

Field Assembly Manual

GALEO D155AX-5 BULLDOZER

SERIAL NUMBERS D155AX-5 76001 and up

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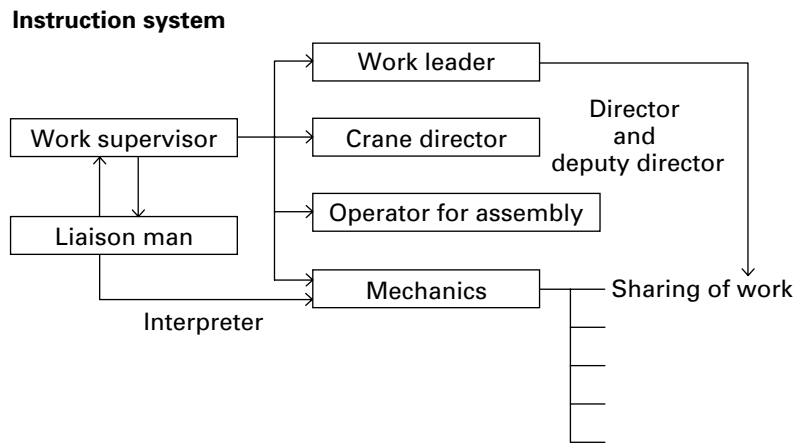
October 2004

PREFACE

Since the work equipment of this machine is heavy, the hydraulic pressure of the machine is used to install it efficiently. Accordingly, the engine is started to operate the hydraulic cylinders.

You are required to execute full inspection and maintenance before starting the engine and assembling the work equipment. Since the work is often carried out in dangerous places and positions by a team, hold a safety meeting in advance and appoint a crane director, work leader, etc. so that all the members can work safely.

When the work is carried out in an overseas country, difference in language, customs, etc. lowers safety. Accordingly, the field liaison man and work supervisor must examine the above points and take necessary measures.



We hope that all the members will cooperate with each other and assemble the work equipment quickly in the field, observing the safety, quality, and delivery time.

CONTENTS

PRECAUTIONS FOR FIELD ASSEMBLY	1
TIGHTENING TORQUE	2
A. ASSEMBLY	
A-1 Installation of operator's cab	8
1. Installation of open lock stopper	8
2. Installation of cab mounting L-plate	8
3. Installation of seal to air conditioner box	10
4. Installation of seals to operator's cab mating face	10
5. Installation of operator's cab	12
6. Installation of interior parts	19
7. Change of antenna mounting angle	23
A-2 Installation of additional working lamps	24
M. TESTING AND ADJUSTING AFTER INSTALLATION	
M-1 Testing and adjusting operator's cab	28
1. Testing painting	28
2. Pressurizing test	28
3. Shower test	29
4. Testing door lock	30
5. Testing open lock	32

PRECAUTIONS FOR FIELD ASSEMBLY

1. Selection of workplace

- 1) When selecting a workplace, consider the following items so that you can load and unload the machine.
 - Width
 - Hardness
 - Flatness
 - Access road, place for turn
- 2) Do not work in a place where dust, rainwater, etc. may enter the hydraulic circuit during assembling work.
- 3) Do not assemble while a strong wind is blowing or it is raining.

2. Preparation and check of slings and tools

- 1) Check each sling and tool thoroughly. When using wood blocks, etc., check that their inside is not rotten or broken.

3. Check of actual work

- 1) Apply the parking brakes of the trailer and crane truck securely and put chocks under their wheels.
- 2) Before starting the work, lower the temperature and pressure of the engine oil, hydraulic oil, cooling water, etc.
- 3) When starting the engine, make an arranged sign such as sounding of the horn and check that the work equipment control lever and travel lever are in neutral and the fuel control dial is at the low idling position.
- 4) When using the crane, balance the load.
- 5) Allow only the persons concerned into the workplace.

4. Before starting the work, read this manual thoroughly and keep the precautions in your mind.

5. The supervisor shall write down the precautions for each work process and explain them to the workers.

6. Hold a meeting every morning to check today's work plan and safe work.

TIGHTENING TORQUE

Remove the plugging parts (flanges, heads, caps, and O-rings) of the work equipment piping and undercarriage piping, plugs of the greasing piping, cylinder fixing jigs, and plugs of the tap holes of the loose-supply items which were used for transportation and keep them carefully so that they can be used again for the next transportation.

Tighten the bolts to the torque shown in the following table, unless otherwise specified in the maintenance standard table.

1. Tightening torque of bolts

When tightening the bolts with an impact wrench/spanner, apply Table 1.

Tighten the bolts according to Table 1 as a rule. When this rule is applied, the tightening torque is not shown in the drawing.

Table 1

Unit: Nm {kgm}

Nominal size of thread (mm)	Material	S43C, SCM43H or higher	
		Range	Target
6		8.8 – 14.7 {0.9 – 1.5}	12 {1.2}
8		14.7 – 34 {1.5 – 3.5}	25 {2.5}
10		34 – 74 {3.5 – 7.5}	54 {5.5}
12		54 – 123 {5.5 – 12.5}	89 {9}
14		84 – 196 {8.5 – 20}	137 {14}
16		147 – 309 {15 – 31.5}	230 {23.5}
18		201 – 427 {20.5 – 43.5}	315 {32}
20		319 – 608 {32.5 – 62}	460 {47}
22		471 – 829 {48 – 84.5}	650 {66.5}
24		588 – 1030 {60 – 105}	810 {82.5}
27		883 – 1470 {90 – 150}	1180 {120}
30		1130 – 1910 {115– 195}	1520 {155}
33		1470 – 2450 {150 – 250}	1960 {200}
36		1860 – 3040 {190 – 310}	2450 {250}
39		2260 – 3630 {230 – 370}	2940 {300}

When tightening the bolts with a torque wrench, apply Table 2.

Apply Table 2 when the proper tightening torque range is particularly narrow.

Table 2

Unit: Nm {kgm}

Nominal size of thread (mm) \ Material	S43C, SCM43H or higher
6	11.8 – 14.7 {1.2 – 1.5}
8	27 – 34 {2.8 – 3.5}
10	59 – 74 {6 – 7.5}
12	98 – 123 {10 – 12.5}
14	157 – 196 {16 – 20}
16	245 – 309 {25 – 31.5}
18	343 – 427 {35 – 43.5}
20	490 – 608 {50 – 62}
22	662 – 829 {67.5 – 84.5}
24	824 – 1030 {84 – 105}
27	1180 – 1470 {120 – 150}
30	1520 – 1910 {155– 195}
33	1960 – 2450 {200 – 250}
36	2450 – 3040 {250 – 310}
39	2890 – 3630 {295 – 370}

2. Tightening torque of pipe threads

Tighten taper male pipe threads of nominal sizes of R1/8 – R1, taper female pipe threads of nominal sizes of Rc1/8 – Rc1, and parallel female pipe threads of nominal sizes of Rp1/8 – Rp1 (coated with adhesive) according to the following standard.

If tightening torque is specified particularly, however, do not apply the following standard.

2-1. If the material of male threads is SS400, FC, or SGP, apply Table 1.

Table 1

Unit: Nm {kgm}

Material of female thread Nominal size	Steel	Cast iron	Light alloy
1 / 8	3.9 – 6.9 {0.4 – 0.7}	2.9 – 5.9 {0.3 – 0.6}	2.0 – 3.9 {0.2 – 0.4}
1 / 4	5.9 – 11.8 {0.6 – 1.2}	4.9 – 9.8 {0.5 – 1.0}	3.9 – 7.8 {0.4 – 0.8}
3 / 8	16.7 – 26.5 {1.7 – 2.7}	13.7 – 21.6 {1.4 – 2.2}	9.8 – 16.7 {1.0 – 1.7}
1 / 2	32.3 – 52.9 {3.3 – 5.4}	26.5 – 43.1 {2.7 – 4.4}	19.6 – 32.3 {2.0 – 3.3}
3 / 4	51.0 – 85.3 {5.2 – 8.7}	42.1 – 70.6 {4.3 – 7.2}	31.4 – 52.9 {3.2 – 5.4}
1	86.2 – 173.5 {8.8 – 17.7}	72.5 – 146.0 {7.4 – 14.9}	54.9 – 111.7 {5.6 – 11.4}

2-2. If the material of male threads is S43C, apply Table 2.

Table 2

Unit: Nm {kgm}

Material of female thread Nominal size	Steel	Cast iron	Light alloy
1 / 8	16.7 – 29.4 {1.7 – 3.0}	9.8 – 19.6 {1.0 – 2.0}	6.9 – 14.7 {0.7 – 1.5}
1 / 4	19.6 – 44.1 {2.0 – 4.5}	16.7 – 37.2 {1.7 – 3.8}	12.7 – 28.4 {1.3 – 2.9}
3 / 8	44.1 – 93.1 {4.5 – 9.5}	37.2 – 77.4 {3.8 – 7.9}	27.4 – 58.8 {2.8 – 6.0}
1 / 2	98.0 – 188.2 {10.0 – 19.2}	83.3 – 157.8 {8.5 – 16.1}	60.8 – 115.6 {6.2 – 11.8}
3 / 4	170.5 – 316.5 {17.4 – 32.3}	141.1 – 247.0 {14.4 – 25.2}	105.8 – 186.2 {10.8 – 19.0}
1	367.5 – 612.5 {37.5 – 62.5}	309.7 – 514.5 {31.6 – 52.5}	235.2 – 392.0 {24.0 – 40.0}

3. Tightening torque of hoses (with taper/face seal)

Unit: Nm {kgm}

Nominal diameter of hose	Width across flatse.	Tightening torque	
		Range	Target
02	19	35 – 63 {3.5 – 6.5}	44 {4.5}
03	22	54 – 93 {5.5 – 9.5}	74 {7.5}
	24	59 – 98 {6.0 – 10.0}	78 {8.0}
04	27	84 – 132 {8.5 – 13.5}	103 {10.5}
05	32	128 – 186 {13.0 – 19.0}	157 {16.0}
06	36	177 – 245 {18.0 – 25.0}	216 {22.0}
(10)	41	177 – 245 {18.0 – 25.0}	216 {22.0}
(12)	46	197 – 294 {20.0 – 30.0}	245 {25.0}
(14)	55	246 – 343 {25.0 – 35.0}	294 {30.0}

When connecting hoses, take care not to twist them.

