

INSTALLATION MANUAL

REF NO.	BT00048A
DATE	Jun. 21, 2002
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This INSTALLATION MANUAL supersedes the previous issue No. BT00048 dated Nov. 7, 2000 which should be discarded.

SUBJECT: INTRODUCTION OF SMALL UNIT GUARD ON HD325-6/405-6

PURPOSE: To introduce newly prepared optional guards to cover small engine components on HD325-6 and HD405-6 dump trucks and their installation procedures

APPLICATION: HD325-6 Dump Trucks, Serial Nos. 5485 \triangle and up thru 5959
HD405-6 Dump Trucks, Serial Nos. 1001 \triangle and up thru 1129

FAILURE CODE: 54P0B1

DESCRIPTION:












1-1. Introduction

This Installation Manual will introduce newly prepared small unit guards, and their installation procedures, which are for use on the HD325-6 and HD405-6 dump trucks and serve to keep workers, servicing or inspecting the engine while it is running, away from the zone around the moving pulleys, V-belts, etc. in which they could get caught, of the engine and of the auxiliary components. Meanwhile, these guards are in conformity with the MSHA regulations.

1-2. Revised places:

29 places \triangle	Jun. 21, 2002	Changes or other modifications to the shape of the air conditioner cover and the right fan cover
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2. List of parts

No.	Part No.	Part Name	Q'ty	Remarks
 1	566-03-6D450 566-03-6D411 (566-03-41481)	Net (Net)	1 (1)	
2	566-03-6D421 (566-03-41491)	Net (Net)	1 (1)	
 3	566-03-6D460 566-03-6D430	Cover	1	
 4	566-03-6D470 566-03-6D440	Cover	1	
 5	566-07-6A740 566-07-6A710	Cover	1	
6	566-07-6A720 (566-07-6A122)	Bracket (Bracket)	1 (1)	
7	566-07-6A730 (566-07-6A132)	Bracket (Bracket)	1 (1)	
8	01010-81020	Bolt	1	
9	01010-81025	Bolt	 18	
10	01580-11008	Nut	2	
11	01643-31032	Washer	 19	
 12	6218-81-6150 6210-81-6150 (6210-82-6450)	Cover (Cover)	1 (1)	
 13	6218-81-6250 6210-81-6250 (6210-81-6361)	Cover (Cover)	1 (1)	
14	01050-51020	Bolt	2	
15	01643-31032	Washer	2	
 16	6218-81-6570 (6210-82-6570)	Bracket (Bracket)	1 (1)	
 17	01435-01020	Bolt	1	
 18	01643-31032	Washer	1	

3. Contents of the modification

As the small unit guards, supplement the following covers (3 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 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 cover.


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) Replace the fan guard net halves 1 and 2 with the newly prepared fan guard net halves. (Refer to Fig. 1 and Fig. 4, Fig. 5.) 

 566-03-6D450

(566-03-41481 → ~~566-03-6D411~~ and 566-03-41491 → 566-03-6D421)

 566-03-6D460

 566-03-6D470

- (2) Install the cover 3 (~~566-03-6D430~~) and cover 4 (~~566-03-6D440~~) to the newly installed

 566-03-6D450

fan guard net halves 1 (~~566-03-6D411~~) and 2 (566-03-6D421) using the bolts 9 and washers 11.

- (3) Tighten the nuts 10 and washers 11 to fasten the covers 3 and 4.

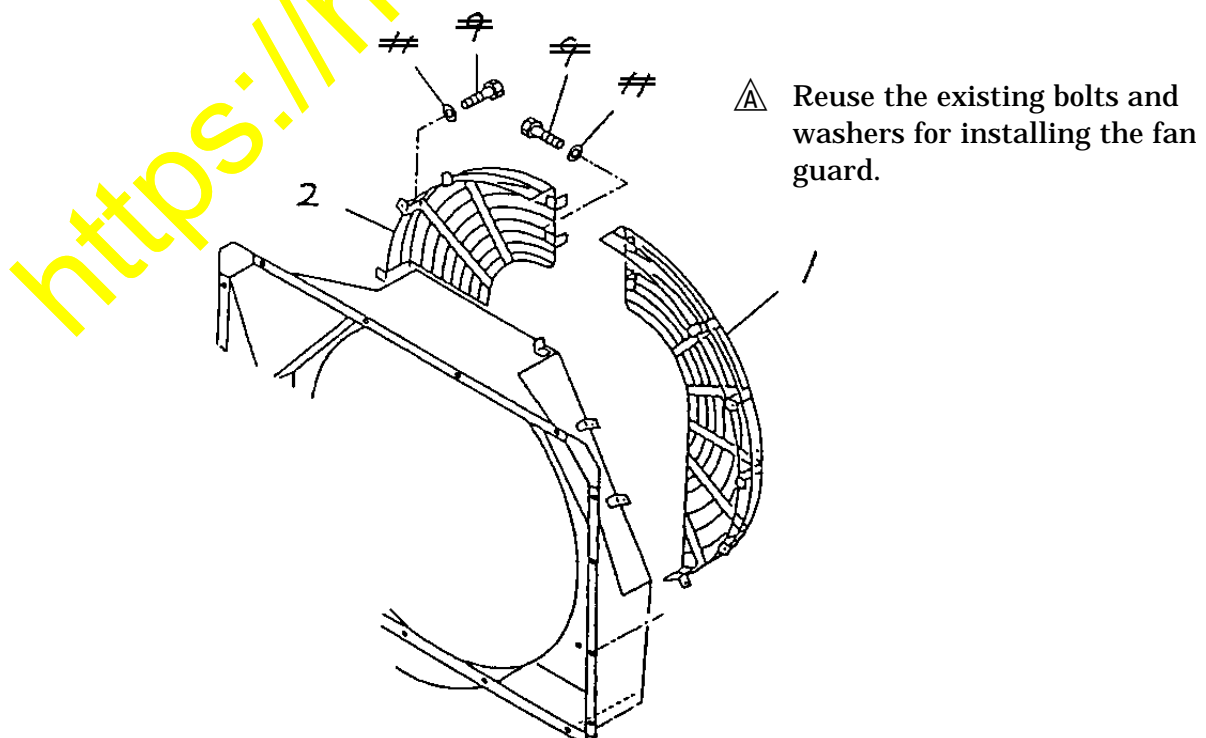


Fig. 1 Removing the current fan guard net halves

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

- (1) Replace the air compressor mounting brackets 6 & 7 of the air conditioning system.
(566-07-6A122 → 566-07-6A720 and 566-07-6A132 → 566-07-6A730)
- (2) Install the cover 5 (566-07-6A710) to the newly installed air compressor mounting brackets 6 & 7 using the bolts 8 & 9 and washers 11.

