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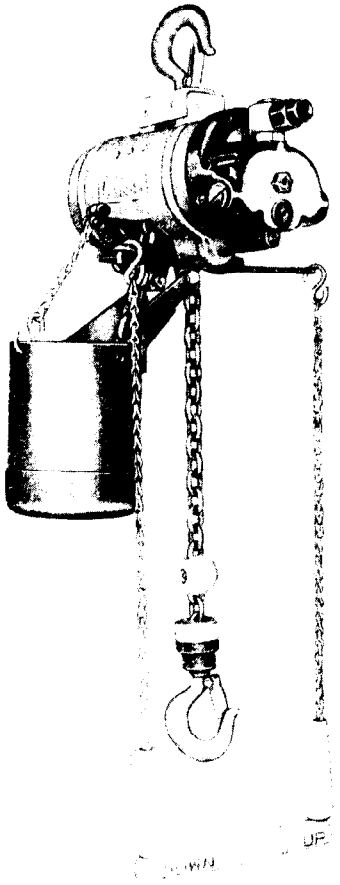
ARO

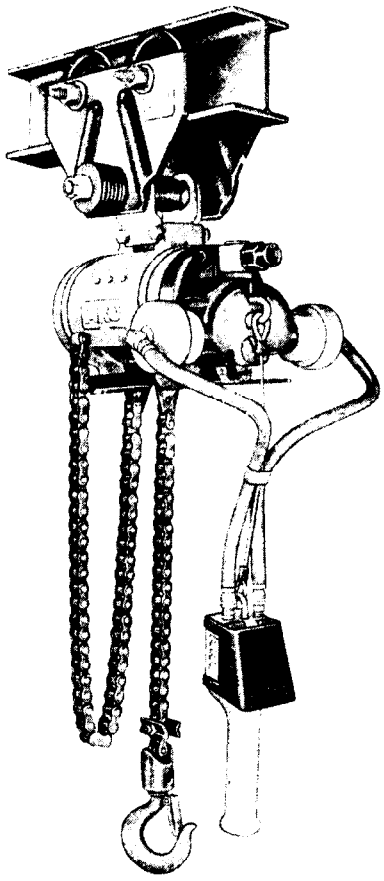
PARTS LIST AND INSTRUCTION MANUAL

FOR OPERATION AND MAINTENANCE OF

AIR-POWERED CHAIN HOISTS



LINK & ROLLER CHAIN MODELS



1/4, 1/2 & 1 Ton Capacities

PLEASE READ CAREFULLY BEFORE OPERATING TOOL

THE ARO CORPORATION

BRYAN, OHIO 43506

FORM 4564-A 9/18/68

PRINTED IN USA

MODEL IDENTIFICATION

STANDARD LINK CHAIN HOISTS

TYPE OF MOUNT	TYPE OF CONTROL	QUARTER TON		HALF TON		ONE TON	
		MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT
HOOK MOUNTED	PULL CHAIN	7717-C	29 LBS.	7750-C	29 LBS.	7775-C	42 LBS.
	LEVER PENDENT	7718-C	34 LBS.	7756-C	34 LBS.	7776-C	47 LBS.
TROLLEY MOUNTED	PULL CHAIN	7717-CT	29 LBS.	7750-CT	29 LBS.	7775-CT	42 LBS.
	LEVER PENDENT	7718-CT	34 LBS.	7756-CT	34 LBS.	7776-CT	47 LBS.

EXTRA-FAST DESCENT LINK CHAIN HOISTS

TYPE OF MOUNT	TYPE OF CONTROL	HALF TON		ONE TON	
		MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT
HOOK MOUNTED	PULL CHAIN	7754-C	29 LBS.	7777-C	42 LBS.
	LEVER PENDENT	7758-C	34 LBS.	7778-C	47 LBS.
TROLLEY MOUNTED	PULL CHAIN	7754-CT	29 LBS.	7777-CT	42 LBS.
	LEVER PENDENT	7758-CT	34 LBS.	7778-CT	47 LBS.

STANDARD ROLLER CHAIN HOISTS

TYPE OF MOUNT	TYPE OF CONTROL	QUARTER TON		HALF TON		ONE TON	
		MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT
HOOK MOUNTED	PULL CHAIN	7719-C	29 LBS.	7700-C	29 LBS.	7725-C	42 LBS.
	LEVER PENDENT	7720-C	34 LBS.	7708-C	34 LBS.	7732-C	47 LBS.
TROLLEY MOUNTED	PULL CHAIN	7719-CT	29 LBS.	7700-CT	29 LBS.	7725-CT	42 LBS.
	LEVER PENDENT	7720-CT	34 LBS.	7708-CT	34 LBS.	7732-CT	47 LBS.

EXTRA-FAST DESCENT ROLLER CHAIN HOISTS

TYPE OF MOUNT	TYPE OF CONTROL	HALF TON		ONE TON	
		MODEL NO.	APPROX. WEIGHT	MODEL NO.	APPROX. WEIGHT
HOOK MOUNTED	PULL CHAIN	7706-C	29 LBS.	7730-C	42 LBS.
	LEVER PENDENT	7710-C	34 LBS.	7734-C	47 LBS.
TROLLEY MOUNTED	PULL CHAIN	7706-CT	29 LBS.	7730-CT	42 LBS.
	LEVER PENDENT	7710-CT	34 LBS.	7734-CT	47 LBS.

EXTRA-FAST DESCENT HOIST MODELS AVAILABLE IN 1/2 AND 1-TON CAP. ONLY.
FOR SPARK-RESISTANT MODELS--SEE SPARK-RESISTANT HOIST SECTION.

INSTRUCTION MANUAL
CHAIN HOISTS

This Parts List and Instruction Manual is composed of eight sections:

GENERAL DESCRIPTION
AIR AND LUBE REQUIREMENTS
INSTALLATION AND OPERATION
INSPECTION AND MAINTENANCE
DISASSEMBLY AND REASSEMBLY
SPARK-RESISTANT MODELS
TROUBLE SHOOTING
ACCESSORIES

A complete Parts List will be found on the various drawings contained herein.

This manual is provided to serve as an aid in obtaining the maximum service from this hoist.

After carefully reading, file in a safe place for future reference.

GENERAL DESCRIPTION

The ARO Chain Hoist is a precision unit. Its design and construction offers dependable, efficient operation with minimum maintenance.

The ARO Chain Hoists are available in three (3) capacity sizes— 1/4, 1/2 and 1-Ton. Each capacity size is available with either a link or roller type load chain, pull chain or pendent type throttle control, and hook or trolley type suspension mounting.

Extra-fast descent models are available in the 1/2 and 1-Ton capacities only.

Models with spark-resistant load chain and hooks are also available. (NOTE: SPARK-RESISTANT MODELS have CAPACITY ratings of 500 and 1,200 pounds).

The basic difference in hoist models are in the type of control, type of suspension and type of load chain. Differences in capacities are in the gear reduction ratios used and in the reeving of the load chain. The 1/4 Ton models have a 10:1 gear ratio and the 1/2 and 1-Ton models have a 20:1 gear ratio. On the 1/4 and 1/2 Ton capacity models the load chain is single reeved; on the 1-Ton capacity models the load chain is double reeved through a lower block assembly.

All models have a rotary vane-type air motor, mechanical brake with bonded lining, bearings on all rotating or oscillating parts, a built-in oil reservoir, external adjustment screw for regulating rate of descent (with the exception of spark-resistant models; see SPARK-RESISTANT HOIST SECTION), adjustable chain stop on 1/4 and 1/2 Ton models, safety stop on sheave block of 1-Ton models, 3/8" female N.P.T.F. air inlet with 180° swivel. Pull chain controls are 4' long. Pendent controls have 5' lengths of hose with a nylon-sheathed steel strain cable. Standard models have a lift of 8 feet. Trolley mounted hoists are furnished with trolley adapter only, trolley must be ordered separately.

AIR AND LUBE REQUIREMENTS

AIR PRESSURE of 90 pounds per square inch at air inlet of hoist is required for maximum efficiency. If necessary, install an ARO Model 27240-G Regulator to maintain this pressure. Recommended air hose size - 1/2" I.D.. Couplers and connectors which have a smaller inside diameter than air hose should not be used.

ARO COMBINATION OILER and FILTER (28240) installed on air lines is recommended by ARO as Air Hoists operate more efficiently on clean air with a sufficient amount of oil.

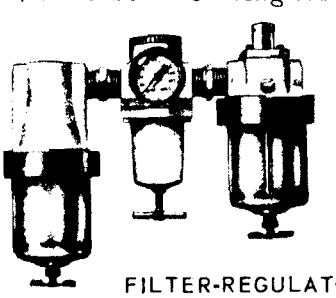
OIL LEVEL of reservoir in Head should be checked after each 40 hours of operation.

APPLY GREASE (33153) thru grease fitting in housing a minimum of every 4 weeks, when hoist is in continuous operation, to provide lubrication for gearing.

LOAD CHAIN LUBRICATION—See Inspection and Maintenance Section, page 5.

RECOMMENDED LUBRICANTS:

39843	1 qt. Spindle oil - oiler and air inlet
39844	1 gal. Spindle oil - oiler and air inlet
33153	5# can Grease - gears and bearings
36460	4 oz. tube "O" ring lubricant



MODEL 28241

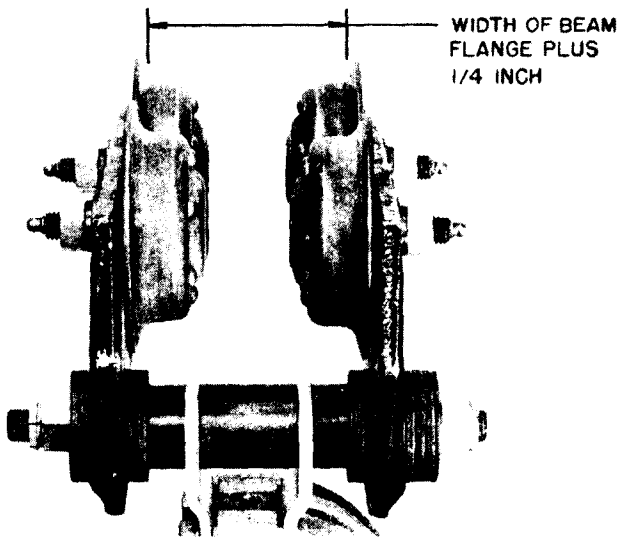
FILTER-REGULATOR-GAUGE-LUBRICATOR.

INSTALLATION AND OPERATION

INSTALLATION

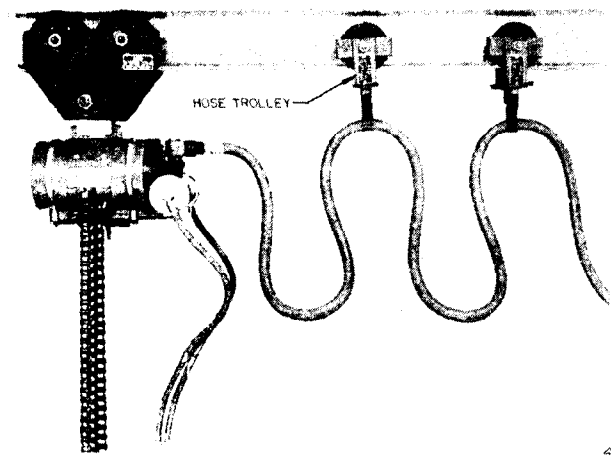
The Aro Chain Hoists are completely lubricated and load tested before being shipped from the factory. To place in service, (hook suspended models) select an overhead support capable of safely holding combined weight of hoist and its capacity load. Hang hoist up, being certain that upper hook is firmly seated in center of hook saddle and that the safety latch is properly closed. If necessary, safety latch may be removed from hook and then re-assembled to hook after upper hook has been attached to overhead suspension; (Trolley mounted hoists) the trolley side plates must be properly spaced so trolley will fit I - beam on which hoist will operate. Adjustment for various I - beam sizes is accomplished by rearrangement of spacer washers on shaft which connect trolley to the trolley adapter.

Connect hoist to nearest air source using a minimum 1/2" I.D. air hose assembly. If hoist is trolley mounted, sufficient air hose must be provided to reach from air source to farthest point of trolley travel. Aro Model 7703 Air Hose Trolley Assemblies are recommended to keep air hose elevated and in line with the hoist.



Proper Wheel Spacing.

FIG. 1



Air Hose Supported By Hose Trolleys.

FIG. 2

OPERATION

Operate hoist cautiously to become familiar with the performance of hoist.

To operate hoist, pull (or depress) controls slowly. Abrupt operation, resulting from "jerking" or "jabbing" of controls, should always be avoided.

Before lifting a load be certain that safety latch on load hook is properly closed. On 1-Ton Link Chain models; to avoid jamming of chain in lower block; allow only sufficient slack in chain to permit attaching hook to load. Never permit load chain to become twisted.

To avoid danger of the load swinging when lifted, heavy side or end pulling should always be avoided.

Take up slack chain carefully to avoid over stress by jerking load off the floor.

Never use hoist chain as a sling.

Do not load hoist beyond rated capacity.

On pendent control models the control handle is supported by a strain cable which is suitable for pulling trolley suspended hoists when empty or lightly loaded. Push on load or load chain to traverse heavily loaded hoists.

The rate of lift or descent of any Aro Chain Hoist can be governed manually by the operator. Both the pull chain and pendent controls provide unlimited variation between full speed and the slowest "INCHING" movement. This is accomplished by control of pull chain handles or pendent control levers. Pulling down on pull chain control as far as possible or by depressing pendent control levers fully, will result in maximum hoist speed.

Adjusting Descent Speed

FIG. 3

The maximum lift rate of a hoist is constant, provided that air pressure and load are also constant. The maximum descent rate of hoist, with the exception of spark-resistant models (see spark-resistant hoist section), can be varied within fixed limits by means of a regulating screw located on the underside of the Head Housing.

Hoists are shipped from factory with regulator screw pre-set for slowest rate of descent. If a faster rate of descent is desired, turn regulator screw counter-clockwise (out) by small increments while testing with desired or rated load attached.

CAUTION: Maximum lowering speed with rated load is very high. Adjust with care. Head of Regulator screw must never extend beyond outer surface of housing.

INSPECTION AND MAINTENANCE

INSPECTION

ARO recognizes the need for periodic inspection of hoist components as an important step in preventive maintenance.

The type of application for a hoist varies so greatly it is impractical to recommend an exact time-table for inspection of the hoist. Where hoist is subjected to continuous operation with capacity loads, it is recommended the unit be inspected twice a week. If the application is less demanding, the unit should be inspected twice a month. In general, the frequency of inspection should be determined by the severity of the application. The user of a hoist should be guided by any existing state or local regulations governing the use, testing or inspection of the hoist.

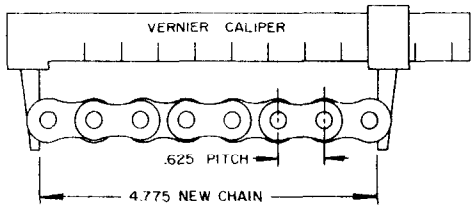
The following points and areas are recommended for inspection when inspection is deemed necessary.

LOAD CHAIN

a. Visually check for nicked, gouged, twisted, bent, corroded, rusted, worn or broken links. Check ends of chain where chain is anchored to hoist frame and where chain is fastened to lower hook. Check anchors and pins.
b. Check chain elongation with a vernier caliper as shown in figure 4.

IT IS NOT INFERRED that a chain is safe prior to the occurance of elongation of the chain. It is inferred ONLY, that when said elongation is evident, the chain must be replaced. Other factors, such as those mentioned as a visual check, may render chain unsafe long before replacement due to elongation is necessary.

