

Process Specification



Standard: **PS 500**

Master, Subject & Correlation Index Title:

Approvals:

Issue	Compiled	Date	M&P Eng.	QA	Approved	EO
54	S Ford	20140226	S Ford	P Fenton	R Duckett	EWA001234
55	S Ford	20140911	S Ford	P Fenton	B Roberts	EWA001411
56	S Ford	20150806	S Ford	P Fenton	B Roberts	EWA001981
57	S Ford	20151020	S Ford	P Fenton	B Roberts	EWA002172
58	S Ford	20170615	S Ford	P Fenton	B Roberts	EWA002763
59	S Ford	20190123	S Ford	P Fenton	B Roberts	ECNEU00873

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	Moog supplier Process Specifications (MSPS)	
	Process Control Documents (PCD)	
	DAG Process Specifications Transferred to Moog - Wolverhampton	
	Material Specifications (MAT)	
	Process Specification (PS) Subject Index	
	Correlation Index	

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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, 1142	242xxx, 114424xxx, 114	346xxx
Othor	Cygggy 601 Owy you	ī	

Other Gxxxxx, 601 0xx xxx

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

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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
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 CANCELLED (in house use BCD 3C gumplion hose use MCDC400 CD 00C)
36 27*	CANCELLED (in house use PCD 36, supplier base use MSPS100.CP.006)
37*	Nickel Plating
38	Silver Plating CANCELLED (autobior base use MSRS400 MISC 001)
39 40	CANCELLED (supplier base use MSPS400.MISC.001) 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

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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
71	CANCELLED (in house use PCD 71, supplier base use MSPS400.MISC.002)
72	CANCELLED
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
81	CANCELLED
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

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PS	Title
92*	Printed wiring board manufacture
93	CANCELLED
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
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
116 *	Cadmium Plating of Cuprous Alloys
117	CANCELLED
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
129	CANCELLED
130	CANCELLED
131	CANCELLED
	Thread Rolling of Special Applications
	Application of Dow Corning 3145 RTV Adhesive Sealant
	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

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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
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

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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, AI & Mg Alloys
202	Tungsten Disulphide (WS2) 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

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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	Issue	Date	Title
2	4	20160330	Bronze Plating
3	10	20170815	Furnace Operating Procedures
4	4	Apr-13	Protective Treatment of Aluminium using Alocrom 1200 Process
7	9	Apr-15	Metallography
12	4	Nov-10	Hard Chromium Plating of Steels
14	4	Mar-11	Cadmium Plating
17	3	20160330	Phosphate Treatment of Steel
27	5	20161014	Gas Nitriding of Steel Components
29	6	20151001	Etch Inspection of Steel Components
34	5	Mar-11	Electroless Nickel Plating
36	5	20160330	Copper Plating
52	4	20161222	Passivation of Corrosion Resistant Steels
69	4	Nov-10	Chromic Acid Anodising
71	2	May-09	Electrical Discharge Machining (EDM)
73	6	20170413	Gas Carburising of Steel Components
149	3	Nov-10	Sulphuric Acid Anodising of Aluminium and Titanium alloys

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6.0 DAG PROCESS SPECIFICATIONS TRANSFERRED TO MOOG - WOLVERHAMPTON

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 DAG PS 505	-	12/70 1/93	Protection of Engine Accessory Magnesium Alloy Castings Against Corrosion 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	4	Jun-15	Grease/oil mixture for Flap system Gearboxes
MAT 602	4	Jun-15	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.

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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

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

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9.2

Note:

Painting & Coatings

PS 174 Paint Schemes for use at Smiths Wolverhampton **PS 26** Paint Removers PS₁ 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 Tech-12 Chromium Plate Impregnation and Densification PS 195 Physical Vapour Deposition (PVD) of an amorphous Carbon Coating PS 200 PS 201 Tungsten Disulphide (WS2) Thin, Dry Film Lubricant PS 202 Keronite Coatings for Titanium, Aluminium and Magnesium Alloys PS 208 Titanium Nitride coatings 9.3 Surface Treatments (including machining) PS8 Cleaning and Surface Preparation of Metallic Materials PS 121 Pickling of S145 Forgings PS 143 Abrasive Blasting of Metallic Materials **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 Grinding of Titanium Alloys PS 98 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

MSPS100.CP.001 covers chromic acid anodising, sulphuric acid anodising and hard anodising

