

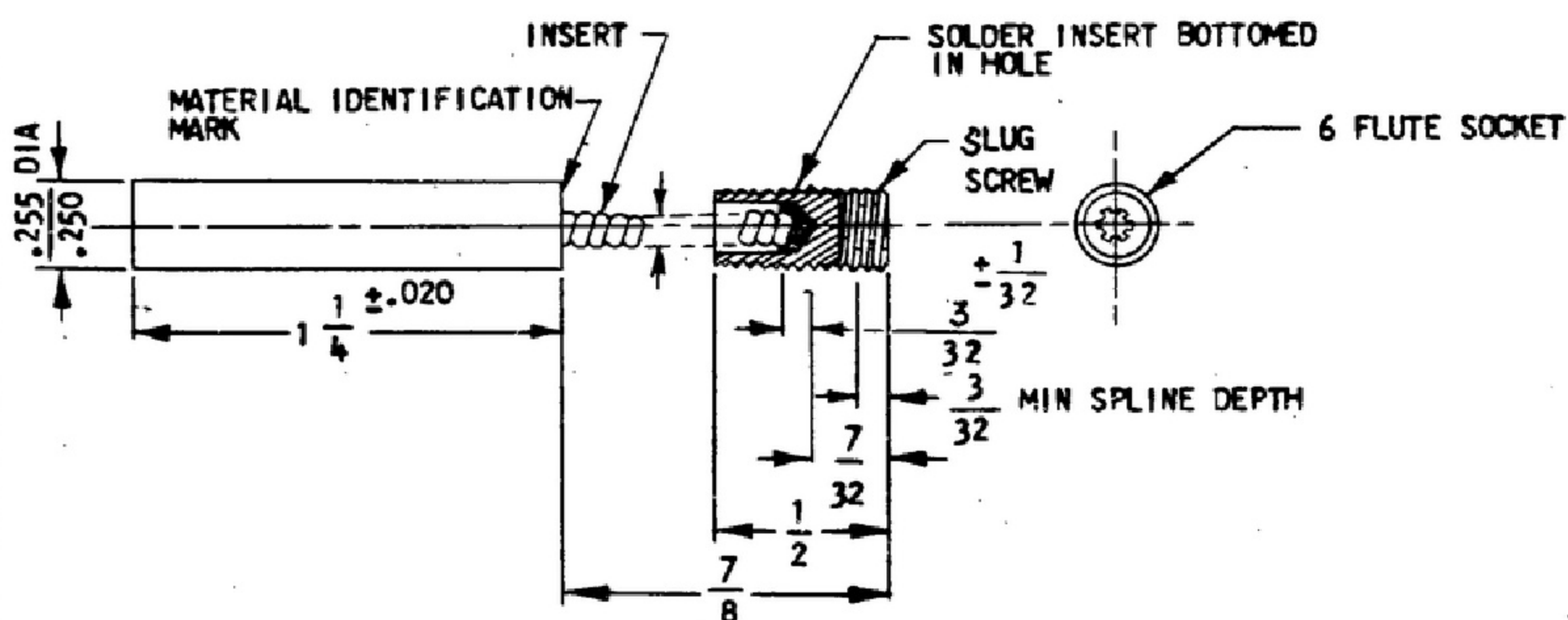
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NOTE:

DATA MARKED BY AN ASTERISK (\*) ARE FOR INFORMATION ONLY, CONTRACTOR MAY, AT HIS OPTION, DEVIATE FROM THESE DETAILS

| REVISIONS      |  |           |                           |
|----------------|--|-----------|---------------------------|
| SYM            | DESCRIPTION                              | DATE      | APPROVAL                  |
| B <sub>1</sub> | B <sub>1</sub> - NOTE REVISED            | 20 APR 60 | 2428 PC 59                |
| -              | RETRACED, NO CHANGE                      | 12 AUG 62 | 21582-PC-61               |
| C              | (1) ADDED " WITH SIGNAL CORPS APPROVAL " | 11 OCT 62 | 21582-PC-61<br>RWD<br>PME |



\* PRODUCTION TYPE TESTING: IN ADDITION TO THE TESTS CONDUCTED UNDER PRODUCTION INSPECTION TESTING, A SMALL PERCENTAGE OF UNITS, TO BE DETERMINED BY CONTRACTORS QUALITY CONTROL DEPARTMENT MAY BE FURTHER TESTED AS FOLLOWS TO EVALUATE THE QUALITY OF THE UNITS:

- A.- PULL TEST
- B - FINISH

NOTES:

1. PART MAY BE NO. CH2473 (MOD) AS SUPPLIED BY STACKPOLE CARBON CO., CHICAGO, ILL., OR EQUAL, PROVIDING IT MEETS THE FOLLOWING REQUIREMENTS AND DIMENSIONS SHOWN.

**DESCRIPTION:** POWDERED IRON CORE FOR PERMEABILITY TUNING.

**MATERIAL:** CARBONYL J, AS SUPPLIED BY GENERAL ANILINE & FILM CORP, NEW YORK, N.Y. OR EQUAL.

**INSERT:** .020 INCH DIAMETER BERYLLIUM COPPER WIRE COILED UNDER TENSION IN THE RIGHT HAND DIRECTION ON A .022 INCH DIAMETER MANDREL TO AN O.D. OF .063 ± .005 INCH.

