250cc Off-Road Comparison

Honda's MR versus Hodaka's Thunderdog

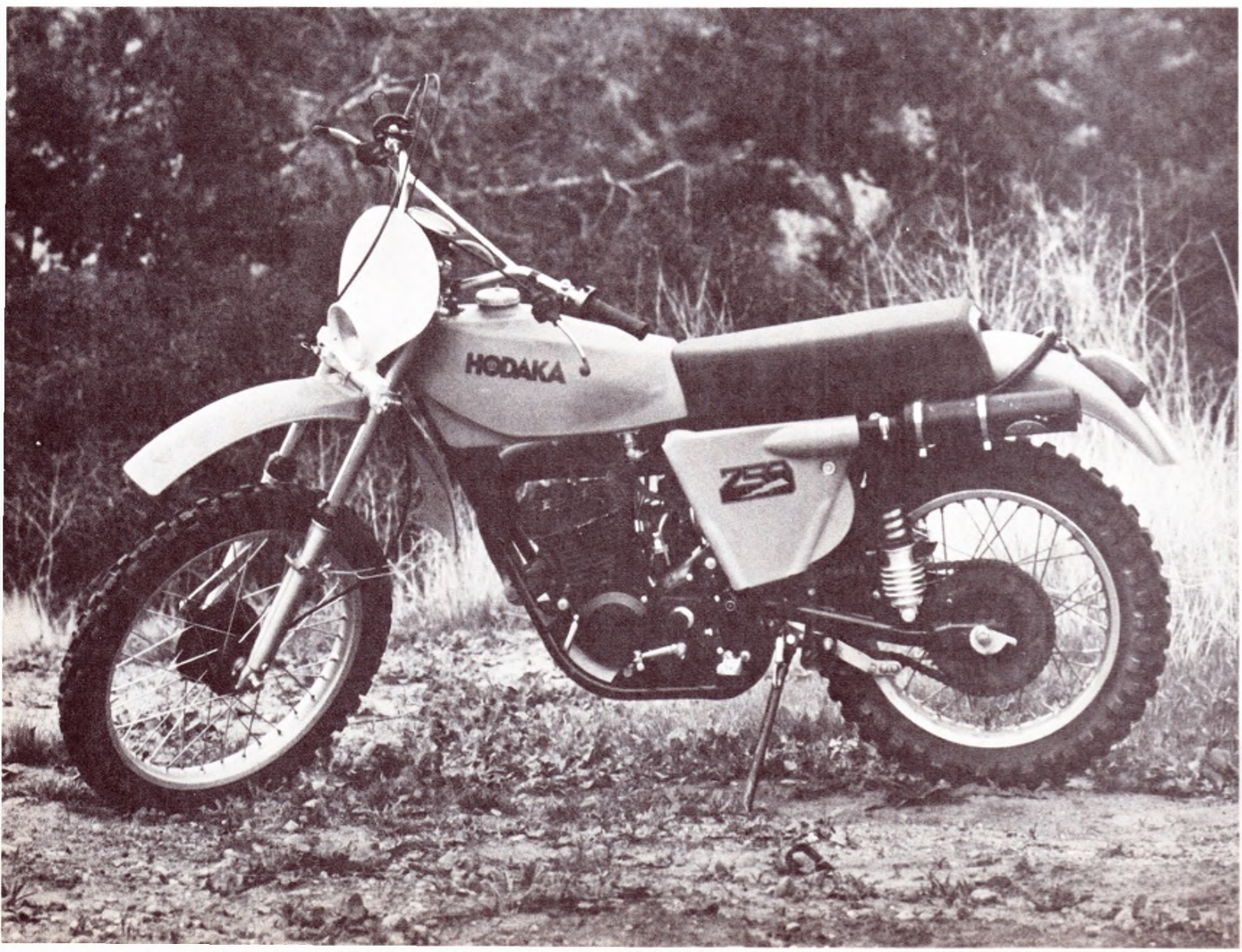
WE KNEW FROM the start that this comparison test would be a dandy. If ever there were two enduro machines whose intent and performance radically overlapped, the Hodaka 250ED and Honda MR250 were the ones. But while both bikes have arrived at virtually the same place at the same time, their heritages are about as parallel as a head-on collision.

