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FREE BIKES
SEE INSIDE

YAMAHA YZ125E: 11 GRAND GASSER

DIRT BIKE

APRIL 1978 • \$1.00 UK60p

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**RED ROOSTER
HONDA CR250R**

TESTS:

- **HERCULES 250 ISDT**
- **SUZUKI RM80C**
- **YAMAHA SR500**

**CHUCK SUN
ON THE
RISE**



TOMMY CROFT



TRAINING WITH BRAD LACKEY
FIX FLATS WITH LESS FUSS
KYB PRO-LINE SUSPENSION

DIRT BIKE

VOLUME EIGHT NUMBER FOUR
APRIL 1978

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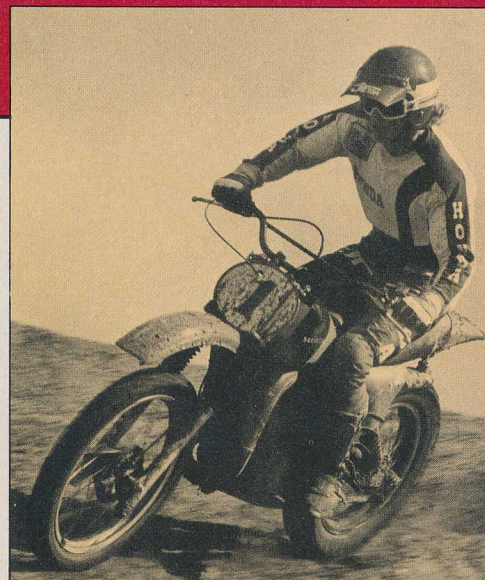
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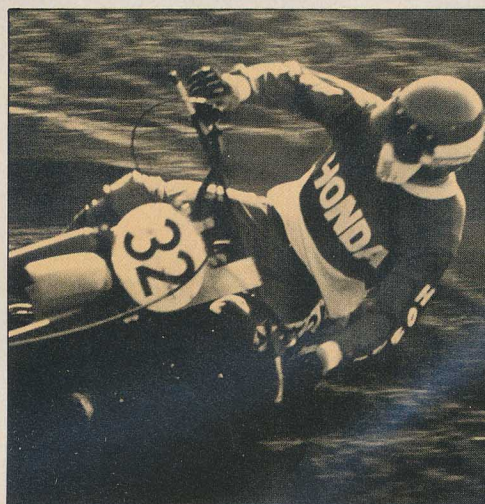
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ON THE COVER:
Tommy Croft and the Big Red Machine
that Cincinnati didn't build.
Photo by Len Weed.

NEXT ISSUE ON SALE APRIL 20

Prerequisite: two semesters of basic trail riding, with emphasis on WFO

By the Staff of DIRT BIKE

□ There are enduro bikes, and then there are qualifiers. Being one need not always rule out being the other, but in some cases the distinction is very apparent. The basic difference is that in reliability trials there is a more pronounced emphasis on speed. As Hercules Six Days rider (and 1977 175cc Reliability Trials Champion) Drew Smith notes, "There's not a lot of tight terrain in ISDT-type riding." Therefore, bikes that are built to succeed in that form of competition are logically geared in concept toward speed.

The package Hercules offers is of this ilk. Like KTM and Can-Am, they have avoided a direct line of competition with Japan by aiming their bike at the serious competitor. It's not a bike that is meant to be ridden slow and easy. It sidesteps the playbike/weekend trail rider crowd that Suzuki and Yamaha surely included in their sights. Like a competitive MX bike, the Hercules is a machine that demands concentration and a rider who can stay on top of the situation. But, it's also a bike that rewards this rider with competitive performance and quality.

