

INSTALLATION MANUAL

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SUBJECT: INSTALLATION OF HYDRAULIC OIL COOLER ON WA320

PURPOSE: To introduce a hydraulic oil cooler newly prepared as an optional attachment for preventing the abnormal rise of the hydraulic oil temperature in the work equipment operation.

APPLICATION: WA320-1 Wheel Loaders, Serial Nos. 20001 and up, *S/N A25001 & UP*
(except machines with EC noise suppression)

DESCRIPTION:

1. Introduction:

In the work equipment operation, if the oil is relieved frequently, the oil temperature will rise, causing a possibility of increasing the operating force of the work equipment control valve. To prevent such abnormal rise of the hydraulic oil temperature, the new hydraulic oil cooler should be installed on a machine as introduced herein.

2. Parts to be prepared for installing a hydraulic oil cooler ass'y

No.	Part No.	Part Name	Qty per machine	Remarks
1	419-U45-1110	Oil cooler ass'y	1	
2	01010-51020	Bolt	4	
3	01643-31032	Washer	4	
4	07002-12434	O-ring	2	
5	07235-10628	Elbow	2	
6	07102-20627	Hose	1	from the oil cooler outlet to the hydraulic tank
7	07102-20633	Hose	1	from the orbit roll to the oil cooler inlet
8	08034-20534	Band	8	
9	419-U45-1220	Protector	2	
10	08034-20519	Band	4	
11	419-U45-1210	Sheet	2	
12	6136-61-1701	Water pump ass'y	1	
13	6136-61-1811	Gasket	1	
14	01571-01016	Seat	4	for reworking the radiator
15	419-U45-1230	Seat	2	for reworking the hood

3. Reworking procedure

3-(1) Radiator

Weld seats (01571-01016) to the radiator (419-03-11104) at 4 places as shown in Fig. 1 below.

