

FIELD ASSEMBLY INSTRUCTION

SEAW001700



PC600-6

HYDRAULIC EXCAVATOR

SERIAL NUMBERS	PC600	-10001	and up
	PC600LC-6	-10001	

KOMATSU

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 PC600LC-6 **-10001**

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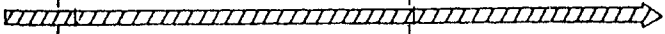

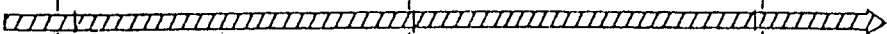
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Assembling Procedures, Applicable Equipment and Schedule

3 Divisions

Assembling Procedures, Applicable Equipment and Schedule

Days	①			②
Assembly unit	 Base machine	 ① Counterweight, ② Platform group • Inspection of oil level and water level	 Backhoe ③ Assembling of work equipment	<ul style="list-style-type: none"> • Inspection of oil level and water level • Air bleeding from work equipment cylinder • Extension of track frame width • Adjustment of track tension • Performance test
Crane	 25t			
Air compressor	0.49 – 0.69 MPa (5 – 7 kg/cm ²)  15 m ³ /min.			
Worker	 Leader + 3 mechanics			
	Start of assembling • Meeting with all workers	Completion of installation of unit assembly to body	Completion of body assembling	<ul style="list-style-type: none"> • Completion of general assembling

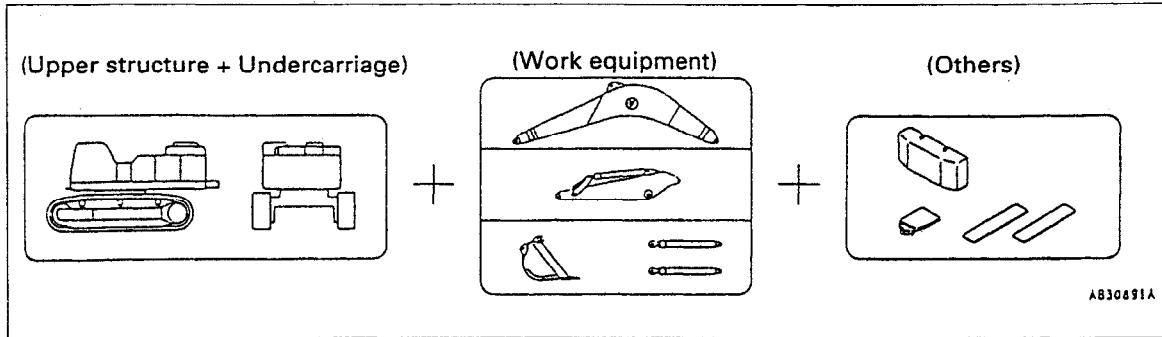
(Note: This excludes time taken to open packaging used for overseas shipment.)

TRANSPORTATION

Packing Style for Transportation

These machines can be divided into three kits for transportation. Please ask us or our service shop for transportation.

■ 3-kit Transportation

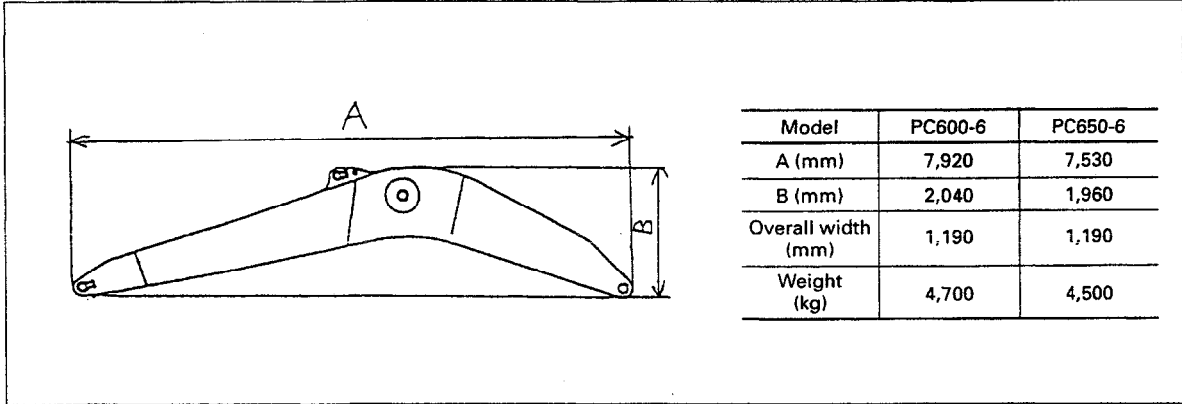


■ Packing Style of Each Kit (Sizes in drawing are given in millimeters.)

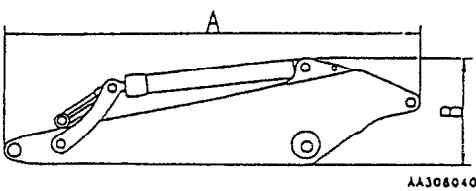
- Upper structure + Undercarriage

		unit : mm				
		Model	PC600-6	PC600LC-6	PC650-6	PC650LC-6
	A (mm)	6,170	6,345	6,170	6,345	
	B (mm)	3,310	3,310	3,355	3,355	
	Shoe width (mm)	600	600 USA750	600	600	
	Overall width (mm)	3,195 USA3,340	3,195 USA3,340	3,195	3,195	
	Weight (kg)	32,100 USA32,900	34,000 USA35,000	33,300	34,400	

- Work equipment
(1) Boom

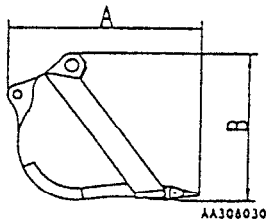


(2) Arm



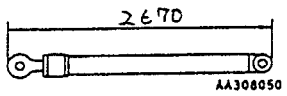
Model	PC600-6	PC650-6
A (mm)	4,870	4,870
B (mm)	1,210	1,210
Overall width (mm)	480	480
Weight (kg)	3,200	3,300

(3) Bucket



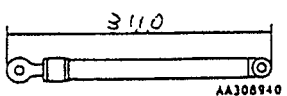
Model	PC600-6	PC650-6
A (mm)	2,040	2,040
B (mm)	1,870	1,870
Overall width (mm)	1,790	1,870
Weight (kg)	2,400	3,000

(4) Boom cylinder (for all models)



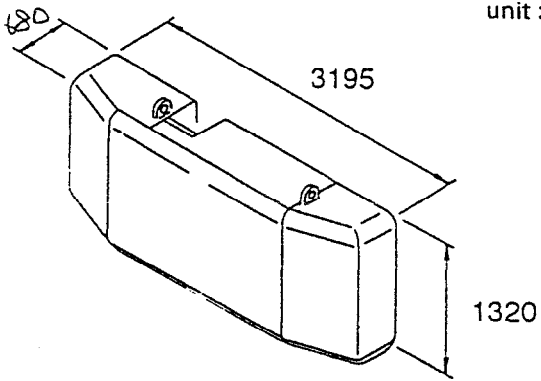
Weight : 1,040 kg
(520 kg × 2 pcs.)

(5) Arm cylinder



Weight : 770 kg

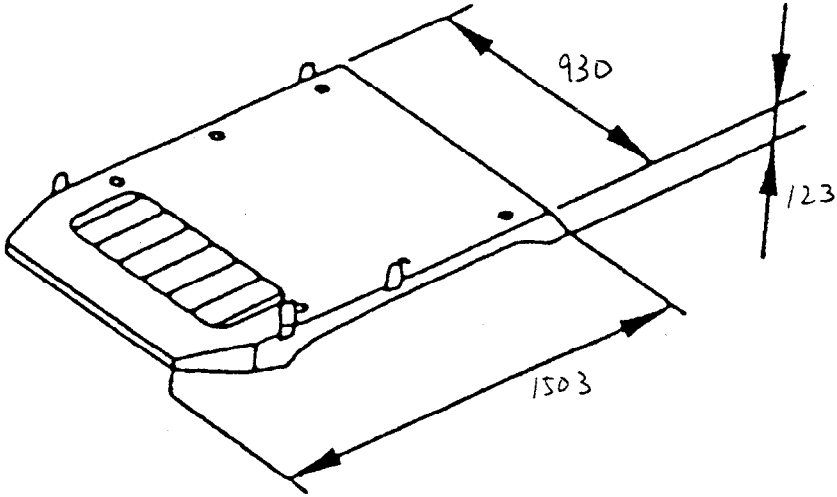
- Others
 - (1) Counterweight



unit : mm

Model Nos.	PC600-6 PC600LC-6 PC650-6 PC650LC-6	PC600LC-6 (for USA)
Weight (kg)	10,750	11,000

- (2) FOG (PC650-6 only)

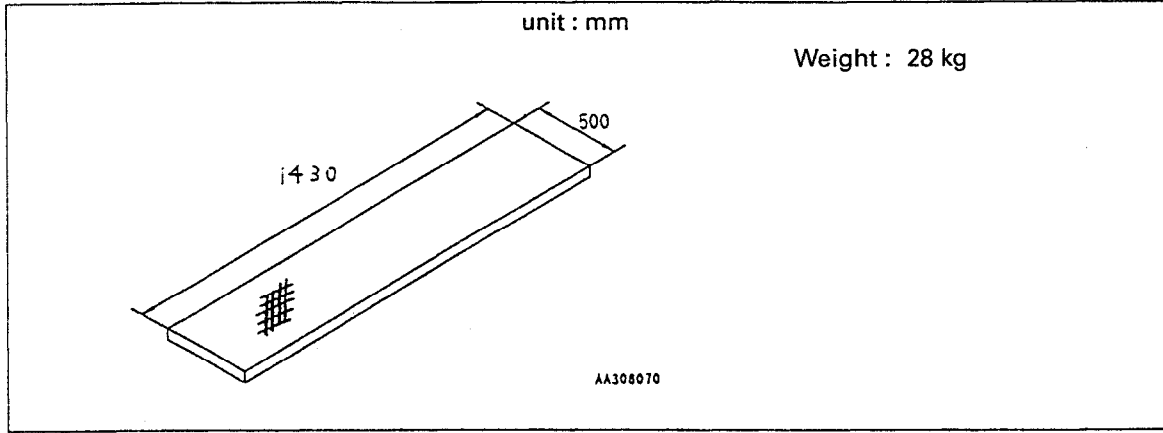


unit : mm

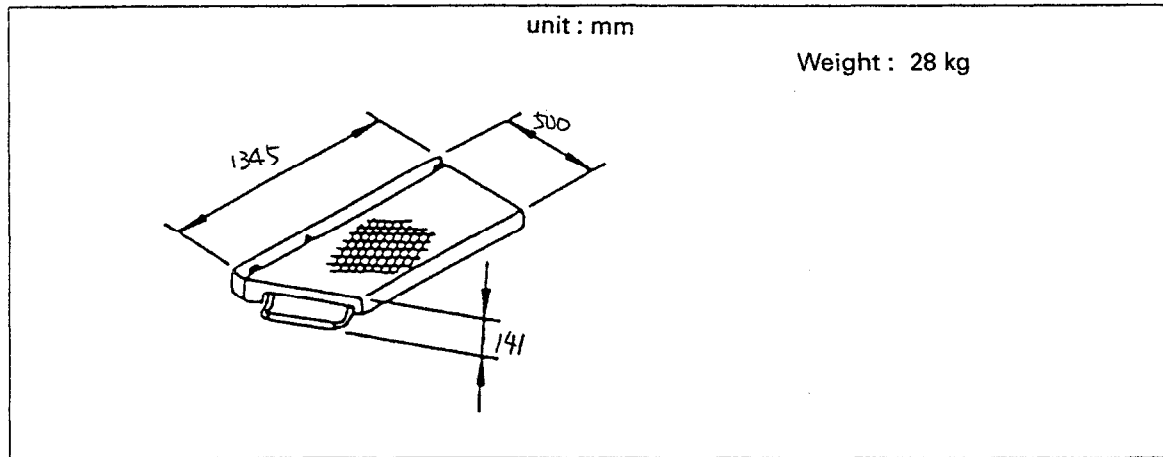
Weight : 53 kg

Transportation

(3) Catwalk ① (for all models)



(4) Catwalk ② (for all models)



Steps to Take Before and After Assembly

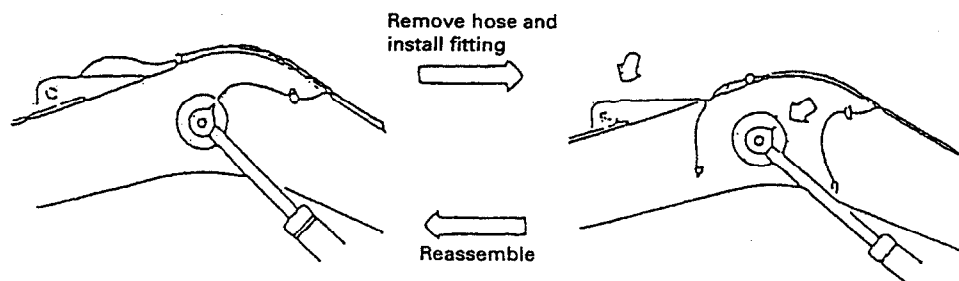
1. Steps to take before assembly

- (1) Provide a working place indoors which is not affected by wind, rain, or dust.
- (2) Give full consideration to safety measures during the operation (in particular, make sure that the space is large enough and that the ground is flat enough to enable the operation to be carried out without hindrance, and that it is safe for crane operations when bringing in or installing parts).
- (3) When opening the packages, be extremely careful not to damage piping, wiring, or other small parts.
- (4) Check that there are no missing or damaged parts.
- (5) Check that there is no dirt or dust stuck to the pins, or to the inside surface of the pin holes or bushings. If there is any dirt or dust, wipe it off with a cloth, then coat the parts again with Komatsu specified grease (LM-G: Molybdenum disulphide grease) and coat the inside of the bushing with molybdenum disulphide.
- (6) With the engine stopped, gradually loosen the cap of the oil filler of the hydraulic tank and release the pressure inside the tank.
- (7) With the engine stopped, operate the work equipment control levers fully to the front, rear, left, and right 2 – 3 times to release the remaining pressure.

