ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: V2533-A5   BYPASS RATIO: 4.46
UNIQUE ID NUMBER: 3IA008   PRESSURE RATIO (π_{oo}): 33.44
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN): 140.56

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	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 (NOx)			83.5 %	
AS % OF CAEP/4 LIMIT (NOx)			96.6 %	
AS % OF CAEP/6 LIMIT (NOx)			108.4 %	
AS % OF CAEP/8 LIMIT (NOx)			125.3 %	

DATA STATUS   TEST ENGINE STATUS

-    PRE-REGULATION   x   NEWLY MANUFACTURED ENGINES
x   CERTIFICATION   -   DEDICATED ENGINES TO PRODUCTION STANDARD
-    REVISED (SEE REMARKS)   -   OTHER (SEE REMARKS)

EMISSIONS STATUS   CURRENT ENGINE STATUS

x   DATA CORRECTED TO REFERENCE   (IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
     (ANNEX 16 VOLUME II)   -   OUT OF PRODUCTION
                                         -    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	1.426	0.047	0.463	36.48	4.7
CLIMB OUT	85	2.2	1.145	0.043	0.515	28.67	6.2
APPROACH	30	4.0	0.390	0.052	1.65	10.83	4.8
IDLE	7	26.0	0.136	0.1	9.317	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)				0.25	16	61.6	9
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   7   POWER SETTINGS

ATMOSPHERIC CONDITIONS   FUEL

BAROMETER (kPa)	101.0-101.8
TEMPERATURE (K)	288-296
ABS HUMIDITY (kg/kg)	.0086-.0114

SPEC	Jet A
H/C	–
AROM (%)	–

MANUFACTURER: International Aero Engines
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: East Hartford, CT, USA
TEST DATES: FROM   12 Aug 92   TO 13 Aug 92

REMARKS

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

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