

# STANDARD DUTY HAND CHAIN HOISTS

## SIZES 5RBS3, 10RBS3 and 20RBS3

3 Metre (9.84 ft.) Maximum Hook-To-Hook Length

## SIZES 5RBS5, 10RBS5 and 20RBS5

5 Metre (16.4 ft.) Maximum Hook-To-Hook Length

### WARNING

**THESE HOISTS ARE NOT TO BE USED FOR LIFTING OR LOWERING PEOPLE**

### SAFE OPERATING PRACTICES

1. Always make certain the load is within the rated capacity of the Hoist. Overloading can cause failure of some load-carrying part, or result in damage causing future failure with a load at less than the rated capacity.
2. When lifting a load, always use a sling or grab made specially for that purpose. Never wrap the load chain around the load and do not bring the load in contact with the Hoist.
3. Stand clear of all loads and avoid moving a load over the heads of other personnel. Warn personnel of your intention to move a load in their area.
4. Keep the Lower Hook Assembly overhead when not in use, but never leave a load suspended in the air when the Hoist is unattended.
5. Do not lower the hook to the point where the load chain becomes taut between the Loadwheel and the slack end anchor bolt.
6. **WARNING:** These Hoists are designed for manual operation. Never adapt them to any source of power operation. Doing so may result in structural damage and/or premature wear.

**METRIC TOOLS MUST BE USED FOR MAINTENANCE OF THESE HOISTS**

### HOW TO ORDER

Order all repair parts for your Ingersoll-Rand Tool by the **NAME** and **NUMBER** shown in the Repair Part List section. **Never** use the illustration numbers which appear in the first column.

For prompt service and genuine Ingersoll-Rand parts, place orders with the nearest Ingersoll-Rand Branch Office or Authorized Distributor.

**Notice:** The use of other than genuine Ingersoll-Rand replacement parts may result in decreased tool performance and increased maintenance, and may, at the Company's option, invalidate all warranties.

**FOR ADDITIONAL REPAIR SERVICE INFORMATION, REQUEST FORM S6384 SERVICE BULLETIN.**

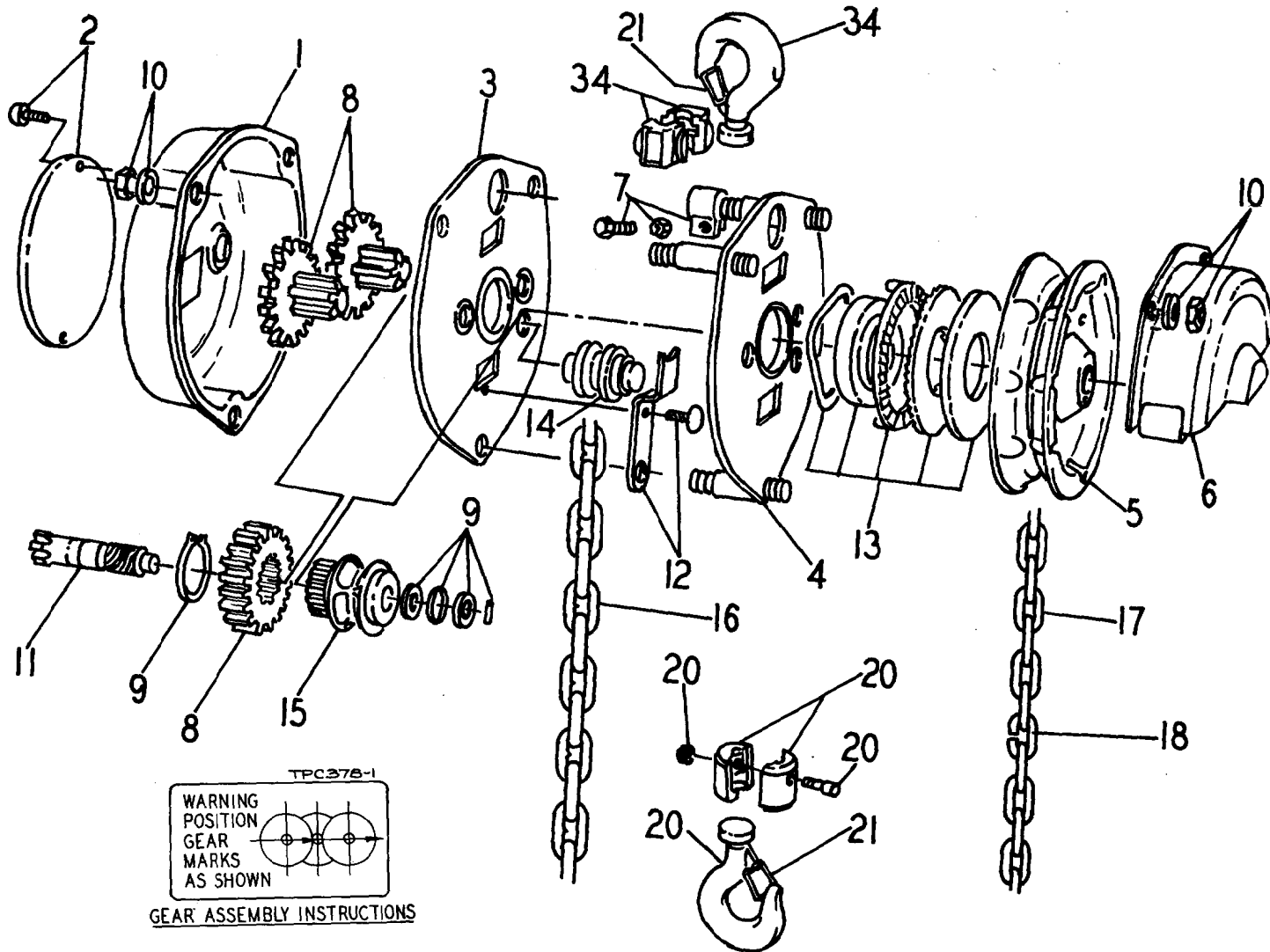
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Standard Duty Hand Chain Hoist

