



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-92B  
UNIQUE ID NUMBER: 3GE066  
COMBUSTOR: DAC II  
ENGINE TYPE: TF

BYPASS RATIO: 8.3  
PRESSURE RATIO ( $\pi_{00}$ ): 40.6  
RATED THRUST ( $F_{00}$ ) (kN): 426.7

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.6	15.6	74.9	0.6
AS % OF ORIGINAL LIMIT	3.1	13.2	61.8	3.8
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			77.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			84.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			93.4	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			105.0	

### 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 <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	3.515	0.04	0.15	55.90	2.1
CLIMB OUT	85	2.2	2.844	0.04	0.15	40.51	1.8
APPROACH	30	4.0	0.917	0.07	0.94	17.74	1.8
IDLE	7	26.0	0.304	0.37	12.35	5.92	1.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1217	212	6142	30172	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				5	5	5	5
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.5	14.4	70.7	
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.24-0.81	12.5-16.1	66.8-74.7	0-2.07

### ACCESSORY LOADS

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

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.5-98.6
TEMPERATURE (K)	283-301
ABS HUMIDITY (kg/kg)	0.0036-0.0151

### FUEL

SPEC	Jet A
H/C	1.91-1.94
AROM (%)	18.1-19.3

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: GE90 Eval Engineering  
TEST LOCATION: Site IIID, PTO, Peebles, Ohio  
TEST DATES: 24/04/1997-19/06/1997

### REMARKS

1. GE Report R96AEB292.
2. Engine S/S 900-173, 900-166 & 900-167
3. DAC II combustor

Compliance with Fuel Venting requirements:

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