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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 design 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

INSTRUCTION FOR USE:

This catalogue includes all parts of hoist type MPM9.

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

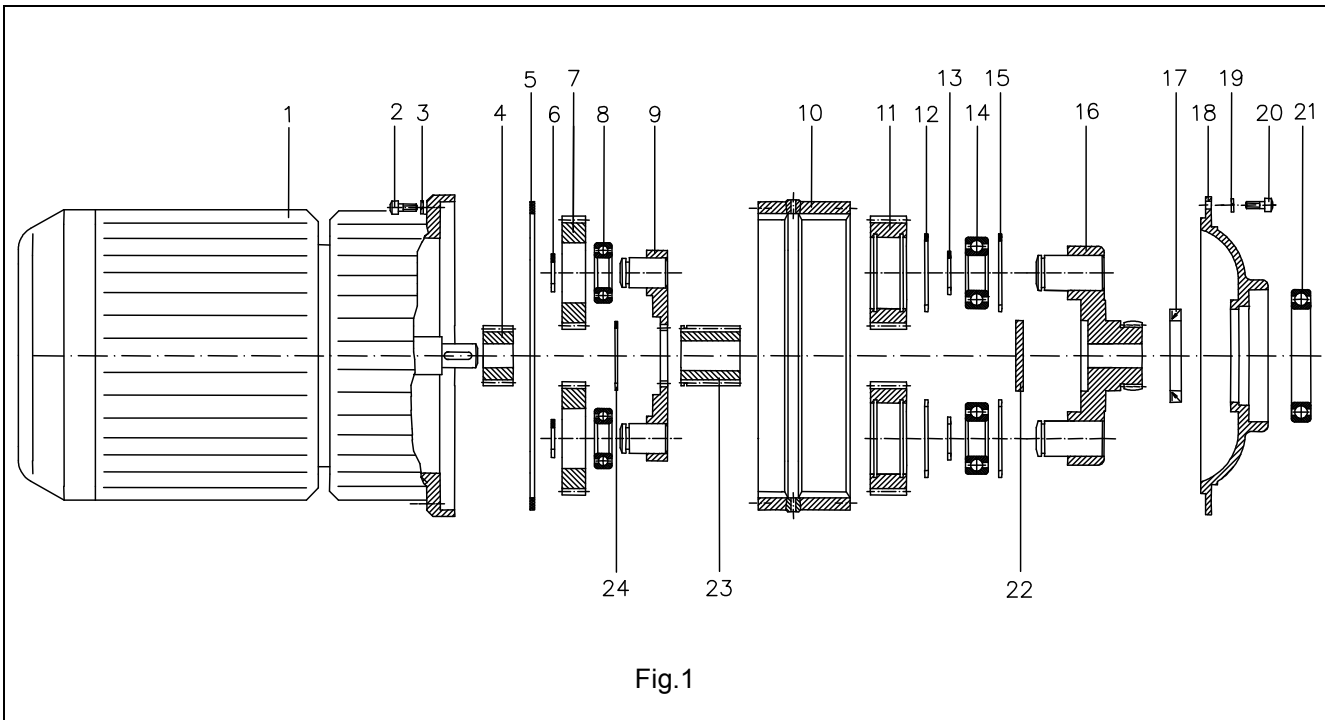
THE PRODUSER RESERVES THE RIGHT TO CHANGE THE CATALOGUE OF SPARE PARTS**1. GEARED MOTOR**

