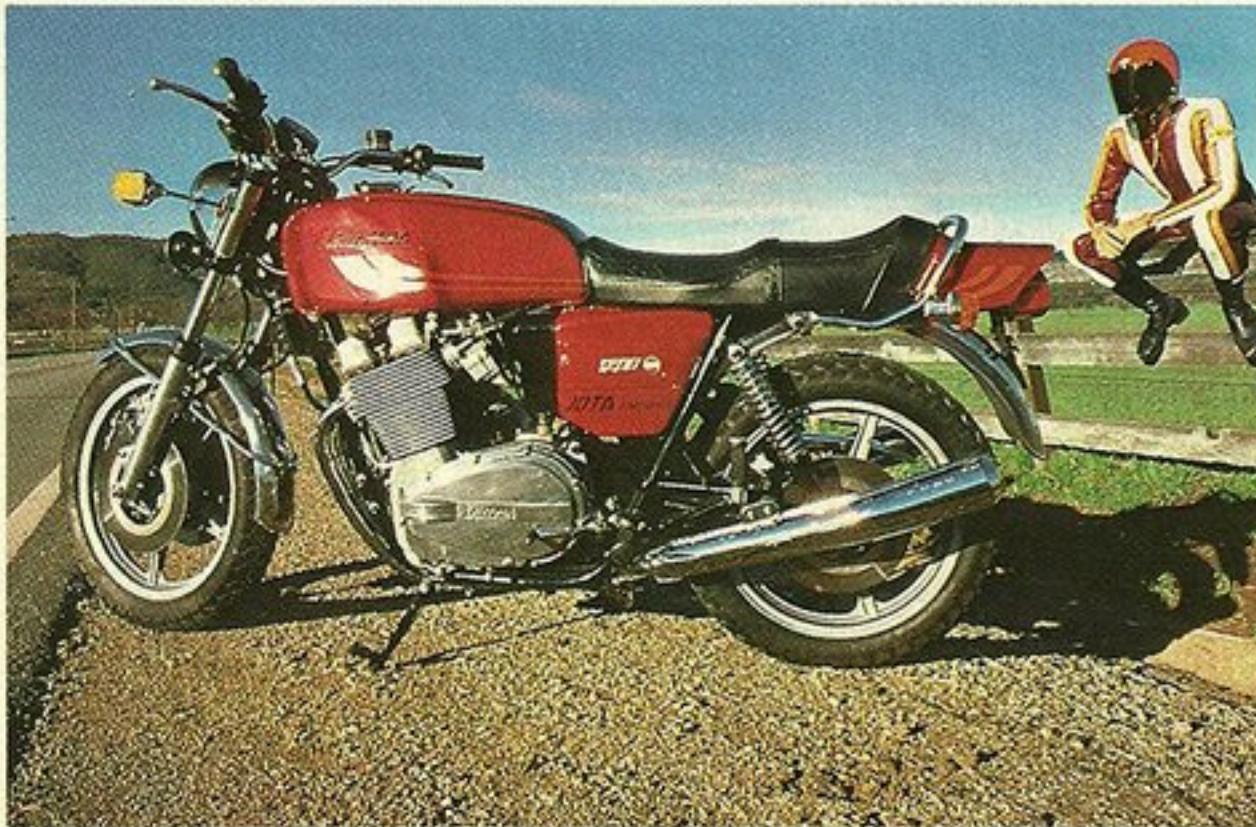


LAVERDA 1200 JOTR AMERICA



● LAVERDA'S UNORTHODOX TRIPLE HAS NOW assumed its third incarnation and has a dollop more cylinder volume than it was given at birth—but less of almost everything else. For 1978 the bore diameter has been opened five millimeters, and the resulting 1116-cubic-centimeter displacement stretched upward to give the triple a "1200" model designation. With the engine enlargement, and by virtue of sundry detail changes, the latest version is, on balance, a better piece than the stage-two Thousand we tested in 1976 and rather more civilized than the original.

Unfortunately, in the process of enhancing civility Laverda badly blurred the triple's once exquisitely defined sporting character.

How do these things happen? Instead of burdening everyone with a lot of intricate and enervating verbiage about economics and market studies, etc., we'll just borrow from the improbable but illuminating tales of the legendary Hiram K. "Bass Mouth" Manney, whose claim of actually having seen a take-out car wash in New Jersey warns us he's not to be taken too literally. Bass Mouth also insists there is an organization called the "Please-All Plastic Company," which he says produces most of the essentials of civilization as we know it—using a giant machine that ingests polystyrene granules and excretes things like leisure suits, franchise foods, Playboy centerfold models and light beers.

More germane to the Laverda triple's five-year metamorphosis is Bass Mouth's contention that Please-All Plastic has a subsidiary doing international business under the name "Monkey-See Marketing,

Ltd." According to Bass Mouth, the subsidiary is highly influential throughout the world of commerce even today, despite its unfortunate setback with the Edsel venture; companies continue to take the Monkey-See Marketing admonition to go for the mainstream, even when the odds in favor of sinking there are great.

There was no Monkey-See Marketing influence numbing minds at Moto Laverda when the first-edition 1000 was being given its form, and the bike emerged as something very far from being a mainstream motorcycle. It was mechanically unusual, and in overall effect as hard, harsh and direct as a mace. The example we tested in 1973 was far too stiff-legged to please touring riders, didn't have quite enough engine to outstraightline the then-ruling King of Superbikes, and the combined "racer's crouch" seating position and heavy low-speed handling made it something less than a joy in an urban setting. It was also naturally marked with the rough edges and high price always present in products from small-volume manufacturers.

But for the triple-distilled sporting rider, the Laverda Thousand's ability to cope with fast travel on twisty mountain roads excused its lack of polish and justified its price. It was a motorcycle with special appeal to no more than five per cent of America's riders, but there are upwards of five million motorcyclists in this country, which implies a body of about 250,000 potential Laverda lovers who would have adored owning the original Thousand.

The above-mentioned quarter-million fringe lunatics will not be drawn to the Laverda triple as it is presently con-

stituted. And the majority, the mainstreamers? It seems fairly safe to assume that those who want a Honda are going to buy one, which would seem to leave Moto Laverda all dressed up in a kimono with no place to go and us with no earthly reason for telling you all this. That's probably what the situation would be, too, if Laverda had the resources to completely change the triple, or hadn't devoted so much of those available to creating the new V-6 endurance racing machine. But, out of diverted enthusiasms or whatever, they've left a lot of the original Thousand hidden behind the new 1200's Please-All facade.

