

## Daihatsu Charade 1.3 Automatic



**T**HERE ARE NOT TOO MANY SMALL automatics to choose from, and if your inclination or perhaps infirmity also requires powered steering, the choice is even more restricted. This Daihatsu could well be the answer to many problems.

### At the wheel

Our test car was equipped with several optional extras. The alloy wheels (£395) are hardly essential on this modest, unpretentious hatchback, but the others made a lot more sense. Power steering (£290), central locking and electric windows all round (£255) suit this little automatic's character admirably. Even *with* them, it still looks excellent value compared with an equivalent Fiesta or Peugeot 205 – consult the price lists of cars with items such as these fitted and you'll see what we mean.

The Charade is a very comfortable small car, with supportive seats, a pleasantly compliant ride that's also well damped, and the usual Nipponese smoothness of the controls, all taking the rough edge off the accommodation limitations.

The automatic 'box isn't at all modern – it uses only three ratios and a relatively inefficient torque

converter. This fluid coupling does smooth the drive nicely, however, and the 'box usually changes gear with jerk-free poise. The centre selector is nicely thought out, but a manual choke is unusual – fortunately, its two-stage setting prevents the splutters and flat-spots that troubled our manual 1.3. Good thing, too, because there's no clutch to dip and slip on this one, of course. A light comes on only when the choke should be dispensed with – a thoughtful touch, that. Despite having just three gears, the car bustles along with only brief resonant drones occurring just below 60 and 70mph; otherwise it cruises with commendable refinement.

So, on the road, it's hard to fault the automatic. However, the exacting tests we put all our cars through revealed a 10 per cent average fuel consumption penalty compared with the manual, and it's distinctly thirsty in the warm-up period – not good for short journey mpg figures.

Our acceleration tests also revealed that the automatic change-up points occur too soon when using kickdown. The tables show just how much better it goes if manual hold is used to a still unstrained 6250rpm – which is 6500 on the car's own (standard) tachometer. This corresponds to over

70mph in intermediate – yet kickdown won't operate from 3 to 2 above 55mph.

With the transmission in manual hold mood, the driver should be well pleased with the car's peppy response, however, with the significant 30-70mph time coming up only half a second behind that of the manual five-speeder. Top speed is just 3mph down and the Charade's excellent aerodynamics seem to pay off at these higher speeds – wind noise is low. It's irritating to see the screenwasher fluid rolling back unrestrained along the driver's door glass, though.

The power-assisted steering is strongly recommended, because without assistance the Charade's steering is weightier than many small cars'. There's not much difference in the amount of wheel movement called for (which seems a bit silly), but the effort is certainly reduced and gives ideal weight. Even so, the model lacks the agility of a Metro or a 205 through the bends and encourages a more leisurely style of driving.

Although OK in ordinary check braking, our car's brakes suffered from pronounced fade in repeated use at the test track, with a tendency to lock up on one side in hard braking.

### Living with the Charade Automatic

With the optional extras listed on page one, our test car made a big impression on several people we showed it to who had disabilities that restricted their agility and limb-power. Not just the automatic and power steering, but the light and easy seat adjusters,

the powered mirrors as well as the windows, plus the central locking, of course, all drew approval. For these people, such small-car gadgetry represents not only a tremendous saving of effort, but also of money – often only bigger cars offer them all.

The Charade's warranty brings reassurance, too. The six years' anti-rust-perforation cover does require annual checks, but we're assured that these will be made without charge, provided the car is presented clean of mud – whether or not the dealer is servicing the car. Daihatsu has also recently extended the mechanical and general warranties to three years, with no mileage limit. This goes a long way to offer peace of mind, and offsets the higher-than-average parts' prices and insurance group rating.

### VERDICT

**The automatic 'box has to be marked down in terms of mechanical efficiency – it can't match the manual car's economy or its performance when left to its own devices, in the way that the Ford and Fiat automatics can achieve.**

**However, the engine is a thoroughly congenial unit to get along with – a description that applies to the whole car, in fact. It looks and feels well built, has a warranty to endorse the fact and is underrated by most small-car buyers, in our opinion.**

**And for those unfortunate enough to be driving behind a disabled driver's badge, this Charade has a tremendous amount to offer for their comfort and convenience.**

## TECHNICAL SPECIFICATION

### Daihatsu Charade 1.3CX Automatic

#### ENGINE

**Type and size** front-mounted, longitudinal 4 in line; water-cooled. 76.0mm bore x 71.4mm stroke = 1295cc. All alloy construction; 5 main bearings

