ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TAY 651
UNIQUE ID NUMBER: 3RR033
COMBUSTOR: Transply
ENGINE TYPE: MTF

BYPASS RATIO: 3.0
PRESSURE RATIO (π_{oo}): 16.4
RATED THRUST (F_{oo}) (kN): 68.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO_X	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	13.3	113.6	48.3	20.5
AS % OF ORIGINAL LIMIT	67.9	96.3	66.3	78.1
AS % OF CAEP/2 LIMIT (NO_X)			82.9	
AS % OF CAEP/4 LIMIT (NO_X)			97.4	
AS % OF CAEP/6 LIMIT (NO_X)			105.2	
AS % OF CAEP/8 LIMIT (NO_X)			123.9	

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 (DATE: -   )

MEASURED DATA

MODE	POWER SETTING ($\%F_{oo}$)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg) HC	CO	NO_X	SMOKE NUMBER
TAKE-OFF	100	0.7	0.870	0.56	1.68	20.31	17.5
CLIMB OUT	85	2.2	0.720	0.37	1.93	17.13	16.0
APPROACH	30	4.0	0.260	0.85	6.11	4.77	2.2
IDLE	7	26.0	0.120	3.10	32.68	1.72	0.3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			381	689	6744	2990	-
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)				10.2	99.7	43.9	17.5
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				9.9-10.4	91.6-107.8	40.9-46.8	16.1-18.9

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99-101
TEMPERATURE (K)	280-289
ABS HUMIDITY (kg/kg)	0.005-0.008

FUEL

SPEC	AVTUR
H/C	1.91
AROM (%)	20

MANUFACTURER: Rolls-Royce plc
TEST ORGANIZATION: Rolls-Royce plc
TEST LOCATION: SINFIN-Derby
TEST DATES: 01/03/1988-01/10/1989

REMARKS

1. Transply combustor

Compliance with Fuel Venting requirements: -   ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)