



FARMMA®

Energy grapple

EN_S1.3-2019W20

Original instruction

SPARE PARTS

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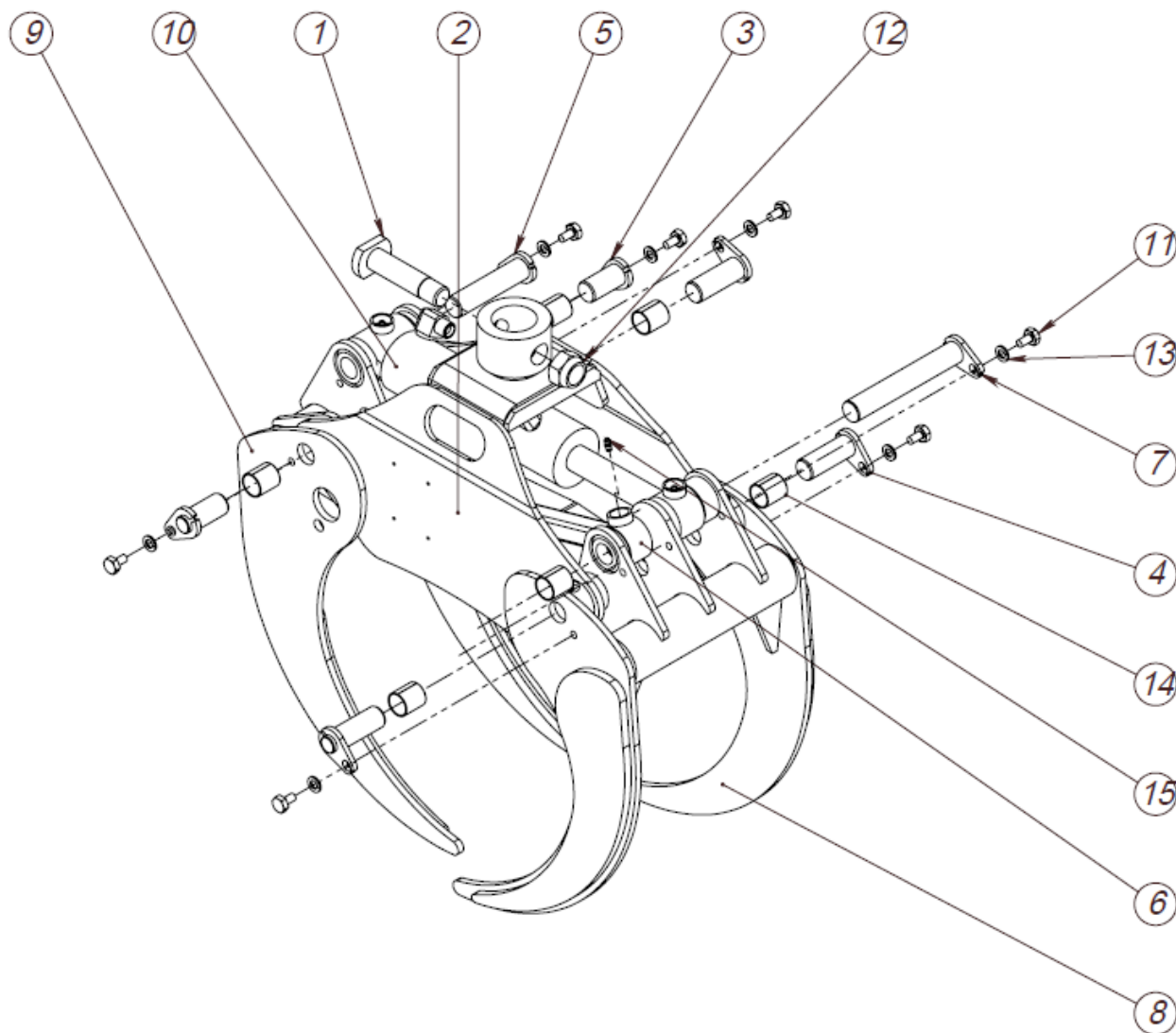
ENERGY BRUSH GRAPPLE

