

Motorcyclist TEST

It started out as a comparison of all the ISDT/pure-enduro machines, but as James Q. Smith, captain of the Titanic stated, "It just didn't work out as planned." The following are all the available bikes in the class:

Yamaha IT250
Suzuki PE250
Honda MR250
Maico ISDT 250
Husqvarna 250
Malcolm Smith Replica
Penton/KTM 250
Can-Am 250 Qualifier
Bultaco 250 Frontera
Ossa 250 Super Pioneer
Hercules GS250
Hodaka Thunderroad 250

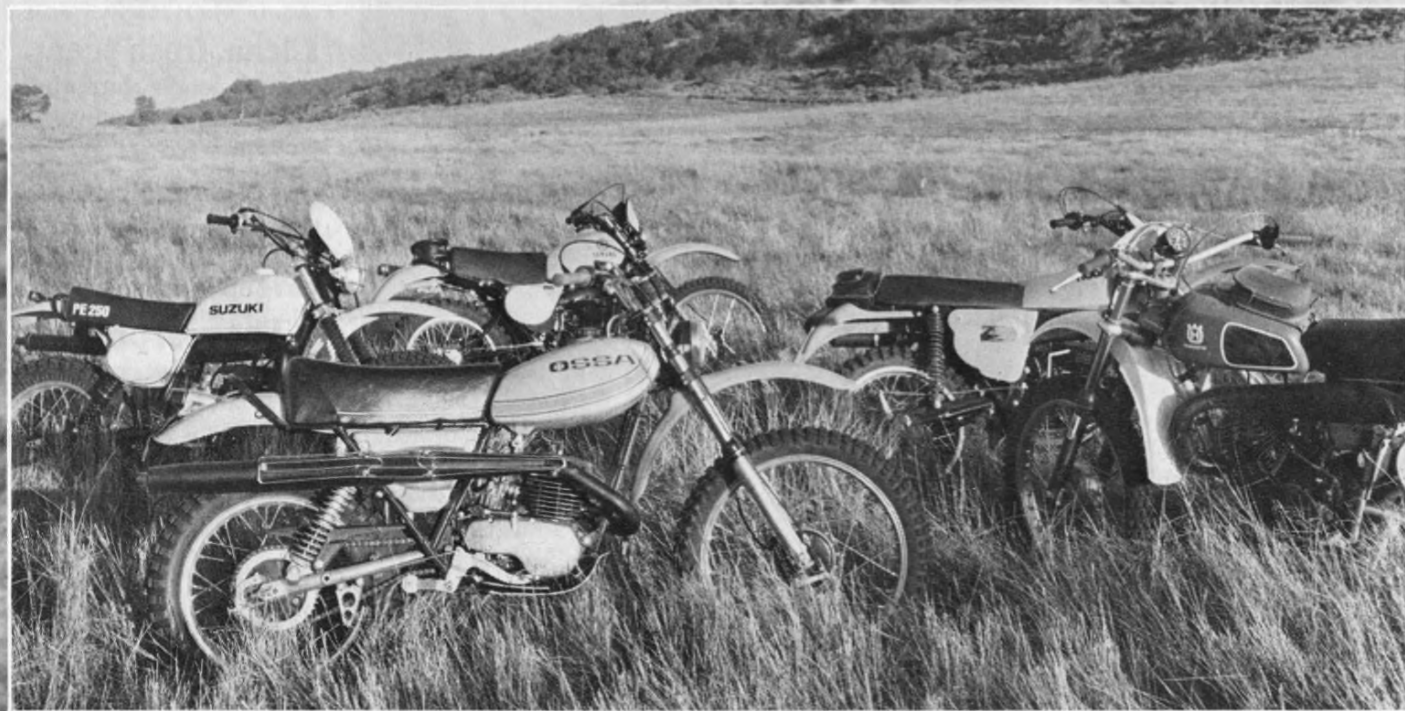
We ended up with only five, an unfortunate situation, because the missing bikes would have influenced the overall results greatly—some at the top and others in the "boat anchor" class. The main reason for their absenteeism is that most of the factories are in model-limbo right now, and they're hesitant about letting us test a bike that will be superseded by a new model about the time this article gets to print. Nevertheless the five machines in our test are a representative sampling and reflect the general capabilities of the class. We tested the Husky 250 Malcolm Smith Replica, Ossa 250 Super Pioneer, Suzuki PE250, Yamaha IT250 and Hodaka's Thunderroad 250.

Husqvarna's Malcolm Smith Replica is easily the most ISDT oriented and genuinely lives up to its "Replica" status. Malcolm designed this one himself and it differs considera-

bly from standard Husky WRs. His Gold Medal in Austria's ISDT last year came on a look-alike. The Replica uses Preston Petty components, Curnutt shocks, a Mikuni carb, aluminum J-bars, a Barum rim-saver on the back, VDO speedometer and comes stock with the tank bag. Our test bike was one of only a few hundred units imported from the Swedish factory.

Ossa sent us a Super Pioneer updated with different porting, new Betor gas shocks laid-down slightly, a larger front brake and improved fork action. It's actually a general-purpose woods bike and suffered in some of the comparisons by being stacked up against certain machines aimed specifically at ISDT/enduro competition. Ossas are made in Spain and marketed nationwide through a network of 300 dealers.

Suzuki's PE250 was introduced



Five ISDT 250s

Every Bike With Knobby Tires
Pouch Seems To Be Called
These Days; Some Live Up
And Others Are Simply Nice

about a year ago and has remained unchanged since then. It's a mixture of RM motocross parts and new components designed to pinpoint the needs of a trail rider. Much enduro specialization brings it a long way from being an RM with lights. In fact the gearbox, suspension and cylinder are all different. The PE became an instant best-seller in the East with many shops on an 8-week backorder.


Yamaha's IT250 is only a few months old. Its heritage comes directly from the highly modified IT400s which competed successfully at the Austrian ISDT in 1976. Many YZ motocross components are used but Yamaha has never hesitated to spend money on fresh designs necessary for trail-oriented performance. On the surface this bike is even more ISDT oriented than the Husky because of carefully thought-out quick-change wheel designs, folding brake and shift levers, all the necessary lighting, numberplates, a large tank and a tool pouch.

Hodaka offered a Thunderroad—their 250 enduro/playbike built in conjunction with Oregon trails, Preston Petty parts, Works Performance shocks and a close liason with the factory in Japan. Hodaka's R & D personnel in Athena, Oregon, headquarters are blessed with nearby trails that rank with the best off-road riding areas in America. Some of their test riders are among the fastest anywhere. The Hodaka is the only bike of the five with oil injection.

All testing was conducted at the Petersen Ranch, a 1500-acre spread in the rolling hills west of Palmdale, California. This city is best known for its proximity to Edwards Air Force Base where America's space shuttle is being tested. The Ranch nestles snugly within a barb-wire perimeter and offers a test rider a wide variety of terrain rarely available in a legal riding area without driving hundreds of miles. The Ranch is only 75 miles from the *Motorcyclist* offices in Hollywood. It's a safe place to test be-

cause signs like "Warning, Armed Guards" make the land void of such obstacles as oncoming cars and wandering trail riders. Its only inhabitants are a few scattered horses and cows who graze nonchalantly, almost oblivious to their surrounding. Because of this uninhibited atmosphere it's easy to construct individual "tests" in which the bikes can be run head-to-head without hesitation.

The test results are divided into two categories by rider weight. Three testers were involved—two super Experts who both weigh 160 pounds and one average-ability Expert who weighs 220. The single fastest time turned-in by the 160-pounders appears on the results regardless of which rider recorded it. The difference between this time and the heavier rider's time on the Hillclimb and Drag Test can be attributed entirely to his weight, but the spread in Special Test times also reflects the fact that he simply isn't as fast as the lighter testers.

