

**OVERHEAD HOISTS**  
with  
**SIX CYLINDER AIR MOTOR**  
**TWO TON CAPACITY**  
Series C6H40A and C640A  
**THREE TON CAPACITY**  
Series D6H60A and D660A

**WARNING**

***These Hoists are not to be used  
for lifting or lowering people***

**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 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.

Refer All Communications to the Nearest  
Ingersoll-Rand Office or Distributor.

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**Ingersoll-Rand.**

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## Size Symbols of Hoists covered in this Manual

### TWO-TON HOISTS

#### Standard Headroom

Standard Construction		Spark-Resistant	
C6H40A15	C640A17	C6H40A15SR	C640A17SR
C6H40A22	C640A22	C6H40A22SR	C640A22SR
C6H40A28	C640A23	C6H40A28SR	C640A23SR
C6H40A35	C640A25	C6H40A35SR	C640A35SR
C6H40A38	C640A35	C6H40A38SR	C640A38SR
C6H40A57	C640A38	C6H40A57SR	C640A57SR
C6H40A100	C640A57	C6H40A100R	C640A100SR
	C640A100		

#### Low Headroom

Standard Construction		Spark-Resistant	
C6H40A15LH	C640A22LH	C6H40A15LR	C640A22LR
C6H40A22LH	C640A35LH	C6H40A22LR	C640A35LR
C6H40A35LH	C640A100LH	C6H40A35LR	C640A100LR

### THREE-TON HOISTS

#### Standard Headroom

Standard Construction		Spark-Resistant	
D6H60A12	D660A15	D6H60A12SR	D660A15SR
D6H60A20	D660A20	D6H60A20SR	D660A20SR
D6H60A25	- - - -	D6H60A25SR	- - - -
D6H60A30	D660A30	D6H60A30SR	D660A30SR
D6H60A35	D660A35	D6H60A35SR	D660A35SR
D6H60A52	D660A52	D6H60A52SR	D660A52SR
D6H60A75	D660A75	D6H60A75SR	D660A75SR

#### Low Headroom

Standard Construction		Spark-Resistant	
D6H60A12LH	D660A20LH	D6H60A12LR	D660A20LR
D6H60A20LH	D660A30LH	D6H60A20LR	D660A30LR
D6H60A30LH	D660A75LH	D6H60A30LR	D660A75LR

## OPERATING PRACTICES

The two most important aspects of Hoist operation are: (1) Allow only qualified people to operate a Hoist, and (2) Subject each Hoist to a regular inspection and maintenance procedure.

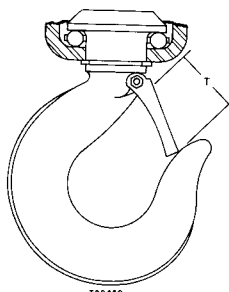
A qualified operator must be physically competent. He must have no health condition which might affect his ability to react, and he must have good hearing, vision and depth perception. The qualified Hoist operator must be carefully instructed in his duties and must understand the operation of the Hoist, including a study of the manufacturer's literature. He must thoroughly understand proper methods of hitching loads. He should have a good attitude regarding safety and should refuse to operate under unsafe conditions.

Regular inspection procedures should be set up, rigidly adhered to and recorded by or under the direction of a qualified person. On Hoists in continuous service, inspection should be made at the beginning of each shift. The items to be checked include, but are not limited to:

- a. Lubrication according to manufacturer's instructions.
- b. **Brakes:** Visually check for proper adjustment (see Brake Adjustment on page 8). Lift a capacity or near capacity load a few inches off the floor and check ability of braking system to stop and hold the load and without excessive drift.
- c. **Wire Rope and Hooks:** Visually inspect the wire rope. Replace it **at once** if there is indication of fraying, or if it is crushed, cut or otherwise damaged.

Hooks should be checked for wear, increase in throat opening, and bending.

**Note:** Increased throat opening or a bent hook indicates overloading or abuse. Replace hooks having a 15% increase in throat or 10% bend. If the hook latch snaps past the tip of the hook, the hook is sprung and must be replaced. Check hook support bearings for lubrication or damaged. See that they swivel easily and smoothly.



Hook No.	"T" Throat Opening				Hook No.	"T" Throat Opening			
	New		Discard			New		Discard	
	in	mm	in	mm		in	mm	in	mm
C6H40A-AS377	1-1/2	38	1-23/32	43	C6H40A-ASR377	1-1/2	38	1-23/32	43
D6H60A-AS377	1-7/8	48	2-7/32	56	D6H60A-ASR377	1-7/8	48	2-7/32	56

- d. **Controls:** See that the controls function properly and return to neutral when released. Check the functioning of up and down stops by running the empty hook slowly to both extremes of travel. If the hook does not stop in its normal position, do not operate the Hoist until the cause of the trouble is located and corrected.
- e. **General:** Check to see that suspension fastenings are secure, unworn and undamaged. On trolley-mounted Hoists, check that trolley wheels track the rail properly and that wheels and rail are not excessively worn. Be alert for unusual visual or audible signs which could indicate a defect. Do not operate the Hoist until the defect has been determined and corrected.

Periodically, depending on the severity of the service:

- a. Inspect the top and bottom hooks with a magnetic particle, dye penetrant or other crack detection means.
- b. Check the hook thrust bearings for smoothness and ascertain that the hook nuts are properly tightened and locked.
- c. Check the condition of the trolley wheels and bearings by lifting a capacity load with the hoist and slowly moving it along the track, paying particular attention for rough or bumpy operation.
- d. Check all bolts or fasteners used in the suspension of the hoist.

## OPERATING INSTRUCTIONS

1. Read the manufacturer's instructions before operating the Hoist.
2. Never lift a load greater than the rated capacity of the Hoist.
3. Never use the Hoist rope as a sling.
4. Always stand clear of the load.
5. Never use the Hoist for lifting or lowering people, and never stand on a suspended load.
6. Never carry loads over people.
7. Before each shift, check the Hoist for wear or damage. Check brakes, limit stops, etc.
8. Periodically inspect the Hoist thoroughly and replace worn or damaged parts.
9. Follow the lubrication instructions.
10. Do not attempt to repair load hooks. Replace them when worn or damaged.
11. Never operate a Hoist when the load is not centered under the hook. Do not "side pull" or "yard".
12. Always rig the Hoist properly and carefully.
13. Never operate a Hoist with twisted, kinked or damaged wire rope.
14. Ease the slack out of the wire rope and sling when starting a lift. Do not jerk the load.
15. Keep the wire rope clean and well lubricated. Do not drag it or the hook on the floor.
16. Be certain there are no objects in the way of a load or hook when moving the Hoist.
17. Be certain the air supply is shut off before performing maintenance work on the Hoist.
18. Avoid swinging the load when moving the Hoist. Slowly start the trolley.
19. Keep the load block overhead when not in use.
20. Properly secure the Hoist before leaving it unattended.
21. Be certain the load is properly seated in the saddle of the hook. Do not tiplod the hook as this leads to spreading and eventual failure of the hook.
22. Do not allow unqualified personnel to operate a Hoist.
23. Avoid collision or bumping of Hoists. Do not swing a suspended load.
24. Do not operate a Hoist if you are not physically fit to do so.
25. Do not do anything you believe may be unsafe.
26. Do not use the Hoist rope as a ground for welding. Do not attach a welding electrode to a Hoist or sling chain.
27. Do not divert your attention from the load while operating a Hoist.
28. Do not use up and down stops as a means of stopping a Hoist—these are emergency devices only.
29. Do not leave a load suspended for any extended period—never unattended.
30. Never splice a sling chain by inserting a bolt between links.
31. Do not force a chain or hook into place by hammering. Do not insert the point of the hook into a chain link.
32. Do not expose the sling chain to freezing temperatures, and do not apply sudden loads to a cold chain.

## INSTALLATION

**WARNING: Before shipment, all oil was drained from the Motor Case (1).** A quantity of oil sufficient for one filling is packed with the Hoist. Before operating the Hoist, close the Oil Cock (2) at the bottom of the Motor Case, remove the Vent Cap (3), and pour the entire contents of the can into the Motor Case. Remove the large pipe plug from the top of the Gear Case (164 or 187) and replace it with the Gear Case Vent Cap (218).

Proper installation is a prime factor in efficient and trouble free operation. The following standards should be followed in planning and execution:

1. **Hoist Support:** Install the Hoist only after determining that the support is ample for loadings equal to at least **five times** the combined weights of the Hoist and rated load.
2. **Air Supply:** Compressor and supply line must have the capacity to maintain 80 psig (5.5 bar/551 kPa) air pressure at the air inlet of the Hoist. We recommend:
  - a. 1" (25 mm) diameter, or larger, pipe or hose for the supply line.
  - b. That a No. EU-A267 Air Strainer, **or** a No. NFLRU-16 Filter-Lubricator-Regulator Unit be installed as close as practical to the Hoist. **NOTE:** Use of a Lubricator is **not** a substitute method of lubricating the Motor. Instead, it supplements the crank splash system. Procedures outlined under **Lubrication** must be followed even though air line lubrication is provided.
  - c. Using some type of support for supply hose to protect it and keep it out of the way. An Ingersoll-Rand AHC Hose Carrier is the finest system available. Hose Trolleys that operate on I-Beams or that operate on a special track are also available from Ingersoll-Rand. Various hose reels are also on the market. The Ingersoll-Rand Sales Engineer will be glad to assist you.
3. **Lug Mounting:** Design and construct mounting in accordance with the following standards:
  - a. Use bolts of maximum diameter that will pass through holes in mounting boss on the Hoist.
  - b. Use a lug or plate on **each** side of the boss.
  - c. Bolt lugs or plates solidly to the Hoist and support. If necessary, use spacers to maintain lugs parallel to each other.
  - d. Mounting must hold the Hoist so that the longitudinal centerline of the drum is level.
4. **Top Hook:** Be sure the support rests completely within the saddle of the hook and that it is centered directly above the hook shank. Do not attach the hook to any support that causes the Hoist to cant in any direction.
5. **Trolleys:** Make certain the trolley is correct for the track.

All Ingersoll-Rand Trolleys shipped with a new Hoist are adjusted at the factory to fit the minimum width beam flange on which the Trolley will operate. When disassembling the Trolley for installation on the beam, note the exact arrangement of spacers so that the Trolley can be correctly reassembled.

For installation on a beam flange other than that for which the Trolley is pre-adjusted, measure the beam flange and temporarily install the Trolley on the Hoist to determine the exact distribution and arrangement of the spacers. The distance between the wheel flanges should be 3/16" greater than the width of the beam flange for straight runway beams, and 3/16" to 1/4" greater in a runway system that includes sharp curves. The number of spacers between the Trolley Bracket and the mounting lug on the Hoist should be the same in all four locations in order to keep the Hoist centered under the I-beam. The remaining spacers must be equally distributed on the outside of the Trolley Bracket.

  - a. Use a 90° Angle Attachment if the application requires that the rope drum be at right angles to rather than in line with the track. The Attachment can be used on any Hoist having a single mounting boss, **except those with 2-part single reeving.**
  - b. Slowly move the Hoist (without load) from one end of the track to the other to ascertain that there is proper clearance and that the trolley operates smoothly. Apply a load to the Hoist and repeat.
  - c. Provide stops on the track to prevent overtravel. **Note:** The stops should not contact the trolley wheels.
6. **Muffler:** Chain is furnished with each Ingersoll-Rand Muffler. Secure the end of the chain under a cap screw so that the Muffler will not fall should it loosen or be broken from the Hoist.

## LUBRICATION

**Recommended Lubricants:** (See special instructions for Hoists with Dual Brakes.)

### Motor and Gearing

For ambient temperatures of 30°F to 80°F (-1.1°C to 26.6°C), use Ingersoll-Rand Medium Oil No. 50, or SAE 30 Motor Oil.

For ambient temperatures below 30°F (-1.1°C), use SAE 20 or 20W Motor Oil.

For ambient temperatures above 80°F (26.6°C), use SAE 40 Motor Oil.

For Series C640A Hoists with Dual Brakes, use SAE 10W Motor Oil in the Gear Case.

For Series D660A Hoists with Dual Brakes, use Ingersoll-Rand No. 10 Oil in the Gear Case to obtain proper load brake functioning. **Note:** An acceptable substitute for Ingersoll-Rand Oil No. 10 is Texaco Rando\* Oil AA, or equivalent.

### Sheaves, Valve Chest and Trolley Wheels:

Use Ingersoll-Rand Lubricant No. 28 or No. 2 Multi-Purpose Grease.

### Maintain Oil Level in Motor Case and Gear Case

At regular intervals, depending on the service to which the Hoist is subjected, check the oil in the Motor Case as follows:

1. After the Hoist has been idle for several hours, open the Oil Cock (2) at the bottom of the Motor Case (1) and allow the accumulated water to drain out; then close.
2. Open the Oil Cock in the side of the Motor Case and unscrew the Vent Cap (3) from the top of the Motor Case.
3. Add sufficient oil through the top opening to raise the oil level to the line on the sight glass or even with the open Oil Cock in the side of the Motor Case.

At regular intervals, check the Oil Level Gauge in the Gear Case or Gear Case Cover. If necessary, add the recommended oil to maintain the oil level at the line on the glass.

Weekly, or as experience indicates, inject 2 or 3 strokes of the recommended grease into all Grease Fittings.

## MAINTENANCE

**Keep the Wire Rope tightly wound on the grooved Rope Drum (108).** Before putting a grooved-drum Hoist in service and periodically thereafter, run the Hoist in the lowering direction as far as the down-stop will permit. Apply a load to the Hook and rewind the Rope on the Drum. During storage, shipment, or even operation, if the Hoist is used primarily for lowering loads, the Wire Rope tends to uncoil. If not corrected, loops will form which may in time cross over one another and cause serious damage.

### Adjustment of Diaphragm Brake

Screw the Brake Adjusting Nuts (177) along the brake plate studs until there is 1/32" to 1/16" play of the Brake Plunger (182) on the studs.

### Mechanical Load Brake Adjustment

Remove the Adjusting Nut Lock (194) and with a screwdriver, turn the Brake Adjusting Nut (193) **clockwise** until a heavy drag is felt, then back the Nut off five (5) notches. Replace the Adjusting Nut Lock making sure it enters one of the notches in the Adjusting Nut.

### Hook Replacement

In the original design, and continuing into 1975, the Hook Nut was locked on the shank of the Hook by upsetting the end of the shank after the Hook was installed in the Sheave Block or Top Hook Yoke. This is an effective method of locking, but makes removal difficult if the Hook or Bearing must be replaced. Because of this, the Hook shank has been modified to include a cross hold, the Nut has been changed to a slotted type, and a Lock Pin is used. The new style parts can be used, in combination, to replace the previous parts in the original Sheave Block or Yoke. To facilitate the installation of the Lock Pin, the small hole in the side of the Block now being furnished has been relocated to align with the cross hole in the hook shank. When installing a Lock Pin in an old style Sheave Block, it may be necessary to drill a hole to facilitate installation.

\*Registered trademark of Texaco, Inc.



## Reverse Valve Removal

Unscrew the Throttle Valve Cap (49) and withdraw the Spring (48), Poppet Throttle Valve (43) and Ball (47) before attempting to withdraw the Reverse Valve (41) from the Reverse Valve Bushing (29).

## Valve Chest Removal

Use two No. D02-932 Valve Chest Jack Bolts (1/2"-13 thd. x 5-1/4" long) to remove the Valve Chest (27) from the Motor Case (1).

## Removal and Installation of the Reverse Valve Bushing

When pressing the Reverse Valve Bushing (29) from the Valve Chest (27), use an arbor that will clear the Bushing Key that projects into the valve chest bore. Always press against the bushing that is flush with the cover side of the Valve Chest.

Always press a new Bushing, grooved end first, into the motor case side of the Valve Chest, making certain that the groove along the side of the Bushing is aligned with the Bushing Key. Press in the new Bushing until its leading face is flush with the cover side of the Valve Chest. Insert No. 23470 Throttle Valve Stem Reamer into the bottom bore of the Valve Chest from which the Poppet Throttle Valve was removed, and ream the hole in the wall of the Bushing to .505". If the Reverse Valve fits too tightly in the new Bushing, ream the Bushing 1.625".

## Motor Removal

Should it ever become necessary to remove the motor for repair or replacement of parts, do not remove the Stop Lever Bracket Screws (107). These Screws will retain the Motor Case Cover (101) on the Hoist Housing (100) so that the motor can be removed without disturbing the Rope Drum (108) and related parts.

## Crank Assembly

The two sections of the Crank (9) are joined and marked before final machining; only those parts with identical markings can be used together. If two or more Cranks are disassembled at the same time, be certain that only parts with identical markings are assembled together. Use a new Crank Taper Pin (10) each time a Crank is reassembled. Lightly strike the large end of the Crank Taper Pin to seat it in the Crank, and then spread the split end of the Pin.

## Gear Case and Gearing

The Secondary Ring Gear (114) is retained on the Housing by two socket head Ring Gear Retaining Screws so that the Gear Case (164 or 187) can be removed from the Hoist without disturbing the Rope Drum (108) and related parts.

To remove a Planet Gear Shaft (123 or 163) from a Gear Frame (117 or 156), support the Gear Frame, shaft or pinion end up, and press out the Planet Gear Shaft.

Before installing the Planet Gear Shaft in the Gear Frame, note that one end of the Planet Gear Shaft is beveled 30° and the other end 45°. Support the Gear Frame, shaft or pinion end down. Enter the 30° beveled end of the Planet Gear Shaft into the Gear Frame and press the Shaft into the Frame until the trailing end is flush with the Gear Frame face.

Press the Drum Bearing Gear End (112) into the recess in the Secondary Ring Gear (114) and press the Bearing and Secondary Ring Gear onto the Secondary Gear Frame Assembly (117).

Align one of the **Round** Cam Followers (in the Roller Carrier) with the Vent Cap and slide the Carrier (208) into the Gear Case (187). Rotate the Carrier **counterclockwise** until the Cam Followers are at the lowest points on the Load Brake Cam (205).

Slip the Primary Ring Gear (170) over the pinion end of the Primary Gear Frame Assembly (156) aligning the "X" on each Primary Gear (160) with the "X's" on the Ring Gear.

Install the Primary Gear Frame Assembly and Ring Gear as a unit into the Gear Case aligning the notch in the Ring Gear with the Ring Gear Stop (154). Rotate the Ring Gear **counterclockwise** until it is stopped by the Ring Gear Stop so that the Cam Followers are at the lowest point on the Load Brake Cam (205).

In the stated sequence, install the following parts into the Gear Case: Brake Thrust Plate (212) flat surface trailing, Slip Disc (216), Slip Plate (215), one Friction Disc (213), one Brake Plate (211), one Friction Disc (213), and one Brake Plate (211).

Before installing the Gear Case Cover (188) on the Gear Case make sure that the face of the Brake Adjusting Nut (193) is flush or below the face of the Gear Case Cover.

### **BALANCE PARTS**

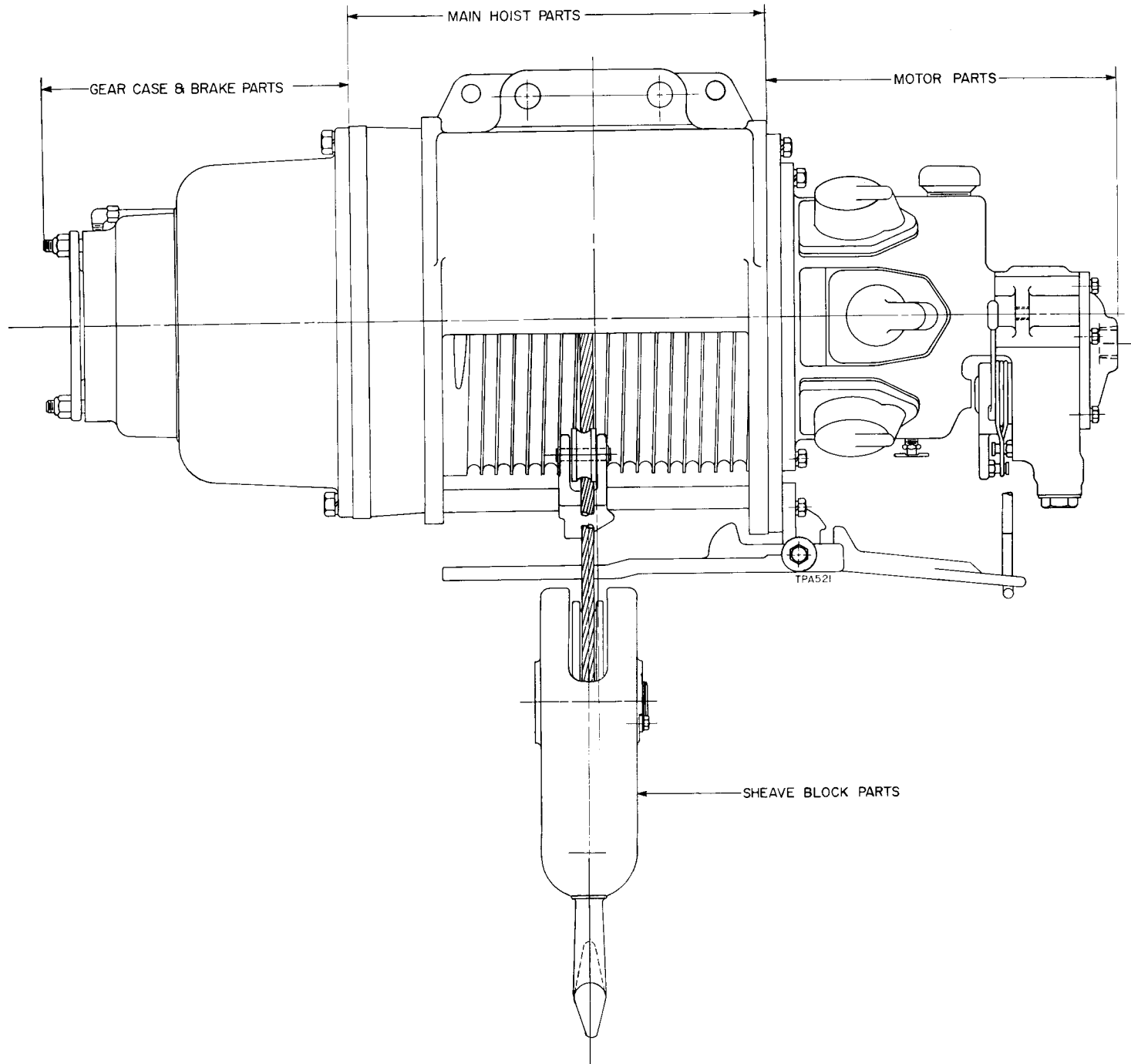
The counterweight arrangement illustrated on page 35 was adopted for certain Sizes to obtain better balance by shifting the air motor farther from the suspension, thereby offsetting the weight of heavy parts concentrated in the gear case.

Since unbalance is not a problem for a trolley-supported Hoist mounted lengthwise beneath the track, the Balance Parts are only necessary for a Low Headroom Hoist, or a Standard Headroom Hoist with Top Hook or 90° Angle Attachment.

