

J. H. FLETCHER & CO. Box 2187 – Huntington, WV 25722-2187 – 304/525-7811 – FAX 304/525-4025

# IMPORTANT SAFETY NOTICE

## INFORMATION BULLETIN NO. 64

TO: ALL OWNERS OF J. H. FLETCHER & CO. MOBILE ROOF SUPPORTS (MRS)

FROM: RISK MANAGEMENT DEPARTMENT  
J. H. FLETCHER & CO.

DATE: SEPTEMBER 1996

SUBJ: MRS SAFETY NOTICE

J. H. Fletcher & Co. has become aware of unsafe conditions that may occur during the use of MRS systems. To reduce the likelihood of such an occurrence, the following material has been developed to alert operators to potential hazards and to provide supplemental task training on the correct way to operate a MRS system during pillar extraction.

1. Posters: Two different safety posters to be placed in an area where all employees will view them. Use these posters to alert both new and experienced MRS crews to possible unsafe acts and conditions.
2. Training Material:
  - A) MRS General Safety/Operating Instructions, Part Number 139001.
  - B) MRS Safety Tips for Maintenance Personnel, Part Number 139004.
3. Warning Tag: Enclosed are self-adhesive warning tags for placement on each MRS unit; six tags per unit for a total of 24 tags for each four-unit MRS set. We recommend affixing these labels on a clean surface close to the MRS canopy (roof support plate assembly) and control arm assembly joints; see enclosed illustration. These tags are provided to warn maintenance personnel that failure to block the canopy (roof support plate assembly) and shield against horizontal and vertical motion could permit unrestrained movement of the canopy (roof support plate assembly), which could result in serious injury or death.

In addition to the enclosed training materials, J. H. Fletcher & Co. is notifying MRS owners of two ways to view pressure changes underground. First, a high visibility pressure gauge is now available. This gauge features a white background with large blue numbers and a fluorescent yellow (color may differ) indicator needle to identify pressure changes; see enclosed illustration.

Information Bulletin No. 64  
Subject: MRS Safety Notice  
September 1996  
Page 2

The gauge is the standard size and can be utilized as an alternative to the gauge already present on all MRS units manufactured by J. H. Fletcher & Co. Second, supplemental lighting can be added. Units manufactured after serial number 94907 are equipped with a headlight to illuminate the standard six-inch face of the support cylinder pressure gauge. If you are operating an earlier model that is not equipped with this feature, you may want to order parts for this gauge light system. Both the gauge, part number 132052, and the light components, are available through our service department.

We encourage you to put the enclosed material into use as soon as possible. If you no longer own this equipment, we request that you provide us the name and address of the current owner.

