

Coded note number: **IC168**

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Title: **MODIFICATION TO MIL-S-1222 REV F, IAM 4, FOR TY-II NUTS**

MIL-S-1222 F-IAM#4 MODIFICATIONS FOR TYPE II NUTS:

ADD FOOTNOTE 2/ TO TABLE 1 (CHEMICAL REQUIREMENTS) AS FOLLOWS:

2/: AISI 4140, 4142, OR 4145, IN ACCORDANCE WITH FED-STD-66 (EXCEPT THAT THE LOWER LIMIT OF SILICON SHALL BE 0.15 PERCENT). THIS IS CONSIDERED AN UPGRADE IN MATERIAL AND MAY BE USED IN THE MANUFACTURE OF SYMBOL 4 NUTS AT THE DISCRETION OF THE MANUFACTURER.

REVISE PARAGRAPH 3.4.1 TO READ AS FOLLOWS:

3.4.1 MANUFACTURE - NUTS SHALL BE MADE BY HOT OR COLD FORGING OR BY HOT PUNCHING, THEN HEAT TREATED TO CONFORM TO THE MECHANICAL PROPERTIES SPECIFIED IN TABLE II. NUTS MAY ALSO BE MACHINED FROM BAR STOCK THAT MEETS THE CHEMICAL AND MECHANICAL REQUIREMENTS SPECIFIED FOR TYPE II, SYMBOL 4 MATERIALS.

PARAGRAPH 3.4.2 DELETE "EXCESSIVE LAPS, SEAMS" AND SUBSTITUTE: "LAPS, AND EXCESSIVE SEAMS".

TABLE IX OPPOSITE "CATAGORIES 115" DELETE "A MAJOR DEFECT IN MS17980" AND SUBSTITUTE "NOT PERMISSABLE DISCONTINUITIES IN SAEJ122."

TABLE IX OPPOSITE "CATAGORIES 203" DELETE "A MINOR DEFECT IN MS17890" AND SUBSTITUTE "PERMISSABLE DISCONTINUITIES IN SAE J122".

DELETE PARAGRAPH 4.5.6 AND SUBSTITUTE THE FOLLOWING:

4.5.6 MAGNETIC PARTICLE INSPECTION 4.5.6.1 NUTS - EACH NUT SHALL BE SUBJECT TO WET FLUORESCENT MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH MIL-STD-271. THE VARIOUS TYPES OF SURFACE DISCONTINUITIES THAT MAY OCCUR DURING THE MANUFACTURE AND PROCESSING OF NUTS SHALL BE AS DEFINED AND ILLUSTRATED AND HAVE THE ALLOWABLE LIMITS SPECIFIED IN PARAGRAPHS 2 AND 3 OF SAE J122A. NUTS FOUND WITH QUENCH CRACKS SHALL NOT BE OFFERED FOR DELIVERY. NUTS FOUND WITH SEAMS, BURSTS, SHEAR FAILURES, FORGING CRACKS, FOLDS, VOIDS, OR TOOL MARKS WHICH EXCEED THE ALLOWABLE LIMITS AS SPECIFIED FOR THE APPLICABLE TYPE OF DISCONTINUITY UNDER PARAGRAPH 3 OF SAE J122A SHALL NOT BE OFFERED FOR DELIVERY. ALL NUTS SHOWING INDICATIONS THAT COULD BE INTERPRETED AS SEAMS AND ALL NUTS SHOWING STRONG INDICATIONS OF FORGING CRACKS WITH POTENTIALLY SIGNIFICANT DEPTH, SHALL BE SET ASIDE. FROM THIS SET-ASIDE GROUP A RANDOM

SECONDARY SAMPLE SHALL BE PICKED AS FOLLOWS:

GROUP SIZE	SECONDARY SAMPLE SIZE
2 TO 8	2
9 TO 15	3
16 TO 25	5
26 TO 50	8
51 TO 90	13
91 TO 150	20
151 TO 180	32
281 TO 500	50
501 TO 1,200	80
1,201 TO 3,200	125
3,201 TO 10,000	200
10,001 TO 35,000	315

EACH NUT IN THIS SECONDARY SAMPLE FOR SIZES 1-INCH AND SMALLER SHALL BE CONE STRIPPED TESTED USING THE PROCEDURE OUTLINES IN PARAGRAPH 4.5.4. NUTS IN SIZES GREATER THAN 1-INCH WITH INDICATIONS OF SEAMS OR CRACKS WITH POTENTIALLY SIGNIFICANT DEPTH EXTENDING INTO THE CROWN AND/OR WASHER FACE SHALL BE SET ASIDE AND A RANDOM SECONDARY SAMPLE PICKED IN ACCORDANCE WITH THE ABOVE DIRECTIONS. SEAMS AND CRACKS EXTENDING INTO THE CROWN AND/OR WASHER FACE OF NUTS IN SIZES GREATER THAN 1-INCH SHALL NOT EXCEED A DEPTH OF $0.030D$ WHERE D IS THE DIMENSION BETWEEN FLATS OF THE NUT. IF ANY NUT OF THE SAMPLE FAILS TO MEET THE CONE STRIPPING LOAD OR EXCEEDS THE SEAM DEPTH REQUIREMENTS, AS APPLICABLE, THE LOT SHALL BE SUBJECT TO REJECTION.