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Catagodue is in accordance with the following legal texts:

Bulgarian norms: BDS EN 60204-1:2006/A1:2009 "Safety machinery-Electrical equipment of machines – Part 1:General requirements"
 BDS EN 14492-2:2006+A1:2009 "Cranes- |Power driven winches and hoists-Part 2:Power driven hoists"
 BDS EN 60034-1:2010 "Rotating electrical machines-Part 1: Rating and performance"
 BDS EN 60034-5:2007 "Rotating electrical machines-Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code)- Classification"

Germany norms:

DIN 15020-1-1974 "Lifting Appliances, Principles Relating to Rope Drives; Calculation and Construction"
 FEM 9.511 "Rules for the desin of series lifting equipment; Classification of mechanisms"
 FEM 9.661 "Rules for the design of series lifting equipment; Dimensions and design of rope reeving components"
 FEM 9.681 "Rules for the design of series lifting equipment; Selection of travelling motors"
 FEM 9.682 "Rules for the design of series lifting equipment; Selection of lifting motors"
 FEM 9.755 "Measure for achieving safe working periods for motorized serial hoist units (S.W.P.)"
 FEM 9.811 "Rules for the design of series lifting equipment; Specification of electric hoists"

Russian norms:TP TC 010/2011 технический регламент ТС о безопасности машин и оборудования

Each order must contain the following data:

1. Type, serial number, year of manufacture according to plate and working group.
2. Name and catalog number of spare part.
3. How many pieces.
4. For parts of electrical equipment: type, voltage and frequency according to plate.
5. Type of shipment.
6. Exact addres for delivery.

Pattern of order of spare parts is showing in Application1.

Produser can deliver coplete units of hoist

FOR SUPPLY WITH SPARE PARTS APPLY TO:

MW YANTRA PLC

10,Neofit Riski str., 5300 Gabrovo, Bulgaria

tel.: ++359 66 801306

fax: ++359 66 801292

e-mail: yantra@yantra.bg

e-mail: yantra@yantra.bg

INSTRUCTION FOR USE:

This catalogue includes all parts of hoist type MPM4.

In the tables are listed numbers of schemes and positions. Against them are names, pieces and catalog numbers for respective realization. The units with position is enclosed in square brackets [] are not sectional. They are supplied complete.

The units with position is enclosed in parentheses () are standart parts as bolt, nuts, lock ring and ets... They aren't supplied by produser as spare parts, but client can order. This parts can be replaced considering the class of strength.

NCB With trolley, normal headroom
HCB With trolley, low headroom
Vt Traveling speed
Hp Lifting height

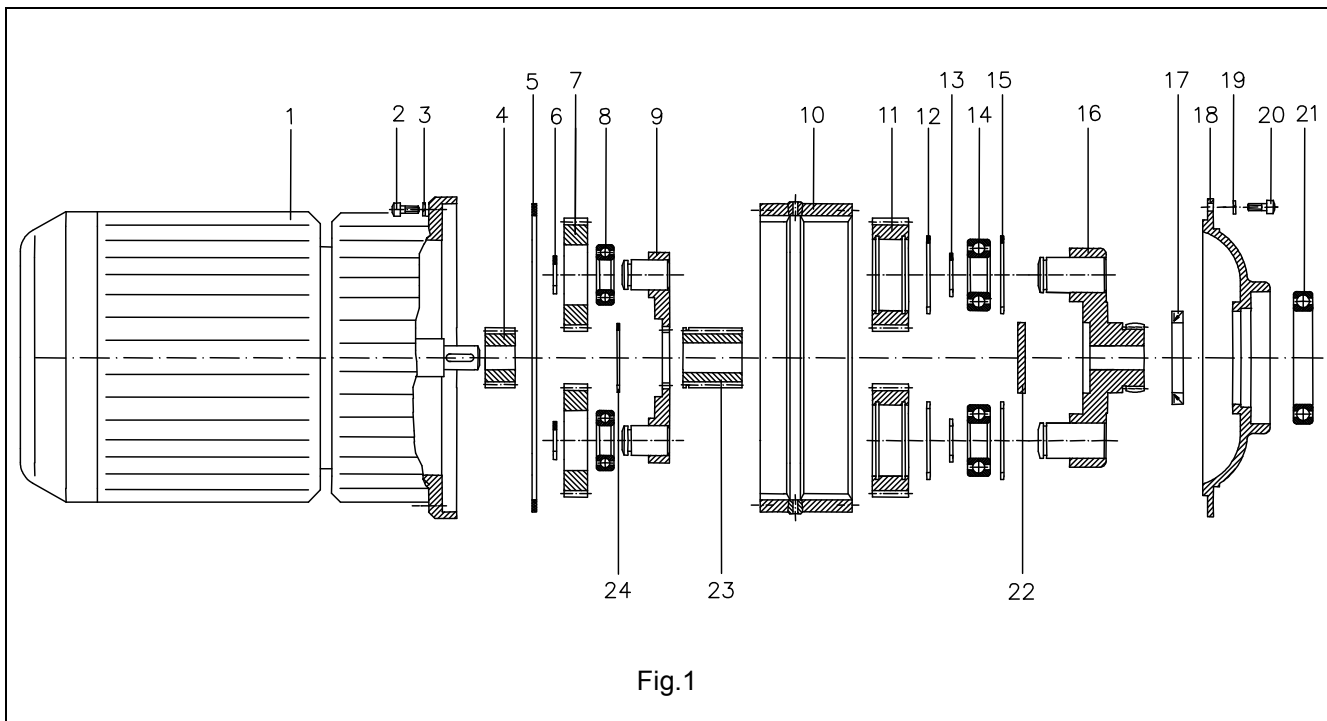
THE PRODUSER RESERVES THE RIGHT TO CHANGE THE CATALOGUE OF SPARE PARTS**1. GEARED MOTOR**

Fig.1

Table 1

Fig	Pos	Name	Pcs	Lifting height (m/min)	Catalog number
1	1-24	Geared motor	1	8	10013
1	1-24	Geared motor	1	12	10014
1	1-24	Geared motor	1	8/2	10015
1	1-24	Geared motor	1	12/2	10016
1	1	Electric motor	1	8	10033
1	1	Electric motor	1	12	10034
1	1	Electric motor	1	8/2	10035
1	1	Electric motor	1	12/2	10036
1	4-21	Reduction gear	1		10221
1	(2)	Screw M8x25 – 6,5	8		10132
1	(3)	Spring washer – 8H	8		10139
1	4	First drive gear	1		10069
1	5	Seal	1		10057
1	6-9;23;24	First gear transmission	1		10044
1	(6)	Lock ring B30	2		10148
1	[7;8]	Planet gear wheel with bearing	2		10082
1	7	Planet gear wheel	2		10086
1	(8)	Bearing 6206 – 30x62x16	2		10156
1	[9]	Carrier with axis	1		10090

Table 1 – continued

Fig	Pos	Name	Pcs	Catalog number
1	23	Second drive gear	1	10078
1	(24)	Lock ring B50 BDS 2171-83	1	10152
1	10	Ring gear		10061
1	11-16;22	Second gear transmission	1	10048
1	11	Second planet gear wheel	3	10110
1	(12)	Lock ring A80 BDS 2171-83	3	10145
1	(13)	Lock ring	3	10148
1	(14)	Ball bearing 6307 – 35x80x21 BDS 4843-84	3	10162
1	(15)	Lock ring	3	10145
1	[16]	Second carrier with axis	1	10114
1	17	Seal	1	10142
1	18	Flange	1	10065
1	(19)	Spring washer 8H BDS 833-82	8	10139
1	(20)	Screw M8x20 – 6,5 BDS 2171-83	8	10132
1	(21)	Ball bearing 6016-Z –80x125x22 BDS 4884-85	1	10157
1	22	Plug	1	10102

2. ROPE GUIDE

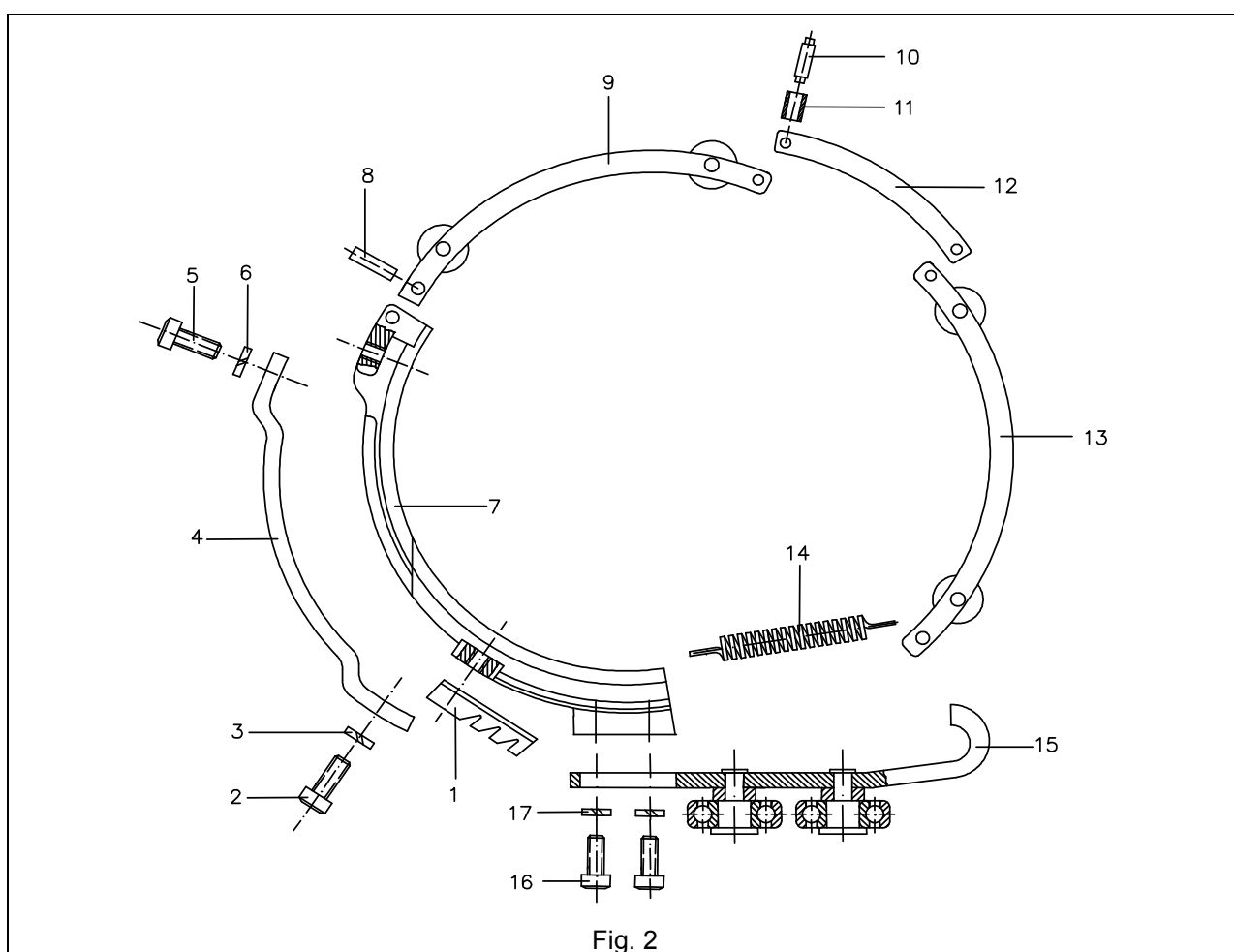


Table 2

Reeving				2/1 и 4/1	
Realization				NCB	HCB
Fig	Pos	Name	Pcs	Catalog number	
2	1-16	Rope guide	1	14004	
2	1	Click	1	14008	
2	(2)	Bolt washer I M8x18 – 6,8	2	14087	
2	(3)	Spring washer – 8H	2	10139	
2	4	Rope catcher	1	14016	

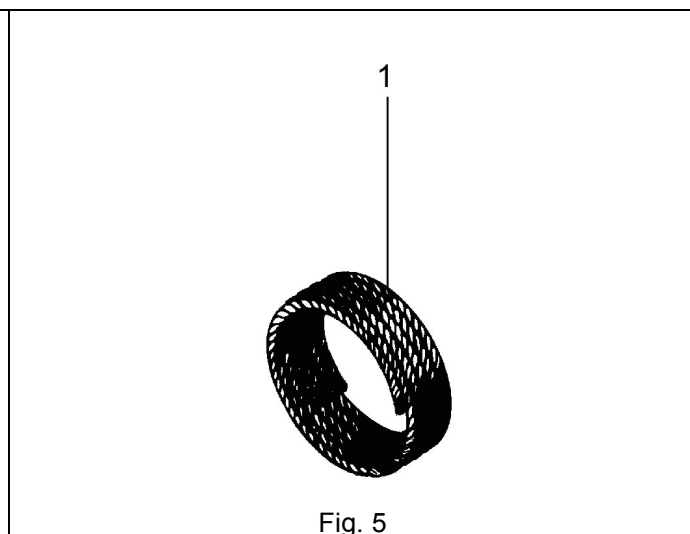
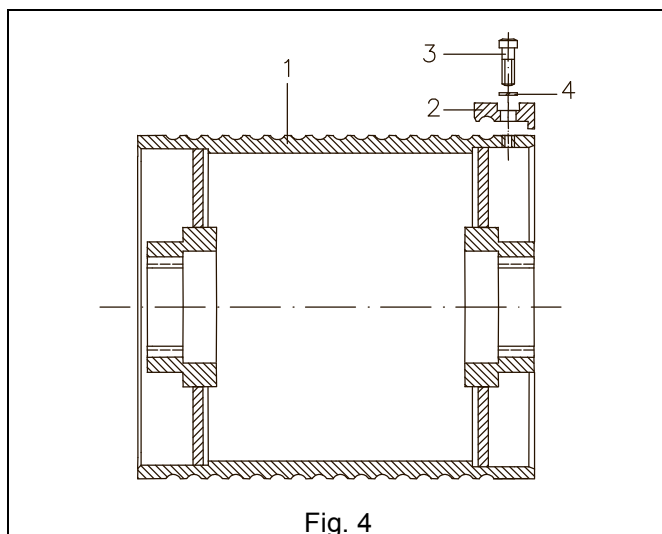
Table 3 – continued

Fig	Pos	Name	Reeving	Pcs	Realization							
					Stationary							
					Lifting height (m)							
					6,3	9	12,5	15	18	25	30	36
3	5	Rod	2/1	1	20026	20027	20028	-	20029	20030	20031	20032
3	5	Rod	4/1	1	20028	20029	20030	20031	20032	-	-	-
3	6	Fork	2/1;4/1	1	20003	20003	20003	20003	20003	20003	20003	20003
3	(7)	Spring washer 2 6H BDS 833-82	2/1;4/1	1	10138	10138	10138	10138	10138	10138	10138	10138
3	(8)	Nut 1 M6 BDS 744-91	2/1;4/1	1	20125	20125	20125	20125	20125	20125	20125	20125
3	9	Support	4/1	1	12410	12410	12410	12410	12410	-	-	-
3	(10)	Spring washer 2-8H	4/1	2	10139	10139	10139	10139	10139	-	-	-
3	(11)	Bolt 1 M8x18 - 6,8	4/1	2	14087	14087	14087	14087	14087	-	-	-

4. DRUM KIT, ROPE

Table 4

Fig	Pos	Ree-ving	Lifting height (m)		6,3	9	12,5	15	18	25	30	36
			Name	Pcs	Catalog number							
4	[1]	2/1	Dum kit	1	15022	15023	15024	-	15025	15026	15027	15028
4	[1]	4/1	Drum kit	1	15024	15025	15026	15027	15028	-	-	-
4	2	2/1;4/1	Strap	3	15073							
4	(3)	2/1;4/1	Screw M10x25 – 8,8	6	15091							
4	(4)	2/1;4/1	Spring washer 2 – 10H	6	10140							
5	1	2/1	Rope	1	20061	20062	20063	-	20064	20065	20066	20067
5	1	4/1	Rope	1	20516	20517	20518	20519	20520	-	-	-



5. TRAVERSE WITH ROLL KIT

Table 5

Reeving					4/1	
Realization					NCB	HCB
Fig	Pos	Name	Pcs	Catalog number		
6	1÷9	Traverse with roll	1	19004		
6	(1)	Bolt 1 M8x16 – 6,6 BDS 1230-85	2	14086		
6	(2)	Spring washer 2 – 8H BDS 833-82	2	10139		
6	3	Strap for fixing	1	19011		
6	4	Axis	1	19015		
6	5	Traverse	1	19020		
6	6	Bush	2	19009		
6	(7)	Lock ring A90 BDS 2170-77	2	10146		
6	(8)	Ball bearing 6210-2Z BDS 4884-85	1	16099		

