

**MAZDA 6 MPS
SUBARU LIBERTY GT**



Leather Pack adds powered leather seat (driver), as well as Bose audio system and glass sunroof.

Piano-black audio controls reflect an interior makeover that has also just been introduced on mainstream 6s.

Speedo goes all the way to an optimistic 280km/h; markings light up red at night.

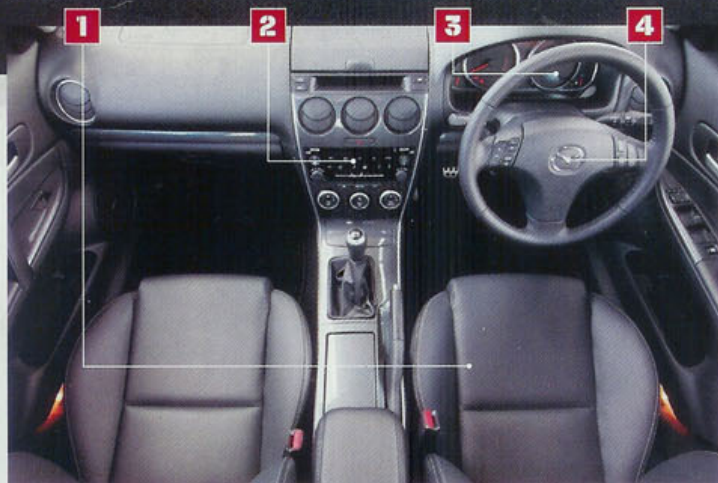
Large Mazda badge at wheel's centre can be a source of distracting reflections in direct sunlight.

Quality McIntosh stereo has 13 speakers, but display difficult to read in direct sunlight.

Cruise control stalk-mounted, while MPS uses steering-wheel buttons. Both are effective.

Back-lit instruments enlivened by red needles that speed around the dial at start-up.

Momo wheel adjusts only for height, but power adjust on standard leather seat compensates.



hundredths to 100km/h. While both cars break through the 6.5sec barrier thanks to drivetrain-torturing 6000rpm side-stepping starts, the Mazda needs an upshift to third before 100km/h, and the Subaru's willingness to rev that extra 600rpm to 7600rpm proves crucial. The balance is redressed by 400 metres, though, with the Liberty lagging nearly 0.3sec behind. Interestingly, we hit Mazda's performance claims pretty much on the nose, but miss the GT's by miles – not an unusual occurrence when it comes to Subaru.

Both gearboxes are excellent, never missing a shift on the road or at the strip. The 6's compact three-shaft design provides a pleasingly mechanical feel to its short-throw action. The way the downshift seems to flow naturally from sixth to third speaks volumes for the car's intent. The clutch action, however,

is a little stall-prone due to its late take-up. The Liberty's change is grittier in that traditional Subaru way, but the clutch is more malleable, and, with fewer changes required down low, it's the pick of the pair for the city commute. Better yet, if rush-hour performance is a major consideration, then opt for the GT's excellent five-speed auto. That's one area the manual-only 6 can't match.

No contest on consumption of 95 octane, either. The Liberty returned an astonishing (and sub-official-claim) 9.5L/100km average despite a decent old flogging. The Mazda was a couple of litres above its claimed average, at 12.8L/100km over the same route. Weight seems the logical culprit here, because the 6 is a hefty 1639kg – 204kg heavier than the Liberty.

It's also around 300kg heavier than a standard 6 sedan, most of that due to the

all-wheel-drive system and the substantial amount of bracing that increases torsional rigidity by 50 percent.

And yet the MPS manages to retain the standard car's delicate touch while adding a substantial layer of dynamic muscle. The revalved steering is definitely heavier, but still conveys a constant patina of sensations that prick your fingertips.

Just as impressive is the firm and decisive suspension tune. As quick as you sense a corrugation, it's dealt with by the MPS's revised springs and dampers (spring rates are 25 percent firmer at the front, 37 percent at the rear over a regular 6). Mazda's medium-size sedan is already a fine-handling vehicle, so no surprises that the MPS version takes body control to yet another level. Only the suspension's tendency to crash through when

GT by STI

While the standard Liberty GT takes a sabbatical for most of 2006 – until the 2.5 arrives around September – it doesn't mean the MPS will be without a challenger from Subaru. Stepping in from January 1 is a limited-edition GT tuned by Subaru's go-fast division, Subaru Tecnica International (STI). Technical highlights of the 'Liberty GT Tuned by STI' include: an uprated ECU that boosts power and torque – from 190kW/330Nm to 200kW/343Nm for the manual, from 180kW/310Nm to 190kW/343Nm for the auto; Bilstein struts and STI springs; a front strut brace; and STI-designed lateral links for the rear suspension. Pirelli P Zero Rossos on 18x7.5-inch rims, bespoke body parts, and STI-embossed trim are also part of a package that starts at \$59,490 for the five-speed manual. Three hundred STI specials will be offered, with choice of transmissions and body shapes.



