



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007A
UNIQUE ID NUMBER: 4AL003
ENGINE TYPE: MTF

BYPASS RATIO: 5.23
PRESSURE RATIO (π_{oo}): 18.08
RATED OUTPUT (F_{oo}) (kN): 33.73

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	8.7	49.2	50.9	1.2
AS % OF ORIGINAL LIMIT	44.1 %	41.7 %	66.8 %	3.7 %
AS % OF CAEP/2 LIMIT (NOx)			83.6 %	
AS % OF CAEP/4 LIMIT (NOx)			85.6 %	
AS % OF CAEP/6 LIMIT (NOx)			86.6 %	
AS % OF CAEP/8 LIMIT (NOx)			92.4 %	

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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.377	0.25	0.75	20.54	1
CLIMB OUT	85	2.2	0.315	0.29	0.92	17.47	0
APPROACH	30	4.0	0.117	0.64	3.28	7.79	0
IDLE	7	26.0	0.049	2.51	17.35	3.83	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			162	226	1468	1563	-
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)				6.65	43.15	46.3	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

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If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)