A black and white photograph showing three motorcyclists riding on a dirt trail. The rider in the foreground is on the right, leaning into a turn. The other two riders are further back on the trail, one on the left and one in the center. The terrain is hilly and appears to be a dry, grassy area.

**And A Tool
An ISDT
To The Name
Trail Bikes**

Five 250s

Hillclimb

After a short ride to become familiar with the bikes we checked them over, looking for loose spokes, adjusting handlebars to suit everyone and matching-up tire pressures at 14 pounds front and 12 pounds rear. First on the list of "tests" was the hillclimb which helps to get a feel for engine torque, horsepower and gearing all in quick instance. Almost everyone who's ever gone trailing has experienced the urge to tackle the "big one," especially if it seems unscalable. We've gone to areas where riders spend a whole day climbing a single hill without wandering 50 yards from their truck. The Petersen ranch offers mounds you couldn't scale with a bulldozer, but we played it conservatively by picking one with about a 30-degree incline which rose roughly 300 feet skyward. It offered decent traction, with the only obstacle being a small step midway up that caused a short airborne flight

and a momentary loss in traction. We didn't start directly at the base, but allowed about 20 yards for a running start.

As evidenced by the results, the Husky and Yamaha had almost identical times, both having an abundance of power and torque to pull gearing which allowed them to accelerate up to the hill in second gear and continue climbing to the top without falling off the power curve. Both literally flew over the ridge as if begging for a bigger challenge. The Suzuki times were close behind, its disadvantage being that it ran out of second gear before the incline, needed to be shifted into third and then wouldn't pull it with any authority. It needed to be downshifted into second a third the way up—thus losing momentum and valuable time. It did, however, climb it easily in second without straining. The Hodaka and the Ossa fell considerably behind the pace and actually strained in second gear to reach the top. Both are geared quite low and attacked the hill in third gear, but since the powerplants are relatively low revvers, their actual approach speed was lower than that of the Husky and Yamaha which were wound tight and smo-

kin' it in second. The Hodaka needed a downshift the instant the nose was pointed up, while the Ossa's torquey little engine surprised us all by reaching the midway point in third. Back in second gear, and moving slowly, the Hodaka and Ossa dug trenches to the top, but never gave up.

As can be expected the added weight of our 220-pounder really took its toll on each bike, with the Ossa being most affected. This little bit of information might be helpful to you heavyweights when buying time comes around.

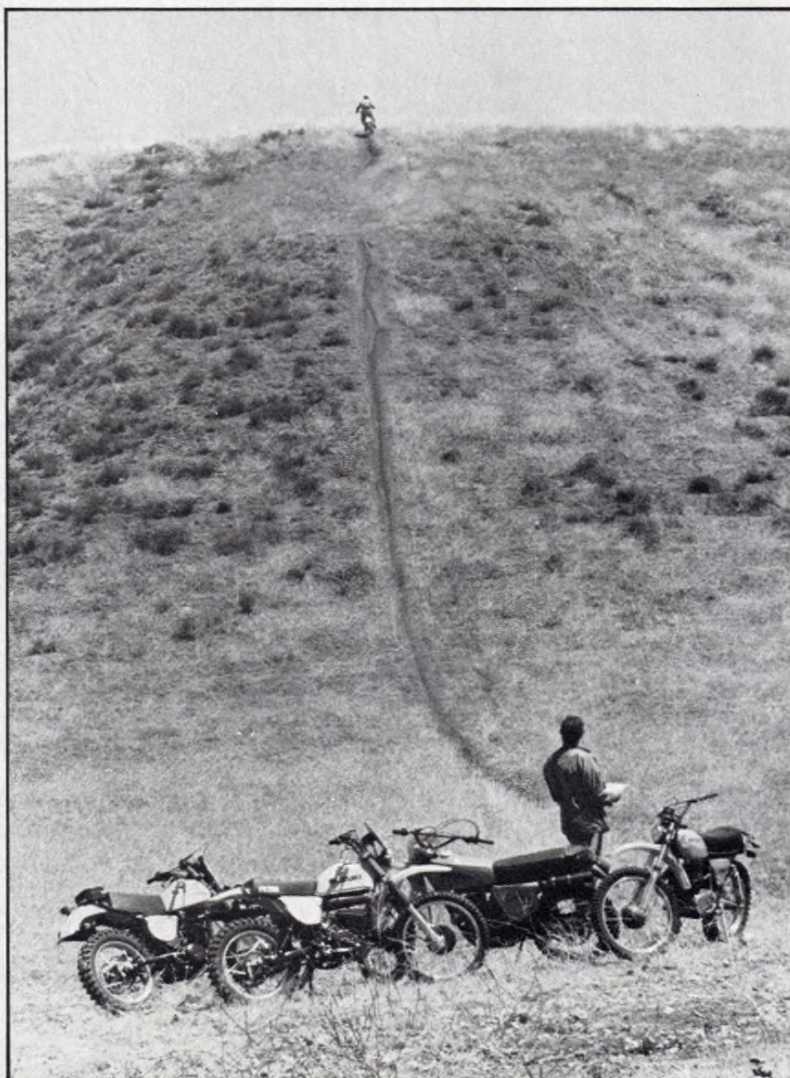
HILLCLIMB RESULTS

160-POUND RIDER

HUSKY	11.38 sec.
YAMAHA	11.43 sec.
SUZUKI	12.23 sec.
HODAKA	13.15 sec.
OSSA	14.05 sec.

220-POUND RIDER

HUSKY	12.17 sec.
YAMAHA	12.66 sec.
SUZUKI	12.98 sec.
HODAKA	14.61 sec.
OSSA	16.01 sec.



1/8-Mile Drag Test

Acceleration is critical to your drives out of a corner and to your ability to pass if the trail widens slightly for a few yards. We limited the drag test to 1/8 mile so top speed wouldn't be a major contributing factor to the results. All the bikes crossed the finish line pulling hard in fourth gear (60-70 mph) except for the six-speed Husky which made its best runs with a shift to fifth. The test also revealed shifting characteristics and tractability during hard drives from a standing start.

Since the Husky and Yamaha were clocked at a virtual tie during their individual runs, the two 160-pounders lined up side-by-side for a final run-off, only to have the Husky win twice and the Yamaha win twice, the difference being in inches rather than feet. These bikes clearly have the most seat-of-the-pants horsepower and their acceleration times confirm the feeling. The Husky is a little harder to launch off the line because the near-dampless rear suspension first sinks-down to help traction but then quickly boings back up, producing wheelspin that starts the rear end fishtailing unless the rider is aimed perfectly straight. In both the hill-climb and drag test the Husky made more false starts than any other bike. Luckily a rugged clutch offers enough progression to feed-in power a little less abruptly, thus minimizing

an off-the-line slide-out. The Yamaha tracked straighter out of the hole, but a popped clutch sent the front wheel skyward. Both bikes were positive shifters.

The 220-pound rider came within a blink of the class winners on the Suzuki primarily because its clutch unfurls power onto the ground perfectly. The bike's overall ease of rideability is its strongest point, and the manners it displays off-the-line and during shifts on the straightaway free the engine for maximum performance. The Suzuki's times were easily the most consistent, indicating that rider technique played less of a role than usual. Engine for engine, however, the Husky and Yamaha are still stronger than the PE.

The Hodaka's main problem is such low gearing in first that the engine is peaked out before the rider can get his foot off the ground and positioned under the lever to hook second. Overall low gearing also reduces the speed in each gear so another bike is still pulling hard in third as the Hodaka is building revs in fourth where acceleration cannot be as quick. Gearing, then, plus a bit less overall horsepower, puts the Thunderroad half-a-second back in spite of crisp shifting and a satisfactory clutch. (Our well-thrashed test bike had a half-dead clutch with no distinguishable friction point, but we can rate its normal action from previous experience with fresher Hodakas. Then of course there is the possibility that all Hodaka clutches end up like ours after enough miles.)

