SEPTEMBER 1968 2/6d

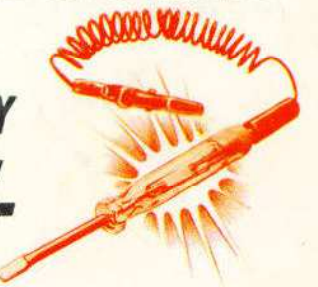
MOTORCYCLE SCOOTER & THREE-WHEELER MECHANICS

LAR SALE

SPECIAL OFFER!

CIRCUIT TESTER

FOR ONLY 4/-

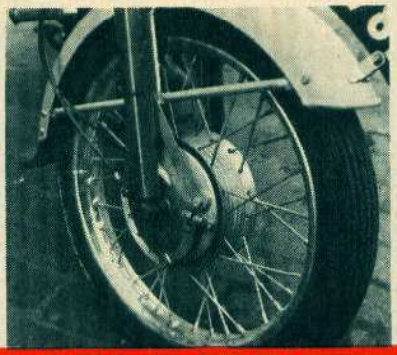


RUN-IT-IN RULES
SAM MILLER TALKS
SCOOTER CUSTOM
BOND SERVICING
KEEP DOWN COSTS
AERMACCHI STRIP
YAMAHA 250 TEST
PLUG POINTERS

2000 MILE PUCH TEST

In spite of direct electrics on the M125, the sealed beam headlight was equal to the performance of the bike. Unfortunately, this didn't apply to the horn

The handlebar layout is neat with ball-ended levers and fingertip adjusters on brake and clutch. An oil measure is included in tank filler cap, but tank is too small



The full-width front brake gave progressive and very effective braking at all speeds. The speedo drive is taken from the front wheel. It registered optimistically

The rear brake, almost identic to the front, also worked we The rear hub contains a cus drive to absorb transmissio shocks. Note large rear ligh

Puch are back in Britain with a completely new range of motorcycles and mopeds—and with five Gold Medals to live up to in last year's ISDT, the 125 cc motorcycle leads the attack on the British lightweight market.

"What could we do that would test this seemingly invincible machine to its limit?" were the fiendish thoughts at MM.

"Why not a flat out trip to the factory in Austria and back? It's a round trip of 2000 miles and we should be able to do it over a long weekend."

And that's exactly what we did—a marathon run from Big Ben in London to the clock tower in Graz and back. Two thousand miles of the hardest road testing you've ever seen.

Duckham's supported us with their new two-stroke oil, while Thermos provided flasks to keep the team of four riders sustained with hot drink and Philips provided one of their battery cordless shavers to keep us de-whiskered.

Carvair

The run from London to Southend airport, where we boarded a British Air Ferries Carvair for Rotterdam, took just over the hour. Then, following an hour's flight over the "water" and after clearing Dutch customs, we finally departed from the city, bound for the German and Austrian borders, at just after 10 a.m. on Friday, in the pouring rain.

Out of the city it was autobahns and more autobahns—over 700 miles of them. This meant the little Puch was on full throttle from one tankful of fuel to the next.

Relentlessly we thrashed the bike, waiting for something to break and eventually it did—*the rear bulb filament!*

In 2000 miles of full bore motorcycling, that was the only item which gave in to our efforts to burst the machine.

It is virtually impossible to fault this lightweight on performance. How can you when it averages 58 miles in the hour and with the rider wrapped around the tank will top the 70 miles-an-hour maximum?

The handling or roadholding was also tested to its limits around the mountain roads and hairpins in the Austrian Tyrol. And whether we were bouncing over rough, unmade roads or scratching round hairpins, the steering and handling were always precise.

Suspension was good, although with a pillion passenger on board, the rear legs which were not adjustable, sagged a little under the weight. But there are very few 125s where this wouldn't be the case.

Braking was also excellent, with both front and rear full-width hubs giving very controllable stopping power. It was possible to squeal both tyres at any speed without fear of the wheels locking.

The most surprising thing about the M125 was the performance of the tiny piston-controlled two-stroke motor. In first gear with maximum acceleration, it was possible to lift the front wheel.