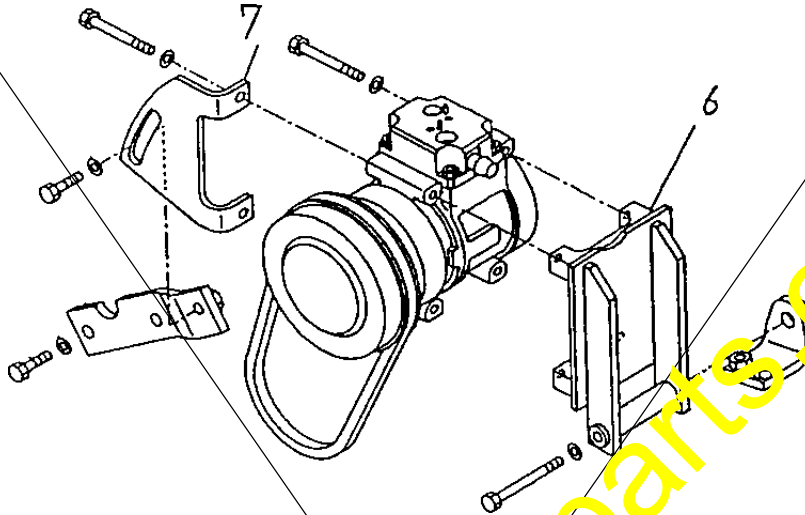


Fig. 2 Removing the current air compressor mounting brackets

4-4 Installing the alternator cover (Refer to Fig. 3 and Fig. 5.)

- (1) Replace the alternator cover 12.
(6210-82-6450 → 6210-81-6150)
- (2) Replace the alternator cover 13 and install the newly prepared alternator cover to the cover 12 using the bolts 14 and washers 15.
(6210-81-6361 → 6210-81-6250)

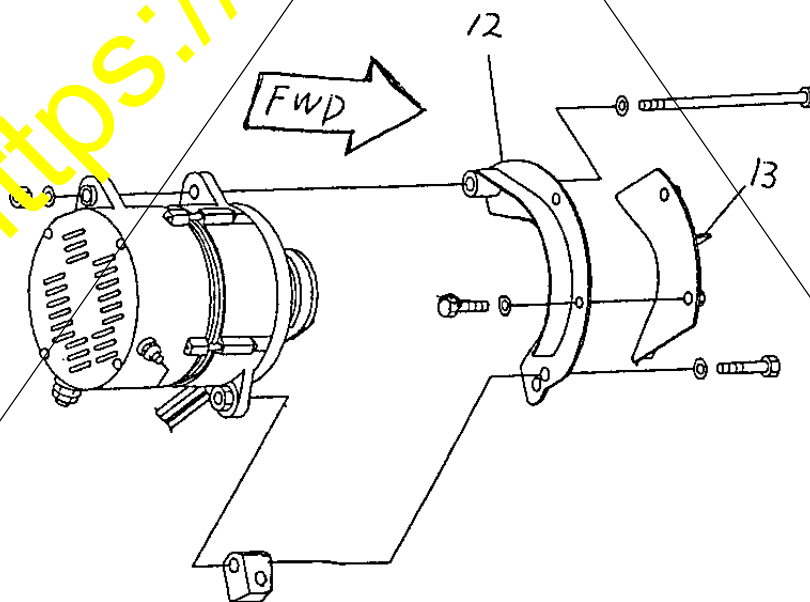



Fig. 3 Removing the alternator cover

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4-3 Installing the air conditioner compressor cover (Refer to Fig. 2 and Fig. 6.)

- (1) Replace the air compressor mounting brackets 6 & 7 of the air conditioning system.
(566-07-6A122 → 566-07-6A720 and 566-07-6A132 → 566-07-6A730)
- (2) Install the cover 5 (566-07-6A740) to the newly installed air compressor mounting brackets 6 & 7 using the bolts 8 & 9 and washers 11.

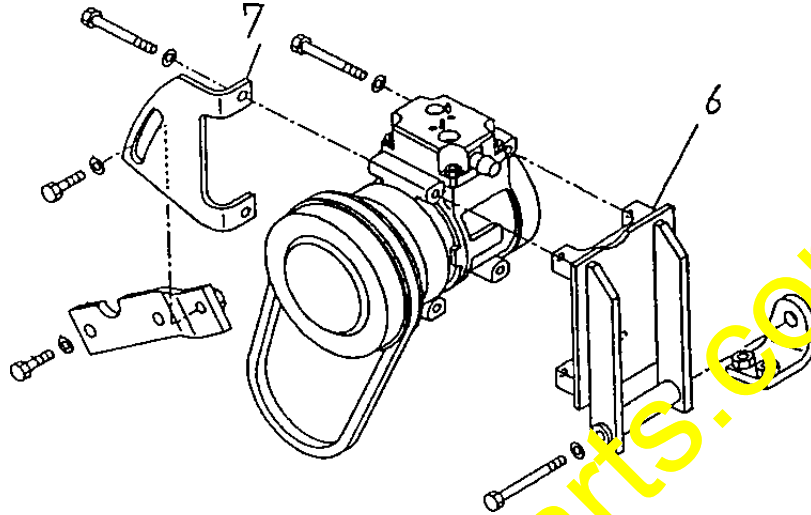


Fig. 2 Removing the current air compressor mounting brackets

4-4 Installing the alternator cover (Refer to Fig. 3 and Fig. 7.)

