

Fig. 1

88-207

1. INTRODUCTION

This instruction sheet (IS) covers application maintenance procedures for the AMPower Crimping Die Assemblies listed in Figure 1. The die assemblies are used to crimp AMPower Terminals and Splices onto solid or stranded copper wire of the sizes listed in Figure 2. Read these instructions, and all applicable references, before inserting any die assemblies and crimping any terminals or splices.

NOTE

All dimensions on this document are in metric units [with U. S. customary units in brackets].

2. DESCRIPTION (Figure 1)

Each die assembly consists of a nest and indenter which are retained in the crimping tool by setscrews or by internal retainers. The nest is positioned in the yoke of the crimping tool and the indenter is positioned in the ram of the tool in all applications.

3. DIE ASSEMBLY INSTALLATION AND REMOVAL

Refer to Figures 1 and 2 and determine the correct die assembly and crimping tool for the terminal or splice and wire size to be used in the application. Different procedures must be observed for the three crimping tools used with the die assemblies.

DANGER

AVOID PERSONAL INJURY. Exercise extreme caution when using power unit. Avoid depressing foot switch or trigger control when installing or removing die assemblies.

A. Crimping Head 58445 (Figure 3)

— Die Insertion

1. Remove latch pin on head of crimping tool and open yoke.
2. Loosen setscrew in yoke.
3. Insert nest into yoke as shown, and tighten setscrew.
4. Activate power unit to advance ram until setscrew in ram is visible.
5. Loosen setscrew in ram and insert indenter into ram. Tighten setscrew.
6. Activate power unit and return ram to the down position.
7. Close tool yoke and insert latch pin.

CAUTION

During crimping procedure, ensure that latch pin is fully inserted or damage may occur to yoke, dies, or latch pin.

— Die Removal

1. Remove latch pin and open tool yoke.
2. Loosen setscrew in yoke and remove nest.
3. Advance ram until setscrew is visible.
4. Loosen setscrew in ram and remove indenter.