Fig.1

Table 1

Fig	Pos	Name	Pcs	Lifting height (m/min)	Catalog number
1	1-24	Geared motor	1	8	10001
1	1-24	Geared motor	1	12	10002
1	1-24	Geared motor	1	8/2	10003
1	1-24	Geared motor	1	12/2	10004
1	1	Electric motor	1	8	10021
1	1	Electric motor	1	12	10022
1	1	Electric motor	1	8/2	10023
1	1	Electric motor	1	12/2	10024
1	4-26	Reduction gear	1		10219
1	(2)	Screw M10x35 – 6,5 BDS 2171-83	8		10135
1	(3)	Spring washer – 10H BDS833-82	8		10140
1	4	First drive gear	1		10067
1	5	Seal	1		10055
1	6-9;23;24	First gear transmission	1		10041
1	(6)	Lock ring B40 BDS 2170-77	2		10150
1	[7;8]	Planet gear wheel with bearing	2		10080
1	7	Planet gear wheel	2		10084
1	(8)	Bearing 6208 – 40x80x18 BDS 4843-85	2		10154
1	[9]	Carrier with axis	1		10088

Table 1 – continued

Fig	Pos	Name	Pcs	Catalog number
1	23	Second drive gear	1	10076
1	24	Lock ring	1	10153
1	25	Gear bush	1	10075
1	26	Lock ring A40 BDS 2171-83	1	17315
1	10	Ring gear	1	10059
1	11-16;22	Second gear transmission	1	10046
1	11	Second planet gear wheel	3	10108
1	(12)	Lock ring A120 BDS 2170-77	3	10147
1	(13)	Lock ring B45 BDS 2170-77	3	10151
1	(14)	Ball bearing 6409 – 45x120x23 BDS 4843-84	3	10160
1	(15)	Lock ring A120 BDS 2170-77	3	10147
1	[16]	Second carrier with axis	1	10112
1	17	Seal	1	10144
1	18	Flange	1	10063
1	(19)	Spring washer 14H BDS 833-82	8	10141
1	(20)	Screw M14x45 – 6,8 BDS 2171-83	8	10137
1	(21)	Ball bearing 6030-Z-150x225x35 BDS 4884-85	1	10159
1	22	Plug	1	10100