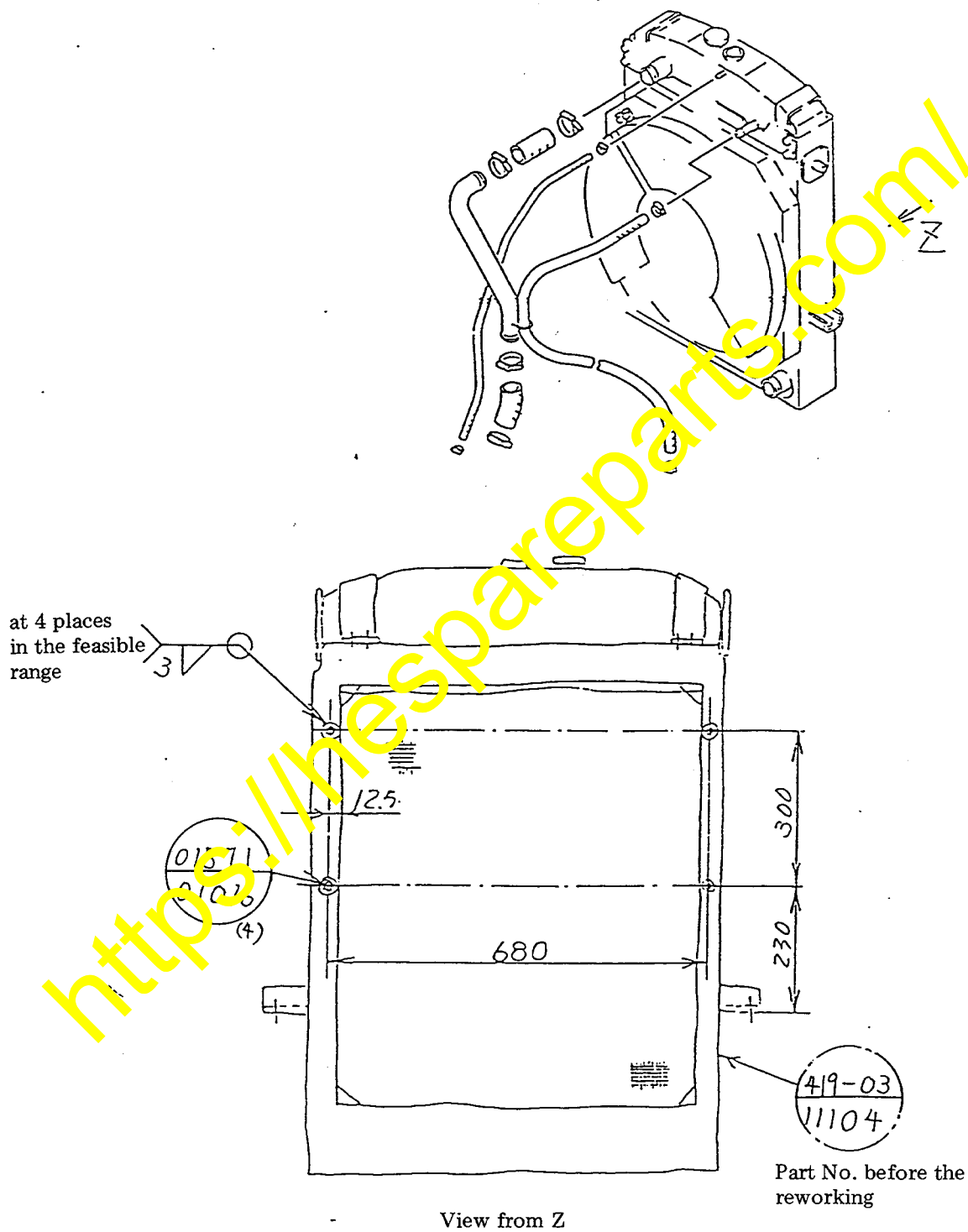



Fig. 1

3-(2) Hood

Dismount the hood from the machine, remove seats (40 mm thick) marked  as shown in Fig. 2 below and weld new seats (419-U45-1230, 25 mm thick) in the same positions.

