



Model Number
Serial Number

Lynx Hoist™

Personnel/Materials Hoist

User Instructions

WARNING

National standards and state, provincial and federal laws require the user to be trained before using this product. Use this manual as part of a user safety training program that is appropriate for the user's occupation. These instructions must be provided to users before use of the product and retained for ready reference by the user. The user must read, understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.

1.0 LYNX HOIST DESCRIPTION

The MSA Lynx Hoist is suitable for lifting, lowering and positioning either personnel or materials. It is designed for use in conjunction with MSA anchorage connectors, fall arresters and other components to make up complete systems for manriding, work positioning, materials handling, emergency rescue and evacuation. MSA components are available to provide backup fall arrest for all such systems.

There are three standard Lynx Hoist types. They differ only in the configuration of their integral mounting brackets. Two standard line lengths are available in either galvanized or stainless steel wire rope. Other line lengths can be special ordered. All hoist models are equipped with an emergency drive and air drive adapter. All standard Lynx Hoists can be retrofitted with these upgrades. The principle Hoist specifications are present in Appendix A. A list of Lynx Hoist types and models is provided in Appendix B. Accessories and companion products, including the Hoist air drive, are listed in Appendix C. All models meet current regulations for personnel related mechanical devices.

The three standard Lynx Hoist types are:

- Figure 4: Side-mount hoist for installation on the Lynx Tripod.
- Figure 5: Boom-mount hoist with an extension frame and anchorage hook for installation on the Lynx Tripod and a variety of other suitable anchorage connectors
- Figure 6: Socket-mount hoist for use with the MSA vehicle mounted davit

These three mounting arrangements may be interfaced with other anchorage connectors approved by MSA. Additionally, custom anchorage connectors and mounting brackets may be obtained from MSA as part of engineered systems for specific applications.

All Lynx Hoists embody several standard features:

- Rated working load 310 lbs (140 kg) for personnel and 620 lbs (280 kg) for materials & emergency rescue



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Doc. 10016732

- An open drum wound with 3/16 in (5 mm) 7 x 19 galvanized or stainless steel wire rope, in lengths of 50 ft (16 m) or 105 ft (32 m)
- Reserve line on the drum to prevent overloading the point of line termination on the drum
- Built in shock absorber
- Clutched drive to prevent hoist overload, and reduce the possibility of injury to a person if snagged on a structural member during lifting
- Triple-braking system
- Steel housing and mounting bracket
- Self-locking swivel snaphook
- Manual crank handle with anti-backlash brake
- Level Wind Mechanism for a tangle free cable drum

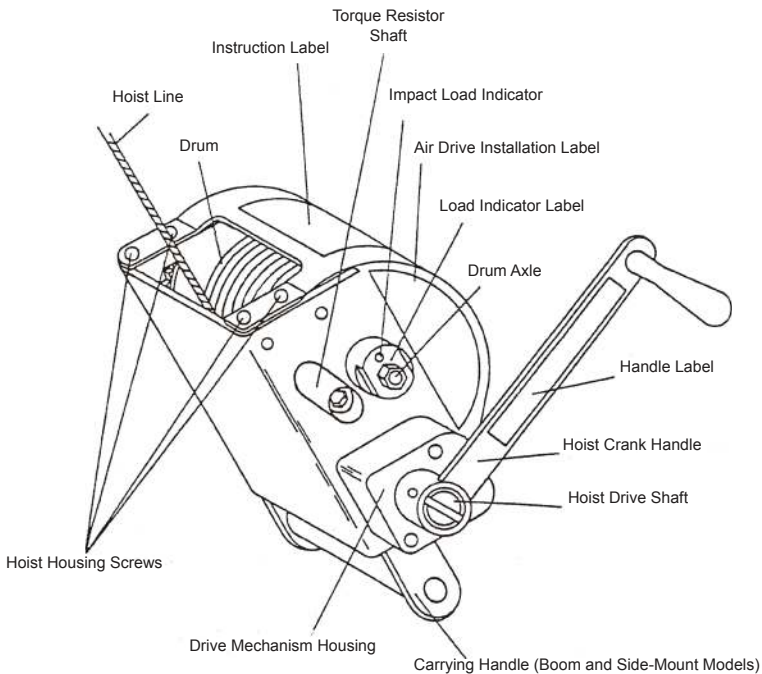
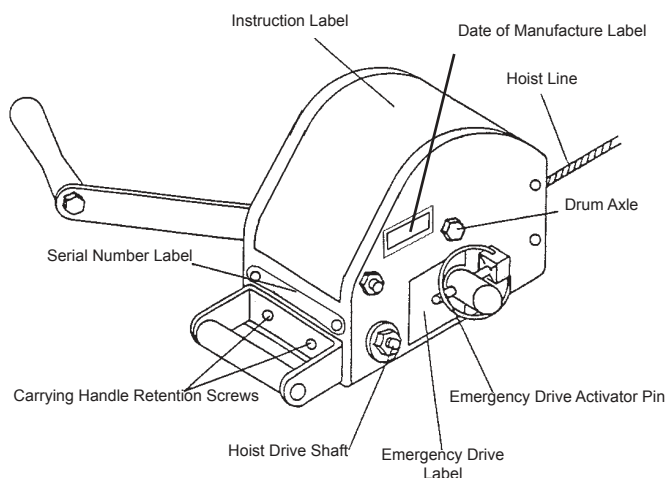
FIGURE 1**LYNX HOIST PERSONNEL/MATERIALS HOIST (VIEW FROM HANDLE SIDE)**

FIGURE 2
LYNX HOIST PERSONNEL/MATERIALS HOIST (REVERSE VIEW)



! CAUTION

The user should prevent the buildup of slack line that would allow free fall.

Internal mechanisms of the hoist are protected by a formed steel housing. All parts are zinc chromate plated to resist corrosion. The load end of the line is terminated with a self-locking swivel snaphook which requires two separate and distinct manipulations to unlock and open the snap gate. When released, the snap gate will automatically close and lock. See Figure 3.

The hoist has a level wind mechanism which help the guide line to lay and wrap tightly around the drum.

! CAUTION

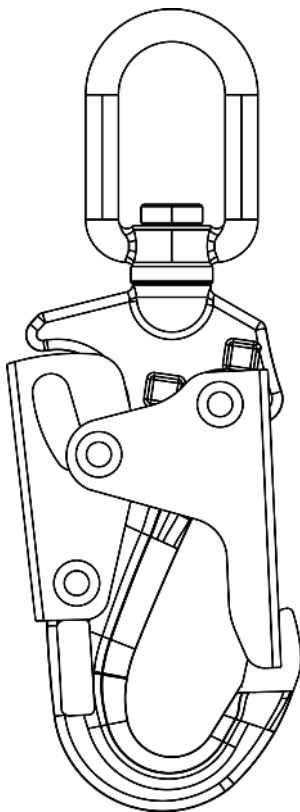
To prevent loose coils of line on the drum, always maintain at least 15 lbs (6.75 kg) of tension on the line when paying it out.

