



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GP7270
UNIQUE ID NUMBER: 9EA001
ENGINE TYPE: TF

BYPASS RATIO: 8.71
PRESSURE RATIO (π_{00}): 36.62
RATED OUTPUT (F_{00}) (kN): 332.39

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	6.9	46.2	61.8	5.2
AS % OF ORIGINAL LIMIT	35.4 %	39.1 %	54.6 %	30.7 %
AS % OF CAEP/2 LIMIT (NOx)			68.2 %	
AS % OF CAEP/4 LIMIT (NOx)			77.0 %	
AS % OF CAEP/6 LIMIT (NOx)			85.6 %	
AS % OF CAEP/8 LIMIT (NOx)			97.5 %	

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)
- OUT OF PRODUCTION
- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (% F_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.637	0.03	0.11	41.73	4.06
CLIMB OUT	85	2.2	2.169	0.03	0.09	31.37	3.87
APPROACH	30	4.0	0.711	0.07	1.27	12.9	2.2
IDLE	7	26.0	0.234	4.04	33.58	5.24	3.08
LTO TOTAL FUEL (kg) or EMISSIONS (g)			932	1498	12497	17713	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				4.51	37.6	53.29	4.06
SIGMA (D_p/F_{00} in g/kN, or SN)				0.31	1.1	0.312	0.689
RANGE (D_p/F_{00} in g/kN, or SN)				4.17-4.77	36.35-38.46	53.06-53.65	3.28-4.56

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.396 - 97.812
TEMPERATURE (K)	287.74 - 296.06
ABS HUMIDITY (kg/kg)	0.00503 - 0.00863

FUEL

SPEC	Jet A1
H/C	13.86 - 13.92
AROM (%)	16.8 - 17.6

MANUFACTURER: Engine Alliance
TEST ORGANIZATION: General Electric Peebles Test Operation
TEST LOCATION: Site 4D
TEST DATES: FROM 28 May 05 TO 29 May 05

REMARKS

- GE Aviation Reports R2005AE431 and R2006AE504 Engine serial number 550-007/1
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NOx levels in accordance with Part III, Chapter 2, 2.3.2 e)

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

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