

CEAW004806

# Field Assembly Manual

# HD785-7

**DUMP TRUCK**

SERIAL NUMBERS **A10001 & UP**

**KOMATSU**<sup>®</sup>



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### 8. Welding procedure

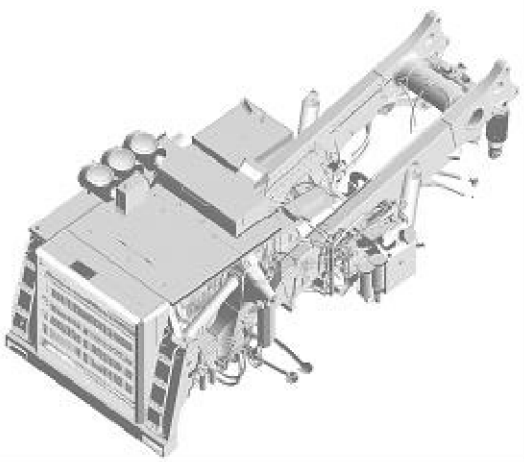
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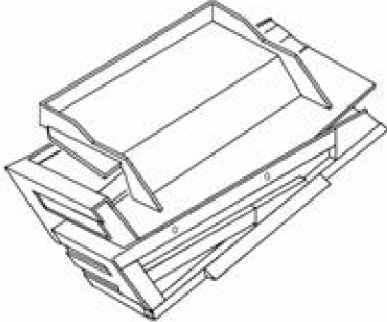
Field assembly inspection report

