

OPERATING, MAINTENANCE & PARTS MANUAL

MANUAL DE FUNCIONAMIENTO,
MANTENIMIENTO Y PIEZAS

MAUEL D'ENTRETIEN,
D'OPÉRATION ET DE PIÈCES



INTEGRATED TROLLEY HOIST

POLIPASTO CON CARRO INTEGRADO

PALAN AVEC CHARIOT INTÉGRÉ

CHESTER
HOIST

ZLP-ZLG SERIES INTEGRATED TROLLEY

Before installing hoist, fill in the information below.

Antes de instaar el polipasto, rellene los dador siguientes.

Enregistrez les informations suivantes avant de faire l'installation.

Rated Load / Carga Nominal / Charge Nominale _____

Serial No. / N° de Serie / No. de Ser. _____

Purchase Date / Fecha de Compra / Date d'achat _____

RATED LOADS:
1 1/2 TONS - 24 TONS
(1300 KG - 21000 KG)

**Follow all instructions and warnings
for inspecting, maintaining and
operating this hoist.**

The use of any hoist presents some risk of personal injury or property damage. That risk is greatly increased if proper instructions and warnings are not followed. Before using this hoist, each operator should become thoroughly familiar with all warnings, instructions and recommendations in this manual. **Retain this manual for future reference and use.**

Forward this manual to operator.
Failure to operate equipment as
directed in manual may cause injury.

CAPACIDADES DE CARGA:
1 1/2 TONS - 24 TONS
(1300 KG - 21000 KG)

**Siga todas las instrucciones y
advertencias para inspeccionar,
mantener y operar éste polipasto.**

El uso de cualquier polipasto presenta algunos riesgos de daños a las personas o a las cosas. Este riesgo se ve incrementado si no se siguen correctamente las instrucciones y advertencias. Antes de usar el polipasto el operario debería estar familiarizado con todas las advertencias, instrucciones y recomendaciones de éste manual. **Guarde éste manual para futuras consultas.**

Entregue éste manual al operario. Si el equipo no se maneja tal y como se recomienda en el presente manual, es posible que se produzcan situaciones de peligro que pueden resultar en daños personales.

CHARGES NOMINALES:
1 1/2 TONS - 24 TONS
(1300 KG - 21000 KG)

**Veillez vous conformer à toutes les
instructions et avertissements d'inspection,
d'entretien et d'opération de ce palan.**

L'utilisation de tout appareil de levage comporte des risques de blessures ou de dégâts matériels. Ces risques sont de beaucoup accrus si les instructions et avertissements ne sont pas suivis. Tous les opérateurs devraient se familiariser complètement avec toutes les recommandations instructions et avertissements de ce manuel avant d'utiliser ce palan. **Conservez ce manuel pour utilisation et référence future.**

Remette ce manuel à l'opérateur.
L'utilisation de cet équipement contrairement
aux directives de ce manuel peut causer
des blessures.

CHESTER HOIST PARTS AND SERVICES ARE AVAILABLE IN THE UNITED STATES AND IN CANADA

As a Chester Hoist and Trolley user you are assured of reliable repair and parts services through a network of Master Parts Depots and Service Centers that are strategically located in the United States and Canada. These facilities have been selected on the basis of their demonstrated ability to handle all parts and repair requirements promptly and efficiently. To quickly obtain the name of the Master Parts Depot or Service Center located nearest you, call (800) 888-0985. Fax: (716) 689-5644, www.cmworks.com.

ENGLISH

LAS PIEZAS Y REPARACIONES DE LOS POLIPASTOS DE CHESTER ESTÁN ASEGURADAS EN ESTADOS UNIDOS Y CANADÁ

Como usuario de un polipasto y carro de Chester le aseguramos cualquier reparación o la disponibilidad de cualquier pieza de repuesto a través de una red de almacenes de piezas de repuesto y centros de servicio situados estratégicamente en Estados Unidos y Canadá. Estas instalaciones se han seleccionado en base a su capacidad demostrada en la reparación de equipos y suministro de piezas de repuesto de forma rápida y eficaz. Para obtener la dirección del almacén de piezas de repuesto o del centro de servicio más cercano, llame al teléfono (800) 888-0985. Fax: (716) 689-5644 (sólo en Estados Unidos y Canadá), www.cmworks.com.

LE SERVICE DE RÉPARATION ET DE PIÈCES POUR PALANS CHESTER EST DISPONIBLE AUX ÉTATS-UNIS ET AU CANADA

Soyez assurés, qu'en tant qu'utilisateur de palan et treuil Chester, vous aurez un service de réparation et de pièces fiable par l'entremise d'un réseau de Centres de service et de Dépôts de pièces maîtresses qui sont stratégiquement situés aux États-Unis et au Canada. Ces établissements ont été sélectionnés sur une base de leur habileté démontrée à s'occuper promptement et efficacement des besoins de réparation de pièces. Appelez le (800) 888-0985, Fax: (716) 689-5644, www.cmworks.com pour obtenir rapidement le nom du dépôt de pièces maîtresses ou du centre de service situé le plus près.

FOREWORD

This manual contains important information to help you properly install, operate and maintain your hoist for maximum performance, economy and safety.

Please study its contents thoroughly before putting your hoist into operation. By practicing correct operating procedures and by carrying out the recommended preventive maintenance suggestions, you will experience long, dependable and safe service. After you have completely familiarized yourself with the contents of this manual, we recommend that you carefully file it for future reference.

The information herein is directed to the proper use, care and maintenance of the hoist and does not comprise a handbook on the broad subject of rigging.

Rigging can be defined as the process of lifting and moving heavy loads using hoists and other mechanical equipment. Skill acquired through specialized experience and study is essential to safe rigging operations. For rigging information, we recommend consulting a standard textbook on the subject.

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HOIST SAFETY IS UP TO YOU...

ENGLISH

⚠ WARNING

- DO NOT LIFT MORE THAN RATED LOAD.
- DO OPERATE WITH MANUAL POWER ONLY (ONE OPERATOR)

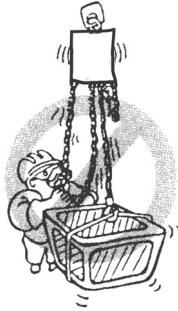
CHOOSE THE RIGHT HOIST FOR THE JOB...

Choose a hoist with the capacity for the job. Know the capacities of your hoists and the weight of your loads.

Then match them.

The application, the size and type of load, the attachments to be used and the period of use must also be taken into consideration in selecting the right hoist for the job.

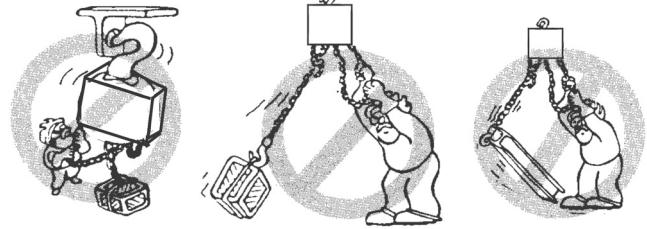
Remember, the hoist was designed to ease our burden and carelessness not only endangers the operator, but in many cases, a valuable load.



⚠ WARNING

- DO NOT PULL AT AN ANGLE. BE SURE HOIST AND LOAD ARE IN A STRAIGHT LINE.
- DO NOT USE LOAD CHAIN AS A SLING.

USE HOIST PROPERLY



Be sure hoist is solidly held in the uppermost part of the support hook arc.

Be sure hoist and load are in a straight line. Do not pull at an angle.

Be sure load is hooked securely. Do not tip load the hook. Do not load hook latch. Hook latch is to prevent detachment of load under slack chain conditions only.

Do not operate with hoist head resting against any object. Lift the load gently. Do not jerk it.



⚠ WARNING

- DO NOT OPERATE DAMAGED OR MALFUNCTIONING HOIST.
- DO NOT OPERATE WITH TWISTED, KINKED, OR DAMAGED CHAIN.

INSPECT

All hoists should be visually inspected before use, in addition to regular, periodic maintenance inspections.

Inspect hoists for operations warning notices and legibility.

Deficiencies should be noted and brought to the attention of supervisors. Be sure defective hoists are tagged and taken out of service until repairs are made.

Under no circumstances should you operate a malfunctioning hoist.



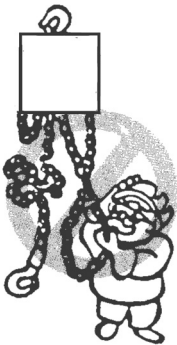
Check for gouged, twisted, distorted links and foreign material. Do not operate hoists with twisted, kinked, or damaged chain links.

Load chain should be properly lubricated.

Hooks that are bent, worn, or whose openings are enlarged beyond normal throat opening should not be used. If latch does not engage throat opening of hook, hoist should be taken out of service.

Chains should be checked for deposits of foreign material which may be carried into the hoist mechanism.

Check brake for evidence of slippage under load.



⚠ WARNING

- DO NOT LIFT PEOPLE OR LOADS OVER PEOPLE

PRACTICE CAUTION ALWAYS

Do not lift co-workers with a hoist.

Make sure everyone is clear of the load when you lift.

Do not remove or obscure operational warning notices.

OPERATOR SERVICE

CLEANING

Hoists should be kept clean and free of dust, dirt, moisture, etc., which will in any way affect the operation or safety of the equipment.

LUBRICATION

Chain should be properly lubricated.

AFTER REPAIRS

Carefully operate the hoist before returning it to full service.



VIOLATIONS OF ANY OF THE WARNINGS LISTED MAY RESULT IN SERIOUS PERSONAL INJURY TO THE OPERATOR OR NEARBY PERSONNEL BY NATURE OF RELEASED LOAD OR BROKEN HOIST COMPONENTS.

⚠ WARNING

Improper operation of a hoist can create a potentially hazardous situation which, if **not** avoided, could result in death, or serious injury. To avoid such a potentially hazardous situation, the operator shall:

1. **NOT** operate a malfunctioning or unusually performing hoist.
2. **NOT** operate the hoist until you have thoroughly read and understood this manual.
3. **NOT** operate a hoist which has been modified.
4. **NOT** lift or pull more than rated load for the hoist.
5. **NOT** use damaged hoist or hoist that is **Not** working properly.
6. **NOT** use hoist with twisted, kinked, damaged, or worn load chain.
7. **NOT** use the hoist to lift, support, or transport people.
8. **NOT** lift loads over people and make sure all personnel remain clear of the supported load.
9. **NOT** attempt to lengthen the load chain or repair damaged load chain.
10. Protect the hoists load chain from weld splatter or other damaging contaminants.
11. **NOT** use load chain as a sling or wrap load chain around load.
12. **NOT** apply the load to the tip of the hook or to the hook latch.
13. **NOT** apply load unless load chain is properly seated in the chain wheel(s) or sprocket(s).
14. **NOT** apply load if bearing prevents equal loading on all load supporting chains..
15. **NOT** operate beyond the limits of the load chain travel
16. **NOT** leave load supported by the hoist unattended unless specific precautions have been taken.
17. **NOT** allow the chain or hook to be used as an electrical or welding ground.
18. **NOT** allow the chain or hook to be touched by a live welding electrode.
19. **NOT** remove or obscure the warnings on the hoist.
20. **NOT** operate a hoist which has **Not** been securely attached to a suitable support..
21. **NOT** operate a hoist unless load slings or other approved single attachments are properly sized and seated in the hook saddle.
22. **NOT** operate a hoist when it is restricted from forming a straight line from hook to hook in the direction of loading.
23. **NOT** lift loads that are **Not** balanced and that the holding action is **Not** secure, taking up slack carefully.
24. **NOT** operate a hoist unless all persons are and remain clear of the supported load.
25. Report malfunctions or unusual performances of a hoist, after it has been shut down until repaired.
26. **NOT** operate a hoist on which the safety placards or decals are missing or illegible.
27. Be familiar with operating controls, procedures and warnings.

⚠ CAUTION

Improper operation of a hoist can create a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. To avoid such a potentially hazardous situation, the operator shall:

1. Maintain a firm footing or be otherwise secured when operating the hoist.
2. Check brake function by tensioning the hoist prior to each lift or pulling operation.
3. Use hook latches. Latches are to retain slings, chains, etc. under slack conditions only.
4. Make sure the hook latches are closed and **not** supporting any parts of the load.
5. Make sure the load is free to move and will clear all obstructions.
6. Avoid swinging the load or hook.
7. Inspect the hoist regularly, replace damaged or worn parts, and keep appropriate records of maintenance.
8. Use Chester Hoist parts when repairing the unit.
9. Lubricate load chain as recommended in this manual.
10. **NOT** operate except with manual power.
11. **NOT** permit more than one operator to pull on manual chain hoist at the same time. More than one operator is likely to cause hoist overload.
12. **NOT** allow your attention to be diverted from operating the hoist.
13. **NOT** allow the hoist to be subjected to sharp contact with other hoists, structures, or objects through misuse.
14. **NOT** adjust or repair the hoist unless qualified to perform such adjustments or repairs.

The hoists are intended for general industrial use for moving loads within their load ratings. Prior to installation and operation, the user should review the application for abnormal environmental or handling conditions.

GENERAL SAFETY INFORMATION

ADVERSE ENVIRONMENTAL CONDITIONS

Do not use the hoists in areas containing flammable vapors, liquids, gasses or any combustible dust or fibers. Do not use the hoist in highly corrosive, abrasive, wet environments or in applications involving exposure to extreme temperatures.

MOVING HAZARDOUS LOADS

The hoists are not recommended for lifting materials that could cause widespread damage if dropped. The lifting or moving of materials that could explode or cause chemical or radioactive contamination requires fail-safe, redundant supporting devices that are not incorporated into these hoists.

SPECIFICATIONS

ENGLISH

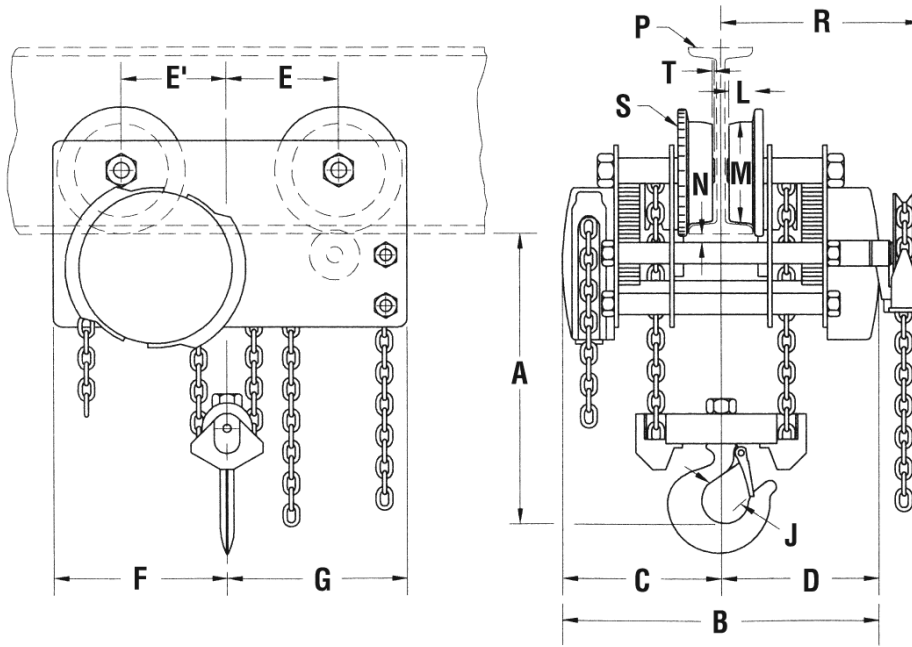


Table 1 – Specifications - Weights

Capacity (short tons)	Catalog Number		Standard Lift (ft.)	Load Chain Length (2 Chains per Hoist)"	Minimum Radius Curve ††"	Minimum Distance from Bottom of I-Beam to Hook (in.)"	Chain Pull to Lift Full Load (lbs.)	Chain Overhauled to Lift Load One Foot (ft.)	Weight (lbs.) Net Gross"
	Plain Trolley	Geared Trolley							
1/1/02	1421 - 1-1/2	1422 - 1-1/2	8	9'-6"	6'-6"	6-1/4	41	87	230
2	1421 - 2	1422 - 2	8	9'-6"	6'-6"	6-1/4	54	87	233
3	1421 - 3	1422 - 3	8	18'-3"	6'-6"	7-3/8	42	176	335
4	1421 - 4	1422 - 4	8	18'-3"	7'-6"	8	56	176	340
5	1421 - 5	1422 - 5	8	10'	8'-6"	8-3/4	79	165	633
6	1421 - 6	1422 - 6	8	10'	8'-6"	8-3/4	94	165	633
8	1421 - 8	1422 - 8	8	19'	9'-6"	11	64	355	773
10	1421 - 10	1422 - 10	8	19'-6"	10'	11-1/2	87	330	1105
12	1421 - 12	1422 - 12	8	19'-6"	†	11-1/2	104	330	1105
16	1421 - 16	1422 - 16	8	38'-6"	†	13-5/8	68	710	1681
20	1421 - 20	1422 - 20	8	39'	†	17-1/4	87	731-1/2	2110
24	1421 - 24	1422 - 24	8	39'	†	17-1/4	104	731-1/2	2110