A. ASSEMBLY

Installation of operator's cab (1/16)

1. Installation of open lock stopper

Install left and right open lock stopper mounting grips (1) and (2) with bolts (3) and washers (4) (3 pieces on each side) as shown in the figure.

★ Stopper rubber pieces (5), nuts (6), and washers (7) are installed to the grip when delivered.

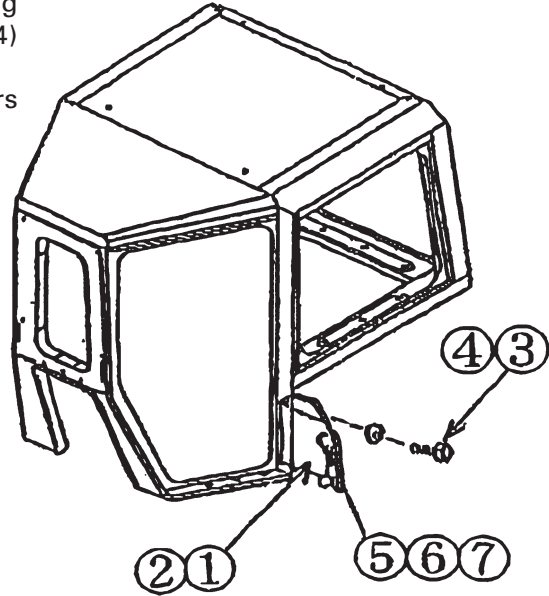


Fig. 1

2. Installation of cab mounting L-plate

Install L-plate (8) to the cab temporary. Loosen bolts (9) before installing the cab.

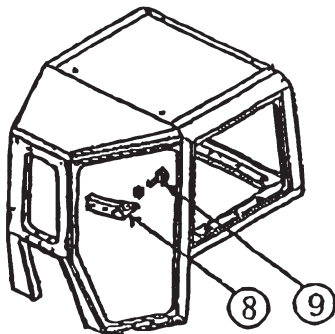


Fig. 2

No.	Part No.	Q'ty
1	17A-Z11-3581	1
2	17A-Z11-3741	1
3	01245-01230	6
4	01643-71232	6
5	09453-00002	2
6	01580-11210	2
7	01643-71232	2
8	17A-Z11-3531	1
9	01024-81230	6

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

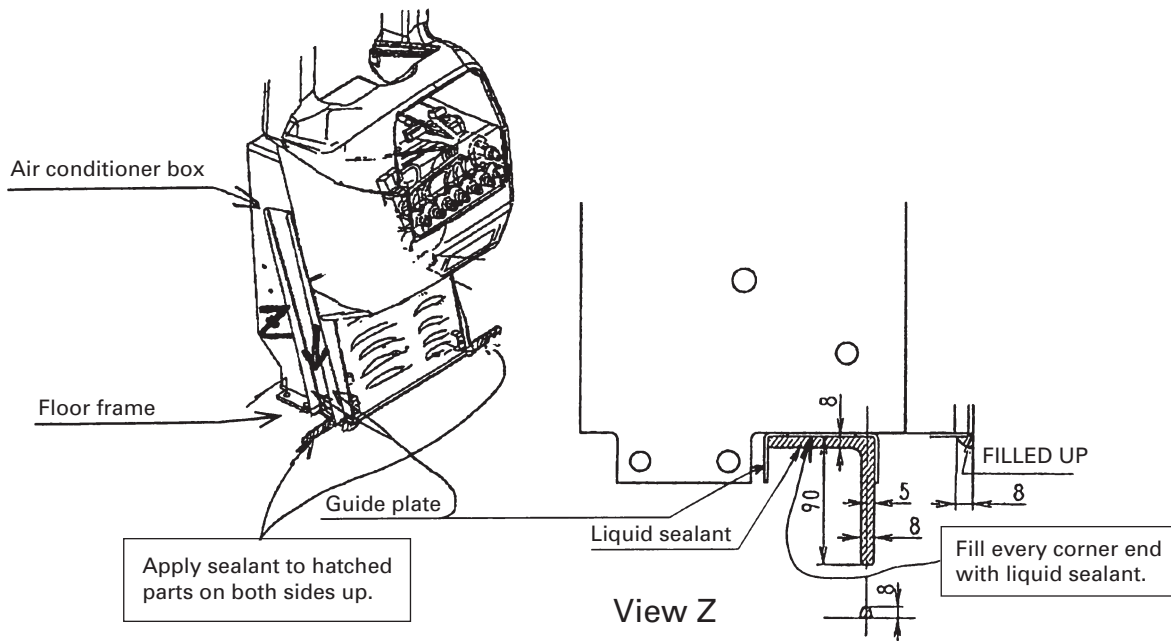
Other items

Assembly procedure

A-1

Installation of operator's cab (2/16)

- Before installing seal (10) to the guide plate of the air conditioner box, apply sealant (58) to the parts shown in the following figure.
- Remove dirt, sand, oil, and grease from the surfaces to be coated with sealant (58).



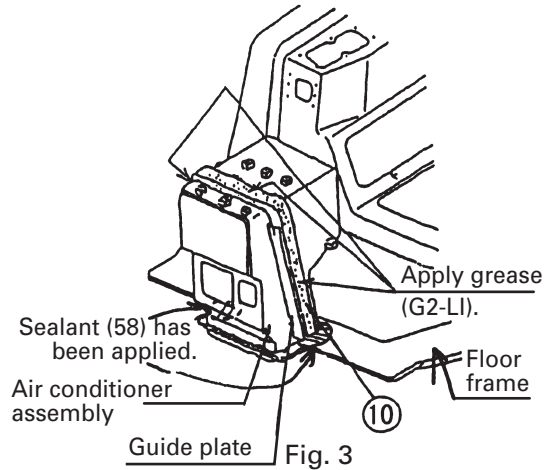
Precautions	Necessary tools		Necessary equipment	
Apply sufficient amount of the sealant particularly around the bottom of the guide plate.	Name	Q'ty	Name	Q'ty
Other items				

Assembly procedure	Installation of operator's cab (3/16)
A-1	

3. Installation of seal to air conditioner box

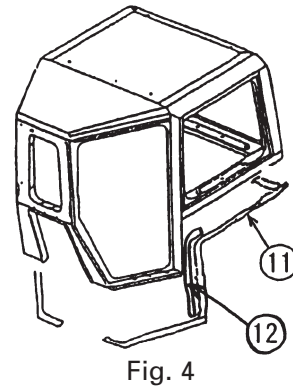
- (1) Apply adhesive (LT-1A) to the inside surface of seal (10) (sealing face against the air conditioner box).
 - ★ Pull seal (10) down to press applied liquid sealant (58), and then apply the adhesive to keep the form of the liquid sealant.
- (2) Fit seal (10) to the guide plate of the air conditioner box.
- (3) Apply grease (G2-LI) to the outside of the seal (the surface to seal the cab).
 - ★ Apply grease so that the cab will slide well and the seal will not be shifted or deformed when the cab is installed.

★ While tensing seal (10) down, install it so that it will be connected to the floor frame.



4. Installation of seals to operator's cab mating face

- (1) Sling the operator's cab assembly.
 - ★ Sling the operator's cab assembly to stick the seal to the mating face.
- Operator's cab assembly: 410 kg
- (2) Remove dirt and grease from the surface to stick the seals.
 - (3) Remove the release paper from seals (11) and (12) and stick the seals, referring to Fig. 5 on the next page.



No.	Part No.	Q'ty
10	17A-Z11-3552	1
11	17A-Z11-3541	5
12	17A-Z11-2320	2
58	198-Z11-3960	2

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
Since seal (10) is longer than the necessary length, cut it properly. While tensing the cut seal, install it to the air conditioner box.				
Other items				

Installation of operator's cab (4/16)

