



MOTO-GUZZI 704cc "V-7"

Intended as an automotive-reliable, long-distance tourer, this Italian import has a whole raft of interesting features.

■ Road-testing the 1968 Moto-Guzzi V-7 was like a reunion with an old friend. We were fortunate enough to borrow one from the Berliner Motor Corporation, in Hasbrouck Heights, New Jersey, back in March of 1967 and delighted in it. The *very first* one to tool around New York City . . . imagine, if you can, the questions, the stares, the absolute kick of riding the very first model that most enthusiasts had ever seen.

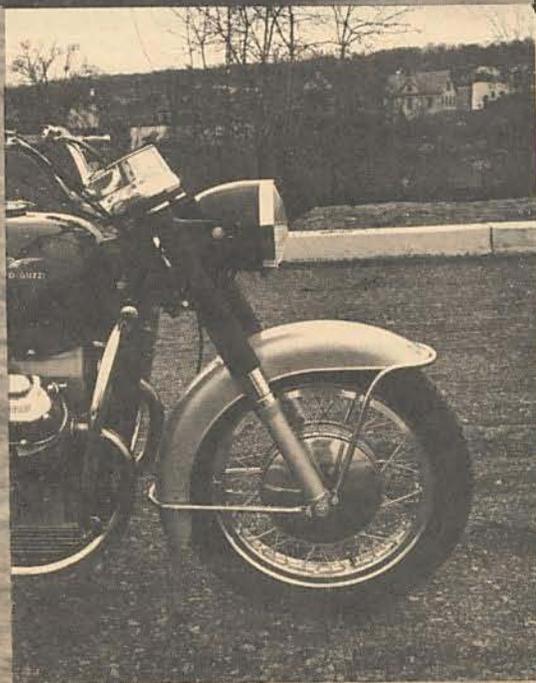
So, when we got our 1968 model with its cam refinements and slight modifications, we were suffused with reminiscent nostalgia and feelings of affection.

We recalled that the machine we originally tested had been so over-jetted that we had to keep blipping the throttle to keep it running. But that was because the Italians, in their haste to get the first models here had equipped them with the "stock" jets. Stock, for the market that they knew; where fuel might often be kerosene. Mileage on that machine naturally suffered, but since we were aware of the problem, no fault was attributed to the machine.

Feeling that we had a, by now, familiar machine that would cause no excitement, except in the rider, we headed out into the New Jersey traffic to tool our way back to New York.



Some running shots of the big V-7 show that despite its size, it is a smooth-handling machine. And, though it looks massive, the 704cc V-twin actually is lighter than many other tourers. At the bottom left is shown the twin-leading shoe, full width front brake, a good grabber.



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Within the first mile a fellow on a Honda 450 came up and asked what the blazes that bike was? . . . And so it went, until we returned the machine to the distributor; questions, stares and (naturally enough) challenges. We went over the whole bit again . . . and again . . . and ad infinitum. It seems the shaft-driven Transverse V-twin is an attention-getter and that's that.

Why it gets the attention, and if it's warranted, is our concern in this test, so let's get to it.

First, the V-7 is a big bike, it looks massive and it is. But it does prove the theory that looks are sometimes deceiving. When you figure that the biggest of the tourers (and by that we can only be referring to the FLH) weigh over 720 pounds, the Guzzi's fully-loaded (gas and oil) 548 pounds don't seem so ominously huge. Indeed, for the purposes it is intended for, it's almost light. One reason for this is the use of alloy and aluminum in the engine and castings.

And speaking of that engine, more than anything else it's the engine that gives this bike its character. With those two finned cylinders and heads sitting out in front of your knees, that huge finned oil sump sitting six inches above the pavement, the whole thing "wedged" into the tubular structure duplex cradle frame, the bike is like an artist's concept of what a "Vikings-Bike" should look like.

Many times, a transverse V-twin with shaft-drive and bevel gears turning the rear wheel has been tried. Many times, the design has been thrown away; primarily due to excessive vibration right where you don't want it . . . at the front. This time, the design works.

There is vibration, but so little as to be unworthy of mention. So little, since the design of the pistons operating at a 90° angle to one another allows for a minimally small "recoil fraction" between the firing pulses of the slightly offset cylinders.

