

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

- 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 "C" FOR A286.
- 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.
- 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 4 ØA	NOTE 1 ØD	H	ØK	RADIUS R	MAX. U	MAX. W	NOTE 6 X	NOTE 7 Y	RECESS SIZE
-04	.1120-40	.183 .178	.1120 .0939	.069 .059	.042 .034	.020 .010	.031	.157	.125	.075	1
-06	.1380-32	.226 .221	.1380 .1156	.086 .074				.193	.156	.094	2
-08	.1640-32	.270 .265	.1640 .1415	.102 .088				.228			2
-3	.1900-32	.313 .306	.1900 .1674	.118 .103				.263			2
-4	.2500-28	.375 .367	.2500 .2243	.150 .133	.068 .060	.040 .030	.045	.345	.179	.107	3
-5	.3125-24	.438 .429	.3125 .2827	.183 .162				.382	.208	.125	4S
-6	.3750-24	.563 .552	.3750 .3450	.215 .191				.457			4L

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TITLE: **SCREW, FLAT FILLISTER HD, FULL
THREAD, ACR® RIBBED PHILLIPS® RECESS,
A286 CRES, SELF-LOCK & NON-LOCK**

DRAWN: S. GUARINO	DATE: 09-11-79	DRAWING NUMBER PSC-735
CHECKED: G. LaMONICA	DATE: 12-16-05	SHEET 1 OF 4

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3/ DWG. UPDATE
10-10-13
2/ DWG. UPDATE
12-16-05
1/ CAD DWG.
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REVISION

TABLE II - RECESS DIMENSIONS

Ø DASH NUMBER	THREAD SIZE	RECESS SIZE	ØM	T	GAGE PENETRATION		TORQUE IN-LBS MIN(9)	RAISED METAL MAX(9)
					MAX.	MIN.		
-04	.1120-40	1	.117 .104	.078 .062	.071	.055	13	.005
-06	.1380-32	2	.164 .151	.096 .073	.085	.062	25	.005
-08	.1640-32	2	.174 .161	.106 .083	.095	.072	35	.005
-3	.1900-32	2	.189 .176	.121 .098	.110	.087	50	.005
-4	.2500-28	3	.268 .255	.156 .133	.139	.116	125	.005
-5	.3125-24	4S	.334 .321	.186 .164	.166	.144	230	.005
-6	.3750-24	4L	.364 .251	.216 .194	.196	.174	300	.006

TABLE III

	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: A286 CRES PER AMS 5731 OR AMS 5737.
LOCKING ELEMENT- PLASTIC PER MIL-F-18240 AND QPL-18240.

HEAT TREAT: 160 AND 180 KSI ULTIMATE TENSILE.

FINISH: UNPLATED SCREWS - PASSIVATE TO MEET REQUIREMENTS OF NAS4003.
PLATED SCREWS - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2. EMBRITTLEMENT TEST PER QQ-P-416 DOES NOT APPLY. CADMIUM PLATED A286 CRES SCREWS SHALL BE IDENTIFIED WITH GREEN DYE OR PAINT ON THE THREAD END. MAXIMUM COVERAGE MAY INCLUDE THE CHAMFER PLUS ONE COMPLETE THREAD.
COATED SCREWS - ALUMINUM COATING PER NAS4006.

CODE: FIRST DASH NUMBER INDICATES DIAMETER.
SECOND DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS. SEE TABLE III FOR TABULATIONS OF LENGTH DIMENSIONS. INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBERS ONLY. BASIC PART NUMBER = NON SELF-LOCKING SCREW.
ADD "A" AFTER DIAMETER DASH NUMBER FOR ALUMINUM COATED SCREWS. MAY BE USED WITH "L" OR "P" CODE.
ADD "H" AFTER DIAMETER DASH NUMBER FOR DRILLED HEAD SCREWS.
ADD "L" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, OPTIONAL CONFIGURATION.
ADD "U" AFTER DIAMETER DASH NUMBER FOR UNPLATED SCREWS.
ADD "P" AFTER DIAMETER DASH NUMBER FOR SELF-LOCKING SCREWS, PATCH TYPE.
WHEN MULTIPLE LETTER CODES ARE USED, SEQUENCE MUST BE IN ALPHABETICAL ORDER.

EXAMPLE OF PART NUMBER:

PSC735-3-10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, PLATED.
PSC735-3A10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, ALUMINUM COATED.
PSC735-3H10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, DRILLED HEAD, PLATED.
PSC735-3L10 = SCREW, .1900 THREAD, .625 LENGTH, SELF-LOCKING, OPTIONAL CONFIGURATION, PLATED.
PSC735-3LU10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, OPTIONAL CONFIGURATION, UNPLATED.
PSC735-3PU10 = SCREW, .1900 THREAD, .625 LENGTH, NON-LOCKING, PATCH TYPE, UNPLATED.

