ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: TFE731-2-2B   BYPASS RATIO: 2.64
UNIQUE ID NUMBER: 1AS001   PRESSURE RATIO (π_{oo}):   13.9
ENGINE TYPE: TF   RATED OUTPUT (F_{oo}) (kN): 15.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	62.3	183.2	42.9	–
AS % OF ORIGINAL LIMIT	317.6 %	155.3 %	63.3 %	#VALUE!
AS % OF CAEP/2 LIMIT (NOx)			79.1 %	
AS % OF CAEP/4 LIMIT (NOx)			75.9 %	
AS % OF CAEP/6 LIMIT (NOx)			76.2 %	
AS % OF CAEP/8 LIMIT (NOx)			78.2 %	

DATA STATUS   TEST ENGINE STATUS

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

EMISSIONS STATUS   CURRENT ENGINE STATUS

   –   DATA CORRECTED TO REFERENCE   (IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
       (ANNEX 16 VOLUME II)   x   OUT OF PRODUCTION (DATE: –)
                                     –   OUT OF SERVICE

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	0.205	0.114	1.394	15.25	–
CLIMB OUT	85	2.2	0.173	0.128	2.03	13.08	–
APPROACH	30	4.0	0.067	4.26	22.38	5.9	–
IDLE	7	26.0	0.024	20.04	58.6	2.82	–
LTO TOTAL FUEL (kg) or EMISSIONS (g)			85	823	2612	630	–
NUMBER OF ENGINES				3	3	3	–
NUMBER OF TESTS				3	3	3	–
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				53.4	169.4	40.5	–
SIGMA (D_p/F_{oo} in g/kN, or SN)				–	–	–	–
RANGE (D_p/F_{oo} in g/kN, or SN)				50-58	161-177	39-43	–

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS   FUEL

BAROMETER (kPa)	96.7-98.1
TEMPERATURE (K)	285 – 288
ABS HUMIDITY (kg/kg)	.0066-.0087

SPEC	ASTM D1655-73T
H/C	–
AROM (%)	17

MANUFACTURER: Allied Signal
TEST ORGANIZATION: Allied Signal
TEST LOCATION: Phoenix
TEST DATES: FROM   Dec 75   TO   Apr 76

REMARKS

Not required to meet GASEOUS regulations

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