

Service Manual

04

Rough Terrain Crane

Model **GR-550EX-1**

Applicable Serial No. 546090 --

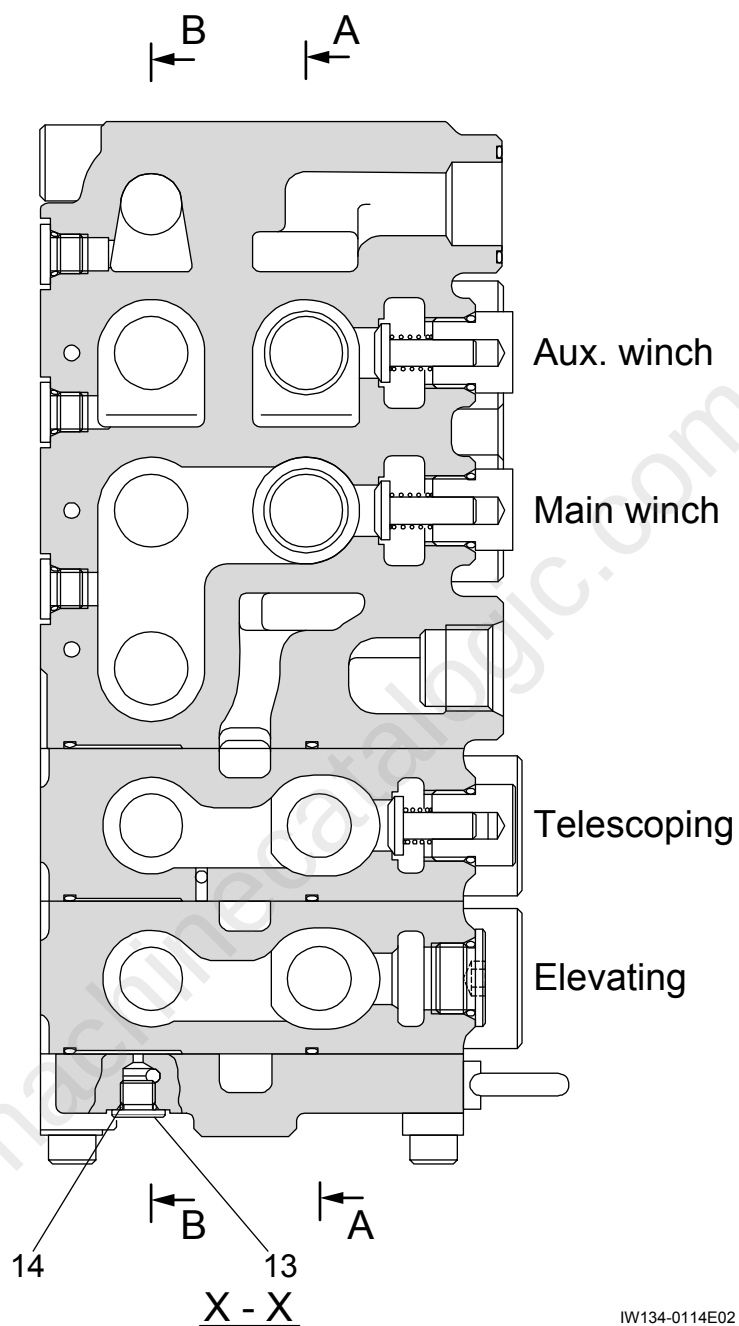
Foreword

3. Outline of specifications

Item			Spec. No.		
			GR-550E-1-00211 2M2D (Europe)	GR-550E-1-00212 GR-550E-1-00313	GR-550E-1-00215
				2M2D (General Export)	
No. of boom sections			5		
No. of jib stages			2		
Single top			Option		
Winch	Main winch		Fitted		
	Auxiliary winch		Fitted		
	Winch brake		Automatic brake (Neutral brake)		
	Drum rotation indicator	Visual-type	Option		
Touch-type		Option	—		
Center joint			Hitachi Chemical		Sinfonia Technology
Weight	Counterweight		Removable type		
Overload Prevention Device (AML)			AML-L II B		
Auto. stop solenoid valve energizing type			Normally energized		
Overwind cutout (anti-twoblock) device			Fitted		
