



TADANO

Publication No. GR-600XL-1/S1(U)-2E

Service Manual

02

Rough Terrain Crane

Model TR-600XL-4

Applicable Serial No. 545410 ~

TADANO LTD.

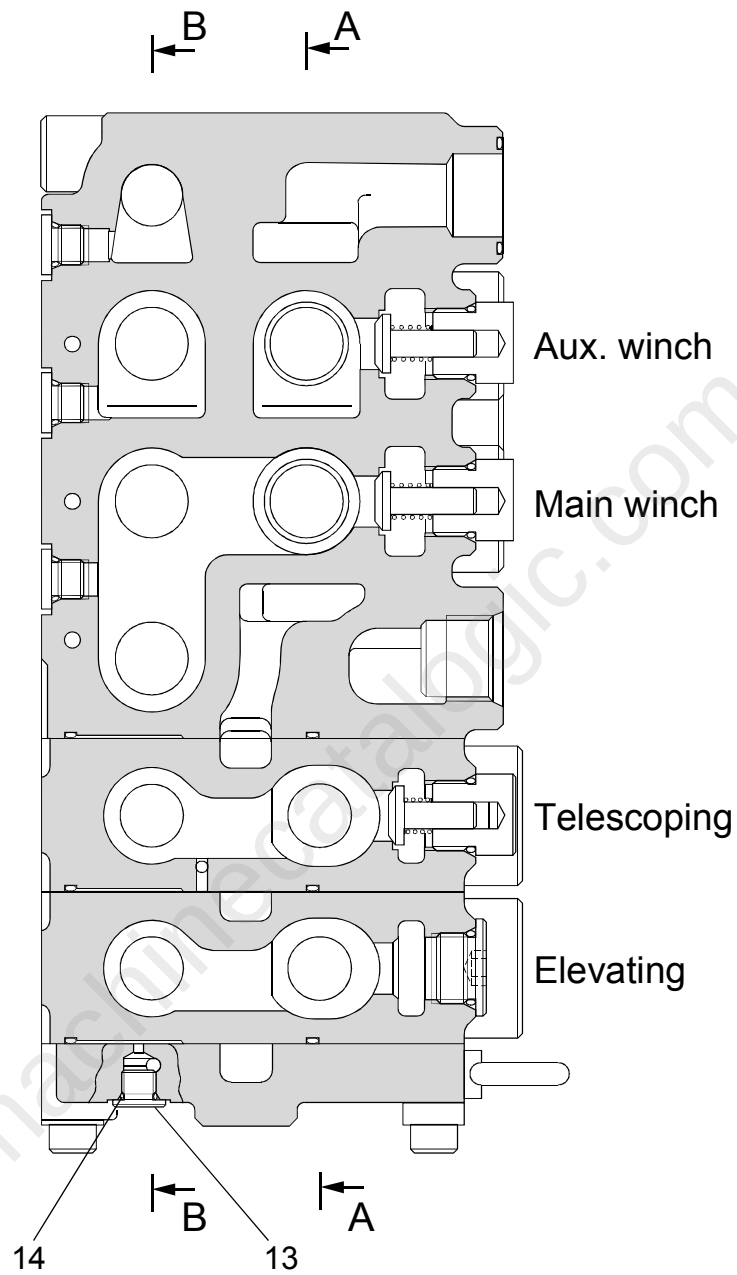
Foreword

5. Contents

Chapter	Section	Spec. No.	
		GR-600-1-00101 2M2D (North America)	
General			
A	General Cautions	Refer to separate manual SA01-01-2E	
Hydraulic Power Generating System			
B	Hydraulic Power Generating System		B-1
	Hydraulic Pump (Double Variable Displacement Pump)		B-2
	Hydraulic Pump (Double Gear Pump)		B-3
	Hydraulic Pump (Gear Pump, Emergency Steering) (Option)		B-4
	Hydraulic Valve (Emergency Steering) (Option)		B-5
	Flow Control Valve		B-6
	Pressure Reducing Valve (Pilot Pressure)		B-7
	Solenoid Control Valve (Outrigger)		B-8
	Rotary Joint		B-9
	Hydraulic Pilot Control Valve (Elevating, Telescoping, Winch)		B-10
	Sequence Valve (Pilot Pressure)		B-11
	Solenoid Valve (Pilot Pressure)	~#545519	B-12
		#545520~	B-13
	Solenoid Control Valve (Jib Set)		B-14
	Pilot Check Valve (Jib Set)		B-15
	Solenoid Valve (Oil Cooler)		B-16