Table 2 – Dimensions

Capacity (tons)	Dimensions (in.)															
	A	B	C	D	E	F	G	H	I	J	L	M	N**	P*	R	S
PLAIN & GEARED TROLLEY HOIST																
1-1/2	6-1/4	20-3/8	10-3/16	10-3/16	5-1/8	5-1/8	8-3/4	8-1/4	5/8	1-1/8	1-1/8	4-1/2	1/2	6" I @ 12.5#	13-1/16	6
2	6-1/4	20-3/8	10-3/16	10-3/16	5-1/8	5-1/8	8-3/4	8-1/4	5/8	1-1/8	1-1/8	4-1/2	1/2	6" I @ 12.5#	13-1/16	6
3	7-3/8	20-3/8	10-3/16	10-3/16	6-1/2	6-5/8	10-5/8	10-5/8	9/16	1-11/32	1-11/32	6-3/8	1/2	8" I @ 18.4#	13-1/16	8
4	8	20-3/8	10-3/16	10-3/16	6-1/2	6-5/8	10-5/8	10-5/8	9/16	1-11/16	1-11/32	6-3/8	1/2	8" I @ 18.4#	13-1/16	8
5	8-3/4	26-1/4	13-1/8	13-1/8	7-3/8	7-3/8	12	12	29/32	1-11/16	1-13/32	7-3/16	9/16	10" I @ 25.4#	16-1/2	9
6	8-3/4	26-1/4	13-1/8	13-1/8	7-3/8	7-3/8	12	12	29/32	1-11/16	1-13/32	7-3/16	9/16	10" I @ 25.4#	16-1/2	9
8	11	26-1/4	13-1/8	13-1/8	8-3/8	8-7/8	14	13-1/2	9/16	2-1/16	1-11/16	8-1/4	9/16	10" I @ 25.4#	16-1/2	10
10	11-1/2	26-1/4	13-1/8	13-1/8	8-1/2	9-3/4	15-5/8	14-3/8	9/16	2-1/4	1-3/4	9-3/4	5/8	12" I @ 31.8#	16-1/2	11-11/16
12	11-1/2	26-1/4	13-1/8	13-1/8	8-1/2	9-3/4	15-5/8	14-3/8	9/16	2-1/4	1-3/4	9-3/4	5/8	12" I @ 31.8#	16-1/2	11-11/16
16	13-5/8	30-3/8	15-3/16	15-3/16	11-7/8	11-7/8	18-5/8	18-5/8	9/16	3	2	11-3/4	3/4	15" I @ 42.9#	18-7/8	13-1/2
20	17-1/4	30-3/8	15-3/16	15-3/16	12-1/8	12-3/8	19-1/4	19	3/4	3-5/8	2	11-3/4	5/8	18" I @ 54.7#	18-7/16	13-1/2
24	17-1/4	30-3/8	15-3/16	15-3/16	12-1/8	12-3/8	19-1/4	19	3/4	3-5/8	2	11-3/4	5/8	18" I @ 54.7#	18-7/16	13-1/2
PLAIN & GEARED TROLLEY HOIST, SPARK-RESISTANT																
1-1/2	7-3/8	20-3/8	10-3/16	10-3/16	5-1/8	5-1/8	8-3/4	8-1/4	5/8	1-11/32	1-1/8	4-1/2	1/2	6" I @ 12.5#	13-1/16	6
2	7-3/8	20-3/8	10-3/16	10-3/16	5-1/8	5-1/8	8-3/4	8-1/4	5/8	1-11/32	1-1/8	4-1/2	1/2	6" I @ 12.5#	13-1/16	6
3	8-7/16	20-3/8	10-3/16	10-3/16	6-1/2	6-5/8	10-5/8	10-5/8	9/16	1-11/16	1-11/32	6-3/8	1/2	8" I @ 18.4#	13-1/16	8
4	9-15/16	20-3/8	10-3/16	10-3/16	6-1/2	6-5/8	10-5/8	10-5/8	9/16	2-7/32	1-11/32	6-3/8	1/2	8" I @ 18.4#	13-1/16	8
5	10-5/16	26-1/4	13-1/8	13-1/8	7-3/8	7-3/8	12	12	29/32	2-7/32	1-13/32	7-3/16	9/16	10" I @ 25.4#	16-1/2	9
6	11-3/8	26-1/4	13-1/8	13-1/8	7-3/8	7-3/8	12	12	29/32	2-1/4	1-13/32	7-3/16	9/16	10" I @ 25.4#	16-1/2	9
8	14-1/16	26-1/4	13-1/8	13-1/8	8-3/8	8-7/8	14	13-1/2	9/16	3-1/32	1-11/16	8-1/4	9/16	10" I @ 25.4#	16-1/2	10
10	14-7/16	26-1/4	13-1/8	13-1/8	8-1/2	9-3/4	15-5/8	14-3/8	9/16	3-1/32	1-3/4	9-3/4	5/8	12" I @ 31.8#	16-1/2	11-11/16
12	16-1/8	26-1/4	13-1/8	13-1/8	8-1/2	9-3/4	15-5/8	14-3/8	9/16	3-1/4	1-3/4	9-3/4	5/8	12" I @ 31.8#	16-1/2	11-11/16
16	19-5/16	30-3/8	15-3/16	15-3/16	11-7/8	11-7/8	18-5/8	18-5/8	9/16	3-3/8	2	11-3/4	3/4	15" I @ 42.9#	18-7/8	13-1/2
20	20-1/4	30-3/8	15-3/16	15-3/16	12-1/8	12-3/8	19-1/4	19	3/4	3-3/8	2	11-3/4	5/8	18" I @ 54.7#	18-7/16	13-1/2
24	20-1/4	30-3/8	15-3/16	15-3/16	12-1/8	12-3/8	19-1/4	19	3/4	3-3/8	2	11-3/4	5/8	18" I @ 54.7#	18-7/16	13-1/2

For over 10 Ton, straight track operation is recommended.
 Curve radius must be specified on orders.
 Curves less than minimum radius may be fitted upon application.

* Minimum Standard I-Beam for Proper Wheel Running Clearance Only.
 ** At Under Beam Roller
 Customer must verify their beam is adequate for the applied loads.



GENERAL INFORMATION

Please review this manual for installation and operating instructions, safety and maintenance procedures, lubrication information, troubleshooting, hoist exploded view and part list information.

Chester ZLP/ZLG Series Integrated Trolley Hoists are built in accordance with the specifications contained herein and at the time of manufacture complies with our interpretation of the American Society of Mechanical Engineers (ASME) Standard B30.16, "Overhead Hoists." Copies of this standard can be obtained from ASME Order Department, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300, USA.

This manual contains important information to help you properly install, operate and maintain your Chester ZLP/ZLG Series Integrated Trolley Hoists for maximum performance, economy and safety.

Please study its contents thoroughly before putting your Integrated Trolley Hoists into operation. By practicing correct operating procedures and by carrying out the recommended preventive maintenance suggestions, you will be assured of long, dependable and safe service.

After you have completely familiarized yourself with the contents of this manual, we recommend that you carefully file it for future reference.

REPAIR/REPLACEMENT POLICY

All Chester ZLP/ZLG Series Integrated Trolley Hoists are inspected and performance tested prior to shipment. If any properly maintained hoist develops a performance problem, within one year of shipment, due to a material or workmanship defect, as verified by Chester Hoists, repair or replacement of the unit will be made to the original purchaser without charge. This repair/ replacement policy applies only to Chester ZLP/ZLG Series Integrated Trolley Hoists installed, maintained and operated as outlined in this manual, and specifically excludes hoists subject to normal wear, abuse, improper installation, improper or inadequate maintenance, hostile environmental effects and unauthorized repairs/modifications.

We reserve the right to change materials or design if, in our opinion, such changes will improve our product. Abuse, repair by an unauthorized person, or use of non-Chester Hoists® replacement parts voids the guarantee and could lead to dangerous operation. For full Terms of Sale, see Sales Order Acknowledgement. Also, refer to the back cover for Limitations of Warranties, Remedies and Damages, and Indemnification and Safe Operation.

UNPACKING

After opening the carton, the integrated trolley hoist should be carefully inspected for damage which may have occurred during shipment or handling. Check the hoist frame for dents or cracks and inspect the load chain for nicks and gouges. If shipping damage has occurred, refer to the packing list envelope on the carton for claim procedure.

WARNING

Operating a unit with obvious external damage may cause load to drop and that may result in personal injury and/or property damage.

TO AVOID INJURY:

Carefully check unit for external damage prior to installation.

INSTALLATION

The hoisting unit is custom sized at the factory to fit on a specific beam size. Most units are slipped over the end of the supporting rail or beam; however, removable wheels* are provided which enable the unit to be fitted on a beam with obstructed ends.

See parts breakdown page 7 for additional information regarding disassembly.

The distance between trolley wheel flanges (measured at the tread diameter) should be 1/15" to 3115" greater than the beam flange width for proper running clearance. This clearance should be checked before operating the hoist under load. The hoist should be traversed the entire length of the beam to check for beam

interference points, proper side clearance and effectiveness of the beam stops. If everything is satisfactory, the procedure should be repeated with a capacity load as a functional installation test.

WARNING

Before installing this trolley hoist, make certain that the trolley wheel contour is correct for the type of beam the unit will operate on and that the trolley wheel spacing is correct for the beam flange width. Flat flange beams should have flat tread or universal tread wheels and tapered flange beams should have tapered or universal tread wheels.

WARNING

Always make sure all end stops are securely in place before operating a hoist on a runway beam to prevent the hoist from falling from the open beam end.

See page 7 for chain container mounting instructions and warnings.

*Feature not available on units operating on patented monorail tracks.

INSPECTION

Note: Read ansi 830.16 For additional inspection requirements

FREQUENT INSPECTION (DAILY OR BEFORE USING.)

- BRAKING MECHANISM** - Check by lifting load a short distance then lowering to its original position while checking for slippage or free run.
- LOAD CHAIN** - For wear, twists, broken or otherwise damaged links. Chain should be clean and free of foreign material or excessive rust. Chain should be properly lubricated.
- HOOK** - For wear, heavy nicks, cracks or deformation. The hook must turn freely and the latch should be operative.

Note: Any hook that is twisted or has throat opening in excess of normal indicates overloading or abuse of the hoist and requires an inspection of all other load bearing components for damage.

ANNUAL INSPECTION - (MORE OFTEN IF IN HEAVY USE OR AN ADVERSE ENVIRONMENT.)

- Chain, load sheaves and other sheaves for excessive wear or chain stretch.
- HOOK** - Dye penetrant, magnetic particle or other suitable crack detecting inspection. The hook must turn freely and the latch should be operative.
- HOOK RETAINING PINS OR WELDS** should be inspected.
- BRAKE MECHANISM** - Worn, glazed or contaminated friction discs, worn pawls and damaged pawl springs. Brake disc minimum thickness is 1/16".
- LOAD BEARING PARTS** - Worn, cracked or distorted parts such as hand chain wheels, chain attachments, suspension bolts, shafts, gears, and bearings.
- CHAIN CONTAINER MOUNTING BOLTS AND BRACKETS.** (See page 7.)

INSPECTION RECORD

Written, dated and signed inspection report and records should be made on the hoist. A sample log form is furnished below.

MAINTENANCE AND OPERATING PROCEDURES: (USER'S RESPONSIBILITY)

All equipment should be inspected, tested, operated, and maintained according to the manufacturer's recommendations and the applicable sections of ASME/ANSI B30.16, B30.1 1, and B30.17. Consideration should also be given to pertinent federal, state and local regulations.

RECORD COPY

INSPECTION LOG

Inspection No _____ Date _____

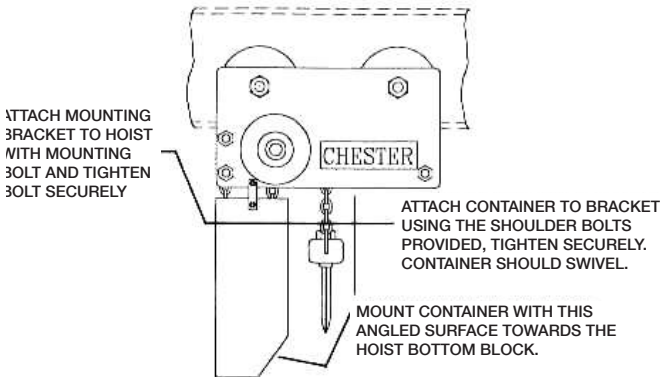
Inspector _____

COMMENTS

1. Chain and Sheaves _____
2. Hook and Retainer _____
3. Brake Mechanism _____
4. Load Bearing Parts _____
5. Other Parts _____

CHAIN CONTAINER INSTALLATION NOTE

The chain container for this hoist has been shipped loose. Follow these instructions to install the container and to load the chain into the container.



CHAIN LOADING NOTE: Lower load block as far as possible. After installing the chain container run the load block up allowing the hoist mechanism to fill the container. Verify the chain is loading properly into the container.

⚠ WARNING

Never load chain into the container by hand!! Hand loading will cause the chain to tangle which will jam and damage the hoist.

INSPECTION NOTE: The mounting bolts for the container should be checked each time the hoist is inspected to insure they remain tight. The mounting holes on the container and brackets should be checked each time the hoist is inspected to insure they are not elongating and weakening the container or bracket.

HOIST MAINTENANCE

⚠ CAUTION

Before disassembling any portion of the hoisting mechanism, the hook assembly must be lowered to the floor level for support, then continue to lower until stopped by the bolted end of the chain. This should prevent the free fall of the hook assembly or load chain when the load brake is disengaged.

HANDWHEEL SIDE, PARTS SERVICE (INCLUDES LOAD BRAKE)

1. Unscrew 4 screws to remove handwheel cover. Pull cover and lift hand chain from handwheel, chain will remain looped through handwheel cover. If it is necessary to remove hand chain, find the unwelded link and bend open for removal.
2. Grasp handwheel and pull. After removal, the complete handwheel and brake assembly may be more conveniently placed in a soft jawed vise for disassembly.
3. Remove cotter pin and unscrew (counter clockwise) the handwheel from spindle. See Fig. 2 Page 8 for reassembly adjustment.
4. Lift off brake disc, ratchet, and second brake disc. Minimum brake disc thickness is 1/16".
5. The pawl retaining ring and pawl spring nut should be removed to permit the pawl and pawl spring to be disassembled. The pawl stud can be removed by turning counter clockwise.
6. When reassembling, the smaller of the two brake discs is placed on the spindle last (against the handwheel assembly).

GEAR COVER SIDE, PARTS SERVICE

1. Unscrew 4 screws on cover and remove cover.
2. Note the proper timing mark position of the two planet gears. See Figure 1 Page 8.
3. Back out the square head set screw to permit the pinion cage with the two planet gears to be pulled from the load shaft.
4. The two planet gears are removed by pulling the cotter pins and slipping the shafts from the gears.

REASSEMBLING

Mount planet gears in pinion cage with cotter pins in place. Align set screw hole in pinion cage with the set screw hole in the drive shaft and time the planet gears as illustrated in Fig. 1 Page 8.