The hoist is normally operated with the standard manual crank handle shown in Figure 1. To extract line or lower a load, rotate the handle in a counterclockwise direction. To retract line or raise a load, rotate the handle in a clockwise direction. To suspend a load, release the handle. A brake in the drive mechanism inhibits the drum from free wheeling. The brake operates even when the crank handle is removed for attachment of the optional air drive.

Air Drive Option

An optional air drive system – P/N 506420 – is available for use in applications requiring long line runs or rapid retrieval of a load. The air drive system consists of an air-driven motor with a filter-lubricator that cleans, lubricates and regulates the pressure of plant air or compressed air supplied to the motor.

FIGURE 3
36CSN SNAPHOOK



COMPATIBILITY OF CONNECTORS

Connectors, such as D-Rings, snaphooks, and carabiners, must be rated at 5,000 lbs (22 kN) minimum breaking strength and have a minimum gate strength of 3600 lbs. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally damage. Always verify compatibility of the connecting snaphook or carabiner with D-ring or anchorage connector.

- Use only self-closing, self-locking snaphooks and carabiners. Do not attach snaphook to a D-ring or anchorage with an inside diameter smaller than 2 3/16 in. (56mm). Do not use snaphooks or connectors that will not completely close when attached. Do not attach a connector with a gate opening larger than 1.5 in. (38mm) to the back D-ring of a full body harness.
- Do not connect snaphooks and carabiners to each other.
- Do not hook the snaphook to the hoist cable.
- Do not connect two (2) snaphooks to one (1) D-ring.



CAUTION

Gate should not open under pressure from any direction unless unlocked. If this condition is not met, or if the snaphook is damaged or is not functioning properly, remove the snaphook and hoist from service.

EMERGENCY DRIVE

All hoists are equipped with an optional emergency drive. See Figure 2. Activation of the emergency drive by-passes the load-limiting clutch and permits emergency lifting in excess of the maximum rated working load.



CAUTION

The emergency drive must be used only in case of an emergency where loads in excess of the rated working load must be raised or lowered. Immediately after emergency drive use, the hoist must be removed from service and returned to the manufacturer for inspection and service. Before use, the hoist must be inspected for presence of the emergency drive activation pin. Remove the hoist from use if this pin is missing.

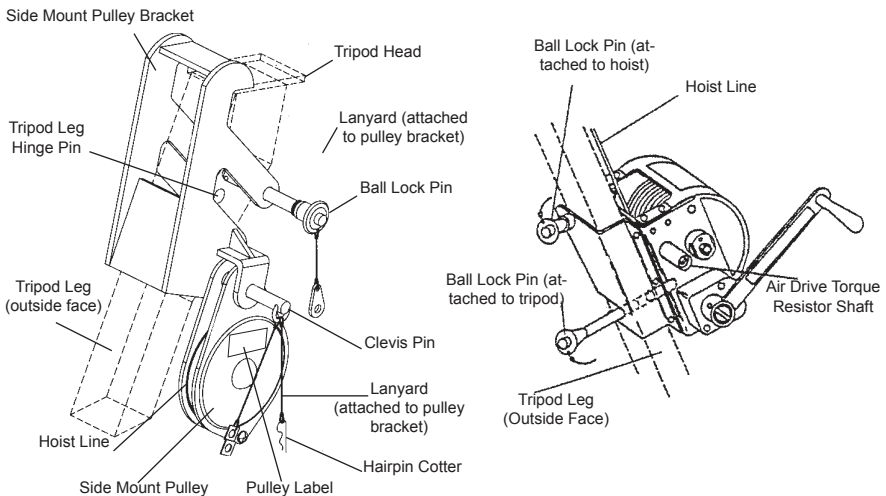
1.1 DESCRIPTION OF SIDE-MOUNT HOIST

The Side-Mount hoist is designed for use with the Lynx Tripod – P/N 10022050, P/N 10022051. See Figure 4. It may also be used with other anchorage connectors approved by MSA. The Side-Mount hoist serves as the primary lifting-lowering device for systems which use the tripod to position equipment for confined space entry above the area to be accessed. The hoist mounts to the side of the tripod leg. This position permits operation of the hoist by a surface attendant positioned away from the confined space access point, maximizes the usable space to the interior of the tripod and increases stability by lowering the tripod's center of gravity.

When installed on the Lynx Tripod, a pulley mounting bracket and Side-Mount pulley – P/N 506473 – are required for rigging the Side-Mount hoist line at the tripod head. This permits full use of the interior headroom of the tripod.

Note: When using the hoist for lifting-lowering of personnel, an independent fall arrest system is required. The MSA Lynx Rescuer retractable lifeline or MSA Dyna-Lock™ is recommended. See section 1.4.2. Other fall arrest systems are also available from MSA.

FIGURE 4
SIDE-MOUNT LYNX HOIST



1.2 DESCRIPTION OF BOOM-MOUNT HOIST

The Boom-Mount hoist consists of the basic hoist with an integral 42 in (107 cm) extension frame. See Figure 5. The Boom-Mount hoist is compatible with the Lynx Tripod, and can also be used in numerous applications with a variety of anchorage connectors.

The extension frame enable operation of the hoist by a user positioned away from the area to be accessed. Connection of the hoist to a suitable anchorage connector over the work area is enabled by a connector yoke/ anchorage hook assembly integrally mounted at the end of the extension frame. Both the connector yoke and anchorage hook will swivel, permitting the user to position the anchorage hook for speedy connection to the previously installed anchorage connector.

1.3 DESCRIPTION OF SOCKET-MOUNT HOIST

The Socket-Mount hoist is manufactured for use with the MSA Davitruck System (P/N 506356) which is a vehicle-mounted system. The vehicle-mounted davit provides an anchorage connection means in a variety of situations where anchorage connectors cannot be mounted directly above the work area. The davit may be rotated through 360 degrees, permitting attachment of equipment for fall protection and materials handling at a stable work surface, and subsequent positioning of personnel and/or materials over the work area. See Figure 6.

