

TOYOTA CORONA 1600



TORANA 1600 OHC

PHOTOGRAPHIC CAR SUPPLIED BY LES VAGG



CORTINA 1600 OHV

PHOTOGRAPHIC CAR SUPPLIED BY FURY FORD



6X4

**CHRYSLER
GALANT
1500 OHG**



**MORRIS
MARINA
1750 OHG**



**DATSUN
1600 OHG**



MODERN MOTOR GIANT-6-CAR COMPARISON

JUST how do the top-selling four-cylinder cars stack up? In a gruelling workout covering every possible condition, the MODERN MOTOR test team matched six top fours in a no-holds-barred comparison that produced conclusive results . . .

6X4

CORONA

TORANA

CORTINA

CHRYSLER

MARINA

DATSUN



THE SMALL FAMILY CAR market is jumping. Sales are up almost 30 percent on last year. New models cram the scene. Manufacturers are hitting hard with intense advertising and promotional campaigns. And competition is the fiercest in years.

In fact the light-medium market is the only sector to show any real growth in a market that's generally depressed.

Registration figures show 28,258 light medium cars were sold in the first four months this year — compared with 21,953 last year. The market percentage jumped from 16.9 to 23.2 in the same period.

At the same time, the overall market fell by 6.1 percent. The only other class of vehicle to show an increase was the medium eights. Luxury, medium sixes and light small vehicles all showed drops in sales.

The big sellers in this light medium market are the fours — all priced around \$2500 and all chasing the same buyers. At the moment the main contenders are the Morris Marina, the Holden Torana, the Ford Cortina, the Chrysler Galant, the Datsun 1600 and the Toyota Corona.

Their combined April sales were 5893 but in May they jumped to 6603. The sales chart looks like this:

	April	May
Cortina	868	1748
Marina	094	1424
Torana Four	881	1032
Datsun 1600	814	971
Corona	762	915
Galant	474	513
Total	5893	6603

The figures for the Cortina, Torana, Galant and Marina include all engine options. We know that 90.1 percent of the Cortina buyers opt for the larger 2000cc engine over the 1600cc. The majority of the Torana four buyers are

for the 1200 and 1300cc engines because a 1600 four can be more expensive than a 2250cc six.

Most people are going for the larger engines in both the Marina and Galant models, so the final sales order for the cars *included in this test* is probably Marina, Datsun 1600, Corona, Galant, Torana and Cortina.

The test vehicles were chosen on price and performance grounds to keep them as equal as possible. This required us to have the base models on the Marina, although we were able to have the optional 1750 engine, the Datsun (not the GL), the Corona (not the SE) and the Cortina (L pack not the XL). The Galant and Torana come in only one trim form.

On price, the order of the cars is — Corona \$2549, Torana \$2525, Marina 1750 \$2510, Galant \$2509, Cortina \$2485 and Datsun \$2484. (All prices are the suggested retail including tax — dealer preparation and delivery charges, if any, are not included.)

Our original intention was to test the full range of four-cylinder, conventional lay-out, four-door cars costing between \$2500 and \$2550. Unfortunately the 2-litre Cortina was \$20 over the limit so we had to drop to the 1600cc engine which was more comparative on performance and price. Similarly, the Datsun 1600 in the luxury GL pack was over the limit so we had to drop the lower limit to include it in the standard trim. There is no difference in performance.

What resulted is a very full range of local products. A quick glance at the major specifications shows four overhead cam engines ranging from 1500cc to 1750cc, and two 1600cc pushrod engines.

But only one car is built with fully independent suspension.

This indicates a surprising degree of mechanical sophistication under the hood, coupled with extreme simplicity

in suspension engineering. Because all the cars are aimed at the mass markets, the economics of advanced power units mated to simple, easy-to-build bodies, suspensions, and power trains is good.

Two of the Japanese cars, the Toyota Corona and Datsun 1600 are very big international successes. The Datsun in particular has sold very well in all world markets.

Right from the introduction of the Datsun in 1968, the image has been one of rugged dependability coupled with its successes in rallies and trials. The advanced engine specifications and independent back axle have also been pushed.

"Real Grand Touring" is the current phrase being used by Datsun to describe their car. This sporty image seems to have worked because the 1600 is certainly a big success in Australia.

The other big selling Japanese car, the Toyota Corona, is aimed directly at the average Australian family man — and he is buying it. Ever since its introduction in 1964 the car has gone well. It has been one of the most consistent sales successes ever seen by York Motors, the NSW distributors of the car.

Their sales pitch is "a beautiful, enduring motor car." Reliability and low running costs are their big points. It is a very conventional car with comfort as a strong point.

The most spectacular entry into the field has been the Marina — and it has jumped to the number two sales position in very quick time. This has resulted in an abrupt change of Leyland Australia's fortunes.

Their catchphrase "Marina will change your present ideas" seems particularly apt considering the change in fortunes of Leyland. No clear picture of the buyers of the car has emerged yet.



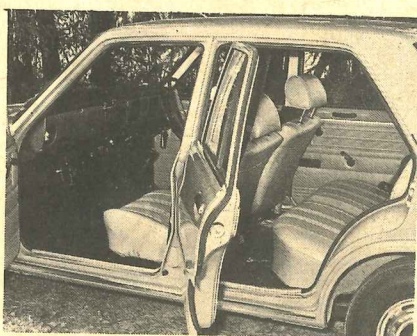
GALANT — 1972 car has tombstone buckets.

CORTINA

Overall length	14ft
Overall width	5ft 7in
Overall height	4ft 4in
Wheelbase	8ft 5.5in
Track, front	4ft 8in
Track, rear	4ft 8in
Ground clearance	5.5in

CORONA

Overall length	13ft 9.3in
Overall width	5ft 1.8in
Overall height	4ft 7.1in
Wheelbase	7ft 11.7in
Track, front	4ft 2.8in
Track, rear	4ft 2.4in
Ground clearance	7.1in



DATSUN — restyled dash, adjustable h'rests.

