



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: HTF7500E (AS907-3-1E-A3) BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 14HN008 PRESSURE RATIO (π_{00}): 23.6
 ENGINE TYPE: MTF RATED OUTPUT (F_{00}) (kN): 33.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	2.5	76.3	48.7	15.0
AS % OF ORIGINAL LIMIT	12.6 %	64.6 %	55.8 %	47.0 %
AS % OF CAEP/2 LIMIT (NOx)			69.8 %	
AS % OF CAEP/4 LIMIT (NOx)			71.3 %	
AS % OF CAEP/6 LIMIT (NOx)			72.1 %	
AS % OF CAEP/8 LIMIT (NOx)			76.8 %	

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 _{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.378	0.05	0.56	19.06	13.6
CLIMB OUT	85	2.2	0.312	0.06	0.57	16.88	10.6
APPROACH	30	4.0	0.108	0.12	5.7	9.23	0.8
IDLE	7	26.0	0.050	0.84	28.08	4.04	1.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			161	72	2370	1552	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				10	10	10	10
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				2.12	70.5	45.94	13.6
SIGMA (D _p /F _{oo} in g/kN, or SN)				0.48	4.83	2.33	1.57
RANGE (D _p /F _{oo} in g/kN, or SN)				1.45-2.70	63.50-76.52	40.04-47.74	9.0-13.6

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)