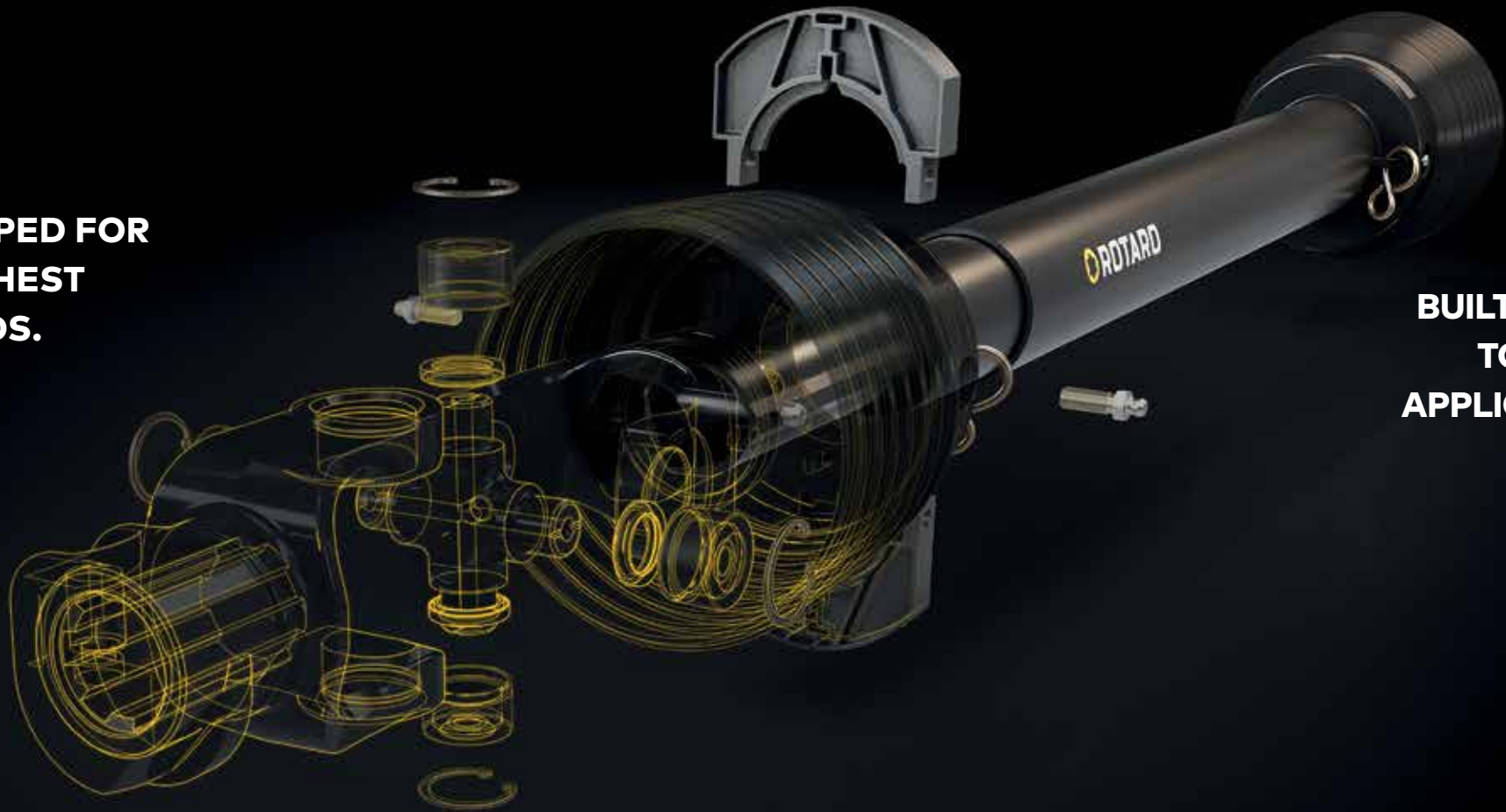




**DEVELOPED FOR
THE HIGHEST
DEMANDS.**



**BUILT FOR THE
TOUGHEST
APPLICATIONS.**

POWER TO PERFORM





POWER TO PERFORM

Power to Perform

Powerful, robust and efficient. Developed for extremely high loads in professional agricultural applications, ROTARO PTO shafts always ensure the necessary power transmission. Special care during the manufacturing process and the special technical clevis design make ROTARO products extremely resilient, and ensure the necessary power.

Intensive development phase - convincing products

















































The development phase for the ROTARO PTO shafts lasted several years, and resulted in products that meet the highest quality standards and guarantee excellent functionality. The specially developed, innovative locking system enables efficient maintenance of all ROTARO PTO shafts. The PTO shaft guard is particularly easy to use, and can be (dis)assembled quickly. ROTARO also helps to save valuable time with the external grease nipple.

Extensive range for professional applications

































ROTARO offers a wide range of PTO shafts from various series; you can choose between an Italian profile, lemon profile or star profile. All PTO shafts are available with different connections and clutch types, and in different lengths. ROTARO PTO shafts can also be adapted to the individual needs of your customers at the GRANIT Service Centre. In addition to the complete ROTARO PTO shafts, the comprehensive range of replacement parts enables fast and high-quality repairs, which is a huge advantage for workshops and users.

ROTARO - Developed for the highest demands. Built for the toughest applications.

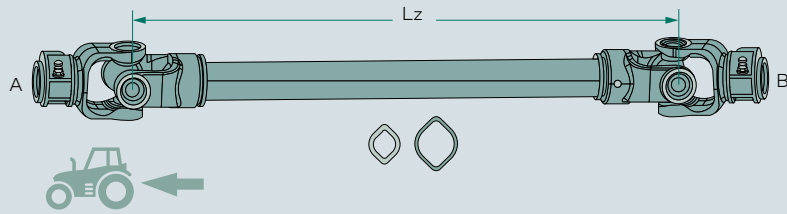
ROTARO PTO shafts R10-R50

Size	Universal joint		Quick-release yoke A-profile	Profile tubes						Quick-release yoke B-profile	Guard, complete			Profile tube yokes			Performance data				Standard overload clutch							
	A (mm)	B (mm)		Inner			Outer				Profile	A (mm)	A1 (mm)	B (mm)	B (mm)	D (mm)	L (mm)	Nm (540 rpm)	Up to PS / kW (540 rpm)	Nm (1000 rpm)		Up to PS / kW (max. 1000 rpm)						
R10	22	54				3.4	30.8	23.7		2.8	39.1	30.0	Lemon		1 3/8" (6)	60.2	66.3	149.0		54.0	22.0	80.0		273	21 / 15	228	32 / 24	-
						3.5	26.6	-		2.5	32.4	-	Triangle		1" (15)								54.0	22.0	80.0			
R20	23.8	61.3				4.0	40.1	30.8		2.8	48.0	41.2	Lemon		1 3/8" (6)	60.2	66.3	149.0		61.3	23.8	84.0		436	34 / 25	385	55 / 40	Overrunning clutch, clockwise Shear bolt Radial pin
						4.0	29.0	-		3.4	36.1	-	Triangle											61.3	23.8	84.0		
R30	27	74.6				4.0	40.1	30.8		2.8	48.0	41.2	Lemon		1 3/8" (6)	60.2	66.3	149.0		74.6	27.0	92.0		650	50 / 37	540	77 / 57	Overrunning clutch, clockwise Shear bolt Radial pin
						4.4	36.1	-		3.3	43.4	-	Triangle											74.6	27.0	92.0		
R40	30.2	80				4.0	44.7	-		2.9	51.3	-	Triangle		1 3/8" (6)	75.0	81.8	180.0		80.0	30.2	98.0		806	62 / 46	683	97 / 71	Overrunning clutch, clockwise Shear bolt Radial pin
R50	32	76				4.5	49.0	39.5		3.8	57.5	48.0	Lemon		1 3/8" (6)	75.0	81.8	180.0		76.0	32.0	98.0		897	69 / 51	755	108 / 79	-