- (1) Replace the alternator cover 12.
(6210-82-6450 → 6218-81-6150)
- (2) Replace the adjusting rod bracket 16 (6210-82-6570 → 6218-81-6570)
- (3) Replace the alternator cover 13 and install the newly prepared alternator cover to the cover 12 and the bracket 16 using the bolts 14, washers 15, bolts 17 and washers 18.
(6210-81-6361 → 6218-81-6150)

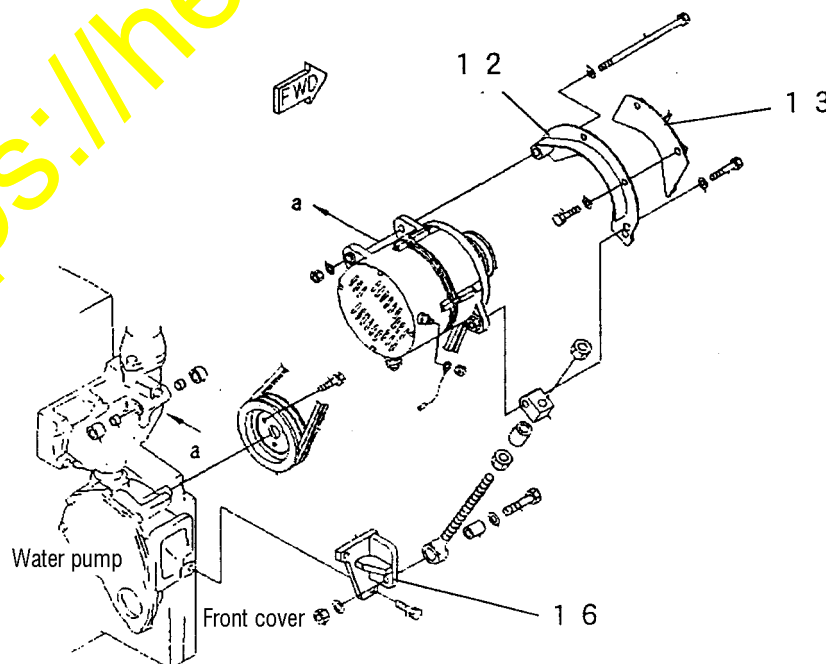


Fig. 3 Removing the alternator cover

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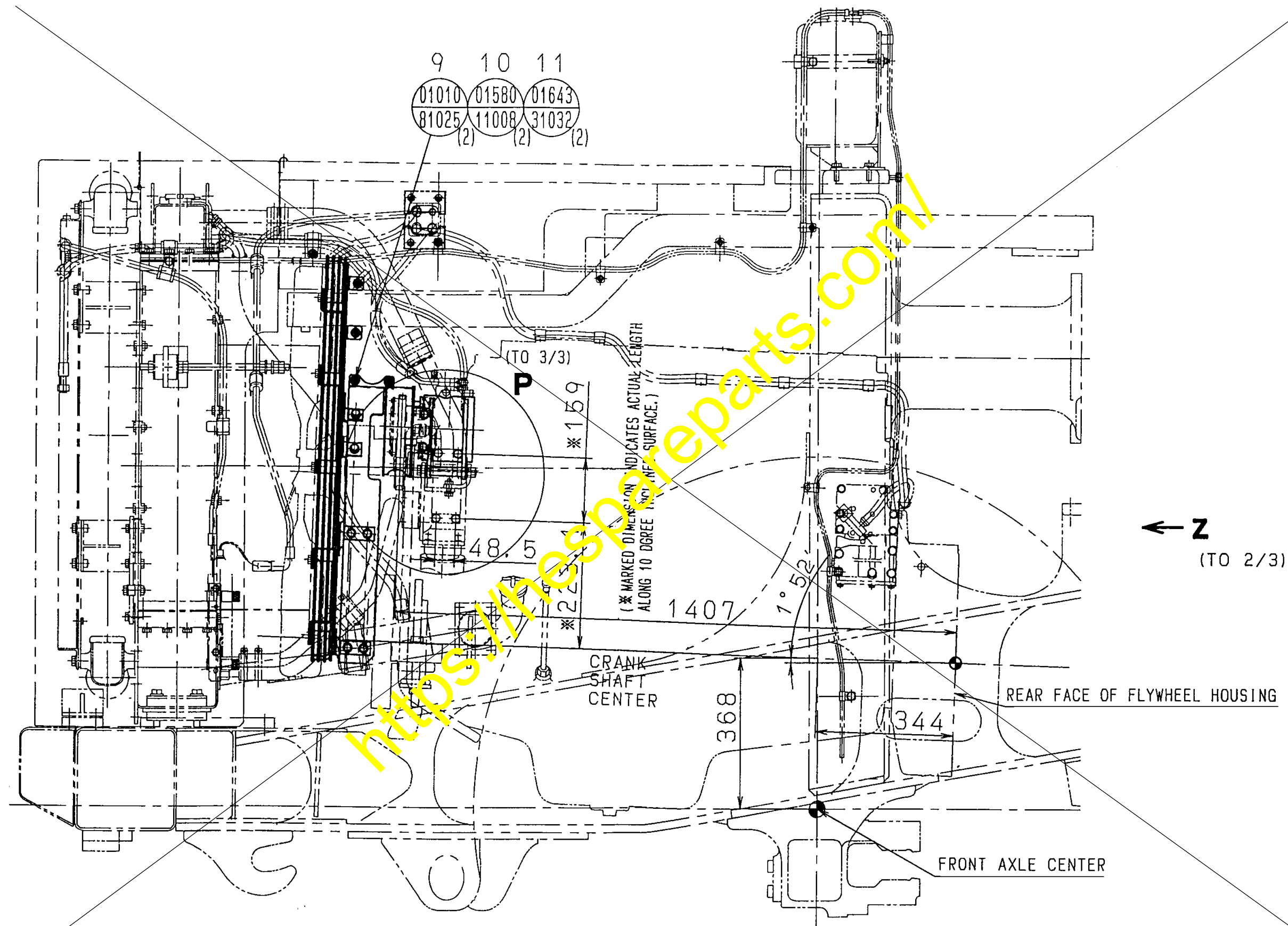


