



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-7B26  
UNIQUE ID NUMBER: 8CM051  
COMBUSTOR:  
ENGINE TYPE: TF  
BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 27.6  
RATED THRUST ( $F_{00}$ ) (kN): 117.0

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	4.7	37.2	61.0	18.9
AS % OF ORIGINAL LIMIT	24.0	31.5	64.0	83.4
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			80.1	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			96.6	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			109.7	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			130.5	

### 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 (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	1.221	0.10	0.20	28.80	14.7
CLIMB OUT	85	2.2	0.999	0.10	0.60	22.50	11.9
APPROACH	30	4.0	0.338	0.10	1.60	10.80	0.0
IDLE	7	26.0	0.113	1.90	18.80	4.70	0.0
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 <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				3.1	30.3	52.6	14.7
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> 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
TEMPERATURE (K)	294-297
ABS HUMIDITY (kg/kg)	0.01-0.0157

### FUEL

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

MANUFACTURER: CFM International  
TEST ORGANIZATION: CFM56-7B Eval Engineering  
TEST LOCATION: Peebles Test Operation (PTO), Peebles, Ohio  
TEST DATES: 01/07/1996

### REMARKS

1. FAA Certification Report CR-997, Dec 96.
2. Engine S/N 874-101/01
3. Characteristic D<sub>p</sub>/F<sub>00</sub> NO<sub>x</sub> incorrectly entered originally [3CM033]
4. Issue 15; D<sub>p</sub>/F<sub>00</sub> NO<sub>x</sub> corrected from 63.2 to 61.0 and % of standards to 64.0, 80.1 & 96.6

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)