



road impressions: A MINX THAT REALLY MOVES

**Paul Bolton's Hillman is a hot contender
for the title of fastest 1301 to 1600 cc
saloon in the country!**

By MIKE KABLE

LIKELY as not, if you were to ask Paul Bolton for the real secret of success of his racing Hillman Minx saloon, he would point out that it lies in its rear axles. Being quite familiar with the car's history, I would wholeheartedly agree, because at one important stage of development, the Minx began the extremely annoying habit of chewing its half-shafts to pieces at the most inopportune times — perhaps as a protest against having to deal with 104 brake-horsepower instead of the 56 they were designed for.

Curing the problem was no easy matter, as special axles of the type Paul required are hard to come by, but when they were duly made up and installed, he was really in business.

Now, Paul Bolton has a reputation for patience and persistence and where a man of lesser virtues like these would have thrown the Hillman project aside, Paul persevered to eventually out-

wit the gremlins, win the recent 25-lap under 1600 cc NSW Touring Championship at Catalina Park and set the fastest time up Silverdale by a Touring car during the Australian Hillclimb Championships. The Minx has since lost the latter distinction but this fact has not escaped Paul's notice and he is preparing to try to win it back.

Lately, the Hillman has been nominated as the fastest car in its class — 1301 to 1600 cc — in Australia and we were anxious to see ourselves whether it was a worthy contender for that title. A few days after its Silverdale success, the Hillman came into our hands for an afternoon's motoring which produced some surprising figures. With the co-operation of the Australian Jockey Club and Australian Automobile Racing Company, we secured the half-mile long Hume straight at Warwick Farm on which to carry out our acceleration tests and **WHEELS** editor Ian Fraser and I spent a good half-hour on foot measuring an exact quarter-mile with a 22-yard tape to ensure the accuracy of our runs against the stopwatch.

Seeing as Paul is obviously the one to get the best from the car, I armed myself with watches and took over the passenger's seat while Paul grabbed a plug spanner and installed

Engine is much-modified and visible equipment includes twin double-choke Webers mounted on long manifolds. Output is around 100 bhp.



Biggest problem Bolton had to overcome in car's development was axle breakage, which caused "moments" like this incident at Warwick Farm.

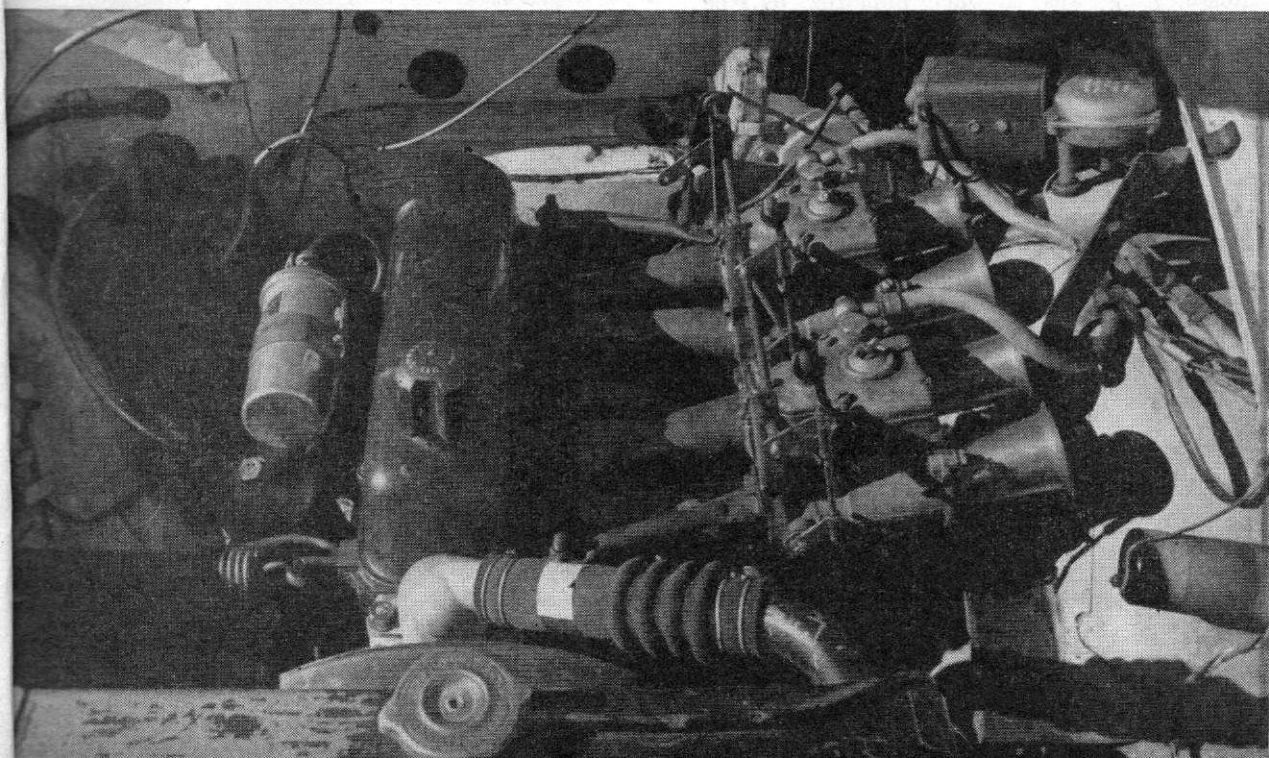
Bolton heels the Hillman through a left-hander during winning drive in NSW Touring Car Championship. Behind him is second placegetter Tony Hill.