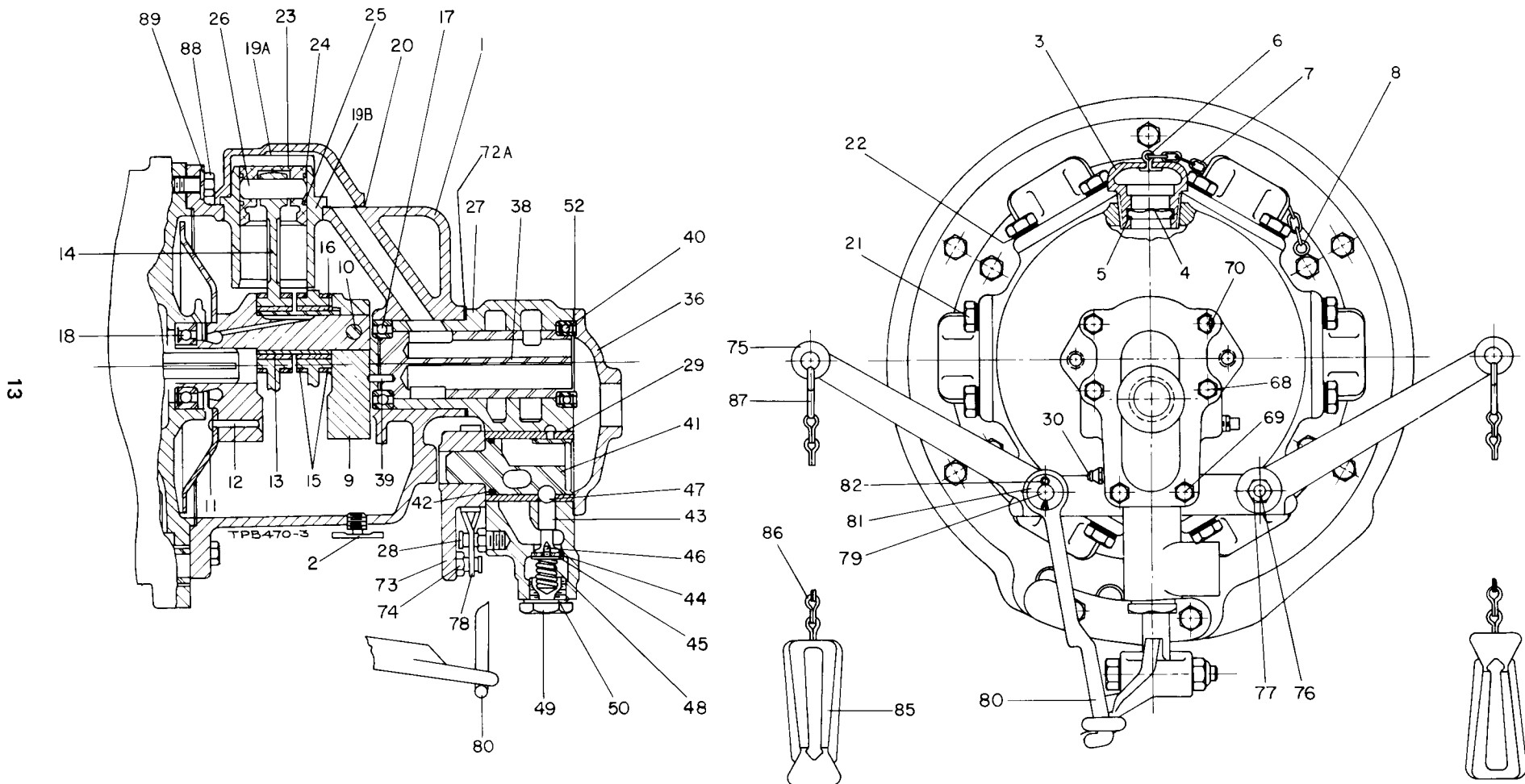
Balance Parts and corresponding standard parts are interchangeable in sets.

## MAINTENANCE TOOLS

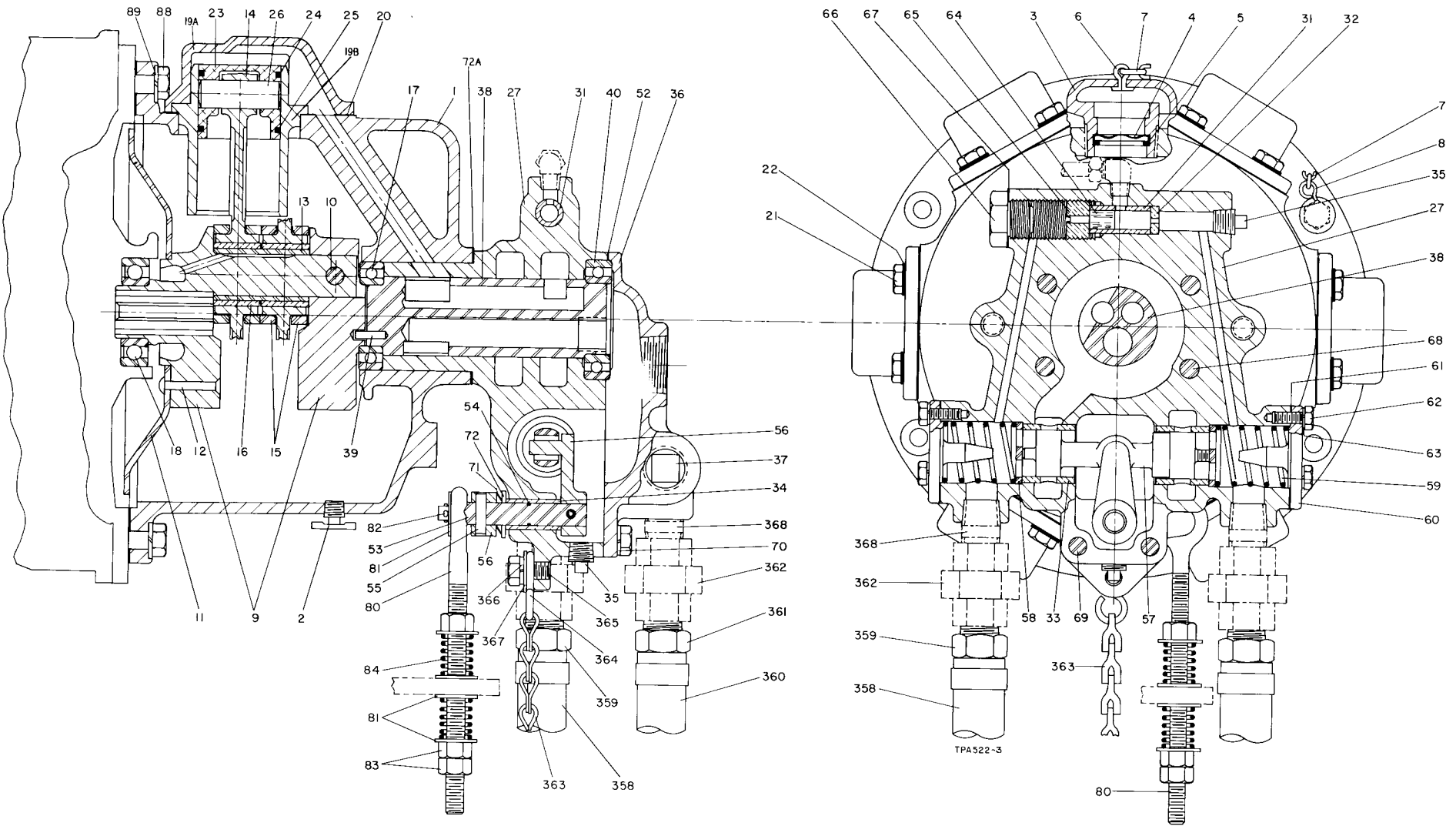
TOOL NUMBER FOR ORDERING	TOOL NAME FOR ORDERING	OPERATION
P25-228	Grease Gun . . . . .	Lubrication
D02-932	Valve Chest Jack Bolt (2 required) . . .	Removing the Valve Chest (27) from the Motor Case (1).
D04-933	Piston Ring Compressor (for Series C6 Hoists) . . . . .	Compressing the Piston Rings (24 and 25) when installing a Cylinder (19).
D06-933	Piston Ring Compressor (for Series D6 Hoists) . . . . .	Compressing the Piston Rings (24 and 25) when installing a Cylinder (19).
23470	Throttle Valve Stem Reamer . . . . .	Reaming the throttle valve stem hole in the Reverse Valve Bushing (29 or 402) after installing a new Bushing in the Valve Chest (27) or Control Block Valve Chest (401).
43051	Brake Valve Bushing Inserting Tool . . .	Installing a new Brake Valve Bushing (31) in the Valve Chest (27).
71869	Shuttle Valve Bushing Inserting Tool . . .	Installing a new Shuttle Valve Bushing (33) in the Valve Chest (27).
75751	Shuttle Valve Chest Bushing Reamer . . .	Reaming new Shuttle Valve Bushing (33) to size after pressing them into the Valve Chest (27).



Typical Ingersoll-Rand Overhead Hoist



**Six Cylinder Hoist Motor  
 with Pull Chain Throttle Valve Chest**



**Six Cylinder Hoist Motor with Pendent Throttle or Remote Control Valve Chest**

MOTOR PARTS

PART NUMBER FOR ORDERING

		TYPE OF CONTROL		
		PULL-CHAIN THROTTLE	PENDENT THROTTLE OR REMOTE CONTROL	
			For Hoist Equipped With Mechanical Load Brake Only	For Hoist Equipped With Diaphragm Brake, or Both Diaphragm and Mechanical Load Brakes
	Motor Assembly			
	for Series C6 Hoist equipped with Mechanical Load Brake . . . . .	C6H20A-A501	C6H20A-PMA501	- - - - -
	for Series C6 Hoist equipped with Diaphragm Brake . . . . .	C6H20A-DA501	- - - - -	C6H20A-PDA501
	for Series C6 Hoist equipped with both Diaphragm and Mechanical Load Brake . . . . .	C6H20A-A501	- - - - -	C6H20A-PDA501
	for Series D6 Hoist equipped with Mechanical Load Brake . . . . .	D6H60A-A501	D6H60A-PMA501	- - - - -
	for Series D6 Hoist equipped with Diaphragm Brake . . . . .	D6H60A-DA501	- - - - -	D6H60A-PDA501
	for Series D6 Hoist equipped with both Diaphragm and Mechanical Load Brakes . . . . .	D6H60A-A501	- - - - -	D6H60A-PDA501
1	Motor Case Assembly . . . . .	C6H20A-B501	C6H20A-B501	C6H20A-B501
2	Oil Cock . . . . .	D02-308	D02-308	D02-308
3	Vent Cap Assembly . . . . .	D02-303A	D02-303A	D02-303A
4	Vent Cap Screen . . . . .	D02-889	D02-889	D02-889
5	Vent Cap Screen Retainer . . . . .	6CND-233-1/2	6CND-233-1/2	6CND-233-1/2
6	Vent Cap Cotter . . . . .	D02-893	D02-893	D02-893
7	Vent Cap Chain . . . . .	D02-891	D02-891	D02-891
8	S-Hook . . . . .	D02-421	D02-421	D02-421
	Crank and Connecting Rod Assembly			
9	Crank Assembly . . . . .	C6H20A-A516	C6H20A-A516	C6H20A-A516
	Crank Assembly . . . . .	C6H20A-B516	C6H20A-B516	C6H20A-B516
10	Crank Taper Pin . . . . .	D10-520	D10-520	D10-520
11	Oil Splasher . . . . .	C6H20A-540	C6H20A-540	C6H20A-540
12	Oil Splasher Rivet (3) . . . . .	C6H20A-541	C6H20A-541	C6H20A-541
13	Crank Pin Sleeve . . . . .	C6H20A-519	C6H20A-519	C6H20A-519
14	Connecting Rod (6) . . . . .	C6H20A-509	C6H20A-509	C6H20A-509
15	Connecting Rod Ring (4) . . . . .	C6H20A-510	C6H20A-510	C6H20A-510
• 16	Connecting Rod Bushing (2) . . . . .	C6H20A-511	C6H20A-511	C6H20A-511
• 17	Crank Bearing, Valve End . . . . .	C6H20A-518	C6H20A-518	C6H20A-518
• 18	Crank Bearing, Spline End . . . . .	C04-318	C04-318	C04-318
19	Cylinder Assembly (6)			
	for Series C6 . . . . .	C6H20A-A505A	C6H20A-A505A	C6H20A-A505A
	for Series D6 . . . . .	D6H60A-A505A	D6H60A-A505A	D6H60A-A505A
19A	Head (one for each Cylinder) . . . . .	D6H60A-H505A	D6H60A-H505A	D6H60A-H505A
19B	Sleeve (one for each Cylinder)			
	for Series C6 . . . . .	C6H20A-L505A	C6H20A-L505A	C6H20A-L505A
	for Series D6 . . . . .	D6H60A-L505A	D6H60A-L505A	D6H60A-L505A

15

• To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

MOTOR PARTS (Continued)

PART NUMBER FOR ORDERING

		TYPE OF CONTROL		
		PULL-CHAIN THROTTLE	PENDENT THROTTLE OR REMOTE CONTROL	
			For Hoist Equipped With Mechanical Load Brake Only	For Hoist Equipped With Diaphragm Brake, or Both Diaphragm and Mechanical Load Brakes
• 20	Cylinder Gasket (6)	C6H20A-507	C6H20A-507	C6H20A-507
21	Cylinder Cap Screw (24) (3/8"-16 thd. x 7/8" long)	D02-506	D02-506	D02-506
22	Cylinder Cap Screw Washer (24) (3/8" copper washer)	D02-504	D02-504	D02-504
23	Piston Assembly (6)			
	for Series C6	D02-513C	D02-513C	D02-513C
	for Series D6	D6H60A-A513A	D6H60A-A513A	D6H60A-A513A
• 24	Piston Ring (one for each Piston)			
	for Series C6	D02-337A	D02-337A	D02-337A
	for Series D6	D04-337A	D04-337A	D04-337A
• 25	Oil Regulating Piston Ring (one for each Piston)			
	for Series C6	D02-338	D02-338	D02-338
	for Series D6	D04-338	D04-338	D04-338
26	Piston Wrist Pin (6)			
	for Series C6	D02-514A	D02-514A	D02-514A
	for Series D6	D04-514A	D04-514A	D04-514A
*	Snap Ring (2)	R3820-340	R3820-340	R3820-340
	Valve Chest and Valve Assembly			
	for Hoist with Mechanical Load Brake	C6H20A-A545	C6H20A-A245	- - - - -
	for Hoist with Diaphragm Brake	C6H20A-DA595	- - - - -	C6H20A-A45
	for Hoist with both Diaphragm Brake and Mechanical Load Brake	C6H20A-A545	- - - - -	C6H20A-A45
27	Valve Chest Assembly	C6H20A-B545	C6H20A-B245	C6H20A-B45
28	Throttle Lever Spring Stop Pin	D02-553	- - - - -	- - - - -
• 29	Reverse Valve Bushing	C6H20A-945	- - - - -	- - - - -
*	Reverse Valve Bushing Key	D02-538	- - - - -	- - - - -
30	Grease Fitting	R1-188	- - - - -	- - - - -
31	Brake Valve Bushing	- - - - -	- - - - -	D10-63
32	Brake Valve Disc	- - - - -	- - - - -	D10-44
• 33	Shuttle Valve Bushing (2)	- - - - -	C6H20A-247	C6H20A-247
34	Stop Arm Shaft Bushing	- - - - -	C6H20A-243	C6H20A-243
35	1/4" Pipe Plug (1 additional for Hoist with Diaphragm Brake)	- - - - -	D02-402	D02-402
36	Valve Chest Cover	C6H20A-546	C6H20A-241	C6H20A-241
37	Air Inlet Plug	- - - - -	22SR-165	22SR-165
38	Rotary Valve Assembly	C6H20A-A526	C6H20A-A526	C6H20A-A526
39	Rotary Valve Pin	510-669A	510-669A	510-669A
• 40	Rotary Valve Bearing	R4800-97	R4800-97	R4800-97

\* Not illustrated.

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MOTOR PARTS (Continued)

PART NUMBER FOR ORDERING

		TYPE OF CONTROL		
		PULL-CHAIN THROTTLE	PENDENT THROTTLE OR REMOTE CONTROL	
			For Hoist Equipped With Mechanical Load Brake Only	For Hoist Equipped With Diaphragm Brake, or Both Diaphragm and Mechanical Load Brakes
41	Reverse Valve Assembly for Hoist with Mechanical Load Brake or both Mechanical Load Brake and Diaphragm Brake for Hoist with Diaphragm Brake	C6H20A-A944 C6H20A-A744 C6H20A-948 C6H20A-A940	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - - -
● 42	Reverse Valve Seal	C6H20A-259	- - - - -	- - - - -
43	Poppet Throttle Valve Assembly	588-157	- - - - -	- - - - -
● 44	Poppet Throttle Valve Face	R10V-404	- - - - -	- - - - -
45	Valve Face Cap	D10-280	- - - - -	- - - - -
46	Valve Face Cap Screw (No. 8-32 thd. x 3/8" long)	B01-11	- - - - -	- - - - -
47	Throttle Valve Ball (1/2" dia. steel ball)	C6H20A-943	- - - - -	- - - - -
● 48	Throttle Valve Spring	D02-239	- - - - -	- - - - -
49	Throttle Valve Cap	P250-368	- - - - -	- - - - -
● 50	Throttle Valve Cap Gasket	C6H20A-928	C6H20A-236	C6H20A-236
*	Brake Inlet Plug (1/8" pipe plug)	- - - - -	C6H20A-A255	C6H20A-A255
● 52	Valve Chest Cover Gasket	- - - - -	R000BR-210	R000BR-210
53	Stop Arm Shaft Assembly	- - - - -	D01-256	D01-256
● 54	Stop Arm Shaft Seal	- - - - -	C6H20A-254	C6H20A-254
55	Stop Arm Shaft Pin (2)	- - - - -	C6H20A-246	C6H20A-246
56	Stop Arm (2)	- - - - -	C6H20A-248	C6H20A-248
57	Shuttle Valve	- - - - -	C6H20A-250	C6H20A-250
58	Shuttle Valve Washer (2)	- - - - -	C6H20A-238	C6H20A-238
● 59	Shuttle Valve Spring (2)	- - - - -	C6H20A-239	C6H20A-239
60	Shuttle Valve Cap (2)	- - - - -	R2N-103	R2N-103
● 61	Shuttle Valve Cap Gasket (2)	- - - - -	L01-67	L01-67
62	Shuttle Valve Cap, Cap Screw (6) (1/4"-20 thd. x 5/8" long)	- - - - -	- - - - -	D10-62
63	1/4" Lock Washer (6)	- - - - -	- - - - -	D01-65
64	Brake Valve	- - - - -	- - - - -	D01-943
65	Brake Valve Seat	- - - - -	- - - - -	D01-946
66	Brake Valve Cap	- - - - -	- - - - -	C6H20A-548
● 67	Brake Valve Cap Gasket	C6H20A-548	C6H20A-548	C6H20A-548
68	Valve Chest Screw (4) (3/8"-16 thd. x 4" long)	D02-506	D02-506	D02-506
69	Valve Chest Cover Screw (2) (3/8"-16 thd. x 7/8" long)	D02-321	D02-321	D02-321
70	3/8" Lock Washer (6)	- - - - -	D01-268	D01-268
● 71	Friction Spring	- - - - -	23-725	23-725
72	Friction Spring Washer	- - - - -	- - - - -	- - - - -

\* Not illustrated.

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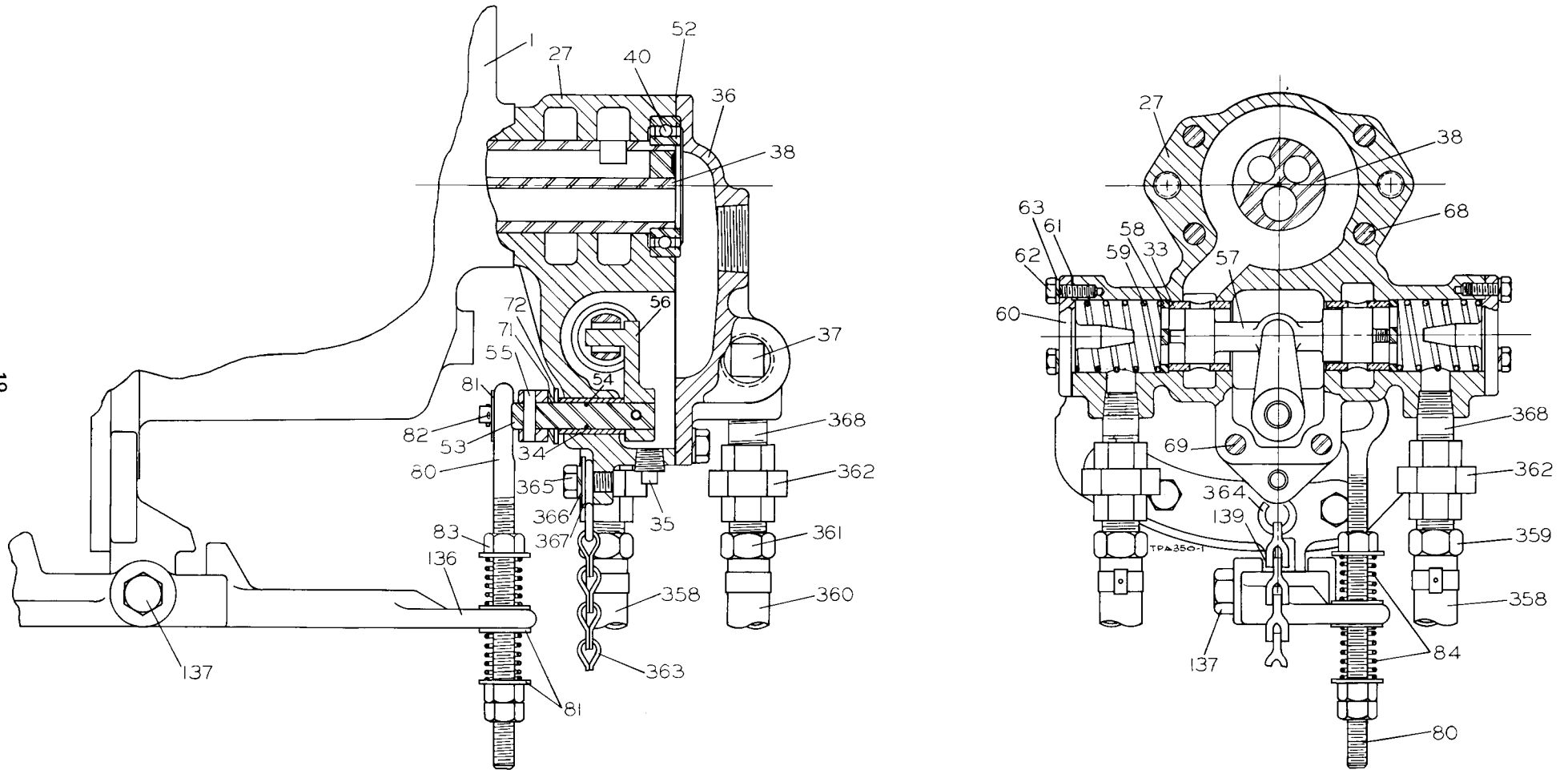
MOTOR PARTS (Continued)

PART NUMBER FOR ORDERING

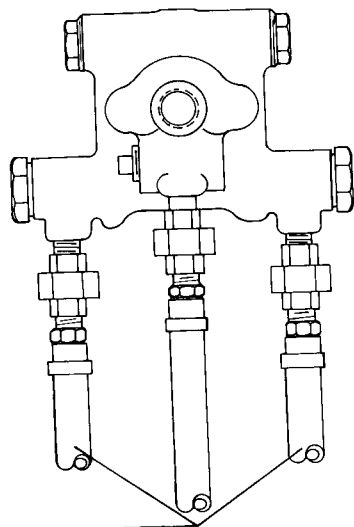
		TYPE OF CONTROL		
		PULL-CHAIN THROTTLE	PENDENT THROTTLE OR REMOTE CONTROL	
			For Hoist Equipped With Mechanical Load Brake Only	For Hoist Equipped With Diaphragm Brake, or Both Diaphragm and Mechanical Load Brakes
72A	Valve Chest Gasket . . . . .	C6H20A-128	C6H20A-128	C6H20A-128
73	Throttle Control Arm Assembly . . . . .	C6H20A-A555	- - - - -	- - - - -
74	Throttle Lever Spring Stop Pin . . . . .	D02-553	- - - - -	- - - - -
75	Throttle Lever (2) . . . . .	D02-556	- - - - -	- - - - -
76	Throttle Lever Bolt . . . . .	D02-411A	- - - - -	- - - - -
77	Throttle Lever Bolt Nut (2) (1/2"-13 thd. jam nut)	D02-418A	- - - - -	- - - - -
● 78	Throttle Lever Spring . . . . .	D02-412B	- - - - -	- - - - -
79	Stop Link Bolt . . . . .	D02-523	- - - - -	- - - - -
80	Stop Lever Link			
	Standard . . . . .	C6H40A-424	C6H40A-224	C6H40A-224
	Spark-resistant . . . . .	C6H40A-R424	C6H40A-R224	C6H40A-R224
81	Stop Link Washer (5 for Hoist with Pendent Throttle; 1 for others)	D02-419	D02-419	D02-419
82	Stop Link Collar . . . . .	D02-524	D02-524	D02-524
83	Stop Link Nut (3/8"-16 thd.) (3)	- - - - -	D02-418	D02-418
● 84	Stop Lever Link Spring (2) . . . . .	- - - - -	D02-106	D02-106
85	Throttle Handle (2) . . . . .	MR-415	- - - - -	- - - - -
86	Pull Chain (2) (length as specified)			
	Standard . . . . .	D02-B413	- - - - -	- - - - -
	Spark-resistant . . . . .	D02-B1413	- - - - -	- - - - -
87	S-Hook (2 for each Pull Chain) . . . . .	D02-421	- - - - -	- - - - -
88	Motor Case Screw (6) (3/8"-16 thd. x 1-1/8")	D10-312A	D10-312A	D10-312A
89	Lock Washer (16) (3/8") . . . . .	D02-321	D02-321	D02-321
*	Motor Nameplate . . . . .	D01-99	D01-99	D01-99
*	Nameplate Screw (4) . . . . .	R4K-302	R4K-302	R4K-302
*	Caution Plate . . . . .	TA-147A	TA-147A	TA-147A
*	Caution Plate Screw (4) . . . . .	R4K-302	R4K-302	R4K-302

\* Not illustrated.

