

USER'S MANUAL AND SPARE PARTS CATALOGUE



ROTARY TRENCHER
VGMR 400 / 500

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MEC-RUL reserves the right to modify the technical specifications of its products without prior notice and with no obligation to modify products that have already been sold.

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ROTARY TRENCHER MANUAL

SAFETY NOTES

- Carefully read all instructions and get familiar with all information here in contained.
- Do not carry or check the trencher with the PTO engaged.
- Do not allow people get near the trencher while in operation.
- We do not recommend that you use the trencher on stony terrain.
- As per Standard NR31 of Directive 86, dated March 3, 2005 – item 31.12.3, use machines, equipment and implements with protection on transmission lines.

TECHNICAL SPECIFICATIONS

- RH transmission box with free-spinning helical teeth gear bathed in oil;
- Cardan shaft with adjustable-torque clutch, protecting the implement and the tractor;

TECHNICAL FEATURES

DESCRIPTION	VGMR 400	VGMR 500
LENGTH	2,15m	2,15m
OVERALL WIDTH	1,29m	1,29m
HEIGHT	1,63m	1,63m
ROTOR DIAMETER*	990mm	1.200mm
NUMBER OF BLADES	20	24
ROTOR ROTATION	285rpm	285rpm
PTO POWER	60hp	70hp
TRENCH (DEPTH. X WIDTH.)	400 x 85/130mm	500 x 85/130mm
PAVERAGE WEIGHT	535kg	605kg
WORKING SPEED km/h	2	2

MAIN COMPONENTES

CENTER GEARBOX

Nodular cast iron housing, mounted with a crown and pinion set with helical tapered teeth.

CLUTCH

This component is instrumental in a trencher, since it provides protection to the transmission system and tractor PTO when encountering an obstacle.

Adjustment must be performed on the working site, according to the type of terrain. Depending on the terrain, it will require more or less pressure of the springs on the friction mechanism assy. Retighten if necessary. To adjust the clutch, tighten all nuts evenly around half turn. If necessary, repeat the operation until discs do not skid easily, always being careful not to leave the springs locked either.

WORKING SPEED

Entry: 540rpm TRACTOR PTO

Exit: 285rpm IN THE TRENCHER BLADES

WORKING INSTRUCTIONS

To achieve maximum performance and long life, we recommend that you follow the operations and maintenance instructions contained in this Manual. The trencher is easily coupled to the tractor by 3-point hitch.

Before putting the trencher into operation, follow the steps below:

- 1- Check the oil level (SAE90 mineral oil) through the plug located on the side of the box.
- 2- Complete the oil level periodically when necessary.
- 3- Lubricate daily the grease nipples with grease.
- 4- Periodically tighten all bolts, nuts and grease nipples.
- 5- Check instructions in the Lubrication and Maintenance Plan.

MAINTENANCE

Central gearbox:

Periodically check the oil level (item 04) and, if necessary, fill up with SAE 90 oil. Change oil every 500 hours of operations.
(Oil amount: 3,9 liters)

Grease Nipples:

Daily or every 8 hours of operation, grease the bearing crosspieces, bar and pipe grease nipples.

RH Oil Bearing:

Periodically check the oil level (item 21 of the right side) and, if necessary, fill up with SAE 140 oil. Change oil every 500 hours of operation.
(Oil amount: 250 ml).

Cardan Shaft:

Check daily if the cardan shaft of your trencher is well coupled to the tractor PTO. There must not be clearance between the 1st and 2nd point of the tractor.

COLOR CHOICES



GREEN



RED



YELLOW



BLUE

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.

SPARE PARTS

When ordering spare parts, please indicate the number and code of the part, as described in the catalogue. Whenever possible, please inform also the Equipment Number, which is engraved on the machine chassis.