ROTARO PTO shafts R60-R90

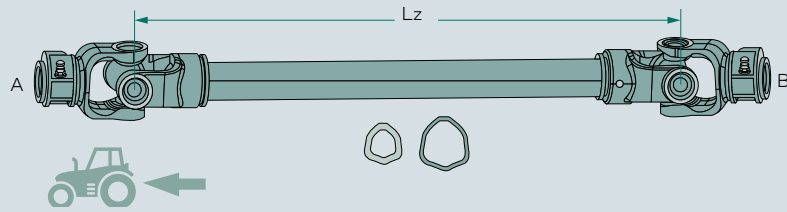
Size	Universal joint		Quick-release yoke A-profile	Profile tubes								Quick-release yoke B-profile	Guard, complete			Profile tube yokes			Performance data				Standard overload clutch						
	A (mm)	B (mm)		Inner				Outer					Profile	A (mm)	A1 (mm)	B (mm)	B (mm)	D (mm)	L (mm)	Nm (540 rpm)	Up to PS / kW (540 rpm)	Nm (1000 rpm)		Up to PS / kW (max. 1000 rpm)					
R60	30.2	92				4.0	44.7	-		3.8	53.6	-	Triangle			13/8" (6)	75.0	81.8	180.0		92.0	30.2	106.0		1080	83 / 61	923	131 / 96	Overrunning clutch, clockwise Overrunning clutch, anticlockwise Friction disc Shear bolt Radial pin
R70	35	94				5.5	44.7	-		3.8	53.6	-	Triangle			13/8" (6) 13/4" (6) 13/4" (20)	75.0	81.8	180.0		89.0	36.0	106.0		1296	100 / 74	1096	156 / 115	Overrunning clutch, clockwise Friction disc Shear bolt
R80	36	89				5.0	37.1	47.4		4.3	46.4	56.8	Star			13/8" (6) 13/4" (6) 13/4" (20)	75.0	81.8	180.0		94.0	35.0	106.0		1398	108 / 79	1170	167 / 123	Overrunning clutch, clockwise Friction disc Shear bolt
R90	42	104				6.0	46.0	56.4		5.0	57.5	67.5	Star			13/8" (6)	75.0	81.8	180.0		104.0	42.0	121.0		1680	129 / 95	1398	200 / 147	Overrunning clutch, clockwise Shear bolt

ROTARO PTO shafts - Lemon



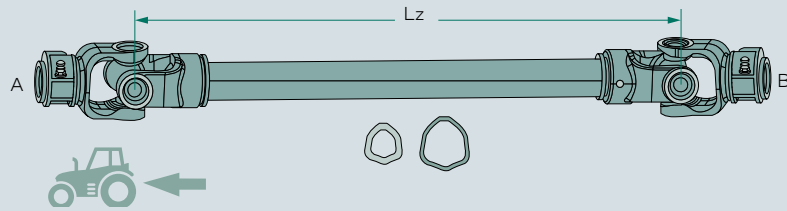
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Universal joint size B profile (mm)	Locking system
12547555	710	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	22 x 54	Quick-release pin/quick-release pin
12553133	860	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	22 x 54	Quick-release pin/quick-release pin
12529074	1010	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	22 x 54	Quick-release pin/quick-release pin
12467785	1210	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	22 x 54	Quick-release pin/quick-release pin
18493039	860	R10	1 3/8 (6)	6 x 21 x 25	22 x 54	22 x 54	Quick-release pin/quick-release pin
18490914	860	R10	1 3/8 (6)	1 (15)	22 x 54	22 x 54	Quick-release pin/quick-release pin
12295021	710	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	23.8 x 61.3	Quick-release pin/quick-release pin
12292147	860	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	23.8 x 61.3	Quick-release pin/quick-release pin
12295022	1010	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	23.8 x 61.3	Quick-release pin/quick-release pin
12268834	1210	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	23.8 x 61.3	Quick-release pin/quick-release pin
12306908	710	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	27 x 74.6	Quick-release pin/quick-release pin
12268441	860	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	27 x 74.6	Quick-release pin/quick-release pin
12266818	1010	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	27 x 74.6	Quick-release pin/quick-release pin
11936799	1210	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	27 x 74.6	Quick-release pin/quick-release pin
12543253	710	R50	1 3/8 (6)	1 3/8 (6)	32 x 76	32 x 76	Quick-release pin/quick-release pin
12539781	860	R50	1 3/8 (6)	1 3/8 (6)	32 x 76	32 x 76	Quick-release pin/quick-release pin
12551411	1010	R50	1 3/8 (6)	1 3/8 (6)	32 x 76	32 x 76	Quick-release pin/quick-release pin
12551254	1210	R50	1 3/8 (6)	1 3/8 (6)	32 x 76	32 x 76	Quick-release pin/quick-release pin

ROTARO PTO shafts - Triangle



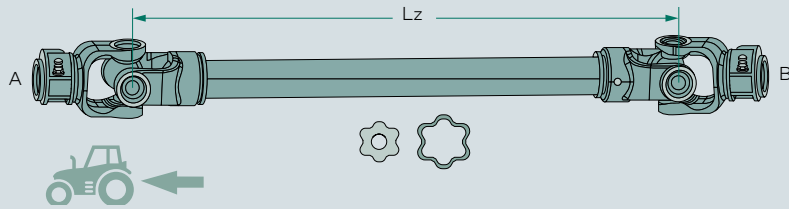
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Locking system
12530059	710	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	Quick-release pin/quick-release pin
12548833	860	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	Quick-release pin/quick-release pin
12540754	1010	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	Quick-release pin/quick-release pin
12530060	1210	R70	1 3/4 (20)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12547674	1210	R10	1 3/8 (6)	1 3/8 (6)	22 x 54	Quick-release pin/quick-release pin
18491653	860	R10	1 3/8 (6)	6 x 21 x 25	22 x 54	Quick-release pin/quick-release pin
18502012	860	R10	1 3/8 (6)	1 (15)	22 x 54	Quick-release pin/quick-release pin
12292148	710	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	Quick-release pin/quick-release pin
12294926	860	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	Quick-release pin/quick-release pin
12294927	1010	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	Quick-release pin/quick-release pin
12268366	1210	R20	1 3/8 (6)	1 3/8 (6)	23.8 x 61.3	Quick-release pin/quick-release pin
12269322	710	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	Quick-release pin/quick-release pin
12293833	860	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	Quick-release pin/quick-release pin
12272037	1010	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	Quick-release pin/quick-release pin
12294928	1210	R30	1 3/8 (6)	1 3/8 (6)	27 x 74.6	Quick-release pin/quick-release pin
12532960	710	R40	1 3/8 (6)	1 3/8 (6)	30.2 x 80	Quick-release pin/quick-release pin
12529002	860	R40	1 3/8 (6)	1 3/8 (6)	30.2 x 80	Quick-release pin/quick-release pin

ROTARO PTO shafts - Triangle



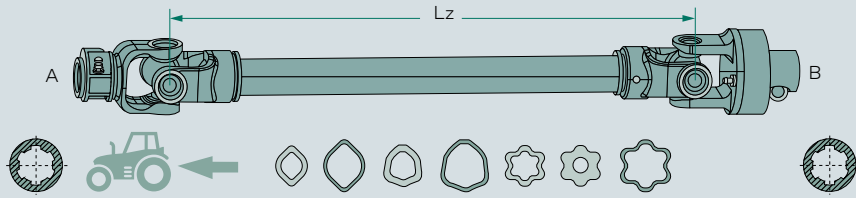
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Locking system
12547452	1010	R40	1 3/8 (6)	1 3/8 (6)	30.2 x 80	Quick-release pin/quick-release pin
12542301	1210	R40	1 3/8 (6)	1 3/8 (6)	30.2 x 80	Quick-release pin/quick-release pin
12529076	710	R60	1 3/8 (6)	1 3/8 (6)	30.2 x 92	Quick-release locking collar/quick-release locking collar
12540755	860	R60	1 3/8 (6)	1 3/8 (6)	30.2 x 92	Quick-release locking collar/quick-release locking collar
12542995	1010	R60	1 3/8 (6)	1 3/8 (6)	30.2 x 92	Quick-release locking collar/quick-release locking collar
12544747	1210	R60	1 3/8 (6)	1 3/8 (6)	30.2 x 92	Quick-release locking collar/quick-release locking collar
12549109	710	R70	1 3/8 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12547673	860	R70	1 3/8 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12530181	1010	R70	1 3/8 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12555309	1210	R70	1 3/8 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12537187	710	R70	1 3/4 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12549859	710	R70	1 3/4 (20)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar
12550217	1210	R70	1 3/4 (6)	1 3/8 (6)	35 x 94	Quick-release locking collar/quick-release locking collar

