

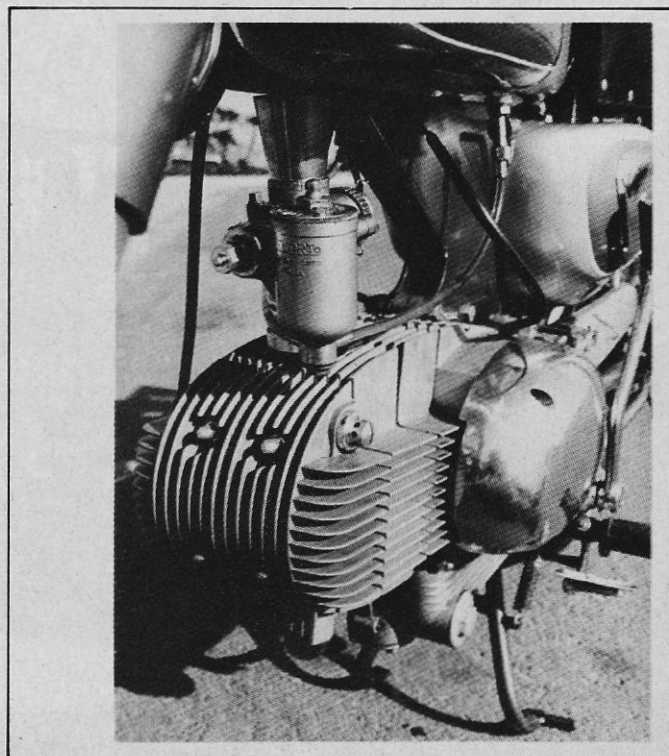


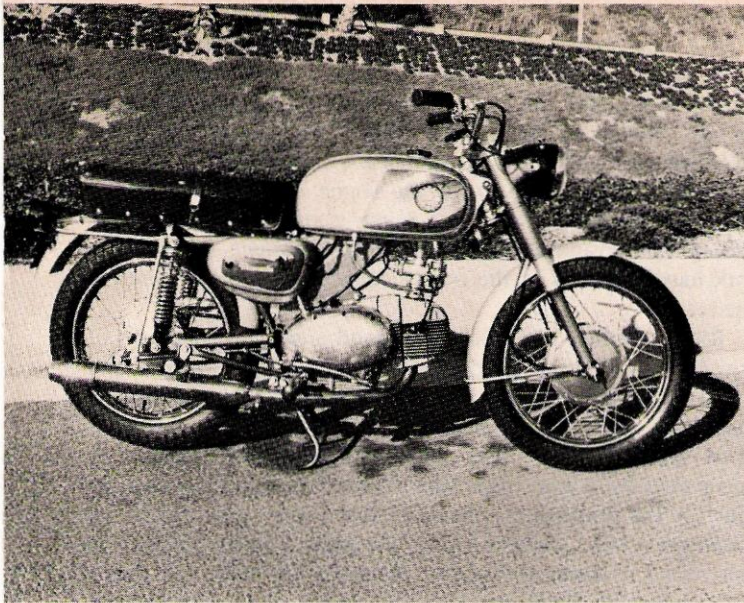
BENELLI BARRACUDA

A 250 with torrid tuning

SOMETIMES a motorcycle can be too fast. On a road machine, tuning for greater power and additional speed is fine, provided the extra performance does not interfere with the bike's ability to handle every situation that the average rider is likely to meet. In this respect, problems arise for the Benelli Barracuda fitted with the Sport Kit sold by the factory's U.S. distributor, Cosmopolitan Motors of Philadelphia, Pa. In standard form, the 250-cc ohv Barracuda is a docile, willing roadster, with flexible engine characteristics and fine handling. Add the Sport Kit, and the bike's personality changes far more than the kit's \$150 price tag might indicate. The Barracuda becomes fast—very fast for a 250 Single. It also loses its loping tickover, some of its tractability, and gains a great deal of rickety Daytona type noise.

