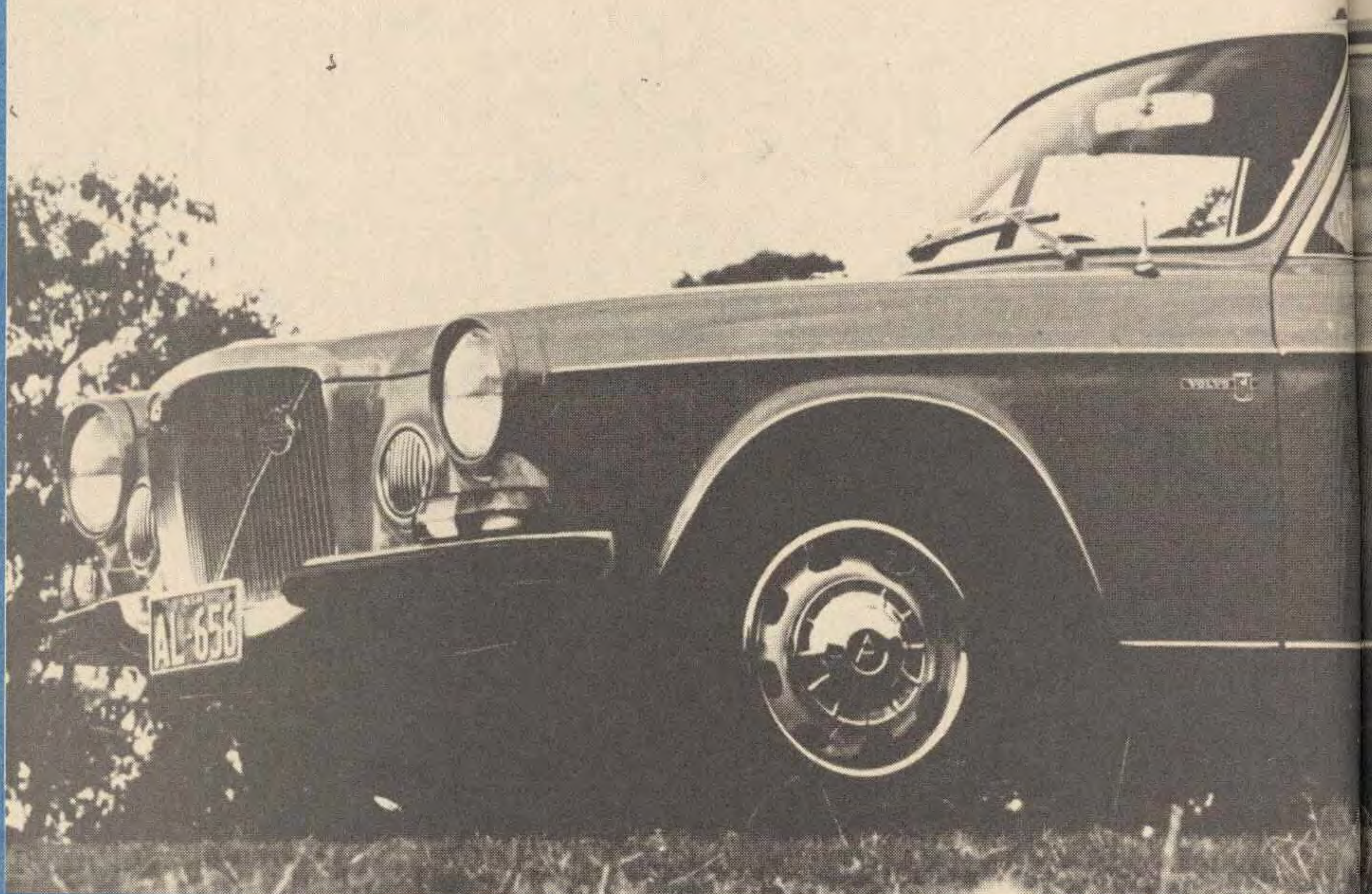


VOLVO

MORE CUBES MORE



Safety, sophistication and smoothness go in hand with Volvo's first six cylinder. It is a minor Mercedes, notwithstanding its appeal on the lucrative US market.