● To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (●) for every four tools in service.

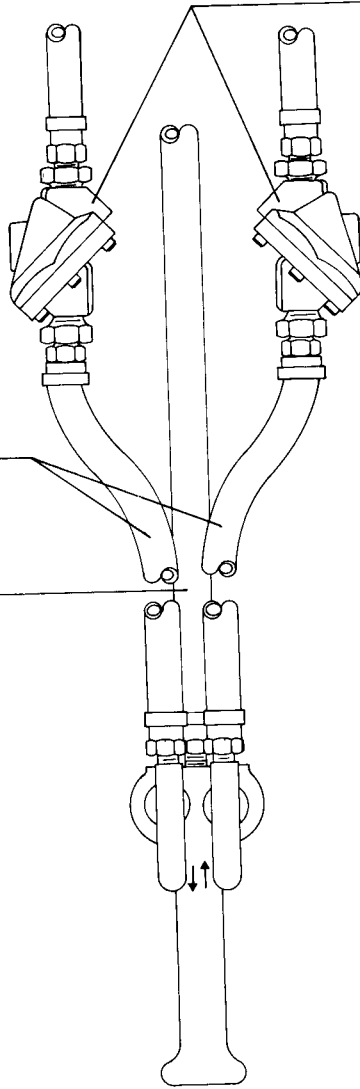


Valve Chest for Hoists Equipped with Pendent Throttle  
or Remote Control and Mechanical Brake Only



CONTROL HOSE  
 SPECIFY LENGTH 5 FT. SHORTER  
 THAN LIVE AIR HOSE

CONTROL HOSE  
 EXHAUST VALVE



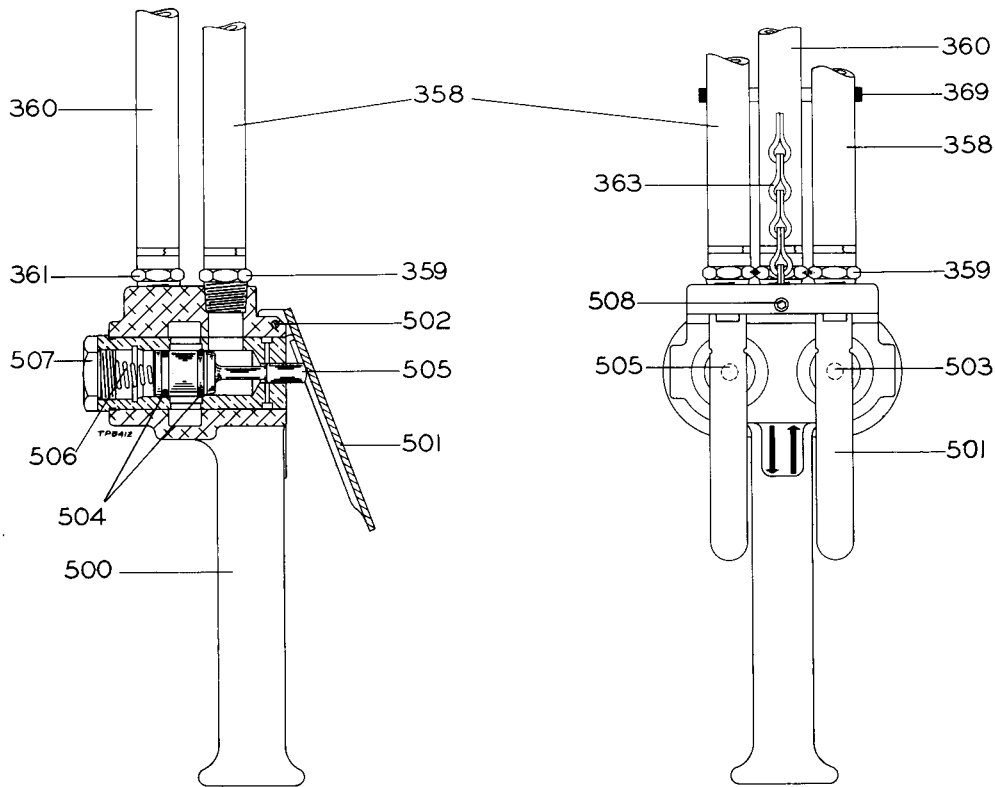
CONTROL HOSE  
 5 FT. LONG

LIVE AIR HOSE  
 SPECIFY LENGTH EQUAL TO  
 LENGTH OF CONTROL DESIRED

HOSE AND EXHAUST VALVE  
 ARRANGEMENT WHEN CONTROL  
 LENGTH EXCEEDS 15 FEET

TPB 350

## PENDENT THROTTLE HANDLE AND HOSE PARTS



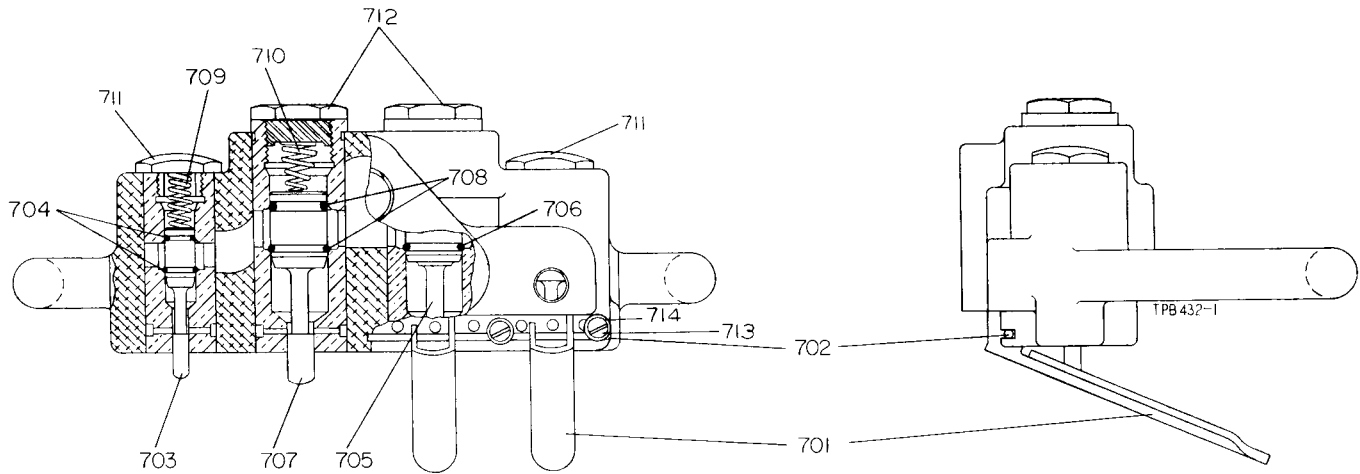
PART NUMBER FOR ORDERING ➔

■ 358	Control Hose Assembly (2) 5 ft. length . . . . .	C6H20A-A930
	Length as specified . . . . .	C6H20A-AL930
359	Hose Nipple (2 for each Hose)	C6H20A-14
■ 360	Live Air Hose Assembly 5 ft. length . . . . .	C6H20A-A930
	Length as specified . . . . .	C6H20A-AL930
361	Hose Nipple (2)	C6H20A-14
362	Hose Union (3)	AAM-282
363	Pendent Throttle Chain (length as specified) (order chain one inch shorter than Live Air Hose)	D02-B413
364	S-Hook	D01-221
365	Pendent Throttle Chain Screw	D02-506
366	Chain Screw Lock Washer	D02-321
367	3/8" Plain Washer	D02-419
368	Pendent Throttle Inlet Nipple (3)	AAM-286
369	Hose Binder (3)	D10-927
■ *	Control Hose Exhaust Valve (2)	C6H20A-939
500	Pendent Throttle Handle Assembly	C6H20A-A169A
501	Pendent Throttle Lever (2)	C6H20A-273
502	Throttle Lever Pin	C6H20A-281
503	Pendent Throttle Raise Valve Assembly	C6H20A-A164A
504	Pendent Throttle Valve Seal Ring (2)	C620C-289
505	Pendent Throttle Lower Valve Assembly	C6H20A-A165
504	Pendent Throttle Valve Seal Ring (2)	C620C-289
506	Pendent Throttle Valve Spring (2)	C6H20A-308
507	Pendent Throttle Valve Cap (2)	C6H20A-180
508	Chain Anchor Pin Lock Screw	H54U-561
*	Throttle Chain Anchor Pin	R4-15

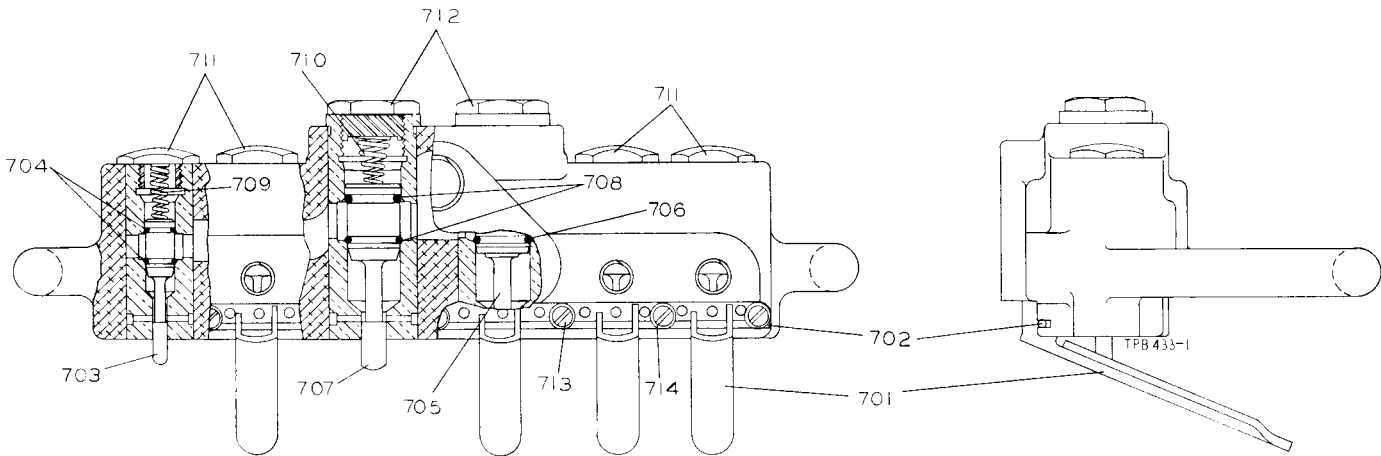
\* Not illustrated.

■ Required when control length exceeds 20 ft. Locate Valves 5 ft. from Handle as shown in illustration.

## TWO AND THREE MOTOR PENDENT THROTTLE HANDLE ASSEMBLIES



### Two Motor Pendent Throttle Handle No. C6H20A-A122A or C6H20A-AR122A

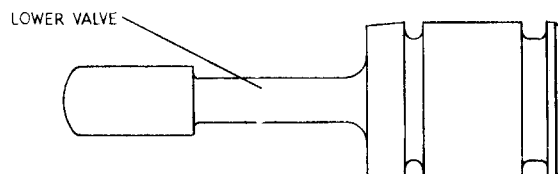
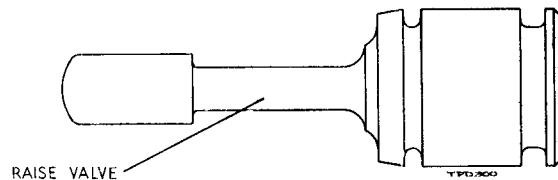


### Three Motor Pendent Throttle Handle No. C6H20A-A132A or C6H20A-AR132A

#### CAUTION

When assembling a Pendent Throttle Handle, be sure to use a Raise Valve (705) and a Lower Valve (707), and to install each in its proper location, otherwise throttle graduation will be adversely affected.

The difference between the Valves is confined to the stem end of the pod as shown below. Although the difference is slight, it is sufficient for visible identification.



PART NUMBER FOR ORDERING

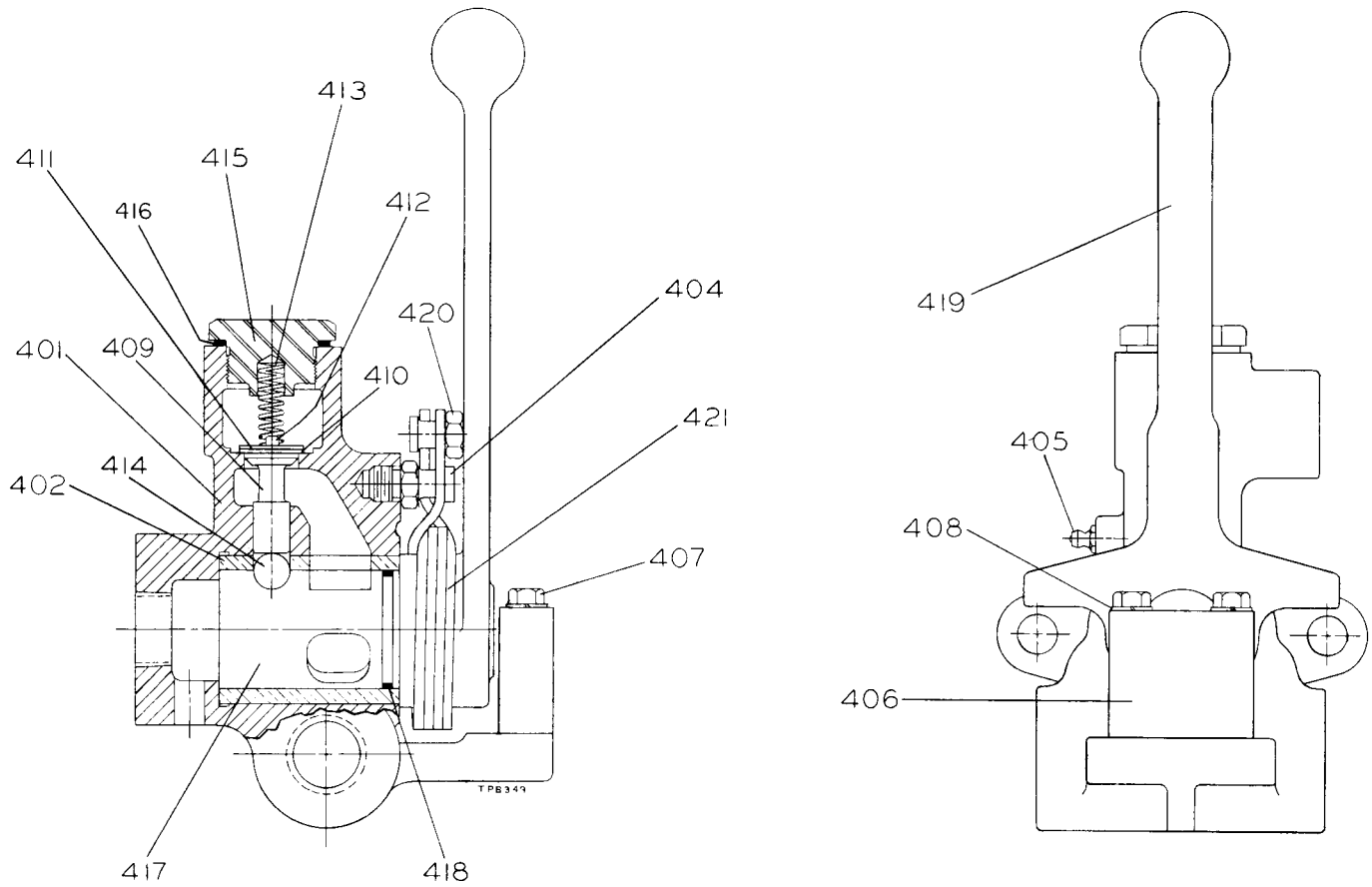


	Multiple Pendent Throttle Handle Assembly	
	Two Motor Handle	
	Standard . . . . .	C6H20A-A122A
	Spark Resistant . . . . .	C6H20A-AR122A
	Three Motor Handle	
	Standard . . . . .	C6H20A-A132A
	Spark Resistant . . . . .	C6H20A-AR132A
701	Pendent Throttle Lever (4 for Two Motor Handle; 6 for Three Motor Handle) . . . . .	C6H20A-273
702	Throttle Lever Pin	
	Two Motor Handle . . . . .	C6H20A-125
	Three Motor Handle . . . . .	C6H20A-135
703	Pendent Throttle Small Valve (2 for Two Motor Handle; 4 for Three Motor Handle) . . . . .	D01-264
704	Small Valve Seal (2 for each Small Valve) . . . . .	R000BR-210
‡ 705	Pendent Throttle Raise Valve Assembly . . . . .	C6H20A-A164A
706	Valve Seal Ring (2) . . . . .	C620C-289
‡ 707	Pendent Throttle Lower Valve Assembly . . . . .	C6H20A-A165A
708	Valve Seal Ring (2) . . . . .	C620C-289
709	Pendent Throttle Small Valve Spring (2 for Two Motor Handle; 4 for Three Motor Handle) . . . . .	D01-51
710	Pendent Throttle Large Valve Spring (2) . . . . .	C6H20A-308
711	Small Pendent Throttle Valve Cap (2 for Two Motor Handle; 4 for Three Motor Handle)	
	Standard . . . . .	D01-180
	Spark Resistant . . . . .	D01-1180
712	Large Pendent Throttle Valve Cap	
	Standard . . . . .	C6H20A-180
	Spark Resistant . . . . .	C6H20A-R180
713	Lever Pin Retaining Screw (5 for Two Motor Handle; 7 for Three Motor Handle) . . . . .	MF-31
714	No. 8 Lock Washer (5 for Two Motor Handle; 7 for Three Motor Handle) . . . . .	D02-138
*	Chain Anchor Pin . . . . .	R4-15
*	Anchor Pin Lock Screw . . . . .	H54U-561

\* Not illustrated.

‡ Old style Valve Assemblies are no longer available. These new style Valve Assemblies are completely interchangeable with the old style.

