

● We know that superior suspension can make an otherwise mediocre bike good, and a good bike great. There are hordes of shock manufacturers whose products give a buyer a wide selection from which to choose. But choosing the right shock is a complex and confusing business and cost does not always relate well to performance. Various mounting positions, gas-charging, air-pressurizing, and alternatives in spring rates muddy the water and make shock selection difficult, at best.

Front suspension, while as important as rear shocks, is an area of fewer choices and, for that reason, less complication. Expert opinion lauds the Maico and Husky forks and equally high praise is voiced for long-travel Cerianis and Betors. There is no doubt that these are far superior to run-of-the-mill forks fitted as standard equipment on production dirt bikes. But usually you can't buy Maico or Husky forks to put on your Honda or Yamaha, and the bulk of the long-travel Cerianis and Betors produced are bought by factories, which effectively leaves them in short supply. For these and the obvious economic reasons, fork spring and damper kits like those made by S&W are selling in record numbers. These conversion kits improve most stock forks' performance but don't make them a real match for the Maico, Husky, Ceriani or Betor.

In recent months we have been hearing scattered reports about a new Marzocchi forward-axle fork. News of prototype testing by a number of factories indicated that they were highly impressed. A few racers, such as Jimmy Ellis, told us they were "phenomenal;" S&W's fork dynamometer said the new Marzocchi fork was a match for the Maico fork; and Carl Cranke calls it "the Cadillac."

Cosmopolitan Motors' Larry Wise supplied us with a new Marzocchi fork for evaluation. The fork we received is the magnesium-slider "ZTi" version. To acquire information on its design features we made comparison measurements with a Honda XL fork, as the latter is typical of most units supplied on production dirt machines.

Some differences between the two forks are dramatic. The ZTi magnesium slider, at 16 inches in length, is two inches longer than the Honda's aluminum counterpart. The supporting distance from the axle center to the top of the Marzocchi slider is slightly more. Honda uses a single double-lip seal while the magnesium units have two single-lip seals. Oil capacity of the larger Italian-made fork is 25% more.

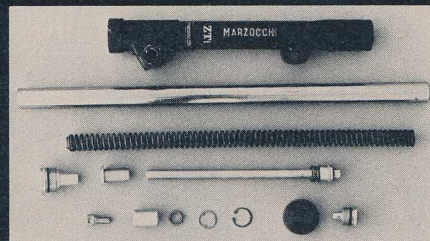
Both forks have 35mm diameter chrome-plated tubes. Overall length of the Marzocchi tubes is 3/4 inches more than that of the equivalent Japanese part. However, the weight of the Honda tube is one pound greater (each), because it has 0.9mm (.036-inch) thicker walls. The XL spring has the same diameter but is 4/4 inches shorter.

While there are some major differences in individual parts, variations in the important external dimensions are not substantial. Ride height is increased by only a half-inch with the Marzocchi. From tube cap to axle center the ZTi measures 39 1/2 inches. The weight (with the specified amounts of oil) difference between the two puts the Honda

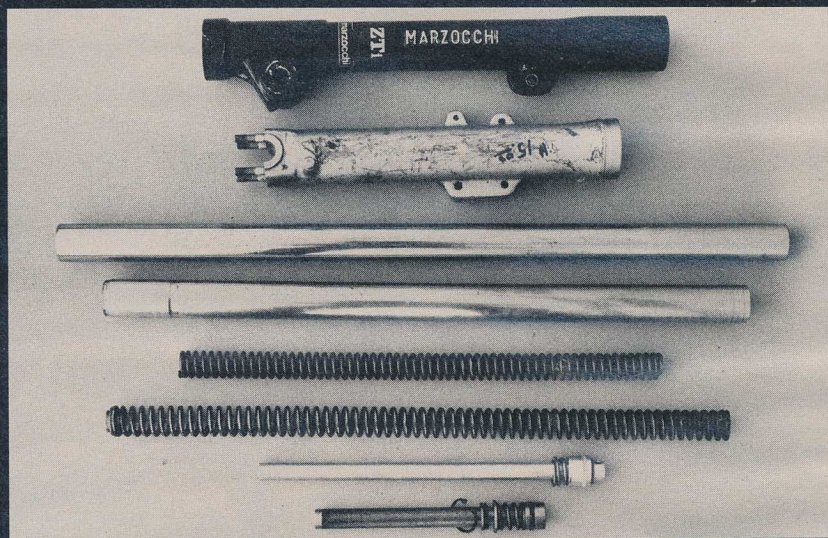
(Continued on page 120)