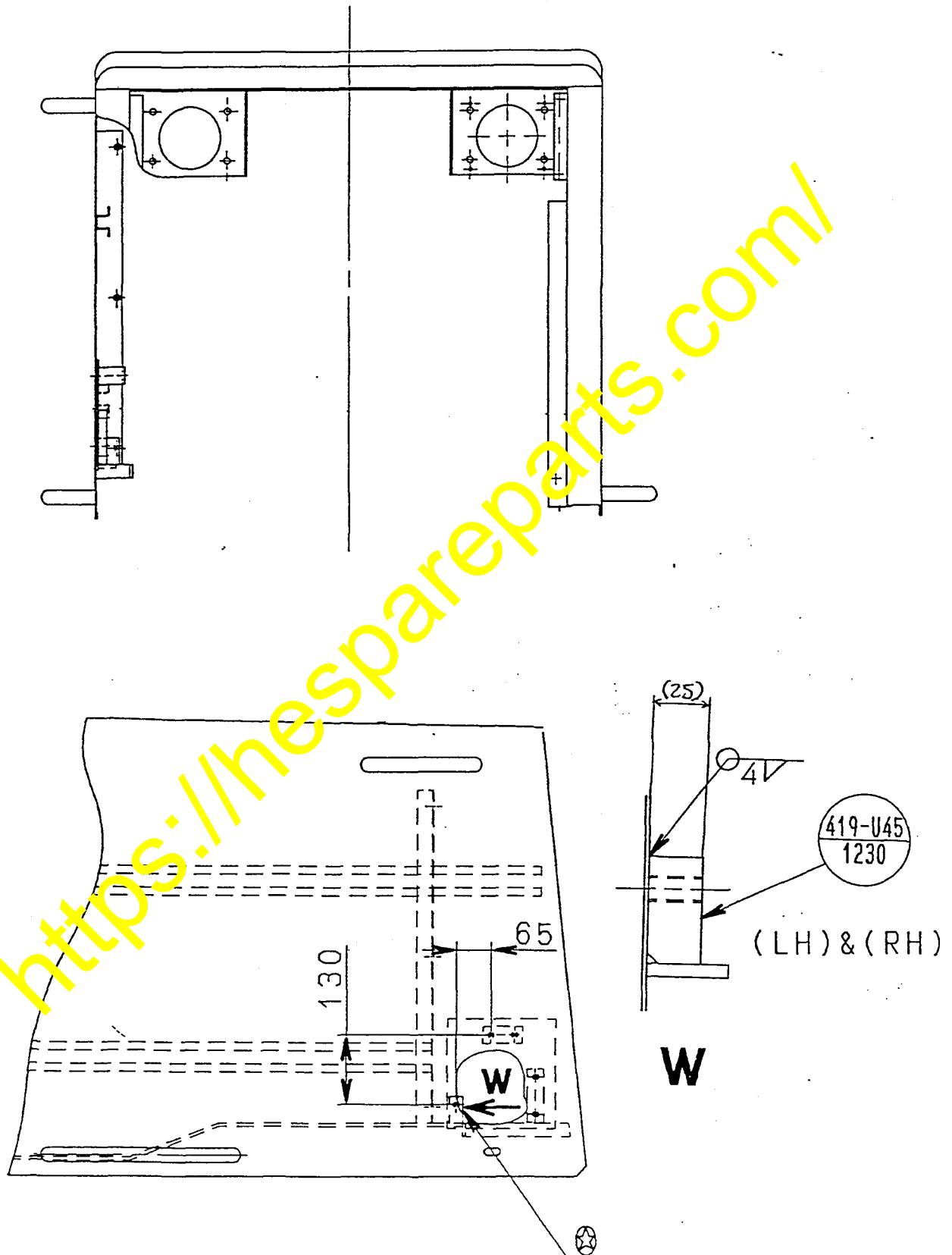


Fig. 2

3-(3) Hinge bracket (L.H.)

Remove the L.H. and R.H. brackets securing the hood hinges and perform the reworking as shown below.

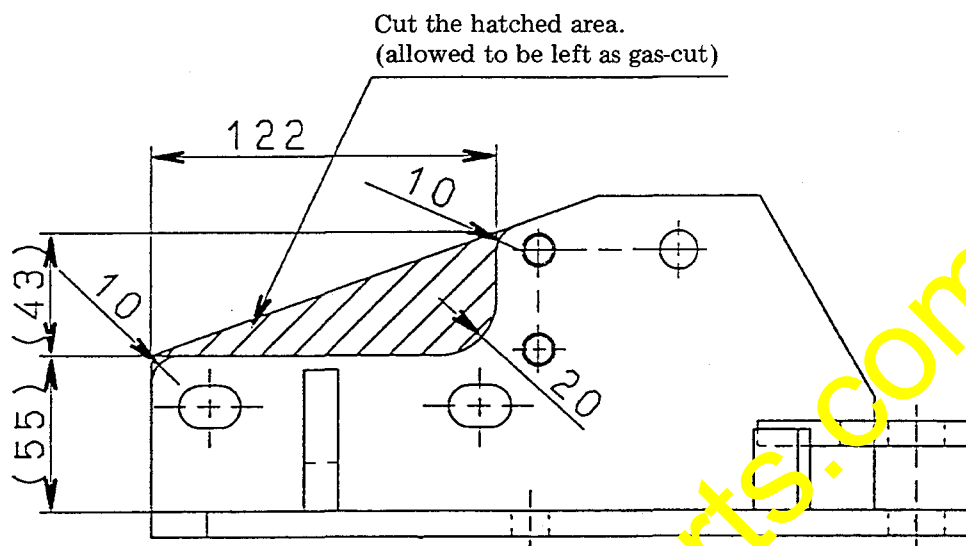


Fig. 3

3-(4) Hinge bracket (R.H.)

