

HOW TO USE THIS MANUAL

MAINTENANCE, REPAIR AND SERVICING EXPLANATIONS

This manual provides explanations, etc. concerning procedures for the inspection, maintenance, repair and servicing of the subject model, for Australian vehicles.

ON VEHICLE SERVICE

“On Vehicle Service” are procedures for performing inspections and adjustments of particularly important locations with regard to the construction and for maintenance and servicing, but other inspections (for looseness, play, cracking, damage, etc.) must also be performed.

INSPECTION

Items described under this heading are inspection and checking procedures to be performed by using special tools and measuring instruments and by feeling. For actual maintenance and servicing procedures, visual inspections should always be performed as well.

DEFINITION OF TERMS

STANDARD VALUE

Indicates the value used as the standard for judging the quality of a part or assembly, or the value to which the part or assembly is corrected and adjusted. It is given by tolerance.

LIMIT

Shows the standard for judging the quality of a part or assembly on inspection and means the maximum or minimum value within which the part or assembly must be kept functionally or in strength. It is a value established outside the range of standard value.

REFERENCE VALUE

Indicates the adjustment value prior to starting the work, it is provided to facilitate assembly and adjustment procedures so they can be completed more efficiently.

CAUTION

Indicates information particularly vital to the technician during the performance of maintenance and servicing procedures in order to avoid the possibility of injury to the technician, or damage to component parts, or a reduction of component or vehicle function or performance, etc.

INDICATION OF TIGHTENING TORQUE

The tightening torque shown in this manual is a basic value with a tolerance of $\pm 10\%$ except the following cases when the upper and lower limits of tightening torque are given.

- (1) The tolerance of the basic value is within $\pm 10\%$.
- (2) Special bolts or the like are in use.
- (3) Special tightening methods are used.

ABBREVIATIONS

The following abbreviations are used in this manual for classification of model types.

M/T: Indicates manual transmission, or models equipped with a manual transmission.

A/T: Indicates automatic transmission, or models equipped with an automatic transmission.

MPI: Indicates multipoint fuel injection.

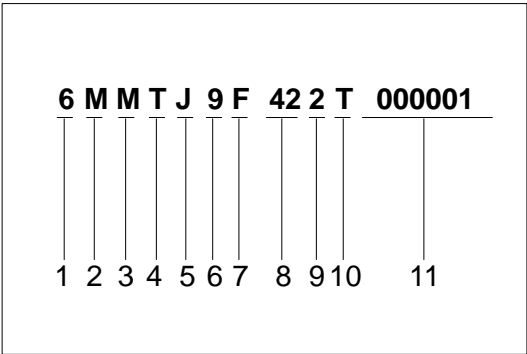
S4: Indicates an engine with a single overhead camshaft and 4 valves per cylinder.

AWD: Indicates all wheel drive equipped vehicle.

VEHICLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER (VIN)

This number is stamped on the engine bulkhead next to the compliance plate and also on the compliance plate itself. It provides information for vehicle identification purposes and should be quoted when ordering parts or in any correspondence related to the vehicle.



No.	Items	Contents
1	Geographic Area	6: Australia
2	Country within Geographic area	M: Australia
3	Manufacturer	M: Mitsubishi Motors
4	Car line	T: Magna / K: Verada
5	Series	J: Series
6	Engine / Transmission combinations	9: 3.5 litre MPI <unleaded fuel> (5A/T)
7	Price class	F: Executive AWD
		X: Sports AWD
		F: Verada AWD
8	Body type	42: Sedan
9	Year	W: 1998 / X: 1999 / Y: 2000 / 1: 2001 / 2: 2002
10	Assembly Plant	T: Tonsley Park
11	Body number	000001 to 999999