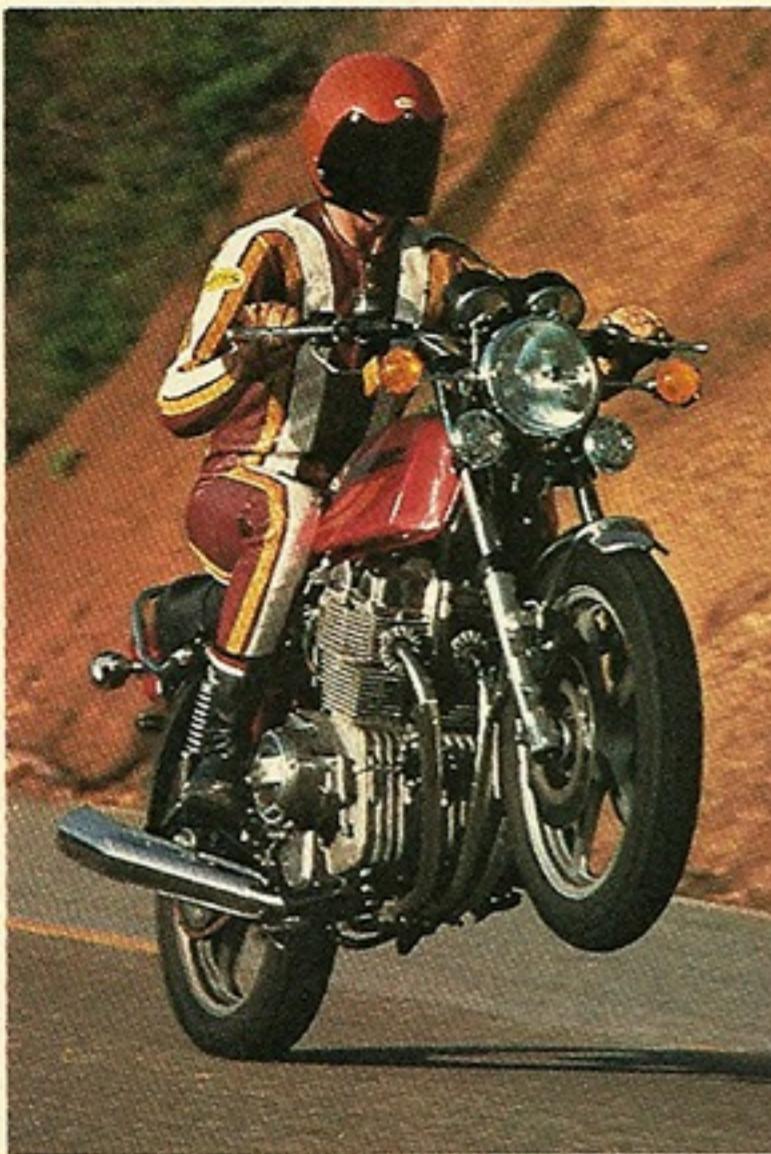
There wasn't, and isn't, much basically wrong with the three-cylinder Laverda engine. Fours are more common, and commonly thought to be a one-cylinder cut above triples; that isn't necessarily true. Look at any of the fours and you'll see that their intake tracts and carburetors have been pinched together to clear riders' knees. The inherently narrower three-cylinder configuration can have straight, efficient passages from carburetors to intake valves, and the Laverda does. On the other hand, triples aren't as well balanced as fours, which send two of their pistons zooming up as the other pair are being yanked down and in that fashion make their primary imbalances mutually cancelling. All the other triples we've seen have crankpins disposed at 120 degrees and, in consequence of that, a rocking imbalance their builders try to quell (with varying success) by means of funny crank counterweighting and elastic engine mounts.

Laverda's approach was offbeat but direct: they placed the crankpins for cylinders one and three on the same centerline, 180 degrees away from number two; their engine is, in terms of dynamic balance, a middling-displacement single (a 370) that can't vibrate like one simply because it is held in check by a bigger engine's mass.

The Laverda triple's cylinder head is classically modern Italian, with double overhead camshafts and a 70-degree spread in valve angle, inverted-bucket followers and valve-stem tip-clearance adjustment caps. We're now very accustomed to seeing soft molded-neoprene carburetor mountings, but that's Japanese practice and the Laverda's three 32mm Dell'Orto "pumpers" are fixed firmly on aluminum spigots bolted over the ports. There's a plastic insulating sleeve separating spigot and carburetor body; this appears intended to prevent the direct transmission of engine heat rather



The new triple is on balance a better piece than the stage-two 1000 and more civilized than the original, but has lost its once exquisitely defined sporting character.



LAVERDA 1200

than vibration.

The cylinder head, like the sleeved block and combined crank/transmission case, reminds us that aluminum isn't always injected into metal molds. There are brightly polished, shell-thin die castings used as covers over the valve gear and on both the primary-drive and electrics sides of the cases; the important, load-carrying inner redoubt has been cast in sand molds just as God and Vittorio Jano (in many Italian engineers' minds the same personage) have intended. Sand castings aren't intricate, usually; those supporting the Laverda's vitals are tidy, thick-walled and more than adequately strong.

You'll find few surprises inside the engine or transmission. The all-roller crank is carried in four main bearings and has the cam-drive sprocket carved on a bit of mainshaft adjacent to the number-two journal. A long extension at one end of the crank makes room for the electric-starter drive and the Bosch alternator-cum-ignition unit; the stubby splined left end of the crank has the oil pump drive gear, and over that a triple-row sprocket for the triplex-chain primary drive. One noteworthy feature is the "straddle-mounted" clutch and driven primary sprocket, which are on shafts supported both on the transmission side and also at their outboard end. Another real oddity inside the narrow five-speed transmission is the shifting cam: it's a kind of quarter-round drum, of built-up construction, unlike anything we've seen in the past.

Laverda has made some changes in the triple incidental to the 1200 conversion. There is the bigger bore, which created the need for bigger cylinder liners, which necessitated nudging and strengthening metal here and there. The crankshaft has been rebalanced to match the larger,

There's a lot of the original Thousand hidden behind the new 1200's Please-All facade, and the triple is better than before even if it isn't better than ever.



heavier pistons, and there is more copious lubrication provided by increased oil-pump output. The (presumed) increase in engine power has caused a reworking of the Laverda's chain drive: the triple previously had a $\frac{5}{8}$ -pitch chain, running on 19- and 40-tooth sprockets; it now has a $\frac{3}{4}$ -pitch chain and a 16/34 sprocket combination. This alters the final ratio from 2.11:1 to 2.13:1, which is an insignificant change in terms of performance.

The earlier Laverda triples have had wire wheels. Those on the 1200 are cast, and very lightly and precisely, but with the same rim widths as before. And with the die-cast wheels the Laverda has acquired a disc rear brake—which solves a problem the bike didn't have and introduces an odd riding-position difficulty we'll tell you about in a moment. The first triple had drum brakes, front and rear, and these worked splendidly. Drum brakes were passé even in 1973, but Laverda's were a match for the competition's discs, and the twin-disc front brake installed on the triple in 1976 was no more than slightly better.

Now they've stuck a third disc on the rear wheel and that probably is a Good Thing in Europe.

In truth, the Laverda's old drum brake functioned just fine and didn't require the master cylinder that makes for lop-eared footpeg positioning on the 1200 America. The European model has a right-side shift lever and its brake pedal on the left, but the DOT has mandated right-foot braking here. So to get straight with the Feds, Laverda has encumbered the triple with a links, levers and spindle cross-over for the shift, and stuck the brake pedal over at the right. This was done on the 1000, fairly neatly, but they were then dealing with a simple brake cable. Moving the master cylinder is more difficult, and Laverda chose to make the conversion using the footpeg as a travel stop for the brake pedal. The unfortunate part of this is that it means you have to mount the footpeg to suit the brake, not yourself.

