TOYOTA

REPAIR MANUAL

WITH REPAIR SUPPLEMENT

5FG33-45 / 5FD33-45
5FGE35 / 5FDE35 / 5FDA50

CE005-1

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Symptom	Check point	Diagnosis, possible cause and action
	1.2.a The clutch pressure is lower than the standard value in either of the forward and backward position. (Check the next hydraulic system and its parts on the abnormal side.)	○ Hydraulic oil leakage between the selector valve and the servo collar. → Check the oil path. → Check and replace the O ring or gasket, if necessary. ○ Improperly positioned selector valve. → Adjust or replace it. ○ Worn or broken seal ring (the servo case). → Replace it. ○ Damaged clutch piston, Broken piston ring, Off piston, etc. → Overhaul the clutch.
	1.2.b When the clutch pressure is too lower than the standard value in both the forward and the backward positions. (Check the oil path between the regulator valve and the selector valve.)	○ Clogged accumulator orifice. → Disassemble and wash it. ○ Stuck accumulator piston. → Repair or replace it. ○ Improperly positioned inching valve. → Check the inching link system and adjust it, if necessary.
	1.3 When both the main pressure and the clutch pressure are normal.	○ Clogged oil path between the selector valve and the clutch piston. → Check the oil path and remove clogged foreign matter. ○ Stuck clutch piston.
	1.3.a Mechanical trouble in the transmission and differential. (In this case, the torque converter oil temperature rises excessively and noise, etc. is produced.)	Overhaul the torque converter.
2. Insufficient upgrading or insufficient traction (When power is insufficient) [When the torque converter does not produce torque.]	2.1 Check the no-load static rotational frequency of the engine and the load maximum rotational frequency.	2.1.a When the rotational frequency is not within the specified range, adjust the engine. Note: See the engine adjustment section.

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Select the turbine runner spacer.

(1) Reassemble the turbine runner up to the conditions described in the preceding paragraph 4 (without reassembling the turbine runner and spacer).
Place the drive cover and measure the dimension A shown in the figure.

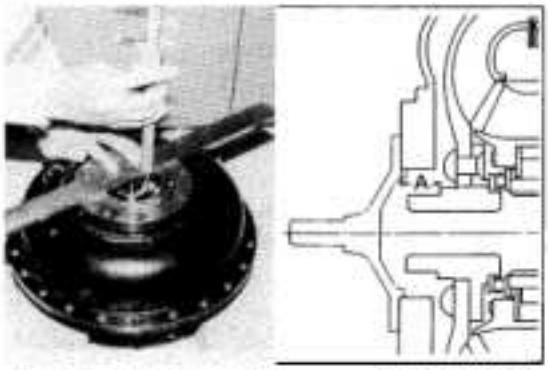
Caution:
Place the drive cover with the pump impeller O-ring removed.

(2) Measure the height B from the pilot boss flange face to the bearing contact face with a slide calipers.
(3) Measure the bearing thickness C.
(4) Calculate the thrust gap between the pump impeller and the drive cover bearing by the following equation.
Select an adequate spacer in the table below.
Thrust clearance (D):
0.2 – 0.8 mm (0.008 – 0.031 in.)
D + Spacer thickness = A – B – C

Spacer item No.	Thickness
32223-31940-71	2.5 mm (0.098 in.)
32224-31940-71	2.7 mm (0.106 in.)
32222-31940-71	3.0 mm (0.118 in.)

Caution:
After the measurement, be sure to reassemble the pump impeller O-ring.

