



**ROB LUCK** looks at the latest version of Volvo's imported sedan topline — and relates it to the impending swing to local assembly. How good is it . . . how good will it be . . . ?

the quality will be maintained (Volvos will be assembled by the same company here).

But what Volvo Australia isn't pointing out, is its considerable advantage over other manufacturers for a Small Volume Assembly Plan.

It virtually has 11 completely identical models (from an assembly viewpoint) covering a market price-span of \$3995 to \$6470.

Under our local assembly laws, the company must reach 45 percent local content to assemble and sell 2500 units, 50 percent for 5000 and 60 percent for the maximum 7500.

Of the required local content, labor charges absorb a large percentage (in some cases as much as 35 percent) and trim, ancillaries, wheels, tyres, finish equipment, etc., quickly make up the minimum 40 percent.

Body panels, engines, gearboxes, suspensions, steering and brakes don't come into it — they arrive in various stages of sub-assembly in CKD packs from Sweden.

This means Volvo can put its entire model range on the one line, enter all cars as the same plan (which they are)

# VOLVO 164

## SWEDISH ELEGANCE

**V**OLVO is very much the automotive word of the moment. The company recently announced its long-expected plans to go local assembly — producing under the small volume B Plan.

This closely followed its rather sensational early 1970 sales success with the current imported line. Punting overall sales up the charts for a 92 percent increase on last year's figures (708 cars compared with 361 for four months) Volvo showed the claims it made for expansion last November were not to be taken lightly.

At this sales rate, Volvo will easily reach its targeted 2100 vehicles for 1971.

Volvo (like Peugeot) claims an overall third in the Australian prestige and luxury car market — and the only

point of contention is whether the Peugeot should be classified as a prestige car. I have no doubt it should — which eases Volvo back to a very competitive fourth spot. But the situation will probably change completely by 1972.

If the plans of both manufacturers eventuate, Peugeot will take over Number One sales slot and Volvo will tuck in just behind — pushing out the current leaders, Mercedes and Triumph.

Local assembly should help Volvo. The company plans for quality control are acutely detailed — providing for a serious "police force" of quality control inspectors, and regular air freight shipments of components back to Sweden for checking.

Pointing to the quality of local finish in the local VW Beetle, Volvo insists

and greatly reduce production costs.

Volvo hotly denies any likely price drop when the company moves to local assembly, because of the intensive campaigns in quality control, advertising and sales promotion.

**But frankly I believe there will be price drops — and possibly big ones on some models.**

Volvo is very serious about its attack on the Australian market, and is handling the entire program in a very professional manner.

The company structure is excellent with a top management team from Managing Director Per Eriksson (member of Swedish Volvo board) down through the dynamic young executive talent of Frank Howe (National Sales Manager), Graeme Adam (Advertising and Public Relations) and others.

# VOLVO 164

This month's critical MODERN MOTOR look at the Volvo Australia change-over to local assembly included a full road test on the 164 six-cylinder sedan — Volvo's dearest at \$5999 (manual) or \$6470 (automatic including power steering).

The manual 164 is actually competitively priced against the 144 Grand Luxe automatic (four-cylinder, \$5395) and potential owners seeking that extra touch of prestige are exchanging the driving ease of the automatic GL for the extra luxury of the 164.

After a brief, but comprehensive 400

mile road test, it's not difficult to see why.

Since Volvo is stealing buyers from other luxury areas, it is logical many will want the ultimate (which is in most cases many thousands of dollars cheaper than the opposition). Performance is usually comparable and occasionally better in the 164 Volvo, and comfort is at least up to par.

With comprehensive equipment, plenty of luxury touches, good finish and some real prestige fitments the Volvo offers good prestige value-for-money.

