

Acco[®] WRIGHT[®]

model 80 trolleys
product series 161

installation
operation
maintenance
and parts
manual

PRODUCT NUMBER

⚠ WARNING

This equipment should not be installed, operated or maintained by any person who has not read all the contents of these instructions. Failure to read and comply with these instructions or any one of the limitations noted herein can result in serious bodily injury or death, and/or property damage.

There are no other warranties which extend beyond the description on the Order Acknowledgment and as it may apply to the specifications provided in this publication. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. Acco shall in no event be liable for any special, direct, indirect, incidental or consequential damages to anyone beyond the cost of replacement of the goods sold hereby.

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NOTICE

Manual 71053 covers installation, operation, maintenance, and parts information in reference to WRIGHT® Model 80 Trolleys, Product Series 161. This manual includes instructions and parts information for a variety of trolley types and sizes. Therefore, all instructions and parts information may not apply to any one type or size of specific trolley. Disregard those portions of the instructions and parts information that do not apply. NOTE: Manual 71053 replaces previous manuals 58666, 58667, and 58668.

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NOTICE

TO ORDER PARTS: Provide part number, part description, quantity required, and Product Number of Trolley.

IMPORTANT INFORMATION AND WARNINGS

SAFETY ALERT SYMBOL

The Safety Alert Symbol is used in this manual to indicate hazards and to alert the reader to information that should be known, understood, and followed in order to avoid DEATH or SERIOUS INJURY.

Read and understand this manual before using the trolley.

Important issues to remember during operation are provided in the manuals by DANGER, WARNING, or CAUTION instructions or placards, that alert personnel to potential hazards, proper operation, load limitations, and more.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

CAUTION

These general instructions deal with the normal installation, operation, inspection, and maintenance situations encountered with the equipment described herein. The instructions should not be interpreted to anticipate every possible contingency or to anticipate the final system, crane, or configuration that uses this equipment.

This manual includes instructions and parts information for a variety of trolley types and sizes. Therefore, all instructions and parts information may not apply to any one type or size of specific trolley. Disregard those portions of the instructions that do not apply.

Record trolley product number and/or serial number of hoist suspended from the trolley on the front cover of this manual for identification and future reference to avoid referring to the wrong manual for information or instructions on installation, operation, inspection, maintenance, or parts.

Use only WRIGHT® authorized replacement parts in the service and maintenance of this trolley.

WARNING

Equipment described herein is not designed for and should not be used for lifting, supporting, or transporting humans.

Equipment described herein should not be used in conjunction with other equipment unless necessary and/or required safety devices applicable to the system, crane, or application are installed by the system designer, system manufacturer, crane manufacturer, installer, or user.

Modifications to upgrade, rerate, or otherwise alter this equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Equipment described herein may be used in the design and manufacture of hoists, cranes or monorails. Additional equipment or devices may be required for the hoist, crane or monorail to comply with applicable hoist or crane design and safety standards. The hoist designer, hoist manufacturer, crane designer, crane manufacturer, or user is responsible to furnish these additional items for compliance. Refer to ASME B30.16, Safety Standard for Overhead Hoists (Underhung); ASME B30.17, Safety Standard for Top-Running Single-Girder Cranes; ASME B30.2 Safety Standard for Top-Running Double-Girder Cranes; and ASME B30.11 Safety Standard for Underhung Cranes and Monorails. If a below-the-hook lifting device or sling is used with a hoist, refer to ASME B30.9, Safety Standard for Slings, or ASME B30.20, Safety Standard for Below-the-Hook Lifting Devices.

Hoists, trolleys, and cranes used to handle hot molten material may require additional equipment or devices. Refer to ANSI Z241.2, Safety Requirements for Melting and Pouring of Metals in the Metalcasting Industry.

Only trained and competent personnel should inspect and repair this equipment.

Failure to read and comply with any one of the limitations noted herein can result in serious bodily injury or death, and/or property damage.

IMPORTANT INFORMATION AND WARNINGS

NOTICE

It is the responsibility of the owner/user to install, inspect, test, maintain, and operate a hoist or trolley in accordance with ASME B30.16, Safety Standard for Overhead Hoists, and OSHA Regulations. If the hoist or trolley is installed as part of a total lifting system, such as an overhead crane or monorail, it is also the responsibility of the owner/user to comply with the applicable ASME B30 volume that addresses that type of equipment.

It is the responsibility of the owner/user to have all personnel that will install, inspect, test, maintain, and operate a hoist or trolley read the contents of this manual and applicable portions of ASME B30.16, Safety Standard for Overhead Hoists, and OSHA Regulations. If the hoist or trolley is installed as part of a total lifting system, such as an overhead crane, the applicable ASME B30 volume that addresses that type of equipment must also be read by all personnel.

Any ANSI Standards referenced in this manual may be obtained from the American National Standards Institute, 1430 Broadway, New York, New York 10018.

This manual contains information for safe operation of an overhead trolley used with a hoist. Taking precedence over any specific rule, however, is the most important rule of all - "USE COMMON SENSE." Operation of an overhead hoist or trolley involves more than operating the controls. The operator must consider and anticipate the motions and actions that will occur as a result of operating the controls.

If the hoist or trolley owner/user requires additional information, or if any information in the manual is not clear, contact Acco Chain & Lifting Products, York, Pennsylvania or the distributor of the hoist or trolley. Do not install, inspect, test, maintain, or operate this trolley unless this information is fully understood.

When contacting Acco Chain & Lifting Products or the distributor of the trolley, always make reference to the product number of the trolley.

A regular schedule of inspection of the hoist or trolley in accordance with the requirements of ASME B30.16 should be established and records maintained.

WARNING

Follow maintenance procedures outlined in this manual and applicable ASME B30 volumes.

Additional WARNINGS are listed in various portions of this manual. Personnel shall read and follow these WARNINGS. Failure to read and comply with these WARNINGS as well as other instructions or any limitations noted in this manual and applicable ASME B30 volumes could result in serious bodily injury or death, and/or property damage.

MODEL 80 TROLLEY TYPES

WRIGHT® Model 80 trolleys are for use with hook-suspended hand chain-operated hoists or hook-suspended electric-powered or air-powered hoists. WRIGHT® Model 80 trolleys are available in various sizes and configurations.

Plain trolley types are shown in Table 1. Plain trolley motion is obtained by pushing or pulling the trolley or load for appropriate load placement. Plain trolleys are recommended where trolley motion is infrequent or for a relatively short travel distance.

Hand chain-operated geared trolley types are shown in Table 2. Hand chain-operated geared trolley motion is obtained by pulling a hand chain reeved over a handwheel. The handwheel turns a pinion that meshes with gear teeth machined on the flanges of two of the four trolley wheels. Hand chain-operated geared trolleys provide precision load spotting ability. Hand chain-operated geared trolleys are recommended for loads over three tons capacity and in applications where the operating beam or monorail is over 16 feet above the ground or operating floor.

Trolley wheels must have an operating tread compatible with the flange of the beam where the trolley will be installed. Trolley wheels on trolley units up to and including 2 tons capacity have a dual tread and will operate on standard S-shapes having 9½° slope flanges or W-shapes having flat flanges. Trolley wheels on trolley units of 3 tons capacity or greater have a tapered tread to operate on standard S-shapes having 9½° slope flanges; or have a flat tread to operate on W-shapes having flat flanges. Each WRIGHT® Model 80 trolley product number will operate on beam flange surface types as shown in Tables 1 and 2. Check to verify that the WRIGHT® Model 80 trolley selected can operate on the flange surface of the beam where the trolley will be installed.

Each WRIGHT® Model 80 trolley product number is adjustable to operate on a range of beam flange widths as shown in Tables 1 and 2. Check to verify that the WRIGHT® Model 80 trolley selected can be adjusted to fit on the flange width of the beam where the trolley will be installed.

