MITSUBISHI MOTORS

SERVICE BULLETIN

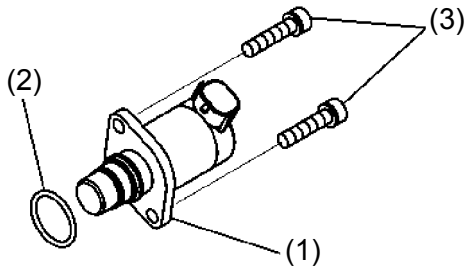
GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : INFORMATION	ISSUE NO. : MSB-11E11-004	DATE : 2011-07-05
SUBJECT : SUCTION CONTROL VALVE KIT		<MODEL> <M/Y>
GROUP : ENGINE		(EUR) See following 2. Applicable Manuals table.

1. Description:

To support parts replacement of the suction control valve mounted on the supply pump for 4N1 engines, a suction control valve kit is now available. According to this introduction, descriptions have been revised in the applicable Workshop Manuals. This Service Bulletin contains the modified descriptions.
Components of the suction control valve kit are shown below.

Suction control valve kit components



(1) Suction control valve assembly
(2) O-ring
(3) Socket bolts

2. Applicable Manuals:

See Attached sheet 1.

There may be some attached sheets not included in this Service Bulletin because they are not applicable to your market. Their sheet numbers are not listed in the above table.

3. Effective Models:

From the first production models

4. Details:

See Attached sheets 2 to 5.
For inspection procedures, see group 13.

Attached sheet 1

Manual/Model	<M/Y>	Pub. No.	Title (Info-ID)	Attached Sheet
2011 LANCER/ LANCER SPORTBACK Workshop Manual CD-ROM (CY0A/CX0A)	11	CG1E11E1-CD (English) CG1F11E1-CD (French) CG1G11E1-CD (German) CG1S11E1-CD (Spanish) CG1I11E1-CD (Italian)	Gr.11H: Torque Specifications (M113-02-344-44200-01)	Attached sheet 2
			Gr.11H: Common Rail and Supply Pump Removal and Installation (M113-02-920-18700-01)	Attached sheet 3
2011 ASX Workshop Manual CD-ROM (GA0W)	11	CGWE11E2-CD (English) CGWF11E2-CD (French) CGWG11E2-CD (German) CGWS11E2-CD (Spanish) CGWI11E2-CD (Italian)	Gr.11D: Torque Specifications (M113-02-344-44200-01)	Attached sheet 2
			Gr.11D: Common Rail and Supply Pump Removal and Installation (M113-02-920-18700-01)	Attached sheet 3
2011 OUTLANDER Workshop Manual CD-ROM (CW0W)	11	CGXE11E2-CD (English) CGXF11E2-CD (French) CGXG11E2-CD (German) CGXS11E2-CD (Spanish) CGXI11E2-CD (Italian)	Gr.11L: Torque Specifications (M113-02-345-03600-01)	Attached sheet 4
			Gr.11L: Common Rail and Supply Pump Removal and Installation (M113-02-920-22800-01)	Attached sheet 5
2012 OUTLANDER Workshop Manual CD-ROM (CW0W)	12	CGXE12E2-CD (English) CGXF12E2-CD (French) CGXG12E2-CD (German) CGXS12E2-CD (Spanish) CGXI12E2-CD (Italian)	Gr.11L: Torque Specifications (M113-02-345-03600-01)	Attached sheet 4
			Gr.11L: Common Rail and Supply Pump Removal and Installation (M113-02-920-22800-01)	Attached sheet 5

