

GROUP 22

MANUAL TRANSMISSION

GENERAL

OUTLINE OF CHANGES

- The general information and service procedures for the transmission have been added to correspond to the addition of the diesel-powered vehicle.

Applicable models: 1900D

GENERAL INFORMATION

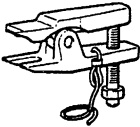
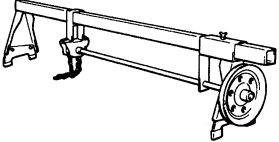
The F5MR3 transmission has been used for the F8QT engine.
The service procedures are the same for F5MR1, F5MR2 manual transmission.

Items		Specifications
Model		F5MR3
Type		Manual, 5-speed, Front wheel drive
Gear ratio	1st	3.727
	2nd	2.047
	3rd	1.321
	4th	0.971
	5th	0.756
	Reverse	3.545
Final reduction ratio		3.437

SEALANT

Item	Specified sealant	Remark
Spring pin	mitsubishi genuine part MD970389 or equivalent	Semi-drying sealant

SPECIAL TOOLS

Tool	Number	Name	Use
	MB990635 or MB991113	Steering linkage puller	Tie rod end and lower arm disconnection
	GENERAL SERVICE TOOL MZ203827	Engine lifter	Supporting the engine assembly during removal and installation of the transmission

TRANSMISSION ASSEMBLY

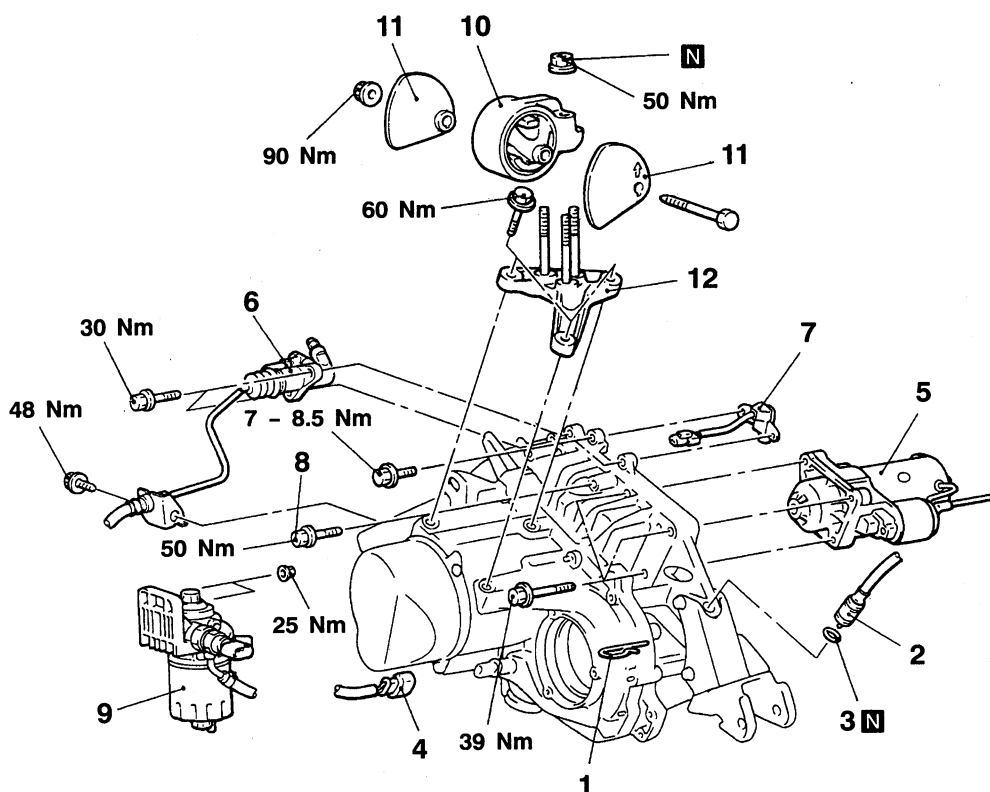
REMOVAL AND INSTALLATION

Pre-removal Operation

- (1) Air Cleaner Assembly Removal
- (2) Battery and Battery Tray Removal
- (3) Intercooler Hose Removal
(Refer to GROUP 15.)
- (4) Under Cover Removal
- (5) Shift Rod Assembly Removal
- (6) Transmission Oil Draining

Post-installation Operation

- (1) Shift Rod Assembly Installation
- (2) Under Cover Installation
- (3) Transmission Oil Supplying
- (4) Intercooler Hose Installation
(Refer to GROUP 15.)
- (5) Battery and Battery Tray Installation
- (6) Air Cleaner Assembly Installation
- (7) Shift Lever Operation Check
- (8) Speedometer Operation Check



