

USER INSTRUCTIONS

3/8 IN. SNATCH BLOCK PULLEY

⚠ 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 SNATCH BLOCK PULLEY SPECIFICATIONS

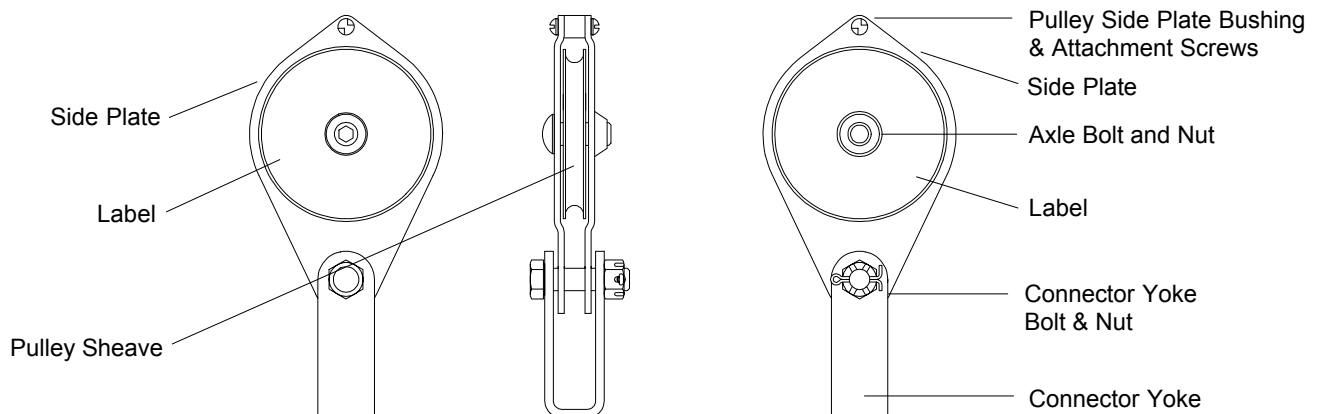
1.1 SPECIFICATIONS -MSA SNATCH BLOCK PULLEY

- For use with MSA Horizon™ Horizontal Lifeline Anchorage Connecting subsystem. Refer to User Instructions provided with this subsystem.
- The MSA Snatch Block Pulley meets ANSI A10.14 standards and applicable OSHA regulations.
- Free fall distance (limit) must not exceed 6 ft (1.8 m) in accordance with OSHA and ANSI Z359.1; and , 5 ft (1.5m) in accordance with ANSI A10.14 and the Canadian Occupational Health & Safety Act of 1990. The user must comply with applicable standards.
- Material: Steel, zinc plated and anodized aluminum sheave with composite bearing.
- Minimum breaking strength: 5,000 lbf (22.2 kN) in the direction of load.
- Size: 9" x 4.25" x 2.25"
- Approximate weight: 2.6 lb (1.2 kg)
- When used as part of a personal fall arrest system, fall arresting forces must not exceed 1,800 lbf (8 kN).
- Capacity is 310 lb (140 kg) for personnel including weight of the user plus clothing, tools and other user-borne objects, 620 lb (280 kg) for materials.

2.0 DESCRIPTION OF MSA SNATCH BLOCK PULLEY

The MSA Snatch Block Pulley is a mobile anchorage connector consisting of a sheave with integral anti-friction bearing enclosed between steel side plates. A removable connector yoke is attached to the housing side-plates. The Snatch Block Pulley is specifically designed for use on a 3/8 inch (9.5 mm) diameter wire rope lifeline with a minimum breaking strength of 14,400 lbf (64.4 kN). The connector yoke is an attachment element for compatible MSA accessory products, including the MSA Dyna-Lock®, Dynevac® and Dyna-Hoist™. The snatch block provides smooth, low-friction travel along the span of an overhead horizontal lifeline.

2.1 SNATCH BLOCK PULLEY COMPONENTS



- 2.1.1 Sheave:** The Snatch Block Pulley rides on top of the horizontal lifeline balanced on the outer groove of the sheave. The sheave groove is sized for a 3/8 inch (9.5 mm) wire rope lifeline. The sheave diameter is ten times the diameter of the wire rope to reduce bending fatigue of the lifeline. The sheave is aluminum with a composite bearing.
- 2.1.2 Side Plates (2):** The side plates enclose the sheave and bearing to form a protective housing for the rotating sheave. The side plates also join the sheave with the connector yoke.
- 2.1.3 Axle Bolt and Nut:** The axle bolt is connected to the side plates and provides a surface on which the sheave bearing rides. The tamper-resistant nut secures the axle bolt to the side plates.
- 2.1.4 Pulley Side Plate Bushing and Attachment Screws:** The bushing is mounted between the pulley side plates. The bushing is held in place by two screws with lock washers.
- 2.1.5 Connector Yoke:** The steel connector yoke is suspended below the horizontal lifeline when the Snatch Block Pulley is mounted. The yoke provides a means to connect compatible MSA equipment to the Snatch Block Pulley.
- 2.1.6 Connector Yoke Bolt and Nut:** The yoke is attached to the Snatch Block Pulley side plates by means of a Grade 5 bolt and nut with cotter pin.
- 2.1.7 Labels (2):** Permanent lexan labels are attached to each side of the pulley housing. Labels contain information on installation, inspection and use, as well as cautions against mis-use.

