



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007C2 BYPASS RATIO: 5.0
UNIQUE ID NUMBER: 13AL027 PRESSURE RATIO (π_{00}): 17.4
ENGINE TYPE: MTF RATED OUTPUT (F_{00}) (kN): 32.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	9.2	65.6	47.0	0.0
AS % OF ORIGINAL LIMIT	46.7 %	55.6 %	70.3 %	0.0 %
AS % OF CAEP/2 LIMIT (NOx)			78.4 %	
AS % OF CAEP/4 LIMIT (NOx)			80.1 %	
AS % OF CAEP/6 LIMIT (NOx)			80.9 %	
AS % OF CAEP/8 LIMIT (NOx)			86.2 %	

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_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.326	0	0	21.25	0.01
CLIMB OUT	85	2.2	0.271	0.01	0	18.11	0.01
APPROACH	30	4.0	0.099	0.22	1.97	6.56	0.01
IDLE	7	26.0	0.047	2.57	23.09	3.14	0.01
LTO TOTAL FUEL (kg) or EMISSIONS (g)			147	-	-	-	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				5.94	53.4	40.54	0.01
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} 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)	294
ABS 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 28 Aug 02 TO 29 Aug 02

REMARKS

1. For effectivity see Rolls-Royce Notice to Operators No. AE3007C-073
2. Data in this form for AE3007C2 engine fitted with PAB fuel nozzles
3. Results based on Rolls-Royce report EDR 19972
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

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

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