

**TMC**  
**ENGINE CENTER, INC.**  
**WWW.TMC.AERO**

## ENGINE MINIPACK



CFM56-3C1 - ESN 858996 - 5,020 CR  
CONDITION: SERVICEABLE - FRESH REPAIR  
RECORDS: FULL BTB TRACE & NIS  
INCLUDES: STAND & QEC  
LOCATION: MIAMI  
PRICE: UPON REQUEST  
AVAILABLE: IMMEDIATELY - READY TO SHIP  
TESTED: 40 ° EGT AT 23.5K THRUST (CAT C)

**TMC Engine Center, Inc**  
8545 NW 79th Avenue  
Medley, FL 33166 USA

**Phone:** +1-786-337-6650  
**Fax:** +1-786-337-6610

FAA Part-145 Repair Station Number: Z5LR447Y  
EASA Part-145 Approval Number: 145.5678

sales@tmcenginecenter.com  
www.TMC.aero



TMC Engine Center, Inc.  
 FAA CRS Z5LR447Y  
 8545 NW 79th Avenue  
 Medley, Florida 33166

### LIFE LIMITED PARTS STATUS

ENGINE MODEL: CFM56-3C1

ENGINE SERIAL NUMBER: 858996

CUSTOMER: TMC

ENGINE TOTAL TIME: 46,343.52

ENGINE TOTAL CYCLES: 24,980

WORK ORDER: CFM1052

DESCRIPTION	PART NUMBER	SERIAL NUMBER	A CYCLE LIMIT	B CYCLE LIMIT	C CYCLE LIMIT	2C-1 LIMIT	A CYCLE TOTALS	B CYCLE TOTALS	C CYCLE TOTALS	2C-1 TOTALS	A CYCLE REMNG	B CYCLE REMNG	C CYCLE REMNG	REPLACED	REMOVED FROM ESN / WO
<b>FAN ROTOR</b>															
FAN DISK	335-014-511-0	BB687415	30000	24900	20100	1	2035	6903	0		19648	16308	13164	YES	ESN 720976-3C1
BOOSTER SPOOL	335-009-306-0	BC454309	30000	30000	30000	1	7097	5453	0		17450	17450	17450	YES	ESN 720976-3C1
FAN SHAFT	335-006-414-0	DA703777	30000	30000	30000	1	8883	16097	0		5020	5020	5020		
<b>HPC ROTOR</b>															
FRONT SHAFT	1275M37P02	GWN0A7MM	20000	20000	20000	1	6429	2296	5891		5384	5384	5384		
STG. 1-2 SPOOL	1589M66G02	GWN0GFA2	20000	20000	20000	1	6429	2296	3067		8208	8208	8208		
STG. 3 DISK	1590M59P01	XAEL8176	20000	20000	20000	1	8154	0	0		11846	11846	11846	YES	ESN 721818-3B1
STG. 4-9 SPOOL	1588M89G03	GWN0C7TE	20000	20000	15800	1	1937	11428	0		6635	6635	5241	YES	ESN 857683-3C1
CDP REAR SEAL	1319M25P02	GFF5EE03	20000	18000	15000	1	8154	0	0		11846	10661	8884	YES	ESN 721818-3B1
<b>HPT</b>															
FRONT SHAFT	1385M90P04	XAEJ3448	20000	17300	17000	1	6429	2296	3067		7308	6321	6212		
FRONT AIRSEAL	1282M72P05	XAEJ5674	20000	15800	15100	1	8154	0	0		11846	9358	8943	YES	ESN 721818-3B1
DISK	1475M29P03	GWN0G8LG	20000	18500	16600	1	6429	2296	3067		7393	6839	6136		
REAR SHAFT	9514M71P07	TMTRY503	25000	20000	15800	1	3115	7749	1848		9275	7420	5862	YES	ESN 858691-3C1
<b>LPT</b>															
STG. 1 DISK	301-331-126-0	BC324944	25000	25000	25000	1	5909	634	0		18457	18457	18457	YES	ESN 725876-3B2
STG. 2 DISK	301-331-227-0	BA944484	25000	25000	25000	1	15251	634	0		9115	9115	9115	YES	ESN 725876-3B2
STG. 3 DISK	301-331-322-0	BC290826	25000	25000	25000	1	5909	634	0		18457	18457	18457	YES	ESN 725876-3B2
STG. 4 DISK	301-331-429-0	BC261470	25000	25000	25000	1	5909	634	0		18457	18457	18457	YES	ESN 725876-3B2
LPT SHAFT	301-330-067-0	LA119015	30000	30000	30000	1	5909	634	0		23457	23457	23457	YES	ESN 725876-3B2
LPT STUB SHAFT	301-330-626-0	BB698448	25000	25000	25000	1	5909	634	0		18457	18457	18457	YES	ESN 725876-3B2
CONICAL SUPPORT	305-056-116-0	DC548244	25000	25000	25000	1	5909	634	0		18457	18457	18457	YES	ESN 725876-3B2

