



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

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

BYPASS RATIO: 5.0
PRESSURE RATIO (π_{eo}): 28.6
RATED THRUST (F_{eo}) (kN): 121.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{eo} (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 (NO _x)			82.4	
AS % OF CAEP/4 LIMIT (NO _x)			98.9	
AS % OF CAEP/6 LIMIT (NO _x)			112.4	
AS % OF CAEP/8 LIMIT (NO _x)			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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{eo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.284	0.10	0.20	30.90	15.7
CLIMB OUT	85	2.2	1.043	0.10	0.50	23.70	12.1
APPROACH	30	4.0	0.349	0.10	1.40	11.00	0.0
IDLE	7	26.0	0.116	1.70	17.90	4.80	0.0
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 _{eo} (g/kN) or AVERAGE SN (MAX)				2.8	28.3	55.3	15.7
SIGMA (D _p /F _{eo} in g/kN, or SN)							
RANGE (D _p /F _{eo} 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)	97.8-98
TEMPERATURE (K)	294-297
ABS HUMIDITY (kg/kg)	0.01-0.0157

FUEL

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

MANUFACTURER: CFM International
TEST ORGANIZATION: CFM56-7B Eval Engineering
TEST LOCATION: Peebles Test Operation (PTO), Peebles, Ohio
TEST DATES: 01/07/1996

REMARKS

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

Compliance with Fuel Venting requirements:

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