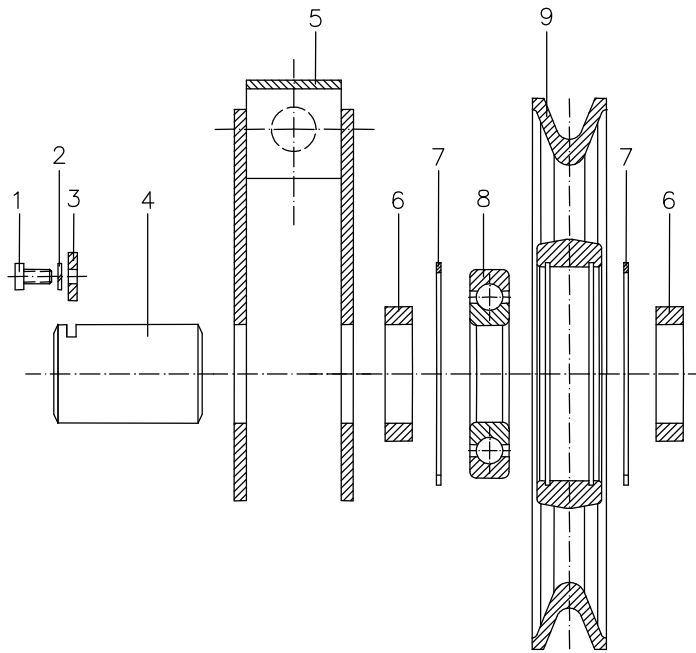


Fig. 6

6. ROLLER BLOCK

Reeving 2/1

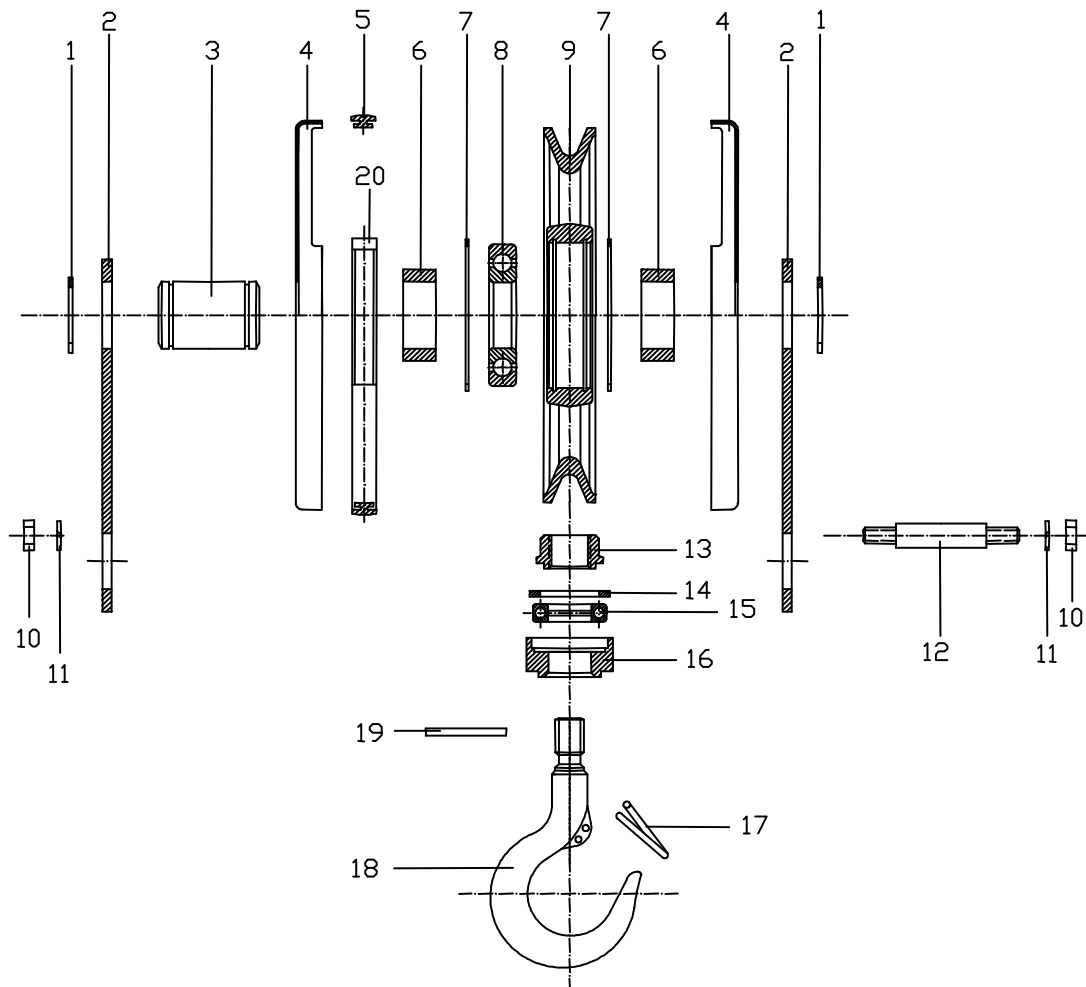


Fig. 7

Reeving 2/1

Table 6

Reeving				2/1
Capacity , (t) , working group			2m	5
Hook N DIN15400				2,5
Diameter of rope, mm				15
Fig	Pos	Name	Pcs	Catalog number
7	1÷19	Roller block	1	16087
7	(1)	Lock ring B50 BDS 2170-77	2	10152
7	2	Strap	2	16088
7	3	Axis	1	16094
7	4	Half-cover	2	16092
7	5	Top band	1	16097
7	6	Distance bush	2	16048
7	(7)	Lock ring A110 BDS 2170-77	2	10146
7	(8)	Ball bearing – 6210 – 2Z BDS 4843-84	1	16099
7	9	Roll	1	16095
7	(10)	Nut II M8 BDS 1250-77	4	16063
7	(11)	Spring ring 2 8H BDS 833-82	4	10139
7	12	Stud	2	16098
7	13	Nut	1	16034
7	14	Cap	1	16025
7	15	Bearing 51107 BDS 4852-85	1	16059
7	16	Traverse	1	16089
7	17	Spring (catch)	1	16017
7	18	Крюк однорогий	1	16006
7	19	Spring pin DIN1481	1	16100
7	20	Bottom band	1	16090

Reeving 4/1

Таблица 6.1

Reeving				4/1
Capacity , t , working group			2m	10
Hook N DIN15400				6
Diameter of rope, mm				15
Fig	Pos	Name	Pcs	Catalog number
8	1÷21	Roller block	1	16536
8	1	Lock ring B35	2	10149
8	2	Half - cover	4	16093
8	3	Top band	2	16097
8	4	Distance bush	2	16049
8	5	Ball bearing 6207 – Z BDS 4843 – 84	4	16542
8	6	Roll	2	16096
8	7	Lock ring A72 BDS 2170-77	2	16543
8	8	Strap	2	16538
8	9	Bolt M6x14 – 6,8 BDS 1234-85	4	14084
8	10	Spring washer 2 – 6H BDS 833-82	4	10138
8	11	Strap	2	16529
8	12	Axis	1	16540
8	13	Nut	1	16035
8	14	Cap	1	16026
8	17	Bearing 51108 BDS 4852-85	1	16541
8	18	Traverse	1	16537
8	19	Spring	1	16016
8	20	Hook	1	16007
8	21	Bottom band	2	16090

Reeving 4/1

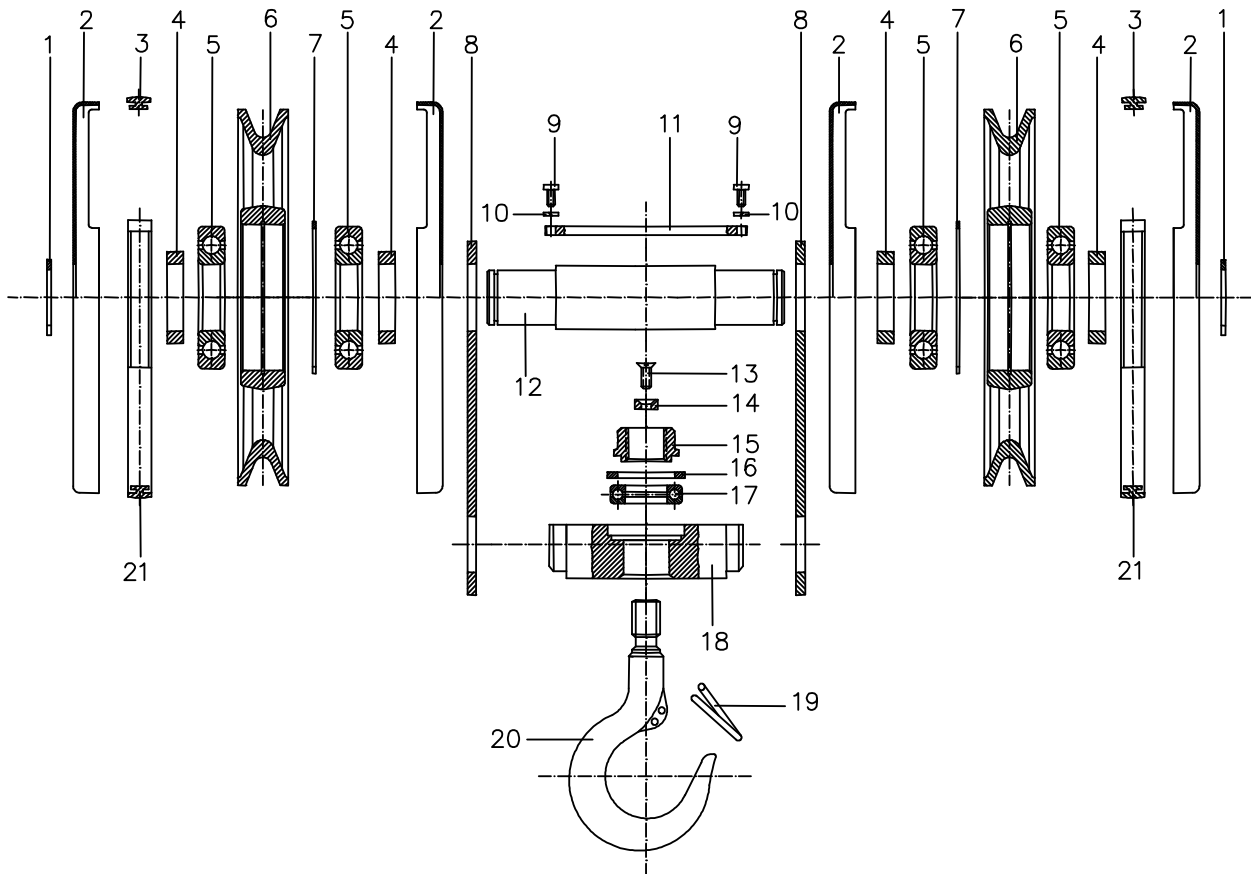


Fig. 8

7. LOAD LIMITER

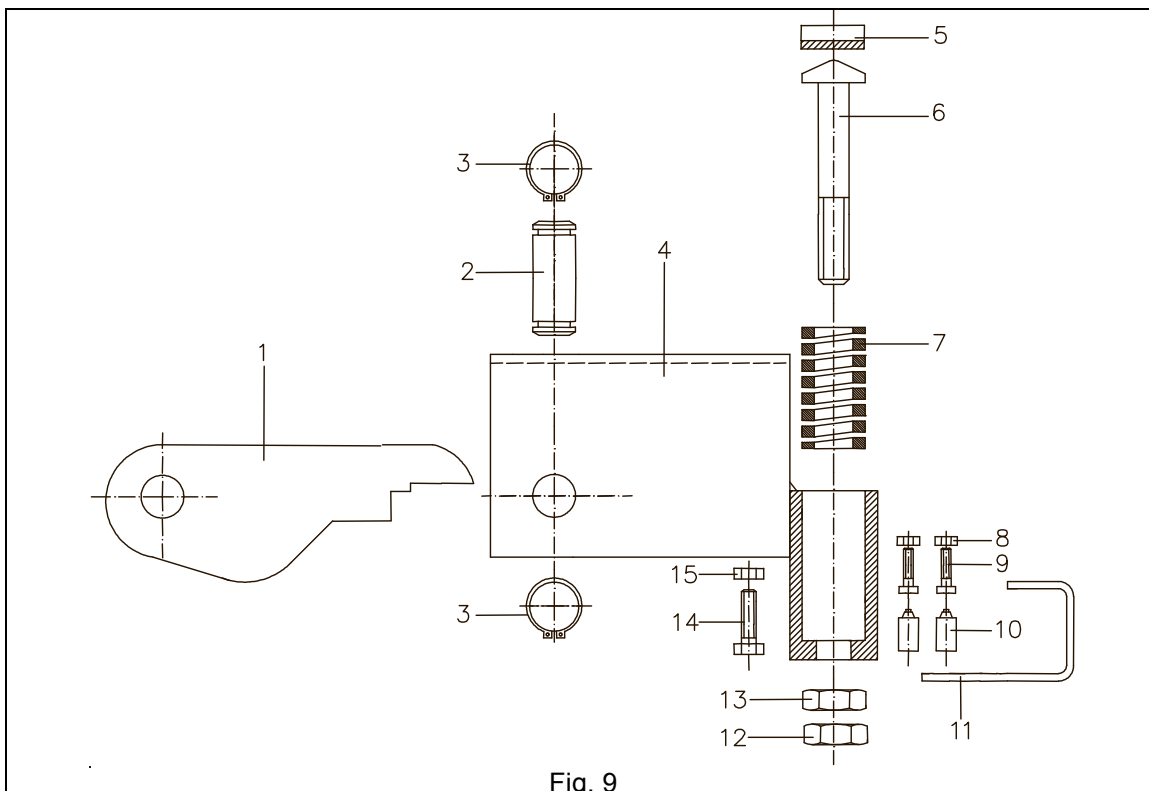


Fig. 9

Table 7

Reeving				2/1; 4/1	Note
Fig	Pos	Name	Pcs	Catalog number	
9	1÷12	Load limiter	1	13064	
9	1	Rocker	1	13049	
9	2	Axis	1	13047	
9	(3)	Lock ring B18 BDS 2170-77	2	13057	
9	[4]	Frame	1	13053	
9	5	Plate	1	13051	
9	6	Special bolt	1	13050	
9	7	Spring G32-038	1	13058	"TOME"
9	(8)	Nut M6x0,75 – 6 BDS 744-91	2	13016	
9	9	Adjuster bolt	2	13007	
9	10	Breaker - Z – 15GK55	2	13017	"OMRON"
9	11	Strap	1	13030	
9	(12)	Nut M12 – 6 BDS 744-91	2	13039	
9	(13)	Nut M12 – 6 BDS 744-91	2	13039	
9	(14)	Bolt I M10x35 – 6,6 BDS 1234-85	1	13059	
9	(15)	Nut M10 – 6 BDS 744-91	1	13060	

8. SUSPENSION

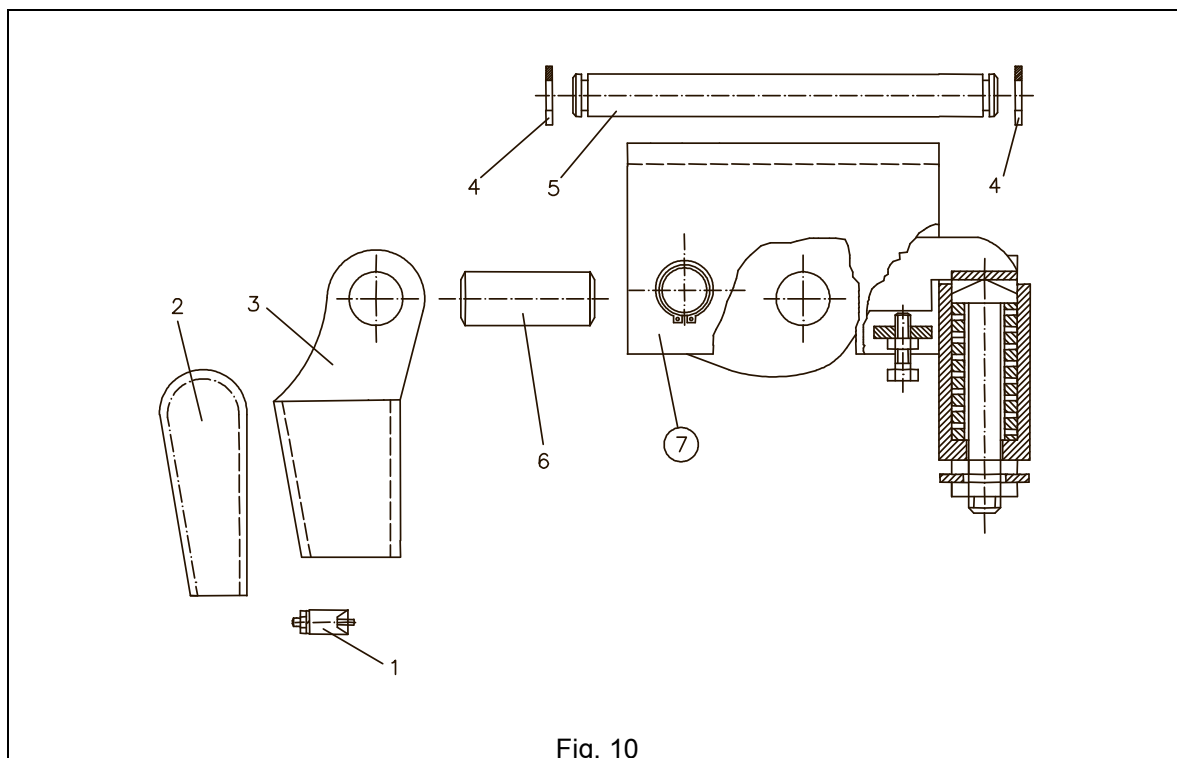


Table 8

Reeving				2/1; 4/1	Note
Fig	Pos	Name	Pcs	Catalog number	
10	1	Slamp 12 DIN1142	1	20138	
10	2	Werge	1	260211	
10	3	Bush wedge	1	260199	
10	4	Lock ring B25 BDS 2170-77	2	13037	
10	5	Axis	1	20077	
10	6	Axis	1	13047	
10	7	Load limiter	1	-	Table 7

