

**SUPERCHARGED KAWASAKI 1000's FOR STREET AND STRIP**

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# HOT BIKE

PDC



**TESTS: YAMAHA IT400E,  
KAWASAKI KZ 750,  
MOTO MORINI  
3 1/2 SPORT, And  
SUZUKI'S DIRT  
SCAMP FUN BIKES**

MARCH 1978  
VOLUME 2, NO. 3

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**TRACK TESTING A FOUR-VALVE  
JAWA SPEEDWAY BIKE  
ALCOHOL For Racing Applications**

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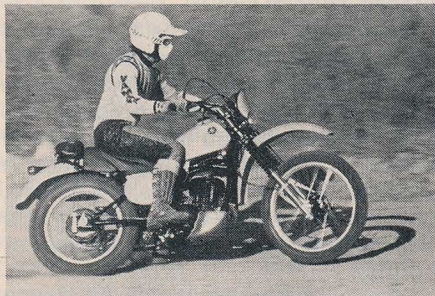
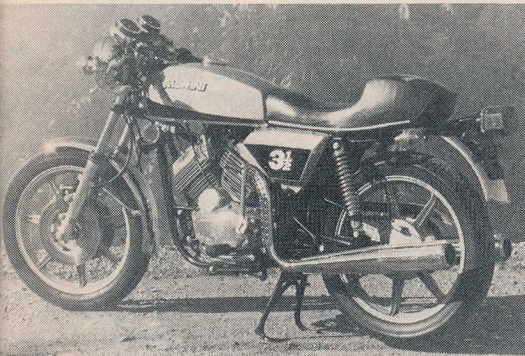
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# HOT BIKE

Hot Bike March 1978 Volume 2, No. 3

## Road Tests

- 24 **Kawasaki KZ750**  
It's nice to have a vertical twin.
- 30 **Three For the (Off) Road**  
A closer look at Suzuki's Dirt Scamps.
- 42 **Moto Morini 3½ Sport**  
Now That's Italian!
- 50 **Yamaha IT400E**  
Possibly the best enduro motorcycle, dollar for dollar.



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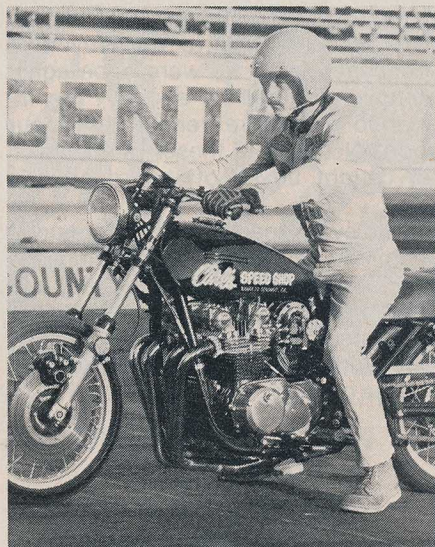
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## Features

- 21 **Product Preview: Cycle Stand**  
Light and compact, this might be the trick for you.
- 29 **How To Ship**  
The Mail must go through — and in one piece.
- 36 **Track Testing a Speedway Bike**  
Dangerous Dain Gingerelli does it sideways.
- 49 **Book Review**  
Reading is part of riding. And this book is good reading.
- 58 **Camel Pro Series Preview**  
Talking about who will be fighting for Ol' Joe's money.
- 63 **Survive! Survive!**  
What you should know about H<sub>2</sub>O.



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## Technical

- 14 **Jekyll and Hyde**  
Puffer power for street and strip.
- 22 **Alky!**  
Griff talks about his favorite juice — alcohol. The kind you burn in your drag bike's engine.
- 46 **Bigger Strokes for Different Folks**  
From 74 to 93 cubic inches in one quick stroke.
- 56 **Selachii Carbs**  
Something new in carburetion.