Fig. 4 Installing the fan belt cover and the air conditioner compressor cover (1/3)

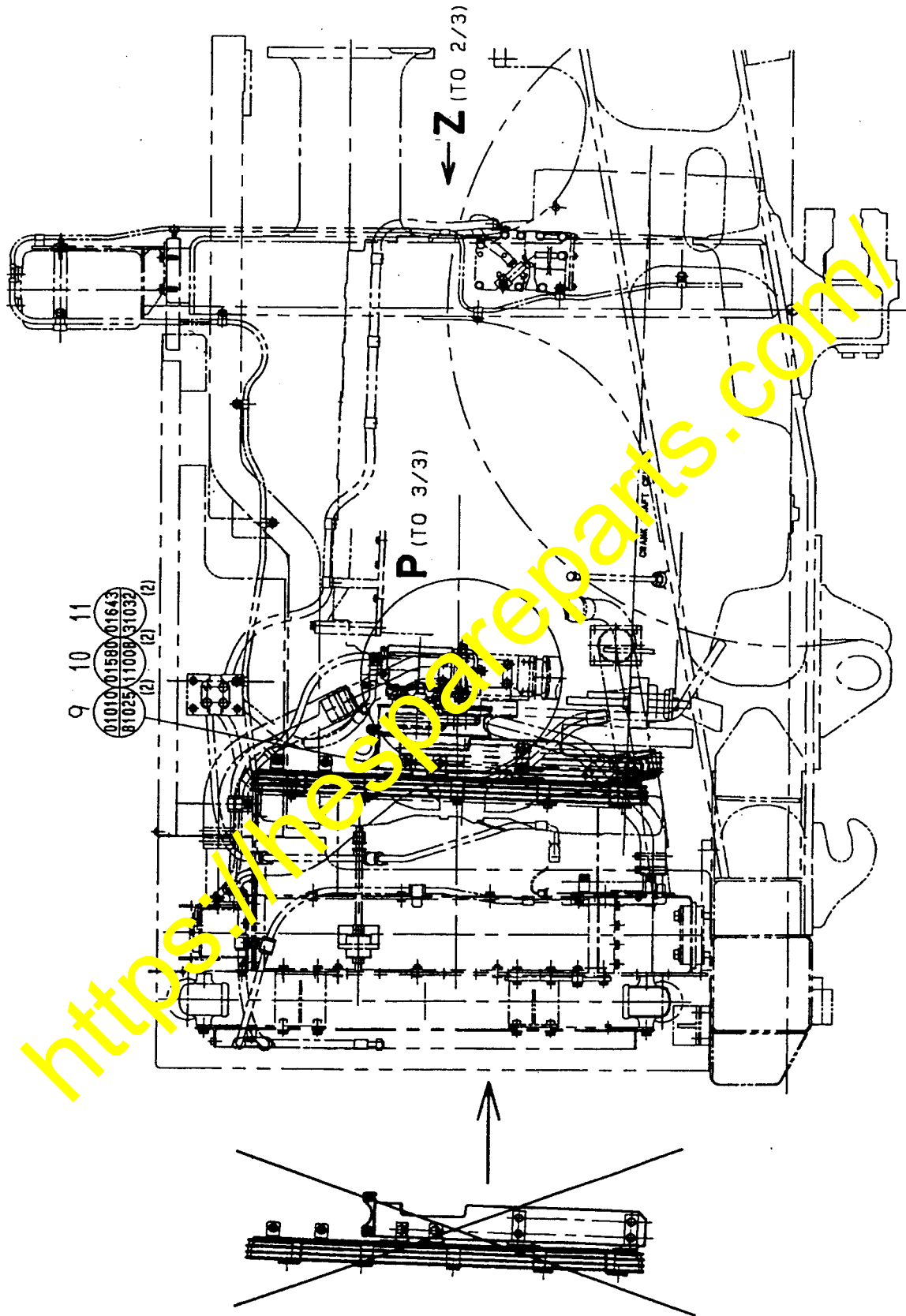


Fig. 4 Installing the fan belt cover and the air conditioner compressor cover (1/3)

