NEW HOLLAND

E215BJ

NEW HOLLAND KOBELCO

Workshop
Manual

NEW HOLLAND
CONSTRUCTION
BUILT AROUND YOU

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1. OUTLINE

TABLE OF CONTENTS

1.1 GENERAL PRECAUTIONS FOR MAKING REPAIRS 1-3
1.1.1 PREPARATION BEFORE DISASSEMBLING 1-3
1.1.2 SAFETY WHEN DISASSEMBLING AND ASSEMBLING 1-3
1.1.3 DISASSEMBLING AND ASSEMBLING HYDRAULIC EQUIPMENT 1-3
1.1.4 ELECTRICAL EQUIPMENT 1-4
1.1.5 HYDRAULIC PARTS 1-5
1.1.6 WELD REPAIR 1-5
1.1.7 ENVIRONMENTAL ISSUES 1-5
1.2 INTERNATIONAL UNIT SYSTEM 1-6

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25.5.2 DISASSEMBLY AND ASSEMBLY OF UNIT

(1) Removing inner air filter
Slide the inner air filter leftward and remove it from the unit.

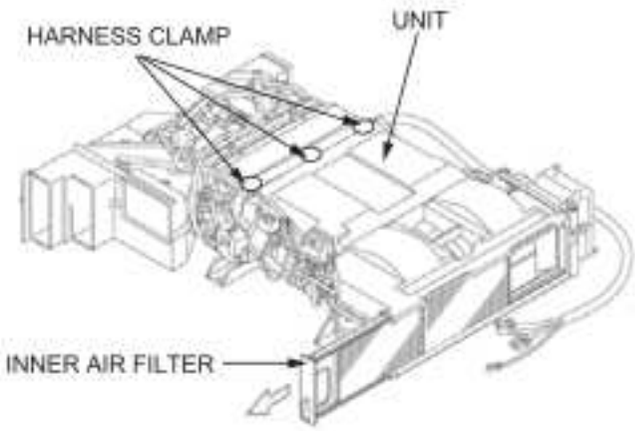


Fig. 25-15

(2) Removing selector box
Remove 6 plus screws, remove connector connected to the mode actuator on mode selector box, and separate the mode selector box from the unit.

(3) Removing main harness
Pull out 3 harness clamps from the unit, and disconnect all connected connectors and remove harness on the body from the unit.

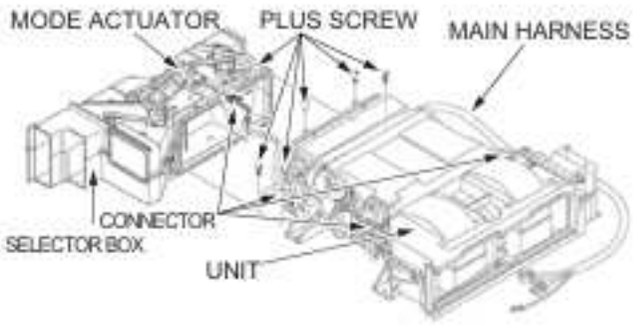


Fig. 25-16

(4) Removing upper unit case
1) Remove air MIX rod and air MIX rod sub from air MIX lever.
2) Remove 12 plus screws which are used to install the upper and lower unit casings.
Pull out the upper unit casing upward giving attention to the thermistor harness so as not to be caught by the casing.