Attached sheet 2

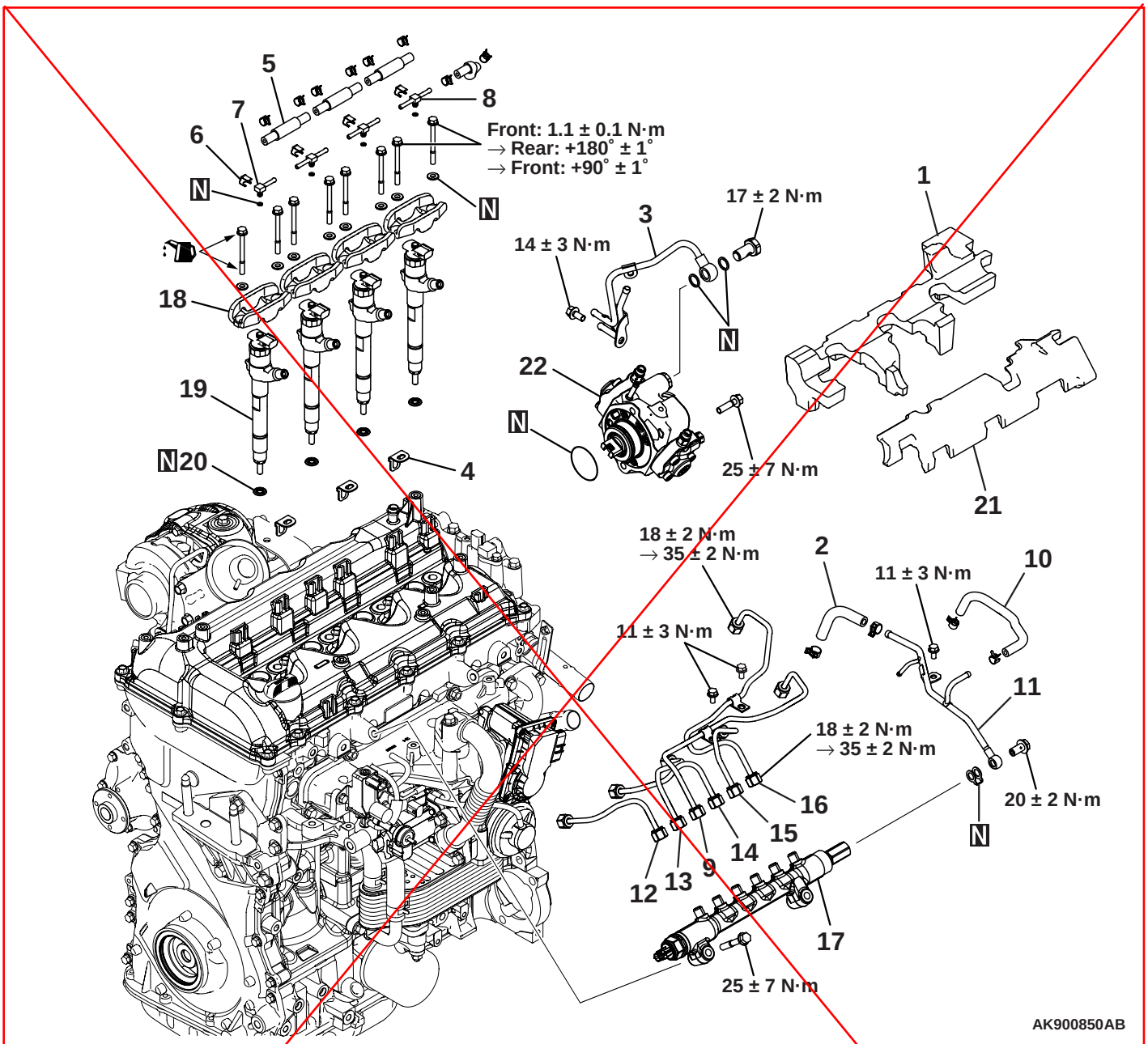
TORQUE SPECIFICATIONS

Item	N·m
Alternator and ignition system	
Oil level gauge guide bolt	11 ± 3
Alternator bolt	55 ± 13
Alternator nut	47 ± 11
Auto tensioner bolt	27 ± 6
Alternator bracket lower bolt	27 ± 6
Idler pulley bolt	47 ± 11
Water pump pulley bolt	11 ± 3
Crankshaft pulley centre bolt	250 → Loosen completely → 110 → +60°
Vacuum pump	
Vacuum pipe and hose assembly bolt (M6)	11 ± 3
Vacuum pipe and hose assembly bolt (M8)	26 ± 6
Manifold absolute pressure (MAP) sensor screw	6.0 ± 1.0
Bracket bolt	11 ± 3
Harness bracket assembly bolt	26 ± 6
Bracket A bolt	26 ± 6
Bracket B bolt	26 ± 6
Vacuum pump bolt	26 ± 6
Vacuum pipe bolt	11 ± 3
Common rail and supply pump	
Fuel pipe bolt (Flange bolt)	14 ± 3
Fuel pipe bolt (Eye bolt)	17 ± 2
Supply pump pipe A, B bolt (Flange bolt)	11 ± 3
Supply pump pipe A, B bolt (flare nut)	18 ± 2 → 35 ± 2
