

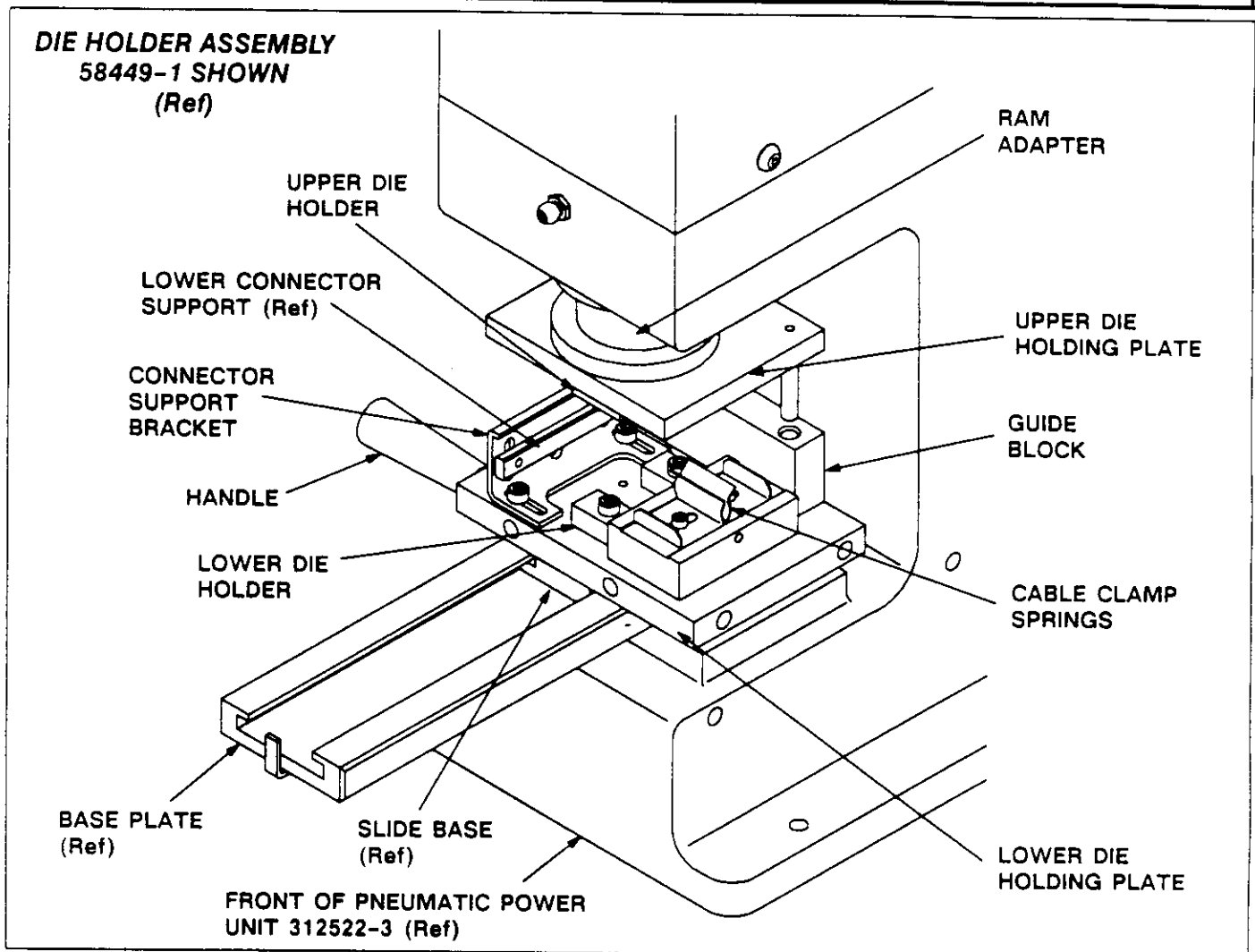
AMPAMP INCORPORATED
HARRISBURG, PA 17105AMP* DIE HOLDER ASSEMBLIES
58449-1, -2, AND -3 USED WITH
PNEUMATIC POWER UNIT 312522-3**IS 9721**CUSTOMER HOTLINE
1 800 722-1111RELEASED
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Fig. 1