9. TRAVELING MECHANISM – NORMAL HEADROOM

9.1 Traveling mechanism

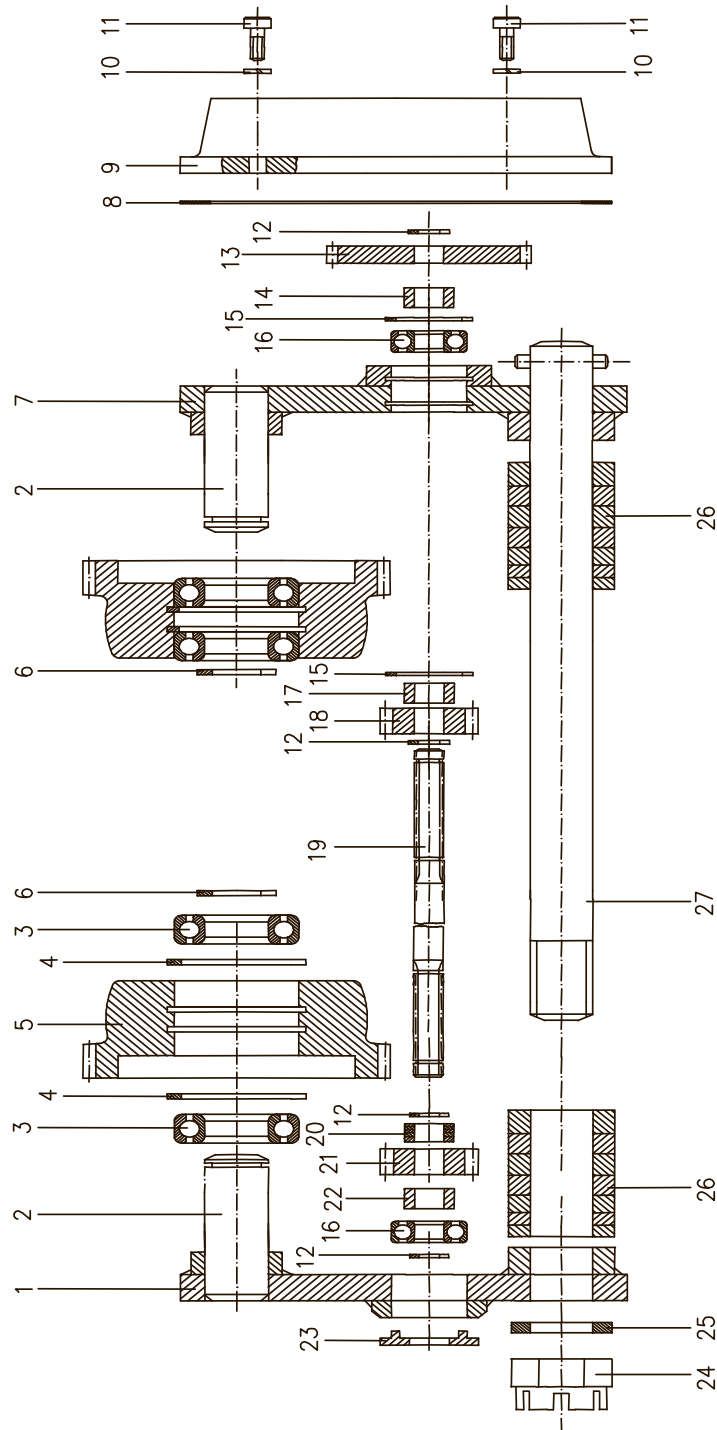


Fig. 11

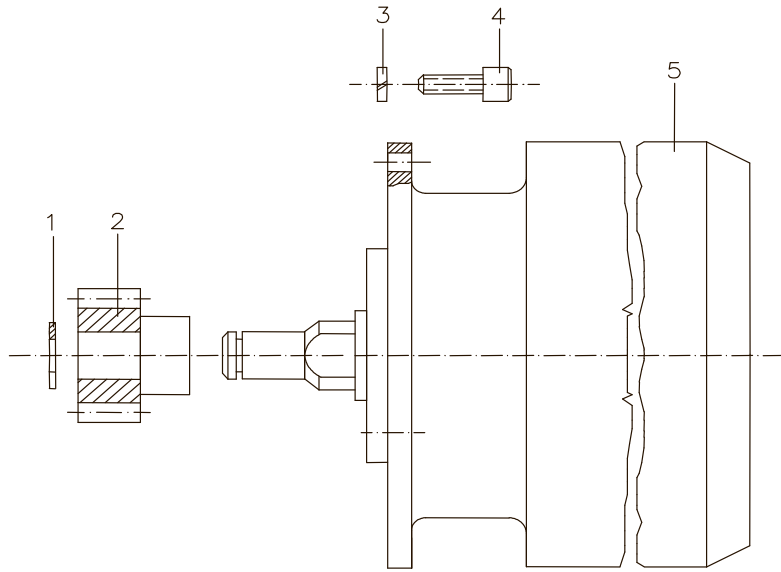


Fig. 12

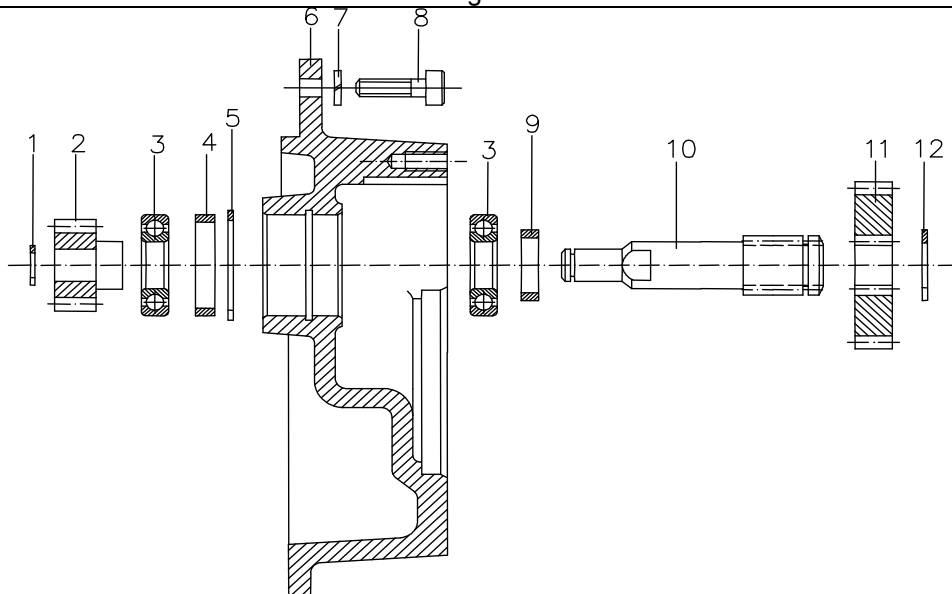


Fig. 13

Reeving 2/1

Table 9.1.1

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
		130	12	1	Traveling mechanism	17015
		130	15	1	Traveling mechanism	17016
		130	20	1	Traveling mechanism	17017
		130	26	1	Traveling mechanism	17018
		130	32	1	Traveling mechanism	17019
		130	38	1	Traveling mechanism	17020
		130	12/4	1	Traveling mechanism	17021
		130	17/5	1	Traveling mechanism	17022
		130	23/7	1	Traveling mechanism	17023
		130	33/10	1	Traveling mechanism	17024

Reeving 2/1

Table 9.1.1 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
		300	12	1	Traveling mechanism	17039
		300	15	1	Traveling mechanism	17040
		300	20	1	Traveling mechanism	17041
		300	26	1	Traveling mechanism	17042
		300	32	1	Traveling mechanism	17043
		300	38	1	Traveling mechanism	17044
		300	12/4	1	Traveling mechanism	17045
		300	17/5	1	Traveling mechanism	17046
		300	23/7	1	Traveling mechanism	17047
		300	33/10	1	Traveling mechanism	17048
		130+300	12	1	Traveling mechanism	17063
		130+300	15	1	Traveling mechanism	17064
		130+300	20	1	Traveling mechanism	17065
		130+300	26	1	Traveling mechanism	17066
		130+300	32	1	Traveling mechanism	17067
		130+300	38	1	Traveling mechanism	17068
		130+300	12/4	1	Traveling mechanism	17069
		130+300	17/5	1	Traveling mechanism	17070
		130+300	23/7	1	Traveling mechanism	17071
		130+300	33/10	1	Traveling mechanism	17072
12	1;2;5	130+300	12	1	Electric motor with pinion	17221
12	1;2;5	130+300	15	1	Electric motor with pinion	17222
12	1;2;5	130+300	20	1	Electric motor with pinion	17223
12	1;2;5	130+300	26	1	Electric motor with pinion	17224
12	1;2;5	130+300	32	1	Electric motor with pinion	17225
12	1;2;5	130+300	38	1	Electric motor with pinion	17226
12	1;2;5	130+300	12/4	1	Electric motor with pinion	17227
12	1;2;5	130+300	17/5	1	Electric motor with pinion	17227
12	1;2;5	130+300	23/7	1	Electric motor with pinion	17228
12	1;2;5	130+300	33/10	1	Electric motor with pinion	17229
12	5	130+300	12	1	Electric motor	17302
12	5	130+300	15	1	Electric motor	17302
12	5	130+300	20	1	Electric motor	17302
12	5	130+300	26	1	Electric motor	17303
12	5	130+300	32	1	Electric motor	17309
12	5	130+300	38	1	Electric motor	17304
12	5	130+300	12/4	1	Electric motor	17310
12	5	130+300	17/5	1	Electric motor	17310
12	5	130+300	23/7	1	Electric motor	17306
12	5	130+300	33/10	1	Electric motor	17306
12	2	130+300	12	1	Pinion	17241
12	2	130+300	15	1	Pinion	17237
12	2	130+300	20	1	Pinion	17238
12	2	130+300	26	1	Pinion	17239
12	2	130+300	32	1	Pinion	17238
12	2	130+300	38	1	Pinion	17239
12	2	130+300	12/4	1	Pinion	17241
12	2	130+300	17/5	1	Pinion	17241
12	2	130+300	23/7	1	Pinion	17237
12	2	130+300	33/10	1	Pinion	17238
12	1	130+300	+	1	Lock ring B12 BDS 2170-77	17313
13	1+12	130+300	12	1	Adaptor	17235
13	1+12	130+300	12/4	1	Adaptor	17233
13	1+12	130+300	17/5	1	Adaptor	17234
13	1	130+300	+	1	Lock ring B12 BDS 2170-77	17313
13	2	130+300	12	1	Pinion	17239
13	2	130+300	12/4	1	Pinion	17237
13	2	130+300	17/5	1	Pinion	17238
13	3	130+300	+	2	Ball bearing 6203 – 17x40x12 BDS 4843-84	17317
13	4	130+300	+	1	Distance bush	17157
13	5	130+300	+	1	Lock ring A40 BDS 2170-77	17315
13	6	130+300	+	1	Case	17242
13	7	130+300	+	3	Lock ring 2 8H BDS 833-82	10139
13	8	130+300	+	3	Screw 1 M8x18 – 8,8 BDS 2171-83	17324
12	3	130+300	+	3	Spring washer 2 8H BDS 833-82	10139
12	4	130+300	+	3	Screw 1 M8x18 – 8,8 BDS 2171-83	17324
13	9	130+300	+	1	Distance bush	17158
13	10	130+300	+	1	Shaft	17236
13	11	130+300	+	1	Gear wheel	17166
13	12	130+300	+	1	Lock ring B20 BDS 2170-77	17314

Reeving 2/1

Table 9.1.1 – continued

Fig	Pos	B _r	V _b (m/min)	Pcs	Name	Catalog number
11	1	130+300	+	1	Hind carrier	17204
11	2	130+300	+	2	Axis	17178
11	3	130+300	+	4	Ball bearing 6208 - Z	BDS 4884-85 17320
11	4	130+300	+	4	Lock ring A80	BDS 2170-77 10145
11	5	130+300	+	2	Moves wheel	17172
11	6	130+300	+	2	Lock ring B40	BDS 2170-77 10150
11	7	130+300	+	2	Hind carrier basic	17243
11	8	130+300	+	1	Seal	17183
11	9	130+300	+	1	Case	17182
11	10	130+300	+	4	Spring washer 2 8H	BDS 833-82 10139
11	11	130+300	+	4	Screw I M8x18 – 8,8	BDS 2171-83 17324
11	12	130+300	+	4	Lock ring B20	BDS 2171-83 17314
11	13	130+300	15; 12/4; 23/7	1	Gear wheel	17162
11	13	130+300	20; 32; 17/5;33/10	1	Gear wheel	17163
11	13	130+300	12; 26; 38	1	Gear wheel	17164
11	14;17; 22	130+300	+	3	Distance bush	17155
11	15	130+300	+	2	Lock ring A47	17316
11	16	130+300	+	2	Ball bearing 6204 – Z	BDS 4884-85 17319
11	18;21	130+300	+	2	Gear wheel	17160
11	19	130+300	+	1	Drive shaft	17153
11	19	130	+	1	Drive shaft	17141
11	19	140	+	1	Drive shaft	17142
11	19	150	+	1	Drive shaft	17143
11	19	160	+	1	Drive shaft	17144
11	19	180	+	1	Drive shaft	17145
11	19	200	+	1	Drive shaft	17146
11	19	220	+	1	Drive shaft	17147
11	19	240	+	1	Drive shaft	17148
11	19	260	+	1	Drive shaft	17149
11	19	280	+	1	Drive shaft	17150
11	19	300	+	1	Drive shaft	17151
11	20	130+300	+	1	Composition of washers:	
				5	Washer	17170
				1	Washer	17184
11	14;17; 22	130+300	+	3	Distance bush	17155
11	23	130+300	+	1	Cap	17104
11	24	130+300	+	2	Nut M20	BDS 1253-83 17322
11	25	130+300	+	2	Chock bush	17096
11	26	130+300	+	4	Composition of washers:	
				3	Washer	17099
				1	Washer	17102
				1	Addition bush	17119
11	27	130	+	2	Stud	17084
11	27	140	+	2	Stud	17085
11	27	150	+	2	Stud	17086
11	27	160	+	2	Stud	17087
11	27	180	+	2	Stud	17088
11	27	200	+	2	Stud	17089
11	27	220	+	2	Stud	17090
11	27	240	+	2	Stud	17091
11	27	260	+	2	Stud	17092
11	27	280	+	2	Stud	17093
11	27	300	+	2	Stud	17094
11	27	130+300	+	2	Stud	17094

Reeving 4/1

Table 9.1.2

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
		130	7	1	Traveling mechanism	17001
		130	10	1	Traveling mechanism	17002
		130	12	1	Traveling mechanism	17003
		130	16	1	Traveling mechanism	17004
		130	20	1	Traveling mechanism	17005
		130	25	1	Traveling mechanism	17006
		130	29	1	Traveling mechanism	17007
		130	42	1	Traveling mechanism	17008
		130	12/3,5	1	Traveling mechanism	17009
		130	15/5	1	Traveling mechanism	17010
		130	21/7	1	Traveling mechanism	17011
		130	25/8	1	Traveling mechanism	17012
		300	7	1	Traveling mechanism	17025
		300	10	1	Traveling mechanism	17026
		300	12	1	Traveling mechanism	17027
		300	16	1	Traveling mechanism	17028
		300	20	1	Traveling mechanism	17029
		300	25	1	Traveling mechanism	17030
		300	29	1	Traveling mechanism	17031
		300	42	1	Traveling mechanism	17032
		300	12/3,5	1	Traveling mechanism	17033
		300	15/5	1	Traveling mechanism	17034
		300	21/7	1	Traveling mechanism	17035
		300	25/8	1	Traveling mechanism	17036
		130+300	7	1	Traveling mechanism	17049
		130+300	10	1	Traveling mechanism	17050
		130+300	12	1	Traveling mechanism	17051
		130+300	16	1	Traveling mechanism	17052
		130+300	20	1	Traveling mechanism	17053
		130+300	25	1	Traveling mechanism	17054
		130+300	29	1	Traveling mechanism	17055
		130+300	42	1	Traveling mechanism	17056
		130+300	12/3,5	1	Traveling mechanism	17057
		130+300	15/5	1	Traveling mechanism	17058
		130+300	21/7	1	Traveling mechanism	17059
		130+300	25/8	1	Traveling mechanism	17060
12	1;2;5	130+300	7;10;12	1	Electric motor with pinion	17212
12	1;2;5	130+300	16	1	Electric motor with pinion	17213
12	1;2;5	130+300	20	1	Electric motor with pinion	17214
12	1;2;5	130+300	25	1	Electric motor with pinion	17215
12	1;2;5	130+300	29	1	Electric motor with pinion	17216
12	1;2;5	130+300	42	1	Electric motor with pinion	17217
12	1;2;5	130+300	12/3,5	1	Electric motor with pinion	17218
12	1;2;5	130+300	15/5	1	Electric motor with pinion	17218
12	1;2;5	130+300	21/7	1	Electric motor with pinion	17219
12	1;2;5	130+300	25/8	1	Electric motor with pinion	17219
12	1;2;5	130+300	7;10;12	1	Electric motor	17302
12	5	130+300	16 и 20	1	Electric motor	17303
12	5	130+300	25 и 29	1	Electric motor	17304
12	5	130+300	42	1	Electric motor	17305
12	5	130+300	12/3,5	1	Electric motor	17306
12	5	130+300	15/5	1	Electric motor	17306
12	5	130+300	21/7	1	Electric motor	17307
12	5	130+300	25/8	1	Electric motor	17307
12	1;2;5	130+300	7;10;12	1	Pinion	17240
12	2	130+300	16 и 25	1	Pinion	17241
12	2	130+300	20 и 29	1	Pinion	17237
12	2	130+300	42	1	Pinion	17238
12	2	130+300	12/3,5	1	Pinion	17240
12	2	130+300	15/5	1	Pinion	17240
12	2	130+300	21/7	1	Pinion	17241
12	2	130+300	25/8	1	Pinion	17241