Height of such designs were a problem before, since they made the bike's center of gravity so high that the handling was bad. No more, friends; those high cylinders and bar-



Shot from the rear, the 90° engine, stock crash bars and seat are shown.

rels are alloy, remember. The heavy, single-journal crankcase turns in two main bearings and is counterweighted for smoothness . . . but lowdown to improve the center of gravity.

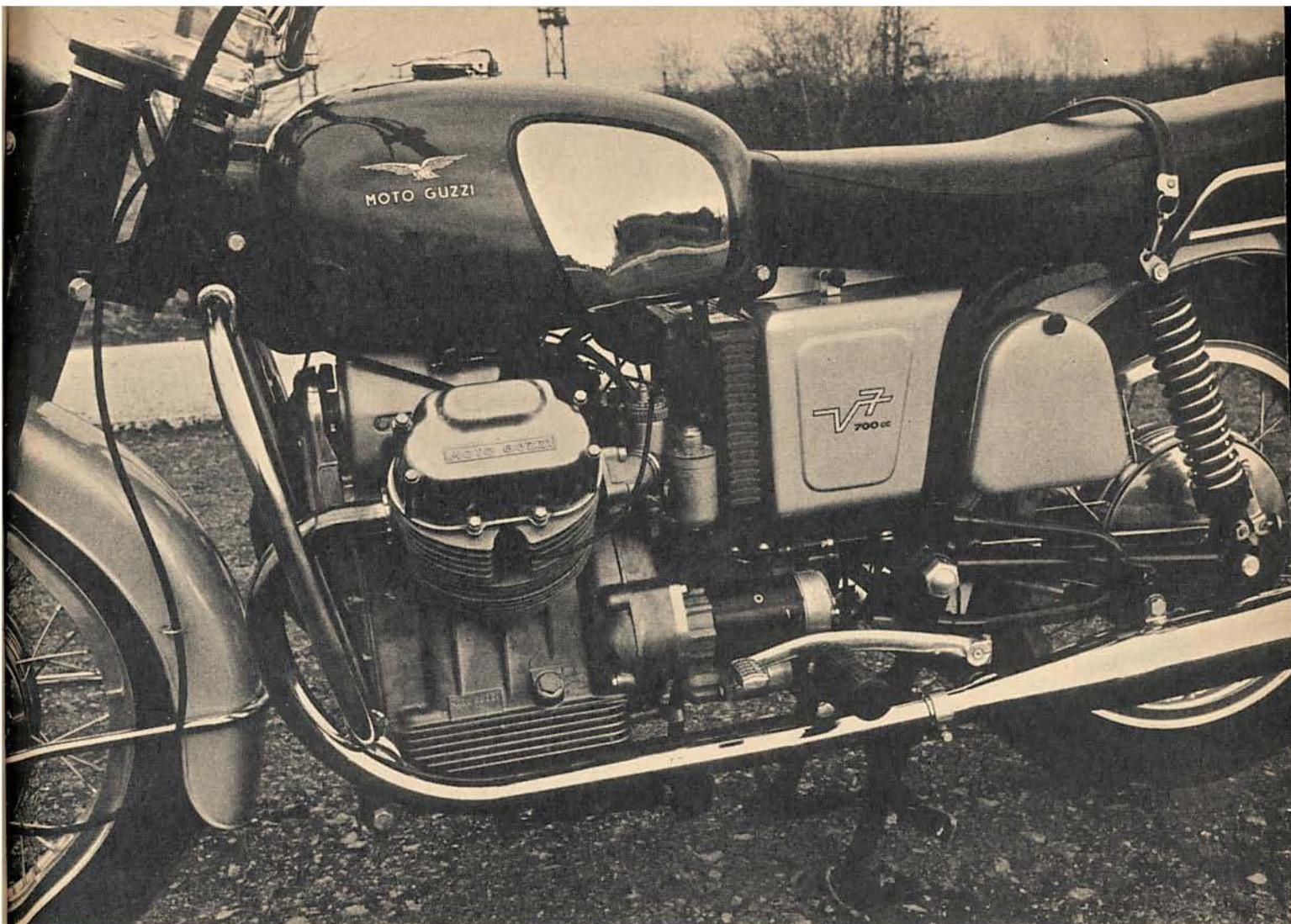
This engine was originally used in an automobile, then transferred to Italian MP motorcycles. In fact, we were told that should we lose our keys, to stop at a friendly Fiat dealer, since the keys (and starter) come directly from the Fiat 1100; and they would have blanks to fit.