In fact, the only thing which marred an otherwise marvellous small-capacity motor was a vibration period between about 5000 and 6000 rpm. Once the motor was beyond this vibration range, it was smooth up to its maximum of 7000 rpm.

In fact, there were many occasions during the trip when we exceeded the quoted maximum by what must have been at least 1000 rpm or more. This was definitely the case on some of the longer hills in southern Germany, where the speedometer was indicating over 80 miles an hour.

Hammering

And when we arrived in Graz at nine o'clock Saturday morning, the motor was still running as sweetly as ever.

One would never guess—apart from road dirt—that the bike had just taken a 1000-mile hammering. It waffled quietly through the city traffic, with the occasional four-stroking as the throttle was momentarily eased.

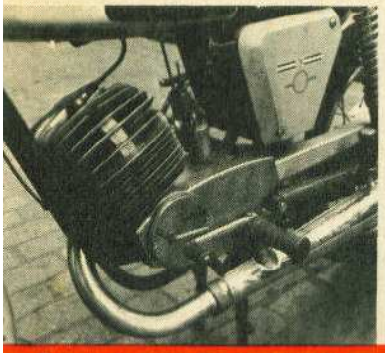
In effect, it became almost another machine—a comfortable, about-town, ride-to-work mount with sufficient low-down tractability for traffic poodling, plus the necessary second and third gear acceleration for the traffic light Grands Prix.

As mentioned, the motor is a conventional piston-controlled port, petroil two-stroke, which is a little surprising for Puch as they were pioneers of the throttle-controlled, separate oil pump feed on their earlier split-single models.

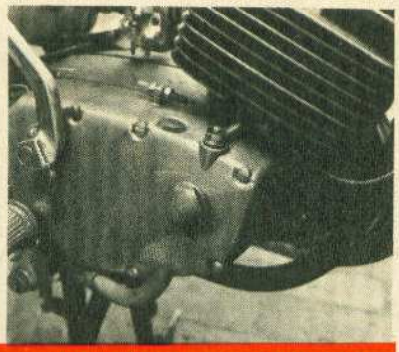
However, the Duckham's two-stroke oil

The team of riders and Duckham's oil Land-Rover arrive with the Puch in Graz, Austria

PUNCHY



Extremely large fins ensure that the motor is adequately cooled. The gearchange is on the left of the clean, unit-construction motor. Note anti-ringing fins



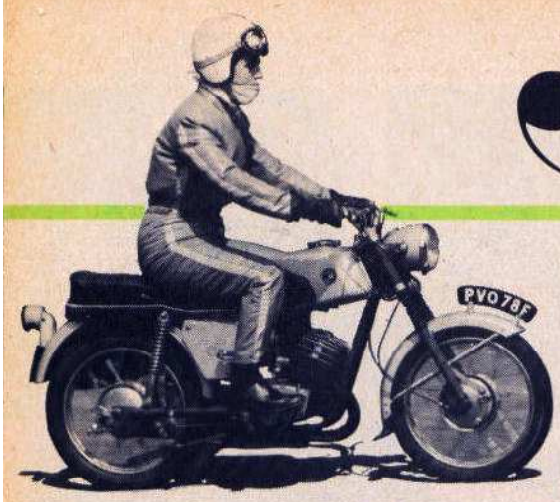
Offside of the engine, showing the clutch operating arm and adjuster. Oil filler screw in front of adjuster also combines a dipstick

MM SUPER TEST

PUCH

MM TOOK THIS FANTASTIC 125 cc BABY 2000 NON-STOP MILES TO AUSTRIA AND BACK!

We tried to break it, but



used throughout the trip coped admirably with the lubrication of the engine and on stripping the head and barrel back at the M M workshops, there was no sign of picking-up or seizing of the piston or rings.

Maximum power is produced at 7000 rpm and is quoted at 12 bhp, but with a dry weight of only 198 lb., the M125 has an excellent power-to-weight ratio. This is no doubt one of the reasons for its good acceleration and hill-climbing abilities.