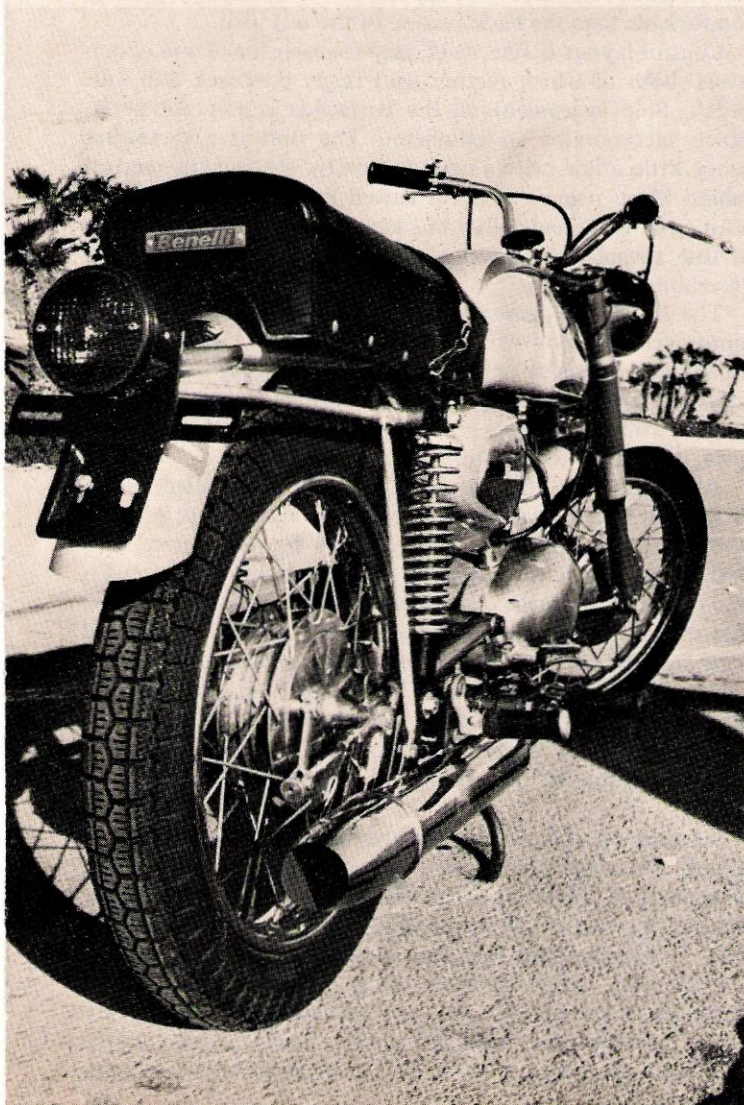
A different cam with more radical timing, stronger valve springs, a 30-mm carburetor (in place of the 24-mm unit fitted to standard machines), and a thinner head gasket (to raise compression ratio), comprise the Sport Kit. That doesn't sound like much in the way of all-out speed equipment, but it is certainly effective. The kit hauls the Barracuda's time for the standing quarter into the 15-sec. bracket, and boosts its terminal speed to just over 80 mph. The engine also demonstrated a startling addiction to high rpm. Happily, this is an addiction without ill effects, for the crankshaft will spin to 8500 rpm without hesitation. Much of the reason for this ability to turn at high rpm lies in the engine's ultra-short





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stroke design. The 2.24-in. stroke means that at peak crankshaft speed, piston travel is less than 3200 ft./min.

City and suburban roads aren't proper thoroughfares for the rider of the Sport Kitted Barracuda. Its blaring exhaust note announces the Benelli's presence to policemen and peace-loving citizens for blocks away. Test riders used the bike for around town travel only as a last resort, for fear its unruly noise would attract citations. The best technique for city travel is to use about one eighth of available throttle, and allow the engine to bonk away at its lowest possible operating speed. An additional problem arises at traffic lights, for the Sport Kit cam refuses to permit the engine to idle slowly. If the throttle is rolled to the fully closed position, the engine frequently gives a resigned snort and dies. It has to be fed a dribble of fuel—and that means, again, noise from the exhaust.