## REMOTE CONTROL PARTS

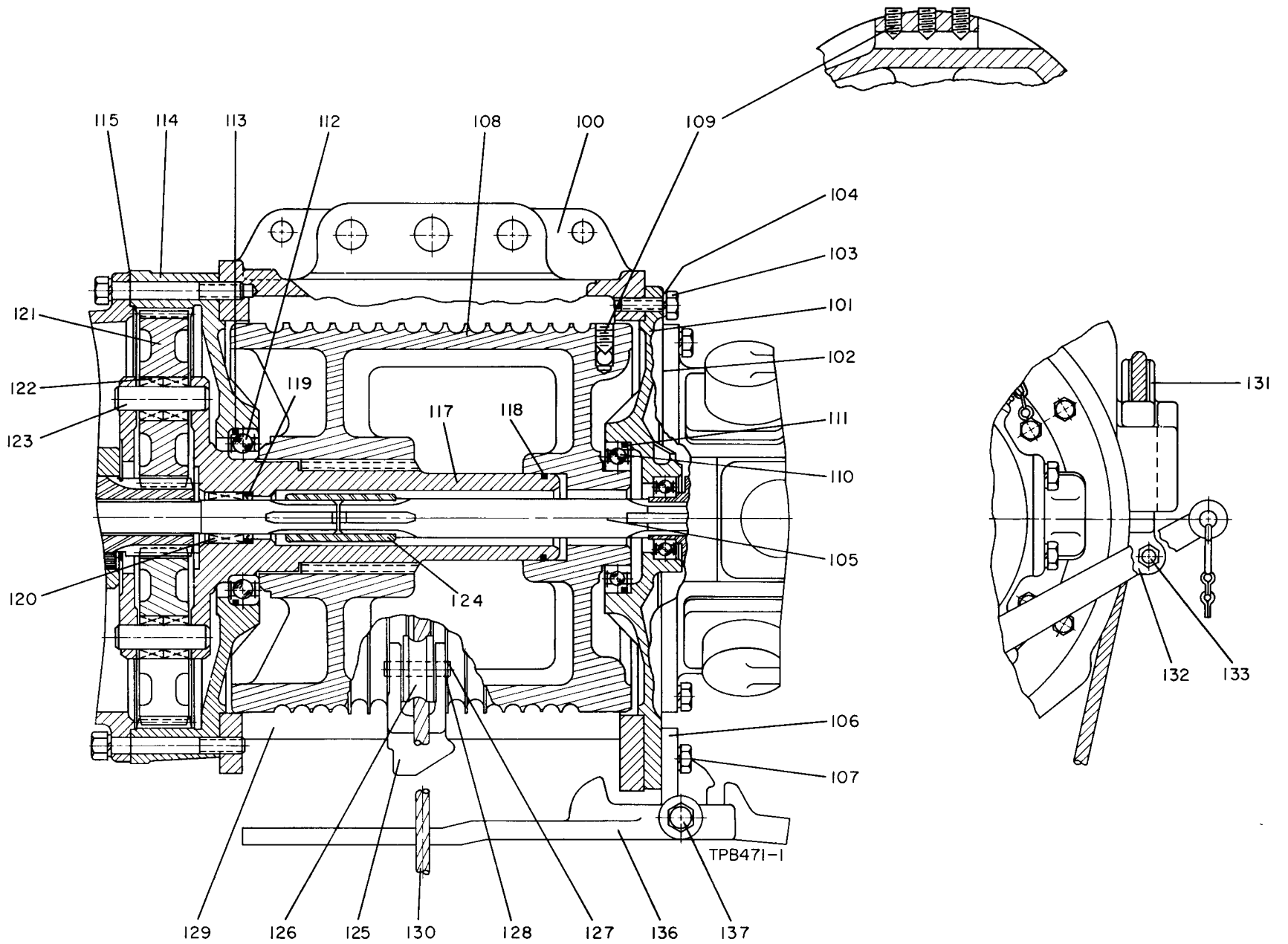


### PART NUMBER FOR ORDERING

	Remote Control Station Assembly . . . . .	C6H20A-A800
401	Remote Control Valve Body Assembly . . . . .	C6H20A-B800
402	Reverse Valve Bushing . . . . .	C6H20A-945
403	Reverse Valve Bushing Key . . . . .	D02-538
404	Throttle Lever Spring Stop Pin . . . . .	D02-553
405	Grease Fitting . . . . .	R1-188
406	Reverse Valve Retainer . . . . .	D02-687
407	Retainer Screw (2) (5/16"-18 thd. x 2-1/4" long)	G7-7A
408	5/16" Lock Washer (2) . . . . .	T11-58
409	Remote Control Throttle Valve Assembly . . . . .	C6H20A-A940
• 410	Remote Control Throttle Valve Face . . . . .	C6H20A-259
411	Valve Face Cap . . . . .	588-157
412	Face Cap Screw (No. 8-32 thd. x 3/8" long)	R10V-404
• 413	Throttle Valve Spring . . . . .	B01-11
414	Throttle Valve Ball (1/2" dia. steel ball)	D10-280
415	Throttle Valve Cap . . . . .	C6H20A-943
416	Valve Cap Gasket . . . . .	D02-239
417	Remote Control Reverse Valve Assembly . . . . .	C6H20A-A811
• 418	Reverse Valve Seal . . . . .	C6H20A-948
419	Remote Control Throttle Lever Assembly . . . . .	C6H20A-A815
420	Throttle Lever Spring Stop Pin . . . . .	D02-553
• 421	Throttle Lever Spring . . . . .	D02-421B

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Main Hoist Parts

## MAIN HOIST PARTS

PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

100	<b>Hoist Housing</b> for Size C6H40A15, 15SR, 22, 22SR, 28, 28SR, 38, 38SR, 100 or 100R; C640A22, 22SR, 38, 38SR, 100 or 100SR; D6H60A12, 12SR, 20, 20SR, 25, 25SR, 35, 35SR, 75 or 75SR; D660A20, 20SR, 35, 35SR, 75 or 75SR . . . . . for Size C6H40A35 or 35SR, C640A35 or 35SR; D6H60A30 or 30SR; D660A30 or 30SR . . . . . for Size C6H40A57 or 57SR; C640A57 or 57SR; D660A52 or 52SR . . . . . for Size C640A17, 17SR, 23 or 23SR; D660A15 or 15SR . . . . . for Size C640A25 . . . . .	C6H40A22-300  C6H40A35-300A  C6H40A57-300A  C640A19-300 C640A25-300		for Size C6H40A100 or 100R; C640A100, 100SR, 100LH or 100LR; D6H60A75 or 75SR; D660A75, 75SR, 75LH or 75LR . . . . . for Size C640A17 or 17SR . . . . . for Size C640A23 or 23SR . . . . . for Size C640A25 . . . . . for Size D660A15 or 15SR . . . . . for Size D6H60A12, 12SR, 12LH or 12LR . . . . . for Size D6H60A20, 20SR, 20LH or 20LR; D660A20, 20SR, 20LH or 20 LR . . . . . for Size D6H60A25 or 25SR . . . . . for Size D6H60A30, 30SR, 30LH or 30LR; D660A30, 30SR, 30LH or 30LR . . . . . for Size D6H60A35 or 35SR; D660A35 or 35SR . . . . . for Size D6H60A52 or 52SR; D660A52 or 52SR . . . . .
101	Motor Case Cover . . . . .	C6H40A-502		
● 102	Motor Case Cover Gasket . . . . .	C6H20A-592		
103	Motor Case Cover Screw (6) (1/2"-13 thd. x 1-1/4") . . . . .	215-148		
104	1/2" Lock Washer (12) . . . . .	D10-322		
105	<b>Motor Shaft</b> Overall length 10-7/8" (276 mm) . . . . . 18-7/8" (479 mm) . . . . . 23-9/16" (598 mm) . . . . . 26-7/8" (683 mm) . . . . . 31-9/16" (802 mm) . . . . .	C640A19-316 C6H40A22-316 C6H40A22-716 C6H40A35-316 C6H40A35-716	109	<b>Rope Set Screw</b> 3/8"-16 thd. x 3/4" cone point, socket head (6) . . . . . 1/2"-13 thd. x 1" cone point (3) . . . . .
106	Stop Lever Bracket . . . . .	C6H20A-905		● 110 Drum Bearing, Motor End (N. D. Z4993L14 or equivalent) . . . . .
107	Stop Lever Bracket Screw (2) (3/8"-16 thd. x 1-3/4") . . . . .	D10-312		● 111 Motor Case Cover Seal . . . . .
108	<b>Rope Drum Assembly</b> for Size C6H40A15 or 15SR . . . . . for Size C6H40A22, 22SR, 22LH or 22LR; C640A22, 22SR, 22LH or 22LR . . . . . for Size C6H40A28 or 28SR . . . . . for Size C6H40A35, 35SR, 35LH or 35LR; C640A35, 35SR, 35LH or 35LR . . . . . for Size C6H40A38 or 38SR; C640A38 or 38SR . . . . . for Size C6H40A57 or 57SR; C640A57 or 57SR . . . . .	C6H40A15-A371  C6H40A22-A371 C6H40A28-A371  C6H40A35-A371  C6H40A38-A371 C6H40A57-A371		● 112 Drum Bearing, Gear End (MRC 117KSZZG or equivalent) . . . . . ● 113 Ring Gear Seal . . . . . 114 Secondary Ring Gear . . . . . ● 115 Ring Gear Gasket . . . . . * Ring Gear Retaining Screw (2) (3/8"-16 thd. x 2-1/2") . . . . . 117 Secondary Gear Frame Assembly . . . . . 118 Gear Frame Seal Ring . . . . . ● 119 Pinion Inner Seal . . . . . ● 120 Pinion Inner Bearing (Torrington HJ-162416 or equivalent) . . . . . 121 Secondary Planet Gear Assembly (3) . . . . .
				C6H40A100-A324 C640A17-A371 C640A23-A371 C640A25-A324 D660A15-A371  D6H60A12-A371  D6H60A20-A371 D6H60A25-A371  D6H60A30-A320  D6H60A35-A371  D6H60A52-A371  BU-381 HU-381  C6H20A-466 C6H20A-103  C6H40A-466 C6H40A-103 C6H40A-781A C6H40A-931 C6H40A-356 C6H40A-A786 R38-311 C6H40A-872  C6H40A-589 D6100B-A779

\* Not illustrated.

● To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (●) for every four tools in service. \*

MAIN HOIST PARTS (Continued)

PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

• 122	Gear Bearing (2 for each Gear) (Roller Bearing Co. of America No. SJ7153 or equivalent) . . . . .	5BM-24		for Size C6H40A57 or C640A57 . . . . .	C6H40A57-372
123	Secondary Planet Gear Shaft (3) . . . . .	C6H40A-787		for Size C6H40A100 or C640A100 . . . . .	C6H40A100-372
124	Motor Shaft Coupling . . . . .	2EH20A-314		for Size C640A17 . . . . .	C640A17-372
125	Rope Guide			for Size C640A23 . . . . .	C640A23-372
	for Size C6H40A15 or 15SR . . . . .	C6H40A15-R790		for Size C640A25 . . . . .	C640A25-372
	for Size C6H40A22, 22SR, 35 or 35SR; C640A22, 22SR, 35 or 35SR . . . . .	C6H40A22-R790		for Size D6H60A12 . . . . .	D6H60A12-372
	for Size D6H60A12 or 12SR . . . . .	D6H60A12-R790		for Size D6H60A20 or D660A20 . . . . .	D6H60A20-372
	for Size D6H60A20, 20SR, 30 or 30SR; D660A20, 20SR, 30 or 30SR . . . . .	D6H60A20-R790		for Size D6H60A25 . . . . .	D6H60A25-372
	for Size C640A17 or 17SR . . . . .	C640A17-R790		for Size D6H60A30; D660A30 or 30LH . . . . .	D6H60A30-372
	for Size C640A23 or 23SR . . . . .	C640A22-R790		for Size D6H60A35 or D660A35 . . . . .	D6H60A35-372
	for Size D660A15 or 15SR . . . . .	D660A15-R790		for Size D6H60A52 or D660A52 . . . . .	D6H60A52-372
	Rope Guide Gear End			for Size D6H60A75 or D660A75 . . . . .	D6H60A75-372
	for Size C6H40A15, 15SR, 22, 22SR, 35 or 35SR; C640A22, 22SR, 35 or 35SR . . . . .	C6H40A22-R789		for Size D660A15 . . . . .	D660A15-372
	for Size D6H60A12, 12SR, 20, 20SR, 30 or 30SR; D660A20, 20SR, 30 or 30SR . . . . .	D6H60A20-R789		for Size C6H40A15SR . . . . .	C6H40A15-R372
126	Rope Guide Roller			for Size C6H40A22SR or D660A22SR . . . . .	C6H40A22-R372
	for Size C6H40A15, 15SR, 22, 22SR, 35 or 35SR; C640A22, 22SR, 35 or 35SR; D6H60A12, 12SR, 20, 20SR, 30 or 30SR; D660A20, 20SR, 30 or 30SR (2). . . . .	C6H20A-792		for Size C6H40A28SR . . . . .	C6H40A28-R372
	for Size C640A17, 17SR, 23 or 23SR; D660A15 or 15SR . . . . .	C640A-792		for Size C6H40A35SR or D660A35SR . . . . .	C6H40A35-R372
127	Guide Roller Pin			for Size C6H40A38SR or C640A38SR . . . . .	C6H40A38-R372
	for No. C6H20A-792 Roller . . . . .	C6H20A-793		for Size C6H40A57SR or C640A57SR . . . . .	C6H40A57-R372
	for No. C640A-792 Roller . . . . .	C640A-793		for Size C6H40A100R or C640A100SR . . . . .	C6H40A100-R372
128	Roller Pin Retainer (2)			for Size C640A17SR . . . . .	C640A17-R372
	for No. C6H20A-793 Pin . . . . .	D02-254		for Size C640A23SR . . . . .	C640A23-R372
	for No. C640A-793 Pin . . . . .	C640A-100		for Size C640A25SR . . . . .	C640A25-R372
129	Guide Rod (2)			for Size D6H60A12SR . . . . .	D6H60A12-R372
	12-15/16" (329 mm) long . . . . .	C640A-R791		for Size D6H60A20SR or D660A20SR . . . . .	D6H60A20-R372
	21" (533 mm) long . . . . .	C6H40A22-R791		for Size D6H60A25SR . . . . .	D6H60A25-R372
	29" (737 mm) long . . . . .	C6H40A35-R791		for Size D6H60A30SR or D660A30SR . . . . .	D6H60A30-R372
130	Wire Rope			for Size D6H60A35SR or D660A35SR . . . . .	D6H60A35-R372
	for Size C6H40A15 . . . . .	C6H40A15-372		for Size D6H60A52SR or D660A52SR . . . . .	D6H60A52-R372
	for Size C6H40A22 or C640A22 . . . . .	C6H40A22-372		for Size D6H60A75SR or D660A75SR . . . . .	D6H60A75-R372
	for Size C6H40A28 . . . . .	C6H40A28-372		for Size D660A15SR . . . . .	D660A15-R372
	for Size C6H40A35 or C640A35 . . . . .	C6H40A35-372		Rope Clamp (2) (for Sizes C6H40A28, 28SR, 38, 38SR, 57 or 57SR; C640A38, 38SR, 57 or 57SR; D6H60A25, 25SR, 35, 35SR, 52 or 52SR; D660A35, 35SR, 52 or 52SR) . . . . .	D04-464
	for Size C6H40A38 or C640A38 . . . . .	C6H40A38-372		Rope Thimble (for Sizes C6H40A28, 28SR, 38, 38SR, 57 or 57SR; C640A38, 38SR, 57 or 57SR; D6H60A25, 25SR, 35, 35SR, 52 or 52SR; D660A35, 35SR, 52 or 52SR) . . . . .	D10-721
			130A	Rope Wedge (for Sizes C640A17, 17SR, 23, 23SR, 25 or 25SR; D660A15) . . . . .	C640A-373
			132	Wedge Block Rope Anchor . . . . .	C640A-374

\* Not illustrated.

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MAIN HOIST PARTS (Continued)

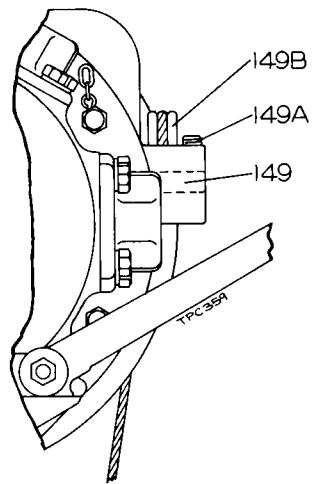
PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

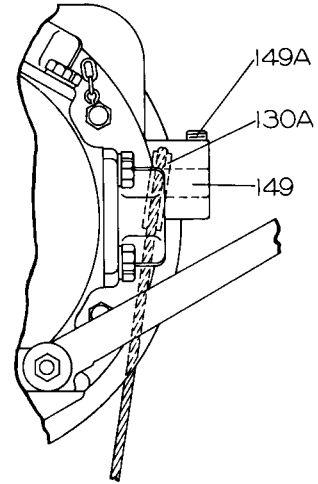
133	Rope Clamp (for Sizes C640A17, 17SR, 23, 23SR, 25 or 25SR; D660A15)	D02-375			with Pendant Throttle or Remote Control	C6H40A28-R222
*	Brake Pipe Strap	C6H20A-727			for Size C6H40A57SR; C640A57SR; D6H60A52SR; D660A52SR	
*	Strap Screw (3/8"-16 thd. x 1/2" lg. hex head)	DLC-752			with Pull Chain Throttle	C6H20A60-R422
134	Drum Guard	C6H40A100-298			with Pendant Throttle or Remote Control	C6H20A60-R222
135	Drum Guard Screw (3) (3/8"-16 thd. x 7/8")	D02-506			Stop Lever Bolt	D10-354A
136	Stop Lever				Stop Lever Bolt Nut	D02-904
	for Size C6H40A15, 22 or 100; C640A17, 22, 23, 25 or 100; D6H60A12, 20 or 75; D660A15, 20 or 75			137	Friction Spring (1 for Pull Chain Throttle; 2 for Pendant Throttle)	D01-268
	with Pull Chain Throttle	C6H20A22-422		140	Stop Cam	
	with Pendant Throttle or Remote Control	C6H20A22-222			for Size C6H40A28 or 28SR	C6H40A28-R771
	for Size C6H40A28 or 38; C640A38; D6H60A25 or 35; D660A25				for Size C6H40A38, 38SR, 57 or 57SR; Size C640A38, 38SR, 57 or 57SR	C6H40A38-R771
	with Pull Chain Throttle	C6H40A28-422			for Size D6H60A25 or 25SR	D6H60A25-R771
	with Pendant Throttle or Remote Control	C6H40A28-222			for Size D6H60A35, 35SR, 52 or 52SR; Size D660A35, 35SR, 52 or 52SR	D6H60A35-R771
	for Size C6H40A35; C640A35; D6H60A30; D660A30			143	Idler Sheave Bearing (Torrington HJ-243320 or equivalent)	C6H40A28-753
	with Pull Chain Throttle	C6H20A35-422		144	Bearing Seal (2)	C6H40A28-754
	with Pendant Throttle or Remote Control	C6H20A35-222		146	Grease Fitting	R1-188
	for Size C6H40A57; C640A57; D6H60A52; D660A52			*	Sheave Shaft Lock	MR20-383
	with Pull Chain Throttle	C6H20A60-422		*	Lock Screw (2) (1/4"-20 thd. x 1/2")	JC3350-103
	with Pendant Throttle or Remote Control	C6H20A60-222		*	1/4" Lock Washer (2)	L01-67
	for Size C6H40A15SR, 22SR or 100R; C640A17SR, 22SR, 23SR or 100SR; D6H60A12SR, 20SR or 75SR; D660A15SR, 20SR or 75SR			147	Idler Sheave Yoke Pin	D6100A-172
	with Pull Chain Throttle	C6H20A22-R422		148	Yoke Pin Cotter (2)	D04-383
	with Pendant Throttle or Remote Control	C6H20A22-R222		149	Rope Anchor or Auxiliary Sheave Shaft for any Standard Headroom Series C6H40A or D6H60A Hoist	C6H40A-641
	for Size C6H40A28SR or 38SR; C640A38SR; D6H60A25SR or 35SR; D660A35SR			149A	Anchor Screw or Auxiliary Sheave Shaft Screw (5/16-18 thd. x 3/4" socket head, cup point)	C6H20A-643
	with Pull Chain Throttle	C6H40A28-R422		149B	Auxiliary Sheave for Size C6H40A15, 15SR, 22, 22SR, 35 35SR, 100 or 100R; D6H60A12, 12SR, 20, 20SR, 30, 30SR, 75 or 75SR	C6H40A-638
				*	Hoist Nameplate	C6H20A-301
				*	Nameplate Screw (4)	R4K-302

\* Not illustrated.

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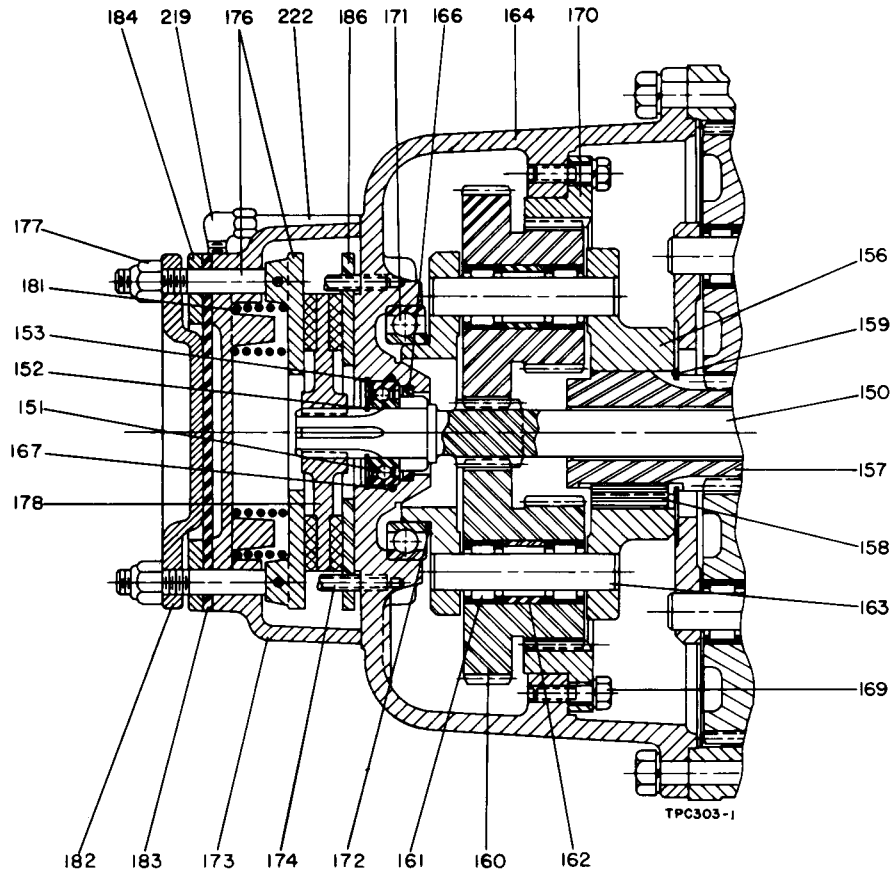


**Auxiliary Sheave Arrangement  
of  
Double-Reeved Type**

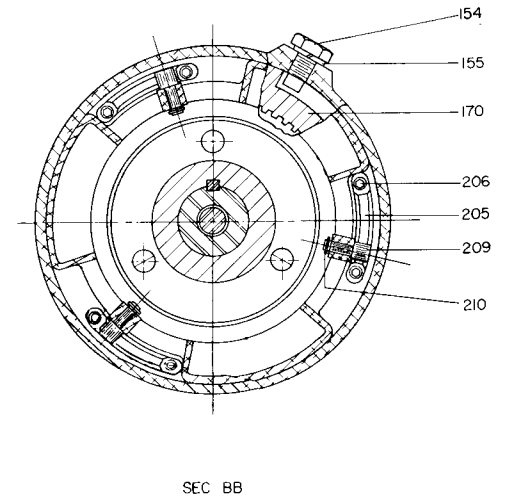
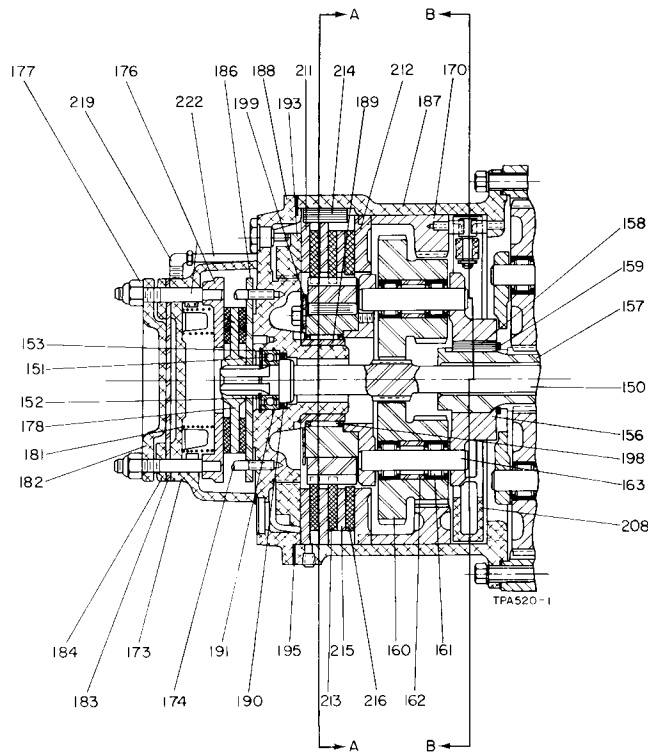
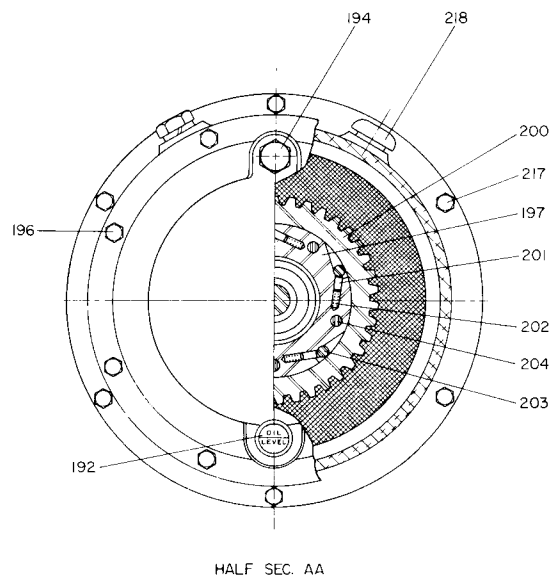


