Fletcher Product Newsletter



J. H. Fletcher & Co.

Huntington, WV

Q1 2000

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MINEXPO

Update to Fletcher Website

Dust Collection Systems

MSHA has laws in effect which require operators to monitor and control the air quality of underground mines. The drilling and mining of some materials found underground can release particles which are harmful to the individual if inhaled. Miners can be subjected to these particles from both the ambient mine air and those generated by the various mining machines. There are several technologies available to minimize harmful particles that may be released from the strata during the drilling phase of roof bolting.

Wet Drilling

Fletcher drill heads with a water passage are available for both new and existing machines. Some in the mining industry have stated that water drilling is a viable dust control method. However, the effectiveness of this dust suppression is very dependent on the drill operators timing in turning on the water. In some situations, the material immediately above the coal seam contains a high concentration of silica. Drilling an inch or so without water can expose the operator to this silica. Should you be interested in converting from dry to wet drilling, please contact J.H. Fletcher & Co.

Dry Drilling

J.H. Fletcher & Co. offers MSHA approved dust collection systems on roof bolters utilizing dry drilling. These are approved under 30 CFR, Part 33. These systems work by drawing the dust through the drill steel and drill head, then into the dust box. A final filter within the dust box stops the smallest particles from passing through to the blower. In order to be effective, the operator must keep the dust box clean. In addition, the system must be properly maintained, using approved filters and OEM components. The hoses are MSHA approved, and must not be replaced with any other type hose.

Dust Filters

Fletcher dust boxes contain final filters manufactured by Donaldson Company, Inc. At a recent MSHA sponsored Silica Seminar, Donaldson representatives stated that they do not recommend cleaning these filters. J.H. Fletcher & Co. agrees with this recommendation.

Blowers

The vacuum for the dry dust system is produced by a vacuum pump. The maximum vacuum is controlled by a spring loaded relief valve located in the line near the blower. This setting should be listed on the machine dust approval plate. Usually this is 12" Hg with a P/N 42048 blower, and 15" Hg with a P/N 42098 blower. These settings refer to the maximum setting, and is normally verified by plugging off the drill head with a vacuum gauge. In most cases, the drilling process only requires 9" to 10" of mercury.

Optional Pre-Cleaners

This is a MSHA approved option on most Fletcher roof bolters. It is placed between the drill head and the dust box, and is designed to drop the heavy cuttings on the ground, minimizing the amount of material that the dust box must handle. MSHA recently sampled the cuttings from the pre-cleaner. Their analysis shows that although the vast majority of the cuttings are of a large size, some of the cuttings dropped by the pre-cleaner are respirable (less than 10 micron). The size analysis is shown below.

Micron Size	Pre-cleaner
>850	10.0800%
>425, <850	8.5300%
>75, <425	55.1800%
>10, <75 m.	24.8549%
>5 m, <10 m.	0.9776%
<5 micron	0.3774%
Total	100.00%

It is generally considered that the harmful silica is of the less than 5 micron size.

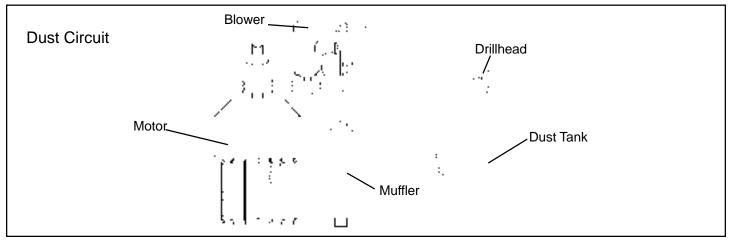
Conclusion

MSHA has recently increased their emphasis on dust in underground mines. They have distributed a document entitled "Best Practices for Controlling Silica". J.H. Fletcher & Co. would like to pass their advice along:

ROOF BOLTING MACHINES:

- · Control blowback to prevent dust exposure
- Maintain dust collecting systems (door seals and latches, filters and filter seals, cyclones, hoses, blowers)
- · Do not allow collection boxes to over fill
- · After a failure, clean the exhaust system before continuing operation
- Develop SOP (Standard Operating Procedures) for cleaning and maintaining filtering systems (use properly fitted respirators)

J.H. Fletcher & Co. will continue to be a leader in developing roof bolting technology. We have recently developed a dust bag system which will have a positive impact on operator dust exposure. We are in the process of final field-testing. This new option will be available in the very near future, and will be featured in an upcoming bulletin.