GALANT

Overall length	13ft 4in
Overall width	5ft 2in
Overall height	4ft 7in
Wheelbase	7ft 11.3in
Track, front	4ft 2.7in
Track, rear	4ft 2.7in
Ground clearance	6.9in

DATSUN

Overall length	13ft 4.2in
Overall width	5ft 1.4in
Overall height	4ft 7.9in
Wheelbase	7ft 11.3in
Track, front	4ft 2in
Track, rear	4ft 2in
Ground clearance	7.5in



MARINA — cushy seats, poor belts.

MARINA

Overall length	13ft 7.1in
Overall width	5ft 4.3in
Overall height	4ft 7in
Wheelbase	8ft
Track, front	4ft 4.5in
Track, rear	4ft 4.4in
Ground clearance	6.5in

TORANA

Overall length	13ft 6.2in
Overall width	5ft 3in
Overall height	4ft 3.3in
Wheelbase	8ft 4in
Track, front	4ft 3.8in
Track, rear	4ft 2.8in
Ground clearance	6.0in

But the typical Australian buying pattern is present, with most people opting for the bigger engine (roughly 75 percent do), about 25 percent going for the automatic transmission and about a 60-40 split on sedans and coupe purchasers. About 40 percent go for the Super de Luxe trim.

Our other Japanese, the Chrysler Galant is a poor seller. This is largely attributable to the marketing of the car. On a national basis, the advertising is fairly skimpy — the main theme being "One of life's little luxuries."

One dealer even had a big sales campaign and didn't name the car — the only way to identify the car was to deduce that a Chrysler dealer wouldn't sell any Japanese car but a Galant. The TV ad was a man in front of a showroom saying they were doing good deals on new Jap cars — the Galant wasn't even pictured!

The only Australian in the test is the Torana — and even it isn't all-Australian because the engine and some suspension components are English.

This too is a somewhat neglected car. The manufacturers certainly don't push it hard and the dealers tend to pass it over. Most of the advertising material is on the small fours and the big sixes.

Finally we come to the Cortina — it is so different from the others that it seems almost out of place. But it is also the newest so it has an advantage. The essence of the car is its apparent size. It seems much bigger than the others, but the price is right.

As the sales figures show, it is well-accepted by the public. This is a

well-earned success because the whole package represents excellent value in terms of comfort, ride and handling. On top, it looks like a lot of car for the money.

Our comparison test is split into the major departments under which cars are generally evaluated. We compare the cars directly, and at the end of each section we list the performance of all cars in order.

Because new car buyers have different priorities in selecting what they want in a car, we won't come up with an overall winner. The car that suits you should be the result of a personal decision based on your individual requirements.

We give you all the information, show you where each car performs best, and leave the choice up to you.

Section by section, this is how the test crew found the Big Six:

STYLING & DESIGN

One of the refreshing aspects of the light medium market, is the limitation placed on styling by the fierce competition.

The six cars in our comparison test are all produced by major world manufacturers — all competing in world markets. A slight slip by one, could mean eradication from the market by the opposition.

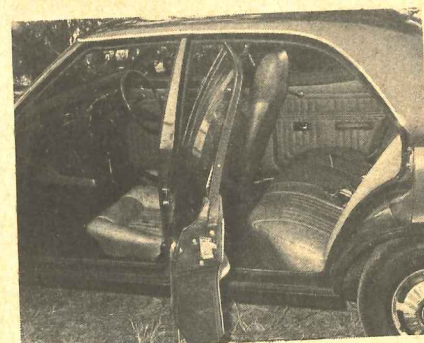
And because there are so many offerings, the buyer has been conditioned to become more selective. He demands functional engineering before all else — the car in most cases is being bought specifically to suit a certain set of demands, and they're generally a very wide set of demands.



TORANA — photocar was only two-door.



CORONA — top honors for luxury.



CORTINA — comfortable but finish poor.

CORTINA	
Shoulder room, front	.53
Shoulder room, rear	.53
Hip room, front	.50
Hip room, rear	.50
Legroom, front	20/25
Legroom, rear (seat forward/back)	22/16
Legroom, rear (seat forward/back)	.34
Headroom, front	.34
Headroom, rear	.31
Turning circle, between kerbs	32.9
Turning circle, between walls	35.0
SPEEDS IN GEARS	
1	.32
2	.50
3	.74
4	.90
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	37 mpg
40 mph	35 mpg
50 mph	34 mpg
60 mph	29 mpg

CORONA	
Shoulder room, front	.52
Shoulder room, rear	.50
Hip room, front	.46
Hip room, rear	.38
Legroom, front	20/26
Legroom, rear (seat forward/back)	20/15
Legroom, rear (seat forward/back)	.34
Headroom, front	.33.5
Headroom, rear	.33.5
Turning circle, between kerbs	32.4
Turning circle, between walls	34.6
SPEED IN GEARS	
1	.28
2	.51
3	.75
4	.92
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	32 mpg
40 mph	28 mpg
50 mph	26 mpg
60 mph	24 mpg

GALANT	
Shoulder room, front	.50
Shoulder room, rear	.50
Hip room, front	.39
Hip room, rear	.38
Legroom, front	20.5/25
Legroom, rear (seat forward/back)	19.5/15
Legroom, rear (seat forward/back)	.34.5
Headroom, front	.34
Headroom, rear	.34
Turning circle, between kerbs	29.4
Turning circle, between walls	31.3
SPEEDS IN GEARS	
1	.30
2	.48
3	.65
4	.91
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	34 mpg
40 mph	37 mpg
50 mph	35 mpg
60 mph	30 mpg

slight lapses in areas like rearward visibility and parkability, it is a commendable product.

