

HUSQVARNA XC250

■ Making a good enduro bike sounds simple; just take a motocrosser and add small lights, a quieter silencer, a heavier flywheel to tame the engine revs, a skid plate so rocks and tree stumps don't destroy the engine's cases, maybe make the fenders larger for better mud protection, put on an odometer and add a few smaller details like folding foot controls ... whammo, an enduro bike is born. Many European companies use that approach and the result is good enduro machines, as long as the rider is tall enough to touch the ground with his toes while straddling a seat that towers way up there.

The Japanese usually take a different



approach. Being giant companies bristling with hundreds of engineers churning out ideas and with automated factories to produce the ideas, Japanese factories produce enduro bikes with little in common with the track racers.

These different approaches started to blend together in 1981: Japanese enduros became more like motocrossers and European enduro bikes more like separate designs.

Planted firmly in the middle of the two directions is Husqvarna. The small Swedish firm doesn't make compromise bikes. Instead they offer two enduro models, each with a choice of 250 or 430 engines.

The woods version is the WR. It has a motocross frame with moderate suspension travel and all the accepted enduro equipment, that is, lights, short wheelbase, wide fenders and so forth. The WR

is for the woods, where a low seat height is better than 12 in. of suspension travel.

Next, for the western deserts or the sand whoops in Michigan or other areas where you swap agility for speed, there's the XC, which stands for cross country. The XC doesn't come with lights, although the engine has a lighting coil so they can be added by the owner. And the XC has the suspension and long wheelbase offered on Husky's motocrossers. Thus, Husqvarna offers a bike to fit the rider's terrain.

Husqvarna has had the XC model in its line for several years, although it was originally called OR, for Off-Road. This model has historically been aligned close to the motocrosser, usually getting the same new parts, such as large diameter fork stanchions and other tricks at the same time. The WR usually lagged be-



AND WR250 **Two Approaches To Enduro Excellence**

hind a year as far as new stuff was concerned. Such was the case last year when the XC got all of the new parts and the WR was basically unchanged. For '82 the WR gets the big forks and other new parts the rest of the line got last year. Plus, both models in the 250 class get new primary-kick start engines.

It only seemed fair to test both models, in a variety of locations, under a variety of weather conditions. Husky agreed and sent one XC and one WR250. To separate the differences we took both bikes to Sun Valley, Idaho and spent a few days on sheep trails, crossing streams and dodging trees, at elevations from 5000 to 12,000 feet, then stopped in the Mojave Desert for a couple of days.

Cases are completely new. Gone is the unnecessary bracketry at the rear. The swing arm pivot bolt now goes through

the rear of the cases, eliminating bolt-on brackets to make the connection. Husky's open bikes used this arrangement last year but it's new for the 250s in '82. The countershaft sprocket is rear-set in the new cases and the sprocket cover is a small, nice looking part. The streamlining at the case's rear makes Husky's engine package look even smaller and more compact than ever. But lo and behold, there's a six-speed transmission tucked away in there. Transmission ratios, internal as well as primary and secondary ratios are exactly the same on the 250WR and XC. Gone are the too-wide WR ratios of past years. The 250CR uses a couple of the same internal gears but most of the CR's ratios are different; with first gear taller and sixth gear lower. The kick start mechanism is another new part of the WR and XC250 for '82. And

guess what? Primary kick starting is finally standard. No more searching for neutral if the engine is stalled in fourth. The pretzel-shaped kick lever works quite well. The boot contact area still uses a rubber cover which naturally is slippery when wet but you need not worry about it for long, it soon falls off. The lever needs cast-in ribs like the Yamaha ITs use.

The rest of the engine's internals are a mix of old, new and modified. The clutch hub, for instance, looks unchanged but because previous hubs got worn by the clutch plate fingers, the '82 hubs are harder metal and should last longer. Transmission bearings, crankshaft assembly and bearings, are unchanged. The whole package bolts to the frame in three places: the rear swing arm bolt and two places in front of the crank.



