



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AS907-2-1S (HTF7700L) BYPASS RATIO: 4.2
UNIQUE ID NUMBER: 01P18HN013 PRESSURE RATIO (π_{co}): 23.3
COMBUSTOR: SABER-1
ENGINE TYPE: MTF RATED THRUST (F_{co}) (kN): 34.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{co} (g/kN) or SN	2.7	76.5	48.9	15.0
AS % OF ORIGINAL LIMIT	13.6	64.8	56.4	53.0
AS % OF CAEP/2 LIMIT (NO _x)			70.5	
AS % OF CAEP/4 LIMIT (NO _x)			72.1	
AS % OF CAEP/6 LIMIT (NO _x)			73.0	
AS % OF CAEP/8 LIMIT (NO _x)			77.7	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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 (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER	TIME	FUEL FLOW	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
	SETTING (%F _{co})	(minutes)	(kg/s)	HC	CO	NO _x	
TAKE-OFF	100	0.7	0.386	0.05	0.60	19.40	13.6
CLIMB OUT	85	2.2	0.319	0.06	0.58	16.96	11.2
APPROACH	30	4.0	0.109	0.11	5.72	9.21	1.0
IDLE	7	26.0	0.048	0.95	29.62	4.01	1.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			159	77	2402	1570	–
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				10	10	10	10
AVERAGE D _p /F _{co} (g/kN) or AVERAGE SN (MAX)				2.3	70.7	46.1	13.6
SIGMA (D _p /F _{co} in g/kN, or SN)				0.4	4.0	2.3	1.6
RANGE (D _p /F _{co} in g/kN, or SN)				1.64–2.93	64.68–75.93	40.12–47.91	9–13.6

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96.4-97.6
TEMPERATURE (K)	296-313
ABS HUMIDITY (kg/kg)	0.0013-0.0125

FUEL

SPEC	Jet A
H/C	1.87-1.89
AROM (%)	16.9-20.5

MANUFACTURER: Honeywell
TEST ORGANIZATION: Honeywell
TEST LOCATION: Phoenix, AZ
TEST DATES: 07/04/2010-29/07/2010

NO_x REGULATION PARAGRAPH

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

REMARKS

- Reference: Honeywell Report 21-15565(29)-1
- Exhaust Smoke and Gaseous Emissions Similarity Analysis for the AS907-2-1S Turbofan Engine
- Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)