IT is really quite sad, this advent of the three-litre Volvo 164 — for it is a triumph of United States regulations over an otherwise individual, strong Swedish car maker.

The American export market is so lucrative that, like other makers, Volvo must adapt its products if it is to compete there.

Adapt them to the peculiar clean air policy the United States Government is now so belatedly pur-

suing, harrying their own car makers with their inefficient V8 motors and collecting the European makes on the way.

Driving in the United States has become guiding a carpeted, air-conditioned radio room on wheels down almost straight roads.

And to enter these roads a burst of acceleration is required and this calls for sheer engine size. To hell with the academics of design. If it hasn't got the cubic

inches, you can forget about bursting on to the freeway scene.

So Volvo in Sweden logically set about enlarging its engines. It produced a two-litre four cylinder version of the B18 power plant, (the 18 equals 1.8 litres) and called it the B20 (2.0 litres).

But this wasn't enough — and Europe, too, was succumbing to the acceleration disease — so the B20 became a B30 (that's right, 3.0 litres) simply by the addition of two more of its 500 cc cylinders.

Now Volvo really had the bug bad. After all, the shrewd ones in Europe — like Mercedes, BMW and Jaguar — went to 2.8 litres and stopped, since this is where the registration tax gets just that

164

COMFORT



teeny bit oppressive in some countries.

But Volvo were stuck with its B30 since it could be made on the same production line as the B20, sharing common bores and crank throws.

And then came the crunch. The B30 has to pass clean air tests to sell in the United States.

To do this, the Swedish firm fitted special manifolding to their car, a complicated system of butterfly valves and hot spots which all boiled down to lean running at part throttle to keep emissions down and rich running at full throttle for that freeway dart.

But what the cleaner, whiter-than-white exhaust did to perform-

ance was precisely what Volvo had not intended. It sapped a goodly part of the urge, despite all the valves and hot spots.

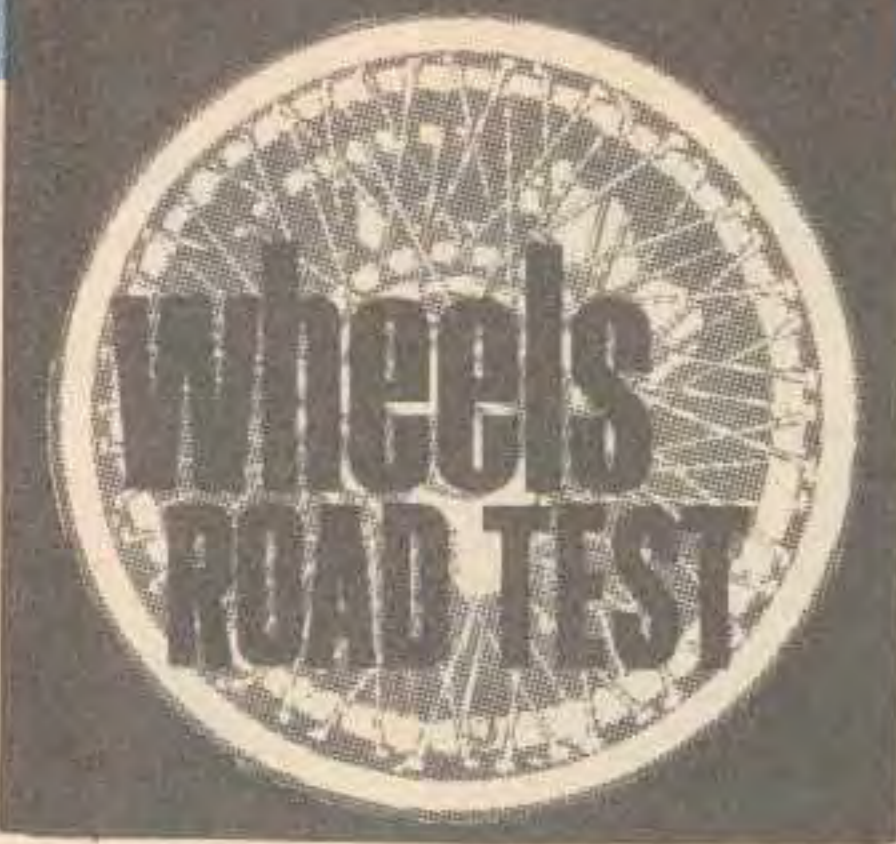
That's why when you press the throttle hard of a B30, 164 Volvo, it first has to think what valve does what — and by then that double-decker is right in there testing the pre-determined crumple rate of the excellently safe body.

