



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: D-30KP-2
UNIQUE ID NUMBER: 1AA002
COMBUSTOR:
ENGINE TYPE: MTF

BYPASS RATIO: 2.2
PRESSURE RATIO (π_{00}): 19.5
RATED THRUST (F_{00}) (kN): 117.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	47.2	208.6	49.5	25.1
AS % OF ORIGINAL LIMIT	241.0	176.8	62.7	110.9
AS % OF CAEP/2 LIMIT (NO _x)			78.4	
AS % OF CAEP/4 LIMIT (NO _x)			98.8	
AS % OF CAEP/6 LIMIT (NO _x)			112.2	
AS % OF CAEP/8 LIMIT (NO _x)			140.4	

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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.670	0.70	2.20	16.50	17.5
CLIMB OUT	85	2.2	1.420	0.80	2.80	13.50	19.5
APPROACH	30	4.0	0.490	2.70	15.40	6.30	16.0
IDLE	7	26.0	0.210	13.30	62.40	3.30	6.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			703	4874	22932	5510	-
NUMBER OF ENGINES				4	4	4	1
NUMBER OF TESTS				7	7	7	1
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				41.4	195.0	47.1	19.5
SIGMA (D _p /F ₀₀ in g/kN, or SN)				8.6	11.1	6.6	
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)	102.7-103.1
TEMPERATURE (K)	284-289
ABS HUMIDITY (kg/kg)	0.00748

FUEL

SPEC	TS-1
H/C	2
AROM (%)	19

MANUFACTURER: Aviadvigatel
TEST ORGANIZATION: State Inst for Civ Aviation
TEST LOCATION: Sheremetjevo, Moscow
TEST DATES: 28/06/1990

REMARKS

1. Data obtained on aircraft (Il-76TD)
2. In-service engine(s), tested before overhaul

Compliance with Fuel Venting requirements:

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