

# ***FIELD ASSEMBLY INSTRUCTION***

## **GALEO**

## **PC800-8**

## **PC850-8**

## **HYDRAULIC EXCAVATOR**

MACHINE MODEL	SERIAL NUMBER
PC800-8	50001 and up
PC800SE-8	50001 and up
PC800LC-8	50001 and up
PC850-8	60001 and up
PC850SE-8	60001 and up

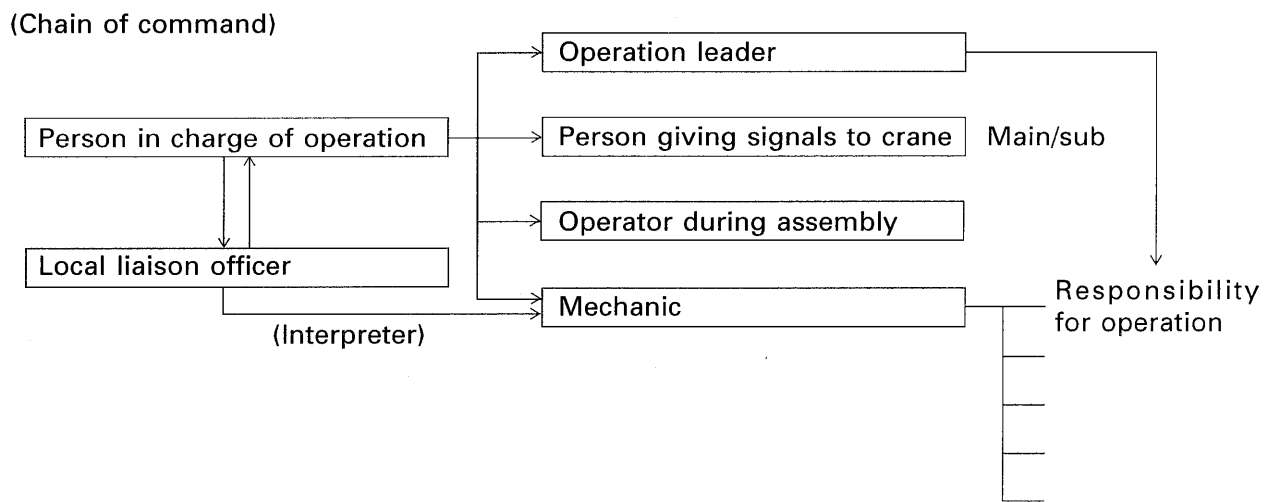
# **KOMATSU**

# FOREWORD

With this machine, the work equipment is extremely heavy and the hydraulic pressure of the chassis is used to install it efficiently. For this reason, start the engine and actuate the hydraulic cylinders.

Before starting the engine and assembling the work equipment, it is necessary to carry out thorough inspection and maintenance. In addition, this work is frequently carried out with more than one worker in a dangerous place and posture. To ensure safety, carry out a safety meeting before starting and decide the operation leader and the person to give signals to the crane to ensure that all workers can carry out the operation in safety.

Particularly in places where the workers speak different languages or have different customs, there are various causes of safety problems, so the local liaison officer and person in charge of the operation should consider fully the above points and take action to ensure safety.



When carrying out assembly in local areas, all workers must co-operate to ensure safety, product quality, and delivery time while carrying out the operation swiftly.

