



AI ENGINEERING SERVICES LIMITED

CAPABILITY LIST

APPROVED BY
DGCA
GOVERNMENT OF INDIA



AI ENGINEERING SERVICES LIMITED

CAPABILITY LIST


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Vide letter No.F-APP/AIESL/2820, Dated 29/12/2014
ISSUED BY
CHIEF EXECUTIVE OFFICER
AI ENGINEERING SERVICES LIMITED
ISSUE 2 REV 0 01 DEC 2020



AI ENGINEERING SERVICES LIMITED


CAPABILITY LIST

PART 0
GENERAL

	CAPABILITY LIST		AIESL CAP/02	
			PART 0	
	GENERAL		Issue-2	Rev-0

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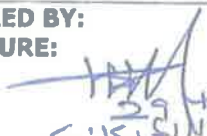




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0.2 LIST OF EFFECTIVE PAGES

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संध्या सकसेना/Sandhya Saxena
निदेशक उड़नयोग्यता /DAW

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0.3 RECORD OF REVISIONS

ISSUE NO	REV. NO	DATE
ISSUE-1	REV 0	30 APR 2014
ISSUE-1	REV 1	01 NOV 2017
ISSUE-1	REV 2	01 JAN 2019
ISSUE-1	REV 3	01 MAY 2019
ISSUE-2	REV 0	01 DEC 2020

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0.4 DISTRIBUTION LIST

CAPABILITY LIST, **AIESL CAP/02** IS ISSUED TO FOLLOWING:

COPY

ISSUED TO

HARD COPY / SOFT COPY

DAW, DGCA - MUMBAI

SOFT COPY

ALL EXECUTIVES & ACTIVITY CENTERS THROUGH SERVER.

NOTE: SOFT COPY OF CAPABILITY LIST, **AIESL CAP/02** IS AVAILABLE ON ENGINEERING SERVER AND IS ACCESSIBLE TO ALL THROUGH INTERNET (<ftp://cgs1.airindia.in>) & INTRANET.

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0.5 PREAMBLE

AIESL Capability List designated as Document Reference No. AIESL CAP/02 has been approved by DGCA.

The Capability List includes Maintenance, Repair, Overhaul, Testing at Mumbai and Nagpur facility of AIESL w.r.t. the following Engines, APUs, Components and their parts; Specialized Services & Processes (All Aircraft/Engines/Components/Parts).

Manufacturer	Engine
General Electric	GENx-1B Series
General Electric	GE90-100 Series
CFMI	CFM56-7B Series
Pratt & Whitney	PW4000 Series

Manufacturer	APU
Honeywell	GTCP331-500
Honeywell	131-9B
Pratt & Whitney Canada	PW901A
Hamilton Sunstrand	APS 5000

The Engines, APUs and components listed in the capability list are authorized to be maintained/tested/overhauled/repared and returned to service by AIESL.


Capability List shall be maintained as a separate document containing a Document cover page, Document part Cover page, a preamble, a Table of Contents Page, a Record Of Revisions Page, a List of Effective pages and a Revision highlights page along with the details of the Capability listed in the document. Each Part may be further divided into various sections depending upon its activity centers.

The level of Maintenance defined in the Capability List shall be as per the AIESL MOE.

Each page of the capability list shall be identified by Part, Section, Issue No., Rev. No. & Rev. date in the header & page Reference at the centre of footer.


When the main Part No. of a component branches into several dash numbers, the main part no. may be listed with the term- series or XX, as the case may be in the reference document. Alternately applicability to type design may be referenced.

Procedure for enhancement/amendment to this capability list has been described in the MOE, Part 1, Section 1.9.5.