**1. Outline of division (Only main components)**

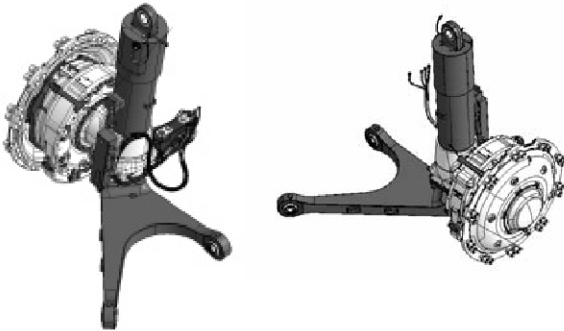
1. Bare machine



2. Dump body (Divided into 3)



3. Front axle assembly



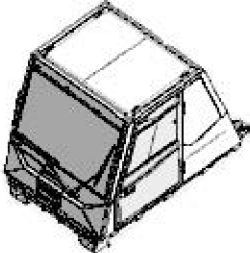
4. Rear axle and tire assembly



5. Front tire and wheel assembly



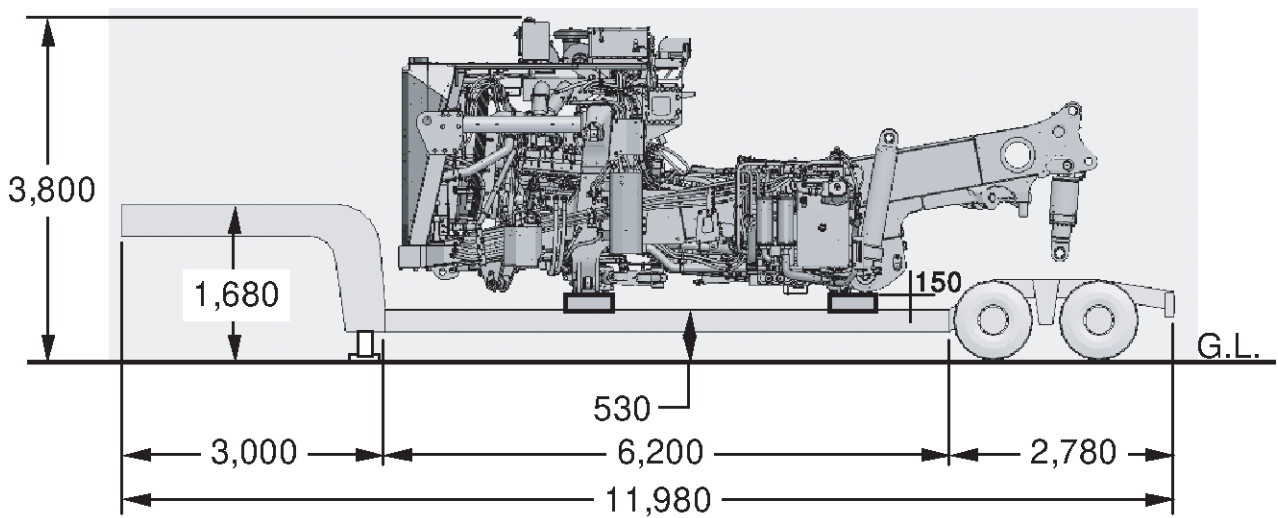
6. Cab assembly



## 2. Dimensions of main components

No.	Unit name	Weight (kg)	Overall length (mm)	Overall width (mm)	Overall height (mm)
1	Bare machine	21,600	7,930	3,190	3,120
2	Dump body	15,400	7,250	3,100	3,100
