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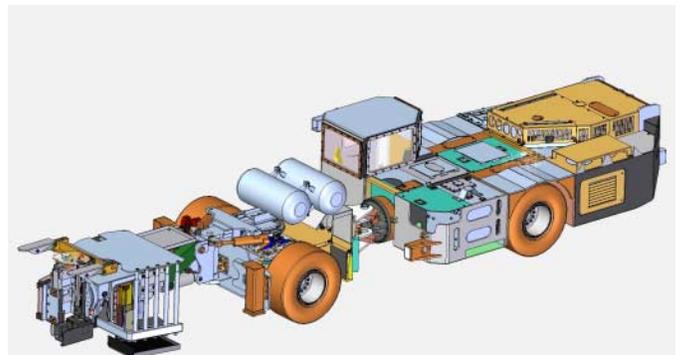
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## New Fletcher Prime Mover Attachments



Prime Mover with LHD Bucket

The Fletcher diesel tractor, or prime mover, has been accepted by the underground mining industry as a valuable tool for pulling trailers to transport tools and equipment, as well as moving longwall shields. Several attachments to the prime mover have been designed that make it more versatile than before. Currently in production is a bucket attachment. Without leaving the cab, the operator can use the quick change mechanism to line up the hooks, lift the bucket and lock it in place. Other designs, such as forks, a scoop and a single-head bolter are in the works. Additional features of the prime mover are the climate controlled cab and the Fletchbus control system, which can display information about the machine, as well as aid in troubleshooting. As the potential of the prime mover is realized, many more attachments are expected. Fletcher has once again demonstrated its ability to meet the unique needs of the customer as no other company can.



Prime Mover with Bolter

# High Pressure Hose Maintenance

When performing maintenance on high pressure hose, Fletcher recommends the following guidelines:



1. An energized circuit has hidden dangers. Always use your company's lock out/tag out program to assure no power is going to the hydraulic power source. Cycle valve handles to divert any pressure to tank (zero pressure). Also, carefully bleed pressure from any line being disconnected

2. Before starting any maintenance identify the circuit in question with the machine hydraulic diagram. Know what you are working on and the results of removing a hose. Block any machine components that may move due to hose removal.

3. Always be aware of the hazards presented by pressurized hoses. High pressure in a leaking or ruptured hose can inject oil under the skin, resulting in a serious injury that requires immediate medical attention. Keep all body parts away from an energized circuit.



4. When reinstalling hoses, adaptors or valves make sure hoses are correctly routed and fittings are properly tightened before powering up the machine. Instructions for tightening hoses can be found in the service manual.  
*Reference: Fluid Power Safety Institute*

# Answers to Your Dust Questions

Several questions have been brought up lately about the MSHA certified Fletcher dust system. Here we have compiled some of those questions along with a brief answer.

- 1. What is the maximum vacuum?**  
The complete vacuum system is rated for 22" Hg. but the blower manufacturer recommends a maximum of 20" Hg. for the 2504 DVJ and 16" Hg. for the 2504 J blower for longer life.
- 2. How do you splice a dust hose?**  
Fletcher recommends that you do not splice the dust hose. Replace the damaged section of hose with OEM approved hose. A 50' length is available from JHF as p/n 57318.
- 3. At what point do you need to replace a dust box door gasket?**  
Replace gasket when dust box is leaking or bypassing. System leaks may reduce drilling performance.
- 4. Is it a requirement to maintain the dust boots?**  
Yes, if the ventilation and dust control plan at the mine specifies them.
- 5. If the bolter is shipped with dust bags, is their use required?**  
Yes, if the ventilation and dust control plan at the mine specifies them.
- 6. Is there a standard hose route for the dust hoses?**  
No, but Fletcher is careful to route hoses to avoid kinking, allow easy access for replacement, and prevent interference with controls or machine operation. Make sure any alternate routing of hoses does not cause kinking of the hose, interfere with machine operation, or cause a tripping hazard.
- 7. Has Fletcher in fact measured the length of the dust hoses on each bolter?**  
Yes. The approval tag provides for maximum hose length which should not be exceeded.

If there are other questions that you have regarding the dust system or any other component on Fletcher manufactured machines, please call or email.

# Hands Off Drilling Using a Hydraulic Drillguide

Fletcher has manufactured numerous styles of hydraulic drillguides throughout the years. Each new design improved the performance of the machine when bolting the roof or ribs. Examples of improvements to the drillguide assembly include the following:

1. Design: Different designs of drillguides have been manufactured (see photos). Some of these guides have the wider opening to allow the roof bolt plate to pass through the open jaws with guarding fixed to the moveable jaws



*Wide Mouth Style*



*Manual - Non Hydraulic Style*

2. Hydraulic Changes: Orifices are designed into the drill guide cylinders to slow down the closing speed of the arms.  
**NOTE:** This was first done in 1997. Since that time, all hydraulic drillguides have been manufactured with orifices in the cylinders to limit the clamp speed.

3. Guarding; Design changes have increased the life of the guard and provided more protection from the drillguide jaws for the operators.



4. Warnings: Fletcher has improved the warning tags at the drillguide, making them more visible to the operator.

Fletcher manufactures the drillguide to assist in the drilling of horizontal and vertical holes. Throughout the evolution of this component the design requirement was to stabilize the drill steel during drilling; thus preventing the operator from holding onto a rotating drill steel during drilling or buckling of a long drill steel. The guide also improves hole alignment which reduces the likelihood the drill steel will hang in the hole. Newer drillguides have a clamp incorporated into them to pull stuck drill steels if necessary.

The drillguide is an important component for angle and rib bolting. The drillguide is not only used during the drilling procedure but also to support the bolt while the mast is tilted over and the bolt is started into the hole.

Always make sure the drillguide is working properly before starting your shift.

The hydraulic drillguide is not available on arm feed machines. Fletcher recommends that arm feed machine operators maintain deep chuck drill heads and drilling tools that fit the chuck. Arm feed machine operators should use short starter steels in conjunction with deep chuck shank steels.

# Terms to Know

**Pinch Point:** Any point at which it is possible for a part of the body to be caught between the moving parts of a machine, such as a boom-mast/arm or auxiliary equipment, or between moving and stationary parts of a boom or auxiliary equipment or between the material and moving part or parts of the boom or auxiliary equipment.

**Guard:** A barrier that prevents entry of the operator's body parts into a hazardous area.



Pinch Points identified with this or similar tag



Guard

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