



REFERENCE

SHAKEOUT

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F3 CAR SHAKEOUT
PARTS ON DWG 26-00474-001

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
1990	Rope Drum	25-02171-001	1
1991	Pipe Plug	6-10-014-008-1	1
1992	Oil Seal	22-02217-001	1
1993	Drum Gear Key	6-11-028-024-0	1
1994	Welch Plug	22-03951-001	1
1995	Ball Bearing	6-30-041-211-0	1
1996	End Shield	25-00051-001	1
1997	End Shield Gasket	23-01467-004	1
1998	Gear Case	26-00476-004	1
1999	Drum Gear	23-05878-001	1
2000	Drum Spider	25-00052-002	1
2001	Cover Gasket	24-00108-003	1
2002	Not Needed On Ball Bearing Hoist	No Number	-
2003*	Clutch Cover	24-05349-001	1
	Clutch Shaft	23-06740-003	1
	Key	22-00482-015	1
	Clutch Gear	23-06741-004	1
	Bushing	22-02829-003	1
	Spring	22-09561-002	1
2004	Cover	25-02097-007	1
2005	Ratchet Gear	24-00105-002	1
2006	Friction Disc	22-03228-001	1
2007	Intermediate Gear & Spider	25-02993-003	1
2008	" " "	"	1
2009	" " "	"	1
2010	Bushing (Ratchet Gear)	22-03234-001	1
2011	Cam Nut	23-00146-001	1
2012	Not Needed On Ball Bearing Hoist	No Number	-
2013	Cam Nut Key	22-00483-001	1
2014	Ball Bearing	6-30-041-206-0	1
2015	Not Needed	No Number	-
2016	Not Needed	No Number	-
2017	Load Brake Shaft	23-06028-001	1
2018	Thrust Disc Key	6-11-028-026-0	1

*Replaces free wheeling assembly.

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
2019	Thrust Disc	24-02203-001	1
2020	Drum Pinion	23-05869-001	1
2021	Brg. Retainer Not On Ball Bearing Hoist	No Number	-
2022	Welch Plug Not On Ball Bearing Hoist	No Number	-
2023	Welch Plug Disc Not On Ball Bearing Hoist	No Number	-
2024	Ball Bearing	6-30-041-206-0	1
2025	Welch Plug Not On Ball Bearing Hoist	No Number	-
2026	Welch Plug Disc Not On Ball Bearing Hoist	No Number	-
2027	Ball Bearing	6-30-041-206-0	-
2028	Bearing Ret. Washer Not On Ball Bearing Hoist	No Number	-
2029	Key	6-11-026-018-0	1
2030	Int. Pinion	24-04540-003	1
2031	Int. Gear Shaft	23-05872-001	1
2032	Key	6-11-026-018-0	1
2033	Motor Gear	23-06026-001	1
2034	Motor Extension Shaft	23-06025-003	1
2035	& Pinion		
2036	Bearing Ret. Washer Not On Ball Bearing Hoist	No Number	-
2037	Ball Bearing	6-30-041-206-0	1
2038	Oil Seal	22-02834-001	1
2039	Splined Hub	24-05909-007	1
2040	Sleeve & Cover	24-05909-001	1
2041	Key	6-11-004-044-0	1
2042	Bored Hub	24-05909-017	1
2043	Welch Plug Not On Ball Bearing Hoist	No Number	1
2044	Welch Plug Disc Not On Ball Bearing Hoist	No Number	1
2045	Ball Bearing	6-30-041-206-0	1
2046	Brg. Ret. Washer Not On Ball Bearing Hoist	No Number	1
2047	Key	6-11-028-026-0	1
2048	Ball Bearing	6-30-041-206-0	1
2049	Welch Plug Not On Ball Bearing Hoist	No Number	1