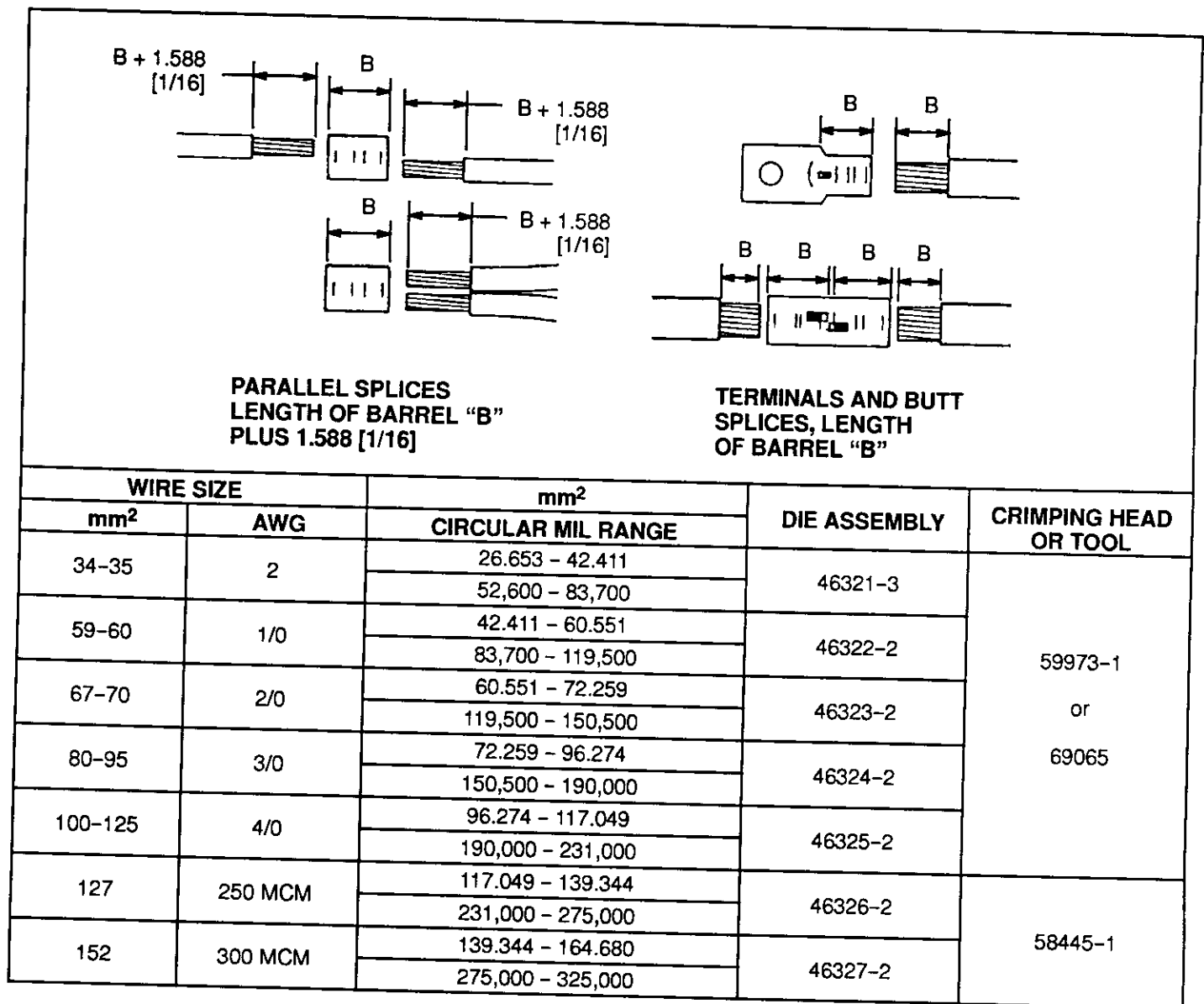


Fig. 2

92-53

B. Crimping Head 69065 (Figure 3)

— Die Insertion

1. Remove latch pin on head of crimping tool and open yoke.
2. Push nest into yoke until nest snaps into position.
3. Activate power unit to advance ram to approximate position shown in Figure 3.
4. Push indenter into ram until indenter snaps into position.
5. Return ram to the down position.
6. Close yoke and insert latch pin.

CAUTION

During crimping procedure, ensure that latch pin is fully inserted or damage may occur to yoke, dies, or latch pin.

— Die Removal

1. Remove latch pin and open yoke.
2. Insert blade of screwdriver under nest and pry nest out of yoke.
3. Activate power unit and raise ram to full up position.
4. Insert blade of screwdriver under indenter and pry indenter out of ram.

C. Hydraulic Hand Tool 59973-1 (Figure 3)

— Die Insertion

1. Remove latch pin and open yoke.
2. Push nest into yoke until nest snaps into position.
3. Advance ram. Push indenter into ram until indenter snaps into position.
4. Close yoke and secure latch pin.

— Die Removal

1. Remove latch pin and open yoke.
2. Insert blade of screw driver under nest and pry nest out of yoke.
3. Raise ram to full up position.
4. Insert blade of screwdriver under indenter and pry indenter out of ram.

4. CRIMPING PROCEDURE (Figure 4)

DANGER

AVOID PERSONAL INJURY. Exercise extreme caution when, operating crimping tool and holding terminals, splices, or wire near the crimping area.

Obtain the correct wire, terminal or splice, die assembly, and crimping tool for your application. Strip wire insulation to the dimensions indicated in Figure 2, taking care not to nick or cut conductor(s), and proceed as follows:

1. Ensure that wire size stamped on terminal or splice corresponds to wire size being used in the application and wire size stamped on die assembly.
2. Center terminal or splice wire barrel in die nest.

NOTE

If crimping a terminal butt splice, ensure that inspection hole(s) of face either die. See Figure 4.

