TOYOTA

REPAIR MANUAL

VOLUMES 1 & 2

7FBEU15-20 / 7FBEHU18

CU330 / CU331

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RECOMMENDED LUBRICANT QUANTITY AND TYPES

Application	Type	Capacity
Drive unit	Hypoid gear oil (API GL-4, SAE 75W-80)	Approx. 0.4 ℓ (0.11 US gal) (Until purring out from the filler port)
Hydraulic oil	STD: Hydraulic oil (ISO VG32) Cold storage vehicle: Mobil Aero HFE	See "Hydraulic oil level by lifting height" below
Chassis parts	MP grease Molybdenum disulfide grease Esso beacon 325	Appropriate amount
Battery	Distilled water	Appropriate amount

Hydraulic oil level by lifting height

Unit: ℓ (US gal)

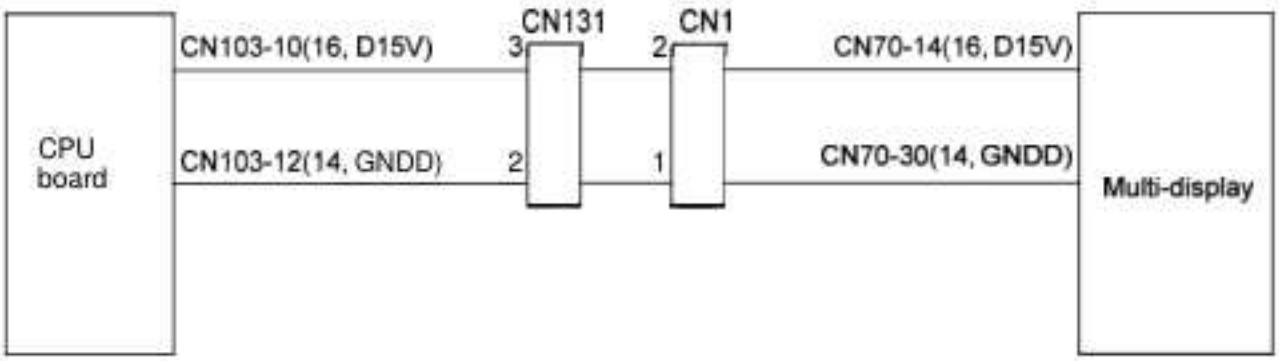
Lifting height		V mast	FV Mast	FSV Mast
To 3000mm (118 in)	Capacity	14 (3.70)	17 (4.49)	—
	Hydraulic oil level in the tank	12.4 (3.27)		
To 4000mm (157.5 in)	Capacity	15 (3.96)	19 (5.01)	16 (4.22)
	Hydraulic oil level in the tank	14.2 (3.75)		
To 6000mm (236 in)	Capacity	18 (4.75)	—	19 (5.01)
	Hydraulic oil level in the tank	17.2 (4.54)		

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WHEN NO ERROR CODE IS DISPLAYED

No display on multi-display

Related portion



Condition for error detection

- No power supply to multi-display
- Multi-display defect

It is possible to perform traveling and material handing operation.
NG → See page 5-94. (Vehicle does not move.)
OK ↓

Disconnect battery plug, disconnect CN1, and connect battery plug.
CN1-2(16)
↕ Voltage measurement
CN1-1(14)
OK (Approx. 15 V) →

Disconnect battery plug, connect CN1, disconnect CN70, and connect battery plug.
CN70-14(16)
↕ Voltage measurement
CN70-30(14)
NG (0 V) → Harness defect (Between CN1 and CN70)
OK (Approx. 15 V) → Multi-display defect