Fuel return pipe bolt (Flange bolt)	20 ± 2
Fuel return pipe bolt (Eye bolt)	11 ± 3
Fuel injection pipe No.1 to 4 flare nut	18 ± 2 → 35 ± 2
Common rail assembly bolt	25 ± 7
Injector holder bolt	Front: 1.1 ± 0.1 → Rear: +180° ± 1° → Front: +90° ± 1°
Fuel supply pump assembly bolt	25 ± 7
Inlet manifold	
Harness bracket bolt	26 ± 6
Alternator bracket upper bolt	27 ± 6
E-VRV assembly bolt	11 ± 3
Vacuum pipe and hose assembly bolt	11 ± 3
Solenoid valve screw	11 ± 3
Throttle body bolt	11 ± 3
EGR pipe B bolt	20 ± 2

<Added>

Suction control valve bolt	**8.9 ± 1.9**

Attached sheet 3 (1/2)



Removal steps

1. Injector insulator
>>D<< 2. Fuel return hose A
>>D<< 3. Fuel pipe
<<A>> 4. Harness bracket
5. Fuel return hose C
6. Joint clip
7. Fuel return joint A
8. Fuel return joint B
>>C<< 9. Supply pump pipe A
10. Fuel return hose B
>>B<< 11. Fuel return pipe