### REPAIR PART LIST

ILLUS. NUMBER (Do not use for ordering)	PART NAME FOR ORDERING	PART NUMBER FOR ORDERING	ILLUS. NUMBER (Do not use for ordering)	PART NAME FOR ORDERING	PART NUMBER FOR ORDERING
1	Gear Cover for 5RBS3 and 5RBS5 .....	5RBS-FS1	+ 12	Chain Stripper with Screw for 5RBS3 and 5RBS5 .....	5RBS-FS12
	for 10RBS3 and 10RBS5 .....	10RBS-FS1		for 10RBS3 and 10RBS5 .....	10RBS-FS12
	for 20RBS3 and 20RBS5 .....	20RBS-FS1		for 20RBS3 and 20RBS5 .....	20RBS-FS12
2	Nameplate Kit for 5RBS3 and 5RBS5 .....	5RBS-A301	+ 13	Brake Set for 5RBS and 10RBS .....	5RBS-FS13
	for 10RBS3 and 10RBS5 .....	10RBS-A301		for 20RBS .....	20RBS-FS13
	for 20RBS3 and 20RBS5 .....	20RBS-A301	+ 14	Load Chain Guide for 5RBS3 and 5RBS5 .....	5RBS-FS14
+ 3	Gear Side Plate for 5RBS3 and 5RBS5 .....	5RBS-FS3		for 10RBS3 and 10RBS5 .....	10RBS-FS14
	for 10RBS3 and 10RBS5 .....	10RBS-FS3		for 20RBS3 and 20RBS5 .....	20RBS-FS14
	for 20RBS3 and 20RBS5 .....	20RBS-FS3	+ 15	Loadwheel for 5RBS3 and 5RBS5 .....	5RBS-FS15
+ 4	Handwheel Side Plate for 5RBS3 and 5RBS5 .....	5RBS-FS4		for 10RBS3 and 10RBS5 .....	10RBS-FS15
	for 10RBS3 and 10RBS5 .....	10RBS-FS4		for 20RBS3 and 20RBS5 .....	20RBS-FS15
	for 20RBS3 and 20RBS5 .....	20RBS-FS4	16	Load Chain for 5RBS3 .....	5RBS3-FS16
+ 5	Handwheel for 5RBS3, 5RBS5, 10RBS3 and 10RBS5 .....	5RBS-FS5		for 5RBS5 .....	5RBS5-FS16
	for 20RBS3 and 20RBS5 .....	20RBS-FS5		for 10RBS3 .....	10RBS3-FS16
6	Handwheel Cover for 5RBS3 and 5RBS5 .....	5RBS-FS6		for 10RBS5 .....	10RBS5-FS16
	for 10RBS3 and 10RBS5 .....	10RBS-FS6		for 20RBS3 .....	20RBS3-FS16
	for 20RBS3 and 20RBS5 .....	20RBS-FS6	17	Hand Chain for 3 metre hook-to-hook .....	5RBS3-FS17
+ 7	Loose End Set for 5RBS3 and 5RBS5 .....	5RBS-FS7		for 5 metre hook-to-hook .....	5RBS5-FS17
	for 10RBS3 and 10RBS5 .....	10RBS-FS7	18	Hand Chain Connecting Link .....	5RBH-Y25
	for 20RBS3 and 20RBS5 .....	20RBS-FS7	20	Bottom Hook Assembly for 5RBS3 and 5RBS5 .....	5RBS-FS20
+ 8	Gear Set for 5RBS3 and 5RBS5 .....	5RBS-FS8		for 10RBS3 and 10RBS5 .....	10RBS-FS20
	for 10RBS3 and 10RBS5 .....	10RBS-FS8		for 20RBS3 and 20RBS5 .....	20RBS-FS20
	for 20RBS3 and 20RBS5 .....	20RBS-FS8	21	Latch for 5RBS3 and 5RBS5 .....	5RBS-FS21
9	Handwheel Shaft and Pinion Hardware Set for 5RBS3 and 5RBS5 .....	5RBS-FS9		for 10RBS3 and 10RBS5 .....	10RBS-FS21
	for 10RBS3 and 10RBS5 .....	10RBS-FS9		for 20RBS3 and 20RBS5 .....	20RBS-FS21