That arrangement would, in itself, suit some people some of the time; where it goes wrong is that the shift-lever location

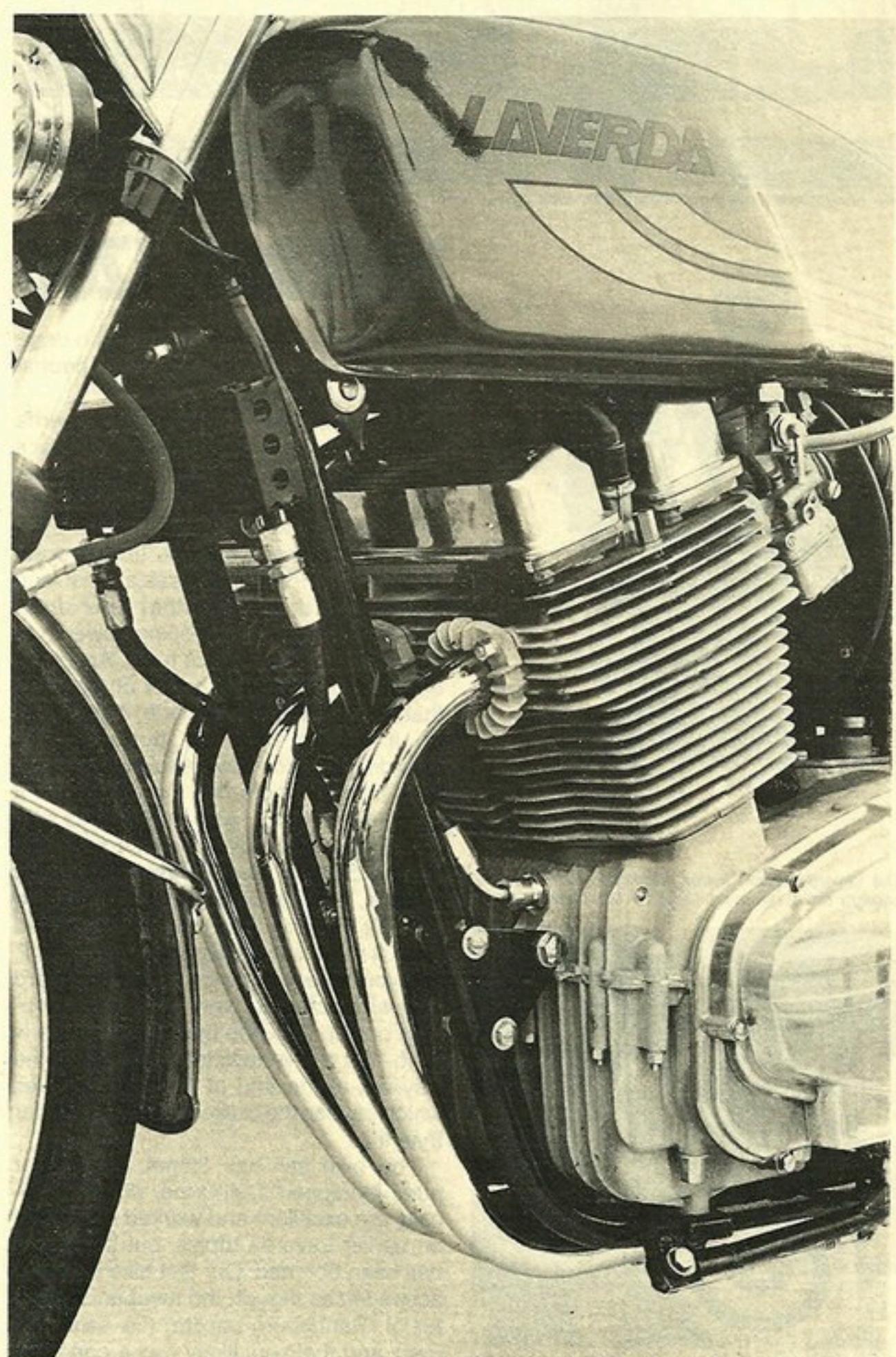
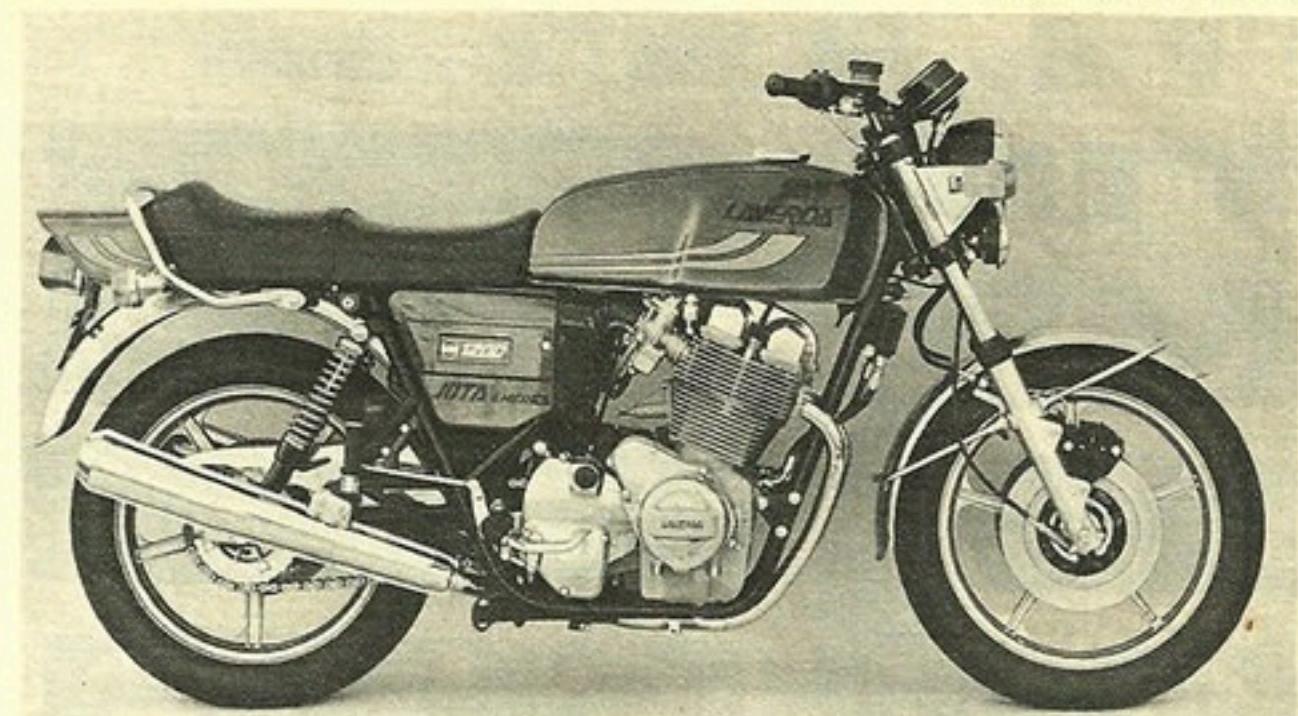
won't permit moving the left-side peg to match the one on the right. You can reach a reasonably close approximation, but only if you don't object to having the lever's business end at a very short reach from the footpeg.

Here we present the first of our subversive suggestions for improving the Laverda 1200: the importers should provide, with each 1200, a bag containing all the hardware necessary to convert it back to European brake/shift deployment. We've ridden plenty of miles both ways, European and Japanese, and don't think there's any difference except when getting off one and climbing directly on the other. Then you have to give yourself a few miles of riding for reorientation.