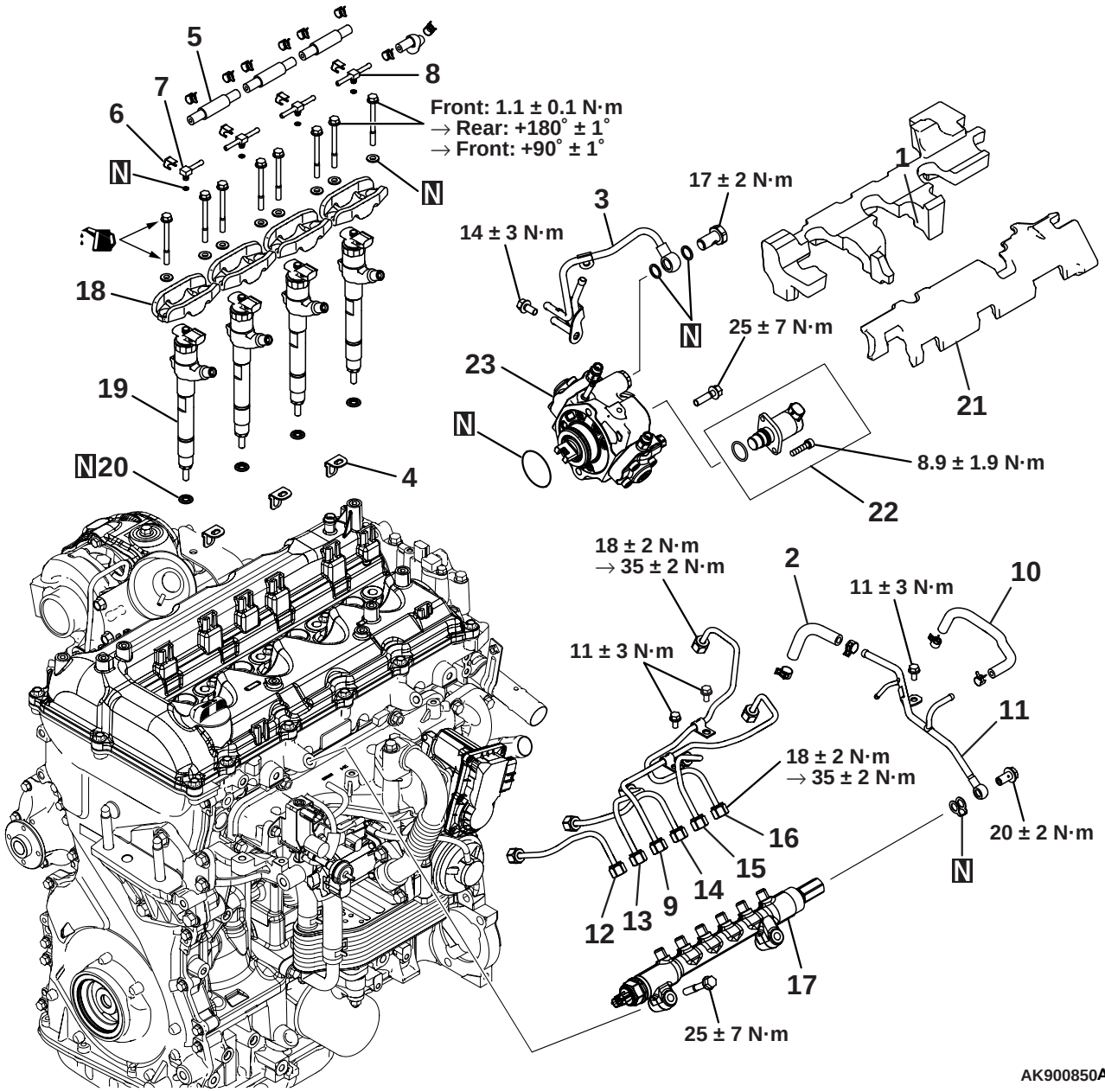
Removal steps

>>B<< 12. Fuel injection pipe No.1
<<B>> >>B<< 13. Fuel injection pipe No.3
>>B<< 14. Fuel injection pipe No.2
<<B>> >>B<< 15. Fuel injection pipe No.4
>>B<< 16. Supply pump pipe B
>>B<< 17. Common rail assembly
>>B<< 18. Injector holder
<<C>> >>B<< 19. Fuel injector
<<D>> 20. Nozzle gasket
21. Common rail insulator
>>A<< 22. Fuel supply pump assembly

<Changed>

Attached sheet 3 (2/2) is to be inserted.

REMOVAL AND INSTALLATION



Removal steps

- 1. Injector insulator
- >>D<< 2. Fuel return hose A
- >>D<< 3. Fuel pipe
- <<A>> 4. Harness bracket
- 5. Fuel return hose C
- 6. Joint clip
- 7. Fuel return joint A
- 8. Fuel return joint B
- >>C<< 9. Supply pump pipe A
- 10. Fuel return hose B
- >>B<< 11. Fuel return pipe
- >>B<< 12. Fuel injection pipe No.1
- <<B>> >>B<< 13. Fuel injection pipe No.3

Removal steps

- >>B<< 14. Fuel injection pipe No.2
- <<B>> >>B<< 15. Fuel injection pipe No.4
- >>B<< 16. Supply pump pipe B
- >>B<< 17. Common rail assembly
- >>B<< 18. Injector holder
- <<C>> >>B<< 19. Fuel injector
- <<D>> 20. Nozzle gasket
- 21. Common rail insulator
- 22 Suction control valve kit*
- >>A<< 23. Fuel supply pump assembly

*: Unless replace, do not remove the suction control valve.