The 164 has its B30 nestling in a new nose so, as the police constable takes down particulars, he'll see a new grille with dummy air intakes flanking it and a longer bonnet to clear the two new cylinders.

What all this fooling about with emissions, engine sizes and new

Body is basically 140 series with new snout. Beneath lies new six cylinder sparkle which adds extra fire to the bank balance, too.





TECHNICAL DETAILS

MAKE Volvo
MODEL 164
BODY TYPE 4-door
PRICE \$6299 (\$5799 man)
FUEL CONSUMPTION:
 Overall 17.5 mpg
 Cruising 15-21 mpg
TEST CONDITIONS:
 Weather fine
 Surface hot-mix bitumen
 Load two persons
 Fuel premium grade

OPTIONS nil
COLOR blue
WEIGHT 26.7 cwt



"164" badge is only external rear clue to the extra engine pots. Bumpers are inset with rubber.

PERFORMANCE

SPEEDOMETER ERROR:
 Indicated mph: 30 40 50 60 70
 Actual mph: 30 40 49 59.5 70
 Piston speed at max bhp 2900 ft/min
 Top gear mph per 1000 rpm 24.5 mph
 Engine rpm at max speed 4000 rpm
 Lbs (laden) per gross bhp (power to weight) 21
MAXIMUM SPEEDS:
 Fastest run 103 mph
 Average of all runs 102.8 mph
 Speedometer indication fastest run 103 mph
 In gears:
 1st 56 mph; 2nd 98 mph; 3rd 103 mph.
 Acceleration (through gears):
 0-30 mph 4.5 secs

0-40 mph 6.5 secs
 0-50 mph 8.5 secs
 0-60 mph 11.1 secs
 0-70 mph 14.8 secs

STANDING QUARTER MILE:
 Fastest run 18.6 secs
 Average of all runs 18.7 secs

SPECIFICATIONS

ENGINE:
 Cylinders four in line
 Bore and stroke 88.9 mm by 80 mm
 Cubic capacity 2980 cc
 Compression ratio 9.2 to 1
 Valves ohv
 Power at rpm 145 bhp at 5500 rpm
 Torque at rpm 163 lb/ft at 3000 rpm

TRANSMISSION:
 Type three-speed Borg Warner automatic
 Gear lever location column
 Overall ratios NA

SUSPENSION:
 Front wishbones, coil springs
 Rear live axle, coil springs, locating arms