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1 SPARE PARTS

1.1 ENERGY BRUSH GRAPPLE 0,12



REF: 190510

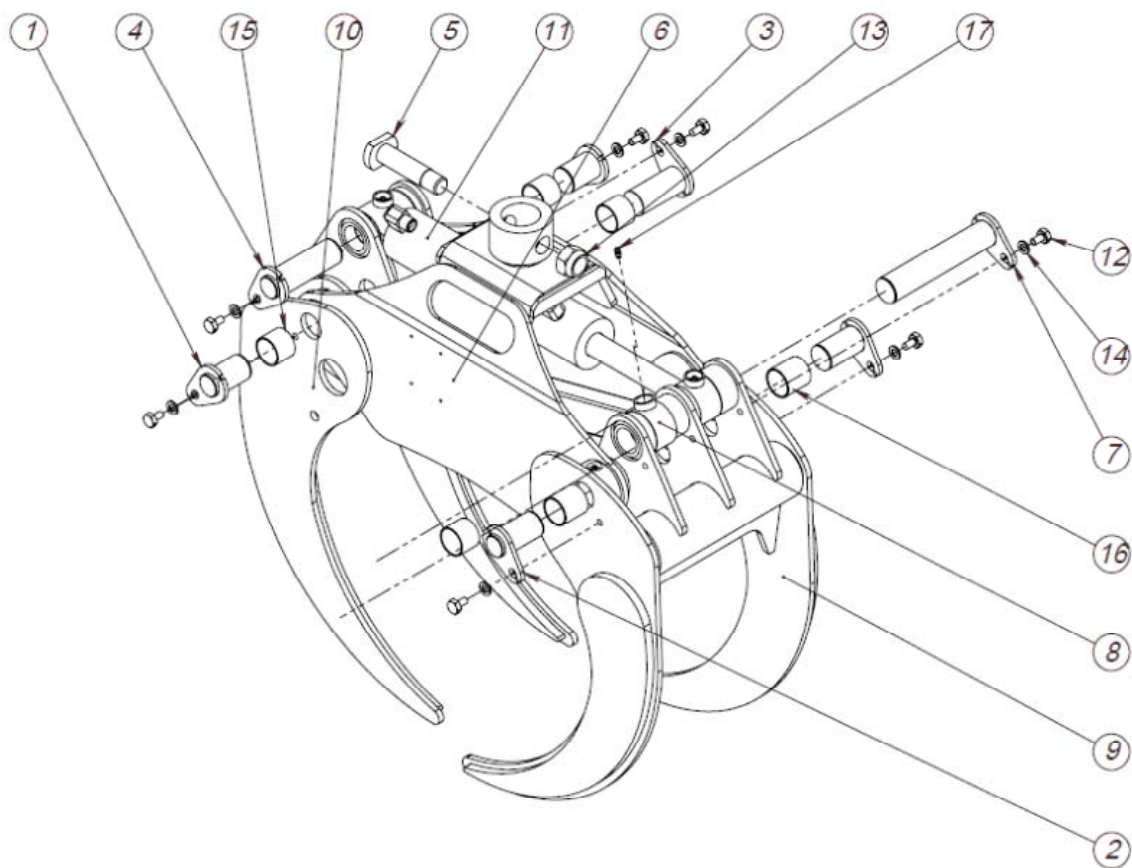
Original instruction
Farma Energy Bush Grapple 0.12 G2.1, FMWA00368

ITEM NO.	PART NUMBER	DESCRIPTION	TYPE	QTY.
1	FMWS00253	Grapple bolt	GRND25-113(103)	1
2	FMWS00506	Yoke 0,12		1
3	FMWS00510	Shaft GrndØ25	GrndØ25 -59(48)	2
4	FMWS00510-01	Shaft GrndØ25	GrndØ25 - 77(66)	3
5	FMWS00510-03	Shaft GrndØ25	GrndØ25 -115(104)	1
6	FMWS00809	Parallel link 0,12 G2.1		1
7	FMWS00810	Shaft compl.	GRNDØ25-170(159)	1
8	FMWS00874	Jaw outer grapple 0,12 G2.1		1
9	FMWS00875	Jaw inner grapple 0,12 G2.1		1
10	313120	Hydraulic cylinder	60/30 - 182	1
11	906287	Bolt Hex. Cap	M10x16 DIN 933	7
12	907252	Nut Hex. Nylock	M24 DIN 985	1
13	908620	Washer Spring	M10 fzb DIN 127	7
14	909135	Slide Bearing	25-28-30 P DIN 1494	6
15	930107	Grease nipple	M6 DIN 71412	6