FIGURE 5

BOOM-MOUNT LYNX HOIST

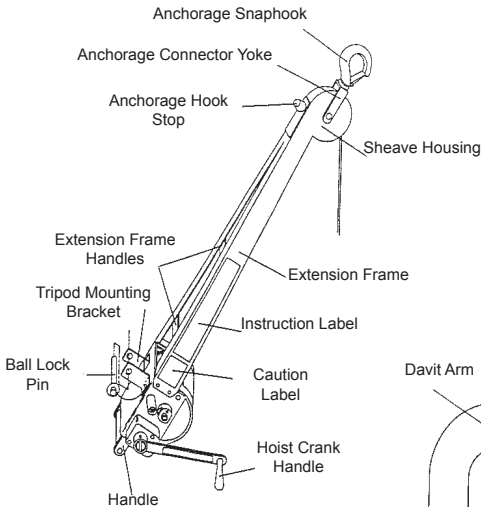
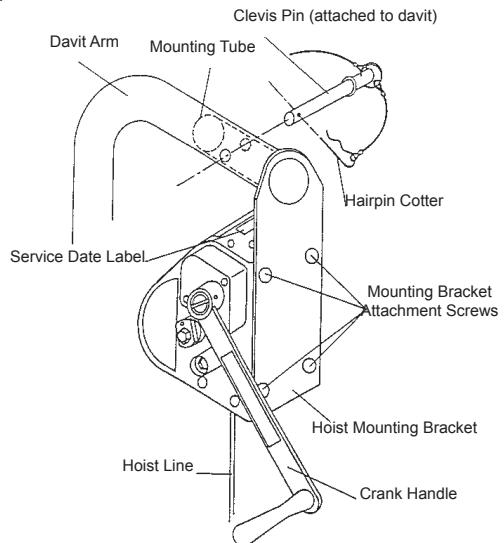


FIGURE 6

SOCKET-MOUNT LYNX HOIST



1.4 ACCESSORIES AND COMPANION PRODUCTS

A list of Lynx Hoist accessories and companion products is provided in Appendix C.



CAUTION

Under no circumstances should products of other manufacturers be used in conjunction with MSA products or systems without the prior written consent of Mine Safety Appliances Company. Use of incompatible products by other manufacturers may result in serious personal injury or death, and damage to equipment.

2.0 INSTALLATION

2.1 INSTALLING THE BOOM-MOUNT HOIST TO OTHER ANCHORAGES

The anchorage used to suspend the hoist for personnel or materials hoisting must be strong enough to support the load with an adequate safety factor. The required safety factors are 10:1 for personnel, 5:1 for materials. For personnel hoisting, the anchorage must have a strength of at least 5,000 lbs (22 kN). A backup fall arrest system must be utilized.



CAUTION

Select the anchorage and anchorage connector with which the hoist will be used under the guidance of a qualified person. If any question arises as the suitability of the anchorage connector for the intended application, discontinue installation of the hoist and contact the manufacturer.



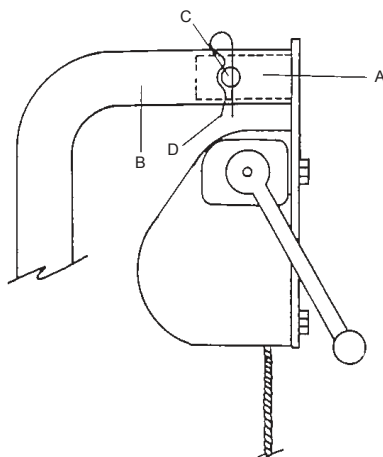
CAUTION

Install the installation snaphook so that unwanted movement of the snap and attached hoist is prevented. Otherwise, movement of a load may cause sudden movement of the snaphook and result in loss of balance by the operator.

2.2 INSTALLING THE SOCKET-MOUNT HOIST

The socket-mount hoist is designed for installation of MSA vehicle-mounted davits. Socket-mount hoists are supplied with a mounting tube which interfaces with the boom arm of the davit. To install the hoist, follow the steps below in sequence and refer to Figure 7.

FIGURE 7
INSTALLATION OF SOCKET-MOUNT HOIST



- Step 1:** Slide the hoist-mounting tube (A) into end of davit arm (B). If installing the hoist on a DaviTruck vehicle-mounted davit, first erect the DaviTruck in accordance with the instructions and labels accompanying that product.
- Step 2:** Align the holes in the davit arm with the holes in the hoist-mounting tube.
- Step 3:** Insert the davit boom arm clevis pin (C) through the holes in the davit arm and mounting tube.
- Step 4:** Secure the clevis pin with the hairpin cotter (D).

3.0 OPERATING INSTRUCTIONS

CAUTION

Inspect the hoist according to the instructions in Section 4.0 of this manual before and after each use. Also inspect each component with which the hoist will be used according to the instructions accompanying that product. If any component is found to be damaged or altered, immediately remove the system from use. Do not attempt field repair of equipment, and do not attempt use of the system without first replacing any damaged or altered component.

3.1 RESCUE PLAN

Always have a rescue plan when using the hoist for lifting or lowering personnel. A fall arrest system should always be used when lifting or lowering personnel, in case disconnection of the hoist line is necessary or in case failure of the hoist or hoist anchorage means occurs. A backup lifeline such as the Lynx Rescuer, which has an integral rescue winch that raises and lowers, is recommended to provide immediate rescue capability.

 CAUTION

Read this User Instruction completely and inspect the device before and after each use. Read and heed all labels on the device. Failure to observe instructions may result in serious or fatal injury. Keep this User Instruction in a safe place, readily accessible to all who may need to use the hoist. Require anyone intending to use the hoist to read this User Instruction carefully and completely before using it. Periodically read all labels and this User Instruction to reinforce knowledge.

3.3 OPERATION OF THE HOIST **CAUTIONS**

- *Never leave a load hanging from the hoist while the hoist is unattended.*
- *Always be sure the line is pulling straight out from the hoist drum – never at an angle.*
- *Never exceed the maximum rated loads listed on the hoist specification label.*
- *Never alter the mechanics of the hoist except to retrofit the air drive adapter kit in accordance with these instructions.*
- *Never use two or more hoists to raise or lower a heavier load. Load shifting may place the entire load on one hoist, causing sequential failure of both units.*
- *Always apply loads evenly. Do not jerk or bounce loads as this dynamic loading may generate forces in excess of the maximum working load.*
- *Each time a load is lifted, first test the hoist by lifting the load a few inches.*
- *Always keep hands away from pinch points around load-bearing lines, pulleys and drums during operation.*
- *Always ensure level winding when extracting or retracting line by guiding the line. Use a gloved hand when guiding the line to avoid cuts and wire slivers. Continually inspect for level winding during operation.*
- *It is critical that the hoist operator remain a safe distance away from any fall hazard or load which could cause injury in the event of a loss of balance on the part of the operator, or in the event of a load fall. When operating the hoist in a fall hazard area, the operator must wear appropriate fall protection equipment connected to an independent anchorage.*
- *All labels must be visible and the operator should never come between the hoist housing and line. The hoist operator must always operate the hoist with the housing and crank between him or herself and the load.*
- *Never install the hoist where any member of the work crew must be stationed in line with a tensioned hoist line. Should the line fail, stored energy may cause recoil of the line with sufficient force to cause serious or fatal injury.*

The hoist is a lifting/lowering/positioning hoist only. It is not to be used as a fall arrest device. Personnel using the hoist for lifting/lowering/positioning must have a backup fall arrest system, such as a Lynx Rescuer or Dyna-Lock Retractable Lifeline, plus a full body harness. When using the hoist for personnel, never have more than one person on the hoist at the same time. *Never* carry personnel and materials at the same time.