**Rope Anchor Arrangement  
of  
Single-Reeved Type**

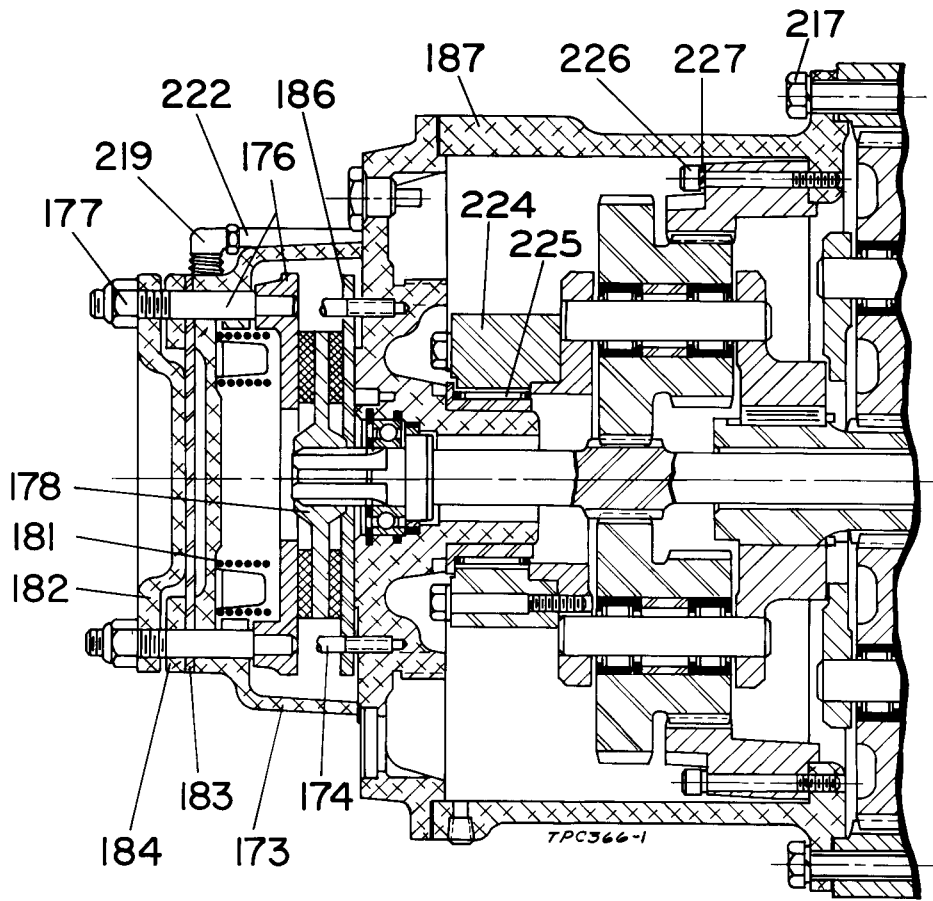
**Series C6H40A or D6H60A Hoist**



**Gear Case End of Series C640A or D660A Hoist  
Equipped with Diaphragm Brake**



**Gear Case End of Hoist Equipped with Dual Brakes**



**Gear Case End of Series C6H40A or D6H60A Hoist  
 Equipped with Diaphragm Brake Only**



## GEAR CASE AND BRAKE PARTS

PART NUMBER FOR ORDERING

150	Motor Shaft Pinion	
	Overall Length	
	16" (406 mm) . . . . .	C6H40A-319
	13-3/4" (349 mm) . . . . .	C640A19-319
● 151	Pinion Outer Bearing . . . . .	AM-318
152	Pinion Retainer . . . . .	C6H20A-6
153	Pinion Outer Bearing Retainer . . . . .	C6H20A-118
154	Ring Gear Stop . . . . .	C6H40A-798
155	3/4" Lock Washer . . . . .	D01-692
156	Primary Gear Frame Assembly . . . . .	C6H40A-A367A
157	Gear Frame Pinion . . . . .	C6H40A-734
158	Gear Frame Pinion Key . . . . .	C6H40A-735
159	Pinion Retainer . . . . .	C6H40A-736
160	Primary Planet Gear Assembly (2) . . . . .	C6H40A-A364
● 161	Gear Bearing (2 for each Gear) (Roller Bearing Co. of America No. SJ7153 or equivalent) . . . . .	5BM-24
162	Bearing Spacer (1 for each Gear) . . . . .	C6H40A-363
163	Primary Planet Gear Shaft (1 for each Gear) . . . . .	C6H40A-363
164	Gear Case Assembly (for Series C640A or D660A with Diaphragm Brake only) . . . . .	C640A19-A353
*	Oil Level Gauge . . . . .	C6H20A-16
● 166	Pinion Outer Seal . . . . .	C6H20A-271
● 167	Pinion Outer Bearing Seal . . . . .	R18-311
*	1/4" Pipe Plug . . . . .	ROH-377
169	Ring Gear Screw (6)	
	3/8"-16 thd. x 1-1/4" hex head . . . . .	PDA312-28
	3/8"-16 thd. x 2-1/2" socket head . . . . .	C6H40A-356
170	Primary Ring Gear	
	for Hoist with Diaphragm Brake only	
	Series C6H40A or D6H60A . . . . .	C6H40A-897
	Series C640A or D660A . . . . .	C640A19-897
	for Hoist with Mechanical Load Brake or Dual Brakes . . . . .	C6H40A-797
● 171	Primary Gear Frame Bearing (for Series C640A or D660A) . . . . .	C640A19-33
172	Gear Frame Bearing Spacer (for Series C640A, D660A) . . . . .	C640A19-899
173	Brake Housing . . . . .	C6H20A-340
174	Brake Housing Cap Screw (4) (5/16"-18 thd. x 3-3/4") . . . . .	C6H20A-344
*	5/16" Lock Washer (4) . . . . .	T11-58
176	Brake Plate . . . . .	C6H20A-389
177	Brake Adjusting Nut (2) (1/2"-20 thd. ESNA) . . . . .	FM-544
● 178	Brake Disc Assembly (includes two Facings bonded to Disc) . . . . .	C6H20A-A388
● 181	Brake Spring (4)	
	for Hoist with Diaphragm Brake only . . . . .	C6H20A-393
	for Hoist with Dual Brake . . . . .	5H0-37
182	Brake Plunger . . . . .	C6H20A-391
● 183	Brake Diaphragm . . . . .	C6H20A-390
184	Diaphragm Ring . . . . .	C6H20A-395
*	Diaphragm Screw (4) (5/16"-18 thd. x 1") . . . . .	B8-240
186	Brake Thrust Ring . . . . .	C6H20A-397
187	Gear Case (for Hoists with Dual Brakes) . . . . .	C6H40A-353
188	Gear Case Cover Assembly (for Hoists with Dual Brakes) . . . . .	C6H40A-A352
189	Ratchet Bearing Sleeve . . . . .	C6H40A-154
● 190	Pinion Outer Seal . . . . .	C6H20A-271
● 191	Pinion Outer Bearing Seal . . . . .	R18-311
192	Oil Level Gauge . . . . .	C6H20A-16
193	Brake Adjusting Nut . . . . .	C6H40A-153
194	Adjusting Nut Lock . . . . .	C6H40A-148
● 195	Gear Case Cover Gasket . . . . .	C6H40A-351
196	Gear Case Cover Screw (8) (3/8"-16 thd. x 1") . . . . .	D02-354
● 197	Brake Ratchet Assembly . . . . .	C6H40A-A156
198	Ratchet Bearing . . . . .	K6U-466

\* Not illustrated.

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## GEAR CASE AND BRAKE PARTS (Continued)

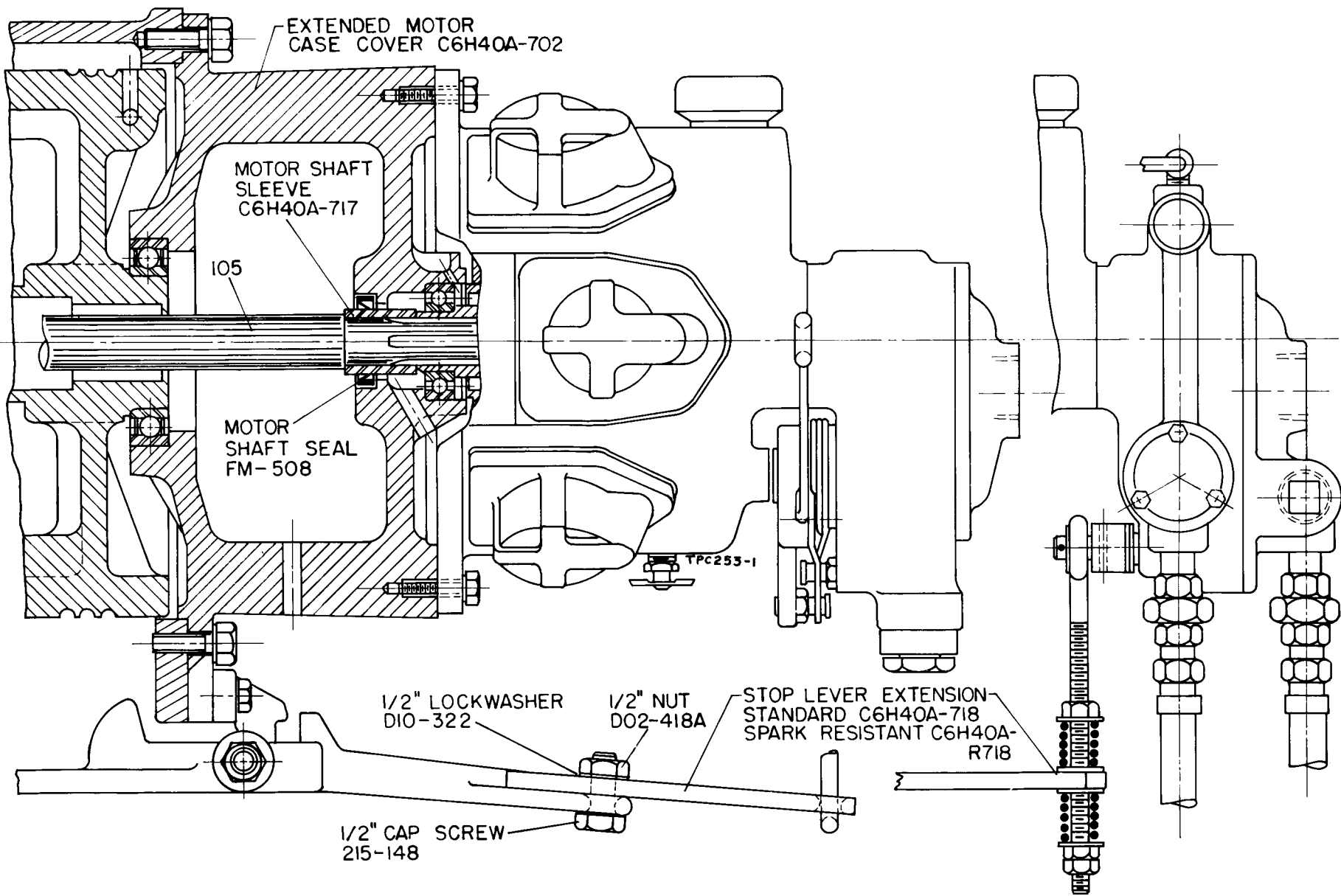
PART NUMBER FOR ORDERING

199	Ratchet Side Plate . . . . .	C6H40A-158
200	Ratchet Race . . . . .	C6H40A-157A
201	Ratchet Plunger (5) . . . . .	C6H40A-160
202	Plunger Spring (5) . . . . .	C6H40A-159
203	Ratchet Roller (5) . . . . .	C6H40A-161
204	Ratchet Retaining Screw (5) (3/8"-16 thd. x 2-1/2") . . . . .	HU-865
205	Load Brake Cam (6) . . . . .	C6H40A-88
206	Cam Retaining Screw (12) (1/4"-20 thd. x 5/8" socket head) . . . . .	G57T-634
*	Retaining Screw Lock Washer (12) . . . . .	8U-58
208	Roller Carrier . . . . .	C6H40A-85
● 209	Cam Follower	
	Round (2) . . . . .	C6H40A-86
	Square . . . . .	C6H40A-286
210	Cam Follower Retainer (3) . . . . .	4E-6
● 211	Brake Plate (2) . . . . .	C6H40A-150
● 212	Brake Thrust Plate . . . . .	C6H40A-151
● 213	Friction Disc (2) . . . . .	C6H40A-152
214	Brake Plate Key . . . . .	C6H40A-149
● 215	Slip Plate . . . . .	C6H40A-163
● 216	Slip Disc . . . . .	C6H40A-164
217	Gear Case Screw (6) 1/2"-13 thd. x 4" . . . . .	207-W37
218	Gear Case Vent Cap . . . . .	C6H20A-19
219	Brake Pipe Elbow (2) . . . . .	D02-400
*	Brake Pipe Strap (2) . . . . .	C6H20A-727
*	Brake Pipe Strap Screw (2) (3/8"-16 thd. x 1/2") . . . . .	DLC-752
222	Brake Pipe	
	Length	
	45" (1143 mm) . . . . .	C640A19-201
	48" (1219 mm) . . . . .	C640A19-401
	56" (1422 mm) . . . . .	C6H40A22-201
	59" (1498 mm) . . . . .	C6H40A22-401
	64" (1625 mm) . . . . .	C6H40A35-201
	67" (1701 mm) . . . . .	C6H40A35-401
224	Primary Gear Frame Spacer Assembly . . . . .	C6H40A-A899
225	Spacer Bearing (Torrington No. B4420 or equivalent) . . . . .	K6U-466
226	Ring Gear Cap Screw (8) (3/8"-16 thd. x 2-1/2" socket head) . . . . .	C6H40A-356
227	3/8" Lock Washer (8) . . . . .	D02-321
<input type="checkbox"/> *	Pinion Cap . . . . .	C6H20A-25
<input type="checkbox"/> *	Pinion Cap Gasket . . . . .	C6H20A-27
<input type="checkbox"/> *	Pinion Cap Retaining Screw (3) (1/4"-20 thd. x 3/8") . . . . .	RV1-376
<input type="checkbox"/> *	Retaining Screw Lock Washer (3) . . . . .	L01-67

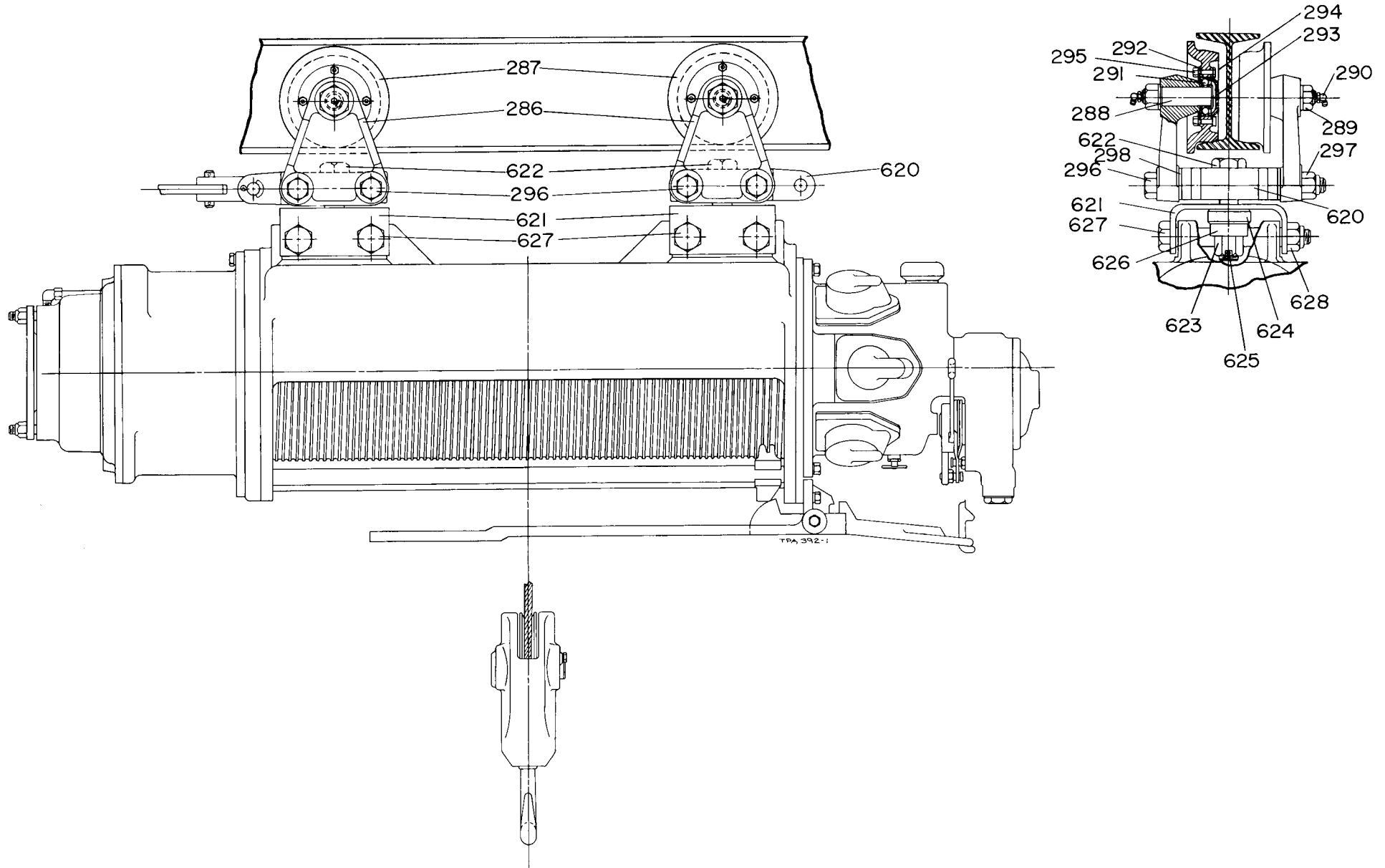
\* Not illustrated.

Used on Hoist with Mechanical Load Brake

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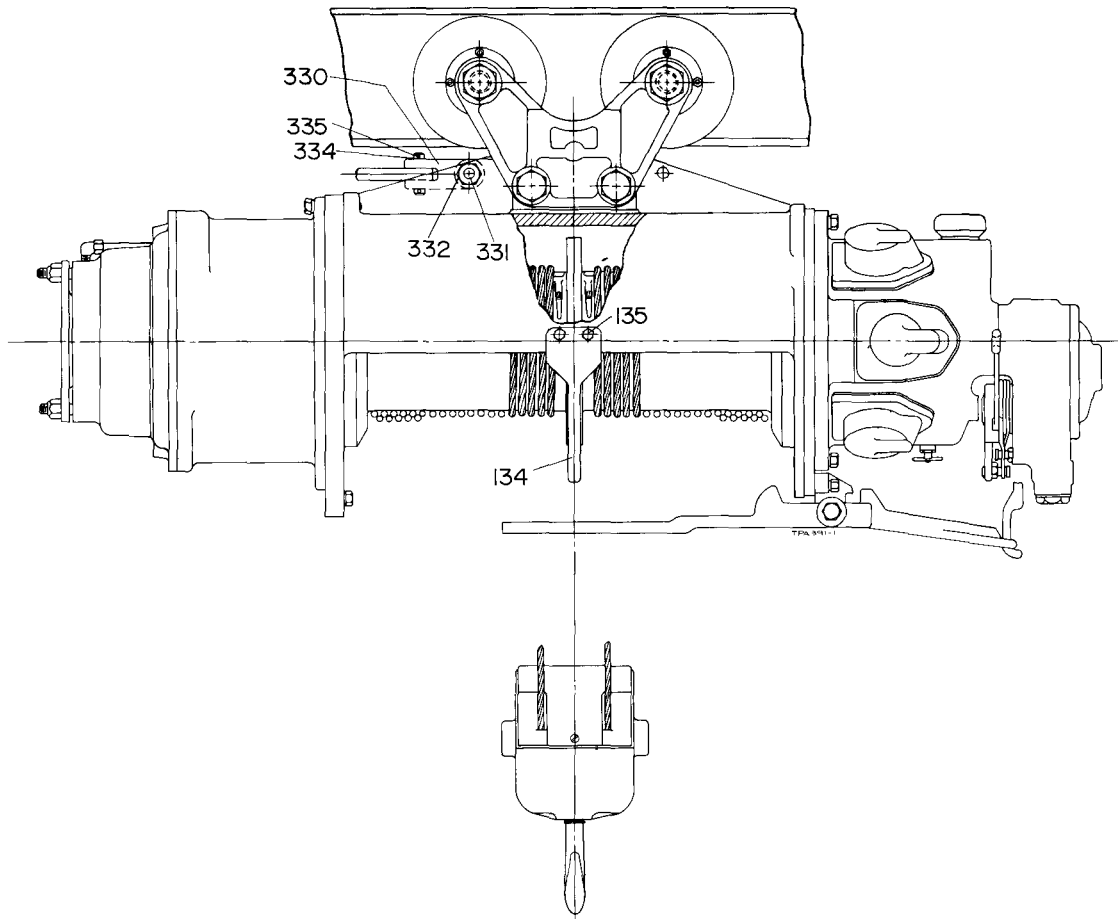


