

REVISION		
LTR	E/O. NO.	DATE
-	SEE SHEET 1	

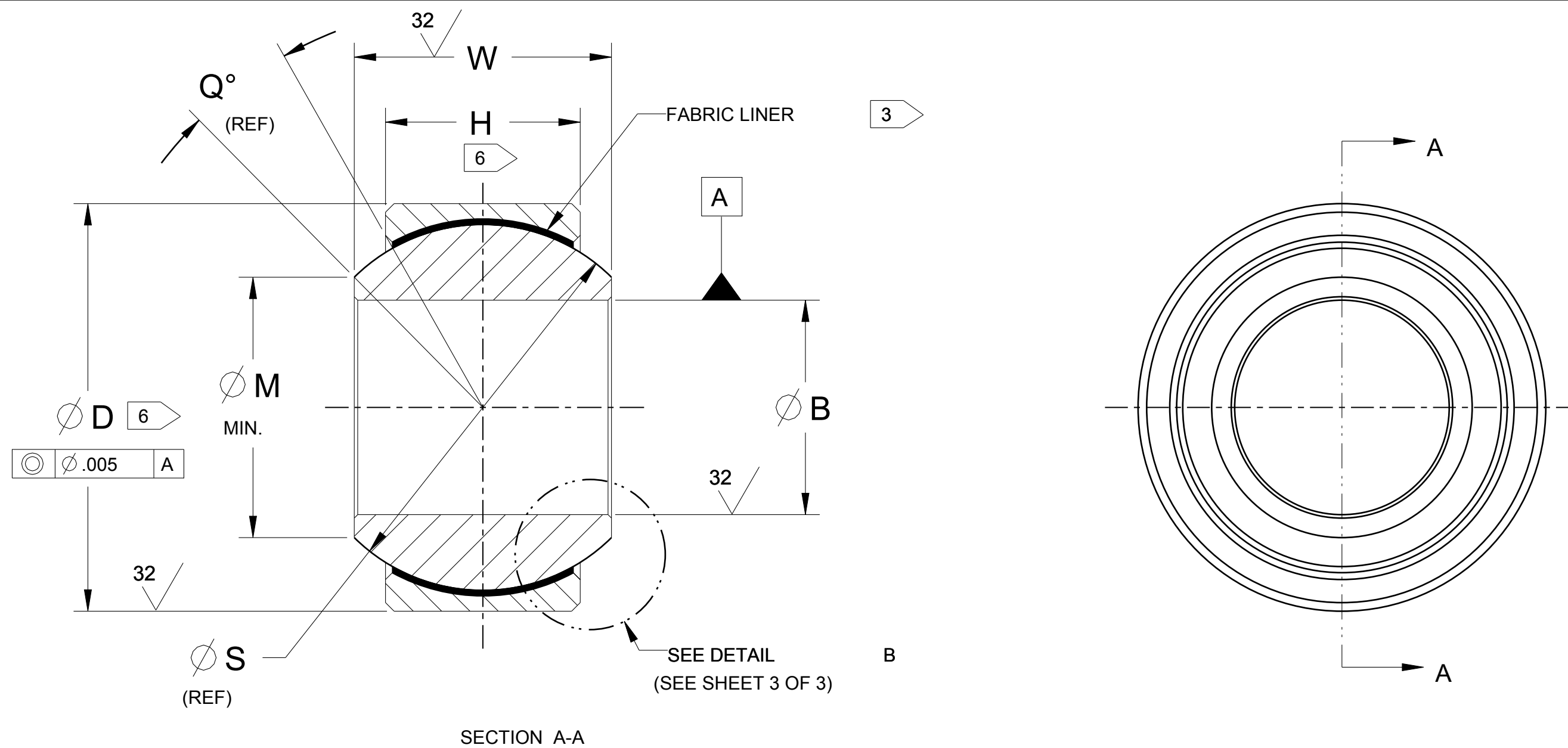


TABLE 1-DIMENSIONS AND STRENGTHS

GODFREY (GUANGZHOU) BEARINGS PART NUMBER	AS14102 PART NUMBER	ϕ B +.0000 -.0005	ϕ D +.0000 -.0005	H ± .005	ϕ M MIN.	Q° (REF)	W +.000 -.002	ϕ S (REF)	STATIC LIMIT LOAD		OSCIL- LATING LOAD LB	NO-LOAD ROTATIONAL BREAKAWAY TORQUE IN-LB		WT LB MAX. (REF)
									RADIAL LB	AXIAL LB		STANDARD	"K" TYPE	
													7	
GG102BW-03XXXX	MS14102-3XXXX	.1900	.6250	.327	.300	15°	.437		2500	1770	4900	0.25-5.0	0-0.5	.031
GG102BW-04XXXX	MS14102-4XXXX	.2500	.6250	.327	.300	15°	.437		5500	1770	4900	0.25-5.0	0-0.5	.031
GG102BW-05XXXX	MS14102-5XXXX	.3125	.6875	.317	.360	14°	.437		9400	1640	8050	0.25-8.0	0-1.0	.035
GG102BW-06XXXX	MS14102-6XXXX	.3750	.8125	.406	.466	8°	.500		13700	2630	8310	0.25-8.0	0-1.0	.060