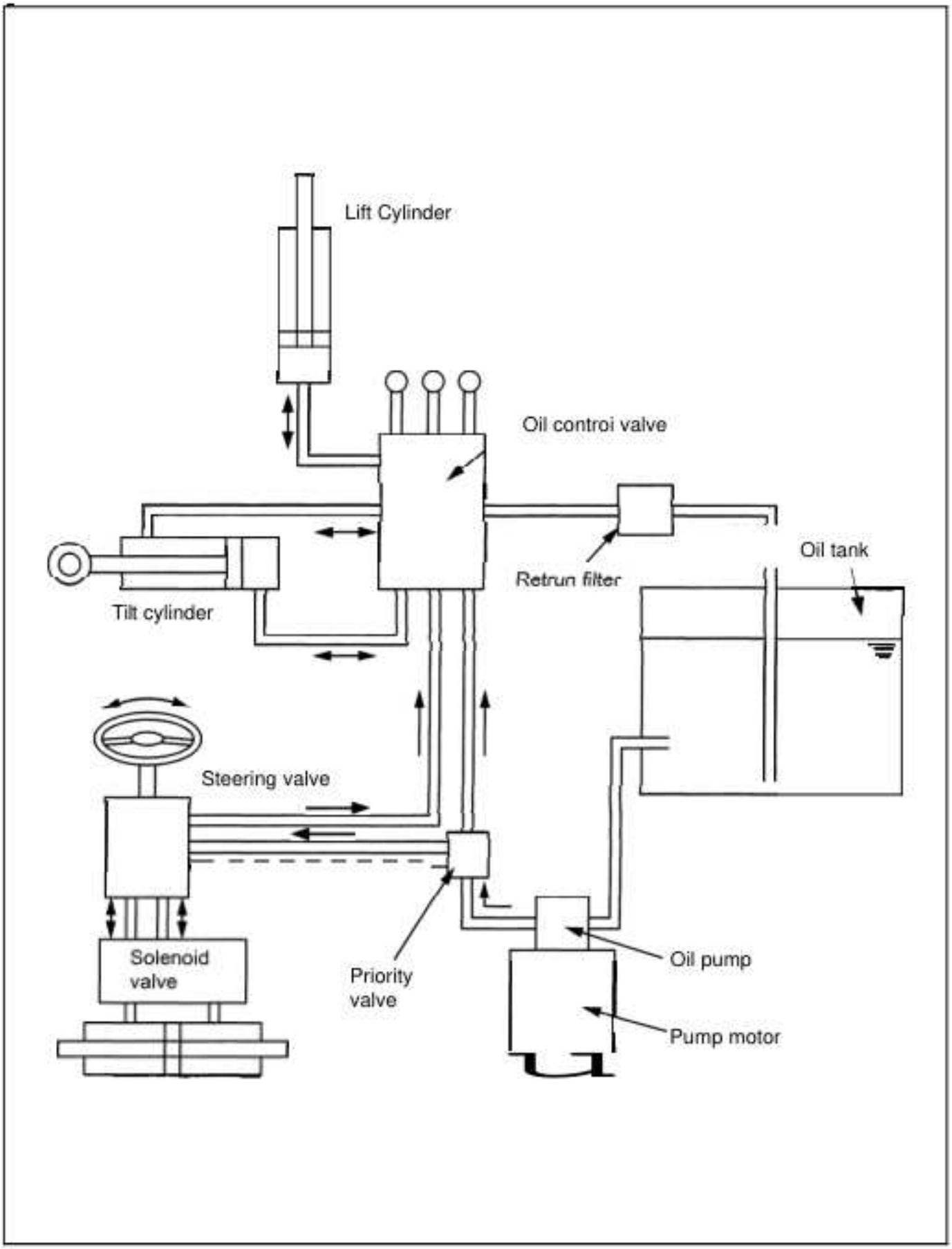
NG (0 V) ↓

Disconnect battery plug, disconnect CN1 and CN103.
1.
CN1-2(16)
↕ Continuity check
CN103-10(16)
CN1-1(14)
↕ Continuity check
CN103-12(14)
2.
CN1-2(16)
↕ Short-circuit check
CN1-1(14)
NG (1. ∞ Ω, 2. Approx. 0 Ω) → Harness defect (Between CN1 and CN103)
OK (1. Approx. 0 Ω, 2. ∞ Ω) ↓