3	Right and left front axle assembly	2,400	2,200	1,700	2,100
4	Rear axle and tire assembly	17,000	4,390	2,700	2,700
5	Front tire and wheel assembly (1 set)	2,000	2,700	750	2,700
6	Cab	3,000	2,760	2,010	2,190

### Drawing of bare machine on trailer



### Reference

Specifications of completed truck

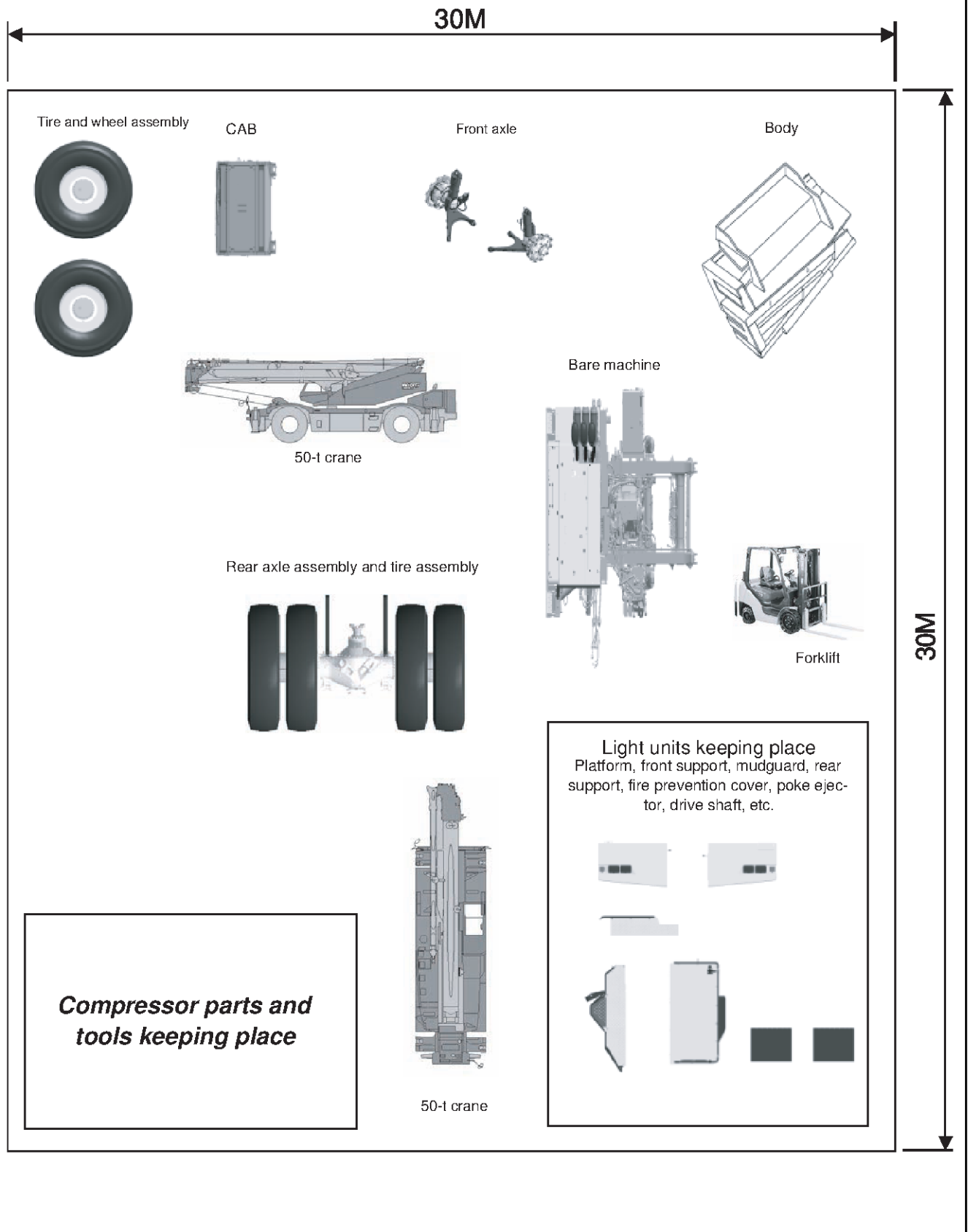
Specifications		Related items			
		Weight (kg)	Overall length (mm)	Overall width (mm)	Overall height (mm)
In self-propelled travel	HD785-7	64,600 (Mass of machine)	10,290 (Front bumper – End of body)	5,528	5,047 (When empty)