## departments

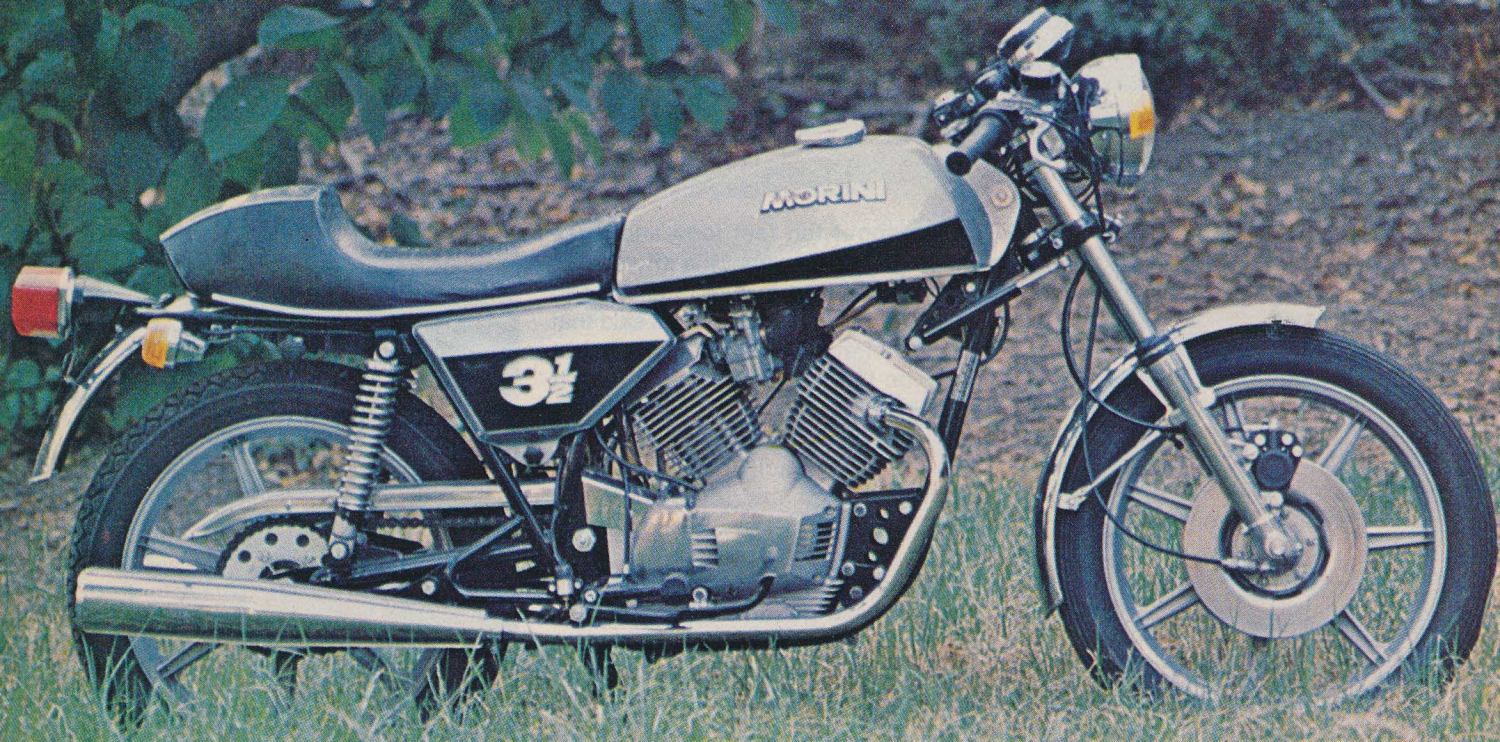
- 4 **Editorial**
- 6 **First Gear with the Editors**
- 8 **Bits & Pieces**
- 10 **New Products**
- 65 **Start/Finish**
- 66 **Hot Bike Calendar**



*On the Cover:* Yamaha's IT400 was plenty of fun riding through the hills of Malibu. Extachrome by Mike Griffin. The Kawasaki KZ750 was photographed by Dain Gingerelli.

# MOTO MORINI 3 1/2 SPORT

It Exemplifies The Best  
Tenets of Italian Craftsmanship: Style, Stability and  
Precise Execution



**H**OT BIKE magazine went into this road test somewhat prejudiced, we'll admit. We'll tell you this right up front. You deserve to know that if a road test evaluation is not totally objective, it is at least honest, fraught with human susceptibilities and such. No supermen here, sad to say, but we try our best.