TROLLEY WHEEL, PARTS SERVICE

1. To disassemble trolley wheels, back off axle nut, then force the axle toward the center of hoist. The "C" washer should be free of its retaining cup shaped washer. When the "C" washer is removed, the axle can be withdrawn

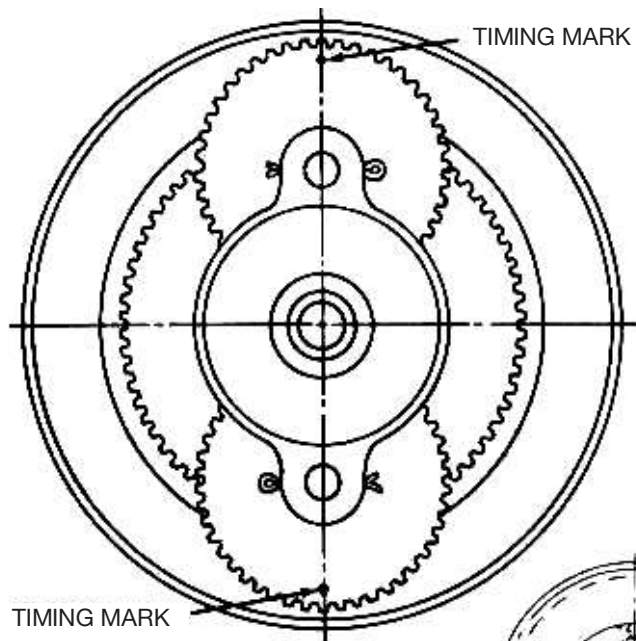


FIG. 1

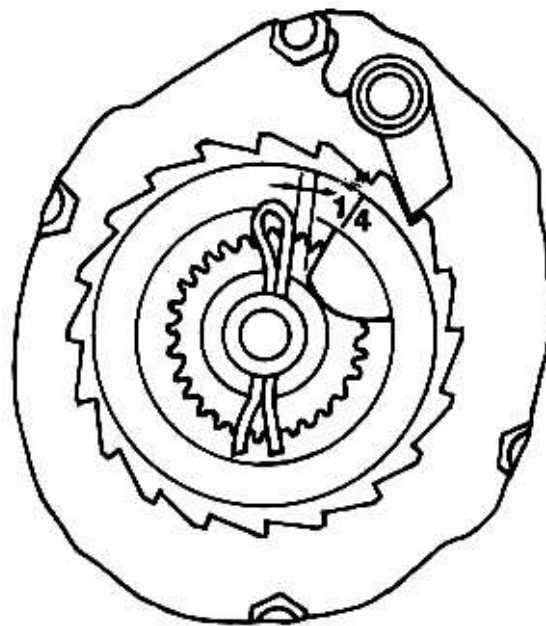


FIG. 2

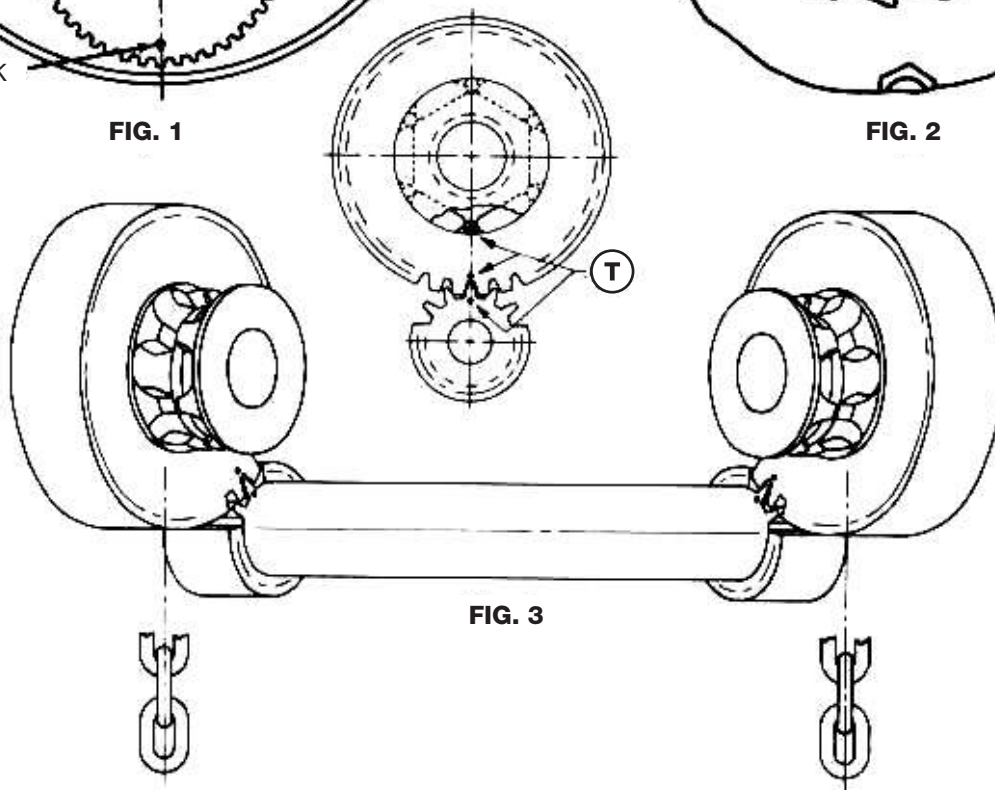


FIG. 3

T Indicates three timing marks in alignment

To enable the two independent chains to lift the bottom block evenly, the large gears and load sheaves must first be timed as illustrated. Then both gears must be timed simultaneously with the shaft pinions. This timing procedure is only necessary when the gears have been disengaged during disassembly, Fig. 3.

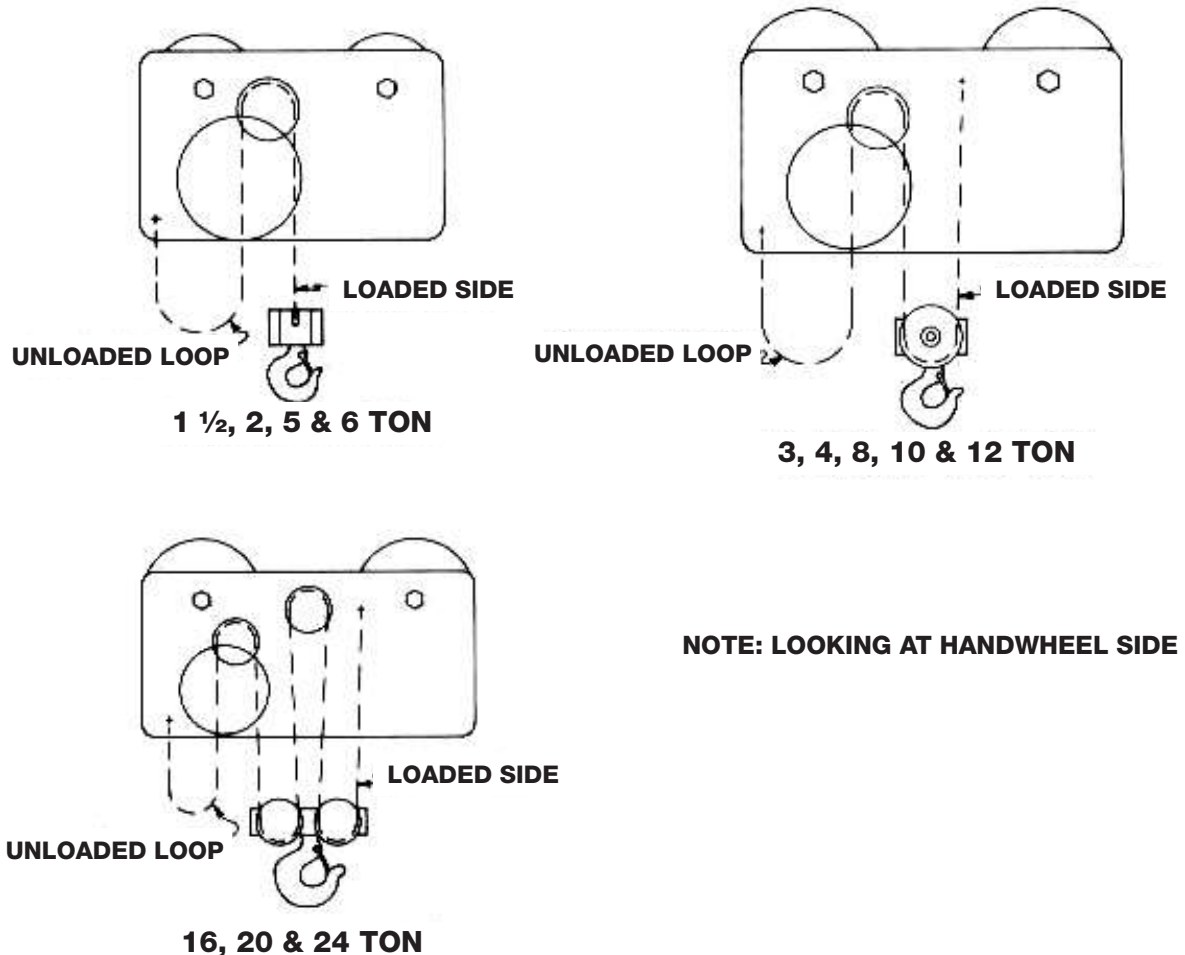
When replacing load chain, the two chains must be exactly the same length. The starting chain link on each chain must be simultaneously fed into the two lifting load sheaves. The starting links will pass over the top of the load sheave in a horizontal position to permit end attachment without twisting the chain. The second link of chain will be a standing link of chain this link should have the weld furthest away from the center of the load sheave. Fig. 3.

LUBRICATION

Lubricant	Location	Instructions
NLGI No. 2 Grease	Fittings on chain sheave pins (roller bearing)	Annually or as required
	*Trolley wheels	After prolonged use or at reassembly
	Pawl Stud	Coat lightly at reassembly
	Brake square thread	Coat lightly at reassembly
NLGI No. 2 with E.P. additives	Gears	After prolonged use or at reassembly
Intermediate oils preferably with E.P. additives	Chain	Immerse in container or swab with oil soaked rag. Wipe off excess oil. Should maintain chain rust free.
Bonded lubricants (similar to Dow Molykote M-88)	Chain	Use in place of oil, if oil residues are objectionable.

*Not required on units equipped with sealed ball bearings. (Wheels will not have grease fittings.)

CHAIN REEVING



REPAIR PARTS LIST

WARNING

Using "commercial" or other manufacturer's parts to repair the Chester ZLP/ZLG Series Integrated Trolley may cause load loss.

TO AVOID INJURY:

Order all replacement parts from Chester Hoists. Some parts may look alike but often Chester Hoists parts are made of specific materials or processed to achieve specific properties.



ORDERING INSTRUCTIONS

The following information must accompany all correspondence orders for replacement parts:

1. Hoist Model Number from identification plate.
2. Serial number of the hoist stamped below identification plate.
3. Length of lift.
4. Part number of part from parts list.
5. Number of parts required.
6. Part name from parts list.

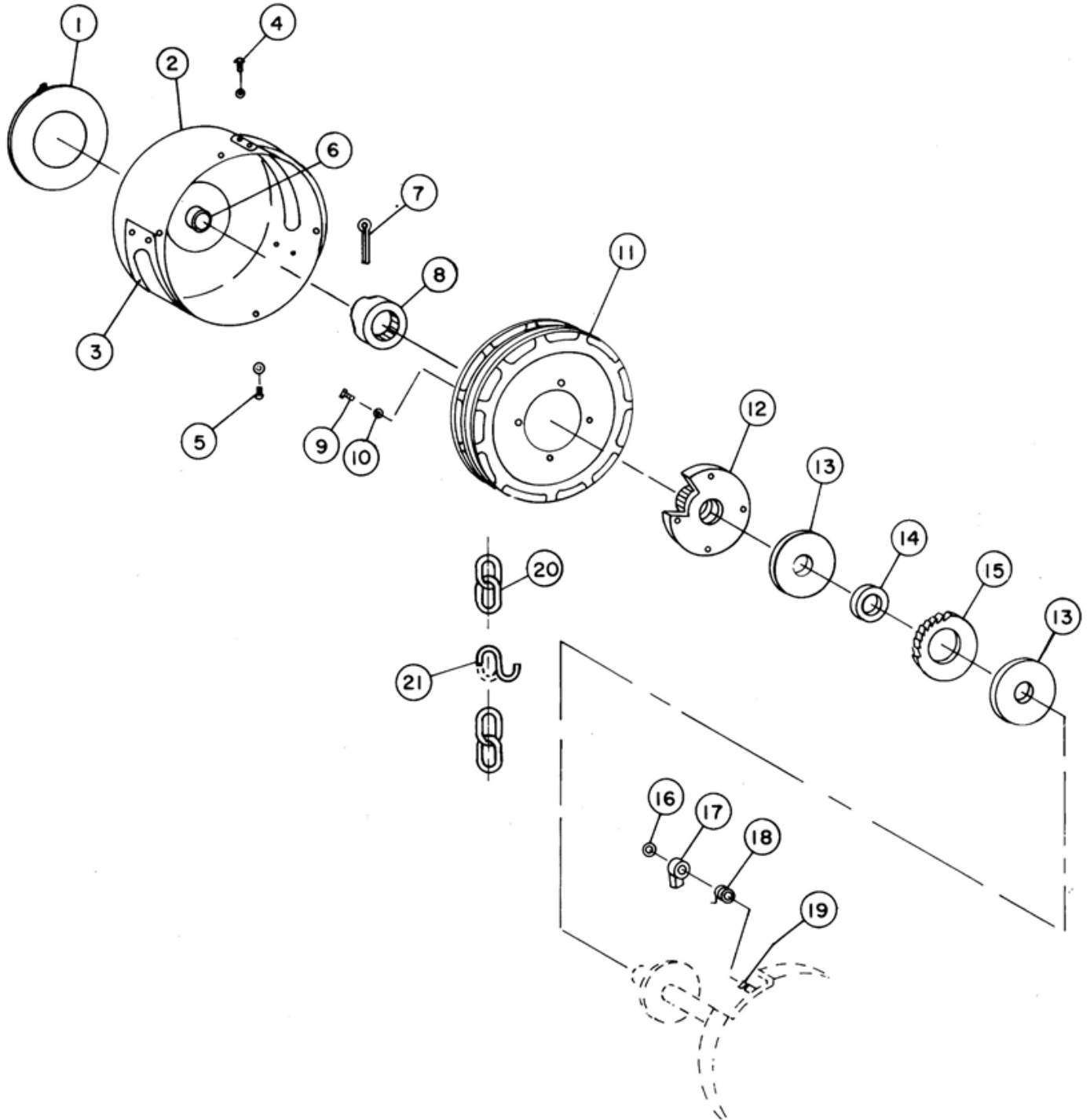
NOTE: When ordering replacement parts, it is recommended that consideration be given to the need for also ordering such items as gaskets, fasteners, insulators, etc. These items may be damaged or lost during disassembly or just unfit for future use because of deterioration from age or service.

RECOMMENDED SPARE PARTS

Description	Part Quantity
Pawl Snap Ring	2
Pawl Spring	2
Pawl	2
Brake Discs	2
Ratchet	1
Load Wheel	2
Bull Gear Shaft	2
Load Chain	2 pc
Plain Trolley Wheel	-
Geared Trolley Wheel	-

MECHANISM - HANDWHEEL END

ENGLISH



MECHANISM HANDWHEEL END – 1.5, 2 & 3 TON

PC No.	Description	1.5 Ton		2 Ton		3 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Decal	C947C	1	C947C	1	C947C	1
2	Cover, Handwheel	C968A0050S	1	C968A0050S	1	C968A0050S	1
3	Guide, Hand Chain	C914-0150	1	C914-0150	1	C914-0150	1
4	Screw, Hand Chain Guide	44-.25-.50	8	44-.25-.50	8	44-.25-.50	8
5	Screw, Handwheel Cover	999	4	999	4	999	4
6	Bushing, Handwheel Cover	C903-0050	1	C903-0050	1	C903-0050	1
7	Cotter Pin	128-.31-1.75	1	128-.31-1.75	1	128-.31-1.75	1
8	Ring, Adjustable Check	C925-0050	1	C925-0050	1	C925-0050	1
9	Screw, Handwheel	19-.25-.50	4	19-.25-.50	4	19-.25-.50	4
10	Lockwasher, Handwheel	1-.25	4	1-.25	4	1-.25	4
11	Handwheel	C928-0050	1	C928-0050	1	C928-0050	1
12	Insert, Threaded Handwheel	C916-0050	1	C916-0050	1	C916-0050	1
13	Disc, Brake	C934-0050P	1	C934-0050P	1	C934-0050P	1
14	Bushing, Bronze for 935	C907-0050	1	C907-0050	1	C907-0050	1
15	Ratchet	C935-0050	1	C935-0050	1	C935-0050	1
16	Ring, Pawl Snap	5160-50	2	5160-50	2	5160-50	2
17	Pawl	C923A0050	2	C923A0050	2	C923A0050	2
18	Spring, Pawl	C16256SS	2	C16256SS	2	C16256SS	2
19	STUD, PAWL	C9620H0100CE	1	C9620H0100CE	1	C9620H0100CE	1
20	Chain, Hand	C937	S/N	C937	S/N	C937	S/N
21	Link, Connector	C937L	1	C937L	1	C937L	1

