



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 768
UNIQUE ID NUMBER: 2RR022
COMBUSTOR:
ENGINE TYPE: MTF

BYPASS RATIO: 5.2
PRESSURE RATIO (π_{oo}): 34.0
RATED THRUST (F_{oo}) (kN): 298.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	3.9	18.5	72.5	1.6
AS % OF ORIGINAL LIMIT	19.8	15.7	67.1	9.2
AS % OF CAEP/2 LIMIT (NO _x)			83.8	
AS % OF CAEP/4 LIMIT (NO _x)			96.5	
AS % OF CAEP/6 LIMIT (NO _x)			108.1	
AS % OF CAEP/8 LIMIT (NO _x)			124.6	

DATA STATUS

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

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
- 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: -)
x OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	2.940	0.25	0.18	39.11	
CLIMB OUT	85	2.2	2.420	0.38	0.13	30.01	
APPROACH	30	4.0	0.800	0.84	0.86	10.34	
IDLE	7	26.0	0.260	1.08	10.52	5.60	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1041	752	4496	18672	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				2.5	15.1	62.5	1.3
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)				1.53-3.52	13.83-15.92	62.1-62.8	1.1-1.5

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.6
TEMPERATURE (K)	293
ABS HUMIDITY (kg/kg)	0.0073-0.0084

FUEL

SPEC	AVTUR
H/C	1.94
AROM (%)	16

MANUFACTURER: Rolls-Royce plc
TEST ORGANIZATION: Rolls-Royce plc
TEST LOCATION: SINFIN-Derby
TEST DATES: 01/07/1994

REMARKS

1. Data from certification report DNS 12859.
2. For SN by mode data use 3RR029 data

Compliance with Fuel Venting requirements:

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