**Compression ratio** 9.5:1

**Valve gear** single overhead camshaft (belt-driven) actuating four valves per cylinder via rockers

**Fuel system** one twin-throat carburettor with manual choke – fed by mechanical pump from 37-litre (8.1-gallon) tank; no low-level lamp. Fuel required: leaded or unleaded, 95 octane minimum

**Ignition system** points ignition with coil and mechanical advance

**Maximum power (DIN-net)** 75bhp at 6500rpm

**Maximum torque (DIN-net)** 75 lb ft at 3900rpm

#### TRANSMISSION

**Clutch** epicyclic 3 speed and reverse with torque converter also giving variable drive ratio. Internal

gearbox ratios: (theoretical) first 2.81, intermediate 1.55, top 1.0 and reverse 2.30:1

**Final drive** 3.87:1, to front wheels

**Mph per 1000rpm (observed)** 17.3 in top, 11.5 in intermediate

**Rpm at 70mph** 4050 in top (cruising on level road)

#### CHASSIS

**Suspension** front: independent by MacPherson damper/struts with integral coil springs, transverse single lower links and an anti-roll bar. Rear: independent by MacPherson struts, coil springs, twin transverse and single trailing links with an anti-roll bar. Dampers: telescopic all round – gas-filled at front

**Steering** optional extra power-assisted rack and pinion with 3.6 turns between full locks. Turning circles average 30ft between kerbs, with 55ft for one turn of the wheel

**Wheels** 4<sup>1</sup>/<sub>2</sub>J steel with 165/70R13 tyres (Dunlop SP7 on test car)

**Brakes** 9.2in plain discs front, 7.1in drums rear with vacuum servo

## PERFORMANCE

### Acceleration time in seconds

<b>STANDING START</b>	0-30mph 4.8 (4.8)	0-60mph 14.0 (14.3)	1/4 mile 19.7 (20.1)
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Manual hold (accelerator kickdown)

<b>THROUGH THE GEARS</b>	30	40	50	60	70
	2.1 (3.3)	5.2 (6.7)	9.2 (10.7)	14.1 (17.2)	

Manual hold (accelerator kickdown)

<b>20 mph</b>	30	40	50	60	70
<b>SPEED RANGE TIMES (KICKDOWN)</b>	4.0	7.4	6.7	10.5	

### Maximum speeds

<b>REVS PER MINUTE</b>	1st/2nd	3rd	5600	Manual hold	Kickdown
	3	97	97	64	36
	2	71	71	39	
	1	39	39		

## FUEL CONSUMPTION

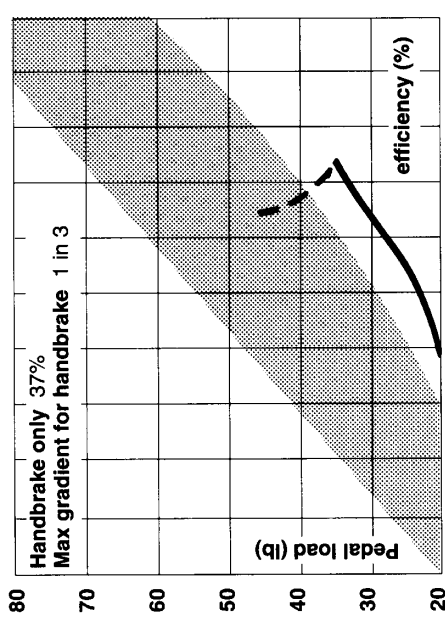
Fuel grade for tests: Premium unleaded, 95 octane

<b>Normal range</b>	mpg
Hard driving, heavy traffic	29
Short journeys in the suburbs	29
Motorway - 70mph cruising	35 1/2
Brisk driving, mixed roads	36 1/2
Gentle driving - rural roads	41 1/2
<b>Typical mpg overall</b>	<b>36</b>
Realistic tank range*	30 litres/240 miles

\* based on gauge/warning lamp and filling station experience

## SAFETY

### Brakes How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g). Ideally the braking curve should fall within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light. When the curve becomes broken, the wheels are skidding.

### Fade test

How hard use or water affects braking. (Ideal brakes show no change.)

