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LAND SEA AIR SPACE

TECHNICAL REPORT J567c

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LAMP BULB RETENTION SYSTEM — SAE J567c

SAE Standard

Report of Electrical Equipment Division approved August 1915 and last revised by Lighting Committee December 1970.

1. Scope—This SAE Standard covers the performance and functional requirements of the lamp bulb retention system applicable for use in motor vehicles.

2. Definition—The lamp bulb retention system is a device which retains a lamp bulb in its intended application and provided electrical continuity.

3. Requirements

3.1 The lamp bulb retention system shall accept and provide for the retention and removal of the maximum and minimum bulb gages. See Table 1 for bulb gages.

3.2 The bulb retention system shall provide required electrical connections.

3.3 Bulb retention systems employing multiple contacts shall have them spaced so that they will not contact (electrically insulated from) each other or short to ground.

3.4 When the bulb retention system is assembled in its intended application, the insertion and rotational forces required to lock the maximum bulb gage in its final seating position shall not exceed the values shown below:

Maximum Insertion Force

B and C base sockets—14 lb.
A base sockets—8 lb.

Maximum Torque

C base sockets—5 in-lb.
B base sockets—5 in-lb.
A base sockets—2 in-lb.

NOTE: Bulb retention systems designed to be removed from their intended application for bulb service may be checked while removed.

3.5 When the bulb retention system is assembled in its intended application, the B and C base bulb retention systems shall provide a minimum bulb support as measured with the bulb support gage. (See Table 2 for bulb support gages and Fig. 3 for gage.)

NOTES:

1. Bulb retention systems designed to be removed from their intended application for bulb service may be checked while removed.

2. Bulb retention systems which provide alternative equivalent bulb supporting means may be used and need not be checked with the bulb support gage.

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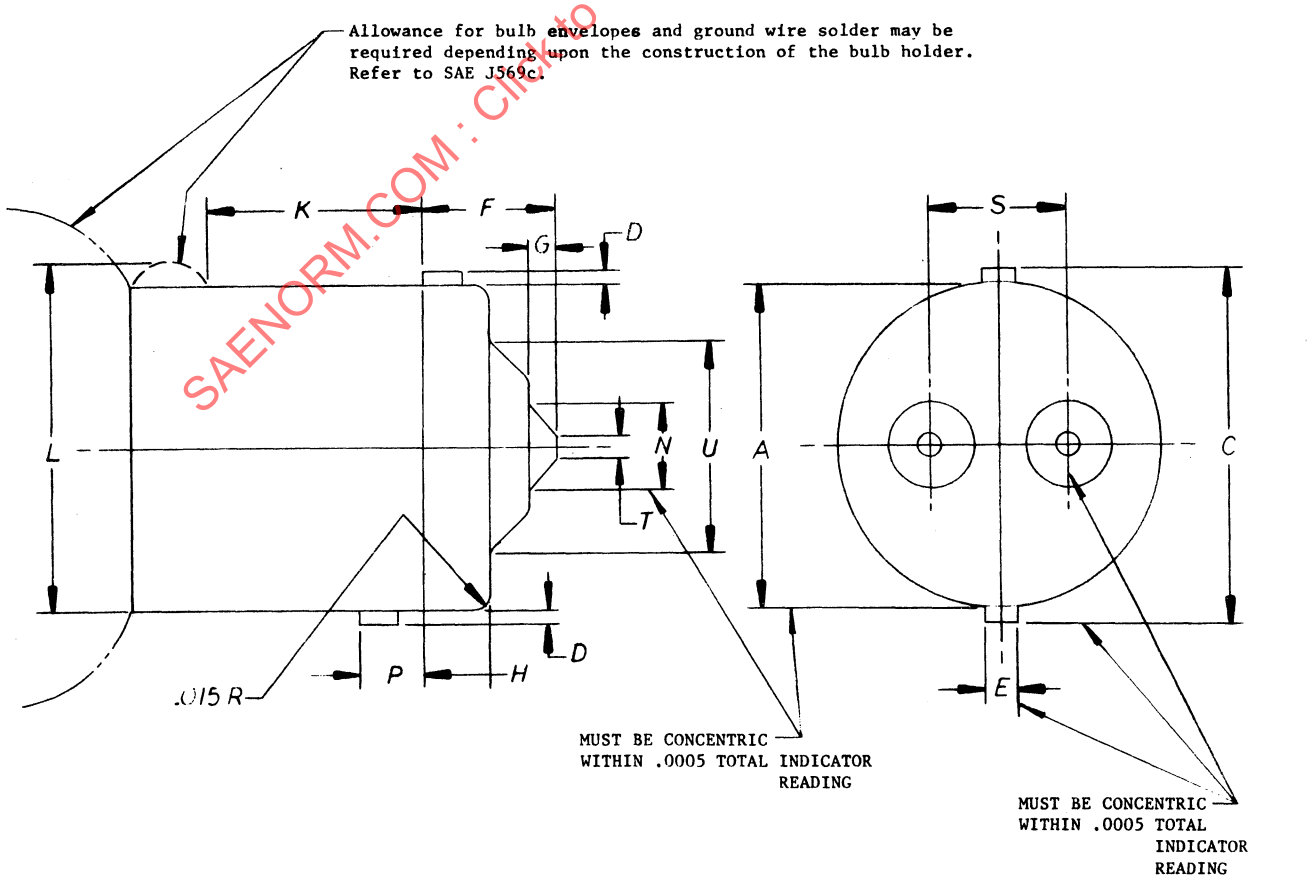

