

# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

# **SUBSONIC ENGINES**

ENGINE IDENTIFICATION: CFM56-5B7/P BYPASS RATIO: 5.9 UNIQUE ID NUMBER: 6CM044 PRESSURE RATIO  $(\pi_{oo})$ : 27.69 ENGINE TYPE: TF RATED OUTPUT  $(F_{oo})$  (kN): 120.11

## REGULATORY DATA

CHARACTERISTIC VALUE:	НС	СО	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	10.4	42.1	54.6	6.9
AS % OF ORIGINAL LIMIT	53.2 %	35.7 %	57.2 %	30.7 %
AS % OF CAEP/2 LIMIT (NOx)			71.5 %	
AS % OF CAEP/4 LIMIT (NOx)			86.2 %	
AS % OF CAEP/6 LIMIT (NOx)			97.9 %	
AS % OF CAEP/8 LIMIT (NOx)			116.5 %	

## DATA STATUS

- PRE-REGULATION

x CERTIFICATION

- REVISED (SEE REMARKS)

#### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE

(ANNEX 16 VOLUME II)

## TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES

- DEDICATED ENGINES TO PRODUCTION STANDARD

- OTHER (SEE REMARKS)

#### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

x OUT OF PRODUCTION (DATE: - )

- OUT OF SERVICE

## MEASURED DATA

	POWER	TIME	FUEL FLOW	EMI	SSIONS INDICES	(g/kg)	
MODE	SETTING	minutes	kg/s	HC	CO	NOx	SMOKE NUMBER
	(%F <sub>00</sub> )						
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 <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)			6.77	34.33	47.06	5.4	
SIGMA ( $D_p/F_{oo}$ in $g/kN$ , or $SN$ )			1	_	1	_	
RANGE $(D_p/F_{oo} \text{ in } g/kN, \text{ or } SN)$			-	-	-	-	

# ACCESSORY LOADS

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

# ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.2 - 99.6
TEMPERATURE (K)	281.5 - 283.6
ABS HUMIDITY (kg/kg)	.00650075

MANUFACTURER: GE

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

# REMARKS

1. FAA Certification Report CR0797/P, June 95.

2. Engine S/N 779-194/1

FUEL

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

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

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