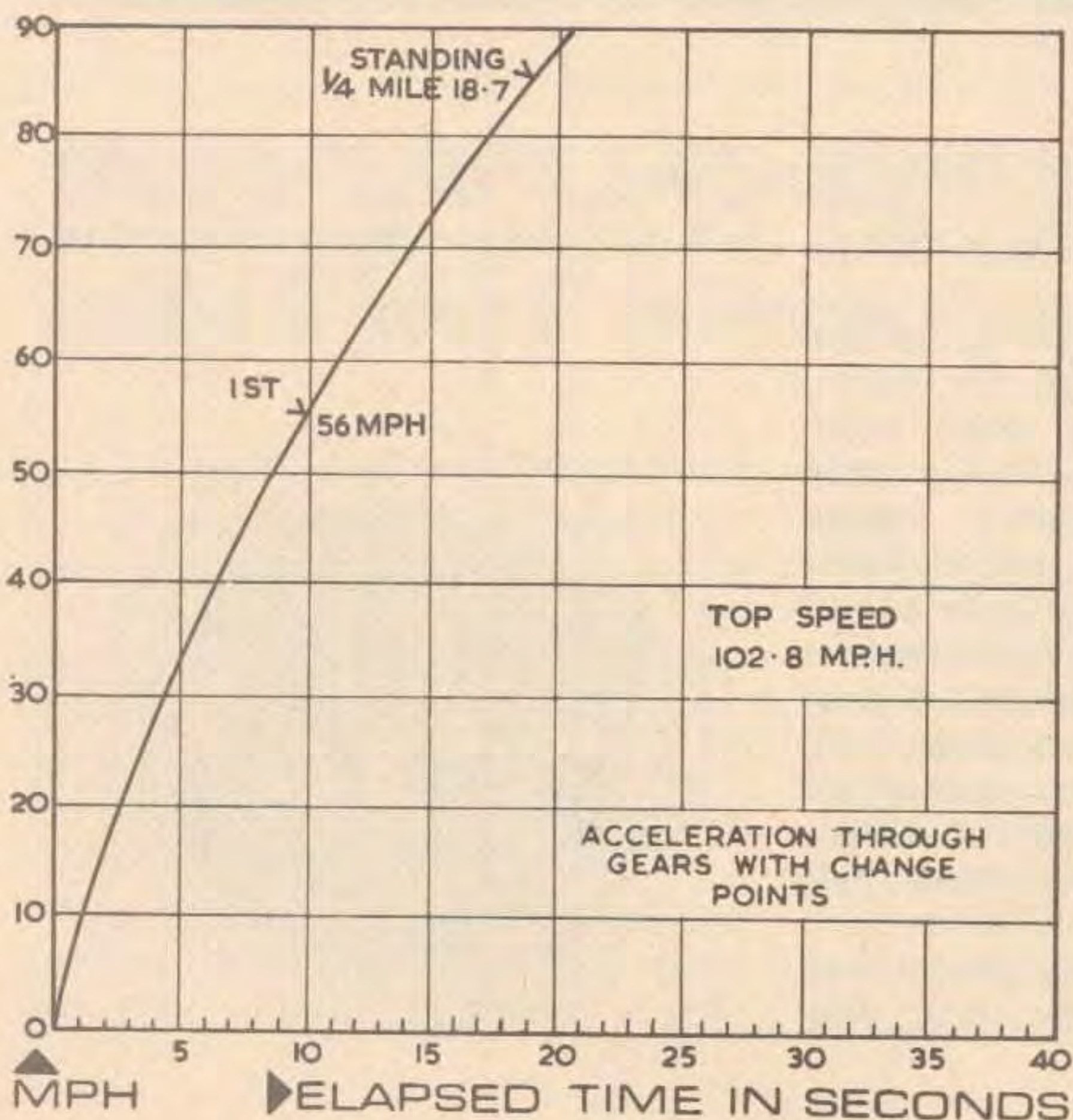
STEERING:
 Type recirc ball, power assisted
 Turns 1 to 1 3.7
 Turning circle 31.5 ft

BRAKES:
 Type power assisted discs all round
 Dimensions 11½ in. dia front and rear
 Friction area 410 sq in. swept area

DIMENSIONS:
 Wheelbase 106.3 in.
 Track, front 53 in.
 Track, rear 53 in.
 Length 15 ft 5.5 in.
 Height 4 ft 8.5 in.
 Width 5 ft 8 in.
 Fuel tank capacity 10.5 gals

TYRES:
 Size 165-15
 Make on test car Pirelli Cinturato

GROUND CLEARANCE:
 Registered 7½ in.



VOLVO 164: MORE CUBES, MORE COMFORT

frontal treatment hasn't done is dim the basic appeal of the 144 design concept, which is continued in the 164.

It is a four-door body of quite unusual safety size and comfort built to last over Sweden's rough gravelled roads. Where this has been altered with the 164 is in its market appeal.

Since the motor is three-litre, then the trim must keep pace if the car is to sell to a quality conscious European Common Market.

And the 164 has got comfort, bags of it. It is all in the seats, actually — those remarkably good frames of the 144 but now clothed in new leather apparel.