The other five, though much less styled, are all commendable for their simplicity. The most dated is the Datsun yet it continues to sell strongly and is due for updating soon in any case. The Corona has had a successful partial-revamp, the Galant seems to have timeless, cheeky styling and the Marina and Torana are conventionally pleasing.

There is no doubt which vehicle takes the honors for the dual considerations of design and styling. Conversely it is impossible to establish a clear pattern of preference on the remaining five since they are all built on the same principle — basic styling to cover functional engineering.

We'll take the unusual step of placing the Cortina as number one and leaving further nominations to individual preference. Our summary is thus: 1 Cortina, 2 Corona, Datsun, Galant, Marina, Torana (alphabetical order only).

ENGINES

Here is a really bright note in the test — four of the cars come with overhead cams. If the Cortina's optional OHC 2-litre is added, the total is five.

It is good to see such engineering advances entering the mass market on such a wide scale. The direct result is more power, cleaner engines and better economy — obvious benefits.

We'll start with the smallest engine in the test, the Saturn which powers the Galant. From 1500cc it produces a

healthy 95bhp at 6300rpm. This is an SAE rating and should be dropped about 15 percent to about 81 DIN bhp for comparison with the others in the test.

The Saturn revs the highest and is easily the noisiest engine on test. Yet because it is so responsive, it quickly became a favorite with the testers. However, the peaky power curve on the engine required a lot of shifting to keep the rev range right.

Next in order of capacity comes the Cortina and Corona with pushrod engines and the Torana and Datsun with overhead cam units. Both the pushrod engines felt dated — they weren't keen on high revs and the Corona really objected when pushed beyond about 5500rpm.

This is just over the power peak and doesn't really affect the car's performance. Toyota rate the unit at 90 (SAE) bhp at 5400rpm. The DIN rating would be about 78bhp. The torque rating is 98lb.ft at 4000rpm.

Ford rate their engine at 78 (DIN) bhp at 5700rpm. The torque figure of 94lb.ft comes on at a very low 2600rpm. It gets fussy at high revs and generally doesn't feel like enough power is getting through to the road. Its overall noise level is high.

The two overhead cam engines however were of a totally different character. They both revved hard and long with good low speed punch and flexibility as well as the ability to climb the tach very high when required.

Datsun give a 96 (SAE) bhp figure at 5600 which equates to about 82 (DIN)

bhp. Torque comes on at 3600rpm with 99.8 (SAE) lb.ft. Holden claim 80 (DIN) bhp at 5500rpm with 96lb.ft of torque at 3200.

Both engines are noisy but not unreasonably so.

Leyland gets the top engine capacity with 1750cc — a stretched version of the old 1500cc OHC. They rate it at 78 (DIN) bhp at 4800 with 99lb.ft of torque at 3000 making it a solid low-stressed slugger. We allowed the optional engine because it put the car in the middle of the price and performance group.

Both the Marina and the Corona are designed for more leisurely driving, although the Marina will rev all the way to 7000rpm when required. Both prefer the more sedate pace of the mature driver and operate efficiently at that pace.

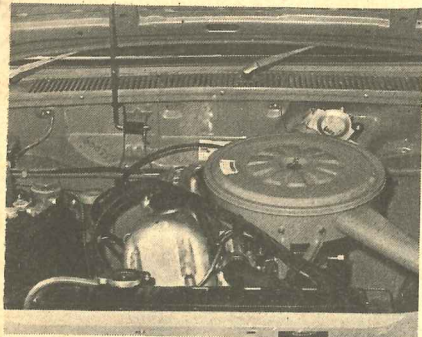
The Cortina requires lots of revs to keep the car going at a reasonable pace, but the rather dated unit isn't always up to the task.

We really liked the Galant's engine from the driver's angle. It is very responsive and works hard although it does make a lot of noise in the process. It keeps up well with the others in the group despite its small size.

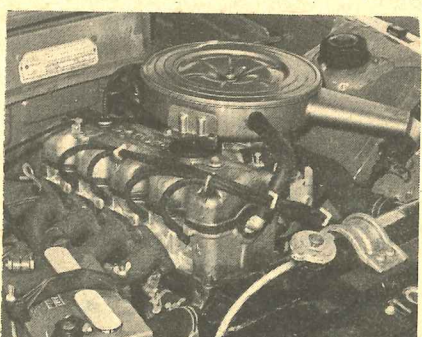
The Datsun and Torana ran well but not brilliantly — both were responsive and torquey. Our rating is: 1 Galant, 2 Datsun, 3 Torana, 4 Marina, 5 Cortina, 6 Corona.

TRANSMISSIONS

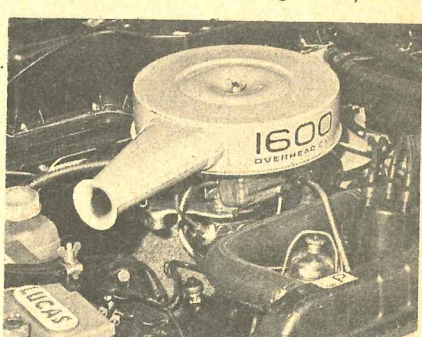
All vehicles came with four-on-the-floor. In general, the



DATSUN — OHC, 82 (DIN) bhp.



GALANT — Saturn OHC, 81 (DIN) bhp.



TORANA — OHC, 80 (DIN) bhp.

