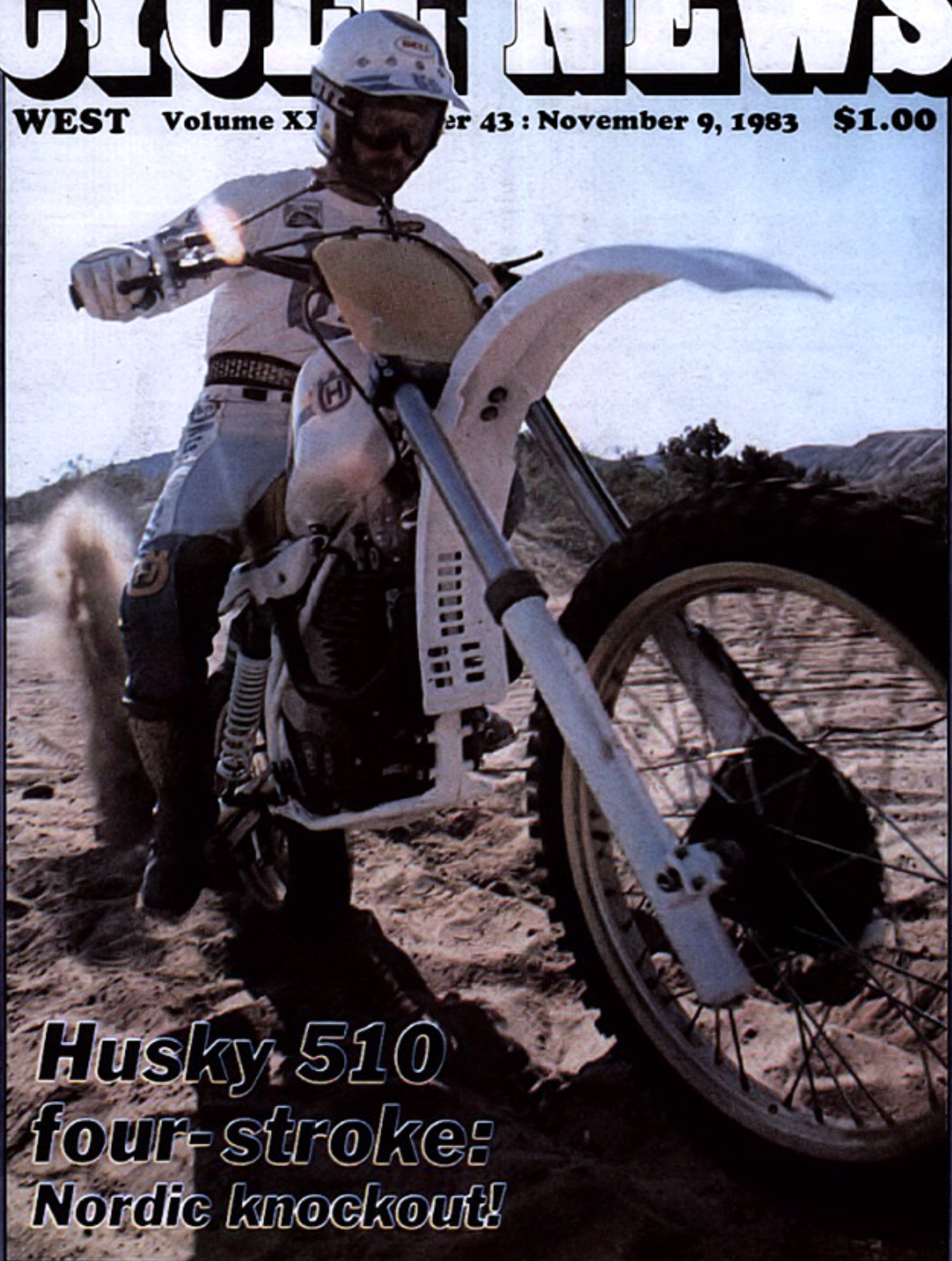


CYCLING NEWS

WEST Volume XI Number 43 : November 9, 1983 \$1.00



**Husky 510
four-stroke:
Nordic knockout!**

AMERICA'S WEEKLY MOTORCYCLE NEWSPAPER

Impression: 1983 Husqvarna 510TX

Thumpin' light, thumpin' fast

By Larry Langley

The last few years have been a four-stroke lover's dream. New, modern-design thumpers have been introduced by most of the major manufacturers. They've been fun, tractable,

