

MODEL NUMBER

SERIAL NUMBER

# USER INSTRUCTIONS

## SELF RETRACTING LANYARD (SRL) AND EMERGENCY RESCUER WITH LOCKOUT FIELD RESET CAPABILITY

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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, and 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 RESCUER MODELS AND SPECIFICATIONS

TABLE 1. ROSE LYNX RESCUER MODELS COVERED BY THESE INSTRUCTIONS

MODEL	DESCRIPTION	STEEL LINE (WIRE ROPE)	LINE LENGTH	HOUSING SIZE	APPROX. NET WEIGHT
10011744	LYNX RESCUER 50 ft.	Stainless 3/16" Diameter	50 ft. (16 m)	15x96x6 in (38x23x15 cm)	33 lbs (15 kg)
10011745	LYNX RESCUER 95 ft.	Stainless 3/16" Diameter	95 ft. (30 m)	20x12x6 in (38x23x15 cm)	51 lbs (23 kg)

1.1 LYNX RESCUER SRL WITH EMERGENCY RESCUER

Meets: OSHA requirements, ANSI A10.14, ANSI Z359.1 and CSA Z259.2 standards.

Materials: Formed steel housing, zinc plated. Aluminum drum. Forged steel snaphook.

Lifeline: Stainless steel wire rope, 3/16 inch (5 mm) diameter, minimum breaking strength 3100 lbf (13.7 kN).

Capacity: Maximum for personnel is 310 lbs (140 kg) including weight of the user plus clothing, tools and other user-borne objects. Minimum capacity is 75 lbs (34 kg).

Lockout Feature: A worker may set the unit from self retracting lanyard mode (Fall Arrest) to hoist mode (Emergency Retrieval). A key is required to reset the unit back to self retracting lanyard mode.

Brake: Auto braking of the drum will function with the handle released while the unit is in the emergency retrieval mode.

Line Locking: The lifeline will lock at a velocity of 4.5 ft/sec (1.4 m/s). Locking mechanism is mechanical and does not rely on centrifugal force to engage.

Line Tension: The lifeline is maintained at a constant tension of approximately 3 lbf (1.4 kg) to reduce total fall distance.

Total Fall Distance: Including free fall distance and elongation for fall arrest is less than 36 inches (0.9 m).

Factory Service: Recommended factory service interval is every 2 years.

STANDARD LINE LENGTHS	50 FEET (16 M)	95 FEET (30 M)		
Housing Size:	15 X 9 X 6 in	20 X 12 X 6 in		
	(38x23x15cm)	(51x31x15cm)		
Net Weight:	33 lbs (15 kg)	51 lbs (23 kg)		
Maximum Arresting Forces:	900 lbf (4 kN)	900 lbf (4 kN)		
Emergency Retrieval (Hoisting) Performance - When Lifting 220 lbs (100 kg):				
	ng) i en en años mile			
Cranking Force:	15.5 lbf (69 N)	21 lbf (1.0 kN)		
		0,0,		
Cranking Force:	15.5 lbf (69 N) 25 ft/min (7.6 m/min)	21 lbf (1.0 kN) 25 ft/min (7.6 m/min)		
Cranking Force: Approximate Lifting Speed:	15.5 lbf (69 N) 25 ft/min (7.6 m/min)	21 lbf (1.0 kN) 25 ft/min (7.6 m/min)		

## Notes

- 1. All measured data in this section is approximate.
- 2. The measured values shown are the average of a series of tests, using a rigid steel weight directly connected to the line and performed in accordance with ANSI Z359.1, section 4.3.7.1. The maximum arrest force which the user experiences during a fall while using a LYNX RESCUER and a full body harness is approximately 70 percent of the measured test values (reference OSHA 1910.66, Appendix C) due to energy dissipation by the harness and the human body. Therefore, the maximum arrest force on the user will be less than 900 lbf (4 kN).

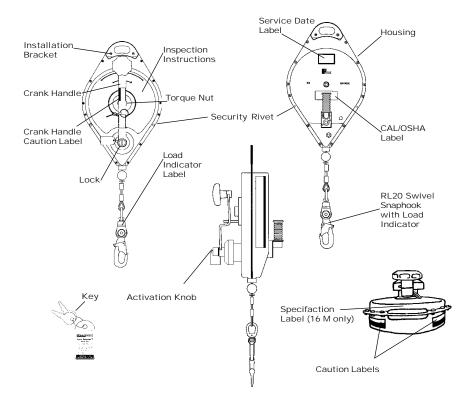
## 2.0 LYNX RESCUER SELECTION AND APPLICATIONS

## 2.1 PURPOSE OF ROSE LYNX RESCUER

The LYNX RESCUER is a retractable lifeline fall arrester with a built-in emergency rescue mechanism. As such it is one component of a fall arrest and emergency retrieval system. These two functions in one unit requires two separate modes of operation: 1) fall arrest mode, and 2) emergency retrieval (rescue) mode. It may also be used for ladder climbing, rescue, personnelriding and confined space entry/exit operations, and training applications, depending on which attachment elements are included. Other components are required to make up complete systems. The Lynx Rescuer may be used to raise and lower materials up to 310 lbs capacity.

## 2.2 TYPICAL APPLICATIONS

The LYNX RESCUER can be used in fall arrest and emergency retrieval systems on buildings, bridges, towers, derricks, ladders, roofs, tank cars, hopper cars, tanks, vessels, mine shafts, elevator shafts, manholes, silos and bins. These are but a few of the many applications. It can be used both above and below ground. It is suitable in most manufacturing, mining, construction, oil field,



refinery, maintenance, and industrial settings. The LYNX RESCUER is one component of multicomponent systems. The user should always consult with a competent person or qualified engineer to determine if the LYNX RESCUER is suitable for his specific intended application before placing it in use.

## 2.3 USAGE LIMITATIONS

The following applications limitations must be considered and planned for before using the LYNX RESCUER:

## 2.3.1 PHYSICAL LIMITATIONS

The LYNX RESCUER is designed for use by one person with a combined total weight between 75 and 310 lbs (34 and 140 kg), including clothing, tools, and other user-borne objects. Persons with muscular, skeletal, or other physical disorders should consult a physician before using a personal fall arrest system that includes a LYNX RESCUER. Pregnant women and minors must never use these systems. Increasing age and lowered physical fitness may reduce a person's ability to withstand shock loads during fall arrest or prolonged suspension. Consult a physician if there is any question about physical ability to safely use this product to arrest a fall or suspend.

