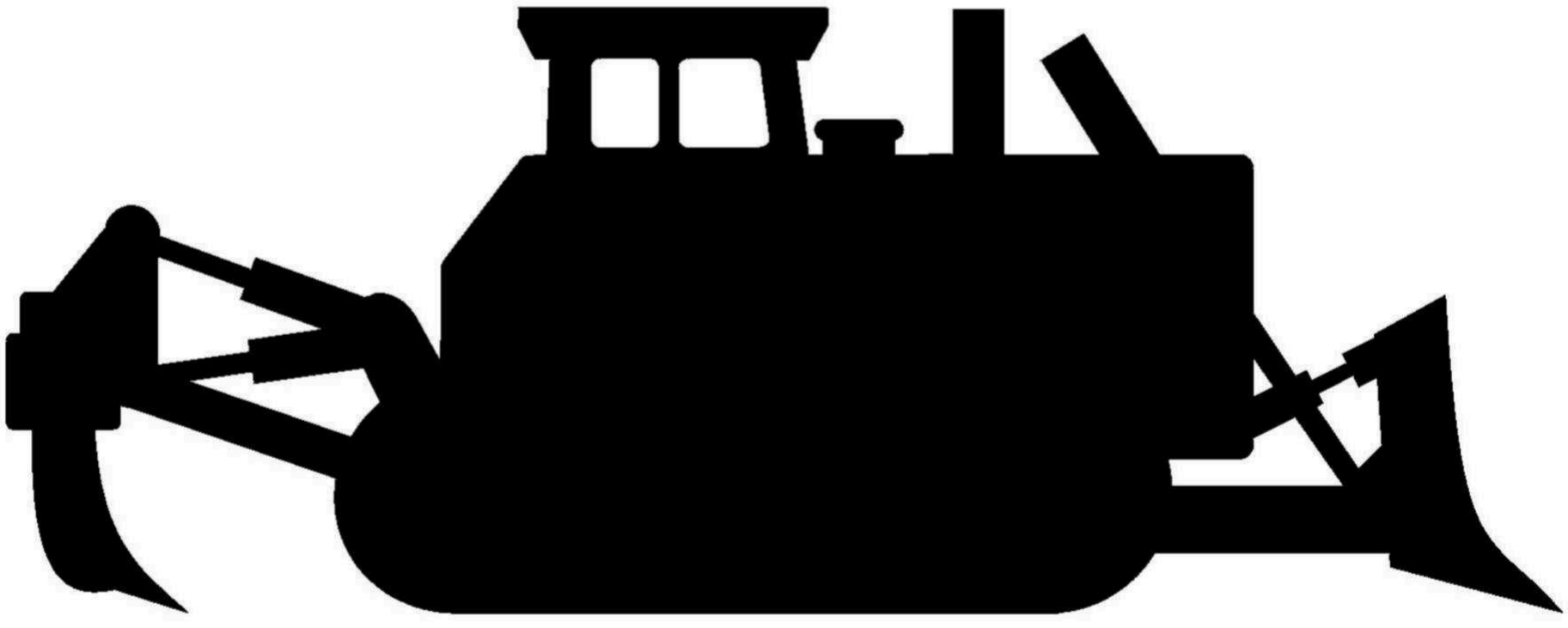
SMTD40C98/1E

SERVICE MANUAL

TD-40C

SERIAL NUMBERS
1501 AND UP



DRESSTA Co. Ltd.

A JOINT VENTURE OF KOMATSU AMERICA INTERNATIONAL CO. AND HUTA STALOWA WOLA S.A.

KOMATSU®

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ELECTRICAL

WIRING DIAGRAM

b. **Charging Circuit**
The charging circuit contains the alternator and the batteries. Once the engine is running, the alternator output is used to supply the power demands as well as recharge the batteries. An integral regulator is located in alternator itself. The integral regulator senses the entire system draw and compensates by increasing or decreasing the voltage output.

c. **Accessories Circuit**
This circuit supplies power to the lights, fuel solenoid valve, ether start, instruments and any accessory items on the machine. Automatic reset circuit breakers are used to protect them.