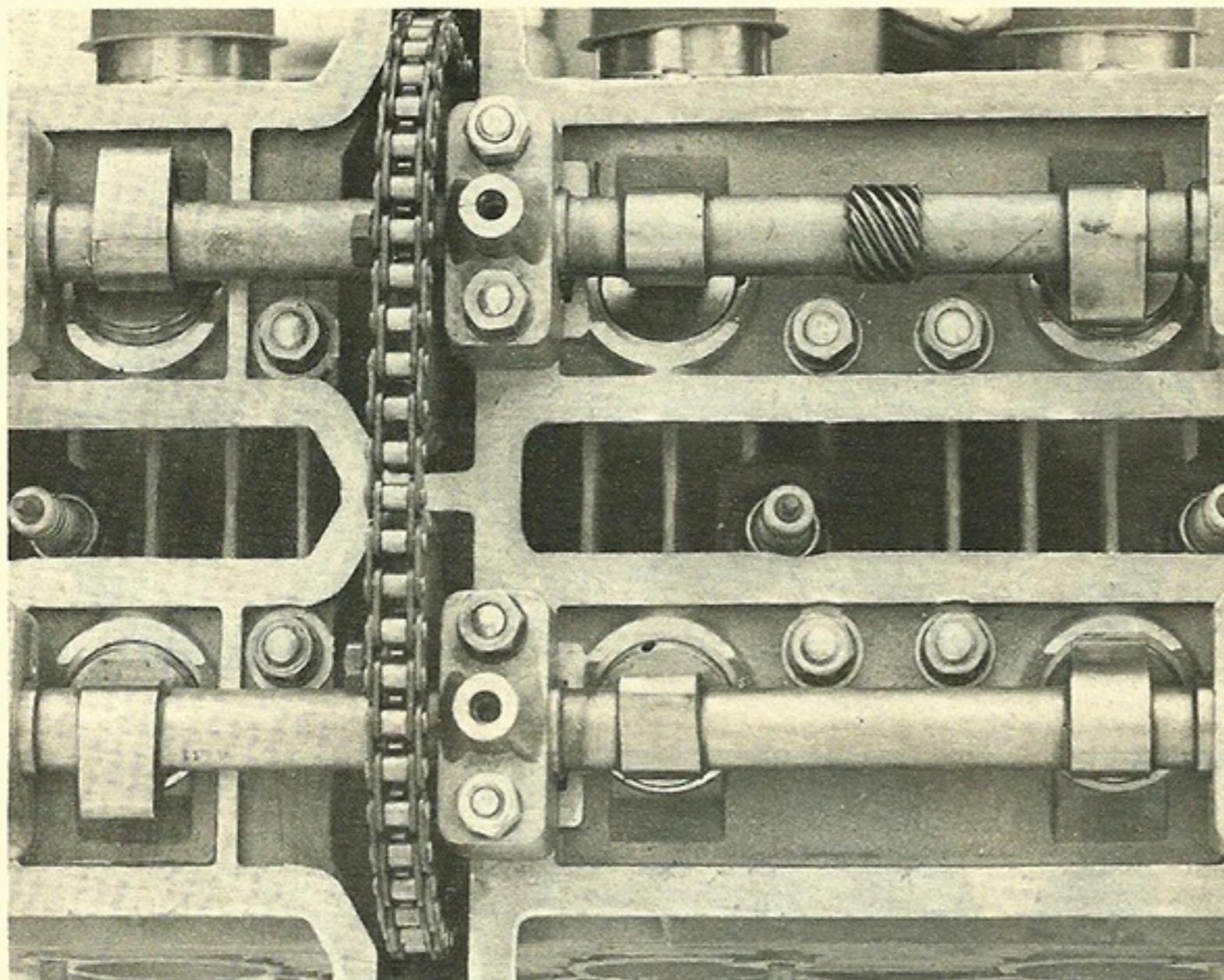
One of our test riders thought the Laverda 1200's footpegs were too high; the rest of us liked the high position pretty well and were as always pleased with their basic rearward mounting. You can "post" on these pegs without finding yourself sliding back toward the taillight, which does wonders for one's ability to control the motorcycle. Also, by mounting the footpegs well back on the frame, and by keeping the transmission narrow, Laverda has blessed the triple's rider with a double-natural position for his feet: not only are the pegs back, they're close together. You could lift weights from the seating position on the triple without taking a chance on rupturing yourself.

Everyone who sat on the 1200, without riding it, remarked that the bike's seat was too hard and narrow—but that the handlebar had an exceptionally good feel. This assessment proved wrong, both ways. The seat is hard and narrow, and feels as though it would become another Vinyl Crucifix after an hour on the road; in fact, it keeps right on being hard and narrow but it never sprouts the assortment of invisible barbs and needles we find in too many others. It's good the seat contributes to comfort because the handlebar does its best to make you miserable, as the ends' angling turns your wrists inward, cramping them, and the grips are too scrawny and too hard.

Even if the handlebar itself was perfect, and fitted with orthopedic grips, the Laverda 1200 would still give you a charlie-horse in each forearm. As in the past, the triple has a clutch that's a perfect marvel at the drag-strip; it will absorb all the banging and slipping anyone might give it without a sign of distress. But you, the rider, have to pay for that torque capacity by struggling with the stiffest clutch lever in all of modern motorcycling. The original and Stage Two triples had the same resistance to being de-clutched; the 1200 also showed a lot of reluctance to let go even after the lever was pulled. When started in the morning cool, oil glued the plates together so tightly that the bike would lurch forward and stall after it was nudged into gear. You can beat that by pulling the lever and blipping the throttle.



You can learn to love the Laverda's engine, and loathe its recently-added, badly-placed side stand.



The chain-driven overhead camshafts, with spiral teeth cut on the intake shaft to drive the tachometer.

LAVERDA 1200

But there is enough residual clutch drag, even with the oil hot, to make neutral frequently elusive.

As noted before, the older Laverda triples' clutches would exercise a rider's grip until he had a left arm like Popeye. The new 1200 is an improvement to the extent that it will keep your arms symmetrical. Laverda's change from a drum to discs as a front brake was a great leap sideways, considering that their drum brake provided more stopping power than is used this side of a race track. And if the drum lost a couple of points on grounds that it could be made to fade, it still came up a winner with the bonus points awarded for rainy-day performance. Anyway, now the triple has the dual discs it acquired in 1976—with brake pads that won't work decently anywhere but on a race track. If you use the front brake hard enough, often enough, to get it smoking hot, it's not too bad. In even fast and furious road riding the pads stay too cool, and you have to squeeze the lever so hard your arm aches to work up decent stopping power. Too, the brake lever angle is such that heavy resistance is felt all the way out at the end of the lever's travel, which causes the brake to feel even firmer than it is.

The bike still has 32mm accelerator pump-equipped Dell'Ortos, which basically are excellent and worked splendidly on earlier Laverda triples, but the jetting has been botched. Our test bike's throttle action felt as though the mechanism was full of "Randsburg Loctite" (i.e. sand and rust), and that very likely was a condition peculiar to this one machine. But there's

no doubt in our minds that the jetting chosen for the 1200 is only an approximation of what the engine wants. Those Dell'Orto accelerator pumps have a powerful way of making an engine respond to quick applications of throttle—about like jabbing a bull's flank with a cattleprod—and the mixture was acceptably clean at full throttle and maximum revs. All other modes of mixture delivery ranged from only fair to terrible.

