

AUTOS ABROAD: SALESPIN

THE MAJORITY of European auto manufacturing plants experienced disappointing 1965 and 1966 marketing years. Sales have failed to grow in proportion to increased plant investment.

And, three of France's big four car builders are meeting the sagging sales situation by hesitatingly and uneasily agreeing to work together. Initially, co-operation will be limited to research, purchase of materials and export marketing.

Peugeot, an old family business, has in the past maintained limited cooperation with Citroen, which is linked financially to the Michelin tire manufacturing firm. In the future there will be closer collaboration between Peugeot and the state-owned—but intensely enterprising—Regie Renault.

Left out of what appears a triple alliance of French auto manufacturers is Simca, nowadays controlled by Chrysler of the U. S. Neither Ford nor General Motors builds cars in France, though both manufacture in Germany and Great Britain.

In Holland, where car manufacture was extinct for many years, expansion by DAF goes steadily on. First the van Doorne brothers took up heavy trailer manufacture. Next came the building of trucks, military vehicles for NATO use and, some years ago, manufacture of very light 2-cyl. cars.

Now DAF has permitted the Dutch government a 25% share of the business, which is building factories to employ former coal miners to build larger and more powerful cars. This is a bold venture in a country with no real car-making tradition and a very limited components industry.

From Japan, there come reports that Honda plans to supplement its present

series of tiny-engined cars with much larger models. A serious venture into the costly business of Grand Prix car racing would not likely have been worthwhile unless there was to be a full range of export cars to benefit from prestige gained in racing. Honda motorcycles have achieved tremendous sales in countries where the demand for powered 2-wheelers seemed almost dead. Hence one wonders whether the go-getting Japanese will find some new demand to tap in the world of 4-wheelers.

NOW THE Grand Prix season is well under way, the new BRM car, with its aluminum engine as the stressed rear extension of a monocoque hull appears to be the most adventurous Formula 1 project for 1966.

The very compact 16-cyl. engine, which amounts to one flat opposed Eight atop the other, seems to hold a 10% power advantage over its V-12 rivals and greater superiority over V-8 engines.

Extremely close competition is developing between the BRM H-16 and the V-12 Eagle engine developed by Dan Gurney's All American Racers. Harry Weslake of Rye, England, builder of the engines, believes that know-how on 4-valve cylinder heads applied to a slim 60° V-12 will produce a car at least as fast as anything built around the shorter, wider BRM H-16. This view, however, doesn't make the BRM engine any less exciting or technically interesting.

Gearing two crankshafts together has kept the length of the 183-cu. in. (3 liter) BRM engine down to only 22 in. Power on the test bench is reported to be double that of last season's 1.5-liter V-8 as had been predicted—which

means at least 420 bhp. Unfortunately the engine is wide, 27 in. across its cam boxes. Air intakes on each side require enclosure against dirt and wet from the car's wheels, making the car's frontal area considerable.

Engine cooling problems with over 400 bhp liberated in a very small space are solvable. The use of two single-plane crankshafts does involve heavy fluctuating loads on their coupling gears. Oil from the very shallow "dry" sump can surge into four lower-bank cylinders during 1 G cornering.

Lotus is reported to be using a different transmission from BRM, but what torsional vibration may arise in a long quill shaft drive through a hollow gearbox primary shaft to a clutch at the far end of the 6-speed BRM transmission? At any rate, this is a technically exciting racing season.

DEATH OF the most famous Italian body designer and builder, Battista Pininfarina, was a sad item of news from Italy. There is, however, no reason to fear that less will be seen of his "F" emblem on beautiful coachwork. Poor health four years ago led him to transfer management of his large design team to his son, Sergio. Pininfarina activities certainly will survive the organization's founder. The firm will continue supply of prototype designs and actual manufacture on slow-moving assembly lines of some specialized models for various mass-production firms. Skilled labor in Italian coach-building establishments is incomparably more costly now than it was 10-15 years ago. Few "one-off" bodies now are being built for private owners, but Turin and Milan still supply Europe, America and Japan with many styling ideas. —Joseph Lowrey

THOUGH BATTISTA Pininfarina is dead, younger men carry on the Italian tradition, as with this Zagato-Alfa Romeo Six.



SUPERIMPOSED EIGHTS form the double-decker flat opposed 16-cyl. Grand Prix power unit from BRM.

