

# CHANGE CONTROL SHEET

**MEGGITT (NORTH HOLLYWOOD), INC. PROPRIETARY NOTICE** – THIS DOCUMENT AND ITS DESIGN IS PROPRIETARY AND THE PROPERTY OF MEGGITT (NORTH HOLLYWOOD), INC. THIS DOCUMENT AND ITS DESIGN IS PROVIDED TO YOU SUBJECT TO THE CONDITION THAT IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF, DIRECTLY OR INDIRECTLY. IT SHALL NOT BE USED TO FURNISH ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS OR APPARATUS, OR PARTS THEREFORE, EXCEPT WHERE OTHERWISE EXPRESSLY PROVIDED FOR BY CONTRACT WITH MEGGITT (NORTH HOLLYWOOD), INC.

**SENSITIVE BUT UNCLASSIFIED – EXPORT CONTROLLED – EAR RESTRICTED –**  
 “THESE COMMODITIES, TECHNOLOGY OR SOFTWARE ARE GOVERNED BY THE EXPORT ADMINISTRATION REGULATION (15 CFR 730-774), AND ARE CATEGORIZED ECCN EAR99”

**\*THIS LEGEND SHALL BE MARKED ON ANY REPRODUCTION HEREOF IN WHOLE OR IN PART\***

REL CLASS	DISTR CODE	REVISIONS			
PROD	–	CHANGE	DESCRIPTION	DATE (YYYY-MM-DD)	APPROVED
		–	INITIAL RELEASE	2019-03-01	R.B.
		A	SEE DCN	2019-05-31	R.B.
		B	SEE DCN	2019-11-20	R.B.
		C	SEE DCN	2019-12-16	R.B.

MATERIAL		DATE (YYYY-MM-DD)
–	DRAWN J.YORBA	2019-02-14
HEAT TREAT	CHECKED <i>R. Cairns</i>	2019-02-28
	OTHER	
FINISH	PROJ APPVL <i>James Jacobs</i>	2019-02-28
	PROJ SUPER	
–	APPROVAL <i>Adm</i>	2019-02-28
NEXT ASSY	USED ON MFG ENG. <i>BEP Hagg</i>	2019-02-28
FIRST APPLICATION	QA APPVL <i>D O U</i>	Feb 28 2019

# MEGGITT

Meggitt (North Hollywood), Inc.  
 12838 Satcoy Street North Hollywood, California 91605

TITLE:  
**STANDARD SUBSTITUTION SPECIFICATION**

SIZE	CAGE CODE	DWG NO.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	WT.	SHEET
–	–	<b>1 OF 8</b>

## STANDARD SUBSTITUTION SPECIFICATION

### 1. SCOPE

1.1 Scope. This specification authorizes the substitution of process and standard specifications listed herein for all production programs, unless otherwise specified on the drawing or by contract.

1.2 Acceptable Substitutions. Items noted as acceptable substitutions are either superseding specifications or approved alternatives. The original specification identified on the drawing is always the preferred option.

### 2. MATERIAL SUBSTITUTION AUTHORIZATION

**Table 1 – Material Substitution Table**

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
MIL-R-25988	Superseded	Rubber, Fluorosilicone Elastomer, Oil, Fuel	MIL-DTL-25988	
MIL-P-46174	Cancelled	Plastic Molding Material, Polyphylene Sulfide, Glass Fiber Reinforced	ASTM D4067	See ASTM D4067 Appendix for Cross Reference from MIL-P-46174 to ASTM Classification System D4067
MIL-P-997	Cancelled	Plastic Material, Laminated, Thermosetting, Electrical Insulation: Sheets, Glass Cloth, Silicone Resin	MIL-I-24768/17	
MIL-M-14	Cancelled	Mold Compounds, Thermosetting	ASTM D5948	
MIL-S-5059 For CRES 301	Cancelled	Steel, Corrosion Resistant (18-8) Plate, Sheet and Strip	Annealed: AMS 5901 1/4 Hard: AMS 5517 1/2 Hard: AMS 5518 3/4 Hard: AMS 5902 Full Hard: AMS 5519	
MIL-S-5059 For CRES 302	Cancelled	Steel, Corrosion Resistant (18-8) Plate, Sheet and Strip	Annealed: AMS 5516 1/4 Hard: AMS 5903 1/2 Hard: AMS 5904 3/4 Hard: AMS 5905 Full Hard: AMS 5906	
MIL-S-5059 For CRES 304	Cancelled	Steel, Corrosion Resistant (18-8) Plate, Sheet and Strip	Annealed: AMS 5513 1/4 Hard: AMS 5910 1/2 Hard: AMS 5911 3/4 Hard: AMS 5912 Full Hard: AMS 5913	