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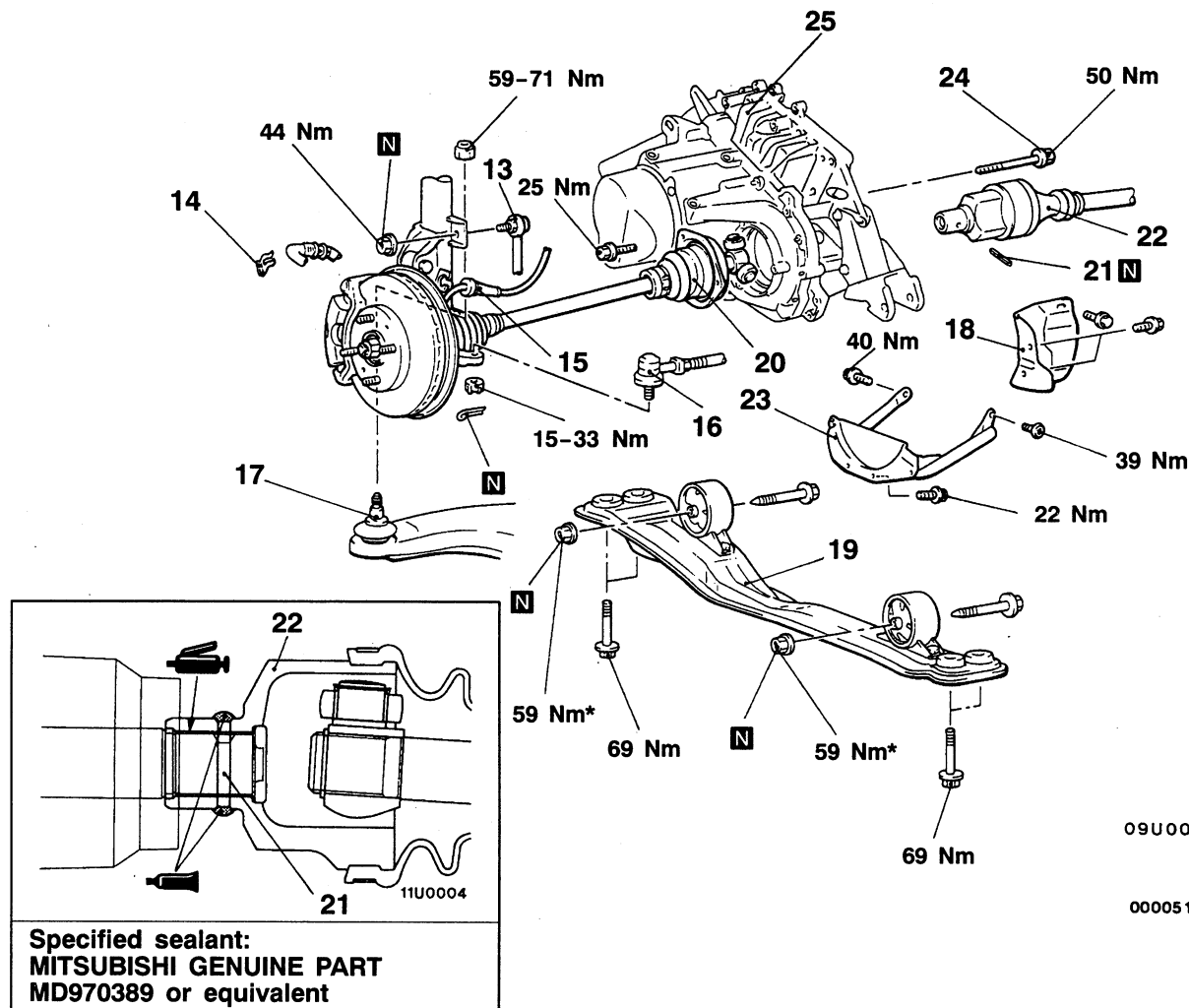
Removal steps

1. Retainer pin
2. Speedometer cable connection
3. O-ring
4. Backup lamp switch connector
5. Starter motor
6. Clutch release cylinder connection
7. Engine speed sensor
8. Transmission assembly upper part coupling bolts



9. Fuel filter assembly
10. Transmission mount bracket
11. Transmission mount stopper
12. Transmission mount lower bracket
- Engine assembly supporting



**Lifting up of the vehicle**

- 13. Stabilizer link connection
- 14. Brake hose clamp
- 15. Speed sensor cable connection
<Vehicles with ABS>
- 16. Tie rod end connection
- 17. Lower arm ball joint connection
- 18. Heat protector
- 19. Centermember assembly
- 20. Drive shaft <L.H.> connection
- 21. Spring pin
- 22. Drive shaft <R.H.> connection

- 23. Bending strut
- 24. Transmission assembly lower part coupling bolts
- 25. Transmission assembly

Caution

*: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.