a new set of plugs as the others had become oiled up in traffic on the way to the circuit. We made the necessary corrections on the wildly optimistic speedometer and lined up for a dash through the quarter. Building the revs up to around 4000, Paul let in the clutch and we were away with a shriek from the rear tyres. No wonder the old axles gave up the ghost, I thought!

Just 17.4 seconds later, with the needle flickering around the 90 mark, we flashed past the stick marking the end of the quarter, which was quite a deal better than Paul had bargained

for. In fact, the time — with two-up — was three-tenths of a second better than the car had done solo at the NSW Sprint Championships some weeks beforehand. So, we repeated the procedure and I used another stopwatch just to make sure. Paul's getaway procedure was exactly the same — the same rpm at the start, same change points, same savage thrusts at the clutch. In short, everything was the same, including the time — 17.4 seconds. During the two runs, I took the various acceleration figures, which speak for themselves:-

(Continued overleaf)





0 to 30	2.8 sec
0 to 40	4.0 sec
0 to 50	6.4 sec
0 to 60	8.7 sec
0 to 70	12.0 sec

Around 80 and 90 mph, the speedometer needle was swinging too wildly for us to take an accurate reading and we were also unable to take a maximum speed figure due to insufficient road, but Paul estimates this at 110 mph, give or take a mile or two. The car winds up to 35 mph in first gear, 60 mph in second and an indicated 85 mph in third, all this being achieved quite comfortably with an engine that revs willingly to way past 6000 rpm on the chronometric tachometer.

Our straight-line testing over, we returned to the short circuit, as Paul was anxious to test his suspect front shock absorbers and replace them if necessary before the title race at Katoomba. Later, I took the wheel of this remarkable saloon to toss off a dozen laps and gain some impressions from the driver's seat.

Roadholding was in fact impaired by the faulty shockers, giving rise to the impression that the front of the car would "wash out" if one ventured past the limit but the abundance of

On SCW test, the Minx twice clocked 17.4 sec for standing-start quarter-mile with two up!

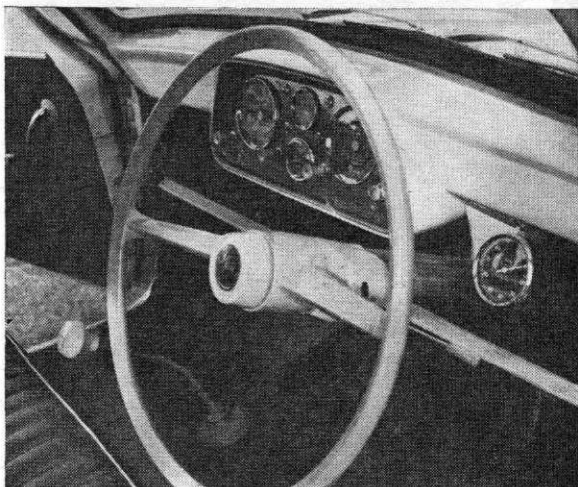
power was most reassuring, assisting in no small way to keep the wheels on line through a corner. The steering was exceptionally light, due to the high tyre pressures — 50 lb front, 45 lb rear — used for racing conditions, and the standard gearchange most effective, being fast and positive.

Paul came into motor racing a couple of years ago. At the time, he owned a Sunbeam Rapier and, after a slight mental struggle, decided it was "too good and too heavy to race". But he made up his mind that there was a future for at least one Rootes Group product and accordingly swapped the Rapier for a new 1500 cc Hillman Minx, changing engines over in the process—with the knowledge and approval of the dealer from whom Paul bought the car.

