



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A3
UNIQUE ID NUMBER: 6AL019
ENGINE TYPE: MTF

BYPASS RATIO: 4.72
PRESSURE RATIO (π_{oo}): 17.2
RATED OUTPUT (F_{oo}) (kN): 33

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	13.5	115.7	43.3	0.0
AS % OF ORIGINAL LIMIT	68.8 %	98.0 %	58.1 %	0.0 %
AS % OF CAEP/2 LIMIT (NOx)			72.7 %	
AS % OF CAEP/4 LIMIT (NOx)			74.3 %	
AS % OF CAEP/6 LIMIT (NOx)			75.1 %	
AS % OF CAEP/8 LIMIT (NOx)			80.0 %	

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)
- OUT OF PRODUCTION
- 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	0.358	0.03	0.5	15.4	<.01
CLIMB OUT	85	2.2	0.300	0.03	0.5	13.48	<.01
APPROACH	30	4.0	0.108	0.03	7.65	6.93	<.01
IDLE	7	26.0	0.045	4.1	41.29	4.12	<.01
LTO TOTAL FUEL (kg) or EMISSIONS (g)			150	289	3111	1232	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				8.75	94.25	37.32	<.01
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)	98.9 - 99.0
TEMPERATURE (K)	291 - 301
AHS 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, USA
TEST DATES: FROM 09 Jun 01 TO 11 Jun 01

REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007A-076
- Data in this form for AE3007A3 engine fitted with reduced emissions combustor & PAB fuel nozzles
- Results based on Rolls-Royce report EDR 19587

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

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