| DTC | C1253/53 | Hydro Booster Pump Motor Relay Malfunction |
|-----|----------|--------------------------------------------|

### **DESCRIPTION**

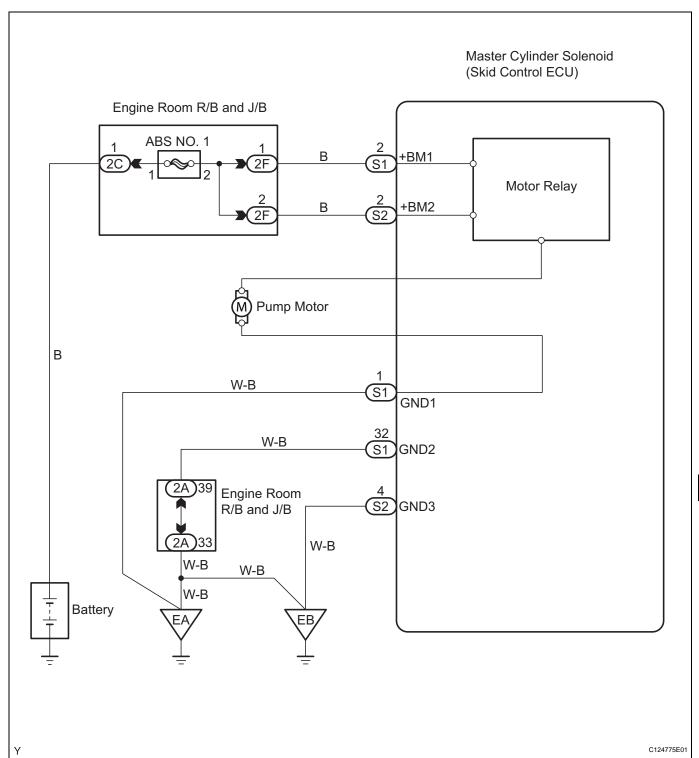
The motor relay (semiconductor relay) is built into the master cylinder solenoid and drives the pump motor based on a signal from the skid control ECU.

| DTC No.  | DTC Detecting Condition                            | Trouble Areas                                                                                           |
|----------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| C1253/53 | Open in motor system circuit (motor input circuit) | <ul><li>Hydraulic brake booster pump motor</li><li>Hydraulic brake booster pump motor circuit</li></ul> |



# BC

### **WIRING DIAGRAM**



#### HINT:

Start the inspection from step 1 when using a intelligent tester and start from step 3 when not using a intelligent tester.

## 1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER (H/B MOTOR RELAY)

- (a) Connect a intelligent tester to the DLC3.
- (b) Turn the ignition switch to the ON position.

- (c) Turn the intelligent tester ON.
- (d) Select the ACTIVE TEST mode on the intelligent tester.

| Item          | Vehicle Condition / Test Details | Diagnostic Note                 |
|---------------|----------------------------------|---------------------------------|
| H/B MOT RELAY | Turns H/B motor relay ON / OFF   | Operation of motor can be heard |

(e) Check for operation sound of the H/B motor when it is operated with the intelligent tester.

OK:

The operation sound of the H/B motor can be heard.

NG Go to step 3

OK

# 2 RECONFIRM DTC

- (a) Clear the DTCs (See page BC-118).
- (b) Turn the ignition switch to OFF.
- (c) Depress the brake pedal more than 20 times.
- (d) Turn the ignition switch to the ON position.
- (e) Wait until the pump motor stops.
- (f) Depress the brake pedal several times until the pump motor is turned on.
- (g) Wait until the pump stops.
- (h) Repeat (f) and (g) three times.
- (i) Check if the same DTCs are recorded.

| Result         | Proceed to |
|----------------|------------|
| DTC output     | A          |
| DTC not output | В          |

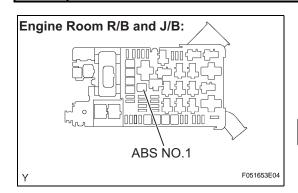
B > END



3

### REPLACE HYDRAULIC BRAKE BOOSTER

## INSPECT FUSE (ABS NO. 1)



- (a) Remove the ABS NO. 1 fuse from the engine room R/B and J/B.
- (b) Measure the resistance of the ABS NO. 1 fuse.

Standard:

Below 1  $\Omega$ 

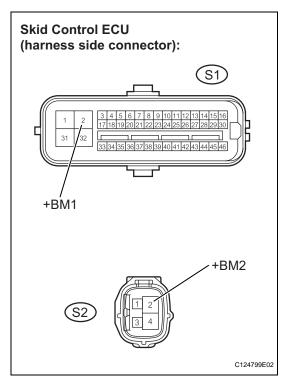
(c) Reinstall the ABS NO. 1.

NG

CHECK FOR SHORTS IN ALL HARNESSES AND CONNECTORS CONNECTED TO FUSE AND REPLACE FUSE

OK

#### 4 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE (+BM, +BM2 TERMINAL)



- Disconnect the skid control ECU connectors. (a)
- (b) Measure the voltage.

### **Standard Voltage**

| Tester Connection         | Specified Condition |
|---------------------------|---------------------|
| S1-2 (+BM1) - Body ground | 10 to 14 V          |
| S2-2 (+BM2) - Body ground | 10 to 14 V          |

(c) Reconnect the skid control ECU connectors.

NG

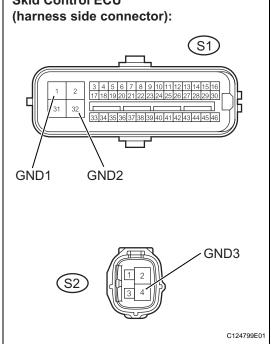
REPAIR OR REPLACE HARNESS OR CONNECTOR (+BM1 AND +BM2 CIRCUIT)

OK

#### 5 CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - BODY GROUND)



**Skid Control ECU** 



- Disconnect the skid control ECU connectors.
- (b) Measure the resistance.

#### Standard Resistance

| Tester Connection          | Specified Condition |
|----------------------------|---------------------|
| S1-1 (GND1) - Body ground  | Below 1 Ω           |
| S1-32 (GND2) - Body ground | Below 1 Ω           |
| S2-4 (GND3) - Body ground  | Below 1 Ω           |

(c) Reconnect the skid control ECU connectors.

NG

**REPAIR OR REPLACE HARNESS OR CONNECTOR (GND CIRCUIT)** 

## 6 RECONFIRM DTC

- (a) Clear the DTCs (See page BC-118).
- (b) Turn the ignition switch to OFF.
- (c) Depress the brake pedal more than 20 times.
- (d) Turn the ignition switch to the ON position.
- (e) Wait until the pump motor stops.
- (f) Depress the brake pedal several times until the pump motor is turned on.
- (g) Wait until the pump stops.
- (h) Repeat (f) and (g) three times.
- (i) Check if the same DTCs are recorded.

| Result         | Proceed to |
|----------------|------------|
| DTC output     | A          |
| DTC not output | В          |

B END



REPLACE HYDRAULIC BRAKE BOOSTER

