

# INSTALLATION MANUAL

REF NO.	<b>BT99023</b>
DATE	<b>Jun. 3, 1999</b>

Page 1 of 17

**SUBJECT:** INSTALLATION PROCEDURE OF TIRE INFLATION KIT ON WA800-3/  
WA900-3

**PURPOSE:** To introduce local installation procedures for the optional tire inflation kit  
on WA800-3 and WA900-3 wheel loaders

**APPLICATION:** WA800-3 Wheel Loaders, Serial Nos. 50001 and up  
WA900-3 Wheel Loaders, Serial Nos. 50001 and up  
(Except EC regulation spec.)

**FAILURE CODE:** 3A1099

## DESCRIPTION:

### 1. Introduction

We have prepared an optional tire inflation kit for use on the WA800-3 and WA900-3 wheel loaders. Follow the installation procedures outlined in this Service News when locally installing this option.

[ The tire inflation kit is a system that works to supply air when the air pressure of the tires drops below the prescribed level. ]

## CONTENTS

2. List of necessary parts .....	P2 – P6
3. Reworking procedure .....	
(1) Reworking with the rear frame .....	P7
(2) Reworking with the outer door bracket .....	P8
(3) Reworking with the power train guard (front) .....	P8
(Note) With vehicles equipped with the power train guard only	
4. Installation procedures .....	
(1) Installation procedures for the air compressor .....	P9 – P12
(2) Installation procedures for the tire inflation piping .....	P13 – P16
5. Air circuit .....	P17

## 2. List of parts

Part No.	Part Name	Q'ty	Remarks
Engine side air compressor parts			
07206-31824	Bolt, joint	1	
6137-81-3140	Bolt, joint	2	
6164-91-6220	Gasket	6	
<b>6215-81-1220</b>	Clamp	2	
01643-31032	Washer	1	
01010-81050	Bolt	1	
01580-1 1008	Nut	1	
6215-81-5250	Tube	1	
6215-81-5270	Tube	1	
6166-91-6170	Joint	1	
6166-91-6160	Bolt, joint	2	
6164-91-6220	Gasket	6	
07206-31014	Bolt, joint	3	
07003-01419	Gasket	6	
6215-81-5261	Tube	1	
6215-81-5281	Tube	1	
07206-31014	Bolt, joint	1	
6127-71-5710	Bolt, joint	1	
07003-01419	Gasket	5	
6162-83-6011	Unloader valve	1	
01010-31055	Bolt	2	
6215-81-5290	Tube	2	
6215-81-5391	Clip	1	
01437-01245	Bolt	1	
6215-81-6190	Gasket	1	
6215-71-3721	Plate	1	

Part No.	Part Name	Q'ty	Remarks
6215815330	Tube	1	
6215-81-5311	Tube	1	
6215-81-5320	Tube	1	
07206-31014	Bolt, joint	6	
07005-01412	Gasket	2	
6215-81-5391	Clip	1	
6215-81-5221	Tube	1	
6215-81-5211	Tube	1	
6150-51-9470	Bolt, joint	1	
07206-30710	Bolt, joint	4	
07005-01012	Gasket	10	
6215-81-3101	Air compressor-e	1	Engine side air compressor installation parts
6215-81-3201	Air compressore	1	
6215-81-4172	Shaft	1	
6215-81-4150	Coupling	1	
01583-02012	Nut	2	
01643-32060	Washer	2	
04010-00519	Key	2	
07000-62 100	O-ring	2	
01010-31295	Bolt	3	
01010-31335	Bolt	2	
01010-31245	Bolt	2	
0437 01245	Bolt	1	
6215-81-5340	Connector	1	
6212-61-6661	Gasket	1	
01010-81025	Bolt	2	
07211-51824	Nipple	1	
6164-91-6220	Gasket	1	
6215-81-5350	Tube	1	
6215-81-5360	Tube	1	

Part No.	Part Name	Q'ty	Remarks
Chassis side tire inflation piping parts			
427-266-2 130	Tube	1	
<b>427-35-12610</b>	Plate	2	
01011-81070	Bolt	2	
<b>423-N86-1150</b>	Spacer	2	
427-266-2 140	Bracket	2	
01010-81245	Bolt	2	
07283-2 1529	Clip	4	
07283-5 1523	Seat	4	
0 1596-00807	Nut	8	
01643-30823	Washer	8	
427-266-2 150	Hose	1	
426-35-1 1590	Bracket	1	
01435-01016	Bolt	1	
233-44-1 7720	Elbow	1	
421-35-12190	Check valve	1	
427-35-12380	Connector	1	
427-35-12810	Connector	1	
427-266-2110	Tube	1	
04434-50608	Clip	1	
427-35-12840	Hose	1	
<b>193-60-15320</b>	Elbow	1	
560-25-42530	Governor	1	

Part No.	Part Name	Q'ty	Remarks
01435-00875	Bolt	2	
<b>19M-60-15320</b>	Elbow	1	
203-70-56570	Nipple	1	
07102-20253	Hose	1	
07238-10210	Connector	1	
04434-51510	Clip	3	
04434-52110	Clip	8	
04434-51410	Clip	3	
01010-81025	Bolt	4	
01643-31032	Washer	8	
01596-01009	Nut	4	
01010-81025	Bolt	4	
01643-31032	Washer	8	
01435-01016	Bolt	6	
01435-01020	Bolt	1	
<b>419-U83-1111</b>	Reserver	1	
01010-81025	Bolt	4	
01643-31032	Washer	4	
427-266-2 160	Bracket	1	
01010-81223	Bolt	4	
01643-31232	Washer	4	
427-70-12140	Elbow	1	
566-35-42350	Safety V. ass'y	1	
421-09-12720	Bushing	1	