2. ROPE GUIDE

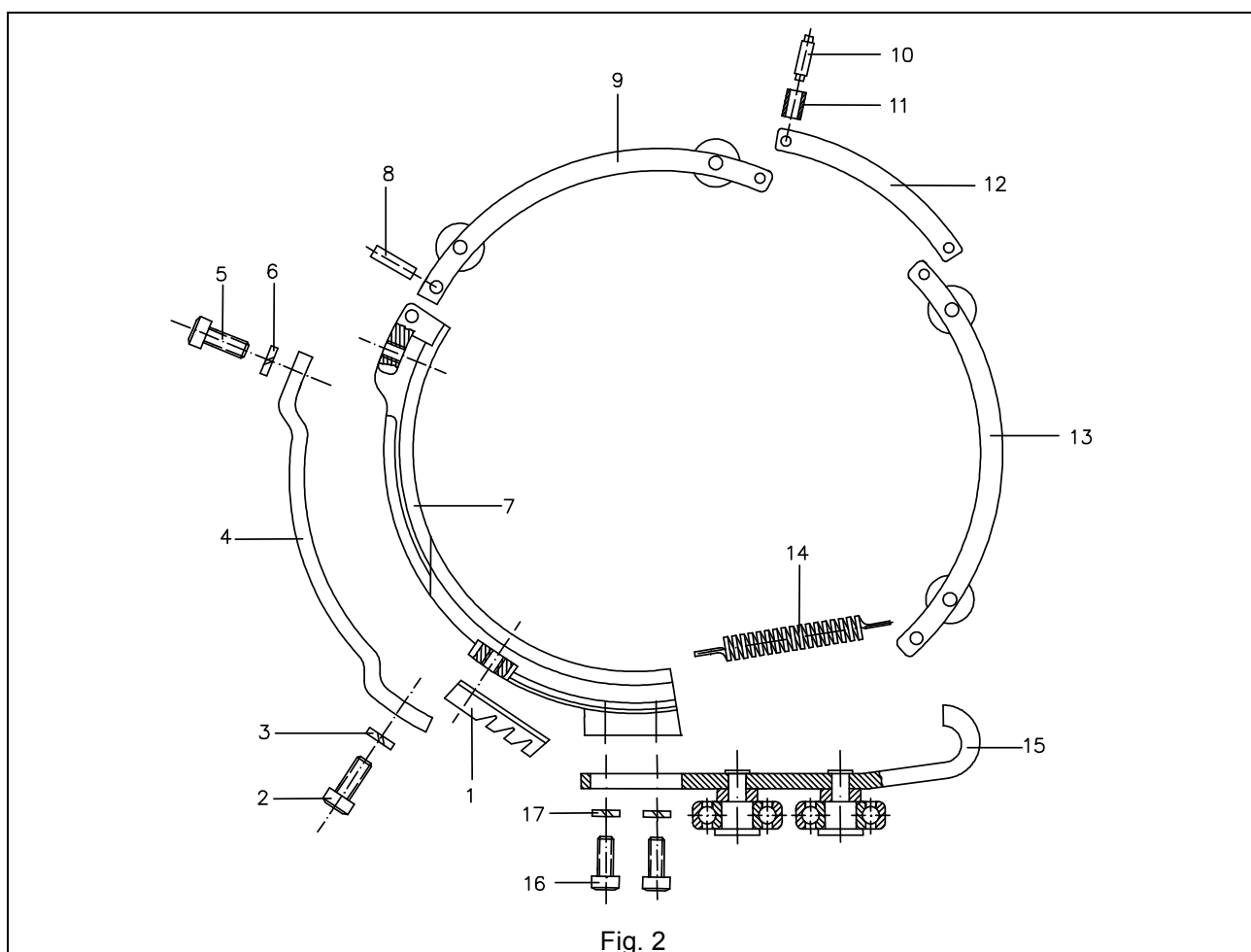


Table 2

Reeving				2/1 и 4/1	
Realization				NCB	HCB
Fig	Pos	Name	Pcs	Catalog number	
2	1-16	Rope guide	1	14001	
2	1	Click	1	14006	
2	(2)	Bolt washer I M12x25 – 6,8	2	14089	
2	(3)	Spring washer – 12H	2	10190	
2	4	Rope catcher	1	14014	

Table 2 – continued

Reeving				2/1 и 4/1	
Realization				NCB	HCB
Fig	Pos	Name	Pcs	Catalog number	
2	(5)	Bolt I M12x25 – 6,8	2	14089	
2	(6)	Spring washer – 12H	2	10190	
2	7	Sector supporting	1	14018	
2	8	Spring pin	1	14023	
2	9	Sector pressing	1	14055	
2	10	Axis	2	14035	
2	11	Distance bush	2	14027	
2	12	Sector connectional	2	14031	
2	13	Sector pressing	1	14056	
2	14	Spring	1	14010	
2	[15]	Guide	1	14039	
2	(16)	Bolt M8x16 – 6,8	2	14086	
2	(17)	Spring washer – 8H	2	10139	

Note: Details positions from 7 to 13 are assembled in a single unit. It is desirable that the customer orders this unit which will be assembled in a factory.

