



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B4/P
UNIQUE ID NUMBER: 3CM026
ENGINE TYPE: TF
BYPASS RATIO: 5.9
PRESSURE RATIO (π_{oo}): 27.69
RATED OUTPUT (F_{oo}) (kN): 120.11

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (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 (NOx)			71.6 %	
AS % OF CAEP/4 LIMIT (NOx)			86.3 %	
AS % OF CAEP/6 LIMIT (NOx)			98.0 %	
AS % OF CAEP/8 LIMIT (NOx)			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

MEASURED DATA

MODE	POWER SETTING (% F_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.132	0.2	0.9	28	5.4
CLIMB OUT	85	2.2	0.935	0.2	0.9	23.2	4.1
APPROACH	30	4.0	0.312	0.5	2.3	10	0.2
IDLE	7	26.0	0.104	4.6	23.4	4.3	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_{oo} (g/kN) or AVERAGE SN (MAX)				6.77	34.3	47.06	5.4
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} 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)	.0065-.0075

FUEL

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

MANUFACTURER: GE
TEST ORGANIZATION: CFM56-5B Eval Engineering
TEST LOCATION: Techspace-Aero Facility, Liege, Belgium
TEST DATES: FROM Nov 95 TO -

REMARKS

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

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

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