



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-90B
UNIQUE ID NUMBER: 6GE090
COMBUSTOR: DAC II
ENGINE TYPE: TF

BYPASS RATIO: 8.4
PRESSURE RATIO (π_{00}): 39.4
RATED THRUST (F_{00}) (kN): 418.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.8	18.5	77.4	4.6
AS % OF ORIGINAL LIMIT	4.2	15.7	65.2	28.9
AS % OF CAEP/2 LIMIT (NO _x)			81.5	
AS % OF CAEP/4 LIMIT (NO _x)			90.3	
AS % OF CAEP/6 LIMIT (NO _x)			99.6	
AS % OF CAEP/8 LIMIT (NO _x)			112.4	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
- 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	3.348	0.04	0.12	52.48	3.6
CLIMB OUT	85	2.2	2.733	0.04	0.13	39.50	2.7
APPROACH	30	4.0	0.878	0.05	1.16	16.94	3.2
IDLE	7	26.0	0.291	0.43	13.21	6.00	2.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1166	226	6305	27923	-
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)				0.5	15.1	66.8	3.6
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.0	0.4	0.3	0.7
RANGE (D _p /F ₀₀ in g/kN, or SN)				0.49-0.56	14.62-15.31	66.48-66.95	2.83-4.25

ACCESSORY LOADS

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

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.3-98.2
TEMPERATURE (K)	279.1-281.6
ABS HUMIDITY (kg/kg)	0.0022-0.0064

FUEL

SPEC	Jet A
H/C	
AROM (%)	17.4

MANUFACTURER: General Electric Company
TEST ORGANIZATION: GE90 Eval Engineering
TEST LOCATION: Site IIID, PTO, Peebles, OH
TEST DATES: 09/01/2000-12/01/2000

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

1. Ref. GE Report R97AEB298,
2. Engine S/N 900326
3. Turbomachinery incorporating 3D aero
4. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
5. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

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