Counterweight Arrangement for 2-Ton or 3-Ton Hoist



Sizes C6H40A57, C6H40A57SR, C640A57, C640A57SR, D6H60A52, D6H60A52SR, D660A52 and D660A52SR

## DRAWBAR PARTS



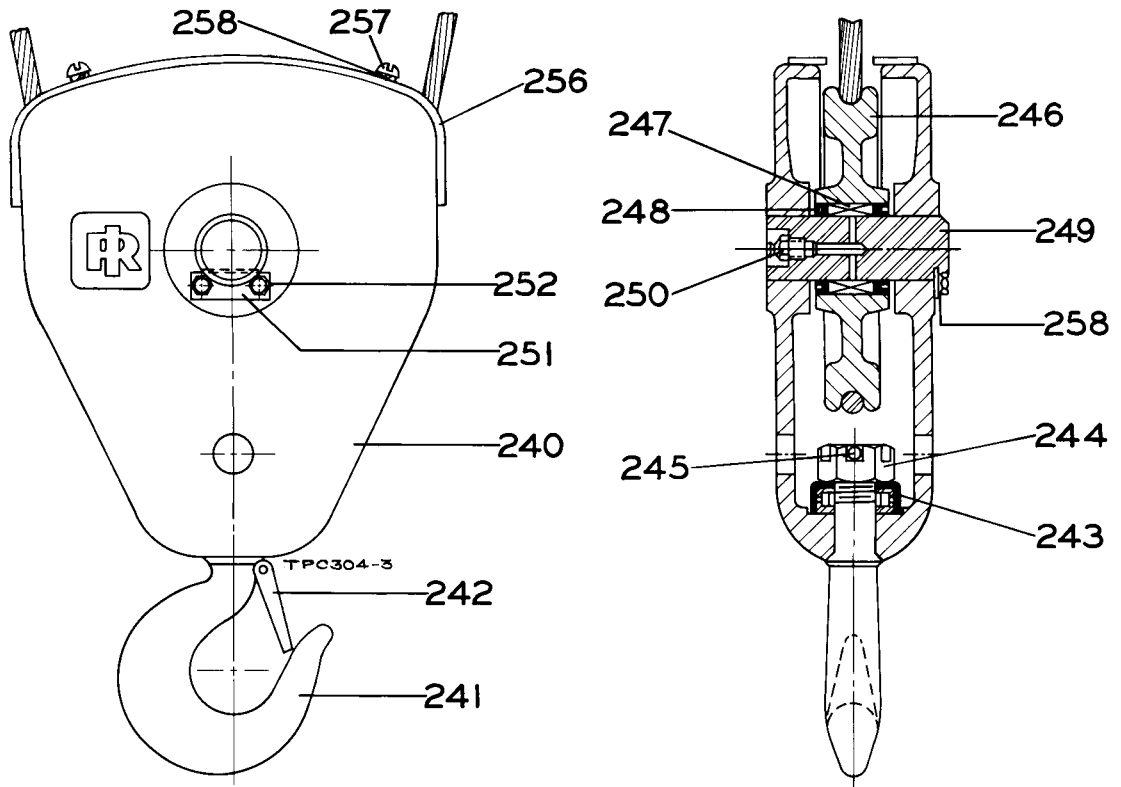
**Illustrating Construction of  
Divided Spool Drum for 2-Ton  
100 ft. lift or 3-Ton 75 ft. lift Hoist  
and Drawbar Parts for connecting Hoist to Tractor.**

### PART NUMBER FOR ORDERING

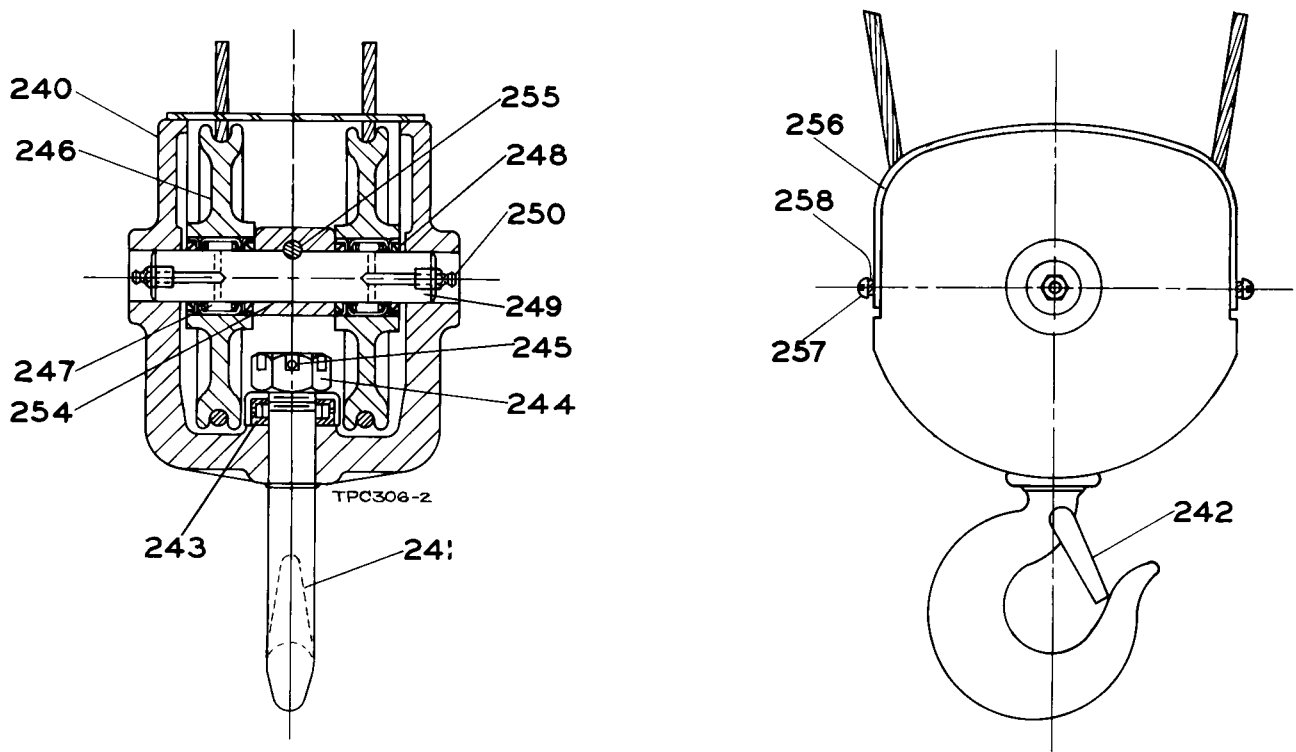
330	Drawbar Yoke . . . . .	C6H20A-607
331	Yoke Hinge Bolt or Pin 5/8"-11 thd. x 4-3/4" hex head . . . . .	B8-269
	5/8" dia. x 3-9/16" long with 9/64" crosshole near each end . . . . .	C6H20A-608
332	Hinge Bolt Nut (ESNA 5/8"-11 thd.) . . . . .	D01-341A
333	Hinge Pin Cotter (2) (1/8" x 1-1/4") . . . . .	D02-330
334	Drawbar Pin . . . . .	C6H20A-793
335	Drawbar Pin Cotter (2) (3/32" x 3/4") . . . . .	D02-524
*	Drawbar Bracket (used with 90° Angle Attachment) . . . . .	C6H40A-711
<p><b>The following Drawbar Parts are also required for a Size C6H40A57 or 57SR; Size C64057 or 57SR; Size D6H60A52 or 52SR; Size D660A57 or 57SR Hoist equipped with a Rigid Trolley.</b></p>		
*	Drawbar Bracket . . . . .	D6H60A-611
*	Bracket Hinge Pin . . . . .	C6H40A-612
*	Hinge Pin Set Screw . . . . .	D10-449

\* Not illustrated.

Sheave Block Parts



Single-Sheave Type



Double-Sheave Type

## LOAD BLOCK ASSEMBLY PARTS

### PART NUMBER FOR ORDERING

		2-Ton	3-Ton
	Load Block Assembly		
	Single Sheave Type		
	Standard . . . . .	C6H40A28-BS378	D6H60A25-BS378
	Spark-resistant . . . . .	C6H40A28-BSR378	D6H60A25-BSR378
	Bullard-Burnham Hook . . . . .	C6H40A28-BBB378	D6H60A25-BBB378
	Double-sheave Type		
	Standard . . . . .	C6H40A22-BS378	D6H60A20-BS378
	Spark-resistant . . . . .	C6H40A22-BSR378	D6H60A20-BSR378
	Bullard-Burnham Hook . . . . .	C6H40A22-BBB378	D6H60A20-BBB378
	Sheave Block and Hook Assembly		
	Single-sheave Type		
	Standard . . . . .	C6H40A28-AS378	D6H60A25-AS378
	Spark-resistant . . . . .	C6H40A28-ASR378	D6H60A25-ASR378
	Bullard-Burnham Hook . . . . .	C6H40A28-ABB378	D6H60A25-ABB378
	Double-sheave Type		
	Standard . . . . .	D6H40A22-AS378	D6H60A20-AS378
	Spark-resistant . . . . .	C6H40A22-ASR378	D6H60A20-ASR378
	Bullard-Burnham Hook . . . . .	C6H40A22-ABB378	D6H60A20-ABB378
240	Sheave Block		
	Single-sheave Type		
	Standard and Bullard-Burnham . . . . .	C6H40A28-378	D6H60A25-378
	Spark-resistant . . . . .	C6H40A28-R378	D6H60A25-R378
	Double-sheave Type		
	Standard and Bullard-Burnham . . . . .	C6H40A22-378	D6H60A20-378
	Spark-resistant . . . . .	C6H40A22-R378	D6H60A20-R378
• 241	Hook Assembly		
	Standard . . . . .	C6H40A-AS377	D6H60A-AS377
	Spark-resistant . . . . .	C6H40A-ASR377	D6H60A-ASR377
	Bullard-Burnham . . . . .	C6H40A-ABB377	D6H60A-ABB377
• 242	Latch Kit		
	for Standard Hook . . . . .	D02-S123	D04-S123
	for Spark-resistant Hook . . . . .	D04-S123	D10-S123
243	Hook Bearing		
	for Standard Hook . . . . .	D02-1379	D06-379A
	for Spark-resistant Hook . . . . .	D04-379A	D06-1379
244	Hook Nut		
	Standard . . . . .	C640A-305	D660A15-305
	Spark-resistant . . . . .	HRA60A-305	D660A15-R305
245	Lock Pin		
	Standard . . . . .	D02-374	D660A-376
	Spark-resistant . . . . .	C640A17-R330	D04-1376
246	Sheave Assembly		
	For Single-sheave Block		
	Standard . . . . .	C6H40A28-A380	D6H60A25-A380
	Spark-resistant . . . . .	C6H40A28-AR380	D6H60A25-AR380
	For Double-sheave Block		
	Standard . . . . .	C6H40A22-A380	D6H60A20-A380
	Spark-resistant . . . . .	C6H40A22-AR380	D6H60A20-AR380
• 247	Sheave Bearing		
	For Sheave in Single-sheave Block (Torrington No. HJ243320 or equivalent) . . . . .	C6H40A28-753	C6H40A28-753
	For Sheave in Double-sheave Block (Torrington No. HJ182616 or equivalent) . . . . .	C6H20A28-753	C6H20A28-753
• 248	Sheave Bearing Seal (2 for each Sheave)		
	For Sheave in Single-sheave Block . . . . .	C6H40A28-754	C6H40A28-754
	For Sheave in Double-sheave Block . . . . .	C6H20A28-754	C6H20A28-754
249	Sheave Shaft		
	For Single-sheave Block		
	Standard . . . . .	C6H40A28-382	C6H40A28-382
	Spark-resistant . . . . .	C6H40A28-R382	C6H40A28-R382

- To keep downtime to a minimum, it is desirable to have on hand certain repair parts. We recommend that you stock one (pair or set) of each part indicated by a bullet (•) for every four tools in service.

**LOAD BLOCK ASSEMBLY PARTS (Continued)**

PART NUMBER FOR ORDERING

		2-Ton	3-Ton
	For Double-sheave Block		
	Standard or Spark-resistant . . . . .	C6H40A22-382	C6H40A22-382
250	Grease Fitting (1 for each Sheave) . . . . .	23-188	23-188
‡ 251	Sheave Shaft Lock		
	Standard . . . . .	MR20-383	MR20-383
	Spark-resistant . . . . .	C6H20A-R383	C6H20A-R383
‡ 252	Lock Screw (2)		
	Standard (1/4" 20 thd. x 1/2" long hex head, steel) . . . . .	JC3350-103	JC3350-103
	Spark-resistant (1/4"-20 thd. x 1/2" long round head, brass) . . . . .	C6H20A-R937	C6H20A-R937
‡ 253	1/4" Lock Washer . . . . .	L01-67	L01-67
‡ 254	Sheave Shaft Anchor . . . . .	C6H40A-448	C6H40A-448
‡ 255	Sheave Shaft Anchor Bolt . . . . .	DRC-643	DRC-643
‡ *	Anchor Bolt Nut (3/8"-16 thd.) . . . . .	D02-418	D02-418
‡ *	Anchor Bolt Lock Washer (3/8") . . . . .	D02-321	D02-321
▲ 256	Sheave Block Cover		
	For Single-sheave Block		
	Standard . . . . .	C6H40A28-441	C6H40A28-441
	Spark-resistant . . . . .	C6H40A28-R441	C6H40A28-R441
	For Double-sheave Block		
	Standard . . . . .	C6H40A-441	C6H40A-441
	Spark-resistant . . . . .	C6H40A-R441	C6H40A-R441
257	Sheave Block Cover Screw (4 for Single-sheave blocks; 2 for Double-sheave Blocks)		
	Standard (1/4"-20 thd. x 1/2" long round head, steel) . . . . .	J-376	J-376
	Spark-resistant (1/4"-20 thd. x 1/2" long round head, brass) . . . . .	C6H20A-R937	C6H20A-R937
258	Cover Screw Lock Washer (1 for each Cover Screw)		
	Standard . . . . .	L01-67	L01-67
	Spark-resistant . . . . .	P225-67	P225-67

\* Not illustrated.

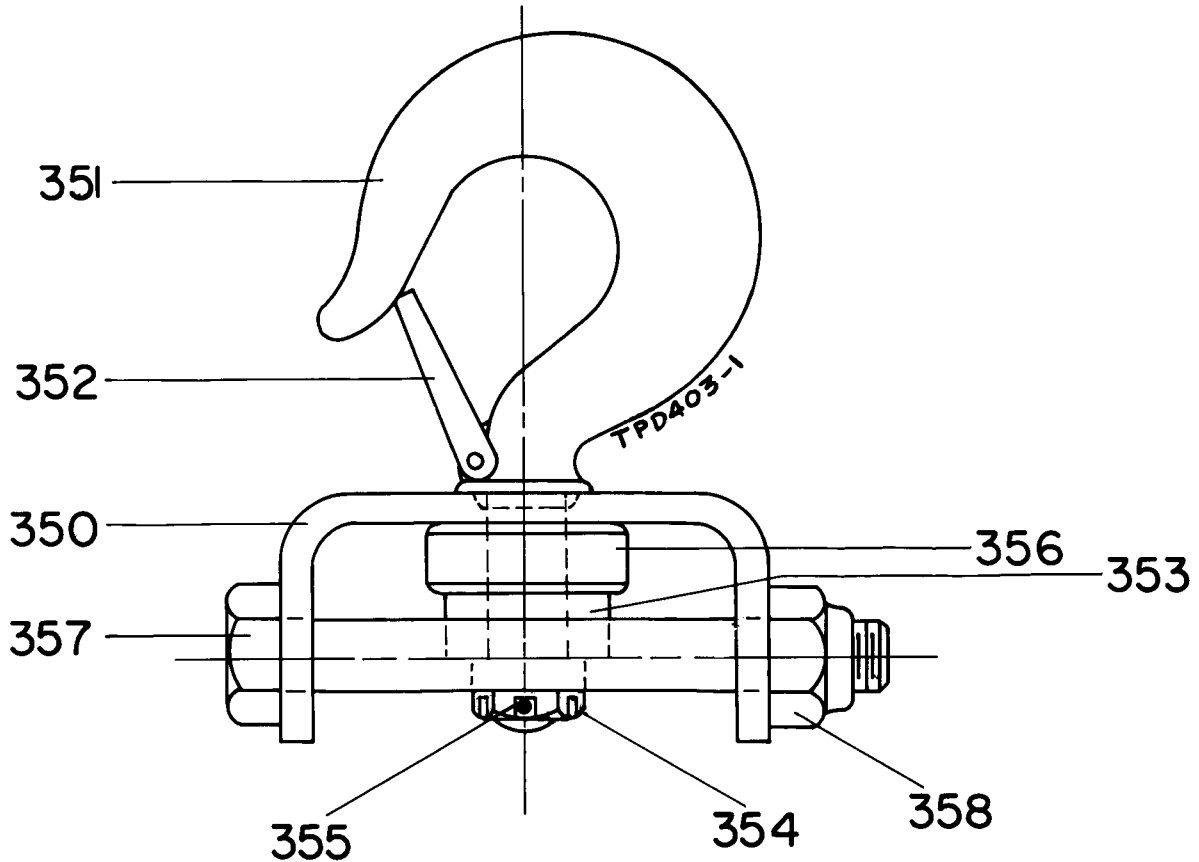
‡ For Single Sheave Type Only.

‡ For Double Sheave Type Only.

▲ A Cover Kit consisting of the Cover and Screws along with installation instructions is not available for those Hoists with Single-sheave Blocks that were originally furnished without a cover. Order by Part No. C6H40A28-K441 for Standard, or C6H40A28-KR441 for Spark-resistant.



TOP HOOK PARTS



PART NUMBER FOR ORDERING

		2-Ton	3-Ton
	Top Hook Yoke and Hook Assembly		
	Standard . . . . .	C6H40A-AS590	D6H60A-AS590
	Spark-resistant . . . . .	C6H40A-ASR590	D6H60A-ASR590
350	Top Hook Yoke		
	Standard . . . . .	C6H40A-590	D6H60A-590
	Spark-resistant . . . . .	C6H40A-R590	D6H60A-R590
351	Hook Assembly		
	Standard . . . . .	C6H40A-AS377	D6H60A-AS377
	Spark-resistant . . . . .	C6H40A-ASR377	D6H60A-ASR377
352	Hook Latch Kit		
	for Standard Hook . . . . .	D02-S123	D04-S123
	for Spark-resistant Hook . . . . .	D04-S123	D10-S123
353	Hook Bearing		
	for Standard Hook . . . . .	D02-1379	D06-379A
	for Spark-resistant Hook . . . . .	D04-379A	D06-1379
354	Hook Nut		
	for Standard Hook . . . . .	C640A-305	D660A15-305
	for Spark-resistant Hook . . . . .	HRA60A-305	D660A15-R305
355	Lock Pin		
	for Standard Hook . . . . .	D02-374	D660A-376
	for Spark-resistant Hook . . . . .	C640A17-R330	D04-1376
356	Top Hook Spacer		
	for Standard Hook . . . . .	C6H40A-591	D6H60A-591
	for Spark-resistant Hook . . . . .	C6H40A-R591	D6H60A-R591
357	Yoke Bolt (2) (7/8"-9 thread x 7" long)	D02-339	D02-339
358	Yoke Bolt Nut (2) (7/8"-9 ESNA)	D02-440B	D02-440B

## TROLLEY INFORMATION

Plain Trolleys, Hand Chain Driven Trolleys and Motor Driven Trolleys are available for mounting Standard Headroom Hoists on either Flat-Tread Monorails or I-Beams.

The tread on the Wheel of a Trolley for operation on an I-Beam is spherical, while the Wheel of a Trolley for operation on a Monorail has a flat tread.

The primary difference between standard and spark-resistant Trolleys is in the materials from which the Wheels are machined.

**A Plain Trolley to operate on a 6" or 7" I-Beam** is available for a 2-Ton or 3-Ton Hoist. The Wheels for this Trolley are smaller than those for the 8" or larger I-Beam. A Wheel Bearing Spacer is also used on each Trolley Wheel Shaft between the Bearing and the face of the boss on the Bracket.

**An Articulated Trolley** that incorporates one Hinged Bracket and one Rigid Bracket, was used on early 2-Ton and 3-Ton Hoists, but is now superseded by a Trolley that incorporates two Rigid Brackets. Parts used only for the Articulated Trolley remain available. An Articulated Trolley cannot be applied to the current Hoists because the central hole has been eliminated from the mounting boss on the Hoist Housing. This prevents the use of the Hinge Pin that is essential for the Articulated Trolley.

**Trolleys for Hoists with Double Mounting Bosses** are arranged as follows:

A 2-Ton or 3-Ton Hoist uses a two-wheel Plain Trolley at each boss. We recommend that the Auxiliary Trolley be installed on the Motor end of the Hoist. A Hand Chain Driven Trolley or a Motor Driven Trolley can be installed in place of the Plain Trolley. For straight track operation, the Trolleys may be bolted directly to the housing bosses, but swivel mounting is required if curves must be negotiated.

**All Trolleys** are furnished with Trolley Bracket Bolts long enough to accommodate the maximum flange width of the I-Beam or Monorail for which the Trolley is recommended, and with sufficient spacers for properly spacing the Trolley brackets for any I-Beam or Monorail within the specified range of the Trolley. Spacers are 1/6", 1/4", 3/8", 1/2" and 1" thick. The size and flange width of the I-Beam or Monorail determines the quantity and thickness of the Spacers required **between** the Trolley Bracket and mounting boss on the Hoist. **An equal number must be used on each side.** For example, the No. C640A-A430-6 Trolley fits a standard 6" (3.33" flange width) I-Beam when the Brackets contact the mounting boss. Therefore the four 1/6" spacers would be located outside the Bracket—one under the head of each Bolt and one under each Nut. At least one spacer must be installed between each bolt head and trolley bracket and each nut and Trolley Bracket. However, if the Trolley is mounted on a standard 7" (3.66" flange width) I-Beam, the spacers would be located between the Brackets and boss. This would space each Bracket 1/6" from the boss, increasing the space between the Brackets 1/3" which is the flange width difference between standard 6" and 7" I-Beams.

When a Trolley for operation on 8" to 24" I-Beam is mounted on a standard 8" (4.00" flange width) I-Beam, or when a Trolley for operation on a Flat-Tread Monorail is mounted on a track with 3.25" or 3.33" wide flange, no Spacers are required between the Brackets and mounting boss.

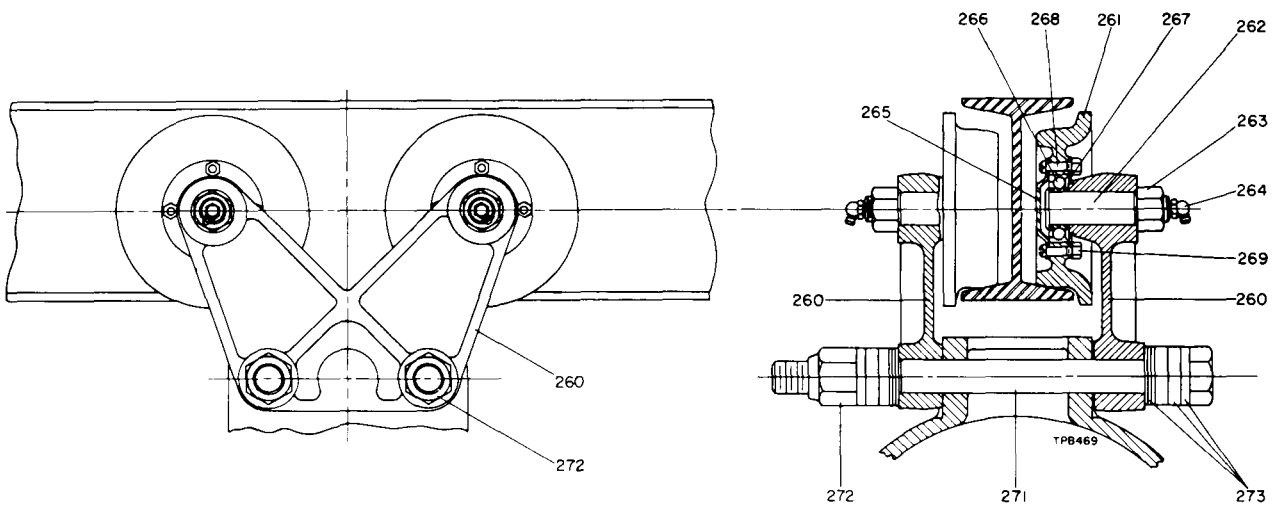
For an I-Beam with a flange width greater than 4.00", or for a Monorail with a flange width greater than 3.33", spacers must be used to obtain the proper wheel location. As stated in the Installation Section the distance between the wheel flanges should be a maximum of 1/4" (6 mm) greater than the flange width of the track. **Keep in mind that an equal quantity of Spacers of the same size must be used on each side of the boss and on each Bolt.**

**For Example:** To install this Trolley on an I-Beam with 6.25" flange width would require each Trolley Bracket to be spaced 1-1/2" from the mounting boss to compensate for the 2.25" increase in beam flange width. This spacing can be obtained by using four sets of the following Spacer combinations of one 1/4", one 3/8" and either three 1/6" or one 1/2" on **each** Bolt side of the boss.