The Ossa's only defense for being 1.2 seconds slower in the drag test is

that it has less brute horsepower. It's never finicky off-the-line, gearing seems right for the powerband and it's the only one of the five that can be speed-shifted under full power. The Ossa travels down the 1/8-mile with willing ease—ten percent slower than the Husky. Most of the time it's looking to either side of the straightaway in search of a trail.

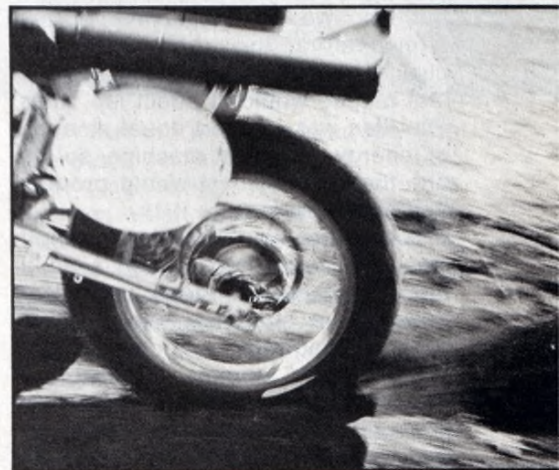
DRAG TEST RESULTS

160-POUND RIDER

HUSKY	11.43 sec.
YAMAHA	11.45 sec.
SUZUKI	11.79 sec.
HODAKA	12.44 sec.
OSSA	12.70 sec.

220-POUND RIDER

YAMAHA	12.14 sec.
HUSKY	12.19 sec.
SUZUKI	12.21 sec.
HODAKA	12.85 sec.
OSSA	13.23 sec.



Five 250s

Cross-Country Special Test

Of all the tests conducted, the "special test" is undoubtedly the most conclusive. It's actually a 3.7-mile cross-country motocross where the bikes are run over a defined course against the clock and it gives us an indication of how they work as a package. Brakes, suspension, horsepower, turning ability and comfort all come into play and it's usually the machine that possesses the best of all these qualities that ends up with the fastest lap time. Each test rider was given only one shot on each bike as would be the case in an enduro or ISDT test. He was instructed to ride at a fast, but comfortable pace so we wouldn't have bodies strewn along the track. Each was given a rest period between rides so that fatigue wouldn't affect lap times. The idea was to exert equal amounts of energy on each machine so the one that worked best would produce the fastest lap time.

The course was 3.7 miles in length and took the riders through a multitude of obstacles: steep uphill and downhill; a quarter-mile-long power sucking sandwash; a tricky downhill spotted with pucker bushes and scarred with rain ruts; a fourth-gear fire road that ended in an abrupt 90-degree turn leading up a gnarly mountainside; numerous ditches, ruts, rocks, trees and holes, and a few wide-open flats thrown in for fun.

Just looking at the spec sheet the Husky seemed the likely winner even before the stopwatches started clicking. It's the second lightest bike, bested only by the Ossa; it has 9 inches of rear suspension travel and over 8 inches at the front; and its six-speed gearbox keeps the power on tap every second. New this year is the Mikuni carburetor which supplies the fuel mixture cleanly and evenly. We found that starting the WR powerplant required a quick, almost jabbing sort of kick. A gentle stab wouldn't fire it. The kick-starter lever is masochistic in design, enabling the toe to be smashed underneath the footpeg; Husqvarna has designed a brand-new lever for the latest motocrossers which will bolt right on and it cures this problem.

Bouncing up and down on the Husky's rear-end, we noticed the Curnutt shocks had zero rebound damping—as if the seals were completely blown out. Looking at each



other we said, "how the heck are these things going to work?" Well, they do, and back at the shop a quick call to Husky revealed why. The Curnutts have valving that delivers progressive damping. That means that over the small bumps, where lots of damping isn't necessary, there isn't any, but as the suspension compresses the damping increases.

From the lap times you can see that our resident Experts felt right at home on the Husky. Its main advantage is that it accelerates like a bullet from corner to corner and flat cooked it down the sandwash. The

ample suspension travel enabled it to really fly over the rough stuff and neutral steering geometry, coupled with decent Barum tires, allowed it to knife through the tight underbrush. Everybody was pretty content with the control layout. The Malcolm Smith bars and grips are comfortable, however, the tank bag gets in the way slightly, especially in tight corners when you're crawling around the tank; we had to remove it for the hillclimb so we could slide forward enough to keep the front-end down. If one feature most impressed us, it would have to be the engine and





gearbox—they're matched perfectly and the times show it.

The Yamaha is probably the most deceptive of the five bikes, because although it's the heaviest of the bunch, it turned the second-fastest special-test time. Like the Husky, the engine and gearbox are evenly matched, and if you could remove some of its excess weight it'd probably beat the Husky in the hillclimb and dragrace. Seat-to-peg relationship is comfortable, but everyone complained about the bars being too low, too wide and bending back toward the rider's chest. The shifter is

a little too long and we also managed to bend the pegs during a photo session where the IT was subjected to repeated hard landings.

Suspension, especially the front was way too soft, bottoming often with a tremendous crashing sound. It actually offers more travel up front than the Husky, but it doesn't work as well. The rear end is on the soft side too, but it made the ride plusher and actually less fatiguing than the Husky, even though the bike feels overweight. The Yamaha was slowed slightly in the tight, woodsy areas as the front end had a tendency to

wash out and not steer precisely and therefore remove some of the test rider's confidence. Unlike motocross courses which have berms that facilitate turning, there are few real berms on the trail and a bike that steers well has a definite advantage.

One advantage that was quite evident was the Yamaha's superb brakes which enabled it to dive deeper into the corners off the long, high-speed straights. As the test wore on our test riders began establishing more and more reference points to help in braking and they found they could usually wait longer to brake



Five 250s

with the Yamaha. The two features that kept the Yamaha right on the Husky's tail were a deceptively quick engine, coupled with a gearbox having the "right" ratios, and a plush ride less fatiguing than the Husky's.

The Suzuki's third-place finish puts it near the middle of the pack, which isn't surprising considering it's a happy medium on the spec chart. With 7½ inches of suspension travel at both ends and a weight of 256 pounds, it's a well-rounded package. Despite its low 34-inch seat height (lowest of the bunch) everyone felt comfortable sitting on the PE and thought it seemed light and agile while standing on the pegs. Short, stout bars, coupled with accurate steering geometry allowed the Suzuki to knife quickly through the tight, twisty parts of the course, the front end never having a tendency to push or wash out. This factor also helped it on the fast fire roads where it was a natural slider producing oval-track power slides; it made up lots of lost time there.

Suspension wasn't as plush as the Yamaha or Husky and actually felt harsh in some instances. The front end would bottom occasionally and the rebound was way too fast, bouncing the front wheel off the ground after a jump and generating a second oscillation. The rear hopped and swapped from side to side up several of the rutted uphill loosing traction and forcing our test riders to back the throttle off a bit. Because of these tendencies it was

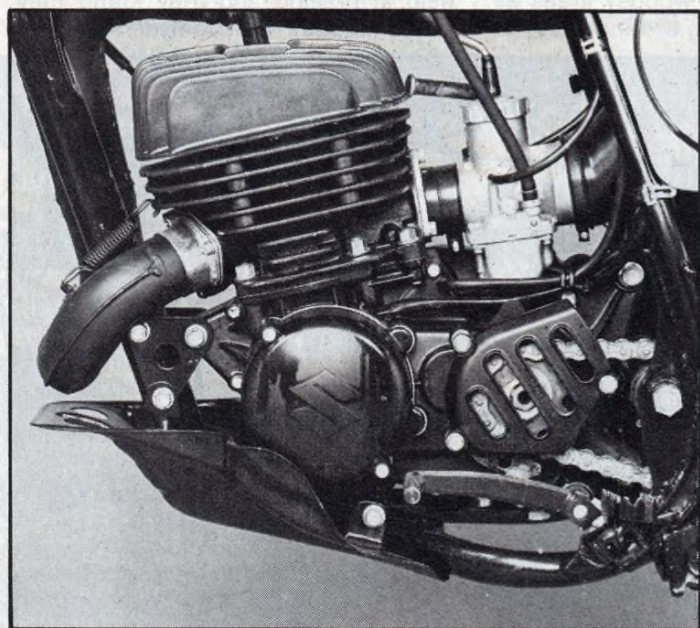


generally more fatiguing to the rider.

