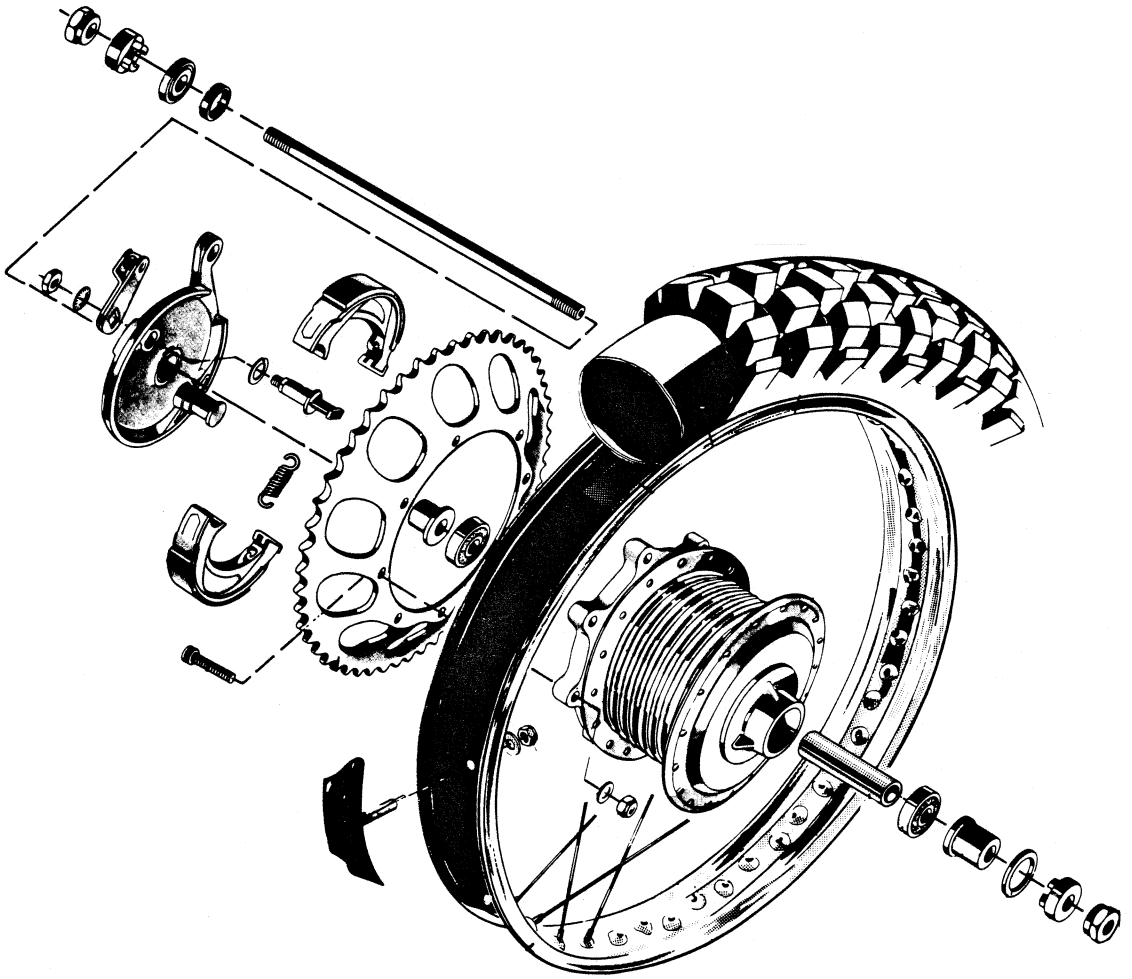
This chapter covers the different wheels which have been mounted on Husqvarna motor cycles since 1974.

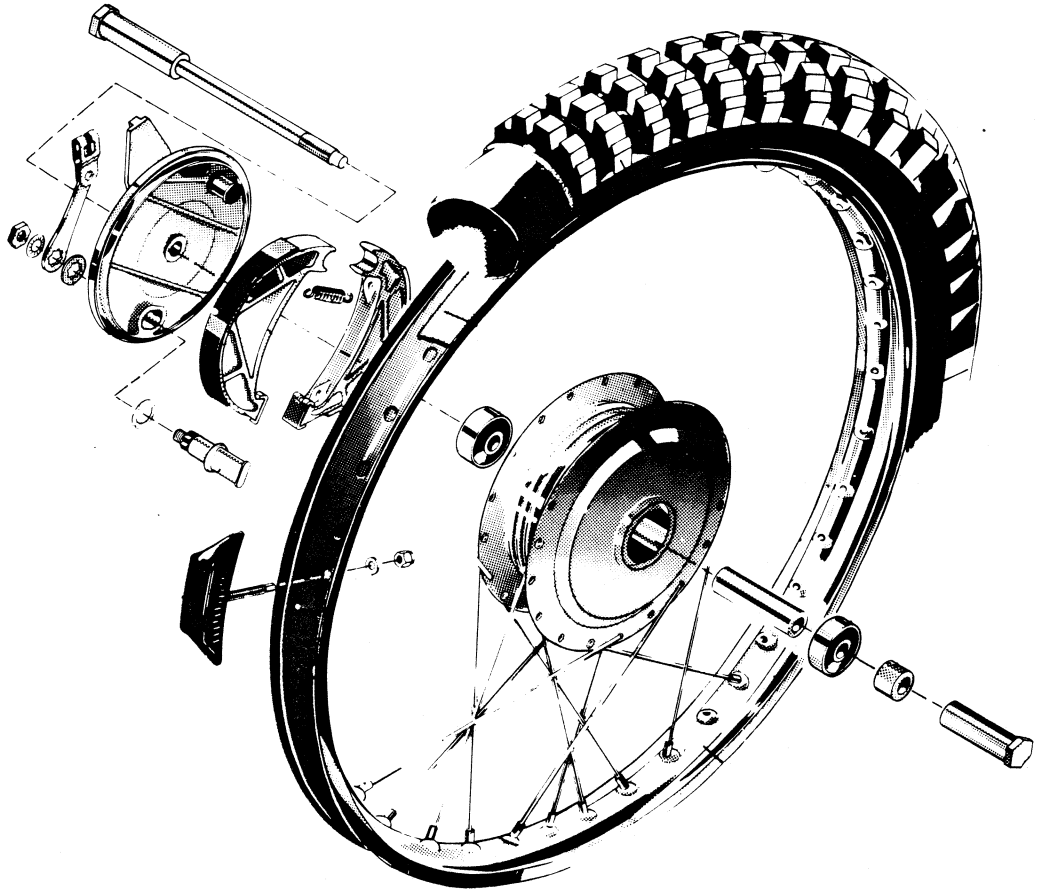
WA. Leleu wheels
All 125 cc – models.
All 175 cc – models. Front.
250 WR MK 19500 ——▶. Front
360 WR. Front
360 Auto. Front
250–360 RT. Front.

WB. Front wheel Husqvarna
All 250–450 CR – models.
250 WR ——▶ MK 19499.
All 400–450 WR – models.

WC. Rear wheel Husqvarna
All 175–450 cc – models.

Leleu wheels





Removing rear wheel
Block up the machine so that the rear wheel can rotate freely.
a) Part the drive chain by opening the chain master link.
b) Disconnect the brake link.
c) Screw off the wing nut from the brake rod and remove its return spring.
d) Remove the axle and pull out the wheel.
Lift off the brake shield and distance pieces. Watch out for the spacing sleeve in the brake shield.

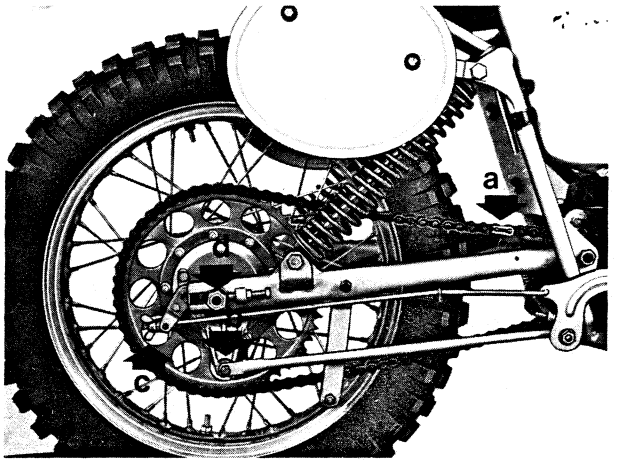


Fig. 3.1

Removing the front wheel
Block up the motor cycle so that the front wheel can rotate freely.
Loosen the right-hand fork leg clamping bolt and screw out the axle.
Pull out the axle.
N.B. Do not loosen the left-hand fork leg clamping bolt or axle nut.
Lift the front wheel out of the fork and remove the brake shield. Fitting is done in the reverse order.

NOTE! Don't forget to tighten up the clamping bolt.

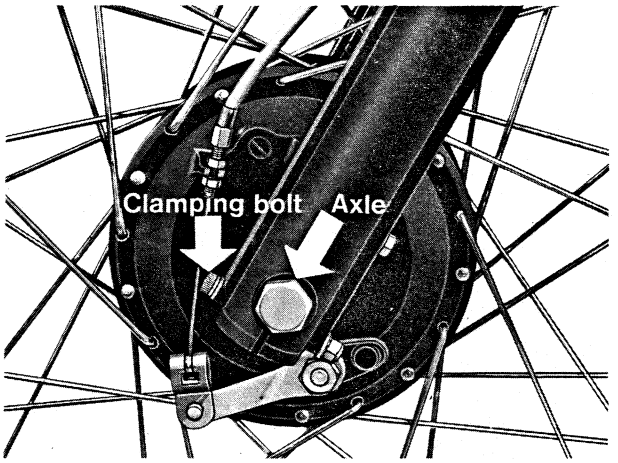


Fig. 3.2

Assembling of spokes
Turn the brakedrum upwards. Assemble nine of the spokes downwards in every second hole in the upper flange.
Note! On Leleu rear-hubs must these nine spokes be mounted to the right of the sprocket bolt holes. See fig. 3.3.

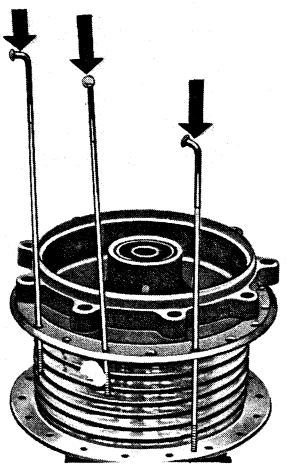


Fig. 3.3

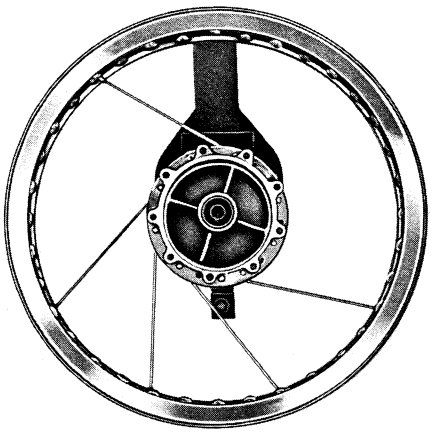


Fig. 4.1

Put the rim in position and install the spokes with nipples according to fig. 4.1.
NOTE! Make sure that a hole with the right inclination angle is used. Only screw on the nipples a few turns.

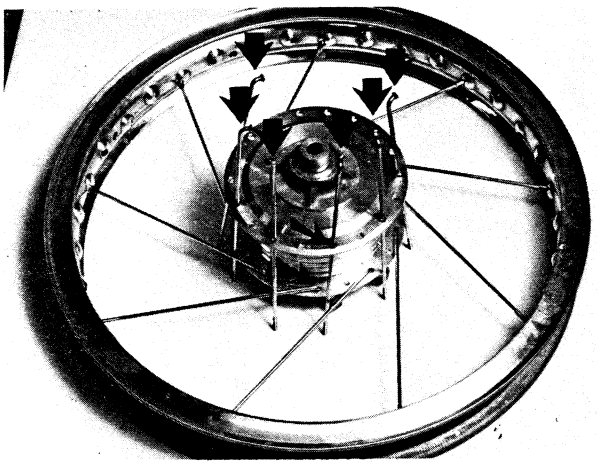


Fig. 4.2

Turn the wheel over and assemble nine spokes downwards into every second hole in the second flange. See fig. 4.2.

NOTE! Use the holes to the right of the spokes in the first flange. See fig. 4.2.

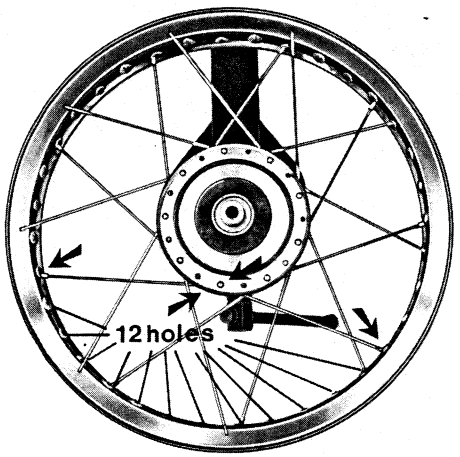


Fig. 4.3

Install these nine spokes into the rim according to fig. 4.3.
NOTE! There shall be twelve spoke holes between spokes from the first and second flange. See fig. 4.3.

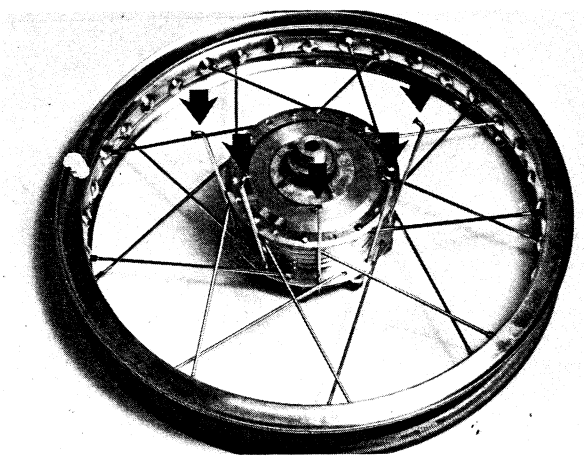


Fig. 4.4

Insert spokes into the remaining holes in the first flange. See fig 4.4.

Assemble the spokes as shown in fig. 5.1.
Note! There shall be thirteen rim holes between a left hand and a right hand assembled spoke.

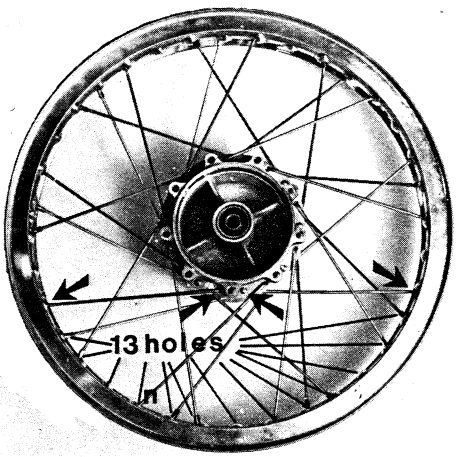


Fig. 5.1

Insert the last nine spokes upwards through the flange and install them in the remaining holes in the rim. See fig. 5.2.
True up the wheel as described in part: Rear wheel Husqvarna.

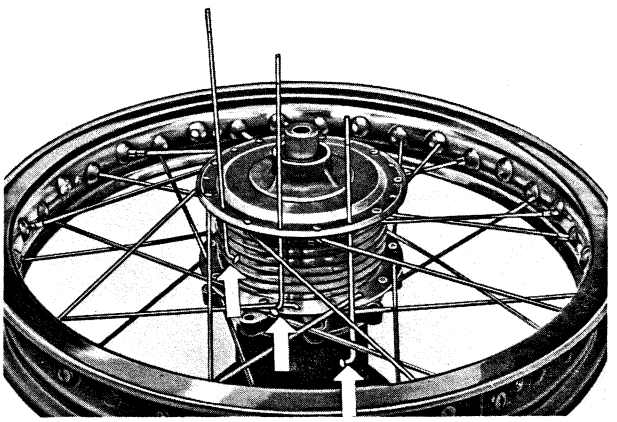


Fig. 5.2

Time for repairs—maintenance
Check the bearing play by pushing the wheels as shown in fig. 5.3.
If any play can be noticed must the bearings be replaced.

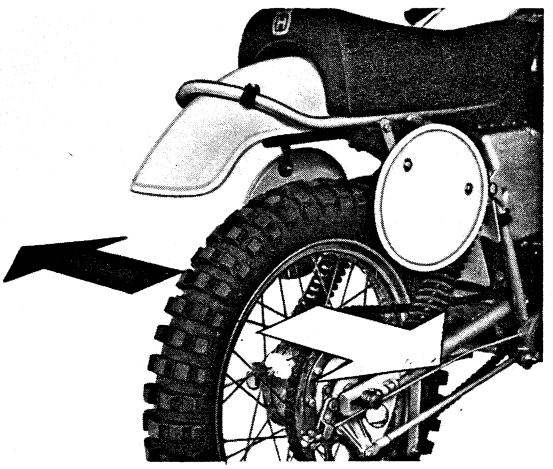


Fig. 5.3

Dismantle the brake plate regularly and clean all parts. Check that the return springs are intact.

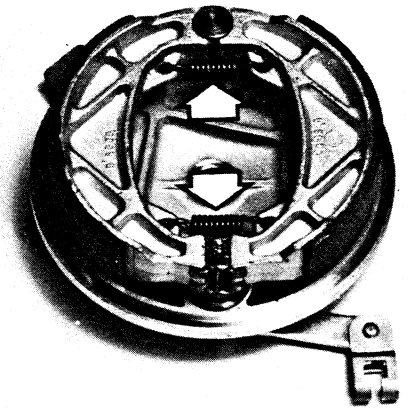


Fig. 6.1

If the brake linings are worn down to 2 mm, replace the brake shoes with new ones.

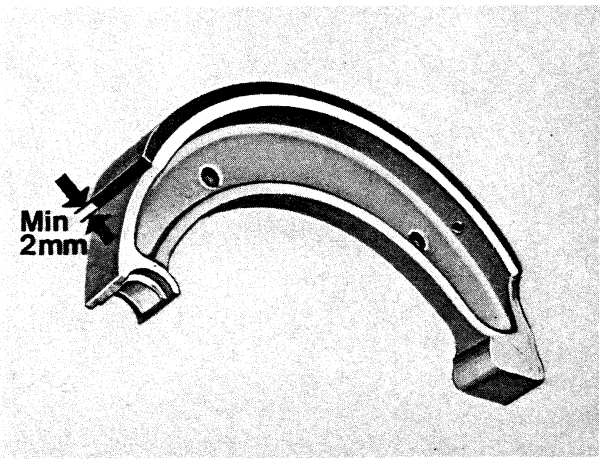


Fig. 6.2

Replace the brake link bushing if any free play can be noticed between the brake link and the brake plate. See fig. 6.3.

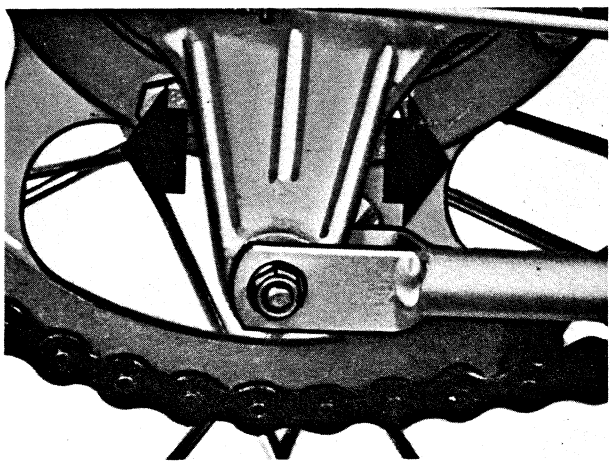


Fig. 6.3

Replace the sprocket when the teeth begin to get worn as shown in fig. 6.4.

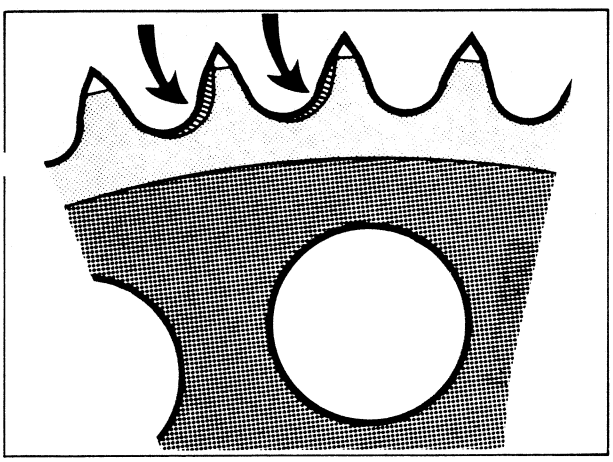


Fig. 6.4

Replace the chain when the difference between its length compressed and extended begins to approach 15 mm. See fig. 7.1.

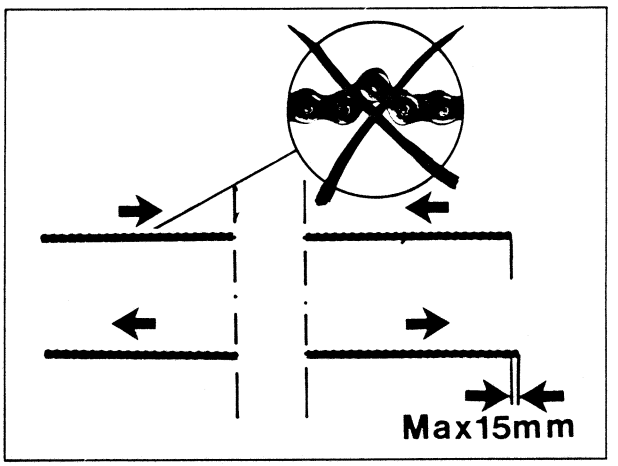


Fig. 7.1

Check regularly that the rim does not jerk and that all spokes are equal tightened. Check that the sprocket mounting bolts and the tyre retainer nuts are proper tightened.

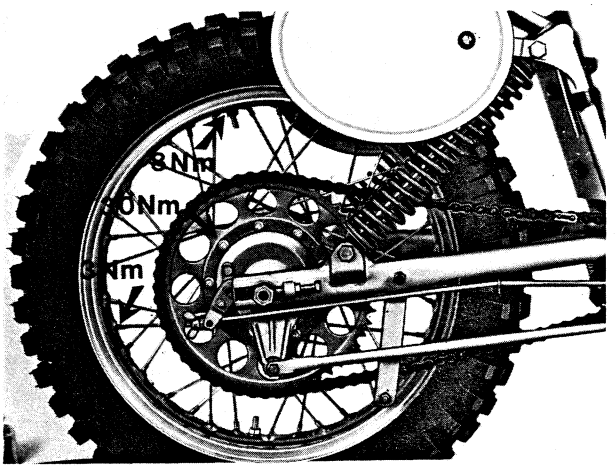
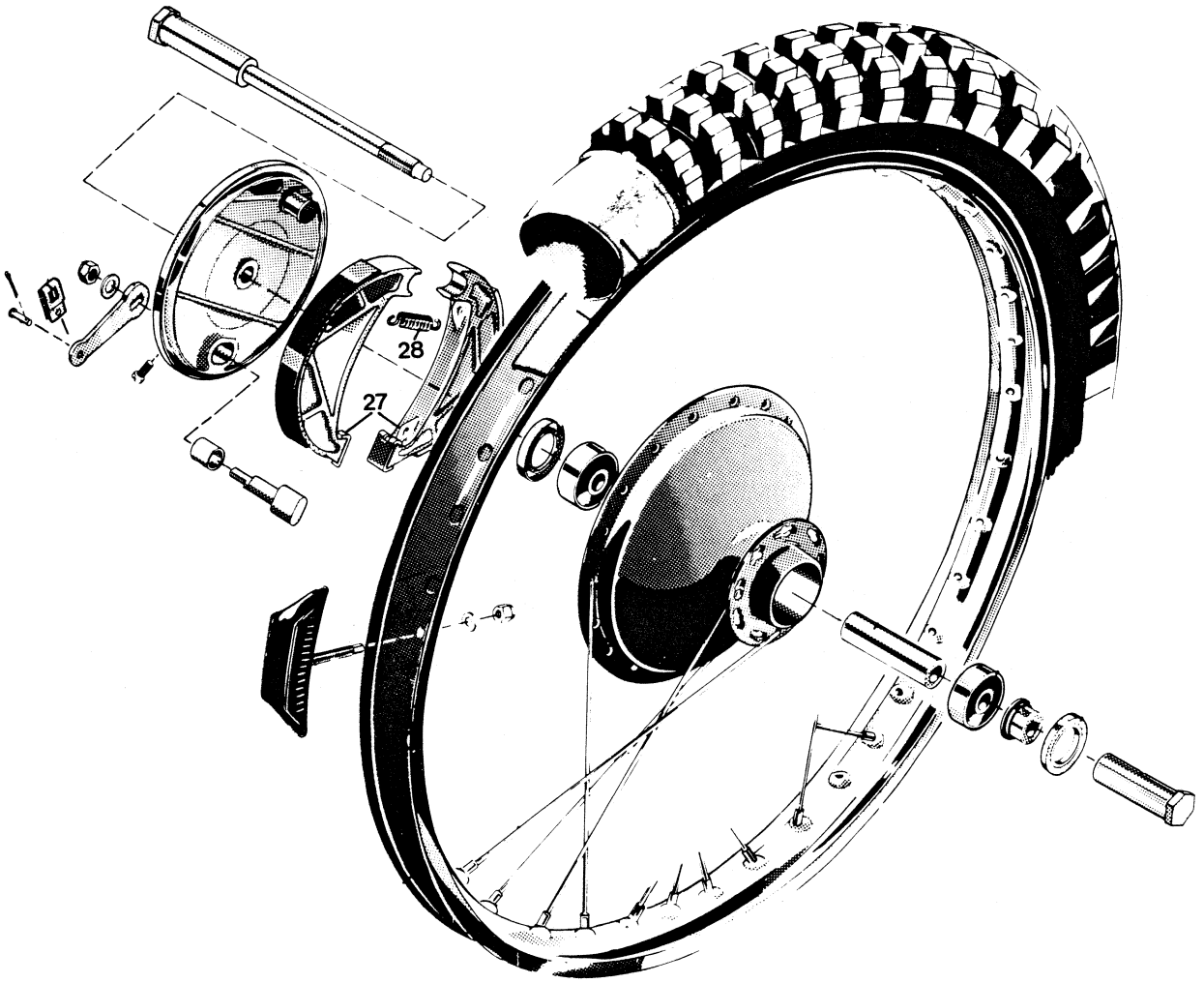


Fig. 7.2

Husqvarna motorcycles

Front wheel Husqvarna



Removing the front wheel
Block up the motor cycle so that the front wheel can rotate freely.
Loosen the right-hand fork leg clamping bolt and screw out the axle.
Pull out the axle.
Lift the front wheel out of the fork and remove the brake shield. Fitting is done in the reverse order.
NOTE! Don't forget to tighten up the clamping bolt.

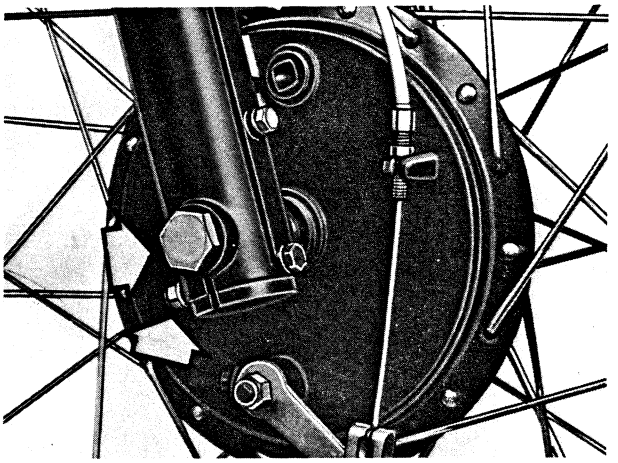


Fig. 3.1

Replacing brake cam bushing
The brake cam bushing and the centre bushing are pressed into the brake plate and can be replaced in a vice.
NOTE! The centre bushing must be pressed out from the inner side of the brake plate.

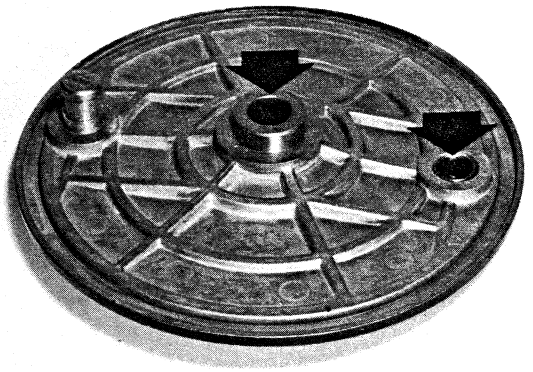


Fig. 3.2

Assembling of spokes
Assemble nine of the short spokes upwards through every second hole in the big flange.
See fig. 3.3.

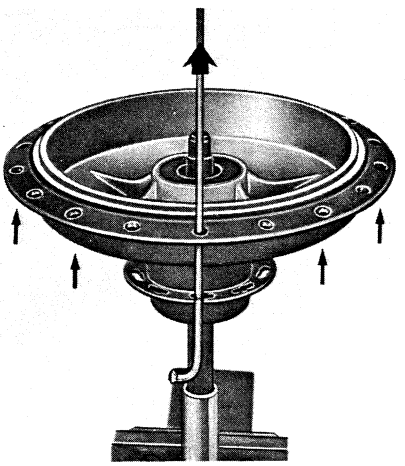
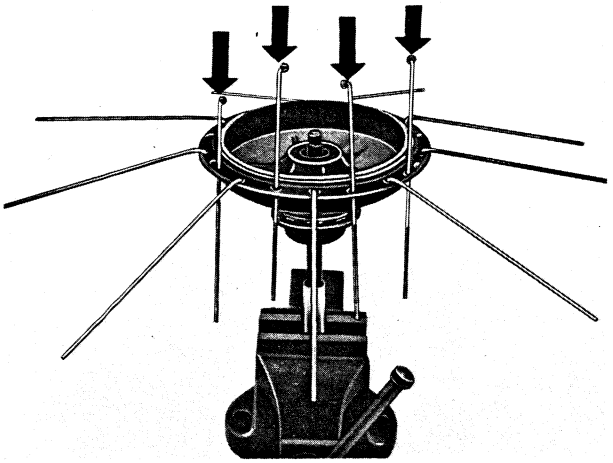
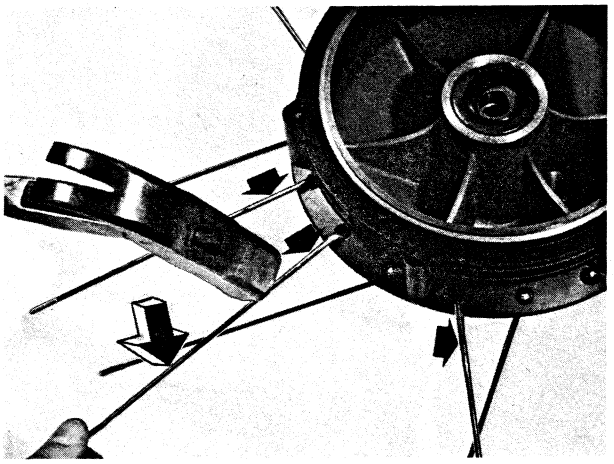


Fig. 3.3



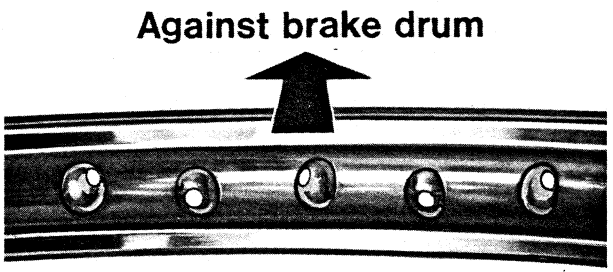
Assemble the rest of the short spokes downwards into the remaining holes.
See fig. 4.1.

Fig. 4.1



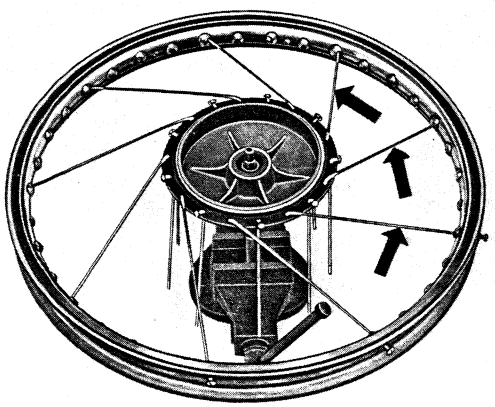
Adjust the outside assembled spokes by easily bending them with a hammer or similar.
See fig. 4.2.

Fig. 4.2



Put the rim in position. Make sure that the holes with the greatest inclination angle is directed against the brake drum.
See fig. 4.3.

Fig. 4.3



Assemble the spokes which have been stuck upwards (the rivets on the inside) as shown in fig. 4.4. Start on a hole with big inclination angle. Then use every fourth rim hole.
NOTE! Only screw on the nipples a few turns.

Fig. 4.4

Turn the remaining spokes in the opposite direction and assemble so that every second hole is filled with spokes.
NOTE! There shall be thirteen rim holes between a left hand and a right hand assembled spoke. See fig. 5.1.

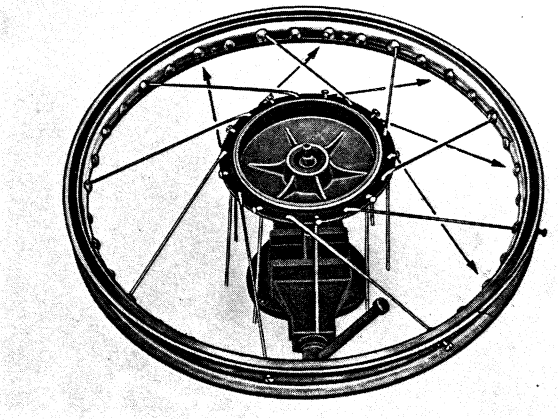


Fig. 5.1

Insert the long spokes into the small flange. First assemble all with the rivet upwards. Turn them right and mount them as shown in fig. 5.2.

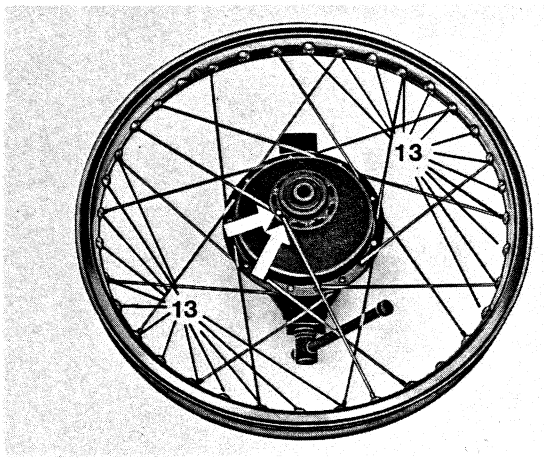


Fig. 5.2

Then mount the other half in the opposite rotation direction and with the rivet downwards.
See fig. 5.3.
NOTE! There shall be thirteen rim holes between a left hand and a right hand assembled spoke. See fig. 5.3.
True up the wheel as described in chapter: "Trueing up wheels".

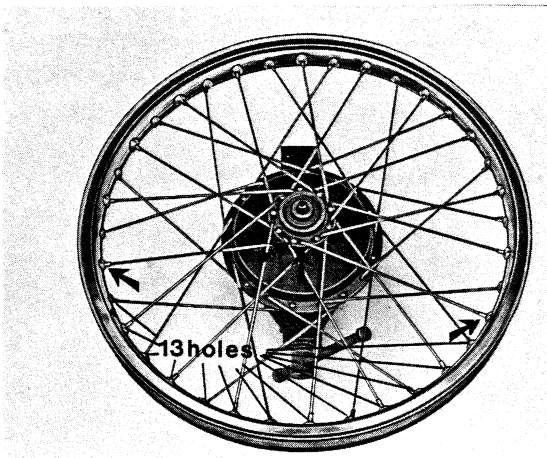


Fig. 5.3

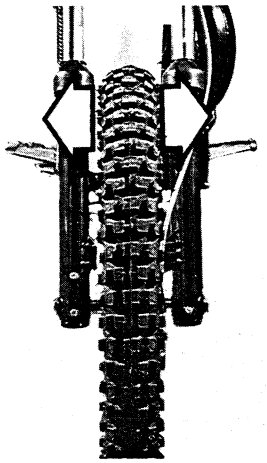


Fig. 6.1

Time for repairs-maintenance
Check the bearing play by pushing the front wheel as shown in fig 6.1.
If any play can be noticed must the bearings be replaced.

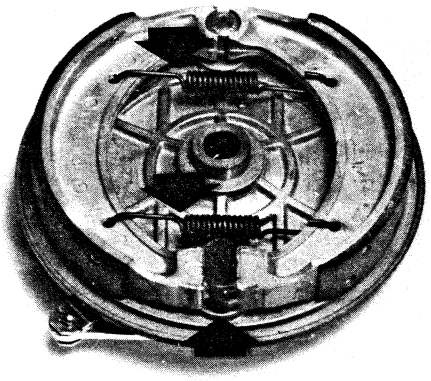


Fig. 6.2

Dismantle the brake plate regularly and clean all parts. Check that the return springs are intact and that no excessive play has occurred in the brake cam bushing.

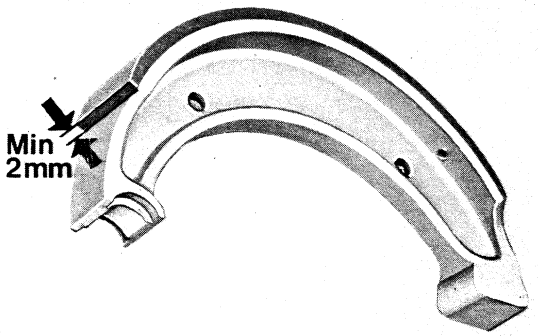


Fig. 6.3

If the brake linings are worn down to 2 mm, replace the brake shoes with new ones.

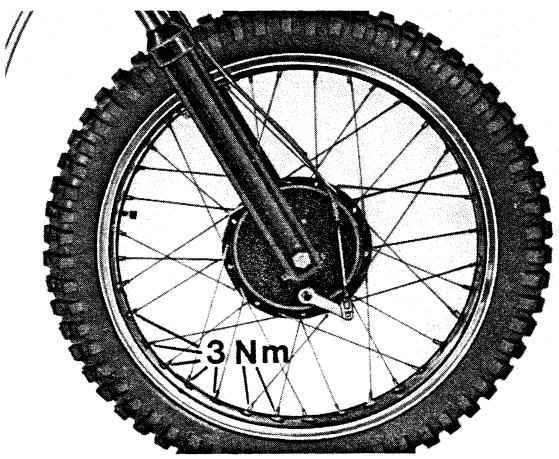
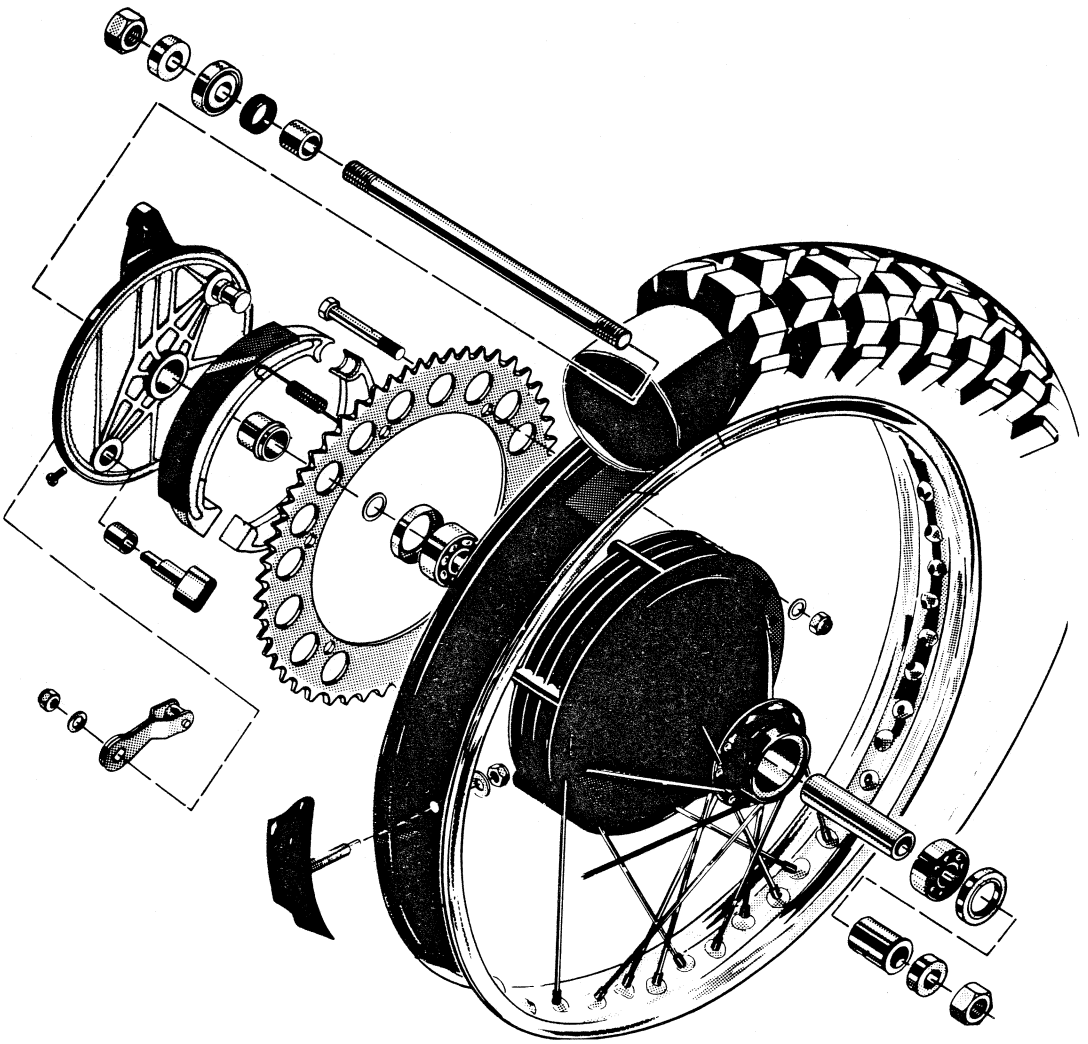


Fig. 6.4

Check regularly that the rim does not jerk and that the spoke nipples are equal tightened.

Husqvarna motorcycles

Rear wheel Husqvarna



Removing rear wheel
Block up the machine so that the rear wheel can rotate freely.
a) Part the drive chain by opening the chain master link.
b) Disconnect the brake link.
c) Screw off the wing nut from the brake rod and remove its return spring.
d) Remove the axle and pull out the wheel.

Lift off the brake shield and distance pieces. Watch out for the spacing sleeve in the brake shield. Fitting is done in reverse order.

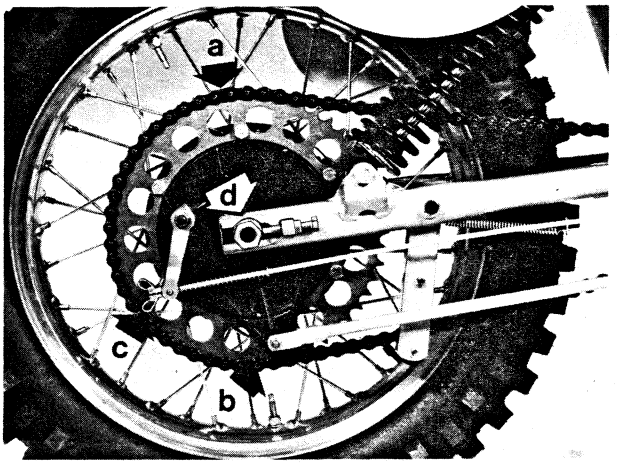


Fig. 3.1

Replacing bearings
Apply a plain drift on the edge of the inner track on one bearing. Drive out the bearing with the sealing ring by alternating the position of the drift. See fig. 3.2.

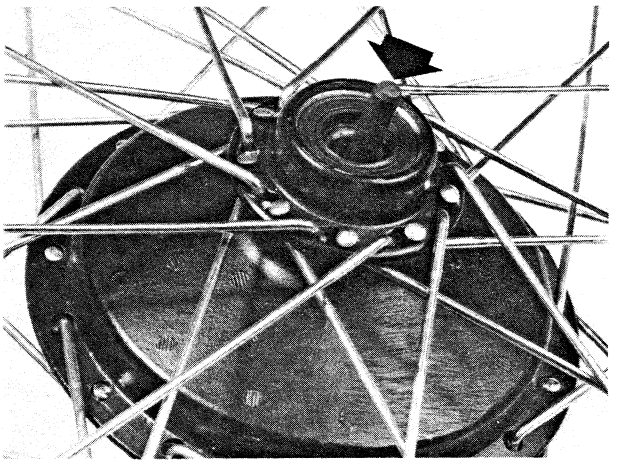


Fig. 3.2

When mounting the bearings put the drift on the outer track. See fig. 3.3.

NOTE! Remember to fit the spacing sleeve between the bearings.

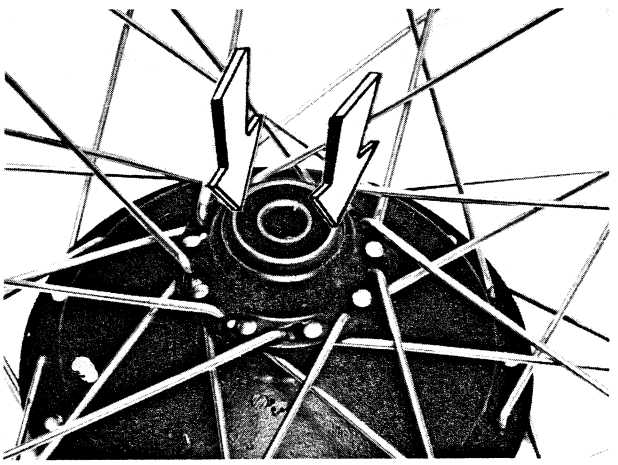


Fig. 3.3

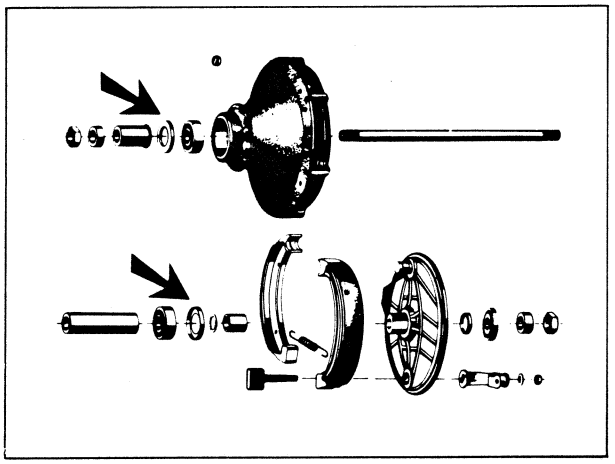


Fig. 4.1

Insert the two sealing rings.

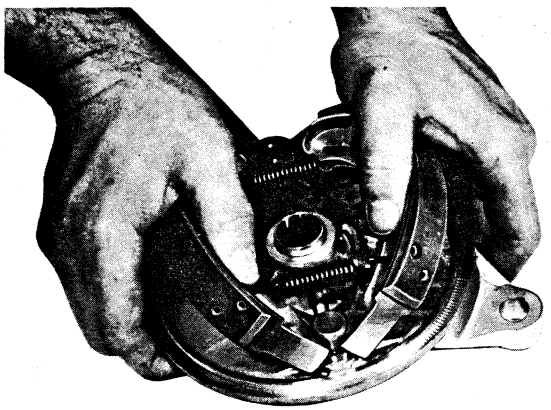


Fig. 4.2

Replacing brake shoes
Remove and assemble the brake shoes as shown in fig. 4.2.
Note! Make sure that the flat ends of the brake shoes are positioned on the brake cam.

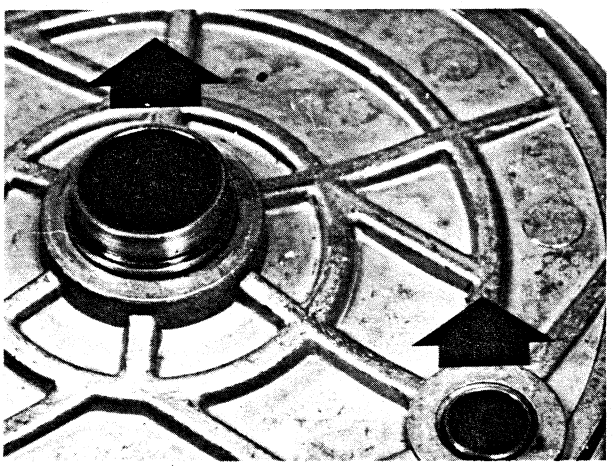


Fig. 4.3

Replacing brake plate bushings.
The two brake plate bushings are pressed in position and can be replaced in a vice by using a drift and a support. See fig. 4.3.

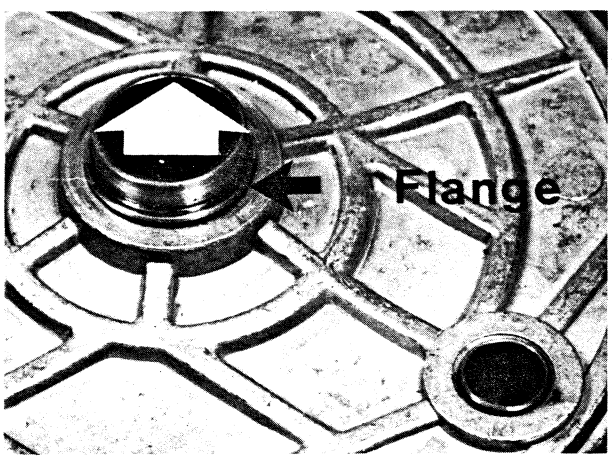


Fig. 4.4

The centre bushing has a flange and must because of this be replaced from the inside of the brake plate. See fig. 4.4.

Replacing brake link bushing
Press out the sleeve with a drift. See fig. 5.1.

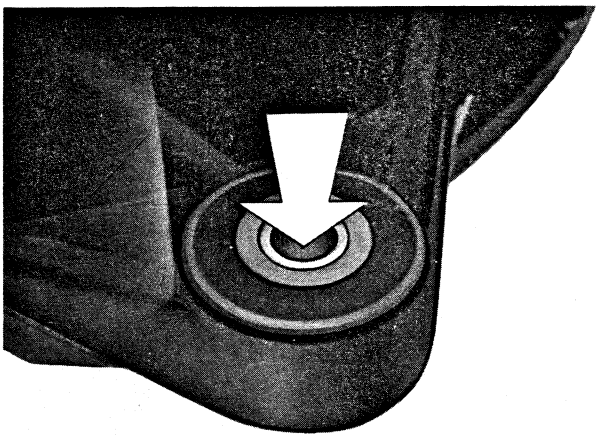


Fig. 5.1

Remove the bushing with a screw driver or similar. See fig. 5.2.

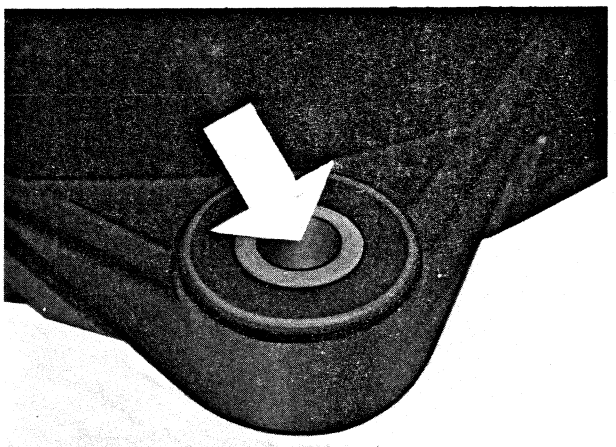


Fig. 5.2

Insert a new bushing. See fig. 5.3.

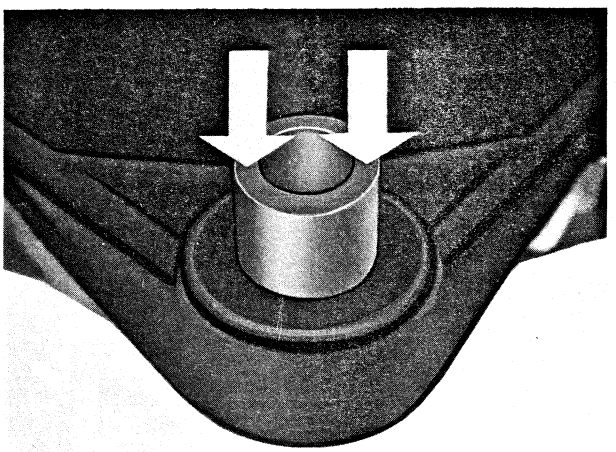


Fig. 5.3

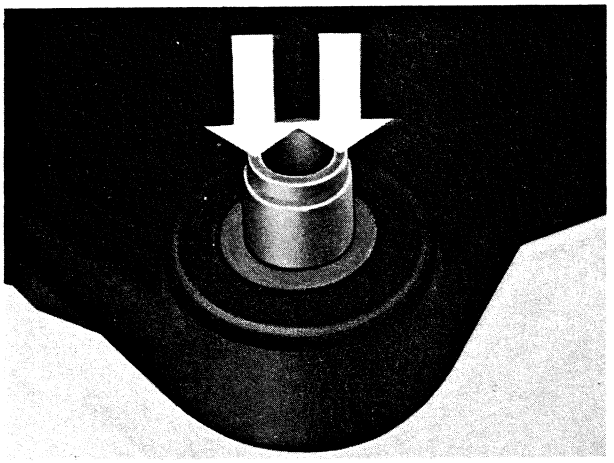


Fig. 6.1

Wet the sleeve in petrol and press it in position. See fig. 6.1.

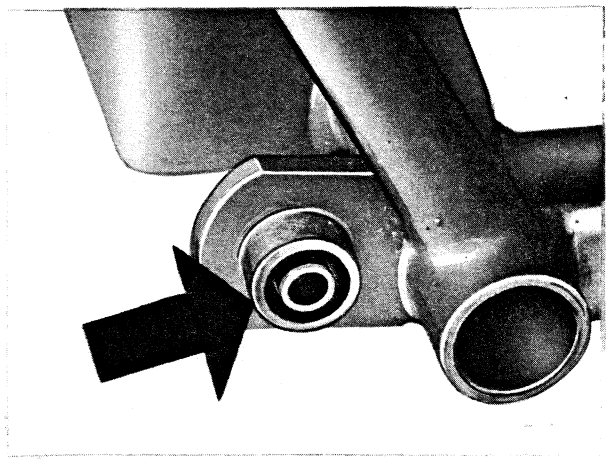


Fig. 6.2

The front brake link bushing on MK frames is replaced in the same manner. See fig. 6.2.

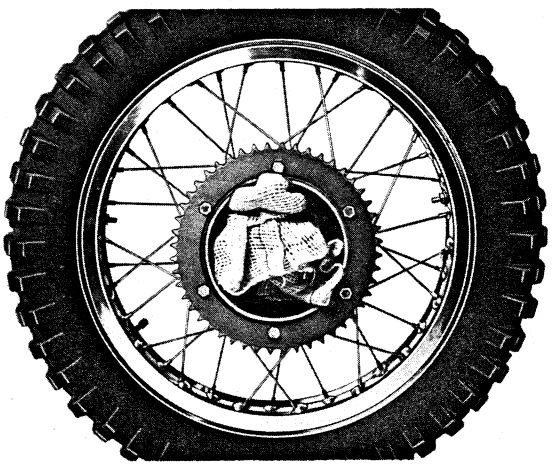


Fig. 6.3

Removing and fitting the tyres
Remove the wheel and let the air out of the tyre by unscrewing the valve. Put the parts of the valve in a place where they will not get dirty or lost.
Protect the wheel bearings with a piece of cloth or cotton waste. See fig. 6.3.

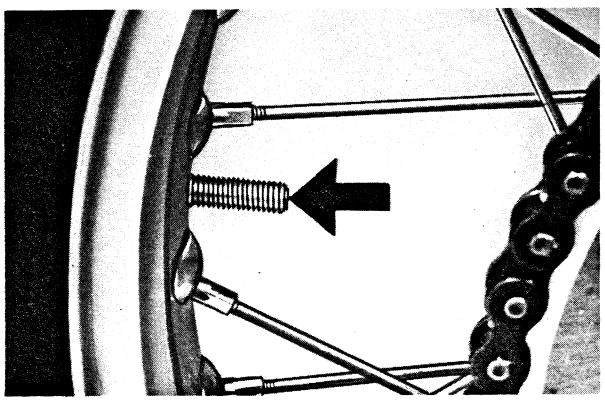


Fig. 6.4

Loosen the tyre retainer and push it inwards. See fig. 6.4.

Loosen the tyre from the rim and lay the wheel with the chain sprocket down.
Insert one of the tyre irons close to the valve. Pry up the bead of the tyre carefully, at the same time pressing the opposite side down into the well of the rim with your knees (see Fig. 7.1).

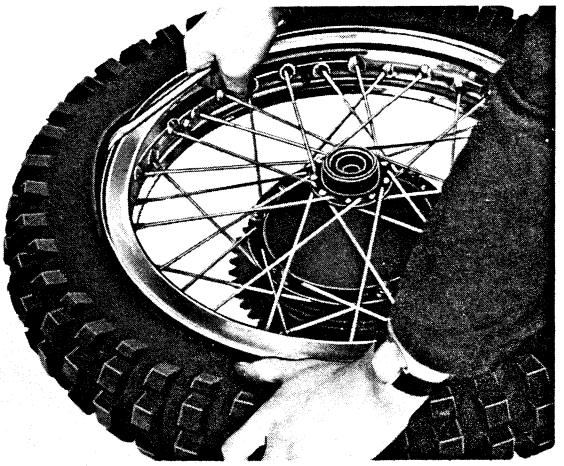


Fig. 7.1

Insert the other tyre iron about three inches from the first one and pry the tyre off the wheel rim. Move the iron round the rim 50–70 mm at a time and lever off the tyre about one-third of the way round the wheel. Remove the tyre the rest of the way round the wheel, using your hands.
Remove the tyre retainer.
Push the valve out of the wheel rim and remove the inner tube.
Stand the wheel upright and, from the inside of the rim, insert a tyre iron between the other tyre bead and the rim.
Lever the tyre off the rim.
Remove the rim band and check that the rim is free from rust and dirt etc. which may damage the tube.

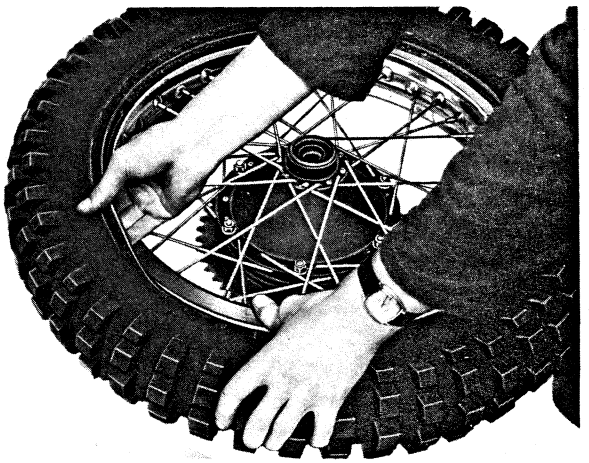


Fig. 7.2

Fit the rim band, making sure that it is correctly positioned and covers all spoke nipples.
Pull one side of the tire in place on the wheel rim. This will be facilitated if the beading is coated with a soap solution.

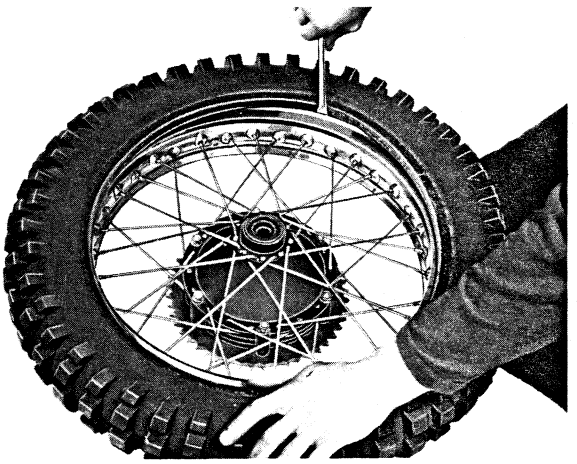


Fig. 7.3

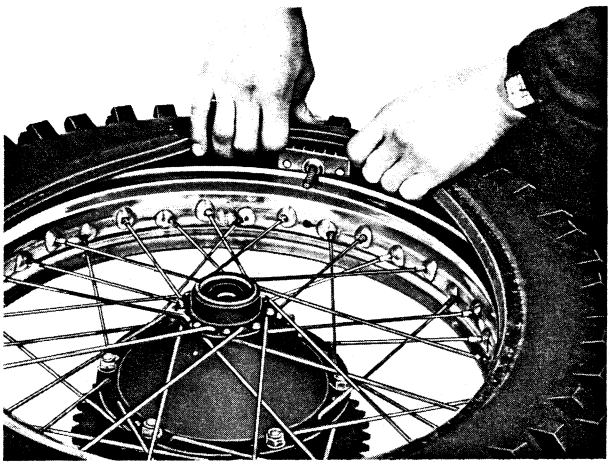


Fig. 8.1

Insert the tire retainer and screw the nut on a few turns (see Fig. 8.1)
Inflate the tube partially so that when held from the hand it forms an ellipse with two folds, one at top and one at bottom. Powder the inside of the tire with talc and the tube as well, if necessary.

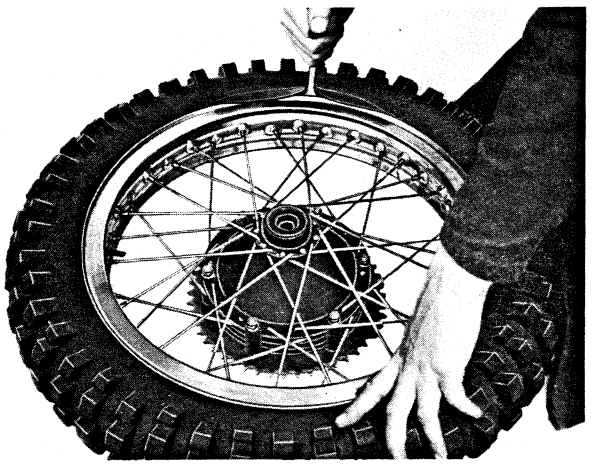


Fig. 8.2

Fit the valve in the rim and push the tube into the tire. Check that the valve is at right ángles to the rim.
Press the tire retainer into tire and push the tire over the rim of the wheel by hand. Begin at the side opposite the valve and finish off at the valve position with the aid of tire irons.
Push the valve inwards and check that the hose is not pinched against the rim.
Inflate the tire and check that the marking on the tire is concentric with the wheel rim.
Bounce the wheel several times at the point where the tire retainer bolt is fitted and then tighten the nut.

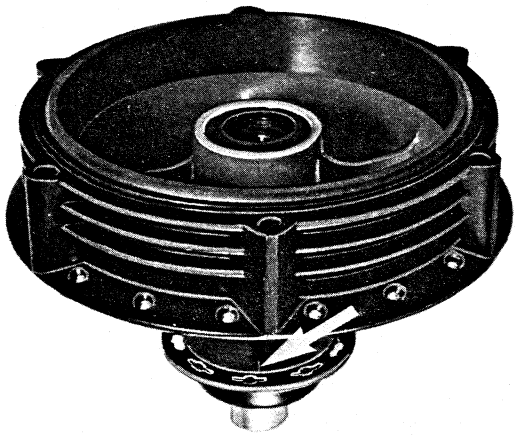


Fig. 8.3

Assembling of spokes.
Remove the old rim and spokes. Find the place of the hub where the cast-joint is in the right part of the nearest spoke attachment. See fig. 8.3.

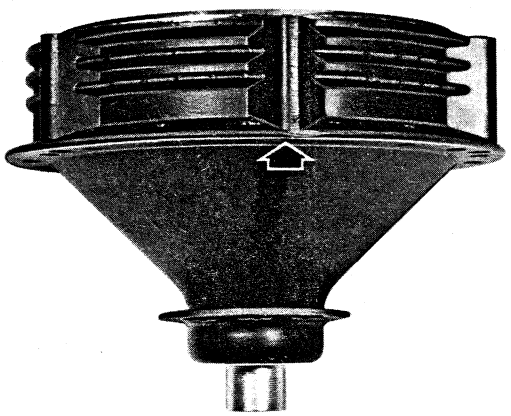


Fig. 8.4

Then follow the joint up to the hole for the sprocket which is situated just in front. See fig. 8.4.

Take two of the six short spokes and assemble them one on each side of the hole. The left one downwards and the right one upwards. See fig. 9.1.

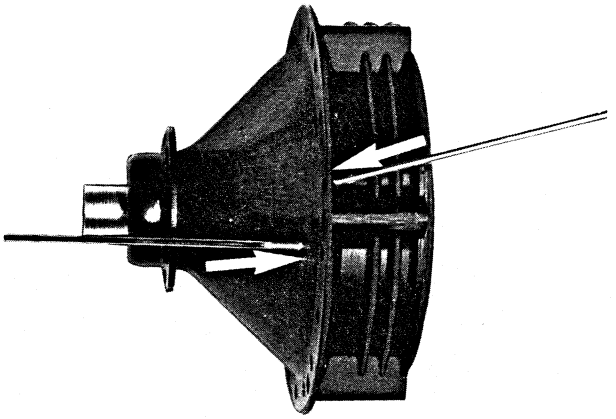


Fig. 9.1

Then assemble the remaining short spokes by every second bolt-hole in the same way. See fig. 9.2.

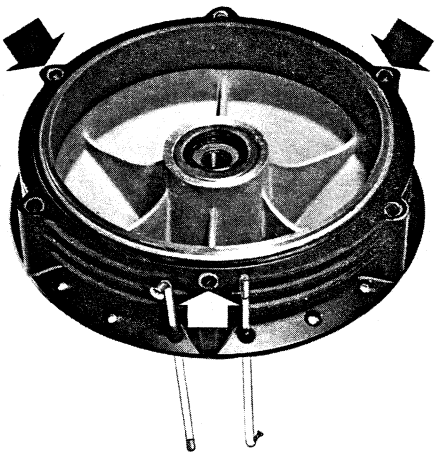


Fig. 9.2

Take 12 of the medium spokes. Start assembling them by a pair of short spokes. See fig. 9.3.

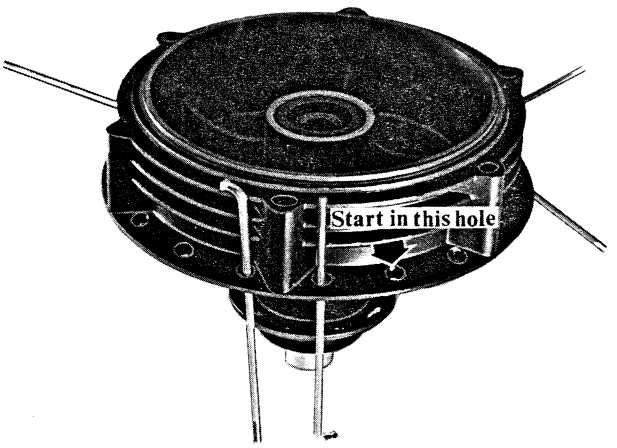


Fig. 9.3

Attach the first spoke in the same direction as the short one to the left is assembled. See fig. 10.1.

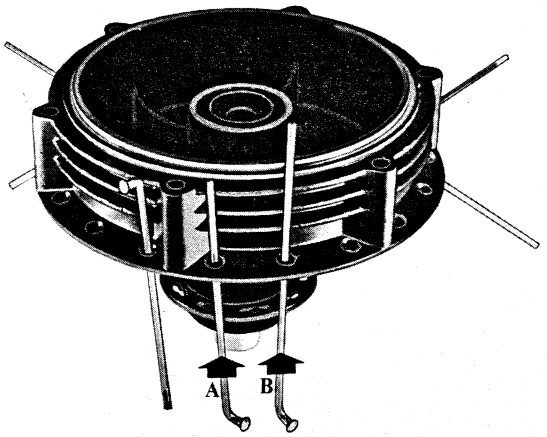


Fig. 10.1

Go to the right and assemble every second medium spoke upwards and every second one downwards in the remaining free holes. Se fig. 10.2.

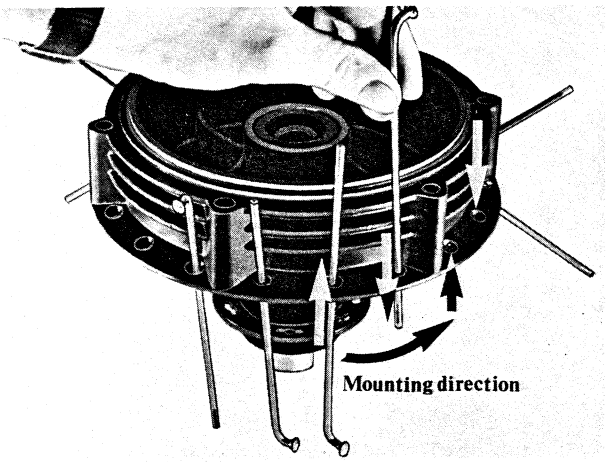


Fig. 10.2

To make the assembling of the wheel rim easier you should bend the spokes assembled from down with a hammer or similar. See fig. 10.3.

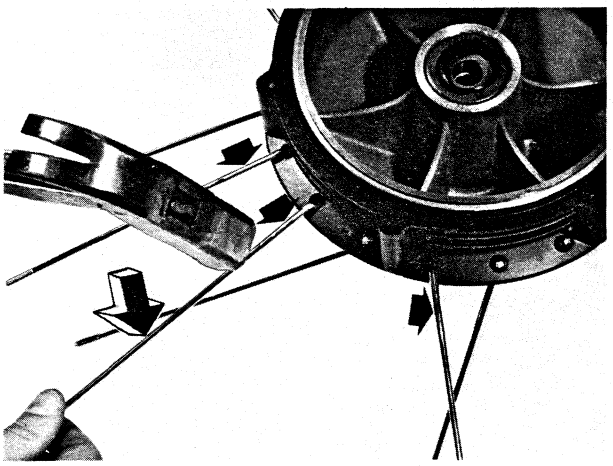


Fig. 10.3

Put the wheel rim over the hub in such a way that the holes in the rim with the greatest inclination angle is directed against the brake drum. See fig. 10.4.

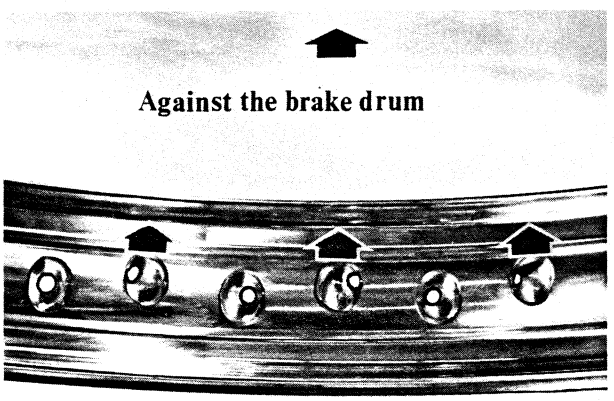


Fig. 10.4

Start to assemble the spokes which have been stuck upwards (the rivet inwards the hub) according to figure 11.1. Start with a hole in the rim with a big inclination angle. Then use every forth rim hole. Screw on the nipple a few turns.

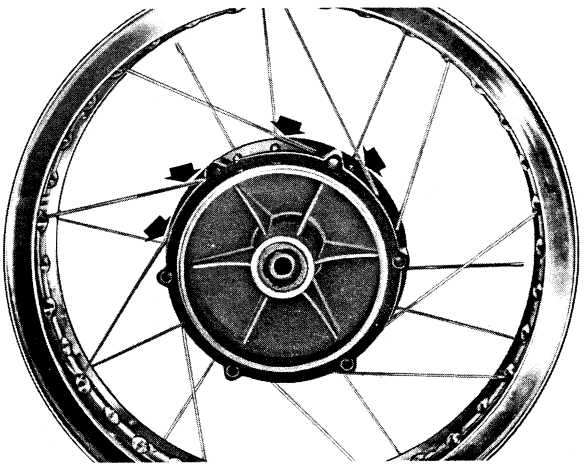


Fig. 11.1

Then assemble the spokes which have been stuck downwards (the rivet outwards). These are assembled in the opposite rotation direction so that every second hole in the rim is filled with spokes from the side of the brake backing plate on the hub. See fig. 11.2.

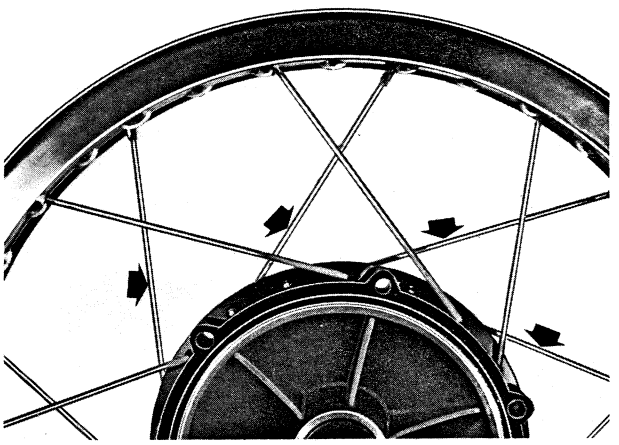


Fig. 11.2

Turn the wheel and assemble the long spokes. First assemble all with the rivet upwards. See fig. 11.3.

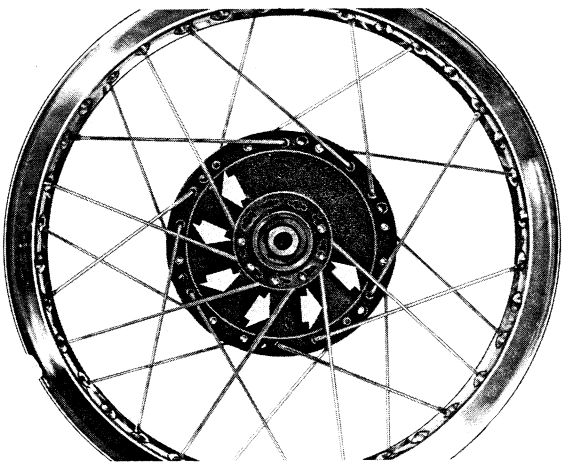


Fig. 11.3

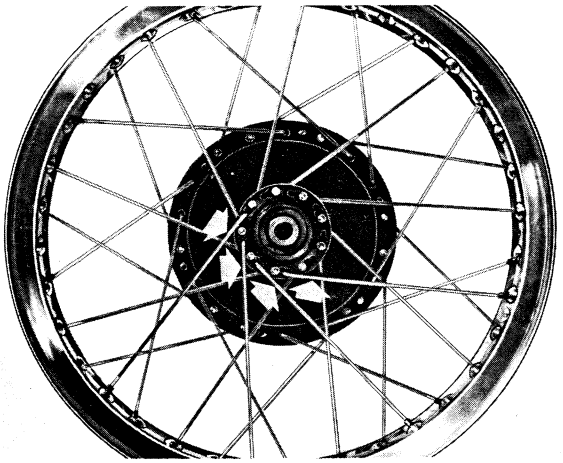


Fig. 12.1

Then mount the other half in the opposite rotation direction and with the rivet downwards. See fig. 12.1.

Trueing up wheels

Fasten the wheel shaft in a vice and put on the wheel. Tighten all nipples lightly until no free play can be noticed.

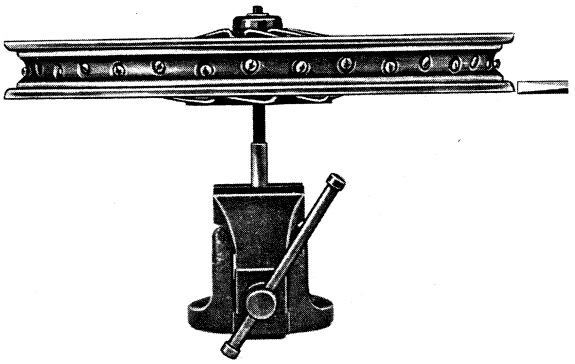


Fig. 12.2

Hold a reference point (for example a screwdriver) close to the rim and let the wheel rotate slowly. Find out exactly where the rim jerks. See fig. 12.3.

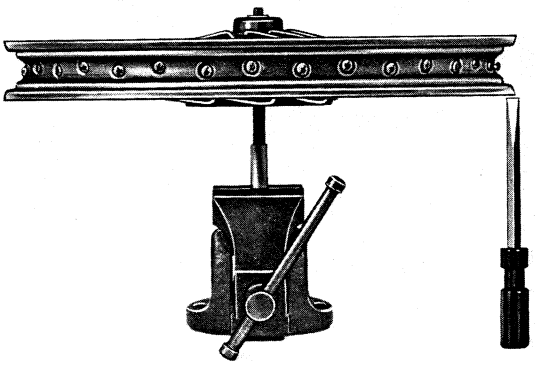


Fig. 12.3

If the rim for example jerks to the left must the spoke nipples be tightened and slacked as shown in fig. 12.4.

