

INCH-POUND

MS21931B  
20 July 2007  
SUPERSEDING  
MS21931A (ASG)  
20 November 1957

DETAIL SPECIFICATION SHEET  
FITTING INSTALLATION, CLUSTER

This specification is approved for use by all Department and Agencies of the Department of Defense.

INACTIVE FOR NEW DESIGN AFTER 20 JULY 2007

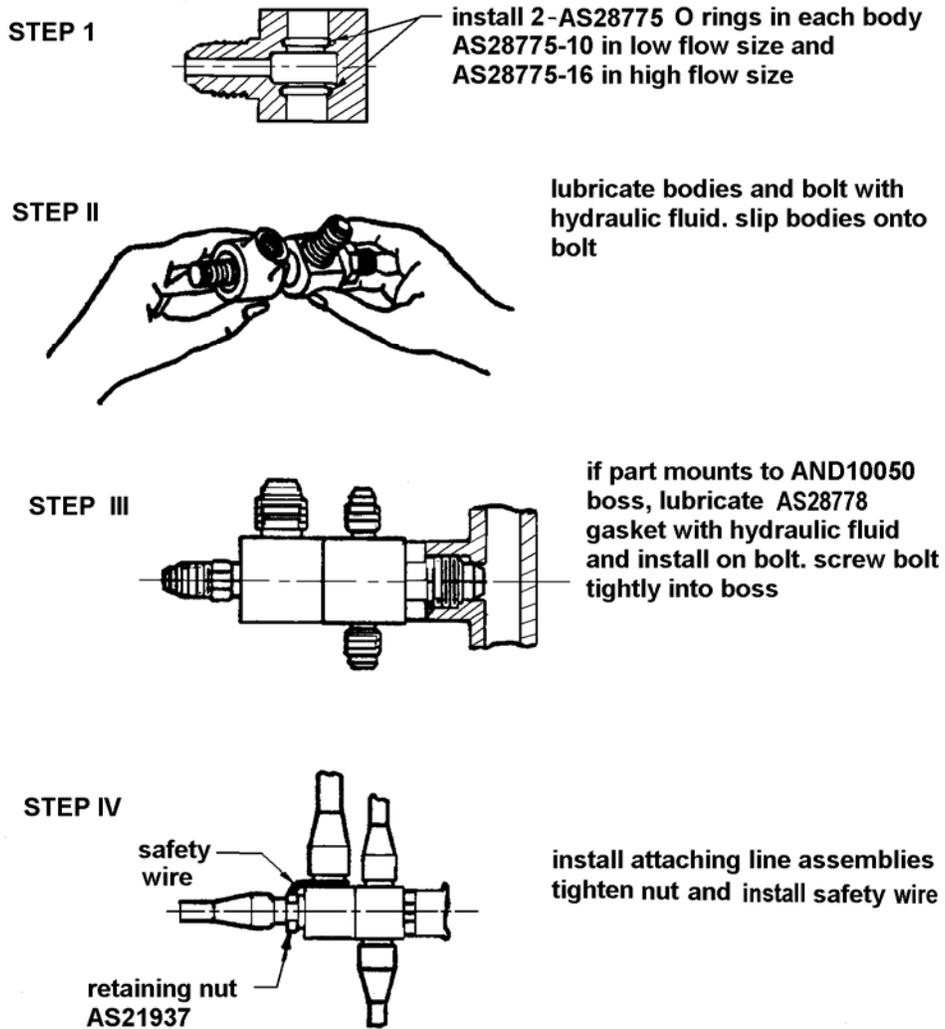


FIGURE 1. Assembly and installation sequence.

