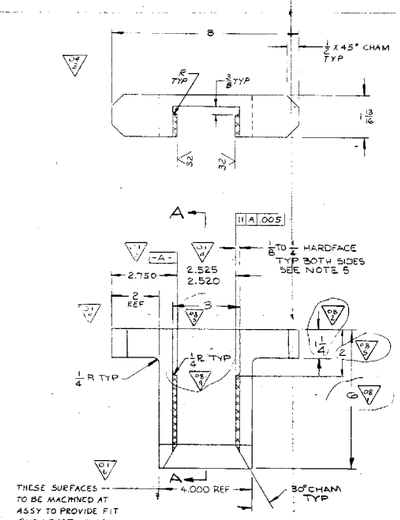
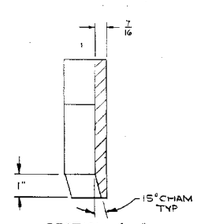
BILL OF MATERIALS

QUANTITIES ARE FOR

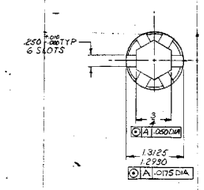
GROUP NO. & QUANTITY 6	5	4	3	2	1	ITEM NO.	NAME	PIECE NO.	MATERIAL	REMARKS
						1	ALIGNMENT LUG	E-23866-164-004-1	SEE NOTE 6	
						2	SNUBBER SPACER BLOCK	E-23866-164-004-2	SEE NOTE 6	
						3				
						4				
						5	PIN	E-23866-164-004-5	SEE NOTE 6	
						6	SHIM	E-23866-164-004-6	SEE NOTE 6	
						7	SOC. HD CAP SCREW	E-23866-164-004-7	AMS 5735	
						8	SOC. HD CAP SCREW	E-23866-164-004-8	AMS 5735	

