NISSAN
FORKLIFT

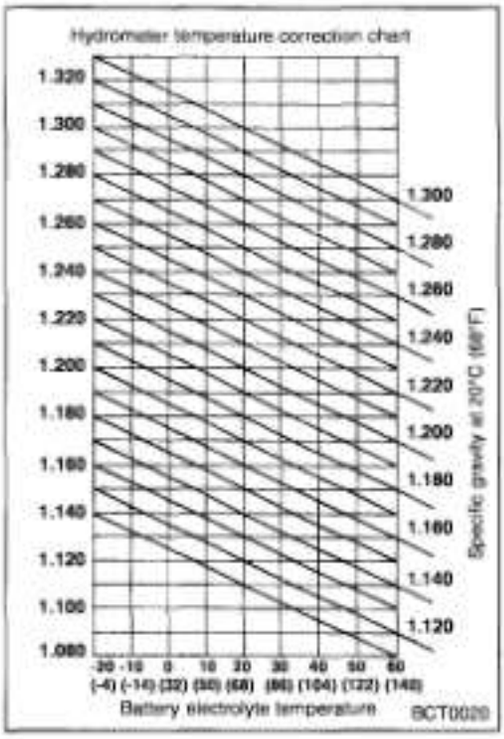
SERVICE MANUAL & TECHNICAL BULLETIN

MODEL Q02 SERIES

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Checking Specific Gravity (Cont'd)



3. When battery electrolyte temperature is not equal to 20°C (68°F) during specific gravity measurement, the actual specific gravity must be calculated by correcting the electrolyte temperature to 20°C (68°F) using the following formula.

S_{20} = St + 0.0007 x t – 0.014

where

S_{20}: Electrolyte specific gravity at a standard temperature of 20°C (68°F)

St : Electrolyte specific gravity measured at t°C

t : Measured electrolyte specific gravity

If the electrolyte specific gravity obtained by correcting the electrolyte temperature to 20°C (68°F) is less than 1.145, the battery must be re-charged as soon as possible.

Refilling Distilled Water

ELECTROLYTE LEVEL

CAUTION:

- **Fill distilled water when battery electrolyte level drops.**
- **Be careful because battery specifications may vary with each maker.**

CAUTION:

- **Use care not to fill distilled water excessively. It may cause short or leakage.**
- **Electrolyte lid is pushed into battery cell and needs to be secured to prevent leakage.**
- **If there are any cracks in electrolyte lid, replace with new one.**
- **Be careful because battery specifications may vary with each maker.**

Checking Electrolyte Leakage

Check battery for leaks. Refer to BC section for details.

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SYMPTOM:

Neither LCD letter screen nor LCD symbol screen appears on display when key switch is turned to "ON".

PROBABLE TROUBLE AREAS CAUSING MALFUNCTIONS

Blown blade fuse (for auxiliary equipment), Malfunctioning meter print board, Broken harness circuit or poor connector contact between fuse box and meter print board

SYMPTOM:

LCD letter screen does not appear on display when key switch is turned to "ON".

PROBABLE TROUBLE AREAS CAUSING MALFUNCTIONS

Improperly adjusted display contrast, Malfunctioning component parts (LCD letter display, meter print board), Broken harness circuit or poor connector contact between LCD letter display and meter print board

SYMPTOM:

