

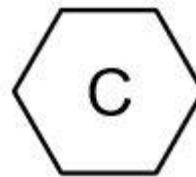
**Standard:** PS 500

**Title:** Master, Subject & Correlation Index

**Author:**

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## 1.0 EQUIVALENCY STATEMENT

- 1.1 The correlation index starting on page 14 of this specification shall be used to determine the appropriate substitute Moog Wolverhampton (MWL) specification when a Rotol / Dowty Aerospace Gloucester (DAG) specification is called up on a drawing. For the purposes of this substitution the acceptable alternative is given in Column A and the Rotol / DAG specification is given in column B.
- 1.2 Example 1, for a part with a drawing note calling for "Vapour Degrease to DAG PS 203" it is acceptable for this part to be processed to PS 78.
- 1.3 Example 2, for a part with a drawing note calling for "Nitride to DAG PS 302" it is acceptable for this part to be processed to MSPS200.HT.003.
- 1.4 The following restrictions apply:-
- The substitution ONLY applies in the stated direction, i.e. for the example given above, processing to DAG PS 302 is not an acceptable substitute when a drawing note calls for "Nitride to PS 27"
  - This substitution ONLY applies to drawings which were Dowty Aerospace Gloucester design, but had the design authority transferred to Smiths Wolverhampton (now Moog Wolverhampton), i.e. part numbers belonging to the following contracts and having the associated series of part numbers given:-
- |                      |  |                     |                 |
|----------------------|--|---------------------|-----------------|
| A330/340 high lift   | p/n 697 xxx xxx                                | F50 flap            | p/n 678 xxx xxx |
| BAE 146 high lift    | p/n 676 xxx xxx                                | F50 door            | p/n 668 xxx xxx |
| CASA CN235 high lift | p/n 677 xxx xxx                                | SAAB gearbox        | p/n 677 014 xxx |
| EFA gearbox          | p/n DBEF xxxx                                  | SAAB manacle clamps | p/n 602 1xx xxx |
| V22 Solenoid         | p/n 114197xxx, 114242xxx, 114424xxx, 114346xxx |                     |                 |
| Other                | Gxxxxx, 601 0xx xxx, 100668xxx                 |                     |                 |
- 1.5 This substitution applies to parts manufactured in house and by approved suppliers to MWL and only effects the above series of part numbers and associated sub-assemblies.

**Note:** Suppliers will normally ONLY be issued copies of specifications controlled by MWL. DAG process specifications WILL NOT normally be issued to suppliers.

- 1.6 All DAG specifications that have no substitute under the MWL series of specifications, as given by the correlation index, shall be referred to Moog Wolverhampton Materials Engineering.
- 1.6.1 There are no established equivalents for DAG PS 900 "Manufacturing Standards, General" and DAG PS 1000 "Use of Specifications in Manufacturing" within the MWL series of specifications. When updating drawings that have these references it is accepted that these references are not replaced with a note referring to a Moog Wolverhampton document. This is because under the MWL system of controlling specifications this kind of general information would be covered in process specific documents or is the kind this is accepted as industry-wide understanding of engineering drawings.

## 2.0 NOTE TO SUPPLIERS

- 2.1 Approved suppliers to Moog Wolverhampton shall request copies of procedures as required for parts manufacture or dissemination to sub tier suppliers via Moog Wolverhampton Purchasing Department.

## 3.0 PROCESS SPECIFICATION (PS) MASTER INDEX

- 3.1 In the section, specifications marked with an asterisk (\*) are considered "NOT ACTIVE" and as such will not be audited or reissued.
- 3.2 All specifications that were the responsibility of Precision Handling (now Parkburn) or Fabrications Department are now cancelled.

- 3.3 Supersession of PS 7
- 3.3.1 Title – Stress relief and de-embrittlement of electro-plated and phosphate surfaces
- 3.3.2 This process specification was written as a collection of stress relief and de-embrittlement requirements from other Dowty Boulton Paul (now Moog Wolverhampton) and Dowty Rotol chemical processing procedures. The last active issue of this document was 4, dated July 2003.
- 3.3.3 Since stress relief and de-embrittlement requirements are nowadays contained in the corresponding chemical processing procedure, PS 7 is redundant and no superseding document is necessary.

PS	Title
500	Master, Subject & Correlation Index
1	Dry Lubricant, Anti-Friction Coatings
2	CANCELLED (in house use PCD 2, supplier base use MSPS100.CP.007)
3	CANCELLED
4	CANCELLED (in house use PCD 4, supplier base use MSPS100.CP.002)
5	Cleaning of Hydraulic Pipes
6	Surface Sealing of Magnesium Castings
7	CANCELLED (see section 3.3)
8	Cleaning and Surface Preparation of Metallic Materials
9	CANCELLED (use PS 174)
10	Dalic Electroplating Process
11	Salt Bath Nitrocarburising - SURSULF and TUFFTRIDING
12	CANCELLED (in house use PCD 12, supplier base use MSPS100.CP.003)
13	CANCELLED (use PS 69)
14	CANCELLED (in house use PCD 14, supplier base use MSPS100.CP.004)
15	CANCELLED (use PS 14)
16	Hard Chromium Plating of Aluminium Alloys
17	CANCELLED (in house use PCD 17, supplier base use MSPS100.CP.009)
18	Chromate Treatment of Magnesium Alloys
19	Contamination Levels for Hydraulic Fluids
20	CANCELLED
21	Tin Plating
22	Treatment for Solenoid Coil Assemblies
23	Fitting Shrink-on Plastic Sleeving and Boots
24	Packing of Hydraulic Assemblies for Storage
25	Packing of Electrical Components and Assemblies
26	Paint Removers
27	CANCELLED (in house use PCD 27, supplier base use MSPS200.HT.003)
28	Araldite Epoxy Resin Adhesives
29	CANCELLED (in house use PCD 29, supplier base use MSPS300.NDT.001)
30	CANCELLED (use PS 1)
31	Impregnation of Coil Windings
32	Induction Brazing (see also PS 119)
33	LOCTITE Sealants and Adhesives
34	CANCELLED (in house use PCD 34, supplier base use MSPS100.CP.008)
35	CANCELLED
36	CANCELLED (in house use PCD 36, supplier base use MSPS100.CP.006)
37*	Nickel Plating
38	Silver Plating
39	CANCELLED (supplier base use MSPS400.MISC.001)
40	Adhesive Fixing of Labels (SILASTIC 738 RTV)
41	Plugging of Hydraulic Components with Lee Plugs (Existing Civil Contracts ONLY), (see also PS 57)
42	Silver Brazing
43 *	Reclamation of Steel Components by Heavy Nickel Plating
44	Secondary Staking of Lee Plugs
45	Temporary Protection Against Corrosion

