

PARTS & SERVICE NEWS

REF NO.	AA01003
DATE	January 3, 2001

SUBJECT: INTRODUCTION OF IMPROVED T/C AND PPC PUMPS

PURPOSE: To introduce improved torque converter and PPC pump assemblies with increased thermal resistance

APPLICATION: WA800-1 Wheel Loader Serial Number 10001 through 10737
 WA800-2 Wheel Loader Serial Number 10001 through 10737
 WA800-2L Wheel Loader Serial Number A20001 through A20027
 WA800-3 Wheel Loader Serial Number 50001 through 50005
 WA900-1 Wheel Loader Serial Number 10001 through 10009
 WA900-1L Wheel Loader Serial Number A20001 through A20021
 WA900-1L Wheel Loader Serial Number A20023 through A20024
 WA900-3 Wheel Loader Serial Number 50001 through 50006

FAILURE CODE: J11099

DESCRIPTION:

1. Introduction

This PARTS AND SERVICE NEWS will introduce improved torque converter and PPC pump assemblies with increased heat resistance for use on the above machines.

Heat resistance has been brought up to prevent occurrence of the phenomena in the sequence of :

"the seal of the PPC pump becomes defective by thermal hardening under the continuous influences of the hydraulic oil temperature during the operations lasting long periods of time"
 ..."the hydraulic oil enters and mixes with the transmission oil or the seal of the torque converter pump becomes defective by thermal hardening" ... "cavitation occurs" ... "breakage of the internal structures of the pump may occur."

When installing the improved pump, follow the procedures outlined in this PARTS AND SERVICE NEWS.

2. Contents

3. Contents of the modification.....Refer to pages 2 - 4.

4. List of necessary parts.....Refer to page 5.

NOTE: Be careful when ordering the parts since the required parts are different depending on the machine model.

5. Replacement procedures for the torque converter pump.....Refer to pages 6 - 9.

NOTE: Be careful when installing the new torque converter pump since required parts are different depending on the machine model.

