



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Passport20-19BB1A
UNIQUE ID NUMBER: 21GE185
COMBUSTOR: SAC
ENGINE TYPE: MTF

BYPASS RATIO: 5.9
PRESSURE RATIO (π_{00}): 41.4
RATED THRUST (F_{00}) (kN): 84.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.1	19.6	70.2	0.6
AS % OF ORIGINAL LIMIT	0.6	16.6	57.2	2.4
AS % OF CAEP/2 LIMIT (NO _x)			71.4	
AS % OF CAEP/4 LIMIT (NO _x)			77.6	
AS % OF CAEP/6 LIMIT (NO _x)			84.5	
AS % OF CAEP/8 LIMIT (NO _x)			94.1	

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)
- 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	0.801	0.01	0.29	37.60	0.5
CLIMB OUT	85	2.2	0.657	0.01	0.30	28.76	0.4
APPROACH	30	4.0	0.228	0.02	1.22	14.81	0.0
IDLE	7	26.0	0.078	0.04	11.03	6.55	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			297	7	1450	5371	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				0.1	17.2	63.8	0.5
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.0	2.0	0.5	0.4
RANGE (D _p /F ₀₀ in g/kN, or SN)				0.05-0.11	15.35-19.86	63.44-64.52	0.1-1

ACCESSORY LOADS

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

AT All POWER SETTINGS
AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96.7-99.1
TEMPERATURE (K)	285.3-294.3
ABS HUMIDITY (kg/kg)	0.0044-0.0104

FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	15.41

MANUFACTURER: General Electric Company
TEST ORGANIZATION: General Electric Company
TEST LOCATION: PTO, Ohio
TEST DATES: 20/10/2015-23/05/2017

NO_x REGULATION PARAGRAPH

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

REMARKS

1. Ref. GE Aviation Report P20-2017-MT-019_R-3400.00/Rev. 0
2. Engine S/N 904-010/01 and S/N 904-114/01
3. SMOKE NUMBER for each LTO mode is average of interpolated values from curve fit for each test run
4. AVERAGE SN (MAX) is average of maximum smoke number between 7% and 100% F00 for each test run

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)