

ME/MP SERIES
Push Button And Cord Control
Link Or Roller Chain
Parts And Instruction
Manual

3456 A

Yale[®]

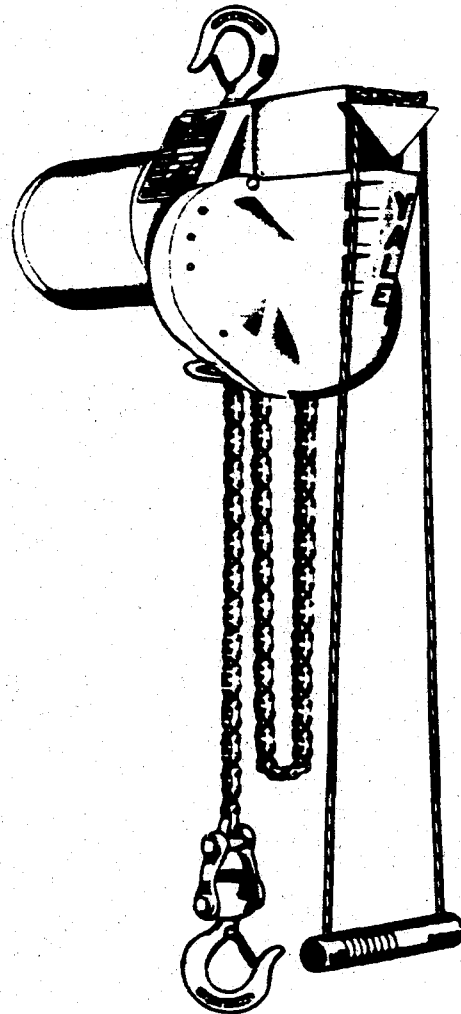
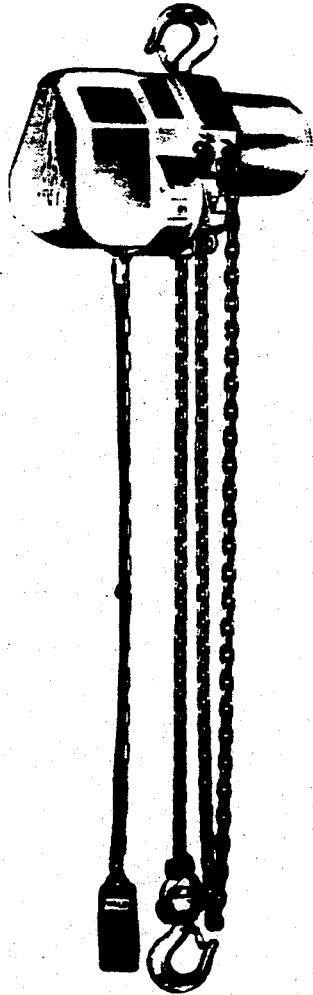


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Safe Hoisting Practices

Yale ELECTRIC HOIST

For your own safety and that of your fellow workers, Material Handling Equipment must be used as recommended by the Manufacturer. Failure to heed the following recommendations could endanger your life. Use good common sense and judgment at all times. Safety is the responsibility of the operator of the equipment. You must be competent and attempt to foresee and avoid all hazardous conditions. To be safe as possible, the hoist must be given proper preventative maintenance and testing as described in the ANSI B30-16 Safety Code for Overhead Hoists and this manual.

BEFORE OPERATING HOIST:

1. Do not operate hoist unless you are properly trained, physically fit, and authorized to do so. You must be familiar with all operating controls of the hoist, warnings and instructions on the hoist, the safe hoisting practices listed in this manual, ANSI B30-16 Safety Code for Overhead Hoists, and all pertinent Federal, State, and local regulations before beginning operation.
2. Do not allow unqualified personnel to operate the hoist.
3. Test all controls and limit switches and make sure hoist is well lubricated at beginning of each shift. Make sure needed lubrication, adjustments or repairs are made by appointed personnel before operations are begun.
4. Be familiar with the equipment and its proper care. Do not operate hoist if adjustments or repairs are necessary, if any damage or undue wear is known or suspected, or if any warnings, operating, or capacity instructions normally attached to hoist are obscured, damaged or missing. Report same promptly to the proper person and also notify next operator when changing shifts.
5. Do not operate hoist if it is functioning improperly.
6. Do not operate hoist with an out-of-order sign attached until sign has been removed by a properly authorized person.

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Safe Hoisting Practices

Yale ELECTRIC HOIST

7. Do not adjust or repair hoist unless qualified for maintenance of hoist.
8. Be sure the power supply is disconnected before maintenance and repair procedure is performed.
9. Do not use the chain as a ground for welding.
10. Do not touch a welding electrode to the chain.

APPLYING THE LOAD:

11. Never wrap the hoist chain around the load, or allow it to drag under load.
12. Always use slings or other approved devices to attach load.
13. Be sure the sling is properly seated in the saddle of the hook. Do not allow hook latch to support any part of load.
14. Do not apply a load to tip of hook, or in such a way as to cause bending or prying forces on the hook or hook support block.
15. Be sure chains are not kinked or twisted or that multiple part chains are not twisted about each other.
16. Do not operate hoist if chain is not seated properly in the pockets of the chain pocket wheels.
17. Center hoist unit over the load before lifting. Avoid side pull.
18. Never pick up a load beyond the rated capacity appearing on the hoist, except for properly authorized tests.

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Safe Hoisting Practices

Yale ELECTRIC HOIST

MOVING THE LOAD:

19. Do not engage in any activity which will divert your attention while operating hoist.
20. Respond to signals from designated personnel only, except for stop signals.
21. Never lift a load with the hoist until you and all other personnel are clear of load.
22. Make sure a load clears all obstacles before moving.
23. Inch the hoist slowly into engagement with a load, but avoid excessive plugging, inching, and quick reversals of load.
24. Do not lift load more than a few inches until it is well balanced in the sling or lifting device.
25. Each time a load approaching rated capacity is handled, check load brake action by raising load just clear of supports and continuing only after you are sure brake is operating properly.
26. Do not transport load over personnel.
27. Never carry personnel on the hook or the load.
28. Avoid swinging of load or load hook when traveling the hoist.
29. On trolley mounted hoists, avoid sharp contact between trolleys, or between trolleys and rail stops.
30. Do not use limit devices as a normal means of stopping the hoist. These are emergency devices only.
31. Do not exceed the maximum duty cycle specified by the manufacturer.

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GENERAL INFORMATION



PARKING:

32. Do not leave a load suspended in the air for extended or unattended periods.
33. Keep load block above head level when not in use.

SAFETY LAWS FOR PASSENGER ELEVATORS

 **CAUTION DO NOT USE YALE HOISTS OR TROLLEYS FOR PASSENGER ELEVATOR APPLICATIONS.**

The safety laws for passenger elevators specify construction details that are not incorporated in Yale Industrial Hoists. We recommend that passenger elevator operation equipment be used that meets all state and national safety codes. Yale Industrial Products, Inc. will not accept responsibility for applications of Yale Hoists on passenger elevators.

INSPECTION, PREVENTIVE MAINTENANCE AND TESTING

A preventive maintenance program should be initiated for this hoist immediately after it is entered into service. The preventive maintenance program should comply with recommendations in this Parts and Instruction Manual, and all pertinent Federal, State, and local regulations. Regular inspections, maintenance, and testing required should be followed for the life of the hoist and written inspection records kept as specified. Sample inspection check lists are included at back of this manual. Extra inspection check lists can be obtained from your nearest authorized Yale Distributor.

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Repair Parts Ordering Information

This Parts and Instruction manual is provided as a convenience to assist you in ordering repair parts for your YALE MEL SERIES ELECTRIC HOIST. To insure prompt service, place all parts orders with your local distributor.

Give all information listed below in items (a), (b), (c) and (d). This will enable your distributor to fill your order promptly.

- (a) Give complete data from hoist nameplate.
- (b) Give part numbers, description and quantity required.
- (c) Give the correct shipping destination.
- (d) When ordering motor repair parts, give all data on the hoist and motor nameplates.

If it becomes necessary to return the complete hoist or certain parts to the factory, a letter requesting such a return is necessary. This letter should contain an explanation for requesting the return. A return authorization will be issued giving you clearance for returning the hoist or parts to the factory. Should you need additional help in ordering, contact your local YALE® distributor.

Recommended Spare Parts

QTY. PER UNIT	PART NUMBER	DESCRIPTION
2	0102564-00	BRAKE SHOE ASSEMBLY
6	0113489-00	CONTACT FINGER
6	0113491-00	CONTACT SPRING
1	6417893-00	RATCHET AND DISC ASSEMBLY
1	0118590-00	DEAD END LINK
1	A113493-00	STATIONARY CONTACT ASSEMBLY
SPECIFY	6409898-00	LOAD CHAIN (STANDARD)
LENGTH	6427004-01	LOAD CHAIN, CADMIUM PLATED

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

PREVENTIVE MAINTENANCE



Lubrication Chart

PART	LUBRICANT	LUBRICATION POINT	LUBRICATION INSTRUCTIONS	DRAIN POINT
GEAR CASE	Esso HDX 50 Gulf HD 50 Texaco URSA ED 50	Push Button Model: Socket Head Pipe Plug On Side Of Gear Case. Cord Control: Socket Head Pipe Plug In The Rib Of The Gear Case.	With The Hoist Suspended, Fill Until Oil Runs Out Of Fill Hole.	Socket Head Pipe Plug In Bottom Of Gear Case.
MOTOR BRAKES ME SERIES	Lubri-Plate Gulf Crown No. 2 Or Equivelant.	Cam And Brake Shoe Studs	Light Film On Cam And Studs	

CHAIN: LINK	Humble Pen-O-Led EP5 Houghton Sta-Put 465 Gulf Multi-Purpose Gear Lubricant 140	Chain	Run Entire Chain Into A Can Or Pan Of Oil. Allow Chain To Soak. Remove Chain From Oil And Allow Oil To Drip. Wipe Excess Oil From Chain.	
ROLLER	Esso Coray 50 Atlantic Non Pariel	Chain	Same As Link Chain.	
BOTTOM BLOCK (2 Ton)	Lubri-Plate Gulf Crown No. 2 Or Equivelant.	Bottom Block Sheave Bearings.	Light Coat Between Sheave Axle And Bearings.	
TROLLEY (With Pressed Steel Wheels)	Gulf Crown No. 2 Or Equivelant.	Axles Are Hollow; Use Grease Gun Fitting 0596774-00.	Fill Until Grease Can Be Seen On Inner Side Of Wheel.	

Normal And Maximum Hook Openings

ME SERIES (Midget King)

CAPACITY IN TONS	TOP HOOK		BOTTOM HOOK	
	NORMAL	MAXIMUM	NORMAL	MAXIMUM
1 4	1 1/32	1 9/32	1 1/32	1 7/32
1 2	1 1/32	1 9/32	1 1/32	1 7/32
1	1 5/32	1 27/64	1 5/32	1 27/64
2	1 17/32	1 51/64	*1 5/16 **1 17/32	1 37/64 1 51/64

* Link Chain

** Roller Chain

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Lubrication

Each unit is shipped with a 12 oz. can of YALE gear oil (part #6439750-00). Before putting the hoist in operation add this oil through the filler plug in the gearcase cover. Fill to the level of this plug.

CAUTION

ALL UNITS ARE SHIPPED DRY.

Power Connection

CAUTION

BEFORE CONNECTING POWER TO THE HOIST, BE SURE THE POWER SUPPLY CORRESPONDS TO THE HOIST RATING.

CAUTION

CHECK FOR CORRECT PHASING.

On polyphase A.C. hoists, it is impossible to know how to connect the power line for correct direction of the hook travel. If the hook does not travel up when the "UP" control is operated, interchange two of the line wires for three phase, and two of the line wires of any one phase for two phase operation. If the hoist is operated with the wrong power line connections, the limit stops will be ineffective and serious damage may result.

After the proper line connections have been made, operate the hoist controls making sure the hoist operates properly.

Operation of Limit Stops and Limit Switches

The MEL/MER is equipped with upper and lower limit stops operating on the controller shaft. These limit stops prevent over-travel of the hook by returning the controller to the neutral position and applying the motor brake at the limit of the hook travel in either the hoisting or lowering direction. In the event of over-travel of the hook, the motor is momentarily reversed.

As for the MPL/MPR, upper and lower limit switches serve the same purpose.

CAUTION: DO NOT TURN CONTROL HANDLE AROUND.

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Trolley Adjustment (2 TON HOISTS)

Note: SEE SEPARATE MANUAL FOR ADJUSTMENT OF 1/8 THRU 1 TON TROLLEYS

Trolleys are normally properly adjusted at the factory to fit I-beam size stated on the order.

Note: When disassembling the trolley for installation on the I-Beam, take note of the arrangement of the spacers and washers for correct reassembly.

For installation on I-Beam other than the size preset at the factory, or if final adjustment to beam is required, follow the instructions below:

Measure the I-Beam flange width and temporarily install the trolley sideplates on the hoist before installation to determine the exact distribution of washers.

The distance between track wheel flanges should be 3/16 inch greater than the beam flange width for straight runway beams, or 3/16 to 1/4 inch on runway systems that include sharp curves. To keep the hoist centered under the I-Beam, the number of washers between the bosses on inside of sideplates and the flange at center of double end studs should be the same, or differ only by one washer. The distribution of washers outside the trolley sideplates is unimportant except that the total number used must be sufficient to keep the nuts engaged.

Note: When installing hoist and trolley on beam, tighten nuts to 175 ft. lbs. torque so that the trolley sideplates are parallel and vertical.

CAUTION BE SURE THERE IS A LOCKWASHER UNDER EACH NUT.

Center the trolley on the beam, and check the clearance between the wheel flange and beam flange. If the trolley is adjusted properly, this clearance will be 3/32" to 1/8".

Function Testing Of Trolley

After the hoist and trolley are installed on the I-Beam, operate the trolley over the entire length of the beam with a capacity load to be sure that adjustment and operation is satisfactory.

WARNING

Operating Instructions

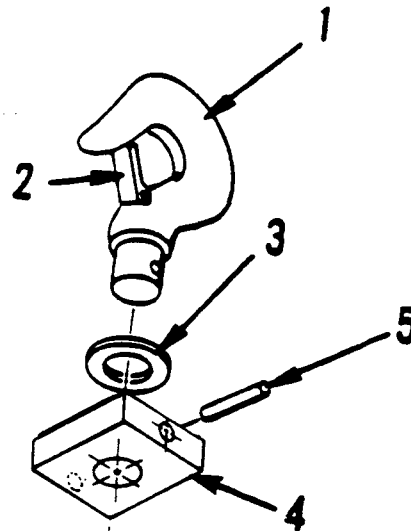
For your own safety and that of your fellow workers, Material Handling Equipment must be used as recommended by the manufacturer. Failure to heed the safe hoisting practices spelled out on pages 1 thru 4 could endanger your life. Read them carefully, know them well, and keep them handy for reference.

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Chain Container (WHEN USED) REFER TO REPAIR PARTS PAGE 34

Anti-Rotating Hook BLOCK (WHEN USED)



1. Items 1, 2, 3, and 5 are shown on page 25.

Part numbers for Item 4 are =

6475003-01	1/4 Ton
6475003-02	1/2 Ton
6475003-03	1 Ton

Hook or clevis position can be changed in 90° increments.

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PREVENTIVE MAINTENANCE



Yale

Preventive Maintenance Schedule

The periods between inspections will vary due to the wide range of duty cycles and operating conditions encountered with this type of equipment. The following inspection periods are based on average duty with single shift operation (40 hours per week) under normal environmental conditions. If the hoist is used in heavier applications or under adverse environmental conditions, it should be inspected more frequently.

Daily Inspection

Inspect the following items before operating hoist.

1. **CONTROLS:** Check all controls and operating mechanism for proper operation.
2. **LIMIT SWITCHES:** Check all limit switches for proper operation. The trip-setting of limit switches and limiting devices shall be determined by tests under no-load conditions. Tests shall be conducted first by hand, if practical, and then under slowest speed obtainable. Test with increasing speeds up to maximum speed.
3. **ELECTRICAL CONNECTIONS:** Check for worn or frayed wires or loose connections.
4. **HOOKS:** Check for cracks or deformation. The bottom hook must swivel freely. Check for damaged or missing hook latch. A bent or twisted hook indicates overloading or abuse of the unit. Other load bearing components of the hoist or trolley should be inspected if overloading is apparent or suspected.
5. **CHAIN:** Check for nicks, gouges, corrosion, twist and distorted links.
6. **UNUSUAL CONDITIONS:** Excessive noise, oil leaks, etc. should be investigated.

CAUTION

DO NOT OPERATE THE HOIST IF IT IS FUNCTIONING IMPROPERLY OR DAMAGE IS NOTED.

Monthly Inspection

1. ALL ITEMS UNDER DAILY INSPECTION.
2. **LUBRICATION:** Check oil level and condition. Check all lubrication points (see chart page 13.) If oil level is low, check for leaks.
3. **CHAIN:** If chain binds, jumps or is noisy, check for cleanliness and proper lubrication. If trouble persists, inspect chain for wear and stretch. See page 13.

