

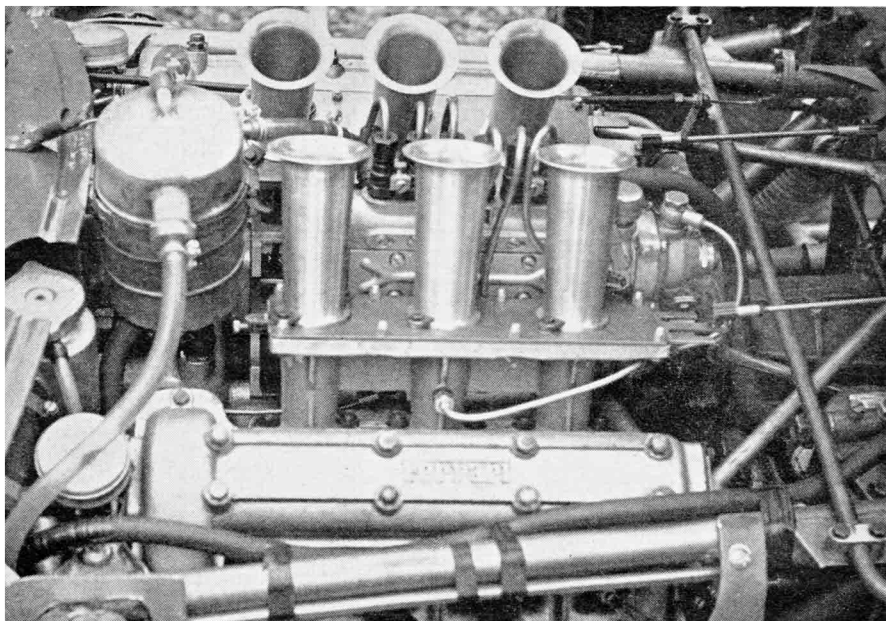
# AUTOS ABROAD

**T**HE 1963 GRAND PRIX season is underway once again in Europe and, as has become the style with the present 1500-cc (91 cu. in.) unsupercharged engine formula, the cars are tiny, extremely agile, faster than might be expected and technically fascinating.

The semi-monocoque chassis introduced by Britain's Lotus early last year is the design pace-setter for 1963. This logical, ingenious design, with a double-walled "canoe" which contains collapsible fuel tanks, furnishes attaching points for the front suspension, steering, radiators, etc., and the engine is bolted solidly to the rear bulkhead behind the driver. The use of the monocoque-type chassis permits a very slender silhouette in which the driver reclines until the top of his head is barely higher than the top of the 15-in. tires.

The independent team of British Racing Partnership has its semi-monocoque (using Lotus suspension bits) on the circuits, last year's championship-winning BRM (British Racing Motors, a division of Britain's Owen Organization) has just fielded a monocoque and Italy's de Tomaso is developing another of the type in which the "canoe" will be an intricate magnesium casting rather than the bulkheads-and-sheet-aluminum of Colin Chapman's original Lotus design.

Other builders retain the traditional small-tube chassis, believing that the monocoque "gimmick" offers no real benefit over the longer-established design. These include former World



GEOFFREY GODDARD

**LATEST FERRARI V-6 has direct fuel injection, 4-valve head, about 200 bhp.**

Champion Jack Brabham's Brabham (designed by Australian Ron Tauranac), Cooper (which can be said to have established the trend toward rear-engined GP cars), Italy's Ferrari and the new Italian entry, ATS (Automobili Turismo Sport).

All the cars are rear-engined, as they have been since 1961, and employ transaxles mounted behind the engine. The trend is toward 6-speed gearboxes from the 5-speed that was common last year.

There are four different engines in use this year; Coventry Climax (now owned by Jaguar) and BRM from England, Ferrari and ATS from Italy. The German Porsche flat-8, introduced last year, has been making only occasional appearances this year and the Japanese Honda, about which there has been so much talk, probably will not be seen in Europe before 1964.

All the engines are V-8s with the exception of Ferrari's well-proven V-6, all have double overhead cams and

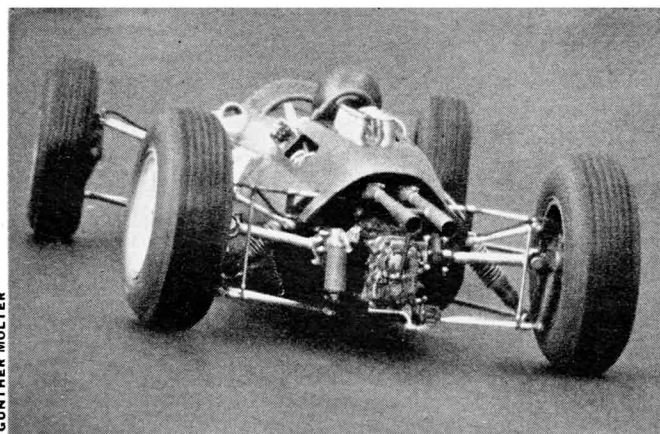
the trend toward fuel injection (both Ferrari and Coventry Climax having adopted it this year) is well established.

The ATS V-8 is the only new engine introduced so far this year, the other three being improved versions of the engines seen last year. Power output, in general, is up about 10-15 bhp over last year to about 190-200 bhp, a very nice output for a 91-in. engine. It is expected that Ferrari will introduce a V-8 (or maybe a V-12) before the year is out and there are hints that the Japanese Honda may have 12 or 16 cyl. when it appears.

An innovation which may appear during the season is the use of automatic transmissions. Lotus is known to have been experimenting with a British Hobbs automatic which is of the epicyclic type with optional full-automatic or manual selection operation.

No other great innovations have been hinted at, but it will be unusual if none appear. —James T. Crow

**LOTUS semi-monocoque is much copied, not yet equaled.**



GUNTHER MOLTZER

**NEW ATS has conventional tube frame-chassis, V-8 engine.**



GEOFFREY GODDARD