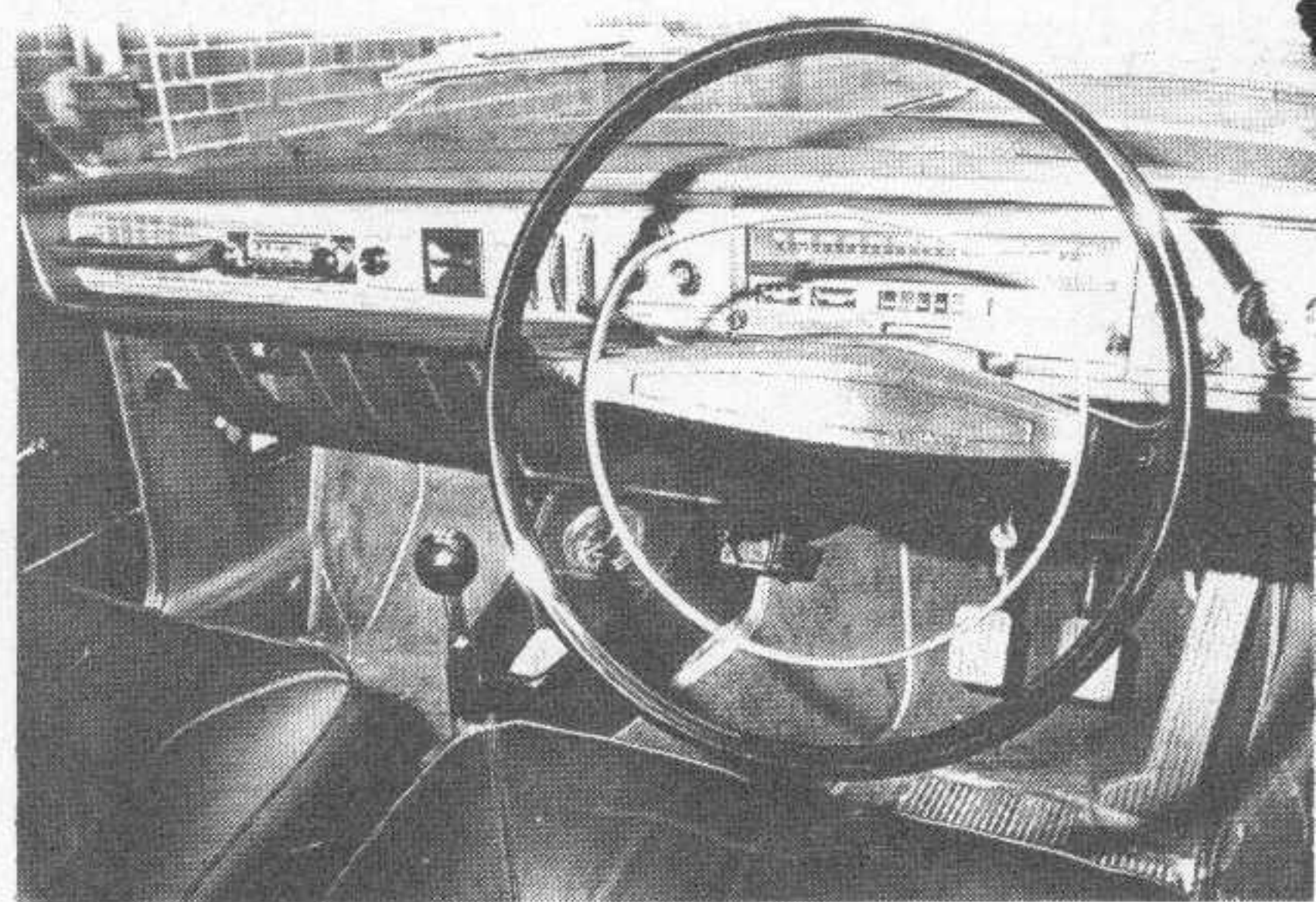
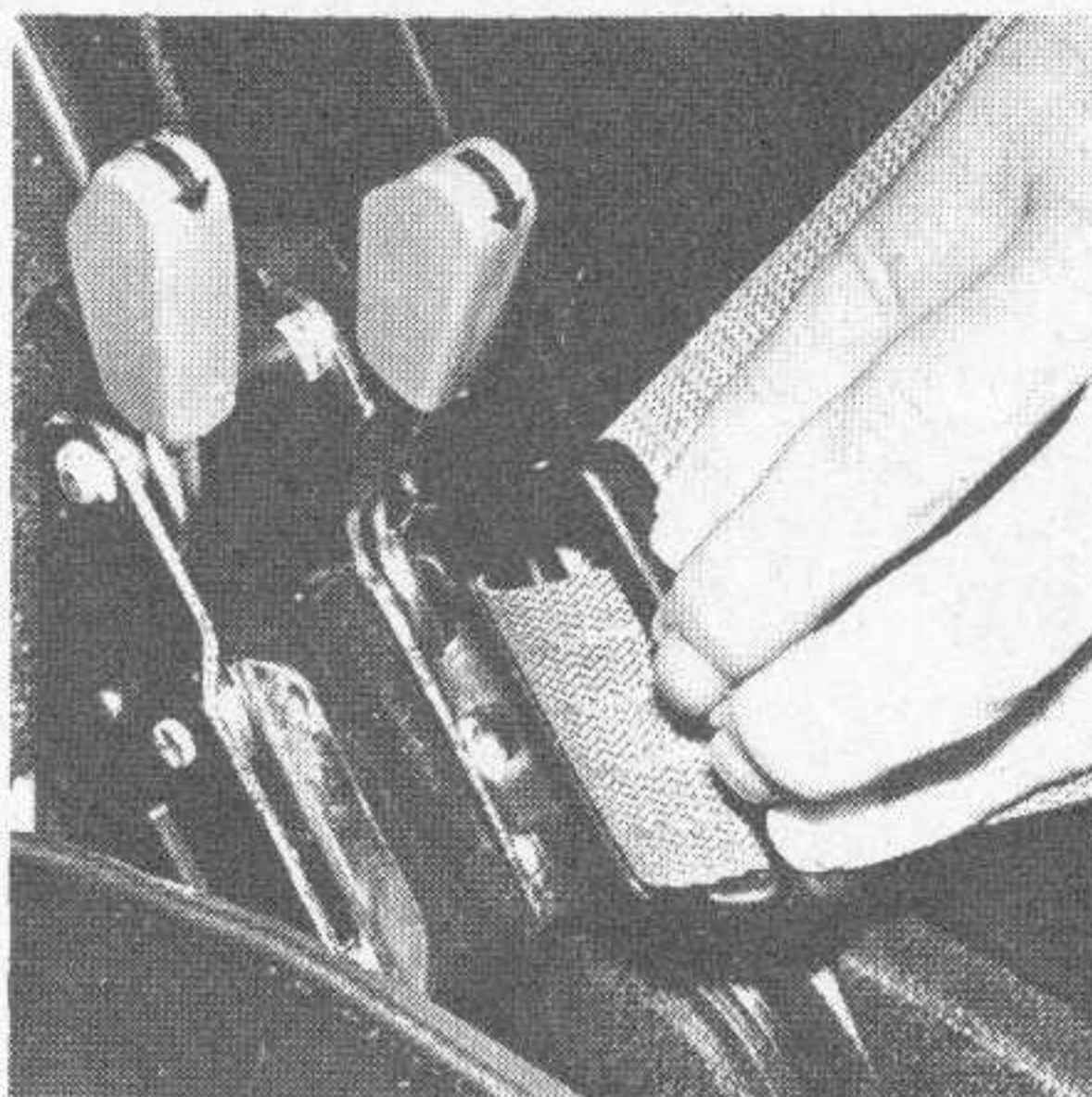
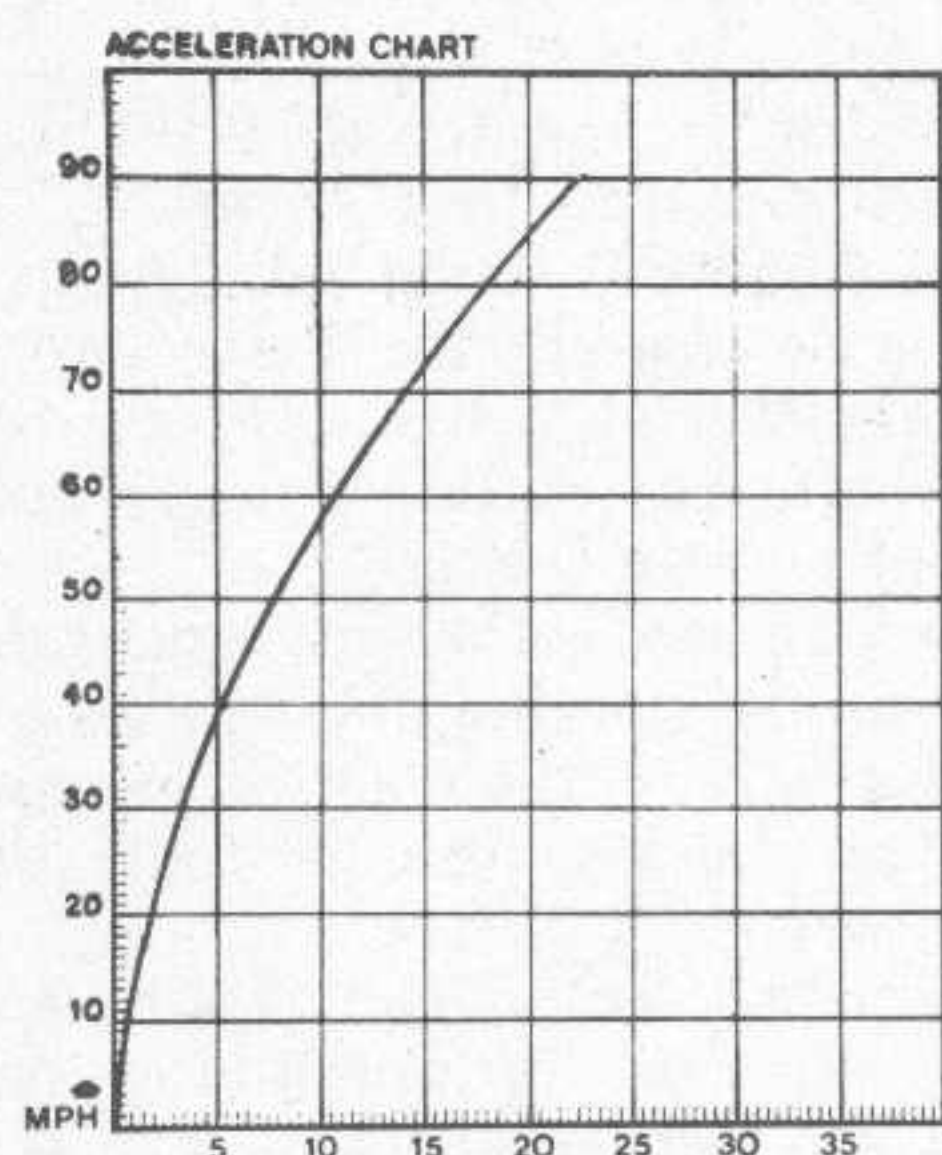
But it is impossible for Volvo to build a car without performance orientation. Of the luxury beasts on the market, the Volvo is consistently