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts



Monthly Inspection continued

4. **HOOKS:** Check for cracks or deformations. Replace hooks if the throat opening is in excess of maximum shown in table on page 17, or if there is 10 degrees or more twist from normal plane of hook. Check hook retaining nuts or collars and means used to secure them.
5. **DRIVING AND IDLER POCKET WHEELS:** Pocket wheels which are worn should be replaced as they can greatly reduce the life of the hoisting chain.
6. **ELECTRICAL PARTS:** Check for signs of pitting or any deterioration of contacts on switch.
7. **BRAKES:** Check for hook drift with a rated load on the hook. If hook does not stop within two inches when the control handle is released, check the load brake. This is done by blocking the motor brake open and running in the hoisting direction with a rated load on the hook. When the control handle is released the load should stop immediately with no more than two inches of downward motion. If the load does drift further than two inches, the load brake assembly should be replaced. If the load does not drift more than two inches, the load brake is performing satisfactorily. The motor brake should be checked for excessive wear or uneven lining wear. Replace the motor brake lining if worn to the rivets. If the drum is scored it should be replaced..
8. **BEARINGS:** Check all bearings for noisy operation, which is an indication of wear.
9. **WARNING LABELS:** Check for absence of illegibility of required warning labels and tags, and replace as necessary:
10. **SUPPORTING STRUCTURE OR TROLLEY:** If used, should be checked for continued ability to support the imposed loads. Check for loose suspension or support bolts, axle nuts, etc.
11. **HARDWARE:** Check for loose bolts, nuts and rivets.
12. **INSPECTION CHECK LIST:** Fill out Inspection Check List at back of this manual, sign, date, and file for future reference.

Annual Inspection

1. ALL ITEMS UNDER DAILY AND MONTHLY INSPECTION.
2. **HOOKS:** Magnetic particle or other suitable crack detecting inspection should be performed if need is indicated by external appearance.

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

PREVENTIVE MAINTENANCE



3. **LOAD BEARING PARTS:** Check for worn, cracked or distorted parts such as hook blocks, suspension housing, clevises, yokes, suspension bolts, shafts, and bearings.
4. **LOAD BRAKE:** Check load brake for worn discs, broken or stretched pawl springs. Replace load brake ratchet and disc assembly if either disc is worn to a thickness of 5/64" or less.
5. **WIRING AND TERMINALS:** See that all connections are tight. Terminals are to be securely crimped to wires and the insulation sound. Bent terminals can usually be straightened to provide a tight fit. Replace terminals or wire if necessary.
6. **CHAIN:** Carefully inspect the load chain for wear between the links in the section of chain that most often passes over the pocket wheel. Check several links, as wear is seldom even from one link to another. (See Chain Inspection instructions on page 13.)
7. **CHAIN GUIDE AND POCKET WHEEL:** If the load chain is worn or stretched and requires replacing, also examine the pocket wheel and load chain guide and stripper. If these parts are worn they should be replaced to avoid damaging the new load chain and jamming of the chain. New link chain should be installed with weld on standing link as shown on page 14.
8. **INSPECTION CHECK LIST:** Fill out inspection check list at back of this manual, sign, date, and file for future reference.

Note: INSPECTION RECORD - The last pages of this manual are inspection check lists to be filled out and signed by the person making the monthly or annual inspections.

Function Testing Of Hoist

After repair of hoist, test with a light load for proper functions and limit switch operation. Then load test hoist by lifting and holding 125% of rated load. (If no load bearing parts were repaired or altered, a normal load lifted may be used for test.) If the gear train has been disassembled, check the load brake per item seven of the monthly inspection instructions. A written report of the test should be prepared by the person responsible and kept for future reference.

CAUTION

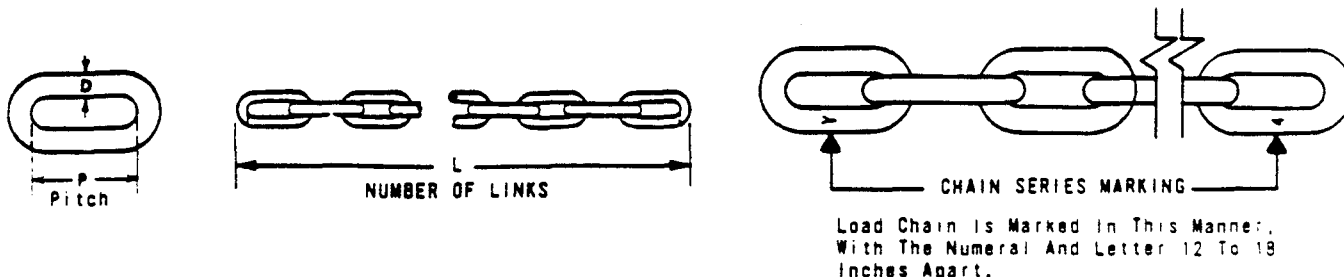
PRIOR TO TESTING, ALL SUPPORTING STRUCTURES, ANCHORAGES, AND/OR SUSPENSIONS MUST BE APPROVED BY THE APPOINTED PERSON FOR THE TEST LOADS USED.

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Chain Inspection

New Load Chain Will Measure These Dimensions:



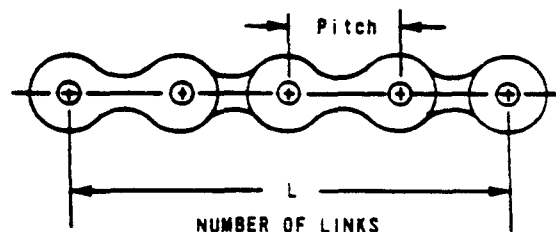
Y4 LOAD CHAIN (Link)

PART NUMBER	CHAIN SERIES	D DIAMETER	P PITCH	L GAUGE LENGTH NOMINAL	L GAUGE LENGTH MAXIMUM	L NUMBER OF LINKS IN GAUGE
6409898-00 6427004-00*	Y4	9/32	.79	20.36	20.66	25

*CADMIUM PLATED

ROLLER CHAIN

PITCH	NUMBER OF PITCHES IN L	LENGTH IN L	REPLACE IF L EXCEEDS
5/8	20	12 1/2 INS	12 3/4 INS
3/4	16	12 INS	12 1/4
1	12	12 INS	12 1/4



Note: INSPECTION OF CHAIN SHOULD BE MADE WITH A LIGHT LOAD ON THE HOOK

Instructions For Installing New Chain

- (a) Remove the retaining ring from around the bottom hook block and drive out the anchor pin. Disconnect the opposite end of the chain from the hoist. ON 2 TON UNITS, disconnect both ends of the chain from the hoist and pull the chain through the bottom block.

CAUTION DO NOT REMOVE THE OLD CHAIN FROM THE HOIST; THIS IS THE LAST STEP.

- (b) Cut a link from the end of the old chain WITHOUT REMOVING THE CHAIN FROM THE HOIST.
- (c) Notch the links as shown in the illustration (page 6) being careful not to distort it in any way. It must pass over the sheave without binding.

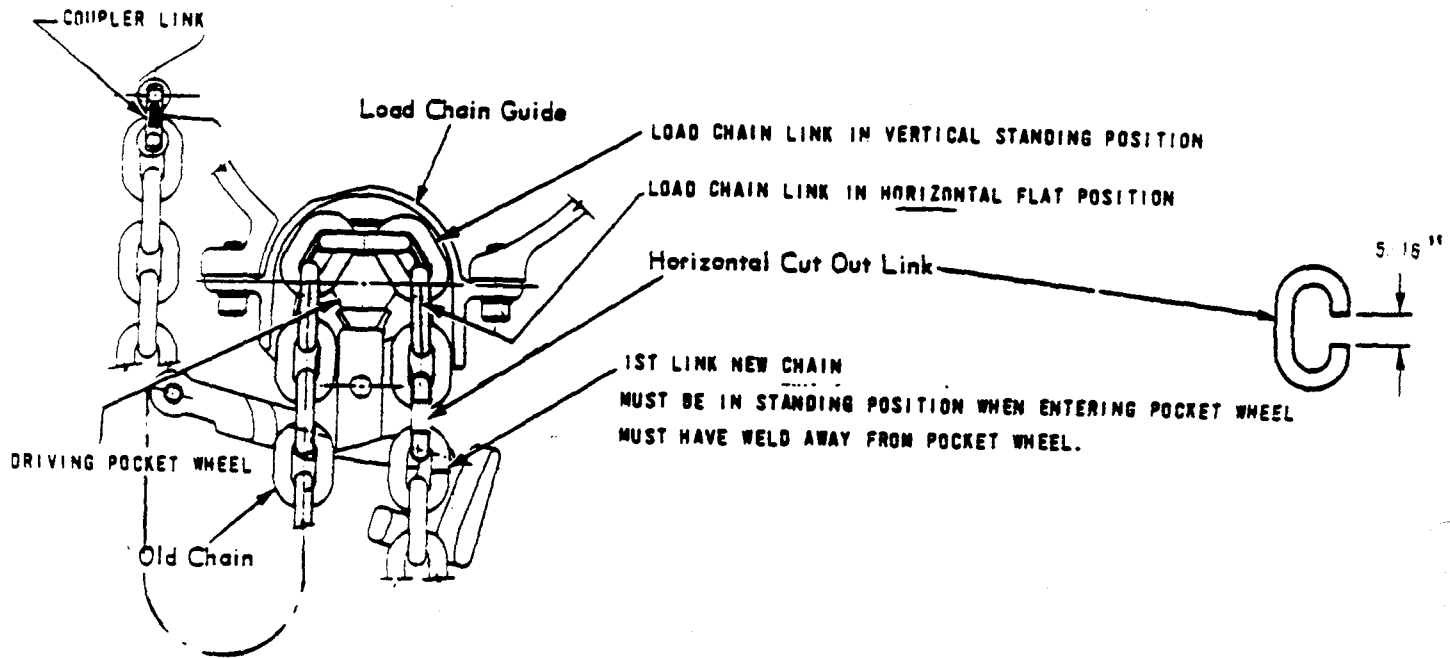
Note: The chain is hard. An abrasive wheel will be needed to cut it.

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PREVENTIVE MAINTENANCE



- (d) **CAUTION** Connect the new chain to the old using the notched link. Be sure the welds of the "standing" links (links turned perpendicular to the pocket wheel) are away from the driving pocket wheel. Start new chain with "standing" link on driving or pocket wheel first.



- (e) Carefully energize the hoist paying off the old chain and feeding on the new chain.
- (f) On 1/8 thru 1 ton hoists, slip snap ring over end of chain. Fasten bottom block to chain with anchor pin. Replace snap ring. Connect dead end of chain to hoist with coupler link. Do not twist chain.
- On 2 ton hoists, work chain end over bottom block idler pocket wheel. Start with flat link first, and with welds on standing links next to idler pocket wheel. Do not twist chain to accomplish this; remove one link from end of chain if necessary. Fasten chain end to clevis. Do not twist chain.
- (g) Lubricate the new chain per instructions and lubrication chart on page 6

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts



TROUBLE SHOOTING GUIDE

1. Hook Does Not Respond To Push Button Or Pull On Control Cord

<u>Possible Cause</u>	<u>Remedy</u>
(a) Power failure in supply lines.	(a) Check switches, circuit breakers and connections in the supply lines.
(b) Wrong voltage or frequency.	(b) Be sure all electrical characteristics are as listed on the hoist name-plate.
(c) Loose or broken connections in the hoist or push button.	(c) Disconnect the hoist from the power source. Remove the control cover and the push button cover. Check all connections and continuity of each wire.
(d) Burned out solenoid (push button units only).	(d) Check the coil for open or short circuit by isolating it and checking for continuity with an ohm meter or with the coil in series with a light or bell.
(e) Drum switch contacts failing to make contact.	(e) Disconnect the hoist from the power source. Check all contacts on the drum switch for burned or bent tips.

2. Hook Lowers But Will Not Raise

<u>Possible Cause</u>	<u>Remedy</u>
(a) Excessive load.	(a) Reduce loading to the capacity limit as indicated on the hoist nameplate.
(b) Hoisting circuit open.	(b) Check for loose connections.
(c) Broken wire in push button (push button units only).	(c) Check the continuity of each wire. If there is an internal break, replace the push button cord.

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Hook Lowers But Will Not Raise continued

- | | |
|--|--|
| (d) Motor centrifugal switch does not operate (single phase only). | (d) Check connections to the switch and examine the centrifugal mechanism for loose or damaged parts. Replace parts as required. |
|--|--|

3. Hook Raises But Will Not Lower

<u>Possible Cause</u>	<u>Remedy</u>
(a) Lower circuit open.	(a) Check for loose connections.
(b) Broken wire in push button (push button units only).	(b) Check the continuity of each wire. If there is an internal break replace the push button cord.

4. Hook Does Not Stop Promptly

<u>Possible Cause</u>	<u>Remedy</u>
(a) Excessive load.	(a) Reduce loading to the capacity limit of the hoist as indicated on the nameplate.
(b) Load brake loose.	(b) Reposition the stopwashers as required.
(c) Brake discs worn or glazed.	(c) Replace discs.
(d) Ratchet pawl not releasing.	(d) Check for tight fit of the pawl on the stud or the retainer stuck in the pawl. Replace pawl.
(e) Motor brake slipping.	(e) Replace brake shoes. Adjust the brake per paragraph in the disassembly instruction.

5. Motor Overheats

<u>Possible Cause</u>	<u>Remedy</u>
(a) Defective centrifugal switch.	(a) Replace.



Motor Overheats continued

- | | |
|--------------------------------------|--|
| (b) Defective centrifugal switch. | (b) Replace. |
| (c) Defective centrifugal mechanism. | (c) Replace motor assembly. |
| (d) Defective capacitor. | (d) Replace. |
| (e) Rotor dragging in stator. | (e) Tighten motor bolts and check for foreign matter between rotor stator. |
| (f) Motor brake too tight. | (f) Adjust the brake per paragraph in the disassembly procedures. |
| (g) Low voltage. | (g) Check voltage at power source. |

DISASSEMBLY



Recommended Sequence Of Disassembly

Before doing any maintenance work on the hoist read the following instructions thoroughly.

TO COMPLETELY DISASSEMBLE THE HOIST.....follow the disassembly procedures in the order they are listed.

TO DISASSEMBLE ANY ONE SPECIFIC PART OF THE HOIST (SUCH AS THE MOTOR, LOAD BRAKE, ETC.).....follow the instructions for that specific section.

Preliminary Disassembly Procedures

1. Disassemble the end of the chain from where it dead ends to the gear case by removing the chain anchor.
2. Run the hoist in the down direction until the chain is completely off the load sheave.
3. For convenience, remove the control ropes on cord controlled units.

CAUTION

BEFORE CONTINUING FURTHER WITH THE DISASSEMBLY, CUT OFF ALL POWER TO THE HOIST BY DISCONNECTING THE FEED LINE.

4. The hoist should now be removed, if possible, from the working area and placed on a maintenance bench for further disassembly.

Note:

Never disassemble the hoist in dirty surroundings, nor allow dirt, grit or any other foreign material to get on the working parts of the hoist or into the working areas of these parts.

5. Drain the oil from the hoist by removing the drain plug from the gear case cover.
6. Place the hoist on its side on a work bench or upside down in a vise. The vise may be tightened on the upper hook or swivel lug.
7. Remove the drum switch cover on cord controlled units and the solenoid cover on push button units.
8. Remove the hoist nameplate and the brake inspection cover.
9. Disconnect and tag the motor leads and power cord at the drum switch. Loosen the motor lead wire clamp. On push

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button models remove the leads from the drum switch to the transformer (if necessary) and disconnect and tag all push button wires at the solenoids and transformer.

Note: Tagging the leads and their points of connection as they are removed will insure proper reconnection at the time of reassembly.

10. Remove the push button pendant by loosening the locknut and unscrewing the watertight connector from the gear case cover.

To Remove Gearing

1. Remove the screws securing the gear case cover to the gear case.

Note: Use caution when removing the gear case cover to avoid damage to the intermediate pinion bearing.

2. Remove the gasket and clean the mating surfaces of the gear case and cover.
3. Remove the outer intermediate pinion bearing.
4. Remove the load sheave nut and slow speed gear.
5. Remove the snap ring, washer, pawl, pawl spring retainer and pawl return spring.
6. Remove the intermediate pinion shaft and load brake assembly.

To Disassemble The Load Brake

1. Remove the snap ring and ball bearing and pull the stop washer off.
2. Unscrew the high speed gear from the brake disc hub. This will release the ratchet and disc assembly.
3. The ratchet and discs must be purchased as an assembly and cannot be supplied separately.

To Remove Load Sheave And Chain Guide

1. Follow steps 1 through 10 of the preliminary disassembly procedures and the steps as outlined under "To Remove Gearing".
2. Remove the limit paddle assembly, control connecting link and controller lever.

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts

DISASSEMBLY



3. Remove the cotter pin, stripper pin and stripper.
4. Remove the snap ring and load sheave assembly. The outer bearing may remain in the frame.
5. Remove the chain guide by removing the two allen head screws and lockwashers.

To Remove Drum Switch

1. On cord controlled units remove the drum switch by removing the four screws securing the switch to the gear case cover.
2. On push button units remove the clips from the control chain sprocket. (Note: The clip must be discarded and replaced by a new one at reassembly.) Remove the screw and lockwasher securing the clutch assembly to the drum switch and slide the clutch assembly off the shaft.
3. On push button units remove the four screws securing the drum switch and by holding the solenoid plungers in the extreme upper position, slip the control chain off the shaft and remove the drum switch.

To Remove Control Solenoids And Transformer, push Button units only

1. Remove the locknuts and screws securing the solenoids to the bracket.
2. Remove the cotter pin, spacers and solenoid pin from where the control chain connects to the solenoid.
3. Remove the three screws securing the solenoid bracket to the gear case cover.

Note: Loctite is applied to these three screws at the factory. It may be necessary, before attempting to remove them, to apply heat with a torch to break seal. At reassembly it is necessary to reapply loctite.

4. Remove the transformer by removing the four screws securing it to the gear case cover.

Note: At reassembly apply Permatex to the top two screws to prevent oil leaks.

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To Remove The Motor

1. Follow steps 1 through 9 of the preliminary disassembly instructions.
2. Remove the four thru-bolts from the motor and pull off the stator.

