NISSAN
FORKLIFT

SERVICE MANUAL & TECHNICAL BULLETIN

QD32 ENGINE

(DIESEL ENGINE)

Model 1D1/1D2 & 1F1/1F2 series

SERVICE

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ENGINE GENERAL

SECTION EG

CONTENTS

HOW TO USE THIS MANUAL EG-2
- Description EG-2
- Definition of Terms EG-2
- Definition of Units EG-2
- Description EG-2

PRECAUTIONS FOR SAFETY AND QUALITY EG-3
- Safe Operation EG-3
- Correct Operation EG-4

PRECAUTIONS EG-5
- Precautions in Draining Engine Coolant EG-5
- Precautions for Disconnecting Fuel Piping EG-5
- Precautions for Removing and Disassembling EG-5
- Precautions for Inspection, Correction, and Replacement EG-5
- Precautions for Assembly and Installation EG-5
- Parts Requiring Angle Tightening EG-6
- Caution for Use of Power Tools EG-6
- Precautions for Liquid Gasket Application EG-6

TIGHTENING TORQUE EG-7
- Standard Bolt Tightening Torque EG-7

DESCRIPTION EG-9
- Overview EG-9
- Four Views EG-9
- Engine Serial Number Location EG-10

GENERAL SPECIFICATIONS EG-11
- General Specifications EG-11

RECOMMENDED LUBRICANTS EG-12
- Recommended Lubricants EG-12

ABBREVIATION LIST EG-13

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Correct Operation

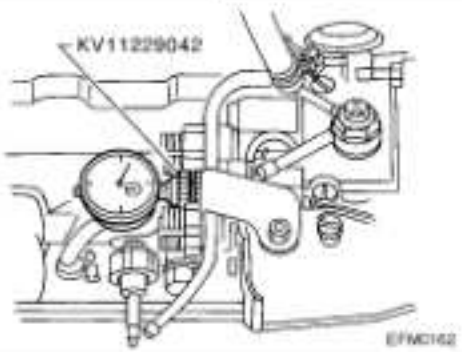
- Make sure that you understand the symptoms before starting trouble diagnosis.
- Check correct installation status prior to removal or disassembly. Make sure that they do not interfere with the function of the parts they are applied to if matching marks are required.
- Once they are removed, always replace parts indicated as "do not reuse" with new ones. This includes: oil seals, gaskets, packings, O-rings, lock washers, cotter pins, and self-locking nuts.
- Replace inner and outer races of tapered or needle roller bearings as a set.
- Arrange disassembled parts in order and prevent them from being mixed-up.
- Clean or flush disassembled parts prior to inspection or assembly.
- Use Genuine NISSAN parts for replacement.
- Use authorized grease and sealer.
- Release the pressure before disconnecting pressurized piping or hoses.
- Be sure to check for leakage after repairing fuel, oil, coolant, exhaust, or vacuum systems.

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Inspection and Adjustment

INJECTION TIMING

Engine	Plunger lift mm (in)
QD32	0.507 - 0.547 (0.0199 - 0.0215) (equivalent to 2° B.T.D.C.)



Injection Pump Calibration Standard

INJECTION PUMP

Pump rotation	Clockwise—viewed from drive side
Part No 1D models	16700 NA01C
Part No. 1F models	16700 NA00B

TEST CONDITIONS

Nozzle	105780-0060 (NP-DN0SD1510)
Nozzle holder	105780-2150
Nozzle opening pressure	13,043 $^{+294}_{0}$ kPa (130.4 $^{+2.9}_{0}$ bar, 133 $^{+3}_{0}$ kg/cm^2, 1,891 $^{+43}_{0}$ psi)
Injection pipe	2 dia. × 6 dia. × 450 mm (0.08 dia. × 0.24 dia. × 17.72 in)
Fuel oil temperature	45 $^{+5}_{0}$ °C (113 $^{+9}_{0}$ °F)
Supply pump pressure	20 kPa (0.20 bar, 0.2 kg/cm^2, 2.8 psi)