TABLE 1
WRIGHT® MODEL 80 PLAIN TROLLEY TYPES

PRODUCT NUMBER	CAPACITY (TONS)	OPERATING BEAM FLANGE TYPE	OPERATING BEAM FLANGE WIDTH RANGE
1610000	½ - 1	Sloped / Flat	3.00 - 5.62
1610010	½ - 1	Sloped / Flat	4.25 - 6.62
1610020	1-½ - 2	Sloped / Flat	3.25 - 7.00
1610030	1-½ - 2	Sloped / Flat	5.00 - 8.62
1610040	3 - 4	Sloped	4.00 - 6.50
1610100	3 - 4	Flat	4.00 - 6.50
1610050	3 - 4	Sloped	6.50 - 9.00
1610110	3 - 4	Flat	6.50 - 9.00
1610060	5 - 6	Sloped	4.62 - 7.12
1610120	5 - 6	Flat	4.62 - 7.12
1610070	5 - 6	Sloped	7.25 - 9.75
1610130	5 - 6	Flat	7.25 - 9.75
1610080	8 - 10	Sloped	5.00 - 7.25
1610140	8 - 10	Flat	5.00 - 7.25
1610090	8 - 10	Sloped	7.50 - 9.75
1610150	8 - 10	Flat	7.50 - 9.75

MODEL 80 TROLLEY TYPES

TABLE 2
WRIGHT® MODEL 80 HAND CHAIN-OPERATED GEARED TROLLEY TYPES

PRODUCT NUMBER	CAPACITY (TONS)	OPERATING BEAM FLANGE TYPE	OPERATING BEAM FLANGE WIDTH RANGE
1610160	½ - 1	Sloped / Flat	3.00 - 5.00
1610170	½ - 1	Sloped / Flat	4.25 - 6.00
1610180	1-½ - 2	Sloped / Flat	3.25 - 6.38
1610190	1-½ - 2	Sloped / Flat	5.00 - 8.00
1610200	3 - 4	Sloped	4.00 - 6.50
1610260	3 - 4	Flat	4.00 - 6.50
1610210	3 - 4	Sloped	6.50 - 9.00
1610270	3 - 4	Flat	6.50 - 9.00
1610220	5 - 6	Sloped	4.62 - 7.12
1610280	5 - 6	Flat	4.62 - 7.12
1610230	5 - 6	Sloped	7.25 - 9.75
1610290	5 - 6	Flat	7.25 - 9.75
1610240	8 - 10	Sloped	5.00 - 7.25
1610300	8 - 10	Flat	5.00 - 7.25
1610250	8 - 10	Sloped	7.50 - 9.75
1610310	8 - 10	Flat	7.50 - 9.75

WARNING

DO NOT INSTALL OR ADAPT TROLLEYS TO BEAMS HAVING FLANGES WIDER THAN SHOWN IN TABLES 1 AND 2. SUCH APPLICATIONS REQUIRE ADDITIONAL ENGINEERING AND PARTS AS AUTHORIZED BY ACCO CHAIN & LIFTING PRODUCTS. INSTALLATION OR ADAPTATION TO BEAMS HAVING FLANGES WIDER THAN SHOWN IN TABLES 1 AND 2 WITHOUT AUTHORIZATION AND APPROVAL BY ACCO CHAIN & LIFTING PRODUCTS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

Top hooks of hook-suspended hand chain-operated hoists or hook-suspended electric-powered or air-powered hoists that will be used with WRIGHT® Model 80 trolleys must fit in the clevis suspension of the WRIGHT® Model 80 trolley selected. The hoist top hook must fit in the trolley clevis such that the hoist can freely rotate about the top hook. Refer to WRIGHT® Model 80 trolley catalog specifications and verify that the trolley clevis and hoist top hook will be compatible for proper operation.

INSTALLATION

PRIOR TO INSTALLING TROLLEY:

1. Read and observe the instructions and warnings contained in this manual. Read and observe any instructions and warning tags attached to the trolley.
2. Check for any damage to the trolley during shipment. If any damage has occurred, place a claim with the carrier. DO NOT install a damaged trolley.
3. Check that the crane, monorail, or other supporting structure where the trolley will be installed has a load rating capable to handle loads equal to the rated load capacity of the trolley.
4. Check that the trolley to be installed has a load rating capable to handle loads equal to the rated load capacity of the hoist or other device that will be suspended from the trolley.
5. Check that the trolley to be installed has trolley wheels with an operating tread compatible with the flange of the beam where the trolley will be installed. Refer to the MODEL 80 TROLLEY TYPES section of this manual.
6. Check that the crane bridge beam or monorail beam where the trolley is to be installed is level, straight, and clean. Check that trolley stops are installed, or install trolley stops, at the open end or ends of the beam to prevent the trolley from traveling off the beam. Trolley stops that engage trolley wheels are not recommended. Check that trolley stops will prevent overhanging parts of the hoist suspended from the trolley from interfering with other equipment beyond the ends of the beam or monorail.
7. If trolley is to be installed on an existing crane, the crane should be run to a location where it will cause the least interference with other cranes and operations in the area; and, if electric powered, all controllers placed in the off position.
8. Warning signs and barriers shall be utilized on the floor beneath the crane or area where the trolley will be installed.

DANGER

IF THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS TO BE INSTALLED IS ELECTRIC POWERED; THE MAIN SWITCH (DISCONNECT) SUPPLYING POWER TO THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS TO BE INSTALLED, SHALL BE DE-ENERGIZED. LOCK AND TAG THE MAIN SWITCH IN THE DE-ENERGIZED POSITION IN ACCORDANCE WITH ANSI Z244.1.

9. If the trolley is to be installed on an existing crane, and the crane runway remains energized or has other cranes operating on the same runway; stops or a signal person(s), located full-time at a visual vantage point for observing the approach an active crane(s), shall be provided to prohibit contact by the active crane(s) with the idle crane.
10. If personnel will be required to work on the runway during installation, a guard or barrier shall be installed between adjacent runways for the length of the established work area to prevent contact between persons performing installation and a crane on the adjacent runway.
11. If personnel are required to work at elevations in excess of 6 feet above floor or ground level, a fall prevention policy and procedure shall be developed, documented, and implemented prior to installation being started.

INSTALLING TROLLEY:

Refer to Figure 1 for trolleys having capacities of 1/2 through 2 tons; Figure 2 for trolleys having capacities of 3 and 4 tons; or Figure 3 for trolleys having capacities of 5 through 10 tons. Dimensions shown in Figure 1 apply to hand chain-operated geared trolleys. For plain trolleys, the 1-3/16 inch dimension in Figure 1 will be 9/16 inch. Dimensions shown in Figures 2 and 3 apply to both plain and hand chain-operated geared trolleys. In Figures 1, 2, and 3, equalizing washers are arranged as the trolley is normally supplied for the minimum beam flange width with one washer at each POSITION B and POSITION C; and the remainder of the washers equally divided between POSITIONS A and D. For other beam flange widths, determine quantity of washers at each position as follows:

INSTALLATION

FIGURE 1
1/2 THROUGH 2 TONS

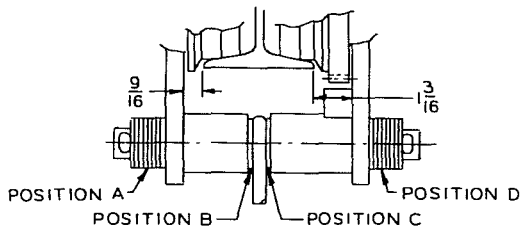


FIGURE 3
5 THROUGH 10 TONS

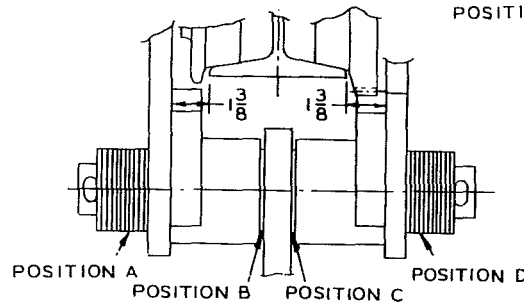
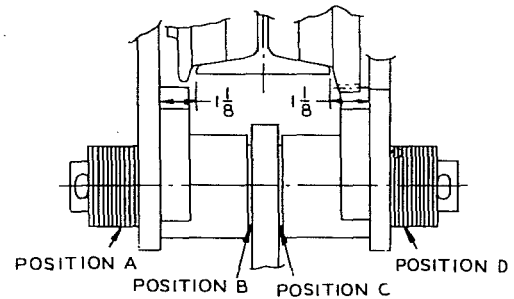
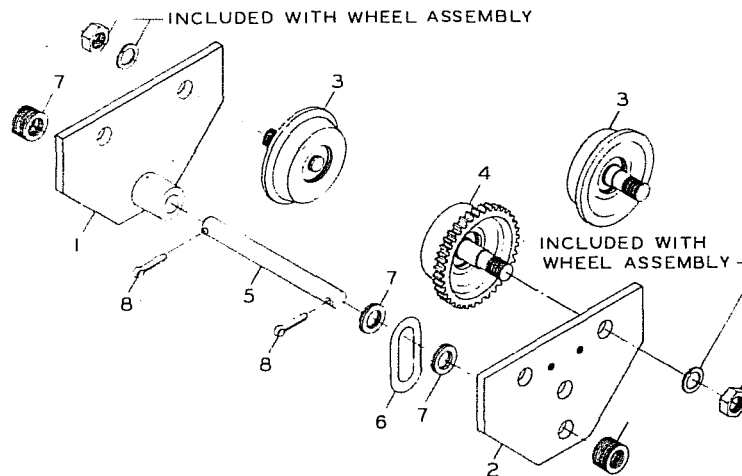


FIGURE 2
3 AND 4 TONS



1. If the trolley is to be installed on the minimum flange width for the capacity of the trolley and the end of the beam where the trolley is to be installed is open, the trolley can be positioned and pushed into place on the beam flange.
2. If the trolley must be adjusted for a different beam flange width or disassembled in order to install on the beam, remove one cotter pin (item 8 in Figure 4) and slide equalizing pin (item 5 in Figure 4) out of sideplate units (items 1 and 2 of Figure 4), equalizing washers (item 7 of Figure 4), and suspension clevis (item 6 of Figure 4).

