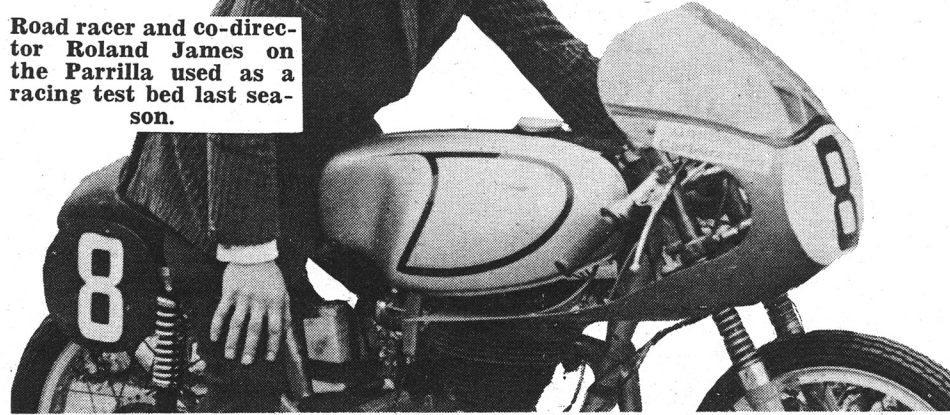


One of the major internal changes is the redesigned slide which is also made from a new material. The nylon covered control cable can be fitted to either side of the carburettor.

Story by John Brown

Road racer and co-director Roland James on the Parrilla used as a racing test bed last season.



RON GARDNER, the man from Burgess Hill, Sussex, who has successfully carried out a minor revolution in carburettor design, has made a flying New Year start by introducing a new 16 model range for motor cycles.

Under the heading of the Model 400 the new look and slightly modified instruments cover choke sizes from 1 to 1½ inches, with the unique distinction of 1/16th inch size differentials for most types between the limits.

Prices for the carburettors, designed for touring machines as well as racing models, range from £10 for the one inch 425, to £16 for the 1½ 435LF and 1½ inch 438LF instruments.

Major internal change over the current Gardner carbs that have proved highly successful in racing is the redesigned slide, now made in an injection moulded, nylon impregnated material which reduces friction—a problem with the Tufnal slide used in earlier carburettors.

Lightness is one of the assets of the new carburettors, with the biggest weighing only half the amount of other equivalent 1½ inch racing units.

The 400s for roadster and racer machines differ little, the exception being that a tick over throttle stop is provided for the roadsters. For petrol use Gardner strongly recommends the use of a float chamber—"we hope to be producing one of our own very shortly," he says—but for dope use in grass track or speedway a direct feed system can be employed.

As well as a float chamber of his own, Ron is also planning to introduce a sophisticated positive feed system in the near future.

Adjustment is easy but crucial on the Gardner 400s. The adjuster screw clicks at every 360 degree turn, and it is most important that the adjustment is never left between this as the angle of the needle is disturbed. "The carburettor looks so simple, but actually it is quite complex," says Ron.

A comprehensive selection of bell mouths are available and fit on the body by means of an O ring that prevents the possibility of vibration causing them to come loose and drop off.

The 400s were first tested on roadsters during 1969, and last year development was carried on in racing. The next move as far as the 400 is concerned is to produce a fully enclosed version that will be suitable for moto cross use.