Development at this stage included the fitting of a Repco camshaft with mild grind, twin 1½ in SUs, a special inlet-exhaust manifold system, competition shock absorbers, lowering the car by an inch all round and fitting a sway bar at the front. The cylinder head was worked over, the wheels reinforced by welding heavier rims to the original centres and the differential ratio lowered from 4.44 (standard) to 4.87 to 1. Modifications were made to the gearbox to ensure more satisfactory changes and the tailshaft was balanced.

After an occasional venture in club competition, Paul decided to go road racing, handing over the car to engine specialist Peter Molloy to prepare. The engine was really "worked over" this time, being balanced, fitted with a Ludgate Capricornia camshaft, BMC oil pump gears to boost the oil pressure and twin double-choke 42DCOE Webbers. Crankshaft and rods were shot peened and cylinder head specialist Jimmy Wilkinson put in quite a lot of work on the ports and combustion spaces, while the compression ratio was raised to 10 to 1.

(Continued on page 64)



Interior is standard apart from tachometer, which has shown that motor will rev well in excess of 6000 rpm.

**Greatest news since Cars began
to shine!**

HARD POLISHING WIPED-OUT

WIPE-ON lightly **WIPE-OFF** brightly



with **SIMONIZ®**
"one-step"
cleaner polish

After 20 years, SIMONIZ returns to Australia . . . with the world's finest automotive polishes . . . to clean and protect your car in an easy, one-step operation. Just wipe on SIMONIZ lightly over the whole car. Wipe it off with a few gentle strokes . . . dirt and scum disappear . . . leaving the true, original colour in all its showroom brilliance. And SIMONIZ protects your shine for months. No other polish will last so long. There's a year's supply in every can!



SIMONIZ®
MOTORISTS WISE USE SIMONIZ

1131-H.P.

NZ'S 180-MILES-AN-HOUR GRANDFATHER

(Continued from page 17)

The hand gear change for the three-speed gearbox has been altered so that it is now operated by the right foot, while the clutch is still operated by the left foot. Brakes, front and rear, are at the handlebars because fingers are more sensitive than feet, and braking from 170 — well you've got to be careful.

To keep the machine upright at rest and when moving off because the rider can't put his foot down, there are a couple of small out-rigger wheels. These are operated by a lever — the old gear change lever no less — and are put down at about 10mph.

The latest timed top gear run the Indian made in New Zealand was at a car club sprint meeting a couple of years ago. Top time was 161 mph, with the tachometer showing 6600. That was with the first shell and before several modifications were made.

The recent run at Bonneville, where almost 20 more miles an hour were added to that speed, must have pleased Mr Munro immensely. Bert Munro himself is an amazing man. He looks far younger than his 63 years and he has full use of his faculties although glasses are required for prolonged reading.

His health is his prime concern, and he does a lot of walking to maintain his fitness. Smoking is definitely out. His memory is amazing. Things which happened when he was a child are recalled without difficulty, and all the speeds he has reached along with the records he has broken, can be quoted without recourse to literature.

He is modest, but it is not that kind of modesty that causes a man to belittle his accomplishments. He has worked more than 30 years on his machine and if it broke a record through this period he says so sincerely.

Munro is a dedicated man, dedicated to his machines. Although he has no formal training in engineering, there is no doubt that he has great talents in that direction. With the mechanical equivalent of the gardener's "green fingers" he can get a sick engine going for a friend quickly and easily. Bert Munro went to Bonneville to try his machine. A couple of US national records may be added to his score, and very soon may see the Australian record added to his long list. #

A MINX THAT REALLY GOES

(Continued from page 14)

The rocker gear was lightened and a distributor cam from a Mk II Sunbeam Alpine fitted to give a more suitable ignition advance curve. Brakes have been scooped and competition linings fitted.

Paul's first outing on a circuit was at Catalina Park in November, 1961, when he slipped in behind Charlie Smith's Major for a second place and then finished third in a subsequent race to the Major and Ken Brigden's Peugeot 403. This was an encouraging result and from then on Paul became a consistent competitor at Katoomba, Lakeside and Warwick Farm. For a while the axle trouble kept him out of the results and on one occasion, at Lakeside, the car rolled over in a freak accident.

An axle broke, pushing the wheel under the mudguard beading, which rubbed through the tyre tread and blew out the tyre as Paul was accelerating from a corner. Another time saw him driving on three wheels at Warwick Farm when an axle snapped. Problems like these, though, generally have their solutions and a set of special high-tensile axles seems to have overcome the bogey. His plans are not quite definite, but Paul has been getting in some single-seater experience with his locally-built Jolus-Ford FJ as well as racing the Hillman. Seldom ruffled, he has an ideal temperament for motor racing and in private life runs a windscreen-tinting business. #