3.0 SNATCH BLOCK PULLEY SELECTION AND APPLICATION

- 3.1 PURPOSE OF MSA SNATCH BLOCK PULLEY:** The Snatch Block Pulley is primarily a component of a personal fall arrest system, serving as an intermediate anchorage connector on a MSA Horizon horizontal lifeline system. It may also be used for rescue, retrieval and material lifting/lowering depending on the associated system components used together with the Snatch Block Pulley. Consult a qualified person for selection and application.
- 3.2 SIZING:** The MSA Snatch Block Pulley must be used only on approved wire rope lifelines 3/8 inch (9.5 mm) in diameter. Do not attempt to use the Snatch Block Pulley on wire rope of any other diameter.
- 3.3 USAGE LIMITATIONS:** The following applications limitations must be considered and planned for before using the MSA Snatch Block Pulley:
 - 3.3.1 PHYSICAL LIMITATIONS:** The Snatch Block Pulley is designed for use by one person with a combined total weight no greater than 310 lbs (140 kg), including clothing, tools, and other user-borne objects, or with material weighing no more than 620 lb (280 kg).
 - 3.3.2 CHEMICAL HAZARDS:** Acidic, alkaline, or other environments with harsh substances may damage the hardware of the Snatch Block Pulley. When working in the presence of chemicals, more frequent inspection of the Snatch Block Pulley is required.
 - 3.3.3 HEAT:** Do not use the Snatch Block Pulley in environments with temperatures greater than 185° F (85° C). Protect the Snatch Block Pulley when used near welding, metal cutting, or other heat producing activities.
 - 3.3.4 CORROSION:** Do not expose the Snatch Block Pulley to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in corrosive environments, more frequent inspection, cleaning and drying of the Snatch Block Pulley is required. See sections 9, 11 and 12 for cleaning and inspection details.
 - 3.3.5 ELECTRICAL HAZARDS:** Use extreme caution when working near energized electrical sources. Metal hardware will conduct electric current. Maintain a safe working distance {preferably at least 10 ft (3 m)} from electrical hazards.
 - 3.3.6 MOVING MACHINERY:** When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), maintain a safe working distance from machinery which could entangle clothing or personal protective equipment.
 - 3.3.7 SHARP EDGES AND ABRASIVE SURFACES:** When work around sharp edges and abrasive surfaces is unavoidable, use heavy padding or other protective barriers to prevent direct contact.
 - 3.3.8 WEAR AND DETERIORATION:** Any Snatch Block Pulley which shows signs of excessive wear or deterioration must be removed from use and marked "UNUSABLE" until destroyed. See sections 9 and 10 for detailed inspection procedures.

- 3.3.9 IMPACT FORCES:** Any Snatch Block Pulley which has been subjected to the forces of arresting a fall must be immediately removed from service and marked as "UNUSABLE" until subjected to a Formal Inspection.

4.0 SYSTEMS REQUIREMENTS

The MSA Snatch Block Pulley is one component of multi-component horizontal lifeline systems. Refer to the Horizon horizontal lifeline anchorage subsystem User Instructions for a detailed discussion of the various horizontal lifeline system classifications.

- 4.1 SYSTEM TYPES:** The Snatch Block Pulley is intended for use in fall arrest and rescue applications.

The MSA Snatch Block Pulley is one component of the multi-component horizontal lifeline systems. Systems are classified according to their intended purposes. There are six classifications of systems which may be used individually or in some combinations. The six basic systems classifications are:

- Fall Arrest
- Personnel-riding
- Climbing Protection
- Rescue
- Restraint
- Evacuation

- 4.1.1 FALL ARREST SYSTEMS:** A fall arrest system is an assembly of components and subsystems, including the necessary connectors, used to arrest the user in a fall from a working height and suspend the user until rescue can be effected. A horizontal lifeline fall arrest system must always include a harness and connecting means between the harness and the lifeline. Such connection means may consist of lanyard, energy (shock) absorber, self-retracting lanyard or suitable combination of these. The MSA Snatch Block Pulley is used in conjunction with a compatible lanyard, shock absorber or self-retracting lanyard.

- 4.1.1.1 Lanyard Connecting Subsystem** is the term applied to an assembly, including the necessary connectors, which is comprised of a lanyard and a shock absorber. The lanyard and shock absorber are usually permanently coupled together along with self-locking snaphooks at each end. The subsystem is attached between the fall arrest attachment (back D-ring) of the user's harness and an anchorage or anchorage connector. **The Snatch Block Pulley described by these instructions are suitable for use with lanyard connecting subsystems.**

- 4.1.1.2 Fall Arrester Connecting Subsystem** is the term applied to an assembly, including the necessary connectors, which is comprised of a fall arrester (rope grab) and a vertical lifeline. Sometimes a lanyard or lanyard with integral shock absorber, including the necessary connectors, is connected to the rope grab. The vertical lifeline must have a lifeline tensioner (counterweight), a connector for anchoring it, and may have a shock absorber. The subsystem is attached between the fall arrest attachment (back D-ring) of the harness and an anchorage or anchorage connector. Fall arrester connecting subsystems are sometimes suitable for use in climbing protection systems. See section 6.1.2. **The Snatch Block Pulley is generally not used in fall arrester connecting subsystems.**

- 4.1.1.3 Self-Retracting Lanyard Connecting Subsystem** is the term applied to an assembly, including the necessary connectors, comprised of a self-retracting lanyard only or a self-retracting lanyard and added shock absorber at the point of attachment to the user's harness. The subsystem is attached between the fall arrest attachment (back D-ring) of the harness and an anchorage or anchorage connector. These subsystems are sometimes suitable for use in climbing protection systems. The MSA Snatch Block Pulley attaches a self-retracting lanyard to the horizontal lifeline.

