

# HUSQVARNA 400 CR MOTOCROSS

An Updated Mover (And Shaker)  
For Experts Only,  
Now With Five Speeds.

■ HUSQVARNA HAS been building competition machines for some 70 years now and one thing hasn't changed. It develops its bikes for riders of winning caliber and then sells closely related units to the general public.

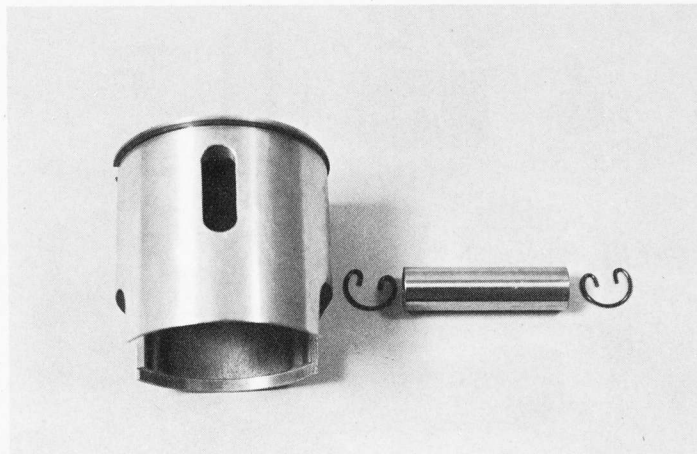
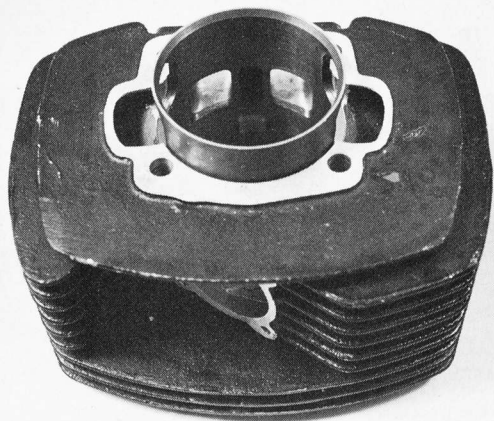
Because winning motocross riders favor super responsive machinery, Huskys take some getting used to—especially the bigger bangers like the 400 CR.

At first, you cool it, combining judicious use of the throttle and careful gear selection. If you're in a gear too low, the rear