External warning lamp			Fitted		
External warning buzzer			Fitted	—	
Oil cooler			Fitted		
Emergency stop switch			Fitted	—	
Reversing steering compensator			Option	—	
Air conditioner			Option		
Emergency steering			Fitted	Option	
Steering pump warning lamp			Fitted	—	
Over-unwinding prevention device			Option	—	
Outrigger control box (Both sides of carrier)			Option	—	
Outdoor temp. (minus 25°C or less) detection device			Option	—	
Anemometer			Option	—	
Engine model			MITSUBISHI 6M60-TLU3B		
Tires			29.5 × 25 - 22PR, 29.5 × 25 - 28PR (29.5R 25 ^{*1})		

[*1] : Applicable to spec. No. GR-550E-1-00313

Hydraulic Pilot Control Valve (Elevating, Telescoping, Winch)



IW134-0114E02

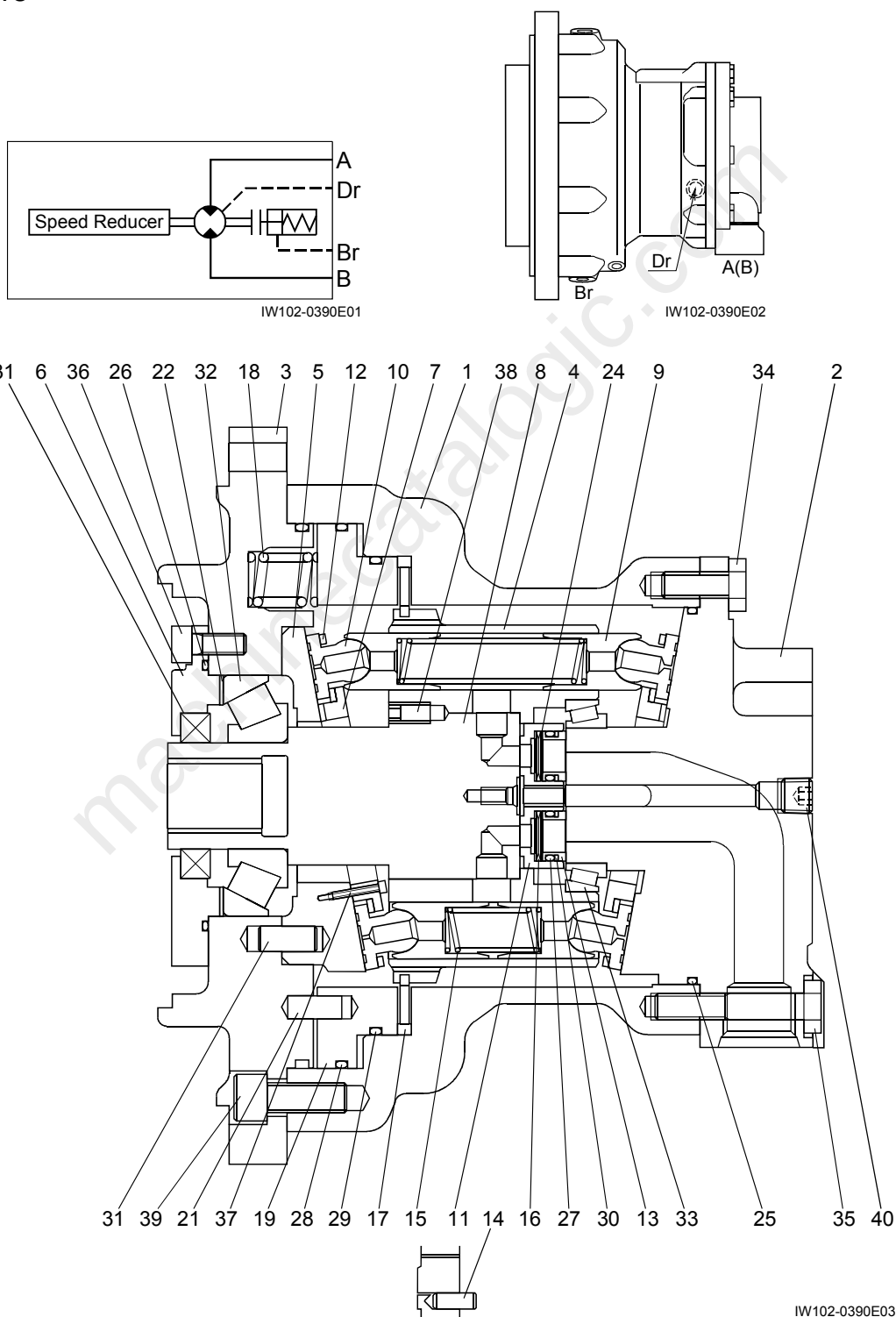
Hydraulic Motor (Swing)