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0.6 HISTORY OF REVISIONS

ISSUE NO	REV. NO.	DATE OF REVISION	EFFECTIVE DATE	BRIEF DESCRIPTION OF CHANGES
Issue 1	0	30 APRIL 2014	01 JAN 2015	
Issue 1	1	01 NOV 2017	01 NOV 2017	<p>The following capabilities were deleted at AIESL, Mumbai Facility.</p> <ol style="list-style-type: none"> 1. GE CF6-50 SERIES ENGINE (Part 1) 2. GE CF6-80C2 SERIES ENGINE (Part 1) 3. GTCP 331-250H APU. (Part 2) <p>The following capabilities were added/revised at AIESL, Mumbai Facility.</p> <p style="text-align: center;">PART 0</p> <ol style="list-style-type: none"> 1) AIESL CAR-145 MOE REFERENCE Removed. 2) PREAMBLE – GENx 1B Series & APU APS 5000 added. Each page shall be identified by - part, section added, page reference at the centre of the footer added.MOE reference added. 3) Part 0(GENERAL) Revised Rev-1 ,01 NOV 2017 <p style="text-align: center;">PART 1</p> <ol style="list-style-type: none"> 4) 1.1 – Note revised 5) 1.2 – Typographical error Inlet Gear box Module was deleted in Rev.0. Error corrected. Note revised 6) GE90-100 Series Engines-Special Inspections including Check C/Service Bulletins/ Airworthiness directive compliance on GE90-100 Series engines as per GE'S SBs, ADs issued as per approved capability added. 7) 1.3 - Scope of work at Nagpur Facility added (GE90-100).Note revised 8) 1.4 - Check C Inspection, Removal, Inspection & Installation of AGB Module and LRUs as per GENx-1B EM GEK 112851added. 9) Note added. 10)Scope of work at Nagpur Facility added (GENx-1B). <p style="text-align: center;">PART 2</p> <ol style="list-style-type: none"> 11)2.2 – Typographical error, Scope of work,Disassembly, Cleaning, Inspection, Assembly, Repair and Balancing was deleted in Rev.0. Error corrected. 12)2.3 - Typographical error,Testing was added in Rev.0. Error corrected. 13)2.4 – Note added <p style="text-align: center;">PART 3</p> <ol style="list-style-type: none"> 14)3.1- In Page number 4, Special cleaning process, SPM reference added 15)3.2 – NDT- FPI & FMPI for HSPS AS PER ASTM E 1417 & 1444. 16)3.10 – Qty.17 consumables as highlighted are added with description and specification.

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ISSUE NO	REV. NO.	DATE OF REVISION	EFFECTIVE DATE	BRIEF DESCRIPTION OF CHANGES
Issue 1	2	01 JAN 2019	01 JAN 2019	<p style="text-align: center;">PART 0</p> <p>0.1 – TOC Changed to incorporate revisions 0.2 – LEP Changed to incorporate revisions 0.3 – ROR Date & New revision number added 0.4 – DIST.LIST Engineering server Internet web address added. 0.7 – HIST. OF RIV. Revised to add highlights of Revision 2.</p> <p style="text-align: center;">PART 1</p> <p>1.4 – GEnx-1B Engine Testing capability at Nagpur Facility added.</p>
Issue 1	3	01 MAY 2019	01 MAY 2019	<p style="text-align: center;">PART 0</p> <p>0.2 – LEP Changed to incorporate revisions 0.3 – ROR Date & New revision number added 0.7 – HIST. OF RIV. Revised to add highlights of Revision 3.</p> <p style="text-align: center;">PART 1</p> <p>1.3 – GE90-100 SERIES ENGINES Forward engine mount module Removal, Disassembly, Inspection, Repair, Assembly & Installation added.</p>
Issue 2	0	01 DEC 2020	01 DEC 2020	<p style="text-align: center;">PART 0</p> <p>Logo And Company Name Changed.</p> <p style="text-align: center;">PART 1, Section 1.1 to 1.4</p> <p>Logo And Company Name Changed.</p> <p style="text-align: center;">PART 2, Section 2.1 to 2.4</p> <p>Logo And Company Name Changed.</p> <p style="text-align: center;">PART 3, Section 3.1 to 3.10</p> <p>Logo And Company Name Changed.</p>



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CAPABILITY LIST

PART 1
ENGINES

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1.1 PW 4000-94" SERIES ENGINES