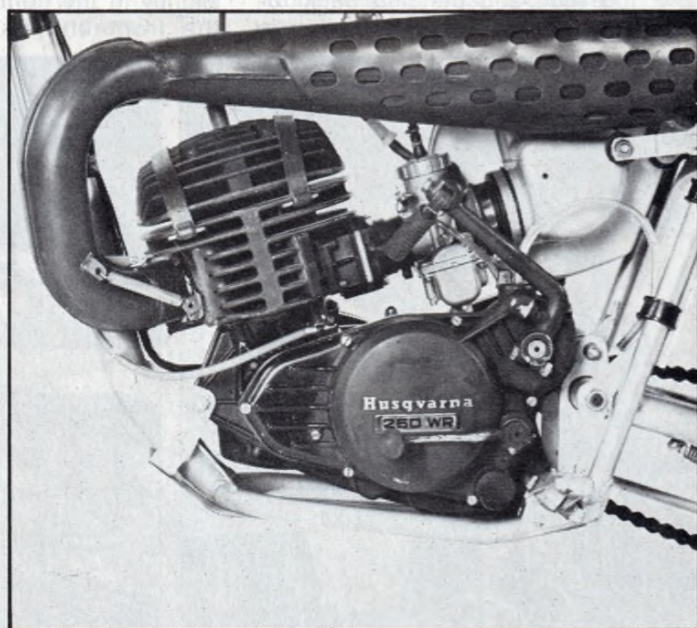
What hurt the Suzuki most was the improper gearbox spacing which didn't allow the engine to show its full potential. The powerplant itself is tractable and reasonably powerful, but long spacing between third and fourth really hurt performance. For instance, it had to travel up the sand-wash in third, buzzing its brains out because the step to fourth was too high and simply bogged it; the Husky and Yamaha were flying through topped-out in fourth. We also incorporated our hillclimb into the special test, making the riders go down it

and then back up again; only this time we allowed ample room at the bottom to get a good run. The Husky and Yamaha literally jetted up the slope in fourth, going down to third two-thirds the way up, while the Suzuki had to scale most of it in third and just catch second at the top; it lost a couple seconds in the process.

Although the Suzuki wasn't the quickest in each test, we can't help being impressed with its overall performance, the fact that it was the only bike that didn't require any maintenance and the only bike that survived the test without a single



PE powerplant is tamed-down RM version, featuring different porting, a milder intake system and excellent low-end power. Bash-plate does great job of protecting expensive magnesium side covers.



Husky engine has split personality, good torque on the bottom-end at low rpm, but loves to be revved high where it makes all its horsepower. Gearshifter throw is long, and Husky shares no primary kick-starting with Ossa.



item falling off or breaking. Aside from the Ossa, it was also the easiest to start.

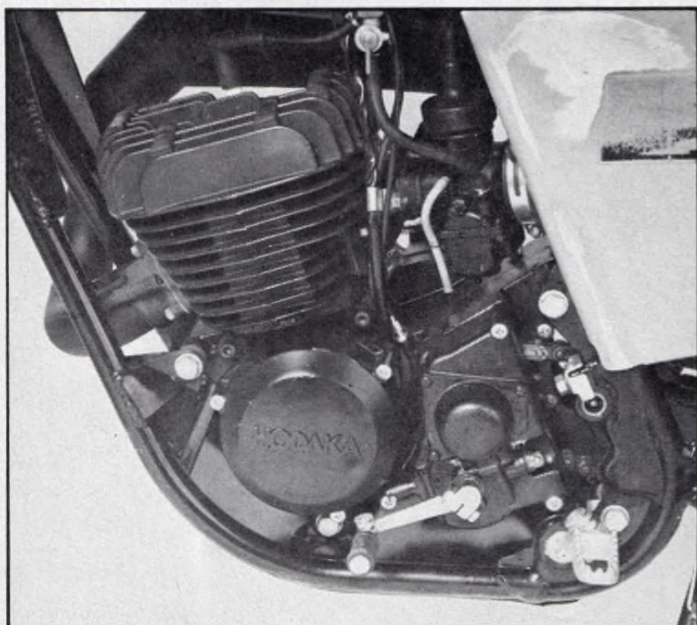
The Hodaka's test run was temporarily delayed when a pack of bulls bullied their way onto the course, forming a wall of beef that had to be moved. Bulls have an angry way of staring humans down and it required some shenanigans to get them dispersed. Two riders mounted-up on the Yamaha and Husky—a likely choice since they were the quickest—and proceeded to herd them cow-puncher style into the middle of the pasture. One defiant 1000-pounder

resisted, but a quick wheelie aimed at his forehead sent him scurrying.

Even before the Hodaka was given a chance to prove itself, it received some stiff criticism concerning its general layout and lack of riding comfort. The handlebars are outrageously wide at 35 inches and obviously a hinderance through wooded areas; one rider literally had the bars ripped from his hands by an over-aggressive bush. Most found the gearshift lever and side-case bulge difficult to deal with and generally disrupting to the shifting process. Then there's the bulging side panels that

rub the legs and make the entire bike difficult to maneuver while standing on the pegs.

Front and rear suspension travel is almost equivalent to that of the Suzuki's but the Hodaka doesn't feel light and agile, standing or sitting, like the Suzuki. In fact it rides and handles as if it weighed more than the Yamaha, when it really weighs 8 pounds less. Each rider noted that it was hard to ride fast because it was very fatiguing. It's a bike more manhandled than ridden. Part of this is due to wide bars that will make any bike handle slow and heavy and part to



Hodaka engine is mounted high in frame allowing ample room for mud-packing. Folding gearshift lever is nice, but knob located right above it and bulging side covers affects comfort. It's the only one with oil injection.



Narrow fiberglass tank and sidecovers make the Ossa feel light and maneuverable, while kickstarter lever often folded out and got in the way. Ossa engine is mildly tuned but very torquey.

Five 250s

the long 57-inch wheelbase (longest of the bunch) that makes it a chore to flick through the tight stuff. It was also a little hesitant to turn and carve corners, part of which we think is due to the tire; it's fitted with a 3.25-21 Nitto that's too big and heavy for the front end.

The Hodaka engine is by no means sluggish, but it needs to be revved to extract the available horsepower. This compounds its vibration problems; it shook the worst of the five. Like the Ossa, gearbox ratios are close to correct, but overall gearing is low and no matter how hard the engine is buzzed it just doesn't accelerate quickly from corner to corner.

Towards the end of two days of riding from 9 a.m. to dusk, the Ossa began to be compared and grouped along with the Hodaka, even though their differences are many. The Ossa is the lightest of the bunch weighing a mere 235 pounds, has the shortest wheelbase (55 inches) and supplies the least amount of suspension travel front or rear. The bike was easily dwarfed by our larger rider and although he found the Ossa comfortable while sitting, it was hard for this tall person to stand-up on. The handlebar grips were rather hard and too small in diameter which made holding on through the special test more fatiguing.