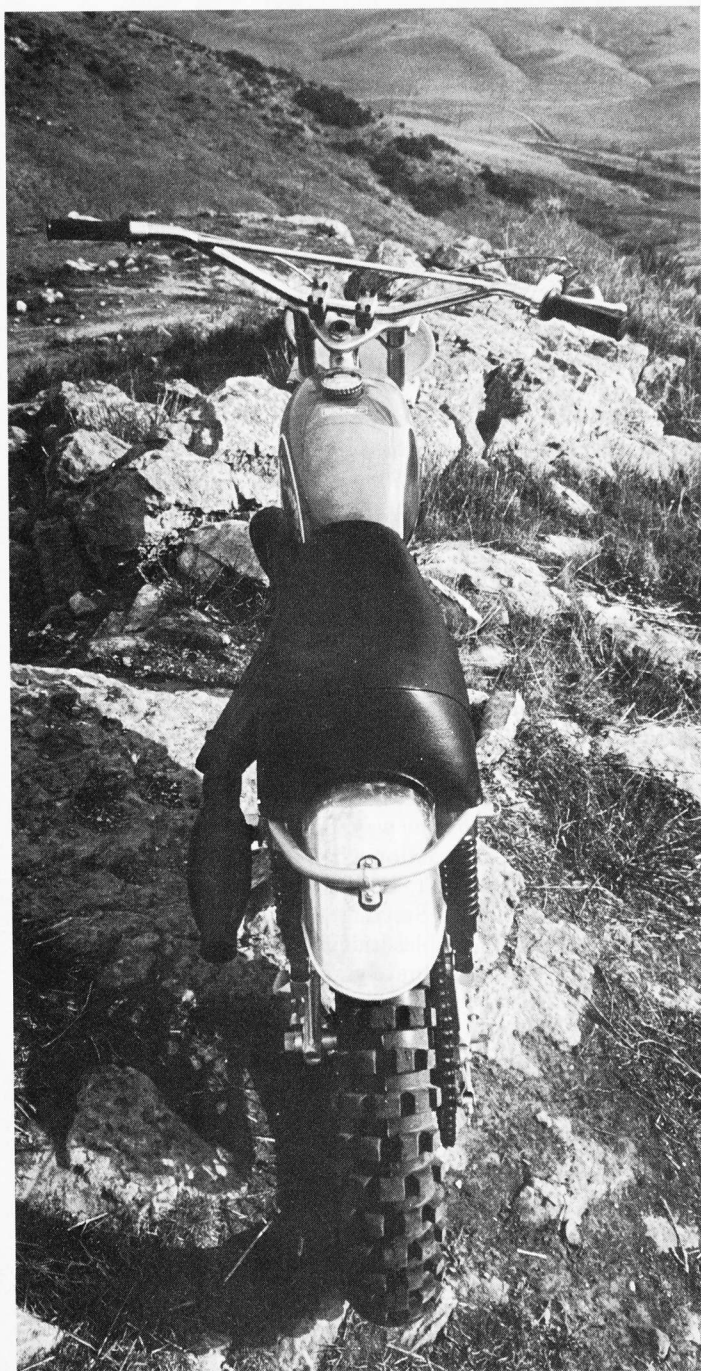
**Cycle  
World  
Road  
Test**







*Additional intake port is the lowest at rear of cylinder sleeve in this photo. It breathes directly through slot in rear of piston in the photo to the right.*



Likewise, this particular model is not designed for high-speed dashes across the desert. The gear spread is not wide enough for that. Motocross is the 400 CR's game.

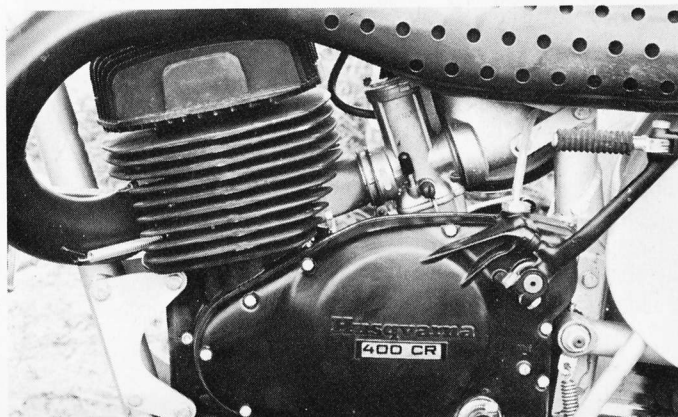
On most bikes, a close-ratio five-speed gearset means a lot of shifting, but this isn't necessarily true with the 400 CR. The reason is the wide powerband which eliminates an unreasonable amount of shifting on all but long straights. Once you learn the machine, exactly the right ratio can be selected.

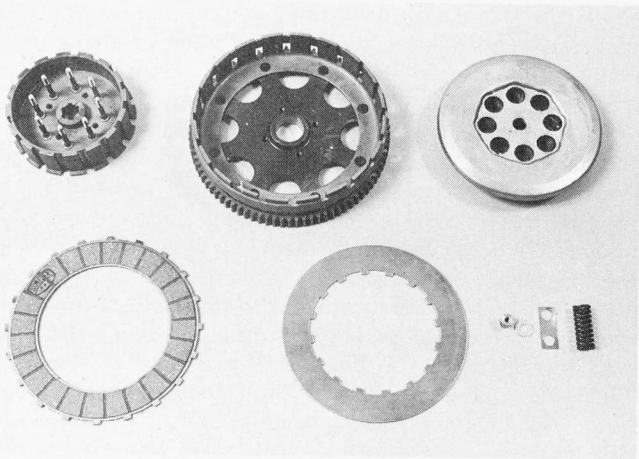
So what does the guy who wants to ride enduros or cross-country do? For those enthusiasts, Husky makes both a 250 and a 450 with wide ratio gear boxes. Or, if you are mechanically inclined, you can substitute wide ratio gearsets in the 400 CR as the 450 uses gears of equivalent width.

Internally, all new-generation Husqvarna transmissions are impressive. In order to save weight, and keep the unit compact at the same time, the gears are not the same width. First is quite wide, but from there on down to fifth they get progressively narrower. Fifth doesn't need to be as strong because of lessened torque loadings in the higher gears. It is definitely clever and still strong.

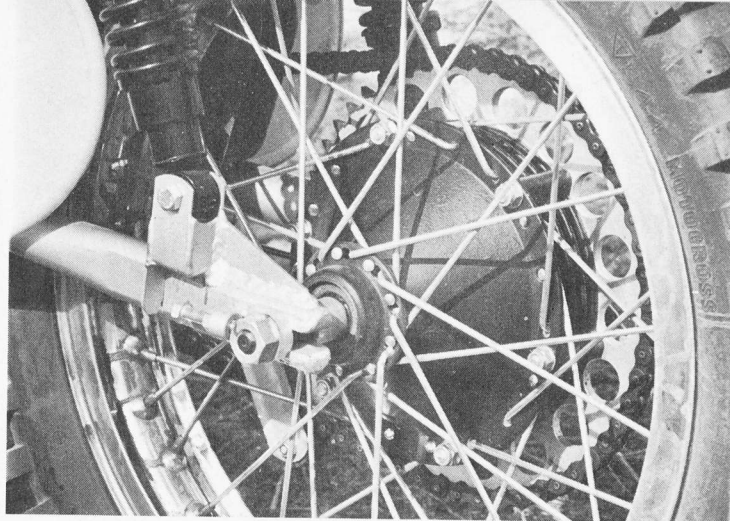
Shift lever travel is decidedly long, but gear engagement is positive and missed shifts are rare. The shifting drum is hewn out of a solid block of what feels heavy enough to be 4130 steel, and should withstand repeated abuse. To keep both Europeans and Americans happy, the shifter shaft can be inserted in either the right or left side of the transmission case. Left shifting is standard, though, and an additional kit for mounting the brake lever on the opposite side must be purchased if opposite side shifting is preferred.