DESCRIPTION	SCOPE OF WORK
Modular Maintenance	Disassembly of Engine into Modules, partial (or) full & Assembly of Engine. Engine Borescope Inspection including in-situ blending.
Powerplant Build Up and QEC	QEC Removal and Installation. Disassembly, Cleaning, Inspection, Repair & Assembly of QEC Items.
Spinner / Fan Assembly	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
L.P. Compressor	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
H.P. Compressor	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
Combustor & Stage 1 Nozzle Assembly	Disassembly, Cleaning, Inspection, Repair & Assembly.
HP Turbine Module	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
LP Turbine Module	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
Exhaust Assembly	Disassembly, Cleaning, Inspection, Repair & Assembly.
Main Gear Box Assembly	Disassembly, Cleaning, Inspection, Repair & Assembly.
Angle Gear Box Assembly	Disassembly, Cleaning, Inspection, Repair & Assembly.
Engine FWD and AFT Mounts	Disassembly, Cleaning, Inspection, Repair, Assembly as per: P&W CMM 71-20-04, 71-20-05 & Boeing CMM 71-21-16.
Exhaust Sleeve & Plug	Disassembly, Cleaning, Inspection, Repair, Assembly as per: P&W CMM 78-10-04, 78-10-03 & Boeing CMM 78-11-06, 78-11-15
Testing	All Tests.

NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).



DGCA CAPABILITY LIST

AIESL CAP/02

PART 1

SECTION 2

ENGINES

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1.2 CFM56-7B SERIES ENGINES

DESCRIPTION	SCOPE OF WORK
Modular Maintenance	Disassembly of Engine into Modules, partial (or) full & Assembly of Engine. Engine Borescope Inspection including in-situ blending.
Powerplant Build Up and QEC	QEC Removal and Installation. Disassembly, Cleaning, Inspection, Repair & Assembly of QEC Items. Engine Borescope Inspection including in-situ blending.
Fan Frame / Case Module	Disassembly, Cleaning, Inspection, Repair & Assembly.
Fan, Booster Module and Spinner	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
No. 1 & No.2 Bearing Support Module	Disassembly, Cleaning, Inspection, Repair, Assembly.
Core Module:	
1. HP Compressor Module	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
2. Combustor/HP Turbine Nozzle Module	Disassembly, Cleaning, Inspection, Repair & Assembly.
3. HP Turbine Module	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
4. HPT Shroud Support and LPT Stg.1 Nozzle Module.	Disassembly, Cleaning, Inspection, Repair & Assembly.
L.P. Turbine Module	Disassembly, Cleaning, Inspection, Repair, Assembly & Balancing.
Inlet Gear Box Module	Disassembly, Cleaning, Inspection, Repair & Assembly.
Transfer Gear Box Module	Disassembly, Cleaning, Inspection, Repair & Assembly.
Accessory Gear Box Module	Disassembly, Cleaning, Inspection, Repair & Assembly.
Engine FWD and AFT Mounts	Disassembly, Cleaning, Inspection, Repair, Assembly as per: Boeing CMM 71-21-37.
Exhaust Nozzle & Plug	Disassembly, Cleaning, Inspection, Repair, Assembly as per: Boeing CMM 78-11-37, 78-11-38
Testing	All Tests.

NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).

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1.3 GE90-100 SERIES ENGINES

At Mumbai Facility:

DESCRIPTION	SCOPE OF WORK
Engine	Engine Borescope Inspection including in-situ blending.
Engine	Fan Blade Inspection and Replacement including blending and paint touch-up repair.
Engine	Fan Stator Removal and Installation (Engine split/mate for /shipping/ transportation / storage.) including fan booster acoustic panel replacement.
Engine	Special Procedures per Engine Manual, Aircraft Maintenance Manual and Service Bulletins, such as- TGB Inspection and Replacement as per SB 72-263, LPT Stage 6 blade Inspection and Replacement per SB 72-0260 and 72-0226, Main Fuel Pump stud replacement and AGB removal/installation; AGB carbon seal replacement; HPC Top Case repair, Engine fuel/oil system preservation etc. Stage 9 OGV Leaf seal replacement per SB 72-338 HPT Stg.1 shroud replacement per SB 72-0404 AGB control alternator pad inspection/repair per SB 72-0256 AGB Main fuel pump & HMU mounting studs replacements per SB 72-0326 AGB Aft skirt covers replacements per SB 72-0280 HPT Stage 2 Blades replacement per core module Assy. 72-00-02 special procedure 002, Removal / Installation of LPT Module / HPT Module / Combustor Diffuser Assembly / AGB Module per, Fan stator rework as per GE90100 EM GEK 109993. HDS replacement per SB 72-A0478 Fan Case Abradable Shroud Repair per EM 72-00-06 and Fan stator rework per SB 72-201.TCF cooling holes repair per SB 72-0476. Forward Engine mount module Removal, Disassembly, Inspection, Repair, Assembly & Installation GE90-100 Series Engines-Special Inspections including Check C/Service Bulletins/ Airworthiness directive compliance on GE90-100 Series engines as per GE'S SBs, ADs issued as per approved capability. QEC Removal and Installation.
Power plant Build Up and QEC	
NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).	