TRANSLATION INTO OTHER LANGUAGES

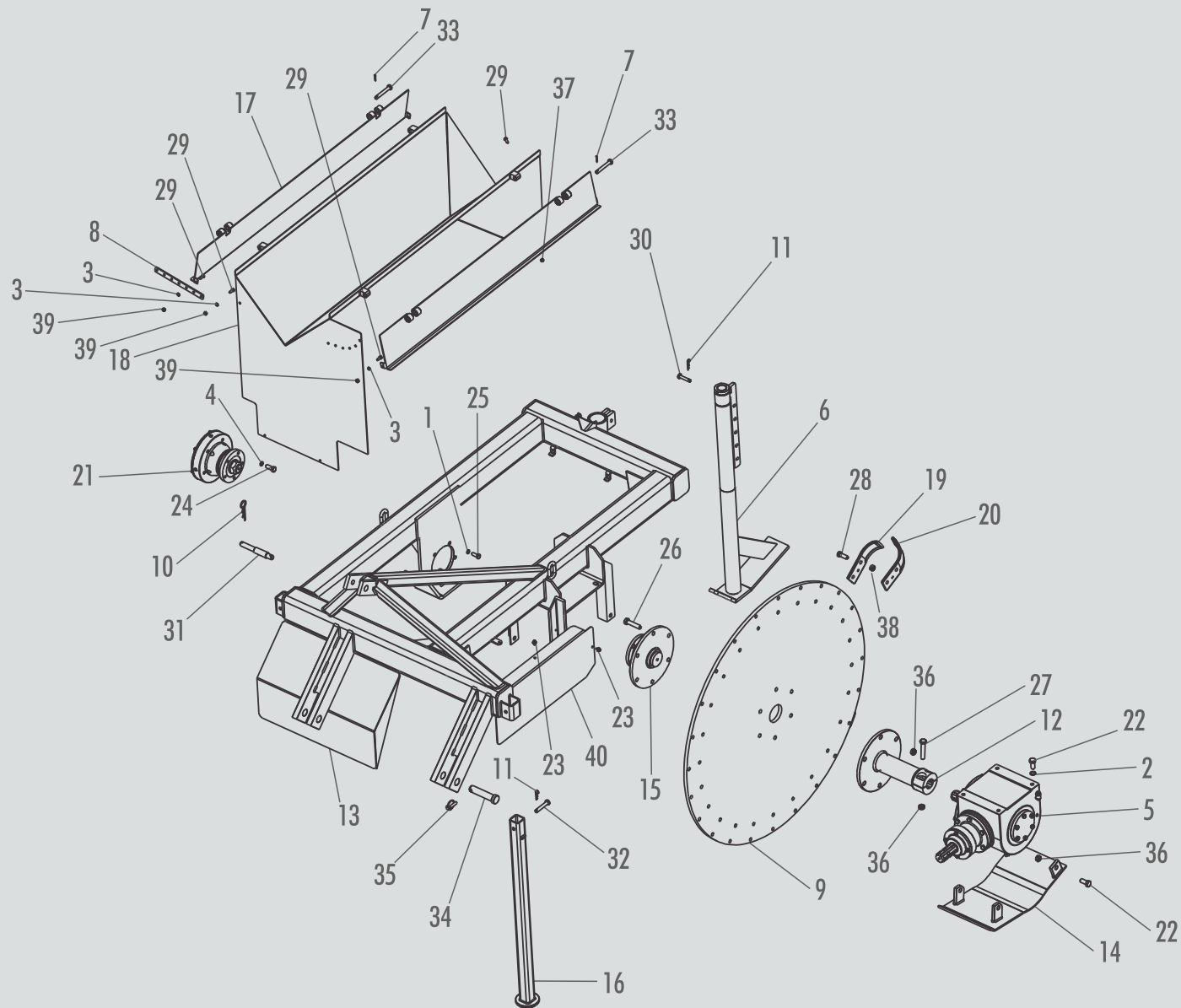
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Note: The cardanshaft has its own Manual, which must be checked for operating instructions.