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1. INTRODUCTION

AMP Die Holder Assemblies 58449-1, -2, and -3 are designed for use in AMP Pneumatic Power Unit 312522-3. The die holder assemblies are used in conjunction with AMP crimping die assemblies to crimp ferrules onto round shielded cable used with AMP Shielded Data Link (SDL) and AMPLIMITE* Series Connectors. This Instruction Sheet (IS) provides procedures for die holder installation, tooling adjustments and conversions, crimping, and maintenance and inspection. Refer to IS 9010 and IS 9072 for details concerning connector assembly procedures and die assembly selection. Instructions concerning the operation of the pneumatic power unit are available in AMP Customer Manual (CM) 5822.

Read these instructions thoroughly before crimping any ferrules.

NOTE

All dimensions on this instruction sheet are in inches.

2. DESCRIPTION (Figure 1)

The die holder assemblies are designed to be used with specific connectors: 58449-1 is used with AMPLIMITE connectors; 58449-2 is used with SDL connectors; and 58449-3 is used with AMPLIMITE and SDL connectors.

Each die holder assembly consists of two subassemblies: an upper die holder and a lower die holder. A clear plastic guard assembly (not shown) is also

provided to protect the operator from possible injury during the crimping operation.

The upper die holder subassembly features a die holder, a die holding plate, and a ram adapter. The upper plate is spaced from the ram of the pneumatic power unit by the ram adapter. The ram adapter is mounted to the ram of the power unit with four socket head cap screws (furnished with the die holder assembly).

The lower die holder subassembly features a die holder, a die holding plate with a guide block, a connector support bracket, and a cable clamp spring. The subassembly has a slide base which mates with the base plate of the power unit.

3. INSTALLATION OF DIE HOLDER ASSEMBLIES (Figure 2)

DANGER

Avoid personal injury. Air supply to the pneumatic power unit must be turned OFF during installation procedure.

Select the appropriate die holder and proceed as follows:

A. Lower Die Holder Subassembly

1. Loosen screw securing tool stop to the base plate of the pneumatic power unit.
2. Install lower die holder subassembly onto base plate of power unit, making sure that the handle is positioned toward the left side of the power unit.
3. Tighten screw securing tool stop to the base plate.

B. Upper Die Holder Subassembly

1. Mount ram adapter to mounting surface of power unit ram, making sure that the guide pins are positioned away from the operator.
2. Secure ram adapter to the ram with the four socket head cap screws provided with die holder assembly.