Part No.	Part Name	Q'ty	Remarks
07217-70712	Elbow	1	
427-266-2 170	Tube	1	
07214-70710	Connector	1	
22X-44-1 1210	Drain valve	1	
07325-30200	Nipple	1	
07324-90200	Tee	1	
07217-71013	Elbow	1	
427-266-2190	Tube	1	
04434-51010	Clip	3	
01435-01016	Bolt	3	
07214-71013	Connector	1	
<b>07880-</b> 10500	Socket, coupling	1	
426-35-15410	Cap	1	
09288-20011	Hose	1	
09285-00000	Adapter	4	
427-266-2210	Plate	1	
01571-01016	Seat	5	
<b>419-46-12H80</b>	Seat	2	
01573-22306	Seat	2	
427-266-2 190	Bracket	1	For reworking
426-46-12510	Block	1	
200-62-24880	Seat	2	
427-266-2120	Plate	1	

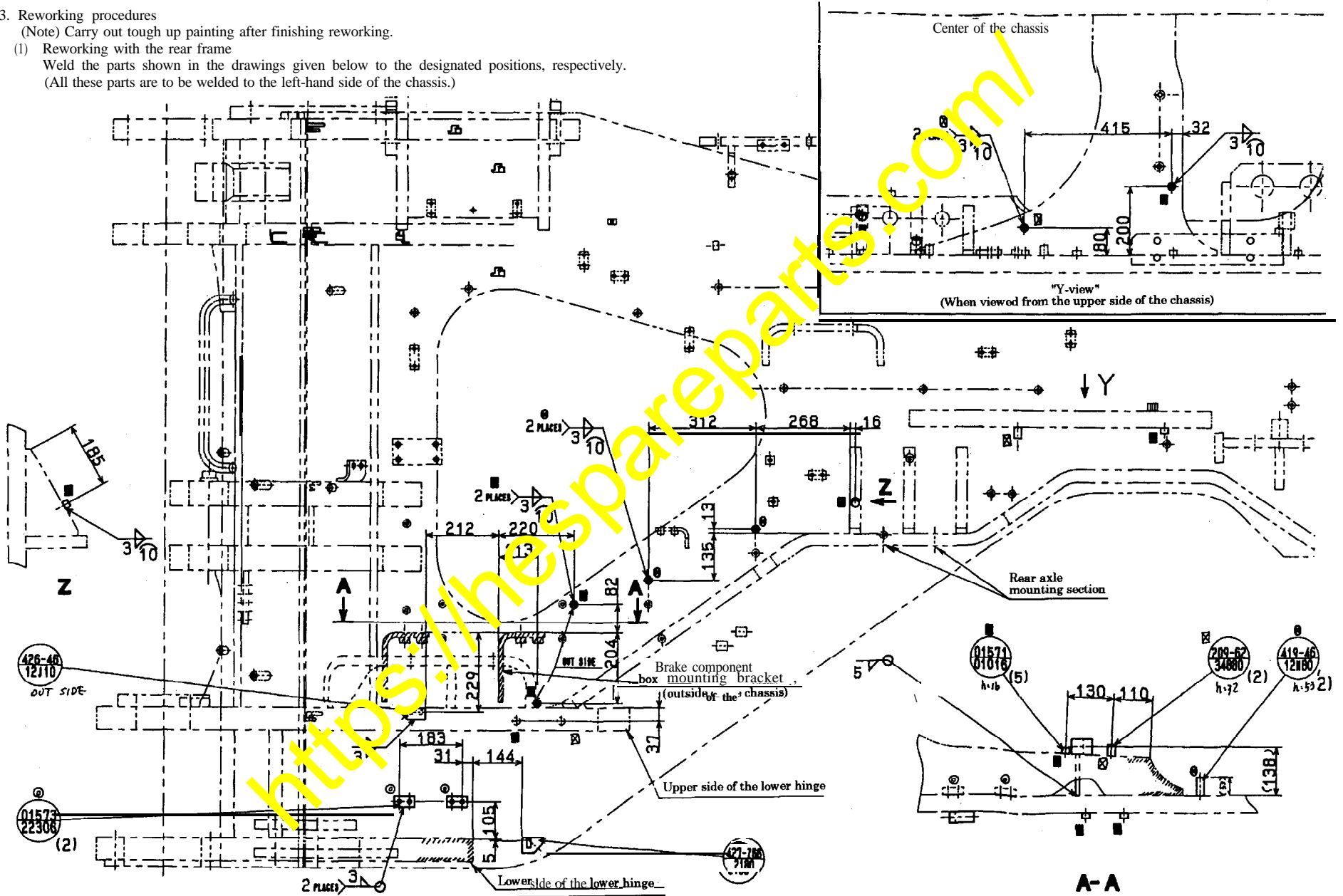
3. Reworking procedures

(Note) Carry out touch up painting after finishing reworking.