Information for all disks not replaced supplied by customer. Documentation and/or trace for disks replaced is on file at TMC Engine Center, Inc. under the referenced Work Order Number.


Remarks:

REVISED 3/16/2021

3/2/2021

ENGINEERING DATE

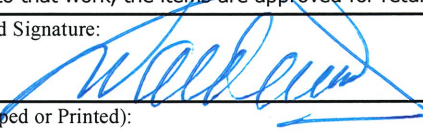
1. Approving Civil Aviation Authority/Country: FAA/United States	2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3 AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number: 0321CFM1052-48703
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4. Organization Name and Address:  TMC Engine Center, Inc. 8545 NW 79th AVE MAMI, FL 33166 FAA REPAIR STATION No. Z5LR447Y	5. Work Order/Contract/Invoice Number: CFM1052
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6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	ENGINE	CFM56-3C1	1	858996	REPAIRED

12. Remarks: REPAIRED IAW FAA APPROVED DATA: CFM56-3 ESM CFM-TP.SM. 5, REV. 78, DTD. 12/15/2020  
 THE ENGINE WAS DISASSEMBLED TO THE EXTENT NECESSARY TO ACCOMPLISH THE REQUIRED REPAIRS, CLEANED, INSPECTED, REPAIRED AS REQUIRED BY THE CUSTOMER WORKSCOPE, ASSEMBLED, TESTED, AND ACCEPTED IAW CFM56-3 ESM CFMI-TPSM REV 78, DTD. 12/15/2020. ENGINE WAS PRESERVED POST TEST TO 365 DAYS. THE FOLLOWING AD NOTES WERE COMPLIED WITH THIS VISIT: 2002-13-03, 2006-26-01, 2013-26-01, 2017-14-08 R1, & 2020-0261. SEE AD NOTE LISTING, FORM TMC-ENG-07CFM56. ALL WORK PERFORMED IS RECORDED AT THIS FACILITY UNDER TMC WORK ORDER NUMBER: CFM1052. DETAILED INFORMATION OF THE WORK ACCOMPLISHED IS RECORDED IN FAA FORM 337, AND IT IS IN COMPLIANCE WITH FAR 43.9. THE WORK SPECIFIED IN BLOCK 11 AND 12 WAS CARRIED OUT I/A/W FAR 145.

**TRACED TO: ESN - 858996 - CFM56-3C1      TSN: 46,353.52      CSN: 24,980**

13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.		14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> 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.:	14b. Authorized Signature: 	14c. Approval/Certificate No.: Z5LR447Y
13d. Name (Type or Printed):	13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed): SERGIO VALDES	14e. Date (dd/mmm/yyyy): 02 / MAR / 2021

**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.

<b>I. WORK ORDER No.</b> 007930		<b>III. STATION</b> KOPF
<b>II. DATE</b> FEB-26-2021		<b>IV. A/C REG / MSN</b> MSN26596
<b>ENGINE RUN PERFORMANCE DATA</b>		

<b>V. POWER SETTING:</b>		<b>VI. REASON:</b>	<b>TEST 10</b>
<b>VII. THRUST RATING:</b>	23.5k		
<b>VIII. Eng. Pos.</b>	<b>IX. Engine Model</b>	<b>x. Engine S/N</b>	<b>XI. MEC P/N</b>
<b>1</b>	<b>CFM56-3C1</b>	<b>858996</b>	<b>8063-215</b>
<b>2</b>			
			<b>XII. WORK ORDER</b>
			<b>007930</b>
			<b>XIII. PMC P/N</b>
			<b>7157M68P04</b>
			<b>XIV. TANK N.</b>
			<b>N.1</b>
			<b>N.2</b>
			<b>CTR</b>
			<b>100</b>
			<b>TOTAL</b>
			<b>10400</b>

