ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: NK-86
UNIQUE ID NUMBER: 1KK003
ENGINE TYPE: MTF

BYPASS RATIO: 1.33
PRESSURE RATIO (π_{oo}): 13.4
RATED OUTPUT (F_{oo}) (kN): 127.53

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	157.5	171.1	43.7	28.4
AS % OF ORIGINAL LIMIT	803.5 %	145.0 %	65.5 %	128.5 %
AS % OF CAEP/2 LIMIT (NOx)			81.9 %	
AS % OF CAEP/4 LIMIT (NOx)			108.2 %	
AS % OF CAEP/6 LIMIT (NOx)			122.9 %	
AS % OF CAEP/8 LIMIT (NOx)			163.4 %	

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

MEASURED DATA

MODE	POWER SETTING (%F_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	2.400	0.5	3.9	12.8	-
CLIMB OUT	85	2.2	1.600	0.6	4.2	12.1	-
APPROACH	30	4.0	0.580	1.2	9.3	5.1	-
IDLE	7	26.0	0.210	52	54.4	2.7	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			779	17379	20396	5440	-
NUMBER OF ENGINES				3	3	3	1
NUMBER OF TESTS				3	3	3	1
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				135	158.2	41.3	22.1
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	102.7-103.0
TEMPERATURE (K)	290 - 291
ABS HUMIDITY (kg/kg)	0.00915

FUEL

SPEC	TS-1
H/C	2
AROM (%)	18.5

MANUFACTURER: KKBM
TEST ORGANIZATION: State Inst for Civ Aviation
TEST LOCATION: Sheremetjevo, Moscow
TEST DATES: FROM 15 Jun 89 TO -

REMARKS

1. Data obtained on aircraft (Il-86)
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)