MECHANISM HANDWHEEL END – 4, 5 & 6 TON

PC No.	Description	4 Ton		6 Ton		10 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Decal	C947G	1	C947C	1	C947C	1
2	Cover, Handwheel	C968A0050S	1	C968A0150S	1	C968A0150S	1
3	Guide, Hand Chain	C914-0150	1	C914-0150	1	C914-0150	1
4	Screw, Hand Chain Guide	44-.25-.50	8	44-.25-.62	8	44-.25-.62	8
5	Screw, Handwheel Cover	999	4	999	4	999	4
6	Bushing, Handwheel Cover	C903-0050	1	C903-0150	1	C903-0150	1
7	Cotter Pin	128-.31-1.75	1	128-.31-1.75	1	128-.31-1.75	1
8	Ring, Adjustable Check	C925-0050	1	C925-0050	1	C925-0050	1
9	Screw, Handwheel	19-.25-.50	4	19-.25-.50	4	19-.25-.50	4
10	Lockwasher, Handwheel	1-.25	4	1-.25	4	1-.25	4
11	Handwheel	C928-0050	1	C928-0150	1	C928-0150	1
12	Insert, Threaded Handwheel	C916-0050	1	C916-0150	1	C916-0150	1
13	Disc, Brake	C934-0050P	1	C934-0150P	1	C934-0150P	1
14	Bushing, Bronze for 935	C907-0050	1	C907-0050	1	C907-0050	1
15	Ratchet	C935-0050	1	C935-0150	1	C935-0150	1
16	Ring, Pawl Snap	5160-50	2	5160-50	2	5160-50	2
17	Pawl	C923A0050	2	C923A0050	2	C923A0050	2
18	Spring, Pawl	C16256SS	2	C16257SS	2	C16257SS	2
19	STUD, PAWL	C9620H0100CE	1	C9620HA0150C	1	C9620HA0150C	1
20	Chain, Hand	C937	S/N	C937	S/N	C937	S/N
21	Link, Connector	C937L	1	C937L	1	C937L	1

MECHANISM HANDWHEEL END – 8, 10 & 12 TON

ENGLISH

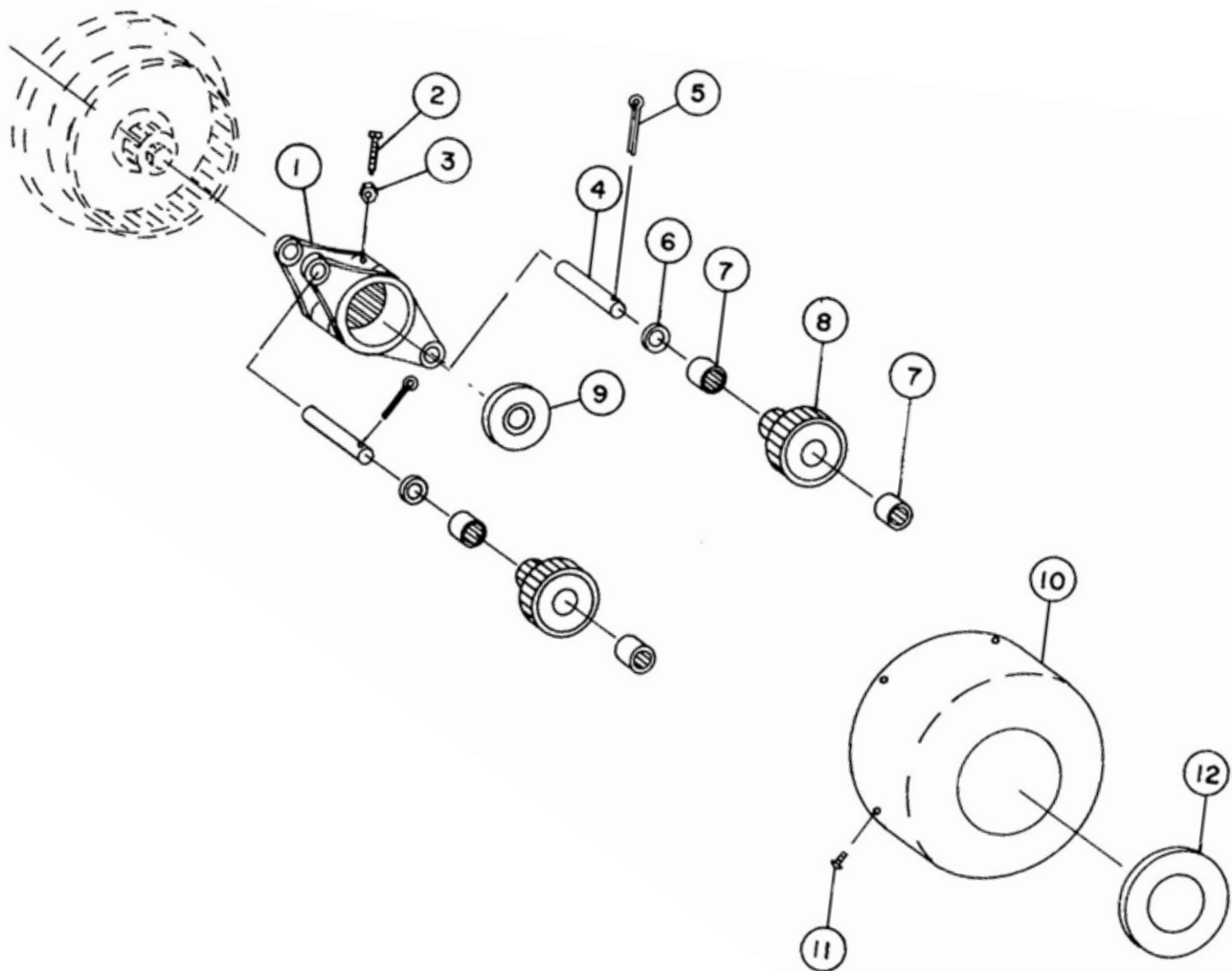
PC No.	Description	8 Ton		10 Ton		12 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Decal	C947C	1	C947C	1	C947C	1
2	Cover, Handwheel	C968A0050S	1	C968A0050S	1	C968A0050S	1
3	Guide, Hand Chain	C914-0150	1	C914-0150	1	C914-0150	1
4	Screw, Hand Chain Guide	44-.25-.62	8	44-.25-.62	8	44-.25-.62	8
5	Screw, Handwheel Cover	999	4	999	4	999	4
6	Bushing, Handwheel Cover	C903-0150	1	C903-0150	1	C903-0150	1
7	Cotter Pin	128-.31-1.75	1	128-.31-1.75	1	128-.31-1.75	1
8	Ring, Adjustable Check	C925-0050	1	C925-0050	1	C925-0050	1
9	Screw, Handwheel	19-.25-.50	4	19-.25-.50	4	19-.25-.50	4
10	Lockwasher, Handwheel	1-.25	4	1-.25	4	1-.25	4
11	Handwheel	C928-0150	1	C928-0150	1	C928-0150	1
12	Insert, Threaded Handwheel	C916-0150	1	C916-0150	1	C916-0150	1
13	Disc, Brake	C934-0150P	1	C934-0150P	1	C934-0150P	1
14	Bushing, Bronze for 935	C907-0050	1	C907-0050	1	C907-0050	1
15	Ratchet	C935-0150	1	C935-0150	1	C935-0150	1
16	Ring, Pawl Snap	5160-50	2	5160-50	2	5160-50	2
17	Pawl	C923A0050	2	C923A0050	2	C923A0050	2
18	Spring, Pawl	C16257SS	2	C16257SS	2	C16257SS	2
19	STUD, PAWL	C9620HA0150E	1	C9620HA0150E	1	C9620HA0150E	1
20	Chain, Hand	C937	S/N	C937	S/N	C937	S/N
21	Link, Connector	C937L	1	C937L	1	C937L	1

MECHANISM HANDWHEEL END – 16, 20 & 24 TON

PC No.	Description	16 Ton		20 Ton		24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Decal	C947C	1	C947C	1	C947C	1
2	Cover, Handwheel	C968A0050S	1	C968A0050S	1	C968A0050S	1
3	Guide, Hand Chain	C914-0150	1	C914-0150	1	C914-0150	1
4	Screw, Hand Chain Guide	44-.25-.62	8	44-.25-.62	8	44-.25-.62	8
5	Screw, Handwheel Cover	999	4	999	4	999	4
6	Bushing, Handwheel Cover	C903-0150	1	C903-0150	1	C903-0150	1
7	Cotter Pin	128-.31-1.75	1	128-.31-1.75	1	128-.31-1.75	1
8	Ring, Adjustable Check	C925-0050	1	C925-0050	1	C925-0050	1
9	Screw, Handwheel	19-.25-.50	4	19-.25-.50	4	19-.25-.50	4
10	Lockwasher, Handwheel	1-.25	4	1-.25	4	1-.25	4
11	Handwheel	C928-0150	1	C928-0150	1	C928-0150	1
12	Insert, Threaded Handwheel	C916-0150	1	C916-0150	1	C916-0150	1
13	Disc, Brake	C934-0150P	1	C934-0150P	1	C934-0150P	1
14	Bushing, Bronze for 935	C907-0050	1	C907-0050	1	C907-0050	1
15	Ratchet	C935-0150	1	C935-0150	1	C935-0150	1
16	Ring, Pawl Snap	5160-50	2	5160-50	2	5160-50	2
17	Pawl	C923A0050	2	C923A0050	2	C923A0050	2
18	Spring, Pawl	C16257SS	2	C16257SS	2	C16257SS	2
19	STUD, PAWL	C9620HA0150E	1	C9620HA0150E	1	C9620HA0150E	1
20	Chain, Hand	C937	S/N	C937	S/N	C937	S/N
21	Link, Connector	C937L	1	C937L	1	C937L	1

MECHANISM GEAR END

ENGLISH



MECHANISM GEAR END – 1.5, 2 & 3 TON

PC No.	Description	1.5 Ton		2 Ton		3 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cage, Pinion	C921-0100	1	C921-0100	1	C921-0100	1
2	Screw, Square Head	60-.31-.87	1	60-.31-.87	1	60-.31-.87	1
3	Nut, Lock	96-.31-2	1	96-.31-2	1	96-.31-2	1
4	Shaft, Gear & Pinion	C919-0050	2	C919-0050	2	C919-0150	2
5	Cotter Pin	128-.10-1.50	2	128-.10-1.50	2	128-.10-1.50	2
6	Washer, Thrust	-	-	-	-	-	-
7	Bearing, Gear & Pinion	C922-0050	4	C922-0050	4	C922-0050	4
8	Gear & Pinion	C927-0100D	2	C927-0100D	2	C927-0100D	2
9	Block, Cage Bearing	C959-0050	1	C959-0050	1	C959-0050	1
10	Cover, Gear	C930-0050	1	C930-0050	1	C930-0050	1
11	Screw, Handwheel Cover	999	4	999	4	999	4
12	Decal	C947D	1	C947D	1	C947D	1

MECHANISM GEAR END – 4, 5 & 6 TON

PC No.	Description	4 Ton		5 Ton		6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cage, Pinion	C921-0100	1	C921-0150	1	C921-0150	1
2	Screw, Square Head	60-.31-.87	1	60-.31-.87	1	60-.31-.87	1
3	Nut, Lock	96-.31-2	1	96-.31-2	1	96-.31-2	1
4	Shaft, Gear & Pinion	C919-0150	2	C919-0150	2	C919-0150	2
5	Cotter Pin	128-.10-1.50	2	128-.15-1.75	2	128-.15-1.75	2
6	Washer, Thrust	-	-	TRA1018	2	TRA1018	2
7	Bearing, Gear & Pinion	C922-0050	4	C922-0150	4	C922-0150	4
8	Gear & Pinion	C927-0100D	2	C927-0200	2	C927-0200	2
9	Block, Cage Bearing	C959-0050	1	C959-0150	1	C959-0150	1
10	Cover, Gear	C930-0050	1	C930-0150	1	C930-0150	1
11	Screw, Handwheel Cover	999	4	999	4	999	4
12	Decal	C947D	1	C947D	1	C947D	1

MECHANISM GEAR END – 8, 10 & 12 TON

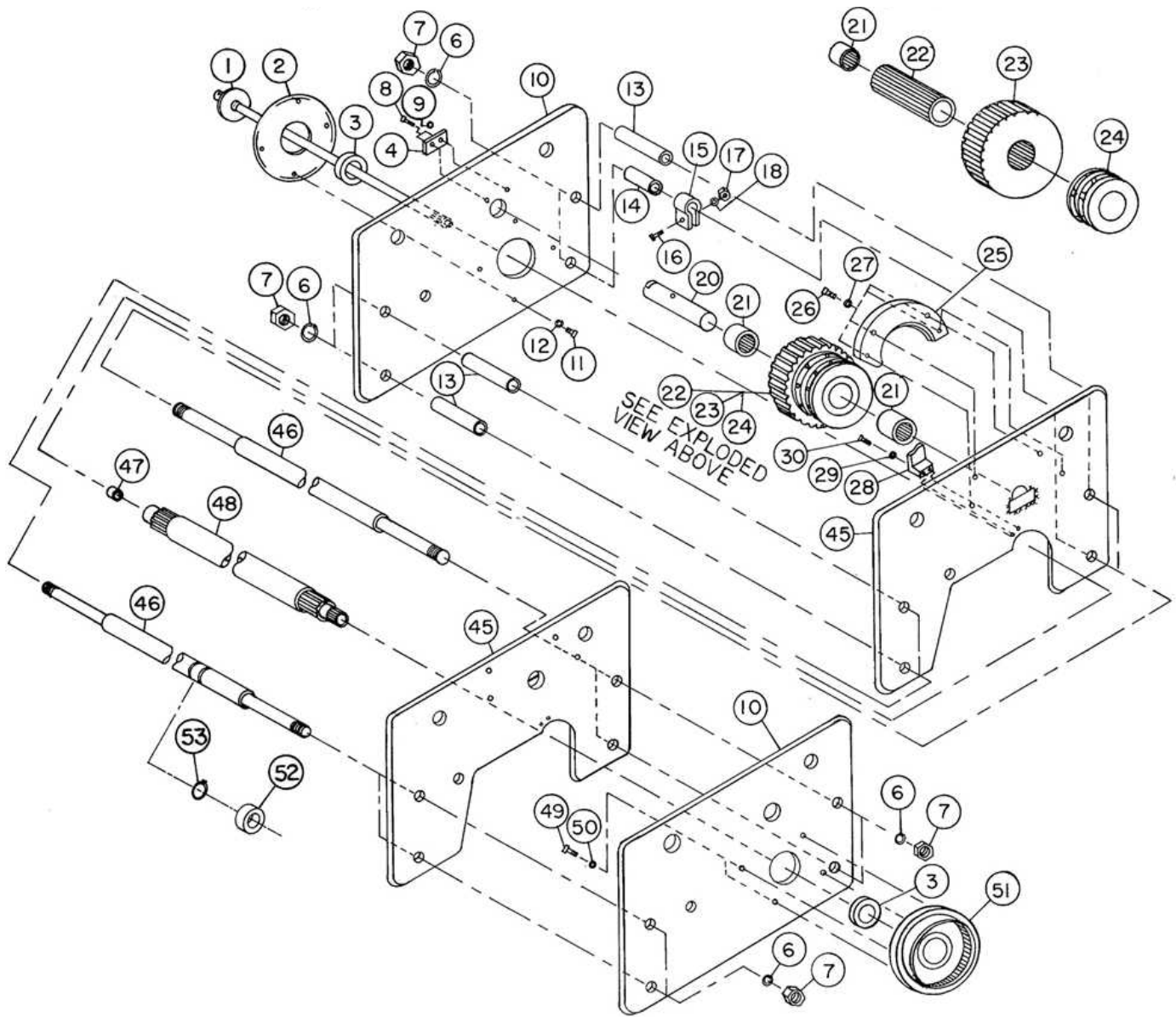
PC No.	Description	8 Ton		10 Ton		12 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cage, Pinion	C921-0150	1	C921-0150	1	C921-0150	1
2	Screw, Square Head	60-.31-.87	1	60-.31-.87	1	60-.31-.87	1
3	Nut, Lock	96-.31-2	1	96-.31-2	1	96-.31-2	1
4	Shaft, Gear & Pinion	C919-0150	2	C919-0150	2	C919-0150	2
5	Cotter Pin	128-.15-1.75	2	128-.15-1.75	2	128-.15-1.75	2
6	Washer, Thrust	TRA1018	2	TRA1018	2	TRA1018	2
7	Bearing, Gear & Pinion	C922-0150	4	C922-0150	4	C922-0150	4
8	Gear & Pinion	C927-0200	2	C927-0200	2	C927-0200	2
9	Block, Cage Bearing	C959-0150	1	C959-0150	1	C959-0150	1
10	Cover, Gear	C930-0150	1	C930-0150	1	C930-0150	1
11	Screw, Handwheel Cover	999	4	999	4	999	4
12	Decal	C947D	1	C947D	1	C947D	1

MECHANISM GEAR END – 16, 20 & 24 TON

PC No.	Description	16 Ton		20 Ton		24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cage, Pinion	C921-0150	1	C921-0150	1	C921-0150	1
2	Screw, Square Head	60-.31-.87	1	60-.31-.87	1	60-.31-.87	1
3	Nut, Lock	96-.31-2	1	96-.31-2	1	96-.31-2	1
4	Shaft, Gear & Pinion	C919-0150	2	C919-0150	2	C919-0150	2
5	Cotter Pin	128-.15-1.75	2	128-.15-1.75	2	128-.15-1.75	2
6	Washer, Thrust	TRA1018	2	TRA1018	2	TRA1018	2
7	Bearing, Gear & Pinion	C922-0150	4	C922-0150	4	C922-0150	4
8	Gear & Pinion	C927-0200	2	C927-0200	2	C927-0200	2
9	Block, Cage Bearing	C959-0150	1	C959-0150	1	C959-0150	1
10	Cover, Gear	C930-0150	1	C930-0150	1	C930-0150	1
11	Screw, Handwheel Cover	999	4	999	4	999	4
12	Decal	C947D	1	C947D	1	C947D	1