2. Steps to take during assembly

- (1) For assembly or disassembly procedures and precautions that are not given in this manual, see the shop manual.
- (2) Be careful that dirt or dust does not get into the hoses between the time that the blind plugs are removed and the time that the hoses are installed.
- (3) When removing blind plugs, installing hoses, or installing cylinders, keep the amount of oil flowing out to the minimum.
- (4) Be extremely careful that the rubber hoses are not twisted when they are installed.
- (5) Be extremely careful when installing to check that there is no dirt, rust, or scratches that may cause failure.
- (6) Always grease all parts correctly. Use Komatsu specified grease (LM-G: Molybdenum disulphide grease.)
- (7) When greasing in cold weather:
When adding grease after assembly, use molybdenum disulphide grease. However, depending on the brand, the viscosity may become high in cold temperatures (below 0° C) and it may be difficult to carry out the greasing. In particular, when greasing remote points, a greater pressure is needed. If it is difficult to carry out greasing, use the following method.
 - (a) For remote greasing points, install fittings directly to the pins to carry out greasing. After greasing, assemble the hose again (hose tightening torque: 3.9 – 7.8 Nm {0.4 – 0.8 kgm}).
 - (b) Warm the grease (50 – 60°C) to reduce the viscosity before greasing.

Fig. 2



- (8) When torque wrench is used, tightening torques shall be as per Table 1.
 These torques are used when tightening torques of narrow range are required.

Table 1

Unit : Nm(kgm)

Bolt Nominal (mm)	S43C, SCM3H or equivalent		
	Range	Target	Reference
			Tensile load (kg)
6	11.8~14.8 {1.2~1.5}	13.2 {1.35}	1150
8	27.5~34.3 {2.8~3.5}	31.4 {3.2}	2175
10	58.8~73.5 {6~7.5}	65.7 {6.7}	3355
12	98.1~122.6 {1.0~12.5}	112.8 {11.5}	4865
14	156.9~196.1 {1.6~200}	176.5 {18}	6715
16	245.1~308.9 {25~31.5}	279.4 {285}	9860
18	343.2~426.5 {35~43.5}	382.4 {39}	11200
20	496.3~607.9 {50~62.0}	549.1 {56}	14800
22	661.9~828.5 {67.5~84.5}	745.2 {76}	18000
24	823.6~1029.5 {84~105}	926.6 {94.5}	20600
27	1176.6~1470.8 {120~150}	1323.7 {135}	26000
30	1519.8~1912.0 {155~195}	1715.9 {175}	30100
33	1961.0~2451.3 {200~250}	2206.1 {225}	35800
36	2451.3~3039.6 {250~310}	2745.5 {280}	40700
39	2892.5~3627.9 {295~370}	3284.7 {335}	45200

3. Steps to take after assembling

- (1) Check the following items.
 - (a) Is the hydraulic tank cap tightened securely?
 - (b) Is the oil level in the hydraulic tank correct? If the oil level is low, add Komatsu specified oil SAE10W (see the Operation and Maintenance Manual).
- (2) Bleed the air from all cylinders.
 - (a) Run the engine at low idling, and operate each cylinder 4 - 5 times to extend and retract the cylinder to a point approx. 100 mm before the end of its stroke.
 - (b) For the next 3 - 4 times, operate the boom cylinder to the end of its stroke. If the arm and bucket are operated to the end of their stroke, the bucket or teeth may hit the boom depending on the type of bucket, so stop before the end of the stroke.
- (3) Check again that the oil in the hydraulic tank is at the correct level.

Tightening Torque of Pipe Thread

1. **Scope** This standard covers tightening torques of pipe threads, especially of thread nominal sizes PS1/8" to PT1" and PT1" and PS1/8" to PT1". When otherwise specified, the following shall not apply.
2. **Tightening torque**

- 2-1. **When materials of parts with external thread are SS41, FC and SGP, their tightening torque shall be as per Table 1.**

Table 1

Unit : Nm(kgm)

Female screw material Nominal sizes	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	32.4~52.9 {3.3~5.4}	26.5~43.1 {2.7~4.4}	19.6~32.4 {2.0~3.3}
3/4	51.0~85.3 {5.2~8.7}	42.2~70.6 {4.3~7.2}	31.4~52.9 {3.2~5.4}
1	86.3~173.6 {8.8~17.7}	72.6~146.1 {7.4~14.9}	54.9~111.8 {5.6~11.4}

- 2-2. **When materials of parts with external thread is S43C, their tightening torque shall be as per table 2.**

Table 2

Unit : Nm(kgm)

Female screw material Nominal sizes	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}	16.7~37.3 {1.7~3.8}	12.7~28.4 {1.3~2.9}
3/8	44.1~93.1 {4.5~9.5}	37.3~77.5 {3.8~7.9}	27.5~58.8 {2.8~6.0}
1/2	98.1~188.3 {10.0~19.2}	83.3~157.9 {8.5~16.1}	60.8~115.7 {6.2~11.8}
3/4	170.6~316.7 {17.4~32.3}	141.2~247.1 {14.4~25.2}	105.9~186.3 {10.8~19.0}
1	367.7~612.8 {37.5~62.5}	309.8~514.8 {31.6~52.5}	235.3~392.2 {24.0~40.0}

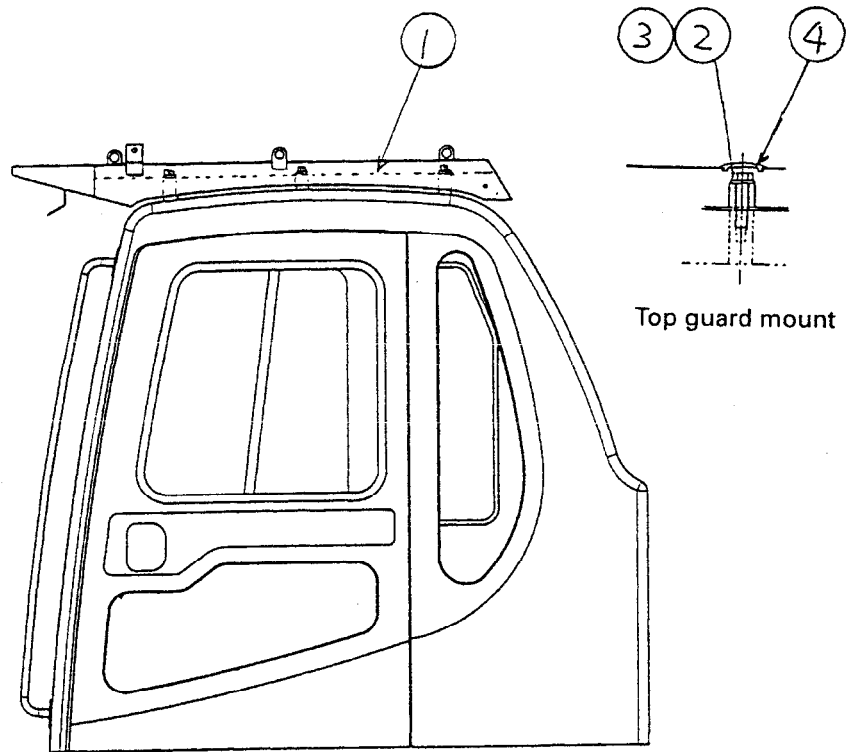
Tightening Torque of Rubber Hose with Taper Seal

Unit : Nm(kgm)

Nominal No.	02	03	04	05	06	10	12	14
Appropriate tightening torque	24.5±49 {2.5±0.5}	49±19.6 {5±2}	78.5±19.6 {8±2}	137.3±29.4 {14±3}	176.5±49 {18±5}	196.1±49 {20±5}	245.2±49 {25±5}	294.2±49 {30±5}

Installation of FOG : 53 kg

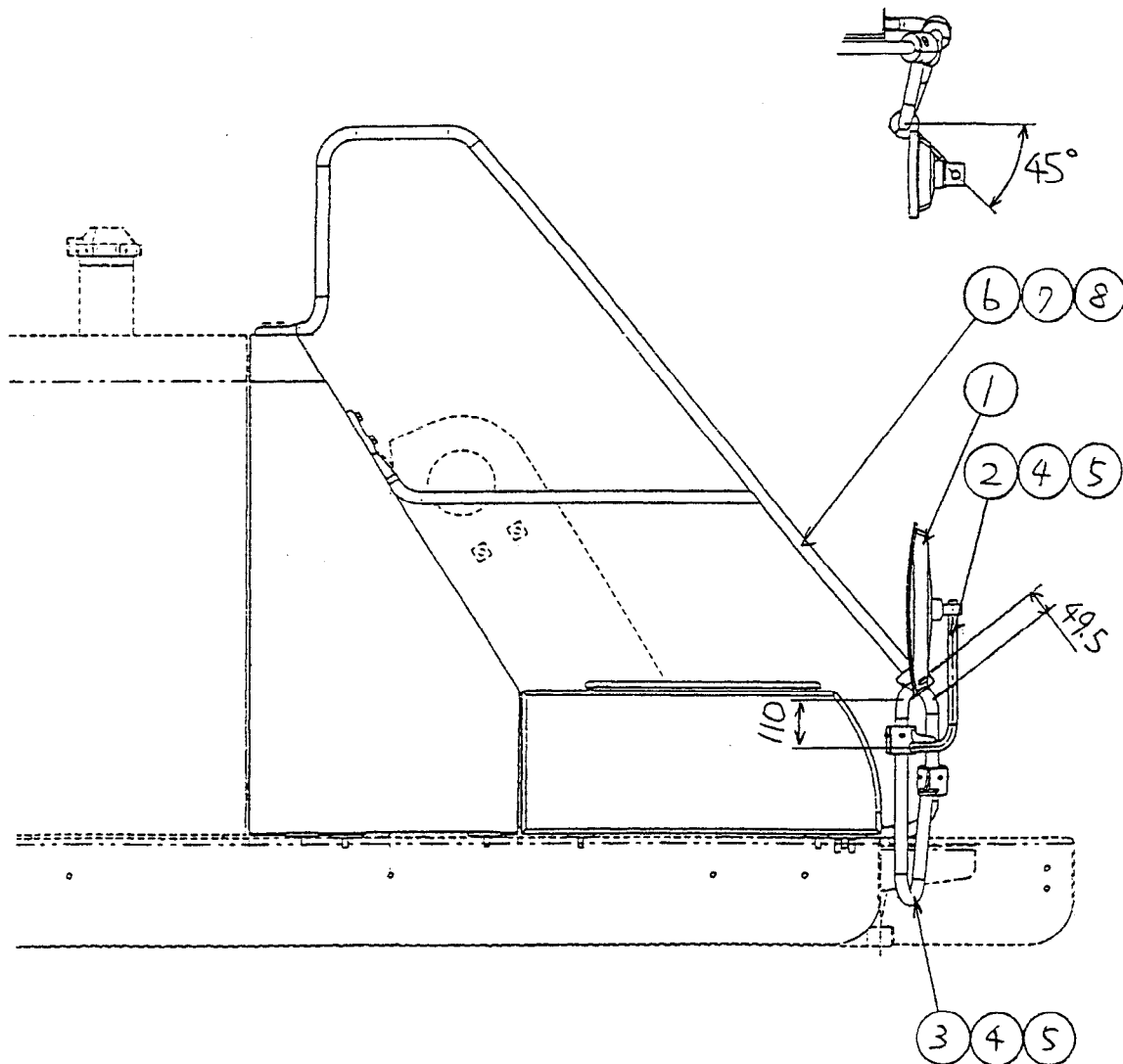
(1) Assemble FOG as shown in the diagram below.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Top guard	209-956-7230	1
	2	Bolt	01010-81250	6
	3	Washer	01643-31232	6
	4	Cap	195-54-42981	6

Installation of Rearview Mirror

- (1) Before installing the boom foot pin, remove handrail ⑥ and bolts and washers ⑦ and ⑧.
- (2) After installing the work equipment, install handrail ⑥ and bolts and washers ⑦ and ⑧.
- (3) Install parts ① to ⑤ to handrail ⑥.

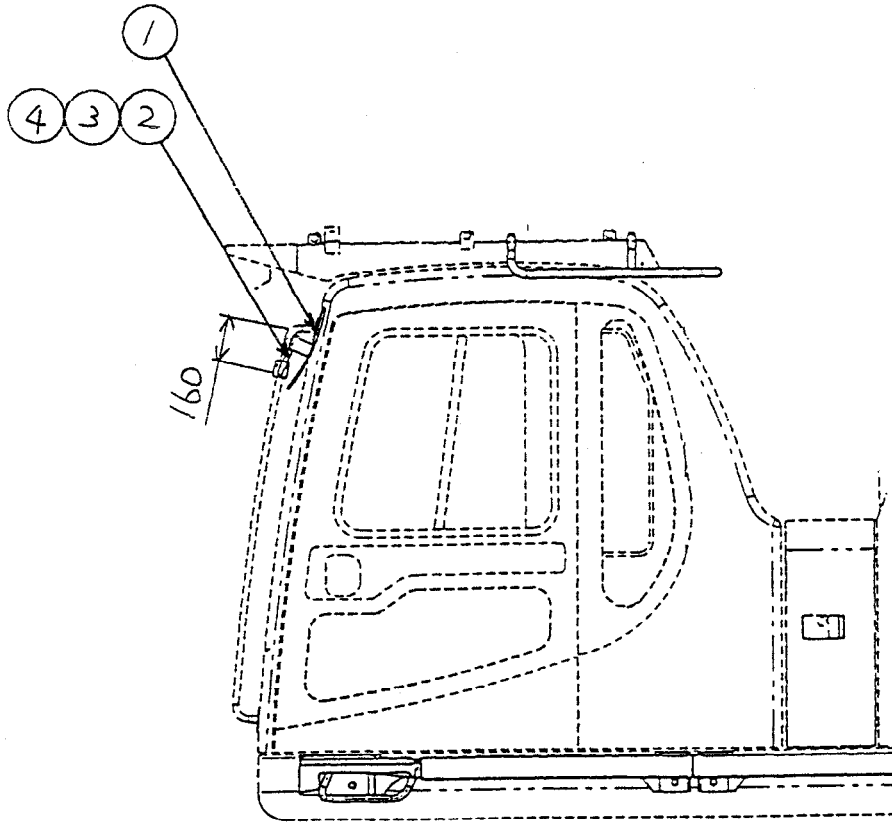


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Mirror	21N-54-32670	1
	2	Support	21M-54-11540	1
	3	Support	21M-54-11890	1
	4	Clamp	20Y-54-27991	3
	5	Bolt	01252-71030	6