PS	Title
46	Removal of Copper Plugs from Rotary Valve Sleeves
47	CANCELLED
48	CANCELLED
49	Low Hydrogen Embrittlement (LHE) Cadmium Plating of Ultra-high Strength Steel (UTS <2140MPa or 310ksi)
50 *	Chemical cleanliness of steels (sulphur prints)
51	Pre-Treatment and Surface Coating of PTFE Insulated Cables prior to Potting
52	CANCELLED (in house use PCD 52, supplier base use MSPS100.CP.005)
53	CANCELLED (use PS 118)
54	Plugging of Hydraulic Components (other than Lee Plugs)
55 *	Bolt etching process (forged heads)
56	Manipulation of Cold set preformed Rigid Pipes
57	Plugging of Hydraulic Components with Lee Plugs (see also PS 41)
58	Reclamation of Cast Iron Components by Powder Welding
59	CANCELLED (use PS 174)
60	Undercutting of screw threads
61	CANCELLED
62	CANCELLED (use PS 11)
63 *	Photographic examination of hard chrome plated cylinder bores
64	CANCELLED (use Design Standard 53)
65	CANCELLED (use PS 179)
66	Crimped Cable Connections
67	Removal of excess Copper braze from Bushes
68	CANCELLED
69	CANCELLED (in house use PCD 69, supplier base use MSPS100.CP.001)
70	CANCELLED (in accordance with section 3.2)
71	CANCELLED (in house use PCD 71, supplier base use MSPS400.MISC.002)
72	CANCELLED (use PS 28)
73	CANCELLED (in house use PCD 73, supplier base use MSPS200.HT.002)
74	Magnetic Particle Inspection
75	CANCELLED (use PS 28)
76	Procedure for potting Concorde Linear Transducers
77	Jointing and Sealing Compounds
78	Trichloroethylene Vapour Degreasing
79	Fluorescent Penetrant Inspection
80	CANCELLED (in accordance with section 3.2)
81	CANCELLED (in accordance with section 3.2)
82	CANCELLED (use PS 174)
83	CANCELLED (use PS 1)
84	CANCELLED
85	CANCELLED
86	Brazing Technique for Transducer type P297 45 0060
87*	General requirements for spot welding sheet assemblies
88	Assembly of KEELARING Couplings
89	General Riveting Process
90	Cryogenic Jointing
91	CANCELLED (in accordance with section 3.2)

PS	Title
92*	Printed wiring board manufacture
93	CANCELLED (in accordance with section 3.2)
94	CANCELLED (supplier base use MSPS100.CP.001)
95	Glass Bead Peening
96	RILSAN Nylon Coatings
97	CANCELLED
98	Grinding of Titanium Alloys
99	CANCELLED (in accordance with section 3.2)
100	Application of Extrude-Hone Process for Surface Finish Improvement
101	Application of two Package RTV 88 Silicone for Potting Purposes
102 *	NDT Ultrasonic Inspection of Aluminium Alloys
103	CANCELLED
104 *	Impregnation of Oilite Porous Bronze Bearings
105	CANCELLED (use PS 28)
106 *	Black oxide treatment of steels
107	CANCELLED (use PS 33)
108	CANCELLED (see PS 13 or PS 69)
109 *	Assembly and protection of printed wiring boards
110	Hydraulic Pipe Identification (<12mm)
111	Hardness Testing of Metallic Materials
112	CANCELLED
113	Dow Corning 3400A Bonded Lubricant
114 *	Hard Chromium Plating of Copper Alloys
115	CANCELLED (in accordance with section 3.2)
116 *	Cadmium Plating of Cuprous Alloys
117	CANCELLED (in accordance with section 3.2)
118	Heat Treatment of Alloy Steels
119	Induction Hardening (see also PS 32)
120	Crystal clear Silicon Potting Compound
121	Pickling of S145 Forgings
122	CANCELLED (use PS 28)
123 *	Sealing of pipe/coupling ends with Heat Shrinkable Sleeving
124 *	Use of Waylock S-17163 Adhesive
125	Swaging of Metric pipe Couplings
126	Tube/pipe Bending
127	Routing and Installation of non-lofted Hydraulic Pipes
128	CANCELLED (use PS 27)
129	CANCELLED
130	CANCELLED
131	CANCELLED
132	Thread Rolling of Special Applications
133	Application of Dow Corning 3145 RTV Adhesive Sealant
134	CANCELLED (use PS 118)
135	Electron Beam Welding of 4340 ESR
136	Vacuum deposited Cadmium Plating on ultra high Strength Steels
137	CANCELLED
138	Special Machining Techniques for ultra high Strength Steels

PS	Title
139	Protective Treatment against Corrosion – MASTINOX
140	CANCELLED
141	CANCELLED
142	Ultrasonic Cleaning and suitable Cleaning Solutions
143	Abrasive Blasting of Metallic Materials
144	CANCELLED (use PS 74)
145	CANCELLED
146	CANCELLED
147	Laminated Servo Valve - Epoxy Bonding Procedure
148	CANCELLED
149	CANCELLED (supplier base use MSPS100.CP.001)
150	CANCELLED (use PS 118)
151	Plasma (Ion) Nitriding
152	CANCELLED
153	CANCELLED (use PS 151)
154	CANCELLED (use PS 73)
155	Hot Isostatic Pressing of Investment Castings
156	Part Marking
157	MJ Threads modified for critical Load Applications
158	U NJ Threads modified for critical load Applications
159	Helical Compression Springs for critical Load Applications
160	NITROTEC (Nitrocarburising) Surface Treatment
161	Use and Control of Cleaning Fluids
162	IVD Aluminium on Steel
163	CANCELLED
164	Electropolishing of Investment Castings
165	Nickel Sulphamate Plating
166	Requirements for Electron beam Welding of B777 Ball ramp Assembly
167	Grinding and Inspection of Chromium plated parts
168	Requirements for Hot Form Swaging
169	Laser Cutting of Metals
170	Assembly and installation of Magnetic seals
171	Aircraft Hydraulic/Mechanical Assemblies - Storage and Preservation Information
172	Assembly Procedure for Flareless fittings
173	Requirements for Electron beam Welding SAAB JAS 39 IDG and Breather Gears
174	Paint Schemes
175	Controlling Document for the manufacture of A330/340 Composite Transmission Shafts
176	CANCELLED
177	Staking of Spherical Bearings
178	CANCELLED – see PS 1 Appendix 6
179	Thermal Sprayed Tungsten Carbide Coatings
180	Nodular Thin Dense Chromium (NTDC) Plating
181	Welding of Hydraulic Pipe Assemblies
182	Fitting of seals without Lead groove Locations
183	Control of Shelf Life Limited Items
184	JAS 39 Gearbox Housing Casting Inspection Technique
185	Radiographic Acceptance Standards for Castings