The Honda MR250 is a computerized product designed to fit the desire, ability, stature and pocketbook of the most common buyer in the most common city in the most common region of this country. The grips have been calculated to the average hand, the shifter to the mean foot length, the shock springs to the calculated weight of Upjohn Everyone in Our Town, U.S.A. None of this, by any means, is to be held against the Honda. Megabuck technology and its end products have found their way into our hearts time and time again. We take so much care in explaining all of this in order to give a point of reference from which to view the development of the Hodaka 250ED.

CYCLE WORLD COMPARISON TEST

The 250ED was originally labeled the Thunderdog in a Hodaka tradition that began with the Super Rat and graduated through the Dirt Squirt, Combat Wombat and Road Toad. The catchy name and its equally appealing mascot (a Super-Beagle javelining a lightning bolt) have been officially dropped along the way in favor of a more serious approach, but the nickname has irreverently stuck.

The 250ED began life as a motocrosser. Each time Hodaka was ready to unleash it on the public, a quick survey of available competing models indicated that more improvements were called for. The state of the art was progressing



CATEGORY ONE
MANUFACTURER'S SUGGESTED RETAIL PRICE

Hodaka	$1195	2
Honda	1287	1

CATEGORY TWO
WEIGHT W/HALF TANK FUEL

Hodaka	264 lb.	2
Honda	266.5 lb.	2*

*Staff opinion is that a 2.5-lb. or 0.90 percent difference in weight is insufficient to warrant a point difference.

too fast for Hodaka to keep up with it. In the end, the motocrosser idea was dropped and plans to change the machine into a no-foof enduro bike took form. Hundreds of in-the-saddle testing hours brought the machine from its highly-tuned motocross state to its present enduro state. With the release of this machine Hodaka was planning to capture a U.S. market sparsely populated with European machinery that was finicky and expensive. Then, just before introduction, Honda released its MR250. Hodaka could have withheld the 250ED once more. But too much time had been wasted and too many dollars spent. It was now or never.

So it was that these two machines came about. And through our comparison test they met and battled it out like two tomcats in a trash can. We put them through a number of tests. We found out many interesting things. Some were good, some not so good. Here's how it went.

HODAKA 250ED

Hodaka's 250ED is very functional in appearance. Decked out totally in orange—a style that staffers labeled everything from "businesslike" and "frill-less" to "dull" and "monotonous"—the color permeates the plastic tank, side panels and the Preston Petty fenders that come as standard equipment. A white Petty headlight/number plate combination is the only plastic part of a different color on the bike.

As has always been the practice with the folks at Pabatco, a double-cradle frame made from mild steel is used. The swinging arm mounts inside the engine bay, as is common practice, but is secured by pinch bolts at both fulcrum ends *a la* Penton. The swinging arm follows a proper downward slope back to the lower shock mounts, then bends upward until its remainder lies parallel to the ground. This was done in order to accommodate the desired shock absorber length within the confines of the rear-end geometry design.

Kayaba suspension holds up both ends. The forks are of the conventional straight-leg design and deliver 6.75 in. of travel. The aluminum-bodied, finned>

Photography: Fernando Belair, Paul Webb

HODAKA 250ED vs HONDA MR250

CATEGORY THREE
EASY HILLCLIMB
(AVERAGE OF THREE BEST RUNS)

Bob:	Hodaka	Honda
	9.8	10.4
	9.6	10.0
	9.7	10.0
	9.7 avg.	10.13 avg.

Randy:	Hodaka	Honda
	10.4	9.8
	10.2	9.8
	10.4	9.7
	10.33 avg.	9.77 avg.

