

# ***FIELD ASSEMBLY INSTRUCTION***

# **HD985-5**

## **DUMP TRUCK (RELATED FRONT CAB GUARD)**

MACHINE MODEL	SERIAL No.
HD985-5	1055and up

**CONTENTS**

1	Necessary tools and equipment .....	1-12
2	Field assembly procedure	
	A-1 Installation of front support .....	3
	A-2 Preparation for field welding - Assembly of protector.....	4
	A-3 Preparation for field welding - Installation of protector and tilt brackets ....	5
	A-4 Preparation for field welding - Installation of ROPS .....	6
	A-5 Preparation for field welding - Installation of protector assembly .....	7
	A-6 Preparation for field welding - Tack-welding of ROPS plate .....	8
	A-7 Preparation for field welding - Making "match marks".....	9
	A-8 Preparation for field welding - Removal of protector assembly .....	10
	A-9 Preparation for field welding - Removal of ROPS.....	11
	A-10 Field welding - Permanent welding .....	12
	A-11 Field welding - Painting .....	13
	A-12 Assembly of main unit - Installation of ROPS .....	14
	A-13 Assembly of main unit - Installation of protector assembly .....	15
	A-14 Assembly of main unit - Installation of step .....	16
	A-15 Assembly of main unit - Installation of catwalk .....	17
	A-16 Assembly of main unit - Installation of R/D guard handrail 1.....	18
	A-17 Assembly of main unit - Installation of R/D guard handrail 2 .....	19
	A-18 Assembly of main unit - Installation of catwalk handrail 1 .....	20
	A-19 Assembly of main unit - Installation of catwalk handrail 2 .....	21



1 Necessary tools and equipment

① Necessary tools

No.	Tool Name	Specification	Q'ty	Remarks
1	Ring wrench	14/17/19/24/30/36	1each	
2	Impact wrench	GT-S12M or equivalent	1	
3	Impact wrench	GT-S22M or equivalent	1	
4	Impact wrench	RSP220Nx2 or equivalent	1	
5	Impact wrench	RSP310Nx24or equivalent	1	
6	Impact wrench	GTP-800N or equivalent	1	
7	Socket	36 (Insertion angle: 25.4)/46 mm	1	
8	Socket	14/17/19/22/24/30	1each	
9	Spanner	14/17/19/24/30/36	1each	
10	Torque wrench	For measurement of 28 Nm	1	
11	Torque wrench	For measurement of 94 Nm	1	
12	Stamp	Set of numerals	1	Size: 05
13				
14				
15				
16				
17				
18				
19				

② Necessary equipment

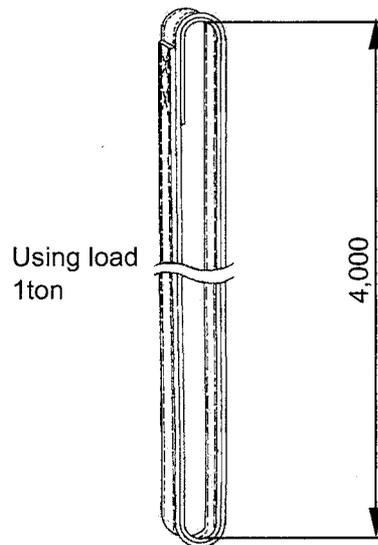
No.	Equipment Name	Specification	Q'ty	Remarks
1	Track crane	Min. 15 tonnes	1	
2	Compressor	Min. capacity of 32ℓ	1	For impact wrench
3	Welding machine/Welding	See page 9	1 set	For welding of ROPS
4	Painting device/Paint	See page 14	1 set	For painting of welded parts of ROPS
5	Flight of steps (Work stand)	4 steps (About 1.5 m high)	1	For work
6	Wood block	350x350x350	4	For placing ROPS
7				
8				