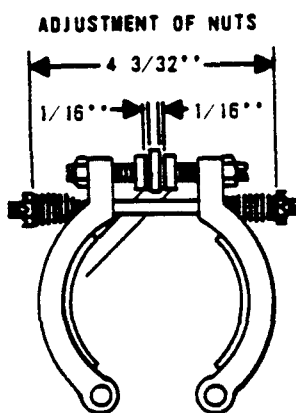


CARE SHOULD BE EXERCISED WHEN REMOVING THE MOTOR STATOR TO AVOID BENDING THE ROTOR OR DAMAGING THE STATOR WINDING.

3. Open the brake shoes and pull out the rotor.

To Remove The Motor Brake **PULLCORD MEL/MER**

1. Follow steps 1 through 6 of the preliminary disassembly procedures.
2. If the motor has been removed, then remove the hex nut and lockwasher from one end of the double end stud and pull it out of the gear case. Then slide the brake shoes off the brake studs and remove them from the hoist.
3. If the motor has not been removed, then remove the hex nut and lockwasher from one end of the double end stud and remove the stud from the gear case.
4. Slide the brake shoes off the drum and brake studs and remove the shoes from the hoist.



To Adjust The Motor Brake

1. If the bottom hook does not come to a quick stop when the motor is de-energized the brake should be adjusted.

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts

DISASSEMBLY



2. Remove the top screw and loosen the bottom screw of the hoist nameplate and the brake inspection cover.
3. Adjust the gap between the adjusting screw and the cam to 1/16 inch.
4. If greater braking is desired, tighten the spring tension but make sure that the spring does not bottom when the brake is fully released.

To Remove The Upper Hook

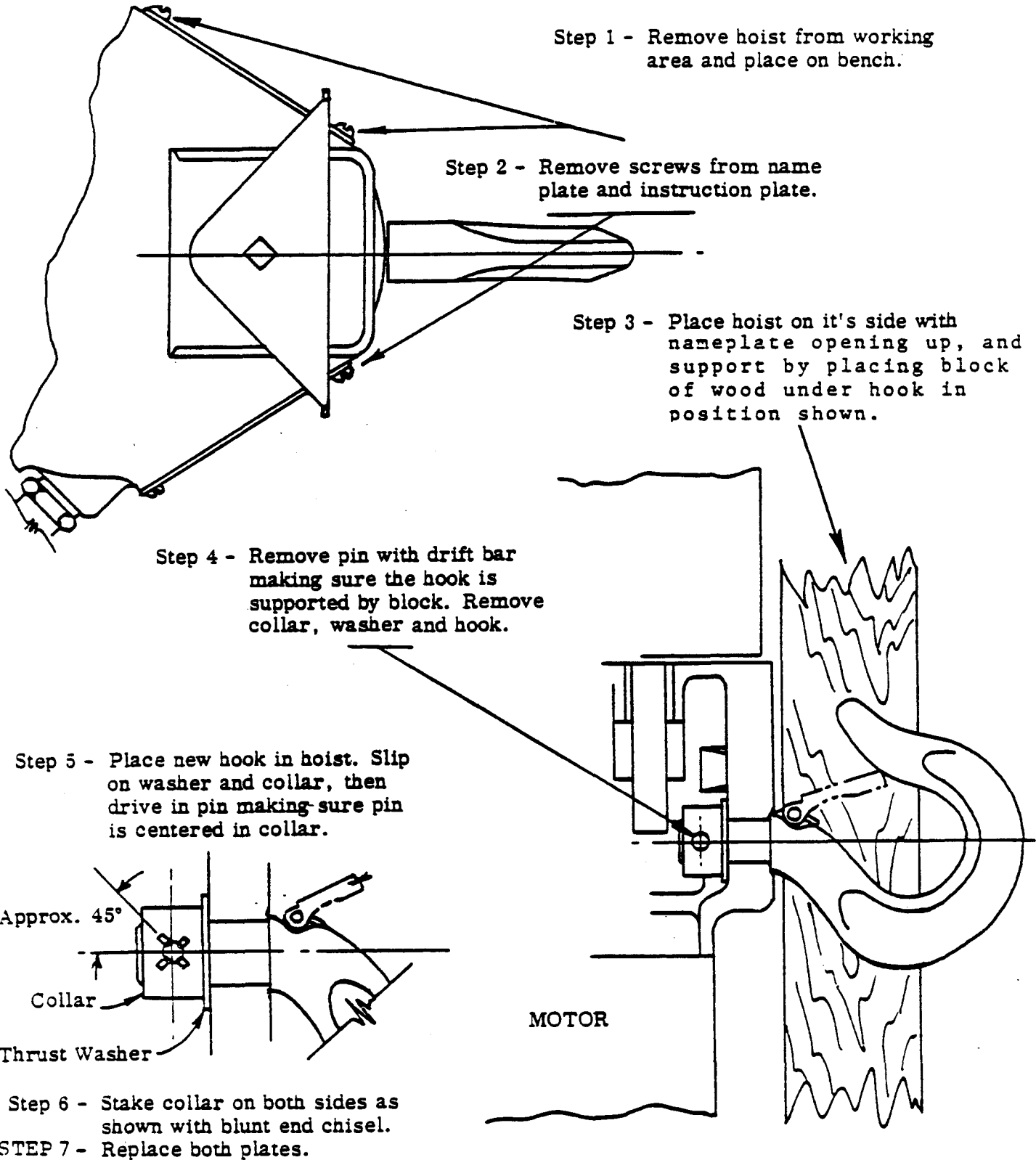
1. Drive out the driv-lok pin from the hook collar.
2. Remove the collar and thrust washer.
3. Refer to pages 22, 23 and 24 for motor information.

Sequence Of Reassembly

Reverse the instructions listed for disassembly. Replace all worn or damaged parts.

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts

Instructions For Replacing Top Hook On 1/8 thru 1 Ton Hoists

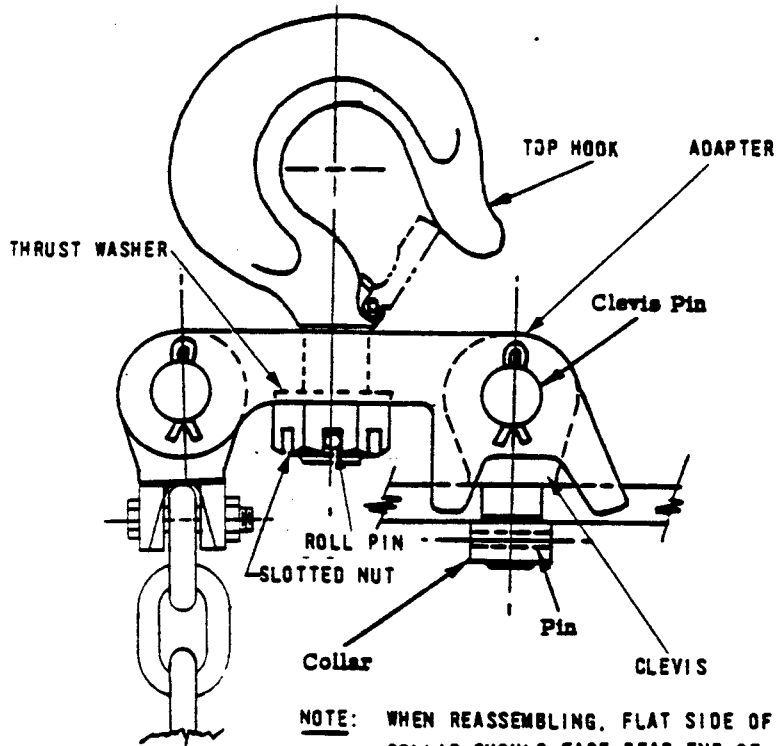


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Instructions For Replacing Top Hook and Clevis 2 Ton Hoists

Step 1 - Remove hoist from working area and place on bench.



NOTE: REMOVE COTTER PIN FROM CLEVIS PIN AND REMOVE HOOK AND ADAPTER FROM HOIST. PROCEED TO REMOVE CLEVIS FROM HOIST BY USING SAME PROCEDURE AS DESCRIBED ON PAGE 16 FOR REMOVAL OF TOP HOOK ON 1/8 THRU 1 TON CAPACITIES.

NOTE: SEE REPAIR PARTS PAGE NO. 30 FOR PIECE PART NUMBERS.

NOTE: WHEN REASSEMBLING, FLAT SIDE OF COLLAR SHOULD FACE DEAD END OF CHAIN.

Normal And Maximum Hook Openings

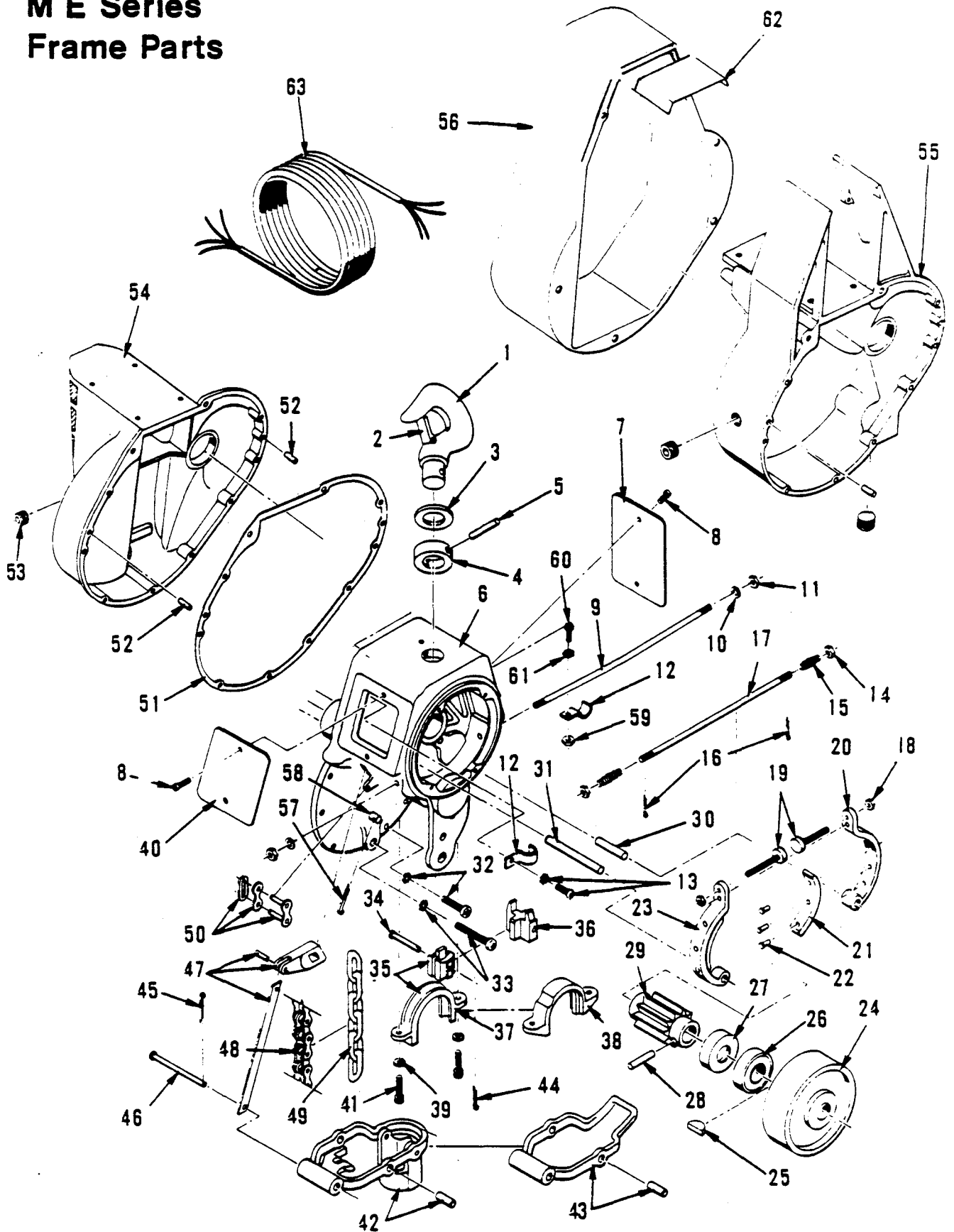
CAPACITY IN TONS	TOP HOOK		BOTTOM HOOK	
	NORMAL	MAXIMUM	NORMAL	MAXIMUM
1/8, 1/4, 1/2	1 1/32	1 9/32	1 1/32	1 7/32
1	1 5/32	1 27/64	1 5/32	1 27/64
2	1 17/32	1 51/64	1 5/16	1 37/64

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts



REPAIR PARTS

M E Series Frame Parts



When Replacement Parts Are Needed, Order Only YALE® Factory Engineered Parts

ITEM NO.	ME SERIES PART NO.	MP SERIES PART NO.	DESCRIPTION	QTY
1	0591480-00	0591480-00	TOP HOOK WITH SAFETY LATCH, 1/4 AND 1/2 TON	1
	5021170-00	5021170-00	TOP HOOK WITH SAFETY LATCH, 1 TON	1
2	0669400-00	0669400-00	SAFETY LATCH KIT, 1/4 & 1/2 TON	1
	0669402-00	0669402-00	SAFETY LATCH KIT, 1 TON	1
3	0524153-00	0524153-00	OILITE WASHER, 1/4 & 1/2 TON	1
	0544158-00	0544158-00	OILITE WASHER, 1 TON	1
4	0544163-00	0544163-00	HOOK COLLAR, 1/4 AND 1/2 TON	1
	0544162-00	0544162-00	HOOK COLLAR, 1 TON	1
5	0544160-00	0544160-00	DRIV-LOC PIN, 1/4 & 1/2 TON	1
	0544161-00	0544161-00	DRIV-LOC PIN, 1 TON	1
6	6415222-00	6415222-00	GEAR CASE ASSEMBLY, 1/8, 1/4 & 1/2 TON (INCLUDES ITEMS 12, 13, 30, 31, 58)	1
	6409800-00	6409800-00	GEAR CASE ASSEMBLY, 1 & 2 TON (INCLUDES ITEMS 12, 13, 30, 31, 58, 59)	1
7	0102928-00	0102928-00	BRAKE INSPECTION COVER	1
9	0100954-00	_____	DOUBLE END STUD	1
11	0106608-00	_____	HEX NUT	2
12	0103784-00	0103784-00	CONDUIT CLAMP	2
13	0149193-00	0149193-00	SELF TAPPING SCREW	1
14	0106612-00	_____	SLOTTED HEX NUT	2
15	0110596-00	_____	BRAKE SPRING	2
16	0102775-00	_____	COTTER PIN	2
17	0100956-00	_____	BRAKE SPRING STUD	1
19	0109541-00	_____	BRAKE ADJUSTING SCREW	2
20	0102563-00	_____	BRAKE SHOE	2
21	0102523-00	_____	BRAKE LINING	2
22	6401049-00	_____	BRASS RIVET	6
23	0102564-00	_____	BRAKE SHOE & LINING ASSEM. (INCLUDES ITEMS 20, 21 & 22)	1
24	0102446-00	_____	BRAKE DRUM	1
25	0116474-00	_____	WOODRUFF KEY	1
26	0100836-00	0100836-00	BEARING	1
27	0573887-00	0573887-00	OIL SLINGER	1
28	SEE TABLE		MOTOR PINION PIN	1
29	SEE TABLE		MOTOR PINION	1
30	0110706-00	_____	BRAKE STUD	1
31	6404561-00	6404561-00	BRAKE AND PAWL STUD	1
32	6400419-00	6400419-00	ROUND HEAD SCREW	6
33	0109486-00	0109486-00	ROUND HEAD SCREW	3
34	0106946-00	0106946-00	STRIPPER PIN	1
35	6410473-00	6410473-00	STRIPPER (LINK CHAIN)	1
36	6401761-00	6401761-00	STRIPPER (ROLLER CHAIN)	1
37	6402943-00	6402943-00	CHAIN GUIDE (LINK CHAIN)	1
38	6402963-00	6402963-00	CHAIN GUIDE (ROLLER CHAIN)	1
39	0150308-00	0150308-00	LOCKWASHER	2
41	0655729-00	0655729-00	ALLEN SCREW	2
42	6426320-00	6426320-00	LIMIT PADDLE ASSEMBLY (LINK CHAIN)	1
43	6426310-00	6426310-00	LIMIT PADDLE ASSEMBLY (ROLLER CHAIN)	1
44	0102806-00	0102806-00	COTTER PIN FOR STRIPPER	1
45	0102782-00	0102782-00	COTTER PIN	1

MEL-006

ITEM NO.	ME SERIES PART NO.	MP SERIES PART NO.	DESCRIPTION	QTY
46	0106945-00	0106945-00	CONTROL CONNECTING PIN	1
47	0118425-00	0118425-00	CONTROL LEVER ASSEMBLY	1
48	0034267-00	0034267-00	LOAD CHAIN (ROLLER) (SPECIFY LENGTH)	1
49	6409898-00	6409898-00	LOAD CHAIN (LINK) (SPECIFY LENGTH)	1
50	0118590-00	0118590-00	COUPLER LINK	1
51	0104037-00	0104037-00	GEAR CASE GASKET	1
52	6400529-01	6400529-01	DOWEL PIN	2
53	0230825-00	0230825-00	PIPE PLUG	1
54	0595184-00		GEAR CASE COVER, 1/4 TON (CORD CONTROL)	1
	0595185-00		GEAR CASE COVER, 1/2 TON (CORD CONTROL)	1
	6431140-00		GEAR CASE COVER, 1 TON (CORD CONTROL)	1
	6431150-00		GEAR CASE COVER, 2 TON (CORD CONTROL)	1
55		6402076-00	GEAR CASE COVER (PUSH BUTTON UNITS)	1
56		6496443-00	CONTROL COVER	1
57	0102792-00	0102792-00	COTTER PIN	1
58	0550311-00	0550311-00	STUD	1
59	0149393-00	0149393-00	HEX NUT	1
60	0109463-00	0109463-00	ROUND HEAD SCREW	1
61	0656193-00	0656193-00	SHAKEPROOF WASHER	1
62	6496583-00	6496583-00	LIMIT SWITCH COVER	1