CPU board defect

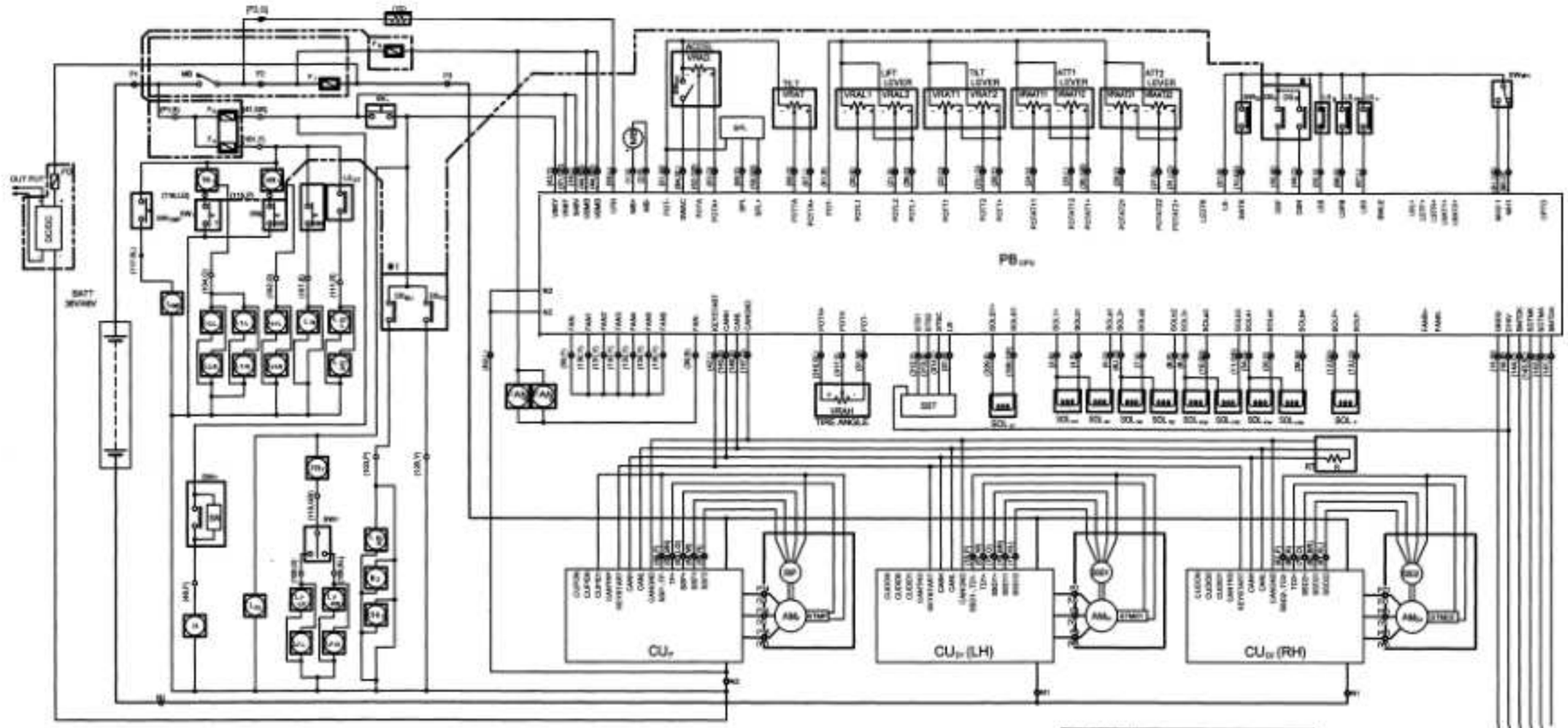
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HYDRAULIC CIRCUIT



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ELECTRIC WIRING DIAGRAM



BATT	BATTERY
F1	FUSE, DRIVE
F4	FUSE, LAMP
F5	FUSE, CONTROL CIRCUIT
F6	FUSE, POWER FROM
F7	FUSE, DC/DC CONVERTER
LCD DISP	LCD DISPLAY
AM1	MOTOR, DRIVE 1
AM2	MOTOR, DRIVE 2
AM P	MOTOR, PUMP
DC/DC	DC/DC CONVERTER
SOL ST	SOLENOID, STEERING
SOL L	SOLENOID, LIFT
SOL T	SOLENOID, TILT
SOL Lo1	SOLENOID, LIFT, o1(DOWN)
SOL Li1	SOLENOID, LIFT, o1(UP)
SOL T2	SOLENOID, TILT, o2(FRONT)
SOL T1	SOLENOID, TILT, o2(REAR)
SOLAT1	SOLENOID, ATTACHMENT, o1
SOLAT2	SOLENOID, ATTACHMENT, o2
SOLATM	SOLENOID, ATTACHMENT, o3
SOL P	SOLENOID, PRESSURE

