

PARTS & SERVICE NEWS

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DATE	Aug. 18, 1998
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SUBJECT: CHANGE OF TRANSMISSION ON WA900-1

PURPOSE: To introduce the procedures to modify the transmission on WA900-1 wheel loaders to the WA900-3 type transmission.

APPLICATION: WA900-1 Wheel Loaders, Serial Nos. 10001 thru 10009

FAILURE CODE: 150099

DESCRIPTION:

1. Introduction

The transmission of the WA900-1 wheel loaders was modified to meet the increased maximum driving force occurring from the modification of the engine performance when the model change from WA900-1 to WA900-3 was effected.

Since making the same modification with the transmission on the current WA900-1 wheel loaders works to prolong the service life as well, this Service News introduces the procedures to modify the transmission accordingly.

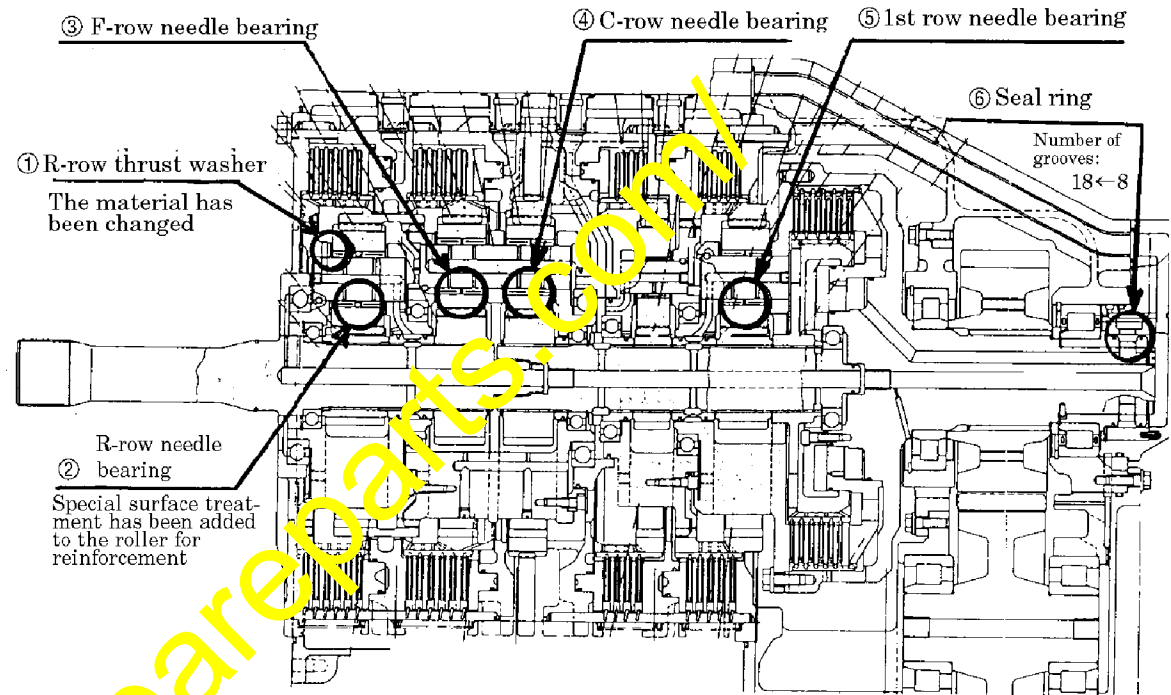
2. List of parts

Part No.	Part Name	Q't	Remarks
198-15-22571 (427-15-12560)	Thrust washer (Thrust washer)	8 (8)	} Interchangeability: New \leftrightarrow Current
427-15-19320 (582-15-19720)	Bearing (Bearing)	32 (32)	
427-15-19220 (07018-21104)	Seal ring (Seal ring)	2 (2)	
(07000-73040)	(O-ring)	(1)	} Consumable parts need to be replaced when changing the shim quantity for the modula- tion valve
(07000-73047)	(O-ring)	(1)	
(195-15-35920)	(Gasket)	(1)	
(560-13-14330)	(Shim)	(Std.) 5 sheets	Supplementing hydraulic pressure adjusting shims
<Reference> Applicable assemblies			
427-15-11003 (427-15-00013)	Transmission ass'y (Transmission ass'y)	1 (1)	} Interchangeability: New \leftrightarrow Current
427-15-01005 (427-15-01004)	Torqflow ass'y, T/C + T/M (Torqflow ass'y, T/C + T/M)	1 (1)	

3. Contents of the modification

Transmission

No.	Part names	"3" type transmission ← "1" type transmission		Remarks		
		Part No.	Q'ty		Part No.	Q'ty
①	Thrust washer	198-15-22571	8	427-15-12560	8	The material has been changed. Black synthetic resin ← Copper alloy
② ⑤	Bearing	427-15-19320	32	582-15-19720	32	Special surface treatment has been added to the roller. Distinguishable by cage color: Black ← Neutral (Metallic color)
⑥	Seal ring	427-15-19220	2	07018-21104	2	Number of grooves: 18 grooves on both surfaces ← 8 grooves