D-5 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.

1. Structure



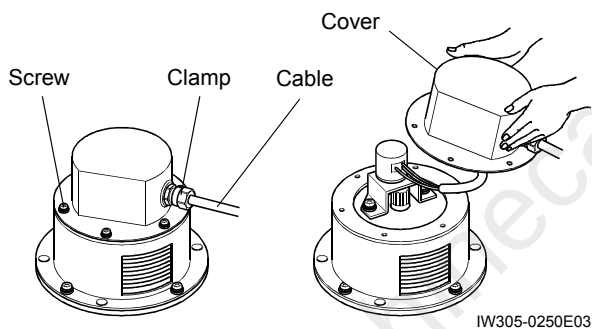
Outrigger Extension Length Detector

When replacing the potentiometer with a new one, mount it onto the bracket, then solder the cable to the potentiometer terminal.

[NOTICE]

- ◆ Finish soldering the wire to the potentiometer terminal as quick as possible (max. 5 seconds) to minimize undesirable heat transmission to the potentiometer.
- ◆ Apply insulation sealant to the terminal of the potentiometer.
Recommended sealant: Shin-Etsu Chemical's Shin-Etsu Silicon KE45TRV

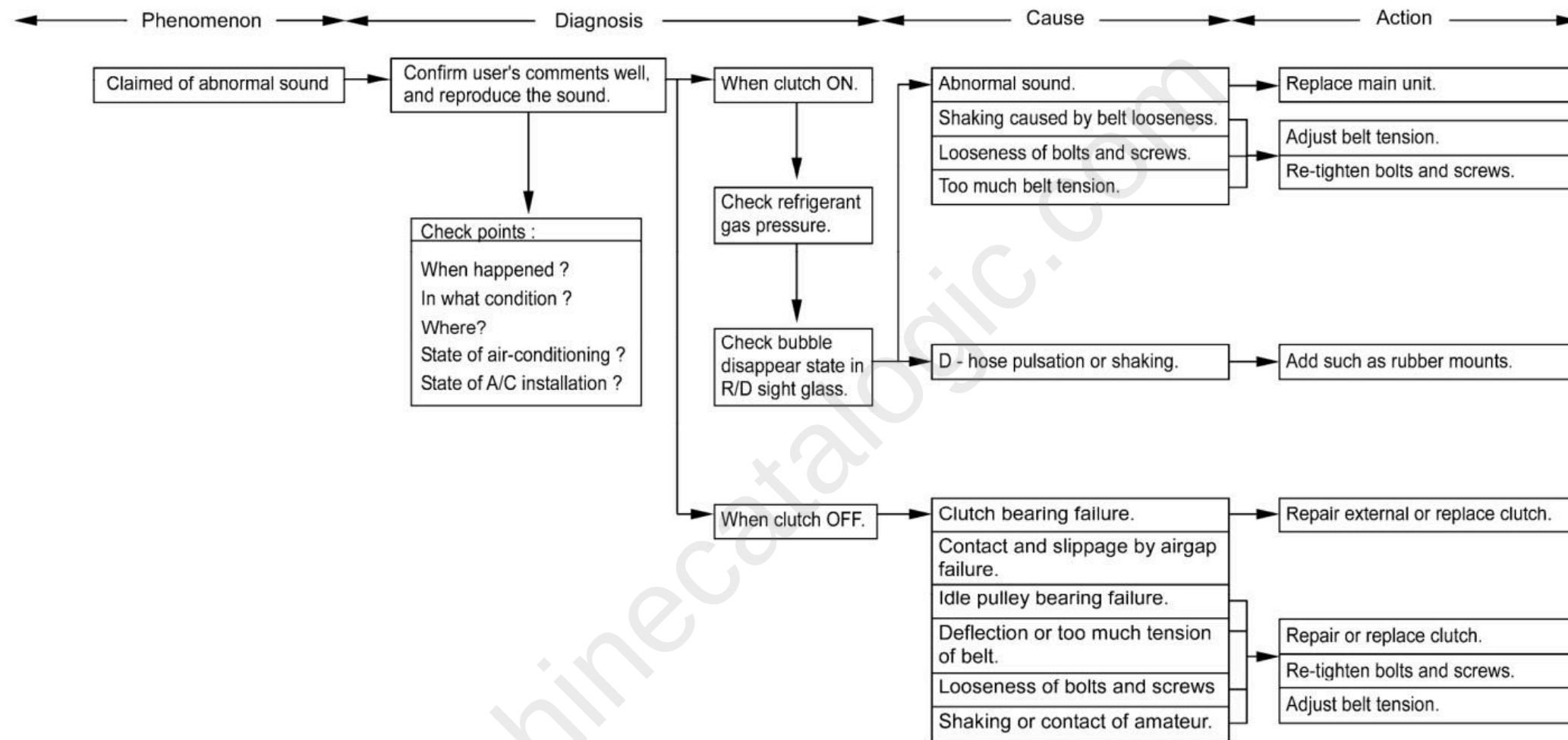
8. Slightly draw out the wire from the drum. Check to verify that the resistance between B and W decreases smoothly.
9. Mount cover, while positioning clamp on the opposite side of the potentiometer.



