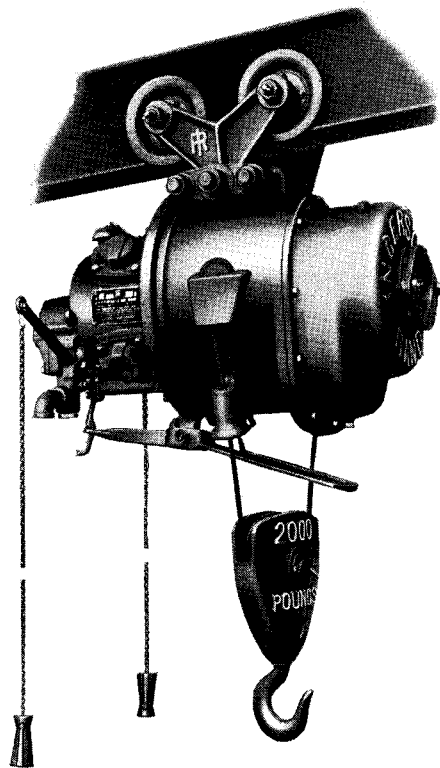


INSTRUCTIONS and REPAIR PART LIST

OVERHEAD HOISTS

SIZE C STANDARD HOIST

SIZES CN, CQ, CR, CW and CX LONG LIFT HOISTS



also see new

Form 5703

Ingersoll-Rand

Refer All Communications to the
Nearest Address on the Back Cover

Ingersoll-Rand

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NOTE:—When ordering repair parts, always state the Size and Serial Number of the Hoist.

Parts can be ordered from the nearest Branch Office or Agent.

Ingersoll-Rand Hoists cannot be guaranteed if repaired with other than Ingersoll-Rand repair parts.

**IF NECESSARY TO SEND A HOIST TO THE FACTORY FOR REPAIRS, INQUIRE AT OUR NEAREST
BRANCH OFFICE FOR SPECIAL INSTRUCTIONS. SEE LAST PAGE FOR ADDRESSES.**

INSTRUCTIONS

LUBRICATION

Warning: Before shipment, all oil was drained from the Motor Case (1). A quantity of oil sufficient for one filling is contained in the can packed with the Hoist. Before operating the Hoist, close both Oil Cocks (8), remove the Vent Cap (2) and pour the entire contents of the can into the Motor Case.

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

After the Hoist has been idle several hours, open the Oil Cock (8) at the bottom of the Motor Case (1) and allow the accumulated water to drain out.

Open the upper Oil Cock, unscrew the Vent Cap (2) from the top of the Motor Case and add oil until the oil in the Motor Case is level with the open Oil Cock.

For Temperatures 30° F. to 80° F. use Ingersoll-Rand Pneu-Lube Medium Oil No. 50 or S.A.E. 20 or 20W Motor Oil.

For Temperatures below 30° F. use S.A.E. 10 Motor Oil.

For Temperatures above 80° F. use S.A.E. 30 Motor Oil.

Maintain Grease Level in Gear Chamber: Periodically as experience dictates, remove the Grease Plug (73) from the side of the Gear Case (72). If the grease level is below the opening unscrew the top Plug and add enough Ingersoll-Rand Heavy Gear Grease No. 70 to bring the grease in the chamber to the level of the side opening. Ingersoll-Rand Light Grease No. 31 or a No. 2 consistency lime or soda soap grease may be used as a substitute for the No. 70 Grease. Four pounds of grease are required for an initial filling.

Weekly

Insert Ingersoll-Rand Light Grease No. 31 or No. 2 Cup Grease into the Valve Chest Grease Fitting (34). Two or three strokes from the No. C-228 Grease Gun are sufficient.

Squirt a little machine oil into each oil hole in the Sheave Block (146).

Ingersoll-Rand Air Line Lubricators are recommended for use with Overhead Hoists

AIR STRAINER (Illustrated on page 20)

The use of an Air Strainer Assembly (661) is recommended.

Periodically, as experience dictates, shut off the air supply and unscrew the Air Strainer Plug (664) from the Strainer Cap (663). Be sure no one is in line with the unplugged hole, then turn on the air momentarily and blow out the dirt. If the Screen (662) becomes clogged to the extent that the above

method fails to clean it properly, unscrew the Cap from the Strainer Body, remove the Screen and wash it in kerosene or other solvent.

OPERATION AND MAINTENANCE INSTRUCTIONS

Keep Wire Rope (108) tightly wound on the grooved Rope Drum (104): Before putting the Hoist in service and periodically thereafter, run the Hoist in the lowering direction until less than one wrap of Rope remains on the Drum. Apply a load and rewind the Rope on the Drum. During storage, shipment or even during operation, if the Hoist is used predominantly for lowering loads, the Wire Rope has a tendency to uncoil. If not corrected, a loop will form which eventually may become large enough to contact the Hoist Housing (70) and cause serious damage.

Wire Rope Replacement

For Size C Standard Lift Hoist

1. Free the end of the Wire Rope (108) that is anchored to the side of the Hoist Housing (70).
2. Unscrew the Guide Rod Retaining Screw (117) and remove the Guide Rods (113) and Rope Guide (112).
3. Unscrew the Rope Clip Screw (107) and remove the Rope Clip (106) from the Rope Drum (104).
4. Unscrew the Rope Set Screw (105) and free the zinc-cone end of the old Rope from the drum socket.
5. Uncoil the new Rope and straighten it out on the floor.
6. Remove any burrs from the zinc-cone on the end of the Rope. Enter the cone into the drum socket and install the Set Screw.
7. Draw the Rope into the end groove and install the Rope Clip.
8. Slowly operate the Hoist while applying sufficient tension on the Rope to wind it tightly on the Drum. When all but 6 or 8 feet have been wound, stop the Hoist and install the Rope Guide parts, aligning the Rope Guide with the proper groove in the Drum.
9. Run the free end of the Rope up through the cast eye and wedge pocket on the side of the Housing. Bring the end back down through the pocket (forming a loop above the pocket) and fasten it with the Rope Clamp (110).
10. Place the Rope Wedge (109) in the loop and pull on the Rope until the Wedge is drawn firmly into the Pocket.

For Size CR Long Lift Hoist

Follow steps 3, 4, 5, 6 and 7 in preceding section and slowly operate the Hoist while applying sufficient tension on the Rope to wind it tightly on the Drum.

For Sizes CN, CQ, CW and CX Long Lift Hoists

1. Work the zinc-cone on the end of the Wire Rope (108) out of the hub of the Rope Drum (104) and on Size CN or CQ, free the end of the Rope that is anchored on the side of the Hoist. Uncoil the new Rope and straighten it out on the floor. Remove any burrs from the zinc-cone and insert the cone into the drum socket. Anchor the loose end of the Rope to the Hoist Housing on Size CN or CQ following steps 9 and 10.

Brake Adjustment and Maintenance

Adjustment: Screw the Brake Bolt Nuts (88) onto the Brake Bolts (87) to a position where there is a gap of $\frac{1}{32}$ " to $\frac{1}{16}$ " between each Nut and the face of the Brake Plunger (90) when the throttle is closed.

If the brake does not properly release, check for air leakage from the Brake Pipe (131) or the Brake Diaphragm (92).

If slippage is noted, and the brake is properly adjusted, the most probable cause is a worn Brake Facing (80). Drain the grease from the gear chamber, remove the Gear Case (72) from the Hoist Housing (70) and withdraw the Motor Shaft (76) on which are mounted the Brake Disc (79) and Brake Facing. When reassembling, tighten the Brake Bolt Nuts (88) onto the Brake Bolts (87) far enough that the Brake Plate (86) will clear the Brake Facing when the Gear Case is applied. Make adjustment after bolting the Gear Case firmly on the Housing.

Reverse Valve Removal

Unscrew the Throttle Valve Cap (48) and remove the Poppet Throttle Valve (45) from the Valve Chest (29) before attempting to withdraw the Reverse Valve (50) from the Reverse Valve Bushing (35).

Valve Chest Removal

Use two No. C-932 Jack Bolts, listed under Maintenance Tools on page 11, to remove the Valve Chest (29) from the Motor Case (1).

Removal and Installation of Bushings in the Valve Chest

Use an arbor that will clear the Bushing Key (32) that projects into each valve chest bore and press on the bushing face that is flush with the chest face to remove either the Rotary Valve Bushing (30) or Reverse Valve Bushing (35) from the Valve Chest (29). Otherwise, the Bushing Key will be sheared off.

Align the keyslot in the bushing wall with the Bushing Key in the Valve Chest and start each Bushing into the face of the Valve Chest that contacts

the Motor Case. Press in each Bushing until its leading face is flush with the face of the Chest.

If the Rotary Valve (38) is too tight in the new Bushing, lap it to a good running fit using a mild, fine grain compound whose abrasive agent will rapidly disintegrate.

Do not lap the Reverse Valve (50) into the Reverse Valve Bushing. If the Valve is too tight in the Bushing, ream the Bushing 1.375".