Attached sheet 4

TORQUE SPECIFICATIONS

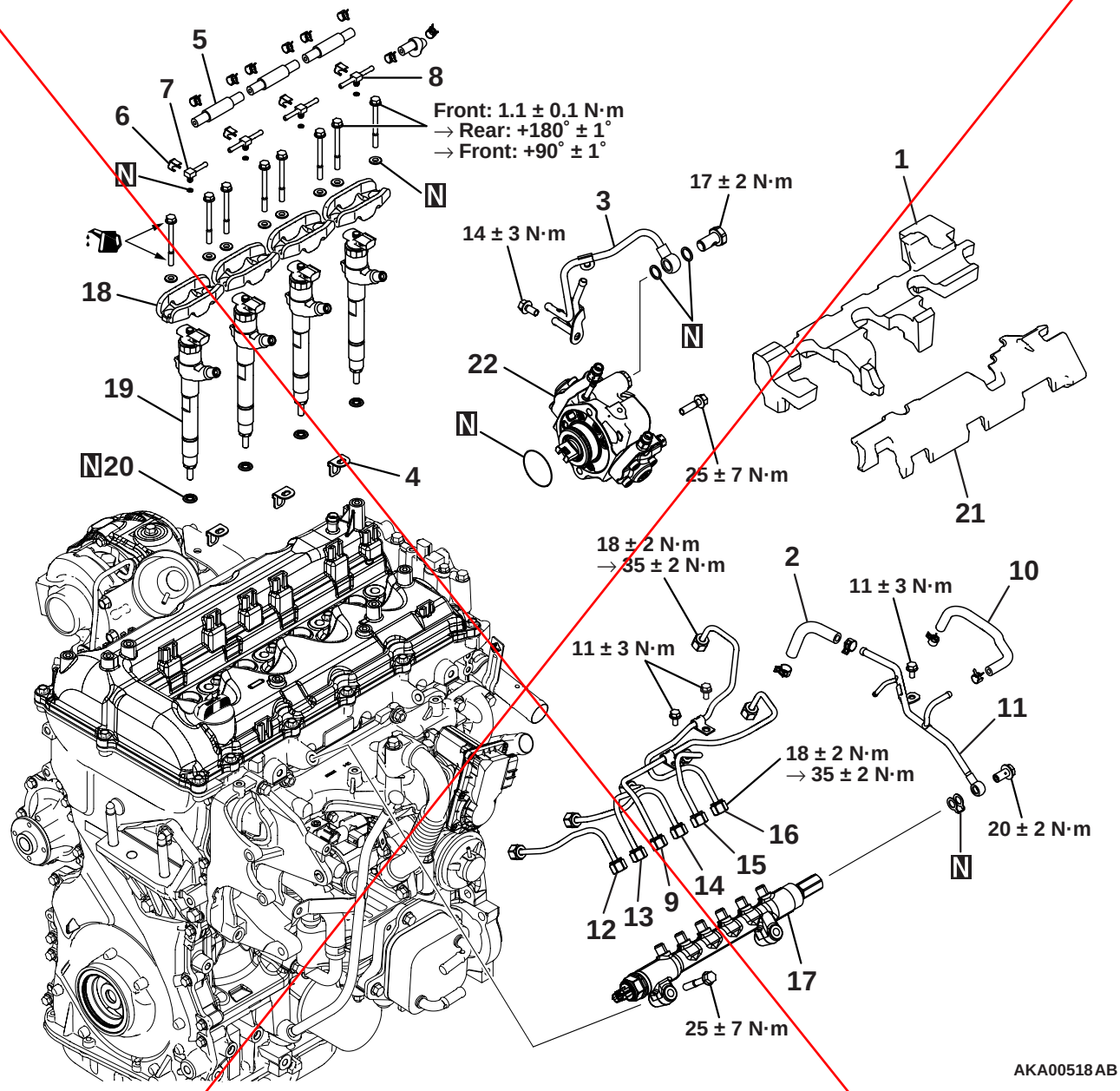
Item	N·m
Alternator and ignition system	
Idler pulley bolt	47 ± 11
Alternator bracket bolt	27 ± 6
Alternator nut	47 ± 11
Alternator bolt	55 ± 13
Auto tensioner bolt	27 ± 6
Water pump pulley bolt	11 ± 3
Crankshaft pulley centre bolt	250 → Loosen completely → 110 → +60°
Vacuum pump	
Vacuum pipe and hose assembly bolt	11 ± 3
Manifold absolute pressure (MAP) sensor screw	6.0 ± 1.0
Bracket bolt	11 ± 3
Harness bracket assembly bolt	26 ± 6
Bracket A bolt	26 ± 6
Bracket B bolt	26 ± 6
Vacuum pump bolt	26 ± 6
Vacuum pipe bolt	11 ± 3
Common rail and supply pump	
Fuel pipe bolt (Flange bolt)	14 ± 3
Fuel pipe bolt (Eye bolt)	17 ± 2
Supply pump pipe A, B bolt (Flange bolt)	11 ± 3
Supply pump pipe A, B bolt (flare nut)	18 ± 2 → 35 ± 2
Fuel return pipe bolt (Flange bolt)	20 ± 2
Fuel return pipe bolt (Eye bolt)	11 ± 3
Fuel injection pipe No.1 to 4 flare nut	18 ± 2 → 35 ± 2
Common rail assembly bolt	25 ± 7
Injector holder bolt	Front: 1.1 ± 0.1 → Rear: +180° ± 1° → Front: +90° ± 1°
Fuel supply pump assembly bolt	25 ± 7
Inlet manifold	
Oil level gauge guide bolt	11 ± 3
Power steering pump bracket bolt	27 ± 6
E-VRV assembly bolt	11 ± 3
Vacuum pipe and hose assembly bolt	11 ± 3
Solenoid valve screw	11 ± 3
Throttle body bolt	11 ± 3
EGR pipe B bolt	20 ± 2
Air temperature sensor	14 ± 1
Inlet manifold bolt and nut	20 ± 2