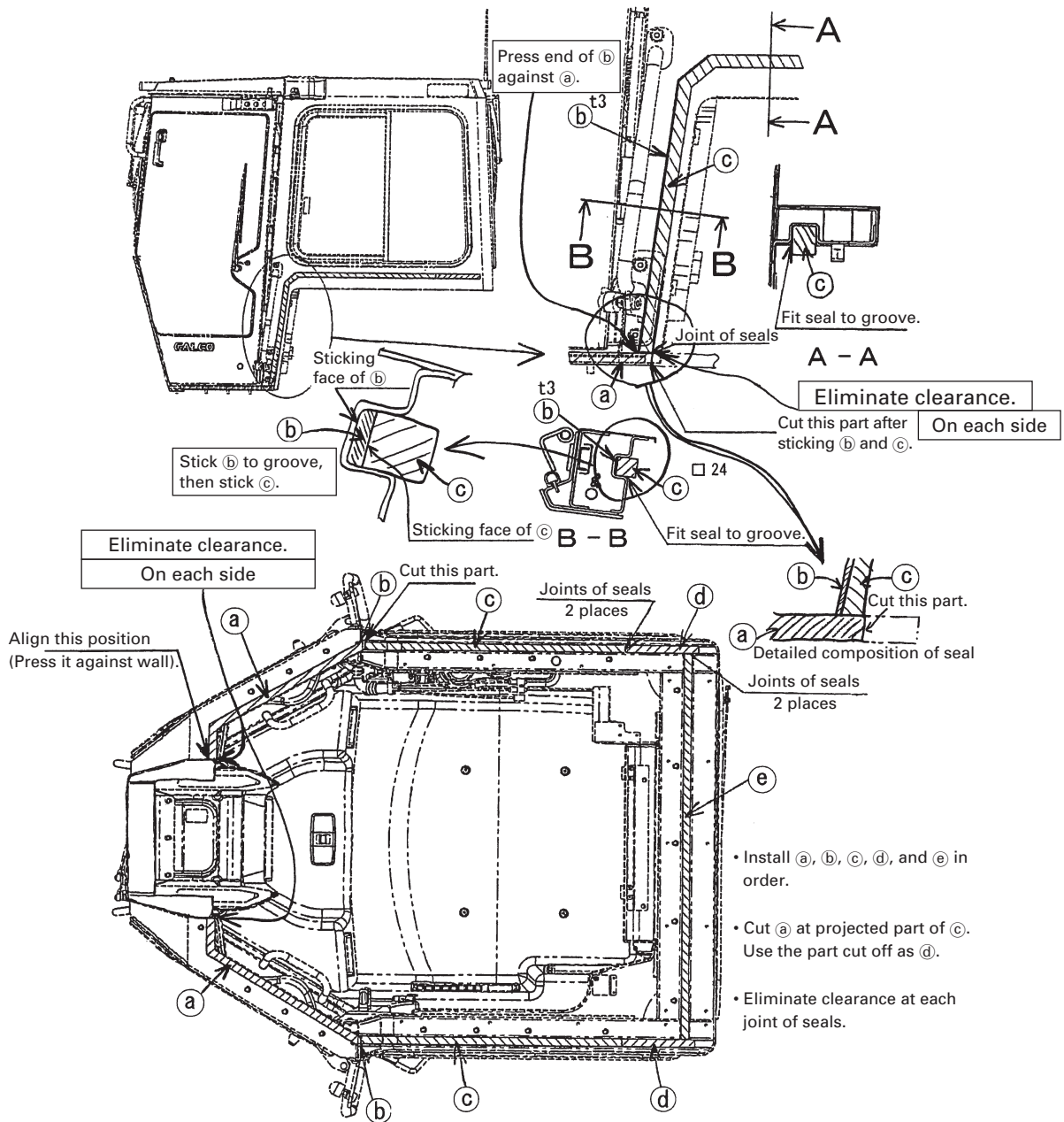


Fig. 5 Method of sticking seals (View from bottom of operator's cab)

Installation of operator's cab (5/16)

5. Installation of operator's cab

- (1) Lower the operator's cab assembly onto the floor frame slowly.
 - ★ Since the reaction force of the seal sponge is large, lower the operator's cab assembly slowly.
 - ★ Take care not to move or damage the seals.
 - ★ Check that the air conditioner duct seal on the cab side is tightly in contact with the air conditioner duct on the dashboard side and there is not clearance between them.
 - ★ Since the clearance between the air conditioner duct on the cab side and the monitor is narrow, lower the operator's cab assembly carefully.
- (2) Tighten bolts (13) and (15) and washers (14) temporarily.
 - ★ Note that the bolt length and washer at the door inlet are different from others.
- (3) Check that the seal between the air conditioner bracket and cab is fitted securely.
- (4) Check that there is not clearance at joint "a" of the seal and floor frame.
- (5) If any clearance is detected as a result of steps (3) and (4) above, install the operator's cab again from the first step.

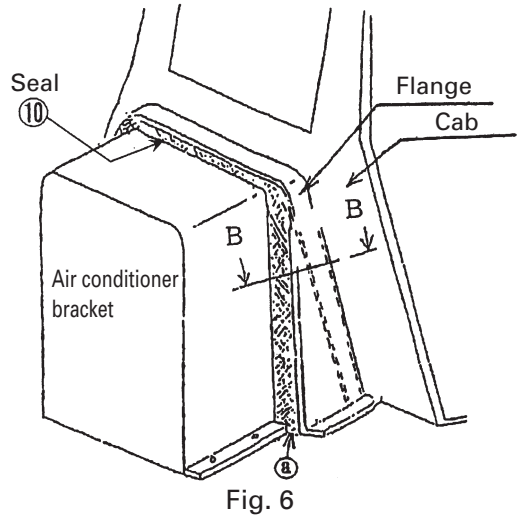


Fig. 6

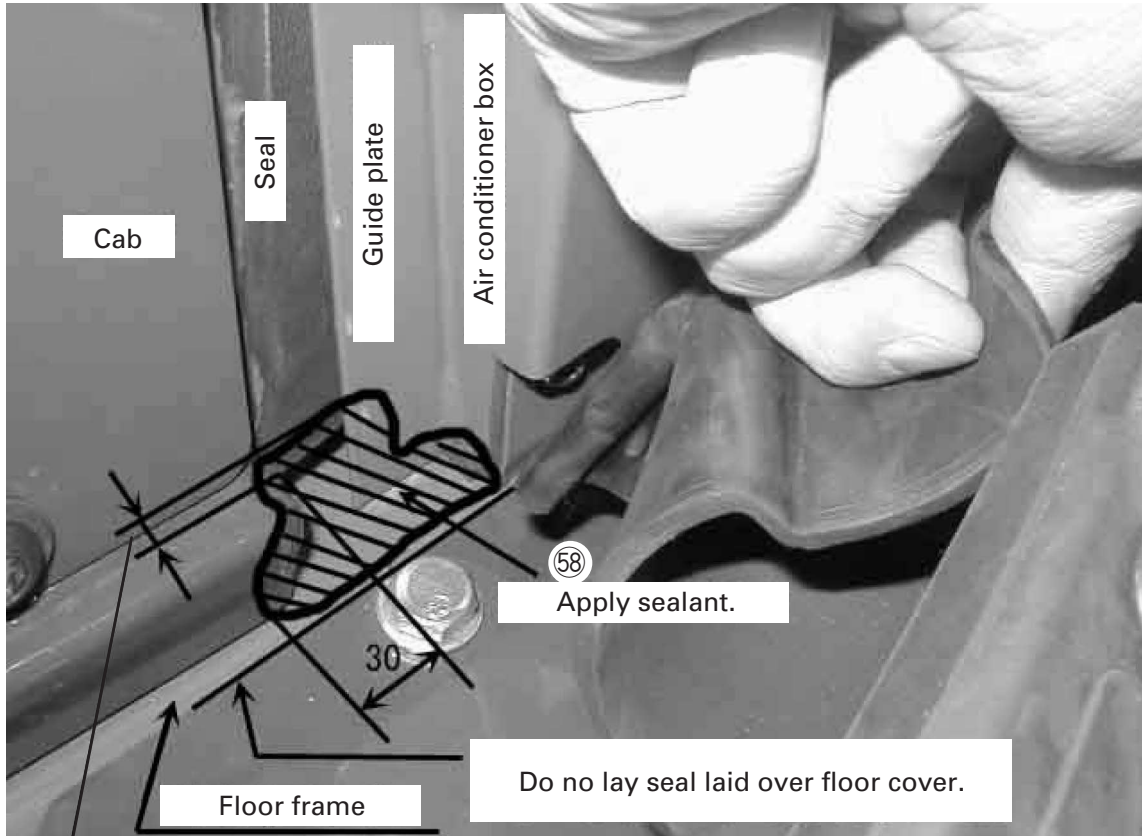
No.	Part No.	Q'ty
13	01010-81270	15
14	124-54-26540	21
15	01010-81240	6

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
Lower the operator's cab to the floor frame so that the right and left sides of seal (10) will be flattened evenly.				
	Other items			

Assembly procedure

A-1

Installation of operator's cab (6/16)



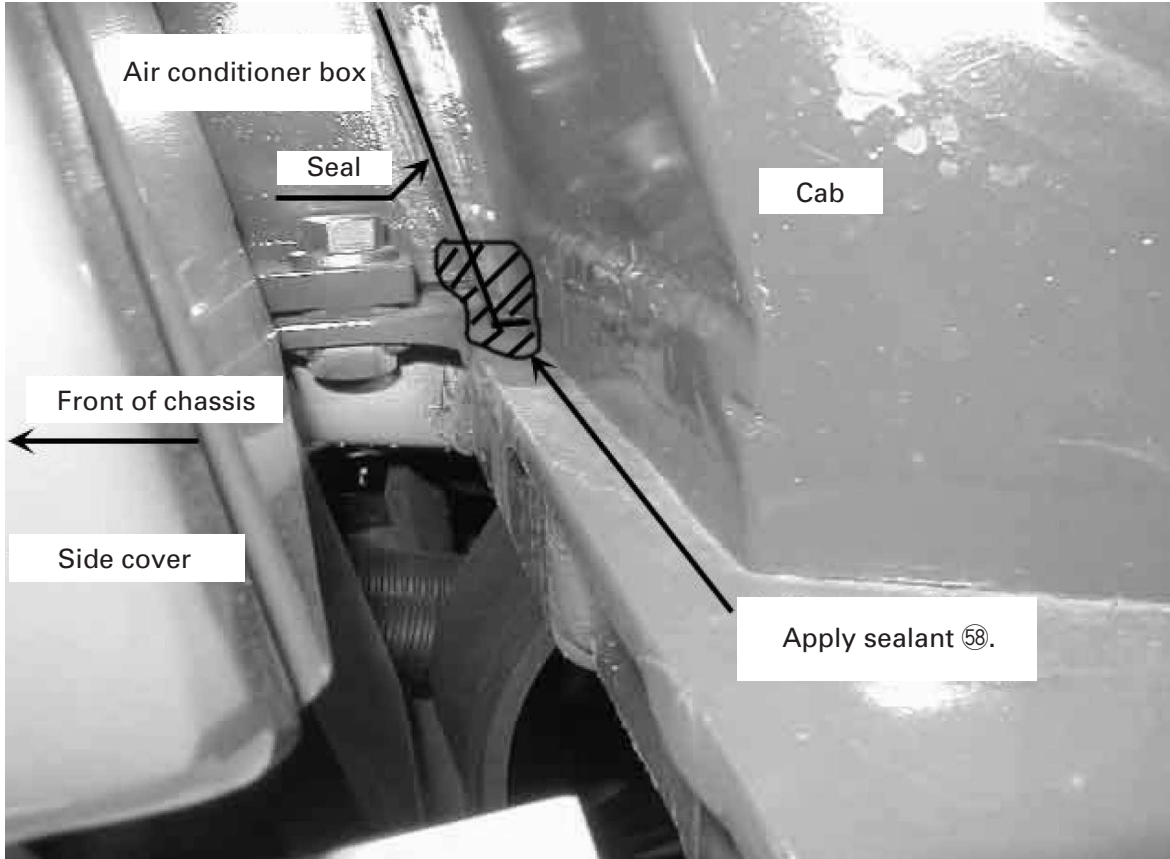
Left lower part of air conditioner box seen from inside of cab
 Apply sealant (58) to at least 10 mm from seal end. (Photo shows D85.)