HOIST ASSEMBLY – 1.5, 2, 5 & 6 TON

ENGLISH



HOIST ASSEMBLY – 1.5, 2, 5 & 6 TON

PC No.	Description	1.5 Ton		2 Ton		5 Ton		6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1*	Spindle Assembly EN ALSO	C9318A0150PX	1	C9318A0150PX	1	C9318A0150PX	1	C9318A0150PX	1
2	Frame Half, Handwheel Side	C9260HA0100CE	1	C9260HA0100CE	1	C9260HA0150E	1	C9260HA0150E	1
3	Bearing, Drive Shaft	C960-0050	2	C960-0050	2	C960-0150	2	C960-0150	2
4	Keeper load Shaft	C9362-0150	4	C9362-0150	4	C9362-0500	4	C9362-0500	4
5	Keeper Idler Shaft	-	0	-	0	-	0	-	0
6	Lockwasher, Separator Stud	1-.75	8	1-.75	8	1-1.00	8	1-1.00	8
7	Nut, Hex, Separator Stud	96-.75-2	8	96-.75-2	8	96-1.00-2	8	96-1.00-2	8
8	Bolt, Keeper	31-.31-.62	8	31-.31-.62	8	31-.37-.75	8	31-.37-.75	8
9	Lockwasher, Keeper	1-.31	8	1-.31	8	1-.37	8	1-.37	8
10	Side Plate, Outboard	C9300A0150	2	C9300A0150	2	C9300A0500	2	C9300A0500	2
11	Bolt, Frame Half Handwheel Side	31-.37-.75	4	31-.37-.75	4	31-.43-1.00	4	31-.43-1.00	4
12	Lockwasher, FrameHalf	1-.37	4	1-.37	4	1-.43	4	1-.43	4

HOIST ASSEMBLY – 1.5, 2, 5 & 6 TON

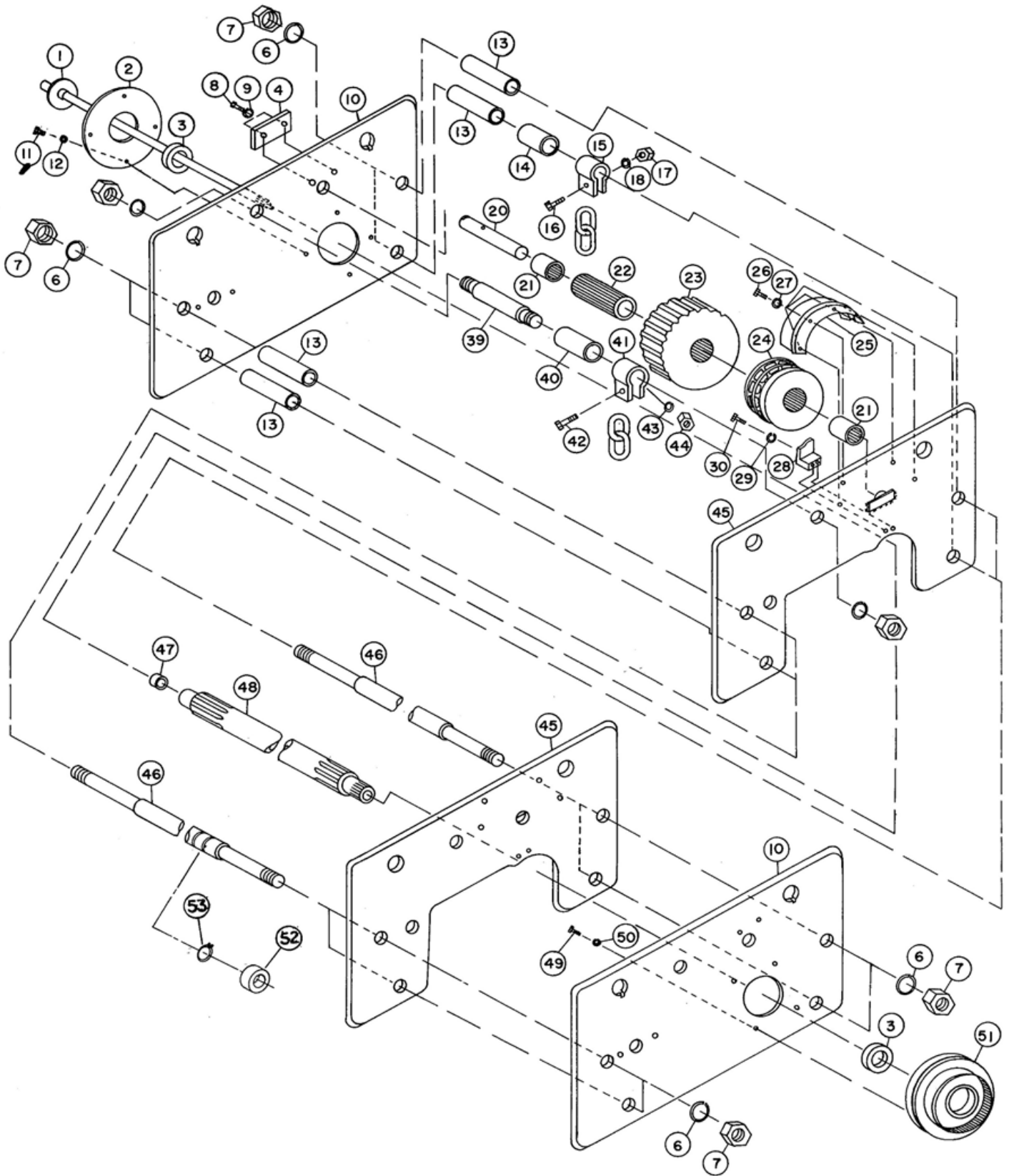
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PC No.	Description	1.5 Ton		2 Ton		5 Ton		6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
13	Pipe Spacer, Long	C9307P1	8	C9307P1	8	C9307P5	8	C9307P5	8
14	Pipe Spacer, Short	C9307P2	2	C9307P2	2	C9307P6	2	C9307P6	2
15	Bale, Dead End	C9393-0150	2	C9393-0150	2	C9393-0500	2	C9393-0500	2
16	Bolt, Dead End	23-.31-1.50	2	23-.31-1.50	2	19-.62-2.75	2	19-.62-2.75	2
17	Nut, Hex, Bale	70-.31-2	2	70-.31-2	2	71-.62-2	2	71-.62-2	2
18	Lockwasher, Bale	1-.31	2	1-.31	2	1-.62	2	1-.62	2
20	Axle, Bull Gear	C9338-0150	2	C9338-0150	2	C9338-0500	2	C9338-0500	2
21	Bearing Idler	TC12E16	4	TC12E16	4	GM2226-020	4	GM2226-020	4
22	Shaft, Bull Gear Splined	C9374-0150	2	C9374-0150	2	C9374-0500	2	C9374-0500	2
23	Gear, Bull	C9390-0150	2	C9390-0150	2	C9390-0500	2	C9390-0500	2
24	Load Wheel	C929-0100	2	C929-0100	2	C9329-0500	2	C9329-0500	2
25	Guide, Load Chain	C9305-0150	2	C9305-0150	2	C9305-1000	2	C9305-1000	2
26	Bolt, Guide	31-.31-.75	8	31-.31-.75	8	31-.37-1.00	8	31-.37-1.00	8
27	Lockwasher, Guide	1-.31	8	1-.31	8	1-.37	8	1-.37	8
28	Stripper	C9324-0150	2	C9324-0150	2	C9324-0500	2	C9324-0500	2
29	Lockwasher, Stripper	1-.25	4	1-.25	4	1-.31	4	1-.31	4
30	Bolt Stripper	31-.25-.87	4	31-.25-.87	4	31-.31-1.25	4	31-.31-1.25	4
45	Plate, Inboard	C9300B0150	2	C9300B0150	2	C9300B0500	2	C9300B0500	2
46	Stud, Separator	C9312-0150PX	4	C9312-0150PX	4	C9312-0500PX	4	C9312-0500PX	4
47	Bushing, Drive Shaft	-	0	-	0	C911-0150	1	C911-0150	1
48*	Shaft, Drive	C9384-0150PX	1	C9384-0150PX	1	C9384-0500PX	1	C9384-0500PX	1
49	Bolt, Frame HalfGeared	31-.37-1.00	4	31-.37-1.00	4	31-.43-1.25	4	31-.43-1.25	4
50	Lockwasher Frame, Half Geared End	1-.37	4	1-.37	4	1-.43	4	1-.43	4
51	Frame Half, Geared End	C9261-0050	1	C9261-0050	1	C9261-0150	1	C9261-0150	1
52*	Underbeam Roller	C31421XX	4	C31421XX	4	C31430XX	4	C31430XX	4
53	Roller Snap Ring	5100-100	8	5100-100	8	5100-125	8	5100-125	8

* Hoist Serial Number must be provided for complete part number.

HOIST ASSEMBLY - 3, 4, 8, 10 & 12 TON

ENGLISH



HOIST ASSEMBLY – 3, 4, 8, 10 & 12 TON

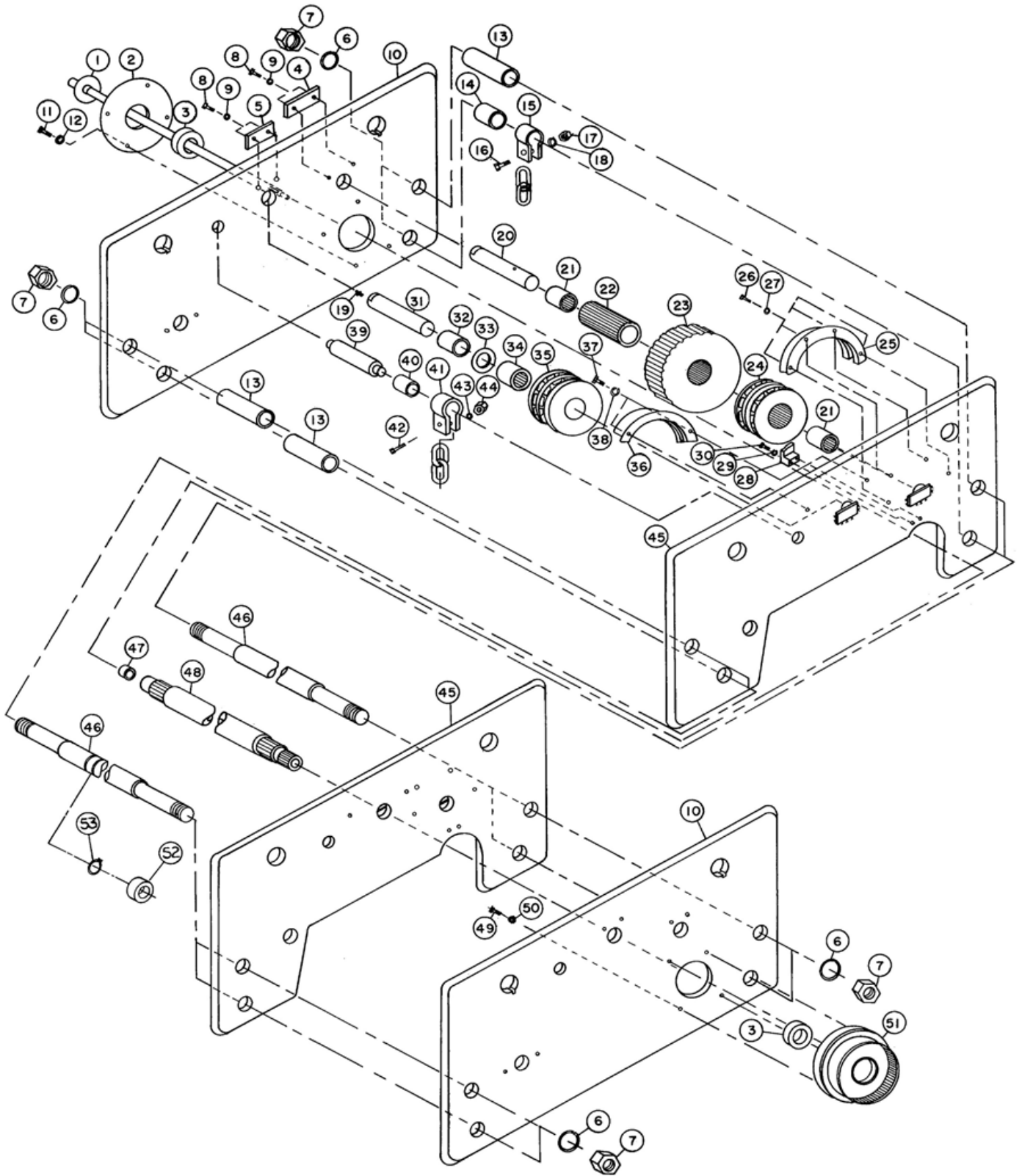
ENGLISH

PC No.	Description	3 & 4 Ton		8 Ton		10 & 12 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1*	Spindle Assembly EN ALSO	C9318A0150PX	1	C9318A0150PX	1	C9318A0150PX	1
2	Frame Half, Handwheel Side	C9262-0050	1	C9262-0150E	1	C9262-0150E	1
3	Bearing, Drive Shaft	C960-0050	2	C960-0150	2	C960-0150	2
4	Keeper load Shaft	C9362-0150	2	C9362-0500	2	C9362-0500	2
5	Keeper Idler Shaft	-	0	-	0	-	0
6	Lockwasher, Separator Stud	1-.87	8	1-1.25	8	1-1.25	8
7	Nut, Hex, Separator Stud	97-.87-2	8	96-1.25-2	8	96-1.25-2	8
8	Bolt, Keeper	31-.31-.62	4	31-.37-.75	4	31-.37-.75	4
9	Lockwasher, Keeper	1-.31	4	1-.37	4	1-.37	4
10	Side Plate, Outboard	C9300A0300	2	C9300A0800	2	C9300A1000	2
11	Bolt, Frame Half Handwheel Side	31-.37-.75	4	31-.43-1.00	4	31-.43-1.00	4
12	Lockwasher, FrameHalf	1-.37	4	1-.43	4	1-.43	4
13	Pipe Spacer, Long	C9307P3	8	C9307P7	8	C9307P7	8
14	Pipe Spacer, Short	C9307P2	2	C9307P10	2	C9307P10	2
15	Bale, Dead End	C9393-0300	2	C9393-0800	2	C9393-1000	2
16	Bolt, Dead End	23-.31-1.50	2	23-.43-2.50	2	19-.62-2.75	2
17	Nut, Hex, Bale	70-.31-2	2	70-.43-2	2	71-.62-2	2
18	Lockwasher, Bale	1-.31	2	1-.43	2	1-.62	2
20	Axle, Bull Gear	C9338-0150	2	C9338-0800	2	C9338-0500	2
21	Bearing Idler	TC12E16	4	GM2024-020	4	GM2226-020	4
22	Shaft, Bull Gear Splined	C9374-0150	1	C9374-0800	1	C9374-0500	1
23	Gear, Bull	C9390-0150	2	C9390-0800	2	C9390-0500	2
24	Load Wheel	C929-0100	2	C9329-0800	2	C9329-0500	2
25	Guide, Load Chain	C9305-0150	2	C9305-0800	2	C9305-1000	2
26	Bolt, Guide	31-.37-1.00	8	31-.37-1.00	8	31-.37-1.00	8
27	Lockwasher, Guide	1-.37	8	1-.37	8	1-.37	8
28	Stripper	C9324-0150	2	C9324-0500	2	C9324-0500	2
29	Lockwasher, Stripper	1-.25	4	1-.31	4	1-.31	4
30	Bolt Stripper	31-.25-.87	4	31-.31-1.25	4	31-.31-1.25	4
39	Stud, Live End	C9389-0300ASM	2	C9389-1000A	2	C9389-1000A	2
40	Spacer, Live End	C9307P2	2	C9307P9	2	C9307P9	2
41	Bale, Live End	C9394-0300	2	C9394-0800	2	C9394-1000	2
42	Bolt, Live End	31-.31-1.37	2	31-.43-2.50	2	31-.62-3.25	2
43	Lockwasher, Live End	1-.31	2	1-.43	2	1-.62	2
44	Nut, Live End	70-.31-2	2	70-.43-2	2	70-.62-2	2
45	Plate, Inboard	C9300B00300	2	C9300B0800	2	C9300B1000	2
46*	Stud, Separator	C9312-0300PX	4	C9312-0800PX	4	C9312-1000PX	4
47	Bushing, Drive Shaft	-	0	C911-0150	1	C911-0150	1
48*	Shaft, Drive	C9384-0150PX	1	C9384-0500PX	1	C9384-0500PX	1
49	Bolt, Frame Half Geared	31-.37-1.00	4	31-.37-1.25	4	31-.43-1.25	4
50	Lockwasher Frame, Half Geared End	1-.37	4	1-.43	4	1-.43	4
51	Frame Half, Geared End	C9261-0150	1	C9261-0150	1	C9261-0150	1
52*	Underbeam Roller	C31434XX	4	C31422XX	4	C31453XX	4
53	Roller Snap Ring	5100-112	8	5100-175	8	5100-175	8

* Hoist Serial Number must be provided for complete part number.