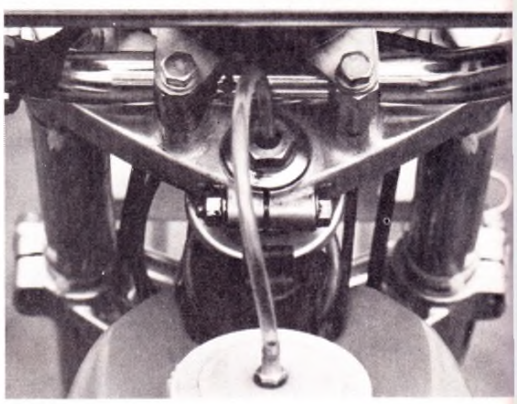
SCORE

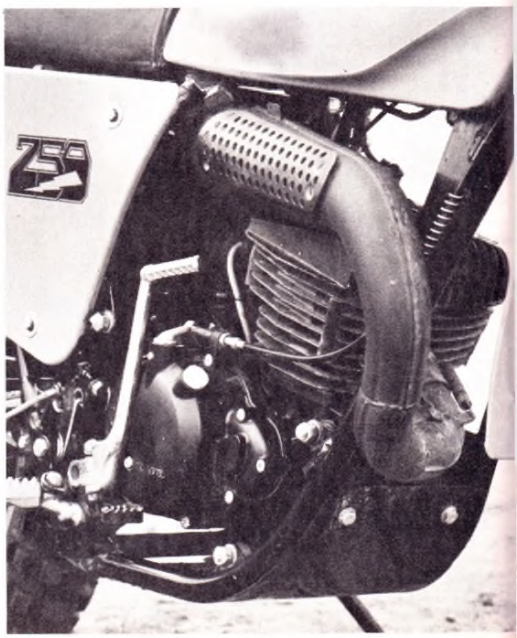
Hodaka **3**
Honda **3**

rear shocks are longish at 15-plus inches (easily accommodated by the aforementioned swinging arm construction) and yield 4.5 in. of travel at the shock, which translates to 6 in. of wheel travel. It is possible to get more travel at the rear axle without any shock modifications since the limiting factor here is the fender against which the tire bottoms. Raise the fender loop and the fender and another .25-.50 in. is available.

Plastic Hodaka gas cap can be easily cross-threaded if care is not taken. Once this happens it leaks profusely. Speedometer is not as accurate as the Honda's.

Thunderdog exhaust pipe passes through the frame and out of the rider's way. Skid plate is a necessary option.





CATEGORY FOUR
STEEP HILLCLIMB
(AVERAGE OF THREE BEST RUNS)

Bob:	Hodaka	Honda
	12.2	11.6
	12.0	11.6
	11.8	11.3
	12.0 avg.	11.5 avg.

Randy:	Hodaka	Honda
	12.6	11.0
	12.6	10.8
	12.4	10.8
	12.53 avg.	10.87 avg.

SCORE

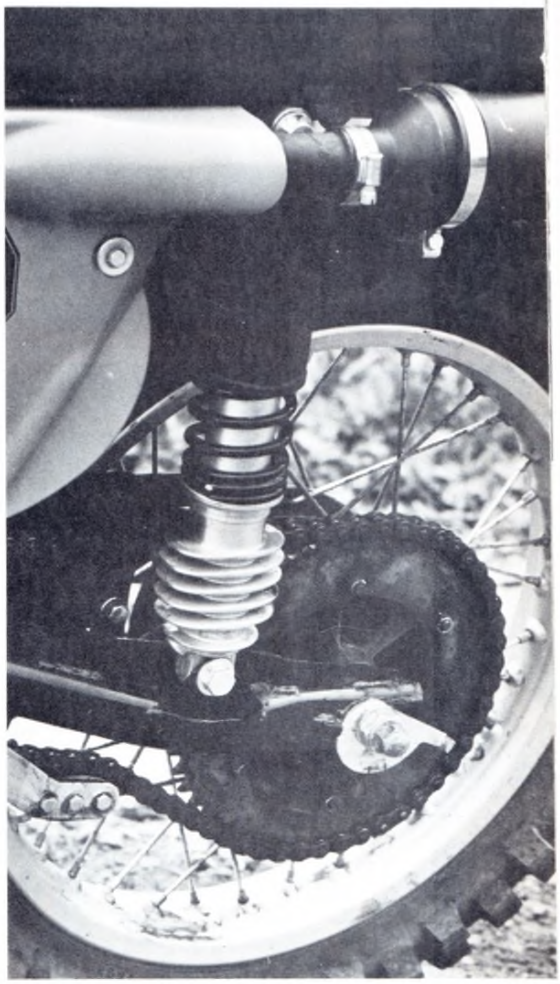
Honda 4
Hodaka 2

Intake in the 246cc engine is piston controlled. Fed by a 36mm Mikuni carburetor and oiled by a Mikuni pump injection system, the Hodaka, like the Honda, is an easy starter and completed our entire test without so much as a spark plug change. Power, sparked by a capacitive discharge ignition system, is transferred to the five-speed transmission via straight-cut primary gears. The left-side-operated transmission runs true to Hodaka form by taking all use and abuse in unhesitating fashion.