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
After installing the cab, apply sealant (58) to the hatched part. If there is any clearance between the seal and floor frame, fill it with sealant (58). (Perform this work on both sides.)				
	Other items			

Assembly procedure

A-1

Installation of operator's cab (7/16)



Air conditioner box seen from left side of chassis

Apply sealant from outside of cab by amount and range applied from inside.
(Photo shows D85.)

Precautions	Necessary tools		Necessary equipment	
After installing the cab, apply sealant (58) to the hatched part. (Perform this work on both sides.)	Name	Q'ty	Name	Q'ty
	Other items			

Installation of operator's cab (8/16)

- (6) Check that the clearance between the cab-side air conditioner duct and monitor is even on both sides. At the same time, check that the cab-side air conditioner duct seal is fitted to faces C on both sides of dashboard-side air conditioner duct without deviating to the right or left.
- (7) If the clearance between the cab-side air conditioner duct and monitor is not even, loosen the mounting screws of the cab-side air conditioner duct and move the duct so that the clearance will be even. Similarly correct the deviation of the cab and air conditioner to the right or left, if necessary.
- (8) Permanently tighten bolts (13) and (15) which were tightened temporarily in step (2).
- (9) Permanently tighten mounting bolts (9) of L-plate (8) which were tightened temporarily in step (2).

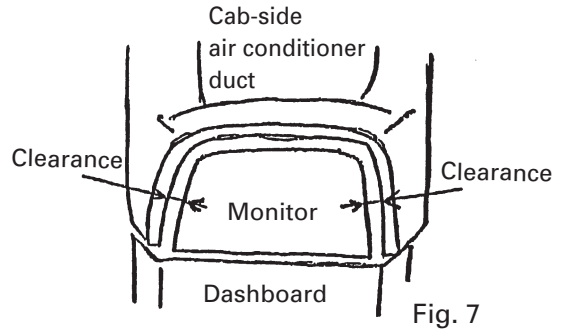


Fig. 7

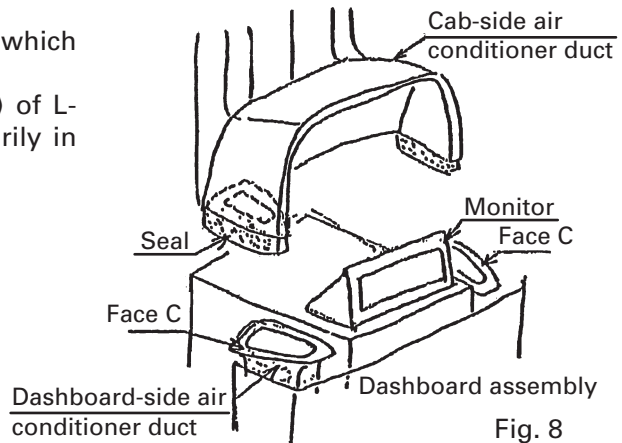


Fig. 8

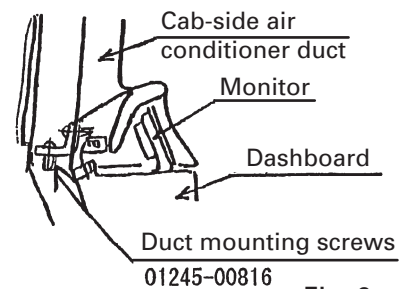


Fig. 9

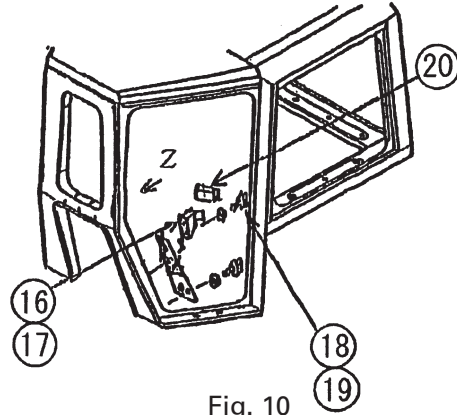
Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
When tightening the bolts and washers on the left side of the cab in step (8), do not catch or break the wiring harnesses of the cigarette lighter and 12-V outlet connectors with the washers.				
	Other items			

Assembly procedure

A-1

Installation of operator's cab (9/16)

- (10) Install right and left foot rests (16) and (17) with bolts (18) and washers (19) (2 pieces on each side).
- (11) Install pedal caps (20) to the foot rests.



No.	Part No.	Q'ty
16	14X-911-5711	1
17	14X-911-5721	1
18	01245-01230	4
19	01643-71232	4
20	203-43-56450	2

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items

Installation of operator's cab (10/16)

(12) Referring to Fig. 11, bind the windshield washer hoses, windshield washer connector, and cab power supply wiring harnesses coming from the center bottom of the operator's cab with strings. Pass them through hole (A). Pull out the wiring harnesses on the chassis side and connect it.

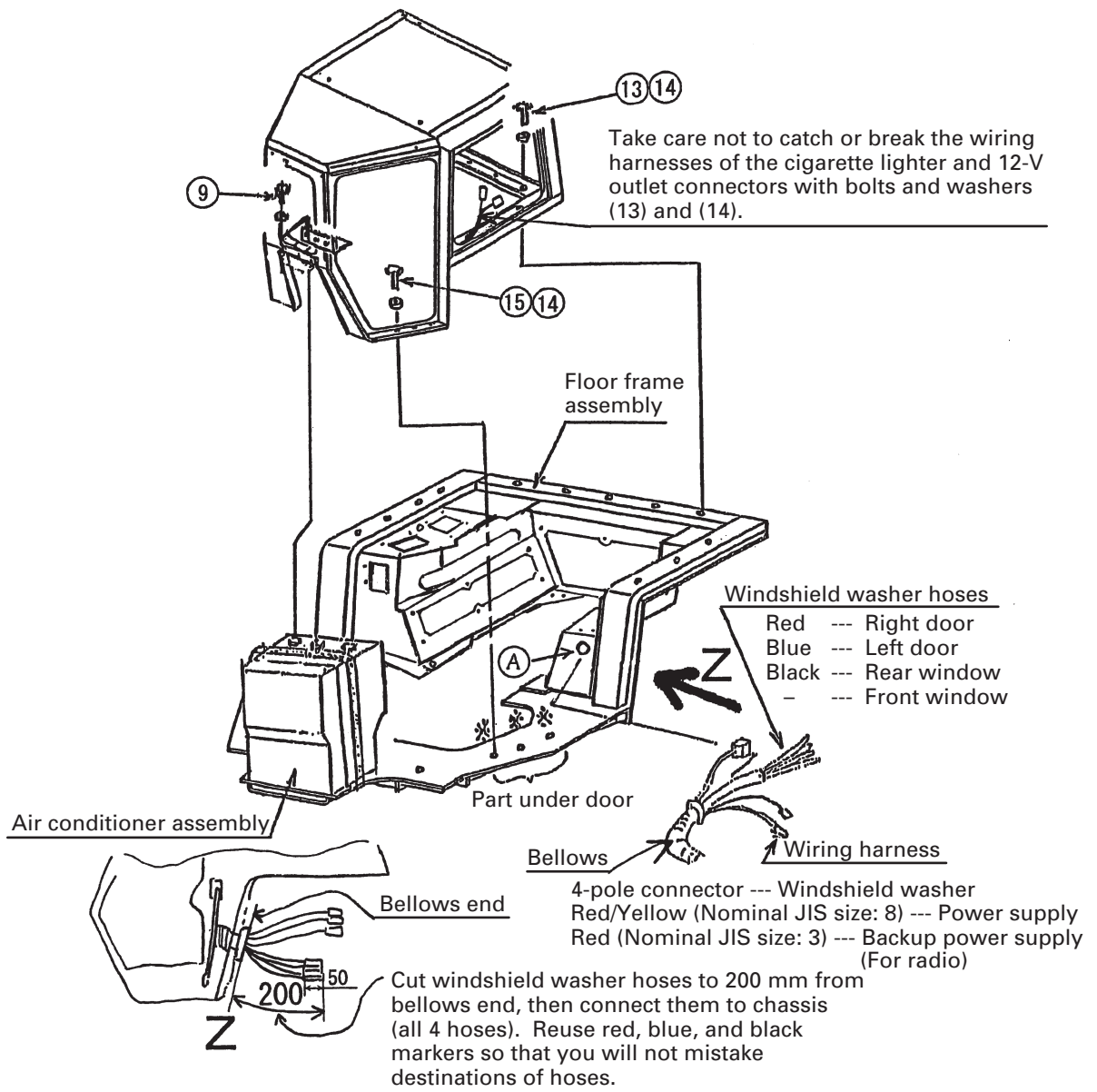


Fig. 11

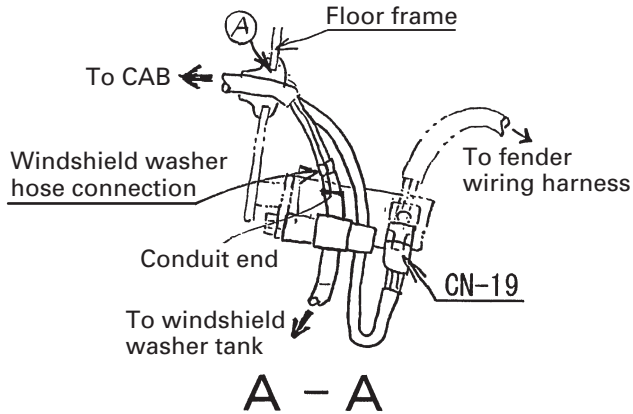
★ After connecting the hoses and connectors, fit the grommet on the wiring harness side securely.