Two up

Even with two up it would romp up most hills in third gear and provided the revs could be maintained, it would tackle others comfortably in top.

The gearchange on this new model is better than the old in that it is lighter in its operation. But with a crankshaft-mounted clutch, the change between the gears tends to be clonky and quite often grates. But I don't recall missing a gear on any occasion because of this slight criticism.

The clutch, itself, was extremely light and smooth in operation and showed no signs of fatigue throughout the test. Obviously, one of the reasons for this was the well-chosen gear ratios in the four-speed box, which allowed one to drop the clutch almost from a standstill in first gear. There was no need to keep the engine revving to pull away and, consequently, the clutch did not suffer from excessive slipping.

In many ways, the Puch M125 is a very basic machine. Ignition is by flywheel magneto and lighting, etc, is direct from the flywheel coils.

This means that there is no such refinement as parking lights and the horn buzzes not much louder than an angry wasp. Fortunately, the standard of lighting when the machine is on the move is up to the performance of the Puch.

The headlight is a "sealed beam" unit, which throws a long, powerful main beam and provides a fine, cut-off beam when dipped. But there are no flashing indicators or electric starters as with some of its contemporaries.

"Who needs an electric starter, anyway?" is the question which owners would ask when you have first or second-kick starting as on the test model.

The procedure was simple—flood carb with tickler, push down choke slide set in the carburettor body and prod the kickstarter.

If it didn't start first time, it started at the second attempt. Then, as the throttle was opened, so the choke slide was automatically lifted. In hot weather, no choke was needed.

All the electrics on the machine, with the exception of the rear stop-light, are controlled by one handlebar-mounted switch.

The on-off head and rear lights, the horn and the engine cut-out are combined in this one control and although the lighting fell easily to thumb, I must admit that the horn button was ill-placed for immediate and urgent operation.