- 4.1.2 CLIMBING PROTECTION SYSTEMS:** A climbing protection system is an assembly of components and subsystems, including the necessary connectors, used to arrest the user in a fall from a working height and suspend the user until rescue can be effected. Such systems are used for climbing ladders and structures that are designed for climbing. They may either be temporary (portable) or permanent. Temporary climbing protection systems are described in sections 6.1.1.2 and 6.1.1.3. Permanent climbing protection systems are ones of the rigid rail type such as the MSA Dyna-Glide™ systems. In those systems, a rigid rail is permanently attached to the structure to be climbed. A fall arrester device is attached to and glides on the rail to permit ascent and descent. It quickly locks in case of a fall. The Dyna-Glide fall arrester is attached between the front attachment (chest D-ring) of a MSA Pullover harness and the fall arrester by use of a carabiner. Contact MSA for more information about Dyna-Glide climbing protection systems. **The Snatch Block Pulley is generally not used in climbing protection systems.**

- 4.1.3 RESTRAINT SYSTEMS:** A restraint system is an assembly of components and subsystems, including the necessary connectors, used to:

- (a) stabilize and partially support the user at an elevated work location and allow free use of both hands. This type of restraint system is referred to as a work positioning system or, simply, a positioning system.
- (b) restrict the user's motion so as to prevent reaching a location where a fall hazard exists. This type of system is referred to as a travel restriction system.

A positioning system includes a harness and connecting means between the harness and an anchorage or anchorage connector. Such connecting means usually consists of a positioning lanyard which is connected to both hip D-rings and wraps around or connects to an anchorage or anchorage connector. A positioning system must always be backed up by a fall arrest system. A travel restriction system consists of a harness and a fixed-length or adjustable-length lanyard connected between any one of the harness D-rings and an anchorage or anchorage connector. **The Snatch Block Pulley is generally not used in restraint systems.**

- 4.1.4 PERSONNEL-RIDING SYSTEMS:** A personnel-riding system is an assembly of components and subsystems, including the necessary connectors, used for lifting and lowering a worker to and from a work station which is not accessible by other preferred means, and potentially for positioning the worker while at that work station. Personnel-riding systems are of two general types, namely: (a) the mobile supported aerial platform type (e.g. manually- and self-propelled platforms and vehicle-mounted platforms), and (b) suspended personnel hoisting type (e.g. suspended scaffolds, suspension seats, and suspension harnesses). A harness must be used in both of these different systems; however, the way it is used will differ. When working on mobile supported aerial platforms, the user should use a restraint system (see section 6.1.3) anchored to the platform to provide restraint against falling from the platform. When working with the suspended personnel hoisting type of system, the user must employ a fall arrest system of either the self-retracting lanyard type or the fall arrester (rope grab) type. It is permissible to use a harness as a suspension harness for making access to the work station if the access time is of very short duration and the use of a suspension seat is not possible. Do not use a harness for fully suspended work positioning. Contact MSA for separate instructions on the associated equipment used in personnel-riding systems.
- 4.1.5 RESCUE SYSTEMS:** A rescue system is an assembly of components and subsystems, including the necessary connectors, used for moving an incapacitated or isolated person from a hazardous place to a safe place under alert or emergency conditions. An isolated person is one who has no available means of access to a safe place or is physically stranded or trapped. Rescue systems require actions of specially trained rescuers to effect the rescue of the incapacitated or isolated person. When rescuing a person who is wearing a harness, it is generally best to connect the rescue line to the chest D-ring. Alternatively, it is acceptable (but less desirable) to connect the rescue line to both of the shoulder D-rings using a "Y" retrieval lanyard. If the harness being used by the person being rescued has neither a chest D-ring nor shoulder D-rings, the back D-ring may be used as a last resort to connect the rescue line. MSA strongly recommends that the user select a harness with a chest D-ring to provide for rescue. **The Snatch Block Pulley may be used in certain rescue applications.**
- 4.1.6 EVACUATION SYSTEMS:** An evacuation system is an assembly of components and subsystems, including the necessary connectors, employed by the user to move, unassisted by others, from a hazardous place to a safe place under alert or emergency conditions. An evacuation system consists of a harness and connecting means between the harness and an anchorage or anchorage connector. Such connecting means may consist of: (a) the MSA Dynescape™ Automatic Descender, (b) the MSA Dynescape™ Manual Descender, or (c) the MSA Fallbloc™ System. See the separate instructions for this equipment. **The Snatch Block Pulley is generally not used in evacuation systems.**
- 4.1.7 COMBINATIONS OF SYSTEMS:** Systems for fall arrest, restraint, climbing protection, personnel-riding, rescue and evacuation are often used in combination. For example, positioning type restraint systems must be backed up by a separate and independent fall arrest system. MSA harnesses have the necessary versatility to permit this. Hands-on training is required to obtain the necessary information and skills needed to work with combinations of systems. Refer to the separate instructions accompanying the several components and subsystems necessary to make up these systems.

4.2 COMPATIBILITY OF SYSTEM PARTS

- 4.2.1 COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS:** The Snatch Block Pulley is designed to be used with MSA approved components and connecting subsystems. Use of the Snatch Block Pulley with products made by others that are not approved in writing by MSA 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, restraint, rescue or evacuation). MSA produces a complete line of connecting subsystems for each application. Contact MSA for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. For fall arrest applications using MSA harnesses, the maximum fall arrest force must not exceed 1,800 lbf (8 kN). Contact MSA with any questions regarding compatibility of equipment used with the MSA Snatch Block Pulley.
- 4.2.2 COMPATIBILITY OF CONNECTORS:** Connectors, such as D-rings, snaphooks, and carabiners, must be rated at 5,000 lbf (22 kN) minimum breaking strength. MSA 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 the harness or anchorage connector are compatible. Use only self-closing, self-locking snaphooks and carabiners (as defined and required by ANSI Z359.1).
- 4.2.3 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. When more than one personal fall arrest system is attached to an anchorage, the anchorage strengths set forth in (a) and (b)

must be multiplied by the number of systems attached to the anchorage. 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.