Off the trail

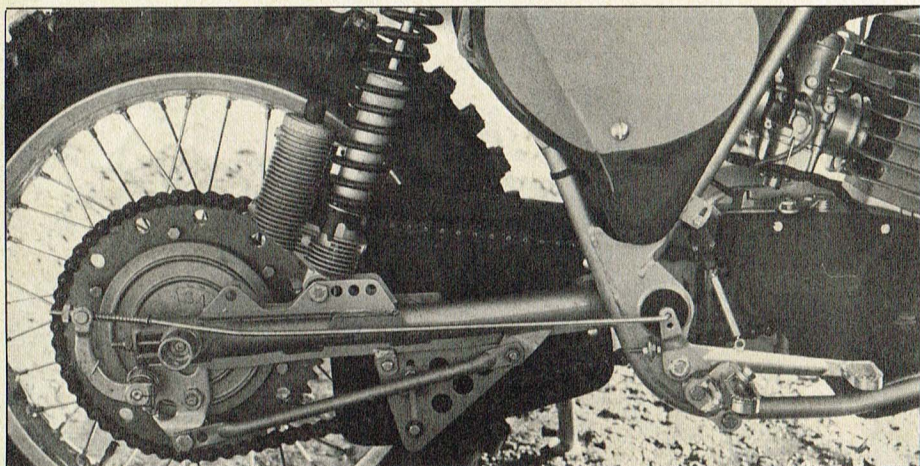
On their road to building a winning qualifier bike Hercules includes an impressive list of components which includes Ceriani forks, gas Marzocchi shocks, Metzeler tires, shoulderless Akront rims, Falk fenders, VDO speedometer and Magura controls.

Holding these items together is a solidly built chrome moly frame and swingarm. Problems in past years with vibration, which sometimes resulted in broken rear motor mounts, have been dealt with by repositioning these mounts. They now sit directly over the swingarm. Less gusseting has been

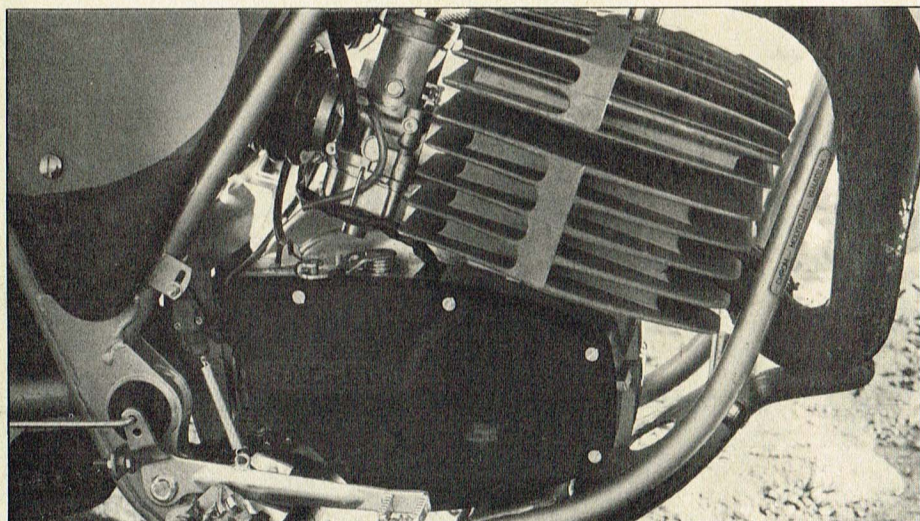


HERCULES GS250

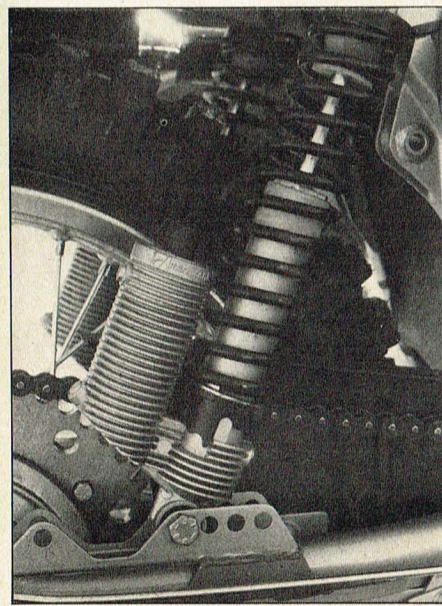
HERCULES GS250



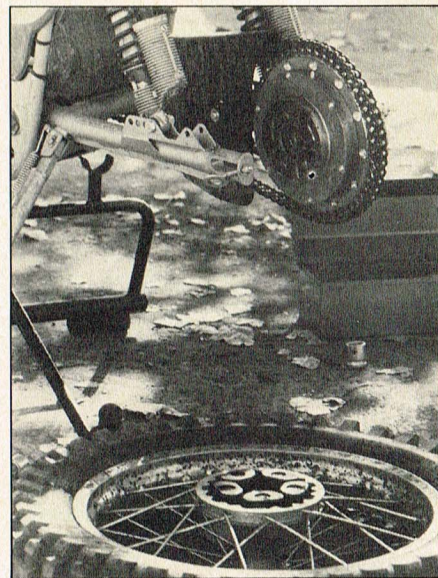
The countershaft sprocket is mounted close to the swingarm pivot, keeping chain slack to a minimum. A guide is all that's needed.