All these snags dissolve into the wind when the bike hits the open highways. Then there are no problems with lumpy idle, or pedestrians to be offended by noise. In fact, the Barracuda has everything necessary for fast road travel. The five-speed gearbox offers a ratio for every situation, and the engine has adequate power for overtaking. The exhaust note becomes an ever rising and falling accompaniment to gear changes and throttle movements. With the engine working hard, it blares aggressively; on the overrun, its hollow staccato blast is reminiscent of thoroughbred single-cylinder racing engines.

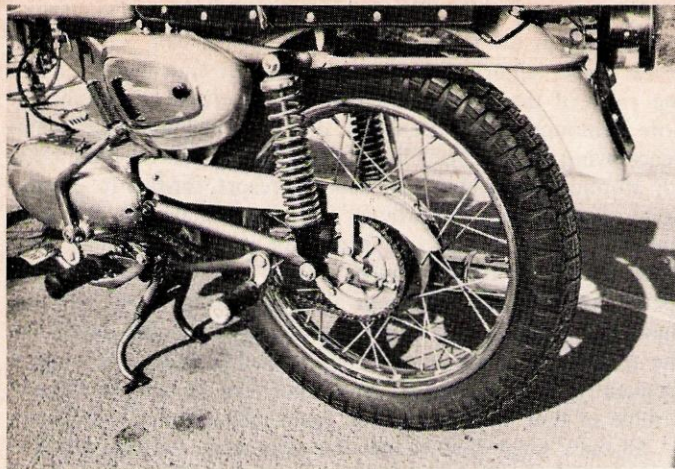
The long, rocking pedal type gear lever, mounted on the right, offers quick and accurate changes, providing firm foot movements are used. Fifth gear operating range depends on a number of factors—wind conditions, road gradient, rider weight and bulk, and handlebar. The standard bar is fairly wide, and very comfortable. However, a combination of this bar and a 230-lb. rider revealed that fifth gear had difficulty in holding a 70-75 mph cruising speed. Lighter and slimmer riders found that fifth was fairly versatile. A flat, narrow bar, or racing style clip-ons, would greatly assist the Barracuda's top end performance. During drag strip tests, for example, the bike showed marked acceleration in fifth gear, when the rider lay flat on the tank.

Handling is positive and accurate. Cornering the Barracuda is more a question of inclining the head than physically putting the bike into a bend. Nothing scrapes during extreme cornering angles. Flipping the bike swiftly along a snaking road involves rapid action with gear pedal and clutch lever to keep the engine at its optimum operating range. With the Benelli's handling and gear change—and that beautiful exhaust note—this type of riding is great fun.

Both brakes are single leading shoe units, 7 in. in diameter at the front, with a 6.25-in. diameter unit at the rear. They are powerful and light to use—like the Barracuda itself.

Benelli lays the engines of many of its lightweight models in a horizontal position. The advantages are obvious—lower center of gravity, lower overall machine height, and more efficient cooling of the cylinder head. Benelli also employs a backbone type frame, and this feature and the horizontal engine provide unrestricted access to mechanical components. A vast range of service and repair tasks can be completed without removing the fuel tank or disturbing the engine from the frame. Indeed, the time required to service the battery would almost be sufficient to remove the engine, for Benelli has hidden this vital electrical component beneath the seat. And raising the seat is no simple flip-up task, but a matter of removing two through bolts, one of which is tucked away in an inaccessible corner. However, this is a minor complaint, in view of the accessibility of the remainder of the machine.