5.0 PLANNING THE USE OF SYSTEMS

Perform hazard identification, 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 qualified person must select the components, materials, anchorage and anchorage connectors to match the system application, the work, workplace hazards, and the environment. Consider the following points when planning the system(s).

- 5.1 ANCHORAGE AND ANCHORAGE CONNECTOR SELECTION:** Determine the necessary locations of anchorages to assure that the user will be continuously connected when exposed to hazards of falling. Carefully select the locations of the anchorages to: (a) reduce possible free fall distance, (b) prevent swing fall hazards, and (c) provide clear space in the potential fall paths to avoid striking an object. Do not select anchorage locations that will require the user to work above them as this will increase the potential free fall and total fall distances. Plan the types of anchorage connectors that will need to be selected and refer to these instructions.
- 5.2 FREE FALL DISTANCE, TOTAL FALL DISTANCE, AND SYSTEM ELONGATION:** Personal fall arrest systems must be selected and rigged to ensure that potential free fall distances will never exceed 6 ft (1.8 m) as required by OSHA and ANSI Z359.1. [In Canada, free fall distance is limited to 5 ft (1.5 m) by regulation. ANSI A10.14 also restricts free fall distance to 5 ft (1.5 m).] See separate instructions for connecting subsystems to determine the deceleration distance and dynamic elongation which must be allowed for in the space of potential fall paths. Total fall distance is the sum of free fall distance and deceleration distance. Dynamic elongation of the system (temporary elastic stretch of connecting components and subsystems) must be added to total fall distance and clearance allowed.
- 5.3 USER MOVEMENTS:** Identify all necessary movements of the user and the materials and equipment needed to perform the planned work. Plan for avoidance of the crossing or tangling of connecting subsystems of two or more workers. Anticipate user movements that might introduce hazards of the connecting subsystem passing under, about or between body parts or invite the user to clamp, knot or otherwise prevent the connecting subsystem from functioning properly. Establish controls to prevent these occurrences.
- 5.4 PENDULUM (SWING) FALLS:** Swing falls can occur when the system is not anchored directly above the user. The force of striking an object in a pendulum motion can cause serious injury. Always minimize swing falls by working as directly below the anchorage point as possible.
- 5.5 CLEAR SPACE IN FALL PATH:** Make certain that enough clearance is available in all potential fall paths to prevent striking an object. The amount of clearance needed depends upon the type of connecting subsystem used, and the location of the anchorage. Consult the manufacturer's instructions for the particular connecting subsystem or component for clearance needed.
- 5.6 HAZARDS IDENTIFIED IN WORKPLACE ASSESSMENT:** All hazards must be addressed and suitable controls planned and implemented. For example, if work must be performed near unavoidable sharp edges, plan to protect against cutting by use of heavy padding or other means of covering the sharp edge.
- 5.7 RESCUE AND EVACUATION:** The user must have a rescue plan and the means at hand to implement it. The plan must take into account the equipment and special training necessary to effect prompt rescue under all foreseeable conditions. If the rescue be from a confined space, the provisions of OSHA regulation 1910.146 and ANSI Z117.1 must be taken into account. Although a rescue plan and the means to implement it must always be in place, it is a good idea to provide means for evacuation without assistance of others. This will usually reduce the time to get to a safe place and reduce or prevent the risk to rescuers.

6.0 USAGE

- 6.1 SNATCH BLOCK PULLEY INSPECTION BEFORE EACH USE:** Inspect the Snatch Block Pulley to verify that it is in serviceable condition. See section 9 for inspection details. Do not use Snatch Block Pulley if inspection reveals an unsafe condition.
- 6.2 INSTALLATION INSTRUCTIONS:** The Snatch Block Pulley may be installed on an assembled horizontal lifeline by following the steps listed below. A 3/4 inch wrench and a pair of needle-nosed pliers are the tools needed for installation.

Step 1: Remove the cotter pin from the end of the 1/2 inch hex bolt with needle-nose pliers.

Step 2: Remove the slotted 1/2 inch nut with 3/4 inch wrench. Remove the 1/2 inch bolt and disassemble the yoke from the pulley side plates.

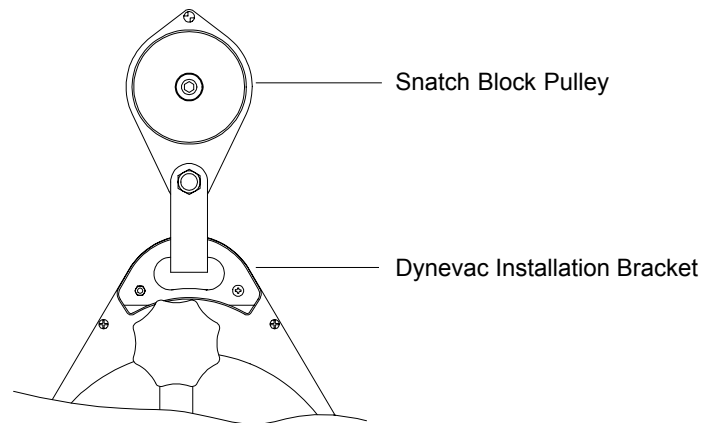
Step 3: Place the pulley sheave on top of the 3/8 inch diameter wire rope lifeline.

Step 4: Reassemble the yoke, 1/2 inch bolt, nut and cotter pin. The pulley should ride upright on top of the lifeline. The yoke should hang down below the lifeline.