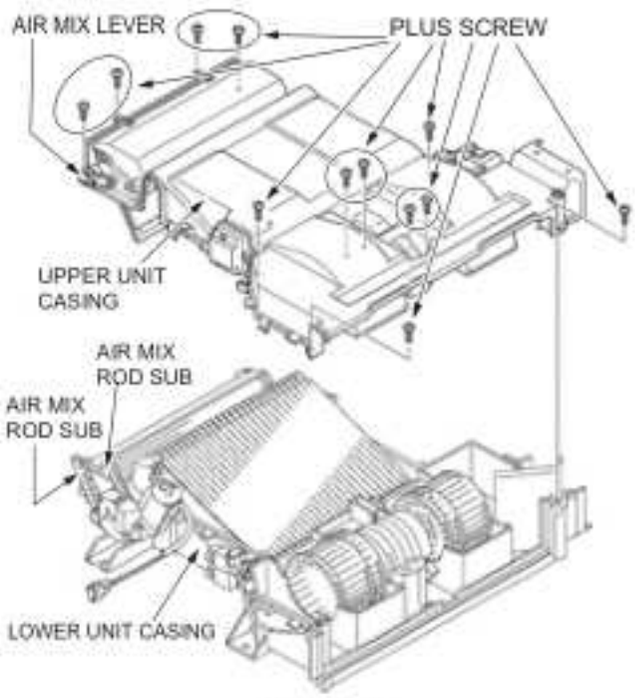


Fig. 25-17

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33.1.11 COUNTERWEIGHT

33.1.11.1 REMOVAL

(1) Lifting up counterweight temporarily
Hook wire rope to slinging plate, and lift it and stretch wire rope to the degree where it is providing no slack temporarily.
Weight of counterweight ;
Approx. 4,640kg (10,230 lb)
Wire more than ø16 (0.63 inch) ;
1.5m (5ft)×2 pcs.

(2) Removing counterweight
1) Remove 4 capscrews (A1) M27×355.
: 41 mm
2) Remove shim (A3), (A4), (A5). (Select)
3) Remove counterweight (C1).

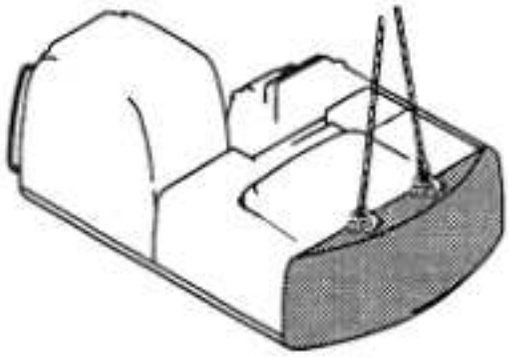


Fig. 33-52 Lifting up counterweight

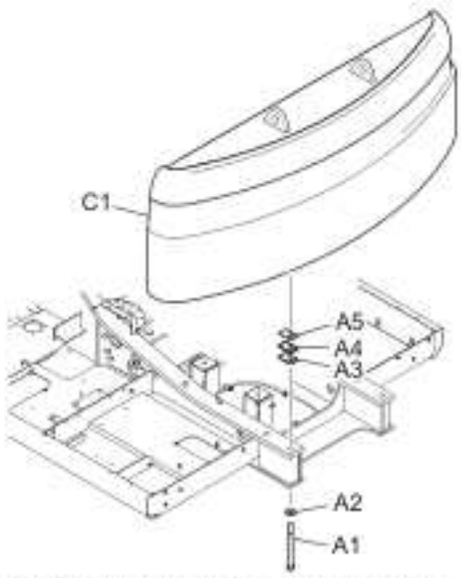


Fig. 33-53 Removing counterweight

33.1.11.2 INSTALLATION

(1) Install counterweight in the reverse order of removing.

(2) Install shim (A3), (A4), (A5) as it was. (select)

(3) Slinging counterweight
Check that the attaching bolts can be screwed in by hand.

(4) Apply Loctite #262 on capscrews (A1), and tighten them with washers (A2).
: 41 mm
Tightening torque : 1270 N•m (940 lbf•ft)

(5) Remove slinging tools.

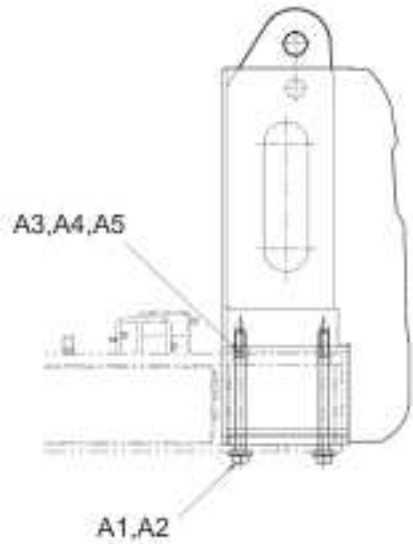


Fig. 33-54 Fastening the counterweight attaching capscrew

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Table46-25

Error code	B063		
Trouble	Bucket dump pressure sensor's wiring is disconnected.		
Judging condition	The input voltage from bucket dump pressure sensor is 0.1V or less.		
Symptom	The bucket dump speed slows down a little.		
Control in the event of failure	Set proportional valve output rate of P1 and P2 pumps to 0mA. (Hydraulic pump emergency mode) Set output of P1 unload proportional valve to 0mA. (Valve emergency mode)		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	5	B-6 BUCKET DUMP
	Screen No.		
	Screen No.		