Removal and Installation of the Crank

1. Drain the oil from the Motor Case (1), disconnect the Brake Pipe (131) from the Valve Chest (29) and remove the Stop Lever Link (120).
2. Unscrew the Motor Case Screws (126) and remove the Motor Assembly from the Motor Case Cover (128).
3. Remove each Cylinder (21) from the Motor Case (1) and slip out the Piston Wrist Pin (28) freeing the Piston (25) from each Connecting Rod (17). The Crank Assembly is now retained only by the fit of the Crank Bearing (20) in the Motor Case and can usually be pulled out by hand; if not, insert a brass or hard wood shaft through the bore of the Rotary Valve Bushing and lightly strike the valve end of the Crank.
4. Drive out the Crank Taper Pin (12) and loosen the Crank Pinch Bolt (13) after which the two sections of the Crank (10) can be separated for the removal of the Connecting Rods (17), Connecting Rod Bushing (19) and Crank Pin Sleeve (11).

Note: The two sections of the Crank (10) are joined and marked before final machining, therefore only those with similar marking can be assembled together. If two or more Cranks are disassembled at one time, be sure the stamping on each web is identical when reassembling. Use a new Taper Pin each time a Crank is reassembled.

5. Slide the Crank Pin Sleeve (11), plain end first, onto the crank pin, and slip the Connecting Rod Bushing (19) over the Sleeve.
6. Install the Connecting Rods (17) and Connecting Rod Rings (18) being sure that the Rings are positioned so that the radius ends face each other.
7. Join the two sections of the Crank, being sure the tang on the Crank Pin Sleeve enters the slot in the crank web.
8. Insert the Crank Taper Pin (12) and seat it with a punch. Tighten the Crank Pinch Bolt (13) and, after again striking the Pin with a punch, spread the split end of the Pin.
9. Insert the Crank Assembly into the Motor Case (1), entering the Crank Bearing (20) to full depth in the bearing recess.
10. Rotate the Crank to bring one Connecting Rod to top dead center and install a Piston (25) and

Cylinder (21). Use a No. C-933 Piston Ring Compressor when installing the Cylinder. Repeat this operation for each of the other Cylinders.

11. Place the Motor Case Cover Gasket (130) in position and install the Motor Assembly.
12. Connect the Brake Pipe (131) and hook up the stop lever linkage.

Hoist Disassembly and Assembly

1. Remove the Wire Rope (108) and Rope Guide (112). See **"Wire Rope Replacement"** on page 3.
2. Remove the Gear Case (72) and Motor Shaft (76). See **"Brake Adjustment and Maintenance"** on page 4.
3. Remove the Motor Assembly. See steps 1 and 2 under **"Removal and Installation of the Crank"** on page 4.
4. Remove the Motor Case Cover (128) and Rope Drum (104) from the Hoist Housing (70).
5. Pull the Intermediate Gear (102) and Drive Gear (95) with assembled parts from the Hoist Housing (70). It may be necessary to lightly strike the pinion end of the Drive Shaft with a soft hammer to start the Drive Shaft Inner Bearing (99) out of the recess in the Housing.
6. Press the Drive Shaft (97) out of the Drive Gear (95) and remove the Drive Gear Key (96) before attempting to remove the Inner Bearing (99) from the Shaft.

Note: The combination of double-row, open-type Bearing and two fiber Drive Shaft Packing Washers that was once used on the pinion end of the Drive Shaft (97), has been superseded by a single-row, double-shield Bearing. The improved Bearing is narrower and therefore must be used in combination with a Drive Shaft Bearing Spacer (100). Discard both fiber washers when installing an improved Bearing as a replacement for the old style open bearing. The faces of the inner and outer rings of the improved Bearing are flush on one side, while on the opposite side, the face of the inner ring is slightly lower than the face of the outer ring.

7. Press the Drive Shaft Inner Bearing (99), flush side first, onto the Drive Shaft (97) and slide the Drive Shaft Bearing Spacer (100) onto the Shaft and against the bearing inner ring.
8. Install the Drive Gear Key (96) in the keyseat in the Shaft and press the Drive Gear (95), shallow recessed face first, onto the Shaft until the gear hub contacts the Bearing Spacer.

9. Press the Drive Shaft Outer Bearing (98) onto the Shaft to the shoulder. Run a Bearing Screw (101) into the Shaft, tighten it firmly and lock it with a punch.
10. Enter the Intermediate Gear Shaft (103) into the bore of the Intermediate Gear (102) from the large diameter side of the Gear. Press the Shaft into the gear hub until the shoulder on the Shaft is flush with the face of the hub on the pinion end of the Gear.
11. Install an Intermediate Gear Shaft Bearing (98) on each end of the Intermediate Gear Shaft. Run a Bearing Screw (101) into each end of the Shaft, tighten the Screws firmly and lock them with a punch.
12. Enter the Rope Drum (104), gear end first into the bore of the Hoist Housing (70).
13. Position the Motor Shaft Packing (84) and Packing Washer (85) into the bore of the Motor Case Cover (128) so that the Packing is on the second shoulder and the Washer on the first. Install the Motor Shaft Bearing (83) in the cover bore so that it seats on the Washer. Position the Drum Oiler (129) in the slot in the shank on the Cover.
14. Align the two guide rod holes in the cover flange with the two guide rod holes in the gear case end of the Housing and slide the cover shaft through the drum bore and out through the central hole in the Hoist Housing.
15. Install the Motor Assembly. See steps 11 and 12 under **"Removal and Installation of the Crank"** on page 4.
16. Mesh the Drive Gear (95) with the pinion on the Intermediate Gear (102) and simultaneously install the Drive Shaft and Intermediate Gear Shaft assemblies.
17. Insert the Motor Shaft (76) with assembled parts into the Motor Case Cover bore, engaging the splines on the end of the Shaft with the internal splines in the Crank (10) and meshing the teeth near the Brake Disc (79) with the teeth on the large diameter of the Intermediate Gear (102).
18. Install the Gear Case (72). See **"Brake Adjustment"** on page 4.
19. Install the Wire Rope (108). See **"Wire Rope Replacement"** on page 3.
20. Replenish the Motor Case with oil and the gear chamber with grease. See **"Lubrication"** on page 3.

REPAIR PART LIST

MOTOR PARTS

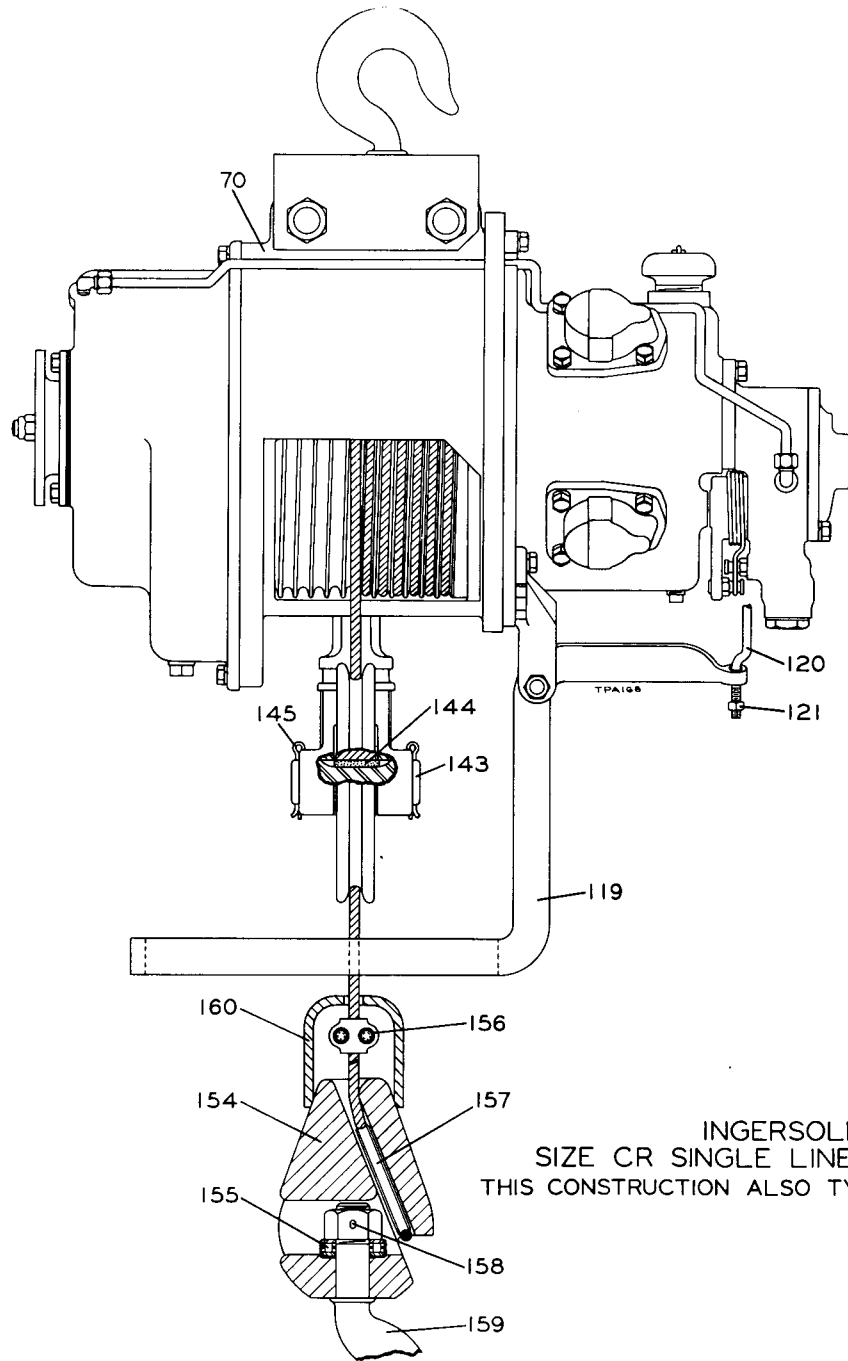
Refer to illustration on page 6.

