

# USER'S MANUAL AND SPARE PARTS CATALOGUE



AGRICULTURAL DOUBLE ROTARY CUTTER - RDMR 250 / 280 / 300



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MEC-RUL reserves the right to modify the technical specifications of its products without prior notice and without the obligation to make the same modifications in products that have already been sold.

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# ROTARY CUTTER MANUAL

## SAFETY NOTES

- Carefully read all instructions and get familiar with all information herein contained;
- Do not allow untrained people to operate the equipment, as accidents can happen;
- Do not carry the rotary cutter or make any overhaul/inspection with the PTO engaged;
- Do not allow people nearby the machine while in operation;
- During transportation, be careful with the implement width in narrow places;
- Do not carry people or objects under the rotary cutter;
- We do not recommend that you operate the rotary cutter on unplowed or Stony soils.

## TECHNICAL SPECIFICATIONS

- Transmission box with helical teeth gears, eliminating unnecessary belt stops, making it quicker and profitable;
- Free-spinning bathed in oil box;
- Cardan shaft with adjustable-torque clutch, providing protection to the implement and to the tractor.

## TECHNICAL FEATURES

DESCRIPTION	RDMR 250	RDMR 280	RDMR 300
LENGTH	2,10 m	2,20 m	2,30 m
OVERALL WIDTH	2,73 m	3,00 m	3,20 m
CUTTING WIDTH	2,52 m	2,80 m	3,00 m
CUTTING HEIGHT	2,5 - 20 cm	2,5 - 20 cm	2,5 - 20 cm
AVERAGE WEIGHT	755 kg	815 kg	855kg
KNIVES ROT.	997 rpm	997 rpm	997rpm
PTO ROTATION	540 rpm	540 rpm	540 rpm
PRODUCTION	1,0 - 2,0 ha/h	1,5 - 2,2 ha/h	1,5 - 2,63 ha/h
PTO POWER	70 - 90 cv	80 - 100 cv	80 - 100 cv

## SPARE PARTS

To order spare parts, please indicate the quantity and P/N, as per catalogue. Whenever possible, inform also the number of the implement, which is engraved underneath the machine chassis.

## TRANSLATIONS INTO OTHER LANGUAGES

Para versões em português e espanhol desse material, acesse [www.mec-rul.com.br](http://www.mec-rul.com.br)

For Portuguese and Spanish versions of this guide, visit [www.mec-rul.com.br](http://www.mec-rul.com.br)

Para versiones en portugués y español de este manual, visite [www.mec-rul.com.br](http://www.mec-rul.com.br)

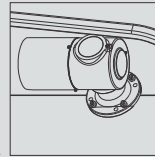
Note: The cardan shaft has its own Manual, which must be read for working instructions.

## MAIN COMPONENTS

### CENTRAL BOX (Figure A)

Nodular cast iron housing, mounted with a crown and pinion assy with helical tapered teeth and free-spinning in oil bath.

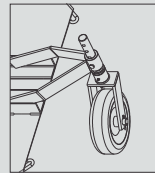
Figure A



### HEIGHT-ADJUSTING WHEEL (Figure B)

Equipped with stamped wheel. A bored axle allows you to adjust height.

Figure B



### SLIDER ASSY (Figure C)

Reinforced plate frame, with replaceable support base.

Figure C



### CUTTING ASSY (Figure D)

Tempered and balanced carbon steel blades.

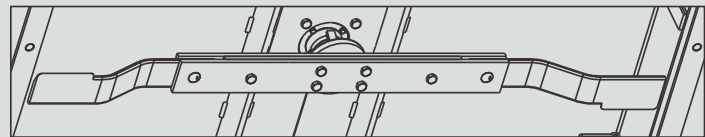


Figure D

## CUTTING SPEED

Recommended speed: 4 to 6 km, Speed may vary depending on the conditions of the terrain and on the volume to be cut.

## WORKING INSTRUCTIONS

- Couple the rotary cutter to the tractor by means of the lower arm coupling pins (place the lock pins);
- On the third point, use a chain (which comes with the rotary cutter) and leave it with clearance so that the rotary cutter can follow the undulation of the terrain. Offered as an optional is an articulator, which can be used on the upper part of the rotary cutter, along with the third point of the tractor;
- After coupling the rotary cutter to the tractor, center it and level it in relation to the tractor. The cardan clutch side must be positioned at the rotary cutter box. Make sure there is enough penetration of pipes and that pins or screws are well positioned;
- If you need to adjust the length, cut the two parts of the cardan shaft proportionally, cut the safety protection and remove burrs. Mount observing the crosspieces alignment. Make sure you reinstall the cardan shaft safety protection;
- During operation, rotation must be kept constant at 540 RPM on the PTO. Do not vary the average speed of the tractor during cutting, as this will result in inefficient cutting;
- We recommend that you do not make abrupt maneuvers with the rotary cutter supported on the ground. Lift it only when needed to divert from possible obstacles, thus avoiding damaging the cardan shaft crosspieces;
- As per NR 31 Standard of Directive 86, dated March 2009 – item 31.12.3, use only machines, equipment and implements with protected power transmissions.