FIGURE 4



3. Measure the flange width of the beam where the trolley will be installed.
4. Subtract from the measurement made in step 3 the width of the minimum flange width for the capacity of the trolley being installed from Table 1 or Table 2 in the MODEL 80 TROLLEY TYPES section of this manual.
5. Make two stacks of washers, each stack equal to half the difference calculated in step 4. One stack is for POSITION B and one stack is for POSITION C. When the number of total washers is odd, place the odd or extra washer at POSITION B.
6. Distribute the remaining washers as follows: One half of remaining washers at POSITION A and one-half of remaining washers at POSITION D. If the number of total remaining washers is odd, place the odd or extra washer at POSITION D.

INSTALLATION

7. Slide equalizing pin (item 5 in Figure 4) with one cotter pin in place through POSITION A washers, plain sideplate unit (trolley wheels are assembled on sideplate unit), POSITION B washers, suspension clevis (item 6 of Figure 4), and POSITION C washers.
8. Position and place trolley wheels on beam flange.
9. Slide other sideplate unit (plain or geared) over end of equalizing pin until trolley wheels rest on beam flange.
10. Slide POSITION D washers over end of equalizing pin and secure with cotter pin.

WARNING

DO NOT INSTALL OR ADAPT TROLLEYS TO BEAMS HAVING FLANGES WIDER THAN SHOWN IN TABLES 1 OR 2. SUCH APPLICATIONS REQUIRE ADDITIONAL ENGINEERING AND PARTS AS AUTHORIZED BY ACCO CHAIN & LIFTING PRODUCTS. INSTALLATION OR ADAPTATION TO BEAMS HAVING FLANGES WIDER THAN SHOWN IN TABLES 1 OR 2 WITHOUT AUTHORIZATION AND APPROVAL BY ACCO CHAIN & LIFTING PRODUCTS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

WARNING

NEVER SUBSTITUTE EQUALIZING PINS OTHER THAN THOSE FURNISHED WITH ORIGINAL TROLLEY. IF A REPLACEMENT IS NECESSARY, REFER TO THE TROLLEY PARTS LIST PAGES AND ORDER PART NUMBER FROM ACCO CHAIN & LIFTING PRODUCTS OR THE DISTRIBUTOR OF THE TROLLEY. USE ONLY WRIGHT® AUTHORIZED REPLACEMENT PARTS. USE OF UNAUTHORIZED REPLACEMENT PARTS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

11. Check that trolley and suspension clevis are centered under beam. If suspension clevis is not centered under the centerline of the beam, DO NOT USE. Remove the trolley from the beam and reinstall according to previous instructions. Suspension clevis and hoist and load block suspended from suspension clevis must be centered under the beam.
12. Check clearance between wheel flange and beam flange at tread of wheel. Clearance should be $\frac{1}{8}$ inch (1.6 mm) to $\frac{1}{4}$ inch (3.2 mm) on each side, or $\frac{1}{4}$ inch (3.2 mm) to $\frac{1}{2}$ inch (6.4 mm) total.
13. Check that all studs, bolts, lock washers, nuts, and cotter pins have been installed.
14. On hand chain operated trolleys, unless otherwise specified, the length of the trolley hand chain is based on the standard lift of standard hoist models. If the hand chain length must be shortened, find the open link in the chain and open enough to release the adjoining link. Cut the hand chain to required length, remove any twist in chain and reassemble to open link, and close the open link.
15. Install hoist or other lifting device to trolley suspension clevis according to the instructions furnished with the hoist or lifting device that will be used with the trolley. Verify that the top hook of the hoist fits and freely rotates in the suspension clevis.
16. If trolley was installed on a crane prior to installing the crane, the trolley wheels should be blocked to keep the trolley from moving until the crane is completely installed. If stop angles are welded to the beam to act as blocks and are to be removed after crane installation, DO NOT weld them on surfaces where wheels or rollers will operate.
17. Traverse trolley (including hoist or other lifting device installed on trolley) along bridge girder or monorail to make sure there is no interference between the trolley (including hoist or other lifting device installed on trolley) and other parts of the structure, machinery, or building. Check beam joints. Too much space between beam sections or a difference in operating flange height can be noted as the trolley wheel passes over the joint. Either condition can damage wheel tread surfaces. Any welded joints must be ground level and smooth with the operating flange surface.

INSTALLATION

BEFORE OPERATING TROLLEY:

1. There is no ASME B30 volume specifically directed to trolleys. Trolleys are addressed in the B30 volumes that cover hoists, cranes, and monorails. Most of these B30 volumes require that all new, altered, or modified hoists, cranes, or monorails be inspected by a designated person prior to initial use to verify that the equipment and installation comply with applicable provisions of the standard. Such an inspection should be performed at this time, using the applicable ASME B30 volume as the basis for inspection procedures.
2. Check that end stops are installed on all open ends of the monorail or bridge girder. If end stops are not present on all open ends, DO NOT operate trolley until end stops are installed.
3. Trolley is now ready to be load tested, if required by the applicable B30 volume.

TROLLEY LOAD TEST:

1. If the trolley is installed on a crane or monorail, load testing of the crane or monorail in accordance with, as applicable, ASME B30.2, ASME B30.11, or ASME B30.17 may be required.
2. If a load test in accordance with one of the B30 Standards is not required, the trolley should still be operated with a load on the hoist hook or lifting device installed on the trolley prior to being released for operating purposes.
3. All personnel that will operate the hoist shall read the OPERATION section of this manual, the WARNINGS contained in this manual, and instruction and WARNING labels on the hoist before operating the hoist or lifting system.

OPERATION

Operation of a Model 80 trolley along with an overhead hoist, crane, or monorail involves more than operating the control to lift or lower a freely suspended load and travel with the trolley. It is emphasized in the ASME B30 Standards that the use of overhead hoists, cranes, and monorails are subject to certain hazards that cannot be met by mechanical means, but only by the exercise of intelligence, care, common sense, and experience in anticipating the motions that will occur as a result of activating the controls. Certain precautions are necessary before moving the load and this includes the proper rigging of loads to the hoist hook.

WARNING

TROLLEY OPERATORS SHALL BE REQUIRED TO READ THE OPERATION SECTION OF THIS MANUAL, THE WARNINGS CONTAINED IN THIS MANUAL, INSTRUCTION AND WARNING LABELS ON THE TROLLEY, HOIST, CRANE, OR LIFTING SYSTEM, AND THE OPERATION SECTION OF ANY APPLICABLE ASME B30 VOLUME; AND TO BE FAMILIAR WITH THE TROLLEY, HOIST, CRANE, OR MONORAIL BEFORE BEING AUTHORIZED TO OPERATE THE EQUIPMENT.

TROLLEY, HOIST, CRANE, AND MONORAIL OPERATORS SHOULD BE TRAINED IN PROPER RIGGING PROCEDURES TO BE FOLLOWED IN THE ATTACHMENT OF LOADS TO THE HOIST HOOK.

OPERATORS SHOULD BE TRAINED TO BE AWARE OF POTENTIAL MALFUNCTIONS OF THE EQUIPMENT THAT REQUIRE ADJUSTMENT OR REPAIR, AND TO BE INSTRUCTED TO STOP OPERATION IF SUCH MALFUNCTIONS OCCUR, AND TO IMMEDIATELY ADVISE THEIR SUPERVISOR SO CORRECTIVE ACTION CAN BE TAKEN.

TROLLEY, HOIST, CRANE, AND MONORAIL OPERATORS SHOULD HAVE NORMAL DEPTH PERCEPTION, FIELD OF VISION, REACTION TIME, MANUAL DEXTERITY, AND COORDINATION.

TROLLEY, HOIST, CRANE, AND MONORAIL OPERATORS SHOULD NOT BE SUBJECT TO SEIZURES, LOSS OF PHYSICAL CONTROL, PHYSICAL DEFECTS, OR EMOTIONAL INSTABILITY THAT COULD RESULT IN ACTIONS OF THE OPERATOR BEING A HAZARD TO THE OPERATOR OR OTHERS.

TROLLEY, HOIST, CRANE, AND MONORAIL OPERATORS SHOULD NOT OPERATE A HOIST OR LIFTING SYSTEM WHEN UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR MEDICATION.

OVERHEAD HOISTS AND TROLLEYS ARE INTENDED ONLY FOR VERTICAL LIFTING SERVICE OF FREELY SUSPENDED UNGUIDED LOADS. DO NOT USE HOIST OR TROLLEY FOR LOADS THAT ARE NOT LIFTED VERTICALLY, LOADS THAT ARE NOT FREELY-SUSPENDED, OR LOADS THAT ARE GUIDED. IF SUCH CONDITIONS EXIST, CONTACT ACCO CHAIN & LIFTING PRODUCTS.

BEFORE EACH SHIFT OR BEFORE THE FIRST TIME THE TROLLEY IS TO BE USED EACH SHIFT:

THE OPERATOR:

SHALL visually inspect overhead trolley, hoist, crane, or monorail in accordance with the instructions furnished with the overhead trolley, hoist, crane, or monorail.

SHALL report any damage or malfunctions to the supervisor.

SHALL NOT operate trolley or equipment suspended from the trolley if any damage or malfunctions exist.

