ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 553-61   BYPASS RATIO: 7.5
UNIQUE ID NUMBER: 8RR044   PRESSURE RATIO (π_{oo}):   35.19
ENGINE TYPE: TF   RATED OUTPUT (F_{oo}) (kN): 251.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.3	17.0	60.7	5.4
AS % OF ORIGINAL LIMIT	1.5 %	14.4 %	55.0 %	29.3 %
AS % OF CAEP/2 LIMIT (NOx)			68.7 %	
AS % OF CAEP/4 LIMIT (NOx)			78.4 %	
AS % OF CAEP/6 LIMIT (NOx)			87.5 %	
AS % OF CAEP/8 LIMIT (NOx)			100.3 %	

DATA STATUS

-     PRE-REGULATION
- x   CERTIFICATION
-     REVISED (SEE REMARKS)

TEST ENGINE STATUS

- x   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) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	2.110	0.02	0.18	40.55	4.29
CLIMB OUT	85	2.2	1.730	0.01	0.44	30.98	4.15
APPROACH	30	4.0	0.600	0.04	0.66	11.37	1.95
IDLE	7	26.0	0.230	0.14	10.5	5.96	0.91
LTO TOTAL FUEL (kg) or EMISSIONS (g)	820			60	3979	14444	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				7	7	7	7
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				0.2	15.8	57.3	4.9
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.17	1.2	1.48	2.97
RANGE (D_p/F_{oo} in g/kN, or SN)				0.1 - 0.4	14.6 - 16.9	55.9-58.8	2.8-8.4

ACCESSORY LOADS

     POWER EXTRACTION   0   (kW)   AT   -   POWER SETTINGS
     STAGE BLEED   0   % CORE FLOW   AT   -   POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.04 - 102.91
TEMPERATURE (K)	275.5 - 280.3
ABS HUMIDITY (kg/kg)	0.0038 - 0.0062

FUEL

SPEC	-
H/C	1.97
AROM (%)	17.4

MANUFACTURER: Rolls-Royce
TEST ORGANIZATION: Rolls-Royce
TEST LOCATION: Derby
TEST DATES: FROM 23 Jun 05   TO 24 Jun 05

REMARKS

1. Certification Report DNS 90543
2. EP Engine Standard

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: x   ('x' if complies, PR if pre-regulation)