1 Necessary tools and equipment

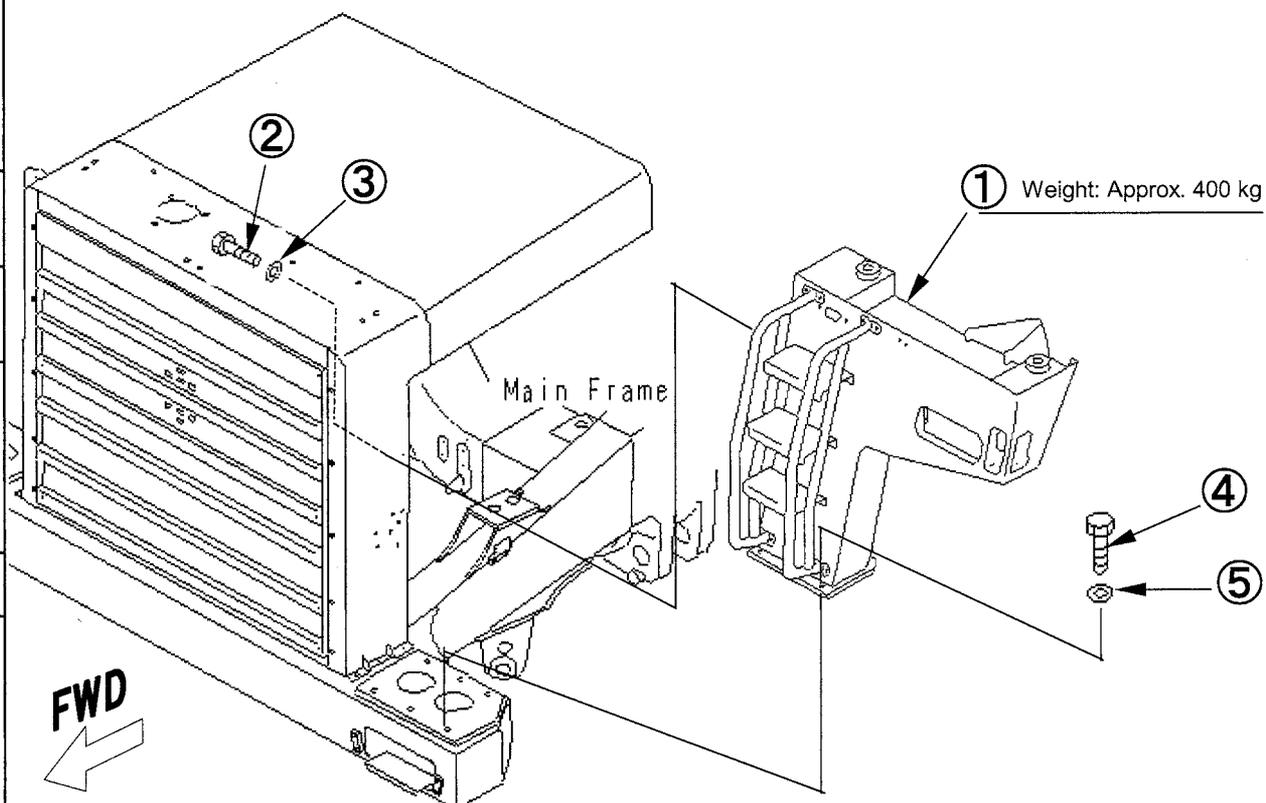
③ Necessary tools and equipment

No.	Sling Name	Specification	Q'ty	Remarks
1	Nylon sling	For 1 tonne, 4,000 mm long	3	
2				
3				

1: Nylon sling



① Installation of front support



	Part No.	Part Name	Q'ty	Condition
①		L.H support assembly	1	Shipped loose (Packed separately)
②	01010-81655	BOLT	6	Tack-welded to support
③	01643-31645	WASHER	6	Tack-welded to support
④	01010-82050	BOLT	6	Tack-welded to machine body
⑤	01643-32060	WASHER	6	Tack-welded to machine body

1. Sling the front support with one 15-tonne crane.  
Sling: Nylon sling (For 1 tonne, 4,000 mm long, 3 pieces)
2. Install the left front support as shown in the above figure.

