



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B4/P
UNIQUE ID NUMBER: 3CM026
COMBUSTOR:
ENGINE TYPE: TF

BYPASS RATIO: 5.9
PRESSURE RATIO (π_{00}): 27.7
RATED THRUST (F_{00}) (kN): 120.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	10.4	42.1	54.6	7.0
AS % OF ORIGINAL LIMIT	53.1	35.7	57.2	31.1
AS % OF CAEP/2 LIMIT (NO _x)			71.6	
AS % OF CAEP/4 LIMIT (NO _x)			86.3	
AS % OF CAEP/6 LIMIT (NO _x)			98.0	
AS % OF CAEP/8 LIMIT (NO _x)			116.5	

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 ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.132	0.20	0.90	28.00	5.4
CLIMB OUT	85	2.2	0.935	0.20	0.90	23.20	4.1
APPROACH	30	4.0	0.312	0.50	2.30	10.00	0.2
IDLE	7	26.0	0.104	4.60	23.40	4.30	0.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			408	818	4123	5641	-
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)				6.8	34.3	47.1	5.4
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)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.2-99.6
TEMPERATURE (K)	281.5-283.6
ABS HUMIDITY (kg/kg)	0.0065-0.0075

FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	19

MANUFACTURER: CFM International
TEST ORGANIZATION: CFM56-5B Eval Engineering
TEST LOCATION: Techspace-Aero Facility, Liege, Belgium
TEST DATES: 01/11/1995

REMARKS

1. FAA Certification Report CR-797/P, June 95.
2. Engine S/N 779-194/1

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)