(1) Reworking with the rear frame

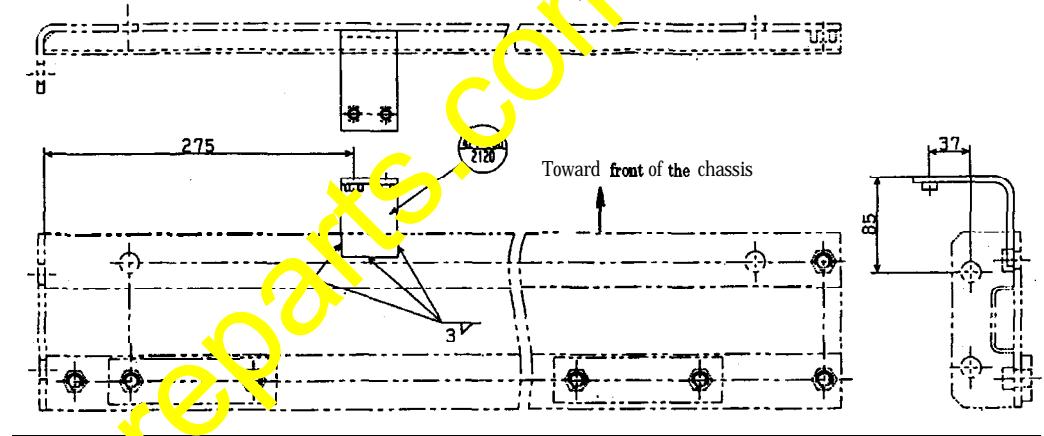
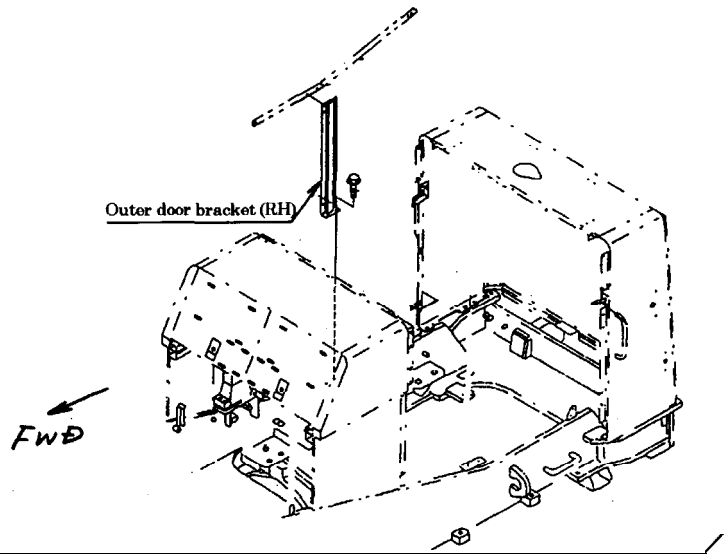
Weld the parts shown in the drawings given below to the designated positions, respectively.

(All these parts are to be welded to the left-hand side of the chassis.)



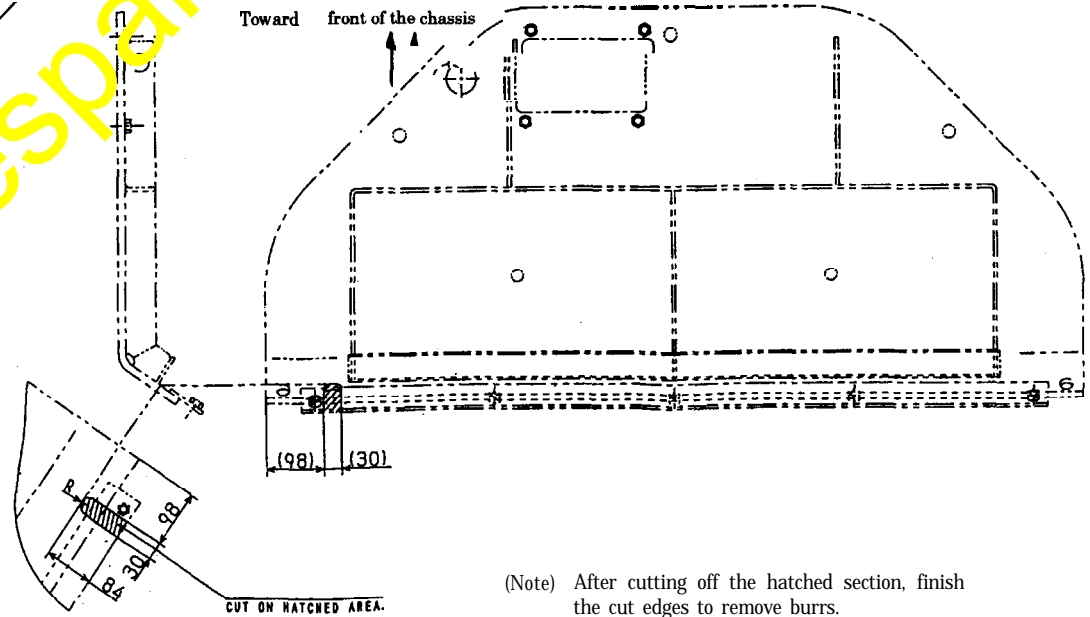
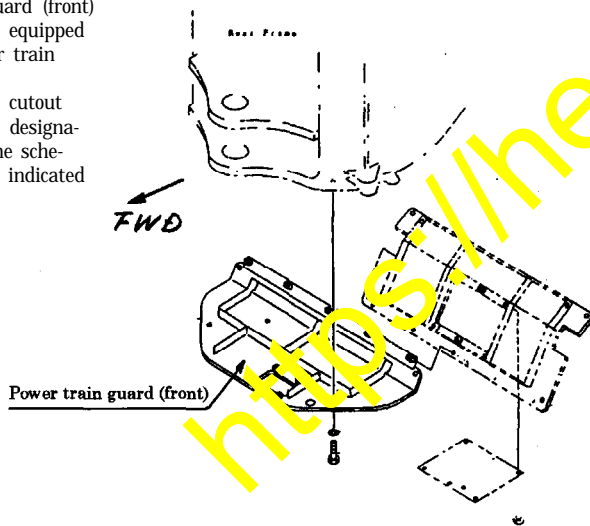
(2) Reworking with the outer door bracket (RH side only)

Weld the prepared part (427-Z66-2120) according to the designation given below.



(3) Reworking with the power train guard (front)  
(With vehicles equipped with the power train guard only)

Supplement the cutout according to the designations given in the schematic diagrams indicated below.