Maybe when Laverda cleans up the 1200's carburetion its engine will once again come to life. Our test bike ran fairly strongly at the drag strip, turning times and terminal speeds faster than the 1976 model, and a quicker ET than the original (which was, at 106.13 mph, slightly faster through the speed lights). Still, it simply was not as crisply responsive as the first-edition triple. The 1200 would pull smoothly from 2000 rpm but needed 3000 rpm before accepting full throttle without complaint and didn't lose its heavy, sullen manner until pushed up around 4000 rpm.

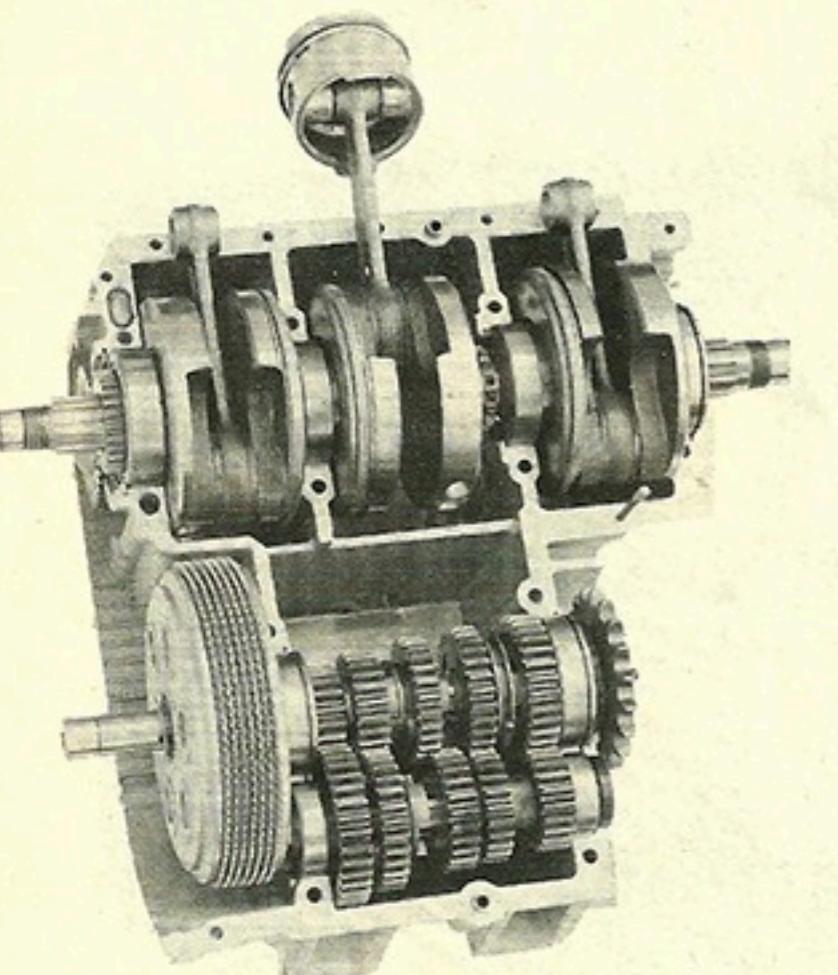
Given the over-rich mixture and the relative mildness of winters here in our part of the country, it was to be expected that the Laverda would not need much cold-start choking—and it didn't. The Dell'Ortos' accelerator pump delivery ap-



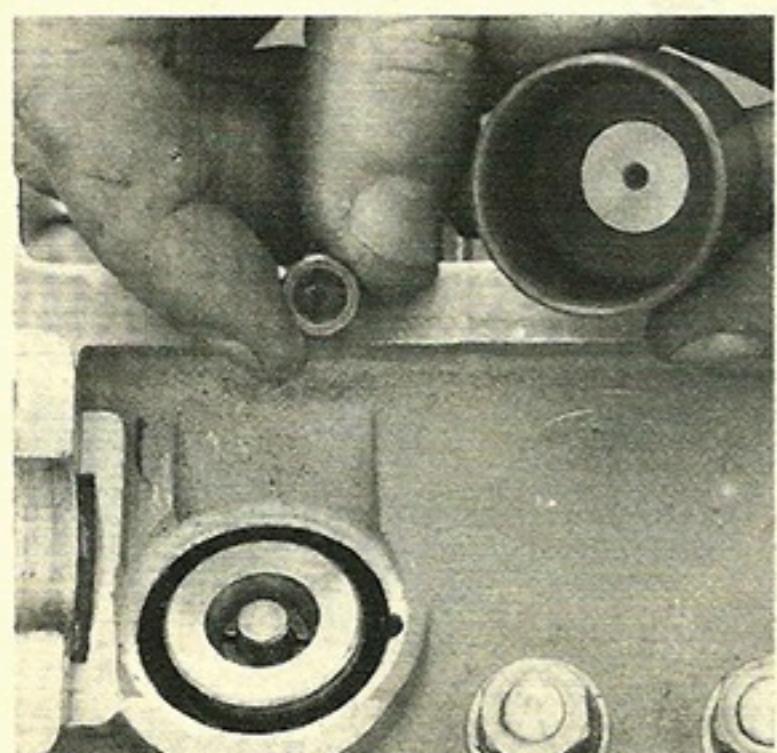
Under the hinged seat, there is a lift-out tray containing a tool-roll and a squeeze bottle for chain lube.

parently has been adjusted back for small-volume squirts, as merely priming the engine with a vigorous twirling at the throttle wasn't sufficient. We had to reach down for the choke lever, and with that applied, the 1200 would fire at a touch of the starter button. Why do they put the choke lever down in that awkward spot? Probably because many Laverda owners fit the bike with bars too short to carry a choke control, plus all the other levers, switches, mirrors, etc.

Breezing down the highway on the 1200 is a more agreeable experience than was offered by the earlier triples. It's a big motorcycle, but mostly in the direction of tall. The narrow seat is matched by a narrowness of tank, and the pegs don't force you to ride spraddle-legged. Neither are there large clots of cylinder head standing out past the tank to snag the unwary knee. It feels tidy and compact, and they've now taken out the extremes of the jolting the early suspension sent up to the seat. There's lighter fork damping,



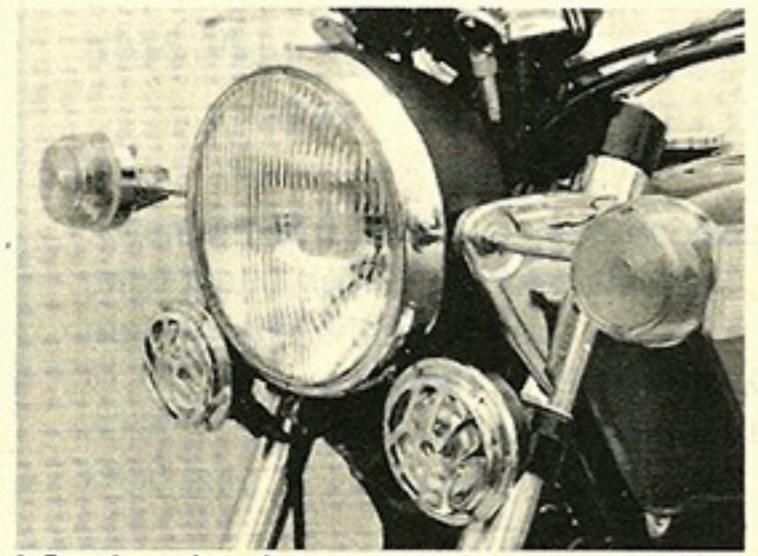
The Laverda triple's lower crankcase half, with the primary drive removed to show the clutch plates.