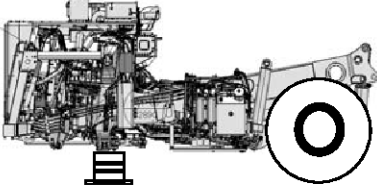
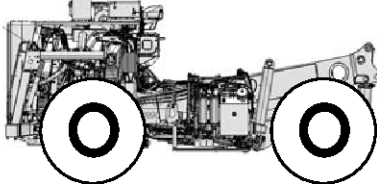



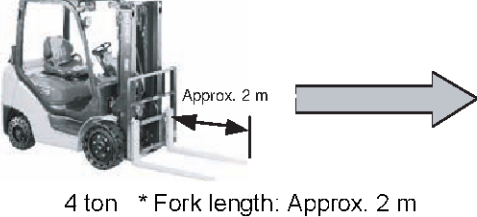

### 3. Layout of work space

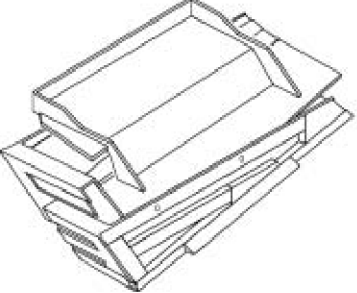
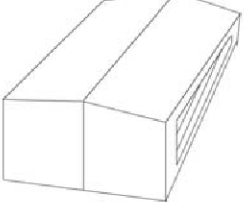




(The work space should be wider for the ease of work and must be at least 30 m square.)

Caution: The work space must be level and drained well.









