



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: HTF7350 (AS907-2-1A) BYPASS RATIO: 4.2  
UNIQUE ID NUMBER: 14HN009 PRESSURE RATIO ( $\pi_{oo}$ ): 22.9  
ENGINE TYPE: MTF RATED OUTPUT ( $F_{oo}$ ) (kN): 33.0

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	2.9	81.7	48.2	15.0
AS % OF ORIGINAL LIMIT	14.6 %	69.2 %	56.2 %	46.6 %
AS % OF CAEP/2 LIMIT (NOx)			70.2 %	
AS % OF CAEP/4 LIMIT (NOx)			71.6 %	
AS % OF CAEP/6 LIMIT (NOx)			72.3 %	
AS % OF CAEP/8 LIMIT (NOx)			76.9 %	

### 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	0.373	0.05	0.58	18.79	13.6
CLIMB OUT	85	2.2	0.309	0.06	0.59	16.64	10.6
APPROACH	30	4.0	0.107	0.12	5.98	9.03	0.8
IDLE	7	26.0	0.048	1	30.9	3.98	1.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			157	81	2501	1503	-
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)				2.45	75.55	45.47	13.6
SIGMA ( $D_p/F_{oo}$ in g/kN, or SN)				0.54	3.83	2.28	1.57
RANGE ( $D_p/F_{oo}$ in g/kN, or SN)				1.89-3.49	69.73-80.58	39.57-47.26	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
AHS 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 21-14930(29)-1
- Exhaust Smoke and Gaseous Emissions Similarity Analysis for the AS-907-2-1A 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)