Hydraulic Pilot Control Valve (Elevating, Telescoping, Winch)

Cross section of whole body



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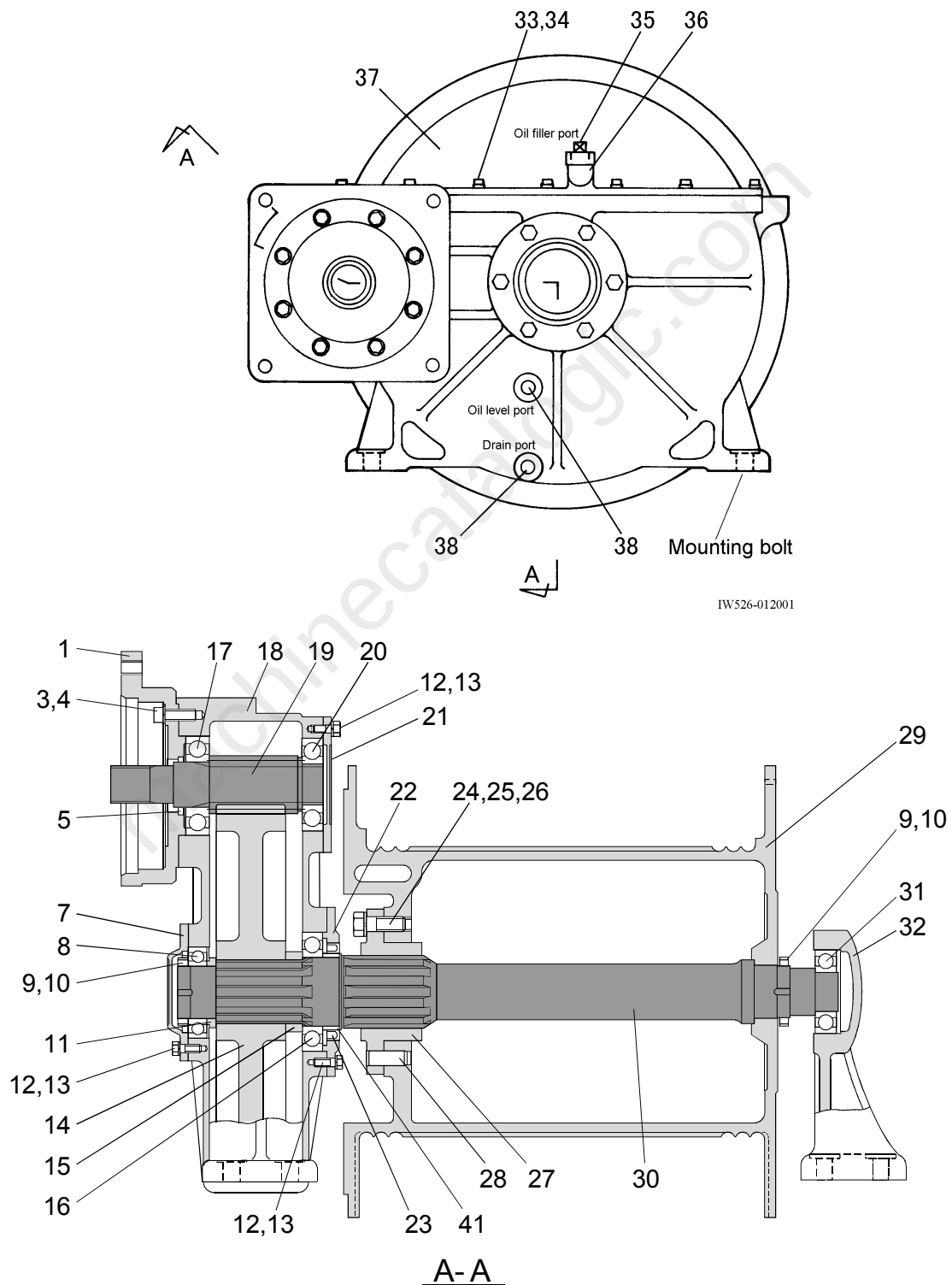
Winch