10. Pull cable to take up the slack and then tighten clamp.

12. Compressor

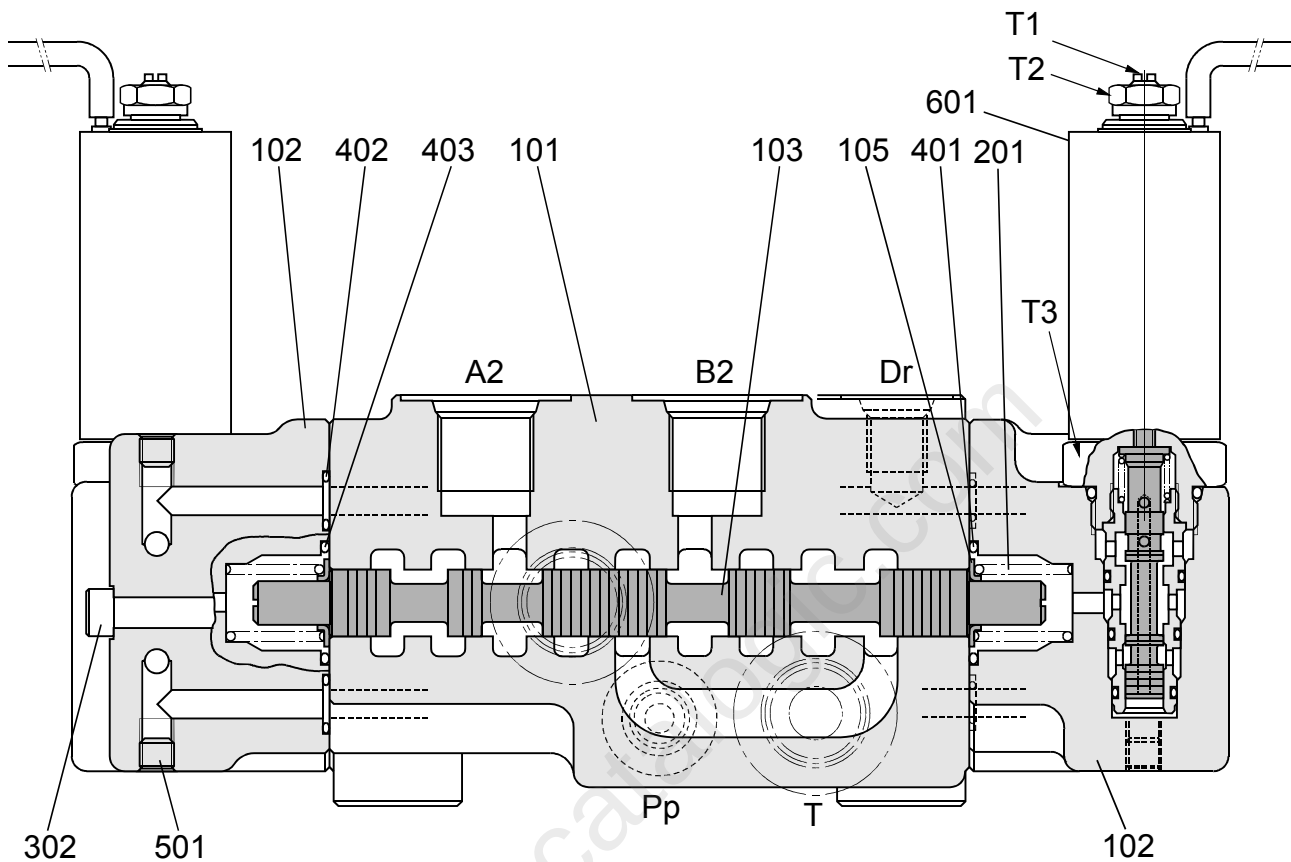
12.1 Compressor abnormal sound diagnosis chart



IW701-0161E15

Solenoid Valve (Steering Mode)