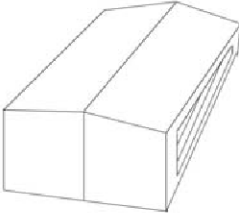
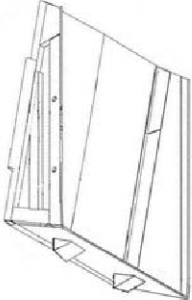



#### 4-1. Rough schedule of assembly and welding

Day Hour	1st day							
	1	2	3	4	5	6	7	8
Condition of chassis								
Rough contents of assembly work	Positioning rear axle Positioning chassis				Installing front axle Installing tires			
Crane	 490 kN {50 ton}		 245 kN {25 ton}		 245 kN {25 ton} (98 kN {10 ton})			
Forklift	 4 ton * Fork length: Approx. 2 m							
Number of workers	2							





Day Hour	1st day							
	1	2	3	4	5	6	7	8
Condition of body								
Contents of welding work	Unloading Removal of stands and fixing parts				Positioning and fixing split body Welding back side			
Crane	 245 kN {25 ton}		 245 kN {25 ton}					
Number of workers	3							

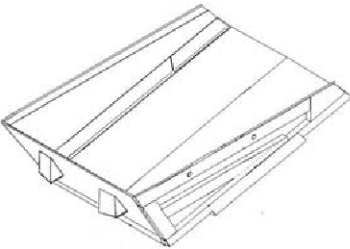
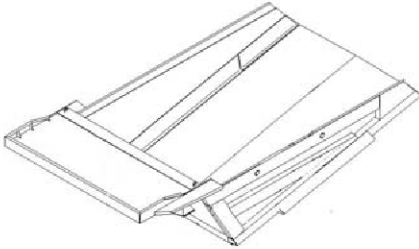



### 4-2. Rough schedule of assembly and welding

Day Hour	2nd day							
	1	2	3	4	5	6	7	8
Condition of chassis								
Rough contents of assembly work	Installing support Installing cab				Piping and wiring			
Crane	 490 kN {50 ton}				 490 kN {50 ton}			
Forklift								
Number of workers	2 							







Day Hour	2nd day							
	1	2	3	4	5	6	7	8
Condition of body								
Contents of welding work	Positioning and fixing split body Welding back side				Turning over			
Crane	 245 kN {25 ton}							
Number of workers	3 							

### 4-3. Rough schedule of assembly and welding

Day Hour	3rd day							
	1	2	3	4	5	6	7	8
Condition of chassis								
Rough contents of assembly work	Installing platform Painting				Supply of oil and coolant Starting engine			
Crane								
Forklift								
Number of workers	2							





Day Hour	3rd day							
	1	2	3	4	5	6	7	8
Condition of body								
Contents of welding work	Welding inside of body				Welding protector			
Crane	 245 kN {25 ton}							
Number of workers	3							

#### 4-4. Rough schedule of assembly and welding

Day Hour	4th day							
	1	2	3	4	5	6	7	8
Condition of chassis								
Rough contents of assembly work	Mounting body Adjusting shims Field welding							
Crane								
	490 kN {50 ton}		245 kN {25 ton}		245 kN {25 ton} (98 kN {10 ton})			
Number of workers	2							

Day Hour	4th day							
	1	2	3	4	5	6	7	8
Condition of body								
Contents of welding work								
Crane								
Number of workers								

#### 4-5. Rough schedule of assembly and welding

Day Hour	5th day							
	1	2	3	4	5	6	7	8
Condition of chassis								
Rough contents of assembly work	Installing exterior parts Painting				Maintenance, adjustment Inspection			
Crane	 <p>245 kN {25 ton} (98 kN {10 ton})</p>							
Number of workers	2 							

Day Hour	4th day							
	1	2	3	4	5	6	7	8
Condition of body								
Contents of welding work								
Crane								
Number of workers								

