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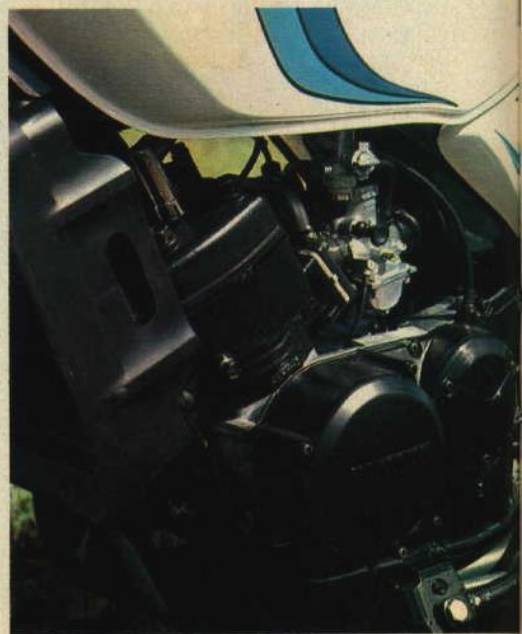
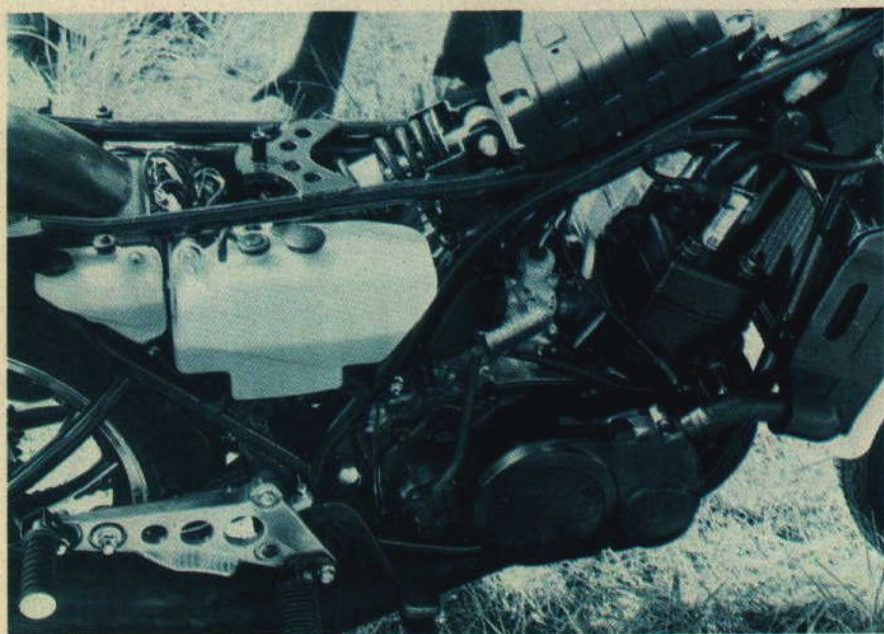
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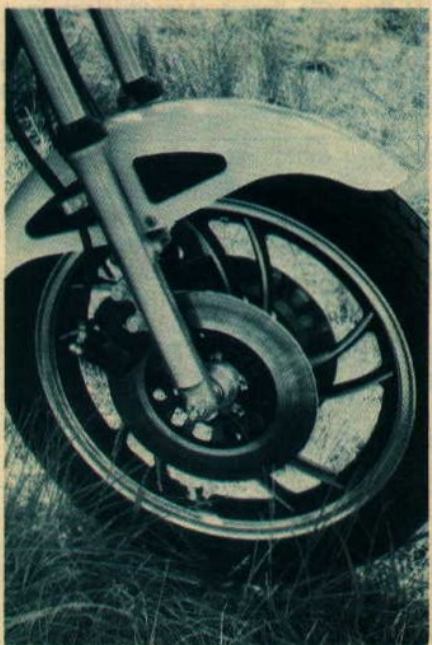
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To America's sporting street riders, it often seems that Europe gets all the good Japanese machinery. Examples of sporting street hardware that never reach American shores range from Honda's tiny but fierce MB50 cafe racer to the warmly received sport version of Yamaha's XJ650 (called the Maxim here) to the ultra-fast, ultra-limited CB1100R just released by Honda. Two street bikes have been particularly sore spots with U.S. enthusiasts. The Honda CB900F and the Yamaha RD350LC. The 900F, a bigger, faster version of the CB750F Super Sport, is finally due to be released in an American version which will be debuted in the pages of *Motorcyclist* within the next four months. However, the RD350LC, a liquid-cooled two-stroke twin with monoshock rear suspension, which looks like a street-legal rendition of Yamaha's all-conquering TZ350 roadracers, will probably never make it to American Yamaha dealers. So when Mike Cameron called from Colorado to ask if we wanted to ride one of the two RD350LCs he'd just bought, we didn't have to think twice.