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9.5	Heat Treatment	
	PS 118	Heat Treatment of Alloy Steels
	PS 119	Induction Hardening
	PCD 73 §	Gas Carburising
	<u>-</u>	Gas Carburising / Case Hardening of Steel Parts
	PCD 27 §	Nitriding of Steel Components
	MSPS200.HT.003 ‡	·
	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
	10100	requirements for riot roini ewaging
9.6	Joining (including adh	nesives, 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
	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
9.7	Assembly and Fitting	
	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
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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
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

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9.10 NDT and other Inspection Techniques 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 Radiographic Acceptance Standards for Castings PS 185 PS 192 Salt Spray Testing to ASTM B117 PS 197 Visual Inspection 9.11 Component Identification 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 Potting Techniques 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 Miscellaneous **PS 31** Impregnation of Coil Windings PS 104 Impregnation of Oilite Porous Bronze Bearings **PS 22** Treatment for Solenoid Coil Assemblies PS₆ 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, P677AO160-00

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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 Business Procedures (BP) or Moog Aircraft Group **Quality Procedures**

> QCI 001 **Explanatory Notes**

7400-002-090 § Pyrometry

MSPS200.HT.001 ‡ Furnace Control & Calibration (Pyrometry)

QCI 124 Acceptance Sampling Plans **QCI 126** Classification of Parts

7100-003-090 Control of NDT Operations and Approval of NDT Personnel

QCI 216 Recommended and Cancelled Metallic Material Specifications for Aerospace

Applications

QCI 311 Test Pieces for Heat Treatment and Process 7100-002-090 Inspection Records and Inspection Cards

7100-001-090 Special Processes Procedures

Key to Symbols used in section 9.0

† see section 5.1

¤ see section 6.2

- § for in-house use at MWL only (see section 0)
- # for use within MWL supplier base (see section 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

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

10.2 Column C in the following tables represents the internal instruction or procedure to be used when a corresponding customer specification is called for on the Moog Wolverhampton job documentation (Layout Sheet). This applies to processing in house at Moog Wolverhampton only.

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Plating / Passivation										
Bronze Plating	MSPS100. CP.007	PS 111	PCD 2	PS 111				438		
Cadmium Plating	MSPS100. CP.004	PS 100	PCD 14	PCS 2102	03-19 (RS 116B)	5701 QQ-P- 416	4-3000	170		
Cadmium Plating of Cuprous Alloys	PS 116		n/a	PCS 2102						
Cadmium Plating of UHT Steel	PS 49	PS 131	n/a	PCS 2100		5718				
Cadmium Plating of UHT Steels by Vacuum Deposition	PS 136		n/a	-	03-28					
Hard Chromium Plating on Steel	MSPS100. CP.003	PS 101	PCD 12	PCS 2110	03-14	5709	4- 3200/1/2/4/5	130		
Hard Chromium Plating of Light Alloys	PS 16	PS 119	n/a	PS 119						
Hard Chromium Plating of Copper Based Alloys	PS 114	PS 116	n/a	=						
Nodular Thin Dense Chromium (NTDC) Plating	PS 180	PS 135	n/a	=		5709				
Copper Plating	MSPS100. CP.006	PS 106	PCD 36	PS 106		5722		297		
Nickel Plating	PS 37	PS 107	n/a	PS 107	03-10	5746				
Nickel Sulphamate Plating	PS 165		n/a	=	03-27					
Electroless Nickel Plating	MSPS100. CP.008		PCD 34	-	03-5	5728	4-4300			
Reclamation of Steel Components by Heavy Nickel Plating	PS 43		n/a	-						
Silver Plating	PS 38		n/a	=	03-9	5715		168		
Tin Plating	PS 21		n/a	=	03-8	5717		497		
Dalic Electroplating Process	PS 10	PS 118 PS 137	PS 10	PS 118 PCS 2141		5849				
Passivation of Corrosion Resistant Steel	MSPS100. CP.005	PS 124	PCD 52	PS124		5625	4-1201		6616F	
Phosphate Treatment of Steel	MSPS100. CP.009	PS 108	PCD 17	PS 108	03-11	5810	4-1002	6		
Black Oxide Treatment for Steels	PS 106	PS 132	n/a	PCS 2200						
Chromate Treatment of Magnesium Alloys	PS 18	PS 103	PS 18	PS 103	DTD 911			22		
Ion Vapour Deposition (IVD) of Aluminium on Steel	PS 162		n/a	-	03-28	5315				
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	M-DLPS1031						

