ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: V2533-A5   BYPASS RATIO: 4.5
UNIQUE ID NUMBER: 3IA008   PRESSURE RATIO (π_{oo}):   33.4
COMBUSTOR:
ENGINE TYPE: MTF   RATED THRUST (F_{oo}) (kN):   140.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO_X	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.4	19.6	71.4	11.6
AS % OF ORIGINAL LIMIT	2.0	16.6	66.8	53.8
AS % OF CAEP/2 LIMIT (NO_X)			83.5	
AS % OF CAEP/4 LIMIT (NO_X)			96.6	
AS % OF CAEP/6 LIMIT (NO_X)			108.4	
AS % OF CAEP/8 LIMIT (NO_X)			125.3	

DATA STATUS

-       PRE-REGULATION
x   CERTIFICATION
-       REVISED (SEE REMARKS)

EMISSIONS STATUS

x   DATA CORRECTED TO REFERENCE
        (ANNEX 16 VOLUME II)

TEST ENGINE STATUS

x   NEWLY MANUFACTURED ENGINES
-       DEDICATED ENGINES TO PRODUCTION STANDARD
-       OTHER (SEE REMARKS)

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	1.426	0.05	0.46	36.48	4.7
CLIMB OUT	85	2.2	1.145	0.04	0.52	28.67	6.2
APPROACH	30	4.0	0.390	0.05	1.65	10.83	4.8
IDLE	7	26.0	0.136	0.10	9.32	5.24	2.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			517	35	2241	8646	-
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)				0.3	16.0	61.6	9.0
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)							

ACCESSORY LOADS

        POWER EXTRACTION   0   (kW)   AT   -   POWER SETTINGS
                STAGE BLEED   4.5   (% CORE FLOW)   AT   0.07   POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101-101.8
TEMPERATURE (K)	288-296
ABS HUMIDITY (kg/kg)	0.0086-0.0114

FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	

MANUFACTURER: International Aero Engines
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: East Hartford, CT
TEST DATES: 12/08/1992-13/08/1992

REMARKS

        1. Engine Type description originally wrongly given as TF; amended in Issue 15 to MTF

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