When the small-bore Moto Morini V-twin was unveiled a couple of years back members of our staff were deeply smitten by the thing, and curiosity ran strong indeed.

How come?

Well, for a couple of reasons. First, it was gratifying to see a lightweight Italian machine jump into the market, ready to do battle with the oriental motorcycles. Not that we are prejudiced against the Japanese products, but the Italian interpretation of motorcycle design—predicated mostly on sparkling styling and excellent handling—comes as invigorating breath of fresh air. Along with this, there is the matter of the Morini's four-stroking in

a field dominated by two-strokes. In this respect, one can't help but be curious about the motorcycle's performance. And finally, there is the matter of engine layout. There just aren't that many different V-twins to choose from today, never mind small-displacement ones.

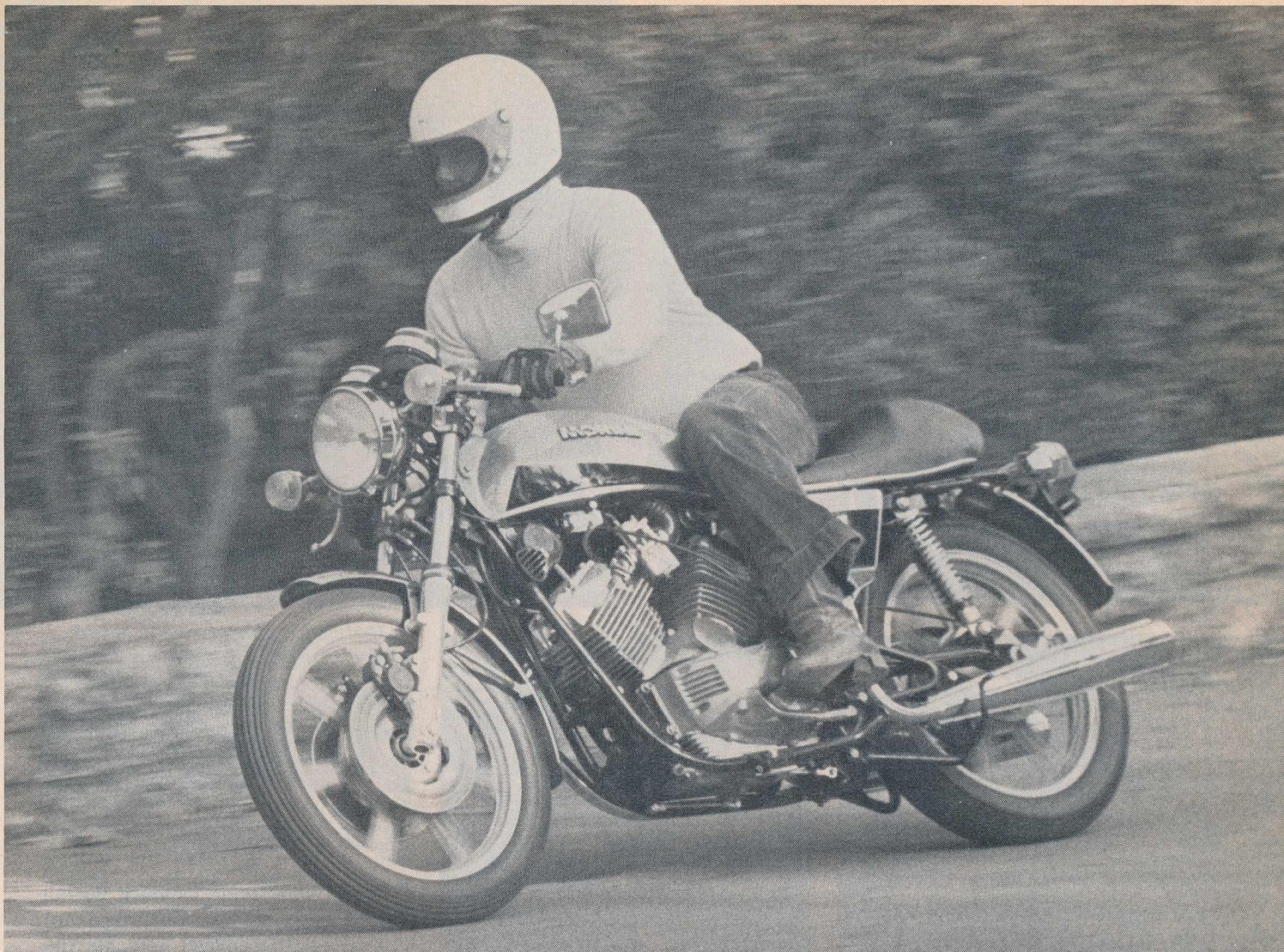
So, you can see how our anticipation of the motorcycle has not been insignificant.

