



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: D-30 (I1 series)  
UNIQUE ID NUMBER: 1AA001  
ENGINE TYPE: MTF

BYPASS RATIO: 0.85  
PRESSURE RATIO ( $\pi_{00}$ ): 18.4  
RATED OUTPUT ( $F_{00}$ ) (kN): 66.64

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	207.8	257.6	75.5	45.1
AS % OF ORIGINAL LIMIT	1,060.0 %	218.3 %	98.3 %	170.3 %
AS % OF CAEP/2 LIMIT (NOx)			122.8 %	
AS % OF CAEP/4 LIMIT (NOx)			141.9 %	
AS % OF CAEP/6 LIMIT (NOx)			152.8 %	
AS % OF CAEP/8 LIMIT (NOx)			177.2 %	

### DATA STATUS

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

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
- DEDICATED ENGINES TO PRODUCTION STANDARD  
x OTHER (SEE REMARKS)

### EMISSIONS STATUS

- 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

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.150	0.12	2.7	19.1	33
CLIMB OUT	85	2.2	0.975	0.14	3.2	16.3	35
APPROACH	30	4.0	0.350	1.5	14.5	7	27
IDLE	7	26.0	0.130	43.6	60.3	3.6	8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			464	8992	13989	4338	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				2	2	2	1
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				134.9	209.9	65.1	35
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-

### ACCESSORY LOADS

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

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	103
TEMPERATURE (K)	293
ABS HUMIDITY (kg/kg)	0.01048

### FUEL

SPEC	TS-1
H/C	2
AROM (%)	19.3

MANUFACTURER: AO 'Aviadgatel'  
TEST ORGANIZATION: State Inst for Civ Aviation  
TEST LOCATION: Sheremetjevo, Moscow  
TEST DATES: FROM 03 Aug 90 TO -

### REMARKS

1. Data obtained on aircraft (Tu-134B)
2. In-service engine(s), tested after overhaul

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)