(Note) After cutting off the hatched section, finish the cut edges to remove burrs.




## 4. Installation procedures

## (1) Installation procedures for the air compressor


(The air compressors are mounted on the RH side of the chassis.)

Refer to pages 10 thru 12 regarding part numbers.

- 1) Setting the key to the air compressor (at the rear side of the chassis) ⑦, install the spline shaft ⑨.


 Nut:  $17.5 \pm 2.5 \text{kgm}$

- 2) Setting the key to the air compressor (at the front side of the chassis) ⑧, install the gear ⑩.

 Nut:  $17.5 \pm 2.5 \text{kgm}$


When inserting the gear ⑩ into the cover, align the match mark "C" on the gear ⑩ to the match mark "C" of the fuel injection pump drive gear.

- 3) Setting the O-ring, install the air compressor assembly (at the front side of the chassis) ⑧.
- 4) Setting the O-ring and applying grease on the spline shaft, install the air compressor (at the rear side of the chassis) ⑦.


 Splined section: Apply grease (GZ-1).

Detach the plates being attached to the surfaces of the flange of the cover, to which the air compressor is to be installed, before removing the liquid gasket to clean the flange surface.


- 5) Install the unloader valve ⑥.
- 6) Mount the gasket and install the lubricant tube to the side surface of the air compressor.

 Joint bolt:  $1.15 \pm 0.15 \text{kgm}$

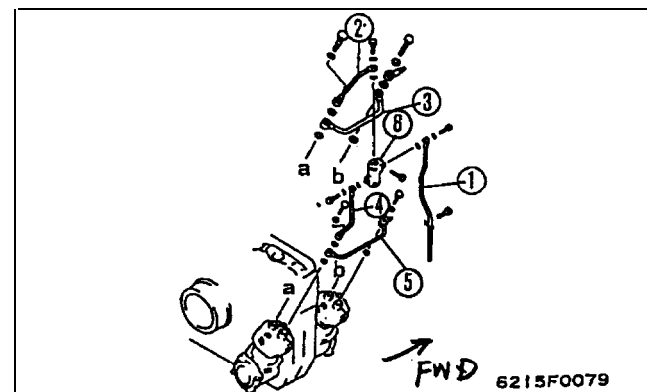
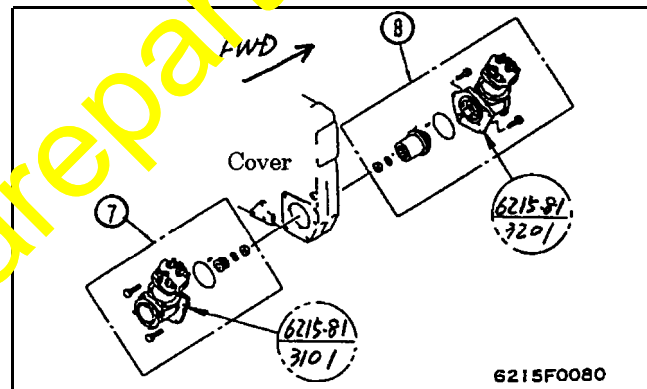
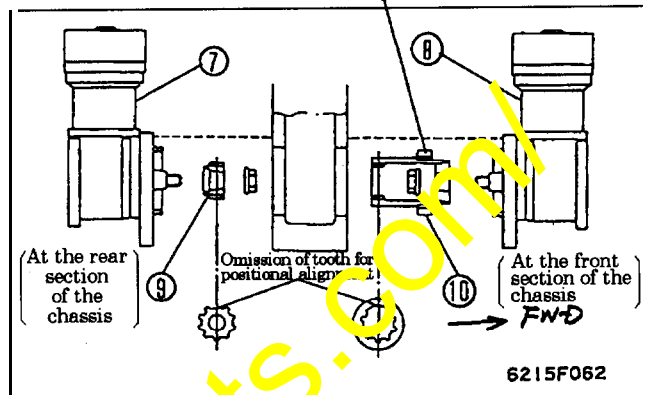
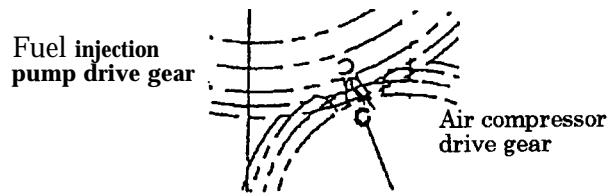
- 7) Mounting the gasket, install the cooling water tubes ⑤ and ④.

 Joint bolt: 3 kgm

- 8) Mounting the gasket, install the air tubes ③, ② and ①.

