



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: NK-8-2U
UNIQUE ID NUMBER: 1KK001
COMBUSTOR:
ENGINE TYPE: MTF
BYPASS RATIO: 1.2
PRESSURE RATIO (π_{00}): 10.8
RATED THRUST (F_{00}) (kN): 103.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	505.1	532.0	49.0	30.2
AS % OF ORIGINAL LIMIT	2577.2	450.8	79.6	128.8
AS % OF CAEP/2 LIMIT (NO _x)			99.5	
AS % OF CAEP/4 LIMIT (NO _x)			135.2	
AS % OF CAEP/6 LIMIT (NO _x)			153.6	
AS % OF CAEP/8 LIMIT (NO _x)			212.3	

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	1.750	0.45	5.50	13.90	
CLIMB OUT	85	2.2	1.170	0.55	6.00	12.90	
APPROACH	30	4.0	0.580	5.00	21.00	5.40	
IDLE	7	26.0	0.240	103.80	116.00	2.70	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			742	39677	47684	4776	-
NUMBER OF ENGINES				2	2	2	
NUMBER OF TESTS				2	2	2	
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				388.2	466.9	44.6	23.5
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)	102.6
TEMPERATURE (K)	300
ABS HUMIDITY (kg/kg)	0.00876

FUEL

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

MANUFACTURER: KKBM
TEST ORGANIZATION: State Inst for Civ Aviation
TEST LOCATION: Sheremetjevo, Moscow
TEST DATES: 12/07/1989

REMARKS

1. Data obtained on aircraft (Tu-154A)
2. In-service engine(s), tested after overhaul

Compliance with Fuel Venting requirements:

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