Very swish with its glove soft touch and its firmer padding around the edges to hold the occupant accurately. The marvellous lumbar padding tensioner to ensure correct support for the small of the back has been retained and takes the form of a knurled wheel on the side of the reclining front bucket seat's back.

Twisting the wheel tightens the padding's resilience to increase support. The seat backs' reclining mechanism is new for the 164, too, in that friction locks instead of ratchets are employed.

You set the angle and jam it tight but if you are shunted from behind, the seat back will give way and deposit you without neck damage on the back seat.

Other safety bits are the steering, which collapses; the body, which crumples at each end but retains a strong passenger box and proper dashboard padding and protection.

This is all rather secondary though, after the accident's happened. There's lots of primary safety to help dodge a nasty insurance claim. The slotted wheels which hide four-wheel disc brakes carry radial ply tyres for maximum grip and stopping ability.

The brakes have a novel approach to split hydraulic systems with each system taking two front wheels and one back wheel. For this, rather more expensive dual piston calipers are needed for the front brakes but you can't lose more than 25 percent of your brakes.

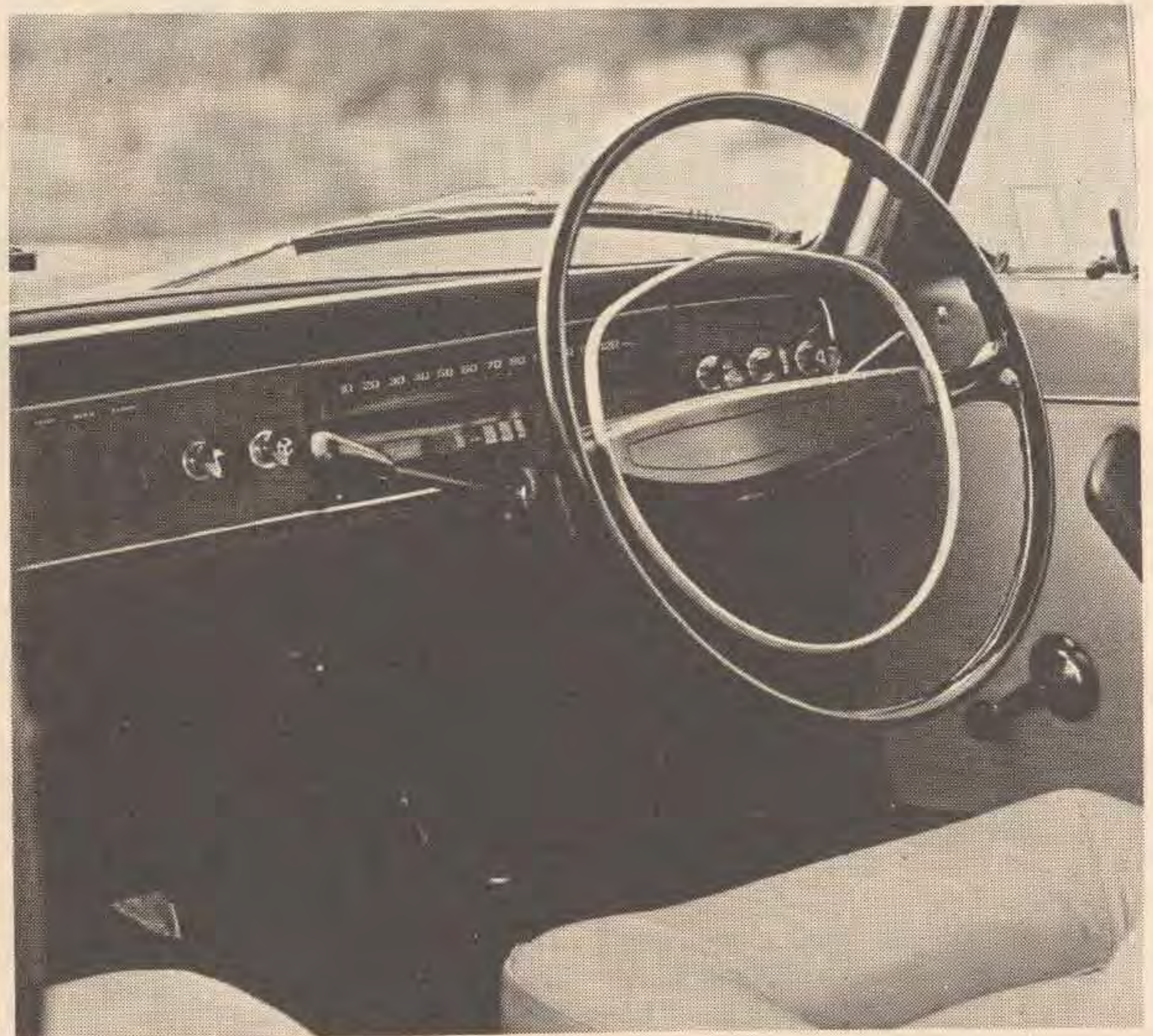
For quick evasive action, the 164 Volvo has power steering which doesn't remove all the road feel while it reduces the wheel effort requirement.