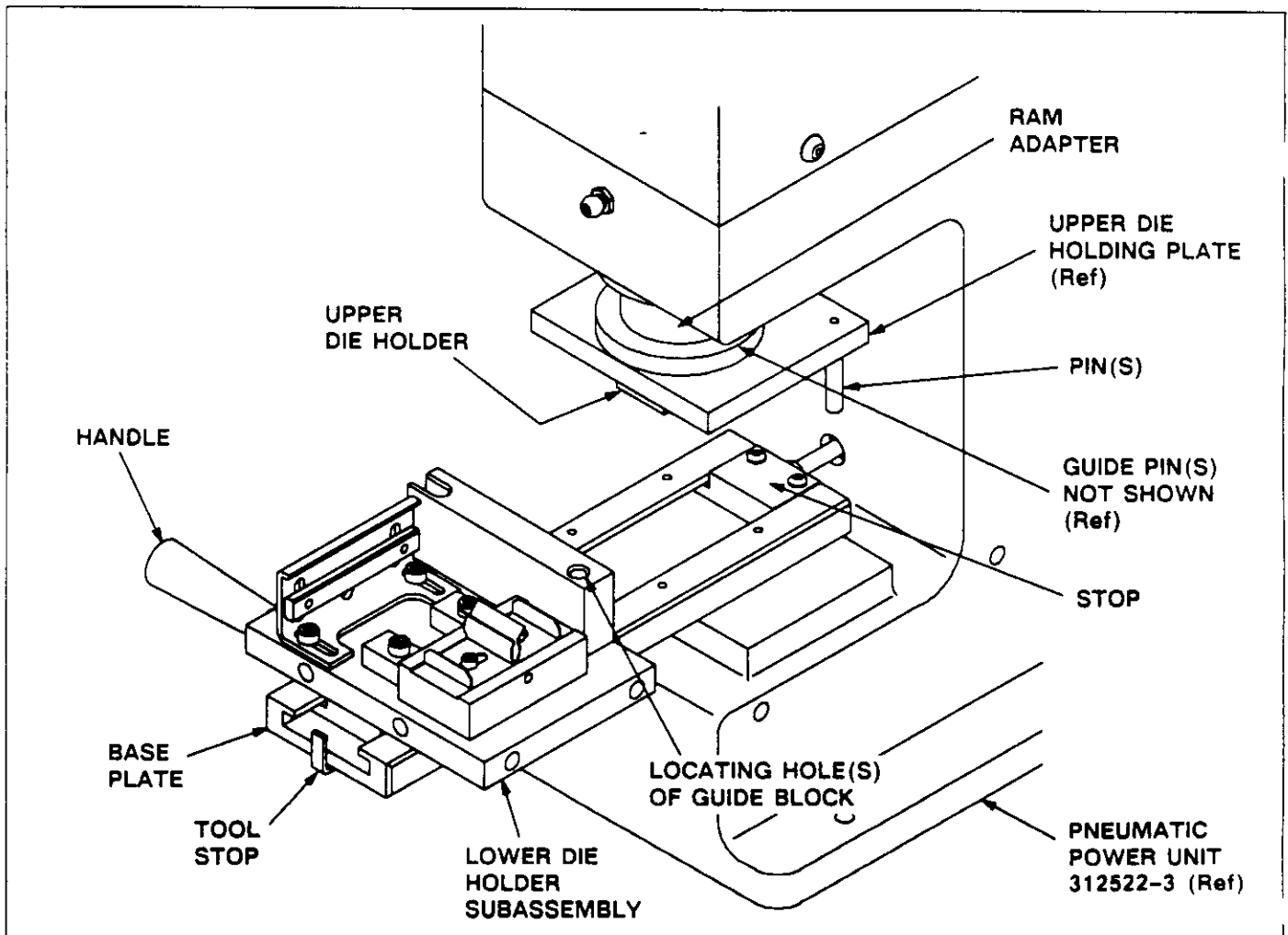


Fig. 2

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NOTE

The socket head cap screws must be loose enough to allow the tooling to move on the ram when upper die holder is engaged with lower die holder.

- Slide lower die holder subassembly under ram of power unit until subassembly is against the stop on the base plate of the power unit.

NOTE

The pins in the upper die holding plate must be aligned with locating holes in the guide block.

- Lower ram of power unit to engage upper die holder subassembly with lower die holder subassembly.
- Secure ram adapter to power unit ram by tightening the four socket head cap screws, previously installed in Step 2.
- Connect air supply to raise ram of power unit.

NOTE

If locating holes in the guide block do not line up with the pins in the upper die holder subassembly, loosen screws securing lower subassembly to base plate of power unit. Readjust tooling so that the locating holes and pins are properly aligned; then re-tighten screws to secure lower subassembly to base plate of power unit. Make sure lower subassembly is against the stop before securing screws.

4. DIE ASSEMBLY INSTALLATION AND REMOVAL (Figure 3)

A. Installation

To select appropriate die assembly, refer to IS 9242, IS 9243, IS 9244, IS 9507, and IS 9508 for AMPLIMITE connectors and IS 9039 for SDL connectors. Proceed as follows:

DANGER

Make certain air supply to the pneumatic power unit is turned OFF during die installation procedure.