SHALL NOT operate trolley or equipment suspended from the trolley if it is tagged with an out-of-order sign.

BEFORE OPERATING THE TROLLEY AND APPLYING THE LOAD:

THE OPERATOR:

SHALL be familiar with all operating hand chain controls of the trolley.

OPERATION

SHALL be familiar with the OPERATION Section of this manual, the WARNINGS contained in this manual, instructions and WARNING labels on the hoist and lifting system, and the OPERATION Section of ASME B30.16.

SHALL be familiar with the instructions furnished with the overhead hoist, crane, or monorail used with the trolley.

SHALL be instructed in the operation or operations to be performed.

SHALL NOT operate trolley or equipment suspended from the trolley if any damage or malfunctions exist; and SHALL report any damage or malfunctions to the supervisor.

SHALL NOT operate trolley or equipment suspended from the trolley if it is tagged with an out-of-order sign.

SHALL center trolley over load.

SHALL only attach loads to the equipment suspended from the trolley that do not exceed the rated load capacity of the trolley or the equipment suspended from the trolley.

SHALL verify that load will be properly balanced when it is lifted.

SHALL verify that side loads will not be applied to the trolley when the load is lifted.

SHALL notify personnel in the area that a load will be lifted and verify that all personnel are clear of the load.

SHALL verify that when the load is lifted, it will clear all material, machinery, or other obstructions in the area.

WHILE OPERATING THE HOIST AND MOVING THE LOAD:

THE OPERATOR:

SHALL NOT engage in any activity that will divert the attention of the operator.

SHALL NOT lift, lower, or transport a load with the hoist and trolley until the operator and all other personnel are clear of the load and the path of the load.

SHALL avoid moving loads over personnel.

SHALL NOT lift, lower, or transport personnel by means of the hoist, trolley, hoist hook, or load.

SHALL avoid swinging of the load or hoist hook when the trolley is traveling.

SHALL avoid sharp contact (collisions) between trolleys or between trolleys and stops.

SHALL NOT use means other than manual power to operate trolley.

PARKING THE LOAD:

THE OPERATOR:

SHALL NOT leave a suspended load unattended unless specific precautions to prevent the load from inadvertent lowering or transverse travel have been instituted and are in place.

GENERAL:

THE OPERATOR:

SHALL know hand signals used for hoist and crane operations if a signal person is used in the operation, and accept signals of only persons authorized to give hand signals EXCEPT to obey a stop signal regardless who gives it.

SHALL NOT adjust or repair a trolley unless qualified and authorized to perform maintenance.

OPERATION

GENERAL DO'S AND DO NOT'S:

- DO establish a regular inspection schedule and maintain a record of all inspections performed with special attention directed to trolley wheels and suspension clevis
- DO remove the trolley from service and perform necessary maintenance and repair.
- DO follow recommended maintenance procedures for taking a trolley out of service to inspect and perform maintenance and repair.
- DO use the original trolley manufacturer's recommended parts when repairing a trolley and replacing worn or damaged parts.
- DO NOT allow unqualified or unauthorized personnel to operate, inspect, maintain, or repair the trolley.
- DO NOT operate a trolley that is damaged or has any actual or suspected mechanical malfunction.
- DO NOT remove or obscure any warnings or warning labels on the trolley or equipment.
- DO NOT walk under a suspended load.
- DO NOT perform ANY work on a suspended load that requires a worker to be positioned under the suspended load.

WARNING

DO NOT WALK UNDER A SUSPENDED LOAD.

DO NOT PERFORM ANY WORK ON A SUSPENDED LOAD THAT REQUIRES A WORKER TO BE POSITIONED UNDER THE SUSPENDED LOAD.

IF IT IS ESSENTIAL THAT A WORKER BE POSITIONED UNDER A SUSPENDED LOAD TO PERFORM WORK ON THE SUSPENDED LOAD; SUCH WORK SHALL NOT BE STARTED OR PERFORMED UNTIL OTHER AUXILIARY SUPPORTING MEANS ARE PLACED UNDER THE SUSPENDED LOAD. FAILURE TO USE OTHER AUXILIARY SUPPORTING MEANS COULD RESULT IN SERIOUS BODILY INJURY OR DEATH, AND/OR PROPERTY DAMAGE.

MAINTENANCE AND INSPECTION PROCEDURES

Trolleys shall be maintained, inspected, and tested in accordance with the MAINTENANCE AND REPAIR section, INSPECTION section, and TEST section of this manual and in accordance with the intervals and requirements of ASME B30.16. Hoists shall be maintained, inspected, and tested in accordance with the manual furnished by the hoist manufacturer and in accordance with the intervals and requirements of ASME B30.16. Cranes shall be maintained, inspected, and tested in accordance with the manual furnished by the crane manufacturer and in accordance with the intervals and requirements of, as applicable, ASME B30.2, ASME B30.11, or ASME B30.17.

Before maintenance or inspections are performed on a hoist, trolley, crane, crane runway, monorail, crane runway or monorail support, or crane runway or monorail conductors, the following precautions shall be taken as applicable.

1. The hoist, trolley, or crane to be inspected, tested, or repaired shall be run to a location where it will cause the least interference with other hoists, trolleys, cranes, and operations in the area.
2. If a load is attached to the hoist hook, it shall be landed.
3. If the crane, monorail, or other piece of equipment where the trolley is installed is electric powered, all controllers shall be placed in the off position.
4. The trolley shall be blocked to prevent trolley movement.
5. If trolley is installed on a crane, the crane shall be blocked to prevent crane movement.

DANGER

IF THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS INSTALLED IS ELECTRIC POWERED; THE MAIN SWITCH (DISCONNECT) SUPPLYING POWER TO THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS INSTALLED, SHALL BE DE-ENERGIZED. LOCK AND TAG THE MAIN SWITCH IN THE DE-ENERGIZED POSITION IN ACCORDANCE WITH ANSI Z244.1.

6. Warning signs and barriers shall be utilized on the floor beneath the trolley, hoist, crane, or lifting system where overhead maintenance, repair, or inspection work creates a hazardous area on the floor beneath the trolley, hoist, crane, or lifting system.
7. If the crane runway or monorail remains energized because other hoists or cranes on the same runway or monorail are in operation, rail stops or a signal person(s), located full-time at a visual vantage point for observing the approach of an active hoist(s) or an active crane(s), shall be provided to prohibit contact by the active hoist(s) or crane(s) with the idle hoist or crane; with persons performing maintenance, repair, or inspection; and with equipment used in performing the maintenance, repair, or inspection.
8. A guard or barrier shall be installed between adjacent runways for the length of the established work area to prevent contact between persons performing maintenance, repair, or inspection and a crane on the adjacent runway.
9. Safe access to the trolley, hoist, crane, or lifting system, such as scaffolding, work platforms, etc., shall be provided for personnel that will perform maintenance, repair, or inspection. If personnel are required to work at elevations in excess of 6 feet above floor or ground level, a fall prevention policy and procedure shall be developed, documented, and implemented by the owner/user.
10. After maintenance, repair, or inspection work is completed, and before the trolley, hoist, crane, or lifting system is returned to normal operation:
 - a. Any guards on the trolley, hoist, crane, or lifting system that were removed to perform maintenance, repair, or inspection work shall be reinstalled.
 - b. Any safety devices on the trolley, hoist, crane, or lifting system that were deactivated to perform maintenance, repair, or inspection work shall be reactivated.

MAINTENANCE AND INSPECTION PROCEDURES

- c. Any parts that were replaced and other loose material shall be removed.
 - d. All equipment used in the maintenance, repair, or inspection work shall be removed.
11. Warning signs, barriers, and guards shall be removed only by authorized personnel.
 12. Lock and tag on the main switch (disconnect) of the trolley, hoist, crane, or lifting device, if applicable, shall be removed only by the person that locked and tagged the main switch originally, or an authorized person.
 13. If the extent of the maintenance or repair work requires any testing as outlined in the INSPECTION AND TEST SECTION of this manual; the manual furnished by the hoist and crane manufacturer; or as required by, as applicable, the provisions of ASME B30.16, ASME B30.2, ASME B30.11, or ASME B30.17; such tests shall be conducted before the trolley, hoist, crane, or lifting system is returned to normal operation.

INSPECTION

Inspection procedure for trolleys and hoists in regular service is divided into two general classifications as outlined in ASME B30.16. These two general classifications are based upon the intervals at which inspections should be performed. The intervals are dependent upon the nature of the critical components of the trolley and hoist, and the degree of exposure of trolley and hoist components and parts to wear and deterioration. The degree of exposure is dependent upon trolley and hoist activity, severity of trolley and hoist service, and the environment of trolley and hoist location. These two general classifications of trolley and hoist inspection are designated as *frequent* and *periodic*. In addition, daily inspections are required to be performed by the operator at the start of each shift, or at the time the trolley and hoist is first used during each shift.