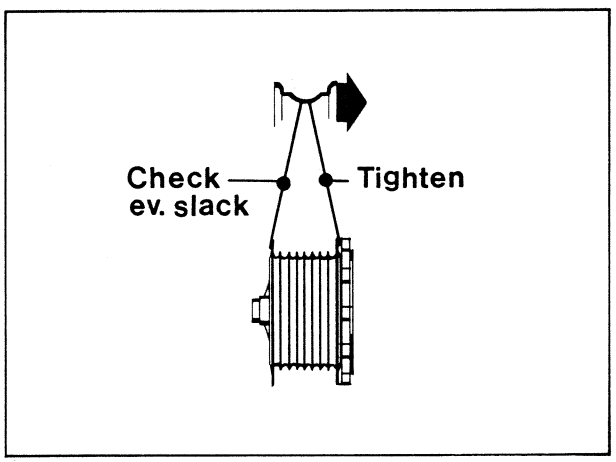


Fig. 12.4

If the rim jerks radial must the procedure shown in fig. 13.1 be done.

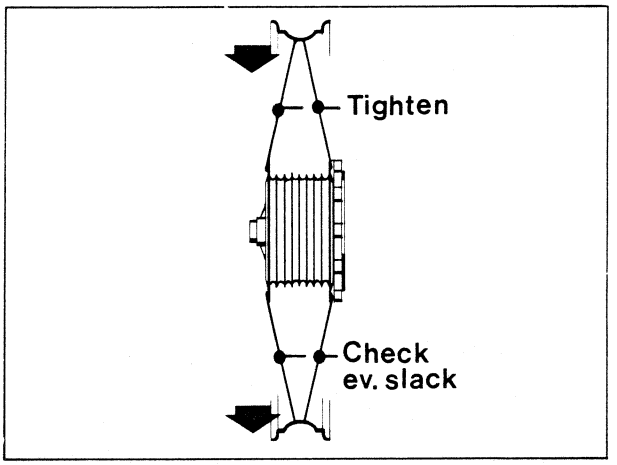


Fig. 13.1

Tighten all spoke nipples alternately up until they are equal tightened. Repeat point 12.3, 12.4, 13.1 and 13.2 until the rim is centered on the hub. Knock easily on the spokes and listen to the sound. When the spokes are equal tightened the sound will also be equal.

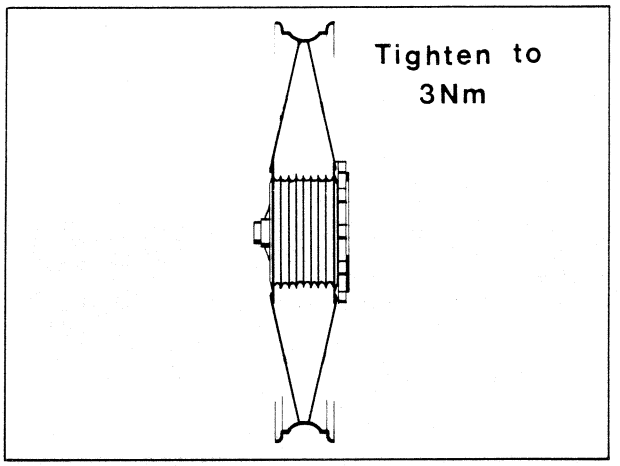


Fig. 13.2

Time for repairs—maintenance.
Check the bearing play by pushing the rear wheel as shown in fig 13.3. If any play can be noticed must the bearings be replaced.

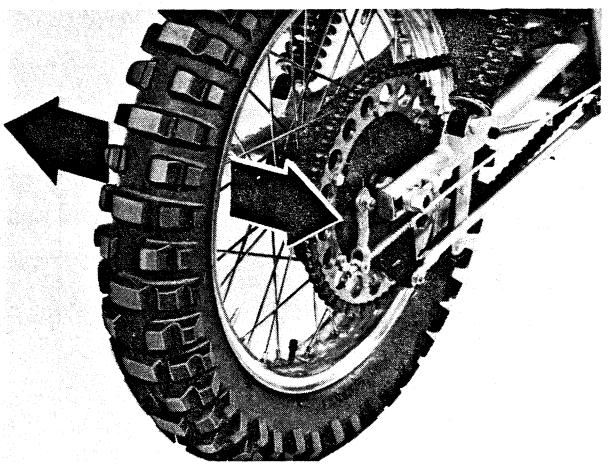


Fig. 13.3

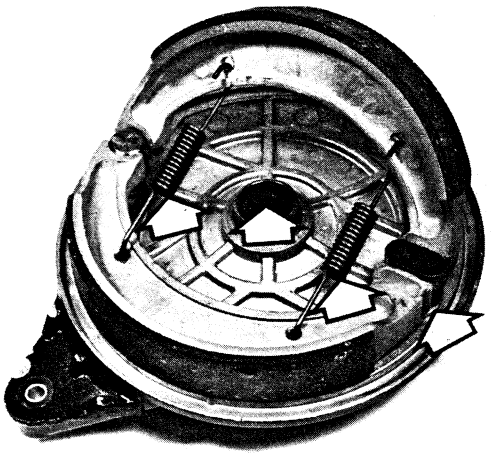


Fig. 14.1

Dismantle the brake plate regularly and clean all parts. Check that the return springs are intact and that no excessive play has occured in the brake cam bushing or in the centre bushing.

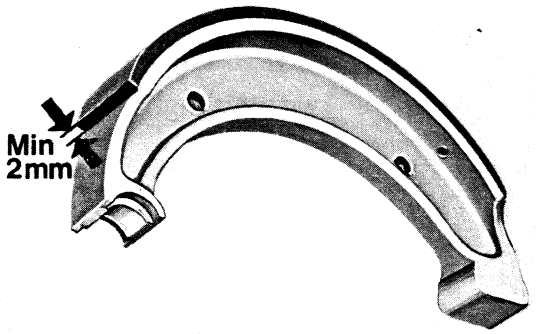


Fig. 14.2

If the brake linings are worn down to 2 mm, replace the brake shoes with new ones.

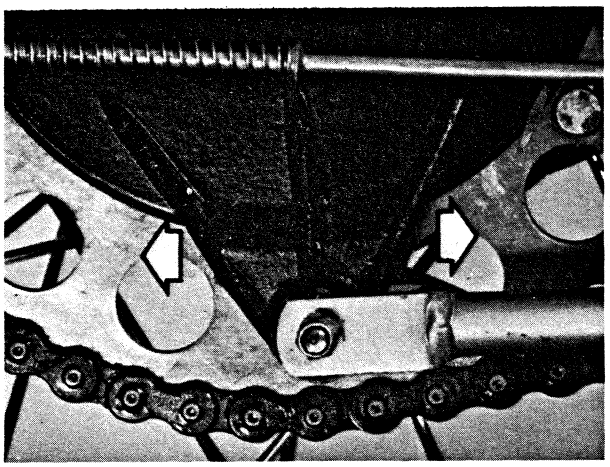


Fig. 14.3

Replace the brake link bushing if any free play can be noticed between the brake link and the brake plate. See fig. 14.3.

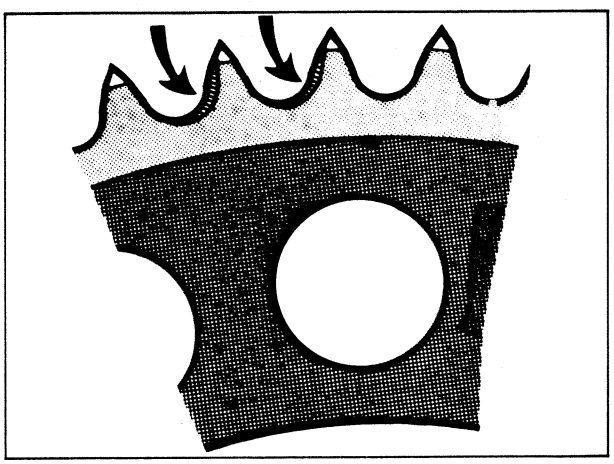


Fig. 14.4

Replace the sprocket when the teeth begin to get worn as shown in fig. 14.4.

Replace the chain when the difference between its length compressed and extended begins to approach 15 mm. See fig. 15.1

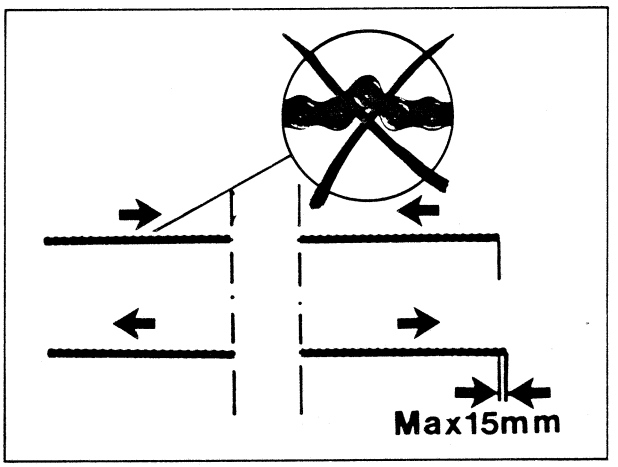


Fig. 15.1

Check regularly that the rim does not jerk and that all spokes are equal tightened. Check that the sprocket mounting bolts and the tyre retainer nuts are properly tightened.

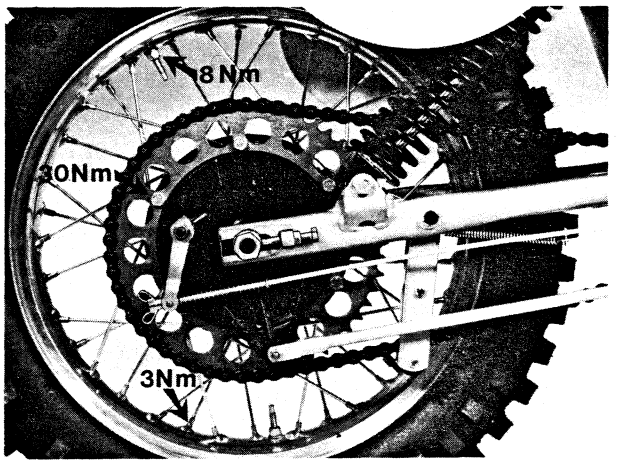
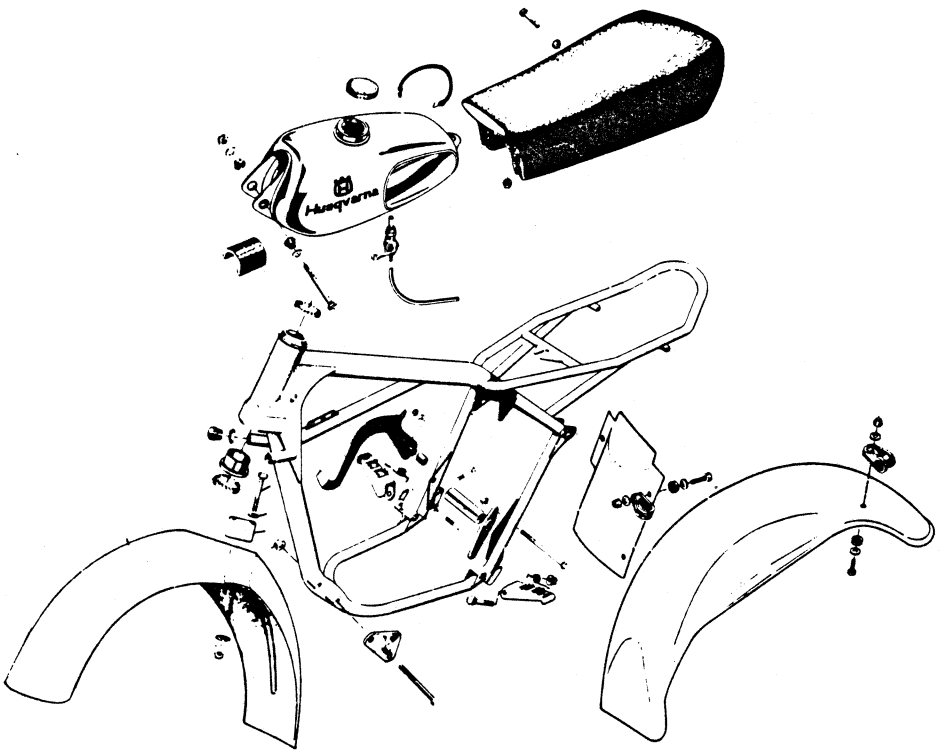


Fig. 15.2

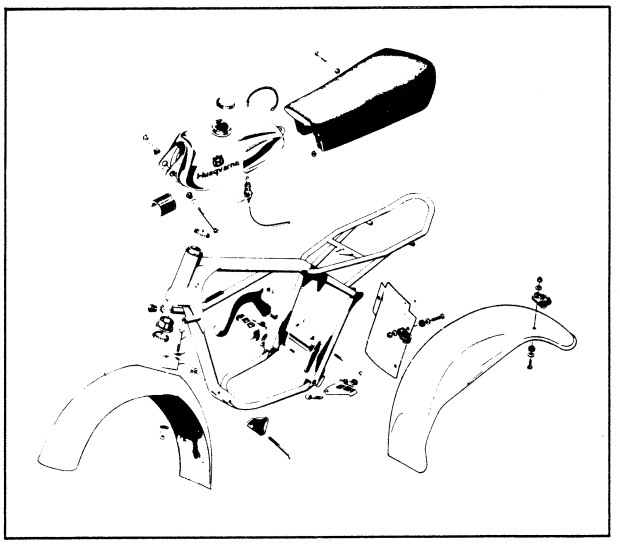
WORKSHOP MANUAL



FRAME

R

Frame



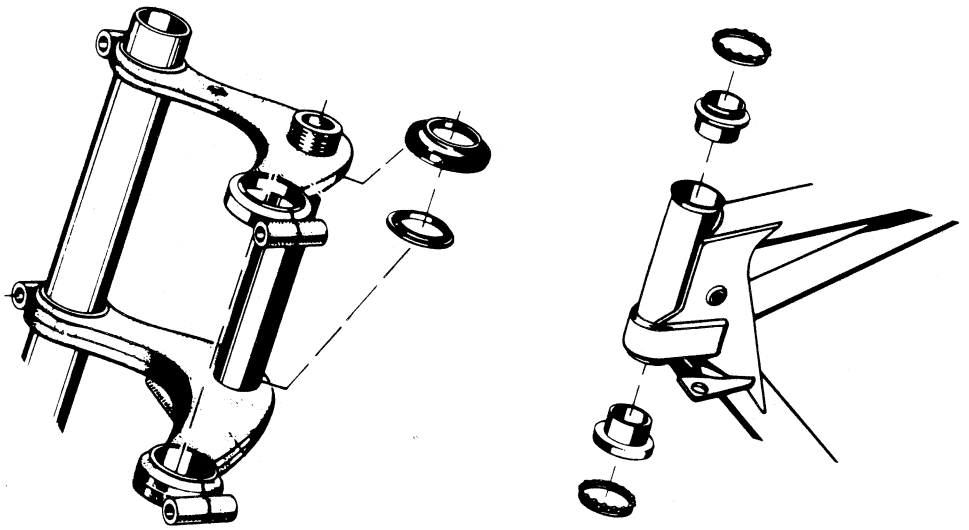
This chapter covers the frame part of the motorcycle.

RA. Steering bearings

RB. Saddles

RC. Repairs – frame parts

Steering bearings



Dismantling
Remove the upper fork plate. See fig. 3.1.

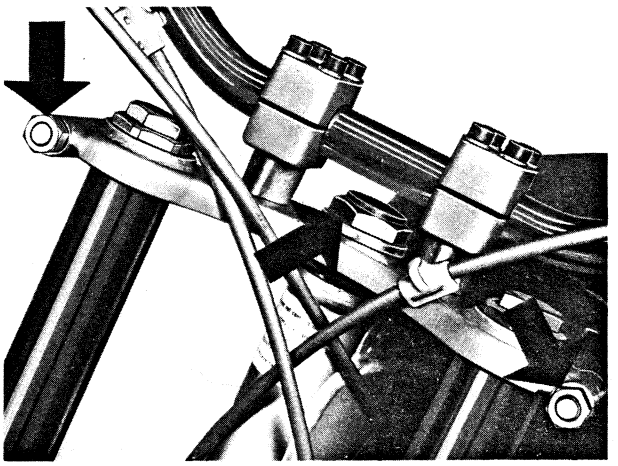


Fig. 3.1

Unscrew the upper bearing shell and separate the front fork from the frame. See fig. 3.2.

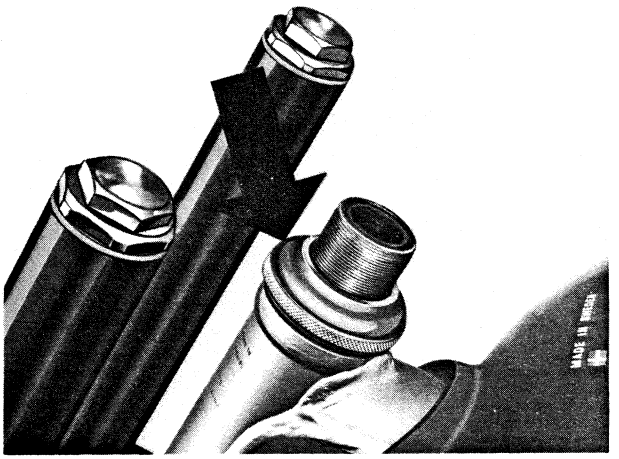


Fig. 3.2

Take off the ball ring from the upper bearing shell. Knock off the upper and lower bearing shells with a drift. See fig. 3.3.
NOTE! Let the position of the drift alternate.

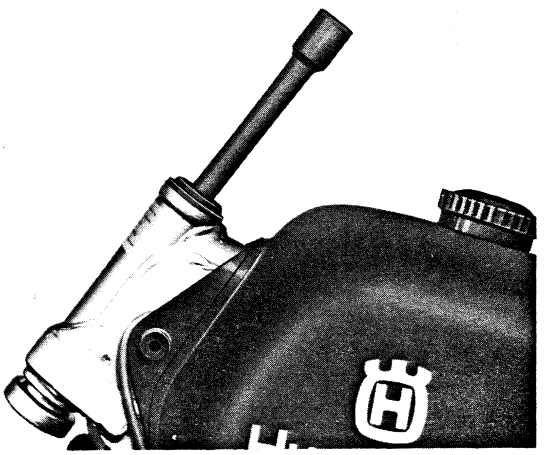


Fig. 3.3

Press new bearing shells in position. Never press direct on the bearing shells. See fig. 4.1.

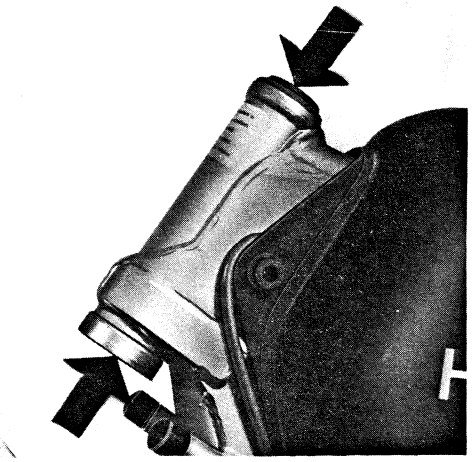


Fig. 4.1

Loosen the bearing cone by carefully bending with two screwdrivers as shown in fig. 4.2.

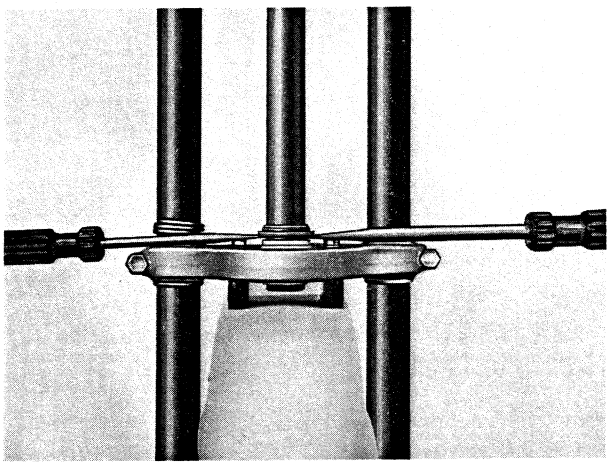


Fig. 4.2

Mounting
Press new bearing cone in position. Grease the ball ring and install it as shown in fig. 4.3.
NOTE! The ball ring with outer Ø 50 mm shall be installed with the open part of the cage up wards.

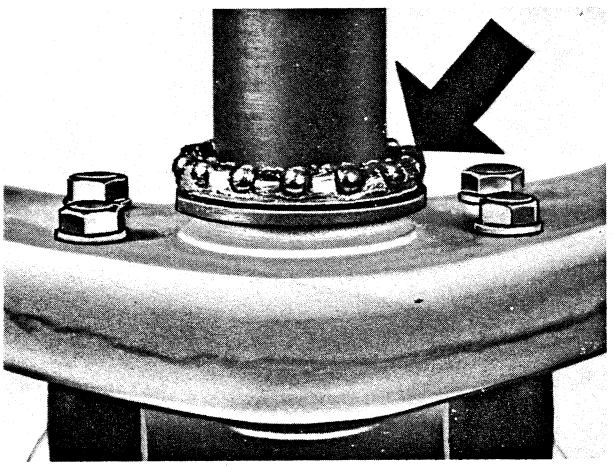


Fig. 4.3

Grease the upper ball ring and put it in position as shown in fig. 4.4.
NOTE! The ball ring with outer Ø 50 mm shall be installed with the open part of the cage upwards.

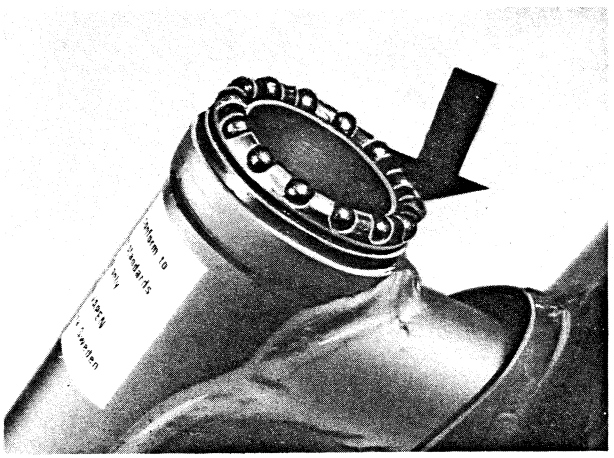


Fig. 4.4

Insert the lower fork crown into the bearing shells on the frame and attach the upper bearing shell and the fork plate. See fig. 5.1.

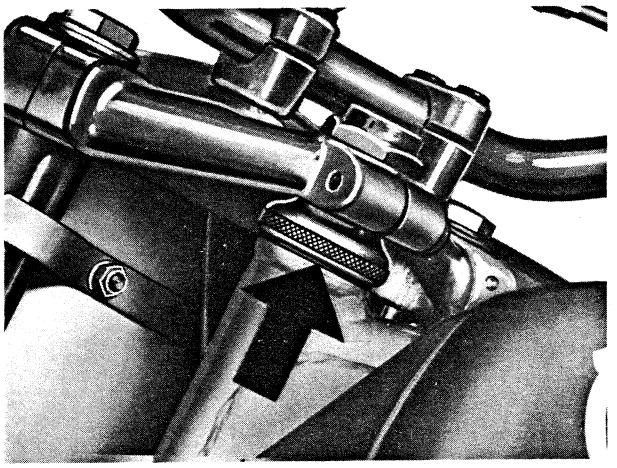


Fig. 5.1

Adjusting steering bearings
The play in the steering bearings is checked with the motorcycle blocked up so that the front wheel can rotate freely.
Grasp the lower part of the fork legs and try to move them backwards and forwards in the longitudinal direction of the machine. See fig. 5.2.

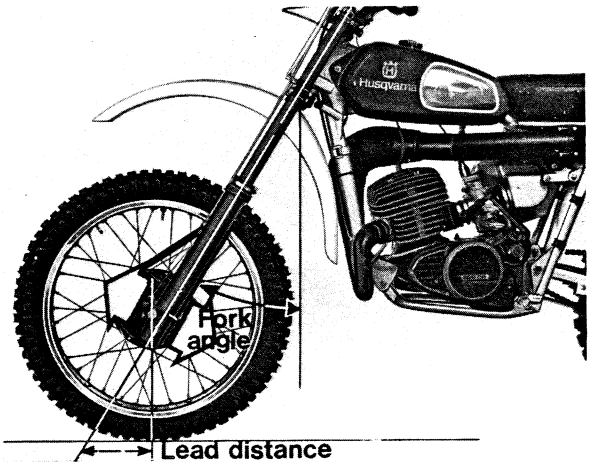


Fig. 5.2

Tighten the upper bearing shell with a polygrip pliers until no play can be noticed when trying to move the lower fork legs. See fig. 5.2.
On the other hand the bearings must not move stiffly.
Tighten up the cap nut and the fork plate clamping bolts. See fig. 5.3. Check the play again.

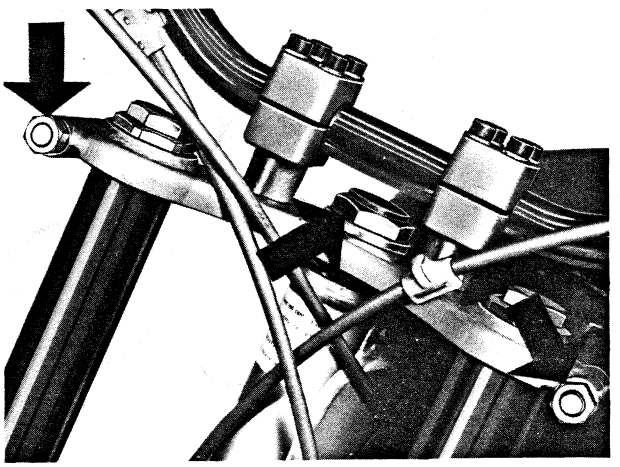


Fig. 5.3

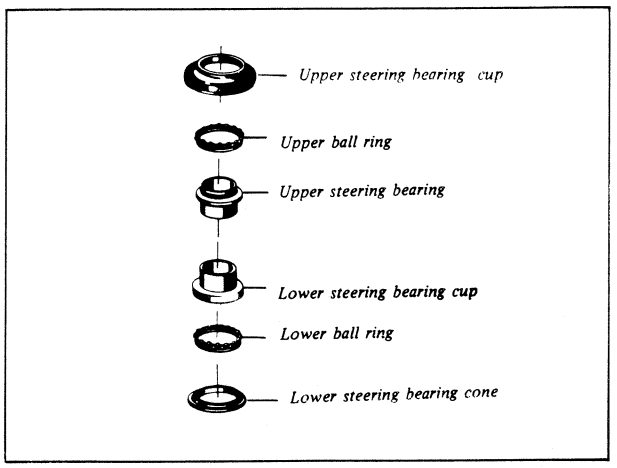


Fig. 6.1

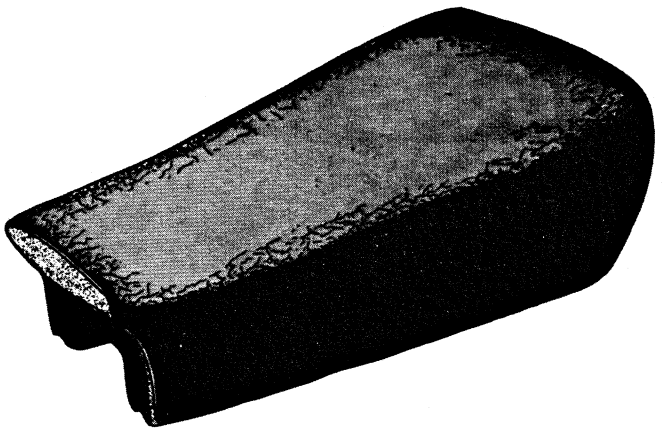
Time for repairs – maintenance.

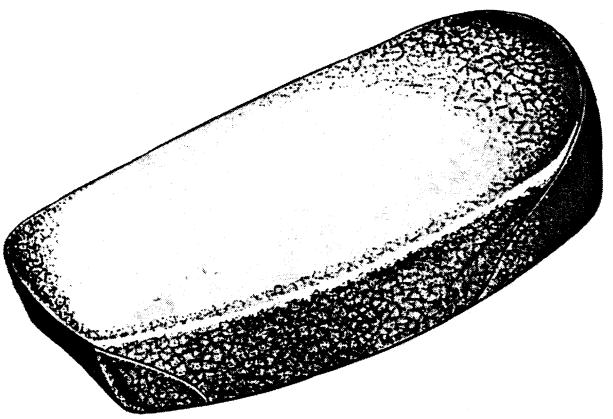
Check the adjustment of the steering bearings before each race. See fig. 5.2 and 5.3.

Dismantle the steering bearings for cleaning and greasing regularly.

If the bearings start to bind somewhere and the adjustment is still allright, replace the bearings.

Saddles





Replacing saddle upholstery
Remove the saddle by loosening the two attaching bolts and the attaching nut. See fig. 3.1.

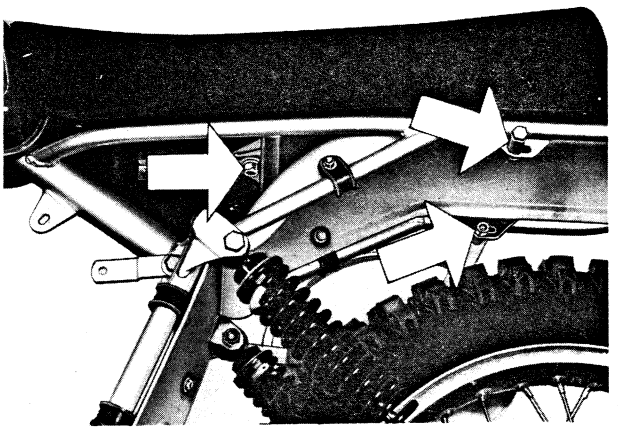


Fig. 3.1

Bend up the plate tips on the saddle plate and take off the saddle uppholstery. See fig. 3.2.

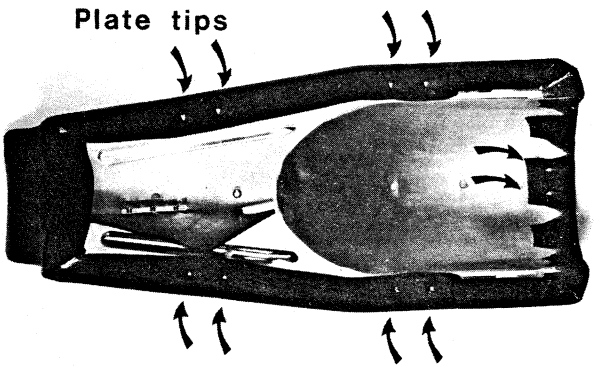


Fig. 3.2

Clean the saddle plate thoroughly.
Put on the new upholstery.
Begin at the front.
See to it that the upholstery is correct positioned.
See fig. 3.3.

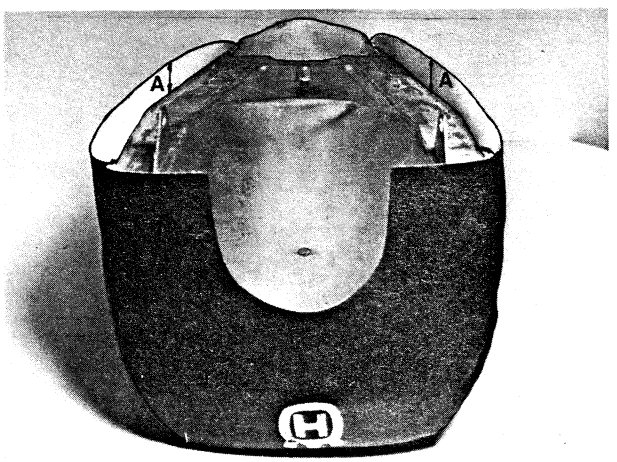


Fig. 3.3

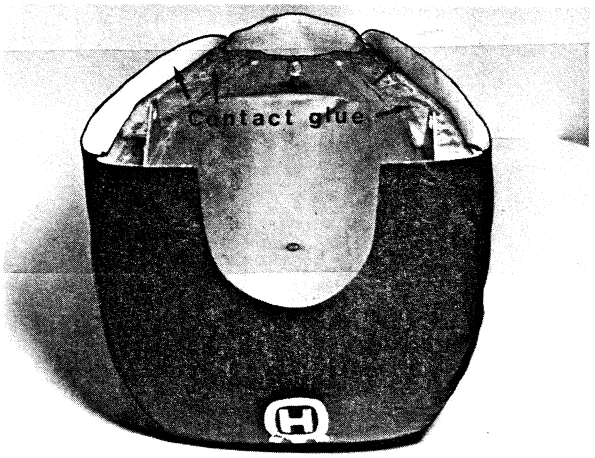


Fig. 4.1

Apply contact glue on those parts of the saddle plate and saddle upholstery that are suposed to come into contact. See fig. 4.1.

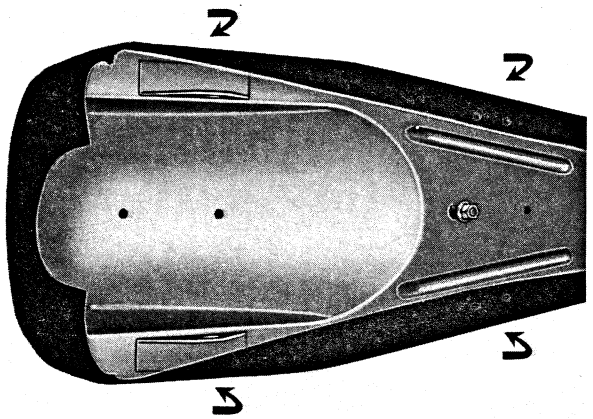


Fig. 4.2

Stretch the saddle upholstery flaps and press them to the glued surface. See fig. 4.2.

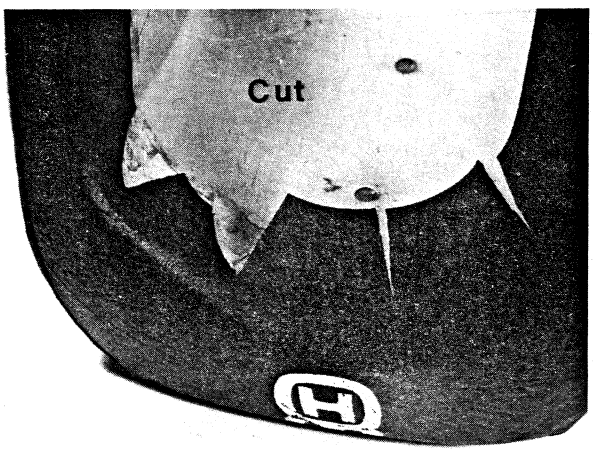


Fig. 4.3

To make the flaps fit with the saddle plate, cut them as shown in fig. 4.3.

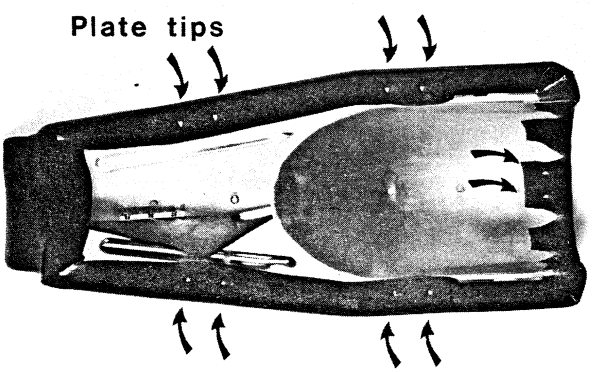
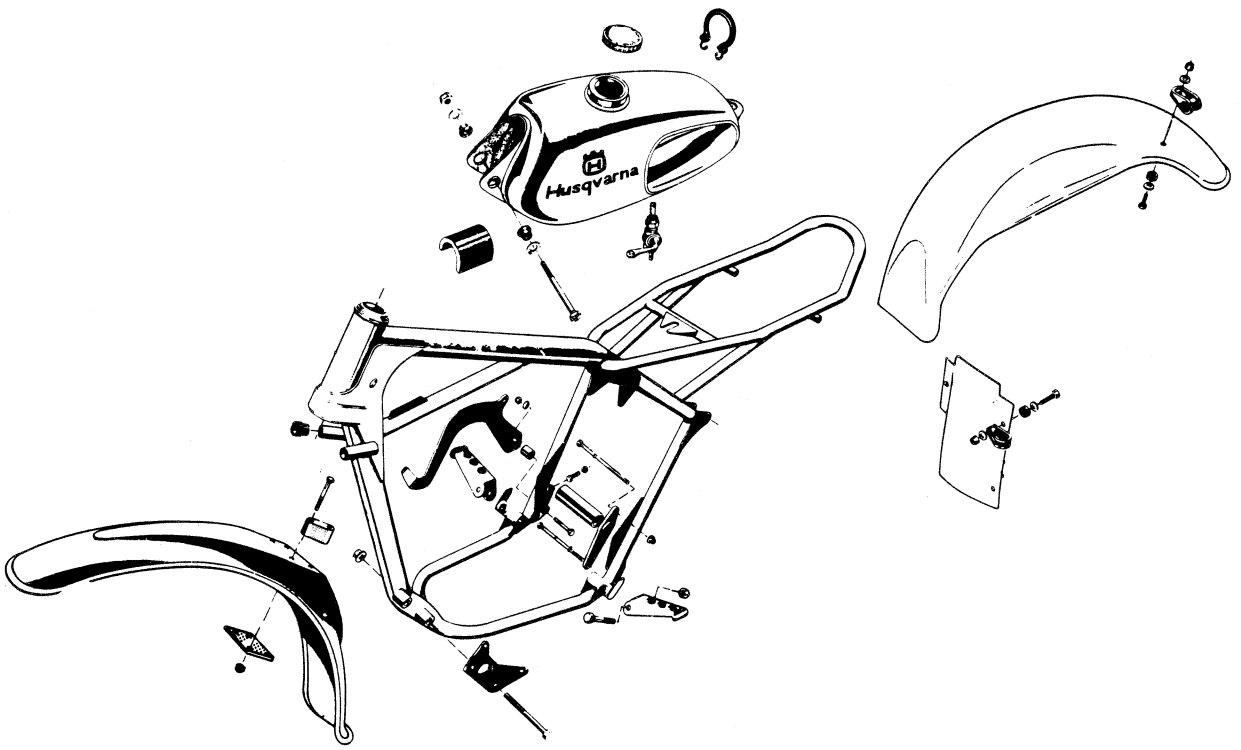


Fig. 4.4

Bend the plate tips back to their original positions. See fig. 4.4.

Repairs – frame parts



Frame
The frame is made of chrome moly tubing. Any welding must be done with welding wire AGA H52 or equivalent.

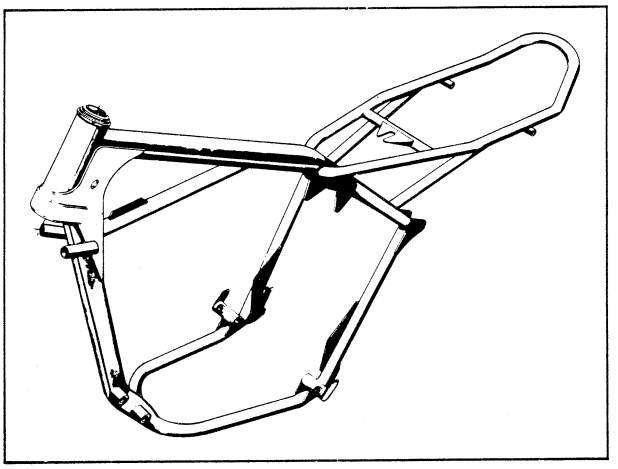


Fig. 3.1

The bushings of the rear engine mounting plates are pressed into position and it is very important that these bushings are stuck to the plates. If a bushing is loose, replace the mounthing plate.

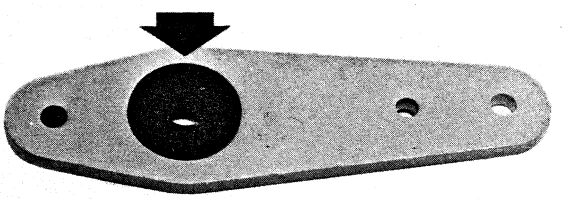


Fig. 3.2

The elastic bushing for the brake link of the MK- and SK- frames is replaced in the same manner as the elastic bushing of the rear brake plate. See chapter: wheels, part rear wheel Husqvarna.

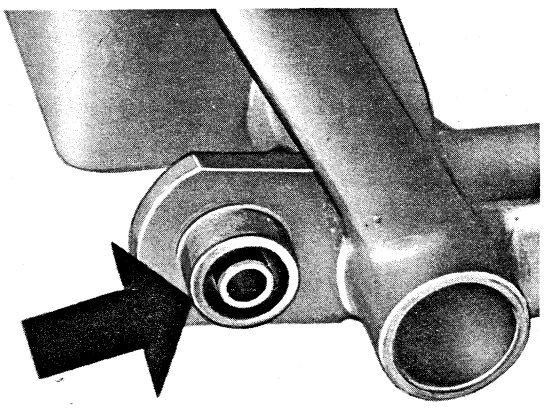


Fig. 3.3

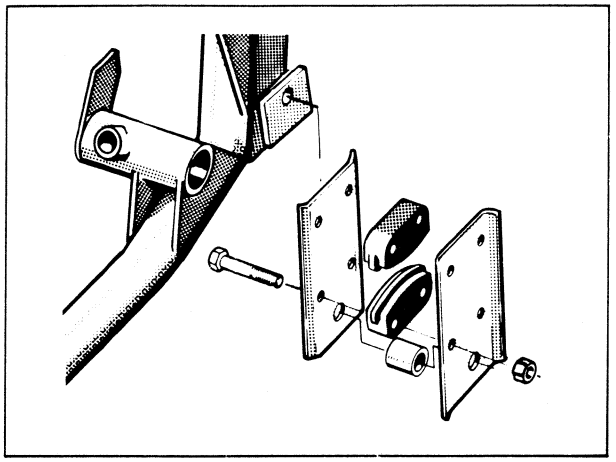


Fig. 4.1

Later CR-models have a chain tensioner with replaceable rubber elements. Replace the elements before the chain hits the screw in the middle of the element.

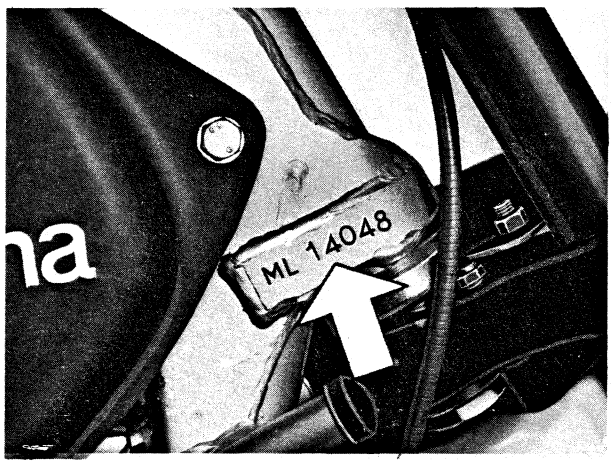


Fig. 4.2

The framenumber is placed on the steering-head. See fig. 4.2.

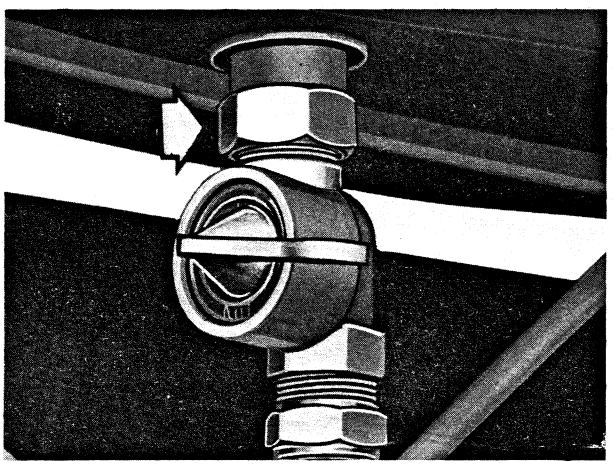


Fig. 4.3

Fuel cock
Dismantle the fuel cock regularly and clean the filter.

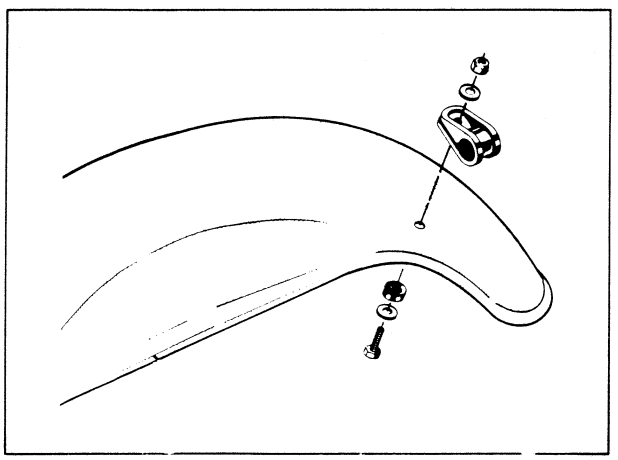


Fig. 4.4

Fenders
Fig. 4.4 shows the rubber suspension device for the rear fender and the splash guard of the ML-models.

The front fender is connected to the fork crown either as shown in fig. 5.1 or 5.2.

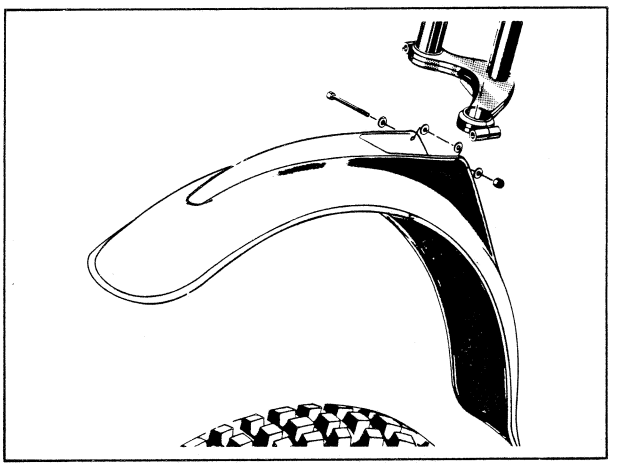


Fig. 5.1

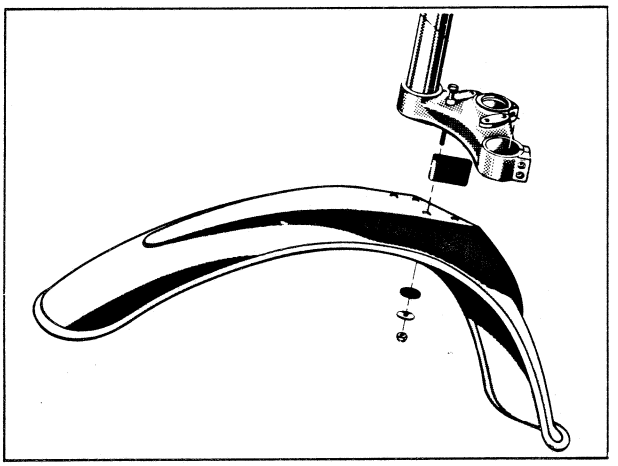


Fig. 5.2

Exhaust system

The absorber inside the final part of the exhaust system can be replaced after the exhaust end has been removed.

NOTE! Always make sure that the absorber is intact since defective absorber results in loss of power.

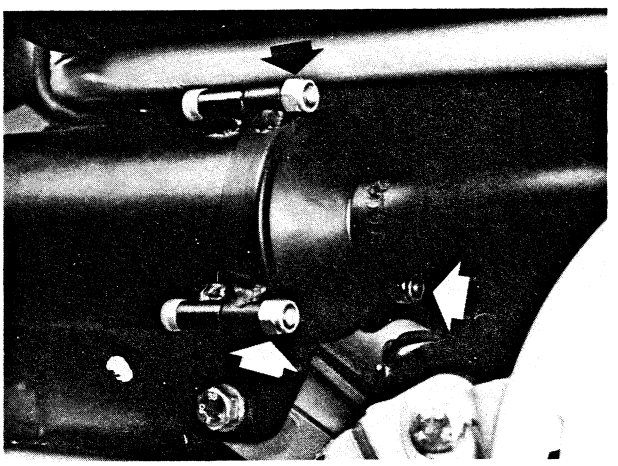
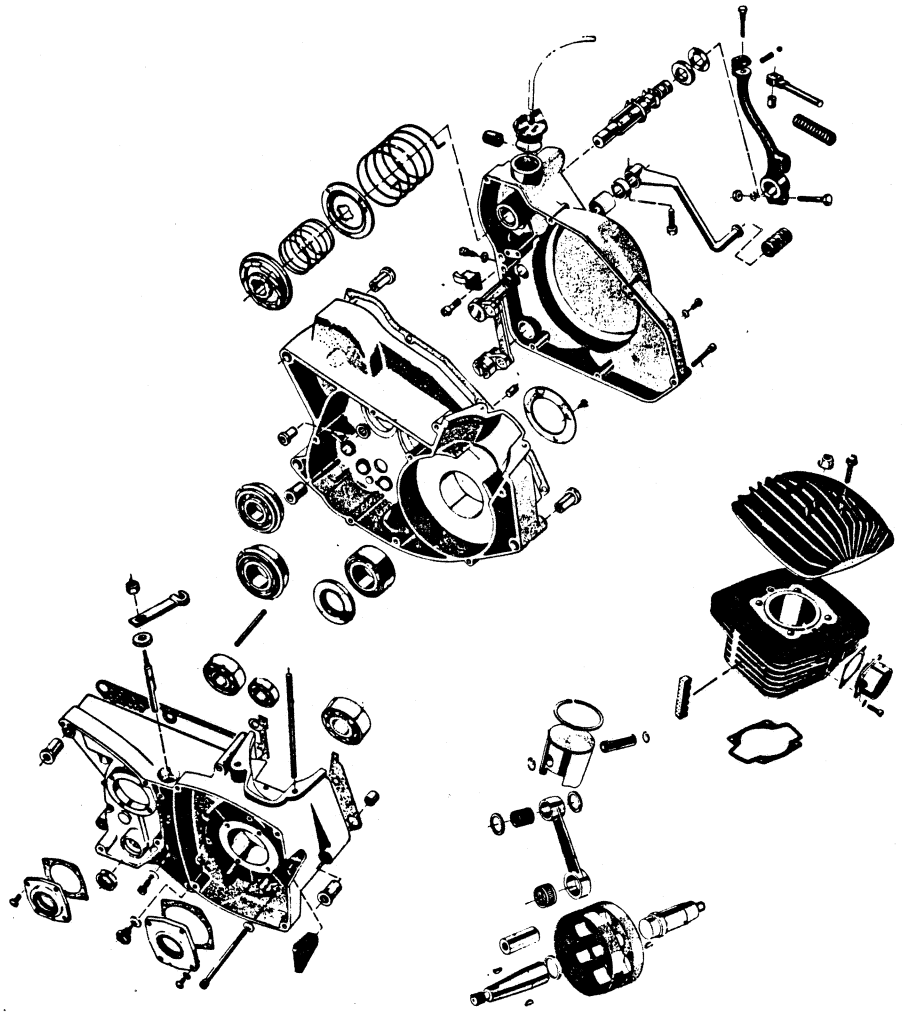


Fig. 5.3

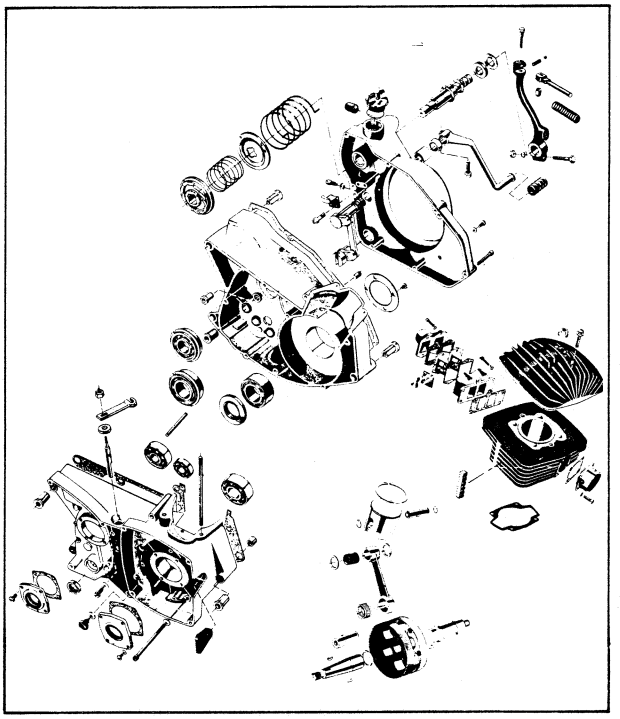
WORKSHOP MANUAL



ENGINE

M

Engine



This chapter covers the engine part of the motor cycle.

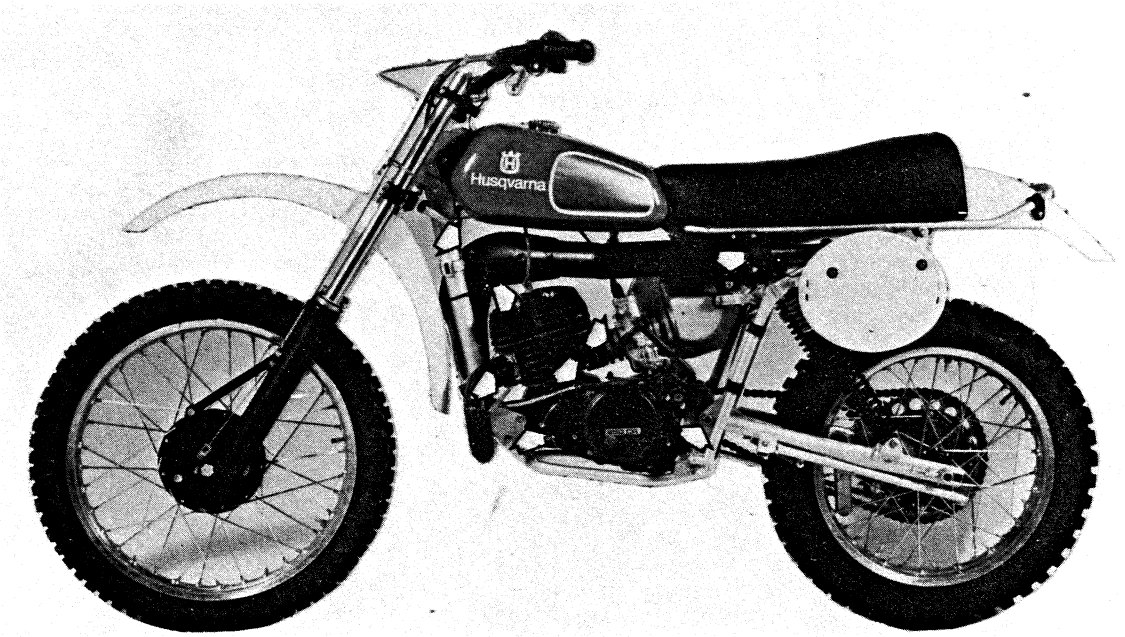
MA. Removing engine from frame

MB. Dissassembling and assembling engine

MC. Repairs engine parts

MD. Transmission cover

Removing engine from frame



Removing engine from ML-frame
Remove the exhaust system by loosening the two screws and unhooking the springs. See fig. 3.1.

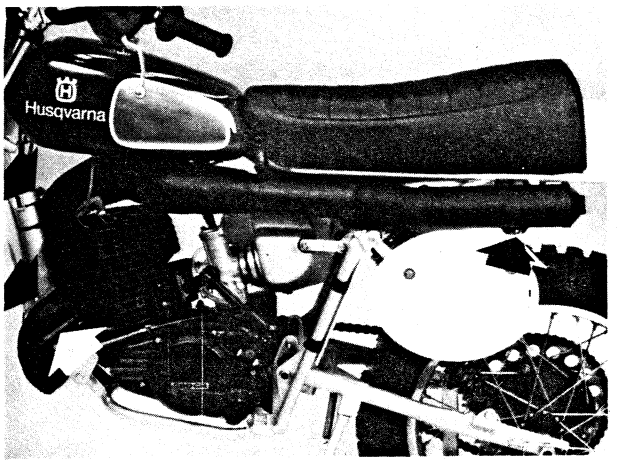


Fig. 3.1

Screw out the three nuts, loosen the clamp and take out the whole air filter.
Remove the carburettor. See fig. 3.2.

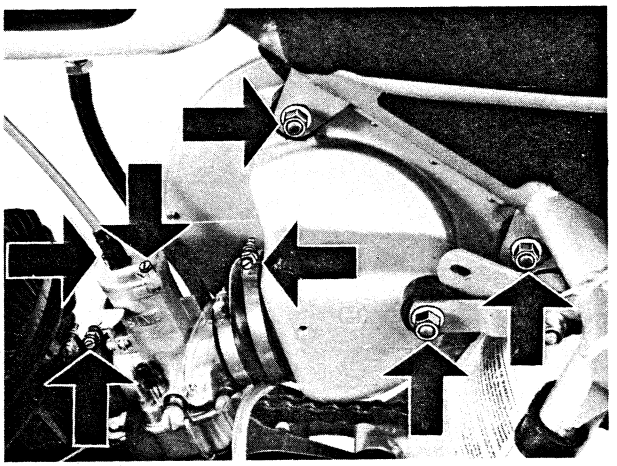


Fig. 3.2

Remove the kill button.
Take off the contacts from the ignition coil and let the cable hang down. See fig. 3.3 and 4.1.
Remove the clutch cable.

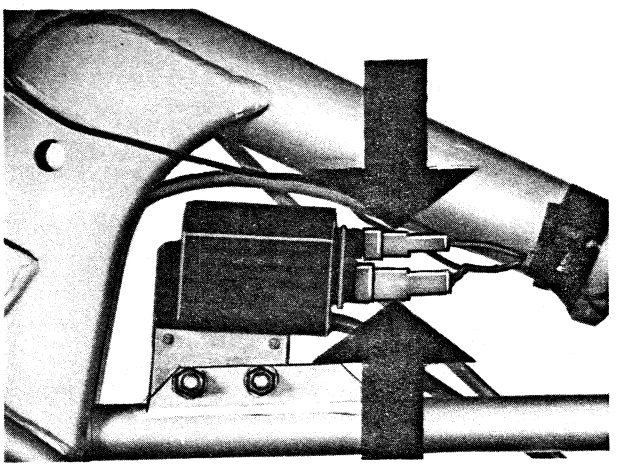


Fig. 3.3

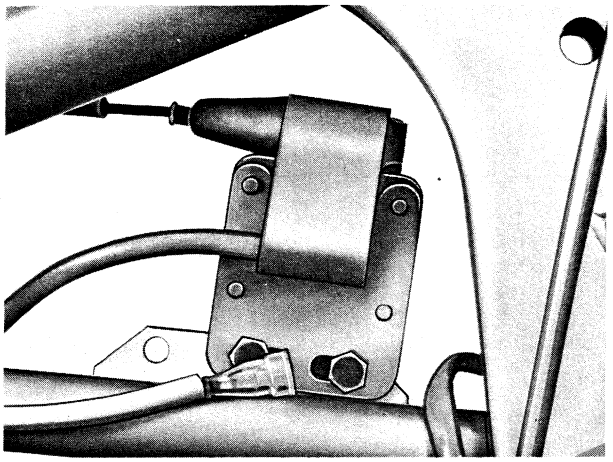


Fig. 4.1

Take off the chain masterlink and remove the chain. See fig. 4.1

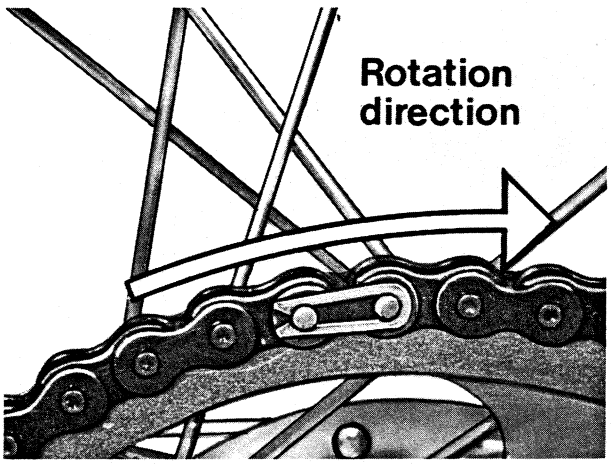


Fig. 4.2

Remove the front engine attaching bolts.
Remove the park stand by loosening the lower rear engine mounting bolt and the park stand attachment holding screw. Unscrew the nut from the rear fork attaching bolt.

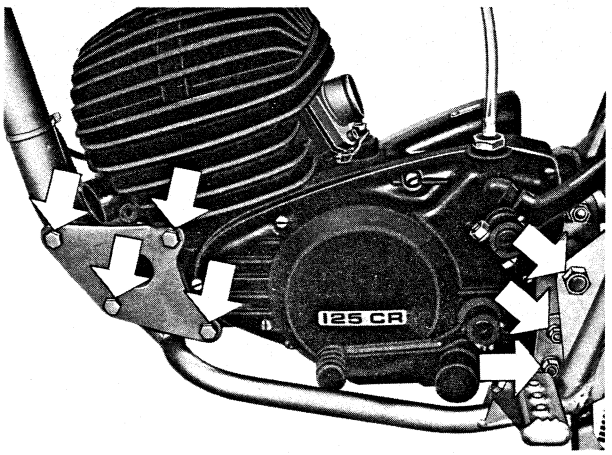


Fig. 4.3

Press out the rear fork attaching bolt until the engine is loose. Lift out the engine from the frame. Unscrew the remaining mounting bolt and remove the clamp plates from the engine.

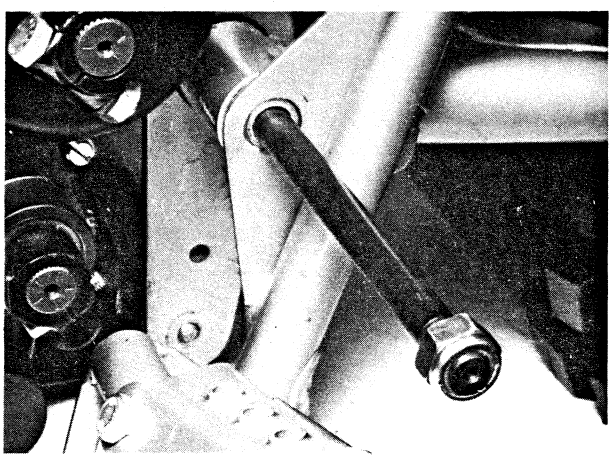


Fig. 4.4

Removing engine from MK-frame
Remove the exhaust system by loosening the two screws and unhooking the springs. See fig. 5.1.

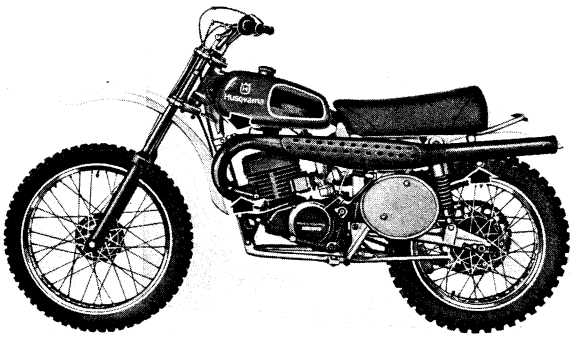


Fig. 5.1

Dismantle the air filter se chapter: Fuel system, part Air filter MK-model.
Remove the carburettor.

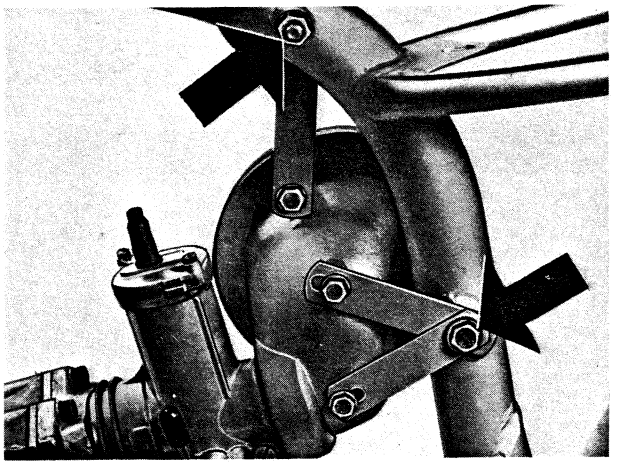


Fig. 5.2

Take off the contacts from the ignition coil and let the cable hang down. See fig. 5.3 and 6.1.
Remove the spark plug connection.

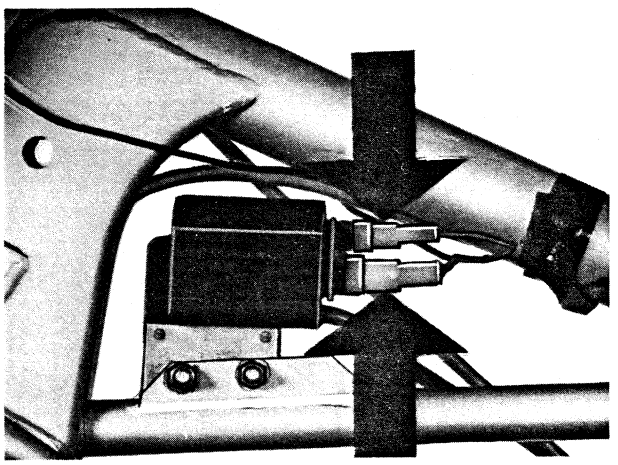


Fig. 5.3

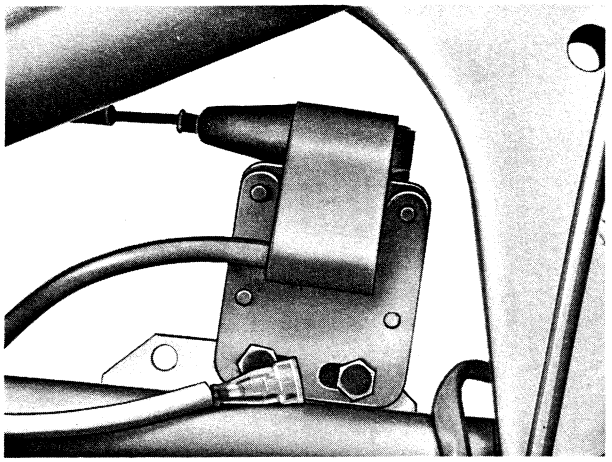


Fig. 6.1

Take off the chain masterlink and remove the chain. See fig. 6.2.

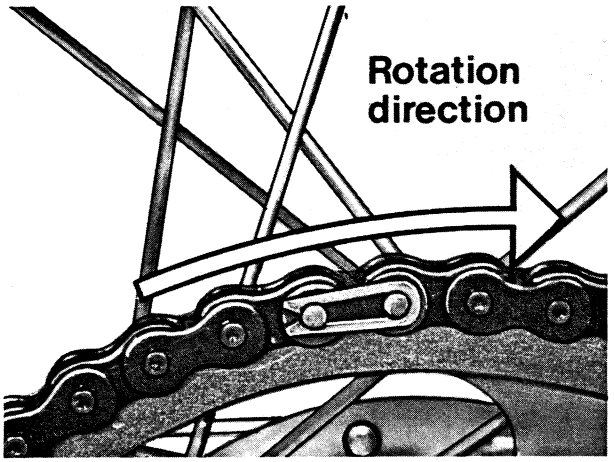


Fig. 6.2

Remove the clutch cable. Remove the engine attaching bolts and lift out the engine. See fig. 6.3.
NOTE! The rear lower bolt shall only be loosened.

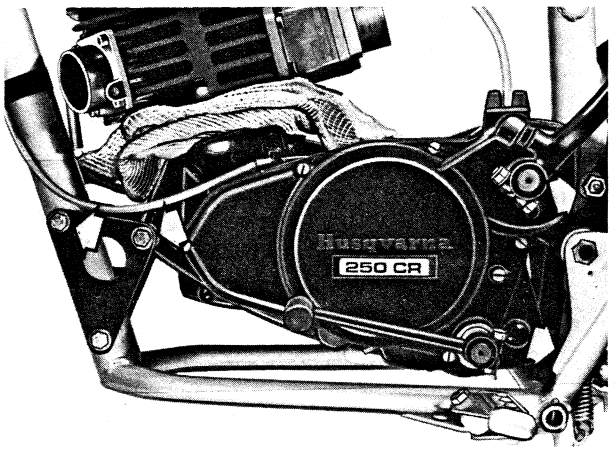
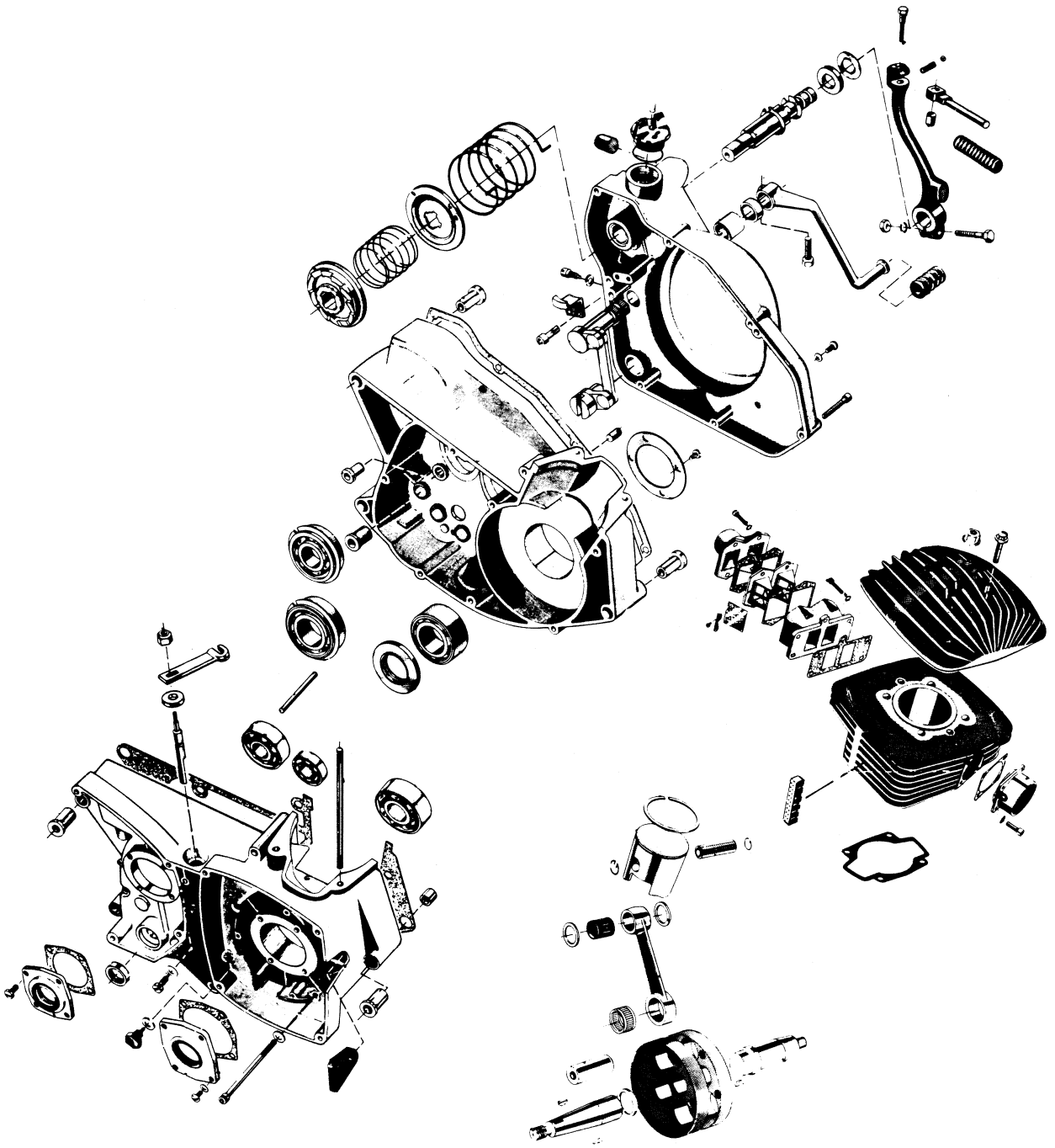


Fig. 6.3

Husqvarna motorcycles

Dissassembling and assembling engine



Disassembling engine
Drain the oil.
Loosen the cylinder head retaining nuts and screws. See fig. 3.1. Take off the cylinder head.

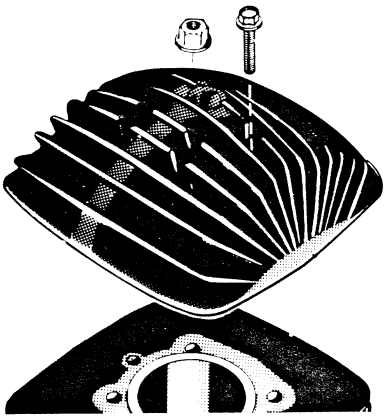


Fig. 3.1

Lift up the cylinder about 5 cm from the crankcase and place a clean rag in the crankcase opening to prevent dirt from entering the crankcase. See fig. 3.2.
Lift off the cylinder with the gasket.

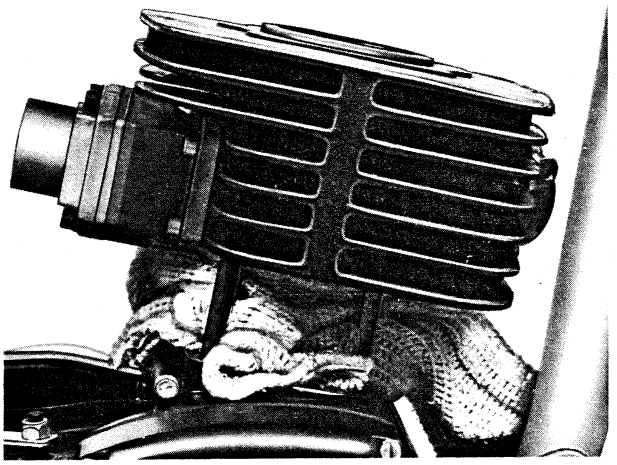


Fig. 3.2

Remove the piston pin circlips and press out the piston pin with a drift. See fig. 3.3.
Remove the needle bearing and the two spacing rings.

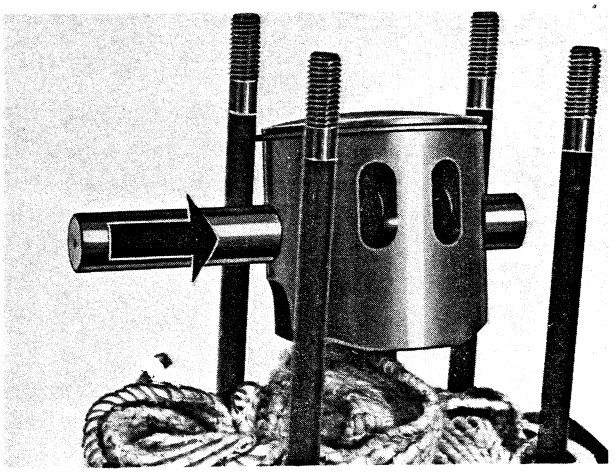


Fig. 3.3

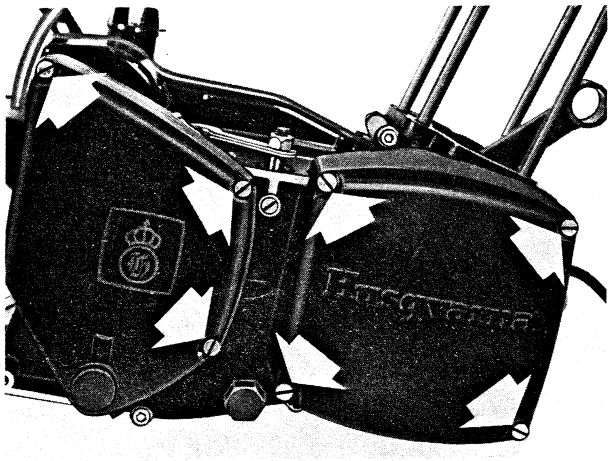


Fig. 4.1

Unscrew the magneto cover and the sprocket cover. See fig. 4.1
Remove the flywheel magneto see chapter: Electrical system.

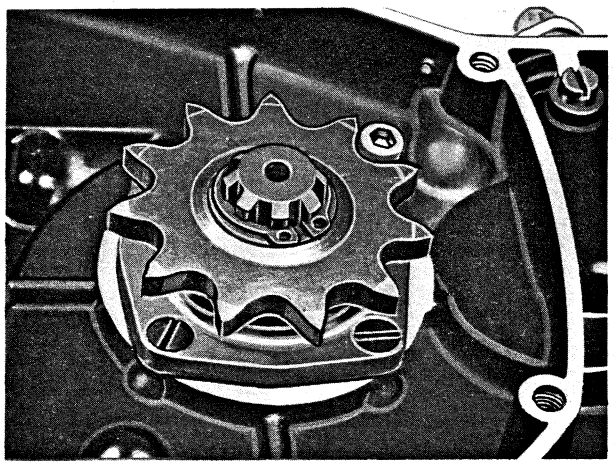


Fig. 4.2

Take off the circlip and remove the sprocket and the distance. See fig. 4.2

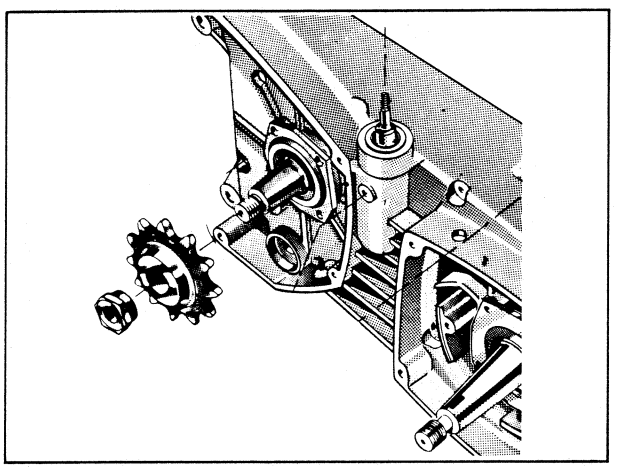


Fig. 4.3

Loosen the nut and pull off the sprocket. Use puller 15 19 275-01 and holder 15 19 278-01. See fig. 4.3
NOTE! The nut has left hand thread.