Brakes at both ends are strong, although the rear binder has to be judiciously applied in order to avoid unwanted lockups. >

Slim Kayaba forks, a good brake and a strong, light D.I.D. rim accent the front of the orange Hodaka.

Finned, aluminum-bodied 250ED shocks have good damping but too soft a spring. Chain tensioner and mud covers for the shocks are added Hodaka bonuses.



HODAKA 250ED

HODAKA 250ED vs HONDA MR250

HONDA MR250

Elsinore influence on the MR250 is obvious. Only the fuel tank, lights and huge muffler externally disguise last year's CR250 motocrosser, but there are many internal differences. The engine housed in the single-downtube frame is more like that of Honda's MT dual-purpose 250 than like the motocrosser's. Mild porting, moderate flywheel and widely-spaced transmission ratios tell the story. Although the exhaust pipe is very CR in style, a shoe-box size muffler keeps the exhaust note remarkably civil. Attached to the rear frame rail opposite the muffler is the container for the minimal toolkit. Within the magneto ignition is a lighting coil to power the small headlight and token taillight. A handlebar-mounted switch connects the lights to their power source.

Suspension damping fore and aft is identical to the '75 CR's, as are the rear springs. Lighter (21/27-lb.) progressive fork springs replace the straight-wound 27-lb. springs found on the CR. Fork travel is identical to the Hodaka's, but at 5.75 in., rear axle movement is a tad shy of the 250ED's.

Externally the MR250 Honda engine is a carbon copy of the CR motocrosser's.

With its larger 3.4-gal. tank, the Honda has a range of better than 90 miles when used with a moderate throttle.

Small box at right rear of machine contains sparse toolkit. Large muffler stayed put on the Honda throughout the test. Shocks should be replaced for serious competition.

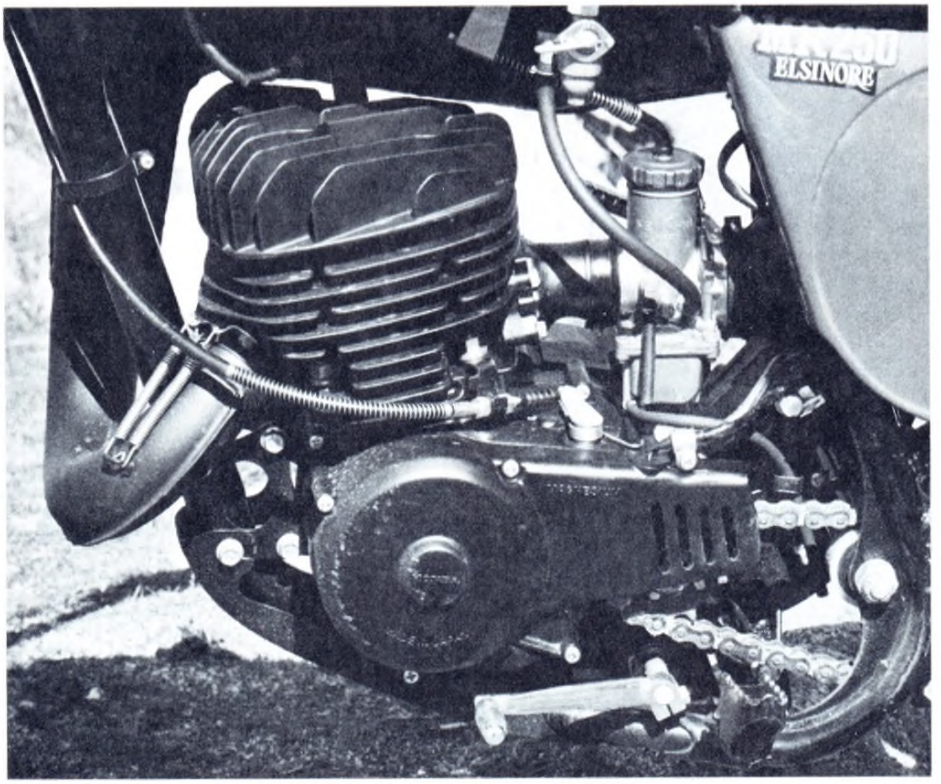
CATEGORY FIVE
ACCELERATION TEST
(AVERAGE OF THREE BEST RUNS)

Bob:	Hodaka	Honda
	9.6	9.6
	9.4	9.2
	9.6	9.4
	9.53 avg.	9.4 avg.