## CUTTING HEIGHT ADJUSTMENT

- Cutting height adjustment can be made through the wheel, by changing the position of the pin, lowering the wheel to increase the cutting height or, reversely, to decrease it;
- For models with side height adjustment, adjustment is made through the slider support group by loosening the nuts until the height adjusting locks loose, getting free to operate. Follow the same procedure on the other side so as to achieve symmetry.

## CLUTCH ADJUSTMENT

The friction clutch provides protection to the transmission system of the tractor and implement. This device is adjusted so that the disc skids only when it encounters an obstacle. Under normal working conditions, if it skids, tighten evenly all the screws evenly. When suffering an impact without skidding, follow the reverse process.

## WARRANTY TERM

Mec-Rul warrants its products for any defects in its material and craftsmanship for a period of 180 days counted from the shipment date (bill of lading).

The warranty covers the replacement of any part or original accessory and product component - after evaluated by the technics and examined by Rugeri Mec-Rul S/A or the manufacturer of the part or accessory that proves no misapplication of it.

The warranty also does not cover perishable materials, these ones considered with predictable replacement or wear out by constant use and friction with its ground application.

## MAINTENANCE

- Check the oil level of the transmission box daily in the level plug located in the front part of the box. Fill it up, if necessary, with SAE 140 oil;
- Clean and lubricate the lubrication points daily or every 8 hours of operation with good-quality grease. (crosspieces, bar, tube and fork shaft);
- Keep the rotary cutter blades always sharp. When undergoing sharpening, do it evenly on both sides not to affect balancing;
- In case a blade breaks or is lost, replace it immediately to avoid vibrations, damages and also to keep good-quality cutting;
- Check daily conditions of screws, nuts, pins. Retighten and replace them if necessary.