DATSUN	
Shoulder room, front	.52
Shoulder room, rear	.50
Hip room, front	.46
Hip room, rear	.38
Legroom, front	13.5/24.1
(seat forward/back)	
Legroom, rear	23.5/18
(seat forward/back)	
Headroom, front	.35
Headroom, rear	.34.5
Turning circle,	
between kerbs	31.5
between walls	33.4
SPEEDS IN GEARS	
1	.35
2	.55
3	.78
4	.93
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	36 mpg
40 mph	34 mpg
50 mph	32 mpg
60 mph	28 mpg

MARINA	
Shoulder room, front	.51
Shoulder room, rear	.50
Hip room, front	.39
Hip room, rear	.39
Legroom, front	22/28
(seat forward/back)	
Legroom, rear	22/17
(seat forward/back)	
Headroom, front	.34
Headroom, rear	.33
Turning circle,	
between kerbs	31.5
between walls	33.3
SPEEDS IN GEARS	
1	.30
2	.48
3	.70
4	.91
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	33 mpg
40 mph	30 mpg
50 mph	27 mpg
60 mph	33 mpg

TORANA	
Shoulder room, front	.51
Shoulder room, rear	.49
Hip room, front	.45
Hip room, rear	.37
Legroom, front	20/28
(seat forward/back)	
Legroom, rear	20/16
(seat forward/back)	
Headroom, front	.33
Headroom, rear	.33.5
Turning circle,	
between kerbs	29.4
between walls	31.3
SPEEDS IN GEARS	
1	.32
2	.53
3	.70
4	.93
FUEL CONSUMPTION	
Test average	
Fuel Flow Figures	
30 mph	35 mpg
40 mph	36 mpg
50 mph	32 mpg
60 mph	29 mpg

gearboxes are good, although some are sticky in their operation.

The Cortina's is excellent, with a very straight pattern and good movements with a nice balance between smoothness and precision. The Galant has a similar change although it is a bit less precise.

Next in order comes the Datsun. Its change is less precise with more movement in the gears. The Torana's change was also good and roughly on a par with the Datsun's.

Large movements and a very notchy pattern detract a lot from the Toyota's gearshift. It is slow and sometimes a little awkward. It seems traditional with Leyland to have poor shifters — our test Marina was no exception. The rubbery feel and fairly tight gates all added up to a poor change with gears often difficult to engage.

We will admit that the change was particularly poor on the test car but the average Marina isn't much better.

Only the Marina presented any difficulties in engaging reverse. The lift-and-up movement is very awkward.

Ratios for all cars were fairly well chosen. The Galant felt a little undergeared with a top speed of only 65mph in third — a little short for those tricky overtaking manoeuvres.

Noise levels on all of them were only average with the Marina, Galant and Torana being the worst in this respect.

The finishing order is: 1 Cortina, 2 Datsun, 3 Torana, 4 Galant, 5 Marina, 6 Toyota.

RIDE, HANDLING & STEERING

Although we considered this section collectively, we've split the findings up into the three separate categories.

The ride section goes to the Cortina and the Corona. The Cortina rates high because of its wheelbase and track —

being the largest it suffers less from pitch and the standard suspension rates do a good job of damping out the bumps.

The Corona comes in second because it has soft spring rates — giving a good ride at the expense of handling. The whole car is aimed at comfort and luxury and ride is an important part of that. Most irregularities are soaked up in the springs although it does tend to wallow a little in fast going on corners.

Ride plays an important part in the Marina as well. The spring rates are not soft at the expense of handling, but soft enough to leave most of the bumps on the road and not transmit them to the passenger compartment. Seat springing is also soft, giving even further comfort for the passengers.

A shade more harshness in the springs is given to the Datsun and Torana. The Torana feels almost too soft and wallowy but this is only an illusion because once it is thrown into a corner the picture changes. Although the Torana's spring rates are reasonably soft the car suffers a lot from pitch and heavy undulations make the ride a misery for the back seat passengers who are continually being bounced up and down.

Datsun supply an independent rear end for the 1600. This allows more movement in the suspension without having to worry about axle location. The result is a reasonably soft ride but once again the short wheelbase plays havoc with even the best spring rates.

Big road irregularities can catch the suspension out and the jolt is transmitted through the body.

Last in the ride section is the Galant. Once again a short wheelbase and simple suspension affect the ride comfort to a large extent.

It was the tightest car in the

suspension. This resulted in good handling but the ride was the worst. The car pitches a lot and irregularities such as old tram tracks covered-over will knock the car way off-line because the front wheels just track along it.

This movement is felt as a jolt by the passengers.

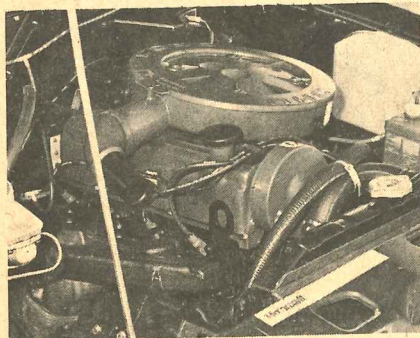
Our second section is handling and steering combined.

Three of the cars really stand out in the handling department — they are the Galant, the Datsun and the Marina. On our photographic corner they were all thrown in as fast as they could go. The Datsun was the most stimulating to drive.

It oversteered quickly and fairly sharply. On a power-off entry into a corner, it tucked its nose in and hooked the tail around. There was a fair amount of tyre squeal and it picked up the inside front wheel. The inside rear wheel spun. The light steering and good brakes made setting it up easy and control was excellent.

The Galant was the fastest through the corner. It went around with little roll or tyre distortion. Coming into the corner there was some gentle understeer which could be converted quickly to oversteer by lifting off on the throttle. The transition was gentle but quick. The light, fast steering made corrections easy because it has a very strong self-centering action, letting the driver know just where straight ahead should be. Again the light, well-balanced brakes together with the accurate steering made setting-up the car easy.

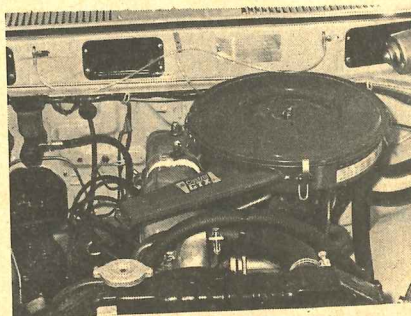
The Marina was the only car equipped with radials — this resulted in very quick cornering. The car was flat and fast with mild tyre squeal and gentle understeer. Lifting off, the car tucked its nose in neatly. The steering required lots of wheel movement but



CORTINA — photo shows OHC 2-litre.