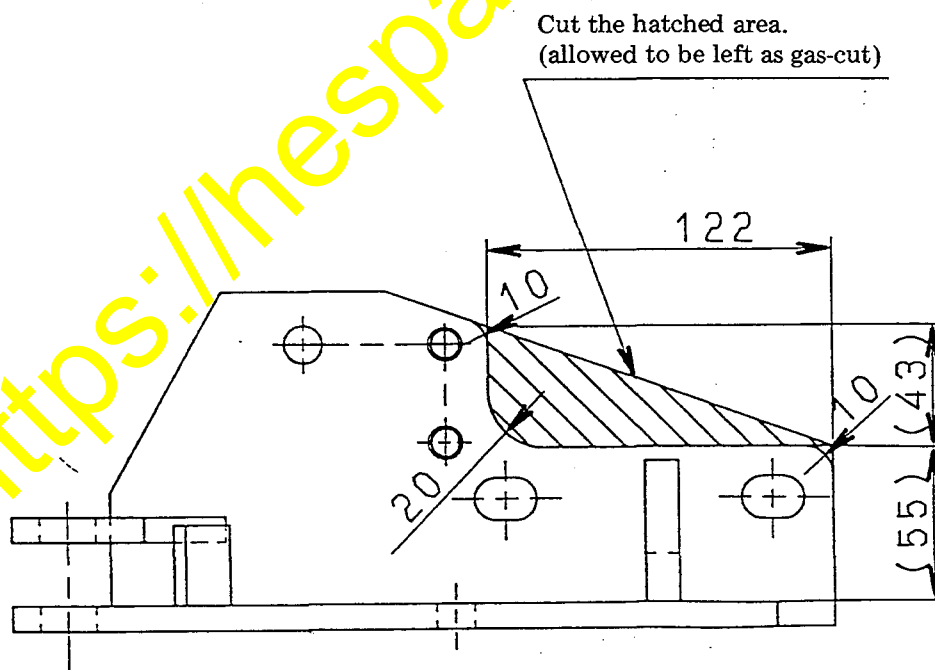


Fig. 4

3-(5) Sheet

Rework the rubber sheet (excluding the air surrounding the radiator) secured to the hood as shown in Fig. 5 below.

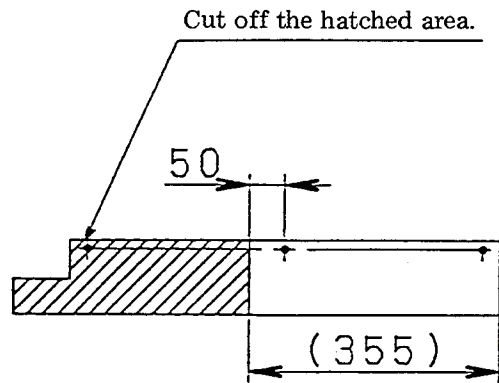


Fig. 5

3-(6) Sheet

Rework the rubber sheet (excluding the air surrounding the radiator) secured to the hood as shown in Fig. 6 below.

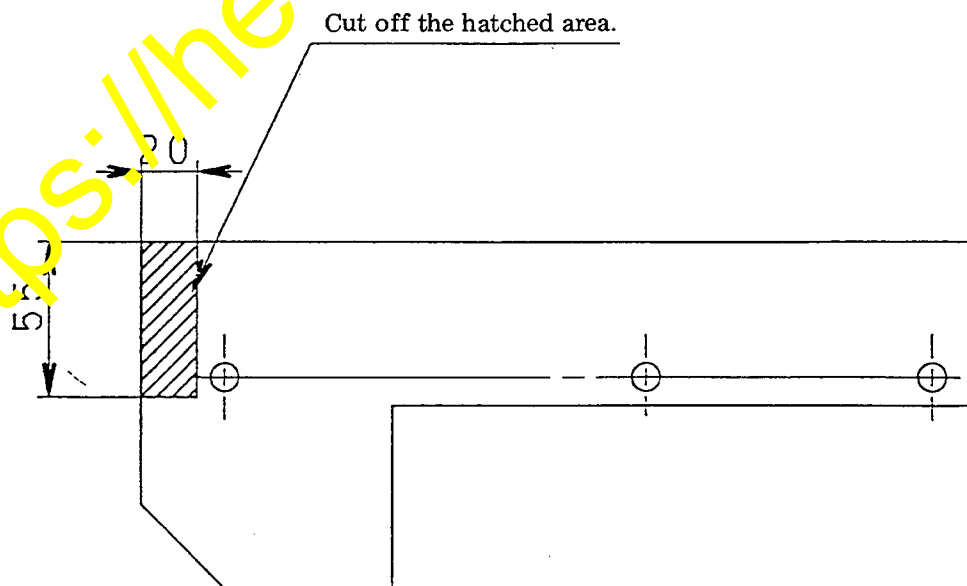


Fig. 6

3-(7) Plate

Rework the hatched area of the plate securing the rubber sheets in place as shown in Fig. 7 below.