Precautions

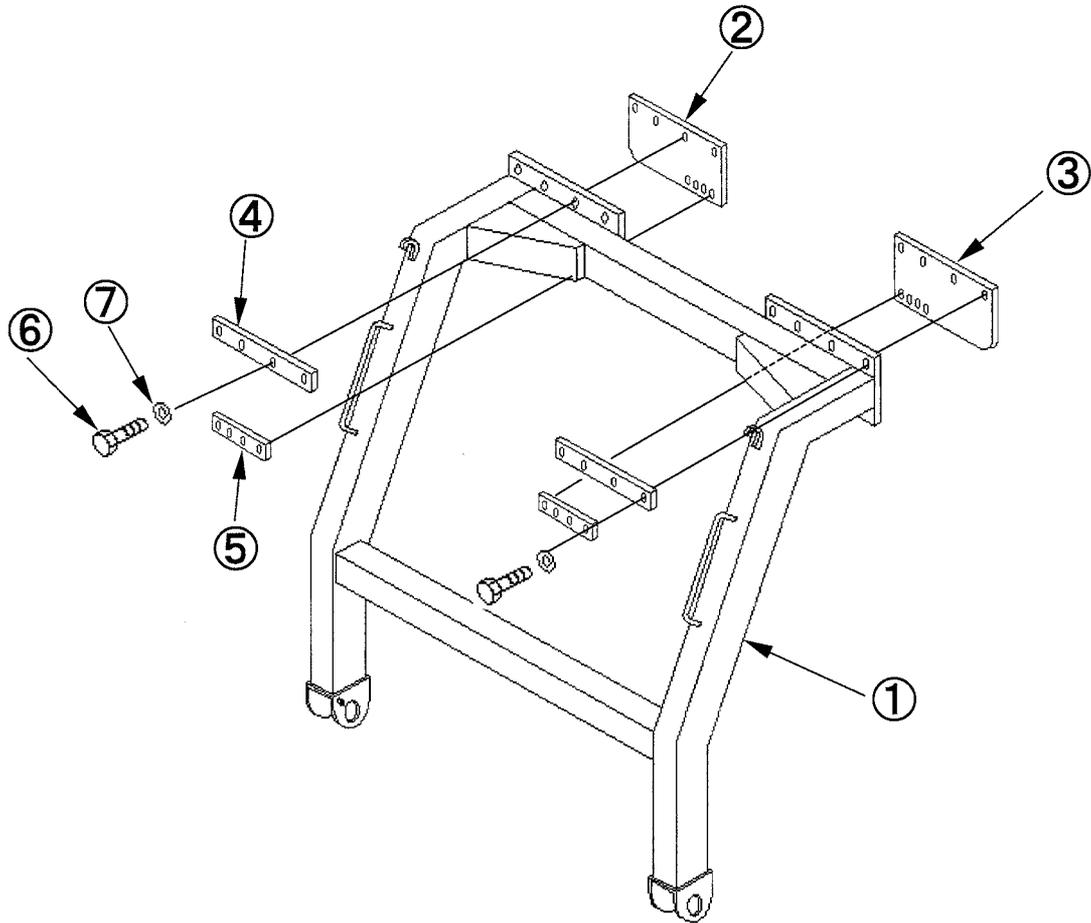
Necessary tools

Necessary equipment

Name	Q'ty	Other items	Q'ty
• Impact wrench GTP-1600P or equivalent (24-mm socket)	1	• Crane (15 tonnes) • Nylon sling	1 3

Others

① Temporary installation of protector plates



	Part No.	Part Name	Q'ty	Condition
①	561-89-67811	PROTECTOR	1	Shipped loose (Packed separately)
②	561-89-67880	PLATE	1	Shipped loose (Packed separately)
③	561-89-67850	PLATE	1	Shipped loose (Packed separately)
④	561-89-67980	PLATE	2	Shipped loose (Packed separately)
⑤	561-89-67990	PLATE	2	Shipped loose (Packed separately)
⑥	01010-81690	BOLT	16	Shipped loose (Packed separately)
⑦	01643-31645	WASHER	16	Shipped loose (Packed separately)

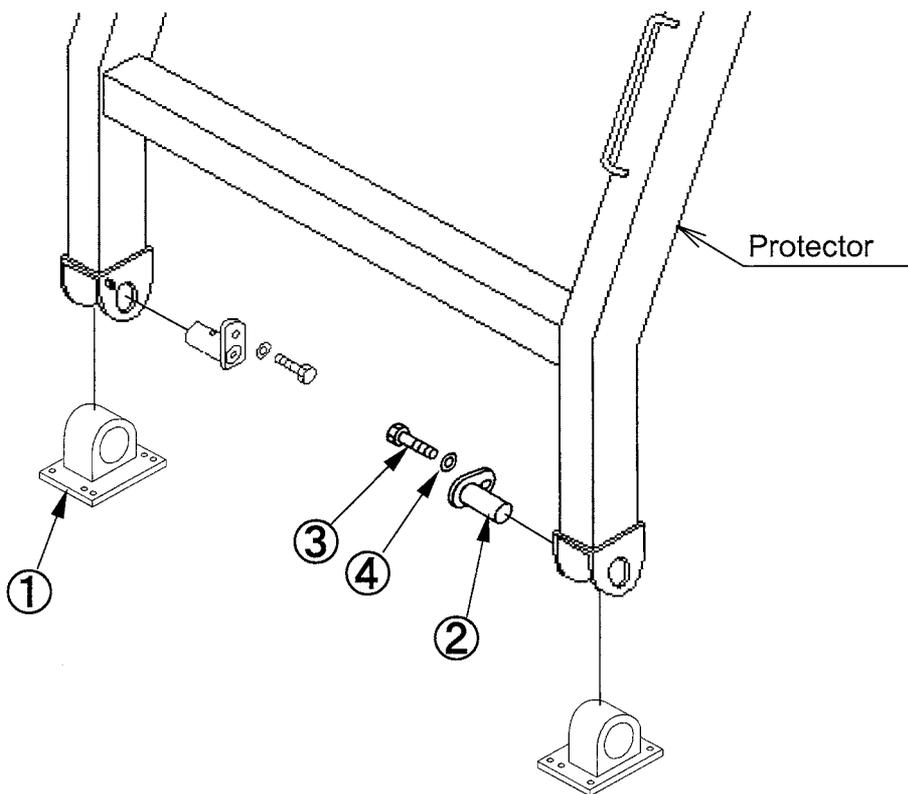
1. Install the protector plates as shown in the above figure.