Installation of Rearview Mirror

With FOG

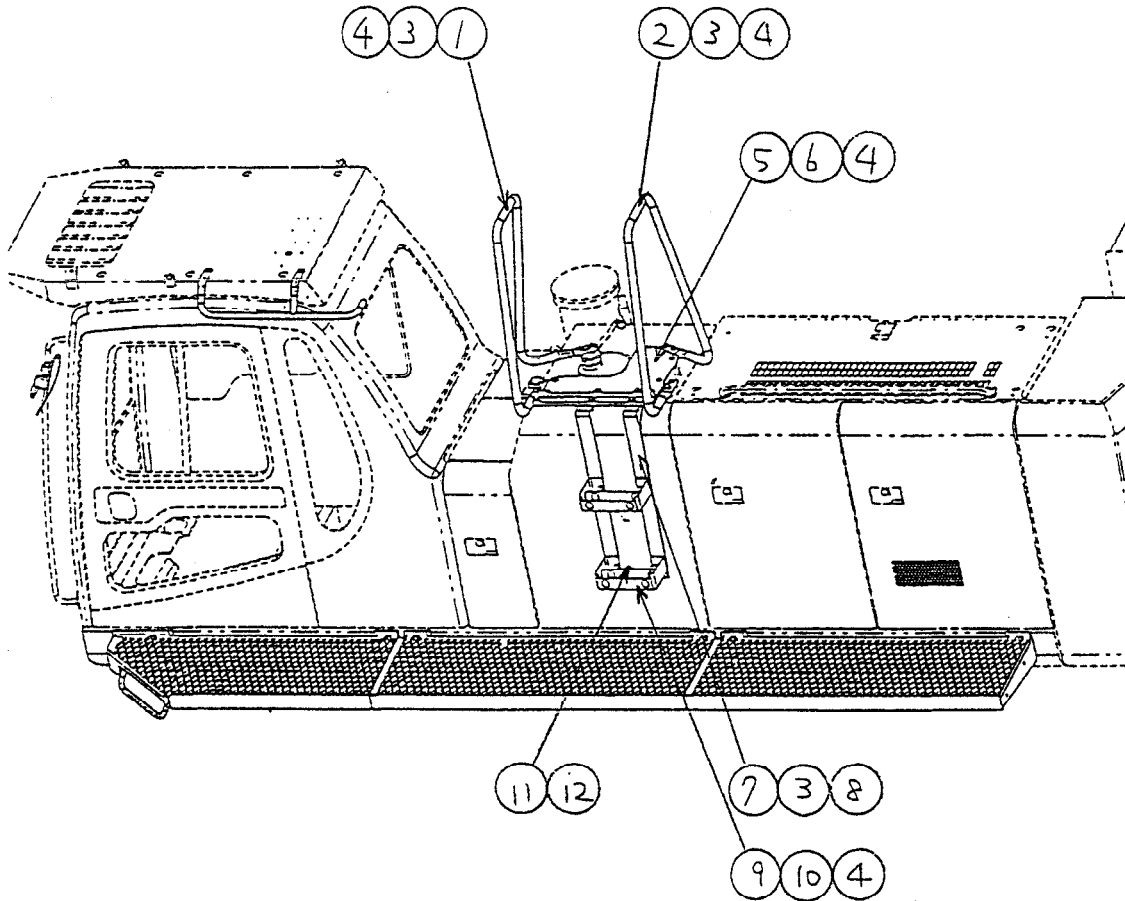
(1) Install parts ① to ④ to the handrail at the side of the cab.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Mirror	08174-13118	1
	2	Support	21M-54-13550	1
	3	Clamp	20Y-54-35430	1
	4	Bolt	01252-71030	2

Installation of Handrail

- (1) Install handrails ① and ② with bolts and washers ③ and ④.
- (2) Install brackets ⑤ and ⑦ with bolts and washers ③, ④, ⑥, and ⑧.
- (3) Adjust stopper ⑪ with nut ⑫, then install to the side face of the hydraulic tank.
- (4) Adjust step ⑨ with bolts and washers ④ and ⑩.

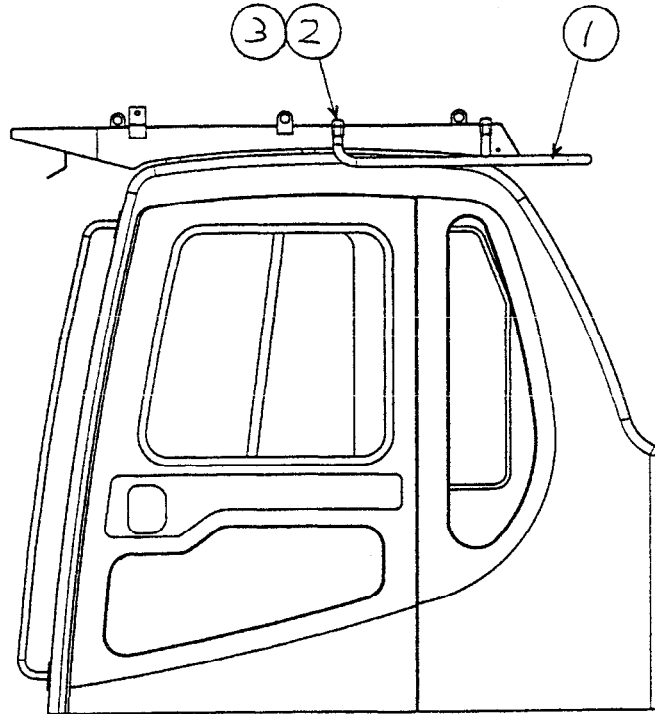


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Handrail	21M-54-13610	1
	2	Handrail	21M-54-13620	1
	3	Bolt	01010-81240	12
	4	Washer	01643-31232	18
	5	Bracket	21M-54-13630	1
	6	Bolt	01010-81245	6
	7	Bracket	21M-54-12971	1
	8	Washer	175-54-34170	4
	9	Step	209-54-63481	1
	10	Bolt	01010-81230	4
	11	Stopper	20Y-54-11611	2
	12	Nut	01580-01000	2

Installation of Handrail

With FOG

(1) Install handrail ① with bolts and washers ② and ③.

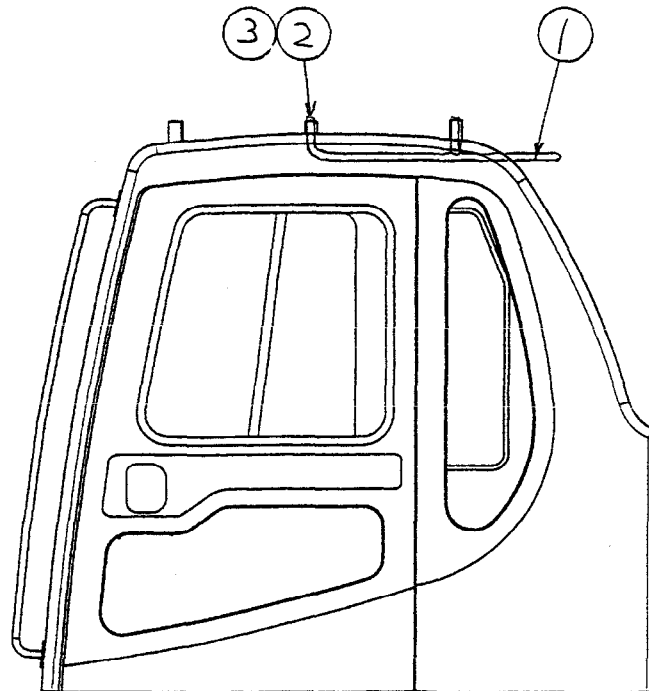


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Handrail	209-54-73172	1
	2	Bolt	01010-81240	4
	3	Washer	01643-31232	4

Installation of Handrail

Without FOG

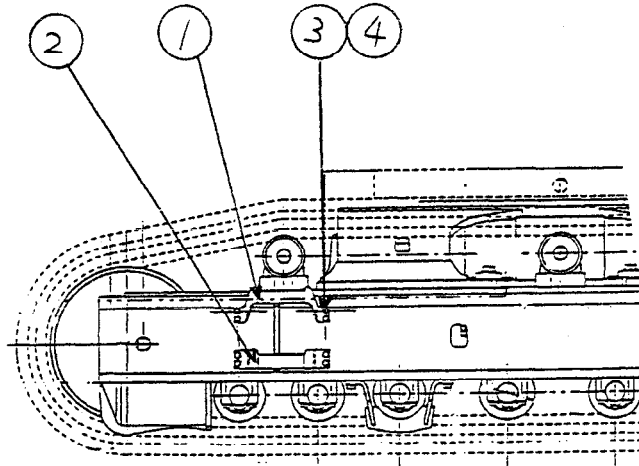
(1) Install handrail ① with bolts and washers ② and ③.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Handrail	209-54-73172	1
	2	Bolt	01010-81240	2
	3	Washer	01643-31232	2

Installation of Step

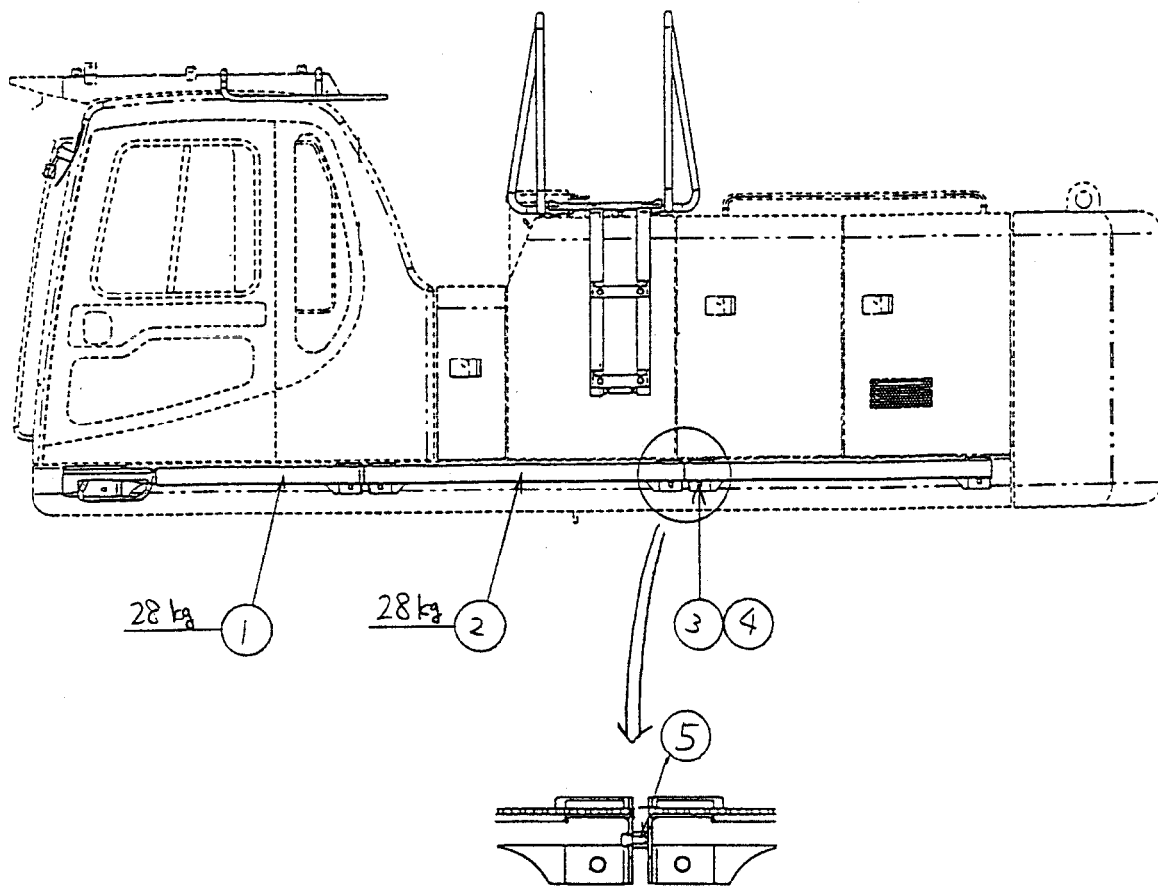
- (1) Install steps ① and ② with bolts and washers ③ and ④ to 4 places at the front, rear, left, and right of the track frame.



Precautions	Parts sent individually			
Remove the rust prevention plug knocked into the mounting tap hole.	No.	Part Name	Part No.	Q'ty
	1	Step	209-30-71131	4
	2	Step	21M-30-12210	4
	3	Bolt	01010-81640	32
	4	Washer	01643-31645	32

Installation of Left Side Step

- (1) Lift steps ① and ② with a crane, then install to the chassis with bolts and washers ③, ④ and ⑤.