MEL-006

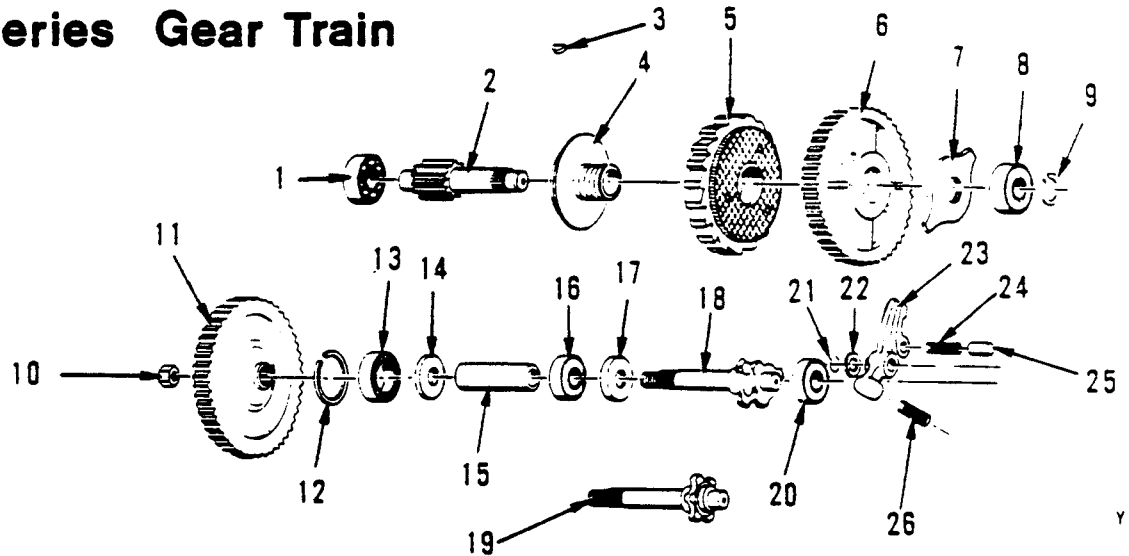
ITEM NUMBER	SPEED IN FEET PER MINUTE					
	6	13	17	18	30	32
29	0104607-00	0104607-00	0104602-00	0104602-00	0104607-00	0104607-00
28	0106959-00	0106959-00	0106953-00	0106953-00	0106959-00	0104607-00

MEL-003



REPAIR PARTS

ME Series Gear Train



YC-0290

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY
1	0151194-00	BALL BEARING	1
2	SEE TABLE	INTERMEDIATE PINION	1
3	0116474-00	WOODRUFF KEY	1
4	0107925-00	BRAKE DISC HUB	1
5	0107856-00	RATCHET AND DISC ASSEMBLY	1
6	SEE TABLE	HIGH SPEED GEAR	1
7	0114268-00	STOP WASHER	1
8	0151194-00	BALL BEARING	1
9	0110030-00	SNAP RING	1
10	0106652-00	LOCKNUT	1
11	SEE TABLE	SLOW SPEED GEAR	1
12	6400469-01	SNAP RING	1
13	5005059-02	BEARING	1
14	6403201-00	THRUST WASHER	1
15	6401911-00	SPACER	1
16	5005059-01	BEARING	1
17	5001459-04	SEAL	1
18	6403013-00	LOAD SHEAVE (Link Chain Type)	1
19	6403003-00	LOAD SPROCKET (Roller Chain Type)	1
20	0151201-00	BEARING	1
21	0233375-00	SNAP RING	1
22	0114230-00	WASHER	1
23	6401771-00	RATCHET PAWL	1
24	0110591-00	PAWL SPRING	1
25	0107999-00	PAWL SPRING RETAINER	1
26	0110592-00	PAWL RETURN SPRING	1

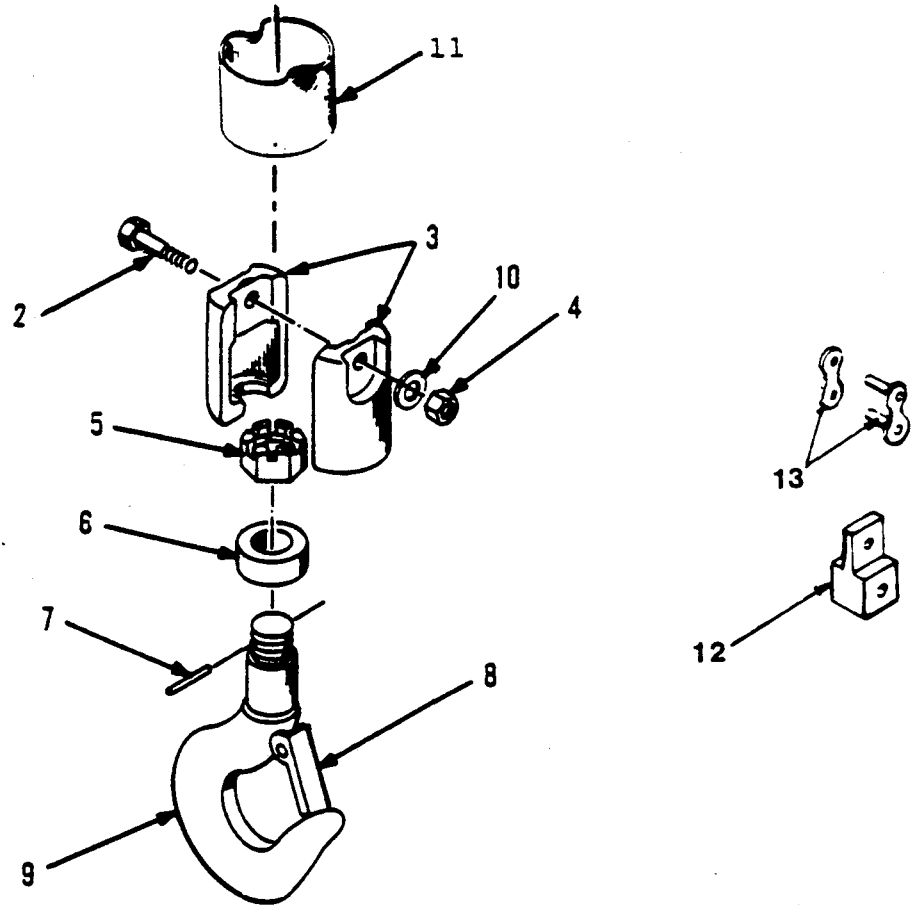
ITEM NUMBER	SPEED IN FEET PER MINUTE					
	6	13	17	18	30	32
11	6402973-00	6402973-00	6402973-00	6402973-00	6402983-00	6402983-00
6	0104391-00	0104391-00	0104390-00	0104390-00	0104391-00	0104391-00
2	6402993-00	6402993-00	6402993-00	6402993-00	0104637-00	0104637-00

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Part

REPAIR PARTS



Bottom Block Assembly For 1/8 Thru 1 Ton Hoists

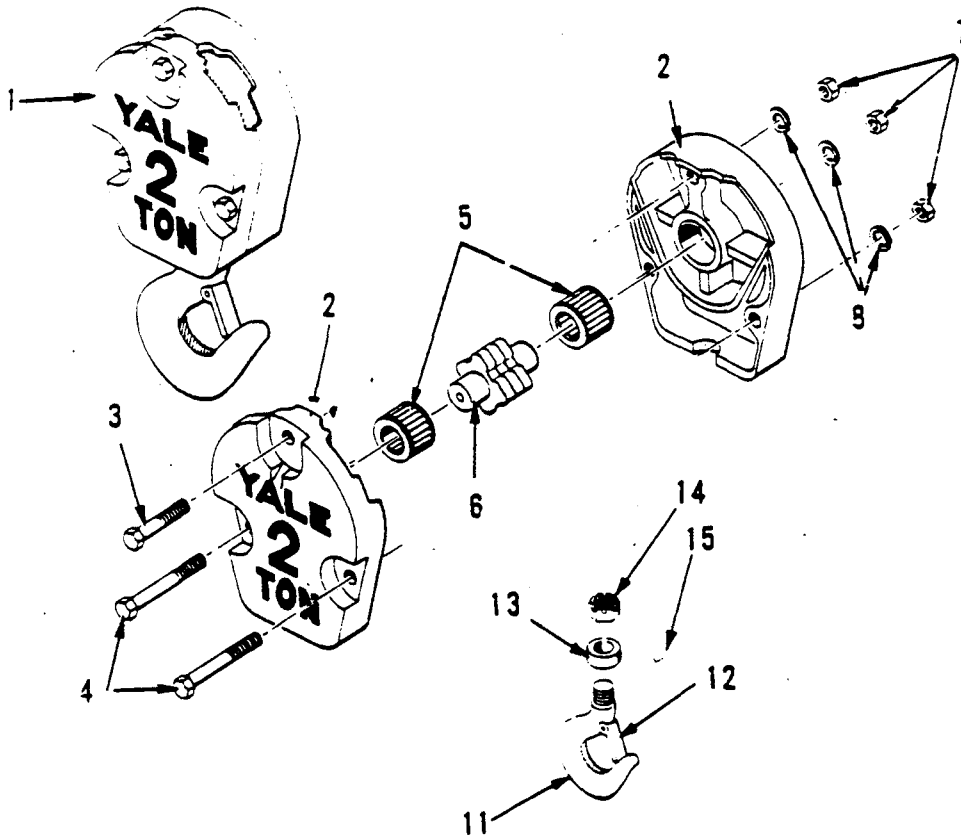


NUMBER	1/8, 1/4, 1/2 TON PART NUMBER	1 TON PART NUMBER	DESCRIPTION	QTY
1	6425392-00	6427212-00	BOTTOM BLOCK ASSEMBLY (INCLUDES TIEMS 1 THRU 11)	1
2	6428951-00	6450851-00	SOCKET HEAD SCREW	1
3	6420171-00	6420391-00	BLOCK HALF	2
4	0150152-00	0150152-00	LOCKNUT	1
5	0106663-00	0652673-00	SLOTTED NUT	1
6	0151221-00	0151222-00	THRUST BEARING	1
7	0599891-00	5004099-02	ROLL PIN	1
8	0669400-00	0669402-00	LATCH KIT	1
9	6425402-00	6425952-00	HOOK ASSEMBLY (INCLUDES 5,7,&8)	1
10		0161037-00	WASHER	1
11	6456701-00	6456711-00	RETAINER BAND	1
12	6415531-00	6415511-00	ANCHOR LINK, ROLLER CHAIN	1
13	0118623-00	0118623-00	CONNECTING LINK	1

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts



Bottom Block Assembly For 2 Ton Hoists



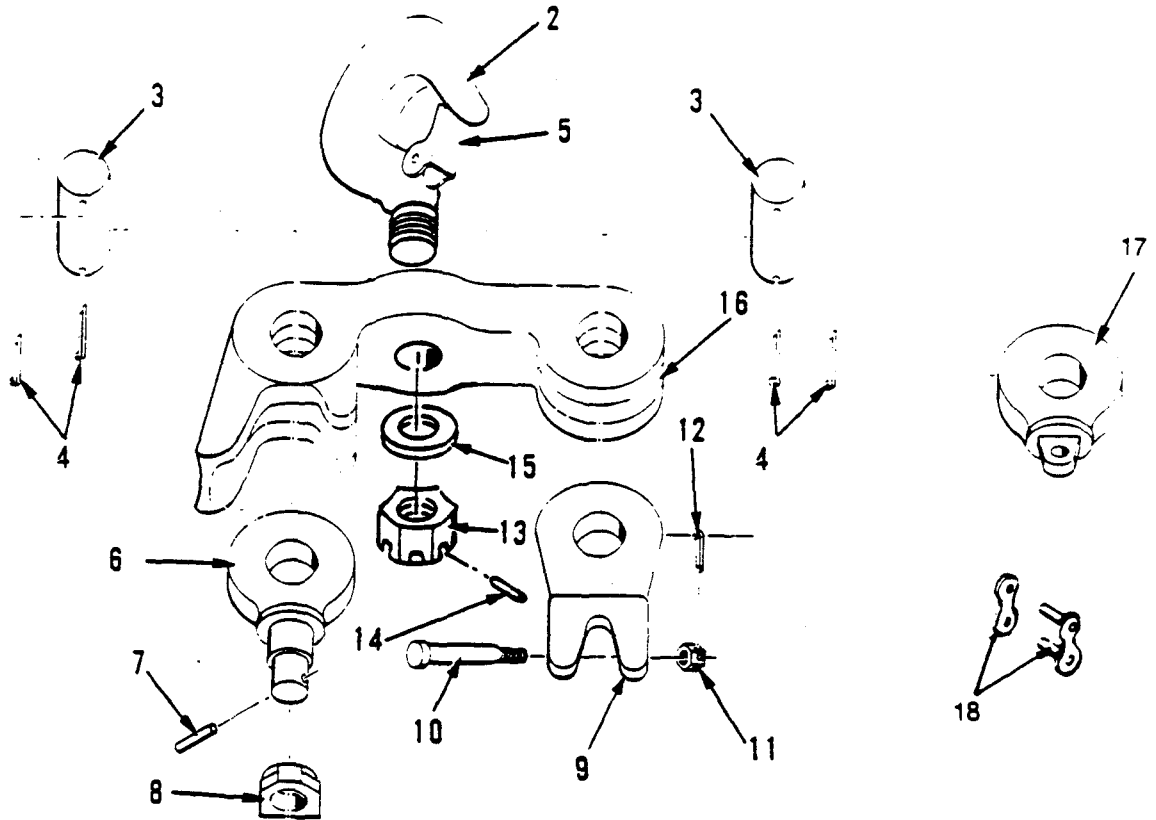
(MEL.017)

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY.
1A	6472872-00	COMPLETE BOTTOM BLOCK ASSEMBLY ROLLER CHAIN	1
1B	6414700-00	COMPLETE BOTTOM BLOCK ASSEMBLY, LINK CHAIN	1
2A	0566099-00	BLOCK HALF, LINK CHAIN	2
2B	6476503-00	BLOCK HALF, ROLLER CHAIN	2
3	0603054-00	HEX BOLT	1
4	0596255-00	HEX BOLT	2
5	0572813-00	NEEDLE BEARING	2
6A	6404853-00	IDLER POCKET WHEEL, LINK CHAIN	1
6B	6476533-00	IDLER POCKET WHEEL, ROLLER CHAIN	1
7	0149369-00	HEX NUT	3
8	0150264-00	LOCKWASHER	3
11	6478990-00	BOTTOM HOOK ASSEMBLY (INCLUDES ITEMS 12, 14, & 15)	1
12	0669403-00	HOOK LATCH KIT, 2 TON	1
13	0220677-00	BEARING	1
14	0629014-00	SLOTTED NUT	1
15	0230250-00	ROLL PIN	1

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts



Top Hook Adapter, 2 Ton Hoists



YC-0288

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	0588142-00	HOOK AND ADAPTER ASSEMBLY (INCLUDES ITEMS 2, 3, 4, 15, & 16)	1
2	6425872-00	HOOK ASM. (INCLUDES 5, 13, & 14)	1
3	0106994-00	PIN	2
4	0102812-00	COTTER PIN	4
5	0669404-00	HOOK LATCH KIT	1
6	0564764-00	CLEVIS	1
7	0544161-00	DRIV-LOC PIN	1
8	0647381-00	COLLAR	1
9	0539985-00	CLEVIS LINK CHAIN	1
10	0350037-00	SHACKLE BOLT	1
11	0106626-00	SLOTTED NUT	1
12	0102786-00	COTTER PIN	1
13	0149783-00	SLOTTED NUT	1
14	0230212-00	ROLL PIN	1
15	0573873-00	WASHER	1
16	0572864-00	ADAPTER	1
17	0104848-00	CLEVIS (ROLLER CHAIN)	1
18	0118623-00	COUPLER LINK (ROLLER CHAIN)	1