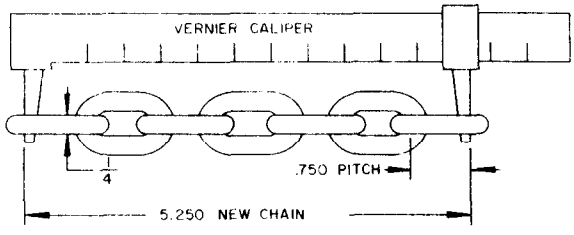
NOTE: New chain should never be used on a worn pocket wheel, replace chain and pocket wheel as a pair.



IF VISUAL CHECK REVEALS NO DEFECTS, PROCEED AS FOLLOWS:

LAY USED CHAIN ON FLAT SURFACE AND MEASURE OVER EIGHT (8) ROLLS, WHILE CHAIN IS PULLED TAUT, AS SHOWN. MEASUREMENT SHOULD BE TAKEN ON PORTION OF CHAIN WHICH HAS MOST PASSED OVER THE SPROCKET.

IF MEASUREMENT TAKEN IS 4.810 INCHES OR MORE, CHAIN SHOULD BE REPLACED.



IF VISUAL CHECK REVEALS NO DEFECTS, PROCEED AS FOLLOWS:

LAY USED CHAIN ON FLAT SURFACE AND MEASURE BETWEEN SEVEN (7) LINKS AS SHOWN. MEASUREMENT SHOULD BE TAKEN ON PORTION OF CHAIN WHICH HAS MOST PASSED OVER THE POCKET WHEEL.

IF MEASUREMENT TAKEN IS 5.355 OR MORE, CHAIN SHOULD BE REPLACED.

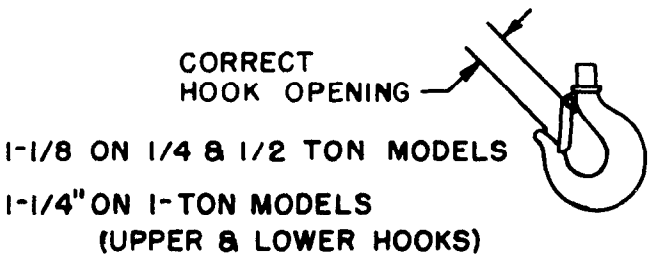
FIG. 4

LOAD CHAIN LUBRICATION – Chain should be lubricated periodically with heavy "EP" Gear Oil. Occasional cleaning of the chain, under normal operating conditions, will tend to reduce wear and prolong chain and pocketwheel (or sprocket) life. To properly clean, remove chain from hoist (see page 7) and wash in an oil solvent. Lubricate chain.

Under highly contaminated operating conditions, the load chain should be cleaned and relubricated with greater frequency to remove grit, sand and other contaminants.

HOOKS AND SUSPENSION

a. Check upper and lower hooks and component parts for bent, worn, cracked, broken or otherwise damaged parts.
b. On trolley suspended models, check condition of trolley parts, trolley adapter and component parts. Replace any damaged parts.



BRAKE

a. Check brake linings and component parts.
b. Check brake operation.

GEARS, BEARINGS AND SPROCKET

a. Check condition of teeth on gears and motor shaft pinion.
b. Check condition of sprocket teeth or pockets of pocket wheel.
c. Check condition of bearings.
d. Replace any worn or damaged parts.

THROTTLE VALVE HEAD AND GEARS

a. Check condition of valve body, valves, and "O" Rings on valves.
b. Check condition of gear teeth and bearings.
c. Replace any worn or damaged parts.

AIR MOTOR

a. Check end faces of rotor for roughness and blade slots for wear or burrs. A new blade should slide in and out of slots without binding.
b. Check blades for wear, warpage or other damage. Check blade springs.
c. Check cylinder bore diameter for rough circular grooves from scoring. A badly scored cylinder cannot be restored by honing since it will only enlarge bore diameter, widening seal point between rotor and cylinder, hindering free exhaust of air and result in loss of speed and power.
d. Check end plates for wear or scoring. Check bearings.
e. Replace any excessively worn or damaged parts.

GENERAL MAINTENANCE

AIR HOISTS ARE PRECISION TOOLS made of precision parts and should be handled with extreme care. Too much pressure exerted by the holding device may cause distortion of part. Be sure to have the correct tools and fixtures for assembling (or disassembling) this Air Hoist. When assembling (or disassembling) parts which have a press fit, apply the pressure evenly. To assemble (or disassemble) Bearings, pressure should be applied to the face adjacent the mating part; if this is not practiced, brinelling of the bearing races may occur, making it necessary to replace the Bearing.

WHEN REPAIRS ARE NECESSARY consult drawing containing part, for identification. When ordering repair parts, be sure to list MODEL NUMBER, PART NUMBER and PART NAME.

BEFORE DISASSEMBLING a hoist, the area around the work bench should be clean and free from metal chips and all foreign matter. It is a good practice to spread a clean cloth on the work bench to prevent the loss of small parts.

BEFORE REASSEMBLING, all parts should be washed and inspected, replacing any worn or defective parts. Applying a small amount of grease to steel balls, springs and other small parts will often hold them in place while reassembling. "O" Ring Lubricant (36460) is recommended for the installation of "O" Rings.

NOTE: Exercise extreme care so "O" Rings will not be cut, chipped, pinched or otherwise damaged during disassembly or reassembly.

DISASSEMBLY AND REASSEMBLY

To minimize the possibility of parts damage and for convenience, the steps for disassembly or reassembly listed on the following pages are recommended.

REMOVAL OF HOIST

a. Lower and disconnect load from hoist.
b. Shut off air at source and operate hoist control to bleed air from hoist and line.
c. Disconnect air hose at inlet swivel (on pendent control models, remove pendent control hoses also,) and remove hoist from overhead suspension. On pull chain models remove pull chains from control arm.
d. If chain basket is being used, remove from hoist.
e. Drain oil from reservoir in Head.
f. Upper Hook Assembly may be removed from Housing by driving out Roll Pins.
g. Place hoist upside-down in vise and clamp on upper hook mounting on Housing.
h. If hoist is to be completely disassembled it is recommended the load chain be removed. For removal of chain see page 7.

HEAD SECTION

a. Remove Roll Pin (Y178-56) from Gear (34022) and Control Rod (34021). NOTE: If Head Assembly is not to be disassembled; Control Rod may be removed with Head, thereby making it unnecessary to re-time Gear (34022) with Throttle Valves. (See "Timing of Head"- Figure 5). To remove Control Rod with Head, remove Roll Pin (Y178-55) from Control Arm (37719), remove Roll pin (Y178-60) from Brake Block (34029) and remove Brake Block.
b. Remove Screws (Y154-54) and Washers (Y14-10).
c. Remove Head Assembly from Housing.

BRAKE AND GEARING SECTION

a. Remove Screws (Y19-112-C) and Housing Cap Assembly.
b. Slide Brake Spring (33281) part way off Brake Shoes (33387) and remove Spring with Brake Spring Spreader (33541). This will release Brake Shoes and Steel Balls (Y16-10).
c. Place a pin thru hole in Brake Wheel (33376) to keep from turning and remove Nut (Y12-106) and washer (Y117-616). Remove Brake Wheel.
d. Remove Roll Pin (Y178-60) from Brake Block (34029) and remove Brake Block from Control Rod (34021).
e. Remove Screws (Y99-41) and Washers (30997) and remove End Plate Assembly with gearing attached.

MOTOR SECTION

a. After removal of Head Assembly, Housing Cap, Nut (Y12-106) and Washer (Y117-616); Motor Assembly may be removed from Housing.

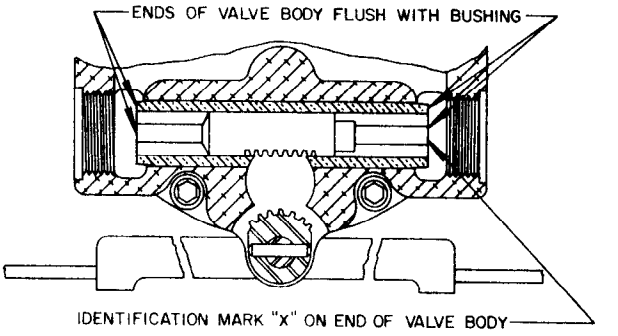
HOUSING SECTION

a. Follow disassembly prodedures as outlined in Head Section, Brake and Gearing Section and Motor Section.

For further disassembly of sections, see pages 7 thru 20.

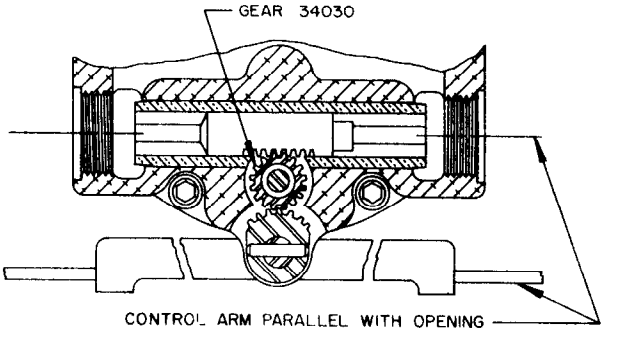
"TIMING OF HEAD"

STEP 1



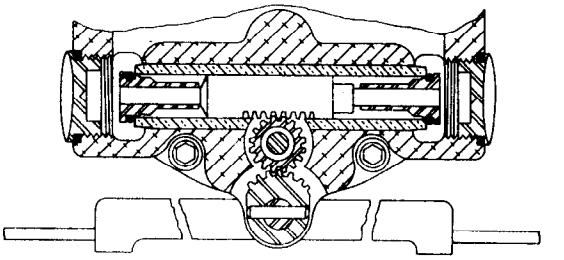
POSITION HOIST SO YOU ARE FACING END WITH AIR INLET.
WITH VALVE PARTS AND GEAR 34030 REMOVED, PLACE VALVE BODY IN VALVE OPENING. INSERT FINGER IN EACH END OF VALVE OPENING AND ALIGN ENDS OF VALVE BODY WITH ENDS OF BUSHING.
NOTE: VALVE BODY MUST BE INSTALLED WITH IDENTIFICATION MARK AS SHOWN.

STEP 2



POSITION CONTROL ARM PARALLEL WITH OPENING.
DROP GEAR 34030 INTO PLACE AND SECURE WITH SHAFT 34025 AND LOCK SCREW 34024.

STEP 3



ASSEMBLE BALANCE OF VALVE PARTS.

FIG. 5

REMOVAL AND INSTALLATION OF LOAD CHAIN

REMOVAL

a. Disconnect end of chain from anchor lug on side of hoist Housing. Remove Pin and Clevis on Link Chain Models. Remove Connecting Link on Roller Chain models. On models where a chain basket is employed, remove Chain Stop from end of chain.

b. If hoist can be connected to air service, run chain out of hoist by operating control in "lowering" direction. If hoist can not be connected to air service, the chain can be pulled thru hoist by hand while holding brake open by pulling (or pushing) on control arm (either end).

c. On 1-Ton models disconnect opposite end of chain from Anchor Bracket. Remove Screws (37580) and Pin (34316) from Anchor Bracket, releasing Clevis on Link Chain models and releasing Roller Chain on Roller Chain models.

INSTALLATION

a. LINK CHAIN–remove Housing Cap, Brake Spring and Brake Shoes. Turn Brake Wheel by hand to rotate Pocket Wheel while carefully feeding chain thru Chain Guide and around Pocket Wheel. Once chain is over Pocket Wheel, brake may be reassembled and housing cap replaced. Hoist may be connected to air service and chain run thru hoist under power until sufficient chain has passed thru to allow end link of chain to be attached to anchor point. (SEE CAUTION note below).

NOTE: The Link Chain must be installed so welded side of links face outward from Pocket Wheel. Also, the end link of chain must be feed over Pocket Wheel so it will be positioned properly to permit attaching to anchor lug without twisting chain.

b. ROLLER CHAIN–remove Housing Cap, Brake Spring and Brake Shoes. Turn Brake Wheel by hand to rotate Sprocket while carefully feeding chain thru guide and around Sprocket. Once chain is around Sprocket, brake may be reassembled and housing cap replaced, hoist connected to air and chain run thru hoist under power until sufficient chain has been run thru to allow dead end of chain to be attached to anchor point. (SEE CAUTION note below).

CAUTION: When feeding chain thru hoist under power-exercise extreme care in operating control, as chain will be pulled thru at a very fast rate with control in full open position. When possible an air regulator should be used at air source and air pressure reduced to approximately 20 to 30 p.s.i. while feeding chain thru hoist.

To assemble chain to lower block on 1-Ton models–see page 18.