3.3.1 LOWERING A LOAD

To lower a load with personnel suspended, rotate the crank handle counter clockwise.

To extract line from the hoist when there is no suspended load, rotate the handle counter clockwise while pulling on the line with **at least 15 pounds of force**. Unless the line is thus loaded, the drive will not rotate the drum. This is an anti-backwinding feature that prevents loosening of the cable lays on the drum. To resume lifting, make three (3) clockwise revolutions of the crank handle.

3.3.2 SUSPENDING A LOAD

To suspend a load, slowly release the crank handle. If the handle is not cranked in a clockwise direction before suspending the load, slight rotation (up to 1/2 revolution) of the drum may occur as internal friction disks are tightened. This will result in up to 9 in (23 cm) additional line being extracted from the drum.

3.3.3 RAISING A LOAD

To raise a load, rotate the crank handle clockwise. A clicking sound will be heard as line is reeled in. When reeling in line, check to be sure the line wraps evenly and tightly around the drum.



CAUTION

In the event of a fall, lift before lowering to disengage the secondary brake pawls. Lift first at least one half turn of the drum before attempting to lower. Unless the secondary brake pawls are disengaged after a fall, the hoist will not pay out line.

3.4 USING THE AIR DRIVE



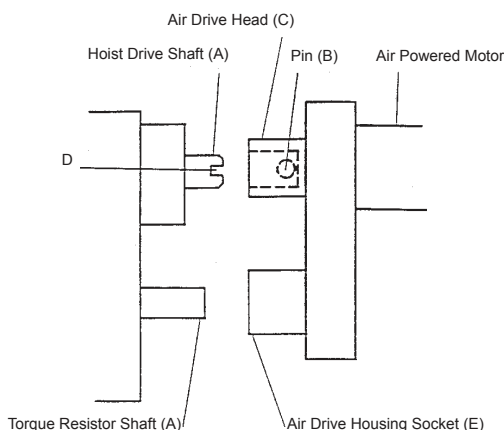
CAUTION

When using the air drive, always keep the hoist crank handle close at hand in case the air supply is interrupted and a load must be raised or lowered manually.

Before using air drive, verify that the torque resistor shaft has been installed. See Figure 1.

To install and use the air drive, follow the following steps and refer to Figure 8.

FIGURE 8
INSTALLATION OF AIR DRIVE ON HOIST



- Step 1:** Pull the handle (not shown in Figure 8) off the drive shaft (A).
- Step 2:** Align the pin (B) in the air drive head with the notch in the drive shaft (C), and the air drive housing socket (E) with the previously installed torque resistor shaft (F).
- Step 3:** Push air drive fully onto the hoist shafts and rotate the air drive head by hand so that the pin (B) engages the notch in the hoist drive shaft.
- Step 4:** To lift a load rotate the directional control knob on the air drive in a counter-clockwise direction and depress the throttle lever. To lower the load, rotate the directional control knob in a clockwise direction and depress the throttle lever.
- Step 5:** To remove the air drive, grip the body of the motor, apply slight rotation to the air drive head and pull directly away from the hoist.

4.0 INSPECTION

All MSA products are inspected and tested under controlled conditions at the factory before shipment. User inspection, maintenance and storage of the equipment takes on added importance once the device is subjected to potentially severe environmental and work place conditions.

Before each use the user should carefully inspect the device by following the inspection instructions on the specification and instruction labels. Inspect the functioning of the device according to the instructions in this section and examine the unit for excessive wear, damage, alteration or missing parts.

A recommended inspection form is included at the back of this manual.

Note: Inspection items marked with an asterisk (*) need not be performed daily, but must be performed at regular intervals and before and after lengthy periods of storage. The frequency of periodic inspection depends on the severity of environmental conditions and frequency of use of the unit, but must be performed at *least* every six months.

Periodic inspection must be performed by a competent person and must include all inspection items listed in this section. The results of this inspection must be documented using the inspection forms at the end of this User Instruction. The appropriate month and year on the inspection grid on the product must also be permanently marked using a steel stamp, taking care to not damage the hoist housing.

4.1 INSPECTING HOIST FUNCTIONS & OPTIONAL FEATURES



CAUTION

When a test load is needed to allow inspection of any hoist function, do not use personnel as a load. Make sure the area below hoist is free and clear of any obstructions. Always inspect the hoist functions prior to each use.

4.1.1 LINE PAYOUT AND RETRIEVAL

Mount the hoist to a suitable anchorage connector (such as the Lynx Tripod or davit anchorage connector) to allow operation of the crank. Maintaining tension on the hoist line, rotate the crank counterclockwise to pay the line out. Then rotate the crank clockwise to check for proper line retrieval. A clicking sound indicates that line retrieval is functioning correctly. Remove the product from use and return it to MSA if no clicking sound is heard. During line extraction and retraction, check that the winding guide wraps the line tightly around the drum.

4.1.2 HANDLE P/N R521204

Check for cracks, bends, broken welds and corrosion on the handle. Remove the product from use if any of these conditions are found and contact MSA Manufacturing for a replacement handle. Check that the O-ring set in the slot on the inside of the handle is present and not worn. If it's missing or worn, contact MSA Manufacturing for a replacement O-ring, P/N R621982.

4.1.3 EMERGENCY DRIVE

Check the emergency drive pin (shown in Figure 2) to make sure it is present. Remove the product from use and return the unit to MSA for service if the emergency drive pin is missing.

4.1.4 AIR DRIVE TORQUE RESISTOR SHAFT

Check for cracks and bends in the torque resistor shaft. Check that the set screw is present and tight.