	Checking object	Checking contents and remedy
1	• Bucket digging pressure sensor SE-2	When B063 is cancelled and other error occurs by turning starter switch on after exchanging the connector with other sensor. Check sensor unit for possible failure. If failure found, replace it.
2	• Wiring between bucket digging pressure sensor and controller CN-125F CN-101F	When B063 is displayed after turning the starter switch on after the connector is exchanged with other sensor. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

Table46-26

Error code	B064		
Trouble	Bucket dump pressure sensor's power source is shortcut.		
Judging condition	The input voltage from bucket dump pressure sensor is 4.7V or more.		
Symptom	The bucket dump speed slows down a little.		
Control in the event of failure	Set proportional valve output rate of P1 and P2 pumps to 0mA. (Hydraulic pump emergency mode) Set output of P1 unload proportional valve to 0mA. (Valve emergency mode)		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	5	B-6 BUCKET DUMP
	Screen No.		
	Screen No.		

	Checking object	Checking contents and remedy
1	• Bucket digging pressure sensor SE-2	When B064 is cancelled and other error occurs by turning starter switch on after exchanging the connector with other sensor. Check sensor unit for possible failure. If failure found, replace it.
2	• Wiring between bucket digging pressure sensor and controller CN-125F CN-101F	When B064 is displayed after turning the starter switch on after the connector is exchanged with other sensor. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller	Check that the error is corrected after replacement of controller.

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(1) Assembling spindle

1) Set spindle (101) on work bench.

2) Fit outer ring of taper roller bearing (149) into the center hole of spindle.

3) Place piston (161) in the cylinder hole of spindle.

4) Place steel balls (162) in piston hole.



Note

Apply grease to the steel ball to fix on the piston hole to be sure the steel ball does not drop out of the piston during assembly which will be carried out later.

5) Attach L side of pivot (167) to the left side in the picture.

6) Insert shaft (102).



Note

Apply grease to spline of shaft and slowly insert it taking care not to damage the lip of oil seal.

(2) Assembling rotary section

1) Apply grease to the sliding surface of swash plate (103) and pivot.

2) Tilt the swash plate and place it in spindle.



Note

- Make sure that the speed is changed in High and Low smoothly while blowing air through the drilled hole after assembling the swash plate in.
- Apply clean hydraulic oil to the sliding surface of swash plate.

3) Turn work bench sideways.

4) Set cylinder block (104), piston (105), spring (114), thrust ball (108) and retainer plate (107) and insert it in the shaft.



Note

- Apply clean hydraulic oil to the sliding surface of cylinder block, piston, thrust ball and shoe (106).
- On inserting cylinder block assembly in the shaft, fix the reduction unit side of shaft first and the insertion can be performed smoothly.

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33.2.2.3.11 Disassembling P2 unload spool

(1) Loosen socket bolts (273), and remove spring cover (202) of P2 unload spool and O-ring (261).

(2) Draw out the assembly which is consist of P2 unload spool (310), spring seat (331), spring (327, 329), stopper (336) and bolt (333) from casing A (101).

CAUTION

When drawing out the spool assy, use care so as not to score casing A (101).

(3) Fix the P2 unload spool assy with vise via a protective plate (aluminum plate etc.) and remove bolt (333). Then remove spring seat (331), spring (327, 329) and stopper (336) from P2 unload spool (310).



Fig. 33-167 Removing P2 unload spring cover (202)



Fig. 33-168 Drawing out P2 unload spool assy (310)

33.2.2.3.12 Removing spool covers

(1) Travel, boom, bucket, arm 1, arm 2 and option
Loosen socket bolts (273) and remove spool cover (205) and O-ring (264).