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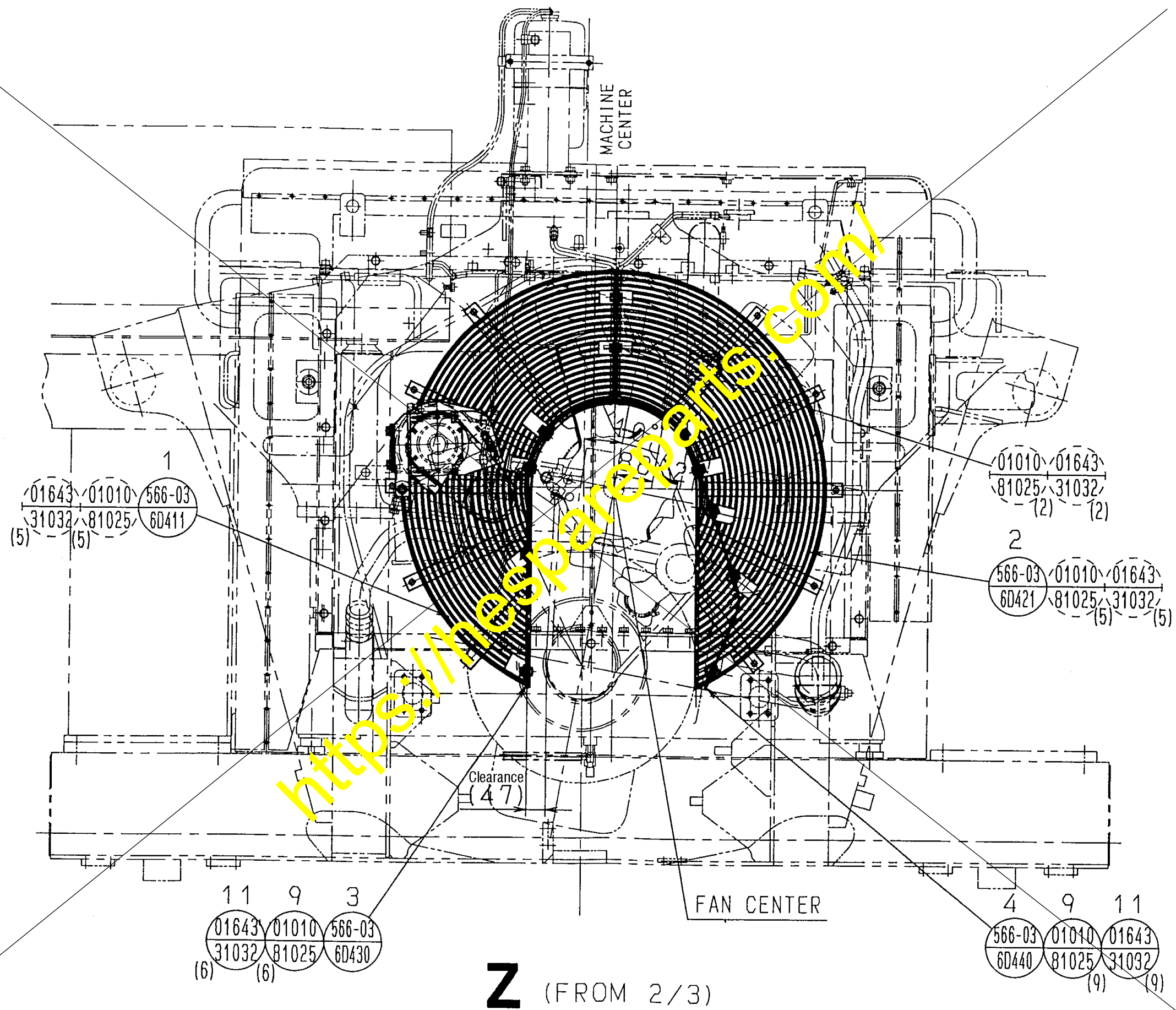


Fig. 4 Installing the fan belt cover and the air conditioner compressor cover (2/3)

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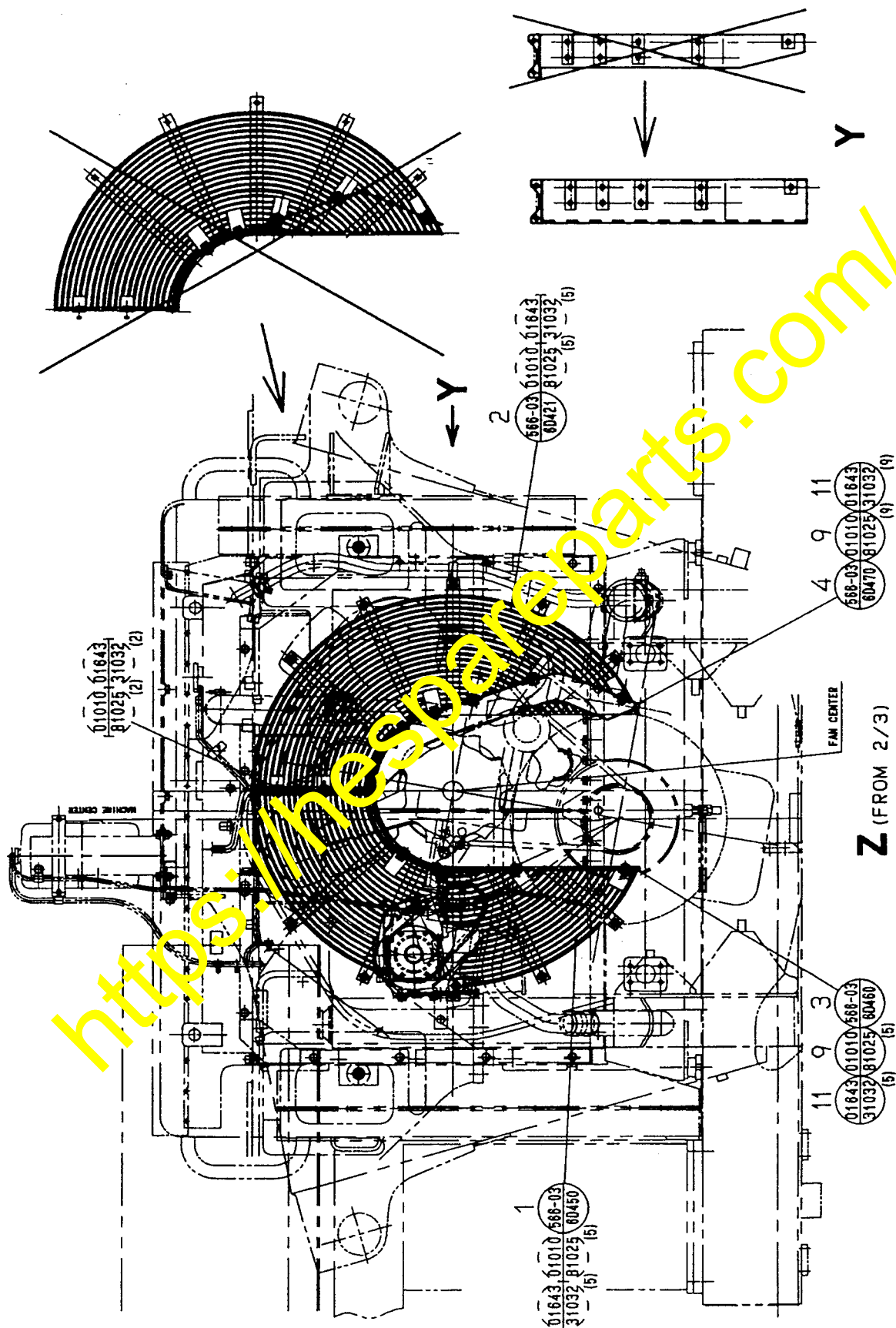