The Sachs powerplant puts out serious, if somewhat peaky power, designed for the speed-minded cross-country rider.



The gas Marzocchi shocks can be mounted as shown or inverted in any of 15 possible positions.



The Hercules features quick-change wheels both front and rear, allowing tire problems to be dealt with much faster.

used on the new frame to save some weight.

The solidity of the frame and consequential lack of flex is a major factor in what Drew Smith calls the high point of the bike, its high-speed stability.

The Sachs motor puts out more than ample power. The GS250 is an interesting blend between a motocross bike and a grunt-type enduro machine. It's peaky by most woods-bike standards, but retains just enough bottom end so that the average rider doesn't have to fight it in tight sections.

The seven-speed transmission, too, allows versatility in what the bike will comfortably handle. Because it's imperative to stay on the somewhat narrow powerband, a lot of shifting is necessary to handle all the variations in normal trail riding. But such is the price for a bike that will leave most others in the dust on a stretch of fireroad.

As opposed to the infamous image of the old Sachs tranny, the GS' shifts are clean and sure. The Hercules is built by Sachs, the largest motorcycle manufacturer in Germany.

The suspension works well, but the rear could use a little more travel. The bike isn't tall by today's standards, and the swingarm sits almost horizontal to the ground. This, in addition to the 3½-inch gap between the tire and fender with shocks compressed, indicates there's room for more travel back there.

Three mounting holes on top and five on the swingarm allow the rear wheel travel to be varied from 5¾ inches in the laid-down position to 7¼ inches in the forward-mounted position.

In keeping with the general philosophy of the bike, both the shocks and the Ceriani forks feel best at higher speeds.

The other side of being a good qualifier bike is reliability and ease of maintenance. The Hercules offers both. The chrome moly swingarm, for instance, uses caged tapered roller bearings for maximum life. Both the front and rear hubs are conical quick-change units. You can remove the rear wheel while leaving the brake assembly and sprocket sitting on the swingarm, thus eliminating time-consuming hassles in the operation.

The countershaft is positioned close to the swingarm pivot, minimizing the amount of chain slack necessary, and also eliminating the need for a tensioner.

Abundant finning is used on the cylinder and head, and although it creates more engine noise, it also allows faster heat dissipation.

The brakes are great units. Especially

the front. Both are very progressive and solid-feeling. They stop the bike quickly, yet contain no surprise lock-ups. One tester mentioned that on his dream bike, he'd be sure to include Hercules brakes. The only problem is a bit of hop in the rear, but extending the stay arm another three inches to reach the frame would make it a full-floater and take care of that problem.

The gas tank is a 2.9-gallon steel unit, which is comfortably slim. Threaded bosses are included on the top for attaching a tool bag. The seat joins well with the tank, but had a tendency when new to slide you too far forward.

The Hercules has limited steering lock, which is quite noticeable when pushing it around but doesn't seem to adversely affect the rideability. Because the machine doesn't have real grunt capabilities, you probably won't find yourself in the situation where you need more steering lock. Some riders prefer such an arrangement, claiming it helps avoid high-speed errors. The Herc offers primary kick, a horizontally split case, and magnesium triple clamps and sidecases.

The footpegs are serrated but not sharp enough to hold a boot when wet or muddy. Look for the rubber pads on the kickstarter and shifter to go quickly. In fact, look for the shifter itself to go quickly. It sticks out a bit too far and gets caught easily by rocks. A folding shift lever would be a better alternative.

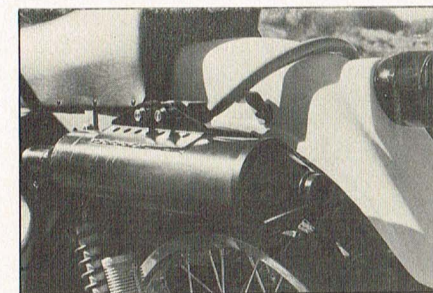
The 36mm Bing carb is the dual-slide variety, which incorporates a handlebar-mounted enriching lever to operate the second slide. This comes in handy during long, straight-out runs when seizing is a worry. A flick of the lever while cold-starting, in addition to tickling the carb, always produced fire on the first or second kick. One-kick starts are the rule when warm, as long as the engine hasn't been flooded by leaving the gas on.

