CONTENTS OF DGMS CIRCULARS 2007

No.DGMS(Tech.)(S&T)/Cir/No.1 Dhanbad , Dated 5th January 2007.

To,

All Owner, Agent &. Managers of Coal Mines
Sub.: Use of integrated steel support and sled props in coal mines

Roof bolting is extensively used as a system of support in Indian coal mines. However, in certain areas of depillaring workings and other development workings, conventional supports arc also being used. In view of several fatal accidents due to fall of roof in roof bolted workings including depillaring areas, a committee was constituted comprising mine management, trade union, Central Mining Research institute and Directorate General of Mines Safety to look into the issue at depth.

It has been suggested to strengthen the goaf edge support effectively and quickly. One such option is to provide integrated steel support and steel props as and when the situation demands. Before using (lie supports in coal mines they need to be tested to ascertain the efficacy. A general minimum test standard for such supports has been detailed in Annexure I & 11.

You are requested to give wide publicity amongst all concerned persons working in your area about the same for information and compliance.

Chief Inspector of Mines.

Annexure I

Test requirement for square steel cog stool/chock

1. At least two prototype samples shall be tested for type test by a duly approved testing body.

2. 0,5 % of the production shall be subjected to routine test or production test .

3. Axial Load test

The Square Steel Cog Stool /Chock shall be set vertically in a testing machine and the designed load is applied. The load-yield characteristics shall be obtained.

4. Eccentric Load test

The test shall be conducted on the Square Steel Cog Stool/Chock by putting the Square Steel Cog Stool/Chock with an eccentricity of about 54 mm at the upper end.

5. Overload test

An overload test shall be conducted by subjecting the Square Steel Cog Stool/Chock to a load equal to one and half time the nominal load.

The test shall be conducted for at least five observations

6. Minimum performance requirements

There shall be no abnormal wear, distortion or failure of any part of the square steel cog stool/chock.

The load bearing -capacity of Square Steel Cog Stool/ Chock shall not be less than 500 Kn.

7. Marking

Square steel cog stool/chock shall be marked with the manufacturers name and/or registered trade mark, serial number, size and nominal load of the square steel cog stool/chock

Annexure II

Test requirement for Steel Pit prop/Rigid prop

1) At least two prototype samples shall be tested for type test by a duly approved testing body.

2) 0.5 % of the production shall be subjected to routine test or production test

3) Axial Load test

The Steel Pit prop/Rigid prop shall be set vertically in a testing machine and the designed load is applied. The load-yield characteristics shall be obtained.

4) Eccentric Load test

The test shall be conducted on the Steel Pit prop/Rigid prop by putting the Steel Pit prop/Rigid prop with an eccentricity of about 54 mm at the crown.

5) Overload test

An overload test shall be conducted by subjecting the Steel Pit prop/Rigid prop to a load equal to one and half time the nominal load.

The test shall be conducted for at least five observations

6) Minimum performance requirements

There shall be no abnormal wear, distortion or failure of any part of the Steel Pit prop/Rigid prop.

The load bearing capacity of Steel Pit prop/Rigid prop shall not be less than 200 kN

7) Marking

Steel Pit prop/Rigid prop shall be marked with the manufacturers name and/or registered trade mark, serial number, size and nominal load of the Steel Pit prop/Rigid prop.

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