PS	Title
186	Manufacture of Bevel Gears
187	Electrochemical Deburring (ECD) and Machining (ECM)
188	Termination Requirements for Chromium plated surfaces
189	[draft] Torque Loads to be applied to Union Fittings
190	[draft] Unit Assembly Label fixing using Cable Ties
191	TRIBOMETT104CS Coatings
192	Salt Spray Testing
193	Air Cleanliness of shop floor Compressed Air Lines
194	APTICOTE 400 and 450 Coatings
195	TECH 12 Chrome Plate Impregnation and Densification
196	Plunge Grinding
197	Visual Inspection
198	Assembly of Bushes with wet Primer
199	JSF Titanium Material and Casting Requirements
200	Physical Vapour Deposition (PVD) of an Amorphous Carbon Coating
201	KERONITE Coatings for Ti, Al & Mg Alloys
202	Tungsten Disulphide (WS <sub>2</sub> ) Thin, dry film Lubricant
203	Procedure for installation of Imperial thin wall Inserts
204	Barrel deburring for Non-ferrous loads <200g
205	Thermal Stabilisation of Servo Valves
206	Scragging of shaft Assemblies
207	Electron Beam Welding Flap System Shafts for A380
208	Titanium Nitride Coatings
209	787 Aluminium material Procurement & Casting Inspection Requirements for Casting Housing, P677A0160-00
210	Mechanical Property Sampling of Oversized Aluminium Billets
211	Requirements for Electron beam welding of 787 diaphragm sub-Assembly
212	Control of Metal Working Fluids
213	Installation procedure for Tyco standard Solder Sleeve Shield Terminators
214	Controlled glass bead blasting – Diaphragm Coupling
215	Aqueous Cleaning
216	Balinit DLC (Star) Coating
217	Furnace Copper Brazing
218	Inner Armor™ Sliding Wear Coating
219	Nitron MC WC-C Coating
220	Application of Insulating Varnish
221	Procurement and Inspection of magnesium Alloy Castings for SAAB JAS39 Aircraft Gearbox
222	The Impregnation of Castings
223	Manufacturing of Valve Seats in Steel Components
225	Application of SILASTIC 9161 RTV Silicone Elastomer Potting Compound
227	Palladium Alloy Vacuum Brazing
228	Stripping of Copper and Bronze Plating



#### 4.0 MOOG SUPPLIER PROCESS SPECIFICATIONS (MSPS)

4.1 The following documents are for use within Moog Wolverhampton supplier base.

Document #	Process #	Process Name
MSPS100.CP	MSPS100.CP.001	Anodising of Aluminium & Aluminium Alloys
	MSPS100.CP.002	Chemical Conversion Coatings on Aluminium & Aluminium Alloys
	MSPS100.CP.003	Hard Chromium Plating
	MSPS100.CP.004	Cadmium Plating
	MSPS100.CP.005	Passivation of Corrosion Resistant Steel
	MSPS100.CP.006	Copper Plating
	MSPS100.CP.007	Bronze Plating for Nitriding Stop Off Purposes
	MSPS100.CP.008	Electroless Nickel Plating
	MSPS100.CP.009	Manganese Phosphate Treatment of Steel
MSPS200.HT	MSPS200.HT.001	Furnace Control & Calibration (Pyrometry)
	MSPS200.HT.002	Carburising of Steel Parts
	MSPS200.HT.003	Gas Nitriding of Low Alloy Steel Parts
MSPS300.NDT	MSPS300.NDT.001	Etch Inspection of High Strength Steel Parts
MSPS400.MISC	MSPS400.MISC.001	Shot Peening
	MSPS400.MISC.002	Electro Discharge Machining, EDM

#### 5.0 PROCESS CONTROL DOCUMENTS (PCD)

5.1 The following documents are for use at Moog Wolverhampton in-house treatments department ONLY. **These documents are not to be distributed externally.**

PCD	Title
2	Bronze Plating
3	Furnace Operating Procedures
4	Protective Treatment of Aluminium using Alocrom 1200 and Surtec 650 Processes
7	Metallography & Microindentation Hardness Assessment of Steels
12	Hard Chromium Plating of Steels
14	Cadmium Plating
17	Phosphate Treatment of Steel
27	Gas Nitriding of Steel Components
29	Etch Inspection of Steel Components
34	Electroless Nickel Plating
36	Copper Plating
52	Passivation of Corrosion Resistant Steels
69	Chromic Acid Anodising
71	Electrical Discharge Machining (EDM)
73	Gas Carburising of Steel Components
75	Training for Carburising Personnel
149	Sulphuric Acid Anodising of Aluminium and Titanium alloys

## 6.0 DAG PROCESS SPECIFICATIONS TRANSFERRED TO MOOG - WOLVERHAMPTON

6.1 The following are process specifications which were originally issued by Dowty Aerospace Gloucester (now GE Aviation Systems Ltd of Cheltenham), but are now controlled by MWL as they represent work that is now the technical and manufacturing responsibility of MWL (see part number groups listed in paragraph 1.2)

PS	Issue	Date	Title
DAG PS 121	3	12/70	Protection of Engine Accessory Magnesium Alloy Castings Against Corrosion
DAG PS 505	4	1/93	Requirements for Electron Beam Welding of A330/340 Flap System Shafts

**Note:** The two process specifications listed above are given the prefix DAG to distinguish them from process specifications with origins at MWL.

## 7.0 MATERIAL SPECIFICATIONS (MAT)

7.1 The following are MWL controlled material specifications (some originally Dowty Boulton Paul - DBP) which have been raised on very few specific occasions - it being MWL policy to use material from a nationally recognized standard

PS	Issue	Date	Title
MAT 100	4	9/93	Additional Requirements for Tool and Die Steel to BS 4659:1989, Grade BO-1
MAT 101	3	9/93	Requirements for Valve spring Steel wire to AS 33A
MAT 102	2	9/93	Requirements for Aluminium plate to 7075-T7351 with thickness >75mm
MAT 103	1	4/03	Additional Requirements for phosphor bronze bar to DTD 265A
MAT 104	2	Oct-05	Copper-Beryllium Alloy UNS C17200
MAT 138	2	2/93	Corrosion resisting 17-4PH Steel Tube
MAT 601	E	Mar-20	Grease/oil mixture for Flap system Gearboxes
MAT 602	E	Mar-20	Low viscosity Grease/oil mixture for Gearbox

## 8.0 ISSUE AND APPROVAL OF PROCESS SPECIFICATIONS

8.1 Such documents as those listed within this index shall be approved and released using the current company system as described in 2100-003-090.

