



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-85B
UNIQUE ID NUMBER: 9GE122
COMBUSTOR: PEC
ENGINE TYPE: TF

BYPASS RATIO: 8.4
PRESSURE RATIO (π_{00}): 38.4
RATED THRUST (F_{00}) (kN): 388.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	5.5	48.1	74.6	2.2
AS % OF ORIGINAL LIMIT	27.9	40.7	63.9	13.3
AS % OF CAEP/2 LIMIT (NO _x)			79.8	
AS % OF CAEP/4 LIMIT (NO _x)			89.1	
AS % OF CAEP/6 LIMIT (NO _x)			98.5	
AS % OF CAEP/8 LIMIT (NO _x)			111.5	

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)
x OUT OF PRODUCTION (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	3.182	0.04	0.32	46.77	1.7
CLIMB OUT	85	2.2	2.591	0.03	0.32	38.49	0.8
APPROACH	30	4.0	0.851	0.06	1.79	15.56	1.4
IDLE	7	26.0	0.292	2.96	32.26	5.25	1.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1135	1379	15214	24985	-
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)				3.6	39.2	64.3	1.7
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.3	1.2	0.5	0.5
RANGE (D _p /F ₀₀ in g/kN, or SN)				3.34-3.92	38.33-40.55	63.8-64.88	1.23-2.16

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT All POWER SETTINGS
AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.4-98.7
TEMPERATURE (K)	277.2-281.3
ABS HUMIDITY (kg/kg)	0.0015-0.0043

FUEL

SPEC	Jet A-1
H/C	
AROM (%)	15-16

MANUFACTURER: General Electric Company
TEST ORGANIZATION: General Electric Peebles Test Operation
TEST LOCATION: Site 6A
TEST DATES: 30/11/2007-08/12/2007

REMARKS

1. GE Aviation Report R2007AE851
2. Engine serial number 900-505/1
3. Turbomachinery incorporating 2D aero
4. Performance Enhanced Combustor (PEC)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)