

PARTS & SERVICE NEWS

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(C)

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SUBJECT: STRENGTHENED DRIVE SHAFT GUARD FOR HM300-1

PURPOSE: To introduce strengthened drive shaft guard for use on HM300-1 articulated dump trucks

APPLICATION: HM300-1 Articulated Dump Trucks, Serial Nos. 1001 thru 1147
HM300TN-1 Articulated Dump Trucks, Serial Nos. 1001 thru 1002

FAILURE CODE: 54B1Z9

DESCRIPTION:

1. Introduction

In order to avoid the damages of the parts around the drive shaft between the engine and the torque converter on the HM300-1 articulated dump trucks even if the shaft is broken, KOMATSU has improved the drive shaft guard to increase the strength and introduces the improved guard in this Service News.

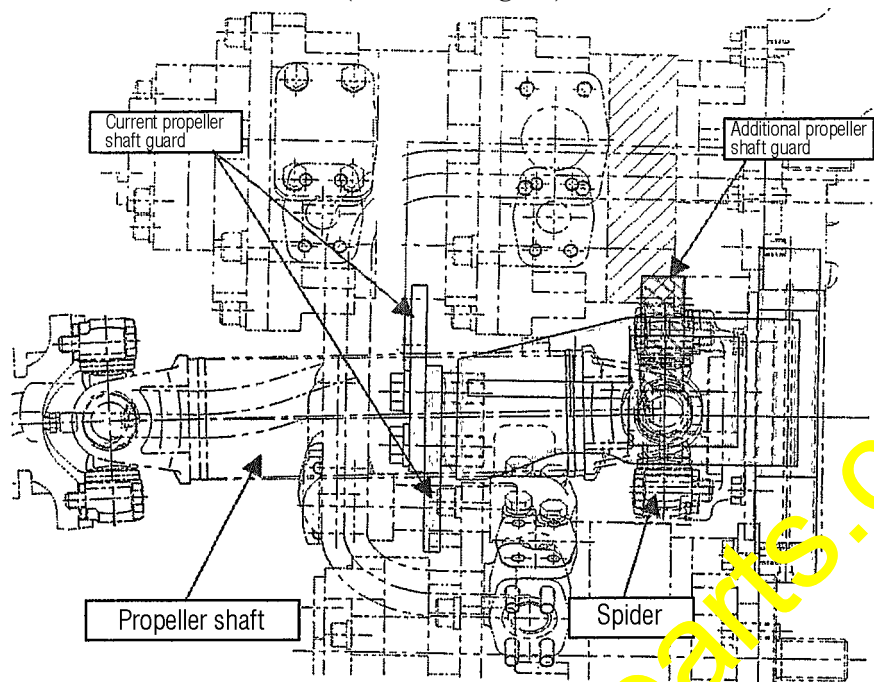
Furthermore, this Service News will also introduce another method to make this improvement by locally reworking the current parts.

2. List of parts

Part No.	Part Name	Q'ty	Remarks
56D-16-11192 (56D-16-11191)	Trunnion (Trunnion)	1 (1)	
56D-89-12111 (56D-89-12110)	Guard (Guard)	2 (2)	