Reeving 4/1

Table 9.1.2 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
12	1	130+300	+	1	Lock ring B12 BDS 2170-77	17313
12	3	130+300	+	7	Spring washer 2 8H BDS 833-82	10139
12	4	130+300	+	7	Screw I M8x18 – 8,8 BDS 2171-83	17324
13	1÷12	130+300	7 и 12/3,5	1	Adaptor	17230
13	1÷12	130+300	10 и 15/5	1	Adaptor	17231
13	1÷12	130+300	12	1	Adaptor	17232
13	1÷12	130+300	21/7	1	Adaptor	17234
13	1÷12	130+300	25/8	1	Adaptor	17235
13	1	130+300	+	1	Lock ring B12 BDS 2170-77	17313
13	2	130+300	12	1	Pinion	17239
13	2	130+300	12/3,5	1	Pinion	17237
13	2	130+300	15/5	1	Pinion	17238
13	2	130+300	25/8	1	Pinion	17239
13	3	130+300	+	2	Ball bearing 6203– 17x40x12 BDS 4843-84	17317
13	4	130+300	+	1	Distance bush	17157
13	5	130+300	+	1	Lock ring A40 BDS 2170-77	17315
13	6	130+300	+	1	Case	17242
13	7	130+300	+	3	Spring washer 2 8H BDS 833-82	10139
13	8	130+300	+	3	Screw I M8x18 – 8,8 BDS 2171-83	17324
13	9	130+300	+	1	Distance bush	17158
13	10	130+300	+	1	Shaft	17236
13	11	130+300	7 и 12/3,5	1	Gear wheel	17165
13	11	130+300	10 и 15/5	1	Gear wheel	17165
13	11	130+300	12	1	Gear wheel	17165
13	11	130+300	21/7	1	Gear wheel	17166
13	11	130+300	25/8	1	Gear wheel	17166
13	12	130+300	+	1	Lock ring B20 BDS 2170-77	17314
11	1	130+300	+	1	Hind carrier	17206
11	2	130+300	+	2	Axes	17177
11	3	130+300	+	4	Ball bearing 6308 - Z BDS 4884-85	17318
11	4	130+300	+	4	Lock ring A90 BDS 2170-77	10146
11	5	130+300	+	2	Moves wheel	17171
11	6	130+300	+	2	Lock ring B40 BDS 2170-77	10150
11	7	130+300	+	2	Front carrier basic	17245
11	8	130+300	+	1	Seal	17181
11	9	130+300	+	1	Case	17182
11	10	130+300	+	4	Spring washer 2 8H BDS 833-82	10139
11	11	130+300	+	4	Screw I M8x18 – 8,8 BDS 2171-83	17324
11	12	130+300	+	4	Lock ring B20 BDS 2171-83	17314
11	13	130+300	7;20; 29; 12/3,5	1	Gear wheel	17162
11	13	130+300	10;42;15/5 21/7	1	Gear wheel	17163
11	13	130+300	12;16;25; 25/8	1	Gear wheel	17164
11	14;17; 22	130+300	+	3	Distance bush	17154
11	15	130+300	+	2	Lock ring A47	17316
11	16	130+300	+	2	Ball bearing 6204 – Z BDS 4884-85	17319
11	18;21	130+300	+	2	Gear wheel	17159
11	19	130+300	+	1	Drive shaft	17152
11	19	130	+	1	Drive shaft	17130
11	19	140	+	1	Drive shaft	17131
11	19	150	+	1	Drive shaft	17132
11	19	160	+	1	Drive shaft	17133
11	19	180	+	1	Drive shaft	17134
11	19	200	+	1	Drive shaft	17135
11	19	220	+	1	Drive shaft	17136
11	19	240	+	1	Drive shaft	17137
11	19	260	+	1	Drive shaft	17138
11	19	280	+	1	Drive shaft	17139
11	19	300	+	1	Drive shaft	17140
11	20	130+300	+	1	Composition of washers:	
				5	Washer	17170
				1	Washer	17184
11	14;17; 22	130+300	+	3	Distance bush	17154

Reeving 4/1

Table 9.1.2 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
11	23	130÷300	+	1	Cap	17104
11	24	130÷300	+	2	Nut M24 BDS 1253-83	17321
11	25	130÷300	+	2	Chock bush	17095
11	26	130÷300	+	-	Composition of washers:	
				6	Washer on one stud (2x3)	17098
				2	Washer on one stud (1x1)	17101
		130	+	1	Addition bush	17108
		140	+	1	Addition bush	17109
		150	+	1	Addition bush	17110
		160	+	1	Addition bush	17111
		180	+	1	Addition bush	17112
		200	+	1	Addition bush	17113
		220	+	1	Addition bush	17114
		240	+	1	Addition bush	17115
		260	+	1	Addition bush	17116
		280	+	1	Addition bush	17117
		300	+	1	Addition bush	17118
11	27	130	+	2	Stud	17073
11	27	140	+	2	Stud	17074
11	27	150	+	2	Stud	170745
11	27	160	+	2	Stud	17076
11	27	180	+	2	Stud	17077
11	27	200	+	2	Stud	17078
11	27	220	+	2	Stud	17079
11	27	240	+	2	Stud	17080
11	27	260	+	2	Stud	17081
11	27	280	+	2	Stud	17082
11	27	300	+	2	Stud	17083
11	27	130÷300	+	2	Stud	17083

V_t – traveling speed;

B_r – width of profile of reil way;

„+” – data refers to all realization

9.2 Traveling block

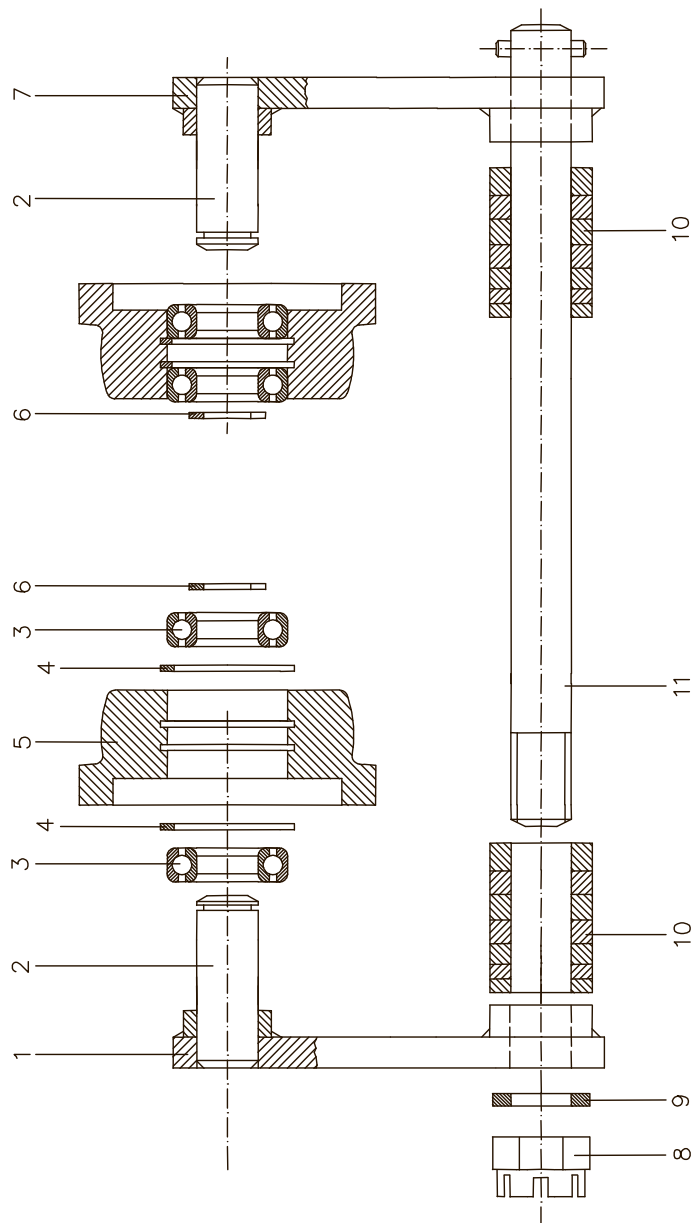


Fig. 14

9.2.1 traveling block of hoist reeving 2/1 – capacity 3,2 t

Table 9.2.1

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
14	1÷11	130	+	1	Traveling block	17277
14	1÷11	140	+	1	Traveling block	17278
14	1÷11	150	+	1	Traveling block	17279
14	1÷11	160	+	1	Traveling block	17280
14	1÷11	180	+	1	Traveling block	17281
14	1÷11	200	+	1	Traveling block	17282
14	1÷11	220	+	1	Traveling block	17283
14	1÷11	240	+	1	Traveling block	17284
14	1÷11	260	+	1	Traveling block	17285
14	1÷11	280	+	1	Traveling block	17286
14	1÷11	300	+	1	Traveling block	17287

Table 9.2.1 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
14	1+11	150+300*	+	1	Traveling block	17289
14	1	150+300	+	1	Hind carrier	17290
14	2	150+300	+	1	Axis	17178
14	3	150+300	+	4	Ball bearing 6208–Z40x110x27 BDS 4884-85	17320
14	4	150+300	+	4	Lock ring A80 BDS 2170-77	10145
14	5	150+300	+	2	Moves wheel	17175
14	6	150+300	+	2	Lock ring B40 BDS 2170-77	10150
14	7	150+300	+	1	Front carrier	17296
14	8	150+300	+	2	Nut M20 – 8,8 BDS 1253-83	17322
14	9	150+300	+	2	Chock bush	17096
14	10	150+300	+	4	Composition of washers	
14		150+300	+	3	Washer	17098
14		150+300	+	1	Washer	17101
14		130	+	1	Addition bush	17108
14		140	+	1	Addition bush	17109
14		150	+	1	Addition bush	17110
14		160	+	1	Addition bush	17111
14		180	+	1	Addition bush	17112
14		200	+	1	Addition bush	17113
14		220	+	1	Addition bush	17114
14		240	+	1	Addition bush	17115
14		260	+	1	Addition bush	17116
14		280	+	1	Addition bush	17117
14		300	+	1	Addition bush	17118
14		150+300*	+	1	Addition bush	17186
14		150+300*	+	1	Addition bush	17187
14		150+300*	+	1	Addition bush	17188
14		150+300*	+	1	Addition bush	17189
14	11	130	+	2	Stud	17073
14	11	140	+	2	Stud	17074
14	11	150	+	2	Stud	17075
14	11	160	+	2	Stud	17076
14	11	180	+	2	Stud	17077
14	11	200	+	2	Stud	17078
14	11	220	+	2	Stud	17079
14	11	240	+	2	Stud	17080
14	11	260	+	2	Stud	17081
14	11	280	+	2	Stud	17082
14	11	300	+	2	Stud	17083
14	11	150+300*	+	2	Stud	17073

Note: The symbol „ 150+300* „ means that the traveling block is produced with stud providing width control of rail profil from 150 to 300 mm.

9.2.2 traveling block of hoist reeving 4/1 – capacity 6,3 t

Table 9.2.2

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
14	1+11	130	+	1	Traveling block	17266
14	1+11	140	+	1	Traveling block	17267
14	1+11	150	+	1	Traveling block	17268
14	1+11	160	+	1	Traveling block	17269
14	1+11	180	+	1	Traveling block	17270
14	1+11	200	+	1	Traveling block	17271
14	1+11	220	+	1	Traveling block	17272
14	1+11	240	+	1	Traveling block	17273
14	1+11	260	+	1	Traveling block	17274
14	1+11	280	+	1	Traveling block	17275
14	1+11	300	+	1	Traveling block	17276

Table 9.2.2 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catlog number
14	1÷11	150÷300*	+	1	Traveling block	17288
14	1	150÷300	+	1	Hind carrier	17292
14	2	150÷300	+	1	Axis	17177
14	3	150÷300	+	4	Ball bearing 6308–Z40x110x27	BDS 4884-85 17318
14	4	150÷300	+	4	Lock ring A90	BDS 2170-77 10146
14	5	150÷300	+	2	Moves wheel	17174
14	6	150÷300	+	2	Lock ring B40	BDS 2170-77 10150
14	7	150÷300	+	1	Front carrier	17298
14	8	150÷300	+	2	Nut M24 – 8,8	BDS 1253-83 17321
14	9	150÷300	+	2	Chock bush	17095
14	10	150÷300	+	4	Composition of washers:	
14		150÷300	+	3	Washer	17098
14		150÷300	+	1	Washer	17101
14		130	+	1	Addition bush	17108
14		140	+	1	Addition bush	17109
14		150	+	1	Addition bush	17110
14		160	+	1	Addition bush	17111
14		180	+	1	Addition bush	17112
14		200	+	1	Addition bush	17113
14		220	+	1	Addition bush	17114
14		240	+	1	Addition bush	17115
14		260	+	1	Addition bush	17116
14		280	+	1	Addition bush	17117
14		300	+	1	Addition bush	17118
14		150÷300*	+	1	Addition bush	17186
14		150÷300*	+	1	Addition bush	17187
14		150÷300*	+	1	Addition bush	17188
14		150÷300*	+	1	Addition bush	17189
14	11	130	+	2	Stud	17073
14	11	140	+	2	Stud	17074
14	11	150	+	2	Stud	17075
14	11	160	+	2	Stud	17076
14	11	180	+	2	Stud	17077
14	11	200	+	2	Stud	17078
14	11	220	+	2	Stud	17079
14	11	240	+	2	Stud	17080
14	11	260	+	2	Stud	17081
14	11	280	+	2	Stud	17082
14	11	300	+	2	Stud	17083
14	11	150÷300*	+	2	Stud	17073

Note: The symbol „ 150÷300* „ means that the traveling block is produced with stud providing width control of rail profil from 150 to 300 mm.*

9.3 Hinged block

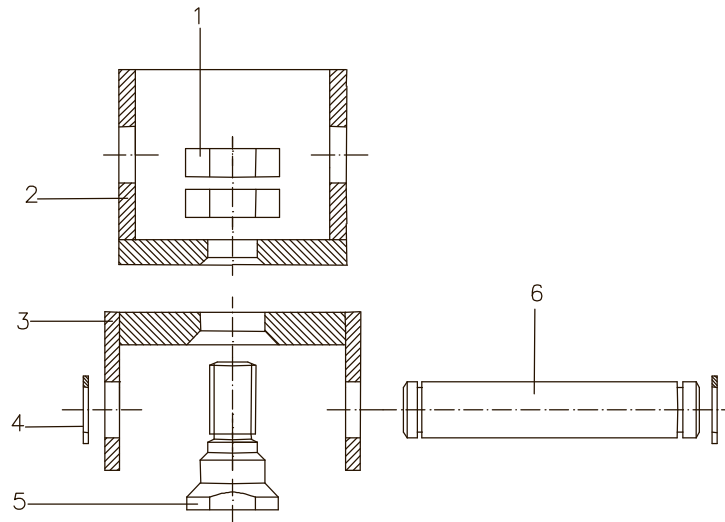


Fig. 15

Table 9.3

Fig	Pos	Pcs	Name	Catalod number	
				Reeving 2/1	Reeving 4/1
15	1 - 6	2	Hinget block	22001	22002
15	1	2	Nut I 24 BDS 1251-83	22025	-
15	1	2	Nut I 30 BDS 1251-83	-	22026
15	2	1	Top carrier	22017	22018
15	3	1	Bottom carrier	22007	22008
15	4	4	Lock ring B25 BDS 2170-77	13037	-
15	4	4	Lock ring B32 BDS 2170-77	-	22024
15	5	1	Bolt	22005	22006
15	6	2	Axis	22003	2200