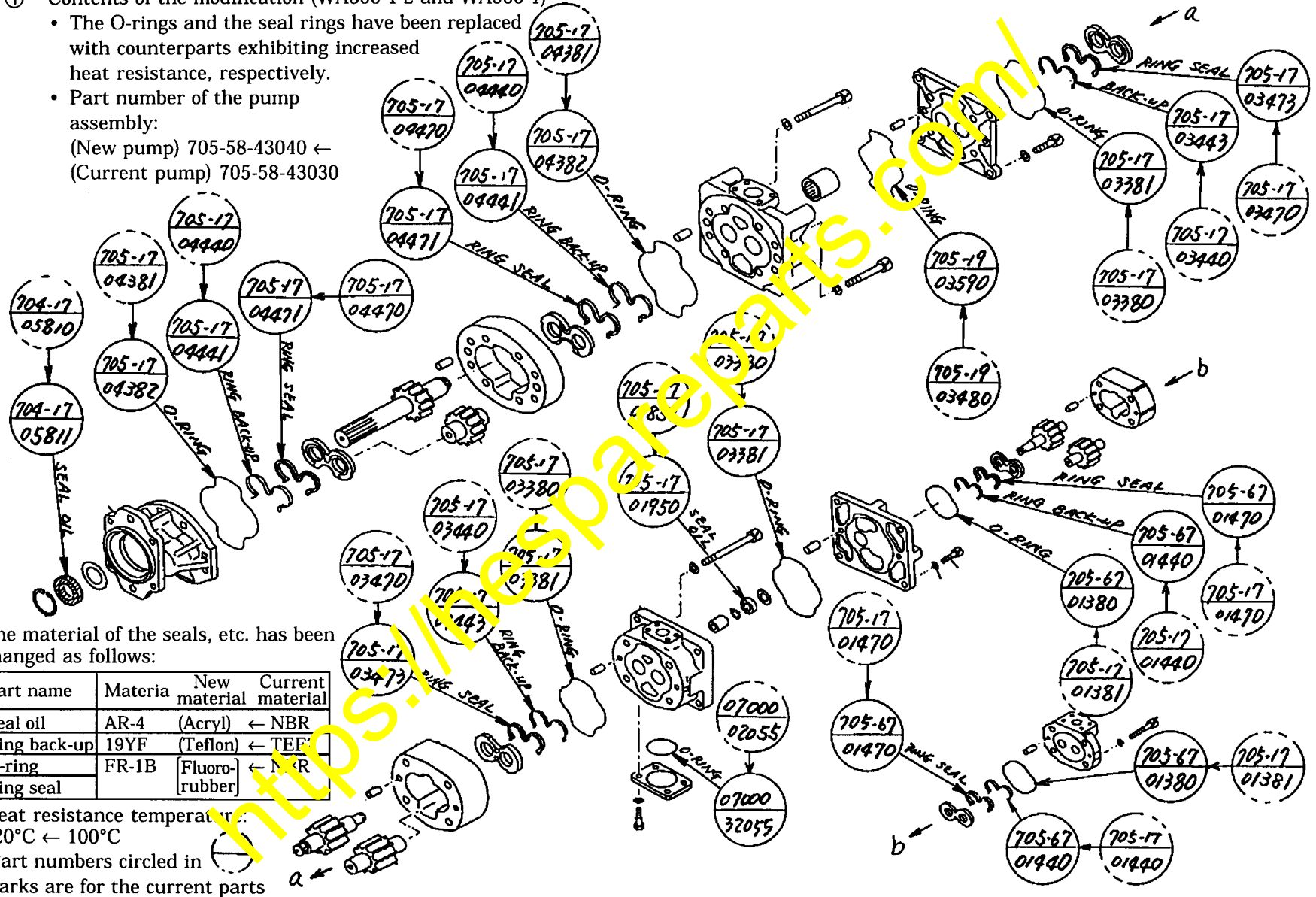
3. Contents of the modification

① Contents of the modification (WA800-1-2 and WA900-1)

- The O-rings and the seal rings have been replaced with counterparts exhibiting increased heat resistance, respectively.
- Part number of the pump assembly:

(New pump) 705-58-43040 ←

(Current pump) 705-58-43030



The material of the seals, etc. has been changed as follows:

Part name	Material	New material	Current material
Seal oil	AR-4	(Acryl)	← NBR
Ring back-up	19YF	(Teflon)	← TEF
O-ring	FR-1B	Fluoro-	← NBR
Ring seal		rubber	