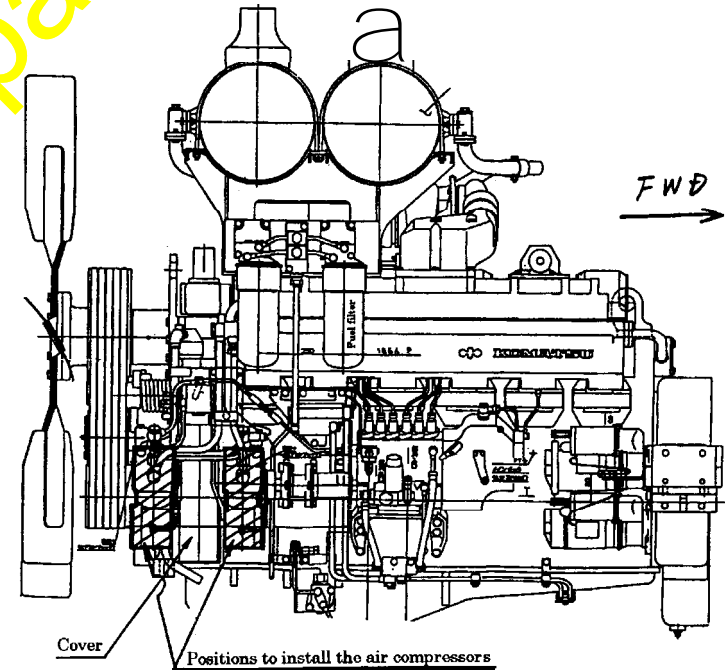
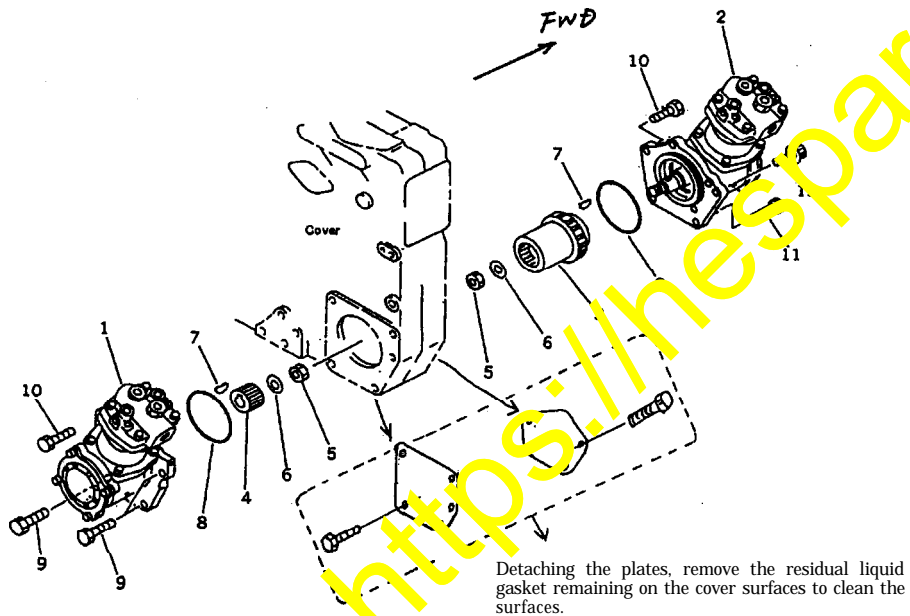
 Joint bolts ③ and ② : 8 kgm

 Joint bolt ① : 3 kgm



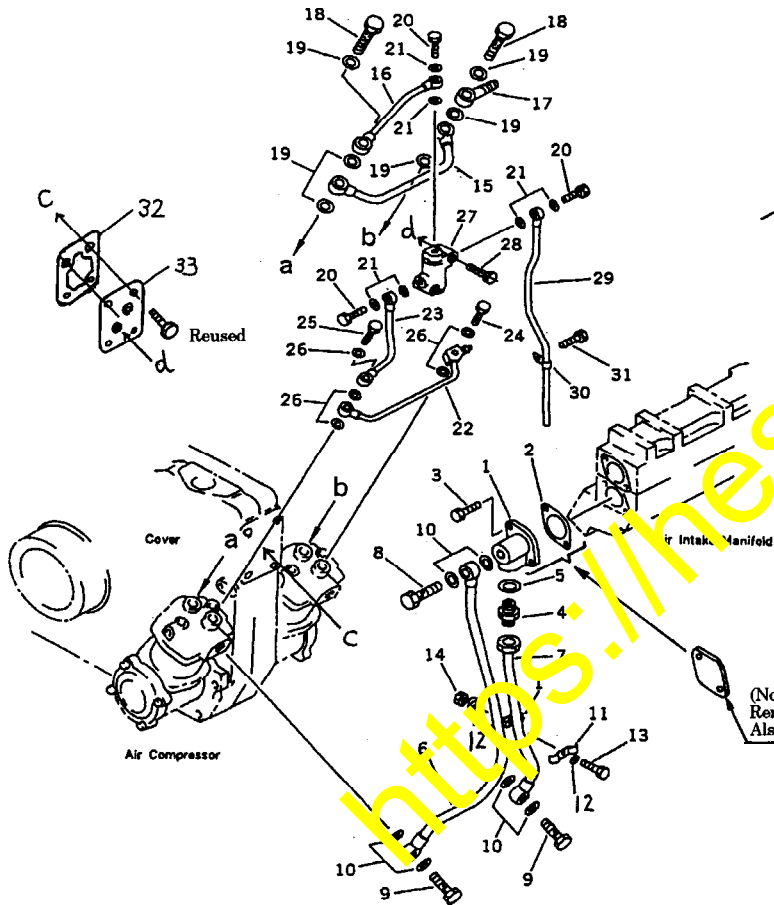
Air compressor and mounting

Codes	Part No.	Part name	Qty
1	6215-81-3101	AIR COMPRESSOR ASSEMBLY	1
2	6215-81-3201	AIR COMPRESSOR ASSEMBLY	1
3	6215-81-0177	SHAFT	1
4	6215-81-0150	COUPLING	1
5	01553-001	NUT	2
6	0143-32-60	WASHER	2
7	04012-00519	KEY	2
8	0700-62100	O-RING	2
9	01010-31295	BOLT	3
10	01010-31235	BOLT	2
11	01010-31245	BOLT	2
12	01437-01245	BOLT	1



