



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".
- SECOND SECTOR – MARK WITH MANUFACTURER'S SYMBOL OR TRADEMARK (SYMBOL LOCATION OPTIONAL IN ANY SECTOR), LENGTH DASH NUMBER AND "L" OR "P" WHEN APPLICABLE.
 "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		.0210			±.0013
−3	.1900−32	.381	.338	.082	.190	.015		.0210	±.0013				.045	.3270
−4	.2500−28	.508	.456	.111	.250	.018	.178	.0299	±.0015	.107	.025 .010 .030 .015	.052	.4318	4
−5	.3125−24	.635	.575	.138	.312	.021	.208	.0354	±.0017	.125			.5449	
−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, ALLOY
STEEL, SELF-LOCKING AND NONLOCKING**

DRAWN: S. GUARINO	DATE: 09-18-79	DRAWING NUMBER PSC-737
CHECKED: G. LaMONICA	DATE: 04-26-04	SHEET 1 OF 3
PHILLIPS SCREW CO., 508 EDGEWATER DRIVE, WAKEFIELD, MA 01880 U.S.A. PHONE: 781-224-9750 FAX: 781-224-9753		

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: ALLOY STEEL 4340 PER MIL-S-5000 OR 8740 PER MIL-S-6049 OR AMS6322.
LOCKING ELEMENT- PLASTIC PER MIL-F-18240 AND QPL-18240.

HEAT TREAT: 160 KSI TO 180 KSI ULTIMATE TENSILE.

FINISH: CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2. EMBRITTLEMENT REQUIREMENTS PER NAS4002.
CODE "B" - CADMIUM PLATE PER QQ-P-416 TYPE II, CALSS 2 WITH DULL BLACK CHROMATE TREATMENT.

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 "B" AFTER DIAMETER DASH NUMBER FOR BLACK COLORED 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 "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:

PSC737-3-10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, PLATED.
PSC737-3B10 = SCREW, .1900-32 THREAD, .62 LENGTH, NON-LOCKING, PLATED PLUS BLACK COLOR.
PSC737-3L10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, PLATED.
PSC738-3P10 = SCREW, .1900-32 THREAD, .62 LENGTH, SELF-LOCKING, PATCH TYPE, PLATED.

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 NAS4002.

- (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) DIMENSIONS TO BE MET AFTER PLATING OR COATING.
- (12) DIMENSIONS ARE IN INCHES.

SURFACE TEXTURE:

(AA MAX PER ANSI B46.1) HEAD TO SHANK FILLET; THREAD FLANKS AND THREAD ROOT 32; CONICAL SURFACE OF THE HEAD 63; OTHER SURFACES 125.

PROCUREMENT SPECIFICATION:

NAS4002, 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, INCLUDING PATCH TYPE, 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.

PREPARED FOR ROLLS-ROYCE TO REPLACE NAS5600-5606.

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