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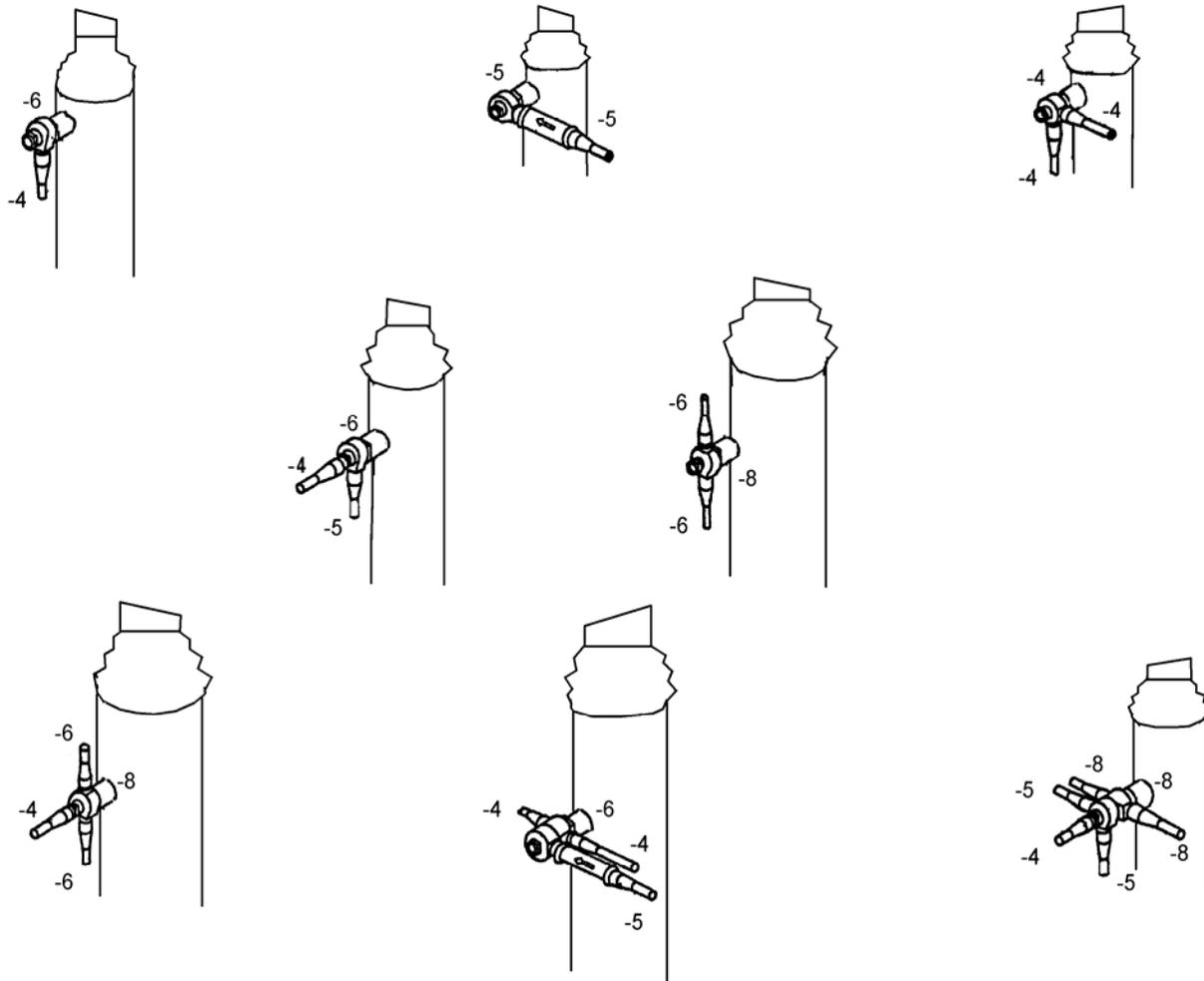


FIGURE 2. Typical installations of cluster fittings.

(A few typical installations of cluster fittings - various equipment porting applications)