# CONTENTS

Specifications.....	1
Precautions for Field Assembly .....	2
Assembling Procedures, Applicable Equipment and Schedule .....	3
Kit Layout Diagram .....	4
Transportation.....	5
List of Tools for Field Assembling .....	11
Tightening Torque.....	12
Coating Materials .....	16
A. Assembly of Base Machine .....	19
A- 1. Installation of Left and Right Track Frames .....	20
A- 2. Installation of Travel Pipe .....	24
A- 3. Installation of Top Guard .....	27
A- 4. Installation of Radiator Cover .....	28
A- 5. Installation of Rearview Mirror .....	29
A- 6. Installation of Left Side Step .....	33
A- 7. Installation of Handrail .....	34
A- 8. Installation of Handrail (With top guard) .....	35
A- 9. Installation of Muffler Tail Tube.....	37
A-10. Sticking Sheet to Counterweight .....	38
A-11. Installation of Counterweight .....	39
A-12. Installation of ORBCOMM Antenna (if equipped).....	40
A-13. Installation of Step Light .....	41
A-14. Air Bleeding of Travel Motor .....	43
A-15. Installation of Travel Piping Cover.....	44
A-16. Testing Track Shoe Tension.....	46
A-17. Check Fuel, Coolant and Oil Levels .....	49
A-18. Parts to be Touched up after Field Assembly.....	52
B. Assembling of Work Equipment of Backhoe .....	53
B- 1. Assembly of Arm Cylinder .....	54
B- 2. Connection of Arm Cylinder Hoses.....	55
B- 3. Installation of Boom Cylinder Foot.....	57
B- 4. Relieving Remaining Pressure from Hydraulic Circuit .....	58
B- 5. Installation of Boom Cylinder Hoses .....	59
B- 6. Assembly of Boom Assembly .....	60
B- 7. Hose Connection of Arm and Bucket Circuits.....	61
B- 8. Installation of Quick Return Hose .....	62
B- 9. Installation of Boom Cylinder .....	63
B-10. Installation of Arm Assembly .....	64
B-11. Installation of Hose between Boom and Bucket Cylinder.....	66
B-12. Installation of Bucket Assembly .....	67
B-13. Lubrication Piping to Work Equipment .....	68
B-14. Air Bleeding from Cylinder.....	69
B-15. Wiring of Work Equipment.....	70
B-16. Greasing after Assembling Work Equipment.....	71
M. Procedure for Inspection and Maintenance after Completion of Assembly .....	73
M- 1. Inspection of Oil Level in Hydraulic Tank and Refill .....	74
M- 2. Replacement of Return Filter (Standard Filter to Flushing Filter).....	76
M- 3. Flushing of Hydraulic Circuit .....	79
M- 4. Error Code.....	81

C. Assembling of Work Equipment of Loading Shovel .....	83
C- 1. Releasing residual pressure in hydraulic circuit .....	84
C- 2. Pulling out boom foot pin and boom cylinder foot pin .....	85
C- 3. Installation of boom and arm assembly.....	86
C- 4. Installation of flushing piping between chassis and boom .....	87
C- 5. Installation of flushing piping for boom cylinder and arm cylinder .....	88
C- 6. Installation of flushing piping for bucket cylinder.....	89
C- 7. Installation of flushing piping for bottom dump cylinder .....	90
C- 8. Installation of boom cylinder.....	92
C- 9. Installation of boom cylinder foot.....	93
C-10. Installation of boom cylinder hoses .....	94
C-11. Installation of boom cylinder rod pin .....	95
C-12. Installation of arm cylinder hoses.....	96
C-13. Installation of bucket cylinder .....	97
C-14. Installation of bucket cylinder hose .....	98
C-15. Installation of connecting hoses between chassis and boom top .....	99
C-16. Installation of bottom dump cylinder hoses .....	100
C-17. Installation of bucket assembly .....	101
C-18. Installation of working lamps .....	103
C-19. Installation of work equipment grease piping .....	104
C-20. Greasing after assembling of work equipment.....	105
C-21. Bleeding air from work equipment circuit .....	106
C-22. Checking oil level in hydraulic tank and adding oil.....	107
C-23. Replacement of Return Filter (Standard Filter to Flushing Filter) .....	108
C-24. Flushing of Hydraulic Circuit .....	111

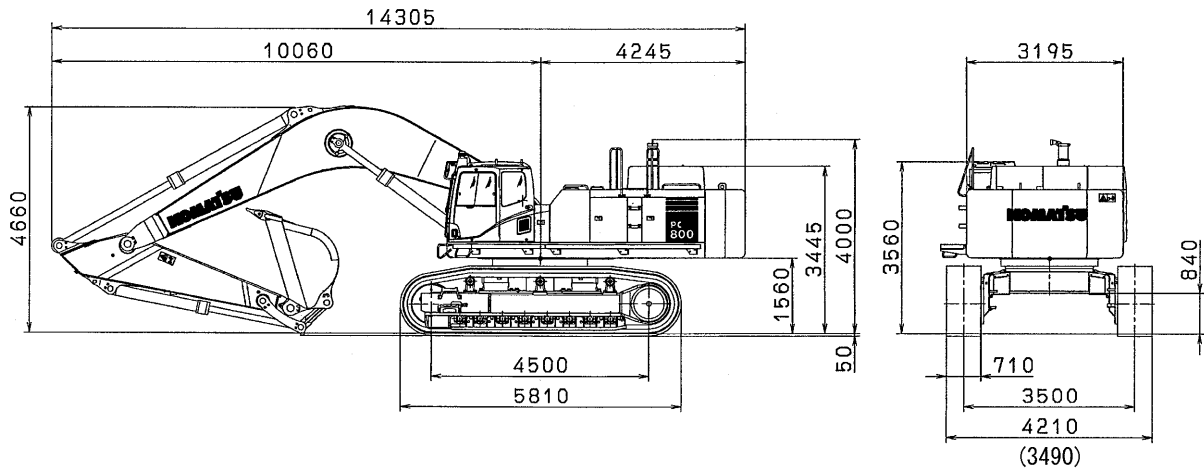
Field Assembly Inspection Report (Backhoe)