MARZOCCHI ZTi FORK

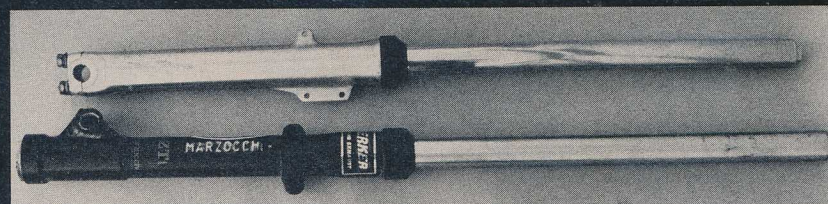
Product Evaluation



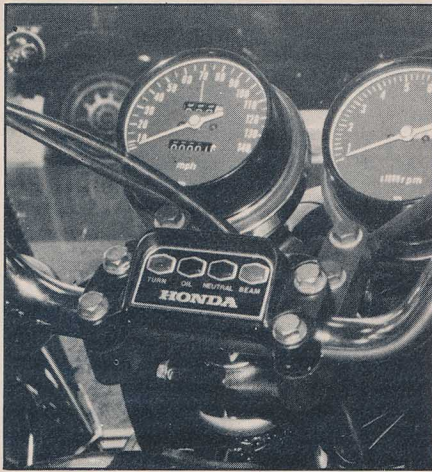
This new fork is a combination of proven concepts and superior materials. In performance and strength the Marzocchi surpasses the best European or Japanese fork.
By Dave Holeman



Marzocchi fork components (above) almost dwarf Honda XL parts. The ZTi fork (below) is lighter, has 2 1/2 inches more travel and is stronger than the XL unit. Magnesium ZTi, or less-costly aluminum PT model Marzocchi are both available.



PHOTOGRAPHY: DAVE HOLEMAN, PAUL R. HALESWORTH



WHY STRETCH!

Tired of Bending Over? Then sit back and relax on your bike with a pair of

SET BACKS

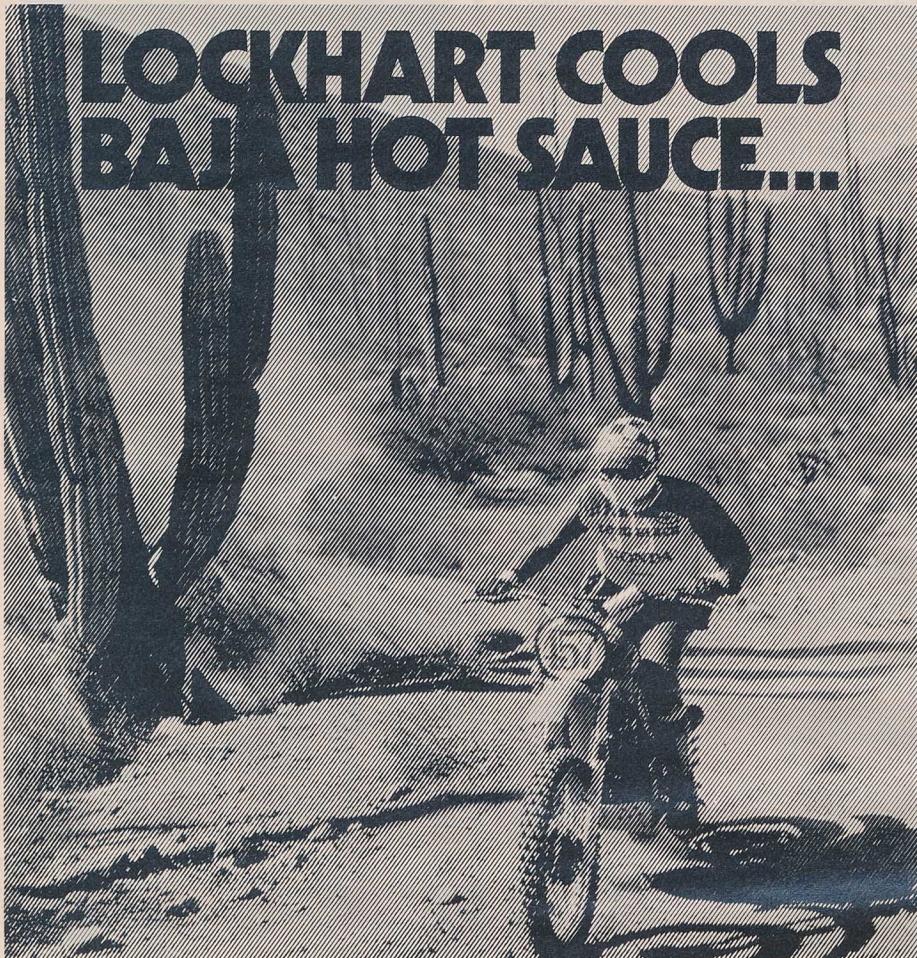
Move your handlebars back where you can reach 'em. Yes, move 'em back over 2 inches without changing cables or hoses in 30 minutes!