Fig. 5 Installing the fan belt cover and the air conditioner compressor cover (2/3)

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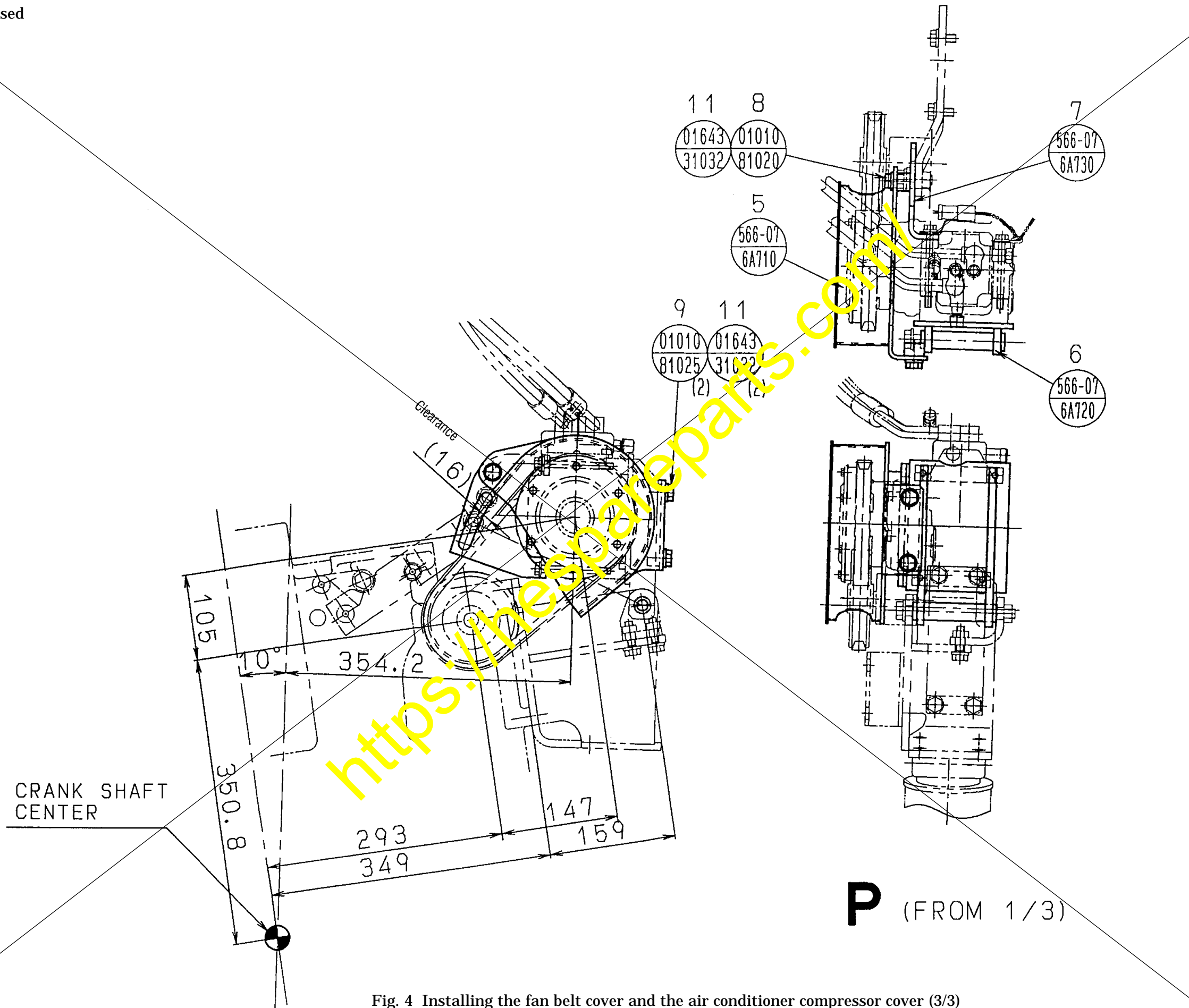



Fig. 4 Installing the fan belt cover and the air conditioner compressor cover (3/3)