Precautions

Necessary tools		Necessary equipment	
Name	Q'ty	Other items	Q'ty
• Spanner (24 mm)	1		

Others

① Installation of tilt brackets

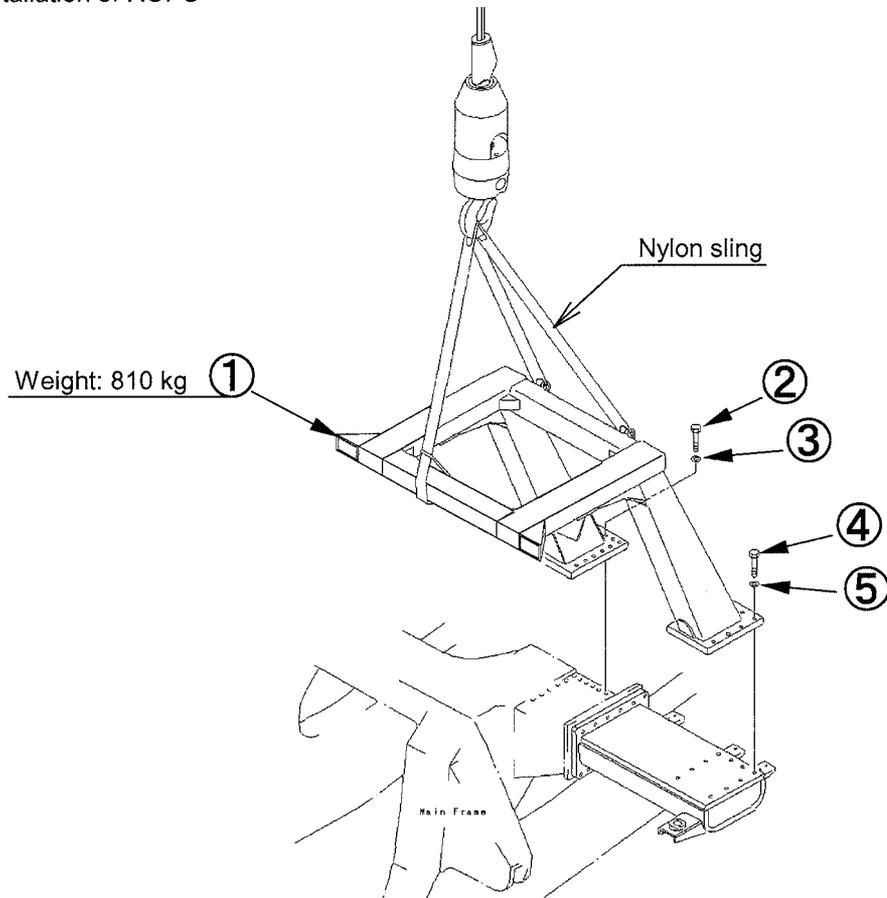


	Part No.	Part Name	Q'ty	Condition
①		TILT BRK & CUSHION Ass'y	2	Shipped loose (Packed separately)
②	569-89-67840	PIN	2	Shipped loose (Packed separately)
③	01010-81430	BOLT	2	Shipped loose (Packed separately)
④	569-40-61710	WASHER	2	Shipped loose (Packed separately)