4.2 INSPECTING INSTALLATION BRACKET & HOUSING

4.2.1

Check for presence of all labels shown in Figures 1, 2, 6 and Appendix D of this User Instruction. See that all labels are clear – not damaged – and legible. Check that the inspection grid date is within the previous six months. If six months have passed since the previous inspection, remove the product from use for inspection by a competent person, according to the instructions in section 4.0 of this User Instruction.

4.2.2

Using fingers, check all bolts and nuts on the housing to ensure their tightness. If loose, tighten them. Check to see if any bolts, nuts or other parts are missing or have been improperly substituted or altered in any way.

4.2.3

Look carefully for signs of cracks, dents, deformation or ruptures in the metal housing and installation bracket (see Figures 3, 4 and 5). Minor dents which do not affect function do not require user action.

4.2.4

Check the housing for signs of corrosion. Pay particular attention to the area around the installation hook and all bolts and nuts.

4.2.5

Check for signs that the housing and drum are rubbing. This will be evidenced by wear on the drum flanges and worn plating on the housing.

4.2.6

Check the impact load indicator pin on the drum axle nut (the nut with wrench flats shown in Figure 1). The impact load indicator is a roll pin which will be forced part way out of the nut if the hoist sees an impact load that activates the internal shock absorbing mechanisms.

4.2.7

If the user's model is a boom-mount hoist, check the extension frame and anchorage hook for cracks, or bends which may impair strength or function, broken welds and corrosion. Check that the sheave mounted at the boom end is undamaged and rotates freely.

4.3 INSPECTING THE SNAPHOOK

4.3.1

Check all parts of the swivel snaphook for signs of alteration, distortion, cracks, deep nicks, dents or cuts. Also check for indications that the snap has been subjected to intense heat which could affect its strength.

4.3.2

Unlock (A) and depress the snaphook gate (B) to its full open position and release (C). See Figure 3 for depiction of steps A, B and C.

4.3.3

Inspect for signs of corrosion or excess wear and remove the product from use if there is any question whether detected wear and/or corrosion may affect strength or function.

4.3.4

Check to see that the snap body swivels freely around the bolt connecting it to the snap eye.

4.4 LINE FITTINGS

4.4.1

Check the two pressed metal ferrules and the metal thimble. If the user's unit has a splice as the means of attaching the snaphook, the splice must be completely and tightly tucked with no loops or loose ends.

5.0 MAINTENANCE, STORAGE & SERVICE

Proper functioning and length of useful life of the hoist depends on the user's proper care, maintenance and storage of the product. The hoist should be formally inspected at least every 6 months and the results logged in this User Instruction.

The hoist winding mechanism is virtually maintenance free. All bearings are lubricated for life. The hoist contains no user serviceable parts.

Note: Do not lubricate any part of the hoist except the wire rope and the snaphook.

The line should be wound out fully and checked for any sign of wear or damage as outlined in Section 4.0. Do not break the stainless steel band which retains safety wraps on the drum.

5.1 CARE AND MAINTENANCE

Inspect the product in accordance with the User Instruction. Prevent denting or deformation of the housing. Never drop the unit from any height. Always set it down carefully. When in use, protect the line from contacting sharp corners and edges. Prevent loops from forming in a slack line and being pulled tight, causing line kinking. Do not allow foreign matter to enter the housing. Do not permit the line to snag or be crushed. Heed all caution labels and instructions as these are intended to prevent damage to the product as well as guide the user in correctly operating the device. Periodically use a clean, damp (not wet) cloth to remove dirt or contamination

which may cause corrosion or hamper legibility of labels. Never use solvents to clean the housing as they may break down the label adhesive.

If necessary, use a clean dry cloth to wipe the line dry as it is slowly re-reeled back into the device. If necessary, lubricate the line after this operation.

Lubrication must only be applied to a clean, dry wire line because it is effective only when the dressing comes in contact with metal. If inspection reveals buildup of contaminants, use a densely bristled fiber brush (not wire) to remove the contaminants. Never use gasoline or kerosene as a solvent. Pay particular attention to cleaning the gaps between the line strands so lubricant can penetrate into the line core and fill these gaps to seal out moisture and foreign particles.

Use a low viscosity field lubricant having moisture resistant, non-corrosive properties such as EWRS No. 66X, available from Ironside Company, Columbus, Ohio. It may be applied by brush or swabbing with a cloth saturated with the lubricant. Wipe off excess lubrication with a clean dry cloth.

It is impossible to specify the time intervals between lubrications. However, the line should be properly lubricated at all times, and periodic inspections will indicate when it must be done. In corrosive environments, the line should be cleaned and lubricated more frequently. If the hoist is taken out of service for an appreciable length of time, the line should be cleaned and lubricated before storage.

5.2 STORAGE

Store the device in a clean, dry place indoors, out of direct sunlight. If lengthy storage is required, periodically inspect the device. Store the device away from heat and steam, and never allow it to rest for lengthy periods of time on concrete or ash floors, as the lime sulfur and ash can cause corrosion.

5.3 OWNER REGISTRATION

The owner (user) must register their Lynx Hoist at www.MSAnet.com/register. Registration information will be used for warranty confirmation and may be used to communicate important product information to the user. Be sure to provide the permanent address and phone number of the owner and not the temporary address and phone number of a job site or temporary office.

5.4 OBTAINING FACTORY SERVICE

When factory service is required for the hoist, the steps below must be carefully followed:

1. Prepare and mail a purchase order for the requested service to MSA, 1000 Cranberry Woods Drive, Cranberry Township, PA 16066 or call at 1-800-672-2222.
2. The purchase order must contain:
 - a. Owner's name, address, phone and fax numbers
 - b. The name of owner's employee who can be contacted to authorize repair charges if necessary
 - c. The hoist's serial number, it's type and last inspection date.
 - d. Brief explanation of service and known repairs to be performed (for example, annual service, kinked line, broken snaphook, etc.).
 - e. The statement: "Basic service charge authorized. Advise price of repairs." Please note that any unit sent to MSA for service must, at a minimum, be disassembled, inspected and reassembled by MSA in order to determine if any service is required. Therefore, the minimum service charge must always be made.
 - f. The billing address if the owner already has an account with MSA. Otherwise, MSA terms are C.O.D. in the continental USA, and cash in advance, including freight charges elsewhere.
 - g. The return shipment address. MSA freight terms are prepaid and added if the owner has an account. Otherwise, the terms are freight collect.

5.5 SERVICE AND INSPECTION LOGS

MSA recommends that the hoist be formally inspected at least every 6 months, and immediately before it is used to carry personnel. It is the responsibility of the user and the user's management to perform timely formal inspections, and to log such inspections in this section.