3. Details of the modification

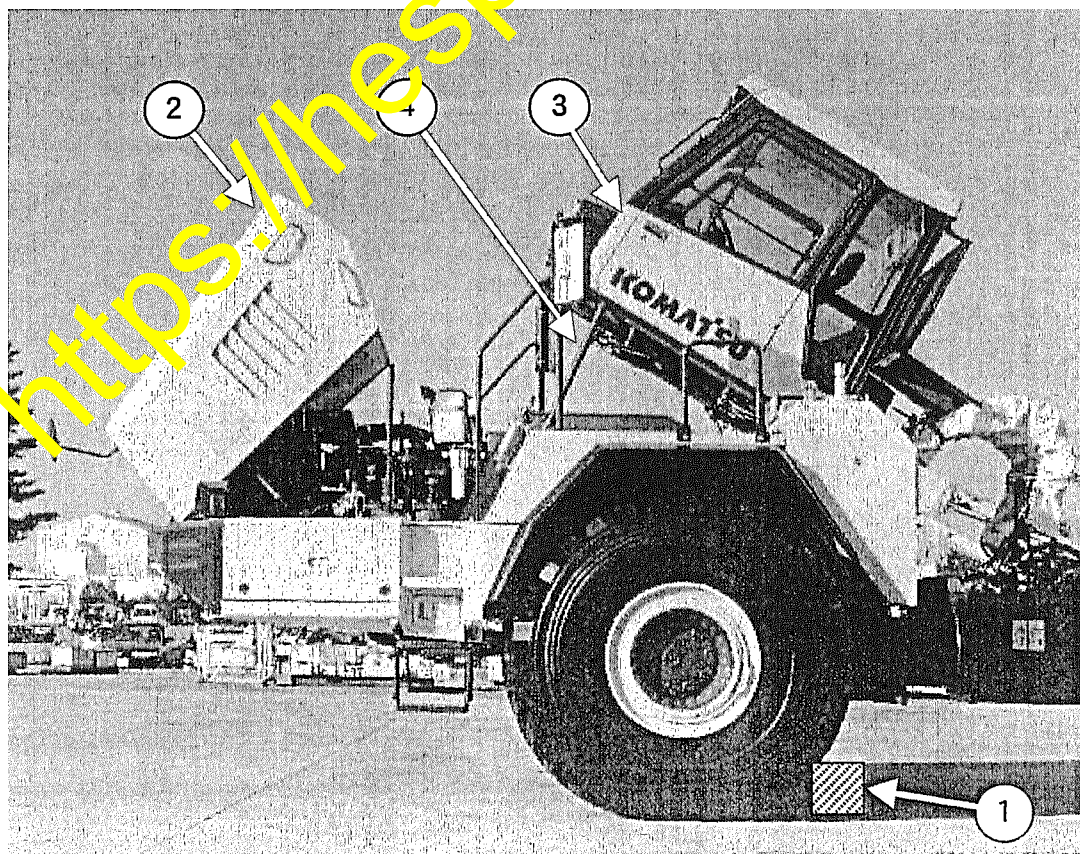
In addition to the current drive shaft guard, guard for the spider section has been added to realize a structure which can prevent the secondary damages of neighboring parts even when the drive shaft is broken. (Refer to Fig. 1.)



<Fig. 1>

4. Preparations before starting the replacement work (Refer to Fig. 2.)

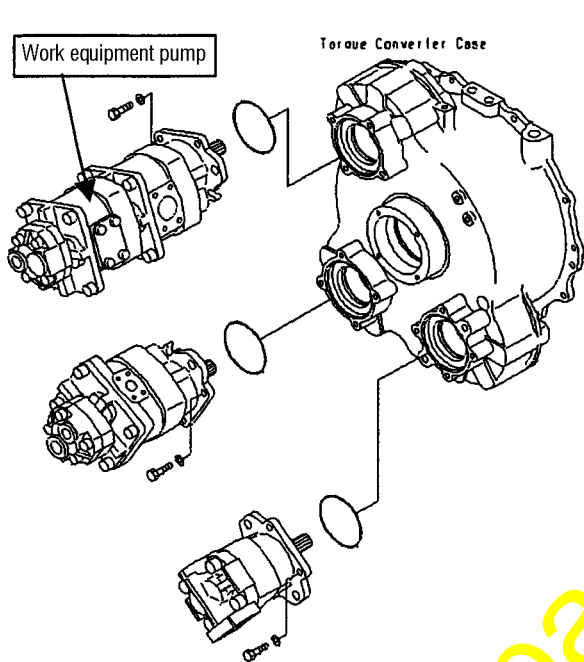
- (1) Park the vehicle on a flat place, stop the engine and apply a chock to each tier.
- (2) Open the engine hood and lock it at the position.
- (3) Loosen 8 pcs. of the cab front mount bolts (01010-61645) and tilt the operator's cab.
- (4) After tilting the operator's cab, be sure to install the tilt lock bar securely.