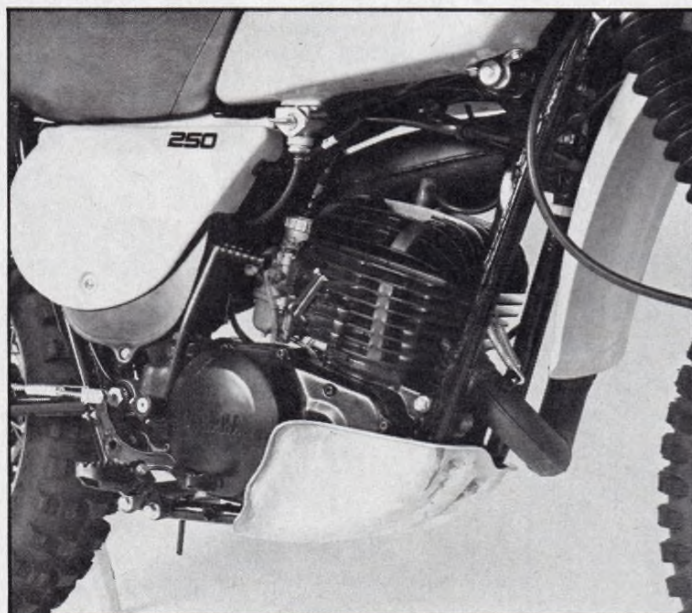
Being light and agile the Ossa didn't loose any time twisting through the low-speed sections of the track, however the Pirelli tires, well known for their elusive grip didn't inspire



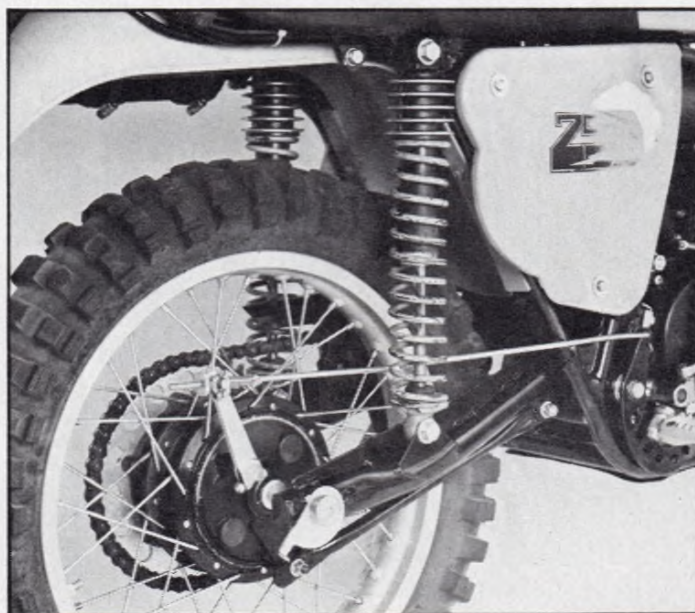
any confidence either. A change in tires would help Ossa handling immensely. Front suspension was fair, considering the forks produce less than 7 inches of travel. We noticed they were somewhat flexy over the real rough stuff but several of the riders actually felt the Ossa to be more stable through the whoops than the Hodaka, mainly because it was lighter and easier to control.

The awkward-looking pipe is deceiving—it looks like it would hinder leg movement but it tucks in nicely where it's supposed to. Unfortunately the kickstarter doesn't and it

also has a habit of folding out against your leg, especially when hugging the tank through the corners and when standing on the pegs. The Ossa is a one-kick starter, but the fact that it's not a primary kick is a definite drawback. The powerplant is a torquer and not a rever; it just won't buzz hard on top, which explains why it was 23 seconds off the pace. Although it competed evenly in the low-speed sections, its lack of acceleration and top speed put it at the bottom of the list. One interesting detail we discovered was that the Ossa was the only machine which could



Torquey reed-valve engine is surprisingly powerful and smooth, and not the least bit temperamental. Bike abounds with Yamaha trickery such as folding gearshift.



Hodaka fudged a bit, equipping our test bike with Works Performance shocks instead of the standard Kayabas ... they worked considerably better. Right sidecover also doubles as the air cleaner box cover.



DNFs

Here in the pathological portion of our test lay the remains of our test machines—and a report of what failed under the torture. Various machines had various illnesses—fatal in some instances. Rather than intersperse them through the report like sour notes in a symphony, we've lumped them all here in sort of a failure shootout, or should that be breakout?

Husqvarna: Not too much went wrong with the Swedish import. The face plate on its speedo worked loose and rotated so the needle registered 50 mph when the machine



be powershifted without the use of the clutch and without backing the throttle off; simply hold the throttle wide open and start grabbing gears.

Each test rider discovered another aspect of the Ossa, especially at the first corner—the front brake doesn't work until it's warmed up. Valuable time was lost backtracking over-shot corners. Also, the Ossa engine was the only one that got a little temperamental when pushed to the limits. It loaded up in a couple of the first-gear, 90-degree corners and refused to clean out immediately; it lost about five seconds there.

SPECIAL TEST TIMES

160-POUND RIDER

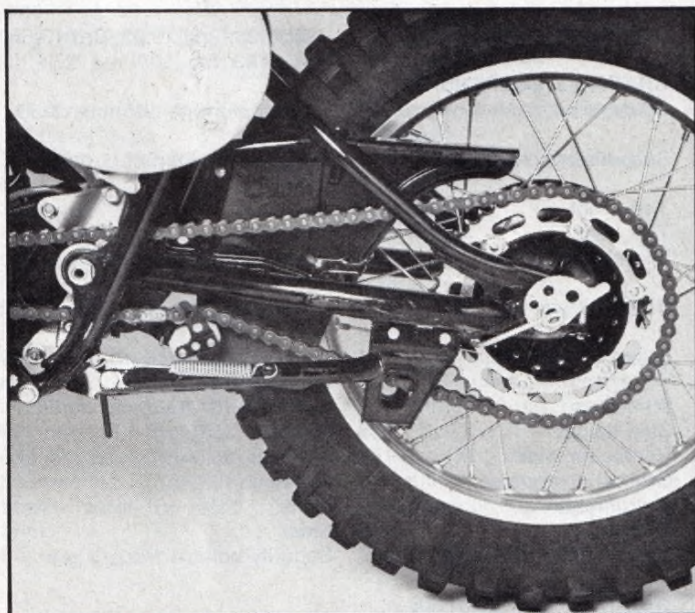
HUSKY	7:00 min.
YAMAHA	7:03 min.
SUZUKI	7:07 min.
HODAKA	7:15 min.
OSSA	7:23 min.

220-POUND RIDER

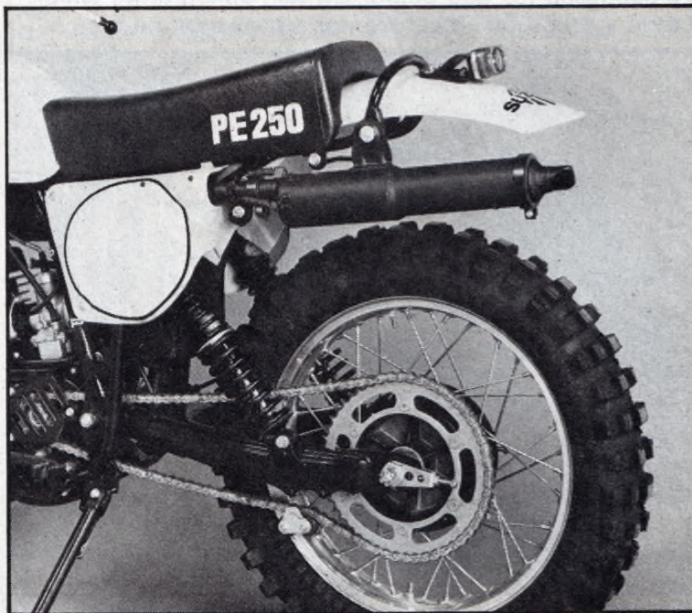
HUSKY	7:38 min.
YAMAHA	7:38 min.
SUZUKI	7:33 min.
HODAKA	7:37 min.
OSSA	7:54 min.

was parked—which one of the faster riders felt was justified. Still the broken VDO would have been fatal if you were trying to keep time in an enduro.

