

**TEST
UPDATE
May 1992**

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Car Test

R9223A

Supplements R9043

Mazda 323 1.6i GLX Fastback



What's new . . .

Mazda's rounded, third-generation front-wheel drive 323 received an "all green" facelift in mid-1991, with electronic fuel injection and three-way catalytic converters adopted across the entire 11-model line-up. Anti-lock brakes are now fitted to over half the models in the range, while the revised 1.6-litre engine can now be specified with an electronically controlled four-speed automatic gearbox.

Three- and five-door hatchbacks in the revised range are distinguished externally by new body side protection mouldings, redesigned rear lamp clusters and restyled wheel covers. The visual appeal of the four-door saloon is enhanced by a different bonnet and grille. All models also have a new chrome badge at the front.

PERFORMANCE

The revised 1.6-litre engine gains only a small increase in peak power in its latest catalysed form (up 3bhp on the carb version's 86bhp), but peak torque receives a 10 per cent boost (to 100 lb ft), although this now occurs nearly 1000rpm further up the rev counter.

While still comparatively modest, these figures translate into small but worthwhile gains across the whole performance spectrum – raising the maximum speed (with headlamps retracted) by 5mph to 110mph, with a corresponding second or two knocked off each of the key acceleration benchmarks. As before, raising the headlamps cuts 2 to 3mph off the top speed. We quote the faster, "clean" result in our table.

Despite what the 16-valve badging suggests, this is no multi-valve tearaway (for that sort of action you

need the 130bhp 1.8 DOHC GT). Nevertheless, the 1.6 engine is smooth and easy-going, with commendable flexibility and lack of temperament around town. However, its reasonably lively feel is achieved partly by the use of short-legged gearing. This, together with a degree of wind noise, tends to mar motorway cruising.

ON THE ROAD

Crisp, neat displays, the customary light-and-easy Japanese controls, a generally good driving position and high-g geared power steering give the 323 driver an undemanding time at the wheel. However, we again found the too-acutely angled accelerator pedal caused some drivers leg strain during longer spells at the wheel and, despite its superior trim and equipment levels, the GLX doesn't provide any adjustments for seat height, cushion tilt or (most needed) lumbar support.

Most of the time, the 323's "transatlantic" suspension provides smooth, unruffled passage over bumps, but this is achieved at some small expense of the sort of taut, razor-sharp handling that the Fastback's sleek, racy styling might lead keener drivers to expect. There's a tendency for the suspension to feel under-damped and just a shade too compliant over crests and on poorer surfaces.

Commendably, anti-lock brakes are now fitted to six of the 11 models on offer: it's not available on the others, even as an option. The four-sensor, three-channel system substitutes discs for drums at the rear and, on models so equipped, obviates the delicate footwork previously called for to avoid locking the wheels in emergency stops. The well-weighted set-up delivers progressive, reassuring stops in normal use. Ultimately, however, the "eyeballs out" stopping ability is nothing exceptional.

INSIDE STORY

Apart from new interior trim (designed to appeal more to younger buyers) little has changed inside the latest 323s. The 1.6-litre powers four-door saloon or sleek, five-door Fastback versions, with just a single GLX trim level on offer. An electrically operated steel sunroof – or the sunroof plus ABS brakes – can be added to this, though.

Contrary to popular practice, it's the five-door Fastback that adopts smooth, sporty styling. This means that you get a 2in lower roofline and about £500 more on the bill to go with the electrically operated "pop-up" headlamps. However, access and accommodation are reasonably acceptable unless you're tall or infirm, and Mazda has boxed clever with the electric tilt-and-slide sunroof by having it slide back over the roof, so it doesn't reduce headroom.

Load space at the rear is quite generous and there's reasonable depth under the canopy. A prominent sill between the rear lamp clusters hinders the loading of bulky or heavy objects, however, and the split-folding back seats simply flop down on to the fixed rear cushion.