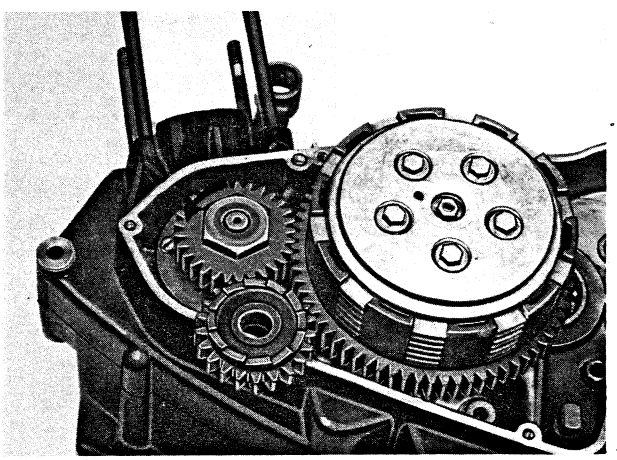


Fig. 4.4

Loosen the attaching screws and lift off the transmission cover.
NOTE! The shift lever and the kick starter pedal must not be removed from the cover.
Use the kick starter gear wheel to hold the drive gear and remove the drive gear nut. See fig. 4.4.

Place the drive gear puller in position and pull off the drive gear. See fig. 5.1
Disassemble the clutch. See chapter: Clutch.
Note! The engine is divisible without removing the clutch.

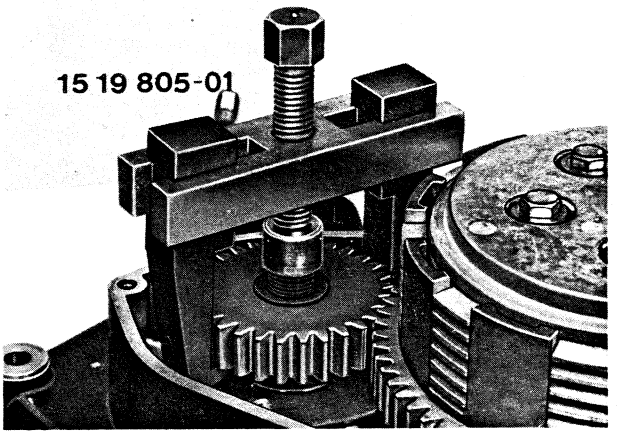


Fig. 5.1

Loosen the crankcase retaining screws. See fig. 5.2 and 5.3
NOTE! 360 RT, 400 cc-, 450 cc- and earlier 250 cc crankcases have two attaching screws in the left crankcase half. See fig. 5.3

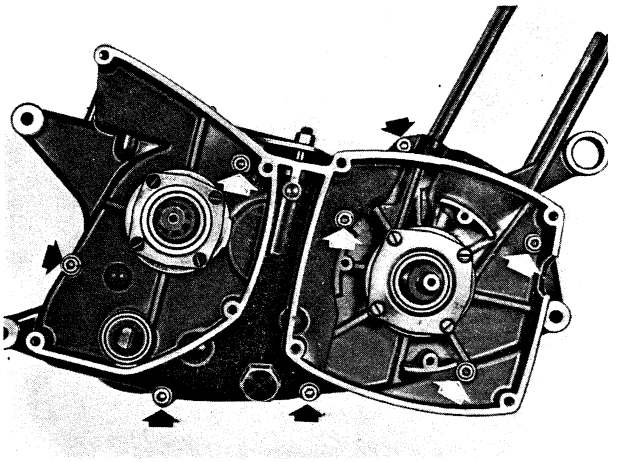


Fig. 5.2

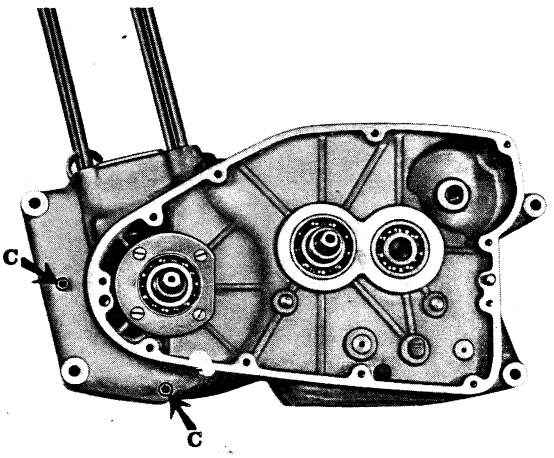


Fig. 5.3

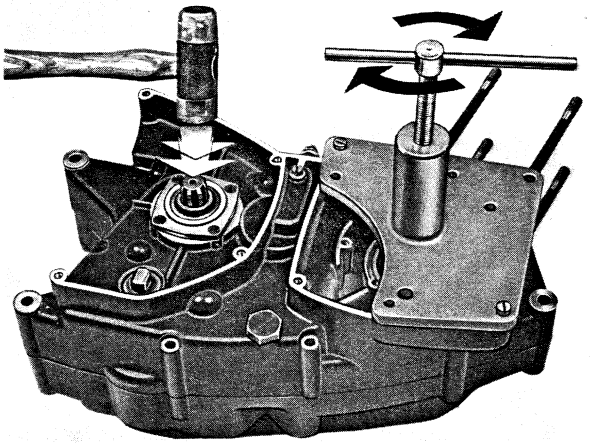


Fig. 6.1

Carefully pull the crankcase halves apart with a crankcase puller. Use a plastic mallet to easily knock down the sprocket shaft and the shifting shaft. See fig. 6.1
Crankcase puller 125 cc: 15 19 280-01
Crankcase puller 125 cc mag: 15 19 837-01
Crankcase puller 175 cc–360 cc: 15 19 810-01
Crankcase puller 360 RT, 400 cc, 450 cc and earlier 250 cc: 15 19 257-01

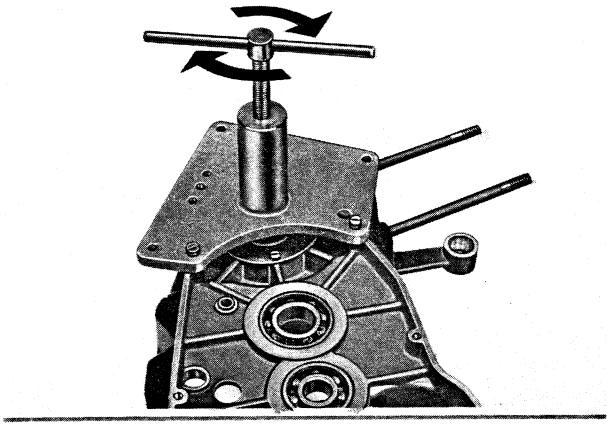


Fig. 6.2

Dismantle the gearbox from the engine See chapter: Gearbox.
Use the crankcase puller and press out the crankshaft from the main bearing. See fig. 6.2.

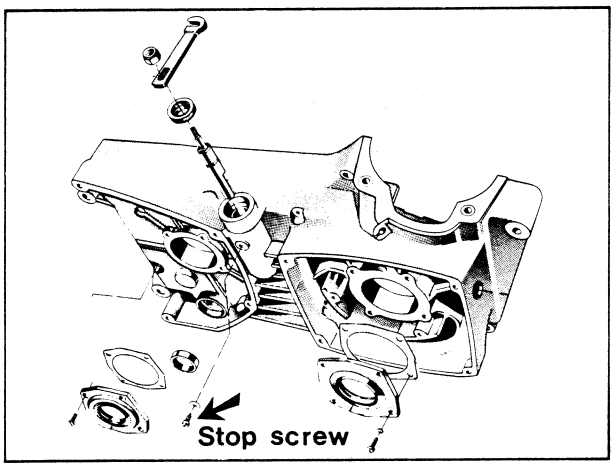


Fig. 6.3

Remove the sealing ring flanges. The declutching shaft is hold in position by the stop screw in the crankcase half. See fig. 6.3.

Fig. 6.4

The shifting shaft–and the left side crank shaft sealing rings are pressed direct into the crankcase halves and must be removed with a screwdriver or similar. See fig. 6.4.

Assembling engine
NOTE! When assembling the engine is it very important to lubricate all sliding and rolling surfaces very carefully.

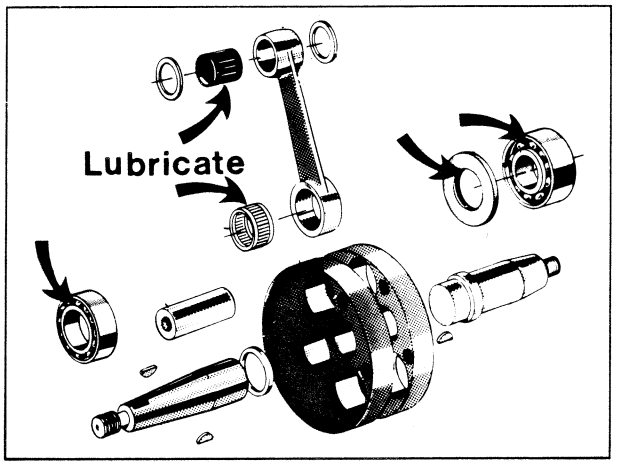


Fig. 7.1

Install the support washer for the left main bearing. Lock the screws with Loctite 241 and tighten to 3 Nm.

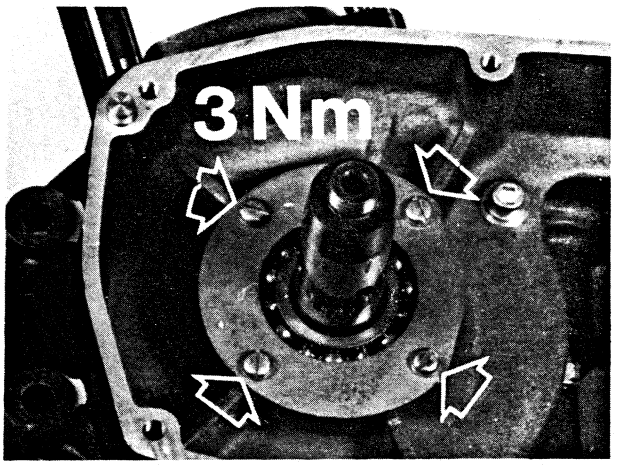


Fig. 7.2

Carefully knock the crankshaft sealing ring in position into the left crankcase half. See fig. 7.3.
NOTE! Both Ø 28 mm and Ø 30 mm sealing rings have been used. Measure the crank shaft so the correct sealing ring is used.

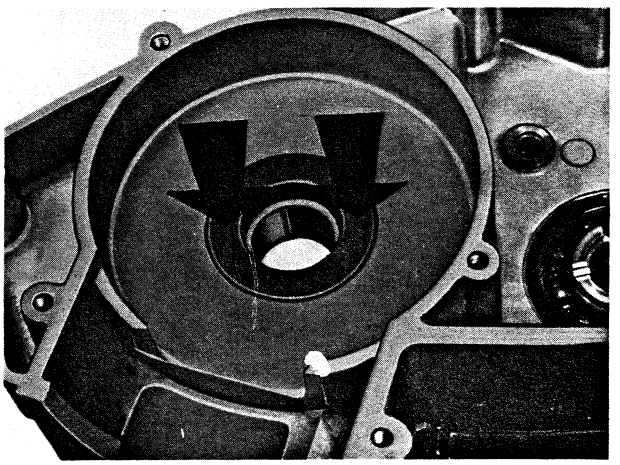


Fig. 7.3

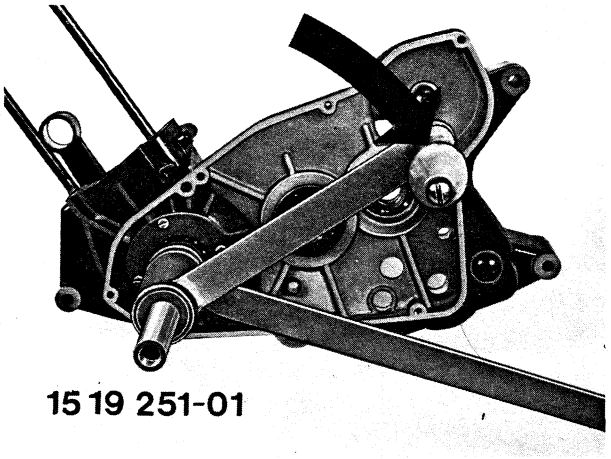


Fig. 8.1

Lubricate the crankshaft and pull it in position in the left crankcase half. Locate the rod through the cylinder barrel opening. See fig. 8.1.

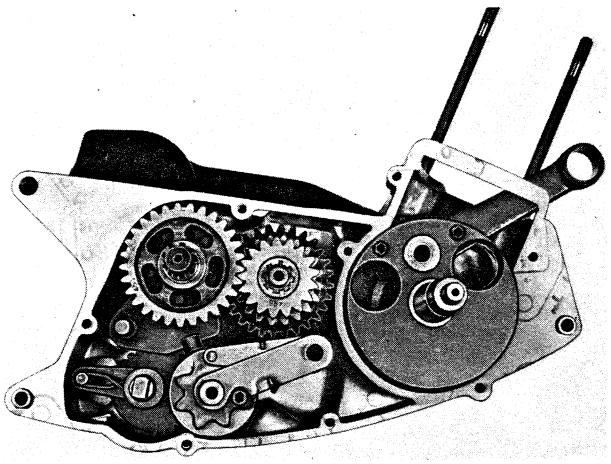


Fig. 8.2

Install the gearbox. See chapter: Gearbox. Put the crankshaft distance washer in position. Apply a new crankcase gasket.

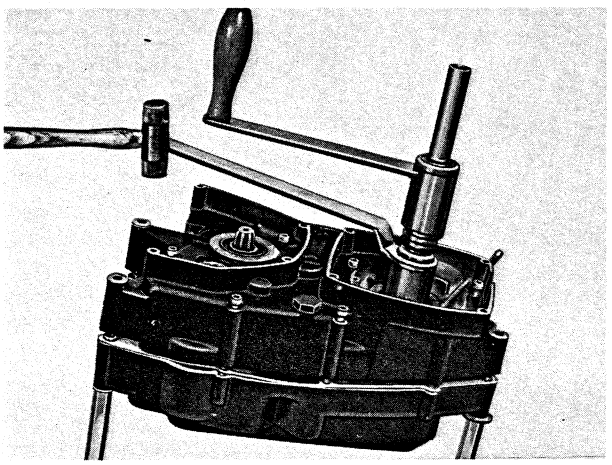


Fig. 8.3

Use a mounting tool and assemble the crankcase halves. Use a plastic mallet to easily knock on the rear part of the crankcase when pressing together. See fig. 8.3.

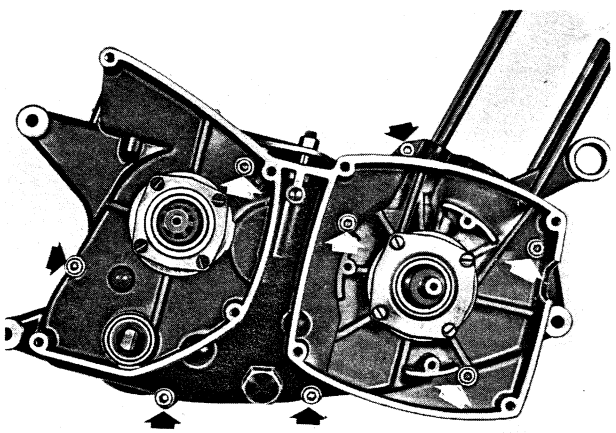


Fig. 8.4

Tighten the crankcase attaching screws to 8 Nm. See fig. 8.4.
NOTE! 450 cc, 400 cc, 360 RT and earlier 250 cc have two retaining screws in the left crankcase half. See fig. 9.1.

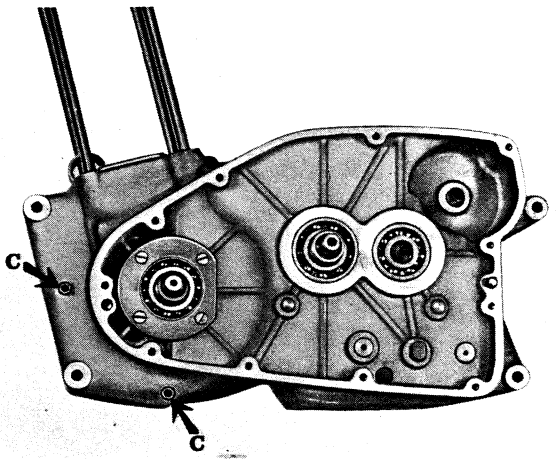


Fig. 9.1

Insert the declutching shaft through the sealing ring. Install the declutching shaft into the crankcase. Press the sealing ring into position and assemble the stop screw. Mount the lever. See fig. 9.2.

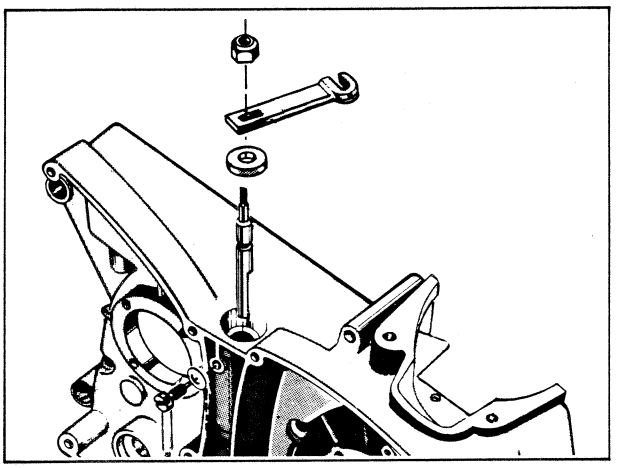


Fig. 9.2

Press new sealing rings into the flanges. Install the flanges with gaskets, screws and washers on the right crankcase half. See fig. 9.3. Lock with Loctite 241 and tighten to 3 Nm.
Note! The sprocket shaft flange has not got any washers.
NOTE! Lubricate the sealing ring leaps very carefully before assembling.

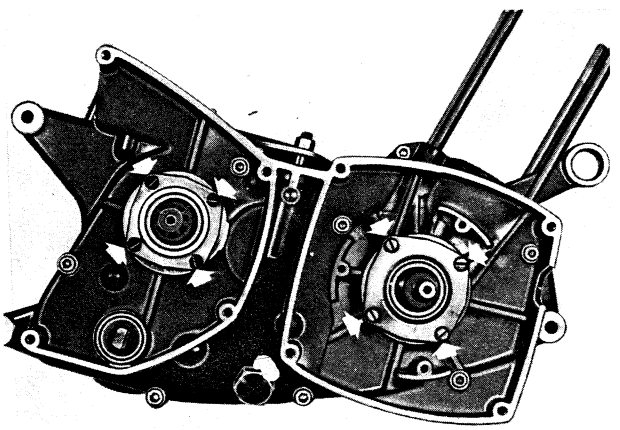


Fig. 9.3

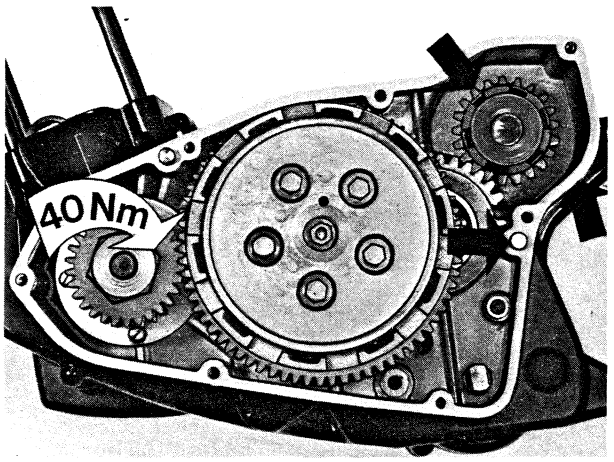


Fig. 10.1

Install the clutch. See chapter: Clutch. Install the drive gear and tighten the nut to 40 Nm. Put the start gear wheel and a new gasket in position

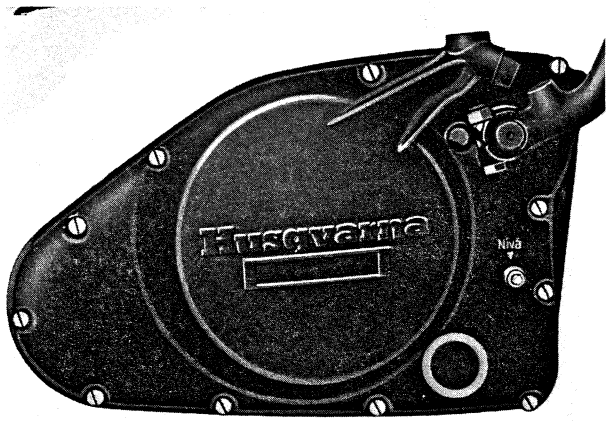


Fig. 10.2

Assemble the transmission cover. See fig. 10.2.

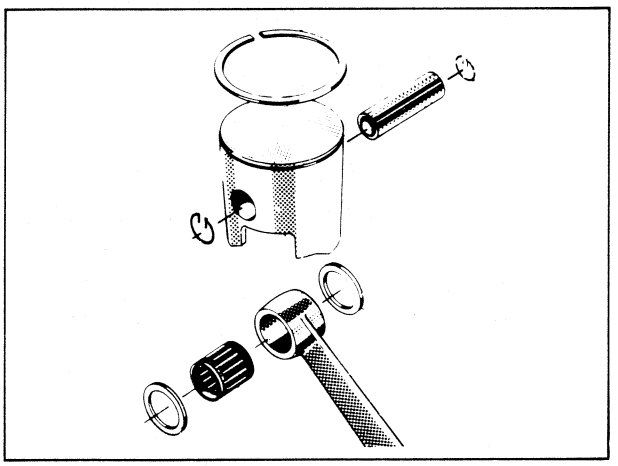


Fig. 10.3

Install the piston pin needle bearing. Assemble the piston. See fig. 10.3.
NOTE! Make sure that the distance rings and the circlips are correct positioned. See fig. 10.4.
Assemble the piston ring.

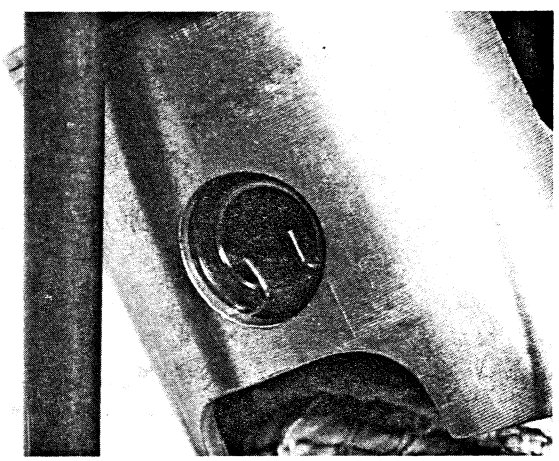


Fig. 10.4

Install a new gasket and assemble the cylinder. Carefully oil the cylinder bore and piston ring and fit the cylinder over the piston. See fig. 11.1
NOTE! make sure that the piston ring is placed correctly in relation to its locking pin and carefully push on the cylinder so as not to damage the piston ring.

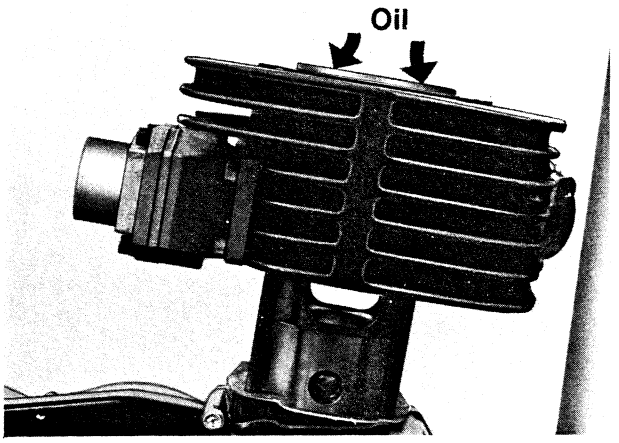


Fig. 11.1

Fit the cylinder head and tighten the four retaining nuts and the two screws moderately.
Then tighten them alternately up. See fig. 11.2.
Tighten the screws to 20 Nm and the nuts to 25 Nm.
NOTE! The cylinder head nuts on 125 cc engines shall only be tightened to 20 Nm.

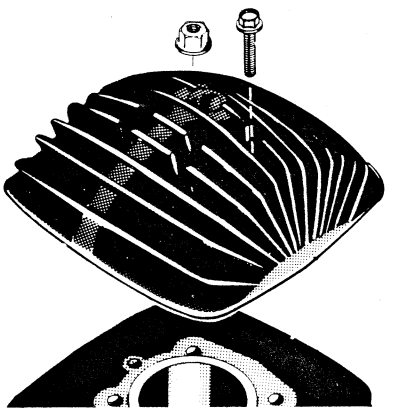


Fig. 11.2

Install the magneto. See chapter: Electrical system.
Assemble the distance ring on the sprocket shaft. See fig. 11.3.

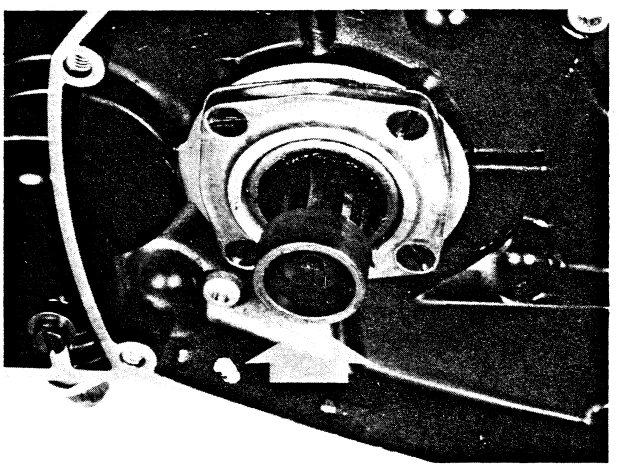


Fig. 11.3

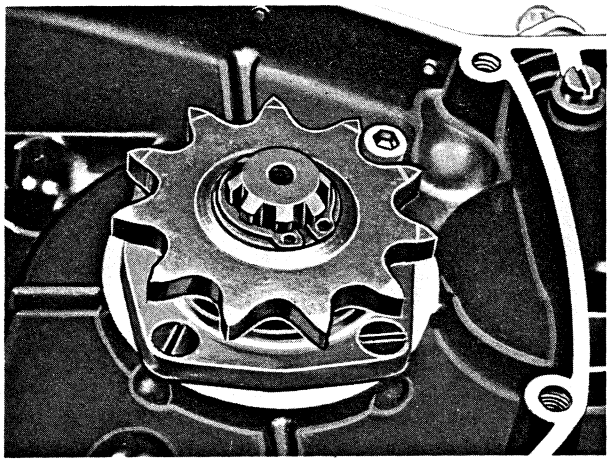


Fig. 12.1

Mount the sprocket. Position the circlip into the groove in the sprocket shaft. See fig. 12.1.

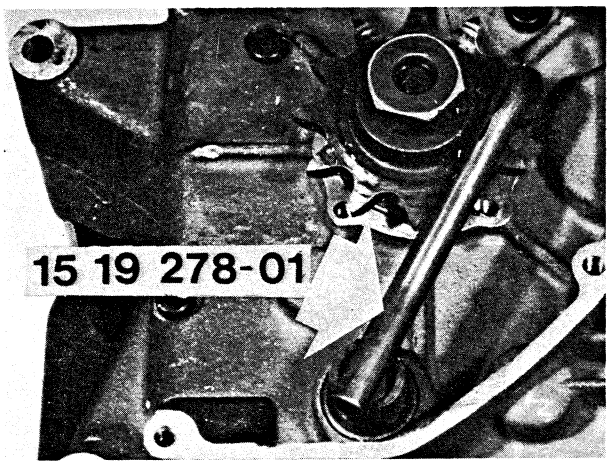


Fig. 12.2

Earlier model sprocket shafts have conical attachment for the sprocket. Before fitting the sprocket grind it in with grinding compound. Wipe the cones free from grinding compound and assemble the sprocket. Tighten the nut to 70 Nm.
NOTE! Left-hand thread.

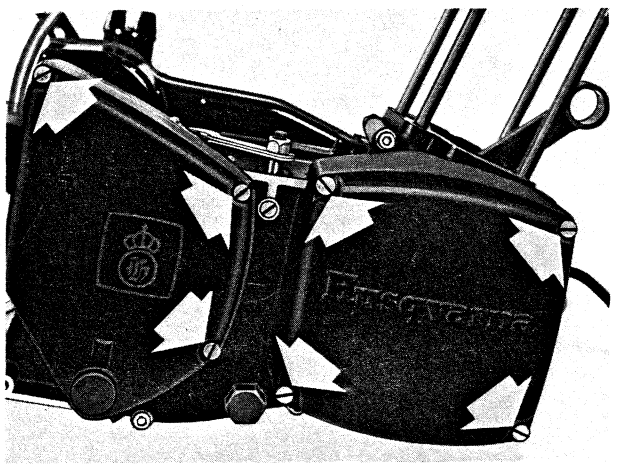
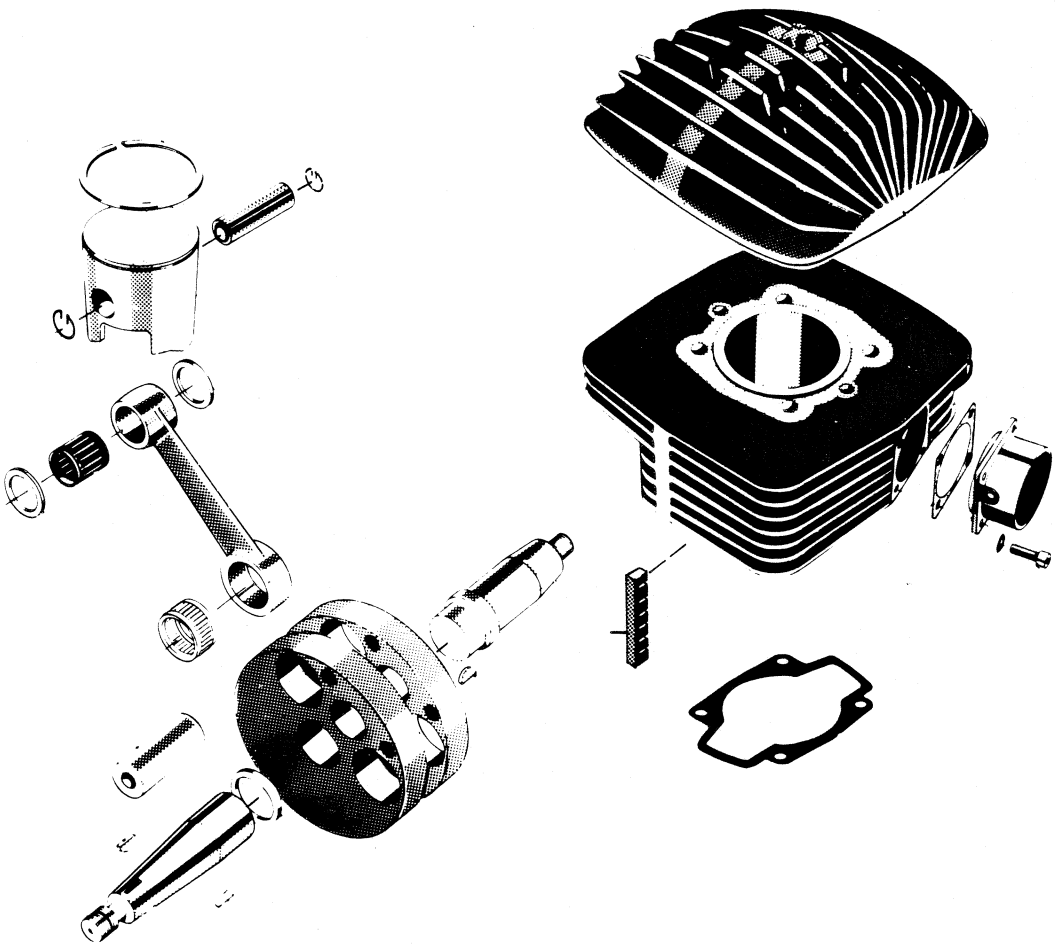


Fig. 12.3

Install the magneto cover and sprocket cover.

Husqvarna motorcycles

Repairs engine parts



Replacing ball bearings

Disassemble the engine completely. See part: Disassembling engine.

Heat the crankcase halves to approximately 200°C. Use an oven or a bunsen burner. Heat slowly and evenly. When the correct temperature is reached, carefully knock out the bearings by knocking the crankcase half easily into a piece of wood.

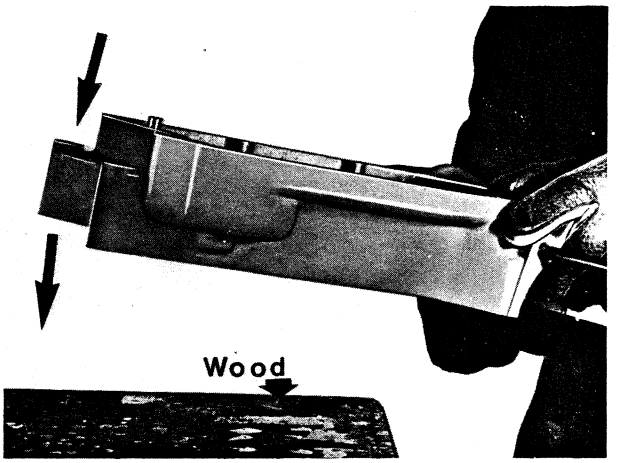


Fig. 3.1

New bearings are positioned while the crankcase halves are still warm.

Before fitting new bearings install the support washer on the left crankcase half and the sealing ring flanges, without any gaksets, on the right crankcase half.

Make sure that the bearings are positioned stuck to the washer respective flanges. See fig. 3.2 and 3.3.

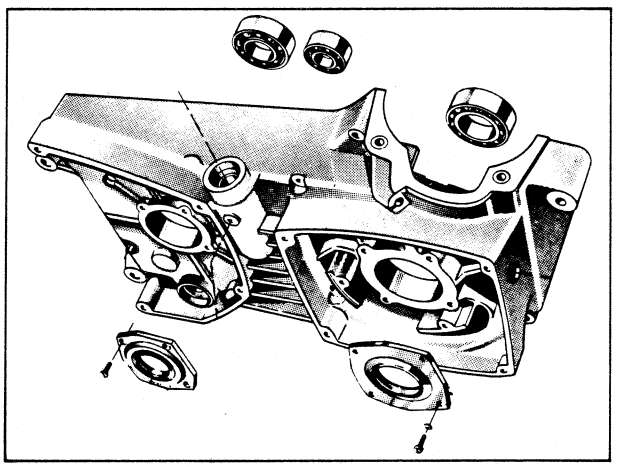


Fig. 3.2

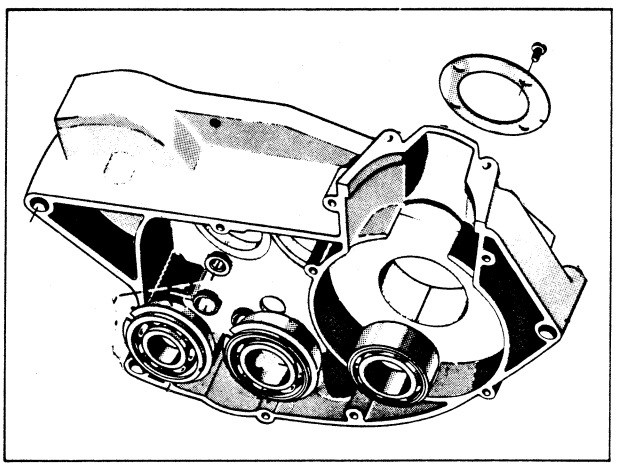


Fig. 3.3

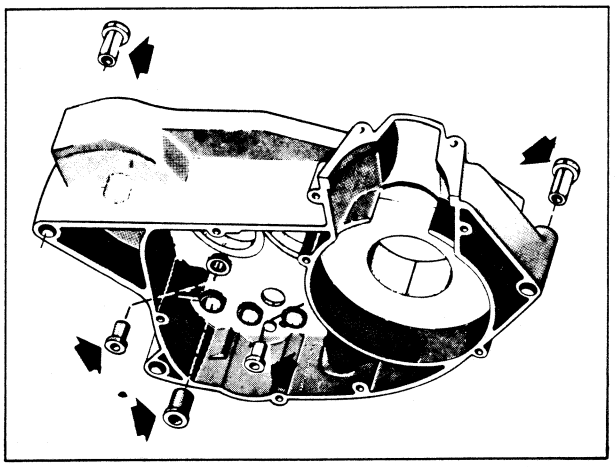


Fig. 4.1

When replacing any of the crankcase bushings is it advisable to heat the crankcase to approximately 150°C.
NOTE! Don't heat to much because then there is risk for the bearings to move from their positions.

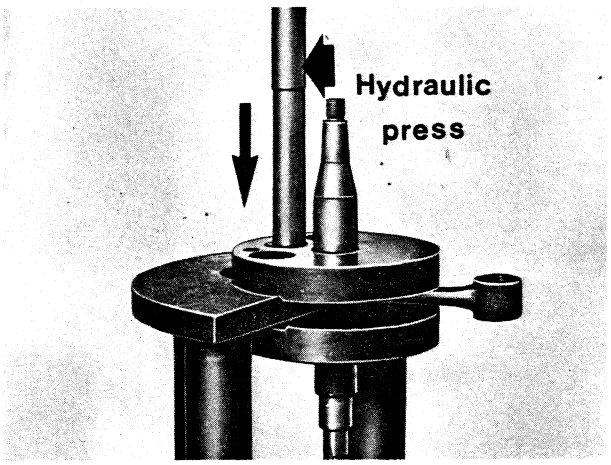


Fig. 4.2

Replacing big end bearing
Press out the crank pin from one of the discs. Place a support under the upper disc. See fig. 4.2.

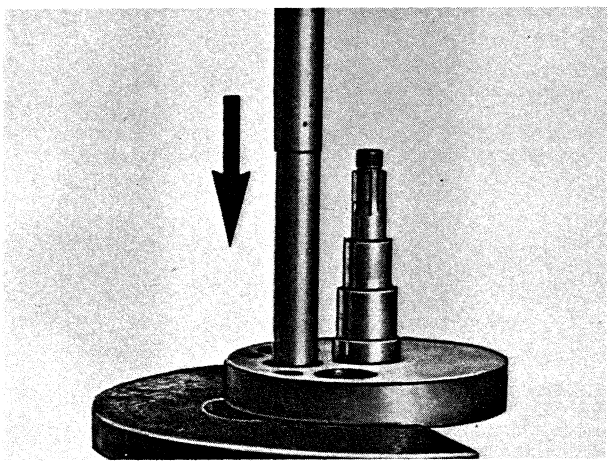


Fig. 4.3

Press out the pin from the other disc in the same manner.
NOTE! Always press the pin inwards when dismantling.

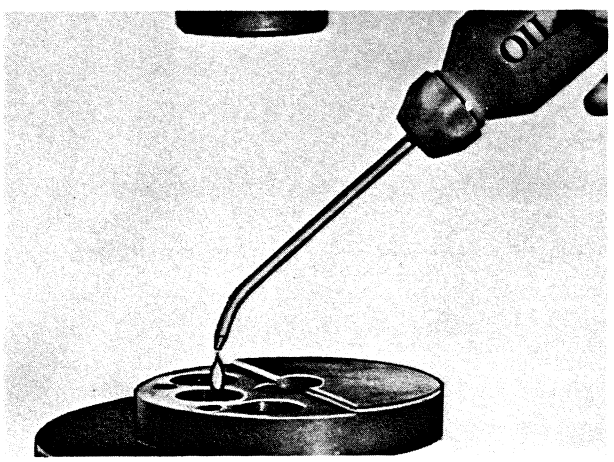


Fig. 4.4

Take out the new parts and lubricate the crank pin and the hole. See fig. 4.4.

Press the crank pin into one of the crank discs from inside.
See fig. 5.1.

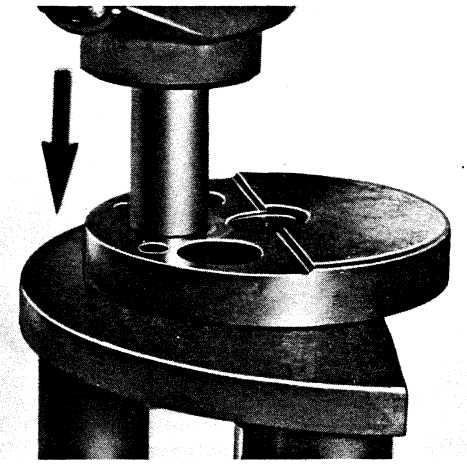


Fig. 5.1

Mount the needle bearing and the connecting rod.
See fig. 5.2. Lubricate the bearing.

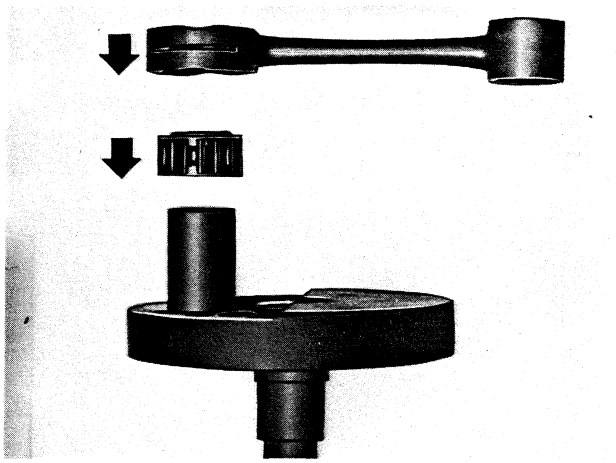


Fig. 5.2

Adjust the other crank disc by means of a rule.
See fig. 5.3.

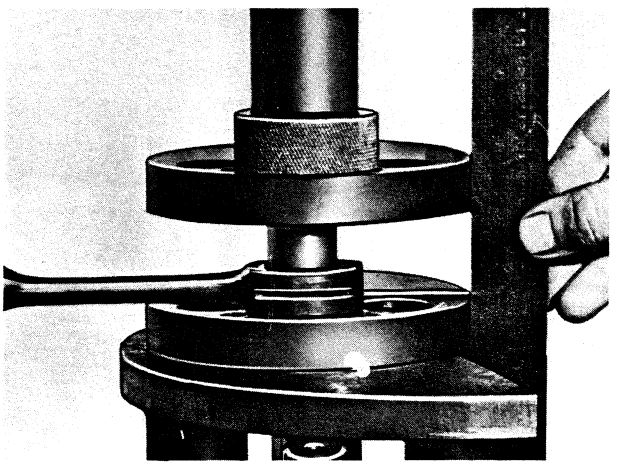


Fig. 5.3

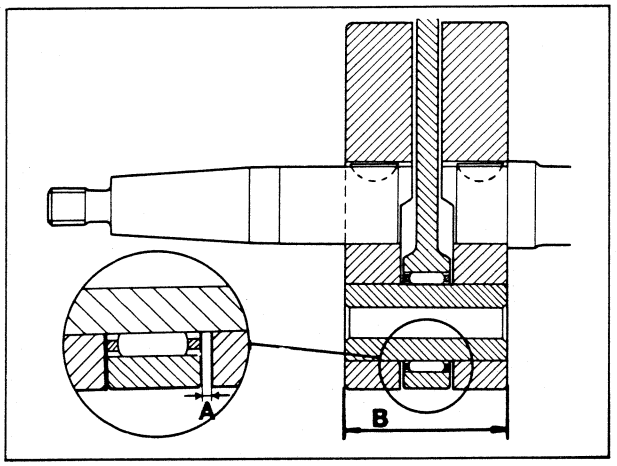


Fig. 6.1

Press on the crank disc until the measurements shown in the table below is obtained. See fig. 6.1.

Model	A	B
125 cc	–	48±0,1
175 cc	–	52±0,1
250 cc	–	52±0,1
250 RT	–	52±0,1
360 cc	min. 0.5	52±0,1
360 RT	min. 0.4	57±0,2
390 cc	min. 0.5	52±0,1
400 cc	min. 0.3	52±0,1
450 cc	min. 0.4	57±0,2

NOTE! The connecting rods on 125 cc, 175 cc and 250 cc are guided by the piston, so in these cases shall the disc be pressed on until measure B is obtained.

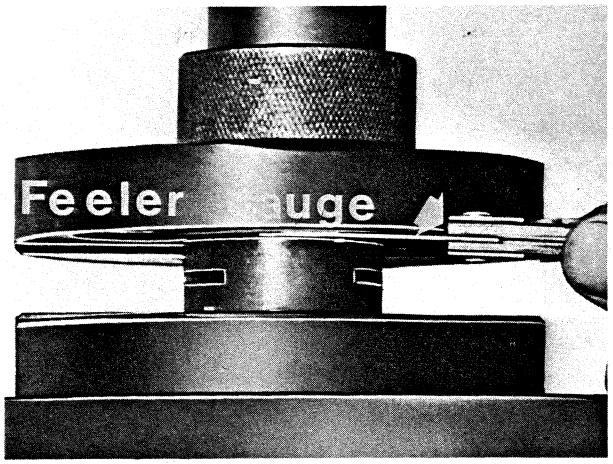


Fig. 6.2

The crank shafts are replaced in the same manner.
NOTE! The right crank shaft shall only be pressed on until it is in a position 0.2 mm before the inside level position.
On Automatics shall the right crank shaft be positioned 1 mm from level position.

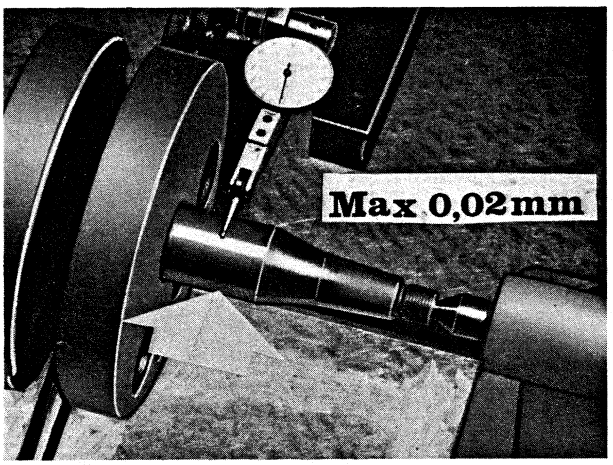


Fig. 6.3

Check the jerks of the crank shaft by means of an indicator clock.
NOTE! The jerks must not exceed 0.02 mm at the bearing positions according to fig. 6.3.

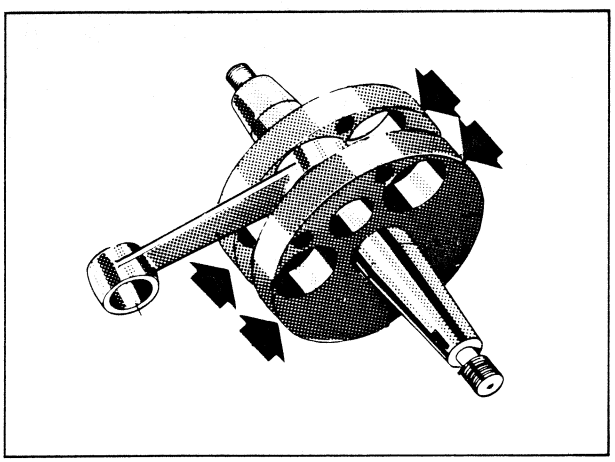


Fig. 6.4

The crankshaft is tuned by knocking the crank discs by means of a lead hammer or the like so that the discs are turning around the crank pin in the correct direction.

Time for repairs-maintenance
Replace the ball bearings as soon as any play is detected. Check for play by pulling at the ends of the shafts in the radial direction.

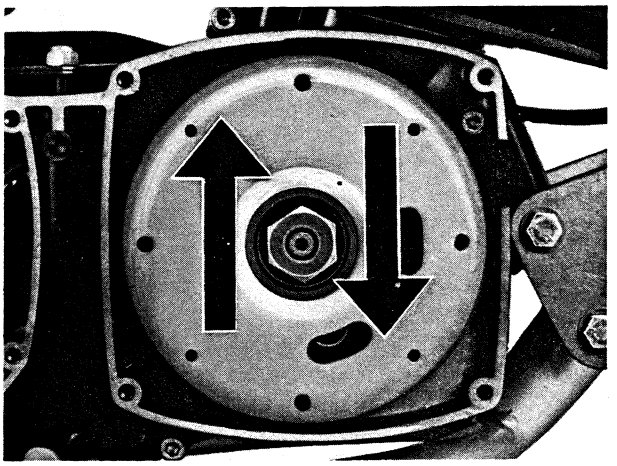


Fig. 7.1

Replace the big end bearing when the radial play amounts to 0,07 mm. Radial play can be measured by means of a vice and a dial indicator.
See fig. 7.2.

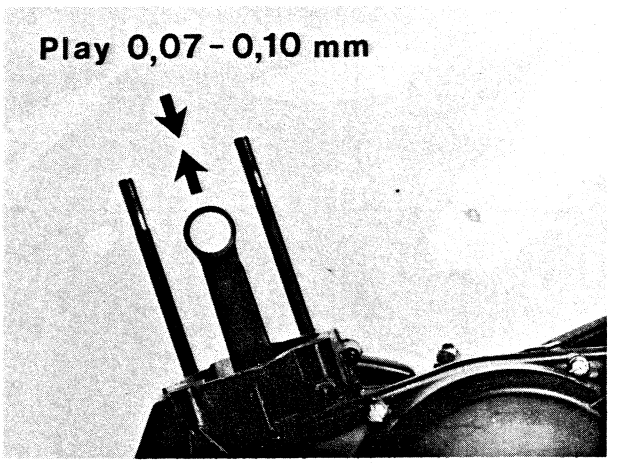


Fig. 7.2

The cylinder should be bored up to oversize when the wear on its top section amounts to 0,15 mm, i.e. when the difference between measurements A and B in fig. 7.3 amounts to 0.15 mm.

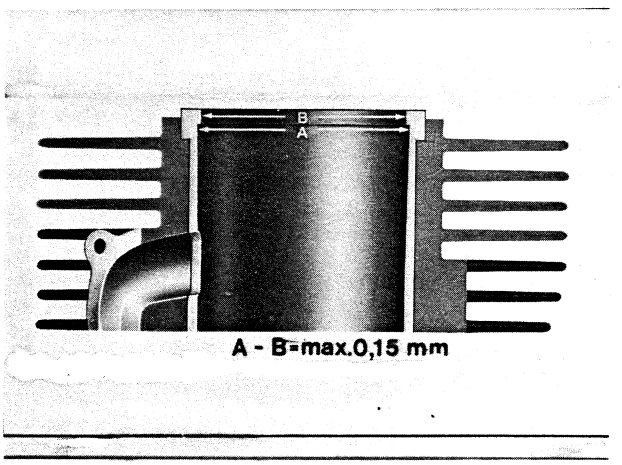


Fig. 7.3

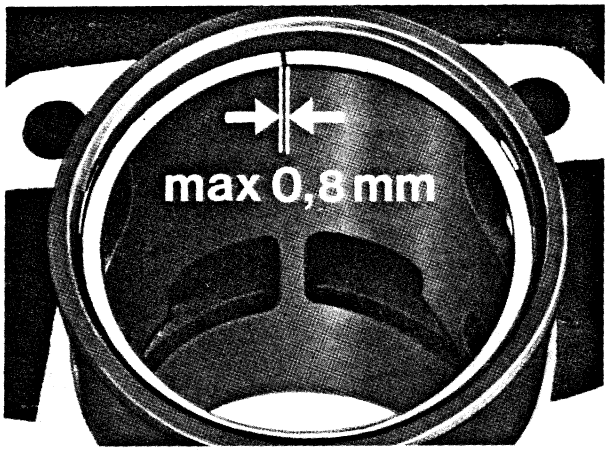


Fig. 8.1

Check the wear on the piston ring by placing it in the lower part of the cylinder bore. Measure the distance between the piston ring ends with a feeler gauge. If this exceeds 0,8 mm it is recommended that new piston ring should be fitted. See fig. 8.1.

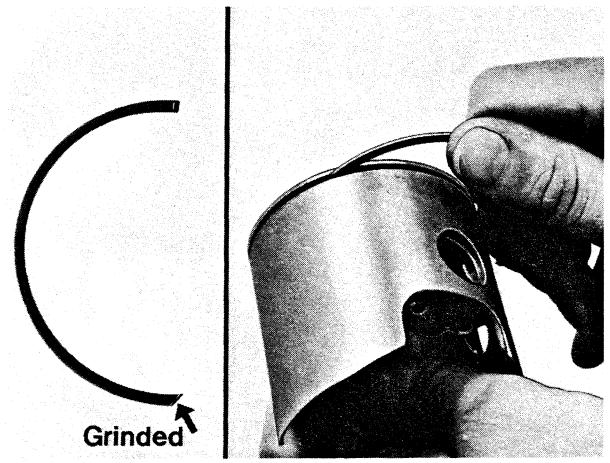


Fig. 8.2

Before fitting the piston ring, carefully remove any carbon deposits from the grooves in the piston.
This is preferably done with an old piston ring which is grinded apart. See fig. 8.2.

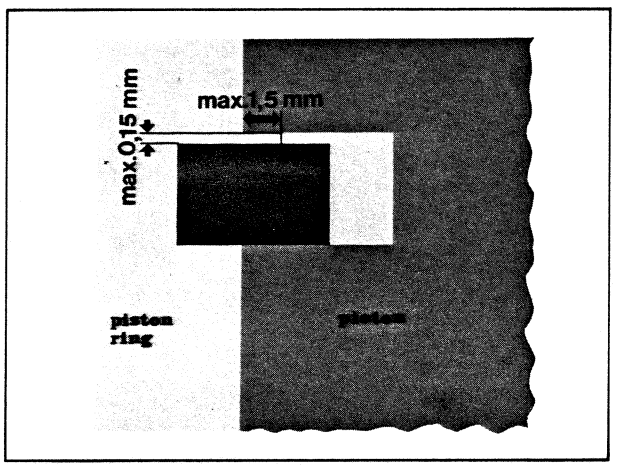


Fig. 8.3

The piston has two points of wear: its ring groove and its skirt.

A. When the play in the ring groove amounts to 0,15 mm to a depth of approx 1,5 mm, replace the piston. See fig. 8.3.

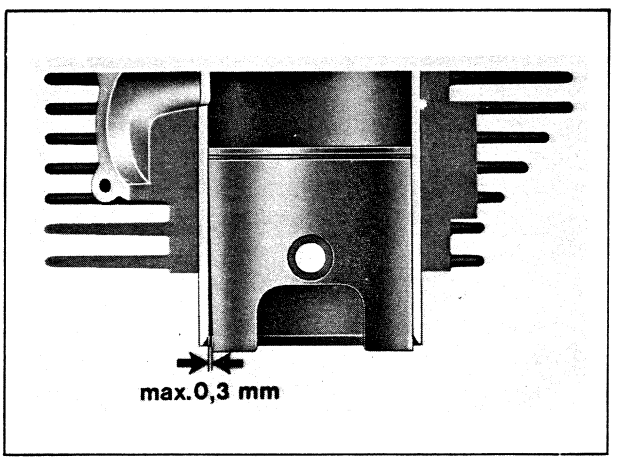


Fig. 8.4

B. When the piston skirt is worn down so that a measurement of approx 0,3 mm can be taken as illustrated in fig. 8.4, scrap the piston.

Before fitting a new piston, check that no free play has occurred in the piston pin needle bearing. Insert the needle bearing and the piston pin into the connecting rod and pull in the radial direction.
See fig. 9.1.

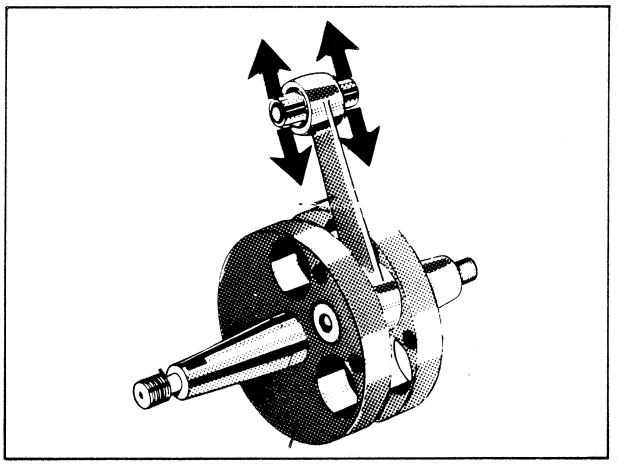


Fig. 9.1

Check that no leak has occurred between the cylinder and the cylinder head. If it has, lap in the cylinder head against the cylinder with fine grinding paste. NOTE! Don't forget to wipe the cylinder and cylinder head free from grinding compound.

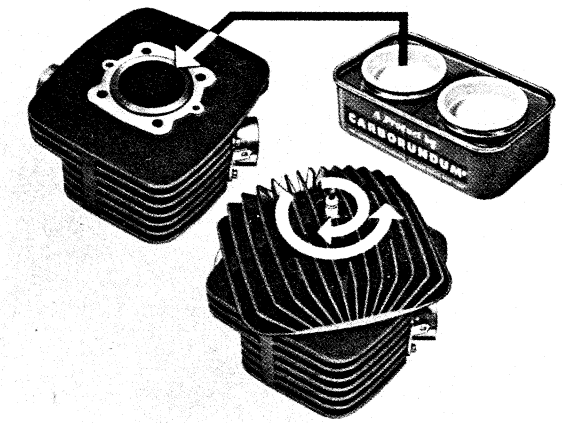
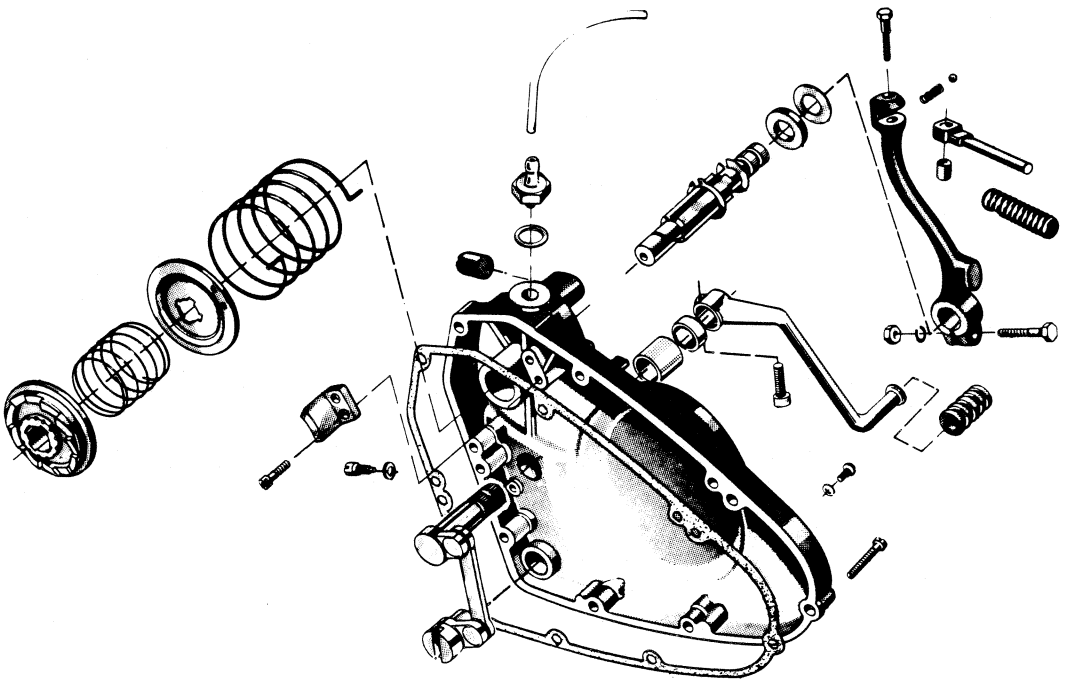


Fig. 9.2

Transmission cover



Dismantling
Remove the shift lever and the kick starter pedal from the transmission cover. Disassemble the transmission cover from the engine. See fig. 3.1.

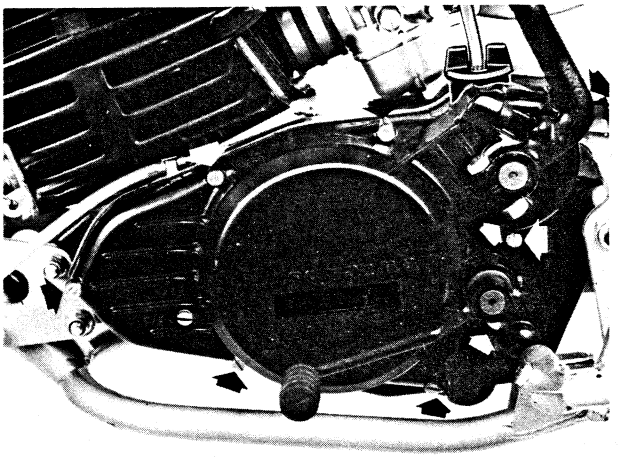


Fig. 3.1

Unscrew the gear links stop screw.

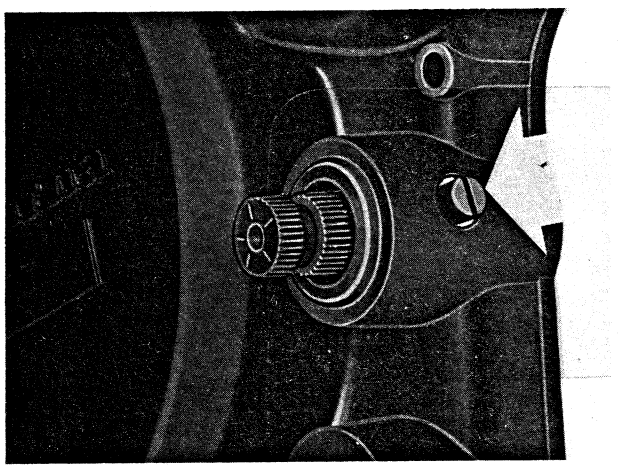


Fig. 3.2

Remove the gear links. See fig. 3.3.

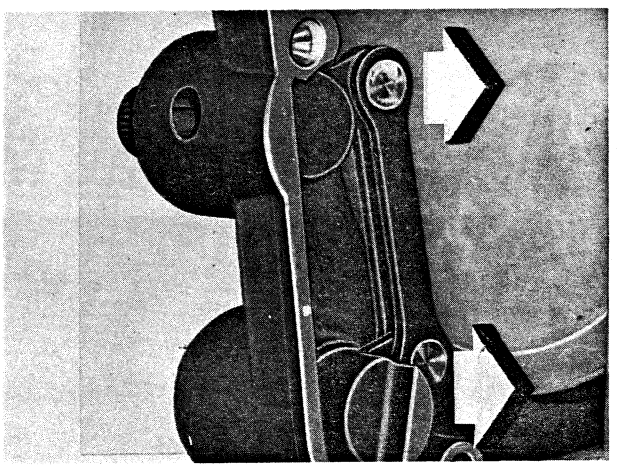


Fig. 3.3

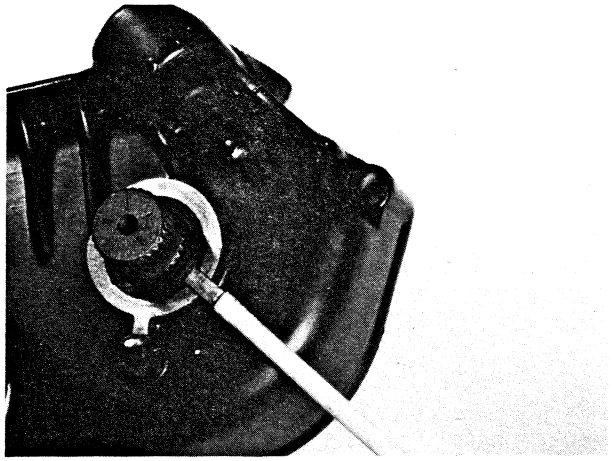


Fig. 4.1

Insert a small screw driver under the rubber gasket and pry it away. See fig. 4.1.

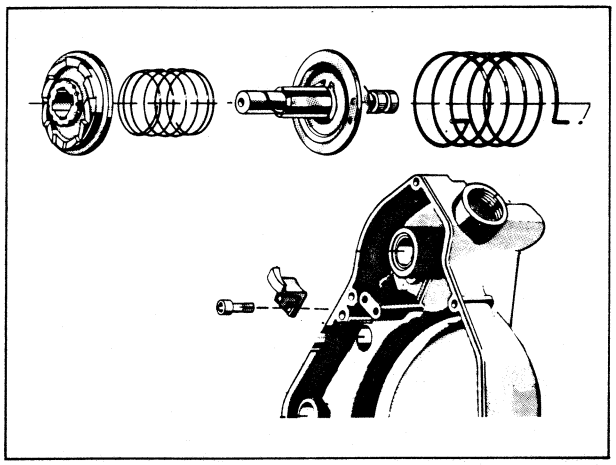


Fig. 4.2

Unscrew the pawl. Remove the driving wheel and the spring. Pull out the kick start shaft with the driving disc and the remaining spring. See fig. 4.2.

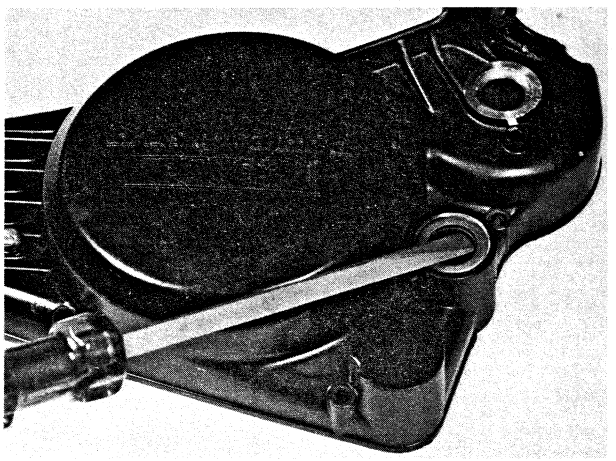


Fig. 4.3

Pry out the old seal with a screw driver.
See fig. 4.3.
NOTE! Make sure that the screw driver only reaches the seal.

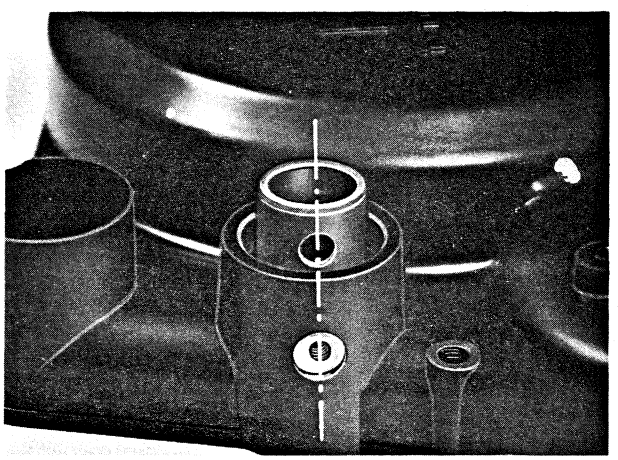


Fig. 4.4

Heat the cover to approximately 150°C. Knock out the old bushing with a 20 mm drift.
Put a new bushing in position while the cover still is warm.
NOTE! See to it that the hole in the bushing is level with the one in the cover.
See fig. 4.4.

Assembling
Insert a new sealing ring for the gear links. See fig. 5.1.

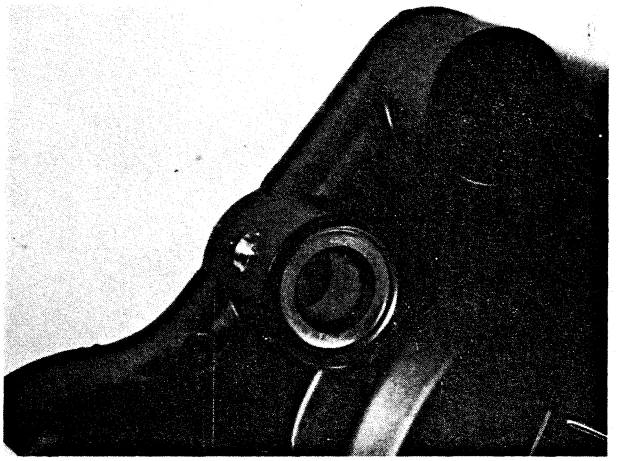


Fig. 5.1

Insert the gear links into the cover.
NOTE! Be careful not to damage the sealing ring. Use a small screw driver to help the sealing ring lips pass the notch of the gear links.
See fig. 5.2.
Assemble the stop screw.

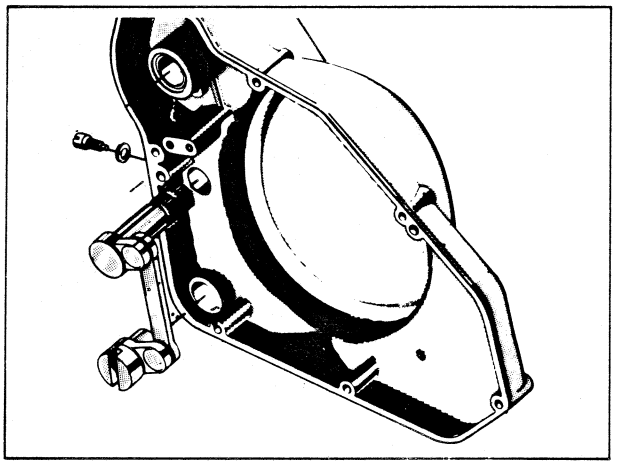


Fig. 5.2

The driving disc is mounted on the kick starter shaft as fig 5.3 shows.

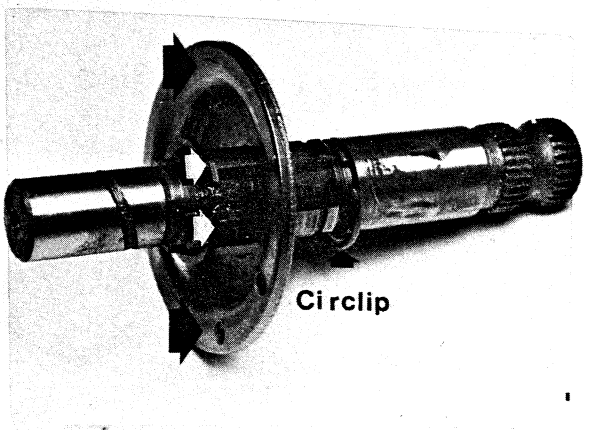


Fig. 5.3

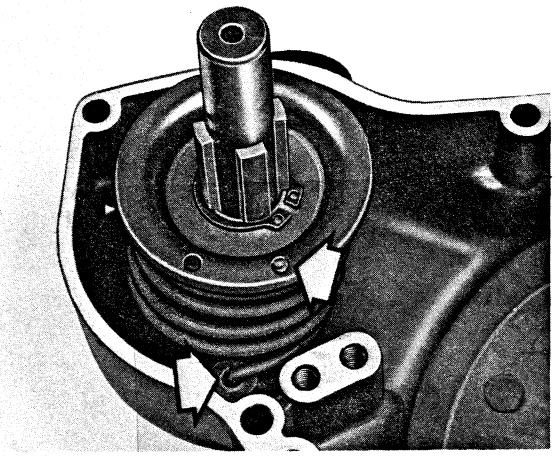


Fig. 6.1

Assemble the kick start shaft, driving disc and spring as shown in fig 6.1.
NOTE! The spring must be mounted in the holes shown in fig. 6.1. The longest spring pin into the cover.

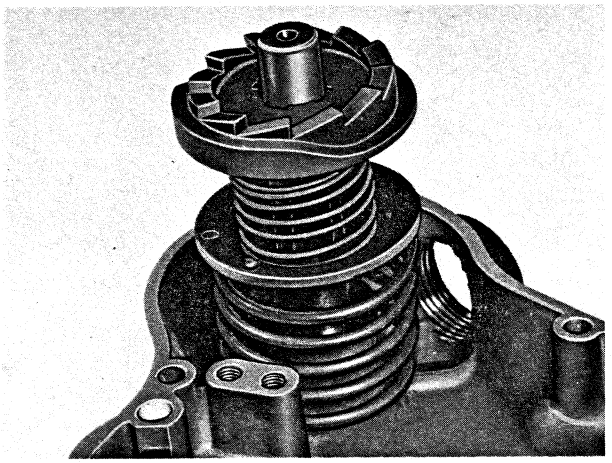


Fig. 6.2

Assemble the driving wheel with the spring and put the pawl in position. NOTE! The driving wheel shall be placed according to fig. 6.2 and 6.3.

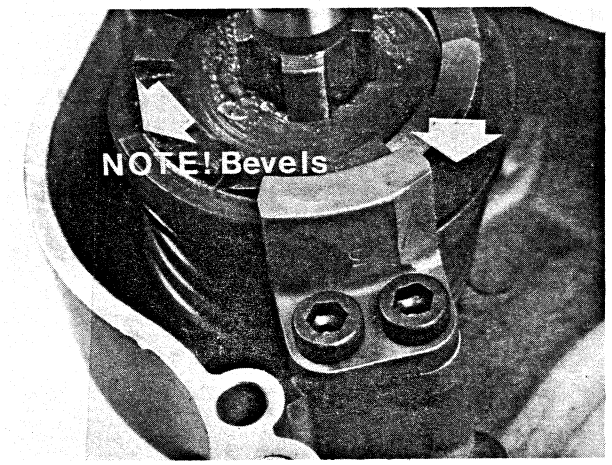


Fig. 6.3

Press a new rubber gasket in position. Use a blunt screw driver. See fig. 6.3.

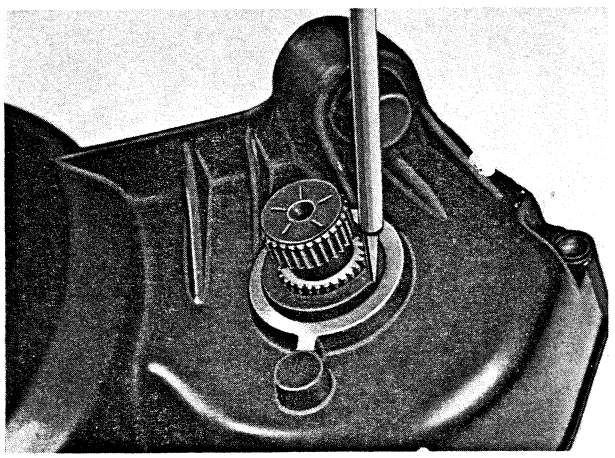


Fig. 6.4

The driving wheel shall start to grab the start gear wheel when the kick starter pedal is in the position shown in fig 7.1.

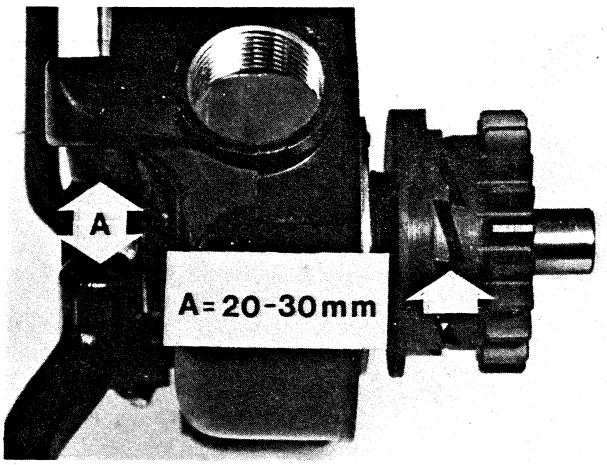


Fig. 7.1

Put a new gasket in position and assemble the transmission cover. Install the shift lever.

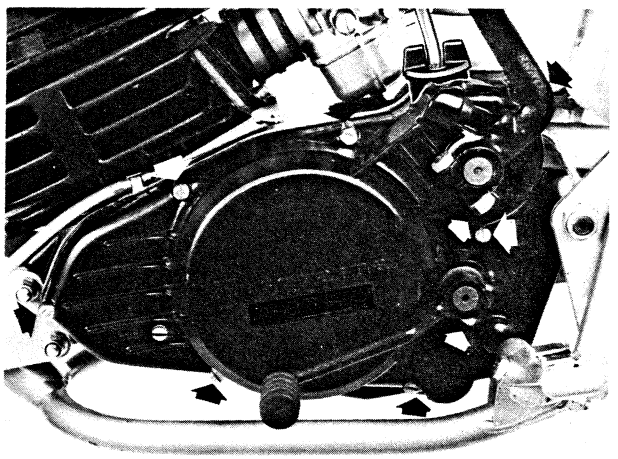


Fig. 7.2

Time for repairs-maintenance
Check regularly that the kick starter shaft gasket and the gear links sealing ring do not leak. Disassemble the kick starter pedal regularly for cleaning and greasing. See fig. 7.3.

