

MIL-STD-110A
Change Notice 3
19 August 1960

MILITARY STANDARD
GAGES, PLUG, PLAIN CYLINDRICAL GO

TO ALL ACTIVITIES:

1. The following pages of this standard have been revised and supersede the pages listed:

<i>New page</i>	<i>Date</i>	<i>Superseded page</i>	<i>Date</i>
iii	19 August 1960	iii	8 December 1955
1	19 August 1960	1	6 February 1957
2	19 August 1960	2	8 December 1955
3	19 August 1960	3	8 December 1955
4	19 August 1960	4	6 February 1957
7	19 August 1960	7	6 February 1957

2. The following is a cumulative list of earlier changes:

<i>New page</i>	<i>Date</i>	<i>Superseded page</i>	<i>Date</i>
1	6 February 1957	1	8 December 1955
4	6 February 1957	4	8 December 1955
5	6 February 1957	5	8 December 1955
6	6 February 1957	6	8 December 1955
7	6 February 1957	7	8 December 1955
111	15 January 1960	111	8 December 1955

3. Retain this cover page and insert before table of contents of this standard.

4. Destroy previous notice.

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FIGURES

Figure

1. Air groove
2. Go plain plug gage (wire type)
3. Go plain plug gage (taperlock type)
4. Go plain plug gage (trilock type)

TABLES

Table

- I. Tabulation of design and identification data
- II. Listing of gage stock numbers in numerical sequence

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1. SCOPE

1.1 This standard covers pertinent design data and stock numbers for American Gage Design Standard (AGD); single end, go plain cylindrical plug gages for the inspection of the minimum limits of internal diameters that range in size from .031 to 2.510 inches inclusive in increments of .001 and .03125 inches. The class of gage required is

listed in accordance with the total component tolerance.

1.2 The stock numbers listed in this standard have been approved by the Cataloging Division, Office of the Assistant Secretary of Defense as Federal stock numbers (FSN). See 3.

2. REFERENCED DOCUMENTS

2.1 The issues of the following documents in effect on the date of invitation for bids form a part of this standard.

SPECIFICATIONS

MIL-G-45653 — Gages, Cylindrical
Plug and Ring,
Plain.

(Copies of specifications should be obtained from the procuring activity or as directed by the contracting officer.)

OTHER PUBLICATIONS

U.S. Department of Commerce, Commercial Standard CS8, Gage Blanks.

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(Application for copies should be addressed to the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.)

3. DEFINITIONS

3.1 The Federal stock number (FSN) consists of the applicable 7-digit Federal item identification number designated in tables I and II as "FIIN—Gage stock No." prefixed by the Federal supply classification (FSC),

"5220". The Federal stock number shall be utilized in all instances and specified thus: 4 digits, hyphen, 3 digits, hyphen, 4 digits, *Example: 5220-742-1680.*

4. GENERAL REQUIREMENTS

4.1 This standard contains table I and table II. Table I provides tabulated design data required for manufacture and inspection and is arranged in ascending size sequence (see par. 1.1 above). Table I is also arranged in ascending numerical sequence according to stock Nos. (7420000 to 7457568 incl), except for 303 stock numbers. Table II is a listing of the 303 stock numbers in ascending numerical sequence and is provided as a finding aid for locating the required design data contained in table I for these stock numbers.

4.1.1 *Table I.* Tabulation of design and identification data.

4.1.1.1 Stock numbers for gages without air groove or flat are listed in column B. Stock numbers for gages with air groove or flat are listed in column C.

4.1.1.2 Column A lists the proper reference to the applicable figure for each stock number.

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4.1.1.3 Column D lists the minimum component dimension and when applied to the total component tolerance in column E provides the data required for selecting the applicable stock number in column B or C.

Note. The stock number listed in column C for any given minimum component dimension is applicable for "blind" hole requirements regardless of component tolerance.)

4.1.1.3.1 When the total component tolerance is not listed, the stock number applicable to the next smaller listed total component tolerance for the minimum component dimension shall be used.

4.1.1.4 Columns F to H inclusive list the design data for each stock number and, when

applied to the figure referenced in column A, provide data required for manufacture and inspection.

4.1.1.5 Columns B to D inclusive list the identification data for each number and, when applied to the figure referenced in column A, provide information for proper marking of the gages.

4.1.1.6 All stock numbers listed in column C shall have an air groove or flat as indicated in figure 1.

4.1.1.7 Design data, etc. not specifically covered in this standard shall conform to the latest issue of the documents referenced in paragraph 2 above.

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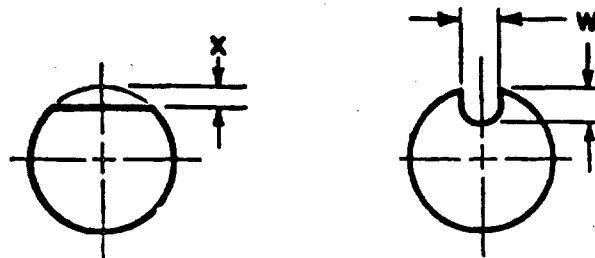
4.1.2 *Table II.* Listing of gage stock numbers in numerical sequence.

4.1.2.1 Stock numbers not listed in ascending numerical sequence in table I are listed in column A.

4.1.2.2 Column B lists the applicable mini-

num component dimension for each stock number.