Heat resistance temperature:
120°C ← 100°C

Part numbers circled in black marks are for the current parts

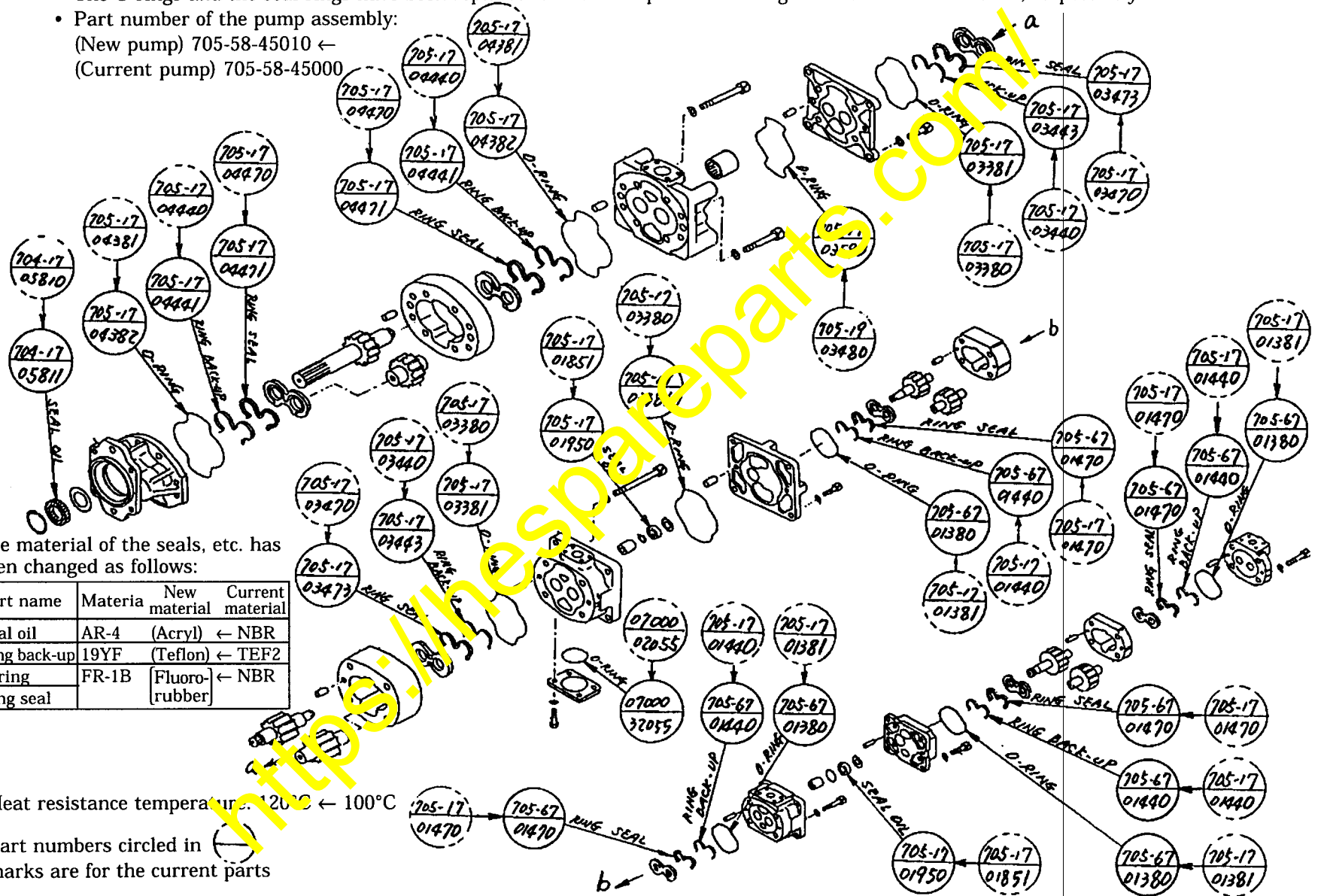
② Contents of the modification (WA800-3 and WA900-3)

• The O-rings and the seal rings have been replaced with counterparts exhibiting increased heat resistance, respectively.

• Part number of the pump assembly:

(New pump) 705-58-45010 ←

(Current pump) 705-58-45000



The material of the seals, etc. has been changed as follows:

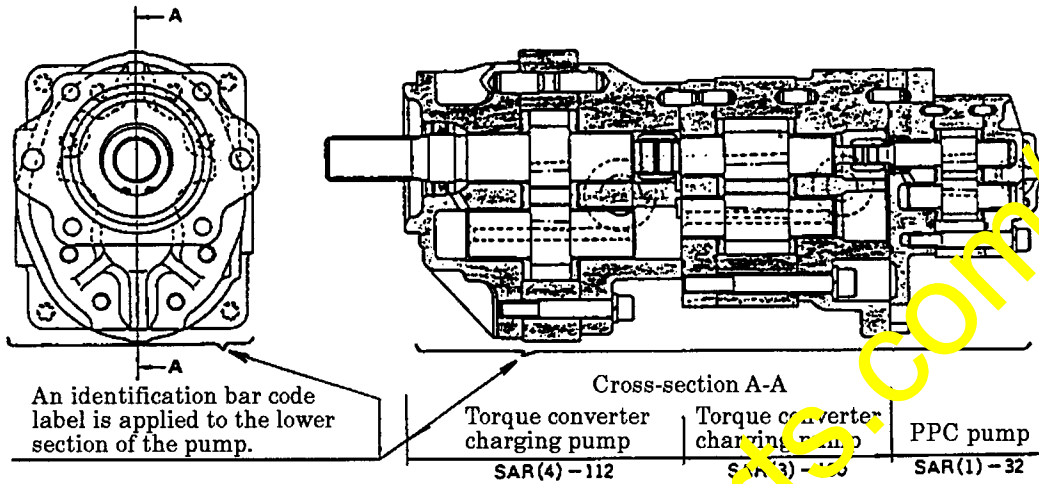
Part name	Material	New material	Current material
Seal oil	AR-4	(Acryl) ←	NBR
Ring back-up	19YF	(Teflon) ←	TEF2
O-ring	FR-1B	(Fluoro-rubber) ←	NBR
Ring seal			

Heat resistance temperature: 120°C ← 100°C

Part numbers circled in marks are for the current parts

③ Identification method

Read the bar code label being applied to the lower section of the pump to find out the "part number" and the "heat-resistant spec. code".