#### 2.3.2 ENVIRONMENTAL HAZARDS

When using the Lynx Rescuer, be aware of your environment and any hazards which may exist. Acidic, alkaline, or other environments with harsh substances may damage the hardware elements of this LYNX RESCUER. Do not use the LYNX RESCUER in environments with temperatures greater than 185° F (85° C). Do not expose the LYNX RESCUER to corrosive environments for prolonged periods. Use extreme caution when working near energized electrical sources. Metal hardware on the LYNX RESCUER and on other components connected to it will conduct electric current. When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), make sure that there are no loose elements in any part of the system. Do not expose the LYNX RESCUER line to sharp edges or abrasive surfaces that could cut, fray, abrade or weaken the wire rope. Any LYNX RESCUER which shows signs of excessive wear, deterioration or malfunction must be removed from use and marked "UNUSABLE" until repaired.

#### 2.3.3 IMPACT FORCES

If the load indictor on the snaphook shows that the LYNX RESCUER which has been subjected to the forces of arresting a fall, the unit must be removed from service and returned to the factory for inspection of the internal mechanism and repairs, if necessary.

## 3.0 COMPATIBILITY OF SYSTEM PARTS

## 3.1 COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS

The Rose LYNX RESCUER is designed to be used with Rose approved components and connecting subsystems. Use of the LYNX RESCUER with products made by others that are not approved in writing by Rose may adversely affect the functional compatibility between system parts and the safety and reliability of the complete system. Connecting subsystems must be suitable for use in the application (e.g. fall arrest, climbing protection, rescue or personnel-riding). Rose Manufacturing Company produces a complete line of connecting subsystems for each application. Contact Rose for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. Contact Rose Manufacturing Company with any questions regarding compatibility of equipment used with the LYNX RESCUER.

## 3.2 COMPATIBILITY OF CONNECTORS

Connectors, such as D-rings, snaphooks, and carabiners, must be rated at 5,000 lbf (22 kN) minimum breaking strength. Rose connectors meet this requirement. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally disengage ("rollout"). Always verify that the connecting snaphook or carabiner and the D-ring on a full body harness or connection element of the anchorage or anchorage connector are compatible. Use only self-closing, self-locking snaphooks and carabiners (as defined and required by ANSI Z359.1) with the LYNX RESCUER.

## 3.3 ANCHORAGES AND ANCHORAGE CONNECTORS

Anchorages for personal fall arrest systems must have a strength capable of supporting a static load, applied in directions permitted by the system, of at least: (a) 3,600 lbf (16 kN) when certification exists, or (b) 5,000 lbf (22.2 kN) in the absence of certification. See ANSI Z359.1 for definition of certification. The Rose LYNX RESCUER is designed for connection by a single personal fall arrest system. See ANSI Z359.1, section 7.2.3. This requirement is consistent with OSHA requirements under 20 CFR 1910, Subpart F, Section 1910.66, Appendix C. In addition, it is recommended that the user of personal fall arrest systems refer to ANSI Z359.1, Section 7, for important considerations in equipment selection, rigging, use, and training. Contact Rose for information regarding custom design applications for the LYNX RESCUER.

Perform the hazard identification and evaluation then plan the system(s) before starting work. Consider all possible paths of user movement and all factors that could affect the user's safety before, during, and after a fall anywhere along these paths. A competent person must select the components, materials, anchorage and anchorage connectors to match the system application, the work, workplace hazards, and the environment.

## 4.0 INSTALLATION AND INSTRUCTIONS FOR USE

## 4.1 LYNX RESCUER INSPECTION BEFORE EACH USE

Inspect the LYNX RESCUER to verify that it is in serviceable condition. Gloves should be worn to prevent injury while handling the LYNX RESCUER and its wire rope. Examine every inch of the LYNX RESCUER working line for severe wear, frays or broken strands, corrosion, cuts, or other damage. Examine the function of the LYNX RESCUER by slowly pulling the line and ensure smooth and even deployment of the line. Pull rapidly on the end of the line to engage the locking mechanism and ensure its function, release the line and allow it to retract into the unit. See section 7 for inspection details. Do not use the LYNX RESCUER if inspection reveals an unsafe condition.

Never attempt to use the LYNX RESCUER as a fall arrester if the emergency retrieval mode has been activated. This is indicated by the loss of cable retraction, engagement of the rescue handle, or the lock protruding from the crank hub. Once the emergency retrieval mode has been completed, the unit may be reset to fall arrest mode.

## 4.2 INSTRUCTIONS FOR USE

Understand and inspect the LYNX RESCUER before each use. Read and understand all User Instructions for other system components prior to using them. In particular, inspect the line retraction and locking mechanism.

Move about carefully in the work area to prevent loss of balance from line tension or locking. The tension is smallest when the least line is extended and increases gradually to its maximum as the line approaches full extension. When line is being extracted, the brake will lock at a rate of about 4.5 ft/ sec (1.4 m/sec). The user should practice using the device on a flat surface where no fall hazard exists. Avoid quick or sudden movements in any direction.

Do not use the LYNX RESCUER as a positioning device. When a work positioning or travel restriction system is required, consult a competent person or qualified safety engineer,

Be extremely careful when considering the use of the LYNX RESCUER for fall arrest of a user working on a sloped surface such as a pitched roof or tank bottom. If the user falls and slides on such a surface, the LYNX RESCUER line may not be extracted fast enough to cause the units' locking mechanism to arrest the sliding fall. The user may, therefore, slide into a hazard zone such as a roof edge or an auger in a tank bottom. The use of a work positioning system or a travel restriction system should be first considered for such applications. Do not install the LYNX RESCUER for such applications if there is any question whether it will arrest the sliding fall before a hazard is encountered.

Do not use the LYNX RESCUER to arrest falls due to collapse of sliding masses such as grain, sand or liquids. When a sliding mass collapses, it may do so at a rate of speed lees than the minimum locking speed of the LYNX RESCUER. Suffocation may result. Always maintain solid footing when fall hazards exist.