The camshaft in our 9 to 1 compression ratio V-7 is gear driven off the front of the crankshaft (as is the pump for oil. The distributor is driven off the rear of the camshaft by means of a spiral bevel) and actuates the pushrods through a rocker arm arrangement.

The crankshaft itself has aluminum and tin plain bearings; the con-rods are stressed-strength thin-wall type, ordinarily found in racing applications.

Bore and stroke of the aluminum-alloy chrome-lined cylinders are 80 mm by 70 mm. All this produces an output of 50 bhp to pop your big tourer over the 100 mph mark. This power is transmitted to the one-up, three-down, four-speed box through a double-plate dry clutch.

The transmission itself is a two-shaft drum-shift affair that has constant mesh gears with frontal engagement and incorporates a cushion drive spring. The rocker/type foot shift is mounted on the right, the rear brake pedal on the left. The kick-starter . . . isn't.



The impression of the Guzzi is all engine; here you see why. Note the sump-finning and starter motor, also.

The automotive-type Marelli starter is the way you start your V-7. No ifs, and or buts. It is mounted on the left side of the engine and has a Bendix-type engagement to the toothed flywheel. The key-starter is mounted in the console (which fits atop the front forks) directly behind the one-unit speedometer-odometer, light indicator, oil light, neutral (idle) light and generator light. Push it all the way to the right with the right-handlebar mounted choke $\frac{1}{2}$ on and it should fire up. If it doesn't, find a long steep hill and try to bump-start it. If it still doesn't another small V-7 blessing comes to light . . . its repair-accessibility.

Most shaft-drive machines are brutes to work on; the Guzzi is not. Even though the two 29 mm Dellortø carburetors are placed well in-board under the seat and behind the engine, mainjets and adjustment screws are easily reached.

Working on the top-end is no problem 'cause it's cantilevered-free right there in front of you, you can

get at your valves and cylinders with no great strain.

The Moto-Guzzi V-7, remember, was designed to be a military service machine, so in the case of a major repair "Down-time" had to be kept to a minimum. To remove the entire engine, transmission and starter, just disconnect the tank, remove two bolts that secure through the frame, take out your driveshaft joint and "voila," the entire powerplant is free. (Remember to disconnect all your wires.)

Lower-end bearings can be replaced by "dropping the pan." This leaves your con-rod bolts ready to be worked on . . . without removing the engine from the frame.

One thing that blows the mind of most first-time-viewers of the V-7 is the belt and pulley system right out in front of the engine. It looks just like the fan-belt on a car. It drives the 12 volt 32 amp/hour DC generator by means of the pulley mounted at the very tip of the crank-shaft.

The capacities of the V-7 are impressive. Fuel tank holds $7\frac{1}{2}$ gallons of fuel; oil sump $3\frac{1}{4}$ quarts. The mileage we got was about 36 miles to the gallon with absolutely no oil loss of any nature. We did lose some gas, though. The gas is fed through two petcocks that must be closed or the float bowls will fill to overflowing (when the machine is stopped, of course) and continue to fill. Unfortunately, the petcocks are not marked in any way so we did dribble, until we learned to close them. The only reason we mention this, is that we feel some mention should be made in the manual, so consider it merely constructive criticism.

The power is transmitted in-line from the transmission to a double-universal joint, to a splined shaft (ball bearings, front; roller bearings, rear) thence to a bevel pinion and ring gear in the rear wheel hub. The splined shaft will compensate for motion of the rear swing arm. Ingeniously, the right rear-suspensor houses the drive-shaft itself utilizing

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a thrust bearing to the right, with a ball-bearing left to carry load.

The V-7's Duplex cradle frame is very strong, with large diameter tubing in concert with a very big single-tube backbone. The mountings for seat and rear suspension points go almost all the way back to the stop light and provide another example of very strong construction.