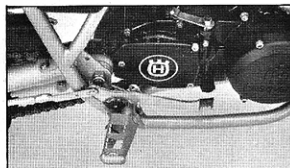
HUSQVARNA

Ignitions are different. The XC uses an external flywheel Motoplat CDI, the WR has an external SEM CDI ignition that boasts dual 70 watt lighting coils. Just think of the possibilities—setting up two quartz lights for Baja racing should be kid stuff. Ditto for power to run heated grips for those cold wintery enduros.

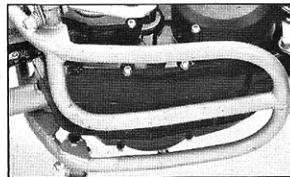
Suspension components are similar, yet different on the XC and WR250. It's the same brand with different travel. The XC has 11.8 in. of front wheel travel, the WR 10.6 inches. The 40mm stanchion tubes are chrome-moly steel with lower parts cross-honed to promote good oil seal contact, and an end to leaky Husky fork seals and it works! Lower legs are magnesium castings made by Husqvarna. Stiffer ribs front and rear on the lowers make it extremely difficult to bend one.



Both machines sport forks with 40mm stanchion tubes; the XC has 11.8 in. of travel, the WR 10.6 inches. Deep center aluminum rims are gold anodized for '82.



Brake pedals have a claw top. Trim sprocket cover looks nice but decal soon falls off.



Frame's center tube acts as a skid plate.

Both sides are the same casting, with four-bolt axle clamps. Internally the damper rods are new. They are much like past parts with the center section of them thinned. The thinner centers on the rods make the center movement of fork travel easier, eliminating harshness and stacking on extremely rough ground. Triple clamps are the same on both machines; aluminum with double pinch bolts per clamp for a total of four per leg. Handlebars are mounted in rubber damped pedestals and rear-set.

Rear suspension is via dual piggyback reservoir Ohlins that are canted in at the top to make the bike thinner. One of the biggest differences between the XC and WR is the swing arm and shock placement. The WR's swing arm is about one inch shorter and the shock placement is different. The WR has slightly shorter shocks angled more than those on the XC. The lower mount on the WR is farther from the swing arm pivot and closer to the rear axle, partly due to the shorter swing arm. The difference in shock placement and swing arm length makes it necessary to use different spring and damping rates on the two machines. It also means rear wheel travel is different. The XC's rear wheel moves 12.2 in., the WR 10.6 inches.

Swing arms are oval-tube chrome-moly in typical Husqvarna fashion. They're strong, don't break, and pivot in needle bearings. Both bikes have a chrome-moly side stand on the left side of the swing arm. The stand tucks up under the swing arm nicely and doesn't drag when you're in a full-lock slide, but they're a pain to put down. The tip of the stand hides behind the axle adjuster bolt and one's foot invariably tries to push on the bolt instead of the stand's end. It's almost easier to reach down and move it with your hand.

The rest of the chrome-moly frame is unchanged, it is a strong flex-free part and didn't need changing. Steering head angle is a rather kicked-out 30° and the trail a whopping 5.98 in. Most modern woods bikes are running around 28° or 29° head angles and much less trail. Gusseting is massive around the steering head and the single front downtube and double backbone tubes are large diameter. Tubes in the middle of the chassis provide good triangulation and strength while being smaller than the main tubes. Both bikes have rear fender loops to help hold the large spark arrester/silencers, and both have mounts for an accessory tool bag.

Hubs and brakes are a combination of old and new. The front hub is unchanged. The front backing plate is also the same, but brake linings are new. The front brake arm has been lengthened so braking power is boosted some over last year's bike, but the Magura brake lever on the WR is the short two-finger type and it's

hard to take advantage of the potentially better stopping when limited to two fingers. At the rear is the beefier hub first seen on last year's open class Huskys. It sports big spokes and has proven strong on the larger Huskys. New brake linings are also used at the rear.