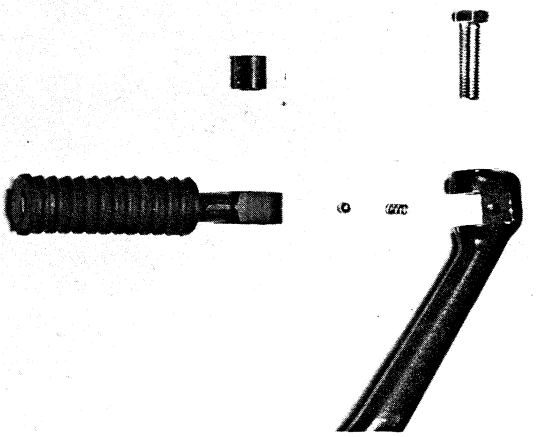
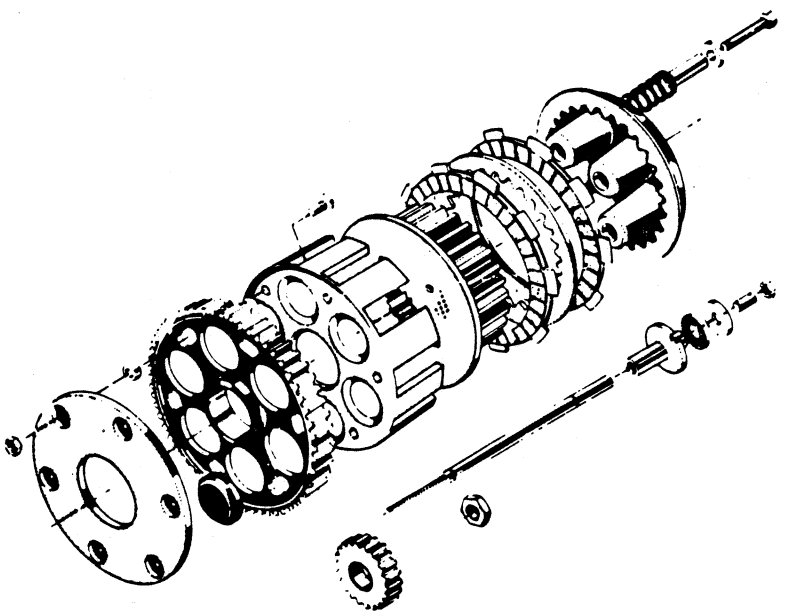


Fig. 7.3

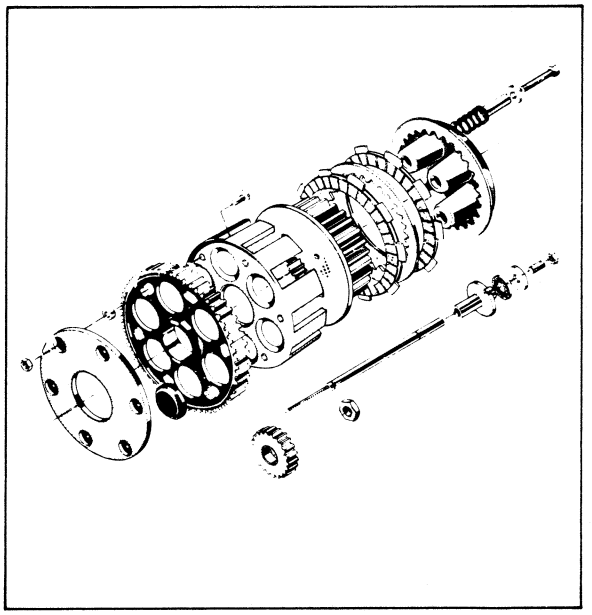
WORKSHOP MANUAL



CLUTCH

C

Clutch



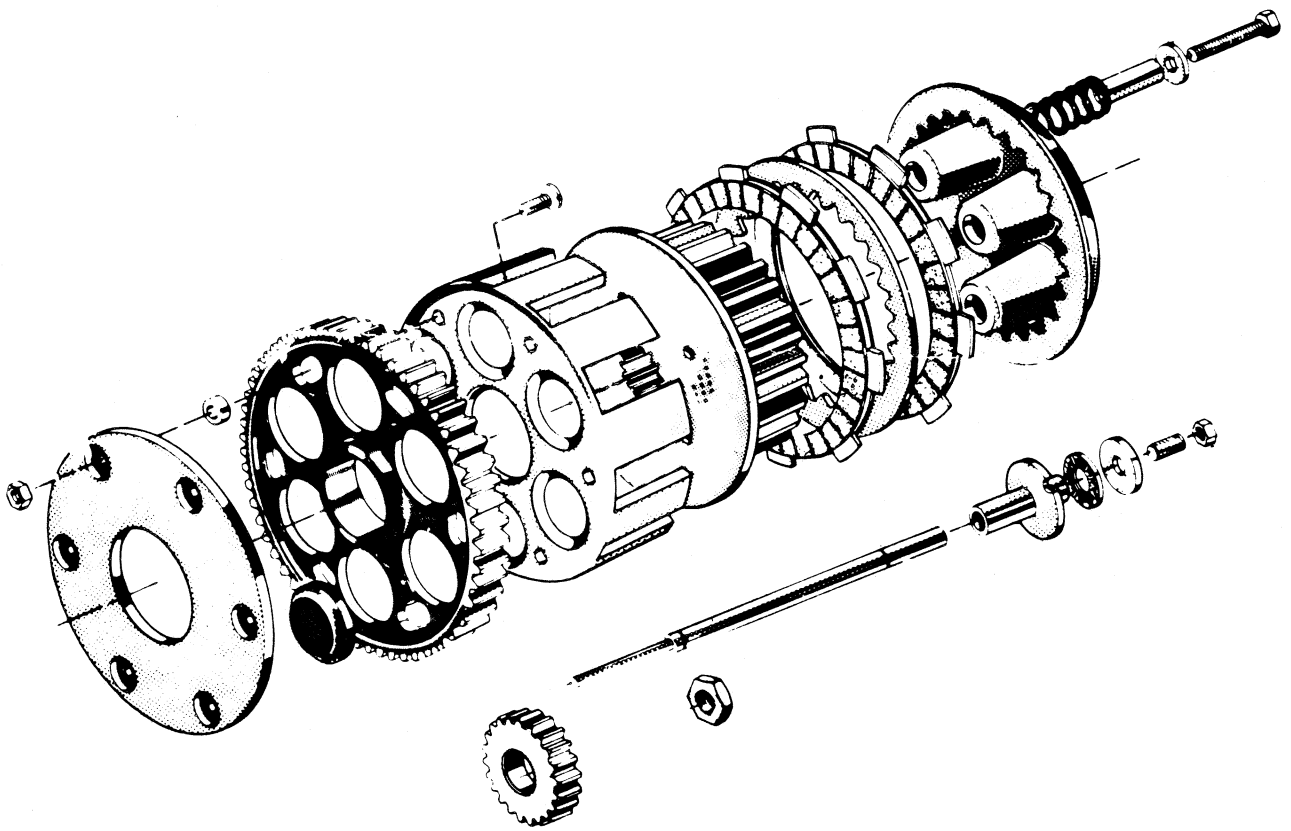
This chapter covers the three different types of clutches that have been mounted on Husqvarna motorcycles since 1974.

C A. Clutch rubber damped
125 CR ML 16000 ⟶
175 CC ML 0001 ⟶
All 250–360 cc ML-models

C B. Clutch Husqvarna small
All 125–175 cc MK-models
125 cc ML 0001–15999
250 CR MK 10500–19499
250 WR MK 19500 ⟶

C C. Clutch Husqvarna big
250 WR MK 0001–19499
All 400–450 cc MK-models
All 250–360 RT SK-models

Clutch rubber damped.



Function
The drive from the engine crank shaft is transmitted to the clutch through a gear drive. The clutch ring has a built-in damping system and the power is continued by eleven aluminium discs, six with linings and five without. The discs are forced apart by a clutch rod which is actuated by a lever on the upper side of the gearbox.

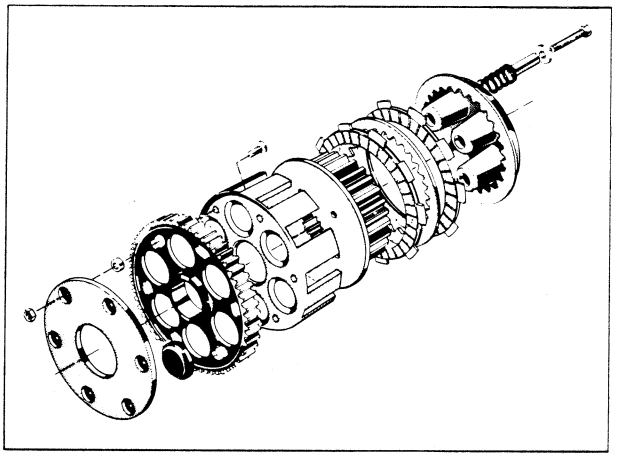


Fig. 3.1

Dismantling
Screw out the spring tension screws and remove the pressure plate with springs, sleeves, washers and screws.
See fig. 3.2.

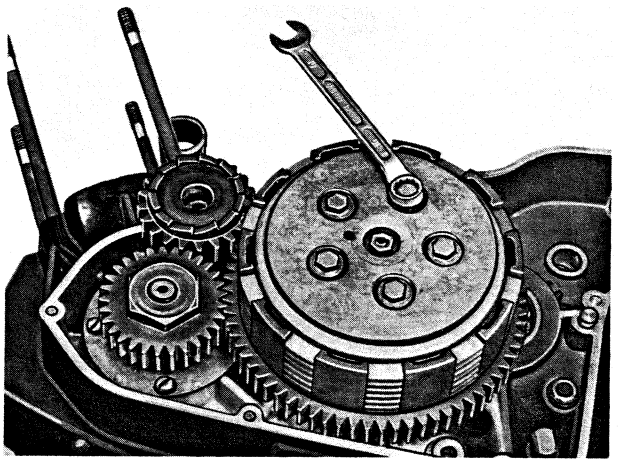


Fig. 3.2

Take out the push rod with the axial bearings, remove the circlip and take out the clutch hub with discs.
See fig. 3.3.
Apart the axial bearing.

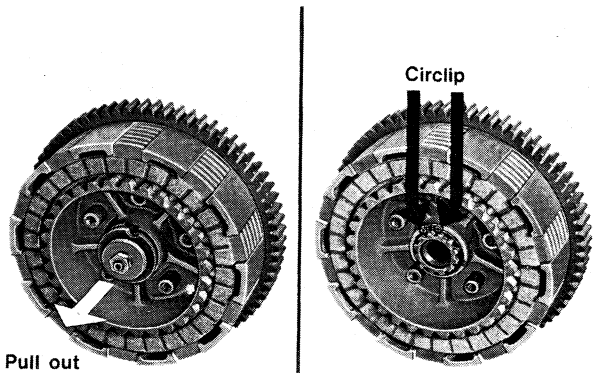


Fig. 3.3

Take out the clutch ring with the washer. See fig. 4.1.

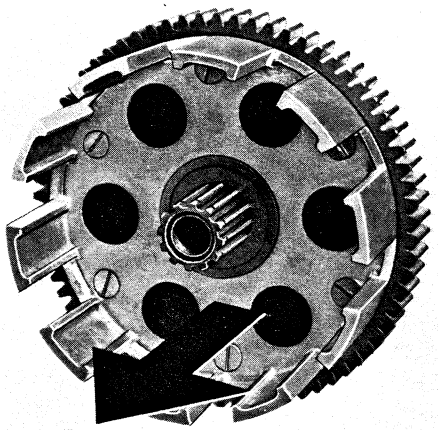


Fig. 4.1

Remove the needle bearing, the internal ring and the washer. See fig. 4.2.

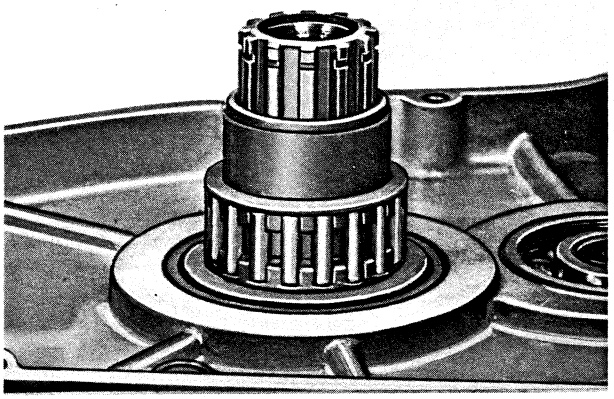


Fig. 4.2

Screw out the six screws and apart the clutch ring. See fig. 4.3.

NOTE! The nuts on the back side are locked with Loctite.
NOTE! Do not disassemble the clutch ring if not absolutely necessary.

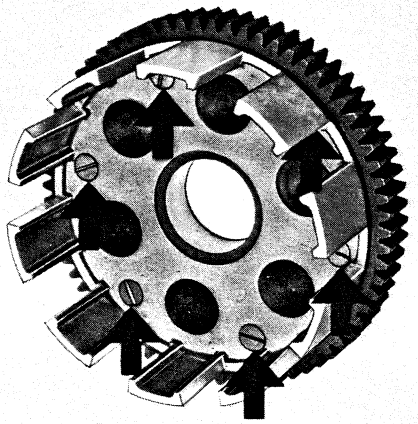


Fig. 4.3

Assembling
Place the cog wheel over the support plate.

NOTE! The cog wheel shall be placed with the widest part of the center ring against the support plate.

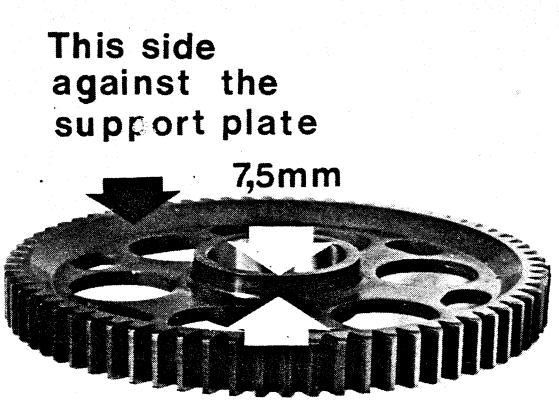


Fig. 4.4

Put the damping elements and the distance rings in position. See fig. 5.1.

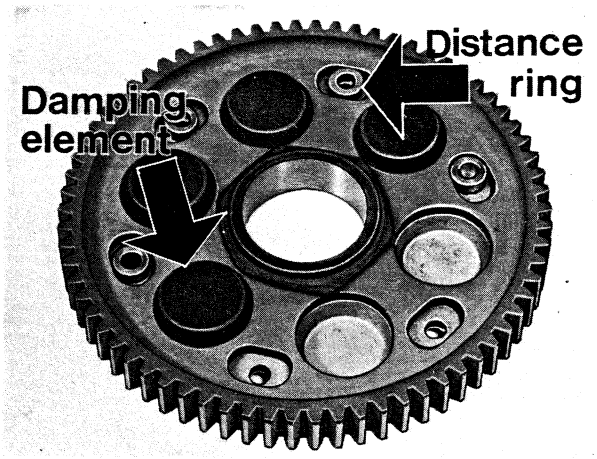


Fig. 5.1

Locate the clutchring over the cog wheel. Insert the six screws.
See fig. 5.2.

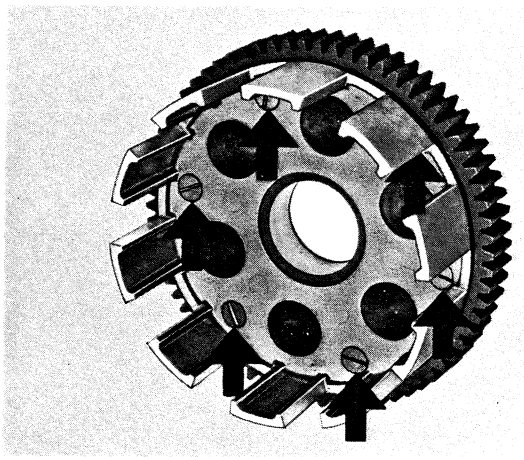


Fig. 5.2

Lock with Loctite 241 and tighten the nuts to 8 Nm.
See fig. 5.3.

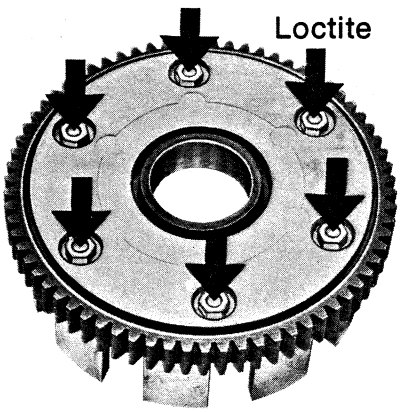


Fig. 5.3

Insert washer, internal ring and needle bearing on the main shaft.
See fig. 6.1.

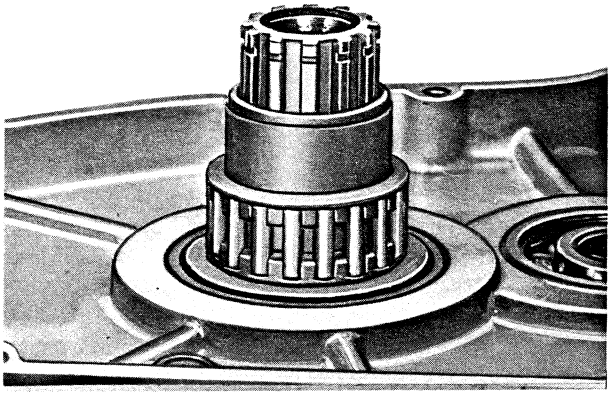


Fig. 6.1

Install the clutch ring and put the washer in position.
See fig. 6.2.

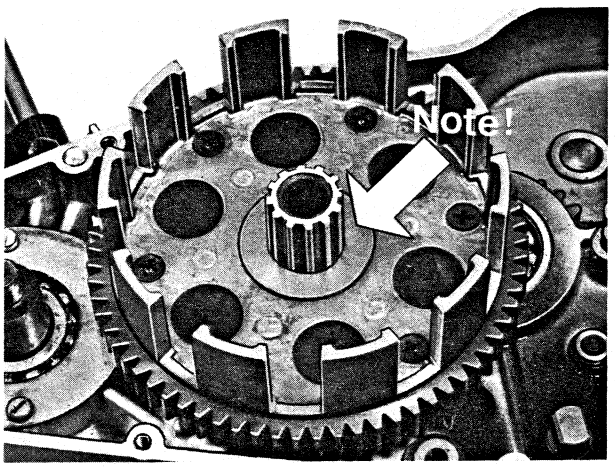


Fig. 6.2

Insert the clutch hub with the circlip.
See fig. 6.3.

NOTE! Make sure that the circlip is correct positioned.

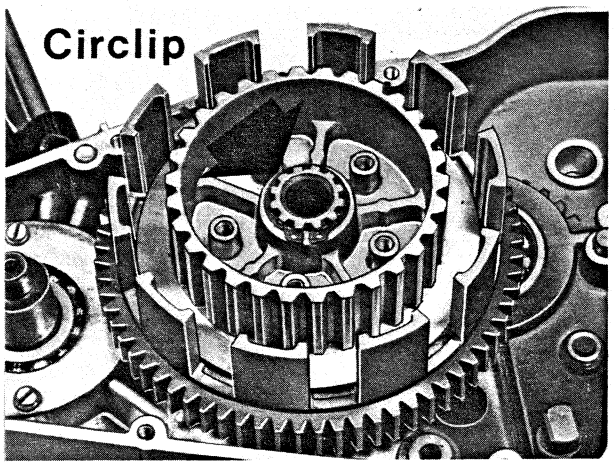


Fig. 6.3

Mount the shaft sleeve with the axial bearing on the push rod.
See fig. 6.4.

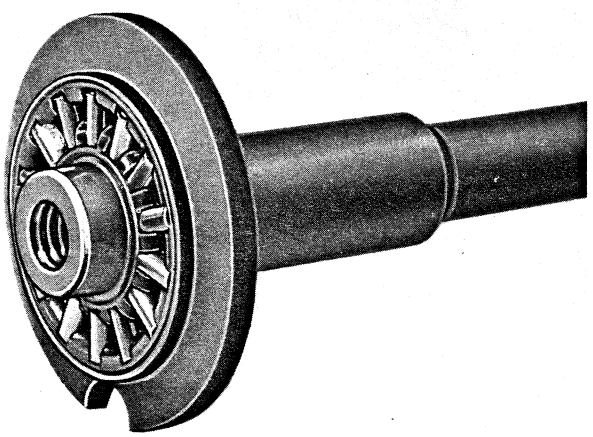


Fig. 6.4

Put the axial washer and the adjusting screw with nut in position.
See fig. 7.1.

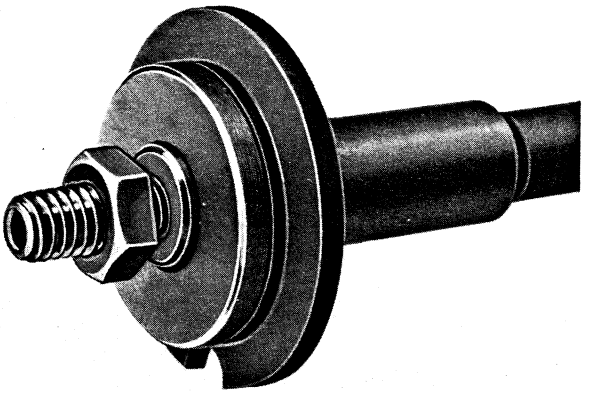


Fig. 7.1

Insert the push rod into the main shaft. Engage the discs. Start with one with lining and mount them alternately up.
See fig. 7.2.

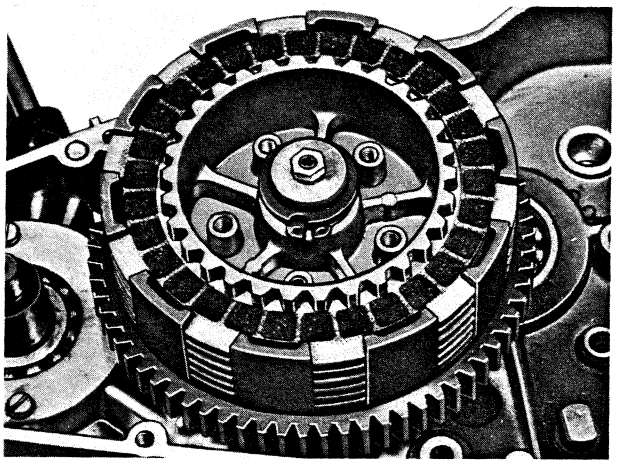


Fig. 7.3

Apply the pressure plate with springs, distance sleeves, washers and screws. Lock the screws with Loctite 225 and tighten to 5 Nm. See fig. 7.3.

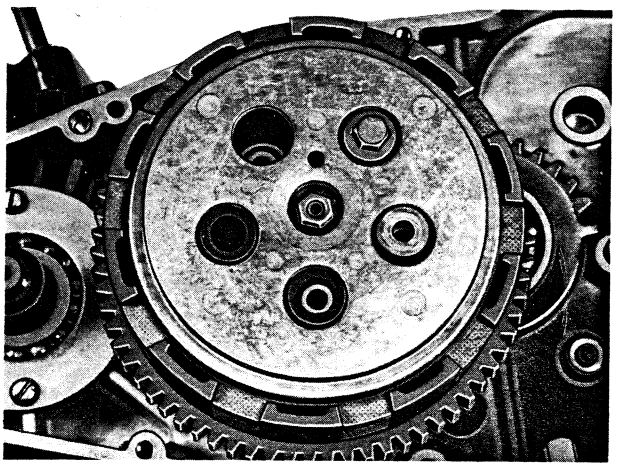


Fig. 7.2

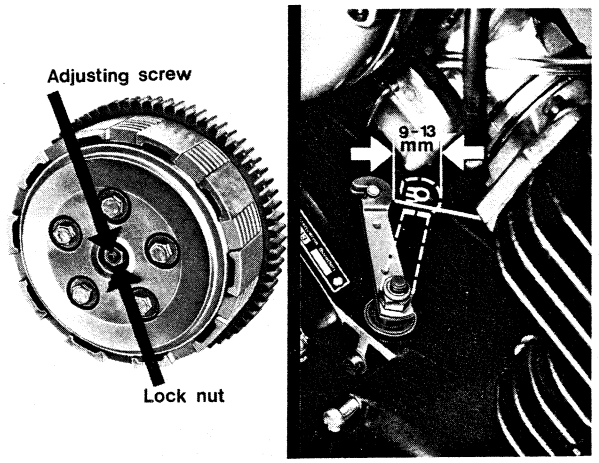


Fig. 8.1

Adjust the play on the clutch lever with the screw on the pressure plate.
See fig. 8.1.

NOTE! When adjusting, lock the shaft sleeve by inserting a peg into the hole in the pressure plate and through the slot in the shaft sleeve.

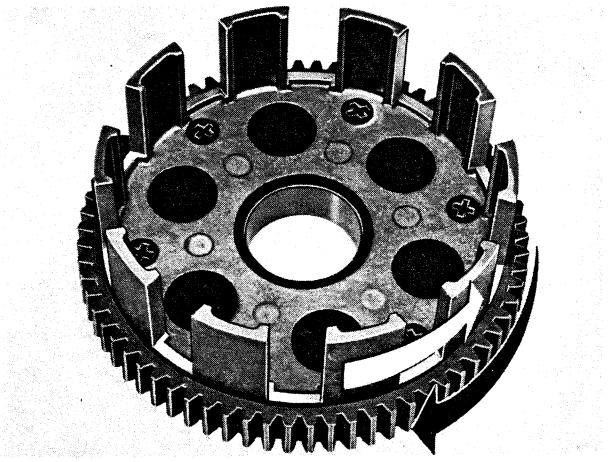


Fig. 8.2

Time for repairs-maintenance
Check that no free play has occurred between the cog wheel and the clutch ring.
See fig. 8.2.
If it has, replace the rubber damping elements with new ones.

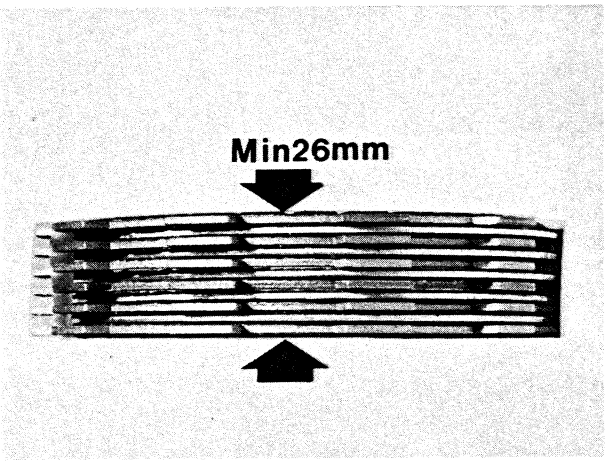
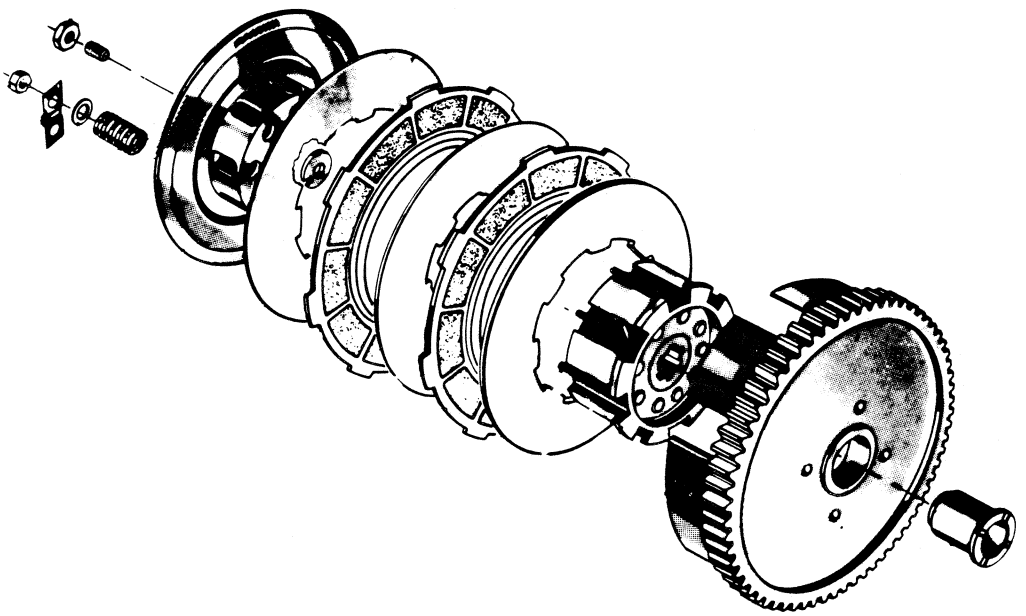


Fig. 8.3

Replace the discs when the whole disc unit is worn down to 26 mm. See fig. 8.3.

Clutch Husqvarna small



Function
The drive from the engine crank shaft is transmitted to the clutch through a gear drive. The power is continued by eleven discs, five with linings and six without. The discs are forced apart by a push rod which is actuated by a lever on the upper side of the gearbox.

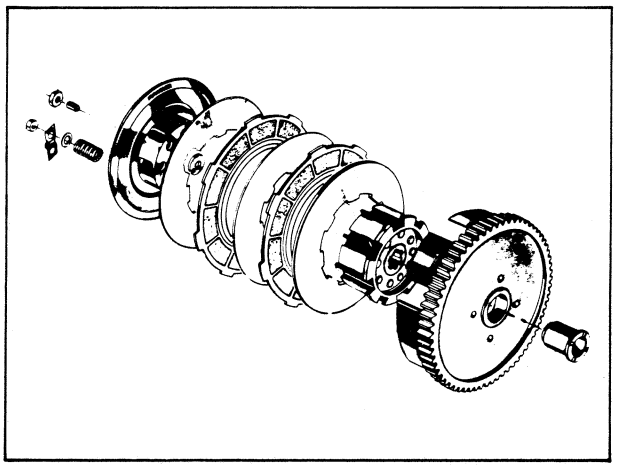


Fig. 3.1

Dismantling
Bend up the lock plate tips and unscrew the eight nuts. Lift off the pressure plate with lock plates, washers and springs. See fig. 3.2.

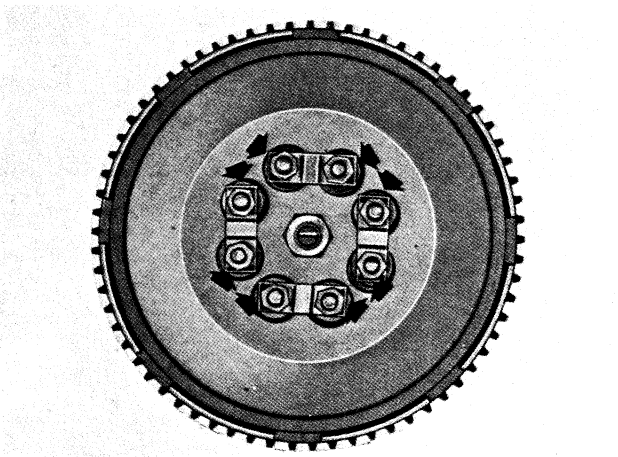


Fig. 3.2

Lift off the discs. Remove the clutch hub. See fig. 3.3.

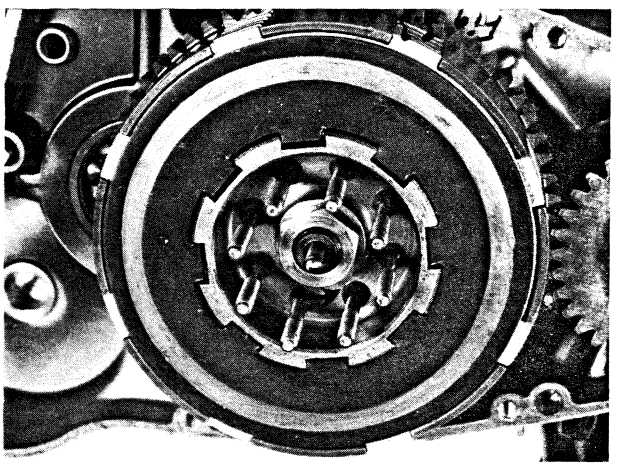


Fig. 3.3

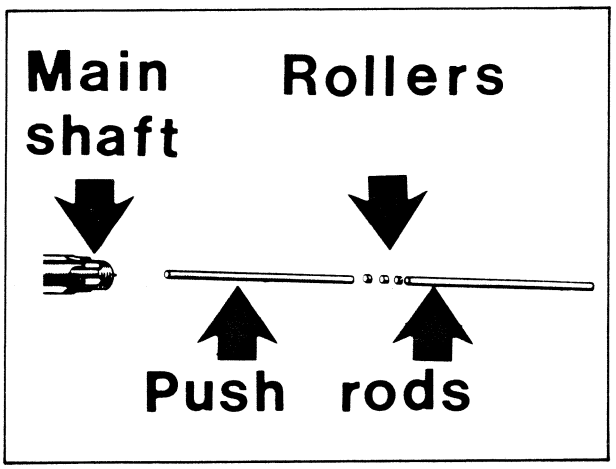


Fig. 4.1

Detach the two push rods and the three rollers from the main shaft.
See fig. 4.1.

Pull off the clutch ring with a puller.
See fig. 4.2.

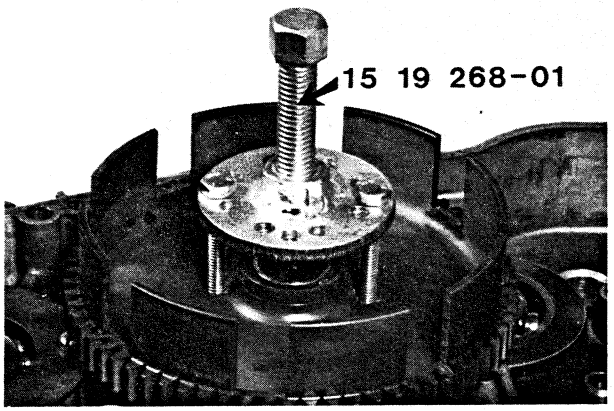


Fig. 4.2

Mounting
Press the clutch ring on the bearing sleeve until the clutch ring is level with the sleeve.
See fig. 4.3.

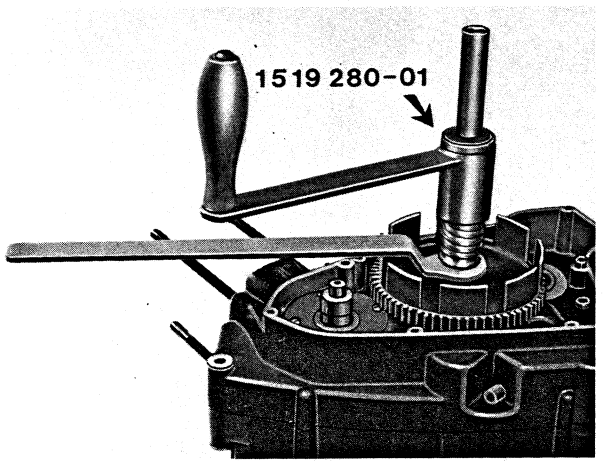


Fig. 4.3

Insert the clutch hub and tighten to 40 Nm.
Bend up the tips of the locking washer.
See fig. 4.4.

NOTE! Remember the support washer behind the hub.

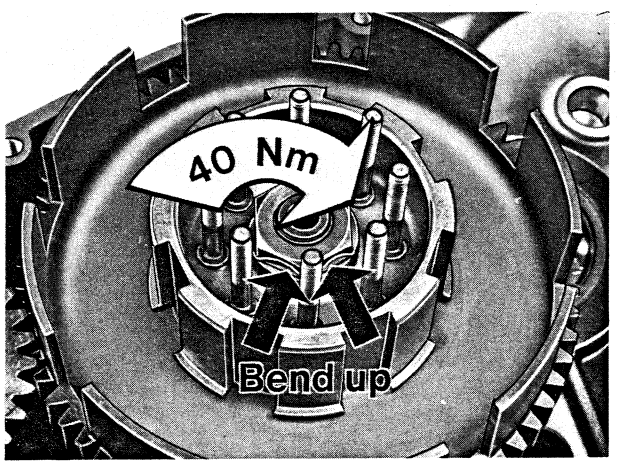


Fig. 4.4

Install the discs. Begin with the thick steel disc. Mount them alternately and finish with a thin steel disc. See fig. 5.1. Insert the push rods and the rollers.

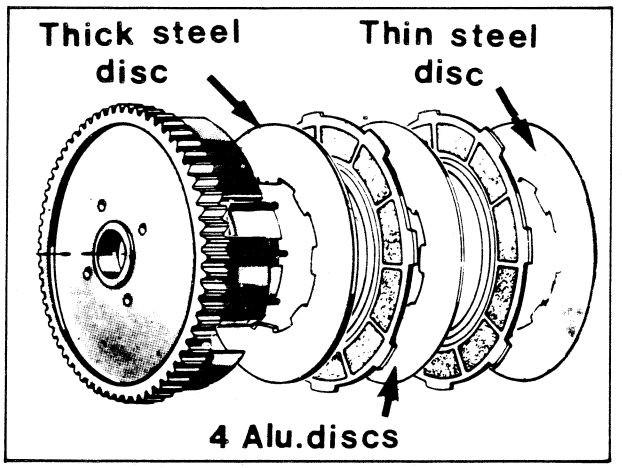


Fig. 5.1

Put the pressure plate with springs, washers and lock plates in position. Attach the nuts. See fig. 5.2.

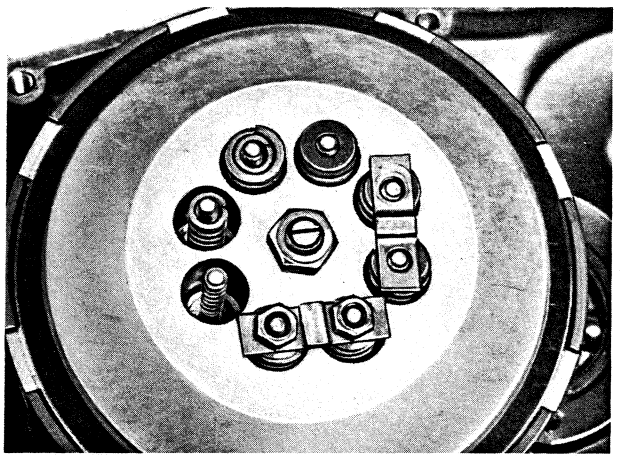


Fig. 5.2

Declutch and check the pressure plate lift. Adjust on the eight nuts until the lift is the same all around the plate. See fig. 5.3.

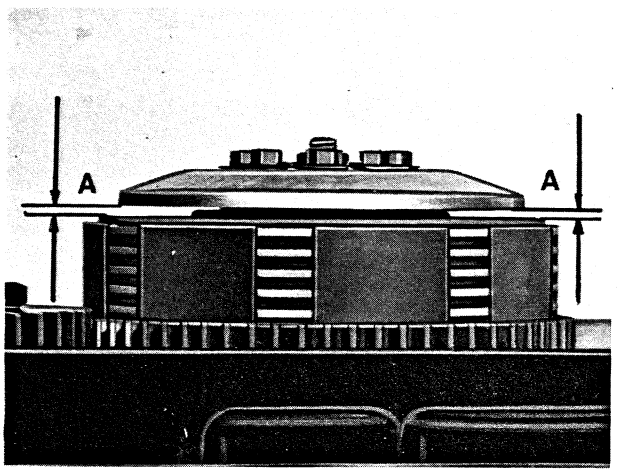
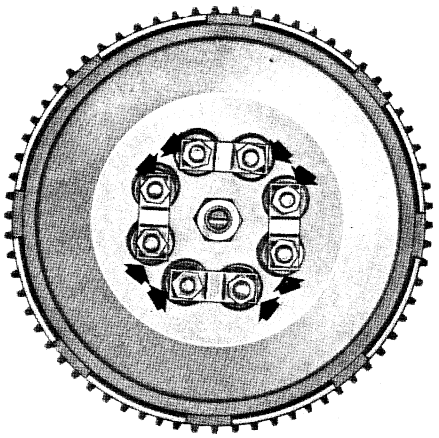
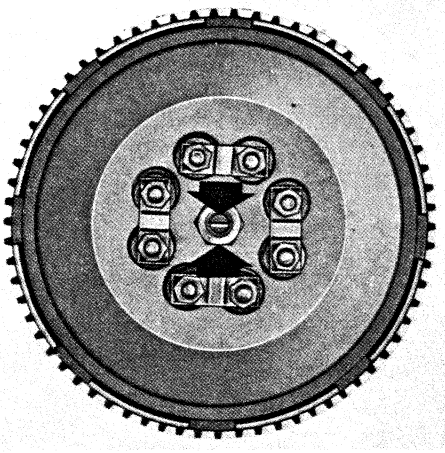


Fig. 5.3



Lock the nuts by bending up the tips on the lock plates.
See fig. 6.1.

Fig. 6.1



Adjust the play on the clutch lever with the screw on the pressure plate.
See fig. 6.2 and 6.3.

Fig. 6.2

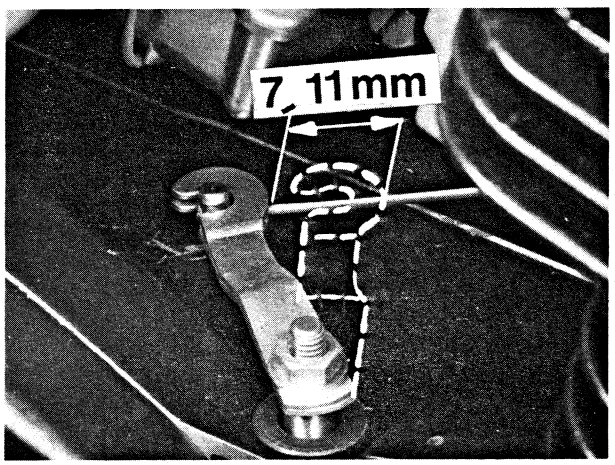
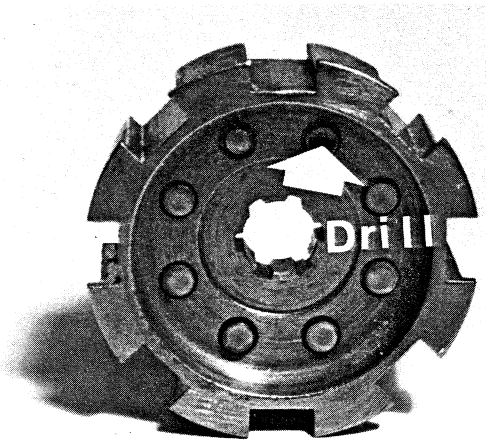


Fig. 6.3



Changing stud – clutch hub
Drill with a 5 mm drill in the riveted end of the stud to a deep of approximately 4 mm.
See fig. 6.4.

NOTE! The drilling must be done exactly in the centre of the stud.

Fig. 6.4

Knock out the stud with a drift.

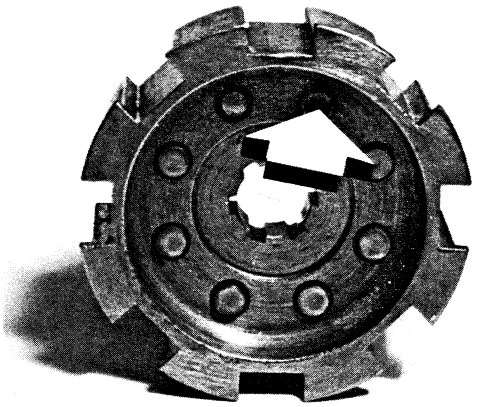


Fig. 7.1

Press a new stud in position and rivet the stud end. Use a strong sleeve with 5 mm internal diameter to support the stud in position.
See fig. 7.2.

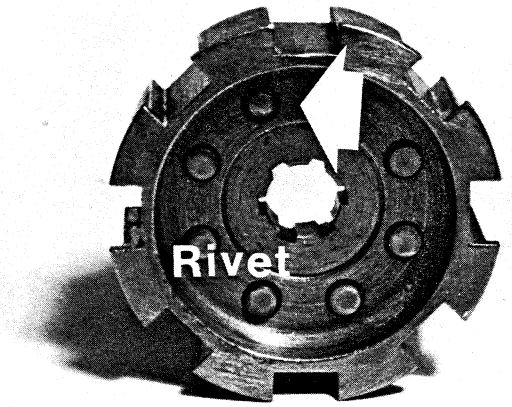


Fig. 7.2

Time for repairs-maintenance
Replace the discs when the whole disc unit is worn down to 25 mm. See fig. 7.3.

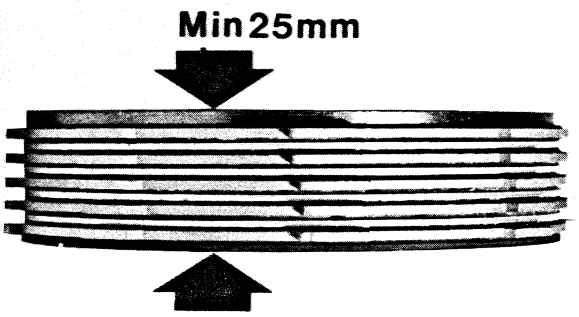
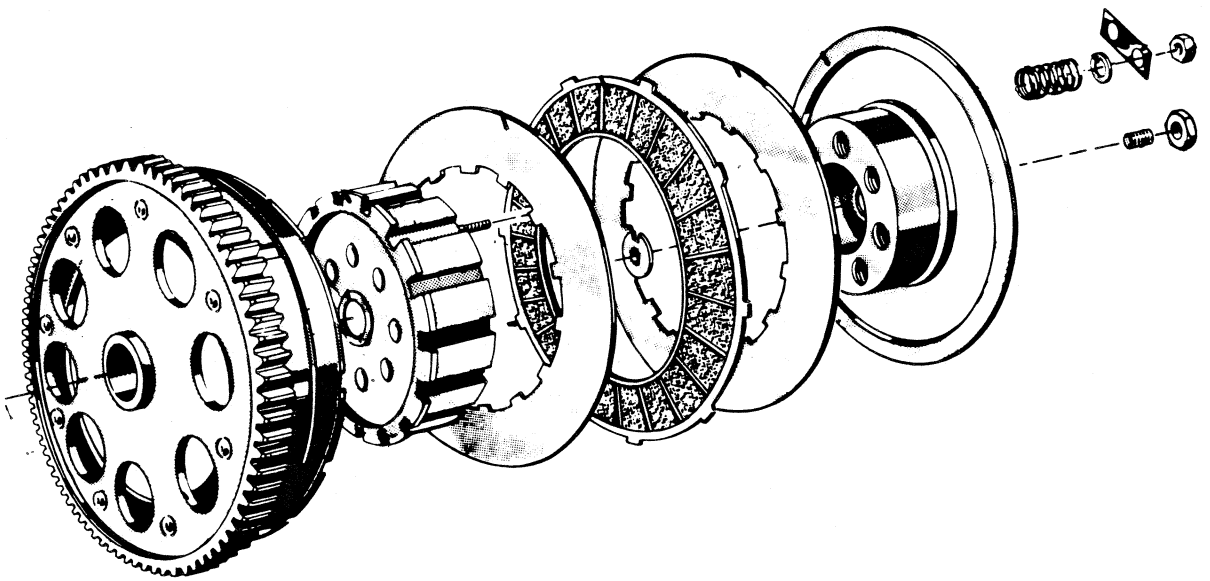


Fig. 7.3

Husqvarna motorcycles

Clutch Husqvarna big



Function
The drive from the engine crankshaft is transmitted to the clutch through a gear drive. The clutch is built into the large drive gear and has five friction discs and six steel discs.
The discs are forced apart by a clutch rod which is actuated by a lever on the upper side of the gearbox.

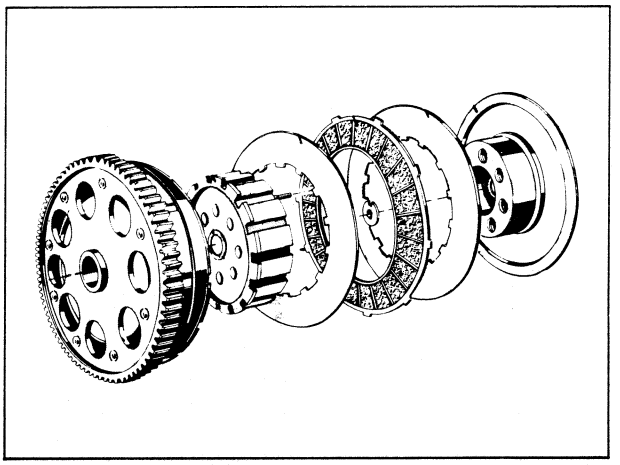


Fig. 3.1

Dismantling
Bend up the lock plate tips and unscrew the eight nuts. Lift off the pressure plate with lock plates, waschers and springs. See fig. 3.2.

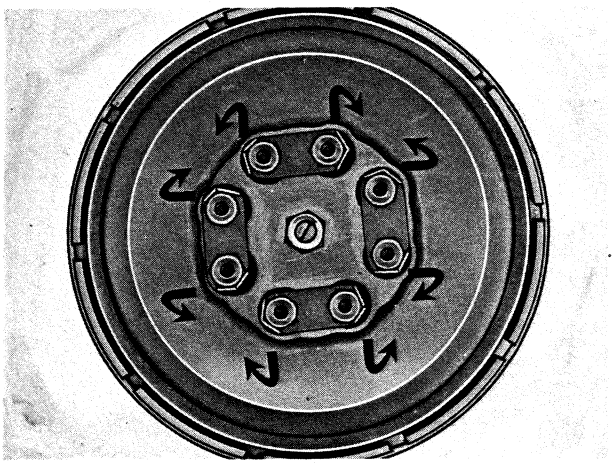


Fig. 3.2

Remove the discs. Remove the clutch hub. See fig. 3.3.

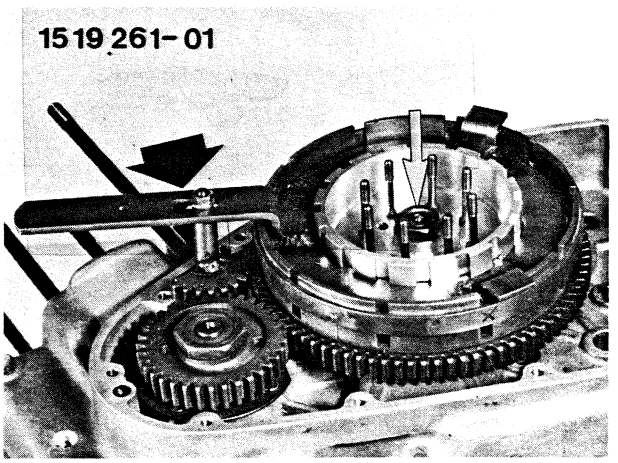


Fig. 3.3

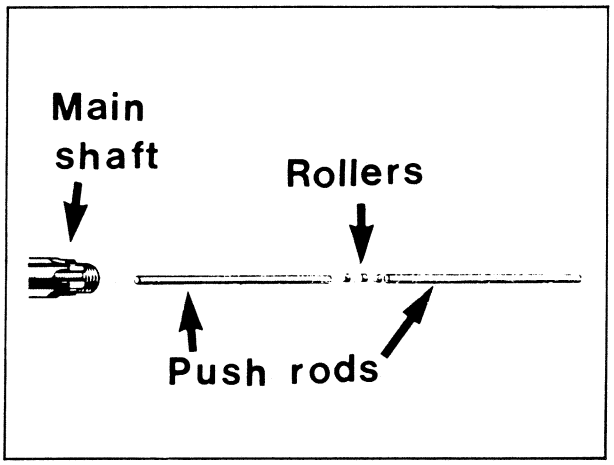


Fig. 4.1

Detach the two push rods and the three rollers from the main shaft. See fig. 4.1.

Pull off the clutch ring with a puller. See fig. 4.2.

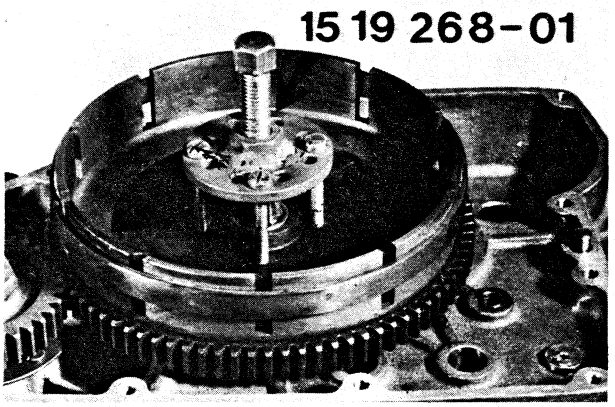


Fig. 4.2

Mounting
Press the clutch ring on the bearing sleeve until the clutch ring is level with the sleeve. Se fig. 4.3.

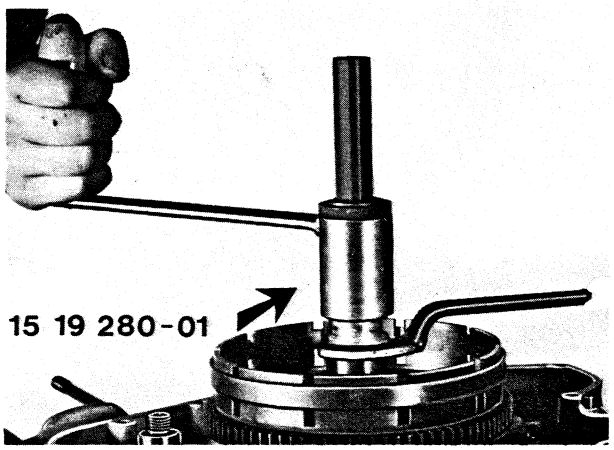


Fig. 4.3

Insert the clutch hub and tighten the nut to 40 Nm. Bend up the tips of the locking washer. See fig. 4.4.
NOTE! Remember the support washer behind the hub.

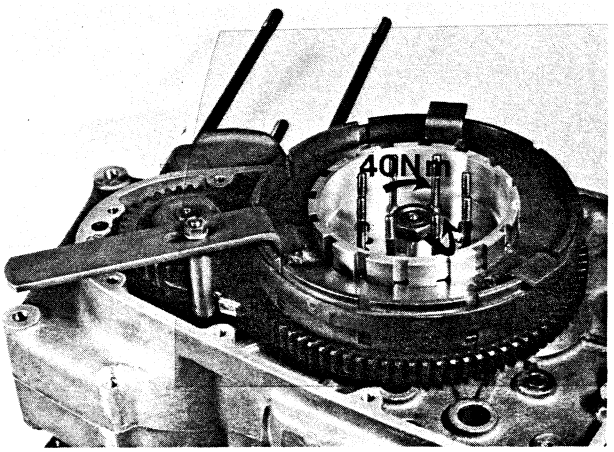


Fig. 4.4

Mount the discs alternately up. Begin and finish with a steel disc. See fig. 5.1.
Insert the push rods and rollers into the main shaft.

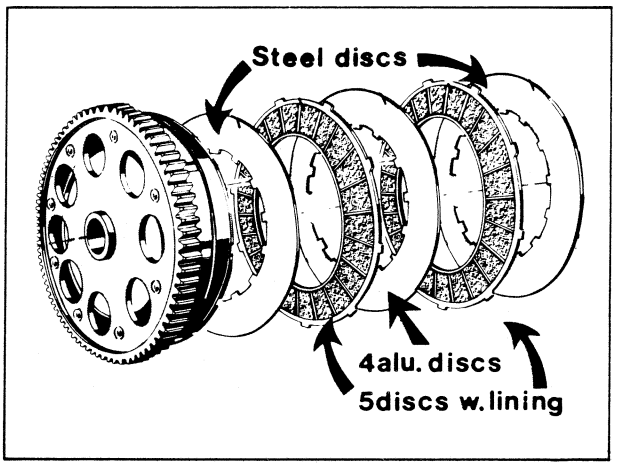


Fig. 5.1

Put the pressure plate with springs, washers and lock plates in position. Attach the nuts. See fig. 5.2.

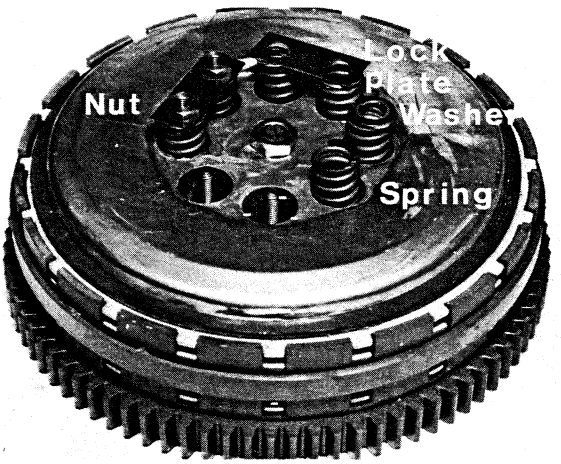


Fig. 5.2

Declutch and check the pressure plate lift. Adjust on the eight nuts until the lift is the same all around the plate. See fig. 5.3.

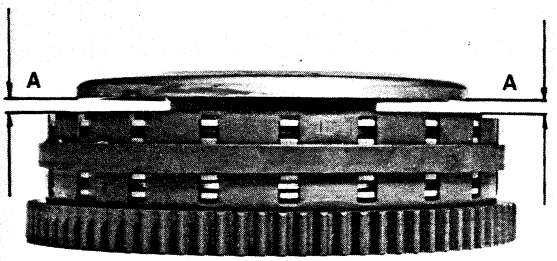


Fig. 5.3

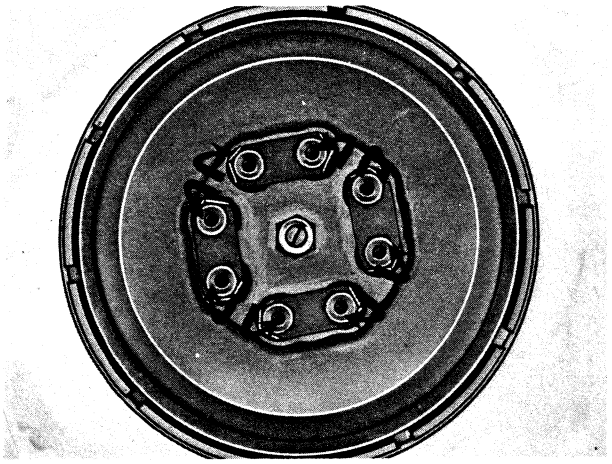


Fig. 6.1

Lock the nuts by bending up the tips on the lock plate. See fig. 6.1.

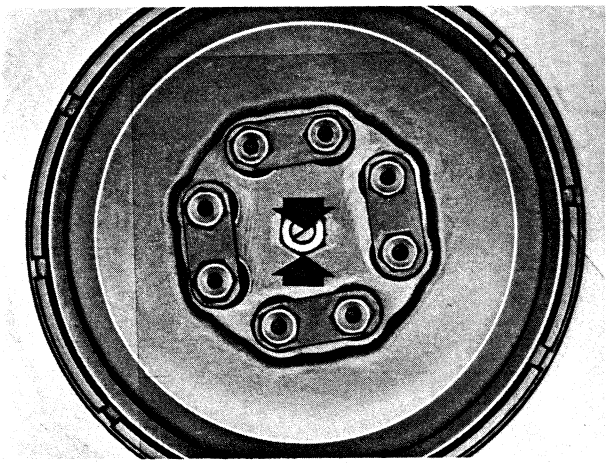


Fig. 6.2

Adjust the play on the clutch lever with the screw on the pressure plate. See fig. 6.2 and 6.3.

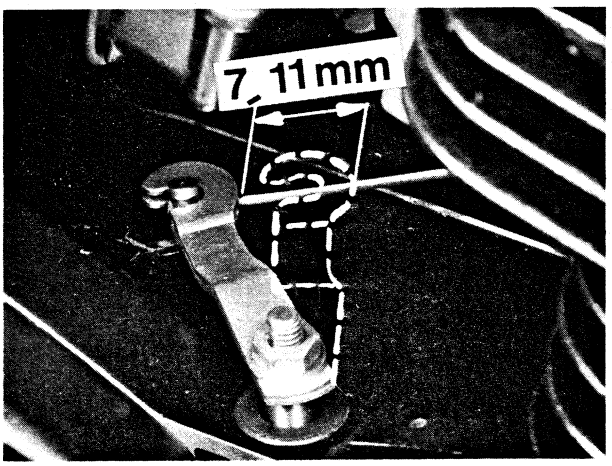


Fig. 6.3

Changing stud – clutch hub

Drill with a 5 mm drill in the riveted end of the stud to a deep of approximately 4 mm. See fig. 6.4.
NOTE! The drilling must be done exactly in the centre of the stud.

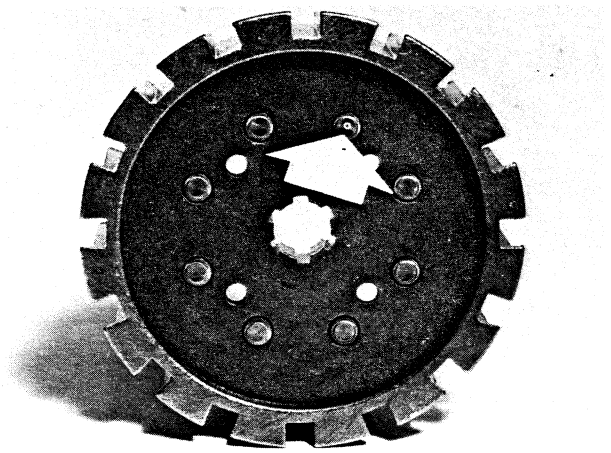


Fig. 6.4

Knock out the stud with a drift.

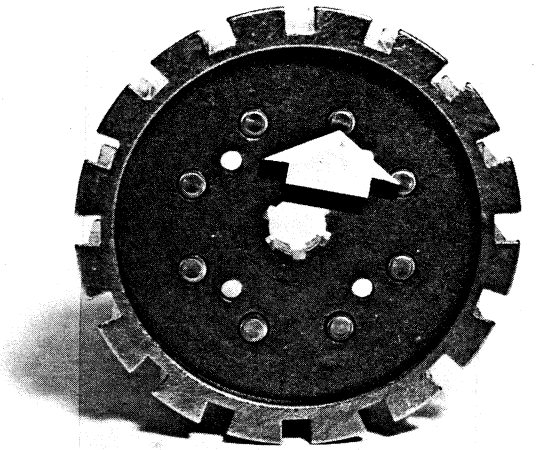


Fig. 7.1

Press a new stud in position and rivet the stud end. Use a strong sleeve with 5 mm internal diameter to support the stud in position. See fig. 7.2.

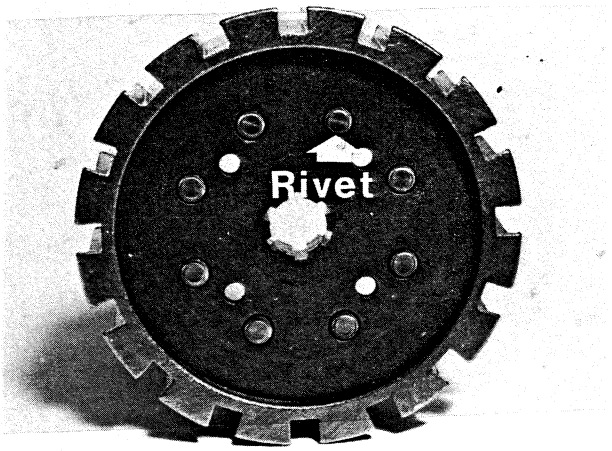


Fig. 7.2

Time for repairs – maintenance
Replace the discs when the whole disc unit is worn down to 28 mm. See fig. 7.3.

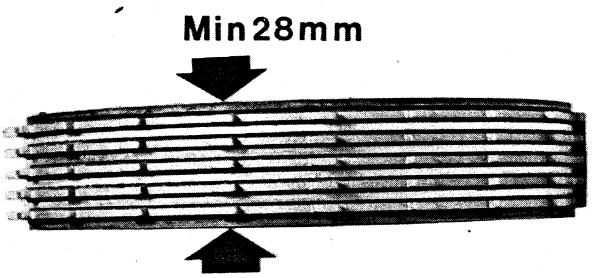
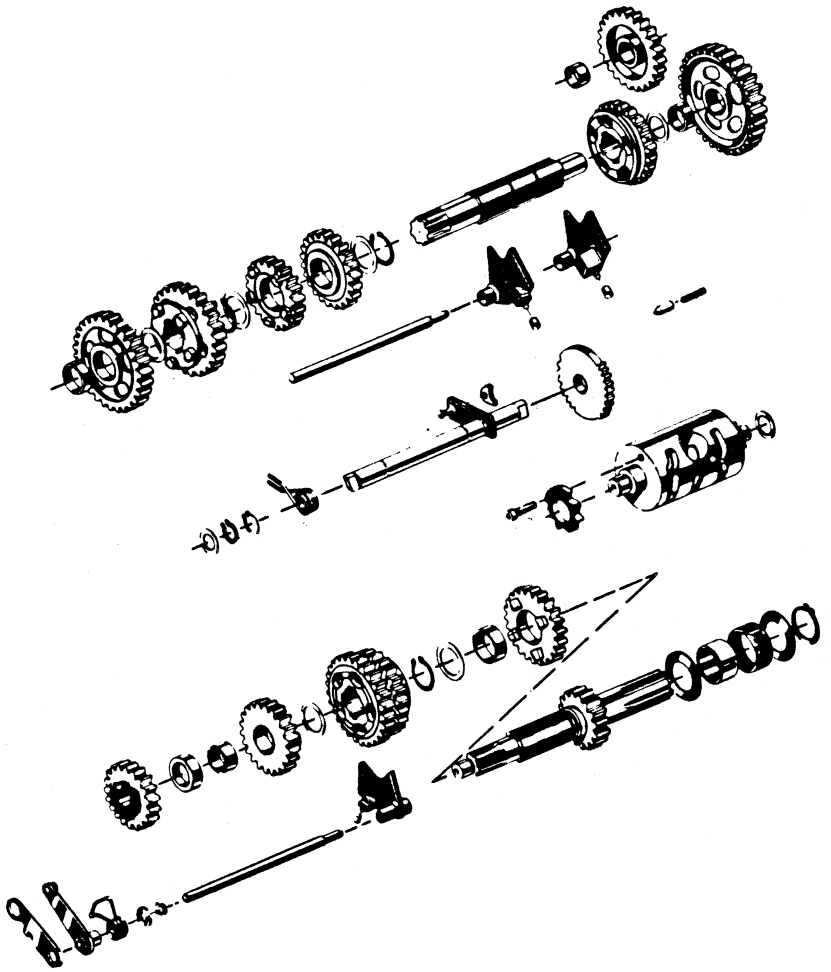


Fig. 7.3

WORKSHOP MANUAL

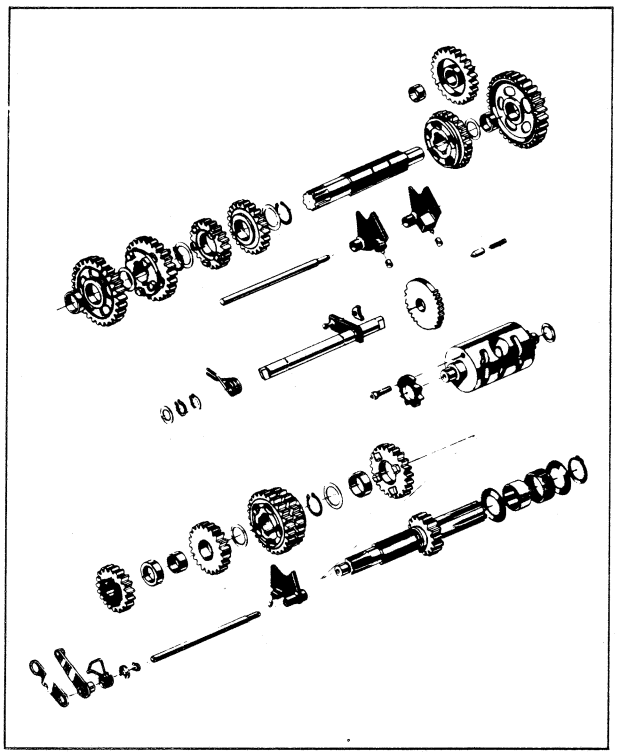


GEARBOX

G

Gearbox

This chapter covers the two different types of gearboxes which have been mounted on Husqvarna motorcycles since 1974.

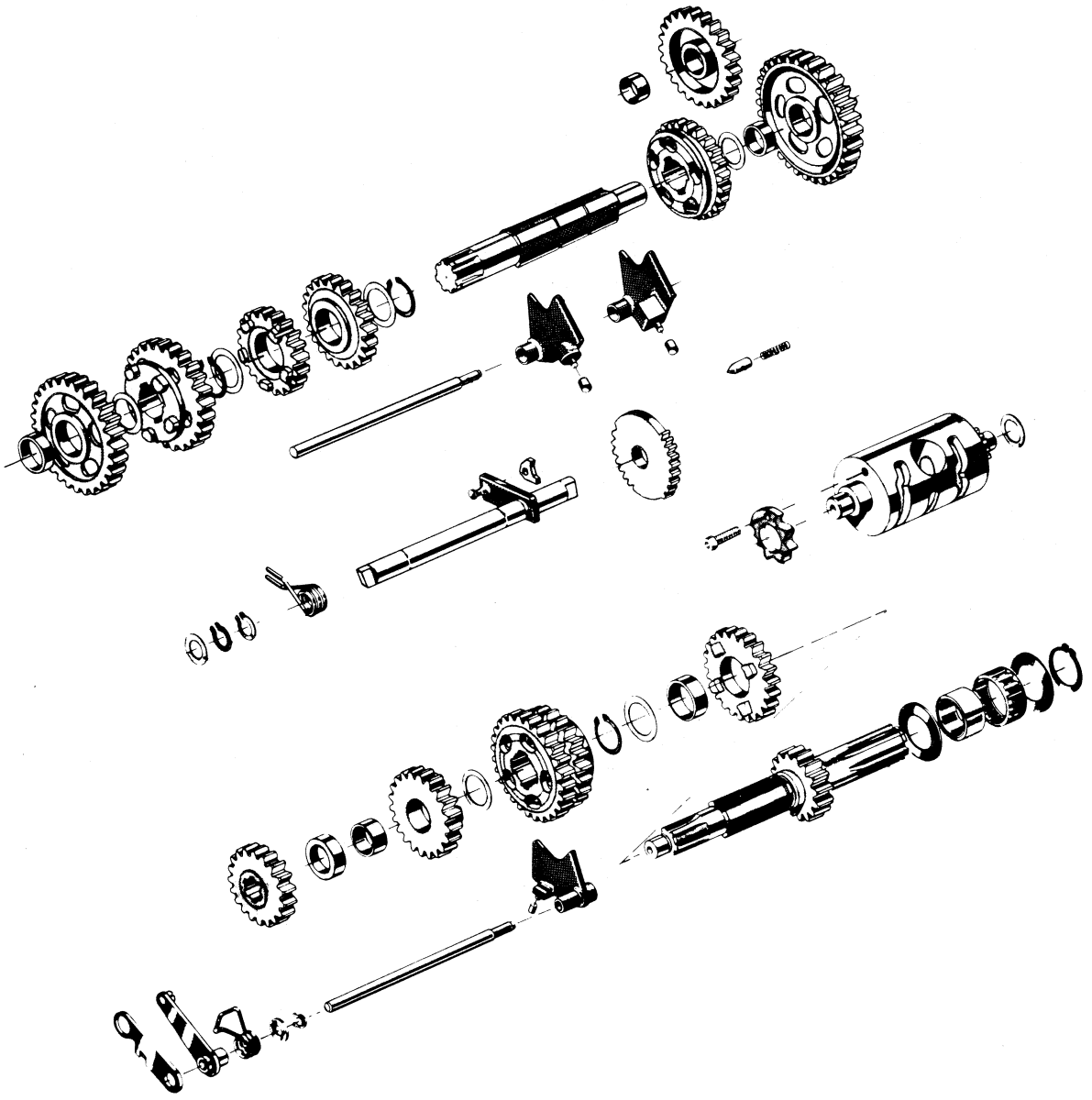


GA. Gearbox six speed
All 125–175 cc models
All 250 WR MK—and ML—models
All 250 CR ML—models
All 360 cc ML—models
400 WR MK 10500 →

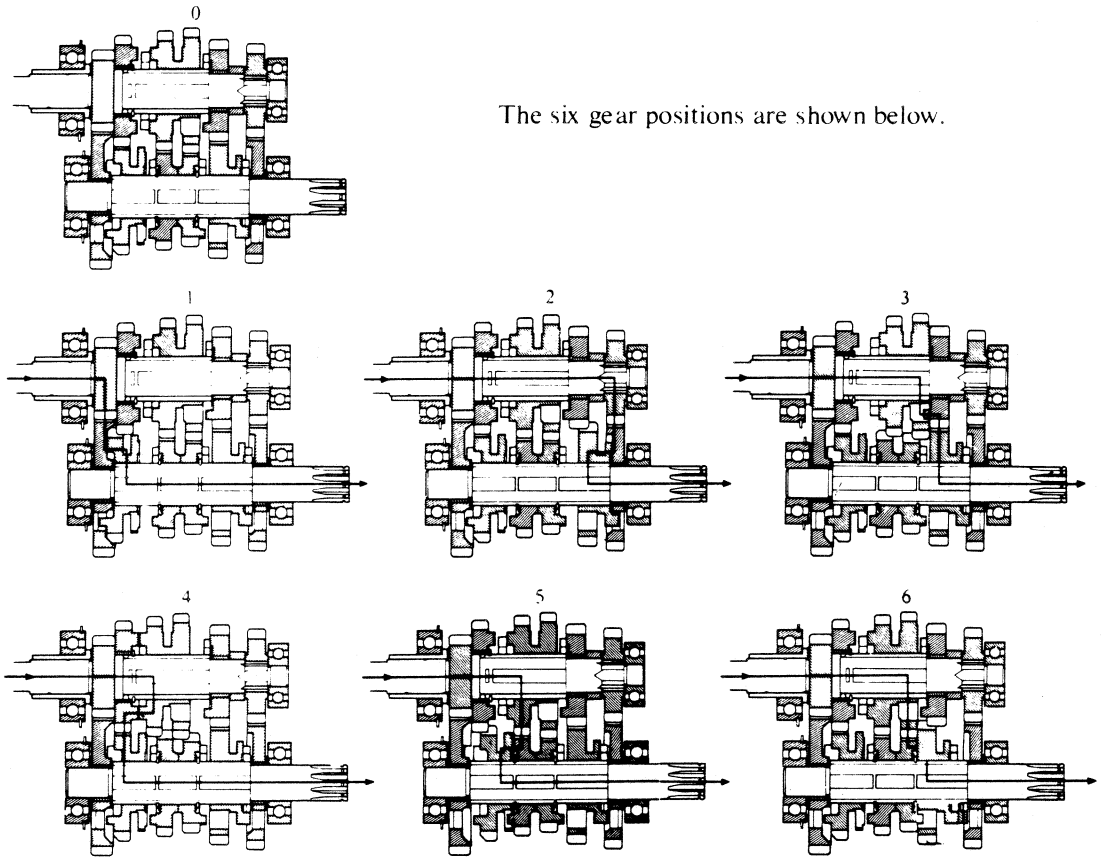
GB Gearbox five speed
250 CR MK 0001 →
400 CR MK 0001 →
450 cc MK 0001 →
250 RT and 360 RT

Husqvarna motorcycles

Gearbox six speed



The six gear positions are shown below.



Function
The gearbox has six speeds. The gear wheels, shafts and gear shifter of the gearbox are enclosed in a gearbox housing which is integrally built with the engine. The gearbox housing contains a certain amount of oil which is splashed around by the gear wheels and lubricates the contact surfaces.

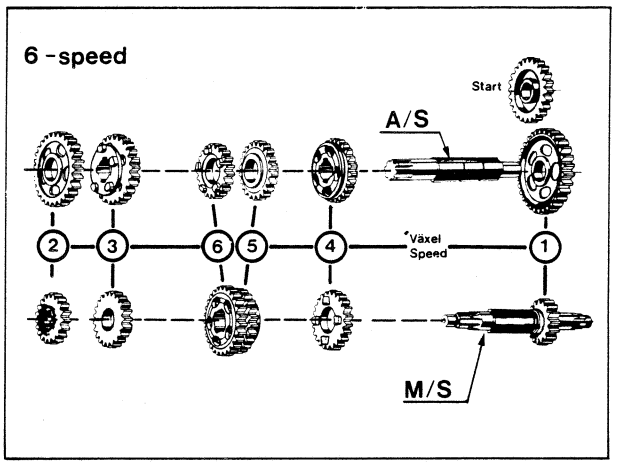


Fig. 3.1

Dismantling
Remove cylinder, ignition system, drive gear and clutch. Apart the crank case halves. See resp. chapter.

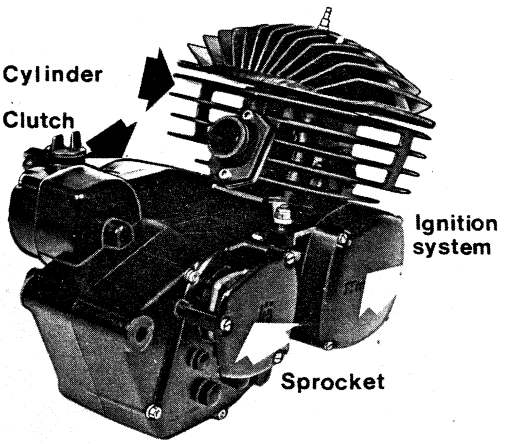


Fig. 3.2

Remove the shifting shaft with washer, pawl and stepfeeder. Take out the ratchet sleeve with spring.

