ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION:	Spey 555	BYPASS RATIO:	1.0
UNIQUE ID NUMBER:	4RR035	PRESSURE RATIO (π_{oo}):	15.9
COMBUSTOR:	Transply IIF		
ENGINE TYPE:	MTF	RATED THRUST (F_{oo}) (kN):	44.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	19.3	144.9	56.8	36.0
AS % OF ORIGINAL LIMIT	98.5	122.8	79.1	121.5
AS % OF CAEP/2 LIMIT (NOx)			98.9	
AS % OF CAEP/4 LIMIT (NOx)			105.5	
AS % OF CAEP/6 LIMIT (NOx)			108.5	
AS % OF CAEP/8 LIMIT (NOx)			118.8	

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	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	0.735	0.15	1.54	17.33	28.0
CLIMB OUT	85	2.2	0.593	0.22	2.08	13.06	26.4
APPROACH	30	4.0	0.221	0.33	5.78	5.05	24.4
IDLE	7	26.0	0.096	3.41	31.16	2.23	8.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			313	552	5203	2160	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				12.5	118.1	49.0	28.0
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				10.4-15.9	116.5-120	46.7-52.8	26.9-28.8

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.2
TEMPERATURE (K)	287
ABS HUMIDITY (kg/kg)	0.0068-0.0088

FUEL

SPEC	AVTUR
H/C	1.87-1.95
AROM (%)	15-20

MANUFACTURER:	Rolls-Royce plc
TEST ORGANIZATION:	Rolls-Royce plc
TEST LOCATION:	SINFIN-Derby
TEST DATES:	09/06/1985

REMARKS

    1. Ref RR report CRR10165
    2. Transply IIF combustors with standard fuel pump

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