ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

**** DATA SUPERSEDED ** SEE SHEET: 6AL005**

ENGINE IDENTIFICATION: AE3007A1 series
UNIQUE ID NUMBER: 4AL002
ENGINE TYPE: MTF
BYPASS RATIO: 4.76
PRESSURE RATIO (π_{oo}): 17.81
RATED OUTPUT (F_{oo}) (kN): 33.73

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	10.8	65.0	49.1	1.2
AS % OF ORIGINAL LIMIT	55.3 %	55.1 %	64.9 %	3.7 %
AS % OF CAEP/2 LIMIT (NOx)			81.1 %	
AS % OF CAEP/4 LIMIT (NOx)			83.1 %	
AS % OF CAEP/6 LIMIT (NOx)			84.0 %	
AS % OF CAEP/8 LIMIT (NOx)			89.8 %	

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

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	0.380	0.26	0.79	19.78	1
CLIMB OUT	85	2.2	0.319	0.3	0.97	16.84	0
APPROACH	30	4.0	0.117	0.72	3.8	7.22	0
IDLE	7	26.0	0.050	3.1	22.43	3.52	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			164	279	1910	1502	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				8.33	57.03	44.61	1
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 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3
TEMPERATURE (K)	288
ABS HUMIDITY (kg/kg)	0.0063

FUEL

SPEC	Jet A/JP-8
H/C	1.899
AROM (%)	16.5

MANUFACTURER: Allison Engine Company
TEST ORGANIZATION: Allison Engine Company
TEST LOCATION: Indianapolis, Indiana, USA
TEST DATES: FROM 03 Mar 94 TO 19 Apr 95

REMARKS

For AE3007A1, A1/1, A1/2

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