



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A1/3  
UNIQUE ID NUMBER: 6AL011  
ENGINE TYPE: MTF

BYPASS RATIO: 4.81  
PRESSURE RATIO ( $\pi_{oo}$ ): 17.22  
RATED OUTPUT ( $F_{oo}$ ) (kN): 33.05

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	14.1	67.3	43.9	1.2
AS % OF ORIGINAL LIMIT	71.7 %	57.1 %	59.0 %	3.6 %
AS % OF CAEP/2 LIMIT (NOx)			73.7 %	
AS % OF CAEP/4 LIMIT (NOx)			75.4 %	
AS % OF CAEP/6 LIMIT (NOx)			76.2 %	
AS % OF CAEP/8 LIMIT (NOx)			81.2 %	

### 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	0.359	0.233	0.83	18.55	1
CLIMB OUT	85	2.2	0.300	0.269	1.03	15.81	0.01
APPROACH	30	4.0	0.108	0.689	4.21	6.83	0.01
IDLE	7	26.0	0.045	4.64	25.58	3.39	0.01
LTO TOTAL FUEL (kg) or EMISSIONS (g)			151	357	1954	1319	-
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)				10.8	59.1	39.93	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 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)