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**REV.  
A**

**AS51997**

FEDERAL SUPPLY CLASS  
5365

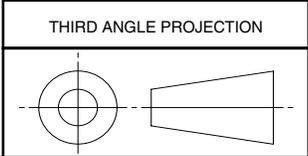
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CUSTODIAN: SAE E-25

ISSUED 2001-07 REVISED 2005-04



**AEROSPACE STANDARD**

RING, LOCK, SERRATED-HIGH STRENGTH

**AS51997**  
SHEET 1 OF 3

**REV.  
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**DETAIL S ENLARGED**  
No specific angularity exists between internal and external serrations. The serrated sectors will be diametrically opposite.

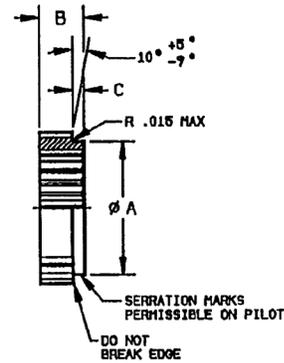
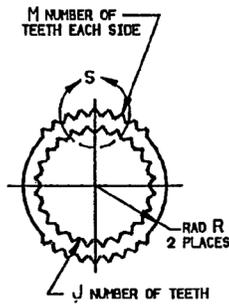


TABLE I. DIMENSIONS

DASH NUMBERS	ØA +.008 -.007	B +.010 -.005	C	ØE +.004 -.003	ØF	ØG +.005 -.004	ØH +.003 -.006	J	K° +1° -2°	M	N°	R RAD REF
102P	.305	.100	.044	.213	.252	.353	.310	13	102°	4	100°	154
103P	.368	.110	.044	.266	.315	.416	.373	17	86°	5	98°	186
104P	.430	.138	.044	.323	.364	.478	.435	20	102°	6	97°	217
105P	.493	.157	.040	.390	.425	.541	.498	24	102°	7	96°	248
106P	.606	.157	.040	.468	.505	.657	.611	26	102°	7	96°	304
107P	.731	.161	.040	.574	.613	.782	.736	26	111°	8	95°	366
108P	.856	.213	.040	.695	.740	.907	.861	30	111°	9	94°	429
109P	.981	.213	.040	.794	.845	1.034	.986	30	111°	10	96°	492

## REQUIREMENTS:

- MATERIAL:** STEEL, ALLOY, GRADE 4130 (UNS G41300) CONFORMING TO AMS 6370 OR GRADE 4140 (UNS G41400) CONFORMING TO AMS 6382 OR GRADE 8740 (UNS G87400) PER AMS 6322.  
STEEL, CORROSION-RESISTANT, TYPE A286 (UNS S66286) PER AMS 5731, AMS 5732, AMS 5734, OR AMS 5737, HEAT TREATED AND AGED AS APPLICABLE.
- PROTECTIVE COATING OR TREATMENT:** STEEL, CARBON, SHALL BE CADMIUM PLATED CONFORMING TO QQ-P-416, TYPE II, CLASS 3.  
STEEL, CORROSION-RESISTANT, SHALL BE CLEANED, DESCALED AND PASSIVATED IN ACCORDANCE WITH QQ-P-35.
- SURFACE ROUGHNESS:** MACHINED SURFACES TO BE 125 MICRONS RA IN ACCORDANCE WITH ANSI/ASME B46.1, EXCEPT SERRATIONS.
- HARDNESS:** CARBON STEEL RINGS SHALL BE CASE HARDENED TO 36-45 HRC IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.  
CORROSION-RESISTANT STEEL RINGS SHALL HAVE A HARDNESS OF 269 HB MINIMUM IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
- FILLETS:** FILLETS SHALL BE R .015 MAXIMUM.
- EDGES:** UNLESS OTHERWISE SPECIFIED, EDGES BROKEN .033-.015 EXCEPT SERRATIONS.
- TOLERANCES:** LINEAR DIMENSIONS  $\pm .055$ , ANGULAR DIMENSIONS  $\pm 2^\circ$ .