8.2 Creation of Process Specifications relating to measuring equipment that requires on-receipt and/or period verification (e.g. PS 158) via Moog Calibration shall require Process Specification sign-off by Quality Systems and Control.

## 9.0 PROCESS SPECIFICATION (PS) SUBJECT INDEX

**Note:** Only current documents are given in the following listing

9.1	<u>Plating / Passivation</u>
PS 194	Apticote 400 and 450 Coatings
PS 106	Black Oxide Treatment for Steels
PCD 2 §	Bronze Plating
MSPS100.CP.007 ‡	Bronze Plating for Nitriding Stop Off Purposes
PS 18	Chromate Treatment of Magnesium Alloy
PCD 14 §	Cadmium Plating
MSPS100.CP.004 ‡	Cadmium Plating
PS 49	Cadmium Plating of UHT Steels
PS 116	Cadmium Plating of UHT Cuprous Alloys
PS 136	Cadmium Plating of UHT Steels by Vacuum Deposition
PCD 36 §	Copper Plating
MSPS100.CP.006 ‡	Copper Plating
PS 10	Dalic Electro Plating Process

	PCD 34 §	Electroless Nickel Plating
	MSPS100.CP.008 ‡	Electroless Nickel Plating
	PCD 12 §	Hard Chromium Plating on Steels
	MSPS100.CP.003 ‡	Hard Chromium Plating
	PS 16	Hard Chromium Plating of Aluminium Alloys
	PS 114	Hard Chromium Plating of Copper Alloys
	PS 162	Ion Vapour Deposition (IVD) of Aluminium on Steel
	MSPS100.CP.009 ‡	Manganese Phosphate Treatment of Steel
	PS 180	Nodular Thin Dense Chromium (NTDC) Plating
	PS 37	Nickel Plating
	PS 165	Nickel Sulphamate Plating
	PCD 52 §	Passivation of Corrosion Resistant Steel
	MSPS100.CP.005 ‡	Passivation of Corrosion Resistant Steel
	PCD 17 §	Phosphate Treatment of Steels
	PS 43	Reclamation of Steel Components by Heavy Nickel Plating
	PS 38	Silver Plating
	PS 188	Termination Requirements of Chrome Plated Surfaces
	PS 21	Tin Plating
	PS 228	Stripping of Copper and Bronze Plating
9.2	<u>Painting &amp; Coatings</u>	
	PS 174	Paint Schemes for use at Smiths Wolverhampton
	PS 26	Paint Removers
	PS 1	Dry Lubricant, Anti-Friction Coatings
	PS 113	Dow Corning 3400A Bonded Lubricant
	PS 178	Molykote P37 Thread Paste (Solid Lubricant)
	PS 96	Rilsan Nylon Coating
	PS 179	Thermal Sprayed Tungsten Carbide Coatings
	PS 191	TribometT104CS Coating
	PS 195	Tech-12 Chromium Plate Impregnation and Densification
	PS 200	Physical Vapour Deposition (PVD) of an amorphous Carbon Coating
	PS 202	Tungsten Disulphide (WS <sub>2</sub> ) Thin, Dry Film Lubricant
	PS 201	Keronite Coatings for Titanium, Aluminium and Magnesium Alloys
	PS 208	Titanium Nitride coatings
9.3	<u>Surface Treatments (including machining)</u>	
	PS 8	Cleaning and Surface Preparation of Metallic Materials
	PS 121	Pickling of S145 Forgings
	PS 143	Abrasive Blasting of Metallic Materials
	MSPS400.MISC.001 ‡	Shot Peening
	PS 95	Glass Bead Peening
	PS 100	Application of Extrude Hone Process for Surface Finish Improvement
	PS 138	Special Machining Techniques for UHT Steels
	PS 187	Electrochemical Deburring (ECD) and Machining (EDM)
	PCD 71 §	Electro Discharge Machining (EDM)
	MSPS400.MISC.002 ‡	Electro Discharge Machining, EDM
	PS 98	Grinding of Titanium Alloys
	PS 167	Grinding and Inspection of Chromium Plated Parts
	PS 125	Swaging of Metric Pipe Couplings

PS 132	Thread Rolling of Special Applications
PS 164	Electropolishing of Investment Castings
PS 169	Laser Cutting of Metals
PS 196	Plunge Grinding

#### 9.4 Anodising and Surface Oxidation of Light Alloys

PCD 4 §	Alocrom 1200 Process
MSPS100.CP.002 ‡	Chemical Conversion Coatings on Aluminium & Aluminium Alloys
PCD 69 §	Chromic Acid Anodising
PCD 149 §	Sulphuric Acid Anodising of Aluminium and Titanium Alloys
MSPS100.CP.001 ‡	Anodising of Aluminium and Aluminium Alloys

**Note:** MSPS100.CP.001 covers chromic acid anodising, sulphuric acid anodising and hard anodizing

#### 9.5 Heat Treatment

PS 118	Heat Treatment of Alloy Steels
PS 119	Induction Hardening
PCD 73 §	Gas Carburising
MSPS200.HT.002 ‡	Gas Carburising / Case Hardening of Steel Parts
PCD 27 §	Nitriding of Steel Components
MSPS200.HT.003 ‡	Gas Nitriding of Low Alloy Steel Parts
PS 151	Plasma (Ion) Nitriding
PS 11	Salt Bath Nitrocarburising - Sursulf and Tufftriding
PS 160	Nitrotec (Nitrocarburising) Surface Treatment
PS 155	Hot Isostatic Pressing (HIP) of Investment Castings
PS 168	Requirements for Hot Form Swaging
PCD 75 §	Training for Carburising Personnel

#### 9.6 Joining (including adhesives, mechanical and thermal processes)

PS 89	General Riveting Process
PS 90	Cryogenic Jointing
PS 28	Araldite Epoxy Resin Adhesives
PS 147	Epoxy Bonding Procedure of Laminated Servo Valve
PS 33	Loctite Sealants and Adhesives
PS 77	Jointing and Sealing Compounds
PS 133	Application of Dow Corning 3145 RTV Adhesive Sealant
PS 124	Use of Waylock S-17163 Adhesive
PS 42	Silver Brazing
PS 32	Induction Brazing
PS 67	Removal of Excess Copper Braze from Bushes
PS 86	Brazing Technique for Transducer Type P297-45-0060
PS 58	Reclamation of Cast Iron components by Powder Welding
PS 87	General Requirements for Spot Welding Sheet Assemblies
PS 181	Welding Hydraulic Pipes and End Fittings
PS 135	Electron Beam Welding of 4340 ESR
PS 166	Electron Beam Welding of B777 Ball Ramp Assembly
PS 173	Electron Beam Welding of JAS 39 Engine Accessory Gearbox IDG and Breather Gears
PS 505 †	Electron Beam Welding of A330/340 Flap System Shafts