Oddments spaces are either missing or meagre. Apart from a modestly sized glovebox and a tiny, hinged storage box above the driver's right knee, there are precious few places to store odds and ends. The narrow little slots that pass for front door pockets are capable of swallowing little more than a cheque book.

Failure to provide a flat, non-slip surface on the large, smoothly rounded fascia is also a missed opportunity and, irritatingly, even the vacant area below the radio/cassette unit is rendered unusable by a blanking plate.

LIVING WITH THE 323

Fitting a catalyser means unleaded fuel must be used, of course, but the 1.6i returned a fairly respectable 36¹/2mpg in our tests. This compares with 38mpg overall for its carburettor-equipped predecessor – a small but acceptable penalty in return for cleaner tailpipe emissions.

While this figure falls some way short of the class leaders, the cat penalty is partly offset by the higher efficiency of accurately controlled fuel injection and integrated spark management. There's the bonus of a little more performance, too.

The Fastback's thick rear pillars and coupé styling impair the rearward view at angled junctions and when reversing, but the wiper for the "porthole" tailgate glass now has an intermittent setting.

There's more electronic complexity under the bonnet than before, but Mazda reliability suggests that this shouldn't cause any increased concern. A generous 3-year/60,000-mile and 6-year anti-perforation warranty is also provided, although this requires dealer servicing to keep it in force. As with many Japanese cars, Mazda parts tend to be pricey.

VERDICT

While the three-door hatchback and saloon offer a little less by way of visual appeal, this Fastback successfully combines sleek, coupé looks and practical five-door versatility.

Reality falls a little way short of illusion, however. In GLX form, at least, the Fastback's performance doesn't quite measure up to its looks, and the price you pay for svelte styling is reduced headroom, compromised load area arrangements and a bigger bill.

That said, the 323 Fastback is easy to live with and offers generally undemanding family transport – provided the offspring aren't too tall.

PERFORMANCE

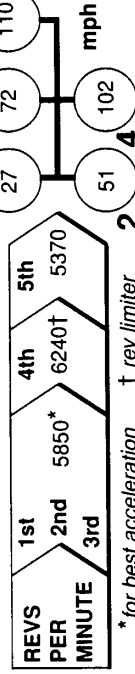
Acceleration time in seconds

STANDING START	0-30mph 3.3	0-60mph 10.6	1/4 mile 17.9
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mph	30	40	50	60	70
THROUGH THE GEARS	2.0	4.2	7.3	10.9	
IN 5TH GEAR	6.0	11.8	17.8	24.7	
IN 4TH GEAR	4.1	8.2	12.5	17.1	

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES	11.9/8.5	11.8/8.2	11.8/8.4	12.9/8.9	

Maximum speeds



FUEL CONSUMPTION

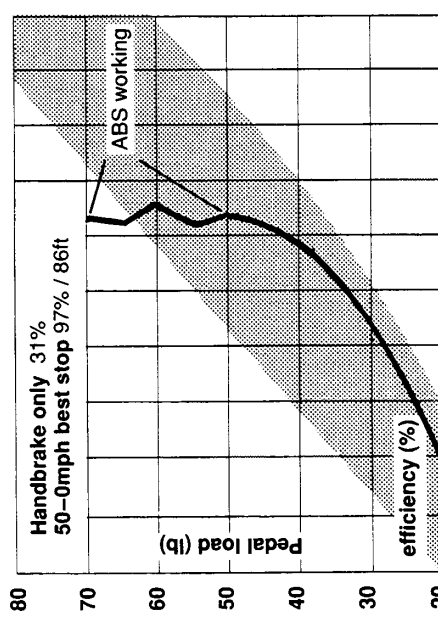
Fuel grade for tests: 95 octane, unleaded

Normal range	mpg
Hard driving, heavy traffic	29 1/2
Short journeys in the suburbs	31
Motorway - 70mph cruising	36 1/2
Brisk driving, mixed roads	37
Gentle driving - rural roads	42
Typical mpg overall	36 1/2
Realistic tank range*	44 litres/350 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 - particularly on cars without ABS. 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)