FREQUENT INSPECTION: Frequent inspections are visual inspections and examinations by the operator or other designated personnel with records not required. Nominal inspection intervals are as follows:

Normal service - monthly

Heavy service - weekly to monthly

Severe service - daily to weekly

PERIODIC INSPECTION: Periodic inspections are visual and audio inspections and examinations by designated personnel making records of external conditions to provide the basis for a continuing evaluation of the trolley and hoist and components. If the external inspection indicates the need, some disassembly may be required to make a more detailed inspection and examination. Nominal inspection intervals are as follows:

Normal service - annually

Heavy service - semiannually

Severe service - quarterly

WARNING

THE INSPECTION INTERVALS LISTED ABOVE ARE NOMINAL RECOMMENDATIONS FOR REFERENCE PURPOSES ONLY. THEY ARE BASED ON SINGLE SHIFT OPERATION UNDER NORMAL OPERATING CONDITIONS AND NORMAL ENVIRONMENTAL CONDITIONS. ACTUAL OPERATING AND ENVIRONMENTAL CONDITIONS SHOULD BE REVIEWED BY A QUALIFIED PERSON AND INSPECTION INTERVALS ESTABLISHED ON THE RECOMMENDATIONS OF THE QUALIFIED PERSON.

Definitions of service from ASME B30.16 are as follows:

Normal service involves operation of the trolley or hoist with randomly distributed loads within the rated load limit, or uniform loads less than 65% of rated load, for not more than 25% of the time for a single work shift.

Heavy service involves operation of the trolley or hoist within the rated load limit that exceeds normal service.

Severe service involves operation of the trolley or hoist in normal service or heavy service with abnormal operating conditions.

A trolley or hoist that is not in regular service, that has been idle for a period of one month or more, but less than one year, shall be inspected in accordance with the requirements for frequent inspection before being placed into service.

A trolley or hoist that is not in regular service, that has been idle for a period of one year or more, shall be inspected in accordance with the requirements for periodic inspection before being placed into service.

Required daily inspection items to be performed by the operator at the start of each shift, or at the time the trolley or hoist is first used during each shift are shown in Table 3.

INSPECTION

TABLE 3
DAILY INSPECTIONS BY THE OPERATOR

INSPECTION ITEM	DESCRIPTION OF INSPECTION CHECK POINTS
Tagged Trolley or Hoist	Check that trolley or hoist is not tagged with an out-of-order sign.
Hand Chain Control	Check that travel motions agree with hand chain pull.
Unusual Sounds	Check for any unusual sounds from the trolley and trolley mechanism while operating the trolley or hoist.
Hoist, crane, or monorail	Perform daily inspections as outlined in the manual furnished by the hoist, crane, or monorail manufacturer.

⚠ WARNING

IF ANY DAMAGE OR MALFUNCTIONS ARE NOTED BY THE DAILY INSPECTION ITEMS OF TABLE 3, THE OPERATOR SHALL NOT OPERATE THE TROLLEY, HOIST, CRANE, OR MONORAIL AND SHALL IMMEDIATELY ADVISE THE SUPERVISOR SO CORRECTIVE ACTION CAN BE TAKEN. IF THE TROLLEY OR EQUIPMENT IS TAGGED WITH AN OUT-OF-ORDER SIGN, THE OPERATOR SHALL NOT OPERATE THE TROLLEY AND OTHER EQUIPMENT.

TROLLEY OPERATORS SHOULD BE TRAINED TO BE AWARE OF MALFUNCTIONS OF THE EQUIPMENT DURING OPERATION, AND TO IMMEDIATELY STOP OPERATION IF SUCH MALFUNCTIONS OCCUR, AND TO IMMEDIATELY ADVISE THE SUPERVISOR SO CORRECTIVE ACTION CAN BE TAKEN.

Recommended items to be checked for deficiencies or damage during *frequent* and *periodic* inspections are shown in Table 4. Detailed inspection procedures for some items will be found in specific sections of this manual. These inspections may be performed with the trolley and hoist in their normal location and do not require that the trolley be disassembled. Any deficiencies or damage such as those listed in Table 4 shall be examined by a designated person to determine whether they constitute a hazard, or whether any disassembly is necessary for a more detailed examination. The trolley or hoist operator should make observations during regular operation for any deficiencies or damage that might appear between inspections.

TABLE 4
FREQUENT AND PERIODIC INSPECTIONS

INSPECTION ITEM	FREQUENCY		DEFICIENCIES OR DAMAGE TO LOOK FOR
	FREQUENT	PERIODIC	
All functional mechanisms	•	•	Maladjustment that interferes with proper operation and unusual sounds
Hand chain (Hand chain-operated geared trolleys only)	•	•	Nicks, gouges, cracks, wear, twist, kinks, stretch, distortion or deformation, deposits of foreign material, and heat damage. Damaged, worn, loose, or missing hand chain connecting link.

(Continued)

TABLE 4 (Continued)

INSPECTION ITEM	FREQUENCY		DEFICIENCIES OR DAMAGE TO LOOK FOR
	FREQUENT	PERIODIC	
Lubricant levels (For detailed inspection procedures, refer to LUBRICATION section of this manual)	•	•	Lubricant must be added or replaced
Fastening devices (bolts, nuts, pins, etc.)	•	•	Not properly secured (tightened), damaged or missing parts
Supporting structure	•	•	Cracks, damage and distortion
Trolley wheels	•	•	Flat spots, damage and excessive wear
Trolley wheel bearings	•	•	Damage and excessive play.
Hoist, crane, or monorail	•	•	Perform frequent and periodic inspections as outlined in the manual furnished by the hoist, crane, or monorail manufacturer.

WARNING

IF ANY DAMAGE OR MALFUNCTIONS ARE NOTED BY THE FREQUENT OR PERIODIC INSPECTION ITEMS OF TABLE 4, THE TROLLEY AND OTHER EQUIPMENT SHALL BE TAGGED WITH AN OUT-OF-ORDER SIGN AND SHALL NOT BE RETURNED TO REGULAR OPERATION UNTIL MAINTENANCE AND REPAIR OF THE DAMAGE OR DEFICIENCIES FOUND DURING THE INSPECTION HAVE BEEN CORRECTED.

Records of the condition of critical components such as trolley wheels during frequent and periodic inspections should be established. This record should also record replacement, maintenance, and repair information. Use of this recorded information will allow a preventative maintenance program to be established for replacement of wearing components on a regular basis, thereby eliminating or reducing unscheduled downtime situations.

If maintenance, adjustment, replacement of parts, or repair of the trolley is required because of any damage or malfunctions noted during the frequent or periodic inspections, refer to the MAINTENANCE AND REPAIR section of this manual and other sections of this manual for specific instructions or parts identification. Before performing any maintenance on the trolley, refer to the MAINTENANCE AND INSPECTION PROCEDURES section of this manual. After performing maintenance, adjustment, or replacement of parts or components, refer to the TEST section of this manual.

TEST

If the trolley is installed on a crane, load testing of the crane and trolley in accordance with, as applicable, ASME B30.2, ASME B30.11, or ASME B30.17 may be required.

Testing of trolleys after original installation is required when the trolley has been altered or repaired; has been idle for a period of 12 months or longer; or in accordance with specific testing requirements established by the owner/user. General testing requirements are outlined, as applicable, in ASME B30.16, ASME B30.2, ASME B30.11, or ASME B30.17 and should be followed.

Also, for additional information and requirements on testing, refer to the instructions furnished with the hoist, crane, or monorail that is being used with a Model 80 trolley.

MAINTENANCE AND REPAIR

If maintenance, adjustment, replacement of parts, or repair of the trolley is required because of any damage or malfunctions noted during the daily, frequent, or periodic inspections outlined in the INSPECTION section of this manual; because of conditions found during a test as outlined in the TEST section of this manual; or based upon specific instructions outlined in other sections of this manual; the trolley shall be taken out of service, and maintenance performed as required.

WARNING

BEFORE PERFORMING ANY MAINTENANCE OR ADJUSTMENTS ON THE TROLLEY, REFER TO THE MAINTENANCE AND INSPECTION PROCEDURES SECTION OF THIS MANUAL.

DANGER

IF THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS INSTALLED IS ELECTRIC POWERED; THE MAIN SWITCH (DISCONNECT) SUPPLYING POWER TO THE CRANE, MONORAIL, OR OTHER PIECE OF EQUIPMENT WHERE THE TROLLEY OR HOIST AND TROLLEY IS INSTALLED, SHALL BE DE-ENERGIZED. LOCK AND TAG THE MAIN SWITCH IN THE DE-ENERGIZED POSITION IN ACCORDANCE WITH ANSI Z244.1.

Follow the instructions outlined in various sections of this manual for specific components or portions of the trolley where maintenance or adjustment is required. Refer to the parts identification pages for the specific portion of the trolley where maintenance or adjustment is being performed and to identify any part numbers requiring replacement.

If any instructions are not clear; or if any additional information is required in reference to adjustment, maintenance, or identification of parts; contact Acco Chain & Lifting Products or the distributor of the trolley.

LUBRICATION

All moving parts of the hoist or trolley for which lubrication is specified should be inspected, checked, and lubricated on a regular basis. The method used to deliver lubricant should be checked for proper delivery of the lubricant. This section applies to the trolley only. If the trolley is installed as part of a crane or as part of a lifting system, or with a hoist, lubrication instructions covered in the manual furnished by the hoist, crane, or lifting system manufacturer should be followed.