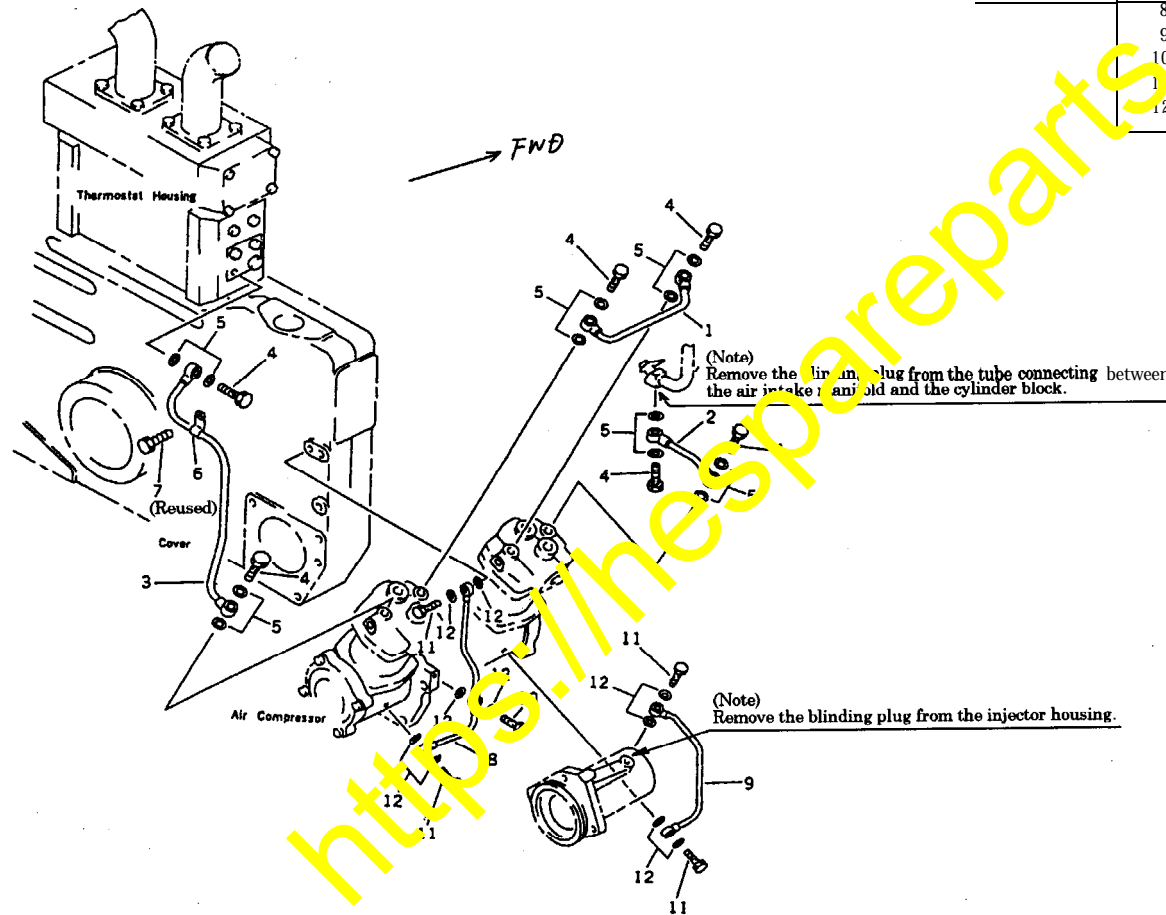
RH side of the chassis

Air compressor piping (1/2)



