

Service Manual

04

Boom Truck

Model **TM-1800-1**

Applicable Serial No. 655678, EX0001--

TADANO LTD.

7. Put disassembled parts in order so that parts such as bolts are not left behind in the machine. And check that no parts run short at assembly.

8. Watch your step in the following cases:

When stepping up to or stepping down from the upper surface of a boom for replacing wire ropes and applying grease. Be careful not to stumble on protrusions on the upper surface of a boom.

When greasing at the root of a elevating cylinder
When checking engine oil, radiator coolant, or battery fluid.

When replacing a filter of air cleaner
When getting on and off the cab

Be careful not to slip in the above operations in winter as snow and ice may attach to the exterior of boom and it becomes very slippery.

2.2 Dismounting and disassembling

1. Before dismounting and disassembling, make sure of the construction and part sales unit by reading this manual and the separate parts catalog, then understand the procedures of dismounting and remounting and disassembling and reassembling.

2. When dismounting piping or equipment that may contain pressurized oil or air, be extremely cautious and dismount them only after discharging the confined pressure.

3. Before removing, clean the part to be dismantled and the area surround it. Seal the opening with a plug or tape, etc. to prevent foreign material from entering it.

4. Measure and record the data such as shim thickness adjustment and pre-load at disassembly that will be required at reassembly.

5. If required, before disassembling clearly put marks to avoid errors at reassembling.

6. If a part cannot be removed after removing bolts or nuts fixing it, don't apply too much force to it but check the part for the cause. Only after relieving the cause, proceed disassembling.

7. Use lifting slings appropriate for the weight and characteristics of a part. Lift up it in balanced condition.

In case that the position of the center of gravity is not clear and there is a possibility of swing of load after removing, use two hoists.

8. If a part cannot be lifted smoothly, make sure that all the fasteners are removed and other parts don't hinder removing.

2.3 Remounting and assembling

1. Before assembling, clean all the parts and repair or replace defective parts.

2. As dirt and soil adversely affect sliding portions and they may decrease the life of the machine, pay special attention to avoid intrusion of dirt and soil.

3. Use special tools for parts when specified to do so.

4. Remove dirt, soil, water, and resin completely from surfaces where liquid gasket will be applied.

5. After remounting, be sure to inspect the machine and verify that there is no error by oversight. If adjustment or air bleeding is required, conduct it according to instructions. Conduct function and performance test to verify its integrity.

3. Cautions in operation

3.1 Brake fluid replenishment

1. When the brake-warning lamp (for fluid level) is lighted, replenish brake fluid and check and make sure of the thickness of disk brake pads. (Refer to Chapter Y for periodical inspection periods.)

2. Check the thickness of disk brake pads whenever brake fluid is replenished.

3.2 Handling of battery

1. Erroneous handling of a battery may cause it to catch fire and explode.

Be extremely sure to avoid short circuits, sparks and fire of cigarettes and the like when using a jumper cable. They are very dangerous.

Charge up batteries and use them only in well ventilated places.

