

INSTALLATION MANUAL

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SUBJECT: INTRODUCTION OF ENGINE SMALL UNIT GUARD ON HD465-5/
605-5

PURPOSE: To introduce optional safety guards to cover small engine components newly prepared for installation on HD465-5 and HD605-5 dump trucks and their installation procedures

APPLICATION: HD465-5 Dump Trucks, Serial Nos. 4407 and up
HD605-5 Dump Trucks, Serial Nos. 1001 and up

FAILURE CODE: 549099

DESCRIPTION:

1. Introduction

This Service News will introduce newly prepared small unit guards, and their installation procedures, which are for use on the HD465-5 and HD605-5 dump trucks and serve to keep workers servicing or inspecting the engine while it is running, away from the zone where they could get caught in the moving auxiliary components such as pulleys and V-belts. Meanwhile, these guards are in conformity with the MSHA regulations. Refer to Operation and Maintenance Manual for safety precautions.

2. List of parts

No.	Part No.	Part Name	Q'ty	Remarks
1	569-03-64411	Net	1	
2	569-03-64422	Net	1	
3	569-03-64440	Cover	1	
4	569-03-64450	Cover	1	
5	569-07-62710	Cover	1	
6	569-07-62720	Bracket	1	
7	569-07-62730	Bracket	1	
8	6162-85-6210	Cover	1	
9	6162-85-6220	Cover	1	
10	6162-85-6230	Bracket	1	
11	6162-85-6240	Cover	1	
12	6164-11-9190	Spacer	1	
13	6732-81-6840	Bolt	1	
14	6933-51-5150	Spacer	1	
15	01010-80816	Bolt	4	
16	01010-80890	Bolt	2	
17	01010-81025	Bolt	4	
18	01010-81070	Bolt	1	
19	01010-81090	Bolt	2	
20	01010-81225	Bolt	19	
21	01010-81270	Bolt	1	
22	01580-01210	Nut	3	
23	01582-01210	Nut	1	
24	01640-21323	Washer	1	
25	01643-30823	Washer	6	
26	01643-31032	Washer	7	
27	01643-31232	Washer	20	

3. Contents of the modification

As the small unit guards, supplement the following covers (3 types of covers).

(1) Fan belt cover

This is a guard to cover the fan pulley, crank pulley, tension pulley and fan belt and it is to be bolted down onto the fan guard.

(2) Air conditioner compressor cover

This is a guard to cover the pulley and drive belt section for the air compressor of the air conditioning system and it is to be bolted down onto the air compressor mounting bracket.

(3) Alternator cover

This is a guard to cover the pulley and drive belt for the alternator and it is to be bolted down onto the alternator mounting bracket.

4. Installation procedures

The code numbers given after part names being used in descriptive sentences and code numbers given in drawings correspond to the item numbers given in the list of necessary parts.

4-1 Preparations

Park the vehicle on a level surface, stop the engine, apply the parking brake and insert tire wedges underneath respective tires.

4-2 Installing the fan belt cover

(1) Remove the fan guard net halves 1 and 2 (Refer to Fig. 1) and rework the shroud according to instructions give in Fig. 4.

(2) Replace the fan guard net halves 1 and 2 with the newly prepared fan guard net halves by installing the newly prepared fan guard net halves to the reworked shroud. (Refer to Fig. 6.)

Fan guard net half 1: 569-03-64423 → 569-03-64411

Fan guard net half 2: 569-03-64432 → 569-03-64422

(3) Install the cover 3 (569-03-64440) and cover 4 (569-03-64450) to the shroud using the bolts 20 and washers 27. (Refer to Fig. 6.)

(4) Tighten the bolts 20, nuts 22 and washers 27 to fasten the covers 3 and 4. (Refer to Fig. 5.)