10. TRAVELING MECHANISM – LOW HEADROOM DOUBLE SIDE DRIVEN

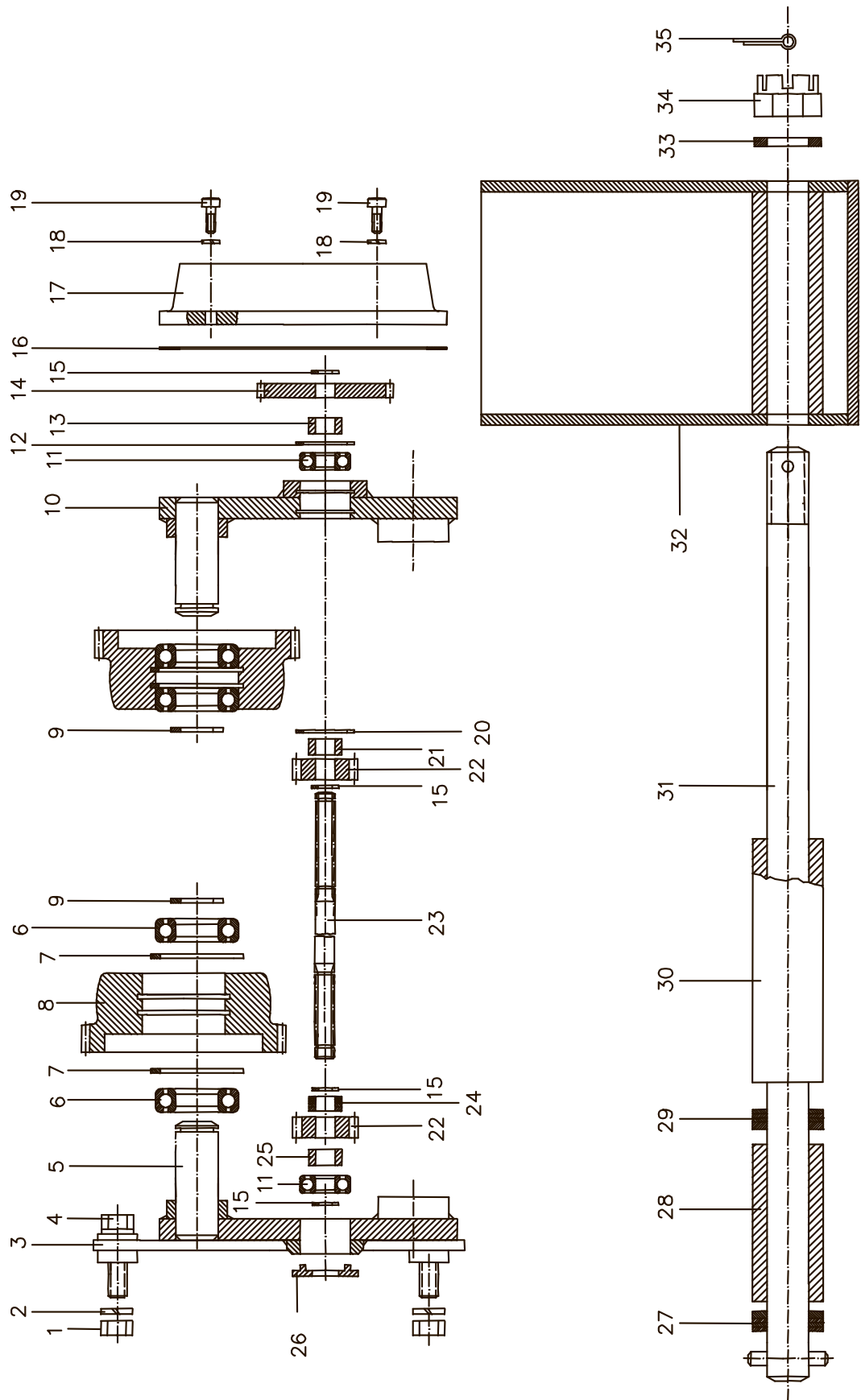


Fig. 16

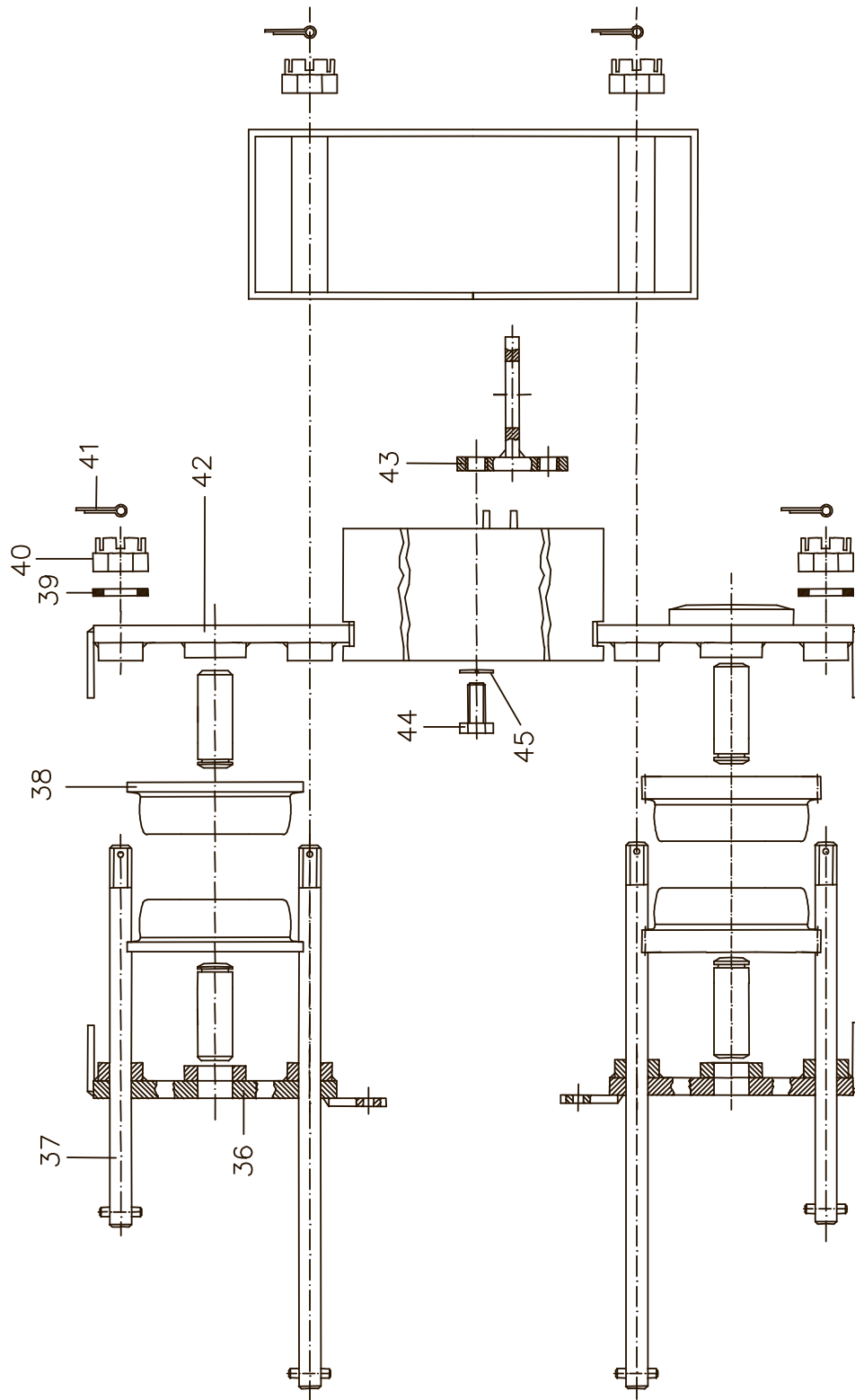


Fig. 17

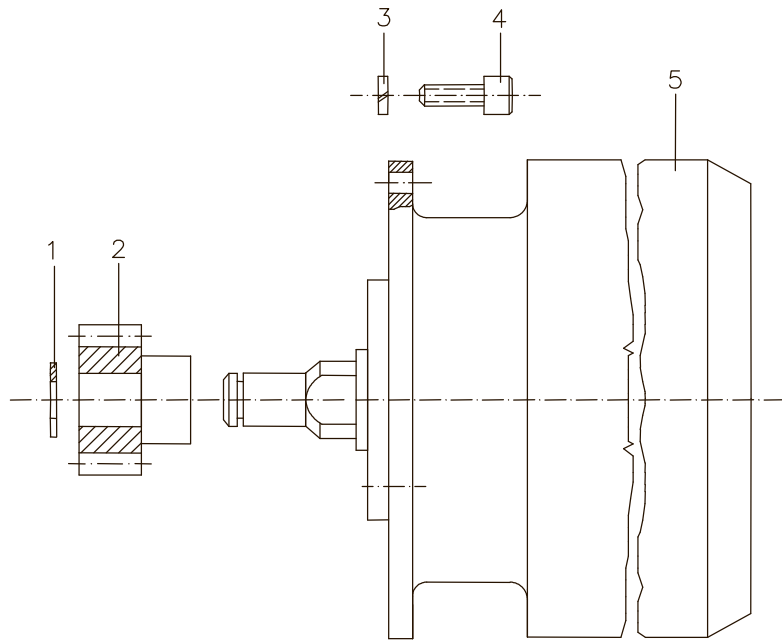


Fig. 18

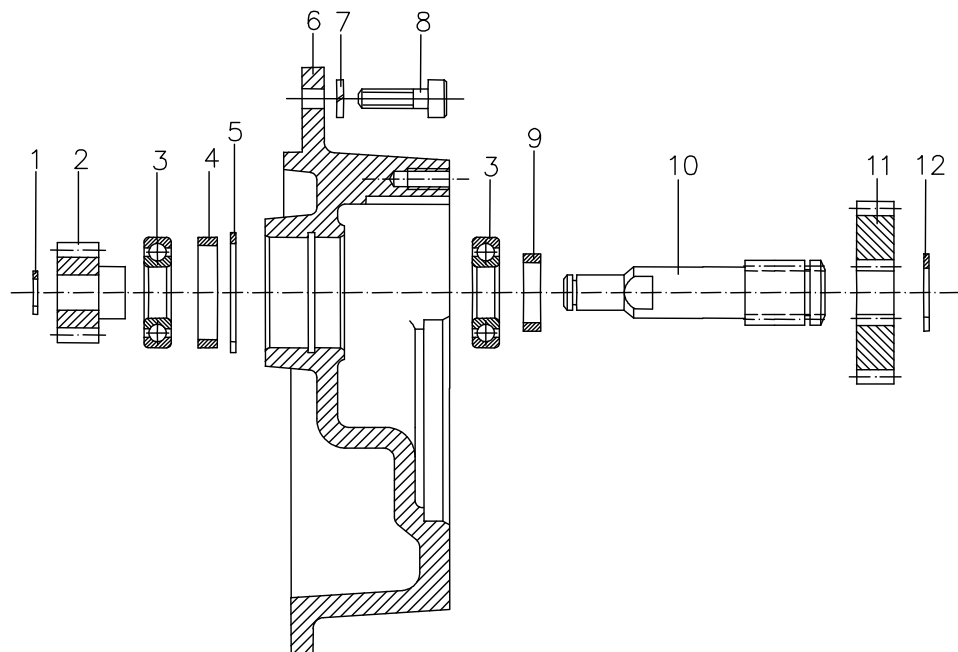


Fig.19

10.1 Reeving 2/1

Table 10.1

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pcs	Name	Catalog number
15	1-32	130	12	6,3	1	Traveling mechanism	21003
15	1-32	130	15	6,3	1	Traveling mechanism	21004
15	1-32	130	20	6,3	1	Traveling mechanism	21005
15	1-32	130	26	6,3	1	Traveling mechanism	21006
15	1-32	130	32	6,3	1	Traveling mechanism	21007
15	1-32	130	38	6,3	1	Traveling mechanism	21008
15	1-32	130	12/4	6,3	1	Traveling mechanism	21009
15	1-32	130	17/5	6,3	1	Traveling mechanism	21010
15	1-32	130	23/7	6,3	1	Traveling mechanism	21011
15	1-32	130	33/10	6,3	1	Traveling mechanism	21012
15	1-32	130	12	9	1	Traveling mechanism	21027
15	1-32	130	15	9	1	Traveling mechanism	21028
15	1-32	130	20	9	1	Traveling mechanism	21029
15	1-32	130	26	9	1	Traveling mechanism	21030
15	1-32	130	32	9	1	Traveling mechanism	21031
15	1-32	130	38	9	1	Traveling mechanism	21032
15	1-32	130	12/4	9	1	Traveling mechanism	21033
15	1-32	130	17/5	9	1	Traveling mechanism	21034
15	1-32	130	23/7	9	1	Traveling mechanism	21035
15	1-32	130	33/10	9	1	Traveling mechanism	21036
15	1-32	130	12	12,5	1	Traveling mechanism	21051
15	1-32	130	15	12,5	1	Traveling mechanism	21052
15	1-32	130	20	12,5	1	Traveling mechanism	21053
15	1-32	130	26	12,5	1	Traveling mechanism	21054
15	1-32	130	32	12,5	1	Traveling mechanism	21055
15	1-32	130	38	12,5	1	Traveling mechanism	21056
15	1-32	130	12/4	12,5	1	Traveling mechanism	21057
15	1-32	130	17/5	12,5	1	Traveling mechanism	21058
15	1-32	130	23/7	12,5	1	Traveling mechanism	21059
15	1-32	130	33/10	12,5	1	Traveling mechanism	21060
15	1-32	130	12	18	1	Traveling mechanism	21099
15	1-32	130	15	18	1	Traveling mechanism	21100
15	1-32	130	20	18	1	Traveling mechanism	21101
15	1-32	130	26	18	1	Traveling mechanism	21102
15	1-32	130	32	18	1	Traveling mechanism	21103
15	1-32	130	38	18	1	Traveling mechanism	21104
	1-32	130	12/4	18	1	Traveling mechanism	21105
	1-32	130	17/5	18	1	Traveling mechanism	21106
15	1-32	130	23/7	18	1	Traveling mechanism	21107
15	1-32	130	33/10	18	1	Traveling mechanism	21108
15	1-32	130	12	25	1	Traveling mechanism	21147
15	1-32	130	15	25	1	Traveling mechanism	21148
15	1-32	130	20	25	1	Traveling mechanism	21149
15	1-32	130	26	25	1	Traveling mechanism	21150
	1-32	130	32	25	1	Traveling mechanism	21151
	1-32	130	38	25	1	Traveling mechanism	21152
15	1-32	130	12/4	25	1	Traveling mechanism	21153
15	1-32	130	17/5	25	1	Traveling mechanism	21154
15	1-32	130	23/7	25	1	Traveling mechanism	21155
15	1-32	130	33/10	25	1	Traveling mechanism	21156
17	5	+	12	+	1	Electric motor	17302
17		+	15	+	1	Electric motor	17302
17	5	+	20	+	1	Electric motor	17302
17	5	+	26	+	1	Electric motor	17303
17	5	+	32	+	1	Electric motor	17309
17	5	+	38	+	1	Electric motor	17304
17	5	+	12/4	+	1	Electric motor	17304
17	5	+	17/5	+	1	Electric motor	17310
17	5	+	23/7	+	1	Electric motor	17306
17	5	+	33/10	+	1	Electric motor	17306
17	2	+	12	+	1	Pinion	17241
17	2	+	15	+	1	Pinion	17237
17	2	+	20	+	1	Pinion	17238
17	2	+	26	+	1	Pinion	17239
17	2	+	32	+	1	Pinion	17238
17	2	+	38	+	1	Pinion	17239
17	2	+	12/4	+	1	Pinion	17239
17	2	+	17/5	+	1	Pinion	17241

Table 10.1 – continued

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pce	Name	Catalog number	Note
17	2	+	23/7	+	1	Pinion	17237	
17	2	+	33/10	+	1	Pinion	17238	
17	1	+	+	+	1	Lock ring B12	BDS 2170-77	17313
17	3	+	+	+	3	Spring washer 2 8H	BDS 833-82	10139
17	4	+	+	+	3	Screw 1 M8x18 – 8,8	BDS 2171-83	17324
18	1÷12	+	12	+	1	Adapter		17235
18	1÷12	+	12/4	+	1	Adapter		17233
18	1÷12	+	17/5	+	1	Adapter		17234
18	1	+	+	+	1	Lock ring B12	BDS 2170-77	17313
18	2	+	12	+	1	Pinion		17239
18	2	+	12/4	+	1	Pinion		17237
18	2	+	17/5	+	1	Pinion		17238
18	3	+	+	+	2	Ball bearing 6203 – 17x40x12	BDS 4843-84	17317
18	4	+	+	+	1	Distance bush		17157
18	5	+	+	+	1	Lock ring A40	BDS 2170-77	17315
18	6	+	+	+	1	Case		17242
18	7	+	+	+	3	Spring washer 2 8H	BDS 833-82	10139
18	8	+	+	+	3	Screw 1 M8x18 – 8,8	BDS 2171-83	17324
18	9	+	+	+	1	Distance bush		17158
18	10	+	+	+	1	Shaft		17236
18	11	+	+	+	1	Gear wheel		17166
18	12	+	+	+	1	Lock ring B20	BDS 2170-77	17314
15	1	130	+	+	4	Nut M20 – 8	BDS 1234-85	21343
15	2	130	+	+	4	Spring washer 2 20H	BDS 833-82	21341
15	4	130	+	+	4	Bolt M20x40 – 8,8	BDS 1234-85	21340
15	3	130	+	+	1	Hind plate basic		21246
15	5	130	+	+	4	Axis		17178
15	6	130	+	+	8	Ball bearing 6208-Z	BDS 4884-85	17319
15	7	130	+	+	8	Lock ring A80	BDS 2170-77	10145
15	8	130	+	+	2	Moves wheel		17172
15	9	130	+	+	4	Lock ring B40	BDS 2170-77	10150
15	10	130	+	6,3	1	Traverse with carriers		21248
15	10	130	+	9	1	Traverse with carriers		21249
15	10	130	+	12,5	1	Traverse with carriers		21250
15	10	130	+	18	1	Traverse with carriers		21251
15	10	130	+	25	1	Traverse with carriers		21252
15	11	130	+	+	2	Ball bearing 6204-2Z	BDS 4884-85	17319
15	12	+	+	+	1	Lock ring A47	BDS 2170-77	17316
15	13	130-300	+	+	1	Distance bush		17155
15	14	130	12	+	1	Gear wheel		17164
15			15	+	+	Gear wheel		17162
15			20	+	+	Gear wheel		17163
15			26	+	+	Gear wheel		17164
15			32	+	+	Gear wheel		17163
15			38	+	+	Gear wheel		17164
15			12/4	+	+	Gear wheel		17162
15			17/5	+	+	Gear wheel		17163
15			23/7	+	+	Gear wheel		17162
15			33/10	+	+	Gear wheel		17163
15	15	+	+	+	4	Lock ring B20	BDS 2170-77	17314
15	16	+	+	+	1	Seal		17183
15	17	+	+	+	1	Case		17182
15	18	+	+	+	10	Spring washer 2 8H	BDS 833-82	10139
15	19	+	+	+	10	Screw M8x18 – 8,8	BDS 2171-83	17324
15	20	+	+	+	1	Lock ring A47	BDS 2170-77	17316
15	21	130	+	+	1	Distance bush		17155
15	22	+	+	+	2	Gear wheel		17160
15	23	130	+	+	1	Drive shaft		17141
15		140	+	+	1	Drive shaft		17142
15		150	+	+	1	Drive shaft		17143
15		160	+	+	1	Drive shaft		17144
15		180	+	+	1	Drive shaft		17145
15		200	+	+	1	Drive shaft		17146
15		220	+	+	1	Drive shaft		17147
15		240	+	+	1	Drive shaft		17148
15		260	+	+	1	Drive shaft		17149
15		280	+	+	1	Drive shaft		17150