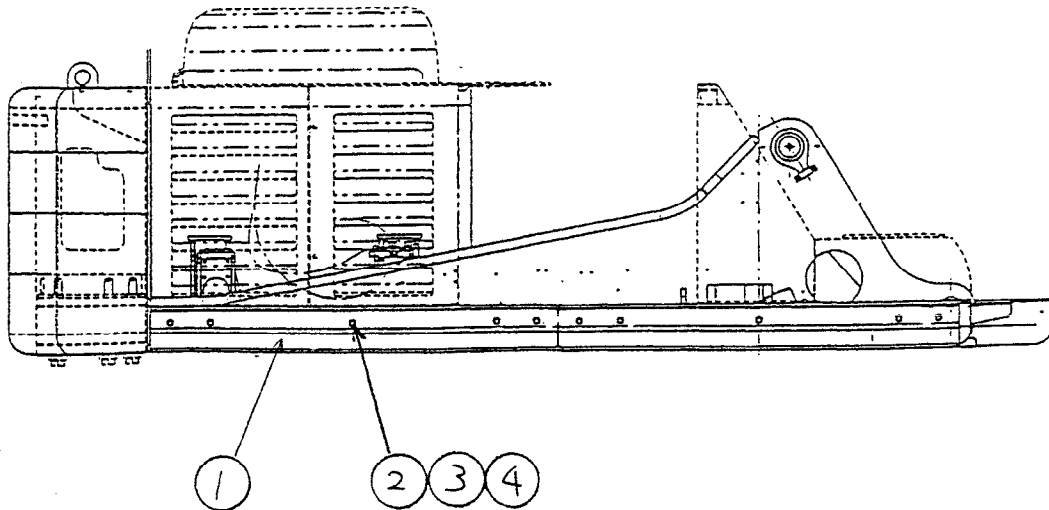


Side step alignment face (2 places)

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
Remove the rust prevention plug knocked into the mounting tap hole.	1	Step	21M-54-12681	1
	2	Step	21M-54-12671	2
	3	Bolt	01010-81235	12
	4	Washer	01643-31232	16
	5	Bolt	01010-81230	4

Installation of Deck Guard <Option>

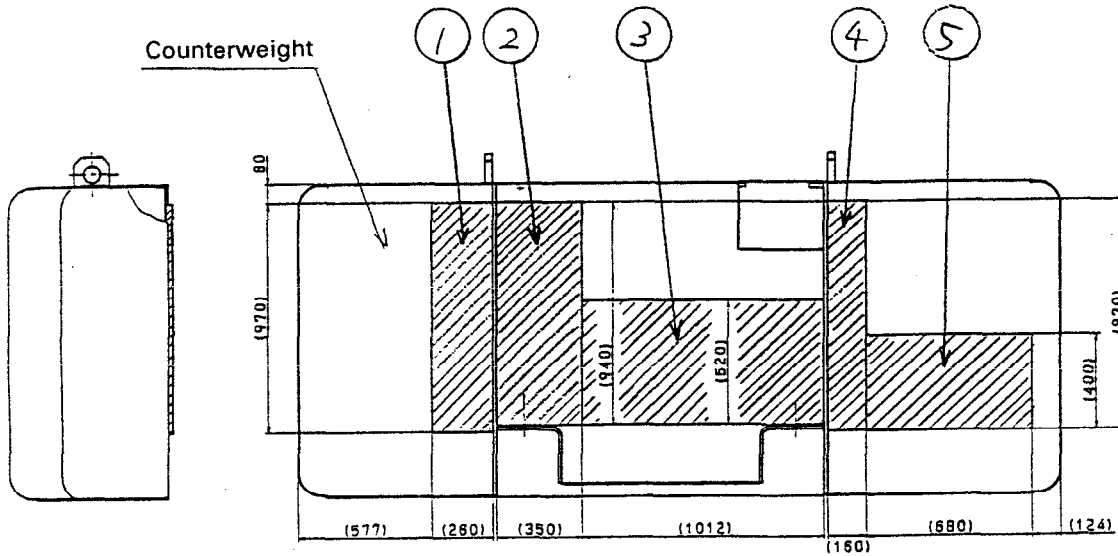
(1) Install deck guard ① to the chassis with bolts and washers ②, ③ and ④.



Precautions	Parts sent individually			
Remove the rust prevention plug knocked into the mounting tap hole.	No.	Part Name	Part No.	Q'ty
	1	Guard	209-54-73832	1
	2	Bolt	01010-81245	10
	3	Washer	01643-31232	10
	4	Spacer	144-947-3490	10

Sticking Seat to Counterweight

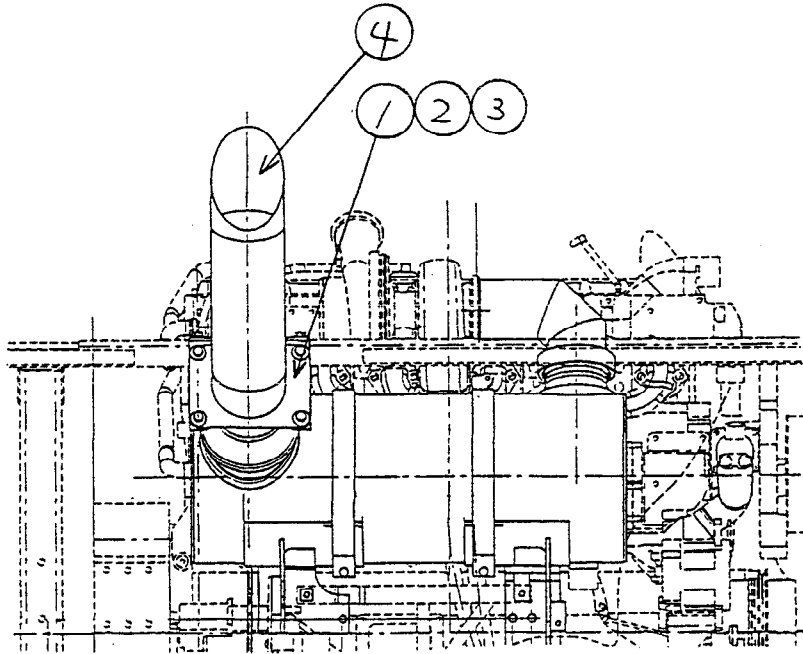
Stick the seat to the face of the counterweight at the front of the chassis as shown in the diagram below.



Precautions	Parts sent individually			
Remove all oil and rust from the surface where the seat is to be stuck.	No.	Part Name	Part No.	Q'ty
	1	Seat	21M-54-14150	1
	2	Seat	21M-54-14160	1
	3	Seat	21M-54-14170	1
	4	Seat	21M-54-14180	1
	5	Seat	21M-54-14190	1

Removal of Muffler Tail Pipe

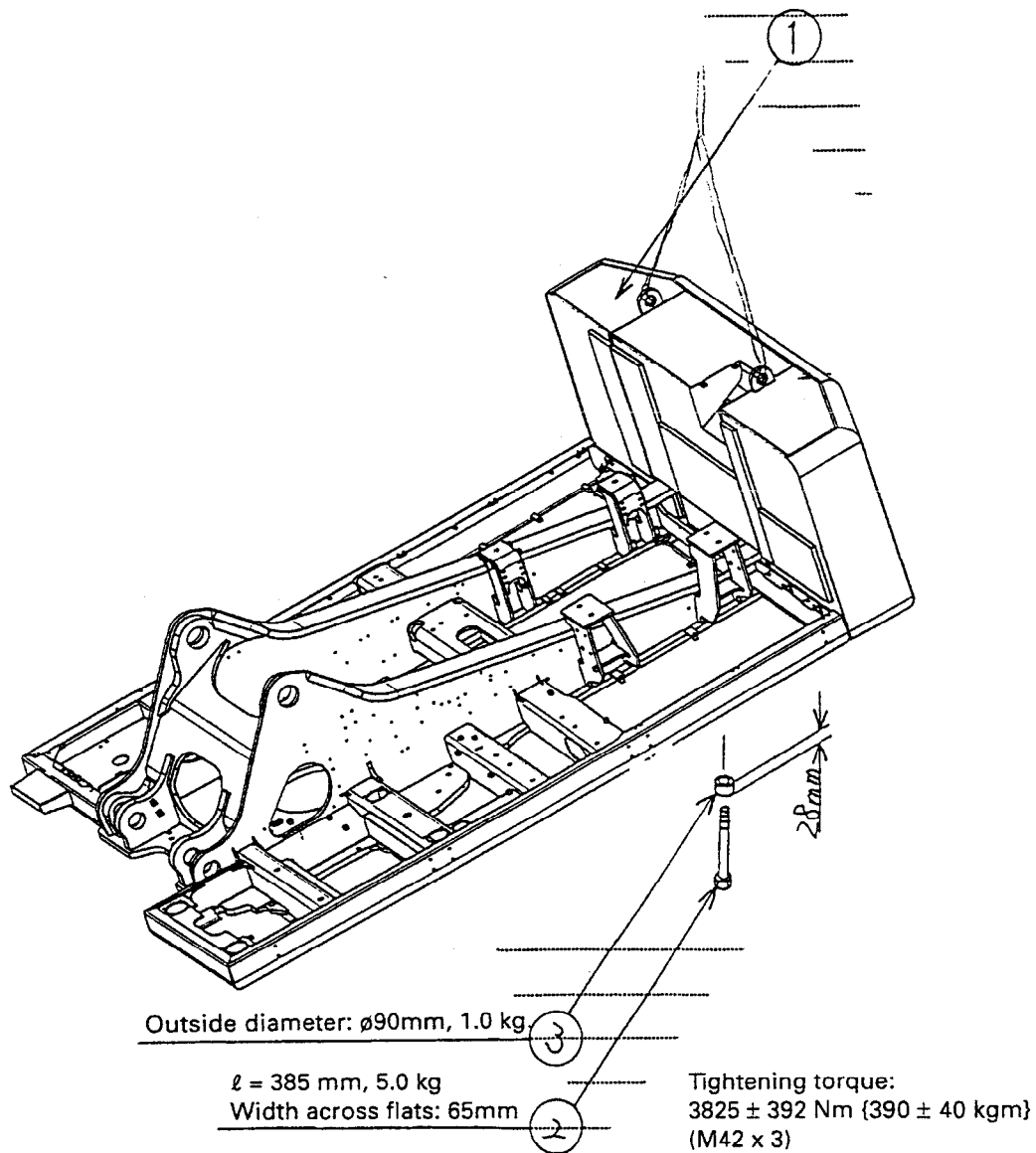
- (1) Before installing the counterweight to the chassis, remove parts ① to ④.
When removing muffler tail pipe ④, do not let it hit the muffler outlet.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Bracket	21M-01-11140	1
	2	Bolt	01010-81230	6
	3	Washer	124-54-26540	6
	4	Muffler tail pipe	21M-01-11180	1

Installation of Counterweight

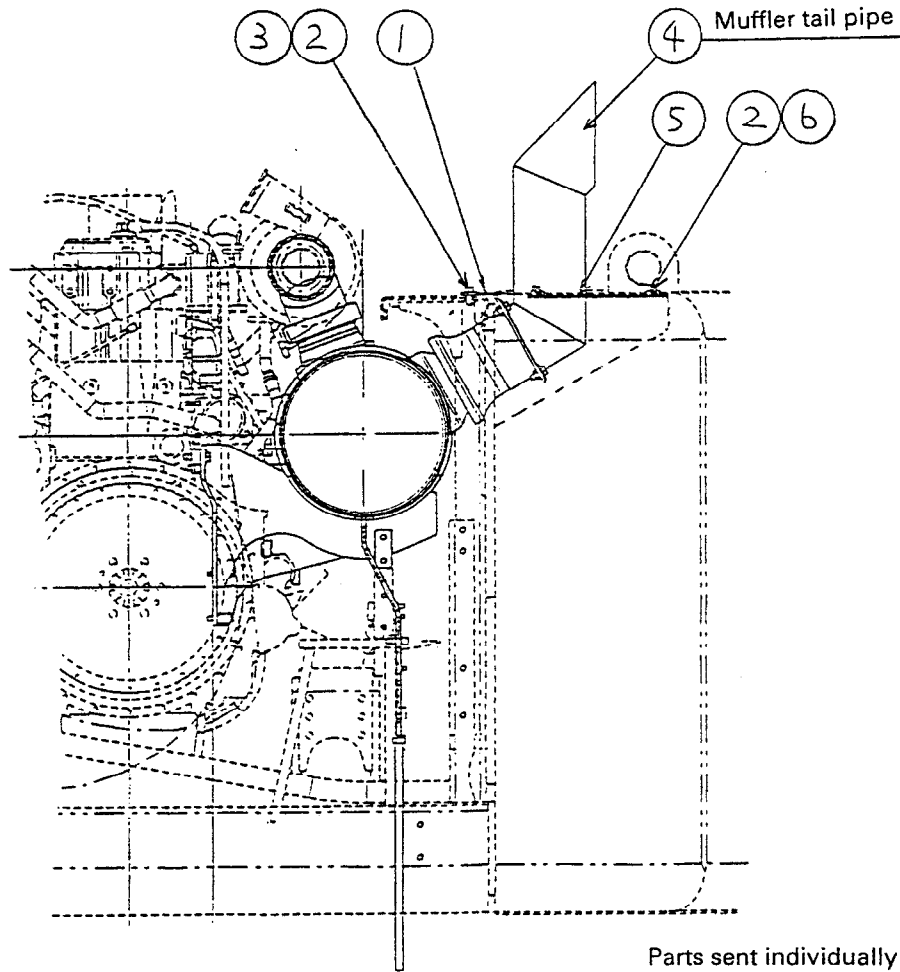
- (1) Raise counterweight assembly ① and install it to the chassis.
- (2) Install the counterweight with 6 bolts ② and 6 spacers ③.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
Install the counterweight so that the standard clearance from the revolving frame is 15 mm and the stepped difference on the left and right is equal.	2	Bolt	21M-46-14210	6
	3	Spacer	209-46-11210	6
※ Tools for installation and tightening ×16 wrench (input side: 245 Nm {25 kgm}) ×1 Socket (38 \square × 65) ×1 Torque wrench (981 Nm {100 kgm}) ×1				

Installation of Muffler Tail Pipe

- (1) Install bracket ① to the bodywork frame with bolts and washers ② and ③.
- (2) Install muffler tail pipe ④ to bracket ① with bolts and washers ② and ③.
When installing muffler tail pipe ④, adjust bracket ① so that the centers of the muffler tail pipe and muffler outlet are aligned.
- (3) Install cover ⑤ to the counterweight with bolts and washers ② and ⑥.



View from left side of chassis

Parts sent individually

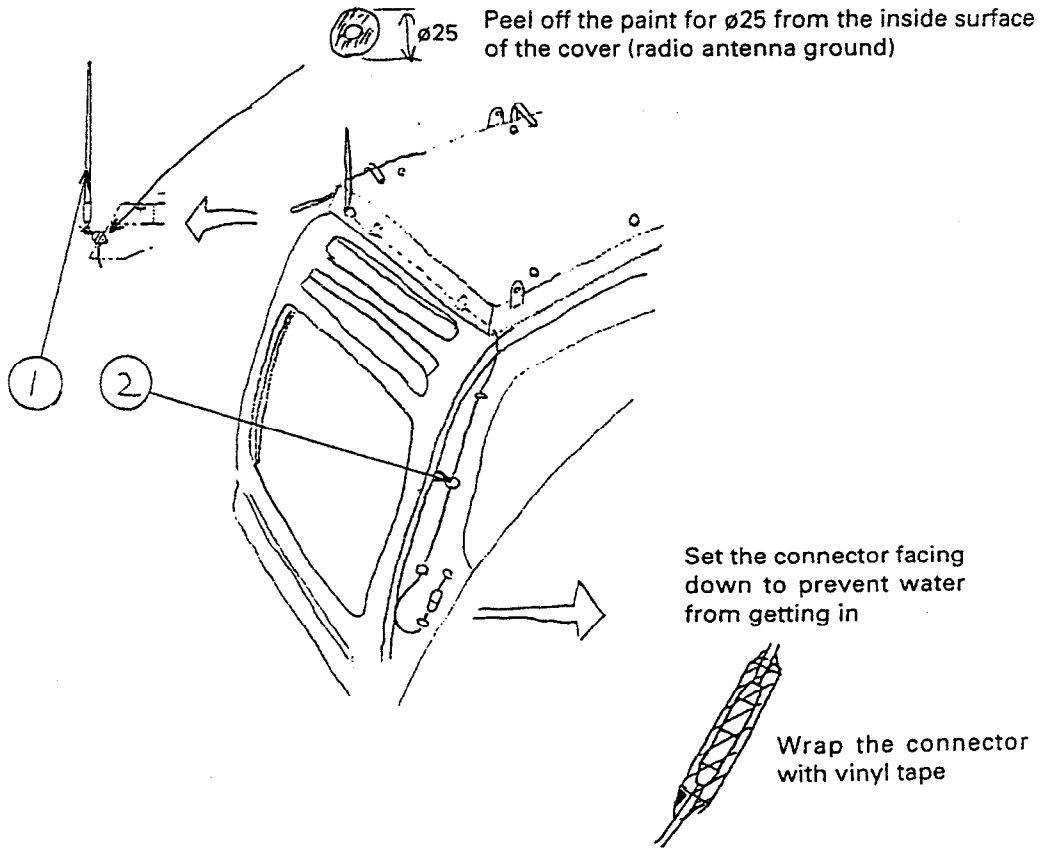
Cover	21M-46-14220	1
Bolt	01010-81230	4
Washer	01643-31232	4

Precautions			
No.	Part Name	Part No.	Q'ty
1	Bracket	21M-01-11140	1
2	Bolt	01010-81230	10
3	Washer	124-54-26540	6
4	Muffler tail pipe	21M-01-11180	1
5	Cover	21M-46-14220	1
6	Washer	01643-31232	4

Installation of Radio Antenna

When installing FOG

- (1) Install antenna ① to the hole in the rear face of FOG.
- (2) Stick clips ② to 2 places on the inside of the FOG top guard and 4 places on the stay at the rear right of FOPS. Fix the wiring of the antenna cable going to the connector to the rear face of the cab. (When doing this, set the connector facing down and wrap it with vinyl tape to prevent water from getting in.)