ROTARO PTO shafts - Star



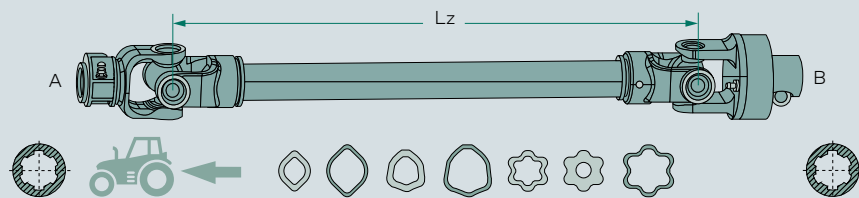
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Locking system
12551033	710	R80	1 3/8 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12467786	860	R80	1 3/8 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12556903	1010	R80	1 3/8 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12540134	1210	R80	1 3/8 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12530183	1210	R80	1 3/4 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12544746	710	R80	1 3/4 (6)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12549338	710	R80	1 3/4 (20)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12538184	1210	R80	1 3/4 (20)	1 3/8 (6)	36 x 89	Quick-release locking collar/quick-release locking collar
12538480	710	R90	1 3/8 (6)	1 3/8 (6)	42 x 104	Quick-release locking collar/quick-release locking collar
12557004	860	R90	1 3/8 (6)	1 3/8 (6)	42 x 104	Quick-release locking collar/quick-release locking collar
12533581	1010	R90	1 3/8 (6)	1 3/8 (6)	42 x 104	Quick-release locking collar/quick-release locking collar
12544601	1210	R90	1 3/8 (6)	1 3/8 (6)	42 x 104	Quick-release locking collar/quick-release locking collar

ROTARO PTO shafts with overrunning clutch, anticlockwise



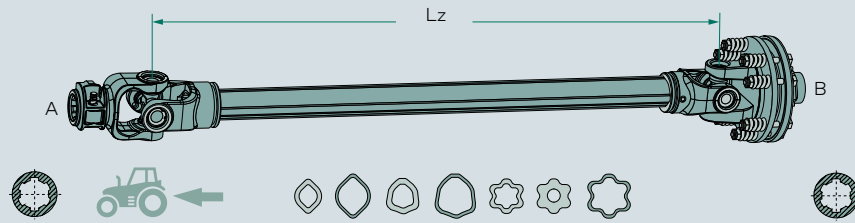
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Profile	Locking system
12543976	860	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12553309	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12552628	860	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12554819	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12548832	860	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12547556	1210	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12545337	860	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin
12534362	1210	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin

ROTARO PTO shafts with overrunning clutch, clockwise



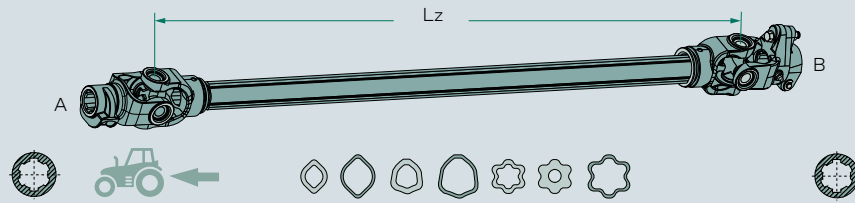
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Profile	Locking system
12548754	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12536802	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12549407	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12554607	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12547451	860	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12555028	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12544602	860	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12542302	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12545336	860	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12502479	1210	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12530184	860	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin
12555204	1210	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin
12556310	860	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/quick-release pin
12554540	1210	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/quick-release pin
12529075	860	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release locking collar/quick-release pin
12548948	1210	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release locking collar/quick-release pin
12556506	1210	R90	13/8 (6)	13/8 (6)	42x104	Star	Quick-release locking collar/quick-release pin

ROTARO PTO shafts with friction disc clutch



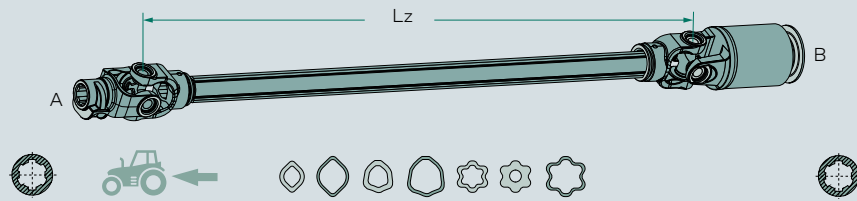
Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Profile	Locking system
12557003	860	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12544474	1210	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12547956	860	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/clamping bolt
12555310	1210	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/clamping bolt
12529690	860	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/clamping bolt
12554820	1210	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/clamping bolt
12539418	860	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release pin/clamping bolt
12549110	1210	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release pin/clamping bolt

ROTARO PTO shafts with shear bolt clutch



Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Profile	Locking system
12539417	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12547166	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12542379	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12541572	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12545338	860	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12531939	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/quick-release pin
12539779	860	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12530185	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/quick-release pin
12527191	860	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12555712	1210	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/quick-release pin
12530182	860	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin
12542070	1210	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/quick-release pin
12549860	860	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/clamping bolt
12542071	1210	R70	13/8 (6)	13/8 (6)	35x94	Triangle	Quick-release locking collar/clamping bolt
12556109	860	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release locking collar/clamping bolt
12538481	1210	R80	13/8 (6)	13/8 (6)	36x89	Star	Quick-release locking collar/clamping bolt
12555027	860	R90	13/8 (6)	13/8 (6)	42x104	Star	Quick-release locking collar/clamping bolt
12557103	1210	R90	13/8 (6)	13/8 (6)	42x104	Star	Quick-release locking collar/clamping bolt

ROTARO PTO shafts with radial pin clutch



Part no.	Lz (mm)	Size	A (profile)	B (profile)	Universal joint size A profile (mm)	Profile	Locking system
12551323	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12533687	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Lemon	Quick-release pin/quick-release pin
12529689	860	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12531940	1210	R20	13/8 (6)	13/8 (6)	23.8x61.3	Triangle	Quick-release pin/quick-release pin
12542556	860	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/push-pull lock
12539780	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Lemon	Quick-release pin/push-pull lock
12556309	860	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/push-pull lock
12547888	1210	R30	13/8 (6)	13/8 (6)	27x74.6	Triangle	Quick-release pin/push-pull lock
12538185	860	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/push-pull lock
12544102	1210	R50	13/8 (6)	13/8 (6)	32x76	Lemon	Quick-release pin/push-pull lock
12557203	1210	R60	13/8 (6)	13/8 (6)	30.2x92	Triangle	Quick-release pin/push-pull lock



Intensive development phase

The ROTARO PTO shaft development phase lasted several years, during which time the range was continuously tested and optimised. ROTARO PTO shafts now meet the highest quality standards and guarantee maximum functionality.

Power to Perform

The ROTARO PTO shaft yokes have been specially developed for extremely high loads in professional agricultural applications, and ensure the necessary power transmission even during long periods of intensive use.





