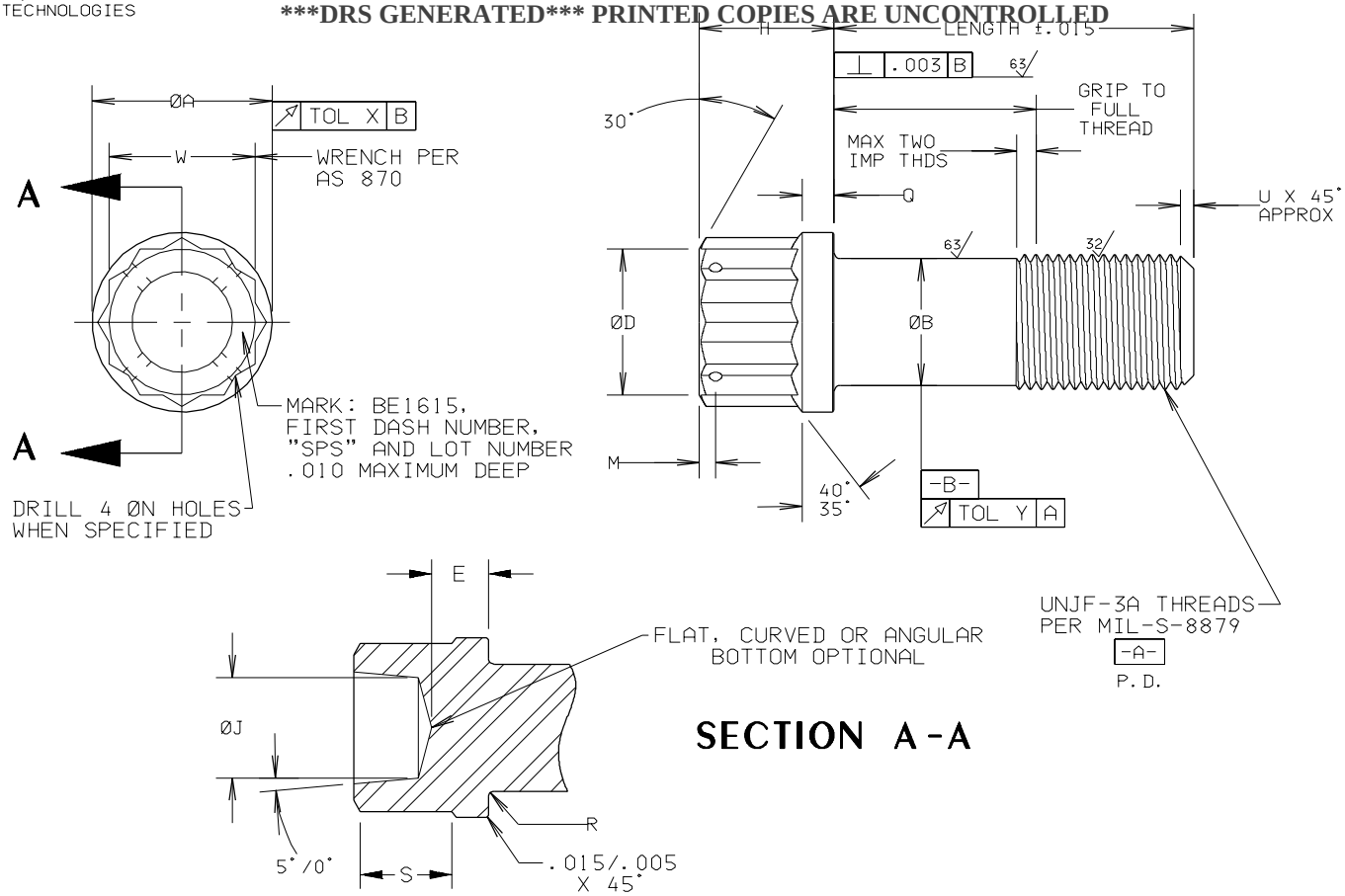
DRS GENERATED PRINTED COPIES ARE UNCONTROLLED



SECTION A-A

BASIC PART NUMBER	THREADS UNJF-3A	ØA	ØB ±.005	ØD	E	H	J	M	N	Q MAX	Q MIN	R MAX	R MIN	S MIN	U REF	W NOM	X	Y
BE1615-3	.1900-32	.375	.169	.250	.130	.260	.100	.090	.047	.050	.040	.025	.015	.110	.04	.2500	.011	.006
BE1615-4	.2500-28	.438	.226	.312	.168	.330	.150	.090	.070	.070	.060	.025	.015	.156	.04	.3125	.013	.006
BE1615-5	.3125-24	.500	.284	.375	.176	.375	.206	.090	.070	.080	.070	.025	.015	.189	.05	.3750	.015	.006
BE1615-6	.3750-24	.562	.346	.438	.184	.422	.260	.090	.070	.100	.090	.025	.015	.215	.05	.4375	.017	.006
BE1615-7	.4375-20	.688	.403	.500	.212	.490	.310	.090	.070	.120	.110	.030	.015	.232	.06	.5000	.019	.006
BE1615-8	.5000-20	.750	.466	.562	.250	.530	.370	.090	.070	.135	.125	.030	.015	.255	.06	.5625	.023	.006
BE1615-9	.5625-18	.812	.525	.625	.290	.590	.370	.090	.070	.150	.130	.030	.015	.298	.07	.6250	.026	.006
BE1615-10	.6250-18	.875	.587	.687	.335	.650	.500	.090	.070	.160	.140	.040	.025	.349	.07	.6857	.028	.008
BE1615-12	.7500-16	1.000	.708	.812	.390	.750	.560	.090	.070	.188	.168	.040	.025	.367	.08	.8125	.029	.008

1. MATERIAL: WASPALOY CHEMISTRY OF AMS 5708.
2. HEAT TREATMENT: 150 KSI MINIMUM ULTIMATE TENSILE STRENGTH.
3. FINISH: PLAIN.