Ossa: The Spanish mount suffered various forms of heartburn, including the loss of its horn which simply fell off. A bad seal on the left fork leg appeared at 5.4 miles, and was later joined by a gusher on the right at 67 miles. The carb also seeped on various occasions along with the gas cap on all occasions. After two days the frame rails began poking at your hind-end through the collapsed seat.



Yamaha monoshock features adjustable damping and spring preload. Numerous chain guides, a roller and a tensioner keep the chain from gouging swing arm and frame. Snail-type axle adjusters work well.



An additional frame loop to hold the taillight, and a quiet new muffler set-up distinguishes PE's rear-end from RM's.

Five 250s

Yamaha: The IT joined the Husky with speed problems when the clips holding it in its fancy rubber mount went South. It also lost a rubber mudflap device from the chain guard, and loosened more spokes than any of the five.

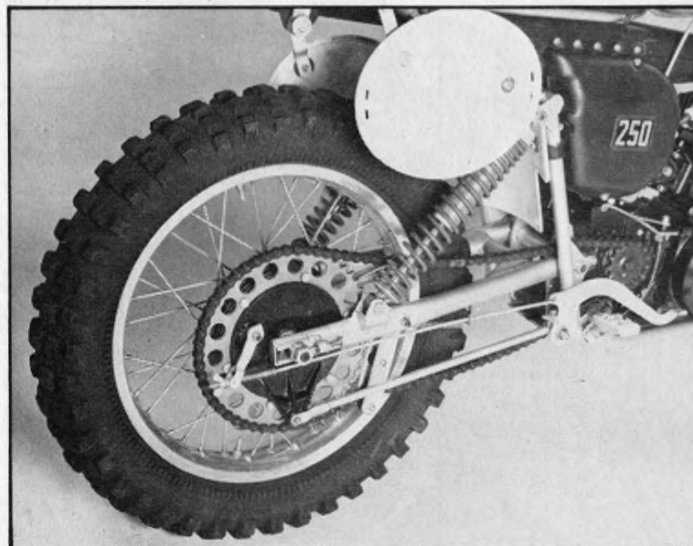
Hodaka: The Thunderroad met a timely but permanent demise 10 feet

from the finish line of the special test. Coming in on its final run, the piston swelled to proportions larger than the diameter of the barrel—a grand seizure complete with telltale piston rattle and rear wheel lock-up. Now you know why we didn't publish many action pictures of the Hodaka.

Suzuki: The best of the bunch in many respects. Nothing fell off and nothing broke—it was the most solid and trustworthy of the bunch—and it had the most miles on the speedo.



Ossa's rear fender is still fiberglass, but front is now plastic. Homely-looking pipe is quiet and tucks-in where it's supposed to. Gas Betors are fair, considering small travel. Little 4.00 Pirelli tire was smallest of the bunch.



Curnutt shocks give the Husky over nine inches of rear-wheel travel. They're deceptive though, pushing the rear-end up and down reveals zero damping. Riding it's a different story. Full floating brake helped bring the rocketship to a smooth halt.

HODAKA



TEST BIKE:

HODAKA 250/ED

Price, sugg. retail

\$1195

ENGINE

Type

Reed-valve and piston-port two-stroke single

Bore/stroke

70 x 64 mm (2.76 x 2.52 in.)

Piston displacement

246 cc (15.01 cu. in.)

Compression ratio

6.4 : 1 (corrected)

Carburetion

Mikuni VM36SC-19

Air filtration

Oiled foam

Ignition

Kokusan CDI

Lubrication

Oil injection

Electrical power

6V, 40W generator

Battery

None

DRIVETRAIN

Primary transmission

Spur gear, 2.48 ratio

Clutch

Multi-plate, wet

Secondary transmission

5/8 x 1/4 in. (520) chain,

Gear ratios, overall :1

1st 31.38; 2nd 19.93; 3rd 13.65; 4th 10.43; 5th 8.48

CHASSIS & SUSPENSION

Suspension, front

Telescopic fork, 185 mm (7.28 in.) travel

Suspension, rear

Swing arm, 178 mm (7.0 in.) travel

Tire, front

3.25 x 21

Tire, rear

4.60 x 18

Brake, front

Drum, 130 x 24 mm (5.12 x .95 in.)

Brake, rear

Drum, 130 x 24 mm (5.12 x .95 in.)

Brake swept area

77.6 cm./sq. (30.6 in./sq.)

Rake/trail

30°/144 mm (5.68 in.)

Wheelbase

1448 mm (57.0 in.)

Seat height

889 mm (35.0 in.)

Handlebar width

889 mm (35.0 in.)

Ground clearance

254 mm (10.0 in.)

Instruments

None

Stands

Side

Tire retention device(s).

Security bolts; 1 front, 1 rear

WEIGHTS & CAPACITIES

Fuel capacity

9.1 lit. (2.4 U.S. gal.)

Oil capacity

Transmission, 800 cc; oil tank

700 cc

Weight, wet, unladen

120.7 kg. (266 lb.)



SUMMARY

Don't jump to conclusions based on the published results. Sometimes the stopwatch is deceiving because so many variables affect the times. For instance do bikes ridden last benefit from the rider being more familiar with the course, or do they suffer because he's beginning to tire? Do early morning runs with a little moisture on the ground provide better traction than efforts at midday on dry soil? Does the trail deteriorate or improve

with use? When comparing more equally matched bikes these subtle variables could alter the finishing order by several positions, but such is not the case with these five. Before a stopwatch even clicked our initial impressions would have ranked their maximum performance in the same order that eventually evolved.

The question is, how important are maximum performance figures to you as a buyer? If you're planning to ride the Two-Day Reliability Trials Series

HUSQVARNA OSSA



HUSQVARNA 250WR
MALCOLM SMITH
GOLD MEDAL REPLICA
\$1795

Reed-valve and piston port
two-stroke single
69.5 x 64.5 mm (2.73 x 2.54
in.)
245 cc (14.95 cu. in.)
12.3 : 1 (uncorrected)
Mikuni VM38
Oiled foam
Flywheel magneto
Oil in fuel
6V generator
None

Spur gear, 2.41 ratio
Multi-plate, wet
5/8 x 1/4 in. (520) chain, 3.79
ratio
1st 21.51; 2nd 15.56; 3rd 11.86;
4th 9.52; 5th 8.02; 6th 7.09

Telescopic fork, 210 mm (8.27
in.) travel
Swing arm, 230 mm (9.06 in.)
travel
3.00 x 21
4.25 x 18
Drum, 160 x 25 mm (6.3 x .98
in.)
Drum, 160 x 25 mm (6.3 x .98
in.)
98.6 cm./sq. (38.8 in./sq.)
n.a.
1422 mm (56.0 in.)
921 mm (36.5 in.)
838 mm (33.0 in.)
305 mm (12.1 in.)
Speedometer, trip reset
Side
Security bolts; 1 front, 2 rear

11.8 lit. (3.12 U.S. gal.)
1600 cc

113 kg. (249 lb.)