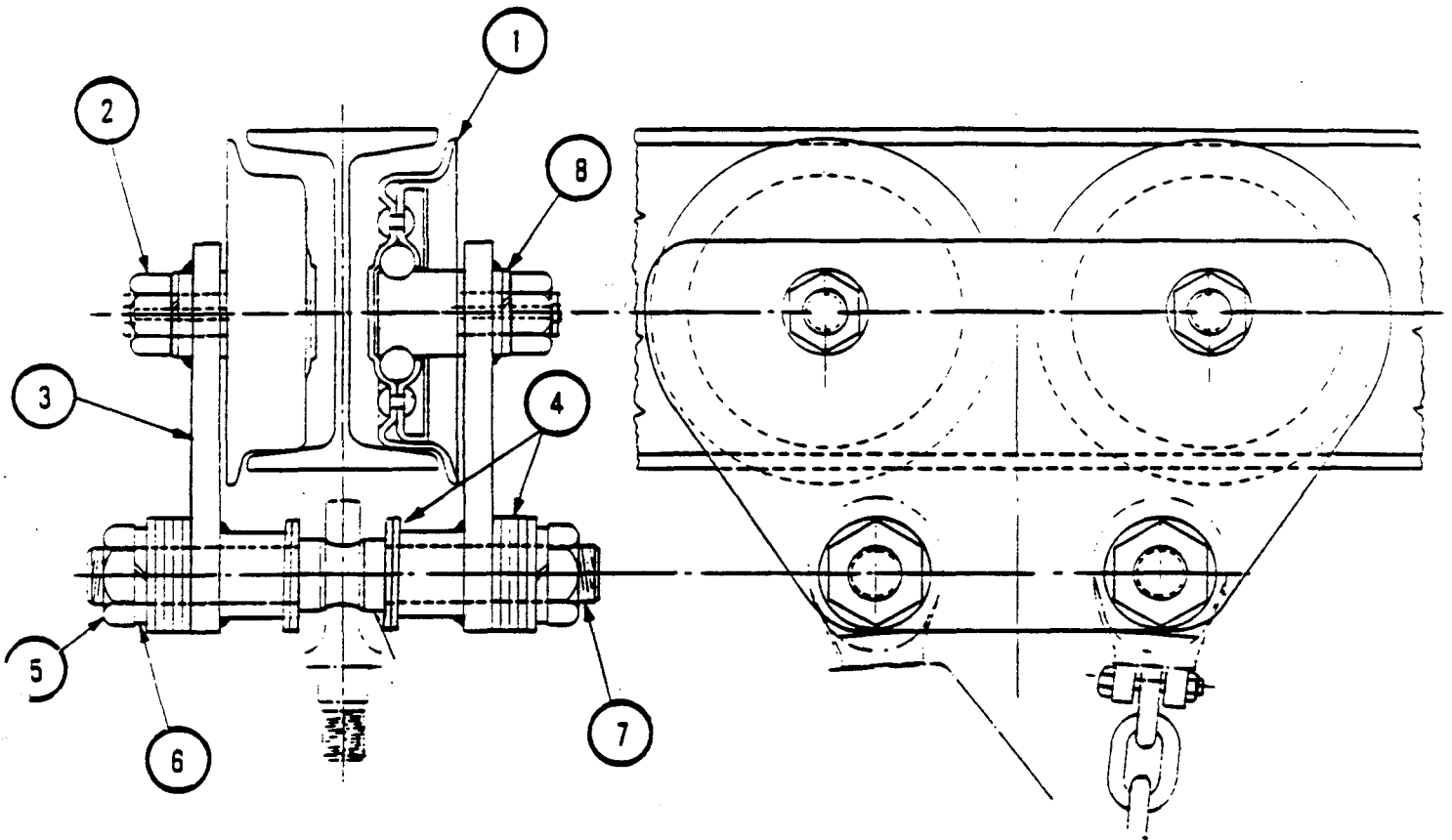
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When Replacement Parts Are Needed, Order Only YALE® Factory Engineered Parts



Trolley Assembly For 2 Ton Trolley Type Hoists

ADJUSTABLE FROM 6"-12.5# THRU 12"-31.8# AM STD I BEAMS



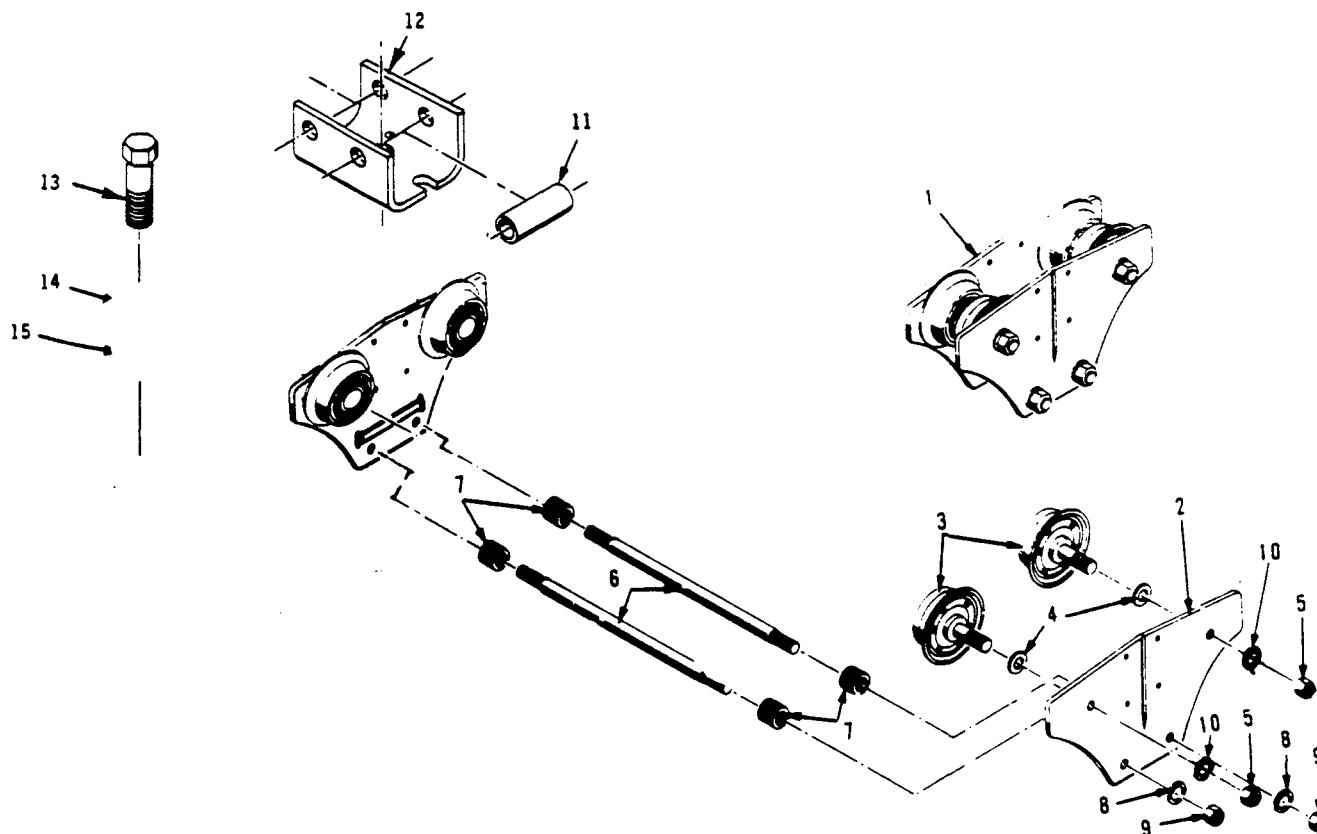
ITEM	PART NUMBER	DESCRIPTION	QTY.
	0548202-00	COMPLETE TROLLEY ASSEMBLY	
1	0501071-00	TRACKWHEEL	4
2	0149376-00	HEX NUT	4
3	0548185-00	SIDEPLATE	2
4	0114197-00	SPACER WASHER	20
5	0149716-00	JAM NUT	4
6	0150297-00	LOCKWASHER	4
7	0101060-00	DOUBLE END STUD	2
8	0150296-00	LOCKWASHER	4

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

REPAIR PARTS

ME/MP Series 1/2 And 1 Ton

Plain Trolley Assembly For Rigid Suspension
For 5 To 12 Inch Standard I-Beam

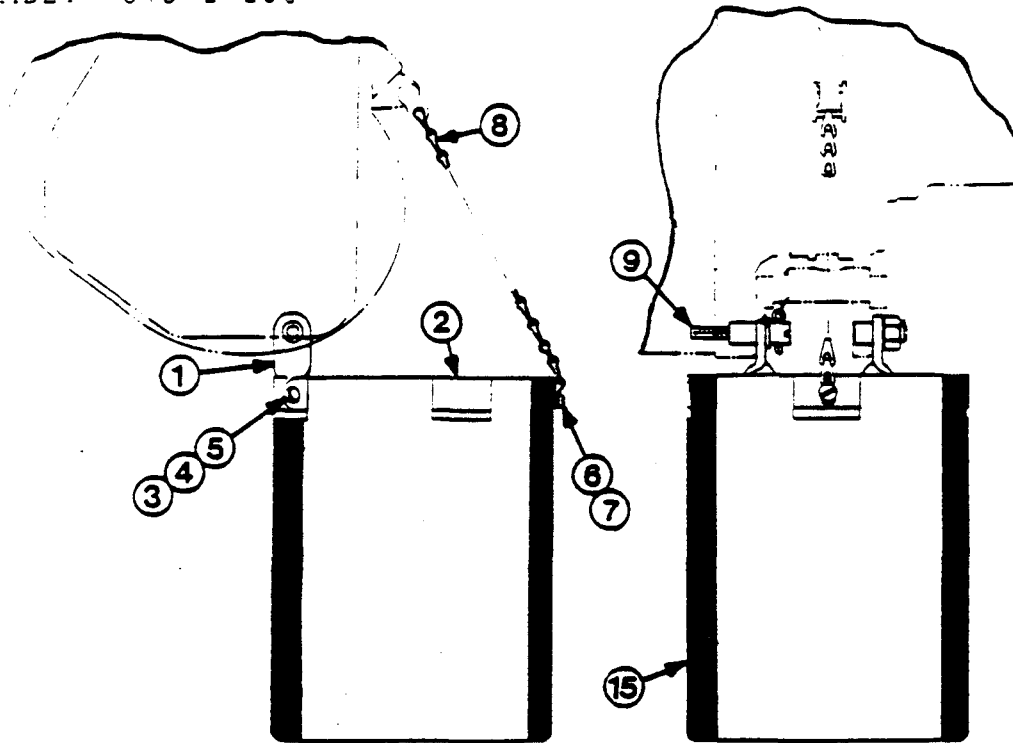


ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	6477960-00	TROLLEY ASSEMBLY (consists of items 2 through 10)	1
2	0112320-00	TROLLEY SIDE PLATES	2
3	0249628-00	TRACK WHEELS	4
4	5006371-00	SPACER	4
5	0149375-00	HEX NUT	4
6	0101024-00	DOUBLE END STUDS	2
7	0114200-00	ADJUSTING WASHERS	28
8	0150268-00	LOCKWASHER	4
9	0149374-00	HEX NUT	4
10	0150270-00	LOCKWASHER	4
11	6457173-05	SPACER	2
12	6461794-00	ADAPTER	1
13	2030916-00	HEX BOLT TORQUE TO 150/160 FT #	1
14	2031397-00	LOCKWASHER	1
15	5020979-04	NUT	1

MEL Series Chain Container



ASSEMBLY #643421200



HOIST MODEL & CAPACITY	MAXIMUM LIFT CONTAINER WILL HOLD
1/8-1/4-1/2 & 1 TON	25 FEET
2 TON	12 1/2 FEET

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	643770100	MOUNTING BRACKET -----	1
2	643803100	SUPPORT BAR -----	1
3	014867100	SCREW 1/4 - 20 X 5/8 -----	2
4	015026000	1/4 LOCKWASHER -----	2
5	014936500	HEX NUT 1/4 - 20 -----	2
6	010945500	SCREW #10 - 24 X 3/4 -----	1
7	014936200	HEX NUT #10 - 24 -----	1
8	003258700	SASH CHAIN -----	1/2 FT.
9	646131400	LONG SCREW -----	1
10A	644822100	CONTAINER BAG -----	1
10B	649068300	CONTAINER ROLLER -----	1

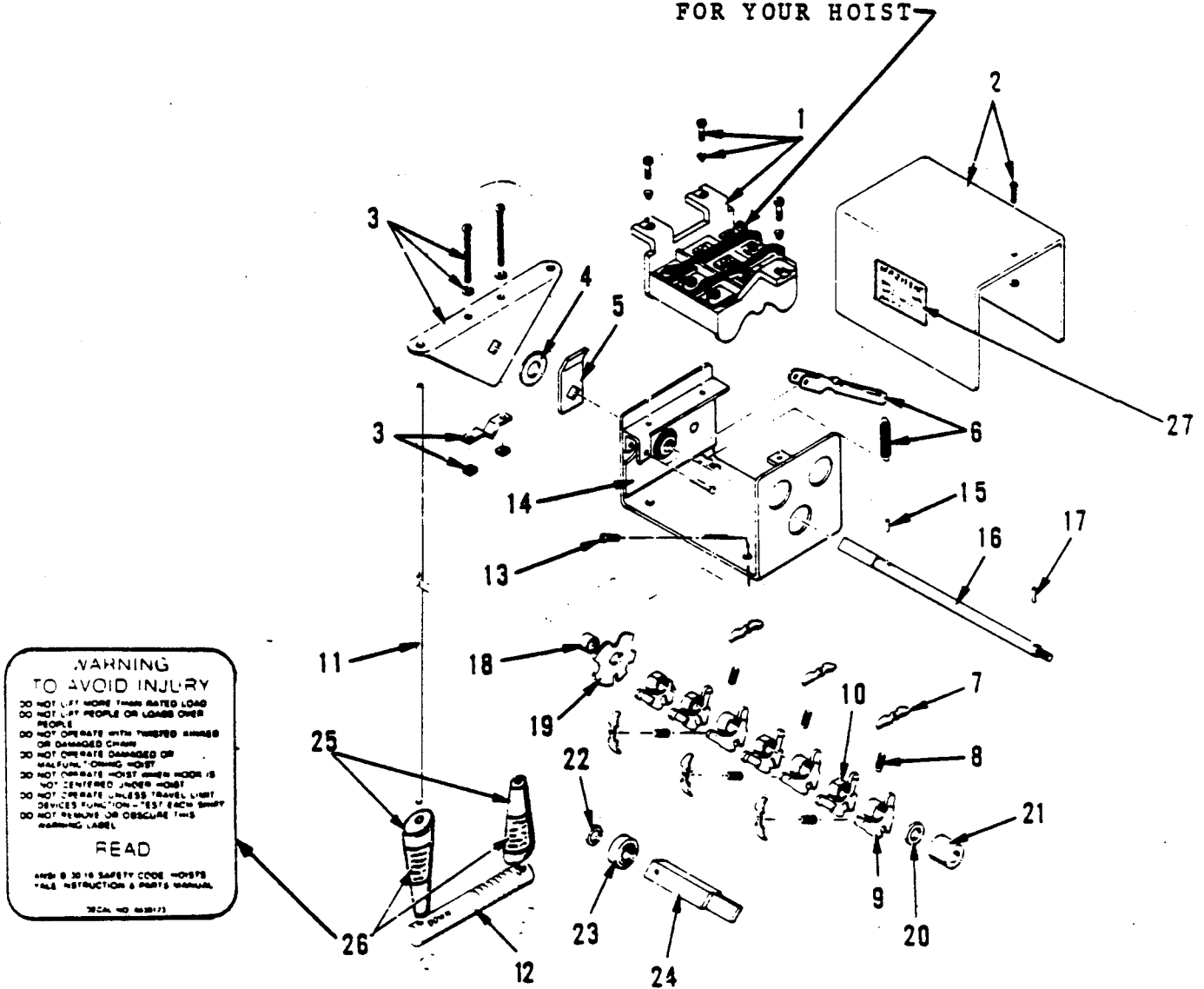
- INSTRUCTIONS:
1. REMOVE SCREW FROM COUNTER-BORED HOLE AT BOTTOM OF GEARCASE, REPLACE WITH LONG SCREW, ITEM #9.
 2. ATTACH TO UNIT AS SHOWN.

When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts



Cord Control

NOTE: SEE WIRING DIAGRAMS ON PAGE 38 FOR CORRECT JUMPER ARRANGEMENT FOR YOUR HOIST



When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

REPAIR PARTS



Cord Control

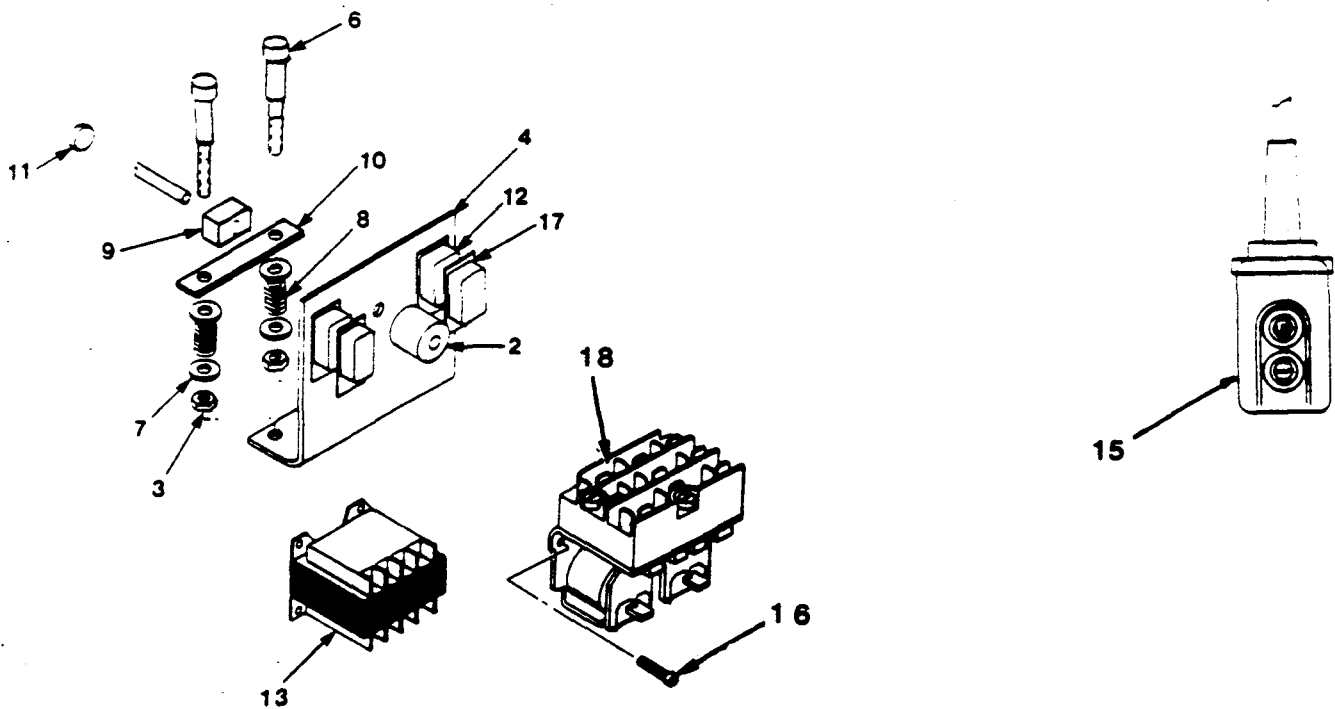
ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY
1	0113467-00	REVERSING SWITCH WITH LEVER, D.C. OR POLYPHASE	1
	0504696-00	REVERSING SWITCH WITH LEVER, A.C. SINGLE PHASE	1
	0504697-00	STATIONARY CONTACT ASSEMBLY WITH SCREWS AND SPRINGS, A.C. SINGLE PHASE	1
1	A113493-00	STATIONARY CONTACT ASSEMBLY WITH SCREWS AND SPRINGS, D.C. OR POLYPHASE	1
2	0113495-00	COVER ASSEMBLY (Includes Screws)	1
3	0113483-00	ROPE LEVER ASSEMBLY (Includes Hardware)	1
4	0161034-00	SPACER	1
5	0113485-00	LEVER	1
6	0113487-00	LEVER AND SPRING ASSEMBLY	1
7	0113489-00	MOVABLE CONTACT FINGER	6
8	0113491-00	CONTACT SPRING	6
9	0113512-00	CONTACT ARM L.H.	4
10	0113513-00	CONTACT ARM R.H.	3
11	0113551-00	CONTROL ROPE (SPECIFY LENGTH)	
12	0113554-00	CONTROL HANDLE	1
13	6400429-00	ROUND HEAD SCREW	4

Note: Items 14 Through 24 Are Not Sold As Spare Parts.