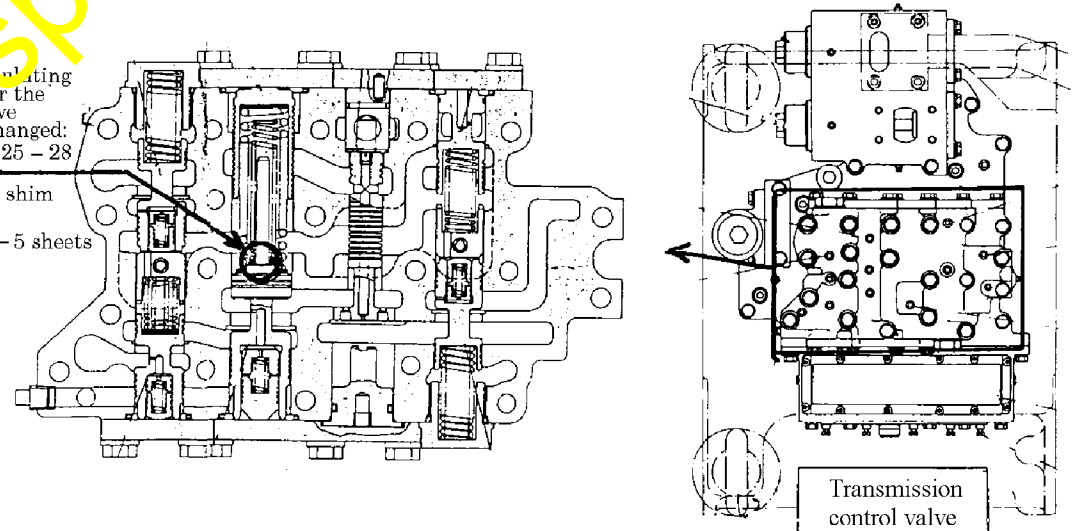


Control valve

No.		"3" type transmission ← "1" type transmission	Hydraulic pressure measuring conditions
	Modulating pressure	27 - 30 kg/cm ²	25 - 28 kg/cm ²
	Part number of the shims	560-43-14330	560-43-14330
⑦	Shim thickness per unit	0.5 mm	0.5 mm
	Standard shim quantity	10 sheets	5 sheets
			Engine at Idle-Idling revolution Speed shift stage: Neutral Oil temperature: 60 - 80 °C Hydraulic pressure adjusting range per a shim: 0.42 kg/cm ² .

⑦ The modulating pressure for the control valve has been changed:
27 - 30 ← 25 - 28

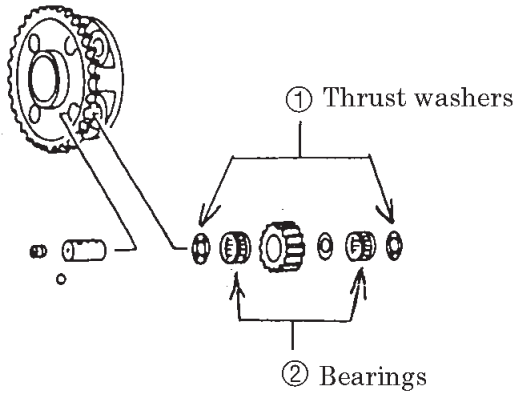
Standard shim quantity:
10 sheets ← 5 sheets



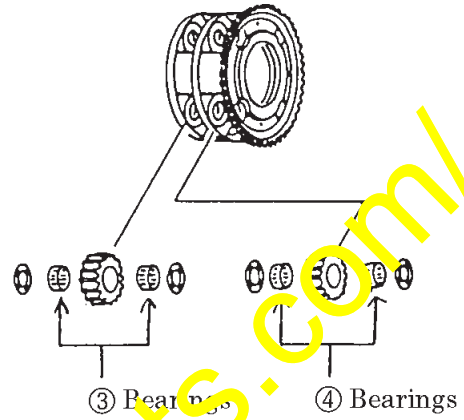
4. Modification procedures for reinforcement: ① – ⑥

Replace the parts ① – ⑥ with the improved parts referring to the Section "Disassembly and assembly" in the Shop Manual.