(2) Swing
Loosen socket bolts (273) and remove spool cover (206) and O-ring (264), (266). Do not disassemble spool cover (206) further unless there is special reason.



Fig. 33-169 Removing spool cover (205),(206)

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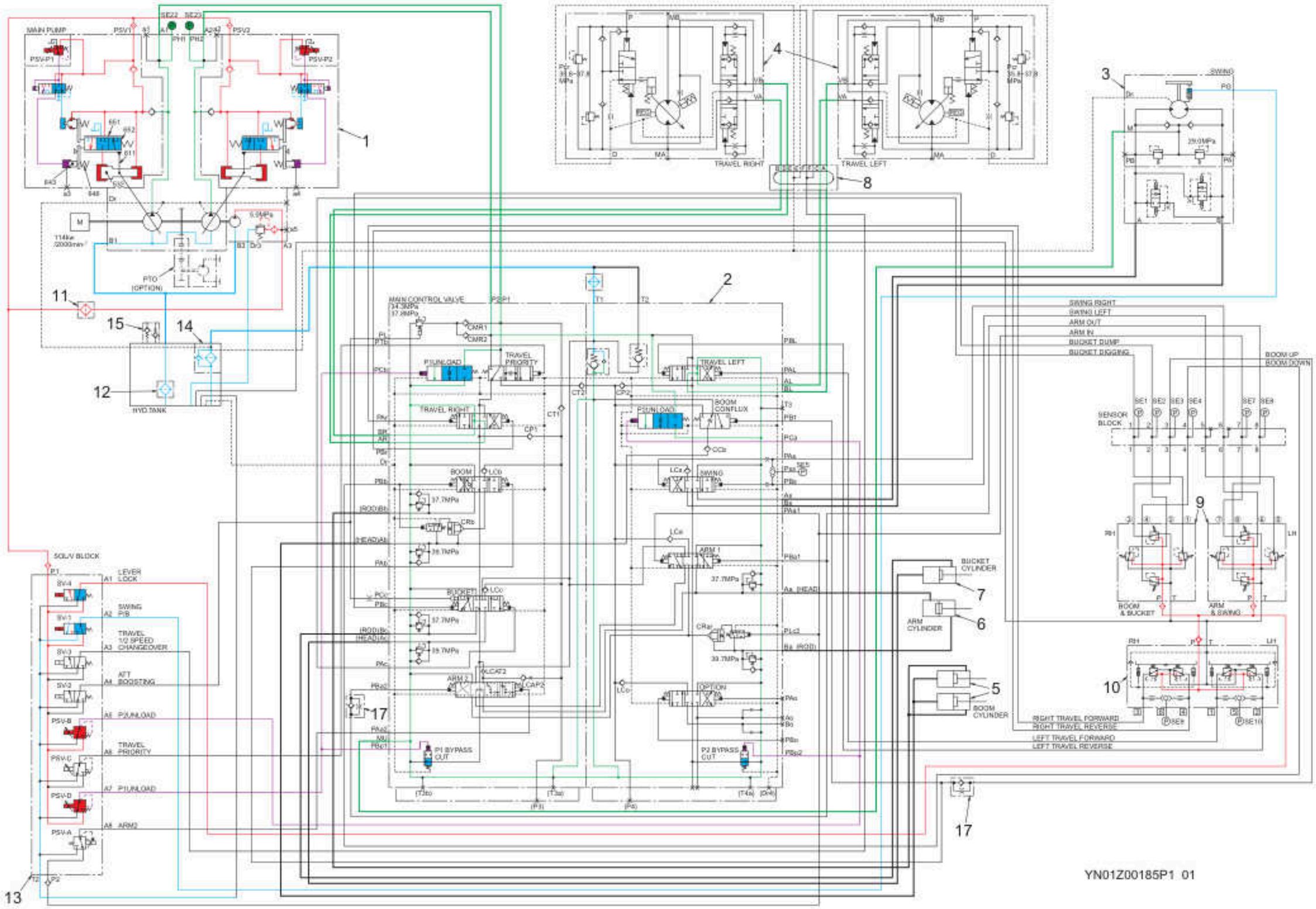


Fig. 22-1 NEUTRAL CIRCUIT : Positive control function at safety lock lever down (unlocked position)

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