OPTION CODES

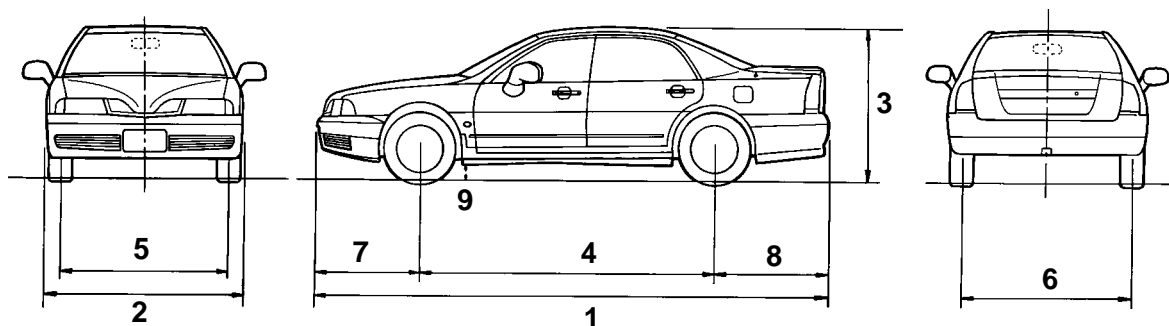
DATA PLATE

The Data Plate is attached to the right hand side of the bulkhead (adjacent to the compliance plate) in the engine compartment and is stamped with vehicle option codes, trim codes and a daily body sequential build number.

Option Code:	Item
A05	Driver & passenger air bags
A18	MMNZ
C41	Nardi wood (A/T gear knob & steering wheel)
C73	Leather trim
G39	Sun roof
J30	Cruise control
V20	Metallic paint
V21	Pearlescent paint

MAJOR SPECIFICATIONS

<VEHICLES FOR AUSTRALIA>



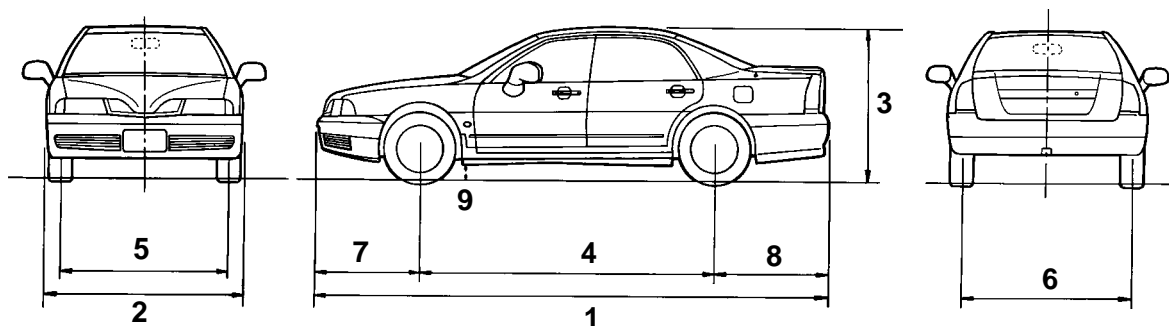
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Items			Magna Executive AWD		Sports AWD		Verada AWD	
Vehicle dimen- sions	Overall length mm	1	4,785		4,785		4,785	
	Overall width mm	2	1,785		1,785		1,785	
	Overall height (Unladen) mm	3	1,435		1,435		1,435	
	Wheelbase mm	4	2,720		2,720		2,720	
	Track–front mm	5	1,545		1,545		1,545	
	Track–rear mm	6	1,535		1,535		1,535	
	Overhang–front mm	7	970		970		970	
	Overhang–rear mm	8	1,103		1,103		1,103	
	Minimum running ground clearance mm	9	165		165		165	
Vehicle weight kg	Kerb weight		Man	Auto	Man	Auto	Man	Auto
			–	1,605	–	1,625	–	1,644
	Gross vehicle weight rating		–	2.032	–	2.050	–	2,073
	Gross axle weight –front (6G74)		–	1,101	–	1,108	–	1,114
	Gross axle weight –rear (6G74)		–	931	–	942	–	959
Seating capacity			5					
Engine	Model No.		6G74 (SOHC)		6G74 (SOHC)		6G74 (SOHC)	
	Piston displacement cm ³		3,497		3,497		3,497	
Trans- mission	Model No.		–	W5A51	–	W5A51	–	W5A51
	Type		–	5 speed auto	–	5 speed auto	–	5 speed auto
Fuel system	Fuel supply system		Electronic control multipoint fuel injection					