MAZDA 6 MPS

Performance

Power to weight: 116kW/tonne
Speed at indicated 100km/h: 100

Speed in gears

- 1 53km/h @ 6500rpm
- 2 85km/h @ 6500rpm
- 3 124km/h @ 6500rpm
- 4 162km/h @ 6500rpm
- 5 205km/h @ 6500rpm
- 6 241km/h @ 6000rpm*

Standing-start acceleration

0-80km/h: 3.0sec
0-80km/h: 4.2sec
0-100km/h: 6.5sec
0-120km/h: 8.4sec
0-140km/h: 11.3sec
0-160km/h: 15.0sec
0-400m: 14.3sec @ 159km/h
Rolling acceleration: 3rd/4th/5th/6th
80-120km/h: 3.6/4.1/5.2/7.9sec

Track: Calder Park, dry, Temp: 14°C Driver: Bruce Newton. *Estimated or manufacturer's claim.

SUBARU LIBERTY GT

Power to weight: 132kW/tonne
Speed at indicated 100km/h: 96

Speed in gears

65km/h @ 7500rpm
109km/h @ 7500rpm
169km/h @ 7500rpm
212km/h @ 7500rpm
243km/h @ 6500rpm*

Standing-start acceleration

0-80km/h: 3.0sec
0-80km/h: 4.6sec
0-100km/h: 6.4sec
0-120km/h: 9.0sec
0-140km/h: 11.8sec
0-160km/h: 15.5sec
0-400m: 14.6sec @ 155km/h
Rolling acceleration: 3rd/4th/5th
80-120km/h: 4.7/7.2/9.2sec

Track: Calder Park, dry, Temp: 14°C Driver: Bruce Newton. *Estimated or manufacturer's claim.

IN THE REAL WORLD THE MESSAGE IS CLEAR: MAZDA'S DISI ENGINE IS DIZZYINGLY FAST

Who needs wings to fly? Just rear-bumper diffuser, twin pipes and subtle badging reveal this as quickest 6



braking hard on rough surfaces is sub-standard.

The on-demand (Haldex style) AWD system can also take credit for the MPS's inspiring road manners. While it's a simple system that transfers torque from the front wheels only when it detects slip, and then varies it up to 50:50, the tuning is truly exceptional.

Dive hard into a corner and the MPS initially pushes a little wide as front-wheel drive and that extra weight take their toll. Don't lift, as you would in a regular 6. Instead, punch the throttle pedal hard and be rewarded by a tightening line as the computer sends half the drive rearward, turning the nose in and pushing you through the bend harder. It's a little bizarre at first, but totally intoxicating and confidence-inspiring once you adjust. This is one blazingly fast cross-country sports sedan.

The Liberty can't quite match the MPS, but manages to restrict the Mazda to being a slowly diminishing object rather than an instant vanishing act thanks to a wonderfully compliant chassis that flatters the driver with its accessible and intimate ability. It's just set at a slightly lower pitch than the Mazda.

While there's more initial compliance in the suspension tune, the Subey doesn't quite have the Mazda's ability to kill a bump as quickly, while the steering veers from being lighter and not quite as communicative to

THE GT'S NOTICEABLY LIGHTER NOSE ALLOWS IT TO TURN IN MORE SHARPLY THAN THE 6

becoming too chatty over rough, corrugated roads, particularly when cornering.

But if you like a little attitude, then the GT is a willing partner. Its noticeably lighter nose allows it to turn in more sharply than the 6, while it will also provide some rear-end drift if you care to encourage it.

Heading onto dirt dramatises the differences between the two cars' chassis behaviour. The Subaru is a bloody hoot on dirt. It slides delightfully up to a quite high threshold before the AWD system's centre viscous coupling steps in to settle things down, redistributing drive away from the standard 50:50 front: rear balance in search of better grip. The less-planted feel, however, means less confident drivers are likely to prefer the Mazda.

The MPS's dogged desire to corner fast and straight is obvious on dirt. Flick into a corner and you'll wait ... and wait ... for that opposite-lock moment. Instead there's correction and adjustment from the AWD system, dragging you round in a most

unspectacular fashion. Thankfully, pulling on the handbrake deactivates the all-wheel drive and stability control (you should've already switched off DSC, to be honest) enabling the tail to be hung out if that's your desire. Um, it is, so thanks for making the effort, Mazda.