The RD350's smaller sibling, the RD250LC, arrived in Europe several months earlier and caused an immediate stir. The press and enthusiasts loved the 250 for its speed and racing heritage, but there was some criticism in England from those who said the bike was too fast. English law limits beginners to a maximum of 250cc, and the critics felt that the RD's power would get first-timers into trouble. Of

Cramming the monoshock (opposite) into the frame meant that other bulky items like the oil tank, battery and airbox had to be carefully located. A single-disc front brake would be lighter than the dual-disc (below), but this one has better power, feel and longer life, besides that, it looks great.



PHOTOGRAPHY: ART FRIEDMAN

IMPRESSION:

YAMAHA RD350LC

You Can't Buy—or Even Ride—This Liquid-Cooled Monoshock Screamer in America, But Here's a Glimpse of What it Would Be Like if You Could

course, that sort of complaint was just the sort of thing to whet our appetites for the 350.

Liquid cooling (the reason for the LC designation) is the major difference between the LC and earlier RD engines seen here in America. The superior cooling is what enabled Yamaha to boost the RD's output to a claimed 49 horsepower. The LC shares the 64mm bore used in the 400 and earlier 350s and combines it with a 54mm stroke to displace 347cc. The compression ratio has been boosted above any American-market RD's to 6.9:1. As you might expect, the butterfly valves used in the exhaust tracts of the RD400 Special to reduce emissions are missing in the LC. Reed valves and 28mm slide/needle Mikunis are carry-overs from previous RD350s and 400s. The pumps for oil and water are located at the crank's right end under a plastic cover. An electronically triggered capacitive-discharge ignition, which has been fitted to previous European RDs but never seen on American models, delivers the sparks.

Monoshock rear suspension is the most interesting part of the chassis, and the LCs will be remembered as the first modern street machines to join the suspension revolution by straying from conventional two-shock rear suspension. They are also the first—followed by the new V-twins—to get what Yamaha has been using on their roadracers for years. Unfortunately, the details of the chassis are not quite as exciting. The LC monoshock is only adjustable for preload; it has none of the air pressure and damping adjustments found on the V-twins. The swingarm rides not on rollers, but apparently on plastic bushings. The fork tubes are a not very impressive 34mm in diameter, and they have no provi-

sion for altering damping, preload or air pressure.

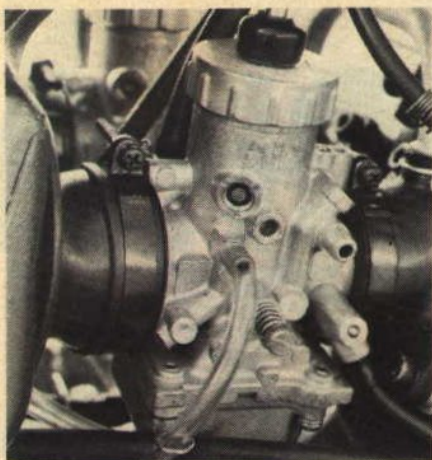
Wheel travel is 5.5 inches front and 4.3 inches rear. It feels like more, however. The LC's suspension has just the right rate of progression and the excellent compliance of the RD400. Even big sharp-edged bumps seemed negligible as you rolled across them.