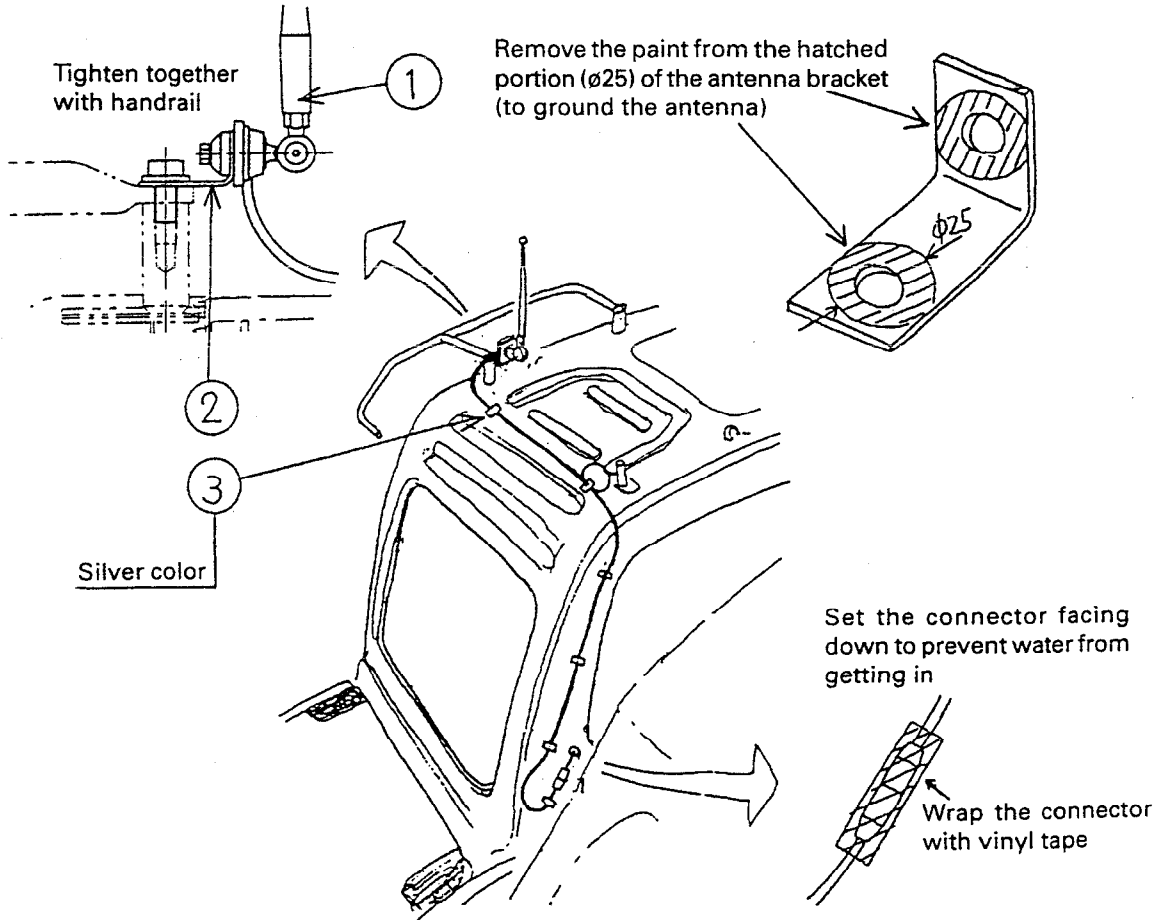


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Antenna	362-56-42260	1
	2	Clip	08051-00801	6

Installation of Radio Antenna

When not installing FOG

- (1) Install antenna ① to stay ②, then tighten the stay together with the handrail on top of the cab.
- (2) Stick clips ③ to 2 places on the top of the cab and 4 places at the rear right of the cab. Fix the wiring of the antenna cable going to the connector to the right face of the cab. (When doing this, set the connector facing down and wrap it with vinyl tape to prevent water from getting in.)



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Antenna	362-56-42260	1
	2	Bracket	6162-63-1920	1
	3	Clip	08051-00801	6

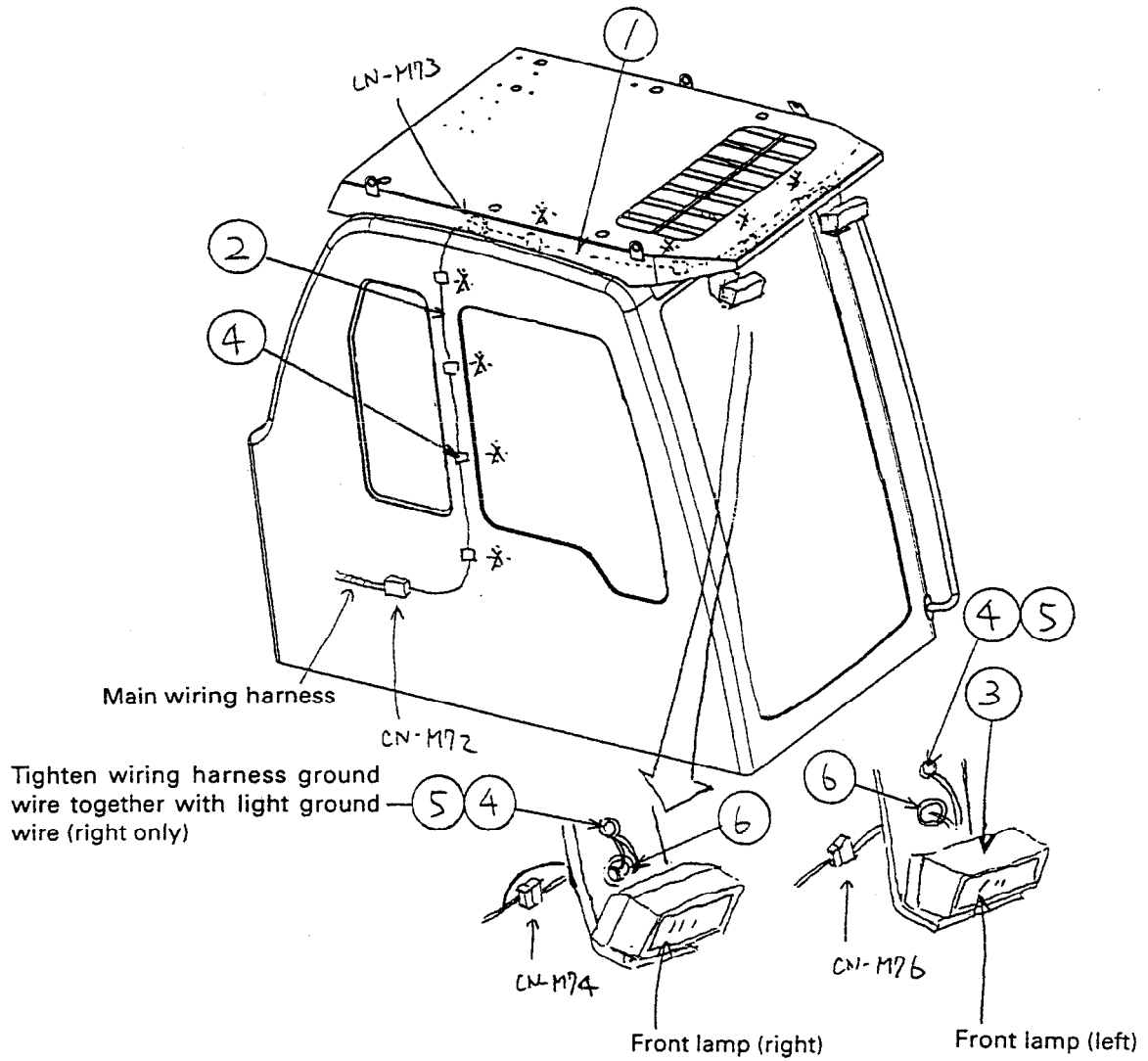
Installation of Light on Top of Cab

When installing FOG

- (1) Install grommet ⑥ in the front face of FOG.
- (2) Install light ③ to the front face of FOG.
- (3) Install wiring harness ① to the front lamp (CN-M74, CN-M76) and the relay point (CN-M73).
- (4) Tighten the ground wire of wiring harness ① and the ground wire of the front lamp (right) together with bolts and washers ④ and ⑤.
- (5) Secure wiring harness ① with clip ④ (* mark: 4 places).
- (6) Install wiring harness ② to the relay point (CN-M73) and the main wiring harness (CN-M72, main beam outside left), then secure with clip ④ (right side of cab, * mark: 4 places).

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Wiring harness	21M-06-11330	1
	2	Wiring harness	209-06-71231	1
	3	Lamp	20Y-06-21480	2

Installation of Light on Top of Cab



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	4	Clip	20Y-54-13440	8
	5	Bolt	01010-81020	2
	6	Washer	01643-31032	2
	7	Grommet	08037-02512	2

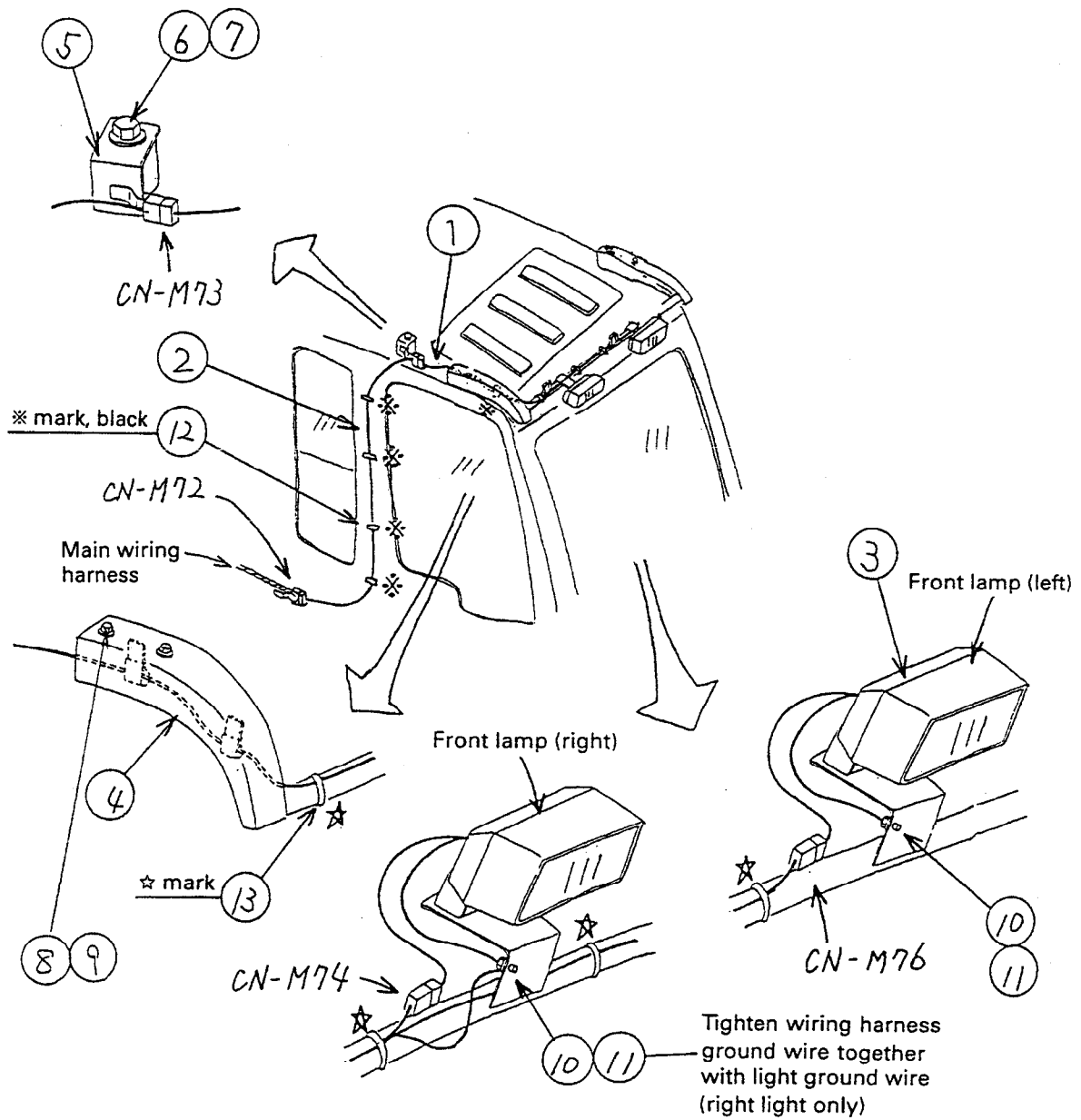
Installation of Light on Top of Cab

When not installing FOG <Option>

- (1) Install light ③ to bracket ④, then install the bracket with bolts and washers ⑧ and ⑨.
- (2) Install bracket ⑤ to the top of the cab with bolts and washers ⑥ and ⑦.
- (3) Install wiring harness ① to the front lamp (CN-M74, CN-M76) and the relay point (CN-M73).
- (4) Tighten the ground wire of wiring harness ① and the ground wire of the front lamp (right) together with bolts and washers ⑩ and ⑪.
- (5) Secure wiring harness ① with clip ⑫ (* mark: 1 place) and band ⑬ (☆ mark: 4 places).
- (6) Install wiring harness ② to the relay point (CN-M73) and the main wiring harness (CN-M72, main beam outside left), then secure with clip ⑬ (right side of cab, * mark: 4 places).