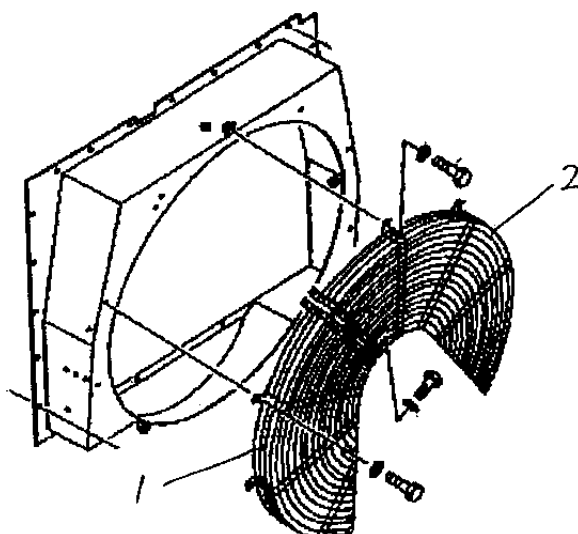


Fig. 1 Removing the fan guard net halves

4-3 Installing the air conditioner compressor cover (Refer to Fig. 2 and Fig. 7.)

- (1) Replace the air compressor mounting bracket 7 of the air conditioning system with the newly prepared air compressor mounting bracket.
(569-07-63221 → 569-07-62730)
- (2) Replacing the air compressor mounting bolts 16 with newly prepared bolts (01010-80885 → 01010-80890), fasten the air compressor cover mounting bracket 6 altogether with the air compressor using bolts 16 and washers 25.
- (3) Install the air compressor cover 5 to the brackets 6 and 7 using the bolts 17 and washers 26.

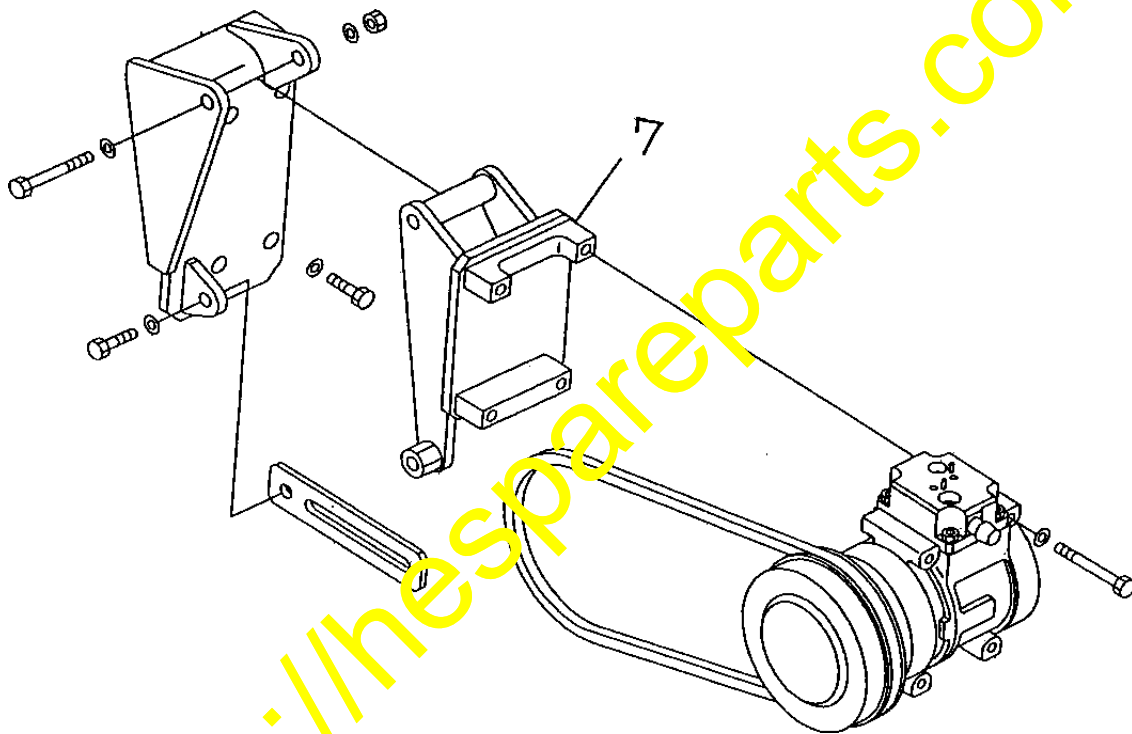


Fig. 2 Removing the current air compressor mounting bracket 7 of the air conditioning system.

4-4 Installing the alternator cover (Refer to Fig. 3 and Fig. 8.)