fast and stingy with gas. But heavy. The extra 30 pounds or so were enough to relegate the four-strokes to play-bike status or into their own four-stroke class. Honda's introduction of the XR350 was a serious effort to drop some of the excess weight and produce a serious four-stroke race bike. Honda was somewhat successful since the XR350

is a fine motorcycle but it demands to be ridden like a two-stroke for it to perform. Three hundred and fifty cubic centimeters is small for a big-bore four-stroke and the XR makes it power at higher rpm. It lacks the "grunt" that is generally expected of a big-bore four-stroke, but handles excellently, turns well and all in all is a fine execution in concept. But it's interesting that Honda had to limit

its displacement in order to keep the weight down.

Introducing the Husqvarna 510TX four-stroke. Fast, agile and most important, *light!* Husky claims 258 pounds and we believe it. We weighed it at around 270 pounds wet which is 20 or 30 pounds lighter than its competition.

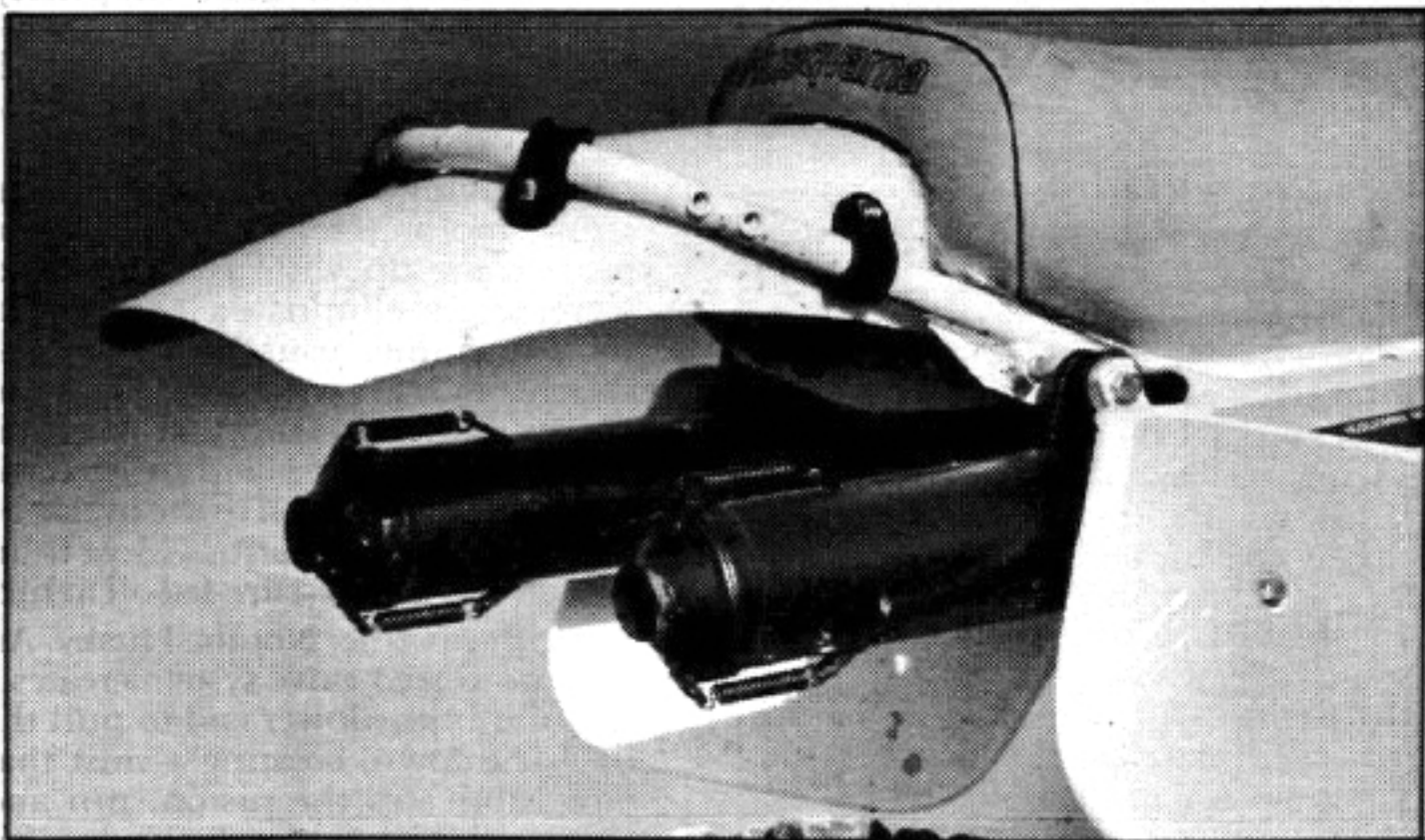
Right off let's admit we like the bike. A lot. *But* it does have a couple of flaws. However, a big, powerful 503cc motor cradled in a state-of-the-art frame with excellent suspension is hard to resist. With the Japanese developing new ultra-modern, hi-tech four-strokes, who would have thought that a little Swedish factory would come up with a superior bike.