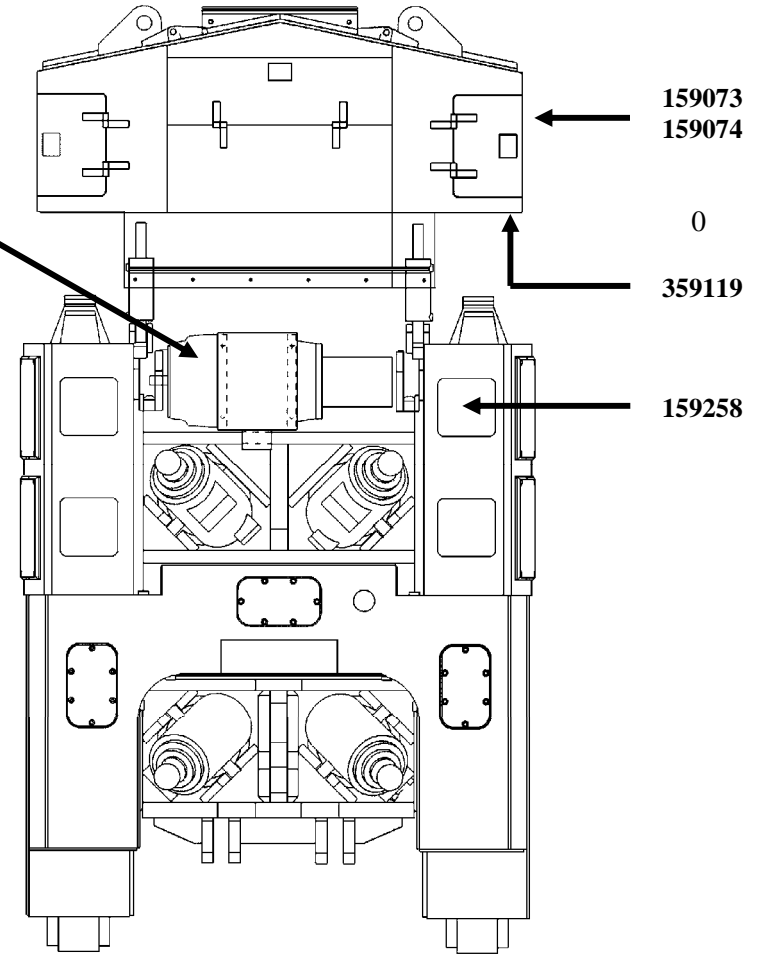
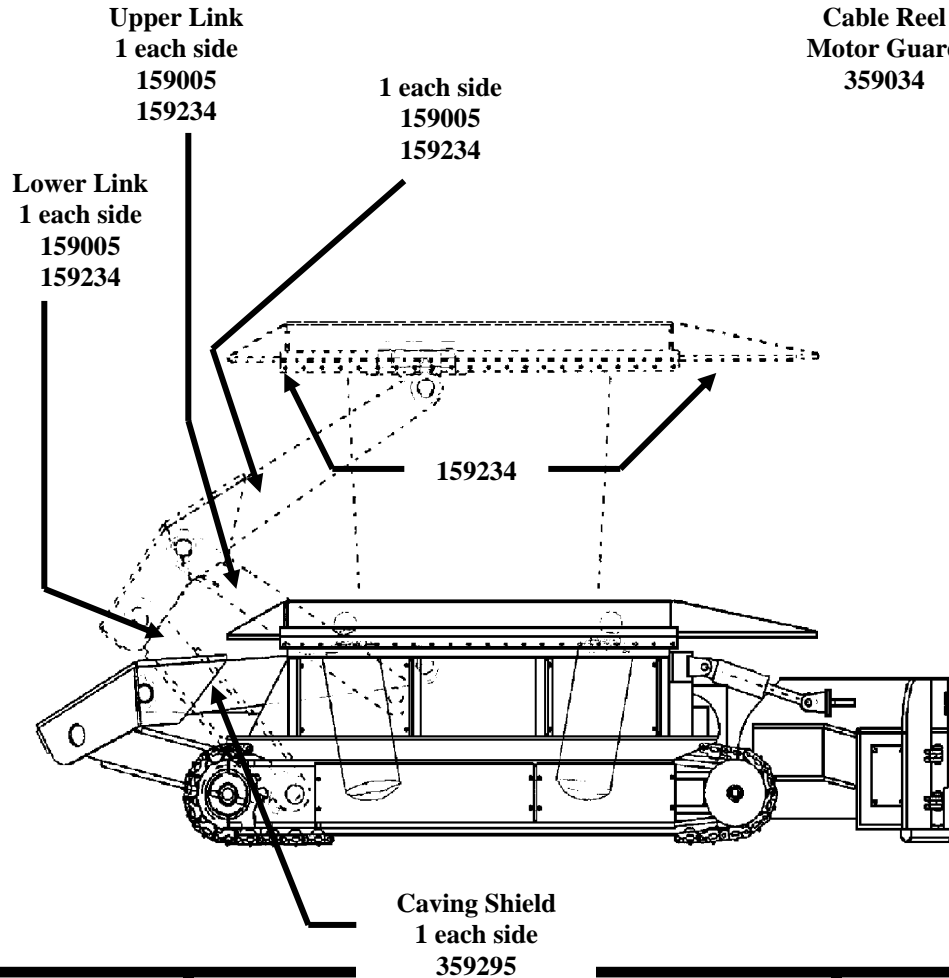
J. H. Fletcher & Co. appreciates your continued interest in the MRS product line. If we may be of assistance in any way, please call the Risk Management Department at 304/525-7811, ext. 240.

BILL OF MATERIAL  
MRS WARNING TAG KIT  
PART NUMBER: 159688

<u>PART NUMBER</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
359295	1	Warning: Temporary Canopy Supports
159005	6	Danger: Pinch Point
159073	1	Warning: Manual Override Controls
159074	1	Notice: Emergency Stop Under Cover
159234	6	Warning: Unpin Canopy (Roof Support Plate Assembly)
159258	1	Shell Lubricant Tag
359034	1	Pinch Point Tag
359119	1	8-1/2" x 11" Operations Tag
159365	1	Warning Tag Location Sheet
999999	1	Operator's Manual*

\*Machine specific by serial number.