If you're looking for high-revving, wheelie-popping performance, this is not the machine you want. It seems too refined for that sort of stuff, not unlike a discus-thrower participating in a cow-chip tossing contest. No, the Moto Morini is not expected to blow off RD Yamahas and the like in a drag race. But what it does offer the buyer is excellent rider comfort, distinctive styling, very little exhaust noise and a chassis that allows superb handling and stability when sorely pressed. In short, it does exactly what it is told to do; no more, no less.

If there is one characteristic exem-

plified by the Italian school of motorcycle design, it is that the machine *must*, above all, fit and complement the human body. In other words, a motorcycle must work in harmony with the human organism, not compete with it or demand that the human body adapt to it, not the other way around. Sure, this stuff sounds absurdly simple and basic, but if you the reader were required to ride as many motorcycles each year as some of our staffers, you'd be stunned at some of today's mounts and how they treat their riders.

The Moto Morini stands as an example of how the sporting pavement rider should be accommodated physically. For even though the motorcycle is fitted with such intimidating things as clip-on handlebars, its just moderately crunched rider feels quite comfortable, thank you. Too, the seat is certainly one of the best available anywhere. At 10 inches wide the seat provides sumptuous padding without being overly broad. There was no



evidence of bun-numbing vibration of any frequency or magnitude throughout the motorcycle's operating speed range. The upswept rear section keeps the rider pleasantly secure atop the mount.

Interestingly, the 3½ Sport has no rear-mounted footpegs; they are located just the same as those on the more utilitarian 3½ Standard model, which has higher touring bars, different saddle and such. Riders taller than six feet or so may find the Sport's riding posture somewhat restrictive as a result. On the other hand, this will likely find strong favor among shorter riders.

The controls are not remarkable, except that levers, pedals and buttons require no unusual contortions to actuate. Oh, amend that statement, because the ignition kill switch does require the rider to lift his right hand from the throttle in order to reach it.

The horn is all that a motorcycle tooter should be . . . LOUD. It's almost traditional that all but Italian

motorcycle horns be somewhat pitiful, emitting noises ranging from a rudely flatulent squawk to a restrained scholarly yelp. But Italian horns, well, they're something else. Perhaps it is a reflection of the emotional, voluble Italian character. Or maybe it's simply a defense mechanism for surviving in frenetic Roman traffic, which is, kindly put, rather undisciplined. In any event, the Moto Morini's horn bellows with authority, telling the startled auto driver, "Watch out dummy, and if ya' don't I'll blast ya' again!"

