

Model

Boeing 777 APU GTCP331-500B

Serial

P-2158

Part number

3800550-1

Condition

Serviceable

TSR 0 CSR 0

TSN 8948 **CSN** 6018

Trace to

Altavair – Seller

Etihad (Last operator)

Rossiya (Loan operator)

Location

AJW Group

The Headquarters,

Maydwell Avenue,

Slinfold, West Sussex,

RH13 0AS, United Kingdom

Additional details

For additional details on this unit please [contact](#) the AJW Major Assets Team.



MINI PACK

AJW

**AIRWORTHY
CERTIFICATE/FORM**



1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20200007790566Y02 338628925	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice R370482 338506878 Page 1 of 1	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TSN: 8948,98/CSN: 6018 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 8950,55/6023 (1,57 HOURS AND 5 CYCLES USED ON APU FINAL TESTING). TEXT CONTINUED ON RIGHT SIDE CONTINUED: TSN 8948,98 TSR 0,00 CSN 6018 CSR 0 SERIES 61 THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO. QJ1Y428K THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH TCCA CAR 571 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER TCCA CERTIFICATE NO. 898-02.						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature 		14c. Certificate/Approval Ref. No DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name Helmut Gregori		14e. Date (dd mmm yyyy) 07 FEB 2020
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
30012020	HOURS		CYCLES					
	TSN	/	TSO	CSN	/	CSO	TSR	/
	8948,98	/	N/A	6018	/	N/A	0	/
							CSR	
							0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired
EM 49-26-57 REV.20; 331-500(B); SERIES: 61; P/O: R370482;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 338506878

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	ST
1C.ROTOR	3822611-1	N/A	12-182449-05026	8948,98	6018	20982	27000	0
2C.ROTOR	3822341-5	N/A	1618244922583	1647,36	929	26071	27000	0
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	8948,98	6018	20982	27000	0
2T.ROTOR	3842156-1	3842155-4	1116852203695	8948,98	6018	20982	27000	0
3T.WHEEL	3842160-6	N/A	16-156101-08203	1647,36	929	26071	27000	0
LC.ROTOR	3822612-1	N/A	11-182449-04338	8948,98	6018	20982	27000	0

===== ST (STATUS) and LIMIT (ROTOR LIFE LIMIT) =====
0=NOT EXPOSED 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	4	C.VALVE	3202854-1	1256	4
CLUSTER	3884863-7	P-1410	0	SCV	3290814-5	3290814/1106	0
AIRSTART	3505814-3	1406	4	E.START	2704442-5	1690	4
FUELCLUS	3879008-1	CUA11617	0	LUBECLUS	4131000-6	1542	0
TEMP VLV	160536-1	1383	0	COOLER	160488-2	1620	0
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	0
IGN.UNIT	3876195-9	070218081158	0	GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	0	COMPRESS	3826980-13	P-1278	0
TURBINE	3844517-7	P-1278	0				

===== ST (STATUS) =====
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: QJ1Y428K
TCCA ACCEPTANCE APPROVAL NO.: 898-02
BCAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
PACA APPROVED MAINT. ORG. NO.: AWR/263/GMBH-071/92
GACA APPROVED REPAIR STATION NO.: AMO-152F
GCAA APPROVED MAINT. ORG. NO.: UAE.145.1050
KCAAR APPROVED MAINT. ORG. NO.: DGCA/ AMO/069
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
JCARC APPROVED MAINT. ORG. NO.: CARC.F.AMO.60
IDGCA APPROVED MAINT. ORG. NO.: 5-2435/2015-AI(2)

N. Seibel
N. Seibel



STAMP

30.01.2020
DATE

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Germany

Page 1 of 2

ACCEPTANCE TEST DATA SHEET

331-500 [B]

USED WITH
EM 49-26-57
REV. 20

UNIT OUTLINE: 3800550-1 MODEL NO. 331-500 [B] SERIAL NO. P-2158 DATE: 29.01.2020
TEST CELL NO. Cell 3 RUN NO. 1 SERVICE ORDER: 5014540706
OIL USED MIL- 23699 TYPE 2380 FUEL USED DEF.91-91 TYPE JetA1
APU CONTROL UNIT PN: 2118834-100 S/N* 28-F0177 SLAVE* Yes

Discriptor	Unit	Requirement	Actual
Total Numbers of Starts during Test	No.	.....	<u>5</u>
Total Operating Time during Test	Hour	.....	<u>1:34</u>
Automatic Start Time (Elektric)	Sec.	60 Sec. Maximum	<u>43</u>
Starter Cutout Time (Elektric)	Sec.	40 Sec. Maximum	<u>35</u>
Automatic Start Time (ATS)	Sec.	60 Sec. Maximum	<u>36</u>
Starter Cutout Time (ATS)	Sec.	40 Sec. Maximum	<u>27</u>
SCV Closing Point	LB/MIN	Ref. Figure 1305	<u>170,7</u>
Flow Sensor Reading Differance	%	5% Maximum	<u>0,9</u>
EGT Spread (ECS)	°F	60 Deg. Maximum	<u>26,5</u>
EGT Spread (MES)	°F	60 Deg. Maximum	<u>30,4</u>
ATS Air Inlet Total Pressure	PSIG	30 PSIG Minimum	<u>50</u>
ATS Air Inlet Total Temperature	Deg. F	.....	<u>110</u>
IGV Performance Adjust	Deg.	.....	<u>8,0</u>

LRU Faults Observed: None X Other _____

Unit Status: Accept: X Reject: _____

Remarks:

Technican Hausf FT 09 Date: 30.01.2020

Supervisor Hausf FT 23 Date: 30. JAN. 2020

Quality Assurance H. Gin G Date: 30. JAN. 2020

ACCEPTANCE TEST DATA SHEET

331-500 [B]

APU S/N: P-2158APU P/N: 3800550-1

ATP REFERENCE					
Discriptor		UNIT	ECS	READY TO LOAD	MES
Cell Pressure		PSIA	14,54	14,48	14,54
AVERAGE INLET TEMPERATURE (T2)		°F	89,10	58,14	87,76
UNIT INLET TEMPERATURE (T2 ECB)		°F	67,09	64,02	65,90
OIL TEMPERATURE		°F	149,9	147,4	151,0
OIL PRESSURE		PSI	65,54	65,86	65,47
FUEL INLET TEMPERATURE		°F	53,2	55,8	54,0
FUEL INLET PRESSURE		PSI	17,32	21,70	15,93
GEARBOX PRESSURE		PSI	0,346	0,478	0,336
TURBINE DISCHARGE TEMPERATURE (UNIT RAKES)	No. 1	°F	1015,5	678,7	1053,1
	No. 2	°F	1042,0	652,5	1083,6
EXHAUST GAS TOTAL TEMPERATURE (LAB - AVG)	Actual	°F	1041,8	688,8	1083,1
	Corrected*	°F	1094,8	.....	1085,4
BLEED ORIFICE INLET TEMPERATURE		°F	373,3	.....	389,7
BLEED ORIFICE INLET PRESSURE		PSIA	51,91	.....	60,00
BLEED ORIFICE DIFFERENTIAL PRESSURE		PSID	2,015	.....	0,881
IGV POSITION		DEG	15,5	75,6	4,8
CORRECTED DISCHARGE AIRFLOW (WBCDNA)		LB/MIN	167,8	.....	107,1
BLEED AIRFLOW (WB)	Actual	LB/MIN	479,3	.....	340,6
	Corrected*	LB/MIN	469,3	.....	307,2
BLEED TOTAL PRESSURE (PB)	Actual	PSIA	53,69	.....	60,65
	Corrected*	PSI	53,07	.....	54,30
BLEED TOTAL TEMPERATURE (TB)	Actual	°F	389,2	.....	413,6
	Corrected*	°F	406,7	.....	420,5
FUEL CONSUMPTION	Actual	LB/HR	612,6	336,2	651,3
	Corrected*	LB/HR	611,8	.....	604,9
SHAFT OUTPUT / DELTA	Corrected*	SHP	180,3	.....	180,9
UNIT VIBRATION	GEARBOX	IPS	0,19	0,15	0,17
	TURBINE	IPS	0,42	0,65	0,40
APU SPEED		RPM	38981	38981	38981
SPECIFICATION REQUIREMENTS (CORRECTED)	MIN BLEED FLOW	LB/MIN	460,2	.....	.....
	MIN BLEED PRESS.	PSIA	52,60	.....	54,30
	CORR. DISCH. FLOW	LB/MIN	167,0	.....	106,0
	IGV POSITION	DEG	7,0	.....	.....
	MIN SHAFT LOAD	SHP	180,0	0,0	180,0
	MAX EGT	°F	1155,0	.....	1177,0
DIGITAL DATA SCAN		TIME	07:36:40	15:54:04	07:46:54
		DATE	01/30/2020	01/29/2020	01/30/2020
DIGITAL DATA POINT		XXXX	1002	1001	1003

WE CERTIFY THE ABOVE DATA IS TRUE AND CORRECT AND IN ADDITION, THE APU HAS SUCCESSFULLY MET ALL OTHER TEST REQUIREMENTS SPECIFIED IN THE LATEST REVISION OF THE APPLICABLE TEST SPECIFICATION INDICATED ABOVE.
 QS:1655/2017,ÄZ:02;06.05.2019



To whom it may concern

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head_office@rossiya-airlines.com

12.12.2019 № 29.9036

Non Incident Statement

APU – AUXILIARY POWER UNIT – GTCP331-500B P/N 3800550-1 S/N P-2158, which was installed on the Boeing 777-300 aircraft reg. No EI-XLP (MSN 28531) on 18 July 2019 (8108,98 TSN, 5610 CSN) and removed from Boeing 777-300 aircraft reg. No EI-XLP (MSN 28531) on 8 December 2019 (8948 TSN, 6018 CSN) has been operated and maintained in accordance with the manufacturer's practices and procedures and was not involved in accidents or incidents, was not subjected to fire, extreme heat or damage during the period of its operation in "Rossiya airlines" JSC (18 July 2019 – 8 December 2019).



Igor Tylesov
Maintenance Quality manager
"Rossiya airlines" JSC
Tel./Fax. +7(812) 6-333-950
E-mail: I.Tylesov@rossiya-airlines.com

To whom it may concern

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head_office@rossiya-airlines.com

№ _____

OIL STATEMENT

The mentioned below item:

Description: APU – AUXILIARY POWER UNIT – GTCP331-500B

Part No.: 3800550-1

Serial No.: P-2158

Was serviced by Mobil Jet Oil II during operation from 18 July 2019 to 8 December 2019
within "Rossiya-Airlines" JSC.

Yours sincerely,

Alexander Yuskin,
Engineering Department Manager
"Rossiya airlines" JSC
E-mail: A.Yuskin@rossiya-airlines.com



20.12.2019



ENGINE HISTORY SUMMARY SHEET

TSN:	8948	ENG.S/N:	P-2158
CSN:	6018	ENG.TYPE:	GTCP331-500B
TSLSV:	1646,38	AC REG. N:	Removed
CSLSV:	929	ENG.POS.:	APU
LSV DATE:	20.06.2017	Date:	11.12.2019

AC Reg. #	Position	Removal / Installation	Date	Aircraft TSN	Aircraft CSN	Engine TSN	Engine CSN	Reason
EI-XLP	APU	Installed	18.07.2019	64026:50	15979	8108,98	5610	Start of Lease
EI-XLP	APU	Removed	08.12.2019	65148:41	16155	8948	6018	Lease Return

Performed by:


11.12.2019

Kuzmin Evgenii
Power Plant Engineer



APU Component Life Status

Type:	GTCP331-500B	Date:	18.07.2019	TSLSV:	807,36
P/N:	3800550-1	APU FH:	8108,98	CSLSV:	521
S/N:	P-2158	APU FC:	5610	TSO:	UNKNOWN
A/C:	EI-XLP	LSV Date	20.06.2017	CSO:	UNKNOWN

Life Limited Parts	P/N	S/N	Used FC	Limit FC	Remaning FC	Used FH
Impeller (LC Rotor)	3822612-1	11-182449-04338	5610	27000	21390	8108,98
1st Compressor Impeller	3822611-1	12-182449-05026	5610	27000	21390	8108,98
2nd Compressor Impeller	3822341-5	1618244922583	521	27000	26479	807,36
Turbine Disk 1 Assy	3842151-3	16-168522-04412	5610	27000	21390	8108,98
Turbine disk 2 Assy	3842155-3	16-168522-03529	5610	27000	21390	8108,98
3rd St Turbine Rotor Assy	3842160-6	16-156101-01671	521	27000	26479	807,36
				First limiter:	21390	

Prepared by

Evgenii Kuzmin

Power Plant
Engineer



APU Component Life Status

Type:	GTCP331-500B	Date:	08.12.2019	TSLSV:	1646,38
P/N:	3800550-1	APU FH:	8948	CSLSV:	929
S/N:	P-2158	APU FC:	6018	TSO:	UNKNOWN
A/C:	EI-XLP	LSV Date	20.06.2017	CSO:	UNKNOWN

Life Limited Parts	P/N	S/N	Used FC	Limit FC	Remaning FC	Used FH
Impeller (LC Rotor)	3822612-1	11-182449-04338	6018	27000	20982	8948
1st Compressor Impeller	3822611-1	12-182449-05026	6018	27000	20982	8948
2nd Compressor Impeller	3822341-5	1618244922583	929	27000	26071	1646,38
Turbine Disk 1 Assy	3842151-3	16-168522-04412	6018	27000	20982	8948
Turbine disk 2 Assy	3842155-3	16-168522-03529	6018	27000	20982	8948
3rd St Turbine Rotor Assy	3842160-6	16-156101-01671	929	27000	26071	1646,38
				First limiter:	20982	

Prepared by

Evgenii Kuzmin

Power Plant
Engineer

		Rossiya Airlines Pilotov street 18/4 Saint-Petersburg 196210 Russian Federation Russia		W/O 506415331 Original 1		Barcode WO506415331R1		Registration EI-XLP B777 312						
Type S SCHED	Origin R Rotable	ATA 49-00-00		Position APU APU		Zone		Area						
Partnumber 3800550-1		Description GTCP331-500B APU				Serialnumber P-2158								
Due Date 18.Dec.2019		Due at TAH				Due at TAC								
Workpackage														
Workpackage No. / Sequence No. XLP-241019 ENG # 2 CHANGE ESN#51076 CHANGE				Planning-Date Start - Planned-Date End 23.Oct.19, 20:30 - 29.Oct.19, 07:38 Flight-No.			Maintenance Provider A-TECHNICS LLC							
Description Step 1 Evgeniy Kuzmin (E122401), 16.Oct.2019														
B777 APU TCP331-500B ACCESSORIES VCO														
1) OPEN APU COWLING AMM 49-11-02-010-801. 2) RECORD P/N & S/N OF COMPONENTS CURRENTLY INSTALLED ON APU AND LISTED IN THE FORM ATTACHED. 3) CLOSE APU COWLING AMM 49-11-02-410-801.														
Sign Off Requirements Performed Sign: Scope AIRPL														
Action Step 1-1 Mikhail Sbitnev (AT10099), 24.Oct.2019														
B777 APU TCP331-500B ACCESSORIES VCO														
1) OPEN APU COWLING AMM 49-11-02-010-801 REV.70 PFMD. 2) RECORD P/N & S/N OF COMPONENTS CURRENTLY INSTALLED ON APU AND LISTED IN THE FORM ATTACHED PFMD. 3) CLOSE APU COWLING AMM 49-11-02-410-801REV.70 PFMD.														
Performed Me 189 LLC «A-Technics» Mikhail Sbitnev (AT10099)														
Inspection Step 1-1-1 Mikhail Sbitnev (AT10099), 24.Oct.2019														
B777 APU TCP331-500B ACCESSORIES VCO														
Performed Me 189 LLC «A-Technics» Mikhail Sbitnev (AT10099)														
Oil Uplift	ENG	#1	#2	#3	#4	APU	IDG	#1	#2	#3	#4	APU Counter	HRS	CYC
PN Off	SN Off	Label		Position	PN On	SN On	Description	Certificate						
Work Performed Workorder Closed														
Date(UTC) 24.Oct.2019		Time(UTC) 04:36		Place / Station VKO		Closing Sign / Stamp Performed Me 189 LLC «A-Technics» Mikhail Sbitnev (AT10099) AT10099 Mikhail Sbitnev (AT10099)			Double Inspection					
Released To Service														
CRS for the work carried out, either for single workorder or for the complete workpack, to be issued in Aircraft Technical Logbook - for line maintenance or in MRO CRS Form - for base maintenance.														

PROPERTY OF "ROSSIYA AIRLINES" JSC

53

	Rossiya Airlines Pilotov street 18/4 Saint-Petersburg 196210 Russian Federation Russia	W/O	Barcode	Registration
		506415331 Original 1	 WO506415331R1	EI-XLP B777 312

Part Request			
Partnumber	Description	IPC Reference	QTY

Planning Qualifications			Times		
Skill / Scope	Est. Man	Est. MHRS	Sign	Duration	Date
AIRPL	1.0	06:00	AT10099	06:00	23.10.19, 22:35

Resources / Requests			
☐ Access/Dock	☐ Boroscope	☐ Defuel	☐ Engine Change
☒ Est. Ground Time: <u>06:00</u> HR	☐ External Hydraulic	☐ Hangar	☐ Jacks
☐ NDT Requirement	☐ Power Run	☐ Power Off	☐ Powerless Required
☐ Ramp Activity	☐ SRM Repair	☐ Tank Entry	☐ Taxi
☐ Test Flight Required	☐ Idle/Test Run	☐ Troubleshooting	☐ Weight & Balance
Classifications			
☐ AD	☐ Administration/Service Task	☐ ALI	☐ AOG Risk
☐ CDCCL	☐ CMR	☐ CPCP	☐ Critical Task
☐ ETOPS Relevant	☐ EWIS	☐ FAL	☐ Line/Heavy: _____
☐ Occurrence Report	☐ OPS Consequence	☐ SSID	☐ Structural Damage
☐ TAL			
Statistic			
☐ Accident	☐ Incident	☐ Insurance	☐ Warranty

PROPERTY OF "ROSSIYA AIRLINES" JSC

Visual Check Order - APU TCP331-500B Accessories

Visual Check Order APU TCP 331-500B

Table №1

Accessory Component List: **APU TCP331-500B**

S/N P-2158

Fig. №	Description	IPC CH-SECT-UNIT-FIG-ITEM	Part Number	Serial Number	Installed	Not Installed
1	STARTER CTRL VALVE	49-43-03-01-50	59364-32 83076	1465	☒	☐
2	AIR TURBINE STARTER	49-43-01-01-50	3505814-3	1406	☒	☐
3	STARTER MOTOR	49-42-01-01-50	2704442-5	1690	☒	☐
4	CLUSTER ASSY - FUEL	49-31-31-01-120	3879008-1	CVAH617	☒	☐
5	ACTUATOR INLET GUIDE VANE	49-52-02-01-50	3883499-3	1659	☒	☐
6	PNEUMATIC CLUSTER	49-53-53-01-1	3884819-3	N/A	☒	☐
7	CHECK VALVE	49-52-03-01-50	3202854-1	1256	☒	☐
8	LUBE CLUSTER	49-27-27-01-05	4131000-6	1542	☒	☐
9	COOLER AIR/OIL	49-27-09-01-50	70210-160 482-2	1620	☒	☐
10	TEMPERATURE OIL VALVE	49-27-27-01-190	70210-160 536-1	1383	☒	☐
11	IGNITION UNIT	49-41-41-01-50	9048700-9	07021808 1158	☒	☐
12	SURGE BLEED VALVE	49-53-53-01-35	3290814-5	3290814/ 1106	☒	☐
13	CLUSTER ASSY	49-53-53-01-25	3884863-7	P-14110	☒	☐
14	DATA MEMORY MODULE	49-72-01-01-60	304643-2	GEN745	☒	☐
15	PRIMARY FUEL MANIFOLD	49-31-04-01-55	3883688-1	12-169043 -14037	☒	☐
16	SECONDARY FUEL MANIFOLD	49-31-04-01-50	3883688-1	12-169043- -14094-3	☒	☐
17	OIL HEATER ASSY	49-28-01-01-40	N/A	N/A	☐	☒
					☐	☐
					☐	☐
					☐	☐

RUN DATE: 30.01.2020
 RUN BY: N. Seibel

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 1 OF 6
 CUSTOMER: 300002

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
ATS1432		REPLACE CHIP DETECTOR #572-514-9203 WITH PACKING AND TEFLON SEAL BY MCDS WITH TWO PACKINGS	PCW
GTE1053		REPLACE OIL FILLER HOUSING #3863116-1 WITH #-2	PCW
GTE1066		REPLACE NAMEPLATE #S1108-B-3 WITH #S1108-D-10 AND WASHER #NAS620C10L WITH #NAS620C2	PCW
GTE1071		REPLACE NUT #525-642-9103 WITH ##525-121-9003	PCW
GTE1098		REPLACE CLAMPS #234-517-9234 WITH 234-517-9240 AND #234-517-9235 WITH #234-517-9241-1	PCW
GTE1105		REPLACE CLAMPS #234-517-9234 WITH #234-517-9240 AND #234-517-9235 WITH #234-517-9241-1 ON PNEUMATIC CLUSTER	PCW
GTE1115		REPLACE INSULATION BLANKET #3615860-3 WITH #3617177-2 AND #3615862-3 WITH #3617177-1	PCW
GTE1128		REPLACE IDENT. PLATES OF THE APU COMPRESSOR. MODULE/TURBINE MODULE WITH #S20002-15	PCW
GTE1129		REPLACE IDENTIFICATION PLATE #S11008-D-10 OF THE PNEUMATIC CLUSTER WITH #S20002-15	PCW
GTE1130		REPLACE IDENTIFICATION PLATE #S9886-2 WITH #20006-1 OF THE IGNITION CLUSTER	PCW
GTE1133		REPLACE TURBINE STATOR SUPPORT #3844485-4 WITH #3844900-1	PCW
GTE1138		REPLACE IGNITION LEAD #3888283-1 WITH #-4	PCW
GTE1159		REPLACE CLAMP #211-594-9103 WITH #211-594-9003	PCW
GTE1161		REPLACE OIL SLINGER ROTOR #3840137-2 WITH #-1	PCW
GTE1167		REPLACE COMPOUND IDLER GEAR #3860824-2 WITH #3861064-1	PCW
GTE1176		REPLACE SPRING WASHER #3610875-30 WITH #-47	PCW
GTE1180		REPLACE CHECK VALVE #3202610-5 WITH #3202854-1	PCW
GTE1203		REPLACE FLEXIBLE SURGE DUCT #3884966-1 WITH #-2	PCW
GTE1205		REPLACE ENGINE IDENTIFICATION PLATE #S11008-C-11 WITH #S21002-12	PCW
GTE1207		REPLACE WASHER #NAS620C10L WITH #NAS1149C0332R ON 1. STAGE COMPRESSOR DE-SWIRL COVER	PCW
GTE1208		REPLACE LOAD COMPRESSOR SEAL DRAIN TUBE #3881676-1 WITH #3617987-1	PCW
GTE1210		REPLACE BOLTS #MS9556-07 WITH NEW ONES ON INLET SCREEN AND ADD WASHERS #NAS1149C0332R. REPLACE IGV ACTUATOR BOLTS #MS9557-14 WITH NEW ONES AND ADD WASHERS #NAS620C416L.	PCW
GTE1223		REPLACE TEFLON SECONDARY SEAL AND PACKING ON CHIP DETECTOR #572-514-9203 WITH TWO PACKINGS #MS83248-1-011	PCW
GTE1232		REPLACE 3. STAGE TURBINE WHEEL #3842160-4/-5 WITH #-6	PCW
GTE1233		REPLACE GASKET #3844515-1 WITH #-2 AT TURBINE BEARING CAVITY IN FRONT AND BEHIND CARBON SEAL	12.03.2015
GTE1252		REPLACE IDENTIFICATION PLATES ON ENGINE COMPRESSOR MODULE, TURBINE MODULE, LOAD COMPRESSOR MODULE, PNEUMATIC CLUSTER, AND IGNITION CLUSTER	PCW
GTE1254		REPLACE HOSE CLAMP #211-517-9503 WITH #211-517-9504 AND EDUCTOR BRACKET #3850108-1 WITH #3618109-1	PCW
GTE1258		AUTHORIZE USE OF HARNESS #3888364-4 AND/OR THE ASSOCIATED DETAILS TO SUPPORT CONTINUED USE OF HARNESS #3888364-3	PCW
GTE1274		REPLACE INLET EXTENSION PLATE #3810981-1 WITH #3811027-1	PCW
GTE1275		REPLACE SURGE DUCT #3850107-2 WITH #3850140-1	PCW
GTE1276		REPLACE FLANGE PLATE #3810975-1 WITH #3811028-1	PCW

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HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
GTE1283		REPLACE EDUCATOR HOUSING #3850102-1 (TITAN) WITH #3850125-1 (INCONELL)	PCW
GTE1287		REPLACE GASKET #3883327-1 WITH #MS35769-10	PCW
GTE1288		REPLACE COVER #3826934-1 / 3826994-1 WITH #3827642-1 / 3827643-1	PCW
GTE1290		REPLACE BLANKET #3617177-2 WITH #3617177-5 (PRE 49-7752)	PCW
GTE1295		REPLACE QUILL SHAFT #3822353-1 WITH #-4	PCW
GTE1297		REPLACE TIE SHAFT #3840280-3 WITH #-4	PCW
GTE1298		REPLACE CLAMPS #211-594-9005 WITH #211-594-9003 AND #211-594-9006	PCW
GTE1310		REPLACE 2ND STAGE ENGINE COMPRESSOR HOUSING #3826919-3 WITH #-4	PCW
GTE1317		REPLACE 2.STG NOZZLE SEGMENT #3844603-5 WITH #-6 AND/OR REPLACE 2.STG NOZZLE ASSY #3844471-6 WITH #-7	PCW
GTE1318		REPLACE 2.STG TURBINE BLADES #3842329-3 WITH #-4 AND/OR REPLACE 2.STG TURBINE WHEEL ASSY #3842155-3 WITH #-4	PCW
GTE1319		REPLACE 1.STG NOZZLE SEGMENT #3844602-4 WITH #-5 AND/OR 1.STG NOZZLE ASSY #3844622-5 WITH #-6	PCW
HYD1433		REPLACE ONE PACKING AND ONE TEFLON SECONDARY SEAL WITH TWO PACKINGS IN THE MAGNETIC DRAIN PLUG	PCW
SPB D200811000047		REPLACE REAR BEARING COVER #3844484-1 WITH #3844910-1	PCW
VAL1195		REPLACE ADJUSTABLE STOP SCREW #3163594-7 WITH #3163594-5 ON STARTER VALVE #3283076-3	PCW
VAL1393		REPLACE SERVO VALVE #3176668-1 WITH #-2 ON SCV #3290814-4	PCW
331-500-49-0001		REWORK FCU #441761-6 TO #-7	PCW
4131000-49-01		REPLACE LOP SWITCH #4132033-2 WITH #-3	PCW
441761-49-0002		REWORK FUEL CLUSTER #441761-7	PCW
441761-49-0003		REWORK FUEL CLUSTER #441761-7 TO #3879008-1	PCW
9048700-49-17		REWORK IGNITION UNIT #3876195-8 TO #-9	PCW
B55690-49-01		REWORK ACTUATOR #3883499-1 /-2 TO #-2	PCW
B55690-49-02		REWORK IGV-ACTUATOR #3883499-3 (#B55690-005)	PCW
CUA1-49-0001		FPI INSPECTION OF BODY #2682924 OF FUEL CLUSTER #441761-X	PCW
49-2358		REWORK STARTER #2704442-3 S1 TO #4 S1	PCW
49-2379		REWORK OIL TEMP VALVE #160536-1 S1 TO S2	PCW
49-2380		REWORK STARTER #2704442-4 S1 TO #5 S1	PCW
49-2389		MODIFY STARTER #2704442-5 S1 TO S2 (REPLACE BRUSH INDICATOR ASSY)	PCW
49-6993		REWORK APU STARTER VALVE #3283076-3 TO #-4	PCW
49-6999		REWORK LUBE CLUSTER #4131000-3 TO #-4	PCW
49-7000		REWORK SCV #3290814-2 TO #-3 S2	PCW
49-7001		REWORK SCV #3290814-3 TO #-4	PCW

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HONEYWELL AEROSPACE GMBH RAUNHEIM
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 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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49-7004		REWORK LUBE CLUSTER #4131000-4 TO #-5	PCW
49-7014		INSPECT SCV #3290814-3/-4	PCW
49-7017		REWORK THE LUBE CLUSTER #4131000-5 PRIOR S2.	PCW
49-7021		REPLACE OIL FILTER BYPASS VALVE #4132029-2 WITH #-3 AND GENERATOR FILTER BYPASS VALVE #4132030-2 WITH #-3 ON LUBE CLUSTER #4131000	PCW
49-7023		REWORK STARTER VALVE #3283076-4 TO #-5	PCW
49-7032		REWORK APU CHECK VALVE #3202610-4 TO #-5	PCW
49-7040		REWORK LUBE CLUSTER #4131000-5 TO #-6	PCW
49-7046		REWORK ELECTRIC STARTER CLUTCH #3503876-5 TO #-6 S1	PCW
49-7050		REWORK SCV TO #3290814-4 S2 CHNO1	PCW
49-7052		REWORK SCV #3290814-4 TO #-5	PCW
49-7141		REPLACE SURGE VALVE DUCT #3850107-1 WITH #-2	PCW
49-7144		REPLACE IGNITION CLUSTER #3888275-7 WITH #-8, AND REPLACE/REWORK HARNESS #3888364-1 WITH/TO #-2	PCW
49-7145		REWORK IGNITION CLUSTER #3888275-7 TO #-8	PCW
49-7153		INSPECT IF P2 ORIFICE COVER IS INSTALLED AND RE-IDENTIFY UPPER COMPOSITE INLET DUCT #3810727-5 TO #-6	PCW
49-7162		REPLACE STARTER VALVE #3283076-3 WITH #-4	PCW
49-7165		REWORK PNEUMATIC CLUSTER #3884863-4 TO #-5	PCW
49-7180		REPLACE PNEUMATIC CLUSTER #3884863-4 WITH #-5.	PCW
49-7183		REPLACE ACTUATOR ROD #3826926-1 WITH #3827405-1, AND ROD END BEARING #3826928-1 WITH #3827406-1	PCW
49-7197		REPLACE LUBE CLUSTER #4131000-3/-4 WITH #-5.	PCW
49-7198		REPLACE PNEUMATIC CLUSTER #3884863-5 WITH #-6	PCW
49-7199		REPLACE FUEL CLUSTER #441761-6 WITH #-7	PCW
49-7200		REWORK PNEUMATIC CLUSTER #3884863-5 TO #-6	PCW
49-7218		INSPECT/RWK/REPLACE 2. STAGE DE-SWIRL #3827315-1 TO -2	PCW
49-7220		REPLACE TURBINE BEARING SUPPORT #3844749-1 WITH #3844854-1	PCW
49-7250		REPLACE IGNITION CLUSTER I.D. PLATE #S8840M2P2 WITH #S9886-2	PCW
49-7252		REPLACE ENGINE COMPRESSOR HOUSING #3827164-3 WITH #-4	PCW
49-7260		REPLACE LOAD COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7261		REPLACE ENGINE COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7269		REPLACE GASKETS #3844515-1 WITH #-2, 3881248-1 WITH #-2, 3881259-1 WITH #-2.	PCW
49-7273		REPLACE CLAMP #234-592-9001 WITH INLET BELL CLAMP #3617128-1	PCW
49-7279		REWORK/REPLACE TRANSFER TUBE #3863110-1 WITH #-2	PCW