		5								
	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	Internationa Alternative *
Anodising										
Alocrom 1200 Process	MSPS100. CP.002	PS 114	PCD 4	PCS 2220		5719	4-2004		6618F	
Chromic Acid Anodising	MSPS100. CP.001	PS 102	PCD 69	PS 102	03-24 RS 116D	5019	4-2103	54/3		
Sulphuric Acid Anodising of Aluminium and Titanium Alloys	MSPS100. CP.001	PS 102	PCD 149	PS 102	03-25	5022	4-2001/2/3 4-2500	54/4	6603F	
Hard Anodising of Aluminium Alloys	MSPS100. CP.001		n/a	-	03-26	5821	4-2200		6617F	
Painting / Coatings										
Paint Schemes	PS 174	various	PS 174	various		5736	4-5314/6			
Use of Paint Remover	PS 26	PS 211	PS 26	PCS 2700						
Dry Lubricant, Anti-Friction Coatings	PS 1		PS 1	PS 117			4-5906	661/10		
Dow Corning 3400A Bonded Lubricant	PS 113		PS 113	-						
Rilsan Nylon Coating	PS 96	PS 133	PS 96	PS 133						
Metal/Ceramic Coating	PS 65		PS 65	-						
Thermal Sprayed Tungsten Carbide Coatings	PS 179		n/a	-		5851				AMS 2447 (HVOF only)
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)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Surface Treatments (incl. machin	ing)									
Pickling of 5145 Forgings	PS 121		n/a	-						
Cleaning and Surface Preparation of Metallic Materials	PS 8	PS 207	PS 8	PS 207	03-4	5751				
Shot Peening	MSPS400. MISC.001	PS 123	n/a	PS 123		5730				
Abrasive Blasting of Metallic Materials	PS 143	PS 200 PS 201	PS 143	PCS 2610				386		
Application of Extrude Hone Process for Surface Finish Improvement	PS 100		PS 100							
Glass Bead Peening	PS 95	PS 134	n/a	PS 134 PS 139		5951				
Special Machining Techniques for UHT Steels	PS 138	PS 1004	PS 138	M-DLPS1004						
Electrical Discharge Machining (EDM)	MSPS400. MISC.002	PS 504	PCD 71	PS 504		5969		418		
Electrochemical Deburring (ECD) and Machining (ECM)	PS 187		PS 187	-			4-0034			
Grinding of Titanium and Titanium Alloys	PS 98	PS 935	PS 98	PS 935		5492	2-0004			
Grinding of Inspection of Chromium Plated Parts	PS 167	NDT 3	PS 167	M-DLNDT3		5032				
Swaging of Metric Pipe Couplings	PS 125		PS 125	-						
Thread Rolling of Special Applications	PS 132	PS 138	PS 132	PS 138						
Electropolishing of Investment Castings	PS 164	PS 128	n/a	PS 128		5622	7-5008 4-0034			
Laser Cutting of Metals	PS 169		n/a	-		5982				
Plunge Grinding	PS 196	PS 1004-1	PS 196	M-DLPS1004						

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Heat Treatment										
Heat Treatment of Alloy Steels	PS 118	PS 319	PS 118	PS 319		5619	3-0XXX 4-4202			various
Induction Hardening	PS 119		n/a	-		5616				
Gas Carburising	MSPS200. HT.002	PS 312	PCD 73	PS 312		5641	3-0121	371		
Gas Nitriding of Steel Components	MSPS200. HT.003	PS 302	PCD 27	PS 302		5640	3-1004/9	135		
Plasma (Ion) Nitriding	PS 151		n/a	-						
Salt Bath Nitrocarburising - Surself 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	PS 321						
Equipment Calibration/Heat Treatment Control	MSPS200. HT.001		7400-002- 090	PS 311		5621		953		
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	M-DLPS910						
Cleaning of Hydraulic Pipes	PS 5		PS 5	-						
Trichloroethylene Vapour Degreasing	PS 78	PS 203	PS 78	PCS 2620		5408		128		
Aqueous Cleaning	PS 215		PS 215							
Ultrasonic Cleaning and Suitable Aqueous Cleaning Solutions	PS 142	PS 204	PS 142	PCS 3213				498		
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	-		7217				
Cleaning and Surface Preparation of Metallic Materials	PS 8	PS 207	PS 8	PS 207	03-4	5751				