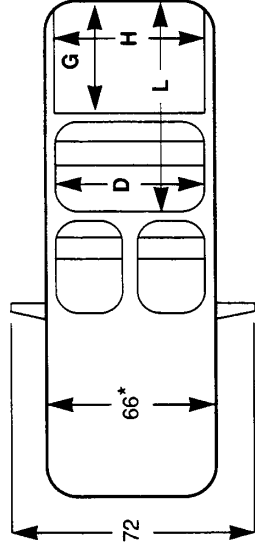
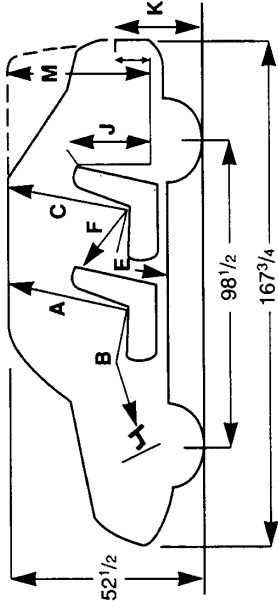
At start of test	38
After constant use	32
After severe use	37
After watersplash	-
Number of stops to recover	-

Safety check list

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

MEASUREMENTS

Dimensions (inches)



* with mirrors folded

Inside (inches)

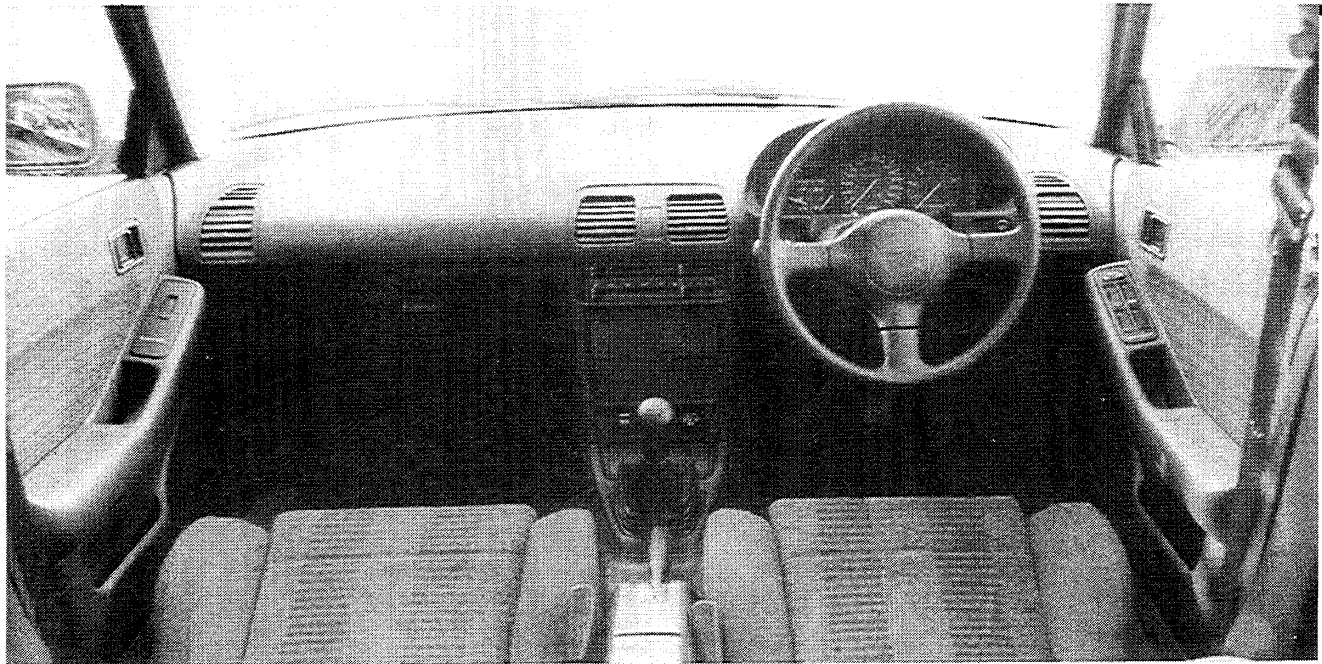
Kerb weight in lb (full of fuel)