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SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7293		REPLACE SHIELD SUPPORT #3616661-1 WITH #3617122-1 AND #-2	PCW
49-7294		REPLACE OIL SUPPLY TUBE #3881624-1 WITH #3881755-1	PCW
49-7297		REWORK IGNITION CLUSTER #3888275-8 TO #-9	PCW
49-7311		ONE-TIME INSPECTION OF ROTATING SEAL #3842148-1	PCW
49-7319		REPLACE AIR TURBINE STARTER CLUTCH #3505874-2 WITH #3505874-3	PCW
49-7320		REPLACE ELECTRIC STARTER CLUTCH #3503876-3 WITH #-4	PCW
49-7322		REPLACE STARTER #2704442-3 WITH #-4	PCW
49-7343		REWORK ELECTRIC STARTER CLUTCH #3503876-3 TO #-4	PCW
49-7344		REWORK AIR TURBINE STARTER CLUTCH #3505874-2 TO #-3	PCW
49-7356		REPLACE PACKING #MS9386-009 WITH #561-515-0001	PCW
49-7364		REPLACE INSULATION BLANKET #3615861-3 WITH #3617177-3	PCW
49-7385		REWORK ELECTRIC STARTER CLUTCH #3503876-4 TO -5	PCW
49-7386		REWORK AIR TURBINE STARTER CLUTCH #3505874-3 TO #-4	PCW
49-7387		REPLACE ELECTRIC STARTER CLUTCH #3503876-4 WITH #-5	PCW
49-7388		REPLACE AIR TURBINE STARTER CLUTCH #3505874-3 WITH #-4	PCW
49-7393		INSPECT CHECK VALVE #3202610-4	PCW
49-7402		REPLACE COMPRESSOR INLET BELL MOUTH #3826917-1 WITH #3827450-1	PCW
49-7407		REPLACE CHECK VALVE #3202610-4 WITH #-5	PCW
49-7414		REPLACE STARTER VALVE #3283076-4 WITH #-5	PCW
49-7418		REPLACE IGNITION CLUSTER #3888275-8 WITH #-9	PCW
49-7432		REPLACE ADAPTER #MS51843-25SS WITH AIR BUFFER FITTING #3617567-1	PCW
49-7449		REMOVE OIL HEATER #3888311-4	PCW
49-7464		REWORK HARNESS #3888364-2 TO #-3	PCW
49-7502		REPLACE BEARING #3616641-1 WITH #3860837-1 IN GEARBOX #3805034-8	PCW
49-7504		REWORK/REPLACE 1. STAGE TURBINE ROTOR #3842151-2 WITH #-3	PCW
49-7532		REPLACE LUBE CLUSTER #4131000-5 WITH #-6	PCW
49-7537		INSTALL CONICAL BELL MOUTH COVER #3810973-1	PCW
49-7538		INSTALL INLET FLANGE PLATE #3810975-1 OR #3811028-1	N/A
49-7539		INSTALL INLET EXTENSION PLATE #3810981-1 OR #3811027-1	N/A
49-7547		INSPECTION OF INLET BELL MOUTH CLAMP #3617128-1 FOR PROPER TORQUE	PCW
49-7554		REPLACE/REWORK OIL COOLER SUPPLY TUBE #3881625-1 WITH #-2	PCW

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49-7555		REPLACE/REWORK OIL COOLER RETURN TUBE #3881626-1 WITH/TO #-2	PCW
49-7556		INSPECT ELECTRIC STARTER CLUTCH #3503876-5 AND AIR TURBINE STARTER CLUTCH #3505874-4 FOR PROPER INSTALLATION OF LOCK BOLTS	PCW
49-7557		DISABLE GENERATOR FILTER CLOGGED AUTO SHUTDOWN	PCW
49-7609		REWORK L/C SCROLL HOUSING #3827093-5 OR REPLACE CRACKED SCROLLS WITH #-6	PCW
49-7611		REMOVE INLET EXTENSION PLATE #3810981-1 OR #3811027-1	PCW
49-7632		REWORK ENGINE ASSY #3800551-8 TO #-9	PCW
49-7670		REWORK/REPLACE PNEUMATIC CLUSTER #3884863-6 WITH #-7	PCW
49-7698		REPLACE ELECTRIC STARTER CLUTCH #3503876-5 WITH #-6	PCW
49-7727		REPLACE INLET SCREENS #3810788-1/3810622-3 WITH #3811033-1/3811034-1	PCW
49-7752		REWORK LOAD COMPRESSOR (IMPROVED FORWARD AIR OIL SYSTEM)	PCW
49-7756		REPLACE COMPOSITE BELL MOUTH #3827450-1 AND CONICAL COVERS #3810973-1 WITH CONICAL BELL MOUTH #3827602-2	PCW
49-7769		REPLACE FCU #441761-7 WITH #3879008-1	PCW
49-7800		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (LOAD COMPRESSOR)	PCW
49-7801		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (POWER SECTION)	PCW
49-7810		REPLACE 2. STAGE COMPRESSOR IMPELLER #3822341-4 WITH #-5	PCW
49-7811		INSTALL IMPROVED TURBINE BEARING THRUST WASHER SYSTEM	PCW
49-7816		REPLACE LOAD COMPRESSOR IMPELLER #3822468-3 WITH #3822612-1	PCW
49-7817		REPLACE 1ST STAGE COMPRESSOR IMPELLER #3822483-1 WITH #3822611-1	PCW
49-7822		REMOVE INLET FLANGE PLATE #3810975-1 OR #3811028-1	PCW
49-7828		IMPROVE CLEARANCE BETWEEN IGVA/SCV FUEL TUBES AND WIRE HARNESS CLAMP	PCW
49-7829		IMPROVE WIRE HARNESS RETENTION AT LOAD COMPRESSOR FORWARD DRAIN TUBE	PCW
49-7830		REPLACE STARTER #2704442-4 WITH #-5	PCW
49-7856		REPLACE 1ST STAGE TURBINE WHEEL #3840303-1 OR REPLACE/REWORK #3840160-5 WITH/TO #3840160-8	PCW
49-7864		REPLACE AIR TURBINE STARTER GEARSHAFT BEARINGS #3860837-1 WITH #3861160-1	PCW
49-7865		REPLACE ELECTRICAL STARTER GEARSHAFT BEARINGS #3860833-1 WITH #3861161-1	PCW
49-7870		ONE-TIME INSPECTION OF FUEL NOZZLE #3883453-1	PCW
49-7911		BOROSCOPE INSPECTION FOR 331-500(B) APU BUILT WITH 2.STG COMPRESSOR SHROUD #3826919-4	N/A
49-7912		REPLACE SECOND STAGE COMPRESSOR HOUSING #3826919-3 WITH #-4	PCW
49-7931		REPLACE IGNITION CLUSTER #3888275-9 WITH #-10	PCW
49-7932		REWORK IGNITION CLUSTER #3888275-9 TO #-10	PCW
49-7982		REPLACE 2ND STAGE ENGINE COMPRESSOR SHROUD #3826919-4 WITH #-5	PCW

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49-8009		REPLACE FUEL PUMP DRAIN TUBE #3883769-1 WITH #70720067-1, ACTUATOR SURGE DRAIN TUBE #3883770-1, WITH #70720050-1, #70720051-1, #70720052-1 AND #70720053-1	PCW
49-8022		REPLACE THE LOQ SENSOR #3876211-2 WITH #-3	PCW
49-8035		REPLACE IGV ACTUATOR #3883499-2 WITH #-3	PCW
49-8036		REWORK MATCHED SET GEARBOX HOUSING ASSY #3863163-8	N/A
49-8058		REWORK GEARBOX ASSY TO 3805034-10 BY REPLACEMENT OF ATS CLUTCH #3505874-4 WITH #-5	12.03.2015
49-8074		REPLACE HIGH SPEED PINION BEARING #3860832-2 WITH SPECIFIED BEARING SERIAL NUMBERS	N/A
49-8081		REPLACE DISCREPANT DMM #304643-2 IDENTIFIED BY DMM SERIAL NUMBERS	N/A
49-8137		REWORK GEARBOX ASSEMBLY #3805034-10 TO #-11 (INCORPORATE IMPROVED BEARING LINER ANTI-ROTATION PINS)	20.06.2017
49-8138		REPLACE GEARBOX ASSEMBLY #3805034-10 WITH #-11 (INCORPORATE IMPROVED BEARING LINER ANTI-ROTATION PINS)	PCW
49-8141		REPLACE TURBINE BEARING COVER GASKET #3844611-1 WITH #-2, OIL-OUT TUBE #3881333-1 WITH #2 AND OIL-IN TUBE #3881336-1 WITH #-2,	20.06.2017
49-8170		REPLACE TURBINE BEARING COVER GASKET #3844611-1 WITH #-2	PCW
49-8179	1	REPLACE AIR TURBINE STARTER ADAPTER #3863106-4 WITH #-5	20.06.2017
49-8180	1	REPLACE ELECTRIC STARTER ADAPTER #3863102-2 WITH #-3	20.06.2017
49-8223	1	RECALL OF FIRST STAGE TURBINE BLADES #3842153-3	N/A
49-9008		REWORK AIR TURBINE STARTER CLUTCH #3505874-4 TO #-5	12.03.2015
E.O.25-4900-0912	6	50% REDUCED BALANCE LIMITS OF THE 331-500(B) INDIVIDUAL ROTATING GROUP COMPONENTS AND ROTATING GROUP ASSEMBLY	20.06.2017

SIGNATURE / STAMP

N. Seibel 

N/A = NOT APPLICABLE
 OR = ORIGINAL ISSUE
 PCW = PREVIOUSLY COMPLIED WITH
 AD = AIRWORTHINESS DIRECTIVE
 LTA = LUFTFAHRT TÜCHTIGKEITSANWEISUNG
 CN = CONSIGNE DE NAVIGABILITE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
 FAA APPROVED REPAIR STATION NO.: QJ1Y428K
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 BCAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 PACA APPROVED MAINT. ORG. NO.: AWR/263/GMBH-071/92
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 GCAA APPROVED MAINT. ORG. NO.: UAE.145.1050
 KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069
 QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
 JCARC APPROVED MAINT. ORG. NO.: CARC.F.AMO.60
 IDGCA APPROVED MAINT. ORG. NO.: 5-2435/2015-AI(2)

APU Service Record

Honeywell Aerospace GmbH
Frankfurter Straße 41-65
65479 Raunheim, Germany

Engine Type:

331-500(B)

Honeywell

R/O:	338506878	P/O:	R370482	Date:	30.01.2020
P/N:	3800550-1	S/N:	P-2158	Series:	61
TSN:	8948,98	TSO:	N/A	TSR:	0
CSN:	6018	CSO:	N/A	CSR:	0

Engine has been:

☒	Inspected	☐	HSI
☒	Repaired		
☐	Overhauled		
☐	Modified		
☒	Tested	☐	Hourmeter Reading

Certificate/Approval Ref. No.:

EASA approval No.: DE.145.0022
FAA approval No.: QJ1Y428K
TCCA approval No.: 898-02
BCAA approval No.: ALD/AIR/8/5.65

PACA approval No.: AWR/263/GMBH-071/92
GACA approval No.: AMO-152F
GCAA approval No.: UAE:145.1050
KCASR approval No.: DGCA/AMO/069

QCAA approval No.: QCAA/FAMO/126
JCARC approval No.: CARC.F.AMO.60
IDGCA approval No.: 5-2435/2015-AI(2)

Notes: NO EASA AND/OR FAA AD'S APPLICABLE.

B. Seibel



Signature / Stamp

Note: APU on release after testcell runs.
The TSN / CSN is as follows:

TSN: 8950,55 Hours

CSN: 6023 Cycles

**APU SHOP VISIT
RECORDS
HONEYWELL 2019**



1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA],Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20190006167799Y02 335217136	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice T32183 335218116 Page 1 of 1	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	INSPECTED / TESTED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. AJW HAS PROOFED THE REQUIREMENTS WITH THE DATA PROVIDED BY HONEYWELL AEROSPACE GMBH AND CONFIRMS THE COMPLIANCE OF THE POLICY SHEET G-49-26-100 14-NOV-2016. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH TCCA CAR 571 AND IN RESPECT TO THAT WORK,THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER TCCA CERTIFICATE NO. 898-02.						
CONTINUED: TSN: 8108,98/CSN: 5610 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 8110,58/5614 (1,60 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TSN 8108,98 TSR 807,36 CSN 5610 CSR 521 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12				14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.		
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Helmut Gregori		13 MAR 2019
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Отчет о проведении бороскопического осмотра BORESCOPE REPORT # 23102019-45

Ведомость работ по ТО № WP No	Тип ВС AC Type	Регистр. номер AC Reg	Тип двигателя Engine Type	Сер. номер двигателя Engine S/N	Наработка Operating time	
					Часов Hours	Циклов Cycles
XLP-241019 ENG#2 CHANGE	B777-312	EI-XLP	GTCP331-500B	P-2158	8697	5920
Инструмент и оборудование Used tools or equipment		OLYMPUS RX				
Порт для бороскопа Borescope ports		Inlet plenum, Borescope port for the 2 nd stage compressor, Borescope port for the combustor and the 1 st stage turbine				

Причина проверки
Reason for inspection:

☒ Плановый осмотр
Scheduled

Ссылка на рабочую
карту
Ref MJC/AMOS TC No _____

☐ Внеплановый осмотр
Unscheduled

Ссылка на задание **WO 506591640**
Ref ATL (AMOS WO)

Ссылка на задание
Ref CWO _____

Результат проверки / Inspection results:

Borescope inspection of the APU has been performed in accordance with B777 AMM Rev. 87 from 05 September 2019 Task 49-21-00-200-801.

Inspection result:

1. Load compressor - Discrepancies not found
2. First stage Compressor - Discrepancies not found
3. Second stage Compressor - Discrepancies not found
4. First stage Stator Vanes - Discrepancies not found
5. Annular Combustion chamber - Discrepancies not found
6. First stage Turbine - Discrepancies not found

Фамилия/ Glebov S. Surname	Подпись/ Sign	Штамп/ BI-08 08 Stamp LLC «A-Technics»	Дата/24.10.2019 Date	Станция ТО / VKO Station
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Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE | ACCUMULATIVE TOTALS | P/N : 3800550-1 S/N : P-2158
25022019 | HOURS | CYCLES |
TSN / TSO | CSN / CSO | TSR / CSR |
8108,98 / N/A | 5610 / N/A | 807,36 / 521 |

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Tested/Inspected
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: T32183;
PS G-49-26-100 PERFORMED

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 335218116

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	ST
1C. ROTOR	3822611-1	N/A	12-182449-05026	8108,98	5610	21390	27000	0
2C. ROTOR	3822341-5	N/A	1618244922583	807,36	521	26479	27000	0
1T. ROTOR	3842152-1	3842151-3	11-168522-06915	8108,98	5610	21390	27000	0
2T. ROTOR	3842156-1	3842155-4	1116852203695	8108,98	5610	21390	27000	0
3T. WHEEL	3842160-6	N/A	16-156101-08203	807,36	521	26479	27000	0
LC. ROTOR	3822612-1	N/A	11-182449-04338	8108,98	5610	21390	27000	0

===== ST (STATUS) and LIMIT (ROTOR LIFE LIMIT) =====
0=NOT EXPOSED 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	4	C. VALVE	3202854-1	1256	4
CLUSTER	3884863-7	P-1410	0	SCV	3290814-5	3290814/1106	0
AIRSTART	3505814-3	1406	4	E. START	2704442-5	1690	4
FUELCLUS	3879008-1	CUA11617	0	LUBECLUS	4131000-6	1542	0
TEMP VLV	160536-1	1383	0	COOLER	160488-2	1620	0
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	0
IGN. UNIT	3876195-9	070218081158	0	GEARBOX	3805034-11	P-1286	0
LOADCOMP	3804011-10	P-1283	0	COMPRESS	3826980-13	P-1278	0
TURBINE	3844517-7	P-1278	0				

===== ST (STATUS) =====
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: QJ1Y428K
TCCA ACCEPTANCE APPROVAL NO.: 898-02
BCAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
PACA APPROVED MAINT. ORG. NO.: AMR/263/GMBH-071/92
GACA APPROVED REPAIR STATION NO.: AHO-152F
QCAA APPROVED MAINT. ORG. NO.: UAE.145.1050
KCABR APPROVED MAINT. ORG. NO.: DGCA/ AHO/069
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
JCARC APPROVED MAINT. ORG. NO.: CARC.F.AHO.60
TDCA APPROVED MAINT. ORG. NO.: 5-2435/2015-AI(2)


H. Lehmann


STAMP

25.02.2019
DATE

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Germany

Wednesday, March 8, 2017

Subject: Computation of LLP cycles and reporting of DMM run times.

To whom it may concern:

In on-going efforts to improve the documentation for our customers, Honeywell Raunheim has issued a new revision of the APU Service Record (log book), Form QS1080/2000. A Stamp has been added to the new form, to report the DMM run time of the APU, which includes test cell operations.

The certificate now also will report DMM hours/cycles on release, and the actual hours and cycles attained during test cell operations.

For computation of LLP life limits, the APU Service Record (sheet), Form QS546/93, will change back to reflecting only APU TSN/CSN at receiving, and LLP hours and cycles at point of installation. These measures became necessary to guarantee the integrity of all hour and cycle information.



Michael Jessegus
Leader Quality Systems

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Germany

ACCEPTANCE TEST DATA SHEET

Page 1 of 2

331-500 [B]
Continued Time

USED WITH
EM 49-26-57
REV. 20

UNIT OUTLINE: 3800550-1 MODEL NO. 331-500 [B] SERIAL NO. P-2158 DATE: 25.02.2019
TEST CELL NO. Cell 3 RUN NO. 1 SERVICE ORDER: 5013335621
OIL USED MIL- 23699 TYPE 2380 FUEL USED MIL-T 5624 TYPE Jet A1
APU CONTROL UNIT PN: 2118834-100 S/N* 28-F0177 SLAVE* Yes

Discriptor	Unit	Requirement	Actual
Total Numbers of Starts during Test	No.	.....	<u>4</u>
Total Operating Time during Test	Hour	.....	<u>1:34</u>
Automatic Start Time (Elektric)	Sec.	60 Sec. Maximum	<u>48</u>
Starter Cutout Time (Elektric)	Sec.	40 Sec. Maximum	<u>30</u>
Automatic Start Time (ATS)	Sec.	60 Sec. Maximum	<u>46</u>
Starter Cutout Time (ATS)	Sec.	40 Sec. Maximum	<u>28</u>
SCV Closing Point	LB/MIN	Ref. Figure 1305	<u>168,4</u>
Flow Sensor Reading Differance	%	5% Maximum	<u>-1,1</u>
EGT Spread (ECS)	°F	80 Deg. Maximum	<u>27,7</u>
EGT Spread (MES)	°F	80 Deg. Maximum	<u>14,8</u>
ATS Air Inlet Total Pressure	PSIG	30 PSIG Minimum	<u>49,70</u>
ATS Air Inlet Total Temperature	Deg. F	.....	<u>80</u>
IGV Performance Adjust	Deg.	.....	<u>7,9</u>

LRU Faults Observed: None ✓ Other _____

Unit Status: Accept: ✓ Reject: _____

Remarks:

Technican _____ Date: 25.2.19
Supervisor _____ E631720 Date: 25. FEB. 2019
Quality Assurance _____ Date: 26. FEB. 2019

331-500 [B]

APU S/N: P-2158

APU P/N: 3800550-1

ATP REFERENCE				
Descriptor	UNIT	ECS	READY TO LOAD	MES
Cell Pressure	PSIA	14,90	14,90	14,90
AVERAGE INLET TEMPERATURE (T2)	°F	88,42	56,59	97,87
UNIT INLET TEMPERATURE (T2 ECB)	°F	78,90	63,24	73,75
OIL TEMPERATURE	°F	160,7	147,0	153,9
OIL PRESSURE	PSI	64,50	65,49	64,80
FUEL INLET TEMPERATURE	°F	54,5	54,5	56,5
FUEL INLET PRESSURE	PSI	16,54	20,83	14,83
GEARBOX PRESSURE	PSI	0,229	0,216	0,188
TURBINE DISCHARGE TEMPERATURE (UNIT RAKES)	No. 1	°F	1122,3	683,8
	No. 2	°F	1150,0	658,8
EXHAUST GAS TOTAL TEMPERATURE (LAB - AVG)	Actual	°F	1147,1	698,3
	Corrected*	°F	1173,8	1100,3
BLEED ORIFICE INLET TEMPERATURE	°F	380,5	.....	399,6
BLEED ORIFICE INLET PRESSURE	PSIA	53,34	.....	60,43
BLEED ORIFICE DIFFERENTIAL PRESSURE	PSID	2,048	.....	0,870
IGV POSITION	DEG	15,4	75,6	5,0
CORRECTED DISCHARGE AIRFLOW (WBCDNA)	LB/MIN	167,5	.....	106,6
BLEED AIRFLOW (WB)	Actual	LB/MIN	487,8	.....
	Corrected*	LB/MIN	465,6	.....
BLEED TOTAL PRESSURE (PB)	Actual	PSIA	54,99	.....
	Corrected*	PSI	52,91	.....
BLEED TOTAL TEMPERATURE (TB)	Actual	°F	397,0	.....
	Corrected*	°F	406,0	.....
FUEL CONSUMPTION	Actual	LB/HR	635,5	349,9
	Corrected*	LB/HR	619,2	.....
SHAFT OUTPUT / DELTA	Corrected*	SHP	196,8	.....
UNIT VIBRATION	GEARBOX	IPS	0,22	0,29
	TURBINE	IPS	0,45	0,90
APU SPEED	RPM	38981	38981	38956
SPECIFICATION REQUIREMENTS (CORRECTED) CONTINUED TIME	MIN BLEED FLOW	LB/MIN	444,0	.....
	MIN BLEED PRESS.	PSIA	51,20	.....
	CORR. DISCH. FLOW	LB/MIN	167,0	.....
	IGV POSITION	DEG	7,0	.....
	MIN SHAFT LOAD	SHP	180,0	0,0
	MAX EGT	°F	1175,0	.....
DIGITAL DATA SCAN	TIME	09:54:53	10:12:45	10:26:15
	DATE	02/25/2019	02/25/2019	02/25/2019
DIGITAL DATA POINT	XXXX	1002	1001	1003

WE CERTIFY THE ABOVE DATA IS TRUE AND CORRECT AND IN ADDITION, THE APU HAS SUCCESSFULLY MET ALL OTHER TEST REQUIREMENTS SPECIFIED IN THE LATEST REVISION OF THE APPLICABLE TEST SPECIFICATION INDICATED ABOVE.
 QS:1692/2018, AZ:00;25.09.2018

MINI PACK

AJW

REMOVAL TAG





Air Salvage International Ltd
Hangar H2
Cotswold Airport, Cirencester
Gloucestershire GL7 6BA
Tel: 44 (0) 1285 771351
Fax: 44 (0) 1285 770861
www.airsalvage.co.uk

IDENTIFICATION

Air Salvage International, ID: 18-074-263

Part No: 3800550-1

Desc: APU

Serial No: P-2158

Qty: 1

Notes: 100-1903 TO 100-1906

As removed from B777 MSN 36302

Registration A6-LRC On 08/02/2019 12:00:57



**NON- INCIDENT
STATEMENT**



To Whom it may concern,

This statement is to confirm that APU-AUXILIARY POWER UNIT PN: 3800550-1 SN: P-2158 installed to Boeing 777-200LR A6-LRC MSN 36302 has accumulated the following Hours and Cycles during maintenance performed at Air Salvage International, Cotswold Airport, England, UK between 12/01/2019 – 24/01/2019

On arrival:

TSN 8101

CSN 5606

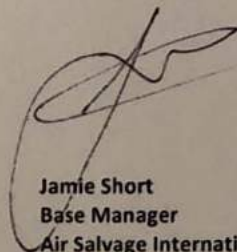
On removal:

TSN 8108

CSN 5610

Subject APU has been removed in "AS IS" condition and will require to be inspected and recertified as per the applicable, latest revision component maintenance manual (CMM) by an approved maintenance repair organisation (MRO) facility.

Yours Faithfully.



Jamie Short
Base Manager
Air Salvage International

Air Salvage International Ltd

- 001 -
Engineering

ASI
2

Engine/APU Non-Incident Statement

Engine/APU Type/Part No.:	3800550-1	Time Since New:	8101
Engine/APU Serial No.:	P-2158	Cycles Since New:	5606
Installation Date:	21 July 2017	Time Since Installation:	800
Removal Date:	CURRENTLY INSTALLED	Cycles Since Installation:	517
A/C Reg.:	A6-LRC	Time Since Last Shop Visit:	800
		Cycles Since Last Shop Visit:	517

The undersigned hereby certifies the following:

To the best of our knowledge and belief, this engine/APU and equipment as referenced above has not been subject to any incident, accident, major failure or fire, extreme stress, over-temperature, outside of normal operation, immersion in salt water or exposed to any corrosive agents nor was it obtained by or used for any military purposes during the period of operation with Etihad Airways.

To the best of our knowledge this engine/APU has been maintained and operated in accordance with all the OEM recommendations and mandatory requirements from the GCAA, FAA & EASA.

To the best of our knowledge the engine/APU has only been operated with approved fuels.

To the best of our knowledge no PMA parts have been installed or used on this engine/APU during the period of operation as referenced above.

To the best of our knowledge no DER repairs have been accomplished on this engine/APU during the period of operation as referenced above.

PREPARED BY:

Name and Title:	Reginaldo Roan Lead Engineer APU Programme	Signature:		Date:	16 Jan 2019
-----------------	--	------------	--	-------	-------------

APPROVED BY:

Name and Title:	Rohan Douglas Senior Manager Engine Management	Signature:		Date:	16 Jan 2019
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Date: 16 January, 2019
To: Altavair

Non Incident / Non Accident Statement - Airframe

Aircraft

Registration	MSN	Type	TSN	CSN
A6-LRC	36302	B777-200LR	44123:53	4796

To whom it may concern:

During operation by Etihad Airways from 06-February-2014 until 16-January-2019 of the above Aircraft, we hereby confirm that the Aircraft:

- ▶ Has not been involved in any accident or serious incident as defined in Chapter 1 of ICAO Annex 13
- ▶ Has not been obtained from nor operated by any government or military source.
- ▶ Has not been subjected to severe stress or heat outside of normal operation and maintenance.
- ▶ Have not been submerged in salt water or otherwise exposed to corrosive agents outside of normal operation and maintenance.

Approved by:

Najeeb Hassan Ansari
B777 Fleet Management Manager
+971 2 511 5459
NAnsari@etihad.ae

Prepared by:

Renz Estiva
Technical Records Officer
+971 2 511 5324
REstiva@etihad.ae

MINI PACK

AJW



ACCESSORY LIST

ETIHAD AIRWAYS



FLEET MANAGEMENT

OCCM TIME STATUS

Unit TSN:	8101	Aircraft:	A6-LRC
Unit CSN:	5606	Item:	3800550-1
TSLSV:	800	Serial:	P-2158
CSLSV:	517	Status AS AT:	14-Jan-19

ATA	Item Number	Serial Number	Item Description / Position	COMP TSN	COMP CSN
49-00	3800550-1	P-2158	APU-AUXILIARY POWER UNIT	8101	5606
49-00	3804011-10	P-1283	MODULE CPRSR DRIVEN	8101	5606
49-00	3805034-11	P-1286	GEARBOX ASSY	8101	5606
49-00	3826980-13	P-1278	MODULE ENG CPRSR	8101	5606
49-00	3844517-7	P-1278	TURB MOD ASSY	8101	5606
49-00	160488-2	1620	COOLER	6630	4163
49-00	160536-1	1383	VALVE, TEMP. CONTROL	8101	5606
49-00	2704442-5	1690	STARTER MOTOR	8101	5606
49-73	304643-2	GE10745	MODULE, MEMORY APU	4150	2432
49-00	3202854-1	1256	VALVE, CHECK	8101	5606
49-00	3283076-5	1465	VALVE, AIR STARTER	8101	5606
49-00	3290814-5	3290814/1106	VALVE, SURGE CONTROL	14988	9901
49-00	3505814-3	1406	STARTER	8101	5606
49-00	3879008-1	CUA11617	CLUSTER FUEL	8101	5606
49-00	3883499-3	1659	ACTUATOR	2463	1490
49-00	3884863-7	P-1410	CLUSTER	8101	5606
49-41	3876195-9	070218081158	IGNITION EXCITER	6864	5131
49-00	4131000-6	1542	LUBE	8101	5606

Verified By: N. P. Jurek

Date: 14 - JAN - 2019





AD & SB STATUS

APU SN P-2158 SB STATUS

 Service Bulletin Status Report	Aircraft Reg: 48_APU ASSY B777_P-2158	Line Number:	TLSV/TSO: 800.00	Engine 1 SN: NOT APPLICABLE	APU SN: P-2158
	Aircraft Model: 3808550-1	Effectivity:	CSLSV/CSO: 817.00	Engine 2 SN: NOT APPLICABLE	Issue Date From:
	Serial Number: P-2158	TSN: 8101:00		Engine 3 SN: NOT APPLICABLE	Issue Date To:
	Operator: ETIHAD AIRWAYS(EY)	CSN: 5806		Engine 4 SN: NOT APPLICABLE	Order By: Document Issue Date

Service Bulletin Number	Issue Date	Effective Date	Subject	OEM/AD References	Means of Compliance	Applicability (Position/ Item No/SN)	Repeat	Status	Last Done	Next Due Date / Remaining Life	Remarks
SB: 48-7987 / 02	22-DEC-10	26-DEC-10	B777 APU MODEL GTP0331 500B PRESERVATION AND DEPRESERVATION		EY_B777-48-173_EWI		NO	Open			EWI EY_B777-48-173_EWI is applicable only when APU is required to be removed as Serviceable and when Preservation / Depreservation is required.