## 5-1 List of jigs, tools, and consumables for field assembling (1/2)

No.	Item	Specification	Q'ty	Remarks
1	Truck crane	25 tons	2	See Field Assembling Procedures
2	Truck crane	50 tons	2	See Field Assembling Procedures
3	Forklift	4 tons	1	See Field Assembling Procedures
4	Gas cutting machine		1	
5	Torch	1220N2	1	
6	Acetylene gas		1	For gas cutting machine
7	Oxygen gas	14.7 MPa {150kg/cm <sup>2</sup> }	1	For gas cutting machine
8	Grinder (round)	FG50L-1	1	
9	Grindstone	SCW50 × 19 • 10	1	
10	Grinder	LISG-7S	1	For finishing
11	Grindstone	180ø × 6 × 22	3	
12	Dia. bar	CB7C105	1	
13	Dia. bar blade	6GH	1	
14	Semi-automatic welding machine	500A	3	
15	Hand shield	GP-1S	3	
16	Welding wire for semi-automatic welding machine	1.2 mm	80kg	
17	Chipper scaling hammer	FCM-20F	2	
18	Port power	300 mm for 10 tons	1	For adjustment of dump body deviation
19	Hydraulic jack	10 tons	1	For dump body
20	Hydraulic jack	5 tons	1	For dump body
21	Shaft	WJ-H46-74001-023	1	
22	Refractory cloth	1 m × 10 m	1	Protection when field welding
23	Spacer	ATH-465-027	3	Use when welding exhaust flange in field
24	Nitrogen gas injector	7926-10-1000	1	
25	Nitrogen gas bottle	14.7 MPa {150 kg/cm <sup>2</sup> }	1	Injection into suspension
26	Tire inflation gauge	No. 2252	1	
27	Grease pump gun	For 20kg can	1	
28	Grease	GL-2	5 kg	
29	Footstool	3-step	1	
30	Footstool	6-step	1	
31	Blue sheet	5 m × 10 m	5	Protection for equipment
32	Wood block	300 mm square, 1 m long	12	* Quantity depends on using condition.
33	Oil jack	5 ℓ	1	For oil injection
34	Oil	See Field Assembling Procedures.	–	See Field Assembling Procedures.
35	Oil sump, washing can		2	
36	Drained oil can	Empty drum can	1	
37	Cloth		5kg	
38	Diesel fuel	See Field Assembling Procedures.		For refilling fuel
39	Antifreeze		5 ℓ	For adding in subtank (to change mixing ratio depending on local weather)
40	Air hose	6ø × 1m	1	For air bleeding

## 5-2 List of jigs, tools, and consumables for field assembling (2/2)

No.	Item	Specification	Q'ty	Remarks
41	Sanding machine for scaling-off coating	914B	1	
42	Sandpaper	#80	100	
43	Sandpaper	#180	10	
44	Cup gun set	W87-20R2S	1	Use for coating
45	Brush		1	Use to repair coating.
46	Air compressor	Not less than 3.5 m <sup>3</sup> or 7 kg/cm <sup>2</sup>	1	
47	Air hose	With mouthpiece of ø12	5	For impact grinder
48	Impact wrench	UW-13SK	2	
49	Impact wrench	KW-3800P	1	
50	Impact wrench	UW-9SK	2	
51	Extension for impact wrench 38S	150 mm long	1	
52	Socket	1 inch × 46 mm	1	For tightening tire
53	Socket	1 inch × 30 mm	1	For tightening support
54	Torque-wrench	2800QL	1	For drive shaft and body pin
55	Torque-wrench	21000QLE	1	For tightening tire
56	Convex	5m	1	
57	Loctite	LT-2	1	
58	Vinyl tape		1	Use to bundle harnesses
59	Standard tool (ISO specification)	700SX	2	
60	Bar	1m	1	
61	Pointed steel bar		1	For hole alignment
62	Large hammer	10 lb	1	
63	Axle pin installation guide	ATH-785-078	2	
64	Shackle	BD10 for 500 kg	4	
65	Shackle	BC40 for 10 tons	4	For mounting body
66	Chain	ATH-465-042	1	Multi purpose
67	Nylon shoe ring	100 mm wide × 5 m	2	For mounting fuel tank
68	Nylon shoe ring	60 mm wide × 3 m	2	For mounting support and small articles
69	Nylon shoe ring	100 mm wide × 12 m	1	For mounting front tires
70	Nylon shoe ring	30 mm wide × 2 m	3	For installing front axle
71	Nylon shoe ring	100 mm wide × 3 m	1	For installing front axle
72	Pin	ø60 × 250 mm	2	For slinging chassis, rear side (Safety pin can substitute)
73	Jig for slinging body	ATH-785-006	4	For mounting body
74	Lever block	3/4 tons, LB008	3	For installing front axle
75	Lever block	2 tons, LB020	1	For installing front axle
76	Wire	7m 28ø	2	For slinging chassis
77	Wire	4m 28ø	2	For mounting body
78	Wire	5m 28ø	2	For installing body
	The following items may be substituted for No. 76 to 78.			
		ATH-465-039	1	For mounting body
		ATH-465-040	2	For slinging chassis
		ATH-465-041	1	For slinging separated body