Fig. 3.3

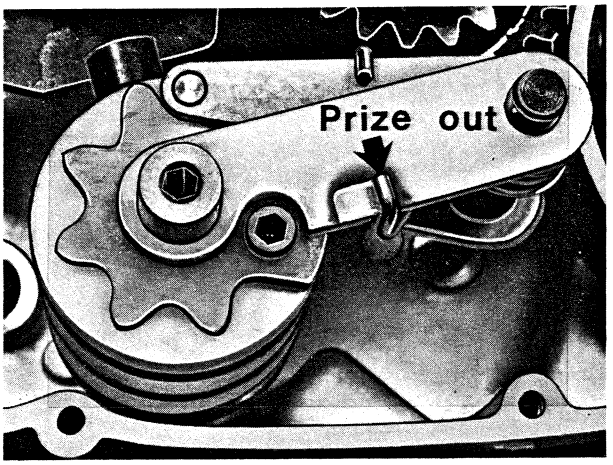


Fig. 4.1

Disassemble the ratchet arm with spring and distance arm. See fig. 4.1.
This does only intend engines with ratchet mechanism type ratchet wheel.
Remove the ratchet screw. This does not intend mag-engines.

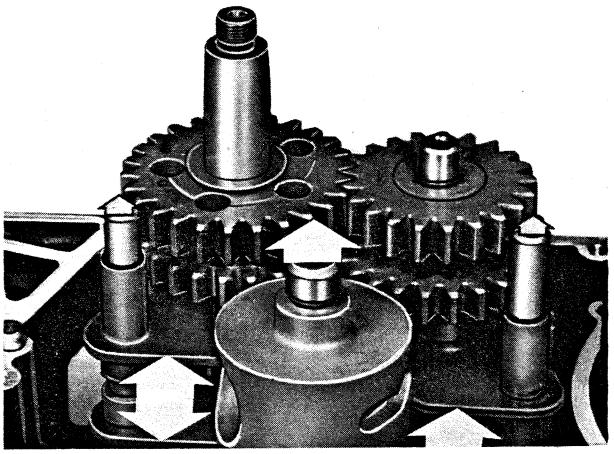


Fig. 4.2

Remove the two gear striker shafts. Take out the linkroller with washer and the gear strikers with guiderollers. See fig. 4.2.

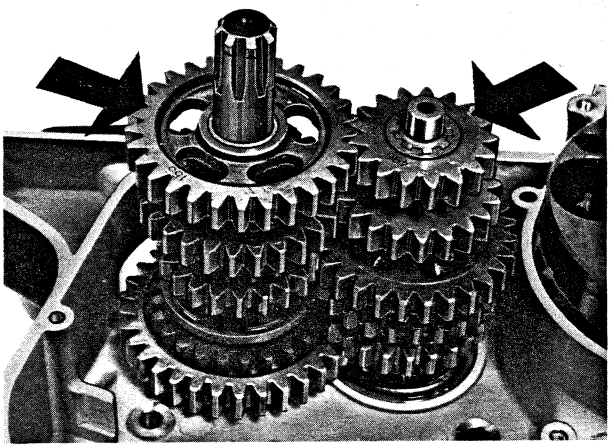


Fig. 4.3

Disassemble all the gear wheels with washers, bushings and circlips. Remove the two shafts.
If necessary, press out the clutch bearing sleeve from the main shaft bearing.
This doesn't intend engines with rubber damped clutch.

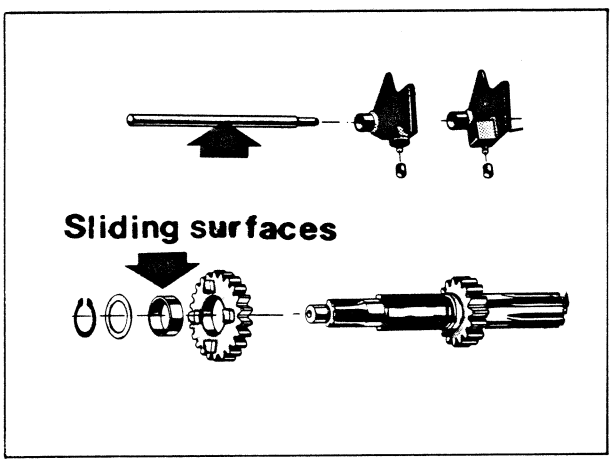


Fig 4.4

Mounting.
When reassembling the gearbox is it very important to lubricate all sliding surfaces very carefully.

Press the clutch bearing sleeve into the main shaft bearing. See fig. 5.1.

NOTE! This does not intend engines with rubber damped clutch.

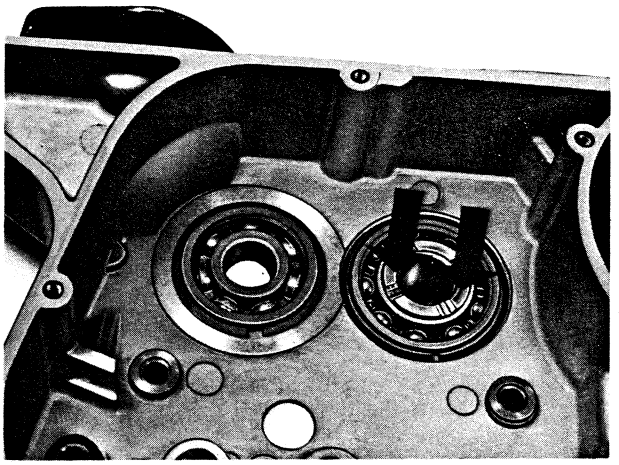


Fig. 5.1

Locate the ratchet sleeve with spring in the crankcase bushing. On mag-engines with ratchet mechanism type ratchet sleeve must this ratchet sleeve also be installed now. See fig. 5.2.

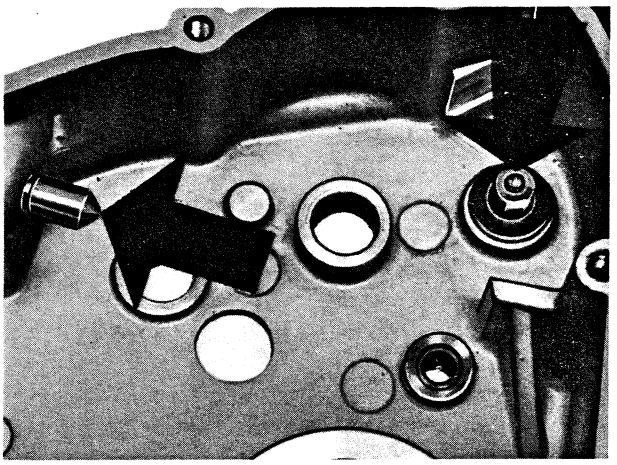


Fig. 5.2

Install fifth and sixth gear wheels with washers and circlips on the sprocket shaft. See fig. 5.3.

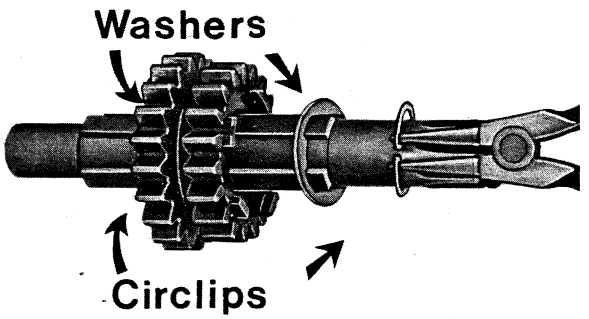


Fig. 5.3

Check that the circlips are correct positioned.
See fig. 6.1.

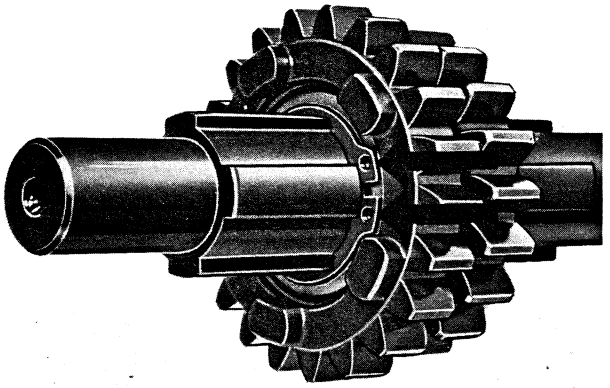


Fig. 6.1

Install the fourth gear wheel and the first gear wheel washer and sleeve.
See fig. 6.2.

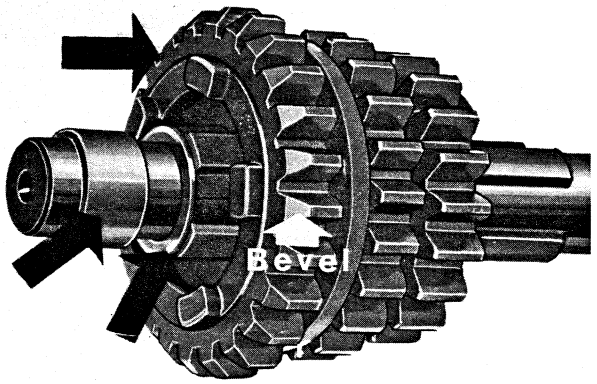


Fig. 6.2

Put the first gear pinion in position and insert the sprocket shaft into the crankcase half.
See fig. 6.3.

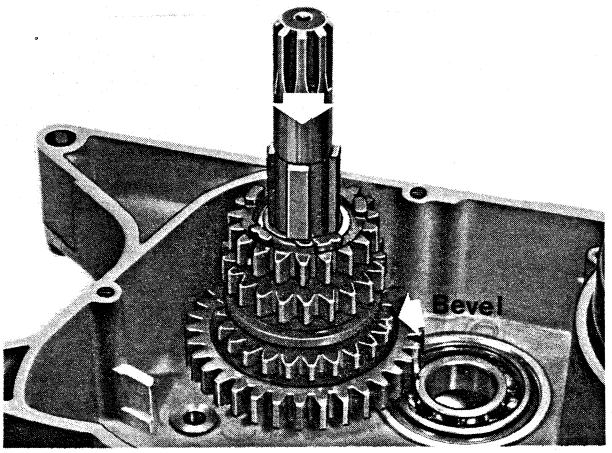


Fig. 6.3

Mount the fourth gear pinion with sleeve, washer and circlip on the main shaft.
See fig. 6.4.
Make sure that the circlip is correct installed.

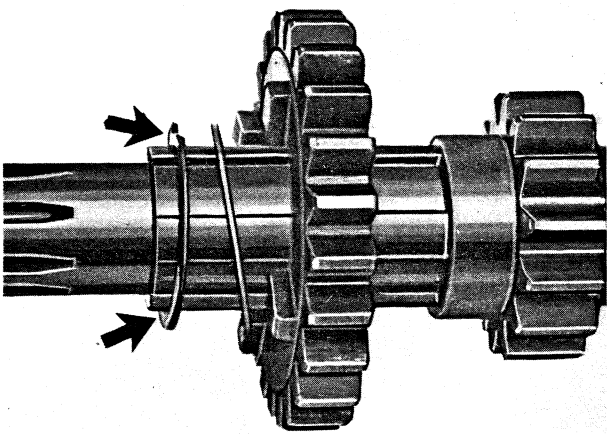


Fig. 6.4

Insert the main shaft into the crankcase half and engage the gear wheels.
See fig. 7.1.

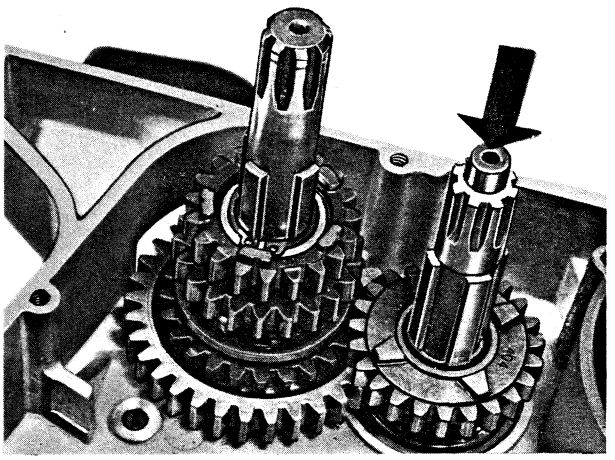


Fig. 7.1

Install the fifth – sixth gear wheel on the main shaft and the third gear pinion on the sprocket shaft.
See fig. 7.2.

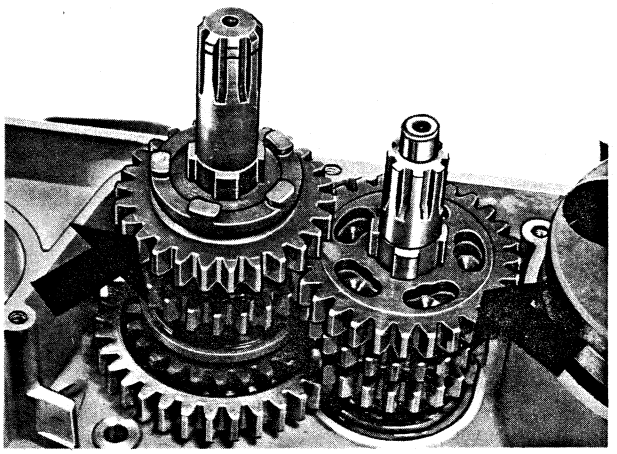


Fig. 7.2

Apply the washers and sleeves on both shafts as shown in fig. 7.3. The widest sleeve on the main shaft.

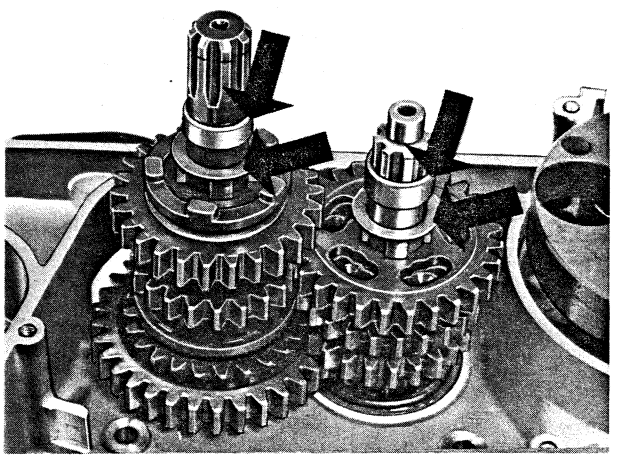


Fig. 7.3

Insert the third gear pinion with spacing ring on the main shaft.
See fig. 8.1.

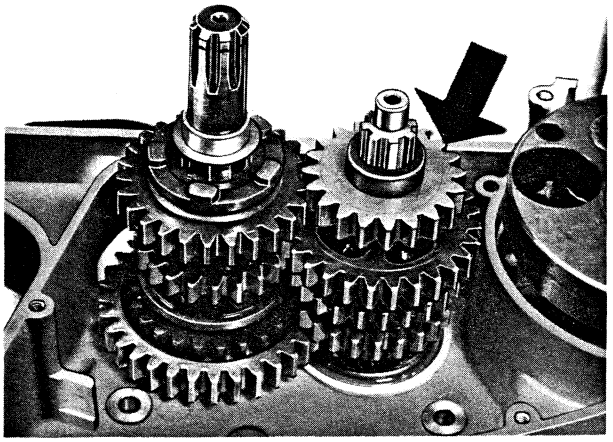


Fig. 8.1

Install the second gear pinions on both shafts as shown in fig. 8.2.

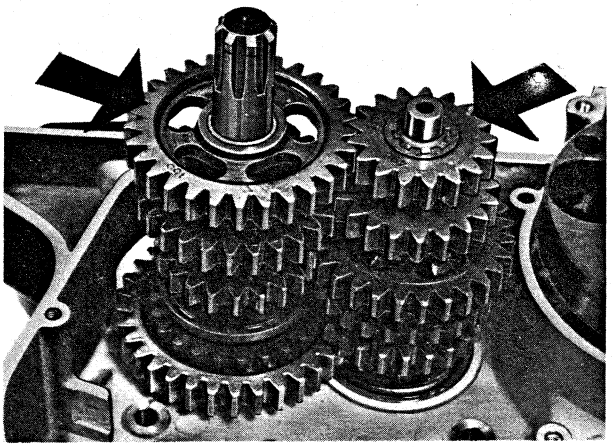


Fig. 8.2

Put the gear strikers in position and install guiderollers on the dowels.
See fig. 8.3.

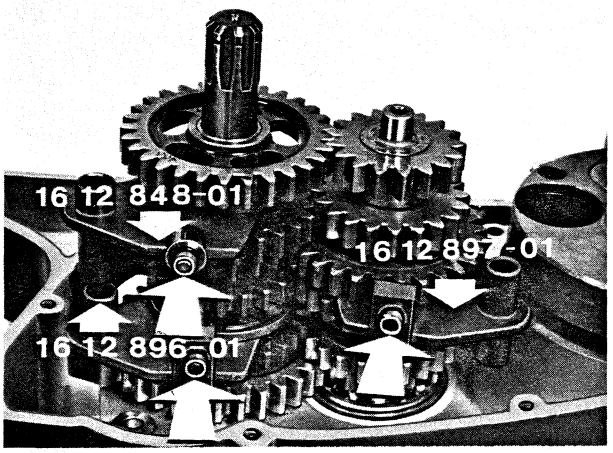


Fig. 8.3

Insert the linkroller as shown in fig. 8.4. Don't forget the washer. On mag-engines with ratchet mechanism type ratchet sleeve must the sleeve be compressed into its bushing when mounting the linkroller.

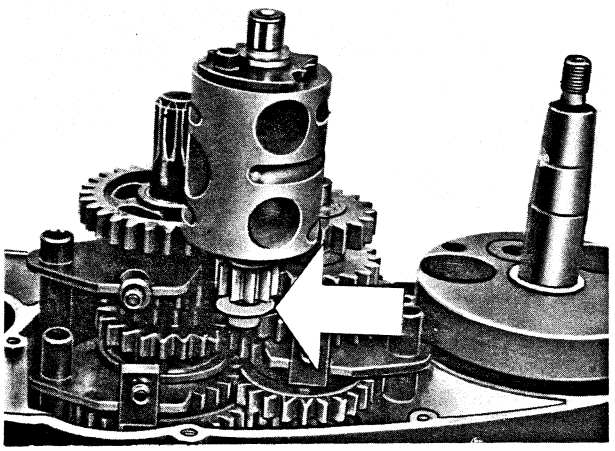


Fig. 8.4

Engage the gear strikers to the linkroller and put the two gear striker shafts in position.
See fig. 9.1.
Turning the linkroller some backwards and forwards makes engaging easier.

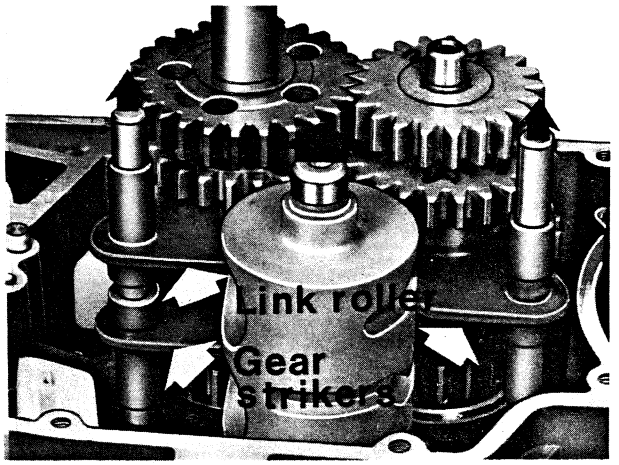


Fig. 9.1

Install the circlip and washer on the front gear striker shaft.
See fig. 9.2.
NOTE! This does only intend engines with ratchet mechanism type ratchet wheel

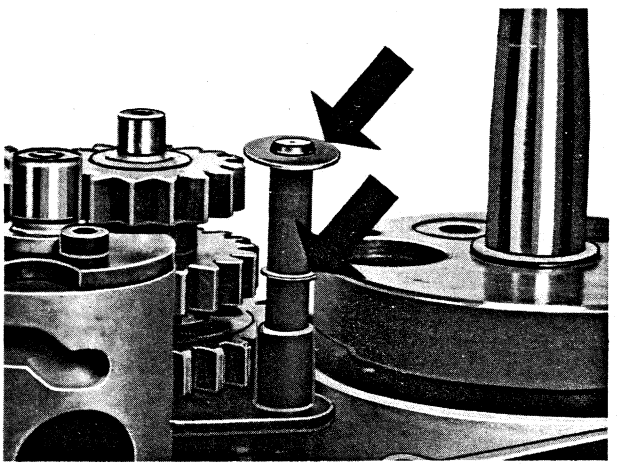


Fig. 9.2

Insert the ratchet arm into the spring.
See fig. 9.3.

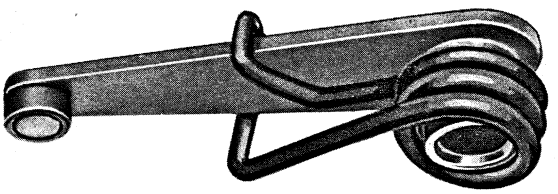


Fig. 9.3

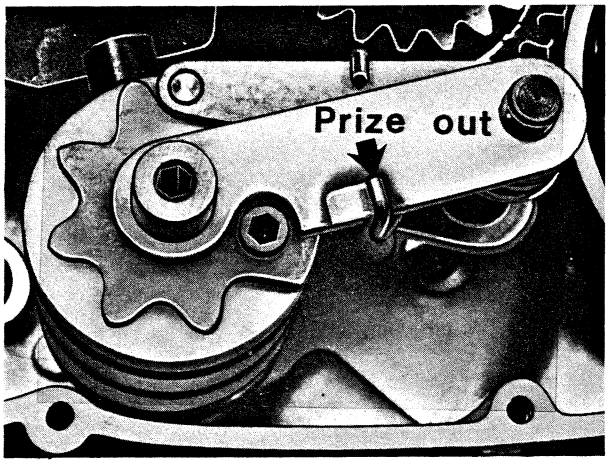


Fig. 10.1

Put the ratchet arm with spring and the distance arm in position as shown in fig. 10.1.

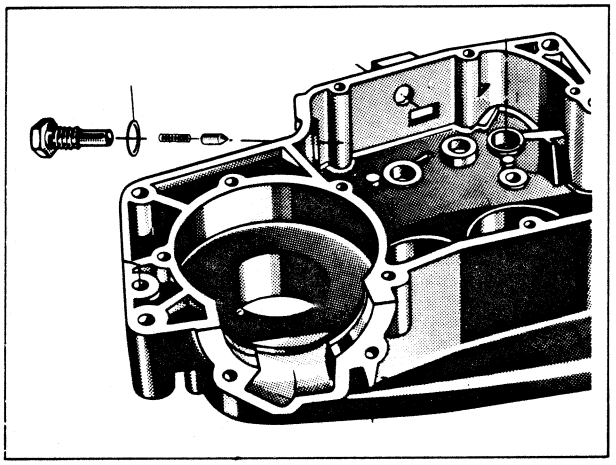


Fig. 10.2

Fit the link roller ratchet sleeve in position.
See fig. 10.2.

NOTE! This does neither intend mag-engines with ratchet mechanism type ratchet sleeve or engines with ratchet mechanism type ratchet wheel.

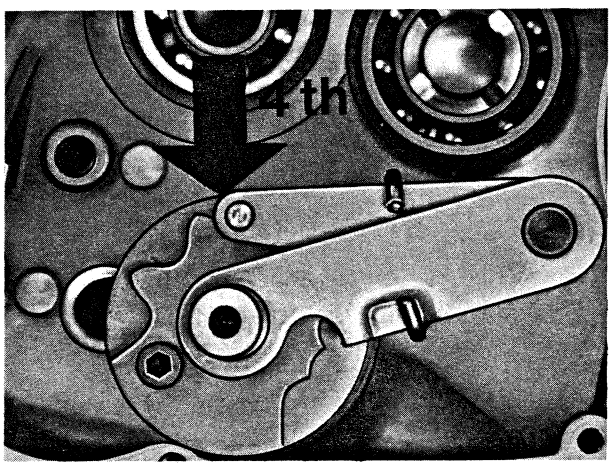


Fig. 10.3

Turn the linkroller to the fourth gear position and let it be there during the rest of the assembling.
See fig. 10.3, 10.4 and 11.1.

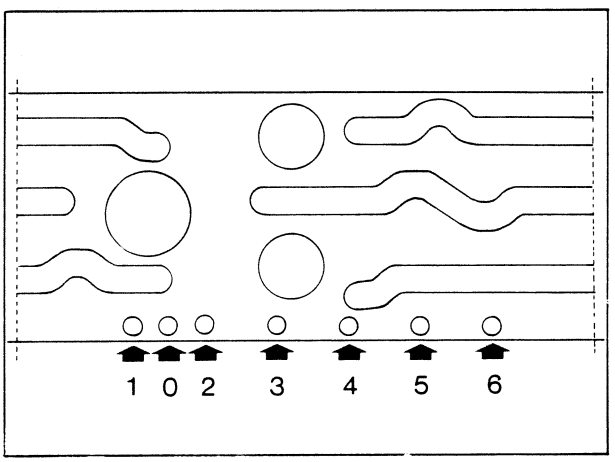


Fig. 10.4

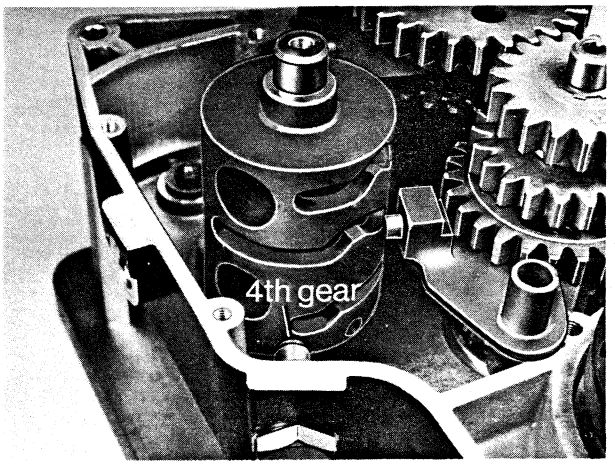


Fig. 11.1

Engage the stepfeeder so that two cogs are visible to the left and one to the right of the linkroller when the linkroller is in the fourth gear position.
See fig. 11.2.

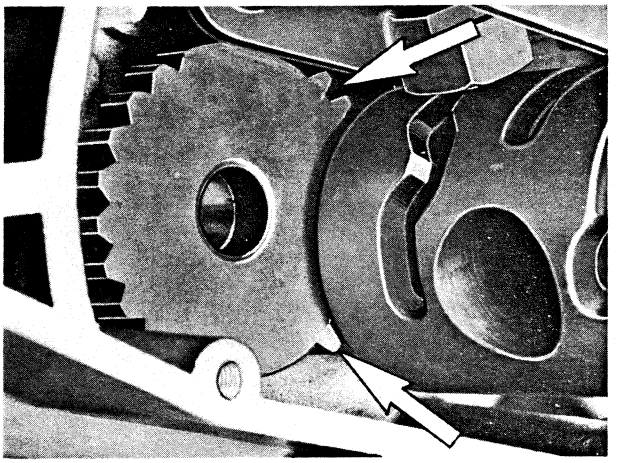


Fig. 11.2

Put the pawl on the shifting shaft.
See fig. 11.3.

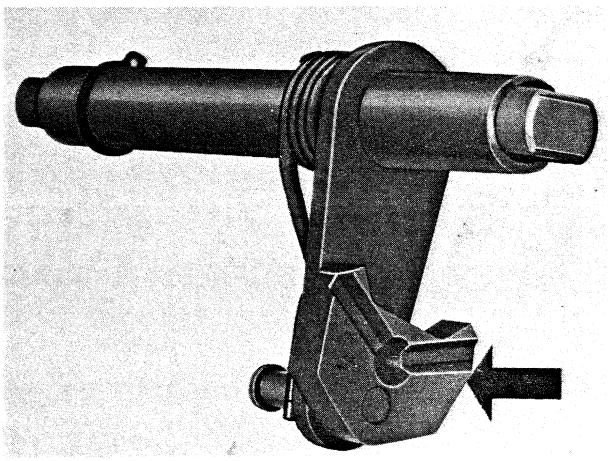


Fig. 11.3

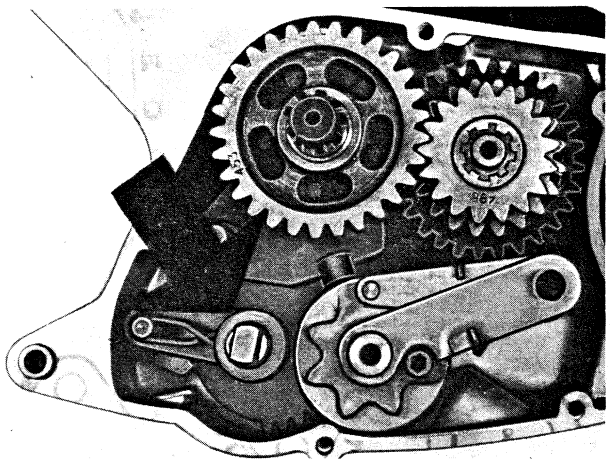


Fig. 12.1

Insert the shifting shaft through the stepfeeder and into the crankcase half. Locate the notch in the pawl against the ratchet sleeve. Install the washer on the shifting shaft.
For the rest of the mounting see chapter: Engine.

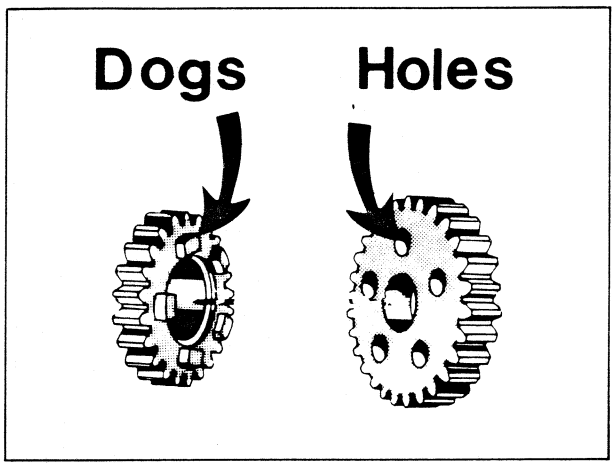


Fig. 12.2

Time for repairs—maintenance
Check that all dogs and holes are in tact. When they are worn round on the edges there is risk for the gear to jump out.

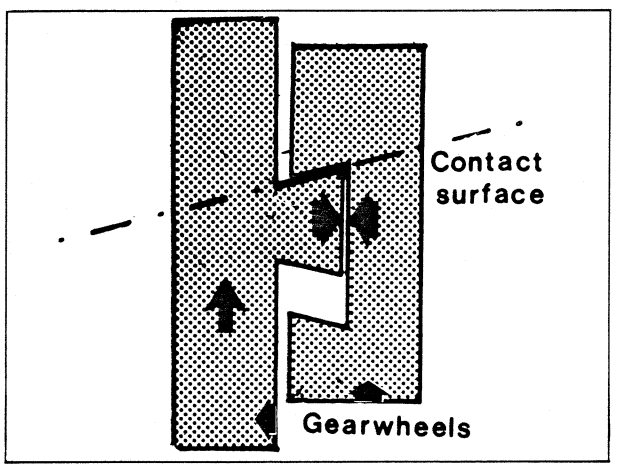


Fig. 12.3

The dogs and the holes of the gear wheels are designed to keep the gear wheels close together when the torque is transmitted.

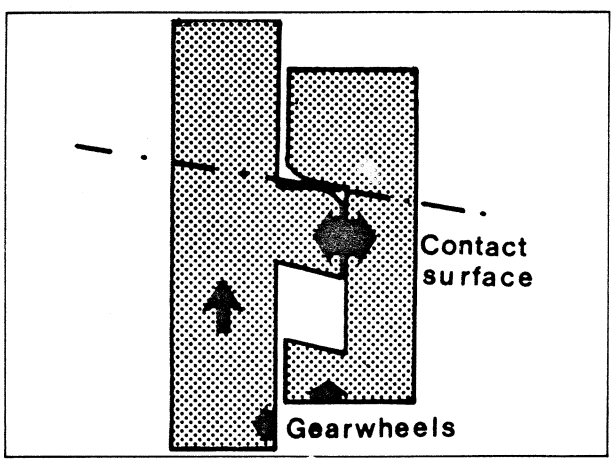
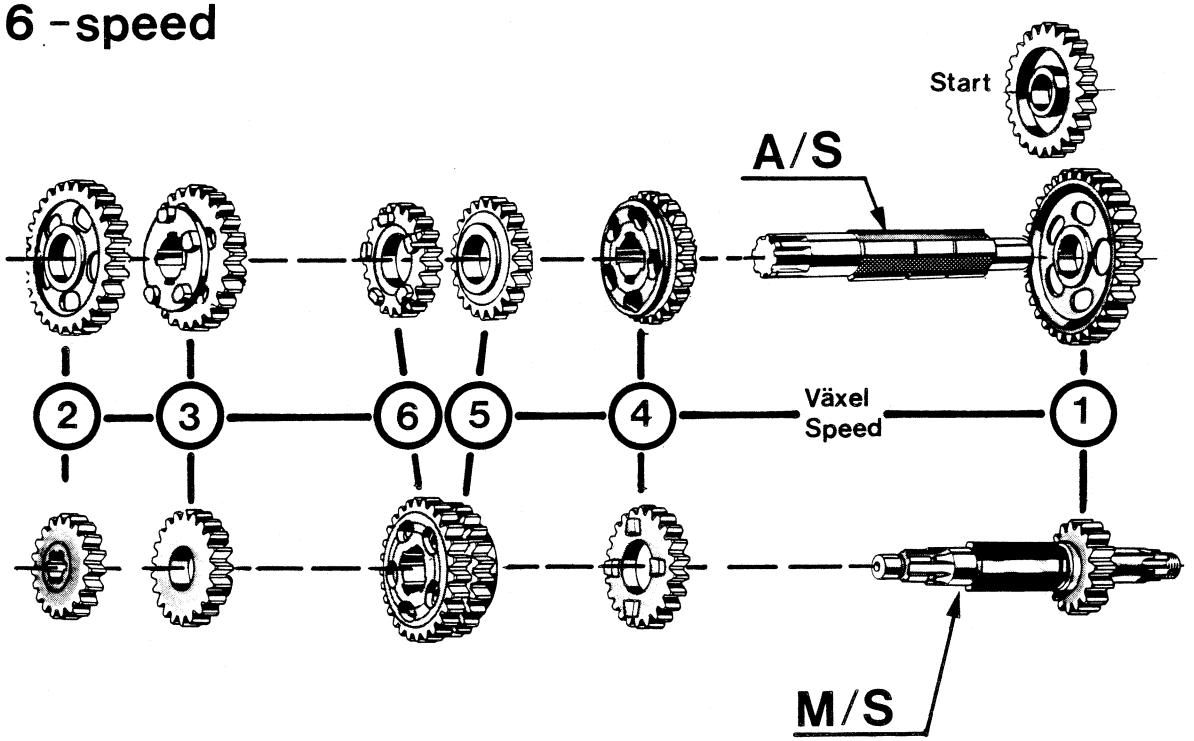


Fig. 12.4

The gear wheels are worn out when the torque doesn't keep the gear wheels together any more.

Husqvarna motorcycles

6 -speed

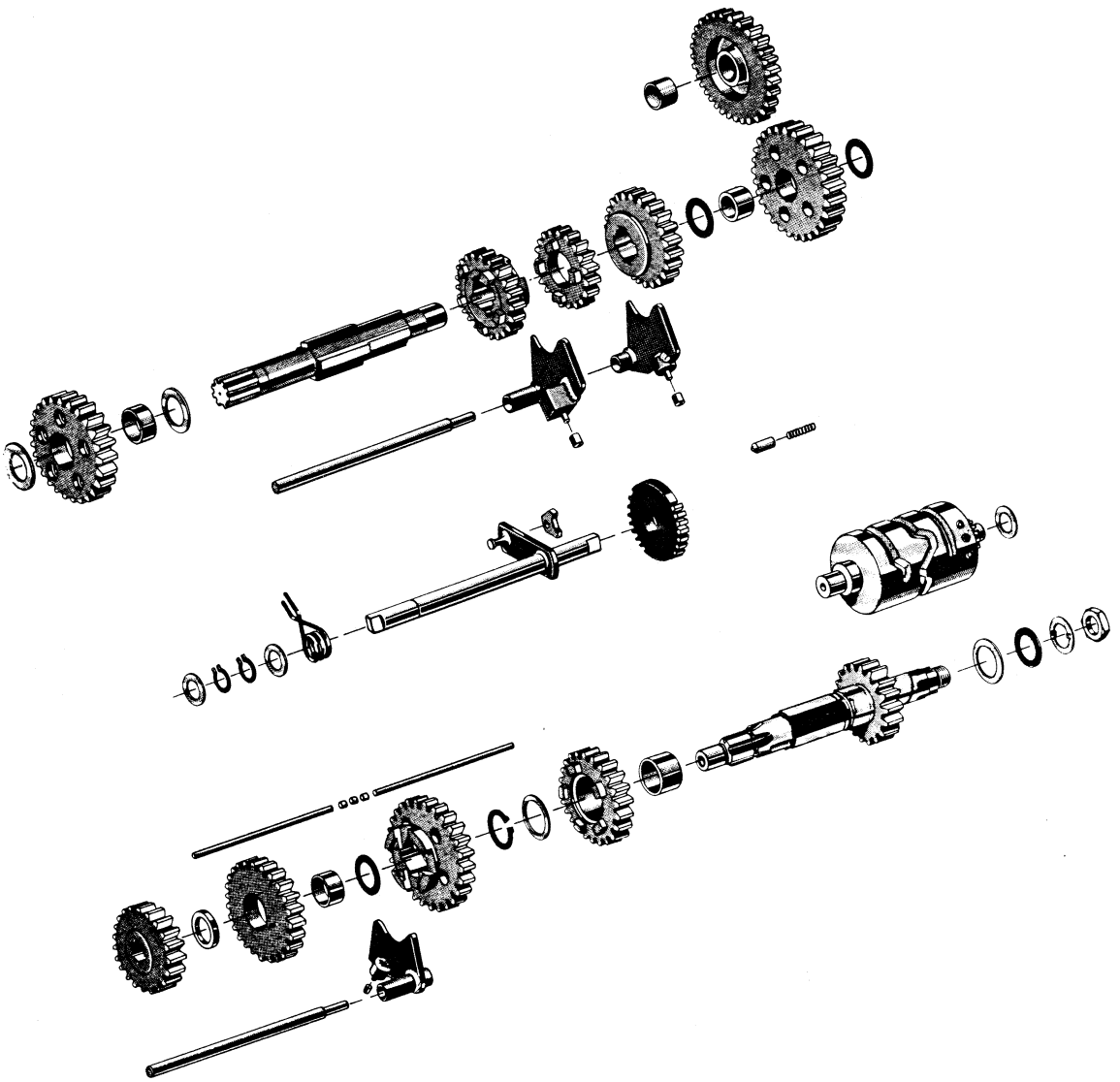


Växellåda Gearbox	Axel Shaft	1		Steg Ratio	2		Steg Ratio	3		Steg Ratio	4		Steg Ratio	5		Steg Ratio	6		Kugghjul Gearwheel start för vevhus for crankcase		
		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no
6-vxl CR 6-sp till/to 2035-0340	M/S A/S	16 31	16 12 400-01 16 12 406-01	1,33	19 28	16 12 402-01 16 12 407-01	1,19	21 26	16 12 403-01 16 12 408-01	1,18	23 24	16 12 404-01 16 12 409-01	1,18	25 22	16 12 405-01 16 12 410-01	1,13	27 21	16 12 405-01 16 12 411-01	250-450 125 MAG	24 24 23	16 12 413-01 16 12 413-01 16 12 482-01
6-vxl CR 6-sp från/from 2035-0341	M/S A/S	15 31	16 12 475-01 16 12 406-01	1,33	18 28	16 12 476-01 16 12 407-01	1,26	21 26	16 12 403-01 16 12 408-01	1,18	23 24	16 12 404-01 16 12 409-01	1,18	25 22	16 12 405-01 16 12 410-01	1,13	27 21	16 12 405-01 16 12 411-01	250-450 125 MAG	24 24 23	16 12 413-01 16 12 413-01 16 12 482-01
6-vxl CR 6-sp "Nya koppl. "New clutch	M/S A/S	15 31	16 12 477-01 * 16 12 406-01	1,33	18 28	16 12 596-01 * 16 12 597-01	1,26	21 26	16 12 403-01 16 12 408-01	1,18	23 24	16 12 404-01 16 12 409-01	1,18	25 22	16 12 405-01 16 12 410-01	1,13	27 21	16 12 405-01 16 12 411-01	250-450 125 MAG	24 24 23	16 12 413-01 16 12 413-01 16 12 482-01
6-vxl WR 6-sp till/to MK-19500	M/S A/S	14 33	16 12 441-01 16 12 442-01	1,46	18 29	16 12 451-01 16 12 453-01	1,30	21 26	16 12 403-01 16 12 408-01	1,18	23 24	16 12 404-01 16 12 409-01	1,18	25 22	16 12 452-01 16 12 410-01	1,19	27 20	16 12 452-01 16 12 454-01	250-450 125 MAG	22 22 21	16 12 883-01 16 12 883-01 16 12 501-01
6-vxl WR 6-sp efter/after MK-19500	M/S A/S	14 33	16 12 495-01 * 16 12 442-01	1,38	17 29	16 12 496-01 * 16 12 453-01	1,32	20 26	16 12 497-01 16 12 408-01	1,25	23 24	16 12 404-01 16 12 409-01	1,24	25 21	16 12 499-01 16 12 498-01	1,24	28 19	16 12 499-01 16 12 500-01	250-450 125 MAG	22 22 21	16 12 883-01 16 12 883-01 16 12 501-01
6-vxl WR 6-sp "Nya koppl." "New clutch"	M/S A/S	14 33	16 12 508-01 * 16 12 442-01	1,38	17 29	16 12 496-01 * 16 12 453-01	1,32	20 26	16 12 497-01 16 12 408-01	1,25	23 24	16 12 404-01 16 12 409-01	1,24	25 21	16 12 499-01 16 12 498-01	1,24	28 19	16 12 499-01 16 12 500-01	250-450 125 MAG	22 22 21	16 12 883-01 16 12 883-01 16 12 501-01

* OBS! Ny splines. Måste monteras med lagerhylsa 16 12 480-01 och distansring 16 12 481-01.
Note. New splines. Must be mounted with bushing 16 12 480-01 and spacer 16 12 481-01.

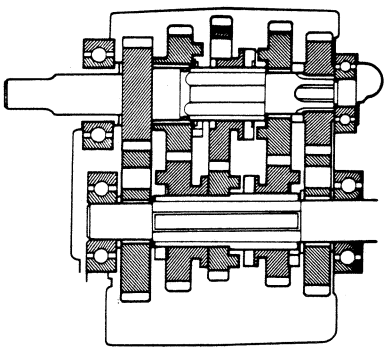
Husqvarna motorcycles

Gearbox five speed

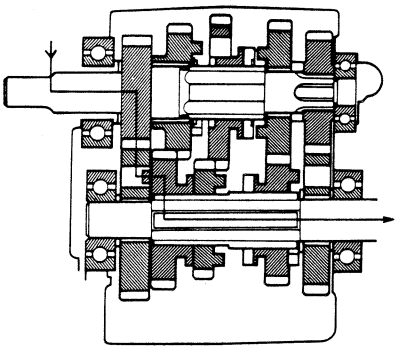


The five gear positions are shown below

0.



1.



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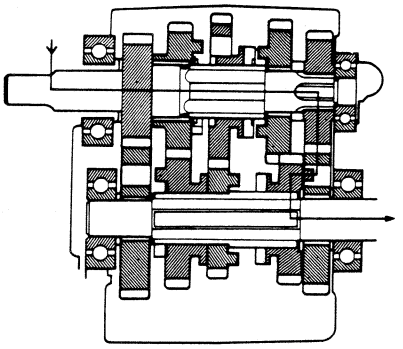
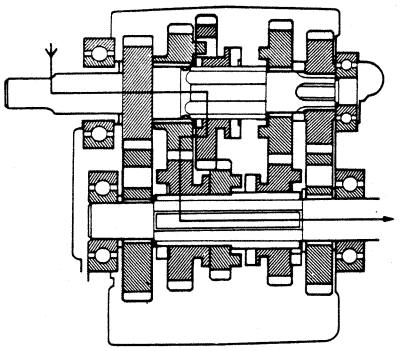
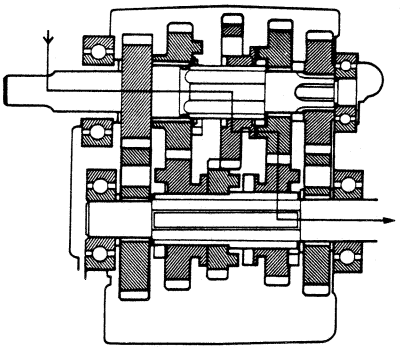


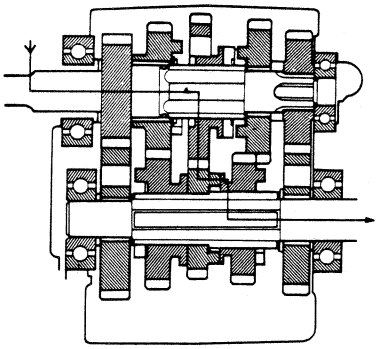
3.



4.



5.



Function
The gearbox has five speeds. The gear wheels, shafts and gear shifter of the gearbox are enclosed in a gearbox housing which is integrally built with the engine. The gearbox housing contains a certain amount of oil which is splashed around by the gear wheels and lubricates the contact surfaces.

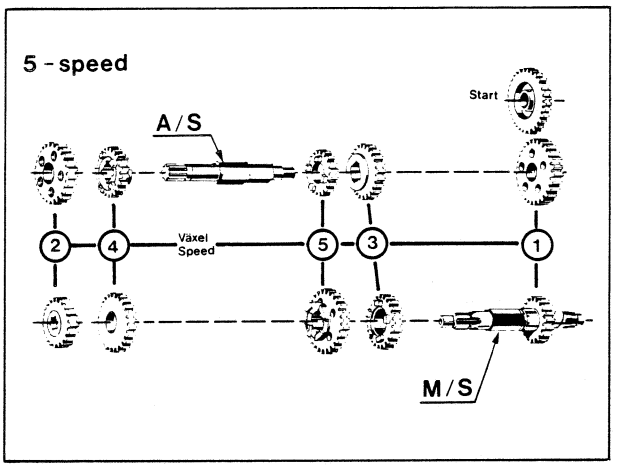


Fig. 3.1

Dismantling
Remove cylinder, ignition system, drive gear and clutch. Aport the crank case halves. See resp. chapter.

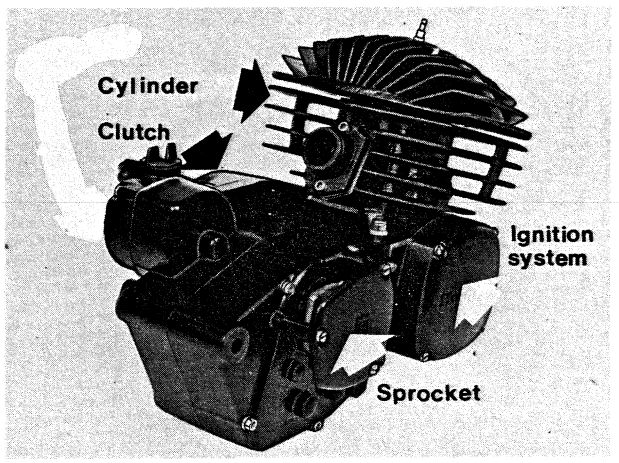


Fig. 3.2

Remove the shifting shaft with washer, pawl and step feeder. Take out the ratchet sleeve with spring.

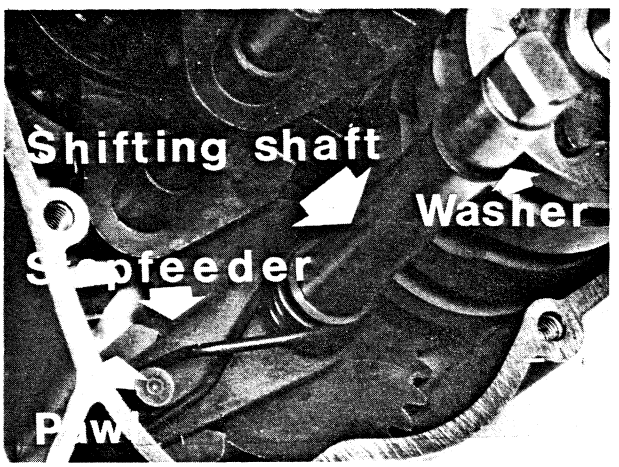


Fig. 3.3

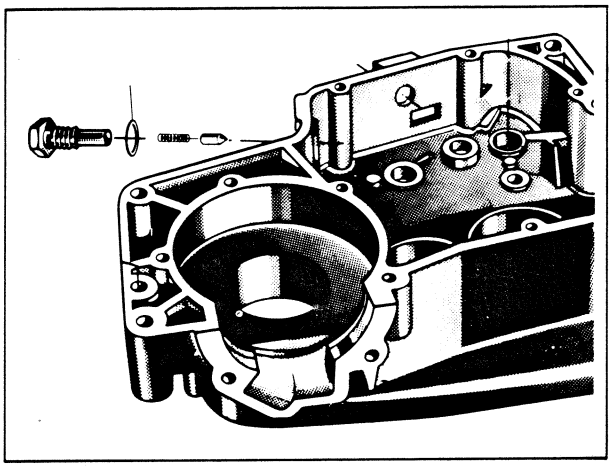


Fig. 4.1

Disassemble the ratchet screw with ratchet sleeve, spring and washer.

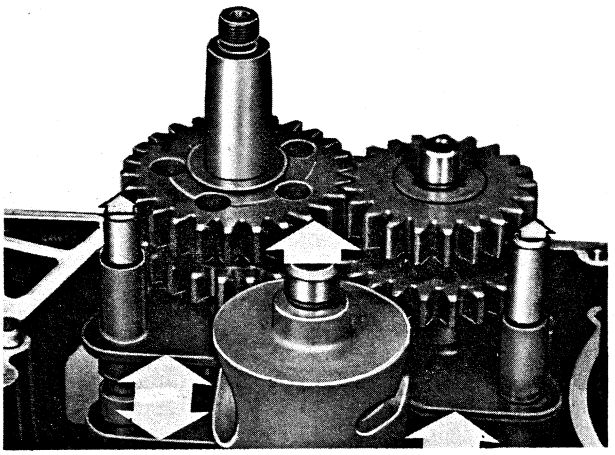


Fig. 4.2

Remove the two gear striker shafts. Take out the linkroller with washer.
Se fig. 4.2.

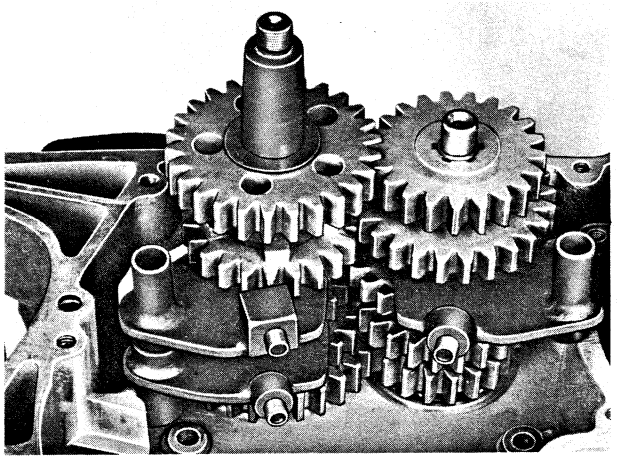


Fig. 4.3

Disassemble all the gear wheels with gear strikers washers, bushings and circlips. Remove the two shafts. See fig. 4.3.
If necessary press out the clutch bearing sleeve from the main shaft bearing.

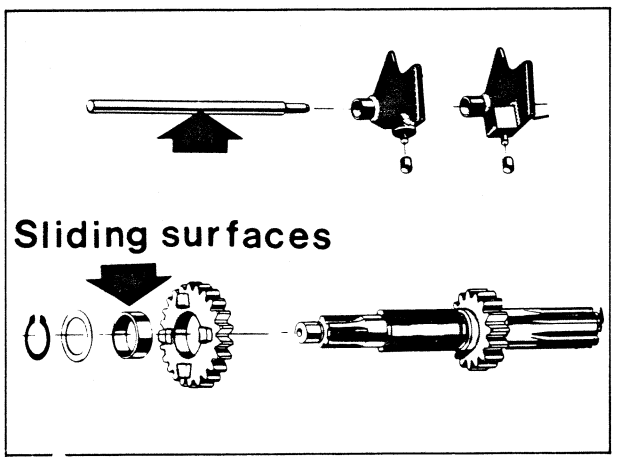


Fig. 4.4

Mounting
When reassembling the gearbox is it very important to lubricate all sliding surfaces very carefully.

Press the clutch bearing sleeve into the main shaft bearing. See fig. 5.1.

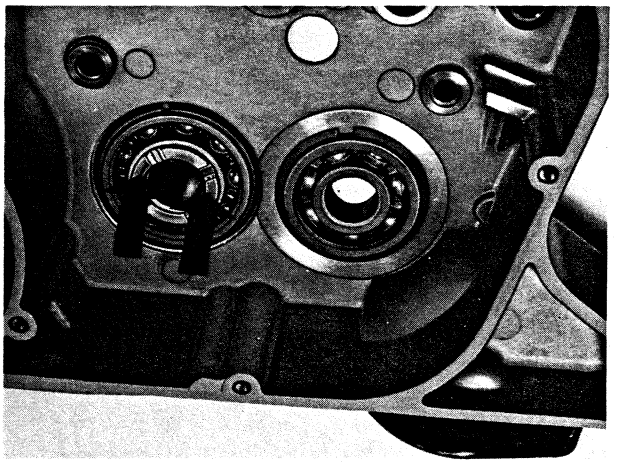


Fig. 5.1

Locate the ratchet sleeve with spring in the crankcase bushing. On mag-engines with ratchet mechanism type ratchet sleeve must this ratchet sleeve also be installed now. Se fig. 5.2.

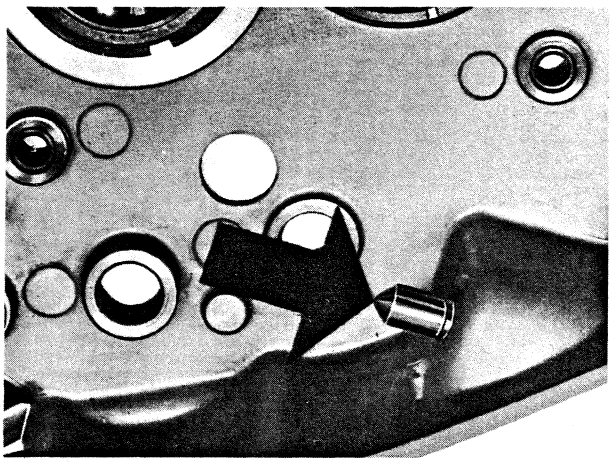


Fig. 5.2

Install the 5:th and the 3:rd gear wheel on the sprocket shaft. Assemble the 1:st gear wheel with the two washers and the bearing sleeve. See fig. 5.3.

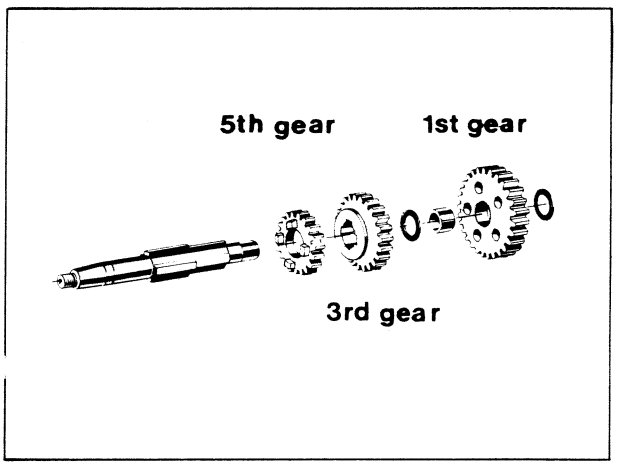


Fig. 5.3

Install the sprocket shaft into the crankcase half. See fig. 6.1.

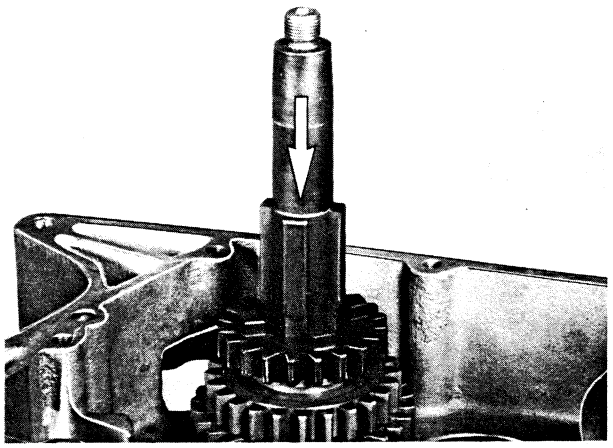


Fig. 6.1

Assemble the 3:rd gear wheel with bearing sleeve washer and circlip on the main shaft. See fig. 6.2.
NOTE! Make sure that the circlip is correct positioned.

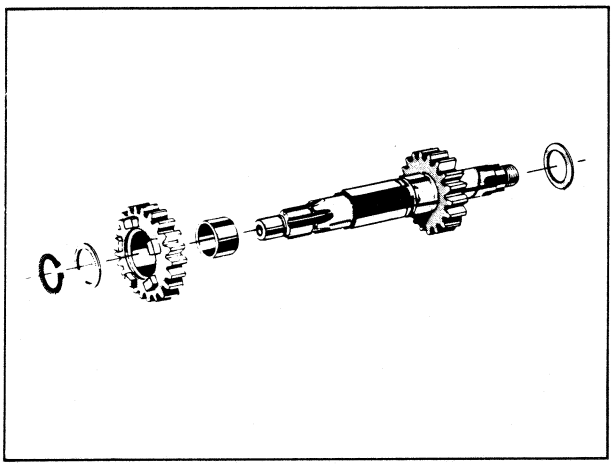


Fig. 6.2

Insert the main shaft into the crankcase half.
See fig. 6.3.

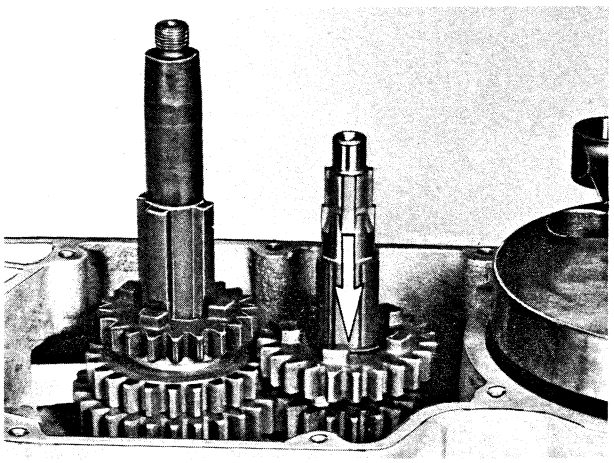


Fig. 6.3

Install the 5:th gear wheel with gear striker on the main shaft.
See fig. 6.4.

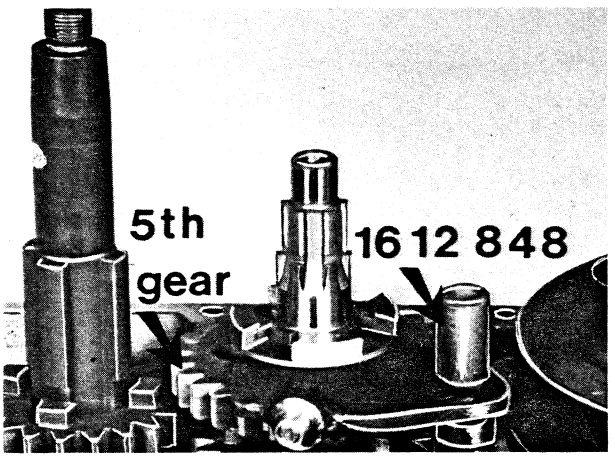


Fig. 6.4

Assemble the 4:th gear wheel on the sprocket shaft.

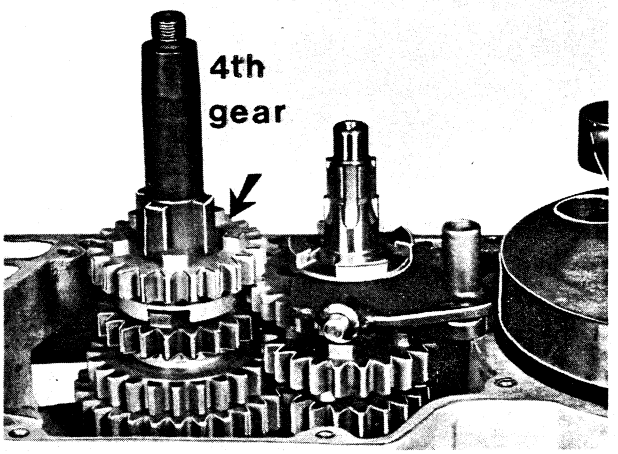


Fig. 7.1

Put the 4:th gear wheel with spacer in position on the main shaft. See fig. 7.2.

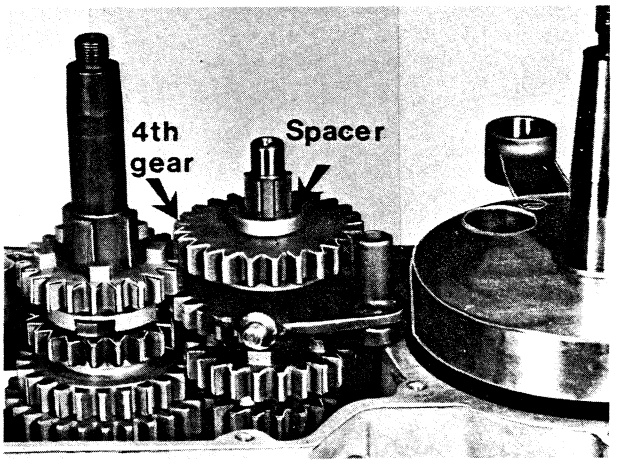


Fig. 7.2

Assemble the 2:nd gear wheel with washers and bearing sleeve on the sprocket shaft. See fig. 7.3.

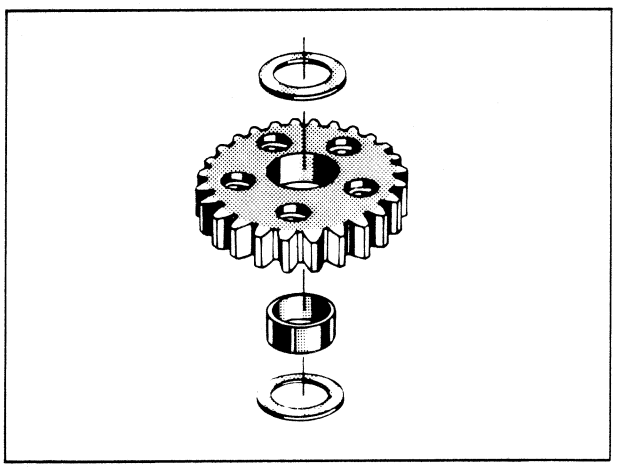


Fig. 7.3

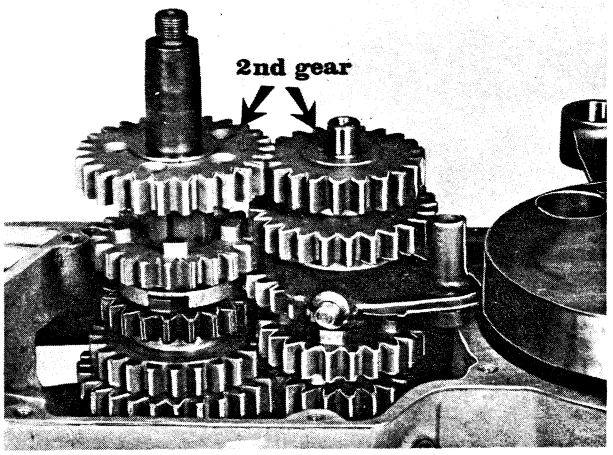


Fig. 8.1

Install the 2:nd gear wheel on the main shaft.
See fig. 8.1.

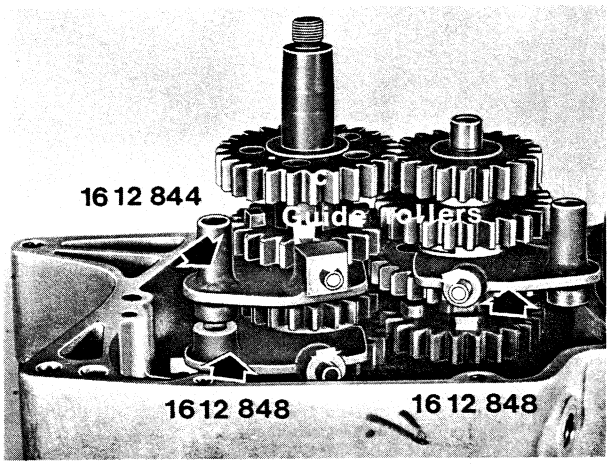


Fig. 8.2

Assemble the gear strikers. Put guide rollers on the dowels.
See fig. 8.2.

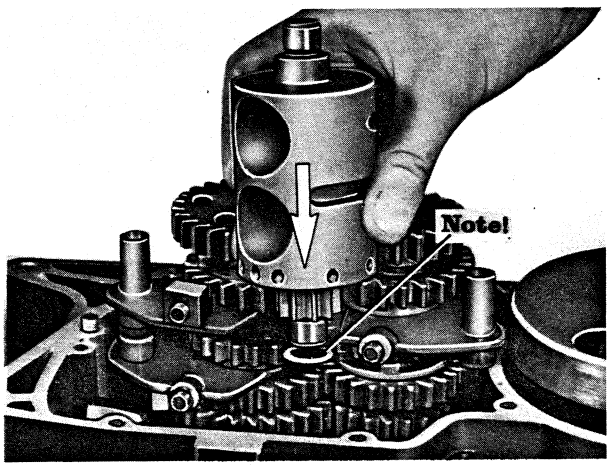


Fig. 8.3

Insert the linkroller into the crankcasse. Don't forget the washer. On mag-engines with ratchet mechanism type ratchet sleeve must the sleeve be compressed into its bushing when mounting the linkroller.

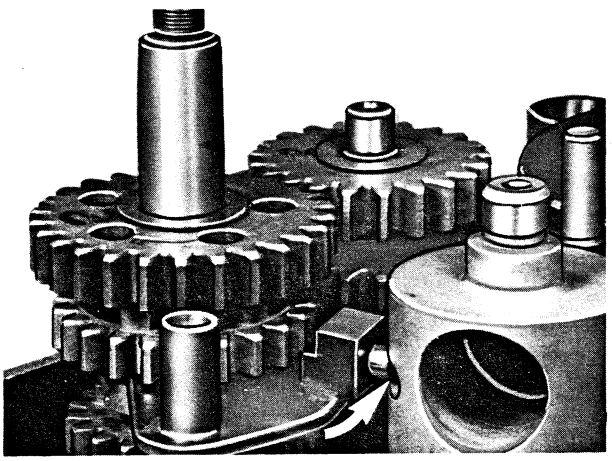


Fig. 8.4

Engage the gear strikers to the linkroller. See fig. 8.4. Turning the linkroller some backwards and forwards makes engaging easier.

Insert the two gear striker shafts through the gear strikers and into the crankcase. See fig. 9.1.

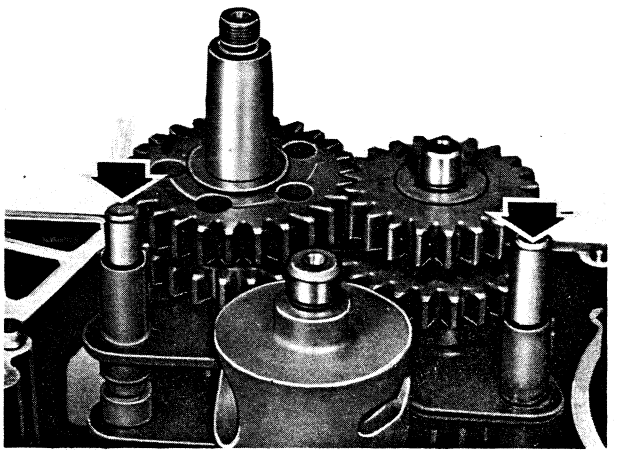


Fig. 9.1

Fit the linkroller ratchet sleeve in position.
This doesn't intend mag-engines with ratchet mechanism type ratchet sleeve.

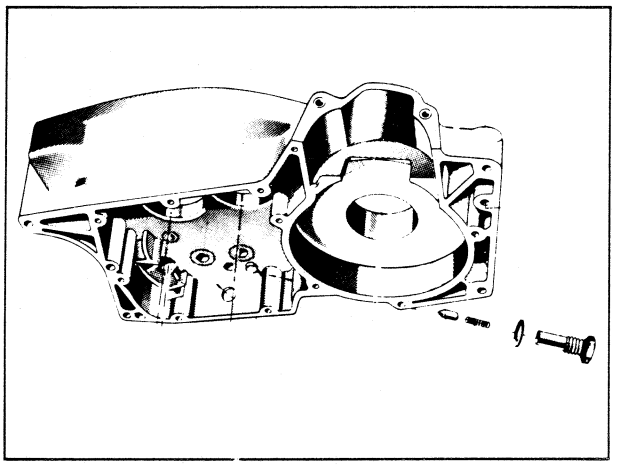


Fig. 9.2

Turn the linkroller to the third gear position and let it be there during the rest of the assembling.

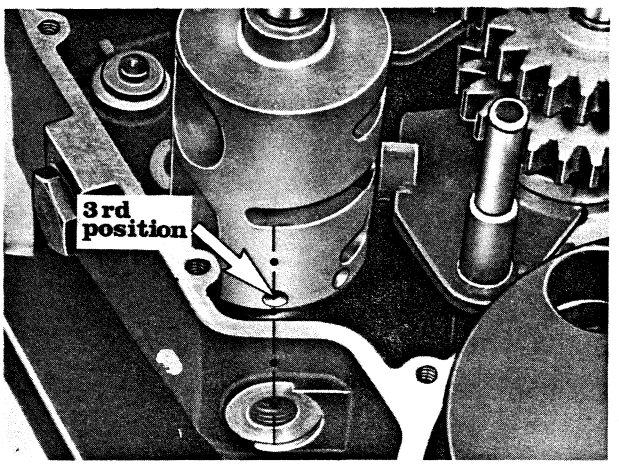


Fig. 9.3

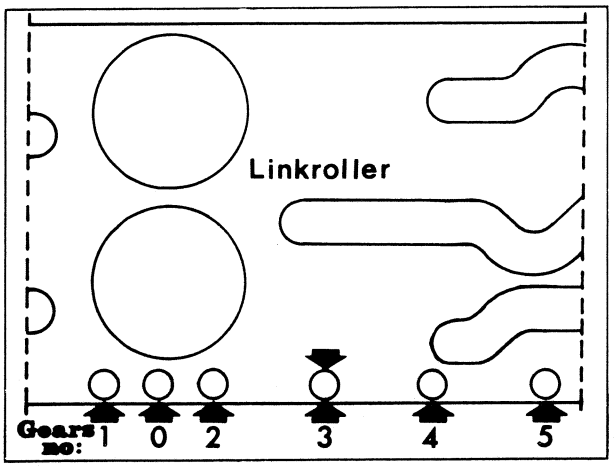


Fig. 10.1

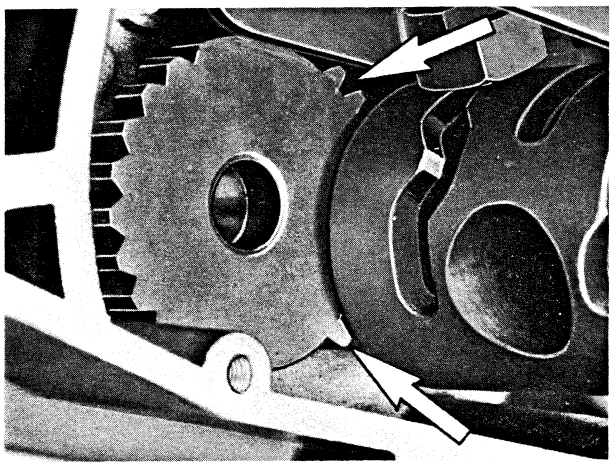


Fig. 10.2

Engage the stepfeeder so that two cogs are visible to the left and one to the right of the linkroller.

Put the pawl on the shifting shaft.
See fig. 10.3.

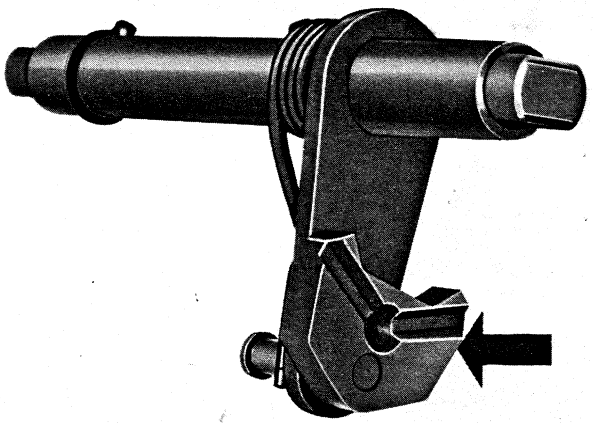


Fig. 10.3

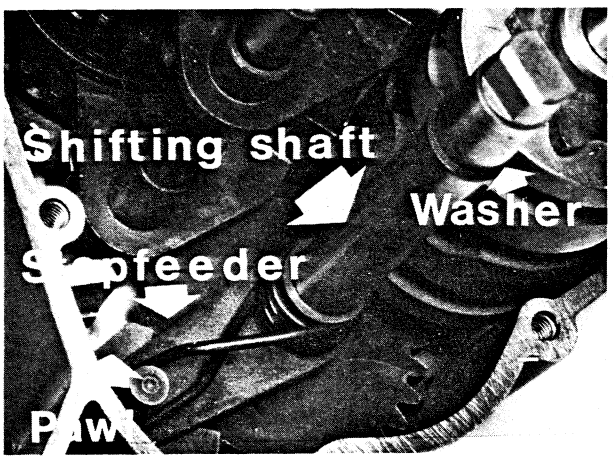


Fig. 10.4

Insert the shifting shaft through the stepfeeder and into the crankcase half. Locate the notch in the pawl against the ratchet sleeve. Install the washer on the shifting shaft.
For the rest of the mounting see chapter: Engine.

Time for repairs—maintenance
Check that all dogs and holes are intact. When they are worn round on the edges there is risk for the gear to jump out.

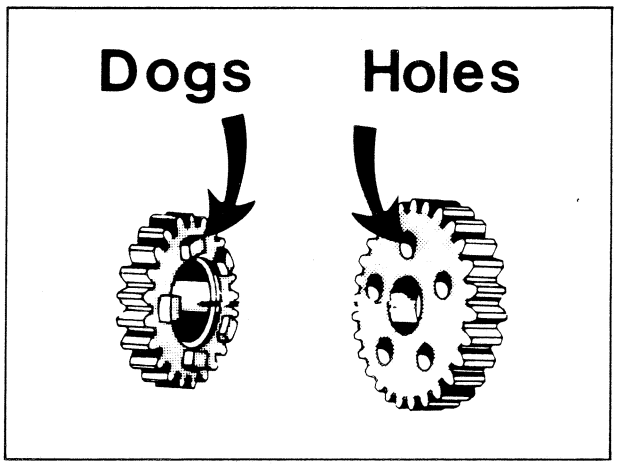


Fig. 11.1

The dogs and the holes of the gear wheels are designed to keep the gear wheels close together when the torque is transmitted.

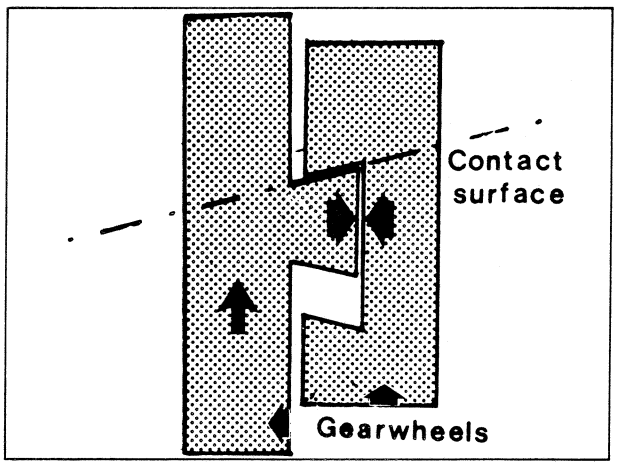


Fig. 11.2

The gear wheels are worn out when the torque doesn't keep the gear wheels together anymore.