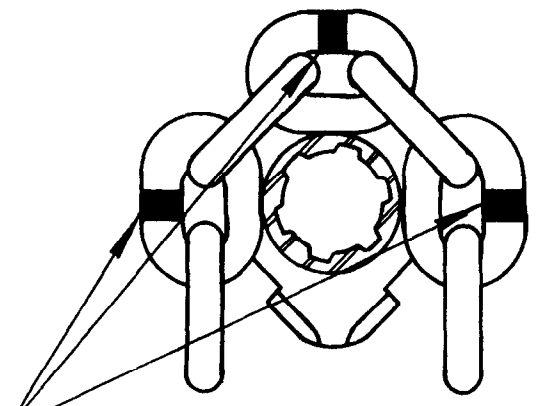


FIG. 6

Installing Load Chain

FIG. 7

TYPICAL CROSS-SECTION OF HOIST

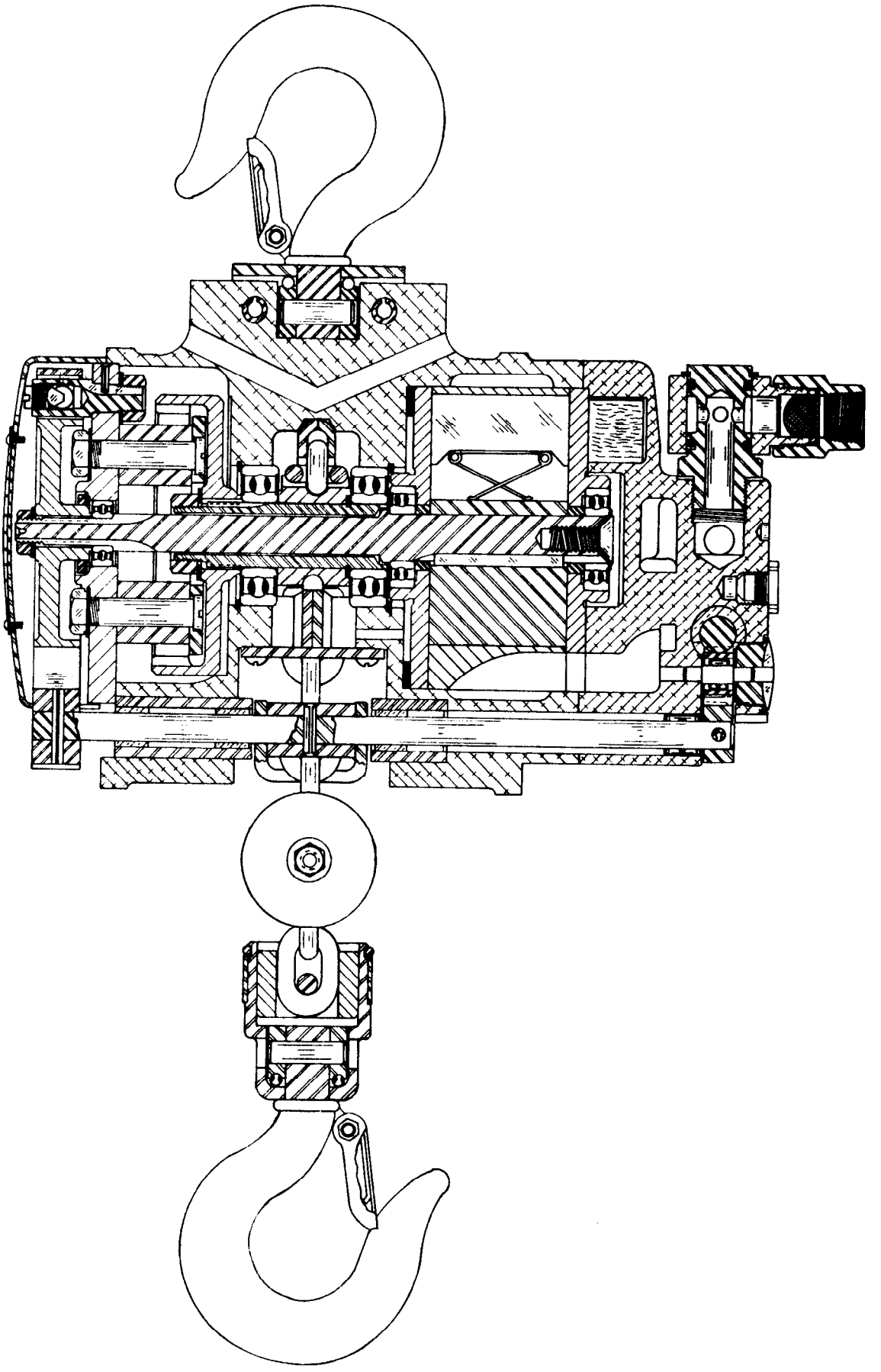


FIG. 8

SECTION IDENTIFICATION

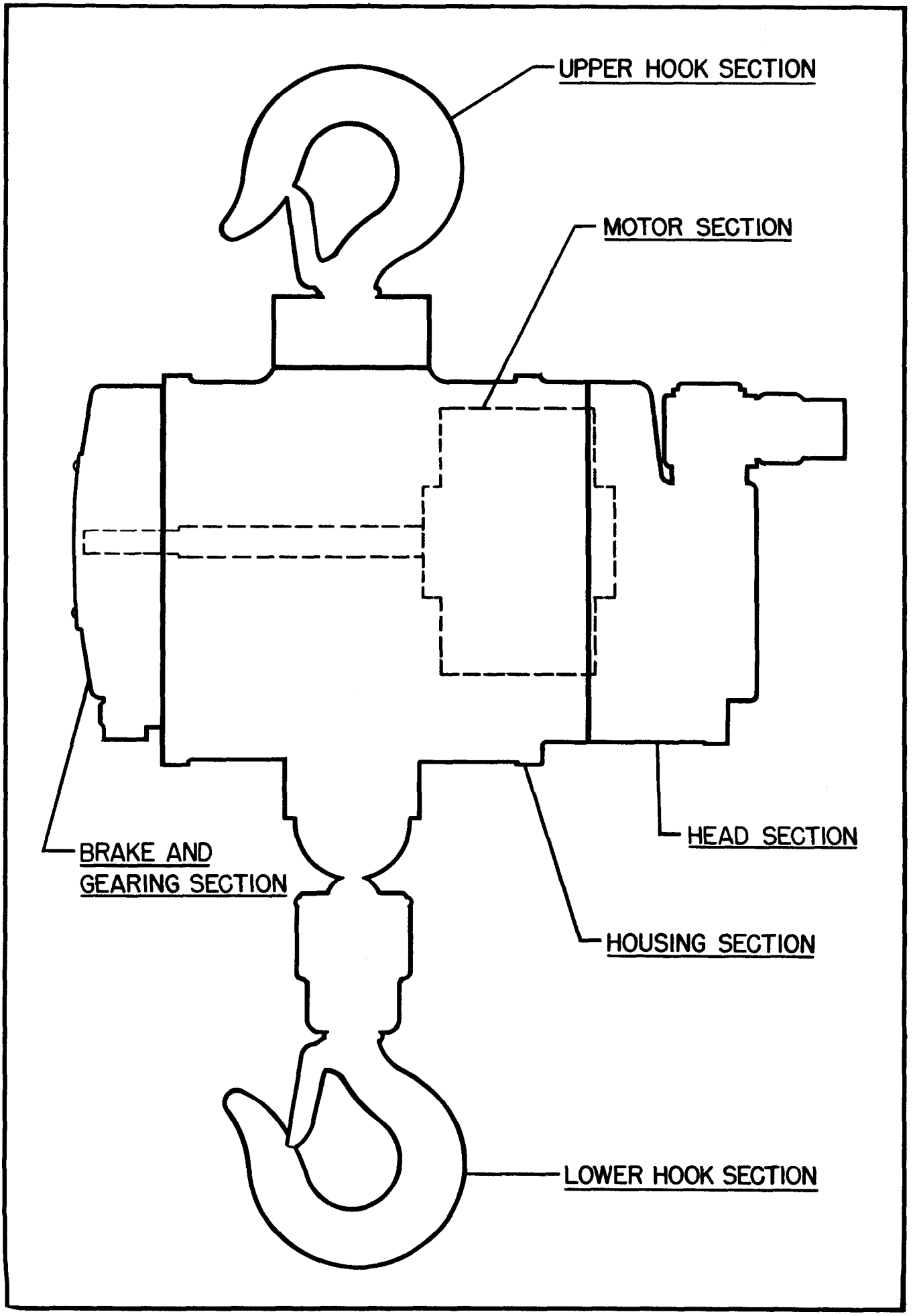


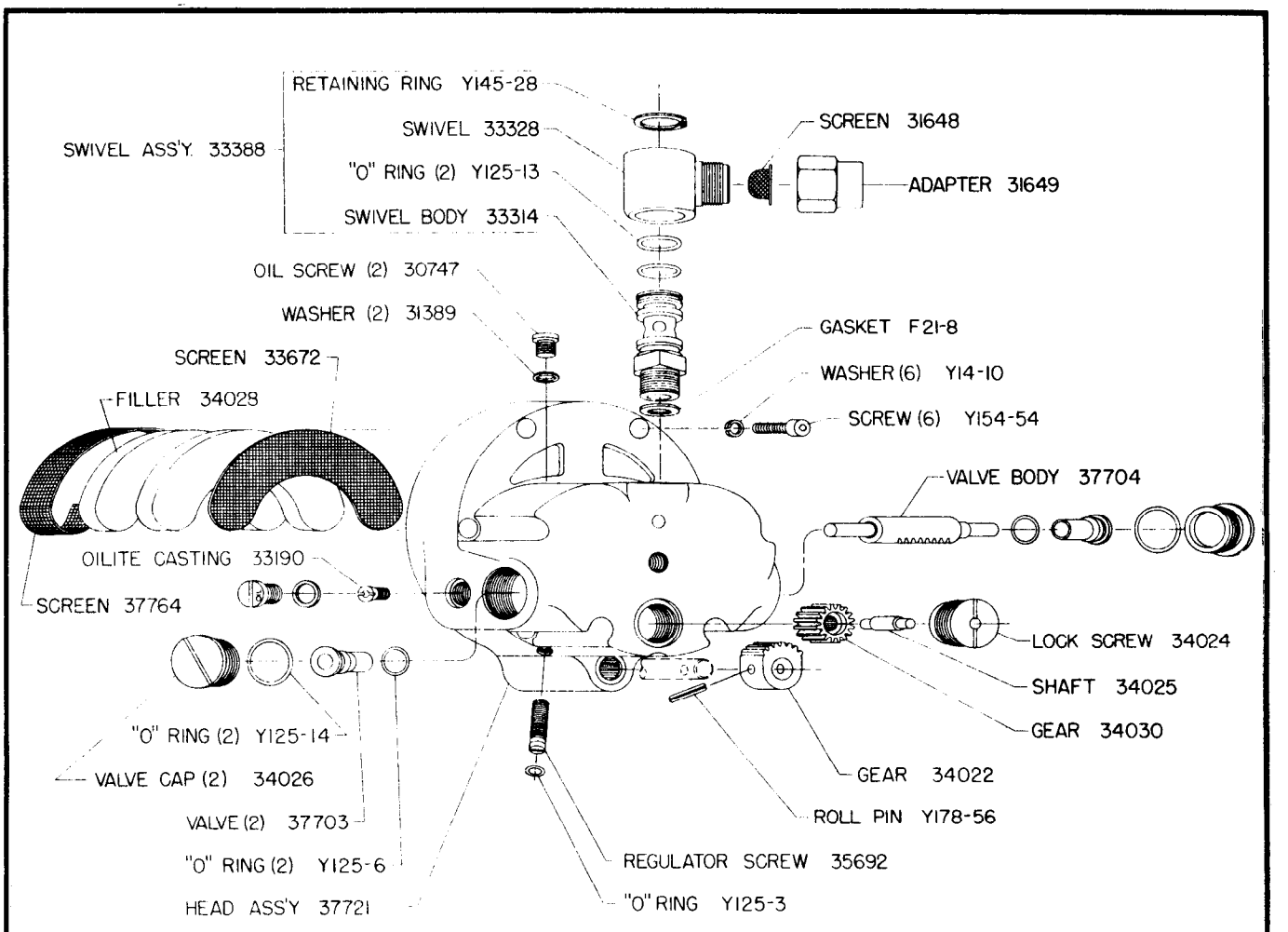
FIG. 9

DISASSEMBLY

a. Remove from Housing as outlined on page 6.
b. Remove Lock Screw (34024), Gear (34030) and Shaft (34025).
c. Remove Valve Caps (34026) and "O" Rings (Y125-14).
d. Valves (37703) with "O" Rings (Y125-6) and Valve Body (37704) may now be removed from either end of Head Housing.
e. Swivel Assembly may be disassembled while mounted to Head or removed from Head. To disassemble, remove Retaining Ring (Y145-28) pull off Swivel (33328) exposing "O" Rings (Y125-13) and Swivel Body (33314).
f. To remove Oilite Casting (33190), remove oil Screw (30747) and Washer (31389) on side of Head. Insert screwdriver into opening and remove Oilite Casting.
g. Muffler Filler (34028) and Screen (33672) are exposed after removal of Head from Housing and may be removed.

REASSEMBLY

a. Assemble Screen (33672) and Filler (34028) to Head. Assuming other hoist components are assembled to Housing, assemble Head to Housing and secure with washers (Y14-10) and Screws (Y154-54).
b. Assemble Oilite Casting (33190), washer (31389), Swivel Assembly (33388) with Gasket (F21-8), Regulator Screw (35692) with "O" Ring (Y125-3) to Head.
c. With Gear (34022) and Control Rod assembled to housing, assemble valve parts as shown in Figure 5.



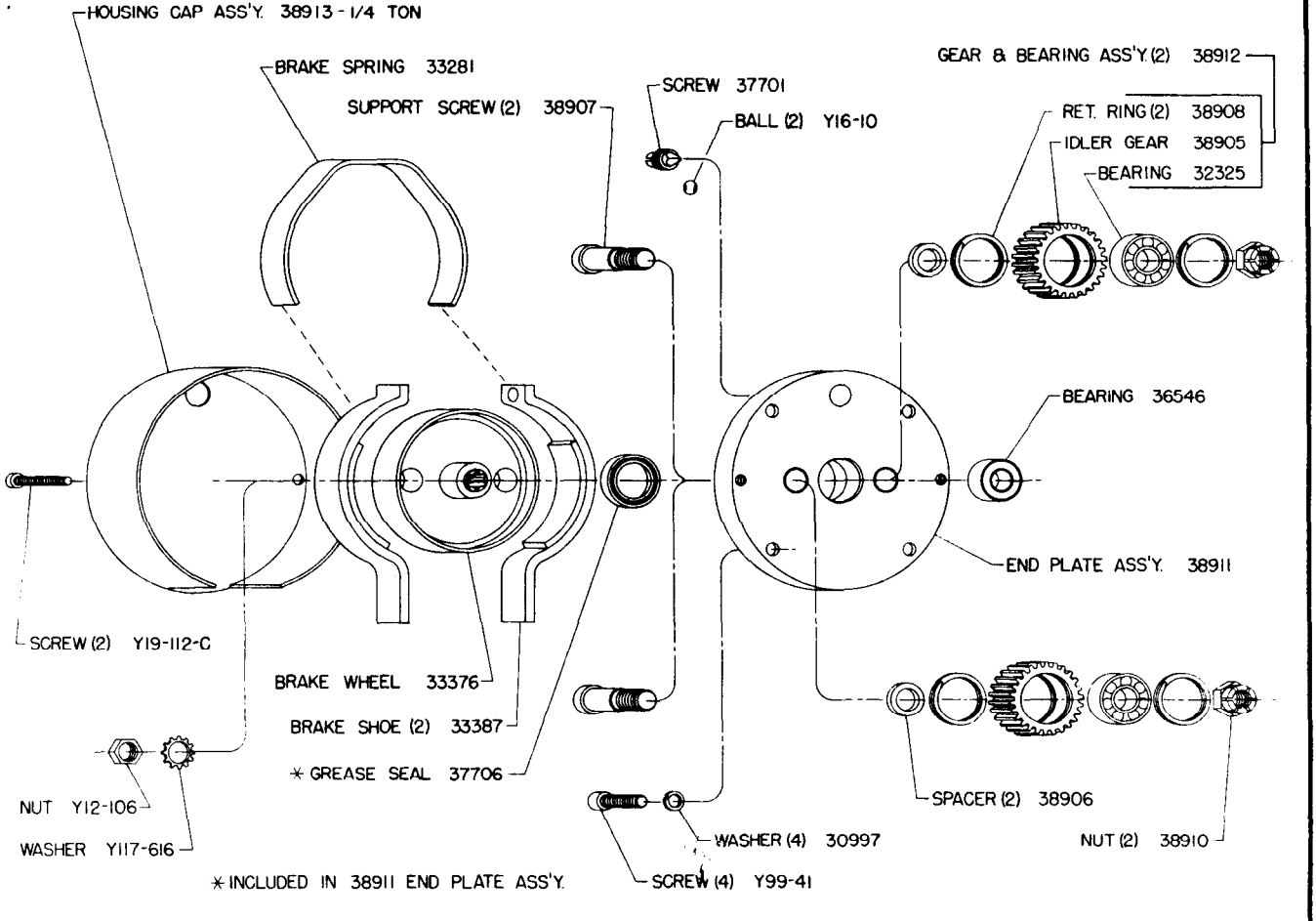
41526 HEAD ASSEMBLY

DISASSEMBLY

a. Remove parts from Housing Section as outlined on page 6.
b. On 1/4 Ton models; remove Nuts (38910), releasing Gear and Bearing Assemblies.
c. On 1/2 and 1-Ton models; remove Nuts (Y11-106) and Nuts (33368), releasing Bolts, Support Ring, Gear Assemblies, Spacers and Bushings.
d. Bearing (36546) and Grease Seal (37706) should be removed only for replacement.

REASSEMBLY

a. Assemble Grease Seal (37706) and Bearing (36546) to End Plate.
b. On 1/4 Ton models; assemble Bearings (32325) and Retaining Rings (38908) to Idler Gears (38905).
c. On 1/2 and 1-Ton models; assemble Gear Assemblies (37763), Bushings (37709), Spacers (33264), Support Ring (33367), Bolts (33369 and 33271), Washers (Y1-516 and Y117-616) and Nuts (33368 and Y11-106) to End Plate (37715).
d. Assemble End Plate to Housing and secure with Washers (30997) and Screws (Y99-41).
e. Assemble Brake Wheel (33376) to splined end of Motor Spindle and secure with Washer (Y117-616) and Nut (Y12-106).
f. Assemble Steel Balls (Y16-10) into Bracket (37702). Position Brake Shoes (33387) over Brake Wheel and assemble Brake Spring (33281) over Shoes using Brake Spring Spreader (33541).
g. Assemble Housing Cap over Brake and secure with Screws (Y19-112-C).