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
2050	Welch Plug Disc Not On Ball Bearing Hoist	No Number	-
2051	Brg. Ret. Not On Ball Bearing Hoist	No Number	-
2052	Rope Sheave Bearing	6-30-050-208-1	2
2053	Rope Sheave	24-04332-002	2
2054	Sheave Guards	24-00118-006	2
2055	Sheave Pin	22-07224-003	2
2056	Keeper Plate	22-01800-004	2
2057	Sheave Guard	24-00118-006	2
2058	Thrust Bearing	6-30-160-022-0	2
2059	Hook Nut	6-14-007-013-0	2
2060	Sheave Frame	25-00057-010	2
2061	Sheave Guard	24-00117-010	4
2062	Socket Head Set Screw	6-06-074-008-3	2
2063	Sheave Bearing	6-30-050-208-1	4
2064	Rope Sheave	24-04332-002	4
2065	Load Hook Assy.	24-04189-001	2
2066	" " "	" "	"
2068	Cable Assy.	22-08565-028	1
2068	Cable Assy.	22-08565-029	1
2069	Rope Clip	22-00545-001	2
2070	Rope Thimble	22-00547-001	1
2071	Steel Hoist Frame	26-00091-033	1
2072	Drum Shroud	23-03099-001	2
2073	Limit Switch Shelf	22-04102-025	1
2074	Bearing Retainer Washer	22-04163-001	1
2075	Limit Switch Drive Shaft	23-02107-021	1
2076	Limit Switch Miter Gear	22-03985-009	2
2077	Drum Stud	23-05868-002	1
2078	Hyatt Bearing	6-30-050-211-1	1
2079	Drum Adapter	22-02443-001	1
2080	Screw Type Limit Switch	22-11352-001	1
2081	Limit Switch Shelf	22-04102-067	1

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
2082	Limit Switch Cover (No Longer Required)	No Number	-
2083	Control Box	22-09594-017	1
2084	Gasket (No Longer Required)	No Number	-
2085	Now Part of Item 2083	No Number	-
2086	Hoist Controller	22-07861-001	1
2087	Transformer	23-07228-051	1
2088	Trolley Controller	23-07623-001	1
2089	Shakeout Starter	23-07677-001	1
2090	Motor, Brake, Coupling Assy.	No Number*	1
2091	Bottom Block Assy.	25-00059-041	2
5502	Liberty Chain (Specify Lgth)	22-04393-001	1
5503	Rubber Covered Cable	22-07842-003	1
5504	Strain Reliever	22-09045-009	1
5505	Push Button Complete	22-06102-002	1
5506	Lever Arm Pin	22-06555-001	1
5507	Lincoln Fitting	22-02503-001	1
5508	Keeper Plate	22-01800-004	1
5509	Cap Screw	6-19-153-012-1	1
5510	Stop Pin	22-01985-030	1
5511	Limit Switch	22-07882-003	1
5512	Rope Thimble	22-00547-001	1
5513	Flat Washer	6-23-003-012-1	1
5514	Lever Arm.	24-04061-003	1
5515	Compression Spring	22-06679-001	1
5516	Adjustment Plug	22-06778-001	1
5517	Set Screw	6-06-056-032-3	1
5517	Jam Nut	6-14-005-025-0	1
5517	Lockwasher	6-23-001-051-1	1
5518	Spring Housing	22-06777-001	1
5519	Mounting Plate	24-04221-001	1
5520	Stud	22-01477-026	1
5521	Hex Nut	6-14-007-010-0	1
5522	Lockwasher	6-23-001-051-1	1
5523	Timing Relay	22-11236-001	1
5524	Special Sheave Pin	22-06352-001	1
5525	Keeper Plate	22-01800-004	1
5526	Re-Enforcing Plate	22-06669-001	1
5527	Dead End Spacer	22-03420-001	1

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
5528	Special Rope Sheave	23-05175-001	1
	Bushing For Above	22-03455-002	1
5529	Sheave Guard	22-06558-001	1

When Complete Motor, Brake & Coupling Required
Call For The Following:

