

AGMA Publishes New Documents

The fruits of the labor of three of our Technical Committees have culminated in the publication of five new standards and information sheets. These additions to the library of AGMA documents are valuable resources for the design, inspection and application of gear products.

The Calibration Committee completed the necessary procedures to adopt two ISO documents, both of which used the series of AGMA calibration standards (AGMA 931, AGMA 2010, AGMA 2113 and AGMA 2114) for the basis of their development.

ANSI/AGMA ISO 18653-A06, *Gears—Evaluation of Instruments for the Measurement of Individual Gears*, describes methods for the determination of instrument suitability for use in making gear measurements of involute, helix, pitch and runout. Of necessity, it contains the estimation of measurement uncertainty with the use of calibrated gear artifacts.

The companion document, AGMA ISO 10064-5-A06, *Code of Inspection Practice—Part 5: Recommendations Relative to Evaluation of Gear Measuring Instruments*, proposes evaluation and calibration procedures for involute, helix, run-

out and tooth thickness measurement processes. Methods are given for the evaluation of condition and alignment of instrument elements such as centers, guideways and probe systems. In addition, guidance is given on the application of measurement processes to the inspection of product gears, including fitness for use and the recommended limits of U95 uncertainty based on the accuracy tolerances of product gears to be inspected.

These documents supersede the AGMA standards and information sheet noted above.

The requirements and guidance material provided in these documents is critical to ensuring the accurate measurement of gears in your plant.

The Epicyclic Enclosed Drive Committee, using their combined experience gained in the design and application of this drive type since the publication of their standard, developed a comprehensive revision, ANSI/AGMA 6123-B06, *Design Manual for Enclosed Epicyclic Gear Drives*. It discusses such topics as epicyclic gearing arrangements, meshing and assembly requirements, tooth geometry, planet load sharing, circulating power, thermal rating and lubrication. It emphasizes the complex nature of the epicyclic unit design, and the need to consider the entire system of housings, bearings, gears, and shafts in establishing the rating of the drive.

This drive configuration is used in many power transmission applications, and this standard provides guidance for both the gear designer and end user alike.

The Mill Gearing Committee attracted participants from gear manufacturers, OEM providers and end users to complete the new standards ANSI/AGMA 6014-A06, *Gear Power Rating for Cylindrical Shell and Trunnion Supported Equipment*, and its metric version ANSI/AGMA 6114-A06. It specifies a method for rating the pitting resistance and bending strength of open or semi-enclosed spur and helical gears, made from steel or spheroidal graphitic iron, for use on equipment such as cylindrical grinding mills, kilns, coolers and dryers. It features annex material which addresses such important subjects as new equipment installation and alignment, open gearing lubrication, operation and maintenance, and the use of austempered ductile iron in these applications.

These standards replace the withdrawn standard ANSI/AGMA 6004-F88.

The unique aspects of gears required of these demanding applications make this standard an extremely valuable resource for the industry.

Machine Tools from Germany

New

VTLs with diameter from 57" to 236"

Floor type borer CNC TECO AFP 230
x/y/z/w = 393"/196"/159"/168"
and others

Second Hand

Floor type borers

CNC SKODA, modernised 1992
x/y/z = 314"/124"/78"/162" spindle-Ø 7"

CNC SCHARMANN, new 1987
x/y/z/w/v = 334"/118"/33"/29"/261" spindle-Ø 1,9"/7"

CNC PAMA, modernised 2006
x/y/z = 354"/157" spindle-Ø 7"/13"

CNC TITAN (Pama), modernised 2006
Sinumerik 840 D, x/y/z = 393"/196"/159"/168" spindle-Ø 9"/13"



TECO Werkzeugmaschinen GmbH & Co. KG,

Tel. +49-2103-3682-0 • Fax +49-2103-3682-20

E-mail: teco-werkzeugmaschinen@megabit.net

For more details and other machines see our homepage:

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