

PARTS & SERVICE NEWS

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SUBJECT: IMPROVED FUEL PUMP DRIVE SHAFT AND BEARING FOR SA(A)6D140 ENGINE

PURPOSE: To introduce improved drive shaft and bearing for the fuel injection pump of the SA(A)6D140 engines

APPLICATION: Refer to pages 5-6.

FAILURE CODE: A7D1AA

DESCRIPTION:

1. Introduction

To prevent occurrence of oil leakage from the drive shaft seal of the fuel injection pump for the SA(A)6D140 engines, KOMATSU has registered improved drive shaft and bearing. When replacing the drive shaft or bearing at an opportunity of making overhauling, etc., install these improved parts following the modification procedure described in this Service News.

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2. List of parts

Part No.	Part Name	Q'ty	Remarks
6212-71-3171 (6212-71-3150)	Shaft (Shaft)	1 (1)	} For the EP-11 and S7S
(6212-71-3170)	(Shaft)	(-)	
6212-72-3171 (6212-72-3170)	Shaft (Shaft)	1 (1)	} For the S7S with 90° different key way
(6212-71-3160)	(Shaft)	(-)	
6210-71-3131 (6210-71-3130)	Shaft (Shaft)	1 (1)	For the S3S
6210-72-3131 (6210-72-3130)	Shaft (Shaft)	1 (1)	For the S3S with 90° different key way
6212-76-3181 (6212-76-3180)	Shaft (Shaft)	1 (1)	For the KP 21
6210-21-1781 (6210-21-1780)	Bushing (Bushing)	1 (1)	Common for all the models
6212-71-3190 (6212-71-3190)	Plate (Plate)	1 (1)	Unified parts, common for all the models
(6210-71-3160)	(Plate)	(1)	

3. Details of the modification

To reduce the internal pressure in the oil seal section for the drive shaft of the fuel injection pump, the widths of the shaft and the bearing have been reduced to expand the drain channel for the lubricating oil.

Also, unification of the shaft and the thrust plate has been made at the same time.

1) Contents of the modification

Part name	Modified section	New parts	Current parts
SHAFT	Pump side bearing width	24	32
BUSHING	Bearing width	22	30

2) List of part numbers of the new and current parts

No.	Part name	Pump spec., etc.	New parts		Current parts	
1	SHAFT	For the EP-11 and S7S	6212-71-3171	1	6212-71-3150	1
					6212-71-3170	1
	SHAFT	For the S7S with 90° different key way	6212-71-3171	1	6212-72-3170	1
					6212-71-3160	1
	SHAFT	For the S3S	6210-71-3131	1	6210-71-3130	1
	SHAFT	For the S3S with 90° different key way	6210-72-3131	1	6210-72-3130	1
	SHAFT	For the KP-21	6212-76-3181	1	6212-76-3180	1
2	BUSHING	Common for all the models	6210-21-1781	1	6210-21-1780	1
3	PLATE	Common for all the models (For ϕ 38 shaft side diameter)	6212-71-3190	1	6212-71-3190	1
					6210-71-3160	1

3) Comparison of the shapes

<Improved parts>

<Current parts>

The oil drain channel has been enlarged.