1/4 TON BRAKE & GEARING

FIG. 11

BRAKE AND GEARING SECTION

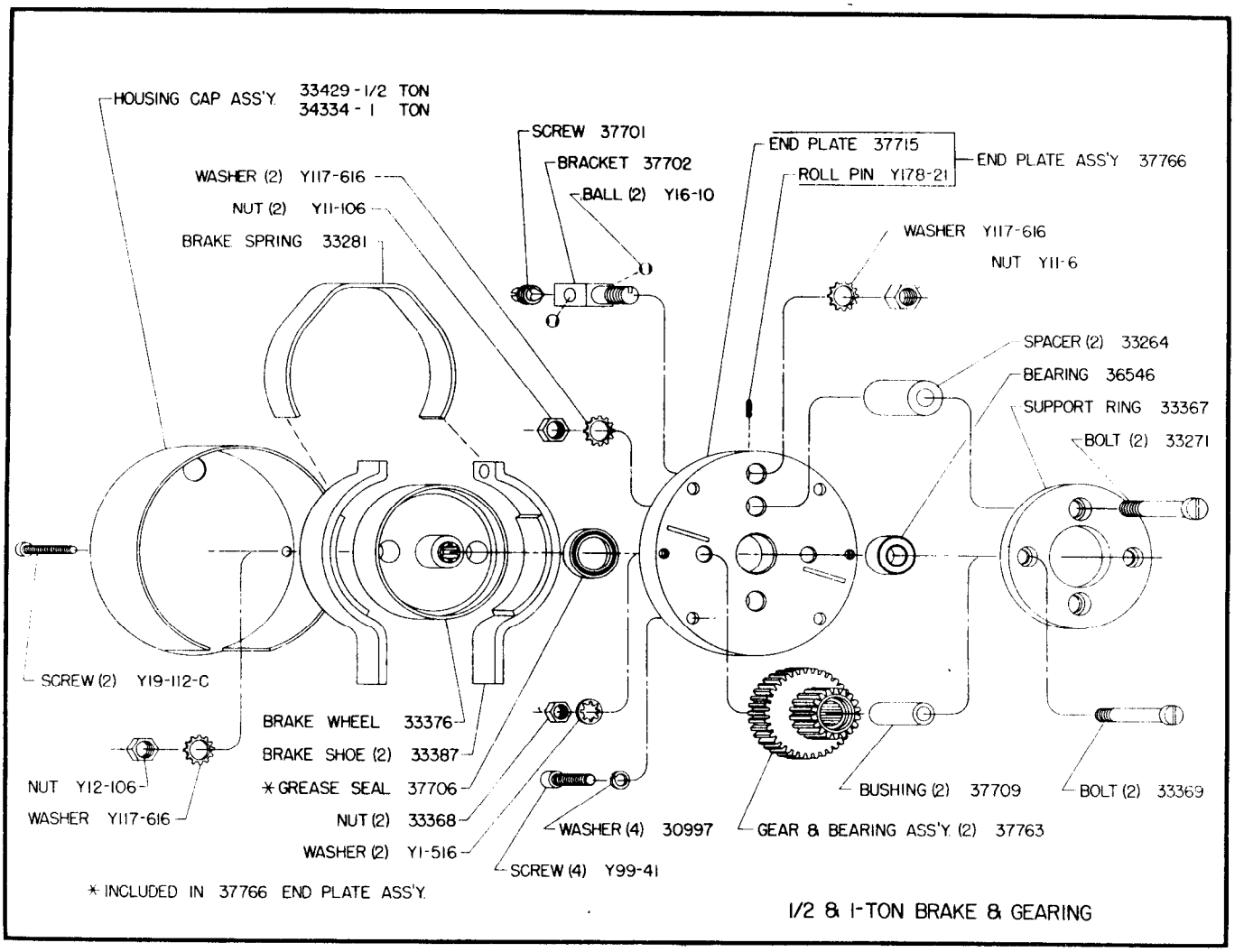


FIG. 12

BRAKE ADJUSTMENT

To adjust Brake, insert screwdriver thru hole in Housing Cap. Turn Screw (37701) counter-clockwise to tighten brake, clockwise to loosen brake.

Brake adjustment should be made with air turned on and with rated load attached to lower hook. Operate hoist to raise load applying slight pressure to pull chain handle or pendent control. If load starts to lower before is is raised by motor, tighten brake until no slippage is evident. Care should be taken not to tighten brake more than necessary to hold load. If brake is too tight, it will cause erratic hoist control.

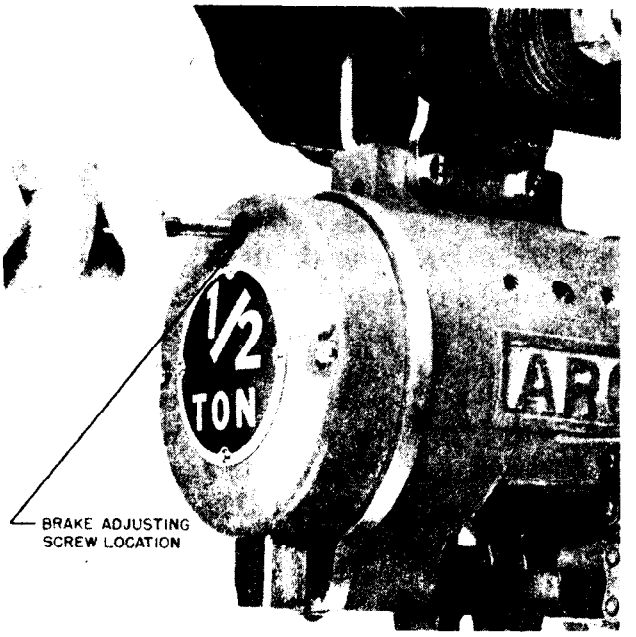


FIG. 13

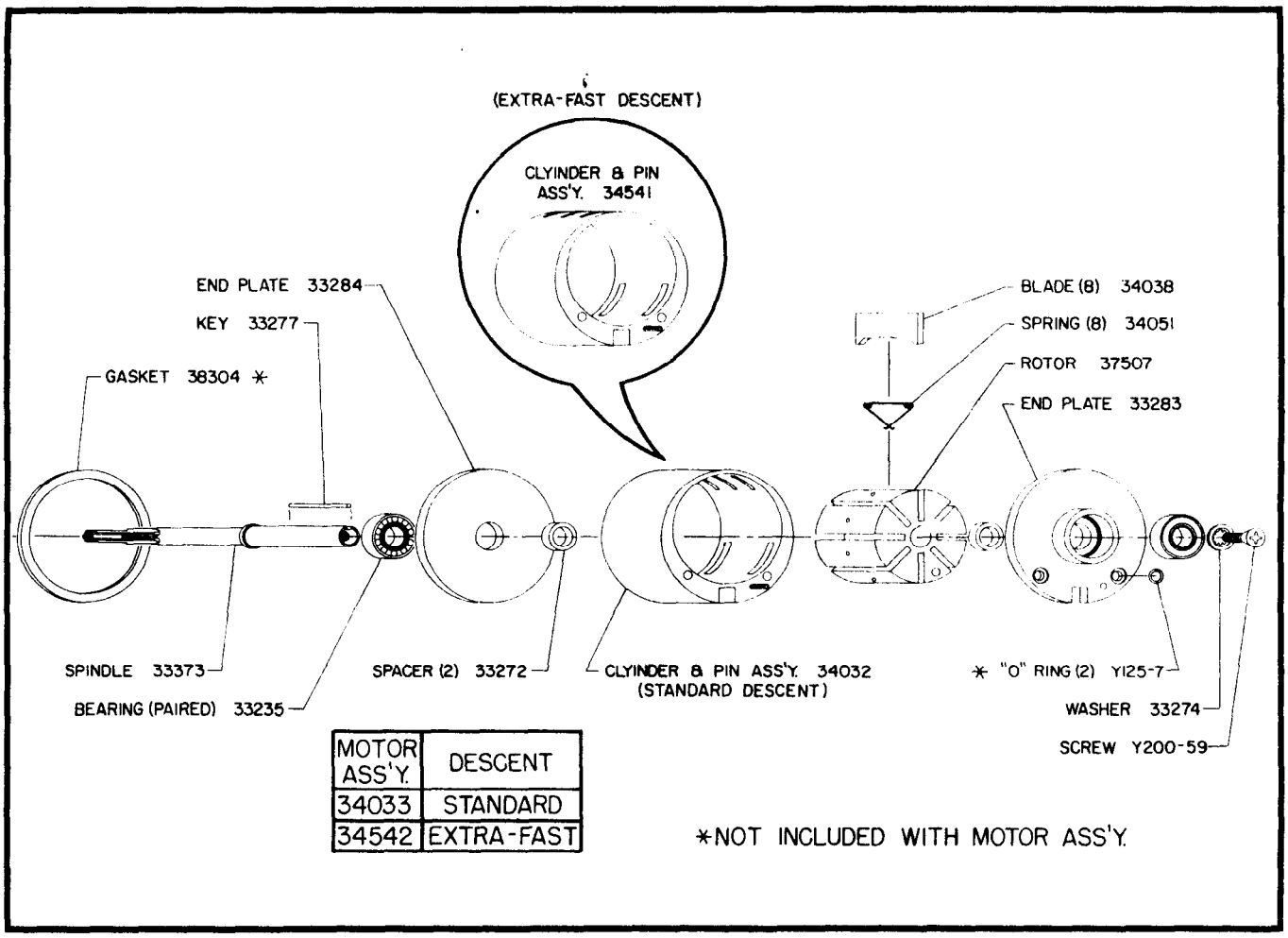


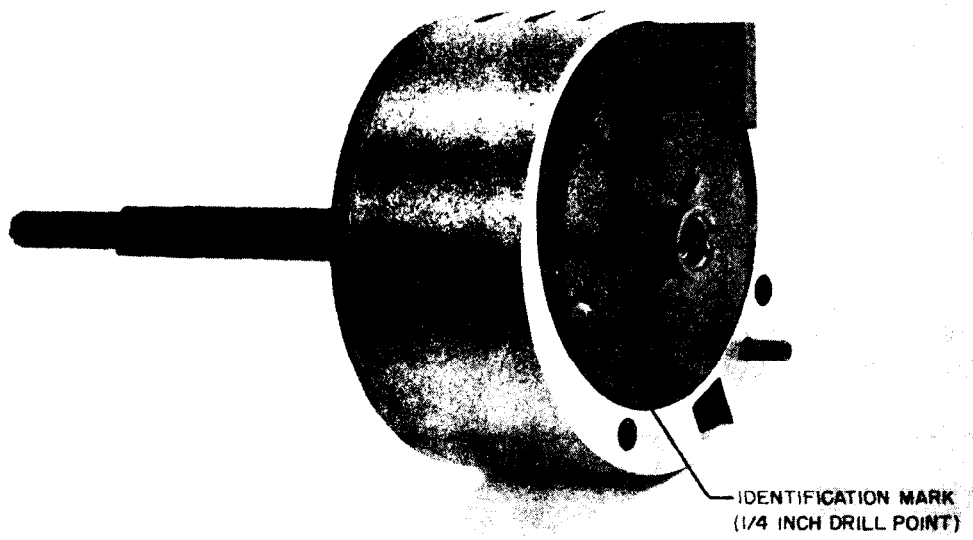
FIG. 14

DISASSEMBLY

a. Remove Screw (Y135-59) and washer (33274). Motor will now come apart.

REASSEMBLY

a. Assemble Bearings (33235) and Spacers (33272) into End Plates. NOTE: Bearings (33235) are paired flush face bearings shielded on one side. The open or unshielded side should be installed facing the End Plate.
b. Assemble End Plate (33284) together with Bearing and Spacer on large end of Spindle Shaft (33373) and slide up to boss on shaft.
c. Assemble Key (33277) into groove in Spindle and assemble Rotor (37507) with groove aligned with Key on Spindle. NOTE: One end of Rotor is marked with a 1/4 inch drill point. The Rotor must be assembled with the drill point mark pointing away from splined end of Spindle (See fig. 15).
d. Assemble Cylinder and Pin Ass'y. over Rotor with Pin facing away from End Plate (33284) A already assembled on Spindle and with groove in Cylinder at bottom.
e. Place parts thus far assembled on a flat surface as shown in figure 15.
f. Insert Springs (34051) and Blades (34038) into grooves in Rotor as shown in figure 15. Rotate grooves of Rotor, as Springs and Blades are installed, towards top making their installation easier.
g. Assemble End Plate (33283) together with Spacer and Bearing. Secure with Washer (33274) and Screw (Y135-59). Hold Spindle in a suitable holding device, being careful not to damage splines or threads on end of Spindle.
h. Assemble "O" Rings (Y125-7) into End Plate.
i. Assemble Motor with gasket (38304) into Housing.



Installation of Blades in Rotor.
FIG. 15

HOUSING SECTION

DISASSEMBLY

a. Remove Plate (33318) on link chain models; remove Chain Stripper (33319) on roller chain models.
b. Place a brass or wood block in sprocket cavity to prevent turning of sprocket shaft and remove Nut (33280), washer (Y1-963) and Gear.
c. Remove Retaining Ring (Y147-18) from "motor end" of Housing.
d. Sprocket Shaft and Bearing (33236) may now be removed thru "motor end" of Housing.
e. Remove Chain Guide (35861) and Pocket Wheel (37571) on link chain models. On roller chain models to remove Chain Guide (34991), remove Cap Screws (Y154-54) and washers (Y14-10) from Housing.
f. Remove Retaining Ring (Y147-18) and Bearing (33236) from "brake end" of Housing.

REASSEMBLY

LINK CHAIN MODELS –

a. Insert Pocket Wheel (37571) into Chain Guide (35861) and place in Housing. NOTE: Pocket Wheel must be installed with part number stamped on side of wheel facing towards "brake end" of Housing. Secure Plate (33318) to Housing with Sems Fasteners (33330).
b. Assemble Bearing (33236) and Retaining Ring (Y147-18) into "brake end" of Housing.
c. Assemble Retaining Ring (35856) into groove in Shaft (34985) and assemble Bearing (33236) on end of Shaft with Retaining Ring.
d. Assemble Shaft, with Bearing and Retaining Ring, thru opening at "motor end" of Housing. Insert Shaft thru Pocket Wheel and thru Bearing in "brake end" of Housing. Assemble Retaining Ring (Y147-18) into Housing.
e. Assemble Gear (33374, 1/2 and 1-Ton models -38903, 1/4 Ton models) to Shaft and secure with washer (Y1-963) and Nut (33280).
f. Assemble Brake Block (34029) to Control Rod (34021) and secure with Roll Pin (Y178-60).
g. Assemble Hangers (37585) and Control Arm (37719) to Housing (NOTE: assemble Control Arm in Housing with arms for mounting control chains pointing towards air inlet) and insert Control Rod thru Housing, Hangers and Control Arm. Secure Control Rod and Arm with Roll Pin (Y178-55).
h. On 1-Ton models, assemble Anchor Bracket (37579) to Hangers (37585) and secure with washers (37587) and Anchor Bolts (37586).
i. For installation of load chain see page 7 .