ACCELERATION		CORTINA
0-30 mph	.....	4.2
0-40 mph	.....	6.7
0-50 mph	.....	10.4
0-60 mph	.....	14.8
0-70 mph	.....	19.3
0-80 mph	.....	30.4
Standing quarter	.....	20.2

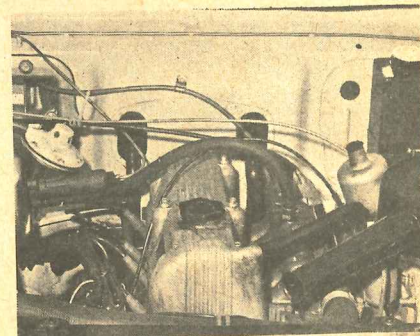
		CORONA
0-30 mph	.....	4.1
0-40 mph	.....	6.5
0-50 mph	.....	9.6
0-60 mph	.....	13.6
0-70 mph	.....	18.2
0-80 mph	.....	24.7
Standing quarter	.....	19.3



CORONA — OHV, 78 (DIN) bhp.

		GALANT
0-30 mph	.....	3.8
0-40 mph	.....	6.4
0-50 mph	.....	9.4
0-60 mph	.....	12.8
0-70 mph	.....	19.3
0-80 mph	.....	23.4
Standing quarter	.....	19.4

		DATSUN
0-30 mph	.....	3.9
0-40 mph	.....	5.9
0-50 mph	.....	9.1
0-60 mph	.....	11.6
0-70 mph	.....	17.3
0-80 mph	.....	22.4
Standing quarter	.....	19.1



MARINA — OHC, 78 (DIN) bhp.

		MARINA
0-30 mph	.....	4.1
0-40 mph	.....	6.3
0-50 mph	.....	9.8
0-60 mph	.....	12.4
0-70 mph	.....	18.2
0-80 mph	.....	28.6
Standing quarter	.....	19.6

		TORANA
0-30 mph	.....	4.3
0-40 mph	.....	6.7
0-50 mph	.....	9.9
0-60 mph	.....	13.4
0-70 mph	.....	18.6
0-80 mph	.....	29.0
Standing quarter	.....	19.6

(Continued on page 99)

6 TOP FOURS

(Continued from page 14)

most of the steering was done on the accelerator. The whole feel of the car was good and it was a lot of fun and very safe.

The Cortina came into the corner flat and well-balanced. It understeered when pushed hard or on late-braking. The transition to power-off oversteer was gentle with corrections easy from the steering wheel and/or the throttle. The brakes were good and there was no tyre squeal.

The Torana came in flat but with a fair amount of pitch. We noticed some diagonal chop in the apex. The car understeered going into the corner and it was very willing to go into a four-wheel slide. It is controllable at all times but suffers from lots of tyre squeal and heavy tyre roll and distortion. The steering was heavy. The brakes were good — one tester noted it was great fun to chuck around.

Last in the list is the Corona — it has lots of roll and plough understeer on a heavy throttle application. It felt firm all the way but very round as the corner tightened. The steering feel was good but heavy. The brakes too were very heavy.

For the final category under the Ride, Handling & Steering heading, we decided to look at manoeuvrability.

Use of steering systems was a fascinating 50/50 split between rack and pinion and recirculating ball. The Cortina, Marina and Torana used "the rack" which covered a wide cross-section of types of steering feel on the same system.

The manufacturers were widely divided on ratios, employing steering boxes that gave lock-to-lock turns at the steering wheel ranging from 3.8 on the Torana to a relatively low-geared 4.75 turns on the Cortina (the Marina is mid-way on 4.0 turns). However, a sensation common to all three cars was good road feel.

The ratios employed on the recirculating ball systems also covered a wide range — offering turns-at-the-wheel from a direct $3\frac{1}{4}$ on the Datsun to a fairly low-geared $4\frac{1}{2}$ on the Corona.

The Datsun system was as firm and precise as the best rack and pinion system on the other cars but didn't suffer from high loading when parking.

The Galant was also quite precise, but the Corona had a feeling of lost motion on both loose surfaces and in normal running on either side of top-dead-centre. However it

compensated with greater isolation from road shock.

The type of steering bore a close relationship to the type of ride/handling each manufacturer built into his car, and it was interesting to note that no car suffered from really vague steering, from heavy loadings at parking speeds, or serious road reaction.

Each car had steering well-matched to the overall concept of the vehicle — for example the sporty Datsun had a light, fast action, while the luxury-touch Corona required more turns, less effort and was generally smoother.

The cars are so close dimensionally, that variations in relation to parkability arise more out of body styling than steering, suspension and bulk.

Wheelbases cover a fairly narrow band from 95 to 101.5in. but in no cases does this exaggerate the overall body lengths which cover a remarkably narrow band from 13ft 4in. (Galant) to exactly 14ft (Cortina). Since the Cortina has the longest wheelbase, you might reasonably expect its body to be disproportionately longer than the others. But it is worth remembering that Ford's entire principle of engineering with the new car was to extend the wheelbase (and thus the cockpit dimensions) within the scope of the overall length of the old body.

The end-product of comparison between the cars on grounds of parkability is reduced to the turning circle — which is affected by the joint considerations of wheelbase and length (and to a lesser extent, the track widths).

With fairly comparable front-end engineering, it's not surprising to find the Cortina comes off worst in the battle to about-face in the shortest possible distance. It takes 32.9ft between kerbs — more than 3ft 6in. on top of the equal best performers (Torana and Galant) on 29.4ft.