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	–	REVISION
		<b>C</b>
		SHEET
		<b>2</b>

USE OR DISCLOSURE OF DATA ON THIS PAGE IS  
SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
MIL-S-5059 For CRES 316	Cancelled	Steel, Corrosion Resistant (18-8) Plate, Sheet and Strip	Annealed: AMS 5524 1/4 Hard: AMS 5907	
QQ-A-250	Cancelled	General Specification for Aluminum and Aluminum Alloy Plate and Sheet	AMS-QQ-A-250	Specifications contain "slashes" from /1 to /30, which must be the same
QQ-B-613	Cancelled	Brass, Leaded and Nonleaded: Flat Products (Plate, Bar, Sheet, and Strip)	Comp 1: ASTM B36/B36M, Alloy C26800 Comp 2: ASTM B36/B36M, Alloy C26000	
QQ-B-626	Cancelled	Brass, Leaded and Nonleaded: Rod, Shapes, Forgings, and Flat Products with Finished Edges (Bar and Strip)	Comp 260: ASTM B36/B36M, Alloy C26000 Comp 268: ASTM B36/B36M, Alloy C26800 Comp 360: ASTM B16/B16M, Alloy C36000	
QQ-C-533	Cancelled	Copper-Beryllium Alloy Strip (Copper Alloy 170 and 172)	Alloy 170: ASTM B194, Alloy C17000 Alloy 172: ASTM B194, Alloy C17200	See QQ-C-533B Cancellation Notice for Alloy and Temper Supersession Table

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	REVISION	SHEET
—	<b>C</b>	<b>3</b>

USE OR DISCLOSURE OF DATA ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE OF THIS DOCUMENT

### 3. PROCESS SUBSTITUTION AUTHORIZATION

**Table 2 – Process Substitution Table**

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
AMS-H-6088	Cancelled	Heat Treatment of Aluminum Alloys	Parts: AMS 2770 Conversion of Raw Material Temper: AMS 2770 Castings: AMS 2771 Raw Materials: AMS 2772	
AMS-QQ-P-35 Method 1 or No Method Specified	Cancelled	Passivation of Corrosion Resistant Steels	AMS 2700, Method 1, Type and Class Optional	If Type and Class are specified, they shall be maintained
AMS-QQ-P-35 Method 2	Cancelled	Passivation of Corrosion Resistant Steels	AMS 2700, Method 2	
AMS-STD-2175	Cancelled	Classification and Inspection of Castings	AMS 2175	
EPRO116	Superseded	Electroless Nickel Plating Process of Ferrous Alloys and Copper Alloys	SPS757	
EPRO144	Superseded	Instruction for the Fitting of Wire Thread Inserts	SPS760	
EPRO213	Superseded	Stress Relieving and De-embrittlement of Steels Subjected to Plating	SPS772	
EPRO227	Superseded	Passivation of Stainless Steels	SPS774	
EPRO235	Superseded	Pre Plate Machining, Chromium Plating and Final Grinding of Stainless Steel	SPS775	
EPRO238	Superseded	Degreasing and Ultrasonic Cleaning	SPS776	
EPRO276	Superseded	Hard Anodizing	SPS781	
EPRO295	Superseded	Alocrom 1200 and Alodine 1200 Treatment	SPS784	
EPRO1001	Superseded	Manual Tig Welding of Steel Blanking Plugs	SPS790	
EPRO1003	Superseded	Laser Marking	SPS792	
EPRO1006	Superseded	Retimet Cleanliness	SPS795	

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	–	REVISION
		<b>C</b>
SHEET		<b>4</b>