Identification bar code



Part number

A: Code for the heat resistant spec.

[705-58-43040: for the WA800-1,
WA800-2 and WA900-1
705-58-45110 for the WA800-3
and WA900-3]

Item	Part Number	Description	Qty	Remarks
1	705-58-43040	T/C Pump	1	For the WA800-1, WA800-2, WA800-2L, WA900-1, and WA900-1L Wheel Loaders
2	705-58-43030	T/C Pump	1	
3	07000-F2130	O-ring	1	
4	07000-F2070	O-ring	1	
5	07000-F2055	O-ring	1	
6	07000-F3035	O-ring	1	
7	07000-F3048	O-ring	1	
8	07000-F3030	O-ring	1	
9	07000-F3032	O-ring	1	
10	705-58-45010	T/C Pump	1	For the WA800-3 and WA900-3 Wheel Loaders
11	705-58-45000	T/C Pump	1	
12	07000-F2130	O-ring	1	
13	07000-F2070	O-ring	1	
14	07000-F2055	O-ring	1	
15	07000-F3035	O-ring	1	
16	07000-F3048	O-ring	2	
17	07000-F3030	O-ring	3	
18	07000-F3045	O-ring	1	

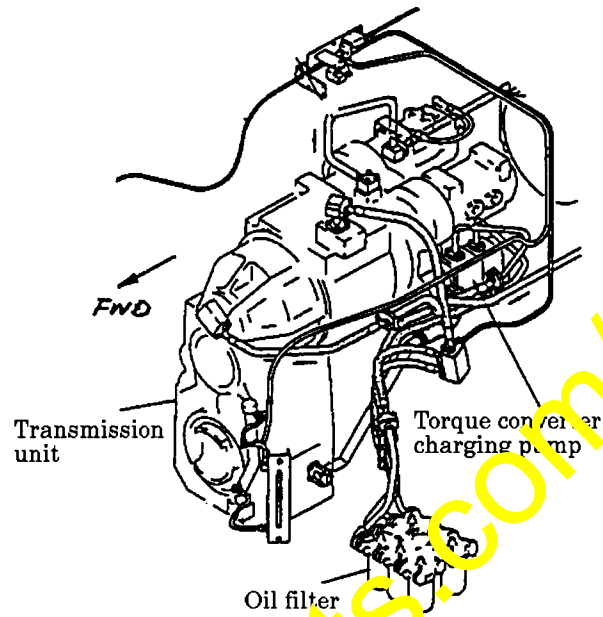
NOTE: Be careful when ordering the parts since required parts are different depending on the machine model.

