



HEAD MARKING SHALL BE DEPRESSED (.010 MAX) AND ARRANGED AS FOLLOWS:

FIRST SECTOR - MARK WITH BASIC PART NUMBER ("PSC" OPTIONAL) EXCEPT MARK .1120-40 SIZE WITH "4", .1380-32 SIZE WITH "6", .1640-32 SIZE WITH "8", AND OPTIONAL .1900-32 SIZE WITH "10". THESE SIZES ALSO TO BE MARKED "V" FOR TITANIUM.

SECOND SECTOR - MARK WITH MANUFACTURER'S SYMBOL OR TRADEMARK (SYMBOL LOCATION OPTIONAL IN ANY SECTOR) LENGTH DASH NUMBER AND "L" OR "P" WHEN APPLICABLE. (SEE NOTE 11)
 "L" IDENTIFIES SCREWS WITH OPTIONAL LOCKING ELEMENT.
 "P" IDENTIFIES SCREWS WITH PATCH TYPE LOCKING ELEMENT ONLY.

THIRD SECTOR - MARK WITH RECESS DASH NUMBER, ENCIRCLED. RECESS NUMBER SHOULD BE APPROXIMATELY 25% LARGER THAN OTHER NUMERALS IN HEAD MARKING.

TABLE I DIMENSIONS

Ø DASH NUMBER	THREAD SIZE	NOTE 3 MAX. ØA	NOTE 3 ABSOLUTE MIN. ØA'	NOTE 3 MAX. B	MAX. ØD	MAX. E	NOTE 8 F	H GAGE (4) PROTRUSION		NOTE 9 J	RADIUS R	MAX. U	+.0002 - .0000 ØW GAGE	RECESS SIZE
								NOM.	TOL.					
−04	.1120−40	.226	.193	.044	.112	.010	.125	.0202	±.0010	.075	.012 .002	.031	.1740	1
−06	.1380−32	.280	.246	.061	.138	.010	.156	.0232	±.0011	.094		.020 .010	.039	.2208
−08	.1640−32	.331	.296	.072	.164	.012		.0186	±.0012		.3270			
−3	.1900−32	.381	.338	.082	.190	.015		.0210	±.0013					
−4	.2500−28	.508	.456	.111	.250	.018	.178	.0299	±.0015	.107	.025 .010 .030 .015	.045	.4318	3
−5	.3125−24	.635	.575	.138	.312	.021	.208	.0354	±.0017	.125		.052	.5449	4
−6	.3750−24	.763	.692	.166	.375	.025		.0414	±.0019				.6580	

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TITLE: **SCREW, 100° HEAD, FULL THREAD
ACR® RIBBED PHILLIPS® RECESS
6AL-4V TITANIUM ALLOY**

DRAWN:
S. GUARINO

DATE:
09-14-79

DRAWING NUMBER

PSC-739

CHECKED:
G. LaMONICA

DATE:
08-05-04

SHEET 1 OF 3

PHILLIPS SCREW CO., 508 EDGEWATER DRIVE, WAKEFIELD, MA 01880 U.S.A.
PHONE: 781-224-9750 FAX: 781-224-9753

PHILLIPS II® PHILLIPS® POZIDRIV® ACR® POZISQUARE® PHILLIPS SQUARE-DRIV® TORQ-SET® TRI-WING® MORTORQ®
ARE REGISTERED TRADEMARKS OF THE PHILLIPS SCREW COMPANY

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TABLE II

	DASH NUMBER FOR PREFERRED LENGTH																						
DASH NO.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32	34 TO 96
LENGTH	.19	.25	.31	.38	.44	.50	.56	.62	.69	.75	.81	.88	.94	1.00	1.12	1.25	1.38	1.50	1.62	1.75	1.88	2.00	2.12 TO 6.00
LENGTH TOL.	+.00 -.03														+.00 -.06							+.00 -.09	

MATERIAL: 6AL-4V TITANIUM ALLOY PER AMS 4928 OR AMS 4967.
LOCKING ELEMENT- PLASTIC PER MIL-F-18240 AND QPL-18240.

HEAT TREAT: 160 AND 180 KSI ULTIMATE TENSILE.

FINISH: UNPLATED SCREWS - NONE

PLATED SCREWS - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2, EXCEPT A NICKEL STRIKE MAY BE USED PRIOR TO CADMIUM PLATING. EMBRITTLEMENT TEST PER QQ-P-416 DOES NOT APPLY. CADMIUM PLATED 6AL-4V TITANIUM ALLOY SCREWS SHALL BE IDENTIFIED WITH RED DYE OR PAINT ON THE THREAD END. MAXIMUM COVERAGE MAY INCLUDE THE CHAMFER PLUS ONE COMPLETE THREAD.

COATED SCREWS - ALUMINUM COATING PER NAS4006.

CODE: BASIC PART NUMBER = NON-LOCKING, PLATED SCREW. SEE TABLE I AND II.
FIRST DASH NUMBER INDICATES DIAMETER. SEE TABLE I.
SECOND DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS (ROUNDED TO TWO DECIMAL PLACES). SEE TABLE II FOR TABULATIONS OF LENGTH DIMENSIONS. USE OF .25 INCH INCREMENTS IS RECOMMENDED FOR SCREWS OVER 3 INCHES LONG. INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBER ONLY.
ADD "A" AFTER DIAMETER DASH NUMBER FOR ALUMINUM COATED SCREWS. MAY BE USED WITH "L" OR "P" CODE.
ADD "L" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, OPTIONAL CONFIGURATION. DO NOT USE WITH "P" CODE.
ADD "U" AFTER DIAMETER DASH NUMBER FOR UNPLATED SCREWS. MAY BE USED WITH "L" OR "P" CODE.
ADD "P" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, PATCH TYPE LOCKING ELEMENT. DO NOT USE WITH "L" CODE.
WHEN MULTIPLE LETTER CODES ARE USED, SEQUENCE MUST BE IN ALPHABETICAL ORDER.