USE OR DISCLOSURE OF DATA ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE OF THIS DOCUMENT

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
EPRO1025	Superseded	Fusion Welding	SPS805	
EPRO1028	Superseded	Format of Identification Markings	SPS808	
MIL-C-13924	Cancelled	Coating, Oxide, Black, for Ferrous Metals	MIL-DTL-13924	
MIL-C-5541	Superseded	Chemical Conversion Coatings on Aluminum and Aluminum Alloys	MIL-DTL-5541	
MIL-C-6021	Cancelled	Classification and Inspection of Castings	AMS-STD-2175 or AMS 2175	
MIL-H-6088	Cancelled	Heat Treatment of Aluminum Alloys	AMS-H-6088 or Parts: AMS 2770 Conversion of Raw Material Temper: AMS 2770 Castings: AMS 2771 Raw Materials: AMS 2772	AMS-H-6088 is obsolete, but acceptable to use by substitution
MIL-H-6875	Cancelled	Heat Treatment of Steel Raw Materials	AMS-H-6875	
MIL-P-19834	Superseded	Adhesive Backed General Specification for Plates, Identification or Instruction, Metal Foil	MIL-DTL-19834	
MIL-STD-1949	Cancelled	Inspection, Magnetic Particle	ASTM E1444/E1444M	
QQ-P-35, Method 1 or No Method Specified	Cancelled	Passivation of Corrosion Resistant Steels	AMS-QQ-P-35, Method 1 or AMS 2700, Method 1	If Type and Class are specified, they shall be maintained. AMS-QQ-P-35 is obsolete, but acceptable to use by substitution
QQ-P-35, Method 2	Cancelled	Passivation of Corrosion Resistant Steels	AMS-QQ-P-35, Method 2 or AMS 2700, Method 2	AMS-QQ-P-35 is obsolete, but acceptable to use by substitution

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	REVISION	SHEET
—	<b>C</b>	<b>5</b>

USE OR DISCLOSURE OF DATA ON THIS PAGE IS  
SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
QQ-P-416	Cancelled	Plating, Cadmium (Electrodeposited)	AMS-QQ-P-416	If Type is not specified, Type II shall be used. Older revisions of QQ-P-416 contain Classes A, B, and C. Current equivalents are Classes 1, 2, and 3, respectively.

USE OR DISCLOSURE OF DATA ON THIS PAGE IS  
SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	–	REVISION
		<b>C</b>
SHEET		<b>6</b>

#### 4. MATERIAL AND PROCESS INDEX

4.1 Introduction. This section is a categorized index of materials and process specifications contained within SPS 718.

#### 4.2 Materials

Aluminum  
QQ-A-250

Beryllium Copper  
QQ-C-533

Brass  
QQ-B-613  
QQ-B-626

Plastic Materials  
AMS 3660  
MIL-M-14  
MIL-P-46174  
MIL-P-997

Rubber Materials  
MIL-R-25988

Stainless Steel  
MIL-S-5059

#### 4.3 Processes

Anodizing  
EPRO276

Black Oxide Coating  
MIL-C-13924

Cadmium Plating  
QQ-P-416

Casting Inspection  
AMS-STD-2175  
MIL-C-6021

Chem Film  
EPRO295  
MIL-C-5541

USE OR DISCLOSURE OF DATA ON THIS PAGE IS  
SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

DWG SIZE	CAGE CODE	DWG No.		
<b>A</b>	<b>79318</b>	<b>SPS 718</b>		
SCALE	—	REVISION	<b>C</b>	SHEET
				<b>7</b>

Chrome Plating Preparation

EPRO235

Degreasing

EPRO238

Heat Treatment

AMS-H-6088

EPRO213

MIL-H-6088

MIL-H-6875

Helical Coil Insert Installation

EPRO144

Identification

EPRO1003

EPRO1028

MIL-P-19834

Magnetic Particle Inspection

MIL-STD-1949

Nickel Plating

EPRO116

Passivation

AMS-QQ-P-35

EPRO227

QQ-P-35

Retimet Cleanliness

EPRO1006

Welding

EPRO1001

EPRO1025

USE OR DISCLOSURE OF DATA ON THIS PAGE IS  
SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

DWG SIZE	CAGE CODE	DWG No.	
<b>A</b>	<b>79318</b>	<b>SPS 718</b>	
SCALE	—	REVISION	C
		SHEET	8