HOIST ASSEMBLY - 16, 20 & 24 TON

ENGLISH



HOIST ASSEMBLY – 16, 20 & 24 TON

ENGLISH

PC No.	Description	16 Ton		20 & 24 Ton	
		Part No.	Qty.	Part No.	Qty.
1*	Spindle Assembly EN ALSO	C9318A0150PX	1	C9318A0150PX	1
2	Frame Half, Handwheel Side	C9262A0150E	1	C9262A0150E	1
3	Bearing, Drive Shaft	C960-0150	2	C960-0150	2
4	Keeper, Bull Gear Axle	C9362-1600	4	C9362-1600	4
5	Keeper Idler Shaft	C9362-1600	4	C9362-1600	4
6	Lockwasher, Separator Stud	-	0	-	0
7	Nut, Hex, Separator Stud	96-1.75-2	8	96-2.00-2	8
8	Bolt, Keeper	31-.37-.75	8	31-.37-.75	8
9	Lockwasher, Keeper	1-.37	8	1-.37	8
10	Side Plate, Outboard	C9300A1600	2	C9300A2000	2
11	Bolt, Frame Half Handwheel Side	31-.43-.75	4	31-.43-1.00	4
12	Lockwasher, FrameHalf	1-.43	4	1-.43	4
13	Pipe Spacer, Long	C9307P12	8	C9307P12	8
14	Pipe Spacer, Short	C9307P15	2	C9307P15	2
15	Bale, Dead End	C9393-1600	2	C9393-2000	2
16	Bolt, Dead End	23-.43-2.25	2	19-.62-2.75	2
17	Nut, Hex, Bale	70-.43-2	2	71-.62-2	2
18	Lockwasher, Bale	1-.43	2	1-.62	2
20	Axle, Bull Gear	C9338-1600	2	C9338-2000	2
21	Bearing Idler	GM2024-020	4	GM2226-020	4
22	Shaft, Bull Gear Splined	C9374-0800	1	C9374-0500	1
23	Gear, Bull	C9390-0800	2	C9390-2000	2
24	Load Wheel	C9329-0800	2	C9329-0500	2
25	Guide, Load Chain	C9305-0800	2	C9305-1000	2
26	Bolt, Guide	31-.37-1.00	8	31-.37-1.00	8
27	Lockwasher, Guide	1-.37	8	1-.37	8
28	Stripper	C9324-0500	2	C9324-0500	2
29	Lockwasher, Stripper	1-.31	4	1-.31	4
30	Bolt Stripper	31-.37-1.00	4	31-.37-1.00	4
31	Shaft, Top Idler	C9391-1600	2	C9391-2000	2
32	Spacer, Top Idler	C9307P14	2	C9307P16	2
33	Washer, Top Idler	C99910	2	C99910	2
34	Bearing, Idler Top	GM2630-028	4	GM3034-032	4
35	Sheave, Top Idler	C9356-0800	2	C9356-1000	2
36	Chain Guide, Idler	C9634-1600	1	C9634-2000	1
37	Bolt, Idler Guide	31-.37-1.00	2	31-.37-1.00	2
38	Lockwasher, Guide Idler	1-.37	2	1-.37	2
39	Stud, Live End	C9389-1600A	2	C9389-2000A	2
40	Spacer, Bale	C9307P13	2	C9307P13	2
41	Bale, Live End	C9394-0800	2	C9394-1000	2
42	Bolt, Live End Bale	19-.50-2.50	2	31-.37-3.25	2
43	Lockwasher, Bale	1-.50	2	1-.37	2
44	Nut, Bale	70-.50-2	2	70-.37-2	2
45	Plate, Inboard	C9300B1600	2	C9300B2000	2
*	Stud, Separator	C9312-1600PX	4	C9312-2000PX	4

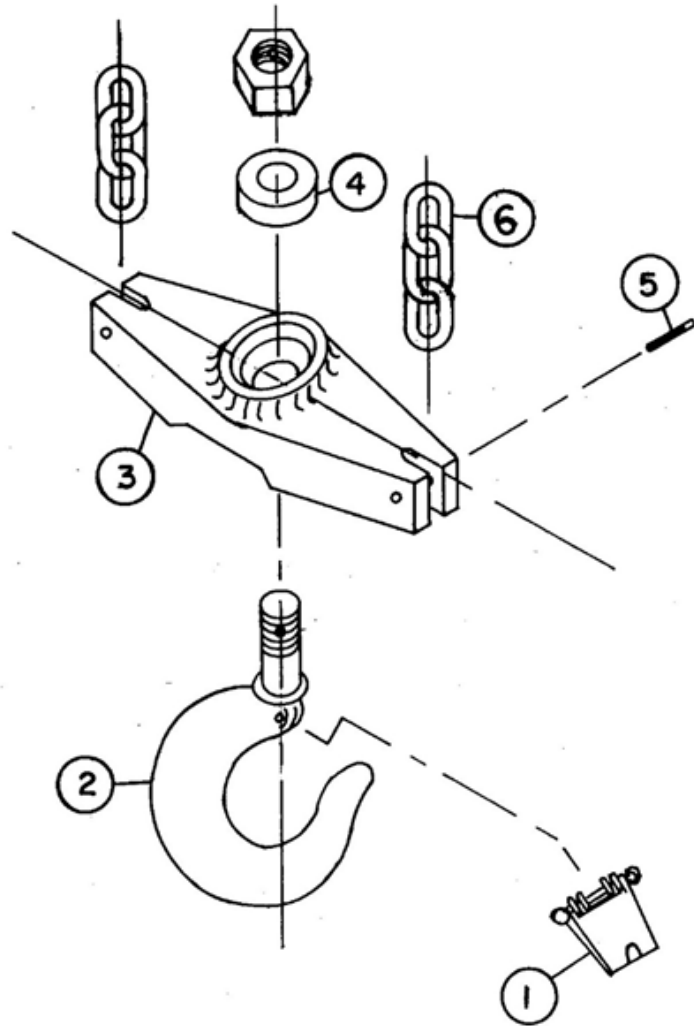
HOIST ASSEMBLY – 16, 20 & 24 TON

PC No.	Description	16 Ton		20 & 24 Ton	
		Part No.	Qty.	Part No.	Qty.
47	Bushing, Drive Shaft	C911-0150	1	C911-0150	1
48*	Shaft, Drive	C9384-0500PX	1	C9384-0500PX	1
49	Bolt, Frame HalfGeared	31-.43-1.50	4	31-.43-1.75	4
50	Lockwasher Frame, Half Geared End	1-.43	4	1-.43	4
51	Frame Half, Geared End	C9261-0150	1	C9261-2000	1
52*	Underbeam Roller	C31454XX	4	C31457XX	4
53	Roller Snap Ring	5100-225	8	5100-250	8

* Hoist Serial Number must be provided for complete part number.

ENGLISH

BOTTOM BLOCK ASSEMBLY – 1.5, 2, 5 & 6 TON

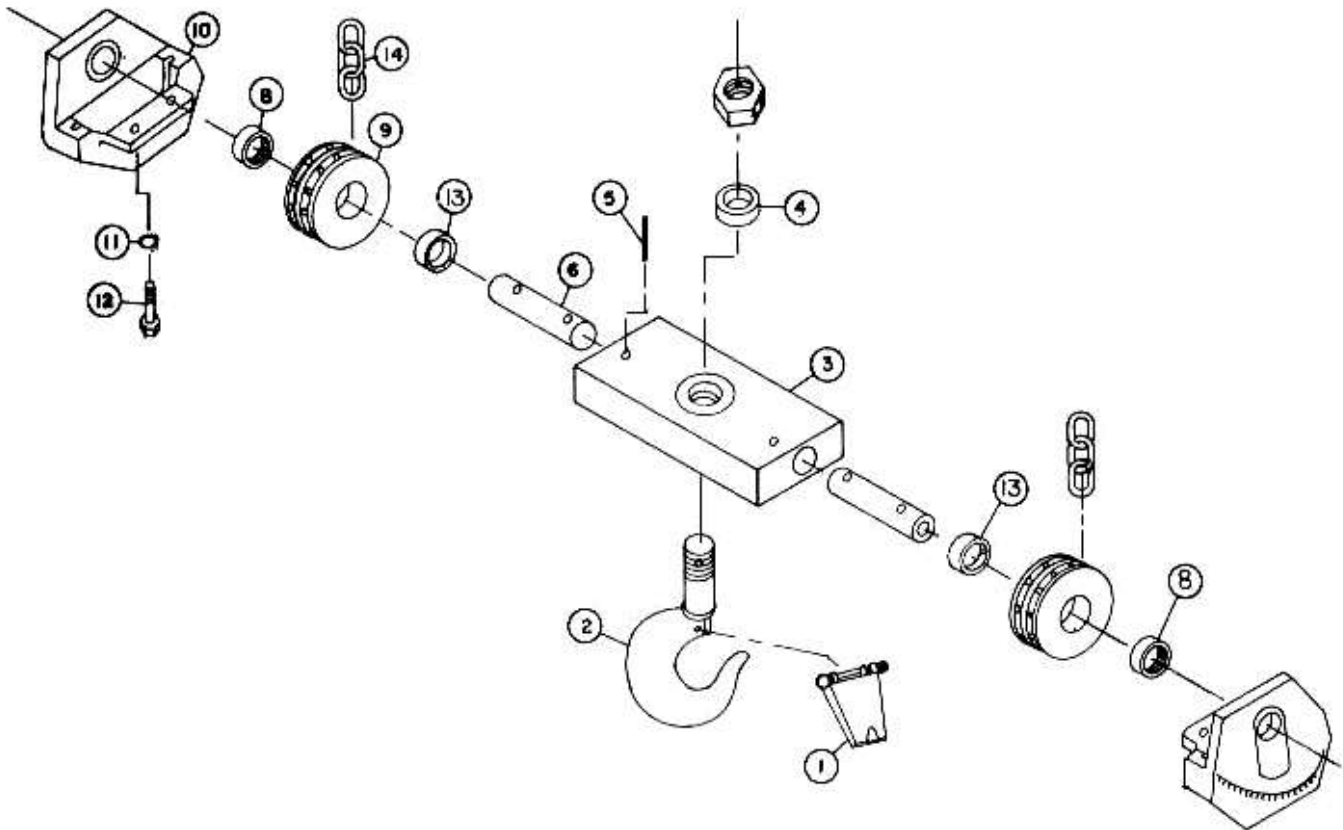


BOTTOM BLOCK ASSEMBLY – 1.5, 2, 5 & 6 TON

PC No.	Description	1.5 Ton		2 Ton		5 Ton		6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Latch Assembly	4X1305	1	4X1305	1	HL10-90107	1	HL10-90107	1
2	Bottom Hook & Nut	C9640-0150	1	C9640-0150	1	C9340-0500	1	C9340-0600	1
3*	Bottom Crosshead	C9352-0150PX	1	C9352-0150PX	1	C9352-0500PX	1	C9352-0500PX	1
4	Thrust Bearing	NTA1423	1	NTA1423	1	C9339-0500	1	C9339-0500	1
5	Drive Pin	126-.31-1.75	2	126-.31-1.75	2	126-.62-2.00	2	126-.62-2.00	2
6	Load Chain, Non-Plated	C38-0050T	2	C38-0050T	2	C38-3T	2	C38-3T	2
6	Load Chain, Zinc plated	C38-0500TZP	2	C38-0500TZP	2	C38-3TZP	2	C38-3TZP	2
6	Load Chain, Stainless Steel	C38-0500ASS	2	C38-0500ASS	2	C38-3BSS	2	C38-3BSS	2

* Hoist Serial Number must be provided for complete part number.

BOTTOM BLOCK ASSEMBLY – 3, 4, 8, 10 & 12 TON



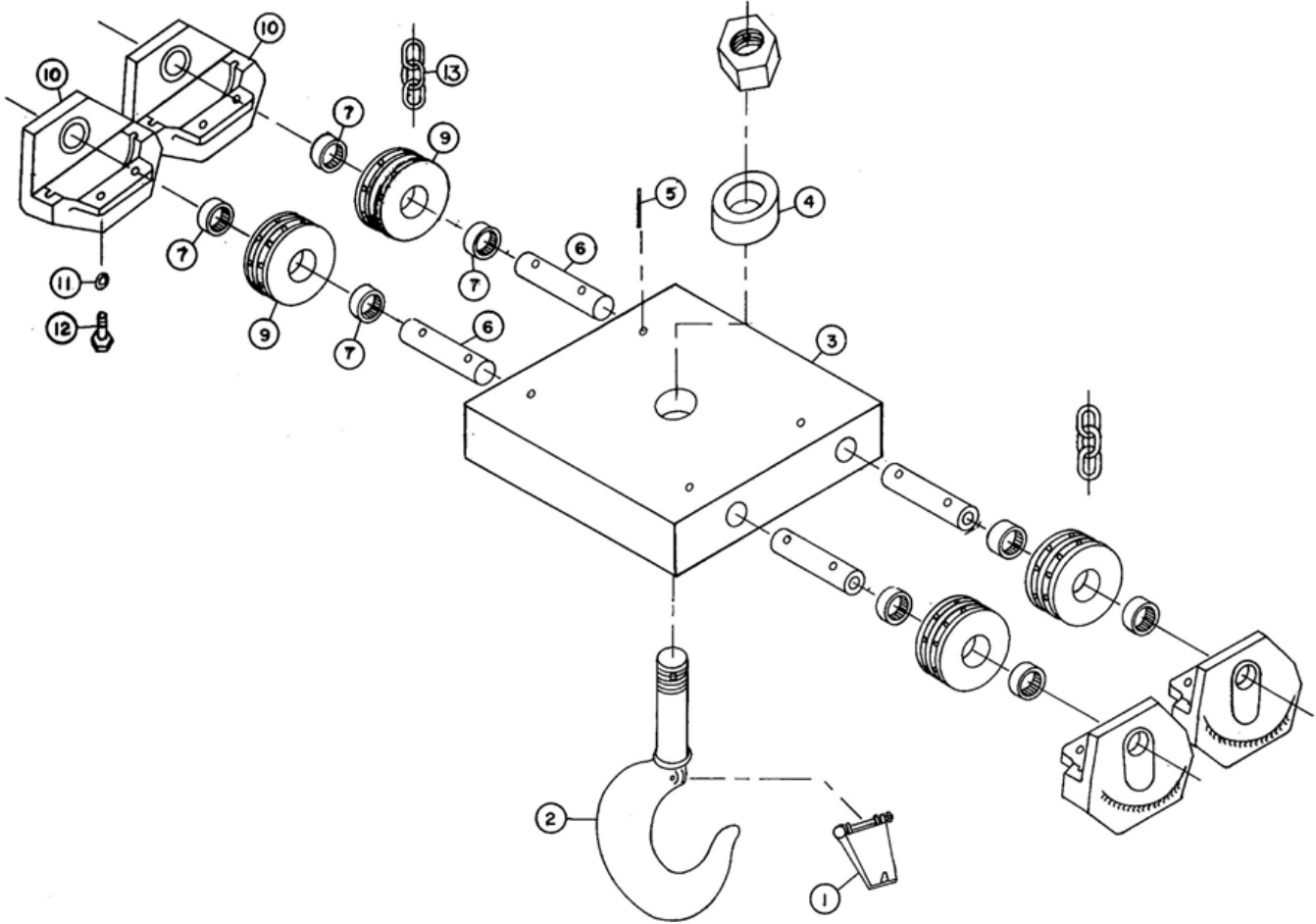
BOTTOM BLOCK ASSEMBLY – 3, 4, 8, 10 & 12 TON

PC No.	Description	3 Ton		4 Ton		8 Ton		10 Ton		12 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Latch Assembly	4X13XX	1	4X1307	1	4X1311	1	4X1315	1	HL10-96657	1
1	Latch Assembly	HL10-90081	1	HL10-90107	1	HL10-90125	1	HL10-90125	1	HL10-90125	1
2	Bottom Hook & Nut	C9640-0300	1	C9640-0400	1	C9640-0800	1	C9640-1000	1	C9640-1200	1
3*	Bottom Crosshead	C9352-0300PX	1	C9352-0400PX	1	C9352-0800PX	1	C9352-1000PX	1	C9352-1000PX	1
4	Thrust Bearing	C9339-0300	1	C9339-0400	1	C9339-0800	1	C9339-1000	1	C9339-1000	1
5	Drive Pin	NONE	0	NONE	0	127-.37-3.0	2	127-.37-3.0	2	127-.37-3.0	2
6	Axle, Bottom Block Idler	NONE	0	NONE	0	C9354-08	2	C9354-10	2	C9354-10	2
8	Bearing Idler Sheave, Bottom Block Idler	GM-2226-020	2	GM2226-020	2	GM2630-028	2	GM3034-032	2	GM3034-032	2
9	Bearing Idler Sheave, Bottom Block Idler	C9356-0300	2	C9356-0300	2	C9356-0800	2	C9356-1000	2	C9356-1000	2
10	Guard, Bottom Idler	C9388-0300	2	C9388-0300	2	C9388-0800	2	C9388-1000	2	C9388-1000	2
11	Lockwasher, Guard	1-.50	4	1-.50	4	1-.62	4	1-.62	4	1-.62	4
12	Bolt, Guard	18-.50-1.75	4	18-.50-1.75	4	18-.62-1.75	4	18-.62-1.75	4	18-.62-1.75	4
13	Bearing Inner Race	IR1816	2	IR1816	2	NONE	0	NONE	0	NONE	0
14	Load Chain, Non-Plated	C38-0500T	2 pc	C38-0500T	2 pc	C938-0200T	2 pc	C38-3T	2 pc	C38-3T	2 pc
14	Load Chain, Zinc plated	C38-0500TZP	2 pc	C38-0500TZP	2 pc	C938-0200TZP	2 pc	C38-3TZP	2 pc	C38-3TZP	2 pc
14	Load Chain, Stainless Steel	C38-0500ASS	2 pc	C38-0500ASS	2 pc	C938-0200SS	2 pc	C38-3BSS	2 pc	C38-3BSS	2 pc

* Hoist Serial Number must be provided for complete part number.