#### 4.2.1 FALL ARREST MODE

The LYNX RESCUER is a fall arrester of the retractable lifeline type with a built-in emergency rescue mechanism. DO NOT use the LYNX RESCUER for other than fall arrest or rescue of one person at a time. The LYNX RESCUER is specifically designed for the arrest and retrieval after an accidental fall of one person whose total combined weight including clothing, tools and other

user-borne objects is between 75 and 310 lbs (34 and 140 kg). Never attempt to use the LYNX RESCUER for protection against falls of materials or equipment.

For fall arrest, connect the LYNX RESCUER snaphook to the fall arrest attachment (back D-ring) of the harness. Be certain the snaphook gate is completely closed and locked securely.

It is permissible to use a front (chest) D-ring for connection to the LYNX RESCUER for the special case of vertical fixed ladder climbing provided the LYNX RESCUER line extends straight up (as opposed to angularly up).

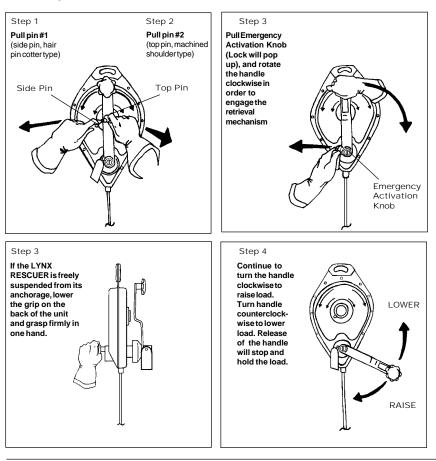
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It is the responsibility of the user to have a rescue plan and the means at hand to implement it when using this equipment.

#### 4.2.2 EMERGENCY RETRIEVAL MODE

To activate the LYNX RESCUER emergency retrieval mechanism it is first necessary to unpin the handle from its fixed position. This is accomplished by performing the following steps in sequence:

Step 1 Pull pin #1 (side pin, hair pin cotter type) completely out and retain it, as it will be used again.



- Step 2 Pull pin #2 (top pin, machined shoulder type) completely out and retain it, as it will be used again.
- Step 3 Pull the activation knob on the red hub (located in the center of the handle). The lock will pop out. Rotate the handle clockwise in order to engage the retrieval mechanism.

If the LYNX RESCUER is freely suspended from its anchorage, lower the grip (handle) on the back of the unit into the position and grasp the grip firmly in one hand. This will assist in stabilizing the LYNX RESCUER during lifting and lowering operations.

Step 4 Continue turning the handle clockwise to take in line (raise load). Turning the handle counterclockwise will let out line (lower load). Release of the handle knob will stop and hold the load.

#### 4.2.3 LIFTING AND LOWERING DURING RESCUE

Carefully follow the procedure to engage the emergency retrieval mode described in section 5.3.2. The rescuer must take precautions to be secure from falling while operating the LYNX RESCUER in the emergency retrieval mode, or at any time while exposed to a fall hazard.

When the suspended person is being lifted or lowered, care must be taken by the rescuer not to allow slack to develop in the line which would permit a fall of the suspended person. This could occur if the suspended person is conscious and can grab a nearby structural member and climbs faster than the rate of line intake by the rescuer, or, if the suspended person remains stationary while the rescuer lets out the line.

When the suspended person reaches the level at which the rescuer or others can detach him from the line, extreme caution must be taken to remove the person from the fall hazard and administer appropriate first aid or medical measures. If the LYNX RESCUER is mounted to a portable anchorage connector (such as the Lynx Tripod) great care must be taken to avoid toppling the anchorage connector in the process of pulling the person to a lateral position above the recovery surface. Pull the person toward one of the three legs of the anchorage connector.

When the LYNX RESCUER has been subjected to the forces of arresting a fall or equivalent forces, it should be removed from use and returned to the factory for inspection and service.

#### 4.2.4 RESETTING THE LYNX RESCUER TO FALL ARREST MODE IN THE FIELD

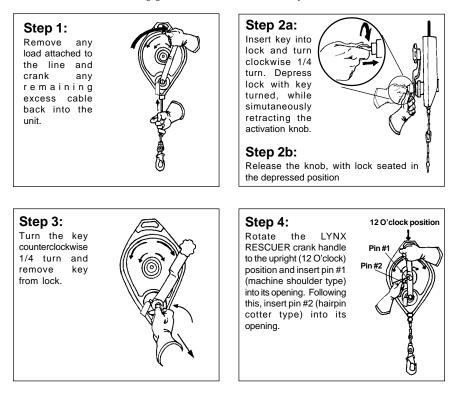
A key is required to reset the unit from emergency retrieval mode to fall arrest mode. The key should remain in the hands of a competent person. This allows the competent person to more closely monitor the use and avoid potential misuse of the LYNX RESCUER. It also alerts the competent person when a rescue has been performed on the job site.

In order to return the LYNX RESCUER to fall arrest mode once it has been activated in emergency retrieval mode, perform the following steps in sequence:

- Step 1 Remove any load attached to the line and crank any remaining excess cable back into the unit.
- Step 2 Pull activation knob on the red hub out, and rotate 90 degrees so that knob remains extracted. Insert key into lock and turn clockwise 1/4 turn. Depress the lock with the key turned. With lock fully depressed, rotate activation knob to release it. This will secure the lock in the depressed position.
- Step 3 Turn the key counterclockwise 1/4 turn and remove the key from the lock.

Step 4 Rotate the LYNX RESCUER crank handle to the upright (12 o'clock) position and insert pin #1 (machine shoulder type) into its opening. Following this, insert pin #2 (hairpin cotter type) into its opening.

The unit is now engaged in fall arrest mode and ready for use.



## 4.3 GENERAL PRECAUTIONS

## 4.3.1

When engaging the LYNX RESCUER in emergency retrieval mode immediately after a fall, turn the handle one quarter turn in the clockwise direction (raise load) before lowering or turning the handle counter clockwise.

## 4.3.2

**DO NOT** work with the line at full extension. Always keep at least 2 ft (0.6 m) of line inside the device for shock absorption. The LYNX RESCUER shock absorber works on the principle of compression disks which retard the rate of drum rotation (line extension) after the brake is locked. If there is insufficient or no line wound on the drum at the time of an accidental fall, there will be insufficient shock absorption. To check how much line is remaining on the drum, the user should grasp the line at a point above his head and slowly extend the line downward. After noting the length of such extension, control the retraction of the line back into the device until the line is again taut.