We instantly liked the LC's riding position. The bars are low in the European fashion, which works just right at 160kph on the Autobahn, and the pegs and foot controls are slightly rearset to provide a racing-like position. The 4.5-gallon tank tapers to the rear. Vibration is not excessive.

You have to fold up the right peg to kickstart the bike, but it starts readily. Without cooling fins, the rubber-mounted engine's sound is much less tinny, but the quick-revving crackle from the expansion-chamber-styled pipes tells you it's a two-stroke.

Pulling away in the lowest of the six gears, the LC immediately communicates that peaky, wheelie-prone feeling of earlier RDs. The steering has that same quickness too. However, despite the compliant ride and quick steering, the bike feels steady and precise. The front suspension feels a little tauter than other RDs', and there's less front-end dive entering corners. Clearance seems respectable with one suspicious exception—the hefty side-stand bracket protruding from the left cradle tube of the frame.

Although we couldn't run the LC through our usual battery of performance tests, our seat-of-the-pants impressions are confirmed by European tests which report quarter-mile times of about 13.7 seconds with terminal speeds of 92 to 95 mph. Top speed is about 110 mph, and the bike stops in under 130 feet from 60 mph. The front



The 28mm Mikunis have windows in the right sides of the slide housings designed to aid with throttle slide synchronization.



Items like the wet clutch and a different water pump distinguish the LC engine from its twin-cylinder TZ350 racer brother.



It took Cameron less than two weeks to turn his hard-to-come-by street bike into a full-fledged roadracer. It paid off with a second place in the MRA's Aspen Six-Hour race.

brake (dual 270mm discs and single-action calipers) works fantastically.

The RD350LC has a halogen headlamp, combined fork/ignition lock, a switch which permits you to flash the high beam for passing (yes, you can turn the lights off) and no EPA-compliance sticker. However, Cameron didn't care about those details. Within a week of receiving them, he stripped both bikes of their lights, speedometers and other non-necessities and put them on the racetrack. He took second in the Mountain Roadracing Association's Aspen Six-Hour aboard the one seen here, beating a field composed almost entirely of larger bikes. The prize money was probably welcome. He paid about \$2500 each for the bikes plus \$800 each to airfreight them from England. A few other indi-

viduals have imported 250 and 350LCs into this country, although some customs offices are now turning them back. An American who uses one on the street risks a stiff fine from the Environmental Protection Agency.

Why hasn't Yamaha brought the LCs into this country? Basically because they don't feel there is a large enough market for them in Special-hungry America. Two-strokes have passed Japan's more stringent smog requirements, so they could probably meet the EPA's emissions standards. However, the EPA certification process is extremely expensive, and Yamaha doesn't feel that there are enough of the LC's brand of enthusiasts out there to make certification worthwhile. Any American who wants to own one has to convince them otherwise. **M**

Suggested retail price Approx. \$2500
in England

Number of U. S. dealers 0

ENGINE AND DRIVETRAIN

Type Liquid-cooled reed-valve
two-stroke twin

Displacement 347.4cc

Bore x stroke 64 x 54mm

Compression 6.9:1

Carburetion 2, 28mm Mikuni slide/needle

Ignition Electronic

Lubrication Oil injection

Lighting output 190 watts

Battery 12V, 12AH

Final drive No. 530 chain, 38/16

CHASSIS

Fork 34mm Kayaba, 5.5 in. travel

Rear suspension Yamaha monoshock,

4.3 in. wheel travel

Front tire 3.00S18 Yokohama

Rear tire 3.50S18 Yokohama

Rake/trail 27.1°/4.02 in. (102mm)

Wheelbase 53.3 in. (1354mm)

Seat height 31.1 in. (790mm)

Ground clearance 5.5 in. (140mm)

Fuel capacity 4.5 gal. (17 lit.)

Wet weight 355 lbs. (161kg)

Colors White and red or white and blue

Instruments Speedometer, tachometer,
water temp. gauge

PERFORMANCE

Fuel consumption Approx. 41 mpg

Quarter-mile Approx. 13.7 sec. at 92 mph