Legend for Fig. 3.1

I. Machine Instrument Panel
II. Cab Instrument Panel
III. Cab Electric System
1. Battery
2. Master Switch
3. Cranking Motor
4. Alternator
5. Magnetic Switch
6. Main Circuit Breaker
7. Horn
8. Front Machine Headlamps
9. Coolant Level Sensors
10. Coolant Level Relay
11. Air Filter Vacuum Warning Light Switch
12. Window Washer Pumps
13. Speed Clutch Oil Pressure Switch
14. Back-up Oil Alarm Pressure Switch
15. Fuel Electrovalve Switch
16. Neutral Safety Switch
17. A/C Electromagnetic Clutch
18. Coolant Temperature Sensor Warning Light Switch
19. Engine Oil Pressure Sensor
20. Ether Electrovalve
21. Fuel Electrovalve
22. Hourmeter Pressure Switch
23. Torque Converter Temperature Sensor
24. Front Mudguards Lamps
25. Alarm (Engine Oil Pressure Low or Coolant Level Low)
26. Warning Light Relay
27. Diodes Assembly
28. Indicators Assembly
29. Fuel Level Gauge
30. Machine Circuit Breakers
31. Hourmeter
32. Starting Button
33. Ether Start Switch
34. Cab Head Light Switch
35. Tractor Head Lights Switch
36. Pilot Valve Float Position Electromagnet
37. Steering Unit Speed Magnetic Sensor
38. Steering Unit Brake Electrovalve
39. Steering Unit Speed Electrovalve Switch
40. Back-up Alarm
41. Fuel Level Sensor
42. Transmission Oil Filters Warning Light Switch
43. Pilot Oil Filter Warning Light Switch
44. Hydraulic Oil Filters Warning Light Switch
45. Horn Push Button
46. Rear Head Lamps
47. A/C and Heater Switch
48. Front and Rear Wipers Switch
49. Door Wipers Switch
50. Cab Circuit Breakers
51. Air-Conditioner (A/C) Heater Unit
52. Cab Light
53. RH Door Wiper Motor
54. LH Door Wiper Motor
55. Front Wiper Motor
56. Rear Wiper Motor
57. Cab Rear Headlamps
58. Cab Front Headlamps

A. Hydraulic Oil Filters Warning Light
B. Engine Oil Pressure Low Warning Light
C. Main and Speed Clutches Oil Pressure Warning Light
D. Transmission Oil Filters Warning Light
E. Air Filter Vacuum Warning Light
F. Coolant Level Low Light
H. Coolant Temperature Gauge
J. Torque Converter Temperature Gauge
K. Engine Oil Pressure Gauge
L. Gauges Lamps
M. Voltmeter

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TRANSMISSION PUMP

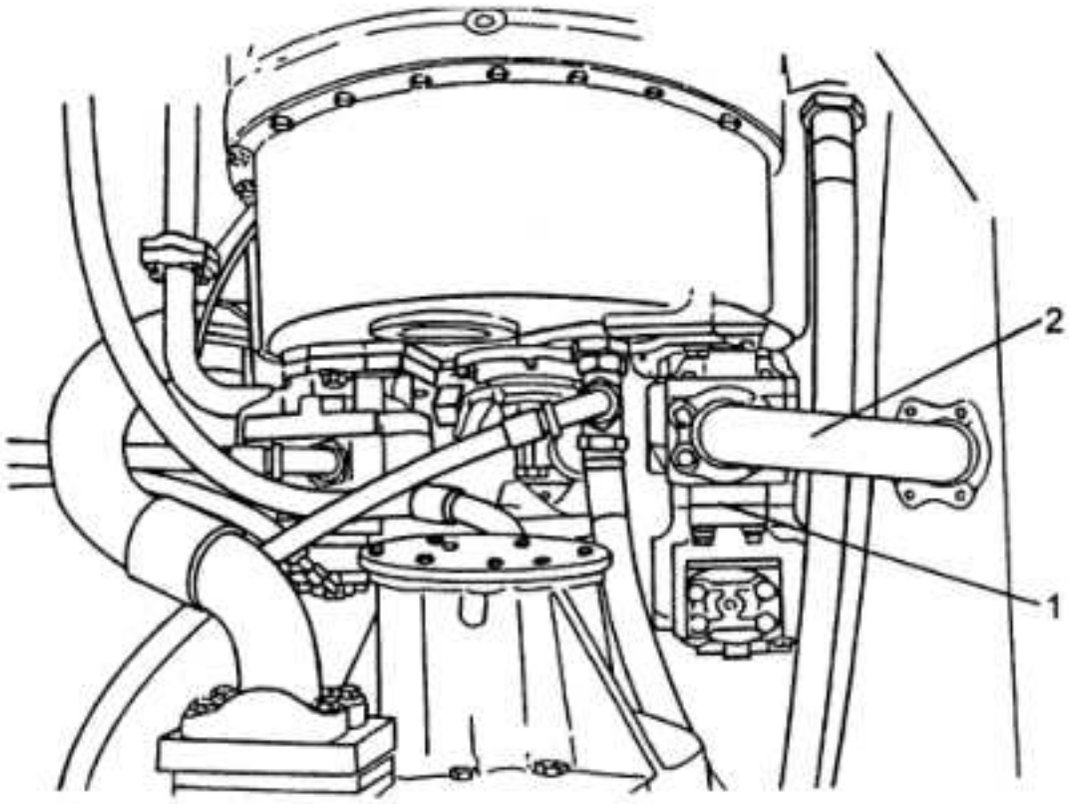


Fig. 6.80. View from under Machine on Transmission Pump

1. Transmission Pumps 2. „U" Tube

31. SERVICE

Troubleshooting, disassembly, service inspection and reassembly pumps procedures should be followed per instructions as described in Section 10A „PUMPS", with following exceptions:

Separate pumps by removing bolts from housing(11, Fig. 6.89) and adapter (23) Remove and discard shim, gasket, dowel and coupling and replace with new set. Adapter to cover/housing bolt torque to be 160 Nm. Effort to rotate shaft should not exceed 12 Nm torque. Rear pump to front pump bolts to be torqued to 115 Nm.