Randy:	Hodaka	Honda
	9.6	9.6
	9.4	9.4
	9.4	9.4
	9.47 avg.	9.47 avg.

SCORE

Honda 4
Hodaka 3



CATEGORY SIX
TIMED ENDURO COURSE
(AVERAGE OF TWO BEST RUNS)

Bob:	Hodaka	Honda
	7:22.6	7:28.8
	7:15.4	7:24.1
	7:19.0 avg.	7:26.45 avg.

Randy:	Hodaka	Honda
	6:47.7	6:50.8
	6:48.8	6:45.8
	6:48.25 avg.*	6:48.3 avg.

*Staff opinion is that a difference of .05 sec. over a 7-min. course is insufficient to warrant the awarding of a winning point.

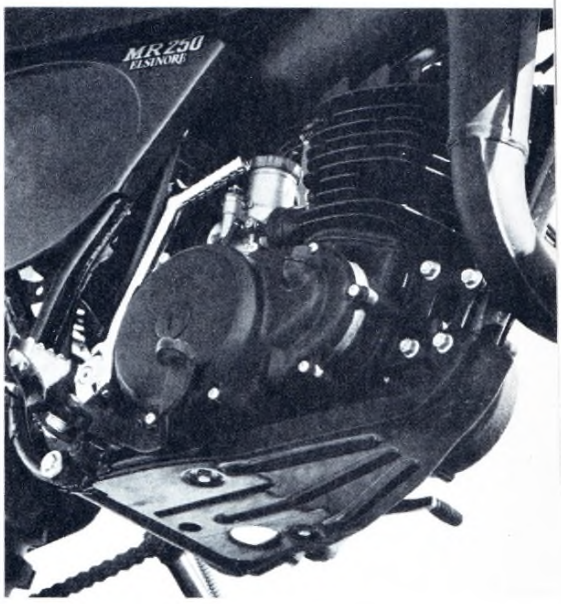
SCORE

Hodaka **12**
Honda **9**

White plastic fenders adorn both ends, while a bulbous 3.4-gal. red tank (that's a full gallon more than the Hodaka's) occupies most of the mid-ship space. Outstanding brakes on the MR come laced to D.I.D. rims identical to those on the Hodie. Bridgestone provides the 3.00-21 and 4.00-18 tires for the MR. >

Headlights were surprisingly powerful on both machines. The MR's has a protective grill in front of it.

Token MR skid plate is good for protecting the paint on the lower frame rails and not much more.



HONDA MR250

HODAKA 250ED vs HONDA MR250

SCORING

Keeping in mind that we were testing competitive enduro machines, we gave our timed enduro runs three times the points awarded for hillclimb and acceleration test performances. For the latter two, and in all other tests, points were awarded on a 2-for-first, 1-for-second basis. Then we tested for waterproofing, speedometer accuracy, ease of wheel removal (for on-the-trail repairs), and awarded bonus points for exceptional features, penalty points for features lacking, and tallies for weight, fuel tank size and suggested retail price. Once compiled, these numbers were tabulated into the overall results.

WHAT HAPPENED, HOW IT HAPPENED, AND WHY

When we first totaled up the results, we thought that we had erred in our figures, but a careful recheck showed us that we weren't wrong. The Hodaka 250ED and the Honda MR250 came out dead even, a first in CW comparison tests.

Our initial test on the mild hillclimb was an indicator of the way things would eventually turn out. The Hodaka was quicker with one rider aboard, the Honda quicker with the other. On to the steep hillclimb. Here the Hodaka suffered from excessively soft rear springs. The 77-lb. springs on the 250ED let the rear wheel bottom against the fender on the rougher hillclimb, slowing the machine down and letting the MR250 scoot by for a double win. Unfortunately for the Hodaka, the Kayaba shocks do not possess spring preload adjustments that could have been used to stiffen the rear end to a more workable setting.

Our acceleration test took place over a flat dirt straight approximately 150 yards in length. The Honda and Hodaka tied with one rider aboard. The other rider was quicker aboard the MR and attributed the difference to a grabby clutch on the Hodaka that prevented smooth second-gear starts.

The most informative of all the tests was the timed enduro run. Here we used a specially designed 3.4-mi. section of Saddleback Park. Included in our course were a short rock gully, first-gear uphills, downhills, some fifth-gear fireroads and a little of everything in between the extremes.