#### 4.3.3

**DO NOT** use in applications that require frequent or continual use as a material hoist. The Lynx Rescuer is not intended to be used for general purpose work positioning or manriding applications.

#### 4.3.4

**DO NOT** alter or misuse the equipment. Doing so may void factory warranty or may result in serious injury or death.

4.3.5

**DO NOT** allow the line to pass beneath the neck or arms, between the legs or to wrap around the body or limbs. Keep the line taut and behind the back at all times to prevent interference with work operations and looping of line which could produce bodily injury in a fall.

#### 4.3.6

**DO NOT** allow foreign matter to enter the housing of the LYNX RESCUER. DO NOT obstruct the line orifice. Obstructing the line orifice can defeat the device's shock absorption function, produce line slack and damage and adversely affect cable extraction and retraction.

#### 4.3.7

**DO NOT** release line and allow it to re-reel freely back into the device. This can cause damage to the internal spring, uneven coiling of line on the drum and possible line damage. It can also cause the user to lose balance when the line suddenly becomes taut after building momentum. Do not allow the line to slide through the hands without wearing gloves. A better method is to control re-reeling by gripping the line in a hand-over-hand fashion. If the user disconnects from the LYNX RESCUER when the line is extended, he should not snap off the cable and leave it in the extended condition for a prolonged time as this will fatigue the internal spring and result in future poor line retraction. Instead, the user should tie a sufficiently long piece of light rope to the snaphook and control the complete retraction of the line. The light rope should then be tied to a nearby point where it is out of the way of activity in the area. The LYNX RESCUER is then accessible for the next ascent by pulling the light rope to extend the line until the snaphook is within reach.

## 5.0 CARE, MAINTENANCE AND STORAGE

## 5.1 CLEANING INSTRUCTIONS

To clean the housing, periodically use a clean, damp (not wet) cloth to remove dirt or contamination which may cause corrosion or hamper readability of labels. Wipe off any moisture before returning the LYNX RESCUER to service. The frequency of cleaning should be determined by inspection and by severity of the environment. In highly corrosive environments, cleaning will be required more often. Never use solvents to clean the housing as they may break down the label adhesive. DO NOT use abrasives to scour the housing as they may damage the plating and the labels. To remove oil or grease use a mild dishwater detergent on a damp cloth or sponge and follow by repeated swabbing with a clean damp cloth to remove all soap residue. Never immerse the product in water or other liquid. If water gets into the housing hang the device from the installation bracket and slowly extract all the cable allowing the water to run out of the cable orifice. Use a clean dry cloth to wipe the cable dry as it is slowly re-reeled back into the device. Leave the device hanging in a warm dry room with the cable slightly extended to keep the ball stopper from plugging the orifice. Repeat the cable extraction and drying operation after a few hours and return to use when the internal drying is complete. If necessary, lubricate the cable after this operation (see section 5.2). Questions concerning LYNX RESCUER condition and cleaning should be directed to Rose Manufacturing Company.

## 5.2 MAINTENANCE AND SERVICE

Proper maintenance is both preventive and corrective in nature. Major maintenance can only be performed at the factory. Routine maintenance, including cleaning, wire rope lubrication and removal of broken wire ends is all that is permissible for the user to perform. Lubrication must only be applied to a clean, dry 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 wire rope strands so lubricant can penetrate into the core and fill these gaps to seal out moisture and foreign particles.

Use a low viscosity lubricant having moisture resistant, noncorrosive properties. It may be applied by brushing on or swabbing with a cloth saturated with the lubricant. Wipe off excess lubricant with a clean dry cloth. It is impossible to specify the time intervals between lubrications. The working line should be properly lubricated at all times and thorough periodic inspections will indicate when it must be done. In corrosive environments the line should be cleaned and lubricated more frequently. If the LYNX RESCUER is taken out of service for an appreciable length of time, the line should be cleaned and lubricated before storage.

## 5.2.1 LUBRICATION OF SNAPHOOK

The moving parts of the snaphook at the end of the LYNX RESCUER working line require periodic lubrication. Use a lightweight (low viscosity) penetrant oil that has good resistance to temperature extremes, moisture and corrosion. Apply the lubricant to the points of the snaphook as shown in the figure in section 7.2.2. DO NOT over-lubricate. Wipe off excess with a clean dry cloth. Follow the lubricant manufacturer's instructions.

#### 5.3 STORAGE

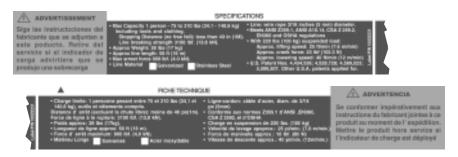
Store the LYNX RESCUER in a cool, dry and clean place indoors, out of direct sunlight. Avoid areas where heat, moisture, oil and chemicals or their vapors or other degrading elements may be present. Never allow the LYNX RESCUER to rest for lengthy periods of time on concrete or such floors as the lime sulfur and ash can cause corrosion. Store the device with the cable fully retracted.

## 6.0 LABELS AND MARKINGS

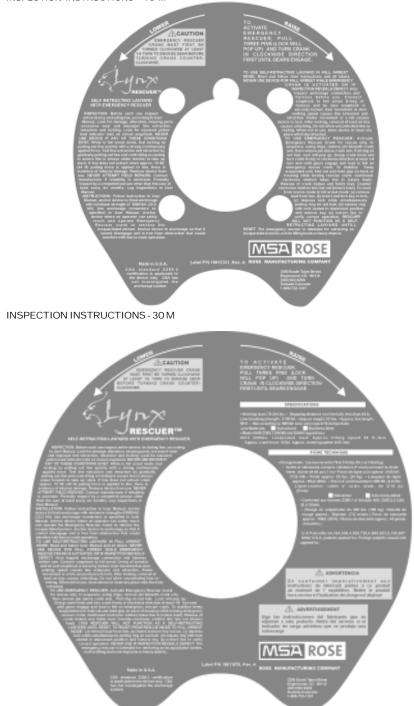
#### 6.1

The following labels must be present, legible and securely attached to the LYNX RESCUER. The Formal Inspection must be performed within the last six months. If not, remove the LYNX RESCUER from use and mark it as "UNUSABLE" until a Formal Inspection is performed in accordance with section 8. See section 2 for location of labels.

