

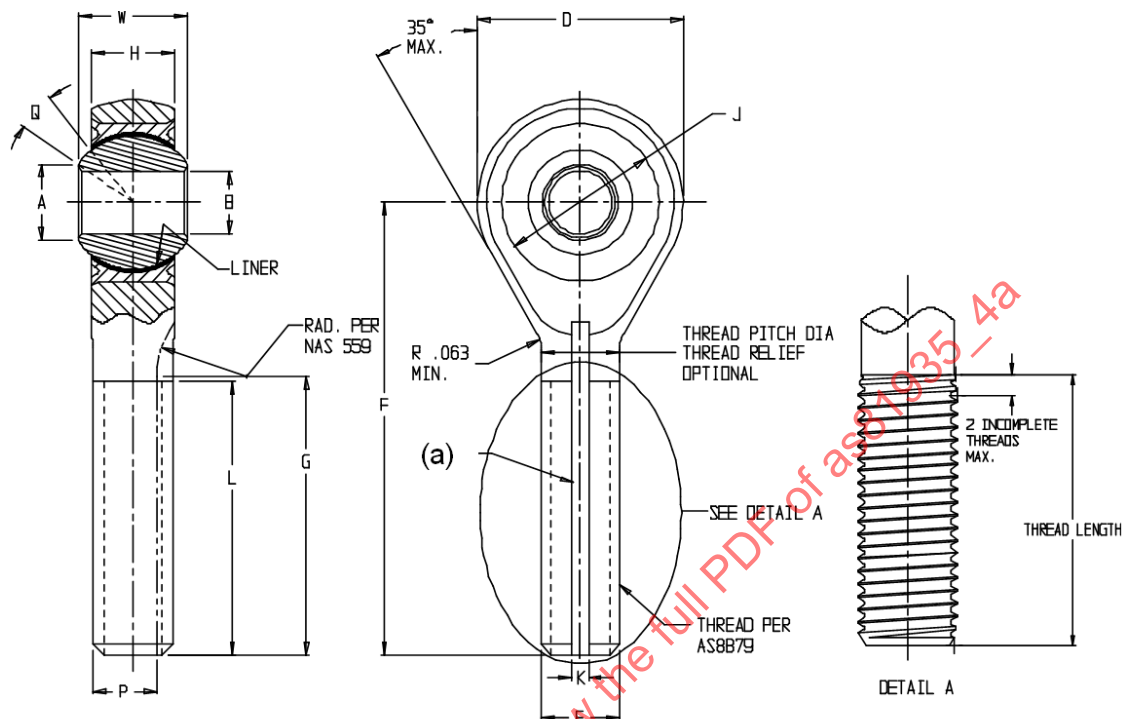
REV.
A

SAE AS81935/4

FEDERAL SUPPLY CLASS
3120

RATIONALE

AS81935/4 IS BEING REVISED TO FOR GENERAL FORMATTING, ADDED PH13-8MO BALL OPTION AND TYPE "A" LINER OPTION TO PART NUMBER SUFFIX. MOST SIGNIFICANT CHANGE WAS TO ADD A -03A SIZE THAT FEATURES DIMENSIONAL CONTROLS ON KEYWAY LENGTH PREVENTING THE KEYWAY FROM BREAKING INTO THE BODY HEAD I.D. CHAMFER.



- (a) KEYWAY SHALL BE ORIENTED ALONG THE CENTERLINE OF THE THREADED SHANK. THE PLANE OF THE BOTTOM OF THE KEYWAY SHALL BE PARALLEL TO THE PLANE MADE BY THE FACE OF THE ROD END HOOP.

FIGURE 1 – ROD END ASSEMBLY

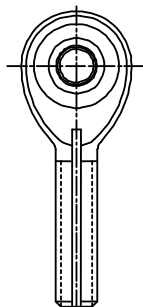
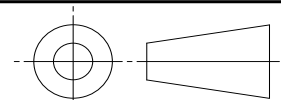


FIGURE 2 – OPTIONAL ELLIPTICAL HEAD DESIGN

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS81935/4>

THIRD ANGLE PROJECTION



CUSTODIAN: ACBG – PLAIN BEARING

PROCUREMENT SPECIFICATION: AS81935

SAE Aerospace
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AEROSPACE STANDARD

