



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

**\*\* DATA SUPERSEDED \*\* SEE SHEET: 8CM051**

ENGINE IDENTIFICATION: CFM56-7B26 BYPASS RATIO: 5.1  
UNIQUE ID NUMBER: 3CM033 PRESSURE RATIO ( $\pi_{00}$ ): 27.61  
ENGINE TYPE: TF RATED OUTPUT ( $F_{00}$ ) (kN): 116.99

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	4.7	37.2	62.2	18.9
AS % OF ORIGINAL LIMIT	24.0 %	31.5 %	65.3 %	83.4 %
AS % OF CAEP/2 LIMIT (NOx)			81.7 %	
AS % OF CAEP/4 LIMIT (NOx)			96.6 %	
AS % OF CAEP/6 LIMIT (NOx)			111.9 %	
AS % OF CAEP/8 LIMIT (NOx)			133.0 %	

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- DEDICATED ENGINES TO PRODUCTION STANDARD  
- OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
(ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
x OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.221	0.1	0.2	28.8	14.7
CLIMB OUT	85	2.2	0.999	0.1	0.6	22.5	11.9
APPROACH	30	4.0	0.338	0.1	1.6	10.8	0
IDLE	7	26.0	0.113	1.9	18.8	4.7	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			441	361	3533	6149	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				3.06	30.33	52.64	14.7
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.8-98.0
TEMPERATURE (K)	294-297
ABS HUMIDITY (kg/kg)	.0100-.0157

### FUEL

SPEC	Jet A
H/C	1.86-1.97
AROM (%)	16.9-17.7

MANUFACTURER: GE  
TEST ORGANIZATION: CFM56-7B Eval Engineering  
TEST LOCATION: Peebles Test Operation, Peebles, Ohio, USA  
TEST DATES: FROM Jul 96 TO -

### REMARKS

- FAA Certification Report CR-997, Dec 96.
- Engine S/N 874-101/01

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)