5.5.1 INSPECTION LOG

Proceed down the column using the inspection categories and steps shown on the left as a checklist in conjunction with the inspection procedures in section 4.0 of this User Instruction. If the unit passes the inspection step, enter "OK" in the adjacent space of the column for this particular inspection. If at any point in the inspection procedure the unit fails to pass an inspection step, take the action specified in the appropriate subsection of section 4.0 and make a notation in the Inspection Log.

LYNX HOIST INSPECTION LOG

Serial Number _____ MSA Part Number _____

Date of Manufacture _____

Housing/Bracket/Boom*	Date of Inspection							
	Inspector							
	Bolts/Nuts/Screws							
	Labels							
	Damage							
	Corrosion							
	Impact Load Indicator							
	Anchorage Hook*							
	Handle							
	Braking							
Functions	Emergency Drive Pin							
	Torque Resistor Shaft							
	Locking Action							
	Corrosion							
Snaphook	Swivel							
	Damage/Wear							
	Line Ferrules/Splices							
	Thimble							

*Boom-mount hoist models only

Serial Number _____ MSA Part Number _____

Date of Manufacture _____

[illegible]

*Measure location from thimble

APPENDIX A

LYNX HOIST SPECIFICATIONS

SPECIFICATION	MOUNTING BRACKET			
UNIT OF MEASURE				
Safety Factor (Personnel)	10:1		—	
Safety Factor (Materials)	5:1		—	
Max. Working Load (Personnel)	310		lb	
	140		kg	
Max. Working Load (Materials)	620		lb	
	280		kg	
Minimum Line Strength	3,300		lb	
	14.7		kN	
Line Diameter	3/16		in	
	5		mm	
Swivel Snaphook Gate Opening	13/16		in	
	20		mm	
Crank Force to Lift 310 lbs/140 kg	13		lb	
	58		N	
Cranking Diameter	20		in	
	51		cm	
Avg. Lifting Speed (310 lbs/140 kg load)	25		ft/min	
	7.6		m/min	
	SIDE	BOOM	SOCKET	
Net Weight with 105 ft of line	47	62	51	lb
	21	28	23	kg
Boom Frame Length	N/A	42	N/A	in
	N/A	107	N/A	cm
Boom Hook Gate Opening	N/A	7/8	N/A	in
	N/A	22	N/A	mm

APPENDIX B

LYNX HOIST TYPES AND MODELS

Mount Type	Model (1)	Wire Rope		Part Number
	Length	Galv.	S.S.	
Side	105 ft		X	10016566
Side	50 ft		X	10016567
Side	105 ft	X		10016568
Side	50 ft	X		10016569
Boom	105 ft		X	10016680
Boom	50 ft		X	10016681
Boom	105 ft	X		10016682
Boom	50 ft	X		10016683
Socket	105 ft		X	10016684
Socket	50 ft		X	10016693
Socket	105 ft	X		10016694
Socket	50 ft	X		10016695

APPENDIX C**LYNX HOIST ACCESSORIES & COMPANION PRODUCTS**

Lynx Hoist			Accessory/Companion P/N	Accessory/Companion Description
Side	Socket	Boom		
		X	505282	Anchorage Connector Strap, nylon, 5 ft
		X	505298	Anchorage Connector Strap, polyester, 5 ft
X	X	X	506202	Dyna-Lock (10 m), galvanized steel
X	X	X	506203	Dyna-Lock (10 m), stainless steel
X	X	X	506204	Dyna-Lock (16 m), galvanized steel
X	X	X	506205	Dyna-Lock (16 m), stainless steel
X	X	X	506206	Dyna-Lock (22 m), galvanized steel
X	X	X	506207	Dyna-Lock (22 m), stainless steel
X	X	X	506208	Dyna-Lock (30 m), galvanized steel
X	X	X	506209	Dyna-Lock (30 m), stainless steel
X		X	10102002	Workman Tripod (8 ft)
X		X	10022051	Lynx Tripod (10 ft)
X		X	506216	Dynevac II, Dyna-Lock 22/30 bracket for Tripod
X	X	X	506222	Split-mount pulley
X		X	506232	Dynevac II 10/16 bracket for Tripod
		X	506252	BeamGlide trolley
X	X	X	506615	Dyna-Lock, 20' web unit
X	X	X	506619	Dyna-Lock Backpacker, 20' web unit
X	X	X	506261	Dynevac II and Dyna-Lock 22/30 flat surface bracket
	X		506362	Dynevac II and Dyna-Lock 22/30 davit brackets
X	X	X	506420	Air-powered drive assembly
X			521245	Side-mount pulley bracket
X			622002	Side-mount pulley
X	X	X	10011744	Lynx Rescuer 16M
X	X	X	10011745	Lynx Rescuer 30M



LYNX HOIST™

SIDE MOUNT PERSONNEL/MATERIALS HOIST

⚠ ADVERTENCIA

Se conformer impérativement aux instructions du fabricant jointes à ce produit au moment de l'expédition. Mettre le produit hors service si l'indicateur de charge est déployé.

⚠ ADVERTISSMENT

Signe las instrucciones del fabricante que se adjuntan a este producto. Retire del servicio si el indicador de carga advierte que se produjo una sobrecarga.

SPECIFICATIONS

Personnel Load 310 lbs (141 kg)
 Emergency Load (Personnel) 620 lbs (282kg)
 Maximum Materials Load 620 lbs (282kg)
 Safety Factor Personnel 10 : 1
 Safety Factor Materials/Emergency 5 : 1
 Strength 3,300 lbs (14.7 kN)
 Average Lifting Speed 25 f/min (7.6 m/min)

⚠ CAUTION

Install only on MSA Tripods, PIN 10022050, 10022051, MSA Felling Davit, PIN 50613, or other anchorage connector approved by MSA.

INSTALLATION:

- Erect tripod according to tripod instructions. Erect only to height where tripod head reachable by installer.
- Mount pulley bracket, PIN 506473 (A) to top of tripod leg. (B) to left of leg with green label.
- Pin pulley bracket in place with ball lock pin (C).
- Place hoist to right side of tripod leg (B), extract 9' of hoist line (D) and reeve over pulley (E).
- Pin pulley (E) in place with clevis pin (F).
- Hoist ensnaphook must hang to inside of tripod.
- Insert hairpin cotter (G) through clevis pin (F).
- Raise tripod to desired height.
- Insert leg pin (H) PART WAY through leg (B) from left side of outside face.
- Align notch (I) in hoist mounting bracket with pin (H) and push hoist onto leg.
- Push pin (H) completely through leg and hoist housing.
- Insert pin (J) through holes (K) at top of hoist bracket behind tripod leg.