BOTTOM BLOCK ASSEMBLY – 16, 20 & 24 TON

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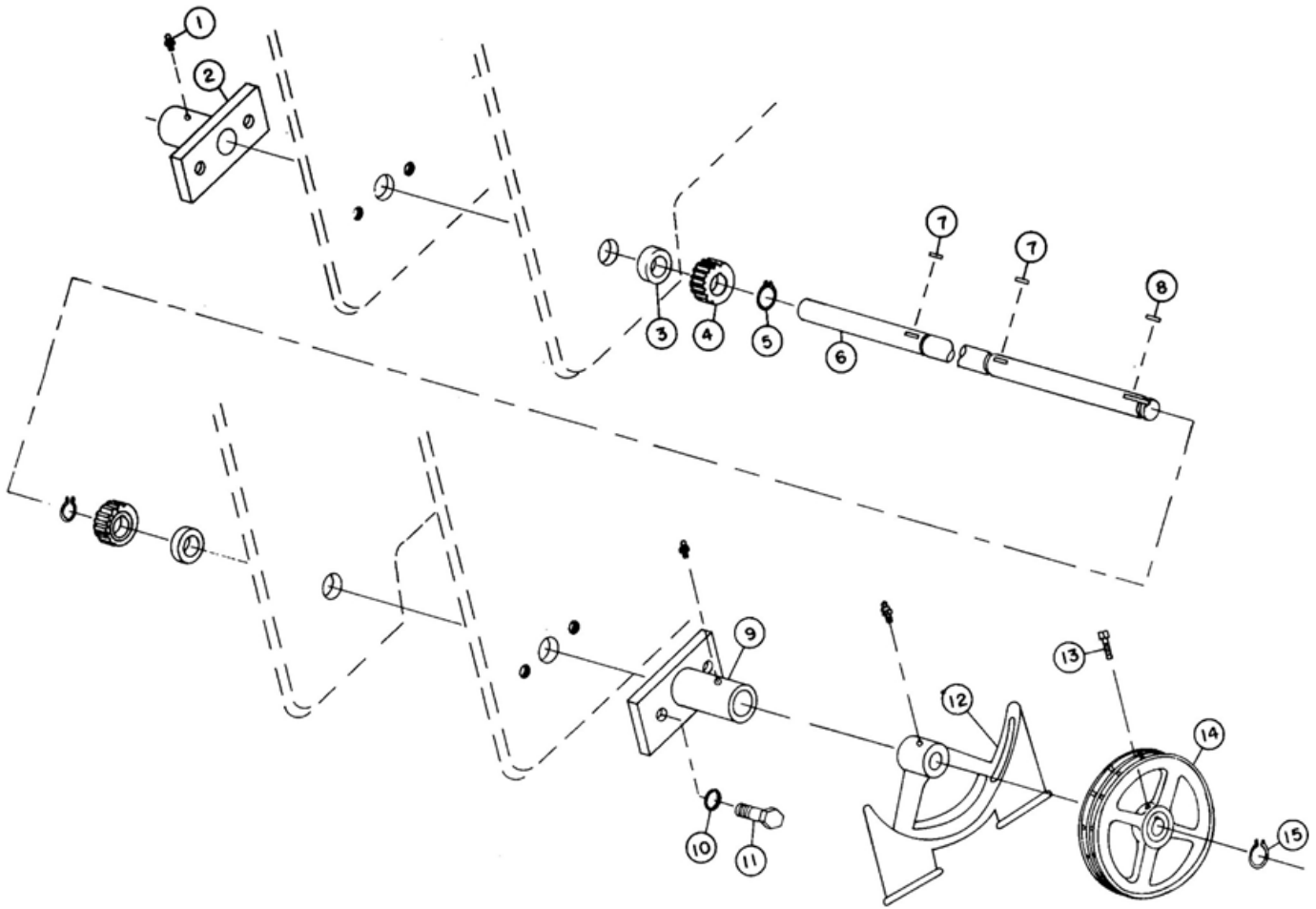


BOTTOM BLOCK ASSEMBLY – 16, 20 & 24 TON

PC No.	Description	16 Ton		20 Ton		24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Latch Assembly	HL10-96704	1	–	1	–	1
1	Latch Assembly	HL10-90143	1	HL10-90161	1	HL10-90161	1
2	Bottom Hook & Nut	C9340-1600	1	C9340-2000	1	C9340-2000	1
3*	Bottom Crosshead	C9352-1600PX	1	C9352-2000PX	1	C9352-2000PX	1
4	Thrust Bearing	C9339-1600	1	C9339-2500	1	C9339-2500	1
5	Drive Pin	127A-.37-3.00	4	133-.37-3.00	4	133-.37-3.00	4
6	Axle, Bottom Block Idler	C9354-0800	4	C9354-1000	4	C9354-1000	4
7	Bearing, Idler	GM2630-028	8	GM3034-032	8	GM3034-032	8
9	Sheave, Bottom Block Idler	C9356-0800	4	C9356-1000	4	C9356-1000	4
10	Guard, Idler Bottom	C9388-0800	4	C9388-1000	4	C9388-1000	4
11	Lockwasher, Guard	1-.62	4	1-.62	4	1-.62	4
12	Bolt, Guard	19-.62-1.75	8	19-.62-1.75	8	19-.62-1.75	8
13	Load Chain, Standard, Non Plated	C938-0200T	2 pc	C38-3T	2 pc	C38-3T	2 pc
13	Load Chain, Zinc Plated	C938-0200TZP	2 pc	C38-3TZP	2 pc	C38-3TZP	2 pc
13	Load Chain, Stainless Steel	C938-0200SS	2 pc	C38-3BSS	2 pc	C38-3BSS	2 pc

* Hoist Serial Number must be provided for complete part number.

TROLLEY DRIVE ASSEMBLY – 1.5, 2, 3, 4, 5, 6 & 8 TON



TROLLEY DRIVE ASSEMBLY – 1.5, 2, 3, 4, 5, 6 & 8 TON

PC No.	Description	1.5 & 2 Ton		3 & 4 Ton		5 & 6 Ton		8 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Lube Fitting	1743B	3	1743B	3	1743B	3	1743B	3
2*	Block, Bearing Short	C906BPX	1	C906BPX	1	C9106-0150P1	1	C9106-0150P1	1
3	Spacer, Pinion	2-1.25	8	2-1.25	8	2-1.25	8	2-1.25	8
4	Gear, Pinion	C39958P2	2	C39959P2	2	C39959P2	2	C39959P2	2
5	Snap Ring, Pinion	5100-87	2	5100-87	2	5100-87	2	5100-87	2
6*	Shaft, Trolley Drive	C9311-0150PX	1	C9311-0150PX	1	C9311-0500PX	1	C9311-0800PX	1
7	Key, Pinion Gear	13-.25-.37	2	13-.25-.37	2	13-.25-.37	2	13-.25-.37	2
8	Key, Handwheel	13-.25-1.50	1	13-.25-1.50	1	13-.25-1.50	1	13-.25-2.0	1
9*	Block, Bearing Long	C906-APX	1	C906-APX	1	C9106-015	1	C9106S-015	1
10	Lockwasher, Brg. Block	1-.31	4	1-.31	4	1-.50	4	1-.50	4
11	Bolt, Bearing Block	19-.31-1.00	4	19-.31-1.00	4	19-.50-1.25	4	19-.50-1.50	4
12*	Guard, Swinging	C9121-0075PX	1	C9121-0075PX	1	C9121-0150PX	1	C9121-0150PX	1
13	Set, Screw, Sq. Head	58-.25-.87	1	58-.25-.87	1	58-.25-.87	1	58-.37-1.25	1
14*	Handwheel	C9120-0075PX	1	C9120-0075PX	1	C9120-0150PX	1	C9120-0150PX	1
15	Snap Ring, Handwheel	5100-87	1	5100-87	1	5100-87	1	5100-87	1

* Hoist Serial Number must be provided for complete part number.

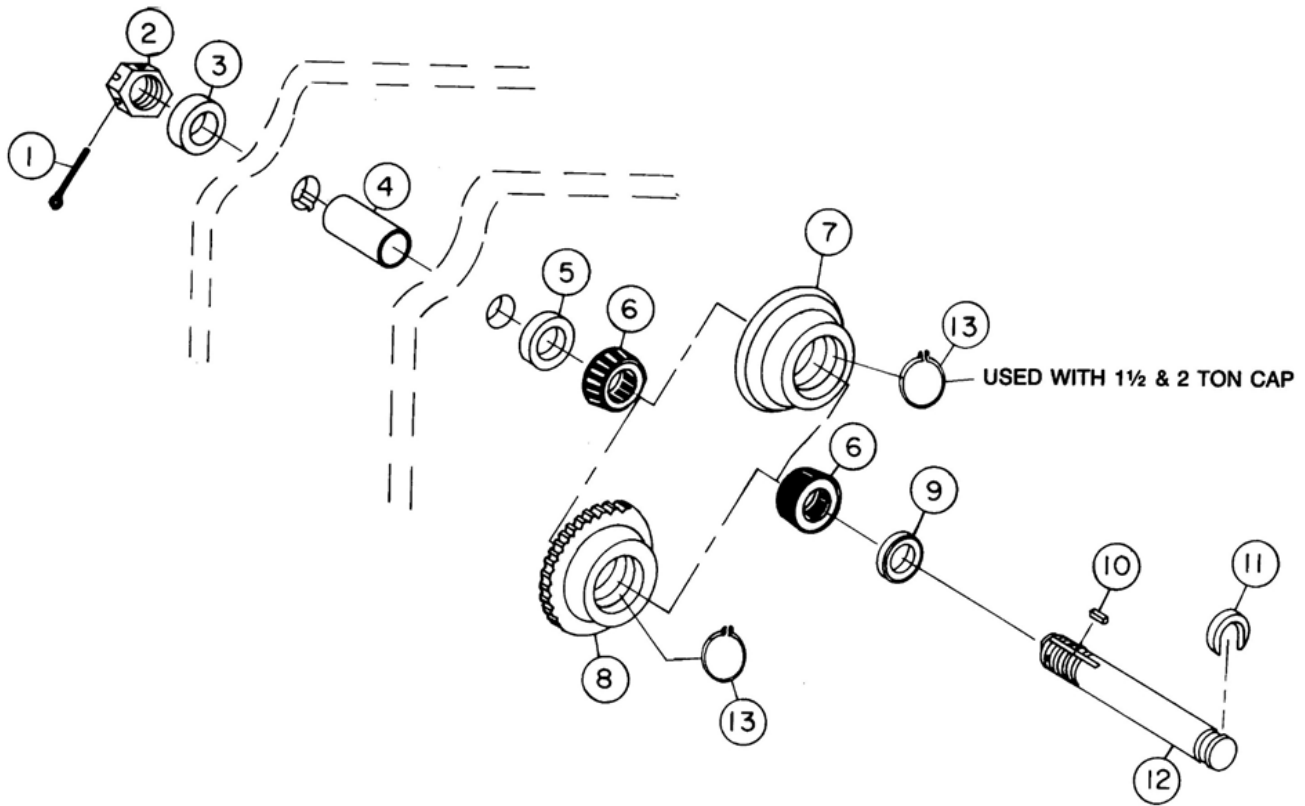
TROLLEY DRIVE ASSEMBLY – 10, 12, 16, 20 & 24 TON

ENGLISH

PC No.	Description	10 & 12 Ton		16 Ton		20 & 24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Lube Fitting	1743B	3	1743B	3	1728B	3
2	Block, Bearing Short	C9106-0150P2	1	C9106-0150P2	1	C9106-0150P3	1
3	Spacer, Pinion	2-1.25	2	2-1.25	2	2-1.37	2
4	Gear, Pinion	C39954P1	2	C39954P2	2	C39954P2	2
5	Snap Ring, Pinion	5100-125	2	5100-125	2	5100-137	2
6*	Shaft, Trolley Drive	C9611-1000PX	1	C9611-1600PX	1	C9611-2000PX	1
7	Key, Pinion Gear	13-.25-.50	2	13-.31-.50	2	13-.31-.50	2
8	Key, Handwheel	13-.31-1.50	1	13-.31-1.50	1	13-.31-1.50	1
9	Block, Bearing Long	C9106-150P2	1	C9106-150P3	1	C9106-150P3	1
10	Lockwasher, Bearing Block	1-.50	4	1-.50	4	1-.50	4
11	Bolt, Bearing Block	19-.50-1.50	4	19-.50-1.50	4	19-.50-1.50	4
12*	Guard, Swinging	C9121-1000PX	1	C9121-1000PX	1	C9121-2500PX	1
13	Set Screw, Square Head	58-.37-1.25	1	58-.37-1.25	1	58-.37-1.25	1
14*	Handwheel	C9120-1000PX	1	C9120-1000PX	1	C9120-2500PX	1
15	Snap Ring, Handwheel	5100-125	1	5100-125	1	5100-137	1

* Hoist Serial Number must be provided for complete part number.

WHEEL ASSEMBLY - 1.5, 2, 3, 4, 5 & 6 TON



WHEEL ASSEMBLY - 1.5, 2, 3, 4, 5 & 6 TON

PC No.	Description	1.5 & 2 Ton		3 & 4 Ton		5 & 6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cotter Pin	NONE	0	NONE	0	NONE	0
2	Nut, Axle	96-.75-2	4	111-1.25-2	4	111-1.25-2	4
3	Spacer, Outboard	3-.75	4	3-1.25	4	3-1.25	4
4	Spacer, Plate	C9307P1	1	C9307P4	1	C9307P7	1
5*	Spacer, Inboard	C9314-0150PX	4	C9314-0300PX	4	C9314-0500PX	4
6	Bearing	C9107-0150	8	C9116-0300	8	C9116-0300	8
7	Wheel, Plain with Bearing Cup	C37002-XX	2	C37003-XX	2	C37004-XX	2
8	Wheel, Geared with Bearing Cup	C37002-XXG	2	C37003-XXG	2	C37004-XXG	2
9	Washer, Axle Cup	C9309-0150	4	C9309-0300	4	C9309-0300	4
10	Key, Axle	13-.18-.31	4	13-.25-.31	4	13-.25-.37	4
11	Washer, Axle "C"	C9308-0150	4	C9308-0300	4	C9308-0300	4
12	Axle	C9310-0150	4	C9310-0300	4	C9310-0500	4
13	Ring, Snap	5000-175	4	NONE	0	NONE	0

* Hoist Serial Number must be provided for complete part number.