Pedal load needed for 75% stop (lb)

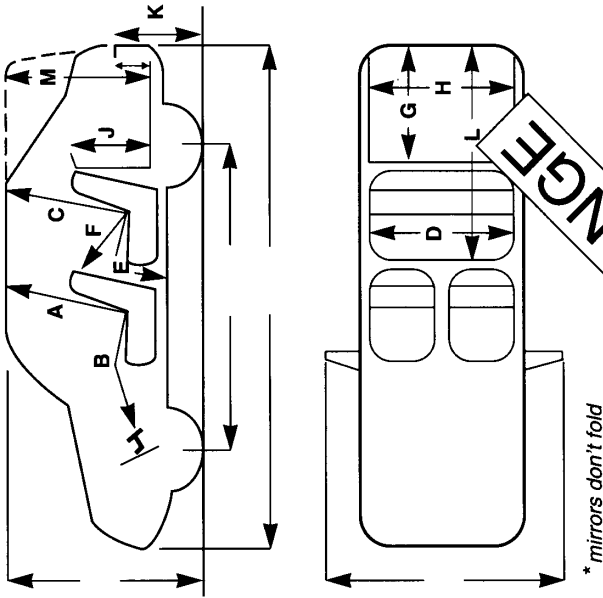
At start of test	25
After constant use	30
After severe use	70
After watersplash	NA
Number of stops to recover	-

### Safety check list

<b>Steering</b>	true 'feel' of the road?	<input checked="" type="checkbox"/>
<b>Brakes</b>	powerful? sensible effort? fade resistant?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<b>Seatbelts</b>	front - effective? convenient? rears - effective? convenient?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<b>Head restraints</b>	front - effective? rear - effective?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<b>Interior</b>	thoroughly padded?	<input checked="" type="checkbox"/>
<b>Fuel</b>	shielded filler? protected tank?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

## MEASUREMENTS

### Dimensions (inches)



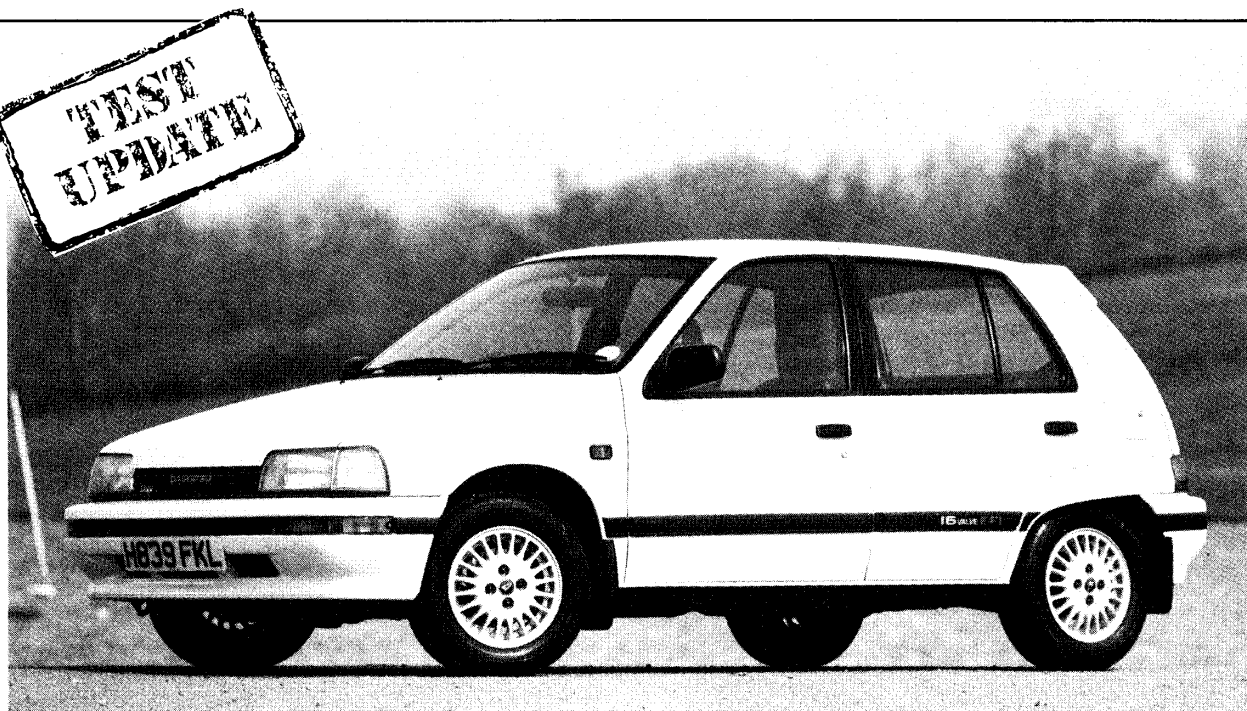
<b>Inside (inches)</b>	Kerb height (full of fuel)
<b>A Front headroom</b>	<b>G Load length</b>
<b>B Front legroom (min - max)</b>	<b>H Load floor width (min - max)</b>
<b>C Rear headroom</b>	<b>J Load height</b>
<b>D Back seat width (between armrests)</b>	<b>K Sill height (inner/outer)</b>
<b>E Typical rear legroom</b>	<b>L Load length</b>
<b>F Typical rear kneeroom</b>	<b>M Load height (to tailgate hinge)</b>