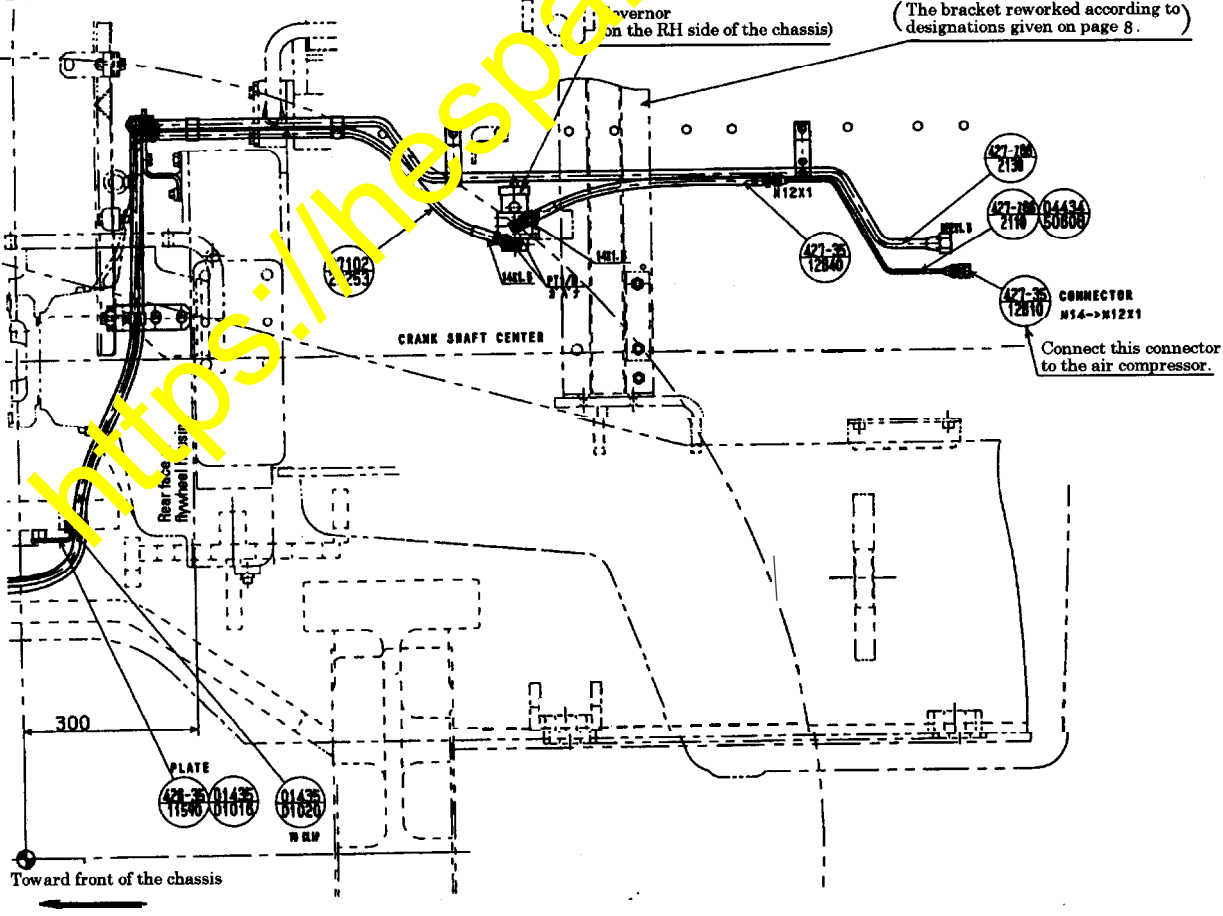
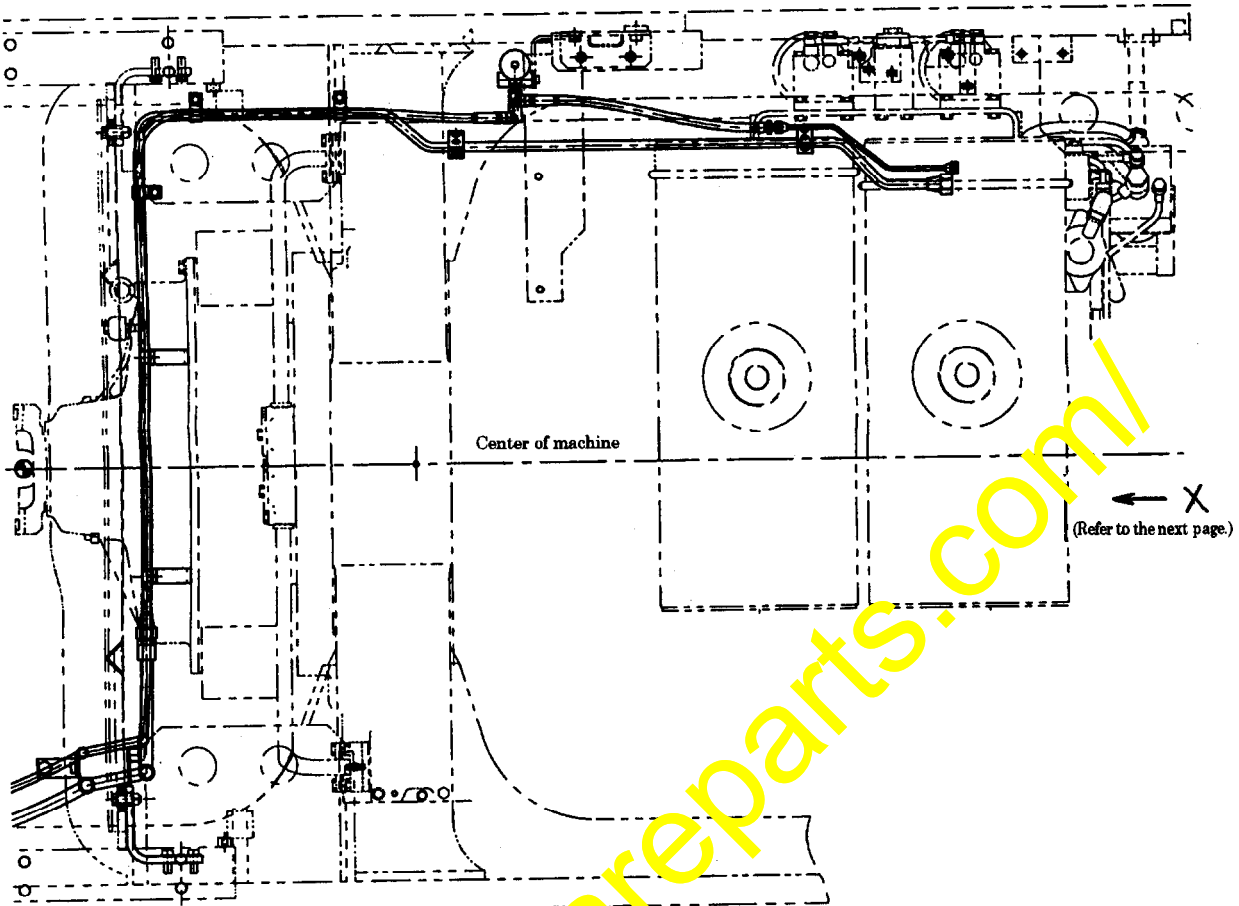
Codes	Part . . No.	Part name	Qty
1	<b>6215-81-5340</b>	CONNECTOR	1
2	6212-61-661	GASKET	1
3	01010-81055	BOLT	2
4	07211-31824	NIPPLE	1
5	6164-91-6220	GASKET	1
6	<b>6215-81-5350</b>	TUBE	1
7	<b>6215-81-5360</b>	TUBE	1
8	07206-31824	BOLT, JOINT	1
9	<b>6137-81-3140</b>	BOLT, JOINT	2
10	6164-91-6220	GASKET	6
11	<b>6215-81-1220</b>	CLAMP	2
12	01643-31032	WASHER	1
13	<b>01010-81050</b>	BOLT	1
14	01580-11008	NUT	1
15	<b>6215-81-5250</b>	TUBE, AIR BYPASS	1
16	<b>6215-81-5270</b>	TUBE, UNLOADER	1
17	6166-91-6170	JOINT, AIR	1
18	6166-91-6160	BOLT, JOINT	2
19	6164-91-6220	GASKET	6
20	07206-31014	BOLT, JOINT	3
21	07003-01419	GASKET	6
22	6215-81-5261	TUBE, AIR BYPASS	1
23	6215-81-5281	TUBE, UNLOADER	1
24	07206-31014	BOLT, JOINT	1
25	6127-71-5710	BOLT, JOINT	1
26	07003-01419	GASKET	5
27	6162-83-6911	UNLOADER VALVE ASSEMBLY	1
28	01010-31055	BOLT	2
29	<b>6215-81-5290</b>	TUBE, AIR DRAIN	1
30	6215-81-5391	CLIP	1
31	01437-01245	BOLT	1
32	<b>6215-81-6190</b>	GASKET	1
33	6215-71-3721	PLATE	1