The GT edges ahead on braking, too. The 6's bigger discs should do the business, but over time the pedal progressively lengthens, devaluing confidence, if not ultimate stopping power. In contrast, the Liberty's stopping ability never wavers.

In both cases, the brakes are aided by 215/45 Bridgestone Potenza RE050As, although the slightly larger 18s on the MPS, versus the GT's 17s, possibly give the Mazda the slightest edge in terms of grip.

That might be hard to quantify, but the Mazda's superior ability to quell noise intrusion – be it tyre, engine or wind – is not. The Subaru's engine is a constant companion in the cabin, while the Mazda is almost too quiet, considering its sporting intent. At



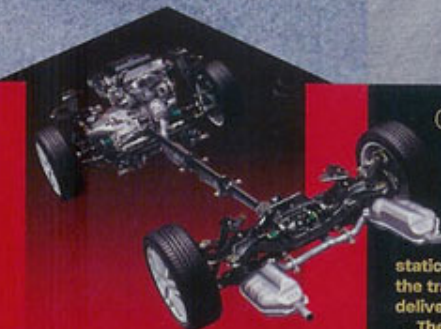
AWD v AWD

MPS: Active Torque Split

Mazda wasn't a complete novice when it came to developing AWD for the MPS, as it already employed a relatively simple on-demand system in the 6 in some winter markets. The Active Torque Split All Wheel Drive System is a development of that set-up, but made sportier in its attitude, and its componentry toughened to cope with the added demands imposed by the MPS.

While the system usually directs 100 percent of the drive to the front wheels, an electronic clutch pack in front of the rear limited-slip differential transfers up to 50 percent of the drive to the rear wheels when it decides the driver is having a go or traction is becoming a struggle.

The electronic clutch responds to



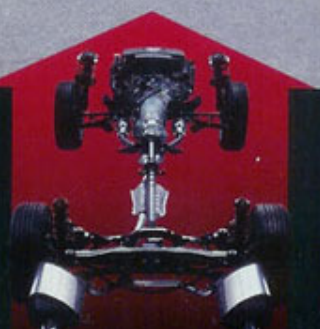
real-time steering angle, yaw rate, lateral g-force and engine inputs, altering modes between Normal, Sports and Snow depending on the feedback. More torque is also directed to the rear wheels when launching, and to help cope with the added strain, the power take-off for the rear axle is water-cooled.

GT: Symmetry

All Subaru Liberties feature AWD, but that doesn't mean they employ the same system. Autos use a planetary gearset as a centre differential that splits the drive 45:55 front to rear when load is static. A multi-plate clutch controlled by the transmission's computer varies torque delivery when in motion.

There's no electronic involvement for the manual GT. Here the drive is split 50:50 by a viscous-coupling centre differential, but when wheels slip – and therefore a speed difference between the front and rear axles occurs – the coupling automatically matches torque to grip in order to restore maximum traction.

The viscous coupling consists of a set of inner plates connected to the rear wheels and a set of outer plates



connected to the front wheels. These sets of plates turn at different speeds when the front and rear axles rotate at different speeds. This causes an increase in viscosity of the silicone fluid in the viscous coupling, making it more difficult to shear. Torque is then transferred from the slipping axle to the one that still has traction.

MAZDA 6 MPS
SUBARU LIBERTY GT



MAZDA 6 MPS

\$48,600 / As tested \$54,600**

Drivetrain

Engine	in-line 4, dohc, 16v, turbocharger
Layout	front engine (east-west), all drive
Capacity	2.261 litres
Bore/stroke	87.5/94.0mm
Compression	9.5:1
Power	190kW @ 5500rpm
Torque	380Nm @ 3000rpm
Redline/Cutout	6500/7000rpm
Transmission	6-speed manual
km/h@1000rpm	8.2/13.0/19.0/24.9/31.6/40.2
Gear ratios	3.54/2.24/1.53/1.17/1.08/0.85
Diff ratio	3.94 (1st-4th) 3.35 (5th-6th)

SUBARU LIBERTY GT

\$52,990 / As tested \$52,990

Engine	flat 4, dohc, 16v, turbocharger
Layout	front engine (north-south), all drive
Capacity	1.994 litres
Bore/stroke	92.0/75.0mm
Compression	9.0:1
Power	190kW @ 6400rpm
Torque	330Nm @ 2400rpm
Redline/Cutout	7500/7600rpm
Transmission	5-speed manual
km/h@1000rpm	8.7/14.6/21.2/28.3/37.3
Gear ratios	3.17/1.88/1.30/0.97/0.74
Diff ratio	4.11

THE SUBARU'S ENGINE IS A CONSTANT COMPANION; THE MAZDA IS ALMOST TOO QUIET

7000rpm, all that thrashing, whirring and blowing is reduced to little more than an aggressive background thrum. At least in the Subaru you can occasionally detect an inkling of the turbo spinning up.