OSSA 250 SUPER PIONEER
\$1545

Piston port two-stroke single
72 x 60 mm (2.83 x 2.36 in.)
244 cc (14.89 cu. in.)
14.1 : 1 (uncorrected)
Bing concentric, 32 mm
Oiled foam
Motoplat electronic
Oil in fuel
6V generator
None

Duplex chain
Multi-plate, wet
5/8 x 1/4 (520) chain 3.31 ratio
1st 26.93; 2nd 18.25; 3rd 13.61;
4th 10.09; 5th 7.48

Telescopic fork, 174 mm (6.85
in.) travel
Swing arm, 128 mm (5.04 in.)
travel
3.00 x 21
4.00 x 18
Drum, 150 x 30 mm (5.91 x
1.18 in.)
Drum, 150 x 30 mm (5.91 x
1.18 in.)
111.3 cm./sq. (43.82 in./sq.)
29.5 / 117 mm (4.6 in.)
1397 mm (55.0 in.)
882.7 mm (34.75 in.)
851 mm (33.5 in.)
279 mm (11.0 in.)
Speedometer, trip reset
Side
Security bolts; 2 front, 2 rear

13 lit. (3.43 U.S. gal.)
1000 cc (1 lit.)

106.6 kg. (235 lbs.)

SUZUKI



SUZUKI PE250
\$1450

Reed-valve and piston port
two-stroke single
67 x 70 mm (2.64 x 2.76 in.)
247 cc (15.1 cu. in.)
7.0 : 1 (corrected)
Mikuni VM36SS
Oiled foam
Pointless electronic
Oil in fuel
6V generator
None

Helical gear, 2.727 ratio
Multi-plate, wet
5/8 x 1/4 in. (520) chain, 3.846
ratio
1st 27.96; 2nd 18.35; 3rd 13.11;
4th 9.57; 5th 7.25

Telescopic fork, 195 mm (7.68
in.) travel
Swing arm, 195 mm (7.68 in.)
travel
3.00 x 21
4.50 x 18
Drum, 150 x 28 mm (5.9 x 1.1
in.)
Drum, 150 x 28 mm (5.9 x 1.1
in.)
103.4 cm./sq. (40.7 in./sq.)
29.75 / 126 mm (4.96 in.)
1435 mm (56.5 in.)
863 mm (34 in.)
813 mm (32 in.)
257 mm (10.1 in.)
Speedometer, trip reset
Side
Security bolts; 1 front, 2 rear

12 lit. (3.2 U.S. gal.)
900 cc

116.6 kg. (256 lb.)

YAMAHA



YAMAHA IT250D
\$1348

Piston port, reed-valve
two-stroke single
70 x 64 mm (2.76 x 2.52 in.)
246 cc (15 cu. in.)
7.84 : 1 (corrected)
Mikuni VM36SS
Oiled foam
Mitsubishi CDI
Oil in fuel
6V generator
None

Helical gear, 2.66 ratio
Multi-plate, wet
5/8 x 1/4 in. (520) chain, 3.538
ratio
1st 21.57; 2nd 16.09; 3rd 12.27;
4th 9.44; 5th 7.93

Telescopic fork, 214 mm (8.46
in.) travel
Monoshock, 185 mm (7.28 in.)
travel
3.00 x 21
4.50 x 18
Drum, 130 x 22 mm (5.12 x .87
in.)
Drum, 160 x 25 mm (6.3 x .98
in.)
84.8 cm./sq. (33.4 in./sq.)
31.5° / 142 mm (5.59 in.)
1422 mm (56.0 in.)
902 mm (35.5 in.)
851 mm (33.5 in.)
254 mm (10.0 in.)
Speedometer, trip reset
Side
Security bolts; 1 front, 2 rear

12 lit. (3.17 U.S. gal.)
1200 cc (1.2 lit.)

124.3 kg. (274 lb.)

Five 250s

next year, the times are everything and you'll buy the Husky. If all you want to do is ride an occasional local enduro and a lot of trails, then it won't much matter that the Hodaka is half-a-second slower than the Yamaha on a hillclimb. *Ridability* can't be evaluated with a stopwatch, nor does the watch have anything to do with maintenance requirements, availability, resale, etc. The following paragraphs add a little perspective by recording our overall impressions. They come partly from our general experience but mostly from the bikes' trail performance when not under pressure from the watch.

Husqvarna: On the street there's a hard-and-fast rule that says the bike which works best for the expert will also be best for the average rider. Not necessarily so in the dirt. The Husky is an expensive, high-horsepower machine with ultimate capabilities the average rider will rarely exploit and a few temperamental traits he won't appreciate at all, such as difficult starting and explosive power. Still, as a motorcycle it functions beautifully and will help improve the riding ability of anyone who buys one. It can do it all—the ISDT itself, enduros, and Baja, yet it's not so high-strung that it can't be a playbike for the non-professional as well as being the Expert's choice. We'd love to run it against a Penton or Hercules.

Yamaha: Here's a bike just as versatile as the Husky and really close in performance, but with the added benefits of being available, less expensive, a tad more comfortable and

a little easier to trade-in or sell. It has two main drawbacks—weight, and the fact that it's complicated. The Japanese have included so many gigits and gasmos that the Yamaha needs a lot of basic maintenance to keep everything aligned, adjusted, tightened and intact, and sometimes you won't realize what needs attention until after it's self-destructed. Even if you don't intend to compete, an IT with all its trickery such as a quick-release brake rod and folding levers is fun to have. But mostly its power-house engine is fun to experience.

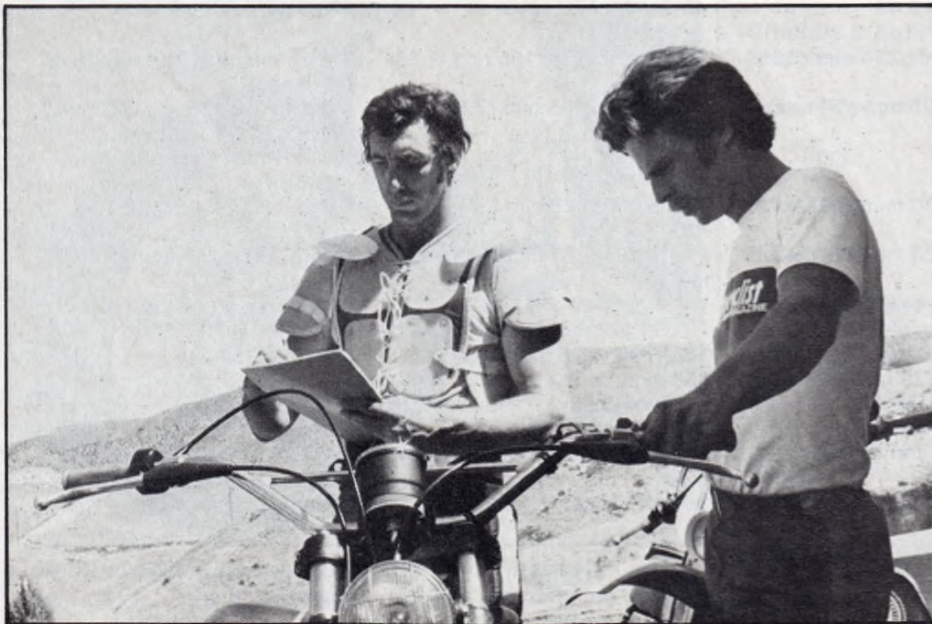
Hodaka: Here's a tough one. If you've never ridden another 250 off-road playbike, you could ride the Hodaka and think it was the greatest. But when you start comparing it to others, weaknesses become apparent. The ride is harsher. The engine doesn't pull as hard or rev as high. It suddenly might not seem as sure-footed as before. But none of these discoveries can detract from the fun you had when you didn't know any better, and that's the bottom line for the Hodaka—it's a competent enough motorcycle to bring you good times in the dirt. Our test bike seized and that's a definite black mark, but the bike had survived several previous tests and did succumb under severe abuse in an attempt to extract its best possible special-test time.