Extensive range for professional applications

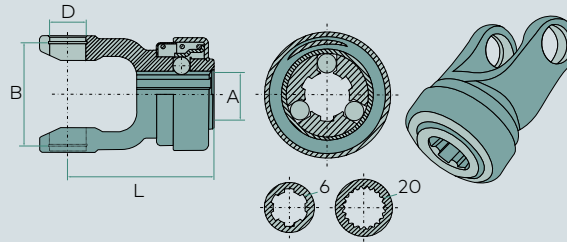
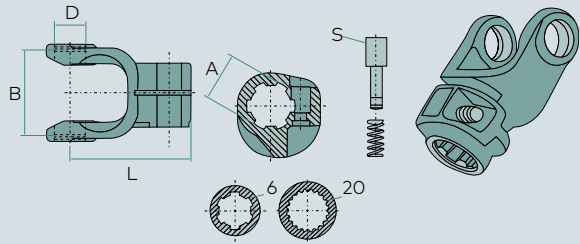
RO TARO offers a wide range of PTO shafts from various series; you can choose between an Italian profile, lemon profile or star profile. All PTO shafts are available with different connections and clutch types, and in different lengths.



Time saving thanks to innovative locking system

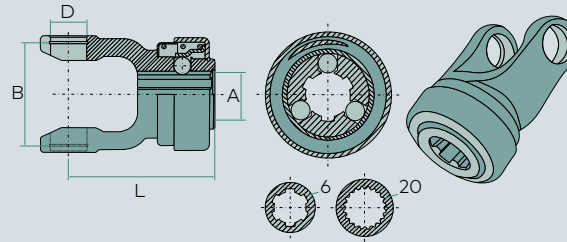
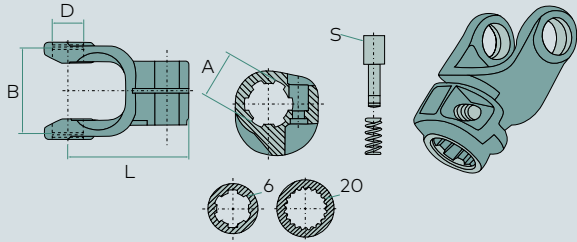
The specially developed locking system enables efficient maintenance. The easy handling means that only a slotted screwdriver is required for (dis)assembly in a few simple steps.

ROTARO Quick-release yokes



Part no.	Size	Profile	B (mm)	D (mm)	L (mm)	Locking system
18501123	R10	13/8 (6)	54	22	93	Quick-release pin
18507809	R10	6 x 21 x 25	54	22	90	Quick-release pin
18517664	R10	1 (15)	54	22	94	Quick-release pin
12329359	R20	13/8 (6)	61.3	23.8	99	Quick-release pin
12331137	R30	13/8 (6)	74.6	27	108	Quick-release pin
18517766	R40	13/8 (6)	80	30.2	111	Quick-release pin
18495339	R50	13/8 (6)	76	32	111	Quick-release pin
18516763	R60	13/8 (6)	92	30.2	118	Quick-release locking collar
18504480	R70	13/8 (6)	97.2	35	116	Quick-release pin
18497528	R70	13/8 (6)	94	35	120	Quick-release locking collar
18495338	R70	13/4 (6)	97.2	35	126	Quick-release pin

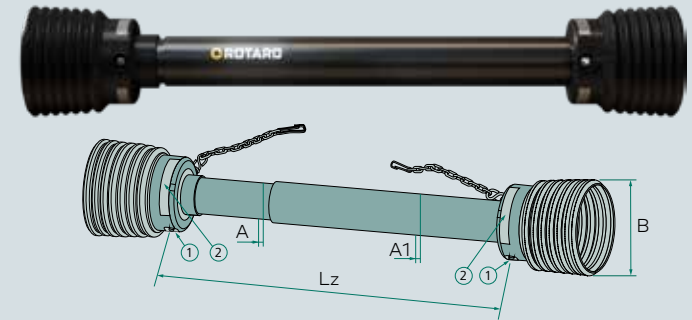
ROTARO Quick-release yokes



Part no.	Size	Profile	B (mm)	D (mm)	L (mm)	Locking system
18511193	R70	1 3/4 (6)	94	35	120	Quick-release locking collar
18492139	R70	1 3/4 (20)	97.2	35	126	Quick-release pin
18504803	R70	1 3/4 (20)	94	35	120	Quick-release locking collar
18494450	R80	1 3/8 (6)	92	36	116	Quick-release pin
18505711	R80	1 3/8 (6)	89	36	120	Quick-release locking collar
18501835	R80	1 3/4 (6)	92	36	126	Quick-release pin
18509996	R80	1 3/4 (6)	89	36	120	Quick-release locking collar
18499925	R80	1 3/4 (20)	92	36	126	Quick-release pin
18498925	R80	1 3/4 (20)	89	36	120	Quick-release locking collar
18504620	R90	1 3/8 (6)	107.7	42	124	Quick-release pin
18507110	R90	1 3/8 (6)	104	42	133	Quick-release locking collar

ROTARO PTO shaft guards

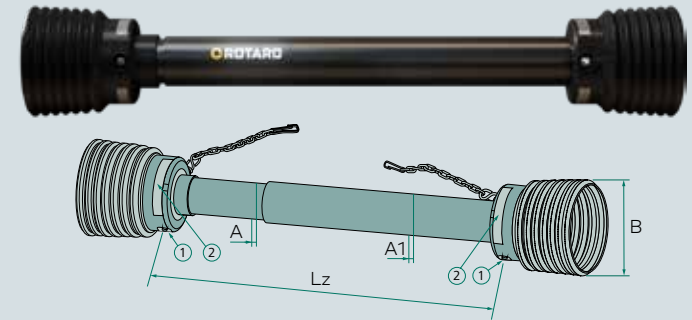
1. Unscrew the grease nipples completely using a socket wrench (AF 8) and remove them.
2. Now use a flat head screwdriver to lever out the grey half-shell clamps (race half) at the gap perpendicular to the shaft.



Part no.	Size	Lz (mm)	A (mm)	A1 (mm)	B (mm)	To fit profile tube
18511194	R10	710	60.2	66.3	149	Lemon
18508482	R10	860	60.2	66.3	149	Lemon
18492551	R10	1010	60.2	66.3	149	Lemon
18492141	R10	1210	60.2	66.3	149	Lemon
18498811	R10	710	60.2	66.3	149	Triangle
18515385	R10	860	60.2	66.3	149	Triangle
18500426	R10	1010	60.2	66.3	149	Triangle
18504406	R10	1210	60.2	66.3	149	Triangle
12336532	R20	560	60.2	66.3	149	Lemon
12324000	R20	710	60.2	66.3	149	Lemon
12324885	R20	860	60.2	66.3	149	Lemon
12336035	R20	1010	60.2	66.3	149	Lemon
12339908	R20	1210	60.2	66.3	149	Lemon
12295524	R20	1410	60.2	66.3	149	Lemon
12321793	R20	560	60.2	66.3	149	Triangle
12340005	R20	710	60.2	66.3	149	Triangle
12284301	R20	860	60.2	66.3	149	Triangle

ROTARO PTO shaft guards

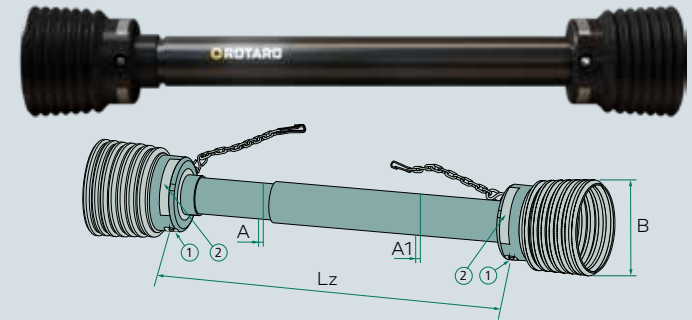
1. Unscrew the grease nipples completely using a socket wrench (AF 8) and remove them.
2. Now use a flat head screwdriver to lever out the grey half-shell clamps (race half) at the gap perpendicular to the shaft.