#### SPECIFICATION LABEL - 16 M



#### **INSPECTION INSTRUCTIONS - 16 M**



SERVICE DATE LABEL

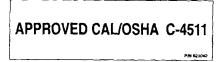


LOAD INDICATOR LABEL

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DO NOT USE IF YELLOW LOAD INDICATOR TABS ARE EXPOSED. P/N 622451

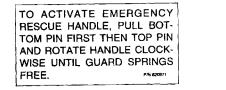
CAL/OSHA APPROVAL LABEL



CAUTION LABEL

DO NOT permit like stact. DO NOT lengthen line by connection to another ine. O NOT clamp off or stand or ine. DO NOT permit line kins. O NOT clamp off or stand or ine to an attraction area in a standard of the		Move about carefully to prevent loss of balance from line tension or locking DO NOT allow foreign matter to enter housing. DO NOT obstruct line onfree. DO NOT attempto a bar or regard device in field. Contect manufacturer. Remove device from served # yetbow line is exposed at end of line extraction. Water groves when inspecting are or controling re-releting with hands.			

EMERGENCY RESCUE ACTIVATION INSTRUCTION LABEL CAUTION LABEL ON CRANK LABEL





HOIST AND NOT FOR WORK

POSITIONING.

RETENTION PIN LABEL



**KEY LABEL 1** 

Reset Key FOR USE WITH MODELS: 10011744 & 10011745 USE THIS KEY TO RESET UNIT FROM RESCUE MODE TO FALL ARREST MODE.

To Orde:ReplacementKeys Ask MSA CustomerServicetor P/N 10013077

IMPORTANT USER INFORMATION FOLLOWS



PAN 620970



RESCUER WILL NOT FUNCTION AS A SELF-RETRACTING LANYARD UNTIL RESET. The emergency rescuer is intended for retrieving an incapacitated worker, not for lifting and lowering tools or heavy objects. Ph/10013022Rev.B

## 7.0 INSPECTION

## 7.1 INSPECTION FREQUENCY

The LYNX RESCUER must be inspected by the user before each use. Additionally, the LYNX RESCUER must be inspected by a competent person other than the user at intervals of no more than six months.

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If the LYNX RESCUER has been subjected to fall arrest forces, it must be immediately removed from use and marked as "UNUSABLE" until subjected to a Formal Inspection and approved for use by a competent person inspector.

## 7.2 PROCEDURE FOR INSPECTION BEFORE EACH USE

Inspect the entire LYNX RESCUER in accordance with the steps as described in section 7.2.1. Additional inspection requirements specifically for the snaphook and wire rope are described in sections 7.2.2 and 7.2.3, respectively. Refer to sections 2 and 9 for diagrams indicating the location of the elements of the LYNX RESCUER.

- 7.2.1 INSPECTION OF LYNX RESCUER.
- Step 1 Inspect the LYNX RESCUER labels to verify that they are present and legible. See section 2 for location of labels. See section 6 for the specific labels that should be present and the information contained on them.
- Step 2 Check extraction by pulling out the entire working line in a hand-over-hand manner. WEAR GLOVES. If the line does not easily extract or retract, remove the LYNX RESCUER from use. When extracting the line, coil the extracted line onto a clean, dry surface in loose coils of about 40 inches (1 m) diameter, avoid kinking. When retracting the line, control the re-reeling by releasing the line into the device in a hand-over-hand manner. Never allow the line to re-reel uncontrollably into the device.
- Step 3 Check retraction over the full length of the working line by first extending the line as in step 2, above. WEAR GLOVES. If the line "stalls" temporarily, pull out a section of line and then resume retraction but at a slightly higher speed. If the line does not retract completely or if the spring appears weak, remove the LYNX RESCUER from use. Note that tension applied on the line by the spring-loaded drum should be in the approximate range of 5 to 15 lbs (22 to 66 N) with the low end of the range applying to a fully retracted line and the high end applying to full extraction.
- Step 4 Check LYNX RESCUER locking by tugging the working line very sharply with a gloved hand. When the device locks it should maintain its lock until the line tension is relaxed. It should then permit normal line extraction and retraction. Repeat locking tests three times.
- Step 5Follow steps in Section 4.2.1 and Section 4.2.2 to set the LYNX RESCUER into<br/>Emergency Retrieval Mode. Crank the handle to verify that line will deploy and return.<br/>Reset the LYNX RESCUER into Fall Arrest Mode, following directions in Section 4.2.4.
- Step 6 Using fingers, check all bolts and nuts on the housing to be sure they are tight. Check to see if any bolts, nuts or other parts are missing or have been improperly substituted or altered in any way.

- Step 7 Check to see that the two security rivets (one on each side of the housing, see section 2) are in place and bear the stamp "R". If these are absent it is evidence that the LYNX RESCUER has been tampered with outside the factory.
- Step 8 Check for the presence of the red paint seal in the recessed hex head bolt centered on the torque nut on the front of the unit beneath the handle (see section 2). Absence of the paint is evidence that the device has been tampered outside the factory.
- Step 9 Inspect all metallic parts (i.e. housing, snaphook, wire rope, handle, pins, rivets, etc.) for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, deep nicks, missing or loose parts, improper function, and evidence of excessive heat or chemical exposures.
- Step 10 Inspect all nonmetallic parts (i.e. handle knob, grip handle, installation bracket handle, ball stopper, working line collar and labels) for cut, broken, excessively worn, missing and loose parts. (Labels are to be additionally checked in accordance with Step 1 above.) Inspect for evidence of burns and excessive heat and chemical exposures. If the inside of the line collar has grooves of more than 0.1 inches (2.5 mm) that may hamper line extraction and retraction, remove the LYNX RESCUER from use and submit for factory service according to section 9.
- Step 11 Carefully inspect for presence of the two retainer pins coupled to the emergency retrieval handle. The two pins must be fully inserted into their receiving holes.
- Step 12 Check to see that the emergency retrieval handle is not bent or damaged and that the handle knob is intact and rotates.
- Step 13 Inspect the snap-ring located on the crank hub for any signs of cracking or breaking.
- Step 14 Check the grip on the back of the housing to be sure it is not bent, loose or unable to fold down perpendicular to the housing.
- Step 15 Verify correct operation of the key and lock. With the lock in the "in" position, pull the activation knob so that the lock pops out. Using the key, reset the unit according to Section 4.2.4.