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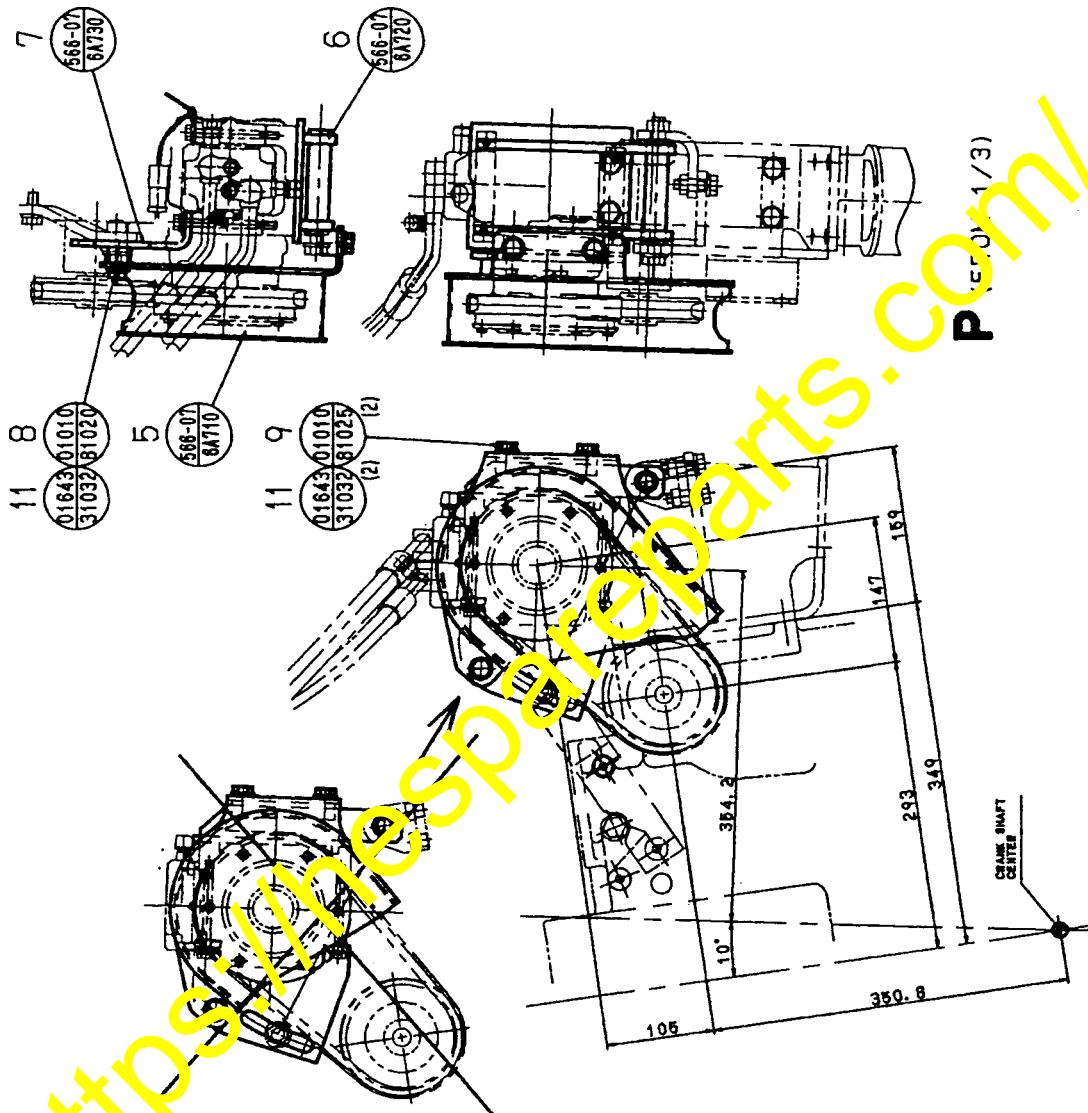


Fig. 6 Installing the fan belt cover and the air conditioner compressor cover (3/3)

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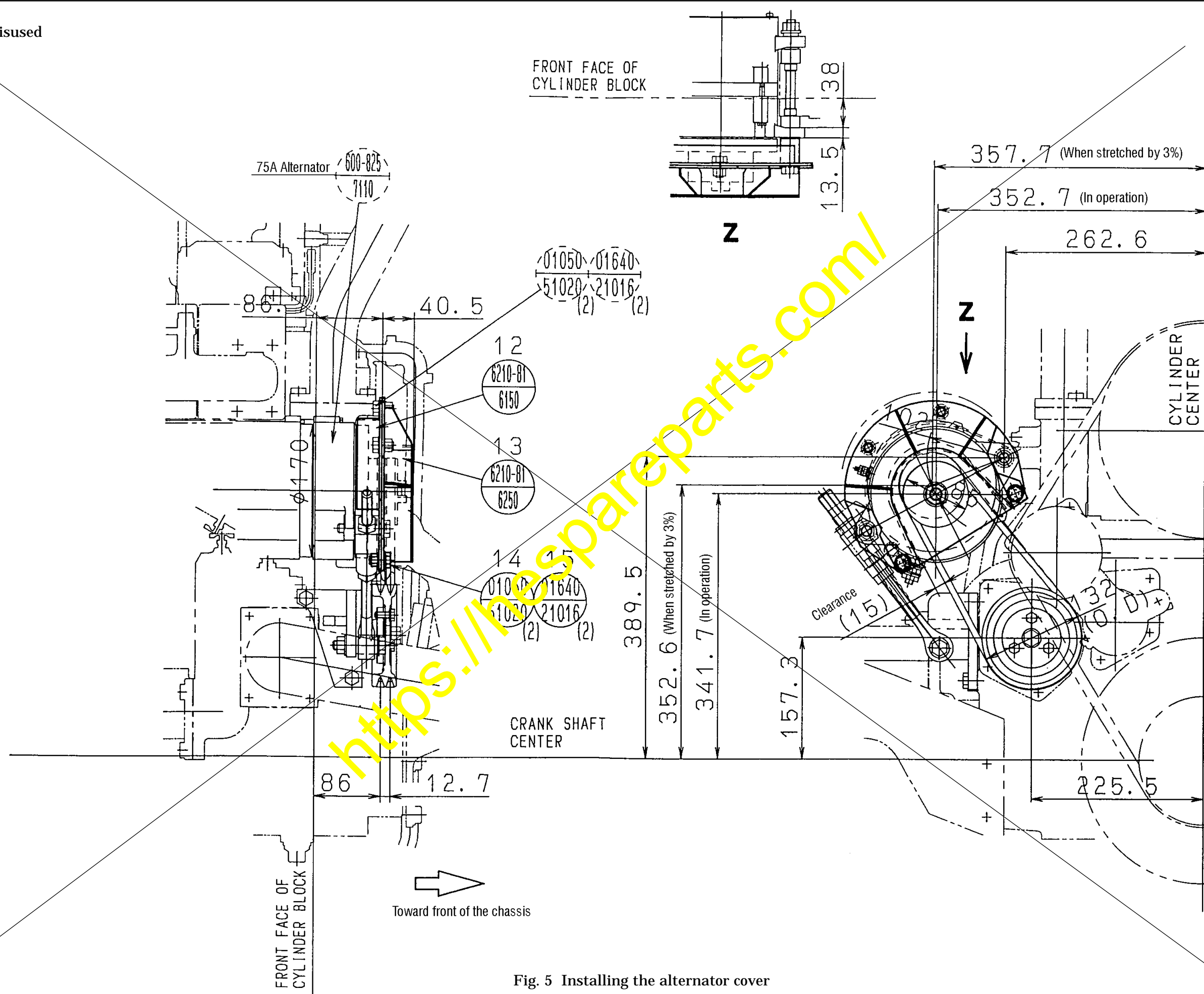