Part no.	Size	Lz (mm)	A (mm)	A1 (mm)	B (mm)	To fit profile tube
12327751	R20	1010	60.2	66.3	149	Triangle
12295523	R20	1210	60.2	66.3	149	Triangle
12331948	R20	1410	60.2	66.3	149	Triangle
12339507	R30	560	60.2	66.3	149	Lemon / Triangle
12338027	R30	710	60.2	66.3	149	Lemon / Triangle
12340107	R30	860	60.2	66.3	149	Lemon / Triangle
12318602	R30	1010	60.2	66.3	149	Lemon / Triangle
12325572	R30	1210	60.2	66.3	149	Lemon / Triangle
12325279	R30	2010	60.2	66.3	149	Lemon / Triangle
18519956	R40	710	75	81.8	180	Triangle
18506173	R40	860	75	81.8	180	Triangle
18496346	R40	1010	75	81.8	180	Triangle
18512193	R40	1210	75	81.8	180	Triangle
18512194	R50	710	75	81.8	180	Lemon
18515676	R50	860	75	81.8	180	Lemon
18510093	R50	1010	75	81.8	180	Lemon
18509995	R50	1210	75	81.8	180	Lemon

ROTARO PTO shaft guards

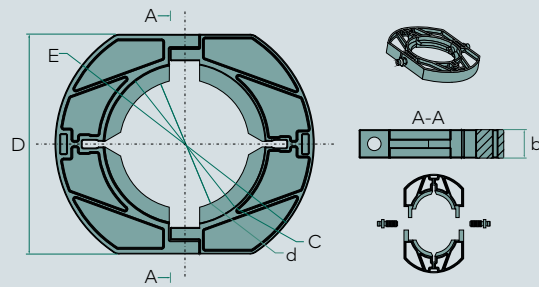
1. Unscrew the grease nipples completely using a socket wrench (AF 8) and remove them.
2. Now use a flat head screwdriver to lever out the grey half-shell clamps (race half) at the gap perpendicular to the shaft.



Part no.	Size	Lz (mm)	A (mm)	A1 (mm)	B (mm)	To fit profile tube
18490549	R60	710	75	81.8	180	Triangle
18515384	R60	860	75	81.8	180	Triangle
18504805	R60	1010	75	81.8	180	Triangle
18496345	R60	1210	75	81.8	180	Triangle
18493845	R70	710	75	81.8	180	Lemon
18518164	R70	860	75	81.8	180	Lemon
18509184	R70	1010	75	81.8	180	Lemon
18500427	R70	1210	75	81.8	180	Lemon
18510092	R80	710	75	81.8	180	Star
18504619	R80	860	75	81.8	180	Star
18519158	R80	1010	75	81.8	180	Star
18500032	R80	1210	75	81.8	180	Star
18494452	R90	710	75	81.8	180	Star
18515677	R90	860	75	81.8	180	Star
18501836	R90	1010	75	81.8	180	Star
18513298	R90	1210	75	81.8	180	Star

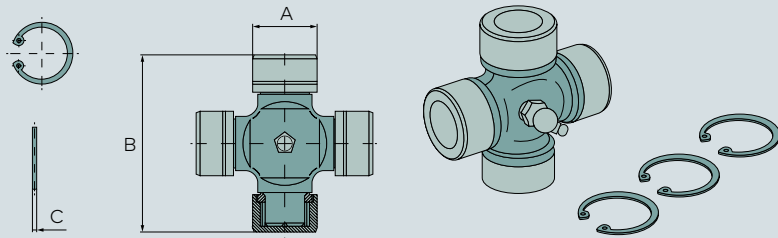


ROTARO Half-shell clamp sets



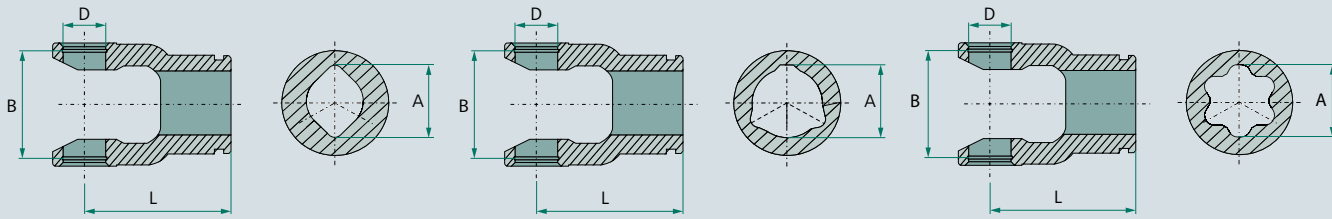
Part no.	Size	Version	D (mm)	d (mm)	b (mm)	C (mm)	E (mm)
18493040	R10	Inner	90	35	15	65	115
18507111	R10	Outer	90	41.5	15	65	115
18523882	R20	Inner/outer	90	51.5	15	65	115
18501631	R30	Inner	90	48	15	65	115
18519556	R30	Outer	90	55	15	65	115
18499927	R40-R80	Inner	116	60	15	80	136.7
18491822	R40-R80/R90	Outer/inner	116	68.5	15	90	136.7
18501629	R90	Outer	116	76	15	85	136.7

ROTARO Universal joints



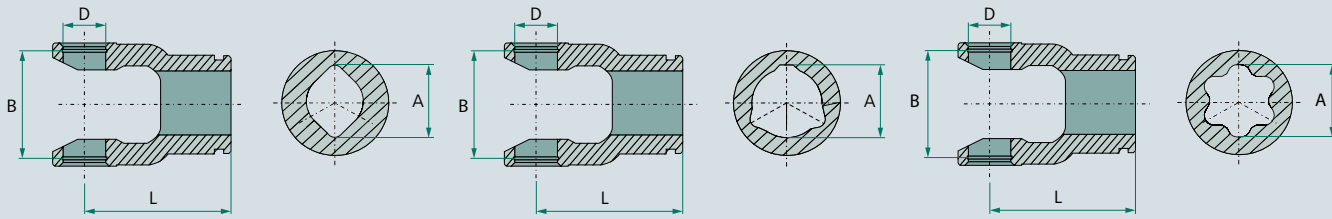
Part no.	Size	A (mm)	B (mm)	Universal joint size (mm)
18514777	R10	22	54	22 x 54
12322199	R20	23.8	61.3	23.8 x 61.3
12325670	R30	27	74.6	27 x 74.6
18514086	R40	30.2	80	30.2 x 80
18508480	R50	32	76	32 x 76
18515675	R60	30.2	92	30.2 x 92
18508481	R70	35	94	35 x 94
18513297	R80	36	89	36 x 89
18515080	R90	42	104	42 x 104

ROTARO Profile yokes



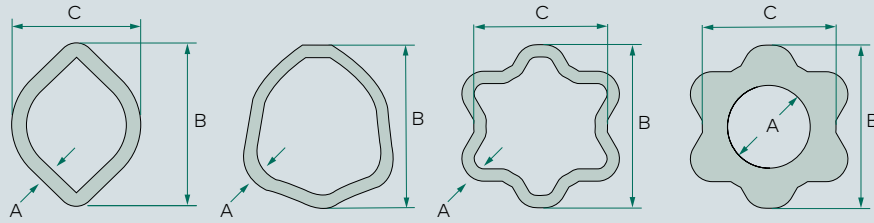
Part no.	Size	Groove Ø (mm)	To fit profile tube	Version	B (mm)	D (mm)	L (mm)
18489142	R10	40	Lemon	Inner	54	22	80
18519955	R10	45.5	Lemon	Outer	54	22	80
18514778	R10	34	Triangle	Inner	54	22	80
18518065	R10	40	Triangle	Outer	54	22	80
12338621	R20	50	Lemon	Inner	61.3	23.8	84
12318797	R20	50	Lemon	Outer	61.3	23.8	84
18519060	R20	40	Triangle	Inner	61.3	23.8	84
18519059	R20	47	Triangle	Outer	61.3	23.8	84
12326956	R30	45.5	Lemon	Inner	74.6	27	92
12322287	R30	52.5	Lemon	Outer	74.6	27	92
18509296	R30	47	Triangle	Inner	74.6	27	92
18513476	R30	54	Triangle	Outer	74.6	27	92
18505624	R50	59	Lemon	Inner	76	32	98
18513182	R50	68	Lemon	Outer	76	32	98