**1. ENGINE TEST PARAMETERS**

Engine Start Data (EGT not to exceed 725 °C)												
ENGINE POSITION	Start Lever Adv.		INITIAL FUEL FLOW	LIGHT-UP TIME SEC.	STARTER CUTOUT N2%	MAX EGT (CENTRIGRADES)	MAX FUEL FLOW	TIME TO IDLE SEC	ENGINE OIL			AVM UNITS
	N2%	Motoring Time Sec.							QTY	TEMP	PRESSURE	
1	26.0%	13	0.5	13	46.0%	616	0.9	65	3.5	45	35	0.2
2												

Test No. 4 - IDLE SPEED												
Low Idle limit: +3.0 / -1.0 N2%						High Idle limit: +3.0 / -7 N2%						
ENGINE POS.	OAT (°C)	BARO	Low Idle (N2 %)			High Idle (N2 %)			THRUST RATING	VIBE	OP	OT
			Target	Recorded	Recorded	Target	Recorded					
1	28	30	62		61.8	72.5		72.5				
2												

Test No. 5A Power Assurance Check (80% N1)											
ENGINE POS.	OAT (°C)	BARO	TARGET N1	Recorded Values							Vibe
				N1%	N2%	EGT (°C)	FUEL FLOW	OT	OP		
1	28	30	81.7%	81.7	94.4	715	5.74	120	50	0.5	
2											

Test #5A Power Assurance Check (80% N1)														
ENGINE POS.	OAT (°C)	TARGET N1	Recorded Values			ADJ EGT FOR N1	MAX EGT 23.5k	BASE EGT MARGIN	TCC TIMER MARGIN ADJ	TCC TIMER OFF OR ON Y/N	THRUST RATING	VIBE	OP	OT
			N1%	N2%	EGT									
1	28	81.7%	81.7	94.4	715	0	736	21	N/A	OFF	23.5k			
2														

Test No. 5B Power Assurance Check (85% N1)											
ENGINE POS.	OAT (°C)	BARO	TARGET N1	Recorded Values							Vibe
				N1%	N2%	EGT (°C)	FUEL FLOW	OT	OP		
1	28	30	86.8%	86.8	96.4	760	6.76	120	50	0.6	
2											

Test #5B Power Assurance Check (85% N1)														
ENGINE POS.	OAT (°C)	TARGET N1	Recorded Values			ADJ EGT FOR N1	MAX EGT 23.5k	BASE EGT MARGIN	TCC TIMER MARGIN ADJ	TCC TIMER OFF OR ON Y/N	THRUST RATING	VIBE	OP	OT
			N1%	N2%	EGT									
1	28	86.8%	86.8%	96.4	760	0	787	27	N/A	OFF	23.5k			
2														

Test No. 5C Power Assurance Check (90% N1)											
ENGINE POS.	OAT (°C)	BARO	TARGET N1	Recorded Values							Vibe
				N1%	N2%	EGT (°C)	FUEL FLOW	OT	OP		
1	28	30	91.9%	91.9	98.2	809	8.06	125	55	0.4	
2											

Test #5C Power Assurance Check (90% N1)														
ENGINE POS.	OAT (°C)	TARGET N1	Recorded Values			ADJ EGT FOR N1	MAX EGT 23.5k	BASE EGT MARGIN	TCC TIMER	TCC TIMER OFF OR ON Y/N	THRUST RATING	VIBE	OP	OT
			N1%	N2%	EGT									
2	28	91.9%	91.9%	98.2	809	0	847	38	N/A	OFF	23.5k			
0														

Test No. 5D Takeoff Power Check												
ENGINE POS.	OAT (°C)	BARO	TARGET N1	Recorded Values							4. INSP.	
				N1%	N2%	EGT (°C)	FUEL FLOW	RED LINE	MARGIN			
1	28	30	98.4%	98.4	100.7	890	10.01	930	40			
2												

I. WORK ORDER No. 007930			III. STATION OPF
II. DATE FEB-26-2021			IV. A/C REG / MSN MSN 26596
ENGINE RUN PERFORMANCE DATA			