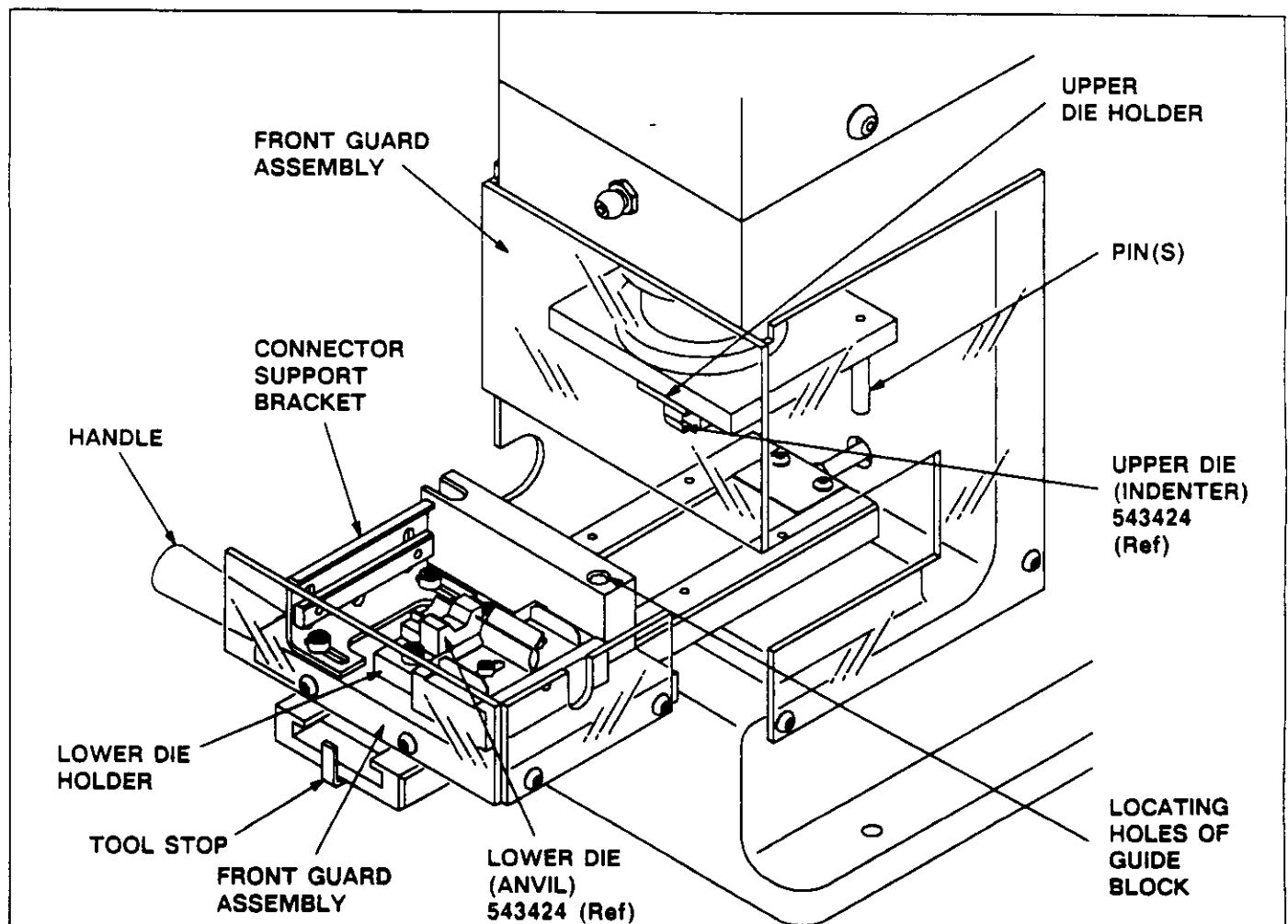


Fig. 3

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1. Slide lower die holding plate out from under ram.
2. Install upper die (indenter) into upper die holder and secure it with the cap screw provided with the die assembly.