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING	ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING
	Motor Assembly (see footnote No. 1 on page 11)		24	Cylinder Cap Screw Washer (copper) (16).....	C-504
	For Size C.....	C-A501	★25	Piston (4).....	C-513
	For Size CN.....	CN-A501	26	Piston Ring (1 for each Piston).....	C-337
	For Size CQ.....	CQ-A501	27	Oil Regulating Piston Ring (1 for each Piston).....	C-338
	For Size CR.....	CR-A501	28	Piston Wrist Pin (4).....	C-514
	For Size CW.....	CW-A501	†	Valve Chest Assembly.....	C-A545
	For Size CX.....	CX-A501	●29	Valve Chest.....	C-545
1	Motor Case (see footnote No. 1 on page 11)		●30	Rotary Valve Bushing.....	C-525
	For Size C.....	C-501	●31	Valve Oiler.....	C-539
	For Size CN.....	CN-501	●32	Bushings Key (2).....	C-538
	For Size CQ.....	CQ-501	●33	Throttle Lever Spring Stop Pin.....	C-553
	For Size CR.....	CR-501	●34	Valve Chest Grease Fitting.....	C-879
	For Size CW.....	CW-501	●35	Reverse Valve Bushing.....	C-945
	For Size CX.....	CX-501	●36	Valve Oiler.....	C-539
2	Vent Cap.....	C-303	37	3/8" Lock Washer (5).....	C-321
3	Vent Cap Screen.....	C-889	●38	Rotary Valve.....	C-526
4	Vent Cap Screen Retainer.....	C-892	●39	Valve Drive Pin.....	C-527
5	Vent Cap Cotter.....	C-893	●40	Valve Chest Cover.....	C-546
6	Vent Cap Chain.....	C-891	●41	Valve Chest Cover Gasket.....	C-928
7	S-Hook.....	C-421	●42	Valve Chest Short Screw (3).....	C-549
8	Oil Cock (2).....	C-308	●43	Valve Chest Long Screw (2).....	C-548
9	Drain Plug.....	C-402	●44	Inlet Ell.....	C-581
	Crank Assembly.....	C-A516	●45	Poppet Throttle Valve.....	C-940
10	Crank, Bare (consists of 2 matched pieces, neither of which is sold separately).....	C-516	●46	Throttle Valve Ball (1/2" dia. steel ball).....	C-941
11	Crank Pin Sleeve.....	C-519	●47	Throttle Valve Spring.....	C-942
12	Crank Taper Pin.....	C-520	●48	Throttle Valve Cap.....	C-943
13	Crank Pinch Bolt.....	C-521	●49	Throttle Valve Cap Gasket.....	C-946
14	Crank Pinch Bolt Lock Washer.....	C-537	●50	Reverse Valve.....	C-944
15	Oil Splasher.....	C-540	51	Throttle Control Arm.....	C-555
16	Oil Splasher Rivet (3).....	C-541	52	Throttle Lever Spring Stop Pin.....	C-553
17	Connecting Rod (4).....	C-509	54	Throttle Lever Spring.....	C-412
18	Connecting Rod Ring (2).....	C-510	55	Throttle Lever (2).....	C-556
19	Connecting Rod Bushing.....	C-511	56	Throttle Lever Bolt.....	C-411
20	Crank Bearing (2) (AFBMA No. 30BC02).....	C-518	57	Throttle Lever Bolt Nut (2).....	C-418
21	Cylinder (4).....	C-505	58	Stop Link Bolt.....	C-523
22	Cylinder Gasket (4).....	C-507	59	Stop Link Bolt Washer.....	C-419
23	Cylinder Cap Screw (16).....	C-506		Stop Link Bolt Cotter.....	C-524

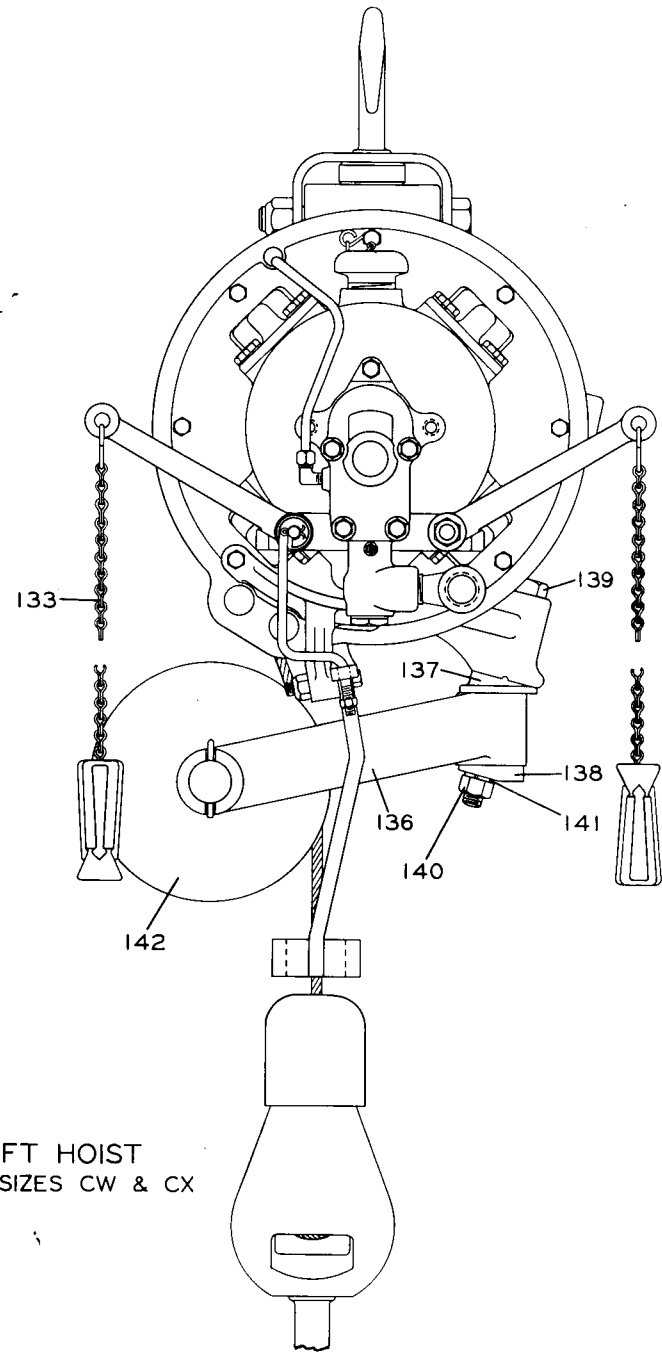
†Can be used as a replacement for the Valve Chest Assembly with "taper-plug" type Throttle Valve with which Hoists under serial 28,000 were equipped. A new style Throttle Control Arm (51) must also be purchased and installed when making this conversion. Neither the old style Valve Chest Assembly nor any of its components are available.

●Not available for Hoists with "taper-plug" Throttle Valve. Order a Valve Chest Assembly and Control Arm. See preceding note.

*The new style aluminum Piston (25) is furnished as a repair part. Before ordering a repair Piston, check the part being replaced to determine whether it is cast iron or aluminum. If cast iron, order and install a complete set of four aluminum Pistons. Do not use cast iron Pistons and aluminum Pistons in the same motor.



INGERSOLL-RAND
 SIZE CR SINGLE LINE LONG LIFT HOIST
 THIS CONSTRUCTION ALSO TYPICAL OF SIZES CW & CX



HOIST PARTS

Refer to illustration on pages 6 and 8.

