

1. INTRODUCTION

This instruction sheet provides "Instructions" on product application and a "Maintenance and Inspection Procedure" for:

SOLISTRAND* CRIMPING DIES USED IN CRIMPING HEAD NO. 69099

48506-1 Mod. C	48652-1	48505-1 Mod. C
48508-1	48805-1	48507-1
48509-1	48806-1	48511-1 Mod. B
48510-1	48807-1	

NOTE: Adaptors must be used with these dies and must be ordered separately. Refer to Figure 2.

These dies are used to crimp:

- SOLISTRAND flag terminals on solid or stranded copper wire sizes 8 thru 4/0.

Basic instructions on the use of the dies, die insertion and removal, etc., are provided in Section 2, "Instructions." Section 3 features a terminal "Crimp Inspection" procedure. Section 4 contains a "Maintenance and Inspection Procedure" which will enable you to establish and maintain a *die certification program*.

Dies are coated with preservative to prevent rust and corrosion. Wipe this preservative from dies, particularly from crimping areas.

For further instructions relative to the hydraulic power unit and hydraulic crimping head, refer to the instructions packaged with these tools.

2. INSTRUCTIONS

2.1 DIE AND ADAPTER INSERTION

WARNING: AVOID PERSONAL INJURY. EXERCISE CAUTION TO AVOID ACCIDENTALLY DEPRESSING FOOT PEDALS OR TRIGGER CONTROL WHEN CHANGING DIES.

- Loosen locking screw in top section of crimping head. See Figure 1.
- Insert shank of adapter No. 69760 into top section of crimping head and tighten locking screw. Be sure the flat on shank and the set screw face the operator.
- Loosen set screw in adapter No. 69760.
- Insert shank of stationary die into adapter and tighten set screw.
- Loosen ram set screw and insert shank of moving die through hole in adapter No. 69834 and into ram well. Tighten set screw. See Figure 1. Be sure radius on adapter is "down" and facing rear of head.

2.2 DIE AND ADAPTER REMOVAL

- Loosen set screw in adapter No. 69760 and remove stationary die.
- Loosen locking screw in top section of crimping head and remove adapter.
- Loosen set screw in ram and remove moving die and adapter No. 69834.

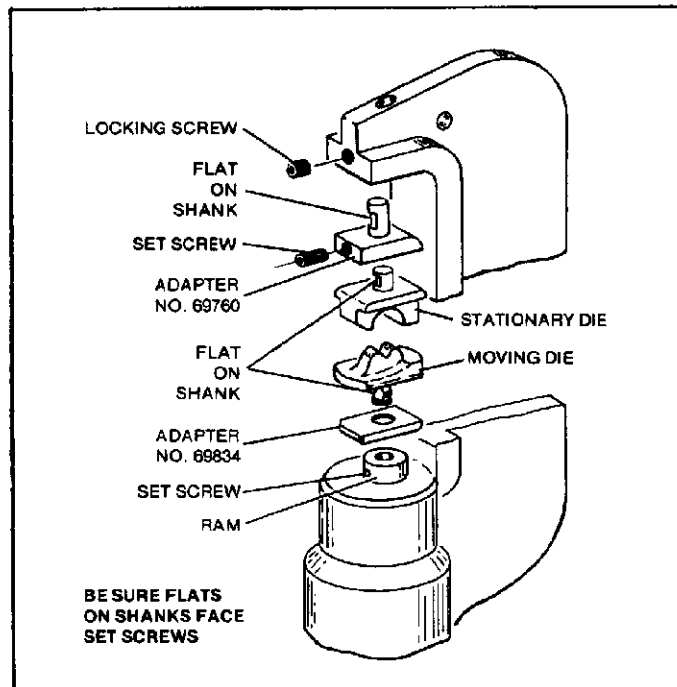


Figure 1

2.3 WIRE STRIPPING AND CRIMPING PROCEDURES

Wire Stripping Procedure

Strip wire to dimension indicated in Figure 1. **NOTE: Do not nick or cut conductor strands.**

Crimping Procedure

WARNING: AVOID PERSONAL INJURY. WHEN OPERATING POWER UNIT, EXERCISE CAUTION WHILE HOLDING TERMINALS OR WIRE NEAR CRIMPING AREA.