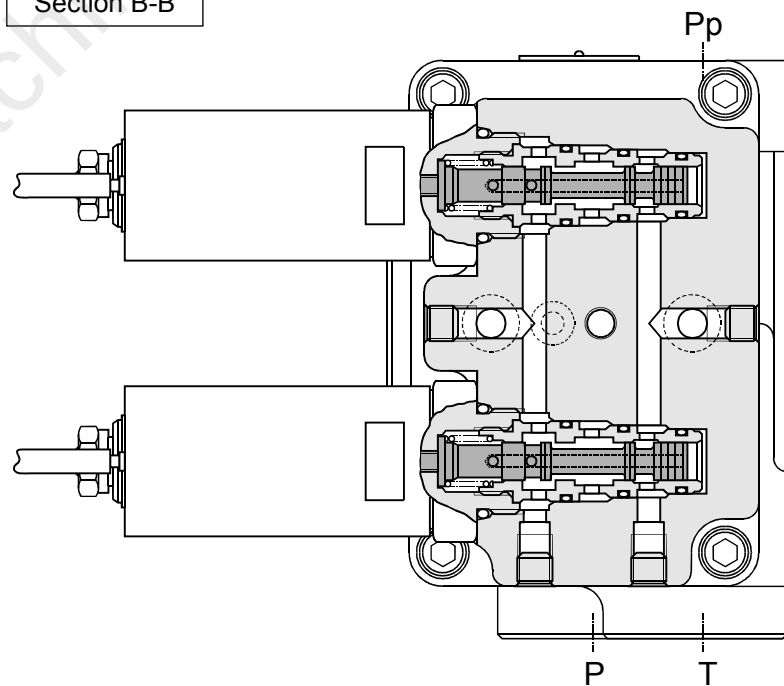
Section A-A



IW121-039003

Section B-B

- 101.Casing
- 102.Cover
- 103.Spool
- 105.Spring seat
- 201.Spring
- 302.Hexagon socket head bolt
- 401.O-ring
- 402.O-ring
- 403.O-ring
- 601.Solenoid valve assy