While the Japanese opted for "trick" engineering (dual carbs, single shocks, etc.), the Swedes went for simplicity. They knew they wouldn't be able to outdo the big Four in space-age goodies, so they decided to go back to basics.

In striving for a lean, light four-stroke motorcycle, the Husky engineers came up with a very simple, clever idea to eliminate a lot of weight in the engine, usually the biggest source of excess poundage in a four-stroke machine. How? They eliminated the oil pump and utilized the cam chain to carry oil to the overhead cam area for lubrication. Most four-strokes rely on pressure-fed oil to lubricate the engine. Not the Husky. An ingenious reed valve system creates a vacuum in the lower end to pull the oil back down, creating a mist that also lubricates the piston, pin and bearings. The reed valve is located behind the clutch and must be checked on a regular basis for wear. A worn or broken reed can cause the engine to overheat. Husqvarna recommends Bel-Ray 40-weight oil.

The motor, at first glance, looks like a two-stroke, but the twin pipes, leading out of the four-valve head are a dead giveaway, especially since they lead back under each side panel and out the back into individual muffler/spark arrestor units. Dual pipes. Hmmm. How interesting. Husky must have had a good reason for doing it this way but it's beyond our comprehension. In a bike devoted to simplicity and light weight it doesn't make much sense to us to have the extra weight, and worse, the extra width the system creates. The side panel bulge that is necessary to clear the pipes requires the rider to assume a very cowboy-like bowlegged stance when riding the bike. Very annoying and very unnecessary (see sidebar). The mufflers do a good job of quieting the motor, though.

