



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 556-61
UNIQUE ID NUMBER: 8RR045
COMBUSTOR: Phase5 Tiled
ENGINE TYPE: TF

BYPASS RATIO: 7.5
PRESSURE RATIO (π_{00}): 36.6
RATED THRUST (F_{00}) (kN): 263.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.3	15.2	64.9	5.4
AS % OF ORIGINAL LIMIT	1.5	12.9	57.3	29.8
AS % OF CAEP/2 LIMIT (NO _x)			71.6	
AS % OF CAEP/4 LIMIT (NO _x)			80.9	
AS % OF CAEP/6 LIMIT (NO _x)			89.9	
AS % OF CAEP/8 LIMIT (NO _x)			102.4	

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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	2.240	0.02	0.17	44.77	4.3
CLIMB OUT	85	2.2	1.830	0.01	0.38	33.25	4.2
APPROACH	30	4.0	0.620	0.04	0.54	11.68	2.1
IDLE	7	26.0	0.230	0.13	9.96	6.09	0.9
LTO TOTAL FUEL (kg) or EMISSIONS (g)			843	57	3762	16167	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				7	7	7	7
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				0.2	14.3	61.3	4.9
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.2	1.2	1.7	3.1
RANGE (D _p /F ₀₀ in g/kN, or SN)				0-0.4	13.5-15.8	59.8-63.2	2.4-8.4

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100-102.9
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 plc
TEST ORGANIZATION: Rolls-Royce
TEST LOCATION: Derby
TEST DATES: 23/06/2005-24/06/2005

REMARKS

1. Certification Report DNS 90543
2. EP Engine Standard
3. Engines manufactured after 2004

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)