



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A
UNIQUE ID NUMBER: 4AL003
COMBUSTOR:
ENGINE TYPE: MTF

BYPASS RATIO: 5.2
PRESSURE RATIO (π_{00}): 18.1
RATED THRUST (F_{00}) (kN): 33.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	8.7	49.2	50.9	1.2
AS % OF ORIGINAL LIMIT	44.1	41.7	66.8	3.7
AS % OF CAEP/2 LIMIT (NO _x)			83.6	
AS % OF CAEP/4 LIMIT (NO _x)			85.6	
AS % OF CAEP/6 LIMIT (NO _x)			86.6	
AS % OF CAEP/8 LIMIT (NO _x)			92.4	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
x 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)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.377	0.25	0.75	20.54	1.0
CLIMB OUT	85	2.2	0.315	0.29	0.92	17.47	0.0
APPROACH	30	4.0	0.117	0.64	3.28	7.79	0.0
IDLE	7	26.0	0.049	2.51	17.35	3.83	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			162	226	1468	1563	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				6.7	43.2	46.3	1.0
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 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3
TEMPERATURE (K)	288
ABS HUMIDITY (kg/kg)	0.0063

FUEL

SPEC	Jet A/JP-8
H/C	1.9
AROM (%)	16.5

MANUFACTURER: Rolls-Royce Corporation
TEST ORGANIZATION: Allison Engine Company
TEST LOCATION: Indianapolis, Indiana
TEST DATES: 03/03/1994-19/04/1995

REMARKS

Compliance with Fuel Venting requirements:

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