WIRE SIZE	CMA RANGE	DIES AND ADAPTERS		WIRE STRIP LENGTH	
		STA. DIES (Use Adapter 69760†)	MOVING DIES (Use Adapter 69834†)	MIN.	MAX.
8	13,100-	48506-1	48505-1	3/8"	7/16"
	20,800	Mod. C	Mod. C		
6	20,800-	48508-1	48507-1	1/2"	9/16"
	33,100				
4	33,100-	48509-1	48511-1 Mod. B	35/64"	39/64"
	52,600				
2	52,600-	48510-1	48511-1 Mod. B	43/64"	47/64"
	83,700				
1/0	83,700-	48652-1	48511-1 Mod. B	7/8"	15/16"
	119,500				
2/0	119,500-	48805-1	48511-1 Mod. B	15/16"	1"
	150,500				
3/0	150,500-	48806-1	48511-1 Mod. B	1-1/16"	1-1/8"
	190,000				
4/0	190,000-	48807-1	48511-1 Mod. B	1-1/8"	1-3/16"
	231,000				

† Order adapter by this number.

Figure 2

All illustrations and information contained in this instruction sheet are based on the latest product information available at the time of publication.

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Be sure wire size stamped on terminal corresponds with the wire size stamped on the crimping die.

- (a) Center flag terminal wire barrel in stationary die and hold tongue of terminal against flat of die as shown in Figure 3.
- (b) Activate power unit so that moving die advances and holds terminal in place. Do not deform terminal wire barrel.

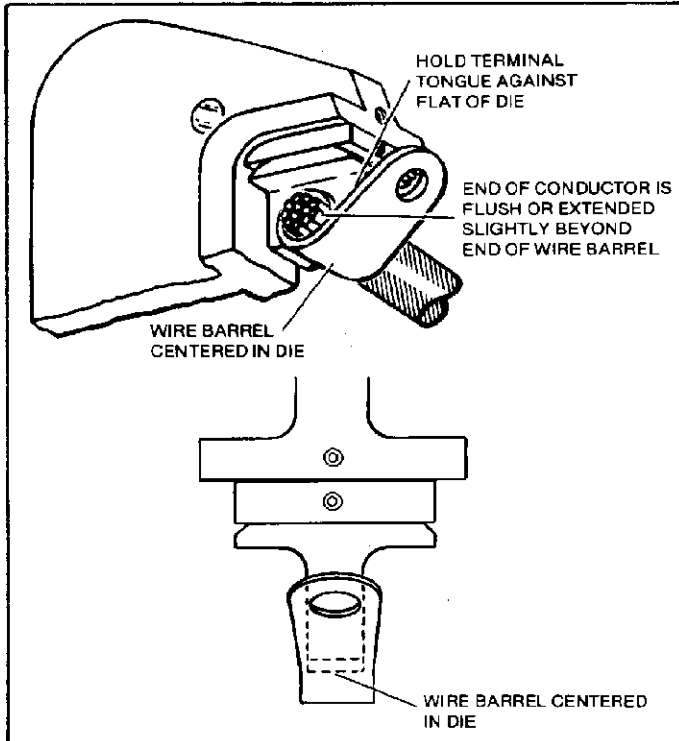


Figure 3

- (c) Insert stripped wire all the way into terminal wire barrel until end of conductor is flush with or extended slightly beyond end of wire barrel. See Figure 3.
- (d) Activate power unit to complete crimp.
- (e) Refer to Section 3 and Figure 4 for crimp inspection.

3. CRIMP INSPECTION

Inspect crimped terminals by checking the features described in Figure 4.

Use only the terminals that meet the conditions shown in the "ACCEPT" column.

"REJECT" terminals can be avoided through careful use of instructions in Section 2, and by performing regular die maintenance as instructed in Section 4.

4. MAINTENANCE/INSPECTION PROCEDURE

AMP recommends that a maintenance/inspection program be performed periodically to ensure dependable and uniform terminations. Dies should be inspected at least once a month. Frequency of inspection may be adjusted to suit your requirements through experience. Frequency of inspection is dependent upon:

1. The care, amount of use, and handling of the dies.
2. The type and size of the products crimped.
3. The degree of operator skill.
4. The presence of abnormal amounts of dust and dirt.
5. Your own established standards.

Since there is a possibility of die damage in shipment, new dies should be inspected in accordance with the following instructions when received in your plant.