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Wiring harness	21M-06-11330	1
	2	Wiring harness	209-06-71231	1
	3	Lamp	20Y-06-21480	2
	4	Bracket	203-06-61810	1
	5	Bracket	209-06-71241	1
	6	Bolt	01010-81220	1
	7	Washer	01643-31232	1

Installation of Light on Top of Cab



Precautions		Parts sent individually	
No.	Part Name	Part No.	Q'ty
8	Bolt	01001-80860	4
9	Washer	01643-30823	4
10	Bolt	01010-80612	2
11	Washer	209-72-12230	2
12	Clip	20Y-54-13440	5
13	Band	08034-20414	6

Extension and Retraction of Track Frame Gauge

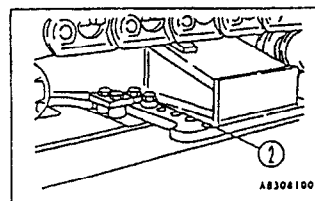
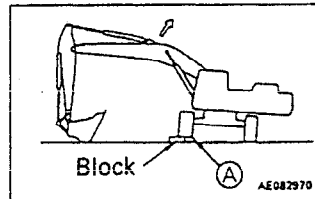
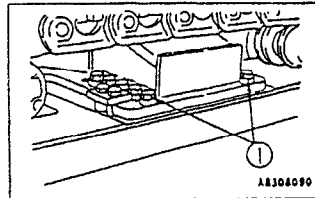
Extending and Contracting Procedures of Track Frame Gauge

⚠ Warning

Never start assembling when the track frame has been contracted.

• Reduction of Gauge Width

- [1] Remove the center frame mounting bolt ① (16 bolts on one side).
- [2] Turn the upper structure square to the track frame ④ to be contracted, and raise the track frame with a jack by using a work equipment.
- [3] Place a block (a 20 to 30cm square crossite) outside the track frame ④ and lower the machine little by little with the boom cylinder. And the track frame will slide, hit against the stopper and stop.
- [4] Lower the machine slowly on the ground and tighten the bolt ② (8 bolts on one side out of the bolt ①) with the tightening torque $2206.5 \pm 245.2 \text{ Nm}$ { $225 \pm 25 \text{ kgm}$ }.
- [5] For the track frame on the opposite side, repeat the above procedures.



Precautions	Loose-supply items			
	No.	Parts Names	Parts Nos.	Qty.
After the extension of the gauge width, make sure that the track frame does not interfere with the pipe to the travel motor and is not twisted.		Bolt	15A-78-11270	16
		Washer	01643-33380	16
• Tightening tools: 4-time wrench 78-2942 Nm {8-30 kgm} Torque wrench 980.5 Nm {100 kgm} Socket, 25.4 Sq. × 55 mm				

Extension and Retraction of Track Frame Gauge

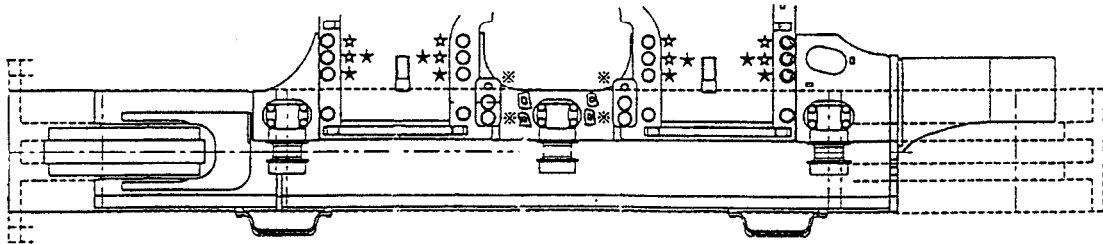
Precautions

- [1] Note that when the gauge is fully retracted, the mounting position of the connecting bolt of the center frame and track frame differs according to the type of shoe.

Shoe width	Mounting position
600 mm	☆ mark
750 mm	☆ mark
A	★ mark

- [2] Note that the mounting position of the stopper bolt differs according to the type of shoe.

Shoe width	Mounting position
600 mm	□ mark
750 mm	□ mark
A	※ mark



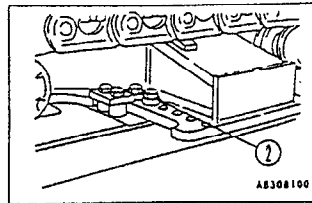
Shoe width A is applicable only for export models.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty

Extension and Retraction of Track Frame Gauge

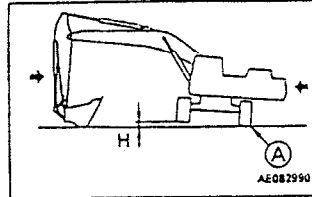
• Extension of Gauge Width

- [1] Remove the center frame mounting bolt ② (8 bolts on one side) around the track frame to be extended.
- [2] Turn the upper structure square to the opposite side of the track frame ③ to be extended.

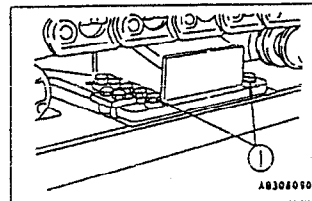


Supplementary Explanation :

Make the track frame relief height "H" less than 50mm. If it is raised too much, the stopper bolt will be twisted and bent.



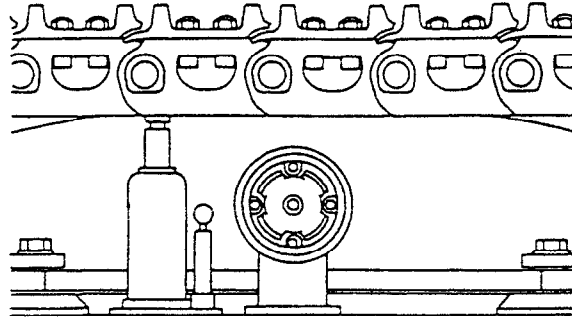
- [3] Pull the body forward by using the arm, and the track frame will slide.
- [4] Stretch it until it hits the stopper. Then, lower the machine slowly on the ground and tighten the bolt ① (20 bolts on one side) with the tightening torque $2206.5 \pm 245.2 \text{ Nm}$ { $225 \pm 25 \text{ kgm}$ }.
- [5] For the track frame on the opposite side, repeat the above procedures.



- Extend or contract the track frame gauge on a flat and strong ground.
- It is very dangerous to operate each cylinder quickly during the extension or contraction of the track frame gauge width. So, never operate it quickly.

Precautions	Loose-supply item			
	No.	Parts Names	Parts Nos.	Qty.

Extension and Retraction of Track Frame Gauge

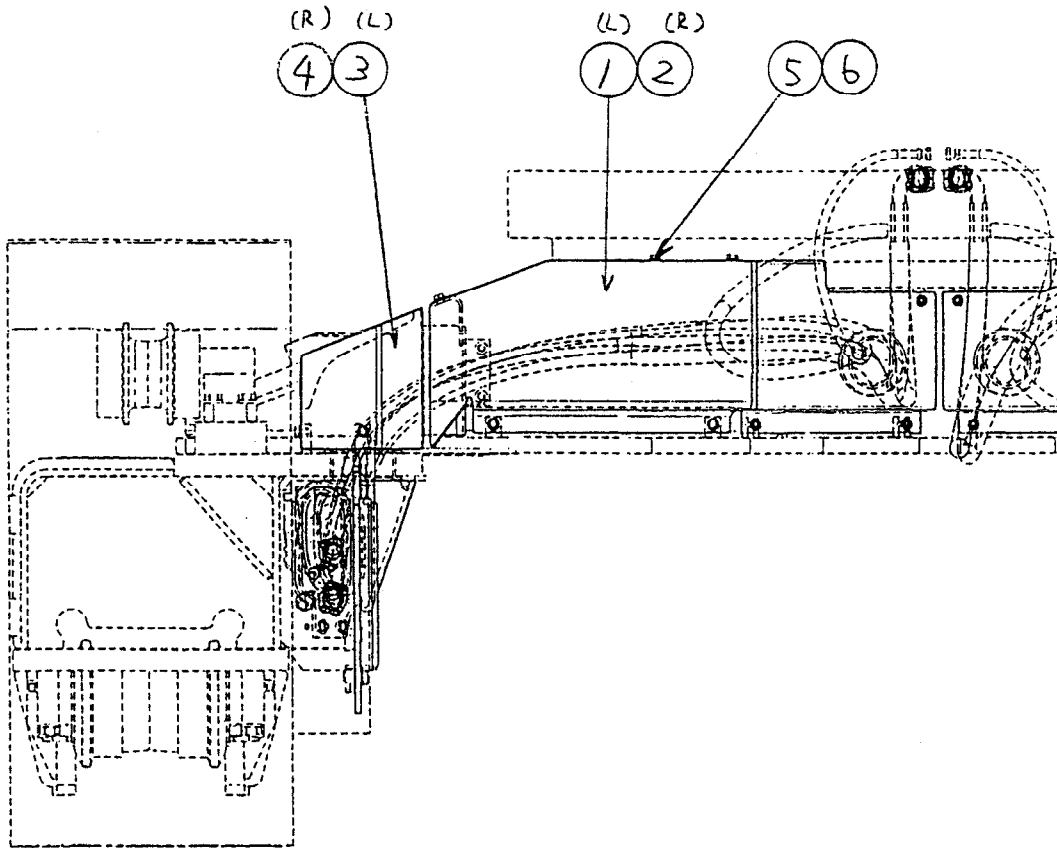


- ★ To tighten bolts, raise the track by using a hydraulic jack to get sufficient space for tightening.

Precautions	Loose-supply item			
	No.	Parts Names	Parts Nos.	Qty.

Installation of Travel Piping Cover

- (1) After expanding the track frame width, install travel piping covers ① - ④ and bolts and washers (5) and (6).



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Cover (L)	21M-30-18220	1
	2	Cover (R)	21M-30-18230	1
	3	Cover (L)	21M-30-18121	1
	4	Cover (R)	21M-30-18161	1
	5	Bolt	01010-81230	12
	6	Washer	01643-31232	12

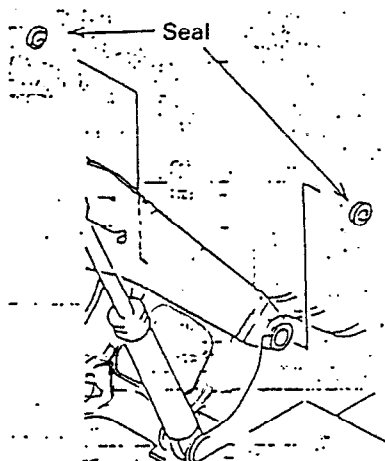
Boom Foot Pin, Boom Cylinder Foot Pin

- (1) Remove the stopper of the boom foot pin fixed to the chassis, then pull out the pin.
- (2) Remove the stopper of the boom cylinder foot pin fixed to the chassis, then pull out the pin.
 - ★ When removing the pin, use forcing screws (Thread dia.=16mm, Pitch=2.0mm; Thread dia.=30mm, Pitch=3.0mm).


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty


Boom Assembly

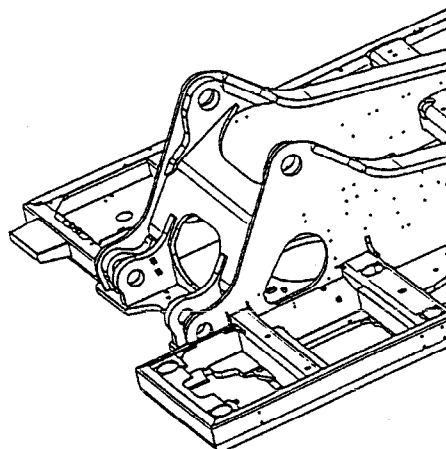
- (1) Lift the boom assembly with the crane and bring it to the body pin hole.
 - (2) Fitting of Boom Foot Pin (See the figure.) Insert a boom foot pin (which had been fitted on the revolving side) in a hole one side first and bring the body to the pin hole on the other side. When the boom is inclined to the left or right at the time, balance it by using the jib crane.
- ★ Since 2 seals (209-72-11261) have been fitted to the boom foot as shown below, use care not to break them when inserting pins.



- (3) Insert the boom foot pins fully and fit lockplates there.

 Inside bushing: anti-friction compound (LM-P).

	PC600	PC650
	4,700 kg	4,500 kg



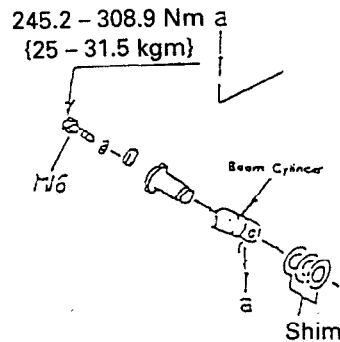
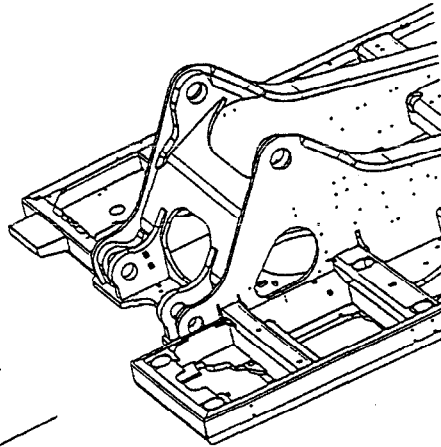
- ★ Check the clearance between the boom foot and the machine outside, decide the size and quantity of shim so that the clearance becomes below 1mm and insert the shim between them. Use the adjustment shims (209-72-11180, 1.0 mm thick, 2 pcs. and 209-72-11190, 1.5 mm thick, 2 pcs.) to decide their combination. (Adjust the clearance with shims at one place outside.)