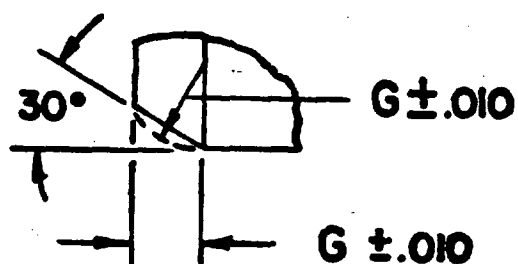
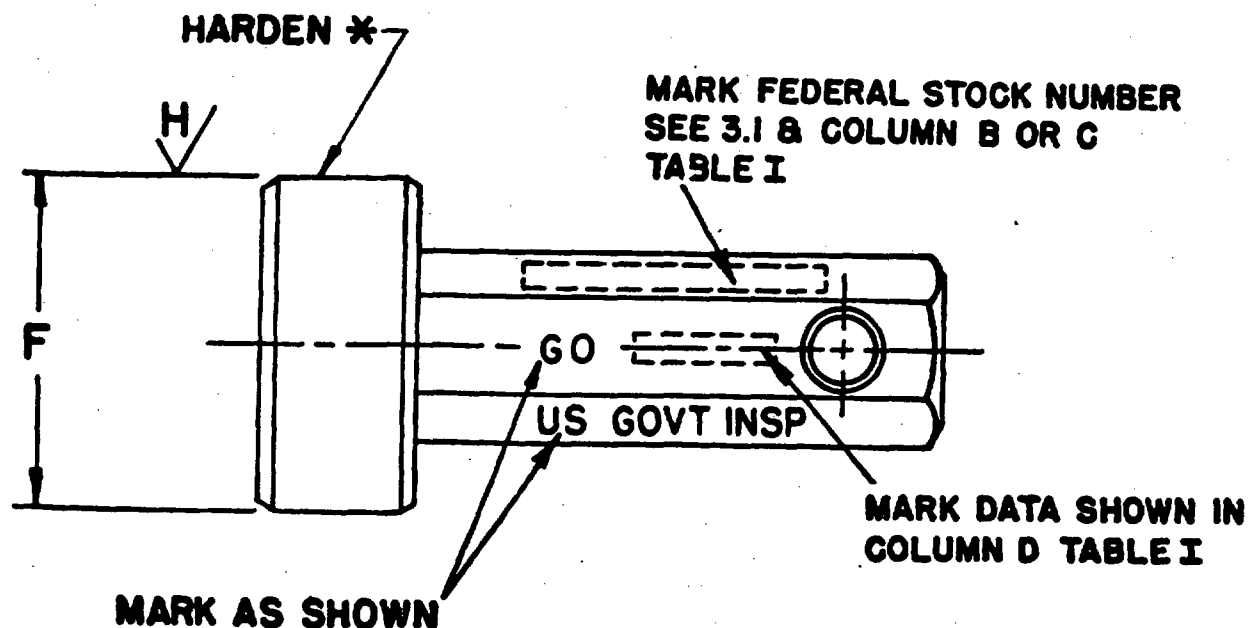
4.1.2.3 Column C references the page number in table I where the design and identification data for the applicable stock number may be found.



PLUG GAGE DIAMETER		x	w
ABOVE	TO & INCL		
0.030	0.059	0.0010 / .0005	
0.059	0.099	0.0020 / .0010	
0.099	0.149	0.0030 / .0015	
0.149	0.249	0.0060 / .0020	
0.249	0.624		0.02 / 0.01
0.624	0.999		0.04 / 0.01
0.999	2.510		0.06 / 0.02

FIGURE 1. Air groove.

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ENLARGED VIEW
CHAMFER OR RADIUS
ON BOTH ENDS

***HARDEN: ROCKWELL OR EQUIVALENT
C 63 TO C 66**

FIGURE 4. Go plain plug gage (trilock type).

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TABLE I. Tabulation of design and identification data

Fig. No.	Marking on gage handle			Total component tolerance	Plug gage dimensions		Finish
	FIIN—Gage stock No.		Minimum component dimension		Diameter	Chamfer	
	without air groove	with air groove					
A	B	C	D	E	F	G	H
2	7420000	7420003	.031	MASTER	.03100 + .00002	.008	2
2	7420002		.031	.0005	.03100 + .00004	.008	4
2	7420006		.031	.002	.03110 + .00007	.008	4
2	7420008		.031	.004 AND UP	.03120 + .00010	.008	8
2	7420010	7497199	.03125	MASTER	.03125 + .00002	.008	2
2	7497198		.03125	.0005	.03125 + .00004	.008	4
2	7497202		.03125	.002	.03135 + .00007	.008	4
2	7497204		.03125	.004 AND UP	.03145 + .00010	.008	8
2	7420012	7420015	.032	MASTER	.03200 + .00002	.008	2
2	7420014		.032	.0005	.03200 + .00004	.008	4
2	7420018		.032	.002	.03210 + .00007	.008	4
2	7420020		.032	.004 AND UP	.03220 + .00010	.008	8
2	7420022	7420025	.033	MASTER	.03300 + .00002	.008	2
2	7420024		.033	.0005	.03300 + .00004	.008	4
2	7420028		.033	.002	.03310 + .00007	.008	4
2	7420030		.033	.004 AND UP	.03320 + .00010	.008	8
2	7420032	7420035	.034	MASTER	.03400 + .00002	.008	2
2	7420034		.034	.0005	.03400 + .00004	.008	4
2	7420038		.034	.002	.03410 + .00007	.008	4
2	7420040		.034	.004 AND UP	.03420 + .00010	.008	8
2	7420042	7420045	.035	MASTER	.03500 + .00002	.008	2
2	7420044		.035	.0005	.03500 + .00004	.008	4
2	7420048		.035	.002	.03510 + .00007	.008	4
2	7420050		.035	.004 AND UP	.03520 + .00010	.008	8
2	7420052	7420055	.036	MASTER	.03600 + .00002	.008	2
2	7420054		.036	.0005	.03600 + .00004	.008	4
2	7420058		.036	.002	.03610 + .00007	.008	4
2	7420060		.036	.004 AND UP	.03620 + .00010	.008	8