## $\triangle$ caution

Return the LYNX RESCUER to Fall Arrest Mode, following the steps in Section 4.2.4, before proceeding with the inspection process.

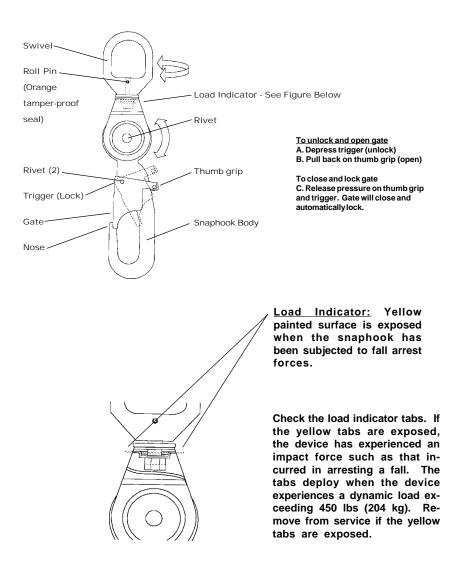
#### 7.2.2 INSPECTION OF SNAPHOOK

- Step 1 Check all parts of the snaphook for signs of alteration, distortions, cracks, deep nicks, dents or cuts. Also check for indications that the snaphook has been subjected to intense heat, corrosion or excessive wear which could affect its strength.
- Step 2 Examine snaphook in open position to be sure the locking mechanism spring is free from dirt, sand, grease, paint, ice or any foreign material that might hamper gate freedom of operation. When the gate is released the spring should automatically close the gate. Once the gate is closed, examine the snaphook to be sure the trigger moves forward under the gate to lock gate in closed position.

Step 3 Check the load indicator tabs. If the yellow tabs are visible, the snaphook has experienced an impact force such as that incurred in arresting a fall. The tabs deploy when the snaphook experiences a dynamic load exceeding 450 lbs (204 kg).

## 

The gate should not open under any circumstances unless it is unlocked. If the locking mechanism fails or any other inspection step fails, remove the LYNX RESCUER from use.



- Step 4 Check for presence of roll pin and washer. If either is absent, remove the product form use.
- Step 5 Check to see that the snaphook body swivels freely around the bolt connecting it to the snaphook eye. If it does not, lubricate with light machine oil. If swiveling is not free after lubrication, remove the product from use.
- 7.2.3 INSPECTION OF WIRE ROPE AND FITTINGS
- Step 1 Check the two pressed metal sleeves (ferrules) and the metal thimble for cracks, distortion, excessive corrosion, wear, loosening or biting into the wire rope.
- Step 2 Check for the presence of the ball stopper and washer.
- Step 3 Wear gloves during inspection to prevent cuts and slivers when running hands over the wire rope. Over the entire length of the line: Check for broken wire strands. Flexing the line can reveal hidden breaks. Remove broken wire ends as soon as possible by bending them back and forth (with fingers if possible) in the direction of the line length. In this way the wire strand will usually break inside the line and not leave a sharp end jutting out. DO NOT tug on the broken wire ends with pliers as this will leave jagged ends and can cause damage elsewhere to the strand. Record the location of the broken wire strand in the Inspection Log.
- Step 4 Carefully review the LYNX RESCUER Inspection Log for the location of previously detected broken wire strands which, cumulatively, may require removing the product from use. Remove from use if there are six or more randomly distributed broken wire strands in one wire lay, or three or more broken wire strands in one strand in one lay. [A wire lay is the length along the line in which one strand makes a complete revolution around the wire rope. This is about 1.5 inches (38 mm) for the LYNX RESCUER line.] Remove from use if there are any broken wire strands within 1 inch (25 mm) of the two ferrules or the thimble.

## 7.3 CORRECTIVE ACTION

When inspection in accordance with section 7.2 reveals signs of inadequate maintenance, the LYNX RESCUER must be immediately removed from service and marked as "UNUSABLE" until destroyed or subjected to maintenance by the user's organization in accordance with section 9. Defects, damage, excessive wear and/or aging are generally not repairable. If detected, immediately remove the LYNX RESCUER from use and mark it as "UNUSABLE" until destroyed. For final disposition, submit the LYNX RESCUER to a competent person who is authorized to perform Formal Inspection. If there is any question as to repairability, contact Rose or a service center authorized in writing by Rose before further use of the LYNX RESCUER.

## 8.0 FORMAL INSPECTION

Only Rose Manufacturing Company or parties with written authorization from Rose may make repairs to the LYNX RESCUER.

## 8.1 FORMAL INSPECTION FREQUENCY

The LYNX RESCUER must be formally inspected by a competent person other than the user at intervals of no more than six months. (The qualifications of a competent person are established by OSHA.) If the LYNX RESCUER is exposed to severe working conditions, more frequent formal inspections may be required. The frequency of inspection by a competent person should be established by the user's organization based on such factors as the nature and severity of workplace conditions, modes of use, and exposure time of the equipment. The competent person should perform a methodical and thorough visual and tactile inspection. The inspection results should be recorded in the Formal Inspection Log and retained for reference.

There are three forms that are important to the Formal Inspection Procedure. They are the Formal Inspection Diagram ("DIAGRAM"), the Formal Inspection Log ("LOG"), and the Formal Inspection Checklist ("CHECKLIST"). These forms relate and refer to each other so it is necessary to understand their purposes and uses before discussing the inspection procedure.

#### 8.1.1 DIAGRAM

This is a line drawing of the LYNX RESCUER with numbered callouts of the parts. The numbers called out in the diagram correspond to those shown on the column titled "INSP. POINT" on the LOG.