1. Install the tilt bracket and cushion assemblies to the protector with the pins as shown in the above figure.

Precautions	Necessary tools		Necessary equipment	
	Name	Q'ty	Other items	Q'ty
1. Take care not to mistake both tilt bracket and cushion assemblies for each other.	Spanner (22 mm)	1		
	Others			

① Slings and installation of ROPS



	Part No.	Part Name	Q'ty	Condition
①	561-89-67750	ROPS	1	Shipped loose (Packed separately)
②	01011-82435	BOLT	9	Installed to frame
③	01643-32460	WASHER	9	Installed to frame
④	01011-82415	BOLT	18	Installed to rear support
⑤	01643-32460	WASHER	18	Installed to rear support

1. Sling the ROPS with one 15-tonne crane.  
Sling: Nylon sling (For 1 tonne, 4,000 mm long, 3 pieces)
2. Match the mounting holes and fix the ROPS with the bolts and washers.

Precautions

Necessary tools

Necessary equipment

Name	Q'ty	Other items	Q'ty
• Spanner (36 mm)	1	• Crane (15 tonnes)	1
		• Nylon sling	3

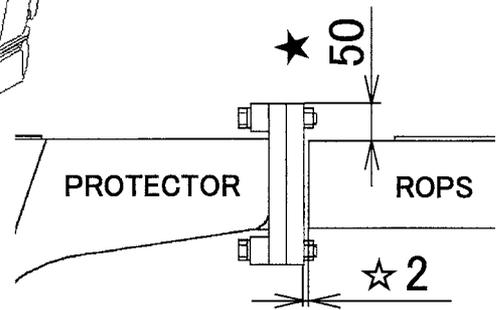
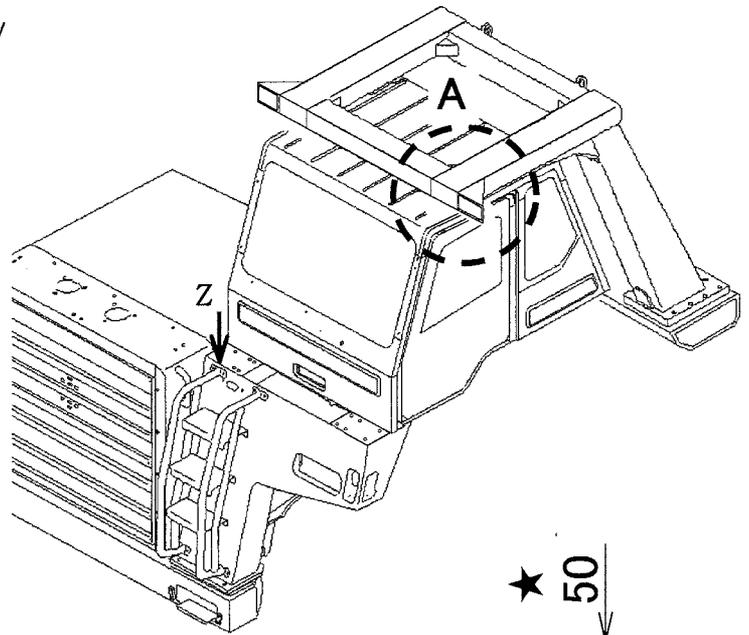
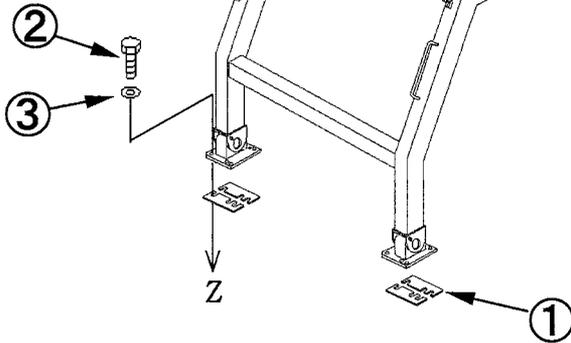
Others

① Slinging and installation of protector assembly

Nylon sling  
For 1 tonne, 4,000 mm long,  
3 pieces

Weight 387 kg

Tightening torque  
245~309Nm  
[25.0~31.5Nm]



Detail of part A

	Part No.	Part Name	Q'ty	Condition
①	561-89-67790	SHIM	24	Shipped loose (Packed separately)
②	01010-81665	BOLT	12	Installed to left support
③	01643-31645	WASHER	12	Installed to left support

1. Sling the protector with one 15-tonne crane.  
Sling: Nylon sling (For 1 tonne, 4,000 mm long, 3 pieces)
2. Adjust shim so ① that the clearance marked with ★ between the protector and ROPS in "Detail of part A" will be 50 mm and the clearance marked with ☆ in the same figure will be 2 mm
3. Keeping the clearances in step 2. above, fix the protector and ROPS with the bolts and washers.