FITS HONDA YAMAHA BMW
SUZUKI KAWASAKI HONDA GL-1000
Send only \$12.95 plus .50 postage to
CREATIVE ENTERPRISES

P.O. Box 9, Grapevine, Tex. 76051
(214) 690-0951

State Make & Model
Texas res. add 4% sales tax.

LOCKHART COOLS BAJA HOT SAUCE...



Famous Lockhart Oil Cooler delivers oil chilling performance in First Place Overall Win in the 1975 BAJA 1000.

Bill Bell, racing mechanic from Long Beach Honda, has prepared bikes for many Baja winners. Bill's most recent achievement was the first place, overall win scored by Tom Cannady and Al Baker in the 1975 BAJA 1000. Bill selected the Lockhart Oil Cooler because he knew the brazed construction could take the pounding and vibration. "The Lockhart Oil Cooler delivered a 30 degree overall temperature drop,

measured by our instruments, in pre-race familiarization activity... The Lockhart cooler let our engine live."

Lockhart makes the only oil cooler that employs a full flow system and has lanced offset fin in the oil pass tubes. This same cooler is now available as a complete kit for your XL-350. Send for kit number HO-301. The price? A modest \$54.95... Not bad for a big winner!!



**LOCKHART
INDUSTRIES
INC.**

15707 Texaco Avenue/Paramount CA. 90723 (213) 774-2981

fork leg assembly one pound over the magnesium slider and tube assembly.

The resemblance, internally and externally, of the Marzocchi ZTi to the late-version Maico fork could be said to classify them as non-identical twins. A major advantage inherent in the forward axle mounting is the increased length of bearing surface between tube and slider. The Honda fork tube fits into its slider 4¼ inches—2¾ inches less than the Marzocchi. The contact surface area (stanchion surface to slider bore) is a whopping 25 square inches with the ZTi compared with 15 square inches for the XL. This means the magnesium fork provides a 67% greater bearing area.

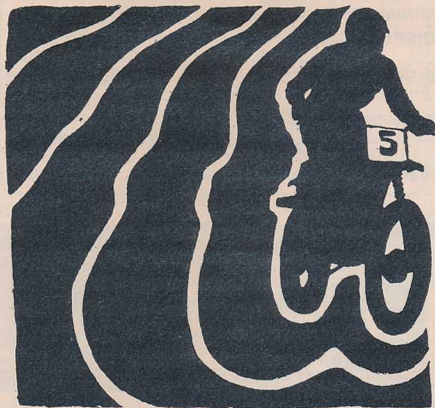


Another advantage inherent in the forward-axle-type fork is the location of the sliders and tubes closer to the steering axis. The closer this mass is kept to the steering head center-line, the less the fork is likely to pendulum, or wiggle. Standard forks, those with the fork tubes located well forward of the frame steering head and stem center-line, will swing side-to-side in response to their own inertia (like a horizontal clock pendulum) more than the Marzocchi.

For our evaluation we fitted the Marzocchi to a Can-Am 250 motocrosser, which was to be raced in the Baja 1000—an excellent test. We were not entirely pleased with the stock Betor fork and not still completely satisfied with it after replacing the spring and lengthening the damper to get 0.7-inch extra travel. Delays prevented us from experimenting with spring rate or damping oil prior to the race, so the Marzocchi fork was used as-delivered, and serviced according to the maker's suggestions.