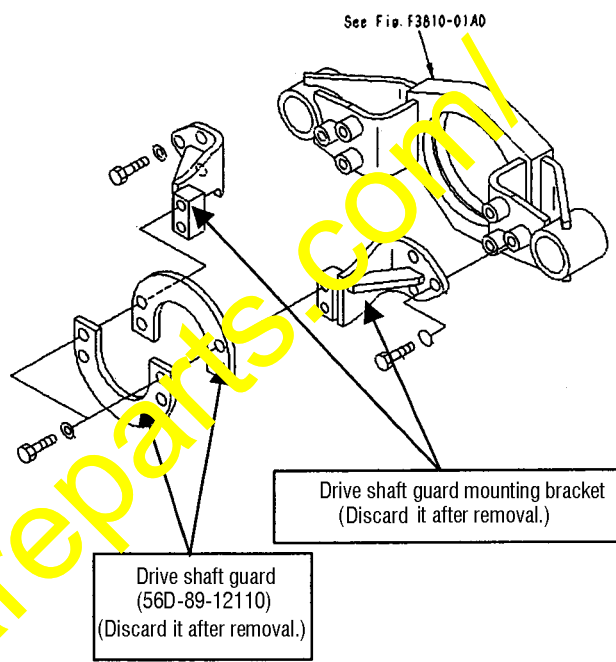
<Fig. 2>

5. Replacement procedures

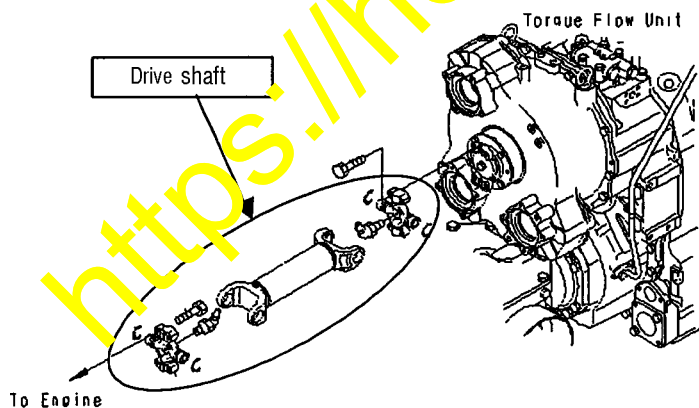
- 5-1. Remove the work equipment pump. (Refer to Fig. 3.)
- 5-2. Remove the drive shaft guard and the drive shaft guard mounting bracket. (Refer to Fig. 4.)
- 5-3. Remove the drive shaft. (Refer to Fig. 5.)
- 5-4. Remove the trunnion greasing piping. (Refer to Fig. 6.)
- 5-5. Loosen the mounting bolts for the trunnion mount bracket, and after that, remove the trunnion mount bracket together with the trunnion. (Refer to Fig. 7.)
- 5-6. Remove the rubber bushing inserted into the trunnion. (Refer to Fig. 7.)