Precautions

Necessary tools		Necessary equipment	
Name	Q'ty	Other items	Q'ty
• Impact wrench GTP-12 or equivalent (24-mm socket)	1	• Crane (15 tonnes)	1
• Torque wrench (28 Nm)	1	• Nylon sling	3

Others

① Tack-welding of plates

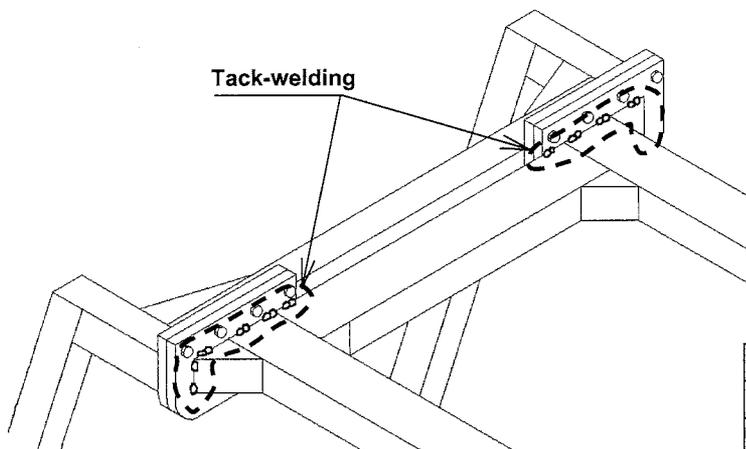


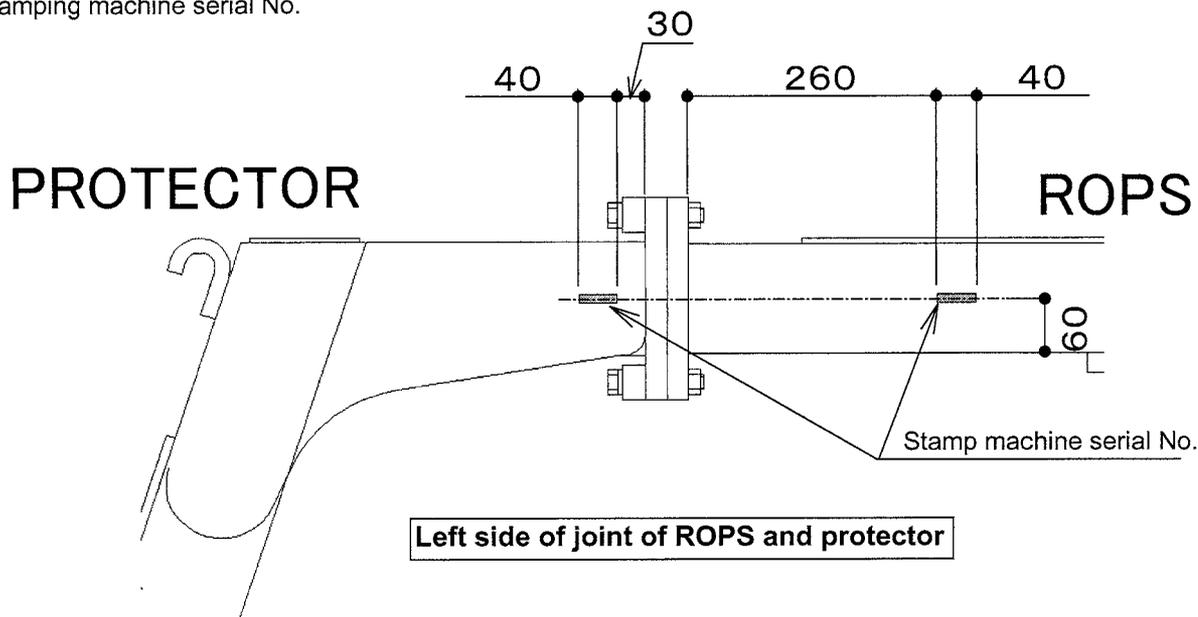
Fig. 1) Material to be used

Standard	J I S	A W S
CO2 welding wire	YGW11	ER70S-G
Welding rod	D5016	E7016

1. Using the material in "Fig. 1", tack-weld the ROPS.

★ If the clearance cannot be reduced to below 2 mm because of lean or twist of the ROPS, insert a proper backing plate when tack-welding

① Stamping machine serial No.