GG102BW-07XXXX	MS14102-7XXXX	.4375	.9375	.442	.537	10°	.562		20700	3650	11750	0.25-8.0	0-1.0	.080
GG102BW-08XXXX	MS14102-8XXXX	.5000	1.0000	.505	.607	9°	.625		21400	4970	14950	0.25-8.0	0-1.0	.100
GG102BW-09XXXX	MS14102-9XXXX	.5625	1.1250	.536	.721	10°	.687		26600	5370	18100	0.25-8.0	0-1.0	.135
GG102BW-10XXXX	MS14102-10XXXX	.6250	1.1875	.567	.747	12°	.750	1.067	29000	6130	20250	0.25-8.0	0-1.0	.160
GG102BW-12XXXX	MS14102-12XXXX	.7500	1.3750	.630	.845	13°	.875		37000	7730	26200	0.25-8.0	0-1.0	.240
GG102BW-14XXXX	MS14102-14XXXX	.8750	1.6250	.755	.995	6°	.875		65200	10800	33600	0.25-12.0	0-2.0	.350
GG102BW-16XXXX	MS14102-16XXXX	1.0000	2.1250	1.005	1.269	12°	1.375		104000	19300	56250	0.25-12.0	0-2.0	.970

TABLE 2 7

DASH NO.	MAXIMUM RADIAL PLAY	MAXIMUM AXIAL PLAY
3K THRU-12K	0.0007 INCH	0.0021 INCH
-14K THRU -16K	0.0010 INCH	0.0030 INCH