HOUSING SECTION

ROLLER CHAIN MODELS–

a. Insert Chain Guide (34991) into Housing and secure with washers (Y14-10) and Cap Screws (Y154-54).

b. Assemble Bearings (33236) and Retaining Ring (Y147-18) into "brake end" of Housing.

c. Assemble Bearing (33236) on Sprocket (33375) and assemble Sprocket and Bearing into Housing thru "motor end" with threaded end of Sprocket thru Bearing in "brake end" of Housing.

d. Assemble Gear (33374, 1/2 & 1-Ton models-38903, 1/4 Ton models) to Sprocket Shaft and secure with washer (Y1-963) and Nut (33280).

e. Secure Chain Stripper (33319) to Housing with Sems Fastener (33330).

f. Assemble Brake Block (34029) to Control Rod (34021) and secure with Roll Pin (Y178-60).

g. Assemble Hangers (37585) and Control Arm (37719) to Housing (NOTE: assemble Control Arm in Housing with arms for mounting control chains pointing towards air inlet) and insert Control Rod thru Housing, Hangers and Control Arm. Secure Control Rod and Arm with Roll Pin (Y178-55).

h. On 1-Ton models, assemble Anchor Bracket (37579) to Hangers (37585) and secure with washers (37587) and Anchor Bolts (37586).

i. For installation of load chain see page 7.

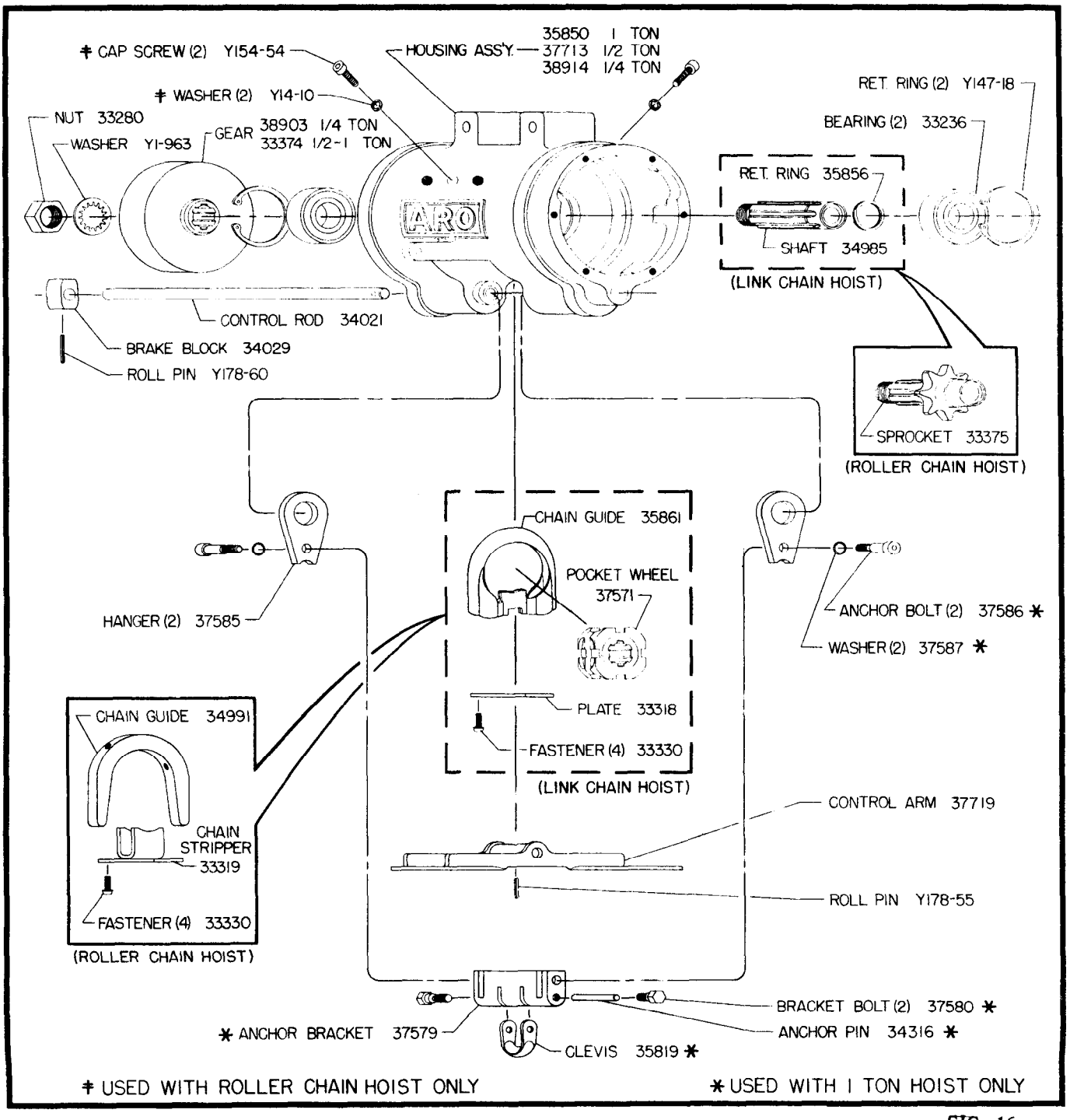


FIG. 16

UPPER HOOK SECTION

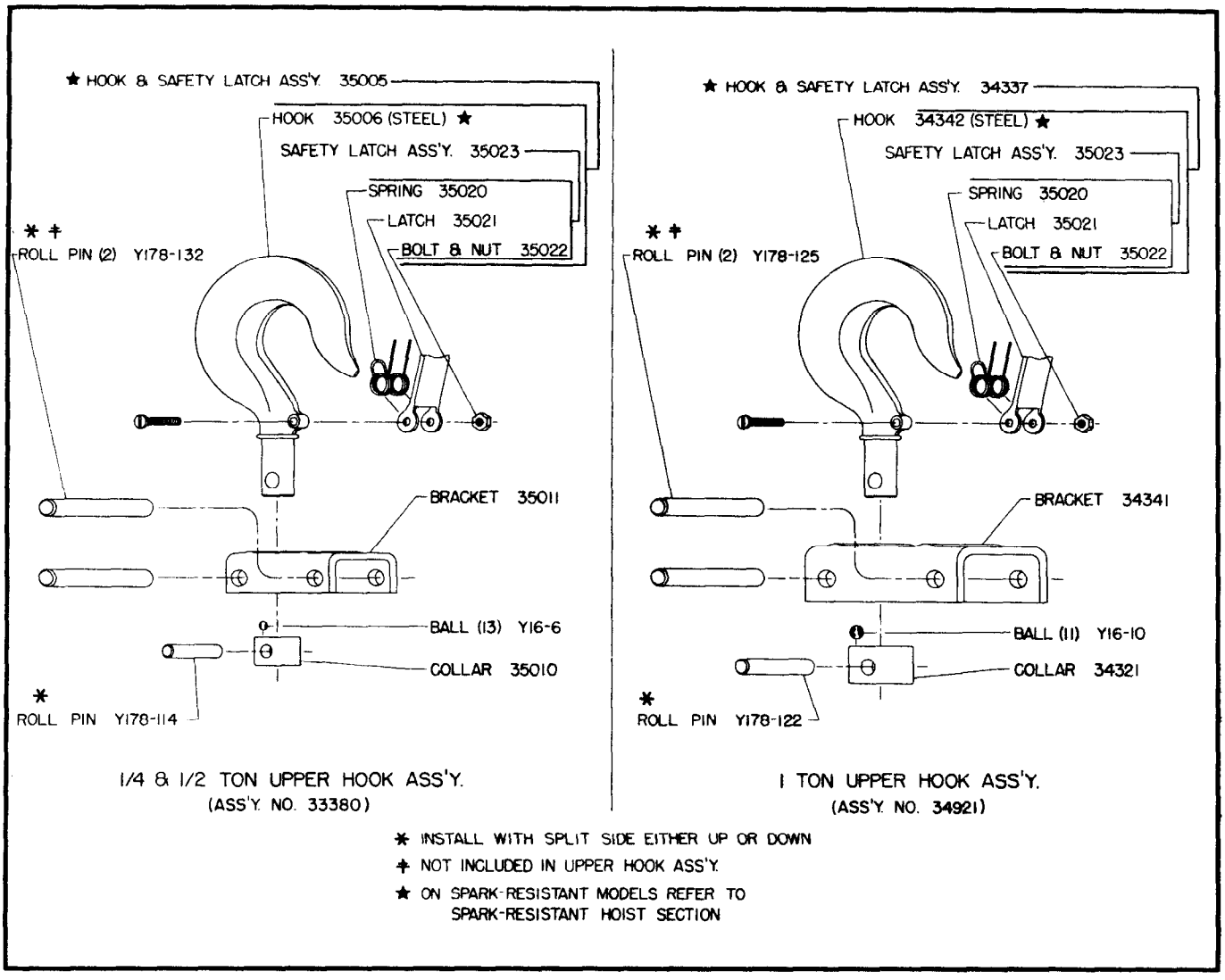


FIG. 17

DISASSEMBLY

a. To remove Upper Hook Assembly from Housing, drive out Roll Pins (Y178-132 on 1/4 and 1/2 Ton models, Y178-125 on 1-Ton models).
b. To disassemble Hook Assembly; drive out Roll Pin (Y178-14 on 1/4 and 1/2 Ton models, Y178-122 on 1-Ton models) from Collar (35010 on 1/4 and 1/2 Ton, 34321 on 1-Ton).
c. Removing Collar will release Steel Balls and Bracket from Hook and Latch Assembly.
d. To remove Latch (35021) and Spring (35020), remove Bolt and Nut (35022).

REASSEMBLY

a. To assemble Steel Balls to Collar, apply a small amount of grease in groove of Collar and place Steel Balls into groove.
b. Place Bracket in a holding device with flanges down. Insert Hook thru Bracket and slip Collar with Steel Balls over end of hook. Secure with Roll Pin.
c. Assemble Latch and Spring to hook and secure with Bolt and Nut (35022).
d. Assemble to Housing and secure with Roll Pins.

NOTE: Roll Pins securing Hook Assembly to Housing and Roll Pin securing Collar to Hook must be installed with SPLIT SIDE pointing either directly UP or DOWN.

LOWER HOOK SECTION

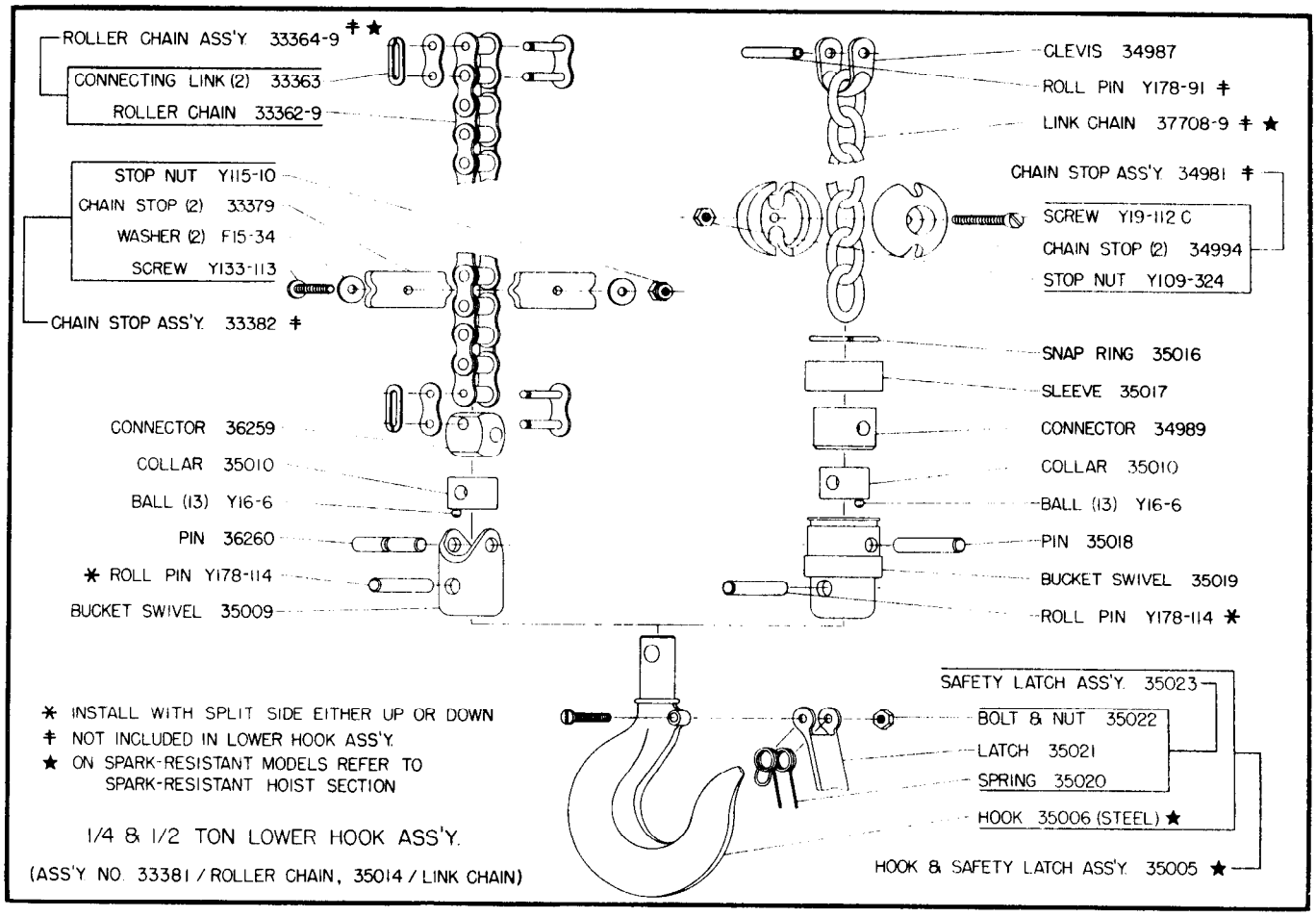


FIG. 18

LINK CHAIN MODELS (1/4 AND 1/2 TON)

DISASSEMBLY

a. Remove Snap Ring (35016) and Sleeve (35017). Drive out Roll Pin (35018), releasing chain and connector (34989).

b. To disconnect Hook from Bucket Swivel (35019), drive out Roll Pin, (Y178-144), releasing collar (35010) and Steel Balls (Y16-6).

REASSEMBLY

a. Assemble Steel Balls (Y16-6) to Collar (35010), applying a small amount of grease in groove of Collar to hold Steel Balls in place and also to lubricate Balls.

b. Place Bucket Swivel (35019) in a suitable holding device with opening for Collar pointing down. Place Hook and Latch Assembly thru Bucket Swivel and slip Collar with Steel Balls over end of hook and secure with Roll Pin (178-114).

c. Place Bucket Swivel in holding device with hook down. Insert Connector (34989) in proper position in Swivel, place Snap Ring (35016) and Sleeve (35017) over end of chain. Place chain in connector and secure chain and Connector to Swivel with Pin (35018).

d. Slip Sleeve (35017) over end of Swivel and secure with Snap Ring (35016).

ROLLER CHAIN MODELS (1/4 AND 1/2 TON)

DISASSEMBLY

a. Remove Connecting Link (33363). Remove Pin (36260), releasing Connector (36259).

b. To disconnect Hook from Bucket Swivel (35009), drive out Roll Pin (Y178-114), releasing Collar (35010) and Steel Balls (Y16-6).

REASSEMBLY

a. Assemble Steel Balls (Y16-6) to Collar (35010), applying a small amount of grease in groove of Collar to hold Steel Balls in place and also to lubricate Balls.

b. Place Bucket Swivel (35009) in holding device with opening for Collar pointing down. Place Hook and Latch Assembly thru Swivel and slip Collar with Steel Balls over end of hook and secure with Roll Pin (Y178-114).

c. Assemble Connector (36259) and Pin (36260) to Bucket Swivel and secure chain to Connector with Connecting Link (33363).