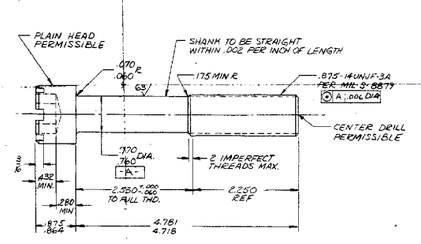


1 ALIGNMENT LUG
SCALE: HALF

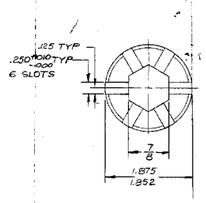


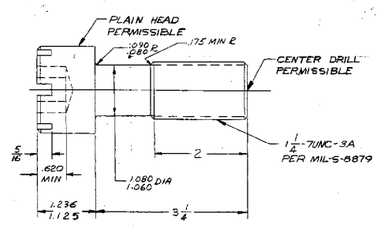
SECTION A-A



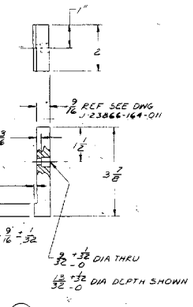


7 SOCKET HEAD CAP SCREW
SCALE: FULL SIZE
SEE NOTES 7 TO 11

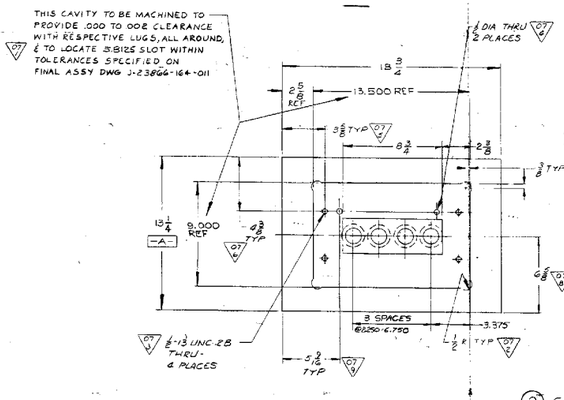


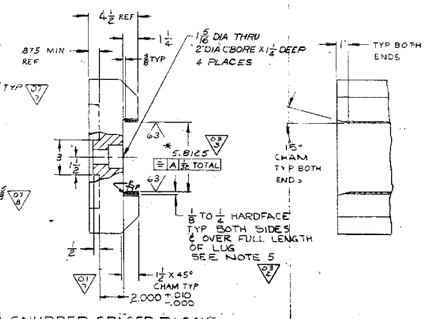


8 SOCKET HEAD CAP SCREW
SCALE: FULL SIZE
SEE NOTES 7 TO 11

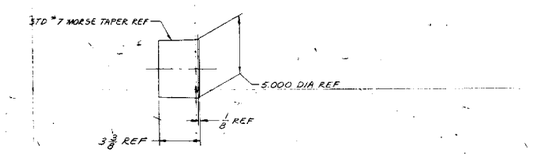


6 SHIM
SCALE: HALF





2 SNUBBER SPACER BLOCK
SCALE: QUARTER



5 PIN
SEE DWG J-23866-164-011
SCALE: QUARTER

11. SOCKET HEAD TO BE STD 1960 SERIES HD
10. TENSILE PROPERTIES (ROOM TEMP)
    A. 130,000 PSI MIN TENSILE
    B. 85,000 PSI MIN YIELD @ .2% OFFSET
    C. ELONGATION 15% IN 4D
9. MFG. PROCEDURES PER SPS-B-186 OR EQUIV. AS APPLICABLE.
8. HEAD TO SHANK FILLET TO BE COLD WORKED
7. THREADS TO BE ROLLED AFTER HEAT TREATING.
6. MATL:
    ITEM 5 ASTM A 276-65, SPT-2
    ITEM 6 ASTM A 240-63, SPT-2
    ITEM 1 ASTM A 240-63, SPT-2
    ITEM 2 ASTM A 240-63, SPT-12
5. SURFACE TO BE HARDFACED WITH HAYNES STELLITE #25 ALLOY PER CENPD SPEC 23866-164-3 AFTER HARDFACING THE COMPONENT SHALL BE HEAT TREATED AT 1950°F IN AN INERT ATMOSPHERE FOR TWO HOURS AND FAST AIR COOLED AT 50°F PER MIN OR FASTER.
3. DIMENSIONING AND TOLERANCING PER USASI Y14.5 1966.
2. * INDICATES AS BUILT DIMENSIONS ARE TO BE RECORDED PER CENPD SPEC 23866-16-40-1.
1. PRODUCT TO BE IN ACCORDANCE WITH CENPD SPEC. 23866-16-40-1.

E-23866-164-004 OE

EA-FC-00-XXX DF 12/01

CERTIFIED FOR CONSTRUCTION

ALL ITEMS DEPICTED ON THIS DRAWING ARE WITHIN LICENSE RENEWAL SCOPE.

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD	PROJ. APPD
07	1) ITEM NO. 1 WAS 4/4 (2) WAS 3/4 3) ADDED 3" DIM (4) ADDED IN R. 5) ADDED 2" DIM. PER REV REQ 23866-318	R.W. 2-28-68	2-5	2-5	2-5
	6) REVISED ITEM 2 7) ADDED ITEM 8 PER REV REQ 23866-353	8/7/68	8-7-68	8-7-68	8-7-68

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD	PROJ. APPD
06	1) ZONE D-8 WAS 6.000 SLOT PER REV REQ. 23866-296	RJA 6-6-67	RJA 6-6-67		
	2) ITEM 2 WAS 1/4-20 TYP. 3) ITEM 2: ADDED 1/4-13UNC-2B, 4 PLACES; 4) ITEM 2: ADDED 1" DIA THRU; 5) ITEM 2: ADDED 3 3/8 TYP; 6) ITEM 2 ADDED 4 3/8 TYP; 7) ITEM 2: ADDED 4 3/8 TYP; 8) ITEM 2: ADDED 6 5/8 DIM; 9) ITEM 2: ADDED 2 5/8 DIM. 10) ITEM NO. 7 ADDED, (11) NOTES 7 TO 11 ADDED. PER REV REQ. 23866-310	DW. 7/16/68	RJA 7-16-68		