Left side of joint of ROPS and protector

1. Stamp the machine serial No. at the places shown in the above figure.

Precautions

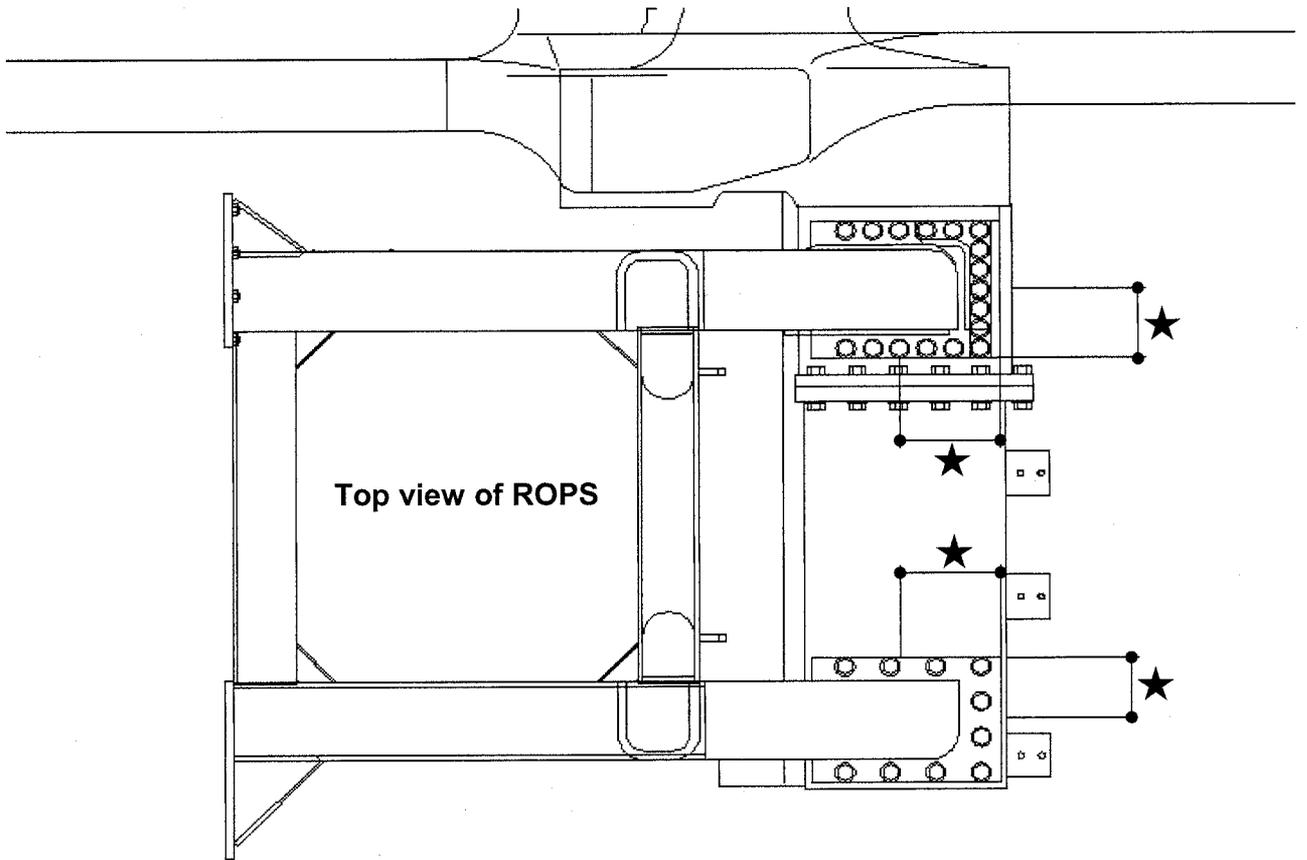
Necessary tools

Necessary equipment

Name	Q'ty	Other items	Q'ty
		•Welding machine	1 set
		•Welding material	1 set
		•Machine serial No. stamper	1

Others

① Making "match marks"



