

# CHANGE CONTROL SHEET

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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.
		D	SEE DCN	2020-06-05	R.B.
		E	SEE DCN	2020-07-31	J.P.

MATERIAL		DATE (YYYY-MM-DD)
-	DRAWN	J.YORBA 2019-02-14
HEAT TREAT	CHECKED	R. Gamm 2019-02-28
	OTHER	
FINISH	PROJ APPVL	James Jordan 2019-02-28
	PROJ SUPER	
-	APPROVAL	Adh 2019-02-28
NEXT ASSY	USED ON	MFG ENG. BLP/Hgg 2019-02-28
FIRST APPLICATION	QA APPVL	1 P O U Feb 28 2019

# MEGGITT

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

TITLE:		
<b>STANDARD SUBSTITUTION SPECIFICATION</b>		
SIZE	CAGE CODE	DWG NO.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	WT.	SHEET
-	-	<b>1 OF 10</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
AN960	Superseded	Washer, Flat	NAS1149	
DC1292	Discontinued	Lubricating Grease	Molykote 3451	
Dow Corning 1292	Discontinued	Lubricating Grease	Molykote 3451	
JIS G 4314	Active	Stainless Steel Wires for Springs	AMS 5678	
MIL-A-21180	Cancelled	Aluminum-Alloy Castings, High Strength	AMS-A-21180	
MIL-R-25988	Superseded	Rubber, Fluorosilicone Elastomer, Oil, Fuel	MIL-DTL-25988	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MIL-S-18729	Superseded	Steel Plate, Sheet, and Strip, Alloy 4130, Aircraft Quality	AMS 6350	Substitution applies to Condition "A"
MIL-S-18729	Superseded	Steel Plate, Sheet, and Strip, Alloy 4130, Aircraft Quality	AMS 6351	Substitution applies to Condition "MA"

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

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SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE  
OF THIS DOCUMENT

SPECIFICATION	STATUS	DESCRIPTION	ACCEPTABLE SUBSTITUTIONS	NOTES
MIL-S-18729	Superseded	Steel Plate, Sheet, and Strip, Alloy 4130, Aircraft Quality	AMS 6345	Substitution applies to Condition "N"
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	
MIL-S-5059 For CRES 316	Cancelled	Steel, Corrosion Resistant (18-8) Plate, Sheet and Strip	Annealed: AMS 5524 1/4 Hard: AMS 5907	
MIL-S-7720 For CRES 303Se	Superseded	Steel, Corrosion-Resistant (18-8) Bars, Wire and Forging Stock	AMS 5640 Type 2	
Molykote 1292	Discontinued	Lubricating Grease	Molykote 3451	
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>D</b>	<b>3</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-S-766 For CRES 301	Superseded	Steel, Stainless and Heat Resisting, Alloys, Plate, Sheet and Strip	1/4 Hard: AMS 5517 1/2 Hard: AMS 5518 Full Hard: AMS 5519	
QQ-S-766 For CRES 301	Superseded	Steel, Stainless and Heat Resisting, Alloys, Plate, Sheet and Strip	ASTM A666	If specified, material shall match the temper (Annealed, 1/4, 1/2, 3/4, or Full Hard)
QQ-W-423 For CRES 302	Superseded	Wire, Steel, Corrosion-Resisting	Condition A – Annealed: ASTM A580 Condition B – Spring Temper: ASTM A313	

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

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	
EPRO206	Superseded	Lubrication of Threads and O-Ring Seals on Assembly	SPS769	
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	

DWG SIZE	CAGE CODE	DWG No.
<b>A</b>	<b>79318</b>	<b>SPS 718</b>
SCALE	REVISION	SHEET
–	<b>D</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
EPRO1001	Superseded	Manual Tig Welding of Steel Blanking Plugs	SPS790	
EPRO1003	Superseded	Laser Marking	SPS792	
EPRO1006	Superseded	Retimet Cleanliness	SPS795	
EPRO1013	Superseded	Application of Anaerobic Adhesives	SPS800	
EPRO1025	Superseded	Fusion Welding	SPS805	
EPRO1028	Superseded	Format of Identification Markings	SPS808	
EPRO1038	Superseded	Sub-Assembly Instructions	SPS817	
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>D</b>	<b>6</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>D</b>
		SHEET
		<b>7</b>

4. COVENTRY TRANSFER ASSEMBLY INSTRUCTIONS

4.1 This section defines acceptable substitute assembly instructions at Meggitt (North Hollywood) for products transferred from Meggitt (Coventry).