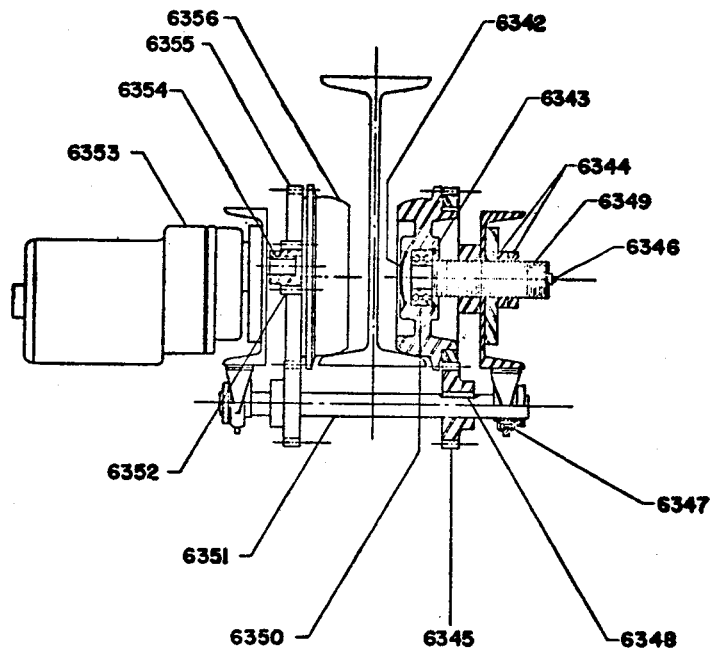
Motor Assy.	23-07705-002	1
Brake Assy.	27-15042-001	1
Sleeve & Cover	24-05909-001	1
Splined Hub	24-05909-007	1
Bored Hub	24-05909-017	1

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F3 CAR SHAKEOUT TROLLEY

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
6342	No Longer Required	No Number	-
6343	Snap Rings	22-06498-015	4
6344	Lock Collars	22-00410-001	8
6345	Pinions	22-10985-002	2
6346	No Longer Required	No Number	-
6347	Bearing	23-07399-011	2
6348	Key	6-11-024-034-0	2
6349	Wheel Studs	22-11113-003	2
6350	Ball Bearing	6-30-042-207-0	2
6351	Cross Shaft	23-07582-012	1
6352	Pinion	22-10985-002	1
6353	Trolley Motor Assy.	21-03661-402	1
6354	Key	6-11-024-034-0	1
6355	Geared Wheel	See Item 6373	2
6356	Wheel Gear	See Item 6373	2
6373*	Geared Wheel Assy.	23-07480-003	2