ROTARO Profile yokes



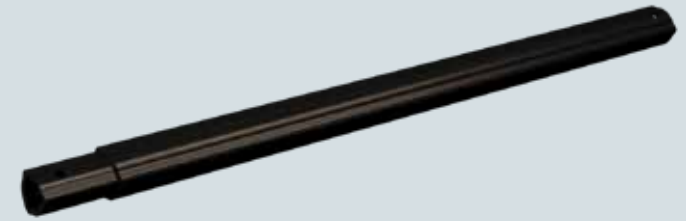
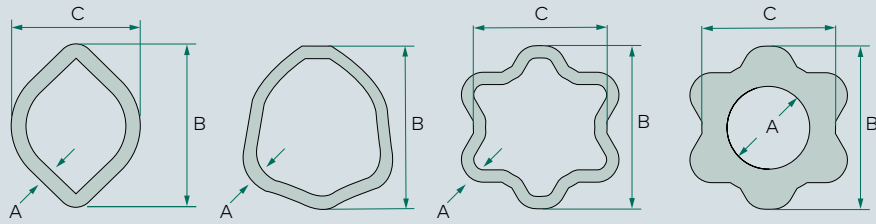
Part no.	Size	Groove Ø (mm)	To fit profile tube	Version	B (mm)	D (mm)	L (mm)
18504804	R40	59	Triangle	Inner	80	30.2	98
18507811	R40	68	Triangle	Outer	80	30.2	98
18513300	R60	59	Triangle	Inner	92	30.2	106
18494449	R60	68	Triangle	Outer	92	30.2	106
18493041	R70	59	Triangle	Inner	89	36	106
18517767	R70	68	Triangle	Outer	89	36	106
18499924	R80	59	Star	Inner	94	35	106
18500529	R80	68	Star	Outer	94	35	106
18499926	R90	75	Star	Outer	104	42	121
18488034	R90	68	Star	Inner	104	42	121

ROTARO Profile tubes



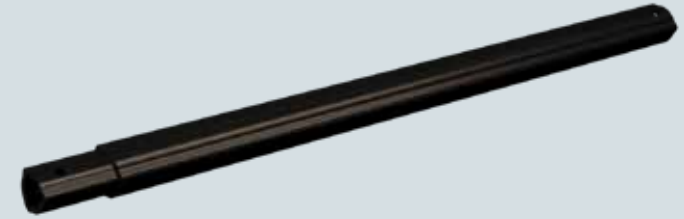
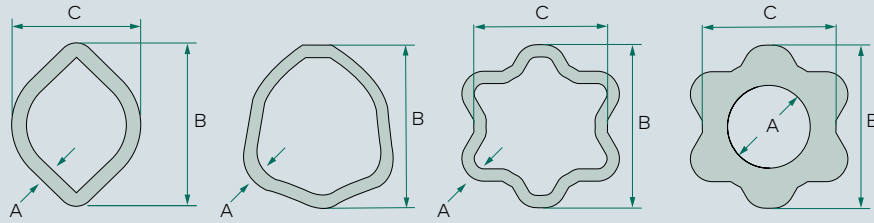
Part no.	Size	Length (mm)	Profile	Version	A (mm)	B (mm)	C (mm)
18512489	R10	1000	Lemon	Inner	3.4	30.8	23.7
18500031	R10	1000	Lemon	Outer	2.8	39.1	30
18518163	R10	1500	Lemon	Inner	3.4	30.8	23.7
18514485	R10	1500	Lemon	Outer	2.8	39.1	30
18513183	R10	3000	Lemon	Inner	3.4	30.8	23.7
18491539	R10	3000	Lemon	Outer	2.8	39.1	30
18496348	R10	1000	Triangle	Inner	3.5	26.6	-
18502812	R10	1000	Triangle	Outer	2.5	32.4	-
18504802	R10	1500	Triangle	Inner	3.5	26.6	-
18514675	R10	1500	Triangle	Outer	2.5	32.4	-
18497239	R10	3000	Triangle	Inner	3.5	26.6	-
18510192	R10	3000	Triangle	Outer	2.5	32.4	-
18499438	R20	1000	Triangle	Inner	4	29	-
18493846	R20	1000	Triangle	Outer	3.4	36.1	-
18517768	R20	1500	Triangle	Inner	4	29	-
18492553	R20	1500	Triangle	Outer	3.4	36.1	-
18501834	R20	3000	Triangle	Inner	4	29	-

ROTARO Profile tubes



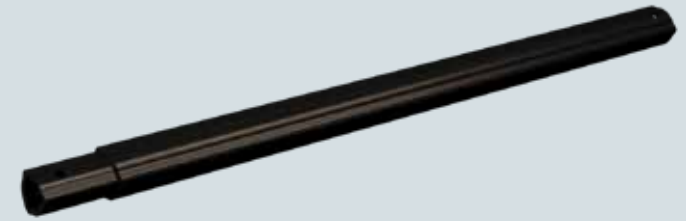
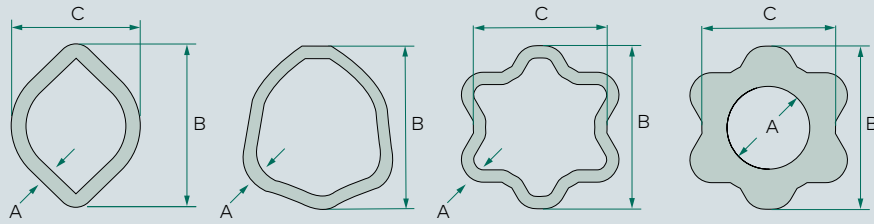
Part no.	Size	Length (mm)	Profile	Version	A (mm)	B (mm)	C (mm)
18506171	R20	3000	Triangle	Outer	3.4	36.1	-
18506174	R20/R30	1000	Lemon	Inner	4	40.1	30.8
18492552	R20/R30	1000	Lemon	Outer	2.8	48	41.2
18512384	R20/R30	1500	Triangle	Inner	4.4	36.1	30.8
18498923	R20/R30	1500	Lemon	Outer	2.8	48	41.2
18497527	R20/R30	3000	Lemon	Inner	4	40.1	30.8
18492140	R20/R30	3000	Lemon	Outer	2.8	48	41.2
18512383	R30	1000	Triangle	Inner	4.4	36.1	-
18491652	R30	1000	Triangle	Outer	3.3	43.4	-
18497240	R30	1500	Triangle	Inner	4.4	36.1	-
18485752	R30	1500	Triangle	Outer	3.3	43.4	-
18504407	R30	3000	Triangle	Inner	4.4	36.1	-
18509295	R30	3000	Triangle	Outer	3.3	43.4	-
18519058	R40/R60	1000	Triangle	Inner	4	44.7	-
18490915	R40	1000	Triangle	Outer	2.9	51.3	-
18502626	R40/R60	1500	Triangle	Inner	4	44.7	-
18514089	R40	1500	Triangle	Outer	2.9	51.3	-

ROTARO Profile tubes



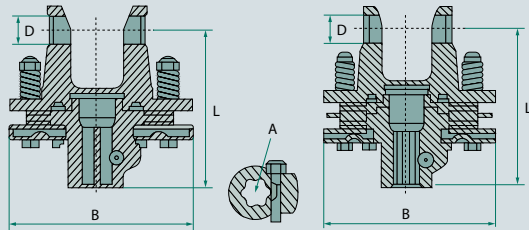
Part no.	Size	Length (mm)	Profile	Version	A (mm)	B (mm)	C (mm)
18494451	R40/R60	3000	Triangle	Inner	4	44.7	-
18501630	R40	3000	Triangle	Outer	2.9	51.3	-
18493844	R50	1000	Lemon	Inner	4.5	49	39.5
18502627	R50	1000	Lemon	Outer	3.8	57.5	48
18512382	R50	1500	Lemon	Inner	4.5	49	39.5
18504806	R50	1500	Lemon	Outer	3.8	57.5	48
18515386	R50	3000	Lemon	Inner	4.5	49	39.5
18496349	R50	3000	Lemon	Outer	3.8	57.5	48
18519058	R40/R60	1000	Triangle	Inner	4	44.7	-
18491824	R60/R70	1000	Triangle	Outer	3.8	53.6	-
18502626	R40/R60	1500	Triangle	Inner	4	44.7	-
18500528	R60/R70	1500	Triangle	Outer	3.8	53.6	-
18494451	R40/R60	3000	Triangle	Inner	4	44.7	-
18514087	R60/R70	3000	Triangle	Outer	3.8	53.6	-
18490916	R70	1000	Triangle	Inner	5.5	44.7	-
18491824	R60/R70	1000	Triangle	Outer	3.8	53.6	-

