



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-3C-1 (Rerated) BYPASS RATIO: 5.1
UNIQUE ID NUMBER: 1CM006 PRESSURE RATIO (π_{00}): 21.3
COMBUSTOR:
ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 82.3

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	9.5	104.6	45.2	3.9
AS % OF ORIGINAL LIMIT	48.6	88.6	54.7	15.5
AS % OF CAEP/2 LIMIT (NO _x)			68.4	
AS % OF CAEP/4 LIMIT (NO _x)			82.9	
AS % OF CAEP/6 LIMIT (NO _x)			92.6	
AS % OF CAEP/8 LIMIT (NO _x)			111.5	

DATA STATUS

- PRE-REGULATION
- CERTIFICATION
x 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	0.872	0.05	0.90	16.60	3.0
CLIMB OUT	85	2.2	0.732	0.05	1.00	14.70	2.4
APPROACH	30	4.0	0.273	0.08	4.20	8.00	2.5
IDLE	7	26.0	0.111	2.86	38.10	3.80	2.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			372	507	7002	3210	-
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)				6.2	85.2	39.0	3.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)				1.1	6.4	0.8	0.4
RANGE (D _p /F ₀₀ in g/kN, or SN)				5.47-7.38	79.7-92.2	38.2-40	2.5-3.2

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96-97.5
TEMPERATURE (K)	279-286
ABS HUMIDITY (kg/kg)	0.002-0.009

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	16

MANUFACTURER: CFM International
TEST ORGANIZATION: CFM56 Evaluation Engineering
TEST LOCATION: Peebles Site IVD
TEST DATES: 11/11/1983-14/11/1983

REMARKS

1. Ref GE Report R84AEB579.
2. Engine S/N 692441.
3. Revised based on 3/89 production status cycle.
4. Data also apply to CFM56-3-B1 engines rerated to 82.3 kN (18,500 Lb.) thrust for B737-500 aircraft.

Compliance with Fuel Venting requirements:

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