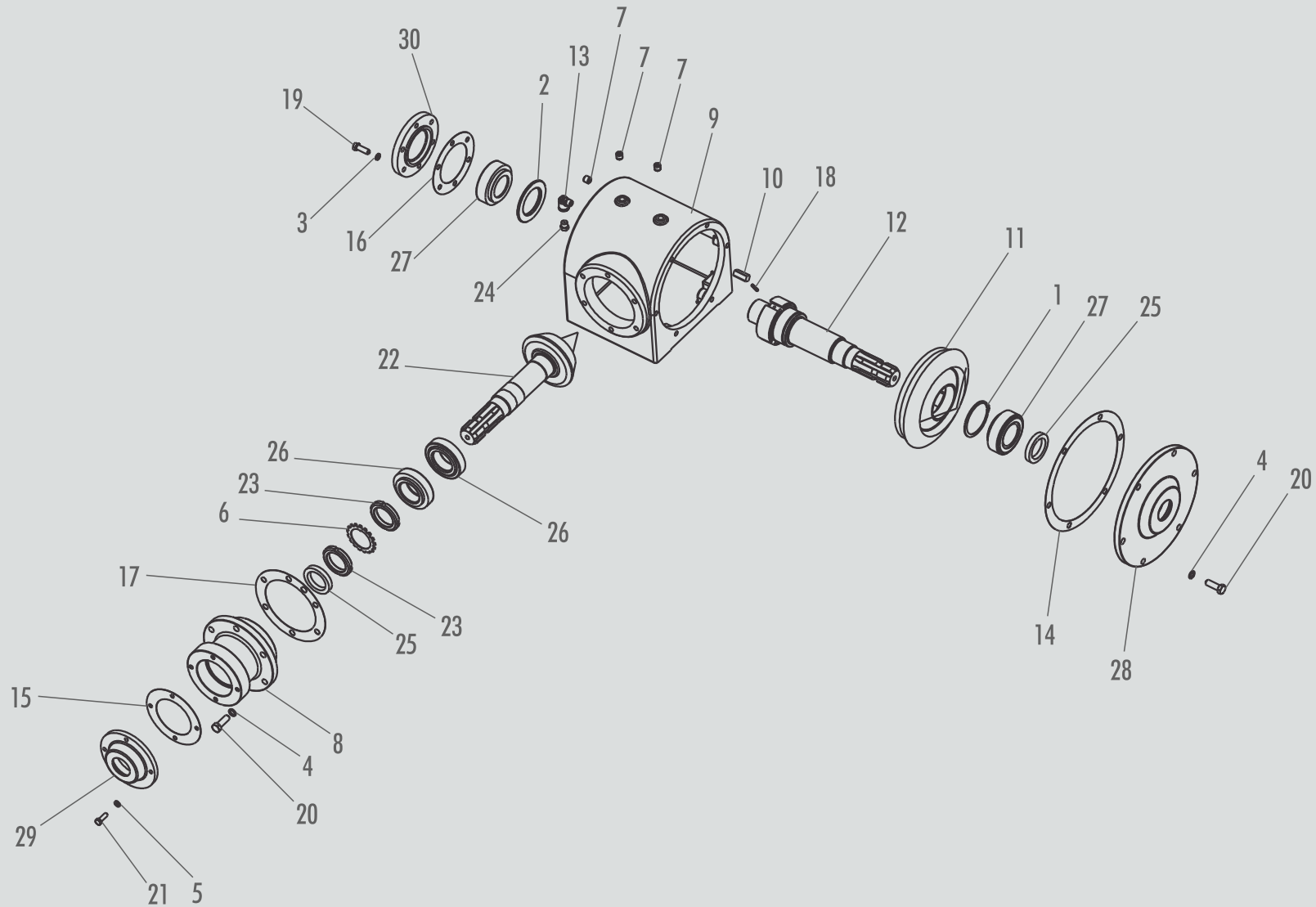
FRAME



ITEM	CODE	DESCRIPTION	QUANTITY	
			VGMR 400	VGMR 500
1	0.0703.0006	SPRING WASHER O M12	5	5
2	0.0703.0008	SPRING WASHER M16	4	4
3	0.0703.0004	SPRING WASHER M 8	3	3
4	0.0703.0007	SPRING WASHER M14	5	5
5	5.0500.3426	GEARBOX	1	1
6	5.0000.5104	HEIGHT ADJUSTMENT ASSY	1	X
6	5.0000.5105	HEIGHT ADJUSTMENT ASSY	X	1
7	0.1001.0002	COTTERPIN 1/8'X1'	4	4
8	2.0051.1103	COVER FASTENER	1	1
9	2.0051.1095	BLADE FLANGE	X	1
9	2.0051.1017	BLADE FLANGE	1	X
10	0.1901.0002	FIXING CLAMP Ø4,5X103	1	1
11	0.1901.0003	FIXING CLAMP Ø3X55	3	3
12	5.0005.1217	TRENCHER BAR GROUP	1	1
13	5.0005.1102	TRENCHER CHASSIS GROUP	1	1
14	5.0005.1219	TRENCHER SLIDING GROUP	1	1
15	5.0005.1207	TRENCHER ROTOR SHAFT GROUP	1	1
16	5.0005.1113	PEDESTAL GROUP	2	X
16	5.0005.1119	PEDESTAL GROUP	X	2
17	5.0005.1209	GLIDER COVER GROUP	2	2
18	5.0005.1208	TRENCHER LATERAL COVER GROUP	1	1
19	2.0051.1027	RH BLADE	10	12

