ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: NK-86A   BYPASS RATIO: 1.13
UNIQUE ID NUMBER: 1KK004   PRESSURE RATIO (π_{oo}):   13.2
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN):   130.47

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	69.6	148.2	53.4	–
AS % OF ORIGINAL LIMIT	355.2 %	125.6 %	80.5 %	0.0 %
AS % OF CAEP/2 LIMIT (NOx)			100.6 %	
AS % OF CAEP/4 LIMIT (NOx)			133.2 %	
AS % OF CAEP/6 LIMIT (NOx)			151.4 %	
AS % OF CAEP/8 LIMIT (NOx)			201.8 %	

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

- 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

MEASURED DATA

MODE	POWER SETTING (%F_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.050	0.2	1.8	15.7	–
CLIMB OUT	85	2.2	1.700	0.2	2.2	12.4	–
APPROACH	30	4.0	0.600	2.2	7.8	5.8	–
IDLE	7	26.0	0.235	15.3	38	3.1	–
LTO TOTAL FUEL (kg) or EMISSIONS (g)			821	5988	15703	6106	–
NUMBER OF ENGINES				1	1	1	–
NUMBER OF TESTS				2	2	2	10
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				45.2	120.7	46.1	–
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)	102.3
TEMPERATURE (K)	270
ABS HUMIDITY (kg/kg)	0.00238

FUEL

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

MANUFACTURER: KKBM
TEST ORGANIZATION: KKBM
TEST LOCATION: Samara City
TEST DATES: FROM 04 Oct 87   TO   –

REMARKS

1. For Il-86 aircraft.
2. In-service engine(s), tested before overhaul.

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0   ('x' if complies, PR if pre-regulation)