However because of its relatively low overhangs, it catches up on some of its opposition in the tie-breaking turn-between-walls. Here its 35ft effort still rates as the worst, but is a mere 0.4ft behind the next runner (the Corona) 34.6ft. This proves that economy of sheet metal on the Cortina is a more efficient engineering measure than the Corona's shorter-wheelbase, but longer-overhang styling.

It is a poor reflection of the current engineering trends, that styling is often achieved at the expense of functional design. This particularly applies to manoeuvrability and parkability,

where the top performances are put-in by the oldest models.

The Galant, Datsun, and Corona all park relatively easily with clearly visible extremities — a legacy of their square-line boxy styling. Marina, Cortina and Torana all have deficiencies in this area — and on the Cortina in particular, it is often quite severe.

Again, in traffic the older cars are easier to place, with more definition of the extremities of bodywork.

A final detail consideration is ground clearance — and it's only a detail issue because all manufacturers provide good clearance. The Cortina has the lowest clearance at 5.5in. which appears to be the result of a compromise because of styling — disappointing if this is so. The Torana sits half-an-inch higher (6.0), the Marina is up at 6.5in. and the Galant (6.9) and Datsun (7.1) could just about tippy-toe over a high kerb.

Now our summary of the three separate categories under our Ride, Handling & Steering heading:

Ride: 1 Cortina, 2 Corona, 3 Marina, 4 Torana, 5 Datsun, 6 Galant.

Handling & Steering: 1 Galant, 2 Cortina, 3 Datsun, 4 Marina, 5 Torana, 6 Corona.

Manoeuvrability: 1 Torana, 2 Galant, 3 Datsun, 4 Marina, 5 Corona, 6 Cortina.

BRAKES

IF there's any real variety in engineering and performance of the vehicles, this has to be the major area.

Yet there is still a remarkable commonality of approach. Five out of six use disc front/drum rear combinations (the Corona is the only exception) and there is only 0.8in. difference in disc size between the four using 13in. wheels — only the Torana rolls on 12in. wheels, and gets the smallest discs at 8.4in. against the Marina's top-rating 9.8in. equipment.

Exactly half have booster equipment — and by virtue of their brake design, all three have probably been equipped out of necessity, not merely as a sales-grabbing technique.

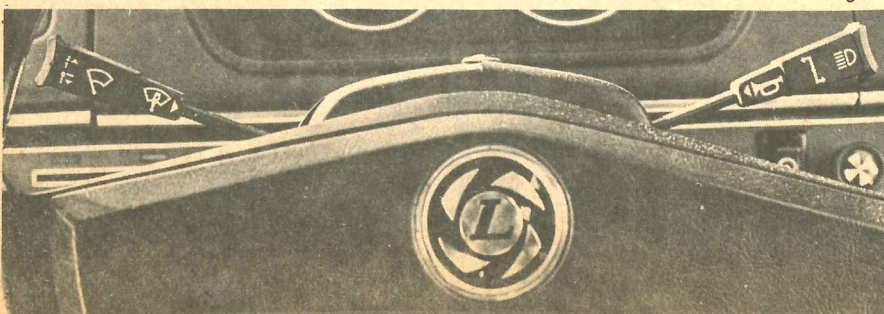
Two of the remaining three unboosted cars (the Galant and the Datsun) feature light, effortless brake operation. The Corona is unboosted and very heavy in its operation. This is an aspect of engineering we find difficult to understand in relation to both Toyota Japan and AML design traditions.

The Cortina runs 9.6in. discs with 9in. rear drums. The system is heavily boosted for an ultra-light pedal effort and the car is set-up with low-pedal layout for easy heel-toeing. The car crashes down from 60mph in 3.8seconds and fade was practically impossible to induce.

The Corona is at the other end of the spectrum. It has 9in. drums all round and a non-boosted pedal. A single stop from 60mph can actually be performed in less time (3.4 secs) than it takes the heavier Cortina but that is the last good stop you'll get and the braking is often uneven.

Fade develops quickly, loading up

TOP SAFETY FEATURE — stalks on Marina cover all controls, have international markings.



the already high pedal pressures and reducing the stopping power. This car is a must for disc brakes and power assistance. For normal city use it is completely acceptable and in fact many owners may have found its braking is entirely satisfactory — but it definitely lags in comparison with its opposition.

The Galant runs 9in. discs and 8.5in. drums with no power assistance — yet has remarkably light, progressive braking.

It stops from 60mph in 3.4secs and keeps on stopping reliably and consistently for consecutive occasions. It has a slight tendency to hook brakes on uneven bitumen surfaces but is otherwise smooth with a minimum of frontal weight transfer.

The Datsun with 9.13in. discs, 9in. drums and no booster has proved itself in competition. But it is also entirely satisfactory for regular road use. Pedal pressures are light, and braking is always progressive. We couldn't fade the brakes, they stopped from 60mph in 3.8 seconds and kept on giving high g-readings and low pedal effort for consecutive stops.

The Marina runs the biggest discs (9.8in.) matched with the equal-smallest drums (the same as the Torana's at 8in.). It also features the biggest booster kit — in fact it's so large it has to sit sideways under the bonnet. Stopping is always effortless and consistent with exceptionally high g-readings for the low-average pedal pressures. The 60-0 stop takes 3.4 seconds — from the first time through to the fifth time and beyond.

The Torana with the smallest equipment does not lag in performance. It whistles down from

60mph in 3.4 seconds and stops consistently with low pedal effort from the big booster. The system is prone to occasional hooking on uneven surfaces and doesn't produce the highest g-reading we've recorded, but it has a high resistance to fade.

Handbrakes are located between the buckets on the transmission tunnel in all except two cases — the Datsun and the Corona. Both these have under-dash levers which have been run out of date by the compulsory seat belt laws. They hold as efficiently as the other brakes, but are awkward to operate.

All cars are equipped with handbrake warning lights and all comply with the regulations on dual-circuit systems. They also use the handbrake warning light for circuit failure.