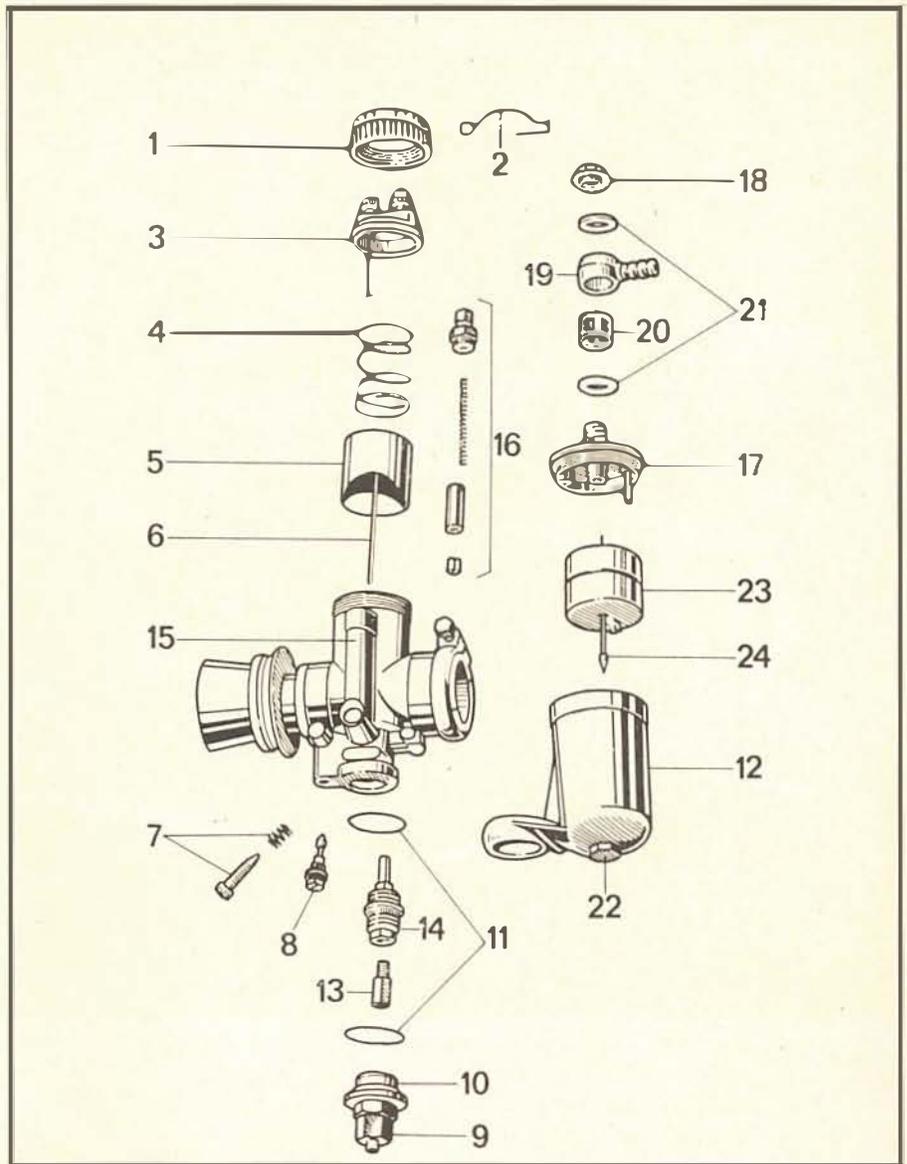
Hydraulic telescopic shock absorbers (with three-way adjustment) and exposed chrome coil springs serve amply at the rear, while the front forks are very heavy . . . and functional. The rake and trail seem quite right with one-up, and the machine is responsive and quick-handling. Alteration of the front forks damping may be achieved with changes in oil viscosity and should prove acceptable to any rider.

The brakes are more than acceptable. Full-width hubs and shoes at the front and rear with a diameter of nine inches, stop the Guzzi beautifully. They are constructed of aluminum alloy with cast-iron liners and don't seem to fade at all. A twin leading shoe front and single trailing shoe rear are the configurations, Moto Guzzi's engineers chose, and we wouldn't change them if we could.

The seat is broad and comfortable, finished in what looks like leather and with plenty of room for two-up. Bolted onto the sub-frame are two heavy-chromed handgrips (or tie downs for bundles) in a good position for the passenger. Bisecting the seat is the usual handgrip, but this one can be snapped on or off by means of two heavy-duty springlocks.

The V-7 is very quiet, that was our impression last year and it hasn't changed for '68. Even though, according to the distributors, a few complaints were made about valve train chatter, we didn't notice any. Perhaps, because, for '68, a new camshaft has been designed which should gratify any nit-picker, no matter how fussy.

The bike has torque enough to start as smoothly as any machine we've tried, yet will not do a wheelie. Oh, we tried, but all that happens is a more smooth, more rapid getaway.