THE MANUAL CONTROLS ON THE MRS  
UNITS MAY BE ON THE LEFT OR RIGHT  
SIDE OF THE PLOW. TAGS SHOULD BE  
PLACED ACCORDINGLY.



SHEET NO.	TITLE	DATE	R	J.H. FLETCHER & CO.
P.N. 159365	MODEL: <u>MRS</u> B/M: 159688	1/28/99		402 HIGH STREET, HUNTINGTON WV

**NEW  
MRS RAISE CYLINDER  
PRESSURE GAUGE**



**MRS**

**SAFETY TIPS**

**FOR**

**MAINTENANCE**

**PERSONNEL**

**J. H. Fletcher & Co.**  
**402 High Street**  
**Huntington, WV 25705**  
**(304) 525-7811**

**Part Number: 139004**

**Date: 09/24/96**

# MRS SAFETY TIPS FOR MAINTENANCE PERSONNEL

## GENERAL SAFETY:

Practice “*safety first*” when performing maintenance, repair or troubleshooting.

Think out just what you intend to do beforehand. Consider what hazards may be involved, both to yourself as well as others, during the job and after it has been completed.

Read and observe the caution and warning notices located on the machine.

Check the parts book and maintenance manual before starting, to make sure you thoroughly understand what needs to be done and how to do it safely and correctly. Pay special attention to all caution and warning statements found in the manuals.

Don't attempt to do things for which you haven't been trained. If you aren't sure you thoroughly understand how to operate the machine, have someone who has been trained operate it for you.

Use manual control only when radio control is inoperable. Never use manual control during production.

During operation with the manual controls, the emergency stop station must be accessible and operating properly.

Make sure all personnel, including yourself, are clear of the machine before starting.

Make sure all personnel, including yourself, are a safe distance from the machine before raising or lowering the Roof Support Plate Assembly to or from the roof.

During testing, never pressurize the Roof Support Plate Assembly against the roof in outby areas where personnel will be standing or traveling. This could damage the roof and cause a fall.

Before working around the machine, lower the Roof Support Plate Assembly and remove any material that could fall off and cause injury.

Never position yourself, or other personnel, between the machine and the rib, face or another piece of equipment.

## UNAUTHORIZED MACHINE MODIFICATIONS:

Don't make unauthorized changes to the machines. These changes could jeopardize the safety of those who will be operating, or working on, the machine after you have finished your job and left.

Remember, that as a maintenance person, you are responsible not only for your own safety - but also for the safety of those persons who will be using and working on the machine after you have finished your job and left.

When making adjustments do not exceed the manufacturer's recommendations.

Only use repair and replacement parts that meet the original equipment manufacturer's specifications.

## CAUGHT BETWEEN AND PINCH POINT HAZARDS:

Remember, that these machines can be started at any time by remote control and operation of any function can occur immediately without warning.

Never enter the area between a mobile roof support machine and the rib, face or another piece of equipment.

The roof support cylinders are equipped with yield valves which allow the cylinders to collapse under extreme loading conditions. Never climb into the machine to take refuge from a roof fall.

Before removing any of the pins from the MRS canopy control arm assembly (Roof Support Plate Assembly), always block the canopy (Roof Support Plate Assembly) against horizontal as well as vertical movement. Unrestrained movement of the canopy (Roof Support Plate Assembly) can result in serious injury or death.

Always fully lower, or block, the plow before working in the area around the plow.

Be aware of the pinch point between the electric motor and the rear of the cable reel compartment. There are dangerous pinch points between: the plow, machine, Roof Support Plate Assembly, and the floor. Follow your company's lockout policy before working in these areas.

Use caution when handling cover plates, use proper lifting techniques, wear gloves to protect fingers and never use your finger to line up a bolt hole.

The chain curtains are heavy and can easily pinch hands and fingers. Use extreme care when handling the chain curtains - wear gloves and use the proper lifting devices to assist in handling.

## ELECTRICAL SAFETY:

Before performing any electrical work on these machines always disconnect the power at the distribution box, lock and tag.