Our rating is: 1 Cortina, 2 Marina, 3 Galant, 4 Datsun, 5 Torana, 6 Corona.

INTERIORS & COMFORT

The general layout, design, comfort and equipment standards in the six cars is so similar we consider the choice a highly personal one.

All six cars have four doors and are classed as four/five seaters — all employing front bucket seats with rear bench. There are various specialised seating options from optional benches to special console installations but they don't change the basic package.

To comply with current regulations, head restraints must be fitted to all cars, and this was one of the major forms of design difference between the various products. Torana, Marina and Datsun all use detachable headrests — the other three are integrated assemblies. The test and photographic

Galant was equipped with the 1971 seats which gave the worst lateral location of all cars, but this has been eliminated with the new stocky tombstone design in the 1972 Chrysler Galants (however the poor seat-belt location hasn't been improved and still cuts into the neck of any front-seat occupant).

Most of the cars offered seats with good comfort and excellent lateral support. The Marina's seats were too flat and gave poor lateral support but they were comfortable. The seat belts have still not been modified to give proper adjustment to hold tall drivers firmly and their current installation is dangerous — how about changing them BL, you've had more than fair warning!

The Torana has the most improved seating — and it certainly needed the new seats. The buckets look good and they hold well laterally. They tire some drivers over distances. The squab that folds at an angle for rear seat access is a neat idea. Seat belt design is simple and reasonably comfortable.

The Corona, the sloppiest handling car of the bunch, has seats that soak up any lurching tendencies in the body. The emphasis is on pure comfort, and any occupants will be able to run long mileages tirelessly in this very comfortable car. Seat belts work well.

The Datsun shows its age in seating standard. It has reasonable comfort, but occupants experience some lateral slip in any sort of hard going. Seat belt location and fixing is fair.

The Cortina probably has the best seats of the bunch for appearance and lateral grip. They are not quite as comfortable as the Corona but the



DATSUN — high lip, clear floor.



CORONA — high lip, spare in sidewall.



CORTINA — low loading lip.

CORTINA

Capacity	.....	1598cc
Bore/stroke	.....	3.18 x 3.05in
Bhp @ rpm	.....	78bhp @ 5700
Torque @ rpm	.....	94lb.ft @ 2600
Comp.	.....	9.00 to 1
Carb.	.....	Single bbl
Trans.	.....	GPD d'draft
Susp., fr.	.....	4-speed man, all-synchro
Susp., rear	.....	Ind., wishbones coil springs, stabiliser bar
Wheels	.....	Live, coil springs
Tyres	.....	4½J
Steering	.....	A78 Lx13
Turns	.....	Rack & pinion
Ratio	.....	4¾
Brakes	.....	18.7 to 1
Brake size	.....	Disc fr./drum rear
Final drive	.....	9.6in/9in
	.....	3.89

CORONA

Capacity	.....	1587cc
Bore/stroke	.....	3.17 x 3.07in
Bhp @ rpm	.....	90bhp @ 5400
Torque @ rpm	.....	98lb.ft @ 3000
Comp.	.....	8.5 to 1
Carb.	.....	Asian, dual-choke d'draft
Trans.	.....	4-speed man, all-synchro
Susp., fr.	.....	Ind., wishbones, coil springs, torsion bar
Susp., rear	.....	Live, leaf springs
Wheels	.....	4½J
Tyres	.....	5.60 x 13
Steering	.....	Recirc. ball
Turns	.....	4½
Ratio	.....	19.5 to 1
Brakes	.....	Drums front/rear
Brake size	.....	9in
Final drive	.....	4.11

GALANT

Capacity	.....	1499cc
Bore/stroke	.....	2.94 x 3.38in
Bhp @ rpm	.....	95bhp @ 6300
Torque @ rpm	.....	95.4lb.ft @ 4000
Comp.	.....	9.0 to 1
Carb.	.....	Single 2 bbl d'draft
Trans.	.....	4-speed man, all-synchro
Susp., fr.	.....	Ind., McPherson strut with coil spring
Susp., rear	.....	Live, leaf springs
Wheels	.....	4½JJ
Tyres	.....	6.15 x 13
Steering	.....	Recirc. ball
Turns	.....	4
Ratio	.....	15.5 — 18.8 to 1
Brakes	.....	Disc fr./drum rear
Brake size	.....	9in/8.5in
Final drive	.....	3.88

seat-belt system is far ahead of all the others — the car uses the fixed central stalks with plug-in belts and quick-adjusters.

There's a wide range of styles in dashboard treatment but since instrumentation and controls are generally well-placed in all, there's little to comment on except at a subjective level.

The Corona is very appealing, the Cortina old-fashioned and ugly (but functional) the Marina is the only car with slope-away dash to avoid windscreen reflections, the re-styled Datsun is simple and functional, the Torana basic and functional and the Galant is a little dated but still functional.

All cars employ through-flow of some description, and most have dropped front quarter-panes. The Torana and Marina thankfully retain theirs and rate better on general ventilation.

Our dimensional chart gives the full story on interior layout and spacing, but really there isn't a great deal between the cars.

All cars comply with current safety standards and most have a high standard of safety fittings — imaginative and different treatment in door locks, ignition key locking systems, crash-proof knobs, out-of-the-way levers etc.

We tried more than eight different drivers in the cars and made each driver complete a comment sheet on driving position. The result — totally inconclusive. No two drivers agreed on any car!

If it's that personal, we'd prefer to stay out of the argument. Make sure you take a test drive to establish

comfort in relation to your particular requirements.

Each car ran to its own particular brand of specialisation on interior fittings.

The Galant has an adjustable steering column, the Marina runs by far the most comprehensive control stalks on its steering column, the Corona and Datsun were the best-equipped in detail items, the Cortina and Corona run four-way flashers, the Torana and Cortina have standard centre consoles and so on.