NOTE: Roll Pins must be installed with SPLIT SIDE pointing either UP or DOWN.

LOWER HOOK SECTION

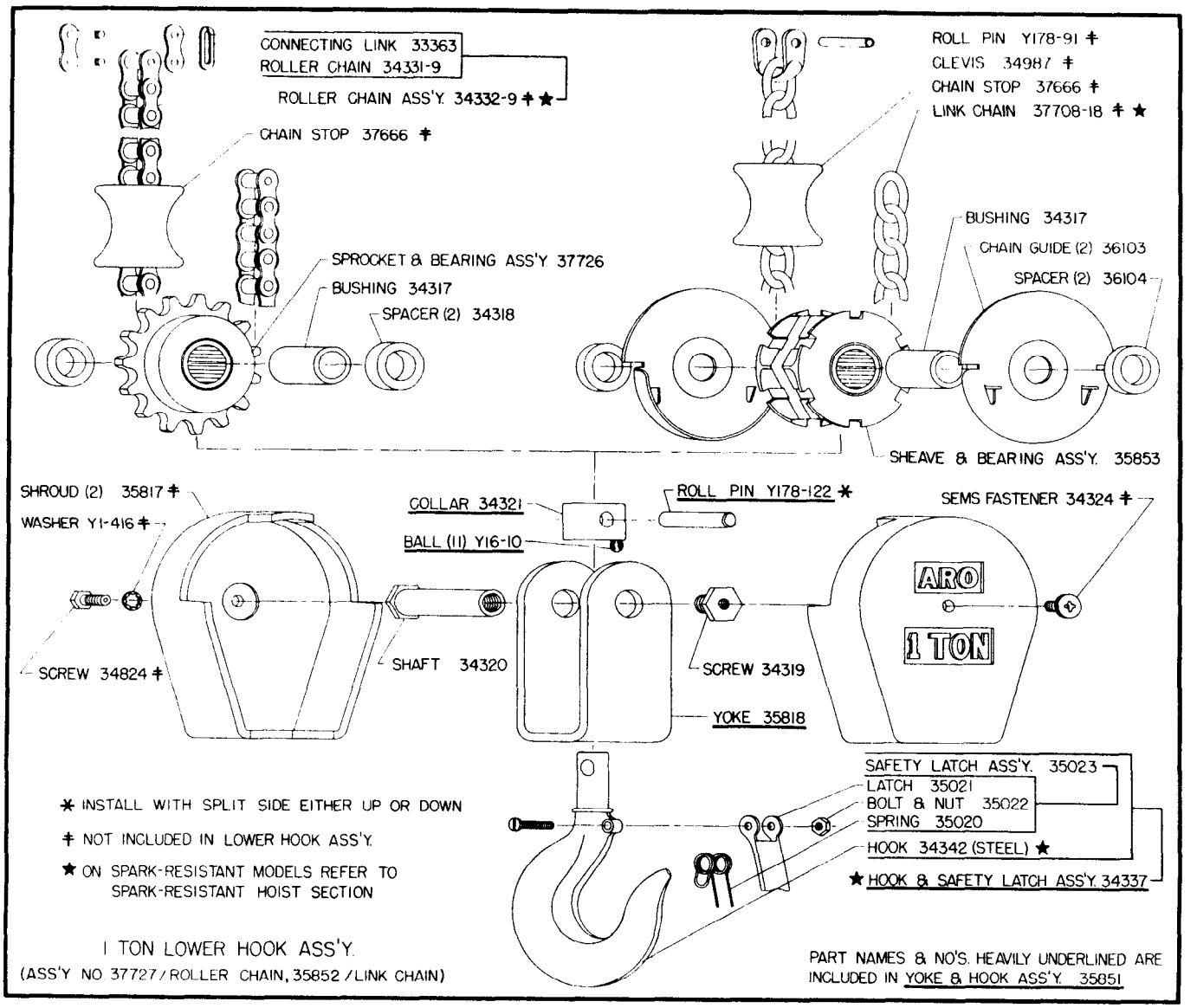


FIG. 19

LINK & ROLLER CHAIN MODELS (1-TON)

DISASSEMBLY

a. Remove Grease Screw (34824), Washer (Y1-416) and Sems Fastener (34324), releasing Shroud (35817).

b. Remove Screw (34319) and Shaft (34320), releasing Sprocket (Roller Chain Models), Sheave (Link Chain Models), Spacers, Bushing and Guide (Link Chain Models).

c. To disconnect Hook from Yoke (35818); drive out Roll Pin (Y178-122), releasing Collar (34321), Steel Balls (Y16-10) and Hook.

REASSEMBLY

a. Assemble Steel Balls (Y16-10) to Collar (34321), applying a small amount of grease in groove of Collar to hold Steel Balls in place and also to lubricate Balls.

b. Place Hook and Latch Assembly thru Yoke (35818), slip Collar with Steel Balls over end of hook and secure with Roll Pin (Y178-122).

c. On roller chain models, assemble Sprocket (37726) with Bushing (34317) and Spacers (34318) into Yoke and secure with Shaft (34320) and Screw (34319). On link chain models, assemble Sheave (35853) with Bushing (34317), Spacers (36104) and Chain Guides (36103) into Yoke and secure with Shaft (34320) and Screw (34319).

d. With end of load chain removed from Anchor Bracket (37579), slip Chain Stop (37666) over chain and feed chain around Sprocket (roller chain) or Sheave (link chain). CAUTION: When feeding chain around Sprocket or Sheave be sure chain is not twisted and on link chain models be certain welded side of links face away from Sheave.

e. Secure end of chain to Anchor Bracket (37579). Being certain chain is not twisted and is properly seated in Sprocket or Sheave, replace Shroud (35817) and secure with Screw (34824) and Sems Fastener (34324).

NOTE: Roll Pins must be installed with SPLIT SIDE pointing either UP or DOWN.

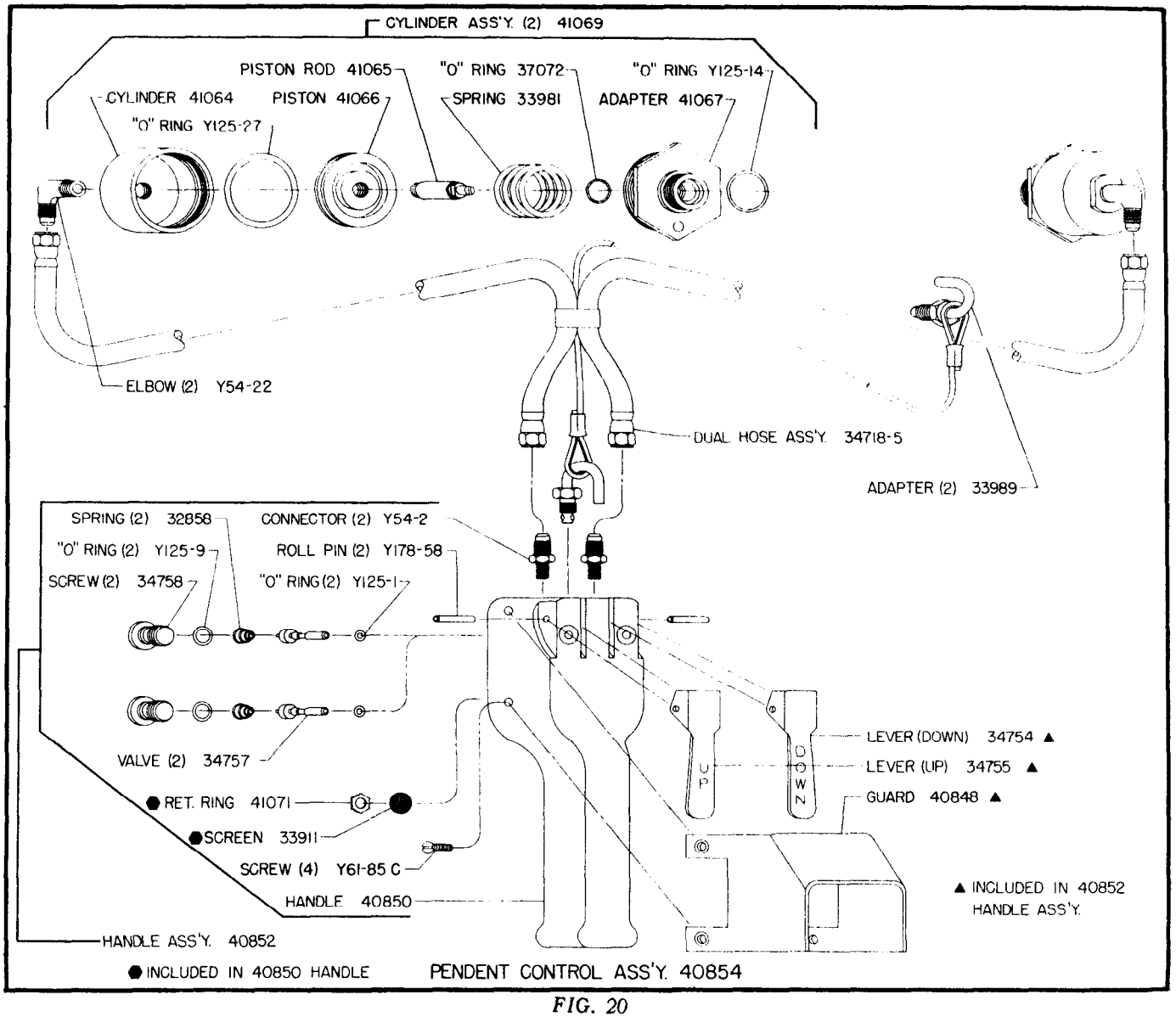


FIG. 20

PENDENT CONTROL

DISASSEMBLY

a. To remove from hoist, shut off air and disconnect hoses from cylinder assemblies.
b. Remove Adapter (33989) from head, releasing cable.
c. To disassemble Cylinders, unscrew and remove from head.
d. Remove Adapter (41067), releasing Spring, Piston, Piston Rod and "O" Ring.
e. To disassemble control handle, remove Screws (34758) with "O" Rings (Y125-9), releasing Spring (32858), Valves (34757) with "O" Rings (Y125-1).

REASSEMBLY

a. Assemble "O" Ring (37072) into Adapter (41067).
b. Assemble Piston Rod (41065) and "O" Ring (Y125-27) to Piston (41066) and assemble with Spring (33981) into Cylinder (41064). Secure with Adapter (41067).
c. Assemble with "O" Ring (Y125-14) to head.
d. To reassemble control handle, reverse disassembly procedure.

ASSEMBLY OF CONTROLS TO HOIST

a. On pull chain control models, control chains must be installed as follows: Facing air inlet end of hoist (with hoist in upright position), chain attached to "UP" end of control handle must be attached to right end of control arm. Chain attached to "DOWN" end of control handle must be attached to left end of control arm.

b. On pendent control models, control hoses must be attached to cylinder on head as follows: Facing air inlet of hoist, the hose to "DOWN" lever of control must be connected to cylinder on right hand side of head. Hose to "UP" side of control must be connected to left hand side of the head.

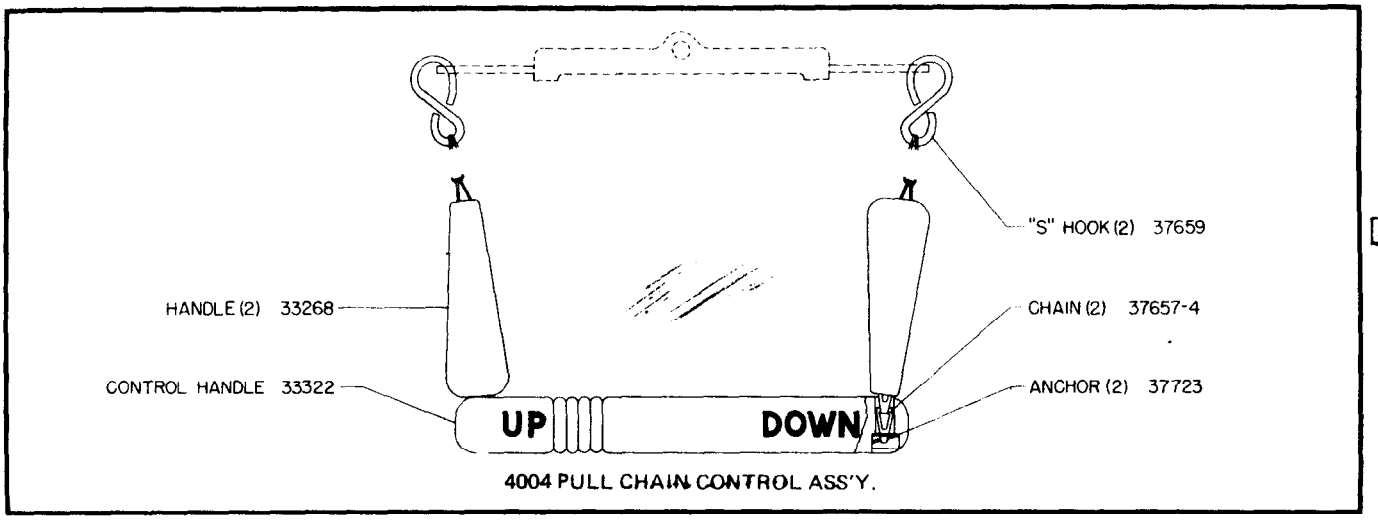


FIG. 21

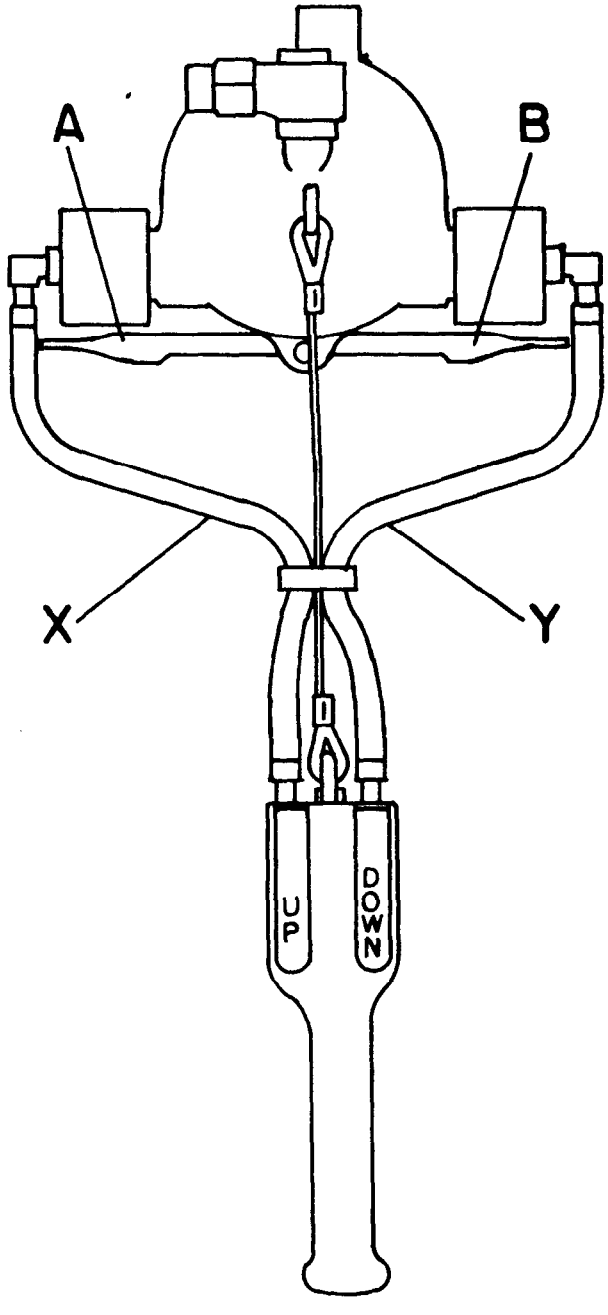


FIG. 22

PENDENT CONTROL SYSTEM (FAIL-SAFE SYSTEM)

THE HOIST WILL ALWAYS CEASE OPERATION WHEN OPERATOR RELEASES THE PENDENT CONTROL. This is true even when a Pendent Control hose or inlet hose might rupture; regardless of direction of operation (raising or lowering) or if the hoist is at rest.