- (1) Replace the alternator mounting bracket 10 with the newly prepared alternator mounting bracket. (6162-85-5210 → 6162-85-6230)
- (2) Inserting the spacer 14 to the lock nut section for the rod "A" and replacing the bolt 21 with the newly prepared bolt (01010-81255 → 01010-81270), fasten altogether with the spacer 12.
- (3) Replacing the alternator mounting bolts 13 and nuts 23 with newly prepared bolts and nuts (bolts 13: 6128-21-6780 → 6732-81-6840 and nuts 23: 02205-10812 → 01582-01210), install the alternator cover mounting cover 8 altogether with the alternator using bolts 13, nuts 23 and washers 24 & 27.
- (4) Install the alternator drive belt cover 11 to the bracket 10 using the bolts 18 & 19 and washers 26.
- (5) Install the alternator cover 9 to the cover 8 using the bolts 15 and washers 25.

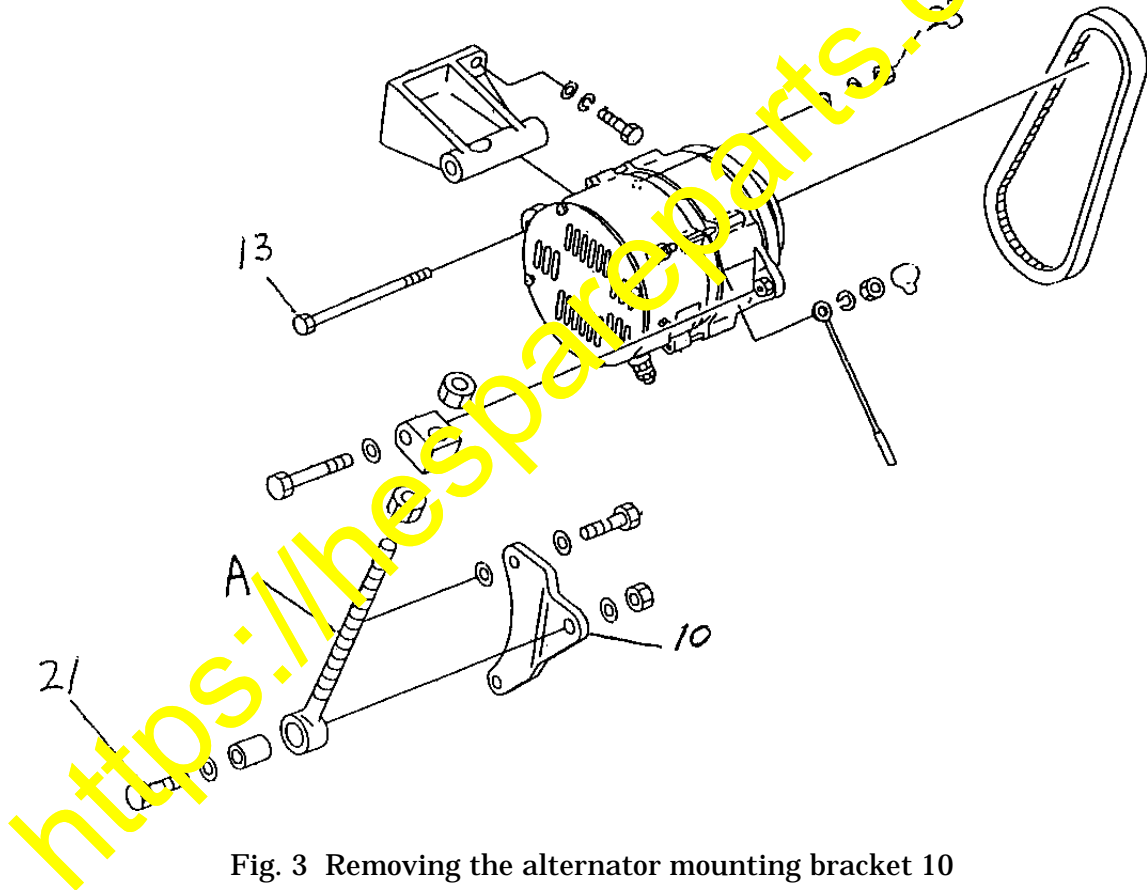


Fig. 3 Removing the alternator mounting bracket 10

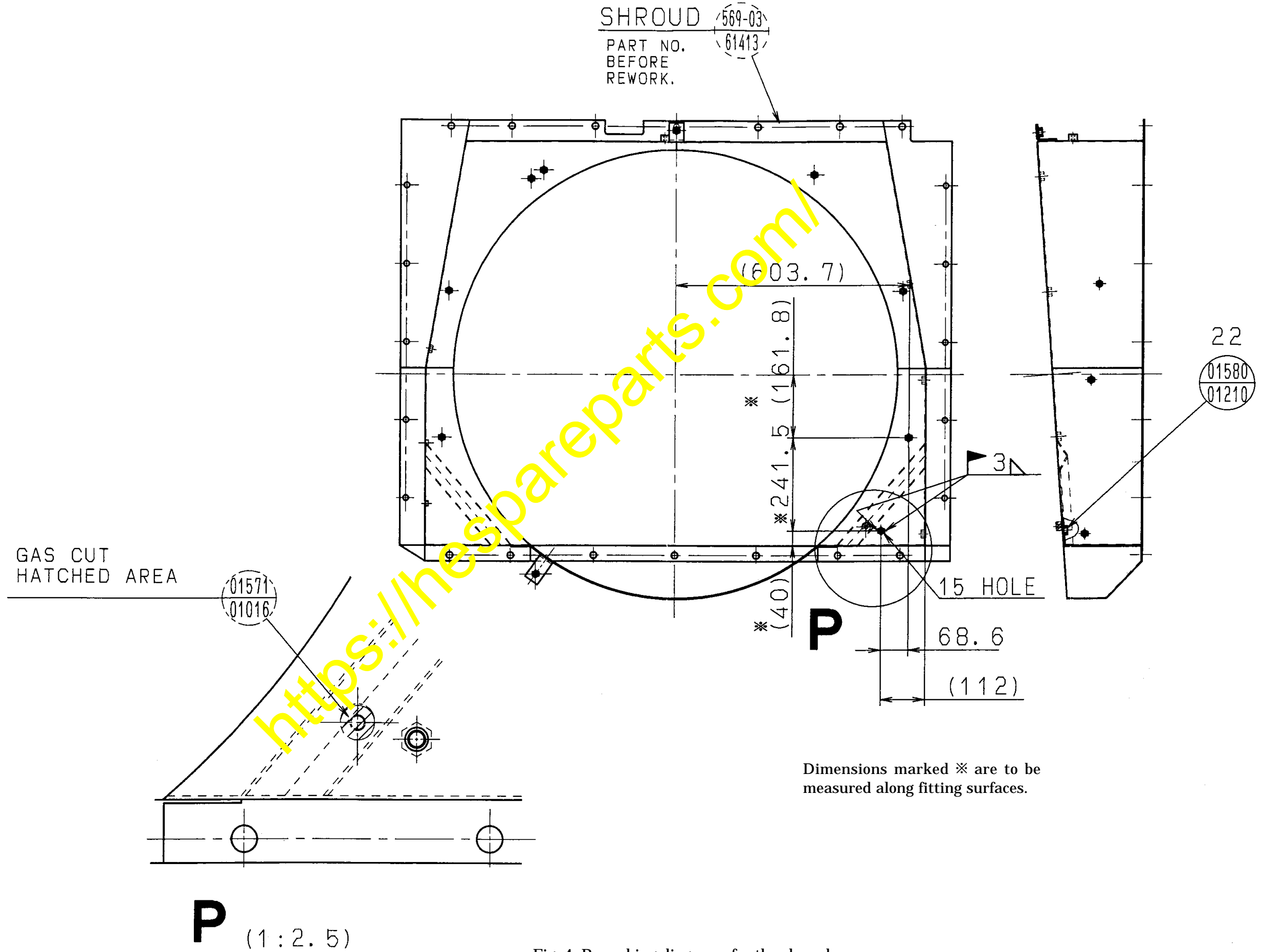


Fig. 4 Reworking diagrams for the shroud

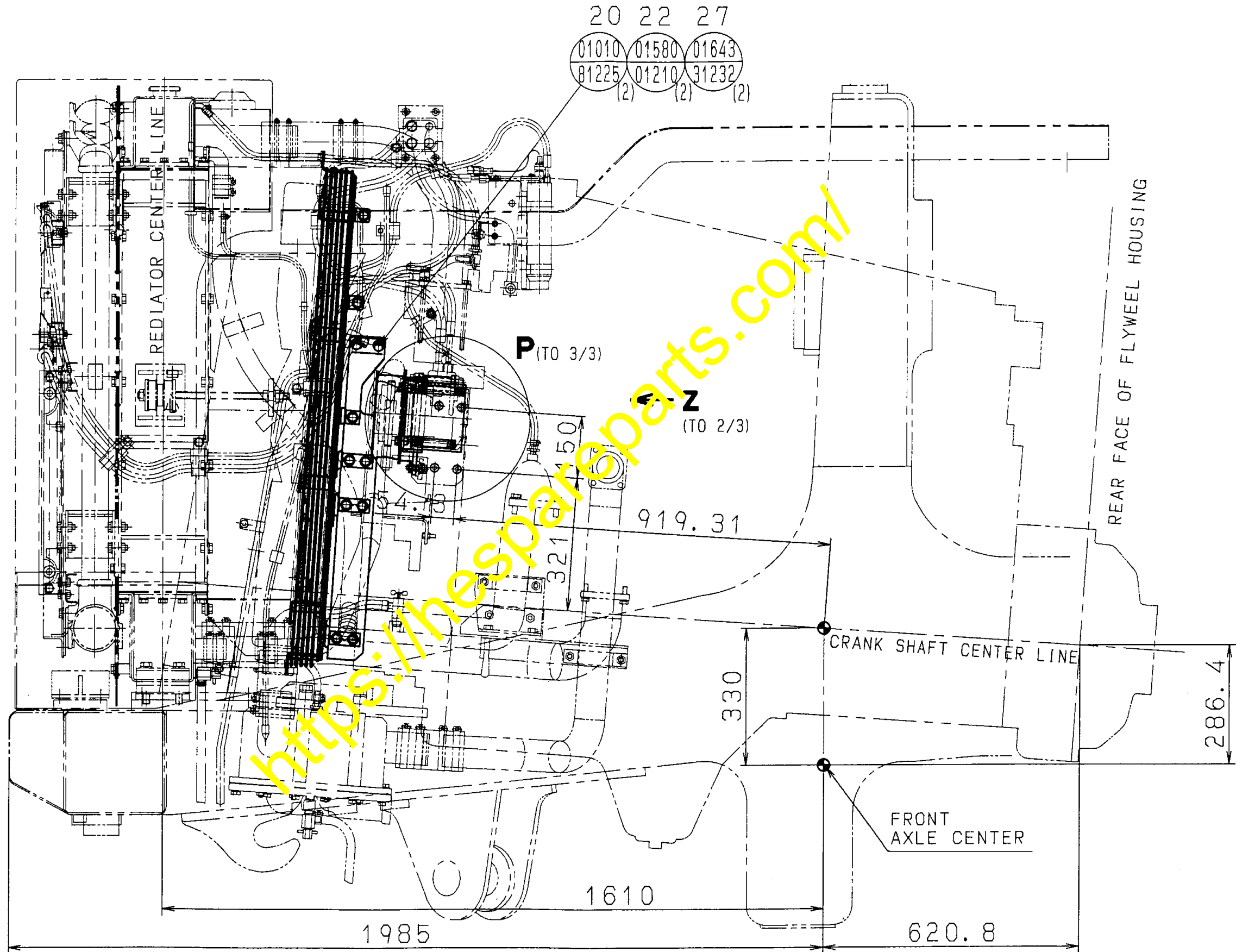


Fig. 5 Installing the fan belt cover and the air conditioner compressor cover (1/3)