FIG. 1—C-2, B-2, B-1, A

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TABLE 1—MAXIMUM AND MINIMUM BULB RETENTION SYSTEM GAGES

Dimension[a]	C-2 Base		B-2 Base		B-1 Base	
	Max Gage	Min Gage	Max Gage	Min Gage	Max Gage	Min Gage
A	0.6025 +0.0005 −0.0000	0.5925 +0.0000 −0.0005	0.6025 +0.0005 −0.0000	0.5925 +0.0000 −0.0005	0.6025 +0.0005 −0.0000	0.5925 +0.0000 −0.0005
C	0.6680 +0.0005 −0.0000	0.6425 +0.0000 −0.0005	0.6680 +0.0005 −0.0000	0.6425 +0.0000 −0.0005	0.6680 +0.0005 −0.0000	0.6425 +0.0000 −0.0005
E	0.0800 +0.0005 −0.0000	0.0740 +0.0000 −0.0005	0.0800 +0.0005 −0.0000	0.0740 +0.0000 −0.0005	0.0800 +0.0005 −0.0000	0.0740 +0.0000 −0.0005
F	0.3160 +0.0005 −0.0000	0.2490 +0.0000 −0.0005	0.3160 +0.0005 −0.0000	0.2490 +0.0000 −0.0005	0.3160 +0.0005 −0.0000	0.2490 +0.0000 −0.0005
G	0.0500 +0.0000 −0.0050	0.0150 +0.0000 −0.0005	0.0500 +0.0000 −0.0050	0.0150 +0.0000 −0.0005	0.0500 +0.0000 −0.0050	0.0150 +0.0000 −0.0005
N	0.2050 +0.0010 −0.0000	0.1770 +0.0000 −0.0010	0.2050 +0.0010 −0.0000	0.1770 +0.0000 −0.0010	0.2050 +0.0010 −0.0000	0.1770 +0.0000 −0.0010
P	0.1330 +0.0020 −0.0000	0.1170 +0.0000 −0.0020	0.0000 +0.0010 −0.0010	0.0000 +0.0010 −0.0010	0.0000 +0.0010 −0.0010	0.0000 +0.0010 −0.0010
S	0.2670 +0.0005 −0.0000	0.2670 +0.0000 −0.0005	0.2670 +0.0005 −0.0000	0.2670 +0.0000 −0.0005	NA	NA
T	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000
D	—	0.0250 +0.0000 −0.0005	—	0.0250 +0.0000 −0.0005	—	0.0250 +0.0000 −0.0005
K	—	0.3500 +0.0000 −0.0005	—	0.3500 +0.0000 −0.0005	—	0.3500 +0.0000 −0.0005
L	0.6450 +0.0005 −0.0000	—	0.6450 +0.0005 −0.0000	—	0.6450 +0.0005 −0.0000	—
H	0.1700 +0.0010 −0.0000	0.1380 +0.0000 −0.0010	0.1700 +0.0010 −0.0000	0.1380 +0.0000 −0.0010	0.1700 +0.0010 −0.0000	0.1380 +0.0000 −0.0010
U	—	—	—	—	—	—