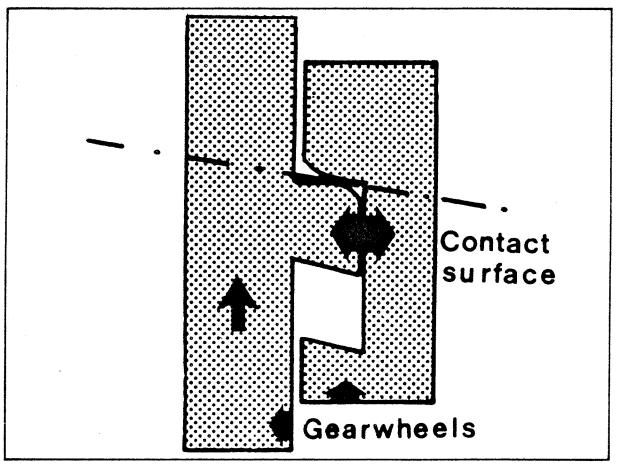
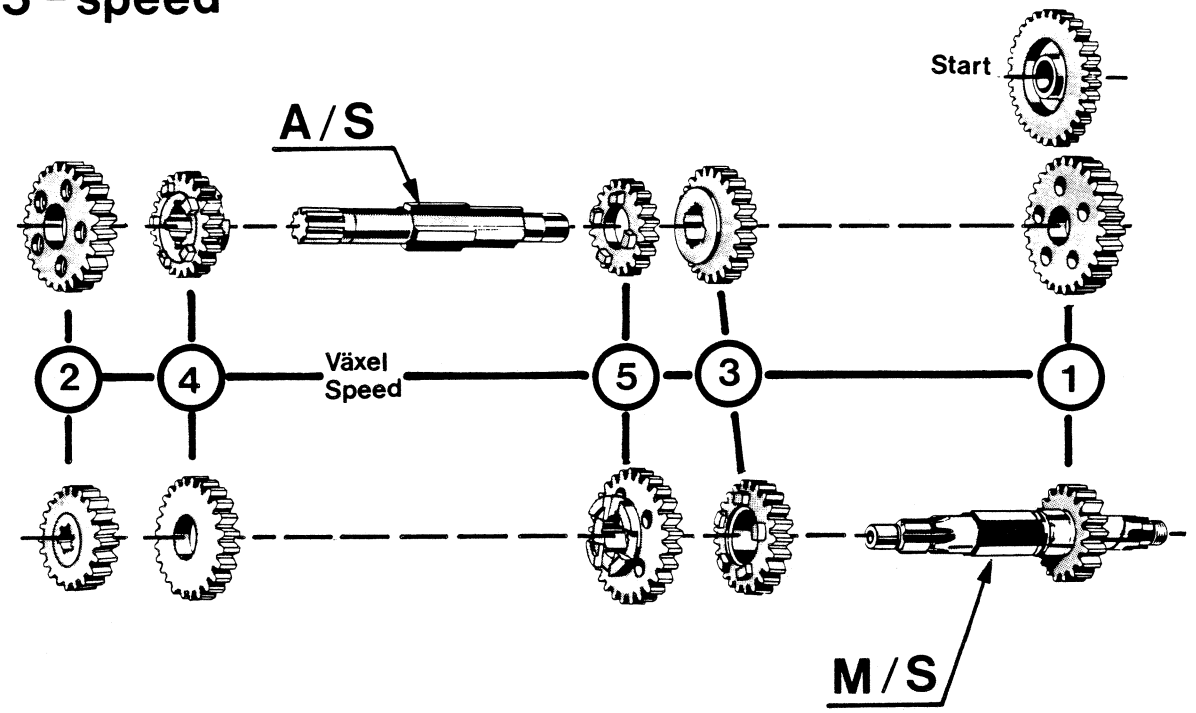


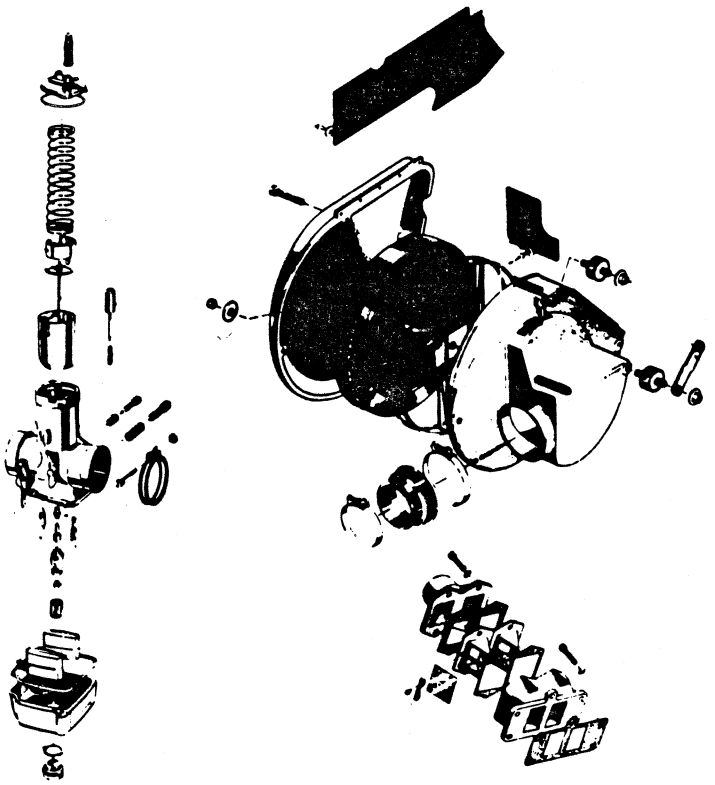
Fig. 11.3

5 - speed



Växellåda Gearbox	Axel Shaft	1		Steg Ratio	2		Steg Ratio	3		Steg Ratio	4		Steg Ratio	5		Kugghjul Gearwheel start		
		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no		z	Det. nr Part no	för vevhus for crankcase	z	Det. nr Part no
5-vxl CR 5-sp	M/S A/S	19 28	16 12 840-01 16 12 858-01	1,19	21 26	16 12 854-01 16 12 859-01	1,19	23 24	16 12 855-01 16 12 860-01	1,18	25 22	16 12 856-01 16 12 861-01	1,19	27 20	16 12 857-01 16 12 862-01	250-450 125	27 27	16 12 872-01 16 12 872-01
5-vxl SC 5-sp	M/S A/S	17 29	16 12 458-01 16 12 460-01	1,31	20 26	16 12 459-01 16 12 461-01	1,25	23 24	16 12 855-01 16 12 860-01	1,18	25 22	16 12 856-01 16 12 861-01	1,19	27 20	16 12 857-01 16 12 862-01	250-450 125 MAG	26 26 24	16 12 462-01 16 12 462-01 16 12 413-01
5-vxl WR 5-sp	M/S A/S	14 33	16 12 875-01 16 12 879-01	1,46	18 29	16 12 876-01 16 12 880-01	1,42	22 25	16 12 877-01 16 12 881-01	1,29	25 22	16 12 856-01 16 12 861-01	1,30	28 19	16 12 878-01 16 12 882-01	250-450 125 MAG	22 22	16 12 883-01 16 12 883-01 16 12 501-01

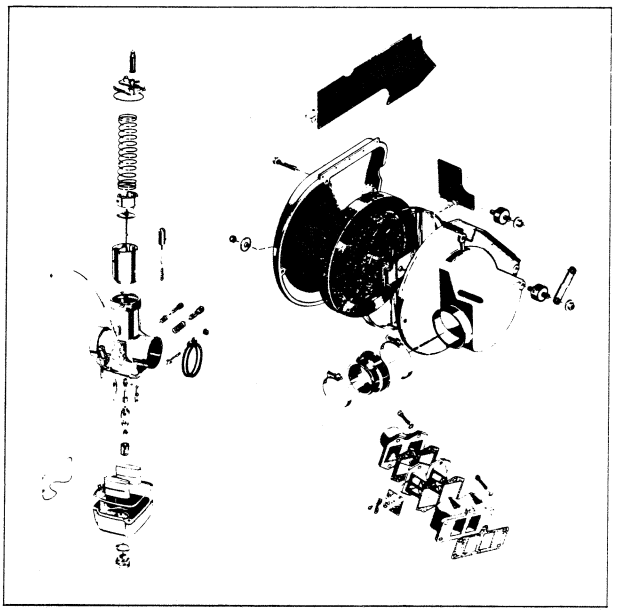
WORKSHOP MANUAL



FUEL SYSTEM

F

Fuel system



This chapter covers the different types of air filters and carburettors which have been mounted on Husqvarna motorcycles since 1974. Carburettor adjustments and reed valves are also enclosed in the chapter.

F A. Air filter ML-models

F B. Air filter MK-models

F C. Carburettor adjustment

F D. Amal carburettor Ø 34 mm
175 cc ML 0001–15 999

F E. Amal carburettor Ø 32 mm
125–175 cc MK 10 500–19 499

F F. Bing carburettors Ø 32 mm and Ø 36 mm
125 CR MK 10 500–19 499
125 cc ML 0001–15 999
250–450 cc MK 10 500 →
250–360 cc ML 0001–15 999

F G. Bing carburettors Ø 32 mm and Ø 36 mm with start valve
125 CR ML 16 000 →
250 cc ML 16 000 →
360 cc ML 16 000 →

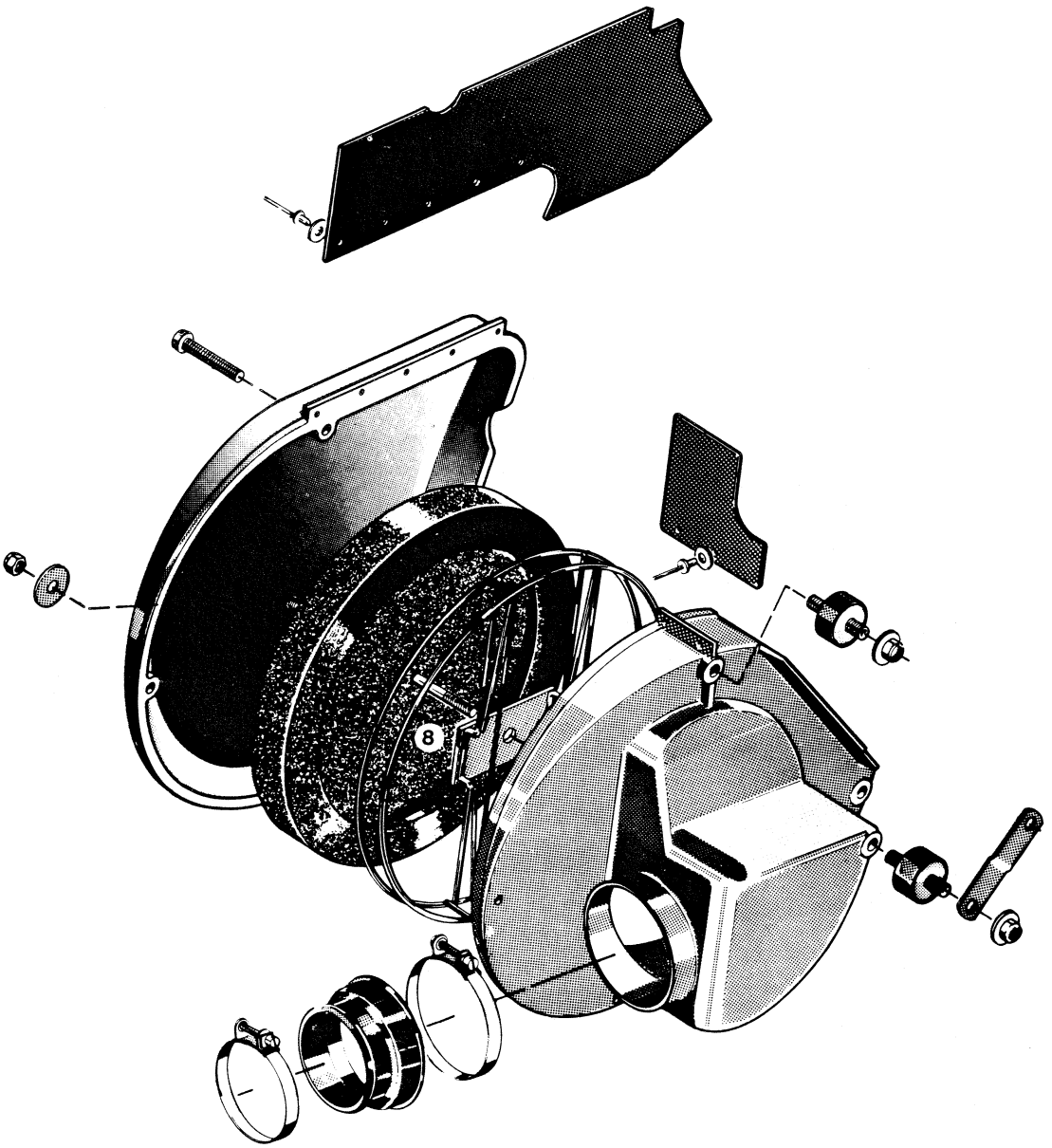
F H. Gurtner carburettor Ø 38 mm
360 WR ML 6000 →

F I. Reed valves
250 CR MK 10 500 →
250 WR MK 19 500 →
ALL ML-models.

F J. MIKUNI carburettor Ø 38 mm
From ML 22 000 →

Husqvarna motorcycles

Air filter ML-models



Dismantling
Screw out the four screws and remove the airfilter cover. See fig. 3.1.

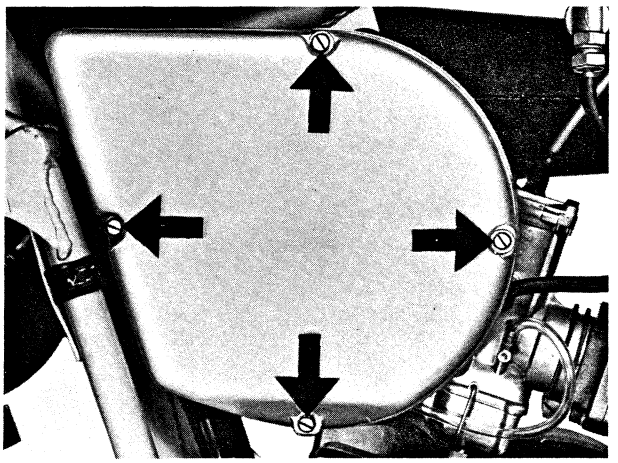


Fig. 3.1

Remove the 10 mm nut which holds the filter. Take out the filter with its case. See fig. 3.2.

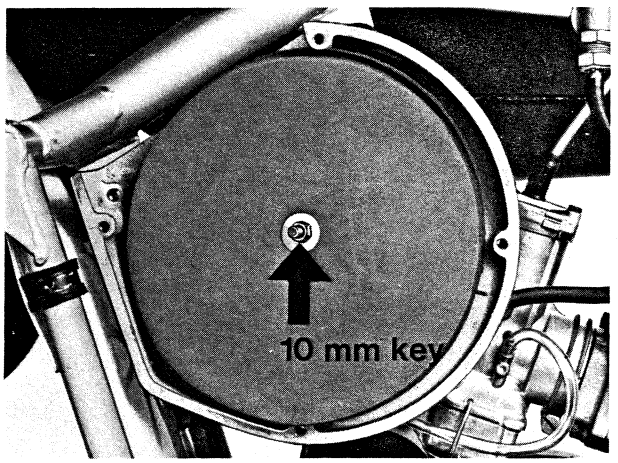


Fig. 3.2

Remove the three nuts and loosen the clamp. Take out the air filter housing. See fig. 3.3.

Assembling
Assembling is done in reverse order.

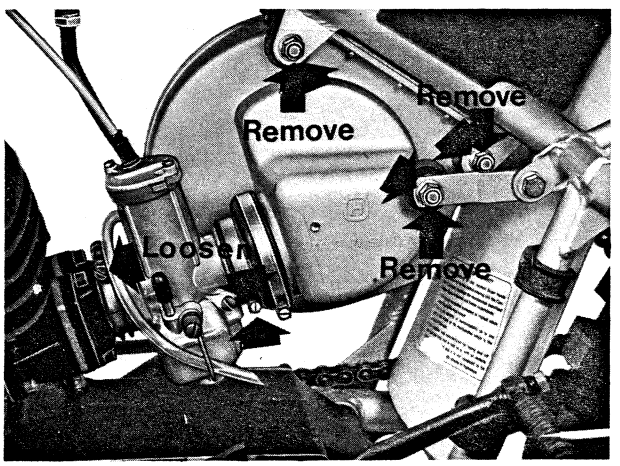


Fig. 3.3

Fig. 4.1

Time for repairs-maintenance
Clean the filter after each time the bike has been used. Use petrol, or kerosine and squeeze the filter in the fluid a few times. At least squeeze it free from solvent.
NOTE! Never twist the air filter as fig. 4.1. shows.

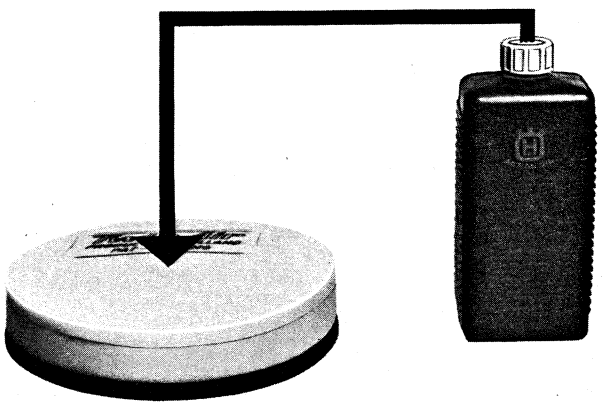
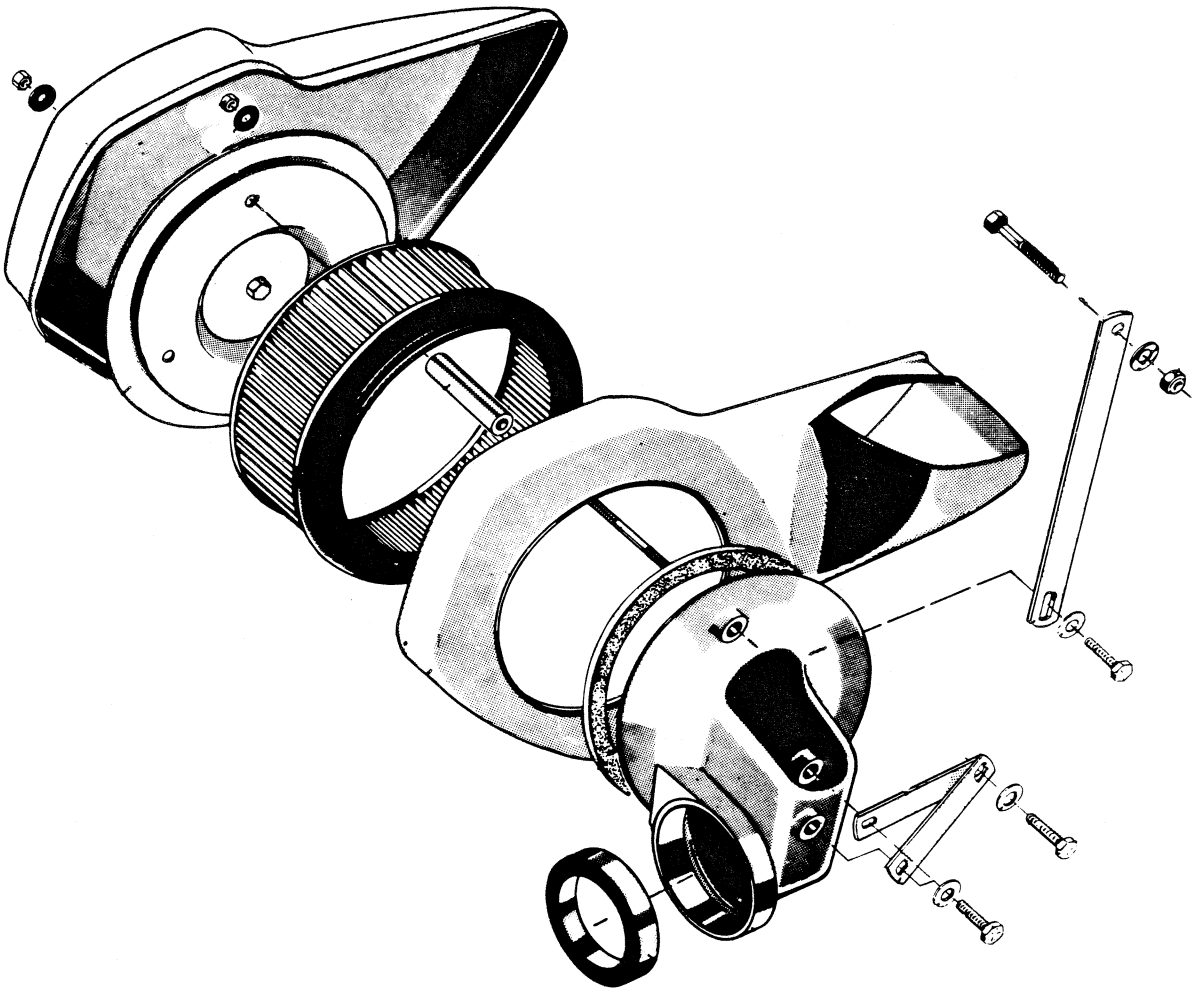


Fig. 4.2

Oil the filter with a few cc of Twin air action oil. See fig. 4.2.
Squeeze the filter lightly between the hand flats to get an even oil absorbtion.
Mount the filter and wait ca ten minutes until the oil solvent has vaporated. Then start the engine.
NOTE! The engine can not be started until the solvent in the oil has vaporated.

Husqvarna motorcycles

Air filter MK-models



Dismantling
Screw out the nuts and remove the air filter covers. See fig. 3.1 and 3.2.

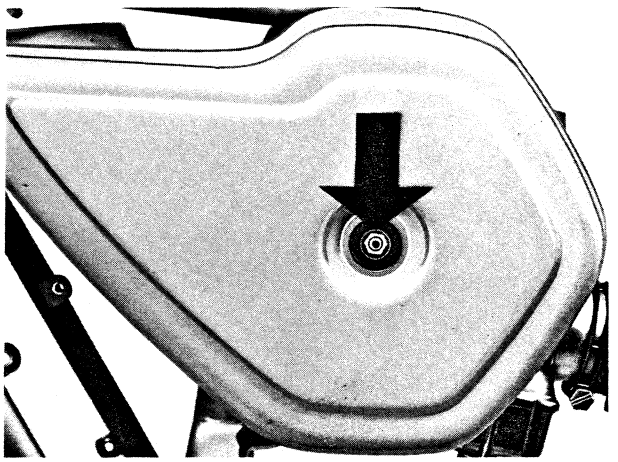


Fig. 3.1

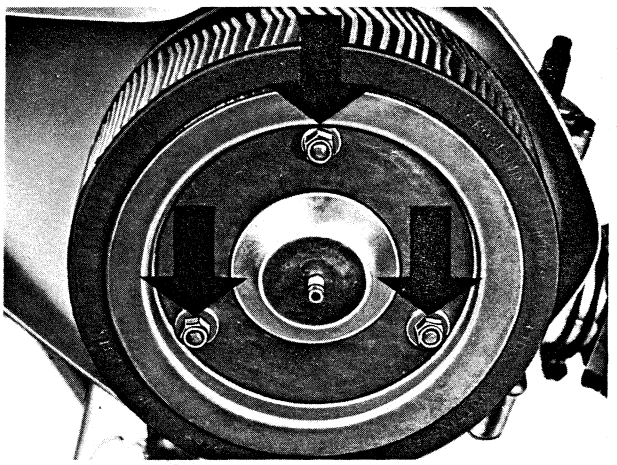


Fig. 3.2

Remove the air filter and the distance sleeves. See fig. 3.3.

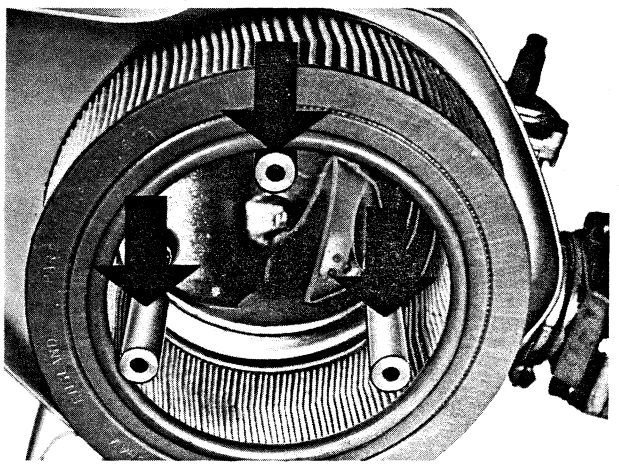


Fig. 3.3

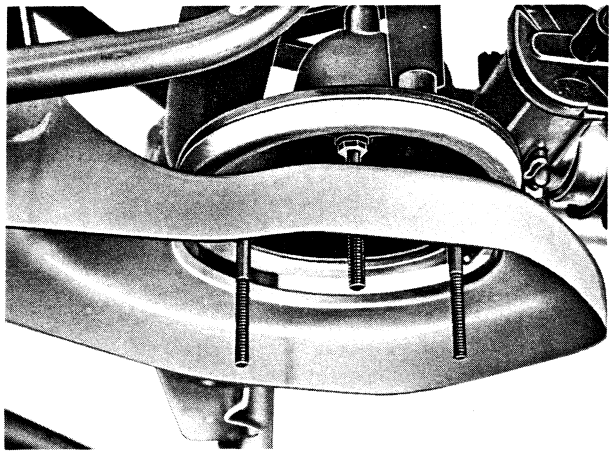


Fig. 4.1

Lift off the filter casing with its gasket. See fig. 4.1.

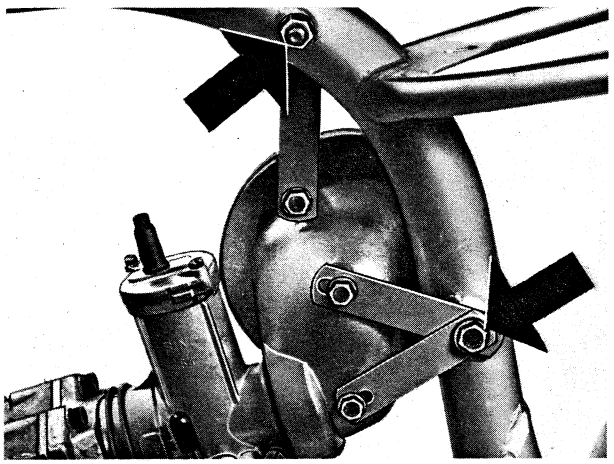


Fig. 4.2

Loosen the two screws and remove the filter connection with the sealing ring. See fig. 4.2.

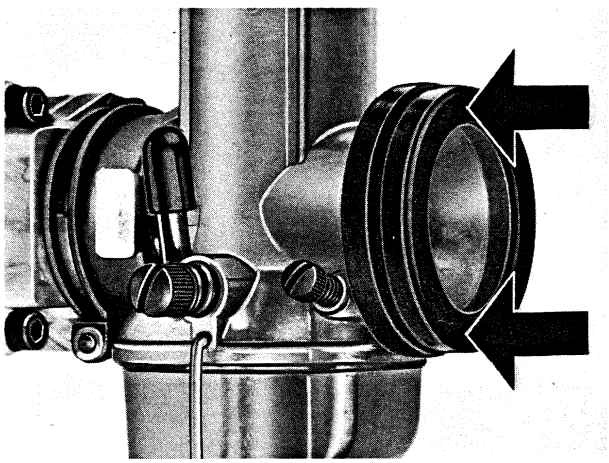


Fig. 4.3

Assembling
Place the sealing ring on the carburettor. See fig. 4.3. Put some grease on it.

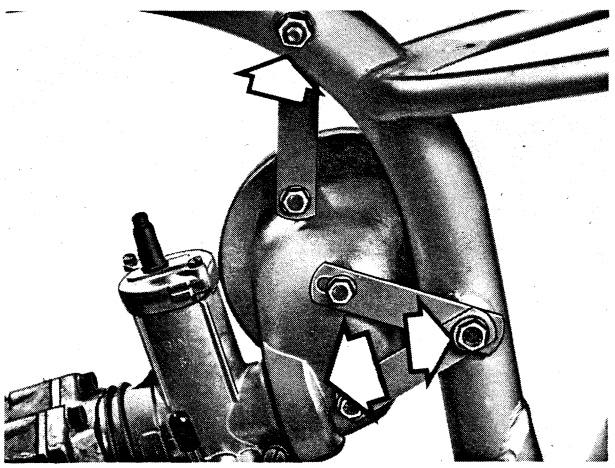


Fig. 4.4

Press the filter connection over the sealing ring and tighten the holding screws. See fig. 4.4.

The rest of the mounting shall be done in reverse order.

Time for repairs-maintenance
The paper filter must not be washed in petrol or any other type of solvent. Instead use compressed air or a soft brush. If heavily blocked with dirt, the filter must be replaced. When refitting the filter should the contact surfaces against the air inlet connection and casing be greased in order to ensure good sealing. Tighten up the three nuts fully when fitting.

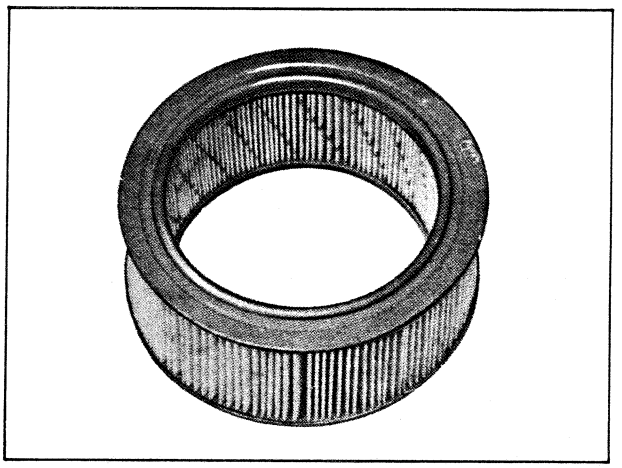


Fig. 5.1

The foam type filter shall be prepared in the same manner as the ML-model foam filter. See: Air filter ML-models.

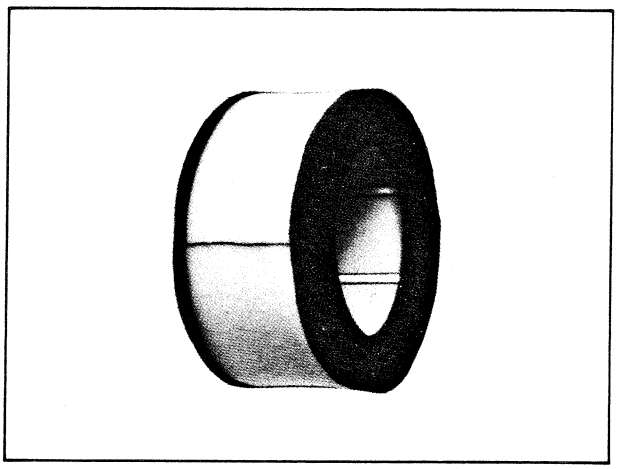


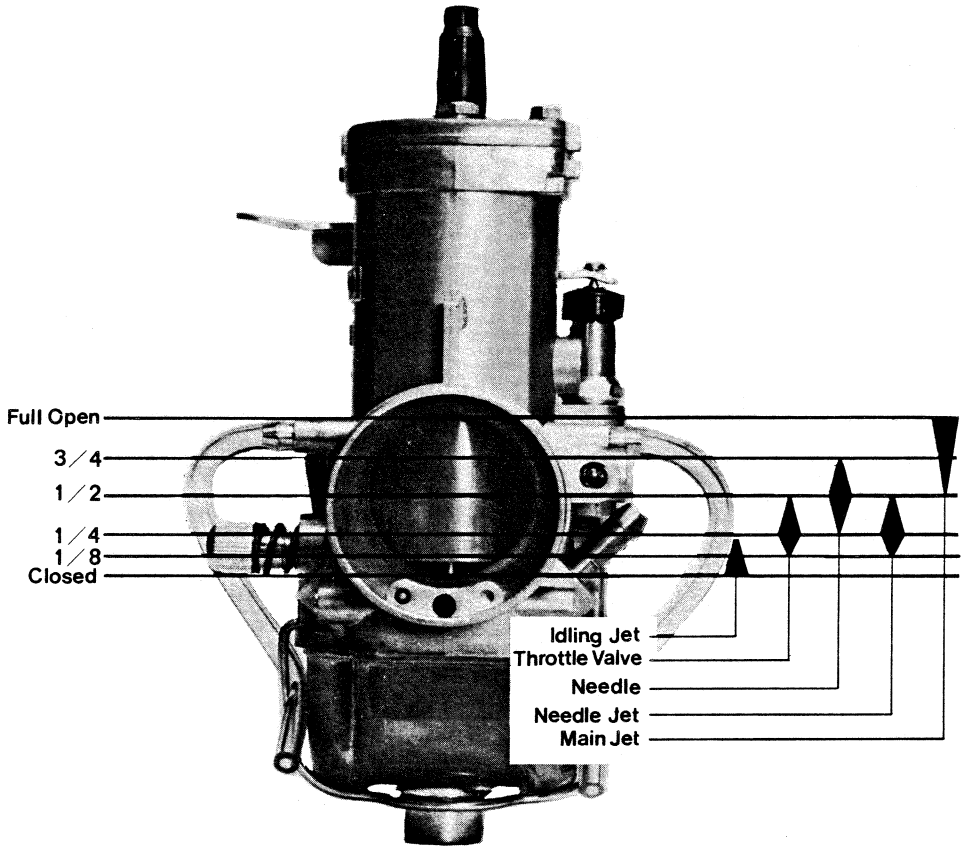
Fig. 5.2

Husqvarna motorcycles

Carburettor adjustment

Functional range effectiveness of turning parts in relation to the throttle valve opening.

The thickness of the arrows in fig. shows when the different tuning parts work.



Idling
The figure shows the fuel flow curve in relation to the opening of the air screw.
The selection of the opening of the idling jet and the air screw is important.

If the idling jet, is too small, increase in the engine speed is slow and irregular. Too big idling jet, on the other hand, would give rise to heavy exhaust smoke as well as a dull exhaust noise.

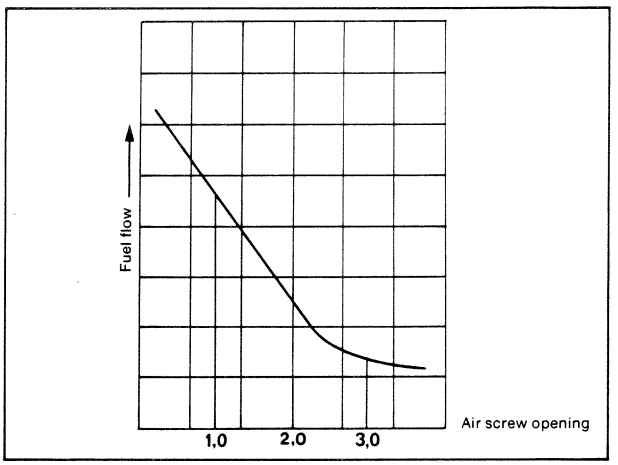


Fig. 3.1

The fig. shows the revolutions per minute in relation to air screw opening and the best opening range of the air regulating screw.
Always try to choose idling jet so the air regulating screw adjustment is between 1 and 2 turns from bottom position.

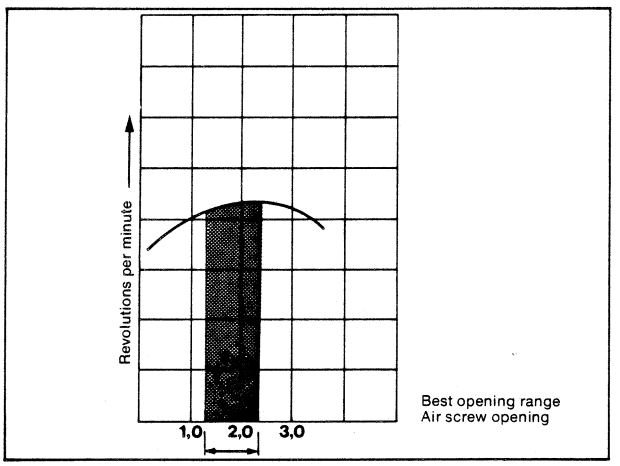


Fig. 3.2

NOTE! Always warm up the engine before adjusting.
Open the air regulating screw about 1 turn from bottom position.
Turn out the throttle stop screw so that the throttle closes completely.
Run the motorcycle down a long hill with the throttle closed and in 2nd gear. The hill must be steep enough for the machine to run on no power. After about 10 yards give a quick burst of full throttle. If the engine tends to "four-stroke" momentarily the air screw is too far in. Back it off somewhat and repeat the test. Continue the procedure until the engine answers instantly.
NOTE! Beware of opening the air screw too far, as acceleration will suffer and risk for engine damage will occur.

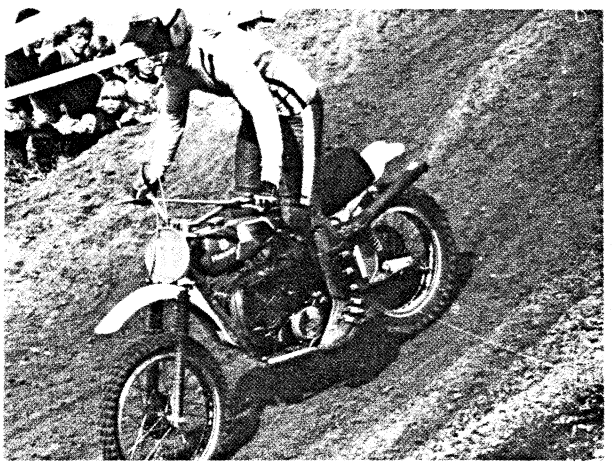


Fig. 3.3

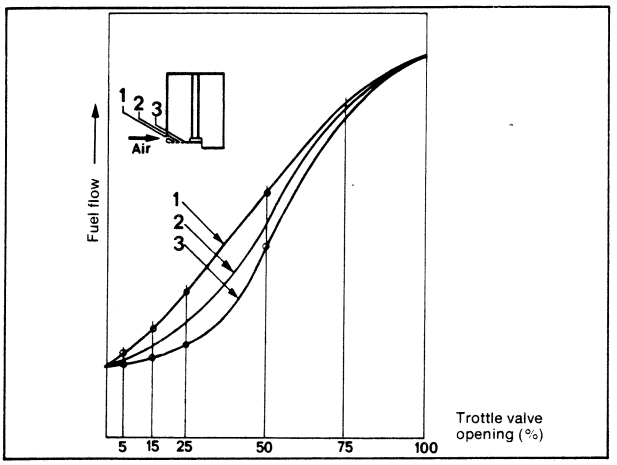


Fig. 4.1

The cutaway size of the throttle valve

The size of the cutaway of the throttle valve affects the air-fuel mixture ratio when the degree of the throttle valve opening is between 1/8 and 1/2.

As the cutaway gets larger in size, with the throttle valve opening kept unchanged, air inflow resistance is reduced and causes the amount of air intake to increase, resulting in a lean mixture. On the other hand, the smaller the size of the cutaway, the richer the air-fuel mixture will become.

Fig. shows the fuel flow curve in relation to the size of the cutaway.

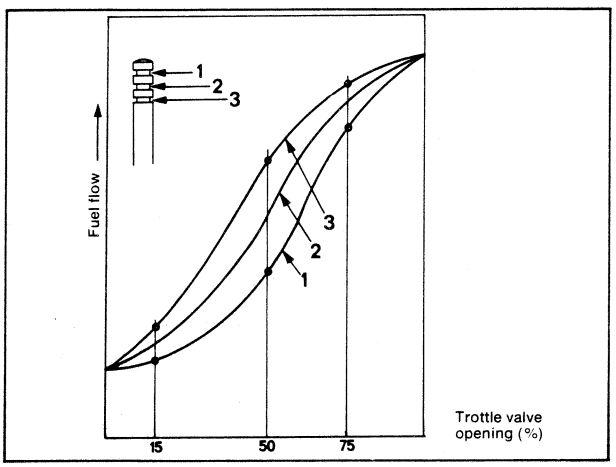


Fig. 4.2

Needle and needle jet

The needle jet and the needle serve to control a proper air-fuel mixture ratio during the so-called medium throttle valve opening (between 1/4 and 3/4 opening).

The needle has three of settings, the uppermost (no. 1) giving the leanest and the lowest (no. 3) the richest mixture.

The needle setting is mostly noticeable at 50% throttle opening.

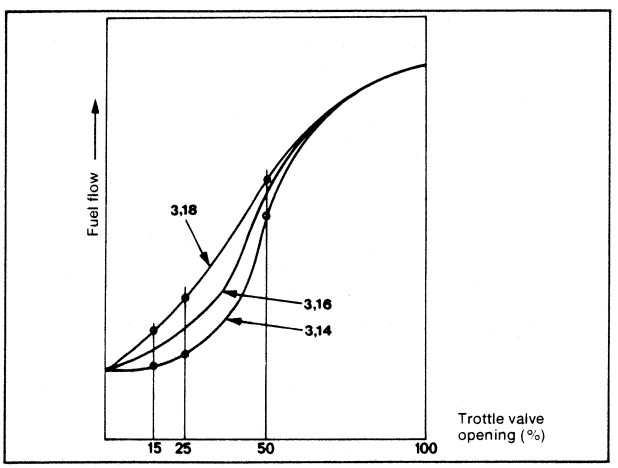


Fig. 4.3

The changing of needle jet is mostly noticeable at 25% throttle valve opening.

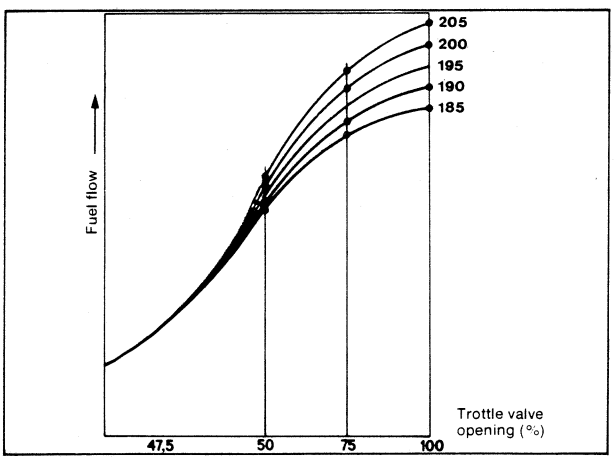


Fig. 4.4

Main jet

The surest way to determine the right size of main jet is to try an obviously large number. Run at full throttle in 6th gear and reduce jet size by one number at a time, until 4-stroking is eliminated. If the main jet is too small, acceleration may suffer. Use the largest possible size without 4-stroking at high revs.

The fig. shows the throttle valve opening in relation to fuel flow, with different kind of main jets. In the range 50–100% throttle opening is the fuel mostly noticeable.

NOTE! Make sure that the responsible jet for respective part of the R.P.M range is changed.

High temperature, high elevation above sea level and lower barometric pressure generally require leaner settings. However, remember to restore the richer setting when conditions are normal again. If settings are too lean, acceleration and top speed will be less and there will be risk of engine damage.
The fig. shows the amount of air decreases in proportion to a rise in elevation.
Reduction in the amount of air sucked into the cylinder changes the air-fuel mixture ratio, with the result that the power output drops markedly.

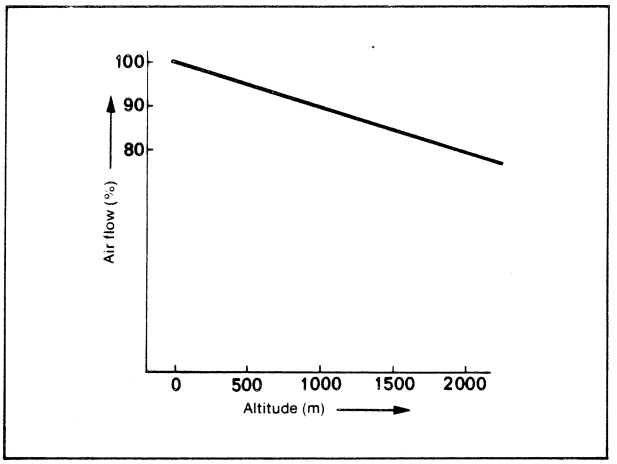


Fig. 5.1

The fig. shows the relations between a rise in temperature and the amount of air drawn into the cylinder.
In the case when the engine is for racing, where maximum output is constantly called for, it is best to tune up the engine by making a matching test of the carburettor in accordance to the temperature and other conditions on the racing course.

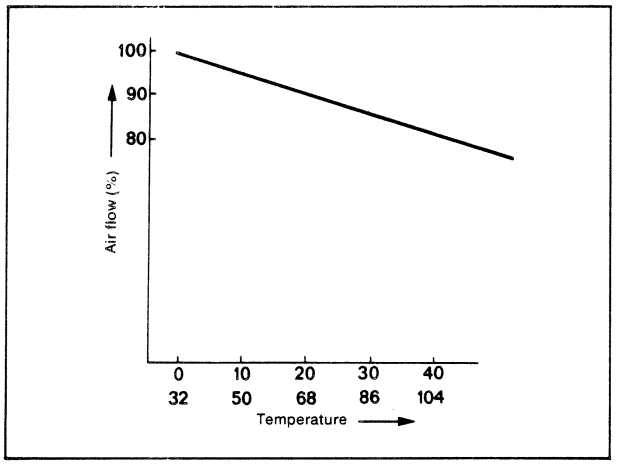


Fig. 5.2

Fuel level
The fuel level can be checked by removing the float chamber from the carburettor.
Hold the carburettor horizontal, and move the float with your finger.
When the float is parallel with the carburettor flange, the needle should just close the valve. See fig.

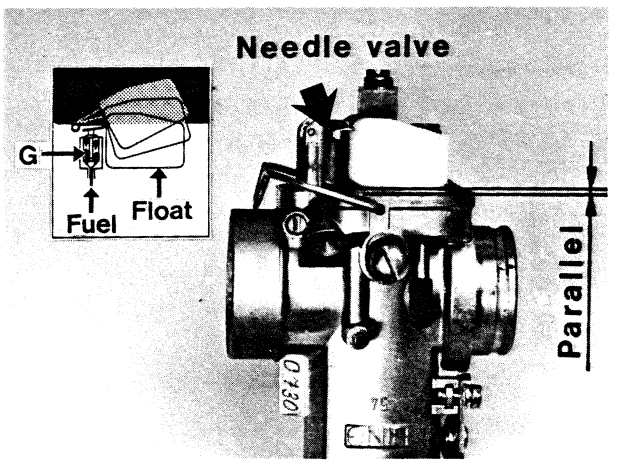
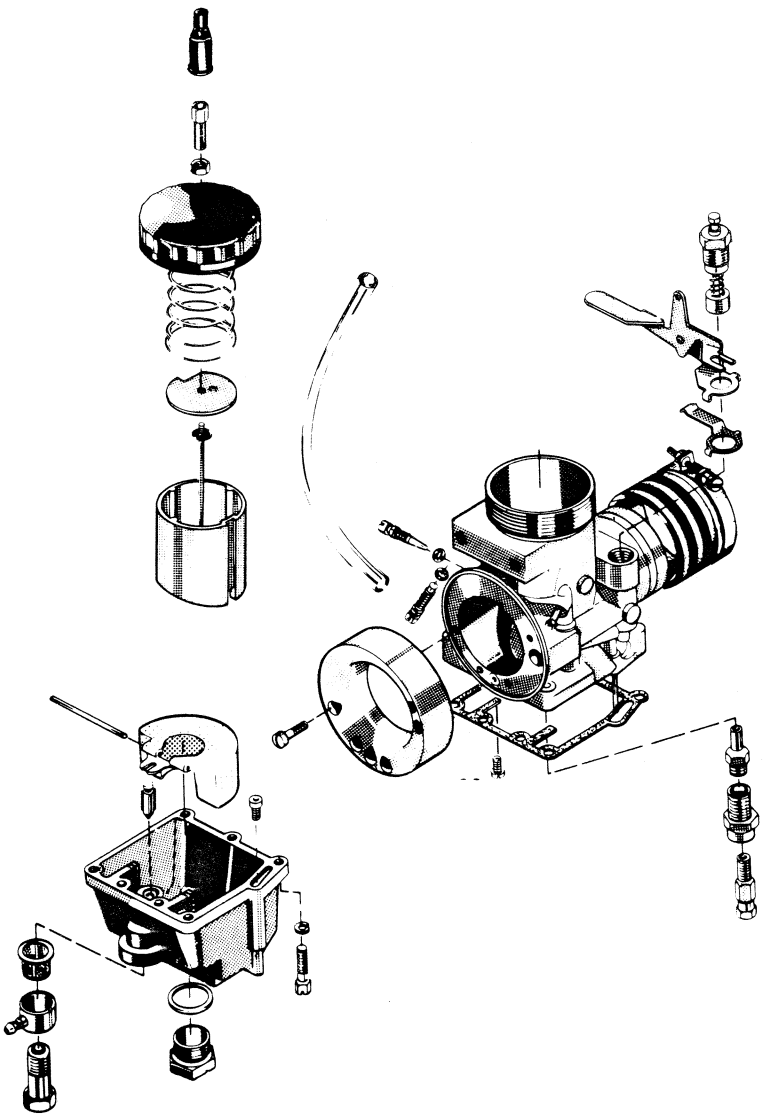


Fig. 5.3

Husqvarna motorcycles

Amal carburettor Ø 34 mm



Function
Fuel flows through the needle valve (G) when the float is below the pre-set position. As the fuel level rises, so does the float and closes the needle valve. This procedure is repeated with the result that the fuel level in the float chamber of the carburettor remains constant. See fig. 3.1.

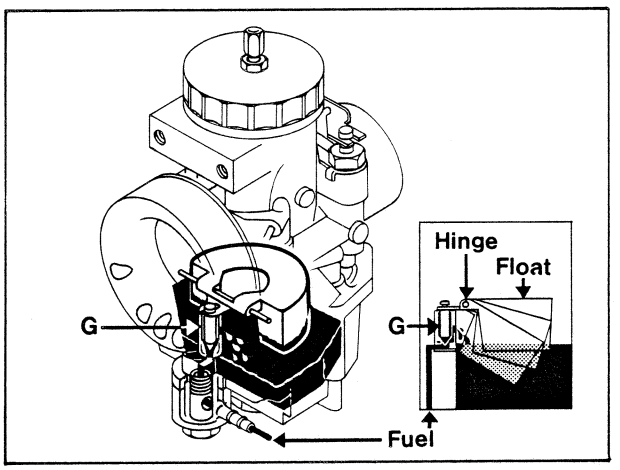


Fig. 3.1

When the cold start valve (E) is open, fuel is sucked direct from the float chamber through the channel (F), into the venturi. See fig. 3.2.

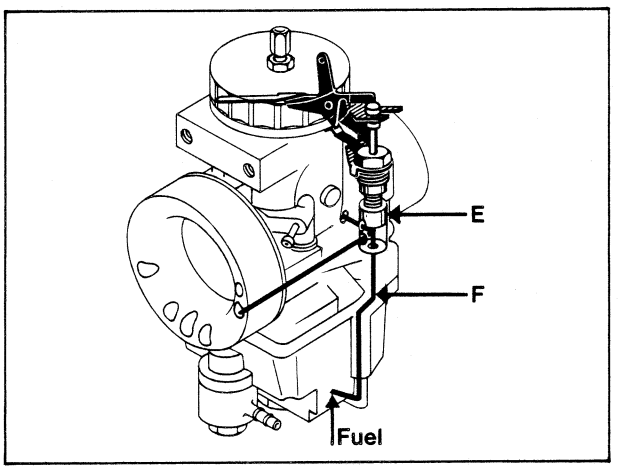


Fig. 3.2

Idling speed.
The vacuum in the engine crankcase sucks air through the carburettor. Partly past the throttle which is adjusted by means of the large screw. Partly through the throat (B) past the adjustment screw (A); this air breaks up the fuel in the mixing section of the idling jet to facilitate carburation. See fig. 3.3.

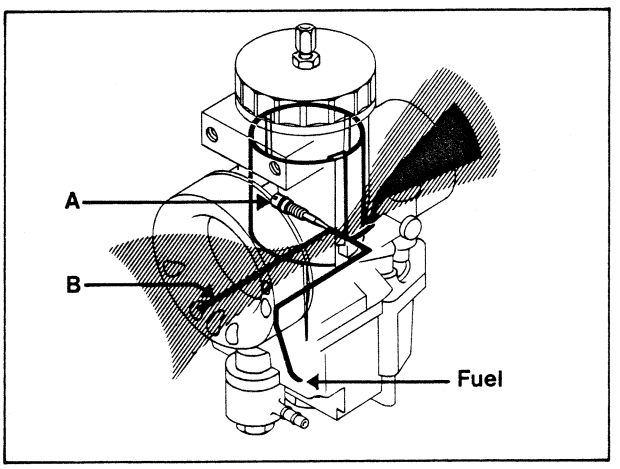


Fig. 3.3

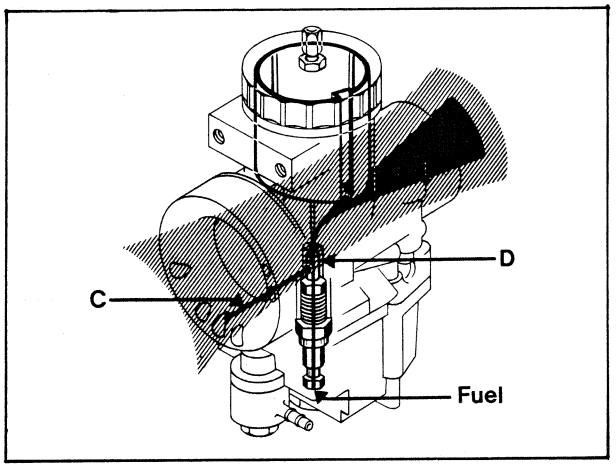


Fig. 4.1

High speed.
Air is sucked through the passage (C). This air breaks up the fuel in the mixing tube (D). The atomized fuel is then sucked up into the venturi of the carburettor and mixed with the air flow through the throttle opening. See fig. 4.1.

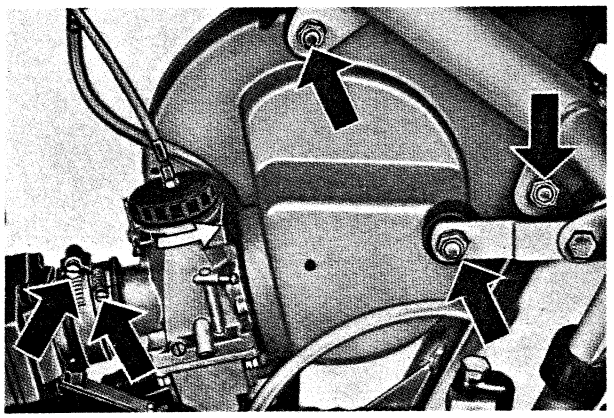


Fig. 4.2

Dismantling
Screw out the 3 nuts, loose one of the clamps and take out the whole unit. Remove the carburettor from the air filter. See fig. 4.2.

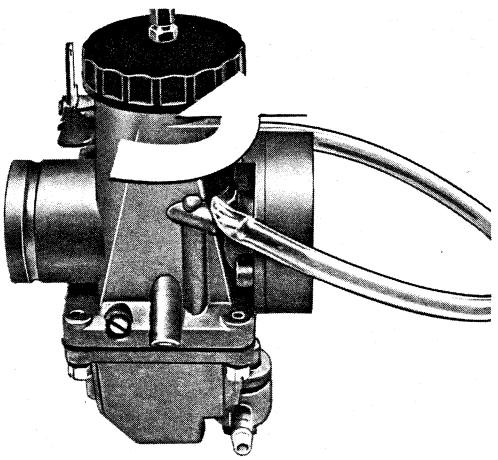


Fig. 4.3

Remove the carburettor cover and take out the throttle unit. See fig. 4.3.

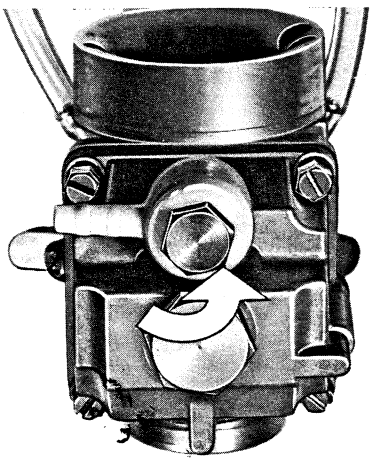


Fig. 4.4

Unscrew the hose connection. See fig. 4.4.

Husqvarna motorcycles

Remove the strainer from the hose connection. See fig. 5.1.

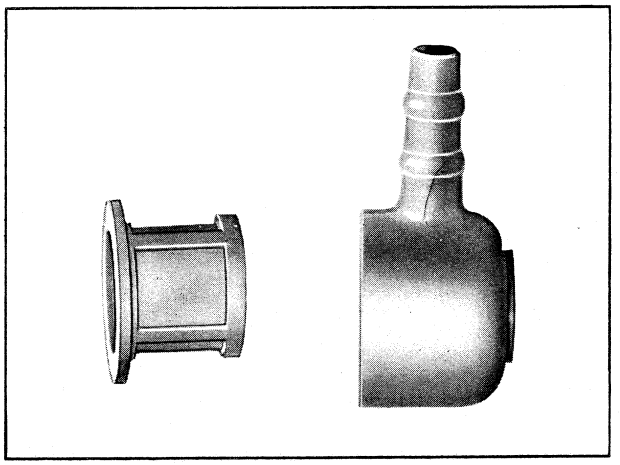


Fig. 5.1

Loosen the four float chamber attaching screws. See fig. 5.2.
Lift off the float chamber.

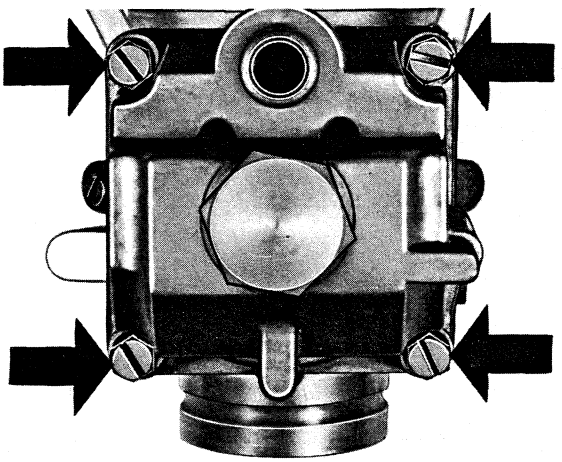


Fig. 5.2

Separate the float with float needle and peg from the float chamber. Unscrew the cold start jet.
See fig. 5.3.

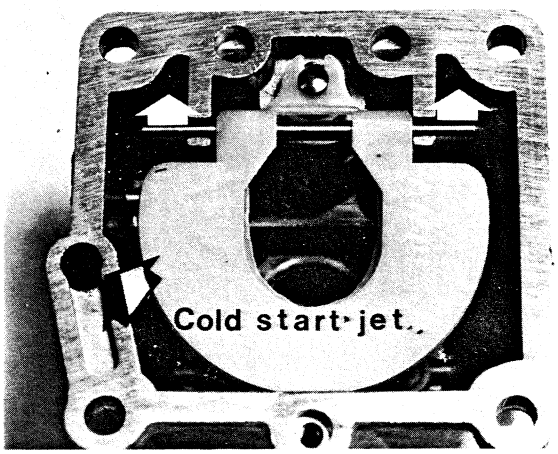


Fig. 5.3

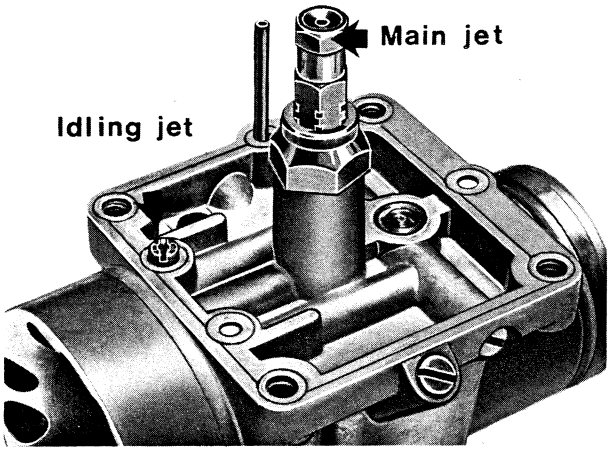


Fig. 6.1

Remove the main jet and the idling jet.
See fig. 6.1.

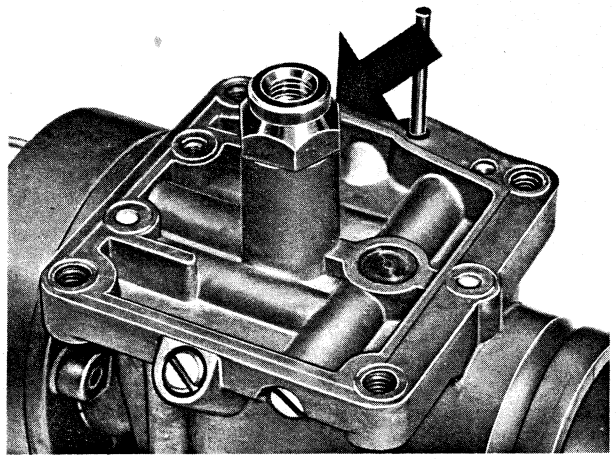


Fig. 6.2

Unscrew the needle jet holder. See fig. 6.2.

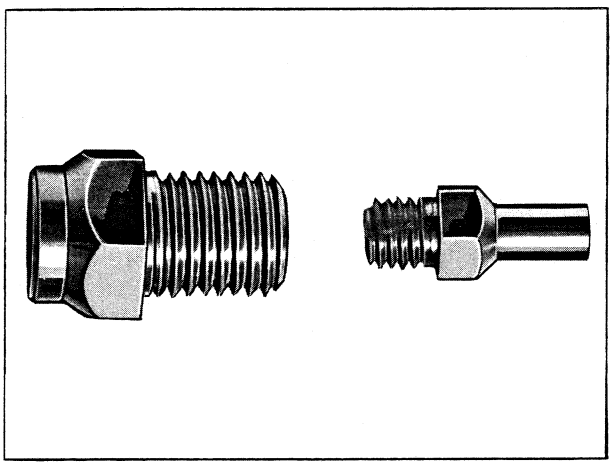


Fig. 6.3

Now the needle jet can be removed from its holder.
See fig. 6.3.

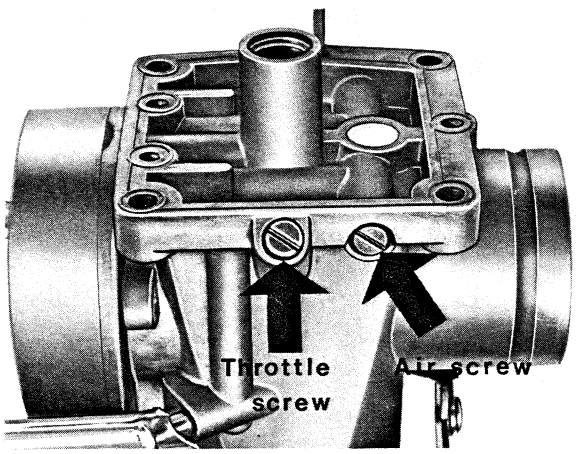


Fig. 6.4

Loosen the air regulating screw and the throttle screw. See fig. 6.4.

Separate the cold start unit from the carburettor housing. See fig. 7.1.

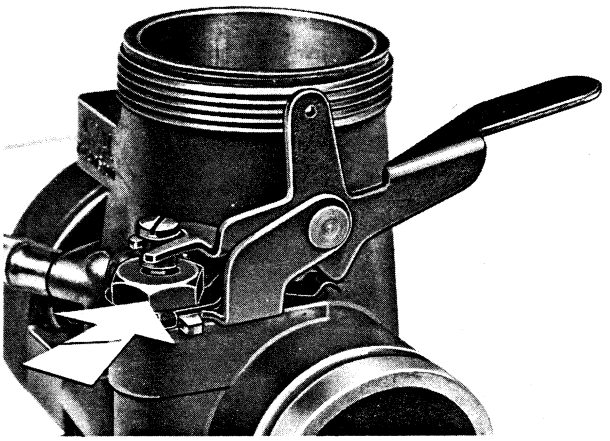


Fig. 7.1

Assembling
Assembling is done in opposite order.

NOTE! Make sure that the cold start unit is assembled in the right way. See fig. 7.2.

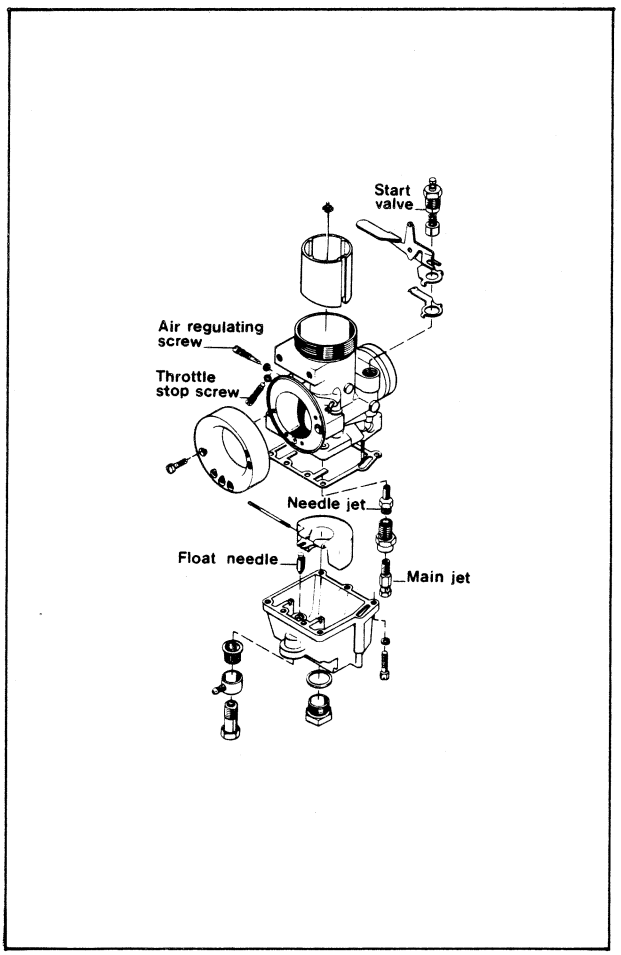
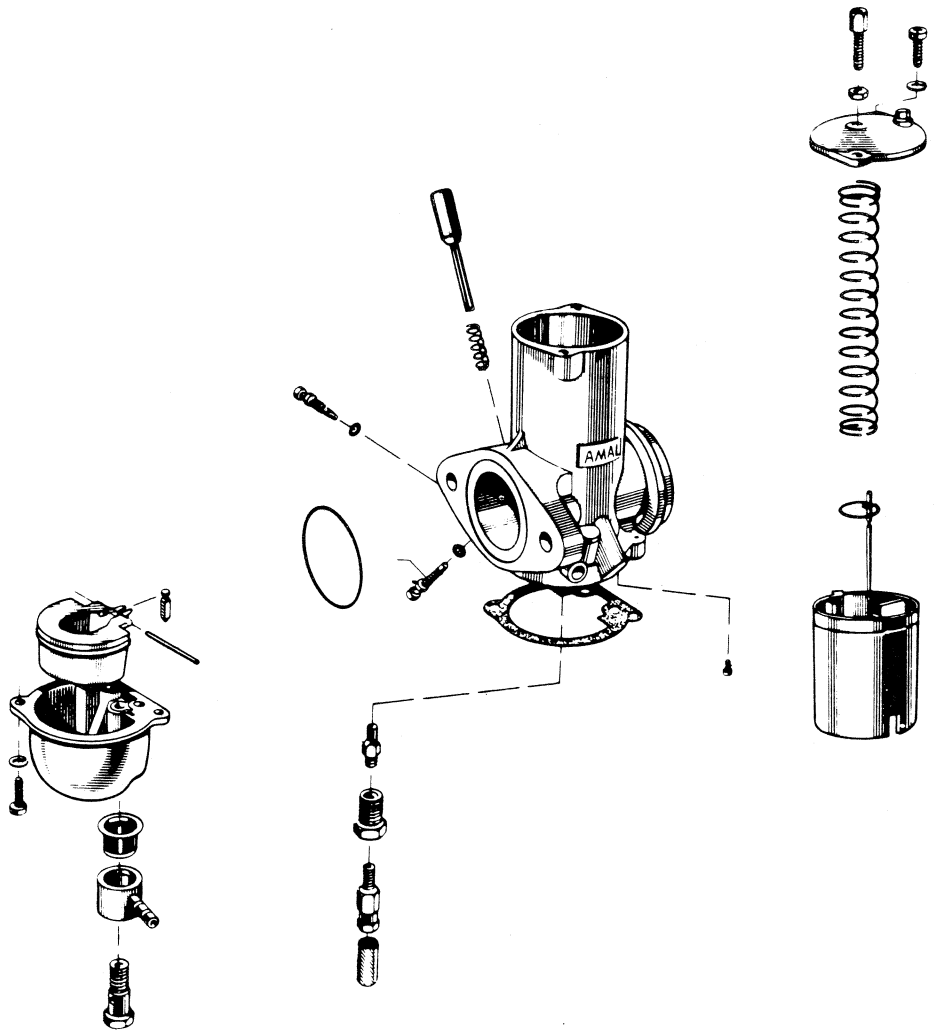


Fig. 7.2

Time for repairs-maintenance
Clean the carburettor regularly. Use petrol and blow dry with compressed air. Make sure that all the carburettor housing passages are free from dirt.

Amal carburettor Ø 32 mm



Dismantling
Remove the carburettor from the motorcycle. Loosen the carburettor cover holding screws and take out the throttle. See fig. 3.1.

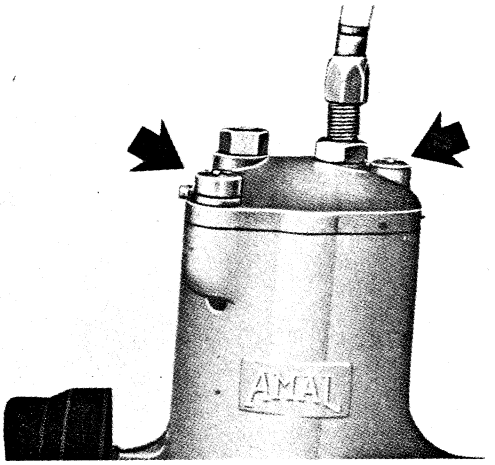


Fig. 3.1

Unscrew the hose connection. See fig. 3.2.

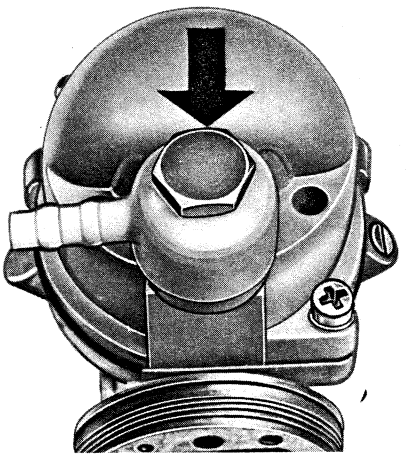


Fig. 3.2

Remove the strainer from the hose connection. See fig. 3.3.

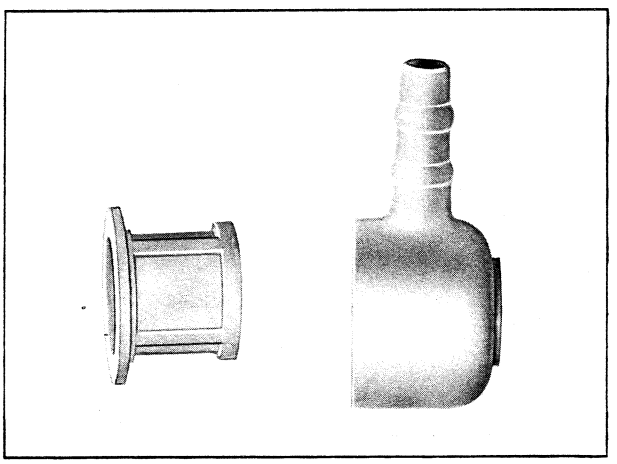


Fig. 3.3

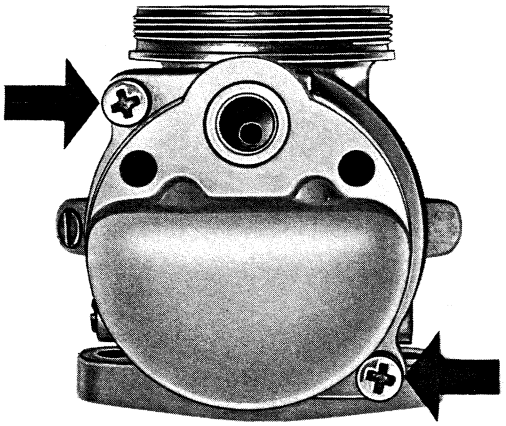


Fig. 4.1

Loosen the two float chamber attaching screws. See fig. 4.1. Lift off the float chamber.

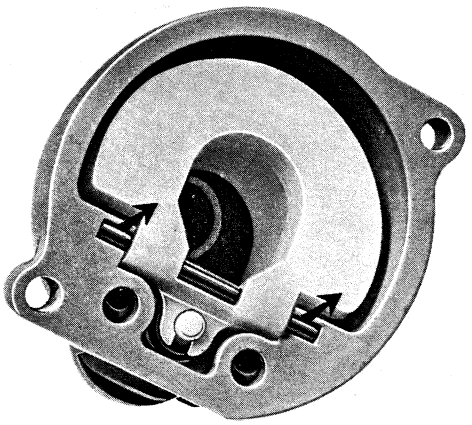


Fig. 4.2

Separate the float with float needle and peg from the float chamber. See fig. 4.2.

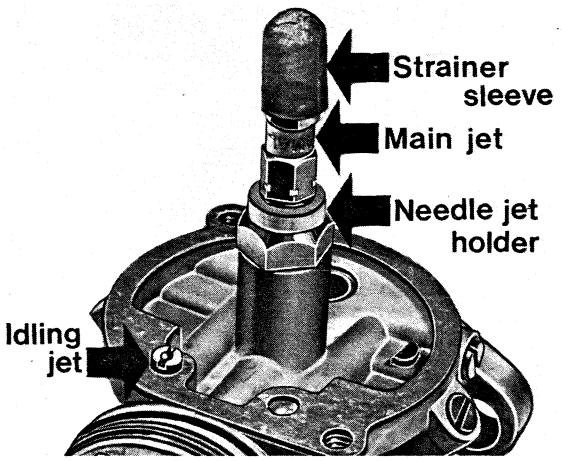


Fig. 4.3

Unscrew the idling jet and the main jet with the strainer sleeve. Remove the needle jet holder. See fig. 4.3.

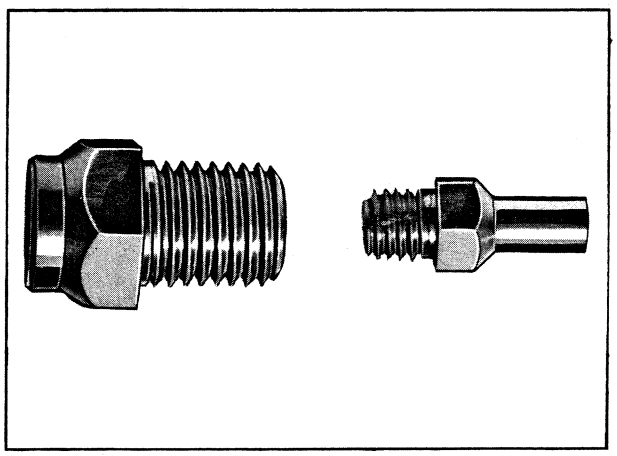


Fig. 4.4

Now the needle jet can be removed from its holder. See fig. 4.4.

Remove the air regulating screw and the throttle screw. See fig. 5.1.

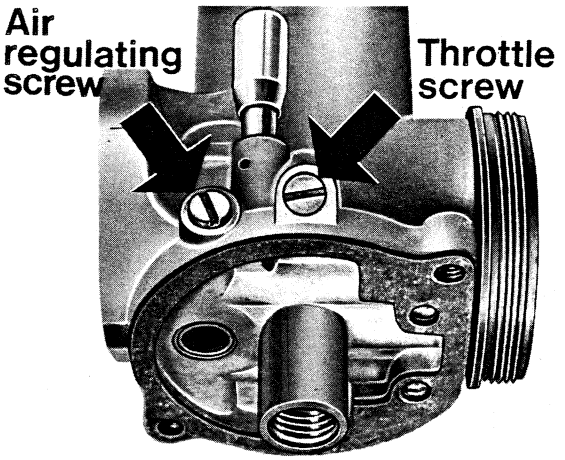


Fig. 5.1

Assembling
Assemble the carburettor in reverse order. See fig. 5.2.

Time for repairs-maintenance
Clean the carburettor regularly. Use petrol and blow dry with compressed air. Make sure that all the carburettor housing passages are free from dirt.