Document Sub Type	Description
AIT	Accident Information Telex
AOL	AI Operator Letter
AOT	AI Operator Telex
CAS	Customer Approval Sheet
CDR	Customer Departure Record
CL	Commitment Letter
CWR	Customer Work Request
EB	Engineering Bulletin
ECR	Engineering Change Request
FCO	Field Change Order
FOM	Flight Operation Message
FOT	Flight Operation Telex
MB	MODIFICATION BULLETIN
MOM	Multi Operators Message
NTD	Notice To Operations
OIT	Operator Information Telex
RB	REPAIR BULLETIN
RDR	Repair and Deviation Report
RI	Repair Instruction

No SB carried out on-wing except for preservation in case APU to be removed serviceable, for SBs carried out during SV, please refer to APU log book



APU SN P-2158 SB STATUS

 Service Bulletin Status Report	Aircraft Reg: 49_APU ASSY B777_P-2158	Line Number:	TLSV/TSO: 800.00	Engine 1 SN: NOT APPLICABLE	APU SN: P-2158
	Aircraft Model: 3800550-1	Effectivity:	CSLSV/CSO: 517.00	Engine 2 SN: NOT APPLICABLE	Issue Date From:
	Serial Number: P-2158	TSN: 8101:00		Engine 3 SN: NOT APPLICABLE	Issue Date To:
	Operator: ETIHAD AIRWAYS(EY)	CSN: 5606		Engine 4 SN: NOT APPLICABLE	Order By: Document Issue Date

Document Sub Type	Description
RIL	Retrofit Information Letter
RPL	Retrofit Planning Letter
SAIB	Special Airworthiness Information Bulletin.
SB	Service Bulletins
SBIN	Service Bulletin Information Notice
SBIT	Service Bulletin Information Telex
SBM	Service Bulletin Memo
SCI	Software Configuration Index
SIB	SAFETY INFORMATION BULLETIN
SIL	Service Information Letter
SL	Service Letter
SNL	Service Newsletter
SPB	Spare Parts Bulletin
TA	Technical Adaptation
TIL	Technical Information Letter
TPA	Technical Publication Amendment
TVR	Technical Variance

Reviewed By: Reginaldo Roan



Approved By: Rohan Douglas



**APU LIFE LIMITED
PART TRACEABILITY
RECORDS**



ETIHAD AIRWAYS

FLEET ENGINEERING

ENGINE LLPs STATUS



Unit TSN:	8101:00	Unit Name:	49_APU ASSY B777_P-2158
Unit CSN:	5606	Item:	3800550-1
Unit DSN:	4230	Serial:	P-2158
Unit MSN:	P-2158	Position:	APU
Status AS AT:	12-Jan-19		

Item Number	Serial Number	Item Desc	TSN	CSN	MR CYC	Current Remaining	Counter Name
3822341-5	1618244922583	IMPELLER CPRSR 2ND STAGE	800	517	I: 27000	26483	Cycles
3822611-1	12-182449-05026	IMPELLER CPRSR 1ST STAGE	8101	5606	I: 27000	21394	Cycles
3822612-1	11-182449-04338	IMPELLER CPRSR LD	8101	5606	I: 27000	21394	Cycles
3842151-3	11-168522-06915	ROTOR ASSY 1ST STAGE	8101	5606	I: 27000	21394	Cycles
3842155-4	11-168522-03695	ROTOR ASY 2ND STAGE	8101	5606	I: 27000	21394	Cycles
3842160-6	16-156101-08203	ROTOR ASY TURBINE 3RD STG	800	517	I: 27000	26483	Cycles
3842152-1	11-168522-06915	DISK ROTOR 1ST STG	8101	5606	I: 27000	21394	Cycles
3842156-1	11-168522-03695	DISK ROTOR 2ND STG	8101	5606	I: 27000	21394	Cycles

Verified By: MARITERR GUANADA

Date: 14-JAN-2019



MINI PACK

AJW

LLP

**IMPELLER CPRSR 2ND
STAGE**

PN: 3822341-5

SN: 1618244922583



Removal Installation History (APU Life Limited Parts)

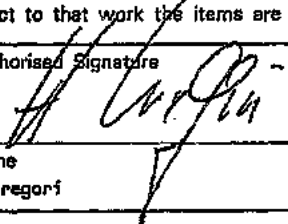
MANF. PART NO.	3822341-5	2nd Stage Compressor Impeller L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No.:	49143318
MANF. SERIAL NO.	1618244922583		Industry Item No. (IIN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

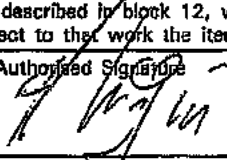
INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	0 0							
2													
3													
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION/S DONE (see attachment), STATION & DATE

REASON: 1	REASON: 2	REASON: 3
REASON: 4	REASON: 5	REASON: 6
REASON: 7	REASON: 8	REASON: 9

Authorized signature & stamp:

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Reinheim Germany				5. Work Order/Contract/Invoice 328598860		
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRU: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7597 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE				CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61		
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12		14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.				
13b. Authorised Signature	13c. Approved/Authorised Number	14b. Authorised Signature 		14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name	13e. Date (dd mmm yyyy)	14d. Name Helmut Gregori		14e. Date (dd mmm yyyy) 20 JUN 2017		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Competent Authority/Country Luftfahrt-Bundesamt(LBA), Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-CON 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMF TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE				CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSN 0,00 CSN 5089 CSR 0 SERIES:61		
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12		14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.				
13b. Authorised Signature	13c. Approval/Authorisation Number		14b. Authorised Signature 		14c. Certificate/Approval Ref. No DE.145.0022	
13d. Name	13e. Date (dd mmm yyyy)		14d. Name Helmut Gregor		14e. Date (dd mmm yyyy) 20 JUN 2017	
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE: 20062017
ACCUMULATIVE TOTALS
HOURS: TSN / TSO / CSN / CSO
7301,62 / N/A / 5089 / N/A
CYCLES: TSR / CSR
0 / 0
P/N : 3800550-1 S/N : P-2158

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	✓
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	✓
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

LIMIT (ROTOR LIFE LIMIT)
Rotor life limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DNM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0-TEST ON APU 1-FINAL/BENCHTEST 2-REPAIR 3-OVERHAUL 4-VISUAL INSPECT 5-NEW E-EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DR.148.0022
FAA APPROVED REPAIR STATION NO.: Q31428K
CAEA APPROVED REPAIR STATION NO.: NBO-152Y
EASA ACCEPTANCE APPROVAL NO.: 899-02
DGSA APPROVED MAINT. ORG. NO.: MR/263/GM-071/92
GCAA APPROVED REPAIR STATION NO.: UAE.148.1050
GCA APPROVED MAINT. ORG. NO.: ALG/ATR/8/5.68
CMAA APPROVED MAINT. ORG. NO.: CMAA/AMO/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/EN80/136
CAA APPROVED MAINT. ORG. NO.: VN-33104/CAV
ICAR APPROVED MAINT. ORG. NO.: DCCA/AMO/069

Form QS 546/93 Az: 15; 28.06.2014

[Signature]
S. Ritz



STAMP

20.06.2017
DATE

1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: 20170003162499Y14 9001239947-80001	
4. Organization Name and Address: Honeywell International Inc. 111 S. 34th Street Phoenix, Arizona 85072		Production Approval PT1222NM		Honeywell International Inc. Units 2-4, Chevron, Eaton Road Hemel Hempstead, HP2 7UB UNITED KINGDOM	
5. Work Order/Contract/Invoice Number: 4704989852-000010 Page 1 of 1					
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:
001	IMPELLER, COMPRESSOR, SECOND STAGE	3822341-5	1	1618244922583	NEW
12. Remarks: EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF FEDERAL REPUBLIC OF GERMANY. THIS PART IS A SUBCOMPONENT OF A TSO AUTHORIZATION.					
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:	
13d. Name (Typed or Printed): Aggrey Kanyanga		13e. Date (dd/mm/yyyy): 05/JUN/2017		14c. Approval/Certificate No.:	
				14d. Name (Typed or Printed):	
				14e. Date (dd/mm/yyyy):	

User / Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

LIFE LIMITED PART CARD

Part Name 2C.ROTOR

Part Number 3822341-5

Serial Number 1618244922583

Part of Assy Part Number N/A

[illegible]

Form QS 1412/2008 ÄZ: 00; 23.07.2008

ID: 56347

LIFE LIMITED PART REPAIR RECORD

[illegible]

LLP

IMPELLER CPRSR 1ST STAGE

PN: 3822611-1

SN: 12-182449-05026



Removal Installation History (APU Life Limited Parts)

MANF. PART NO.	3822611-1	1st Stage Compressor Impeller L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No.:	12517506
MANF. SERIAL NO.	12-182449-05026		Industry Item No. (EN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	PAE 01-May-12	P-2158 (A6-ETK)	0	0	0 0	0 0	AUH 09-Feb-15	3951	3174	3951 3174	3951 3174	3951	3174
2	AUH 03-Apr-15	P-2158 (A6-LRA)	3951	3174	3951 3174	3951 3174	AUH 08-May-17	7301	5089	3350 1915	7301 5089	7301	5089
3	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	7301 5089							
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATIONS DONE (see attachment), STATION & DATE

REASON: 1	INSPECTED BY HONEYWELL REF: APU P-2158 EASA F1 # 320198509 DTD. 12MAR15.	REASON: 2	OVERHAULED BY HONEYWELL REF: EASA F1 # 320598529 DTD 26JUNE17	REASON: 3	
REASON: 4		REASON: 5		REASON: 6	
REASON: 7		REASON: 8		REASON: 9	

Authorized signature & stamp:

Configuration Report

Honeywell

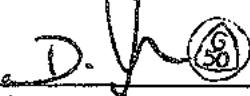
Material Number 3800550-1
Material Desc GTCP331-500B

Serial Number P-2158
Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref Des	Quantity
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700198				1.0
1	3826980-13	ENGINE COMPRESSOR MODULE	AL	P-1278				1.0
2	3840124-3	BEARING SET, THRUST BALL, SPLIT INNER RI		12-162255-07485				1.0
2	3844488-3	SEAL INTSTG			12-150609-003			1.0
2	3822341-5	IMPELLER, COMPRESSOR, SECOND STAGE	B	11-182449-03265	112101344			1.0
3	3822347-1	FORGING COMPRESSOR		11-182449-03265				1.0
2	3822611-1	IMPELLER, COMPRESSOR FIRST STAGE	G	12-182449-05026	122101068			1.0
3	3822346-1	FORGING COMPRESSOR FIRST STAGE		12-182449-05026				1.0
2	3827191-1	HOUSING, CENTRIFUGAL COMPRESSOR, STAGE 1			12-3300-039			1.0
2	3826919-5	HOUSING, ENGINE COMP - 2ND STG			12-3300-070			1.0
1	3883499-3	ACTUATOR, INLET GUIDE VANE		1406				1.0

Subject to U.S. Export Regulations

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. A THORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000324063 320198798	
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks: THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EASA AD-2014-01 Rev 19, OCT/17/2014 OEM AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K			CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
13. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safe operation ☒ Non-approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13a. Authorized Signature		13b. Approval/Authorisation Number		14b. Authorized Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Dirk Witczak		12 MAR 2015
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that the airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH

Frankfurter Str. 41-65

D-61109 Frankfurt, Germany

APU SERVICE RECORD

DATE 12032015 | ACCUMULATIVE TOTALS | P/N : 3800550-1 S/N : P-2158

HOURS		CYCLES		TSR / CSR	
TSN	TSO	CSN	CSO	TSR	CSR
3951,38	N/A	3174	N/A	0	0

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
 EM 49-26-57 REV.19; 331-500(B); SERIES: 61; P/O: 1000324063;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C. ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C. ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T. ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T. ROTOR	3842156-1	3842155-4	11-168522-03695	3951,38	3174	23826	27000	☒
3T. WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC. ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
 Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C. VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E. START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN. UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG. COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

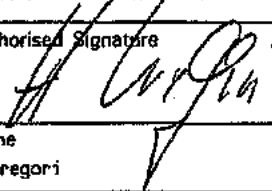
===== ST (STATUS) =====
 0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

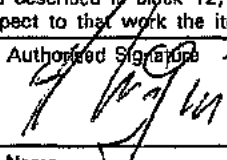
EASA APPROVED MAINT. ORG. NO.: DE.145.0022
 FAA APPROVED REPAIR STATION NO.: QJAY428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 DGSA APPROVED MAINT. ORG. NO.: AMR/263/GMH-071/92
 GACA APPROVED REPAIR STATION NO.: UAS.145.1050
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051
 KCAIR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

M. Rogina

STAMP

DATE

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 328598860	
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE			CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61		
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12		14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approved/Authorised Number	14b. Authorised Signature 		14c. Certified/Approved Ref. Number UAE.145.1050	
13d. Name	13e. Date (dd mmm yyyy)	14d. Name Helmut Gregori		14e. Date (dd mmm yyyy) 20 JUN 2017	
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					

1. Approving Competent Authority/Country Luftfahrt-Bundesamt(LBA), Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-CON 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-3315008 REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Helmut Gregor		20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE HOURS		TOTALS CYCLES		P/N : 3800550-1 S/N : P-2158	
	TSN	TSO	CSN	CSO	TSR	CSR
20062017	7301,62	N/A	5089	N/A	0	0

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	W
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	W
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	W
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	W
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	W
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	W

LIMIT (ROTOR LIFE LIMIT)
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUAL1617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE-145-0032
FAA APPROVED REPAIR STATION NO.: Q71Y428K
GACA APPROVED REPAIR STATION NO.: AHO-153F
TCCA ACCEPTANCE APPROVAL NO.: 898-02
DGAS APPROVED MAINT. ORG. NO.: ANR/153/GEN-071/02
SCAA APPROVED REPAIR STATION NO.: UAE-143-1050
CAA APPROVED MAINT. ORG. NO.: ALD/AIN/8/5.65
CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/EN60/136
CAAV APPROVED MAINT. ORG. NO.: VM-33181/CAAV
NCAAR APPROVED MAINT. ORG. NO.: DECA/AMO/069


G. Ritz



STAMP

20.06.2017
DATE

LIFE LIMITED PART CARD

ASSY. PART NUMBER 3822611-1

[illegible]

AX6167-4

[illegible]

Honeywell Aerospace GmbH
Approval Certificate
Nr.: DE 145.0032

MINI PACK

AJW

LLP

IMPELLER CPRSR LD

PN: 3822612-1

SN: 11-182449-04338



Removal Installation History (APU Life Limited Parts)

MANF. PART NO. 3822612-1		Compressor Impeller				Company Tracking Reference No.: 12514616	
MANF. SERIAL NO. 11-182449-04338						Industry Item No. (IIN):	
LIFE LIMIT 27,000 CYCLES						Section: B777	
L.L.P. REMOVAL & INSTALLATION HISTORY							

INSTALLATION							REMOVAL						
STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT				
		HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW	
1 01-May-12	PAE (A6-ETK)	0	0	0 0	0 0	AUH 09-Feb-16	3951	3174	3951 3174	3951 3174	3951	3174	
2 03-Apr-16	AUH (A6-LRA)	3951	3174	3951 3174	3951 3174	AUH 08-May-17	7301	5089	3350 1915	7301 5089	7301	5089	
3 21-Jul-17	AUH (A6-LRC)	7301	5089	7301 5089	7301 5089								
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION(S) DONE (see attachment), STATION & DATE		
1 REASON: INSPECTED BY HONEYWELL REF: APU P-2158 EASA F1 # 320198609 DTD. 12MAR15.	2 REASON: VINSPECTED BY HONEYWELL REF: EASA F1 # 328598529 DTD 20JUNE17	3 REASON:
4 REASON:	5 REASON:	6 REASON:
7 REASON:	8 REASON:	9 REASON:

Authorized signature & stamp:

Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref. Des	Quantity
1	3804011-10	COMPRESSOR MODULE, DRIVEN	AD	P-1283				1.0
2	3827534-5	SEAL RADIAL CMPSR		12-152826-81715				1.0
2	3840124-3	BEARING SET, THRUST BALL, SPLIT INNER RI		12-162255-07456				1.0
2	3840228-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162111-03348				1.0
2	3822612-1	IMPELLER, LOAD COMPRESSOR	E	11-182449-04338	122101048			1.0
3	3822348-1	FORGING COMPRESSOR LOAD		11-182449-04338				1.0
2	3827160-2	CASE, CENTRIFUGAL COMPRESSOR			12-150285-007			1.0
1	3805034-9	GEARBOX ASSEMBLY	AB	P-1286				1.0
2	3860835-2	BEARING, ROLLER, CYLINDRICAL		11-162255-22818				1.0
2	3503876-6	DRIVESHAFT ASSY	J	1585	1			1.0
2	3505874-4	CLUTCH OUTLINE	E	1612	1			1.0
3	3507201-1	LEAF SPRING SET MATCHED		2-125				1.0
3	3507201-1	LEAF SPRING SET MATCHED		2-126				1.0
3	3507201-1	LEAF SPRING SET MATCHED		2-127				1.0
2	3860832-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162255-02118				1.0
2	3860832-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162255-03782				1.0
2	3860836-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162255-06181				1.0
2	3860836-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162255-06185				1.0
2	3860836-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162255-06186				1.0
2	3860839-2	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		12-162370-01344				1.0
2	3863163-8	HOUSING ASSEMBLY, MATCHED SET	AB	12-2101-32406				1.0
1	3844517-7	TURBINE ASSEMBLY	AA	P-1278				1.0
2	3840130-1	BEARING SET, ROLLER, CYLINDRICAL, MATCHE		11-162370-07482				1.0
2	3844602-5	NOZZLE, SEGMENT			122101079			10.0
2	3844912-2	SEAL TURBINE		11-152826-69993				1.0

Subject to U.S. Export Regulations

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. A THORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 1000324063 320198798		
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
00	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks: THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EASA-2014 Rev 19, OCT/17/2014. COMPLIANCE WITH EASA ED DECISION 2007/001/C. REPAIRED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE STATUS: SEE ATTACHED LISTINGS. EASA/FAA ADS EFFECTIVE.			CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
TEXT CONTINUED ON RIGHT SIDE						
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safe operation ☒ Unapproved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13a. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature 		
13b. Name		13e. Date (dd mmm yyyy)		14c. Certificate/Approval Ref. No DE.145.0022		
				14d. Name Dirk Witczak		
				14e. Date (dd mmm yyyy) 12 MAR 2015		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that the airworthiness authority accepts items from the airworthiness authority specified in block 1. Signatures in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations of the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH

Frankfurter Str. 41 - 65

60549 Frankfurt am Main - Germany

APU SERVICE RECORD

DATE 12032015	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
	HOURS		CYCLES					
	TSN /	TSO	CSN /	CSO	TSR /	CSR		
	3951,38 /	N/A	3174 /	N/A	0 /	0		

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
 EM 49-26-57 REV.19; 331-500(B); SERIES: 61; P/O: 1000324063;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C. ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C. ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T. ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T. ROTOR	3842156-1	3842155-4	1116852203695	3951,38	3174	23826	27000	☒
3T. WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC. ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
 Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C. VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E. START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN. UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG. COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

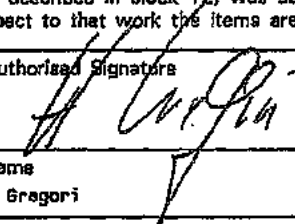
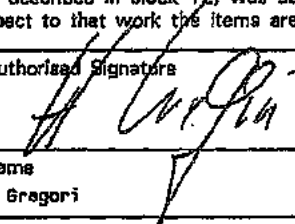
===== ST (STATUS) =====
 0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0822
 FAA APPROVED REPAIR STATION NO.: QJ1Y428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 DGSA APPROVED MAINT. ORG. NO.: AWR/263/GMBH-071/92
 GACA APPROVED REPAIR STATION NO.: DAE.145.1050
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 CAVA APPROVED MAINT. ORG. NO.: CAVA/AMO/051

M. Bogina

STAMP

DATE

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Reunheim Germany				5. Work Order/Contract/Invoice 328598860		
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND DRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE						
CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approved/Authorised Number		14b. Authorised Signature		
				 UAE.145.1050		
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		
				 Helmut Gregori		
14e. Date (dd mmm yyyy)		14f. Date (dd mmm yyyy)				
20 JUN 2017		20 JUN 2017				
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 85479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-COM 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-3315008 REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLF CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSN 0,00 CSN 5089 CSR 0 SERIES:51 THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Helmut Gregori		20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
20062017	HOURS		CYCLES		TSR		CSR	
	TSN	TSO	CSN	CSO				
	7301,62	N/A	5089	N/A	0		0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified

EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;

ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.

AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM OS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	N/A
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	✓
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

LIMIT (ROTOR LIFE LIMIT)
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-3	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

ASFA APPROVED MAINT. ORG. NO.: DE-145-0022
SAA APPROVED REPAIR STATION NO.: QJLY428K
SAA APPROVED REPAIR STATION NO.: AHO-1527
TCCA ACCEPTANCE APPROVAL NO.: 899-02
DESAF APPROVED MAINT. ORG. NO.: AWH/253/0884-071/82
QCAA APPROVED REPAIR STATION NO.: UAE-145-1050
CAA APPROVED MAINT. ORG. NO.: ALB/A28/8/5.85
CMA APPROVED MAINT. ORG. NO.: CMA/AYO/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/YAO/116
CAAV APPROVED MAINT. ORG. NO.: YH-2318/CAAV
KCAAF APPROVED MAINT. ORG. NO.: DCCA/AHO/069

[Signature]
Ritz



STAMP

20.06.2017
DATE

LIFE LIMITED PART CARD

PART NAME	Impeller Compressor LD	PART NUMBER	3822348-1
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SERIAL NUMBER 11-182449-04338 ASSY. PART NUMBER 3822612-1

[illegible]

AX6167-4

LIFE LIMITED PART REPAIR RECORD

[illegible]

MINI PACK

AJW

LLP

ROTOR ASSY 1ST STAGE

PN: 3842151-3

SN: 11-168522-06915



Removal Installation History (APU Life Limited Parts)

MANF. PART NO.	3842152-1	1st Stage Turbine Rotor Assy L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No.:	12514634
MANF. SERIAL NO.	11-168522-06915		Industry Item No. (IIN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CBN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	PAE 01-May-12	P-2158 (A6-ETK)	0	0	0 0	0 0	AUH 08-Feb-15	3951	3174	3951 3174	3951 3174	3951	3174
2	AUH 03-Apr-15	P-2158 (A6-LRA)	3951	3174	3951 3174	3951 3174	AUH 08-May-17	7301	5089	3350 1915	7301 5089	7301	5089
3	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	7301 5089							
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION'S DONE (see attachment), STATION, & DATE

REASON: 1	INSPECTED BY HONEYWELL REF: APU P-2158 EASA F1 # 320198509 DTD. 12MAR15.	REASON: 2	OVERHAULED BY HONEYWELL REF: EASA F1 # 320506529 DTD 20JUNE17	REASON: 3	
REASON: 4		REASON: 5		REASON: 6	
REASON: 7		REASON: 8		REASON: 9	

Authorized signature & stamp:

Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

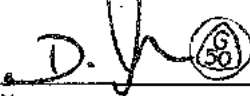
Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87520	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87521	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87522	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87523	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87524	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87529	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87530	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87531	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87532	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87543	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87550	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87551	ES-1142			1.0
3	3842152-1	DISK, ROTOR, TURBINE FIRST STAGE	G	11-168522-06915				1.0
4	3610894-5	DISK SOLID PLAIN		11-168522-06915	5013507466			1.0
3	3842154-1	PLATE SEAL		11-182449-04239	11-182449-A10			1.0
2	3842155-4	ROTOR ASSY TURB - 2STG		1116852203695	P2877031			1.0
2	3842160-6	TURBINE ROTOR ASSY 3RD STAGE	F	11-156101-09409	122101066			1.0
3	3842160-910	PRE MACH	F	11-156101-09409				1.0
2	3844471-7	NOZZLE ASSY TURB - 2STG			P2982746			1.0
2	3844476-2	NOZZLE ASSEMBLY, TURBINE THIRD STAGE			122101051			1.0
2	3844490-3	RING CONTAINMENT			12-5060-067			1.0
2	3844622-6	NOZZLE ASSY TURB		6003062563-1				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700156				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700177				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700198				1.0

Subject to U.S. Export Regulations

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. A THORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 1000324063 320198798		
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
00	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks: THE SERIAL SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EASA-2014 Rev 19, OCT/17/2014 CIRCUIT AUTHORIZATION PER EASA ED DECISION 2007/001/C. REPAIR PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. EASA/FAA ADS EFFECTIVE.			CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
TEXT CONTINUED ON RIGHT SIDE						
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☒ non-approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12. Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13a. Authorised Signature		13b. Approval/Authorisation Number	14b. Authorised Signature		14c. Certificate/Approval Ref. No	
					DE.145.0022	
13c. Name		13d. Date (dd mmm yyyy)	14d. Name		14e. Date (dd mmm yyyy)	
			Dirk Witczak		12 MAR 2015	
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that the airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH

Frankfurter Str. 41-65

65499 Frankfurt - Germany

APU SERVICE RECORD

DATE 12032015	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
	HOURS		CYCLES					
	TSN	TSO	CSN	CSO	TSR	CSR		
	3951,38	N/A	3174	N/A	0	0		

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
 EM 49-26-57 REV.19: 331-500(B): SERIES: 61: P/O: 1000324063:

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C. ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C. ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T. ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T. ROTOR	3842156-1	3842155-4	1116852203695	3951,38	3174	23826	27000	☒
3T. WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC. ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
 Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C. VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E. START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN. UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG. COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

===== ST (STATUS) =====
 0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
 FAA APPROVED REPAIR STATION NO.: QJ17428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TOCA ACCEPTANCE APPROVAL NO.: 898-02
 DGSA APPROVED MAINT. ORG. NO.: AWR/263/QMBH-071/92
 GCAA APPROVED REPAIR STATION NO.: UAE.145.1050
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051

EASA APPROVED MAINT. ORG. NO.: DE.145.0022

FAA APPROVED REPAIR STATION NO.: QJ17428K

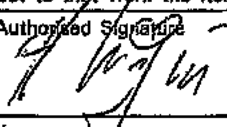
GACA APPROVED REPAIR STATION NO.: AMO/069

M. Rogina

STAMP

DATE

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1		3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Runkheim Germany		5. Work Order/Contract/Invoice 328598860			
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE KWC304015-331500B REV:~, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QSL617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE			CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. ENM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSN 0,00 CSN 5089 CSR 0 SERIES:61		
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12		14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approved/Authorised Number	14b. Authorised Signature	14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name	13e. Date (dd mmm yyyy)	14d. Name Helmut Gregori	14e. Date (dd mmm yyyy) 20 JUN 2017		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					

1. Approving Competent Authority/Country Luftfahrt-Bundesamt(LBA),Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-CON 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-3315008 REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSN 0,00 CSN 5089 CSR 0 SERIES:61 THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature 		14c. Certificate/Approval Ref. No DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name Helmut Gregori		14e. Date (dd mmm yyyy) 20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
20062017	HOURS		CYCLES		TSR		CSR	
	TSN	TSO	CSN	CSO	TSR		CSR	
	7301,62	N/A	5089	N/A	0		0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED, REFER TO THE ATTACHED FORM 051617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	N
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	N
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

===== LIMIT (ROTOR LIFE LIMIT) =====
Rotor Life Limit (Cycles) are not to be exceeded

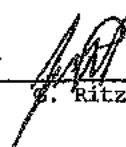
NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

===== ST (STATUS) =====
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE-148-0022
FAA APPROVED REPAIR STATION NO.: D71428K
NACI APPROVED REPAIR STATION NO.: NAC-152F
TCCA ACCEPTANCE APPROVAL NO.: 898-03
DGAS APPROVED MAINT. ORG. NO.: AHS/262/GEN-071/02
SCAA APPROVED REPAIR STATION NO.: UAE-145-1050
CAA APPROVED MAINT. ORG. NO.: ACD/ALR/8/8,CS
CNSA APPROVED MAINT. ORG. NO.: CNSA/AMG/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/EMAG/126
CAAV APPROVED MAINT. ORG. NO.: VN-331MG/CAAV
KCAAB APPROVED MAINT. ORG. NO.: DGCA/AMG/068

Form QS 546/93 AS: 15; 20.06.2014


S. Ritz



STAMP

20.06.2017
DATE



LLP

ROTOR ASY 2ND STAGE

PN: 3842155-4

SN: 11-168522-03695



Removal Installation History (APU Life Limited Parts)

MANF. PART NO.	3842156-1	2nd Stage Turbine Rotor Assy L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No.:	12514626
MANF. SERIAL NO.	1116852203695		Industry Item No. (IIN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	PAE 01-May-12	P-2158 (A6-ETK)	0	0	0 0	0 0	AUH 08-Feb-15	3951	3174	3951 3174	3951 3174	3951	3174
2	AUH 03-Apr-15	P-2158 (A6-LRA)	3951	3174	3951 3174	3951 3174	AUH 08-May-17	7301	5089	3350 1915	7301 5089	7301	5089
3	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	7301 5089							
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION/S DONE (see attachment), STATION & DATE

REASON: 1	INSPECTED BY HONEYWELL REF: APU P-2158 EASA F1 # 320196509 DTD. 12MAR15.	REASON: 2	OVERHAULED BY HONEYWELL REF: EASA F1 # 328598529 DTD 20JUNE17	REASON: 3	
REASON: 4		REASON: 5		REASON: 6	
REASON: 7		REASON: 8		REASON: 9	

Authorized signature & stamp:

Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87520	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87521	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87522	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87523	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87524	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87529	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87530	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87531	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87532	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87543	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87550	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87551	ES-1142			1.0
3	3842152-1	DISK, ROTOR, TURBINE FIRST STAGE	G	11-168522-06915				1.0
4	3610894-5	DISK SOLID PLAIN		11-168522-06915	5013507466			1.0
3	3842154-1	PLATE SEAL		11-182449-04239	11-182449-A10			1.0
2	3842155-4	ROTOR ASSY TURB - 2STG		1116852203695	P2877031			1.0
2	3842160-6	TURBINE ROTOR ASSY 3RD STAGE	F	11-156101-09409	122101066			1.0
3	3842160-910	PRE MACH	F	11-156101-09409				1.0
2	3844471-7	NOZZLE ASSY TURB - 2STG			P2982746			1.0
2	3844476-2	NOZZLE ASSEMBLY, TURBINE THIRD STAGE			122101051			1.0
2	3844490-3	RING CONTAINMENT			12-5060-067			1.0
2	3844622-6	NOZZLE ASSY TURB		6003062563-1				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700156				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700177				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700196				1.0

Subject to U.S. Export Regulations

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. A THORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 1000324063 320198798		
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
00	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks: THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EASA AD 2014-01 Rev 19, OCT/17/2014 COMPLIANCE WITH EASA ED DECISION 2007/001/C. REPAIR PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE STATUS: SEE ATTACHED LISTINGS. EASA AD 2014-01 ADS EFFECTIVE.			CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
TEXT CONTINUED ON RIGHT SIDE						
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13. Certify that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13a. Authorised Signature		13b. Approval/Authorisation Number		14b. Authorised Signature		
				14c. Certificate/Approval Ref. No DE.145.0022		
13c. Name		13d. Date (dd mmm yyyy)		14d. Name		
				14e. Date (dd mmm yyyy) 12 MAR 2015		
		13e. Date (dd mmm yyyy)		14f. Name Dirk Witczak		
INSTALLATION RESPONSIBILITIES The participant does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that the airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH

Frankfurter Str. 41-65

60479 Raunheim, Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
12032015	HOURS		CYCLES		TSR		CSR	
	TSN	TSO	CSN	CSO				
	3951,38	N/A	3174	N/A	0		0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
 EM 49-26-57 REV.19; 331-500(8); SERIES: 61; P/O: 1000324063;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C.ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T.ROTOR	3842156-1	3842155-4	1116852203695	3951,38	3174	23826	27000	☒
3T.WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC.ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
 Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN.UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG.COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

===== ST (STATUS) =====
 0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
 FAA APPROVED REPAIR STATION NO.: QJ1Y428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 DGAS APPROVED MAINT. ORG. NO.: ANR/263/GRBH-071/92
 GCAA APPROVED REPAIR STATION NO.: UNE.145.1080
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051

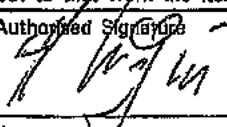
ICASA APPROVED MAINT. ORG. NO.: DGCA/AMO/069

M. Regina

STATE

DATE

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany		5. Work Order/Contract/Invoice 328598860				
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	A-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRU'S: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE						
CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.60 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approved/Authorised Number		14b. Authorised Signature	14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name	13e. Date (dd mmm yyyy)		14d. Name Helmut Gregori	14e. Date (dd mmm yyyy) 20 JUN 2017		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 12a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-CON 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-3315008 REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61 THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.GJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature 		14c. Certificate/Approval Ref. No DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name Helmut Gregor		14e. Date (dd mmm yyyy) 20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). When the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation verification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE HOURS		CYCLES		P/N : 3800550-1 S/N : P-2158	
	TSN	TSO	CSN	CSO	TSR	CSR
20062017	7301,62	N/A	5089	N/A	0	0

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified

EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;

ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.

AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM OS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	✓
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	✓
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

LIMIT (ROTOR LIFE LIMIT)
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW 6=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: 0317458H
CAA APPROVED REPAIR STATION NO.: 260-252V
TCCA ACCEPTANCE APPROVAL NO.: 699-02
DGCA APPROVED MAINT. ORG. NO.: ANM/263/CHH-071/91
CAA APPROVED REPAIR STATION NO.: UAE.145.1050
CAA APPROVED MAINT. ORG. NO.: ALB/ALB/8/6.65
CAA APPROVED MAINT. ORG. NO.: CAA/AMO/051
CAA APPROVED MAINT. ORG. NO.: CAA/FAO/126
CAA APPROVED MAINT. ORG. NO.: VN-301NH/CAAV
KCAH APPROVED MAINT. ORG. NO.: DGCA/AMO/069

[Signature]
Ritz



STAMP

20.06.2017
DATE

LIFE LIMITED PART CARD

ASSY. PART NUMBER 3842155-4

[illegible]

AX6167-4

LIFE LIMITED PART REPAIR RECORD

[illegible]

MINI PACK

AJW

LLP

DISK ROTOR 2ND STG

PN: 3842156-1

SN: 11 -168522-03695



Removal Installation History (APU Life Limited Parts)

MANF. PART NO.	3842156-1	2nd Stage Turbine Rotor Assy L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No.:	12514626
MANF. SERIAL NO.	1116852203695		Industry Item No. (IIN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	PAE 01-May-12	P-2158 (A6-ETK)	0	0	0 0	0 0	AUH 08-Feb-15	3951	3174	3951 3174	3951 3174	3951	3174
2	AUH 03-Apr-15	P-2158 (A6-LRA)	3951	3174	3951 3174	3951 3174	AUH 08-May-17	7301	5089	3350 1915	7301 5089	7301	5089
3	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	7301 5089							
4													
5													
6													
7													
8													
9													

REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION/S DONE (see attachment), STATION & DATE

REASON: 1	INSPECTED BY HONEYWELL REF: APU P-2158 EASA F1 # 320196509 DTD. 12MAR15.	REASON: 2	OVERHAULED BY HONEYWELL REF: EASA F1 # 328598529 DTD 20JUNE17	REASON: 3	
REASON: 4		REASON: 5		REASON: 6	
REASON: 7		REASON: 8		REASON: 9	

Authorized signature & stamp:

Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

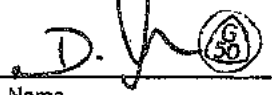
Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87520	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87521	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87522	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87523	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87524	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87529	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87530	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87531	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87532	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87543	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87550	ES-1142			1.0
3	3842153-3	BLADE, TURBINE ROTOR, FIRST STAGE		11M87551	ES-1142			1.0
3	3842152-1	DISK, ROTOR, TURBINE FIRST STAGE	G	11-168522-06915				1.0
4	3610894-5	DISK SOLID PLAIN		11-168522-06915	5013507466			1.0
3	3842154-1	PLATE SEAL		11-182449-04239	11-182449-A10			1.0
2	3842155-4	ROTOR ASSY TURB - 2STG		1116852203695	P2877031			1.0
2	3842160-6	TURBINE ROTOR ASSY 3RD STAGE	F	11-156101-09409	122101066			1.0
3	3842160-910	PRE MACH	F	11-156101-09409				1.0
2	3844471-7	NOZZLE ASSY TURB - 2STG			P2982746			1.0
2	3844476-2	NOZZLE ASSEMBLY, TURBINE THIRD STAGE			122101051			1.0
2	3844490-3	RING CONTAINMENT			12-5060-067			1.0
2	3844622-6	NOZZLE ASSY TURB		6003062563-1				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700156				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700177				1.0
2	3876214-2	THERMOCOUPLE EXHAUST		1215027700196				1.0

Subject to U.S. Export Regulations

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. A THORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 1000324063 320198798		
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
00	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks: THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EASA AD 2014-01 Rev 19, OCT/17/2014 COMPLIANCE WITH EASA ED DECISION 2007/001/C. REPAIR PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE STATUS: SEE ATTACHED LISTINGS. EASA AD 2014-01 ADS EFFECTIVE.			CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO. QJ1Y428K						
13. Certify that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13a. Authorised Signature		13b. Approval/Authorisation Number		14b. Authorised Signature		
						
13c. Date (dd mmm yyyy)		14c. Certificate/Approval Ref. No		14d. Name		
		DE.145.0022		Dirk Witczak		
13e. Date (dd mmm yyyy)		14e. Date (dd mmm yyyy)		14f. Date (dd mmm yyyy)		
				12 MAR 2015		
USER/INSTALLER RESPONSIBILITIES The participant does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that the airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH

Frankfurter Str. 41-65

60479 Raunheim, Germany

APU SERVICE RECORD

DATE	ACCUMULATIVE TOTALS				P/N : 3800550-1 S/N : P-2158			
12032015	HOURS		CYCLES		TSR		CSR	
	TSN	TSO	CSN	CSO				
	3951,38	N/A	3174	N/A	0		0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
 EM 49-26-57 REV.19; 331-500(8); SERIES: 61; P/O: 1000324063;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C.ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T.ROTOR	3842156-1	3842155-4	1116852203695	3951,38	3174	23826	27000	☒
3T.WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC.ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
 Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN.UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG.COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

===== ST (STATUS) =====
 0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
 FAA APPROVED REPAIR STATION NO.: QJ1Y428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 DGAS APPROVED MAINT. ORG. NO.: ANR/263/GRBH-071/92
 GCAA APPROVED REPAIR STATION NO.: UNE.145.1080
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
 CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051

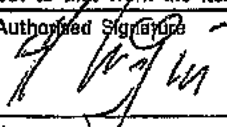
ICASA APPROVED MAINT. ORG. NO.: DGCA/AMO/069

M. Regina

STATE

DATE

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany		5. Work Order/Contract/Invoice 328598860				
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	A-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRU: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE						
CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.60 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approved/Authorised Number		14b. Authorised Signature	14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name	13e. Date (dd mmm yyyy)		14d. Name Helmut Gregori	14e. Date (dd mmm yyyy) 20 JUN 2017		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 12a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-CON 328598860
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-3315008 REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.GJ1Y428K					
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.		
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature 	14c. Certificate/Approval Ref. No DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name Helmut Gregor	14e. Date (dd mmm yyyy) 20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). When the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation verification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE 20062017	ACCUMULATIVE HOURS	TOTALS CYCLES	P/N : 3800550-1	S/N : P-2158
TSN / TSO 7301,62 / N/A	CSN / CSO 5089 / N/A	TSR / CSR 0 / 0		

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM OS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	✓
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	✓
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

LIMIT (ROTOR LIFE LIMIT)
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW 6=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: 03174588
CAA APPROVED REPAIR STATION NO.: 260-252V
TCCA ACCEPTANCE APPROVAL NO.: 699-02
DGCA APPROVED MAINT. ORG. NO.: ANM/263/0408-071/91
QCAA APPROVED REPAIR STATION NO.: UAE.145.1050
CMA APPROVED MAINT. ORG. NO.: ALB/ALB/8/6.65
CMA APPROVED MAINT. ORG. NO.: CMA/AMO/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAHO/126
CAA APPROVED MAINT. ORG. NO.: VN-301NH/CAAY
KCAH APPROVED MAINT. ORG. NO.: DCCA/AMO/069

[Signature]
Ritz



STAMP

20.06.2017
DATE

LIFE LIMITED PART CARD

PART NUMBER 3842156-1

ASSY. PART NUMBER 3842155-4

[illegible]

Honeywell

Honeywell International Inc.
Engines & Systems
P.O. Box 52181
Phoenix, Arizona 85072-2181

AX6167-4

LIFE LIMITED PART REPAIR RECORD

[illegible]

MINI PACK

AJW

LLP

ROTOR ASY TURBINE 3RD STG

PN: 3842160-6

SN: 16-156101 -08203



Removal Installation History (APU Life Limited Parts)

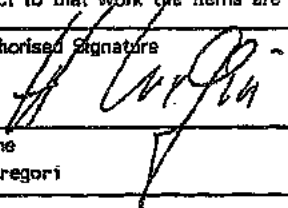
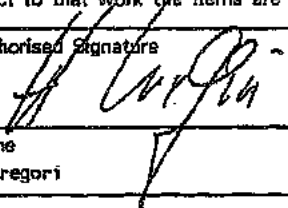
MANF. PART NO.	3842160-6	3rd Stage Turbine Rotor Assy L.L.P. REMOVAL & INSTALLATION HISTORY	Company Tracking Reference No. :	49143319
MANF. SERIAL NO.	16-156101-08203		Industry Item No. (IIN) / Section:	
LIFE LIMIT	27,000 CYCLES		Applicability:	B777

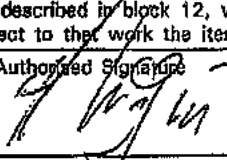
INSTALLATION							REMOVAL						
	STN/ DATE	APU / ACFT/ POSN.	APU TOTAL		COMPONENT		STN/ DATE	APU TOTAL		COMPONENT			
			HOURS	CYCLES	TSO / CSO	TSN / CSN		HOURS	CYCLES	TSI / CSI	TSO / CSO	TIME SINCE NEW	CYC SINCE NEW
1	AUH 21-Jul-17	P-2158 (A6-LRC)	7301	5089	0 0	0 0							
2													
3													
4													
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8													
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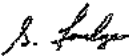
REASON OF REMOVAL, WORK CARRIED OUT, MODIFICATION/S DONE (see attachment), STATION & DATE

REASON: 1	REASON: 2	REASON: 3
REASON: 4	REASON: 5	REASON: 6
REASON: 7	REASON: 8	REASON: 9

Authorized signature & stamp:

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Rammheim Germany				5. Work Order/Contract/Invoice 328598860		
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:~, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE						
CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.60 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approved/Authorised Number		14b. Authorised Signature		
				 14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		
				 Helmut Gregori		
14e. Date (dd mmm yyyy)		14f. Date (dd mmm yyyy)				
20 JUN 2017		20 JUN 2017				
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13b and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA], Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-COM 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AND TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJY428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Helmut Gregor		20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: 20170003141089Y14 9001223109-900008	
4. Organization Name and Address: Honeywell International Inc. 111 S. 34th Street Phoenix, Arizona 85072		Production Approval PT1222NM		Honeywell International Inc. Units 2-4, Chevron, Eaton Road Hemel Hempstead, HP2 7UB UNITED KINGDOM	
5. Work Order/Contract/Invoice Number: 4704975992-000010 Page 1 of 1					
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:
001	TURBINE ROTOR ASSY 3RD STAGE	3842160-6	2	16-156101-08203 See Continuation	NEW
12. Remarks: EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF FEDERAL REPUBLIC OF GERMANY. THIS PART IS A SUBCOMPONENT OF A TSO AUTHORIZATION. Block 10 Serial Number(s): (Continued): 16-156101-08875.					
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:	
13d. Name (Typed or Printed): Stephen Foulger		13e. Date (dd/mm/yyyy): 30/MAY/2017		14c. Approval/Certificate No.:	
				14d. Name (Typed or Printed):	
				14e. Date (dd/mm/yyyy):	

User / Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

SEARCHED
SERIALIZED
INDEXED
FILED
MAY 31 2017
FBI - PHOENIX

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE 20062017	ACCUMULATIVE HOURS	TOTALS CYCLES	P/N : 3800550-1	S/N : P-2158
TSN /	TSO /	CSN / CSO	TSR /	CSR /
7301,62 /	N/A	5089 / N/A	0 /	0

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145:
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED, REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	✓
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	✓
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	✓
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	✓
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	✓
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	✓

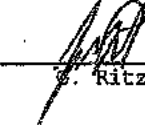
LIMIT (ROTOR LIFE LIMIT)
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMN	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

ST (STATUS)
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

DATA APPROVED MAINT. ORG. NO.: DE.146.0022
EAA APPROVED REPAIR STATION NO.: QJRY428K
GACA APPROVED REPAIR STATION NO.: AHO-1527
DOCA ACCEPTANCE APPROVAL NO.: 698-02
DOEAS APPROVED MAINT. ORG. NO.: MRR/263/GRH-021/02
GCLA APPROVED REPAIR STATION NO.: UAE.145.1050
GAA APPROVED MAINT. ORG. NO.: ALB/118/8/5.63
GMA APPROVED MAINT. ORG. NO.: GMA/AHO/051
GQAA APPROVED MAINT. ORG. NO.: GQAA/ZHMO/126
GNAV APPROVED MAINT. ORG. NO.: VN-33181/GNAV
KCAWR APPROVED MAINT. ORG. NO.: DOCA/AHO/069


S. Ritz



STAMP

20.06.2017
DATE

LIFE LIMITED PART CARD

Part Name 3T.WHEEL

Part Number 3842160-6

Serial Number 16-156101-08203

Part of Assy Part Number N/A

[illegible]

Form QS 1412/2008 ÄZ: 00; 23.07.2008

ID: 56348

LIFE LIMITED PART REPAIR RECORD

[illegible]

**OIL TYPE
DECLARATION
(Last Operator)**



APU Oil Type Statement

A/C Reg / MSN :	A6-LRC / MSN 36302
APU Type/Part No.:	GTCP331-500
APU Serial No :	P-2158

The undersigned hereby certifies the following:

To the best of our knowledge and belief, APU SN P-2158 installed on A6-LRC / MSN 36302 as referenced above is serviced with ETO2389 (Formerly BPTO2389) oil in accordance with the Airbus AMM and MPD recommendations.

Engineering Approval	
Name:	Reginaldo Roan
Signature:	
Date:	13-December-18

APU ON-WING

**Last APU Borescope Report
& Video**





TARMAC
ARAGON

TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

WORK CARD ROUTINE

Print date 26/06/2018 15:38
SCAN REF: 43471_409_579

REPAIRMENT
page 1 of 3

Reference **PARKING ETIHAD-APU-PRES-1YR**

MR- 52276

Repeat 1:12,00M

Part. 1 R. 0

Task code

Letter check

Order Ref.: **WO- 43471**

Title **APU PRESERVATION 1 YEAR ETIHAD B777**

Y/Ref

VISIT 1564844

Date

26/06/2018

ATA 4900

AUXILIARY POWER



WO-43471

AIRCRAFT

COMPONENT

Reg. **A6-LRC**

Type **B777-237**

GE90-110B

MSN **36302**

P/N-

S/N-

MANDATORY (Y/N) Y

ETOPS (Y/N) N

WP-409

MNT.PROG:

Prepared by

Laura MARIN
eSigned

Received by

LIMIT

FH

FC

Date

NEXT DUE MANAGED BY THE OPERATOR

COMMENT

OP/ZONE	REQUESTED WORK	ACCESS	WORK PERFORMED
1	PERFORM APU PRESERVATION 1 YEAR ETIHAD B777. REFERENCE: AMM 49-11-00-620-802 REV 83; DATE: 05/MAY/2018		PERFORMED NO FINDING ON 25 JUN 18 DATE 07/FEB/2018 STAMP / SIGN [Signature] DATE OF PLANNIFICATION

Engineer ID	hh:mm	Engineer ID	hh:mm	Deferred	DEF	NON ROUTINE	NRC	Complied with	C/W
#1		#5		Ref:	☐	Ref:	☐	(NRC possible)	☐
#2		#6		Calibrated Tools	P/N - DESC	S/N	VALID UNTIL		
#3		#7			P/N - DESC	S/N	VALID UNTIL		
#4		#8							
COMPONENT REMOVED				COMPONENT INSTALLED					
DESC				DESC					
P/N S/N POS				P/N S/N POS					
RELEASE REF									
DUPLICATE				AUTH N° DATE TRIG SIGN/STAMP					
We certify that a duplicate safety inspection has been carried out and the identified control system of the aircraft / component functions correctly, and in respect of the maintenance performed, the control system is assembled and locked correctly.									
CERTIFICATION				TRIG DU		PLACE TEV		reserved	
				DATE & HOUR 03 JUL 18		SIGN/STAMP		for administration	
				AGREEMENT N° UDE. 145.1203		TAE 183			



TARMAC
ARAGÓN

TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

Print date 01/02/2018 8:23

WORK CARD

ROUTINE

page 2 of 2

Order Ref.: WO- 43471

Title APU PRESERVATION 1 YEAR ETIHAD B777

COMPONENT REMOVAL

P/N	NIL	DESCRIPTION
SERIAL		REASON
POS		

COMPONENT INSTALLATION

P/N	NIL	DESCRIPTION
SERIAL		CERTIFICATE
POS		

MATERIAL ISSUED

QUANTITY	P/N	DESCRIPTION	FIN	IPC
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TARMAC
ARAGON

TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

Print date 15/10/2018 12:54
SCAN REF: 58014_539_579

WORK CARD ROUTINE

page 1 of 3

Reference MR- 43759	Work Card B777-APU-BORES		Part. 1	R. 0
	Repeat		Task code	Letter check
Order Ref.: Y/Ref Date	WO- 58014 15/10/2018	Title APU BORESCOPE INSPECTION P-2158		
		ATA 4910	APU- Power plant	
	AIRCRAFT	COMPONENT		
	Reg. A6-LRC Type B777-237 GE90-110B MSN 36302	P/N- S/N-		
LIMIT	FH FC Date	NEXT DUE MANAGED BY THE OPERATOR		
		 WO-58014 MANDATORY (Y/N) Y ETOPS (Y/N) N WP-539 MNT.PROG: Prepared by Hector GARCIA Received by eSigned		

COMMENT

SUPPLY CHAIN //FOR INFO ONLY//
 Not delivered TERUEL
 (0/1) P/N S8990-605 PACKING
 (0/1) P/N 3883327-1 GASKET, REF.AMM FIG.ITEM:2, AI
 (0/1) P/N MS35769-10 O-RING, REF.AMM FIG.ITEM:3, AI
 (0/1) P/N MS35769-10 O-RING, REF.AMM FIG.ITEM:3, AI
 (0/1) P/N SUBCONTRACT-SERVICE SUBCONTRACT-SERVICE (PO-207712-02)

OP/ZONE	REQUESTED WORK	ACCESS	WORK PERFORMED
1	Provide Assistance to the APU Boroscope Inspection IAW AMM 49-21-00-200-801 REFERENCE: AMM 49-21-00-200-801 REV 84 DATE SEPT 05, 2018 MATERIALS: QTY 1 P/N: 3883327-1 GASKET, REF.AMM FIG.ITEM:2, AI /Rev.1/Rev.Date:14/02/2017 16:01:15 QTY 1 P/N: MS35769-10 O-RING, REF.AMM FIG.ITEM:3, AI /Rev.1/Rev.Date:14/02/2017 16:01:15 QTY 1 P/N: MS35769-10 O-RING, REF.AMM FIG.ITEM:3, AI /Rev.1/Rev.Date:14/02/2017 16:01:15 QTY 1 P/N: S8990-605 PACKING /Rev.1/Rev.Date:14/02/2017 16:01:15		BOROSCOPE ± USP. ASSISTANCE to the APU PROVIDED ±AW AMM 49-21-00-200-801 REV: 84 DATE: SEP. 05, 2018 DATE 17/Oct/2018 STAMP / SIGN RBO
2	Get acces to the APU and Remove the borescope plugs IAW AMM 49-21-00-200-801 REFERENCE: AMM 49-21-00-200-801 REV 84 DATE SEPT 05, 2018		BORESCOPE PLUGS REMOVED ±AW AMM 49-21-00-200-801 REV: 84 DATE: SEP 05, 2018 DATE 17/Oct/2018 STAMP / SIGN RBO
3	Boroscope Inspection IAW AMM 49-21-00-200-801 REFERENCE: AMM 49-21-00-200-801 REV 84 DATE SEPT 05, 2018		BOROSCOPE INSPECTION SUBCONTRACTED BT 9 DATE 17-Oct-2018 STAMP / SIGN
4	Install the borescope plugs if they were removed. IAW AMM 49-21-00-200-801 REFERENCE: AMM 49-21-00-200-801 REV 84 DATE SEPT 05, 2018		BORESCOPE PLUGS INSTALLED NO FINDING ±AW 49-21-00-200-801 DATE 18/Oct/2018 STAMP / SIGN RBO



TARMAC
ARAGON

TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

Print date 15/10/2018 12:54
SCAN REF: 58014_539_579

WORK CARD ROUTINE

page 2 of 3

Reference
MR- 43759

Work Card B777-APU-BORES
Repeat

Part. 1 R. 0
Task code

Letter check

OP/ZONE	REQUESTED WORK	ACCESS	WORK PERFORMED
5	Close-up Make sure that the work area is clean and clear of tools and other items.		WORK PERFORMED NO FINDING DATE 18 Oct 2018 STAMP / SIGN RBO

Engineer ID	hh:mm	Engineer ID	hh:mm	Deferred	DEF	NON ROUTINE	NRC	Complied with	C/W
#1	RBO	#5		Ref:	☐	Ref:	☐	(NRC possible)	☐
#2	SMC	#6		Calibrated Tools	P/N - DESC	S/N	VALID UNTIL		
#3		#7			P/N - DESC	S/N	VALID UNTIL		
#4		#8							
COMPONENT REMOVED				COMPONENT INSTALLED					
DESC				DESC					
P/N S/N POS				P/N S/N POS					
RELEASE REF				RELEASE REF					
DUPLICATE				AUTH N° DATE TRIG SIGN/STAMP					
We certify that a duplicate safety inspection has been carried out and the identified control system of the aircraft / component functions correctly, and in respect of the maintenance performed, the control system is assembled and locked correctly.									
CERTIFICATION				TRIG		PLACE		reserved for administration	
				DATE & HOUR 18 OCT 15		SIGN/STAMP			
				AGREEMENT N° UAE. 145. 1203		TAE 085			



TARMAC
ARAGÓN

TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

Print date 15/10/2018 12:54

WORK CARD

ROUTINE

page 3 of 3

Order Ref.: WO- 58014

Title APU BOREScope INSPECTION P-2158

COMPONENT REMOVAL

P/N	NIL	DESCRIPTION
SERIAL		REASON
POS		

COMPONENT INSTALLATION

P/N	NIL	DESCRIPTION
SERIAL		CERTIFICATE
POS		

MATERIAL ISSUED

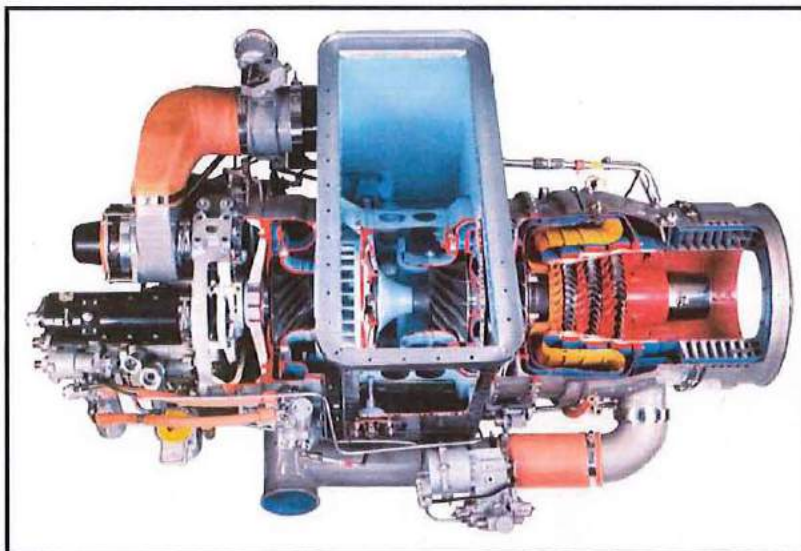
QUANTITY	P/N	DESCRIPTION	FIN	IPC
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Borescope Inspection Report

Ref: KS0254-P-2158-17OCT2018-TARA



A.P.U. Type : Honeywell GTCP331



A.P.U. Serial No.: P-2158

Customer:



APMS Aviation Ltd

Hangar K4, Cotswold Airport, Cirencester, Gloucestershire, GL7 6BA United Kingdom

www.apmsaviation.com

EASA 145 UK.145.01272

FAR 145 Foreign Repair Station O6RY005B

(GTCP331 : Iss1 – OCT/14)



Contents

Section 1

- **General Information**

Section 2

- **Load Compressor & IGV's**
- **Power Section Compressors**

Section 3

- **Combustor**
- **First Stage Nozzle Guide Vanes**

Section 4

- **First Stage Turbine Blades**
- **Third Stage Turbine Nozzle Vanes**
- **Third Stage Turbine Blades**
- **Turbine Bearing Support Assembly**

Section 5

- **General Comments & Recommendations**

The complete video borescope findings are recorded on the data card which is included with this report.



Section 1

General Information

A.P.U. Type: GTCP331

Aircraft: B777 Reg/MSN/: A6-LRC / 539 / APU

Engine S/N	P-2158	
Variant	331-500B	
Part Number	3800550-1	
TSN	8080	
TSLSV		
CSN	5586	
CSLSV		

Inspection Details:

Location: Teruel

Date: 17 Oct 2018

Purchase Order Number: PO-207712

Reason for Inspection: Condition Evaluation

Technical Data Used:

B777 AMM Rev 84 Dated 05 Sep 2018

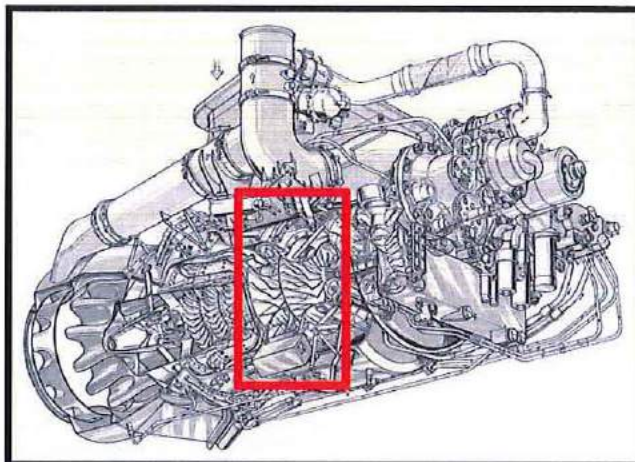
Borescope Inspection Procedures Contained in ATA Section(s):

49-20-00



Section 2

- Load Compressor & IGVs.
- Power Section Compressor St1.
- Power Section Compressor St2.



Inspection Findings:

Inlet Guide Vanes: "IGV inspection not required according AMM"
Observed condition: Minor defects noted.





Load Compressor (11 Blades):

Minor impacts noted. All satisfactory to AMM limits without reduced inspection interval.