Table 10.1 – continued

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pce	Name	Catalog number
15		300	+	+	1	Drive shaft	17151
15	24		+	+		Composition of washers	
15		130-300	+	+	5	Washer	17170
15					1	Washer	17184
15	25	130-300	+	+	1	Distance bush	17155
15	26	130-300	+	+	1	Cap	17104
15	27,29	130-300	+	+	32	Composition of washers	
					6	Washer –on one stud	17099
15					2	Washer –on one stud	17002
15	28	130	+	+	4	Addition bush	21196
15		140		+	4	Addition bush	21197
15		150	+	+	4	Addition bush	21198
15		160	+	+	4	Addition bush	21199
15		180	+	+	4	Addition bush	21200
15		200	+	+	4	Addition bush	21201
15		220	+	+	4	Addition bush	21202
15		240	+	+	4	Addition bush	21203
15		260	+	+	4	Addition bush	21204
15		280	+	+	4	Addition bush	21205
15		300	+	+	4	Addition bush	21206
15	30	130-300	+	+	2	bush	21218
15	31	130	+	+	2	Stud	21222
15		140	+	+	2	Stud	21223
15		150	+	+	2	Stud	21224
15		160	+	+	2	Stud	21225
15		180	+	+	2	Stud	21226
15		200	+	+	2	Stud	21227
15		220	+	+	2	Stud	21228
15		240	+	+	2	Stud	21229
15		260	+	+	2	Stud	21230
15		280	+	+	2	Stud	21231
15		300	+	+	2	Stud	21232
15	32	+	+	6,3	1	Box for countreweight	21292
15		+	+	9	1	Box for countreweight	21293
15		+	+	12,5	1	Box for countreweight	21294
15	32	+	+	18	1	Box for countreweight	21395
15		+	+	25	1	Box for countreweight	21396
15	34	+	+	+	2	Nut M20-8 BDS 1253-83	17322
15	35	+	+	+	2	Split 5x50 BDS 55-77	17323
16	36	+	+	+	1	Hind plate	21246
16	37	130	+	+	2	Stud	17084
16		140	+	+	2	Stud	17085
16		150	+	+		Stud	17086
16		160	+	+		Stud	17087
16		180	+	+		Stud	17088
16		200	+	+		Stud	17089
16		220	+	+		Stud	17090
16		240	+	+		Stud	17091
16		260	+	+		Stud	17092
16		280	+	+		Stud	17093
16		300	+	+		Stud	17094
16	38	+	+	+	2	Moves wheel	17175
16	39	+	+	+	2	Chock bush	17096
16	40	+	+	+	2	Nut M20-8 BDS 1253-83	17322
16	41	+	+	+	2	Split 5x50 BDS 55-77	17323

10.2 Reeving 4/1

Table 10.2

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pce	Name	Catalog number
15	1-32	130	12	6,3	1	Traveling mechanism	21075
15	1-32	130	16	6,3	1	Traveling mechanism	21076
15	1-32	130	20	6,3	1	Traveling mechanism	21077
15	1-32	130	25	6,3	1	Traveling mechanism	21078
15	1-32	130	29	6,3	1	Traveling mechanism	21079
15	1-32	130	42	6,3	1	Traveling mechanism	21080
15	1-32	130	12/3,5	6,3	1	Traveling mechanism	21081
15	1-32	130	15/5	6,3	1	Traveling mechanism	21082
15	1-32	130	21/7	6,3	1	Traveling mechanism	21083
15	1-32	130	25/8	6,3	1	Traveling mechanism	21084
15	1-32	130	12	9	1	Traveling mechanism	21123
15	1-32	130	16	9	1	Traveling mechanism	21124
15	1-32	130	20	9	1	Traveling mechanism	21125
15	1-32	130	25	9	1	Traveling mechanism	21126
15	1-32	130	29	9	1	Traveling mechanism	21127
15	1-32	130	42	9	1	Traveling mechanism	21128
15	1-32	130	12/3,5	9	1	Traveling mechanism	21129
15	1-32	130	15/5	9	1	Traveling mechanism	21130
15	1-32	130	21/7	9	1	Traveling mechanism	21131
15	1-32	130	25/8	9	1	Traveling mechanism	21132
15	1-32	130	12	12,5	1	Traveling mechanism	21171
15	1-32	130	16	12,5	1	Traveling mechanism	21172
15	1-32	130	20	12,5	1	Traveling mechanism	21173
15	1-32	130	25	12,5	1	Traveling mechanism	21174
15	1-32	130	29	12,5	1	Traveling mechanism	21175
15	1-32	130	42	12,5	1	Traveling mechanism	21176
15	1-32	130	12/3,5	12,5	1	Traveling mechanism	21177
15	1-32	130	15/5	12,5	1	Traveling mechanism	21178
15	1-32	130	21/7	12,5	1	Traveling mechanism	21179
15	1-32	130	25/8	12,5	1	Traveling mechanism	21180
17	5	+	12	+	1	Electric motor	17302
17		+	16 и 20	+	1	Electric motor	17303
17	5	+	25 и 29	+	1	Electric motor	17304
17	5	+	42	+	1	Electric motor	17305
17	5	+	12/3,5	+	1	Electric motor	17306
17	5	+	15/5	+	1	Electric motor	17306
17	5	+	21/7	+	1	Electric motor	17307
17	5	+	25/8	+	1	Electric motor	17307
17	2	+	12	+	1	Pinion	17240
17	2	+	16 и 25	+	1	Pinion	17241
17	2	+	20 и 29	+	1	Pinion	17237
17	2	+	42	+	1	Pinion	17238
17	2	+	12/3,5	+	1	Pinion	17240
17	2	+	15/5	+	1	Pinion	17240
17	2	+	21/7	+	1	Pinion	17241
17	2	+	25/8	+	1	Pinion	17241
17	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
17	3	+	+	+	3	Spring washer 2 8H BDS 833-82	10139
17	4	+	+	+	3	Screw I M8x18 – 8,8 BDS 2171-83	17324
18	1+12	+	12	+	1	Adapter	17232
18	1+12	+	16; 25	+	1	Adapter	17235
18	1+12	+	12/3,5	+	1	Adapter	17230
18	1+12	+	15/5	+	1	Adapter	17231
18	1+12	+	21/7	+	1	Adapter	17234
18	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
18	2	+	12	+	1	Pinion	17239
18	2	+	16; 25	+	1	Pinion	17239
18	2	+	12/3,5	+	1	Pinion	17237
18	2	+	15/5	+	1	Pinion	17238
18	2	+	21/7	+	1	Pinion	17238
18	3	+	+	+	2	Ball bearing 6203 – 17x40x12 BDS 4843-84	17317
18	4	+	+	+	1	Distance bush	17157
18	5	+	+	+	1	Lock ring A40 BDS 2170-77	17315
18	6	+	+	+	1	Case	17242
18	7	+	+	+	3	Spring washer 2 8H BDS 833-82	10139
18	8	+	+	+	3	Screw I M8x18 – 8,8 BDS 2171-83	17324

Table 10.2 – continued

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pce	Name	Catalog number	Note
18	9	+	+	+	1	Distance bush	17158	
18	10	+	+	+	1	Shaft	17236	
18	11	+	12	+	1	Gear wheel	17165	
18	11	+	12/3,5	+	1	Gear wheel	17165	
18	11	+	15/5	+	1	Gear wheel	17165	
18	11	+	21/7	+	1	Gear wheel	17166	
18	11	+	25/8	+	1	Gear wheel	17166	
18	11	+	16; 25	+	1	Gear wheel	17166	
18	12	+	+	+	1	Lock ring B20	BDS 2170-77 17314	
15	1	+	+	+	4	Nut M20 – 8	BDS 1234-85 21343	
15	2	+	+	+	4	Spring washer 2 20H	BDS 833-82 21341	
15	4	+	+	+	4	Bolt M20x70 – 8,8	BDS 1234-85 21340	
15	3	+	+	+	1	Hind plate basic	21245	
15	5	+	+	+	4	Axis	17177	
15	6	+	+	+	8	Ball bearing 6308-Z	BDS 4884-85 17318	
15	7	+	+	+	8	Lock ring A90	BDS 2170-77 10145	
15	8	+	+	+	2	Moves wheel	17171	
15	9	+	+	+	4	Lock ring B40	BDS 2170-77 10150	
15	10	130	+	6,3	1	Traverse with carrier	21258	pos.42,sch.16
15	10	130	+	9	1	Traverse with carrier	21259	pos.42,sch.16
15	10	130	+	12,5	1	Traverse with carrier	21260	pos.42,sch.16
15	11	+	+	+	2	Ball bearing 6204 – 2Z	17319	
15	12	+	+	+	1	Lock ring A47	BDS 2170-77 17316	
15	13	+	+	+	1	Distance bush	17154	
15	14	+	12	+	1	Gear wheel	17164	
15		+	16	+	+	Gear wheel	17164	
15		+	20	+	+	Gear wheel	17162	
15		+	25	+	+	Gear wheel	17164	
15		+	29	+	+	Gear wheel	17162	
15		+	42	+	+	Gear wheel	17163	
15		+	12/3,5	+	+	Gear wheel	17162	
15		+	15/5	+	+	Gear wheel	17163	
15		+	21/7	+	+	Gear wheel	17163	
15		+	25/8	+	+	Gear wheel	17164	
15	15	+	+	+	4	Lock ring B20	BDS 2170-77 17314	
15	16	+	+	+	1	Seal	17183	
15	17	+	+	+	1	Case	17182	
15	18	+	+	+	10	Spring washer 2 8H	BDS 833-82 10139	
15	19	+	+	+	10	Screw M8x18 – 8,8	BDS 2171-83 17324	
15	20	+	+	+	1	Lock ring A47	BDS 2170-77 17316	
15	21	+	+	+	1	Distance bush	17154	
15	22	+	+	+	2	Gear wheel	17159	
15	23	130	+	+	1	Drive shaft	17130	
15		140	+	+	1	Drive shaft	17131	
15		150	+	+	1	Drive shaft	17132	
15		160	+	+	1	Drive shaft	17133	
15		180	+	+	1	Drive shaft	17134	
15		200	+	+	1	Drive shaft	17135	
15		220	+	+	1	Drive shaft	17136	
15		240	+	+	1	Drive shaft	17137	
15		260	+	+	1	Drive shaft	17138	
15		280	+	+	1	Drive shaft	17139	
15		300	+	+	1	Drive shaft	17140	
15	24		+	+		Composition of washers		
15		130-300	+	+	5	Washer	17170	
15					1	Washer	17184	
15	25	130-300	+	+	1	Distance bush	17154	
15	26	130-300	+	+	1	Cap	17104	
15	27,29	130-300	+	+	32	Composition of washers:		
					6	Washer – on one stud	17098	
15					2	Washer – on one stud	17101	
15	28	130	+	+	4	Addition bush	21207	
15		140		+	4	Addition bush	21208	
15		150	+	+	4	Addition bush	21209	
15		160	+	+	4	Addition bush	21210	
15		180	+	+	4	Addition bush	21211	
15		300	+	+	4	Addition bush	21217	
15	30	130-300	+	+	2	Bush	21219	

Table 10.2 – continued

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pce	Name	Catalog number
15		200	+	+	4	Addition bush	21212
15		220	+	+	4	Addition bush	21213
15		240	+	+	4	Addition bush	21214
15		260	+	+	4	Addition bush	21215
15		280	+	+	4	Addition bush	21216
15	31	130	+	+	2	Stud	21233
15	31	140	+	+	2	Stud	21234
15		150	+	+	2	Stud	21235
15		160	+	+	2	Stud	21236
15		180	+	+	2	Stud	21237
15		200	+	+	2	Stud	21238
15		220	+	+	2	Stud	21239
15		240	+	+	2	Stud	21240
15		260	+	+	2	Stud	21241
15		280	+	+	2	Stud	21242
15		300	+	+	2	Stud	21243
15	32	+	+	6,3	1	Box for countreweight	21302
15		+	+	9	1	Box for countreweight	21303
15		+	+	12,5	1	Box for countreweight	21304
15	34	+	+	+	2	Nut M24-8 BDS 1253-83	17321
15	35	+	+	+	2	Split 5x50 BDS 55-77	17323
15	36	+	+	+	1	Hind plate	21247
15	37	130	+	+	2	Stud	17073
15		140	+	+	2	Stud	17074
15		150	+	+		Stud	17075
15		160	+	+		Stud	17076
15		180	+	+		Stud	17077
15		200	+	+		Stud	17078
15		220	+	+		Stud	17079
15		240	+	+		Stud	17080
15		260	+	+		Stud	17081
15		280	+	+		Stud	17082
15		300	+	+		Stud	17083
15	38	+	+	+	2	Moves wheel	17174
15	39	+	+	+	2	Chock bush	17095
15	40	+	+	+	2	Nut M24-8 BDS 1253-83	17322
15	41	+	+	+	2	Split 5x50 BDS 55-77	17323
15	43	+	+	+	1	Carrier	21289
15	44	+	+	+	4	Bolt 1 M10x16 – 6,8 BDS 1234-85	21339
15	45	+	+	+	4	Spring washer 2 10H BDS 833-82	10140

11. TRAVELING MECHANISM – LOW HEADROOM -ONE-SIDE DRIVEN

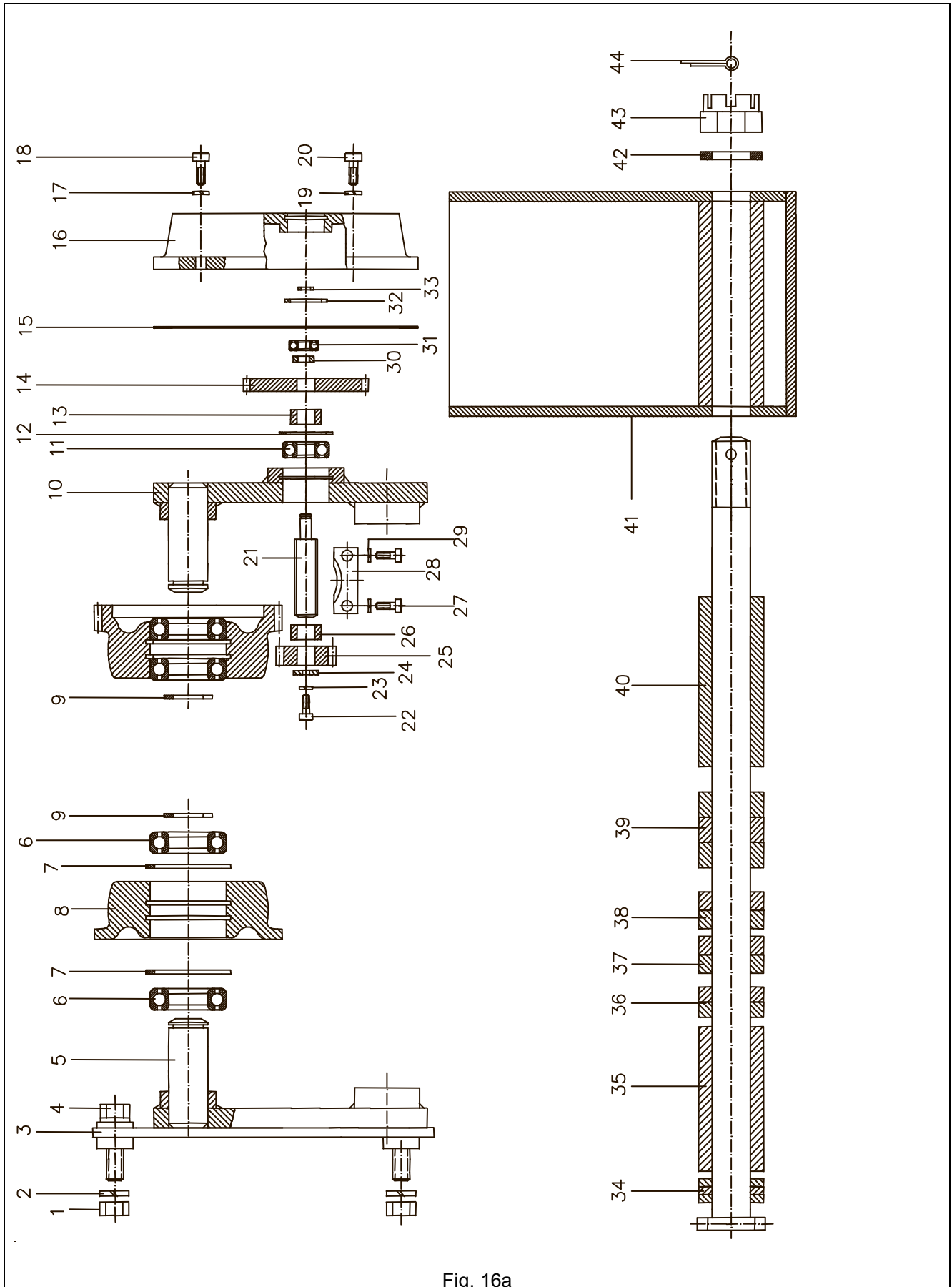
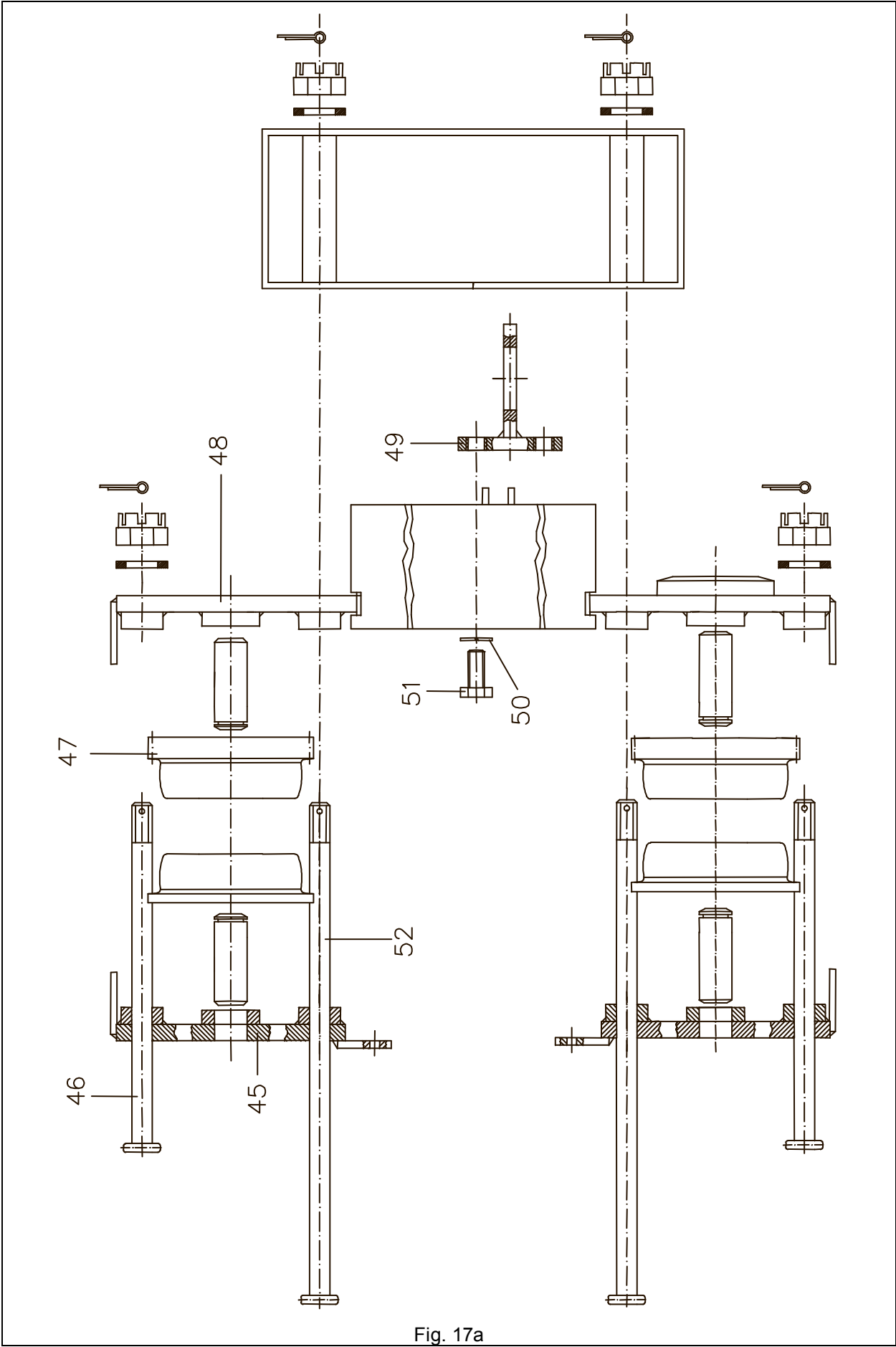


