



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

**** DATA SUPERSEDED ** SEE SHEET: 6AL023**

ENGINE IDENTIFICATION: AE3007C1 BYPASS RATIO: 5.1
UNIQUE ID NUMBER: 6AL004 PRESSURE RATIO (π_{oo}): 16.6
ENGINE TYPE: MTF RATED OUTPUT (F_{oo}) (kN): 31.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	14.3	66.8	41.1	1.2
AS % OF ORIGINAL LIMIT	55.9 %	56.6 %	56.1 %	3.6 %
AS % OF CAEP/2 LIMIT (NOx)			70.2 %	
AS % OF CAEP/4 LIMIT (NOx)			71.3 %	
AS % OF CAEP/6 LIMIT (NOx)			71.9 %	
AS % OF CAEP/8 LIMIT (NOx)			76.4 %	

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

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	0.322	0.24	0.87	17.9	1
CLIMB OUT	85	2.2	0.269	0.28	1.07	15.35	0
APPROACH	30	4.0	0.099	0.66	3.96	7.05	0
IDLE	7	26.0	0.042	4.84	26.04	3.37	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			138	346	1850	1175	-
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)				10.95	58.61	37.36	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)	101.3
TEMPERATURE (K)	288
ABS HUMIDITY (kg/kg)	0.0063

FUEL

SPEC	Jet A / JP8
H/C	1.899
AROM (%)	16.5

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

Results based on Rolls Royce report EDR 15171B

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

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