WARNING

BEFORE INSPECTING, CHECKING, ADDING, OR CHANGING LUBRICANTS OF THE TROLLEY, REFER TO THE MAINTENANCE AND INSPECTION PROCEDURES SECTION OF THIS MANUAL.

CAUTION

DO NOT USE LUBRICANTS THAT DO NOT MEET THE SPECIFICATIONS OF THE RECOMMENDED LUBRICANTS.

WARNING

ALL LUBRICANTS:
MAY CAUSE MILD EYE IRRITATION - AVOID CONTACT WITH EYES.
MAY CAUSE MODERATE SKIN IRRITATION - AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WASH THOROUGHLY AFTER HANDLING.
ARE SLIGHTLY COMBUSTIBLE - KEEP AWAY FROM EXTREME HEAT AND OPEN FLAME.

TROLLEY WHEEL BEARINGS:

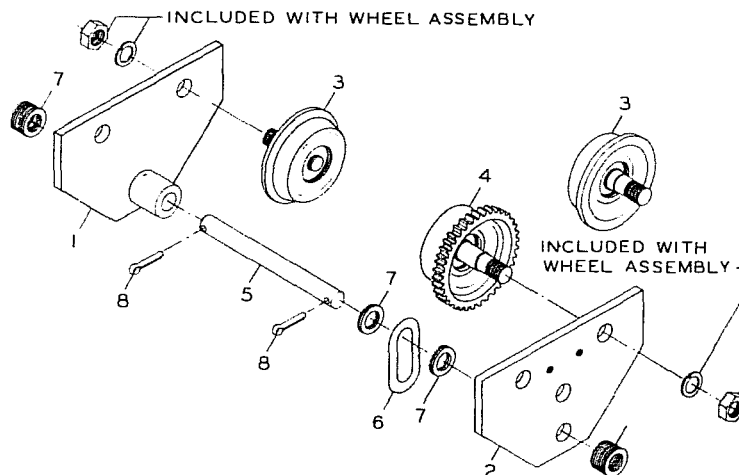
Wheel bearings are pre-lubricated and provided with shields or seals for operation in ambient temperatures between 0° F and 104° F, and in environments reasonably free from dust, moisture, and corrosive fumes. No additional lubricant is required for trolley wheel bearings with shields or seals.

EXPOSED OR OPEN GEARS AND PINIONS:

Exposed gears and pinions on Model 80 trolleys normally do not require lubricant. In environments where lubricant may be required to protect the surface of gear teeth, Lyondell® EP Moly D Grease is recommended. Containers of Lyondell® EP Moly D Grease, packaged in a 4-ounce squeeze bottle, can be obtained by ordering Acco® part no. 69807.

PARTS LIST - TROLLEY ASSEMBLY - 1/2 AND 1 TON

TROLLEY ASSEMBLY - 1/2 AND 1 TON



TROLLEY PARTS -1/2 AND 1 TON

ITEM NO.	DESCRIPTION	PART NUMBERS AND QUANTITIES					
		QTY/ ASSY	PLAIN TROLLEY		QTY/ ASSY	GEARED TROLLEY	
			FLANGE WIDTHS			FLANGE WIDTHS	
			3 TO 5- $\frac{1}{2}$ IN.	4- $\frac{1}{4}$ TO 6- $\frac{1}{2}$ IN.		3 TO 5 IN.	4- $\frac{1}{4}$ TO 6 IN.
1	Sideplate Unit, Plain	1	62416-01	62416-02	1	62416-01	62416-02
2	Sideplate Unit (a)	1	62416-01	62416-02	1	62417-01	62417-02
3	Wheel Assembly, Plain Cast Iron Bronze (b)	4	62256-01 62256-02	62256-01 62256-02	2	62256-01 62256-02	62256-01 62256-02
4	Wheel Assembly, Geared Cast Iron Bronze (b)	0	Not Applicable	Not Applicable	2	62259-01 62259-02	62259-01 62259-02
5	Equalizing Pin	1	62422-01	62422-02	1	62422-01	62422-02
6	Suspension Clevis	1	70211	70211	1	70211	70211
7	Washers Part Number Quantity		PA5243 24	PA5243 22		PA5243 19	PA5243 17
8	Cotter Pin	2	PA1291	PA1291	2	PA1291	PA1291

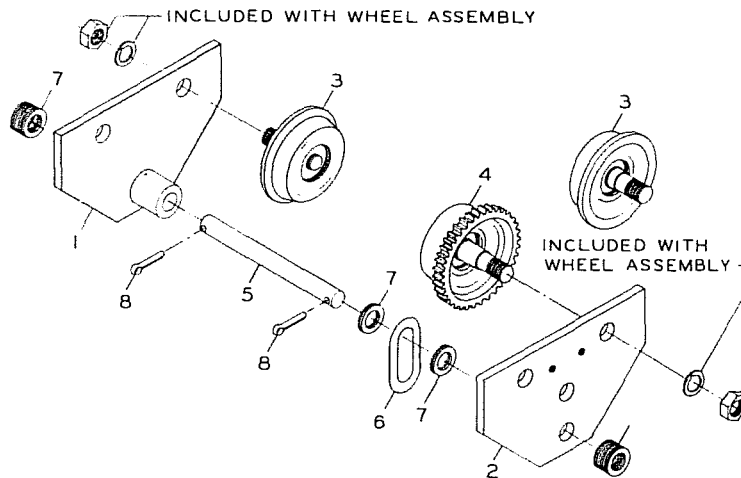
No Recommended Spare Parts

NOTE:

- (a) This sideplate unit is plain for plain trolley and geared for geared trolley. Item 1 is plain for both plain and geared trolleys.
- (b) Bronze wheels and aluminum handchain (see drive unit) **must be used** for spark resistant applications.
- (c) When ordering replacement sideplates for trolleys equipped with restraining lugs, specify "with restraining lugs" following part number.

PARTS LIST - TROLLEY ASSEMBLY - 1-1/2 AND 2 TONS

TROLLEY ASSEMBLY - 1-1/2 AND 2 TONS



TROLLEY PARTS - 1-1/2 AND 2 TONS

ITEM NO.	DESCRIPTION	PART NUMBERS AND QUANTITIES					
		PLAIN TROLLEY			GEARED TROLLEY		
		QTY/ ASSY	FLANGE WIDTHS		QTY/ ASSY	FLANGE WIDTHS	
			3-¼ TO 7 IN.	5 TO 8-¾ IN.		3-¼ TO 6-¾ IN.	5 TO 8 IN.
1	Sideplate Unit, Plain	1	62654-01	62654-02	1	62654-01	62654-02
2	Sideplate Unit (a)	1	62654-01	62654-02	1	62655-01	62655-02
3	Wheel Assembly, Plain Cast Iron Bronze (b)	4	62256-01 62256-02	62256-01 62256-02	2	62256-01 62256-02	62256-01 62256-02
4	Wheel Assembly, Geared Cast Iron Bronze (b)	0	Not Applicable	Not Applicable	2	62259-01 62259-02	62259-01 62259-02
5	Equalizing Pin	1	62660-01	62660-02	1	62660-01	62660-02
6	Suspension Clevis	1	71065	71065	1	71065	71065
7	Washers	28	A210-03	A210-03	24	A210-03	A210-03
8	Cotter Pin	2	PA3633	PA3633	2	PA3633	PA3633

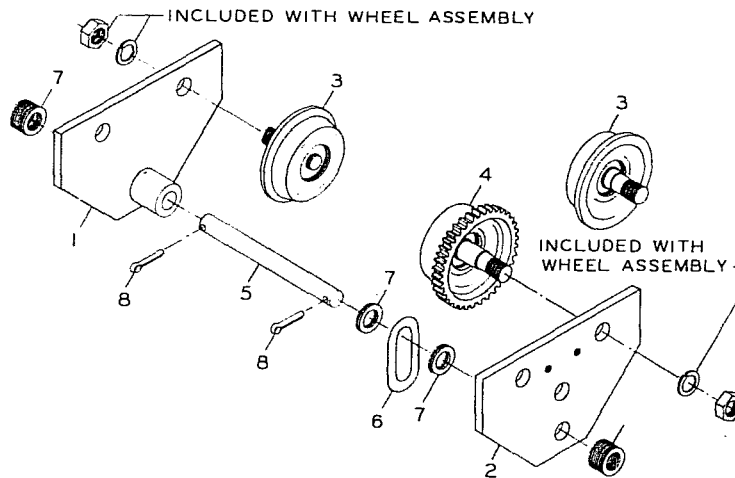
No Recommended Spare Parts

NOTE:

- (a) This sideplate unit is plain for plain trolley and geared for geared trolley. Item 1 is plain for both plain and geared trolleys.
- (b) Bronze wheels and aluminum handchain (see drive unit) **must be used** for spark resistant applications.
- (c) When ordering replacement sideplates for trolleys equipped with restraining lugs, specify "with restraining lugs" following part number.