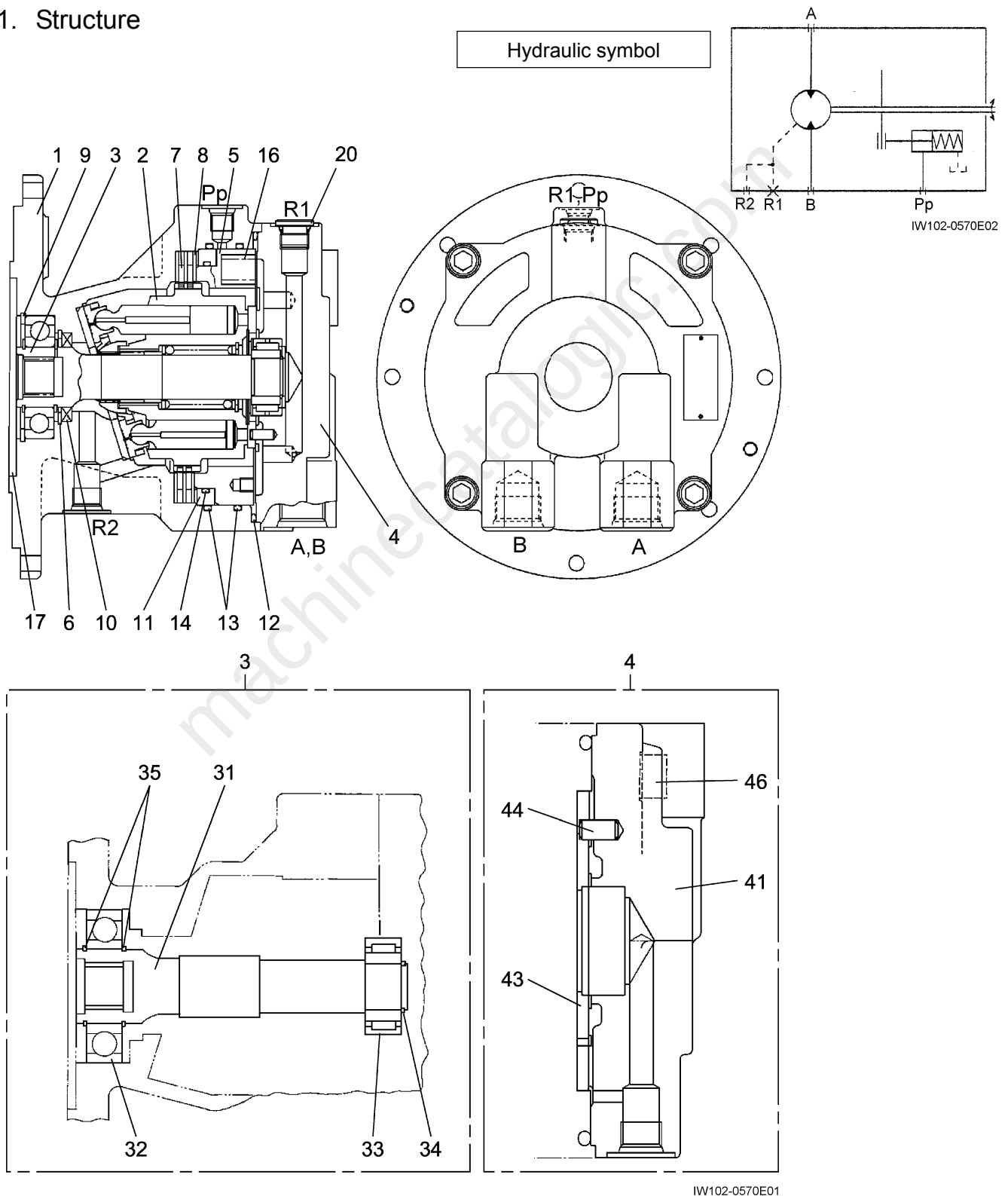
Hydraulic Motor (Swing)

D-1 Hydraulic Motor (Swing)

[NOTICE]

- ◆ There is a case that the appearance and so on differ from the parts for this machine. Although there is not so much difference in functions and disassembly procedures, make sure of the serial number of this machine and the part sales unit described in the parts catalog before starting disassembling operations.
- ◆ After replacing the motor, fill it with hydraulic oil before actuating it.

1. Structure



AMA (Load Moment Indicator)

3. AMA adjustment

AMA stores capacity data for plural models of cranes. After mounting of a crane is completed, you must select the capacity data that corresponds to the actual model and confirm accuracy of the data.

3.1 For adjustment work

[NOTICE]

- ◆ Run the engine at an idling speed when performing adjustment.
 - ◆ Shift the Dip switches and the rotary switch using an extra thin screwdriver.
 - ◆ Do not let water enter inside of the AMA during adjustment.
 - ◆ Keep off the buttons other than the specified switches.
1. Set the machine level on a firm level ground with the outriggers extended as specified.
(See the Table 1.)
 2. Remove the cover from the AMA main unit.
 3. Perform "Selecting the crane model and capacity data."
 - For continuous rotation specification, perform this adjustment on the AMA main unit on the post and frame.
 4. Perform "Zero-point and span adjustments of length detector" and "Zero-point and span adjustments of angle detector."
 - For continuous rotation specification, perform this adjustment on the AMA main unit on the post.
 5. Perform "Confirming accuracy."
 6. Perform "Checking the basket (option)."