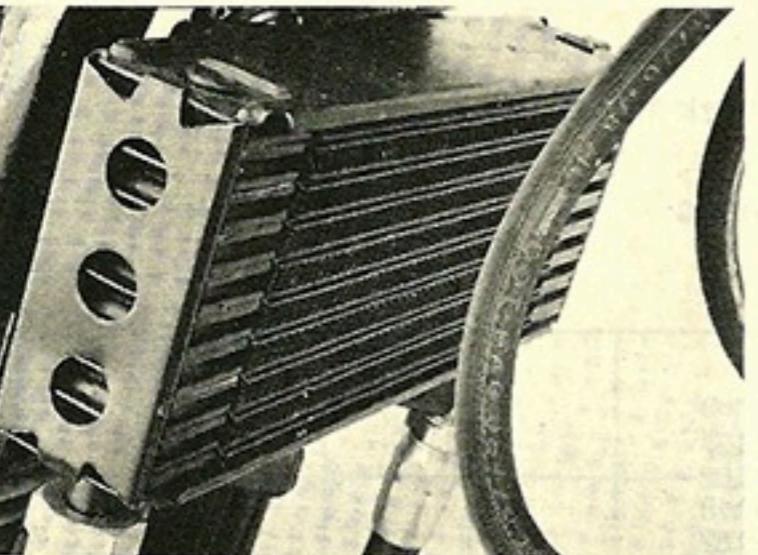
Valve clearance adjustments are made by changing the small caps between followers and valve stems.

and a relocation of the rear suspension units' upper mountings farther forward on the frame has considerably softened their action as well. It's no Cleopatra's Barge even now, much less in the same league with the Yamaha Eleven, but the old tendency to turn expansion strips into railroad cross-ties is gone.

Sadly missing is the first Laverda's superb cornering behavior. The 1200 is fundamentally a world better than a Stage Two 1000, which was only a thin cut above a Kawasaki Z-1. Massimo Laverda admitted, during a visit to our offices a year ago, that they'd revised the last



A Bosch-equipped motorcycle, from quartz-halogen headlight to its pointless CD ignition and sparkplugs.



This engine and transmission oil radiator is standard hardware on all the new Laverda 1200 triples.

model's steering geometry to get lighter low-speed handling. He conceded that perhaps they'd overshot the mark, and hinted at a yet newer version somewhat closer in that respect to the original. Signore Laverda had to have been talking about this 1200, and his people did get the new bike's steering geometry and balance neatly matched. The triple always has had the structural rigidity required for superior handling; it now seems to have a combination of rake and trail that reconciles the conflicting demands of steering lightness and high-speed stability.

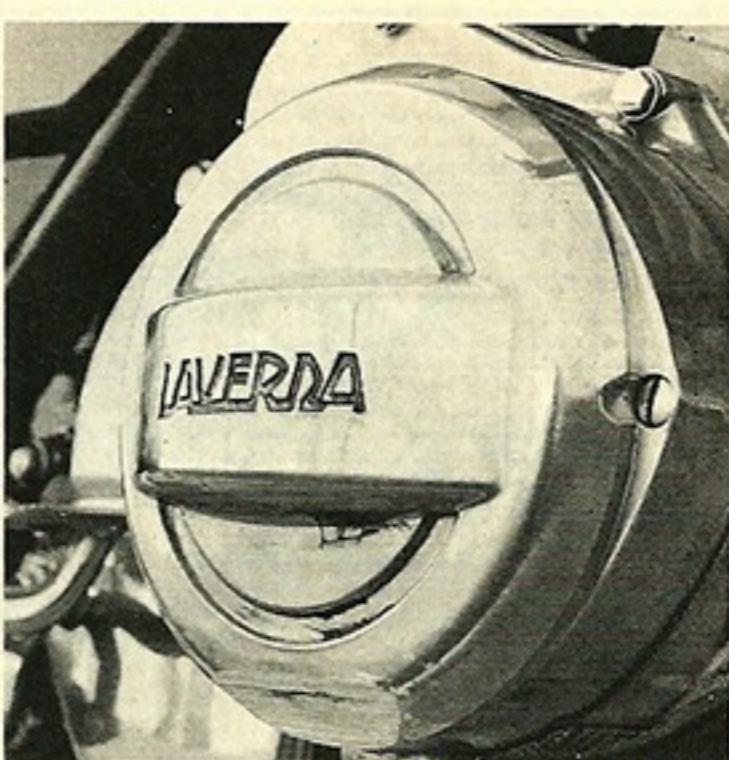
But Laverda has given us better handling with one hand and used the other to take it away. They got the required frame stiffness in the beginning, fixed their self-generated steering geometry problem, and then blew the game by making the suspension damping too limp. Our experience with the 1200 suggests that its rear shocks are adequate and that the trouble lies in the fork damping. Because the chassis is fundamentally sound, you don't have to look past the usual flex- and geometry-generated wobbling to see what's happening. Haul the 1200 into a

fast, smooth turn, coasting on light throttle, and you can feel a bobbing start to build at the fork and then quickly transform into a closed-loop bob and wobble.