ITEM	CODE	DESCRIPTION	QUANTITY	
			VGMR 400	VGMR 500
20	2.0051.1028	LH BLADE	10	12
21	5.0000.3644	RH OIL BEARING	1	1
22	0.2404.0039	HEX. SCREW MA16X35MM	8	8
23	0.2405.0005	FLANGED HEX. SCREW M8X12MM	5	5
24	0.2404.0046	HEX. SCREW MA14X35MM	5	5
25	0.2404.0012	HEX. SCREW . MA12X30MM	5	5
26	0.2404.0060	HEX. SCREW. MA16X70MM	6	6
27	0.2404.0041	HEX. SCREW. MA16X80MM	2	2
28	0.2404.0091	HEX. SCREW . MB14X40MM	40	48
29	0.2404.0002	HEX. SCREW . MA8X20MM	5	5
30	2.0030.1026	TOWER PIN	1	1
31	2.0056.2022	UPPER HITCH PIN	1	1
32	2.0020.1023	WHEEL ADJUSTING PIN	2	2
33	2.0030.1022	PROTECTION COVER PIN	4	4
34	2.0030.1199	THIRD-POINT PIN	2	2
35	0.2102.0001	LOCK PIN	2	2
36	0.2305.0001	SELF-LOCKING HEX. NUT MA16	12	12
37	0.2305.0020	SELF-LOCKING HEX NUT MA8	2	2
38	0.2305.0019	SELF-LOCKING HEX. NUT MB14	40	48
39	0.2304.0001	HEX. NUT MA8	3	3
40	2.0051.1085	CLUTCH PROTECTION	1	1

