



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: RB211-524G-T
UNIQUE ID NUMBER: 4RR036
ENGINE TYPE: MTF

BYPASS RATIO: 4.25
PRESSURE RATIO (π_{00}): 32.1
RATED OUTPUT (F_{00}) (kN): 253

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	9.6	56.9	57.3	6.9
AS % OF ORIGINAL LIMIT	49.0 %	48.2 %	55.0 %	37.4 %
AS % OF CAEP/2 LIMIT (NOx)			68.7 %	
AS % OF CAEP/4 LIMIT (NOx)			80.5 %	
AS % OF CAEP/6 LIMIT (NOx)			90.7 %	
AS % OF CAEP/8 LIMIT (NOx)			105.5 %	

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	2.620	0	0.16	28.43	5.23
CLIMB OUT	85	2.2	2.100	0.03	0.14	21.8	5.23
APPROACH	30	4.0	0.740	0	1.17	9.68	1.83
IDLE	7	26.0	0.260	3.95	28.82	4	0.53
LTO TOTAL FUEL (kg) or EMISSIONS (g)			970	1610	11954	12513	-
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)				6.24	46.37	49.42	5.34
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} in g/kN, or SN)				5.29-7.11	43.60-50.58	48.0-50.3	4.7-6.0

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 % CORE FLOW

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.2
TEMPERATURE (K)	287
ABS HUMIDITY (kg/kg)	.0053-.0089

FUEL

SPEC	AVTUR
H/C	1.95
AROM (%)	16

MANUFACTURER: Rolls-Royce plc
TEST ORGANIZATION: Rolls-Royce plc
TEST LOCATION: SINFIN, Derby
TEST DATES: FROM Sep 94 TO -

REMARKS

Data from Certification Report DNS38044

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

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