Fig. 5 Installing the alternator cover

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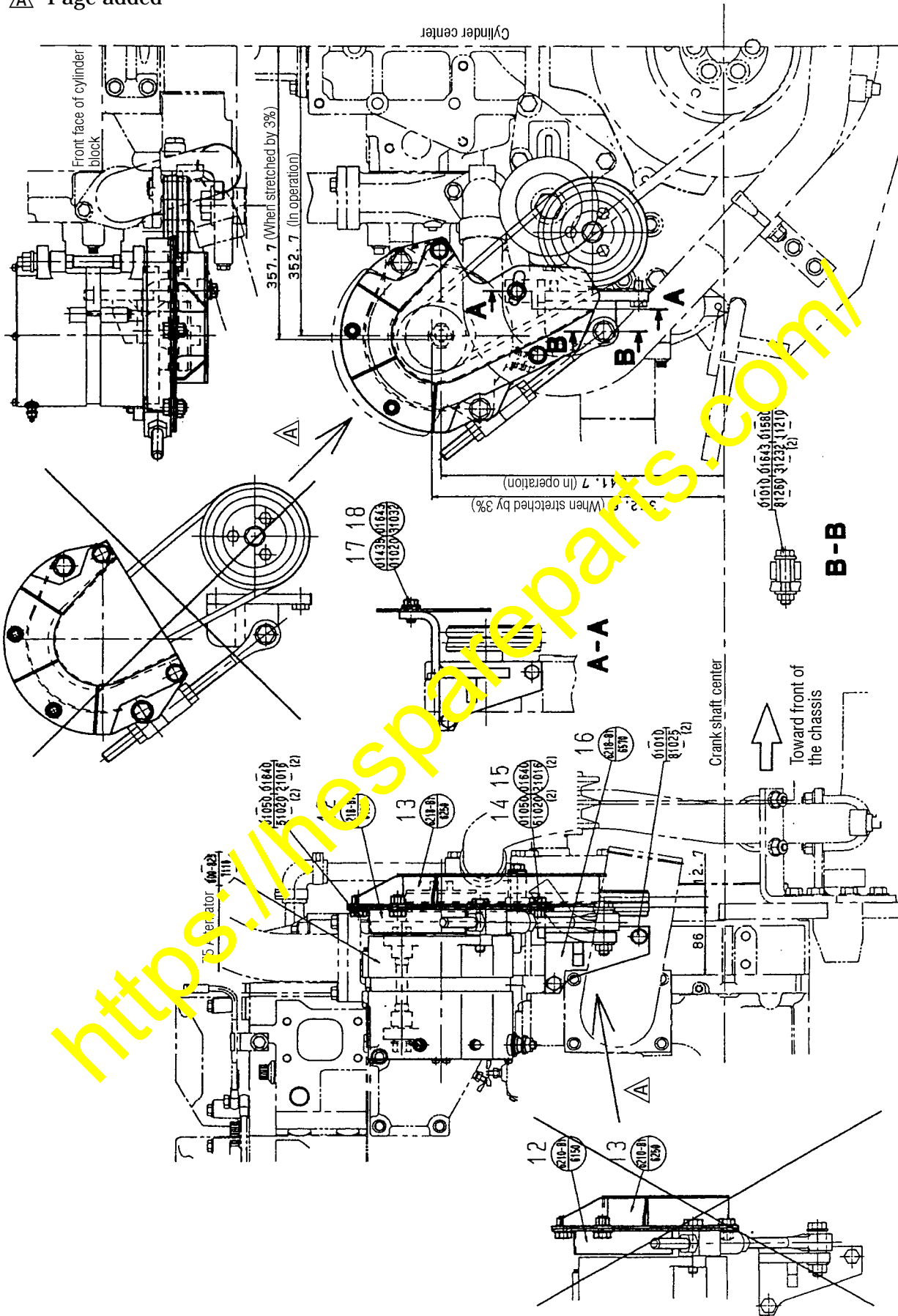


Fig. 7 Installing the alternator cover

5. Inspections

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

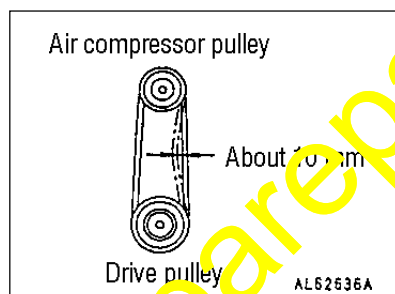
For more details, refer to the Operation and Maintenance Manual.

5-1 Inspecting the fan belt

- Check and make sure that the V-belt is not interfering with the cover 3 and 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 {5 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 13.
- 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 98.1 N {about 10 kgf}) and see if a flexure of 13 to 16 mm occurs with the alternator drive belt.