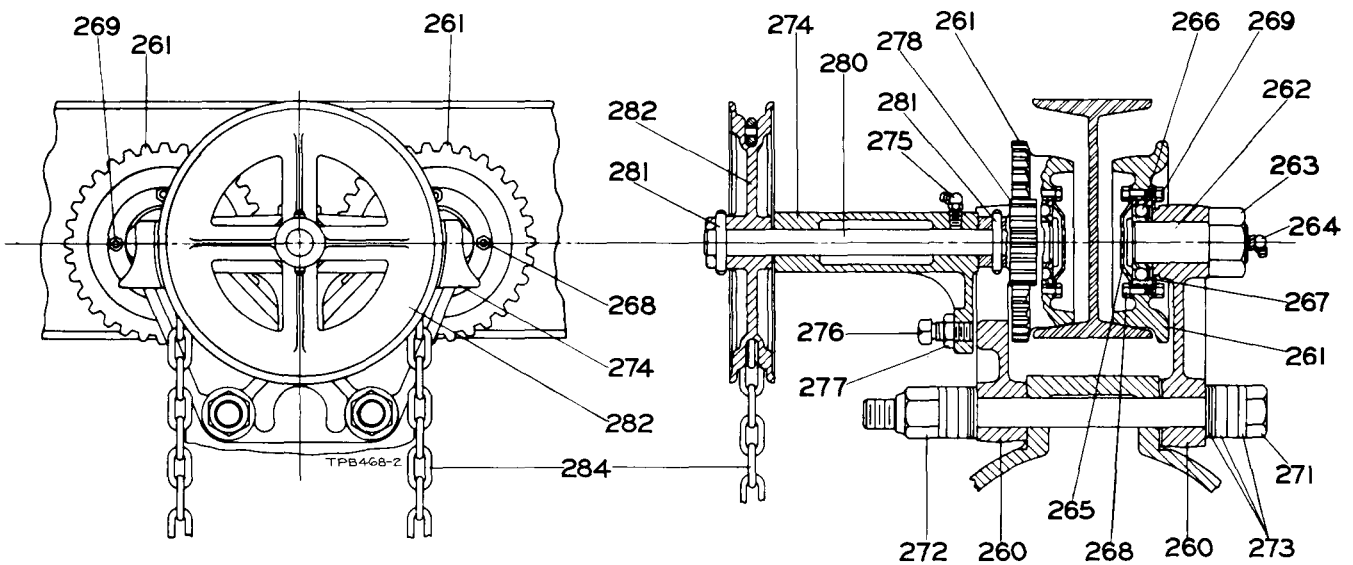
I-Beam dimensions vary with different class beams. The flange width in relation to I-Beam size of the most widely used class is shown in the following table.

Beam Size		Flange Width		Beam Size		Flange Width	
in.	mm	in.	mm	in.	mm	in.	mm
6	152	3.33	85	12	305	5.00	127
7	178	3.66	93	15	381	5.50	140
8	203	4.00	102	18	457	6.00	152
9	229	4.33	110	20	508	6.25	159
10	254	4.66	118	24	610	7.00	178

Swivel Trolleys are spaced in the same manner as the Rigid Trolleys except that the Spacers are located between the Brackets and the Mounting Block.



Plain Trolley



Hand Chain Driven Trolley

## TROLLEY ASSEMBLIES

**Order a complete Trolley Assembly by one of the following part numbers:**

**For Standard Headroom Hoists**

### For 2-Ton or 3-Ton Hoist

#### Four-Wheel, Plain

To operate on 6" (3.33" - 85 mm flange width) or 7" (3.66" - 93 mm flange width) I-Beam	
Standard . . . . .	C640A-A430-6
Spark-resistant . . . . .	C640A-A1430-6
To operate on 8" (4.00" - 102 mm flange width) to 24" (7.00" - 178 mm flange width) I-Beam	
Standard . . . . .	C640A-A430
Spark-resistant . . . . .	C640A-A1430
To operate on Flat-Tread Monorail (3.25" - 83 mm to 4.50" - 114 mm flange width)	
Standard . . . . .	C640A-AT430
Spark-resistant . . . . .	C640A-AT1430

**Two-Wheel, Plain** - For use on Hoist with two Mounting Bosses - One Assembly required for each boss, or one Assembly used as Auxiliary Trolley in combination with Hand Chain Driven Trolley.

To operate on 6" (3.33" - 85 mm flange width) or 7" (3.66" - 93 mm flange width) I-Beam	
Standard . . . . .	C6H40A57-A700-6
Spark-resistant . . . . .	C6H40A57-AR700-6
To operate on 8" (4.00" - 102 mm flange width) to 24" - 102 mm flange width) to 24" (7.00" - 178 mm flange width) I-Beam	
Standard . . . . .	C6H40A57-A700
Spark-resistant . . . . .	C6H40A57-AR700
To operate on Flat-Tread Monorail (3.25" - 83 mm to 4.50" - 114 mm flange width)	
Standard . . . . .	C6H40A57-A700T
Spark-resistant . . . . .	C6H40A57-AR700T

#### Four-Wheel, Hand Chain Driven

To operate on 8" (4.00" - 102 mm flange width) to 24" (7.00" - 178 mm flange width) I-Beam	
Standard . . . . .	C640A-A471
Spark-resistant . . . . .	C640A-AR471
To operate on Flat-Tread Monorail (3.25" - 83 mm to 4.50" - 114 mm flange width)	
Standard . . . . .	C640A-AT471
Spark-resistant . . . . .	C640A-AR471T

# PARTS FOR FOUR-WHEEL PLAIN AND HAND CHAIN DRIVEN TROLLEYS

PART NUMBER FOR ORDERING

		2-Ton or 3-Ton
	Assembled Trolley Bracket	
	with Plain Wheels (2 for Plain Trolley; 1 for Hand Chain Driven Trolley)	
	to operate on 6" or 7" I-Beam	
	Standard . . . . .	D04-B430-6
	Spark-resistant . . . . .	D04-B1430-6
	to operate on 8" or larger I-Beam	
	Standard . . . . .	D04-B430
	Spark-resistant . . . . .	D04-B1430
	to operate on Flat-Tread Monorail	
	Standard . . . . .	D04-BT430
	Spark-resistant . . . . .	D04-BT1430
	with Geared Wheels (for Hand Chain Driven Trolley)	
	to operate on 8" or larger I-Beam	
	Standard . . . . .	D04-G430
	Spark-resistant . . . . .	D04-G1430
	to operate on Flat-Tread Monorail	
	Standard . . . . .	D04-GT430
	Spark-resistant . . . . .	D04-GT1430
260	Trolley Bracket (1 for each Assembled Bracket)	D04-430
261	Trolley Wheel (2 for each Assembled Bracket)	
	Plain	
	to operate on 6" or 7" I-Beam	
	Standard . . . . .	D04-231
	Spark-resistant . . . . .	D04-1231
	to operate on 8" or larger I-Beam	
	Standard . . . . .	D04-431
	Spark-resistant . . . . .	D04-1431
	to operate on Flat-Tread Monorail	
	Standard . . . . .	D04-T431
	Spark-resistant . . . . .	D04-T1431
	Geared	
	to operate on 8" or larger I-Beam	
	Standard . . . . .	D04-472
	Spark-resistant . . . . .	D04-1472
	to operate on Flat-Tread Monorail	
	Standard . . . . .	D04-T472
	Spark-resistant . . . . .	D04-T1472
262	Trolley Wheel Shaft (1 for each Wheel)	
	for Plain Wheel . . . . .	D04-435
	for Geared Wheel . . . . .	D04-474
263	Shaft Nut (1 for each Shaft)	
	for Plain Wheel Shaft . . . . .	D10-305
	for Geared Wheel Shaft . . . . .	DU-562
264	Angle Grease Fitting (1 for each Shaft)	23-189
265	Bearing Cap (1 for each Wheel)	D04-95
266	Trolley Wheel Bearing (1 for each Wheel)	D04-956
267	Bearing Plate (1 for each Wheel)	D04-955
268	Wheel Bolt (4 for each Wheel)	501-638
269	Elastic Stop Nut (1 for each Wheel Bolt)	501-639
*	Wheel Bearing Spacer (1 for each Wheel) (Used only on Plain Trolley for 6" or 7" I-Beam)	D04-963
271	Trolley Bracket Bolt (2)	
	10" (254 mm) long . . . . .	D02-439A-10
	11" (279 mm) long . . . . .	C6H40A-439-11
	12" (305 mm) long . . . . .	C6H40A-439-12
272	Trolley Bracket Bolt Nut (2)	D02-440B
273	Trolley Bracket Spacer	
	Thickness	
	1/6" (4.23 mm) . . . . .	D02-442A-1/6
	1/4" (6.35 mm) . . . . .	D02-442A-1/4
	3/8" (9.53 mm) . . . . .	D02-442A-3/8

\* Not illustrated.

PARTS FOR FOUR-WHEEL PLAIN AND HAND CHAIN DRIVEN TROLLEYS (Cont'd)

PART NUMBER FOR ORDERING



		2-Ton or 3-Ton
	1/2" (12.70 mm) . . . . .	D02-442A-1/2
	1" (25.40 mm) . . . . .	D02-442A-1
274	Sprocket Bracket Assembly . . . . .	D04-471
275	Angle Grease Fitting . . . . .	23-189
276	Bracket Set Screw . . . . .	D02-480A
277	Set Screw Nut . . . . .	G7-18
278	Drive Pinion	
	for Trolley to operate on 8" or larger I-Beam . . . . .	D02-473
	for Trolley to operate on Flat-Tread Monorail . . . . .	D02-T473
*	Pinion Spacer	
	for Trolley to operate on <b>Flat-Tread Monorail only</b> . . . . .	D02-442A-1/6
280	Chain Sprocket Shaft	
	for Trolley to operate on I-Beam . . . . .	D02-475
	for Trolley to operate on Flat-Tread Monorail . . . . .	D02-475
281	Taper Pin (2) . . . . .	D02-520
282	Chain Sprocket . . . . .	D02-470
284	Hand Chain (length as specified)	
	Standard . . . . .	D02-B476
	Spark-resistant . . . . .	D02-B1476

\* Not illustrated.

**PARTS FOR TWO-WHEEL TROLLEYS**  
**For 2-Ton or 3-Ton Standard Headroom Hoist**  
**With Double Mounting Bosses**

Refer to illustration on page 36.

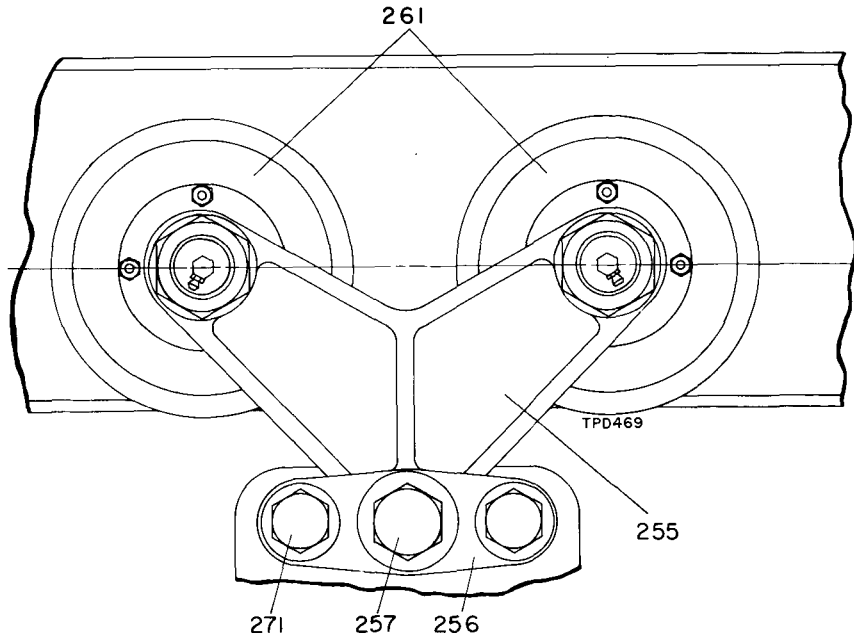
**PART NUMBER FOR ORDERING**

		Standard	Spark-Resistant
	Assembled Trolley Bracket (2 for each Trolley)		
	to operate on 6" or 7" I-Beam . . . . .	C6H40A57-B700-6	C6H40A57-BR700-6
	to operate on 8" or larger I-Beam . . . . .	C6H40A57-B700	C6H40A57-BR700
	to operate on Flat-Tread Monorail . . . . .	C6H40A57-B700T	C6H40A57-BR700T
286	Trolley Bracket (1 for each Assembled Bracket) . . . . .	C6H40A57-700	C6H40A57-700
287	Trolley Wheel (1 for each Bracket)		
	for Trolley operating on 6" or 7" I-Beam . . . . .	D04-231	D04-1231
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-431	D04-1431
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-T431	D04-T1431
288	Trolley Wheel Shaft (1 for each Wheel) . . . . .	D04-435	D04-435
289	Trolley Wheel Shaft Nut (1 for each Shaft) . . . . .	D10-305	D10-305
290	Angle Grease Fitting (1 for each Shaft) . . . . .	23-189	23-189
291	Trolley Wheel Bearing (1 for each Wheel) . . . . .	D04-956	D04-956
292	Bearing Plate (1 for each Wheel) . . . . .	D04-955	D04-955
293	Bearing Cap (1 for each Wheel) . . . . .	D04-954	D04-954
294	Wheel Bolt (1/4"-28 thd. x 1-1/4") (4 for each Wheel) . . . . .	501-638	501-638
295	Elastic Stop Nut (1/4"-28 thd.) (4 for each Wheel) . . . . .	501-639	501-639
*	Wheel Bearing Spacer (1 for each Wheel) (Used only on Trolley for 6" or 7" I-Beam) . . . . .	D04-963	D04-963
296	Trolley Bracket Bolt (2)		
	10" (254 mm) long . . . . .	D02-439A-10	D02-439A-10
	11" (280 mm) long . . . . .	C6H40A-439-11	C6H40A-439-11
	12" (305 mm) long . . . . .	C6H40A-439-12	C6H40A-439-12
297	Trolley Bracket Bolt Nut (7/8"-9 thd.) (1 for each Bracket Bolt) . . . . .	D02-440B	D02-440B
298	Trolley Bracket Spacer		
	Thickness		
	1/6" (4.23 mm) . . . . .	D02-442A-1/6	D02-442A-1/6
	1/4" (6.35 mm) . . . . .	D02-442A-1/4	D02-442A-1/4
	3/8" (9.53 mm) . . . . .	D02-442A-3/8	D02-442A-3/8
	1/2" (12.70 mm) . . . . .	D02-442A-1/2	D02-442A-1/2

\* Not illustrated.

# PARTS FOR ARTICULATED TROLLEY

Used on Early 2-Ton and 3-Ton Hoists



PART NUMBER FOR ORDERING

	Hinged Trolley Bracket Assembly	
	Standard	
	for Trolley operating on 6" or 7" I-Beam . . . . .	D04-B427-6
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-B427
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-BT427
	Spark-resistant	
	for Trolley operating on 6" or 7" I-Beam . . . . .	D04-B1427-6
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-B1427
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-BT1427
255	Hinged Trolley Bracket . . . . .	D04-427
	(Also includes illustrated parts 261 through 269 plus nonillustrated part D04-963 as listed for comparable Plain Trolley).	
256	Trolley Bracket Yoke . . . . .	D04-952
257	Bracket Hinge Pin (1"-8 thd.)	
	10-1/2" (267 mm) long . . . . .	D04-953-10 1/2
	11-1/2" (292 mm) long . . . . .	D04-953-11 1/2
	12" (305 mm) long . . . . .	D04-953-12
*	Hinge Pin Nut (ESNA 1"-8 thd.) . . . . .	D04-959A

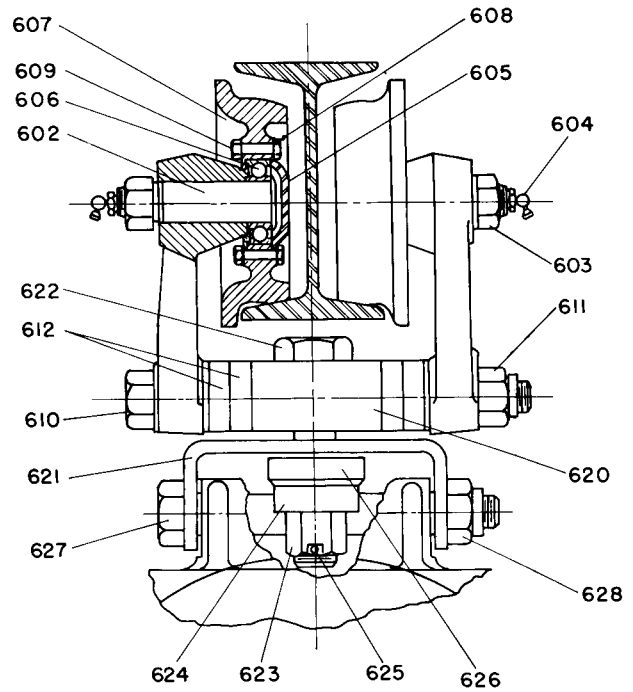
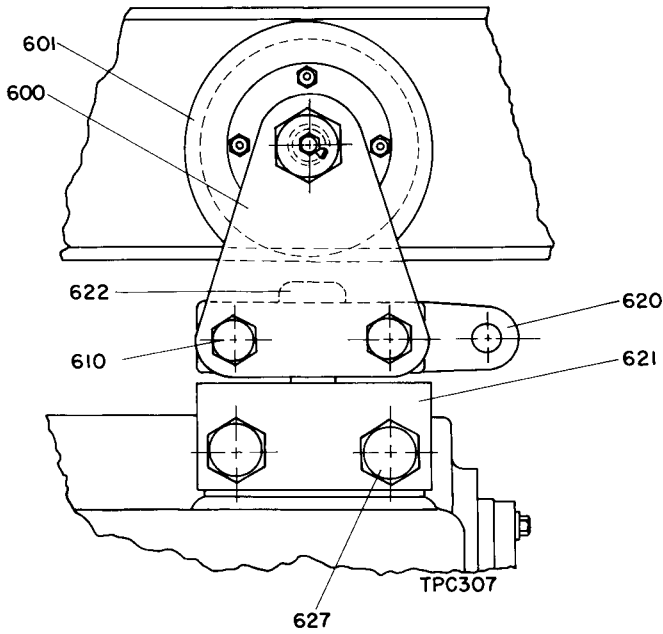
\* Not illustrated.

All other parts are the same as corresponding parts for the current Plain Trolley or Hand Chain Driven Trolley for 2-Ton or 3-Ton Hoist.



# SWIVEL TROLLEY PARTS

For Standard Headroom Hoist with two Mounting Bosses



## PART NUMBER FOR ORDERING

△	Swivel Trolley Kit	C6H40A57-K425
620	Mounting Block (2)	C6H40A57-425
621	Yoke (2)	D6H60A-590
622	Swivel Block Bolt (2)	C6H40A57-823
623	Swivel Block Bolt Nut (2)	C6H40A57-824
624	Swivel Bolt Spacer (2)	C6H40A57-825
625	Roll Pin (2)	599-115
626	Thrust Bearing (2)	D06-379A
627	Yoke Bolt (4)	D02-339
628	Yoke Bolt Nut (4)	D02-440B

△ The Swivel Trolley Kit contains the correct quantity of parts for swivel mounting two Trolley Assemblies.

## LOW HEADROOM HOISTS

The majority of parts for a Low Headroom Hoist are the same as and interchangeable with corresponding parts for a Standard Headroom Hoist. Parts that are peculiar to Low Headroom Hoists are listed on pages 52 and 54.

**Redesign of Low Headroom Hoists**—After limited production, Low Headroom Hoists of the design and construction illustrated and listed on pages 51 and 52 were superseded by Hoists built to the revised design shown on page 53.

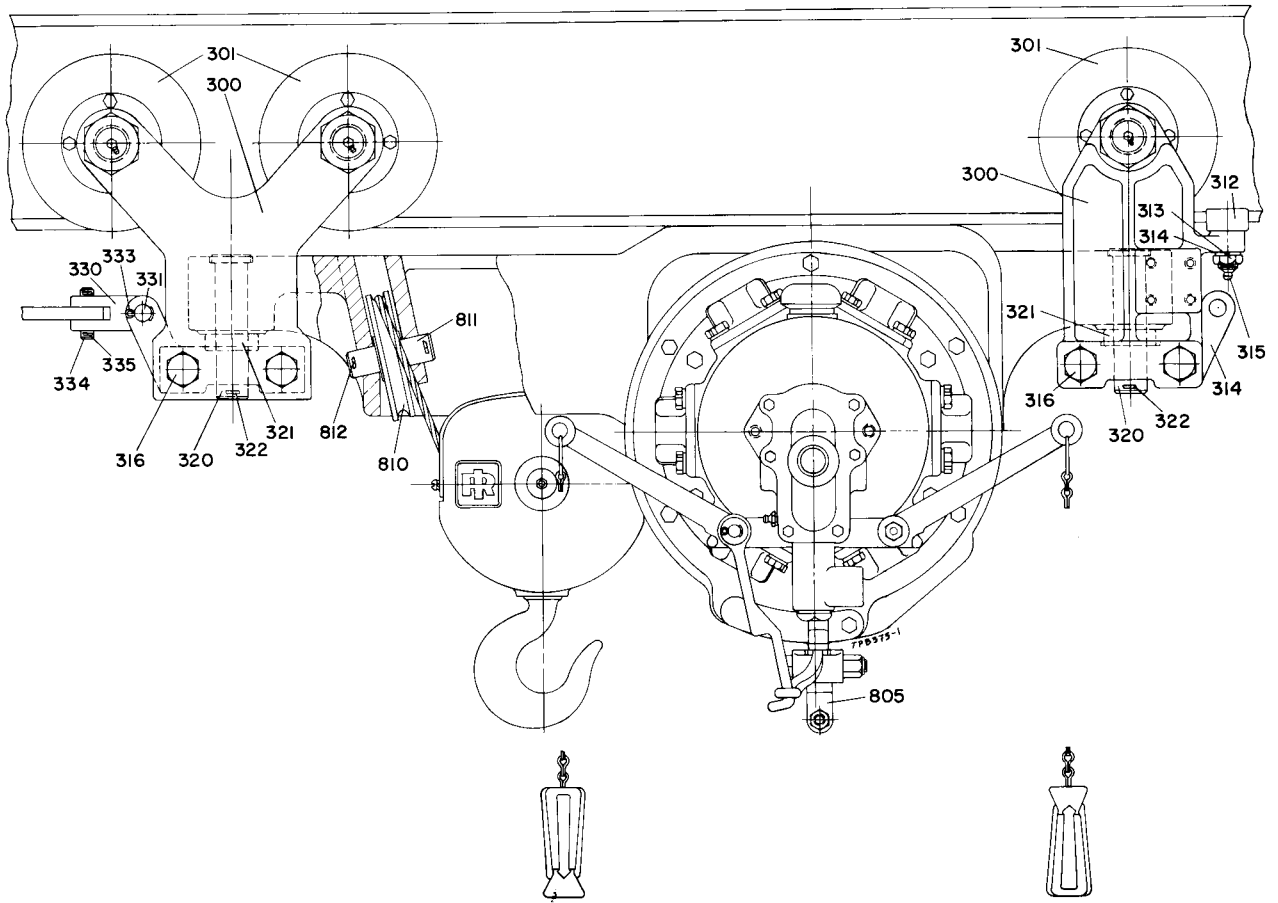
The change from a unit type, cast Hoist Housing to a fabrication is the principal difference, but the revised construction also incorporates a flexible, instead of a rigid mount for the Auxiliary Sheave, along with improved limit controls.

