



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-7B27
UNIQUE ID NUMBER: 3CM034
ENGINE TYPE: TF

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 28.63
RATED OUTPUT (F_{oo}) (kN): 121.44

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	4.3	34.7	64.1	20.2
AS % OF ORIGINAL LIMIT	21.9 %	29.4 %	65.9 %	90.0 %
AS % OF CAEP/2 LIMIT (NOx)			82.4 %	
AS % OF CAEP/4 LIMIT (NOx)			98.9 %	
AS % OF CAEP/6 LIMIT (NOx)			112.4 %	
AS % OF CAEP/8 LIMIT (NOx)			133.0 %	

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_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.284	0.1	0.2	30.9	15.7
CLIMB OUT	85	2.2	1.043	0.1	0.5	23.7	12.1
APPROACH	30	4.0	0.349	0.1	1.4	11	0
IDLE	7	26.0	0.116	1.7	17.9	4.8	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			456	335	3436	6719	-
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)				2.76	28.3	55.27	15.7
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) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.8-98.0
TEMPERATURE (K)	294-297
ABS HUMIDITY (kg/kg)	.0100-.0157

FUEL

SPEC	Jet A
H/C	1.86-1.97
AROM (%)	16.9-17.7

MANUFACTURER: GE
TEST ORGANIZATION: CFM56-7B Eval Engineering
TEST LOCATION: Peebles Test Operation, Peebles, Ohio, USA
TEST DATES: FROM Jul 96 TO -

REMARKS

- FAA Certification Report CR-997, Dec 96.
- Engine S/N 874-101/01

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

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