Husky's deep center rims are still with us and make tire changing easier. The gold paint has been replaced with a pleasant gold anodized finish. The XC uses conventional rim-locks, the WR has rim pins so tire changes and repairs on the trail are easy. Seventeen inch rear wheels are on the XC and WR250s for '82. Some people like the 17 inchers better, some don't. Biggest gripe about them has been the lack of tire choice, but that complaint is rapidly disappearing as more tire manufacturers add 17s to their line. And most agree the 17s last longer and provide more traction.

Husky tries to fit each of its models with tires to match that model's need; the CRs have new Trelleborgs, the WRs have Barums and the XCs are delivered with Pirelli Pentacrosses.

All Husky gas tanks look alike and they basically are, the only difference being color and fuel volume; XCs and WRs hold 2.9 gal., CRs have 2.7 gal. tanks. All tanks are aluminum. Our bikes had their polished sides protected by Husky Products clear plastic decals, a worthwhile extra available from most Husky dealers. The sometimes-leaky Husky gas cap now has an external vent hose and it has ended the seepage.

Both bikes use the same front fender and seat. Both are carryovers that have been around for some time and both do their jobs fine. Handlebars, throttle, hand levers, kill button, grips, cables, shift lever, brake pedal, and side number plates are common to both the XC and WR. The throttle is a Gunnar Gasser, one of the best available. Husky cables are also quality items that have oil pots built into them. The shift levers fold and won't need replacement, the kill button is water-proofed, and the brake pedals have claw tops so boot soles don't slip. The side number plates look unchanged, and the right side is. The left has had the mounting tab moved from the silencer to the frame. Thus, the plate no longer gets melted.

Pipes and silencers are the same on both machines. Silencers are quiet and forestry legal. Mounting is first class with a spring-loaded bracket from the front downtube to the center cone and rubber cushion mount in the middle of the silencer. The connection between the silencer and pipe is via springs and the rear cap for the rebuildable silencer is also held on with springs. (The Husky tool kit contains a good spring remover tool, by the way.)

Because the bikes were jetted for sea level and our riding began outside Sun

Valley, elevation 5000 ft. with 12,000-ft. mountains around us, we checked jetting before getting serious. Warmed up, both ran rich in the middle and the XC blubbered on top. Changing the WR's slide from a 2.0 to a 2.5 cleaned that one up nicely. With a 3.0 slide instead of the stock 2.5, and with the main jet three steps smaller, the XC was sharp in the middle but still a little rich on top end.

The new suspension was stiff and the cold weather didn't help, so the 15-w fork oil was changed for 5-w. Much better.

Next day we hit the trails. We were a couple of weeks late to enjoy the golden aspens as an earlier cold spell had knocked off most of the leaves but the area was spectacular anyway. Endless trails on all the mountains, made years ago by sheep herders, were almost all open for bike riding. The mountains are unusual: heavily forested on their north side and almost barren on their southern desert sides. Nevertheless, a creek is in every canyon.

Several locals were along and we switched bikes to get as much input as possible. Preferences started right away. Rider ability had nothing to do with which bike each preferred. All agreed the shorter and lower WR was quicker and more agile on tight trails. Still, some riders liked the long-legged, XC. Although not as agile as the WR, it'll get through the woods at a very fast pace. Both bikes turn well and both demand a forward sitting position when turning.

Everyone agreed the suspension at both ends, on both bikes, was stiff and some trailside adjustments were made. The XC shocks were already in the softest pre-load position, so we couldn't soften it. The WR's preload was set in the middle when we began and allowed plenty of adjustment either way. This is as it should be. We moved the snap ring up two grooves by using a tire tool to lever the spring down. One more stop and one groove higher (for a total of three) proved about right.

