



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A1P  
UNIQUE ID NUMBER: 6AL014  
COMBUSTOR: Type 1  
ENGINE TYPE: MTF

BYPASS RATIO: 4.8  
PRESSURE RATIO ( $\pi_{00}$ ): 17.9  
RATED THRUST ( $F_{00}$ ) (kN): 34.7

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	11.6	61.2	45.7	1.2
AS % OF ORIGINAL LIMIT	58.9	51.9	60.3	3.7
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			75.4	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			77.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			78.5	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			84.0	

### 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 <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.381	0.22	0.77	19.57	1.0
CLIMB OUT	85	2.2	0.316	0.26	0.97	16.56	0.0
APPROACH	30	4.0	0.113	0.66	3.93	7.07	0.0
IDLE	7	26.0	0.046	3.85	23.80	3.47	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			157	308	1867	1444	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				8.9	53.8	41.6	1.0
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> 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)	
TEMPERATURE (K)	
ABS HUMIDITY (kg/kg)	

### 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: 03/03/1994-19/04/1995

### REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007A-076
- Results based on Rolls-Royce report EDR 15171B

Compliance with Fuel Venting requirements:

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