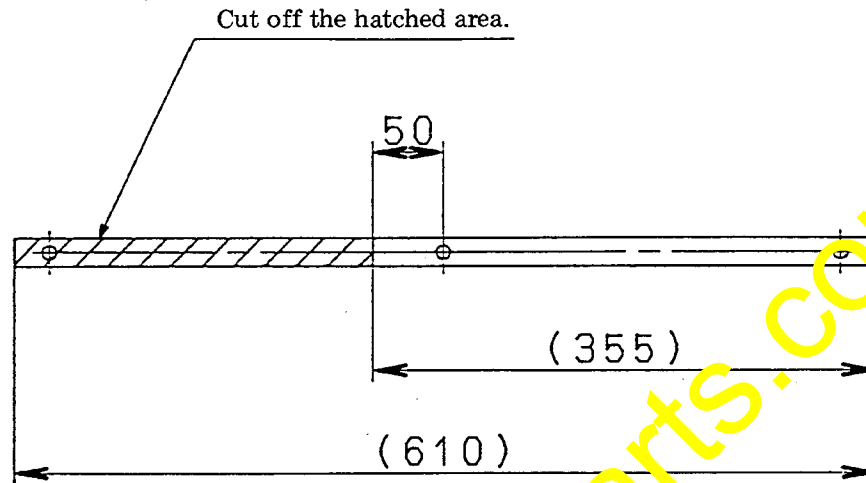


Fig. 7

4. Removal of a part

Remove the part (hose) showing its part nos. in Fig. 8 below.