Power Section Impeller Stg.1 (17 Blades):

Minor defects noted. All satisfactory to AMM limits without reduced inspection interval.





Power Section Impeller Stg.2 (21 Blades):

Minor defects noted. All satisfactory to AMM limits without reduced inspection interval.



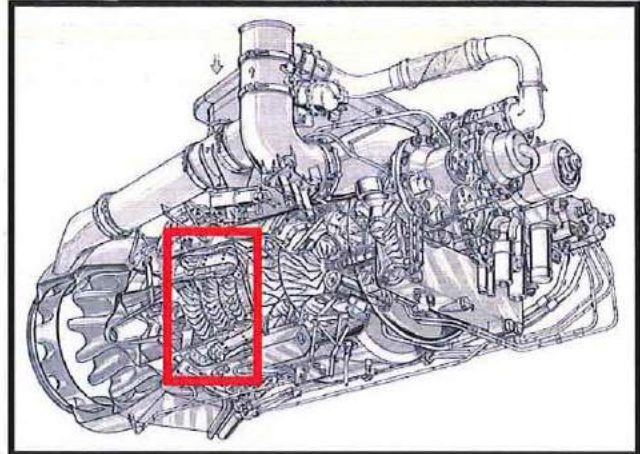
General Observations – Cold Section:

No significant defects noted on module.



Section 3

- Combustor.
- First Stage Nozzle Guide Vanes.



Inspection Findings:

Combustor:

Minor defects noted. All satisfactory to AMM limits without reduced inspection interval.





First Stage NGV's:

Minor defects noted. All satisfactory to AMM limits without reduced inspection interval.



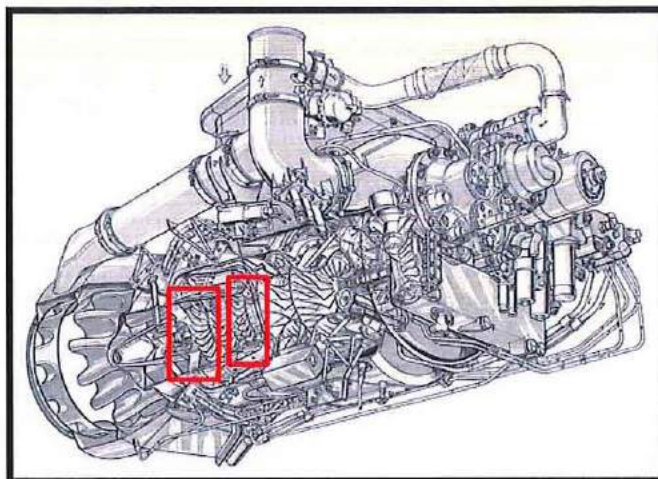
General Observations – Combustion Section:

No significant defects noted on module.



Section 4

- **First Stage Turbine Blades**
- **Third Stage Turbine Nozzle Vanes**
- **Third Stage Turbine Blades**
- **Turbine Bearing Support Assembly**



Inspection Findings:

First Stage Turbine Blades:

Minor erosion noted. All satisfactory to AMM limits without reduced inspection interval.





Third Stage Turbine Nozzle Vanes:
Not inspected.

Third Stage Turbine Blades:
Not inspected.

Turbine Bearing Support Assembly:
Not inspected.

General Observations – Turbine Section:
No significant defects noted on module.



Section 5

General Comments:

APU found to be in good general condition.

Recommendations:

None

Inspection Performed and Report Prepared by:

Inspector: Kevin Sheehan

Date: 17 Oct 2018

IMPORTANT NOTICE

The content of this report is based on attentive inspection and review within the capabilities of the inspection equipment used (as recommended by the OEM) and in accordance with documentation and procedures noted in Section 1. It is exclusive of any damage not detectable without removal and disassembly of the unit. It is believed to be a true representation of the engine condition at the specific time of inspection and prior to any further operation. This report is submitted in confidence to the above named client and is without responsibility to others to whom it may be shown.

O.G.S.

INDUSTRIES, INC.

OHIO

Gasket & Shim Co. Inc. • 976 Evans Ave. • Akron, Ohio 44308
(330) 630-2030 • Fax (330) 630-2075
Toll-Free 1-800-321-2438

DATE: 10/16/2015

002 58014

TAXES	
COPY	SAVE
CONCEALED	TOTAL OF
	10

STAMP & VISA: *[Signature]*

CONFORMANCE CERTIFICATE FOR MATERIAL SHIPPED

The OHIO GASKET & SHIM COMPANY, INC., hereby certifies that all material used in the manufacture of parts called for on;

PURCHASE ORDER 439296-00

S/O: 52845

CONTRACT NUMBER

RECEIVED BY US FROM

KAPCO

Conform to the material and/or specifications as called for on said purchase order. Material test reports are on file with OHIO GASKET & SHIM COMPANY or with our suppliers for examination and indicate conformance with applicable requirements.

" The recording of false, fictitious, or fraudulent statements or entries on the document may be punished as a felony under federal statutes, including Federal Law, Title 18, Chapter 47"

ALL MATERIAL IS MERCURY FREE

NO ASBESTOS WAS USED IN THE MANUFACTURE OF THIS MATERIAL

THIS PRODUCT IS REACH COMPLIANT

10,000 PCS PART: MS35769-10 REV A - 9/16" X 13/16" X 3/32" COPPER/FILLED GASKET

MATERIAL: COPPER PER ASTM-B152 NON/ASB JAGOLIT 11A

LOT W/O: 284511 000 PO: 27386-001 PO: 29299-002 DOM: 10/16/2015 CURE DATE: N/A

COPPER FILLED GASKET SHELF LIFE IS UNLIMITED

PARTS MEET DRAWING AS35769 REV A

NO CLASS 1, OZONE DEPLETING SUBSTANCES (AS DEFINED IN TSZ0001G -4) WERE USED IN THE MANUFACTURE OF THIS PRODUCT.

MADE IN THE USA

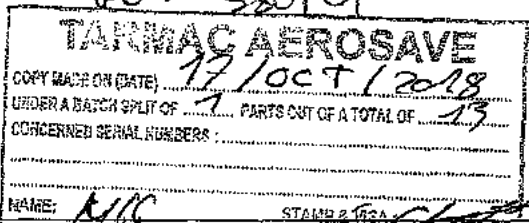
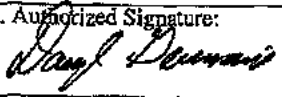
THIS IS A COPY OF THE ORIGINAL
CERTIFICATION AS DELIVERED
TO KAPCO

BY *[Signature]*
Carol Sweat
Office Manager

**Metal Stampings • Gaskets (Metallic/Non-Metallic) • Shims
Precision CNC Machine Parts • Shim Stock/Key Stock**



ICN: 438283, Doc Date: 10/22/2015 CERTIFIED TRUE COPY

1. Approving Civil Aviation Authority/Country: FAA/UNITED STATES		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 1144637	
4. Organization Name and Address: HONEYWELL INTERNATIONAL - (Production Approval: PT1222NM) 111 S. 34th St. PHOENIX, AZ 85072-2181					5. Work Order/Contract/Invoice Number: 4556420-02	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
2	PACKING	S8990-605	13	N/A	NEW	
12. Remarks: "DIRECT-SHIPMENT AUTHORIZATION"						
			EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF: SPAIN This part is a subcomponent of a TSO authorization			
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed): DARYL GERMAINE		13e. Date (dd/mm/yyyy): 09 NOV 2015		14d. Name (Typed or printed):		14e. Date (dd/mm/yyyy):
User/Installer Responsibilities						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

RUN DATE: 20.06.2017
 RUN BY: G. Rilz

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2159

PAGE 1 OF 6
 CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
ATS1432		REPLACE CHIP DETECTOR #572-514-9203 WITH PACKING AND TEFLON SEAL BY MCDS WITH TWO PACKINGS	PCW
GTE1053		REPLACE OIL FILLER HOUSING #3863116-1 WITH #2	PCW
GTE1071		REPLACE NUT #525-642-9103 WITH ##525-121-9003	PCW
GTE1098		REPLACE CLAMPS #234-517-9234 WITH 234-517-9240 AND #234-517-9235 WITH #234-517-9241-1	PCW
GTE1105		REPLACE CLAMPS #234-517-9234 WITH #234-517-9240 AND #234-517-9235 WITH #234-517-9241-1 ON PNEUMATIC CLUSTER	PCW
GTE1115		REPLACE INSULATION BLANKET #3615860-3 WITH #3617177-2 AND #3615862-3 WITH #3617177-1	PCW
GTE1129		REPLACE IDENTIFICATION PLATE #S11008-D-10 OF THE PNEUMATIC CLUSTER WITH #S20002-15	PCW
GTE1130		REPLACE IDENTIFICATION PLATE #S9886-2 WITH #20006-1 OF THE IGNITION CLUSTER	PCW
GTE1133		REPLACE TURBINE STATOR SUPPORT #3844485-4 WITH #3844900-1	PCW
GTE1138		REPLACE IGNITION LEAD #3888283-1 WITH #4	PCW
GTE1159		REPLACE CLAMP #211-594-9103 WITH #211-594-9003	PCW
GTE1161		REPLACE OIL SLINGER ROTOR #3840137-2 WITH #4	PCW
GTE1167		REPLACE COMPOUND IDLER GEAR #3860824-2 WITH #3861064-1	PCW
GTE1176		REPLACE SPRING WASHER #3610875-30 WITH #47	PCW
GTE1180		REPLACE CHECK VALVE #3202610-5 WITH #3202854-1	PCW
GTE1203		REPLACE FLEXIBLE SURGE DUCT #3884966-1 WITH #2	PCW
GTE1205		REPLACE ENGINE IDENTIFICATION PLATE #S11008-C-11 WITH #S21002-12	PCW
GTE1207		REPLACE WASHER #NAS620C10L WITH #NAS1149C0332R ON 1. STAGE COMPRESSOR DE-SWIRL COVER	PCW
GTE1208		REPLACE LOAD COMPRESSOR SEAL DRAIN TUBE #3881676-1 WITH #3617987-1	PCW
GTE1210		REPLACE BOLTS #MS9556-07 WITH NEW ONES ON INLET SCREEN AND ADD WASHERS #NAS1149C0332R. REPLACE IGV ACTUATOR BOLTS #MS9557-14 WITH NEW ONES AND ADD WASHERS #NAS620C416L.	PCW
GTE1223		REPLACE TEFLON SECONDARY SEAL AND PACKING ON CHIP DETECTOR #572-514-9203 WITH TWO PACKINGS #MS83248-1-011	PCW
GTE1232		REPLACE 3. STAGE TURBINE WHEEL #3842160-4/-5 WITH #6	PCW
GTE1233		REPLACE GASKET #3844515-1 WITH #2 AT TURBINE BEARING CAVITY IN FRONT AND BEHIND CARBON SEAL	12.03.2015
GTE1252		REPLACE IDENTIFICATION PLATES ON ENGINE COMPRESSOR MODULE, TURBINE MODULE, LOAD COMPRESSOR MODULE, PNEUMATIC CLUSTER, AND IGNITION CLUSTER	PCW
GTE1254		REPLACE HOSE CLAMP #211-517-9503 WITH #211-517-9504 AND EDUCATOR BRACKET #3850108-1 WITH #3618109-1	PCW
GTE1258		AUTHORIZE USE OF HARNESS #3888364-4 AND/OR THE ASSOCIATED DETAILS TO SUPPORT CONTINUED USE OF HARNESS #3888364-3	PCW
GTE1274		REPLACE INLET EXTENSION PLATE #3810981-1 WITH #3811027-1	PCW
GTE1275		REPLACE SURGE DUCT #3850107-2 WITH #3850140-1	PCW
GTE1276		REPLACE FLANGE PLATE #3810975-1 WITH #3811028-1	PCW
GTE1283		REPLACE EDUCATOR HOUSING #3850102-1 (TITAN) WITH #3850125-1 (INCONEL)	PCW
GTE1287		REPLACE GASKET #3883327-1 WITH #MS35769-10	PCW

N/A = NOT APPLICABLE
 OR = ORIGINAL ISSUE
 PCW = PREVIOUSLY COMPLIED WITH
 AD = AIRWORTHINESS DIRECTIVE
 LTA = LUFTFAHRT TÜCHTIGKEITSANWEISUNG
 CN = CONSIGNE DE NAVIGABILITÉ

EASA APPROVED MAINT. ORG. NO.: DE 145 0022
 FAA APPROVED REPAIR STATION NO.: QJ1Y428K
 GACA APPROVED REPAIR STATION NO.: AMO-152F
 TCCA ACCEPTANCE APPROVAL NO.: 898-02
 DGSAS APPROVED MAINT. ORG. NO.: AWR/263/GMBH-071/92
 GCAA APPROVED REPAIR STATION NO.: UAE.145.1050
 CAA APPROVED MAINT. ORG. NO.: ALD/AIR/815.65
 CMAA APPROVED MAINT. ORG. NO.: CAA/AMQ/051
 QCAA APPROVED MAINT. ORG. NO.: QCAA/FMO/126
 CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
 KCASR APPROVED MAINT. ORG. NO.: DGG/AMQ/069



APU ON-WING

Last On-Wing APU Health Check Report



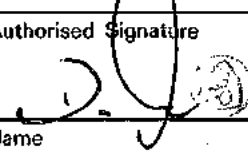
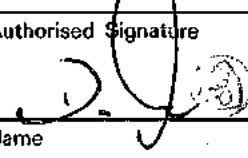
APU

PNEU MODE	ECS	BLD CORRECTED FLOW	127
APUC MODE	ONSPEED	BLD CORRECTED FLOW SET	126
SPEED SENSOR 1	100.0	APU BAT DC-V	28.0
SPEED SENSOR 2	100.0	APU BAT DC-A	CHG 35
EGT CORRECTED	434	APU GEN AC-V	115
EGT THERMOCOUPLE 1	429	APU GEN FREQ	400
EGT THERMOCOUPLE 2	434	APU GEN LOAD	0.14
OIL PRESS	75		
OIL TEMP	69		
OIL QTY	6.00	-----APU FUEL FEED-----	
INLET PRESS	12.9		
LOAD COMP TOTAL PRESS	39.0	COMMAND STATUS	
LOAD COMP DIFF PRESS	3.0	S/O VLV OPEN OPEN	
INLET TEMP	16	DC PUMP -- NO PRESS	
OIL SUMP TEMP	22	AC PUMP OFF PRESS	
SURGE CTRL VLV POS	82.6	-----STATUS CODE-----	
IGV ACTUATOR POSN	60.4	STATUS 1 0000 00-0	
APU FUEL TEMP	47	STATUS 2 0100 001-	
FUEL CLUSTER FMV POSN	70.8	STATUS 3 0000 0000	
INLET DOOR COMMAND	OPEN		
INLET DOOR POSITION	OPEN	APU OPER HOURS	8080
		APU STARTS	5586

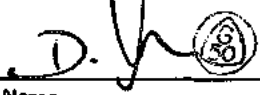
DATE 16 OCT 18 UTC 13:51:15

**APU SHOP VISIT
RECORDS
HONEYWELL 2015**



1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20150000567960Y23 320198509	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany				5. Work Order/Contract/Invoice 1000324063-001000 320198798		
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 19, OCT/17/2014 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. CONTINUED: UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE. TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61 TEXT CONTINUED ON RIGHT SIDE						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approved/Authorised Number		14b. Authorised Signature		
				 14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		
				 Dirk Witczak		
14e. Date (dd mmm yyyy)		12 MAR 2015				
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA],Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20150000567959Y02 320198509	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000324063 320198798	
6. Item	7. Description	8. Part No	9. Quantity	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks			CONTINUED:			
THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 19, OCT/17/2014			UNIT PRESERVED IAW. SB 49-7997 REV.3 FOR 24 MONTHS STORAGE.			
ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE.			TSN 3951,38 TSR 0,00 CSN 3174 CSR 0 SERIES 61			
TEXT CONTINUED ON RIGHT SIDE						
THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No	
					DE.145.0022	
13d. Name	13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)	
			Dirk Wiczak		12 MAR 2015	
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE | ACCUMULATIVE TOTALS | P/N : 3800550-1 S/N : P-2158
12032015 | HOURS | CYCLES
TSN / TSO | CSN / CSO | TSR / CSR
3951,38 / N/A | 3174 / N/A | 0 / 0

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.19: 331-500(B); SERIES: 61; P/O: 1000324063;

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 320198798

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	3951,38	3174	23826	27000	☒
2C.ROTOR	3822341-5	N/A	14-182449-13381	0	0	27000	27000	☒
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	3951,38	3174	23826	27000	☒
2T.ROTOR	3842156-1	3842155-4	11-168522-03695	3951,38	3174	23826	27000	☒
3T.WHEEL	3842160-6	N/A	11-156101-09409	3951,38	3174	23826	27000	☒
LC.ROTOR	3822612-1	N/A	11-182449-04338	3951,38	3174	23826	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814-1758	2
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	2	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1406	4
IGN.UNIT	3876195-9	J12010625	1	GEARBOX	3805034-9	P-1286	2
LOADCOMP	3804011-10	P-1283	2	ENG.COMP	3826980-13	P-1278	2
TURBINE	3844517-7	P-1278	2				

===== ST (STATUS) =====
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: QJLY429K
GACA APPROVED REPAIR STATION NO.: AMO-152F
TCCA ACCEPTANCE APPROVAL NO.: 898-02
DGAS APPROVED MAINT. ORG. NO.: ANR/263/GMBH-071/92
GCAA APPROVED REPAIR STATION NO.: UAB.145.1050
CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.65
CAMA APPROVED MAINT. ORG. NO.: CAMA/AMO/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

M. Rogina
M. Rogina



STAMP

12.03.2015
DATE

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
D-65479 Raunheim

Listed ORI'S, ARB / DER performed on Engine:

PN: 3800550-1

SN: P-2158

RO: 320198798

Date: 12.03.2015

Partnumber	Partname	ORI Number
3827191-1	Housing Centrifugal Compressor	P32483 Rev. A
3827315-2	Deswirl 2nd Stage	P35875 Rev. B, P35881 Rev. A
3827162-1	Diffuser Assy	T40429 Rev. C
3830444-1	Combustor	P32580
3844460-2	Liner Transition Outer	P32091 Rev. C, P34810
3810728-5	Inlet Duct Composite Lower	P31209 Rev. J, P32488 Rev. A
3811033-1	Filter Inlet Upper	P32301
3863116-2	Housing Oil Filler	P34543
3827588-1	Backshroud Driven Compressor	P30768
3826919-5	Housing Engine Compressor 2nd Stage	P32508 Rev. B
160488-2	Oil Cooler	R00389
3283076-5	APU Starter Valve	W00928
3290814-5	Pneumatic Cluster	W01168
3888275-10	Ignition Cluster	P34501
Partnumber	Partname	ARB / DER Number

M. Rofina 

Signature / Stamp

Honeywell Aerospace GmbH

Frankfurter Str. 41-65

65479 Raunheim

Geräte 3800550-1

PAGE 1 OF 2

ENGINE MANUAL
GTCP331-500 [B]USED WITH
EM 49-26-57
REV. 19

UNIT OUTLINE 3800550-1 MODEL NO. GTCP331-500 [B] SERIAL NO. P-2158 DATE 12. MRZ. 2015

TEST CELL NO. D-3 RUN NO. 1 REPAIR ORDER NO. 5008263351

PRODUCTION RELEASE NO. 7 OIL USED MIL- 23699 TYPE BP 2380

AIRFLOW MEASURING SEC NO. APU TEST LABORATORY FUEL USED MIL- T5624 TYPE JET A1

*ECB PART NO. 2118834-100 *ECB S/N 28-F0172

TOTAL NUMBER OF STARTS DURING TEST	NO.	<u>4</u>	
TOTAL OPERATING TIME DURING TEST	HOURL	<u>0:59</u>	
AUTOMATIC START (ELECTRIC)	SEC	60 SEC MAX.	<u>51</u>
STARTER CUTOUT (ELECTRIC)	SEC	40 SEC MAX.	<u>35</u>
AUTOMATIC START (ATS)	SEC	60 SEC MAX.	<u>39</u>
STARTER CUTOUT (ATS)	SEC	40 SEC MAX.	<u>27</u>
EGT SPREAD (ECS)	DEG F	60 DEG MAX.	<u>54.5</u>
EGT SPREAD (MES)	DEG F	60 DEG MAX.	<u>55.2</u>
ATS AIR INLET TOTAL PRESSURE	PSIG	<u>41</u>	
ATS AIR INLET TOTAL TEMPERATURE	DEG F	<u>142</u>	
IGV PERF. ADJ	DEG	<u>5</u>	
LRU FAULTS OBSERVED:	NONE	☒	OTHER ☐
UNIT STATUS:	ACCEPT	☒	REJECT ☐
REMARKS:			
TECHNICIAN <u>[Signature]</u> FT 23 DATE <u>12. MRZ. 2015</u> SUPERVISOR <u>[Signature]</u> E631720 DATE <u>12. MRZ. 2015</u> QUALITY ASSURANCE <u>[Signature]</u> G 50 DATE <u>12. MRZ. 2015</u>			

*INDICATE "LAB SLAVE" AND SERIAL NO. WHEN APPLICABLE

APU S/N : P-02158

APU OUTLINE NO. : 3800550 -1

USED WITH
EM 49-26-57

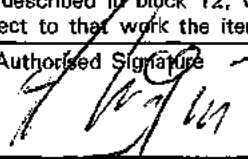
PARAMETER NAME	DESCRIPTOR		UNITS	READY TO LOAD	ECS	MES
PCELL	CELL PRESSURE		PSIA	14.76	14.75	14.75
T2	T2 - APU INLET TEMP. (AVG)		°F	60.75	80.04	85.12
POIL	OIL SUPPLY PRESSURE		PSIG	64.31	64.42	64.23
TOIL	OIL SUPPLY TEMPERATURE		°F	149.4	151.9	154.2
PGBOX	PERFORMANCE GEARBOX PRESSURE		PSIG	0.292	0.273	0.276
TTDEA	UNIT EXHAUST GAS TEMPERATURE	NO. 1	°F	660.0	994.3	1050.
TTDEB		NO. 2	°F	676.9	1049.	1106.
T58	LAB EXHAUST GAS TEMPERATURE (AVG)	ACTUAL	°F	689.6	1031.	1087.
EGTCOR		CORRECTED*	°F	1088.	1095.	
PBORFA	BLEED AIR ORIFICE PRESSURE		PSIA		52.85	60.05
TBORFA	BLEED AIR ORIFICE TEMP. (AVG)		°F		386.8	399.6
PBDORA	BLEED AIR ORIFICE DELTA PRESSURE		PSID		2.088	0.878
PIGV	INLET GUIDE VANE POSITION		DEG	76.04	12.45	4.951
WBCDNA	CORRECTED DISCHARGE AIRFLOW		LB/MIN		167.8	106.1
WBDNA	BLEED AIRFLOW	ACTUAL	LB/MIN		487.0	337.8
WBCOR		CORRECTED*	LB/MIN		463.4	301.0
PB	BLEED PRESSURE (AVG)	ACTUAL	PSIA		54.86	60.87
PBCOR		CORRECTED*	PSIA		52.88	54.30
TB	BLEED TEMPERATURE (AVG)	ACTUAL	°F		398.9	418.4
TBCOR		CORRECTED*	°F		421.7	425.2
WFPFH	FUEL FLOW (AVG)	ACTUAL	LB/HR		635.6	665.0
WFCOR		CORRECTED*	LB/HR		621.3	617.3
SHP SL.	SHAFT LOAD / DELTA		HP		180.7	185.7
VIBGBA	UNIT VIBRATION	GEARBOX	IN/SEC	0.214	0.259	0.277
VIBTVA		TURBINE	IN/SEC	0.582	0.672	0.628
XNL	SHAFT SPEED		RPM	39006.	39006.	39006.
	SPECIFICATION REQUIREMENTS (CORRECTED)	MIN BLEED FLOW	LB/MIN		460.2	
		MIN BLEED PRESS.	PSIA		52.60	54.30
		CORR. DISCH. FLOW	LB/MIN		167.0	106.0
		IGV POSITION	DEG		7.00	
		MIN SHAFT LOAD	HP	0.0	180.0	180.0
		MAX EGT	°F		1155.	1177
	DIGITAL DATA SCAN		TIME	13:10:46	13:23:35	13:31:41
			DATE	03/11/15	03/11/15	03/11/15

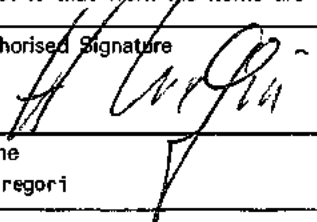
* DATA CORRECTED TO 103 °F AND INSTALLED, SEA LEVEL CONDITIONS.

WE CERTIFY THE ABOVE DATA IS TRUE AND CORRECT AND IN ADDITION, THE APU HAS SUCCESSFULLY MET ALL OTHER TEST REQUIREMENTS SPECIFIED IN THE LATEST REVISION OF THE APPLICABLE TEST SPECIFICATION INDICATED ABOVE.

**APU SHOP VISIT
RECORDS
HONEYWELL 2017**



1. Approving Competent Authority/Country Luftfahrt-Bundesamt[LBA],Germany		2. AUTHORISED RELEASE CERTIFICATE EASA FORM 1			3. Form Tracking Number 20170003231534Y02 328598529	
4. Organisation Name and Address: Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany					5. Work Order/Contract/Invoice 1000454145-3000091860-COM 328598860	
6. Item	7. Description	8. Part No	9. Qty	10. Serial No.	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE THE WORK IDENTIFIED IN BLOCK 11 AND DESCRIBED HEREIN HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH 14 CFR PART 43 AND IN RESPECT TO THAT WORK, THE ITEMS ARE APPROVED FOR RETURN TO SERVICE UNDER CERTIFICATE NO.QJ1Y428K						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ approved design data and are in condition for safe operation ☐ non-approved design data specified in block 12			14a. ☒ Part-145.A.50 Release to Service ☒ Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part-145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature		13c. Approval/Authorisation Number		14b. Authorised Signature		14c. Certificate/Approval Ref. No
						DE.145.0022
13d. Name		13e. Date (dd mmm yyyy)		14d. Name		14e. Date (dd mmm yyyy)
				Helmut Gregori		20 JUN 2017
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. General Civil Aviation Authority United Arab Emirates		2. AUTHORISED RELEASE CERTIFICATE AW FORM 1			3. Form Tracking Number 20170003231535Y23 328598529	
4. Organisation Name and Address Honeywell Aerospace GmbH Frankfurter Strasse 41 - 65 65479 Raunheim Germany		5. Work Order/Contract/Invoice 328598860				
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial Number	11. Status/Work	
001	ENGINE OUTLINE GAS TURBINE	3800550-1	1	P-2158	REPAIRED	
12. Remarks THE SERVICE SPECIFIED HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH: EM 49-26-57 Rev 20, SEP/27/2016 ORI AUTHORIZATION PER EASA ED DECISION 2007/001/C. LIFE TRACKED PARTS AND LRUS: SEE ATTACHED APU SERVICE RECORD. SERVICE BULLETIN STATUS: SEE ATTACHED LISTINGS. NO EASA OR FAA ADS EFFECTIVE. ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED. AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS. UNIT PRESERVED IAW. SB 49-7997 REV.5 FOR 24 MONTHS STORAGE. TEXT CONTINUED ON RIGHT SIDE						
CONTINUED: THIS UNIT IS RELEASED TO SERVICE SUBJECT TO FITTING OF: IGNITION UNIT; TSN: 7301,62/CSN: 5089 IS AT POINT OF INSTALLATION FOR COMPUTATION OF LLP CYCLES. DMM HOURS/CYCLES ON RELEASE IS 7302,60/5093 (0,98 HOURS AND 4 CYCLES USED ON APU FINAL TESTING). TSN 7301,62 TSR 0,00 CSN 5089 CSR 0 SERIES:61						
13a. Certifies that the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safeoperation ☐ Non-approved design data specified in block 12			14a. ☒ CAR 145.50 Release to Service ☐ Other regulation, specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with CAR 145 and in respect to that work the items are considered ready for release to service.			
13b. Authorised Signature	13c. Approved/Authorised Number		14b. Authorised Signature 	14c. Certified/Approved Ref. Number UAE.145.1050		
13d. Name	13e. Date (dd mmm yyyy)		14d. Name Helmut Gregori	14e. Date (dd mmm yyyy) 20 JUN 2017		
USER/INSTALLER RESPONSIBILITIES This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulation of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a and 14a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Germany

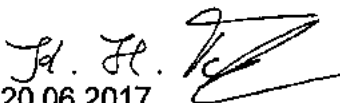
To whom it may concern

We hereby confirm, that during the shop visit of the following Engine

Type: 331-500(B)
PN: 3800550-1
SN: P-2158
Customer: Etihad Airways
Repair Order: 1000454145
our Repair Order: 328598860

neither DER repaired parts without OEM approval, nor PMA Parts without Honeywell approval were installed.

Honeywell Aerospace GmbH


20.06.2017

i.V. Karl-Heinz Fassbender
Senior Product Engineering Manager


20.06.2017

i.V. Michael Hoffmann
Site Materials Manager

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Germany

Wednesday, March 8, 2017

Subject: Computation of LLP cycles and reporting of DMM run times.

To whom it may concern:

In on-going efforts to improve the documentation for our customers, Honeywell Raunheim has issued a new revision of the APU Service Record (log book), Form QS1080/2000. A Stamp has been added to the new form, to report the DMM run time of the APU, which includes test cell operations.

The certificate now also will report DMM hours/cycles on release, and the actual hours and cycles attained during test cell operations.

For computation of LLP life limits, the APU Service Record (sheet), Form QS546/93, will change back to reflecting only APU TSN/CSN at receiving, and LLP hours and cycles at point of installation. These measures became necessary to guarantee the integrity of all hour and cycle information.



Michael Jessegus
Leader Quality Systems

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
65479 Raunheim - Germany

APU SERVICE RECORD

DATE 20062017	ACCUMULATIVE TOTALS		P/N : 3800550-1 S/N : P-2158	
	HOURS	CYCLES		
	TSN / TSO	CSN / CSO	TSR / CSR	
	7301,62 / N/A	5089 / N/A	0 / 0	

DESCRIPTION OF WORK PERFORMED

TYPE MAINTENANCE : Repaired and Modified
EM 49-26-57 REV.20: 331-500(B); SERIES: 61; P/O: 1000454145;
ETIHAD WORKSCOPE MWC304015-331500B REV:-, DATED 06.11.2015 PERFORMED.
AMP TASKS PERFORMED. REFER TO THE ATTACHED FORM QS1617/2015 FOR DETAILS.