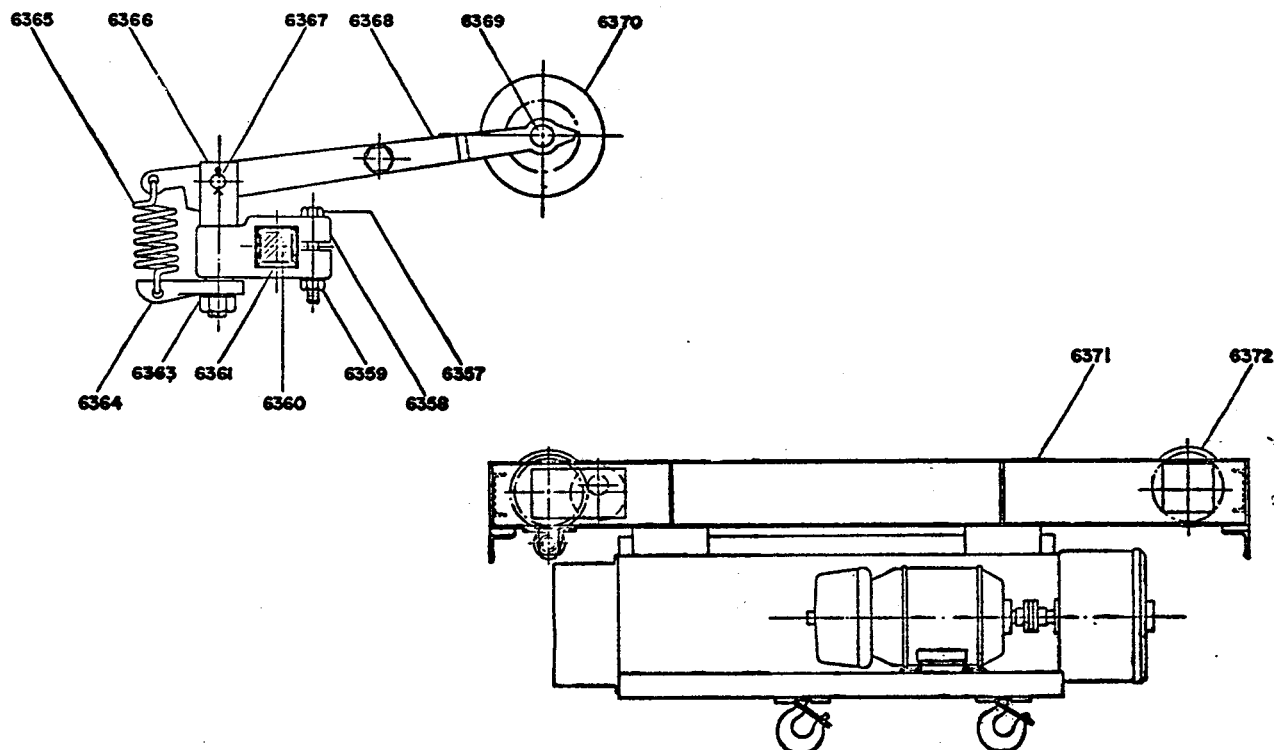
*Items 6355 & 6356 Welded Together.

F3 CAR SHAKEOUT TROLLEY

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ITEM NUMBER	DESCRIPTION	PART NUMBER	QUANTITY
6357	Cap Screw	6-19-151-028-1	1
6358	Swivel Bracket	22-07821-001	1
6359	Hex Nut	6-14-001-009-1	1
6360	Collector Bar	22-00770-001	1
6361	Insulation (18" Long)	22-00339-001	1
6363	Hex Nut	6-14-001-011-1	1
6364	Spring Anchor Lug	22-07825-001	1
6365	Tension Spring	22-00088-001	1
6366	Harp Yoke	22-07822-001	1
6367	Harp Pin	22-00089-001	1
6368	Harp	23-06034-001	1
6369	Collector Wheel Pins	22-00094-005	1
6370*	Collector Wheels	22-00092-009	1
6371	Trolley Frame	24-05925-004	1
6372	Plain Wheels	23-07542-001	2