GODFREY (GUANGZHOU) BEARINGS

SIZE	CAGE NO.	DWG. NO.	REV.
C	XXXX	GG102BW-XXXXXX	-

SCALE: 3/16" = 1" UNLESS NOTED OTHERWISE

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-	SEE SHEET 1		

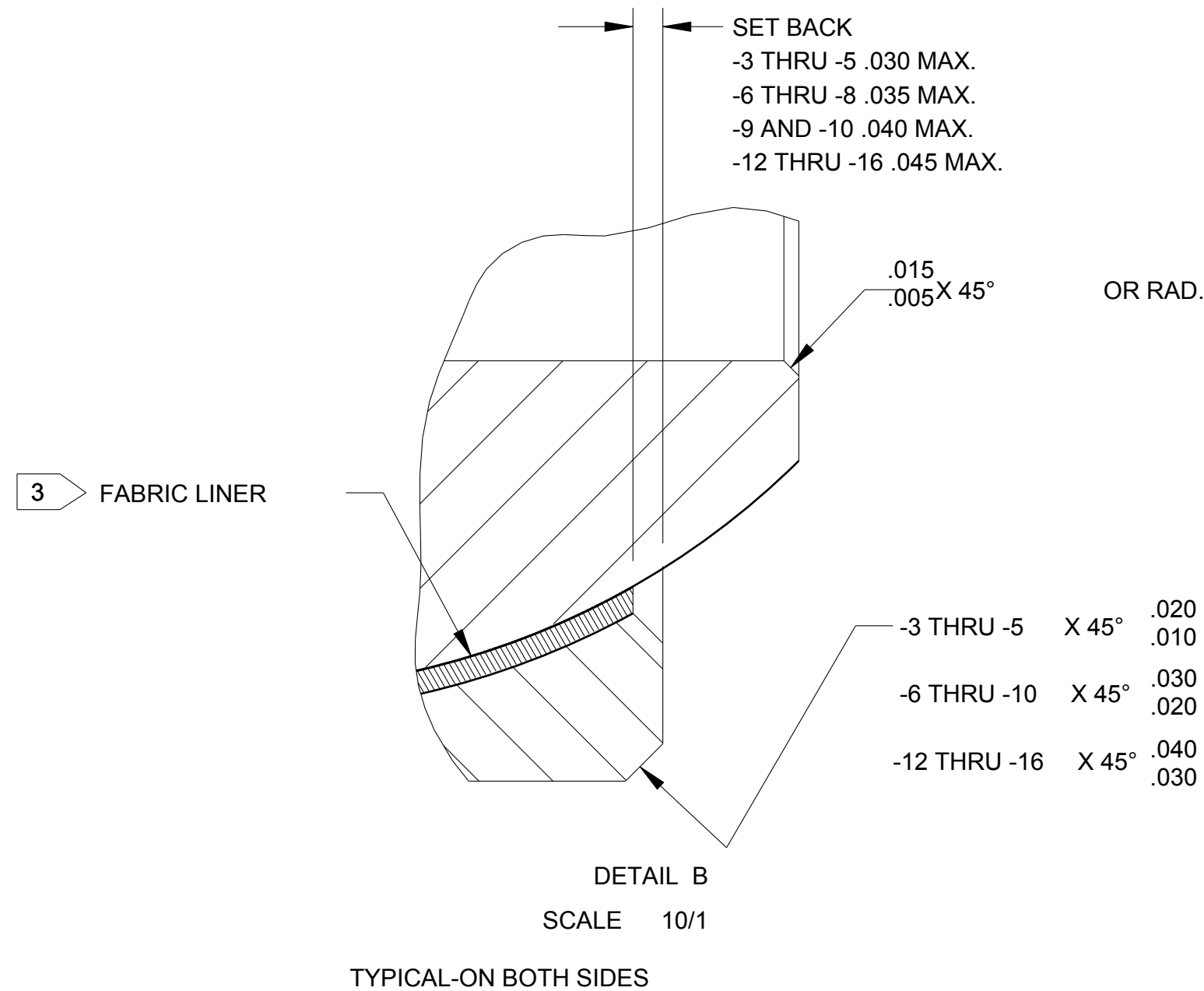


TABLE 3 (*)

CODE (T)				CODE (U)			
GODFREY (GUANGZHOU) BEARINGS PART NUMBER	AS14102 PART NUMBER	\varnothing B +.0000 -.0005	\varnothing D +.0000 -.0005 1st OVERSIZE	GODFREY (GUANGZHOU) BEARINGS PART NUMBER	AS14102 PART NUMBER	\varnothing B +.0000 -.0005	\varnothing D +.0000 -.0005 2nd OVERSIZE
GG102BW-03XXXT	MS14102-3XXXT	.1900	.6350	GG102BW-03XXXU	MS14102-3XXXU	.1900	.6450
GG102BW-04XXXT	MS14102-4XXXT	.2500	.6350	GG102BW-04XXXU	MS14102-4XXXU	.2500	.6450
GG102BW-05XXXT	MS14102-5XXXT	.3125	.6975	GG102BW-05XXXU	MS14102-5XXXU	.3125	.7075
GG102BW-06XXXT	MS14102-6XXXT	.3750	.8225	GG102BW-06XXXU	MS14102-6XXXU	.3750	.8325
GG102BW-07XXXT	MS14102-7XXXT	.4375	.9475	GG102BW-07XXXU	MS14102-7XXXU	.4375	.9575
GG102BW-08XXXT	MS14102-8XXXT	.5000	1.0100	GG102BW-08XXXU	MS14102-8XXXU	.5000	1.0200
GG102BW-09XXXT	MS14102-9XXXT	.5625	1.1350	GG102BW-09XXXU	MS14102-9XXXU	.5625	1.1450
GG102BW-10XXXT	MS14102-10XXXT	.6250	1.1975	GG102BW-10XXXU	MS14102-10XXXU	.6250	1.2075
GG102BW-12XXXT	MS14102-12XXXT	.7500	1.3850	GG102BW-12XXXU	MS14102-12XXXU	.7500	1.3950
GG102BW-14XXXT	MS14102-14XXXT	.8750	1.6350	GG102BW-14XXXU	MS14102-14XXXU	.8750	1.6450
GG102BW-16XXXT	MS14102-16XXXT	1.0000	2.1350	GG102BW-16XXXU	MS14102-16XXXU	1.0000	2.1450

(*) OVERSIZE BEARING DIMENSIONS RESTRICTED USAGE FOR REPAIR WORK ONLY.
.010 INCH AND .020 INCH OVERSIZE OUTSIDE DIAMETER FOR REPLACEMENT OF
BEARINGS SHOWN ON TABLE 1.