EXAMPLE OF PART NUMBER:

PSC739-3-10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, PLATED.
PSC739-3A10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, ALUMINUM COATED.
PSC739-3L10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, PLATED.
PSC739-3LU10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, UNPLATED.
PSC739-3PU10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, PATCH TYPE, UNPLATED.

NOTES:

- (1) DIAMETER OF UNTHREADED PORTION OF SCREW SHALL NOT BE LESS THAN MINIMUM PITCH DIAMETER NOR MORE THAN MAXIMUM MAJOR DIAMETER OF THREAD.
- (2) DASH 3 LENGTH IS NOT PRACTICAL FOR SIZE .1900-32 AND LARGER. DASH 4 IS NOT PRACTICAL FOR SIZE .2500-28 AND LARGER. DASH 5 LENGTH IS NOT PRACTICAL FOR SIZES .3125-24 AND .3750-24.
- (3) DIMENSIONS A, A', AND B ARE INCLUDED FOR ENGINEERING REFERENCE ONLY AND ARE NOT TO BE USED FOR INSPECTION. VALUES A, A', AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON W, H, E, AND HEAD ANGLE.
- (4) DIMENSIONS FOR H GAGE PROTRUSION SHALL BE INSPECTED PER NAS527.
- (5) SCREWS LESS THAN 2 DIAMETERS IN LENGTH - COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF BEARING SURFACE OF HEAD AND INCOMPLETE THREADS MAY EXTEND UP TO BEARING SURFACE.
SCREWS 2 DIAMETERS THRU 2 INCHES IN LENGTH - COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF TANGENCY OF "R" AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
SCREWS LONGER THAN 2 INCHES - COMPLETE THREADS SHALL EXTEND A MINIMUM OF 1.75 INCHES FROM END OF SCREW AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
INCOMPLETE THREADS - SEE NAS4004.
- (6) CONCENTRICITY: CONICAL SURFACE OF HEAD TO THREAD PITCH DIAMETER WITHIN .005 FIM.

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NOTES (CONTINUED):

- (7) PROTRUSION OF LOCKING ELEMENTS SHALL BE CONTROLLED SO THAT IT WILL PASS FREELY OR WITH FINGER PRESSURE THROUGH A RING GAGE WITH DIAMETER OF .010 (+.001, -.000) GREATER THAN MAXIMUM MAJOR DIAMETER OF SCREW THREAD.
- (8) "F" MINIMUM (5 THREAD PITCHES) = REGION OF MINIMUM ENGAGEMENT WITH FEMALE THREAD REQUIRED TO MEET MIL-F-18240 REQUIREMENTS. LOCKING ELEMENT WITHIN "F" REGION MUST DEVELOP REQUIRED TORQUE WHEN TESTED PER MIL-F-18240.
- (9) FOR EASE OF STARTING, LOCKING ELEMENT SHALL NOT BE EFFECTIVE IN "J" AREA (3 THREAD PITCHES).
- (10) MINIMUM TORQUE VALUES (LBF-IN) WHICH RECESS MUST DEVELOP IN REMOVAL DIRECTION WITH APPROPRIATE DRIVERS PER NAS8500 THROUGH 8506 AND 5 POUND MAXIMUM END LOAD. CAMOUT OF THE DRIVER OR EXCESSIVE DEFORMATION OF THE RECESS SHALL BE CAUSE FOR REJECTION OF THE LOT.
- (11) "A", ALUMINUM COATED, "H", DRILLED HEAD, AND "U", UNPLATED CODES NEED NOT APPEAR ON THE HEAD OF THE SCREW.
- (12) DIMENSIONS TO BE MET AFTER PLATING.
- (13) DIMENSIONS ARE IN INCHES.

SURFACE TEXTURE:

(AA MAX PER ANSI B46.1) BEARING SURFACE OF THE HEAD, THREAD FLANKS AND THREAD ROOT 32;
OTHER SURFACES 125.

PROCUREMENT SPECIFICATION:

NAS4004, EXCEPT AS NOTED. COLD WORK OF HEAD TO SHANK FILLET IS NOT REQUIRED. LOCKING ELEMENT FOR SELF-LOCKING SCREWS: PER MS15981 AND MIL-F-18240. ANY TYPE OF CONFIGURATION IS OPTIONAL WHEN "L" CODE IS SPECIFIED. PATCH TYPE LOCKING ELEMENT (WITH NO METAL REMOVED) IS REQUIRED WHEN "P" CODE IS SPECIFIED. LOCKING ELEMENT MUST BE SUPPLIED BY A QUALIFIED SOURCE LISTED IN QPL18240. SHIPPING NOTICE SHOULD IDENTIFY THE SUPPLIER OF SCREW AND LOCKING ELEMENT SEPARATELY. RECESS TORQUE VALUES SHALL NOT APPLY.

REVISION
1/ CAD DWG.
08-05-04

PREPARED FOR ROLLS-ROYCE TO REPLACE NAS5800-5806.

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