## COLOR CHOICE



GREEN



RED

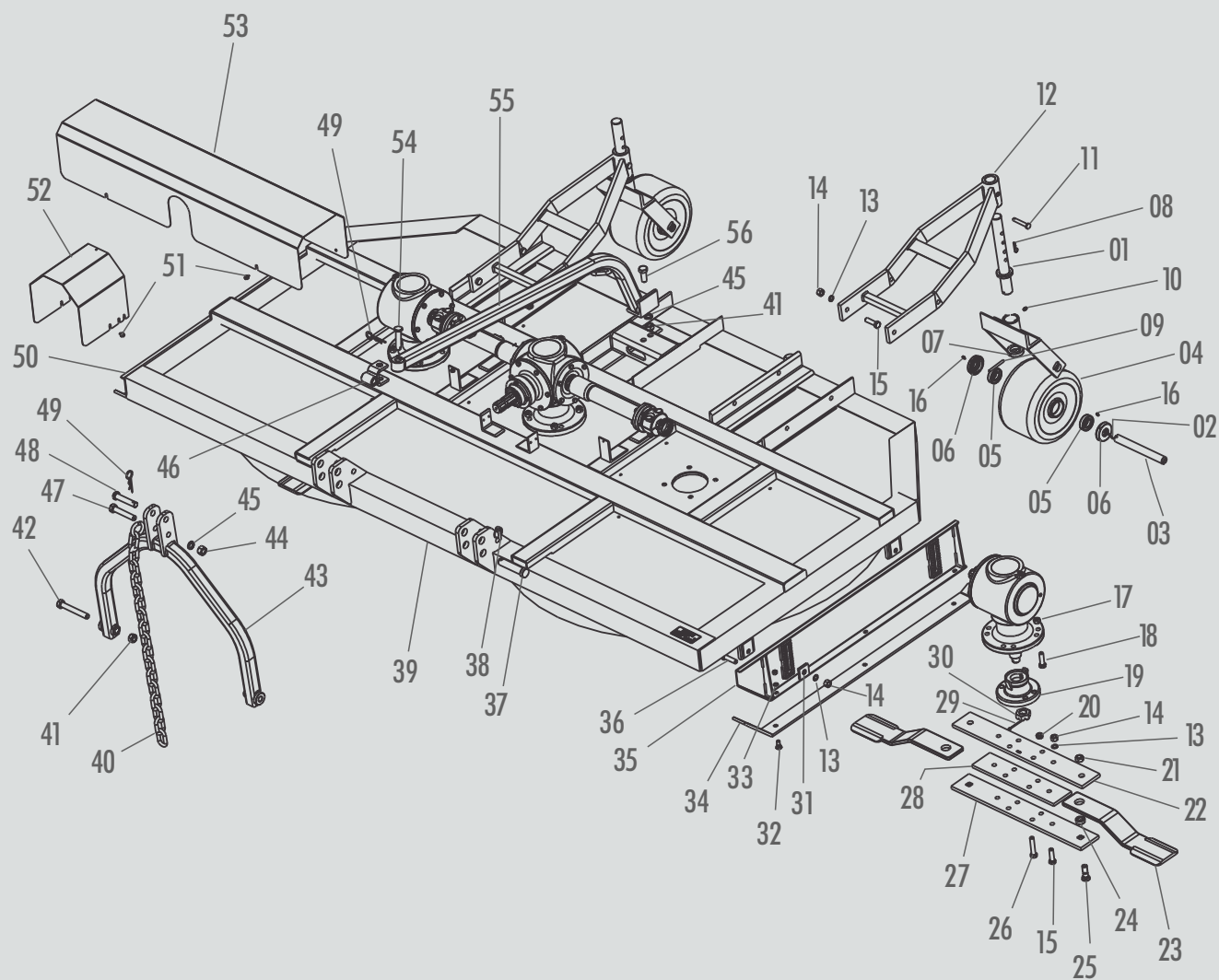


YELLOW



BLUE

# ROTARY CUTTER FRAME WITH ADJUSTMENT

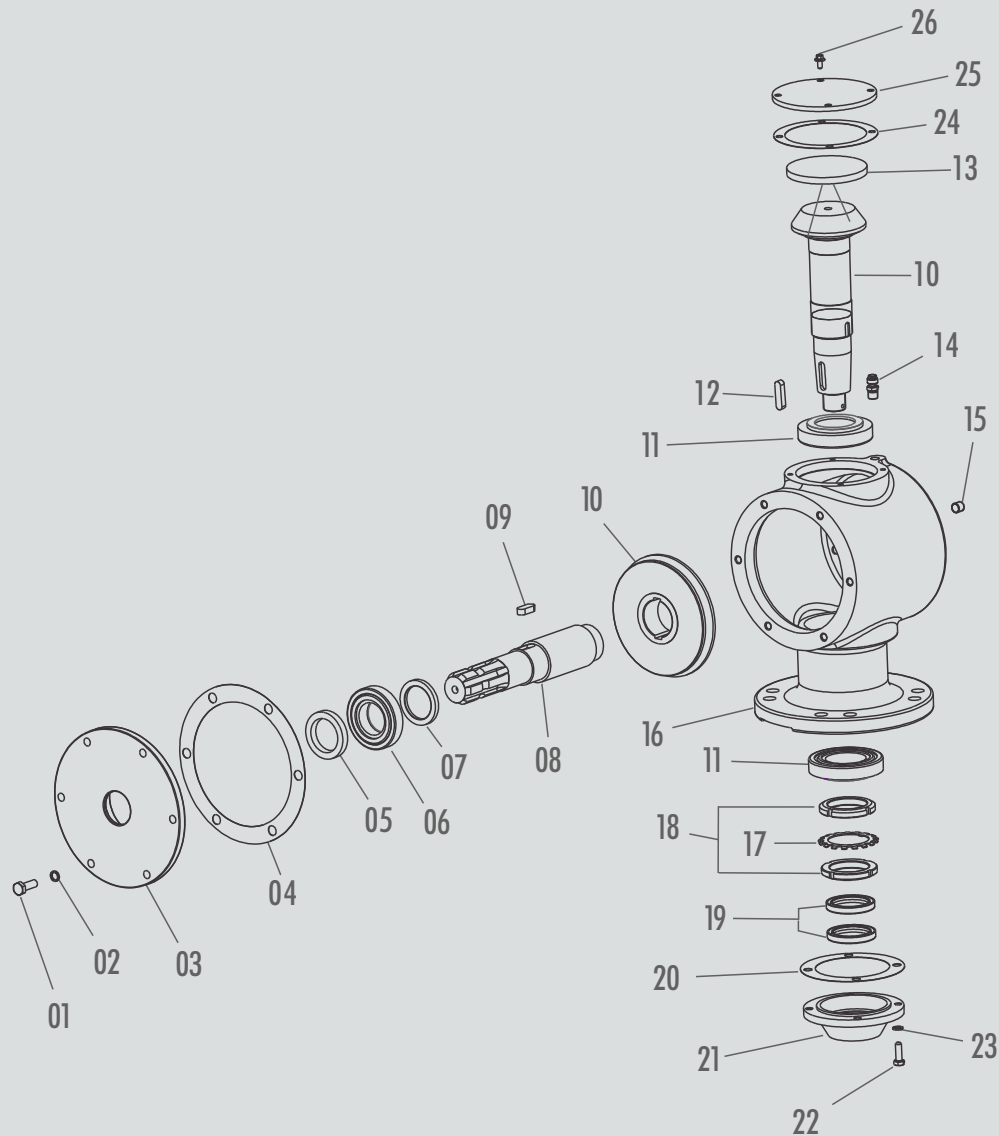


ITEM	CODE	NAME	RDMR 250	RDMR 280	RDMR 300
1	5.0002.8024	FORK SHAFT GROUP	2	2	2
2	0.1001.0001	COTTERPIN /4" X 2"	2	2	2
3	5.0002.8021	WHEEL SHAFT GROUP	2	2	2
4	2.0052.1029	WHEEL RDMR 300	2	2	2
5	0.2701.0004	BEARING 6206 ZZ	4	4	4
6	3.0027.1189	WHEEL PROTECTION COVER	4	4	4
7	3.0020.1025	FORK LOWER BUSHING	2	2	2
8	0.1901.0003	FIXING CLAMP Ø3 X 55 MM	2	2	2
9	0.2101.0003	ELASTIC PIN 8 X 80 MM	2	2	2
10	0.1701.0001	STRAIGHT GREASE FIT.1/8"	2	2	2
11	2.0020.1023	WHEEL ADJUSTING PIN	2	2	2
12	5.0028.0122	WHEEL SUPPORT GROUP	2	2	2
13	0.0703.0008	SPRING WASHER M16	12	12	12
14	0.2304.0004	HEX. NUT MA16	12	12	16
15	0.2404.0062	HEXAGONAL SCREW. MA 16X55	8	12	16
16	0.1701.0002	STRAIGHT GREASE FIT.1/4" UNF	4	4	4
17	0.2303.0004	HEX. NUT - TORQUE MB16	12	12	12
18	0.2404.0074	HEX. SCREW MB16X55	12	12	12
19	2.0023.1022	BLADE FIXING SUPPORT	2	2	2
20	0.2305.0001	SELF-LOCK HEX. NUT MA16	8	8	8