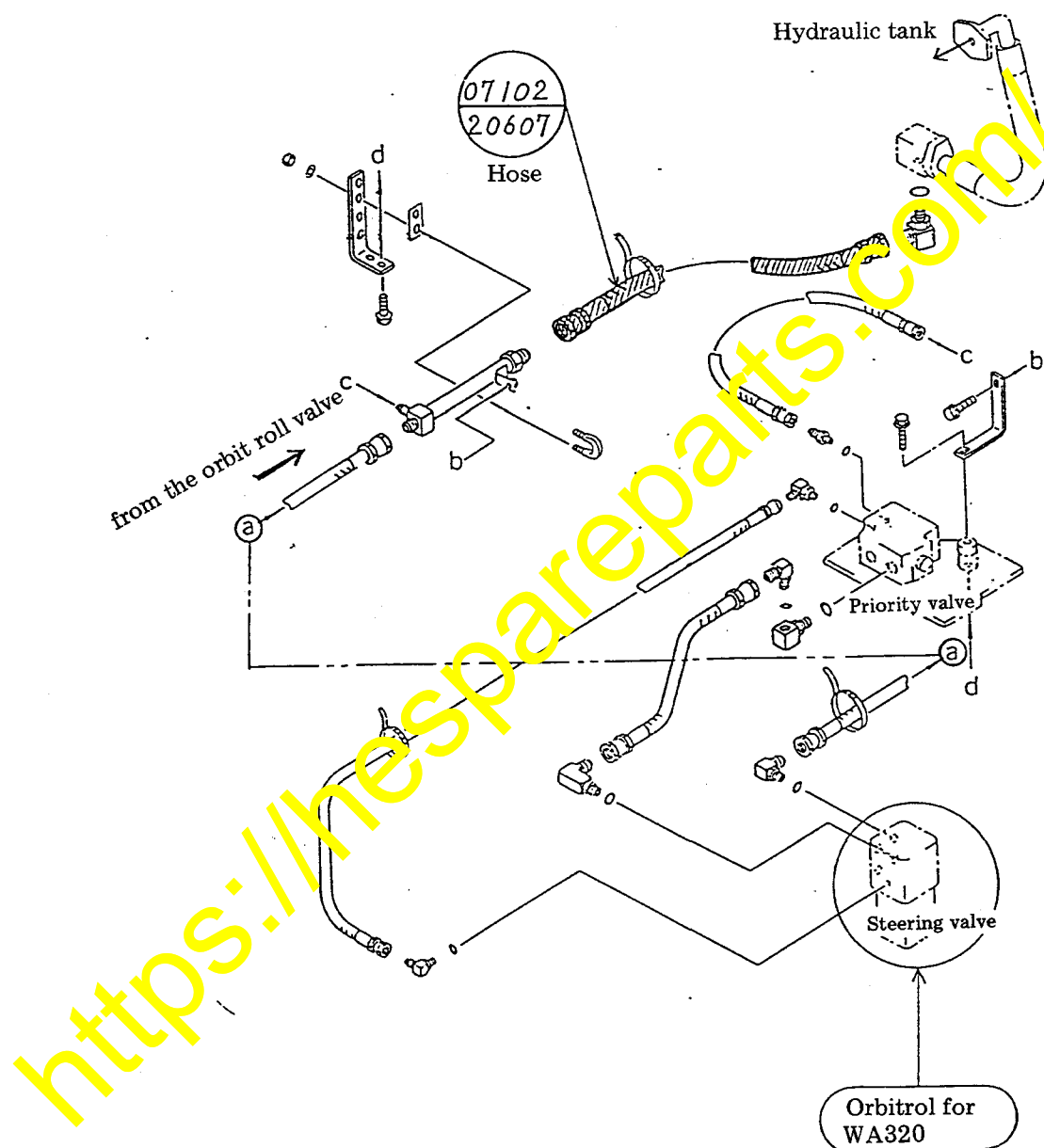


Fig. 8

5. Setting up the parts

5-(1) Hydraulic oil cooler's peripheral parts

Set up the parts showing their respective part nos. in Fig. 9 below.

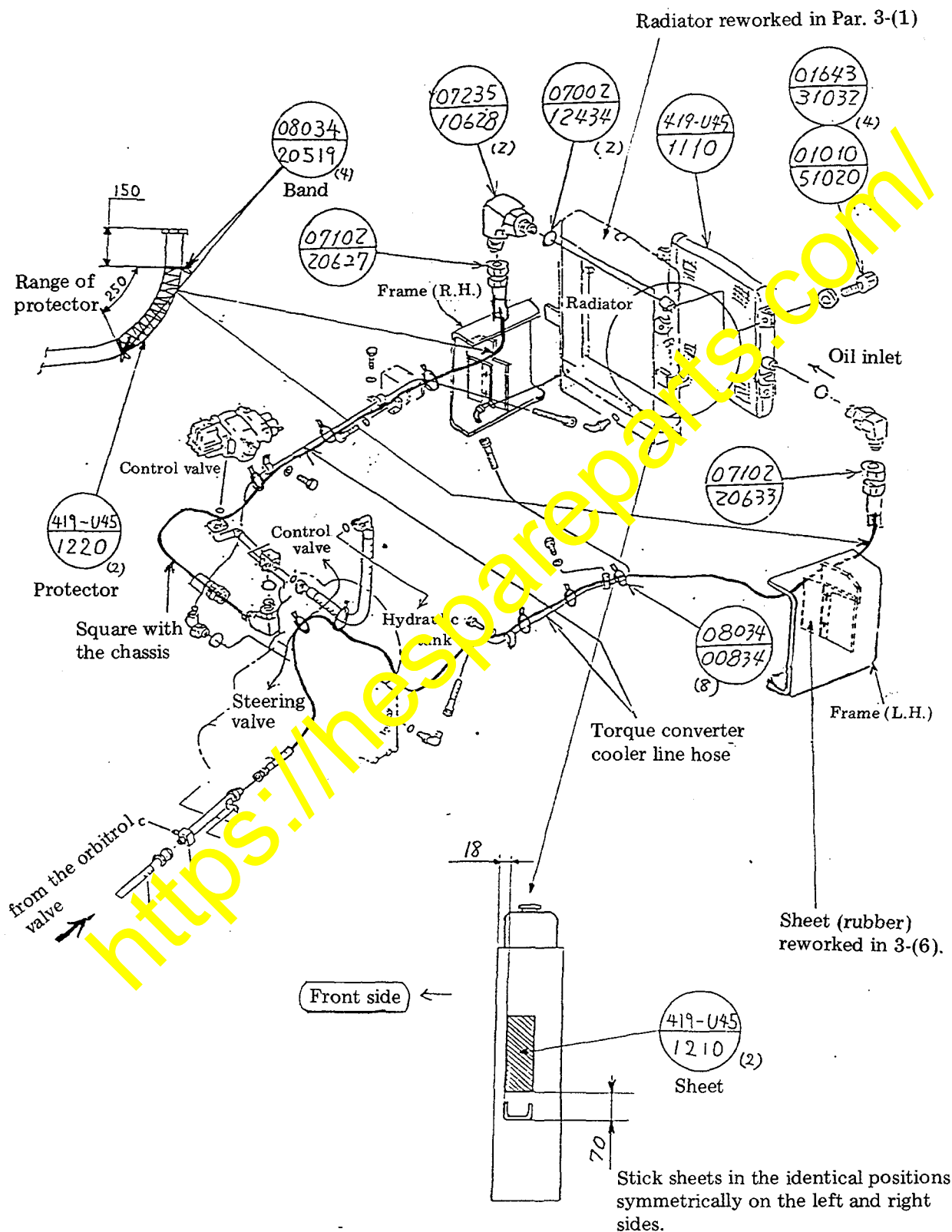


Fig. 9

5-(2) Replacing the fan pulley

Replace the fan pulley to increase the speed of revolution of the engine cooling fan.

