



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: V2527-A5  
UNIQUE ID NUMBER: 1IA003  
COMBUSTOR:  
ENGINE TYPE: MTF  
BYPASS RATIO: 4.8  
PRESSURE RATIO ( $\pi_{00}$ ): 27.2  
RATED THRUST ( $F_{00}$ ) (kN): 111.2

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.4	30.6	56.2	11.6
AS % OF ORIGINAL LIMIT	2.3	25.9	59.6	50.4
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			74.4	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			89.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			102.2	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			121.7	

### DATA STATUS

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

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- 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)  
x OUT OF PRODUCTION (DATE: - )  
- OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	1.053	0.04	0.53	26.50	5.2
CLIMB OUT	85	2.2	0.880	0.04	0.62	22.30	7.2
APPROACH	30	4.0	0.319	0.06	2.44	8.90	4.2
IDLE	7	26.0	0.128	0.11	12.43	4.70	2.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			437	32	2764	5382	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.3	24.9	48.5	9.0
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW)  
STAGE BLEED 4.5 (% CORE FLOW)

AT - POWER SETTINGS  
AT 0.07 POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101-101.8
TEMPERATURE (K)	288-296
ABS HUMIDITY (kg/kg)	0.0086-0.0114

### FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	

MANUFACTURER: International Aero Engines  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: East Hartford, CT  
TEST DATES: 12/08/1992-13/08/1992

### REMARKS

1. Engine Type description originally wrongly given as TF; amended in Issue 15 to MTF

Compliance with Fuel Venting requirements:

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