3. BODY, SWITCHING SYSTEM

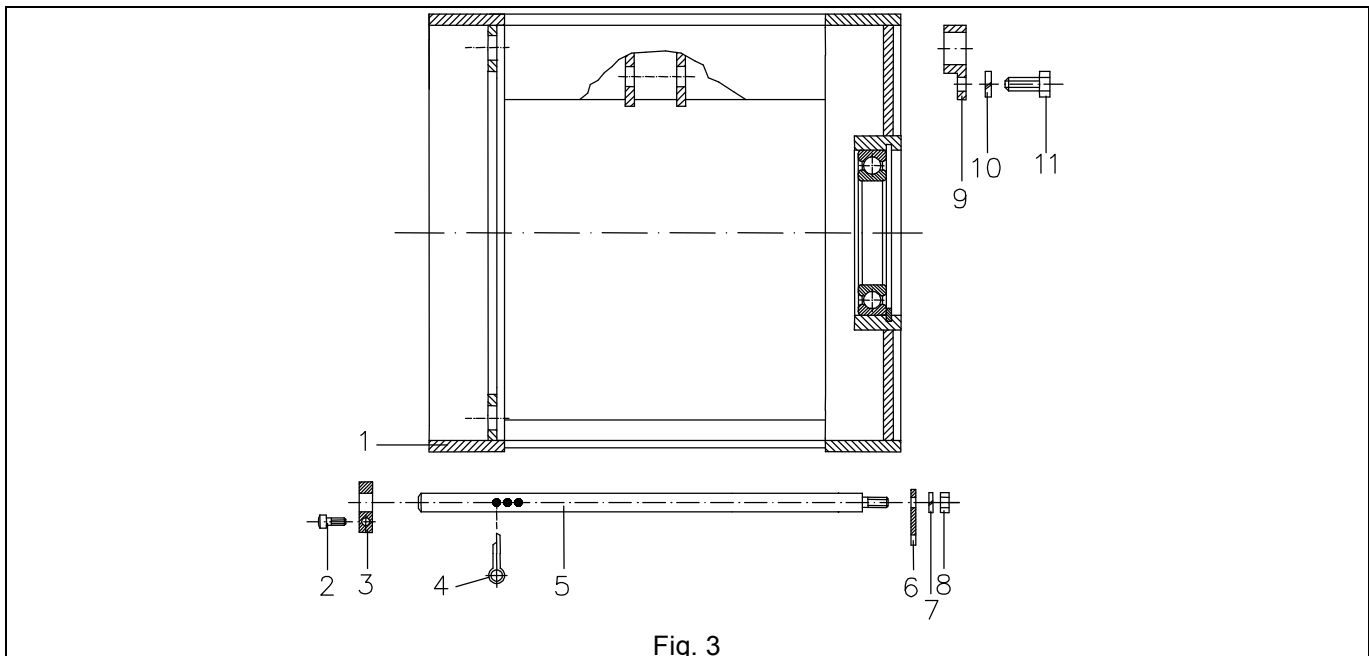


Table 3

[illegible]

Table 3 – continued

Fig	Pos	Name	Reeving	Pcs	Realization							
					Stationary							
					Lifting height (m)							
					6,3	9	12,5	15	18	25	30	36
	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 I M6 BDS 744-91	2/1;4/1	1	20125	20125	20125	20125	20125	20125	20125	20125
3	9	Support	4/1	1	12408	12408	12408	12408	12408	-	-	-
3	(10)	Spring washer 2 12H	4/1	2	14090	14090	14090	14090	14090	-	-	-
3	(11)	Bolt I M12x25 - 6,8	4/1	2	14089	14089	14089	14089	14089	-	-	-

4. DRUM KIT, ROPE

Table 4

Fig	Pos	Reeving	Lifting height (m)		6,3	9	12,5	15	18	25	30	36
			Name	Pcs	Catalog number							
4	[1]	2/1	Dum kit	1	15001	15002	15003	-	15004	15005	15006	15007
4	[1]	4/1	Drum kit	1	15003	15004	15005	15006	15007	-	-	-
4	2	2/1;4/1	Strap	3	15071							
4	(3)	2/1;4/1	Screw M12x30 – 8,8	6	15092							
4	(4)	2/1;4/1	Spring washer 2 – 12H	6	14090							
5	1	2/1	Rope	1	20040	20041	20042	-	20043	20044	20045	20046
5	1	4/1	Rope	1	20501	20502	20503	20504	20505	-	-	-