Fig. 16a



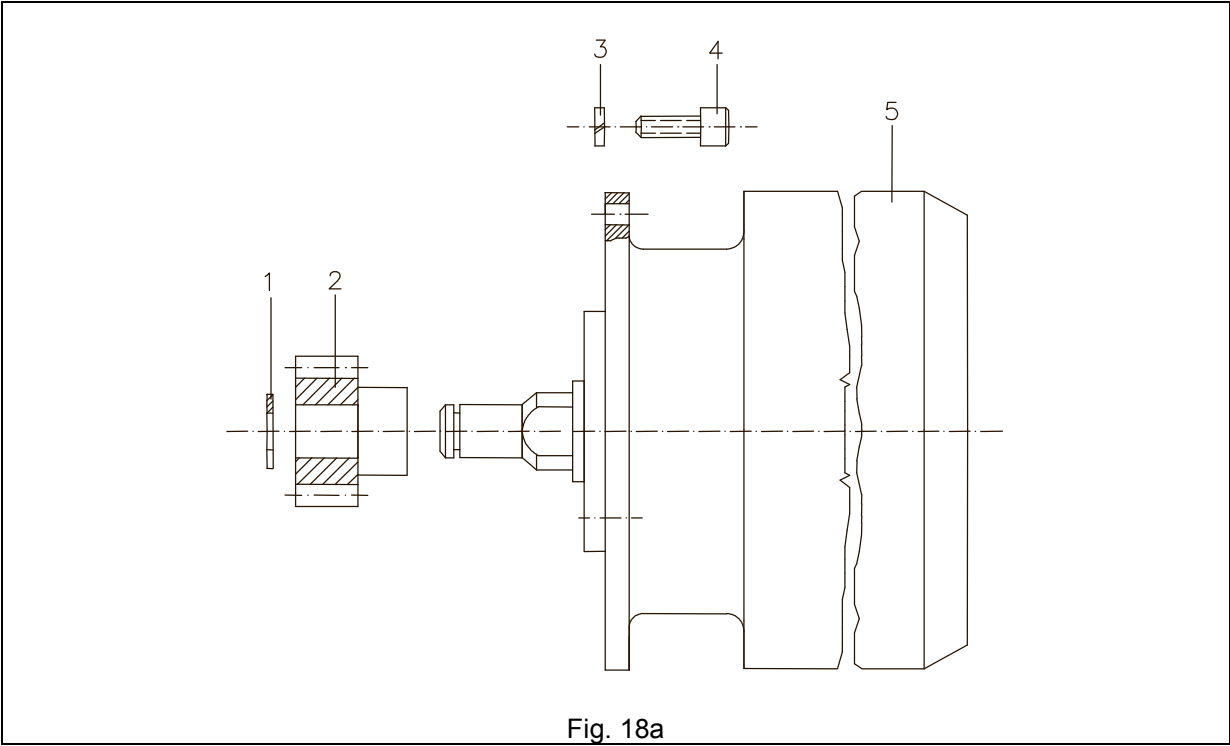


Fig. 18a

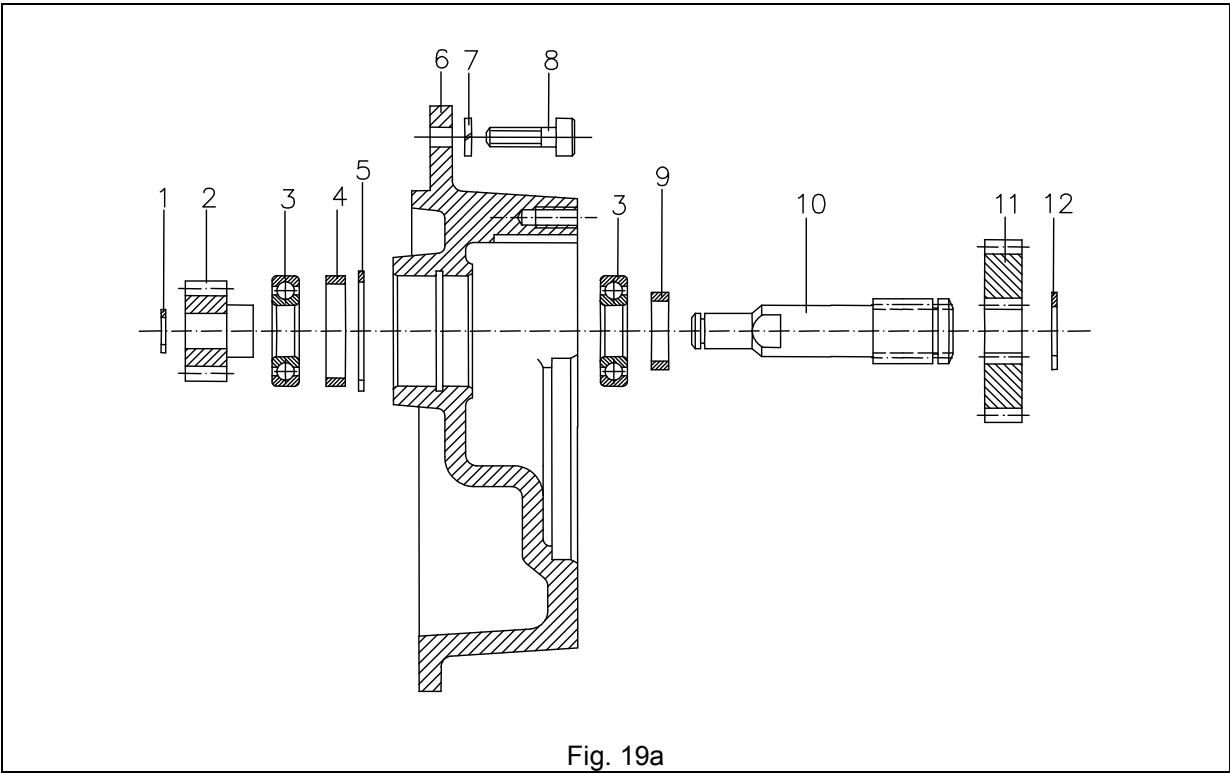


Fig. 19a

11.1 reeving 2/1

Table 11.1

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
16a; 17a; 18a; 19a	1-44 45-52 1-5 1-12	+	12	6,3	1	Traveling mechanism	21879
		+	15	6,3	1	Traveling mechanism	21880
		+	20	6,3	1	Traveling mechanism	21881
		+	26	6,3	1	Traveling mechanism	21882
		+	32	6,3	1	Traveling mechanism	21883
		+	38	6,3	1	Traveling mechanism	21884
		+	12/4	6,3	1	Traveling mechanism	21885
		+	17/5	6,3	1	Traveling mechanism	21886
		+	23/7	6,3	1	Traveling mechanism	21887
		+	33/10	6,3	1	Traveling mechanism	21888
		+	12	9	1	Traveling mechanism	21903
		+	15	9	1	Traveling mechanism	21904
		+	20	9	1	Traveling mechanism	21905
		+	26	9	1	Traveling mechanism	21906
		+	32	9	1	Traveling mechanism	21907
		+	38	9	1	Traveling mechanism	21908
		+	12/4	9	1	Traveling mechanism	21909
		+	17/5	9	1	Traveling mechanism	21910
		+	23/7	9	1	Traveling mechanism	21911
		+	33/10	9	1	Traveling mechanism	21912
		+	12	12,5	1	Traveling mechanism	21927
		+	15	12,5	1	Traveling mechanism	21928
		+	20	12,5	1	Traveling mechanism	21929
		+	26	12,5	1	Traveling mechanism	21930
		+	32	12,5	1	Traveling mechanism	21931
		+	38	12,5	1	Traveling mechanism	21932
		+	12/4	12,5	1	Traveling mechanism	21933
		+	17/5	12,5	1	Traveling mechanism	21934
		+	23/7	12,5	1	Traveling mechanism	21935
		+	33/10	12,5	1	Traveling mechanism	21936
		+	12	18	1	Traveling mechanism	21951
		+	15	18	1	Traveling mechanism	21952
		+	20	18	1	Traveling mechanism	21953
		+	26	18	1	Traveling mechanism	21954
		+	32	18	1	Traveling mechanism	21955
		+	38	18	1	Traveling mechanism	21956
		+	12/4	18	1	Traveling mechanism	21957
		+	17/5	18	1	Traveling mechanism	21958
		+	23/7	18	1	Traveling mechanism	21959
		+	33/10	18	1	Traveling mechanism	21960
		+	12	25	1	Traveling mechanism	21975
		+	15	25	1	Traveling mechanism	21976
		+	20	25	1	Traveling mechanism	21977
		+	26	25	1	Traveling mechanism	21978
		+	32	25	1	Traveling mechanism	21979
		+	38	25	1	Traveling mechanism	21980
		+	12/4	25	1	Traveling mechanism	21981
		+	17/5	25	1	Traveling mechanism	21982
		+	23/7	25	1	Traveling mechanism	21983
		+	33/10	25	1	Traveling mechanism	21984
18a	5	+	12	+	2	Electric motor	17302
		+	15	+	2	Electric motor	17302
		+	20	+	2	Electric motor	17302
		+	26	+	2	Electric motor	17302
		+	32	+	2	Electric motor	17309
		+	38	+	2	Electric motor	17309
		+	12/4	+	2	Electric motor	17304
		+	17/5	+	2	Electric motor	17310
		+	23/7	+	2	Electric motor	17306
		+	33/10	+	2	Electric motor	17306
		+	12	+	2	Pinion	17241
		+	15	+	2	Pinion	17237
		+	20	+	2	Pinion	17238
		+	26	+	2	Pinion	17239
		+	32	+	2	Pinion	17238
		+	38	+	2	Pinion	17239
		+	12/4	+	2	Pinion	17239
		+	17/5	+	2	Pinion	17241

Table 11.1 – continued

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
18a	2	+	23/7	+	2	Pinion	17237
	2	+	33/10	+	2	Pinion	17238
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	3	+	+	+	3	Spring washer 2 8H BDS 833-82	10139
	4	+	+	+	3	Screw 1 M8x18 – 8,8 BDS 2171-83	17324
19a	1÷12	+	12	+	1	Adapter	17235
	1÷12	+	12/4	+	1	Adapter	17233
	1÷12	+	17/5	+	1	Adapter	17234
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	2	+	12	+	1	Pinion	17239
	2	+	12/4	+	1	Pinion	17237
	2	+	17/5	+	1	Pinion	17238
	3	+	+	+	2	Ball bearing 6203 – 17x40x12 BDS 4843-84	17317
	4	+	+	+	1	Distance bush	17157
	5	+	+	+	1	Lock ring A40 BDS 2170-77	17315
	6	+	+	+	1	Case	17242
	7	+	+	+	3	Spring washer 2 8H BDS 833-82	10139
	8	+	+	+	3	Screw 1 M8x18 – 8,8 BDS 2171-83	17324
	9	+	+	+	1	Distance bush	17158
	10	+	+	+	1	Shaft	17236
16a	11	+	+	+	1	Gear wheel	17166
	12	+	+	+	1	Lock ring B20 BDS 2170-77	17314
	1	+	+	+	4	Nut M20 – 8 BDS 1234-85	21343
	2	+	+	+	4	Spring washer 2 20H BDS 833-82	21341
	3	+	+	+	1	Hind plate basic	21820
	4	+	+	+	4	Bolt M20x40 – 8,8 BDS 1234-85	21340
	5	+	+	+	4	Axis	17178
	6	+	+	+	8	Ball bearing 6208-Z BDS 4884-85	17320
	7	+	+	+	8	Lock ring A80 BDS 2170-77	10145
	8	+	+	+	2	Moves wheel	17175
	9	+	+	+	4	Lock ring B40 BDS 2170-77	10150
	10	+	+	6,3	1	Traverse with carrier	23248
	10	+	+	9	1	Traverse with carrier	23249
	10	+	+	12,5	1	Traverse with carrier	23250
	10	+	+	18	1	Traverse with carrier	23251
	10	+	+	25	1	Traverse with carrier	23252
	11	+	+	+	2	Ball bearing 6304-Z BDS 4884-85	23237
	12	+	+	+	1	Lock ring A52 BDS 2170-77	23236
	13	+	+	+	1	Distance bush	17200
	14	+	12	+	2	Gear wheel	17164
		+	15	+	2	Gear wheel	17162
		+	20	+	2	Gear wheel	17163
		+	26	+	2	Gear wheel	17164
		+	32	+	2	Gear wheel	17163
		+	38	+	2	Gear wheel	17164
		+	12/4	+	2	Gear wheel	17162
		+	17/5	+	2	Gear wheel	17163
		+	23/7	+	2	Gear wheel	17162
		+	33/10	+	2	Gear wheel	17163
	15	+	+	+	2	Seal	17183
	16	+	+	+	2	Case	21847
	17,19	+	+	+	10	Spring washer 2 8H BDS 833-82	10139
	18,20	+	+	+	10	Screw M8x20 – 8,8 BDS 2171-83	17324
	21	+	+	+	2	Drive shaft	23232
	23	+	+	+	2	Spring washer 2 6H BDS 833-82	10139
	22	+	+	+	2	Screw M6x12 – 6,8 BDS 2171-83	17324
	24	+	+	+	2	Washer	23238
	25	+	12	+	2	Gear wheel	23229
	26	+	+	+	2	Distance bush	21859
	27	+	+	+	4	Screw M6x14 – 6,8 BDS 2171-83	16520
	28	+	+	+	2	Fixing strap	21852
	29	+	+	+	2	Spring washer 2 6H BDS 833-82	10138
	30	+	+	+	2	Distance bush	21856
	31	+	+	+	2	Ball bearing 6202 BDS 4883-85	23235
	32	-	-	-	-	-	-
	33	+	+	+	2	Lock ring B15 BDS2170-77	17504
	34	+	+	+	24	Washer L=1	21706

Table 11.1 – continue

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
16a	35	+	+	+	4	Addition bush L=100	21874
	36	+	+	+	12	Addition bush L=40	21871
	37	+	+	+	4	Addition bush L= 20	21868
	38	+	+	+	4	Addition bush L=10	21865
	39	+	+	+	8	Washer L=5	21709
	40	+	+	+	2	Bush L=380	21218
	41	+	+	6,3	1	Box for countweight	21292
	41	+	+	9	1	Box for countweight	21293
	41	+	+	12,5	1	Box for countweight	21294
	41	+	+	18	1	Box for countweight	21295
	41	+	+	25	1	Box for countweight	21296
16	42	+	+	+	4	Box for countweight	21614
16	43	+	+	+	4	Nut M24-8 BDS 1253-83	17321
16	44	+	+	+	4	Split 5x45 BDS 55-77	21765
16	45	+	+	+	1	Hind plate	21246
15	46	+	+	+	2	Stud	21631
16	47	+	+	+	2	Moves wheel	17172
16	52	+	+	+		Stud	21687

11.2 Reeving 4/1

Table 11.2

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
16a; 17a; 18a; 19a	1-44 45-52 1-5 1-12		12	6,3	1	Traveling mechanism	23122
			16	6,3	1	Traveling mechanism	23123
			20	6,3	1	Traveling mechanism	23124
			25	6,3	1	Traveling mechanism	23125
			29	6,3	1	Traveling mechanism	23126
			42	6,3	1	Traveling mechanism	23127
			12/3,5	6,3	1	Traveling mechanism	23128
			15/5	6,3	1	Traveling mechanism	23129
			21/7	6,3	1	Traveling mechanism	23130
			25/8	6,3	1	Traveling mechanism	23131
			12	9	1	Traveling mechanism	23146
			16	9	1	Traveling mechanism	23147
			20	9	1	Traveling mechanism	23148
			25	9	1	Traveling mechanism	23149
			29	9	1	Traveling mechanism	23150
			42	9	1	Traveling mechanism	23151
			12/3,5	9	1	Traveling mechanism	23152
			15/5	9	1	Traveling mechanism	23153
			21/7	9	1	Traveling mechanism	23154
			25/8	9	1	Traveling mechanism	23155
			12	12,5	1	Traveling mechanism	23170
			16	12,5	1	Traveling mechanism	23171
			20	12,5	1	Traveling mechanism	23172
			25	12,5	1	Traveling mechanism	23173
			29	12,5	1	Traveling mechanism	23174
			42	12,5	1	Traveling mechanism	23175
			12/3,5	12,5	1	Traveling mechanism	23176
			15/5	12,5	1	Traveling mechanism	23177
			21/7	12,5	1	Traveling mechanism	23178
			25/8	12,5	1	Traveling mechanism	23179
18a	5	+	12	+	2	Electric motor	17302
		+	16 и 20	+	2	Electric motor	17302
	5	+	25 и 29	+	2	Electric motor	17309
	5	+	42	+	2	Electric motor	17304
	5	+	12/3,5	+	2	Electric motor	17306
	5	+	15/5	+	2	Electric motor	17306
	5	+	21/7	+	2	Electric motor	17307
	5	+	25/8	+	2	Electric motor	17307
	2	+	12 и 12/3,5	+	2	Pinion	17240
	2	+	16 и 25	+	2	Pinion	17241
	2	+	20 и 29	+	2	Pinion	17237
	2	+	42	+	2	Pinion	17238