the best shifter and this test car chalked up an easy loping 108 mph, while stopping the watch at the end of the standing quarter mile in 17 seconds.

Corrected 0-50 and 0-60 times of 7.3 and 9.2 secs. are quite impressive, and long, leggy gear ratios providing 39 mph, 67 mph and 95 mph make for excellent overtaking safety and plenty of power for those fast open sweepers.

Because of its extra wheelbase, overall size and bulk, the Volvo 164 doesn't have the same easy manoeuvrability of the smaller 140 series in very tight conditions. But on fast open work, it's hard to pick the difference.

However, hard going through twisty



## WARRANTY, INSURANCE, RUNNING COSTS

**Registration:**  
Including stamp duty and third party insurance ..... \$97.00

**Insurance:**  
Quoted rates are for driver over 25 bonus, where the car is under hire purchase. This is the minimum premium level — decreasing rates of experience, and lower age groups may have varying excesses, and possible premium loadings.  
Tariff companies ..... \$133.20  
Non-tariff companies ..... \$131.75  
NRMA ..... \$140.75

**Warranty:**  
Six months with unlimited mileage. Covers all parts and labor charges for defective materials, components or workmanship. Includes components from outside suppliers such as tyres, batteries, etc.

**Service:**  
A service ..... Free  
Covers first 1500 miles (2400 kilos) and includes lubrication and maintenance service. Materials (oils, greases) are chargeable.  
1-19 Services ..... Chargeable.  
These are all lubrication and maintenance services covering the period from 6200 miles (9920 kilos) to 118,000 miles (188,800 kilos). These are fully chargeable including labor, materials and replacement parts. Approximate costs are:  
\$30.00 to \$37.50 (5 hrs — 6¼ hrs) labor plus parts.  
Oil change every 3000 miles (4800 kilos).  
No chassis lubrication.

**Spare parts cost breakdown:**

Clutch plate	\$36.84
Pressure plate	\$62.79
Disc pads front set	\$19.32
Disc pads rear set	\$16.56
Windscreen	\$161.00
Muffler front	\$21.74
rear	\$20.13
Inner front wheel bearings	\$8.77
Outer front wheel bearings	\$6.96
Shock absorber front	\$16.58
Shock absorber rear	\$17.52
Tail lamp assembly	\$30.19
Headlamp assembly	\$20.33

**Workshop Manuals:**  
Factory manual available through Volvo Australia \$7.58 "Volvo Repair & Tune-up Guide" \$6.30 available from the Technical Book and Magazine Co. Pty. Ltd., 295 Swanston Street, Melbourne.

**Color range (upholstery colors in brackets):**  
Wine Red (wine red), Black (wine red), White (wine red), Red

(black), Yellow (black), Grey (red), Dark Green (beige), Dark Blue (beige), Blue Metallic (wine red), Gold Metallic (gold and brown), Metallic finish is \$65.00 extra.

**Minimum garage width:**  
Measured car width, plus one fully open door 8 ft. 5.8 in. (258.5 cm)

## ROAD TEST DATA — SPECIFICATIONS

Manufacturer AB VOLVO, 405 08 Goteborg, Sweden.  
Make/Model: Volvo 164. Body type: 4-dr sedan.  
Pricing: basic: \$5999.  
Options: Radio  
Test car supplied by: Volvo Australia Pty. Ltd., Liverpool, N.S.W.  
Mileage start/finish: 2862/3162.

### ENGINE

Cylinders: ..... Six, in line.  
Bore x stroke: ..... 3.50 in. x 3.15 in. (88.9 mm x 80.0 mm)  
Capacity: ..... (182 cu. in.) 2980 cc  
Compression: ..... 9.3 to 1.  
Aspiration: ..... two Zenith-Stromberg 175CD2SE sidedraft  
Fuel pump: ..... Mechanical  
Fuel recommended: ..... 100 Octane  
Valve gear: ..... OHV  
Max. power (gross): ..... 145 bhp at 5500 rpm  
Max. torque: ..... 163 lb.ft./22.5 kg-m at 3000 rpm

### TRANSMISSION

Type/locations: ..... Four speed, all synco, centre floor  
Clutch type: ..... s.d.p. diaphragm  
Gear

Gear	Direct Ratio	Overall Ratio	MPH/1000	(KPH)
1st	3.14	11.71	6.2	9.9
2nd	1.97	7.4	9.9	15.8
3rd	1.34	4.9	14.8	23.7
4th	1.00	3.73	18.1	28.9

Final drive: ..... 3.73

### CHASSIS AND BODY

Type: ..... Unitary  
Kerb weight: ..... 2937-3003 lb (1335-1365 kg)

### SUSPENSION

Front: ..... Independent by coils and wishbones.  
Rear: Rigid axle, coil springs, longitudinal support arms torque rods.  
Shock absorbers: ..... Telescopic.

conditions quickly points out that the 164 seats are designed for prestige comfort — not sporting motoring. While faultless for dignified motoring, at city or even high-speed expressway cruising, the lack of lateral support is noticeable in tight conditions.

The seats incorporate excellent twin-post integrated headrests with lock-tight knurls, and features all the normal Volvo attributes — orthopaedic design, adjustable lumbar support, instant-adjust rake and fore-aft movement.

They also combine with the best seat belts fitted to any car marketed in Australia.

They're Volvo full inertia-reel lap-sash type and their use is

completely impossible to fault. The clip automatically stows out of the way against the B-pillar, and the operator can pull it down one-handed against its gentle spring mechanism to plunge into the central automatic locking mechanism between the seats.

Once in its socket, the belt is unnoticeable to the wearer — allowing completely free movement for the driver to stretch forward, sideways or even slide full forward on his seat. But as soon as a sharp forward force is exerted, the belt locks tight against chest and hips and prevents any forward movement.