REF: 190510

Original instruction

1.2 ENERGY BRUSH GRAPPLE 0,16



REF: 141208

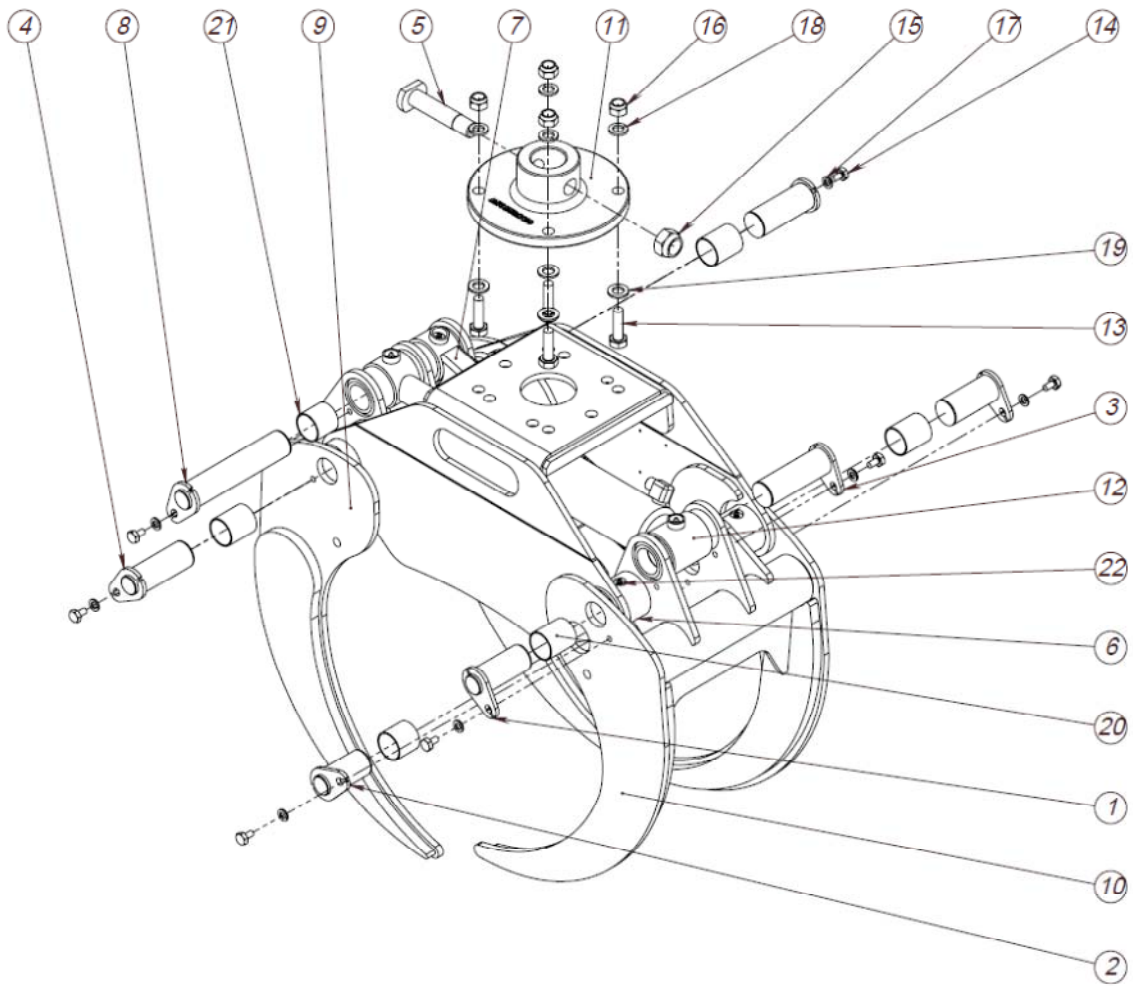
Original instruction
Farma Energy Bush Grapple 0.16 G2.1, FMWA00366