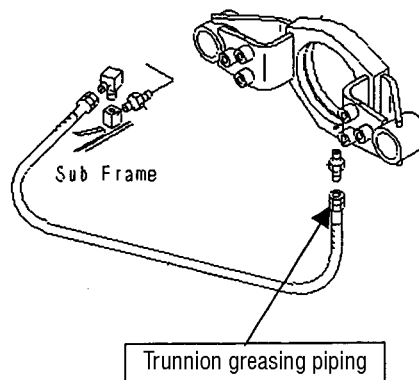
<Fig. 3>



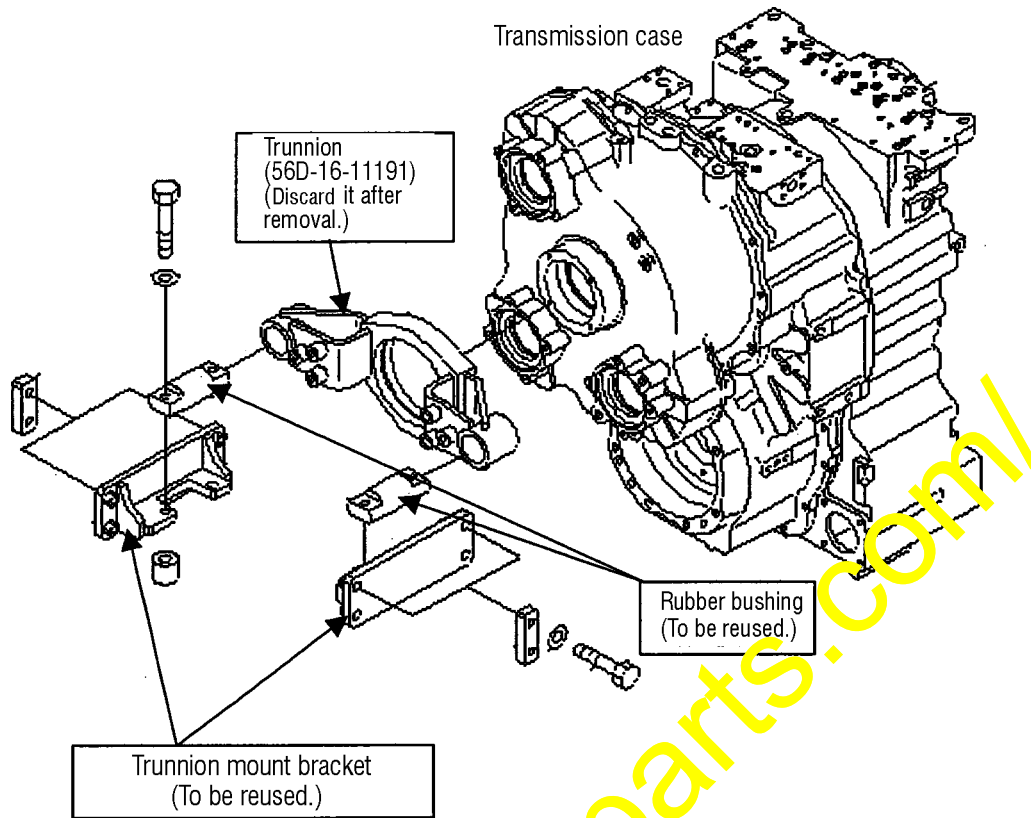
<Fig. 4>



<Fig. 5>

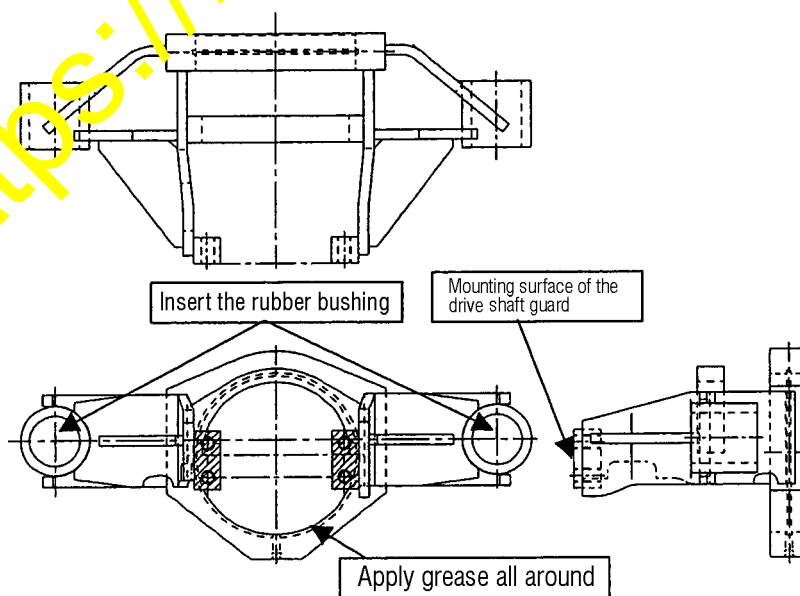


<Fig. 6>



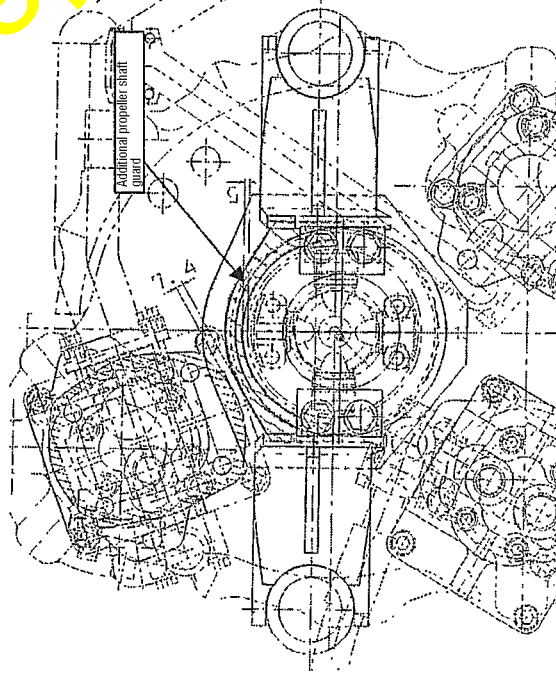
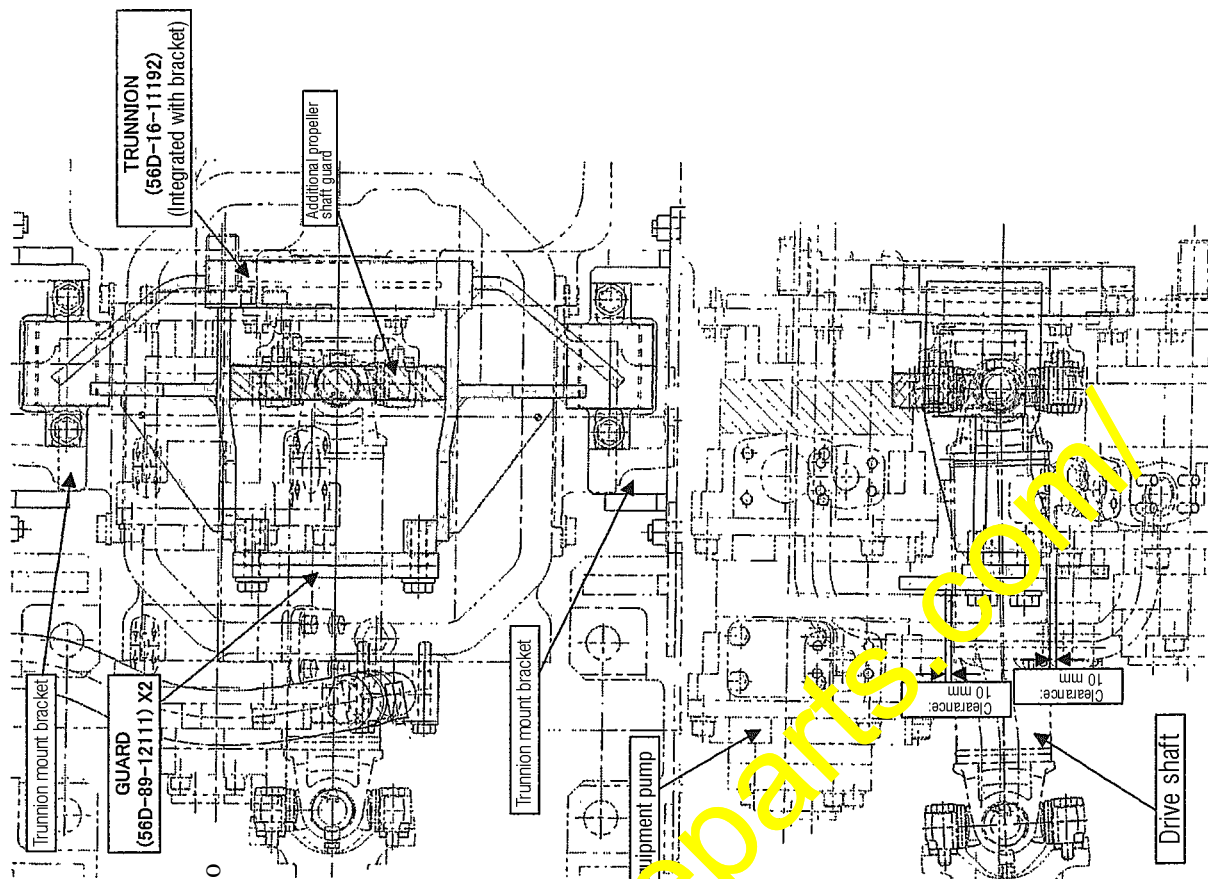
<Fig. 7>

- 5-7. Apply lithium grease (G2-LI) to the faucet joint section of the torque converter case for the strengthened type trunnion. (Refer to Fig. 8.)
- 5-8. Insert the rubber bushing which has been removed as per the above Section (5-6) into the trunnion. (Refer to Fig. 8.)
- 5-9. Clean the mounting surface of the drive shaft guard to remove the oil film, dust, etc.. (Refer to Fig. 8.)