PARTS LIST - TROLLEY ASSEMBLY - 3 AND 4 TONS

TROLLEY ASSEMBLY - 3 AND 4 TONS



TROLLEY PARTS - 3 AND 4 TONS

ITEM NO.	DESCRIPTION	PART NUMBERS AND QUANTITIES					
		PLAIN TROLLEY			GEARED TROLLEY		
		QTY/ ASSY	FLANGE WIDTHS		QTY/ ASSY	FLANGE WIDTHS	
			4 TO 6-½ IN.	6-½ TO 9 IN.		4 TO 6-½ IN.	6-½ TO 9 IN.
1	Sideplate Unit, Plain	1	62714-01	62714-02	1	62714-01	62714-02
2	Sideplate Unit (a)	1	62714-01	62714-02	1	62715-01	62715-02
3	Wheel Assembly, Plain Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	4	62173-01 62173-02 62173-03 62173-04	62173-01 62173-02 62173-03 62173-04	2	62173-01 62173-02 62173-03 62173-04	62173-01 62173-02 62173-03 62173-04
4	Wheel Assembly, Geared Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	0	Not Applicable	Not Applicable	2	62174-01 62174-02 62174-03 62174-04	62174-01 62174-02 62174-03 62174-04
5	Equalizing Pin	1	62721-01	62721-02	1	62721-01	62721-02
6	Suspension Clevis	1	62945	62945	1	62945	62945
7	Washers	24	A210-05	A210-05	24	A210-05	A210-05
8	Cotter Pin	2	PA1805	PA1805	2	PA1805	PA1805

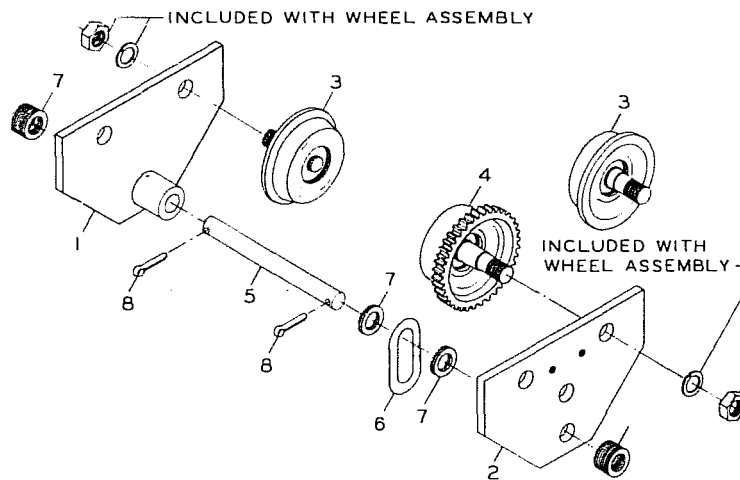
No Recommended Spare Parts

NOTE:

- (a) This sideplate unit is plain for plain trolley and geared for geared trolley. Item 1 is plain for both plain and geared trolleys.
- (b) Bronze wheels and aluminum handchain (see drive unit) **must be used** for spark resistant applications.
- (c) When ordering replacement sideplates for trolleys equipped with restraining lugs, specify "with restraining lugs" following part number.

PARTS LIST - TROLLEY ASSEMBLY - 5 AND 6 TONS

TROLLEY ASSEMBLY - 5 AND 6 TONS



TROLLEY PARTS - 5 AND 6 TONS

ITEM NO.	DESCRIPTION	PART NUMBERS AND QUANTITIES					
		PLAIN TROLLEY				GEARED TROLLEY	
		QTY/ ASSY	FLANGE WIDTHS		QTY/ ASSY	FLANGE WIDTHS	
			4- $\frac{5}{8}$ TO 7- $\frac{1}{2}$ IN.	7- $\frac{1}{2}$ TO 9- $\frac{3}{4}$ IN.		4- $\frac{5}{8}$ TO 7- $\frac{1}{2}$ IN.	7- $\frac{1}{2}$ TO 9- $\frac{3}{4}$ IN.
1	Sideplate Unit, Plain	1	63112-01	63112-02	1	63112-01	63112-02
2	Sideplate Unit (a)	1	63112-01	63112-02	1	63113-01	63113-02
3	Wheel Assembly, Plain Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	4	62250-01 62250-02 62250-03 62250-04	62250-01 62250-02 62250-03 62250-04	2	62250-01 62250-02 62250-03 62250-04	62250-01 62250-02 62250-03 62250-04
4	Wheel Assembly, Geared Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	0	Not Applicable	Not Applicable	2	62251-01 62251-02 62251-03 62251-04	62251-01 62251-02 62251-03 62251-04
5	Equalizing Pin	1	63119-01	63119-02	1	63119-01	63119-02
6	Suspension Clevis	1	35903	35903	1	35903	35903
7	Washers	24	A210-06	A210-06	24	A210-06	A210-06
8	Cotter Pin	2	PA1805	PA1805	2	PA1805	PA1805

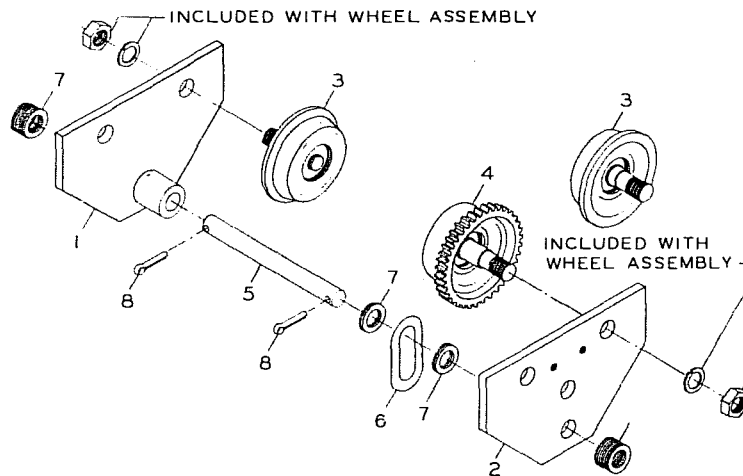
No Recommended Spare Parts

NOTE:

- (a) This sideplate unit is plain for plain trolley and geared for geared trolley. Item 1 is plain for both plain and geared trolleys.
- (b) Bronze wheels and aluminum handchain (see drive unit) **must be used** for spark resistant applications.
- (c) When ordering replacement sideplates for trolleys equipped with restraining lugs, specify "with restraining lugs" following part number.

PARTS LIST - TROLLEY ASSEMBLY - 8 AND 10 TONS

TROLLEY ASSEMBLY - 8 AND 10 TONS



TROLLEY PARTS - 8 AND 10 TONS

ITEM NO.	DESCRIPTION	PART NUMBERS AND QUANTITIES					
		PLAIN TROLLEY			GEARED TROLLEY		
		QTY/ ASSY	FLANGE WIDTHS		QTY/ ASSY	FLANGE WIDTHS	
			5 TO 7-¼ IN.	7-½ TO 9-¾ IN.		5 TO 7-¼ IN.	7-½ TO 9-¾ IN.
1	Sideplate Unit, Plain	1	63123-01	63123-02	1	63123-01	63123-02
2	Sideplate Unit (a)	1	63123-01	63123-02	1	63124-01	63124-02
3	Wheel Assembly, Plain Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	4	62250-01 62250-02 62250-03 62250-04	62250-01 62250-02 62250-03 62250-04	2	62250-01 62250-02 62250-03 62250-04	62250-01 62250-02 62250-03 62250-04
4	Wheel Assembly, Geared Steel - Tapered Tread Steel - Flat Tread Bronze - Tapered Tread (b) Bronze - Flat Tread (b)	0	Not Applicable	Not Applicable	2	62251-01 62251-02 62251-03 62251-04	62251-01 62251-02 62251-03 62251-04
5	Equalizing Pin	1	63130-01	63130-02	1	63130-01	63130-02
6	Suspension Clevis	1	63131	63131	1	63131	63131
7	Washers	16	PA5167	PA5167	16	PA5167	PA5167
8	Cotter Pin	2	PA1695	PA1695	2	PA1695	PA1695

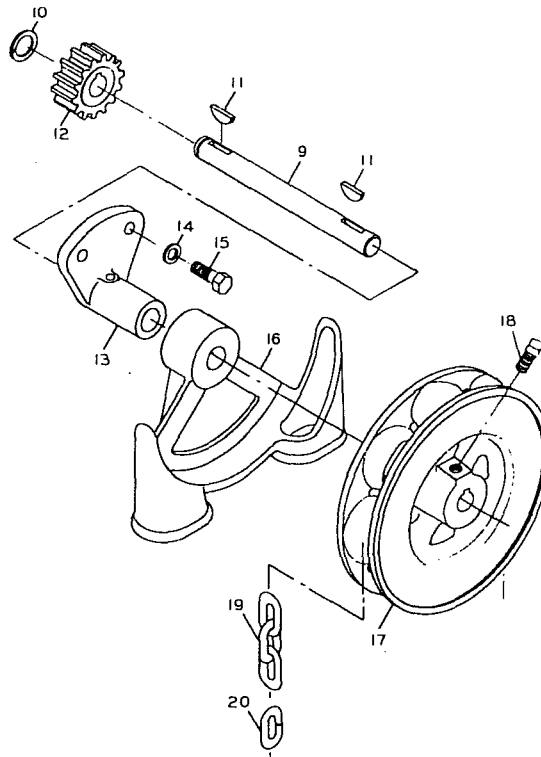
No Recommended Spare Parts

NOTE:

- (a) This sideplate unit is plain for plain trolley and geared for geared trolley. Item 1 is plain for both plain and geared trolleys.
- (b) Bronze wheels and aluminum handchain (see drive unit) **must be used** for spark resistant applications.
- (c) When ordering replacement sideplates for trolleys equipped with restraining lugs, specify "with restraining lugs" following part number.