ITEM NO.	PART NUMBER	DESCRIPTION	TYPE	QTY.
1	FMWS00104	Shaft	GrndØ35h9 - 60(49)	2
2	FMWS00104-01	Shaft	GrndØ35h9 - 71(60)	2
3	FMWS00105	Shaft	GrndØ35h9 - 82(76)	1
4	FMWS00106-01	Shaft	GrndØ35h9-109(103)	1
5	FMWS00253	Grapple bolt	GRND25-113(103)	1
6	FMWS00100	Yoke 0,16		1
7	FMWS00773	Shaft compl.	Grnd35-188(178)	1
8	FMWS00774	Parallel-link 0,16 G2.1	L=502	1
9	FMWS00870	Jaw outer brush grapple 0,16 G2.1		1
10	FMWS00871	Jaw inner grapple 0,16 G2.1		1
11	313109	Hydraulic cylinder	60/30 - 230	1
12	906287	Bolt Hex. Cap	M10x16 DIN 933	7
13	907252	Nut Hex. Nylock	M24 DIN 985	1
14	908620	Washer Spring	M10 fzb DIN 127	7
15	909145	Slide bearing	35 39 30 DIN 1494	4
16	909146	Slide bearing	35 39 40 DIN 1494	2
17	930107	Grease nipple	M6 DIN 71412	6

REF: 190510

Original instruction

1.3 ENERGY BRUSH GRAPPLE 0,21



REF: 141208

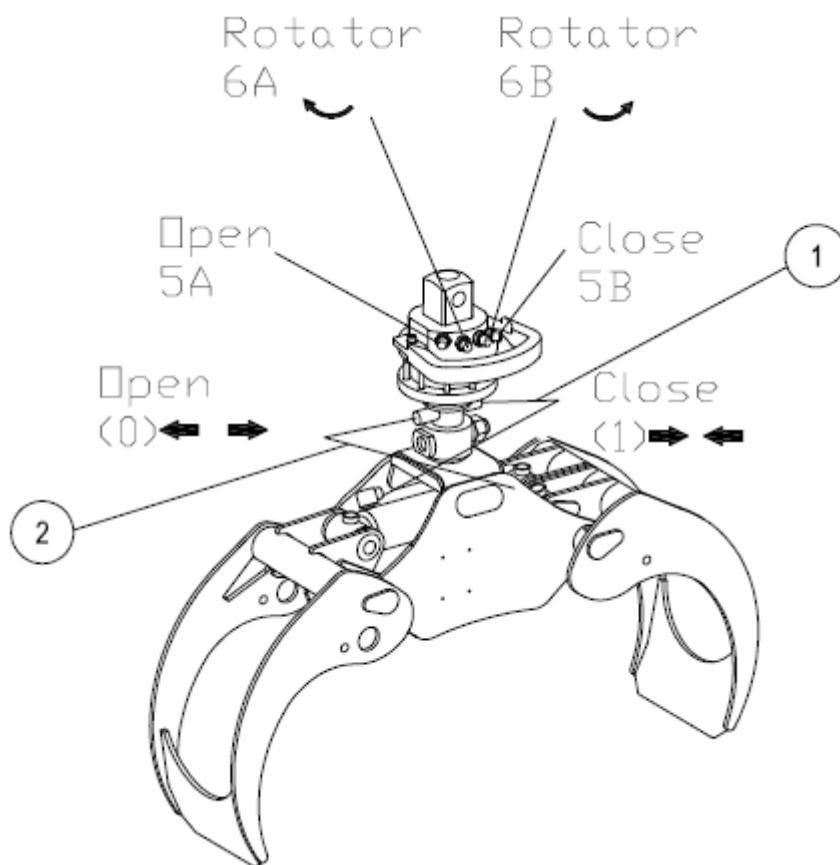
Original instruction
Farma Energy Bush Grapple 0.20 G2.1

ITEM NO.	PART NUMBER	DESCRIPTION	TYPE	QTY.
1	FMWS00115-01	Shaft	GrndØ40-99(88)	2
2	FMWS00116	Shaft	GrndØ40-83(72)	1
3	FMWS00118	Shaft	GrndØ40-130(119)	1
4	FMWS00168	Shaft	GrndØ40-112,5(101,5)	2
5	FMWS00254	Grapple bolt	GRND25-128(118)	1
6	FMWS00163	Yoke 0,20		1
7	FMWS00799	Parallel-link 0,20 G2.1	L=523,8	1
8	FMWS00804	Shaft	GRNDØ40 200(189)	1
9	FMWS00872	Jaw outer grapple 0,20 G2.1		1
10	FMWS00873	Jaw inner grapple 0,20 G2.1		1
11	FMWP00483	Flange	D230 Hole iD49,5	1
12	313110	Hydraulic cylinder	70/40 - 245	1
13	906228	Bolt Hex. Cap	M16x50 fzb DIN 933	4
14	906287	Bolt Hex. Cap	M10x16 DIN 933	7
15	907252	Nut Hex. Nylock	M24 DIN 985	1
16	907237	Nut Hex. Nylock	M16 fzb DIN 985	4
17	908620	Washer Spring	M10 fzb DIN 127	7
18	908630	Washer Spring	M16 fzb DIN 127	4
19	908267	Washer flat	M16 fzb DIN 125	4
20	909148	Slide bearing	40 44 50 DIN 1491	4
21	909149	Slide bearing	40 44 40 DIN1491	2
22	930107	Grease nipple	M6 DIN 71412	6