1. Make "match marks" on the ROPS flange and frame. (4 places marked with ★)

Precautions

Necessary tools

Necessary equipment

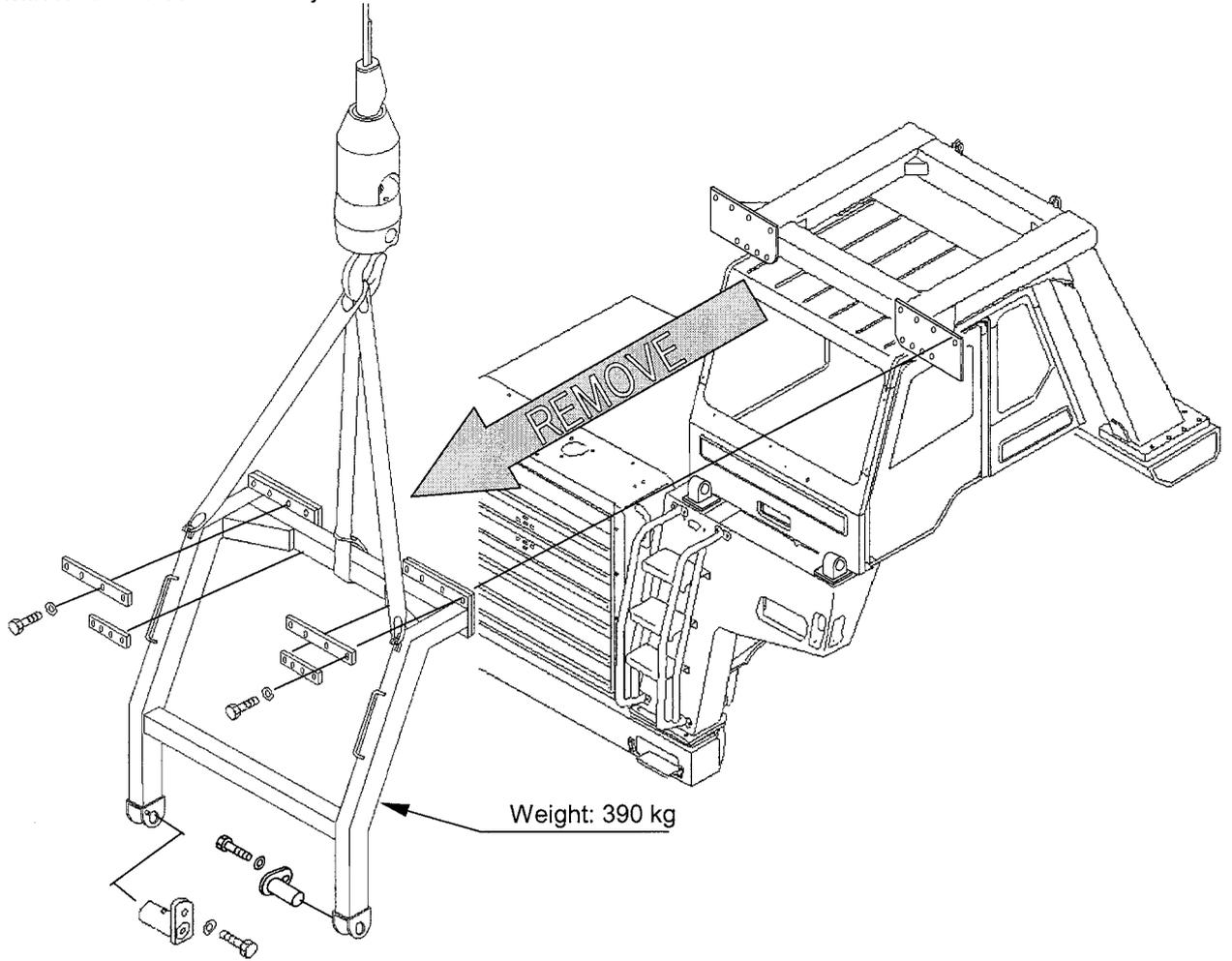
Name

Q'ty

Other items

Q'ty

① Removal of Protector assembly



1. Lift off the protector with one 15-tonne crane.  
 Sling: Nylon sling (For 1 tonne, 4,000 mm long, 3 pieces)
2. When removing the protector, pull out the pin and keep the tilt bracket installed to the machine body.

Note	Necessary tools		Necessary equipment	
	Name	Q'ty	Other items	Q'ty
	• Impact wrench GTP-12 or equivalent (24-mm socket)	1	• Crane (15 tonnes) • Nylon sling	1 3

Sample of manual. Download All 23 pages at <https://www.arespairmanual.com/downloads/komatsu-hd985-5-rigid-dump-truck-service-repair-field-assembly-manualseaw004100/>