Precautions	Loose-supply item			
	No.	Parts Names	Parts Nos.	Qty.
		Shim (t : 1.0 mm)	209-72-11180	2
		Shim (t : 1.5 mm)	209-72-11190	2
		Seal	209-72-11261	2

Installation of Boom Cylinder Foot

- (1) Raise the boom cylinder with a crane and align with the pin hole on the machine.
- (2) Coat the inside of bushing with anti-friction compound (LM-P).
- (3) Check the clearance (at the outside of the chassis) between the chassis and the cylinder pin, then select and assemble shims to make the clearance less than 1mm. Adjust the shims for both the left and right cylinders (outside of chassis).
- (4) Push the boom foot pin in completely and install the lock plate.
- (5) Use the same procedure to install on the left and right.

★ Assemble so that the greasing hole at the boom cylinder bottom is facing down.

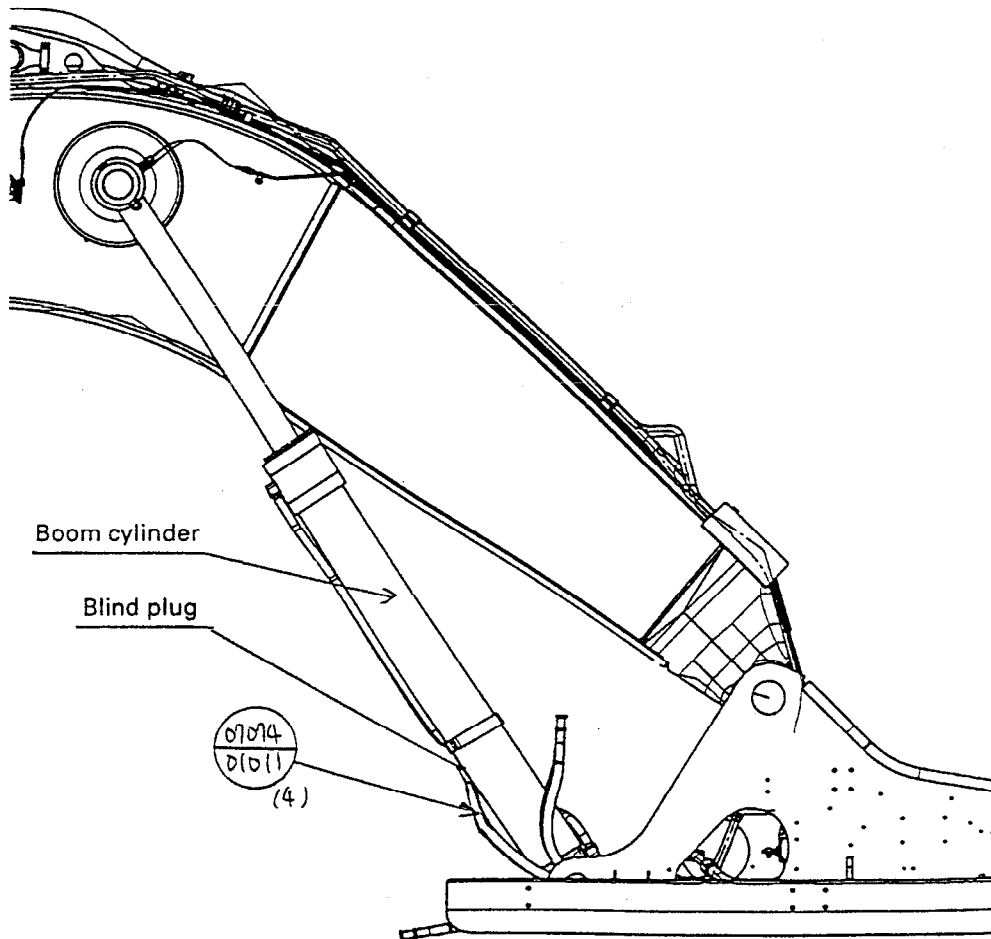


★ When adjusting with shims, use a combination of the following shims:
 (207-70-11360 × 2) t1.0
 (207-70-11370 × 2) t1.5

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
		Shim (t : 1.0 mm)	207-70-11360	2
		Shim (t : 1.5 mm)	207-70-11370	2

Installation of Boom Cylinder Hoses

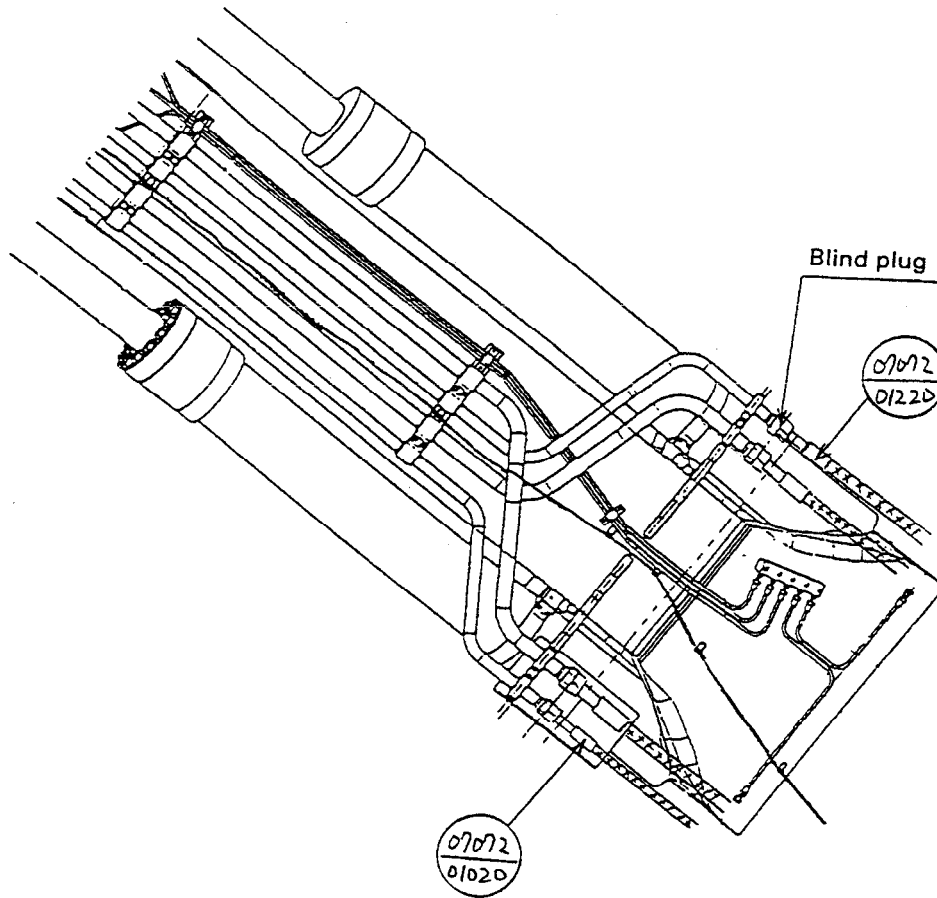
- (1) Remove the blind plug from the tube at the boom cylinder end.
- (2) Install the boom cylinder hoses (07074-01011 x 4) to the correct circuits as shown in the diagram below.



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty

Installation of Hoses from Chassis Along Top of Boom

- (1) Remove the blind plug from the tube at the boom end.
- (2) Install the arm cylinder and bucket cylinder hoses (07072-01020 x 1, 07072-01220 x 3) on the top of the boom to the correct circuits as shown in the diagram below.



Top of boom

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty

Boom Cylinder: 520 kg

- (1) Remove the stopper plate fixed to the boom, then remove the boom cylinder top pin.

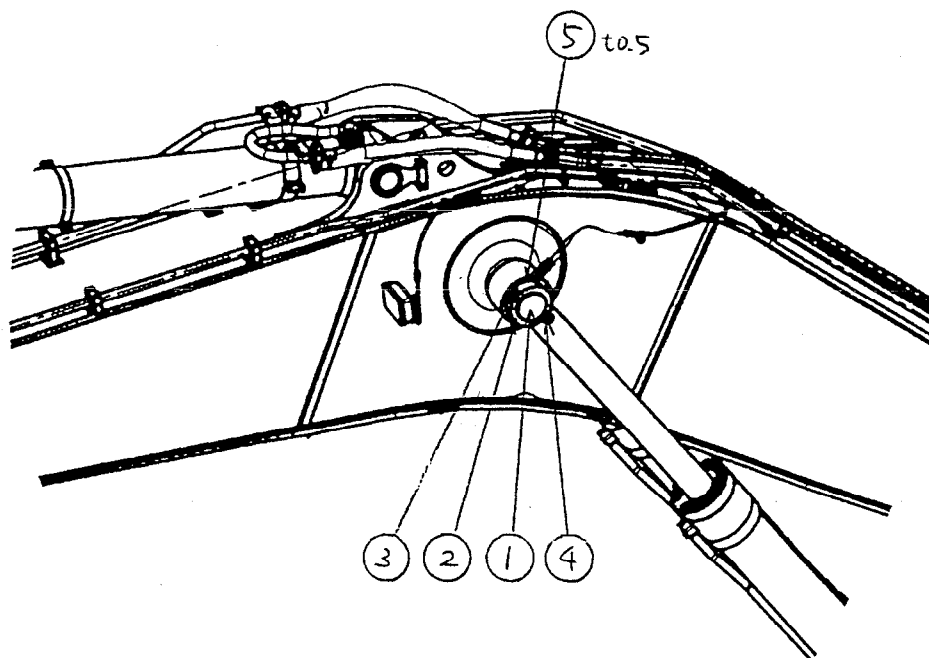


Boom cylinder top pin: 104 kg

- (2) Start the engine and run at low idling.
 (3) Raise the cylinder, extend the rod slowly, and align the pin holes.
 (4) Knock in the cylinder top pin.



Inside of bushing: Anti-friction compound (LM-P)



- ★ When operating the cylinder, extend it slowly. Do not operate the cylinder suddenly or operate it to the end of its stroke.
 At first, there is air inside the cylinder, so the cylinder may not move for the first ten seconds. In such cases, do not operate the lever to the end of its travel.

- (5) Install the stopper plate.

- ★ Adjust with shim ⑤ so that clearance is less than 1mm between cover ② and the cylinder rod.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Pin	21M-70-11220	1
	2	Cover	21M-70-11280	2
	3	Bolt	21M-70-11290	2
	4	Nut	01580-12419	4
	5	Shim	426-70-11280	8

Arm Cylinder

- (1) Remove the stopper plate fixed to the boom, then remove the arm cylinder foot pin.



Arm cylinder foot pin: 36 kg

- (2) Raise the arm cylinder and align with the hole in the boom.

- (3) Knock in the arm cylinder foot pin.



Inside of bushing: Anti-friction compound (LM-P)

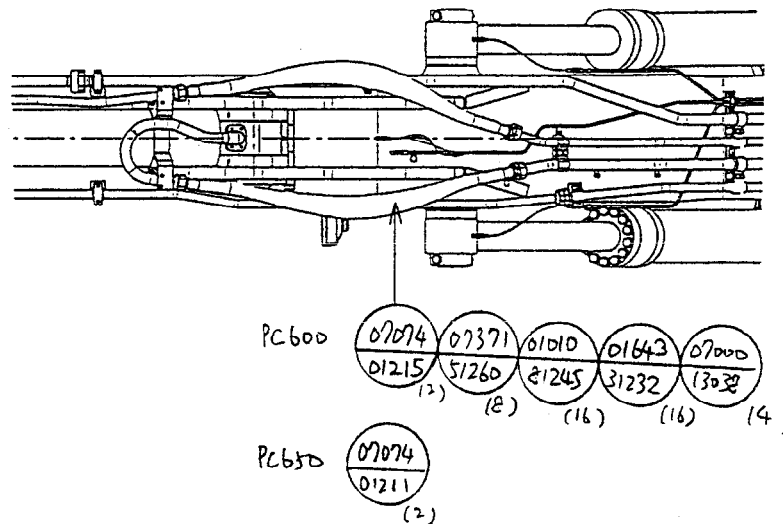
- (4) Install the stopper plate.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty

Installation of Arm Cylinder Hoses

- (1) Remove the blind plug from the piping at the arm cylinder end, then replace the O-rings (07000-13038 × 4) with new parts, and connect the arm cylinder hoses (PC600: 07074-01215 × 2, PC650: 07074-01211 × 2).


Use the split flange, bolt, and other blind parts again.




Precautions	Parts sent individually				
	No.	Part Name	Part No.	Q'ty	
<ol style="list-style-type: none"> 1. Be careful not to let the arm cylinder rod jump out during operation. 2. After removing the flanges, O-rings, and heads, keep them in a safe place so that they can be used again. 3. When installing the hoses, be extremely careful not to get the O-rings caught. 4. When installing the hoses, be extremely careful not to let dirt or dust get into the circuit. 		Hose	07074-01215	2	
		O-ring	07000-13038	4	
		Above parts are for PC600			
		Hose	07074-01211	2	
		O-ring	07000-13032	4	
		Above parts are for PC650			

Installation of Arm Assembly


- (1) Remove the stopper of the boom top pin fixed to the boom, then pull out the top pin.

	PC600	PC650
	3,200 kg	3,300 kg

 Boom top pin: 76 kg


- (2) Raise the arm assembly, align the position with the boom hole, insert a shim (209-72-51230) t1.0, then push in the pin.

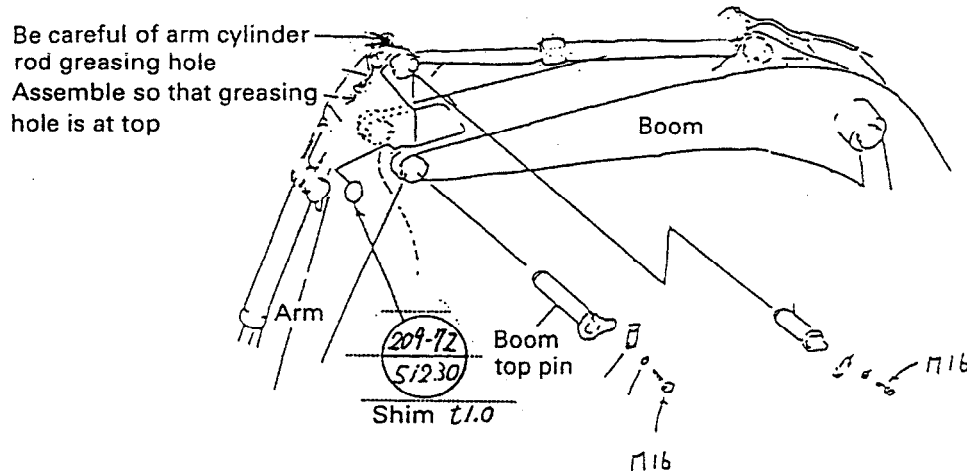
★ Seals (07145-00125 x2) are installed to the inside of the bushing at the arm end, but be careful not to damage the seals when inserting the pin.