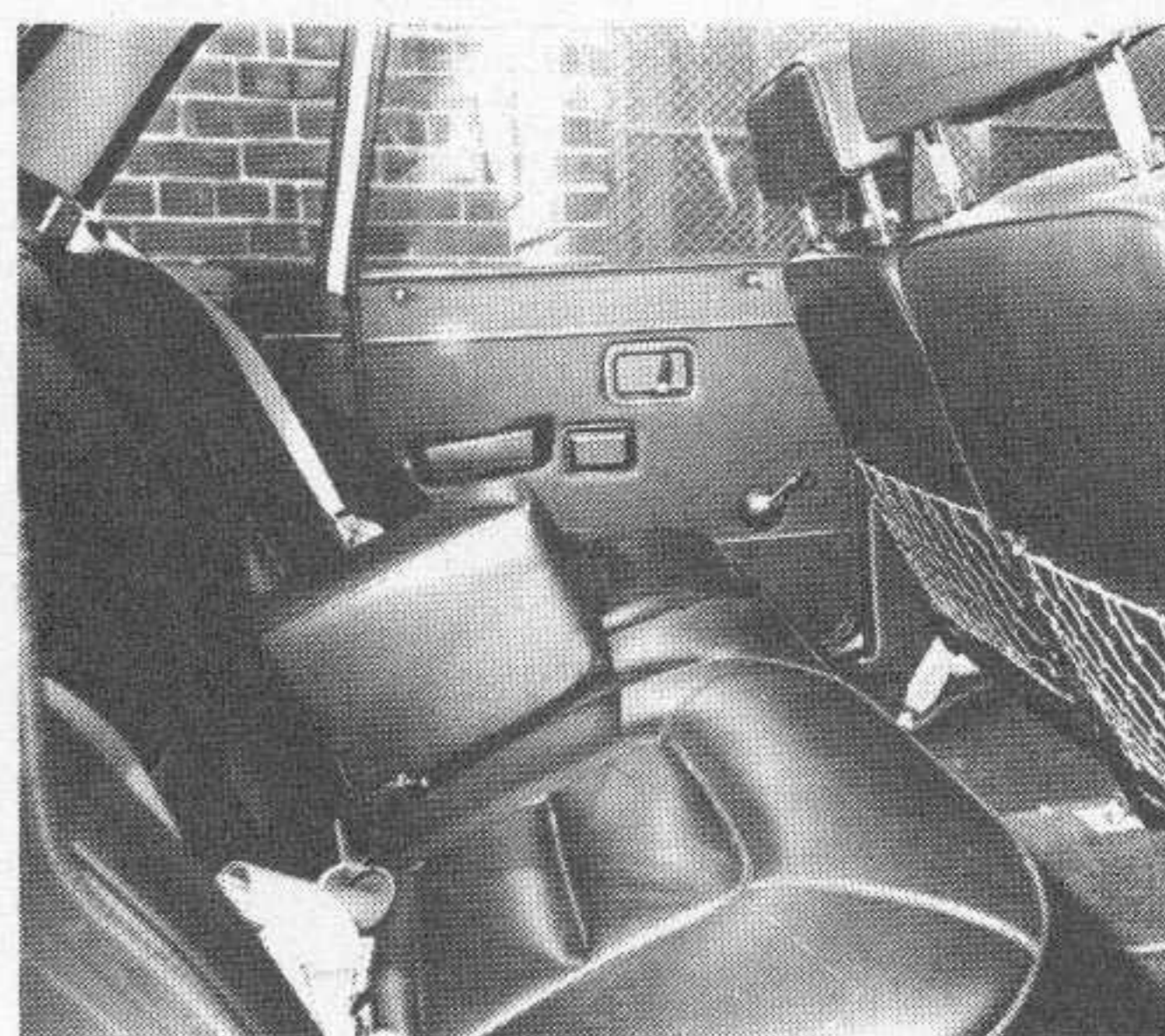
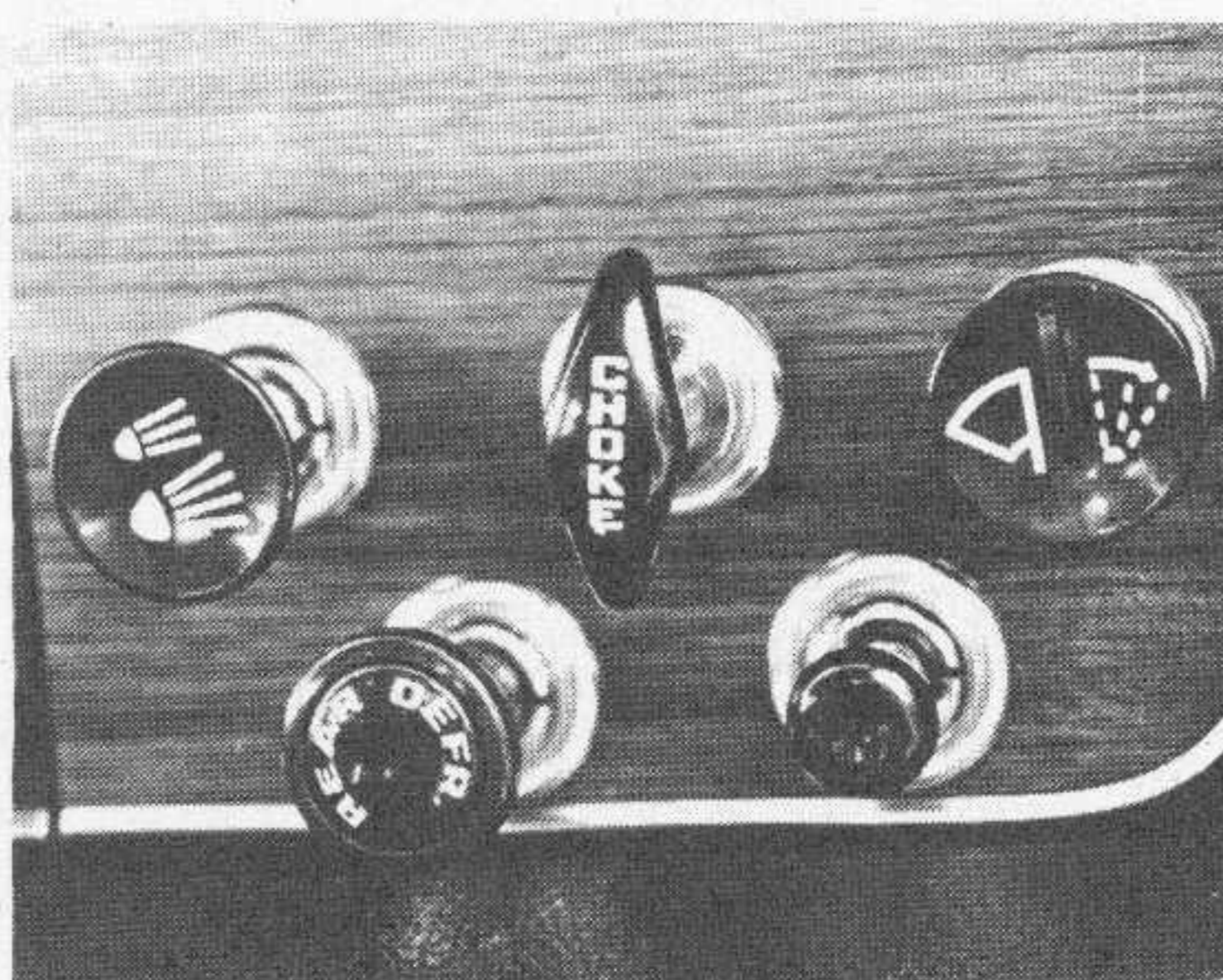
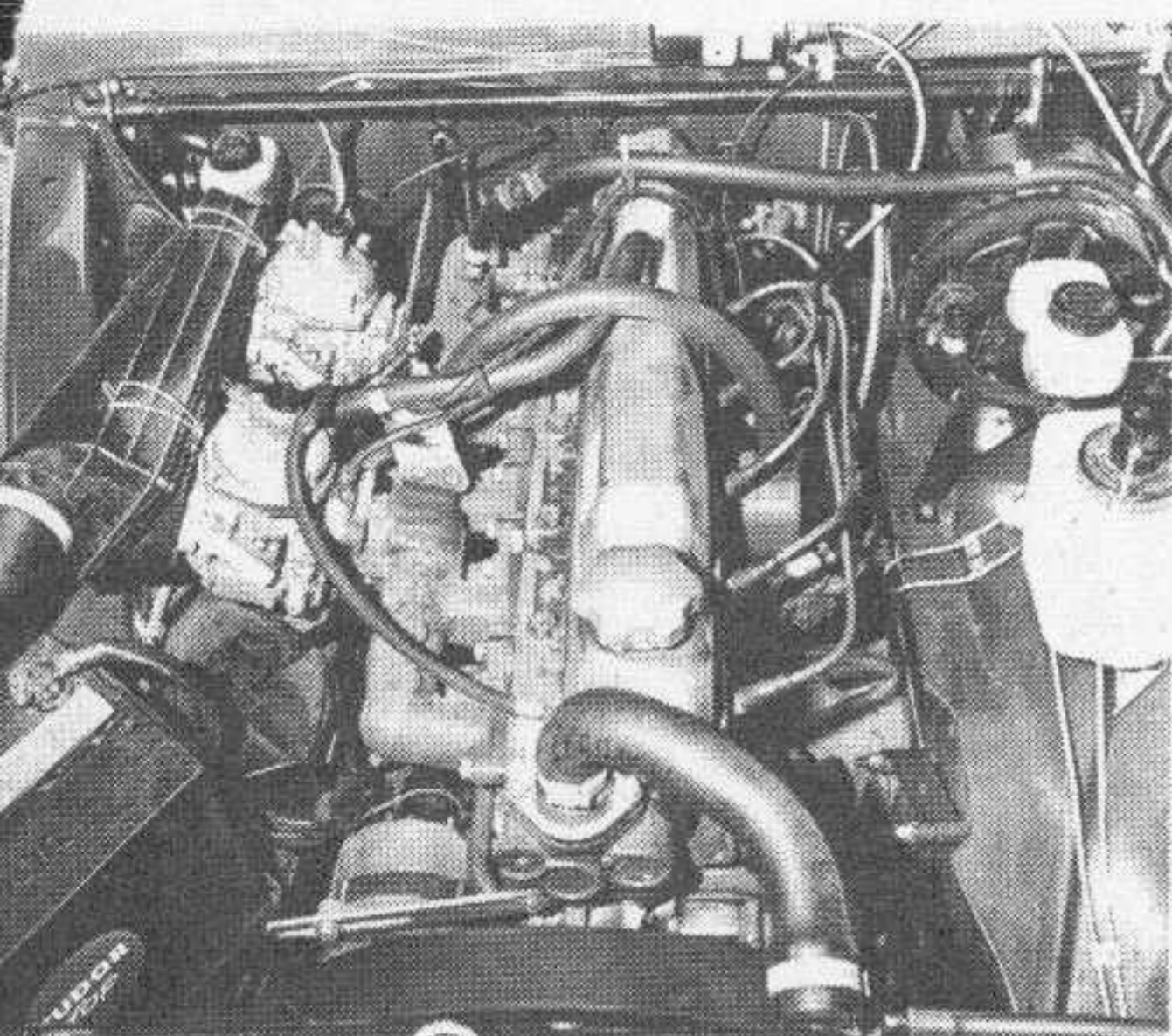
With seat belts compulsory in Victoria, and scheduled for compulsory wear in N.S.W., Volvo is