21	0.2304.0010	HEX. NUT - T. TORQUE MB16	4	4	4
22	3.0020.1038	UPPER BLADE FASTENER	2	X	X
22	3.0028.1123	UPPER BLADE FASTENERFIXADOR	X	2	X

ITEM	CODE	NAME	RDMR 250	RDMR 280	RDMR 300
22	3.0023.1027	UPPER BLADE FASTENER	X	X	2
23	2.0028.1020	BLADE (DOUBLE CUT)	4	4	4
24	2.0020.1165	BLADE BUSHINGS	4	4	4
25	0.2405.0013	HEX. SCREW 3/4"X 62 UNF - 16	4	4	4
26	0.2404.0041	HEX. SCREW MA 16X80	8	8	8
27	3.0020.1040	LOWER BLADE BASTENER	2	X	X
27	3.0028.1124	LOWER BLADE FASTENER	X	2	X
27	3.0023.1029	LOWER BLADE FASTENER	X	X	2
28	3.0020.1039	SPACER	2	X	X
28	3.0029.1013	SPACER	X	2	X
28	3.0023.1028	SPACER	X	X	2
29	0.1001.0004	COTTERPIN 5/32" X 2"	2	2	2
30	0.2301.0004	HEX. NUT MB 30' X 2	2	2	2
31	2.0023.1081	HEIGHT ADJUST. LOCK	4	4	4
32	0.2405.0009	SCREW 1/2"X1' 1/4" WITH NUT	8	8	8
33	0.0703.0002	SPRING WASHER 1/2"HEAVY	8	8	8
34	3.0022.1036	INTERCHANG. SLIDER	2	X	X
34	3.0023.1075	INTERCH. SLIDER	X	2	2
35	5.0028.0143	SLIDER SUPP. GROUP - LH	1	X	X
35	5.0028.0141	SLIDER SUPP. GROUP - LH	X	1	1
36	0.2404.0060	HEX. SCREW MA 16X70	4	4	4
37	2.0030.1199	THIRD-POINT PIN	2	2	2
38	0.2102.0001	LOCK PIN	2	2	2