Field Assembly Inspection Report (Loading Shovel)

# SPECIFICATIONS

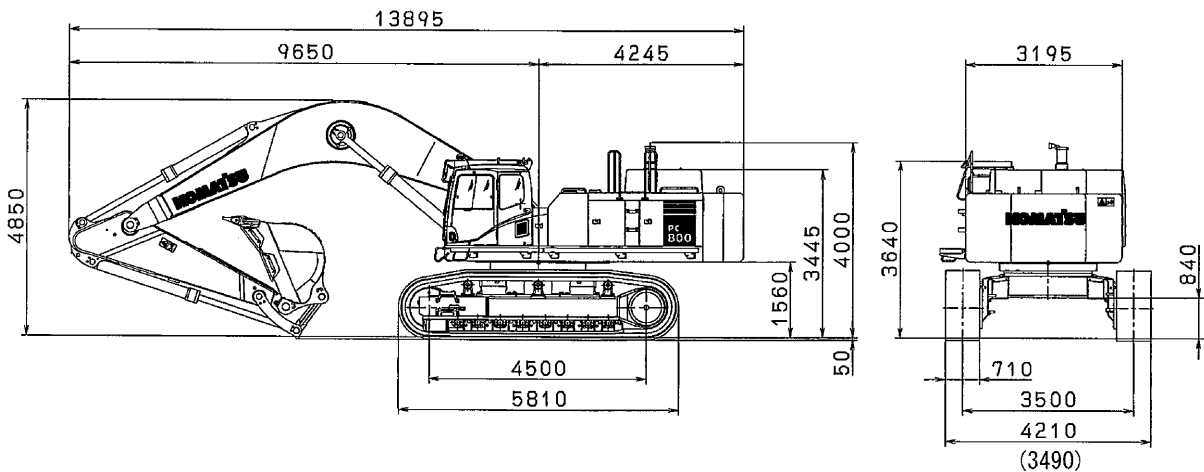
Machine model		PC800-8	PC800LC-8	PC800SE-8	PC850-8	PC850SE-8
Weight of machine	kg	75,000	77,200	76,000	79,500	79,100
Bucket capacity	m <sup>3</sup>	3.1	3.1	4.0	3.4	4.3
Engine model	—	SAA6D140E-5				
Flywheel horsepower	kW/rpm {HP/rpm}	363/1,800 {486/1,800}				
Min. ground clearance	mm	840				
Travel speed (Low/High)	km/h	2.8/4.2				
Swing speed	rpm	6.8				

## PC800-8



★The figures in ( ) show the value when the track width is reduced.

## PC850-8



★The figures in ( ) show the value when the track width is reduced.

## 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 (or fuel control lever) 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.

The numbers in circles in the illustrations correspond to the numbers in ( ) in the text. (For example ① → (1))