<Fig. 8>

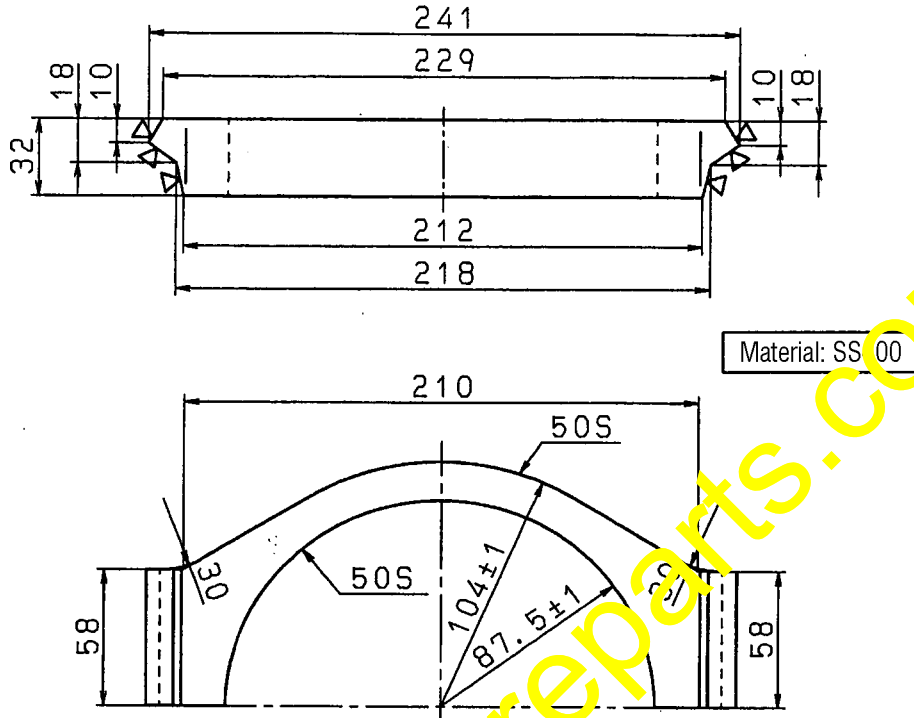
- 5-10. Install the trunnion mount bracket and the trunnion together, which have been removed as per the above Section (5-5).
- 5-11. Install the greasing piping to the trunnion (56D-16-11193).
- 5-12. Install the drive shaft.
 Note: (After applying Loctite (LT-) to the threaded section, tighten it at a tightening torque of 98 - 123 Nm.)
- 5-13. Install the drive shaft guard (56D-89-12112).
 Note: (Adjust the position so that the clearance between the outer surface of the drive shaft may become 10 mm.)
- 5-14. Install the work equipment pump which has been removed as per the above Section (5-1).



<Fig. 9>

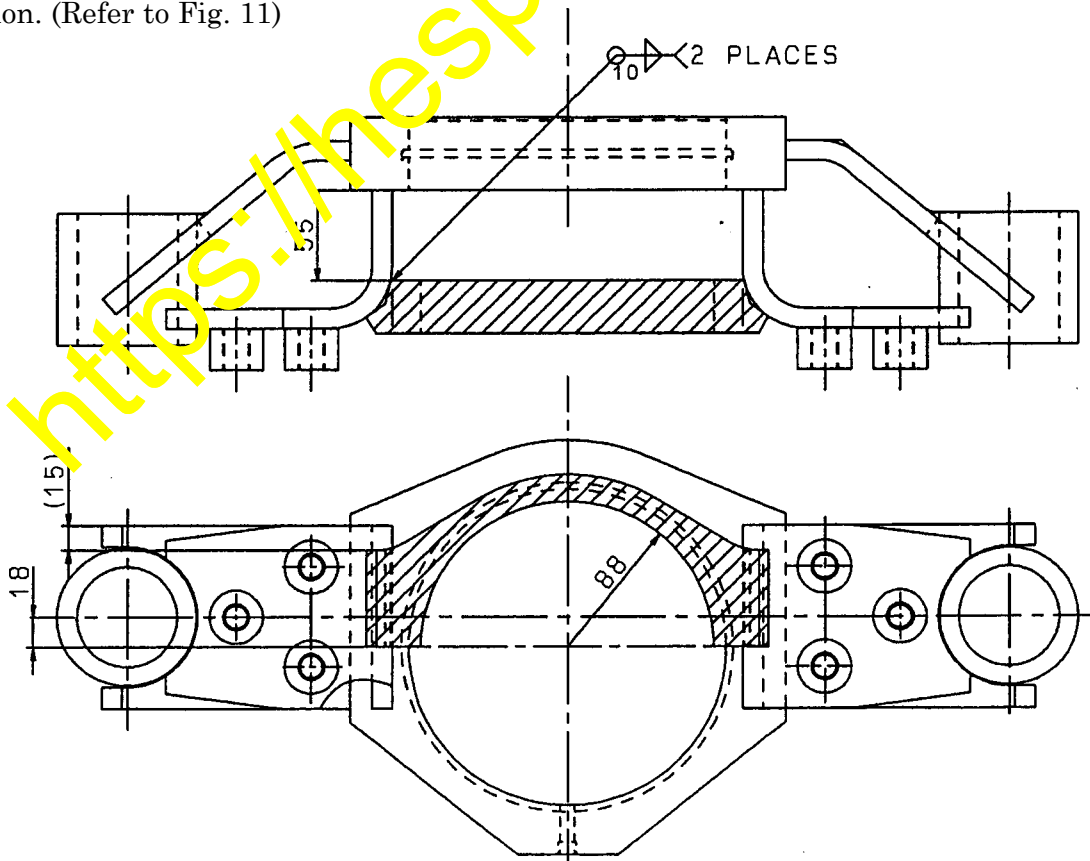
6. In case of strengthening the currently installed parts by reworking
 Being introduced below is the another method than the replacement of the parts to make this improvement by locally reworking the current parts to acquire similar improvement effects to the above Section 5.