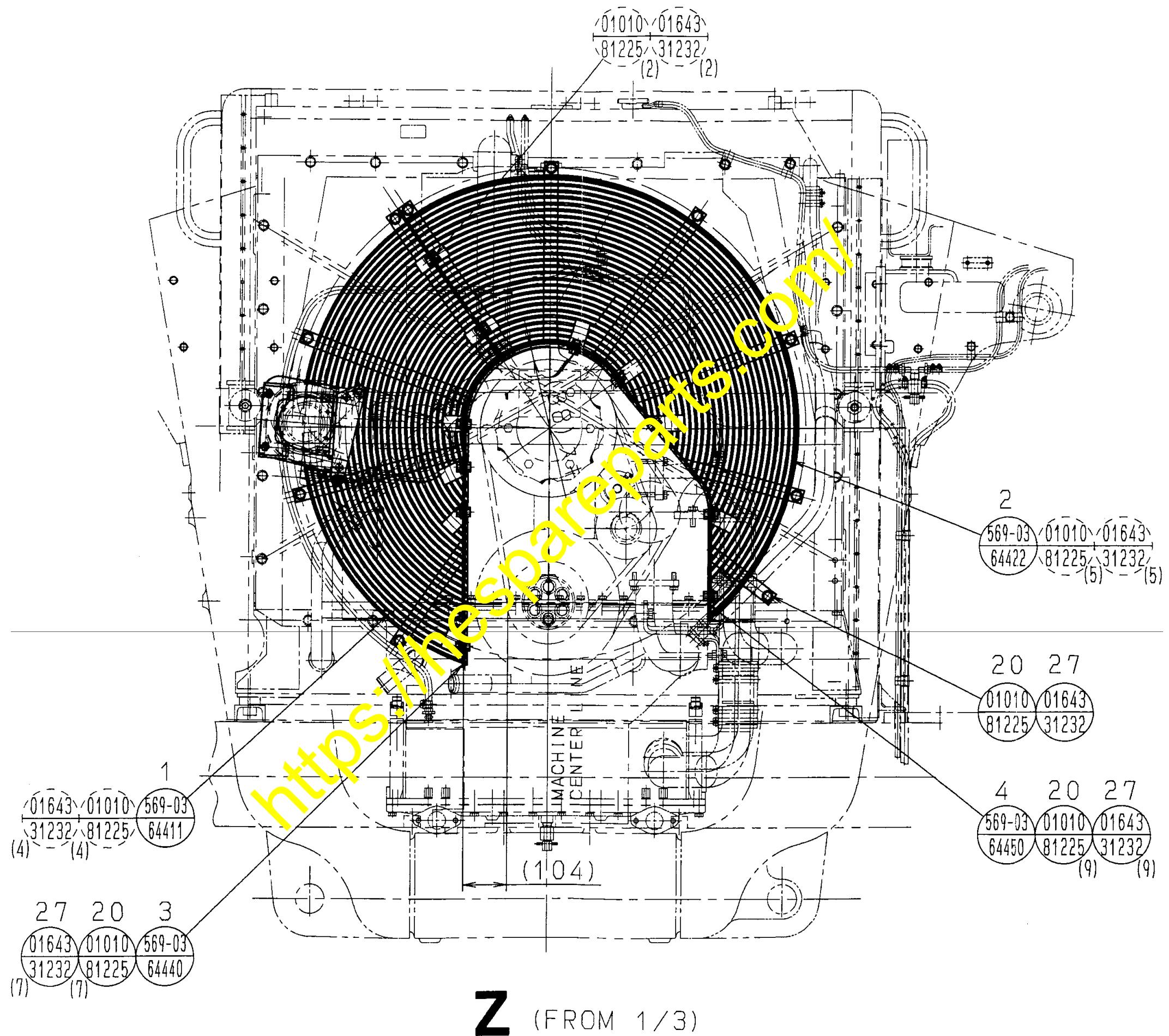


Fig. 6 Installing the fan belt cover and the air conditioner compressor cover (2/3)