### 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.

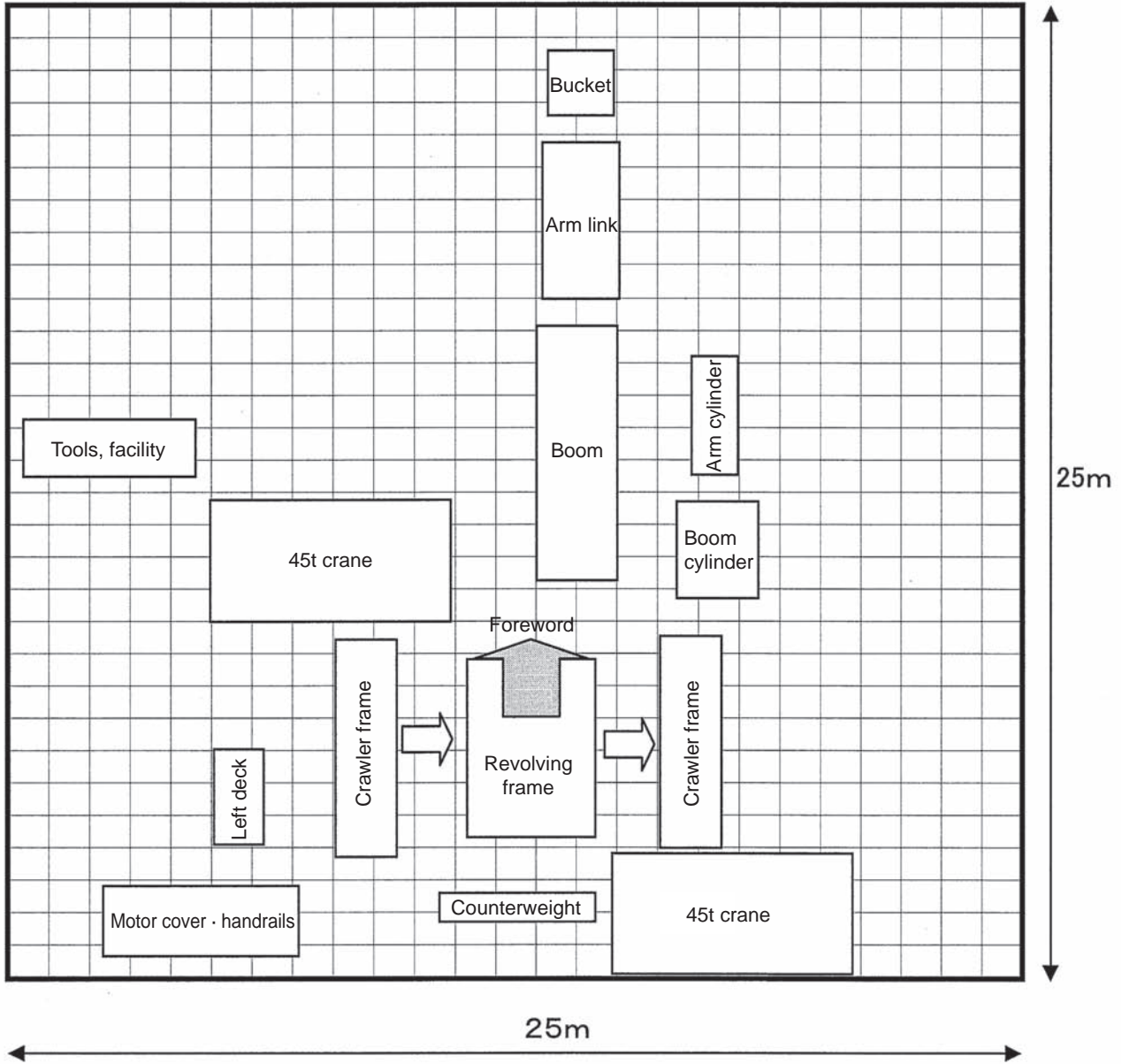
# ASSEMBLING PROCEDURES, APPLICABLE EQUIPMENT AND SCHEDULE

## 4 Divisions

Days	①	②	③
<p>Assembly unit</p> <p>Base machine</p> <p>① Left track frame ② Right track frame ③ Axle assembly</p>	<p>④ Upper structure</p>	<p>⑤ Counterweight ⑥ Platform group • Inspection of oil level and coolant level</p>	<p>⑦ Assembling of work equipment</p> <p>Backhoe</p> <p>Loading shovel-type excavator</p> <p>• Inspection of oil level and coolant level • Air bleeding from work equipment cylinder • Flushing of hydraulic circuit • Adjustment of track tension • Performance test</p>
Crane	<p>(Two) 45t</p> <p>45t</p>	<p>35t</p>	
Air compressor	<p>0.49 -- 0.69 MPa (5 -- 7 kg/cm<sup>2</sup>)</p> <p>15 m<sup>3</sup>/min</p>		
Worker	<p>Leader + 3 mechanics</p>		
<p>Start of assembling</p> <p>• Meeting with all workers</p>	<p>Completion of Installation of unit assembly to body</p>	<p>Completion of body assembling</p>	<p>• Completion of general assembling</p>

## KIT LAYOUT DIAGRAM

- The dimensions given below are the minimum dimensions needed.
- The kit dimensions in the diagram are outline dimensions.
- When selecting a place, see precautions for "FIELD ASSEMBLING".



