



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A1
UNIQUE ID NUMBER: 6AL005
ENGINE TYPE: MTF

BYPASS RATIO: 4.77
PRESSURE RATIO (π_{oo}): 17.97
RATED OUTPUT (F_{oo}) (kN): 34.91

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	11.4	60.8	45.9	1.2
AS % OF ORIGINAL LIMIT	58.3 %	51.5 %	60.4 %	3.7 %
AS % OF CAEP/2 LIMIT (NOx)			75.5 %	
AS % OF CAEP/4 LIMIT (NOx)			77.6 %	
AS % OF CAEP/6 LIMIT (NOx)			78.7 %	
AS % OF CAEP/8 LIMIT (NOx)			84.2 %	

DATA STATUS

- PRE-REGULATION
- CERTIFICATION
x 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

MEASURED DATA

MODE	POWER SETTING (% F_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.383	0.221	0.77	19.66	1
CLIMB OUT	85	2.2	0.318	0.257	0.96	16.63	0.01
APPROACH	30	4.0	0.113	0.655	3.91	7.1	0.01
IDLE	7	26.0	0.046	3.818	23.73	3.47	0.01
LTO TOTAL FUEL (kg) or EMISSIONS (g)			157	307	1865	1456	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				8.78	53.38	41.71	1
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	0
TEMPERATURE (K)	0
ABS HUMIDITY (kg/kg)	0

FUEL

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

MANUFACTURER: Rolls-Royce Corporation
TEST ORGANIZATION: Rolls-Royce Corporation
TEST LOCATION: Indianapolis, Indiana, USA
TEST DATES: FROM 03 Mar 94 TO 19 Apr 95

REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007A-076
- Results are based on Rolls-Royce report EDR 15171B
- AE3007A1 data in this report replace data reported in ICAO databank under ID No. 4AL002, Rev 9

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)