	for 20RBS3 and 20RBS5 .....	20RBS-FS9	+ 34	Top Hook Assembly for 5RBS3 and 5RBS5 .....	5RBS-FS34
10	Cover Hardware Set for 5RBS3, 5RBS5, 10RBS3 and 10RBS5 .....	5RBS-FS10		for 10RBS3 and 10RBS5 .....	10RBS-FS34
	for 20RBS3 and 20RBS5 .....	20RBS-FS10		for 20RBS3 and 20RBS5 .....	20RBS-FS34
+ 11	Pinion Shaft for 5RBS3 and 5RBS5 .....	5RBS-FS11	*	Safety Label .....	5RBS-598
	for 10RBS3 and 10RBS5 .....	10RBS-FS11			
	for 20RBS3 and 20RBS5 .....	20RBS-FS11			

+ It is advisable to order an appropriate set of hardware covered by Illustration No. 9 with each of these assemblies since the shape of the fasteners is usually distorted during disassembly.

\* Not illustrated.

## INSTALLATION

Before installing the Hoist, examine it thoroughly to make certain that it was not damaged during shipment.

After mounting and before placing in service, check the Hoist for proper operation. On Hoists having a bottom hook block, make certain that all strands of chain are straight with no twist as a result of having the hook block flipped through the chain loop. **WARNING:** Make certain the load chain feeds **between** the Loadwheel (15) and the Load Chain Guide (14) and seats properly in the pocket wheel by running the hook up and down a reasonable distance without a load. The chain should run freely with no snagging or binding.

Always rig the Hoist to lift in a straight line from hook to hook, and make certain the Hoist is always free to swivel on the upper hook. Under no condition should the frame or hanger be allowed to bear against any support as this could cause bending of the hook or frame and damage the unit.

Make certain the member from which the Hoist is suspended is completely seated in the saddle of the hook.

## OPERATION

When preparing to lift or move a load, make certain the load is completely seated in the saddle of the hook. Avoid eccentric loading of any kind, especially loading on the point of the hook.

When lifting, raise the load just enough to clear the floor and then check to make certain the brake will hold the load. Continue the lift only after you are certain the load is free of all obstructions.

## LUBRICATION

Lubricate load chain with a light coat of penetrating oil and graphite. Be sure the lubricant reaches the bearing surface between the links. Remove excess oil from the chain.