IW121-039004

Electric Switch Adjustment

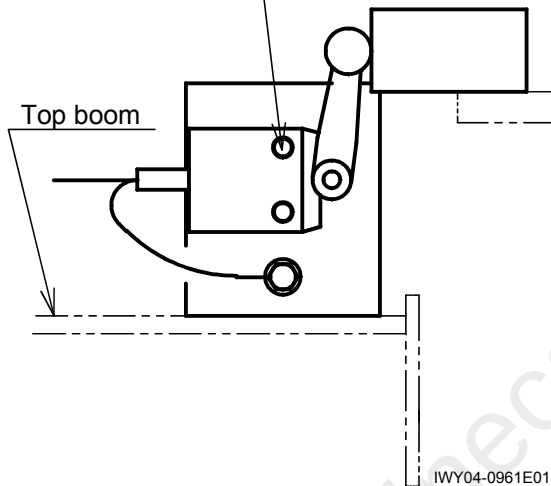
Y-4 Electric Switch Adjustment

1. 3rd / top boom full retraction detection switch (CN859)

343-629-32000 

Adjust the switch position so that its contact is shifted (opened/closed) when the top boom section is extended/retracted beyond the position where it is 5-8 mm (0.2-0.31 in) longer than its fully retracted length.

Tightening torque :
4.9-5.9N-m (50-60kgf-cm) (43-52in-lbf)

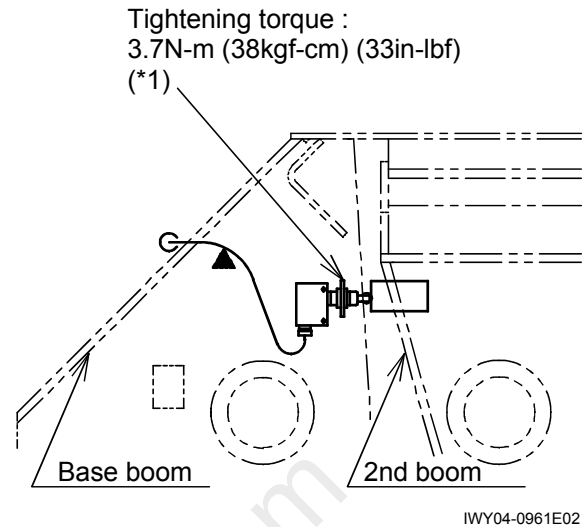


2. 2nd boom full retraction detection switch (CN553)

343-629-32000 

Adjust the switch position so that its contact is shifted (opened/closed) when the 2nd boom section is extended/retracted beyond the position where it is 2-3 mm (0.08-0.12 in) longer than its fully retracted length.

(*1): Apply the screw locking agent (Three-Bond 1401 or the equivalent).