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING		
		Size C	Sizes CN, CP, CQ	Sizes CR, CW, CX
70	Hoist Housing	C-300	C-300	CR-300
71	Dowel Pin (2)	C-347	C-347	C-347
72	Gear Case	C-353	C-353	C-353
73	Grease Plug (3)	C-351	C-351	C-351
74	Gear Case Screw (10)	C-354	C-354	C-354
75	Gear Case Gasket	C-931	C-931	C-931
	Motor Shaft Assembly	C-A316	C-A316	C-A316
76	Motor Shaft	C-316	C-316	C-316
77	Motor Shaft Nut	C-317	C-317	C-317
78	Motor Shaft Cotter	C-330	C-330	C-330
79	Brake Disc	C-388	C-388	C-388
80	Brake Facing	C-385	C-385	C-385
81	Brake Facing Rivet (4)	C-398	C-398	C-398
82	Brake Disc Key	C-387	C-387	C-387
83	Motor Shaft Bearing (Double Row, Narrow Type No. 5205 Series Bearing)	C-318	C-318	C-318
84	Motor Shaft Packing	C-872	C-872	C-872
85	Motor Shaft Packing Washer	C-873	C-873	C-873
86	Brake Plate	C-389	C-389	C-389
87	Brake Bolt (2)	C-392	C-392	C-392
88	Brake Bolt Nut (2)	C-394	C-394	C-394
89	Brake Bolt Cotter (2)	C-386	C-386	C-386
90	Brake Plunger	C-391	C-391	C-391
91	Brake Spring (2)	C-393	C-393	C-393
92	Brake Diaphragm	C-390	C-390	C-390
93	Brake Diaphragm Ring	C-395	C-395	C-395
94	Brake Diaphragm Screw (8)	C-396	C-396	C-396
95	Drive Gear	C-357	C-357	C-357
96	Drive Gear Key	C-370	C-370	C-370
97	Drive Shaft	C-358	C-358	C-358
98	Drive Shaft Outer Bearing or Intermediate Gear Shaft Bearing (3) (AFBMA No. 20BC02)	C-366	C-366	C-366
99	Drive Shaft Inner Bearing (Fafnir No. 207TD, Federal 8035F or their equivalent) (see footnote No. 2 on page 11)	C-616	C-616	C-616
100	Drive Shaft Bearing Spacer (see footnote No. 2)	C-403	C-403	C-403
101	Bearing Screw (3)	C-361	C-361	C-361
102	Intermediate Gear	C-364	C-364	C-364
103	Intermediate Gear Shaft	C-365	C-365	C-365
104	Rope Drum			
	Grooved Type (for Sizes C and CR)	C-371	—	C-371
	Spool Type (for Sizes CN, CP, CQ, CW and CX)	—	CN-324	CN-324
105	Rope Set Screw (for Sizes C and CR)	C-381	—	C-381
106	Rope Clip (for Sizes C and CR)	C-949	—	C-949
107	Rope Clip Screw (for Sizes C and CR)	C-950	—	C-950
108	Wire Rope			
	(for Sizes C and CR)	C-372	—	CR-372
	(for Sizes CN and CW)	—	CN-372	CN-372
	(for Sizes CP, CQ and CX)	—	CQ-372	CQ-372
109	Wire Rope Wedge	C-373	C-373	—
110	Wire Rope Clamp	C-375	C-375	—
111	Rope Clamp Nut	C-445	C-445	—
112	Rope Guide (used beginning serial 18,500)	C-790	—	—
113	Rope Guide Rod (2) (used beginning serial 18,500)	C-791	—	—
114	Rope Guide Roller (used beginning serial 18,500)	C-792	—	—
115	Guide Roller Pin (used beginning serial 18,500)	C-793	—	—
116	Roller Pin Cotter (2) (used beginning serial 18,500)	C-796	—	—
117	Guide Rod Retaining Screw (used beginning serial 18,500)	C-795	—	—
118	Guide Rod Retaining Washer (used beginning serial 18,500)	C-794	—	—
119	Safety Stop Lever	C-422	CN-422	CR-465
120	Stop Lever Link	C-424	CN-424	CN-424

HOIST PARTS CONTINUED

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING		
		Size C	Sizes CN, CP, CQ	Sizes CR, CW, CX
121	Stop Lever Link Nut.....	-----	C-428	C-428
122	Stop Lever Bracket.....	C-905	C-905	C-905
123	Stop Lever Bracket Screw (2).....	C-906	C-906	C-906
124	Stop Lever Bolt.....	C-423	C-423	C-423
125	Stop Lever Bolt Nut.....	C-904	C-904	C-904
126	Motor Case Screw (6).....	C-312	C-312	C-312
*	Motor Case Screw Nut.....	C-429	C-429	C-429
127	3/8" Lock Washer (18).....	C-321	C-321	C-321
128	Motor Case Cover.....	C-502	C-502	C-502
129	Drum Oiler.....	C-542	C-542	C-542
130	Motor Case Cover Gasket.....	C-592	C-592	C-592
131	Brake Pipe.....	C-401	C-401	C-401
132	Brake Pipe Elbow (includes connector) (2).....	C-400	C-400	C-400
133	Throttle Lever Chain (2) (for Sizes C, CN and CR).....	C-413	CN-413	CN-413
	(for Sizes CP, CQ and CW).....	-----	CQ-413	CW-413
	(for Size CX).....	-----	-----	CX-413
134	S-Hook (2 for each Chain).....	C-421	C-421	C-421
135	Pull Chain Throttle Handle (2).....	C-415	C-415	C-415
136	Swivel Arm.....	-----	-----	CR-460
137	Swivel Adapter.....	-----	-----	CR-461
138	Swivel Adapter Cap.....	-----	-----	CR-462
139	Swivel Bolt.....	-----	-----	CR-466
140	Swivel Bolt Nut.....	-----	-----	CR-467
141	Swivel Bolt Lock Washer.....	-----	-----	CR-468
142	Sheave.....	-----	-----	C-380
143	Sheave Shaft.....	-----	-----	C-382
144	Sheave Shaft Oiler.....	-----	-----	C-384
145	Sheave Shaft Cotter (2).....	-----	-----	C-383
	Sheave Block Assembly			
	With Open Hook.....	C-A378	C-A378	-----
	With Safety Hook.....	C-AS378	C-AS378	-----
146	Sheave Block			
	With Open Hook.....	C-378	C-378	-----
	With Safety Hook.....	C-S378	C-S378	-----
†147	Bottom Hook and Nut			
	Open Type.....	C-377	C-377	-----
	Safety Type.....	C-S377	C-S377	-----
148	Safety Hook Latch Kit (individual parts not sold separately).....	C-S4055	C-S4055	-----
†149	Hook Bearing (Timken No. T-88 or its equivalent).....	C-379	C-379	-----
150	Sheave.....	C-380	C-380	-----
151	Sheave Shaft.....	C-382	C-382	-----
152	Sheave Shaft Cotter (2).....	C-383	C-383	-----
153	Sheave Shaft Oiler.....	C-384	C-384	-----
	Hook Block Assembly			
	With Open Hook.....	-----	-----	CR-A463
	With Safety Hook.....	-----	-----	CR-AS463
Δ 154	Hook Block.....	-----	-----	CR-463
Δ 155	Hook Bearing (Timken No. T-88 or its equivalent).....	-----	-----	C-379
156	Rope Clamp.....	-----	-----	CR-464
157	Rope Wedge.....	-----	-----	C-373
158	Bottom Hook Cotter.....	-----	-----	CR-376
Δ 159	Bottom Hook and Nut			
	Open Type.....	-----	-----	C-377
	Safety Type.....	-----	-----	C-S377
*	Safety Hook Latch Kit (individual parts not sold separately).....	-----	-----	C-S4055
160	Safety Stop Block.....	-----	-----	CR-469

Not illustrated.

†Unless the shank on the present Bottom Hook is threaded 7/8"-14 thd., order a Sheave Block (146).

Δ Unless the shank on the present Bottom Hook is threaded 7/8"-14 thd., order a Hook Block Assembly.

HOIST PARTS CONTINUED

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING		
		Size C	Sizes CN, CP, CQ	Sizes CR, CW, CX
161	Top Hook Yoke Assembly (for Sizes C, CN, CR and CW)			
	With Open Hook	C-A590	C-A590	C-A590
	With Safety Hook	C-AS590	C-AS590	C-AS590
● 162	Top Hook Yoke			
	With Open Hook	C-590	C-590	C-590
	With Safety Hook	C-S590	C-S590	C-S590
● 162	Top Hook and Nut			
	Open Type	C-304	C-304	C-304
	Safety Type	C-S304	C-S304	C-S304
163	Safety Hook Latch Kit (individual parts not sold separately)	C-S4055	C-S4055	C-S4055
● 164	Top Hook Bearing (Timken No. T-88 or its equivalent)	C-379	C-379	C-379
● 165	Top Hook Spacer	C-591	C-591	C-591
166	Yoke Bolt (2)	C-339	C-339	C-339
167	Yoke Bolt Nut (one for each Yoke Bolt)	C-341	C-341	C-341