TEST NO. 6 - MEC TRIM								
ENG POS	OAT	BARO	WIND		PMC OFF (%N2)		PMC ON (%N1)	
			VELOCITY	DIRECTION	TARGET	RECORDED	TARGET	RECORDED
1	28	30			93.4	93	75	74
2								

TEST NO. 7 - VIBRATION SURVEY					
ENG POS	OAT	BARO	BARO	STATIC T.O. TARGET (%N1)	SELECTOR SWITCH POSITION
1	28	30	30	98.4	OFF
2					


ACCEL				DECEL													
%N1	%N2	VIBRATION READING (UNITS)		%N1	%N2	VIBRATION READING (UNITS)											
54	85.7	0.1		91.5	97.8	0.4											
64	88.6	0.1		86.5	96.2	0.6											
74.1	92	0.2		81.4	94.4	0.5											
81.7	94.1	0.5		74.5	92.1	0.2											
86.8	96.3	0.6		64	89	0.2											
91.9	98.5	0.4		53.4	86	0.1											
%N1	%N2	VIBRATION READING (UNITS)						MEAN VIBRATION READING (UNITS)	SOURCE								
		SEC	30 SEC	SEC	60 SEC	SEC	90 SEC		SEC	120 SEC	FAN	LPT	HPT	HPC			

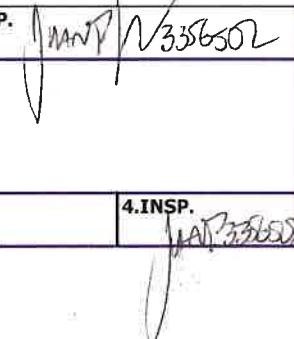
TEST NO. 8 - ACCEL/DECEL CHECK								
ENG POS	OAT (°C)	BARO	TARGET VALUES (%N1)			ACCEL TIME (SEC)		
			STATIC T.O.	ACCEL CHECK TARGET	LOW IDLE TO 40% N1 (Differential Limit of 4 Sec. Between Engines)	40% N1 TO ACCEL CHECK TARGET (Differential Limit of 2 Sec. Between Engines)	HIGH IDLE TO ACCEL CHECK TARGET (7.4 Sec. Max)	
1	28	30	98.4	96.4	N/A	N/A	6.4	
2								

\*\* NOTE: ENGINES WITH THE HPTCC TIMER, Adjust the EGT and N2 margins for these effects: HPTCC Timer On engines operated at 22,000 pounds thrust or less, increase the EGT margin by 17C.

2. REMARKS, DISCREPANCIES.

TEST #5 USED RECORDED PARAMETER AT APPLICABLE 90% MPA FAN SPEED.

3. TASK CARD COMPLETED BY (SIGN & LICENSE):  3310883

4. INSP.  3356502



**MAJOR REPAIR AND ALTERATION  
(Airframe, Powerplant, Propeller, or Appliance)**

Form Approved  
OMB No. 2120-0020  
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark	Serial No.	
	Make	Model	Series
2. Owner	Name (As shown on registration certificate)	Address (As shown on registration Certificate)	
		Address _____ City _____ State _____ Zip _____ Country _____	

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	POWERPLANT	<b>CFM INTERNATIONAL</b>	<b>CFM56-3C1</b>	<b>858996</b>
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

A. Agency's Name and Address		B. Kind of Agency		
Name	<b>TMC Engine Center, Inc</b>	<input type="checkbox"/>	U.S. Certificated Mechanic	<input type="checkbox"/>
Address	<b>8545 NW 79<sup>th</sup> Avenue</b>	<input type="checkbox"/>	Foreign Certificated Mechanic	C. Certificate No.
City	<b>Medley State Florida</b>	<input checked="" type="checkbox"/>	Certified Repair Station	<b>Z5LR447Y</b>
Zip	<b>33166 Country USA</b>	<input type="checkbox"/>	Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item (5) above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel Per 14 CFR Part 43 App. B	<input type="checkbox"/>	Signature/Date of Authorized Individual	
		<b>Sergio F. Valdes / QC Manager</b>	<b>March 2<sup>ND</sup>, 2021</b>