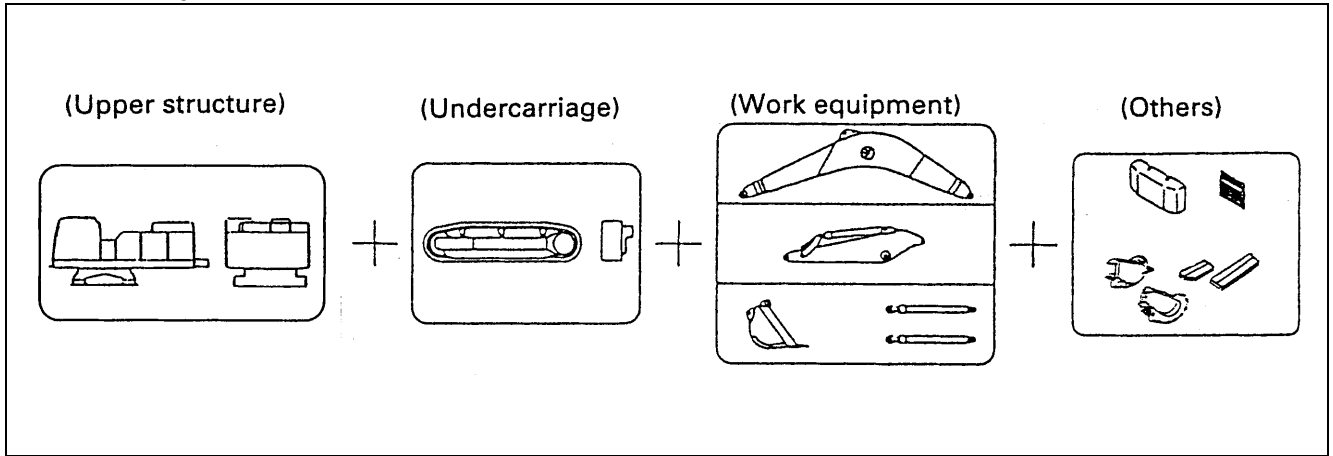


# TRANSPORTATION

## Packing Style for Transportation

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

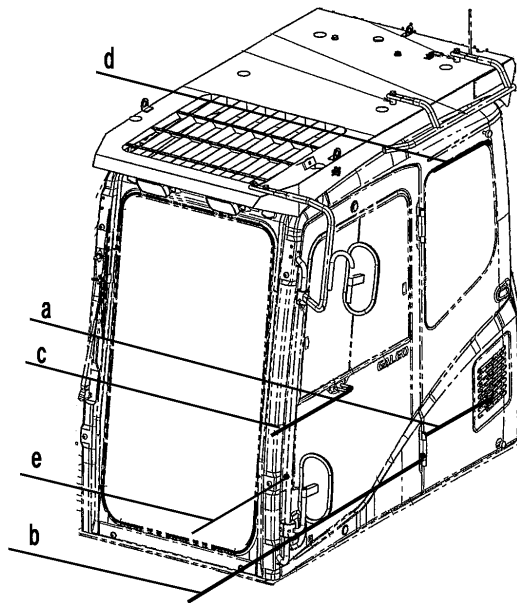
### ■ 4-kit Transportation



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

#### • Upper structure (single piece of cab)

Full width (mm)	a	Cab convex portion (air intake for air conditioner)	3,219
	b	Door hinge	3,204
	c	Lock used when the door is opened	3,262
	d	Stopper used when the door is opened	3,287
	e	Handrail	3,220



**• Upper structure without head guard**

Unit: mm

	Equipped with cab		Not equipped with cab
Overall height (mm)	H1: 2,840		H2: 2,840
Overall width (mm)	a	3,204	*3,195
	b	3,220	
	c	3,262	
	d	3,219	
	e	3,287	
Weight (kg)	25,620		25,080

\* Revolving frame

**• Upper structure with head guard**

Unit: mm

	Equipped with cab		Not equipped with cab
Overall height (mm)	H1: 2,910		H2: 2,840
Overall width (mm)	a	3,204	*3,195
	b	3,220	
	c	3,262	
	d	3,219	
	e	3,287	
Weight (kg)	25,770		25,180

\* Revolving frame

Fix the upper structure on the truck by means of chain block.

**• Undercarriage**

Unit: mm

	PC800-8 PC800SE-8	PC850-8 PC850SE-8	PC800LC-8
Model			
Quantity	2	2	2
Weight (kg)	21,500 (10,750×2)	22,000 (11,000×2)	23,600 (11,800×2)