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CHECKED: G. LaMONICA	DATE: 12-16-05	

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NOTES:

- (1) DIAMETER OF UNTHREADED PORTION OF SHANK SHALL NOT BE LESS THAN MINIMUM PITCH DIAMETER NOR MORE THAN MAXIMUM MAJOR DIAMETER OF THREAD.
- (2) 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 SCREWS AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
INCOMPLETE THREADS - SEE NAS4003.
- (3) BEARING SURFACE SQUARENESS: WITHIN .003 FIM OF SHANK DIAMETER.
- (4) CONCENTRICITY: OUTSIDE DIAMETER "A" TO THREAD PITCH DIAMETER WITHIN .008 FIM.
- (5) 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.
- (6) "X" MINIMUM (5 THREAD PITCHES) = REGION OF MINIMUM ENGAGEMENT WITH FEMALE THREAD REQUIRED TO MEET MIL-F-18240 REQUIREMENTS. LOCKING ELEMENT WITHIN "X" REGION MUST DEVELOP REQUIRED TORQUE WHEN TESTED PER MIL-F-18240.
- (7) FOR EASE OF STARTING, LOCKING ELEMENT SHALL NOT BE EFFECTIVE IN "Y" AREA (3 THREAD PITCHES) .
- (8) LOCKWIRE HOLES MAY OR MAY NOT BREAK THRU INTO RECESS FOR ALL SIZES DEPENDING UPON LOCATION USED. PENETRATION THRU TOP OR BASE OF HEAD IS NOT PERMITTED. ADEQUATE EDGE DISTANCE MUST BE PROVIDED TO PREVENT BREAKOUT ON THE PERIPHERY OF THE HEAD. RECESS MUST BE FREE OF BURRS OR SLIVERS THAT INTERFERE WITH DRIVER ENGAGEMENT.
- (9) MINIMUM TORQUE VALUES (LBF-IN) WHICH RECESS MUST DEVELOP IN REMOVAL DIRECTION WITH APPROPRIATE DRIVERS PER PSC-1201 THROUGH PSC-1204 AND 5 POUND MAXIMUM END LOAD. PARTS ARE ACCEPTABLE IF RAISED METAL AT EDGE OF RECESS DOES NOT EXCEED TABULATED VALUES.
- (10) "A", ALUMINUM COATED, "H", DRILLED HEAD, AND "U", UNPLATED CODES NEED NOT APPEAR ON THE HEAD OF THE BOLT.
- (11) MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER ASTM A342 OR EQUIVALENT.
- (10) DIMENSIONS TO BE MET AFTER PLATING.
- (11) 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:

NAS4003, 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 OR APPROVED FOR LISTING 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 NAS5400-5406.

REVISION
1/ CAD DWG. 08-06-04
2/ DWG. UPDATE 12-16-05
3/ DWG. UPDATE 10-10-13

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CHECKED: G. LaMONICA	DATE: 12-16-05	

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ROLLS-ROYCE APPROVED SOURCES OF ACR[®] PHILLIPS[®] PSC-735 BOLTS

(ADDITIONAL SOURCES FOR OTHER END USERS AVAILABLE FROM PHILLIPS SCREW COMPANY UPON REQUEST)

APPROVED SOURCES OF SUPPLY	ADDRESS	IDENTITY CODE
A F FASTENERS, LTD	UNIT 14-15 GLOSSOP BROOK BUSINESS PARK GLOSSOP DERBYSHIRE SK13 7AJ ENGLAND	J
AHG ATELIERS DE LA HAUTE-GARONNE	26 ROUTE DE LASBORDES BP73103 31131 FLOURENS CEDEX FRANCE	4b
PILGRIM SCREW CORPORATION	120 SPRAGUE STREET PROVIDENCE, RI 02907	P
SPS TECHNOLOGIES, LTD T. J. BROOKS DIV.	191 BARKBY ROAD TROON INDUSTRIAL AREA LEICESTER LE4 9HX ENGLAND	TBJ
BLANC AERO INDUSTRIES	15 RUE LASSON 75012 PARIS FRANCE	P
HEARTLAND PRECISION FASTENERS	301 PRAIRIE VILLAGE DRIVE NEW CENTURY KANSAS 66031	
MAC FASTENERS	1110 ENTERPRISE STREET OTTAWA KANSAS 66067	O1DO
LINREAD AIRCRAFT PRODUCTS DIVISION	P. O. BOX 28 CROSSGATE ROAD PARK FARM REDDITCH WORCESTERSHIRE B98 7TD ENGLAND	L

1/ REVISION
10/10/13
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DRAWN: I. Dougan	DATE: 05-20-13	DRAWING NUMBER PSC-735
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