4. FLUORESCENT PENETRANT INSPECT 100% PER ASTM E 1417. ACCEPTANCE CRITERIA PER SPS-I-650.
5. MANUFACTURING REQUIREMENTS: THREADS SHALL BE ROLLED PRIOR TO PRECIPITATION HEAT TREAT. HEAD TO SHANK FILLET AREA TO BE COLD WORKED PRIOR TO PRECIPITATION HEAT TREAT.
6. PART NUMBER: BE1615 - 6 H - 30 = .3750-24 X 2.875 ENGINE BOLT, CROSS DRILLED HEAD
   - 30 — SEE TABLE FOR GRIP LENGTH AND TOTAL LENGTH
   - H — "H" DESIGNATES CROSS DRILLED HEAD; NO LETTER DESIGNATES UNDRILLED HEAD
   - 6 — FIRST DASH NUMBER DESIGNATES DIAMETER IN SIXTEENTHS
   - BE1615 — BASIC PART NUMBER
7. COUNTERSINKING OF DRILLED HOLES AT MANUFACTURER'S OPTION.
8. CHAMFER "U" PLUS INCOMPLETE THREADS NOT TO EXCEED TWO PITCHES.
9. REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION REQUIREMENT.
10. DIMENSIONS ARE IN INCHES.
11. UNLESS OTHERWISE SPECIFIED BREAK SHARP EDGES .003-.015.

INFORMATION ON THIS DOCUMENT IS A TRADE SECRET.PROPRIETARY. AND SHALL NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN AUTHORIZATION OF SPS TECHNOLOGIES.

TOLERANCES ±.010 AND ±2°
SURFACE ROUGHNESS 125√
UNLESS OTHERWISE NOTED
DRAWN: STEVE FOSTER DATE: 5/14/90
APPROVED: S. HUTCHINSON DATE: 5/3/97
APPROVED: L. KLINE

SPS TECHNOLOGIES

FSCM NO. 56878
CUSTODIAN: JENKINTOWN, PA.