**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Flt. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	<input checked="" type="checkbox"/> Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No.	Signature/Date of Authorized Individual
<b>Z5LR447Y</b>	<b>Sergio F. Valdes / QC Manager</b>
	<b>March 2<sup>ND</sup>, 2021</b>

**NOTICE**

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft records. An alteration must be Compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

Nationality and Registration Mark

Date

Work Order: **CFM1052** , Model: **CFM56-3C1**

Engine Serial Number: **858996**

Engine Total Time: **46,343.52**; Engine Total Cycles: **24,980**

CUSTOMER: **TMC ENGINE CENTER**

1. CFM International CFM56-3C1 engine was disassembled, inspected and repaired as required. Replacement of LLP & Main Line Bearing Inspection, was performed.
2. Performed incoming inspection and inventory.

THE FOLLOWING WAS ACCOMPLISHED:

3. **FAN & BOOSTER MODULE** (ATA 72-21):

- A. It was replaced with a Serviceable module.

4. **NO. 1 & NO. 2 BEARING SUPPORT MODULE** (ATA 72-22):

- A. Performed a Full Workscope and routed the No. 1 and No. 2 Bearings for Cleaning and Inspection. Installed the No. 1 and No. 2 Bearings in Serviceable condition.
- B. Inspected the Fan Shaft for Serviceability. Complied with AD 2002-13-03.

5. **INLET GEARBOX** (ATA 72-61):

- A. Performed a Full Workscope and installed the No. 3 Bearing in Serviceable condition.

6. **FAN FRAME** (ATA 72-23):

- A. Disassembled as required, cleaned, inspected, repaired & re-assembled.
- B. Installed a No.3 Brg. AFT. Stationary Seal in OHC.
- C. Installed VBV doors in OHC.

7. **HPC ROTOR SECTION** (ATA 72-31, -32, -33):

- A. Disassembled as required, cleaned, inspected, repaired & re-assembled.
- B. Replaced Stages 1, 2, & 3 seals with OHC units.
- C. Replaced Stage 3 Disk, 4-9 Spool & CDP Rear Seal with Serviceable units.
- D. Complied with AD 2017-08-14(VSV Pull Check).

8. **COMBUSTION CASE ASSY & COMBUSTION CHAMBER** (ATA 72-41, -42):

- A. Disassembled as required, cleaned, inspected, repaired & re-assembled.
- B. Replaced the Combustion Chamber Module with an OHC assembly.
- C. Installed 20 ea. Bench Checked Fuel Nozzles.

Work Order: **CFM1052** , Model: **CFM56-3C1**  
Engine Serial Number: **858996**

9. **HPT NOZZLE** (ATA 72-51):

- A. Cleaned, & inspected Module for Serviceability.
- B. Installed an OHC Aft Stationary Seal.

10. **HPT ROTOR** (ATA 72-52):

- A. Disassembled as required, cleaned, inspected, repaired, re-assembled & balanced.
- B. Replaced Front Rotating Airseal & Rear Shaft with Serviceable units.
- C. Match Grind of the Blade tips performed.

11. **MOD 12 / LPT STG. 1 NOZZLES** (ATA 72-53):

- A. Disassembled as required, cleaned, inspected, repaired & re-assembled.
- B. Replaced 46 ea. HPT Shrouds with OHC units.
- B. Performed match grind to the HPT shroud for optimal J05 clearance.

12. **LPT MAJOR MODULE** (ATA 72-54, 72-55, 72-56):

- A. Replaced Major LPT Module, with a Serviceable module in a current preservation status.
- B. Installed the No. 4, & No. 5 bearings in Serviceable condition.

13. **TGB / AGB** (ATA 72-62, 72-63):

- A. Visually Inspected TGB in-situ.
- B. Re-identified AGB and installed a Dynamic Seal to TERMINATE AD 2012-0209.

14. THE FOLLOWING AIRWORTHINESS / SERVICE BULLETINS WERE ACCOMPLISHED AT THIS SHOP VISIT:

- A. Complied with Airworthiness Directives: **2002-13-03, 2006-26-01, 2013-26-01, 2017-14-08 R1, & 2020-0261.**

15. Performed "ON WING" Test 10 IAW latest Revision of the B737 AMM for acceptance.

16. Accomplished 365 Day Preservation.

The subject engine was disassembled to the extent necessary to accomplish the repair, cleaned, inspected, repaired as required by the Customer Workscope, re-assembled, tested and found airworthy in accordance with the CFM International CFM56-3 ESM CFMI-TPSM5 REV 78, DTD. 12/15/2020. Pertinent details of the above are on file at this Repair Station under W.O. No. **CFM1052**.