At Nagpur Facility:

DESCRIPTION	SCOPE OF WORK
Engine	All Tests as per GE90-100 Engine Manual GEK 109993.

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1.4 GENx-1B SERIES ENGINES

At Mumbai Facility:

DESCRIPTION	SCOPE OF WORK
Engine	Engine Borescope Inspection including in-situ blending.
Engine	Fan Blade Inspection and Replacement including blending and paint touch-up repair.
Engine	Fan Stator Removal, inspection and Installation (Engine split/mate for /shipping/ transportation / storage.) including fan booster acoustic panel replacement.
Engine	Check C Inspection, Removal, Inspection & Installation of AGB Module and LRUs as per GENx-1B EM GEK 112851.
Powerplant Build Up and QEC	QEC Removal, inspection and Installation.
Preservation	Engine Fuel/oil system preservation
SI/SB/AD	Special Inspections/Service Bulletins/Airworthiness Directives Compliance on GENx-1B Engines

NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).

At Nagpur Facility:

DESCRIPTION	SCOPE OF WORK
Engine	Engine Borescope Inspection including in-situ blending as per GENx-1B EM GEK 112851 & Boeing 787 AMM .
Engine	Fan Blade Inspection and Replacement as per GENx-1B EM GEK 112851 & Boeing 787 AMM
Engine	Fan Stator Removal, inspection and Installation (Engine split/mate for /shipping/ transportation / storage.) including fan booster acoustic panel replacement as per GENx-1B EM GEK 112851 & Boeing 787 AMM.
Engine	Check C Inspection, Removal, Inspection & Installation of TGB Module, AGB Module, LPT Module, HPT Module, CDN Module, Booster Module and LRUs as per GENx-1B EM GEK 112851.
Powerplant Build Up and QEC	QEC Removal, inspection and Installation as per Boeing power plant build up manual.
Preservation	Engine Fuel/oil system preservation as per GENx-1B EM GEK 112851 & Boeing 787 AMM.
SI/SB/AD	Special Inspections/Service Bulletins/Airworthiness Directives Compliance on GENx-1B Engines as per SBs/ADs issued.
Engine	All Tests as per GENx-1B Engine Manual GEK 112851.



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CAPABILITY LIST

PART 2
APUs

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2.1 APU PW901A

DESCRIPTION	SCOPE OF WORK
Complete APU	Disassembly, Cleaning, Inspection, Assembly, Repair, Balancing and Testing. APU Borescope Inspection.
NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).	

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2.2 APU GTCP 331-500

DESCRIPTION	SCOPE OF WORK
APU	Disassembly, Cleaning, Inspection, Assembly, Repair and Balancing. APU Borescope Inspection.

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2.3 HONEYWELL 131-9B APU

DESCRIPTION	SCOPE OF WORK
APU	Disassembly, Cleaning, Inspection, Assembly, Repair and Balancing. APU Borescope Inspection
NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).	

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2.4 APS 5000A APU

DESCRIPTION	SCOPE OF WORK
APU	Borecope Inspection and LRU replacement.


NOTE : Capability includes NDT inspection limited to FPI, FMPI, Electroplating, Surface Treatment (Coating), Thermal Spray, Shot Peening, TIG Welding, Heat Treatment, Machining, Rework and Chemical & Mechanical Cleaning as listed in process capability (Part-3).