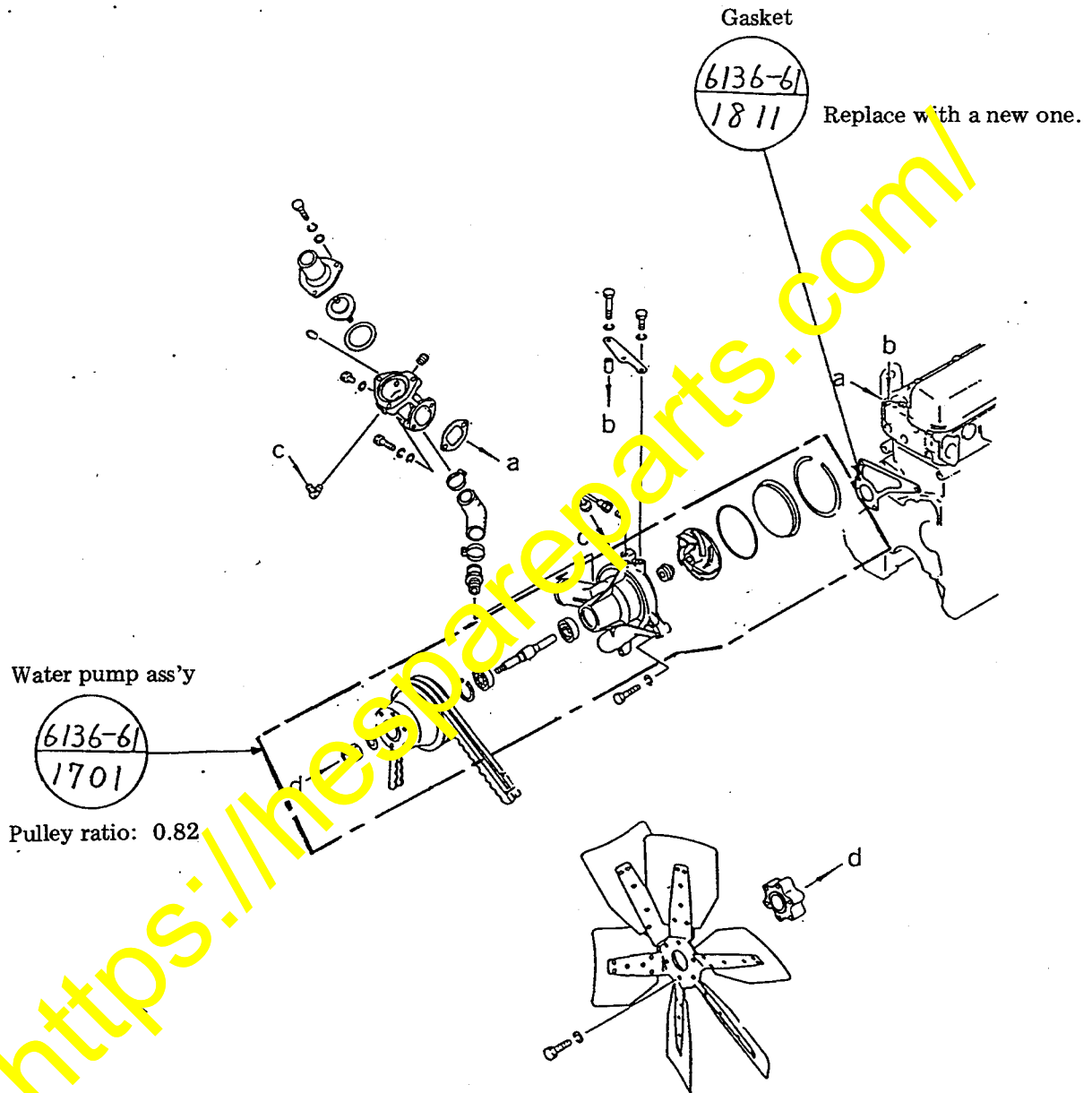


Fig. 10

5-(3) Engine hood and its peripheral parts
Set up the parts shown in Fig. 11 below.

