



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TAY Mk650-15
UNIQUE ID NUMBER: 1RR021
ENGINE TYPE: MTF

BYPASS RATIO: 3
PRESSURE RATIO (π_{oo}): 16.4
RATED OUTPUT (F_{oo}) (kN): 67.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	13.9	117.2	47.1	20.6
AS % OF ORIGINAL LIMIT	71.0 %	99.4 %	64.6 %	78.2 %
AS % OF CAEP/2 LIMIT (NOx)			80.8 %	
AS % OF CAEP/4 LIMIT (NOx)			94.4 %	
AS % OF CAEP/6 LIMIT (NOx)			101.7 %	
AS % OF CAEP/8 LIMIT (NOx)			119.3 %	

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	0.874	0.37	1.74	19.81	17.6
CLIMB OUT	85	2.2	0.715	0.41	2.01	16.47	16
APPROACH	30	4.0	0.254	0.88	6.54	4.55	2.2
IDLE	7	26.0	0.119	3.29	33.77	1.7	0.3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			378	717	6921	2875	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				10.7	102.9	42.8	17.6
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.63	11.8	3.92	1.98
RANGE (D_p/F_{oo} in g/kN, or SN)				10.2-11.1	94.6-111.3	40.2-45.6	16.2-19.0

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99-101
TEMPERATURE (K)	280 - 289
ABS HUMIDITY (kg/kg)	.005-.008

FUEL

SPEC	AVTUR
H/C	1.91
AROM (%)	20

MANUFACTURER: Rolls Royce Ltd
TEST ORGANIZATION: Rolls Royce Ltd
TEST LOCATION: Derby
TEST DATES: FROM Mar 88 TO Oct 89

REMARKS

1. Data from certification report CRR19057

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

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