MAJOR SPECIFICATIONS

<VEHICLES FOR NEW ZEALAND>



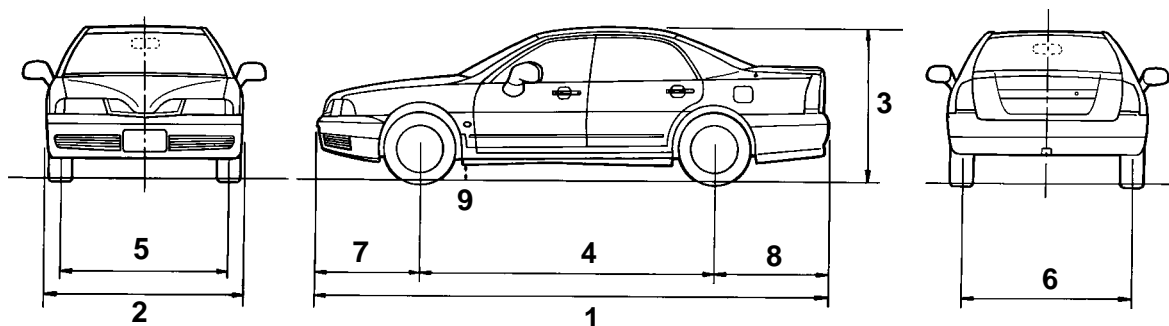
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Items			Base AWD		Sports AWD		AWD	
Vehicle dimensions	Overall length mm	1	4,785		4,785		4,785	
	Overall width mm	2	1,785		1,785		1,785	
	Overall height (Unladen) mm	3	1,435		1,435		1,435	
	Wheelbase mm	4	2,720		2,720		2,720	
	Track–front mm	5	1,545		1,545		1,545	
	Track–rear mm	6	1,535		1,535		1,535	
	Overhang–front mm	7	970		970		970	
	Overhang–rear mm	8	1,103		1,103		1,103	
	Minimum running ground clearance mm	9	165		165		165	
Vehicle weight kg	Kerb weight		Man	Auto	Man	Auto	Man	Auto
			–	1,605	–	1,625	–	1,644
	Gross vehicle weight rating		–	2.032	–	2.050	–	2,073
	Gross axle weight –front (6G74)		–	1,101	–	1,108	–	1,114
	Gross axle weight –rear (6G74)		–	931	–	942	–	959
Seating capacity			5					
Engine	Model No.		6G74 (SOHC)		6G74 (SOHC)		6G74 (SOHC)	
	Piston displacement cm ³		3,497		3,497		3,497	
Trans- mission	Model No.		–	W5A51	–	W5A51	–	W5A51
	Type		–	5 speed auto	–	5 speed auto	–	5 speed auto
Fuel system	Fuel supply system		Electronic control multipoint fuel injection					