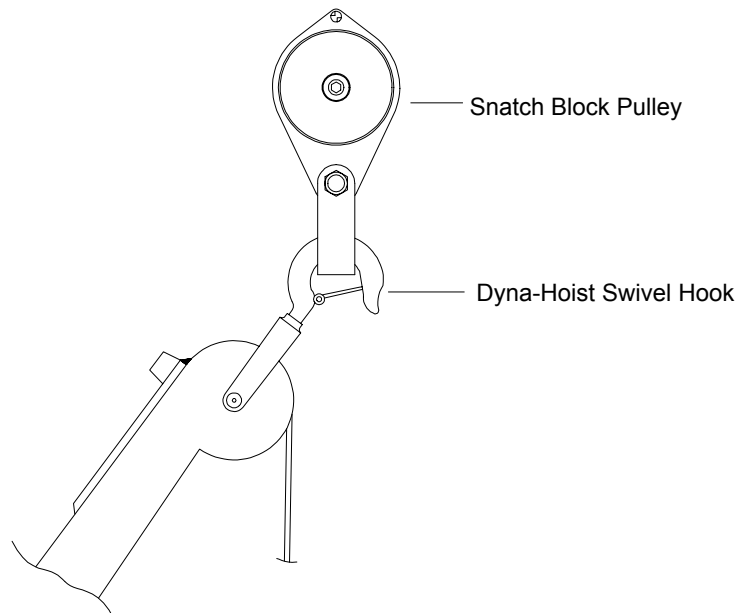
Step 5: Inspect the installation. Verify all hardware is present and secured. The pulley should travel smoothly along the length of the lifeline.

6.3 MAKING CONNECTIONS: The Snatch Block Pulley provides the means to connect a variety of compatible MSA equipment to a horizontal lifeline. Connecting is made by attachment to the Snatch Block Pulley yoke, as described more fully in the following sections.

6.3.1 CONNECTING THE MSA DYNA-LOCK AND DYNEVAC: The yoke of the Snatch Block Pulley is designed to fit the installation bracket on all MSA Dyna-Lock and Dynevac models. To connect the Snatch Block Pulley, remove the yoke according to the steps outlined in section 6.2. Pass the yoke through the installation bracket and reassemble the yoke to the Snatch Block Pulley as described in section 6.2. Refer to the illustration below.

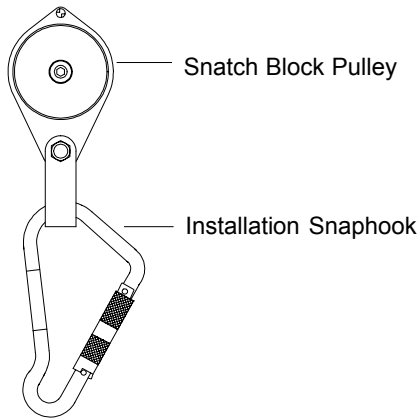


6.3.2 CONNECTING THE MSA DYNA-HOIST: The yoke of the Snatch Block Pulley will connect to the end of the boom of the Boom

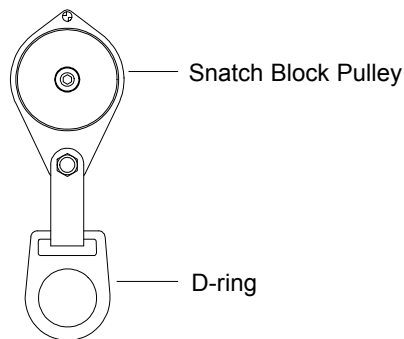


Mounted Dyna-Hoist models. No disassembly or tools are required to make the connection. Attach the swivel hook of the Boom Mounted Dyna-Hoist to the Snatch Block Pulley yoke as shown in the illustration below.

6.3.3 CONNECTING THE MSA INSTALLATION SNAPHOOK: The MSA Installation Snaphook, P/N 506308, can be connected directly to the yoke of the Snatch Block Pulley. Attach the snaphook by opening the gate and capturing the yoke within the large end of the snaphook. The snaphook must close and lock before use. Refer to the illustration below.



6.3.4 CONNECTING THE MSA FORGED D-RING: A forged, 2.18 inch (5.5 cm) inside diameter ring (P/N 620599) may be used in conjunction with the Snatch Block Pulley. The D-ring serves as an intermediate anchorage connector for attachment of compatible lanyards. The D-ring attachment element is suitable for use with all MSA self-locking snaphooks. To connect the Snatch Block Pulley, remove the yoke according to the steps outlined in section 6.2. Pass the yoke through the D-ring slot and reassemble the yoke to the Snatch Block Pulley as described in section 6.2. Refer to the illustration below.



CAUTION

- Only self-closing, self-locking snaphooks and carabiners should be used to prevent accidental disengagement ("rollout") when making connections.
- Do not use snaphooks or connectors that will not completely close over the attachment object.
- Do not attach connectors to the Snatch Block Pulley which could interfere with the movement of the Snatch Block Pulley on the horizontal lifeline.
- Snaphooks and carabiners must not be connected to each other.
- Do not attach two snaphooks or carabiners into one D-ring.
- Always follow the manufacturer's instructions supplied with each component.

6.4 REMOVAL INSTRUCTIONS: Before removing the Snatch Block Pulley from the horizontal lifeline, detach any equipment from the Snatch Block Pulley yoke according to the steps outlined in section 6.2. Once the yoke has been removed, the Snatch Block Pulley may be lifted off the lifeline. Reassemble the elements of the Snatch Block Pulley according to the steps described in section 6.2.

