



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-45A2
UNIQUE ID NUMBER: 3GE068
ENGINE TYPE: TF

BYPASS RATIO: 4.3
PRESSURE RATIO (π_{00}): 25.38
RATED OUTPUT (F_{00}) (kN): 202.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	6.0	42.3	52.0	16.1
AS % OF ORIGINAL LIMIT	30.6 %	35.8 %	57.3 %	82.6 %
AS % OF CAEP/2 LIMIT (NOx)			71.6 %	
AS % OF CAEP/4 LIMIT (NOx)			87.2 %	
AS % OF CAEP/6 LIMIT (NOx)			99.1 %	
AS % OF CAEP/8 LIMIT (NOx)			119.2 %	

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

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	2.027	0.09	0.43	25.45	11.61
CLIMB OUT	85	2.2	1.663	0.14	0.54	21.61	11.98
APPROACH	30	4.0	0.592	0.35	5.01	9.36	1.25
IDLE	7	26.0	0.163	2.72	24.04	3.4	1.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			701	780	6980	9105	-
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)				3.88	34.43	44.9	12.52
SIGMA (D_p/F_{00} in g/kN, or SN)				0.14	0.56	2.94	1.79
RANGE (D_p/F_{00} in g/kN, or SN)				3.76-4.04	33.90-34.38	42.69-48.24	10.68-14.00

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.73-97.91
TEMPERATURE (K)	292.3-301.3
ABS HUMIDITY (kg/kg)	.0127-.0216

FUEL

SPEC	Jet A
H/C	1.935
AROM (%)	16.3

MANUFACTURER: GE
TEST ORGANIZATION: GE Development/Production Test Operation
TEST LOCATION: Site IVD, Peebles, Ohio
TEST DATES: FROM 28 Jul 87 TO 29 Jul 87

REMARKS

- Engine equipped with low emissions fuel nozzle config.
- GE Report R87AEB559.
- Engine 530375/001.
- Idle emissions calculated at normal idle setting rather than 7%.

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)