On the trail

General riding impressions, both pros and cons, were reinforced by each of our test riders. Initially it takes a bit of adapting to adjust to the unique feel of the Hercules. But once acquainted, the bike becomes quite comfortable.

Once again, stability was acknowledged as a major attribute, whether it be boogieing down a fireroad or going over a jump. Cornering is good, but not quite up to the precision of a Maico or KTM.

A couple of gripes centered around a lack of ground clearance, which measures out to be 10.5 inches, and lack of flywheel, which makes it easy to kill the engine.



The Herc's pipe is reasonably quiet, but contains no spark arrester. Plastic fenders are by Falk.



The front fender on our test bike was mounted back a little too far, and rubbed on the exhaust pipe.



HERCULES GS250

PRICE: \$1698
ENGINE: Two-stroke single, air-cooled
DISPLACEMENT: 245cc
BORE & STROKE: 71mm x 61mm
COMPRESSION RATIO: 11.5:1
CARBURETOR: Bing 54/36/1101
STANDARD JETTING: Main jet—155; needle jet—3.14; jet needle—4; needle position—11; idling jet—55; air jet screw—one turn out
CLUTCH: Wet, multi-disc
PRIMARY DRIVE RATIO: 1:3.05
TRANSMISSION RATIOS:
 1) 3.17
 2) 2.18
 3) 1.64
 4) 1.29
 5) 1.11
 6) 0.966
 7) 0.834
FINAL DRIVE: 530 chain
FINAL DRIVE RATIO: 13/51
AIR FILTER: Oiled foam
LUBRICATION: Pre-mix
RECOMMENDED FUEL: Premium
FUEL TANK CAPACITY: 2.9 gallons
FRAME: Chrome moly

SUSPENSION:
 Front: Ceriani forks; 8¼-inch travel
 Rear: Marzocchi gas shocks; 5¼ — 7¼-inch travel
IGNITION: Pointless
RIMS:
 Front: Akront LM-21-inch
 Rear: Akront LM-18-inch
TIRES:
 Front: Metzeler; 3.00x21
 Rear: Metzeler; 4.50x18
DIMENSIONS:
 Wheelbase: 55.1 inches
 Ground clearance: 10.2 inches
 Seat height: 35.4 inches
 Weight: 257 pounds ready for gas
 Brakes: Front & Rear: Sachs drum; 6.28-inch diameter
 Instruments: VDO speedometer
 Silencer: Yes
 Spark Arrester: None
 Warranty: None
DISTRIBUTOR:
 Sachs Motors Corp.
 909 Crocker Road
 Westlake, Ohio 44145

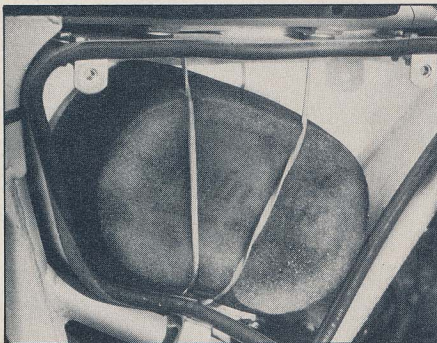
HERCULES GS250

Inasmuch as the Herc is intended for the serious rider, comments by average-caliber riders centered around its peakiness. Some felt it should have smoother power and more low end. They had trouble dealing with it on tight, rocky hills, where once you've fallen off the powerband it's hard to get back under way without spinning the rear wheel.

Excessive vibration is also one of the problems with trying to go slow. The



The VDO speedo and the Magura levers, throttle and grips are indicative of the first-class components the Herc sports.



Air is taken in under the seat and directed through this Twin Air filter. The rubber bands are only needed while the side cover is off.

bike just feels much happier wide open.

Speed is what the Hercules yearns for. It will put up with sections of tight trail that have to be transversed, but it's really just waiting for another fireroad to be let loose on. "It's a jet," was one of our test riders' first words following his initial ride. "The power fools you. It'll keep up with any fast MX bike."