#### 8.1.2 LOG

This is the form to be used to record observations made during the Formal Inspection. The Model No., Serial No. and Date Made are recorded by the inspector from the information on the cover of this User Instruction and from the product label. The formal inspector's name and the inspection date are entered by the inspector. The "Disposition" entry is the last entry made on this form after all observations have been recorded. The entry is either "Acceptable" (A) or "Not Acceptable" (N). The columns on the LOG are as follows:

#### INSP. POINT

Inspection point. The LYNX RESCUER part designated in the callouts on the DIAGRAM.

#### DESCRIPTION

Name of the LYNX RESCUER inspection point. There are two broad categories of inspection points, namely, metallic parts and nonmetallic parts.

#### QTY/R

Quantity per LYNX RESCUER. The quantity of each LYNX RESCUER inspection point that must be inspected.

#### PTY

Priority. A Priority "1" indicates a critical part. If one or more not acceptable conditions are found by inspection of Priority 1 parts, the LYNX RESCUER is not acceptable for use. A Priority "2" indicates a noncritical part. If three or more not acceptable conditions are found by inspection of Priority 2 parts, the LYNX RESCUER is not acceptable for use.

#### COND.

Condition. The condition of the LYNX RESCUER part is indicated here by entry of the appropriate Condition Code shown on the CHECKLIST (e.g. M0, N0 etc.). Alternatively, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

#### OVERALL ASSESS.

Overall assessment. The inspector's evaluation of the overall acceptability or non-acceptability of the part category (i.e. metallic, nonmetallic). The appropriate Overall Assessment Code defined on the CHECKLIST is entered here (e.g. MA, NA). Alternatively, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

#### COMMENTS

Indicate pertinent inspector observations here.

#### 8.1.3 CHECKLIST AND CODES

This is a table which categorizes the different types of LYNX RESCUER parts into two broad categories (i.e. metallic, nonmetallic). For each of these categories, the formal inspector checks the LYNX RESCUER parts for each of the associated conditions (e.g. deformed, fractured, missing, loose, etc.). The codes for the detected conditions are entered in the Condition column on the LOG (e.g. M0, N2, etc.). Overall assessment codes are given, along with the criteria for assigning them, so the inspector can decide if the LYNX RESCUER is acceptable or not acceptable for further use (e.g. MA, NN). Alternatively, instead of using these codes, the inspector may simply enter "FAIL" if a defective condition exists and make no entry if no defect exists.

## CAUTION

Return the LYNX RESCUER to Fall Arrest Mode, following the steps in section 4.2.4, before proceeding with the inspection process.

		COND.	
TYPE OF PART INSPECTED	CONDITION	COND.	OVERALL ASSESSMENT CODE
INSPECTED	Deformed/fractured	M1	CODE
		M1 M2	
	Corroded/deep pits	M2 M3	
	Missing/loose		
NG / 111	Heat exposure	M4	MA- (Metallic acceptable)
Metallic	Chemical exposure	M5	
	Burrs/sharp edges	M6	MN- (Metallic not acceptable)
	Cuts/deep nicks	M7	
	Malfunction	M8	
	Other	M9	
	No visible change	M0	
	Cut/broken	N1	
	Wear damage	N2	
	Missing/loose	N3	NA- (Non-Metallic acceptable)
Non-Metallic	Burns/heat exposure	N4	
	Chemical exposure	N5	NN- (Non-Metallic not acceptable)
	Cracked/Split	N6	
	No visible change	N0	
	Deformed/fractured	S1	
	Corroded/deep pits	S2	
	Missing/loose	S3	
	Heat exposure	S4	SA- (Snaphook acceptable)
Snaphook	Chemical exposure	S5	
•	Burrs/sharp edges	S6	SN- (Snaphook not acceptable)
	Cuts/deep nicks	S7	
	Malfunction	S8	
	Other	S9	
	No visible change	SO	
	Cut/broken wire	C1	
	Abrasion/wear/corrosion	C2	
	Partially missing/altered	C3	
	Burns/heat exposure	C4	CA- (Cable acceptable)
Wire rope	Chemical exposure	C5	(
(cable)	Kinked/unlayed strands	C6	CN- (Cable not acceptable)
(	Reduced diameter	C7	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Malfunction	C8	
	Other	C9	
	No visible change	C0	
	Fall Arrest Mode	Blank	FA- (Functional Acceptable)
Functional Test	Emergency Retrieval Mode	Blank	(1 unetional receptable)
- unchonar rest	Field Reset Capability	Blank	FN- (Functional Not Acceptable)
	ricia neset Capability		in (inicional not Acceptable)

#### FORMAL INSPECTION CHECKLIST AND CODES 8.2

#### LEGEND

Disposition: A - (Acceptable) N - (Not acceptable) Other N7 Enter "A" (or "PASS") or "N" (or "FAIL") in "Disposition" blank on Formal Inspection Log.

Criteria for disposition of "N" (Not acceptable): (1) If there is one or more Overall Assessment Code of "N" type (e.g. MN, PN, SN or CN) on a Priority 1 item.

## 8.3 FORMAL INSPECTION LOG

Inspector:
Inspection Date:
Disposition:

INSP.				COND.	OVERALL		
POINT	DESCRIPTION	QTY / R	PTY	(a)	ASSESS. (a)	COMMENTS	
LYNX RESCUER Body							
METALLIC PARTS							
1	Housing, front	1					
2	Housing, back	1	1				
3	Security rivets	2	1				
4	Housing fasteners (c)	8	1				
5	Torque nut	1	1				
6	Axle nut	1	1				
7	Grip	1	1				
8	Crank Handle	1	1				
9	Split Ring	1	1				
10	Handle rention pin/ring	2	1				
11	Activation Knob	1	1				
12	Hex hd bolt w/red paint seal	1	1				
13	Installation bracket	1	1				
14	Serial number tag	1	1				
15	Lock	1	1				
		NON-	METALLIC	PARTS			
16	Handle knob	1	1				
17	Cover, Handle Hub	1	1				
18	Label	1	1				
19	Cable collar	1	1				
			Wire Ro	оре			
20	Wire rope (lifeline)	1	1				
21	Ball stopper	1	1				
22	Washer	1	1				
23	Thimble	1	1				
24	Sleeves	2	1				
25	Extraction, functional test	-	1				
26	Retraction, functional test	-	1				
27	Lock up, functional test	-	1				
28	Field Reset, functional test	-	1				
Swivel Snaphook							
29	Hook body	1	1				
30	Side plates	2	1				
31	Swivel eye	1	1				
32	Load indicator	1	1				
33	Gate	1	1				
34	Trigger	1	1				
35	Rivets	3	1				
36	Large rivet	1	1				
37	Label	1	1				

(a) Optional simplified PASS/FAIL inspection format: When an acceptable condition is found, the entry in the COND. and OVERALL ASSESS. columns may be left blank. When a defective condition is found, enter "FAIL." The inspection may end upon detection of a single Priority 1 defect or three Priority 2 defects.