25	0591482-00	CORD HANDLE	2
26	6438123-00	WARNING DECAL	2
27	6444798-00	WARNING DECAL	1

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts

REPAIR PARTS



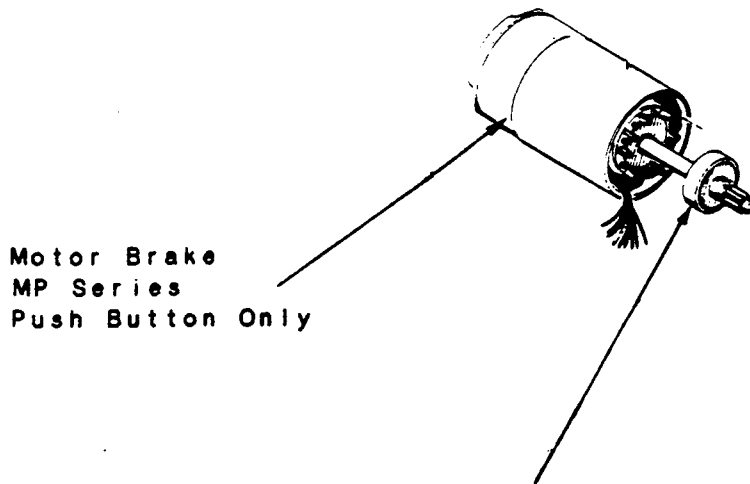
CONTROL AND LIMIT SWITCHES, ASSM.

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY.
1	6496543-00	CAM SHAFT ASSM.	1
2	6496463-00	UPLC CAM	1
4	6496563-00	SWITCH MTG. BKT.	1
5	6496573-00	MTG. BKT.	1
6	6401549-03	SHOULDER BOLT	2
7	0150359-00	LOCK WASHER (INTERNAL)	2
8	6496553-00	RETURN SPRINGS	2
9	6496513-00	NEUTRAL CAM	1
10	6496503-00	RETAINER PLATE	1
11	6451648-00	PLASTIC BUSHING	2
12	6455998-00	LIMIT SWITCH	4
13A	6437393 -01	TRANSFORMER 25VA 24V SEC. 115/230 PRI.	1
13B	6437393 -02	TRANSFORMER 25VA 24V SEC. 230/460 PRI.	1
13C	6437393 -03	TRANSFORMER 25VA 110V. SEC. 115/230 PRI.	1
13D	6437393 -04	TRANSFORMER 25VA 110V. SEC. 230/460 PRI.	1
14	6436528-0C	WIRE TERMINAL NOW SHOWN	1
15	6464970-00	2 BUTTON P/B STATION ASSM.	1
16	5004169-09	SCREW	1
17	6450008-00	INSULATOR	4
18A	6401559-02	REVERSING CONTACTOR 115 COIL	1
18B	6401559-01	REVERSING CONTACTOR 24 COIL	1

REV. A MEL - 019

When Replacement Parts Are Needed, Order Only YALE® Factory Engineered Parts

MOTORS



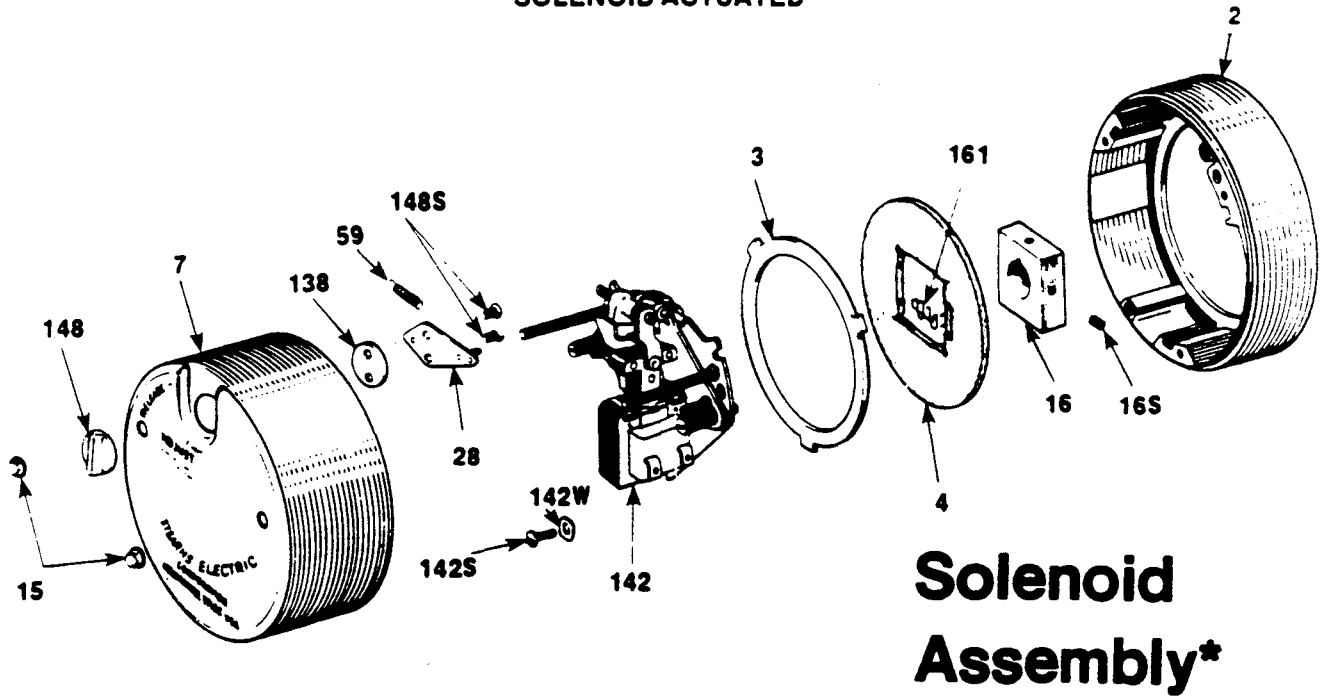
Motor Brake
MP Series
Push Button Only

Refer to page 25 for brake drum, pinion, and other parts on end of motor shaft for ME Series motor.

P/N	ME Series Cord Control Motor	
6453321-00	1 HP single phase	115/230
6463311-00	1 HP 3 phase	230/460
64633 -00	1 HP 3 phase	200
6463301-00	1 HP 3 phase	575
P/N	MP Series Push Button Control Motor	
6497753-00	1 HP single phase	115/230
6497763-00	1 HP single phase	200
6497773-00	1 HP 3 phase	200
6497783-00	1 HP 3 phase	230/460
6479793-00	1 HP 3 phase	575

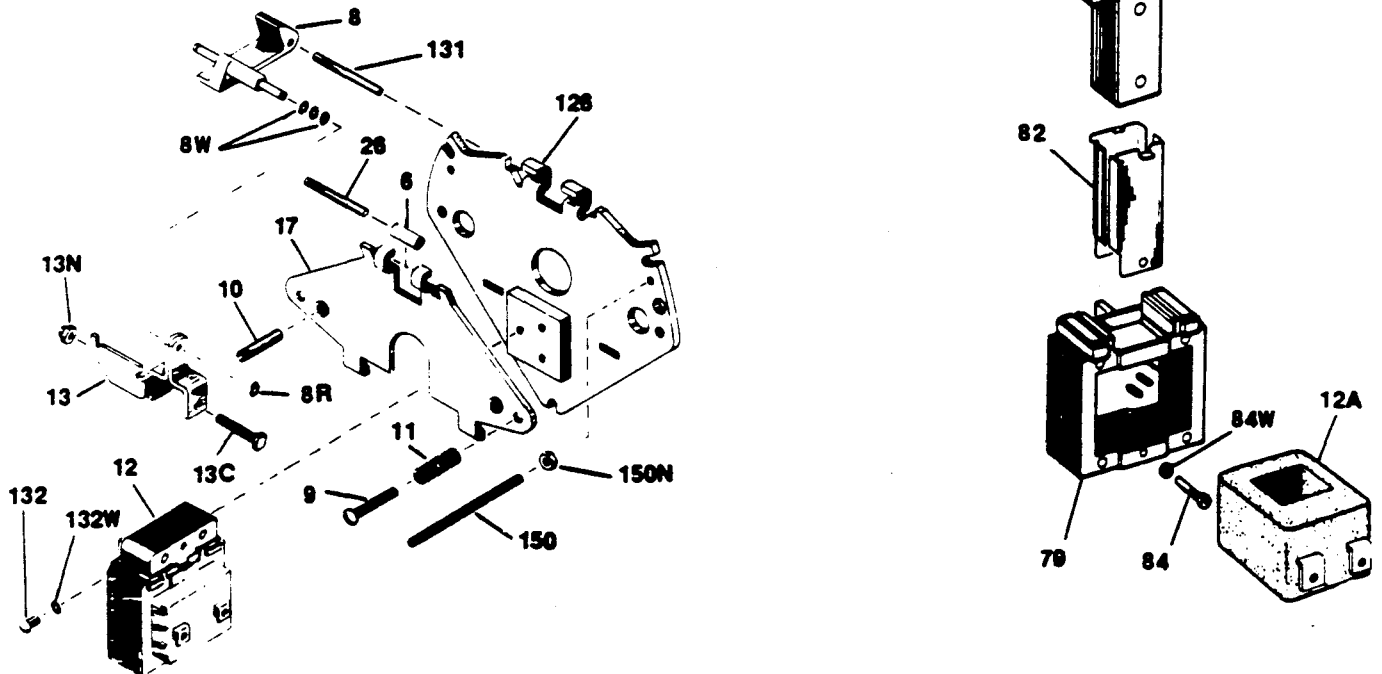
Yale Hoisting Equipment

SOLENOID ACTUATED



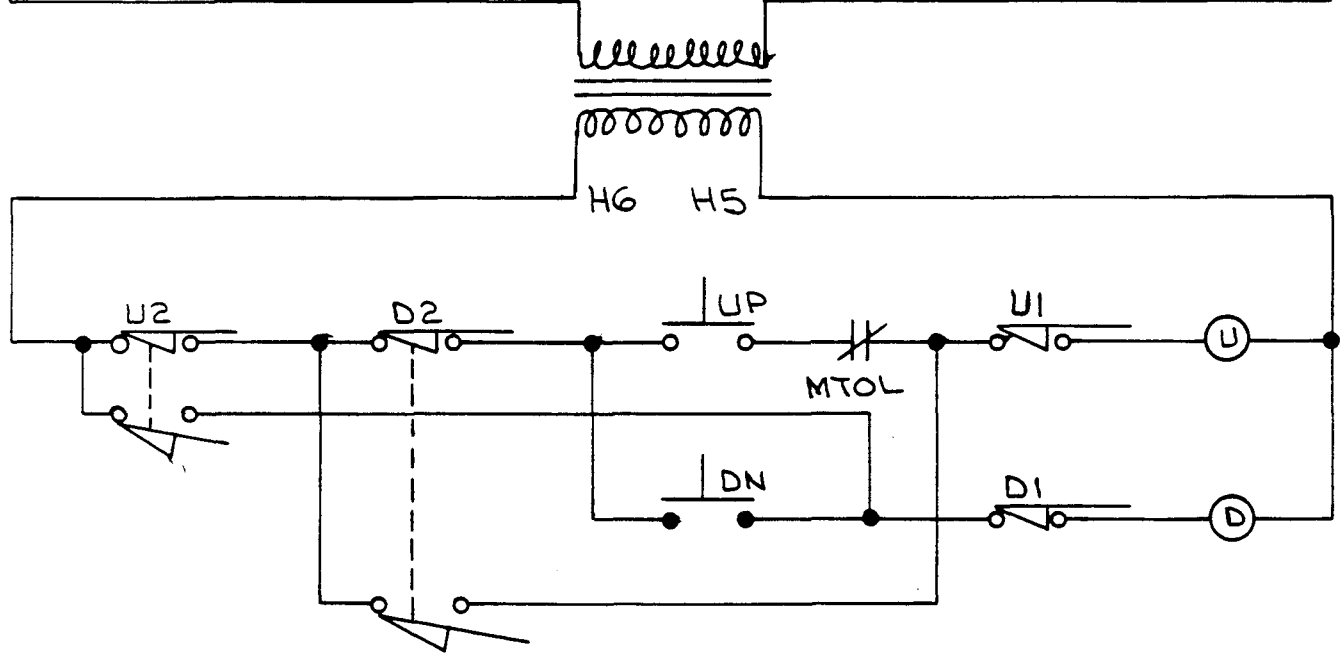
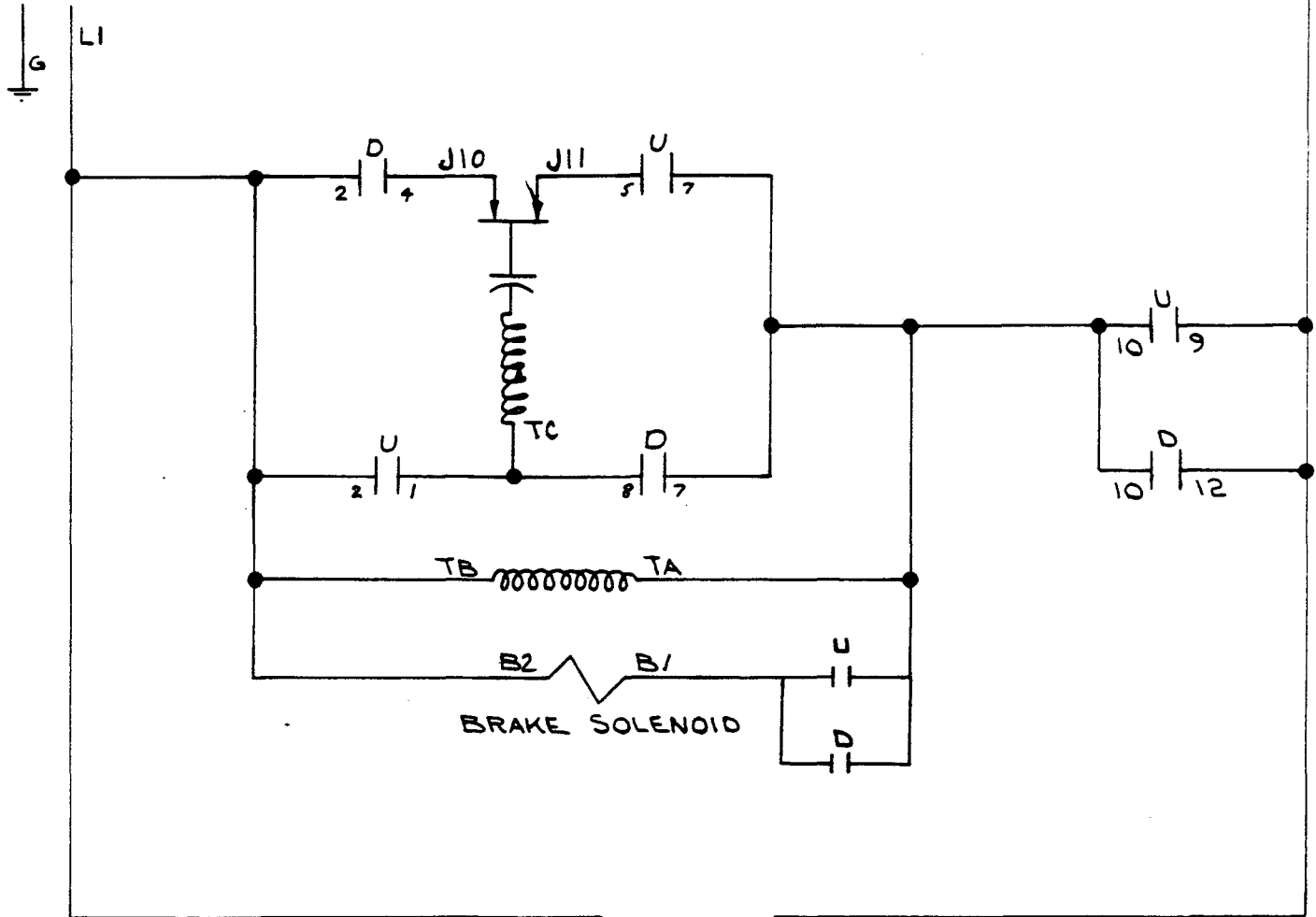
Support Plate Assembly