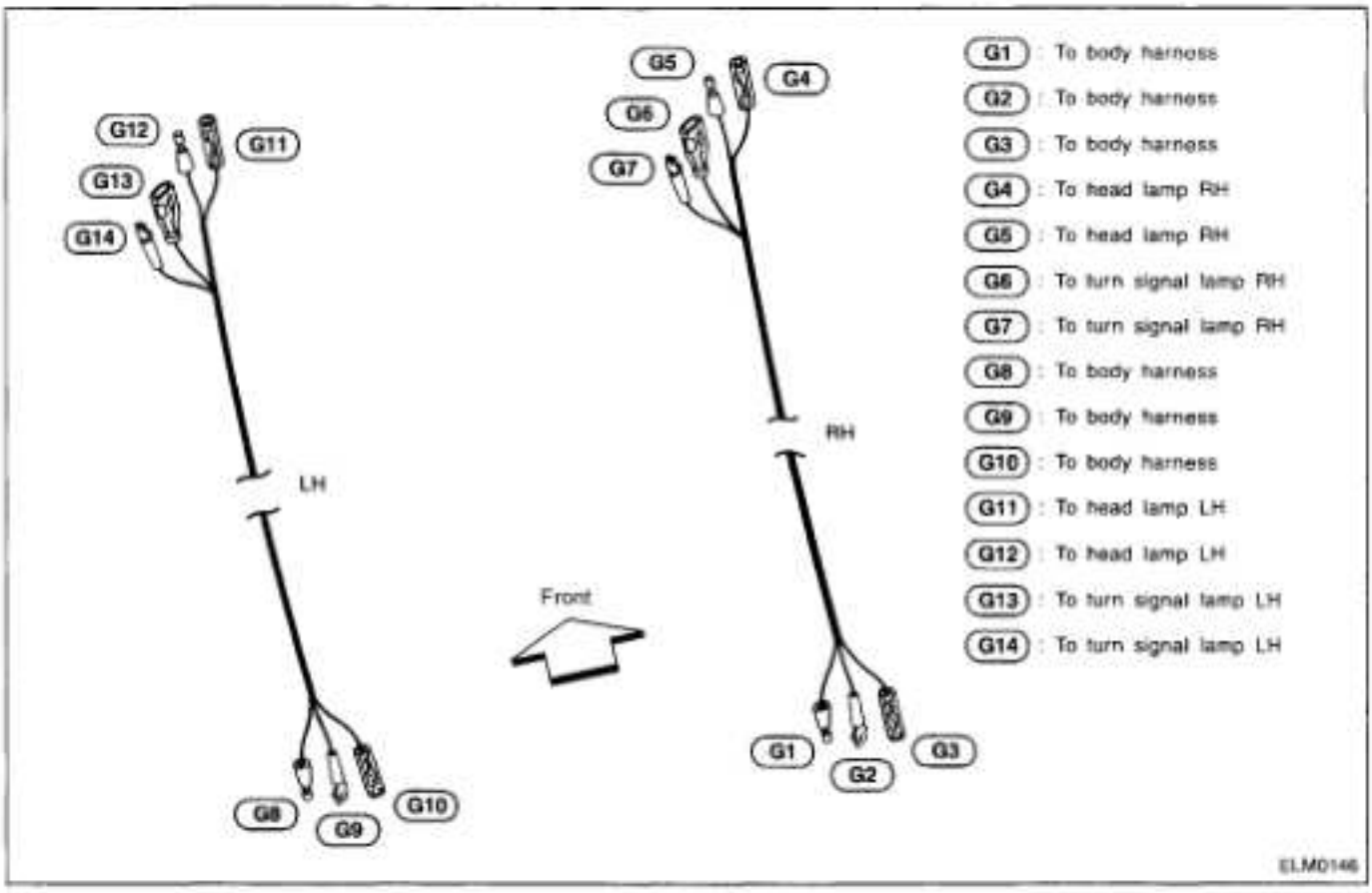
Neither forklift truck moves nor on-board systems (traction, loading, power steering, etc.) activate.