Outrigger Extension Detector

H-3 Outrigger Extension Detector

[NOTICE]

- ◆ There is a case that the appearance and so on differ from the parts for this machine. Although there is not so much difference in functions and disassembly procedures, make sure of the serial number of this machine and the part sales unit described in the parts catalog before starting disassembling operations.

1. Check of outrigger extension detector

Check if the outrigger extension detector switch detects the extended condition of the outrigger exactly.

Adjust the outrigger extension detector switch if the lighting condition of the indicator lamp is out of order.

Outrigger extension condition	Maximum extension detection indicator lamp	Middle extension detection indicator lamp
Max	Lit	Not lit
Middle	Not lit	Lit
Min	Not lit	Not lit

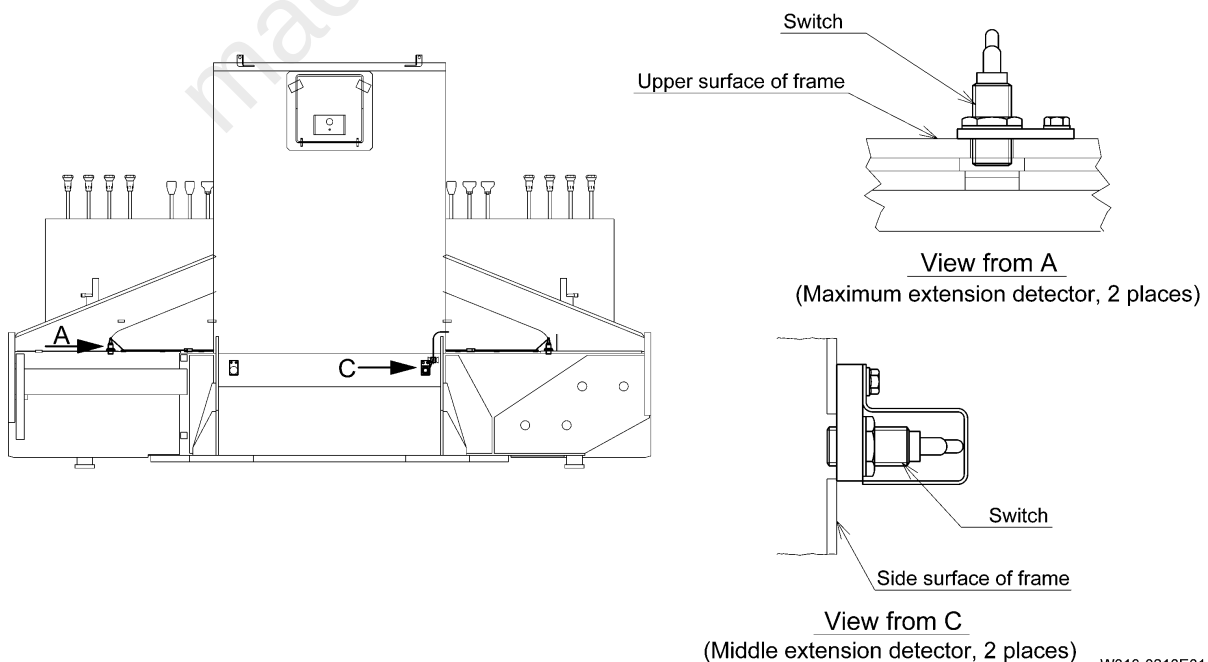
2. Adjustment procedure of outrigger extension detector

2.1 Maximum extension detection switch adjustment procedure (upper surface of frame)

1. With the outrigger beams fully extended and jack cylinders fully retracted, screw the proximity switch in until it contacts the upper surface of the outrigger box.
Then loosen the switch 2.5 turns (3/32") and lock the switch in place.
2. Retract the outriggers, and check the switch indicator to confirm that there is no detection error.
When shipped, the proximity switch is secured so that the switch tip is recessed loosened from the frame internal surface by one turn 1/16 inches (1mm).

2.2 Middle extension detection switch adjustment procedure (side surface of frame)

Secure the proximity switch at the position in which the switch tip becomes flush for the frame internal surface. Operate the outrigger slides to confirm that there is no detection error.