ROTARO Profile tubes



Part no.	Size	Length (mm)	Profile	Version	A (mm)	B (mm)	C (mm)
18512195	R70	1500	Triangle	Inner	5.5	44.7	-
18500528	R60/R70	1500	Triangle	Outer	3.8	53.6	-
18508796	R70	3000	Triangle	Inner	5.5	44.7	-
18514087	R60/R70	3000	Triangle	Outer	3.8	53.6	-
18502013	R80	1000	Star	Inner	5	37.1	47.4
18504800	R80	1000	Star	Outer	4.3	46.4	56.8
18502813	R80	1500	Star	Inner	5	37.1	47.4
18512196	R80	1500	Star	Outer	4.3	46.4	56.8
18504481	R80	3000	Star	Inner	5	37.1	47.4
18491823	R80	3000	Star	Outer	4.3	46.4	56.8
18492138	R90	1000	Star	Inner	6	46	56.4
18514676	R90	1000	Star	Outer	5	57.5	67.5
18507810	R90	1500	Star	Inner	6	46	56.4
18507113	R90	1500	Star	Outer	5	57.5	67.5
18514775	R90	3000	Star	Inner	6	46	56.4
18514776	R90	3000	Star	Outer	5	57.5	67.5

ROTARO Friction disc clutches



Part no.	Size	Torque (Nm)	A (profile)	B (mm)	D (mm)	L (mm)	Number of discs
18487837	R50	1000	1 3/8 (6)	200	30	154	2
18505625	R60	1000	1 3/8 (6)	200	30.2	161	2
18502729	R70	1500	1 3/8 (6)	200	35	175	4
18488033	R80	1500	1 3/8 (6)	200	36	175	4

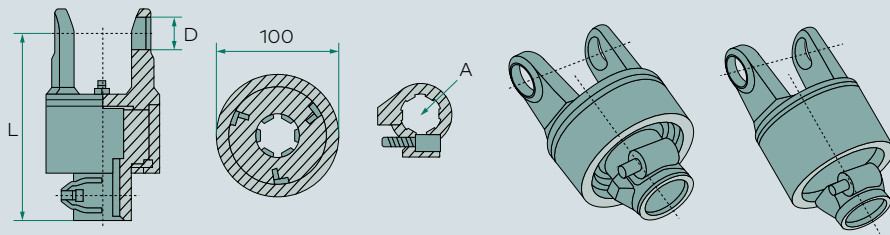


Watch the video about our innovative new PTO shaft guard here.

In addition, every PTO shaft has a QR code with the link to this video on the outside of the guard cone.

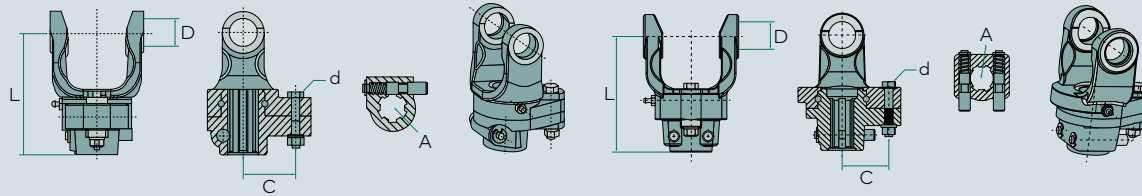


ROTARO Overrunning clutches



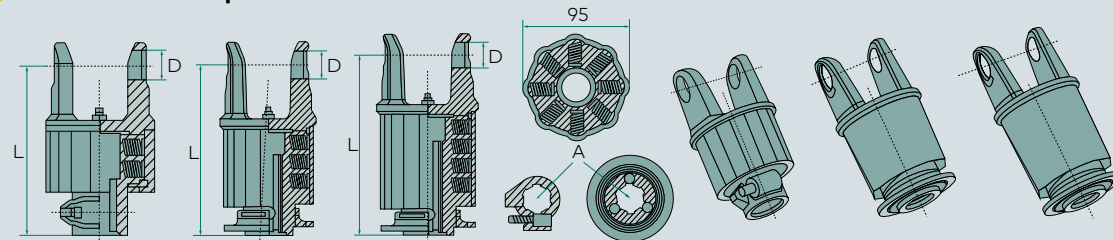
Part no.	Size	Torque (Nm)	L (mm)	D (mm)	Direction of rotation
18510094	R20	2400	130	23.8	Clockwise
18503418	R30	2400	138	27	Clockwise
18519061	R30	2400	138	27	Anticlockwise
18491821	R50	3800	160	30	Clockwise
18495337	R50	3800	160	30	Anticlockwise
18487836	R60	3800	167	30.2	Clockwise
18506172	R60	3800	167	30.2	Anticlockwise
18505623	R70	3800	168	35	Clockwise
18498034	R80	3800	168	36	Clockwise
18501125	R90	3800	183	42	Clockwise

ROTARO Shear bolt clutches



Part no.	Size	Torque (Nm)	L (mm)	D (mm)	C (mm)	d (mm)	Profile	Description
18514090	R20	900	99	23.8	45	M6x40	13/8 (6)	SBR20
18502320	R30	1700	107	27	55	M8x45	13/8 (6)	SBR30
18507812	R50	2100	111	30	46	M10x50	13/8 (6)	SBR50
18498922	R60	2500	137	30.2	55	M10x50	13/8 (6)	SBR60
18497340	R70	3000	139	35	46	M12x60	13/8 (6)	SBR70
18479240	R80	3000	139	36	46	M12x60	13/8 (6)	SBR80
18498924	R90	3500	154	42	57	M12x65	13/8 (6)	SBR90

ROTARO Radial pin clutches



Part no.	Size	A (profile)	D (mm)	L (mm)	Description	Torque (Nm)	Connection
18501833	R20	13/8 (6)	23.8	149	SAR20	550	Radial pin
18512385	R30	13/8 (6)	27	162	SAR30	800	Radial pin
18510096	R50	13/8 (6)	30	188	SAR50	1200	Radial pin
18507112	R60	13/8 (6)	30.2	196	SAR60	1200	Radial pin



ROTARO INITIAL STOCK PROPOSAL

ROTARO PTO shaft stand for 5 PTO shafts

Dimensions:

- Height: 138 cm
- Width: 75 cm
- Depth: 50 cm

Stand dimensions without PTO shafts.