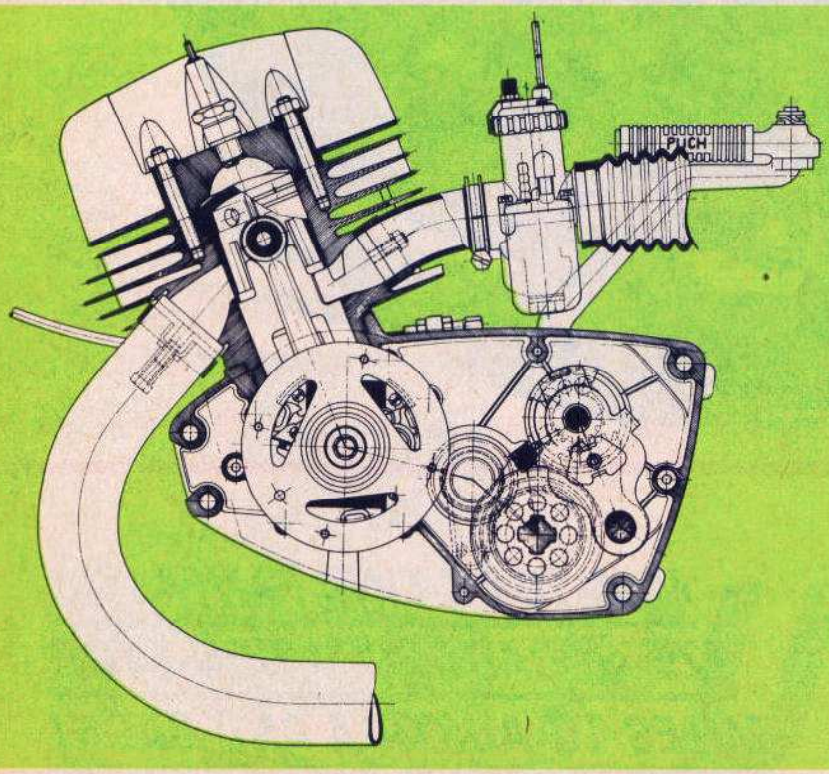
Riding position

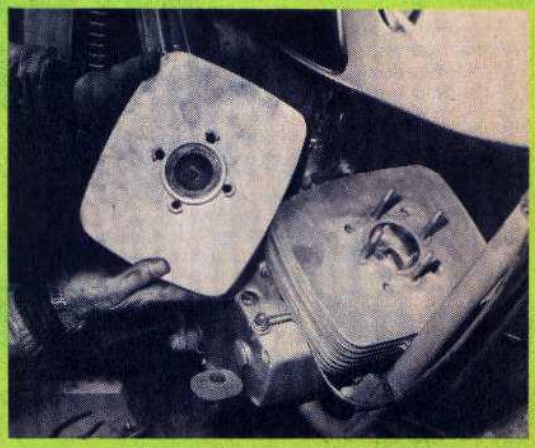
The riding position for long distances and local use couldn't really be improved upon. The footrests and all controls are adjustable to suit riders of all shapes and sizes, while the dual-seat is almost adequate for three people.

With so much dual-seat, the petrol tank looks small—and it is . . . it holds just under two gallons, which on our marathon run meant we were having to refuel far too often for our liking.

We were covering just over the 100 miles from full tank to reserve, but this was a fairly substantial one-third of a gallon and an average of between 65 to 70 mpg for the sort of riding we were doing was pretty good.

Later, when we were using the bike on test





The Puch 125 is a conventional piston-controlled port two-stroke, with a slightly-domed piston. The massive finning on the barrel and cylinder-head makes the motor appear larger than it is, but the performance is also greater than the average 125. The barrel is chrome-plated direct on to the alloy

couldn't...

in London, this average went up to just over 80 mpg. I've been told that it will easily do the "ton" miles-per-gallon, that is, and this I don't doubt if you never exceed 40 mph on a medium to long run.

The journey to Graz from Rotterdam took just under 23 hours, which allowing for eight refuelling stops and approximately two hours wasted when the motorcycle "lost" the accompanying Land-Rover at a "Y" fork turning, gave an average speed of 46 mph.

It would have been even higher had it not been for the fact that the bike had to wait or slow down for the Land-Rover when it came to refuelling.

On the return trip, after a thousand-plus miles, we managed to streamline the refuelling procedure and cut the journey time from Graz to Rotterdam to a mere 19 hours including stops, which pushed up the average speed to almost 52 mph.

During our stop in Graz, from the Saturday to Monday morning, the factory gave the machine a quick check-over to make sure everything was in good order.

Apart from slight signs of running rich, there was nothing wrong. They re-jetted the carburettor for a slightly weaker mixture, which gave a surprising boost to the top-end performance. But this is usually the case with two-stroke.

On the return, the slight improvement at the top-end helped on the long hills, but it had the disadvantage that we had to change the sparking plug when it "cooked" halfway between Munich and Nuremberg.

That then is the story of our high-speed test of a very game Austrian lightweight. We tried to break it but couldn't, it took everything our team of four could give and, judging by the condition of the machine when we handed it back, it would do the same trip again without flinching.

Perfect lubrication

I think it also proved a point for Duckham's, who decided to test their new two-stroke oil under these very hard riding conditions. If it stands up to this sort of use, giving perfect lubrication to our road test machine, then they must be confident that it will serve the average rider equally as well.

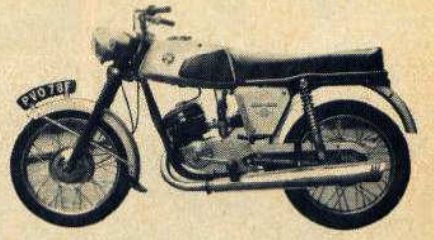
Overall impressions of the machine are, of course, outstanding. It's a pity that vibration and design points such as a too small petrol tank should detract from what is a truly surprising 125.