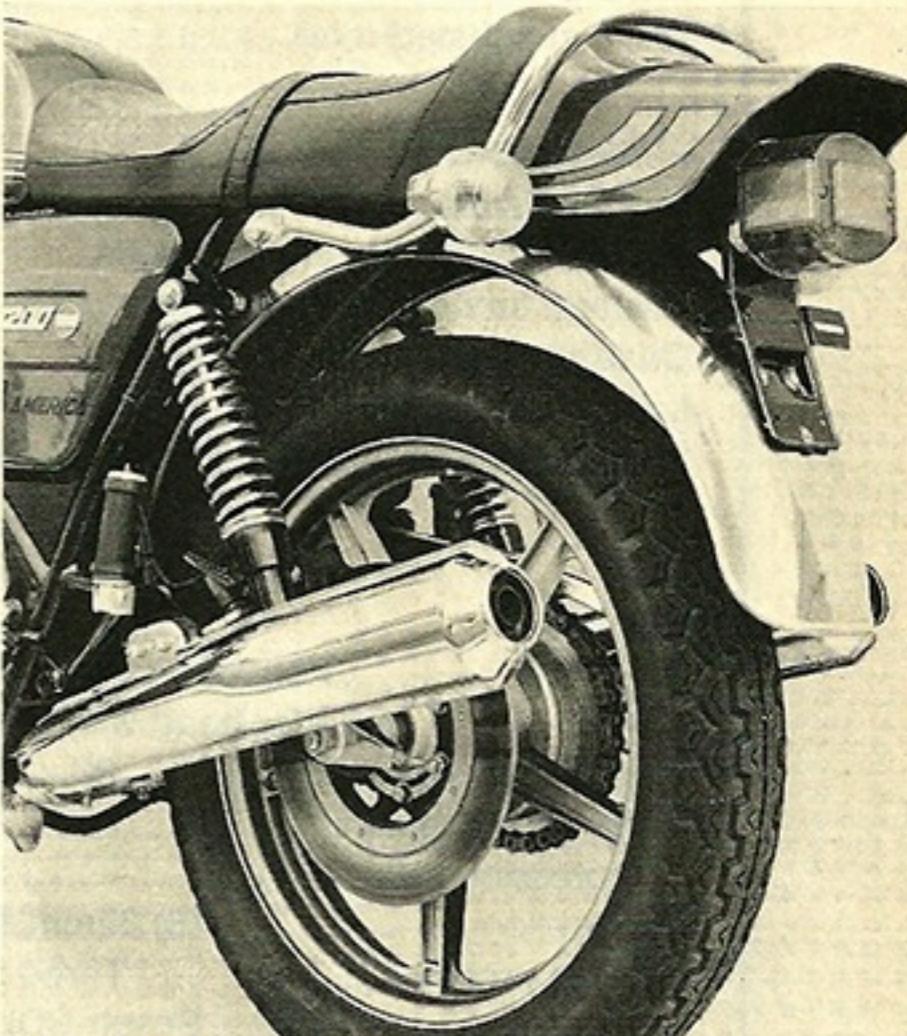
Fast bumpy turns will get you acquainted with a marked "lateral-pendulum" activity at the fork. Laverda has the twin-disc front brake's calipers mounted ahead of the fork sliders, where they are far from the steering axis and thus make a large contribution to the aforementioned pendulum effect. Calipers in that position are to a great extent removed from road grit and water, which usually is the reason given for mounting them there. Maybe, too, some motorcycles actually handle better when their brake calipers are in a forward position. But our experience says otherwise: we've made the front-to-back caliper move on a number of bikes and liked what it did for handling every time, and the way the Laverda's front wheel flicks in bumpy turns would have had us reaching for the wrenches had it been our own motorcycle. And it does appear that the job could be done simply by slipping the legs down out of the fork bridges and swapping them side-for-side.

The Laverda 1200's darts and wobbles are not of a magnitude that would seriously intimidate anyone brave enough to push it so hard that this form of misbehavior appears. The experienced rider will quickly discover that the new triple wants him to hitch his weight forward and hunch his body sideways into turns, and he'll probably already know that Dunlop's K81 tires aren't going to shoot out from under him for no reason. Beware of the Laverda 1200, serious and experienced riders: it will give those Dunlops plenty of reason to lose their grip; the new Laverda

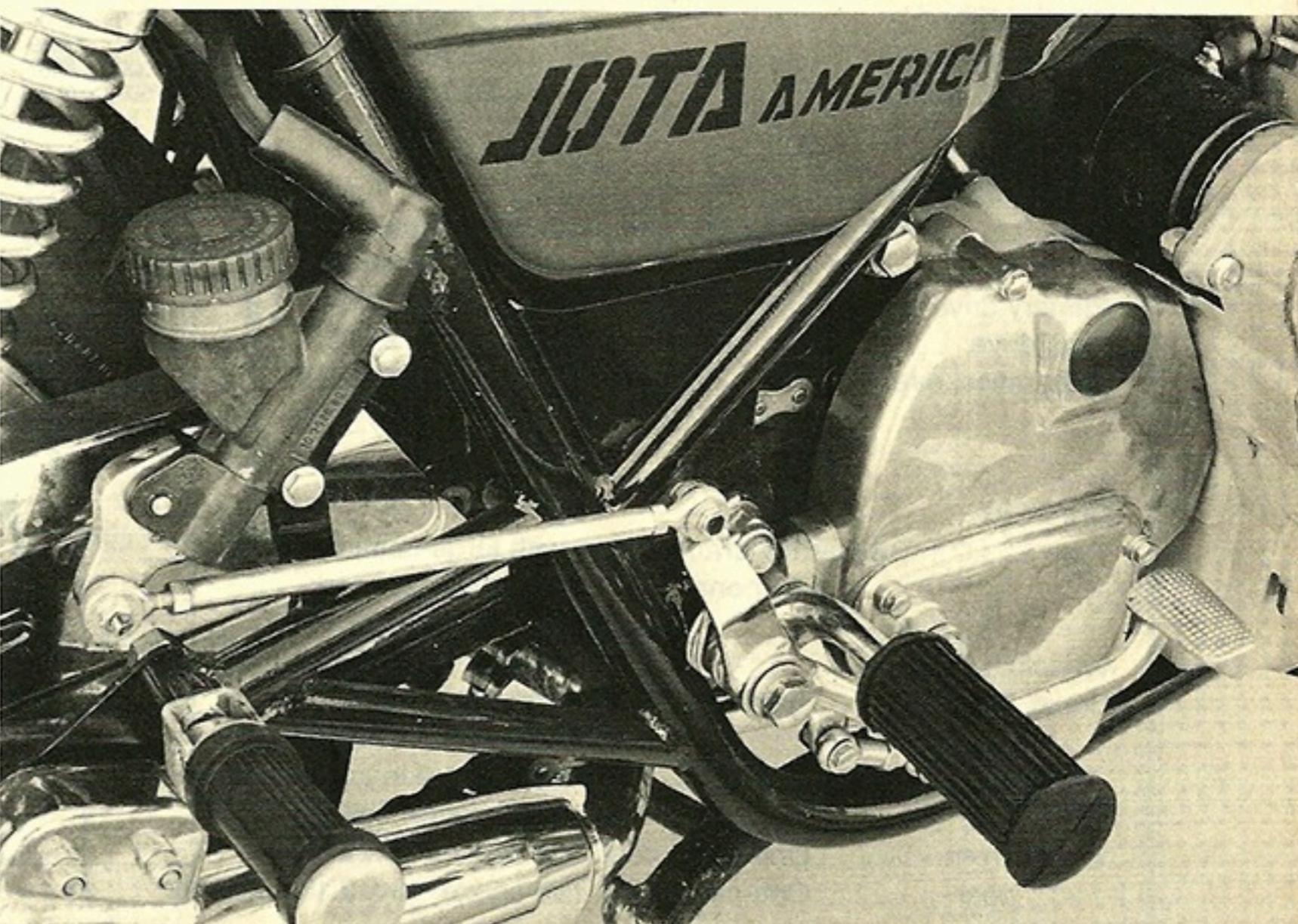
(Continued on page 96)



The alternator/ignition unit's cover suffers when right-hand turns are made at immoderate speeds.



The cast wheels and angle-mount shocks are real improvements, but the rear disc is just a change.



Laverda's cross-over shift/brake conversion looks tidy, works fairly well, and creates a bit of a problem.

triple's worst shortcoming is the twin lurking treacheries of its jutting alternator cover and the recently added sidestand, which are on opposite sides of the bike and thus can drag in right or left turns. The alternator cover stands out there fairly far, but it's high, and dragging it on the pavement is mostly unsettling rather than dangerous—unless you like to do a K. Roberts dive straight into maximum lean. It's the side stand that's the real villain, as it's low and solid and tends to lift the Laverda's rear wheel when grounded.

Readers who have suffered through all our many complaints and lamentations to this point may assume that there is nothing harsh left unsaid, and that there is nothing good to be said of the Laverda without heavy qualification. Not so. We have plenty of unkind words to lavish on the rear-view mirror supplied with our test bike, which looked as though it had risen up straight from the depths of a dollar-bargain catalogue. And we have unqualified praise for the manner in which Laverda provides access to the underseat space: the seat is hinged, with a locking latch that can be left unlocked.