As proven by our acceleration test,

CATEGORY SEVEN
SPEEDOMETER ACCURACY
@ 24 MPH

Honda	24 mph	2
Hodaka	22	1

CATEGORY EIGHT
FUEL TANK CAPACITY

Honda	3.4 gal.	2
Hodaka	2.4	1

CATEGORY NINE
EASE OF WHEEL REMOVAL
(FOR ON-THE-TRAIL REPAIRS)

Front:	Hodaka	2
	Honda	1
Rear:	Hodaka	2
	Honda	1

the machines are nearly identical on flat ground. But get them on inclines, where a large third-to-fourth-gear gap on the MR becomes exaggerated, and its mildly-tuned motor doesn't pull as easily. Gear spacing on the Hodaka, meanwhile, is ideal, and the 250ED motors right along. The Hodaka had a jarring ride due to the shocks constantly bottoming (Pabatco says that future 250 models will have stiffer rear springs), while the Honda's smoother ride was punctuated by high-speed wallowing set in motion by poorly dampened rear shocks. In corners the MR cuts tight lines with great precision. Considering the extra weight of lights and additional fuel, the MR steers very much like the CR in our "250 Motocross Comparison Test" two months ago. On the other hand, the Hodaka had to be muscled through most corners, even though it has nearly identical trail and two degrees less rake than the Honda. Both rear brakes chattered, but the Honda's was by far the worst. Again, improper shock damping is the culprit.

The riders did not ride the timed enduro course as though it were a one-lap motocross, but rather as though they were slightly behind schedule in an enduro and were trying to make up some time. That is, they rode as quickly as possible without risking a crash. Both riders came in with the same complaints. "The Hodaka doesn't want to turn," and "If the MR would pull fourth, I could really fly." When all of the lap times had been taken, the best two for each rider on each machine>

HODAKA 250ED

SPECIFICATIONS

List price	$1195
Suspension, front	telescopic fork
Suspension, rear	swinging arm
Tire, front	3.25-21
Tire, rear	4.60-18
Engine, type	piston-port, two-stroke Single
Bore x stroke, in., mm	2.76 x 2.50; 70 x 64
Piston displacement, cu. in., cc	15.0; 246
Compression ratio	6.4:1
Claimed bhp @ rpm	N.A.
Claimed torque @ rpm lb.-ft.	N.A.
Piston speed @ rpm ft./min.	2916 @ 7000
Carburetion	36mm Mikuni
Ignition	capacitor discharge
Oil system	oil-injection
Oil capacity, pt.	1.0
Fuel capacity, U.S. gal.	2.4
Recommended fuel	premium
Starting system	primary kick, folding crank
Air filtration	oil-wetted foam

POWER TRANSMISSION

Clutch	wet, multi-disc
Primary drive	straight-cut gear
Final drive	520 single-row chain
Gear ratios, overall:1	
5th	7.79
4th	9.58
3rd	12.54
2nd	18.31
1st	28.82

DIMENSIONS

Wheelbase, in.	56.5
Seat height, in.	33.75
Seat width, in.	6.75
Handlebar width, in.	34.5
Footpeg height, in.	11.75
Ground clearance, in.	8.5
Front fork rake angle, degrees	30
Trail, in.	5.68
Curb weight (w/half-tank fuel), lb.	264
Weight bias, front/rear, percent	43.6/56.4

HONDA MR250

SPECIFICATIONS

List price	$1287
Suspension, front	telescopic fork
Suspension, rear	swinging arm
Tire, front	3.00-21
Tire, rear	4.00-18
Engine, type	piston-port, two-stroke Single
Bore x stroke, in., mm	2.76 x 2.54; 70 x 64.4
Piston displacement, cu. in., cc	15.1; 248
Compression ratio	6.9:1
Claimed bhp @ rpm	N.A.
Claimed torque @ rpm lb.-ft.	N.A.
Piston speed @ rpm ft./min.	2963 @ 7000
Carburetion	34mm Keihin
Ignition	flywheel magneto
Oil system	oil mist, oil in fuel
Oil capacity, pt.	2.2
Fuel capacity, U.S. gal.	3.4
Recommended fuel	premium
Starting system	primary kick, folding crank
Air filtration	oil-wetted foam

POWER TRANSMISSION

Clutch	wet, multi-disc
Primary drive	helical gear
Final drive	520 single-row chain
Gear ratios, overall:1	
5th	8.46
4th	10.94
3rd	14.73
2nd	21.08
1st	29.84

