Fletcher Rib Access Boom Now Available

J.H. Fletcher & Co. (“Fletcher”) developed the HDDR Walk–thru roof drill over 20 years ago. This drill provides operators access to high roof conditions through an operator lifting platform, along with better protection from rib rolls by placing the boom between the rib and operator. Throughout the history of this roof drill, Fletcher has improved and refined the machine by constantly reviewing the design and listening to your concerns and suggestions for improvement. In our latest development of this machine, Fletcher has completely redesigned the boom for better access to the ribs (see photographs).

Introduced at the Coal Show in 2008 and tested at Bridger Coal in Wyoming, the new design is now being ordered by our customers. The reasons for considering this new boom when having your booms rebuilt are:

- the new boom provides more room for the operator to work while installing roof and rib bolts through a redesigned platform.
- the new booms provide much better access to the ribs when installing glue into the ribs or installing truss bolts.
- there is a new canopy rib guard that moves with the drill canopy thereby...
How much play is allowed in the connection of an “L” style ATRS to the chassis on a J. H. Fletcher & Co. roof bolter?

There is no prescribed allowance for the pin fit connecting the “L” style ATRS to the chassis on a Fletcher roof bolter. As with the maintenance of most equipment, the amount of wear allowed is dependent upon several factors that must be considered by both the operator and mechanic.

This connection is typically a nominal 2 ½” diameter through hardened pin with keepers passing through reinforced or bossed alloy steel plates on the chassis and in the TRS frame. The pin is substantially larger than required by the loads induced by the TRS either when being carried or when set due to the need to withstand abuse commonly caused by ribbing the TRS beam when tramming and pushing the TRS around on the floor. Due to the overdesign relative to the TRS function, the concern over pin fit wear is primarily one of efficiently carrying the TRS without it dragging, holding it near perpendicular to the floor to set the TRS properly between the floor and roof, and holding the TRS square with the rest of the machine so as to not cause interference to the booms and drillheads on either side of the TRS. Therefore, if movement in the TRS relative to the chassis allows the TRS to continually drag on the floor or keeps the TRS beam from setting firmly against the roof or interferes with the operation of the booms and drill, then the pin should be replaced and the fits repaired. Additionally, if the pin is loose enough that pin movement causes failure of the pin retainers or keepers, then the pin and keepers should be replaced and the fits repaired if necessary. These are all observations that can be easily made by the operator and confirmed by the mechanic.

A loose fitting pin may also slow down the operation of the machine. Operators will take longer to tram and set the TRS if the TRS is dragging, not setting properly or hitting the booms and/or drillheads. Keeping your Fletcher roofbolter in good repair is both safe and productive.

The ATRS pin connecting it to the chassis is part of the ATRS certified system and can only be replaced with an OEM pin to maintain the validity of the TRS certification.
How to Detect Low Oil Levels

Keeping the hydraulic oil tank filled with clean hydraulic oil will help assure safe, efficient and reliable machine operation. Dirty hydraulic oil not only leads to premature component failure, but it actually creates a safety hazard. Dirty hydraulic oil can lead to a control valve sticking and a stuck control valve can cause a serious accident.

The importance of maintaining a sufficient supply of clean hydraulic oil in the reservoir cannot be over emphasized. In this article, we will identify the ways your machine may be designed, so that a low oil condition can be detected. First, some machines may be equipped with a float switch located on top of the hydraulic tank. Machines with a float switch are either set up with a low oil warning light (shown on the controller cover) or the ability to shut down the machine when the level reaches a certain point.

Second, the machine may be provided with sight plugs on the hydraulic tank. In this instance, oil needs to be added when the machine is less than three quarters of the way full or when you can only see oil in two sight plugs. Third, some machines have an oil level tube. Oil needs to be added when the tube is less than three quarters of the way full. Fourth, some machine have a low oil warning indicator. When the hydraulic oil temperature gets too high from lack of oil, there is a warning light that will come on in the tram deck to alert the operator. To prevent these low oil indicators from coming on, the operator needs to simply check the oil at the beginning of each shift and, depending on their circumstances, throughout the shift. Always consult the operator’s manual for how your specific machine may indicate a low oil condition and how to properly add hydraulic oil to your tank.

TITAN AND APOLLO MASTS: FEED PRESSURES

J. H. Fletcher & Co. offers a variety of drill feed mechanisms. The three most common are listed in the following chart. The pressures listed on the hydraulic print reflect the values in this chart. In an attempt to clarify J. H. Fletcher & Co.’s position on the standard feed systems, we encourage the chart information be reviewed and added to the machine service manual.

The feed pressure is set to the low side of the chart when a machine is shipped. After drilling a few holes, whoever is installing the machine can re-set the feed pressure for the mine’s particular drilling conditions. Setting the feed pressure high causes increased wear on the boom and feed mechanism. Additionally, high feed pressure can cause a hazardous situation by increasing the risk of buckling the drill steel.

Review your specific machine, the machine service manual, and consult the chart before adjusting the feed pressure, or call a Fletcher service representative for assistance.

<table>
<thead>
<tr>
<th>FEED TYPE</th>
<th>PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titan Mast</td>
<td>800 to 1100 psi</td>
</tr>
<tr>
<td>Atlas Mast</td>
<td>1400 to 1900 psi</td>
</tr>
<tr>
<td>Apollo Mast</td>
<td>1400 to 1900 psi</td>
</tr>
<tr>
<td>Triton Mast</td>
<td>1400 to 1900 psi</td>
</tr>
<tr>
<td>60&quot;, 72&quot;, and 84&quot;Arm Feed</td>
<td>1100 to 1500 psi</td>
</tr>
</tbody>
</table>
**Employee News**

On October 22-23 SME/PCMIA had their annual seminar in Pittsburg. At the meeting Fletcher’s Manager of Engineering, Tim Burgess, was invited to speak on how to properly maintain the Fletcher dust collection system. A power point presentation illustrated the need to maintain the system to Original Equipment Manufacturer Specifications to ensure compliance with MSHA regulatory standards on the dust system. If you have questions, about how to maintain the dust system, contact David Cooper at J.H. Fletcher & Co.

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