THE AIRCRAFT COMPONENT IDENTIFIED ABOVE WAS INSPECTED IN ACCORDANCE WITH CURRENT CIVIL AVIATION ADMINISTRATION REGULATIONS (SEE ATTACHED CERTIFICATE) AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAILS OF WORK PERFORMED ARE ON FILE AT THIS AGENCY UNDER REPAIR ORDER : 328598860

TRACEABLE LIFE LIMITED / LIFE CONTROLLED PARTS

ITEM	ROTOR	ASSY	S/N	HRS	CYC	LEFT	LIMIT	EXPOSED
1C.ROTOR	3822611-1	N/A	12-182449-05026	7301,62	5089	21911	27000	☒
2C.ROTOR	3822341-5	N/A	1618244922583	0	0	27000	27000	☒
1T.ROTOR	3842152-1	3842151-3	11-168522-06915	7301,62	5089	21911	27000	☒
2T.ROTOR	3842156-1	3842155-4	1116852203695	7301,62	5089	21911	27000	☒
3T.WHEEL	3842160-6	N/A	16-156101-08203	0	0	27000	27000	☒
LC.ROTOR	3822612-1	N/A	11-182449-04338	7301,62	5089	21911	27000	☒

===== LIMIT (ROTOR LIFE LIMIT) =====
Rotor Life Limit (Cycles) are not to be exceeded

NAMEPLATE DATA CONTROLLED

ITEM	P/N	S/N	ST	ITEM	P/N	S/N	ST
STARTVLV	3283076-5	1465	2	C.VALVE	3202854-1	1256	2
CLUSTER	3884863-7	P-1410	2	SCV	3290814-5	3290814/1106	1
AIRSTART	3505814-3	1406	1	E.START	2704442-5	1690	2
FUELCLUS	3879008-1	CUA11617	4	LUBECLUS	4131000-6	1542	2
TEMP VLV	160536-1	1383	1	COOLER	160488-2	1620	2
DMM	304643-2	GE10745	4	ACTUATOR	3883499-3	1659	4
IGN.UNIT	3876195-	NOT ATTACHED		GEARBOX	3805034-11	P-1286	2
LOADCOMP	3804011-10	P-1283	2	COMPRESS	3826980-13	P-1278	3
TURBINE	3844517-7	P-1278	3				

===== ST (STATUS) =====
0=TEST ON APU 1=FINAL/BENCHTEST 2=REPAIR 3=OVERHAUL 4=VISUAL INSPECT 5=NEW E=EXCHANGE

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: QNT428K
QACA APPROVED REPAIR STATION NO.: AMO-152F
ECCA ACCEPTANCE APPROVAL NO.: 898-02
DGSA APPROVED MAINT. ORG. NO.: ASB/263/GMBH-071/92
QCAR APPROVED REPAIR STATION NO.: UAE.145.1050
CAA APPROVED MAINT. ORG. NO.: ALB/AIR/8/5.65
CAMA APPROVED MAINT. ORG. NO.: CAMA/AMC/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMG/126
CAAV APPROVED MAINT. ORG. NO.: VN-351NS/CAAV
RCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069


G. Ritz



STAMP

20.06.2017
DATE

Honeywell Aerospace GmbH
Frankfurter Str. 41 - 65
D-65479 Raunheim

The followings ORI and ARB have been incorporated:

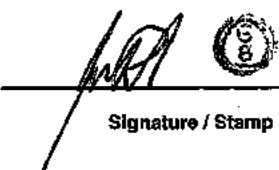
PN: 3800550-1

SN: P-2158

RO: 328598860

Date: 20.06.2017

Partnumber	Partname	ORI Number
3287588-1	L/C BACKSHROUD	P30768
3827160-2	L/C CASE	P32498 REV.B, T40233 REV.A
3844469-2	SEAL	P34289 REV.C
3844460-2	OUTER TRANSITION LINER	P32091 REV.C
3827315-2	2ND STAGE DESWIRL	P35875 REV.D, P35881 REV.B
3827162-1	DIFFUSER ASSY	T40429 REV.E
3827135-1	DESWIRL COVER	T31458
3827140-2	1ST STAGE DIFFUSER	P31609 REV.E
3822611-1	1ST STAGE COMPRESSOR ROTOR	P31420 REV.B
3844495-1	BEARING HOUSING ASSY	P31350 REV.A
3827191-1	1ST STAGE COMPRESSOR HOUSING	P32483 REV.A, T38882 REV.A
3810730-1	UPPER INLET DUCT ACCESS DOOR	P34588 REV.C
3810729-1	LOWER INLET DUCT ACCESS DOOR	P34588 REV.C
3810727-6	UPPER INLET DUCT	P31209 REV.K, P34328 REV.C
3810728-5	LOWER INLET DUCT	P31209 REV.K, P32488
3863163-9	G/B HOUSING	P35569 REV.B
3830444-1	COMBUSTOR	P35978
3840281-1	ROTATING SEAL	P34445
3844602-5	1ST STAGE TURBINE NOZZLE SEGMENTS	P35727 REV.C
160488-2	OIL COOLER	R00389 REV.A
Partnumber	Partname	ARB Number

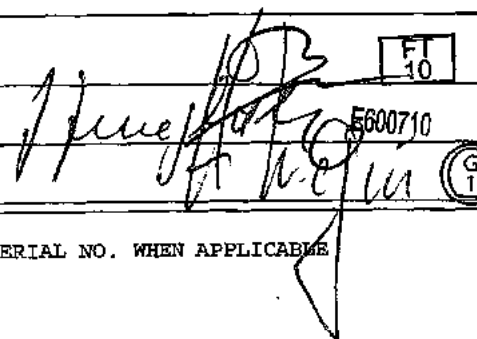
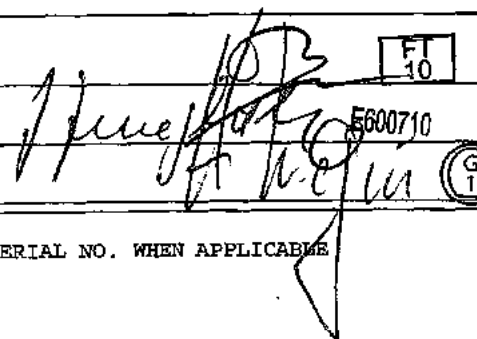
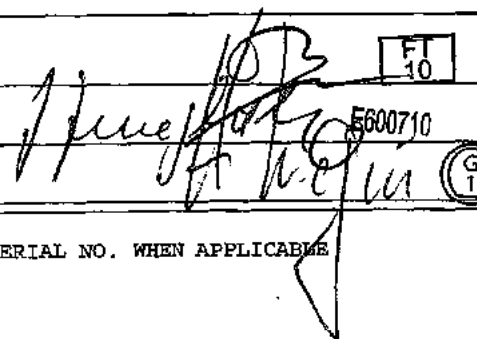

Signature / Stamp

Honeywell Aerospace GmbH
Frankfurter Str. 41-65
65479 Raunheim
Gen. No. 3800550-1
PAGE 1 OF 2

ENGINE MANUAL
GTCP331-500 [B]

USED WITH
EM 49-26-57
REV. 20

UNIT OUTLINE 3800550-4 MODEL NO. GTCP331-500 [B] SERIAL NO. 9-2158 DATE 20.6.17
TEST CELL NO. 3 RUN NO. I REPAIR ORDER NO. 5011033714
PRODUCTION RELEASE NO. X OIL USED MIL- 23699 TYPE BP 2380
AIRFLOW MEASURING SEC NO. APU TEST LABORATORY FUEL USED MIL- T5624 TYPE JET A1
*ECB PART NO. 2118834-100 *ECB S/N 28-F0177

TOTAL NUMBER OF STARTS DURING TEST	NO.	4	
TOTAL OPERATING TIME DURING TEST	HOURL	1:02	
AUTOMATIC START (ELECTRIC)	SEC	60 SEC MAX.	45
STARTER CUTOUT (ELECTRIC)	SEC	40 SEC MAX.	32
AUTOMATIC START (ATS)	SEC	60 SEC MAX.	41
STARTER CUTOUT (ATS)	SEC	40 SEC MAX.	28
EGT SPREAD (ECS)	DEG F	60 DEG MAX.	40,4
EGT SPREAD (MES)	DEG F	60 DEG MAX.	57,9
ATS AIR INLET TOTAL PRESSURE	PSIG	48,98	
ATS AIR INLET TOTAL TEMPERATURE	DEG F	123	
IGV PERF.ADJ	DEG	3	
LRU FAULTS OBSERVED:	NONE	☒	OTHER ☐
UNIT STATUS:	ACCEPT	☒	REJECT ☐
REMARKS:			
TECHNICIAN			DATE <u>20.6.17</u>
SUPERVISOR			DATE <u>20. JUNI 2017</u>
QUALITY ASSURANCE			DATE <u>20. JUNI 2017</u>

*INDICATE "LAB SLAVE" AND SERIAL NO. WHEN APPLICABLE

APU S/N : P 02158

APU OUTLINE NO. : 3800550

PARAMETER NAME	DESCRIPTOR		UNITS	READY TO LOAD	ECS	NES
PCELL	CELL PRESSURE		PSIA	14.57	14.57	14.56
T2	T2 - APU INLET TEMP. (AVG)		°F	82.19	91.19	102.3
POIL	OIL SUPPLY PRESSURE		PSIG	65.31	65.83	65.00
TOIL	OIL SUPPLY TEMPERATURE		°F	151.9	152.4	156.4
PGBOX	PERFORMANCE GEARBOX PRESSURE		PSIG	0.251	0.349	0.245
TTDEA	UNIT EXHAUST GAS TEMPERATURE	NO. 1	°F	689.0	1022.	1049.
TTDEB		NO. 2	°F	675.7	1062.	1107.
T58	LAB EXHAUST GAS TEMPERATURE (AVG)	ACTUAL	°F	707.7	1049.	1086.
EGTCOR		CORRECTED*	°F	1088.	1057.	
PBORFA	BLEED AIR ORIFICE PRESSURE		PSIA	53.83	58.32	
TBORFA	BLEED AIR ORIFICE TEMP. (AVG)		°F	391.3	412.0	
PBDORA	BLEED AIR ORIFICE DELTA PRESSURE		PSID	2.066	0.872	
PIGV	INLET GUIDE VANE POSITION		DEG	75.65	10.54	2.930
WBCDNA	CORRECTED DISCHARGE AIRFLOW		LB/MIN	166.5	107.5	
WBDNA	BLEED AIRFLOW	ACTUAL	LB/MIN	487.9	329.5	
WBCOR		CORRECTED*	LB/MIN	478.4	306.8	
PB	BLEED PRESSURE (AVG)	ACTUAL	PSIA	55.69	59.00	
PBCOR		CORRECTED*	PSIA	54.96	54.30	
TB	BLEED TEMPERATURE (AVG)	ACTUAL	°F	407.4	430.4	
TBCOR		CORRECTED*	°F	418.9	420.9	
WPPPH	FUEL FLOW (AVG)	ACTUAL	LB/HR	632.4	648.8	
WFCOR		CORRECTED*	LB/HR	631.5	614.8	
SHP SL.	SHAFT LOAD / DELTA		HP	183.3	188.2	
VIBGBA	UNIT VIBRATION	GEARBOX	IN/SEC	0.138	0.144	0.136
VIBTVA		TURBINE	IN/SEC	0.298	0.232	0.275
XNL	SHAFT SPEED		RPM	39006.	39006.	39006.
	SPECIFICATION REQUIREMENTS (CORRECTED)	MIN BLEED FLOW	LB/MIN	460.2		
		MIN BLEED PRESS.	PSIA	52.60	54.30	
		CORR. DISCH. FLOW	LB/MIN	167.0	106.0	
		IGV POSITION	DEG	7.00		
		MIN SHAFT LOAD	HP	0.0	180.0	
		MAX EGT	°F	1155.	1177	
	DIGITAL DATA SCAN		TIME	07:31:18	07:19:37	07:39:49
			DATE	06/20/17	06/20/17	06/20/17

* DATA CORRECTED TO 103 °F AND INSTALLED, SEA LEVEL CONDITIONS.

WE CERTIFY THE ABOVE DATA IS TRUE AND CORRECT AND IN ADDITION, THE APU HAS SUCCESSFULLY MET ALL OTHER TEST REQUIREMENTS SPECIFIED IN THE LATEST REVISION OF THE APPLICABLE TEST SPECIFICATION INDICATED ABOVE.

Honeywell Aerospace GmbH
Frankfurter Str. 41-66
D-65479 Raunheim

Shop Reference : 328598860

Etihad Airways B777 (331-500) AMP Tasks

APU Serial Number: P-2158

APU Part Number: 3800550-1

Etihad Task Number	Description	Interval	Method of Compliance	Inspection Stamp	Date
EY_B777_49-ETD-01	APU GEARBOX MAGNETIC CHIP DETECTOR: DETAILED VISUAL INSPECTION OF THE MAGNETIC CHIPS COLLECTORS (5 UNITS) OF THE APU GEARBOX NOTE : "ETOPS" SIGNIFICANT SYSTEM TASK	750 FH	EM 49-26-57		20.06.2017
EY_B777_49-060-00-01	APU COMBUSTOR DRAIN VALVE FUNCTIONALLY CHECK (OFF-AIRCRAFT) APU COMBUSTOR DRAIN VALVE	SHOP VISIT	CMM 49-31-09	NEW PART	
	REPLACE IGNITER PLUG	SHOP VISIT	EM 49-26-57	NEW PARTS	

Signature: Gert Ritz

 Honeywell Aerospace GmbH
Approval Certificate
Nr.: DE.145.0022

Inspection Stamp: G8



Date: 20.06.2017

1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 20170003162499Y14 9001239947-80001	
4. Organization Name and Address: Honeywell International Inc. 111 S. 34th Street Phoenix, Arizona 85072		Production Approval PT1222NM		Honeywell International Inc. Units 2-4, Chevron, Eaton Road Hemel Hempstead, HP2 7UB UNITED KINGDOM		5. Work Order/Contract/Invoice Number: 4704989852-000010 Page 1 of 1
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:	
001	IMPELLER, COMPRESSOR, SECOND STAGE	3822341-5	1	1618244922583	NEW	
12. Remarks: EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF FEDERAL REPUBLIC OF GERMANY. THIS PART IS A SUBCOMPONENT OF A TSO AUTHORIZATION.						
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed): Aggrey Kanyanga		13e. Date (dd/mm/yyyy): 05/JUN/2017		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):

User / Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.



1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 20170003141089Y14 9001223109-900008	
4. Organization Name and Address: Honeywell International Inc. 111 S. 34th Street Phoenix, Arizona 85072		Production Approval PT1222NM		Honeywell International Inc. Units 2-4, Chevron, Eaton Road Hemel Hempstead, HP2 7UB UNITED KINGDOM		5. Work Order/Contract/Invoice Number: 4704975992-000010 Page 1 of 1
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:	
001	TURBINE ROTOR ASSY 3RD STAGE	3842160-6	2	16-156101-08203 See Continuation	NEW	
12. Remarks: EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF FEDERAL REPUBLIC OF GERMANY. THIS PART IS A SUBCOMPONENT OF A TSO AUTHORIZATION. Block 10 Serial Number(s): (Continued): 16-156101-08875.						
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed): Stephen Foulger		13e. Date (dd/mm/yyyy): 30/MAY/2017		14d. Name (Typed or Printed):		14e. Date(dd/mm/yyyy):

User / Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.



1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 20170003018125Y14 9001157108-900004	
4. Organization Name and Address: Honeywell International Inc. 111 S. 34th Street Phoenix, Arizona 85072		Production Approval PT1222NM		Honeywell International Inc. Units 2-4, Chevron, Eaton Road Hemel Hempstead, HP2 7UB UNITED KINGDOM		5. Work Order/Contract/Invoice Number: 4704843062-000010 Page 1 of 1
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:	
001	THERMOCOUPLE EXHAUST	3876214-2	1	1715027700190	NEW	
12. Remarks: EXPORT AIRWORTHINESS APPROVAL: THIS ARTICLE MEETS THE SPECIAL REQUIREMENTS OF FEDERAL REPUBLIC OF GERMANY. THIS PART IS A SUBCOMPONENT OF A TSO AUTHORIZATION.						
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: ODA-602216-NM		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed): Peter Jarman		13e. Date (dd/mm/yyyy): 02/MAY/2017		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):
User / Installer Responsibilities						
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RUN DATE: 12.03.2015
 RUN BY: M. Rogina

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 1 OF 5
 CUSTOMER: 304015

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
GTE1138		REPLACE IGNITION LEAD #3888283-1 WITH #4	PCW
GTE1167		REPLACE COMPOUND IDLER GEAR #3860824-2 WITH #3861064-1	PCW
GTE1180		REPLACE CHECK VALVE #3202610-5 WITH #3202854-1	PCW
GTE1232		REPLACE 3. STAGE TURBINE WHEEL #3842180-4/-5 WITH #6	PCW
GTE1233		REPLACE GASKET #3844515-1 WITH #2 AT TURBINE BEARING CAVITY IN FRONT AND BEHIND CARBON SEAL	12.03.2015
GTE1252		REPLACE IDENTIFICATION PLATES ON ENGINE COMPRESSOR MODULE, TURBINE MODULE, LOAD COMPRESSOR MODULE, PNEUMATIC CLUSTER, AND IGNITION CLUSTER	PCW
GTE1275		REPLACE SURGE DUCT #3850107-2 WITH #3850140-1	PCW
GTE1283		REPLACE EDUCTOR HOUSING #3850102-1 (TITAN) WITH #3850125-1 (INCONEL)	PCW
GTE1288		REPLACE COVER #3826934-1 / 3826994-1 WITH #3827642-1 / 3827643-1	PCW
GTE1295		REPLACE QUILL SHAFT #3822353-1 WITH #4	PCW
GTE1297		REPLACE TIE SHAFT #3840280-3 WITH #4	PCW
GTE1298		REPLACE CLAMPS #211-594-9005 WITH #211-594-9003 AND #211-594-9006	PCW
GTE1317		REPLACE 2.STG NOZZLE SEGMENT #3844603-5 WITH #6 AND/OR REPLACE 2.STG NOZZLE ASSY #3844471-6 WITH #7	PCW
GTE1318		REPLACE 2.STG TURBINE BLADES #3842329-3 WITH #4 AND/OR REPLACE 2.STG TURBINE WHEEL ASSY #3842155-3 WITH #4	PCW
GTE1319		REPLACE 1.STG NOZZLE SEGMENT #3844602-4 WITH #5 AND/OR 1.STG NOZZLE ASSY #3844622-5 WITH #8	PCW
SPB D200811000047		REPLACE REAR BEARING COVER #3844484-1 WITH #3844910-1	PCW
331-500-49-0001		REWORK FCU #441761-6 TO #7	PCW
4131000-49-01		REPLACE LOP SWITCH #4132033-2 WITH #3	PCW
441761-49-0002		REWORK FUEL CLUSTER #441761-7	PCW
441761-49-0003		REWORK FUEL CLUSTER #441761-7 TO #3879008-1	PCW
9048700-49-17		REWORK IGNITION UNIT #3876185-6 TO #9	PCW
B55690-49-01		REWORK ACTUATOR #3883499-1 /-2 TO #2	PCW
B55690-49-02		REWORK IGV-ACTUATOR #3883499-3 (#B55690-005)	PCW
CUA1-49-0001		FPI INSPECTION OF BODY #2682924 OF FUEL CLUSTER #441761-X	PCW
49-2358		REWORK STARTER #2704442-3 S1 TO #4 S1	PCW
49-2379		REWORK OIL TEMP VALVE #160536-1 S1 TO S2	PCW
49-2380		REWORK STARTER #2704442-4 S1 TO #5 S1	PCW
49-2389		MODIFY STARTER #2704442-5 S1 TO S2 (REPLACE BRUSH INDICATOR ASSY)	PCW
49-6993		REWORK APU STARTER VALVE #3263076-3 TO #4	PCW
49-6999		REWORK LUBE CLUSTER #4131000-3 TO #4	PCW
49-7000		REWORK SCV #3290814-2 TO #3 S2	PCW

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 QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
 CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
 KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

RUN DATE: 12.03.2015
 RUN BY: M. Rogina

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 2 OF 5
 CUSTOMER: 304015

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7001		REWORK SCV #3290814-3 TO #4	PCW
49-7004		REWORK LUBE CLUSTER #4131000-4 TO #5	PCW
49-7014		INSPECT SCV #3290814-3/-4	PCW
49-7017		REWORK THE LUBE CLUSTER #4131000-5 PRIOR S2.	PCW
49-7021		REPLACE OIL FILTER BYPASS VALVE #4132029-2 WITH #3 AND GENERATOR FILTER BYPASS VALVE #4132030-2 WITH #3 ON LUBE CLUSTER #4131000	PCW
49-7023		REWORK STARTER VALVE #3283076-4 TO #5	PCW
49-7032		REWORK APU CHECK VALVE #3202810-4 TO #5	PCW
49-7040		REWORK LUBE CLUSTER #4131000-5 TO #6	PCW
49-7046		REWORK ELECTRIC STARTER CLUTCH #3503876-5 TO #6 S1	PCW
49-7050		REWORK SCV TO #3290814-4 S2 CHNO1	PCW
49-7052		REWORK SCV #3290814-4 TO #5	PCW
49-7141		REPLACE SURGE VALVE DUCT #3850107-1 WITH #2	PCW
49-7144		REPLACE IGNITION CLUSTER #3888275-7 WITH #8, AND REPLACE/REWORK HARNESS #3888364-1 WITH/TO #2	PCW
49-7145		REWORK IGNITION CLUSTER #3888275-7 TO #8	PCW
49-7153		INSPECT AND RE-IDENTIFY UPPER COMPOSITE INLET DUCT #3810727-5 TO #6	PCW
49-7162		REPLACE STARTER VALVE #3283076-3 WITH #4	PCW
49-7165		REWORK PNEUMATIC CLUSTER #3884863-4 TO #5	PCW
49-7180		REPLACE PNEUMATIC CLUSTER #3884863-4 WITH #5.	PCW
49-7183		REPLACE ACTUATOR ROD #3826926-1 WITH #3827405-1, AND ROD END BEARING #3826928-1 WITH #3827406-1	PCW
49-7197		REPLACE LUBE CLUSTER #4131000-3/-4 WITH #5.	PCW
49-7198		REPLACE PNEUMATIC CLUSTER #3884863-5 WITH #6	PCW
49-7199		REPLACE FUEL CLUSTER #441761-6 WITH #7	PCW
49-7200		REWORK PNEUMATIC CLUSTER #3884863-5 TO #6	PCW
49-7218		INSPECT/RWK/REPLACE 2. STAGE DE-SWIRL #3827315-1 TO -2	PCW
49-7220		REPLACE TURBINE BEARING SUPPORT #3844749-1 WITH #3844854-1	PCW
49-7250		REPLACE IGNITION CLUSTER I.D. PLATE #S8840M2P2 WITH #S8886-2	PCW
49-7252		REPLACE ENGINE COMPRESSOR HOUSING #3827164-3 WITH #4	PCW
49-7260		REPLACE LOAD COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7261		REPLACE ENGINE COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7269		REPLACE GASKETS #3844515-1 WITH #2, 3881248-1 WITH #2, 3881259-1 WITH #2.	PCW
49-7273		REPLACE CLAMP #234-592-9001 WITH INLET BELL CLAMP #3617128-1	PCW

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 CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
 KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/D69

RUN DATE: 12.03.2015
 RUN BY: M. Rogina

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 3 OF 5
 CUSTOMER: 304015

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7279		REWORK/REPLACE TRANSFER TUBE #3863110-1 WITH #2	PCW
49-7293		REPLACE SHIELD SUPPORT #3616661-1 WITH #3617122-1 AND #2	PCW
49-7294		REPLACE OIL SUPPLY TUBE #3881624-1 WITH #3881755-1	PCW
49-7297		REWORK IGNITION CLUSTER #3888275-8 TO #9	PCW
49-7311		ONE TIME INSPECTION OF ROTATING SEAL #3842148-1	PCW
49-7319		REPLACE AIR TURBINE STARTER CLUTCH #3505874-2 WITH #3505874-3	PCW
49-7320		REPLACE ELECTRIC STARTER CLUTCH #3503876-3 WITH #4	PCW
49-7322		REPLACE STARTER #2704442-3 WITH #4	PCW
49-7343		REWORK ELECTRIC STARTER CLUTCH #3503876-3 TO #4	PCW
49-7344		REWORK AIR TURBINE STARTER CLUTCH #3505874-2 TO #3	PCW
49-7356		REPLACE PACKING #MS9386-009 WITH #561-515-0001	PCW
49-7364		REPLACE INSULATION BLANKET #3616661-3 WITH #3617177-3	PCW
49-7385		REWORK ELECTRIC STARTER CLUTCH #3503876-4 TO -5	PCW
49-7386		REWORK AIR TURBINE STARTER CLUTCH #3505874-3 TO #4	PCW
49-7387		REPLACE ELECTRIC STARTER CLUTCH #3503876-4 WITH #5	PCW
49-7388		REPLACE AIR TURBINE STARTER CLUTCH #3505874-3 WITH #4	PCW
49-7393		INSPECT CHECK VALVE #3202610-4	PCW
49-7402		REPLACE COMPRESSOR INLET BELL MOUTH #3826917-1 WITH #3827450-1	PCW
49-7407		REPLACE CHECK VALVE #3202610-4 WITH #5	PCW
49-7414		REPLACE STARTER VALVE #3283076-4 WITH #5	PCW
49-7418		REPLACE IGNITION CLUSTER #3888275-8 WITH #9	PCW
49-7432		REPLACE ADAPTER #MS51843-25SS WITH AIR BUFFER FITTING #3617567-1	PCW
49-7449		REMOVE OIL HEATER #3888311-4	PCW
49-7464		REWORK HARNESS #3888364-2 TO #3	PCW
49-7502		REPLACE BEARING #3616641-1 WITH #3660837-1 IN GEARBOX #3805034-8	PCW
49-7504		REWORK/REPLACE 1. STAGE TURBINE ROTOR #3842151-2 WITH #3	PCW
49-7532		REPLACE LUBE CLUSTER #4131000-5 WITH #6	PCW
49-7537		INSTALL CONICAL BELL MOUTH COVER #3810973-1	PCW
49-7538		INSTALL INLET FLANGE PLATE #3810975-1 OR #3811028-1	N/A
49-7539		INSTALL INLET EXTENSION PLATE #3810981-1 OR #3811027-1	N/A
49-7547		INSPECTION OF INLET BELL MOUTH CLAMP #3617128-1 FOR PROPER TORQUE	PCW

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 KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

RUN DATE: 12.03.2015
 RUN BY: M. Rogina

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 4 OF 5
 CUSTOMER: 304015

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7554		REPLACE/REWORK OIL COOLER SUPPLY TUBE #3881625-1 WITH #2	PCW
49-7555		REPLACE/REWORK OIL COOLER RETURN TUBE #3881626-1 WITH/TO #2	PCW
49-7556		INSPECT ELECTRIC STARTER CLUTCH #3503876-5 AND AIR TURBINE STARTER CLUTCH #3505674-4 FOR PROPER INSTALLATION OF LOCK BOLTS	PCW
49-7557		DISABLE GENERATOR FILTER CLOGGED AUTO SHUTDOWN	PCW
49-7609		REWORK L/C SCROLL HOUSING #3827093-5 OR REPLACE CRACKED SCROLLS WITH #8	PCW
49-7611		REMOVE INLET EXTENSION PLATE #3810981-1 OR #3811027-1	PCW
49-7632		REWORK ENGINE ASSY #3800551-8 TO #9	PCW
49-7670		REWORK/REPLACE PNEUMATIC CLUSTER #3884863-8 WITH #7	PCW
49-7698		REPLACE ELECTRIC STARTER CLUTCH #3503876-5 WITH #6	PCW
49-7727		REPLACE INLET SCREENS #3810788-1/3810622-3 WITH #3811033-1/3811034-1	PCW
49-7752		REWORK LOAD COMPRESSOR (IMPROVED FORWARD AIR OIL SYSTEM)	PCW
49-7756		REPLACE COMPOSITE BELL MOUTH #3827450-1 AND CONICAL COVERS #3810973-1 WITH CONICAL BELL MOUTH #3827602-2	PCW
49-7769		REPLACE FCU #441761-7 WITH #3879008-1	PCW
49-7800		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (LOAD COMPRESSOR)	PCW
49-7801		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (POWER SECTION)	PCW
49-7810		REPLACE 2. STAGE COMPRESSOR IMPELLER #3822341-4 WITH #5	PCW
49-7811		INSTALL IMPROVED TURBINE BEARING THRUST WASHER SYSTEM	PCW
49-7816		REPLACE LOAD COMPRESSOR IMPELLER #3822458-3 WITH #3822612-1	PCW
49-7817		REPLACE 1ST STAGE COMPRESSOR IMPELLER #3822483-1 WITH #3822611-1	PCW
49-7822		REMOVE INLET FLANGE PLATE #3810975-1 OR #3811028-1	PCW
49-7828		IMPROVE CLEARANCE BETWEEN IGVA/SCV FUEL TUBES AND WIRE HARNESS CLAMP	PCW
49-7829		IMPROVE WIRE HARNESS RETENTION AT LOAD COMPRESSOR FORWARD DRAIN TUBE	PCW
49-7830		REPLACE STARTER #2704442-4 WITH #5	PCW
49-7856		REPLACE 1ST STAGE TURBINE WHEEL #3840303-1 OR REPLACE/REWORK #3840160-5 WITH/TO #3840160-8	PCW
49-7864		REPLACE AIR TURBINE STARTER GEARSHAFT BEARINGS #3860837-1 WITH #3861160-1	PCW
49-7870		ONE-TIME INSPECTION OF FUEL NOZZLE #3883453-1	PCW
49-7911		BOROSCOPE INSPECTION FOR 331-500(B) APU BUILT WITH 2.STG COMPRESSOR SHROUD #3826919-4	N/A
49-7912		REPLACE SECOND STAGE COMPRESSOR HOUSING #3826919-3 WITH #4	PCW
49-7931		REPLACE IGNITION CLUSTER #3888275-9 WITH #10	PCW
49-7932		REWORK IGNITION CLUSTER #3888275-9 TO #10	PCW
49-7982		REPLACE 2ND STAGE ENGINE COMPRESSOR SHROUD #3826919-4 WITH #5	PCW