(Continued on page 93)



Re-trimmed interior includes genuine leather for the seats. Of course they retain all the orthopaedic excellence of previous Volvos.

A familiar face. Dash is strictly 140 series layout although extra switch does bring in electric rear window de-mister or de-icer.



VOLVO 164

(Continued from page 47)

Suspension is a quite ordinary looking coil spring type all round with wishbones in front and a live axle with locating rods at the back.

Taken individually, the items which make up a 164 Volvo don't amount to much. It's just that they combine well and Volvo has been able to make them all work as they should.

The result is a well balanced, pleasant car to drive.

British and Continentals in Sydney supplied an automatic transmission version of the 164 for our first impressions drive (WHEELS, July) while the Melbourne distributors supplied the test car.

Sinking into the seats we noticed they had a vertical height adjustment as well as the usual fore-aft arrangement.

The 144 familiar dashboard with its million-mile odometer and push button zeroed trip meter had sprouted a new knob with a built in warning light to work the electric rear window demister.

An alternator was fitted to the six cylinder motor to help meet the drag of the window in addition to the other equipment.

Inserting the ignition key into the steering/ignition lock was sometimes fiddly but worth the protection.

Despite twin carburettors on the emission-proof manifold, the motor started readily every time. The three speed Borg Warner automatic transmission had a steering column selector — and rather odd gearing.

Low gear ran to 55 mph and second to 92 mph. Top could only add 10 mph to second gear. For a

27 cwt car, a shorter differential ratio would greatly improve acceleration without incurring too great a drop in fuel economy. Indeed, with the high gearing, lower gears were worked more, soaking fuel.

Around the city, the car was easily parked and slipped through traffic with its power steering, 32 ft turning circle and good all-round vision.

Acceleration was moderate but adequate with fuel consumption just under the 20 mpg. The driving position was good with a near vertical steering wheel and pedals straight ahead. A belted-in driver could reach some controls but not others. All major controls were within reach. The radio was way-off in front of the passenger.

The seat belts were easily fastened with a simple press-in clip on the centre tunnel of the car. These belts in fact have been an ironic point of contention with NSW registration authorities.

The B30 164 Volvo really got into its stride outside the city where its superior roadholding and ability to maintain an average speed showed clearly.

The body rolled quite noticeably on bends but it was an even movement, not down on one corner, and a passenger held by the seat's padding against the cornering forces was not discomfited by the driver's verve.

Power absorption by the automatic transmission removed sharp accelerator control but accurate steering helped car placement.

Noise at speed was low and the engine felt quite relaxed at an 80 mph gait. Hills made little difference — the torque of the B30 paying off handsomely here — and the brakes' light power assisted action was reassuringly positive.

Belted across the boondocks, the car stood up with the solidity expected now of the make. Road shocks were well absorbed and control was not reduced by loose or wet surfaces.

The Volvo 164 is a sophisticated development of an already fine car with extra luxury trimmings added — but the United States' regulations have taken some of the sting from its punch. #