



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A1
UNIQUE ID NUMBER: 01P06AL028
COMBUSTOR: Type 3 (reduced emissions)
ENGINE TYPE: MTF
BYPASS RATIO: 4.8
PRESSURE RATIO (π_{00}): 18.0
RATED THRUST (F_{00}) (kN): 34.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	12.3	108.5	44.6	0.0
AS % OF ORIGINAL LIMIT	63.0	91.9	58.8	0.0
AS % OF CAEP/2 LIMIT (NO _x)			73.4	
AS % OF CAEP/4 LIMIT (NO _x)			75.5	
AS % OF CAEP/6 LIMIT (NO _x)			76.6	
AS % OF CAEP/8 LIMIT (NO _x)			81.9	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	0.383	0.03	0.75	16.17	0.0
CLIMB OUT	85	2.2	0.318	0.03	0.56	14.07	0.0
APPROACH	30	4.0	0.113	0.03	6.72	7.13	0.0
IDLE	7	26.0	0.046	3.85	39.91	4.17	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			157	279	3088	1344	-
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)				8.0	88.4	38.5	0.0
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)	98.9-99
TEMPERATURE (K)	291-301
ABS HUMIDITY (kg/kg)	0.009-0.012

FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	16-20

MANUFACTURER: Rolls-Royce Corporation
TEST ORGANIZATION: Rolls-Royce Corporation
TEST LOCATION: Indianapolis, Indiana
TEST DATES: 09/06/2001-11/06/2001

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007A-076
- Data in this form for AE3007A1 engine fitted with reduced emissions combustor and PAB fuel nozzles
- Results based on Rolls-Royce report EDR 19587

Compliance with Fuel Venting requirements:

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