REMOVAL SERVICE POINTS**STARTER MOTOR REMOVAL**

Remove the starter motor with the starter motor harness still connected and secure it inside the engine compartment.

◀B▶ CLUTCH RELEASE CYLINDER REMOVAL

Remove the clutch release cylinder without disconnecting the oil line connection, and fix it to the vehicle chassis.

◀C▶ FUEL FILTER ASSEMBLY REMOVAL

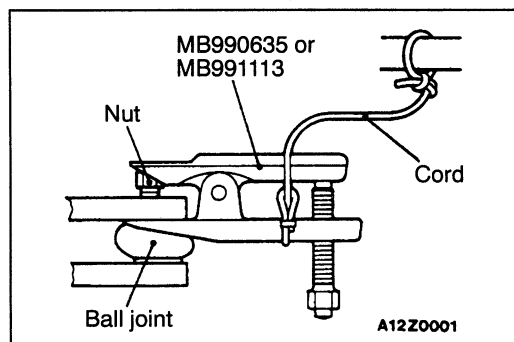
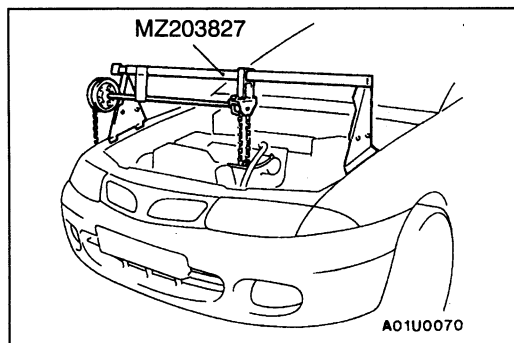
Detach the fuel filter assembly from the vehicle body without disconnecting the fuel lines, but do not remove the filter assembly.

◀D▶ TRANSMISSION MOUNT BRACKET REMOVAL

Jack up the transmission assembly gently with a garage jack, and then remove the transmission mount bracket.

◀E▶ ENGINE ASSEMBLY SUPPORTING

Set the special tool to the vehicle to support the engine assembly.



◀F▶ TIE ROD END/LOWER ARM BALL JOINT DISCONNECTION

Caution

1. Use the special tool to loosen the tie-rod end mounting nut. Only loosen the nut; do not remove it from the ball joint.
2. Support the special tool with a cord, etc. not to let it come off.

◀G▶ DRIVE SHAFT <L.H.> REMOVAL

1. Remove the drive shaft with the hub and knuckle, etc., still attached.
2. Suspend the removed drive shaft inside the wheel housing with wire so that there are no sharp bends in any of the joints.

INSTALLATION SERVICE POINTS**►A◄ DRIVE SHAFT <R.H.>/SPRING PIN INSTALLATION**

1. After applying multipurpose grease to the transmission-side spline of the drive shaft, align the spring pin hole at the end of the drive shaft with the spring pin hole at the end of the shaft at the transmission side, and then install the drive shaft.

If the spring pin hole is slightly off-line, turn the drive shaft 180° and then install it again.

NOTE

Because there are an odd number of splines on the drive shaft, the pin hole will be off-line by half the width of the hole if the drive shaft is turned 180°.

2. Apply specified sealant to the spring pin, and then insert it into the drive shaft.

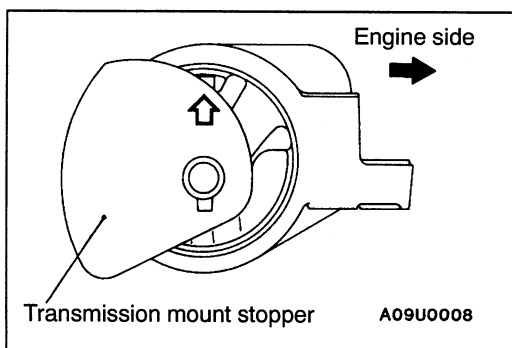
Specified sealant:

mitsubishi GENUINE PART MD970389 or equivalent

3. After inserting the pin, apply sealant to both ends of the pin hole to fully seal the hole.

Specified sealant:

mitsubishi GENUINE PART MD970389 or equivalent

**►B◄ TRANSMISSION MOUNT STOPPER INSTALLATION**

Install the transmission mount stopper so that the arrow points as shown in the illustration.