For the serious, above-average rider, the Hercules is top-quality stuff. It's built to withstand the rigors of Six Days riding, which demands not only strong power and good handling, but also solid reliability. It's pitted against a class of top-notch machines, and one edge it has is its \$1698 price tag. If your business in the woods is casual trail riding, you'll probably want to look elsewhere. Otherwise, the Herc definitely demands your attention. ■

AND NOW A WORD FROM THE TEAM . . .

□ The ISDT Commemorative decal on the tank of the GS250 says it all. The Hercules was born and bred with one vision in mind: Six Days competition. Realizing that, it seemed appropriate to elicit some impressions from the three members of last year's Hercules ISDT team.

That team, which was formed two years ago, included Drew Smith, Gold Medal winner in Austria and '77 National 175cc Reliability Trials Champion; Mike Rosso, Gold Medal winner in Austria, Silver Medal winner in Czechoslovakia and '77 National 125cc Reliability Trials Champion; and former National Enduro Champion Ron Bohn, who rode a Hercules in the '76 Qualifiers and in the '77 Six Days.

The quality that each rider initially mentioned when asked about the Hercules was its reliability. Both Mike and Ron called it "the most reliable bike I've ever ridden."

Ron: "We rode seven Qualifiers and never had to do anything to the engines. The Hercules' geometry is good for cross-country-type riding. It steers well, flies and lands straight and is smooth in turns. My old Husky could change direction quicker, but then the rider had to be smooth."

It was admitted that the Herc is a little heavier than its competition, but in normal trail riding the extra weight isn't noticeable. Mike noted, though, that it should be lighter for special tests.

Comments on the power, too, were generally in agreement.

Drew: "The power on the 250 is perfect. It's got hard motor power, and there was never a time when I needed more torque."

Mike: "I had no problems with the power. I try to use the clutch as much as I can, but a lot of times I don't, and I've never had any transmission trouble. The secret to making it work for two days, or whatever, is to ride in the top three-quarters of each gear, so you always have a little in reserve. Save the motocrossing for the special tests."

Ron: "It's the fastest 250 I've ever ridden. It likes to be revved, but it's not as peaky as a KTM. It has a very strong mid-range. It likes wide-open-type events, like reliability trials, but can be a handful in mud."

For rear suspension, all three prefer Works Performance gas shocks to the stock Marzocchis. Ron used special hand-built Marzocchis in Czechoslovakia, where the resultant lower height was more appealing, and where he didn't need as much travel. But he would pick Works for this country. "They're more reliable, give a little more travel, and work better at moderate speeds."

They use a 14½-inch shock, and mount it in the second hole back on the swingarm and in the middle mount on the frame. This is where the most travel is obtained.

"The front swingarm mount shouldn't be used," Ron adds.

As for the stock Ceriani forks: "They're real good. You can't improve upon them," Drew states. "They're the best of any bike," says Ron. Bel-Ray LT-100 or LT-200 shock oil is recommended for the forks.

Changes? Ron would like to see the frame lighter and the footpegs mounted higher. Mike complained of the footpegs too, in particular their slipperiness, and said they reworked them into the style of the old Husky stirrup design. The brake pedal was strengthened also, by cutting off the rounded part, and bending and welding the front piece back to form a triangle with the back piece. Mike also cut off about 5mm from each steering lock to enlarge the steering angle.

At the ISDT, Preston Petty lights were used in place of the stock units. "The stock Hella headlight is a joke," says Ron. "The new bikes will be coming with a Falk headlight/number plate which is much better." Also, the new swingarm will only have three shock mounting holes instead of five.

One last thing Mike adds, "Ny-locks (nuts) are needed." Enough.

In a comparison with a Penton, Ron feels the Herc is better as far as reliability, speed and cost go, but notes that the Penton is a bit lighter and can be thrown around easier, making it more appealing for tight woods competition like hare scrambles.

Hercules seems to be shying away from the cost of supporting an ISDT team in '78. As a result, Mike now is riding for Suzuki. He hopes to see the PEs take on more Six Days-oriented features, the likes of which the Hercules bristles with. Such things as the quick-change wheels and the handlebar-mounted choke lever, "which I use all the time." In fact, Mike credits the choke lever with getting him through the Six Days, when his carb mysteriously leaned out on the third day. "I like the Hercules. I know I can finish events with it."

To reaffirm this, another Sachs-built bike, the DKW, won overall in the 250 and 175 classes in Czechoslovakia.

Drew: "I love them bikes and want to keep riding them."