All electrical work must be performed only by properly trained and authorized personnel.

These machines must be maintained in permissible condition at all times.

## HYDRAULIC SAFETY:

These machines use a high pressure hydraulic system. Oil leaking at these pressures can penetrate the skin or cause blindness if allowed to get into the eyes. Always, wear eye protection when working on or around these machines.

Before replacing any hose on the machine make sure it meets the required pressure rating.

Use extreme caution when removing cartridges from cylinders and valves - make sure all pressure and load has been removed before losing the cartridge.

The hydraulic accumulator (used in the fire suppression system circuit) has no user serviceable parts - do not attempt to take apart. Also, never burn or weld on or around this device - this will cause the enclosed nitrogen gas to expand and cause an explosion. Do not disconnect without bleeding pressure off.

Before making any adjustments to the hydraulic system, always consult the maintenance manual and the hydraulic circuit to make sure you are adjusting the proper valve is know the correct setting. Never experiment and never exceed the manufacturer's recommended settings.



After making any repair or adjustment, always test the machine to make sure it operates in the correct direction and at normal speed.

## **CONCLUSIONS:**

Safe operation depends upon proper maintenance.

Follow these basic rules for safety when performing maintenance and repair:

Make sure you have the proper training.

Follow established plans and procedures.

Use common sense.

# **MRS**

# **GENERAL**

# **SAFETY/OPERATING**

# **INSTRUCTIONS**

**J. H. FLETCHER & CO.**  
**402 HIGH STREET**  
**HUNTINGTON, WV 25705**  
**(304) 525-7811**

**PART NUMBER: 139001**

**DATE: 09/24/96**  
**REV. 08/20/97**

# J. H. FLETCHER & CO.

## MRS

# GENERAL SAFETY/OPERATING INSTRUCTIONS

### GENERAL CAUTIONS - BEFORE STARTING:

The safe operation of this machine requires special training and knowledge. Do not attempt to operate, until you have read and understand the *Operator's Manual* and have completed the required **TASK TRAINING**.

Operation, repair and recovery of this machinery must conform with all applicable state and federal mining regulations. Make sure you are familiar with all state and federal laws that apply to the operation of these machines. Read, understand and follow the current mining plan for your operating section or unit.

The purpose of this machine is to provide pillar line roof support only. Use of this machine for any other purpose could jeopardize the safety of the operator along with other personnel in the area.

Never attempt to increase the output of these machines by adjusting the valving beyond its rated capacity. Machine adjustments are to be made only by properly trained and authorized personnel.

Make sure all personnel, including yourself, are clear of the machine before starting.

Never position yourself, or other personnel, between the machine and the rib, face or another piece of equipment.

If there are any problems with the machines, report them to your supervisor immediately.

### OPERATING:

During operation always follow the current mining plan for your section or unit; however, remember that the mining plan lists the minimum requirements. In unusual circumstances you must exercise extra care and effort to satisfy yourself that the situation is being handled safely.

Make sure all personnel, including yourself, are clear of the trailing cable before turning on the cable reel.



Do not consider these machines a safe area to climb into during a fall. The Roof Support Plate Assembly ("R.S.P.A.") cylinders are designed to yield under the load of a large roof fall.



Use remote controls for normal operation. The manual controls are provided for trouble shooting and use in extreme emergency situations only.

When setting the units, place the R.S.P.A. evenly against the roof. Always position the MRS with the plow end facing outby, or toward supported roof.

Set the MRS firmly against the roof at a pressure that will provide compression of the strata immediately above the seam. This pressure should be set as designated for two or three stage cylinders:

FOR THREE STAGE CYLINDERS: 1000 TO 2500 PSI

## FOR TWO STAGE CYLINDERS: 1500 TO 3000 PSI

In areas where the draw rock is soft or contains numerous fractures, use the lower set pressure. If the pressure bleeds off due to soft floor conditions, re-pressurize the R.S.P.A. again to the initial set pressure. Because roof and floor conditions can change, without notice to the operator, the appropriate pressure must be selected based on specific mine conditions present. Daily re-evaluation of the roof in working section is necessary. If doubt exists regarding the correct pressure setting, the operator should contact mine management. Failure to utilize the MRS correctly can result in serious injury or death.

Advance the roof supports with each miner lift.