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CAPABILITY LIST

**PART 3
PROCESSES**

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3.1.1 GE PROCESS CLEANING

DESCRIPTION	SPECIFICATION
	SPM CH 70-21-00
Solvent Degreasing	METHOD 1
Steam Cleaning	METHOD 3
Dry Abrasive Blast Cleaning	METHOD 4A, 4C, 4E
Wet Abrasive Blast Cleaning	METHOD 5B
Heavy Duty Alkaline Cleaning without inhibited Phosphoric Acid	METHOD 6
Three Step Heavy Duty Alkaline Descaling Without inhibited Phosphoric Acid	METHOD 7
Alkaline Cleaning of Titanium Parts	METHOD 9
Four Step Alkaline Cleaning and Acidic Descaling without inhibited Phosphoric Acid	METHOD 10
Manual Detergent Cleaning	METHOD 14
Ultrasonic Cleaning	METHOD 15
Heavy Duty Alkaline Cleaning with inhibited Phosphoric Acid. (Phosit)	METHOD 16
Three Step Heavy Duty Alkaline Descaling with inhibited Phosphoric Acid. (Phosit)	METHOD 17
Four Step Alkaline Cleaning and Acidic Descaling with Phosit	METHOD 20
Light Duty Aqueous Cleaning	METHOD 22
Bearing Cleaning	CH. 70-22-01, METHOD 2
Cleaning of Internal Oil Tubes	CH. 70-22-05

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3.1.2 P&W PROCESS CLEANING

DESCRIPTION	SPECIFICATION
	SPM CH 70-21-00
	SPOP 1
Degreasing Engine Exterior	
One Step Alkaline Rust Remover on Titanium Parts Only	SPOP 18 (or) SPOP 12
Four Step Alkaline Cleaning and Acidic Descaling with inhibited Phosphoric Acid	SPOP 211
Four Step Alkaline Cleaning and Acidic Descaling without inhibited Phosphoric Acid	SPOP 213
Degreasing of parts by solvent wiping	SPOP 208
Degreasing of parts by Aqueous Cleaning	SPOP 209
Two Step Alkaline Permanganate and Rust Remover	SPOP 221
RTV, Silicon Rubber Removal	SPOP 254/ SPOP19
Wet Abrasive Blast Cleaning with Aluminium Oxide	SPOP 219
Dry Abrasive Grit Blast Cleaning	SPOP 10 and SPOP 218
Wet Glass Bead Blast Cleaning	SPOP 16
Ultrasonic Cleaning of Aircooled Turbine Airfoil and Duct Segment.	SPOP 91
One Step Alkaline Cleaning Long soak.	SPOP 203
Bearing Cleaning	SPOP 216
Paint stripping	SPOP 260
Plastic Media Blast	SPOP 19
Application of Corrosion Inhibitors	SPOP 5
Cleaning Of Contact Points And Wiring Harness	SPOP 6
Removal of Carbon from Fuel & Oil Tubes	SPOP 201
Removal of PWA 77, 110 & 578 Coating from Silver Brazed Parts & Non Silver Brazed Steel and Nickel Parts	SPOP 258
Carbon Seal Cleaning	SPOP 215
Bearing Corrosion Protection and Preparation for Storage	SPOP 217

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3.1.3 CFM56-7B PROCESS CLEANING

DESCRIPTION	SPECIFICATION
	SPM CH
Solvent degreasing	70-21-11
Steam Cleaning	70-21-13
Cleaning of Titanium Alloys	70-21-14
Cleaning of Internal oil tubes	70-21-17
Light duty Aqueous cleaning	70-21-18
Light oxide removal from Titanium Alloys	70-21-22
Descaling Ferrous Alloys	70-21-31
Descaling Martensitic Alloys	70-21-32
Heavy oxide removal from Austentic Alloys	70-21-33
Heavy oxide removal from Austentic & heat resistant Alloys	70-21-41
Exterior engine cleaning	70-21-53
Dry abrasive blast cleaning with Alumina – Fine	70-21-11 (220 Mesh)
Dry abrasive blast cleaning with Alumina – Medium	70-21-12 (120 Mesh)
Plastic Media Blasting	70-21-16 (CP2464)
Wet Abrasive Blasting	70-21-23 (325 Grit)
Bearing cleaning	70-21-52

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3.1.4 SPECIAL CLEANING PROCESS