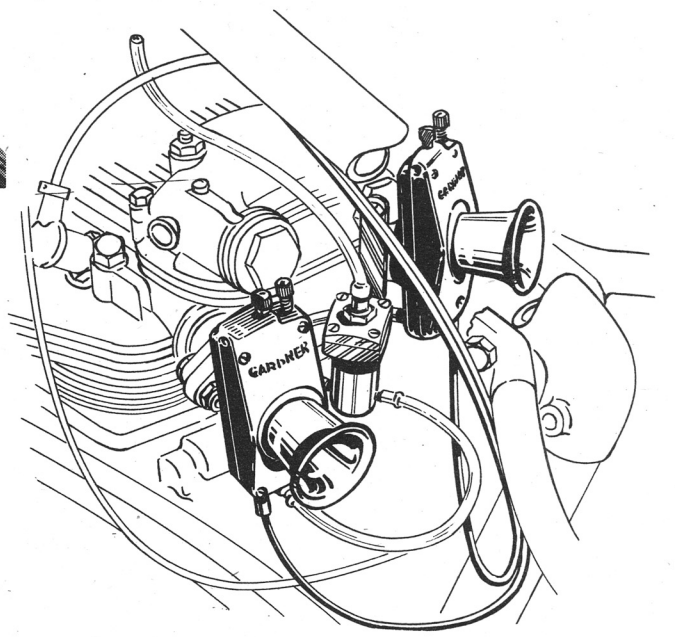
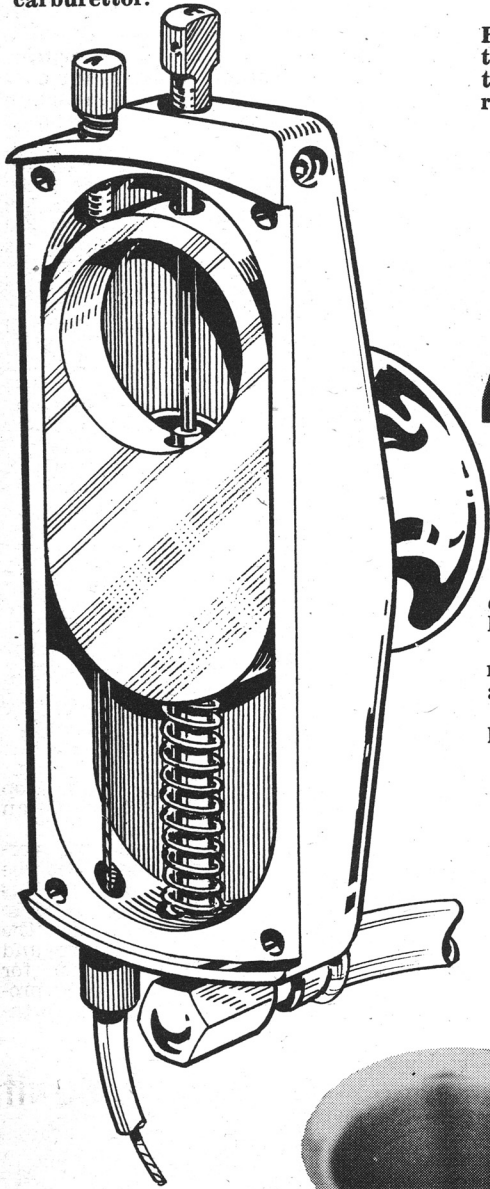
From a very small beginning Ron Gardner has really made his presence felt in road racing, despite a large number of early day cynics.

Now, with Roland James, boss of a sub-contract engineering concern as his main partner, Ron has a new company, formed in 1967.

Development and manufacturer of carburettors for all types of engines, with a present big onslaught on cars, is being carried out in small but active workshop units in Sussex.

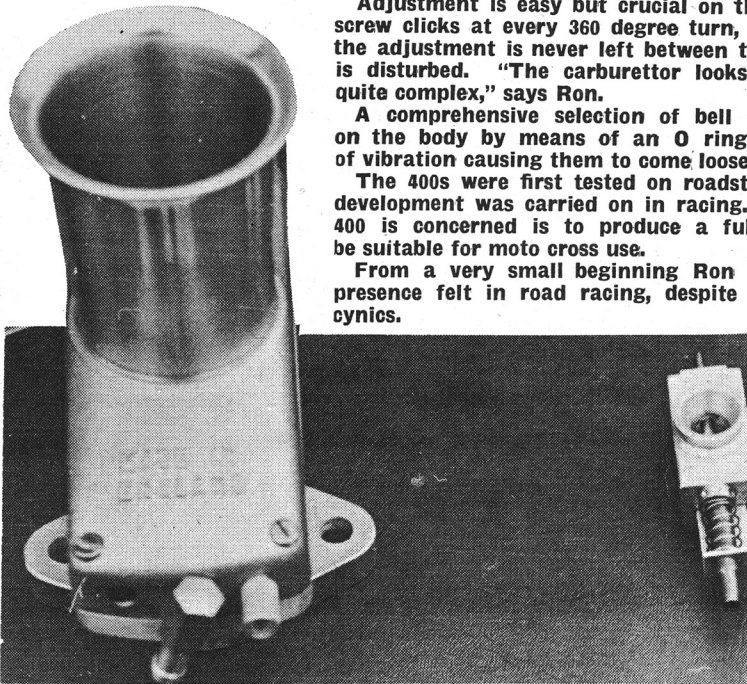
Transistorised ignition units are also in the pipeline from Ron Gardner, a man who fights shy of personal publicity, but who has a wealth of new ideas he is determined to make reality.

Sixteen new ways to breathe

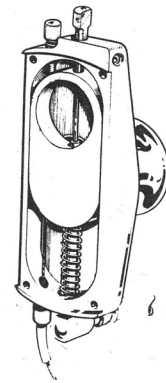


EXPERIMENTS on a twin cylinder machine have been carried out on a Triumph loaned by Geoff Monty. The drawing shows the two carbs in position attached to a chamber of Gardner's own design.

The long and the short of it. A new 1½in 400 with the smallest Gardner carburettor made—used on a 15 cc model boat engine.



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Also "LIGHTNING" JACKET No. 391. As details on left but without fringes. £16/10/0 P/P 6/- or 70/- dep. and 6 mthly pyts of 50/- (Cr. price £18.10.0).

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