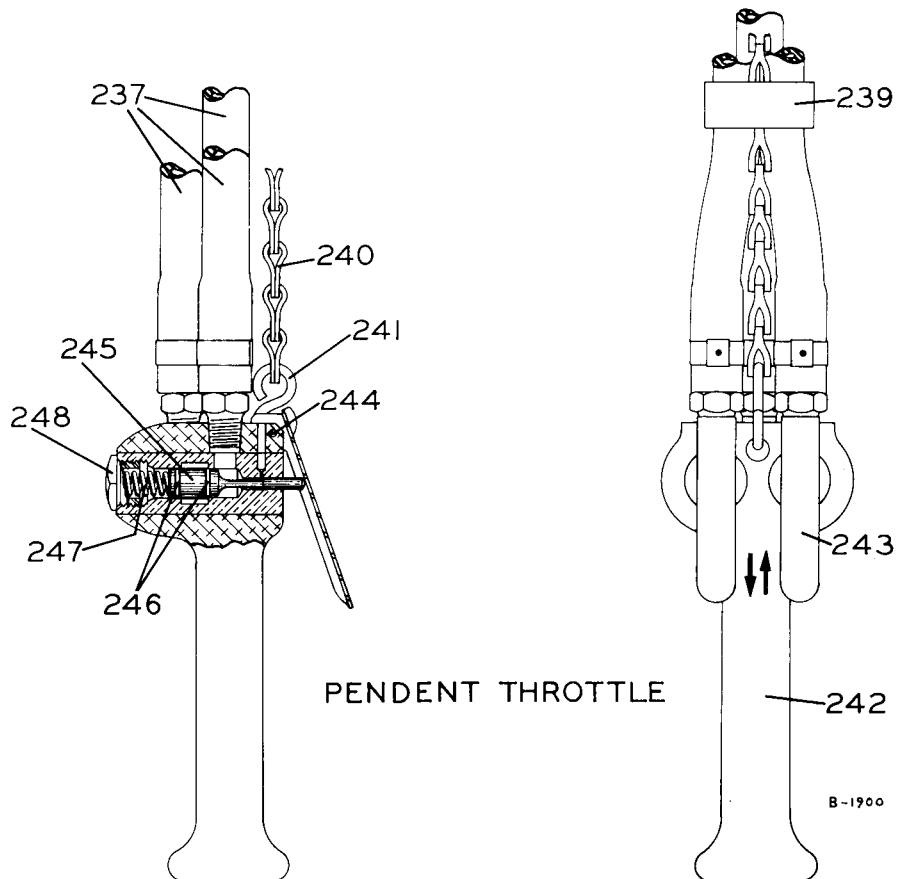
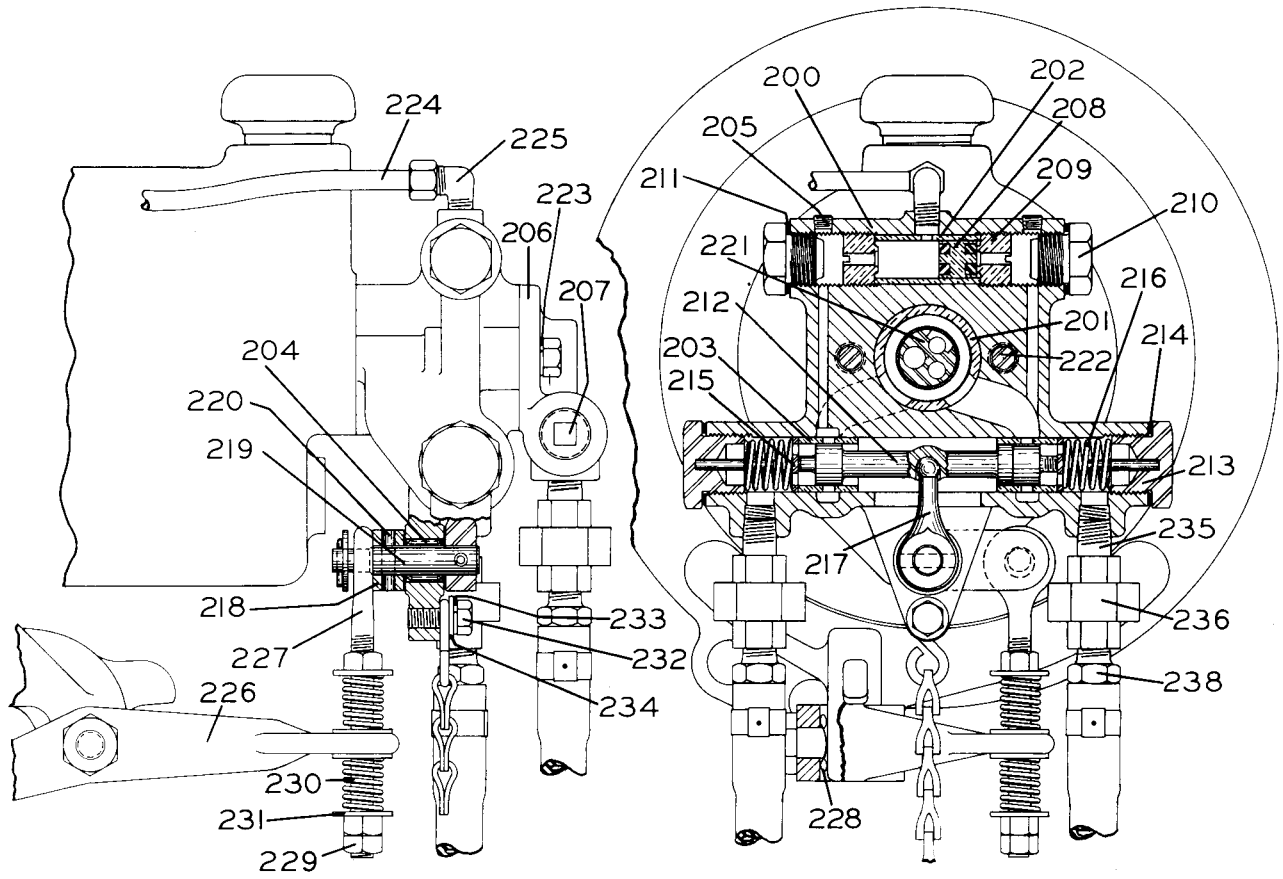
● Unless the shank on the present Top Hook is threaded $\frac{7}{8}$ "-14 thd., order a Top Hook Yoke (162).

Footnote No. 1—These Hoists now use a Stop Lever Bracket (122) which is attached to the flange on the Motor Case (1) with two Stop Lever Bracket Screws (123). Previously the bracket was cast integral with the Motor Case (1). When ordering a Motor Assembly or Motor Case, also order the Bracket and two Screws if the bracket is integral with the Motor Case that is to be replaced. Also order a Motor Case Cover (128), Brake Pipe (131) and Stop Lever Link (120) if the motor being replaced is under serial 13,000.

Footnote No. 2—The double-row, open type bearing previously used to support the pinion end of the Drive Shaft (97) has been superseded by the Drive Shaft Inner Bearing (99) and Drive Shaft Bearing Spacer (100). The improved Bearing is double-shield type and eliminates the necessity of the two fiber Drive Shaft Packing Washers that were required in the previous construction. If the Bearing to be replaced is old style, order the Spacer as well as the Bearing.

MAINTENANCE TOOLS

Tool Number For Ordering	Name of Tool	Operation
C-228	Grease Gun	Lubrication.
C-426	Rope Set Screw Wrench	Removing and installing the Rope Set Screw (105) in the Rope Drum (104).
C-932	Valve Chest Jack Bolt (2)	Removing the Valve Chest (29) from the Motor Case (1).
C-933	Piston Ring Compressor	Compressing the Piston Rings (26 and 27) when installing a Cylinder (21).
23468	Throttle Valve Seat Reamer	Refacing the seat in the Valve Chest (29) for the Poppet Throttle Valve (45).
23470	Throttle Valve Stem Reamer	Reaming the throttle valve stem hole in the Reverse Valve Bushing (35) after installing a new Bushing in the Valve Chest (29).
37860	Shuttle Valve Bushing Reamer	Reaming the Shuttle Valve Bushings (203) after installation in the Shuttle Valve Chest (200).
37871	Shuttle Valve Bushing Inserting Tool	Installing the Shuttle Valve Bushings (203) in the Shuttle Valve Chest (200).
38180	Brake Valve Bushing Inserting Tool	Installing the Brake Valve Bushing (202) in the Shuttle Valve Chest (200).