DIMENSIONS

Wheelbase, in.	56.75
Seat height, in.	33.75
Seat width, in.	7.0
Handlebar width, in.	32.75
Footpeg height, in.	12.5
Ground clearance, in.	9.0
Front fork rake angle, degrees	32
Trail, in.	5.8
Curb weight (w/half-tank fuel), lb.	266.5
Weight bias, front/rear, percent	43.7/56.3

PARTS PRICING

Hodaka 250ED

Warranty	90 days
Piston	$25.88
(1) Set Rings	9.14
Rear Shocks (each)	73.06
Wheel Rims (bare each)	49.30
Drive Chain (standard)	22.73
Front Fender	8.00
Rear Fender	8.50
Clutch & Brake Levers (each)	2.28
Clutch Cable	4.24
Throttle Cable	4.45
Brake Cable	4.97
Ignition Parts	
Coil	22.74
Magneto Assembly	N.A.
Sealed Unit Type	37.36
Air Filter Element	5.05
Rear Tire (standard)	36.23
Headlight Bulb or Sealed Beam	N.A.
Taillight Lens	6.32

PARTS PRICING

Honda MR250

Warranty	3 mo.
Piston	$14.80
(1) Set Rings	7.60
Rear Shocks (each)	45.50
Wheel Rims (bare each)	70.70
Drive Chain (standard)	37.50
Front Fender	20.40
Rear Fender	26.40
Clutch & Brake Levers (each)	2.91
Clutch Cable	5.00
Throttle Cable	5.80
Brake Cables	5.40
Ignition Parts	
Coil	13.60
Points	2.93
Magneto Assembly	72.00
Air Filter Element	7.60
Rear Tire (standard)	30.50
Headlight Bulb or Sealed Beam	1.30
Taillight Lens	1.67

HODAKA 250ED vs HONDA MR250

were selected and an average calculated. The Hodaka was faster with one rider, while the bikes virtually tied with the other.

NOTES

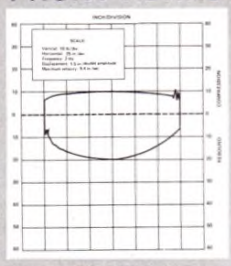
Both machines were easy to light up even when cold, but the Honda's kickstarter lets your foot slide off at the end of the arc and quickly folds up. That makes multi-kick starting (such as after a spill) a real hassle. The Hodaka's kickstarter fell off from vibration. In fact, a number of the nuts and bolts came loose on the 250ED despite constant retightening and silicone sealing. Both of our test bikes had proper enduro speedos, although only the Honda's is standard equipment. The Hodaka also comes minus a skid plate. The Honda has one, but it is so ridiculously minimal that we didn't even consider it.

The Honda requires pre-mix. The Hodaka has oil-injection, but when riding hard you must refill the oil tank each time you gas up. There's room under the fuel tank (where the ED's injection tank is located), for a larger oil container. Next time around, Hodaka tells us, they'll take advantage of that room and incorporate a bigger tank.

HODAKA

SUSPENSION DYNO TEST

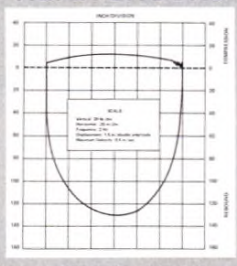
FRONT FORKS



Description: Kayaba fork, HD-315 oil
Fork travel, in.: 6.75
Engagement, in.: 4.75
Spring rate, lb./in.: 20
Compression damping force, lb.: 10
Rebound damping force, lb.: 20
Static seal friction, lb.: 10

Remarks: This is a reasonable fork for trail riding or enduros. Spring rate is well suited to machine weight, compression damping is good, and rebound is close (rebound would be better if it were 5 lb. higher). Travel can be safely extended 1 in. We would recommend this for serious competition.

REAR SHOCKS



Description: Kayaba shock, cooling fins, rebuildable
Shock travel, in.: 4.5
Wheel travel, in.: 6.0
Spring rate, lb./in.: 77
Compression damping force, lb.: 12
Rebound damping force, lb.: 130

Remarks: This Kayaba shock was first distributed by Red Wing and has been used on both dirt and street machines. Because it only has 12 lb. of compression damping, it works best when located relatively close to the rear axle. On the Hodaka, a little more compression damping would help prevent bottoming when square holes are encountered. The Hodaka really needs a 100-lb. spring. If such a spring is substituted for the stock one, rebound damping is ideal. The shocks are rebuildable, which is a nice touch.