ITEM	CODE	NAME	RDMR 250	RDMR 280	RDMR 300
39	5.0002.8034	FRAME GROUP RDMR 250	1	X	X
39	5.0002.8036	FRAME GROUP RDMR 280	X	1	X
39	5.0002.8030	FRAME GROUP RDMR 300	X	X	1
40	0.1301.0003	CHAIN 18 LINKS	1	1	1
41	0.2305.0002	SELF-LOCK NUT MA20	3	3	3
42	0.2404.0036	HEX. SCREW MA20X140	2	2	2
43	5.0028.0114	ARMS GROUP RDMR 300	1	1	1
44	0.2304.0005	HEX. NUT MA20	1	1	1
45	0.0703.0009	SPRING WASHER M20	2	2	2
46	5.0023.0143	REINF. GROUP OF MOV. TOWER	1	1	1
47	0.2404.0040	HEX. SCREW MA20X110	1	1	1
48	2.0028.1079	HITCH PIN	1	1	1
49	0.1901.0002	FIXED CLAMP Ø4,5 X 103	1	1	1
50	5.0028.0142	SLIDER SUPP. GROUP - RH	1	X	X
50	5.0028.0140	SLIDER SUPP. GROUP - RH	X	1	1
51	0.2405.0005	FLANG. HEX, SCREW M 8X12	8	8	8
52	2.0023.1085	CLUTCH PROTECTION	1	1	1
53	2.0027.1160	BARS PROTECTION	1	1	1
54	2.0020.1068	ARMS PIN	1	1	1
55	5.0022.1111	TUBULAR ROD GROUP	1	X	X
55	5.0023.0113	TUBULAR ROD GROUP	X	1	X
55	5.0025.0147	TUBULAR ROD GROUP	X	X	1
56	0.2404.0030	HEX. SCREW M 20X50	1	1	1

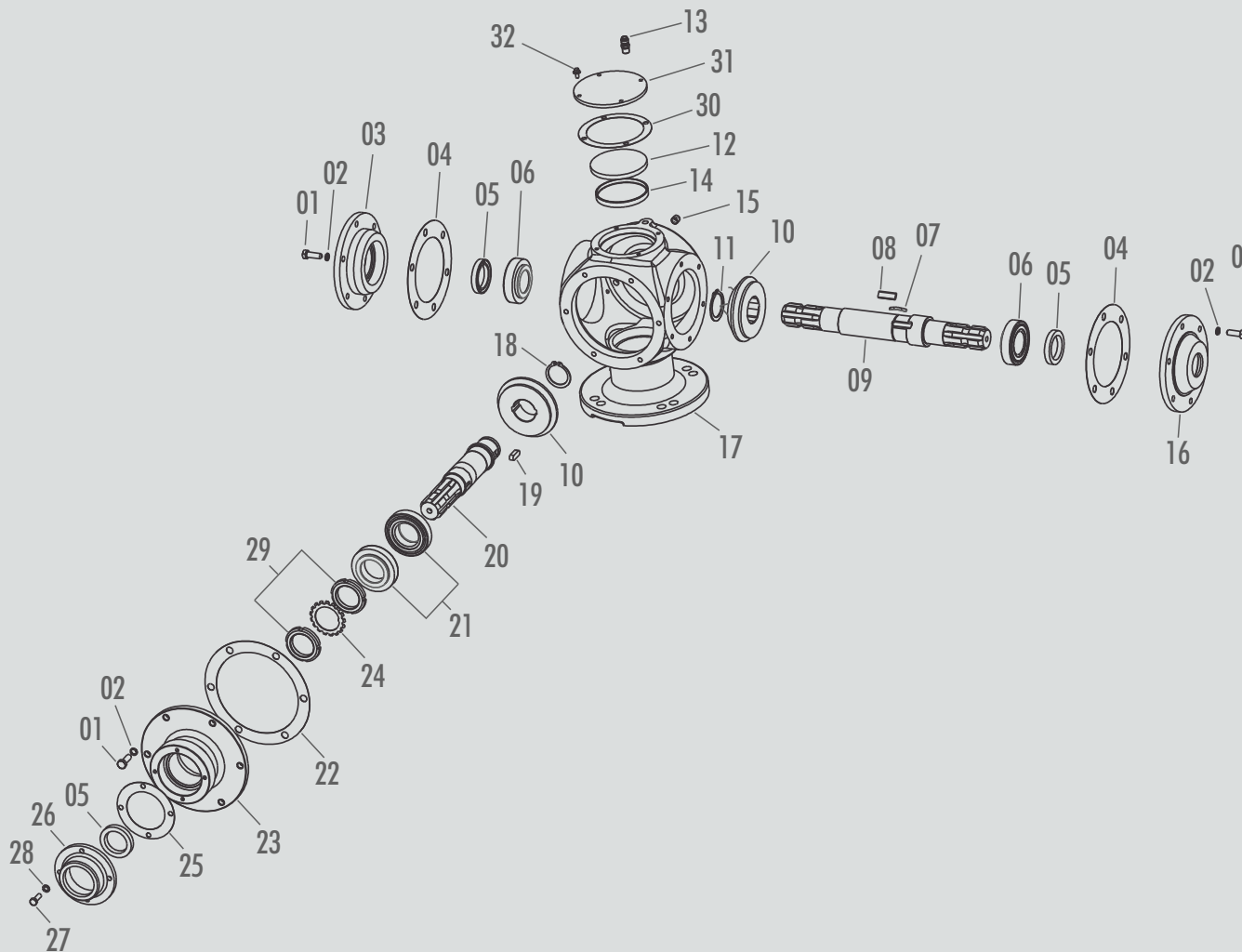
# RH LATERAL BOX - 5.0511.2008 LH LATERAL BOX - 5.0511.2007