Legend for Fig. 6.81

1. Front Pump
2. Dust Seal
3. Shaft Seal
4. Adapter
5. O-ring
6. Roller Bearing
7. Back Up Ring
8. Seal
9. Seal Plate
10. Gear Set
11. Housing (Pin, Bolt, Washer)
12. Service Set Seal
13. Gasket
14. Shim
15. Coupling
16. Rear Pump
17. O-ring
18. Front Cover (Bolt, Spring Washer, Washer)
19. Housing (Pin, Bolt, Washer)
20. Gear Set
21. Seal Plate
22. Seal
23. Adapter (Bolt, Washer)
24. O-ring
25. Roller Bearing
26. Back Up Ring

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17. Install required number of shims (83), determined in step 16, in each of low range release spring pockets in retainer (70). Install sixteen low range clutch release springs (82). Install sixteen inner (66) and outer (67) brake apply springs. Be sure they are properly seated in brake piston (61). Place ten low range friction discs (73) and eleven separator plates (74) in retainer (70). Start with a separator plate and end with a separator plate. Install spring retainer cover (84) with low range piston (77). Install cover bolts and torque to 92 Nm.

18. Because of varying brake apply spring pocket dimensions shims (36 and 68) may be required between bottom of spring pocket in brake piston (61) and cover (84). To determine if shims (36 and 68) are required, proceed as follows:

    Measure the cover (84) thickness (D, Fig. 7.40). Take four measurements. Install four outer springs (67) 90° apart on brake piston and torque cover (84) by four bolts 90° apart to 92 Nm. With a depth mike measure depth from outside surface of spring retainer cover (84) through drilled cover to bottom of spring pocket (C, Fig. 7.40). Take four measurements at springs. Subtract averaged dimension's D from C to determine actual spring pocket dimension, see example 2. To determine shims (36 and 68) required subtract spring maximum length in use dimension 77,47 mm from actual spring pocket dimension, see example 2.

EXAMPLE 2

Averaged Dimension $C = \frac{C_1 + C_2 + C_3 + C_4}{4} = 91,44$ mm

Averaged Dimension $D = \frac{D_1 + D_2 + D_3 + D_4}{4} = 12,70$ mm

Actual Pocket Dimension $E = C - D = 91,44 - 12,70 = 78,74$ mm

Max. Spring Length in Use 77,47 mm

Thickness of Shims required $S = E - 77,47 = 78,74 - 77,47 = 1,27$ mm

Use two shims 0,51 mm each

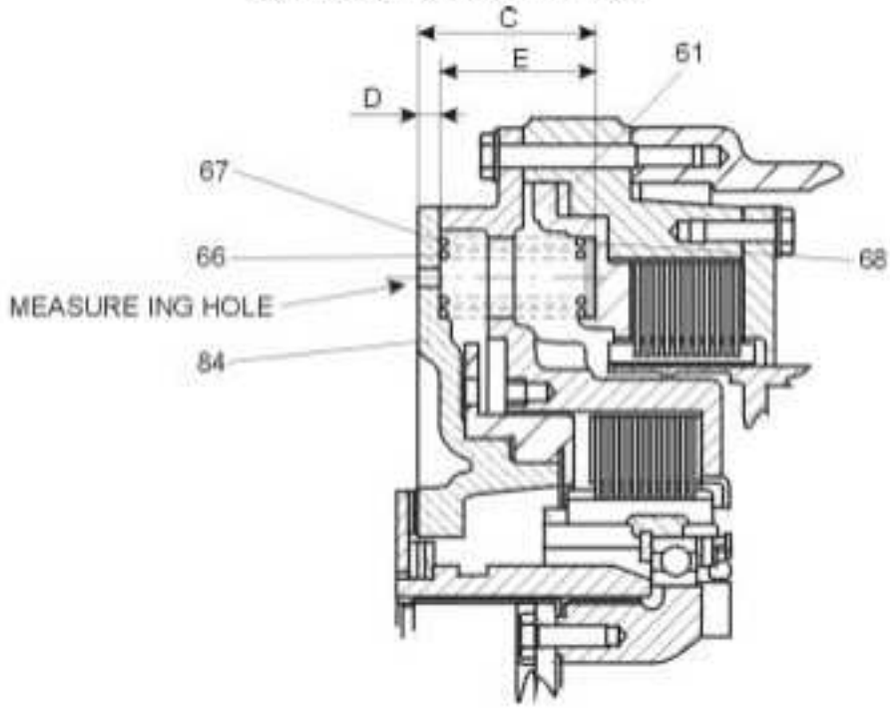


Fig. 7.40. Brake Springs and Shims

61. Brake Piston 66. Inner Spring 67. Outer Spring 68. Shims 84. Cover

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