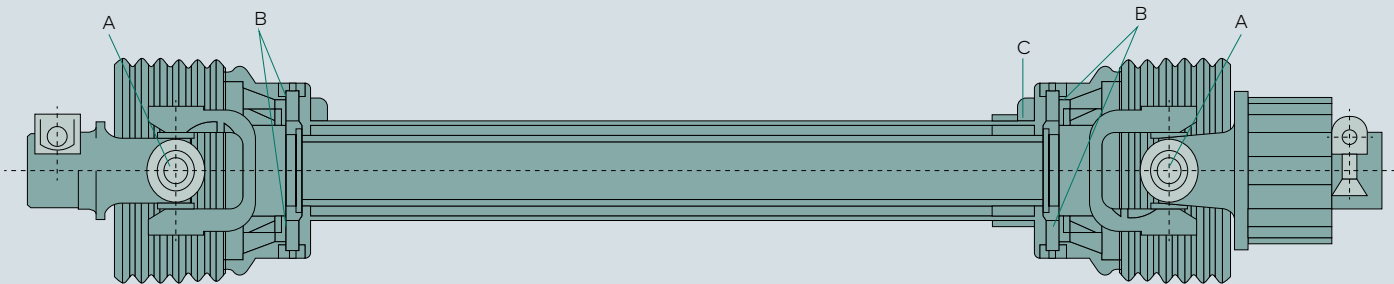
Part no.	Description	Size	Lz (mm)	Profile
12268441	ROTARO PTO shaft	R30	860	Lemon
12293833	ROTARO PTO shaft	R30	860	Triangle
12539781	ROTARO PTO shaft	R50	860	Lemon
12467786	ROTARO PTO shaft	R80	860	Star
12533581	ROTARO PTO shaft	R90	1010	Star
12521167	ROTARO PTO shaft stand			

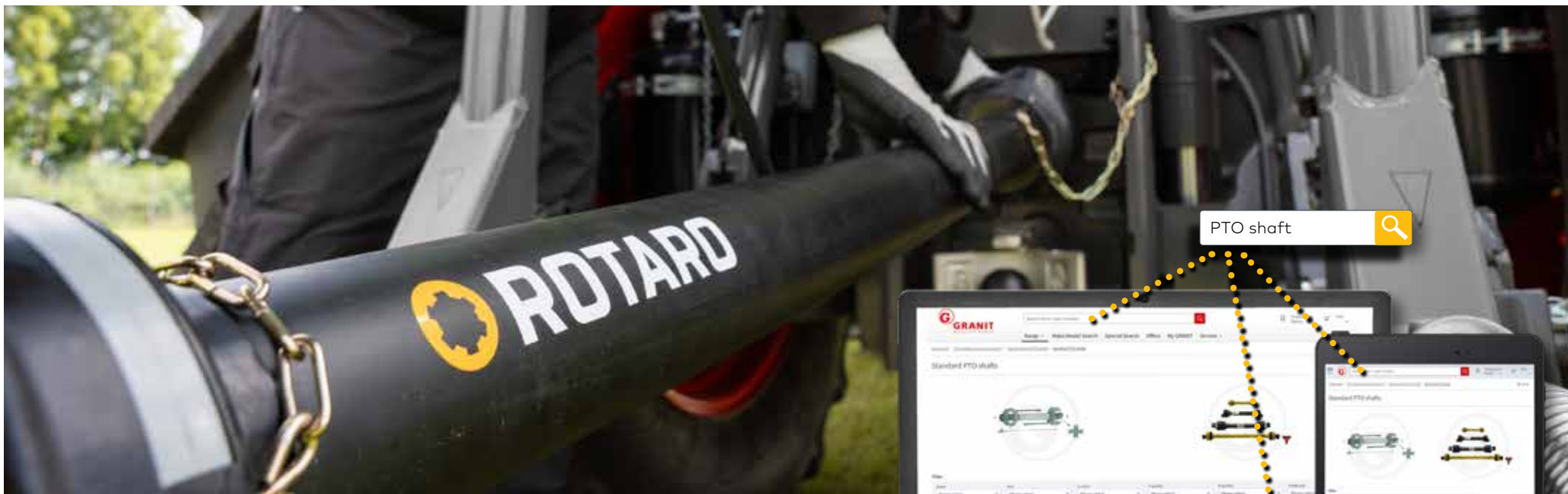


Maintenance and lubrication schedule for PTO shafts

Size	A (universal joint)		B (nylon bearing)		C (profile tubes)	
	Lubrication intervals (operating hours)	Grease (grams)	Lubrication intervals (operating hours)	Grease (grams)	Lubrication intervals (operating hours)	Grease (grams)
R10	8 h	1.5 g	24 h	2 g	24 h	10 g
R20	8 h	2 g	24 h	2 g	24 h	10 g
R30	8 h	2.5 g	24 h	3 g	24 h	10 g
R40	8 h	5 g	24 h	3 g	24 h	15 g
R50	8 h	5 g	24 h	6 g	24 h	15 g
R60	8 h	6 g	24 h	6 g	24 h	15 g
R70	8 h	7 g	24 h	6 g	24 h	15 g
R80	8 h	6.8 g	24 h	6 g	24 h	15 g
R90	8 h	13 g	24 h	6 g	24 h	15 g

Regular maintenance, cleaning and lubrication promote correct, low-wear operation.





THE MULTI-BRAND PTO SHAFT FINDER

Where can I find the PTO shaft finder?

There are two ways to access the new PTO shaft finder in the GRANIT webshop. Either select 'PTO shafts and drive technology' in the Range tab, followed by 'Search filters: PTO shafts'. Or enter the search term 'PTO shaft' in the search bar, and you will be redirected to the PTO shaft finder.

What advantages does the GRANIT PTO shaft finder offer?

The GRANIT PTO shaft finder will help you easily and conveniently find the right PTO shafts for your customers. Find the right shaft in just a few clicks thanks to the many filter options.

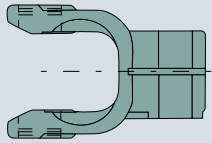
The easiest way to identify a PTO shaft is normally via the universal joint. Once the PTO shaft has been measured, the details can be entered into the finder to narrow down the shaft being searched for.

The tool covers the entire range of PTO shaft manufacturers including GRANIT, ROTARO, Blueline, Walterscheid and Bondioli & Pavesi. This means that alternatives for different brands can be found in no time. Another new feature for numerous PTO shafts is the direct link to suitable replacement parts.

This means that the right replacement parts can be found without time-consuming searches for individual references.



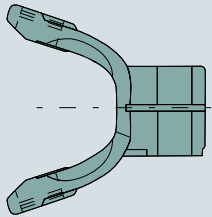
IDENTIFYING DEFECTS AND RESOLVING THE CAUSES



Yoke wear

Excessive working angles

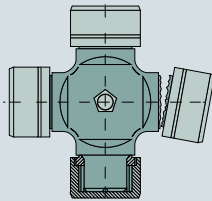
- Reduce the working angle.
- Disengage the PTO shaft at working angles above 45°.



Yoke deformation

Excessive torque peaks

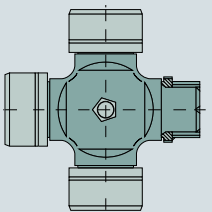
- Avoid overloading and engaging the PTO shaft under load.
- Check the overload clutch function.



Universal joint pin breakage

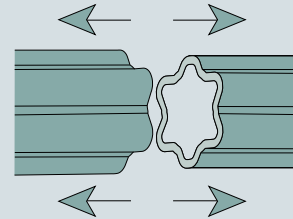
Excessive torque peaks

- Avoid overloading and engaging the PTO shaft under load.
- Check the overload clutch function.



Premature universal joint pin wear

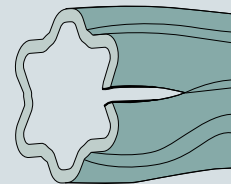
- Avoid overloading.
- Ensure optimum lubrication.



Slide tubes falling apart

PTO shaft pulled too far apart

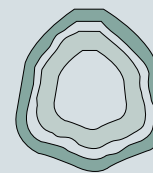
- Avoid applications where the PTO shaft is pulled too far apart.
- With stationary machines, ensure that the alignment of the tractor to the machine covers the guard tubes.



Slide tube deformation

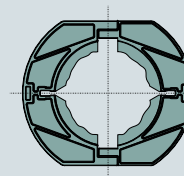
Excessive torque peaks

- Avoid overloading and engaging the PTO shaft under load.
- Ensure that the PTO shaft does not come into contact with the tractor or the machine during use.



Premature slide tube wear

- Ensure optimum lubrication.
- Ensure sufficient slide tube overlap.



Premature race wear

- Ensure optimum lubrication.



PTO SHAFT SERVICE

Our services

- Assembly of PTO shafts according to customer requirements using equipment from Walterscheid
- PTO shafts from other notable manufacturers can also be processed
- Testing and adjustment of overload clutches of all types, including report



Want to find out more?
Don't hesitate to get in touch.



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POWER TO PERFORM