----- END -----

**Paperwork Reduction Act Statement:** The reason for collecting this information is to track major maintenance performed on aircraft. The collected information is used as part of the aircraft's historical file. The public reporting burden for this collection of information is estimated to average 30 minutes per response. Responses are mandated by 14 CFR Part 43. Collected information becomes part of the public record and no confidentiality is required. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number associated with this collection is 2120-0020. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.







## CFM56 AIRWORTHINESS DIRECTIVE COMPLIANCE STATUS

WORK ORDER: **CFM1052**      CUSTOMER: **TMC ENGINE CENTER**      DATE: **MAR 02, 2021**  
 ENGINE MODEL: **CFM56-3C1**      ENGINE S/N: **858996**      TT: **46,353.52**      TC: **24,980**

**Note:** With regards to this document, the following definitions apply:

- |   |   |
|---|---|
| <p><b>CW</b> = Complied with at this shop visit.</p> <p><b>PCW</b> = Previously Complied With – Received with upgraded configuration</p> <p><b>ND</b> = Not Disassembled per Customer Specifications</p> <p><b>NA1</b> = Not Applicable Due to Engine Model</p> | <p><b>NA2</b> = Not Applicable Due to Engine Serial Number</p> <p><b>NA3</b> = Not Applicable Due to Part Numbers</p> <p><b>NA4</b> = Not Applicable Due to Part Serial Numbers</p> |
|---|---|

A.D. NUMBER EFF. DATE	PWA SERVICE BULLETIN	DESCRIPTION	REPETITIVE INSPECTION		COMPLIANCE, STATUS, NEXT INSPECTION, PART NUMBERS / SERIAL NUMBERS INST.
			YES	NO	
86-08-05R1 39-5339 F1986-066R1 <b>EASA</b> 07/07/1986	72-205 R3	To prevent engine shutdown from radial drive shaft disengagement. Applies to engine models: 3, and 3B.		X	NA1
89-13-51		Superseded by AD 96-25-11.			Superseded
89-23-06 R1 39-6370 F1989-181R3 <b>EASA</b> 11/11/89	72-530	Inspect the forward sump magnetic chip detector. Removal of certain No.3 bearings from service.  Applies to engine models: 2, 3, 3B, 3C, 5.	X		NA3 to Bearing PN 1461M14P04 S/N MDAGN426 installed.
90-20-13 39-6679 F1990-031R2 <b>EASA</b> 10/14/90	72-494	Modify the Fan Module Assembly by installing Fan blade dampers P/N 335-105-305-0, axial stops P/N 335-105- 201-0 and bolts P/N J815P056A. Applies to engine models: 3B2, 3C1		X	NA3 to Damper 335-105-305-0 & 335-105-306 installed TSV.
91-02-10 39-6839 F1991-030 <b>EASA</b> 2/11/91	72-450 72-162	Install fan splitter fairing, fan stage 1 vane assy and new centering shroud. Applies to engine models: 3, 3B, 3C.		X	PCW and verified TSV. Splitter Fairing P/N 335-003-822-0 installed.