 Inside of bushing: Anti-friction compound (LM-P)

- (3) Install the stopper.

- (4) Remove the stopper of the arm cylinder top pin fixed to the arm, then pull out the top pin.

 Arm cylinder top pin: 32 kg x1



- (5) Start the engine, run at low idling, extend the arm cylinder rod slowly, and align the position of the hole.

When doing this, raise the arm cylinder with a crane and operate the arm cylinder at the same time to align the position.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Shim	209-72-51230	1
	2	Seal	07145-00125	2

Installation of Arm Assembly

- (6) Push the arm cylinder top pin in the pin hole.



Inside of bushing: Anti-friction compound (LM-P)

- (7) Fit the stopper to the pin.

Note 1: Operate the cylinder slowly. Do not operate it quickly and do not bring it to the stroke end. Since air gathers inside the cylinder at the first time, it may not move for over 10 seconds, but do not move the lever to the full stroke.

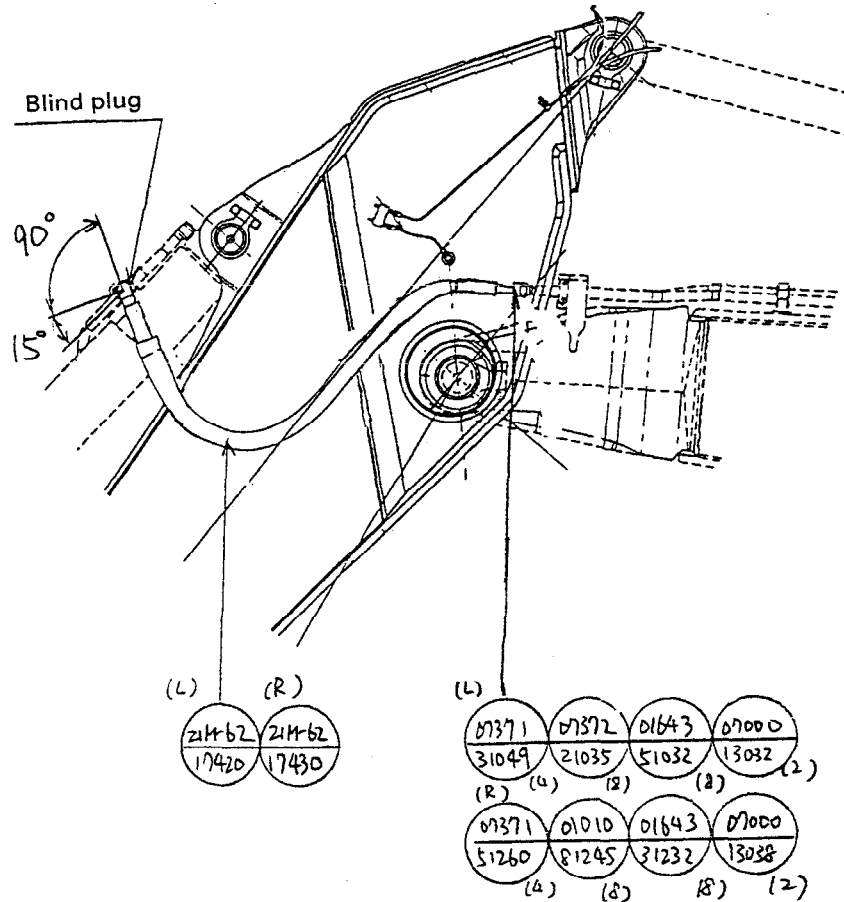
2: When installing the arm, extreme caution should be exercised so that the bucket cylinder rod does not jump out.

Precautions	Loose-supply item			
	No.	Parts Names	Parts Nos.	Qty.

Installation of Bucket Cylinder Hoses between Boom and Bucket Cylinder

- (1) Remove the blind plug from the tube at the bucket cylinder end, then replace the O-rings (07000-13032 x 2, 07000-13038 x 2) with new parts, and connect 2 bucket cylinder hoses (21M-62-17420, 21M-62-17430).

Use the split flange, bolt, and other blind parts again.

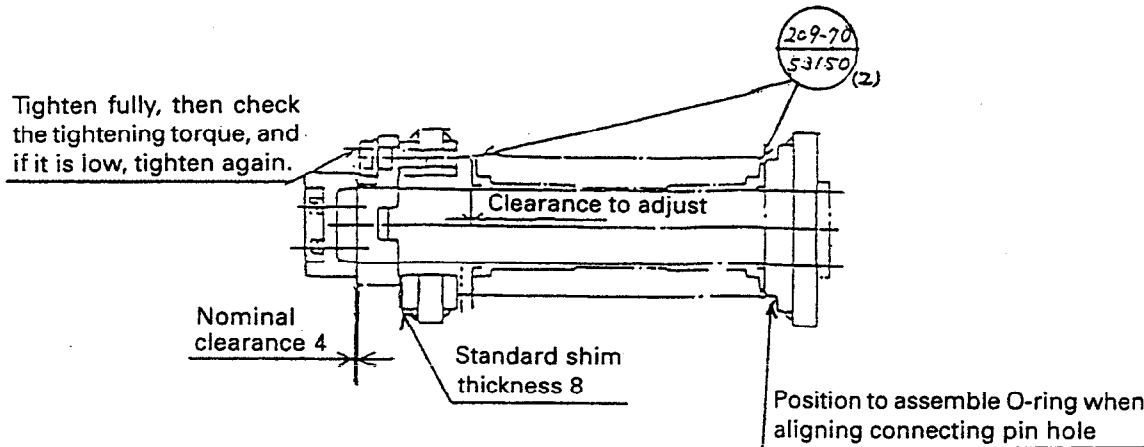


Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
1. After removing the flanges, O-rings, and heads, keep them in a safe place so that they can be used again. 2. When installing the hoses, be extremely careful not to get the O-rings caught. 3. When installing the hoses, be extremely careful not to let dirt or dust get into the circuit.	1	Hose	21M-62-17420	1
	2	Hose	21M-62-17430	1
	3	O-ring	07000-13032	2
	4	O-ring	07000-13038	2

Work Equipment Piping for Bucket Cylinder between Boom and Bucket Cylinder

- (2) Push in arm-bucket connecting pin, use the shims (209-70-54181 (t=1.0) ×16, 209-70-54191 (t=0.5) ×4) sent as individual parts to adjust the clearance to 0.5 - 1.0mm, then tighten the cover mounting bolts (M24).

 Inside of bushing: Anti-friction compound (LM-P)

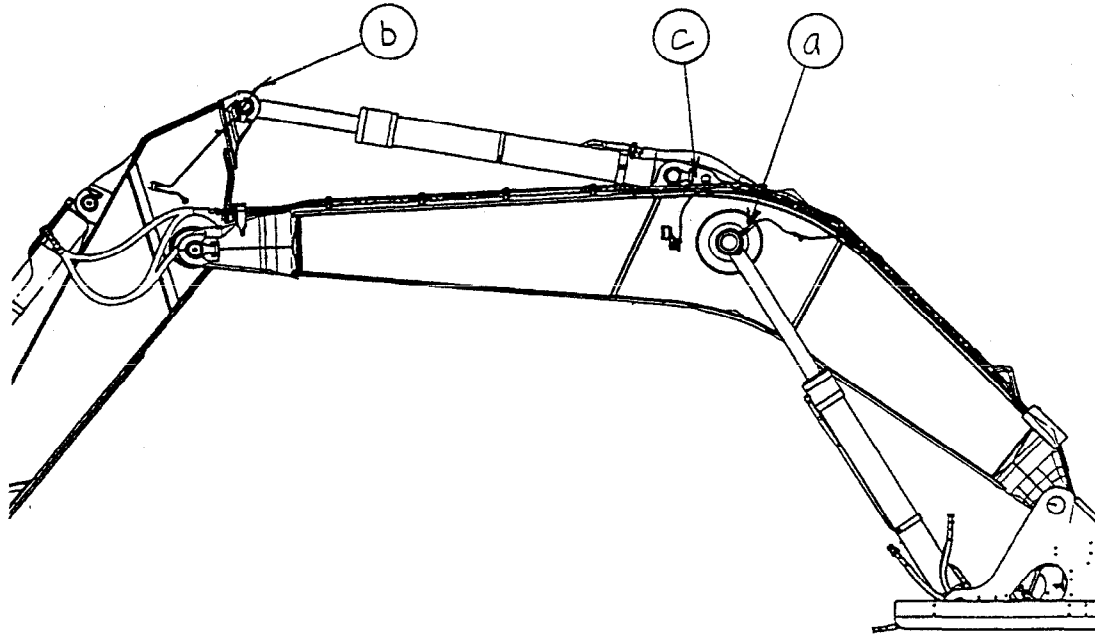


- (3) Assemble 2 O-rings (209-70-53150) to the arm-bucket connecting pin at the specified position to prevent the entry of dirt, then install the pin stopper.
- (4) Seals (209-72-12211 × 2) are installed to the boss at the link end (link-bucket connection), but be careful not to damage the seals when inserting the pin.
- (5) Raise the link, and operate the bucket cylinder at the same time to align the position of the link-bucket connecting pin hole.
- (6) Push in the link-bucket connecting pin, insert a t1.0 shim (209-72-11220 × 1) sent as an individual part to adjust to adjust the clearance to 1 – 2 mm, then install the pin stopper.
- ★ When operating the cylinder, extend it slowly. Do not operate the cylinder suddenly or operate it to the end of its stroke.
At first, there is air inside the cylinder, so the cylinder may not move for the first ten seconds. In such cases, do not operate the lever to the end of its travel.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
		Shim (t1.0)	209-70-54181	16
		Shim (t0.5)	209-70-54191	4
		O-ring	209-70-53150	2
		Shim	209-72-11220	1
		O-ring	208-70-33181	2

Work Equipment Grease Piping

- (1) Remove the blind plug at the cylinder end and the blind plug at the hose nipple end, remove the nipple from the hose, then assemble the boom cylinder greasing hoses (2 places) at portion (a) to the cylinder end, and connect.

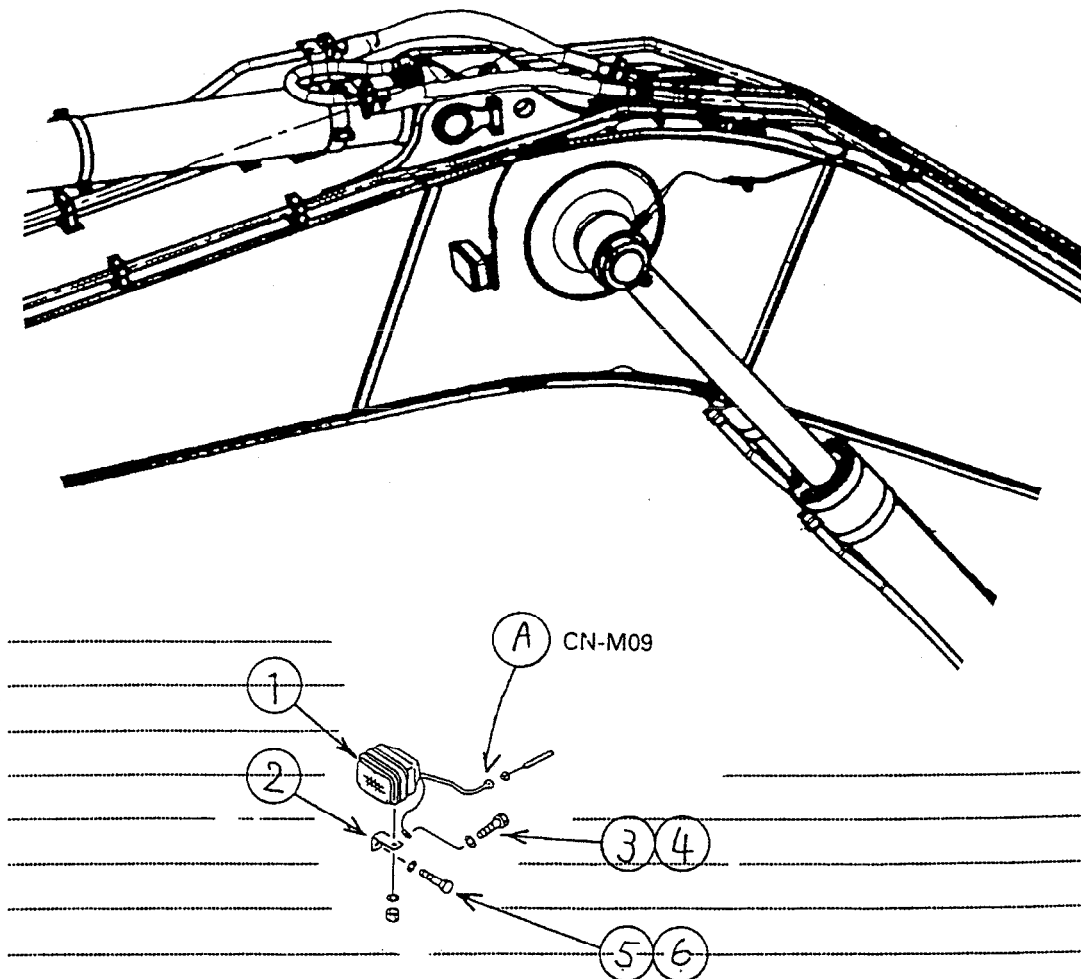


- (2) Remove the blind plug at the cylinder end and the blind plug at the hose elbow end, remove the elbow from the hose, then assemble the arm cylinder top greasing hose at portion (b) to the cylinder end, and connect.
- (3) Remove the blind plug at the cylinder end and the blind plug at the hose elbow end, remove the nipple from the hose, then assemble the arm cylinder bottom greasing hose at portion (c) to the cylinder end, and connect.

Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty

Work Equipment Wiring

- (1) Connect the connector (CN-M09) at portion ① of the working lamp wiring to the wiring on the chassis.
- (2) Install the working lamp as shown in the diagram. (Both left and right)



Precautions	Parts sent individually			
	No.	Part Name	Part No.	Q'ty
	1	Working lamp assembly	20Y-06-21480	1
	3	Bolt	01010-81230	1
	4	Washer	01643-31232	1

KOMATSU