DESCRIPTION	SPECIFICATION
COMPRESSOR BLADES & VANES	VIBRATORY CLEANING AS PER PW SPM 70-41-05
TURBINE BLADES & VANES	VIBRATORY CLEANING AS PER PW SPM 70-41-05

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3.1.5 BOND COATING PROCESS

DESCRIPTION	SPECIFICATION
PURE Al & Ni-Al BOND COATINGS	GE SPM 70-23-08
THERMAL SPRAY COATINGS	GE SPM 70-23-12
TBC TOP COATINGS & Ni-Cr-Al-Yttr. BOND COAT	GE SPM 70-23-22
STRIPPING OF THERMAL SPRAY AL.OXIDE, NON-FERROUS & BOND COATING	GE SPM 70-23-07
STRIPPING OF SERMETAL 'W' PAINT	GE SPM 70-23-02
STRIPPING OF NiAl, CuNiIn COATINGS	CFM56-7B SPM 70-23-34

	CAPABILITY LIST	AIESL CAP/02		
		PART 3		SECTION 2
	PROCESSES	Issue-2	Rev-0	01 DEC 2020

3.2.1 FPI – P&W, GE, CFM56-7B, HONEYWELL & HSPS

DESCRIPTION	SPECIFICATION
<u>PRATT & WHITNEY</u>	SPM CH 70-33-00
NORMAL SENSITIVITY F.P.I.	SPOP 62
NORMAL, HIGH, ULTRA HIGH SENSITIVITY FPI (SPOT FPI)	SPOP 70
HIGH SENSITIVITY F.P.I.	SPOP 82
ULTRA HIGH SENSITIVITY F.P.I.	SPOP 84 SPOP 86
<u>GENERAL ELECTRIC</u>	SPM CH 70-32-02
MEDIUM SENSITIVITY F.P.I.	CLASS A, B & C
HIGH SENSITIVITY F.P.I.	CLASS D
ULTRA HIGH SENSITIVITY	CLASS G
SPOT F.P.I.	CH.70-32-03
<u>HONEYWELL</u>	
HIGH SENSITIVITY F.P.I.	ASTM E1417
HIGH SENSITIVITY	
<u>CFM56-7B</u>	SPM CH
MEDIUM SENSITIVITY	70-32-12
HIGH SENSITIVITY	70-32-13
ULTRA HIGH SENSITIVITY	70-32-14 & 70-32-15
LOCAL FPI MEDIUM SENSITIVITY	70-32-22
LOCAL FPI HIGH SENSITIVITY	70-32-23
LOCAL FPI ULTRA HIGH SENSITIVITY	70-32-24
<u>HSPS</u>	
FPI- NORMAL SENSITIVITY FPI	ASTM E 1417
HIGH SENSITIVITY FPI	



3.2.2 FMPI – P&W, GE, CFM56-7B, HONEYWELL & HSPS

DESCRIPTION	OEM SPECIFICATION
<u>PRATT & WHITNEY</u>	SPM CH 70-32-00
ROD	SPOP 101
ROD – SOLENOID	SPOP 102
ROD/OD CONTACT	SPOP 103
END CONTACT	SPOP 105
END CONTACT AND SOLENOID	SPOP 106
SOLENOID	SPOP 107
SHAFT	SPOP 108
DISK	SPOP 112
ROD AND INDUCTION (FIXTURE OR CABLE)	SPOP 115
<u>G.E.</u>	SPM CH 70-32-01
HONEYWELL	ASTM-E1444
CFM56-7B	SPM CH. 70-33-11
HSPS	ASTM E 1444

	CAPABILITY LIST	AIESL CAP/02		
		PART 3		SECTION 3
	PROCESSES	Issue-2	Rev-0	01 DEC 2020

3.3 HEAT TREATMENT

DESCRIPTION	SPECIFICATION
HEAT TREATMENT (LOCAL)	PYRO PANEL
HEAT TREATMENT (AIR FURNACES)	FURNACE 4' X 4' X 4'
STRESS RELEIVING (AIR OVENS)	FURNACE 10' X 10' X 10'