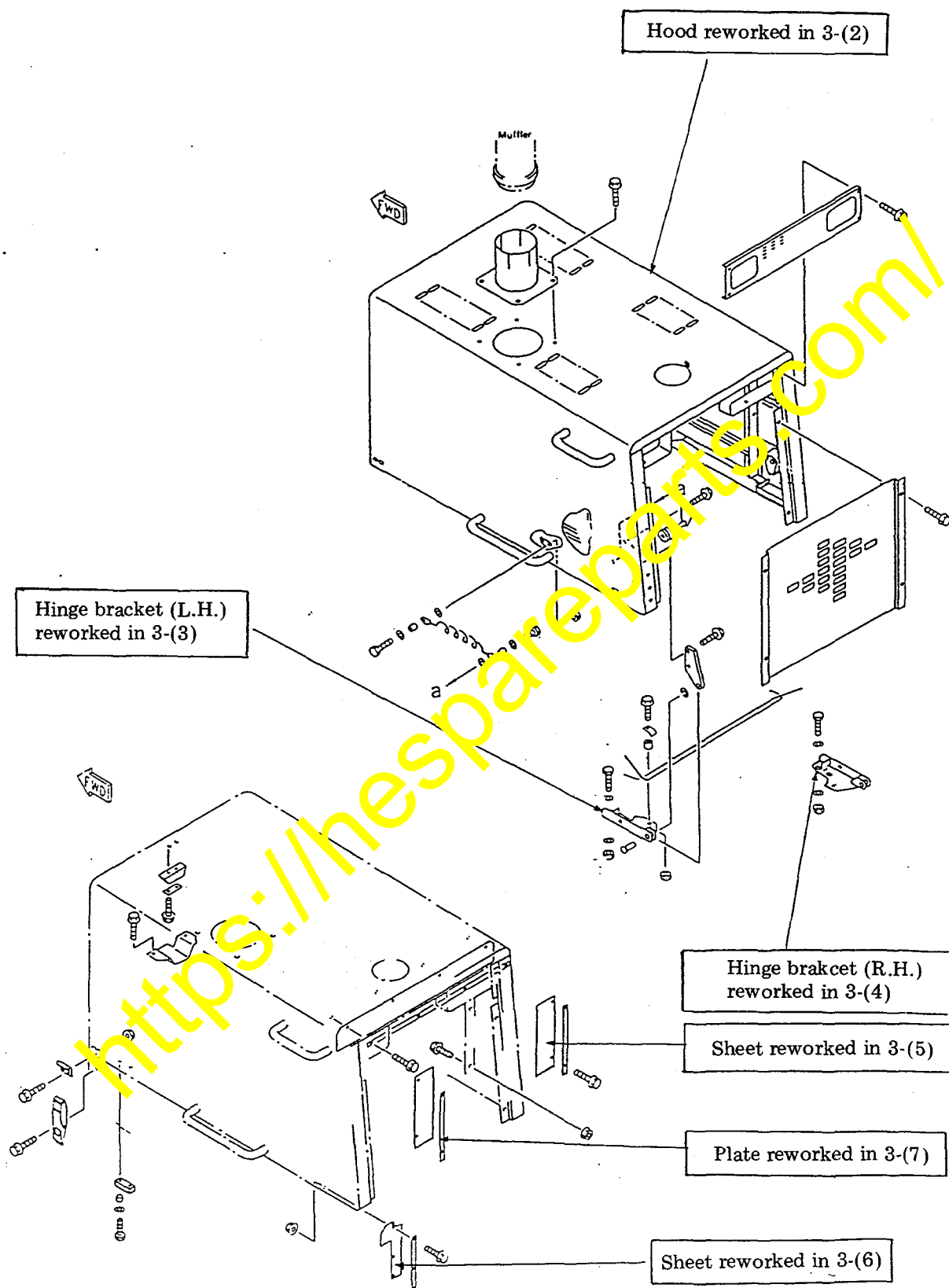


Fig. 11

6. Others

After completing the setting up of parts, carry out the following.

- 1) When the hydraulic oil and the engine cooling water have run short, add them to their respective specified levels.
- 2) After marking the engine run at low idling speed for 3 minutes, operate the work equipment at the medium engine speed to confirm that no oil leakage is encountered around the hydraulic oil cooler and the hose connections, etc.

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