Table 11.2 – continue

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
18a	2	+	12/3,5	+	2	Pinion	17240
	2	+	15/5	+	2	Pinion	17240
	2	+	21/7	+	2	Pinion	17241
	2	+	25/8	+	2	Pinion	17241
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	3	+	+	+	3	Spring washer 2 8H BDS 833-82	10139
	4	+	+	+	3	Screw I M8x18 8,8 BDS 2171-83	17324
19a	1+12	+	12	+	1	Adapter	17232
	1+12	+	16; 25	+	1	Adapter	17235
	1+12	+	12/3,5	+	1	Adapter	17230
	1+12	+	15/5	+	1	Adapter	17231
	1+12	+	21/7	+	1	Adapter	17234
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	2	+	12	+	1	Pinion	17239
	2	+	16; 25	+	1	Pinion	17239
	2	+	12/3,5	+	1	Pinion	17237
	2	+	15/5	+	1	Pinion	17238
	2	+	21/7	+	1	Pinion	17238
	3	+	+	+	2	Ball bearing 6203 BDS 4843-84	17317
	4	+	+	+	1	Distance bush	17157
	5	+	+	+	1	Lock ring A40 BDS 2170-77	17315
	6	+	+	+	1	Case	17242
	7	+	+	+	3	Lock ring 2 8H BDS 833-82	10139
	8	+	+	+	3	Screw I M8x18 – 8,8 BDS 2171-83	17324
	9	+	+	+	1	Distance bush	17158
	10	+	+	+	1	Shaft	17236
	11	+	12	+	1	Gear wheel	17165
	11	+	12/3,5	+	1	Gear wheel	17165
	11	+	15/5	+	1	Gear wheel	17165
	11	+	21/7	+	1	Gear wheel	17166
	11	+	25/8	+	1	Gear wheel	17166
	11	+	16; 25	+	1	Gear wheel	17166
	12	+	+	+	1	Lock ring B20 BDS 2170-77	17314
16a	1	+	+	+	4	Nut M20 – 8 BDS 1234-85	21343
	2	+	+	+	4	Spring washer 2 20H BDS 833-82	21341
	4	+	+	+	4	Bolt M20x65 – 8,8 BDS 1234-85	21340
	3	+	+	+	1	Hind plate left	21821
	5	+	+	+	4	Axis	17177
	6	+	+	+	8	Ball bearing 6308-Z BDS 4884-85	17318
	7	+	+	+	8	Lock ring A90 BDS 2170-77	10145
	8	+	+	+	2	Moves wheel	17174
	9	+	+	+	4	Lock ring B40 BDS 2170-77	10150
	10	130	+	6,3	1	Traverse with carrier	23268
	10	130	+	9	1	Traverse with carrier	23269
	10	130	+	12,5	1	Traverse with carrier	23270
	11	+	+	+	2	Ball bearing 6304 – Z	23237
	12	+	+	+	2	Lock ring A52 BDS 2170-77	23236
	13	+	+	+	2	Distance bush	21858
	14	+	12	+	2	Gear wheel	17164
		+	16	+	2	Gear wheel	17164
		+	20	+	2	Gear wheel	17162
		+	25	+	2	Gear wheel	17164
		+	29	+	2	Gear wheel	17162
		+	42	+	2	Gear wheel	17163
		+	12/3,5	+	2	Gear wheel	17162
		+	15/5	+	2	Gear wheel	17163
		+	21/7	+	2	Gear wheel	17163
		+	25/8	+	2	Gear wheel	17164
	15	+	+	+	2	Seal	17183
	16	+	+	+	2	Case	21847
	17;19	+	+	+	20	Spring washer 2 8H BDS 833-82	10139
	18;20	+	+	+	20	Screw M8x20 – 8,8 BDS 2171-83	17324
	21	+	+	+	2	Drive shaft	23233
	23	+	+	+	2	Spring washer 2 6H BDS 833-82	10139
	22	+	+	+	2	Screw M6x12 – 6,8 BDS 2171-83	17324
	24	+	+	+	2	Washer	23238
	25	+	12	+	2	Gear wheel	23228
	26	+	+	+	2	Distance bush	21860
	27	130	+	+	4	Screw M6x14 – 6,8 BDS 2171-83	16520

Table 11.2 – continue

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pcs	Name	Catalog number
16a	28	+	+	+	2	Fixsing strap	21850
	29	+	+	+	2	Spring washer 2 6H BDS 833-82	10138
	30	+	+	+	2	Distance bush	21856
	31	+	+	+	2	Ball bearing 6202 BDS 4883-85	23235
	33	+	+	+	2	Lock ringB15	17504
	34	+	+	+	24	Washer L=1	21707
	35	+	+	+	4	Addition bush	21875
	36	+	+	+	12	Addition bush	21872
	37	+	+	+	4	Addition bush	21869
	38	+	+	+	8	Addition bush	21866
	39	+	+	+	8	Addition bush	21709
	40	+	+	+	2	Bush L=400	21219
	41	+	+	6,3	1	Box for countreweight	21302
	41	+	+	9	1	Box for countreweight	21303
	41	+	+	12,5	1	Box for countreweight	21304
17a	42	+	+	+	4	Chock bush	21615
	43	+	+	+	4	Nut M27-8 BDS 1253-83	17321
	44	+	+	+	4	Split 5x50 BDS 55-77	17323
	45	+	+	+	1	Hind plate	21247
	46	+	+	+	2	Stud	21645
	47	+	+	+	2	Moves wheel	17171
	52	+	+	+		Stud	21701

12. CONTROL BLOCK

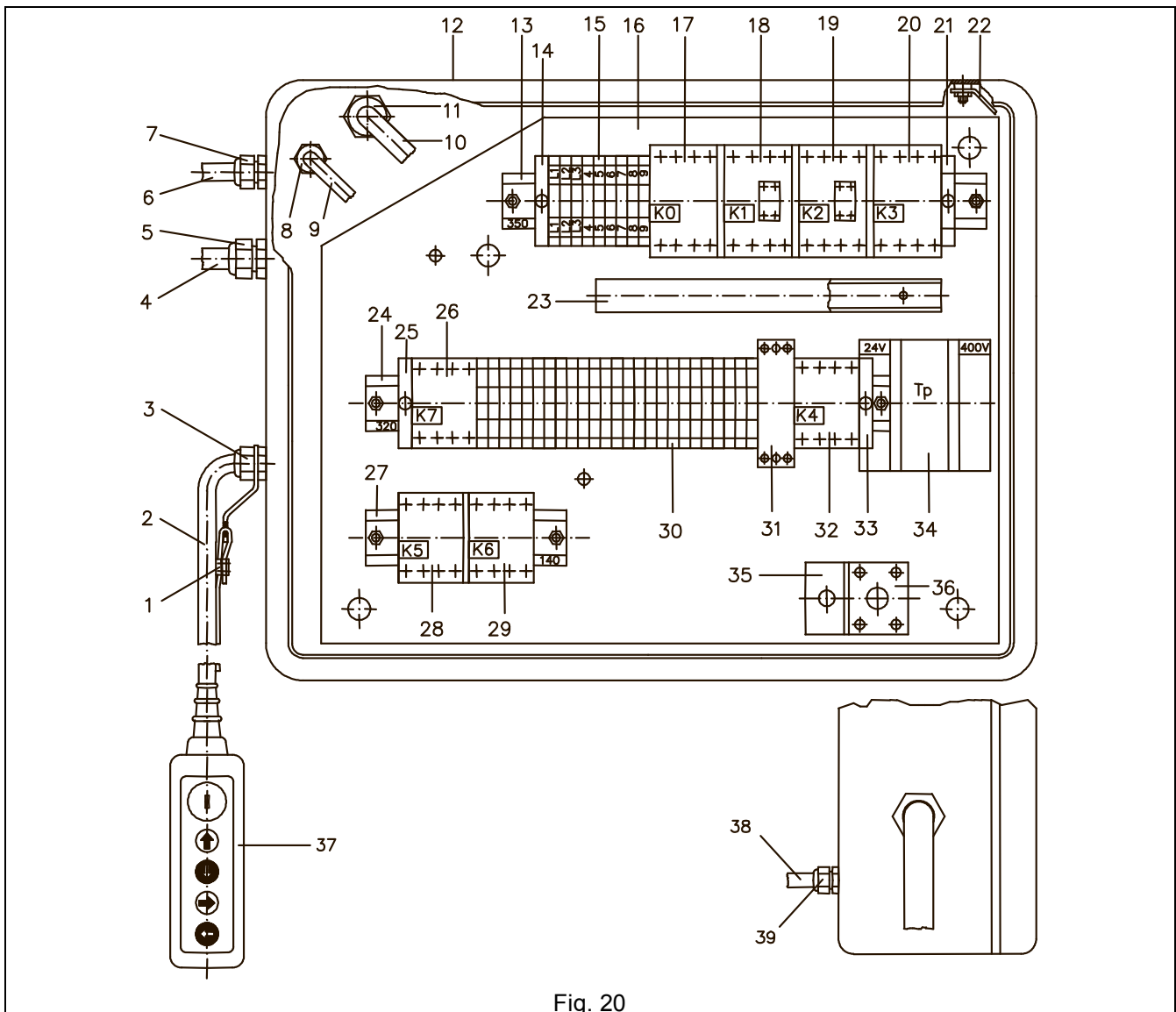


Fig. 20

12.1 CONTROL BLOCK

Fig	Position	Name	Pcs	Note
20	1 - 39	Control block	1	
20	12	Box	1	
20	13 - 36	Chassis with electric equipment	1	
20	37	Control switch	1	Type is shown in passport
20	2; 4; 6; 9; 9a; 9b; 10; 38	Cable set	1	

12.2 Control scheme

Number of scheme	Speed data for:				Note
	Lifting		Traveling		
	basic	reduced	basic	reduced	
1	●	●	●	●	Circuit diagram of hoist Is located inside the lid of the control board
2	●	●	●		
3	●		●	●	
4	●		●		
5	●	●			
6	●				

12.3 Electric equipment

Table 11.3

Fig	Pos	Hp (m)	Name	Pcs	Reeving 2/1	Reeving 4/1	Note
					Catalog number		
20	1	+	Slamp 5	2	60773	60773	
20	2	6,3	Cable control switch	1	60520	60520	With trolley
20		9	Cable control switch	1	60521	60521	With trolley
20		12,5	Cable control switch	1	60522	60522	With trolley
20		15	Cable control switch	1	-	60525	With trolley
20		18	Cable control switch	1	60523	60523	With trolley
20		25	Cable control switch	1	60524	-	With trolley
20		30	Cable control switch	1	60525	-	With trolley
20		36	Cable control switch	1	60526	-	With trolley
20	2	6,3	Cable control switch	1	60527	60527	Wiithout trolley
20		9	Cable control switch	1	60528	60528	Wiithout trolley
20		12,5	Cable control switch	1	60529	60529	Wiithout trolley
20		15	Cable control switch	1	-	60535	Wiithout trolley
20		18	Cable control switch	1	60530	60530	Wiithout trolley
20		25	Cable control switch	1	60531	-	Wiithout trolley
20		30	Cable control switch	1	60532	-	Wiithout trolley
20		36	Cable control switch	1	60533	-	Wiithout trolley
20	3	+	Pipe – D22	1	60775	60775	
20	4	+	Cable power	1	60555	60555	
20	5	+	Pipe	1	60776	60776	ORTAC – PG 21
20	6	+	Cable trolley	1	60559	60559	
20	7	+	Pipe	1	60777	60777	ORTAC – PG 11
20	8		Pipe	1	60777	60777	ORTAC – PG 11
20	9	6,3	Cable microlifting	1	60582	60584	
20		9	Cable microlifting	1	60583	60585	
20		12,5	Cable microlifting	1	60584	60586	
20		15	Cable microlifting	1	-	60587	
20		18	Cable microlifting	1	60585	60588	
20		25	Cable microlifting	1	60586	-	
20		30	Cable microlifting	1	60587	-	
20		36	Cable microlifting	1	60588	-	
20	9a	6,3	Cable I thermal protection	1	60625	60627	Cable with microlifting
20		9	Cable I thermal protection	1	60626	60628	
20		12,5	Cable I thermal protection	1	60627	60629	
20		15	Cable I thermal protection	1	-	60630	
20		18	Cable I thermal protection	1	60628	60631	
20		25	Cable I thermal protection	1	60629	-	
20		30	Cable I thermal protection	1	60630	-	
20		36	Cable I thermal protection	1	60631	-	
20	9b	6,3	Cable II thermal protection	1	60800	60802	Cable without microlifting
20		9	Cable II thermal protection	1	60801	60803	
20		12,5	Cable II thermal protection	1	60802	60804	
20		15	Cable II thermal protection	1	-	60805	
20		18	Cable II thermal protection	1	60803	60806	
20		25	Cable II thermal protection	1	60804	-	
20		30	Cable II thermal protection	1	60805	-	
20		36	Cable II thermal protection	1	60806	-	
20	10	6,3	Cable lifting motor	1	60668	60670	
20		9	Cable lifting motor	1	60669	60671	
20		12,5	Cable lifting motor	1	60670	60672	
20		15	Cable lifting motor	1	-	60673	
20		18	Cable lifting motor	1	60671	60674	
20		25	Cable lifting motor	1	60672	-	
20		30	Cable lifting motor	1	60673	-	
20		36	Cable lifting motor	1	60674	-	
20	11	+	Pipe	1	60776	60776	ORTAC – PG 21
20	12	+	Box	1	60923	60923	
20	13	+	Profile strip 35mm	1	60715	60715	L=320mm
20	14;21	+	End clamp	2	60716	60716	
20	15	+	Clamp 4mm	15	60722	60722	
20	15a	+	Clamp neutral	1	60723	60723	
20	16	+	Plate	1	60697	60697	

Table 12.3 – continued

Fig	Pos	Hp (m)	Name	Pcs	Reeving 2/1	Reeving 4/1	Note
					Catalog number		
20	17	+	Contactor 12A Ub=24V	1	60968	60968	ABB A12-30-01
20	18	+	Contactor 17A Ub=24V	1	60967	60967	ABB A16-30-01
20	19	+	Contactor 17A Ub=24V	1	60967	60967	ABB A16-30-01
20	20	+	Contactor / 2NO+2NC / - Ub=24V	1	60966	60966	ABB A16-22-00
20	22	+	Cable bridge -neutral	1	-	-	Basic -lid of the control board
20	23	+	Profile	1	60714	60714	L=350mm
20	24	+	Profile strip 35 mm	1	60724	60724	L=280mm
20	25;33	+	End clamp	2	60716	60716	
20	26	+	Contactor / 2NO+2NC / - Ub=24V	1	60725	60725	ABB K6-22Z
20	27	+	Profile strip 35 mm	1	60706	60706	L=150mm
20	28	+	Contactor 6A Ub=24V	1	60707	60707	ABB B6-30-01
20	29	+	Contactor 6A Ub=24V	1	60707	60707	ABB B6-30-01
20	30	+	Clamp 2,5mm	20	60711	60711	
20	31	+	Timer 0-10s, 24VAC	1	60713	60713	RE8RA11B
20	32	+	Contactor 6A Ub=24V	1	60707	60707	ABB B6-30-01
20	34	+	Transformer – 400/24V	1	60969	60969	P=50VA
20	35	+	Strap	1	60698	60698	
20	36	+	End switch – КИ-Г1	1	60700	60700	
20	37	+	Command button – XAC-A -4913	1	60774	60774	Control scheme №1
20		+	Command button – XAC-A -4923	1	60780	60780	Control scheme №2
20		+	Command button – XAC-A -4813	1	60781	60781	Control scheme №3
20		+	Command button – XAC-A -4813	1	60782	60782	Control scheme №4
20		+	Command button – XAC-A -2913	1	60784	60784	Control scheme №5
20		+	Command button2813	1	60930	60930	Control scheme №6
20	38	6,3	Cable load limiter	1	60743	60745	
20		9	Cable load limiter	1	60744	60746	
20		12,5	Cable load limiter	1	60745	60747	
20		15	Cable load limiter	1	-	607548	
20		18	Cable load limiter	1	60746	60749	
20		25	Cable load limiter	1	60747	-	
20		30	Cable load limiter	1	60748	-	
20		36	Cable load limiter	1	60749	-	
20	39	+	Pipe	1	60778	60778	ORTAC – PG7

Note: Electrical equipment can be done also with elements of other companies.
Standard electrical elements can be offered from key diagram.

✂ -----

Application № 1

ORDER

Spare parts of hoist type, serial number, year
, group FEM, power supply: voltage
, frequency request according to catalogue №

№	Name	Catalog number	Pcs
1			
2			
3			
4			
5			

Please send the spare parts to:
 ADDRESS:.....

Delivery must be by:

.....

Date :

Client :

YANTRA



CATALOGUE

OF SPARE PARTS
FOR HOIST TYPE **MPM4...**