ITEM	CODE	NAME	APPLICATION	
			LF LATERAL	RH LATERAL
1	0.2404.0008	HEX. SCREW. M10X30	6	6
2	0.0703.0005	SPRING WASHER M10	6	6
3	3.1120.1020	OPEN COVER	1	1
4	2.1040.1013	GASKET	1	1
5	0.2601.0004	RETAINER 00359 BR	1	1
6	0.2702.0005	BEARING 30209	1	1
7	3.1120.1054	THURST RING	1	1
8	3.1120.1053	CROWN SHAFT	1	1
9	0.1101.0024	KEY 12X8X30	2	2
10	6.0011.2022	CROWN-PINION ASSY	1	X
10	6.0011.2023	CROWN-PINION ASSY	X	1
11	0.2702.0007	BEARING 30211	2	2
12	0.1101.0021	KEY 10X8X40	1	1
13	0.2602.0002	CLOSED COVER Ø110X10	1	1
14	0.0901.0009	BREATHER 1/4" NPT- 18WIRES	1	1
15	0.2801.0011	PLUG 1/4" NPT - 18 WIRES	1	1
16	3.1120.1023	HOUSING	1	1
17	0.0704.0005	WASHER SKF MB 11 Ø55	1	1
18	0.2306.0005	HEX. NUT SKF KM 11 Ø55	2	2
19	0.2601.0021	RETAINER 01783 BRG	2	2
20	2.0030.1190	GASKET	1	1
21	3.1120.1003	LOWER HEAD COVER	1	1
22	0.2404.0004	HEX. SCREW. M8X25	4	4
23	0.0703.0004	SPRING WASHER M8	4	4
24	2.0036.1091	GASKET	1	1
25	2.1132.1004	UPPER COVER	1	1
26	0.2405.0010	FLANGED SCREW M6X12	4	4