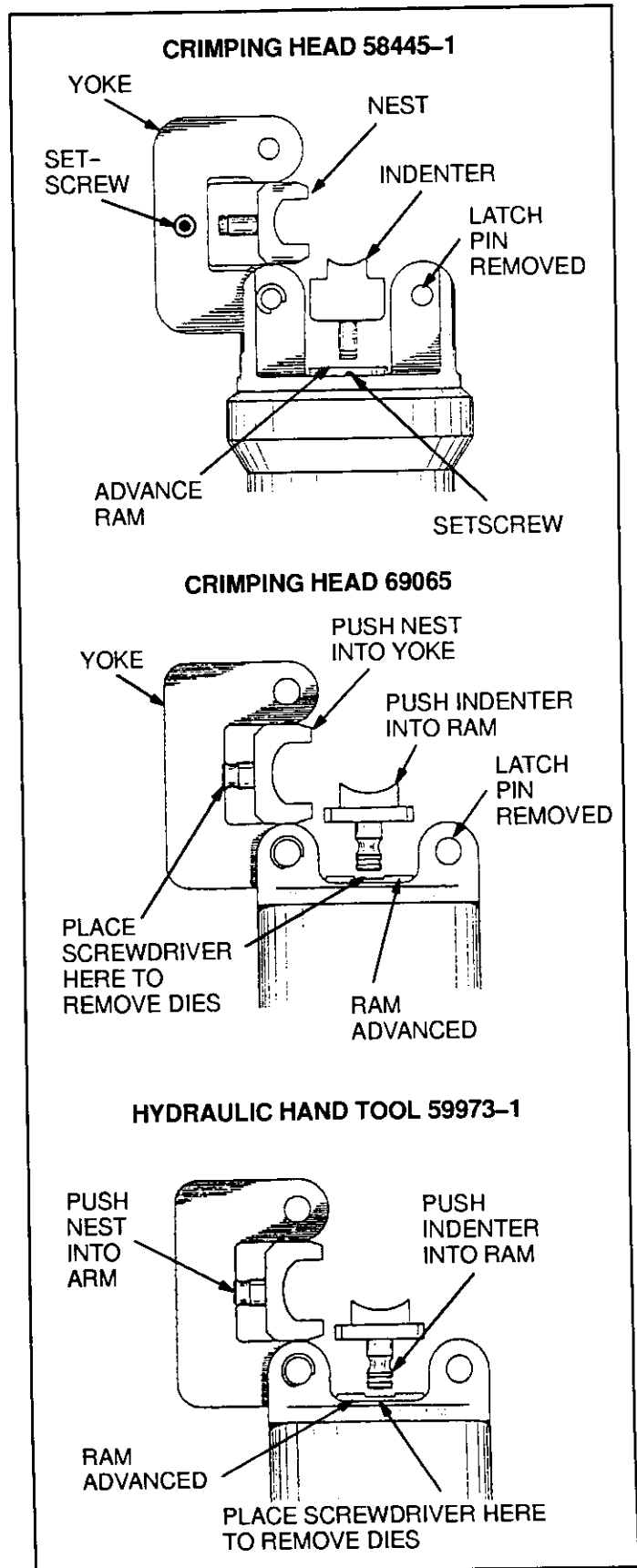


Fig. 3

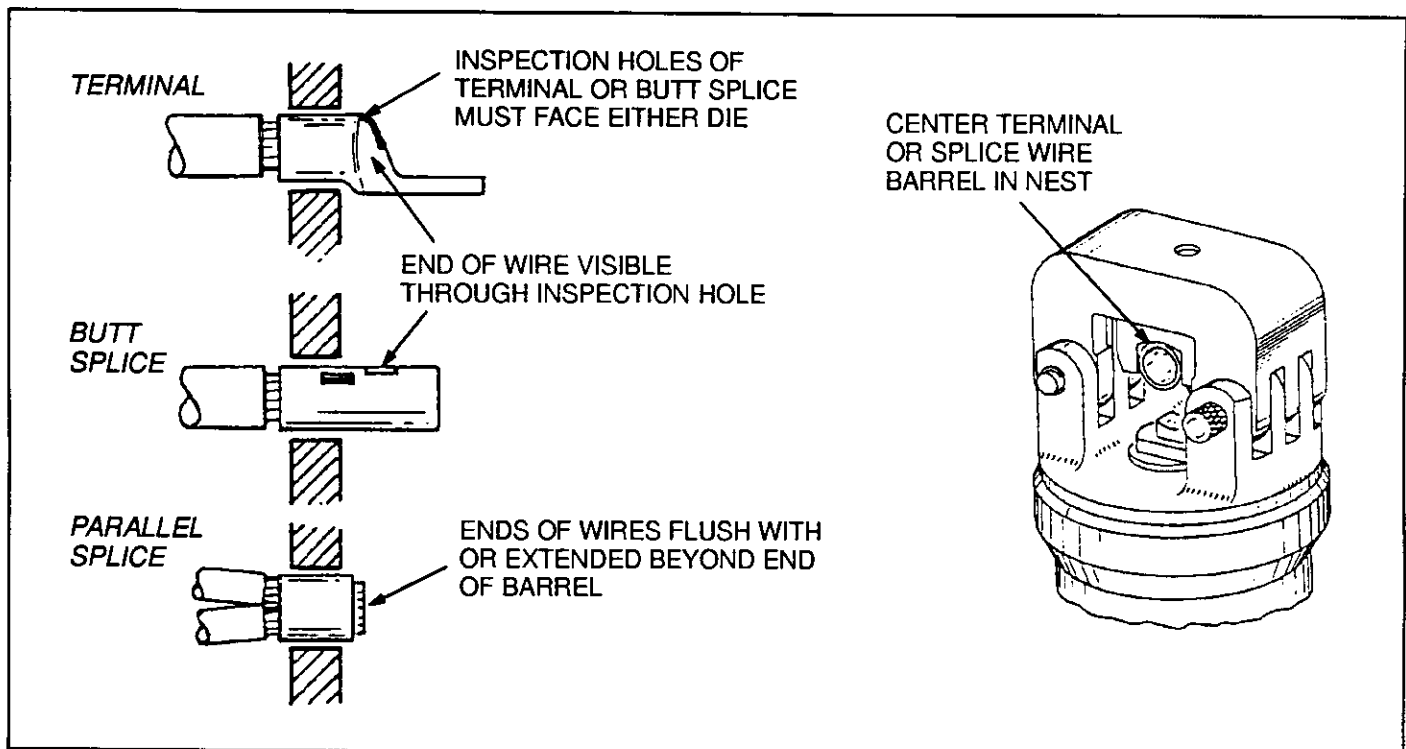


Fig. 4

81-202

3. Activate tool so that ram advances and holds terminal or splice in place but does not deform wire barrel.

4. Insert stripped wire(s):

a. into terminal until bottomed with conductor(s) visible through inspection hole of terminal.

b. into butt splice until conductor(s) butt against wire stop and can be seen through inspection hole of splice.

c. into parallel splice until conductor ends are flush with, or extend slightly beyond, end of splice.

5. Activate crimping tool to complete crimp.

NOTE

If terminal or splice sticks in die after crimping, grasp wire close to crimp and apply a rocking motion to remove from die.

6. Refer to Paragraph 5.1, Crimp Inspection, for terminal and splice crimp inspection procedure.

5. MAINTENANCE/INSPECTION**DANGER**

Disconnect power supply before performing maintenance, adjustments, inspections and repairs.

These instructions have been approved by AMP Design, Production, and Quality Control Engineers to provide documented maintenance and inspection procedures in accordance with AMP Corporate Policy No. 3-3. Through AMP test laboratories and the inspection of production assembly, the procedures described herein have been established to ensure quality and reliability of AMP crimping die assemblies. Customer replaceable parts are listed in Figure 6. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary.

5.1. Crimp Inspection (Figure 5)**NOTE**

The accompanying procedure is included as an aid to the tool operator ONLY. It is not intended to serve as a quality control procedure for qualifying finished crimps on AMPOWER Terminals or Splices.

Inspect crimped terminals or splices by checking the features described in Figure 5. Use only terminals or splices that meet the conditions shown in the ACCEPT column. Terminals and splices displaying the features shown in the REJECT column can be avoided by careful use of these instructions and by performing the maintenance and inspection procedures described in Paragraphs 5.2 and 5.3.