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD
05 CONT.	3) ITEM 1, REMOVED 23/32 DIA HOLES & THEIR POSITIONAL DIMS PER REV. REQUEST 23866-106	JM 5/14/68	RJA 5/14/68	
	4) REMOVED ITEM 4, 5) REMOVED FROM NOTE 6 ITEM 4, ASTM 290 63, SAE-2, PER REV. REQ. 23866-129.	SCR. 9-17-68	RJA 9-17-68	
05	PER REV REQ. 23866-187	RJA 10-16-68	RJA 10-16-68	

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD
04	6) ITEM 2 REVISED LOCATION & DEPTH OF 1"-8 UNC-2B TAPPED HOLES, AS PER REV. REQ. 23866-76	L.J. 4-22-68	RJA 4-22-68	
	7) DELETED NOTE 4 8) ZONE B-5 SEE NOTE 5 WAS SEE NOTE 4 PER REV REQ 23866-83 9) ZONE C-5 WAS 8.000 PER REV REQ 23866-84	MAS 5-8-68	5-8-68	5-8-68
	10) GENERALLY REVISED ITEM 4 2) ITEM 4 NAME WAS ALIGN. REV PER REV. REQUEST 23866-162	JM 6-6-68		

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD
03	1) CHANGED NOTE 6, ITEM 1 & 2 WERE ASTM A276-65 2) DELETED WORD "MACHINING" FROM TOL BLOCK. ITEM 1: 3) WAS 2 3/4, 4) WAS 2 EQ. SPC 5) REVISED LOCAT. & TOLERANCES. 6) ADDED "ANG. LOCATION AFTER HEAT TREAT", ITEM 2: 7) WAS 2" MIN. AS PER REV REQ 23866-72	L.J. 11-20-67		5-14-68
	8) DELETED ITEM 3 & ADDED ITEM 14, DELETED NOTE 7 "SEE REV REQ 23866-74"	MAS 4-2-68	4-2-68	
	9) ADDED ITEMS 5 & 6 PER REV REQ 23866-75	MAS 4-25-68	4-25-68	

REV.	DESCRIPTION	BY & DATE	CHK & DATE	ENG. APPD
02	1) ZONE D-8 WAS 6.000 SLOT PER REV REQ. 23866-296	RJA 6-6-67	RJA 6-6-67	
01	1) ZONE D-8 WAS 6.000 SLOT PER REV REQ. 23866-296	RJA 6-6-67	RJA 6-6-67	
00	ORIGINAL ISSUE			

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN UNIT NO. 1

TOLERANCES UNLESS OTHERWISE SPECIFIED

DIMENSIONS	UNDER 6	6 TO 18	OVER 18
DECIMAL DIMS	± .005	± .010	± .010
FRACTIONAL DIMS	± 1/64	± 1/32	± 1/16
FINISH (√) AA-125 MICRO IN		ANGLES ± 1/2°	
THREADS-UNIFIED (4-2A-2B)		CHAMFER ± 5°	
BREAK CORNERS 1/64 MAX	RAD. FOR CHAMFER		
FILLETS-1/64 TO 1/32 RADIUS			
DIMENSION IN INCHES BASED ON 68°F (20°C)			

DO NOT SCALE DWG. — CALC. WT.:
SCALE: 1/4 = 1'-0" — ACT. WT.:

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NEXT ASSY:
FINAL ASSY:
SUPERSEDES:
SUPERSEDED:

PREPARED UNDER ARC CONTRACT — CEND CONTRACT 23866

DRAWN BY:		11-29-66
CHECKED:		2-5-67
APPROVED:		2-5-67
		2-7-67
		2-7-67
		2-7-67

REACTOR INTERNALS
MISCELLANEOUS
DETAILS

E-23866-164-004 — 05

SHEET — OF — REV.

0015151

FOR INFORMATION ONLY

NOTE: THIS PRINT IS TO BE USED FOR THE FCS LICENSE RENEWAL PROJECT ONLY. IT MAY NOT REFLECT THE MOST CURRENT REVISION OF THIS DRAWING.