NOTE

This screw can be accessed using the .19-in. diameter hole on the left side of the fixed guard.

3. Install lower die (anvil) into lower die holder and partially secure it with the cap screw provided with the die assembly.

NOTE

The cap screw can be accessed using the slot on the left side of the connector support bracket.

4. Slide lower subassembly under ram and against the stop on the base plate.

NOTE

The pins in the upper plate should be aligned with the locating holes in the guide block. Refer to Figure 1.

5. Lower ram of power unit to engage upper die holder subassembly with lower die holder subassembly. Tighten lower die assembly cap screw.
6. Install plastic guard assembly onto power unit with the six button head cap screws provided with the die holder assembly.

DANGER

DO NOT operate power unit unless guard assembly is properly installed.

7. Connect air supply to raise ram.
8. After ram has reached its uppermost position, the power unit will re-cycle. The power unit is ready to operate when the cycle is complete.

B. Removal

1. DISCONNECT power unit from air supply.
2. Using a hex wrench, remove cap screw from each die component; then lift die assembly out from die holding plates.
3. Re-install cap screws into each die component and mate and place the die assembly in a suitable container and store in a clean dry area.

5. TOOLING ADJUSTMENTS AND CONVERSIONS (Refer to Figure 1)

The following adjustments may be required if the connector or cable sizes change.

A. Cable Clamp Springs

The cable clamp springs can be adjusted for various cable diameters by loosening the cap screw and repositioning cable clamp springs.

B. Connector Support Bracket

The connector support bracket can be adjusted for various connector sizes. Loosen the screws which secure the bracket to the lower plate. Slide bracket to appropriate position; then secure the screws.

C. Lower Connector Support

The lower connector support can be adjusted for various connector heights. Loosen the screw which secures the connector support to the bracket; then re-adjust the support.

D. AMPLIMITE to SDL Connector Conversion (For 58449-3 Assembly Only) (Figure 4)

1. Remove upper and lower AMPLIMITE die holder assembly.
2. Install lower SDL die holder onto lower tooling assembly. Locate die holder against clamping block and align it with the tapped hole using the alignment gage. Secure die holder to lower tooling assembly.
3. Assemble locator to SDL upper die holder using two 8-32-in. screws.
4. Assemble upper die holder to upper tooling assembly. Align upper die holder with lower die holder using alignment gage. Secure upper die holder to upper tooling assembly.
5. Remove alignment gage and install appropriate SDL die assembly as described in Section 4, DIE ASSEMBLY INSTALLATION AND REMOVAL.

6. CRIMPING PROCEDURE

1. Slide lower die holder out from under ram of power unit.
2. With ferrule properly positioned on the connector/cable assembly, position the ferrule in the "target area" of the crimping dies. Allow front of connector shell to rest in the slot of the connector support bracket of the die holder subassembly.
3. Position cable into cable clamp springs.
4. Slide lower die holder subassembly back against stop. The lower die holder should be aligned with upper die holder.