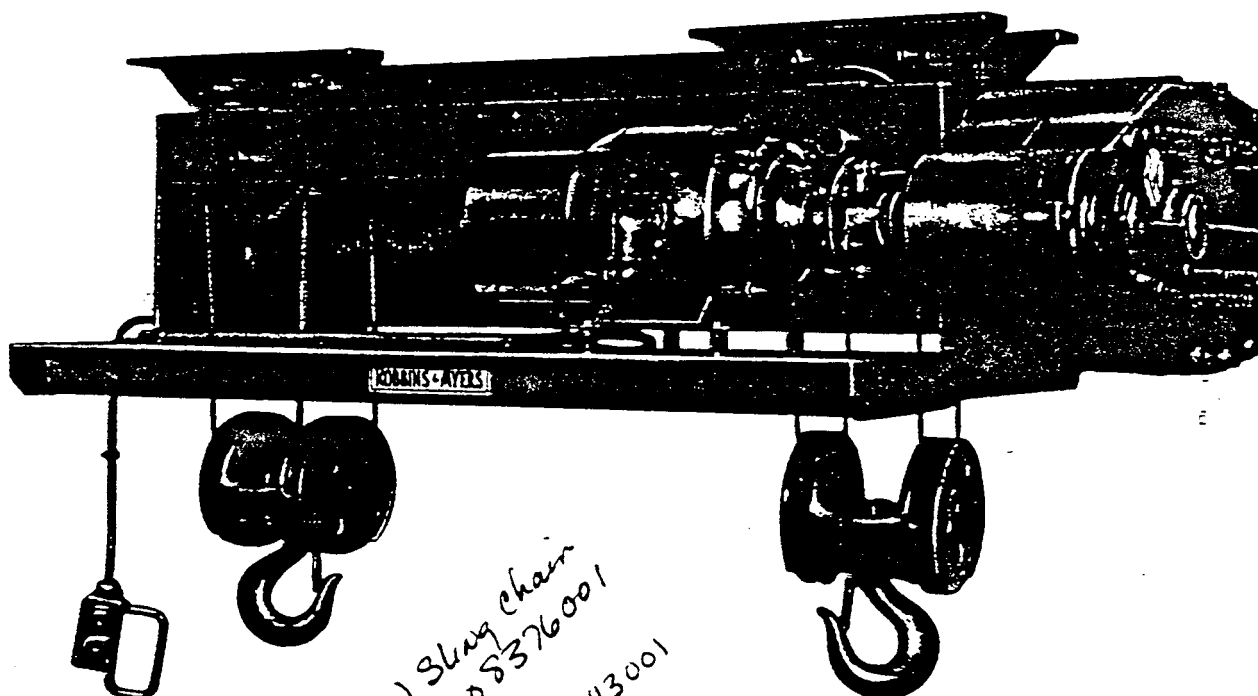
*Requires Bushing 22-09048-001.



Repair Part Bulletin and General Instructions

for

Robbins & Myers Twin Hook Car Shakeout Hoists



IMPORTANT!

KEEP FOR FUTURE REFERENCE

On the brass name plate will be found the Serial Number of your Hoist... i.e., Serial No. H-_____. Without this Serial Number we cannot be sure of sending you correct parts so ALWAYS MENTION SERIAL NUMBER FOR PROMPT SERVICE. For a motor part give Serial Number of Motor as given on motor name plate, as well as Hoist Serial Number.

NOTE: Remember that factories generally may be closed Saturday. Orders received for stock parts late Friday cannot be shipped until the Monday following. In an emergency contact factory, Hoist Division, Phone (513) 323-6461 and every effort will be made to serve you.

ROBBINS & MYERS, INC.
HOIST & CRANE DIVISION, SPRINGFIELD, OHIO





General Information and Operating Instructions
for
Robbins & Myers Twin Hook Shakeout Hoists

FOLLOW THESE INSTRUCTIONS CAREFULLY BEFORE OPERATING

1. HOIST IS SHIPPED WITHOUT OIL IN THE GEAR CASE. FILL THE GEAR CASE TO THE REQUIRED LEVEL WITH SAE-20 MOTOR OIL FOR NORMAL SERVICE. For outside winter service use SAE-10 oil. BE SURE TO ADD THE OIL TO THE GEAR CASE BEFORE OPERATING HOIST.

2. **CAUTION!!**

Next check direction of Hoist hook. **THE HOOK MUST GO UP** when the push button marked **UP** is depressed. If hook does not go up when UP push button is depressed interchange any **TWO** Main Line connections for **3 PHASE** hoists. For all other currents see wiring diagram for instructions. Also see special tags and name plate attached to hoist for other instructions.

3. The lower limit switch is set at the factory for the extreme lower position of the hoist hooks. This switch may require adjustment to suit field conditions. See the limit switch bulletin, which is furnished with the hoist, for the method of adjusting the contacts.