GODFREY (GUANGZHOU) BEARINGS

SIZE	CAGE NO.	DWG.NO.	REV.
C	XXXX	GG102BW-XXXXXX	-

SCALE: 10/32

EXAMPLE OF GODFREY (GUANGZHOU) BEARINGS AND AEROSPACE STANDARD PART NUMBER CALL OUT

REVISION			
LTR	E/O. NO.	DATE	APPD
-	PROD. RELEASE	11-01-10	

GG102BW -08 C P K T
 MS14102 -8 C P K T = .500 NOMINAL BORE DIA, PH13-8 Mo BALL MATERIAL, ZINC-NICKEL PLATED,
 LOW TORQUE, .010 INCH OVERSIZE O.D. (DIMENSION

Ø D).

Ø D), (SEE TABLE 1).

ABSENCE OF THE LETTER "T" AND "U" INDICATE STANDARD OUTER DIAMETER (Ø D (FOR REPAIR ONLY, SEE TABLE 3).
 T = .010 OVERSIZE
 U = .020 OVERSIZE Ø D (FOR REPAIR ONLY, SEE TABLE 3).

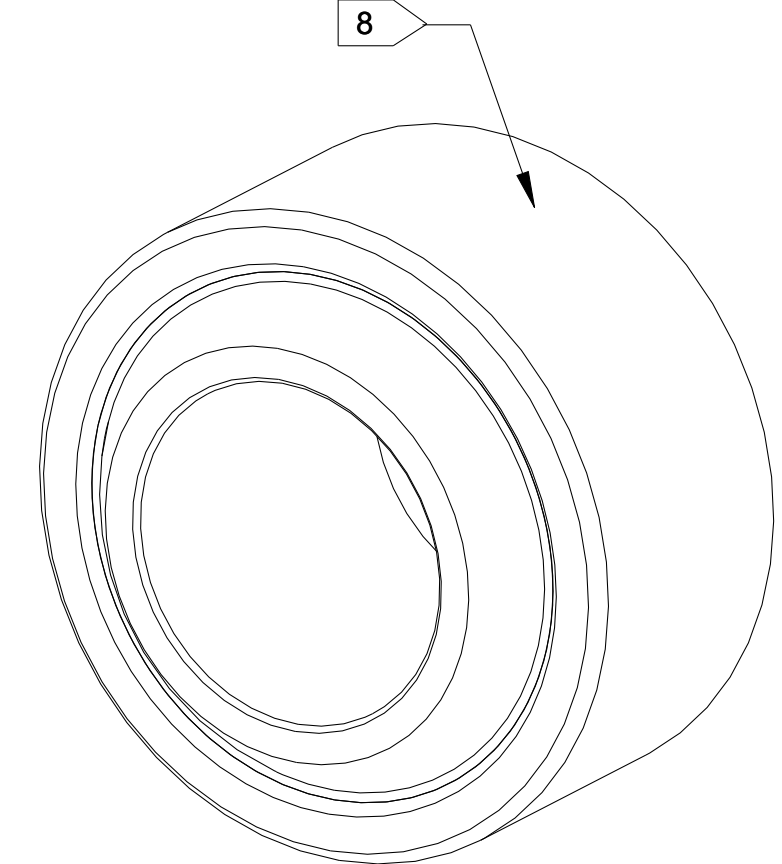
ABSENCE OF THE LETTER "K" INDICATES STANDARD BREAKAWAY TORQUE (SEE TABLE 1).
 LETTER "K" INDICATES LOW BREAKAWAY TORQUE (SEE TABLE 1 AND).

ABSENCE OF THE LETTER "P" INDICATES NO PLATING.
 LETTER "P" INDICATES ZINC-NIKEL OR CADMIUM PLATING (SEE REQUIREMENT).

ABSENCE OF THE LETTER "C" INDICATES 440C BALL MATERIAL.
 LETTER "C" INDICATES PH13-8Mo BALL MATERIAL.

SIZE - BORE DIAMETER (DASH NO. FROM TABLE 1).

