



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 772
 UNIQUE ID NUMBER: 3RR030
 ENGINE TYPE: MTF

BYPASS RATIO: 5.03
 PRESSURE RATIO (π_{00}): 35.8
 RATED OUTPUT (F_{00}) (kN): 316.3

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	3.2	31.9	65.3	2.6
AS % OF ORIGINAL LIMIT	16.3 %	27.0 %	58.5 %	15.1 %
AS % OF CAEP/2 LIMIT (NOx)			73.1 %	
AS % OF CAEP/4 LIMIT (NOx)			83.1 %	
AS % OF CAEP/6 LIMIT (NOx)			92.5 %	
AS % OF CAEP/8 LIMIT (NOx)			105.8 %	

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 ₀₀)	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	3.200	0	0.2	34.38	1.9
CLIMB OUT	85	2.2	2.580	0	0.16	26.44	2
APPROACH	30	4.0	0.850	0.01	0.89	10.3	0.7
IDLE	7	26.0	0.280	1.46	17.94	4.71	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1116	640	8099	17784	-
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)				2.06	26	56.3	2
SIGMA (D _p /F ₀₀ in g/kN, or SN)				-	-	-	-
RANGE (D _p /F ₀₀ in g/kN, or SN)				1.74-2.37	24.2-27.4	55.0-57.4	1.6-2.5

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

1. Data from certification report DNS 19234.
2. Improved traverse combustor.
3. Valid for Trent 772B and Trent 772C.
4. Certification in accordance with Part III, Chapter 2, of Amendment 6 of ICAO Annex 16 Vol. II.
5. NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

If REVISED, this data supersedes databank UID
 Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)