With the glaring exception of its mirror, the Laverda is an assemblage of high-quality components. There's nothing cheap about its Bosch electrical system, which includes a pointless capacitor-discharge ignition so effective that it overcame bad carburetion and too-cold plugs. All the 1200's brightwork is bright, its brake and suspension hardware expensively chosen, and there is both quality and strength in the bike's Moto Laverda-manufactured innards. It's not a hand-

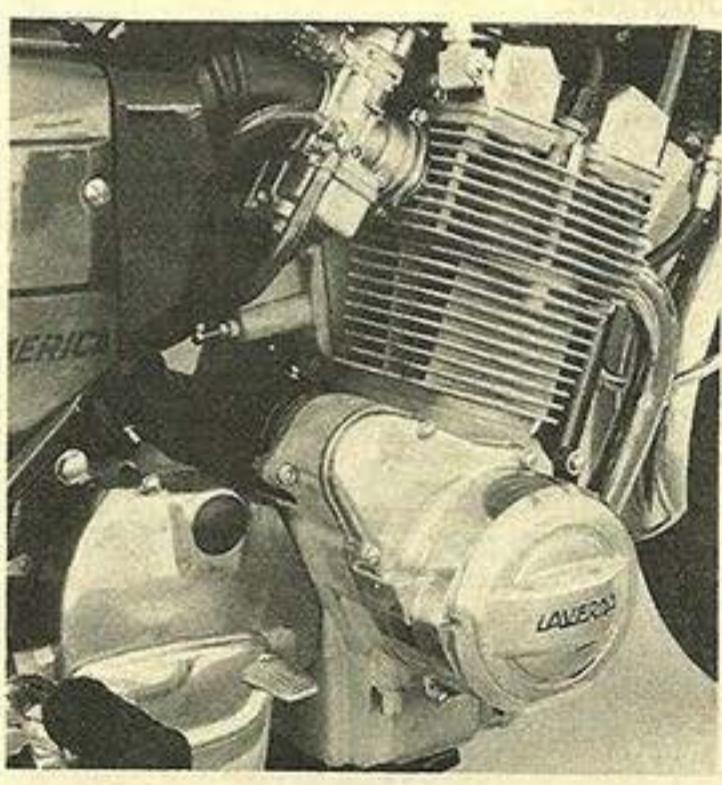
mostly because doing that is an entertaining diversion from the farm-equipment manufacturing which still, as before, is responsible for providing a solid economic base.

Only an absolutely dyed-in-the-wool, hard-eyed mountain road motoring freak would have wanted the original Laverda triple, and that's still the only kind of rider who'd find the bike lovable even today. Sure, they haven't helped the brakes and



carburetion; certainly the damping is off and the side-stand's in the way and the handlebar's wrong and the footpeg orientation is whacko. But all those things are fairly easily corrected; the Laverda can be put right simply by changing it right back to where it was.

Where the Laverda triple was, was very nice—and the essentials are still there. Behind the spotty carburetion there's an engine that may seep a little oil but also just oozes sporting character. It may not be the last word in peak horsepower highwinders; it will give you the kind of broad-range muscle that works so well everywhere but the drag strip and keeps you from wearing holes in the toes of your boots from pumping the shift lever. It vibrates, that's true, but the shaking isn't the sort of nerve-frazzling, hand numbing buzz riders find offensive. The Laverda triple grumbles and purrs and devours distance in a highly satisfying way. It carries you along in seven-league strides, its tall gearing holding the engine at an un-ruffled 3500 rpm when you and the bike are moving at the rate of a mile every minute. You'll begin to feel really comforted by that low, leisurely engine speed as the miles roll by, and if you have any sporting blood there's still the racer's crouch seating to get it simmering. The disabilities we've noted here will make you cautious about giving way to those sporting instincts and make you resolve to correct them, because down deep the rouged and ribboned Laverda hasn't been changed all that much. It still has the makings of a wonderfully sporting ride, and that's better accommodations than you're ever going to find on Monkey-See Marketing's bandwagon.



made motorcycle; it does comprise some of the best hardware available from an international list of suppliers.

But clothes do not make the man and a price-no-object shopping list has not made the Laverda 1200 "Jota America" into a better motorcycle than it was at birth; happily, the people at Moto Laverda have been sort of half-hearted in their efforts to reform the raffish triple. They're enthusiasts, after all, building motorcycles



Make and model Laverda 1200 Jota America
Price, suggested retail \$4250

PERFORMANCE

Standing start 1/4-mile	12.83 sec @ 104.65 mph
Engine rpm @ 60 mph, top gear	3494
Average fuel consumption rate	30.0 mpg
Cruising range, main/reserve	126/27 = 153 miles
Load capacity (GVWR less curb weight)	NA
Maximum speed in gears @ engine redline	(1) 39.0, (2) 59.3, (3) 81.2, (4) 95.1, (5) 111.6

ENGINE

Type	Four-stroke in-line triple, twin camshaft cylinder head with roller chain timing drive
Bore and stroke	80 x 74mm (3.15 x 2.91 in.)
Piston displacement	1116cc (68.1 cu. in.)
Compression ratio	8.0:1 (full stroke)
Carburetion	(3) 32mm slide-throttle Dell'Orto
Exhaust system	Three-into-one, twin muffler
Ignition	Bosch CDI, electronic switching
Air filtration	none
Oil filtration	Wire strainer, washable
Oil capacity	3.0 liters (3.2 qts.)
Bhp @ rpm	72.98 @ 7500
Torque @ rpm	54.27 @ 6000

TRANSMISSION

Type	Five speed, constant mesh, wet-plate clutch, direct drive in fifth
Primary drive	Triple-row chain, $51/25 = 2.04:1$
Final drive	Roller chain, $34/16 = 2.125:1$
Gear ratios, overall	(1) 12.39 (2) 8.16 (3) 5.96 (4) 5.09 (5) 4.34

CHASSIS

Type	Tubular full-cradle frame with large-diameter backbone, telescopic center-axle fork, swing arm rear suspension
Wheelbase	1470mm (57.9 in.)
Brake, front	Hydraulic, two 275mm (10.8 in.) discs with twin-piston calipers
rear	Hydraulic, one 280mm (11.0 in.) disc with twin-piston caliper
Wheel, front	One-piece cast, five spoke, 18 x 2.15
rear	One-piece cast, five spoke, 18 x 2.15

Tire, front.....	4.10 H-18 Dunlop K81
rear	4.25/85 H-18 Dunlop K81
Seat height	823mm (32.4 in.)
Ground clearance.....	132mm (5.2 in.)
Fuel capacity, main/reserve	4.2/0.9 = 5.1 gal.
Curb weight, full tank	252.2 kg (556 lbs.)
Test weight	327.0 kg (721 lbs.)

ELECTRICAL

Power source	Single phase, permanent field alternator
Charge control	Electronic
Headlight beams, high/low	60/55 watt
Tail/stop lights	5/21 watt
Battery	12V, 32AH

INSTRUMENTS

CUSTOMER SERVICE CONTACT

Yankee Motor Corp.
PO Box 36
Schenectady, New York 12301
518-355-6010
Attn: Customer Services