MAJOR SPECIFICATIONS

<VEHICLES FOR PACIFIC REGION & BRUNEI>



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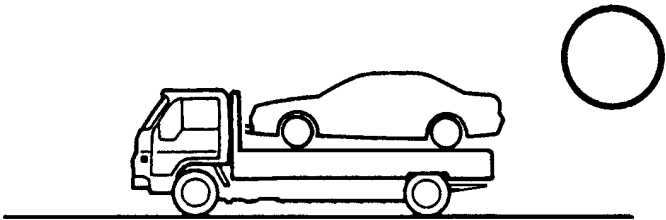
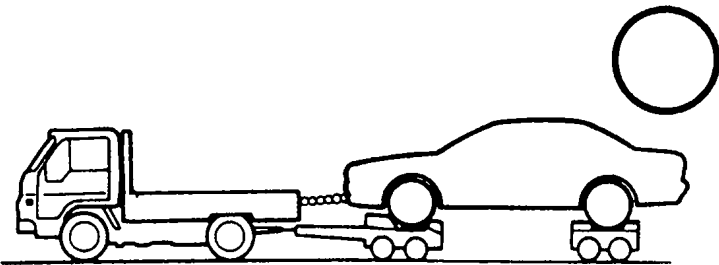
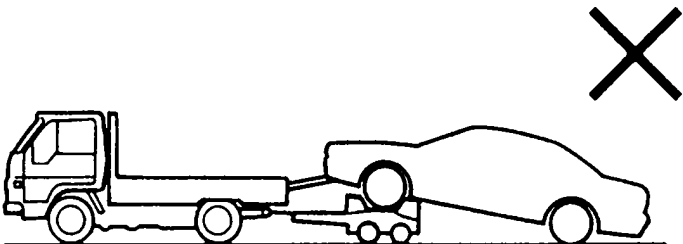
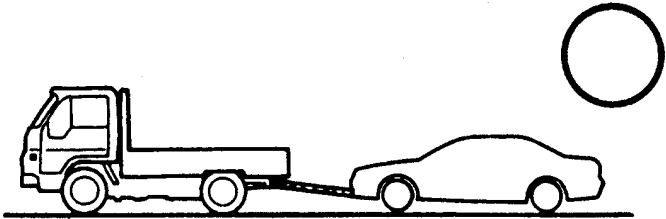
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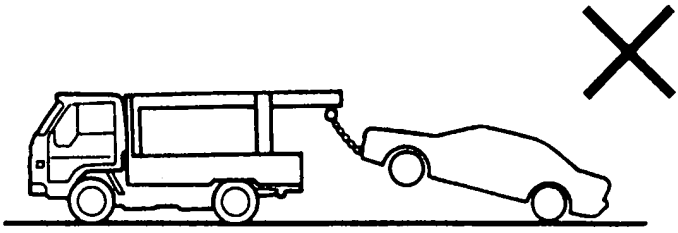
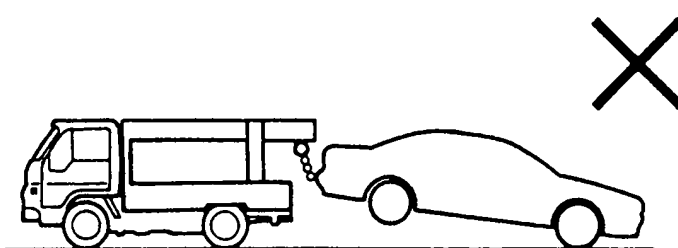
Items			Base AWD		Sports AWD		AWD	
Vehicle dimensions	Overall length mm	1	4,785		4,785		4,785	
	Overall width mm	2	1,785		1,785		1,785	
	Overall height (Unladen) mm	3	1,435		1,435		1,435	
	Wheelbase mm	4	2,720		2,720		2,720	
	Track–front mm	5	1,545		1,545		1,545	
	Track–rear mm	6	1,535		1,535		1,535	
	Overhang–front mm	7	970		970		970	
	Overhang–rear mm	8	1,103		1,103		1,103	
	Minimum running ground clearance mm	9	165		165		165	
Vehicle weight kg	Kerb weight		Man	Auto	Man	Auto	Man	Auto
			–	1,605	–	1,625	–	1,644
	Gross vehicle weight rating		–	2.032	–	2.050	–	2,073
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	Gross axle weight –rear (6G74)		–	931	–	942	–	959
Seating capacity			5					
Engine	Model No.		6G74 (SOHC)		6G74 (SOHC)		6G74 (SOHC)	
	Piston displacement cm ³		3,497		3,497		3,497	
Trans- mission	Model No.		–	W5A51	–	W5A51	–	W5A51
	Type		–	5 speed auto	–	5 speed auto	–	5 speed auto
Fuel system	Fuel supply system		Electronic control multipoint fuel injection					

TOWING AND HOISTING

TOWING RECOMMENDATION

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Towing methods	Remarks
 <p>00TJ061A</p>	<ul style="list-style-type: none"> For AWD vehicles, the basic principle is that all four wheels are to be raised before towing. The shift lever should be in the park position and the parking brake applied.
 <p>00N0028</p>	
 <p>00N0030</p>	<ul style="list-style-type: none"> The vehicle must not be towed by placing only the front wheels or only the rear wheels on a rolling dolly. To do so will result in deterioration of the viscous coupling and result in the viscous coupling causing the vehicle to jump forward.
 <p>00N0027</p>	<ul style="list-style-type: none"> The front and rear wheels must rotate normally. Both running and driving systems must function normally. The shift lever must set in the neutral position and the ignition key must be set to "ACC.".

