

# NEW SACHS ENGINE! ...It's a fireball!

SACHS, the West German engine manufacturer, has surprised the European motorcycle industry with a new sports powerplant.

About 20 European manufacturers, most of them Italian, have traditionally depended on the Sachs motor, but the long-serving current plant was "getting strained" according to some builders.

The two-stroke singles face high performance demands — they power some of the most specialised European motocrossers in Australia. KTM, DKW and SWM all use Sachs motors as do many popular European small-bore manufacturers such as Hercules, GoRi, Ancilotti, Rond and Monark.

The new motors are designed "from the sump up" according to the factory, with impressive power in standard form and "plenty in reserve"! The surprise announcement of a new motor has had manufacturers queueing up at Sachs — and damn near around the block!

The new engines are sized at 125, 175, 250 and 255 (for 350 class motocross competition), all using the same bottom case and gearbox but various cylinders, heads, cranks, rods and pistons. The stroke is common at 61 mm and bore varies with capacity.

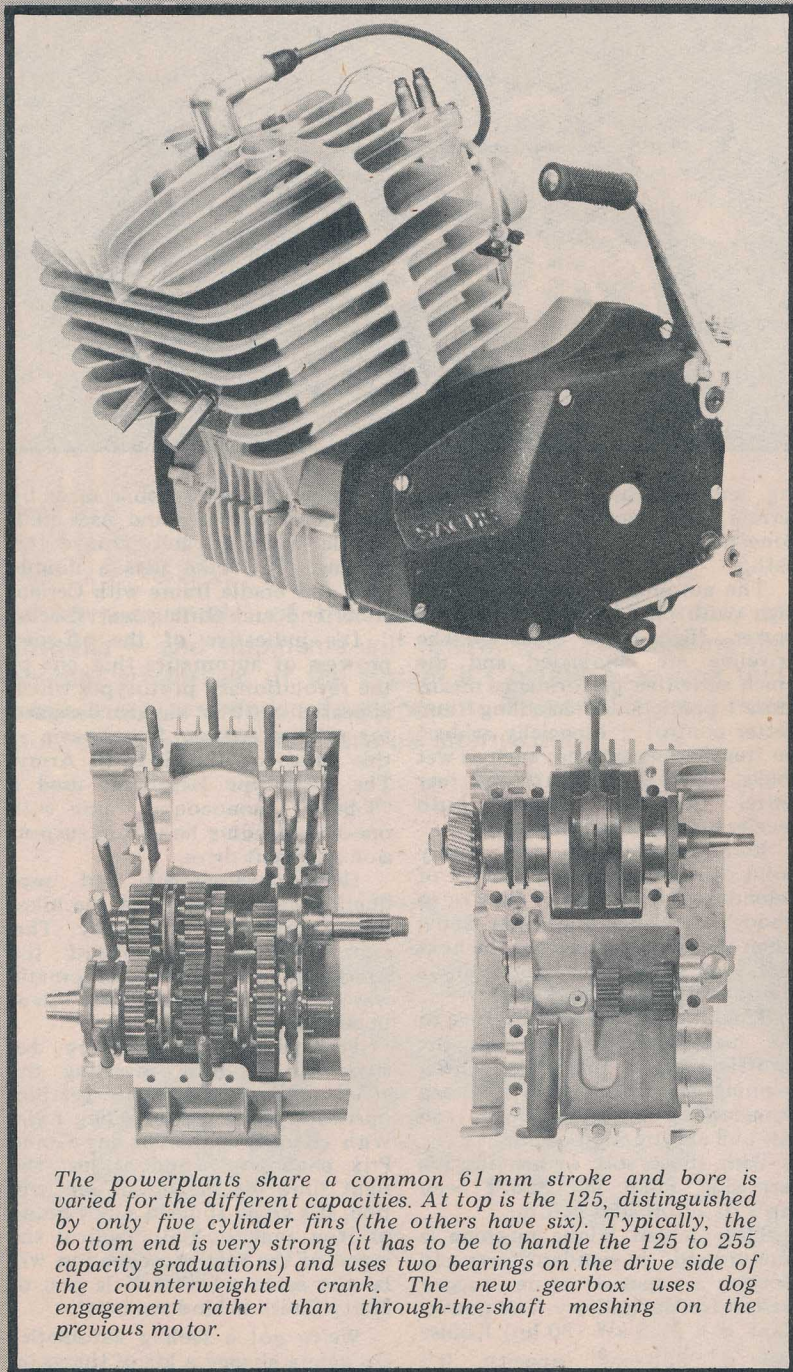
Compression is 11.5:1 for the top three, and 12:1 for the 125. Factory advice is that it can "easily be increased".

Using four transfer and three exhaust ports Sachs achieves outputs of: 16.3 kW (22 hp) at 9200 rpm, 19.2 (26 hp) at 8500, 23.7 (32 hp) at 8000, and 24.4 (33 hp) at 8000.

The engine cases are split horizontally, and Sachs' new design includes a trick gearbox with a layshaft below the mainshaft so that only four gear sets can give up to seven speeds contained in a compact space. For touring applications the layshaft can be left out for four, five or six speeds.

The new engine has been announced soon after the British engineering company GKN (Guest Keen and Nettlefolds) announced its proposed takeover of Sachs at a cost of more than \$100 million. Under the final terms of the deal GKN will buy 75 percent less one share of the entire Sachs empire, which includes the Sachs subsidiary company Fichel and Sachs, engine manufacturers. The business of the group includes motorcycles, mopeds, bicycles and motorcycle parts including clutches, shock absorbers and hubs.

GKN has made it clear there is no intention to change Sachs' company policies and operations.



*The powerplants share a common 61 mm stroke and bore is varied for the different capacities. At top is the 125, distinguished by only five cylinder fins (the others have six). Typically, the bottom end is very strong (it has to be to handle the 125 to 255 capacity graduations) and uses two bearings on the drive side of the counterweighted crank. The new gearbox uses dog engagement rather than through-the-shaft meshing on the previous motor.*