Cabin refinement doesn't end with NVH, either, as both cars are eminently comfortable front and back. They have excellent sports buckets, but the Mazda's get the nod for their slightly deeper shape and larger base. Two adults will fit in the rear of either with comfort, but MPS passengers have more headroom and a slightly more comfortable seat base. They'll get in and out easier, too, because the GT's rear doors are so small.

The Mazda has a slightly classier presentation thanks to the new piano-black centre console that's now employed across the 6 range, a deft use of faux titanium (plastic) to give some contrast, and knobs and buttons with a consistent tactility. The 6 also scores some one-upmanship with drilled alloy pedals. The GT fights back with a quality McIntosh audio system, but the MPS's Bose system sounds almost as good and is more seamlessly integrated into the dash.

To safety, and both cars get six airbags and ABS, although the Mazda

is alone in having low-beam xenon headlights, stability control and anti-whiplash seats.

Both test cars sport leather trim, sunroofs, powered driver's seats, and climate and cruise control. There are minor plusses and minuses, such as the GT's Momo steering wheel that adjusts only for height.

In showrooms, the \$52,990 Liberty GT is a one-stop shop, unless you want the \$2000 auto. As tested, the Mazda comes in at \$54,600, but that includes the \$6000 Leather Pack (leather trim, Bose stereo, sunroof, and powered driver's seat with memory pre-sets). If you can live without that lot - which, incidentally, adds 27kg to the Mazda's weight - then the MPS can be had for a very tasty \$48,600.

And that - ADR emissions to one side for the moment - cements the verdict. For all its worth, the Subaru feels like a good car that's been raised to a higher level, while the MPS is a steroidal 6 that is at times inspiring, stunning, even brilliant. And it's available \$4000 cheaper than the GT without compromising the go-fast bits. For driving enthusiasts who prefer their performance delivered in a brilliantly subtle package, the 6 MPS is not a car to be ignored. **W**



Chassis

Body	steel, 4 doors, 5 seats
L/W/H	4760/1780/1430mm
Wheelbase	2675mm
Front/rear track	1540/1540mm
Weight	1639kg
Boot capacity	455 litres
Fuel/capacity	95 octane/60 litres
Fuel consumption	12.8L/100km (test average)
Suspension	Front: double A-arms, coil springs, anti-roll bar Rear: multi-links, coil springs, anti-roll bar
Steering	power rack and pinion
Turning circle	11.2m (2.7 turns lock to lock)
Front brakes	ventilated discs (320mm)
Rear brakes	solid discs (314mm)
Tyres	Bridgestone Potenza RE050A
Type size	215/45ZR18

Body	steel, 4 doors, 5 seats
L/W/H	4665/1730/1425mm
Wheelbase	2670mm
Front/rear track	1495/1490mm
Weight	1435kg
Boot capacity	433 litres
Fuel/capacity	95 octane/64 litres
Fuel consumption	9.5L/100km (test average)
Suspension	Front: struts, A-arms, anti-roll bar Rear: multi-links, coil springs, anti-roll bar
Steering	power rack and pinion
Turning circle	10.9m (2.8 turns lock to lock)
Front brakes	ventilated discs (316mm)
Rear brakes	ventilated discs (290mm)
Tyres	Bridgestone Potenza RE050A
Type size	215/45ZR17

Safety hardware

Active	ABS, EBD, BA, DSC
Passive	front/side/curtain airbags, front pre-tensioner/load-limiter seatbelts
NCAP rating	★★★★ (Euro)
Verdict:	★★★★★

Active	ABS, EBD
Passive	front/side/curtain airbags, front pre-tensioner/load-limiter seatbelts
NCAP rating	★★★★★ (Aus)
Verdict:	★★★★★

- Stunning engine; engaging chassis; beautifully tuned AWD system
- Sensitive clutch; heavier on fuel; brakes wilt slightly under pressure

- Strong, linear performance; faithful and involving chassis with lively edge
- Rough-corner steering kickback; not as sharply honed as MPS**

Warranty: 3yr/unlimited km
Service intervals: 10,000km or six months
Redbook 3-year resale: not yet available
AAMI insurance: \$1097
**Including Leather Pack (see text)

Warranty: 3yr/unlimited km
Service intervals: 12,500km
Redbook 3-year resale: 67%
AAMI insurance: \$1363