Towing methods	Remarks
 <p>00N0026</p>	<ul style="list-style-type: none"> If only the front wheels or only the rear wheels are lifted for towing, the bumper will be damaged. In addition, lifting of the rear wheels causes the oil to flow forward, and may result in heat damage to the rear bushing of the transfer, therefore should not be done.
 <p>00N0029</p>	

TOWING WHEN KEYS ARE NOT AVAILABLE

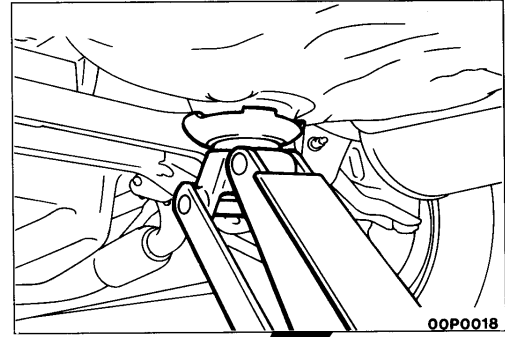
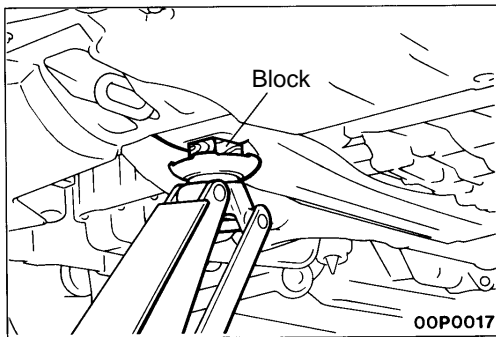
When a locked vehicle must be towed and keys are not available, the vehicle must be towed on a flat bed truck or four wheel dolly system.

SAFETY PRECAUTIONS

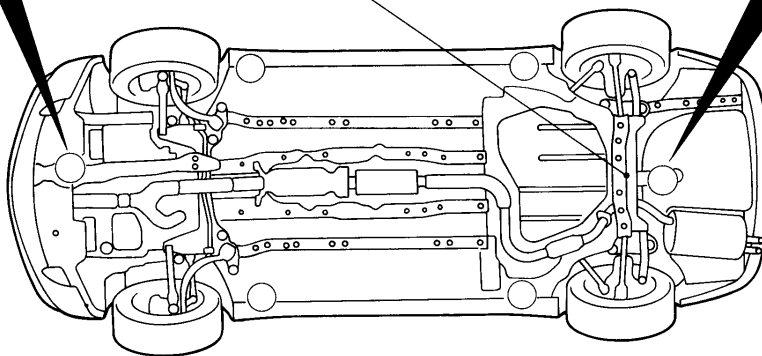
The following precautions should be taken when towing the vehicle.

1. DO NOT LIFT OR TOW THE VEHICLE BY ATTACHING TO OR WRAPPING AROUND THE BUMPER.
2. Any loose or protruding parts of damaged vehicle such as hoods, doors, fenders, trim, etc., should be secured or removed prior to moving the vehicle.
3. Operator should refrain from going under a vehicle while it is lifted by the towing equipment, unless the vehicle is adequately supported by safety stands.
4. Never allow passengers to ride in a towed vehicle.
5. State and local rules and regulations must be followed when towing a vehicle.

LIFTING, JACKING SUPPORT LOCATION FLOOR JACK



Caution
Never support the vehicle by
the rear floor cross member.