Front suspension performance demands more of a fork than long travel. If the springs and/or damping rate are too soft, too stiff or mismatched, the rider and bike can receive a terrible amount of punishment—regardless of the travel available. The Marzocchi fork, as used on our Can-Am, could hardly have provided a better ride. The soft spring (26 to 28 lbs/in), smooth, gentle damping and 8.7-inch travel of the Marzocchi combined to deliver the least-fatiguing ride we have experienced with any dirt

bike fork. Potentially bone-jarring encounters with rocks, ditches, sharp berms and washboard-like terrain were reduced to insignificant pulsations as the front wheel enveloped abrupt surface changes rather than bouncing or sending jolts up to the handlebar and rider.

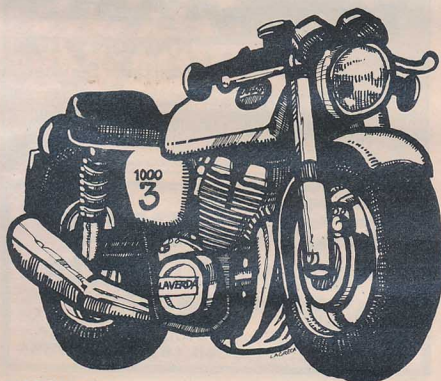


With the fork absorbing its share of the up-and-down, the work-load on the rear shocks was substantially reduced. This prolonged the shelf-fresh performance of the shocks and eliminated the damping fade problem we had felt with both stock and modified versions of the Betor fork. Rider fatigue, a most important reflection of suspension performance, was dramatically diminished. We could ride faster over much greater distances with less physical and mental fatigue. The softer ride also reduced the pounding stresses on the bike, which alleviated earlier problems with breakage and parts jarred loose.

There are two models of the new forward axle Marzocchi fork available. The magnesium version is designated the ZTi; the aluminum model is listed under the PT reference letters. Both forks are identical in design and size. The ZTi is the lighter of the two and has magnesium sliders with alloy damper rods. The PT-model has all-aluminum castings and steel damper rods. The substantial price variance between the ZTi and PT models is due to material cost differences and higher fabrication costs of the limited-production magnesium fork. Distributor: Cosmopolitan Motors Inc., Hatboro, PA 19040. (215) 672-9100. Suggested list price: Marzocchi ZTi—\$364, PT—\$185.

The new Marzocchi ZTi fork gets our seal of approval for being, simply and unquestionably, the best.

—Dave Holeman



MARCH 1976



Somewhat Sensuous.

Introducing The Daytona, a frame-mounted fairing that will totally change the American touring scene. A fairing that will give you a smooth, effortless, controlled ride like you've never experienced before. A fairing that penetrates the wind rather than pushes it.

Somewhat sensuous? Yes, but with a durability that lasts and lasts. The Daytona, a companion that will be with you mile after carefree mile.

The Daytona.
a new name for a new era

write for further information and the dealer nearest you:

Meyer Plastics, Inc. • 5101 East 65th Street • Indianapolis, IN 46220 • 317-259-4131
In Canada: PDQ Motorcycle Accessories • Ontario

CIRCLE NO. 35 ON READER SERVICE PAGE.

A Great European Touring Tradition Comes to America

THE MOTORCYCLE "TOUR-PACK"*

Cycle JAN 1975

"The Eclipse Tank Bag we tested is the best carrier we have ever seen."

Features:

- waterproof Cordura® nylon
- 5 separate compartments, including waterproof map case; total capacity, 900 cu. in.
- mounts securely onto back rest
- can also be worn as backpack
- goes on and off tank in seconds with Velcro® straps—secure and easy to use, even with cold hands—Price \$36.95

*Patent Pending



clip & send today!

1975 Free Catalogue of Camping Equipment for Cycle Touring.
MAIL TO: ECLIPSE P.O. BOX 372 ANN ARBOR, MICH. 48107

Name _____
Street _____
City _____
State _____ Zip Code _____



Please Send _____ "Tour Packs" @ \$36.95
Type of Motorcycle _____ Mich. residents add 4% sales tax

GUARANTEE

If an Eclipse product should ever become unsatisfactory due to a defect in materials or workmanship, simply return it postpaid, to Eclipse for prompt repair or replacement at our option.

Shipping and Handling

TOTAL

\$1.50

Check Money Order

Master Charge & BankAmericard: Include # & Exp. Date. Phone Orders 313-761-1170.