(b) Blank copies of the LOG, with associated CHECKLIST and DIAGRAM, are available from Rose Manufacturing Company. Call toll-free at 1-800-722-1231.

(c) Qty of 12 on 95 ft (30 m) models. Qty of 8 on 50 ft (16 m) models.

FORMAL INSPECTION DIAGRAM

8.4

#### \* (2) Opposite side not shown (13) (18) ۲ ٥ (16) 8 4 (18 (18) (12)(18) (5 (3 ¥ (10) 14) 7 (18) 1 11 (9) (19) 15 (17) (23) 20 31 (32) (18) 36) Ģ (35 6 ROSE xx 0 XXXXXX 33) (18) 0 2 6 0 7 (21) (22) (24 37 (30) \*\* (2) Opposite 6 (34 side not shown 29

## 9.0 SERVICE

NOTE: BI-ANNUAL FACTORY RE-CERTIFICATION NO LONGER REQUIRED FOR ROSE MECHANICAL PRODUCTS. MODELS SOLD IN CANADA MUST BE RECERTIFIED EACH YEAR.

#### 9.1 FACTORY SERVICE

The only maintenance that may be performed by the user is cleaning, working line lubrication and removal of broken wire strands from the line. All other maintenance must be performed by Rose. The user must never attempt to repair or alter the unit. There are no internal parts which are serviceable or replaceable by the user.

#### 9.2 OWNER REGISTRATION

When the LYNX RESCUER is purchased, the first thing the owner (user) must do is read this User Instruction and then return the Owner Registration card packed with the device. Each unit has a unique serial number which identifies all information associated with the unit. The serial number enables Rose to identify when the product was made; related engineering, manufacturing, testing and quality control records; related service records; and date it was sold and shipped to the user or a Rose distributor. The owner registration card contains information which is vital to the maintenance of the device. It must be completely and accurately filled out and returned to Rose immediately after purchase.

Be sure to enter the permanent address and telephone number of the owner. Do not enter the address and phone number of a temporary job site or temporary office. Type or print legibly in ink. This is a permanent record.

## 9.3 WHEN FACTORY SERVICE IS NECESSARY

The LYNX RESCUER must be returned to Rose or an authorized factory service center upon discovery during competent person inspection of any condition which requires removing the device from use. See section 8.

Each time the unit receives factory service a new Service Date Label is applied. The new label will show the date of the servicing, which becomes the reference date for the user to determine when the next factory service is required.

## 9.4 HOW TO OBTAIN FACTORY SERVICE

When factory service for the LYNX RESCUER is required for any reason, the steps below must be carefully followed:

Step 1 Prepare and mail a purchase order for the requested service to:

#### Rose Manufacturing Company 2250 South Tejon Street Englewood, Colorado 80110-1000

Step 2 The purchase order must contain:

- a) Owner's (company) name, address, telephone and fax number;
- b) Name of owner's employee who can be contacted to authorize repair charges, if any;
- c) LYNX RESCUER serial number, and part number.
- d) Brief explanation of service and known repairs to be performed (e.g. kinked line, broken snaphook, etc.);

- e) The Statement: "Basic service charge authorized advise price of repairs." Please note that any unit sent to Rose for service must be disassembled, inspected and reassembled by Rose in order to determine if service beyond normal service is required. Therefore, the minimum service charge must always be made;
- f) Billing address if the owner already has an account with Rose. Otherwise, Rose terms are C.O.D. in the continental USA and cash in advance, including freight charges elsewhere.
- g) Return shipment address. Rose freight terms are prepaid and add if the owner has an account; otherwise the terms are freight collect.
- Step 3 Ship the unit, freight prepaid, to Rose Manufacturing Co. or an authorized service center designated in writing by Rose. If a unit is received with freight due it will not be accepted. Use the original LYNX RESCUER shipping container for shipment. Otherwise, pack the unit very securely to prevent shipping damage.
- Step 4 Upon receipt of the unit and purchase order, Rose will inspect the LYNX RESCUER and contact the company's competent person to advise of required service and charges, if any, which are in excess of the minimum service and charges. If the service and charges are within the minimum for service, the work will be performed by Rose and return shipped without further contact.

THANK YOU.

#### WARRANTY

Express Warranty – Rose/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 Rose/ 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. Rose/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 Rose/MSA may bind Rose/MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. Rose/MSA makes no warranty concerning components or accessories not manufactured by Rose/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 HERE OF. ROSE/MSA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. For additional information please contact the Customer Service Department at 1-800-MSA-2222 (1-800-672-2222).

## ROSE MANUFACTURING COMPANY = 2250 SOUTH TEJON STREET ENGLEWOOD = COLORADO = 80110-1000 = USA TEL. (303) 922-6246 = TOLL FREE (800) 722-1231 = FAX (303) 934-9960

ROPOD<sup>™</sup>, Dyna-Glide<sup>™</sup>, Dynescape<sup>™</sup>, Dyna-Hoist<sup>™</sup>, Fallbloc<sup>™</sup>, Remote Connect/Disconnect System, Beamglide<sup>™</sup>, Dyna-Lock®, Dynevac®,Lynx Rescuer<sup>™</sup> are trademarks, rights to which are held by Rose Manufacturing Company, U.S.A. Protected by the following U.S. patents: 4,589,523; 4,434,536; 5,361,867. Foreign patents issued and applied for.

Offices and representatives in principal cities worldwide. In U.S. call the Customer Service center at (888) 421-8324 or fax at (800) 967-0398 To reach MSA International, call (412) 967-3451

Rose Manufacturing Company 2250 S. Tejon St. Englewood, CO 80110-1000 MSA Corporate Headquarters P.O. Box 426 Pittsburgh, PA 15230