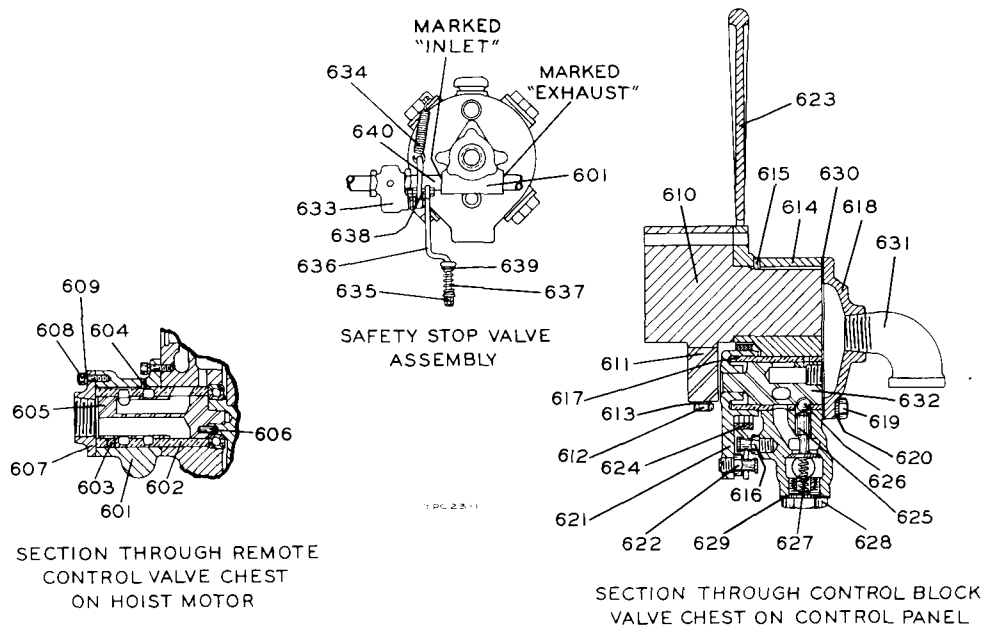
PENDENT THROTTLE PARTS

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING
	Shuttle Valve Chest Assembly	C-A245
200	Shuttle Valve Chest	C-245
201	Rotary Valve Bushing	C-525
*	Valve Oiler	C-539
*	Bushing Key	C-237
202	Brake Valve Bushing	C-63
203	Shuttle Valve Bushing (2)	C-247
204	Stop Arm Shaft Bearing (Torrington No. B-810 or its equivalent)	C-243
205	1/16" Pipe Plug (2)	C-95
206	Shuttle Valve Chest Cover	C-241
207	Air Inlet Plug	C-894
208	Brake Valve	C-62
209	Brake Valve Seat (2)	C-65
210	Brake Valve Cap (2)	C-107
211	Brake Valve Cap Gasket (2)	C-108
212	Shuttle Valve	C-246
213	Shuttle Valve Cap (2)	C-238
214	Shuttle Valve Cap Gasket (2)	C-239
215	Shuttle Valve Washer (2)	C-248
216	Shuttle Valve Spring (2)	C-250
217	Shuttle Valve Finger	C-251
218	Stop Arm	C-254
219	Stop Arm Shaft	C-255
220	Stop Arm Shaft Pin (2)	C-256
221	Rotary Valve	C-526
*	Valve Drive Pin	C-527
222	Shuttle Valve Chest Screw (2)	C-548
223	Valve Chest Screw Lock Washer (2)	C-321
224	Brake Pipe	C-201
225	Brake Pipe Elbow (2)	C-400
226	Safety Stop Lever	
	For Size C	C-222
	For Sizes CN, CP and CQ	CN-222
	For Sizes CR, CW and CX	CR-222
227	Stop Lever Link	C-224
228	Friction Spring (2) (used on Size C only)	C-P268
229	Stop Lever Link Nut (3 used on Size C; 2 on others)	C-139
230	Stop Lever Link Spring (2 used on Size C; 1 on others)	C-106
231	Stop Lever Link Washer (4 used on Size C; 2 on others)	C-419
232	Pendent Throttle Chain Screw	C-68
233	Chain Screw Lock Washer	C-58
234	5/16" Plain Washer	C-986
235	Pendent Throttle Inlet Nipple (3)	C-908
236	Control Hose Union (3)	C-129
237	Control Hose (3) (standard length 5 ft. Any length up to and including 15 ft. will be furnished when specified)	C-930
238	Control Hose Nipple (2 for each Hose)	C-14
239	Control Hose Binder (3)	C-927
240	Pendent Throttle Chain (specify length 1" shorter than (237) Control Hose)	C-240
241	Pendent Throttle Chain S-Hook (2)	C-221
242	Pendent Throttle Handle	C-269
243	Pendent Throttle Lever (2)	C-273
244	Throttle Lever Pin	C-P120
245	Pendent Throttle Valve (2)	C-264
246	Pendent Throttle Valve Seal Ring (2 for each Valve)	C-210
247	Pendent Throttle Valve Spring (2)	C-51
248	Pendent Throttle Valve Cap (2)	C-180

REMOTE CONTROL PARTS

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING
	Remote Control Valve Chest Assembly.....	C-A686
601	Remote Control Valve Chest.....	C-686
602	Rotary Valve Bushing.....	C-525
603	Valve Oiler.....	C-539
604	Bushing Key.....	C-538
605	Rotary Valve.....	C-526
606	Valve Drive Pin.....	C-527
607	Remote Control Valve Chest Cover.....	C-698
608	Valve Chest Short Screw (2).....	C-549
*	Valve Chest Long Screw (2).....	C-548
609	3/8" Lock Washer (4).....	C-321
	Remote Control Block Assembly.....	C-A685
610	Remote Control Block.....	C-685
611	Control Arm Retainer.....	C-687
612	Control Arm Retainer Screw (2).....	C-682
613	Control Arm Retainer Screw Lock Washer (2).....	C-58
*	Reducing Bushing (1" to 3/4") (2).....	C-284
614	Control Block Valve Chest.....	C-876
615	Bushing Key (2).....	C-538
616	Throttle Spring Stop Pin.....	C-553
617	Control Block Reverse Valve Bushing.....	C-890
618	Control Block Valve Chest Cover.....	C-877
619	Control Block Valve Chest Cover Screw (2).....	C-878
620	Cover Screw Lock Washer.....	C-544
621	Control Block Throttle Arm.....	C-881
622	Throttle Spring Stop Pin.....	C-553
623	Control Block Throttle Lever.....	C-882
624	Control Block Throttle Lever Spring.....	C-883
625	Control Block Poppet Throttle Valve.....	C-884
626	Control Block Throttle Valve Ball.....	C-885
627	Control Block Throttle Valve Spring.....	C-886
628	Control Block Throttle Valve Cap.....	C-887
629	Control Block Throttle Valve Cap Gasket.....	C-896
630	Control Block Valve Chest Cover Gasket.....	C-875
*	Throttle Lever Bolt (2).....	C-411
*	Throttle Lever Bolt Nut (2).....	C-418
*	Grease Fitting.....	C-879
631	Exhaust Ell.....	C-587
632	Control Block Reverse Valve.....	C-897
	Safety Stop Valve Assembly.....	C-A988
633	Safety Stop Valve.....	C-988
634	Valve Return Spring.....	C-249
635	Hexagon Nut (5/16"-18 thd.) (4).....	C-428
636	Stop Lever Link.....	C-924
637	Stop Link Spring.....	C-925
638	Stop Lever Link Bolt.....	C-985
639	5/16" Plain Washer (3).....	C-986
640	Pipe Nipple (3/4" x 3").....	C-987

*Not illustrated.



Remote Control Parts

TABLE A

(See pages 16 and 17)

TROLLEY BRACKET BOLTS, HINGE PINS and TROLLEY BRACKET SPACERS REQUIRED FOR MOUNTING PLAIN and HAND CHAIN DRIVEN TROLLEY ON VARIOUS TRACKS

For I-Beams and Richards-Wilcox "TRU-TRED" TRACKS

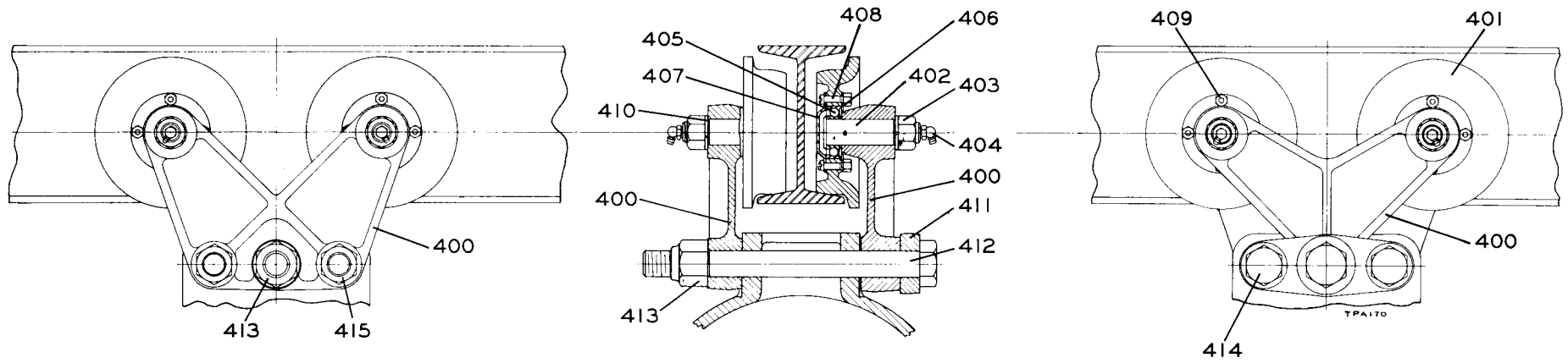
Beam Size, inches	Flange Width, inches	*Length of Trolley Bracket Bolts, inches	Length of Bracket Hinge Pin, inches	Trolley Bracket Spacers	
				Length of Spacer, inches	Quantity, Required
★ 5	3.00	10	10½	—	—
6	3.33	10	10½	—	—
7	3.66	10	10½	1/6	4
8	4.00	10	10½	1/6	8
9	4.33	11	10½	1/2	4
10	4.66	11	11½	1/6 and 1/2	4 each
11	5.00	11	11½	27/32	4
12	5.50	12	11½	13/32	4

For Flat-Tread Monorails

Flange Width of Monorail, inches	*Length of Trolley Bracket Bolts, inches	Length of Bracket Hinge Pin, inches	Trolley Bracket Spacers	
			Length, inches	Quantity, Required
3.25 to 3.33	10	10½	1/6	8
4 1/16	11	11½	1/6 3/8	8 4

*Length shown is for Trolleys on Hoists over serial 30,000 . 1" shorter Bolts are used for Trolleys on Hoists under serial 30,000.

★A Trolley for operation on 5" beam requires a No. C-963 Trolley Wheel Bearing Spacer for each Trolley Wheel. No other spacers are required.