PARTS LIST - GEARED DRIVE ASSEMBLY - 1/2 THROUGH 2 TONS

GEARED DRIVE ASSEMBLY - 1/2 THROUGH 2 TONS



GEARED DRIVE ASSEMBLY PARTS - 1/2 THROUGH 2 TONS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY/ ASSY
9	61194	Pinion Shaft	1
10	PA3629	Retaining Ring	1
11	PA1299	Woodruff key	2
12	62062	Pinion	1
13	33022	Pinion Shaft Bearing	1
14	17-6C	Lockwasher	2
15	35-6-16	Bolt	2
16	B2143-1	Handchain Guide	1
17	B464-4	Handwheel	1
18	14-6-16	Set Screw	1
19	(d) (e) 48158-1 48159-1	Handchain Steel Aluminum	1
20	(d) (e) 60252-01 PA3985	Open Link Steel Stainless Steel	1

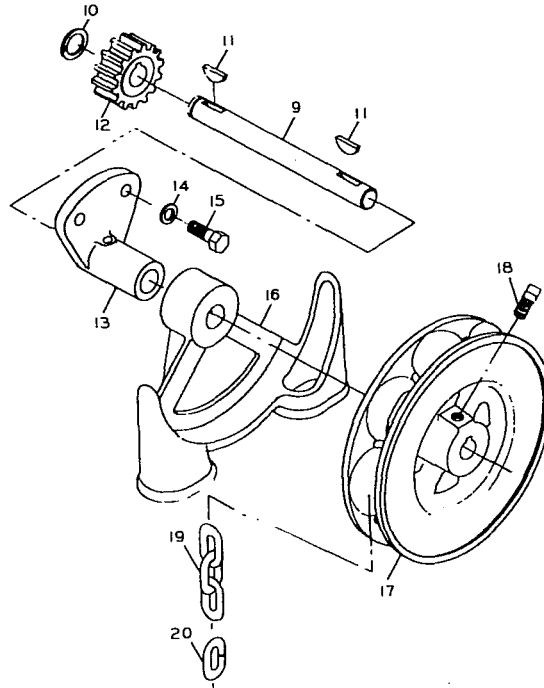
No Recommended Spare Parts

NOTE:

- (d) Aluminum handchain (for spark-resistant applications) requires stainless steel open link.
- (e) To order handchain, specify length. For special finish contact Acco Chain & Lifting Products.
- (f) Parts list above applies to all capacities, 1/2 through 2 tons.

PARTS LIST - GEARED DRIVE ASSEMBLY - 3 AND 4 TONS

GEARED DRIVE ASSEMBLY - 3 AND 4 TONS



GEARED DRIVE ASSEMBLY PARTS - 3 AND 4 TONS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY/ ASSY
9	61194	Pinion Shaft	1
10	PA3629	Retaining Ring	1
11	PA1299	Woodruff key	2
12	32432	Pinion	1
13	33022	Pinion Shaft Bearing	1
14	17-6C	Lockwasher	2
15	35-6-16	Bolt	2
16	B1568-1	Handchain Guide	1
17	B308-1	Handwheel	1
18	14-8-20	Set Screw	1
19	(d) (e) 48158-1 48159-1	Handchain Steel Aluminum	1
20	(d) (e) 60252-01 PA3985	Open Link Steel Stainless Steel	1

No Recommended Spare Parts

NOTE:

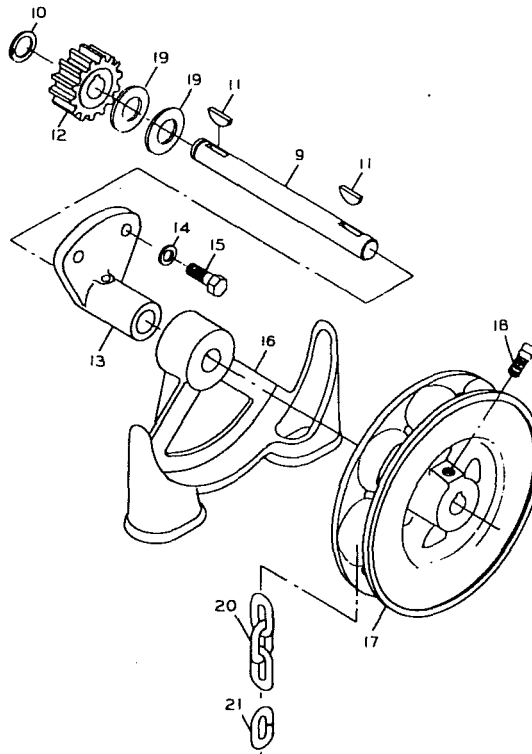
(d) Aluminum handchain (for spark-resistant applications) requires stainless steel open link.

(e) To order handchain, specify length. For special finish contact Acco Chain & Lifting Products.

(f) No Recommended Spare Parts

PARTS LIST - GEARED DRIVE ASSEMBLY - 5 THROUGH 10 TONS

GEARED DRIVE ASSEMBLY - 5 THROUGH 10 TONS



GEARED DRIVE ASSEMBLY PARTS - 5 THROUGH 10 TONS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY/ ASSY
9	62336 63134	Pinion Shaft 6 Tons 10 Tons	1
10	PA3629	Retaining Ring	1
11	PA1299	Woodruff key	2
12	32432	Pinion	1
13	33022	Pinion Shaft Bearing	1
14	17-6C	Lockwasher	2
15	35-6-16	Bolt	2
16	B1568-1 B1569-4	Handchain Guide 6 Tons 10 Tons	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY/ ASSY
17	B308-1 B302-7	Handwheel 6 Tons 10 Tons	1
18	14-8-20	Set Screw	1
19	15-12-1C	Washer	2
20	(d) (e) 48158-1 48159-1	Handchain Steel Aluminum	1
21	(d) (e) 60252-01 PA3985	Open Link Steel Stainless Steel	1

No Recommended Spare Parts

NOTE:

(d) Aluminum handchain (for spark-resistant applications) requires stainless steel open link.

(e) To order handchain, specify length. For special finish contact Acco Chain & Lifting Products.

(f) No Recommended Spare Parts

GENERAL CONDITIONS OF WARRANTY

WARRANTIES: The Seller warrants to the original using Buyer thereof that the goods sold under this Agreement are free from defects in workmanship and materials for a period of one year from the date of shipment to the original using Buyer. No other express warranties are given and no affirmation of Seller or Seller's agents, by word or action, shall constitute a warranty. No warranty is made for components and accessories made by others when such items are warranted by their respective manufacturers.

Installation or operation of the equipment in any manner other than as recommended by Seller, shall void the warranty.

Any variations in details between the goods furnished herein and those covered in Buyer's specifications are due to standards of manufacture not to be construed as exceptions to the specifications.

DISCLAIMER OF IMPLIED WARRANTIES:

- (a) SELLER MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO THE GOODS SOLD UNDER THIS AGREEMENT.
- (b) This sale is made WITHOUT ANY WARRANTY BY SELLER THAT THE GOODS ARE SUITABLE FOR ANY PARTICULAR PURPOSE.
- (c) Buyer hereby waives all other warranties, guarantees, obligations, liabilities, rights, and remedies arising by law or otherwise including any obligation or liability of the Seller arising from tort, and Buyer shall indemnify Seller from any liability, loss, damage, or claim arising from Buyer's tortious use of the goods sold hereby.

REMEDIES:

- (a) Under no conditions shall any goods be returned to Seller without its prior written consent.
- (b) The Buyer's sole and exclusive remedy for breach of any warranty is limited to seller furnishing, at its expense, duplicate or repaired parts F.O.B. Seller's plant with installation at Buyer's expense if discover of a claimed defect occurs during the allowable warranty period, and if Seller's inspection determines a defect exists.
- (c) The quantity of material shown by invoice shall in all cases govern settlement for shortages, unless notice of shortage, appropriately documented, is given to the carrier and the Seller upon delivery by the Carrier.
- (d) Claims for errors, deficiencies or imperfections shall be deemed waived by the Buyer unless Seller is notified in writing of the basis of such claims within 10 days after discovery of claimed defect and such discovery occurs within the warranted period.
- (e) Neither Buyer nor User shall be entitled under this Agreement to recover from Seller any incidental or consequential damages of any nature including but not limited to the cost of any labor expended by others in connection with the goods sold hereby by reason of any alleged nonconformity or breach of warranty on the part of the Seller, nor costs of material or account thereof, nor any lost profits whether determinable or speculative.



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