



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TAY 651
UNIQUE ID NUMBER: 3RR032
ENGINE TYPE: MTF

BYPASS RATIO: 3
PRESSURE RATIO (π_{oo}): 16.4
RATED OUTPUT (F_{oo}) (kN): 68.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	6.3	82.2	46.9	12.7
AS % OF ORIGINAL LIMIT	32.1 %	69.6 %	64.4 %	48.4 %
AS % OF CAEP/2 LIMIT (NOx)			80.5 %	
AS % OF CAEP/4 LIMIT (NOx)			94.6 %	
AS % OF CAEP/6 LIMIT (NOx)			102.2 %	
AS % OF CAEP/8 LIMIT (NOx)			120.3 %	

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)
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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.870	0.09	0.75	17.56	5.6
CLIMB OUT	85	2.2	0.720	0.19	0.51	13.77	7.9
APPROACH	30	4.0	0.260	0.12	1.64	5.42	4
IDLE	7	26.0	0.120	1.32	23.26	2.52	0.56
LTO TOTAL FUEL (kg) or EMISSIONS (g)			381	276	4532	2760	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				1	4	4	4
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				4.08	66.93	40.45	9.87
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				4.08	64.2-69.8	39.7-41.1	9.3-10.4

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	-
TEMPERATURE (K)	283
ABS HUMIDITY (kg/kg)	.0068-.0081

FUEL

SPEC	AVTUR
H/C	1.95
AROM (%)	16.1

MANUFACTURER: Rolls Royce plc
TEST ORGANIZATION: Rolls Royce plc
TEST LOCATION: SINFIN, Derby
TEST DATES: FROM Jun 97 TO -

REMARKS

1. Pedhead combustor

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)