Dimension[a]	A-1 Base		Wedge Base	
	Max Gage	Min Gage		
A	0.3660 +0.0005 −0.0000	0.3570 +0.0000 −0.0005	0.1750 +0.0005 −0.0000	0.1450 +0.0000 −0.0005
C	0.4320 +0.0005 −0.0000	0.4040 +0.0000 −0.0005	0.2400 +0.0005 −0.0000	0.1450 +0.0000 −0.0005
E	0.0670 +0.0005 −0.0000	0.0610 +0.0000 −0.0005	0.3740 +0.0005 −0.0000	0.3740 +0.0000 −0.0005
F	0.2550 +0.0005 −0.0000	0.1800 +0.0000 −0.0005	0.1200 +0.0005 −0.0000	NA
G	0.0500 +0.0000 −0.0050	0.0150 +0.0000 −0.0005	0.1600 +0.0005 −0.0000	0.1300 +0.0000 −0.0005
N	0.1700 +0.0010 −0.0000	0.1470 +0.0000 −0.0010	0.0650 +0.0000 −0.0005	—
P	0.0000 +0.0010 −0.0010	0.0000 +0.0010 −0.0010	0.0950 +0.0005 −0.0000	0.0750 +0.0000 −0.0005
S	NA	NA	—	—
T	0.0600 +0.0050 −0.0000	0.0600 +0.0050 −0.0000	—	—
D	—	0.0250 +0.0000 −0.0005	—	—
K	—	0.1800 +0.0000 −0.0005	—	—
L	0.4100 +0.0005 −0.0000	—	—	—
H	0.1310 +0.0005 −0.0000	0.0950 +0.0000 −0.0010	—	—
U	0.2520 +0.0010 −0.0000	—	—	—

[a]See Figs. 1 and 2.