<Added>

Suction control valve bolt	**8.9 ± 1.9**

Attached sheet 5 (1/2)

REMOVAL AND INSTALLATION



Removal steps

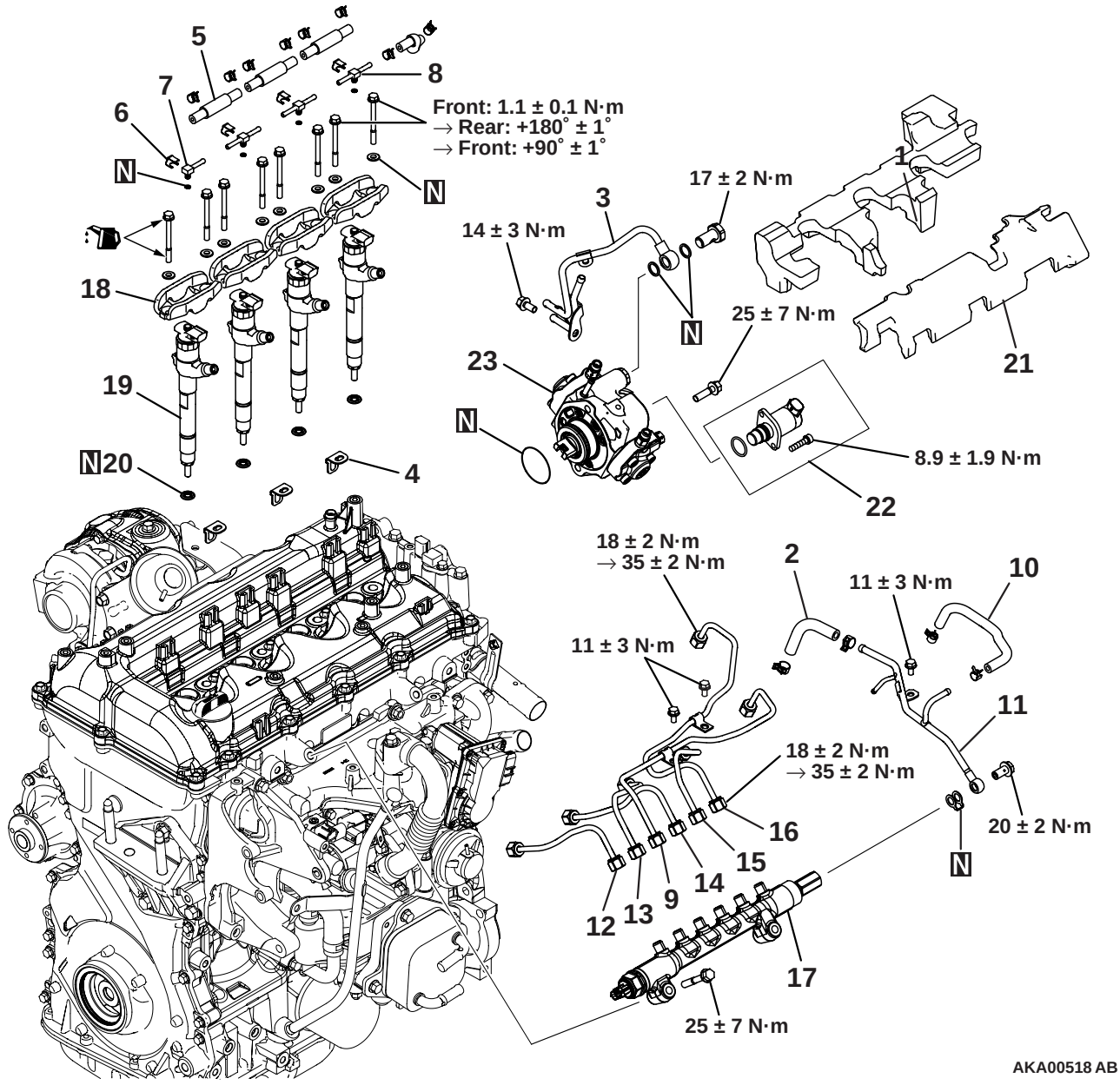
	1.	Injector insulator
>>D<<	2.	Fuel return hose A
>>D<<	3.	Fuel pipe
<<A>>	4.	Harness bracket
	5.	Fuel return hose C
	6.	Joint clip
	7.	Fuel return joint A
	8.	Fuel return joint B
>>C<<	9.	Supply pump pipe A
	10.	Fuel return hose B
>>B<<	11.	Fuel return pipe

Removal steps

>>B<<	12.	Fuel injection pipe No.1
<<B>> >>B<<	13.	Fuel injection pipe No.3
>>B<<	14.	Fuel injection pipe No.2
<<B>> >>B<<	15.	Fuel injection pipe No.4
>>B<<	16.	Supply pump pipe B
>>B<<	17.	Common rail assembly
>>B<<	18.	Injector holder
<<C>> >>B<<	19.	Fuel injector
<<D>>	20.	Nozzle gasket
	21.	Common rail insulator
>>A<<	22.	Fuel supply pump assembly

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Attached sheet 5 (2/2) is to be inserted.



Removal steps

1. Injector insulator
>>D<< 2. Fuel return hose A
>>D<< 3. Fuel pipe
<<A>> 4. Harness bracket
5. Fuel return hose C
6. Joint clip
7. Fuel return joint A
8. Fuel return joint B
>>C<< 9. Supply pump pipe A
10. Fuel return hose B
>>B<< 11. Fuel return pipe
>>B<< 12. Fuel injection pipe No.1
<<B>> >>B<< 13. Fuel injection pipe No.3

Removal steps

>>B<< 14. Fuel injection pipe No.2
<<B>> >>B<< 15. Fuel injection pipe No.4
>>B<< 16. Supply pump pipe B
>>B<< 17. Common rail assembly
>>B<< 18. Injector holder
<<C>> >>B<< 19. Fuel injector
<<D>> 20. Nozzle gasket
21. Common rail insulator
22 Suction control valve kit*
>>A<< 22. Fuel supply pump assembly

*: Unless replace, do not remove the suction control valve.