



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent XWB-75EP
UNIQUE ID NUMBER: 07P27RR150
COMBUSTOR: Phase5 Tiled
ENGINE TYPE: TF

BYPASS RATIO: 9.0
PRESSURE RATIO (π_{oo}): 39.3
RATED THRUST (F_{oo}) (kN): 334.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	1.9	32.5	48.6	11.3
AS % OF ORIGINAL LIMIT	9.6	27.6	41.0	66.4
AS % OF CAEP/2 LIMIT (NO _x)			51.2	
AS % OF CAEP/4 LIMIT (NO _x)			56.8	
AS % OF CAEP/6 LIMIT (NO _x)			62.7	
AS % OF CAEP/8 LIMIT (NO _x)			70.7	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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 (DATE: -)
- 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	2.373	0.00	0.35	39.89	6.3
CLIMB OUT	85	2.2	1.941	0.00	0.42	31.38	8.3
APPROACH	30	4.0	0.684	0.00	1.30	11.09	6.5
IDLE	7	26.0	0.250	1.42	25.16	4.14	1.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			910	552	10161	15451	-
NUMBER OF ENGINES				4	4	4	4
NUMBER OF TESTS				6	6	6	6
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				1.7	30.4	46.3	10.4
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.4	2.3	0.7	2.1
RANGE (D _p /F _{oo} in g/kN, or SN)				1.05-1.96	27.59-32.71	45.34-46.99	7.4-11.9

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.5-102.2
TEMPERATURE (K)	280-295
ABS HUMIDITY (kg/kg)	0.00248-0.00964

FUEL

SPEC	
H/C	1.92
AROM (%)	16.7

MANUFACTURER: Rolls-Royce plc
TEST ORGANIZATION: Rolls-Royce
TEST LOCATION: Derby
TEST DATES: 01/04/2012-30/03/2021

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- Certification report EDNS01000778911 Iss 1
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements:

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