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Joining (adhesives, mechanical &	thermal	process	ses)							
General Riveting Process	PS 89	_	n/a	-						
Cryogenic Jointing	PS 90		n/a	-						
Araldite Epoxy Resin Adhesives	PS 28	PS 707/805	PS 28	M-DLPS709						
Epoxy Bonding Procedure of Laminated Servo Valve	PS 147		PS 147	-						
Loctite Sealants and Adhesives	PS 33	PS 709	PS 33	M-DLPS709			6-0112			
Jointing and Sealing Compounds	PS 77	PS 709	PS 77	M-DLPS709			6-0112 4-5802	638		
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	PS 303		5940				
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	-						

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Assembly and Fitting										
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	M-DLPS821						
Sealing of Pipe/Coupling Ends with Heat Shrinkable Sleeving	PS 123	PS 820	PS 123	M-DLPS802						
Plugging of Hydraulic Components - Lee Plugs (Civil Contracts only)	PS 41	PS 1009	PS 41	PS 1009						
Plugging of Hydraulic Components (other than Lee Plugs)	PS 54		PS 54	PS 1009						
Plugging of Hydraulic Components - Lee Plugs (Military Contracts only)	PS 57	PS 1009	PS 57	PS 1009						
Secondary Staking of Lee Plugs	PS 44		PS 44	PS 1009						
Removal of Copper Plugs from Rotary Valve Sleeves	PS 46		PS 46	-						
Crimped Cable Connectors	PS 66	PS 902	PS 66	PS 902						
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	M-DLPS1011- 14						
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)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Protection and Storage										
Temporary Protection Against Corrosion	PS 45	PS 202	PS 45	PCS 2800			4-5802/704	367		
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	M-DLPS709			4-5802			
Aircraft Hydraulic/Mechanical Assemblies - Storage and Preservation Information	PS 171	PS 1016	PS 171	M-DLPS1016				259		
Control of Shelf Limited Items	PS 183	PS 909	PS 183	PS 909						
Potting Techniques Pre-treatment and Surface Coating of PTFE Insulated Cables Potting Application of Two Package RTV 88 Silicone	PS 51	PS 812	PS 51							
Rubber										
Crystal Clear Silicone Potting Compound	PS 120		PS 120							
Component Identification										
Part Marking	PS 156	PS 405	PS 156	PS 405		5307	0-0016	753		
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	PS 727						
Unit Assembly Label Fixing using Cable Ties	PS 190		PS 190	-			0-0379			

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
NDT & other Inspection Techniques										
Etch Inspection of Steel Components	MSPS300. NDT.001	NDT 6	PCD 29	PCS 3600		5436		147		AMS 2649
Bolt Etching Process (Forged Heads)	PS 55	NDT 6	n/a	PCS 3600						
Hardness Inspection of Metallic Materials	PS 111		PS 111	-				MSRR 9969		
Magnetic Particle Inspection	PS 74	NDT 2&3 PS 400	PS 74	PCS 3100		5424 7040	7-4900	700	9400F	ASTM E1444
Fluorescent Penetrant Inspection	PS 79	NDT 3&8 PS 404	PS 79	NDT 8		5423 7039	7-4910	702	9300F	ASTM E1417
Ultrasonic Inspection of Aluminium Alloys	PS 102	NDT 16	n/a	NDT 16		5439				
Photographic Examination of Hard Chrome Plated Cylinders	PS 63		n/a	-						
Radiographic Acceptance Standards for Castings	PS 185	NDT 14	n/a	QCI 521	PS 507		PS 507			
Salt Spray Testing	PS 192		PS 192							
Visual Inspection	PS 197		PS 197	-				709		
Control of NDT Operations and Approval of NDT Personnel	7100-003- 090	NDT 10	7100-003- 090	M-DLNDT10		7698		906/908		NAS 410 prEN 4179

	Wolver- hampton (Col A)	Rotol / DAG (Col B)	MWL in- house PS (Col C)	Messier Dowty	Def Std	Boeing BAC	Liebherr LAT	Rolls- Royce RPS	Avio	International Alternative **
Miscellaneous										
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	PS 619	DTD 935			367		
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	M-DLPS1031						
Jointing & Sealing compounds	PS 77		PS 77	-			4-5802			
JSF Titanium Material Procurement & Casting Inspection Requirements	PS 199		n/a	-				MSRR 8670		
Barrel de-burring for non-ferrous loads under 200 grams	PS 204		PS 204	-				251		
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	M-DLPS1001 MAT 905 MAT909						
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							