Suzuki: This is the one we'd recommend to the average rider. Our heavyweight recorded his fastest special-test time on the PE simply because of its ridability. You don't have to put up with any idiosyncracies or mean streaks. The motor comes from the tractor school and has truckloads of usable power on the bottom. You don't have to slip the clutch in tight stuff or downshift

to loft the front end over a log. The PE won't rev as high as either the Husky or Yamaha, and its feeling of power is noticeably less. But comfortable seating, maneuverability and darn good suspension except at breakneck speeds make-up for an underdog horsepower rating and help deliver the best-balanced package of the bunch. Mostly the PE is easy and fun to ride for people of all abilities. Plus it's developing an excellent reputation for reliability.

Ossa: This bike is easy to summarize because it's quite obviously a woods bike that doesn't pretend to be anything more. It was over its head in this comparison and the results show it. One staffer described the Ossa as the "retired racer's trail-bike choice," an apt description because it reflects the fact that most racers prefer trail riding in the twisty woods to any other, and that the Ossa does this effectively. Indeed the engine's low-end muscle and the bike's wheelbase, light weight, quick steering, overall agility and ideal seating position make it amazingly effective for long, brisk rides over tight terrain. Even when the trail turns into a road and speed increases, the Ossa is plenty fast to quicken your pulse. The seat sags out and it would be nice if the kickstarter was somewhere else, but few bikes are nicer on a trail. If you buy it for another type of riding, expect the performance evidenced in the results charts. **M**

The Husky inspired so much confidence during the 3.7-mile special test, that Ken Vreeke, usually known as "crazy Ken," slid the Husky off the track during a fourth-gear power-slide, flew 20 yards through the air and ended up in a gully entangled amongst the evergreens.



Close tabs were kept on each bike throughout the test period. Comments and opinions were recorded after each "special test."



TOURING OREGON: BMW's R100/S

MOTORCYCLIST



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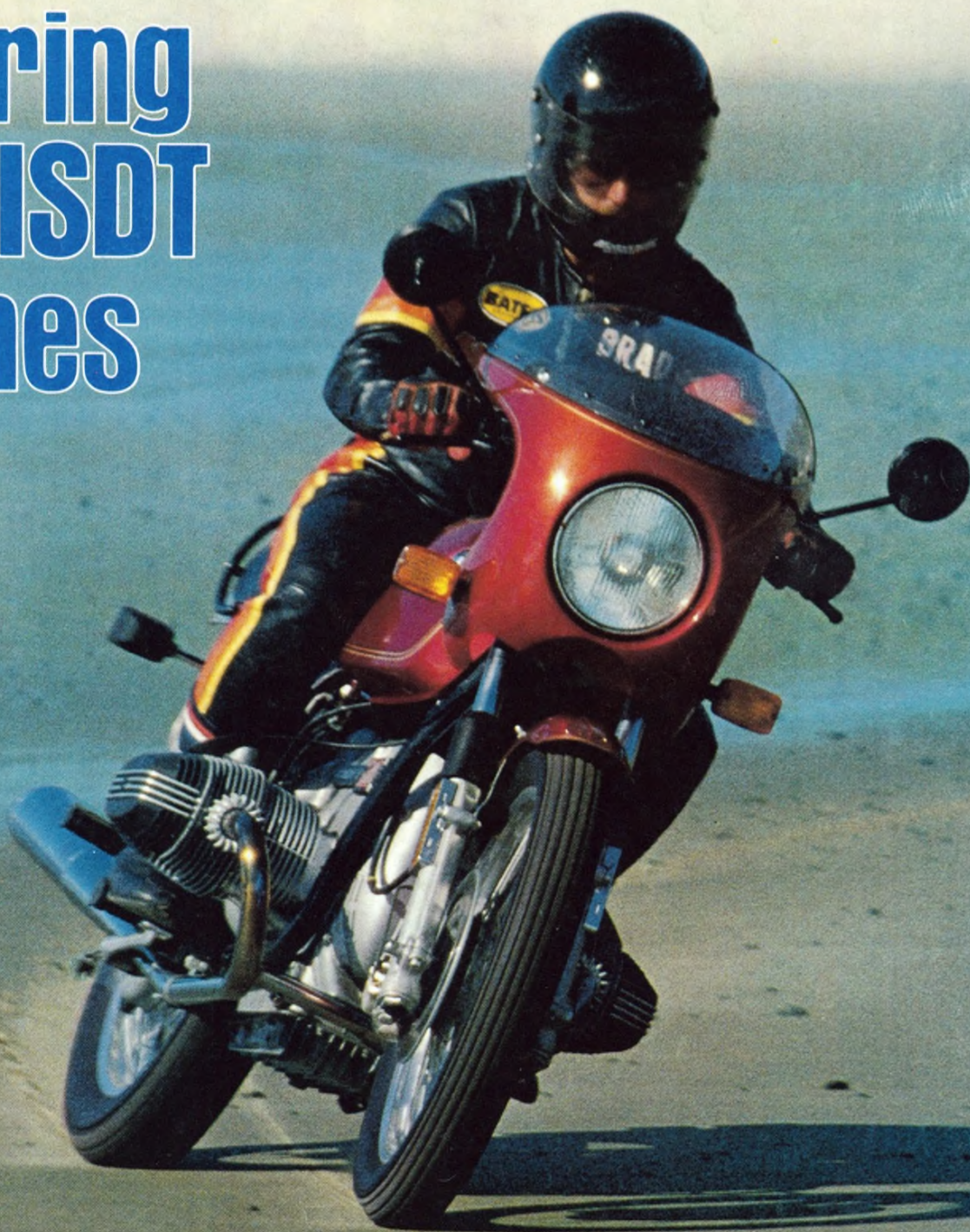
Motorcyclist

NOVEMBER 1977 \$1.25

Comparing 250cc ISDT Machines

Getting Started:
Enduro
Motocross
Road Racing
Touring

Husky's
Shiftless
390MXer



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Motorcyclist

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Magazine

**NOVEMBER
1977**

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TOUR TEST
BMW R100/S



The Pacific Northwest scene from a seat of solid gold.

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MOTORCYCLIST TEST
FIVE ISDT 250s

Some real, some pretenders, but in the end all are fine trail bikes.



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DIRT TEST
HUSKY 390 AUTOMATIC

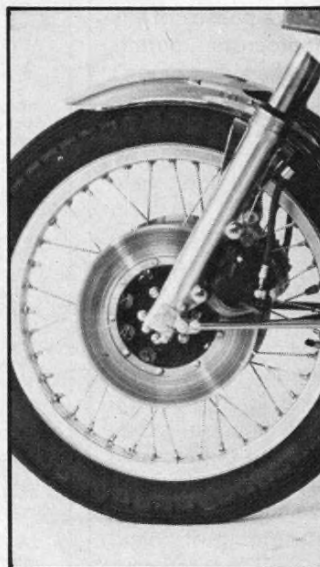


Husky's 360 playbike has become a full-blown 390 GP racer.

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Softer front legs for the CB750 and GL1000.

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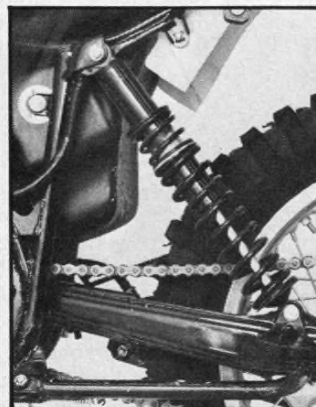
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MOTOCROSS, TOURING



A scientific approach to taking the plunge.

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OF SUSPENSION



PART THREE: How Optimum Rear-End Geometry results in maximum efficiency and travel.

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COVER

Feature Editor Brad Zimmerman gets the BMW a little sideways on Cannon Beach in Oregon. A complete log of his further antics is found in the BMW Tour Test. Photo by Action Oz.