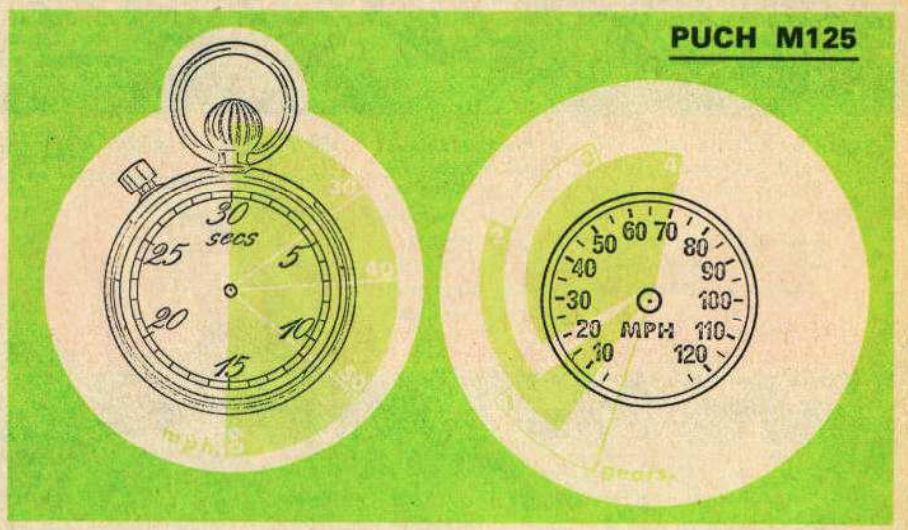
The question is, to whom will this machine appeal? Well, for the young learner it has clean, modern looks with a peppy performance, and for the ride-to-work man, it has reliability, flexibility and economy. Virtues enough to appeal to a large number of people.

And, although the Puch is slightly expensive for a 125 motorcycle, you certainly get reliability and performance for the price.

MM SUPER TEST

PUCH M125





Performance

Speeds in gears

	Minimum	Maximum
1st	3	16
2nd	7	38
3rd	14	58
4th	18	70

Acceleration

0–30 4.2 sec. 0–40 7.0 sec. 0–50 10.6 sec. 0–60 15.0 sec.

Standing quarter-mile: 21.6 sec.

Fuel Consumption: Overall 75 mpg. varying between 65 mpg and 80 mpg depending on use.

Braking: From 30 mph, using both brakes on a dry tarmac surface: 29 ft. 6 in.

Specification

Engine: Single-cylinder, piston-controlled porting two-stroke. Bore 2.16 in. (55 mm.) x 2.05 in. (52 mm.), giving a displacement of 123.5 cc, with a compression ratio of 10:1. The motor develops 12 bhp at 7000 rpm.

Transmission: Four-speed constant-mesh gearbox driven by direct gear pinion of 2.516 ratio from crankshaft-mounted clutch. The five-plate clutch runs in oil bath, which also provides lubrication for the gearbox.

Gear ratios overall, with the 2.516 primary drive are:

1st 23.36:1 2nd 13.47:1
3rd 8.98:1 4th 7.19:1

Electrical Equipment: 6-volt direct lighting and magneto ignition from flywheel unit, crankshaft mounting. Headlight is 30 watts on both main and dipped beams, with an 18/5 watts stop- and tail-light. The headlamp is a sealed beam 5.1 in. (130 mm.) unit. C.B. points and ignition coil are contained in flywheel magneto unit.

Carburettor: Single Bing 2/26/59 unit with 1.02 in. diameter intake. Choke slide incorporated in throttle slide, with automatic opening as throttle slide is raised. Main jet No. 115 or 105 as needed.

Dimensions: Overall length 74 in., overall width 24 in., ground clearance 7.6 in., weight 198 lb., wheelbase 48.4 in., seat height (rider seated) 30 in.

Capacities: Fuel tank 2 gallons including reserve. Gearbox and primary drive case 1¼ pints. Front forks 135 cc in each leg. Rear shock absorbers 55 cc each.

Wheels: Front wheel is 2.50 x 17 with ribbed tyre and single-leading shoe 6.3 in. full-width drum brake. Rear wheel has a 3.00 x 17 tyre with brake similar to front.

Price: £177 9s. 0d., manufactured by Steyr-Daimler-Puch Ltd, Graz, Austria, imported by Steyr-Daimler-Puch (Great Britain) Ltd, Birkbeck House, 6 Trinity Square, Nottingham.