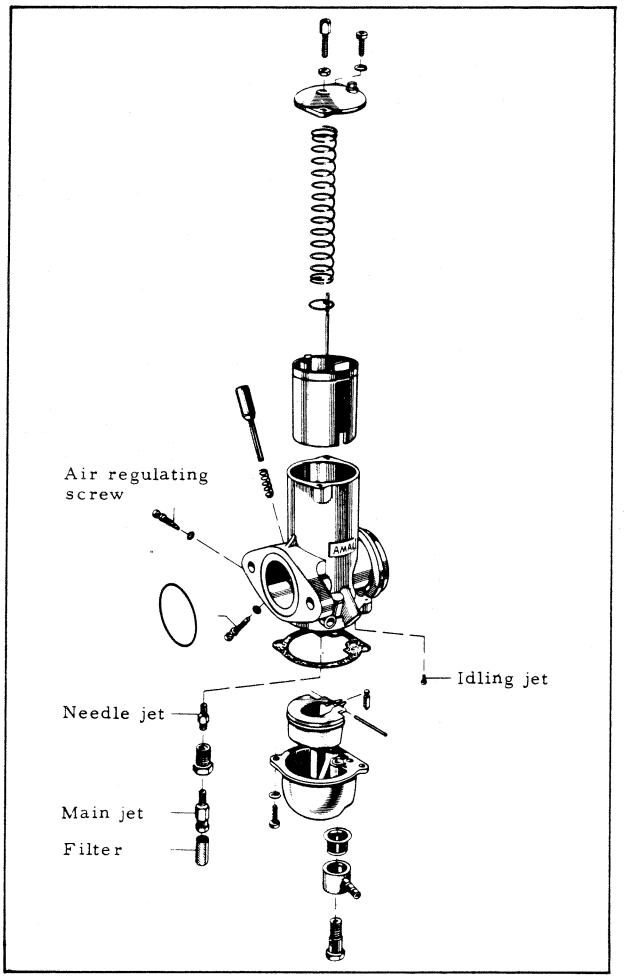
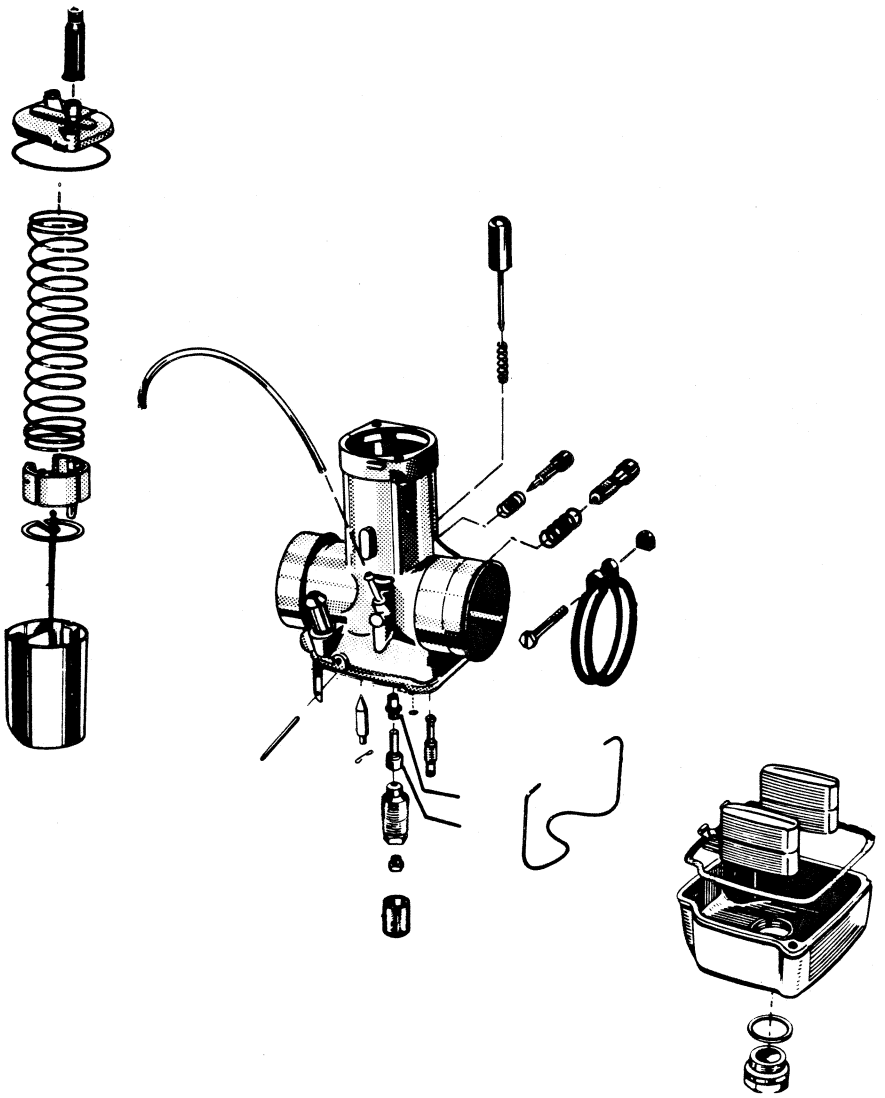


Fig. 5.2

Bing carburettors Ø 32 mm and Ø 36 mm



Function

Fuel supply system

Fuel flows through the needle valve (E) when the float is below the pre-set position. As the fuel level rises, so does the float and closes the needle valve. This procedure is repeated with the result that the fuel level in the float chamber of the carburettor remains constant.

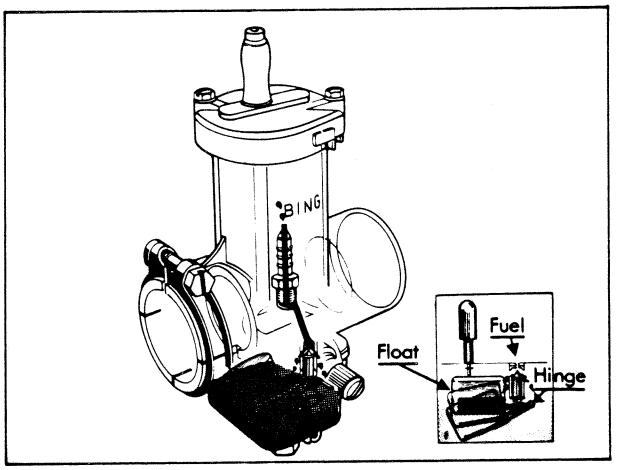


Fig. 3.1

Idling speed.

The vacuum in the engine crankcase sucks air through the carburettor. Partly past the throttle which is adjusted by means of the large screw. Partly through the throat (B) past the adjustment screw (A); this air breaks up the fuel in the mixing section of the idling jet to facilitate carburation.

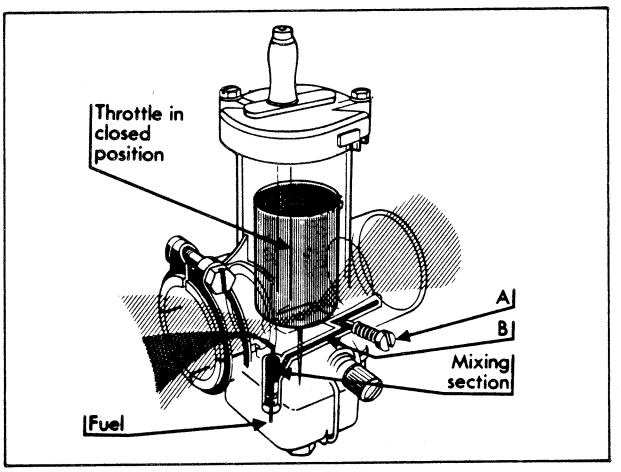


Fig. 3.2

High speed.

Air is sucked through the passage (C). This air breaks up the fuel in the mixing tube (D). The atomized fuel is then sucked up into the venturi of the carburettor and mixed with the air flowing through the throttle opening.

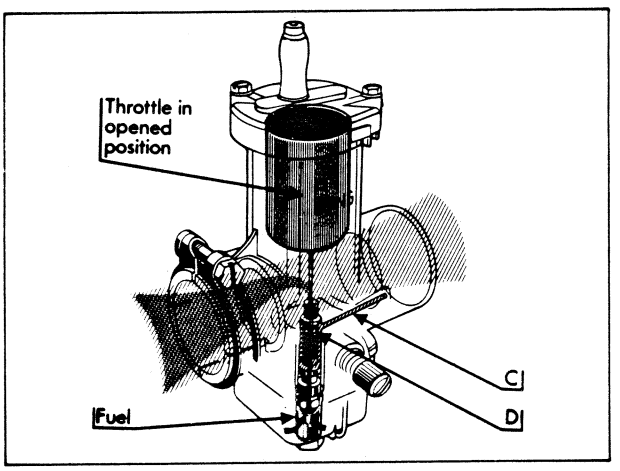


Fig. 3.3

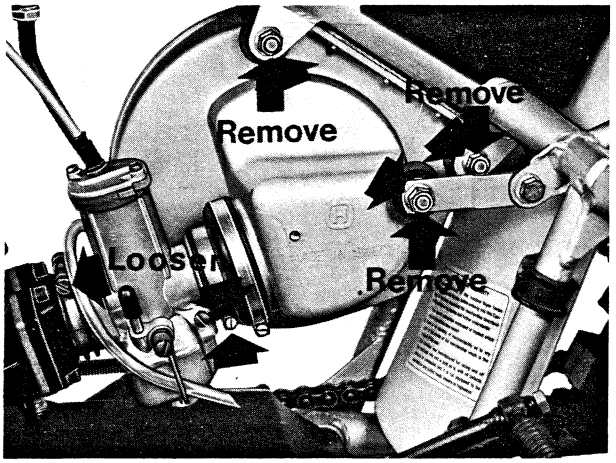


Fig. 4.1

Dismantling
Remove the carburettor and air filter from the motorcycle. See fig. 4.1.

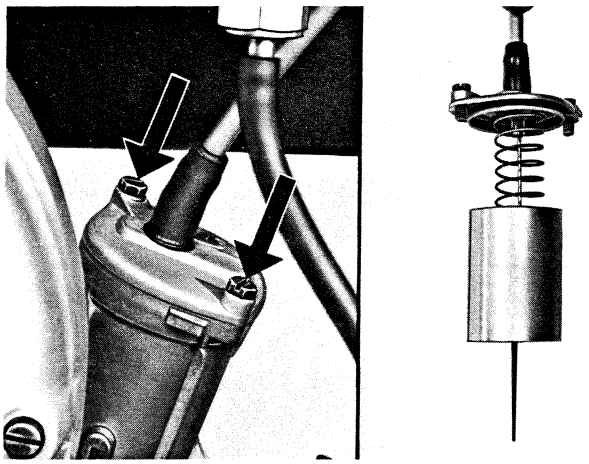


Fig. 4.2

Remove the carburettor cover and take out the throttle unit. See fig. 4.2.

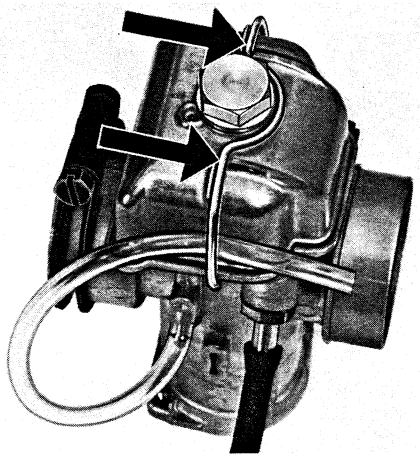


Fig. 4.3

Loosen the spring strap and remove the float chamber from the carburettor. See fig. 4.3.

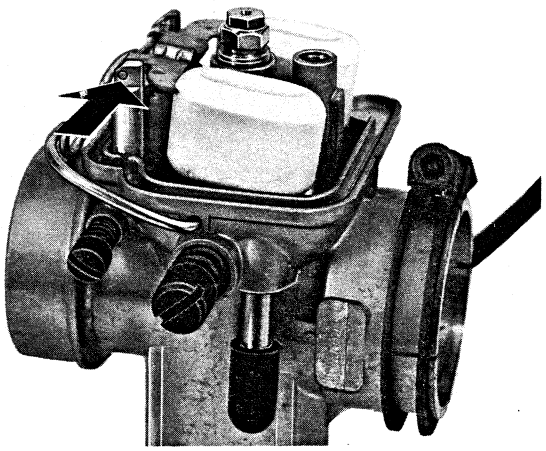


Fig. 4.4

Push out the peg and take out the float. See fig. 4.4.

Take off the strainer sleeve and unscrew the main jet and the idling jet. See fig. 5.1.

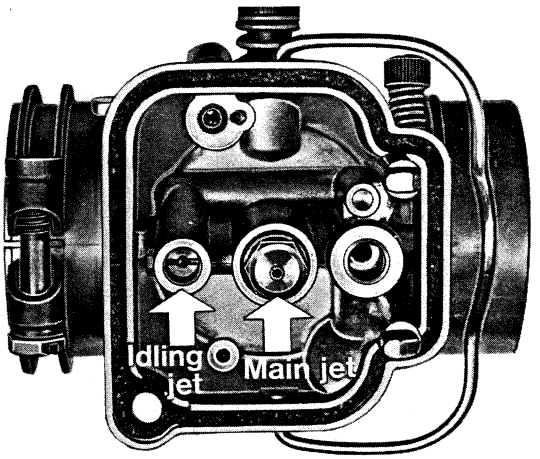


Fig. 5.1

Loosen the mixer tube and take out the needle jet. See fig. 5.2.

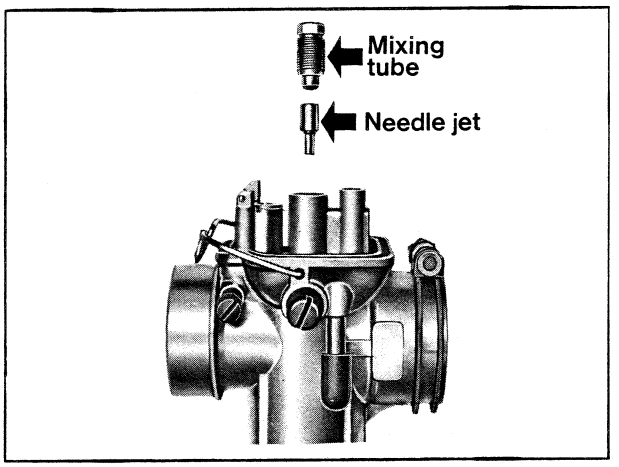


Fig. 5.2

Remove the air regulating screw and the throttle adjusting screw with there springs. See fig. 5.3.

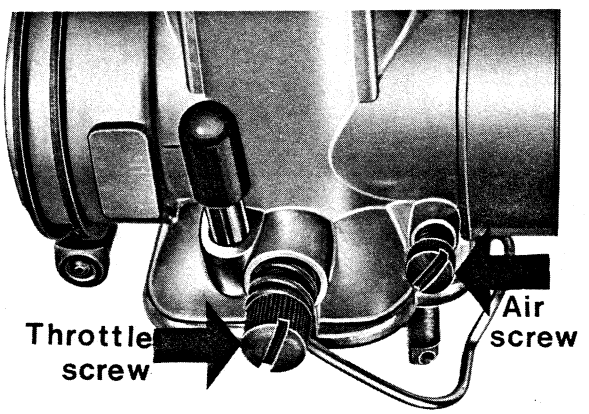


Fig. 5.3

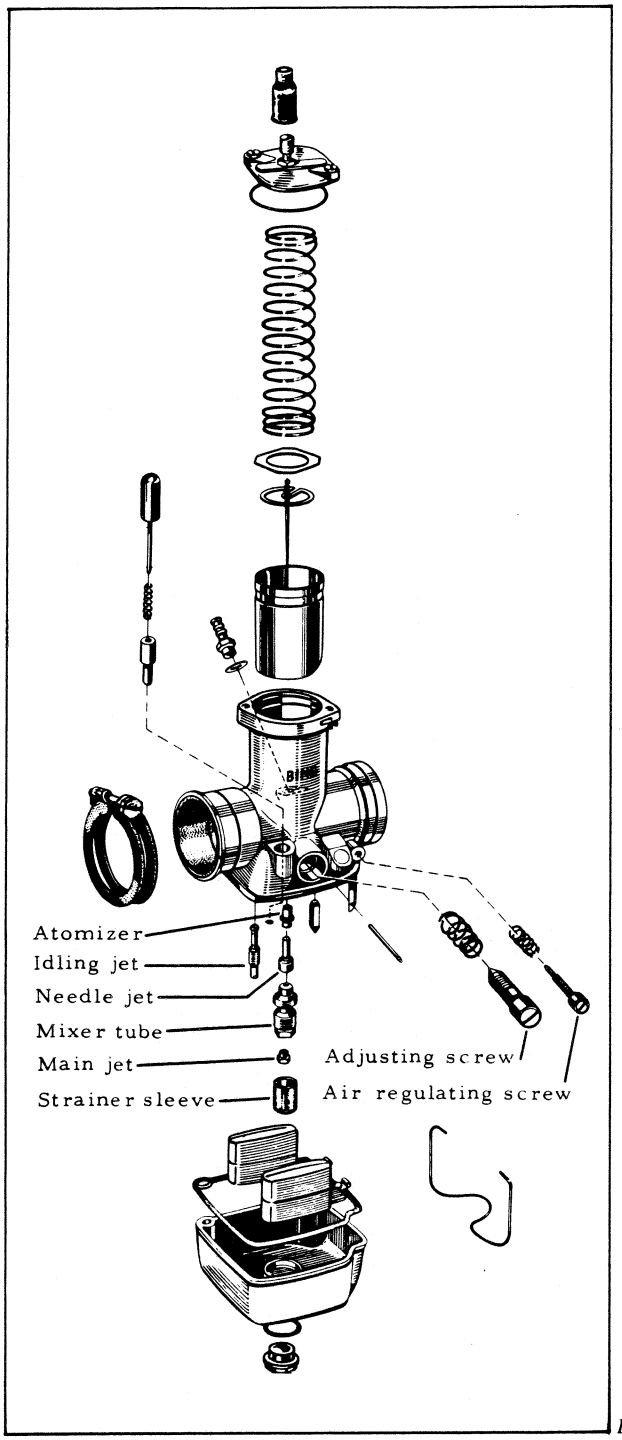


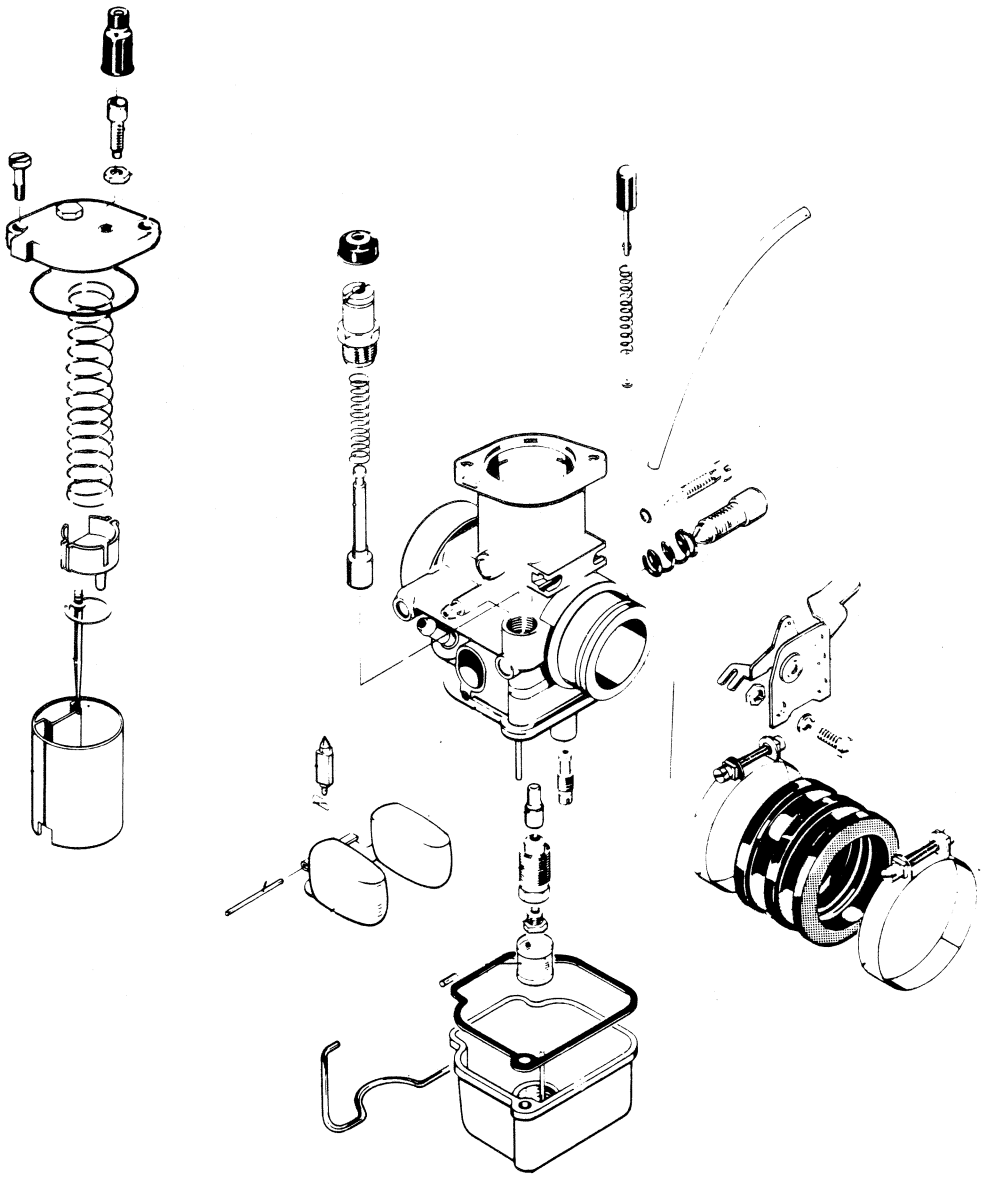
Fig. 6.1

Assembling
Assemble the carburettor in the reverse order. See fig. 6.1.

Time for repairs-maintenance
Dismantle the carburettor regularly for cleaning. Use petrol and blow dry with compressed air. Make sure that all the carburettor passages are free from dirt.

Husqvarna motorcycles

Bing carburettors Ø 32 mm and Ø 36 mm with start valve.



Function

Fuel supply system

Fuel flows through the needle valve (G) when the float is below the pre-set position. As the fuel level rises, so does the float and closes the needle valve. This procedure is repeated with the result that the fuel level in the float chamber of the carburettor remains constant.

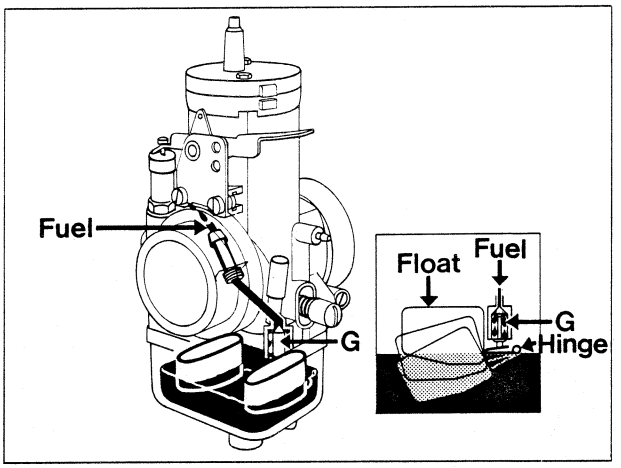


Fig. 3.1

Cold start system

When the cold start valve (E) is open, fuel is sucked directly from the float chamber through the channel (F), into the venturi.

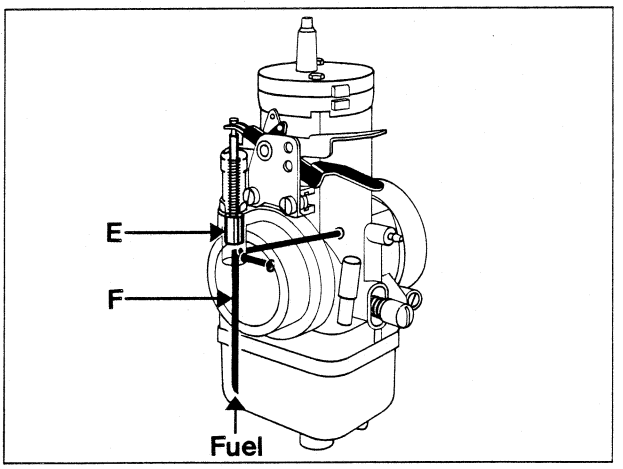


Fig. 3.2

Idling speed

The vacuum in the engine crankcase sucks air through the carburettor. Partly past the throttle which is adjusted by means of the large screw. Partly through the throat (B) passing the adjustment screw (A). This air breaks up the fuel in the mixing section of the idling jet to facilitate carburation.

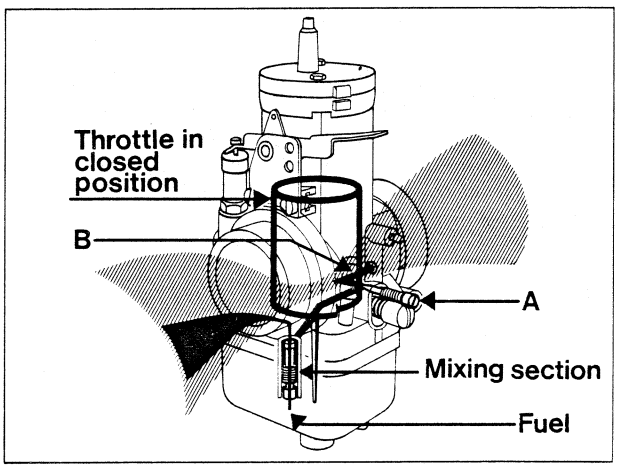


Fig. 3.3

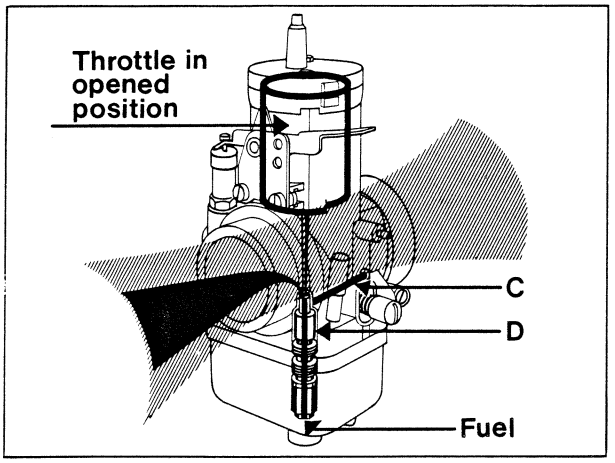


Fig. 4.1

High speed
Air is sucked through the passage (C). This air breaks up the fuel in the mixing tube (D). The atomized fuel is then sucked up into the venturi of the carburettor and mixed with the air flowing through the throttle opening.

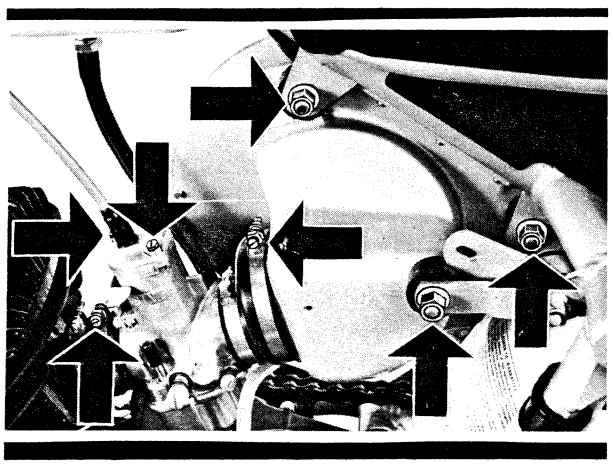


Fig. 4.2

Dismantling
Screw out the three nuts, loosen the clamp and take out the whole air filter.
Loosen the clamp and remove the carburettor. Unscrew the two screws on the carburettor cover and take out the throttle unit.
See fig. 4.2.

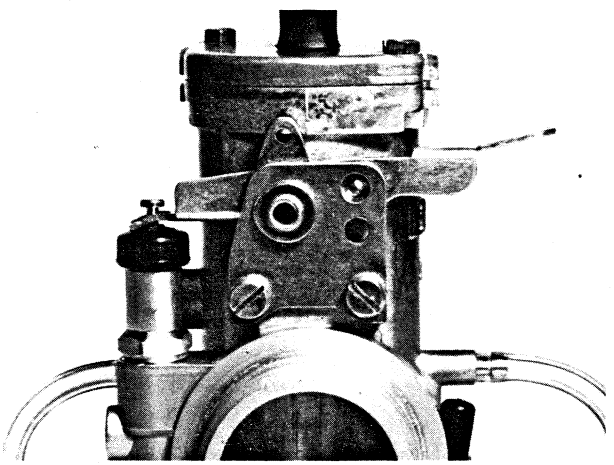


Fig. 4.3

Unscrew the two choke lever holding screws and remove the choke lever. See fig. 4.3.
Loose the start sleeve and take out the whole unit. See fig. 4.3.

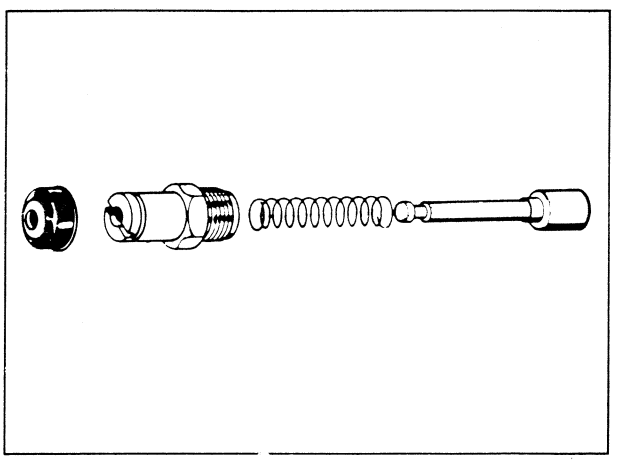


Fig. 4.4

Separate the rubber cap. the spring and the piston from the start sleeve. See fig. 4.4.
The rest of the dismantling is done in the same way as for Bing carburettors without start valve. See chapter F.

Assembling
The assembling is done in reverse order. See fig. 5.1.

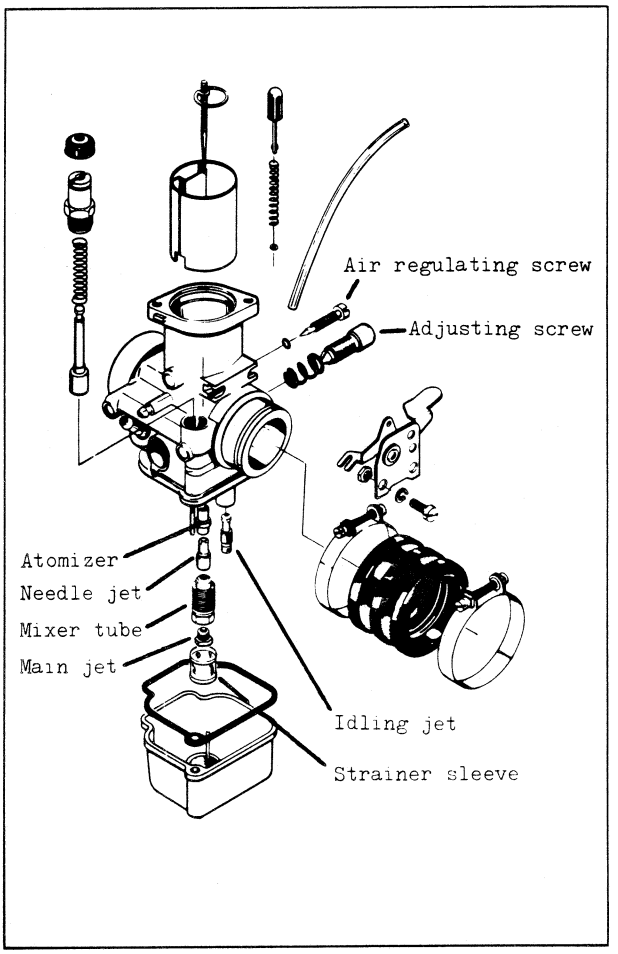


Fig. 5.1

Time for repairs-maintenance
Dismantle the carburettor regularly for cleaning. Use petrol and blow dry with compressed air. Make sure that all the carburettor housing passages are free from dirt.
NOTE! Also remember to clean the start valve jet in the bottom of the float chamber.
See fig. 5.2.

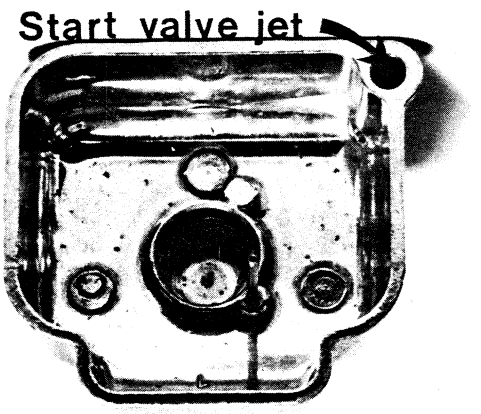
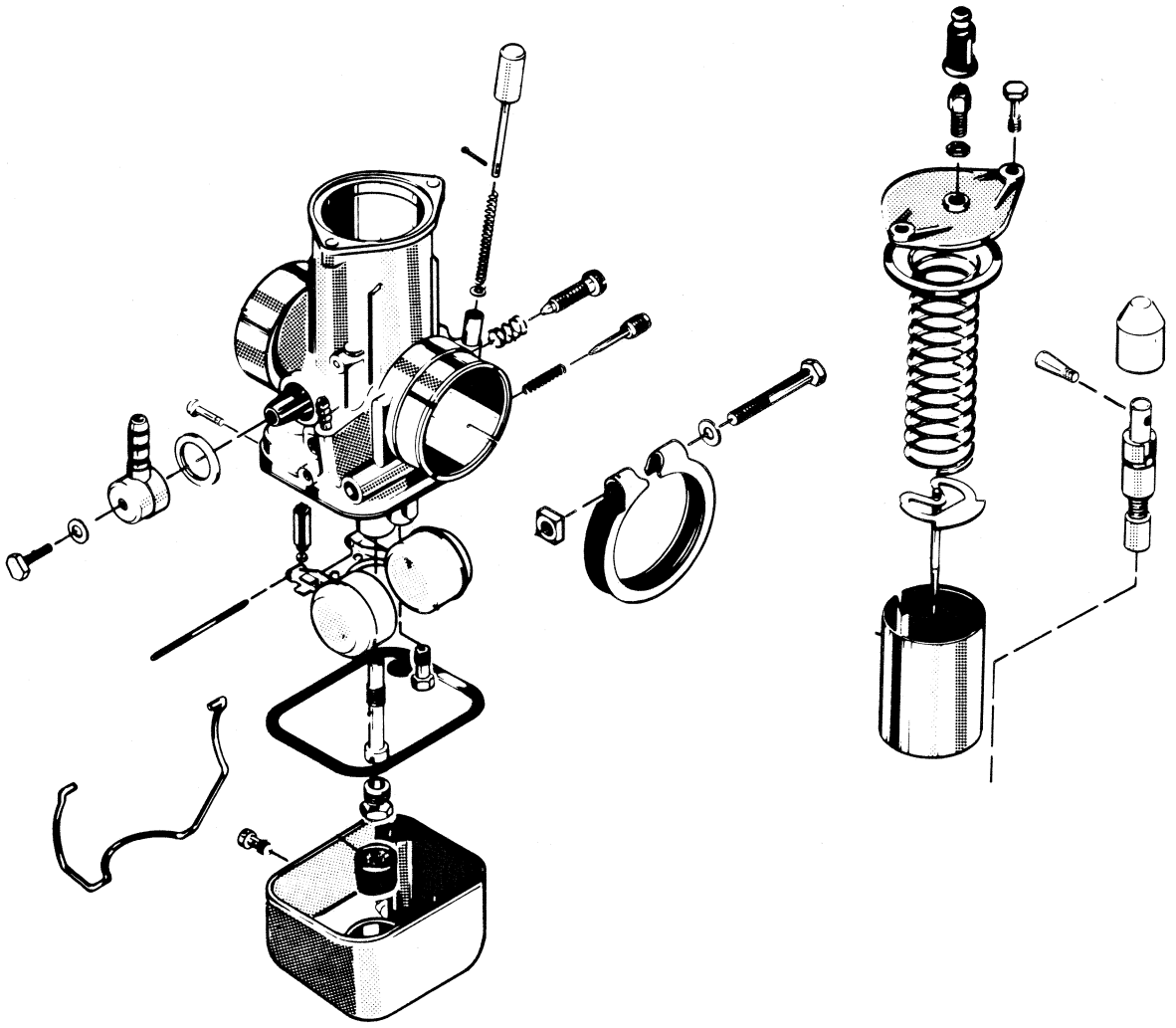


Fig. 5.2

Husqvarna motorcycles

Gurtner carburettor Ø 38 mm.



Function
The function of the Gurtner Ø 38 mm carburettor is in principle the same as for Bing carburettors with start valve. See part F G.

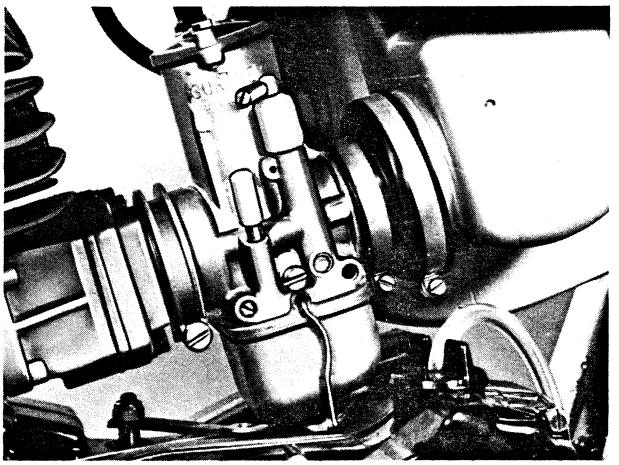


Fig. 3.1

Dismantling
Remove the carburettor from the motorcycle. See part FF, fig. 4.1.
Remove the carburettor cover and take out the throttle unit. See fig. 3.2.

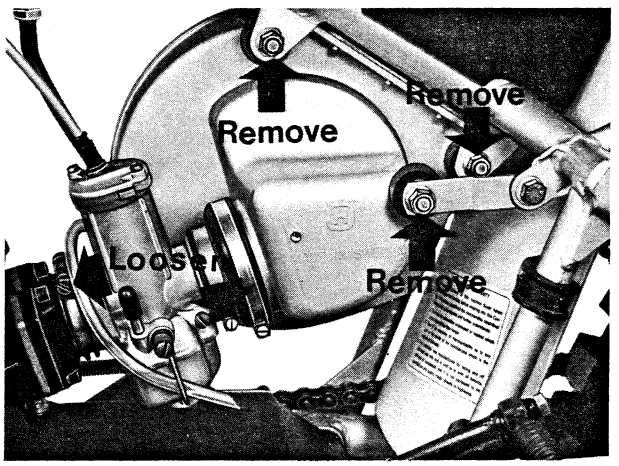


Fig. 3.2

Unscrew the throttle adjusting screw and the air regulating screw.
See fig. 3.3.

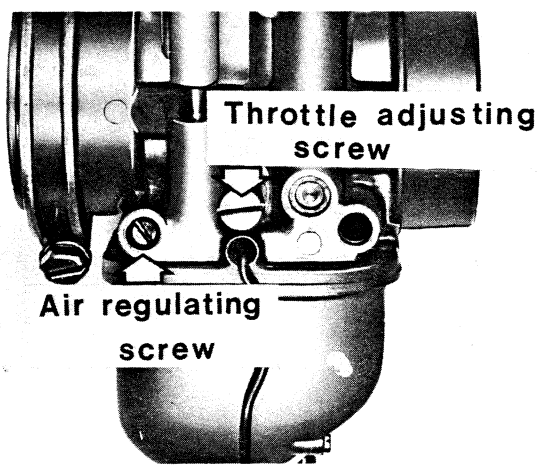


Fig. 3.3

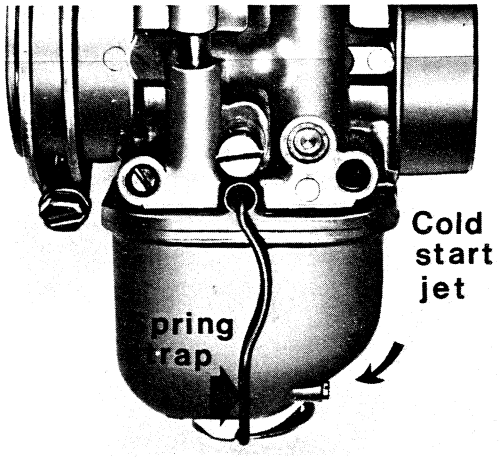


Fig. 4.1

Unscrew the cold start jet. Loosen the spring strap and remove the float chamber from the carburettor. See fig. 4.1.

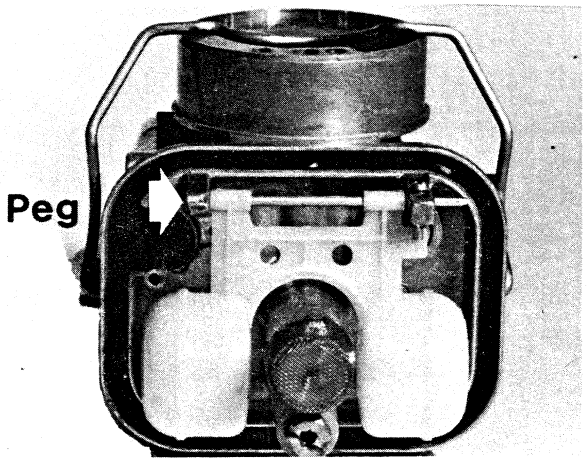


Fig. 4.2

Push out the peg and take out the float. See fig 4.2.

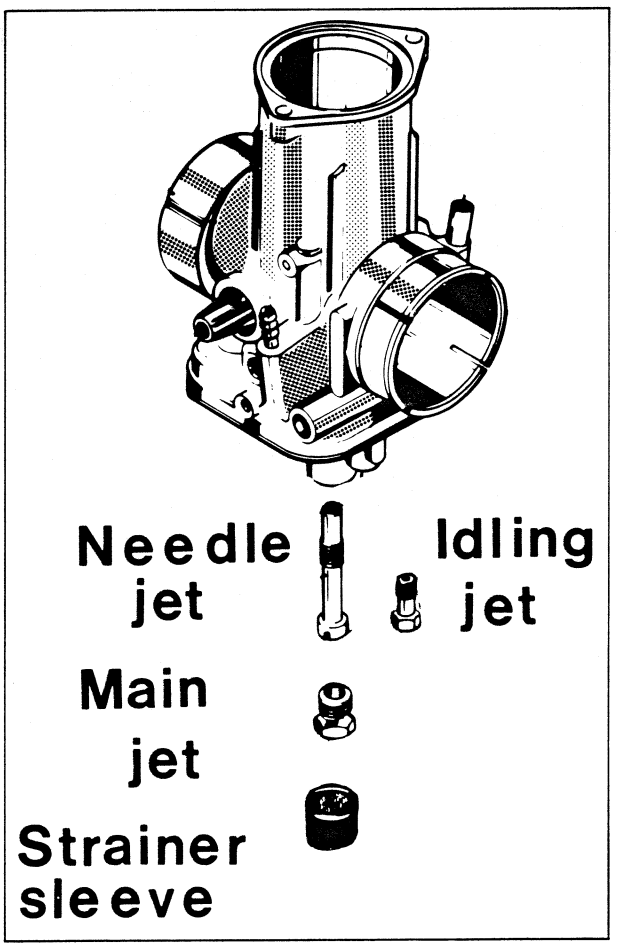


Fig. 4.3

Remove strainer sleeve, main jet, needle jet and idling jet from the carburettor. See fig 4.3.

Remove the fuel hose connection with the two gaskets.
See fig. 5.1.

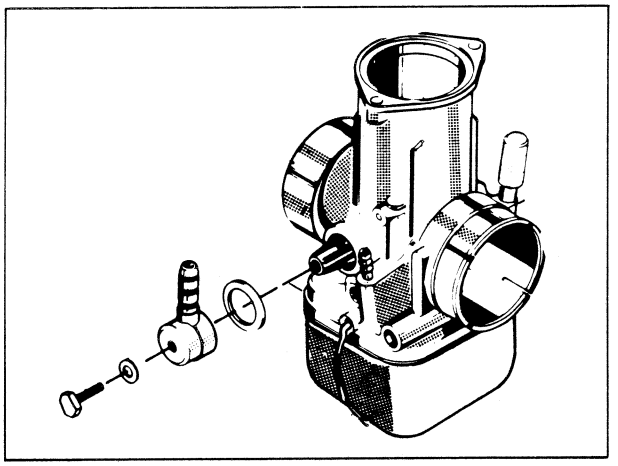


Fig. 5.1

If the float needle shall be removed must the peg be pressed out. See fig. 5.2.

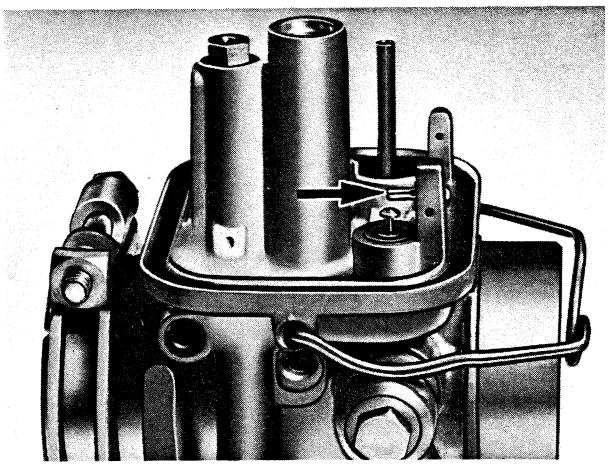


Fig. 5.2

The start valve is pressed into the carburettor housing and shall only be removed for replacing.

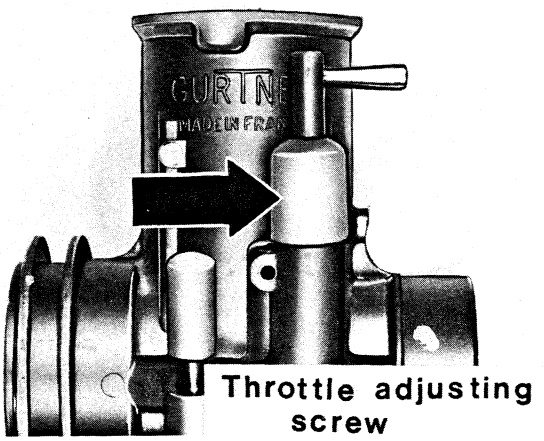


Fig. 5.3

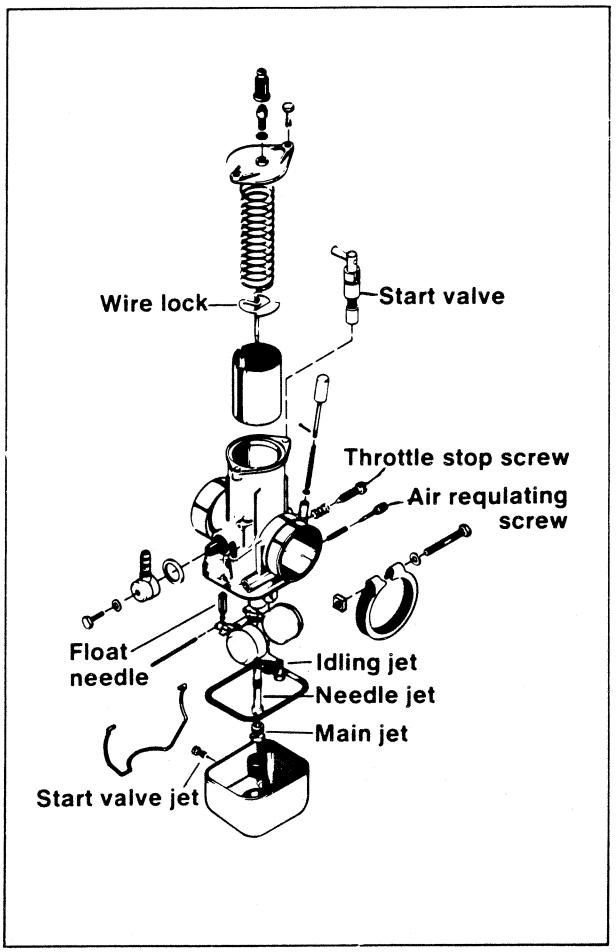


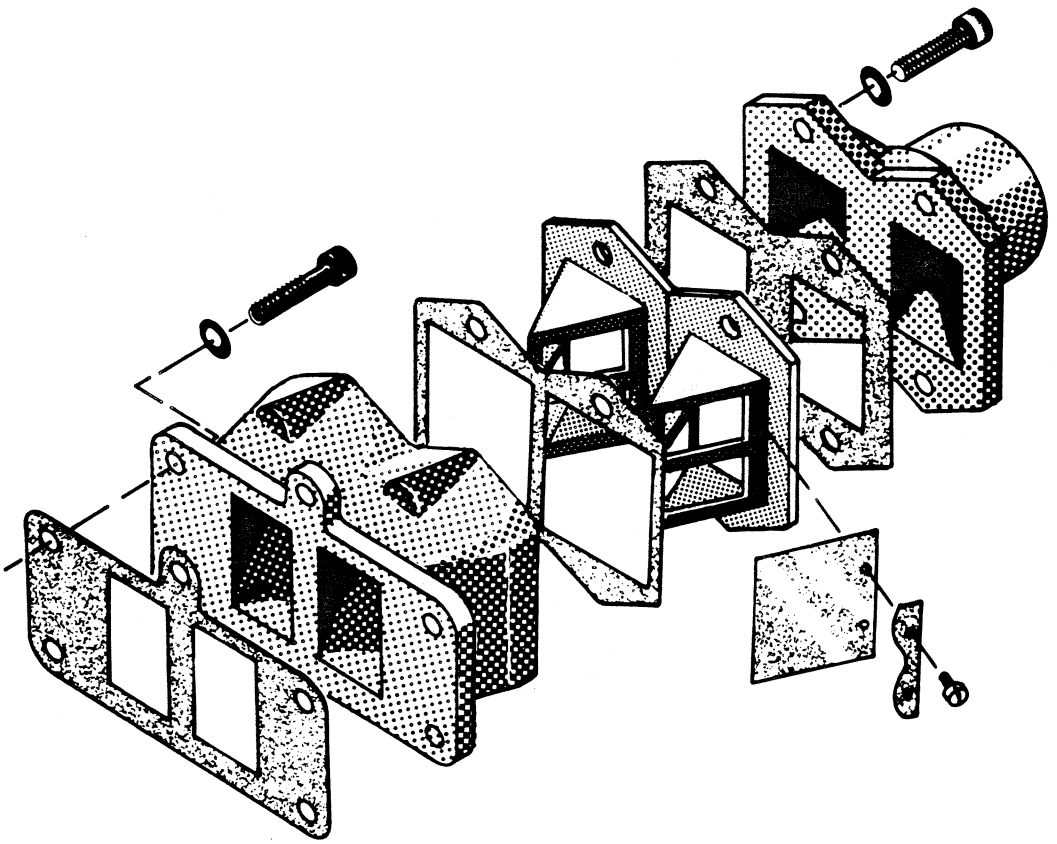
Fig. 6.1

Assembling
Assemble the carburettor in reverse order

Time for repairs—maintenance
Dismantle the carburettor regularly for cleaning. Use petrol and blow dry with compressed air. Make sure that all the carburettor housing passages are free from dirt.

Husqvarna motorcycles

Reed valves



Function
Reed valves are a valve system which prevents the fuel-air mixture from being forced back through the carburettor. The valves are located between the cylinder and the carburettor.

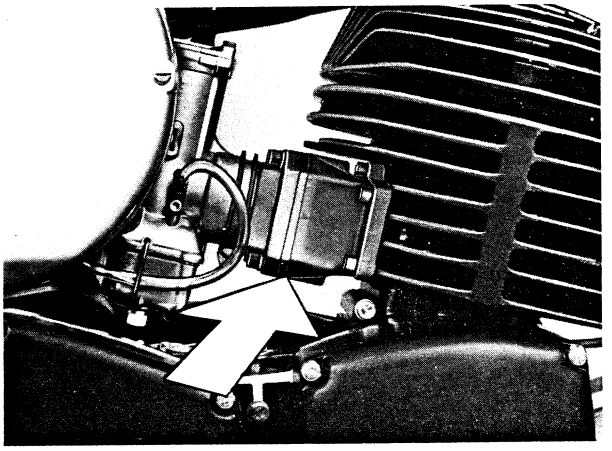


Fig. 3.1

When the piston uncovers the induction port the fuel-air mixture is sucked through the valves into the crankcase. See fig. 3.2.

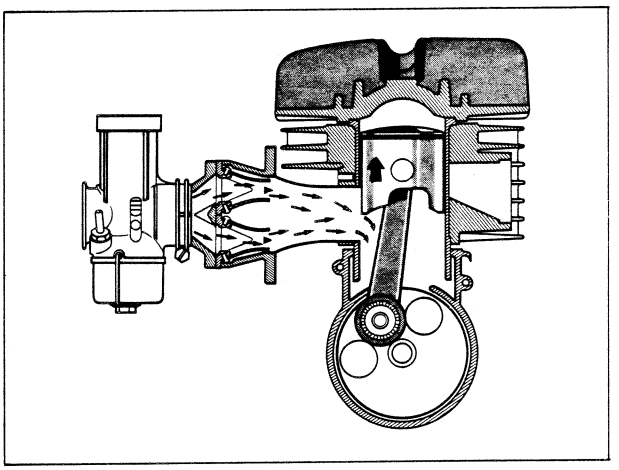


Fig. 3.2

To keep the fuel-air mixture in the crankcase there are reed-valves which keep the gas inside when pressure in the crankcase rises. See fig. 3.3.

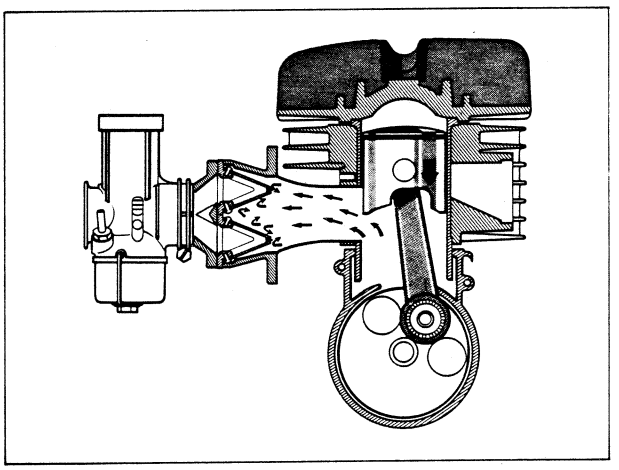


Fig. 3.3

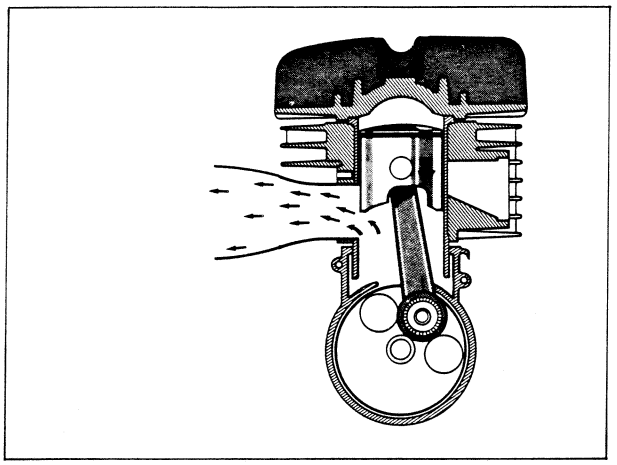


Fig. 4.1

Without these reed valves some of the fuel-air mixture would be forced back through the carburettor. See fig. 4.1.

NOTE! To give you a better view of its function, the valve housing is turned 90° in the drawings. See fig. 3.1.

Dismantling
Loosen the four screws on the connection tube and take out the valve holders. See fig. 4.2.

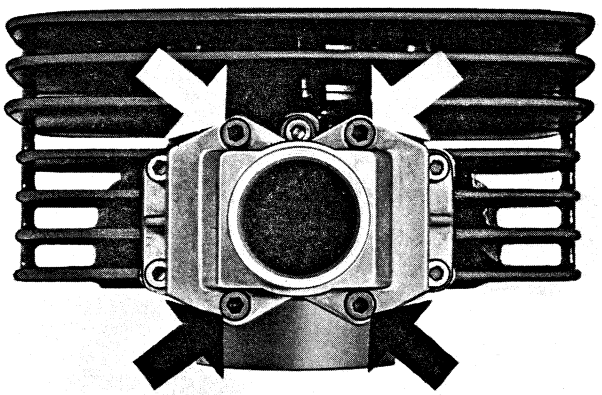


Fig. 4.2

Remove the valve attaching screws.

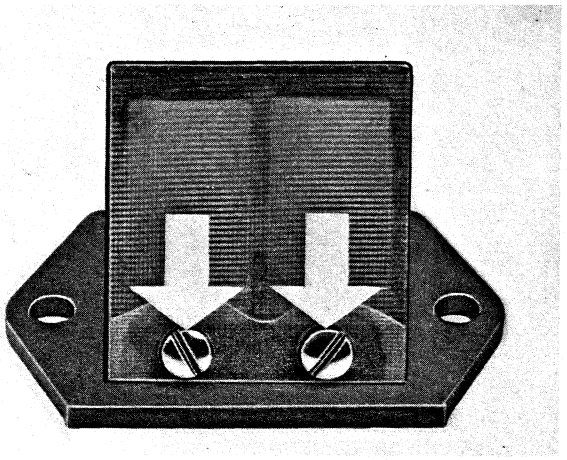


Fig. 4.3

Mounting
Mounting is done in reverse order.

NOTE! The valve attaching screws shall be locked with Loctite EV and tightened to 2 Nm.

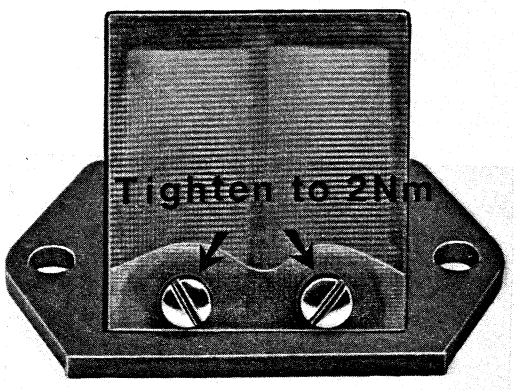


Fig. 4.4

The reed valves of the 125 cc machines are dismantled and assembled in the same order. See fig. 5.1.

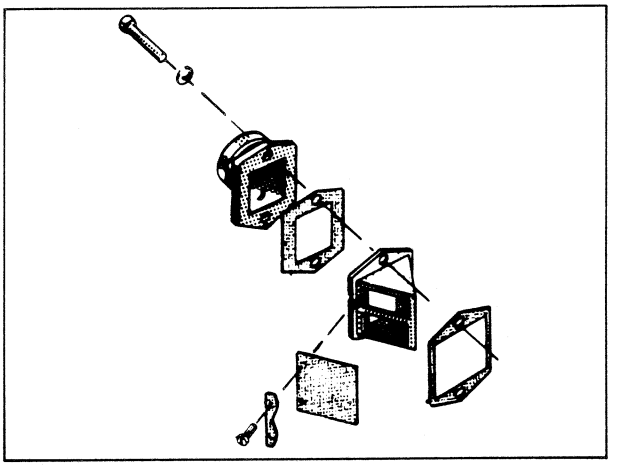


Fig. 5.1

Time for repairs—maintenance.
Replace the plastic valves when the contact surfaces begin to get worn or if they don't close the gate completely. See fig. 5.2.

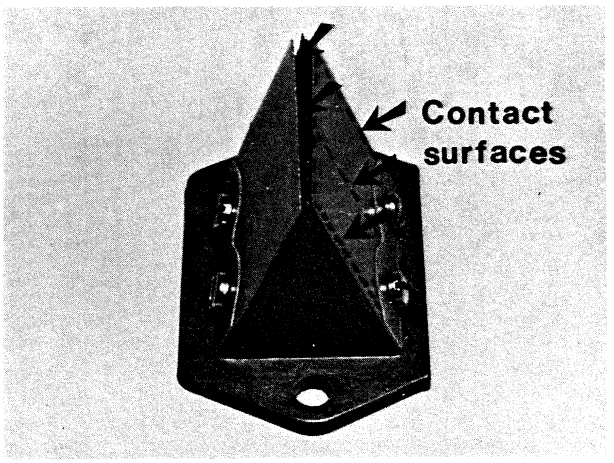


Fig. 5.2

Check regularly that the connection tube and the valve housing are proper tightened. See fig. 5.3.

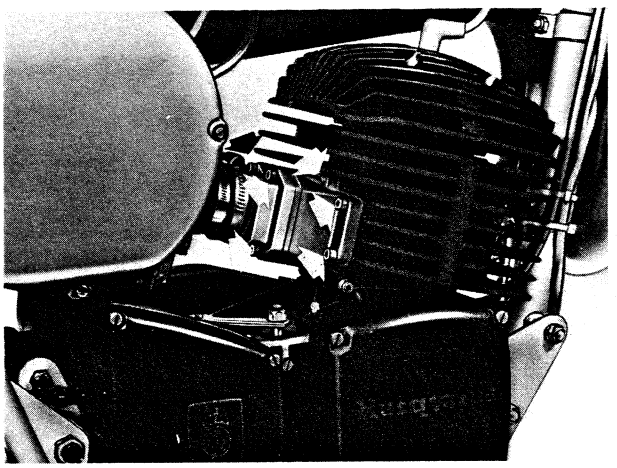
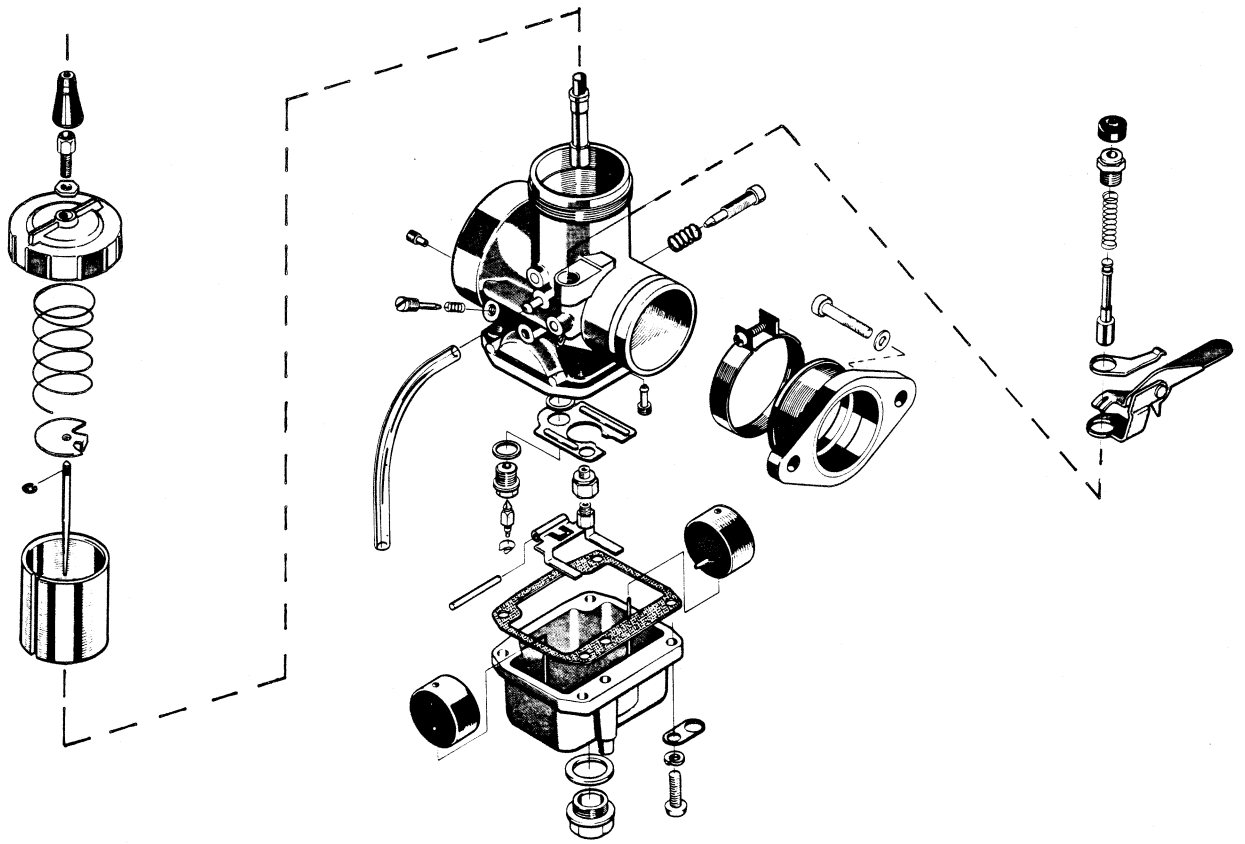


Fig. 5.3

Husqvarna motorcycles

MIKUNI carburettor Ø 38 mm with starting device



The reed valves of the 125 cc machines are dismantled and assembled in the same order. See fig. 5.1.

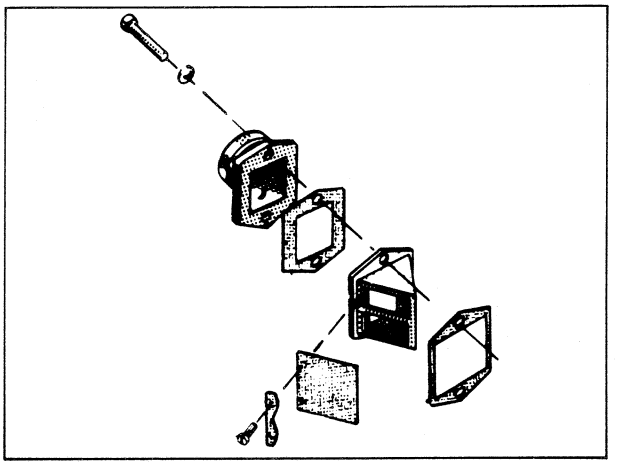


Fig. 5.1

Time for repairs—maintenance.
Replace the plastic valves when the contact surfaces begin to get worn or if they don't close the gate completely. See fig. 5.2.

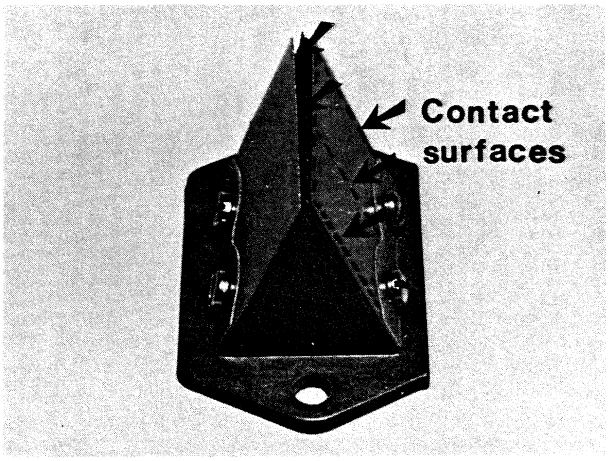


Fig. 5.2

Check regularly that the connection tube and the valve housing are proper tightened. See fig. 5.3.

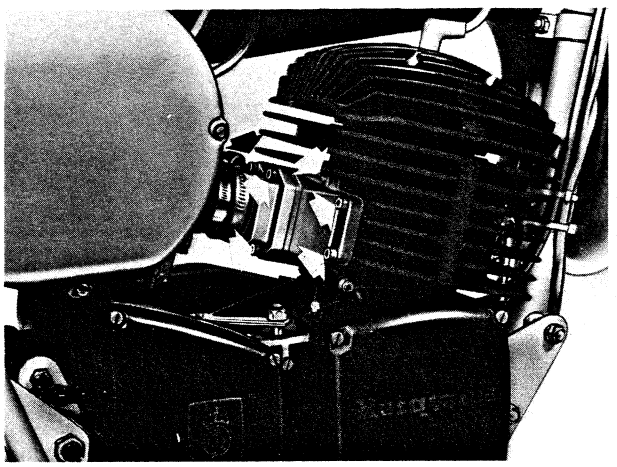


Fig. 5.3

Carburettor function

Fuel supply system
Fuel flows through the needle valve (G) when the float is below the pre-set position. As the fuel level rises, so does the float and closes the needle valve. This procedure is repeated with the result that the fuel in the float chamber of the carburettor remains constant.

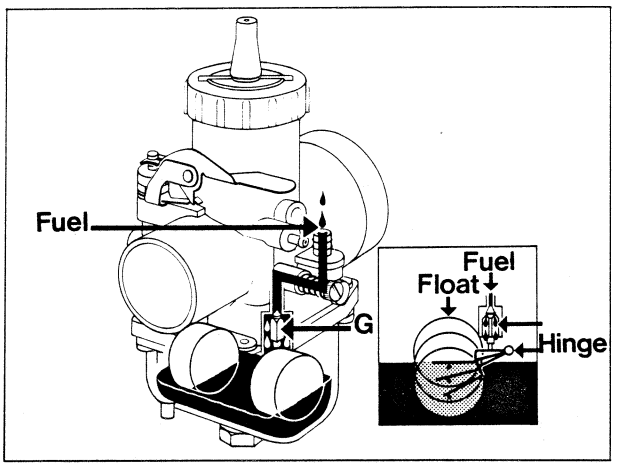


Fig. 3.1.

Cold start system
When the cold start valve is open, fuel is sucked directly from the float chamber through the channel, into the venturi.

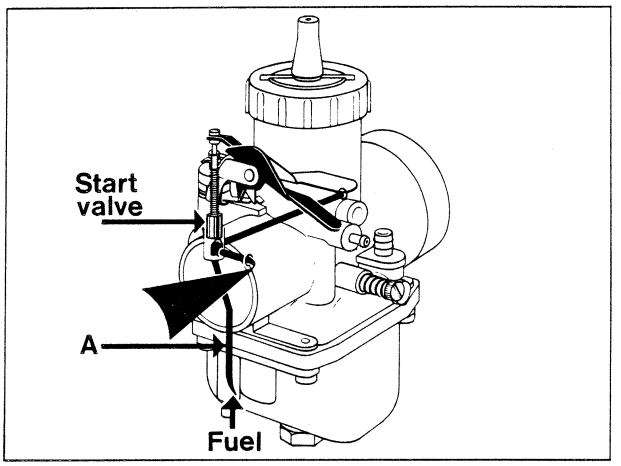


Fig. 3.2.

Idling speed
The vacuum in the engine crankcase sucks air through the carburettor. Partly pass the throttle which is adjusted by means of the large screw. Partly through the throat (B) pass the adjustment screw; this air breaks up the fuel in the mixing section of the idling jet to facilitate carburation.

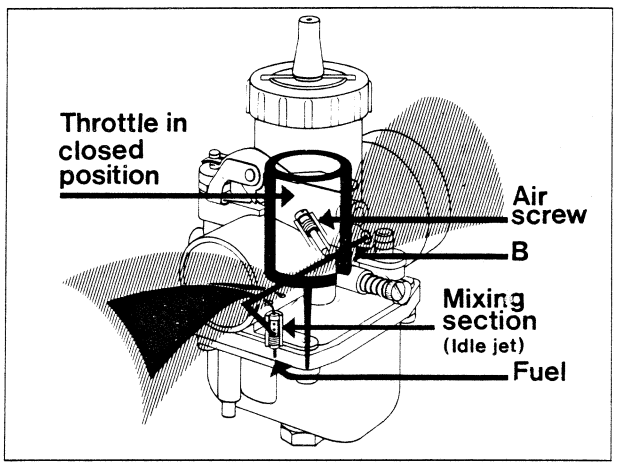


Fig. 3.3.

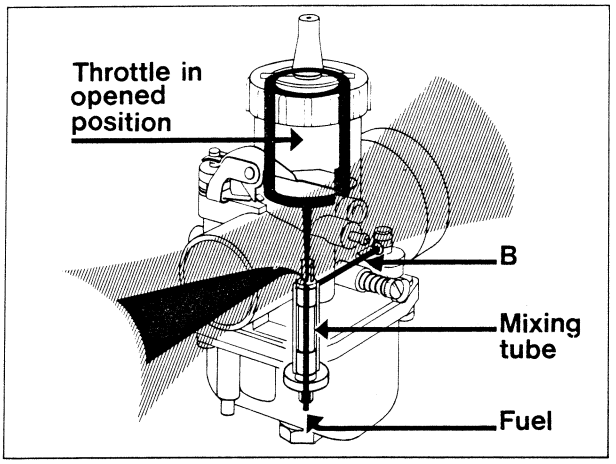


Fig. 4.1.

High speed
Air is sucked through the passage (B). This air breaks up the fuel in the mixing tube. The atomized fuel is then sucked up into the venturi of the carburettor and mixed with the air flowing through the throttle opening.

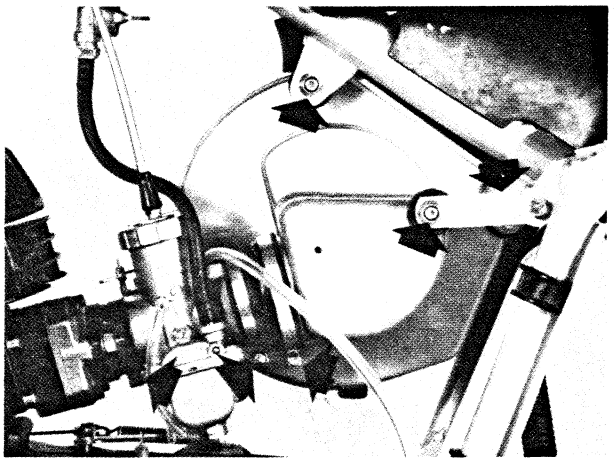


Fig. 4.2.

Dismantling and cleaning the carburettor

Lift out the throttle from the carburettor.
Loosen the carburettor attaching clamps and remove the carburettor from the intake manifold, and air filter housing.

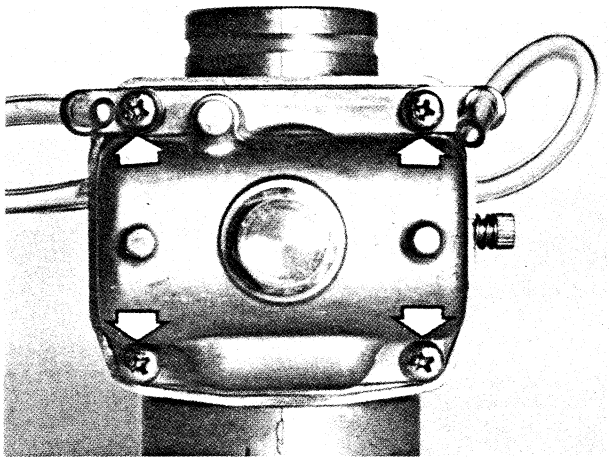


Fig. 4.3.

Remove the float chamber from the carburettor by loosening the four screws.

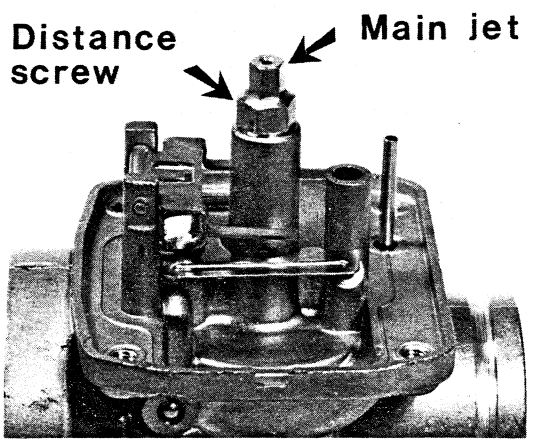


Fig. 4.4.

Remove the main jet by loosening the lower screw.
Loosen the distance screw which holds the needle jet, assembled from the top of the carburettor.
Clean and blow the main jet and the needle jet free from dirt.

Remove the peg and take out the float lever.

Remove the spring and take out the float needle. Thoroughly clean all parts in petrol and blow dry with compressed air.

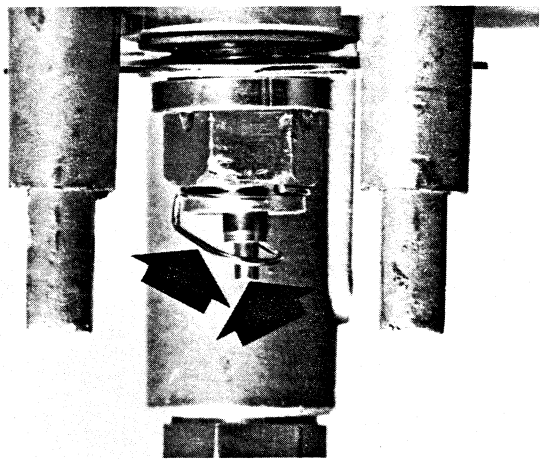


Fig. 5.1.

Remove the idling with a screwdriver and clean and blow the jet and the channel free from dirt.

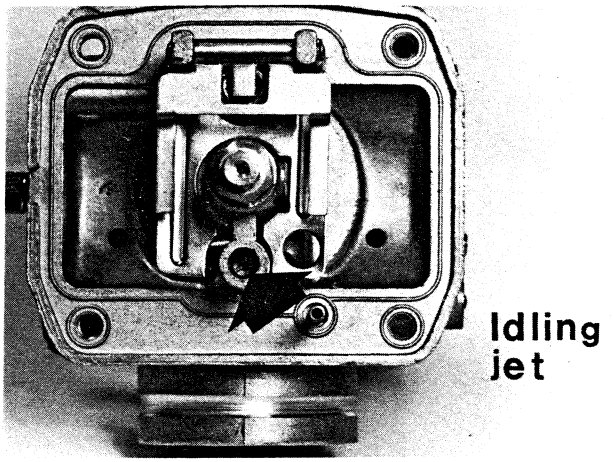


Fig. 5.2.

Loosen the screw holding the starting device, and remove the start valve.