Assembly procedure

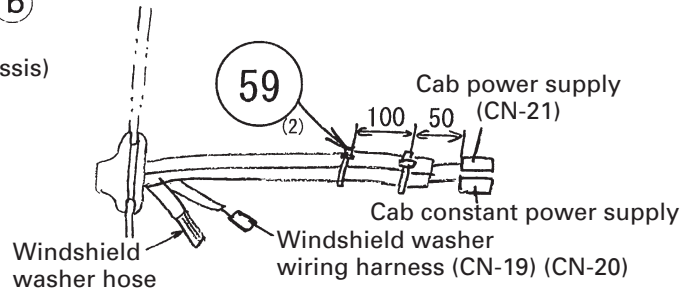
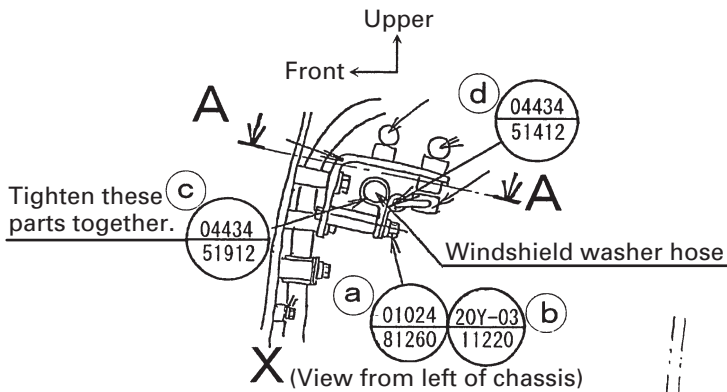
A-1

Installation of operator's cab (11/16)

(13) After passing the windshield washer hoses, windshield washer connector, and cab power supply wiring harness through hole (A) of the floor frame, connect them according to the following procedure.



1. Remove bolt (a), spacer (b), and clips (c) and (d). (View X)
2. Fix the cab power supply wiring harnesses together with bands (59) as shown in the figure.
3. Connect the windshield washer hoses and connectors (CN-19, 20, 21).
4. Assemble (a), (b), (c), and (d) according to the figure at left (View X, A-A).



No.	Part No.	Q'ty
59	BAND	2

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

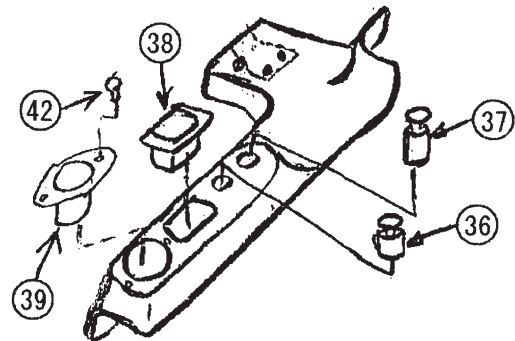
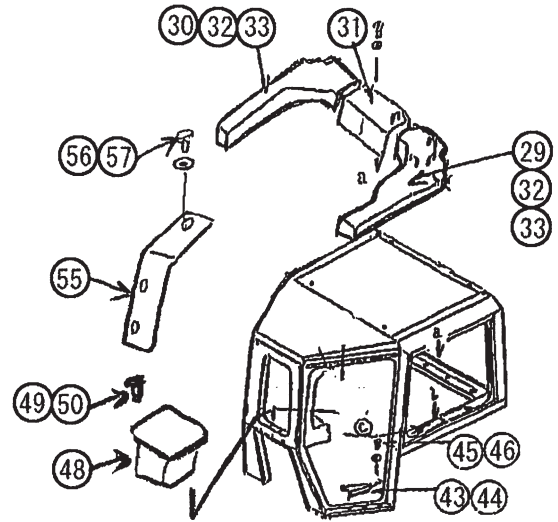
Q'ty

Other items

Installation of operator's cab (12/16)

6. Installation of interior parts

- (1) Install brackets (21) and (22) to the floor frame with bolts (24) and washers (25). Install bracket (23) with bolts (27) and washers (28). Install brackets (51) and (52) with bolts (53) and (54).
- (2) Connect the connectors of cigarette lighter (36) and 12-V outlet (37) to floor cover (29). The connectors of the cigarette lighter and 12-V outlet are CN-CIG and CN-ACC respectively.
★ Cigarette lighter (36), 12-V outlet (37), ashtray (38), and cup holder (39) are installed to the cover when delivered.
- (3) Install floor covers (29), (30), and (31) with bolts (32), washers (33), belt (34), plate (35), bolts (40), and washers (41).
- (4) Install floor cover (55) with bolts (56) and washers (57).
- (5) Install hot and cool box (48) with bolts (49) and washers (50).



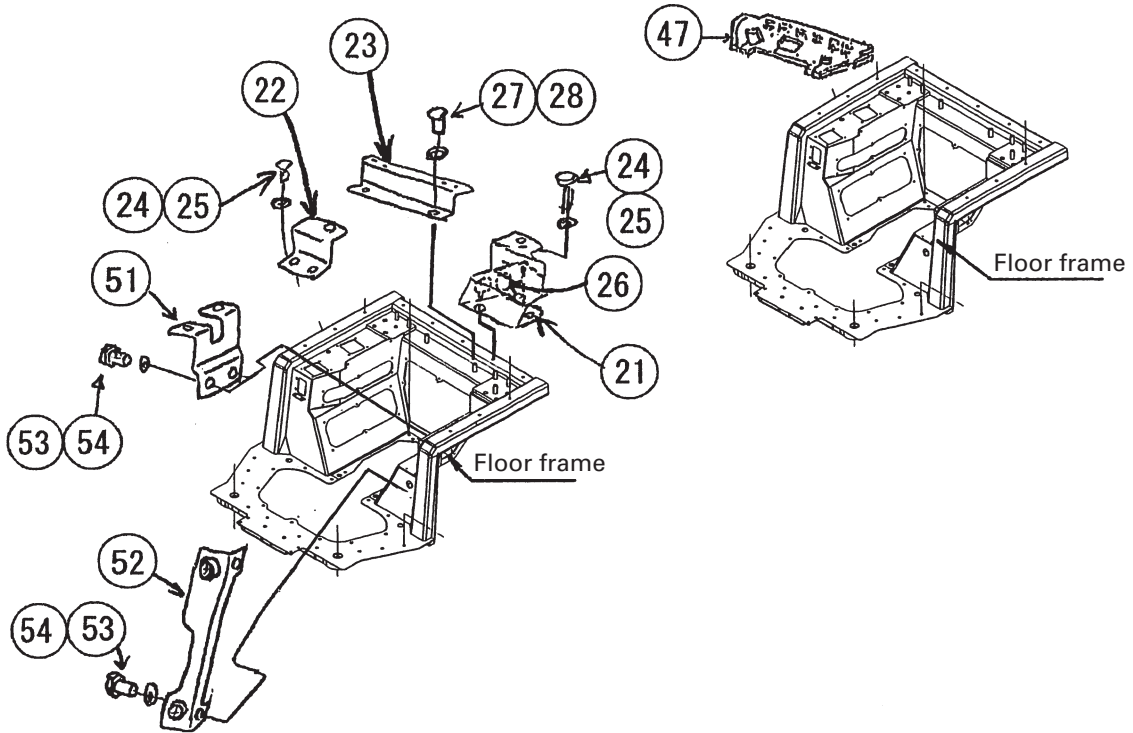
Precautions	Necessary tools		Necessary equipment		
When connecting connectors in step (2), take care not to mistake them.	Name	Q'ty	Name	Q'ty	
Other items					

Assembly procedure

A-1

Installation of operator's cab (13/16)

- (6) Install right and left covers (43) and (44) with screws (45) and washers (46).
(2 pieces on each side)
- (7) Install floor mat (47).



Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

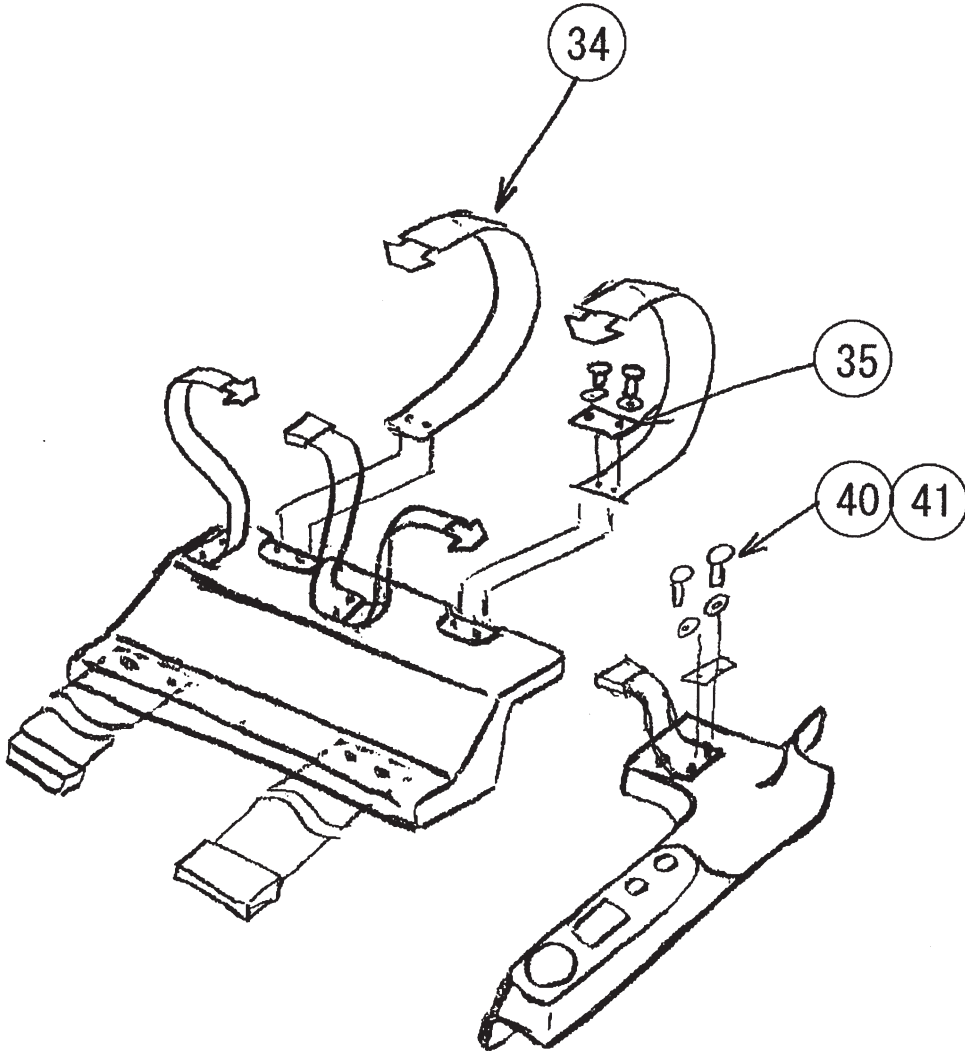
Q'ty

Other items

Assembly procedure

A-1

Installation of operator's cab (14/16)



Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items

Assembly procedure	Installation of operator's cab (15/16)
A-1	

No.	Part No.	Q'ty	Remarks
21	17A-Z11-1970	1	
22	17A-Z11-1980	1	
23	17A-Z11-1990	1	
24	01245-00620	5	
25	01643-70623	5	
26	09415-01008	2	
27	01010-81016	2	
28	01643-31032	2	
29	17A-Z11-2771	1	
30	17A-Z11-2781	1	
31	17A-Z11-2791	1	
32	01245-00620	10	
33	17A-Z11-2812	10	
34	17A-Z11-2920	4	
35	17A-Z11-2931	7	
36	20Y-06-23472	1	
37	198-Z11-2640	1	
38	17A-Z11-3570	1	
39	17A-Z11-3180	1	
40	01245-00620	14	
41	01643-70623	14	
42	01370-40408	2	
43	17A-Z11-3512	1	
44	17A-Z11-3522	1	
45	01245-00620	4	
46	01643-70623	4	
47	154-54-73421	1	Floor mat
48	17A-Z11-3860	1	
49	01245-00616	4	
50	01643-70623	4	
51	134-54-75590	1	
52	134-54-75580	1	
53	01010-80816	4	
54	01643-30823	4	
55	17A-Z11-2880	1	
56	01245-00620	3	
57	17A-Z11-2812	3	

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

Installation of operator's cab (16/16)

7. Change of antenna mounting angle

When delivered, the antenna is directed down for packing and transportation of the operator's cab (Fig. 14). After mounting the operator's cab, set the antenna at the correct angle (Fig. 15).

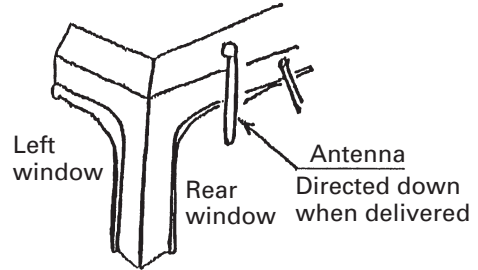


Fig. 14

- Loosen the screw at part (a) near the antenna mounting part and direct the antenna up. Then, tighten the wing bolt.

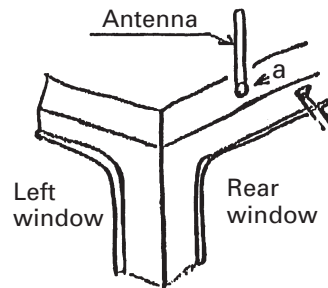
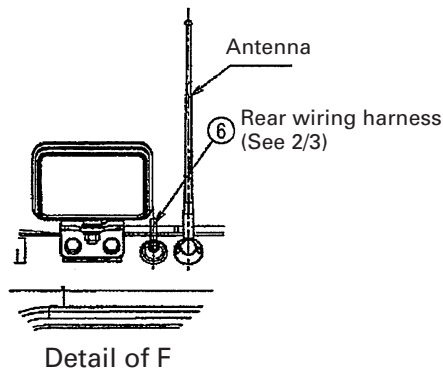
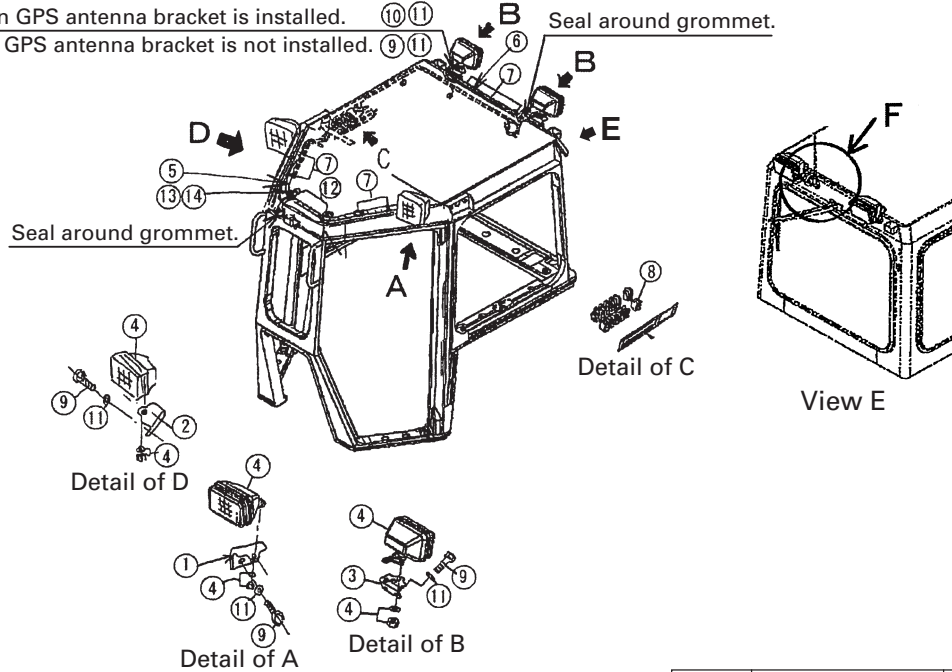


Fig. 15

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
Other items				

Installation of additional working lamps (1/3)

Use (10) and 11 when GPS antenna bracket is installed. Seal around grommet.
 Use (9) and 11 when GPS antenna bracket is not installed.



No.	Part No.	Q'ty
1	17A-Z11-1820	1
2	17A-Z11-1830	1
3	17A-Z11-2380	2
4	17A-06-17930	4
5	17A-Z11-2180	1
6	17A-Z11-2410	1
7	21W-54-14690	9
8	14X-911-3710	1
9	01010-D1225	7
10	01010-D1230	2
11	01643-71232	8
12	08036-01014	2
13	01010-D1220	2
14	01643-71232	2

Precautions

Tighten working lamps (4) to 22 – 25 Nm (2.2 – 2.5 kgm).

Necessary tools

Name Q'ty

Necessary equipment

Name Q'ty

Other items

Assembly procedure

A-2

Installation of additional working lamps (2/3)



Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items

Assembly procedure	Installation of additional working lamps (3/3)
A-2	

Procedure

1. Remove the grommets from the front and rear of the cab and take out the additional lamp connectors.
(Connector at front of cab: CN-18)
(Connector at rear of cab: CN-1)

2. Connect connector CN-18 of wiring harness (5) to connector CN-18 at the front of the cab. Connect connector CN-1 of wiring harness (6) to connector CN-1 at the rear of the cab.
After connecting the connectors, return them into the cab and install the grommets attached to the wiring harnesses.
Seal around the grommets with caulking material.

3. Install brackets (1), (2), and (3) to the cab with bolts and washers (9), (10), and (11).

4. Install lamps (4) to brackets (1), (2), and (3) temporarily.

5. Install the connectors of wiring harnesses (5) and (6) to the clamps of brackets (1), (2), and (3), and then connect them to the connectors of lamps (4).

6. Fix wiring harnesses (5) and (6) with clips (7) and (12) and bolts and washers (13) and (14).

7. Remove the switch panel cover at the right upper part in the cab, take out cab wiring harness connector CN-10, and connect lamp switch (8).

8. Turn the key switch ON, and then turn lamp switch (8) ON and check that the lamps are lighted.

9. Adjust the radiating directions of lamps (4) and tighten the locknuts to 22 – 25 Nm (2.2 – 2.5 kgm).

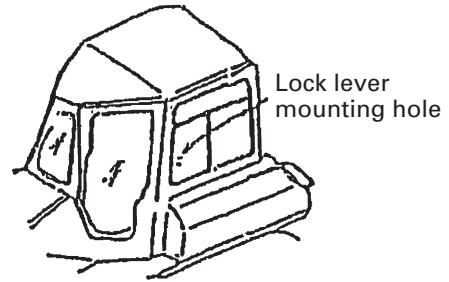
Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

M. TESTING AND ADJUSTING AFTER INSTALLATION

Assembly procedure	Testing and adjusting operator's cab (1/9)
M-1	

1. Testing painting

- (1) Check that the paint of the removed and installed bolt heads is not flaked off.
- (2) Check that the painted surfaces are not shifted at the sealed part between the floor frame and tank and the joints of the covers and chassis.
- ★ If the appearance is bad, apply the paint again.