(R) BEARING, PLAIN, ROD END, SELF-ALIGNING, SELF-LUBRICATING, NARROW, EXTERNALLY THREADED, -65 TO +325 °F

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TABLE 1 - DIMENSIONS

DASH NUMBER	B	D	L	E	F	W	H
	BORE +.0000 -.0005	SPH. DIA. ± .010	THREAD LENGTH ±.031	THREAD SIZE UNJF-3A (c)	CTRLINE BALL TO END ±.010	BALL WIDTH +.000 -.002	BODY WIDTH ± .005
-03	.1900	.680	.775	.2500-28	1.315	.281	.228
-03A	.1900	.680	.775	.2500-28	1.315	.281	.228
-04	.2500	.827	.775	.2500-28	1.443	.343	.260
-05	.3125	.984	1.187	.3125-24	1.948	.375	.291
-06	.3750	1.131	1.187	.3750-24	2.030	.406	.322
-07	.4375	1.294	1.281	.4375-20	2.250	.437	.353
-08	.5000	1.459	1.468	.5000-20	2.544	.500	.400
-10	.6250	1.763	1.562	.6250-18	2.832	.625	.510
-12	.7500	2.140	1.687	.7500-16	3.193	.750	.603
-14	.8750	2.372	2.000	.8750-14	3.677	.875	.713
-16	1.0000	2.681	2.100	1.0000-12	3.968	1.000	.807

DASH NUMBER	A	J	Q°	G	K		P
	MIN	MAX HOUSING I.D.	MIN	KEYWAY FLAT	KEYWAY (b)		
					+.005 -.000	+.000 -.005	
-03	.293	.5625	10	.896/.876	.062	.207	
-03A	.293	.5625	10	.896/.836	.062	.207	
-04	.364	.6562	10	.896/.876	.062	.207	
-05	.419	.7500	10	1.308/1.288	.062	.268	
-06	.475	.8125	9	1.308/1.288	.093	.319	
-07	.530	.9062	8	1.402/1.382	.093	.383	
-08	.600	1.0000	8	1.589/1.569	.093	.445	
-10	.739	1.1875	8	1.683/1.663	.125	.541	
-12	.920	1.4375	8	1.808/1.788	.125	.663	
-14	.980	1.5625	8	2.121/2.101	.156	.777	
-16	1.118	1.7500	9	2.221/2.201	.156	.900	

- (b) KEYWAY, WHEN SPECIFIED, IS COMPATIBLE WITH LOCKING DEVICES: AS81935/3 FOR SIZES -03 THROUGH -08, AND NAS 513 FOR SIZES -10 THROUGH -16. KEYWAY TOLERANCES NOT SPECIFIED SHALL BE IN ACCORDANCE WITH AS81935/3 OR NAS 513 AS APPLICABLE.
- (c) THREADS SHALL BE FORMED BY A SINGLE ROLLING OPERATION AFTER FINAL HEAT TREAT AS SPECIFIED IN THE THREAD SECTION OF AS81935.
- (d) THE -03A IS ONLY AVAILABLE AS A KEYWAY OPTION, IDENTIFIED AS M81935/4-03AK. M81935/4-03A IS NOT A VALID P/N.

TABLE 2 - LOAD VALUES

DASH NUMBER	(e) ULTIMATE STATIC LOAD (LBS)	(f) FATIGUE LOAD (LBS)	AXIAL PROOF LOAD (LBS)	WEIGHT REF. (LBS)	NO LOAD ROTATIONAL BREAKAWAY TORQUE (IN-LBS)	
					MIN	MAX
-03 & -03A	3000	1100	150	.045	.5	6
-04	5300	1500	430	.060	.5	6
-05	8600	2400	700	.100	1	15
-06	13 000	3600	1100	.135	1	15
-07	17 800	5000	1400	.200	1	15
-08	24 200	6800	2040	.285	1	15
-10	38 500	10 800	2430	.505	1	15
-12	56 600	16 000	2940	.830	1	15
-14	77 400	21 900	3190	1.235	1	24
-16	101 400	28 600	3570	1.725	1	24

- (e) ULTIMATE LOADS ARE ANALYTICAL VALUES BASED ON ROD END BANJO FOR -03 AND THREADS FOR ALL OTHER SIZES.
- (f) FATIGUE LOADS ARE ANALYTICAL VALUES BASED ON 50 000 CYCLE LIFE. FATIGUE LOADS ARE DEFINED PER PROCUREMENT DOCUMENT AS81935.

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