**SLUG SCREW:** COMMERCIAL BRASS, 1/2 HARD, PER SPEC QQ-8-626, COMP 22,8-32-NC-2A THREAD FULL LENGTH.

**FINISH:** THE CORE SHALL BE COATED OR IMPREGNATED WITH A MATERIAL SUCH THAT THE COMPLETED UNIT SHALL WITHSTAND A 10 DAY HUMIDITY TEST CONDUCTED IN ACCORDANCE WITH MIL-STD-202, METHOD 106, WITHOUT THE FORMATION OF CORROSION PRODUCTS DELETERIOUS TO THE MECHANICAL AND ELECTRICAL OPERATION OF THE UNIT. THERE SHALL BE NO SOFTENING OR CRACKING OF THE FINISH MATERIAL OVER THE SPECIFIED TEMPERATURE RANGE. STACKPOLE NO. 10 (BAKELITE VARNISH BL3128) RECOMMENDED AS SUPPLIED BY STACKPOLE CARBON CO., CHICAGO, ILL., OR EQUAL.

**MARKING:** MATERIAL IDENTIFICATION SHALL BE WITH A GREEN DOT PLACED ON THE CORE AS SHOWN IN THE DRAWING, AND SHALL BE IN ACCORDANCE WITH SPEC MIL-M-13231.

**TEMPERATURE RANGE:** -55° C TO +90° C OPERATING TO -62° C STORAGE.

**FREQUENCY RANGE:** 17.5 TO 25 MC

**PERMEABILITY TOLERANCE:** WITHIN 1% OF THE PERMEABILITY OF THE STANDARD CORE TO BE SUPPLIED BY CONTRACTOR WITH SIGNAL CORPS APPROVAL.

**Q TOLERANCE:** WITHIN 5% OF THE Q OF THE STANDARD CORE.

**CONCENTRICITY:** CONCENTRICITY OF CORE AND INSERT SHALL BE MEASURED BY CHUCKING CORE. TOTAL INDICATOR READING SHALL BE .015 INCHES MAXIMUM AT THE JUNCTION OF THE CORE AND INSERT.

**PULL TEST:** THE INSERT SHALL BE CAPABLE OF WITHSTANDING AN AXIAL PULL TEST AT THE JUNCTION OF CORE AND INSERT OF 5 POUNDS FOR A TIME DURATION OF ONE MINUTE AT ROOM TEMPERATURE. UPON COMPLETION OF THE TEST THERE SHALL BE NO SIGN OF DAMAGE TO OR APPROACHING FAILURE OF THE BOND BETWEEN THE CORE AND INSERT.

**ELECTRICAL TESTS:** PERMEABILITY AND Q SHALL BE TESTED BY COMPARISON WITH A STANDARD CORE AT 10 AND 20 MC ON A BOONTON MODEL ~~100A~~ Q-METER, AS SUPPLIED BY BOONTON RADIO CORP, BOONTON, N.J. OR EQUAL.

\* **SAMPLE APPROVAL:** SAMPLE APPROVAL SHALL BE OBTAINED FROM CONTRACTORS ENGINEERING DEPARTMENT BEFORE PROCEEDING WITH PRODUCTION. A MINIMUM OF 20 UNITS SHALL BE REQUIRED FOR TESTING. ALL MECHANICAL AND ELECTRICAL REQUIREMENTS OF THIS SPECIFICATION SHALL BE TESTED BEFORE SAMPLE APPROVAL IS GRANTED. THERE SHALL BE NO CHANGE IN MATERIALS OR DESIGN WITHOUT THE SUBMISSION OF NEW SAMPLES FOR CONTRACTORS APPROVAL.

\* **PRODUCTION INSPECTION TESTING:** A NUMBER OF UNITS, TO BE DETERMINED BY CONTRACTORS QUALITY CONTROL DEPARTMENT, BASED ON A STANDARD SAMPLING PLAN, SUCH AS MIL-STD-105, MAY BE TESTED AS FOLLOWS:

- A-PHYSICAL INSPECTION FOR CONFORMANCE TO MECHANICAL REQUIREMENTS
- B-CONCENTRICITY
- C-PERMEABILITY TOLERANCE
- D-Q TOLERANCE

| REQD  | PART NO. | DESCRIPTION | MATL   | MATL QP20 |
|---|----------|-------------|--|-----------|
| LIST OF MATERIAL  |          |             |  |           |
| CORE-POWDERED IRON  |          |             | DEPARTMENT OF THE ARMY<br>U. S. ARMY SIGNAL MATERIEL<br>SUPPORT AGENCY<br>FORT MONMOUTH NEW JERSEY<br><b>SM-C-249244</b> |           |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCES ON<br>FRACTIONS DECIMALS ANGLES<br>+1 / 64 ±.005 ±10 |          |             | SIGNAL CORPS   |           |
| DRAWN BY LIPP'S H   |          |             | REVIEWED PME   |           |
| DATE  |          |             | APPROVED HLY<br>PME  |           |
| CHECKED BY <i>EG</i>  |          |             | DATE 3 MAR 58  |           |
| APPROVED BY   |          |             | SCALE 2 / 1  |           |
| APPLICATION   |          |             | CODE 80063   |           |

WHEN REFERRING TO THIS DRAWING STATE DRAWING NO., APPLICABLE ISSUE SYMBOL, IF ANY, AND DATE.