SETTINGS

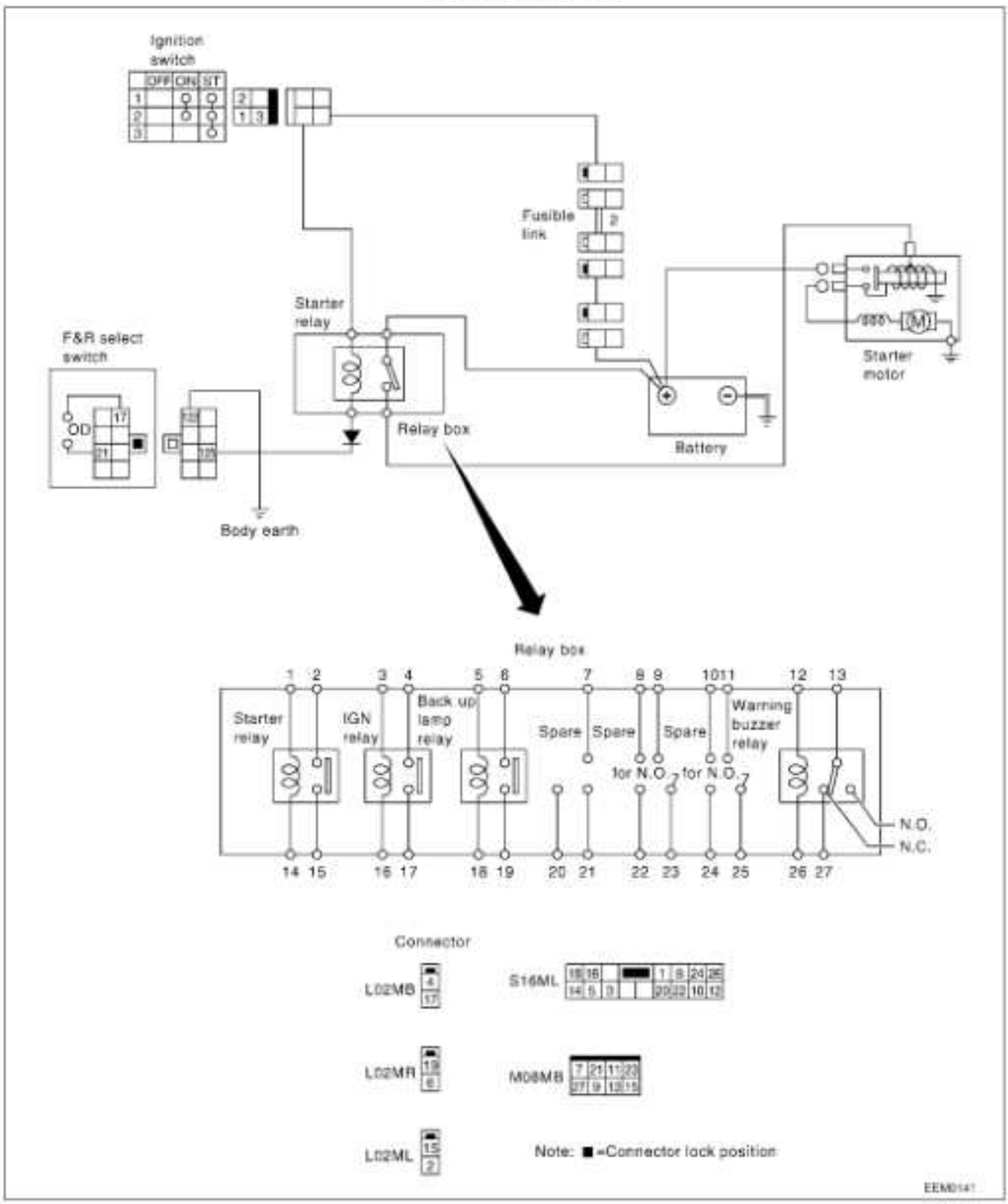
Setting item	Pump speed rpm	Settings	Difference in delivery ℓ (US fl oz, Imp fl oz)
Timing device travel	900	2.3±0.3 mm (0.091±0.012 in)	—
Supply pump pressure	900	549±39 kPa (5.49±0.39 bar, 5.6±0.4 kg/cm^2, 79.6±5.7 psi)	—
Full-load delivery	900	54.0±1.0 mℓ (1.8±0.03 US fl oz, 1.9±0.04 Imp fl oz)/1,000 st	5.0 (0.2, 0.2)
Idle speed regulation	350	11.8±2.5 mℓ (0.40±0.08 US fl oz, 0.42±0.09 Imp fl oz)/1,000 st	2.5 (0.08, 0.09)
Start (Full lever)	100	56.9±5.0 mℓ (1.92±0.2 US fl oz, 2.00±0.2 Imp fl oz)/1,000 st	—
Governing speed regulation	1,225	13.4±3.5 mℓ (0.45±0.12 US fl oz, 0.47±0.12 Imp fl oz)/1,000 st	—
Load timer adjustment	900	1.6±0.3 mm (0.063±0.012 in)	—

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WARNING:

Before starting to work on any part of electrical system, be sure to turn key switch "OFF" and then disconnect battery ground cable.

Wiring Diagram



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