Plain Trolley

PLAIN TROLLEY
For Sizes C, CP, CQ, CR and CX

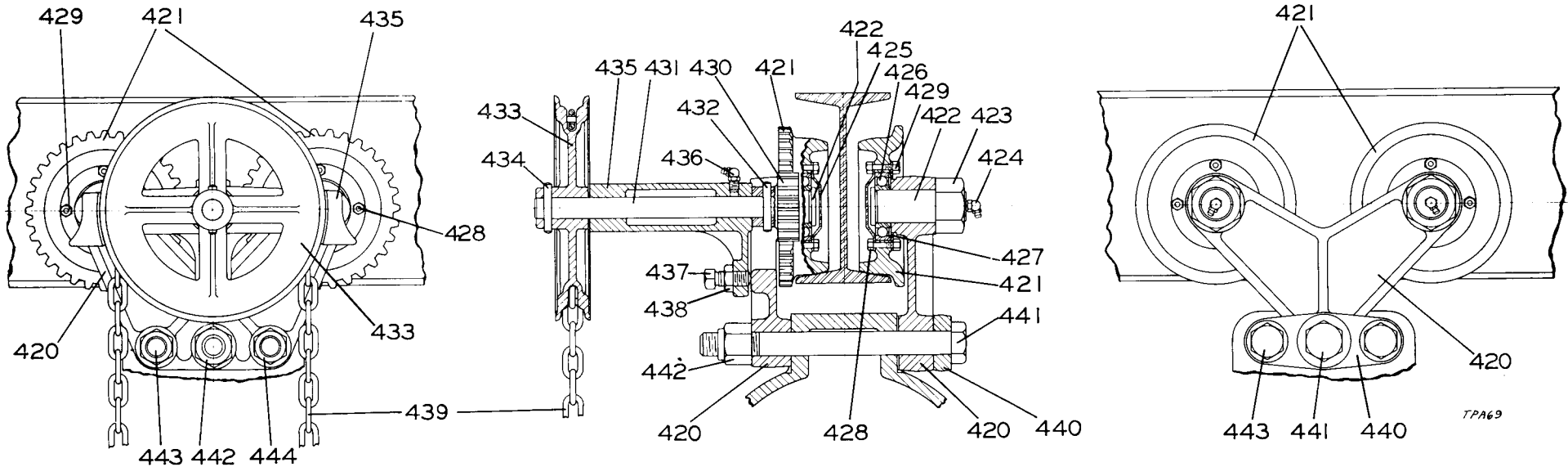
ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING					
		For Hoists Over Serial 30,000			For Hoists Under Serial 30,000		
		For 5" or 6" I-Beam	For 7" to 15" I-Beam	For Flat Tread Monorails	For 5" or 6" I-Beam	For 7" to 15" I-Beam	For Flat Tread Monorails
★	Trolley Assembly	C-A430-5	C-A430	C-AT430	C-C430-5	C-C430	C-CT430
	Assembled Trolley Bracket						
	Hinge Type	C-B427-5	C-B427	C-BT427	_____	_____	_____
	Rigid Type (1 for Hoists over serial 30,000; 2 for others)	C-B430-5	C-B430	C-BT430	_____	_____	_____
400	Trolley Bracket						
	Hinge Type	C-427	C-427	C-427	_____	_____	_____
	Rigid Type (1 for Hoists over serial 30,000; 2 for others)	C-430	C-430	C-430	C-430	C-430	C-430
401	Trolley Wheel (2 for each Assembled Trolley Bracket)	C-231	C-431	C-T431	C-231	C-431	C-T431
402	Trolley Wheel Shaft (1 for each Wheel)	C-435	C-435	C-435	C-435	C-435	C-435
403	Trolley Wheel Shaft Nut (1 for each Shaft)	C-958	C-958	C-958	C-958	C-958	C-958
404	Angle Grease Fitting (1 for each Shaft)	C-189	C-189	C-189	C-189	C-189	C-189
405	Trolley Wheel Bearing (1 for each Wheel)	C-956	C-956	C-956	C-956	C-956	C-956
406	Bearing Plate (1 for each Wheel)	C-955	C-955	C-955	C-955	C-955	C-955
407	Bearing Cap (1 for each Wheel)	C-954	C-954	C-954	C-954	C-954	C-954
408	1/4" Cap Screw (4 for each Wheel)	C-957	C-957	C-957	C-957	C-957	C-957
409	1/4" Elastic Stop Nut (1 for each Cap Screw)	C-120	C-120	C-120	C-120	C-120	C-120
410	3/4" Lock Washer (1 for each Wheel)	C-962	C-962	C-962	C-962	C-962	C-962
*	Trolley Wheel Bearing Spacer (1 for each Wheel) (used only on Trolleys for operation on 5" I-Beam)	C-963	_____	_____	C-963	_____	_____
411	Trolley Bracket Yoke	C-952	C-952	C-952	_____	_____	_____
412	Bracket Hinge Pin						
	10 1/2" long	C-953-10 1/2	C-953-10 1/2	C-953-10 1/2	_____	_____	_____
	11 1/2" long	_____	C-953-11 1/2	C-953-11 1/2	_____	_____	_____
413	1" Elastic Stop Nut	C-959	C-959	C-959	_____	_____	_____
414	Trolley Bracket Bolt (2) (Refer to Table A on page 15)						
	9" long	_____	_____	_____	C-439-9	C-439-9	_____
	10" long	C-439-10	C-439-10	C-439-10	_____	C-439-10	C-439-10
	11" long	_____	C-439-11	_____	_____	C-439-11	_____
	12" long	_____	C-439-12	_____	_____	_____	_____
415	Trolley Bracket Bolt Nut (2)	C-440	C-440	C-440	C-440	C-440	C-440
*	Trolley Bracket Spacer (Refer to Table A on page 15)						
	1/16" long	_____	C-442-1/16	C-442-1/16	_____	C-442-1/16	C-442-1/16
	3/8" long	_____	_____	C-442-3/8	_____	_____	C-442-3/8
	1/2" long	_____	C-442-1/2	_____	_____	C-442-1/2	_____
	27/32" long	_____	C-442-27/32	_____	_____	C-442-27/32	_____
	13/32" long	_____	C-442-13/32	_____	_____	C-442-13/32	_____

★Always specify the flange width of the I-Beam or Monorail on which the Trolley is to operate.

*Not illustrated.

HAND CHAIN DRIVEN TROLLEY

For Sizes C, CP, CQ, CR and CX



18

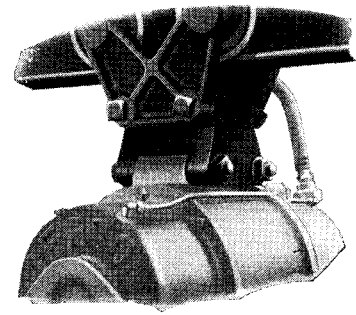
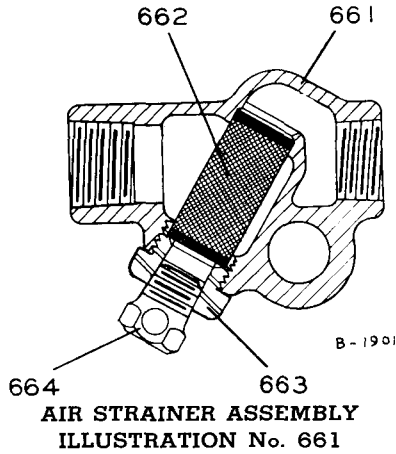
ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING			
		For Hoists Over Serial 30,000		For Hoists Under Serial 30,000	
		For I-Beams	For Flat-Tread Monorails	For I-Beams	For Flat-Tread Monorails
★	Hand Chain Trolley Assembly				
	For Size C	C-A471	C-AT471	C-C471	C-CT471
	For Size CP or CQ	CQ-A471	CQ-AT471	CQ-C471	CQ-CT471
	For Size CR	CR-A471	CR-AT471	CR-C471	CR-CT471
	For Size CX	CX-A471	CX-AT471	CX-C471	CX-CT471
	Assembled Trolley Bracket				
	Geared Side	C-G430	C-GT430	C-G430	C-GT430
	Plain Side	C-B427	C-BT427	C-B430	C-BT430
420	Trolley Bracket				
	Geared Side	C-430	C-430	C-430	C-430
	Plain Side	C-427	C-427	C-430	C-430
421	Trolley Wheel				
	Geared Side (2)	C-472	C-T472	C-472	C-T472
	Plain Side (2)	C-431	C-T431	C-431	C-T431

★Always specify the flange width of the I-Beam or Monorail on which the Trolley is to operate.