That night we drained 2 oz. of fork oil from each leg. That's a radical change in oil level and we expected some topping and bottoming on the next ride. Once in a while they would top when going up-hill, but they never bottomed, and compliance to small bumps was improved 100 percent. One ounce would probably be enough for most conditions, though. A side benefit was much better control in rocks; the front wheels had a tendency to ricochet off rocks in the trail. Almost all of this disappeared after the oil level was lowered.

By the end of the second day the XC's rear shocks were starting to loosen up and work much easier. We suspect the XC has a heavier spring rate because most XC buyers use the bike in faster country. Differences of opinion continued through the second day. Although everyone preferred one or the other model for minor reasons, no one minded riding the other model and would have been perfectly happy to ride either one. >





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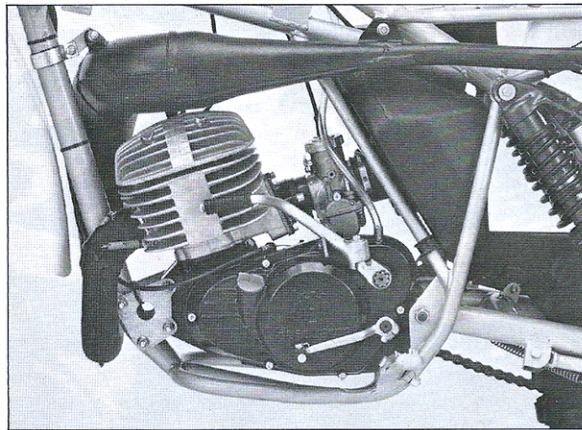
The new engines really work nicely; both have good mid-range power that builds predictably as revs rise. No sudden bursts or surges to add terror to a steep sideslope trail or muddy bank. Starting a warm engine is almost always one kick after the weird but clever kick lever is mastered. The lever doesn't turn the engine over many times but one quick and smooth push of the lever starts the bike instantly when warm. It's even possible when seated, using your left foot, with a day or two practice. Starting in gear, possible with the new engine, works bet-

ter on paper than in practice. It can be done but the clutch drags and that slows the engine down just enough to make things difficult. The same symptom makes neutral elusive. The lever slots right in if you're just coming to a stop but if you hold the clutch in for half a minute with the bike in gear, neutral hides until you shut off the engine. Not a big problem but one that shouldn't be there.

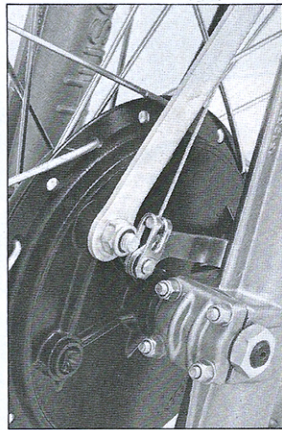
Shifting is smooth if the clutch is used. Upshifts without the clutch are fine but downshifting without it brings sounds of distress from the transmission. Use the clutch and you probably won't need transmission parts—jam it through without the clutch and be prepared to know

your parts man by his first name. Both bikes have the same internal transmission ratios, and same secondary and final ratios, although they feel different when on the trail. The WR seems lower geared due to the flywheel and different spark curve. Not much, but it was noticed by all riders. Both bikes would have benefited from a smaller front sprocket when the going got tight and steep. We managed all right but one tooth less at the front would have made things easier. Top speed on the WR's VDO, flat out in sixth, down a hard road, was 70 mph. Both bikes topped out about the same with the XC a little slower due to the top end blubber. Drag races proved the WR just a tad faster. Most riders thought the XC felt faster before the drags were conducted. The XC motocross porting lets the engine rev higher and gives the impression it is the quickest. The difference is only about a half a bike length at best. Both bikes have competitive speed.