7.0 CARE, MAINTENANCE AND STORAGE

7.1 CLEANING INSTRUCTIONS: Clean the Snatch Block Pulley with a lightly oiled cloth. Excessive accumulation of dirt, paint or other foreign matter may prevent proper function of the Snatch Block Pulley. If you have questions concerning the condition of your Snatch Block Pulley, or have any doubt about putting it into service, consult a qualified safety engineer or contact MSA.

7.2 MAINTENANCE AND SERVICE: Equipment which is damaged or in need of scheduled maintenance must be tagged as

“UNUSABLE” and removed from service. Corrective maintenance (other than cleaning) and repair, such as replacement of elements, must be performed by an authorized service center. Authorization to perform this work must be in writing. Do not attempt field service of the Snatch Block Pulley. See section 9.1 for inspection and service frequency.

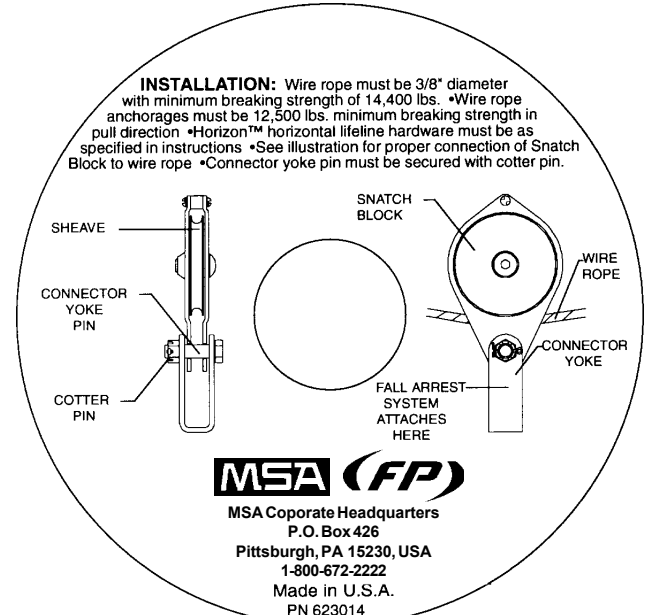
- 7.3 STORAGE:** Store the Snatch Block Pulley in a cool, dry and clean place out of direct sunlight. Avoid areas where heat, moisture, light, oil, and chemicals or their vapors or other degrading elements may be present. Equipment which is damaged or in need of scheduled maintenance should not be stored in the same area as usable equipment. Heavily soiled, wet, or otherwise contaminated equipment should be properly maintained (e.g. dried and cleaned) prior to storage. Prior to using equipment which has been stored for long periods of time, a Formal Inspection should be performed by a competent person.

8.1 MARKINGS AND LABELS

- 8.1 The following labels must be securely attached to the Snatch Block Pulley and be legible.



I.D. Label
P/N 623013



Installation Label
P/N 623014

9.0 INSPECTION BEFORE EACH USE

- 9.1 INSPECTION FREQUENCY:** The Snatch Block Pulley must be inspected by the user before each use and, additionally, by a competent person other than the user at intervals of no more than six months. The competent person inspection is referred to as Formal Inspection. MSA recommends that the Snatch Block Pulley be formally inspected by a competent person other than the user at least every six months. See section 10 for Formal Inspection procedures.

CAUTION

If the Snatch Block Pulley has been subjected to fall arrest or impact forces, it must be immediately removed from service. 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.

9.2 INSPECTION STEPS

- Step 1:** Inspect for missing or altered parts. Refer to the Snatch Block Pulley Inspection Diagram and verify each item is present and has not been tampered with.
- Step 2:** Inspect the Snatch Block Pulley for cracks, nicks or breaks in the metal. Clean if necessary before inspection in order to detect small, hairline cracks.
- Step 3:** Inspect the Snatch Block Pulley for wear, distortion or permanent deformation. Inspect for heat damage, usually evident as a darkened discoloration of the metal surfaces.

Step 4: Inspect the Snatch Block Pulley for signs of corrosion. On the steel elements, red rust is evidence of corrosion of the base metal. Corrosion of the aluminum sheave is evident by pitting or scale.

Step 5: Inspect the Snatch Block Pulley function. The Sheave must turn freely and not bind against the side plates. The yoke must rotate back and forth.

Step 6: Inspect each fall arrest system component or subsystem per the manufacturer's instructions.

9.3 CORRECTIVE ACTION: If inspection reveals any defect, remove the Snatch Block Pulley from service and label it "UNUSABLE" until repaired or destroyed. The Snatch Block Pulley is not field repairable, do not attempt field repairs. Return the defective part(s) to MSA for service.

10.0 FORMAL INSPECTION

10.1 FORMAL INSPECTION FREQUENCY: The Snatch Block Pulley 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 product 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 by following the inspection procedure in section 10.3. The inspection results should be recorded in the Formal Inspection Log and retained for reference.

10.2 CONTROL OF EQUIPMENT: The user's organization should establish and enforce a policy and procedure whereby any Snatch Block Pulley that is found to be defective, damaged, or in need of maintenance be immediately removed from use, marked as "UNUSABLE" and immediately thereafter submitted to custody of the competent person responsible for Formal Inspection. This has the benefits that: 1) defective equipment is secured from further use until proper action is taken; 2) uniform standards are applied for determining whether the equipment is acceptable or not acceptable for further use; 3) uniform methods of cleaning and other maintenance are applied; and 4) there is a central point for evaluation of conditions that may be recurring and require preventive measures such as coordination with the equipment manufacturer, selection of alternate equipment, additional training of equipment users, or changes to the workplace conditions.