	CAPABILITY LIST		AIESL CAP/02	
			PART 3	
	PROCESSES		Issue-2	Rev-0

3.4 PEENING

DESCRIPTION	SPECIFICATION
SHOT PEENING	GE SPM CH : 70-47-01 P&W SPM CH: 70-41-02 SPOP -501 AMS 2430
GLASS BEAD PEENING	GE SPM CH : 70-47-01 P&W SPM CH: 70-41-01 SPOP -500 AMS 2430
ROTARY FLAP PEENING	GE SPM CH: 70-47-04
<u>CFM56-7B</u>	
SHOT PEENING	70-52-12
GLASS BEAD PEENING	70-52-11
ROTARY FLAP PEENING	70-52-14

	CAPABILITY LIST		AIESL CAP/02	
			PART 3	
	PROCESSES		Issue-2	Rev-0

3.5 PLATING AND COATING

NICKEL	P&W SPM CH: 70-44-01 SPOP 26, SPOP 29 AMS 2403, AMS 2424
CADMIUM	P&W SPM CH: 70-44-01 SPOP 21 AMS 2400 QQ-P-416 BAC-5701 MESIER-DOWTY CMM 32-09-01 SEC 3
SILVER	P&W SPM CH: 70-44-01 SPOP 23, SPOP 24 AMS 2410, AMS 2412, AMS 2411 GE SPM CH: 70-45-04
CHROMIUM	P&W SPM CH: 70-44-01 SPOP 22 AMS 2406 GE SPM CH: 70-45-01 BAC-5709 QQ-C-320 CLASS 2 MIL-STD-1501
TITANIUM CADMIUM	BAC – 5804
ELECTROLESS NICKEL	P&W SPM CH: 70-44-01 SPOP -309 AMS 2404 GE SPM CH: 70-45-02
NICKEL CADMIUM	P&W SPM CH: 70-44-01 SPOP-25 AMS 2416
COATING ANODIZE TOUCH UP	P&W SPM CH: 70-44-01 SPOP-42 AMS 2473 GE SPM CH: 70-43-08
BLACK OXIDE FINISH	GE SPM CH: 70-43-12 AMS 2485



CAPABILITY LIST

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SECTION 6

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3.6 PLASMA SPRAY

DESCRIPTION	SPECIFICATION
PLASMA / FLAME SPRAY POWDERS	METCO 45 CNS METCO 45 VFNS METCO 51 FNS METCO 52 CNS METCO 54 NS (AL-104) METCO 58 NS METCO 63 NS METCO 71 NS METCO 71 VFNS METCO 72 FNS METCO 73 FNS METCO 81 NS METCO 81 VFNS METCO 82 VFNS METCO 101BNS METCO 101SF METCO 106 METCO 204 NS METCO 210 NS METCO 301 CNS PWA 1346 METCO 307 NS METCO 307 NS - 3 METCO 308 NS - 3 METCO 404 NS METCO 430 NS METCO 443 NS METCO 447 NS METCO 450 NS METCO 601 NS METCO 610 NS AMDRY 365-2 (PWA 1365-2) AMDRY 718 AMDRY 962 TRIBALLOY T400 TRIBALLOY T800
FLAME SPRAY WIRE	AI BRONZE WIRE Mo WIRE METCO Si AI WIRE AI WIRE

	CAPABILITY LIST		AIESL CAP/02		
			PART 3		SECTION 7
	PROCESSES		Issue-2	Rev-0	01 DEC 2020

3.7 WELDING

DESCRIPTION	SPECIFICATION
TIG WELDING	ALUMINIUM ALLOYS CORROSION & HEAT RESISTANT STEEL NICKEL ALLOYS/INCONEL/NIMONIC TITANIUM ALLOYS

	CAPABILITY LIST		AIESL CAP/02		
			PART 3		SECTION 8
	PROCESSES		Issue-2	Rev-0	01 DEC 2020


3.8 MACHINE SHOP

DESCRIPTION	SPECIFICATION
TURNING	LATHES
MILLING	CNC MILLING MACHINE
BORING	JIG BORING MACHINE
GRINDING	GRINDERS
DRILLING	RADIAL (DRILLING MACHINE)
MEASUREMENTS	COORDINATE MEASURING MACHINE