(Brake Mechanism)



When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

ITEM	PART NUMBER	DESCRIPTION
2	6445184-01	ENDPLATE ASSEMBLY
3	6445204-01	STANDARD DISC 3 THRU 6 TORQUE LBS. FT.
4	6419938-02	FRICTION DISC.
7	6445184-02	HOUSING AND RELEASE KNOB ASSEMBLY
15	6426086-01	HOUSING NUT
16	6419938-22	HUB AND SET SCREW ASSY. 3 AND 6 TORQUE LBS. FT.
16S	6445184-05	SET SCREW
28	6445184-06	RELEASE PLATE ASSEMBLY
59	6426086-02	RELEASE SPRING
78	6426086-03	NAMEPLATE
138	6445184-11	RELEASE WASHER
140	6426086-04	LEADWIRE BUSHING
142	6419938-24	SUPPORT PLATE ASSEMBLY AC 3 TORQUE LBS. FT.
142	6419938-03	SUPPORT PLATE ASSY. AC6 AND 10 TORQUE LBS. FT.
142S	6426086-05	SCREW
142W	6426086-06	LOCKWASHER
148	6445184-17	RELEASE KNOB
148S	6426086-07	SCREW
161	6434348-06	SPRING
6	6434348-03	BEARING
8	6426086-08	SOLENOID LEVER
8R	6426086-09	RETAINER RING
8W	6426086-10	SPACER
9	6445184-19	TORQUE ADJ. SCREW 1.5 THRU 3 & 6 THRU 10 TORQUE LBS. FT.
10	6434348-05	SCREW
11	6434348-01	PRESSURE SPRING 6 THRU 10 TORQUE LBS. FT.
12	6419938-10	SOLENOID ASSEMBLY LESS COIL
13	6445184-20	SOLENOID LINK
13C	6426086-11	SCREW
13N	6419938-31	NUT
17	6445184-22	LEVER ARM AND STOP NUT ASSEMBLY
26	6445184-23	PIN
126	6445184-27	SUPPORT PLATE AND STOP NUT ASSEMBLY
131	6434348-04	PIN
132	6445184-29	SCREW
132W	6445184-30	LOCKWASHER
150	6445184-31	STUD
150N	6426086-14	LOCKNUT
157	6434348-10	SWITCH
12	6419938-04	SOLENOID ASSEMBLY LESS COIL A.C.
29	6445184-32	PLUNGER
79	6445184-33	FRAME
82	6445184-34	PLUNGER GUIDE
84	6445184-36	SCREW
84W	6425676-16	LOCKWASHER
29	6426086-23	PLUNGER
79	6426086-24	FRAME AND BRACKET WELDMENT
82	6426096-03	PLUNGER GUIDE
84	6426096-04	SCREW
84W	6425676-59	LOCKWASHER
12A	6426096-06	COIL 110V, 50/60 CYC. 1.5 THRU 10 TORQUE LBS. FT.
12A	6419938-05	COIL 208V, 50/60 AND 110V, 25 CYC 1.5 THRU 10 TORQUE LBS. FT.
12A	6419936-09	COIL 550V, 50/60 CYC. 1.5 THRU 10 TORQUE LBS. FT.
12A	6419938-07	COIL 110/220V, 50/60 CYC. 1.5 THRU 10 TORQUE LBS. FT.
12A	6419938-08	COIL 220/440V, 50/60 CYC. 1.5 THRU 10 TORQUE LBS. FT.



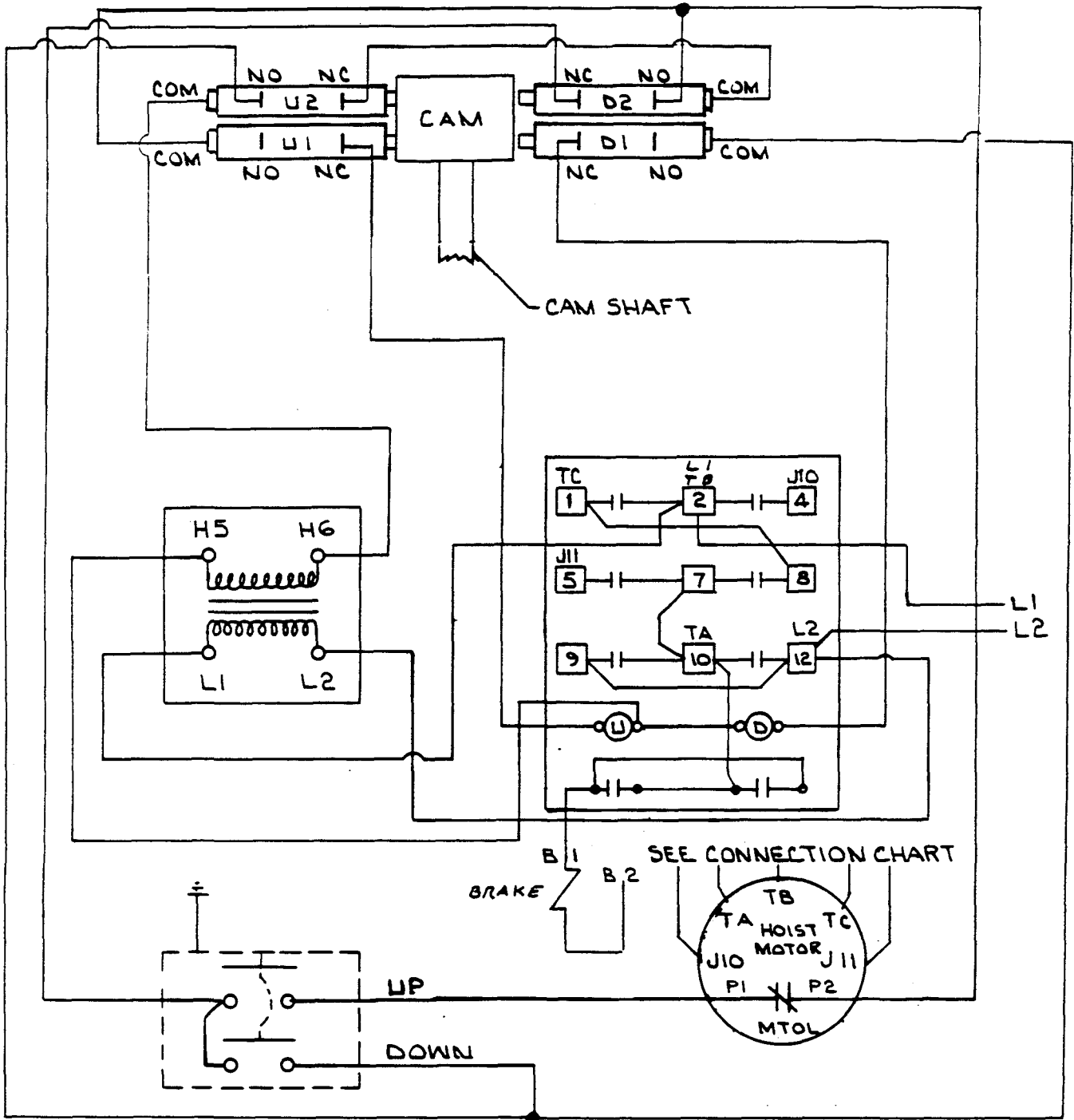
B	89-3-20	FW
A	88-3-22	FW
REV.	YR. MO. DY.	BY

DESCRIPTION

MEL/MER
SINGLE PHASE

WD1002021
BY: G4
DATE: 12-8-8

THE CAM & LIMIT SWITCH ARRANGEMENT IS A BOTTOM VIEW



HOIST MOTOR CONNECTIONS

TRANSFORMER CONNECTIONS			
SINGLE VOLTAGE	DUAL VOLTAGE		
	LOW	HIGH	
H1 TO L1 H2 TO L2	H1 TO H3 TO L1 H2 TO H4 TO L2	H2 TO H3 H1 TO L1 H4 TO L2	

HOIST MOTOR AND BRAKE CONNECTION						
SINGLE VOLTAGE MOTORS			DUAL VOLTAGE MOTORS			
HOIST			LOW VOLTAGE		HIGH VOLTAGE	
CONTACTOR TERMINAL			HOIST		HOIST	
10	2	4	10	2	4	5
TA	TB	TC	TA	TB	TC	
T1	T4	T5	T1	T4	T5	
	B2	J10	T3	T2	T5	J10
		J11			J10	J11
					T2	T3
						T5
						J10
						J11

B 89-3-20 JF
A 88-3-22 FW
REV. YR. MO. DY. BY

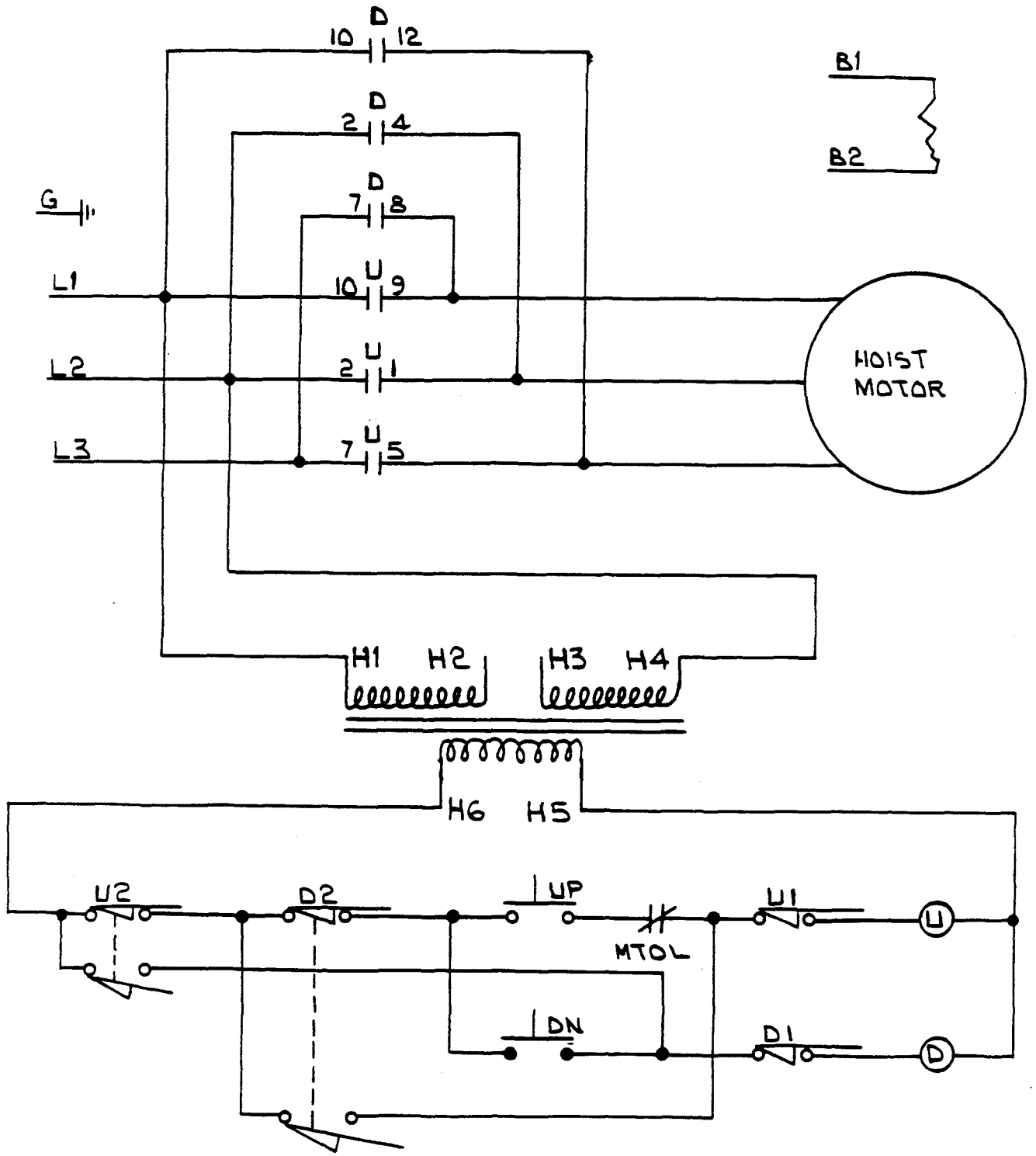
DESCRIPTION

MEL/MER
SINGLE PHASE

WD1002021

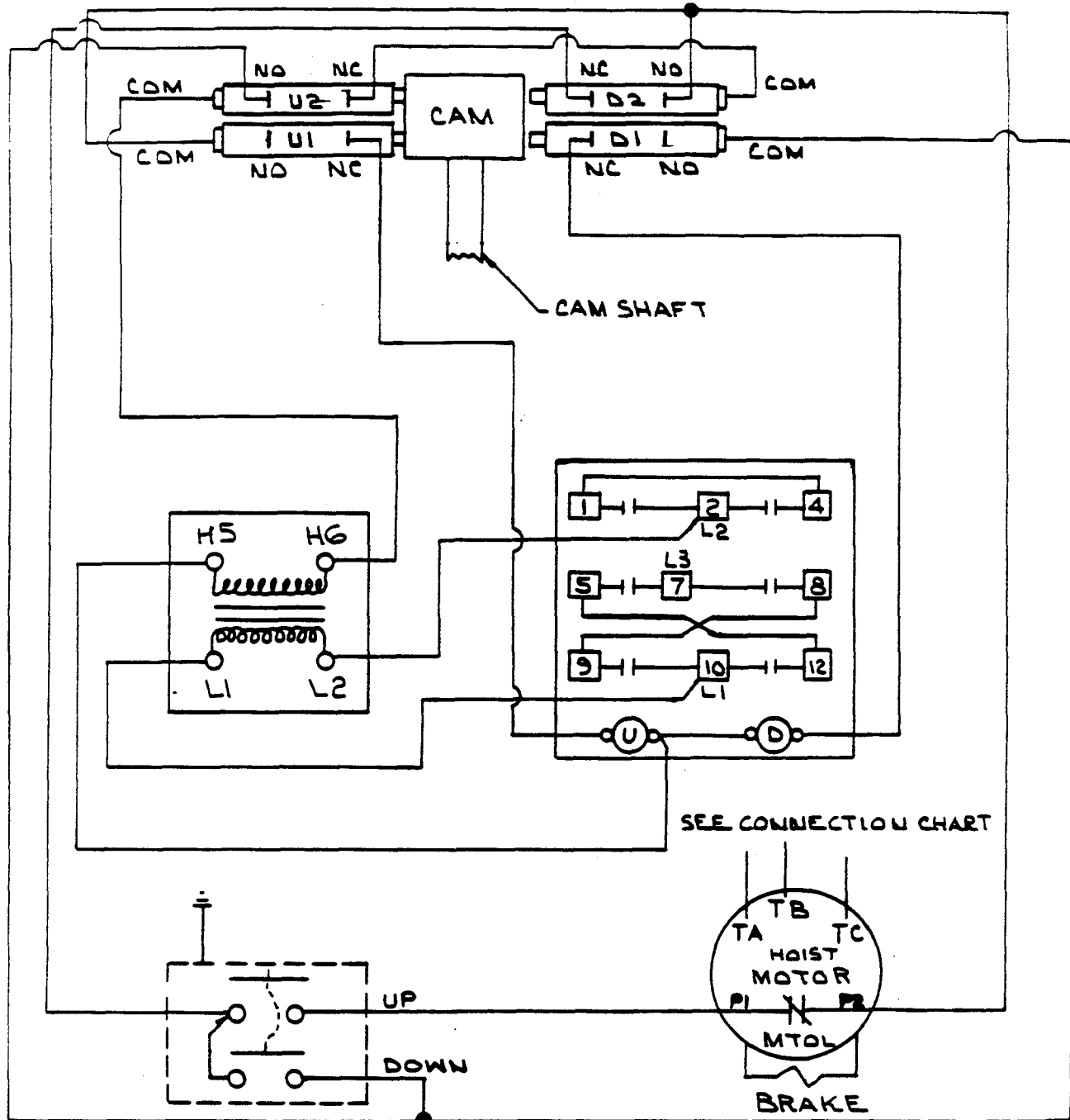
BY: GH

DATE: 12-7-87



4	88-3-7	GH	
REV.	YR.	MO.	DY.
			BY
DESCRIPTION			

THE CAM & LIMIT SWITCH ARRANGEMENT IS A BOTTOM VIEW.