\* 'Typical' represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

## HOW IT COMPARES

	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	Fuel overall (mpg)	Brakes best stop (%g/lb)	Maximum legroom - front (in)	Typical leg/kneeroom - rear (in)	Steering turns/circle (ft)	Overall length (in)
Daihatsu Charade 1.3CX Automatic	1295/75	97	14.1	36	94/35	41 <sup>1</sup> / <sub>4</sub>	37 <sup>1</sup> / <sub>2</sub> /26	3.6/30 (p)	142
Peugeot 205 1.6 Automatic	1580/80	95	15.1	33	88/37	41	36 <sup>1</sup> / <sub>2</sub> /27	3.0/33 (p)	146
Ford Fiesta 1.4 Automatic	1392/75	98	13.0	36	97/40	41	37 <sup>1</sup> / <sub>2</sub> /27 <sup>1</sup> / <sub>2</sub>	4.3/33	147 <sup>1</sup> / <sub>2</sub>
Subaru Justy 1.2GL Automatic	1189/67	88	17.8	38	92/60	41 <sup>3</sup> / <sub>4</sub>	35 <sup>3</sup> / <sub>4</sub> /25 <sup>1</sup> / <sub>4</sub>	4.4/30	145 <sup>1</sup> / <sub>2</sub>
Daihatsu Charade 1.3CX Manual	1295/75	100	13.4	40	94/35	41 <sup>1</sup> / <sub>4</sub>	37 <sup>1</sup> / <sub>2</sub> /26	3.6/30 (p)	142

(p) = power steering



WITH THE INK NOT EVEN DRY ON OUR CX Automatic report, Daihatsu announced two new, more powerful versions of the 1.3-litre Charade, each of which comes with fuel injection, a catalytic converter and improved levels of equipment.

The 1.3CXi and range-topping GXi boast almost 20 per cent more power than the former carburettor-fed 1.3 versions, with electronic multi-point fuel injection raising peak power to 89bhp at 6500rpm, compared with 75bhp in carburettor form. Maximum torque is up a couple of lb ft, too, although this now peaks higher up the rev range, at a rather lofty 5000rpm.

Power steering, electric windows, central locking, colour-keyed bumpers and a rear spoiler are all standard on the GXi, along with a removable stereo radio/cassette unit, electrically operated door mirrors and remote-controlled fuel flap and tailgate releases. The CXi loses out on items such as the electric windows and central locking, but power steering is retained.

The GXi, which goes on sale immediately, costs £8680 while the price for the CXi will be announced when it arrives in the showrooms in July. Automatic transmission, costing an extra £640, will be available on both versions. Thus equipped, the new autos become direct replacements for the subject of this test.

Coinciding with the introduction of these new fuel-

injected versions, Daihatsu has also made minor revisions to the entire Charade range. Changes include new seat upholstery, a restyled front grille and rear lamp clusters, a revised steering wheel for improved grip, and a larger tailgate spoiler for the 'mighty mouse' Charade, the turbocharged 1-litre GTi.

From a brief drive in one of the new GXi versions, it's obvious that the extra urge under the bonnet makes the Charade, if not GTi-quick, certainly much livelier, although this is achieved at some expense to noise levels if the new-found performance is used to the full.

Power steering, a slick gearshift and easy controls give the driver an untroubled time at the wheel, but the GXi's sporty front seats look more supportive than they feel.

With impending stricter emissions regulations set to require catalytic converters on all cars before too long, adding fuel injection and a 'cat' to the four-pot Charade now is a logical and timely move. What's more, the little Daihatsu's virtually unrivalled combination of power steering and automatic transmission in a small, well-equipped car has become an attractive proposition for a small but specific group of buyers. They will be disappointed to see that the Charade Automatic has jumped a few rungs up the price list, though.