



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B1
UNIQUE ID NUMBER: 2CM012
ENGINE TYPE: TF

BYPASS RATIO: 5.7
PRESSURE RATIO (π_{00}): 30.2
RATED OUTPUT (F_{00}) (kN): 133.45

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	7.1	49.7	67.7	13.5
AS % OF ORIGINAL LIMIT	36.1 %	42.1 %	67.4 %	61.7 %
AS % OF CAEP/2 LIMIT (NOx)			84.3 %	
AS % OF CAEP/4 LIMIT (NOx)			100.4 %	
AS % OF CAEP/6 LIMIT (NOx)			114.0 %	
AS % OF CAEP/8 LIMIT (NOx)			134.0 %	

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	1.359	0.1	0.5	35.1	8.6
CLIMB OUT	85	2.2	1.113	0.1	0.5	27.2	10.5
APPROACH	30	4.0	0.364	0.12	1.57	10.8	0
IDLE	7	26.0	0.117	3.21	28.4	4.6	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			474	617	5423	7783	-
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)				4.6	40.5	58.4	10.5
SIGMA (D_p/F_{00} in g/kN, or SN)				0.29	0.34	0.7	1.4
RANGE (D_p/F_{00} in g/kN, or SN)				4.28-4.86	40.1-40.8	58.0-59.2	8.9-11.4

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.49 - 98.18
TEMPERATURE (K)	283.4 - 293.9
AHS HUMIDITY (kg/kg)	.0067 - .0076

FUEL

SPEC	Jet A
H/C	1.93
AROM (%)	16.8

MANUFACTURER: CFMI
TEST ORGANIZATION: CFM56 Evaluation Engineering
TEST LOCATION: Peebles Site IIIB
TEST DATES: FROM 07 Oct 92 TO 08 Oct 92

REMARKS

1. Ref GE Report R92AEB262.
2. Engine S/N 779101

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

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