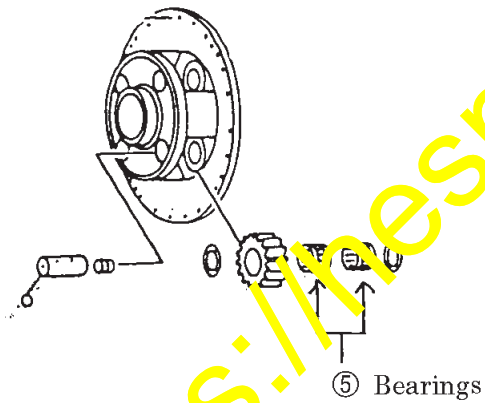
(a) R-row



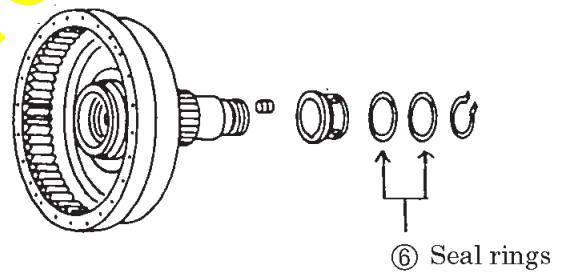
(b) F-row and C-row



(c) 1st row



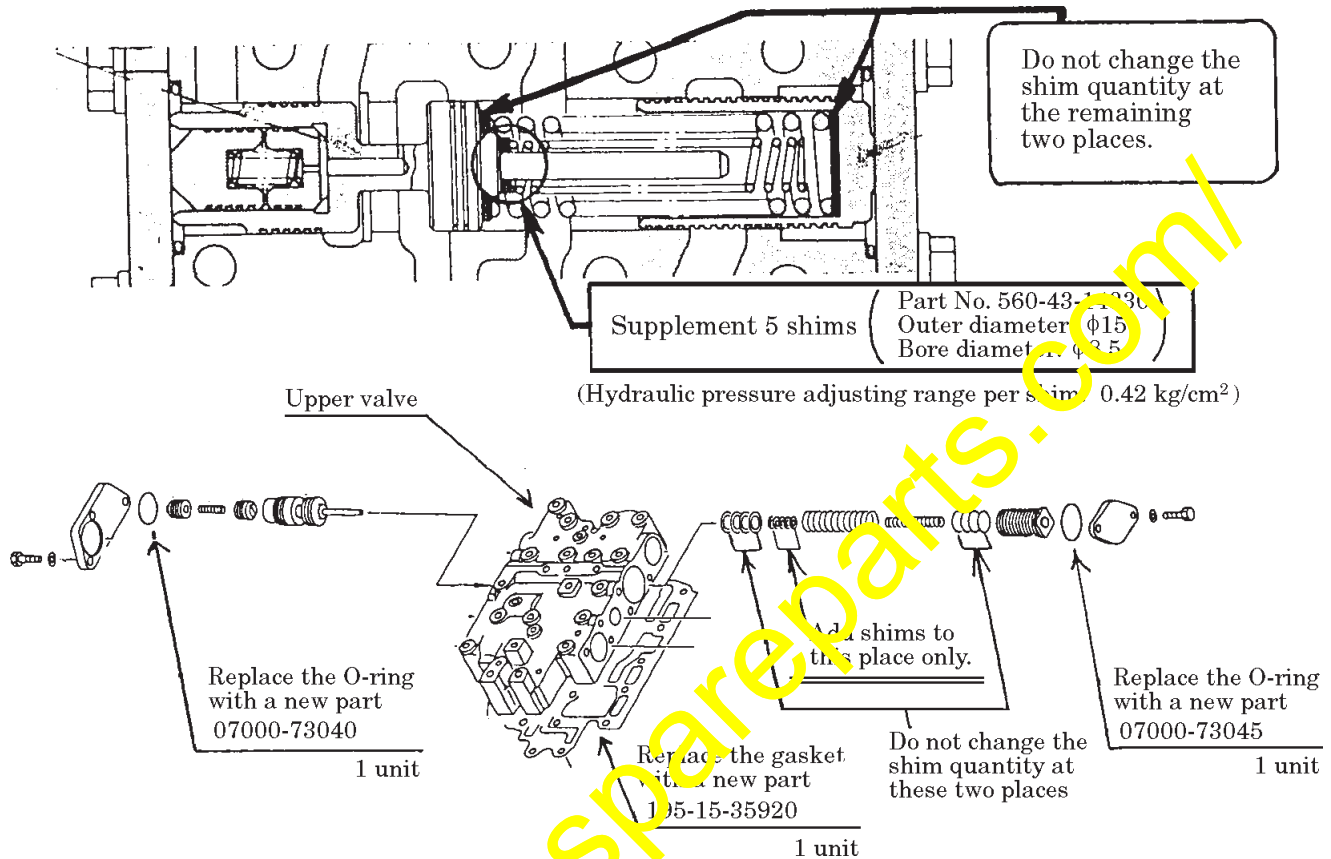
(d) Drum



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4. Modification procedures for reinforcement: ⑦

- (a) Remove the upper valve from the transmission and supplement shims to the modulation valve referring to the Section "Disassembly and assembly" in the Shop Manual.



(Note 1) Before starting disassembly, wash the area around the valve and, when removing the upper valve, pay great attention not to allow entry of dust or other foreign substances into inside the valve.

(Note 2) Replace the consumable parts such as the gasket and O-rings as are indicated above with new parts.

- (b) Check and confirm that the modulating pressure is within the hydraulic pressure range after the modification (27 – 30kg/cm²).

When the modulating pressure is found to be out of this range, re-adjust the shim quantity in the same manner as outlined above to bring the modulating pressure within the specification.