



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: SPEY Mk555
UNIQUE ID NUMBER: 1RR017
ENGINE TYPE: MTF

BYPASS RATIO: 1
PRESSURE RATIO (π_{00}): 16.1
RATED OUTPUT (F_{00}) (kN): 43.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	510.1	442.1	55.8	-
AS % OF ORIGINAL LIMIT	2,602.5 %	374.6 %	77.3 %	#VALUE!
AS % OF CAEP/2 LIMIT (NOx)			96.6 %	
AS % OF CAEP/4 LIMIT (NOx)			102.9 %	
AS % OF CAEP/6 LIMIT (NOx)			105.9 %	
AS % OF CAEP/8 LIMIT (NOx)			115.8 %	

DATA STATUS

x PRE-REGULATION
- 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_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.720	0.88	0.44	18.92	66.2
CLIMB OUT	85	2.2	0.589	1.6	0	14.64	-
APPROACH	30	4.0	0.222	6.97	22.22	5.92	-
IDLE	7	26.0	0.115	92.74	88.23	1.83	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			341	17160	17026	2354	-
NUMBER OF ENGINES				2	2	2	-
NUMBER OF TESTS				2	2	2	-
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				392	388	50.75	66.2
SIGMA (D_p/F_{00} in g/kN, or SN)				82.1	148.9	12.48	-
RANGE (D_p/F_{00} in g/kN, or SN)				334-450	283-493	41.9-59.6	-

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	102
TEMPERATURE (K)	279
ABS HUMIDITY (kg/kg)	-

FUEL

SPEC	DERD 2494
H/C	1.94
AROM (%)	20

MANUFACTURER: Rolls Royce Ltd
TEST ORGANIZATION: Rolls Royce Ltd
TEST LOCATION: Derby
TEST DATES: FROM 26 May 05 TO 28 May 05

REMARKS

1. Estimate SN by mode data by use of Calvert method

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)