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 KCASR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

RUN DATE: 12.03.2015
RUN BY: M. Rogina

HONEYWELL AEROSPACE GMBH RAUNHEIM
SERVICE BULLETIN STATUS
ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 5 OF 5
CUSTOMER: 304015

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-8009		REPLACE FUEL PUMP DRAIN TUBE #3883769-1 WITH #70720087-1, ACTUATOR SURGE DRAIN TUBE #3883770-1, WITH #70720050-1, #70720051-1, #70720052-1 AND #70720053-1	PCW
49-8022		REPLACE THE LOQ SENSOR #3876211-2 WITH #3	PCW
49-8035		REPLACE IGV ACTUATOR #3883499-2 WITH #3	PCW
49-8036		REWORK MATCHED SET GEARBOX HOUSING ASSY #3863163-8	N/A
49-8058		REPLACE ATS CLUTCH #3505874-4 WITH #5	12.03.2015
49-8074		REPLACE HIGH SPEED PINION BEARING #3880832-2 WITH SPECIFIED BEARING SERIAL NUMBERS	N/A
49-8081		REPLACE DISCREPANT DMM #304643-2 IDENTIFIED BY DMM SERIAL NUMBERS	N/A
49-9008		REWORK AIR TURBINE STARTER CLUTCH #3505874-4 TO #5	12.03.2015
E.O.25-4900-0912	6	50% REDUCED BALANCE LIMITS OF THE 331-500(B) INDIVIDUAL ROTATING GROUP COMPONENTS AND ROTATING GROUP ASSEMBLY	12.03.2015

SIGNATURE / STAMP

M. Rogina 

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CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
KCSAR APPROVED MAINT. ORG. NO.: DGCA/AMO/069

RUN DATE: 20.06.2017
 RUN BY: G. Riz

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

PAGE 1 OF 8
 CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
ATS1432		REPLACE CHIP DETECTOR #572-514-9203 WITH PACKING AND TEFLON SEAL BY MCDS WITH TWO PACKINGS	PCW
GTE1053		REPLACE OIL FILLER HOUSING #3863118-1 WITH #2	PCW
GTE1071		REPLACE NUT #525-642-9103 WITH #525-121-9003	PCW
GTE1098		REPLACE CLAMPS #234-517-9234 WITH 234-517-9240 AND #234-517-9235 WITH #234-517-9241-1	PCW
GTE1105		REPLACE CLAMPS #234-517-9234 WITH #234-517-9240 AND #234-517-9235 WITH #234-517-9241-1 ON PNEUMATIC CLUSTER	PCW
GTE1115		REPLACE INSULATION BLANKET #3615860-3 WITH #3617177-2 AND #3615862-3 WITH #3617177-1	PCW
GTE1129		REPLACE IDENTIFICATION PLATE #S11008-D-10 OF THE PNEUMATIC CLUSTER WITH #S20002-15	PCW
GTE1130		REPLACE IDENTIFICATION PLATE #S9886-2 WITH #20006-1 OF THE IGNITION CLUSTER	PCW
GTE1133		REPLACE TURBINE STATOR SUPPORT #3844485-4 WITH #3844900-1	PCW
GTE1138		REPLACE IGNITION LEAD #3888283-1 WITH #4	PCW
GTE1159		REPLACE CLAMP #211-594-9103 WITH #211-594-9003	PCW
GTE1161		REPLACE OIL SLINGER ROTOR #3840137-2 WITH #1	PCW
GTE1167		REPLACE COMPOUND IDLER GEAR #3860824-2 WITH #3861064-1	PCW
GTE1176		REPLACE SPRING WASHER #3810875-30 WITH #47	PCW
GTE1180		REPLACE CHECK VALVE #3202610-5 WITH #3202854-1	PCW
GTE1203		REPLACE FLEXIBLE SURGE DUCT #3884966-1 WITH #2	PCW
GTE1205		REPLACE ENGINE IDENTIFICATION PLATE #S11008-C-11 WITH #S21002-12	PCW
GTE1207		REPLACE WASHER #NAS620C10L WITH #NAS1149C0332R ON 1. STAGE COMPRESSOR DE-SWIRL COVER	PCW
GTE1208		REPLACE LOAD COMPRESSOR SEAL DRAIN TUBE #3881676-1 WITH #3817967-1	PCW
GTE1210		REPLACE BOLTS #MS9556-07 WITH NEW ONES ON INLET SCREEN AND ADD WASHERS #NAS1149C0332R. REPLACE IGV ACTUATOR BOLTS #MS9557-14 WITH NEW ONES AND ADD WASHERS #NAS620C416L.	PCW
GTE1223		REPLACE TEFLON SECONDARY SEAL AND PACKING ON CHIP DETECTOR #572-514-9203 WITH TWO PACKINGS #MS83248-1-011	PCW
GTE1232		REPLACE 3. STAGE TURBINE WHEEL #3842180-4/5 WITH #6	PCW
GTE1233		REPLACE GASKET #3844515-1 WITH #2 AT TURBINE BEARING CAVITY IN FRONT AND BEHIND CARBON SEAL	12.03.2015
GTE1252		REPLACE IDENTIFICATION PLATES ON ENGINE COMPRESSOR MODULE, TURBINE MODULE, LOAD COMPRESSOR MODULE, PNEUMATIC CLUSTER, AND IGNITION CLUSTER	PCW
GTE1254		REPLACE HOSE CLAMP #211-517-9503 WITH #211-517-9504 AND EDUCTOR BRACKET #3850108-1 WITH #3818109-1	PCW
GTE1258		AUTHORIZE USE OF HARNESS #3888364-4 AND/OR THE ASSOCIATED DETAILS TO SUPPORT CONTINUED USE OF HARNESS #3888364-3	PCW
GTE1274		REPLACE INLET EXTENSION PLATE #3810981-1 WITH #3811027-1	PCW
GTE1275		REPLACE SURGE DUCT #3850107-2 WITH #3850140-1	PCW
GTE1276		REPLACE FLANGE PLATE #3810975-1 WITH #3811028-1	PCW
GTE1283		REPLACE EDUCTOR HOUSING #3850102-1 (TITAN) WITH #3850125-1 (INCONEL)	PCW
GTE1287		REPLACE GASKET #3883327-1 WITH #MS35769-10	PCW

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 CAA APPROVED MAINT. ORG. NO.: CAMA/AMO/051
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 CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
 KCABR APPROVED MAINT. ORG. NO.: DGCA/AMO/089

RUN DATE: 20.08.2017
RUN BY: G. Ritz

HONEYWELL AEROSPACE GMBH RAUNHEIM
SERVICE BULLETIN STATUS
ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
GTE1288		REPLACE COVER #3826934-1 / 3826994-1 WITH #3827642-1 / 3827643-1	PCW
GTE1290		REPLACE BLANKET #3617177-2 WITH #3617177-5 (PRE 49-7752)	PCW
GTE1295		REPLACE QUILL SHAFT #3822353-1 WITH #4	PCW
GTE1297		REPLACE TIE SHAFT #3840280-3 WITH #4	PCW
GTE1298		REPLACE CLAMPS #211-594-9005 WITH #211-594-9003 AND #211-594-9008	PCW
GTE1317		REPLACE 2.STG NOZZLE SEGMENT #3844603-5 WITH #6 AND/OR REPLACE 2.STG NOZZLE ASSY #3844471-6 WITH #7	PCW
GTE1318		REPLACE 2.STG TURBINE BLADES #3842329-3 WITH #4 AND/OR REPLACE 2.STG TURBINE WHEEL ASSY #3842155-3 WITH #4	PCW
GTE1319		REPLACE 1.STG NOZZLE SEGMENT #3844602-4 WITH #5 AND/OR 1.STG NOZZLE ASSY #3844622-5 WITH #6	PCW
HYD1433		REPLACE ONE PACKING AND ONE TEFLON SECONDARY SEAL WITH TWO PACKINGS IN THE MAGNETIC DRAIN PLUG	PCW
SPB D200811000047		REPLACE REAR BEARING COVER #3844484-1 WITH #3844910-1	PCW
VAL1195		REPLACE ADJUSTABLE STOP SCREW #3163594-7 WITH #3163594-5 ON STARTER VALVE #3283076-3	PCW
VAL1393		REPLACE SERVO VALVE #3176668-1 WITH #2 ON SCV #3290814-4	PCW
331-500-49-0001		REWORK FCU #441761-8 TO #7	PCW
4131000-49-01		REPLACE LOP SWITCH #4132033-2 WITH #3	PCW
441761-49-0002		REWORK FUEL CLUSTER #441761-7	PCW
441761-49-0003		REWORK FUEL CLUSTER #441761-7 TO #3879008-1	PCW
9048700-49-17		REWORK IGNITION UNIT #3876195-8 TO #9	PCW
B55690-49-01		REWORK ACTUATOR #3883499-1 /-2 TO #2	PCW
B55690-49-02		REWORK IGV-ACTUATOR #3883499-3 (#B55690-005)	PCW
CUA1-49-0001		FPI INSPECTION OF BODY #2682924 OF FUEL CLUSTER #441761-X	PCW
49-2358		REWORK STARTER #2704442-3 S1 TO #4 S1	PCW
49-2379		REWORK OIL TEMP VALVE #190536-1 S1 TO S2	PCW
49-2380		REWORK STARTER #2704442-4 S1 TO #5 S1	PCW
49-2389		MODIFY STARTER #2704442-5 S1 TO S2 (REPLACE BRUSH INDICATOR ASSY)	PCW
49-6993		REWORK APU STARTER VALVE #3283076-3 TO #4	PCW
49-6999		REWORK LUBE CLUSTER #4131000-3 TO #4	PCW
49-7000		REWORK SCV #3290814-2 TO #3 S2	PCW
49-7001		REWORK SCV #3290814-3 TO #4	PCW
49-7004		REWORK LUBE CLUSTER #4131000-4 TO #5	PCW
49-7014		INSPECT SCV #3290814-3/-4	PCW
49-7017		REWORK THE LUBE CLUSTER #4131000-5 PRIOR S2.	PCW

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KCAAR APPROVED MAINT. ORG. NO.: DGCA/AMC/069

RUN DATE: 20.06.2017
RUN BY: G. Ritz

HONEYWELL AEROSPACE GMBH RAUNHEIM
SERVICE BULLETIN STATUS
ENGINE MODEL: 331-600(B) ENGINE SN: P-2158

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CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP.
49-7021		REPLACE OIL FILTER BYPASS VALVE #4132029-2 WITH #3 AND GENERATOR FILTER BYPASS VALVE #4132030-2 WITH #3 ON LUBE CLUSTER #4131000	PCW
49-7023		REWORK STARTER VALVE #3283076-4 TO #5	PCW
49-7032		REWORK APU CHECK VALVE #3202610-4 TO #5	PCW
49-7040		REWORK LUBE CLUSTER #4131000-5 TO #6	PCW
49-7046		REWORK ELECTRIC STARTER CLUTCH #3503870-5 TO #6 S1	PCW
49-7050		REWORK SCV TO #3280814-4 S2 CHNO1	PCW
49-7052		REWORK SCV #3290814-4 TO #5	PCW
49-7141		REPLACE SURGE VALVE DUCT #3850107-1 WITH #2	PCW
49-7144		REPLACE IGNITION CLUSTER #3888275-7 WITH #8, AND REPLACE/REWORK HARNESS #3888364-1 WITH/TO #2	PCW
49-7145		REWORK IGNITION CLUSTER #3888275-7 TO #8	PCW
49-7153		INSPECT IF P2 ORIFICE COVER IS INSTALLED AND RE-IDENTIFY UPPER COMPOSITE INLET DUCT #3810727-5 TO #6	PCW
49-7162		REPLACE STARTER VALVE #3283076-3 WITH #4	PCW
49-7165		REWORK PNEUMATIC CLUSTER #3884863-4 TO #5	PCW
49-7180		REPLACE PNEUMATIC CLUSTER #3884863-4 WITH #5.	PCW
49-7183		REPLACE ACTUATOR ROD #3826926-1 WITH #3827405-1, AND ROD END BEARING #3826928-1 WITH #3827406-1	PCW
49-7197		REPLACE LUBE CLUSTER #4131000-3/-4 WITH #5.	PCW
49-7198		REPLACE PNEUMATIC CLUSTER #3884863-5 WITH #6	PCW
49-7199		REPLACE FUEL CLUSTER #441761-6 WITH #7	PCW
49-7200		REWORK PNEUMATIC CLUSTER #3884863-5 TO #6	PCW
49-7218		INSPECT/RWIK/REPLACE 2. STAGE DE-SWIRL #3827315-1 TO -2	PCW
49-7220		REPLACE TURBINE BEARING SUPPORT #3844749-1 WITH #3844854-1	PCW
49-7252		REPLACE ENGINE COMPRESSOR HOUSING #3827184-3 WITH #4	PCW
49-7260		REPLACE LOAD COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7281		REPLACE ENGINE COMPRESSOR THRUST BEARING #3840240-1 WITH #3840124-3	PCW
49-7269		REPLACE GASKETS #3844515-1 WITH #2, 3881248-1 WITH #2, 3881259-1 WITH #2.	PCW
49-7273		REPLACE CLAMP #234-582-9001 WITH INLET BELL CLAMP #3617128-1	PCW
49-7279		REWORK/REPLACE TRANSFER TUBE #3883110-1 WITH #2	PCW
49-7293		REPLACE SHIELD SUPPORT #3616661-1 WITH #3617122-1 AND #2	PCW
49-7294		REPLACE OIL SUPPLY TUBE #3881624-1 WITH #3881755-1	PCW
49-7311		ONE TIME INSPECTION OF ROTATING SEAL #3842148-1	PCW
49-7319		REPLACE AIR TURBINE STARTER CLUTCH #3505874-2 WITH #3505874-3	PCW

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CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
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RUN DATE: 20.06.2017
 RUN BY: G. Ritz

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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 CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7320		REPLACE ELECTRIC STARTER CLUTCH #3503876-3 WITH #4	PCW
49-7322		REPLACE STARTER #2704442-3 WITH #4	PCW
49-7343		REWORK ELECTRIC STARTER CLUTCH #3503876-3 TO #4	PCW
49-7344		REWORK AIR TURBINE STARTER CLUTCH #3505874-2 TO #3	PCW
49-7358		REPLACE PACKING #MS9388-009 WITH #561-515-0001	PCW
49-7364		REPLACE INSULATION BLANKET #3615861-3 WITH #3617177-3	PCW
49-7385		REWORK ELECTRIC STARTER CLUTCH #3503876-4 TO -5	PCW
49-7386		REWORK AIR TURBINE STARTER CLUTCH #3505874-3 TO #4	PCW
49-7387		REPLACE ELECTRIC STARTER CLUTCH #3503876-4 WITH #5	PCW
49-7388		REPLACE AIR TURBINE STARTER CLUTCH #3505874-3 WITH #4	PCW
49-7393		INSPECT CHECK VALVE #3202610-4	PCW
49-7402		REPLACE COMPRESSOR INLET BELL MOUTH #3826917-1 WITH #3827450-1	PCW
49-7407		REPLACE CHECK VALVE #3202610-4 WITH #5	PCW
49-7414		REPLACE STARTER VALVE #3283076-4 WITH #5	PCW
49-7432		REPLACE ADAPTER #MS51843-25SS WITH AIR BUFFER FITTING #3617587-1	PCW
49-7449		REMOVE OIL HEATER #3888311-4	PCW
49-7464		REWORK HARNESS #3888384-2 TO #3	PCW
49-7502		REPLACE BEARING #3616641-1 WITH #3860837-1 IN GEARBOX #3805034-8	PCW
49-7504		REWORK/REPLACE 1. STAGE TURBINE ROTOR #3842151-2 WITH #3	PCW
49-7532		REPLACE LUBE CLUSTER #4131000-5 WITH #6	PCW
49-7537		INSTALL CONICAL BELL MOUTH COVER #3810973-1	PCW
49-7538		INSTALL INLET FLANGE PLATE #3810975-1 OR #3811028-1	N/A
49-7539		INSTALL INLET EXTENSION PLATE #3810981-1 OR #3811027-1	N/A
49-7547		INSPECTION OF INLET BELL MOUTH CLAMP #3817128-1 FOR PROPER TORQUE	PCW
49-7554		REPLACE/REWORK OIL COOLER SUPPLY TUBE #3881625-1 WITH #2	PCW
49-7555		REPLACE/REWORK OIL COOLER RETURN TUBE #3881628-1 WITH/TO #2	PCW
49-7558		INSPECT ELECTRIC STARTER CLUTCH #3503876-5 AND AIR TURBINE STARTER CLUTCH #3505874-4 FOR PROPER INSTALLATION OF LOCK BOLTS	PCW
49-7557		DISABLE GENERATOR FILTER CLOGGED AUTO SHUTDOWN	PCW
49-7609		REWORK L/C SCROLL HOUSING #3827083-5 OR REPLACE CRACKED SCROLLS WITH #6	PCW
49-7611		REMOVE INLET EXTENSION PLATE #3810981-1 OR #3811027-1	PCW
49-7632		REWORK ENGINE ASSY #3800551-8 TO #9	PCW

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RUN DATE: 20.06.2017
 RUN BY: G. Riz

HONEYWELL AEROSPACE GMBH RAUNHEIM
 SERVICE BULLETIN STATUS
 ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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 CUSTOMER: 318038

SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-7670		REWORK/REPLACE PNEUMATIC CLUSTER #3884863-6 WITH #7	PCW
49-7696		REPLACE ELECTRIC STARTER CLUTCH #3503876-5 WITH #6	PCW
49-7727		REPLACE INLET SCREENS #3810788-1/3810822-3 WITH #3811033-1/3811034-1	PCW
49-7752		REWORK LOAD COMPRESSOR (IMPROVED FORWARD AIR OIL SYSTEM)	PCW
49-7756		REPLACE COMPOSITE BELL MOUTH #3827450-1 AND CONICAL COVERS #3810873-1 WITH CONICAL BELL MOUTH #3827602-2	PCW
49-7769		REPLACE FCU #441761-7 WITH #3879008-1	PCW
49-7800		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (LOAD COMPRESSOR)	PCW
49-7801		REPLACE IMPELLER INLET PANEL #3826962-2 WITH #3827623-1 (POWER SECTION)	PCW
49-7810		REPLACE 2. STAGE COMPRESSOR IMPELLER #3822341-4 WITH #5	PCW
49-7811		INSTALL IMPROVED TURBINE BEARING THRUST WASHER SYSTEM	PCW
49-7816		REPLACE LOAD COMPRESSOR IMPELLER #3822468-3 WITH #3822612-1	PCW
49-7817		REPLACE 1ST STAGE COMPRESSOR IMPELLER #3822483-1 WITH #3822611-1	PCW
49-7822		REMOVE INLET FLANGE PLATE #3810975-1 OR #3811028-1	PCW
49-7828		IMPROVE CLEARANCE BETWEEN IGVA/SCV FUEL TUBES AND WIRE HARNESS CLAMP	PCW
49-7829		IMPROVE WIRE HARNESS RETENTION AT LOAD COMPRESSOR FORWARD DRAIN TUBE	PCW
49-7830		REPLACE STARTER #2704442-4 WITH #5	PCW
49-7856		REPLACE 1ST STAGE TURBINE WHEEL #3640303-1 OR REPLACE/REWORK #3840160-5 WITH/TO #3840160-6	PCW
49-7864		REPLACE AIR TURBINE STARTER GEARSHAFT BEARINGS #3860837-1 WITH #3861160-1	PCW
49-7865		REPLACE ELECTRICAL STARTER GEARSHAFT BEARINGS #3860833-1 WITH #3861161-1	PCW
49-7870		ONE-TIME INSPECTION OF FUEL NOZZLE #3883453-1	PCW
49-7911		BOROSCOPE INSPECTION FOR 331-500(B) APU BUILT WITH 2.STG COMPRESSOR SHROUD #3826919-4	N/A
49-7912		REPLACE SECOND STAGE COMPRESSOR HOUSING #3826919-3 WITH #4	PCW
49-7982		REPLACE 2ND STAGE ENGINE COMPRESSOR SHROUD #3826919-4 WITH #5	PCW
49-8009		REPLACE FUEL PUMP DRAIN TUBE #3883769-1 WITH #70720067-1, ACTUATOR SURGE DRAIN TUBE #3883770-1, WITH #70720050-1, #70720051-1, #70720052-1 AND #70720053-1	PCW
49-8022		REPLACE THE LOQ SENSOR #3876211-2 WITH #3	PCW
49-8035		REPLACE IGV ACTUATOR #3883499-2 WITH #3	PCW
49-8036		REWORK MATCHED SET GEARBOX HOUSING ASSY #3863163-8	N/A
49-8058		REWORK GEARBOX ASSY TO 3805034-10 BY REPLACEMENT OF ATS CLUTCH #3505874-4 WITH #5	12.03.2015
49-8074		REPLACE HIGH SPEED PINION BEARING #3860832-2 WITH SPECIFIED BEARING SERIAL NUMBERS	N/A
49-8081		REPLACE DISCREPANT DMM #304643-2 IDENTIFIED BY DMM SERIAL NUMBERS	N/A
49-8137		REWORK GEARBOX ASSEMBLY #3805034-10 TO #11 (INCORPORATE IMPROVED BEARING LINER ANTI-ROTATION PINS)	20.06.2017

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 QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMO/126
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HONEYWELL AEROSPACE GMBH RAUNHEIM
SERVICE BULLETIN STATUS
ENGINE MODEL: 331-500(B) ENGINE SN: P-2158

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SERVICE BULLETIN	REV.	DESCRIPTION	WHEN ACCOMP
49-8138		REPLACE GEARBOX ASSEMBLY #3805034-10 WITH #11 (INCORPORATE IMPROVED BEARING LINER ANTI-ROTATION PINS)	REF 49-8137
49-8141		REPLACE TURBINE BEARING COVER GASKET #3844611-1 WITH #2, OIL-OUT TUBE #3881333-1 WITH #2 AND OIL-IN TUBE #3881336-1 WITH #2,	20.06.2017
49-8170		REPLACE TURBINE BEARING COVER GASKET #3844611-1 WITH #2	REF 49-8141
49-8179	1	REPLACE AIR TURBINE STARTER ADAPTER #3863106-4 WITH #5	20.06.2017
49-8180	1	REPLACE ELECTRIC STARTER ADAPTER #3863102-2 WITH #3	20.06.2017
49-8223	1	RECALL OF FIRST STAGE TURBINE BLADES #3842153-3	N/A
49-9008		REWORK AIR TURBINE STARTER CLUTCH #3505874-4 TO #3	12.03.2015
E.O.25-4900-0912	6	50% REDUCED BALANCE LIMITS OF THE 331-500(B) INDIVIDUAL ROTATING GROUP COMPONENTS AND ROTATING GROUP ASSEMBLY	20.06.2017

SIGNATURE / STAMP

N/A = NOT APPLICABLE
OR = ORIGINAL ISSUE
PCW = PREVIOUSLY COMPLIED WITH
AD = AIRWORTHINESS DIRECTIVE
LTA = LUFTFAHRT TÜCHTIGKEITSANWEISUNG
CN = CONSIGNE DE NAVIGABILITÉ

Form QS 1296/2005 ÄZ: 06; 26.06.2014

EASA APPROVED MAINT. ORG. NO.: DE.145.0022
FAA APPROVED REPAIR STATION NO.: QJ1Y428K
GACA APPROVED REPAIR STATION NO.: AMO-152F
TCCA ACCEPTANCE APPROVAL NO.: 898-02
DGSAS APPROVED MAINT. ORG. NO.: AWR/263/GMBH-071/92
GCAA APPROVED REPAIR STATION NO.: UAE.145.1050
CAA APPROVED MAINT. ORG. NO.: ALD/AIR/8/5.68
CAMA APPROVED MAINT. ORG. NO.: CAMA/AMC/051
QCAA APPROVED MAINT. ORG. NO.: QCAA/FAMC/126
CAAV APPROVED MAINT. ORG. NO.: VN-331NN/CAAV
KCASR APPROVED MAINT. ORG. NO.: DGCA/AMC/089

MINI PACK

AJW

APU LOG BOOK



Model: 331-500 (B)

T-6600F-002 (Rev. 1-9/22/94)

Aircraft Customer Engine Production Applicability Report

According to manufacturer records, the service bulletins listed in this report are applicable to this engine/APU as of the date of this report. After engine/APU delivery, the record of service bulletin compliance depends on compliance reports being forwarded to Honeywell from the service facilities.

NOTE: Check all service bulletins issued after the date of this report for applicability to this engine/APU.

Information regarding this report may be obtained by contacting:

Honeywell RMSS, Measurement & Reporting Dept.
M/S 450330/M25A1
21111 N 19th Ave
Phoenix, AZ 85027

Measurement & Reporting
Reliability, Maintainability & System Safety
Honeywell International, Inc.

RMSS Measurement & Reporting, Honeywell Aerospace
Production Applicability, Sorted by Status [#APP106]

Printed on: 04/03/2012

for APU Serial Number:2158

Model: GTCP331-500B

Run by: E024164

Status	Number	Latest Rev.	Cmp.	Title	Effectivity
P	49-2358	0	R	REPLACE THE CARBON FACE SEAL AND BRUSH WEAR INDICATOR HOUSING ASSY SCREWS	Prior to Serial Number: 1551
P	49-6993	0	R	APU AIR TURBINE STARTER CONTROL VALVE, REWORK 3283076-3 TO -4	Prior to Serial Number: 1551
P	49-7001	0	R	AIRBORNE AUX POWER-SURGE CONTROL VALVE-REWORK SURGE CONTROL VALVE	Prior to Serial Number: 116
P	49-7004	0	R	AIRBORNE AUX POWER-LUBE CLUSTER-RWK LUBE CLUSTER P/N 4131000-4 TO -5	Prior to Serial Number: 1551
P	49-7014	0	R	AIRBORNE AUX POWER-SURGE CONTROL VALVE-INSP SURGE CONTROL VLV FOR ACTUATOR ARM P/N 975943	Prior to Serial Number: 175
P	49-7017	0	R	REWORK LUBE CLUSTER, P/N 4131000-5, TO MEET REQUIRED JOURNAL BEARING CLEARANCES	Prior to Serial Number: 384
P	49-7021	0	R	REPLACE OIL FILTER BYPASS VALVE, P/N 4132029-2 WITH 4132029-3, AND GENERATOR FILTER BYPASS VALVE, 4132030-2 WIT 4132030-3	Prior to Serial Number: 1551
P	49-7023	0	R	AIRBORNE AUX POWER-APU STARTER VALVE-REWORK APU STARTER VALVE BY REPLACING SOLENOID VALVE ASSEMBLY	Prior to Serial Number: 1551
P	49-7040	0	R	AIRBORNE AUX POWER-LUBE CLUSTER-REWORK LUBE CLUSTER	Prior to Serial Number: 1551
P	49-7141	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REMOVE AND REPLACE SURGE VALVE DUCT	Prior to Serial Number: 1017
P	49-7144	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE IGNITION CLUSTER AND REPAIR/REWORK WIRING HARNESS ASSY	Prior to Serial Number: 1019
P	49-7145	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REWORK IGNITION SYSTEM ASSY (IGNITION CLUSTER)	Prior to Serial Number: 1019
P	49-7153	0	R	AIRBORNE AUX POWER-GAS TURBINE ENG-INSPECT AND REIDENTIFY UPPER COMPOSITE INLET DUCT	Prior to Serial Number: 1027
P	49-7162	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE AIR TURBINE STARTER CONTROL VALVE	Prior to Serial Number: 1027
P	49-7165	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REWORK PNEUMATIC CLUSTER ASSEMBLY BY REPLACING DELTA PRESSURE TRANSDUCER	Prior to Serial Number: 1026
P	49-7180	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE PNEUMATIC CLUSTER ASSY	Prior to Serial Number: 1026
P	49-7183	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE ACTUATOR ROD AND ROD END BEARING	Prior to Serial Number: 1031
P	49-7197	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE LUBE CLUSTER	Prior to Serial Number: 1043
P	49-7198	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE PNEUMATIC CLUSTER ASSY	Prior to Serial Number: 1042
P	49-7199	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE FUEL CLUSTER	Prior to Serial Number: 1042
P	49-7200	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REWORK PNEUMATIC CLUSTER ASSEMBLY BY REPLACING SURGE CONTROL VALVE	Prior to Serial Number: 1042
P	49-7218	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-INSPECT 2ND STAGE DESWIRL & REPLACE/REWORK 2ND STAGE DESWIRL	Prior to Serial Number: 1043

Status Codes: P = Production incorporation
S = See service bulletin for effectivity
Effectivity: NA= Not applicable by serial number.
See service bulletin for effectivity

Compliance Code: R = Recommended Service Bulletin
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RMSS Measurement & Reporting, Honeywell Aerospace
Production Applicability, Sorted by Status [#APP106]