PROBABLE TROUBLE AREAS CAUSING MALFUNCTIONS

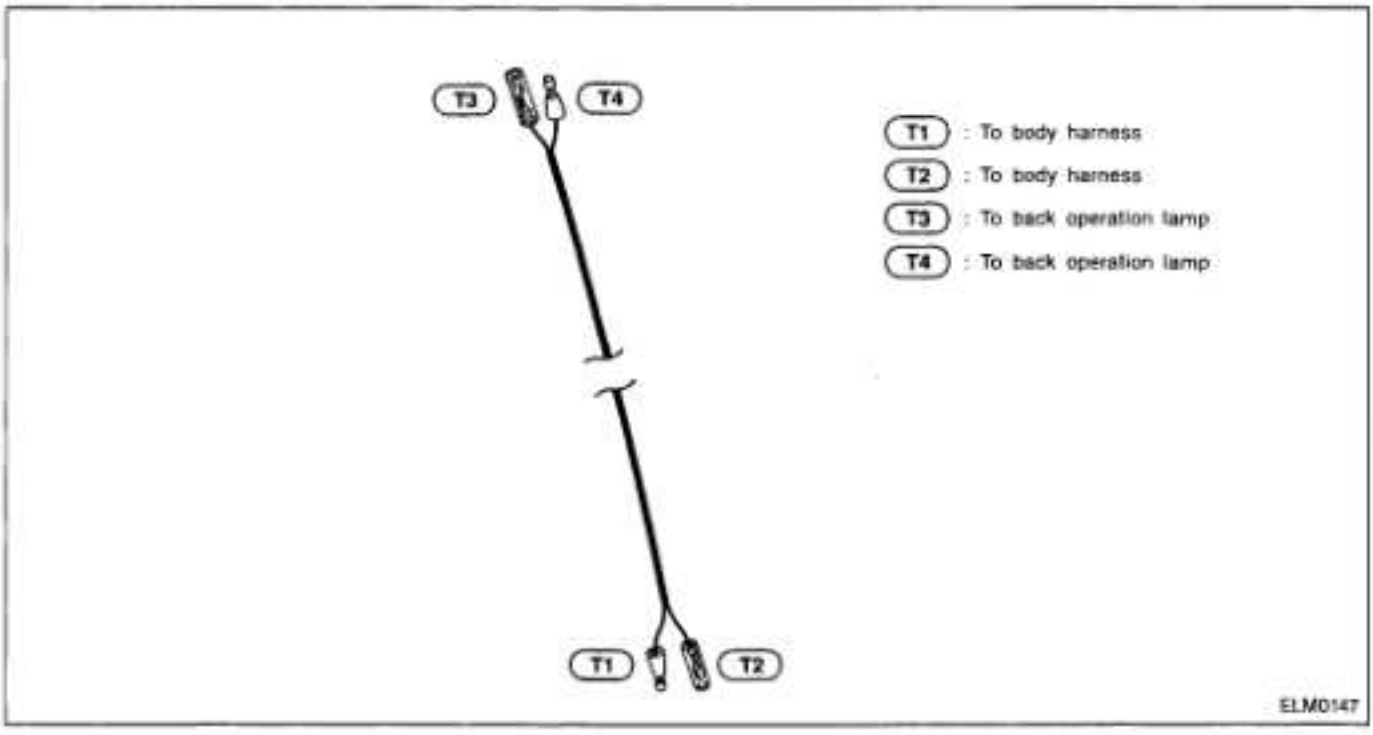
Blown blade fuse (for auxiliary equipment), Malfunctioning component parts (key switch, main print board), Broken circuit or poor connector contact of each harness

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Guard Harness



Tail Harness



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GENERAL SPECIFICATIONS

Traction motor

Applied model		Q02 series
Type		Open selfventilated series motor
Model		TTL280SVB
Rated voltage	[V]	80
Rated output	[kW]	10.8
Weight	[Kg]	104
Maker		Thrige electric

Pump motor

Applied model		Q02 series
Type		Open selfventilated compound motor
Model		TTL250AB
Rated voltage	[V]	80
Rated output	[kW]	17.1
Weight	[Kg]	81
Maker		Thrige electric

Power steering motor

Applied model		Q02 series
Type		Open natural cooled series motor
Model		TTL140B
Rated voltage	[V]	80
Rated output	[kW]	0.7
Weight	[Kg]	17
Maker		Thrige electric

INSPECTION AND ADJUSTMENT

Traction motor

Item			Adjustment specifications TTL280SVB
Insulation resistance (between terminal and yoke assembly)		[kΩ]	100 or more
Brush wear limit		mm (in)	11 (0.43)
Brush spring tension		N (kgf, lb)	9.6 (0.98, 2.16)
Commutator	Depth of undercut	mm (in)	0.6 (0.024)
	Minimum diameter	mm (in)	105 (4.13)
	Deflection limit	mm (in)	0.04 (0.0016)
Armature coil insulation resistance (between armature coil and armature shaft)		[kΩ]	100 or more
Field coil insulation resistance (between field coil and yoke)		[kΩ]	100 or more

Pump motor

Item			Adjustment specifications TTL250AB
Insulation resistance (between terminal and yoke assembly)		[kΩ]	100 or more
Brush wear limit		mm (in)	14 (0.55)
Brush spring tension		N (kgf, lb)	12 (1.22, 2.70)
Commutator	Depth of undercut	mm (in)	0.6 (0.024)
	Minimum diameter	mm (in)	105 (4.13)
	Deflection limit	mm (in)	0.04 (0.0016)
Armature coil insulation resistance (between armature coil and armature shaft)		[kΩ]	100 or more
Field coil insulation resistance (between field coil and yoke)		[kΩ]	100 or more