Air compressor piping (2/2)

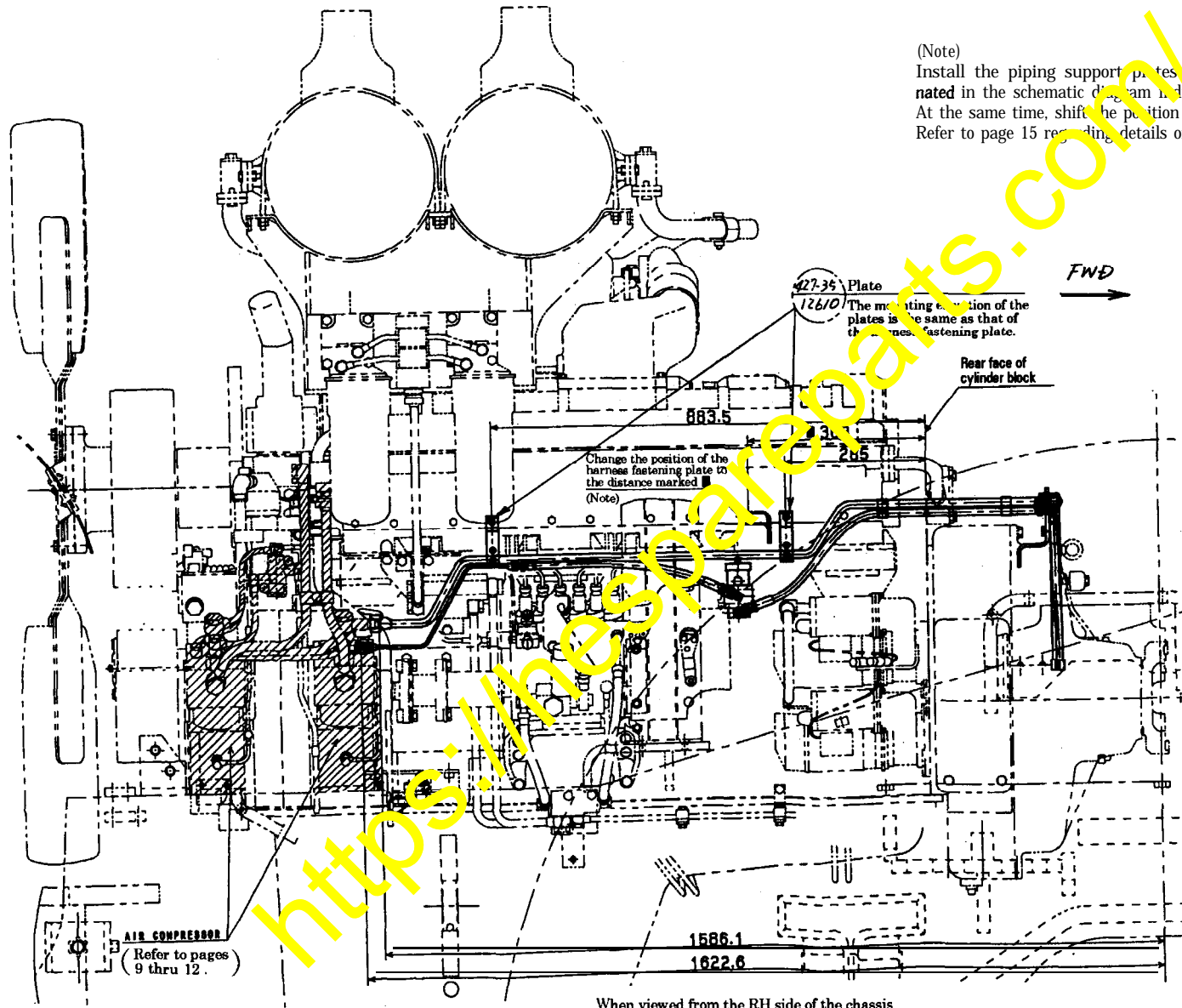


Codes	Part No.	Part name	Q'ty
1	6215-81-5330	TUBE, WATER	1
2	6215-81-5331	TUBE, WATER	1
3	6215-81-5332	TUBE, WATER	1
4	07206-30710	BOLT, JOINT	6
5	07005-01012	GASKET	12
6	615-81-5391	CLIP	1
Reuse this bolt	(01011-31245)	BOLT	1
8	6215-81-5221	TUBE	1
9	6215-81-5211	TUBE	1
10	6150-51-9470	BOLT, JOINT	1
11	07206-30710	BOLT, JOINT	4
12	07005-01012	GASKET	10









(Note)  
Install the piping support plates (427-35-12610) to the positions designated in the schematic diagram indicated below.  
At the same time, shift the position of the harness fastening plate.  
Refer to page 15 regarding details of the installed parts.

When viewed from the RH side of the chassis



5. Air circuit