**List of touch-up coating on body for overseas specifications**

No.	Part Name	Unit	Q'ty
1	Retane GP primer	4kg	1
2	Retane GO hardener	0.8kg	1
3	Retane GP thinner	4ℓ	1
4	AX Mightylacq G2KB type natural yellow	16kg	1
5	NAX Mightylacq G2KB type hardener	15kg	1
6	X Mightylacq G2 500 standard thinner	17ℓ	1
7	Acryliquid cloud gray	Spray can	1
8	Heat-resistance silver	Spray can	1

### 5-3. Tools and consumables

Note: Komatsu cannot accept any responsibility for special tools manufactured according to these sketches.

#### Body alignment shaft

Pipe STKM13A  $\Phi 85 \times t8$

HEAT TREATMENT —	MATERIAL STKM13A
PART NAME Shaft	QTY 1
WJ-H46-74001-023	

#### Body lifting pin

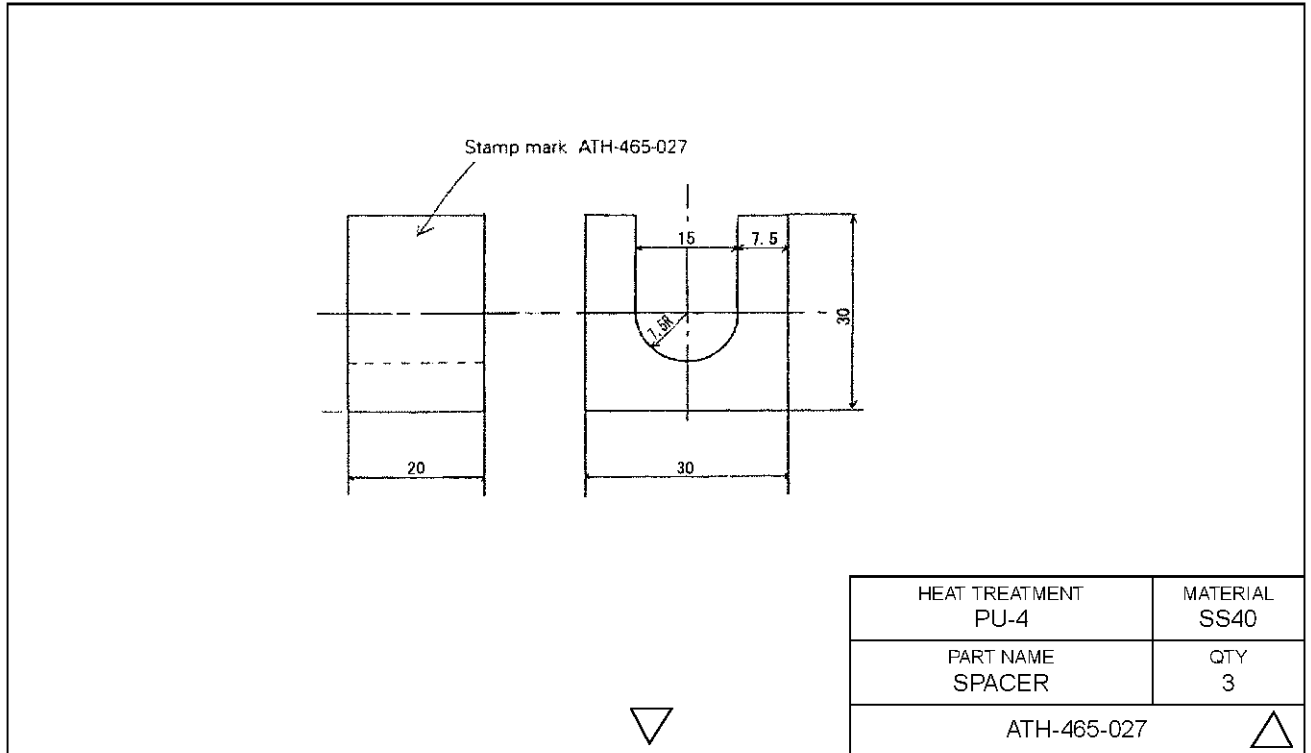
Stamp mark ATH-785-006

HEAT TREATMENT —	MATERIAL SS400
PART NAME Body lifting pin	QTY 4
AHT-785-006	

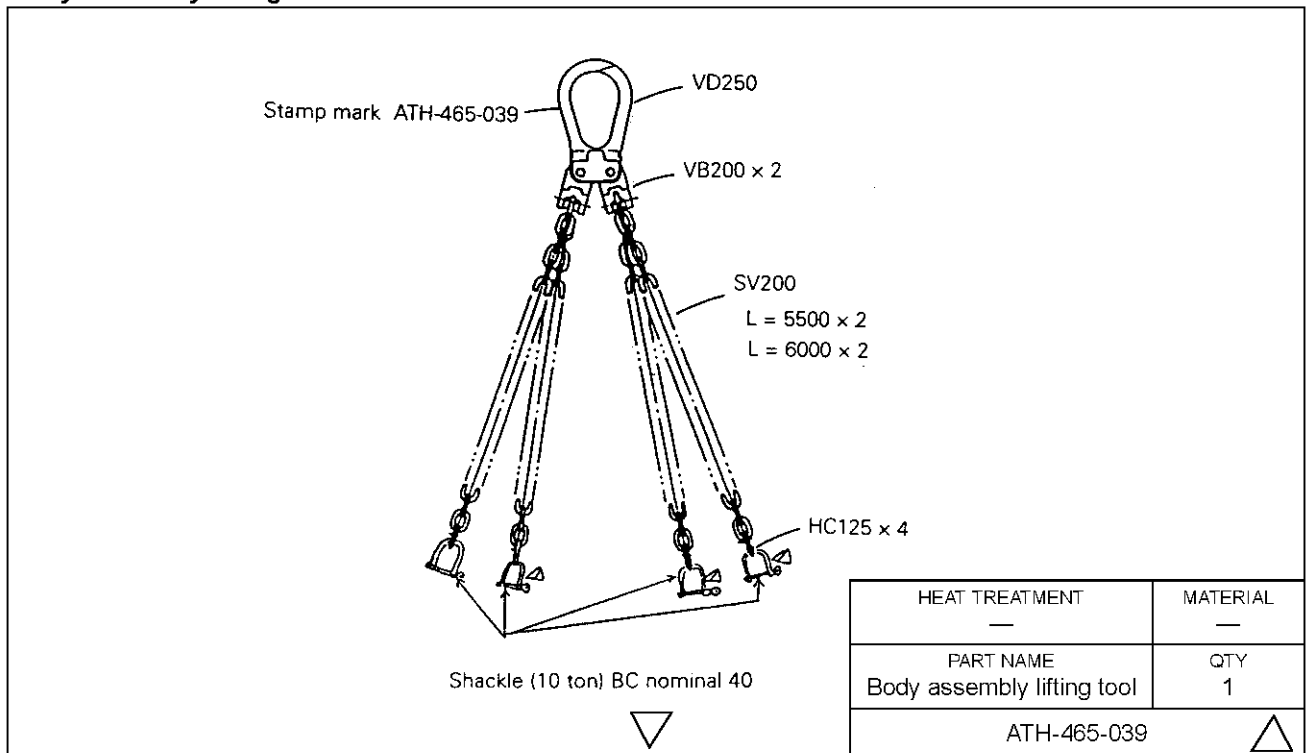
## Sketches of special tools

Note: Komatsu cannot accept any responsibility for special tools manufactured according to these sketches.

