

*BSM# 788B*

## 47-, 289-, 312-, AND SIMILAR TYPE PLUGS TESTS AND INSPECTIONS

### 1. GENERAL

1.01 This section covers a method of testing and inspecting the following type plugs:

No. 47, 116, 137, 144, 152, 154, 209, 217, 221, 241, 246, 289, 312, 315, 316, and 347.

1.02 This section is reissued to add information covering 312-, 315-, and 316- (multiple finger) type plugs. Since this reissue covers a general revision, the arrows ordinarily used to indicate changes have been omitted.

1.03 The tests and inspections covered in Part 4 are:

*A. Visual Inspections*

*B. Plug Tip Wear Tests — Using No. 128A Plug Gauge*

1.04 As covered in this section, multiple-finger plugs include all plugs having two or more plug fingers.

1.05 When a finger of a 312-type plug is inserted in the No. 128A gauge, the guide on the plug may interfere with the edge of the gauge opening. If interference occurs, remove the plug finger from its shell if this is necessary to fully insert the plug finger in the gauge.

1.06 *Lettered Steps:* A letter a, b, c, etc, added to a step number in Part 3 or 4 of this section, indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

### 2. APPARATUS

#### Test B

2.01 No. 128A plug gauge.

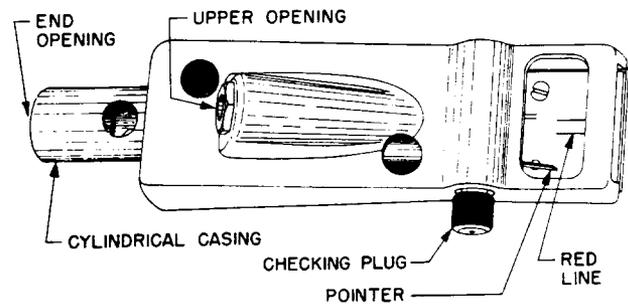


Fig. 1 — No. 128A Gauge

### 3. PREPARATION

#### STEP

#### ACTION

#### VERIFICATION

#### Adjustment of No. 128A Gauge for Test B

- |    |   |   |
|----|---|---|
| 1  | Insert checking plug into end opening of gauge.   | Pointer should rest directly over red line.   |
| 2a | If requirement of Step 1 is not met — Turn cylindrical casing clockwise and remove it from gauge. |   |
| 3a | Loosen setscrew in eccentric bushing.   |   |
| 4a | Turn bushing to new position as required.   | Pointer should rest directly over red line.   |
| 5a | Tighten setscrew in eccentric bushing.  | Pointer should remain directly over red line. |
| 6a | Remount cylindrical casing on gauge.  |   |

## 4. METHOD

STEP	ACTION	VERIFICATION
<b>A. Visual Inspections</b>		
7	Inspect for defective shell, missing or defective bushings, loose, burred, defective, or missing screws and nuts.	No defective parts on uncorded plugs. On corded plugs minor defects such as slightly cracked or chipped insulating bushings are permissible.
8	Inspect plug for dirt or foreign material.	Plug should be clean.
9b	If requirement in Step 8 is not met — Clean plugs in accordance with the sections covering cleaning and polishing plugs using plug cleaning fixture or cotton sleeving, or the section covering cleaning switchboard plugs using the No. 497-type tool.	
10c	For multiple-finger plugs having cords with stay hooks — Remove tie rings.	
11c	Inspect stay hooks.	Stay hooks should be sufficiently closed to prevent exposing sharp edges or points.
<b>B. Plug Tip Wear Tests — Using No. 128A Gauge</b>		
12	Fully insert plug or plug finger of multiple-finger plug into upper opening of gauge.	Shoulder of plug should butt against upper opening without forcing.
13d	For single-finger plugs — Fully insert plug into end opening of gauge.	Anvil of gauge should seat on plug tip within 1/8 inch of insulation between tip and sleeve.
14d	Rotate plug through minimum one revolution without exerting side or end pressure on plug.	Pointer should not reach red line.
15d	Turn plug or plug finger to position where pointer is farthest to right and withdraw plug from gauge.	Pointer should pass to left of black line on outer edge of scale while plug is being withdrawn. <i>Note:</i> The two small black lines on inner edge of scale are solely for use of manufacturer during initial adjustment of gauge.
16e	For multiple-finger plugs — Fully insert plug finger into end opening of gauge (see 1.05).	Shoulder of plug should butt against end of gauge.
17e	Turn plug finger so that anvil of gauge touches same surface of plug tip that jack spring touched in service, draw plug finger back and forth in end opening of gauge.	Pointer should not reach red line.
18f	If requirement of Step 17e is not met — Turn plug finger as covered in Steps 19f through 23f.	

STEP	ACTION	VERIFICATION
19f	Remove plug finger from shell.	
20f	Turn plug finger 90 degrees.	
21g	For multiple-finger plugs having small screws which prevent rotation of plug finger, remove small screws and mount them in the other tapped holes.	
22f	Reposition plug fingers in shell.	
23f	Reassemble plug.	Leads connected to plug should not be damaged or shorted.