



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: HTF7500E (AS907-3-1E-A2) BYPASS RATIO: 4.2
UNIQUE ID NUMBER: 14HN007 PRESSURE RATIO (π_{00}): 22.3
ENGINE TYPE: MTF RATED OUTPUT (F_{00}) (kN): 31.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	3.4	87.5	46.9	15.0
AS % OF ORIGINAL LIMIT	17.1 %	74.1 %	55.5 %	46.1 %
AS % OF CAEP/2 LIMIT (NOx)			69.3 %	
AS % OF CAEP/4 LIMIT (NOx)			70.4 %	
AS % OF CAEP/6 LIMIT (NOx)			71.0 %	
AS % OF CAEP/8 LIMIT (NOx)			75.3 %	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
x 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	0.349	0.05	0.55	18.01	13.6
CLIMB OUT	85	2.2	0.289	0.06	0.63	16.22	10.6
APPROACH	30	4.0	0.102	0.12	6.24	8.84	0.76
IDLE	7	26.0	0.049	1.11	31.03	3.94	1.77
LTO TOTAL FUEL (kg) or EMISSIONS (g)			154	91	2557	1400	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				10	10	10	10
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				2.87	80.9	44.31	13.6
SIGMA (D_p/F_{00} in g/kN, or SN)				0.67	4.51	2.22	1.55
RANGE (D_p/F_{00} in g/kN, or SN)				1.91-3.55	74.10-86.71	38.67-46.11	9.2-13.6

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96.44-97.59
TEMPERATURE (K)	296-313
ABS HUMIDITY (kg/kg)	0.0013-0.0125

FUEL

SPEC	Jet-A
H/C	13.5-13.7
AROM (%)	16.9-20.5

MANUFACTURER: Honeywell
TEST ORGANIZATION: Honeywell
TEST LOCATION: Phoenix, AZ
TEST DATES: FROM 07 Apr 10 TO 29 Jul 10

REMARKS

- Reference: Honeywell Report 21-14050(29)-1
- Exhaust Smoke and Gaseous Emissions Similarity Analysis for the AS-907-3-1E Turbofan Engine
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)□

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

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