The Torana was the most basic in its equipment, although its general finish standard was at least as high as the Japanese cars. The Marina had a remarkably high standard of interior finish and the Cortina's still rates as the worst.

We don't intend to get into a blow-by-blow description of the detail fittings, so we'll wind up with a pointscore under several headings:

Comfort: 1 Corona, 2 Cortina, 3 Marina, 4 Torana, 5 Galant, 6 Datsun.

Finish: 1 Corona, 2 Marina, 3 Datsun, 4 Torana, 5 Galant, 6 Cortina.

Equipment: 1 Datsun, 2 Corona, 3 Cortina, 4 Galant, 5 Marina, 6 Torana.

Safety: 1 Cortina, 2 Torana, 3 Galant, 4 Datsun, 5 Corona, 6 Marina.

BOOTS & CARRYING CAPACITY

For the purposes of comparison under the category we've disregarded the manufacturers' claims for cubic carrying capacity since such claims are so difficult to substantiate.

All six cars took our standard Samsonite luggage pack and were eager to gobble up more gear. The interiors all follow the same format — an

unlined shell with rubber matting on the floor and the spare tucked in the sidewall (four cars) or under the floor mat (two).

The Torana, Galant, Corona and Datsun all have high loading lips, the Marina's is slightly lower, and the Cortina's has the only load lip that gets down to bumper level. The Cortina actually leads the section despite a relatively low-profile bootline. There's a boot light in the Japanese cars together with a basic toolkit. All lids are counterbalanced.

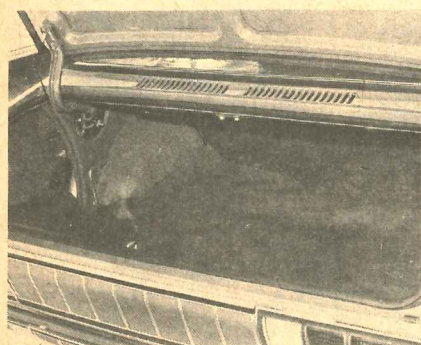
Picking a finishing order is difficult but we rate it: 1 Cortina, 2 Marina, 3 Datsun, 4 Corona, 5 Torana, 6 Galant.

SUMMARY

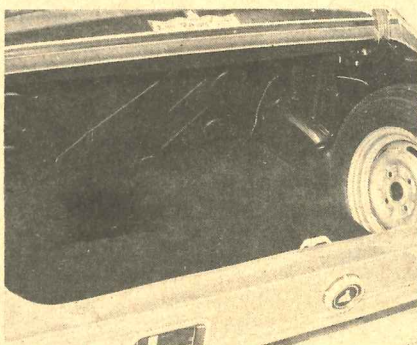
It would be impossible to find six cars in another market sector that are so similar. Specification, and performance areas show little variation, and the major differences lie in specific areas — one manufacturer chases style, another luxury, another a sporting image and so on.

From our comprehensive test you should have an accurate picture of what each car has to offer you. Narrow your choice down as far as you can — then hike off to your friendly dealer and demand a decent road evaluation. It's most important to be completely comfortable in a car, and only personal choice can decide personal comfort.

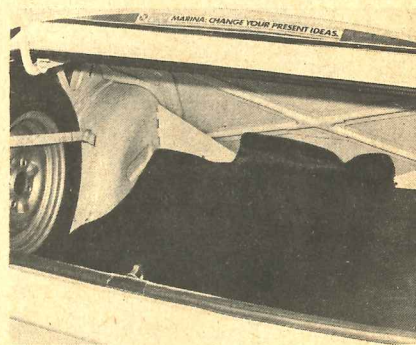
The final consideration is financial — but don't let a few dollars on a deal stand in the way of your better judgment. Shop around as much as possible and make sure the car you ultimately buy is what you want. You certainly can't complain about the range you have to choose from. ■



GALANT — flat floor, compartment light.



TORANA — upright spare, clear flat floor.



MARINA — biggest space, vertical spare.

DATSUN

Capacity	1595cc
Bore/stroke	3.27 x 2.90in
Bhp @ rpm	96bhp @ 5600
Torque @ rpm	99.8lb.ft @ 3600
Comp.	8.5 to 1
Carb.	Hitachi, dual bbl d'draft
Trans.	4-speed man, all-synco
Susp., fr.	Ind., coil and strut with torsion rod, stabiliser
rear	Semi trailing arm, coil springs
Wheels	4½JJ
Tyres	5.60 x 13
Steering	Recirc. ball
Turns	3¼
Ratio	15.0 to 1
Brakes	Disc fr./drum rear
Brake size	9.13in/9in
Final drive	3.7

MARINA

Capacity	1746cc
Bore/stroke	3.00 x 3.77in
Bhp @ rpm	78bhp @ 4800
Torque @ rpm	99lb.ft @ 3000
Comp.	8.6 to 1
Carb.	Single SU HS6
Trans.	4-speed man, all-synco
Susp., fr.	Ind., lever arm torsion bar
rear	Live, leaf springs
Wheels	4½J
Tyres	ZR70H x 13
Steering	Rack & pinion
Turns	4
Ratio	21.2 to 1
Brakes	Disc fr./drum rear
Brake size	9.8in/8in
Final drive	3.89

TORANA

Capacity	1600cc
Bore/stroke	3.37 x 2.72in
Bhp @ rpm	80bhp @ 5500
Torque @ rpm	96lb. ft @ 3200
Comp.	8.5 to 1
Carb.	Single Zenith d'draft
Trans.	4-speed man, all-synco
Susp., fr.	Ind., wishbones coil springs
rear	Live, coils
Wheels	4.00J
Tyres	5.50 x 12
Steering	Rack & pinion
Turns	3.8
Ratio	16.5 to 1
Brakes	Disc fr./drum rear
Brake size	8.4in/8in
Final drive	4.125