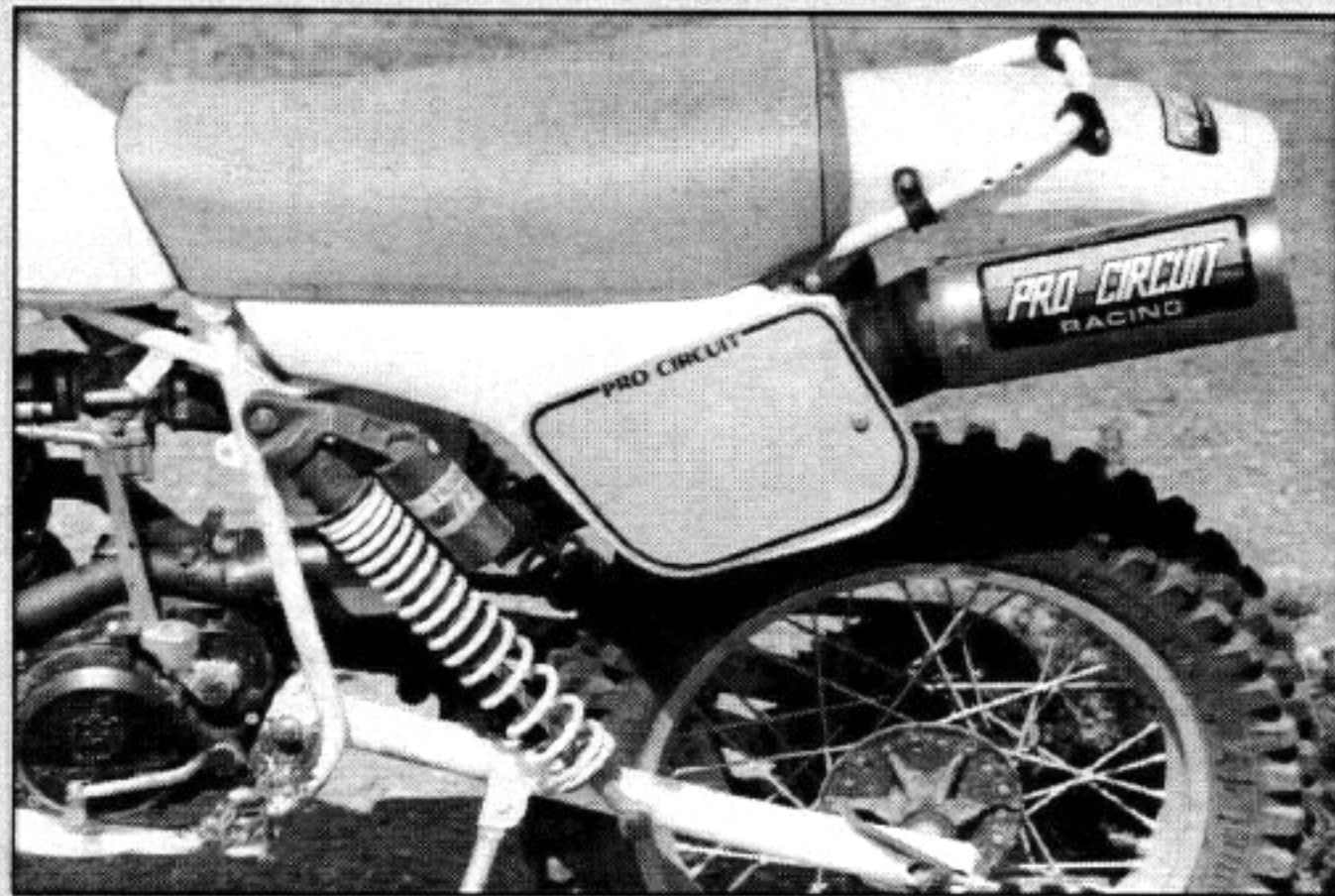
Carburetion is by a 36mm Dellorto equipped with an accelerator pump. While the Honda XRs and the Yamaha TT600 opted for more complex dual-venturi units to solve the throttle response problems on their four-strokes, Husky's simple (there's that



word again) solution works and works well. We could detect no hesitation and the Dellorto carbureted cleanly throughout the rpm range. For horsepower freaks, a bigger Dellorto could probably be fitted.

Since a four-stroke's power delivery is deceptive (it feels slow), we brought along a Husky 430XC for compari-

son. While we figured the four-stroke would run with the 430 two-stroke, we were surprised to find the four-stroke considerably faster. In fact the four-stroke ate the 430XC for lunch in a dead-stop drag race time after time. The four-stroke put the power to the ground, hooked up and was



Pro Circuit modifications

By Larry Langley

Mitch Payton's Pro Circuit has already come up with an exhaust system which provides three improvements over stock:

1. Eliminates about 4.5 pounds of excess weight.
2. Gains 4-5 horsepower.
3. Eliminates 4.5 inches of width right where it needs it the most.

Payton had to build a complete new airbox because the routing of the two-into-one exhaust had no other place to go. The stock airbox could possibly be modified but it would have to be patched. Since the stock pipes are two separate units, a whole new exhaust system had to be built.

Payton's recommendations:

Valve clearance: Intake .004" (stock .004"), Exhaust: .005" (stock .006")...
Oil: Castrol R Racing 40 weight...

Safety wire the front brake cable... Do *not* pull the wire screen out of the air cleaner... Disconnect and remove the automatic compression release... Keep a close eye on the intake manifold for cracks... Cradle the carb with safety wire or big plastic zip tie... Flywheel must be checked regularly and blue Loctite used on flywheel shaft... Mount taller bars (Answer, early Husky)... Add the two-into-one exhaust kit, which consists of the complete pipe, side panels, airbox and megaphone with muffler. Price for the components is \$225.

We tried the exhaust setup and its performance was excellent. The extra power is very evident, the 4.5 inches lost in width alone is worth the price and the weight loss certainly doesn't hurt either. Exhaust noise is up but not enough to be considered loud. In fact the megaphone creates a very distinctive exhaust note that impressed everyone who rode the bike.

gone. To nullify that advantage, we then raced from a moving start in low gear. Again the four-stroke was faster but with a smaller margin. In trail riding situations, we were impressed with the motor. Lots of power, combined with the heavy flywheel, let us chug our way up the gnarliest uphill around. Throttle response was excellent. The transmission is a six-speed, which is overkill.