REF: 190510

Original instruction

1.4 HYDRAULIC SCHEME

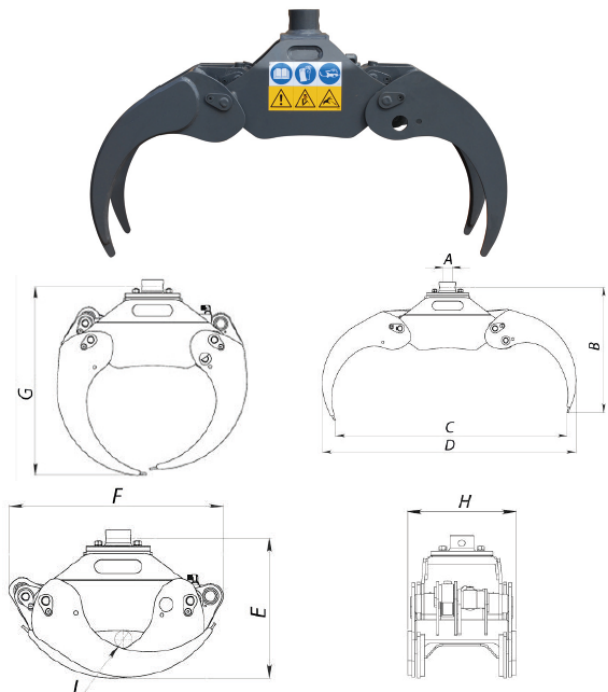

REF: 190510
Hydraulic scheme FMWH00021

POS. NO.	PART NO.	DESCRIPTI ON	TYPE	-01	-02	-03
				0.12 Qty.	0.16 Qty.	0.20 Qty.
1	FMWH00489	H-hose	42040604-1/4(420)-42010604	1	-	-
2	FMWH00490	H-hose	42040604-1/4(380)-42010604	1	-	-
1	FMWH00492	H-hose	42040606-3/8(370)-42040606	-	1	-
2	FMWH00491	H-hose	42040606-3/8(510)-42040606	-	1	-
1	FMWH00254	H-hose	42040606-3/8(570)-42010606	-	-	1
2	FMWH00253	H-hose	42040606-3/8(490)-42010606	-	-	1
1	FMWH00462	H-hose	42040606-3/8(580)-42010806	-	-	-
2	FMWH00463	H-hose	42040606-3/8(500)-42010806	-	-	-

REF: 190510

2 TECHNICAL SPECIFICATION

2.1 MAIN DIMENSIONS & TECHNICAL DATA


REF: GRAPPLE EN_1803

Measure	0,12 m ²	0,16 m ²	0,20 m ²
A	Diam. 50 mm	Diam. 50 mm	Diam. 50/60 mm
B	615 mm	690 mm	670 mm
C	875 mm	1065 mm	1265 mm
D	1010 mm	1230 mm	1380 mm
E	425 mm	505 mm	510 mm
F	585 mm	725 mm	745 mm
G	640 mm	730 mm	800 mm
H	290 mm	305 mm	400 mm
I	Diam. 40 mm	Diam 75. mm	Diam. 70 mm

Technical data	0,12 m ²	0,16 m ²	0,20 m ²
Weight	57 kg	85 kg	125 kg
Working Pressure	17.5 MPa	17.5 MPa	19.0 MPa
Gripping force arms tip-tip	6,0 kN	6,5 kN	9.0 kN
Max.load	1000 kg	1000 kg	1500 kg
Size, rotator mount	50	50	<u>50/60*</u>

*This model is supplied with a replaceable rotator mount.
Specify the desired mount when ordering. The underlined figure is the standard option.