

Supplemental Instructions For the Installation, Operation of ATEX Certified:

SC, Eccentric, & D-lok Series Mounted Ball Bearings GT, Grip Tight® Adapter Mounted Ball Bearings Type E Mounted Tapered Roller Bearings Double-Interlock® Mounted Tapered Roller Bearings TAF Mounted Tapered Roller Bearings S-2000 Mounted Spherical Roller Bearings IP, ISAF Imperial Mounted Spherical Roller Bearing

PREFACE

The products described in this manual are manufactured by Dodge Industrial, Inc., a member of RBC Bearings Incorporated, Simpsonville, SC 29681 USA. This manual, combined with Installation Instruction Manuals listed below, is intended to provide basic information on the safe operation and maintenance of ATEX certified Dodge mounted ball and roller bearings:

- SC, Eccentric, and D-lok Mounted Ball Bearing Instruction Manual
- GT Grip Tight Mounted Ball Bearing Instruction Manual
- Type E Bearings Instruction Manual
 - 1-3/16"—3" bore size
 - 3-3/16"—5" bore size
 - 5-7/16"—7" bore size
- Double-Interlock Instruction Manual
 - 1-3/16"—3" bore size
 - 3-3/16"—5" bore size
- TAF Instruction Manual
- S-2000 Mounted Spherical Roller Bearing Instruction Manual
- Imperial Adapter Mounted Spherical Roller Bearing Instruction Manual
- ISN Imperial Instruction Manual (IP metric)

WARNING: Because of the possible danger to persons(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by Dodge® nor are the responsibility of Dodge. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

These instructions do not cover all details or variations in equipment nor provide every possible contingency or hazard to be met in connection with installation, operation, and maintenance. Should further information be desired or should particular problems arise which are not covered in this manual, the matter should be referred to your local Dodge representative.

Mounted Ball, Spherical, and Roller bearings are manufactured under the guidelines of the ATEX directive 2014/34/EU.

Mounted bearings are suitable for ATEX Category M2 for Group I and Category 2 for Group II, both gas and dust atmospheres where the ignition temperature exceeds +135°C (T4) or +275°F.

A label indicating ATEX certification will be attached to the product or on the box containing the product and will be similar to the following:



MFG BY DODGE INDUSTRIAL, INC. SIMPSONVILLE, SC USA

HAZARDOUS AREA USE

For hazardous area use, the following potential ignition hazards have been identified:

- Heat generation
- Circulating current

These potential hazards have been addressed by the design; and rely on correct installation and maintenance as detailed in the equipment instructions.

WARNING: Excessive temperatures are a result of an abnormal operating condition(s) caused by:

- a) Improper installation refer to installation manual for proper procedures
- Excessive misalignment re-align bearings and shaft
- Excessive loading re-evaluate application and selection
- d) Excessive speed re-evaluate application and selection
- e) Lubrication either excessive or inadequate amounts.
- f) Bearing failure

If applied in a Division 1 or Zone 1 environment this excessive temperature may cause ignition of hazardous materials. In that case, it is recommended that temperature monitoring devices be implemented. These sensors can operate an alarm when excessive temperatures are approached.

REPLACEMENT:

Per the ATEX directive, bearings shall be replaced after a period not exceeding 90% of the calculated LIO life for category 2 equipment. For category I equipment, the bearings shall be replaced after period not more than 50% of the calculated LIO life. The LIO life should be calculated using formula and load ratings published in the bearing engineering catalog. A Dodge representative can provide assistance.

ADDITIONAL INSTRUCTIONS FOR SAFE INSTALLATION AND USE

- All rotating parts should be guarded to prevent contact with foreign objects which could result in sparks, ignition, and/ or damage to the bearing.
- Bearings should be periodically inspected for normal wear, dust/dirt buildup or any other related scenario that would impede heat dissipation.
- Increasing levels of vibration and noise could indicate the need for inspection, repair or replacement of the bearing.
- Electrical sparks are a source of ignition. To reduce this risk, proper electrical bonding and grounding is required.
- Operating the bearing to failure may result in breakage or damage to the equipment, and could become an explosion hazard. Damaged bearing components or units must not be operated in a hazardous environment. Replace bearings per ATEX directive as stated in the "replacement" section of this manual.
- Bearings shall be protected from vibrations from external sources. The seals are made from Nitrile Rubber composition and the user shall determine the suitability of this seal with the intended environment. Further assistance can be made from a Dodge representative.
- Automatic lubricating systems can be installed to ensure proper lubrication of the bearing at all times to minimize the risk of bearing failure and creating a potential explosion hazard.

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