5. Replacement procedures for the torque converter pump

- ① With the WA800-1, WA800-2 and WA900-1

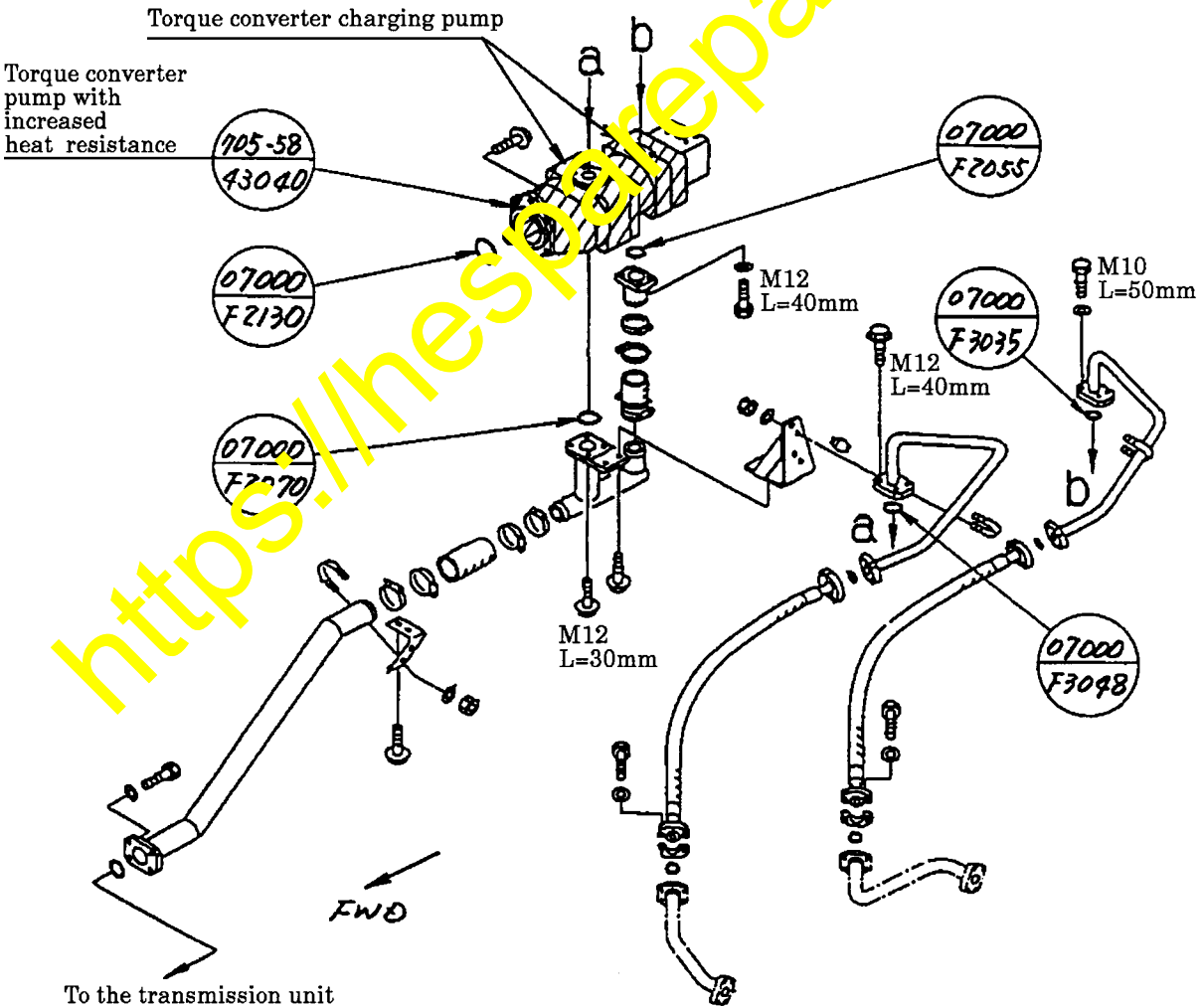
Replace the torque converter pump marked * in the schematic diagrams indicated below.