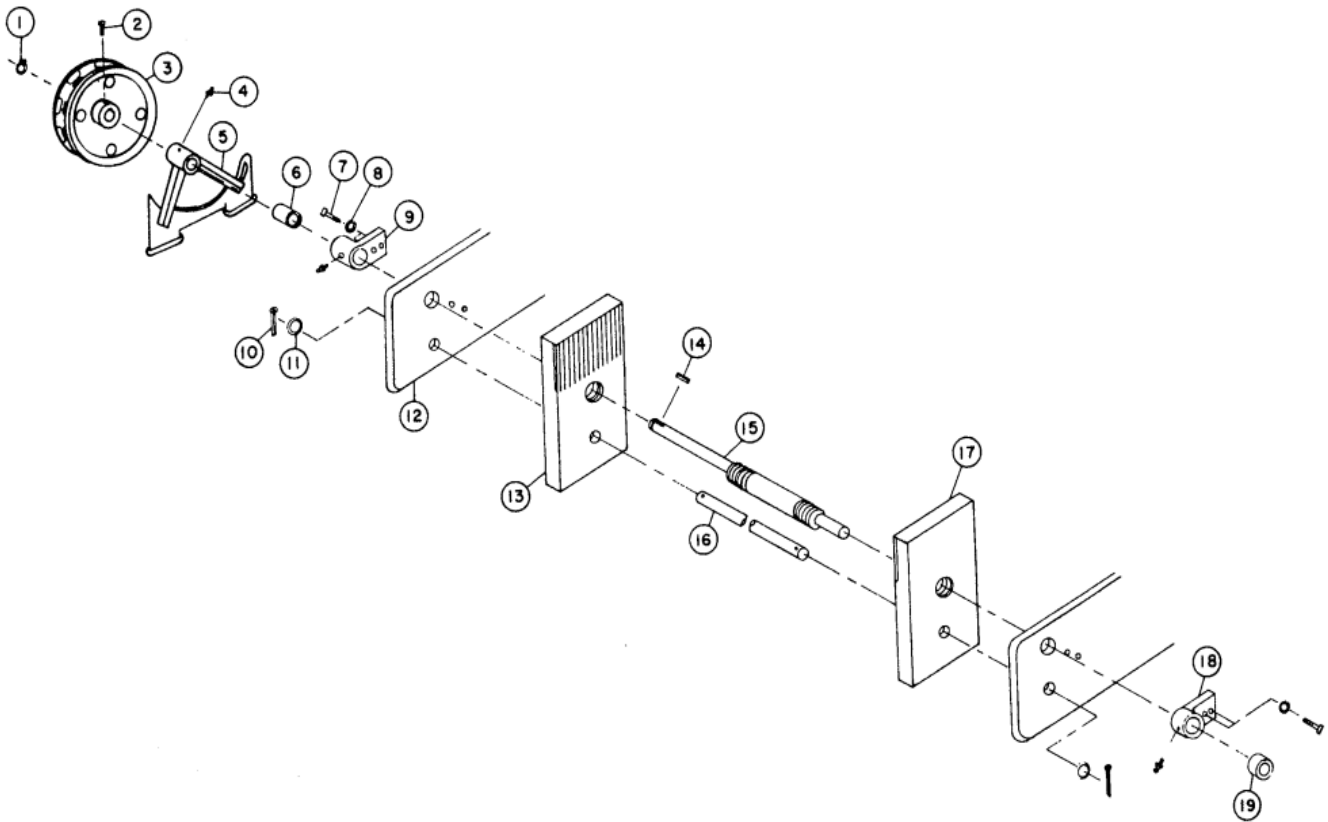
WHEEL ASSEMBLY – 8, 10, 12, 16, 20 & 24 TON

ENGLISH

PC No.	Description	8 Ton		10 & 12 Ton		16 Ton		20 & 24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Cotter Pin	NONE	0	NONE	0	135-.37-4.0	0	135-.37-4.0	0
2	Nut, Axle	111-1.50-2	4	C36623	4	C36623	4	C36623	4
3	Spacer, Outboard	3-1.50	4	C99908	4	C99908	4	C99908	4
4	Spacer, Plate	C9307P8	4	C9307P11	4	C9307P11	4	C9307P11	4
5*	Spacer, Inboard	C9314-0800PX	4	C9314-1000PX	4	C9314-1000PX	4	C9314-1000PX	4
6	Bearing	C9116-0800	8	C9116-1000	8	C9116-1000	8	C9116-1000	8
7*	Wheel, Plain	C37005-XX	2	C37006-XX	2	C37007-XX	2	C37007-XX	2
8*	Wheel, Geared with Brg. Cup	C37005-XXG	2	C37006-XXG	2	C37007-XXG	2	C37007-XXG	2
9	Washer, Axle Cup	C-9309-0800	4	C-9309-1000	4	C-9309-1 000	4	C-9309-1000	4
10	Key, Axle	13-.31-.31-.50	4	13-.31-.31-.50	4	13-.37-.37-.75	4	13-.37-.37-.75	4
11	Washer, Axle "C"	C-9308-0800	4	C-9308-1 000	4	C-9308-1600	4	C-9308-1600	4
12	Axle	C-9310-0800	4	C-9310-1000	4	C-9310-1600	4	C-9310-2000	4
13	Ring, Snap	NONE	0	NONE	0	NONE	0	NONE	0

* Hoist Serial Number must be provided for complete part number.

TRACK CLAMP ASSEMBLY – 1.5, 2, 3, 4, 5 & 6 TON



TRACK CLAMP ASSEMBLY – 1.5, 2, 3, 4, 5 & 6 TON

PC No.	Description	1.5 & 2 Ton		3 & 4 Ton		5 & 6 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Snap Ring, Handwheel	5100-87	1	5100-87	1	5100-87	1
2	Set Screw, Square Head	58-.25-.87	1	58-.25-.87	1	58-.25-.87	1
3*	Handwheel	C9120-0075PX	1	C9120-0075PX	1	C9120-0100PX	1
4	Lube Fitting	1743B	3	1743B	3	1743B	3
5*	Guard, Swinging	C9121-0075PX	1	C9121-0075PX	1	C9121-0100PX	1
6	Bushing, Bearing Block	NONE	0	NONE	0	NONE	0
7	Bolt, Bearing Block	19-.31-1.00	4	19-.31-1.00	4	19-.31-1.00	4
8	Lockwasher, Bearing Block	1-.31	4	1-.31	4	1-.31	4
9*	Block, Bearing	C906BX	1	C906BX	1	C906BX	1
10	Cotter Pin	128-.18-1.00	2	128-.18-1.00	2	128-.18-1.00	2
11	Washer, Guide Pin	3-.62	2	3-.62	2	3-.75	2
12	Side Plate	C40985	2	C40985	2	LHTC153B05	2
13	Jaw, Left Hand	LHTC150L0150	1	LHTC150L03	1	LHTC150L05	1
14	Key, Handwheel	13-.25-1.00	1	13-.25-1.50	1	13-.25-1.50	1
15*	Screw, Track Clamp	LHTC151-0150PX	1	LHTC15103	1	LHTC15105	1
16*	Pin, Guide	C42888PX	1	C42888PX	1	LHTC15205	1
17	Jaw, Right Hand	LHTC150R0150	1	LHTC150R0150	1	LHTC150R05	1
18*	Block, Bearing	C906BPX	1	C906BPX	1	C906BPX	1
19	Bushing, Bearing Block Short	NONE	0	NONE	0	NONE	0

* Hoist Serial Number must be provided for complete part number.

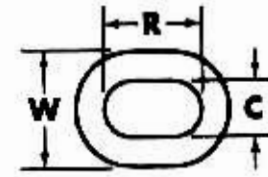
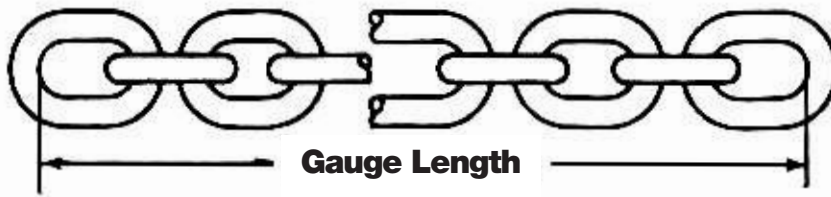
TRACK CLAMP ASSEMBLY – 8, 10, 12, 16, 20 & 24 TON

ENGLISH

PC No.	Description	8 Ton		10 & 12 Ton		16 Ton		20 & 24 Ton	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1	Snap Ring, Handwheel	5100-87	1	5100-87	1	5100-87	1	5100-87	1
2	Set Screw, Square Head	58-.25-.87	1	58-.25-.87	1	58-.37-1.25	1	58-.25-.87	1
3	Handwheel	C9120-0100P	1	C9120-0100P	1	C-9120-0100P	1	C9120-0100P	1
4	Lube Fitting	1743B	1	1743B	1	1792B	1	1743B	1
5*	Guard, Swinging	C9121-0100PX	1	C9121-0100PX	1	C9121-0100PX	1	C9121-0100PX	1
6	Bushing, Bearing Block	SS3236-32	2	SS2832-16	2	SS4048-16	2	SS3236-16	2
7	Bolt, Bearing Block	19-.50-1.25	4	19-.62-1.5	4	NONE	4	19.62-1.25	4
8	Lockwasher, Bearing Block	1-.50	4	1-.62	4	NONE	4	1-.62	4
9	Block, Bearing Long	LHTC153LA0800	1	LHTC153WA1000	1	NONE	1	LHTC153WL2400	1
10	Cotter Pin	NONE	0	NONE	0	128-.25-1.75	2	NONE	2
11	Washer, Guide Pin	NONE	0	NONE	0	2-1.0	2	NONE	2
12*	Side Plate	LHTC153-0800B	2	LHTC153B1000	2	LHTC153B1600X	2	LHTC153-2400	2
13	Jaw, Left Hand	LHTC150-0800L	1	LHTC150-1000L	1	C43189L	1	LHTC-150-2400L	1
14	Key, Handwheel	13-.25-1.50	1	13-.25-1.50	1	13-.25-1.50	1	13-.25-1.50	1
15*	Screw, Track Clamp	LHTC151-0800PX	1	LHTC152S-1000X	1	LHTC151-16PX	1	C151-2400PX	1
16*	Pin, Guide	LHTC152-0800PX	1	LHTC152-1000X	1	LHTC152-16PX	1	LHTC152-2400PX	1
17	Jaw, Right Hand	LHTC150-0800R	1	LHTC150-1000R	1	C43189R	1	LHTC150-2400R	1
18	Block, Bearing Short	LHTC153SA0800	1	LHTC153SA1000	1	NONE	1	LHTC153WS2400	1
19	Bushing, Bearing Block Short	SS3236-24	1	SS2832-24	1	SS4048-16	1	SS3236-32	1

* Hoist Serial Number must be provided for complete part number.

CHAIN SPECIFICATIONS



ENGLISH

Load Chain							
Capacity	Cat. No.	Chain Size	C	W	R	Gauge Length	Net Weight
1.5, 2, 3, & 4 Ton	C-38-1/2A	9/32"	0.313	0.876	0.794	25 Links: 19.925"	.75 lbs, ft
8 & 16 Ton	C-938-2	3/8"	0.466	1.216	1.147	13 Links: 15.015"	1.23 lbs, ft
5, 6, 10, 12, 20 & 24 Ton	C-38-3	17/32"	0.656	1.75	1.571	11 Links: 17.281"	2.90 lbs, ft
Hand Chain							
All Capacities	C-937	15/54"	0.347	0.816	1.056	19 Links: 20.064"	.46 lbs, ft

WARRANTY

LIMITATION OF WARRANTIES, REMEDIES AND DAMAGES

INDEMNIFICATION AND SAFE OPERATION

Buyer shall comply with and require its employees to comply with directions set forth in instructions and manuals furnished by Seller and shall use and require its employees to follow such instructions and manuals and to use reasonable care in the use and maintenance of the Goods and any Replacement Parts. Buyer shall not remove or permit anyone to remove any warning or instruction signs on the Goods or Replacement Parts. In the event of personal injury or damage to property or business arising from the use of the Goods or Replacement Parts, Buyer shall within 48 hours thereafter give Seller written notice of such injury or damage. Buyer shall cooperate with Seller in investigating any such injury or damage and in the defense of any claims arising therefrom.

If Buyer fails to comply with this section or if any injury or damage is caused, in whole or in part, by Buyer's failure to comply with applicable federal or state laws, rules or regulations safety requirements, Buyer shall indemnify and hold Seller harmless against any claims, loss or expense for injury or damage arising from the use of the Goods and/or Replacement Parts.

CMCO Warranty (HOISTS)

- A. Columbus McKinnon Corporation ("Seller") warrants to the original end user ("Buyer") that, for a period of one (1) year from the date of Seller's delivery of the goods (collectively, the "Goods") to the carrier, the Goods will be free from defects in workmanship and materials. . In addition, Seller warrants to Buyer that, for a period of one (1) year from the date of their delivery by Seller to the carrier, any aftermarket or replacement parts, accessories or components purchased by Buyer with respect to any Goods (collectively, "Replacement Parts") will be free from defects in workmanship and materials.
- B. IN THE EVENT OF ANY BREACH OF ANY SUCH WARRANTY, SELLER'S SOLE OBLIGATION SHALL BE EXCLUSIVELY LIMITED TO, AT THE OPTION OF SELLER, REPAIR OR REPLACEMENT, F.O.B. SELLER'S POINT OF SHIPMENT, OF ANY GOODS OR REPLACEMENT PARTS THAT SELLER DETERMINES TO HAVE BEEN DEFECTIVE OR, IF SELLER DETERMINES THAT SUCH REPAIR OR REPLACEMENT IS NOT FEASIBLE, TO A REFUND OF THE PURCHASE PRICE UPON RETURN OF THE OR REPLACEMENT PARTS TO SELLER. NO CLAIM AGAINST SELLER FOR ANY BREACH OF (i) SUCH WARRANTY WITH RESPECT TO THE ELECTRICAL COMPONENTS OF ANY GOOD OR ANY REPLACEMENT PARTS, SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE OF SELLER'S DELIVERY TO THE CARRIER AND (ii) SUCH WARRANTY WITH RESPECT TO THE MECHANICAL COMPONENTS OF ANY GOOD SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE (1) YEAR FROM THE DATE THE DATE ANY ALLEGED CLAIM ACCRUES. EXCEPT FOR THE WARRANTIES SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES WITH RESPECT TO THE GOODS OR ANY REPLACEMENT PARTS, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUALITY AND/OR THOSE ARISING BY STATUTE OR OTHERWISE BY LAW OR FROM ANY COURSE OF DEALING OR USE OF TRADE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.

- C. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY THIRD PARTY WITH RESPECT TO ANY GOOD OR REPLACEMENT PART, WHETHER IN CONTRACT, TORT OR OTHER THEORY OF LAW, FOR LOSS OF PROFITS OR LOSS OF USE, OR FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, DIRECT OR INDIRECT DAMAGES, HOWSOEVER CAUSED. SELLER'S MAXIMUM LIABILITY TO BUYER WITH RESPECT TO THE GOODS OR ANY REPLACEMENT PART SHALL IN NO EVENT EXCEED THE PRICE PAID BY BUYER FOR THE GOODS OR REPLACEMENT PART THAT ARE THE SUBJECT OF THE APPLICABLE CLAIM.
- D. Seller shall not be liable for any damage, injury or loss arising out of the use of the Goods or any Replacement Part if, prior to such damage, injury or loss, such Goods or Replacement Parts are: (1) damaged or misused following Seller's delivery to the carrier; (2) not maintained, inspected, or used in compliance with applicable law and Seller's written instructions and recommendations; or (3) installed, repaired, altered or modified (a) with any part or accessory other than those supplied by Seller or (b) without compliance with such laws, instructions or recommendations.
- E. This warranty is limited and provided only to the original end user. **Each Good and Replacement Part must be registered within sixty (60) days of receipt of each product to establish eligibility.** Please register at www.cmworks.com/hoist-warranty-registration or submit registration card via US mail.
- F. Any action against Seller for breach of warranty, negligence or otherwise in connection with the electrical components of any Good must be commenced by Buyer within one (1) year after: (a) the date any alleged claim accrues; or (b) the date of delivery of the Goods to Buyer, whichever is earlier. Any action against Seller for breach of warranty, negligence or otherwise in connection with the mechanical components of any Good must be commenced by Buyer within one (1) year after the date any alleged claim accrues. . Any action against Seller for breach of warranty, negligence or otherwise in connection with any Replacement Part must be commenced by Buyer within one (1) year after: (y) the date any alleged claim accrues; or (z) the date of delivery of the Replacement Part to Buyer, whichever is earlier.
- G. This warranty is contingent upon Buyer's proper maintenance and care of the Goods and/or Replacement Parts, and does not extend to normal wear and tear. Seller reserves the right, at its option, to void this warranty in the event of Buyer's use with the Goods and/or Replacement Parts of parts or accessories other than those supplied by Seller.

WARNING

Alterations or modifications of equipment and use of non-Seller replacement parts can lead to dangerous operation and injury.

TO AVOID INJURY:

- Do not alter or modify equipment.
- Do use only replacement parts manufactured by Seller.



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