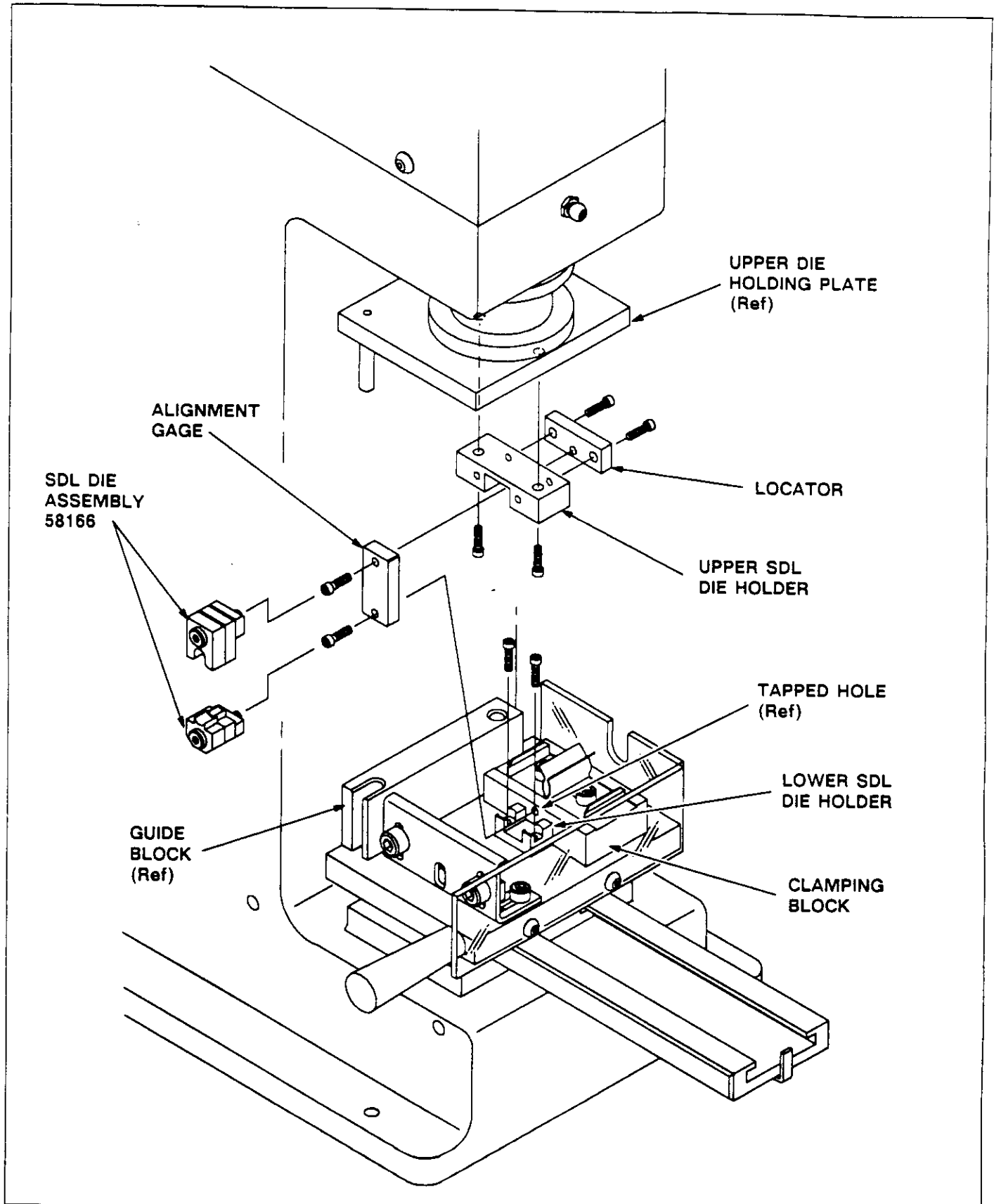


Fig. 4

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NOTE

The ram will automatically lower when lower die holder is positioned against stop.

5. After ram has retracted to the upright position, slide lower die holder subassembly out from under the ram and remove crimped connector assembly. Check crimp height of the connector assembly to ensure that the dimensions conform to the termination requirements.

NOTE

Various cable jacket insulation diameters may affect crimp height dimensions. If different cable manufacturers are used, check the crimp height after each termination.

7. MAINTENANCE AND INSPECTION PROCEDURES

AMP recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection should be adjusted to suit your requirements through experience.

Frequency of inspection is dependent upon:

1. The care, amount of use, and handling of the die holder assemblies.
2. The degree of operator skill.
3. The presence of abnormal amounts of dust and dirt.
4. Your own established standards.