A Front headroom	37	G Load length	31 1/4
B Front legroom (min - max)	34-42	H Load floor width	39-53
C Rear headroom	34 3/4	J Load height	18
D Back seat width (between armrests)	49 1/4	K Sill height (inner/outer)	15 1/2/34
E Typical rear * legroom	39 1/4	L Load length (max)	62
F Typical rear * kneeroom	28 1/2	M Load height (to tailgate hinge)	30 1/4

* "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)	Maximum speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom – front (in)	Typical leg/kneeroom – rear (in)	Steering† turns/circle (ft)	Overall length (in)
Mazda 323 1.6i	1598/89	110	10.9	24.7/17.1	36½	86/60*	42	39¼/28½	3.2/33¼	167¾
Daihatsu Applause 1.6GXi	1589/103	111	9.9	25.5/18.6	37½	86/60	42	39¾/28½	3.8/31½	167¾
Honda Concerto 1.6i	1590/110	113	9.5	25.3/18.5	31½	80/40+*	42½	39¼/28¼	3.4/34½	168
Hyundai Lantra 1.6CDi	1596/112	114	10.6	27.0/19.1	32½	90/30	41	39½/29¼	3.0/34¼	171½
Rover 214SLi	1396/90	102	13.0	30.9/21.4	36	90/35	42½	38½/27¼	3.5/34½	166¼
All five-door models (except four-door Lantra) with catalysers						*with ABS		† all with power steering		

**TECHNICAL SPECIFICATION****ENGINE**

Type and size front-mounted, transverse 4 in line; water-cooled. 78.0mm bore x 83.6mm stroke = 1598cc. Iron block and aluminium alloy head; 5 main bearings

Compression ratio 9.0:1

Valve gear single belt-driven overhead camshaft actuating four valves per cylinder via hydraulic tappets and rockers

Fuel system Nippon Denso electronic multi-point fuel injection; three-way regulated catalyser and lambda sensor. 55-litre (12.1-gallon) tank, with low-fuel warning lamp. Fuel required: unleaded only, 91 octane minimum

Ignition system fully programmed electronic, integral with fuel injection, via coil and distributor

Maximum power 89bhp at 5300rpm

Maximum torque 100 lb ft at 4000rpm

TRANSMISSION

Clutch 7.5in dry plate, diaphragm spring; hydraulically operated. Pedal load/travel: 26 lb/5¼in

Gearbox 5-speed manual (all synchromesh) and reverse. Ratios: first 3.42, second 1.84, third 1.29,

fourth 0.97, top 0.77 and reverse 3.21:1. (Electronically controlled 4-speed automatic available on 1.6i saloon and Fastback)

Final drive 4.10:1, to front wheels

Mph per 1000rpm 20.5 in top, 16.3 in 4th

Rpm at 70mph 3420 in top gear

CHASSIS

Suspension front: independent by MacPherson damper/struts, coil springs and anti-roll bar.

Rear: independent by coil spring/damper struts, twin transverse lower links, single leading link and anti-roll bar. Dampers: telescopic all round

Steering power-assisted (engine speed-sensing) rack and pinion with 3.2 turns between full locks. Turning circles average 33¼ft between kerbs, with 50ft circle for one turn of the wheel

Wheels 5J x 13 steel, with 175/70R13 82S tyres (Dunlop SP7 on test car)

Brakes 9.2in ventilated discs front, 9.1in solid discs rear (7.9in drums on non-ABS models) with vacuum servo. Sumitomo 3-channel anti-lock system fitted to test car