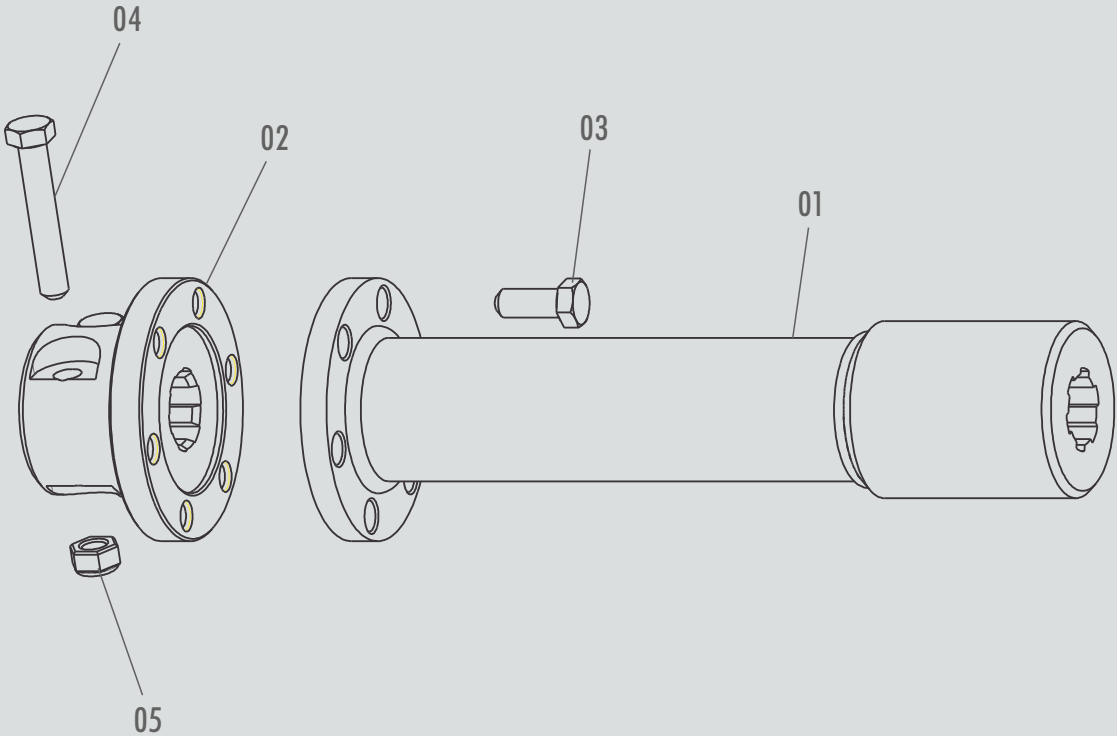


# CENTRAL BOX



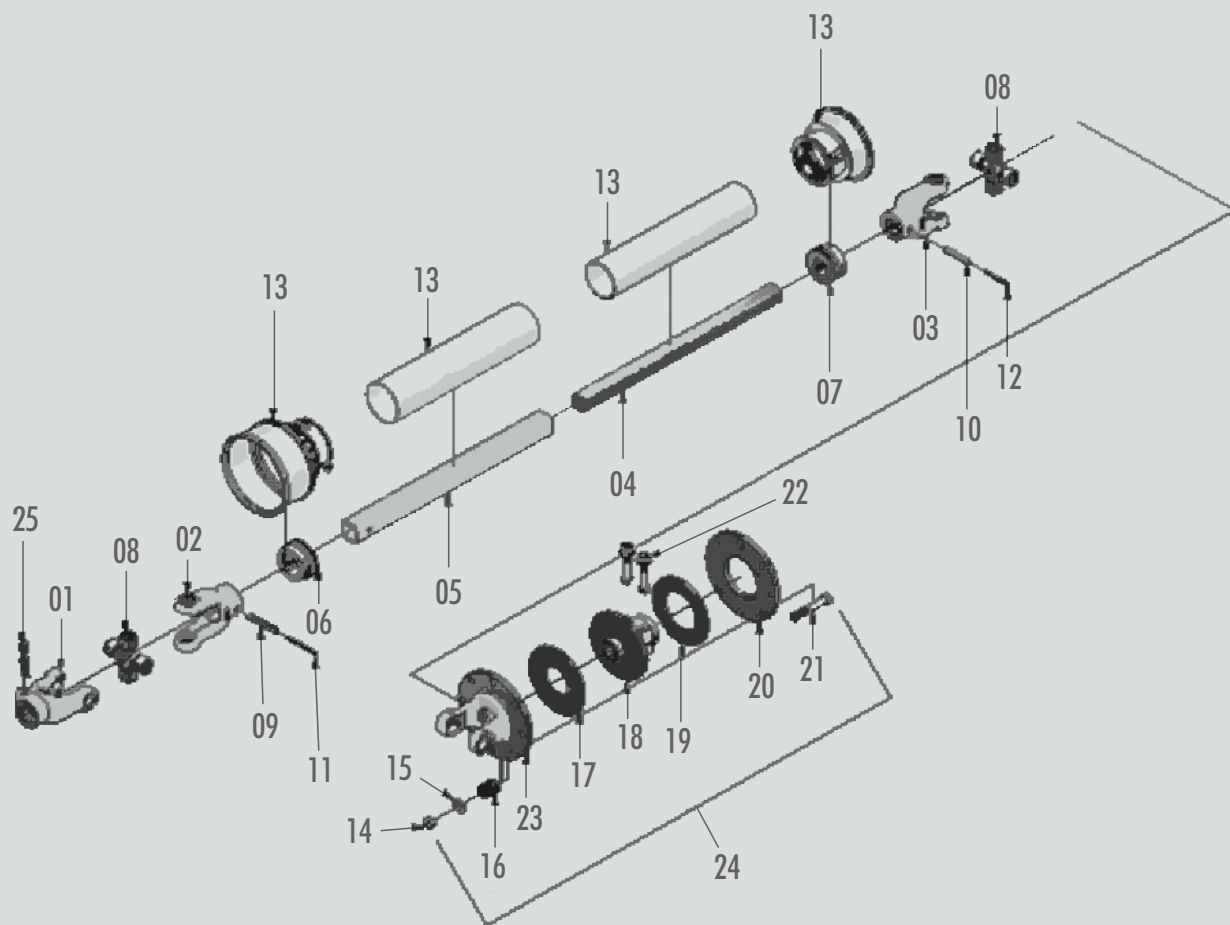
ITEM	CODE	NAME	QTY
1	0.2404.0008	HEX. SCREW MA 10X30	18
2	0.0703.0005	SPRING WASHER M 10	18
3	2.1144.1003	OPEN COVER	1
4	2.1040.1011	GASKET	2
5	0.2601.0004	RETAINER 00359 BR	3
6	0.2702.0013	BEARING 32209	2
7	2.1120.1021	SPRING	3
8	2.1120.1022	COUPLING KEY	3
9	3.1144.1010	SHAFT	1
10	6.0011.4411	CROWN-PINION ASSY	1
11	0.0401.0004	ELASTIC RING DAE 50	1
12	0.2602.0002	CLOSED RETAINER Ø 110x10	1
13	0.0901.0009	BREATHER 1/4" NPT- 18 WIRES	1
14	0.2602.0001	CLOSED RETAINER Ø100X10	1
15	0.2801.0011	PLUG 1/4" NPT - 18 WIRES	1
16	2.1144.1004	OPEN COVER	1
17	3.1144.1007	HOUSING	1
18	0.0401.0003	ELASTIC RING DAE45	1
19	0.1101.0005	KEY 10X8X30	2
20	3.1033.1015	PINION SHAFT	1
21	0.2702.0006	BEARING 30210	2
22	2.1040.1013	GASKET	1
23	2.1144.1002	HEAD	1
24	0.0704.0004	WAHSEK SKFMB10 - 50	1
25	2.1045.1022	GASKET	1
26	3.1033.1019	HEAD COVER	1
27	0.2404.0004	HEX. SCREW. MA8X25	4
28	0.0703.0004	SPRING WASHER M8	4
29	0.2306.0004	NUT SKF KM10-50	2
30	2.0036.1091	GASKET	1
31	2.1132.1004	UPPER COVER	1
32	0.2405.0010	FLANGED SCREW M6 X 12	4