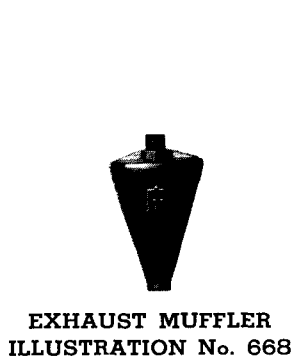
ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART Parts Indented After An Item Are Included With That Item	PART NUMBER FOR ORDERING			
		For Hoists Over Serial 30,000		For Hoists Under Serial 30,000	
		For I-Beams	For Flat-Tread Monorails	For I-Beams	For Flat-Tread Monorails
422	Trolley Wheel Shaft				
	Geared Side (2).....	C-474	C-474	C-474	C-474
	Plain Side (2).....	C-435	C-435	C-435	C-435
423	Trolley Wheel Shaft Nut				
	Geared Side (2).....	C-477	C-477	C-477	C-477
	Plain Side (2).....	C-958	C-958	C-958	C-958
424	Angle Grease Fitting (1 for each Shaft).....	C-189	C-189	C-189	C-189
425	Bearing Cap (1 for each Wheel).....	C-954	C-954	C-954	C-954
426	Trolley Wheel Bearing (1 for each Wheel) (AFBMA No. 25BC02JP).....	C-956	C-956	C-956	C-956
427	Bearing Plate (1 for each Wheel).....	C-955	C-955	C-955	C-955
428	1/4" Cap Screw (4 for each Wheel).....	C-957	C-957	C-957	C-957
429	1/4" Elastic Stop Nut (1 for each Cap Screw).....	C-120	C-120	C-120	C-120
*	3/4" Lock Washer (1 for each Wheel).....	C-962	C-962	C-962	C-962
430	Drive Pinion.....	C-473	C-473	C-473	C-473
431	Chain Sprocket Shaft.....	C-475	C-475	C-475	C-475
432	Taper Pin.....	C-478	C-478	C-478	C-478
433	Chain Sprocket.....	C-470	C-470	C-470	C-470
434	Taper Pin.....	C-478	C-478	C-478	C-478
435	Chain Sprocket Bracket.....	C-471	C-471	C-471	C-471
436	Angle Grease Fitting.....	C-189	C-189	C-189	C-189
437	Bracket Set Screw.....	C-480	C-480	C-480	C-480
438	Bracket Set Screw Nut.....	C-481	C-481	C-481	C-481
439	Hand Chain				
	For Size C.....	C-476	C-476	C-476	C-476
	For Size CP and CQ.....	CQ-476	CQ-476	CQ-476	CQ-476
	For Size CR.....	CR-476	CR-476	CR-476	CR-476
	For Size CX.....	CX-476	CX-476	CX-476	CX-476
440	Trolley Bracket Yoke.....	C-952	C-952		
441	Bracket Hinge Pin				
	10 1/2" long.....	C-953-10 1/2	C-953-10 1/2		
	11 1/2" long.....	C-953-11 1/2	C-953-11 1/2		
442	1" Elastic Stop Nut.....	C-959	C-959		
443	Trolley Bracket Bolt (2) Refer to Table A on page 15)				
	9" long.....			C-439-9	C-439-9
	10" long.....	C-439-10	C-439-10	C-439-10	C-439-10
	11" long.....	C-439-11	C-439-11	C-439-11	C-439-11
	12" long.....	C-439-12	C-439-12		
444	Trolley Bracket Bolt Nut (2).....	C-440	C-440	C-440	C-440
*	Trolley Bracket Spacer (Refer to Table A on page 15)				
	1/6" long.....	C-442-1/6	C-442-1/6		
	3/8" long.....		C-442-3/8		C-442-3/8
	1/2" long.....	C-442-1/2		C-442-1/2	
	27/32" long.....	C-442-27/32		C-442-27/32	
	13/32" long.....	C-442-13/32		C-442-13/32	

*Not illustrated.

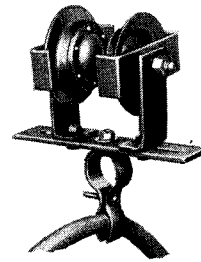
SPECIAL EQUIPMENT and ACCESSORIES



90° ANGLE ATTACHMENT
ILLUSTRATION Nos. 665,
666 and 667



**HOSE TROLLEY, TRACK and
BRACKET**
ILLUSTRATION Nos. 669,
670 and 671



I-BEAM HOSE TROLLEY
ILLUSTRATION No. 672

SPECIAL EQUIPMENT and ACCESSORIES

ILLUSTRATION NUMBER (Do not use for ordering)	NAME OF PART	PART NUMBER FOR ORDERING
	Parts Indented After An Item Are Included With That Item	
661	Air Strainer Assembly	C-A267
662	Air Strainer Screen	C-61
663	Air Strainer Cap	C-268
664	Air Strainer Plug	C-536
*	Air Strainer Nipple (required for attaching Air Strainer Assembly to Hoist)	C-456
665	90° Angle Attachment	C-444
666	Angle Attachment Bolt (2)	C-694-8½
667	Angle Attachment Bolt Nut (2)	C-440
668	Exhaust Muffler	
	For Hoists with Pull Chain Throttle	C-674
	For Hoists with Pendant Throttle	C-P674
*	Muffler Nipple	
	For Hoists with Pull Chain Throttle	C-675
	For Hoists with Pendant Throttle	C-P675
*	Muffler Chain	C-673
*	S-Hook	C-421
*	Reducing Bushing (for Hoists with Pendant Throttle)	C-284
669	Hose Trolley	C-730
670	Hose Trolley Track (10 ft. length)	C-731
671	Hose Trolley Track Bracket	C-732
672	I-Beam Hose Trolley	
	For operation on I-Beams with flanges 2.33" up to and including 5.00" wide	C-8888-3
	For operation on I-Beams with flanges 5.00" up to and including 8.75" wide	C-8888-12

Not illustrated.

UNIT ASSEMBLIES

NAME OF PART	PART NUMBER FOR ORDERING					
	Size C	Size CN	Size CQ	Size CR	Size CW	Size CX
Housing Unit (includes illustrated parts 70, 71 (2), 72, 73 (3), 74 (10), 75, 76, 77, 78, 79, 80, 81 (4), 82, 83, 84, 85, 86, 87 (2), 88 (2), 89 (2), 90, 91 (2), 92, 93, 94 (8), 95, 96, 97, 98 (3), 99, 100, 101 (3), 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113 (2), 114, 115, 116 (2), 117, 118, 119, 120, 122, 123 (2), 124, 125, 126 (6), 127 (18), 128, 129, 130, 131, 132, 146, 147, 149, 150, 151, 152 (2) and 153; also includes non-illustrated part C-429).....	C-U300					
Housing Unit (includes illustrated parts 70, 71 (2), 72, 73 (3), 74 (10), 75, 76, 77, 78, 79, 80, 81 (4), 82, 83, 84, 85, 86, 87 (2), 88 (2), 89 (2), 90, 91 (2), 92, 93, 94 (8), 95, 96, 97, 98 (3), 99, 100, 101 (3), 102, 103, 104, 108, 109, 110, 111, 119, 120, 121, 122, 123 (2), 124, 125, 126 (6), 127 (18), 128, 129, 130, 131, 132, 146, 147, 149, 150, 151, 152 (2) and 153; also includes non-illustrated part C-429).....		CN-U300	CQ-U300			
Housing Unit (includes illustrated parts 70, 71 (2), 72, 73 (3), 74 (10), 75, 76, 77, 78, 79, 80, 81 (4), 82, 83, 84, 85, 86, 87 (2), 88 (2), 89 (2), 90, 91 (2), 92, 93, 94 (8), 95, 96, 97, 98 (3), 99, 100, 101 (3), 102, 103, 104, 105, 106, 107, 108, 119, 120, 121, 122, 123 (2), 124, 125, 126 (6), 127 (18), 128, 129, 130, 131, 132, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145 (2), 154, 155, 156, 157, 158, 159 and 160; also includes non-illustrated part C-429).....				CR-U300		
Housing Unit (includes illustrated parts 70, 71 (2), 72, 73 (3), 74 (10), 75, 76, 77, 78, 79, 80, 81 (4), 82, 83, 84, 85, 86, 87 (2), 88 (2), 89 (2), 90, 91 (2), 92, 93, 94 (8), 95, 96, 97, 98 (3), 99, 100, 101 (3), 102, 103, 104, 108, 119, 120, 121, 122, 123 (2), 124, 125, 126 (6), 127 (18), 128, 129, 130, 131, 132, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145 (2), 154, 155, 156, 157, 158, 159 and 160; also includes non-illustrated part C-429).....					CW-U300	CX-U300
Motor Unit (includes illustrated parts 1, 2, 3, 4, 5, 6, 7, 8 (2), 9, 10, 11, 12, 13, 14, 15, 16 (3), 17 (4), 18 (2), 19, 20 (2), 21 (4), 22 (4), 23 (16), 24 (16), 25 (4), 26 (4), 27 (4), 28 (4), 29, 30, 31, 32 (2), 33, 34, 35, 36, 37 (5), 38, 39, 40, 41, 42 (3), 43 (2), 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54 (2), 55, 56 (2), 57, 58, 59, 132, 133 (2), 134 (4) and (2) 135).....	C-U501	CN-U501	CQ-U501	CR-U501	CW-U501	CX-U501
Top Hook Yoke Unit (includes illustrated parts 161, 162, 164, 165, 166 (2) and (2) 167).....	C-U590	C-U590		C-U590	C-U590	
Plain Trolley Unit (includes illustrated parts 400 (2), 401 (4), 402 (4), 403 (4), 404 (4), 405 (4), 406 (4), 407 (4), 408 (16), 409 (16), 410 (4), 411, 412, 413, 414 (2) and (2) 415; also includes non-illustrated part C-442 as required and, if for use on 5" I-Beam (4) C-963).....	C-U430		C-U430	C-U430		C-U430