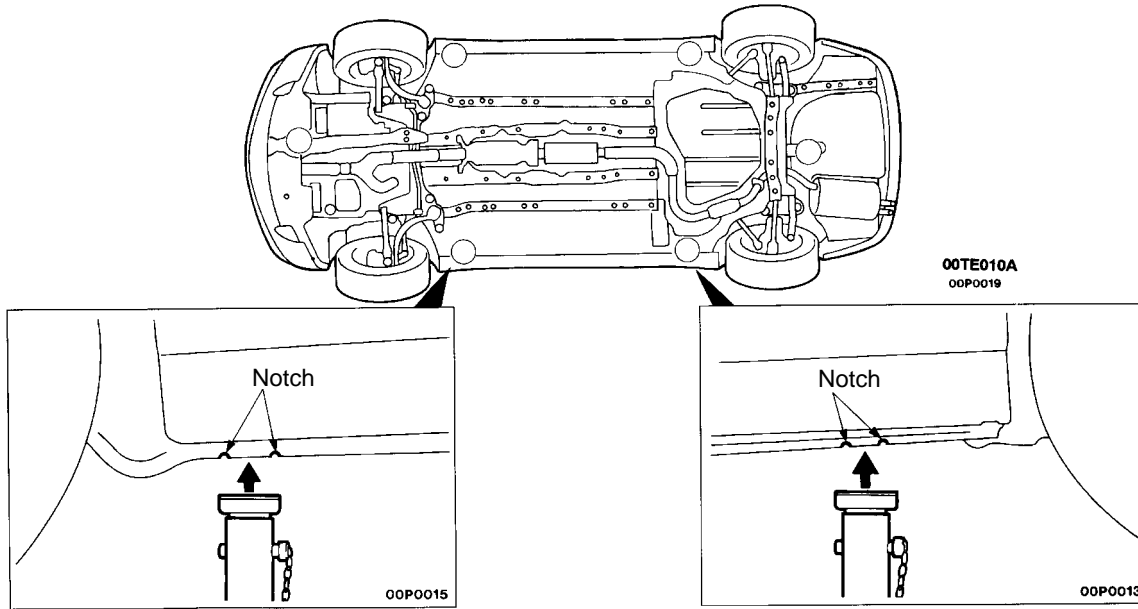
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Caution

Never support any point other than the specified one, or it will be deformed.

RIGID RACK

**Caution**

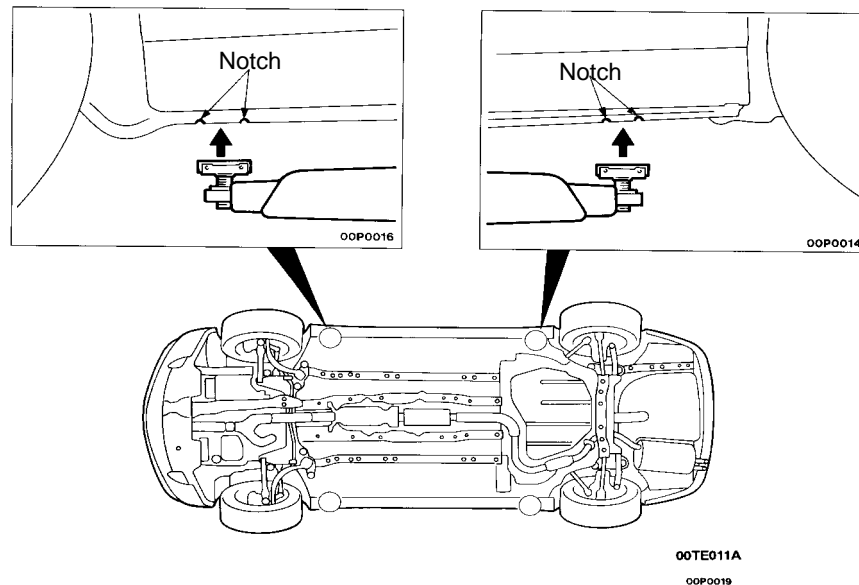
For lifting, put rubber or similar between the side sill and rigid rack, or the side sill area will be damaged.