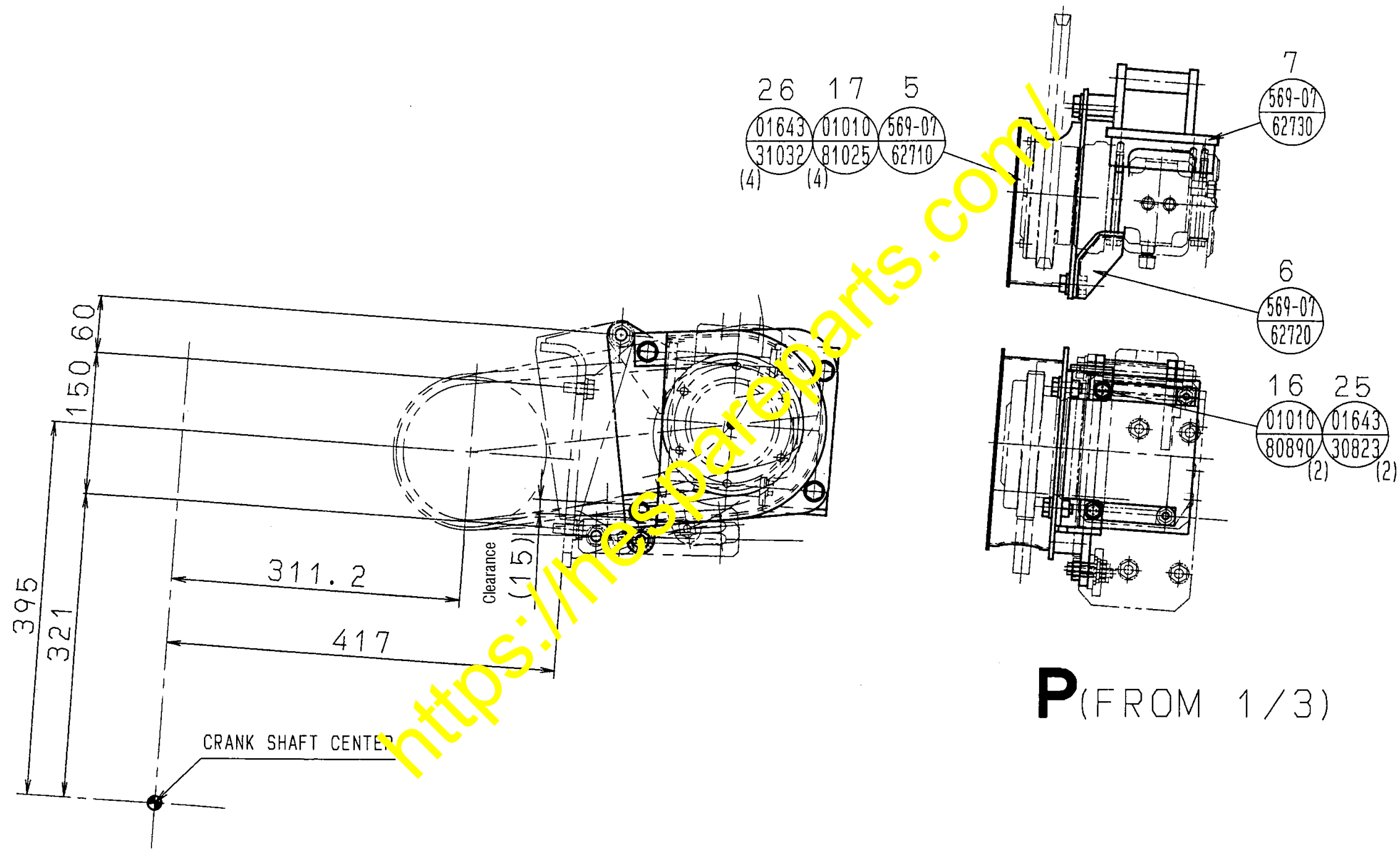


Fig. 7 Installing the fan belt cover and the air conditioner compressor cover (3/3)