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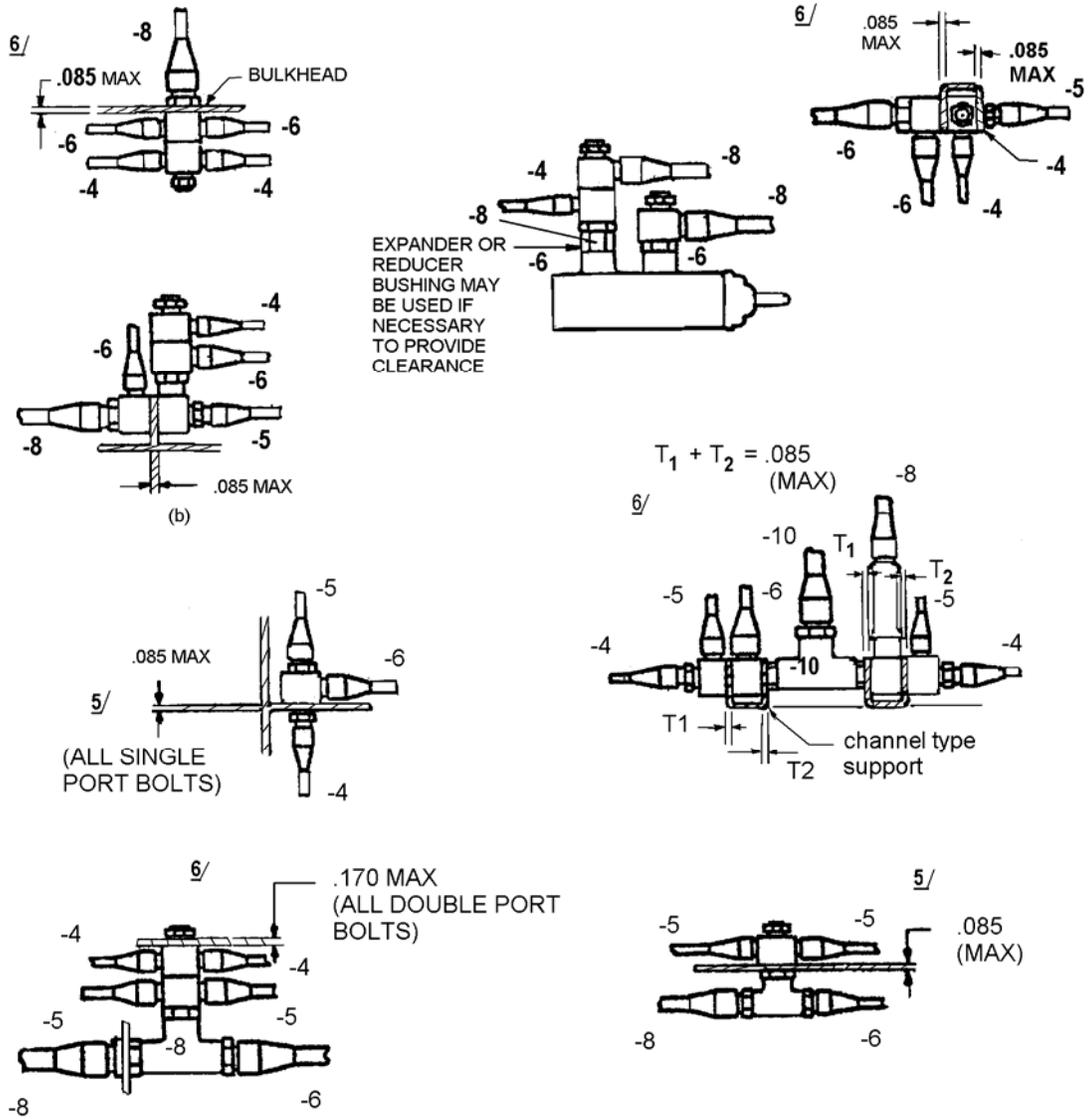


FIGURE 3. Typical installations of cluster fittings (Continued)

(Porting applications with various support and fitting combinations)

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### Notes:

1. Bolts with standard SAE-AS33514 fitting ends are AS21938, AS21939, AS21940 and AS21941.
2. Bodies with standard SAE-AS33514 fitting ends are AS21942, AS21943, AS21944 and AS21945.
3. Bolts with standard AND10050 fitting ends are MS21946, MS21958, MS21959 and MS21960.
4. Bodies with standard SAE-AS4395 fitting ends are MS21953, MS21954, and MS21955.
- 5/. Supports may be installed on single port bolts to a total maximum thickness of 0.085 inch.
- 6/. Supports may be installed on double port bolts to a total maximum thickness of 0.170 inch provided that 0.085 inch is installed in between the bodies and between bolt hex and body.
7. Tube size dash numbers are included to indicate expansion and reduction possibilities.
8. This specification sheet takes precedence over referenced documents specified herein.
9. This is a design standard, not to be used as part number.

Intended use: This specification sheet is intended for use in type II aircraft hydraulic power systems, operating pressure 3000 PSI as specified in SAE-AS18280.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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CONCLUDING MATERIAL

Custodians:

Army-AV  
Navy-AS  
Air Force-99

Preparing activity:

Navy-AS

(Project 4730-2007-066)

Review activities:

Army-AT  
Navy- MC, SA, SH  
Air Force-71  
DLA-CC

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://www.assist.daps.dla.mil>.