2. Pressurizing test

- (1) Measure the internal pressure of the cab.
 - ★ Criterion: Measured value ≥ 8 mmAq
 - ★ Testing condition: Run engine at full throttle.
 - ★ Fan motor speed: Fan 100% speed mode
 - ★ Blower speed: High
 - ★ Fresh/Recirculation lever: Fresh air IN position
- ★ If the measured value is lower than the standard value, check the plugs of the control box, etc. for omission.
- (2) A simple method of measuring the internal pressure is as follows.
 - a) Prepare a transparent vinyl hose. (Outside diameter: 10 mm, Length: 3,000 mm)
 - b) Pour water in the hose up to about half.
 - c) Remove the lock lever of the slide glass on the side of the cab and put either end of the vinyl hose in the cab and secure it to the top of the back seat with a tape.
 - d) Seal the hole of the lock lever with a tape.
 - e) Set the water level in the vinyl hose out of the cab to that in the cab.
 - f) Run the engine at full throttle with fan 100% speed and measure the water level difference.

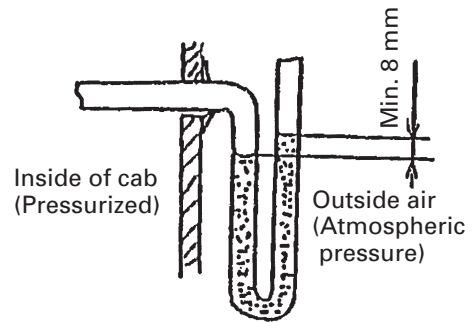


Fig. 1

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

3. Shower test

- (1) Close all the openings of the cab.
- (2) Supply water at the rate of 5 gal/min (about 19 liters/min) through a hose.
- (3) Pour water around the hatched parts in the following figure.
Do not apply pressure at this time.
- (4) Pour water to the sealed surface horizontally as shown in section A-A.
- (5) In particular, check around the dashboard carefully.
- ★ If water leaks, caulk the leaking part and test it again.

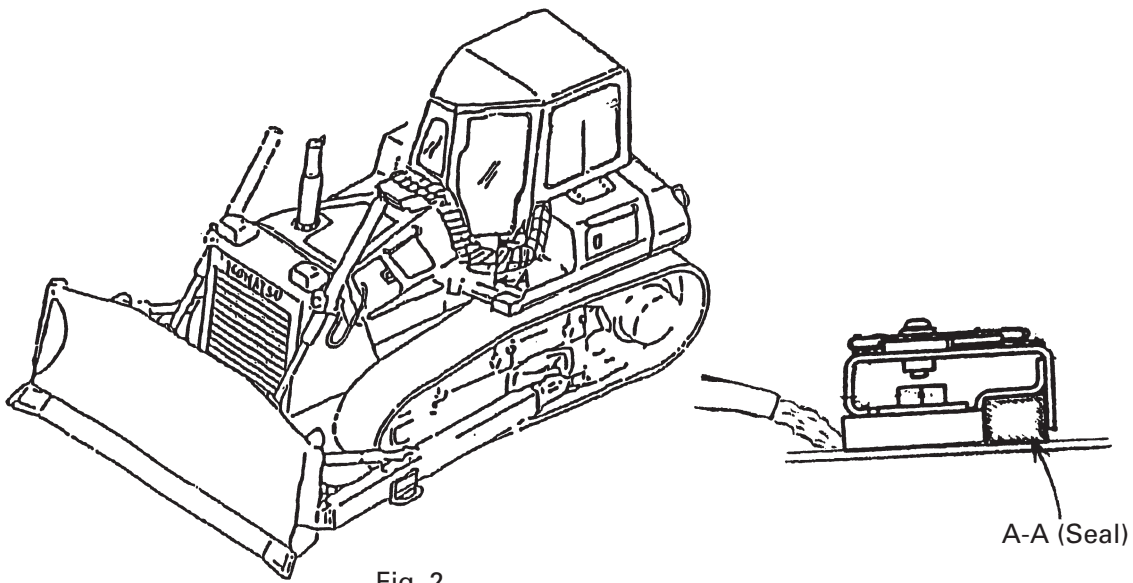


Fig. 2

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

4. Testing door lock

Close the door and check the relationship between the operator's cab and door. If there is any fault, repair it.

4-1. Check of condition

- (1) Check the installed height of the damper rubber. (Check both sides, 2 pieces on each.)
Stick an adhesive tape to the contact face of the damper rubber and open and close the door 2 – 3 times. Then, check the contact face of the adhesive tape against the operator's cab.

Normal: When the door is closed, the damper rubber comes in contact lightly.

Abnormal: When the door is closed, the damper rubber does not come in contact or comes in contact so strongly that the adhesive tape is removed.

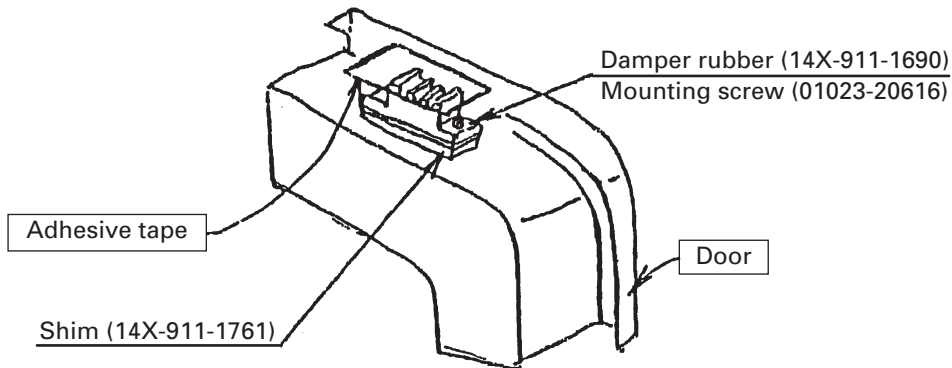


Fig. 3

- (2) Check the relationship between the door latch and striker (on both sides).
Close the door and check the engaging condition of the latch and striker.

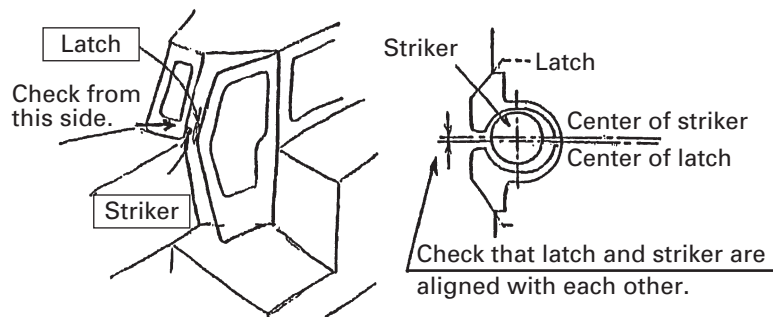


Fig. 4

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

4-2. Adjusting

(1) Adjusting height of damper rubber

Increase or decrease of the shims under the damper rubber to adjust the height of the damper rubber properly.

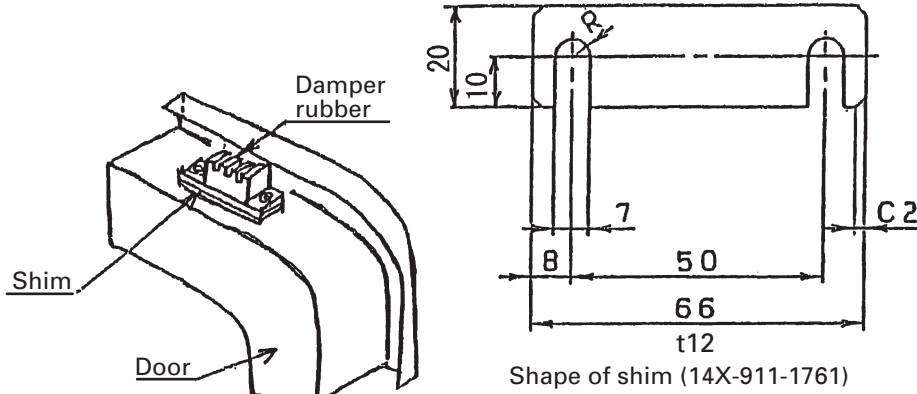


Fig. 5

(2) Adjusting latch and striker

- a) Tighten the mounting bolt of the striker temporarily and open and close the door 2 – 3 times to align the latch and striker with each other.
 - b) Check the engaging condition of the latch and striker.
 - c) Tighten the mounting bolt of the striker permanently.
 - d) Open and close the door and check that it is locked and unlocked smoothly. If the door is not locked and unlocked smoothly (If the knob is heavy), perform the adjustment procedure from the first.
- ★ Operating effort of knob: $49 \pm 19.6 \text{ N}$ { $5 \pm 2 \text{ kg}$ }

(3) Apply grease (G2-LI) to the latch.

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
If the latch is not greased, the knob becomes heavy. Accordingly, apply grease sufficiently.				
	Other items			

5. Testing open lock

Lock the door open and check the relationship between the operator's cab and door. If there is any fault, repair it.

5-1. Check of condition

- (1) Check the relationship between the open lock latch and striker. (Both sides).
Open the door and check the engaging condition of the latch and striker.

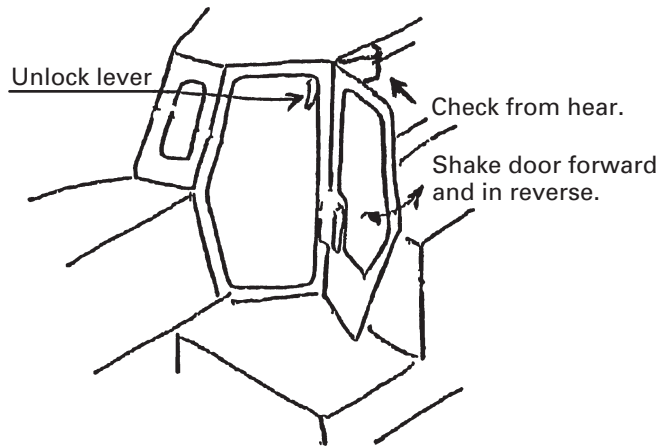


Fig. 6

- (2) Check the installed height of the stopper rubber. (Check both sides, 2 pieces on each.)
 - a) Lock the door open and move it in the forward and reverse directions to see if it has any play.
 - b) Check that the operating effort of the unlock lever is not heavy.