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	PS 207	Electron Beam Welding of Flap System Shafts for A380
	PS 211	Requirements for Electron Beam Welding of 787 Diaphragm Sub-Assembly
	PS 217	Furnace Copper Brazing
	PS 227	Palladium Alloy Vacuum Brazing
9.7	<u>Assembly and Fitting</u>	
	PS 126	Tube/Pipe Bending
	PS 56	Manipulation of Cold Set Performed Rigid Pipes
	PS 127	Routing and Installation of Non-Lofted Hydraulic Pipes
	PS 88	Assembly of Keelaring Couplings
	PS 23	Fitting Heat Shrink on Plastic Sleeving and Boots
	PS 123	Sealing of Pipe/Coupling Ends with Heat Shrinkable Sleeving
	PS 41	Plugging of Hydraulic Components with Lee Plugs (existing Civil Contracts only)
	PS 57	Plugging of Hydraulic Components with Lee Plugs (all current and future contracts)
	PS 44	Secondary Staking of Lee Plugs
	PS 54	Plugging of Hydraulic Components (other than Lee Plugs)
	PS 46	Removal of Copper Plugs from Rotary Valve Sleeves
	PS 66	Crimped Cable Connectors
	PS 60	Undercutting of Screw Threads
	PS 157	MJ Threads Modified for Critical Load Applications
	PS 158	UNJ Threads Modified for Critical Load Applications
	PS 92	Printed Wiring Board Manufacture
	PS 109	Assembly and Protection of Printed Wiring Boards
	PS 159	Helical Compression Springs for Aerospace Applications
	PS 170	Assembly and Installation of Magnetic Seals
	PS 172	Assembly Procedure for Flareless Fittings
	PS 182	Fitting of Seals without Lead Groove Locations
	PS 189	Torque Loads to be Applied to Union Fittings
	PS 198	Assembly of Bushes with Wet Primer
	PS 203	Procedure for Installation of Imperial Thin Wall Inserts
	PS 205	Thermal Stabilisation of Servo Valves
9.8	<u>Contamination and Cleaning</u>	
	PS 19	Contamination Levels in Hydraulic Fluid
	PS 20	Sampling of Fluids for Contamination Checks
	PS 5	Cleaning of Hydraulic Pipes
	PS 78	Trichloroethylene Vapour Degreasing
	PS 215	Aqueous Cleaning
	PS 142	Ultrasonic Cleaning and Suitable Aqueous Cleaning Solutions
	PS 50	Chemical Cleaning of Steels (Sulphur Prints)
	PS 161	Use and Control of Cleaning Fluids
	PS 193	Air Cleanliness of Shop Floor Compressed Air Lines
9.9	<u>Protection and Storage</u>	
	PS 45	Temporary Protection against Corrosion
	PS 121 †	Protection of Engine Accessory Magnesium Alloy Castings against Corrosion
	PS 24	Packaging of Hydraulic Assemblies for Storage
	PS 25	Packaging of Electrical Components and Assemblies

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	PS 139	Protective Treatment against Galvanic Corrosion - Mastinox
	PS 171	Aircraft Hydraulic/Mechanical Assemblies Storage and Preservation Information
	PS 183	Control of Shelf Life Limited Items
9.10	<u>NDT and other Inspection Techniques</u>	
	PCD 29 §	Etch Inspection of Steel Components
	MSPS300.NDT.001 ‡	Etch Inspection of High Strength Steel Parts
	PS 55	Bolt Etching Process (Forged Heads)
	PS 111	Hardness Inspection of Metallic Materials
	PS 74	Magnetic Particle Inspection
	PS 79	Fluorescent Penetrant Inspection
	PS 167	Grinding and Inspection of Chromium Plated Parts
	PS 102	Ultrasonic Inspection of Aluminium Alloys
	PS 63	Photographic Examination of Hard Chrome Plated Cylinder Bores
	PS 185	Radiographic Acceptance Standards for Castings
	PS 192	Salt Spray Testing to ASTM B117
	PS 197	Visual Inspection
9.11	<u>Component Identification</u>	
	PS 156	Part Marking
	PS 110	Hydraulic Pipe Identification (<12mm)
	PS 40	Adhesive Fixing of Labels (Silastic 738 RTV)
	PS 190	Unit Assembly Label Fixing using Cable Ties
9.12	<u>Potting Techniques</u>	
	PS 51	Pretreatment and Surface Coating of PTFE Insulated Cables Prior to Potting
	PS 101	Application of two Package RTV 88 Silicone for Potting Purposes
	PS 76	Procedure for Potting Concorde Linear Transducers
	PS 120	Crystal clear Silicon Potting Compound
9.13	<u>Miscellaneous</u>	
	PS 31	Impregnation of Coil Windings
	PS 104	Impregnation of Oilite Porous Bronze Bearings
	PS 22	Treatment for Solenoid Coil Assemblies
	PS 6	Surface Sealing of Magnesium Alloys
	PS 175	Manufacture of A330/340 Composite Transmission Shafts
	PS 186	Manufacture of Bevel Gears
	PS 199	JSF Titanium Material Procurement & Casting Inspection Requirements
	PS 204	Barrel De-Burring for Non-Ferrous Loads Under 200g
	PS 210	Mechanical Property Sampling of Oversized Aluminium Billets
	PS 209	787 Aluminium Material Procurement & Casting Inspection Requirements for Casting Housing, P677A0160-00
	PCD 75 §	Training for Carburising Personnel

9.14 Material Specifications (MAT)

MAT 100	Additional Requirements for Tool and Die Steel to BS 4659
MAT 101	Requirements for Valve Spring Steel Wire to AS 33A
MAT 102	Requirements for Aluminium Plate to 7075-T7351 with Thickness >75mm
MAT 103	Additional requirements for Phosphor Bronze Bar to DTD 265A
MAT 104	Copper-Beryllium Alloy UNS C17200
MAT 138 ☒	Corrosion Resisting 17-4PH Steel Tube
MAT 601 ☒	Grease/Oil Mixture for Flap System Gearboxes
MAT 602 ☒	Low Viscosity Grease/Oil Mixture for Flap System Gearboxes