Power steering motor

Item			Adjustment specifications TTL140B
Insulation resistance (between terminal and yoke assembly)		[kΩ]	100 or more
Brush wear limit		mm (in)	11 (0.43)
Brush spring tension		N (kgf, lb)	6 (0.61, 1.35)
Commutator	Depth of undercut	mm (in)	0.6 (0.024)
	Minimum diameter	mm (in)	60 (2.36)
	Deflection limit	mm (in)	0.04 (0.0016)
Armature coil insulation resistance (between armature coil and armature shaft)		[kΩ]	100 or more
Field coil insulation resistance (between field coil and yoke)		[kΩ]	100 or more

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NISSAN FORKLIFT

Service Bulletin

Issue: SB-QX-OP-0701
Date : August 2007

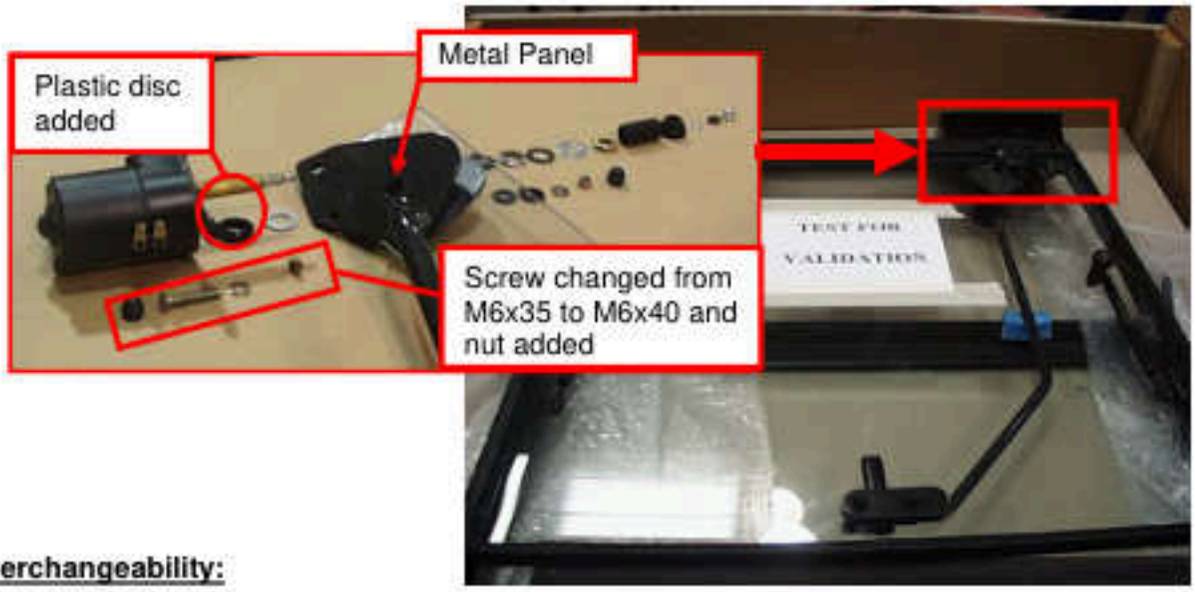
Model : QX
Subject : Rear wiper motor short circuit

Outline:

We have received reports from the field that short circuits from the rear wiper motor to the frame have occurred. The cause was a poor insulation from the wiper motor to the metal panel, creating not enough clearance. In that case the wiper motor body comes into contact with the metal panel and thus creating a short circuit.

Modification:

To prevent the possible short circuit from the rear wiper motor to the frame, insulation has been improved.
A plastic disc has been added on the wiper motor axle to enlarge clearance between the metal panel and the wiper motor body. By adding the disc it was also necessary to enlarge the bolt securing the wiper motor reaction arm and an additional nut was added.



Interchangeability:

Yes

Applied chassis models:

Introduction in production: 16 July 2007
Chassis Serial Numbers: Q02-703651, GQ02-701663
Cabin Serial Numbers: Q02 275, GQ02 206

The information in this bulletin should not be interpreted as basis for claims, unless so designated.
Whenever you order parts, refer to the parts bulletin, not to this Service Bulletin

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