Winch

[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

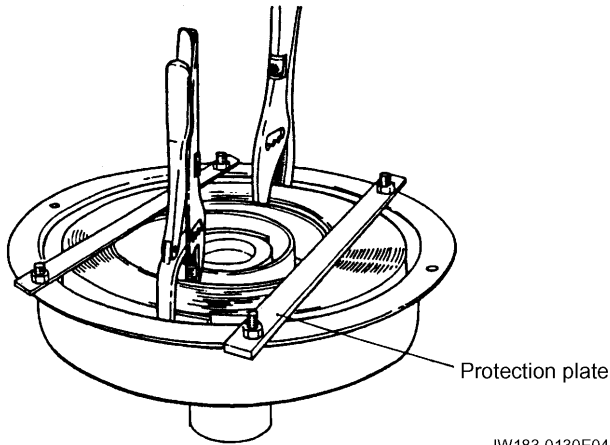


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Hose Reel

- 2) With the lower side coated with grease, place spring in case clamped in a vise, and install the protection plates.



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- 3) Fasten spring and pin with special bolt coated with screw locking compound.
 - 4) Remove the vise pliers on the outer end side of spring and attach auxiliary spring.
 - 5) Fasten the spring to spring case with special bolt coated with screw locking compound.
 - 6) After installation, apply water repllant compound to nut.
 - 7) Remove the remaining vice pliers.
3. Temporarily install drum plate, to spring case, install support to pin, and fasten with set screws.
 4. Remove the protection plates, install seat packing, coated with adhesive on both sides, aligning with the bolt holes to spring case.
 5. Install drum plates to the spring case with nuts.
 6. Apply water replellant compound to the mating surfaces of drum plates.

Air Conditioner

11.4 Car air conditioner system diagnosis table IV (Electronic thermo system)

Operation trouble phenomenon of functional parts	Guessing of trouble functional parts	Check and confirmation of operational parts	Diagnosis result (Refer to temperature characteristic for thermistor.)	Possible cause	Measures (Thermistor amplifier replacement, and connector repair.)
Compressor clutch stayed ON.	Check thermistor.	Measure resistance of thermistor connector.	Resistance is small. (Abnormal if resistance is about $7k\Omega$ or less.)	Thermistor failure.	Replace thermistor.
			Resistance is about $2k\Omega$ (25°C).	Thermistor is normal.	-----
	Check thermo volume.	Turn OFF thermo volume.	Compressor clutch is turned OFF.	Thermo volume is short-circuited.	Replace thermo volume.
	Check relay contact and thermo amp.	Remove connector of thermistor.	Compressor clutch cannot be turned OFF. (Stayed ON)	Relay contact joining. Thermo amp. failure.	Replace relay or thermo amp.
Compressor clutch stayed OFF.	Check thermistor.	Measure resistance of thermistor connector.	Resistance is about $7k\Omega$ or more.	Thermistor failure.	Replace thermistor.
	Check thermo volume.	Measure resistance of thermo volume terminal.	Resistance is ∞ (infinity).	Thermo volume is disconnected.	Replace thermo volume.
	Check relay contact and thermo amp.	Detach connector of thermistor, and short-circuit thermo amp. side connector.	Compressor clutch cannot be turned ON.	Relay contact joining. Thermo amp. failure.	Replace relay or thermo amp.
Compressor clutch does chattering.	Check thermo switch.	Check conduction in thermo volume terminal.	Tester indicator changes if applying shock to thermo volume.	Contact failure in thermo switch.	Replace thermo switch.
			Tester indicator does not change even if applying shock to thermo volume.	Thermo switch is normal.	-----
	Check thermo amp.	Remove thermistor, and short-circuit thermo amp. side connector.	When applying shock to thermo amp., compressor clutch does chattering.	Soldering failure (or, caulking failure) in thermo amp.	Replace thermo amp.
	Check contact condition in wiring connector.	Twist connectors.	Compressor clutch does chattering.	Connector failure.	Repair connector.
Insufficient cooling. (Clutch works ON and OFF.)	Replaces thermistor with new one.	Gets cold normally.	Thermistor failure.	Deterioration of thermistor.	Replace thermistor.