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
		Other items		

Assembly procedure

M-1

Testing and adjusting operator's cab (6/9)

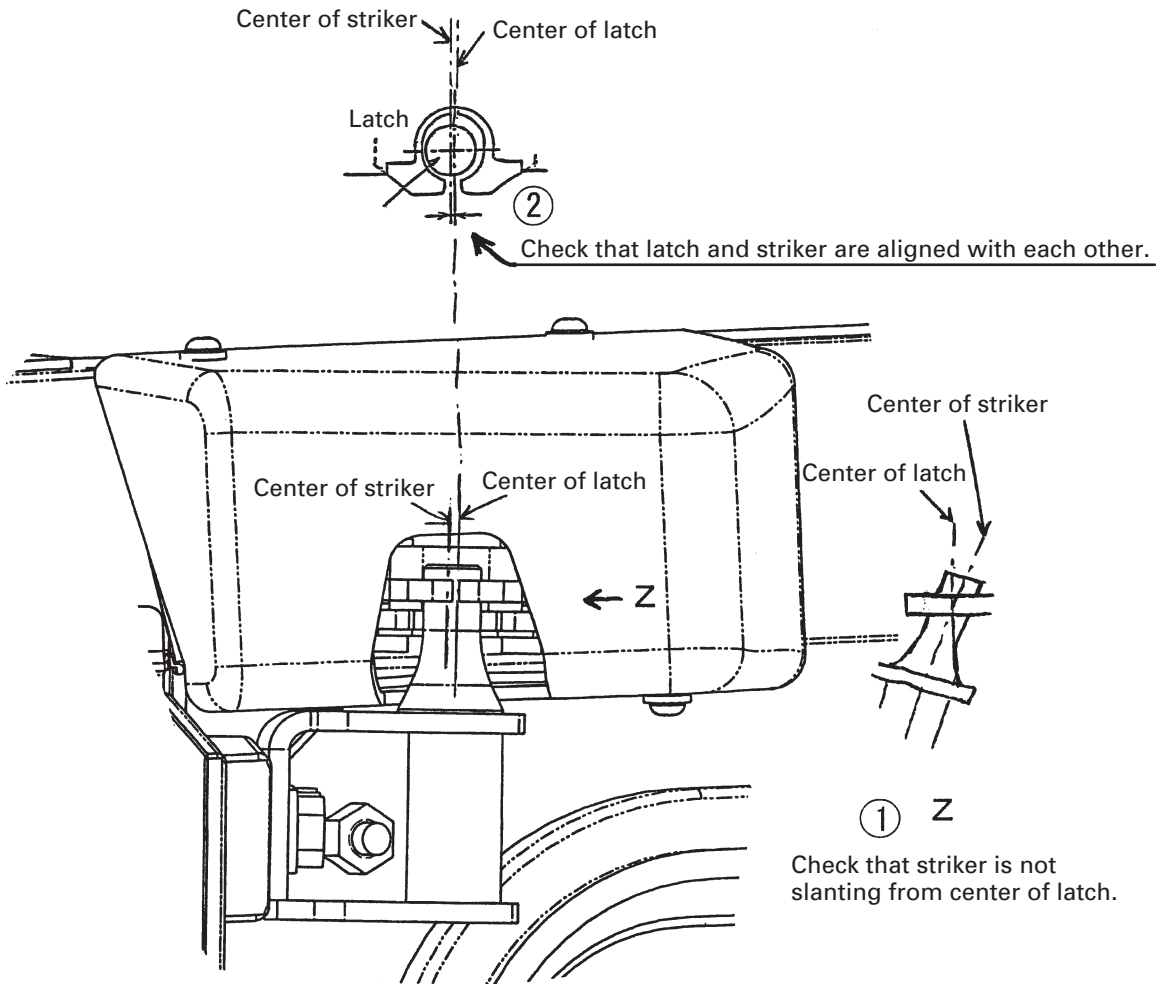


Fig. 7

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items

Assembly procedure	Testing and adjusting operator's cab (7/9)
M-1	

5-2. Adjusting

(1) Adjusting latch and striker

- a) If the striker is slanting from the center of the latch, loosen the striker mounting bolt, align the striker with the latch, and then tighten the striker mounting bolt.

(2) Adjusting installed height of stopper rubber (2 places, upper and lower) Fig. 9, Fig. 10

- a) Loosen the locknut of the stopper rubber.
- b) If there is any play, project the stopper rubber until the play is eliminated.
If the door is not locked easily or the unlock lever is heavy, return the stopper rubber in the range that the door does not have any play.
- c) Tighten the locknut.

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Name	Q'ty
	Other items			

Assembly procedure

M-1

Testing and adjusting operator's cab (8/9)

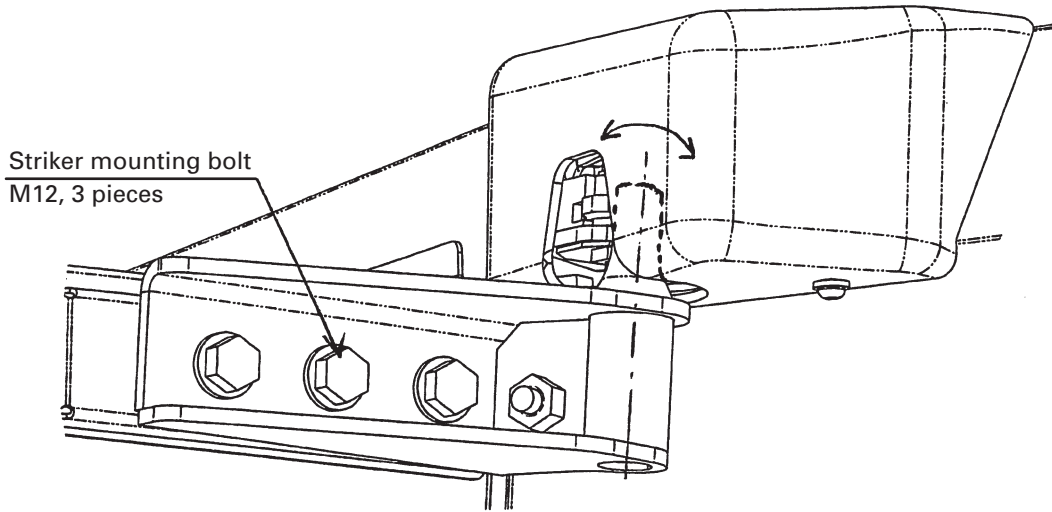


Fig. 8

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items

Assembly procedure

M-1

Testing and adjusting operator's cab (9/9)

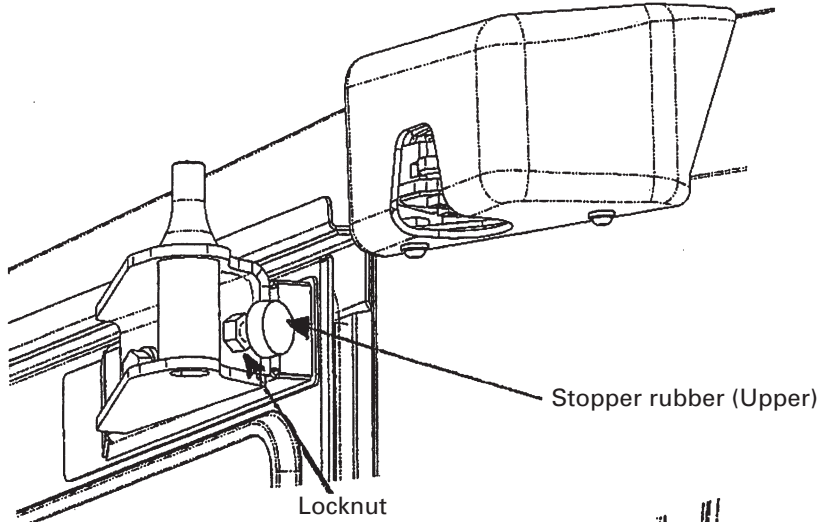


Fig. 9

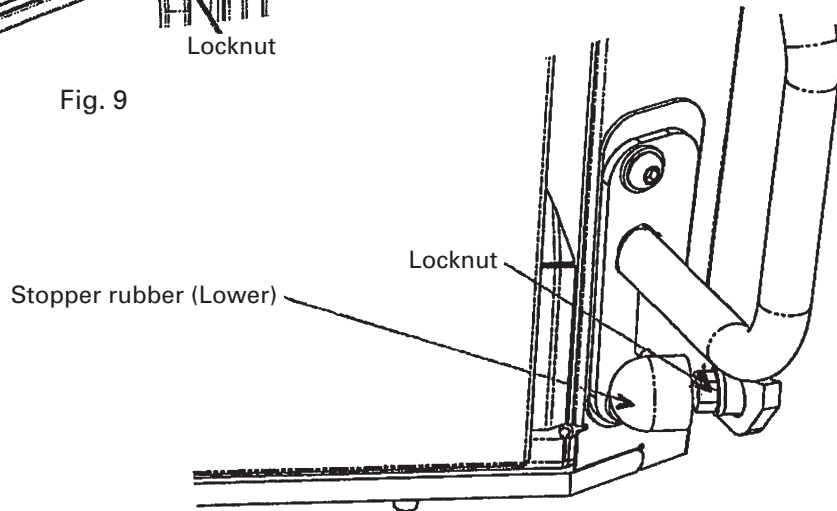


Fig. 10

Precautions

Necessary tools

Necessary equipment

Name

Q'ty

Name

Q'ty

Other items