BASIC PART NUMBER



3D VIEW
ENGRG. REFERENCE
SCALE: NONE

8 MARKING: ELCTRO-ETCH WITH GODFREY (GUANGZHOU) BEARINGS PART NUMBER AND MS14102 PART NUMBER AT LOCATION SHOWN.

7 NO LOAD TORQUE: SEE TABLE 1. WHEN THE LETTER "K" IS PRESENT IN THE P/N, LOWER VALUES OF NO LOAD TORQUE ARE SPECIFIED PER TABLE 1. IF THE MEASURED TORQUE OF A "K" TYPE BEARING IS LESS THAN 0.1 INCH-POUND, THE INTERNAL RADIAL PLAY SHALL BE MEASURED AND SHALL NOT EXCEED THE FOLLOWING IN THE TABLE 2. THE INTERNAL AXIAL PLAY SHALL BE MEASURED FOR ALL "K" TYPE BEARINGS.

6 DIMENSION " Ø D" TO BE MET AFTER PLATING. DIMENSION "H" TO BE MET BEFORE PLATING WHEN APPLICABLE.

5 SURFACE FINISH:
RACE: PLATING, WHEN SPECIFIED, SHALL BE ZINC-NICKEL PLATING PER AMS 2417, TYPE 2, OR CADMIUM PLATING PER AMS-QQ-P-416, TYPE II, CLASS 2, (.0003 TO .0006 INCHES).PLATE ON THE OUTSIDE DIAMETER SURFACE AND ON THE FLAT BETWEEN THE OUTSIDE DIAMETER AND THE GROOVE. PLATING RUNOUT MAY OCCURE EITHER IN THE GROOVE OR IN THE AREA BETWEEN THE GROOVE AND THE BALL.

BALL: 440C, PASSIVATE PER AMS 2700 OR ASTM A 967 (OPTIONAL).
13-8 PH Mo, PASSIVATE PER AMS 2700 OR ASTM A 967.

4 BALL MATERIAL SHALL BE 440C (AMS 5630, AMS 5880 OR AMS 5618) UNLESS "C" CALLOUT IS PRESENT IN P/N. "C" INDICATES PH13-8 Mo (AMS 5629) COND. H1000 PER AMS-H-6875.

3 APPLY LINER ON INDICATED SURFACE. DIMENSIONS APPLY AFTER THE APPLICATION OF LINER.

2 LINER IS QUALIFIED TO SAE AS81820.

1 DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

	XXXXX	RACE ASSY	17-4PH CRES AMS 5643	R/C 28-37 AMS 2759/3	3	TAG	-
	XXXXXX	BALL	440C PER AMS 5630 AMS 5880 OR AMS 5618	R/C 55-62 AMS-H-6875	///	TAG	1
SEE TAB	SEE TAB	BEARING ASSY	///	///	5 7	8	-

CUST. PART NO.	PART NO.	DESCRIPTION	MATERIAL	HEAT TREAT	PROCESS	PT.MK.	QTY.
THIS DOCUMENT REMAINS THE PROPERTY OF GODFREY (GUANGZHOU) BEARINGS, AND IS PROVIDED TO THE RECIPIENT ON THE EXPRESS CONDITION THAT IT, OR ANY INFORMATION CONTAINED IN IT, IS NOT TO BE DISCLOSED OR REPRODUCED IN WHOLE OR IN PART, OR USED FOR MANUFACTURE BY THE RECIPIENT WITHOUT A WRITTEN CONSENT OR PURCHASE ORDER FROM GODFREY (GUANGZHOU) BEARINGS.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XX = ± .030 .XXX = ± .010 ANGLES = ± 1/2 °	DRAWN NICHOLAS.NGUYEN CHK	DATE 11-01-10	GODFREY (GUANGZHOU) BEARINGS		
BREAK ALL SHARP EDGES .005 TO .015 MACHINE FILLETS .05 TO .030 R.		BREAK ALL SHARP EDGES .005 TO .015 MACHINE FILLETS .05 TO .030 R.	ENGRG NICHOLAS.NGUYEN MFG ENGRG	DATE 11-01-10	BEARINGS, PLAIN, SELF-LUBRICATING SELF-ALIGNING, WIDE CHAMFERED RACE, -65° F TO +325° F		
APPLICATION	A/C	SERIES OR ENGINE	QTY. S/S	MACHINED SURFACE FINISHES	AS14102	IN LIEU OF	DATE
SIZE	CAGE NO.	DWG.NO.	REV.	SCALE: 3/16"=1" UNLESS NOTED			
C	XXXXX	GG102BW-XXXXXX	-	1 3			