to be congratulated for this excellent standard feature — without qualification the best on the market, and a complete answer to every complaint about seat belts.

The 164 uses the same basic dashboard equipment as the 140 series — but it's pure prestige.

Emphasising simplicity, absolute ease of operation, "blind" touch-control and good ergonomic sense, the Volvo places its gear in logical positions.

The steering wheel is big — offering ease of turning at low speeds in tight spots, yet good control for fast motoring despite a quite indirect 4.8 turns lock to lock. The full circle horn rim is a thumb's reach away in any wheel position.



Wheels: ..... 165 SR 15.  
Tyres: ..... Michelin ZX radial ply.  
Pressures: ..... 28 lb. fr./26 lb. rear.

## STEERING

Type: ..... Recirculating ball and nut.  
Turns lock to lock: ..... 4.8.  
Wheel diameter: ..... 16.5in (40.9cm)  
Turning circle, between kerbs: ..... 31 ft. 6in. (9.6 m)

## BRAKES

Type: ..... Disc all round

## DIMENSIONS

Wheelbase: ..... 107.1 in. (272 cm)  
Track, front: ..... 53.0 in. (135 cm)  
Track, rear: ..... 53.0 in. (135 cm)  
Overall length: ..... 15 ft. 5.2 in. (470.5 cm)  
width: ..... 5 ft. 8.3 in. (173.5 cm)  
height: ..... 4 ft. 8.7 in. (144 cm)  
Ground clearance: ..... 6.5 in. (16.6 cm)  
Overhang, front: ..... 2 ft. 5 in. (79 cm)  
rear: ..... 3 ft. 5 in. (105 cm)

## EQUIPMENT

Battery: ..... 12 V 60 a/h  
Alternator: ..... 55A — 770W  
Headlamps: ..... 45/40 W  
Jacking points: ..... 4 sidepoints

## CAPACITIES

Fuel tank: ..... 12.75 gallons (58 litres)  
Engine sump: ..... 10.6 pints (6.0 litres)  
Final drive: ..... 2.82 pints (1.6 litres)  
Gearbox: ..... 1.1 pints (0.6 litres)  
Water system: ..... 2.73 gallons (12.4 litres)

## PERFORMANCE

Test conditions for performance figures; Weather: Overcast. Wind: Zero. Humidity: 80%. Max. temp. 47 degrees. Surface: Damp hotmix.  
Top speed, average: ..... 107 mph (171.2 kph)  
best run: ..... 108.5 mph (173.6 kph)

Standing Quarter Mile, average: ..... 17.2 secs.  
best run: ..... 17 secs.  
Speed at end of Standing Quarter: ..... 83 mph. (132.8kph)  
0-30 mph: ..... 3.7  
0-40 mph: ..... 5.2  
0-50 mph: ..... 7.3  
0-60 mph: ..... 9.2  
0-70 mph: ..... 13.3  
0-80 mph: ..... 19.4  
0-90 mph: ..... 22.3

Gear	Max. mph	(kph)	rpm
1st	39	62	5400
2nd	67	107	5800
3rd	95	152	5200

Acceleration holding gears:	2nd	3rd	4th
20-40	4.3	5.8	8.3
30-50	4.7	5.9	8.5
40-60	4.2	5.7	8.3
50-70	5.7	5.9	8.4
60-80	—	5.9	8.3

**Fuel consumption:**  
Average for test: ..... 18 mpg (6.35 kpl)  
Best recorded: ..... 26 mpg (9.2 kpl)  
City average: ..... 22 mpg (7 kpl)  
Country cruising: ..... 22-24 mpg (7 kpl-8.5 kpl)

**Fuel flow readings (constant speeds):**  
30 mph: ..... 41 mpg (14.6 kpl)  
40 mph: ..... 37 mpg (13.2 kpl)  
50 mph: ..... 33 mpg (11.7 kpl)  
60 mph: ..... 31 mpg (11.2 kpl)