10.3 FORMAL INSPECTION PROCEDURE: The Formal Inspection Procedure is similar to the user's inspection before each use described in section 9. However, it differs in three important respects, namely: 1) it is performed by a competent person other than the user who is trained and authorized to perform Formal Inspection for the user's organization; 2) it is more detailed and is methodically recorded on a Formal Inspection Log that is kept on file for future reference; and 3) it results in final disposition of the equipment as either "acceptable" or as "not acceptable" followed by destruction of the product.

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 and Codes ("CHECKLIST"). These forms relate and refer to each other so it is necessary to understand their purposes and uses before discussing the inspection procedure.

10.3.1 DIAGRAM: This is a set of line drawings of the Snatch Block Pulley. Each has numbered callouts of the parts. The numbers called out in the DIAGRAM correspond to those shown on the column titled "INSP. POINT" (inspection point) on the LOG.

10.3.2 LOG: This is the form to be used to record observations made during the Formal Inspection. The Model No. and Date Made are recorded by the inspector from the label set. 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" ("PASS") or "Not Acceptable" ("FAIL"). The columns on the LOG are as follows:

INSP. POINT - Inspection point. The Snatch Block Pulley part designated in the callouts on the DIAGRAM.

DESCRIPTION - Name of the Snatch Block Pulley inspection point.

QTY/SBP - Quantity per Snatch Block Pulley. The quantity of each Snatch Block Pulley inspection point that must be inspected.

COND. - Condition. The condition of the Snatch Block Pulley part is indicated here by entry of the appropriate Condition Code shown on the CHECKLIST (e.g. M0, P2, 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. The appropriate Overall Assessment Code defined on the CHECKLIST is entered here (e.g. MA, PN, etc.).

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.

10.3.3 CHECKLIST AND CODES: This is a table which categorizes the different types of Snatch Block Pulley parts into broad categories (e.g. metallic or plastic). For each of these categories that are applicable to a specific product, the formal inspector checks the Snatch Block Pulley parts for each of the associated conditions (e.g. deformation, corrosion, etc.). The codes for the detected conditions are entered in the Condition column on the LOG (e.g. M1, P0, etc.). Overall assessment codes are given, along with the criteria for assigning them, so the inspector can decide if the Snatch Block Pulley is acceptable or not acceptable for further use (e.g. MA, MN, PA, PN). 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.

10.3.4 FORMAL INSPECTION PROCEDURAL STEPS:

- Step 1:** Record on the LOG the Model No. and Date Made information shown on the product label set. Record the inspector's name and inspection date.
- Step 2:** Arrange the Snatch Block Pulley so the parts to be inspected are readily visible.
- Step 3:** Starting with the parts shown on the LOG, inspect each part (inspection point) one at a time. Refer to the DIAGRAM for identification of each inspection point. Each part must be inspected for the possible presence of the conditions shown on the CHECKLIST. Enter in the Condition column on the LOG the proper Condition Code (listed on the CHECKLIST) or "FAIL" if a defect exists. If there is any question whether the product condition has materially changed since the last Formal Inspection, retrieve and review the prior Formal Inspection records for the specific product.
- Step 4:** Determine whether the part (inspection point) is acceptable or not acceptable. If an inspection point has a defective condition, enter in the Overall Assessment column of the LOG the proper code taken from the CHECKLIST or simply "FAIL."
- Step 5:** Determine disposition of the Snatch Block Pulley. If in step 4 it has been determined that the Snatch Block Pulley is not acceptable, enter "N" or "FAIL" in the Disposition space on the LOG. In addition, a notation should be made in this space as to whether the Snatch Block Pulley is to be destroyed, returned to manufacturer/distributor, etc.
- Step 6:** If in step 4 it has been determined that the Snatch Block Pulley is acceptable for further use, enter "A" or "PASS" in the Disposition space on the LOG.
- Step 7:** File the LOG for future reference.

10.4 FORMAL INSPECTION CHECKLIST AND CODES

TYPE OF PART INSPECTED	CONDITION	COND. CODE	OVERALL ASSESSMENT CODE	LEGEND
Metallic	Deformed/fractured	M1	MA - (Metallic acceptable) MN - (Metallic not acceptable)	Disposition: A - (Acceptable) N - (Not acceptable) Enter "A" (or "PASS") or "N" (or "FAIL") in Disposition blank on Formal Inspection Log.
	Corroded/deep pits	M2		
	Missing/loose	M3		
	Heat exposure	M4		
	Chemical exposure	M5		
	Burrs/sharp edges	M6		
	Cuts/deep nicks	M7		
	Malfunction	M8		
	Other	M9		
	No visible change	M0		
Plastic	Cut/broken/deformed	P1	PA - (Plastic acceptable) PN - (Plastic not acceptable)	Criteria for disposition of "N" (Not acceptable): If there is one or more Overall Assessment Code of "N" type (e.g. WN, SN, MN, PN).
	Wear damage	P2		
	Missing/loose	P3		
	Burns/heat exposure	P4		
	Chemical exposure	P5		
	Other	P6		
	No visible change	P0		

10.5 FORMAL INSPECTION LOG FOR MSA SNATCH BLOCK PULLEY (EXAMPLE)

Model No.: 506663 Inspector: J. W. Doe
 Serial No.: N/A Inspection Date: 6/4/98
 Date Made: 2/98 Disposition: N - See item 1, Destroy Snatch Block Pulley.