The 395cc Single is in unit with the gearbox and is bulletproof, like previous Husqvarna two-strokes. Both head and cylinder barrel are aluminum alloy and the iron-lined





*Clutch assembly is fairly conventional. A total of eight clutch springs apply the required pressure to the clutch plates without making the clutch lever excessively hard to pull in.*



cylinder has five ports, one of which is arranged so that it scavenges through a window cut in the piston. The piston ring is of conventional design and is hard chrome-plated to reduce wear.

A chromed steel connecting rod features roller bearings at the crankshaft and needle bearings at the wrist pin. The crankshaft, as before, rides on double-row ball bearings. Bore and stroke is 81.5 by 76mm.

With a gigantic 36mm Bing carburetor, and compression ratio of 10.2:1, a claimed 41 bhp is produced. Judging from the way the unit performs, it's an accurate power claim.


Starting, which is relatively easy for a 400 class two-stroke, is no doubt aided by the Motoplatt electronic ignition system which provides a hot spark at low cranking speeds. The system has no mechanical contact breakers and no moving parts except the flywheel. Hence, it is more reliable than conventional systems which are more sensitive to moisture and dirt. Current is interrupted in the Motoplatt system by a transistor which is magnetically actuated by the flywheel via a coil. As with the conventional contact breaker system, a high-tension coil must be used to fire the sparkplug and as usual it's mounted under the gas tank on the 400 CR.

The entire engine/transmission package is painted flat-black to help dissipate heat. The main castings are aluminum, as before, but in an effort to reduce weight, the outer covers on both sides of the case are magnesium alloy.

Cases are narrow, too, which makes the unit even more impressive. We would prefer to have the countershaft sprocket exposed for easier gear changes, but that is a matter of preference, and the outer cover in question is easily removed. Still, it makes it harder to get a derailed chain back on during a race.

With the exception of the new cog in the gearbox and the lighter cases, the big powerplant hasn't changed all that much. But then why should Husqvarna change it? It works. In reality, Husqvarna engineers have only one serious problem left to solve and that's vibration at high rpm. Big Huskys have always been shakers. This contributes a great deal to rider fatigue.

Vibration aside, the 400 CR seemingly has everything, including Magura controls and Akront rims. It's a remarkable piece of engineering with self-locking nuts everywhere. It feels proper and stops as well as it goes.

Still, ride one before you buy. Few have the ability and experience to utilize all that the machine can offer. 

# HUSQVARNA

## SPECIFICATIONS

|                                  |                      |
|----------------------------------|----------------------|
| List price                       | \$1380               |
| Suspension, front                | telescopic fork      |
| Suspension, rear                 | swinging arm         |
| Tire, front                      | 3.00-21              |
| Tire, rear                       | 4.00-18              |
| Engine, type                     | two-stroke Single    |
| Bore x stroke, in., mm           | 81.5 x 76            |
| Piston displacement, cu. in., cc | 24.4, 395            |
| Compression ratio                | 10.2:1               |
| Claimed bhp @ rpm                | 41                   |
| Claimed torque @ rpm lb.-ft.     | N.A.                 |
| Piston speed (@ rpm) ft./min.    | N.A.                 |
| Carburetion                      | 36mm Bing concentric |
| Ignition                         | Motoplatt electronic |
| Oil system                       | oil mist             |
| Oil capacity, pt.                | oil in fuel          |
| Fuel capacity, U.S. gal.         | 2.5                  |
| Recommended fuel                 | premium              |
| Starting system                  | kick, folding crank  |
| Air filtration                   | dry treated paper    |

## POWER TRANSMISSION

|                         |                  |
|-------------------------|------------------|
| Clutch                  | multi-disc, wet  |
| Primary drive           | gear             |
| Final drive             | single-row chain |
| Gear ratios, overall: 1 |                  |
| 5th                     | 9.27             |
| 4th                     | 11.01            |
| 3rd                     | 13.06            |
| 2nd                     | 15.49            |
| 1st                     | 18.44            |

## DIMENSIONS

|                                     |       |
|-------------------------------------|-------|
| Wheelbase, in.                      | 54    |
| Seat height, in.                    | 32.4  |
| Seat width, in.                     | 8.0   |
| Handlebar width, in.                | 35    |
| Footpeg height, in.                 | 9.8   |
| Ground clearance, in.               | 9.1   |
| Curb weight (w/half-tank fuel), lb. | 243   |
| Weight bias, front/rear, percent    | 44/56 |