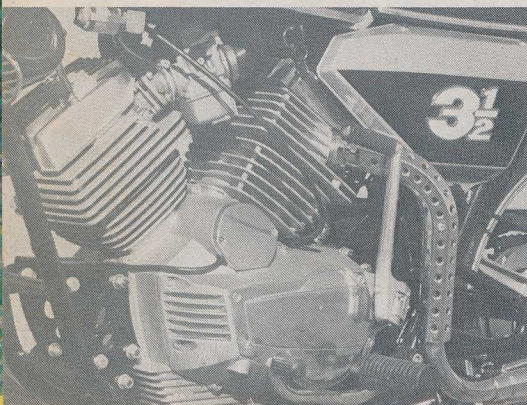
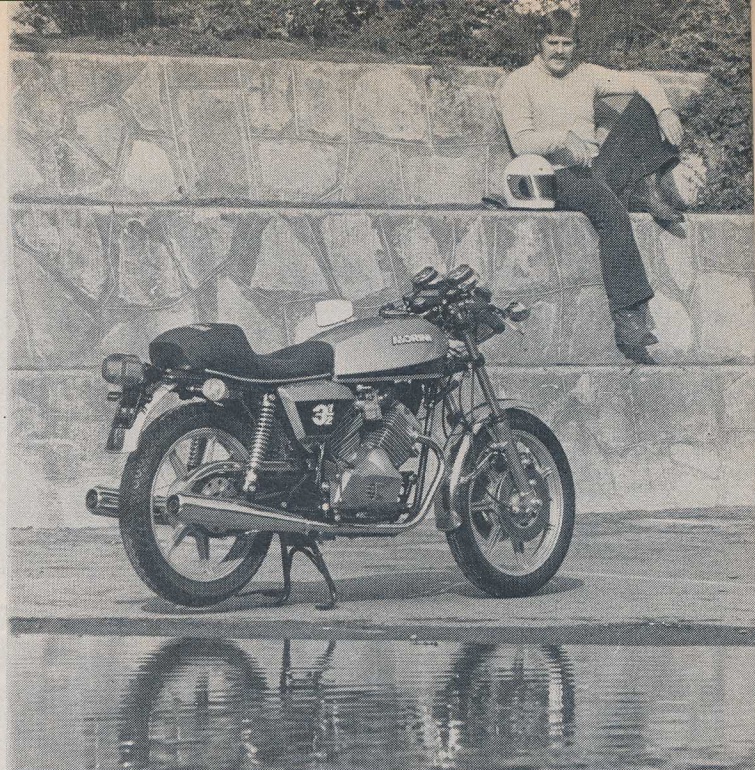
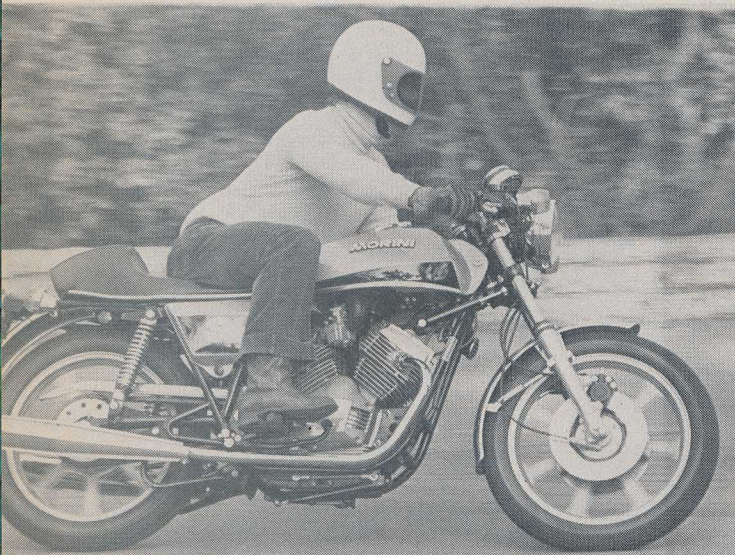
On the other hand, the Moto Morini buyer might want something stronger by way of headlight illumination. High beam seems quite suitable for regular nighttime use, while the low beam just doesn't throw enough light to be of use above maybe 30 mph at night.

Starting the Moto Morini can take something of a knack, particularly when it's cold. But again, on occasion the cold engine will light on the first kick. It can be irregular in this respect,

and why is hard to say. Some Italian ignitions tend to be weak on the high tension side. But the Moto Morini is fitted with a CDI that presumably offers much more performance. Also, the warm engine shows some reluctance to idle smoothly. Under these circumstances one would suspect that the throttle stops and pilot circuitry adjustments are a little off.

A pair of Dellorto 25-mm carburetors are used and no, they're not fitted with accelerator pumps. The carbs stayed neat and clean throughout the test, showing no dribbling or fuel misting around vents and gasket surfaces to sully the engine's operating room cleanliness. Throttle response from low revs is good, though not spectacular, which is to say that it pulls cleanly from low revs, but not real strongly. Heavier riders (more than about 200 pounds) will find a little clutch feathering necessary to move the machine smoothly away from the stoplight. The motorcycle's low gear ratio overall is 19.75:1, which is

"The Moto Morini really comes into its own when drilling through the twisties. While it lacks the shrieking horsepower and soaring revs of some of its two-stroke competitors, the Morini by the same token displays a rather broad power band."