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A.D. NUMBER EFF. DATE	PWA SERVICE BULLETIN	DESCRIPTION	REPETITIVE INSPECTION		COMPLIANCE, STATUS, NEXT INSPECTION, PART NUMBERS / SERIAL NUMBERS INST.
			YES	NO	
96-18-16 39-9742 F1997-010R1 EASA 12/09/96	72-728 72-338 72-476 72-695	To prevent low cycle fatigue of the LPTR stub shaft and conical support.  Applies to engine models: 2, 2A, 2B, 3, 3B, 3C, 5.		X	NA3 to Conical Support P/N 305-056-116-0 S/N DC548244.  NA3 to Stub Shaft P/N 301-330-626-0 S/N BB698440
96-25-11 39-9854 F1989-181R3 01/29/97	72-543 R4 72-737 72-71 72-1203 R10	To prevent fan blade failure that may result in complete loss of power. Applies to engine models: 3B2, 3C1.		X	NA3 to Fan blade P/N 1590M21P01, 1663M24P01, & 1663M24P02 installed.
97-08-01 39-9989 F1994-195 EASA 06/23/97		To prevent a low cycle fatigue failure of the fan disk, which could result in an engine failure. Applies to engine models: 3, 3B, 3C		X	NA3 to Fan Disk P/N 335-014-511-0 S/N BB687415 installed
T97-25-51 12/4/97		Superseded by AD 98-10-11.			Superseded
98-07-02 39-10402 F1998-080R1 EASA 03/30/98	72-823 72-825 72-1355R1 72-856	To prevent rubs between the outer cone of the #3 bearing rear stationary air/oil seal and the HPCR Stg 1-2 s0001. Applies to engine models: 2, 3, 3B, 3C.		X	NA4 to 1-2 Spool P/N 1589M66G02 S/N GWN0GFA2 installed.  NA2 to ESN 858996.
98-10-11 39-10585 F1997-327 EASA 06/03/98	72-863R1 72-865 72-867 72-873R1 72-523R1 72-211R1 72-350R1	To prevent inflight engine shutdowns due to an AGB starter gear shaft, TGB input bevel gear, TGB output bevel gear, AGB gear shaft duster spur assy or AGB intermediate gear assy failure. Applies to engine models: 3, 3B, 3C, 5, 5B, 5C.		X	NA2 to ESN 858996.
98-12-32 39-10523 F1998-096 EASA 07/20/98	72-817R1 72-419R2 72-561R1 72-843R1	To prevent the potential for an uncontained failure of the HPTR disk. Applies to engine models: 2, 2A, 2B, 3, 3B, 3C.		X	NA3 to HPT Disk P/N 1475M29P03 S/N GWN0G8LG installed.
T98-18-51 08/28/98		Superseded by AD 98-21-23.			Superseded

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			YES	NO	
98-19-10 39-10752 F1998-198R1 EASA 09/28/98	72-877R1	To prevent an AGB starter gear shaft failure, which can result in an inflight Eng shutdown, and on a/c with two affected Eng installed, possible dual inflight shutdown. Applies to engine models: 3, 3B, 3C.		X	NA2 to ESN 858996.
99-08-16		Superseded by AD 2000-12-01.			Superseded
2000-05-22 39-11632 F2000-018 EASA 05/02/99	72-922	Perform an ECI for cracks in the bolt holes of the HPTR front rotating air seals, P/N 1282M72P03, and replace, if necessary, with serviceable parts. Applies to engine models: 2, 2A, 2B, 3, 3B, 3C, 5, 5A, 5B, 5C		X	NA to P/N 1282M72P05 S/N XAEJ5674 installed.
2000-12-01		Superseded by AD 2002-13-03.			Superseded
2000-15-01 39-11830 F1999-245R1 EASA 10/02/2000	73-110R2 73-J055R1 73-076R1 73-1126R1 73-136R2 73-056R2 73-073R2	To prevent fuel leakage from between the fuel pump filter and gear housing perform visual inspections of the fuel pump filter cover helicon inserts & bolts for damage. Applies to engine models: 2, 2A, 2B, 3, 3B, 3C, 5, 5A, 5B, 5C		X	PCW. TERMINATED. Fuel Pump P/N 301-779-007-0 (708600-7) S/N 13396 verified & re- installed TSV.
2001-04-06 39-12124 F1997-298R4 EASA 04/04/2001	72-854R1 or 72-854R2	To prevent fan disk failure, perform a local ultrasonic Inspection for cracks in the disk. Applies to engine models: 3, 3B, 3C.		X	NA3 to Fan blades with 37 deg P/N's 1590M21P01, 1663M24P01, & 1663M24P02 installed.  NA3 to Damper Assemblies P/N 335-105-305-0 & 335-105-306-0 installed TSV.
2001-08-51		Superseded by AD 2001-09-17.			Superseded
2001-11-05 39-12246 F2001-240 EASA 06/11/2001		To prevent bearing failure, replace #4 bearing that has a S/N listed in table 1 of AD and replace with a bearing S/N not on list, within 2000 hours TIS after effective date of AD. Applies to engine models: 2, 25, 3, 3B, 5B, 5C, 7B.		X	NA3 to Bearing P/N 335-355-720-0 S/N DC151447-N installed TSV.
2002-13-03 39-12790 F2002-390 EASA 08/01/2002		To prevent critical life limited rotating engine part failure, within the next 30 days after effective date of AD, revise Airworthiness Limitations Section of Engine Shop Manual. Applies to engine models: 2, 2A, 2B, 3, 3B, 3C, 5, 5B, 5C, 7B.		X	<b>CW</b> TSV on Fan Shaft P/N 335-006-414-0 S/N DA703777.