6. Reassemble the turbine runner and the above mentioned spacer.



Dimension A Measurement LAQ13-26, LAQ5-51



Pilot Boss Dimension B Measurement LAQ13-7



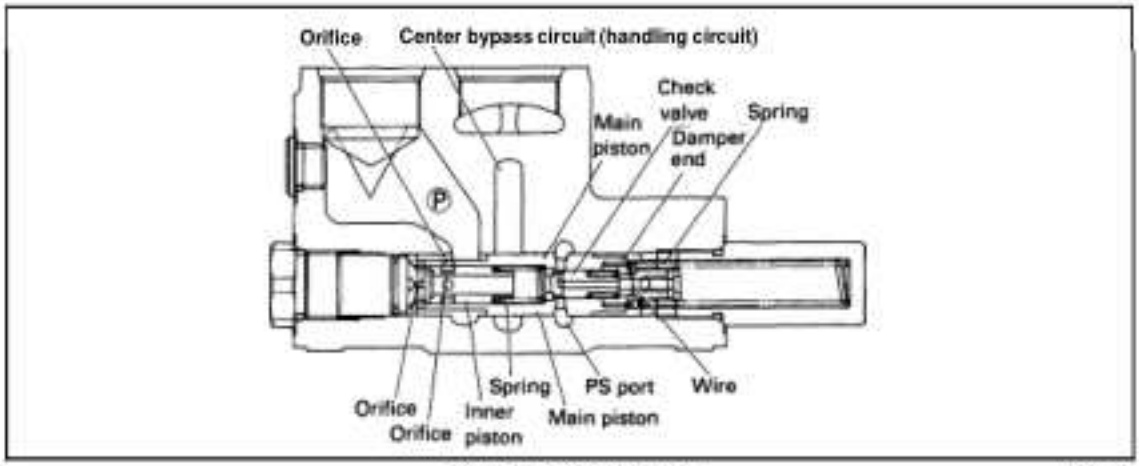
Bearing Thickness Dimension C Measurement LAQ12-17



Reassembling the Turbine Runner and Spacer LAQ13-27

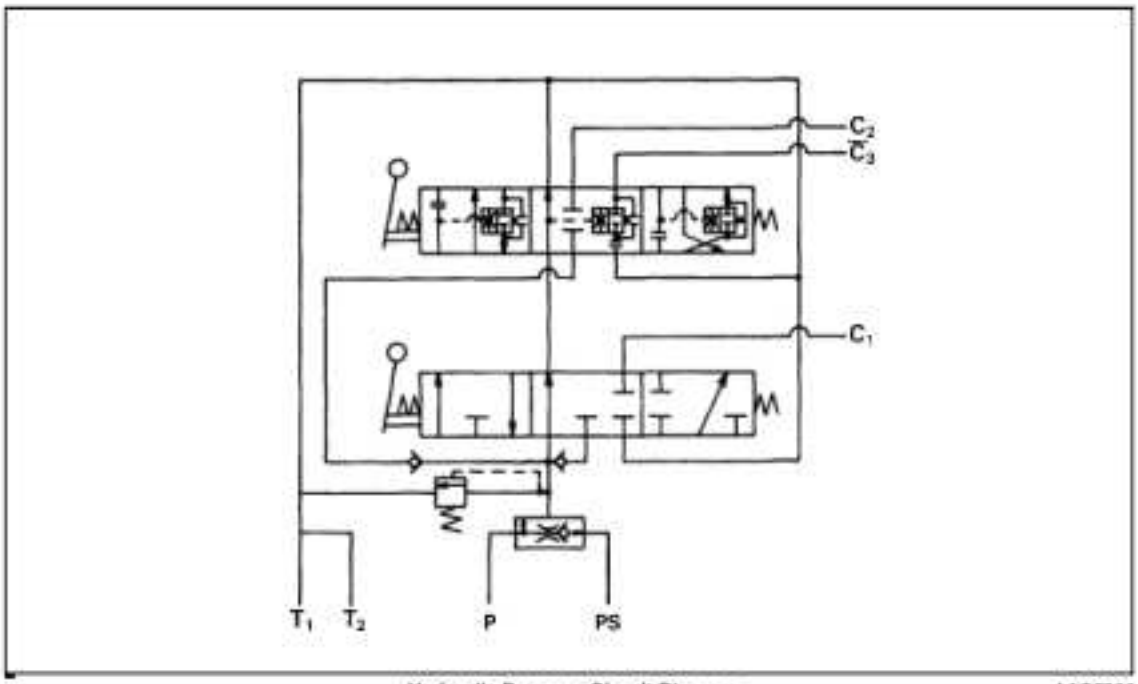
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Flow Divider



Flow Divider Sectional View LAQM30

HYDRAULIC PRESSURE CIRCUIT DIAGRAM



Hydraulic Pressure Circuit Diagram LAQS102

SPECIFICATIONS

Item \ Model		3.25 ~ 4.5 ton models
Type of oil control valve		Add-on type
Relief pressure kg/cm² (psi)	Lift	185 (2630)
	Tilt	185 (2630)
Flow of flow divider	Rlmin. (USgal/min.)	17 (4.5)

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