# **PRODUCT ADVISORY NOTICE**

### **KEEPING YOU INFORMED OF PRODUCT CHANGES**

#### To: All Customers, Sales Representatives and Distributors

**Date:** 1/11/2016

**Subject**: This Product Advisory Notice is to alert you that Grayhill encoder Series 63K will be using ball bearings with a plastic cage instead of a metal cage.

#### Description of Change

63K Encoders make use of two ball bearings (see fig. 1) that mate with the shaft to ensure high speed and high life cycles. Grayhill's bearing supplier changed a component inside their standard product from metal to plastic (see fig. 2). The supplier's qualification study is complete (see fig. 3), and it shows the new bearing design is more robust. Because the material is changing, Grayhill also intends to run our own battery of qualification tests on completed units. This full re-qualification of the new bearings will be completed in May 2016, when the 300 million cycle rotational life test is completed..

As of 1/7/16, the following tests have been completed and the units passed: Operating Temperature Range, Storage Temperature Range, and 30 million cycles of total Rotational Life. Weekly updates of qualification testing will be published on Grayhill's website at http://www.grayhill.com/about-us/product-advisory-notices/

#### Reason for Change

Grayhill's supplier changed a component inside their standard product from metal to plastic. The supplier considers this a product improvement (see page 2).

#### Effective Date

1/25/2016

#### Part Numbers Affected

63KS100-020       63KS32-060       63K256         63KS100-040       63KS50       63K256         63KS100-060       63KS50-025       63K256         63KS100-100       63KS50-040       63K256         63KS100-250       63KS50-120       63K256         63KS128       63KS64       63K256         63KS128-040       63K100       63K256         63KS128-040       63K100       63K256         63KS128-050       63K100       63K256         63KS128-060       63K100-025       63K32         63KS128-060       63K100-025       63K32         63KS128-060       63K100-050       63K32-0         63KS25       63K128       63K50-0         63KS25       63K128       63K50-0         63KS25-060       63K128-020       63K64         63K5256-020       63K128-020       63K64-0         63K5256-025       63K128-050       63K64-0         63K5256-025       63K128-060       63K64-0
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#### **Action Required**

Unless you notify us that you want to wait until qualification testing has completed (May 2016), we will fill all open orders with encoders with the changed ball bearing starting on 1/25/2016. The standard Grayhill warranty will apply.

Please contact your Grayhill, Inc. sales associate with questions or to request more information.

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An ISO-9001	INC.	www.grayhill.com	Bulletin #1254	Page 1	01/11/2016

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Figure 1. Ball Bearing

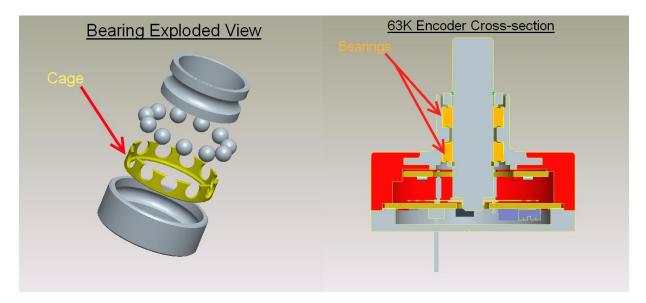


Figure 2. CAD Diagrams

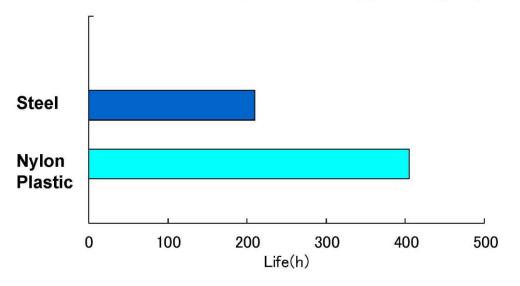


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Ball Bearing Life Test Comparison Between Iron and Plastic Retainer

TEST BEARING : 6202 (Seal: DDW, Grease : WR3) Iron Retainer vs Plastic Retainer TEST CONDITION : Rotation 11,000min-1 , Radial Load 20kgf , Outer Ring Temp 180°C





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