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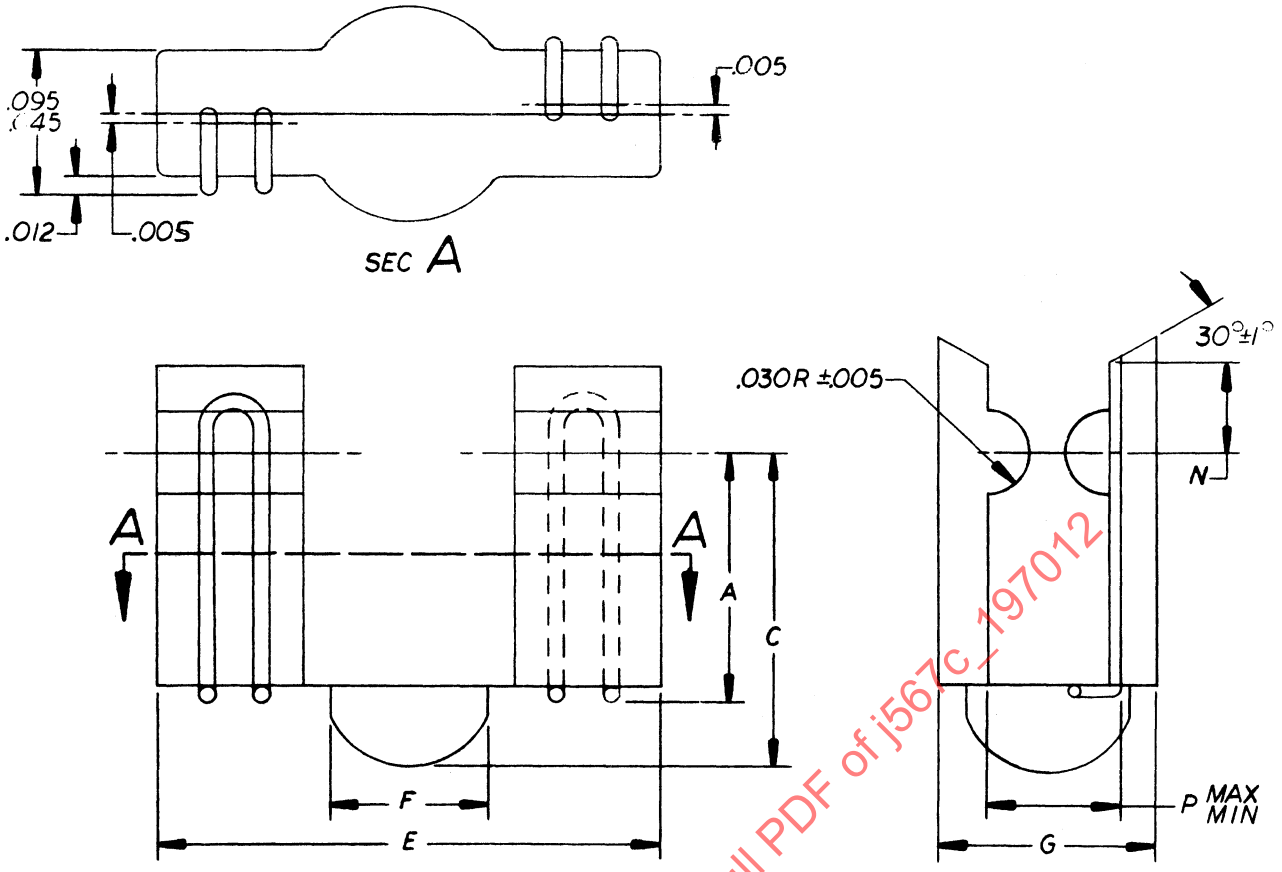
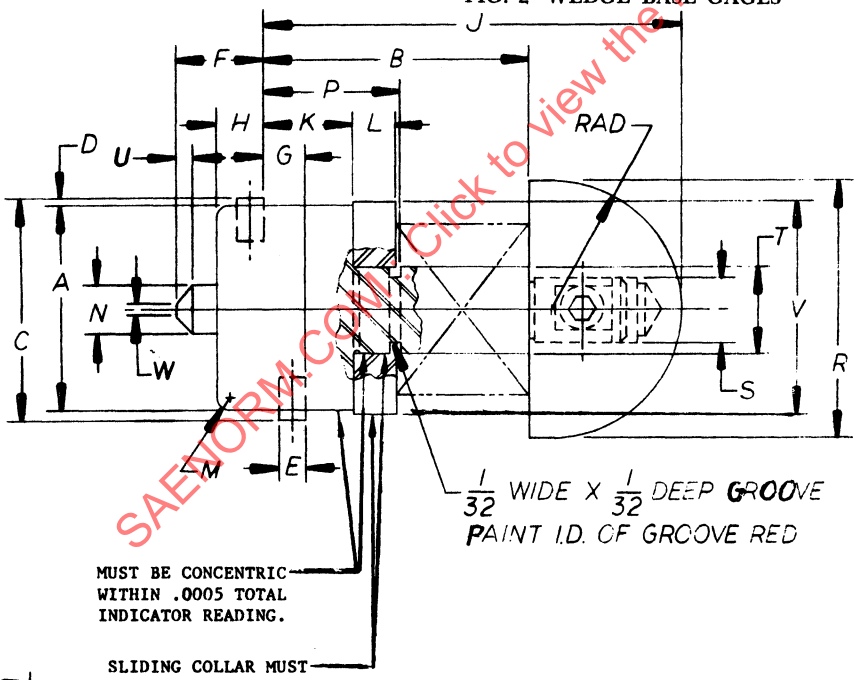


FIG. 2—WEDGE BASE GAGES



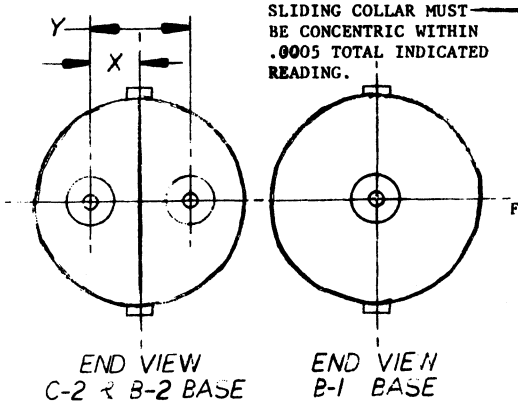


FIGURE 3

NOTE: With gage inserted into socket, the socket shell must raise the sliding collar to completely cover the red groove.

FIG. 3—BULB SUPPORT GAGE

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