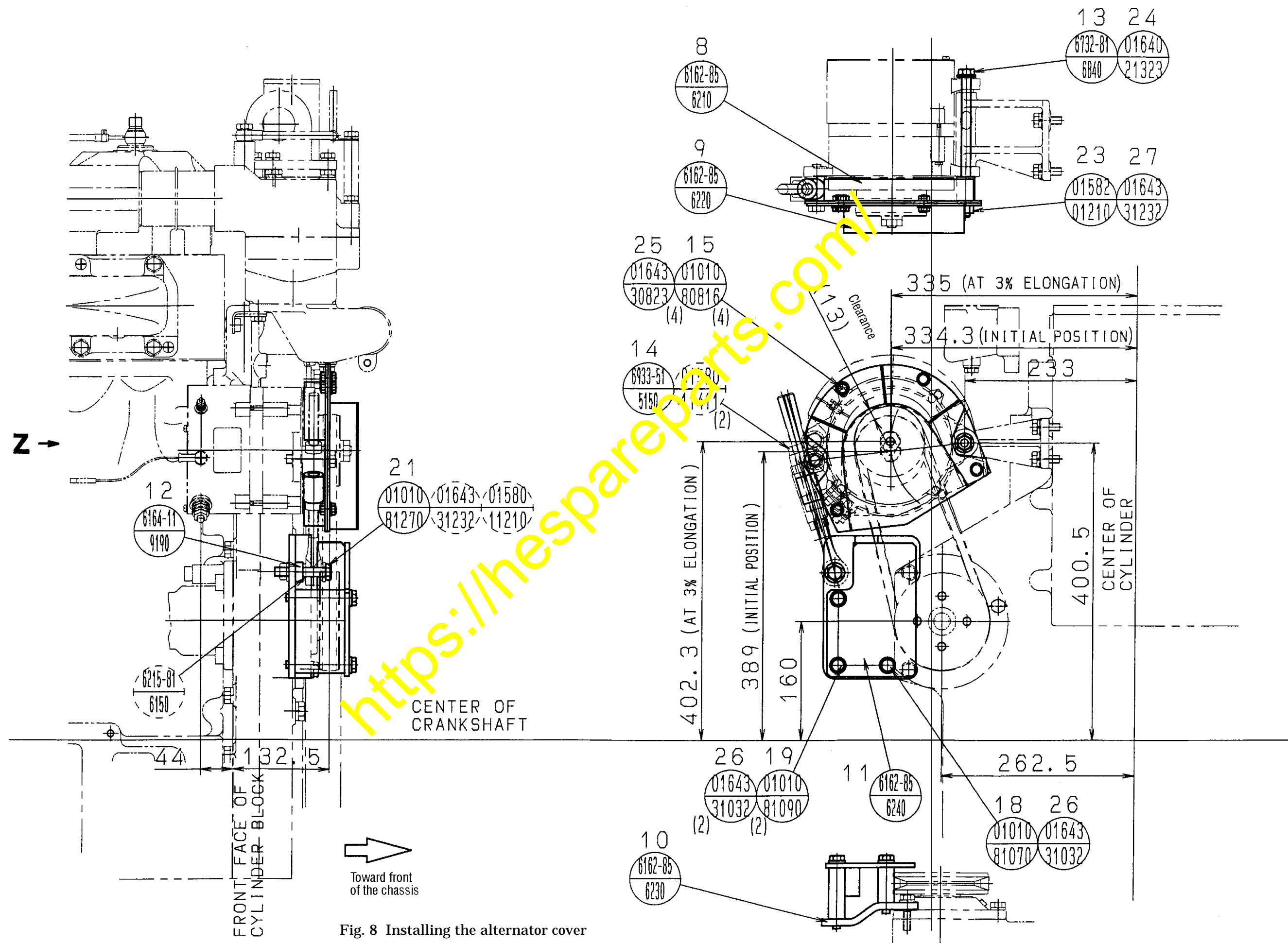


Fig. 8 Installing the alternator cover

5. Inspections

After finishing installation of all these guards, conduct the following inspections and adjustments.

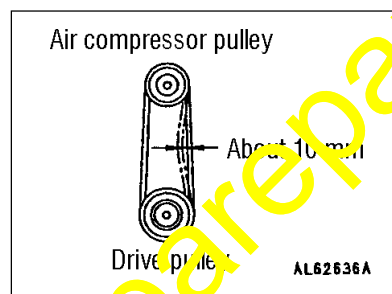
For more details, refer to the Operation and Maintenance Manual.

5-1 Inspecting the fan belt

- Check and make sure that the V-belt is not interfering with the cover 3 nor with the cover 4.
- Since the fan belt is equipped with the auto tensioner, it is not necessary to adjust the fan belt until the belt is replaced. However, after finishing this installation work, conduct inspection of the belt tension referring to the Operation and Maintenance Manual.

5-2 Inspecting the air compressor belt tension

- Check and make sure that the air compressor belt is not interfering with the cover 5.
- Depress the center point between the air compressor pulley and the drive pulley of the air compressor belt by the ball of the thumb (at a force of about 58.8 N {6 kgf}) and see if a flexure of about 10 mm occurs with the air compressor belt.



5-3 Inspecting the alternator drive belt tension

- Check and make sure that the alternator belt is not interfering with the cover 9 nor with the cover 11.
- Depress the center point between the drive pulley and the alternator pulley on the alternator drive belt by the ball of the thumb (at a force of about 58.8 N {6 kgf}) and see if a flexure of about 15 mm occurs with the alternator drive belt.