Lots of creeks and rivers were crossed the first two days. And yes, Husky brakes still go away when they get wet. But, they come back fairly quickly. The new lining is better than the old. It's not as good as Suzuki's lining but much better than before. Brake feel is good rear and front. The back brakes are strong enough to stop with the best—the front with the longer brake arm and shorter hand lever of the WR is good but really hard stops will require three fingers on the two-finger brake lever. We prefer the full-length hand lever on the XC so the rider has the choice of fingers used. The short lever is less prone to breakage and doesn't get caught as easily by tree limbs. The front lining glazed quickly and stopping power was reduced by the end of the second day, requiring deglazing with fine sandpaper. >



New engine features primary kick starting. Bracketry at rear of engine has been eliminated. Shift lever has folding tip.



Front brake levers are longer for '82. Front axle is clamped by four bolts on each leg.

Another problem surfaced when some spirited double track road popped up. Friendly racing at high speeds caused the front brake lining to swell and both levers tightened. It's necessary to adjust the hand lever slightly looser than you like it to allow for the lining swelling when used hard. We've noticed this problem on other brands of bikes but not to the degree the Huskys exhibit.

The biggest difference between the two bikes isn't the difference in wheelbase or suspension travel—believe it or not, it's the tires. The excellent Pirelli Pentacross tires on the XC make a BIG difference when the going gets bad. The Barum shod WR really suffers from lack of traction on slippery trails. Add wet, snowy or icy surfaces and forget about getting there. The Barums are at their worst when the ground is wet or icy. Traction is nearly nothing. Other riders in the group could climb snowy, icy trails and roads with minimal difficulty, the WR couldn't. The other riders sat patiently at the top of several icy hills while the WR made repeated runs. Expert riders had just as much trouble as beginners and intermediates. Maybe they would work better in the desert. We would find out in a few days.

We neared the tops of some of those grand mountains one day and the Huskys hardly noticed. They ran just as cleanly at extreme elevations as at lower ones. Problems after three days in the mountains weren't much: the XC's brake pedal pivot bolt loosened, and the decals on both sprocket covers fell off.

While on the way home we figured out the reason for the XC's blubbering: a clogged spark arrester. We've seen this with Huskies before but usually after many miles. In this case, somehow, break-in miles before we got the bike had blocked the arrester's screen enough to restrict exhaust flow at full revs. We cleaned the screen and the problem went away.

We also drained the 5w oil from the forks. The proper amount of 10w went back in; 450cc for the XC, 420cc for the WR. Husky recommends 15w but we've found 10w makes for a plusher ride. Changing fork oil in the new Huskys is pleasantly easy: raise the front wheel off the floor, remove a plastic plug on the top of each spring cap and any built-up pressure is relieved. Then the drain screws on each leg are removed. Refilling the legs is equally easy; use a small funnel and pour the oil through the hole the plastic plug goes in. No need to compress the fork spring the way you must on other brands.

We decided not to change the mountain jetting for the Mojave and its elevations between 2000 and 5000 ft. The Huskys worked great. It is sure nice to ride at greatly varying elevations without rejiggering. As expected, the long-legged XC had a slight advantage in the open



spaces, although the riders who liked the WR best in the mountains, also liked it best in the desert. The XC goes through whoops like they didn't exist, with little effort on the part of the rider except moving to the rear of the bike. The WR goes through just as fast but it takes a little

more rider effort and the bike has a bobbing motion. It's a little bumpy on the WR but the front wheel is lighter due to the shorter wheelbase, so it's easy to lift the front end.

Winding around greasewoods and picking your way through rocky trails >

gives the advantage back to the quicker handling WR. The only engine protection on the XC and WR comes from a frame rail that runs through the center of the lower wishbone tubes, directly beneath the cases. This tube is lower at the rear and acts as a ramp over rocks and tree roots. Engine cases don't stick out beyond the frame and we didn't have any problems with damage to engine cases. We ran stock gearing in the desert although raising the front sprocket one tooth would be a good idea for open country riding. It's easily done, but requires snap ring pliers. Husky used to come with extra countershaft sprockets, but no longer do.