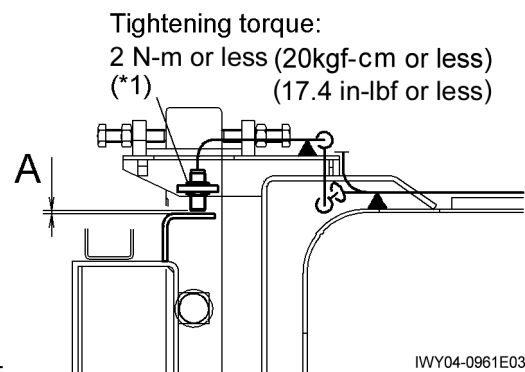


3. Jib stowed detection proximity switch (CN572)

343-536-82000 

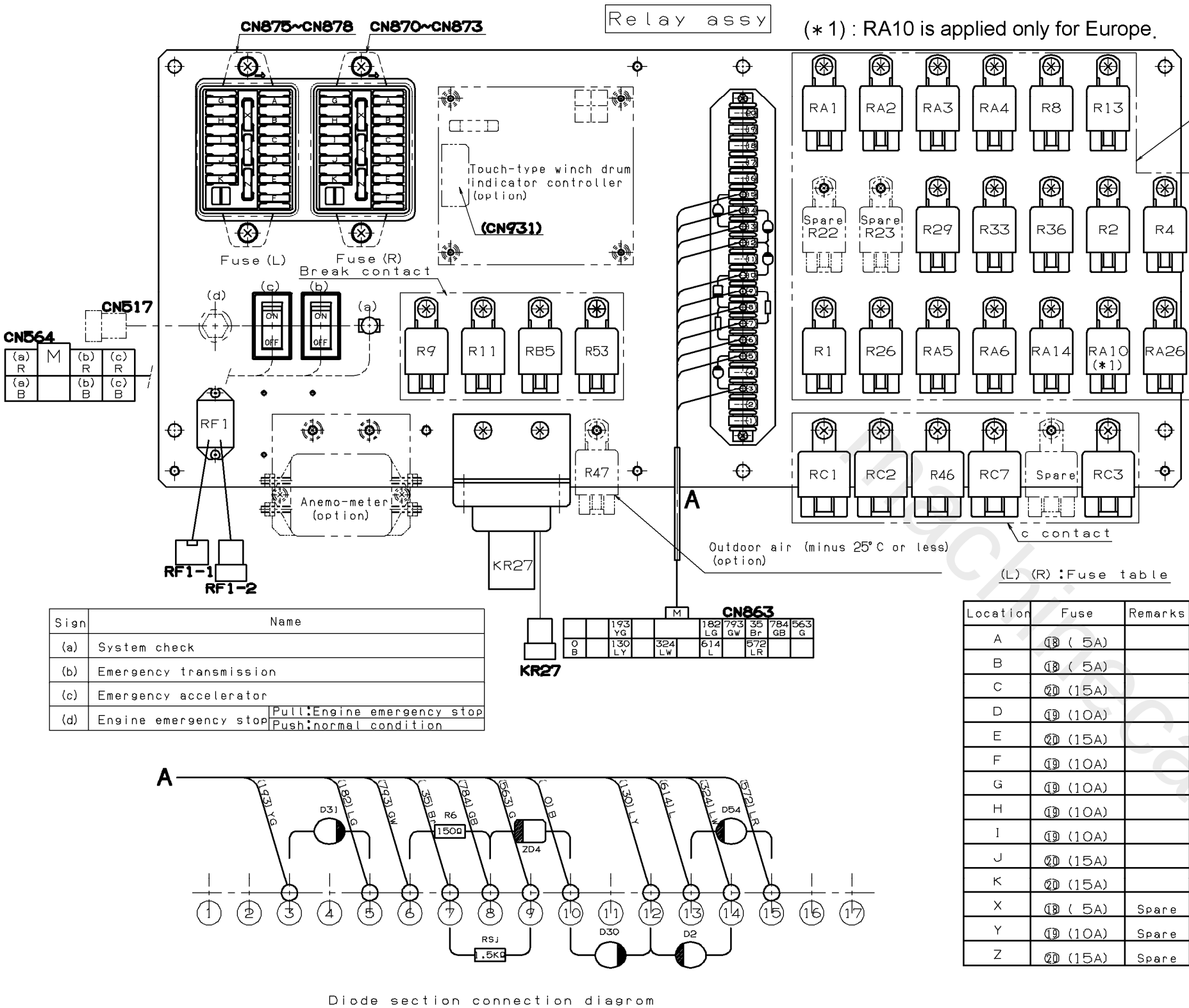
Adjust the switch position so that the dimension A becomes 4^{+1}_0 mm ($0.16^{+0.04}_0$ in) with the jib stowed.

(*1): Apply the screw locking agent (Three-Bond 1401 or the equivalent).



Location of Electric Parts (Relay Assembly/Upper)

Z-15 Location of Electric Parts (Relay Assembly/Upper)



Full Version Available

Tadano GR-550EX-1 Rough Terrain Crane Service Manual

Tadano GR-550EX-1 rough terrain crane service manual with repair procedures, adjustments and troubleshooting for the main systems. Instant PDF download.

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