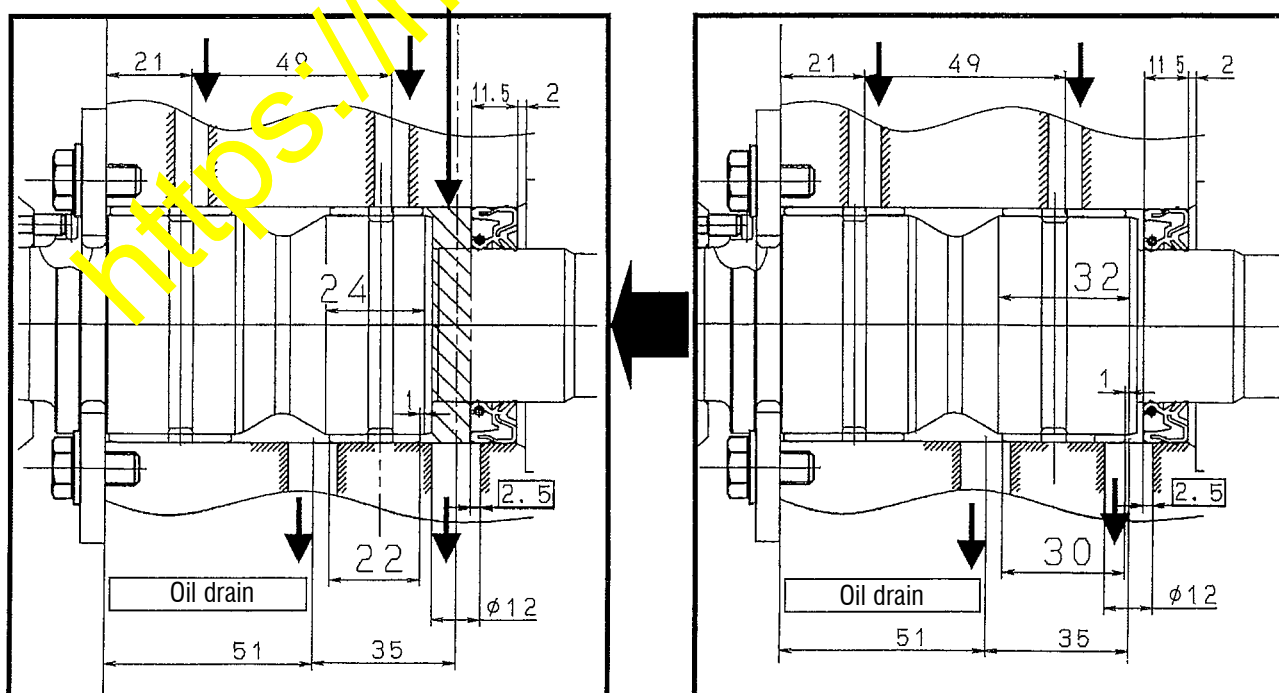


Fig. 1

4. Modification procedure

When replacing with the improved parts, be sure to change the drive shaft, bushing and thrust plate in a set.

- 1) Pull out the current bearing which is being press-fit to the cylinder block.
- 2) Press-fit the improved bearing to the position indicated in Fig. 2 below.
The press-fitting position is 8 mm deeper than the current and modify the jig to fit to this new press-fitting position.