This hoist is also equipped with a slack cable limit switch which breaks the lowering circuit when the car shakeout is lowered on the car. This switch also prevents operation of the shaker motor until the shakeout is in position on the car. This switch will function with hopper cars of any height and should require no adjustment.

If this hoist is equipped with a motor-driven trolley, an inter-locking screw type limit switch is included which prevents operation of the trolley until the hoist hooks have been raised to a predetermined height. This switch may require adjustment to suit field conditions. See limit switch bulletin for method of adjustment.

4. **THE ABOVE 3 ITEMS ARE VERY IMPORTANT, AND SHOULD NOT BE OVERLOOKED OR NEGLECTED, AS SERIOUS DAMAGE MAY RESULT IF THESE INSTRUCTIONS ARE NOT CAREFULLY FOLLOWED AND FOR WHICH WE CANNOT BE RESPONSIBLE.**
5. When push button station is furnished for remote location be sure to connect exactly as shown on the attached wiring diagram. The wiring diagram is located on the inner side of the control box.
6. The hoist motor, sheaves, wheels, etc. have all been lubricated before shipment. For further lubrication of hook sheaves, equalizer sheave, trolley wheels, use a light grease. Grease fitting for the drum bear-



General Information and Operating Instructions
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ing is located inside sheet metal cover that encloses the limit switches. Do not use too much lubrication at this point and lubricate this point not more than twice a year. Keep hoisting rope slushed with grease.

7. For motor ball bearings use "New York and New Jersey" grease No. S-58 or equal, for service in normal temperatures. Ball Bearing motors ordinarily require lubrication twice a year. Use care to **NOT** get an excessive amount and cause grease to work into, and damage the motor windings.
8. The Weston type roller ratchet load brake always controls the load independently of the operator. It operates continuously in an oil bath and requires no attention except to take up wear in the friction discs. To take up wear in the friction discs, pull key from cam nut, screw cam nut in, leaving about one-eighth turn play and replace key. When replacing friction discs be sure to cover both sides of the new discs with a light film of oil before putting them in place as lubrication is an important factor in the satisfactory operation of the load brake. The roller ratchet for the load brake is self contained and is mounted on the drum spider casting. It revolves only when hoisting and is stationary when lowering. In case of failure the complete roller ratchet assembly should be replaced.
9. To remove the drum from hoist, first remove the two cap screws in the front spider casting and pull out spider casting. The drum assembly can now be removed by pulling out through the gear case.
10. In reassembling hoist never force or drive shafts into the bearings. Replace shafts and cover by easy working. Be careful not to damage oil seal for drum shaft. Do not pull up cover by bolts, but tap it lightly home first and then tighten cap screws. Be careful that the cover gasket is in good condition and in its proper place.
11. To put on new cable remove pipe plug from drum, pass rope socket through hole and replace pipe plug. It is not necessary to remove drum. Be careful to prevent putting twist or kink in cable.
12. Make sure all electrical contacts are clean and in good repair. Inspect, and if necessary adjust magnetic brake on motor according to instructions.
13. When installing hoists on I-Beams adjust trolley wheels to get 1/8" to 3/16" clearance between each wheel flange and beam flange, for straight track. Slightly more clearance required if runway has any curves. This adjustment can be made without removing hoist from beam.



Robbins & Myers Twin Hook Car Shakeout Hoists

IMPORTANT

When Ordering Repair Parts Please Give the Following:

- (A) Serial Number of Hoist as Given on Brass Name Plate
(B) Part Number and Name of Part.