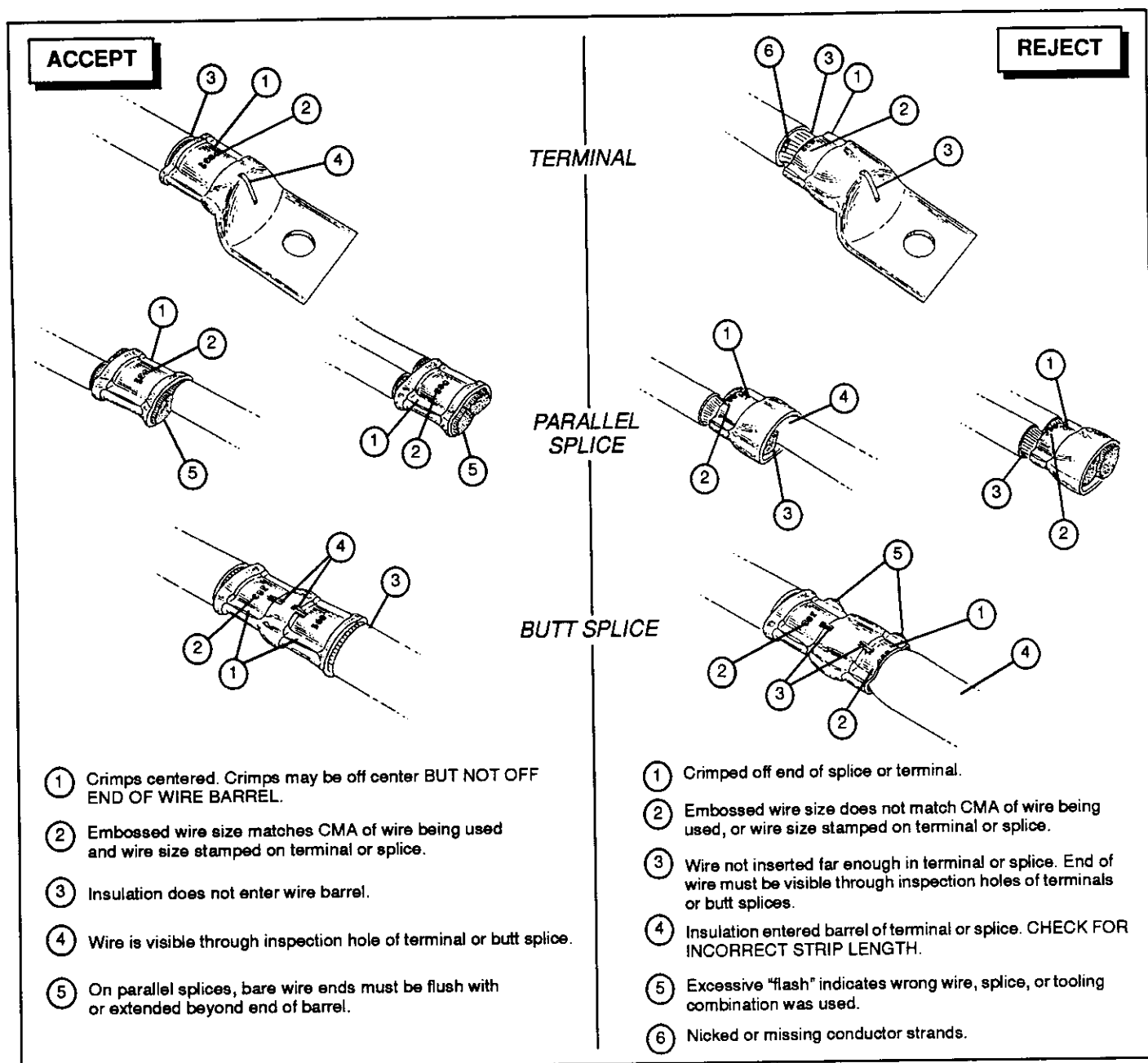


Fig. 5

92-55

5.2. Daily Maintenance

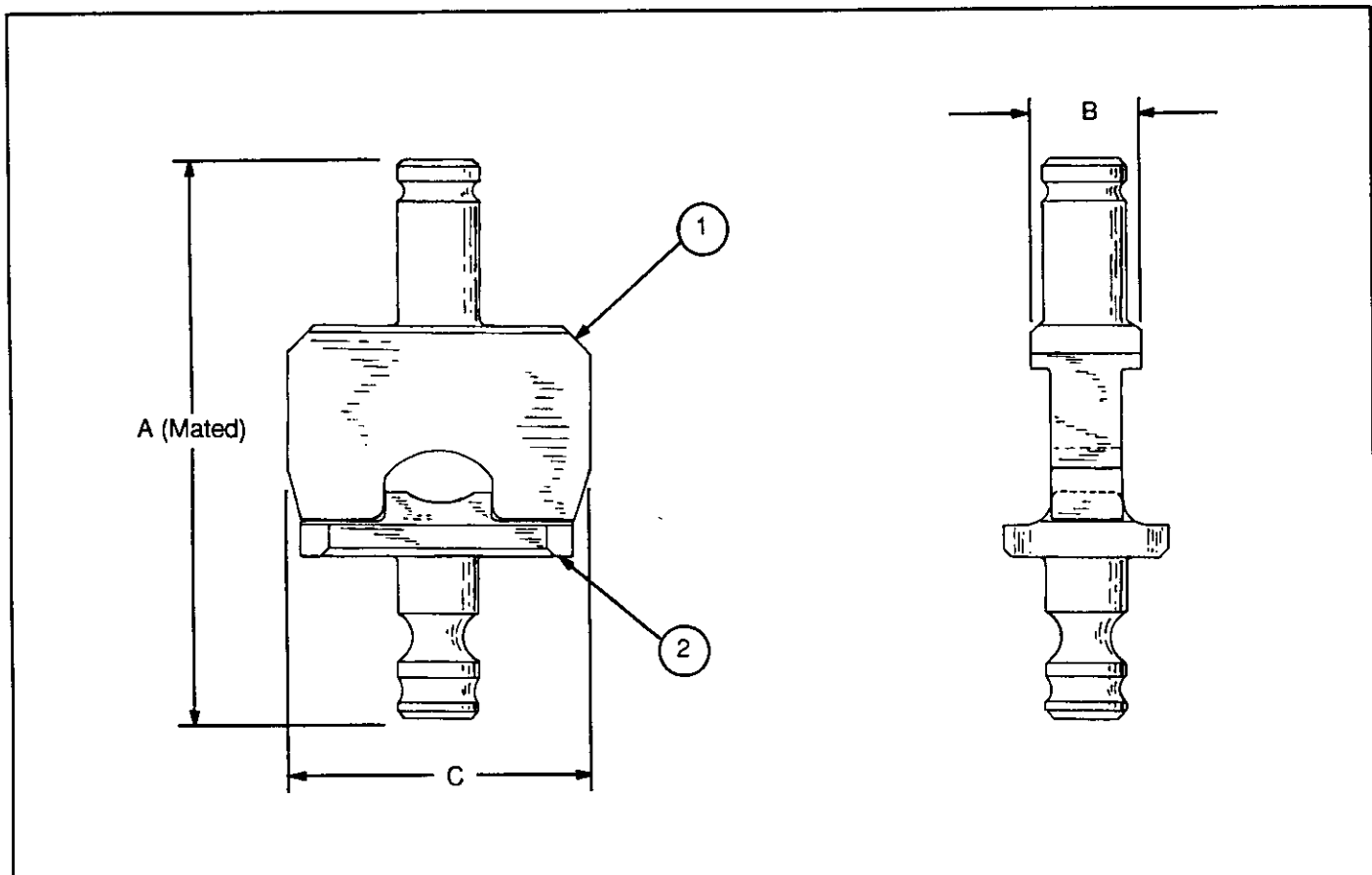
It is recommended that each operator of the dies be made aware of, and responsible for, the following steps of daily maintenance:

1. Remove dust, moisture, and other contaminants from the dies with a clean brush, or a clean, soft, lint-free cloth. Do NOT use objects that could damage the dies.
2. If dies are coated with oil or preservative, wipe clean — particularly in the crimping areas — before placing them in use.

3. When dies are not in use, make certain all surfaces are protected with a THIN coat of any good SAE No. 20 motor oil, and mate and store them in a clean, dry area.

5.3. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the dies or be made available to supervisory personnel responsible for the dies. Though recommendations call for at least a monthly inspection, the inspection frequency should be based upon the amount of use, working conditions, operator training and skill, and established company standards. These inspections should be performed in the following sequence:



DIE ASSEMBLY	COMPONENTS (1 EACH REQUIRED)		DIMENSIONS (All Assy Approx)
	NEST ①	INDENTER ②	
46321-3	312850-1	6-305688-0	A 56.40 mm [2.220 in.]
46322-2	4-305687-2	4-305688-2	B 9.53 mm [.375 in.]
46323-2	4-305687-3	4-305688-3	C 28.61 mm [1.125 in.]
46324-2	4-305687-4	4-305688-4	WEIGHT (All Assy Approx)
46325-2	4-305687-5	4-305688-5	
46326-2	2-305687-4	2-305688-4	.25 kg [8 oz]
46327-2	2-305687-5	2-305688-5	

Fig. 6

88-200

A. Visual Inspection

1. Remove all lubrication and accumulated film by immersing the dies in a suitable degreaser that will not affect paint or plastic material.
2. Check all bearing surfaces for wear. Remove and replace worn components.
3. Inspect the crimp area for flattened, chipped, cracked, worn, or broken areas. If damage is evident, the die must be replaced.

B. Gaging the Crimping Chamber

This inspection requires the use of a plug gage conforming to the dimensions in Figure 7. AMP does not manufacture or market these gages.