Tests performed at Number One Products

The shift lever on the MR bent several times. The Hodaka comes with a folding shifter. Both rear brake pedals are soft steel and bend without much resistance. Spring-loaded footpegs are found on both machines. The Honda's are steel, the Hodaka's cast alloy. The MR has a chain guide near the rear sprocket. The Hodaka uses a tensioner, which we consider superior. No one on the staff liked the Hodaka's handlebars or grips. The Honda bars were fine and the grips acceptable. Still, we'd change both of them for competition.

At 3.25 and 4.60-18, the Nitto tires on the Hodie are decidedly "California." Riders frequenting muddy events will find that a 3.00 front and a 4.00 rear tire work much better. In such events they'll appreciate the grit covers found on the ED's rear shocks. They not only save the seals, but make clean-up much easier.

Both bikes are well waterproofed. In a Baja excursion, each survived plunges through three-foot deep estuaries along the coast, and heavy dousings with our steam cleaner prevented neither from immediate starts after bathing.

At enduro speeds, fuel range on the Hodaka is just over 60 miles. The Honda can exceed that before going on reserve (a feature of which the Hodaka cannot boast) and will go more than 90 miles before running dry. Both machines are quieted by means of large silencers.

CATEGORY TEN BONUS POINTS

HODAKA—3
Mud covers on shock absorbers . . 1
Folding shift lever 1
Chain tensioner 1

HONDA—1
Reserve position for fuel tank . . . 1

CATEGORY ELEVEN PENALTY POINTS

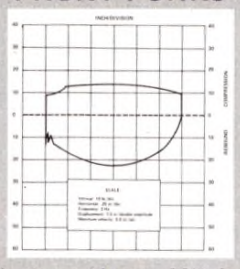
Hodaka—4
No speedometer 1
No way to turn headlight off with a switch 1
No toolkit 1
No shock spring preload adjustment 1

Honda—1
Kickstarter hard to use for successive kicks 1

HONDA

SUSPENSION DYNO TEST

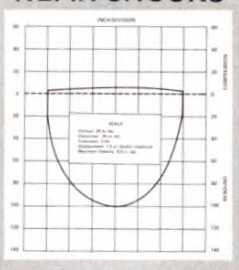
FRONT FORKS



Description: Honda MR fork, HD-315 oil
Fork travel, in.: 6.75
Engagement, in.: 3.25
Spring rate, lb./in.: 21/27
Compression damping force, lb.: 14
Rebound damping force, lb.: 22
Static seal friction, lb.: 10

Remarks: MR forks have slightly too much compression damping, which will make your forearms tired. Rebound damping is acceptable. A lighter oil such as ATF would bring the compression damping down, but then the forks will top. We found that just enough oil to cover the damper rod helps fork action. This works out to an ounce or so less than stock. Travel in these forks cannot be increased safely.

REAR SHOCKS



Description: Honda shock, stock oil
Shock travel, in.: 3.5
Wheel travel, in.: 5.4
Spring rate, lb./in.: 103
Compression damping force, lb.: 7
Rebound damping force, lb.: 100

Remarks: Compression damping is slightly light, so heavier riders may experience rear-end bottoming on the MR. Rebound damping is marginally too light for the 100-lb. spring fitted. Pitching and/or loss of rear-wheel traction in bumpy turns will result. A more viscous oil than standard should help both compression and rebound damping. Use of such oil is possible since the shocks are rebuildable.

Tests performed at Number One Products

Despite their mass, both muffler units stayed put throughout our tests.

SUMMARY

On the basis of the points accumulated, the test must be declared a draw. Neither machine performed better than the other on an overall basis. That is our *objective* conclusion. The *subjective* preferences of staff members were for the Honda. Unanimously. It needs suspension work and a little porting to improve the torque to pull the gear spacing more easily. The Hodaka also needs suspension work, though not as much at the rear. But it needs something to make it steer: perhaps forks with different geometry, or a steering head alteration, or maybe rider repositioning via handlebar and footpeg relocation. In any case, it's more work than the Honda requires, and that's what made our minds up for us.

CATEGORY TWELVE OVERALL RESULTS

Hodaka	29
Honda	29