The List Below Includes All Parts Called for on Dwg. H.L. 474

PART No.	NAME OF PART		PART No.	NAME OF PART		PART No.	NAME OF PART
1990	Rope Drum		2036	Bearing Retainer Washer		2082	Limit Switch Cover
1991	Pipe Plug		2037	Hyatt Bearing		2083	Control Box
1992	Oil Seal		2038	Oil Seal		2084	Gasket
1993	Drum Gear Key		2039	Extension Shaft Coupling		2085	Control Box Cover
1994	Welch Plug		2040	Coupling Disc		*2086	Hoist Controller
1995	Hyatt Bearing		2041	Key		2087	Control Transformer
1996	End Shield		2042	Motor Coupling		*2088	Trolley Controller
1997	End Shield Gasket		2043	Welch Plug		*2089	Shakeout Starter
1998	Gear Case		2044	Welch Plug Disc		**2090	Motor & Brake & Coupling Assembly
1999	Drum Gear		2045	Hyatt Bearing		2091	Bottom Block Assembly Complete
2000	Drum Spider		2046	Bearing Retainer Washer			
2001	Cover Gasket		2047	Key			
2002	Bearing Retainer Washer		2048	Hyatt Bearing			
2003	Free Wheeling Assembly		2049	Welch Plug			
2004	Cover		2050	Welch Plug Disc			
2005	Ratchet Gear		2051	Bearing Retainer Washer		5502	Chain
2006	Friction Disc		2052	Rope Sheave Bushing		5503	Rubber Covered Cable
2007	Motor Gear	These Three Items Sold as Assembly Only	2053	Rope Sheave		5504	Connector
2008	Motor Gear Key		2054	Equalizer Sheave Guard		*5505	Push Button Station
2009	Motor Gear Spider		2055	Sheave Pin		5506	Lever Arm Pin
2010	Ratchet Gear Bushing		2056	Keeper Plate		5507	Lincoln Fitting
2011	Cam Nut		2057	Equalizer Sheave Guard		5508	Keeper Plate
2012	Bearing Retainer Washer		2058	Hook Bearing		5509	Cap Screw
2013	Cam Nut Key		2059	Hook Nut		5510	Stop Pin
2014	Hyatt Bearing		2060	Sheave Frame		*5511	Limit Switch
2015	Welch Plug Disc		2061	Sheave Guard		5512	Rope Thimble
2016	Welch Plug		2062	Socket Hd. Set Screw		5513	Flat Washer
2017	Load Brake Shaft	These Three Items Sold as Assembly Only	2063	Sheave Bushing		5514	Lever Arm
2018	Key		2064	Rope Sheave		5515	Compression Spring
2019	Thrust Disc		2065	Load Hook		5516	Adjustment Plug
2020	Drum Pinion		2066	Hook Safety Latch		5517	Set Screw, Jam Nut, Lock Washer
2021	Bearing Retainer Washer		2068	Hoist Cable		5518	Spring Housing
2022	Welch Plug		2069	Rope Clip		5519	Mounting Plate
2023	Welch Plug Disc		2070	Rope Thimble		5520	Stud
2024	Hyatt Bearing		2071	Hoist Steel Frame		5521	Hex. Nut
2025	Welch Plug		2072	Drum Shroud		5522	Lock Washer
2026	Welch Plug Disc		2073	Limit Switch Shelf		5523	Timing Relay
2027	Hyatt Bearing		2074	Bearing Retainer Washer		5524	Special Sheave Pin
2028	Bearing Retainer Washer		2075	Limit Switch Drive Shaft		5525	Keeper Plate
2029	Intermediate Pinion Key		2076	Limit Switch Miter Gear		5526	Re-enforcing Plate
2030	Intermediate Pinion		2077	Drum Stud		5527	Dead End Spacer
2031	Intermediate Gear Shaft		2078	Hyatt Bearing		5528	Special Rope Sheave & Bushing
2032	Key		2079	Drum Adapter		5529	Sheave Guard
2033	Intermediate Gear		*2080	Screw Type Limit Switch			
2034	Motor Extension Shaft		2081	Limit Switch Shelf			

***For Repair Parts on Electrical Parts See Separate Bulletin.**

****For Motor Repairs Give Serial No. of Hoist and also Serial No. of Motor.
For Brake Repair Parts See Separate Bulletin.**