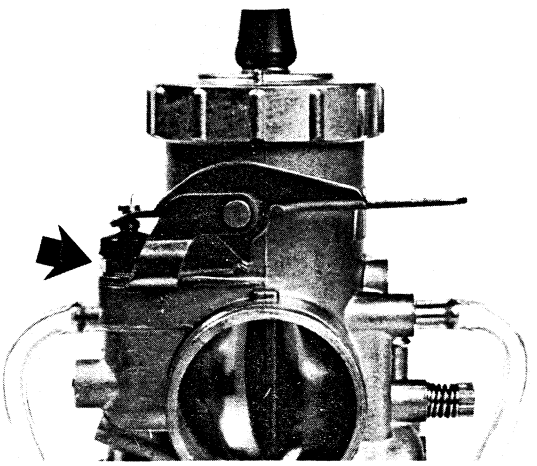
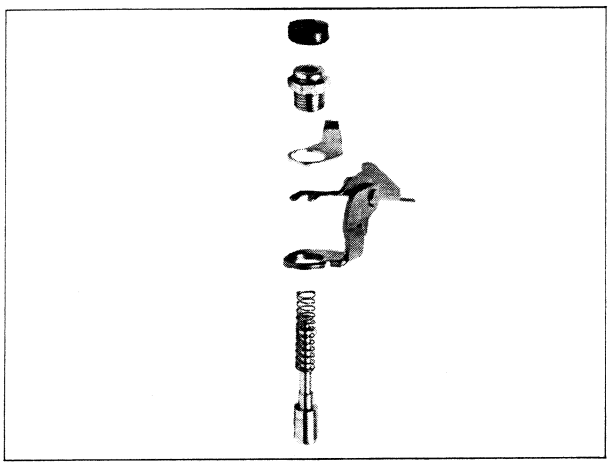
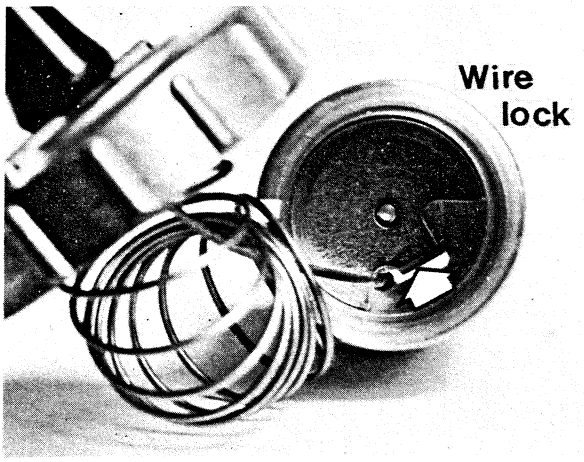


Fig. 5.3.



Separate the rubber cap. the spring and the piston from the start sleeve.
Clean the parts and blow through the cold start-channel in the carburettor.

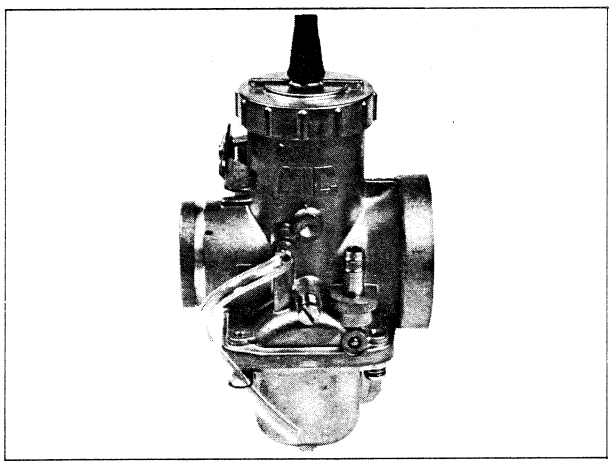
Fig. 6.1.



Throttle wire
Compress throttle spring, take out the wire lock and unhook the wire.

By assembling make sure that the end of the wire is in its groove and correctly locked with the wire lock.

Fig. 6.2

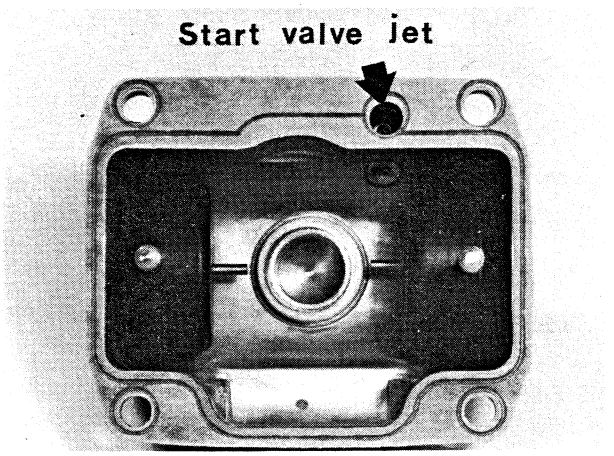


Assembling

The assembling is done in reverse order. See fig. on page FJ–1.

NOTE! Make sure that the float chamber is fitted correctly on the carburettor housing and that the rubber hose between the carburettor and air filter holder is intact.

Fig. 6.3.



Time for repairs-maintenance

Disassemble the carburettor regularly for cleaning. Use petrol and blow dry with compressed air. Make sure that all tne carburettor housing passages are free from dirt.
NOTE! Also remember to clean the start valve jet in the bottom of the float chamber.

Fig. 6.4.

Carburettor adjustment

Functional range effectiveness of tuning parts in relation to the throttle valve opening.

The thickness of the arrows in fig. shows when the different tuning parts work.

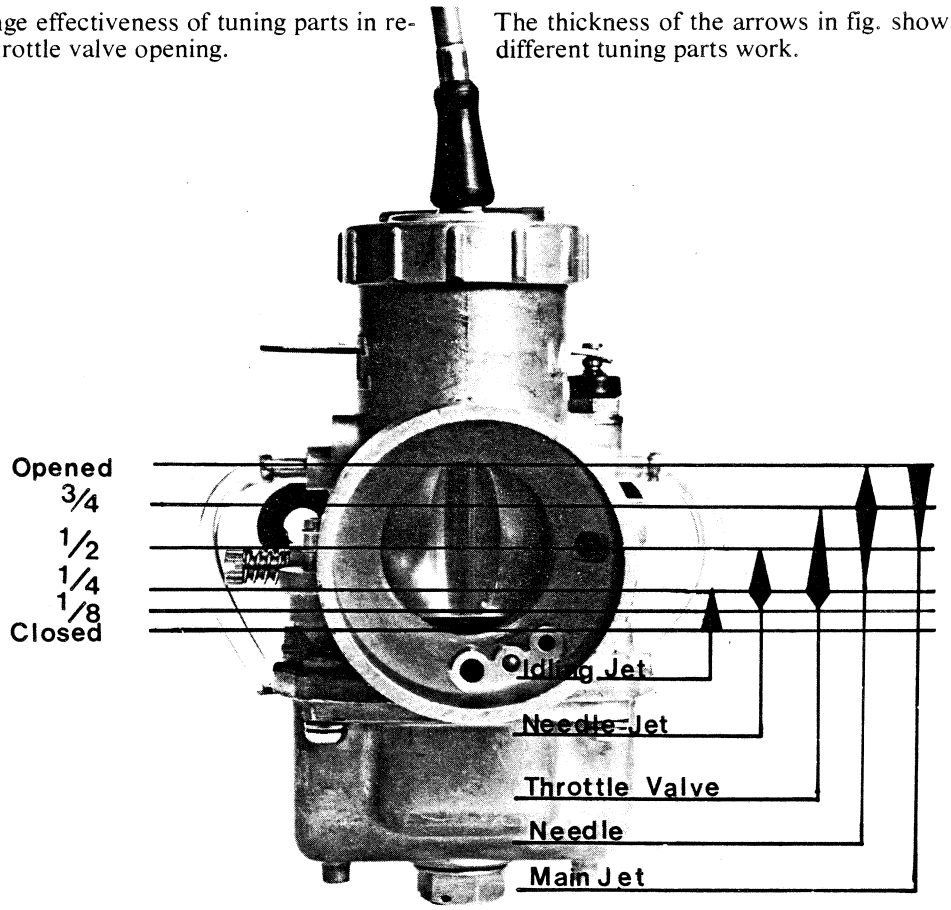


Fig. 7.1.

Choke

The carburettor is provided with a choke. To get a richer fuel-air mixture to be sucked into the engine, press the choke-lever down and turn the throttle-handle to zero.

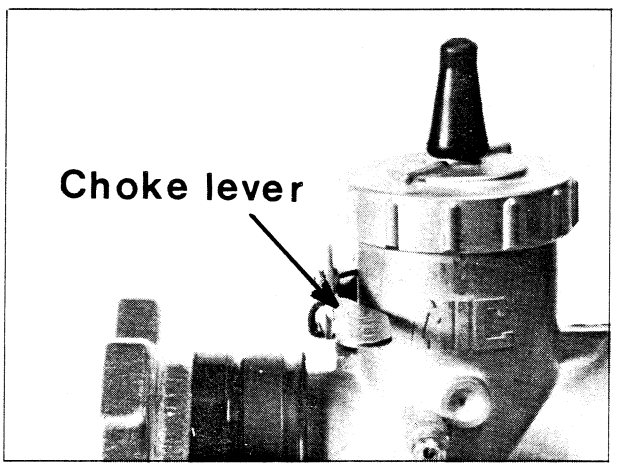


Fig. 7.2.

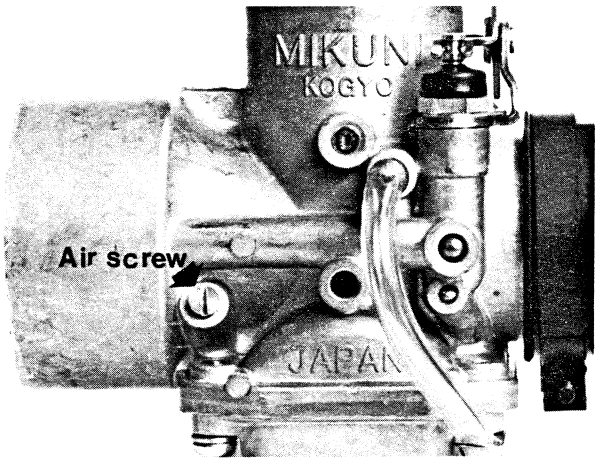


Fig. 8.1.

Idling
Always warm up the engine before adjusting.
Gently turn the air screw right home. Then screw it back 1,5 turn.

NOTE! Do not turn it too hard against the bottom.

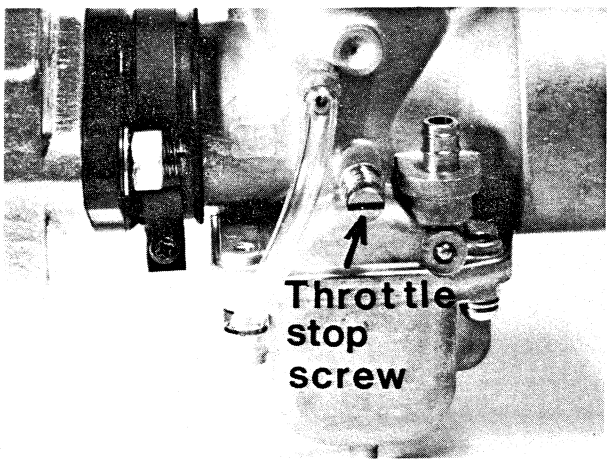


Fig. 8.2.

Start the engine and adjust the throttle stop screw until a satisfactory slow running speed is achieved.

Adjust the air screw until the engine runs smoothly (turning clockwise gives a richer mixture, anti-clockwise gives a leaner mixture).

If necessary, re-adjust the throttle stop screw for a satisfactory, slow running speed.

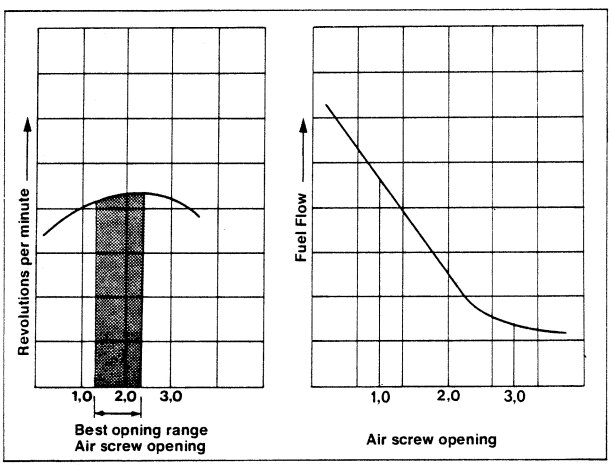


Fig. 8.3.

The left figure shows the revolutions per minute in relation to air screw opening and the best opening range of the air regulating screw.

The right figure shows the fuel flow curve in relation to the opening of the air screw.

The selection of the opening of the idling jet and the air screw is important. Turn the grip a little at no-load operation and see if the engine revolution increases smothly.

If the idling jet, is too small, increase in the engine speed is slow and irregular. Too big idling jet, on the other hand, would give rise to heavy exhaust smoke as well as a dull exhaust noise. If you cannot maintain the speed in the range of 12–25 M.P.H. (30–40 km/h) with the grip held constant, the idling jet is too small.

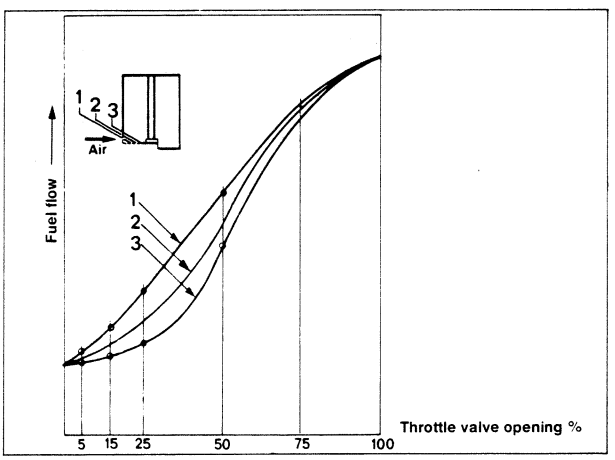


Fig. 8.4.

The cutaway size of the throttle valve
The size of the cutaway of the throttle valve affects the air-fuel mixture ratio when the degree of the throttle valve opening is between 1/8 and 1/2. As the cutaway gets larger in size, with the throttle valve opening kept unchanged, air inflow resistance is reduced and causes the amount of air intake to increase, resulting in a lean mixture. On the other hand, the smaller the size of the cutaway, the richer the air-fuel mixture will become. Fig. shows the fuel flow curve in relation to the size of the cutaway.

Needle and needle jet

The needle jet and the needle serve to control a proper air-fuel mixture ratio during the so-called medium throttle valve opening (between 1/4 and 3/4 opening).

The needle has five of settings, the uppermost (no. 1) giving the leanest and the lowest (no. 5) the richest mixture.

As you see on fig., the needle setting is mostly noticeable at 50 % throttle opening.

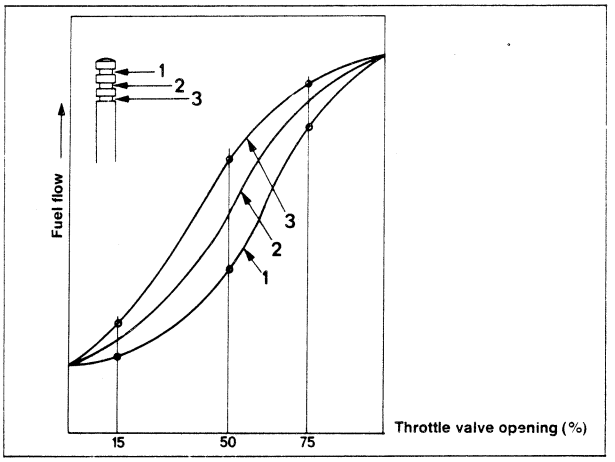


Fig. 9.1.

By changing needle jet you can get richer or leaner air-fuel mixture. A small needle jet will give you a leaner mixture and on the other hand a big needle jet gives you a richer air-fuel mixture.

As you can see on fig., the changing of the needle jet is mostly noticeable at 25 % throttle valve opening.

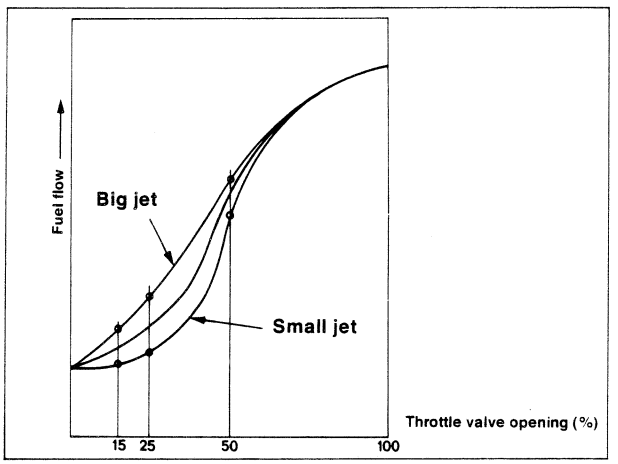


Fig. 9.2.

Main jet

The surest way to determine the right size of main jet is to try an obviously large number. Run at full throttle in 6th gear and reduce jet size by one number at a time, until 4-stroking is eliminated. If the main jet is too small, acceleration may suffer. Use the largest possible size without 4-stroking at high revs.

The fig. shows the throttle valve opening in relation to fuel flow, with different kinds of main jets. In the range 50–100 % throttle opening is the fuel mostly noticeable. The straight line in the middle is a zero line.

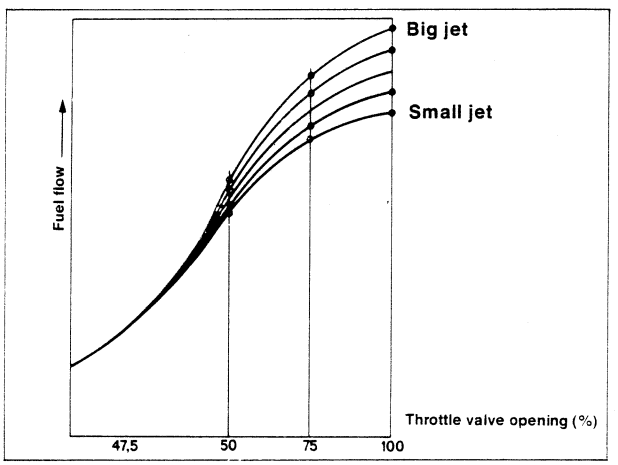


Fig. 9.3.

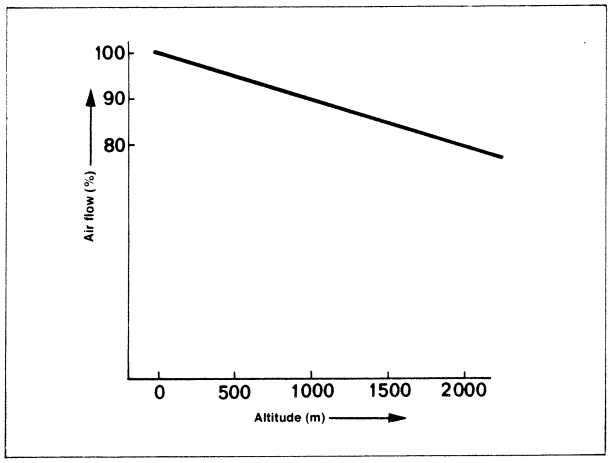


Fig. 10.1

Finally
High temperature, high elevation above sea level and lower barometric pressure generally require leaner settings. However, remember to restore the richer setting when conditions are normal again. If settings are too lean, acceleration and top speed will be less and there will be risk of engine damage.
The fig. shows the amount of air decreases in proportion to a rise in elevation.
Reduction in the amount of air sucked into the cylinder changes the air-fuel mixture ratio, with the result that the power output drops markedly.

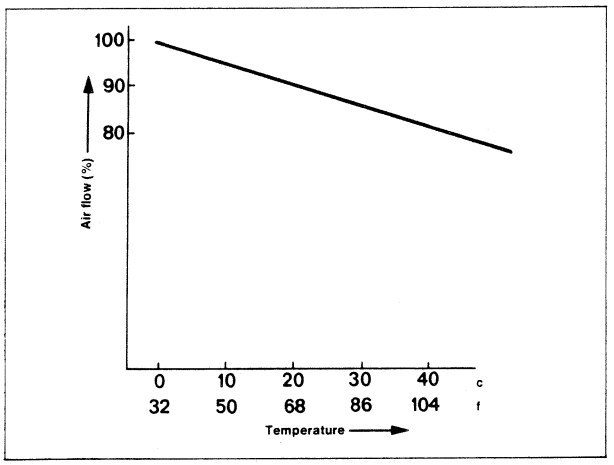


Fig. 10.2

The fig. shows the relations between a rise in temperature and the amount of air drawn into the cylinders.
In the case of the engine is for racing where the maximum output is constantly called for, it is best to tune up the engine by making a matching test of the carburettor in accordance with the temperature and other conditions on the racing course.

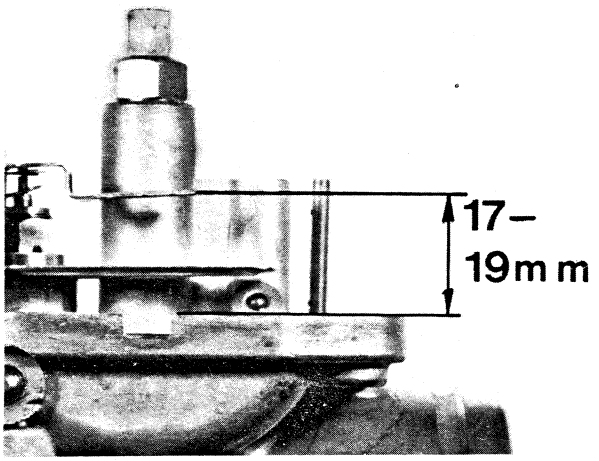
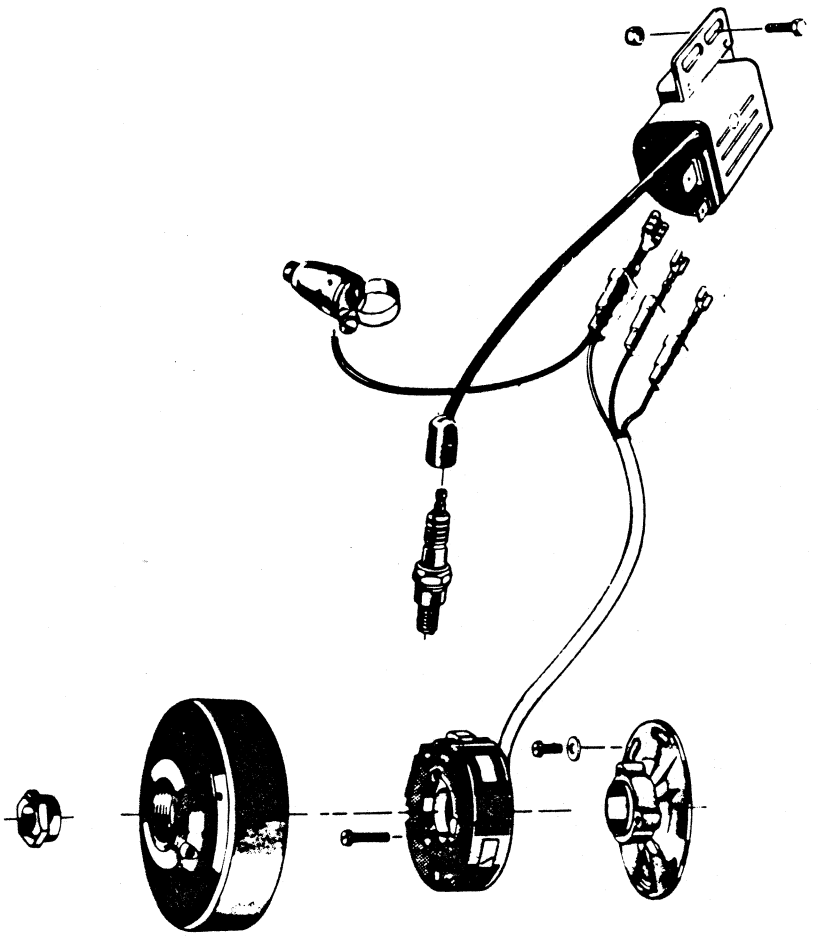


Fig. 10.3

Fuel level
The fuel level can be checked by removing the float chamber from the carburettor.
Hold the carburettor horizontal, and move the float lever with your finger.
When the float lever is 17–19 mm from the carburettor flange, the needle should just close the valve. See fig. 13.4.

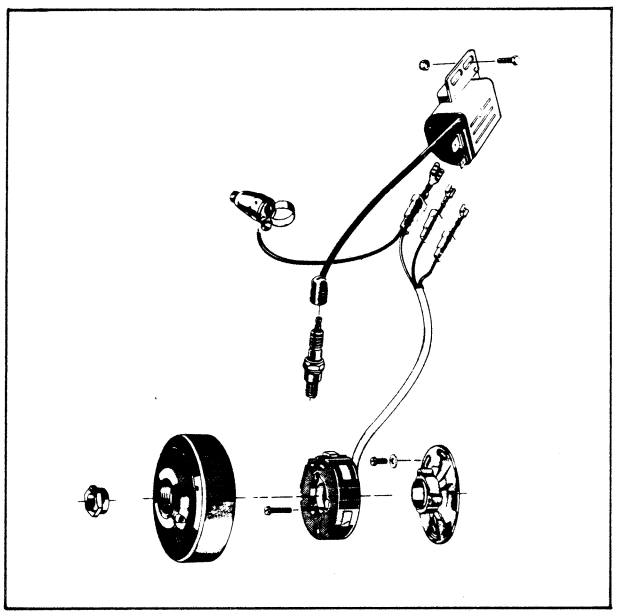
WORKSHOP MANUAL



IGNITION SYSTEM

I

Ignition system



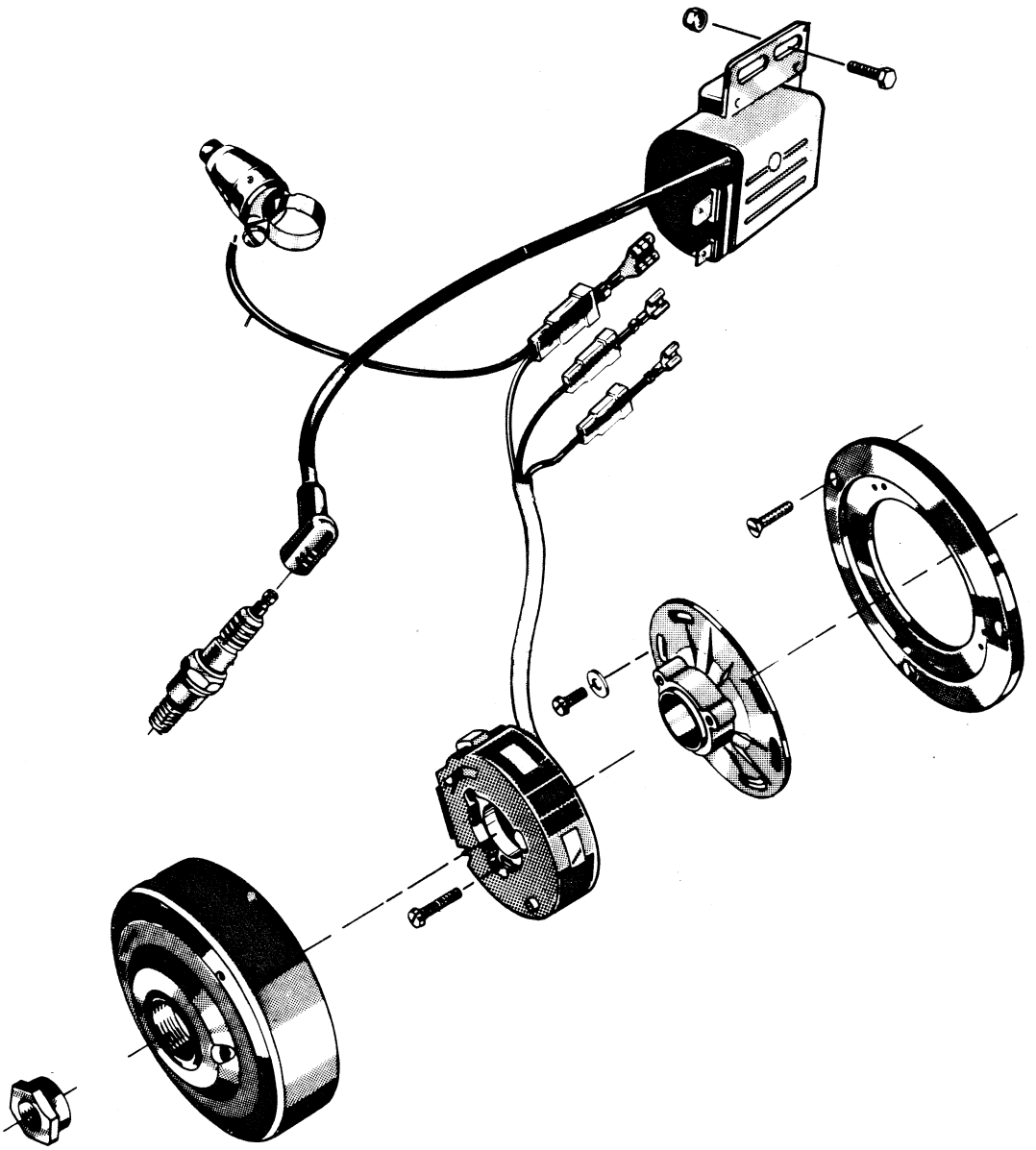
This chapter covers the different types of ignition systems which have been mounted on Husqvarna motorcycles since 1974.

IA. Motoplat magnetos
All 125–175 cc models
All 250 CR models
360 cc ML 6 000 →
360 Aut ML 6 000 →
All 400 CR models

IB. Femsa magnetos
All 250 WR models
360 CR ML 0001–5999
All 400 WR models
All 450 cc models
250–360 RT models

Husqvarna motorcycles

Motoplat magnetos



Function.
This ignition system has no mechanical contact breaker. Instead, the current is interrupted by a transistor which is magnetically actuated by the flywheel via a coil.
Since this ignition system has no moving parts (except the flywheel, of course), it is less sensitive to moisture and dirt and is more reliable than common conventional systems.

1. Alimentation coil condenser charging
2. Pick-up coil
3. Limiting resistor
4. Rectification diode
5. Thyristor
6. Condenser
7. Return diode damped waves
8. High Tension coil
9. Spark plug

When the flywheel rotates an alternating current is produced in the coil (1). The alternating current is rectificated by the diode (4) and is accumulated in the condenser (6).
A sinusoidal voltage is produced in the pickup coil (2). When this voltage reaches a certain level the thyristor opens.
When the thyristor closes the circuit the condensor is discharged through the primary circuit in the primary coil. This results in a short high voltaged current produced in the secondary coil (8).
The diode (7) extends the oscillating process between the condensor and the primary coil so enough arcduration time will be reached. See fig. 3.1.

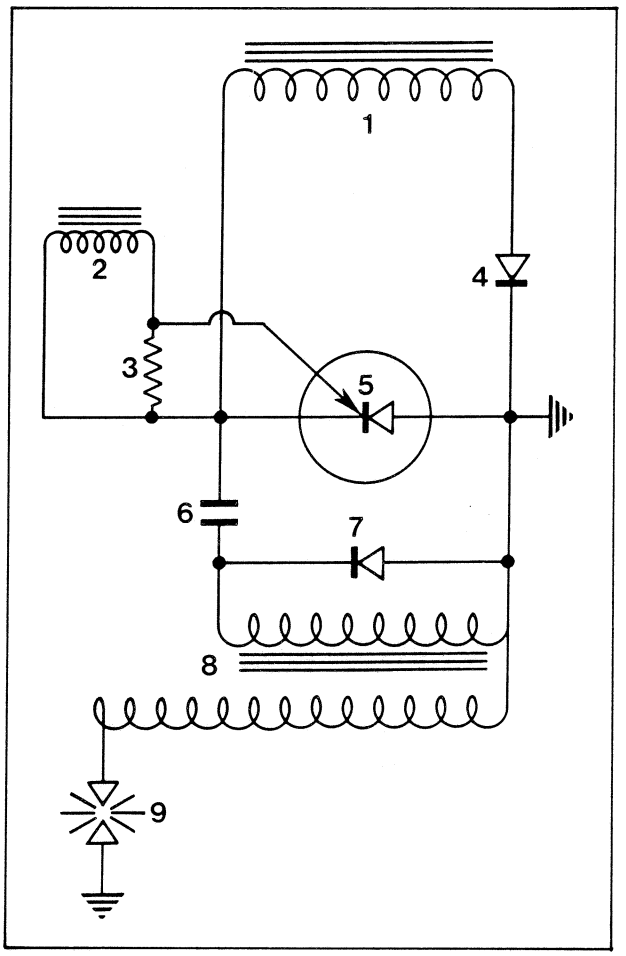


Fig. 3.1

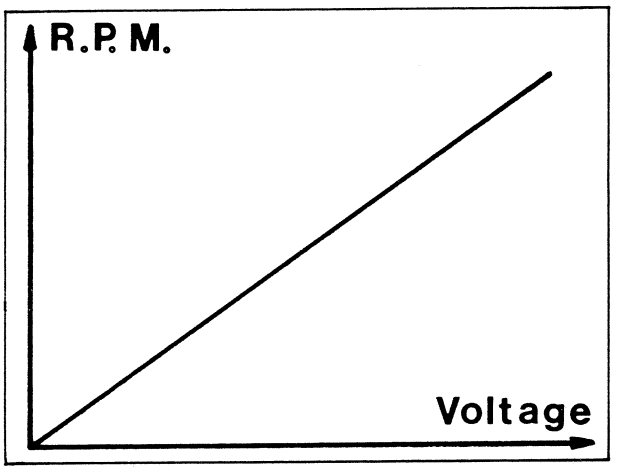


Fig. 4.1

The sinusoidal voltage, produced in the pick up coil, is proportional to the R.P.M. When this voltage has reached a certain level the thyristor is opened and the timing occurs. See fig. 4.1.

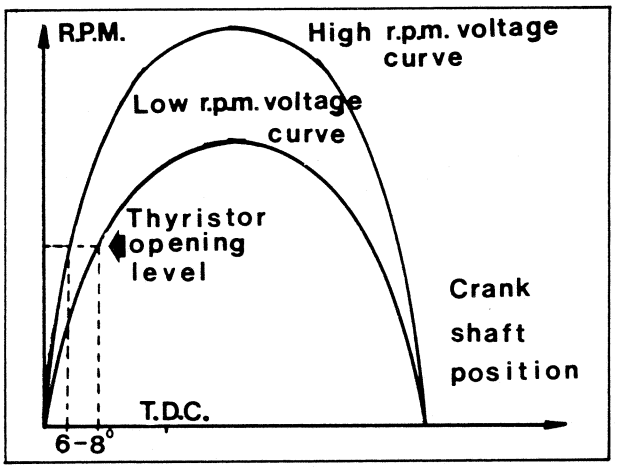


Fig. 4.2

As voltage and R.P.M. increases the graph curve gets more and more steep and the thyristor opening voltage is reached more and more early. This results in an automatically ignition advance for about 6–8° from the lowest to the highest R.P.M. See fig. 4.2.

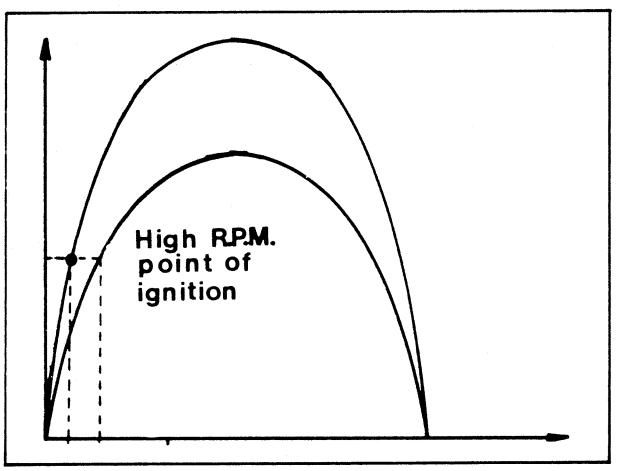


Fig. 4.3

The timing hole of the ignition system indicates the high R.P.M. point of ignition. See fig. 4.3.

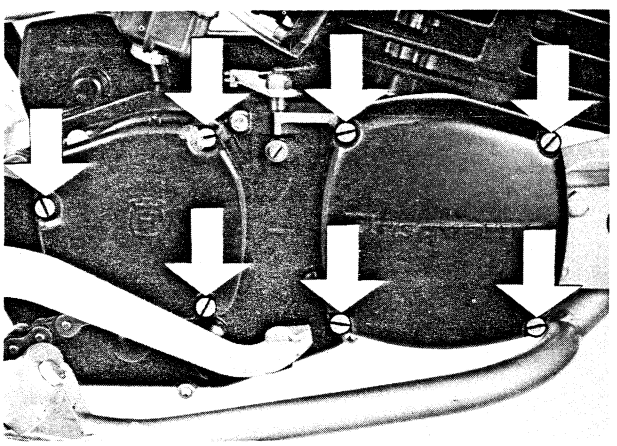


Fig. 4.4

Dismantling.
Remove the magneto-cover and the chain-cover by loosening the screws.

Apply the holding spanner and screw off the flywheel nut.
(Note: left-hand thread)

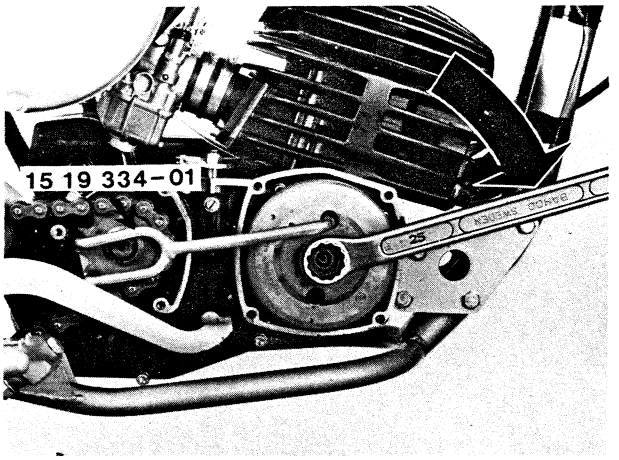


Fig. 5.1

Put the flywheel puller in position and pull off the flywheel. See fig. 5.2. Remove the key.
NOTE! The Ø 139 mm magneto is designed with a distance ring between the flywheel and the flywheel nut. This ring must be removed before the puller is assembled.

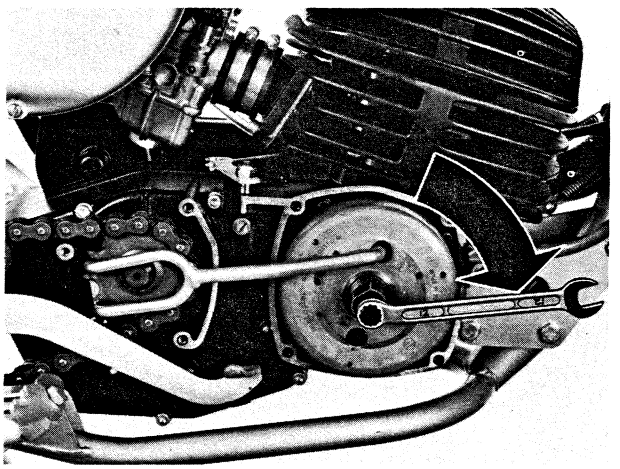


Fig. 5.2

Remove the stator with stator plate and mounting plate from the engine. See fig. 5.3.

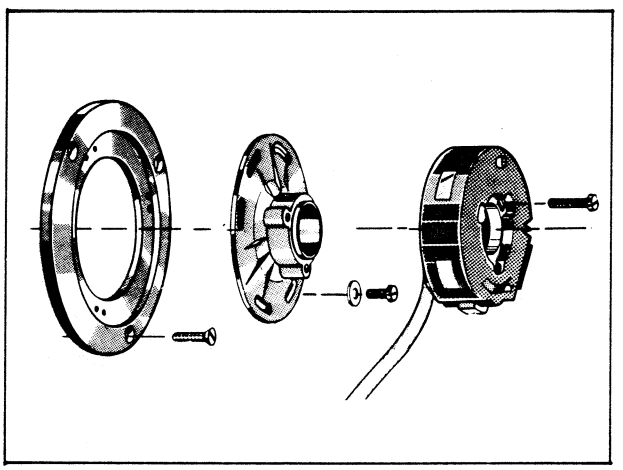


Fig. 5.3

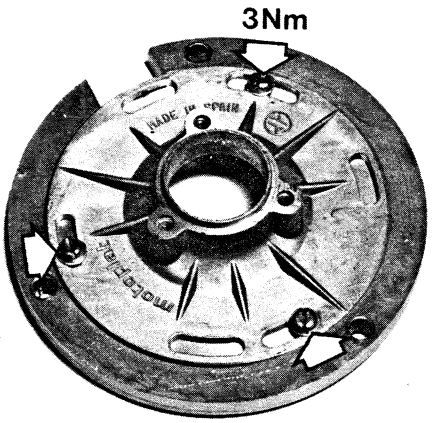


Fig. 6.1

Assembling.
Put the stator plate in position on the mounting plate as shown in fig. 6.1.
NOTE! The Ø 116 mm magneto without light coil and the Ø 139 mm magneto have the stator plates stuck to the stator. The Ø 139 mm magneto doesn't use any mounting plate.

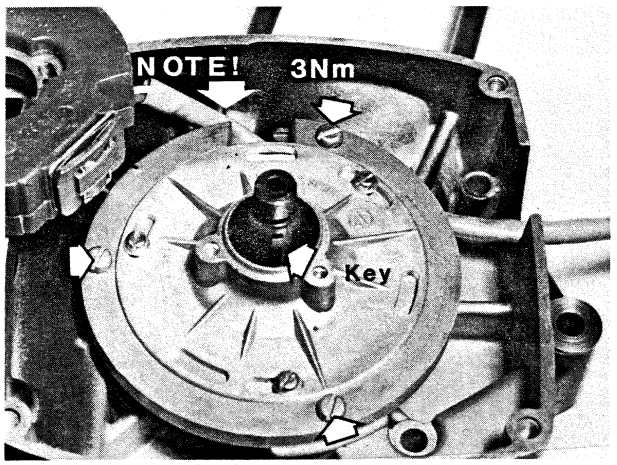


Fig. 6.2

Insert the key into the crank shaft. Assemble the mounting plate on the engine.
NOTE! The Ignition cable must be positioned as fig. 6.2 shows.

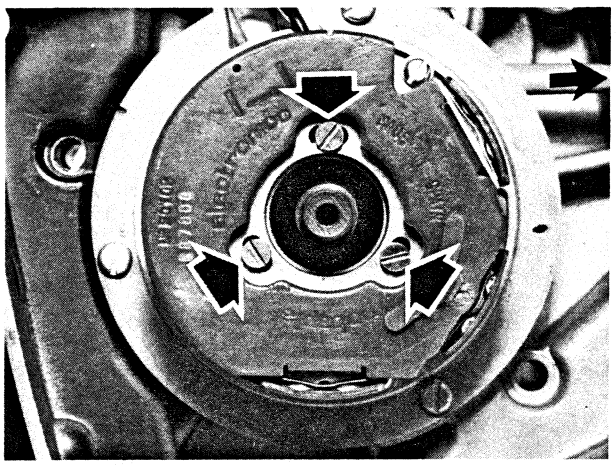


Fig. 6.3

Assemble the stator on the stator plate. Time the ignition system. See: Timing. Tighten the screws and stretch the ignition cable easily. See fig. 6.3.

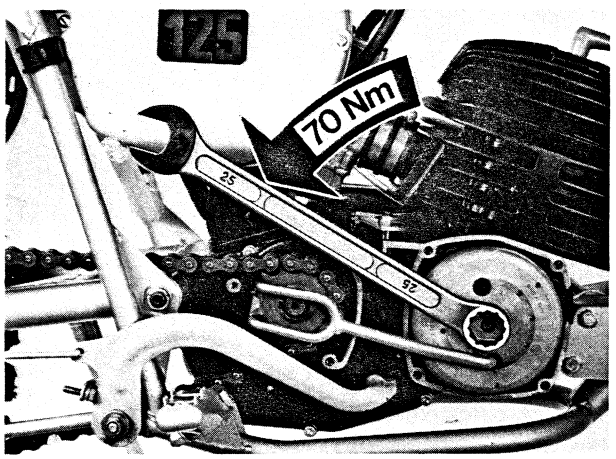


Fig. 6.4

Fit the flywheel and tighten the nut to 70 Nm. Connect the cables. NOTE! The Ø 139 mm magneto flywheel shall be tightened to 90 Nm. Put some Loctite 241 on the crank shaft cone before fitting the flywheel. Don't forget the distance ring on the Ø 139 mm magneto.
Tighten the flywheel nut three times, by assembling, after about 2 min. running and then after about 2 hours.

Searching ignition point.
Place the piston in top dead centre. Put a mark on the flywheel and a reference mark on the mounting plate. See fig. 7.1.

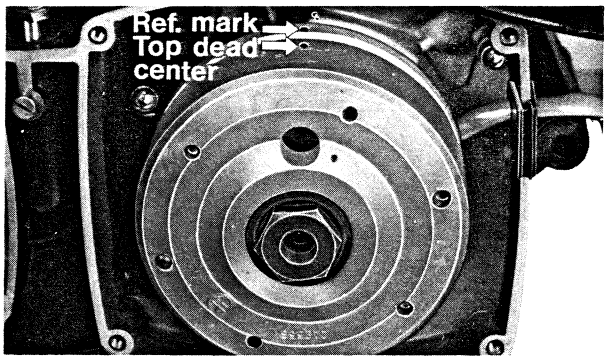


Fig. 7.1

Turn the flywheel backwards the prescribed number of degrees and put a new mark on the flywheel beside the reference mark on the mounting plate. See fig. 7.2.

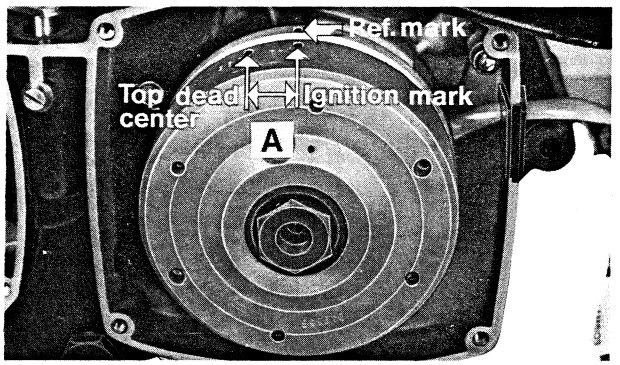


Fig. 7.3

Timing.
Remove the flywheel and loosen the screws so much that the stator moves easily. See fig. 7.3.

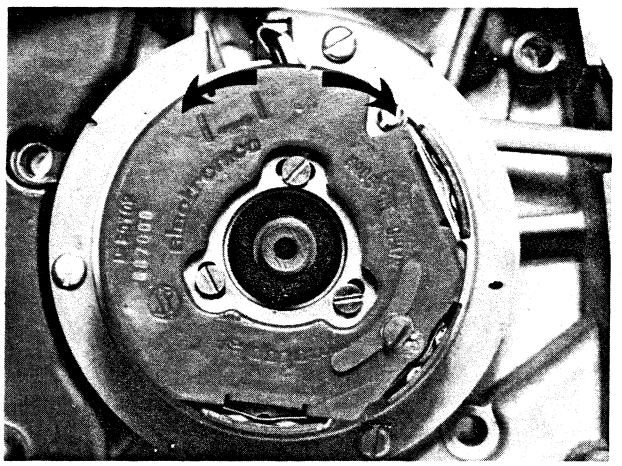


Fig. 7.2

Timing will be done by introducing the attached 2 mm pin through the hole in the flywheel and the hole in the stator (see fig.). As these holes coincide this will indicate the moment at which the spark jumps. See fig. 8.1.

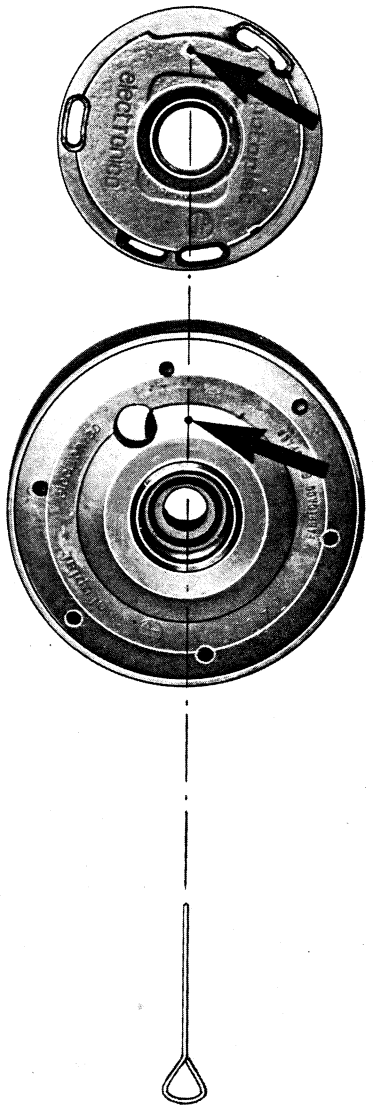


Fig. 8.1

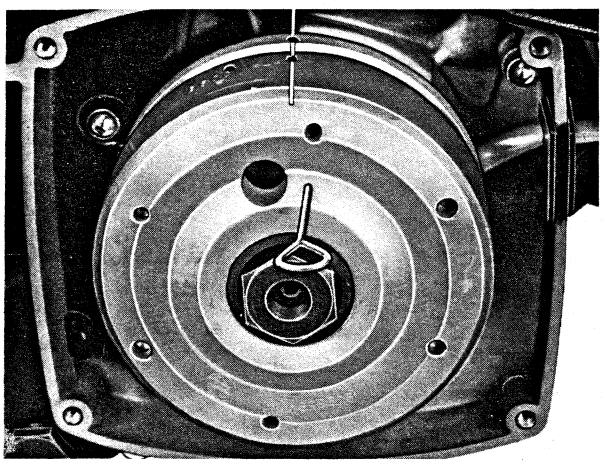


Fig. 8.2

Put the pin through the flywheel into the hole of the armature plate and turn the whole ignition system until the ignition mark in the flywheel and the mark in the crankcase are beside each other. See fig. 8.2.

NOTE! See to it that the armature plate moves easily so that the pin is not being deformed.

Remove the flywheel and fix the armature plate in this position.

Time for repairs-maintenance.
Before fitting a new flywheel grind it in with grinding compound.
NOTE! Remember to wipe the cones on crank shaft and fly wheel free from grinding compound.

Never attempt to stop the engine by removing the spark plug wire. Never kick engine over to test the spark without first grounding the high tension lead or attaching to a grounded spark plug.
If the ignition system doesn't spark, check all contacts and that the ignition coil is properly grounded. If in spite of this the sparks do still not appear, replace the magneto.

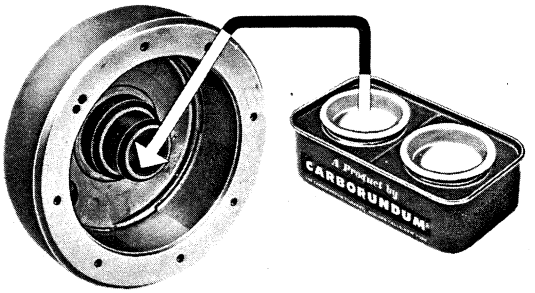
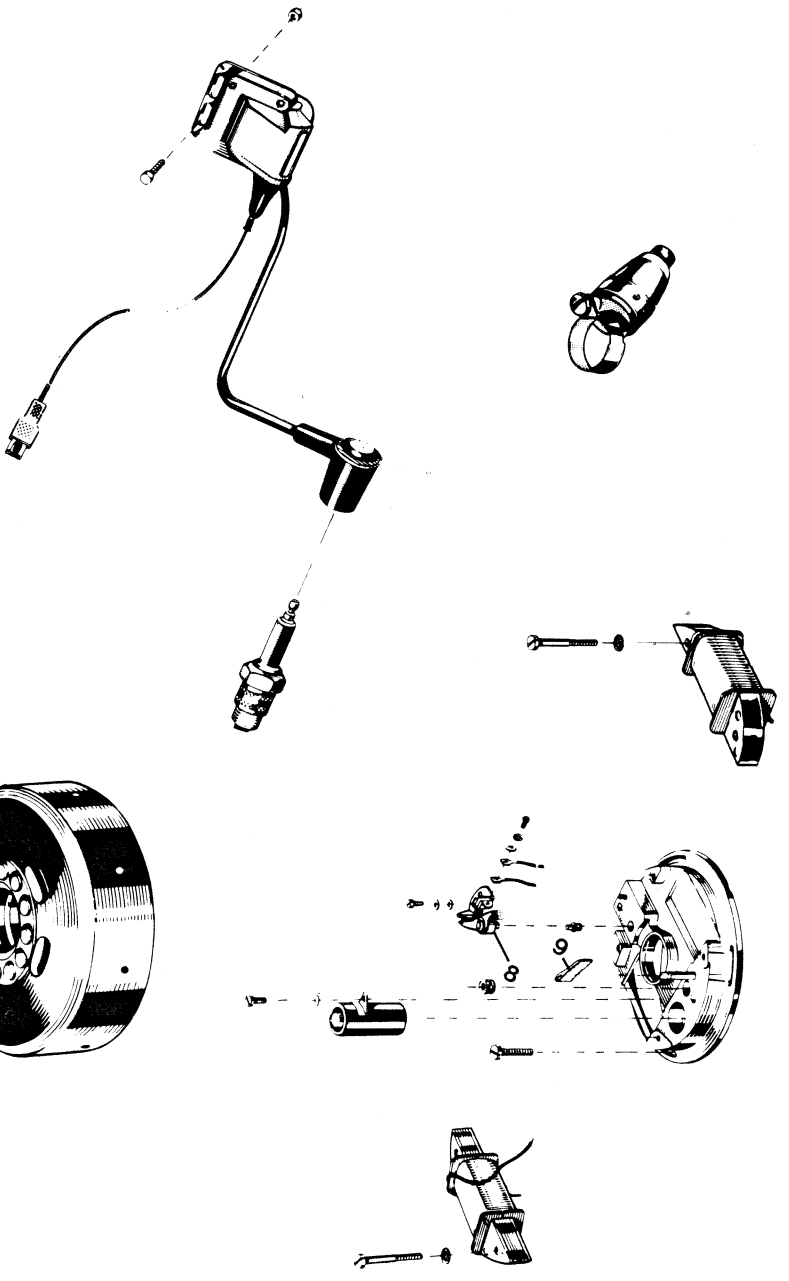


Fig. 9.1

Husqvarna motorcycles

Femsa flywheel magneto



Function
1. Ignition coil primary
2. Breaker points
3. Capacitor
4. Ignition coil secondary
5. Spark plug

As the permanent magnet of the flywheel passes the primary coil (1) pole pieces a current is generated in the coil. This current passes to begin with through the closed breaker (2).
When the current through the breaker reaches its maximum strength the breaker opens. The condensor (3) and the primary winding of the secondary coil (4a) now form an oscillation circuit which forms a brief high-voltage alternating current in the secondary winding of the ignition coil. See fig. 3.2.

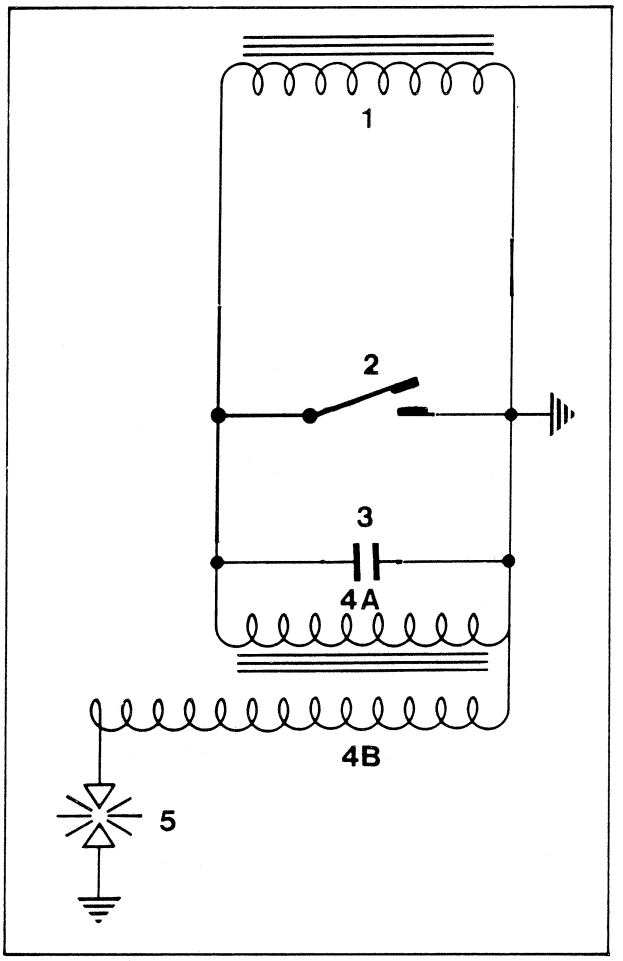


Fig. 3.1

Dismantling.
Remove the flywheel – and sprocket covers. See fig. 3.2.

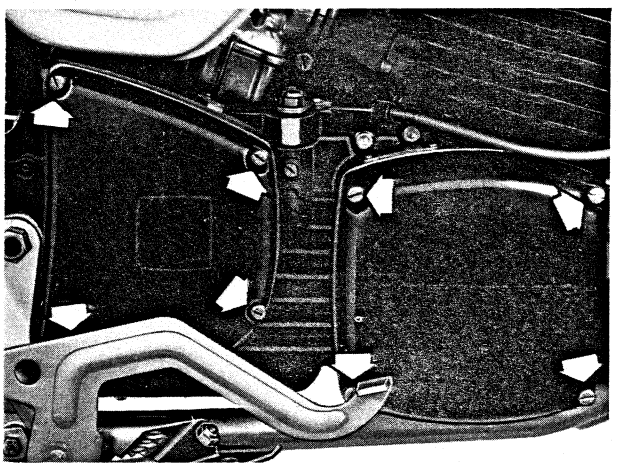


Fig. 3.2

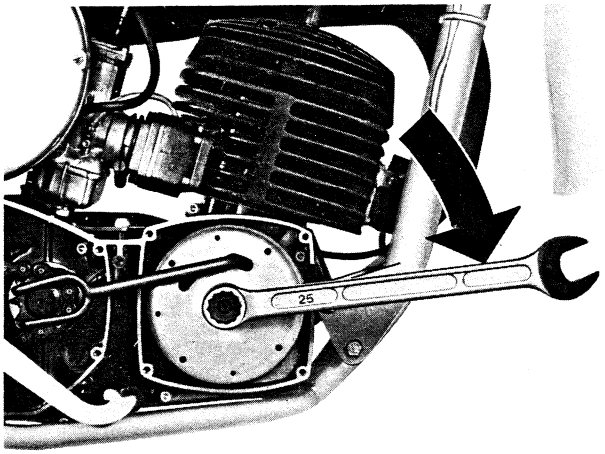


Fig. 4.1

Connect the holding spanner between sprocket shaft and flywheel. Screw off the flywheel nut. See fig. 4.1.

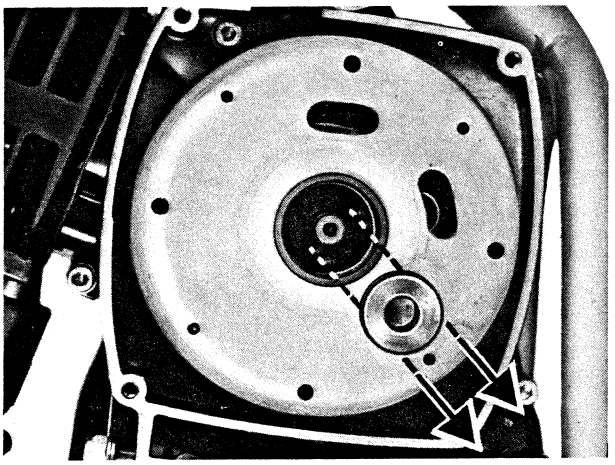


Fig. 4.2

Remove the distance ring. See fig. 4.2.

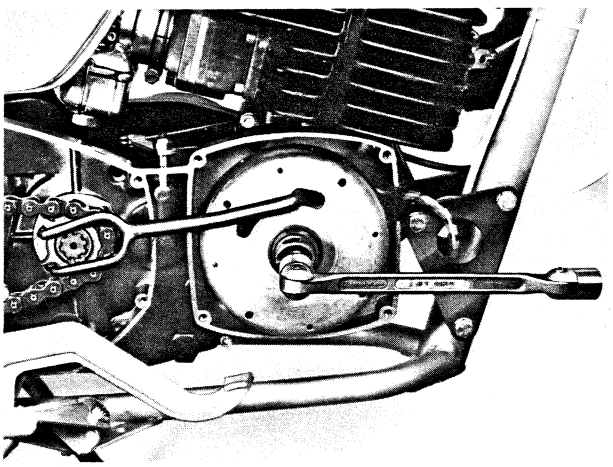


Fig. 4.3

Assemble the puller and pull off the flywheel. See fig. 4.3.
NOTE! Make sure that the puller is screwed in fully.

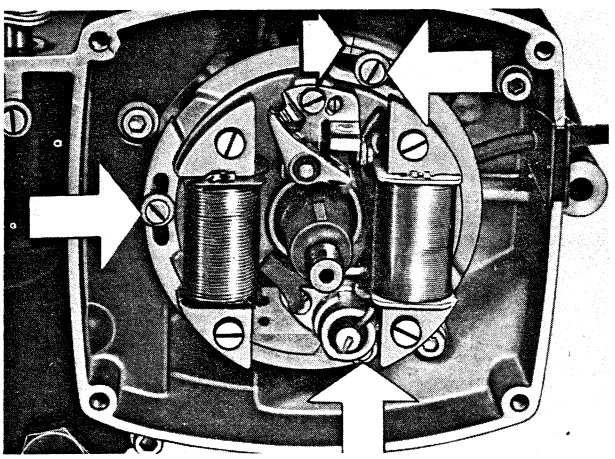


Fig. 4.4

Disconnect the cables. Remove the armature plate by loosening the 3 screws. See fig. 4.4.
NOTE! Putting a mark on the armature plate and a reference mark on the engine makes assembling easier. See fig. 4.4.

Replacing breaker points.
Remove the contact set holding screw. Lift up the contact set and loosen the screw which holds the cable connections. See fig. 5.1. Assemble in reverse order.
NOTE! Make sure that the contact set is positioned correctly over the excenter screw.
Concerning breaker point adjustment, see: Timing.

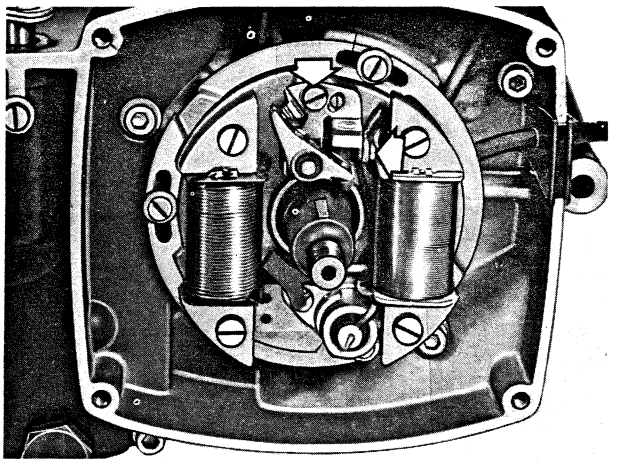


Fig. 5.1

Replacing capacitor.
Unscrew the capacitor holding screw and the cable connection holding screw and replace the capacitor. Assemble in reverse order.
NOTE! On Femsa magnetos with light coil the Ignition coil must be loosened when replacing the capacitor.

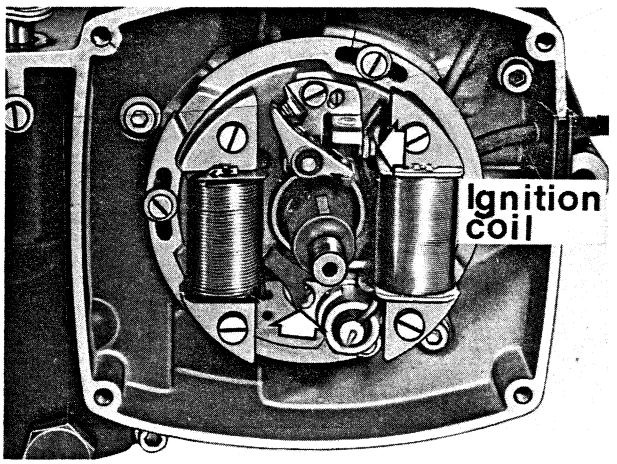


Fig. 5.2

Replacing coils.
Loosen the two ignition coil-holding screws and the cable connection holding screw. Replace the coil. When replacing the ignition coil and the light coil on Femsa magnetos with lighting system, the cable connections must be removed before replacing the coil.

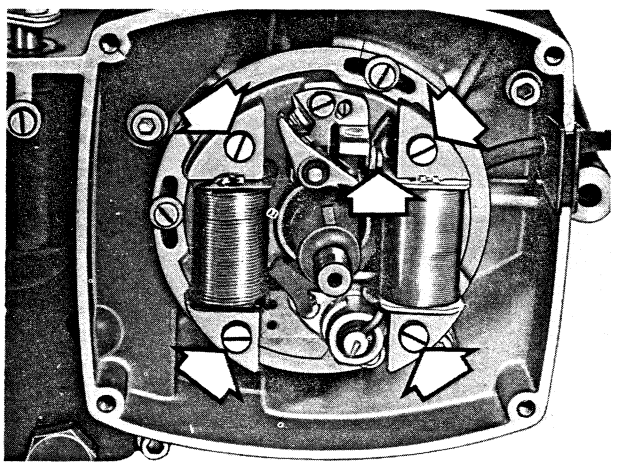


Fig. 5.3

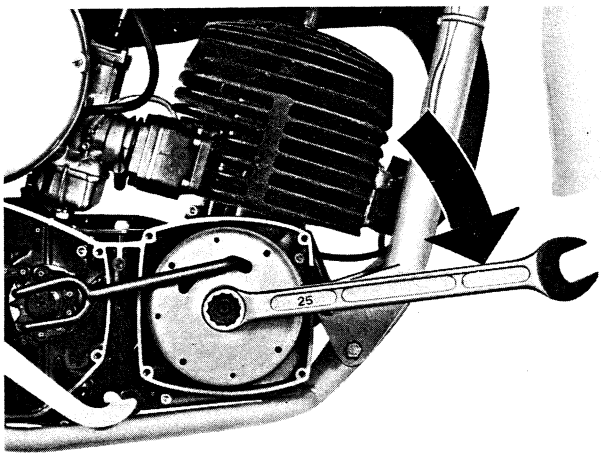


Fig. 6.1

Assembling.
Position the armature plate on the engine according to the two reference marks. See fig. 6.1. Connect the cables.

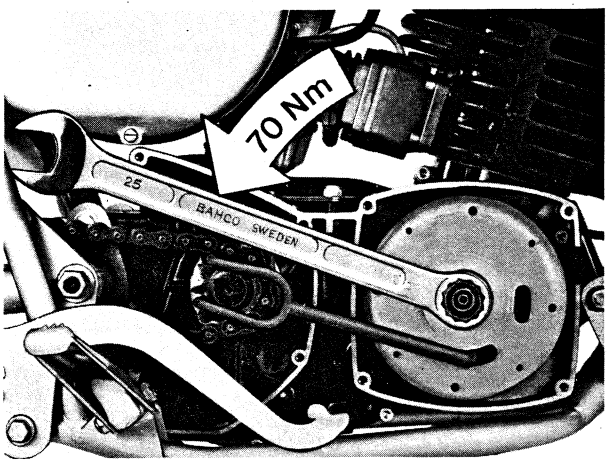


Fig. 6.2

Fit the flywheel and tighten the nut to 70 Nm.

NOTE! Put some locktite 241 on the crank shaft cone before fitting the flywheel.
Tighten the flywheel three times, after about 10 min. running and then after about 2 hours.

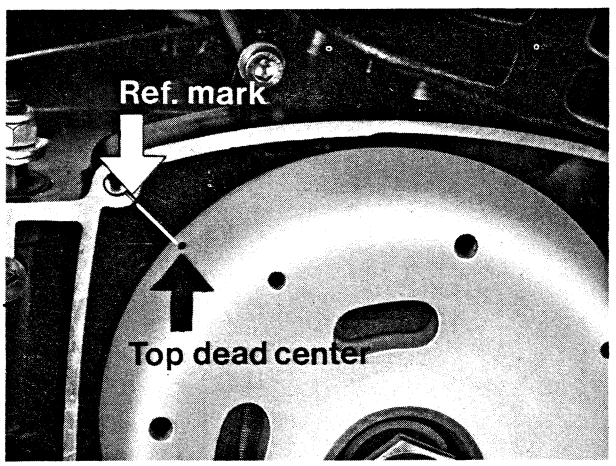


Fig. 6.3

Searching ignition point.
Place the piston in top dead centre. Put a mark on the flywheel and a reference mark on the engine. See fig. 6.3.

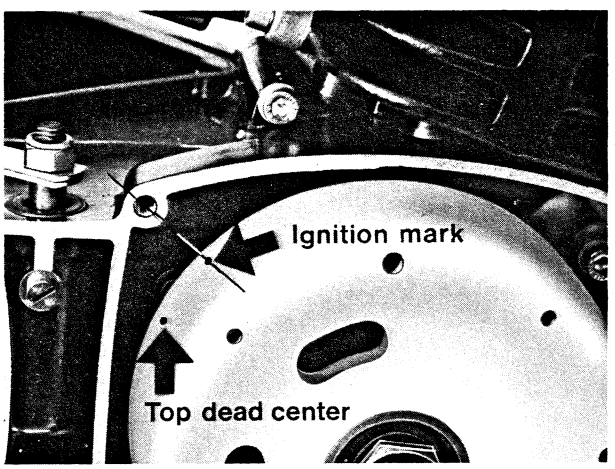


Fig. 6.4

Turn the flywheel backwards the prescribed number of degrees and put a new mark on the flywheel beside the reference mark on the engine. See fig. 6.4.

Adjusting breaker points.
Turn round the engine until the breaker points are fully open. Check that they are not worn down or burnt.
If necessary, clean the points with a breaker file.
Insert a feeler gauge between the points and check the gap. This should be 0.35–0.45 mm, see Fig. 7.1.
Tighten up the locking screw after adjusting and check the contact breaker gap once again.

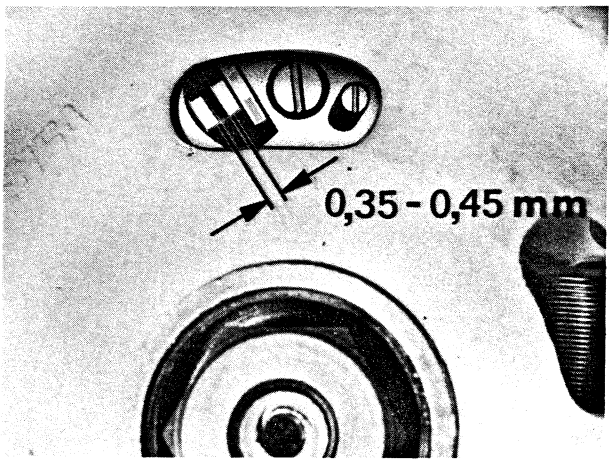


Fig. 7.1

Timing.
Make sure that the contact breaker gap is correct.
Find the position at which the breaker points just begin to separate.
When the ignition advance is correctly adjusted, the ignition point mark on the periphery of the flyweel should come in line with the mark on the crankcase.
If the reference mark comes *before* the mark on the crankcase (early ignition), turn the armature plate of the ignition system in the direction of rotation of the flywheel.
If it comes *after* the mark on the crankcase (late ignition), turn the armature plate against the direction of rotation.
After carrying out adjustment, tighten up the armature plate again and recheck the ignition advance setting.
The contact breaker gap is not affected by turning the armature plate. Check the flywheel nut for tightness.

NOTE! The nut has left-hand thread!

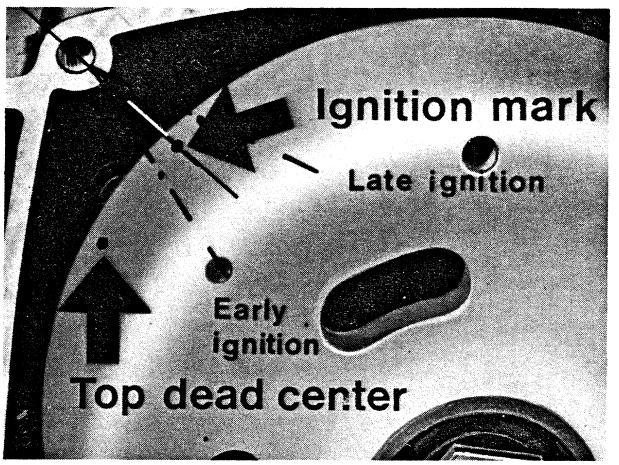


Fig. 7.2

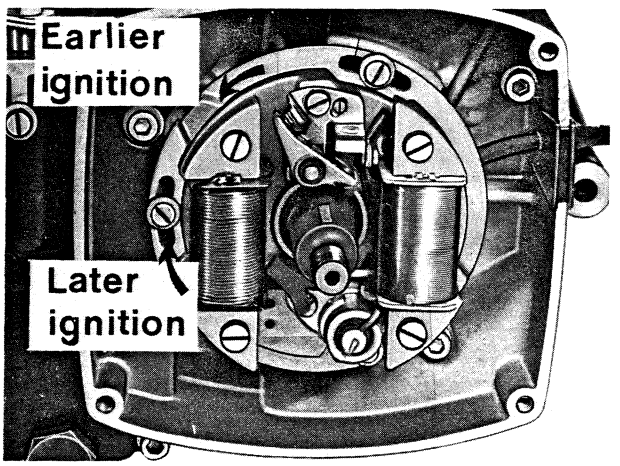


Fig. 7.3

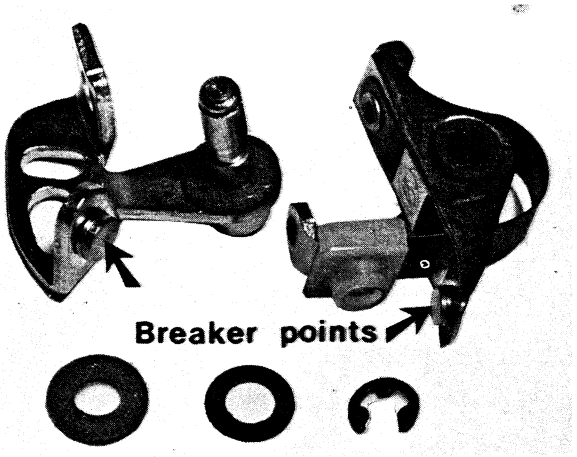


Fig. 8.1

Time for repairs—maintenance.
If the engine ignites irregularly on high "revs", the condensor must probably be replaced.
Worn out breaker points make the engine hard to start. Replace the breakers when the breaker points start to get burnt down as shown in fig. 8.1.

Before fitting a new flywheel, grind it in with grinding compound.
NOTE! Don't forget to wipe the cones on the shaft and on the flywheel free from grinding compound. See fig. 8.2.

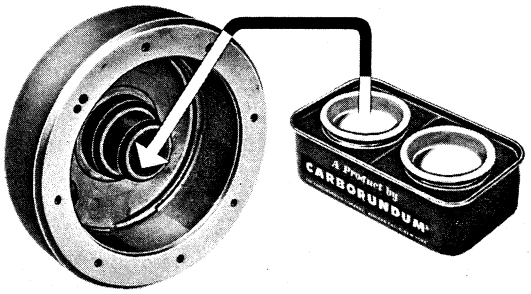
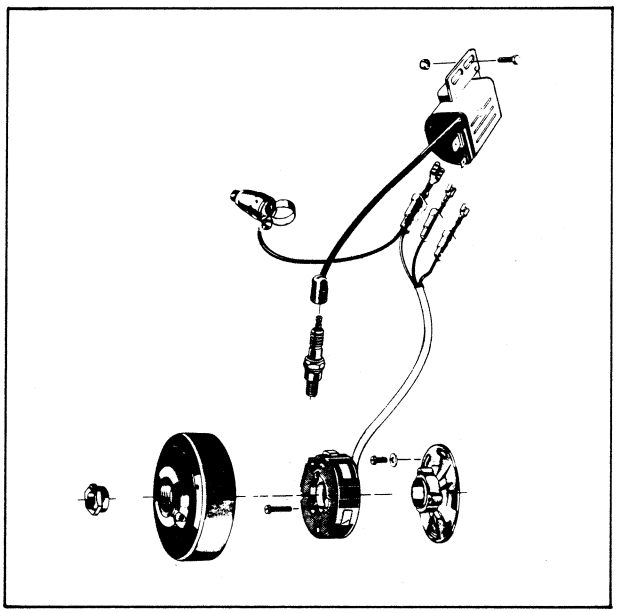


Fig. 8.2

Ignition system



This chapter covers the different types of ignition systems which have been mounted on Husqvarna motorcycles since 1974.

IA. Motoplat magnetos
All 125–175 cc models
All 250 CR models
360 cc ML 6 000 →
360 Aut ML 6 000 →
All 400 CR models

IB. Femsa magnetos
All 250 WR models
360 CR ML 0001–5999
All 400 WR models
All 450 cc models
250–360 RT models

Husqvarna motorcycles

Motoplat magnetos