INSP. POINT	DESCRIPTION	QTY/ SBP	COND. (a)	OVERALL ASSESS.(a)	COMMENTS
METALLIC PARTS					
1	Side Plate	2	<i>M1</i>	<i>MN</i>	<i>Side Plate bent, sheave does not rotate.</i>
2	Sheave	1	<i>M0</i>	<i>MA</i>	
3	Axle bolt w/ tamper-proof nut	1	<i>M0</i>	<i>MA</i>	
4	Pulley side plate bushing	1	<i>M0</i>	<i>MA</i>	
5	Screw	2	<i>M0</i>	<i>MA</i>	
6	Washer	2	<i>M0</i>	<i>MA</i>	
7	Connector yoke	1	<i>M0</i>	<i>MA</i>	
8	Bolt w/ nut & cotter-pin	1	<i>M0</i>	<i>MA</i>	
PLASTIC PARTS					
9	Label	2	<i>P0</i>	<i>PA</i>	

- (a) Optional simplified PASS/FAIL inspection format: Whenever an acceptable condition is found, the entry in the COND. and OVERALL ASSESS. columns may be left blank. Whenever a defective condition is found, enter "FAIL." The inspection may end upon detection of a single defective condition.
- (b) Blank copies of this LOG, with associated CHECKLIST and DIAGRAM, are available from MSA. Call Toll Free (800) 722-1231.

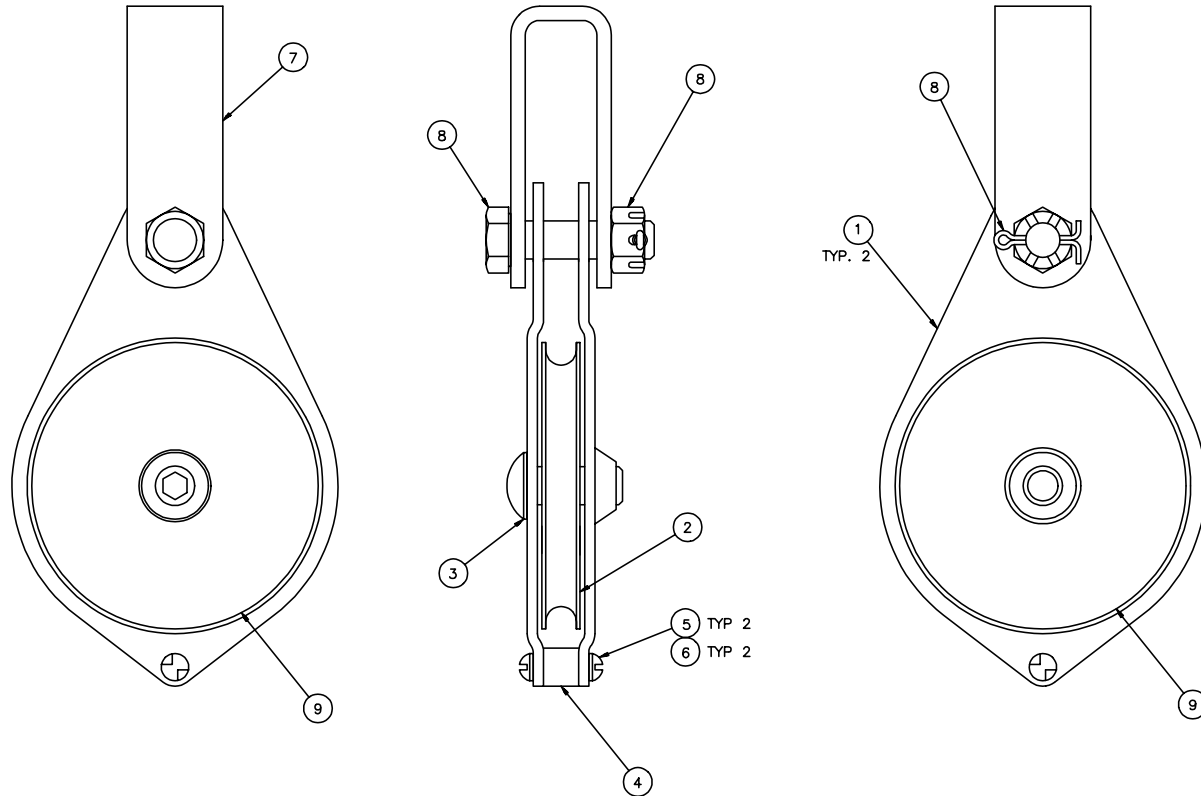
10.6 FORMAL INSPECTION LOG FOR MSA SNATCH BLOCK PULLEY

Model No.: _____ Inspector: _____
 Serial No.: N/A Inspection Date: _____
 Date Made: _____ Disposition: _____

INSP. POINT	DESCRIPTION	QTY/ SBP	COND. (a)	OVERALL ASSESS.(a)	COMMENTS
METALLIC PARTS					
1	Side Plate	2			
2	Sheave	1			
3	Axle bolt w/ tamper-proof nut	1			
4	Pulley side plate bushing	1			
5	Screw	2			
6	Washer	2			
7	Connector yoke	1			
8	Bolt w/ nut & cotter-pin	1			
PLASTIC PARTS					
9	Label	2			

- (a) Optional simplified PASS/FAIL inspection format: Whenever an acceptable condition is found, the entry in the COND. and OVERALL ASSESS. columns may be left blank. Whenever a defective condition is found, enter "FAIL." The inspection may end upon detection of a single defective condition.
- (b) Blank copies of this LOG, with associated CHECKLIST and DIAGRAM, are available from MSA. Call Toll Free (800) 722-1231.

10.6 FORMAL INSPECTION DIAGRAM



WARRANTY

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 ■ P.O. BOX 426

PITTSBURGH ■ PA ■ 15230 ■ USA

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

TECHNICAL SUPPORT 1-888-421-8324

IN CANADA 1-888-396-1067

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