SAFETY NEWS

Support Post Retention Nut

In Safety/Service Bulletin No. 41, J. H. Fletcher & Co. notified its customers to regularly check their support post cylinders to ensure that the retaining post plate on the cylinder is in place and securely attached.

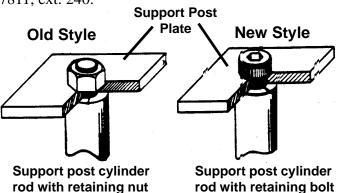
J. H. Fletcher & Co. is again reminding its customers to include the retaining hex nut and lock washer (old style), or the retaining bolt and lockwasher (new style) as part of the routine preinspection checklist.

If the hex nut/retaining bolt is loose, reinstall it by first using Locktite on the threads, then securely tighten the hex nut/retaining bolt against the support post plate.

Failure to inspect the hex nut/retaining bolt on a regular basis could cause the support post to become detached from the canopy, resulting in the possibility of the drill canopy suddenly dropping toward the operator.

When you are ready to change the support post cylinder, use J. H. Fletcher & Co. or one of its distributors to ensure that you have this important design update.

If you have any questions regarding this bulletin, call David Cooper at J. H. Fletcher & Co., 304/525-7811, ext. 240.



and lock washer.

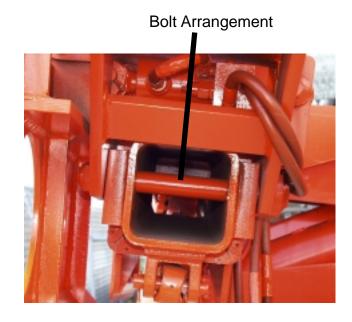
and lock washer.

Rocker Pad Bolt Retainer

J. H. Fletcher & Co. now has an alternative pin design that can be used to hold the ATRS rocker pads on the ATRS beam. The new design utilizes a threaded pin with a Nylock nut on the opposite end. If you are having difficulty maintaining cotter keys on your current pin, you may want to consider the alternative design. For additional information on this pin, contact your Fletcher service representative or authorized parts distributor.



Contact J. H. Fletcher & Co. for part numbers and ordering.





J. H. Fletcher & Co. invites you to visit our booth, #1619 at the Las Vegas Coal Show October 9-12, 2000.

At the show, J. H. Fletcher & Co. will be displaying the latest in roof bolting equipment and will be presenting a paper in conjunction with West Virginia University and Blue Mountain Energy entitled "Practical application of Microprocessor-Controlled Feedback Roof Bolting System".

Any questions regarding the J. H. Fletcher & Co. display should be directed to Bill Ellis, 304/525-7811, ext. 214.

www.jhfletcher.com



Look for the Fletcher Product Newsletter to appear on the Fletcher web page. The newsletter will be in the Adobe Acrobat pdf format so you will need the Acrobat Reader available free from Adobe. You can then download the newsletter right from the web. The current newsletter along with an archive of past newsletters will be available. We are also planning to update the website more often so keep checking back for useful product information.

The information contained in this newsletter has been obtained from sources believed to be reliable, and the editors have exercised reasonable care to assure its accuracy. However, J. H. Fletcher & Co. does not guarantee that contents of this publication are correct and statements attributed to other sources do not necessarily reflect the opinion or position of J. H. Fletcher & Co.

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