Proceed as follows:

1. Mate the dies until it is evident that they have bottomed. Hold the dies in this position.
2. Align the GO element with the wire barrel crimping chamber. Push the element straight into the

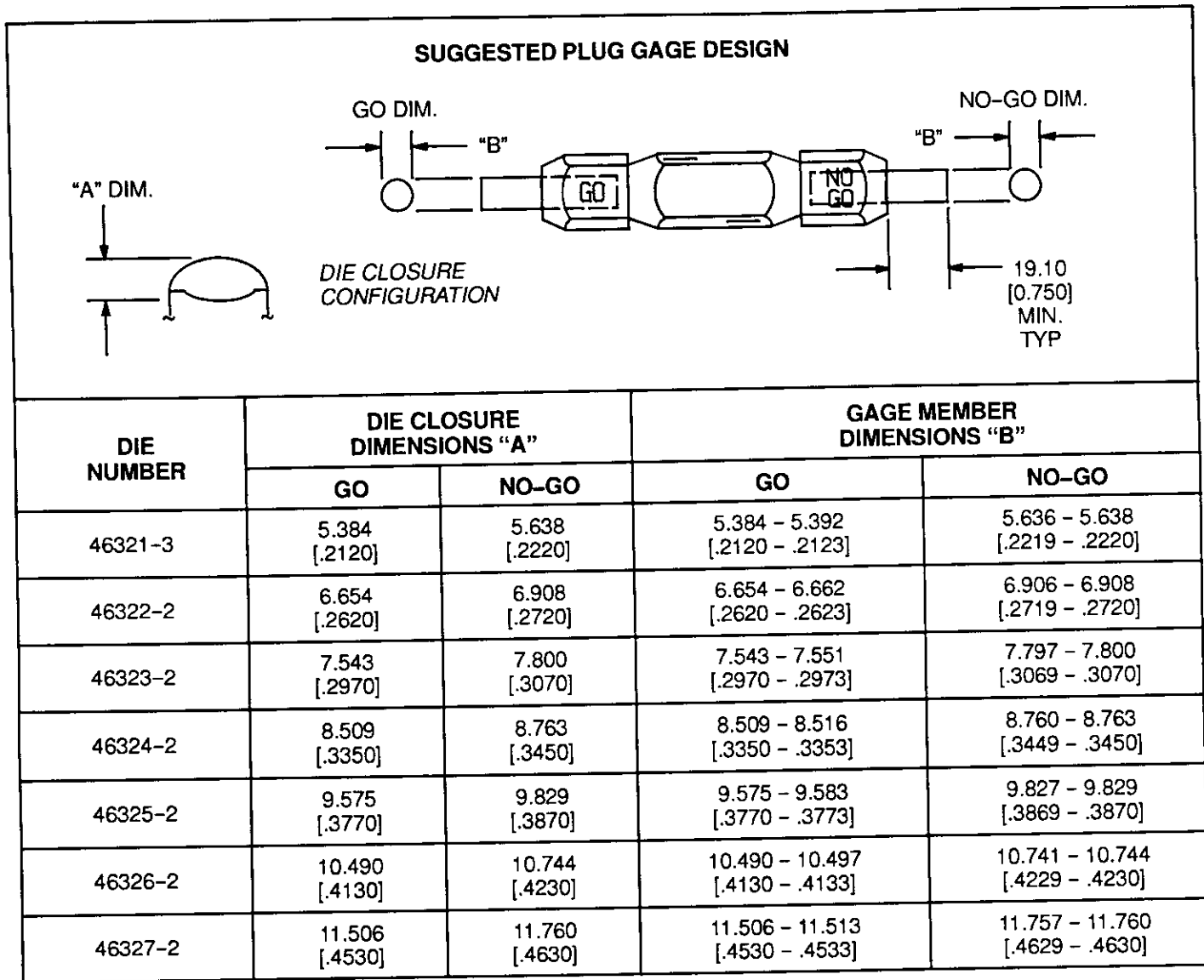


Fig. 7

200-001E

crimping chamber without using force. The GO element must pass completely through the crimping chamber.

3. Align the NO-GO element and try to insert it straight into the same crimping chamber. The NO-GO element may start entry but must not pass completely through. If the crimping chamber conforms to the gage inspection, the dies are considered dimensionally correct. If not, they must be replaced. For additional information regarding the use of a plug gage, refer to AMP Instruction Sheet IS 7424.

6. REPLACEMENT

When replacement of a die or die assembly becomes necessary, contact your local AMP representative or:

CUSTOMER SERVICE (38-35)
 AMP INCORPORATED
 P. O. BOX 3608
 HARRISBURG, PA 17105-3608