The Barum tires we cursed in the wet worked exceptionally well in the dry desert. The fat front tire with its wide knobs gave good control in sand washes and padded the rim in rocks. In fact the Barums worked better in the desert than the Pirellis, the Pirelli front, narrower than the Barum, let the front wheel wiggle some in deep washes. The Barums were showing signs of lasting a lot longer than

the Pirellis, too. So, if you plan to ride desert terrain the Barums will be fine, if your area is wet most of the riding season, pitch them for almost anything else.

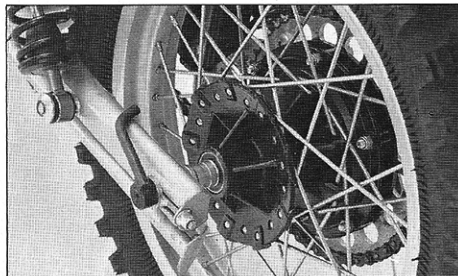
Gas consumption proved a problem on both bikes, regardless of the area. In mountains or desert, forget about going over 55 mi. at a rapid pace. We never got more than 53.5 mi. out of a tank. An easy rider might get 60 mi. but we doubt it. An A enduro rider might not get over 45 or 50. The new 250 engine makes a lot more power than the old—and it uses a lot more gas. Husky better start tooling up for a new aluminum tank with a 4 gal. capacity.

We put lots of miles on the bikes and all of our riders liked them. They don't have single shock rear suspensions but work well anyway. The 40mm forks give good stability and directional control and the new engine leaves little to be desired. The biggest problem during the extensive test period consisted of a lost taillight lens during the desert testing. Loctiting the screw would prevent that problem. We

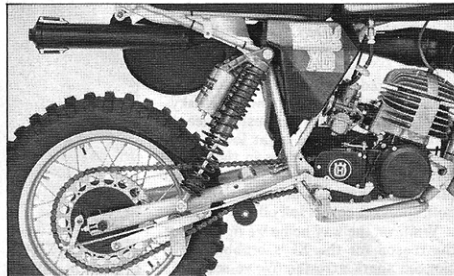
were especially impressed with the new WR250. No one liked our last WR250 (Aug. 1980) but all liked the '82. It's made from modern up-to-date parts and it works. Beginner to pro can ride the bike comfortably and competitively and it makes a deluxe play bike.

The XC250 has been good for some time—the '82 is even better thanks to the strong new engine. Desert racer or enduro bike, it'll do a fine job for whatever you want. We even raced it in a couple of motocrosses and took a 5th and 2nd in the highly competitive pro class, and a second in the intermediate class. Stock, the XC250 was fourth at the top of DeAnza's uphill start in the Pro class with 15 starters and our 180 lb. rider aboard!

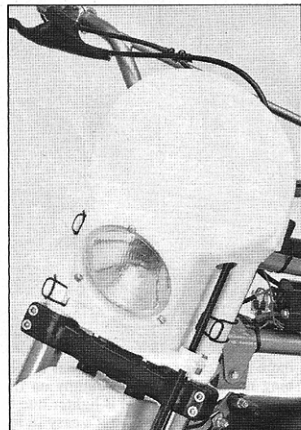
If you plan on riding a variety of different types of events, the XC will gladly cooperate. And it'll be competitive in all of them, if you are. For mostly woods and enduro riding or play riding, we vote for the agile WR250 and its lower seat height. Either way it'll be hard to go wrong. ☐



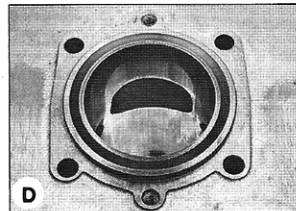
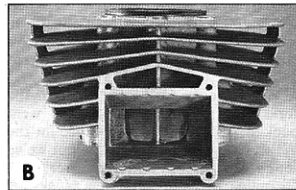
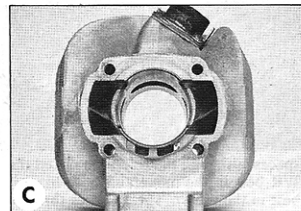
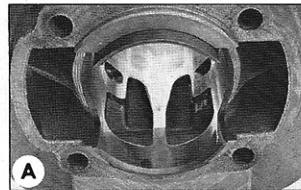
New rear hub with big spokes is standard on '82 250s. Side stand tucks out of the way nicely but is hard to operate by foot. Spokes never did loosen.