The brake on these Hoists is a wet type wherein the friction lining is impregnated with General Motors Automatic Transmission Fluid Dexron®. A small hole is provided in the center of the handwheel for relubricating the lining. When hand chain pull becomes excessive, lubricate the brake through the hole in the center of the handwheel with approximately 1.5 cc of Dexron. Open and close the brake with the handwheel while adding the fluid. The brake should then be left in the open position for about one hour to allow the fluid to soak into the lining. Then again operate the brake several times before putting the Hoist back into service.

**CAUTION:** Excessive lubrication or not allowing fluid to soak into the lining may result in erratic brake operation when lowering a load.

These Hoists normally require no additional lubrication except when the unit has been disassembled for cleaning or repairs.

If chain pull should increase significantly, it may be greatly reduced by relubricating hoist bearings. When this is done, use Dow Corning Corp. Molykote BR-2-S grease after thoroughly cleaning the old grease from the parts. At the same time, lubricate these parts as well:

- Ratchet Spring
- Gear Train
- Bearings
- Handwheel Thread
- Roller Guide
- Pinion Shaft Stem
- Ratchet Teeth and Lugs
- Upper and Lower Hook Seats
- Bore of Loadwheel
- Screw Brake Plate - Stepped Face

## MAINTENANCE

Initiating a regular inspection procedure is recommended to replace worn or damaged parts before they become unsafe. The inspection should include:

### MONTHLY

1. Brake mechanism for evidence of slippage or abnormal operation.
2. Load chain for lubricant, damaged links or foreign material, particularly at inter-link contacting points.
3. Hooks for damage, cracks, twists, latch engagement and latch operation. Examine the bolt attaching the hook to the load chain.
4. Tightness of frame studs and nuts.

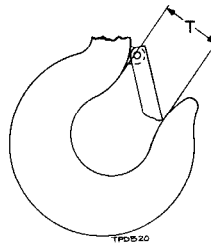
### YEARLY

1. Load chain for wear.

### Hook

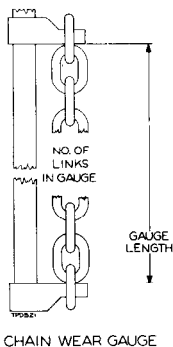
Periodically, examine the hook for wear. Excessive throat opening indicates abuse or overloading. At the same time, inspect other load sustaining components of the unit for damage. Make certain the latch is not damaged or bent.

Hoist Size	Replace Hook When "T" Opening is Greater than:	
	in.	mm
5RBS	1 1/16	27.0
10RBS	1 7/16	36.5
20RBS	1 5/8	41.3



### Load Chain

Visually inspect the load chain for cleanliness and lubrication as well as wear or other damage, such as nicks and gouges. To determine if the chain should be replaced, check gauge lengths as shown below. Chain should be clean, free of twists and pulled taut before measuring.



Hoist Size	Dia. of Chain Stock in.	No. of Links To Gauge	Maximum Gauge Length Allowable Used Chain	
			in.	mm
5RBS	.197	11	7	177.8
10RBS	.250	11	8 7/8	225.4
20RBS	.354	11	12 1/2	317.5
Hand Chain	.213	15	14 13/16	376.3

Load chain has a hard long-wearing surface. We urge extreme caution when cutting as the link may fly when cut.

### Hand Chain

Visually inspect hand chain the same as load chain and use the chart above for gauging.

Care must be taken to assure that there is no twist in the hand chain loop.

## HOOK-ON TROLLEY FOR MODELS 5RBS AND 10RBS

Models 5RBS and 10RBS with rated capacity of 500 and 1000 kg (1100 lb and 2200 lb) can be attached to a Hook-On Trolley by means of the Top Hook, for operation on 5 to 12" I-Beams having flanges 3.00" (76 mm) to 5" (127 mm) wide. **WARNING: The Trolley must not be used on the 20RBS Models.**

PART NAME FOR ORDERING (Parts indented after an item are included with that item)	PART NUMBER FOR ORDERING
Hook-on Trolley.....	10RBH-A690
Nut (2).....	D01-341A
Spacer (28).....	D01-442-1/6
Lock Washer (4).....	D01-692
Bolt (2).....	D01-694-8
Nut (4).....	DU-562
Bracket (2).....	MR20-430
Trolley Wheel (4).....	MR20-691
Washer (8).....	21-748
Spacer (4).....	CE120-446
Adaptor.....	CE120-426

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