

AEROSPACE RECOMMENDED PRACTICE

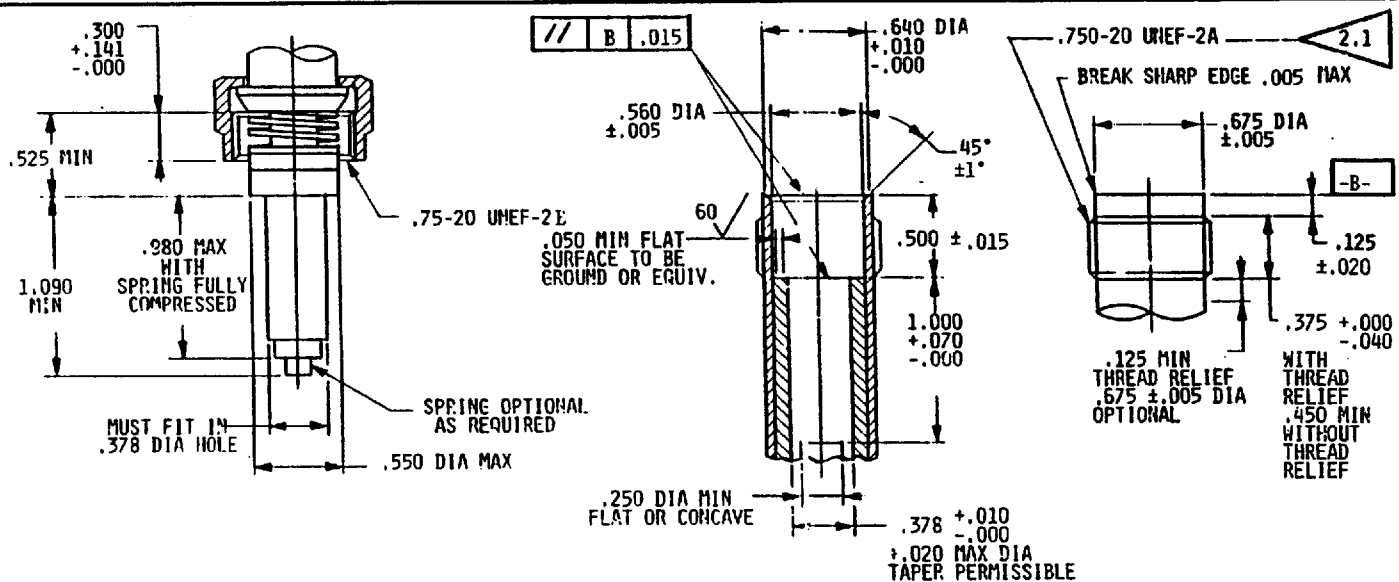
Submitted for recognition as an American National Standard

SAE ARP670

REV.
B

 Issued 1959-11
Revised 1995-11

TERMINALS, AIRCRAFT IGNITION



TYPE 1M

1. APPLICATION:
 - 1.1 FOR USE WITH TYPE 1F
2. REQUIREMENTS:
 - 2.1 SEALING SPRING SHALL NOT EXCEED .550 OUTSIDE DIAMETER IN THE MATED CONDITION.
 - 2.2 THE COUPLING NUT AND FERRULE WHEN ATTACHED TO A STANDARD MATING PART SHALL WITHSTAND A TORQUE OF 250 lb-in APPLIED TO THE COUPLING NUT WITHOUT ANY EVIDENCE OF BINDING OR ANY DEFORMATION OF THE JOINED PARTS. THREADS SHALL BE LUBRICATED WITH MIL-O-6081 OIL FOR THIS TEST.
 - 2.3 FERRULE MEETS REQUIREMENTS OF ARP457.
 3. NOT RECOMMENDED FOR CAPACITOR DISCHARGE TYPE IGNITION SYSTEMS.
 4. SUPERSEDES ARP298.
 5. MATED CONDITION IS DEFINED AS TERMINAL SHELLS HELD IN CONTACT BY COUPLING NUT.

TYPE 1F

1. APPLICATION:
 - 1.1 FOR USE WITH TYPE 1M.
 - 1.2 TYPICALLY, THIS TERMINAL (IN MATED CONDITION) IS INTENDED TO BE USED WITH SHORT DURATION PULSES IN THE ORDER OF 20 KV PEAK AND 5 A PEAK. SEALED TERMINALS OF THIS TYPE ARE RECOMMENDED FOR HIGH ALTITUDE USE.
2. REQUIREMENTS:
 - 2.1 CLASS 3A THREAD IS OPTIONAL. WHEN CLASS 3A THREAD IS SPECIFIED, ACCEPTABILITY SHALL BE BASED ON FUNCTIONAL (VIRTUAL) DIAMETER GAGING PRACTICE (THREAD RING GAGES)