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			YES	NO	
2003-02-04		Superseded by AD 2007-03-15.			Superseded
2004-10-13 39-13643 F2004-095 <b>EASA</b> 06/24/2004	73-0104R3 73-0120R5 73-0126R4	To prevent main fuel pump bearing failure resulting in fuel nozzle clogging and LPT case burn through, remove from service main fuel pumps by P/N installed. Next S/V or pump repl, but no later than Jan 1, 2007. Applies to engine models: 2C, 3, 5		X	NA3 to Fuel Pump P/N 301-779-007-0 (708600-7) S/N 13396 verified & re- installed TSV.
2006-26-01 39-14859 01/03/2007		There have been 12 reports of failed fuel filters. Therefore, replace fuel filter. See AD for engine Model replacement schedule. Applies to engine models: 2, 3, 5, 7B.		X	<b>CW</b> TSV.
2009-01-01		Superseded by AD 2010-09-14.			Superseded
2009-11-02 39-15912 06/23/2009		AD issued to remove from service HPC 4-9 spools by P/N and S/N listed in table 1 of AD before accum. 8,900 CSN. Applies to engine models: 2, 3, 5A, 5B, 5C, 7B.		X	NA4 to 4-9 Spool P/N 1588M89G03 S/N GWN0C7TE installed TSV.
2010-12-03 39-13624 <b>EASA</b> 2009-0036 07/13/2010	72-1067	Perform an on-wing or in shop inspection of the fan blade and damper for wear every 3,000 CSLI. Applies to engine models: 3 & 3B.		X	NA3 to Fan blades with 37 deg P/N's 1590M21P01, 1663M24P01, & 1663M24P02 installed TSV.
<b>EASA</b> 2012-0209		Superseded by AD 2020-02-61.			Superseded
2013-02-02		Superseded by AD 2016-14-10.			Superseded
2013-26-01 39-17710 02/03/2014		Perform inspection to verify re-installation of the handcranking pad cover to prevent loss of engine oil while in flight.		X	<b>CW</b> TSV. TERMINATED. AGB P/N 335-300-112-0 S/N WB7980 installed TSV.
2015-18-04 39-18262 <b>EASA</b> 2015-0133 10/20/2015	72-0964 R1	Report of an un-commanded in-flight shutdown on a CFM56-7B engine following rupture of the 73-tooth gearshaft located in the engine AGB		X	NA1

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			YES	NO	
2016-14-10 39-18591 11/21/2005		Removed HPT disk P/N 880026 with S/N's GLKBAA9307, GLKBAA9335, GLKBAA9404, GLKBAA9407 and GLKBAA9409 from service before the cycles reflecting on AD 2013-02-02 Applies to engine models: 3, 3B and 3C Series		X	NA3 to HPT Disk P/N 1475M29P03 S/N GWN0G8LG Verified & re-installed.
2017-14-08 R1 39-14791 11/2/2006	72-1169 R1	Turbofan engines with steel high-pressure compressor (HPC) stator case, P/Ns: 1499M30G01, 1499M30G02, 1499M30G03 or 1676M88G01, installed. Applies to engine models: 3, 3B, and 3C	X		<b>CW</b> TSV. TERMINATED. Installed Case 1499M30G02 S/N MA828 marked RP031 TSV.
<b>EASA</b> 2020-0261 12/11/2020	72-1129	Inspect AGB Cranking Pad torque at every shop visit. <b>TERMINATING ACTION</b> (not later than 12-30/2026) - Replace AGB 335-300-103-0, 335-300-105-0, 335-300-106-0, 335-300-107-0, 335-300-108-0, 335-300-109-0, and 335-300-110-0 with AGB P/N <b>335-300-112-0</b>		X	<b>CW</b> TSV. TERMINATED. AGB P/N 335-300-112-0 S/N WB7980 installed TSV.

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