Orbitrol

2. Function

The machine is equipped with a load-sensing type orbitrol consisting of the following main components:

1. Housing

The housing has five piping ports: P, T, R, L and LS.

2. Spool and sleeve

Spool is splined to the steering wheel, and serves to switch over hydraulic circuits by its relative position to sleeve.

Spool and sleeve are mechanically connected at two positions, as shown in section B-B and section C-C.

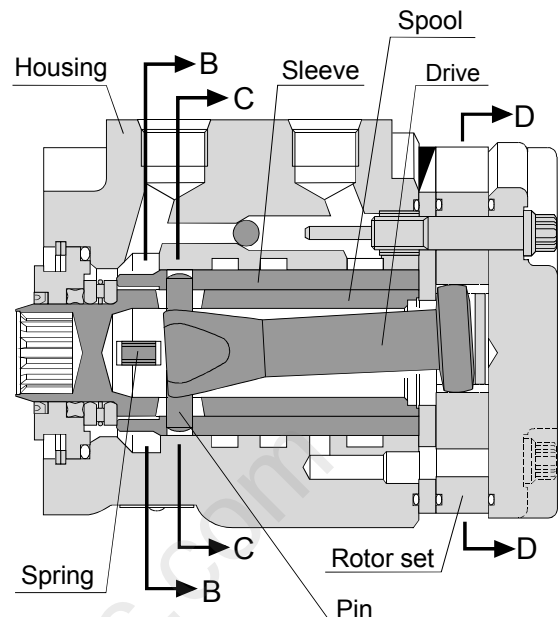
In section B-B, spring is installed in the recess grooves in spool and sleeve, so that while the steering wheel is stationary, spool and sleeve are kept in the neutral position relative to each other as shown in section B-B by the force of spring. In the area around section C-C, spool, sleeve and drive are connected by pin. Here, sleeve and drive are connected by pin without clearance, but spool has oval holes in which pin can move through small angles.

3. Drive

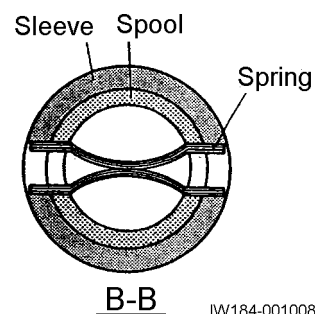
The drive serves to transmit the motion of the star of rotor set to sleeve through pin.

4. Rotor set

This consists of a ring possessing seven internal teeth and a star internally in mesh with the ring, possessing six teeth.

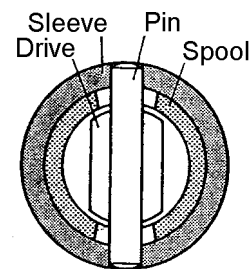


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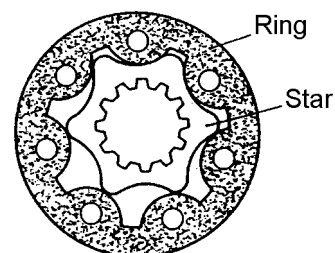
B-B

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C-C

IW184-001009



D-D

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366-352-70001

Solenoid Valve (Air)

1.Core	6.Coil ass'y (DC24V)	12.Valve seat	17.Filter
2.O-ring	8.Rod	13.Valve	18.Packing
3.Case	9.Coil cover	14.Body	19.Packing holder
4.Spring	10.O-ring	15.Spring	
5.Plunger	11.O-ring	16.Cover	

Thread size and tightening torque

Thread	Thread size	Tightening torque	
		N-m	ft-lbf
IN, OUT	Rc1/4	15 - 29	11 - 22
T1	M8x1.25	8 - 12	6 - 9

Full Version Available

Tadano TR-600XL-4 Rough Terrain Crane Service Manual

Tadano TR-600XL-4 rough terrain crane service manual with repair procedures, adjustments and hydraulic troubleshooting. Instant PDF download.

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