



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-7B26/2
UNIQUE ID NUMBER: 4CM042
COMBUSTOR:
ENGINE TYPE: TF
BYPASS RATIO: 5.1
PRESSURE RATIO (π_{co}): 27.8
RATED THRUST (F_{oo}) (kN): 117.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	14.2	88.0	38.4	0.7
AS % OF ORIGINAL LIMIT	72.7	74.6	40.2	3.1
AS % OF CAEP/2 LIMIT (NO _x)			50.2	
AS % OF CAEP/4 LIMIT (NO _x)			60.5	
AS % OF CAEP/6 LIMIT (NO _x)			68.7	
AS % OF CAEP/8 LIMIT (NO _x)			81.7	

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 _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	1.203	0.03	0.77	19.20	0.7
CLIMB OUT	85	2.2	0.989	0.06	2.51	14.77	0.7
APPROACH	30	4.0	0.334	4.73	26.07	7.26	0.7
IDLE	7	26.0	0.113	5.88	39.93	4.27	0.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			438	1425	9495	4233	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				12.2	81.4	36.2	0.7
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)				11.1-13.4	77.1-85.9	36-36.8	0.3-1.6

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.9-98
TEMPERATURE (K)	292.8-296.7
ABS HUMIDITY (kg/kg)	0.00814-0.0131

FUEL

SPEC	Jet A
H/C	1.93-1.94
AROM (%)	18-19.2

MANUFACTURER: CFM International
TEST ORGANIZATION: CFM56-7B Eval Engineering
TEST LOCATION: Peebles Test Operation (PTO), Peebles, Ohio
TEST DATES: 30/08/1997-12/09/1997

REMARKS

1. FAA Certification Report CR-997/2, 14 Nov 97
2. Engine S/N 874-136/01, 874-141/01, 874-146/01

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)