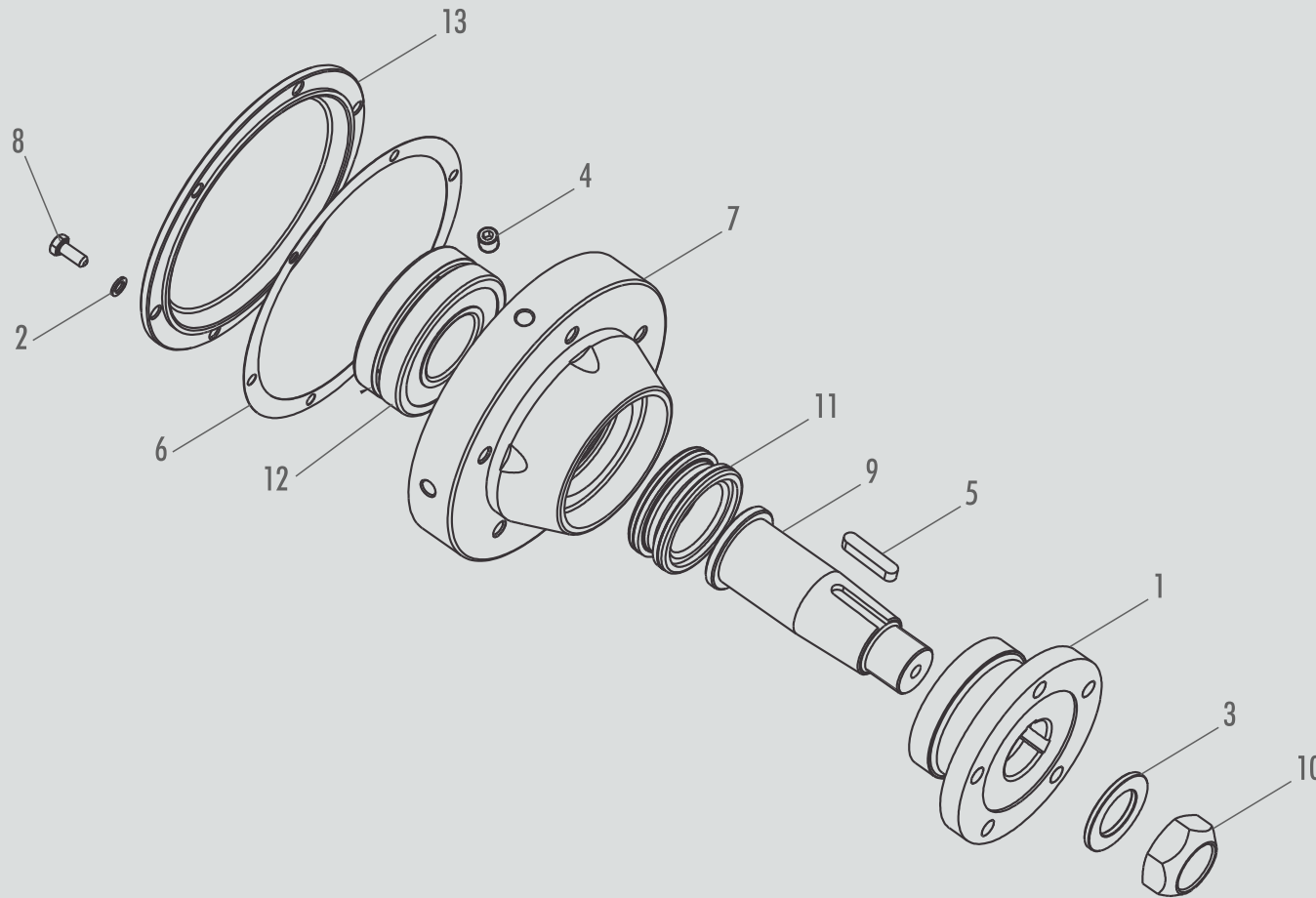
GEARBOX



ITEM	CODE	DESCRIPTION	QUANTITY
1	0.0401.0018	ELASTIC RING DAE 75	1
2	3.0034.1139	BEARING SEPARATOR RING	1
3	0.0703.0005	SPRING WASHER M10	6
4	0.0703.0006	SPRING WASHER M12	12
5	0.0703.0004	SPRING WASHER M8	4
6	0.0704.0004	WASHER SKF MB10-50	1
7	0.2801.0011	PLUG 1/4" NPT - 18 WIRES	3
8	2.0034.1017	HEAD	1
9	3.0034.1136	HOUSING	1
10	2.1116.1006	COUPLER KEY	3
11	3.0034.1133	CROWN Z:23	1
12	3.0034.1138	CROWN AXIS	1
13	0.2801.0003	ELBOW MAC/FEM 1/4" NPT	1
14	2.0034.1016	GASKET	1
15	2.0034.1020	GASKET	1

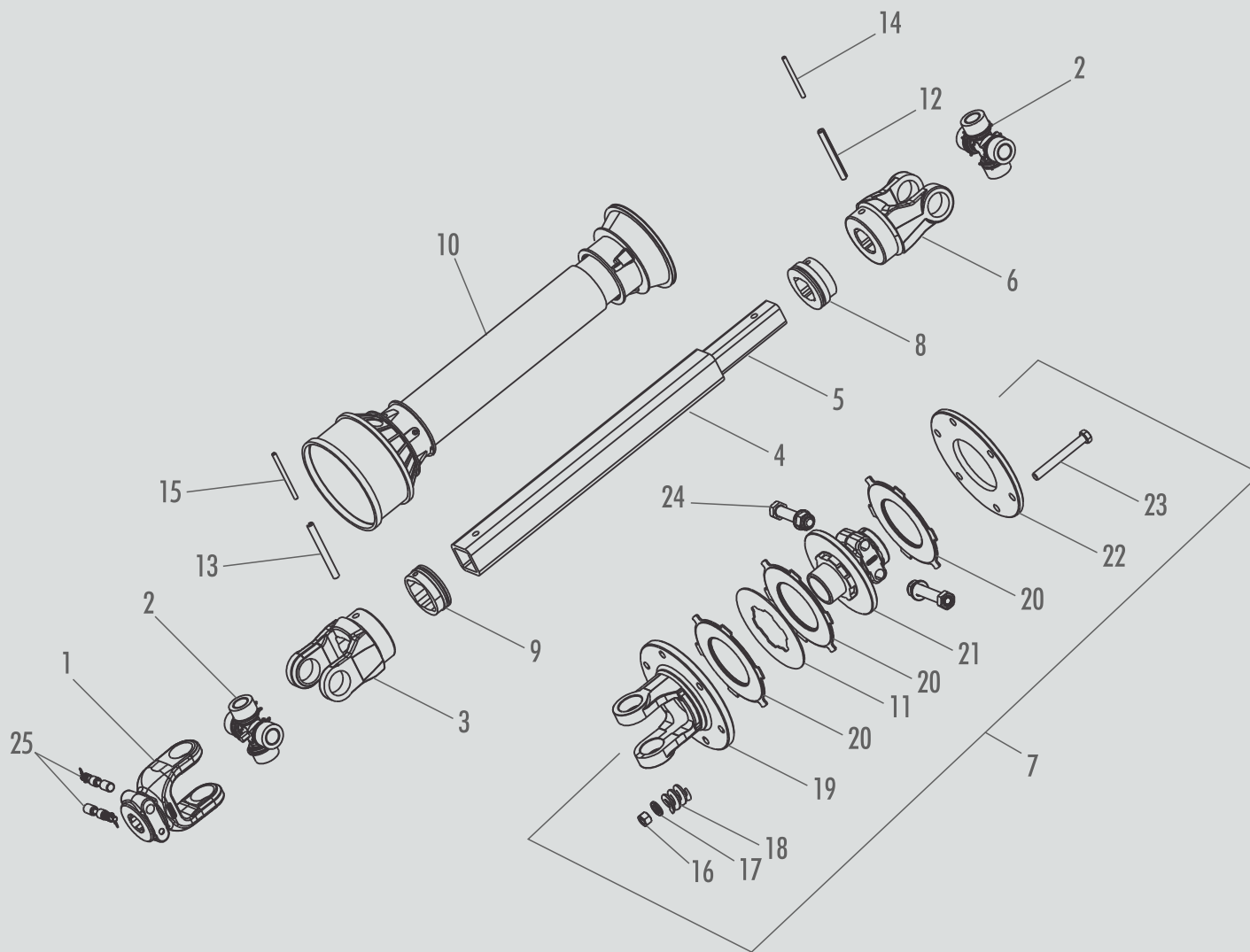
ITEM	CODE	DESCRIPTION	QUANTITY
16	2.0034.1022	GASKET	1
17	2.1033.1004	GASKET	1
18	2.1116.1007	HELICAL SPRING	6
19	0.2404.0008	HEX. SCREW. M10X30MM	6
20	0.2404.0014	HEX. SCREW M12X35MM	12
21	0.2404.0004	HEX. SCREW M8X25MM	4
22	3.0034.1131	PINION Z:12	1
23	0.2306.0004	NUT SKF KM10 - 50	2
24	0.0901.0003	BREATHER 1/4" NPT- 18 WIRES	1
25	0.2601.0004	RETAINER 00359	2
26	0.2704.0014	BEARING 32210	2
27	0.2704.0029	BEARING 33210	2
28	3.0034.1129	HOUSING COVER	1
29	2.0034.1019	HEAD COVER	1
30	2.0034.1021	HOUSING SMALL COVER	1