ABOVE — Power output for the pushrod twin is claimed 39 bhp at 8500 rpm. The six-speed transmission provides a gear for just about every occasion. We didn't like kick starter on left.

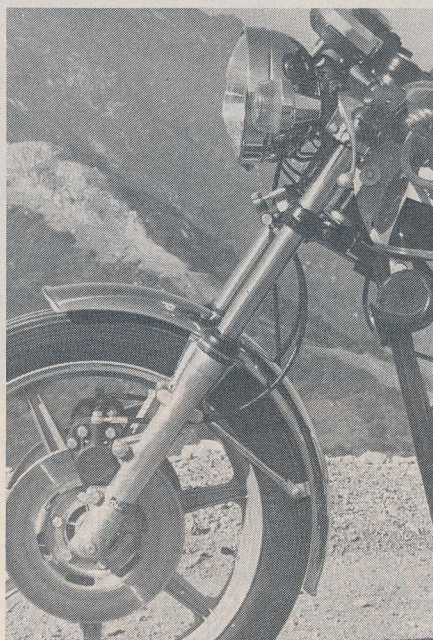
## MOTO MORINI

suitable for street use, but if you're looking for a street drag racer, lower (numerically higher) gearing will be needed.

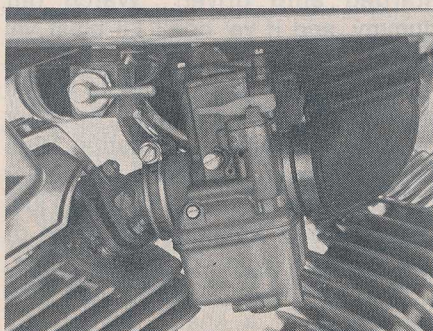
Clutch lever action is marked by very light tension and smooth, progressive engagement; no unpleasant surprises here.

The transmission is a six-speed unit chocked with efficiently spaced ratios, so you won't find yourself straining the motorcycle in one gear to avoid lugging it in the next.

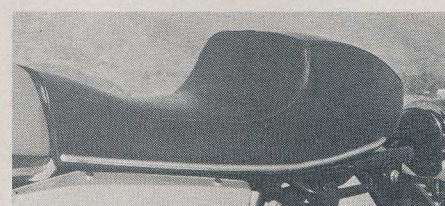
Shifting can best be described as crisp and accurate 90 percent of the time, but marred by occasional fits of indecision. Neutral is sometimes hard to locate and on a few occasions



ABOVE — Although the 3½ Sport felt nice at low speeds, the front end felt too mushy when braking hard for tight turns.



ABOVE — The two Dellorto 25's worked efficiently throughout the test. And no, they are not equipped with accelerator pumps.



ABOVE — The cafe enthusiasts will love the seat, supplied with every Morini 3½ Sport.

a neutral was found where it wasn't supposed to be. But one need not look far for the answer here, for the factory, in compliance with U.S. federal law, resorted to a push-me-pull-you linkage to achieve right side braking and left side shifting. The more the machine was ridden, however, the more predictable became the shifting nuances. After several hours steady riding one could learn to manipulate the gearbox efficiently and smoothly.

In terms of throttle response, the engine is far from cammy, leading some to wonder about the necessity of a six-speed transmission. Granted, this many ratios is not absolutely *needed*, but it's sure nice to have them around. The Moto Morini can cruise very comfortably and economically at 5000-5500 rpm, at which point it would be going well over 60 mph in top gear. Under these circumstances the motorcycle will yield close to 60 mpg!

Power output for the pushrod twin is a claimed 39 bhp at 8500 rpm, which seems accurate. Losses to friction through the primary gears, transmission and drive chain will account for maybe 15 percent of this figure,