FAN DC	FAN, EXHAUST, CONTROL UNIT
VRAD	VARI-OHM, ACCEL, DRIVE
VRAT	VARI-OHM, TILT
VRAH	VARI-OHM, TIRE(HANDLE)
VRAL1	VARI-OHM, LIFT, NO.1
VRAL2	VARI-OHM, LIFT, NO.2
VRAT1	VARI-OHM, TILT, NO.1
VRAT2	VARI-OHM, TILT, NO.2
VRAAT11	VARI-OHM, ATTACHMENT1, NO.1
VRAAT12	VARI-OHM, ATTACHMENT1, NO.2
VRAAT21	VARI-OHM, ATTACHMENT2, NO.1
VRAAT22	VARI-OHM, ATTACHMENT2, NO.2
CU(H)	CONTROL UNIT, DRIVE 1
CU(R)	CONTROL UNIT, DRIVE 2
CUP	CONTROL UNIT, PUMP
PB CPU	PRINT BOARD, COMPUTER
CPR	RESISTOR, CURRENT PROTECT
RT	TERMINATING RESISTANCE
SST	SENSOR, STEERING
SPL	SENSOR, PRESSURE LIFT
SSD1	SENSOR, SPEED, DRIVE 1
SSD2	SENSOR, SPEED, DRIVE 2
SSP	SENSOR, SPEED, PUMP
STMD1	SENSOR, TEMPRETURE, DRIVE 1
STMD2	SENSOR, TEMPRETURE, DRIVE 2
STMP	SENSOR, TEMPRETURE, PUMP

BR	CONNECTOR, BATTERY
DS F	DIRECTION SWITCH, FORWARD
DS R	DIRECTION SWITCH, REVERSE
DS FO	DIRECTION SWITCH, FORWARD OPTIONAL
DS BU	DIRECTION SWITCH, BACK-UP
LS L	LIMIT SWITCH, LIFT
LS TF	LIMIT SWITCH, TILT FR
LS TR	LIMIT SWITCH, TILT RR
LS AT	LIMIT SWITCH, ATTACHMENT NO.1
LS AT2	LIMIT SWITCH, ATTACHMENT NO.2
LS ST	LIMIT SWITCH, STOP LAMP
LS B	LIMIT SWITCH, BRAKE
LS PB	LIMIT SWITCH, PARKING BRAKE
LS D	LIMIT SWITCH, DEADMAN
SW AC	SWITCH, ACCEL
SW K	SWITCH, KEY
SW L	SWITCH, LIGHT
SW F	SWITCH, FLASHER
SW H	SWITCH, HORN
SW TH	SWITCH, TILT KNOB
SWH1	SWITCH, HEIGHT NO.1
SW CMP	SWITCH, COMPARTMENT
L HL	LAMP, HEAD LH
L HR	LAMP, HEAD RH
L CL	LAMP, CLEARANCE LH
L CR	LAMP, CLEARANCE RH
L TL	LAMP, TAIL LH
L TR	LAMP, TAIL RH
CHR	CHMP, REVERSE

NOTE)
THIS DRAWING SHOWS CASE OF FULL OPTION.

L W	LAMP, WORKING
L F-LH	LAMP, FLASHER LH (REAR)
L F-RH	LAMP, FLASHER RH (REAR)
L F-L	LAMP, FLASHER LH
L F-R	LAMP, FLASHER RH
L ST-L	LAMP, STOP LH
L ST-R	LAMP, STOP RH
L BUP	LAMP, BACK-UP
HR	RELAY, HEAD LAMP
TR	RELAY, TAIL LAMP
L FB	LAMP, FLASH BEACON
BZ	BUZZER(SMART ALARM)
L CMP	LAMP, COMPARTMENT
SA	SURGE ABSORBER
H	HORN
FR	RELAY, FLASHER

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