

**ROTAX.**

# SERVICE INFORMATION

17 UL 94

June 1994

## GEWICHT, SCHWERPUNKTLAGE UND MASSENTRÄGHEITSMOMENTE VON ROTAX UL-MOTOREN

## WEIGHT, CENTRE OF GRAVITY AND MOMENTS OF INERTIA OF ROTAX UL-ENGINES

**1) Wiederkehrende Symbole:**

Bitte, beachten Sie die folgenden Symbole, die Sie durch die Service-Information begleiten:

◆ HINWEIS: Besondere Hinweise zur besseren Handhabung.

NUR ZUR INFORMATION.  
ÄNDERUNGSDIENST NICHT VORGESEHEN.**1) Repeating symbols:**

Please, pay attention to the following symbols throughout the service info. emphasizing particular information.

◆ NOTE: Information useful for better handling.

FOR INFORMATION ONLY.  
WITHOUT COMMITMENT TO ADVISE MODIFICATIONS.**2) Gewicht, Schwerpunktlage und Massenträgheitsmomente  
der Einzelkomponenten:**

POWER PLANT	ENGINE ASSY WITH CARB AND EXHAUST MANIFOLD								
	ENGINE TYPE	CARB	EXHAUST MANIFOLD	Weight (kg)	LOCATION OF C.O.G. (mm)		MOMENT OF INERTIA AROUND AXIS (kgcm <sup>2</sup> )		
					G	E	X1 - X1	Y1 - Y1	Z1 - Z1
277 UL	1 x BING ZSV 54/36	879050 879053 879054	20	93,0	55	2292	2161	1558	
377 UL	1 x BING ZSV 54/36	879458	28,1	146,7	71	3120	4474	3471	
447 UL	1 x BING ZSV 54/36	879458	29	148,7	70,5	3411	4430	3854	
503 UL	1 x BING ZSV 54/36	878936	31,7	146,7	76,5	3777	5530	4197	
462 UL	1 x BING ZSV 54/36	878936	27,8	162,0	51	2593	4107	3408	
632 UL	2 x BING ZSV 54/36	973122	30,2	160,0	54	2976	4672	3920	
508 UL	2 x BING CD 32	973310	37	145,2	136	6141	7737	4924	
582 UL	2 x BING ZSV 54/36	973122	30,2	154,5	58	3150	4684	4118	
618 UL	2 x BING ZSV 54/36	979210	35	163,3	64	3705	5478	4611	

◆ HINWEIS: Bei den Motor-Typen 277 und 462 UL ist nur die Getriebetype A in Verwendung. (Getriebetype A ist Vorgänger der Type B).  
Für allgemeine Berechnungen sind die Daten der Getriebetype B zu verwenden.

**2) Weight, centre of gravity and moments of inertia of single components:**

REDUCTION GEAR ASSY						
Type of gearbox	Weight (kg)	LOCATION OF C.O.G. (mm)		MOMENT OF INERTIA AROUND AXIS (kgcm <sup>2</sup> )		
		A	D	X2-X2	Y2-Y2	Z2-Z2
		B	5,3	92	46	166
C	8,1	102	37	317	456	315
E	11,3	125	5	684	1005	554
EL	12,4	144	13,5	692	1186	717

◆ NOTE: Engine types ROTAX 277 UL and 462 UL are equipped with type A gearbox only (type A gearbox is the predecessor of type B gearbox), but for general calculations use data as listed in column "gearbox type B".

POWER-PLANT ENGINE with GEARBOX																							
ENGINE TYPE		WITH GEARBOX TYPE B										WITH GEARBOX TYPE C											
		PROPSHAFT TOWARDS CYL.					PROPSHAFT TOWARDS BASE					PROPSHAFT TOWARDS CYL.					PROPSHAFT TOWARDS BASE						
		LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS				
		(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )				
		B	G	X3cy-X3cy	Y3cy-Y3cy	Z3-Z3	B	F	X3ba-X3ba	Y3ba-Y3ba	Z3-Z3	B	G	X3cy-X3cy	Y3cy-Y3cy	Z3-Z3	B	F	X3ba-X3ba	Y3ba-Y3ba	Z3-Z3		
277	UL	25,3					54,3	34	2839	4276	3176												
377	UL	33,4					108,8	52,4	3896	7879	6194												
447	UL	34,3					111,5	52,5	4185	7890	6633												
503	UL	37	112,5	72	3985	8412	7187	112,5	59	4629	8054	7187	39,8	96	68,5	4194	10076	8952	96	53,4	4925	10804	8952
462	UL	33,1					121	36	3177	7646	6463												
532	UL	35,5					122,4	39	3593	8241	6967												
508	UL	42,3					117	90	7356	11518	7586	45,1	100,8	118	8524	14317	9299						
582	UL	35,5	122,4	56,2	3323	7726	7049	122,4	42,5	3638	8163	7049	38,3	100,3	53,6	3509	9372	8635	100,3	37,9	4043	9917	8635
618	UL																						

POWER-PLANT ENGINE with GEARBOX																							
ENGINE TYPE		WITH GEARBOX TYPE E										WITH GEARBOX TYPE EL											
		PROPSHAFT TOWARDS CYL.					PROPSHAFT TOWARDS BASE					PROPSHAFT TOWARDS CYL.					PROPSHAFT TOWARDS BASE						
		LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS			LOCATION OF C.O.G.		MOMENT OF INERTIA AROUND AXIS				
		(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )			(mm)		(kgcm <sup>2</sup> )				
		B	G	X3cy-X3cy	Y3cy-Y3cy	Z3-Z3	B	F	X3ba-X3ba	Y3ba-Y3ba	Z3-Z3	B	G	X3cy-X3cy	Y3cy-Y3cy	Z3-Z3	B	F	X3ba-X3ba	Y3ba-Y3ba	Z3-Z3		
277	UL																						
377	UL																						
447	UL																						
503	UL																						
462	UL																						
532	UL																						
508	UL																						
582	UL	41,5	98,4	43,6	4063	12345	11096	78,4	40,8	4160	12415	11096											
618	UL	46,3	84,5	49,3	4685	13393	11790	84,5	46,9	4808	13514	11790	47,4	75,5	50,8	4621	15009	13420	15,5	43,7	4937	15315	13420

Abbildung zeigt Motor mit Getriebetype E

Illustration shows engine with gearbox type E

Die Schwerpunktlage in Vorderansicht kann für allgemeine Berechnungen in der Mittelebene angenommen werden.

Center of Gravity in front elevation can be assumed on engine centre plane for general calculation