The Barracuda engine originated as a 125-cc unit. A slight increase in stroke, and major increases in cylinder bore, have



taken the engine through 175- and 200-cc sizes, and now to 245 cc. Its appearance is strikingly handsome, in an unusually futuristic manner. Instead of following conventional configuration of wide at the top and slender at the lower section, head and barrel form a streamlined, teardrop shape. The engine's good looks are enhanced by excellent alloy castings

Internally, the powerplant follows common Italian practice by employing a wet sump lubrication system. The sump is located below the crankcase, and a geared pump delivers the lubricant. A worm gear transmits drive from the crankshaft, through a vertically mounted shaft to the pump below. Lubrication of the valve gear is through hollow pushrod tubes, a method that allows oil lines to be eliminated.

The crankshaft is supported by four bearings, and the big end of the connecting rod on caged rollers. Drive to the camshaft, and to the multi-plate wet clutch, is by helical gear. The entire design is light and compact, and, judging from its record in Benelli machines for some years now, reliable. Addition of the Sport Kit boosts maximum power from 24 bhp to a claimed 29 bhp, so the bike's performance is really no

great surprise.

The large Dellorto carburetor juts vertically into the underbelly of the fuel tank. On some machines of this displacement, Benelli has angled the carburetor intake to the rear, to enable an air cleaner to be housed under the rear of the tank. However, no cleaner was fitted to the test machine.

While the main section of the frame is formed of welded steel stampings, the rear sub frame is of conventional steel tubing. Suspension also follows standard practice—a telescopic fork handles duties at the front, and a swinging arm is used at the rear.

Rider comfort is a mixture of good and bad. Locations of handlebar and footpegs provide a natural riding position, but much of the pleasure of this is marred by the seat—a narrow, hard little device. Only minutes, rather than hours, are sufficient to make the rider uncomfortable. The problem is aggravated by a low ridge which runs transversely across the seat for the purpose of separating the driver's space from the passenger's area. Unfortunately, the ridge is badly placed—on solo trips, it seems to occupy the place on which the rider's rump naturally tends to settle. It's really quite surprising to find this hard and unyielding little perch on the Barracuda, for it invariably has drawn adverse comment in previous tests of Benelli machines.

However, a \$50 investment on the part of the buyer secures relief. For this price, Benelli offers an alternative fuel tank and seat combination, smarter in appearance than the standard components. The seat also appears to be considerably more comfortable than the basic version of the test bike.

Control layout is fine, with easy-to-reach brake and clutch levers—both of which require light finger pressures—and foot pedals. Sole instrument on the Barracuda is a speedometer, which incorporates an odometer. The unit is a somewhat stingy little affair, with a small dial partly obscured by control cables. Many owners of Sport Kitted Barracudas are going to want to invest a few dollars in a tachometer. This extra will be of true advantage to anyone who uses the bike's tremendous "revability."

The Barracuda proved to be one of the easiest starting of motorcycles. One or two swings on the usefully long start lever usually are sufficient to bring the engine bustling to life. On a cold morning, it was easy to flood the engine by excessive use of the carburetor tickler. But after this mistake had been made once, it was easy to avoid repetition.

Although the Sport Kit costs \$150 when installed by the distributor, the Barracuda can be bought for its base price of \$659, and the kit purchased separately for little more than \$90. Thus, owners of presently non-Sport Kitted Barracudas also can take advantage of the available increased performance. The distributor recommends that a dealer should be entrusted with installation of the kit, unless the rider has sufficient experience, and the necessary tools, to complete the task himself. The retail price of the test machine, with its factory installed kit, but without the optional seat and tank, was \$809. Addition of the styling kit would bring the total to \$859.

Backing all this is Benelli's incredible 25,000-mile or 25-month warranty. The factory claims—without much fear of contradiction—that this is the most extensive warranty in the motorcycle industry. It's certainly a matter for congratulation when a manufacturer says that a customer can return a bike for attention under warranty, when it may have been subjected to a variety of treatment for more than two years. Benelli can claim to lead the world's manufacturers in the matter of protecting customers against unreliability or faulty workmanship. ■