If any hose (either air inlet or pendent control hoses) should become cut or ruptured—

1. Release Pendent Control.
2. Shut off air supply to hoist and replace ruptured hose.
3. To operate hoist if hose should rupture, be guided by the following:

IF HOSE "X" IS CUT OR RUPTURED;

To Lower load—hoist may be lowered by manually operating control arm. Pull down on control arm at "B". See CAUTION note below.

To Raise load—with air on, hoist may be raised by depressing "UP" lever.

IF HOSE "Y" IS CUT OR RUPTURED;

To Lower load—with air on, hoist may be lowered by depressing "DOWN" lever.

To Raise load—hoist may be raised by manually operating control arm. Pull down on control arm at control arm at "A".

AIR INLET HOSE CUT OR RUPTURED;

To Lower load—hoist may be lowered by manually operating control arm. Pull down on control arm at "B". See CAUTION note below.

CAUTION: Exercise extreme care when operating control arm to lower load as load will be lowered at a very fast rate.

SPARK-RESISTANT HOIST SECTION

500 POUNDS CAPACITY				1,200 POUNDS CAPACITY			
MODEL	CHAIN	HOOKS	CONTROL	MODEL	CHAIN	HOOKS	CONTROL
7711-C	Bronze, Roller	Bronze	Pull-Chain	7713-C	Bronze, Roller	Bronze	Pull-Chain
7712-C	Stainless, Roller	Bronze	Pull-Chain	7714-C	Stainless, Roller	Bronze	Pull-Chain
7712-CL	Stainless, Link	Bronze	Pull-Chain	7714-CL	Stainless, Link	Bronze	Pull-Chain

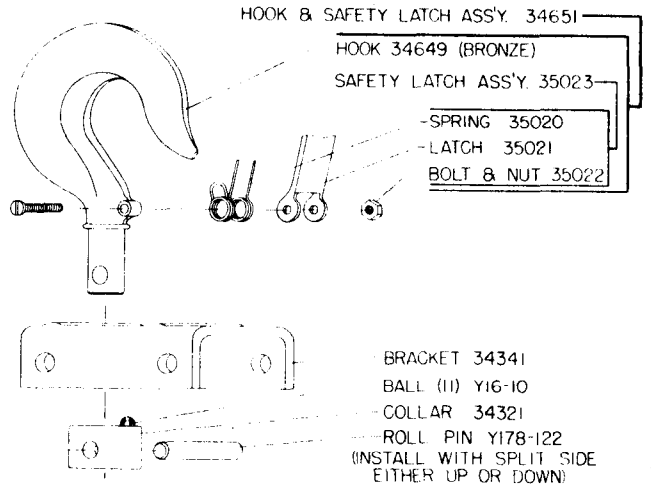
The Hoist Models listed in chart above are furnished with load chain made of bronze or stainless steel. The top and bottom hooks of these hoists are bronze, with safety snaps (see opposite page).

Other components of the 500-lb. capacity spark-resistant hoists are comparable to the standard 1/2 ton models, and the 1200-lb. capacity spark-resistant hoist components are comparable to the standard 1-ton models (with the exceptions of parts shown in chart below); but the rates of lift and descent are modified. The 500-lb. capacity hoists have a rate of lift and descent of approximately 20' per minute, maximum, at 90 p.s.i. and the 1200-lb. capacity hoists have a maximum rate of lift and descent of approximately 10' per minute at 90 p.s.i.

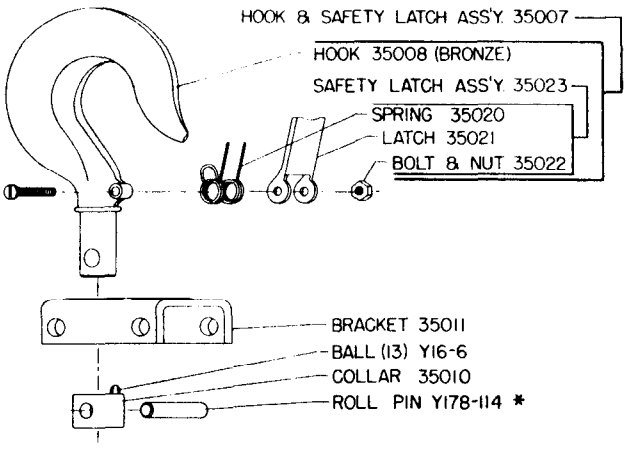
PART NAME	STANDARD 1/2 TON	STANDARD 1 TON	500-LB. CAP.	1200-LB. CAP.
AIR INLET ADAPTER	31649	31649	* 37183	* 37183-1
HEAD	37721	37721	37728	37728
HOUSING	37713	35850	38914	37192
HOUSING CAP ASS'Y.	33429	34334	38913	37187
SHROUD	———	35817	———	39593

* Air Inlet Adapter 37183 must be used with the 500-lb. capacity hoists and Adapter 37183-1 must be used with the 1200-lb. capacity hoists.

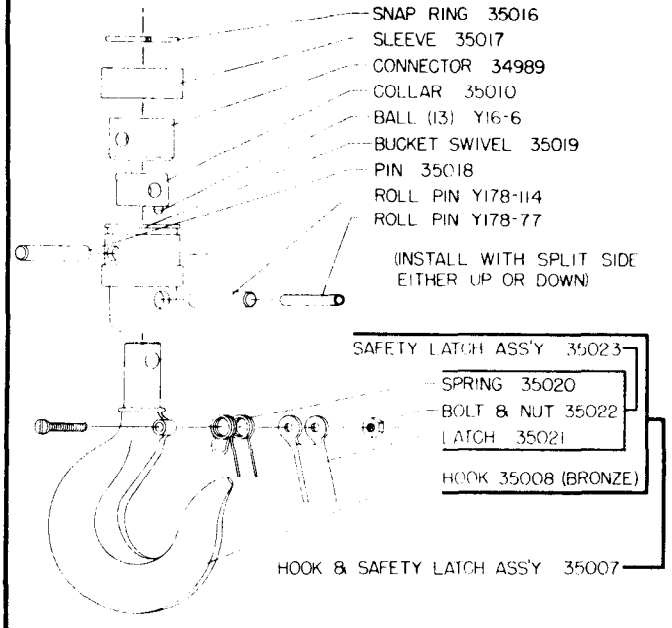
SPARK-RESISTANT HOIST SECTION



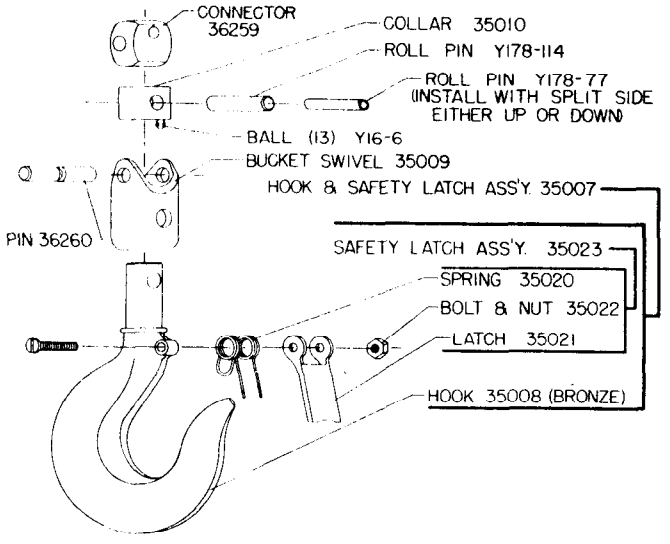
1200 LBS. CAP. HOIST UPPER HOOK ASS'Y. 35113



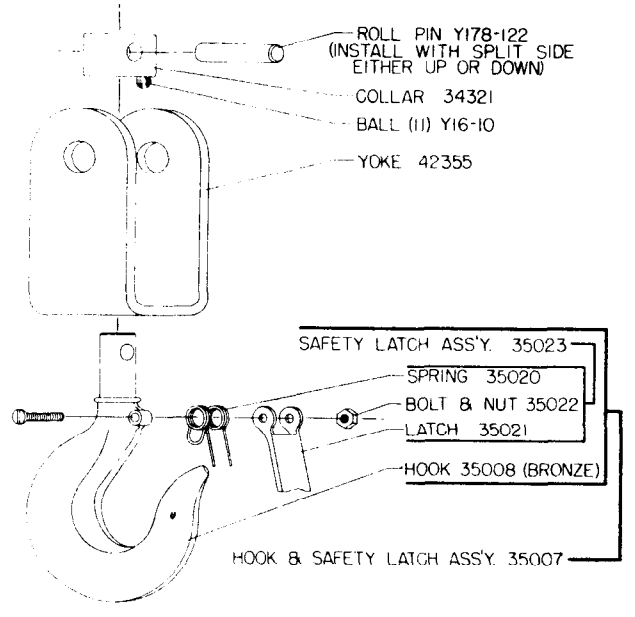
500 LBS. CAP. HOIST UPPER HOOK ASS'Y. 34654 [A]



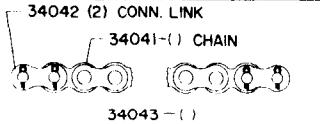
500 LBS. CAP. HOIST LOWER HOOK ASS'Y. 35012
LINK CHAIN



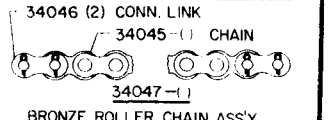
500 LBS. CAP. HOIST LOWER HOOK ASS'Y. 34655-1
ROLLER CHAIN



1200 LBS. CAP. HOIST LOWER HOOK ASS'Y. 35858

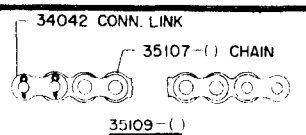


34043-( )
STAINLESS STEEL ROLLER CHAIN ASS'Y.
FOR 500" CAP. HOIST

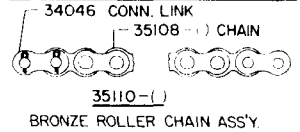


34047-( )
BRONZE ROLLER CHAIN ASS'Y.
FOR 500" CAP. HOIST

Assemblies 34043-( ) and 34047-( ); dash number indicates desired length of chain in feet. (Example 34043-9; the dash 9 indicates 9 feet of chain)



35109-( )
STAINLESS STEEL ROLLER CHAIN ASS'Y.
FOR 1200" CAP. HOIST



35110-( )
BRONZE ROLLER CHAIN ASS'Y.
FOR 1200" CAP. HOIST

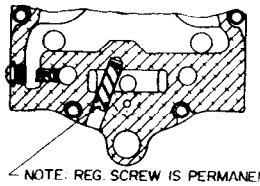
Assemblies 35109-( ) and 35110-( ), dash number indicates 1/2 the desired length of chain in feet. (Example 35110-9; the dash 9 indicates 18 feet of chain)

39489 ( ) STAINLESS STEEL LINK CHAIN

FOR 500" & 1200" CAP. HOIST

Dash number indicates desired length of chain in feet. (Example 39489-9 indicates 9 feet of chain)

HEAD CROSS-SECTION
SPARK-RESISTANT MODELS



NOTE: REG. SCREW IS PERMANENTLY INSTALLED--DO NOT ATTEMPT TO ADJUST OR REMOVE.

TROUBLE SHOOTING

TROUBLE SHOOTING

HOIST WILL NOT OPERATE-CHECK FOR:

1. Excessive load.
2. Sufficient air pressure.
3. Clogged air intake screen.
4. Clogged valves.
5. Proper brake adjustment.
6. Rotor spring failure.
7. Proper installation of roll pin in Control Rod and Gear (34022).

UNABLE TO REGULATE HOIST SPEED BY CONTROLS–CHECK FOR:

1. Proper brake adjustment:

HOIST WILL NOT HOLD LOAD IN SUSPENSION–CHECK FOR:

1. Excessive load.
2. Worn or oily brake linings.
3. Proper brake adjustment.
4. Proper timing of gears in head.

HOIST LOSES POWER–CHECK FOR:

1. Sufficient air pressure.
2. Clogged air intake screen.
3. Clogged muffler screen or filler.

HOIST LIFTING OR LOWER SPEED DIFFERS FROM RATED SPEED AT FULL LOAD–CHECK FOR:

1. Proper timing of gears in Head.

HOIST CONTROL LEVER WILL NOT RETURN TO HORIZONTAL POSITION–CHECK FOR:

1. Bent control rod.
2. Binding of control rod.
3. Proper brake adjustment.
4. Lack of lubrication in pendent control cylinders.
5. Proper timing of gears in head.

ACCESSORIES

BULLARD SAFETY SNAP HOOKS

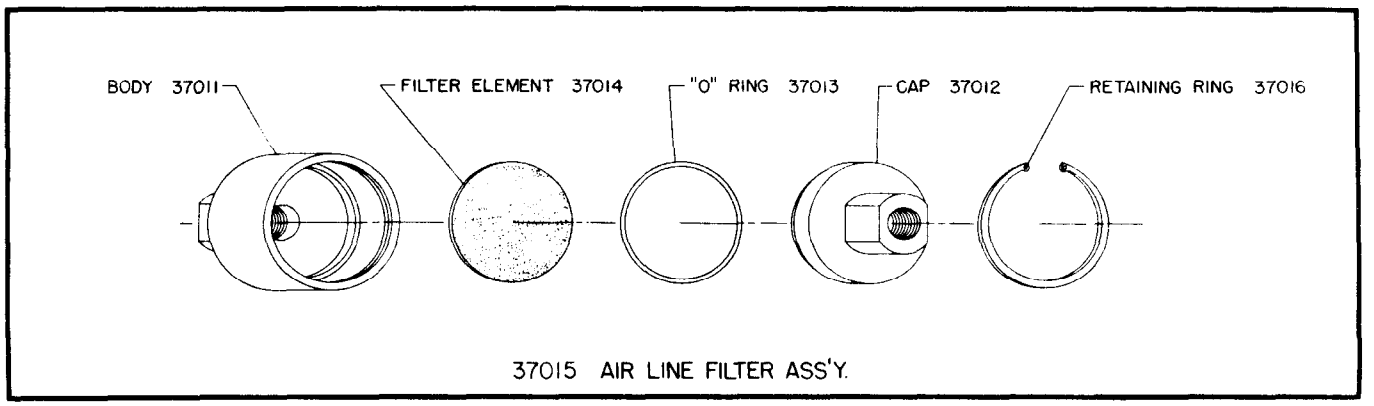
(Not Shown)

FOR 1/2-TON AND 1/4-TON HOISTS

35204 UPPER HOOK ASSEMBLY.
35205 LOWER HOOK ASSEMBLY FOR ROLLER CHAIN ONLY.
35206 LOWER HOOK ASSEMBLY FOR LINK CHAIN ONLY.