⚠ CAUTION

Hoist operator must wear appropriate fall protection equipment when operating hoist in fall hazard areas. When lifting/lowering personnel, use independent fall protection lifeline attached to person being lifted/lowered.

TO LOAD OR RETRACT CABLE, ROTATE HANDLE CLOCKWISE. TO LOWER LOAD OR EXTRACT CABLE, ROTATE HANDLE COUNTERCLOCKWISE.

⚠ CAUTION

READ & HEED ALL LABELS AND SEPARATE INSTRUCTIONS, PIN 10016732. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH. ALL USERS MUST RECEIVE HANDS-ON TRAINING FROM A COMPETENT PERSON PRIOR TO ATTEMPTING INSTALLATION OR USE OF THIS PRODUCT.

- Inspect before and after each use and remove from use if any damage or malfunction is found.
- Always keep line under tension during winding.
- Use gloved hand to guide line during winding.
- Do not use if line is bunched or loosely wound.
- Do not leave suspended load unattended.
- Do not exceed maximum rated loads.
- Keep clothing and hands away from pinch points around load bearing pulleys, line, and drum.

INSPECTION GRID:

Periodic inspection by competent person required at least every 6 months. Inspect according to User Manual (PIN 10016732) and permanently mark inspection grid following inspection.

INSPECTION GRID													
N	R	J	E	M	A	M	J	J	A	S	O	N	D
1													
2													
3													
4													
5													

PUNCH GRID ON MONTH OF FIRST USE

U.S. Patent: 5361867



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Cranberry Twp. Pa. 16066-5207 U.S.A.
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714 (L) Rev. 5 10016727





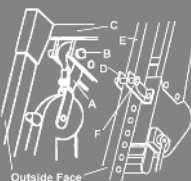
LYNX HOIST™

BOOM MOUNT PERSONNEL / MATERIALS HOIST

SPECIFICATIONS
 Personnel Load 310 lbs (141 kg)
 Maximum Materials Load 620 lbs (282 kg)
 Safety Factor Personnel 10 : 1
 Safety Factor Materials 5 : 1
 Minimum Line Strength 3,300 lbs (14.7 kN)
 Average Lifting Speed 25 f/min (7.6 m/min)

- #### INSTALLATION
- Installation to Tripode PIN 10022051
1. Snap boom hook (A) around large pin (B) at tripod head (C).
 2. Position hoist bracket (D) around tripod leg (E). If used with leg-mounted Dyna-Lock / Dynevac II, DO NOT mount Dyna-Hoist to tripod leg with yellow label.
 3. Pin in place (F).

Installation to suitable anchorages
 Snap boom hook to compatible anchorage with minimum tensile strength of 5,000 lbs (22 kN). Install under supervision of qualified person.



TO LIFT LOAD OR RETRACT CABLE, ROTATE HANDLE CLOCKWISE. TO LOWER LOAD OR PAY OUT CABLE, ROTATE HANDLE COUNTER CLOCKWISE.

- Inspect before & after each use & remove from use if any damage or malfunction is found.
- Always keep line under tension during winding.
- Use gloved hand to guide line during winding.
- Do not leave suspended load unattended.
- Do not exceed maximum rated loads.
- Keep clothing and hands away from pinch points around load bearing pulleys, line & drum.

INSPECTION GRID: Periodic inspection by competent person required at least every 6 months. Inspect according to User Manual (PIN 10016732) and permanently mark inspection grid following inspection.

INSPECTION GRID												
YR	J	F	M	A	M	J	J	A	S	O	N	D
1 st												
2 nd												
3 rd												
4 th												
5 th												

PURCH GRID ON MONTH OF FIRST USE

PUNCH GRID ON MONTH OF FIRST USE

U.S. Patent: 5361867

Read & heed all labels and separate instructions, PIN 10016732. All users must receive hands-on training from a competent person prior to attempting installation or use of this product.

Hoist operator must wear appropriate fall protection equipment when operating hoist in fall hazard areas. When lifting/lowering personnel, use independent fall protection lifeline attached to person being lifted/lowered. Failure to do so can result in death or serious injury.

Les y presta atención a todos los etiquetas y las instrucciones separadas, NIP 10016732. Todos los usuarios deben recibir entrenamiento práctico de una persona competente antes de intentar realizar la instalación o utilizar este producto.

El operador del elevador debe usar el equipo de protección contra caídas apropiado al usar el elevador en los casos de peligro. Al levantar o bajar personal, utilice una cuerda extensiva independiente para brindar protección contra caídas conectada a la persona que se levanta o baja. El incumplimiento de esta obligación podría provocar lesiones graves o la muerte.

Lire et inspecter toutes les étiquettes et instructions, PIN 10016732. Tous les utilisateurs doivent recevoir une formation pratique de l'un des personnes compétentes avant de tenter d'installer ou d'utiliser ce produit.

L'opérateur du panier doit porter un dispositif antichute approprié lorsqu'il utilise dans un endroit où existe un risque de chute. Lorsqu'un personnel est soulevé ou abaissé, il faut utiliser un dispositif antichute indépendant fixé à la personne soulevée ou abaissée. L'absence de précaution pourrait entraîner des blessures graves, voire mortelles.



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Made in USA

714 Rev B 10016720

SIDE MOUNT HOIST INSTRUCTION LABEL

BOOM MOUNT HOIST INSTRUCTION LABEL



SOCKET MOUNT PERSONNEL/MATERIALS HOIST

⚠ ADVERTENCIA

Se conformer impérativement aux instructions du fabricant jointes à ce produit au moment de l'expédition. Mettre le produit hors service si l'indicateur de charge est déployé.

⚠ ADVERTISSEMENT

Siga las instrucciones del fabricante que se adjuntan a este producto. Retire del servicio si el indicador de carga advirtiera que se produjo una sobrecarga.

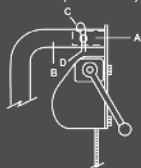
SPECIFICATIONS

Personnel Load	310 lbs (141 kg)
Emergency Load (Personnel)	620 lbs (282kg)
Maximum Materials Load	620 lbs (282kg)
Safety Factor Personnel	10 : 1
Safety Factor Materials/Emergency	5 : 1
Strength	3,300 lbs (14.7 kN)
Average Lifting Speed	25 ft/min (7.6 m/min)

⚠ CAUTION

Install only on MSA davit. P/N 506356 or other anchorage connector approval by MSA.