RH OIL BEARING



ITEM	CODE	DESCRIPTION	QUANTITY
1	3.0036.1073	ROTOR SHAFT COUPLING	1
2	0.0703.0004	SPRING WASHER M8	6
3	2.0036.1103	SEALING WASHER	1
4	0.2801.0011	PLUG 1/4\"/>	

CLUTCH AND CARDAN SHAFT WITH PROTECTION



ITEM	CODE	DESCRIPTION	QUANTITY
1	2.0060.1144	QUICK-COUPLING TERMINAL (Z6-1 3/8 ")	1
2	0.3901.0008	CROSSPIECE (WITH INTERNAL LOCK 57X38,06)	2
3	2.0060.1145	SQUARE-HOLE TERMINAL (FEMALE)	1
4	2.0060.1166	SQUARE TUBE (FEMALE)	1
5	2.0060.1167	SQUARE BAR (MALE)	1
6	2.0060.1146	SQUARE-HOLE TERMINAL (MALE)	1
7	5.0600.1518	COMPLETE CLUTCH ASSY	1
8	2.0060.1130	MALE ADAPTER BUSHING	1
9	2.0060.1140	FEMALE ADAPTER BUSHING	1
10	2.0060.1124	COMPLETE PROTECTION SET	1
11	0.0601.0008	DISC 138X67X1/4"	1
12	0.2101.0014	ELASTIC PIN 10X90	1
13	0.2101.0015	ELASTIC PIN 10X100	1
14	0.2101.0020	ELASTIC PIN 06X90	1
15	0.2101.0025	ELASTIC PIN 06X100	1
16	0.2305.0016	SELF-LOCKING HEX. NUT 1/2" 12 FPP	8
17	0.0702.0006	FLAT WASHER - 1/2"	8
18	0.2001.0002	CLUTCH SPRING EA 205-02	8
19	2.0060.1147	CLUTCH FLANGE - 6000 SERIES	1
20	0.0601.0001	FRICTION DISK - 139X59X5	3
21	2.0060.1148	GROOVED CORE WITH SIDE GRIP	1
22	0.0601.0006	IRON DISC - 180X98X3/8" IN DIAMETER	1
23	0.2403.0008	HEX SCREW . BSW.RP 1/2"X4 1/2"	8
24	2.0060.1126	SIDE GRIP ASSY	2
25	2.0060.1101	QUICK-COUPLING SET	2



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