	CAPABILITY LIST		AIESL CAP/02		
			PART 3		SECTION 9
	PROCESSES		Issue-2	Rev-0	01 DEC 2020

3.9 REWORK

DESCRIPTION	SPECIFICATION
RIVETTING	GENERAL WORKSHOP TOOLS
BENCH FITTING	
BORING	
COLD BONDING	
DEBURRING	
GRINDING & BLENDING	
DRILLING	

	CAPABILITY LIST	AIESL CAP/02		
		PART 3		SECTION 10
	PROCESSES	Issue-2	Rev-0	01 DEC 2020

3.10 PAINTING

DESCRIPTION	SPECIFICATION
SERMETEL W	C03 -038 /PWA 595
SERMETEL -196	C03 -039 /PWA 36054
SERMETEL -249	PWA 548
SERMASEAL -570A /565	PWA 561
ANTIGALLING FELPRO C -200	PWA 586
ANTIGALLING -550	PWA 550
ECOLUBE 642	PWA 474
EVERLUBE - 810	C02-049
ANTIGALLING EVERLUBE/ESNALUBE -382	P06 – 038/PWA36545
DRY FILM LUBRICANT	SAND STROM 9A
MOLYCOTE P - 37	PWA 36246
PRIMER EPOXY PWA -568	PWA 568
PRIMER GREEN EPOXY	BMS 10-11T1
ALUMINIZED ENAMEL PWA -569	PWA 569
POLYURITHANE LAMINAR X-500 WHITE	PWA 36014
POLYURITHANE LAMINAR X-500 BLACK	PWA 36013
REDUCER FOR X-500	PWA 36015
SYNTHETIC VARNISH	AMS 3132
HIGH BAKE AL ENAMEL	PWA 578
ZINC CHROMATE	CO3 –001/CO3-005
ZINC CHROMATE	CO3 - 005
ZINC MOLYBDATE	AMS 3117
PRIMER –POLYAMIDE EPOXY	CO3-017
PAINT EPOXY POLYAMIDE BLACK MIL-C-22750	CO3-010
PAINT PLYTHE BLACK MIL-C-85285 BLACK	CO3-069
PAINT PLYTHE BLACK MIL-C-85285 WHITE	CO3-018
THINNER POLYURETHANE	PMC1685-T78A
PTFE	PMC79718
POLYURETHANE PRIMER 4056	PWA36509
POLYURETHANE COATING 4056	PWA36510
PRIMER BR -127	BR -127
ECOPRIME GREEN PWA(36519-2)	PWA36519-2
LUBRICANT RESINBOND (4152 MOUNT)	MIL-C-46010
GREEN PRIMER BMS 10-11	BMS 10-11
TEFLON S	PWA 36038
FLOROELASTOMER COATING (BLACK)	PWA 36516-1
FLOROELASTOMER COATING (WHITE)	PWA 36516-3
TOULENE (AMS 31800)	AMS3180
EVERLUBE 810	CO2-049
MOLY DAG-254N	CP2686
HIGH TEMP PRIMER	BAC5710 TYPE 51
WHITE PAINT PART A	PRIAM32005 PART A-WHITE
HARDNER	PRIAM32005 PART B
DRY FILM LUBRICANT	CP 2232
DRY FILM LUBRICANT	MOLYKOAT D321R

	CAPABILITY LIST	AIESL CAP/02		
		PART 3		SECTION 10
	PROCESSES	Issue-2	Rev-0	01 DEC 2020

3.10 PAINTING

DESCRIPTION	SPECIFICATION
REDUCER MIL-T-81772	C04-029
EPOXY PRIMER	C03-079(44WL)
PTFE LUBRICANT VARNISH	CP2328
PRESSURE SENSITIVE TAPE NO 250	CP2233
KRYLON 1601	KRYLON1601
BLACK PAINT PART A	PRIAM 32005 PART-A402310 MATT BLACK
PRIMER	PRIAM-PCE211-M1PART-A
HARDNER FOR PRIMER	PRIAM-PCE211-M1PART-B
CORROSION PREVENTIVE COMPOUND(TECTYL437D)	MIL-PRF-11796CL3
BALCK PAINT	C03-076
PAINT EPOXY GRAY	C03-034