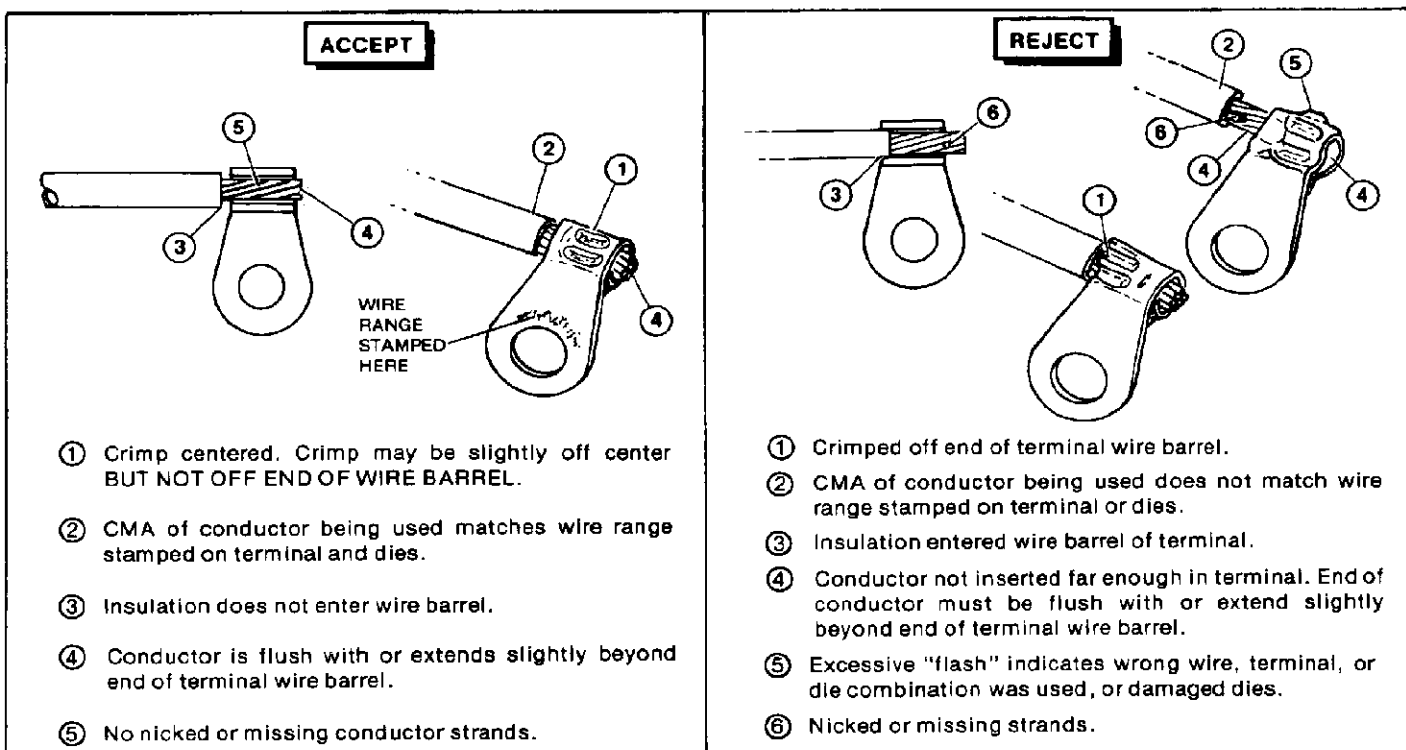


Figure 4

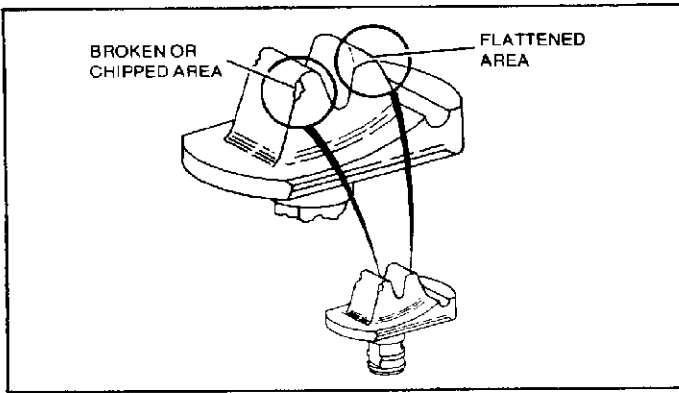


Figure 5

4.1 CLEANING

Do not allow deposits of dirt, grease and foreign matter to accumulate in the die closure surfaces and on the bottoming surfaces of the dies. These deposits may prevent the dies from bottoming fully and may also cause excessive wear in the die closure surfaces, thereby affecting the quality of the crimp. The dies should be wiped clean frequently with a clean cloth.

