

FED. SUPPLY CLASS

5220

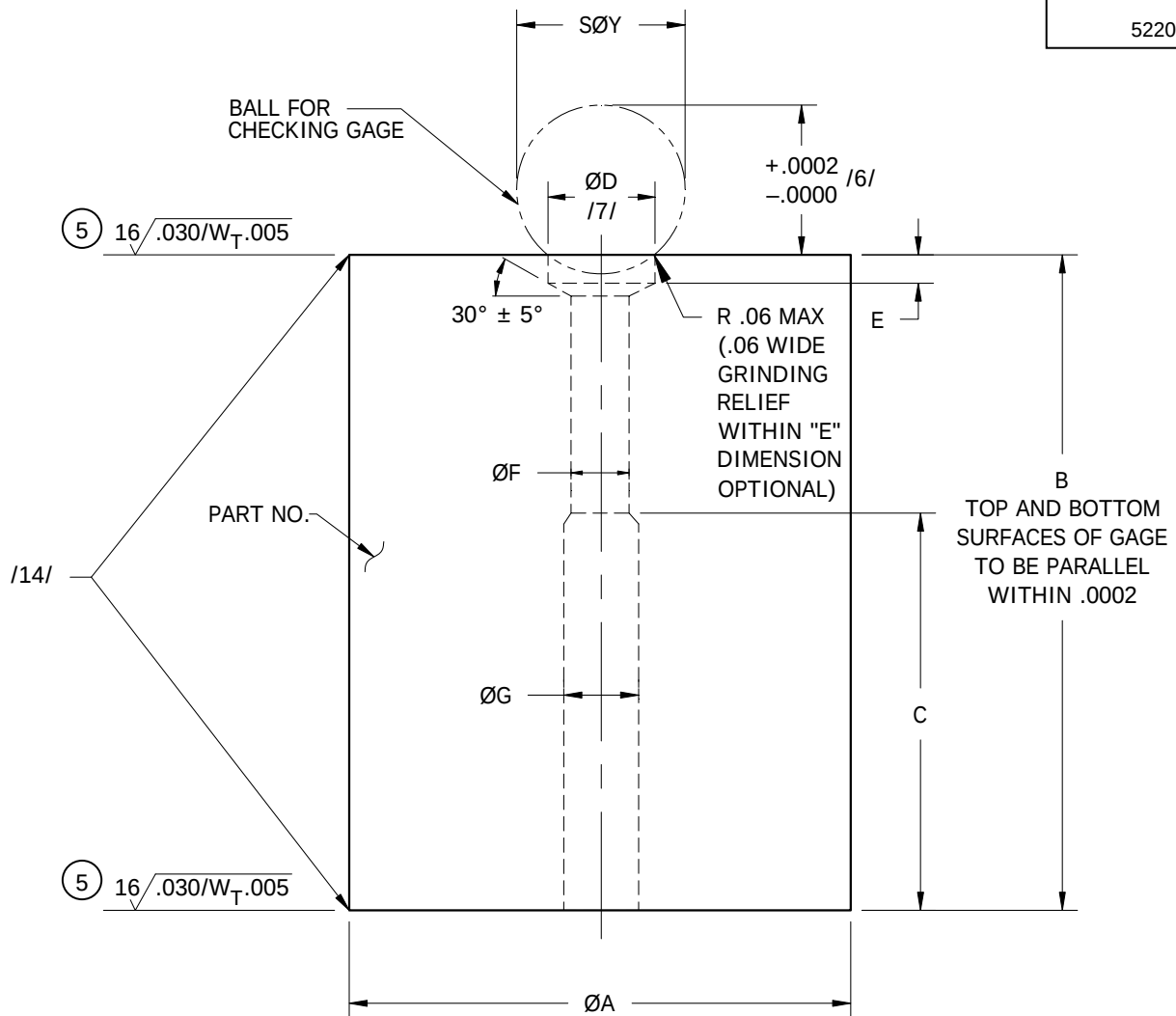


TABLE I – DIMENSIONS

DASH NO	SIZE	ØA ±.03	B ±.03	C ±.10	ØD +.0000 -.0010	E +.010 -.000	ØF +.001 -.000	ØG ±.010	ØX BASIC GAGE CIRCLE	SØY NOMINAL BALL
2	.1640	1.50	2.00	1.3	.2631	.120	.1670	.190	.2671	.40625
3	.1900	1.50	2.00	1.2	.3107	.120	.1930	.250	.3147	.46875
4	.2500	1.50	2.50	1.4	.4205	.120	.2530	.312	.4245	.65625
5	.3125	1.75	3.00	1.6	.5349	.150	.3155	.375	.5389	.81250
6	.3750	2.00	3.00	1.3	.6492	.170	.3780	.438	.6532	1.00000
7	.4375	2.25	3.50	1.6	.7636	.200	.4405	.500	.7676	1.18750
8	.5000	2.25	3.50	1.8	.8780	.230	.5030	.562	.8820	1.31250

THIRD ANGLE PROJECTION

PROCUREMENT SPECIFICATION

NONE

CUSTODIAN

NATIONAL AEROSPACE STANDARDS COMMITTEE

TITLE

GAGE, 100 DEGREES FLAT HEAD FLUSHNESS

REVISION

5

CLASSIFICATION

PART STANDARD

NAS 518

SHEET 1 OF 2

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

REVISION DATE: MARCH 31, 2015

ISSUE DATE: MARCH 10, 1953

MATERIAL:

TOOL STEEL.

HEAT TREAT:

60–62 HRC.

NOTES:

- (1) "ØA" MAY BE ALTERED IF DESIRED.
- (2) MARK PERMANENTLY WITH COMPLETE PART NUMBER.
- (3) DASH NUMBERS "2" THRU "8" FOR USE IN INSPECTION OF NAS517, AN507, NASM24694, ETC.
- (4) "ØD" AND "ØF" CONCENTRIC WITHIN .001 FIM.
- (5) "ØF" AND "ØG" CONCENTRIC WITHIN .010 FIM.
- /6/ PROTRUSION OF GRADE 1 STEEL BALL OF "SØY" DIAMETER AND COMPUTED BY FORMULA:

$$P = \frac{1}{2} \left(y + \sqrt{y^2 - x^2} \right)$$

USE ACTUAL MEASURED BALL DIAMETER IN THIS FORMULA CORRECT TO FOUR DECIMAL PLACES.

- /7/ DIAMETER IS PROPORTIONED SO THAT EDGE OF INTERSECTION BETWEEN "ØD" AND UPPER GAGE SURFACE CAN NOT BE SHARP BUT WILL HAVE A LAND OF APPROX .003. THIS LAND OBTAINED BY LAPPING WITH STEEL BALL OF "SØY" NOMINAL DIAMETER UNTIL DIMENSION "P" IS OBTAINED.
- (8) SURFACE ROUGHNESS SHALL BE IN ACCORDANCE WITH ASME B46.1 AND SURFACE TEXTURE SYMBOLS SHALL BE IN ACCORDANCE WITH ASME Y14.36M.
- (9) DIMENSIONS IN INCHES.
- (10) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- (11) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- ⑤ (12) UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT ON DATE OF MANUFACTURE. HOWEVER, EXISTING MATERIAL INVENTORY CERTIFIED TO A PREVIOUS REVISION OF THE APPLICABLE MATERIAL SPECIFICATION(S) IS ACCEPTABLE FOR USE UNTIL DEPLETION.
- (13) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
- /14/ REMOVE ALL BURRS AND SHARP EDGES.

REVISION

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NAS518
SHEET 2



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