The V-7 has twin 29 millimeter Dellorto carbs, here is an expanded view.

Tourers aren't built for the sporty-set seemingly, but we would like to get one that will raise its front wheel, if only for the security it gives us if we see a sudden obstacle in our path. But certainly, this is not a fault, only a personal preference.

The machine has a nice feel at speed, but with two-up, the front end feels just a smidge light. No discomfort, though, not even any "hunting" of the front end.

One other stock item thrown in for the approximately \$1440.00 price is a set of crash bars. They don't hurt the appearance of the machine and when one is drilled, provides a handy place to mount that second license plate that some states demand. Our time for the V-7 through the quarter was a little disappointing, 85 mph in 16.3 seconds, but only disappointing when you consider it

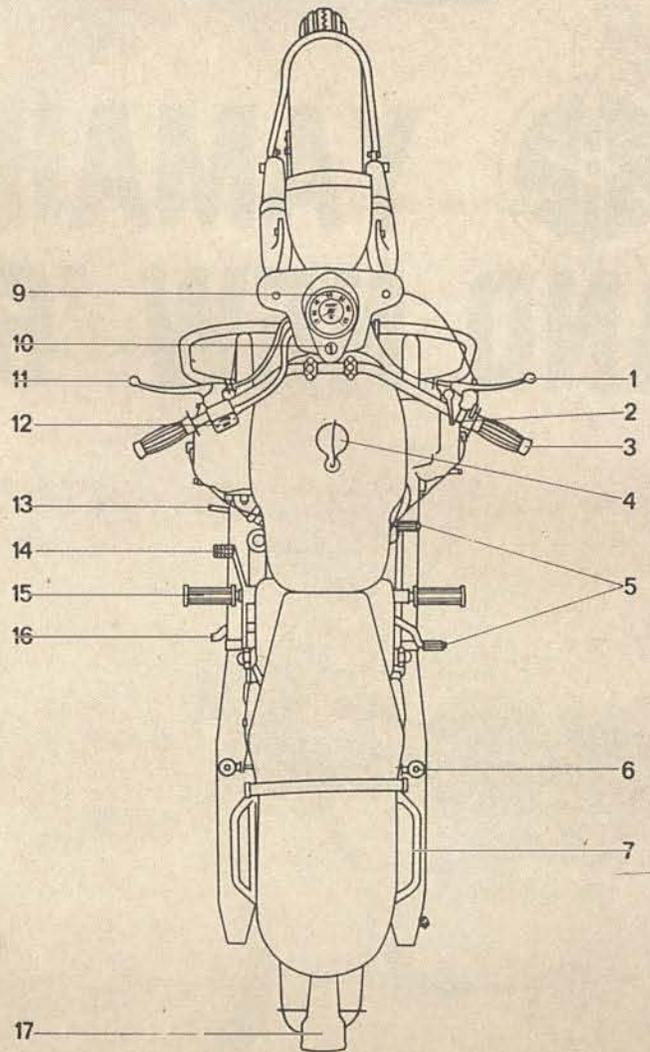
against 650's and 750's of the non-touring variety. Since its chief rivals would seem to be the FLH and the BMW's the Guzzi comes out looking very well indeed. Considering that it most definitely will exceed 100 miles per hour, and in a very quiet and tractable manner.

If you enjoy touring on an interesting bike, and if you enjoy being besieged with comments and questions at every rest stop and traffic light, the Moto Guzzi is for you.

If you like an electric starter, quiet and comfort coupled to a bike with character, the Moto Guzzi is for you.

If you enjoy good handling and good conversation, try the others in its class: then try the Moto Guzzi V-7. We think you'll like it, if not then you don't want a tourer but a sporting bike . . . and that's a whole different scene.

- 1—Front brake lever
- 2—Air control lever
- 3—Throttle control grip
- 4—Fuel filler cap
- 5—Gearshift lever
- 6—Pillion footrests
- 7—Pillion handgrip
- 8—Headlight
- 9—Speedometer and lighted indicators
- 10—Key type ignition switch
- 11—Clutch lever
- 12—Dipper switch and horn button
- 13—Side stand
- 14—Rear brake pedal
- 15—Footrests
- 16—Center stand
- 17—Tail lamp



The controls and accessories are clearly shown in this artist's rendering.