## 9.15 Relevant Quality Control Instructions (QCI) or Moog Aircraft Group Quality Procedures

QCI 001	Explanatory Notes
7400-002-090 §	Pyrometry
MSPS200.HT.001 ‡	Furnace Control & Calibration (Pyrometry)
4100-002-203	Acceptance Sampling Plans
7100-005-090	Classification of Parts
7100-002-203 §	Control of NDT Operations and Approval of NDT Personnel
QCI 216	Recommended and Cancelled Metallic Material Specifications for Aerospace Applications
7100-002-090 §	Inspection Records and Inspection Cards
7100-001-090 §	Special Processes Procedures
7100-007-090 §	Tensile Testing for Heat Treatment

## Key to Symbols used in section 9.0

†	see section 6.1	§	for in-house use at MWL only (see section 5.0)
☒	see section 7.1	‡	for use within MWL supplier base (see section 4.0)

**10.0 CORRELATION INDEX**

## 10.1 See Following tables and symbols below:-

\*\* An alternative specification for MWL approved suppliers (see each PS for specific limitations/requirements)

\* Originally a Cheltenham specification now under MWL control

# Rotol/DAG PS 135 covered high speed chromium plating (also known as flash chrome plating) and not thin dense chromium plating (as performed by suppliers such as Armoloy). Historically this procedure has been cancelled and replaced with Rotol/DAG PS 101. The correlating MWL procedure MSPS100.CP.003 contains wording to cover both engineering hard chrome and flash chrome.

**Note:** In this section some specifications which are superseded (e.g. PS 2 Bronze Plating) are given for reference. See section 2.0 – Master Index – for the issue status of specifications.

10.2 Correlation from Liebherr and Avio process specifications to Moog process specification for Suppliers -  
Column A in the following tables represents the corresponding process specification to be used for processing of parts outside MWL where a particular Liebherr or Avio specification is called out. See flagnotes at the foot of the table.

10.3 Correlation from Liebherr and Avio process specifications to Moog process specifications for MWL -  
Column C in the following tables represents the corresponding internal instruction or procedure to be used when a particular Liebherr or Avio specification is called for on the Moog Wolverhampton job documentation (Work order).

	Wolverhampton (Col A)	Roto / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Plating / Passivation</b>								
Bronze Plating	MSPS100. CP.007	PS 111	PCD 2					
Cadmium Plating	MSPS100. CP.004	PS 100	PCD 14	03-19 (RS 116B)		4-3000		
Cadmium Plating of Cuprous Alloys	PS 116		n/a					
Cadmium Plating of UHT Steel	PS 49	PS 131	n/a					
Cadmium Plating of UHT Steels by Vacuum Deposition	PS 136		n/a	03-28				
Hard Chromium Plating on Steel	MSPS100. CP.003	PS 101 PS 135 #	PCD 12	03-14		4-3200/1/2 4-3204/5/8		
Hard Chromium Plating of Light Alloys	PS 16	PS 119	n/a					
Hard Chromium Plating of Copper Based Alloys	PS 114	PS 116	n/a					
Nodular Thin Dense Chromium (NTDC) Plating	PS 180		n/a					
Copper Plating	MSPS100. CP.006	PS 106	PCD 36		BAC5722			
Nickel Plating	PS 37	PS 107	n/a	03-10				
Nickel Sulphamate Plating	PS 165		n/a	03-27				
Electroless Nickel Plating	MSPS100. CP.008		PCD 34	03-5		4-4300		
Reclamation of Steel Components by Heavy Nickel Plating	PS 43		n/a					
Silver Plating	PS 38		n/a	03-9				
Tin Plating	PS 21		n/a	03-8				
Dalic Electroplating Process	PS 10	PS 118 PS 137	PS 10					
Passivation of Corrosion Resistant Steel	MSPS100. CP.005	PS 124	PCD 52		BAC5625	4-1201	6616F	
Phosphate Treatment of Steel	MSPS100. CP.009	PS 108	PCD 17	03-11	BAC5810	4-1002		
Black Oxide Treatment for Steels	PS 106	PS 132	n/a					
Chromate Treatment of Magnesium Alloys	PS 18	PS 103	PS 18	DTD 911				
Ion Vapour Deposition (IVD) of Aluminium on Steel	PS 162		n/a	03-28				
Apticote 400 & 450 Coating/Niflor Low Friction Coating	PS 194	PS 129	n/a					
Termination Requirements of Chrome Plated Surfaces	PS 188	PS 1031	PS 188					



	Wolverhampton (Col A)	RotoI / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Anodising</b>								
Alocrom 1200 Process	MSPS100. CP.002	PS 114	PCD 4			4-2004	6618F	
Local chemical conversion coating	MSPS100. CP.002		PCD 4 (Part 2)			4-2005		
Chromic Acid Anodising	MSPS100. CP.001	PS 102	PCD 69	03-24 RS 116D		4-2103		
Sulphuric Acid Anodising of Aluminium and Titanium Alloys	MSPS100. CP.001	PS 102	PCD 149	03-25		4-2001/2/3 4-2500	6603F	
Hard Anodising of Aluminium Alloys	MSPS100. CP.001		n/a	03-26		4-2200	6617F	
<b>Painting / Coatings</b>								
Paint Schemes	PS 174	various	PS 174		BAC5736	4-5314/6		
Use of Paint Remover	PS 26	PS 211	PS 26					
Dry Lubricant, Anti-Friction Coatings	PS 1		PS 1			4-5906		
Dow Corning 3400A Bonded Lubricant	PS 113		PS 113					
Rilsan Nylon Coating	PS 96	PS 133	PS 96					
Metal/Ceramic Coating	PS 65		PS 65					
Thermal Sprayed Tungsten Carbide Coatings	PS 179		n/a					
Tribomet T104CS Coating	PS 191		n/a					
Tech 12 Chromium Plate Impregnations and Densification	PS 195		n/a					
Physical Vapour Deposition (PVD) of an amorphous Carbon Coating	PS 200		n/a			4-4202		
Tungsten Disulphide (WS2) thin, Dry Film Lubricant	PS 201							
Keronite Coatings for Titanium, Aluminium and Magnesium Alloys	PS 202		n/a					
Titanium Nitride Coatings	PS 208		n/a					