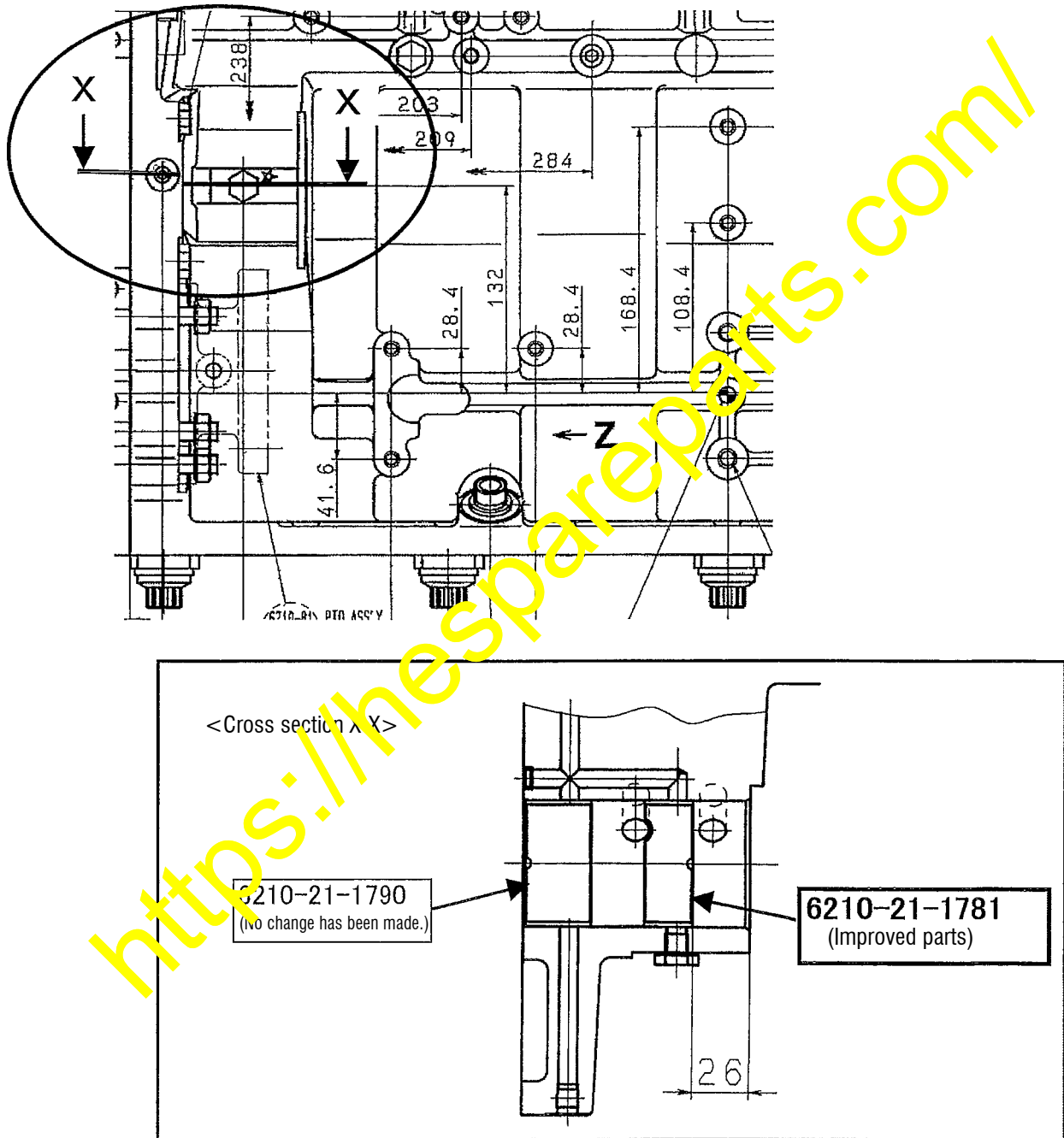


Fig. 2

- 3) Replace the drive shaft with the improved one and the thrust plate with the new one as well.

No change has been made with the oil seal and use a new current oil seal.

Refer to the Shop Manual regarding the details of the disassembly and reassembly work.

Check table for the serial numbers of the engines affected by this modification

				New Part No.		Current Part No.		Part name				
		Part number change		6212-71-3171		6212-71-3170, 3150		SHAFT				
No.	Engine model		Serial No. of engines		Starting from	No.	Engine model		No.	Serial No. of engines		Starting from
			Engines in the field	Engines modified at factory						Engines in the field	Engines modified at factory	
1	SA6D140	1	30268	30269	7/15/02	11						
2	SAA6D140	1	30258	30259	7/31/02	12						
3	SA6D140H-R	1	30600	30601	12/19/02	13						
4	SA6D140A-M	1	30348	30349	8/10/02	14						
5						15						
6						16						
7						17						
8						18						
9						19						
10						20						
				New Part No.		Current Part No.		Part name				
		Part number change		6212-72-3171		6212-72-3170		SHAFT				
1	SA6D140E	2	30467	30468	10/22	11						
2	SAA6D140E	2		From the next shipment		12						
3	6M137B	1	10038	10039	7/8/02	13						
4	6M140A	2	22297	22298	7/16/02	14						
5	6M140B	2	22278	22279	7/31/02	15						
6						16						
7						17						
8						18						
9						19						
10						20						

Check table for the serial numbers of the engines affected by this modification

				New Part No.		Current Part No.		Part name			
		Part number change		6210-71-3131		6210-71-3130		SHAFT			
No.	Engine model	Serial No. of engines		Starting from	No.	Engine model	No.	Serial No. of engines		Starting from	
		Engines in the field	Engines modified at factory					Engines in the field	Engines modified at factory		
1	S6D140	1	30614	30615	02' 12/26	6					
2						7					
3						8					
4						9					
5						10					
				New Part No.		Current Part No.		Part name			
		Part number change		6210-72-3131		6210-72-3130		SHAFT			
1						6					
2						7					
3						8					
4						9					
5						10					
				New Part No.		Current Part No.		Part name			
		Part number change		6212-76-3181		6212-76-3180		SHAFT			
1	HV3000	1	Machines #1001-1009 Engines -30504	1001-1009 30505	02' 10/31	11	6M140A	5	10046	10047	02' 7/3
2	HV6000	1	#1001-1003 -30089	From the next shipment		12	SA6D140A-M	1	30348	30349	02' 8/10
3	TA6D140-G1	2	-21003	From the next shipment		13					
4	J6D140E-G1	1	70119	70120	02' 7/8	14					
5	6M132A	2		From the next shipment		15					
6	6M132A	3		From the next shipment		16					
7	6M137A	1	10123	10124	02' 8/3	17					
8	6M137A	2		10001	03' 2/26	18					
9	6M137A	1Y	100143	100144	02' 7/10	19					
10	6M140A	3	10209	10210	02' 9/4	20					