6-1. Make the parts indicated below locally. (Refer to Fig. 10.)



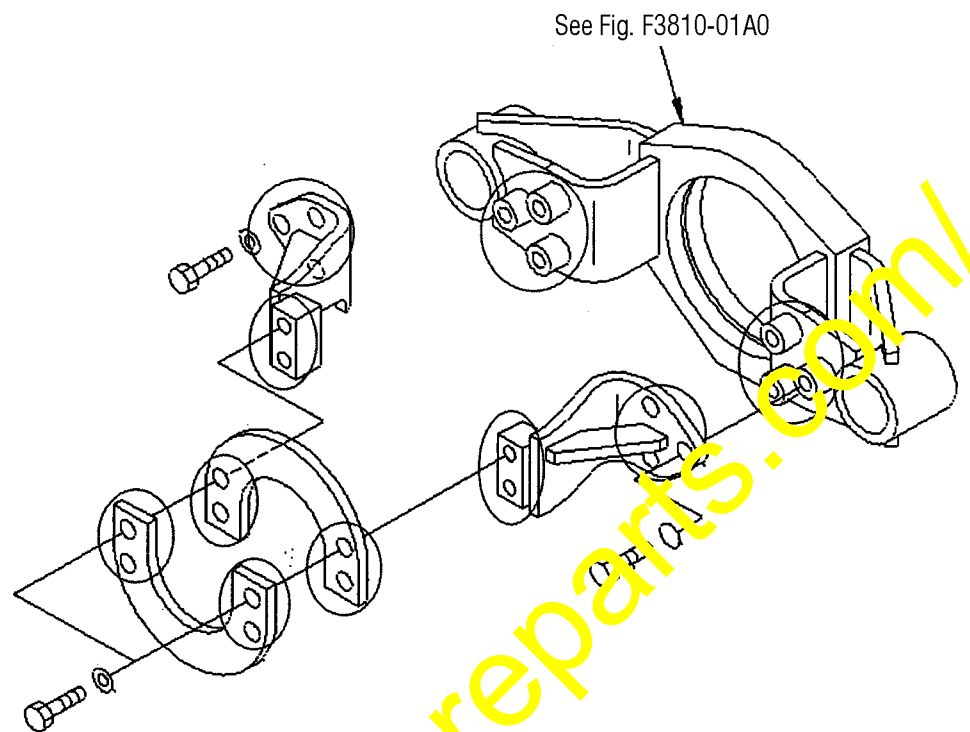
<Fig. 10>

6-2. Weld the part which has been made as per the above Section (6-1) to the current trunnion. (Refer to Fig. 11)



<Fig. 11>

- 6-3. Remove the coating film from the area where bolts are tightened. (To prevent the bolt tightening torque from reducing)
(Refer to the circled sections in Fig. 12.)



<Fig. 12>

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