	Wolver- hampton (Col A)	RotoI / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Surface Treatments (incl. machining)</b>								
Pickling of 5145 Forgings	PS 121		n/a					
Cleaning and Surface Preparation of Metallic Materials	PS 8	PS 207	PS 8	03-4	BAC5749			
Shot Peening	MSPS400. MISC.001	PS 123	n/a					
Abrasive Blasting of Metallic Materials	PS 143	PS 200 PS 201	PS 143					
Application of Extrude Hone Process for Surface Finish Improvement	PS 100		PS 100					
Glass Bead Peening	PS 95	PS 134	n/a					
Special Machining Techniques for UHT Steels	PS 138	PS 1004	PS 138					
Electrical Discharge Machining (EDM)	MSPS400. MISC.002	PS 504	PCD 71					
Electrochemical Deburring (ECD) and Machining (ECM)	PS 187		PS 187			4-0034		
Grinding of Titanium and Titanium Alloys	PS 98	PS 935	PS 98			2-0004		
Grinding of Inspection of Chromium Plated Parts	PS 167	NDT 3	PS 167					
Swaging of Metric Pipe Couplings	PS 125		PS 125					
Thread Rolling of Special Applications	PS 132	PS 138	PS 132					
Electropolishing of Investment Castings	PS 164	PS 128	n/a			7-5008 4-0034		
Laser Cutting of Metals	PS 169		n/a					
Plunge Grinding	PS 196	PS 1004-1	PS 196					

	Wolverhampton (Col A)	Roto / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Heat Treatment</b>								
Heat Treatment of Alloy Steels	PS 118	PS 319	PS 118		BAC5617 BAC5619	3-0XXX 4-4202		
Induction Hardening	PS 119		n/a					
Gas Carburising	MSPS200. HT.002	PS 312	PCD 73		BAC5641	3-0121		
Gas Nitriding of Steel Components	MSPS200. HT.003	PS 302	PCD 27		BAC5640	3-1004/9		
Plasma (Ion) Nitriding	PS 151		n/a					
Salt Bath Nitrocarburising - Sursself and Tufftriding	PS 11		n/a					
Nitrotec (Nitrocarburising) Surface Treatment	PS 160		n/a					
Hot Isostatic Pressure (HIP) of Investment Castings	PS 155		n/a					
Requirements for Hot Form Swaging	PS 168	PS 321	n/a					
Equipment Calibration/Heat Treatment Control	MSPS200. HT.001		7400-002- 090		BAC5621			
Sub zero treatment of MAT 119 (440C)	PS 118 App C13	PS 306-2	PS 118 App C13					

### Contamination and Cleaning

Contamination Levels for Hydraulic Fluids	PS 19	PS 910	PS 19					
Cleaning of Hydraulic Pipes	PS 5		PS 5					
Trichloroethylene Vapour Degreasing	PS 78	PS 203	PS 78					
Aqueous Cleaning	PS 215		PS 215					
Ultrasonic Cleaning and Suitable Aqueous Cleaning Solutions	PS 142	PS 204	PS 142					
Chemical Cleaning of Steels (Sulphur Prints)	PS 50		n/a					
Use and Control of Cleaning Fluids	PS 161		PS 161					
Air Cleanliness of Shop Floor Compressed Air Lines	PS 193		PS 193		BSS7217			
Cleaning and Surface Preparation of Metallic Materials	PS 8	PS 207	PS 8	03-4	BAC5749			

	Wolver- hampton (Col A)	RotoI / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2. FL3	Avio FL2	International Alternative **
<b>Joining (adhesives, mechanical &amp; thermal processes)</b>								
General Riveting Process	PS 89		n/a					
Cryogenic Jointing	PS 90		n/a					
Araldite Epoxy Resin Adhesives	PS 28	PS 707/805	PS 28					
Epoxy Bonding Procedure of Laminated Servo Valve	PS 147		PS 147					
Loctite Sealants and Adhesives	PS 33	PS 709	PS 33			6-0112		
Jointing and Sealing Compounds	PS 77	PS 709	PS 77			6-0112 4-5802		
Application of Dow Corning 3145 RTV Adhesive Sealant	PS 133		PS 133					
Use of Waylock S-17163 Adhesive	PS 124		PS 124					
Silver Brazing	PS 42	PS 303	PS 42					
Induction Brazing	PS 32		PS 32					
Removal of Excess Copper Braze from Bushes	PS 67		PS 67					
Brazing Technique for Transducer Type P297-45-0060	PS 86		PS 86					
Reclamation of Cast Iron Components by Powder Welding	PS 58		PS 58					
General Requirements for Spot Welding Sheet Assemblies	PS 87		PS 87					
Welded Hydraulic Pipes and End Fittings	PS 181		PS 181					
EB Welding of ESR 4340	PS 135		n/a					
EB Welding of B777 Ball Ramp Assembly	PS 166		n/a					
EB Welding of JAS 39 EAG Gear Couplets	PS 173		n/a					
EB Welding of A330/340 Flap System Shafts		PS 505*	n/a					
EB Welding of Flap System Shafts for A380	PS 207		n/a					
Furnace Copper Brazing	PS 217	PS 304	n/a					
Palladium Alloy Vacuum Brazing	PS 227	PS 316	n/a					

	Wolver- hampton (Col A)	RotoI / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Assembly and Fitting</b>								
Tube/Pipe Bending	PS 126		PS 126					
Manipulation of Cold Set Preformed Rigid Pipes	PS 56		PS 56					
Routing and Installation of Non-Lofted Hydraulic Pipes	PS 127		PS 127					
Assembly of Keelaring Couplings	PS 88		PS 88					
Fitting Heat Shrink on Plastic Sleeving and Boots	PS 23	PS 821	PS 23					
Sealing of Pipe/Coupling Ends with Heat Shrinkable Sleeving	PS 123	PS 820	PS 123					
Plugging of Hydraulic Components - Lee Plugs (Civil Contracts only)	PS 41	PS 1009	PS 41					
Plugging of Hydraulic Components (other than Lee Plugs)	PS 54		PS 54					
Plugging of Hydraulic Components - Lee Plugs (Military Contracts only)	PS 57	PS 1009	PS 57					
Secondary Staking of Lee Plugs	PS 44		PS 44					
Removal of Copper Plugs from Rotary Valve Sleeves	PS 46		PS 46					
Crimped Cable Connectors	PS 66	PS 902	PS 66					
Undercutting of Screw Threads	PS 60		PS 60					
MJ Threads Modified for Critical Load Applications	PS 157		PS 157					
UNJ Threads Modified for Critical Load Applications	PS 158		PS 158					
Printed Wiring Board Manufacture	PS 92		PS 92					
Assembly and Protection of Printed Wiring Boards	PS 109		PS 109					
Helical Compression Springs for Aerospace Applications	PS 159		PS 159					
Assembly and Installation of Magnetic Seals	PS 170		PS 170					
Assembly and Procedure for Flareless Fittings	PS 172		PS 172					
Assembly of Wet Bushes with Wet Primer	PS 198	PS 1011-14	PS 198					
Procedure for Installation of Imperial Thin Wall Inserts	PS 203		PS 203					
Thermal Stabilisation of Servo Valves	PS 205		PS 205					

