



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-76B  
UNIQUE ID NUMBER: 2GE052  
COMBUSTOR: DAC I  
ENGINE TYPE: TF

BYPASS RATIO: 8.5  
PRESSURE RATIO ( $\pi_{00}$ ): 35.3  
RATED THRUST ( $F_{00}$ ) (kN): 360.6

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	5.6	59.1	62.6	11.2
AS % OF ORIGINAL LIMIT	28.5	50.1	56.6	67.5
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			70.8	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			80.7	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			90.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			103.1	

### DATA STATUS

- PRE-REGULATION  
- CERTIFICATION  
x 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	2.830	0.07	0.09	44.86	0.0
CLIMB OUT	85	2.2	2.330	0.06	0.13	35.39	0.0
APPROACH	30	4.0	0.780	0.67	5.80	12.68	0.0
IDLE	7	26.0	0.300	3.42	40.35	5.88	9.9
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1082	1753	20020	21342	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				4.8	54.7	59.1	10.2
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)				4.18-5.28	52.1-56.4	58-61	9.4-10.2

### ACCESSORY LOADS

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

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-98.6
TEMPERATURE (K)	274-299
ABS HUMIDITY (kg/kg)	0.001-0.00726

### FUEL

SPEC	Jet A
H/C	1.91-1.92
AROM (%)	15.9-18.6

MANUFACTURER: General Electric Company  
TEST ORGANIZATION: GE90 Eval Engineering  
TEST LOCATION: Site IVD and 6, PTO, Peebles  
TEST DATES: 24/02/1995-28/07/1995

### REMARKS

1. Ref GE Report TM95-45.
2. Engine S/N 900-108, 900-111 & 900-114.
3. Post certification/ as delivered to service.
4. Smoke <3 below meas. capability.
5. DAC I combustor

Compliance with Fuel Venting requirements:

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