SEE CONNECTION CHART

TRANSFORMER CONNECTIONS			
SINGLE VOLTAGE	DUAL VOLTAGE		
	LOW	HIGH	
H1 TO L1 H2 TO L3	H1 TO H3 TO L1 H2 TO H4 TO L3	H2 TO H3 H1 TO L1 H4 TO L3	
H1 H2	H1 H2 H3 H4		

HOIST MOTOR AND BRAKE CONNECTION					
SINGLE VOLTAGE			DUAL VOLTAGE MOTORS		
MOTORS			LOW VOLTAGE	HIGH VOLTAGE	
HOIST CONTACTOR TERMINAL			HOIST CONTACTOR TERMINAL		
4 TA	8 TB	12 TC	4 T1	8 T2	12 T3
B1	T2	B2	T7 B1	T8 B2	T9 B2
			T4	T5	T6

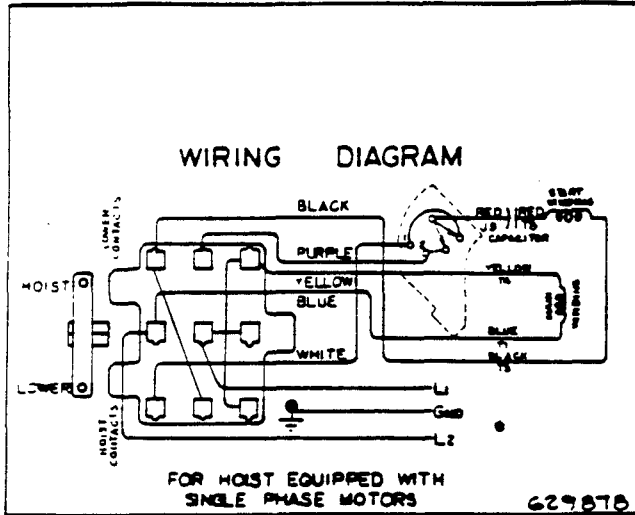
WIRING DIAGRAMS

CORD CONTROL

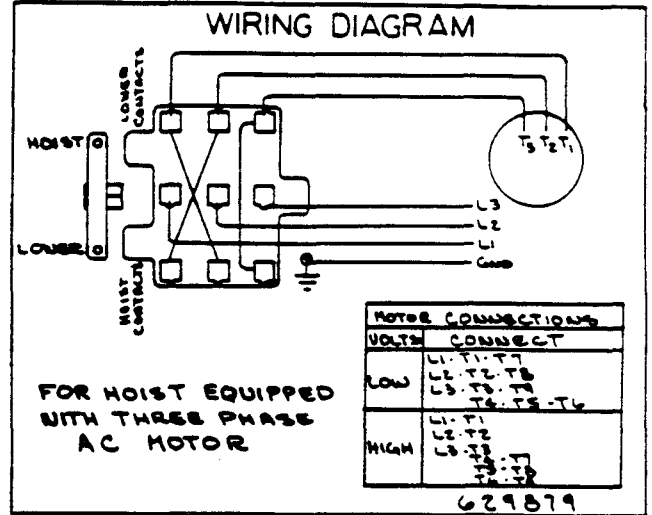
Wiring Diagrams



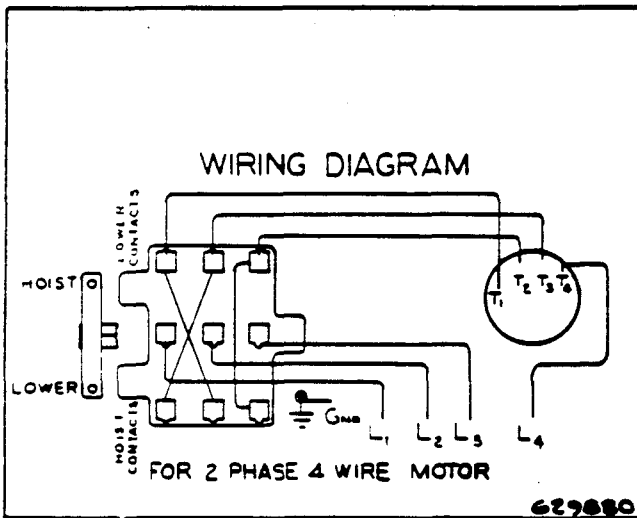
CORD CONTROL



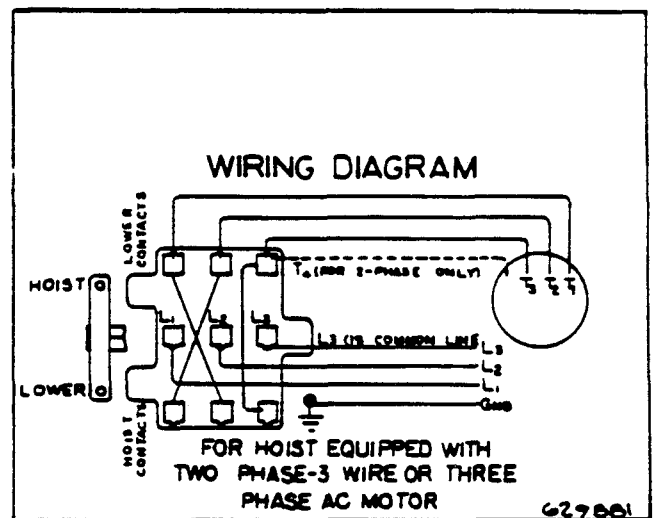
SINGLE PHASE MOTORS, WITH CORD CONTROL



THREE PHASE A C MOTOR, WITH CORD CONTROL



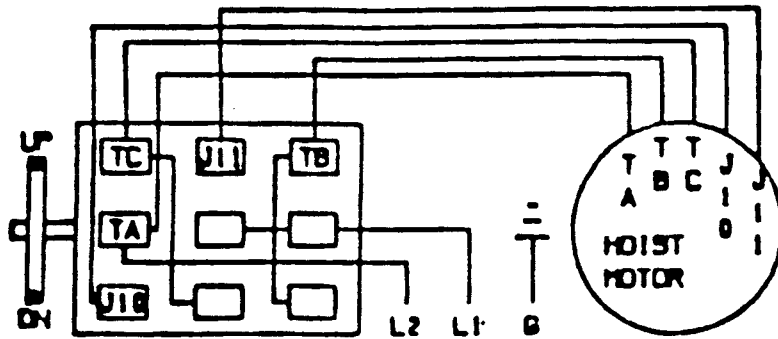
TWO PHASE, FOUR WIRE MOTOR, WITH CORD CONTROL



TWO PHASE, THREE WIRE OR THREE PHASE A C MOTOR, WITH CORD CONTROL

YA-0291

When Replacement Parts Are Needed, Order Only YALE[®] Factory Engineered Parts

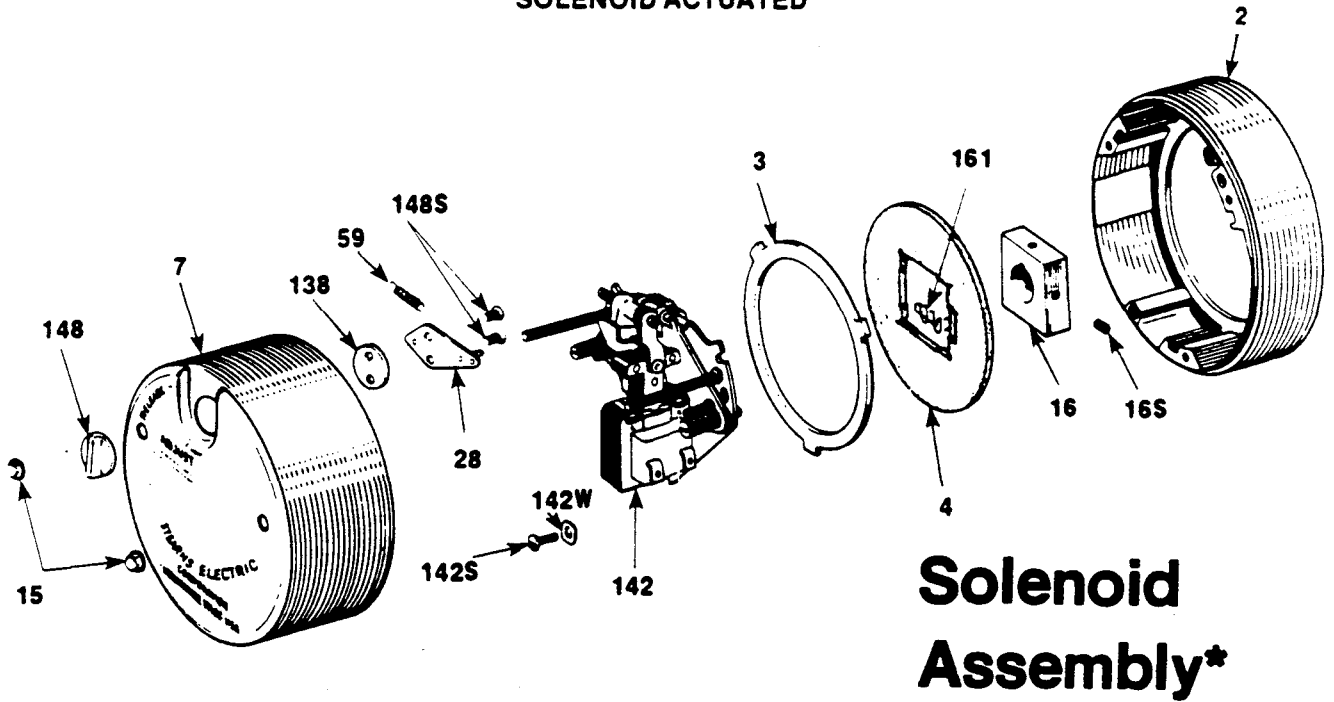


MOTOR CONNECTIONS	
115 VOLTS	230 VOLTS
TA - T1 - T3	TA - T1
TB - T2 - T4	TB - T4
TC - T5	TC - NO CONNECTION
	T2-T3-T5 (SPLICE)

MO384158B

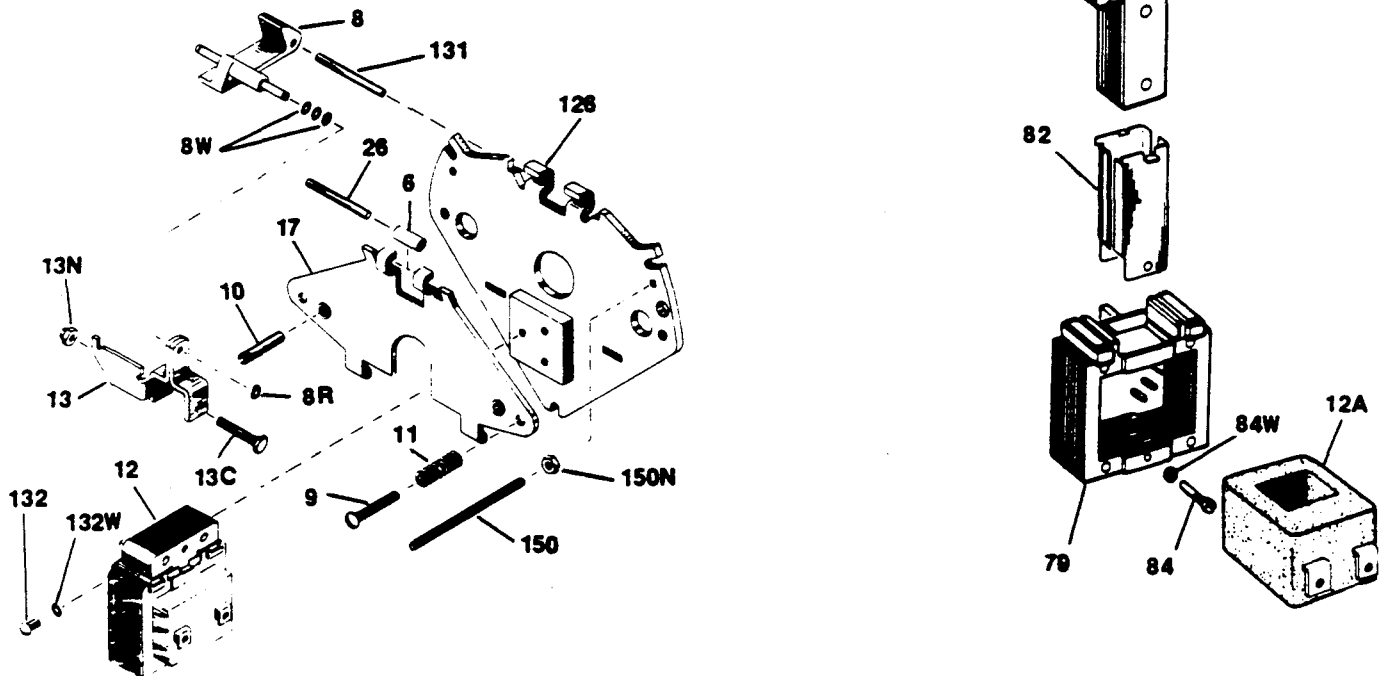
Yale Hoisting Equipment

SOLENOID ACTUATED



Support Plate Assembly

(Brake Mechanism)



When Replacement Parts Are Needed, Order Only Yale® Factory Engineered Parts

ITEM	PART NUMBER	DESCRIPTION
2	6445184-01	ENDPLATE ASSEMBLY
3	6445204-01	STANDARD DISC 3 THRU 6 TORQUE LBS. FT.
4	6419938-02	FRICTION DISC.
7	6445184-02	HOUSING AND RELEASE KNOB ASSEMBLY
15	6426086-01	HOUSING NUT
16	6419938-22	HUB AND SET SCREW ASSY. 3 AND 6 TORQUE LBS.FT
16S	6445184-05	SET SCREW
28	6445184-06	RELEASE PLATE ASSEMBLY
59	6426086-02	RELEASE SPRING
78	6426086-03	NAMEPLATE
138	6445184-11	RELEASE WASHER
140	6426086-04	LEADWIRE BUSHING
142	6419938-24	SUPPORT PLATE ASSEMBLY AC 3 TORQUE LBS. FT.
142	6419938-03	SUPPORT PLATE ASSY. AC6 AND 10 TORQUE LBS.FT.
142S	6426086-05	SCREW
142W	6426086-06	LOCKWASHER
148	6445184-17	RELEASE KNOB
148S	6426086-07	SCREW
161	6434348-06	SPRING
6	6434348-03	BEARING
8	6426086-08	SOLENOID LEVER
8R	6426086-09	RETAINER RING
8W	6426086-10	SPACER
9	6445184-19	TORQUE ADJ.SCREW 1.5 THRU 3 & 6 THRU 10 TORQUE LBS. FT.
10	6434348-05	SCREW
11	6434348-01	PRESSURE SPRING 6 THRU 10 TORQUE LBS. FT.
12	6419938-10	SOLENOID ASSEMBLY LESS COIL
13	6445184-20	SOLENOID LINK
13C	6426086-11	SCREW
13N	6419938-31	NUT
17	6445184-22	LEVER ARM AND STOP NUT ASSEMBLY
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150N	6426086-14	LOCKNUT
157	6434348-10	SWITCH
12	6419938-04	SOLENOID ASSEMBLY LESS COIL A.C.
29	6445184-32	PLUNGER
79	6445184-33	FRAME
82	6445184-34	PLUNGER GUIDE
84	6445184-36	SCREW
84W	6425676-16	LOCKWASHER
29	6426086-23	PLUNGER
79	6426086-24	FRAME AND BRACKET WELDMENT
82	6426096-03	PLUNGER GUIDE
84	6426096-04	SCREW
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12A	6419936-09	COIL 550V,50/60 CYC.1.5 THRU 10 TORQUE LBS.FT
12A	6419938-07	COIL 110/220V,50/60 CYC.1.5 THRU 10 TORQUE LBS. FT.
12A	6419938-08	COIL 220/440V,50/60 CYC.1.5 THRU 10 TORQUE LBS. FT.

INSPECTION RECORD



Inspection Record

1. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

2. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

3. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

4. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

5. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

6. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

7. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

8. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

9. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

Additional inspection log pages may be obtained by ordering from:
Eaton Corporation-Hoisting Equipment Division-Hwy. #1, North
Forrest City, Arkansas 72335-Attn: Distribution Center.

YA-0295

When Replacement Parts Are Needed, Order Only YALE® Factory Engineered Parts

INSPECTION RECORD



Inspection Record

1. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

2. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

3. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

4. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

5. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

6. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

7. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

8. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

9. DATE _____ PERSON INSPECTING HOIST _____

COMMENTS _____

Additional inspection log pages may be obtained by ordering from:
Eaton Corporation-Hoisting Equipment Division-Hwy. #1, North
Forrest City, Arkansas 72335-Attn: Distribution Center.

YA-0293

When Replacement Parts Are Needed, Order Only YALE® Factory Engineered Parts

Yale[®]

HOISTS

WARRANTY

Every hoist is thoroughly inspected and tested prior to shipment from the factory. Should any problems develop, return the complete hoist prepaid to your nearest Yale Hoists Authorized Warranty Repair Station.

This warranty does not apply where: (1) deterioration is caused by normal wear, abuse, improper or inadequate power supply, eccentric or side loading, overloading, chemical or abrasive actions, improper maintenance or excessive heat; (2) problems resulted from repairs, modifications or

alterations made by persons other than factory or Yale Hoists personnel; (3) the hoist has been abused or damaged as a result of an accident; (4) repair parts or accessories other than those supplied by Yale Hoists are used on the hoist. Equipment and accessories not of the seller's manufacture are warranted only to the extent that they are warranted by the manufacturer. EXCEPT AS STATED HEREIN, YALE HOISTS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Improvements:

Yale Hoists is constantly striving to improve its product. Changes in design and improvements will be made whenever manufacturer believes the efficiency of the product will be improved without incurring any obligation to incorporate such improvements in any products which have been shipped or are in service.

Important Notice:

Use of chain, wire rope or replacement parts other than as supplied as original equipment on Yale hoists may lead to dangerous operation. Accordingly, Yale Hoists cannot be responsible in such cases and our warranty will be voided.

For more information, write Yale Hoists, Forrest City, Arkansas 72335.

Yale[®] HOISTS
3105 N. Washington
P. O. Box 1000
Forrest City, Arkansas 72335
Customer Service (800) 999-6318
FAX (800) 766-0223