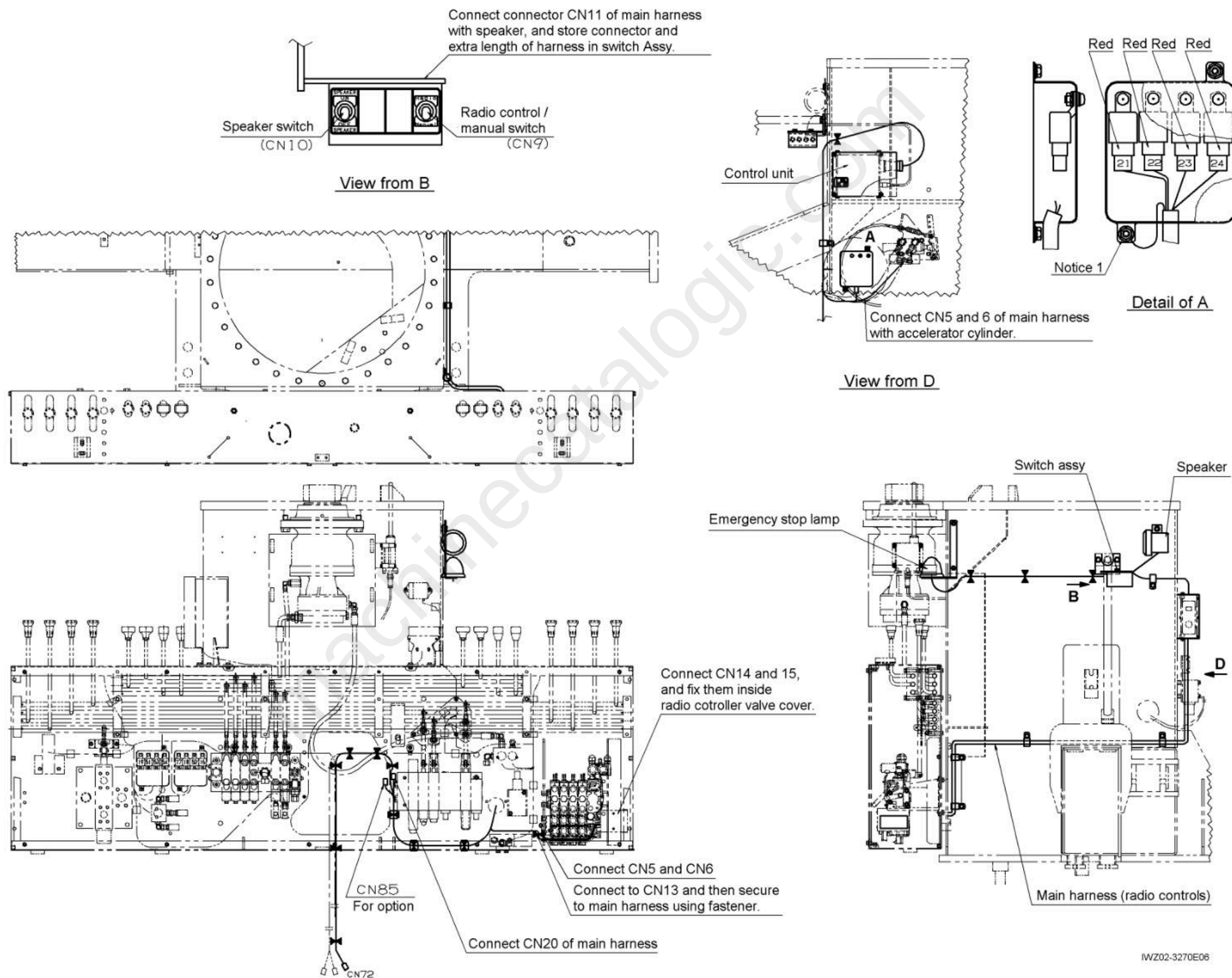
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Location of Electric Parts

5. Radio-control system

5.1 Main harness



Full Version Available

Tadano TM-1800-1 Boom Truck Service Manual

Tadano TM-1800-1 boom truck service manual, with repair procedures, adjustments and troubleshooting for the main crane systems. Instant PDF download.

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