



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: LF507-1F, -1H
UNIQUE ID NUMBER: 1TL004
COMBUSTOR:
ENGINE TYPE: TF
BYPASS RATIO: 5.1
PRESSURE RATIO (π_{00}): 13.0
RATED THRUST (F_{00}) (kN): 31.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	16.7	110.6	40.4	13.6
AS % OF ORIGINAL LIMIT	85.2	93.7	61.2	41.7
AS % OF CAEP/2 LIMIT (NO _x)			76.5	
AS % OF CAEP/4 LIMIT (NO _x)			77.8	
AS % OF CAEP/6 LIMIT (NO _x)			78.3	
AS % OF CAEP/8 LIMIT (NO _x)			83.3	

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 ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	0.358	0.01	0.20	14.52	10.3
CLIMB OUT	85	2.2	0.296	0.01	0.30	12.02	10.2
APPROACH	30	4.0	0.108	0.12	4.43	6.39	6.9
IDLE	7	26.0	0.045	4.72	37.83	3.28	6.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			151	337	2803	1086	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				10.8	90.1	34.9	10.6
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 20 (% CORE FLOW)

AT - POWER SETTINGS
AT 9.41kN POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3-102.4
TEMPERATURE (K)	276-280
ABS HUMIDITY (kg/kg)	0.0023-0.0038

FUEL

SPEC	0.81
H/C	1.92
AROM (%)	19.7

MANUFACTURER: Textron Lycoming
TEST ORGANIZATION: Textron Lycoming
TEST LOCATION: Stratford, CT
TEST DATES: 19/12/1990-20/12/1990

REMARKS

Compliance with Fuel Venting requirements:

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