4.2 VISUAL INSPECTION

Visually inspect the die closure surfaces for broken, pitted, or chipped areas. Although dies may gage within permissible limits, worn or damaged die closure surfaces are objectionable and can affect the quality of the crimp. Examples of possible damaged die closure surfaces are shown in Figure 5.

4.3 DIE CLOSURE INSPECTION

Every die set is inspected for proper die closure before packaging. An inspection should be performed periodically to check the die closure for excessive wear. The die closure inspection is accomplished using the GO NO-GO plug gages. AMP neither manufactures nor sells plug gages. A suggested plug gage design and the GO NO-GO dimensions of the plug gage members are listed in Figure 6. The following procedure is recommended for inspecting the die closure.

- (a) Clean oil or dirt from die closure surfaces and plug gage members.
- (b) Assemble stationary and moving dies so that dies are bottomed, but not under pressure. See Figure 7.
- (c) With dies bottomed, inspect the die closure using the proper plug gage. Hold gage in straight alignment with the die closure and carefully try to insert, without forcing the GO member as shown in Figure 7. The GO member must pass completely through the die closure as shown in Figure 7.
- (d) Try to insert the NO-GO member. The NO-GO member may enter partially, but must not pass completely through the die closure. See Figure 7.
- (e) If the dies meet the GO NO-GO gage conditions, the dies may be considered dimensionally correct. If you find that the dies do not conform with the GO NO-GO gage conditions, contact your local AMP field representative.

4.4 REPLACEMENT PARTS

Refer to Figure 8 for moving and stationary die numbers. Replacement dies can be purchased from AMP Incorporated, Harrisburg, Pa. 17105, or a wholly owned subsidiary of AMP Incorporated.

SUGGESTED PLUG GAGE DESIGN					
DIE NO.	DIE CLOSURE DIMENSION "A"†		GAGE MEMBER†† DIMENSIONS "B"		RADIUS "R"
	GO	NO GO	GO	NO GO	
48506-1 MOD. C 48505-1 MOD. C	.1000	.1060	.1000-.1003 .1033	.1059-.1060	.137
48508-1 48507-1	.1380	.1460	.1380-.1383 .1460	.1459-.1460	.156
48509-1 48507-1	.1630	.1710	.1630-.1633 .1710	.1709-.1710	.187
48510-1 48507-1	.1950	.2030	.1950-.1953 .2030	.2029-.2030	.234
48652-1 48511-1 MOD. B	.2430	.2510	.2430-.2433 .2510	.2509-.2510	.300
48805-1 48511-1 MOD. B	.2740	.2820	.2740-.2743 .2820	.2819-.2820	.340
48806-1 48511-1 MOD. B	.3080	.3160	.3080-.3083 .3160	.3159-.3160	.380
48807-1 48511-1 MOD. B	.3460	.3540	.3460-.3463 .3540	.3539-.3540	.426

†Die closure dimensions apply when dies are bottomed but not under pressure.

††Material — Tool Steel

Figure 6

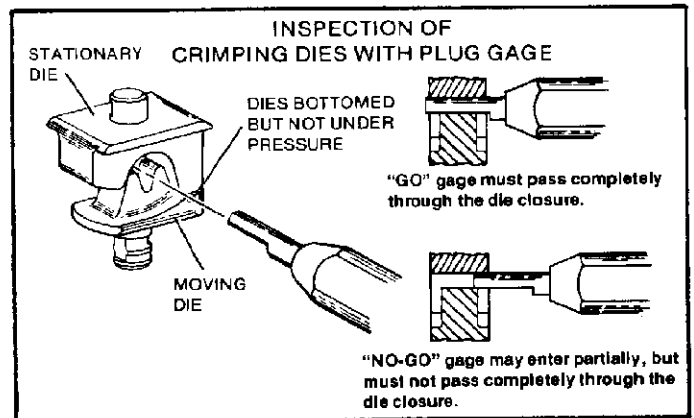


Figure 7

ITEM	DESCR.	DIE NUMBERS							
1	STA. DIE	48506-1 MOD. C	48508-1	48509-1	48510-1	48652-1	48805-1	48806-1	48807-1
2	MOVING DIE	48505-1 MOD. C	48507-1			48511-1 MOD. B			

Figure 8