**Braking: Five crash stops from 60 mph**

Stop	G	Pedal
1	.90	38 psi
2	.95	38 psi
3	.90	40 psi
4	.95	38 psi
5	.85	35 psi

30-0 mph: ..... 1.4 secs  
60-0 mph: ..... 3.1 secs

**Calculated Data:**  
Bhp/ton: ..... 110 bhp/ton  
Piston speed at max. rpm: ..... 2887 ft./min. (875 m/min)

Speedo Corrections:		40	50	60	70	80
20	30	40	50	60	70	79

# VOLVO 164

The instrumentation is basic — strip speedo (almost completely accurate using the tip of the moving luminescent band of light) and provided with a pointer to adjust to individual speed limit requirements. There's the now well-known Volvo one million mile odometer, plus trip and tenths recorder, gauges for fuel and temperature only and warning lights for all functions.

To the right of this panel, a group of switches covers the major operations you need to reach quickly. Those are lights, washer/wiper (not a particularly advanced system — but effective), choke, two-speed rear screen demister with twin-level warning light in the switch, and fog light switch (which can only be pulled-in with low beam).

Over on the left are the cigar lighter, hazard warning flasher and two-speed blower fan for the heater/ventilation system. The climate control is via three vertical dials which rotate at finger-touch to pump hot or cold air to the floor or screens or both. They have an illuminated arrowed-band to save night-time confusion.

Going further away to the passenger's side is the ashtray and radio — located well out of easy reach of the driver. The test unit was a Ferris of excellent tone and quality, supplemented by a speaker balance for the rear mount and power aerial. Fade in tunnels and parking stations was

minimal — easily one of the best we've experienced — and tone control is excellent. Once again, we think radios for the Australian market should have their volume control located nearest the driver.

The under-dash area includes the big fold-down lockable glovebox bin, centre pull-out panel for fuse-access (and clock console with the shift lever below that) with bonnet pull and extra vent levers.

Rear seat passengers are treated to the same sumptuous individual two-place comfort provided by the front buckets, but folding the big centre armrest away provides additional accommodation for another passenger with adequate comfort for even long hauls.

Legroom is big, seat belts are provided and the squabs of the front seats have neat fishnet-type newspaper magazine pockets.

At any speed, the cockpit is a quiet, comfortable place to "live" — and engine noise is less than the smaller Mercedes despite the busy pushrod twin-carbed six.

Wind noise is almost non-existent at high speed, and the ride is ultra-cushy — but radials introduce some thumping on badly cut-up roads.

Braking is a Volvo forte — our "G" figures kept getting better with more stops while the pedal effort dropped and the actual times to zero crashed to a level not exceeded by any other comparable car.

Volvo proudly points out it is

winning sales from buyers who previously preferred American machinery. The company is quite correct in stating the smaller overall dimensions offer greater interior room and comfort without dated styling — but it should also point out that for big families, the Volvo 164 offers an economical standard of motoring that probably can't be equalled by another manufacturer.

Despite our merciless test thrashing, the 164 logged an overall 18 mpg and put down a best of 26 mpg, using only first at low revs, third and top.

The fuel-flow figures at constant throttle openings give a picture of the incredible economy possible.

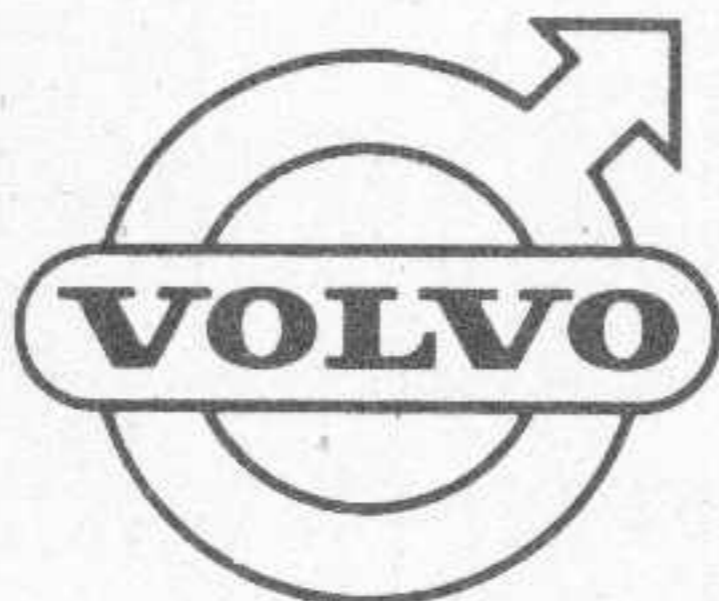
Despite that, a big family can travel at high speed in exceptional safety (wrapped up in progressive crumple rates and isolated passenger compartment) with the boot packed full of luggage (it will accommodate most family holiday requirements).

The car is built for discerning motorist at a price which helps to limit the potential market. But its market grip is increasing rapidly as more people realise the great bonuses of European-class motoring.

Volvo is certainly on the way up. ■

*VOLVO'S "big facelift" for 1971 consisted chiefly of this diagonal sash on the grille. Changeless styling as well as clean lines (bottom color pic) ensure Volvo owners don't drive a dated machine.*

## THINKING VOLVO?



### THINK!

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