INSTALLATION: 1. Slide hoist mounting tube (A) into end davit boom arm (B). 2. Align holes in mounting tube with holes in davit boom arm. 3. Insert boom arm pin (C) through holes. 4. Secure pin with hairpin cotter (D).



⚠ CAUTION

Hoist operator must wear appropriate fall protection equipment when operating hoist in fall hazard areas. When lifting/lowering personnel, use independent fall protection lifeline attached to person being lifted/lowered.

TO LOAD OR RETRACT CABLE, ROTATE HANDLE CLOCKWISE. TO LOWER LOAD OR EXTRACT CABLE, ROTATE HANDLE COUNTERCLOCKWISE.

⚠ CAUTION

READ & HEED ALL LABELS AND SEPARATE INSTRUCTIONS, P/N 10016732. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH. ALL USERS MUST RECEIVE HANDS-ON TRAINING FROM A COMPETENT PERSON PRIOR TO ATTEMPTING INSTALLATION OR USE OF THIS PRODUCT.

- Inspect before and after each use and remove from use if any damage, or malfunction is found. ● Always keep line under tension during winding. ● Use gloved hand to guide line during winding. ● Do not use if line is bunched or loosely wound. ● Do not leave suspended load unattended. ● Do not exceed maximum rated loads. ● Keep clothing and hands away from pinch points around load bearing pulleys, line, and drum.

INSPECTION GRID: Periodic inspection by competent person required at least every 6 months. Inspect according to User Manual (P/N 10016732) and permanently mark inspection grid following inspection.

INSPECTION GRID												
YR	J	F	M	A	M	J	J	A	S	O	N	D
1 st												
2 nd												
3 rd												
4 th												
5 th												

PUNCH GRID ON MONTH OF FIRST USE

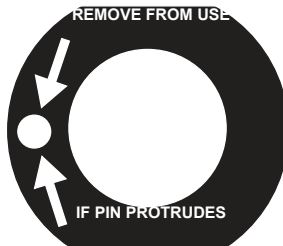
U.S. Patent: 5361867

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417 (L) Rev. 4

10016728



EMERGENCY DRIVE LABEL

PRODUCT NAME

Model/Modelo/Modèle **C** MODEL NUMBER

Length
Longitud
Longueur **LINE LENGTH**

Line Material
Longitud Material
Longueur Matière **LINE MATERIAL**

Date Made
Fecha de Fabricación
Date de Fabrication **DATE MADE**

Meets Standards
Cumple las normas
Satisfait aux normes **APPLICABLE STANDARDS**

Last Factory Inspection
Última inspección en fábrica
Dernière inspection en usine **LAST INSPECTION**

Expiration Date
Fecha de vencimiento
Date de péremption **N/A**

Made In
Fabricado en
Fait en/au/aux **COUNTRY**

801 Rev. 4

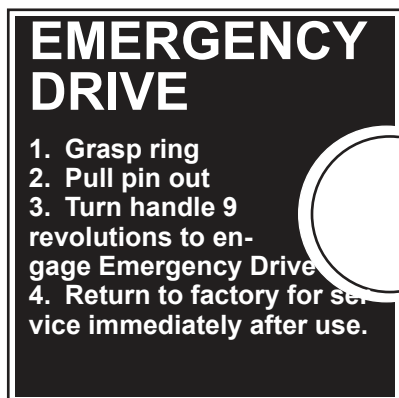
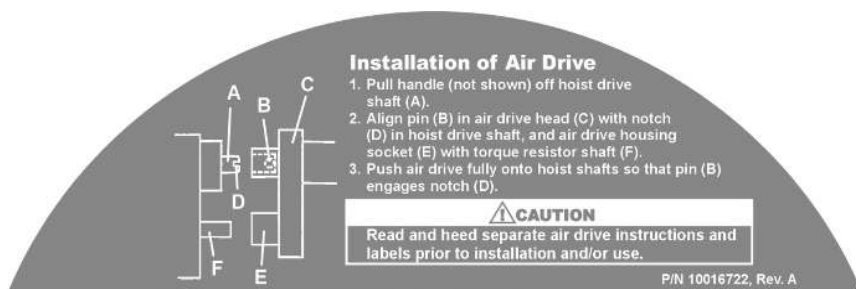
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LAST FACTORY SERVICE DATE LABEL

SOCKET MOUNT HOIST INSTRUCTION LABEL



SERIAL NUMBER TAG

**HANDLE LABEL****EMERGENCY DRIVE LABEL****AIR DRIVE ATTACHMENT INSTRUCTION LABEL****SIDE MOUNT HOIST PULLEY LABEL**

Express Warranty – MSA warrants that the product furnished is free from mechanical defects or faulty workmanship for a period of one (1) year from first use or eighteen (18) months from date of shipment, whichever occurs first, provided it is maintained and used in accordance with MSA's instructions and/or recommendations. Replacement parts and repairs are warranted for ninety (90) days from the date of repair of the product or sale of the replacement part, whichever occurs first. MSA shall be released from all obligations under this warranty in the event repairs or modifications are made by persons other than its own authorized service personnel or if the warranty claim results from misuse of the product. No agent, employee or representative of MSA may bind MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. MSA makes no warranty concerning components or accessories not manufactured by MSA, but will pass on to the Purchaser all warranties of manufacturers of such components. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AND IS STRICTLY LIMITED TO THE TERMS HEREOF. MSA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Exclusive Remedy - It is expressly agreed that the Purchaser's sole and exclusive remedy for breach of the above warranty, for any tortious conduct of MSA, or for any other cause of action, shall be the repair and/or replacement, at MSA's option, of any equipment or parts thereof, that after examination by MSA are proven to be defective. Replacement equipment and/or parts will be provided at no cost to the Purchaser, F.O.B. Purchaser's named place of destination. Failure of MSA to successfully repair any nonconforming product shall not cause the remedy established hereby to fail of its essential purpose.

Exclusion of Consequential Damages - Purchaser specifically understands and agrees that under no circumstances will MSA be liable to Purchaser for economic, special, incidental, or consequential damages or losses of any kind whatsoever, including but not limited to, loss of anticipated profits and any other loss caused by reason of the non-operation of the goods. This exclusion is applicable to claims for breach of warranty, tortious conduct or any other cause of action against MSA.

For additional information, please contact the Customer Service Department at 1-800-MSA-2222 (1-800-672-2222).

MSA CORPORATE HEADQUARTERS ■ 1000 CRANBERRY WOODS DRIVE

CRANBERRY TWP. ■ PA ■ 16066 ■ USA

TEL. 1-800-672-2222 ■ FAX 1-800-967-0398

TECHNICAL SUPPORT LINE 1-888-421-8324