Both bikes use Ohlins shocks. XC has a spring loaded chain tensioner, the WR doesn't.



New headlight/numberplate on the WR has a plastic lens that doesn't break when roosted by rocks. Rubberbands hold it on.



New unpainted cylinder has a cast-in reed cage. (B). Double intake boost ports (A) keep fuel swirling. Transfer ports (C) are huge. Slot port (C) below and outside the steel bore liner goes directly into the lower end. Exhaust port is unbridged (D) and the head to cylinder seal is strengthened by double cylinder top ridges (D).

HUSQVARNA XC250 AND WR250

SPECIFICATIONS	WR250	XC250
List price.....	\$2545	\$2545
Fork travel.....	10.6 in.	11.8 in.
Fork stanchion tube diameter.....	40mm	40mm
Rear wheel travel.....	10.6 in.	12.2 in.
Front tire.....	3.00-21 Barum	3.00-21 Pirelli Pentacross
Rear tire.....	140/90-17 Barum	4.50-17 Pirelli Pentacross
Engine.....	two-stroke Single	two-stroke Single
Bore x stroke.....	69.5 x 64.5mm	69.5 x 64.5mm
Piston displacement.....	245cc	245cc
Compression ratio.....	12.3:1	12.3:1
Claimed power.....	na	na
Claimed torque.....	na	na
Carburetion.....	38mm Mikuni	38mm Mikuni
Ignition.....	SEM CDI	Motoplat CDI
Lubrication system.....	premix	premix
Primary drive.....	straight-cut gear	straight-cut gear
Gear ratios, overall:1		
6th.....	7.9:1	7.9:1
5th.....	9.4:1	9.4:1
4th.....	11.1:1	11.1:1
3rd.....	13.8:1	13.8:1
2nd.....	18.2:1	18.2:1
1st.....	25.1:1	25.1:1
Oil capacity.....	3 pt.	3 pt.
Fuel capacity.....	2.9 gal.	2.9 gal.
Fuel tank material.....	aluminum	aluminum

SPECIFICATIONS	WR250	XC250
Swing arm material.....	chrome-moly steel	chrome-moly steel
Starter.....	primary kick	primary kick
Air filtration.....	oiled foam	oiled foam
Frame material.....	chrome-moly steel	chrome-moly steel
Wheelbase.....	57.5 in.	59.4 in.
Seat height.....	37.3 in.	38.7 in.
Seat width.....	6.2 in.	6.2 in.
Seat length.....	22.5 in.	22.5 in.
Seat front to steering stem center.....	14.5 in.	14.5 in.
Handlebar width.....	33.8 in.	34.1 in.
Footpeg height.....	15.2 in.	16.6 in.
Footpeg to seat top.....	21.9 in.	21.9 in.
Footpeg to shift lever center.....	5.3 in.	5.3 in.
Footpeg to brake pedal center.....	5.0 in.	5.0 in.
Swing arm length.....	20.5 in.	21.3 in.
Swing arm pivot to drive sprocket center.....	3.4 in.	3.4 in.
Gas tank filler hole size.....	1.6 in.	1.6 in.
Ground clearance.....	12.2 in.	13.6 in.
Fork rake angle.....	30°	30°
Trail.....	5.98 in.	5.98 in.
Test weight w / half tank fuel.....	244 lb.	239 lb.
Weight bias, front/ rear percent.....	45.5 / 54.5	46.0 / 54.0