When moving in the working place, move the machines in pairs - keeping one machine of each pair against the roof at all times. Then step out of the place by alternately lowering and setting the MRS units. Move the MRS 6 to 7 feet in good roof; 2 to 3 feet or less in broken roof, before resetting and moving the other MRS.

Move the MRS closest to the gob first. Lower the R.S.P.A. just enough to clear the roof, when moving on the pillar line.

When lowering the R.S.P.A. from roof, first bring all four cylinders down together then lower inby end of R.S.P.A. to allow roof material to fall toward gob line. In poor or broken roof, lower the end of the R.S.P.A. closest to the gob line first.

Allow at least one foot side to side spacing between the MRS units to avoid dragging the chain curtains.

Position the roof supports as close to the miner as possible during all lifts, and especially during the final push out.

Do not allow the roof to cave around or on the MRS with the R.S.P.A. retracted away from the roof.

### **GENERAL CAUTIONS - MAINTENANCE:**

Use caution when standing or working around the plow. There is a dangerous pinch point between the plow and the floor and between the machine and the roof support plate assembly. Keep the plow lowered against the floor or blocking when standing or working in this area.

The R.S.P.A. holds up lemniscate links. Links must also be blocked up when disconnected from the R.S.P.A. Before removing any of the pins from the MRS R.S.P.A. control arm assembly, always block the R.S.P.A. against horizontal as well as vertical movement. Unrestrained movement of the R.S.P.A. can result in serious injury or death. Always disconnect and lockout the machine at the distribution box while performing maintenance.

When standing or working around the machines avoid material on top of the R.S.P.A. that could fall at any time.

Make sure all personnel, including yourself, are a safe distance from the machine before raising or lowering the R.S.P.A. to or from the roof.

When performing maintenance on the MRS, especially in outby areas where personnel will be standing or traveling, be careful not to damage the roof by pressurizing the R.S.P.A. against the roof.



Remember that the roof jacks only provide vertical support of the R.S.P.A. Always firmly block and secure R.S.P.A. from lateral movement before removing any pin(s) from the control link or lemniscate mechanism.

When standing or working around the machines watch out for material on top of the R.S.P.A. that could fall at any time.



Make sure all personnel, including yourself, are a safe distance from the machine before

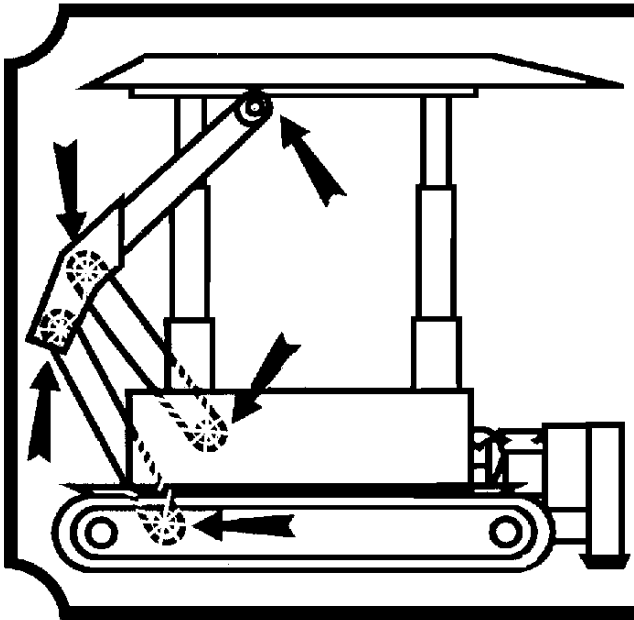
lowering the R.S.P.A. to or from the roof.

**SHUTDOWN:**

When shutting down for extended periods (weekends, etc.), always park the units outby the gob line, with the plow pointing outby and the R.S.P.A. is snugly set against the roof.

Store the remote control units in a safe area. Never leave them on the machine.

Report any problems or repairs that need to be made to the machines to your supervisor.



# **!** DANGER

**BEFORE REMOVING ANY OF THE PINS FROM THE MRS CANOPY CONTROL ARM ASSEMBLY ALWAYS BLOCK THE CANOPY AGAINST HORIZONTAL AS WELL AS VERTICAL MOVEMENT.**

**UNRESTRAINED MOVEMENT OF THE CANOPY CAN RESULT IN SERIOUS INJURY OR DEATH.**

**J.H. FLETCHER & CO. PART NO. 159234**