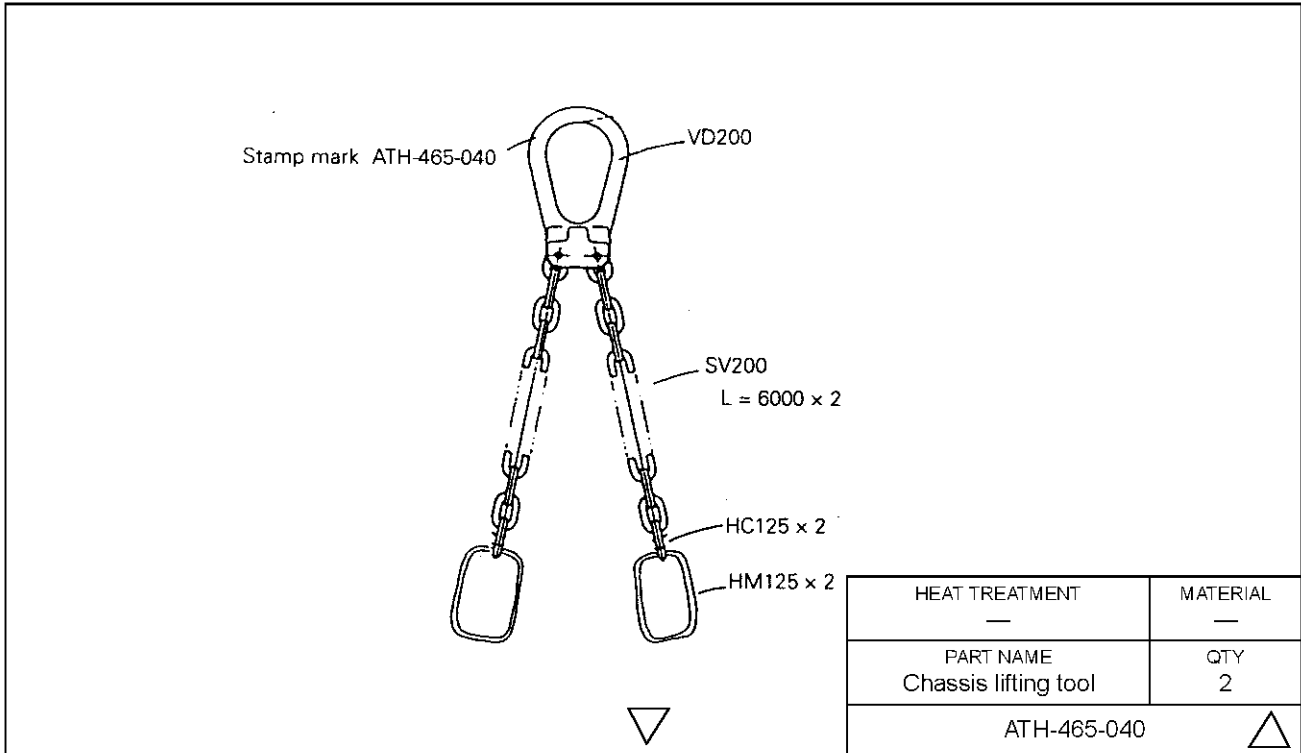
### When welding by actually positioning exhaust flange on machine



### Body assembly lifting tool



**Chassis lifting tool**



**Dump body lifting tool**

