



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Passport20-19BB1A BYPASS RATIO: 5.9
UNIQUE ID NUMBER: 21GE185 PRESSURE RATIO (π_{00}): 41.4
ENGINE TYPE: MTF RATED OUTPUT (F_{00}) (kN): 84.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	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 (NOx)			71.4 %	
AS % OF CAEP/4 LIMIT (NOx)			77.6 %	
AS % OF CAEP/6 LIMIT (NOx)			84.5 %	
AS % OF CAEP/8 LIMIT (NOx)			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
- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (% F_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.801	0.01	0.29	37.6	0.5
CLIMB OUT	85	2.2	0.657	0.01	0.3	28.76	0.4
APPROACH	30	4.0	0.228	0.02	1.22	14.81	0
IDLE	7	26.0	0.078	0.04	11.03	6.55	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)				0.09	17.23	63.82	0.5
SIGMA (D_p/F_{00} in g/kN, or SN)				0.03	1.95	0.49	0.4
RANGE (D_p/F_{00} in g/kN, or SN)				0.05 - 0.1	15.35 - 19.86	63.44 - 64.52	0.1 - 1.0

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS
STAGE BLEED 0 % CORE FLOW 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: GE Aircraft Engines
TEST ORGANIZATION: GE Aviation
TEST LOCATION: PTO, Ohio
TEST DATES: FROM 20 Oct 15 TO 23 May 17

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

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: x ('x' if complies, PR if pre-regulation)