



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: AS907-2-1G (HTF7250G) BYPASS RATIO: 4.2
UNIQUE ID NUMBER: 01P11HN012 PRESSURE RATIO (π_{co}): 22.6
COMBUSTOR: SABER-1
ENGINE TYPE: MTF RATED THRUST (F_{eo}) (kN): 32.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{eo} (g/kN) or SN	2.9	83.5	48.1	15.0
AS % OF ORIGINAL LIMIT	15.0	70.7	63.2	46.6
AS % OF CAEP/2 LIMIT (NO _x)			70.6	
AS % OF CAEP/4 LIMIT (NO _x)			72.0	
AS % OF CAEP/6 LIMIT (NO _x)			72.7	
AS % OF CAEP/8 LIMIT (NO _x)			77.3	

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 SETTING (%F _{co})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.372	0.05	0.57	18.43	13.6
CLIMB OUT	85	2.2	0.308	0.06	0.60	16.44	10.6
APPROACH	30	4.0	0.107	0.12	6.07	8.96	0.8
IDLE	7	26.0	0.049	0.99	30.48	3.97	1.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			158	82	2519	1490	–
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)				2.5	76.7	45.3	13.6
SIGMA (D _p /F _{co} in g/kN, or SN)				0.5	4.3	2.3	1.5
RANGE (D _p /F _{co} in g/kN, or SN)				1.82–3.24	70.64–82.76	39.59–47.27	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)	96.4-97.6
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)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- Reference: Honeywell Report 21-14477A
- Exhaust Smoke and Gaseous Emissions tests of the AS907-1-1A and AS907-2-1G Turbofan Engines
- Reported using humidity h=0.00634 in accordance with ICAO Annex 16, Vol. II, 3rd Ed., section 7.1.3.
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

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