**Table 3 – Meggitt Assembly Instructions**

COVENTRY P/N	COVENTRY ASSEMBLY INSTRUCTIONS	NORTH HOLLYWOOD ASSEMBLY INSTRUCTIONS
A-1005-01	EDU196-042	SWI A-1005-01
A-1032-00	EDU1050-001	SWI A-1032-00
AA1024-01	EDU1059-007	SWI AA1024-01
AA1051-00	EDU1014-001	SWI AA1051-00
AA1052-00	EDU226-086	SWI AA1052-00
AA1060-00	EDU1014-007	SWI AA1060-00
AA1076-01	EDU1040-099	SWI AA1076-01
AA1077-02	EDU1039-008	SWI AA1077-02
AA1107-00	EDU1180-003	SWI AA1107-00
AA1111-00	EDU1251-149	SWI AA1111-00
AA1120-00	EDU1281-024	SWI AA1120-00
AC65146	ACM27794	SWI AC65146
AC69576	ACM30621	SWI AC69576
AC69588	ACO46561	SWI AC69588
AC69590	ACO46377	SWI AC69590
AC69674	ACM30811	SWI AC69674
EA100118G	EC101200	SWI EA100118G
EA100377B	ACM30674	SWI EA100377B
EA100433C	EDU1064-001	SWI EA100433C
EA100435D	EDU1293-008	SWI EA100435D
EA100716E	EDU084-31	SWI EA100716E
EA100716E	EDU084-31	SWI EA100716E
EA101780B	EDU180-40	SWI EA101780B
EA101881H	EDU182-587	SWI EA101881H
EB100045E	ED100394	SWI EB100045E
EB100060B	ED100091	SWI EB100060B
EB100256D	ED100282	SWI EB100256D
EB100258D	ED100282	SWI EB100258D
EB100420D	ED100282	SWI EB100420D
EB100906B	EDU098-1	SWI EB100906B
EB101586C	EDU154-042	SWI EB101586C
EB101729C	EDU130-474	SWI EB101729C
EB101857C	EDU184-02	SWI EB101857C

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	SHEET
–	<b>D</b>	<b>8</b>



COVENTRY P/N	COVENTRY ASSEMBLY INSTRUCTIONS	NORTH HOLLYWOOD ASSEMBLY INSTRUCTIONS
EB101936C	EDU177-033	SWI EB101936C
EB102003F	EDU183-093	SWI EB102003F
EB102732E	EDU220-042	SWI EB102732E
EB103025E	EDU247-033	SWI EB103025E

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	D SHEET 9

5. MATERIAL AND PROCESS INDEX

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

5.2 Materials

Aluminum

MIL-A-21180

QQ-A-250

Beryllium Copper

QQ-C-533

Brass

QQ-B-613

QQ-B-626

Lubricant

DC1292

Dow Corning 1292

Molykote 1292

Plastic Materials

AMS 3660

MIL-M-14

MIL-P-46174

MIL-P-997

Rubber Materials

MIL-R-25988

Steel

JIS G 4314

MIL-S-18729

MIL-S-5059

MIL-S-7720

QQ-S-766

QQ-W-423

Washers

AN960

5.3 Processes

Anodizing

EPRO276

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.			
A	79318	SPS 718			
SCALE	-	REVISION	D	SHEET	10

Application of Adhesives

EPRO1013

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

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

Lubrication of Threads and O-Ring Seals

EPRO206

Magnetic Particle Inspection

MIL-STD-1949

Nickel Plating

EPRO116

Passivation

AMS-QQ-P-35

EPRO227

QQ-P-35

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	D
		SHEET	11

Retimet Cleanliness  
EPRO1006

Sub-Assembly Instructions  
EPRO1038

Welding  
EPRO1001  
EPRO1025

DWG SIZE	CAGE CODE	DWG No.		
<b>A</b>	<b>79318</b>	<b>SPS 718</b>		
SCALE	-	REVISION	D	SHEET 12

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