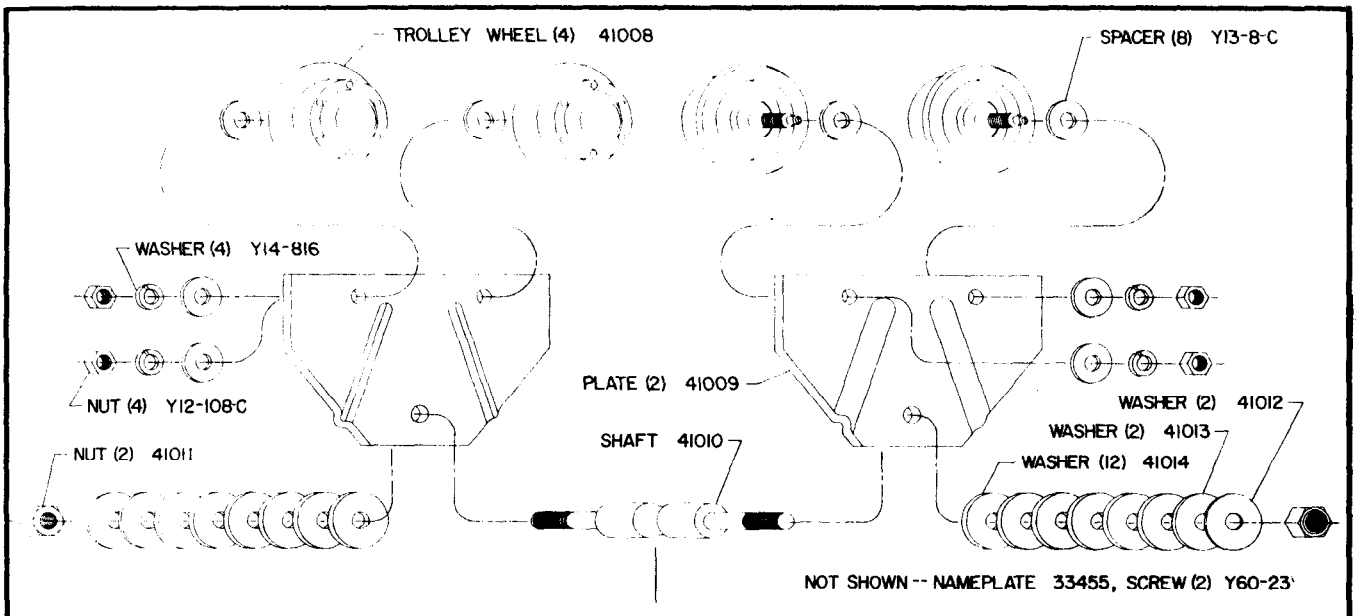
FOR ONE-TON HOISTS

35203 UPPER HOOK ASSEMBLY
35860 LOWER HOOK ASSEMBLY, FOR LINK CHAIN OR ROLLER CHAIN.

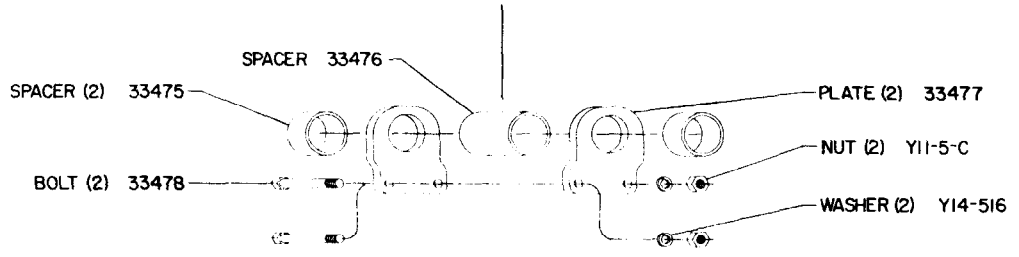


37015 AIR LINE FILTER ASS'Y.

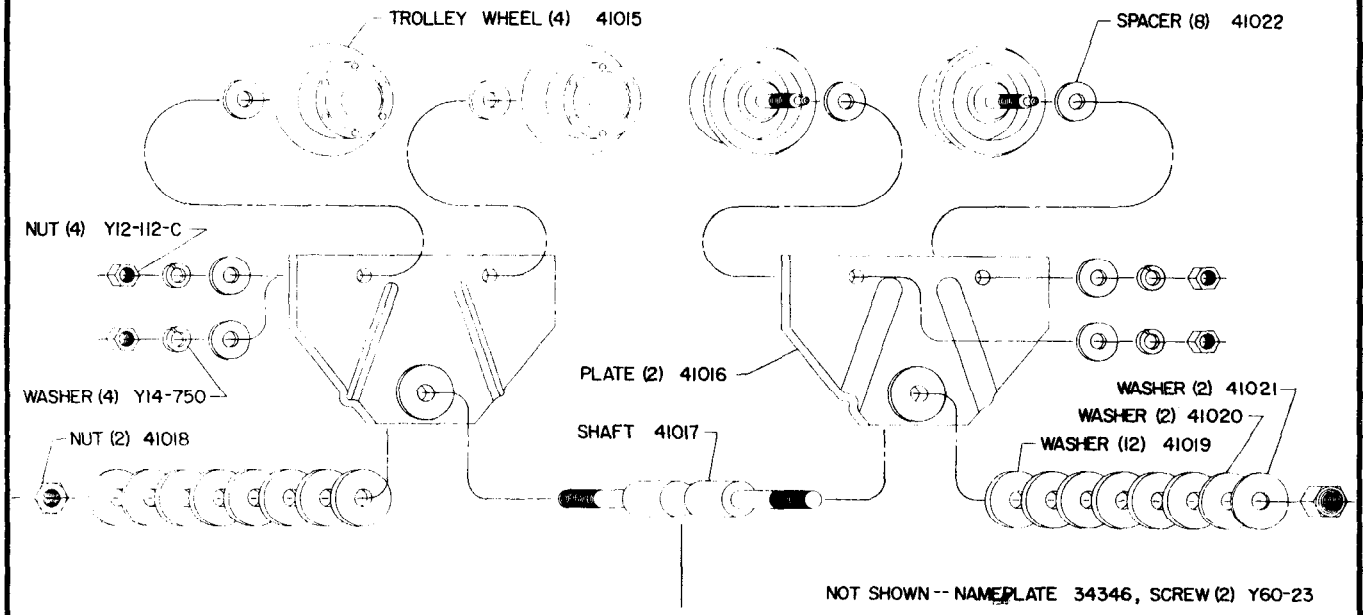
ACCESSORIES



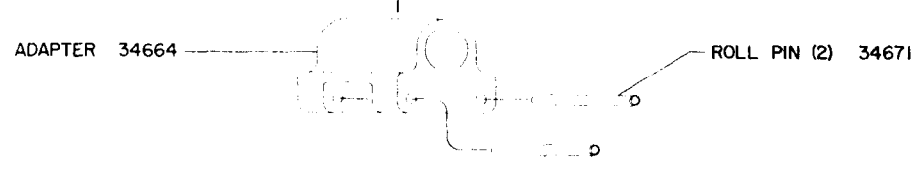
7702 1/4 & 1/2 TON HOIST TROLLEY ASS'Y.



33473 1/4 & 1/2 TON HOIST TROLLEY ADAPTER ASS'Y.

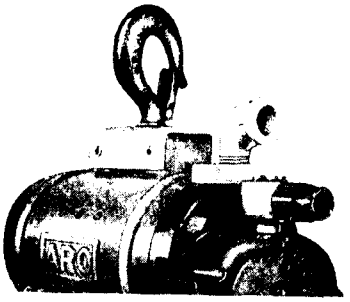


7727 1-TON HOIST TROLLEY ASS'Y.



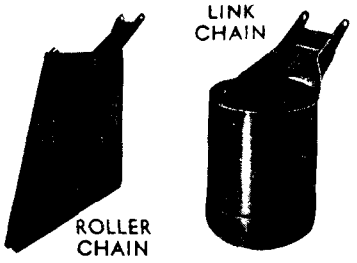
34386 1-TON HOIST TROLLEY ADAPTER ASS'Y.

Air-Powered Chain Hoist with Piped Exhaust



Any Aro Air Hoist can be furnished, at extra cost, with a modified head for piped exhaust. An exhaust hose (1/2" diameter recommended) can then be attached to this outlet and air can be vented at any remote point. Piped exhaust is highly desirable in applications involving food processing, chemicals, or other processes where atmospheric purity must be maintained. It is also preferred for its low-noise-level characteristics. When ordering, specify model number and add "with piped exhaust."

Baskets for Roller Chain and Link Chain



Recommended for all applications where slack chain should be confined. The roller-chain basket has a narrow width to keep the chain in working position, without kinking. The link-chain basket allows the free accumulation of chain. All baskets are furnished with necessary hardware.

ROLLER CHAIN BASKET		LINK CHAIN BASKET	
Basket No.	Chain Capacity	Basket No.	Chain Capacity
37654	8 ft.	37653-16	16 ft.
37655	16 ft.	37653-32	32 ft.
37656	32 ft.	37653-64	64 ft.

Load Chain for Lifts from 9 Feet to 25 Feet

STEEL LINK CHAIN

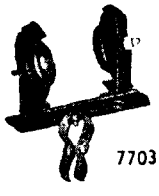
FOR 1/4-TON, 1/2-TON AND 1-TON HOISTS. 37708-9 through 37708-50. Dash number indicates exact length in feet. For 1/4-Ton and 1/2-Ton Hoists, order lift footage plus one extra foot for assembly. For One-Ton Hoists, order twice the lift footage plus two extra feet for assembly. Specify length by dash number.

STEEL ROLLER CHAIN

FOR 1/4-TON AND 1/2-TON HOISTS. 33364-9 through 33364-25. Dash number indicates length in feet. When ordering, figure desired lift footage, add one extra foot for assembly, and specify corresponding dash number.

FOR ONE-TON HOISTS. 34332-9 through 34332-25. Dash number indicates ONE HALF the actual length of the chain; dash 9 equals 18 feet. When ordering, figure desired lift footage, add two extra feet for assembly, and specify corresponding dash number.

Hose-Carrier Trolleys



Recommended for any application where hoist is trolley-mounted. Adjustable clamp will carry air hose in sizes up to 1¼" O.D. In most applications the hose trolley rides the same beam as the hoist. Keeps hose from tangling and speeds repetitive operations. Use on I-beams 3" to 10" high, having minimum width of 2⅜" and maximum width of 5⅜". For best results, use one trolley at each 8' hose interval.

37657 Sash Chain

For all hoists equipped with pull-type controls. When ordering, specify desired length, in feet, by dash number. Order two lengths per hoist. If chain is ordered as a replacement for steel cable on earlier hoist models, order two 37659 S-Hooks for attaching chain to control arm.

Air Hose Assemblies

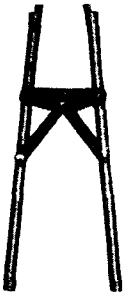
1/2" I.D. high-pressure hose for connecting air supply to Hoist. 3/8" male NPTF fittings on both ends.

Part No.	Length
31329-1	10'
31329-2	25'
31329-3	50'

Brake Spring Spreader

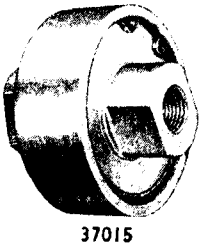
No. 33541

Specifically designed for Hoist brake spring. Develops strong leverage for spreading brake band open when removal is required for service or maintenance.



Air Filter (for attachment to Hoist)

No. 37015. Should be used whenever atmospheric dust is excessive. Filters out particles from 12 to 25 microns in size and supplements regular air line filter and oiler. Porous bronze filter element can easily be removed for cleaning. Has 3/8"-18 NPTF inlet, and attaches directly to air inlet of any Aro Hoist (accessible after removal of 31649 Adapter and 31648 Screen). Max. dia. 2 13/16".



37015

For Standard Hoists, the figures under "Down Maximum" should read as follows:

A. This column shows the MAXIMUM descent rate obtainable with the adjustment screw completely CLOSED and the throttle wide open.

B. This column shows the MAXIMUM descent rate obtainable with the adjustment screw completely OPENED and the throttle wide open.

The adjustment screw can be set to obtain other rates between these limits. The operator still retains full control of the velocity, and can easily slow down the descent to an "inching" speed whenever necessary.

Note, in table at right, that quarter-ton hoists are not furnished in extra-fast descent models.

QUARTER-TON CAPACITY, RATES OF LIFT AND DESCENT

	7717-C 7717-CT 7718-C 7718-CT 7719-C 7719-CT 7720-C 7720-CT								
LOAD LBS. ➧	100			300			500		
AIR PRESSURE LBS. SQ. IN.	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B
0	—	82	84	—	182	184	—	276	276
60	160	52	150	102	82	196	44	154	242
70	174	52	156	120	82	196	68	128	246
80	186	50	160	134	80	198	88	110	242
90	198	48	164	148	76	198	102	110	244
100	206	48	166	160	76	200	118	108	242

HALF-TON CAPACITY, RATES OF LIFT AND DESCENT IN FEET PER MINUTE

	Standard Hoists: 7700-C 7700-CT 7708-C 7708-CT 7750-C 7750-CT 7756-C 7756-CT															Extra-Fast-Descent Hoists: 7706-C 7706-CT 7710-C 7710-CT 7754-C 7754-CT 7758-C 7758-CT									
	LOAD, POUNDS															LOAD, POUNDS									
AIR PRESSURE LBS. PER SQ. IN.	200			400			600			800			1,000			200		400		600		800		1,000	
	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down	Up	Down	Up	Down	Up	Down	Up	Down
0	—	41	42	—	67	69	—	91	92	—	116	117	—	138	138	—	37	—	62	—	92	—	117	—	145
60	80	26	75	65	33	86	51	41	98	37	49	111	22	77	121	69	86	57	98	45	110	33	124	19	136
70	87	26	78	73	32	88	60	41	98	47	50	111	34	64	123	75	89	64	100	53	112	41	125	30	136
80	93	25	80	80	32	89	67	40	99	55	49	111	44	55	121	80	92	70	102	59	113	49	125	39	136
90	99	24	82	86	32	90	74	38	99	63	47	111	51	55	122	83	94	74	103	64	114	55	126	46	136
100	103	24	83	91	31	91	80	38	100	70	46	111	59	54	121	87	96	78	104	69	115	60	127	52	136

ONE-TON CAPACITY, RATES OF LIFT AND DESCENT IN FEET PER MINUTE

	Standard Hoists: 7725-C 7725-CT 7732-C 7732-CT 7775-C 7775-CT 7776-C 7776-CT															Extra-Fast-Descent Hoists: 7730-C 7730-CT 7734-C 7734-CT 7777-C 7777-CT 7778-C 7778-CT									
	LOAD, POUNDS															LOAD, POUNDS									
AIR PRESSURE LBS. PER SQ. IN.	400			800			1200			1600			2000			400		800		1200		1600		2000	
	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down Max. A	Down Max. B	Up	Down	Up	Down	Up	Down	Up	Down	Up	Down
0	—	18	18	—	31	32	—	43	44	—	55	56	—	68	68	—	19	—	32	—	44	—	62	—	69
60	40	12	36	33	15	42	25	20	48	19	21	54	11	35	60	35	42	28	47	22	53	16	60	10	66
70	44	12	38	37	15	43	30	19	49	24	23	54	17	29	60	38	43	31	49	26	54	21	60	15	66
80	47	12	39	40	15	44	34	19	49	28	23	55	21	26	60	40	45	34	50	29	55	25	61	19	66
90	49	12	40	43	15	45	37	18	49	31	22	55	25	26	60	42	46	36	51	32	56	27	61	22	67
100	52	12	41	45	14	45	40	18	50	35	22	55	29	25	59	53	47	38	51	34	56	30	61	25	67

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THE ARO CORPORATION
Main Plant and General Offices
400 ENTERPRISE STREET, BRYAN, OHIO 43506