STANDARDS AND SPECIFICATIONS
SPS-B-640
APPENDIX 25.2.1

TITLE
BOLT, ENGINE, EXTERNAL WRENCHING
150 KSI MINIMUM TENSILE STRENGTH
WASPALOY, APPLICATIONS TO 1600°F

PART NUMBER: BE1615

SHEET 1 OF 2 PROJECT 4701

DASH NUMBER	GRIP +.000 -.060	LENGTH ±.015								
		-3	-4	-5	-6	-7	-8	-9	-10	-12
		.190	.250	.312	.375	.437	.500	.562	.625	.750
014	.000									.875
012	.000								.750	1.000
010	.000						.625	.750	.875	1.125
080	.000				.500	.625	.750	.875	1.000	1.250
06	.000		.375	.500	.625	.750	.875	1.000	1.125	1.375
04	.000	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.500
02	.000	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.625
00	.000	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.750
2	.125	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.875
4	.250	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	2.000
6	.375	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.125
8	.500	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.250
10	.625	1.250	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.375
12	.750	1.375	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.500
14	.875	1.500	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.625
16	1.000	1.625	1.750	1.875	2.000	2.125	2.250	2.375	2.500	2.750
18	1.125	1.750	1.875	2.000	2.125	2.250	2.375	2.500	2.625	2.875
20	1.250	1.875	2.000	2.125	2.250	2.375	2.500	2.625	2.750	3.000
22	1.375	2.000	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.125
24	1.500	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.250
26	1.625	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125	3.375
28	1.750	2.375	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.500
30	1.875	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375	3.625
32	2.000	2.625	2.750	2.875	3.000	3.125	3.250	3.375	3.500	3.750
34	2.125	2.750	2.875	3.000	3.125	3.250	3.375	3.500	3.625	3.875
36	2.250	2.875	3.000	3.125	3.250	3.375	3.500	3.625	3.750	4.000
38	2.375	3.000	3.125	3.250	3.375	3.500	3.625	3.750	3.875	4.125
40	2.500		3.250	3.375	3.500	3.625	3.750	3.875	4.000	4.250
42	2.625		3.375	3.500	3.625	3.750	3.875	4.000	4.125	4.375
44	2.750		3.500	3.625	3.750	3.875	4.000	4.125	4.250	4.500
46	2.875		3.625	3.750	3.875	4.000	4.125	4.250	4.375	4.625
48	3.000		3.750	3.875	4.000	4.125	4.250	4.375	4.500	4.750
50	3.125		3.875	4.000	4.125	4.250	4.375	4.500	4.625	4.875
52	3.250		4.000	4.125	4.250	4.375	4.500	4.625	4.750	5.000
54	3.375		4.125	4.250	4.375	4.500	4.625	4.750	4.875	5.125
56	3.500		4.250	4.375	4.500	4.625	4.750	4.875	5.000	5.250
58	3.625		4.375	4.500	4.625	4.750	4.875	5.000	5.125	5.375
60	3.750		4.500	4.625	4.750	4.875	5.000	5.125	5.250	5.500
62	3.875		4.625	4.750	4.875	5.000	5.125	5.250	5.375	5.625
64	4.000		4.750	4.875	5.000	5.125	5.250	5.375	5.500	5.750
66	4.125		4.875	5.000	5.125	5.250	5.375	5.500	5.625	5.875
68	4.250		5.000	5.125	5.250	5.375	5.500	5.625	5.750	6.000
70	4.375		5.125	5.250	5.375	5.500	5.625	5.750	5.875	
72	4.500		5.250	5.375	5.500	5.625	5.750	5.875	6.000	
74	4.625		5.375	5.500	5.625	5.750	5.875	6.000		
76	4.750		5.500	5.625	5.750	5.875	6.000			
78	4.875		5.625	5.750	5.875	6.000				
80	5.000		5.750	5.875	6.000					
82	5.125		5.875	6.000						
84	5.250		6.000							