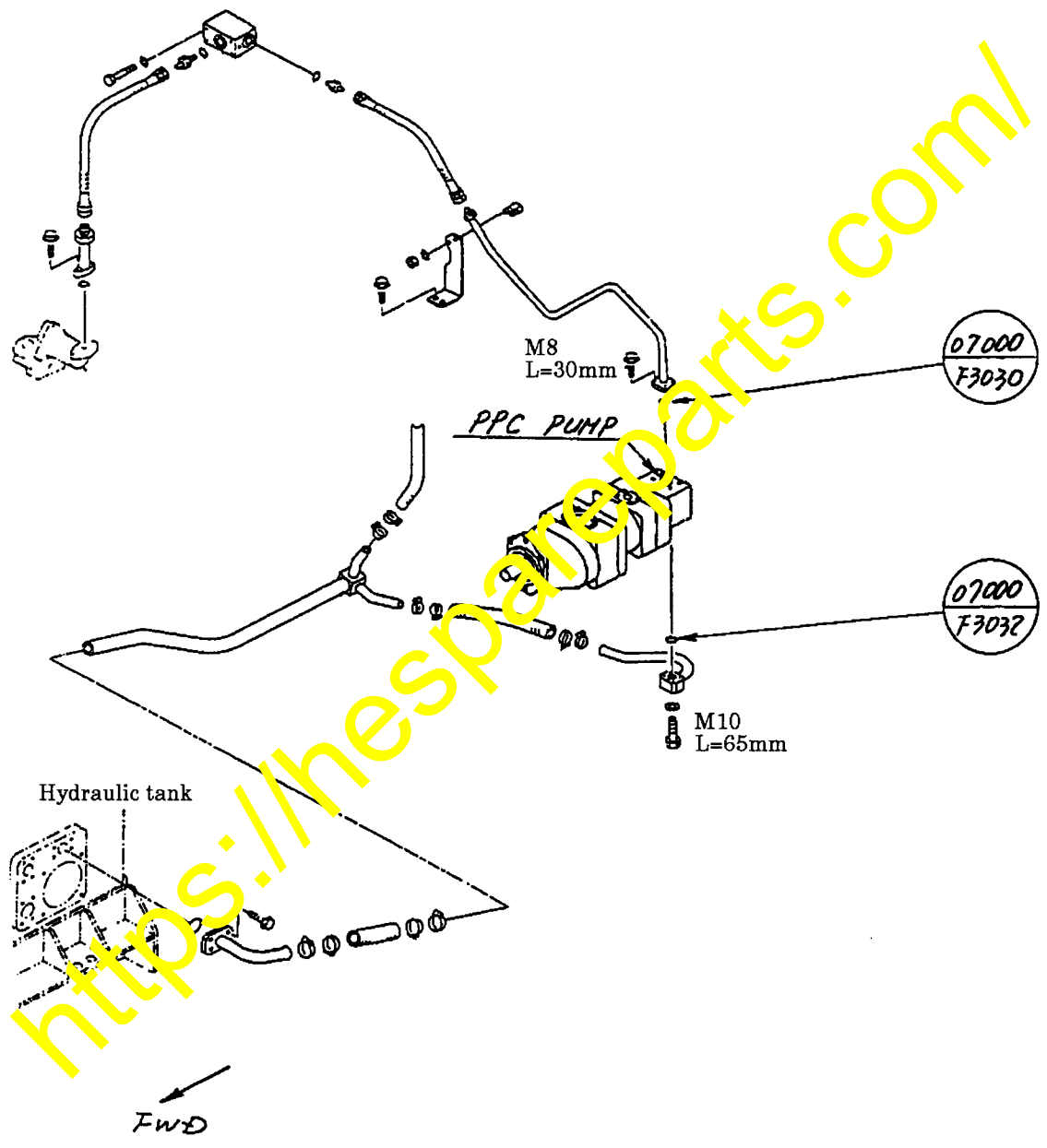
Reuse the piping parts and replace the O-rings with the new parts.



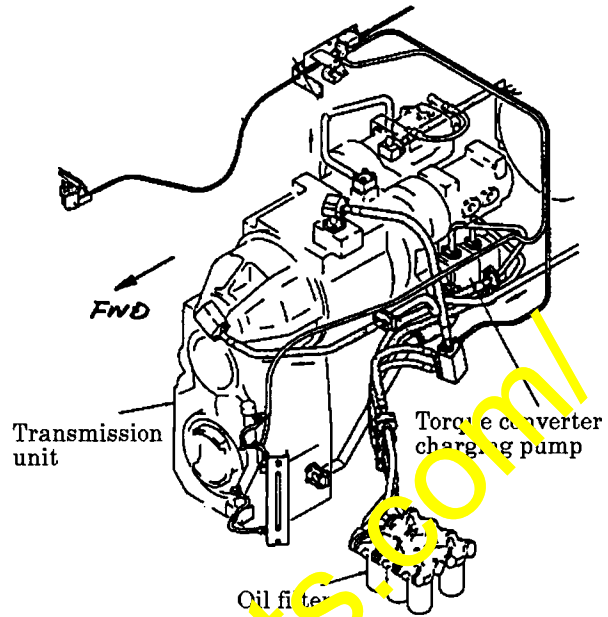
Bolt tightening torque ranges: Nm (kgm)

Bolt sizes	Tightening torque ranges
M8	27 - 34 (2.8 - 3.5)
M10	59 - 74 (6.0 - 7.5)
M12	98 - 123 (10.0 - 12.5)





- ② With the WA800-3 and WA900-3
 Replace the torque converter pump marked * in the schematic diagrams indicated below.
 Reuse the piping parts and replace the O-rings with the prepared new parts.



Bolt tightening torque ranges: Nm (kgm)

Bolt sizes	Tightening torque ranges
M8	27 - 34 (2.8 - 3.5)
M10	59 - 74 (6.0 - 7.5)
M12	98 - 123 (10.0 - 12.5)