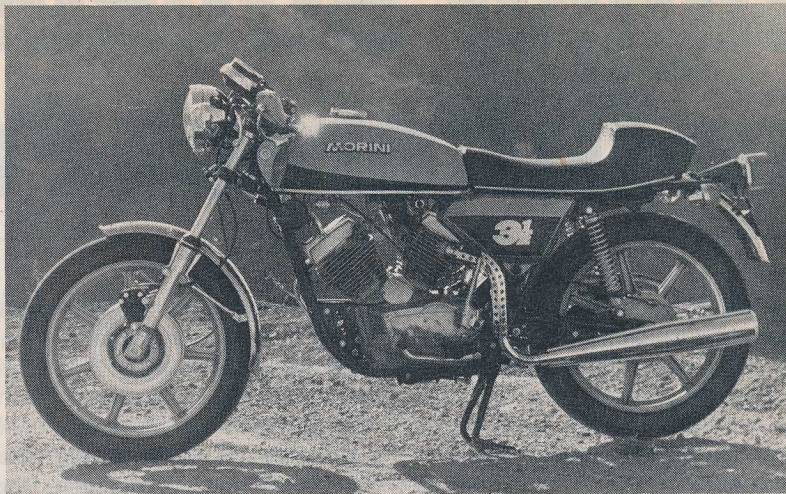
while atmospheric variations, air filters, mufflers and such knock off about 10 percent more. Thus it appears reasonable that the motorcycle delivers about 30 bhp (SAE) to the rear wheel. (Incidentally, this neatly agrees with our formula for calculating quarter-mile speed and ET, given in "The Calculating Motorcyclist", HOT BIKE, February, 1978.)

The Moto Morini really comes into its own when drilling through the twisties. While it lacks the shrieking horsepower and soaring revs of some of its two-stroke competitors, the Morini by the same token displays a rather broad powerband of lesser magnitude. So, even though the motorcycle might not explode away from a corner like, say, an RD400 Yamaha, the Moto Morini's finer handling and gentler power pulses allow the pilot an easier ride through the same corner at the same speed.

Power seems pretty consistent as the engine climbs upward through its rev scale. At around 6000 rpm things begin to happen quicker and the needle moves faster toward the 8500-rpm redline. It is gently cammy, but nothing dramatic. In the lower gears you must pay close attention to the tachometer because the engine will easily spin up to near 10,000 rpm if you give it a chance.

Importantly, through all this the engine emits comparatively little noise. The mufflers, while not elaborate, seem quite efficient. The rider quickly becomes aware that it is not exhaust noise that he hears so clearly but intake noise. Both carburetors breathe through a common air filter. Given large throttle openings, a hollow moan becomes apparent. Also, there is the normal complement of mechanical noises coming from cam drive and primary gears, as well as tappets and pushrods.

For about \$2200 the Moto Morini 3½ Sport ranks as one of the more expensive street-going 350s. This can be intimidating to the prospective buyer. Nevertheless, considering the motorcycle's snazzy cast wheels, its jewel-like engine precision, its gloriously powerful brakes, to mention just a few of its impressive features, we see the Moto Morini to be a well designed and superbly executed machine. It does what it is told to do right away, without complaint. For a motorcyclist searching for these qualifications in a lightweight sport bike, the motorcycle is worth the money.



Price, suggested retail.....	\$2200
Engine type.....	OHV, 72-degree V-twin
Displacement, cu. in., cc.....	20.99, 344
Bore x stroke, in. cc.....	2.44 x 2.24, 62 x 57
Compression ratio.....	11:1
Type fuel recommended.....	Premium
Ignition.....	CDI
Carburetion.....	25-mm Dellorto (2)
Air filtration.....	Treated foam
Oil system.....	Wet sump
Oil capacity, pt. liters.....	6.3, 2.5
Fuel capacity, gal., liters.....	4, 14
Battery.....	12V, 9 a/h
Primary drive.....	Helical gear
Final drive.....	Single-row chain, #530
Clutch.....	Dry, multi-plate
Gear ratios, overall :1	
1st.....	19.75
2nd.....	12.34
3rd.....	9.07
4th.....	6.92
5th.....	6.46
6th.....	5.86
Brake, front.....	10-in. disc (2)
rear.....	Drum 7.1 in. dia.
Tire, front.....	3.25-18
rear.....	4.10-18
Wheelbase.....	55.6 in.
Seat height.....	30.5 in.
Ground clearance.....	5.5 in.
Weight.....	354 lb. (wet)
Instrumentation.....	Speedometer, tachometer, high beam, headlight flash, ignition indicator
Fuel consumption, avg. mpg..	57
Standing start ¼ mile ET.....	15.19 sec.
Standing start ¼ mile.....	83.92 mph