All parts of the original construction remain available except the Hoist Housing. If the cast Housing must be replaced, conversion to the new construction is necessary.

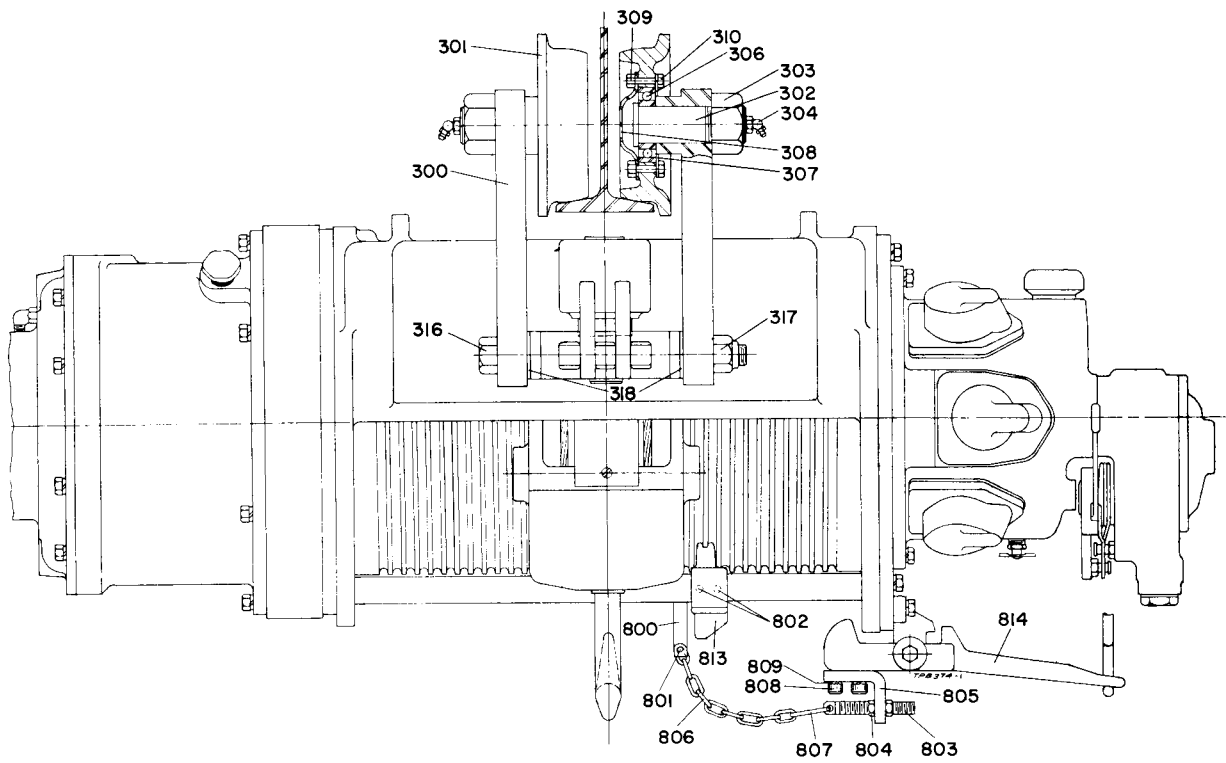
For conversion order the following items from the list of parts for Low Headroom Hoists with Fabricated Hoist Housing. See page 54.

Hoist Housing Assembly	Lock Washer (2)
Sheave Block	Stop Lever Bolt
Lower Stop Lever	Stop Lever Bolt Nut
Upper Stop Lever	Lever Stop Bolt
Stop Lever Chain	Stop Bolt Nut

Also order the appropriate Hook Assembly as listed in Sheave Block Parts on page 39. The Sheave Block for a Low Headroom Hoist with Fabricated Housing differs from the Sheave Block for a 2-Ton or 3-Ton Standard Headroom Hoist, but other components of the Sheave Block Assembly are interchangeable between corresponding capacity Hoists.



**Motor End View of Series Low Headroom Hoist with Cast Housing**



**Longitudinal View of Series Low Headroom Hoist with Case Housing**

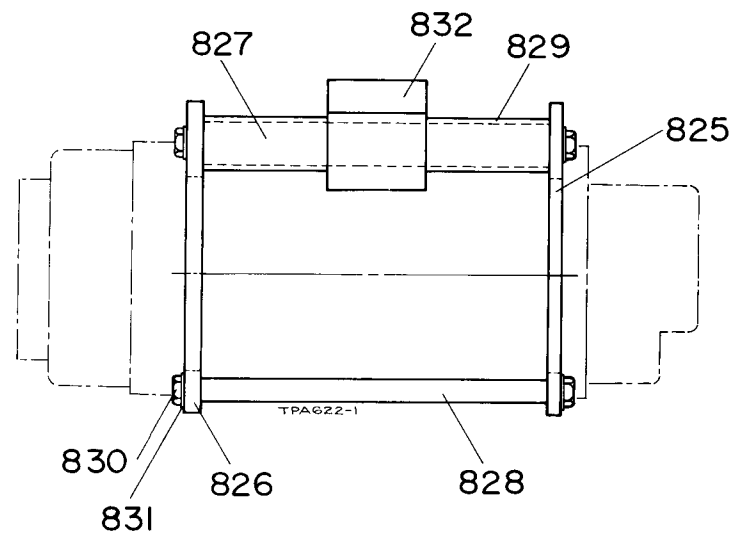
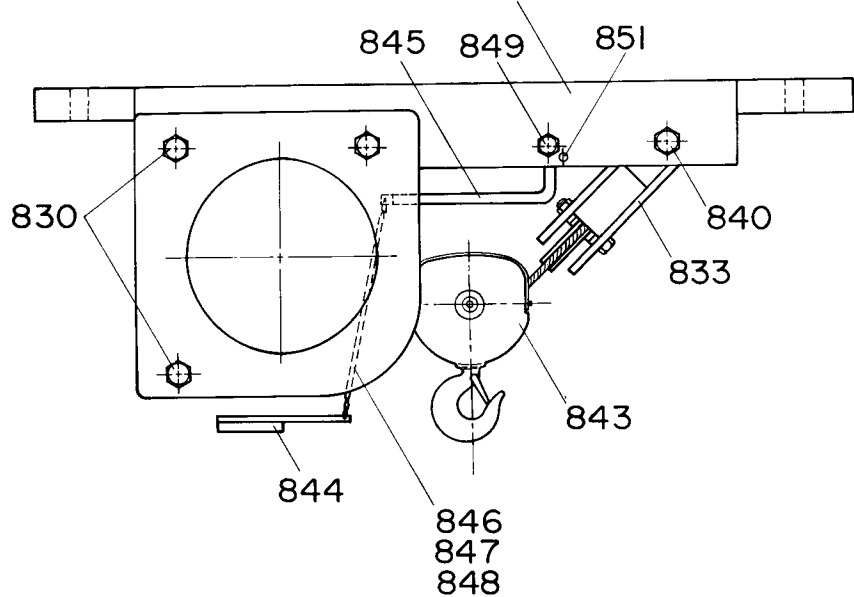
**PARTS USED ONLY ON SUPERSEDED LOW HEADROOM HOIST**

Illustrated on page 51

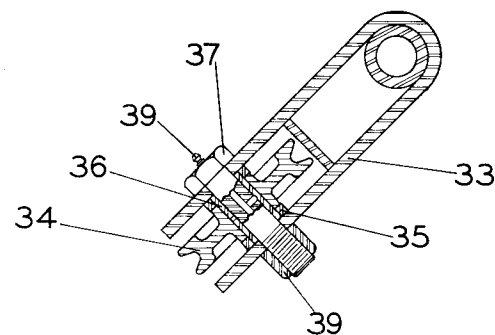
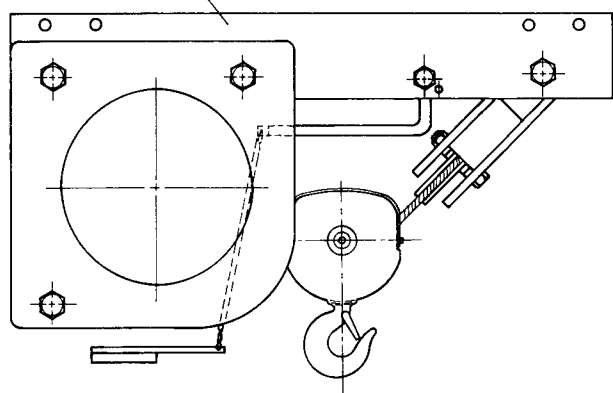
PART NUMBER FOR ORDERING 

800	Stop Lever Cam Arm Standard . . . . .	C6H20A-L772
	Spark-resistant . . . . .	C6H20A-LR772
801	Cam Arm Pin . . . . .	R1801-669
802	Cam Arm Screw (2) . . . . .	B8-240
803	Stop Adjusting Screw . . . . .	C6H20A-L775
804	Adjusting Screw Nut . . . . .	D02-418A
805	Up-Stop Bracket . . . . .	C6H20A-L777
806	Up-Stop Chain for Size C6H40A15LH, 15LR, 22LH or 22LR; Size D6H60A12LH, 12LR, 20LH or 20LR . . . . .	C6H20A22-L773
	for Size C6H40A35LH or 35LR; Size D6H60A30LH or 30LR . . . . .	C6H20A35-L773
807	S-Hook . . . . .	D01-221
808	Up-Stop Bracket Screw (2) . . . . .	R44H-490A
809	5/16" Lock Washer (4) . . . . .	T11-58
810	Auxiliary Sheave . . . . .	C6H40A-638
811	Auxiliary Sheave Shaft . . . . .	C6H40A-L641
812	Auxiliary Sheave Shaft Cotter (2) (1/4" x 1-3/4") . . . . .	215-124
813	Stop Cam For Size C6H40A15LH or 15LR . . . . .	C6H40A15-LR771
	For Size C6H40A22LH, 22LR, 35LH or 35LR . . . . .	C6H40A22-LR771
	For Size D6H60A12LH or 12LR . . . . .	D6H60A12-LR771
	For Size D6H60A20LH, 20LR, 30LH or 30LR . . . . .	D6H60A20-LR771
814	Stop Lever For Size C6H40A15LH, 22LH or 35LH; D6H60A12LH, 20LH or 30LH with Pull Chain Throttle . . . . .	C6H20A22-L422
	with Pendant Throttle or Remote Control . . . . .	C6H20A22-L222
	For Size C6H40A15LR, 22LR or 35LR; D6H60A15LR, 20LR or 30LR with Pull Chain Throttle . . . . .	C6H20A22-LR422
	with Pendant Throttle or Remote Control . . . . .	C6H20A22-LR222

LOAD BAR (832) FOR SWIVEL TROLLEY



LOAD BAR (832) FOR LUG MOUNTING OR RIGID TROLLEY



ENLARGED DETAIL OF AUXILIARY SHEAVE BRACKET ASSEMBLY

**PARTS USED ON LOW HEADROOM HOISTS  
(With Fabricated Hoist Housing)**

**PART NUMBER FOR ORDERING**

**PART NUMBER FOR ORDERING**

	Hoist Housing-Assembly for Size C6H40A15LH, 15LR, 22LH or 22LR; C640A22LH, 22LR, 100LH or 100LR; D6H60A12LH, 12LR, 20LH or 20LR; D660A20LH, 20LR, 75LH or 75LR for use with Swivel Trolley . . . . . C640A22LH-A300S for use with Rigid Trolley . . . . . C640A22LH-A300 for Size C6H40A35LH or 35LR; C640A35LH or 35LR; D6H60A30LH or 30LR; D660A30LH or 30LR for use with Swivel Trolley . . . . . C640A35LH-A300S for use with Rigid Trolley . . . . . C640A35LH-A300		840 Bolt (1-1/8"-7 thd. x 8") . . . . . * Nut (1-1/8"-7 thd.) . . . . . 843 Sheave Block Standard for 2-Ton Hoist . . . . . for 3-Ton Hoist . . . . . Spark-resistant for 2-Ton Hoist . . . . . for 3-Ton Hoist . . . . .	C640A-112-8 D10-440B C640A-L378 D660A-L378 C640A-L378R D660A-L378R
825	Motor End Bracket . . . . . C640A-761		844 Lower Stop Lever Pull Chain Throttle for Size C640A22LH or D660A20LH for Size C640A22LR or D660A20LR for Size C640A35LH or D660A30LH for Size C640A35LR or D660A30LR for Size C640A100LH or D660A75LH for Size C640A100LR or D660A75LR	C640A22LH-422 C640A22LR-422 C640A35LH-422 C640A35LR-422 C640A100LH-422 C640A100LR-422
826	Gear End Bracket . . . . . C640A-762		Pendent Throttle for Size C640A22LH or D660A20LH for Size C640A22LR or D660A20LR for Size C640A35LH or D660A30LH for Size C640A35LR or D660A30LR for Size C640A100LH or D660A75LH for Size C640A100LR or D660A75LR	C640A22LH-222 C640A22LR-222 C640A35LH-222 C640A35LR-222 C640A100LH-222 C640A100LR-222
827	Support Bar (2) 20-5/8" (524 mm) long . . . . . C640A22-763 28-5/8" (727 mm) long . . . . . C640A35-763		845 Upper Stop Lever for Size C640A22LH or 35LH, D660A20LH or 30LH . . . . . for Size C640A22LR or 35LR, D660A20LR or 30LR . . . . . for Size C640A100LH or D660A75LH for Size C640A100LR or D660A75LR	C640A22LH-622 C640A22LR-622 C640A100LH-622 C640A100LR-622
828	Stabilizer Bar 20-5/8" (524 mm) long . . . . . C640A22-764 28-5/8" (727 mm) long . . . . . C640A35-764		846 Stop Lever Chain Standard . . . . . Spark-resistant . . . . .	C640A-L773 C640A-L773R
829	Bracket Spacer (4) 6-19/32" (167 mm) long . . . . . C640A22-765 10-19/32" (267 mm) long . . . . . C640A35-765		847 Chain Anchor Screw (2) . . . . . 848 Lock Washer (2) . . . . . 849 Stop Lever Bolt (5/8"-11 thd. x 7") . . . . . * Stop Lever Bolt Nut (ESNA 5/8"-11 thd.) . . . . . 851 Lever Stop Bolt (3/8"-16 thd. x 6-1/2") . . . . . * Stop Bolt Nut (3/8"-16 thd.) . . . . . * Stop Cam (same as for Hoist with superseded Housing - see illustrated part 813) for 2-Ton Hoist . . . . . for 3-Ton Hoist . . . . .	C640A22LH-422 C640A22LR-422 C640A35LH-422 C640A35LR-422 C640A100LH-422 C640A100LR-422 C640A22LH-622 C640A22LR-622 C640A100LH-622 C640A100LR-622 C640A-L773 C640A-L773R R2H-312 R2-230 D01-694-7 D01-341A 107-25 WF171-13 C6H40A22-LR771 D6H60A20-LR771
830	Bolt (6) (7/8"-9 thd. x 2") . . . . . CE110-823			
831	Lock Washer (6) (7/8") . . . . . D02-441A			
832	Load Bar for Swivel Trolley . . . . . C640A-767 for Rigid Trolley . . . . . C640A-766			
*	Caution Tag . . . . . TA-147A			
*	Caution Tag Screw (4) . . . . . R4K-302			
*	Nameplate . . . . . C6H20A-301			
*	Nameplate Screw (4) . . . . . R4K-302			
	Equalizer Sheave Bracket Assembly Standard . . . . . C640A-A639 Spark-resistant . . . . . C640A-AR639			
833	Equalizer Sheave Bracket . . . . . C640A-639			
834	Equalizer Sheave Standard . . . . . C640A-638 Spark-resistant . . . . . C640A-R638			
835	Sheave Spacer (2) . . . . . C640A-768			
836	Sheave Race . . . . . C640A-769			
837	Sheave Shaft . . . . . C640A-770			
838	Grease Fitting . . . . . C6H20A-327			
839	Shaft Nut . . . . . D02-440B			

54

\* Not illustrated.

## PARTS FOR SWIVEL TROLLEYS FOR LOW HEADROOM HOIST

These parts are used for both the superseded cast Housing and the current fabricated Housing. They are illustrated on the views of the Superseded Hoists on Page 51.

### PART NUMBER FOR ORDERING

	Trolley Bracket Assembly	
	for Main Trolley (2 wheels per Bracket) (2 for Plain Trolley; 1 for Hand Chain Driven Trolley)	
	Standard	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BL430-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BL430
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BL430T
	Spark-resistant	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BRL430-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BRL430
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BRL430T
	for Hand Chain Trolley, Geared Side	
	Standard	
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-GL430
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-GL430T
	Spark-resistant	
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-GRL430
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-GRL430T
	for Auxiliary Trolley (1 wheel per Bracket)	
	Standard (for Gear-end of Hoist)	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BL689-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BL689
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BL689T
	Spark-resistant (for Gear end of Hoist)	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BRL689-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BRL689
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BRL689T
	Standard (for Motor end of Hoist)	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BL690-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BL690
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BL690T
	Spark-resistant (for Motor end of Hoist)	
	for Trolley operating on 6" or 7" I-Beam . . . . .	C6H40A-BRL690-6
	for Trolley operating on 8" or larger I-Beam . . . . .	C6H40A-BRL690
	for Trolley operating on Flat-Tread Monorail . . . . .	C6H40A-BRL690T
300	Swivel Trolley Bracket	
	for Main Trolley . . . . .	C6H40A-L430
	for Auxiliary Trolley	
	Gear end of Hoist . . . . .	C6H40A-L690
	Motor end of Hoist . . . . .	C6H40A-L689
301	Trolley Wheel	
	Plain, Standard	
	for Trolley operating on 6" or 7" I-Beam . . . . .	D04-231
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-431
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-T431
	Plain, Spark-resistant	
	for Trolley operating on 6" or 7" I-Beam . . . . .	D04-1231
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-1431
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-T1431
	Geared, Standard	
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-472
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-T472
	Geared, Spark-resistant	
	for Trolley operating on 8" or larger I-Beam . . . . .	D04-1472
	for Trolley operating on Flat-Tread Monorail . . . . .	D04-T1472

\* Not illustrated.

**PARTS FOR SWIVEL TROLLEYS FOR LOW HEADROOM HOIST (Cont'd)**

PART NUMBER FOR ORDERING 

302	Trolley Wheel Shaft (1 for each Wheel) for Plain Wheel . . . . . for Geared Wheel . . . . .	D04-435 D04-474
303	Trolley Wheel Shaft Nut (1 for each Shaft) for Shaft for Plain Wheel (1-3/8"-12 thd.) . . . . . for Shaft for Geared Wheel (3/4"-10 thd.) . . . . .	D10-305 DU-562
*	Lock Washer (1 for each Shaft (for Geared Wheel) 3/4") . . . . .	D01-692
304	Angle Grease Fitting (1 for each Shaft) . . . . .	23-189
306	Wheel Bearing (1 for each Wheel) . . . . .	D04-956
307	Bearing Plate (1 for each Wheel) . . . . .	D04-955
308	Bearing Cap (1 for each Wheel) . . . . .	D04-954
309	Wheel Bolt (4 for each Wheel) (1/4"-28 thd. x 1-1/4") . . . . .	501-638
310	Wheel Bolt Nut (1 for each Wheel Bolt) (1/4"-28 thd.) . . . . .	501-639
*	Wheel Bearing Spacer (1 for each Wheel) (used only on Trolley operating on 6" or 7" I-Beam . . . . .	D04-963
312	Trolley Guide Roller (1 for each Auxiliary Bracket) . . . . .	C6H20A-688
313	Guide Roller Nut (1 for each Roller) (5/8"-18 thd.) . . . . .	D01-305
314	Guide Roller Lock Washer (1 for each Roller) (5/8") . . . . .	A-67
315	Guide Roller Grease Fitting (1 for each Roller) . . . . .	C6H20A-327
316	Trolley Bracket Bolt (2 for each Bracket) (3/4"-10 thd.) 10" (254 mm) long . . . . . 10-1/2" (267 mm) long . . . . . 11" (279 mm) long . . . . . 11-1/2" (292 mm) long . . . . . 12" (305 mm) long . . . . .	C6H20A-439-10 C6H20A-439-10 1/2 C6H20A-439-11 C6H20A-439-11 1/2 C6H20A-439-12
317	Bracket Bolt Nut (1 for each Bolt) (3/4"-10 thd. ESNA) . . . . .	C6H20A-440
318	Trolley Bracket Spacers Thickness 1/6" (4.23 mm) . . . . . 1/4" (6.35 mm) . . . . . 3/8" (9.53 mm) . . . . . 1/2" (12.70 mm) . . . . .	C6H20A-442-1/6 C6H20A-442-1/4 C6H20A-442-3/8 C6H20A-442-1/2
319	Trolley Mounting Swivel Block (1 for each Trolley) . . . . .	C6H40A-L425
320	Swivel Block Pin (1 for each Block) . . . . .	C6H40A-L823
321	Swivel Thrust Bearing (1 for each Pin) . . . . .	D06-379A
322	Block Pin Cotter (1 for each Pin) . . . . .	215-124

\* Not illustrated.

**Note:** Illustrated Parts 274, 275, 276, 277, 278, 280, 281, 282 and 284, and nonillustrated part D02-442A-1/6 as listed on page 46 for Hand Chain Driven Trolley for 2-Ton or 3-Ton Standard Headroom Hoist are also used on Low Headroom Hoist with Hand Chain Driven Trolley.

**RIGID TROLLEYS FOR LOW HEADROOM HOISTS**

A Low Headroom Hoist equipped with the current fabricated Housing Assembly incorporating the **Load Bar for Rigid Trolley** uses the same Trolley Assemblies as a Standard Headroom 2-Ton or 3-Ton Hoist. A Low Headroom Hoist with the superseded Housing must use swivel Trolleys.

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