POST TYPE

Special care should be taken when raising the vehicle on a frame contact type hoist. The hoist must be equipped with the proper adaptors in order to support the vehicle at the proper locations.

Caution

When service procedures require removing rear suspension, fuel tank and spare tire, place additional weight on rear end of vehicle or anchor vehicle to hoist to prevent tipping of centre of gravity changes.



TIGHTENING TORQUE

Each torque value in the table is a standard value for tightening under the following conditions.

- (1) Bolts, nuts and washers are all made of steel and plated with zinc.
- (2) The threads and bearing surface of bolts and nuts are all in dry condition.

The values in the table are not applicable:

- (1) If toothed washers are inserted.
- (2) If plastic parts are fastened.
- (3) If bolts are tightened to plastic or die-cast inserted nuts.
- (4) If self-tapping screws or self-locking nuts are used.

Standard bolt and nut tightening torque

Bolts	Head mark “4”		Head mark “7”		Head mark “8”	
Nuts	Head mark “4”		Head mark “6”		Head mark “6”	
Item	Standard	Tightening Range	Standard	Tightening Range	Standard	Tightening Range
Nominal Size						
M5 x 0.8	2.75	2 – 3	5.20	4 – 6	5.98	5 – 7
M6 x 1.0	4.71	4 – 6	8.83	7 – 11	10.2	8 – 12
M8 x 1.25	11.2	9 – 14	20.9	17 – 26	24.2	20 – 29
M10 x 1.25	23.1	19 – 28	43.2	34 – 54	52.4	45 – 60
M12 x 1.25	42.2	33 – 49	82.1	70 – 95	95.2	85 – 110
M14 x 1.5	71.6	60 – 85	133	120 – 160	155	130 – 180
M16 x 1.5	108	90 – 130	202	180 – 240	234	200 – 270
M18 x 1.5	158	140 – 190	294	260 – 340	341	290 – 390
M20 x 1.5	221	190 – 260	412	350 – 470	478	410 – 550
M22 x 1.5	296	260 – 340	552	470 – 640	641	550 – 740
M24 x 1.5	392	340 – 450	732	630 – 840	849	730 – 980

Standard bolt tightening torque, coarse series

Bolts	Head mark “4”		Head mark “7”		Head mark “8”	
Item	Standard	Tightening Range	Standard	Tightening Range	Standard	Tightening Range
Nominal Size						
M10 x 1.5	21.8	18 – 26	40.6	33 – 49	49.1	41 – 59
M12 x 1.75	38.0	31 – 46	74.1	65 – 85	86.1	75 – 100
M14 x 2	65.3	55 – 75	122	110 – 140	141	120 – 160
M16 x 2	101	90 – 120	188	160 – 220	219	190 – 260
M18 x 2.5	137	120 – 160	257	220 – 290	298	260 – 340
M20 x 2.5	196	170 – 230	367	320 – 420	426	370 – 490
M22 x 2.5	266	230 – 300	496	430 – 570	577	490 – 670
M24 x 3	339	290 – 390	634	540 – 730	736	630 – 840

00 GENERAL <AWD> – Tightening Torque

Flange bolt and nut tightening torque

Bolts	Head mark “4”		Head mark “7”		Head mark “8”	
Nuts	Head mark “4”		–		–	
Item	Standard	Tightening Range	Standard	Tightening Range	Standard	Tightening Range
Nominal Size						
M6 x 1.0	5.30	4 – 6	9.81	8 – 12	11.4	9 – 14
M8 x 1.25	12.5	10 – 15	23.2	19 – 28	27.0	22 – 32
M10 x 1.25	25.4	21 – 30	47.5	39 – 58	57.5	50 – 65
M10 x 1.5	23.8	20 – 28	44.5	37 – 53	53.9	45 – 65
M12 x 1.25	46.7	38 – 54	90.9	80 – 110	106	90 – 120
M12 x 1.75	42.2	35 – 51	82.2	70 – 95	95.3	85 – 110

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