	Wolver- hampton (Col A)	RotoI / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>Protection and Storage</b>								
Temporary Protection Against Corrosion	PS 45	PS 202	PS 45			4-5802 4-5704		
Protection of Engine Accessory Magnesium Alloy Castings Against Corrosion		PS 121*	PS 121*					
Packaging of Hydraulic Assemblies for Storage	PS 24		PS 24					
Packaging of Electrical Components and Assemblies	PS 25		PS 25					
Protective Treatment against Galvanic Corrosion - Mastinox	PS 139	PS 709	PS 139			4-5802		
Aircraft Hydraulic/Mechanical Assemblies - Storage and Preservation Information	PS 171	PS 1016	PS 171					
Control of Shelf Limited Items	PS 183	PS 909	PS 183					
<b>Potting Techniques</b>								
Pre-treatment and Surface Coating of PTFE Insulated Cables	PS 51	PS 812	PS 51					
Potting Application of Two Package RTV 88 Silicone Rubber	PS 101		PS 101					
Crystal Clear Silicone Potting Compound	PS 120		PS 120					
<b>Component Identification</b>								
Part Marking	PS 156	PS 405	PS 156		BAC5307	0-0016		
Hydraulic Pipe Identification (12mm and less) for MCMV	PS 110		PS 110					
Adhesive Fixing of Labels using Silastic 738 RTV	PS 40	PS 727	PS 40					
Unit Assembly Label Fixing using Cable Ties	PS 190		PS 190			0-0379		

	Wolverhampton (Col A)	Rotol / DAG (Col B)	MWL in-house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL2, FL3	Avio FL2	International Alternative **
<b>NDT &amp; other Inspection Techniques</b>								
Etch Inspection of Steel Components	MSPS300. NDT.001	NDT 6	PCD 29		BAC5436			
Bolt Etching Process (Forged Heads)	PS 55	NDT 6	n/a					
Hardness Inspection of Metallic Materials	PS 111		PS 111					
Magnetic Particle Inspection	PS 74	NDT 2&3 PS 400	PS 74		BAC5424 BSS7040	7-4900	9400F	ASTM E1444
Fluorescent Penetrant Inspection	PS 79	NDT 3&8 PS 404	PS 79		BAC5423 BSS7039	7-4910	9300F	ASTM E1417
Ultrasonic Inspection of Aluminium Alloys	PS 102	NDT 16	n/a					
Photographic Examination of Hard Chrome Plated Cylinders	PS 63		n/a					
Radiographic Acceptance Standards for Castings	PS 185	NDT 14	n/a					
Salt Spray Testing	PS 192		PS 192					
Visual Inspection	PS 197		PS 197					

	Wolverhampton (Col A)	Roto / DAG (Col B)	MWL in- house PS (Col C)	Def Std	Boeing FL1	Liebherr LAT FL 2, FL3	Avio FL2	International Alternative **
<b>Miscellaneous</b>								
Impregnation of Coil Windings	PS 31	PS 802	PS 31					
Loctite Sealants & Adhesives	PS 33		PS 33			2-3200		
Secondary Staking of Lee Plugs	PS 44		PS 44			0-0192		
Plugging of Hydraulic Components with Lee Plugs	PS 57		PS 57			0-0192		
MJ Threads Modified for Critical Load Applications	PS 157		PS 157			2-1901		
UNJ Threads Modified for Critical Loaf Applications	PS 158		PS 158			2-1901		
Impregnation of Oilite Porous Bronze Bearings	PS 104		PS 104					
Treatment of Solenoid Coil Assemblies	PS 22		PS 22					
Surface Sealing of Magnesium Alloys	PS 6	PS 619	PS 6	DTD 935				
Manufacture of A330/340 Composite Transmission Shafts	PS 175		n/a					
Manufacture of Bevel Gears	PS 186		PS 186					
Termination Requirements of Chrome Plated Surfaces	PS 188	PS 1031	PS 188					
Jointing & Sealing compounds	PS 77		PS 77			4-5802		
JSF Titanium Material Procurement & Casting Inspection Requirements	PS 199		n/a					
Barrel de-burring for non-ferrous loads under 200 grams	PS 204		PS 204					
Mechanical Property Sampling of Oversized Aluminium Billets	PS 210		PS 210					
787 Aluminium Material Procurement & Casting Inspection Requirements for Casting Housing, P677A0160-00	PS 209		PS 209					
Recommended and Cancelled Metallic Materials Specification for Aerospace Applications	QCI 216	PS 1001/ MAT 905/ MAT 909	n/a					
Test Pieces for Heat Treatment and Process	QCI 311	MAT 902	n/a					
Special Processes Procedures	7100-001-090		n/a					
Inspection Records and Inspection Cards	7100-002-090		n/a					

**FL1** – Correlation from Boeing process specification only applies for in-house processing at Moog Wolverhampton (column C).

**FL2** – Correlation from Liebherr and Avio process specifications applies for both in-house processing at Moog Wolverhampton (column C) and processing externally in supply chain (column A).

**FL3** – Correlation from Liebherr process specifications applies for part numbers where Moog has the retained master (e.g. 1015-1024) and also where Liebherr – LLI has the retained master (e.g. 1015-3038)



11.0 REVISION HISTORY

Issue	Summary of Revision (paragraph number)
CA	<p>The use of correlation index for the purposes of correlation between customer process specification and the Moog process specification had been limited to MWL only. This restriction is now removed and supply chain may use the correlation for Liebherr and Avio process specifications (section 10.2)</p> <p>Delete Messier Dowty column from correlation index as this work is no longer undertaken by Moog (Section 10, pages 18-26)</p> <p>Delete Rolls-Royce column from correlation index as this work is no longer undertaken by Moog (Section 10, pages 18-26)</p> <p>Deleted certain Boeing specification references throughout correlation index representing those processes undertaken outside of MWL, leaving just those processes undertaken at MWL (Section 10, pages 18-26)</p> <p>Add LAT4-3208 “Hard Chrome Plating of Corrosion Resistant Steel” to the correlation index against MSPS100.CP.003. In the same way as other correlations between Liebherr and Moog process specifications, this effectively allows processing of parts to the Moog controlled process specification in lieu of the Liebherr specification (Section 10, page 18 “Plating / Passivation”)</p> <p>Add foot notes to correlation index relating to Boeing, Liebherr and Avio process specifications.</p> <p>Remove references to international alternatives (final column in correlation index) for processes where the link no longer exists within the MWL process specification.</p>