Printed on: 04/03/2012

for APU Serial Number:2158 Model:GTC331-500B

Run by: E024164

Status	Number	Latest Rev.	Cmp.	Title	Effectivity
P	49-7220	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REMOVE AND REPLACE TURBINE BEARING SUPPORT ASSEMBLY	Prior to Serial Number: 1066
P	49-7250	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE IGNITION CLUSTER ID PLATE	Prior to Serial Number: 1059
P	49-7252	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE ENGINE COMPRESSOR HOUSING	Prior to Serial Number: 1065
P	49-7260	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE DRIVEN COMPRESSOR THRUST BEARING	Prior to Serial Number: 1059
P	49-7261	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE ENGINE COMPRESSOR THRUST BEARING	Prior to Serial Number: 1059
P	49-7269	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE GASKET,T-BOLT GASKET & OIL OUT GASKET	Prior to Serial Number: 1075
P	49-7273	2	R	REPLACE CLAMP, P/N 234-592-9001 WITH INLET BELL CLAMP, P/N 3617128-1	Prior to Serial Number: 1059
P	49-7279	1	R	AIRBORNE AUX POWER-GAS TURBINE ENG-REPLACE/REWORK TRANSFER TUBE	Prior to Serial Number: 1067
P	49-7293	0	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE SHIELD SUPPORT	Prior to Serial Number: 1075
P	49-7294	1	R	AIRBORNE AUX POWER-ENGINE ASSEMBLY-REPLACE OIL SUPPLY TUBE	Prior to Serial Number: 1067
P	49-7297	2	R	REWORK IGNITION CLUSTER, P/N 3888275-8 TO 3888275-9, BY REPLACING IGNITER PLUG, P/N 3888267-5 WITH 3888267-7	Prior to Serial Number: 1168
P	49-7311	0	I	PERFORM A ONE TIME INSPECTION OF ROTATING SEAL ASSY, P/N 384148-1	Prior to Serial Number: 1058
P	49-7319	0	R	REPLACE AIR TURBINE STARTER CLUTCH ASSY, P/N 3505874-2 WITH P/N 3505874-3	Prior to Serial Number: 1085
P	49-7320	0	R	REPLACE ELECTRIC STARTER CLUTCH ASSY, P/N 3503876-3 WITH P/N 3503876-4	Prior to Serial Number: 1085
P	49-7322	0	R	REPLACE ELECTRIC STARTER MOTOR, P/N 2704442-3 WITH P/N 2704442-4	Prior to Serial Number: 1106
P	49-7343	0	R	REWORK ELECTRIC STARTER CLUTCH ASSY, P/N 3503876-3 WITH P/N 3503876-4	Prior to Serial Number: 1551
P	49-7344	0	R	REWORK AIR TURBINE STARTER CLUTCH ASSY, P/N 3505874-2 WITH P/N 3505874-3	Prior to Serial Number: 1551
P	49-7356	0	R	REPLACE PACKING, P/N MS9836-009 WITH P/N 561-515-0001	Prior to Serial Number: 1093
P	49-7364	1	R	REPLACE INSULATION BLANKET, P/N 3615861-2 WITH P/N 3617177-2	Prior to Serial Number: 1128
P	49-7385	0	R	REWORK ELECTRIC STARTER CLUTCH ASSY, P/N 3503876-4 WITH 3503876-5	Prior to Serial Number: 1551
P	49-7386	0	R	REWORK AIR TURBINE STARTER CLUTCH ASSY, P/N 3505874-3 TO 3505874-4	Prior to Serial Number: 1551
P	49-7387	1	R	REPLACE ELECTRIC STARTER CLUTCH ASSY, P/N 3503876-4 WITH P/N 3503876-5	Prior to Serial Number: 1137

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 See service bulletin for effectivity

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RMSS Measurement & Reporting, Honeywell Aerospace
Production Applicability, Sorted by Status [#APP106]

Printed on: 04/03/2012

for APU Serial Number:2158

Model: GTC331-500B

Run by: R024164

Status	Number	Latest Rev.	Comp.	Title	Effectivity
P	49-7388	1	R	REPLACE AIR TURBINE STARTER CLUTCH ASSY, P/N 3505874-3 WITH 3505874-4	Prior to Serial Number: 1137
P	49-7402	0	R	REPLACE COMPRESSOR INLET BELLMOUTH P/N 38269171- WITH P/N 3827450-1	Prior to Serial Number: 1171
P	49-7407	0	R	REPLACE CHECK VALVE, P/N 3202610-4, WITH P/N 3202610-5	Prior to Serial Number: 1219
P	49-7414	0	R	REPLACE AIR TURBINE STARTER CONTROL VALVE, P/N 3283076-4 WITH 3283076-5	Prior to Serial Number: 1160
P	49-7418	0	R	REPLACE IGNITION SYSTEM ASSY P/N 3888275-8 WITH P/N 3888275-9	Prior to Serial Number: 1170
P	49-7432	0	R	REPLACE BUFFER AIR FITTING, P/N MS51843-25SS, WITH P/N 3617567-1	Prior to Serial Number: 1183
P	49-7449	0	R	REMOVE OIL SYSTEM HEATER ASSY, P/N 3888311-4, FROM APU ASSY, P/N 3800551-8	Prior to Serial Number: 1254
P	49-7464	0	R	REWORK WIRE HARNESS, P/N 3888364-2, TO PART 3888364-3	Prior to Serial Number: 1254
P	49-7502	0	R	REPLACE BALL BEARING, P/N 3616641-1, WITH BALL BRG P/N 3860837-1 IN GEARBOX ASSY P/N 3805034-8	Prior to Serial Number: 1297
P	49-7504	0	R	REPLACE FIRST-STAGE TURBINE ROTOR ASSY P/N 3842151-2, WITH ROTOR ASSY P/N 3842151-3	Prior to Serial Number: 1336
P	49-7532	0	R	REPLACE LUBE CLUSTER, P/N 4131000-5, WITH P/N 4131000-6	Prior to Serial Number: 1327
P	49-7537	1	R	INSTALL CONICAL BELLMOUTH COVER PN3810973-1	Prior to Serial Number: 1333
P	49-7538	1	R	AIRBORNE AUX POWER-GAS TURBINE ENG-INSTALL INLET FLANGE PLATE, P/N 3810975-1	Prior to Serial Number: 1333
P	49-7539	1	R	Prevent soft FOD - Add Plate, Flange P/N 3810981 and bolt P/N MS9556-05	Prior to Serial Number: 1393
P	49-7547	0	R	INSPECT INLET BELLMOUTH CLAMP, P/N 3617128-1.	Prior to Serial Number: 1308
P	49-7554	0	R	REPLACE OIL COOLER SUPPLY TUBE, P/N 3881625-1 WITH 3881625-2	Prior to Serial Number: 1380
P	49-7555	0	R	REPLACE OIL COOLER SUPPLY TUBE, P/N 3881626-1 WITH 3881626-2	Prior to Serial Number: 1369
P	49-7556	0	O	INSPECT ELECTRIC STATER CLUTCH, P/N 3503876-5 AND AIR TURBINE STARTER CLUTCH, P/N 3505874-4 FOR PROPER INSTALL OF LOCKBOLTS	Prior to Serial Number: 1331 EXCEPT 1151, 1306, 1314, 1318 - 1319, 1322 - 1323, 1325 - 1327, 1329
P	49-7609	0	R	Housing, Scroll P/N3827093-5 replace with P/N3827093-6	Prior to Serial Number: 1407
P	49-7632	0	R	Eng compressor and non-modular pwr section - engine assy P/N3800551-8 replace with P/N3800551-9	Prior to Serial Number: 1440
P	49-7670	0	R	Improves Reliability by adding SCV P/N3290814-5 and Pneumatic cluster P/N3884863-7 replaces -6	Prior to Serial Number: 1468
P	49-7727	0	R	Improved attachments & wire screen robustness - Inlet upper filter P/N3811033-1 -Lower P/N3811034-1	Prior to Serial Number: 1538
P	49-7752	0	R	Improved load Compr - Engine assy P/N3800551-10 replaces P/N3800551-9	Prior to Serial Number: 1554

Status Codes: P = Production incorporation
 S = See service bulletin for effectivity
 Effectivity: NA= Not applicable by serial number.
 See service bulletin for effectivity

Compliance Code: R = Recommended Service Bulletin
 O = Optional Service Bulletin
 I = Informative Service Bulletin

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**RMSS Measurement & Reporting, Honeywell Aerospace
Production Applicability, Sorted by Status [#APP106]**

Printed on: 04/03/2012

for APU Serial Number:2158 Model:GTCP331-500B

Run by: E024164

Status	Number	Latest Rev.	Comp.	Title	Effectivity
P	49-7756	0	R	Reduced weight Conical Bellmouth - Inlet hsg assy P/N3826922-5, added Compr Inlet P/N3827602-2 and Therm blanket 3827572-1; d	Prior to Serial Number: 1540
P	49-7769	0	R	Fuel Cluster P/N 3879008-1 replaces P/N441761-7	Prior to Serial Number: 1556
P	49-7828	0	R	IMPROVE CLEARANCE BETWEEN IGVA/SCV FUEL TUBES	Prior to Serial Number: 1600
P	49-7829	0	R	IMPROVE WIRE HARNESS RETENTION	Prior to Serial Number: 1601
P	49-7830	0	R	RPLC ELEC STARTER MOTOR PN 2704442-4 TO -5	Prior to Serial Number: 1615
P	49-7864	0	R	RPLC ATS GEARSHAFT BEARINGS	Prior to Serial Number: 1654
P	49-7865	0	R	STARTER GEARSHAFT BEARINGS	Prior to Serial Number: 1654
P	49-7912	0	R	REPLACE 2nd STAGE ENGINE COMPRESSOR SHROUD, P/N 3826919-3 WITH P/N 3826919-4	Prior to Serial Number: 1656
P	49-7931	0	R	REPLACE THE IGNITION SYSTEM ASSEMBLY (IGNITION CLUSTER), P/N 3888275-9 WITH P/N 3888275-10	Prior to Serial Number: 1756
P	49-7932	0	R	REWORK THE IGNITION SYSTEM ASSEMBLY (IGNITION CLUSTER), PART P/N 3888275-9 TO PART P/N 3888275-10	Prior to Serial Number: 1756

Status Codes: P = Production incorporation
S = See service bulletin for effectivity
Effectivity: NA= Not applicable by serial number.
See service bulletin for effectivity

Compliance Code: R = Recommended Service Bulletin
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PAGE 1 OF 2

ACCEPTANCE TEST DATA SHEET
331-500[B]

USED WITH
TI-3800550
REV. 2
ATP 31-10160-1
REV. G

UNIT OUTLINE: 3800550-1 MODEL: 331-500[B] SERIAL NO: P- 2158 DATE: 04/04/12

TEST CELL NO: C75 RUN NO: 0415

PROD RELEASE NO: 6003062561

OIL USED: MIL-L-23699 TYPE: II

FUEL USED: ASTM-D-1655 TYPE: JETA

*APUC PART NO: 2118834-3

APUC S/N: 015

ITEM	UNITS	RECORD	
APUC DRY WEIGHT	LB	N/A	
APU DRY WEIGHT (FROM APU TRAVELER)	LB	749.0	
TOTAL NUMBER OF STARTS DURING ATP	NO.	16	
TOTAL OPERATING TIME DURING ATP	HOUR	6:02	
AUTOMATIC START (ELECTRIC)	SECONDS	60 SEC MAX	
STARTER CUTOUT (ELECTRIC)	SECONDS	40 SEC MAX	
AUTOMATIC START (PNEUMATIC)	SECONDS	60 SEC MAX	36
STARTER CUTOUT (PNEUMATIC)	SECONDS	40 SEC MAX	27
ATSCV SUPPLY AIR PRESSURE	PSIG	20 PSI MIN	43
ATSCV SUPPLY AIR TEMPERATURE	DEG F	126	
IGV PERF ADJ	DEG	1.5	

LRU FAULTS OBSERVED: NONE ☒ OTHER ☐

UNIT STATUS: ACCEPT ☒ REJECT ☐

REMARKS:

TECHNICIAN: F. Rose / R. Klein FT 137

DATE: 4-05-12

SUPERVISOR: T. HUNT FT 176

DATE: 4-5-12

QUALITY ASSURANCE: Widam 00 114

DATE: 4-5-12

* INDICATE "LAB SLAVE" AND SERIAL NO WHEN APPLICABLE

ATP PARAGRAPH --> -->			4.3.8	4.3.10	4.3.12	5.1
QUANTITY		UNITS	103°F, SCS	NO LOAD	103°F, MES	OIL CONSUMPTION
BAROMETRIC PRESSURE		PSIA	14.06	14.06	14.06	
AVERAGE INLET TEMPERATURE		DEG F	58.4	57.4	58.4	
UNIT INLET TEMPERATURE (T2)		DEG F	56.1	55.3	55.5	
OIL PRESSURE		PSIG	72.9	73.6	72.9	
OIL TEMPERATURE		DEG F	144.9	143.9	144.4	
GEARBOX PRESSURE		PSIA	14.1	14.2	14.1	
TURBINE DISCHARGE TEMPERATURE (UNIT RAKES)	UPPER	DEG F	971.4	655.6	1022.4	
	LOWER	DEG F	992.9	659.7	1037.9	
EXHAUST GAS TOTAL TEMPERATURE	ACTUAL	DEG F	987.6	678.4	1024.9	
	CORRECTED *	DEG F	1076.9		1060.6	
ORIFICE INLET PRESSURE		PSIA	51.05		59.94	
ORIFICE INLET TEMPERATURE		DEG F	373.8		391.0	
ORIFICE DELTA P		PSID	4.02		1.71	
EXHAUST STATIC PRESSURE		PSIA	14.07		14.06	
IGV POSITION **		DEG	11.0		1.5	
CORRECTED BLEED AIRFLOW		LB/MIN	167.8		106.1	
BLEED AIRFLOW	ACTUAL	LB/MIN	479.7		341.8	
	CORRECTED *	LB/MIN	461.7		301.4	
BLEED TOTAL PRESSURE	ACTUAL	PSIA	53.48		60.98	
	CORRECTED *	PSIA	52.67		54.60	
BLEED TOTAL TEMPERATURE	ACTUAL	DEG F	380.8		401.4	
	CORRECTED *	DEG F	421.4		428.0	
FUEL CONSUMPTION	ACTUAL	LB/HR	621.2	328.6	660.3	
	CORRECTED	LB/HR	625.9		624.3	
OIL CONSUMPTION	OIL QUANTITY A	CM^3				397
	OIL QUANTITY B	CM^3				103
	OIL CONSUMED	CM^3				0
	TOTAL OPER TIME	HRS				3:37
	CONSUMPTION RT	CM^3/HR				0
	MAX CONSUMPT RT	CM^3/HR				12.0
SHAFT OUTPUT CORRECTED TO SL		HP	203.1		203.4	
UNIT VIBRATION	ACCESSORY	IN/SEC	0.241	0.249	0.301	
	TURBINE	IN/SEC	0.262	0.279	0.310	
APU SPEED		RPM	39050.	39050.	39050.	
SPECIFICATION REQUIREMENTS (CORRECTED)	BLEED AIRFLOW	LB/MIN	460.2			
	BLEED PRESSURE	PSIA	52.6		54.6	
	MAX IGV POS	DEG	9.5			
	SHAFT POWER	HP	202.0		202.0	
	EGT	DEG F	1151.0		1187.0	
DIGITAL DATA SCAN	TIME		01:04	01:20	01:58	
	DATE		04/05/12	04/05/12	04/05/12	
DIGITAL DATA POINT NO.		----	1001	1002	1003	

* DATA CORRECTED TO 103°F, INSTALLED, SEA LEVEL CONDITIONS

** RELATIVE TO 0° DEGREE BEING FULL OPEN

DSC3800550-1G
PAGE 1 OF 2

ACCEPTANCE TEST DATA SHEET
331-500[B]

USED WITH
TI-3800550
REV. I
ATP 31-10160-1
REV. G

UNIT OUTLINE: 3800550-1 MODEL: 331-500[B] SERIAL NO: P- 2158 DATE: 04/04/12

TEST CELL NO: C75 RUN NO: 046

PROD RELEASE NO: 0003062561

OIL USED: MIL-L-23699 TYPE: II

FUEL USED: ASTM-D-1655 TYPE: JETA

*APUC PART NO: 2118834-3

APUC S/N: DIS

ITEM	UNITS	RECORD
APUC DRY WEIGHT	LB	<u>N/A</u>
APU DRY WEIGHT (FROM APU TRAVELER)	LB	749.0
TOTAL NUMBER OF STARTS DURING ATP	NO.	<u>16</u>
TOTAL OPERATING TIME DURING ATP	HOURL	<u>6:02</u>
AUTOMATIC START (ELECTRIC)	SECONDS	60 SEC MAX
STARTER CUTOUT (ELECTRIC)	SECONDS	40 SEC MAX
AUTOMATIC START (PNEUMATIC)	SECONDS	60 SEC MAX <u>36</u>
STARTER CUTOUT (PNEUMATIC)	SECONDS	40 SEC MAX <u>27</u>
ATSCV SUPPLY AIR PRESSURE	PSIG	20 PSI MIN <u>43</u>
ATSCV SUPPLY AIR TEMPERATURE	DEG F	<u>126</u>
IGV PERF ADJ	DEG	<u>1.5</u>

LRU FAULTS OBSERVED: NONE ☒ OTHER ☐

UNIT STATUS: ACCEPT ☒ REJECT ☐

REMARKS:

TECHNICIAN: F. Rose / R. Klein FT 157

DATE: 4-05-12

SUPERVISOR: T. HUNT FT 176

DATE: 4-5-12

QUALITY ASSURANCE: M. Khan 00 114

DATE: 4-5-12

* INDICATE "LAB SLAVE" AND SERIAL NO WHEN APPLICABLE

ATP PARAGRAPH --> -->			4.3.8	4.3.10	4.3.12	5.1
QUANTITY		UNITS	103°F, ECS	NO LOAD	103°F, MES	OIL CONSUMPTION
BAROMETRIC PRESSURE		PSIA	14.06	14.06	14.06	
AVERAGE INLET TEMPERATURE		DEG F	58.4	57.4	58.4	
UNIT INLET TEMPERATURE (T2)		DEG F	56.1	55.3	55.5	
OIL PRESSURE		PSIG	72.9	73.6	72.9	
OIL TEMPERATURE		DEG F	144.9	143.9	144.4	
GEARBOX PRESSURE		PSIA	14.1	14.2	14.1	
TURBINE DISCHARGE TEMPERATURE (UNIT RAKES)	UPPER	DEG F	971.4	655.6	1022.4	
	LOWER	DEG F	992.9	659.7	1037.9	
EXHAUST GAS TOTAL TEMPERATURE	ACTUAL	DEG F	987.6	678.4	1024.9	
	CORRECTED *	DEG F	1076.9		1060.6	
ORIFICE INLET PRESSURE		PSIA	51.05		59.94	
ORIFICE INLET TEMPERATURE		DEG F	373.8		391.0	
ORIFICE DELTA P		PSID	4.02		1.71	
EXHAUST STATIC PRESSURE		PSIA	14.07		14.06	
IGV POSITION **		DEG	11.0		1.5	
CORRECTED BLEED AIRFLOW		LB/MIN	167.8		106.1	
BLEED AIRFLOW	ACTUAL	LB/MIN	479.7		341.8	
	CORRECTED *	LB/MIN	461.7		301.4	
BLEED TOTAL PRESSURE	ACTUAL	PSIA	53.48		60.98	
	CORRECTED *	PSIA	52.67		54.60	
BLEED TOTAL TEMPERATURE	ACTUAL	DEG F	380.8		401.4	
	CORRECTED *	DEG F	421.4		428.0	
FUEL CONSUMPTION	ACTUAL	LB/HR	621.2	328.6	660.3	
	CORRECTED	LB/HR	625.9		624.3	
OIL CONSUMPTION	OIL QUANTITY A	CM^3				397
	OIL QUANTITY B	CM^3				103
	OIL CONSUMED	CM^3				8
	TOTAL OPER TIME	HRS				3:37
	CONSUMPTION RT	CM^3/HR				8
	MAX CONSUMP RT	CM^3/HR				12.0
SHAFT OUTPUT CORRECTED TO SL		HP	203.1		203.4	
UNIT VIBRATION	ACCESSORY	IN/SEC	0.241	0.249	0.301	
	TURBINE	IN/SEC	0.262	0.279	0.310	
APU SPEED		RPM	39050.	39050.	39050.	
SPECIFICATION REQUIREMENTS (CORRECTED)	BLEED AIRFLOW	LB/MIN	460.2			
	BLEED PRESSURE	PSIA	52.6		54.6	
	MAX IGV POS	DEG	9.5			
	SHAFT POWER	HP	202.0		202.0	
	EGT	DEG F	1151.0		1187.0	
DIGITAL DATA SCAN	TIME		01:04	01:20	01:58	
	DATE		04/05/12	04/05/12	04/05/12	
DIGITAL DATA POINT NO.		----	1001	1002	1003	
* DATA CORRECTED TO 103°F, INSTALLED, SEA LEVEL CONDITIONS						
** RELATIVE TO 0 DEGREE BEING FULL OPEN						

Honeywell

Shipper No. 8001626877

Supplier Cage Code: 99193

Shipped Date: 06. APR. 2012

Print Date: 06. APR. 2012

HONEYWELL INTERNATIONAL INC.
HONEYWELL AEROSPACE
111 SOUTH 34TH STREET
PHOENIX AZ 85034

SOLD TO: 311600	BOEING COMMERCIAL AIRPLANES PO Box 34656 SEATTLE WA 98124	SHIP TO: 3805	BCA CO 623 WH 196AV 196AV BLDG 40-54 DOOR W-3 3003 W CASINO RD EVERETT WA 98204
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BILL TO: 311600	BOEING COMMERCIAL AIRPLANES PO Box 34656 SEATTLE WA 98124	MARK FOR:	
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Freight Forwarder:	114418 - CEVA FREIGHT LLC	3102 W VALLEY HWY NORTH AUBURN, WA, US, PO - 98001
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ORDER INFORMATION		SHIPPING INFORMATION	
Purchase Order No.	623-000049383	Bill of Lading:	NA FSL 04/06/2012
Sales Order No.	3378141	Ship Method:	Smokey Point Distributing Inc
Contract No.	NONE	Ship Condition:	Ground
Vendor Code:		Container Type:	BOX
Currency:	USD	No. of Containers:	1
Incoterms:	EXW SELLER'S FACILITY	Dimensions:	92X58X57
Payment Terms:	Net 30 Days with 5 Grace Days	Gross Weight:	2,188.000 LB
Sales Office:	1015 - ESS-Engines-PH	Shipped From:	1015 - ESS - Engines - Phoenix

Item No.	Registered Material No. Honeywell Material No./ Description	Qty	Unit	Serial No./ Lot No.	Unit Price	Extended Price
0017	3800550-1 EARLY SHIP: 11. APR. 2012 CUST REQ: 23. APR. 2012 ENGINE GAS TURB, 331-500B PO #: 623-000049383 000017 F.T. DATE: 05 APRIL 2012 DRY WT.: 749.0 LBS. WARRANTY DATA AND CERTIFICATION DATA, this information can be found in the engine log book.	1	EA	P-2168		
Total						0.00

These Commodities, Technologies or Software were exported from the United States in accordance with the export administration regulations. Diversion contrary to U.S. law is prohibited.

Shipping Instructions:
Site Inspection Only.

Contract Representative: (if Required)	Date	Government Source Inspection: (if Required)	Date
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Honeywell certifies that the product(s) described herein conform to applicable requirements and were produced, manufactured, or processed in accordance with Honeywell Quality Assurance system approved by the United States government where applicable.

By:
Authorized Signature - Quality Assurance, Honeywell

It is hereby Certified that when products and/or materials are (A) Produced under the Federal Aviation Administration (FAA) approved Manufacturing and Quality Control Systems/Methods as set forth in the applicable FAA Production Approval (PC, TSOA, and/or PMA), or (B) Equivalent Foreign Certification, such products and/or materials are determined to be in conformance with applicable drawing, specification and PO requirements and produced new and in an airworthy condition. Or (C) Hardware returned to service is in accordance with all applicable regulations, or, is being returned to the customer as Beyond Economical Repair (BER). All applicable certifications/records are on file and available for review by authorized representatives.

We hereby certify that the goods covered by the referenced invoice were produced in compliance with all applicable requirements of the Fair Labor Standards Act, as amended, including sections 8, 7, and 12 thereof and of the regulations and orders of the United States Department of Labor under section 14 thereof.

Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
1	304643-2	MODULE DATA MEMORY		GE10348	1			1.0
1	3202854-1	VALVE CHECK, APU	A	1256	1			1.0
2	3202854-1-901	CHECK VALVE, SINGAPORE	A	1256				1.0
3	3182576-1	BODY, VALVE			5013470282			1.0
3	3182588-1	PIN, HINGE, CHECK VALVE			5013122401			1.0
3	3182589-1	FLAPPER ASSY CHECK VALVE			5013573974			2.0
3	3182595-1	BUSHING			5013372058			2.0
3	3182608-1	END CAP			5013640166			2.0
3	3183382-1	STOP, FLAPPER			5013597841			1.0
1	3505814-3	STARTER AIR TURBINE	C	1406	1			1.0
2	3503985-1	WHEEL ASSY, TURBINE, AXIAL FLOW		2TD93785	2071			1.0
2	3503995-1	RING, CONTAINMENT		1-162045-374	162045V0060			1.0
1	3283076-5	VALVE, AIR TURBINE	G	1465	1			1.0
1	4131000-6	LUBE CLUSTER		1542	2			1.0
1	160488-2	APU OIL COOLER	H	1493	2			1.0
2	159767-1	CORE ASSEMBLY			6002948824-1			1.0
1	160536-1	APU OIL TEMP VALVE	D	1383	2			1.0
1	2704442-5	STARTER MOTOR	L	1690	2			1.0
1	3884863-7	PNEUMATIC CLUSTER	M	P-1410	1			1.0
2	3290814-5	VALVE OUTLINE, SURGE	K	3290814-1758	1			1.0
3	3176668-2	VALVE SERVO		1470				1.0
2	3876219-2	DIFFERENTIAL PRESS TRANSDUCER (KULITE)		111121481380				1.0
2	3876217-1	INLET PRESS TRANSDUCER (KULITE)		121121450906				1.0
2	3876218-1	TOTAL PRESS TRANSDUCER (KULITE)		111121470752				1.0
1	3879008-1	FUEL CLUSTER	C	CUA11617				1.0

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Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

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Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
2	2681990	INDICATOR ASSEMBLY DIFFERENTIAL PRESSURE	K	001335				1.0
3	2681991	HOUSING ASSEMBLY PI SWITCH		162547-1642				1.0
3	2681999	VALVE & SLEEVE ASSY (MATCHED)		150529-0223				1.0
2	2682410	VALVE & SLEEVE ASSY,FL DIV (MTCHD)		150529-0465				1.0
2	2675428	VALVE & SLEEVE ASSY PI S REG (MTCHD)		163194-8115				1.0
2	2682924	BODY ASSEMBLY MAIN		H0628				1.0
2	2683796	VALVE & SLEEVE ASSY MODE SELECT		150529-0160				1.0
2	2683811	VALVE & SLEEVE ASSY		150529-1350				1.0
2	2683906	VALVE ASSEMBLY AND DIAPHRAGM	C	150529-0274				1.0
3	2683901	VALVE & SLEEVE ASSY PI BYPASS (MATCHED)		150529-0274				1.0
2	2718674	SENSOR,TEMPERATURE		00310				1.0
2	441761-ISS10	FUEL CLUSTER,INSTL OF		CUA11617				1.0
2	441767-3	SOLENOID AND VALVE SHUTOFF,INSTL OF	E	SVEM12311				1.0
3	2681914	BOBBIN PI SOLENOID		150562-1940				1.0
2	441784-6	MODULE,MTR V SERVO,ELHYD INSTL OF	G	ESMA11986				1.0
3	2682025	BODY ASSEMBLY METERING VALVE		150529-1311				1.0
3	441770-1	SENSOR LVDT, SINGLE, INSTL	F	LVTJ11724				1.0
3	441783-5	SERVO VALVE ELHYD,1S,4W,INSTL OF	H	ESVAD12563A				1.0
4	441783-5	SERVO VALVE ELHYD,1S,4W,INSTL OF		ESVAD12563DUP				1.0
2	441838-4	FUEL PUMP,TWO STAGE INSTALLATION OF	F	FPB21619				1.0
3	2685536	HOUSING ASSEMBLY FUEL PUMP		033				1.0
1	3876212-1	TRANSDUCER, MOTIONAL (MONOPOLE)		11-169173-22845				1.0
1	3876212-1	TRANSDUCER, MOTIONAL (MONOPOLE)		11-169173-22856				1.0
1	3888275-10	IGNITION	-	LA034398				1.0
2	3876195-9	EXCITER		J12010625				1.0

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04/05/2012

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Configuration Report

Honeywell

Material Number 3800550-1
Material Desc GTCP331-500B

Serial Number P-2158

Mfg. Revision AC

ESS - Engines - Phoenix
Honeywell International Inc
111 South 34th Street
PHOENIX AZ 85072
USA

BOM	Material	Material Description	Rev	Serial Number	Lot Number	Batch	Ref.Des	Quantity
2	2681990	INDICATOR ASSEMBLY DIFFERENTIAL PRESSURE	K	001335				1.0
3	2681991	HOUSING ASSEMBLY PI SWITCH		162547-1642				1.0
3	2681999	VALVE & SLEEVE ASSY (MATCHED)		150529-0223				1.0
2	2682410	VALVE & SLEEVE ASSY,FL DIV (MTCHD)		150529-0465				1.0
2	2675428	VALVE & SLEEVE ASSY PI S REG (MTCHD)		163194-8115				1.0
2	2682924	BODY ASSEMBLY MAIN		H0628				1.0
2	2683796	VALVE & SLEEVE ASSY MODE SELECT		150529-0160				1.0
2	2683811	VALVE & SLEEVE ASSY		150529-1350				1.0
2	2683906	VALVE ASSEMBLY AND DIAPHRAGM	C	150529-0274				1.0
3	2683901	VALVE & SLEEVE ASSY PI BYPASS (MATCHED)		150529-0274				1.0
2	2718674	SENSOR,TEMPERATURE		00310				1.0
2	441761-ISS10	FUEL CLUSTER,INSTL OF		CUA11617				1.0
2	441767-3	SOLENOID AND VALVE SHUTOFF,INSTL OF	E	SVEM12311				1.0
3	2681914	BOBBIN PI SOLENOID		150562-1940				1.0
2	441784-6	MODULE,MTR V SERVO,ELHYD INSTL OF	G	ESMA11986				1.0
3	2682025	BODY ASSEMBLY METERING VALVE		150529-1311				1.0
3	441770-1	SENSOR LVDT, SINGLE, INSTL	F	LVTJ11724				1.0
3	441783-5	SERVO VALVE ELHYD,1S,4W,INSTL OF	H	ESVAD12563A				1.0
4	441783-5	SERVO VALVE ELHYD,1S,4W,INSTL OF		ESVAD12563DUP				1.0
2	441838-4	FUEL PUMP,TWO STAGE INSTALLATION OF	F	FPB21619				1.0
3	2685536	HOUSING ASSEMBLY FUEL PUMP		033				1.0
1	3876212-1	TRANSDUCER, MOTIONAL (MONOPOLE)		11-169173-22845				1.0
1	3876212-1	TRANSDUCER, MOTIONAL (MONOPOLE)		11-169173-22856				1.0
1	3888275-10	IGNITION	-	LA034398				1.0
2	3876195-9	EXCITER		J12010625				1.0

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