



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B6/2P
UNIQUE ID NUMBER: 3CM022
COMBUSTOR: DAC-II
ENGINE TYPE: TF
BYPASS RATIO: 6.0
PRESSURE RATIO (π_{00}): 24.6
RATED THRUST (F_{00}) (kN): 104.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	10.3	110.2	31.7	7.9
AS % OF ORIGINAL LIMIT	52.6	93.4	35.5	33.8
AS % OF CAEP/2 LIMIT (NO _x)			44.4	
AS % OF CAEP/4 LIMIT (NO _x)			54.3	
AS % OF CAEP/6 LIMIT (NO _x)			61.7	
AS % OF CAEP/8 LIMIT (NO _x)			74.6	

DATA STATUS

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

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
x 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	0.970	0.20	3.10	14.20	0.3
CLIMB OUT	85	2.2	0.810	0.20	7.40	11.00	0.3
APPROACH	30	4.0	0.310	0.40	21.50	8.70	6.7
IDLE	7	26.0	0.110	4.60	44.80	3.60	1.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			394	849	10205	3020	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				7.9	96.7	28.8	6.7
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				7.6-8.2	95.2-98.2	28.4-29.2	6.2-7.1

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.5-99.7
TEMPERATURE (K)	284.6-292.4
ABS HUMIDITY (kg/kg)	0.0081-0.0115

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	17.33

MANUFACTURER: CFM International
TEST ORGANIZATION: GEAE Peebles + Techspace Aero (CFMI)
TEST LOCATION: Peebles Ohio, USE + Liers, Belgium
TEST DATES: 01/08/1996-01/09/1996

REMARKS

1. DAC-II Combustor P/N 1968M99G04

Compliance with Fuel Venting requirements:

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