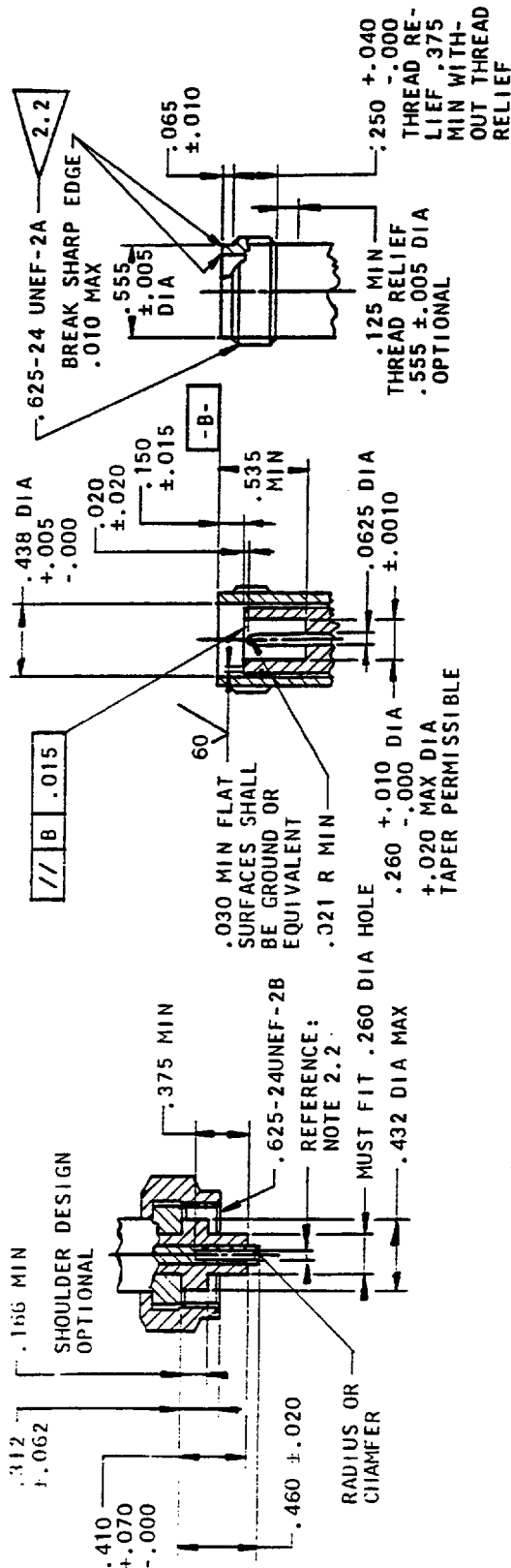
FIGURE 1

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright 1995 Society of Automotive Engineers, Inc.
All rights reserved.

SAE ARP670 Revision B



TYPE 2M

1. APPLICATION:
 - 1.1 FOR USE WITH TYPE 2F.
2. REQUIREMENTS:
 - 2.1 SOCKET CONTACT SHALL ENGAGE AND DISENGAGE ON A $.0615 \pm .0002$ DIAMETER HARDENED STEEL PIN WITH A FORCE OF NOT LESS THAN 1/8 lb AND NOT MORE THAN 5 lb ON A $.0635 \pm .0002$ DIAMETER PIN AT ROOM TEMPERATURE.
 - 2.1.1 DEPTH OF ENGAGEMENT FOR TEST PURPOSES SHALL BE .3125 FROM END OF SOCKET.
 - 2.1.2 TEST PIN MUST HAVE A SURFACE FINISH OF $12 \mu\text{in} \pm 4 \mu\text{in}$ VALUE.
 - 2.2 SOCKET HOLE MUST ACCOMMODATE A PIN OF $.0625 \pm .0010$ DIAMETER AND EXCLUDE THE ENTRANCE OF A PIN $.0685$ DIAMETER.
 - 2.3 THE COUPLING NUT AND FERRULE WHEN ATTACHED TO A STANDARD MATING PART SHALL WITHSTAND A TORQUE OF 150 lb-in APPLIED TO THE COUPLING NUT WITHOUT ANY EVIDENCE OF BINDING OR ANY DEFORMATION OF THE JOINED PARTS. THREADS SHALL BE LUBRICATED WITH MIL-O-6081 OIL FOR THIS TEST.

TYPE 2F

1. APPLICATION:
 - 1.1 FOR USE WITH TYPE 2M.
 - 1.2 TYPICALLY, THIS TERMINAL (IN MATED CONDITION) IS INTENDED TO BE USED WITH SHORT DURATION PULSES IN THE ORDER OF 8 kv PEAK, AND 1200 A PEAK. SEALED TERMINALS OF THIS TYPE ARE RECOMMENDED FOR HIGH ALTITUDE USE.
2. REQUIREMENTS:
 - 2.1 THE $.260 \pm .010$ DIAMETER AND $.0625 \pm .010$ DIAMETER SHALL BE CONCENTRIC WITHIN .020 FIR.
 - 2.2 CLASS 3A THREAD IS OPTIONAL. WHEN CLASS 3A IS SPECIFIED, ACCEPTABILITY SHALL BE BASED ON FUNCTIONAL (VIRTUAL) DIAMETER GAGING PRACTICE (THREAD RING GAGES).
 3. MATED CONDITION IS DEFINED AS TERMINAL SHELLS HELD IN CONTACT BY COUPLING NUT.

FIGURE 2