

**ROTAX****TECHNICAL DATA**

Db. 489 - E

Aug. 1993

ROTAX engine type 127 KART FA, model 1993

design no.: 34.127.0000.00.009 KART

DESCRIPTION: air-cooled single cylinder, two-stroke-engine, combined piston ported-reed valve intake, 6-speed gearbox, digital ignition, oil-in-fuel lubrication.

BORE: 54 mm

STROKE: 54,5 mm

DISPLACEMENT: 124,8 cm³

POWER OUTPUT: no specification

TORQUE: no specification

MAXIMUM ALLOWED OPERATION R.P.M.: 13 500 r.p.m.

PISTON: cast aluminium piston with coating and one 1 mm rectangular piston ring.

Standard:	part no.	tolerance group	diameter
	294 655	(1) red	53,94 mm
	294 655	(2) green	53,95 mm
1 st oversize:	294 656	-	53,96 mm

CYLINDER: light alloy cylinder, NIKASIL plated

PISTON/CYLINDER CLEARANCE: 0,050 - 0,075 mm

PISTON CENTER PROTRUDING OVER CYLINDER TOP: 2,15 mm

CYLINDER HEAD: part no. 213 370
volume of combustion chamber = 10,0 cm³
(+2 cm³ for the spark plug threaded hole)

COMPRESSION RATIO: 13,5 : 1

IGNITION UNIT: NIPPONDENSO - CONTEC digital ignition unit, 6 different ignition timing curves can be selected.

	selection switch:	
	A	B
standard position for unleaded fuel:	1	3
standard position for leaded fuel:	3	3
constant pre-ignition 14 ° before T.D.C.	5	3
constant pre-ignition 11 ° before T.D.C.(CIK)	6	3

(see SERVICE INFORMATION "2 M 93")

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IGNITION TIMING:	2,45 mm \pm 0,1 mm (= 22,0°) before T.D.C. between 6 000 and 11 000 r.p.m. at selected adjusting curve (selection switch "A" position "0")		
SPARK PLUG:	NGK R 4630 A-105, thread M14 x 1,25		
ELECTRODE GAP:	0,5 - 0,6 mm		
SPARK PLUG CONNECTOR:	with resistance, NGK TB 05 EMA (5 k Ω)		
CARBURETOR:	DELL'ORTO round-slide-carburetor PHSB 38 (part no. 293 757)		
FUEL:	according to reglementation: SUPER gasoline (unleaded), RON _{min} = 98 or 50 % SUPER gasoline (leaded) RON _{min} = 98 50 % AVGAS 100 LL		
LUBRICATION (ENGINE):	oil-in-fuel lubrication, CASTROL A 747 mixing ratio 25 : 1 (4%)		
LUBRICATION (GEARBOX):	splash lubrication, 0,85 l gear oil SAE 80		
CLUTCH:	multi plate, in oil bath		
GEAR SHIFTING:	left side shifting, neutral between 1 st and 2 nd speed, 1 st speed up, 2 nd - 6 th speed down		
TRANSMISSION:	6-speeds, constant mesh, dog type rotary change		
PRIMARY REDUCTION RATIO:	(21 :75) 3,691		
STANDARD GEAR RATIOS:	1 st speed	(12 : 32) 2,667	overall reduction ratio 1 st speed 9,651
	2 nd speed	(28 : 14) 2,000	2 nd speed 7,238
	3 rd speed	(27 : 17) 1,588	3 rd speed 5,748
	4 th speed	(26 : 19) 1,368	4 th speed 4,952
	5 th speed	(24 : 20) 1,200	5 th speed 4,343
	6 th speed	(23 : 21) 1,095	6 th speed 3,964
STANDARD SPROCKET:	17 teeth also available are sprockets with 16, 18 and 19 teeth		
DIMENSION OF CHAIN:	1/2 x 5/16 x 8,51		
INTAKE SILENCER:	FREE LINE AL 22 PO with two intake tubes (diameter = approx. 22mm)		
EXHAUST SYSTEM:	ROTAX exhaust system as per drawing VSK 117		



ROTAX®

TECHNICAL DATA

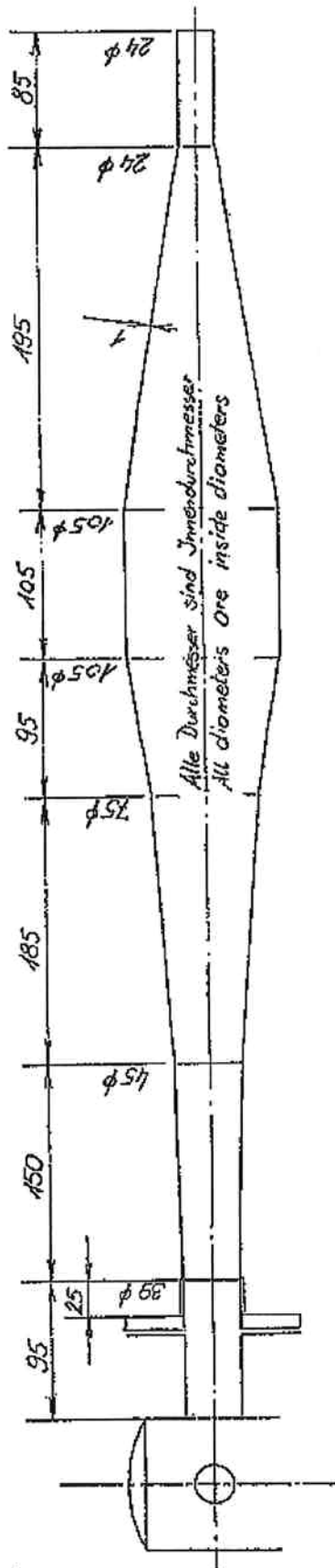
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STARTER: no starting device, push start

DRY WEIGHT: 22,5 kg with carburetor, without muffler



VSK 117: 127 Kart FA,
model 1993