Five speeds would have been more than adequate. We suspect it's because Husky makes only four- or six-speed trannies and didn't want to retool.

The first thing we heard about the bike was how hard it was to get it started, especially when hot. For once the rumor mill was correct. A big-bore four-stroke is hard enough to start, a *balky* big-bore four-stroke makes you wonder if you've bought a very expensive boat anchor. We had a bitch of a time in firing off the Husky when warm. Finally we took off the automatic compression release and just used the manual compression release. We felt the automatic release was actually hindering the kick-through process. Some shops are theorizing that the ignition is getting hot, and are venting the mag side cover to allow the heat to escape. Compounding the problems was the fact the kickstarter is located on the left side. The lever is very awkward to get a foot on at the top of the stroke since it is so high. Most riders looked for a berm, rock or milk crate to get up high enough to get some leverage. Once we found the "drill" we didn't have any problems starting the bike. In fact, the "drill" is very similar to starting an old BSA.

Hot: 1. Engage the manual compression release and kick the motor through three or four times with no throttle, clearing it out.

2. Let go of the compression release and slowly kick the motor over until it comes up to top dead center

(easy to tell, the motor just *stops*).
3. Engage the manual compression release and very slowly, kick the motor over just enough to get it just past top dead center.

4. Let the kickstarter return to the top of the stroke, stand on a berm, rock or milk crate and, without using the compression release, kick through with all your weight behind you. A healthy kick will usually fire it off. If not repeat steps 1-4.

COLD: About the same as hot, but first give the throttle a twist to inject a shot of gas from the accelerator pump into the intake. If very cold, use the choke, but do not touch the throttle again. Then use the above steps 1-4.

Suspension is Husky's excellent ITC dual-shock setup at the rear, which provides a very ample 13.6 inches of travel. Husky hasn't felt the need to go the single-shock route yet and they don't have to. Their rising-rate dual-shock layout works. The frame is pure Husky but lo and behold, they have actually steepened the head angle. Finally a Husky that turns! What a pleasure. The straight line stability for which Husky's are famous hasn't been lost in the new geometry. The gas tank is plastic and holds 2.7 gallons of your favorite 92 octane leaded premium. The handlebars are a bit low for our taste but that is strictly a personal choice.

The front brake is a dual leading shoe set-up which works fine. In fact, combined with the inherent compression braking of the big four-stroke, you have more than enough stopping power. The rear brake is standard Husky off of their XCs and works nicely as well. The only thing we don't like about the dual leading shoe brake is its inability to stop when rolling backwards, a very important consideration if you are on a hill during an enduro, race or play rid-

ing. The bike is tall per typical Husky, but settles down under the rider's weight to where he can touch the ground.

Tires are two-ply Trelleborg. These tires would be OK for motocross but equipping this bike (which is designed for cross country) with two-ply tires is a waste of money; the owner's money. Maybe a play rider could get by on the two-plys but a racer or enduro rider can't afford to take the chance of flats. Again, Husky probably has a tie-in with Trelleborg but if Trelleborg can't supply four-ply tires, Husky should get a supplier who can.

Early models had a valve guide seal

problem. It seems the seal used would allow too much oil on the valve. Engine heat would then tend to varnish the valve and some valves wound up sticking in the guides. Husky already has a fix and is replacing the seal and modifying the guides on the early bikes under warranty. Later models have the new seals and guides. All in all we were very impressed with the Husky 510TX. Long-term reliability is yet to be determined but from what we have seen so far it looks like Husky has a winner on their hands. At over \$3000, the bike is not cheap, but the first shipment sold out immediately. That should tell you something. ●

Specifications

Engine

Type	Single-cylinder OHC four-stroke.
Displacement	503cc.
Bore x stroke	91.5 x 76.4mm.
Compression ratio	9.5:1.
Starting system	Primary kick.
Ignition system	CDI.
Transmission	Six-speed.
Carburetor	36mm Dellorto.

Frame

Type	Single cradle.
Front tire	3.00x21.
Rear tire	5.00x18.

Dimensions

Wheelbase	58.9 in.
Seat height	39.2 in.
Dry weight (claimed)	258 lbs.
Fuel capacity	2.7 gal.
Oil capacity44 gal.
Suggested retail price	\$2995.