A. Daily Maintenance

For optimum tool performance and minimum downtime, AMP recommends the following steps of daily maintenance:

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft, lint-free cloth. Do NOT use objects that could damage the die holder assembly or crimping dies.

2. Make sure upper and lower die holder subassemblies, cable clamp springs, and guide block are in place and properly secured.
3. When the assembly is not in use, store it in a clean, dry area.

B. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the die holder assembly and/or be supplied to supervisory personnel responsible for the equipment. These inspections should be performed in the following sequence:

1. Remove all lubrication and accumulated film with a suitable commercial degreaser that will not affect paint or plastic material.
2. Make sure all die holding screws and assembly components are in place. If replacements are necessary, refer to Figure 5.
3. Inspect crimp area for flattened, chipped, cracked, worn, or broken areas. If damage is evident, return them to service (see Paragraph 8, REPLACEMENT AND REPAIR).

8. REPLACEMENT AND REPAIR (Figure 5)

AMP recommends that certain replaceable parts be stocked to prevent loss of production time. The parts listed in Figure 5 can be replaced by qualified personnel at your production or tool repair facility. Parts can be ordered by contacting:

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

When repair is necessary, return the die holder assembly (along with a written description of the problem) to:

CUSTOMER REPAIR (01-12)
AMP INCORPORATED
1523 NORTH 4TH STREET
HARRISBURG, PA 17102-1604

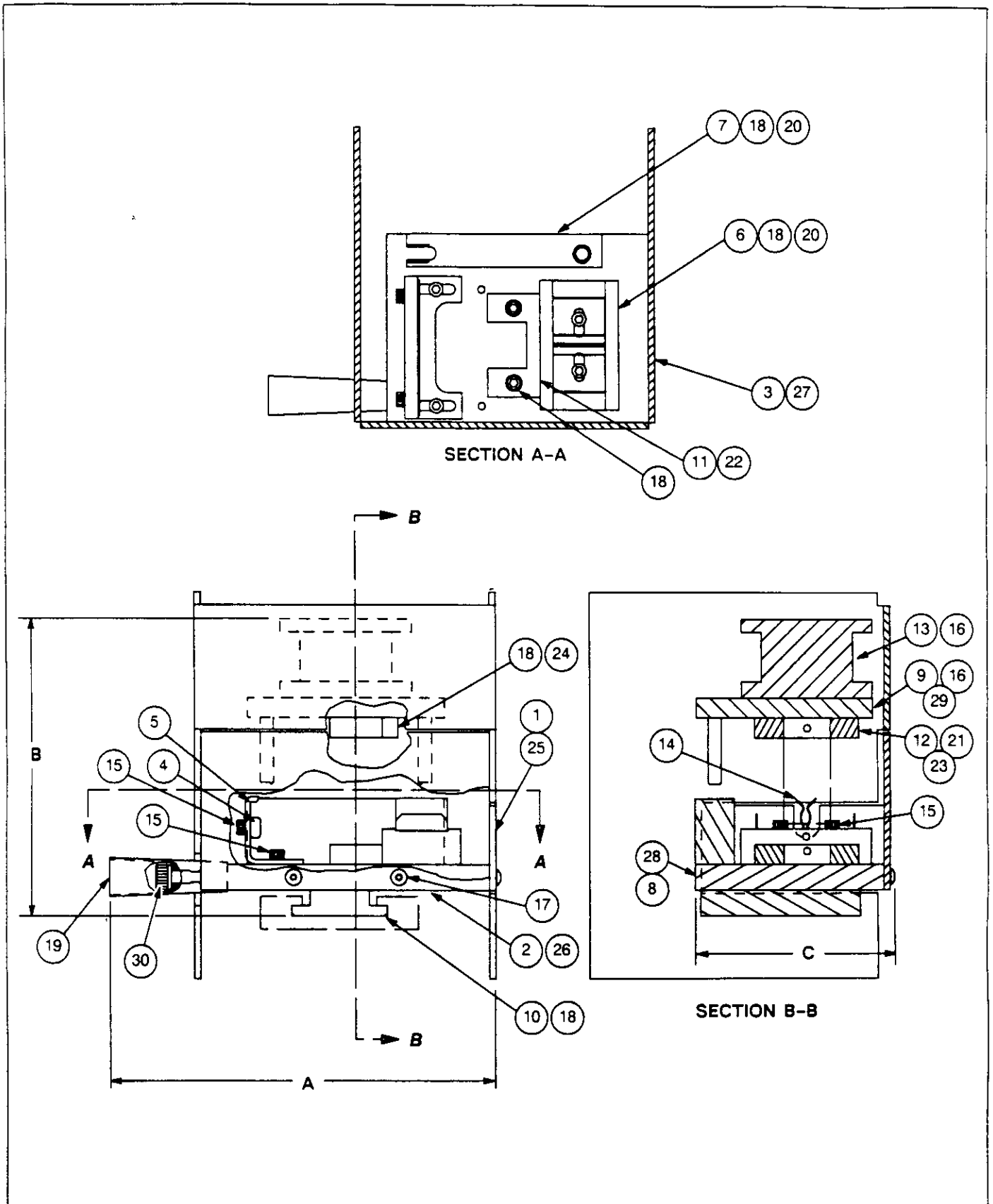


Fig. 5 (continued)

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CUSTOMER-REPLACEABLE PARTS			QUANTITY		
ITEM	DESCRIPTION	PART NUMBER	58449-1	58449-2	58449-3
1	GUARD, Right	314679-1	1	1	---
2	GUARD, Front	314680-1	1	1	---
3	GUARD, Fixed	314681-1	1	1	---
4	SUPPORT, Lower	314682-1	1	1	1
5	BRACKET, Support	314683-1	1	1	1
6	BLOCK, Clamping	314684-1	1	1	1
7	BLOCK, Guide	314685-1	1	1	1
8	PLATE, Lower	314686-1	1	1	---
9	PLATE, Upper	314687-1	1	1	---
10	SLIDE, Base	543154-1	1	1	1
11	DIE HOLDER	313185-1	1	---	1
12	DIE HOLDER	313185-2	1	---	1
13	RAM ADAPTER	313186-1	1	1	1
14	SPRING, Cable Clamp	543156-1	2	2	2
15	SCREW, SHC, 8-32 x .25	2-21000-5	6	6	6
16	SCREW, SHC, 6-32 x .50	2-21000-0	8	8	8
17	SCREW, BHC, 8-32 x .38	2-21002-1	10	10	10
18	SCREW, SHC, 8-32 x .62	2-21000-8	8	10	10
19	HANDLE, Tapered	27962-1	1	1	1
20	WASHER, Plain, 8	21055-5	4	4	4
21	SCREW, SHC, 8-32 x .50	2-21000-7	2	2	2
22	LOWER DIE HOLDER	314690-1	---	1	1
23	UPPER DIE HOLDER	314689-1	---	1	1
24	LOCATOR	314688-1	---	1	1
25	GUARD, Right	854866-1	---	1	1
26	GUARD, Front	314680-2	---	---	1
27	GUARD, Fixed	314692-1	---	---	1
28	PLATE, Lower	854885-1	---	---	1
29	PLATE, Upper	854884-1	---	---	1
30	SCREW, SHC 1/2-20 x .87	21001-5	1	1	1
31	GAGE, Alignment (Not Shown)	854923-1	---	---	1
32	GAGE, Alignment (Not Shown)	854923-2	---	---	1
		DIMENSIONS	58449-1	58449-2	58449-3
		A	7.50	3.20	6.12
		B	7.50	3.20	6.12
		C	9.00	3.20	6.12

Fig. 5 (end)

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