

MGM Brakes

A Division of Indian Head Industries, Inc.

PRODUCT BULLETIN

SUBJECT: Zinc Iron Chromate Replacement

1.0 PURPOSE

To notify customers of coating conversion from current Zinc Iron Chromate (hexavalent chromium) to epoxy paint.

2.0 BACKGROUND

Hexavalent chromium is used in surface coatings for corrosion protection in many vehicle components. On February 28, 2006, the U.S. Department of Labor, Occupational Health and Safety Administration (OSHA) issued a final rule concerning Hexavalent chromium. The OSHA directive stated that Hexavalent chromium was a carcinogen and set new limits for exposure to this hazardous material. The European Union's directive 2000/53/EC [1] known as the End of Life Vehicle Directive (ELVD) governs permissible use, reuse, recycling, and recovery of end-of-life vehicles and their components. The objective of the ELVD is to encourage vehicle manufacturers to limit the use of hazardous materials in their products. Hexavalent chromium is one of the materials controlled by the ELVD, which calls for a total phasing out of hexavalent chromium coatings by July 2007.

3.0 SCOPE

Hexavalent chromium is a component of the black zinc iron chromate plating used for corrosion protection on sealed service chambers. MGM Brakes will be replacing the black zinc iron chromate with a black epoxy paint coating.

4.0 TIMELINE

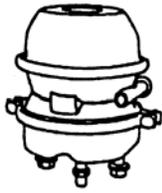
The new coating will be phased into production in 2007.

5.0 APPEARANCE

The new coating will be black with a glossy finish (see photograph below).

6.0 CORROSION PROTECTION

The new coating will offer equal salt spray protection when compared to the zinc iron chromate.



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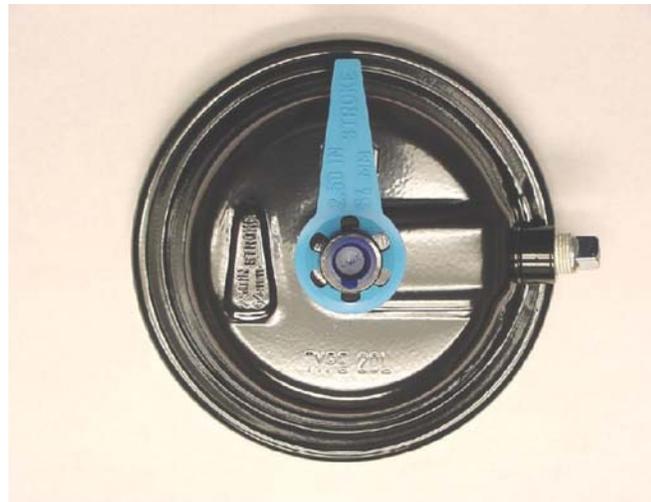
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SERVICE CHAMBER WITH BLACK ZINC IRON CHROMATE



SERVICE CHAMBER WITH BLACK EPOXY PAINT