# TRANSMISSION BAR



ITEM	CODE	NAME			
			RDMR 250	RDMR 280	RDMR 300
1	5.0002.7123	SMALL BAR GROUP RDMR250	1	X	X
1	5.0002.7126	LARGE BAR GROUP RDMR250	1	X	X
1	5.0002.7117	SMALL BAR GROUP RDMR280	X	1	X
1	5.0002.7120	LARGE BAR BROUP RDMR280	X	1	X
1	5.0002.7127	SMALL BAR GROUP RDMR300	X	X	1
1	5.0002.7128	LARGE BAR GROUP RDMR300	X	X	1
2	3.0027.1114	TRANSMISSION BAR TERMINAL	2	2	2
3	0.2404.0012	HEX. SCREW. MA12X30	12	12	12
4	0.2404.0041	HEX. SCREW . MA16X80	4	4	4
5	0.2305.0001	HEX. SELF-LOCKING NUT MA16	4	4	4

## CARDAN SHAFT WITH CLUTCH - 0.1602.0014



ITEM	CODE	NAME	QTY
1	2.0060.1102	QUICK-COUPLING TERMINAL (Z 6-1.3/8")	18
2	2.0060.1103	SQUARE-HOLE TERM. - FEMALE	18
3	2.0060.1106	SQUARE-HOLE TERM. - MALE	1
4	2.0060.1168	SQUARE BAR - MALE (0,850 m)	2
5	2.0060.1169	SQUARE BAR - FEMALE (0,850 m)	3
6	2.0060.1122	ADJUSTING BUSHING - FEMALE	2
7	2.0060.1123	ADJUSTING BUSHING - MALE	6
8	0.3901.0001	CROSSPIECE WITH RING	1
9	0.2101.0023	ELASTIC PIN 10X70	1
10	0.2101.0021	ELASTIC PIN 6X60	1
11	0.2101.0004	ELASTIC PIN 10X60	1
12	0.2101.0017	ELASTIC PIN 06X70	1
13	2.0060.1124	COMPLETE PROTECTION ASSY	1
14	0.2305.0016	SELF-LOCKING NUT BSW 1/2" 12FPP	1
15	0.0702.0006	FLAT WASHER 1/2"X24X3MM	1
16	0.2001.0002	SPRING - 30X35MM DIAM.	1
17	0.0601.0004	FRICTION DISC 139X59X5MM	1
18	2.0060.1143	GROOVED CORE -LATERAL GRIP (Z6-1.3/4")	2
19	0.0601.0005	FRICTION DISC 139X97X5MM	1
20	0.0601.0006	IRON DISC 180X98X3/8" DIAM	2
21	0.2403.0007	HEX, SCREW . BSW.RP1/2"X3.1/2"	1
22	2.0060.1126	LATERAL GRIP ASSY	1
23	2.0060.1138	CLUTCH FLANGE - 2500 SERIES	1
24	5.0600.1517	COMPLETE CLUTCH ASSY	1
25	2.0060.1101	QUICK-COUPLING ASSY	1





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