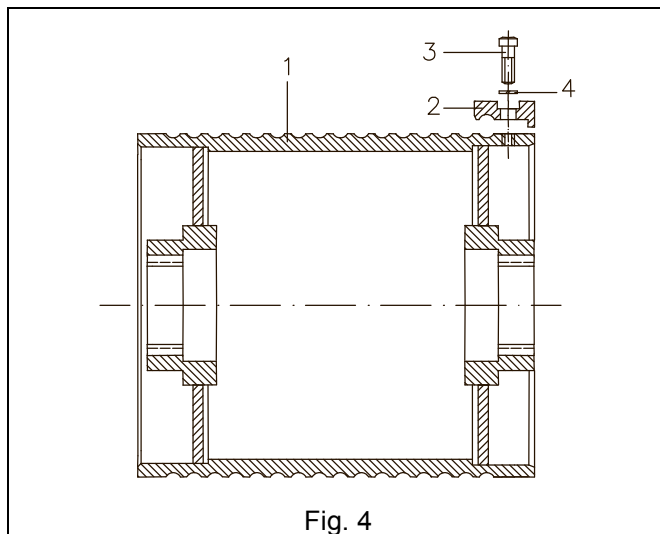


Fig. 4

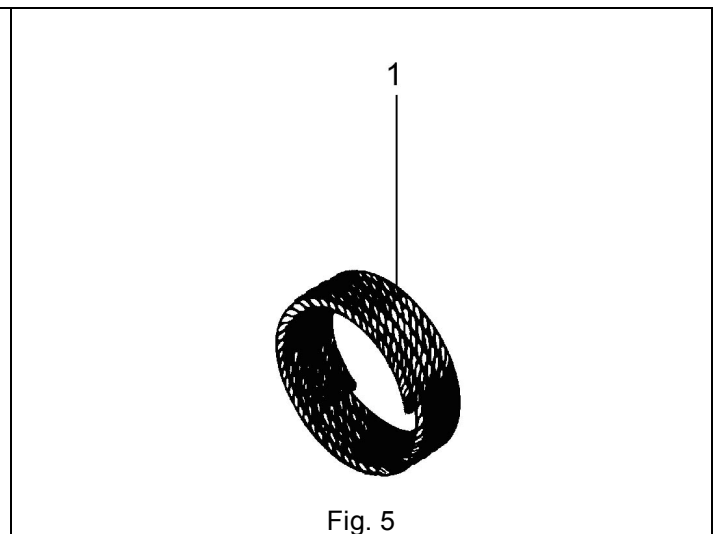


Fig. 5

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		19001		
6	(1)	Bolt I 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		19012		
6	5	Traverse	1		19017		
6	6	Bush	2		19006		
6	(7)	Lock ring A130 BDS 2170-77	2		16063		
6	(8)	Ball bearing 6312-2Z BDS 4884-85	1		16119		

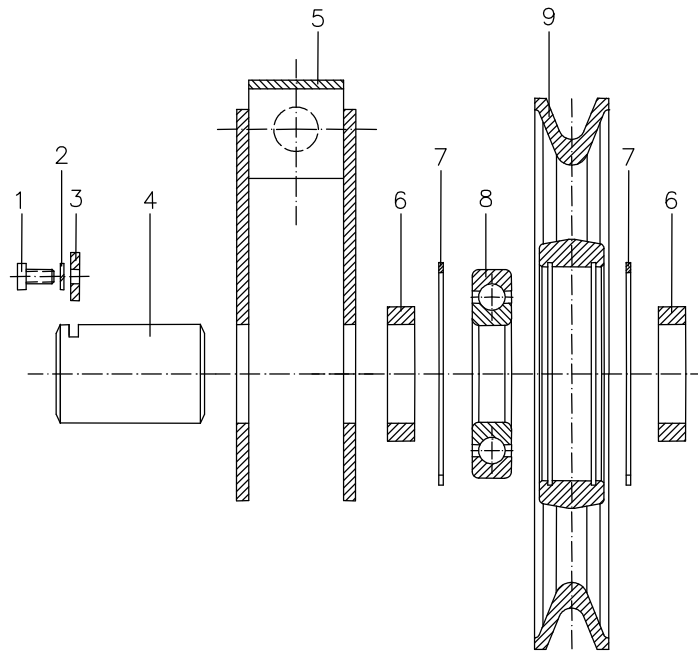


Fig. 6

6. ROLLER BLOCK **Reeving 2/1**

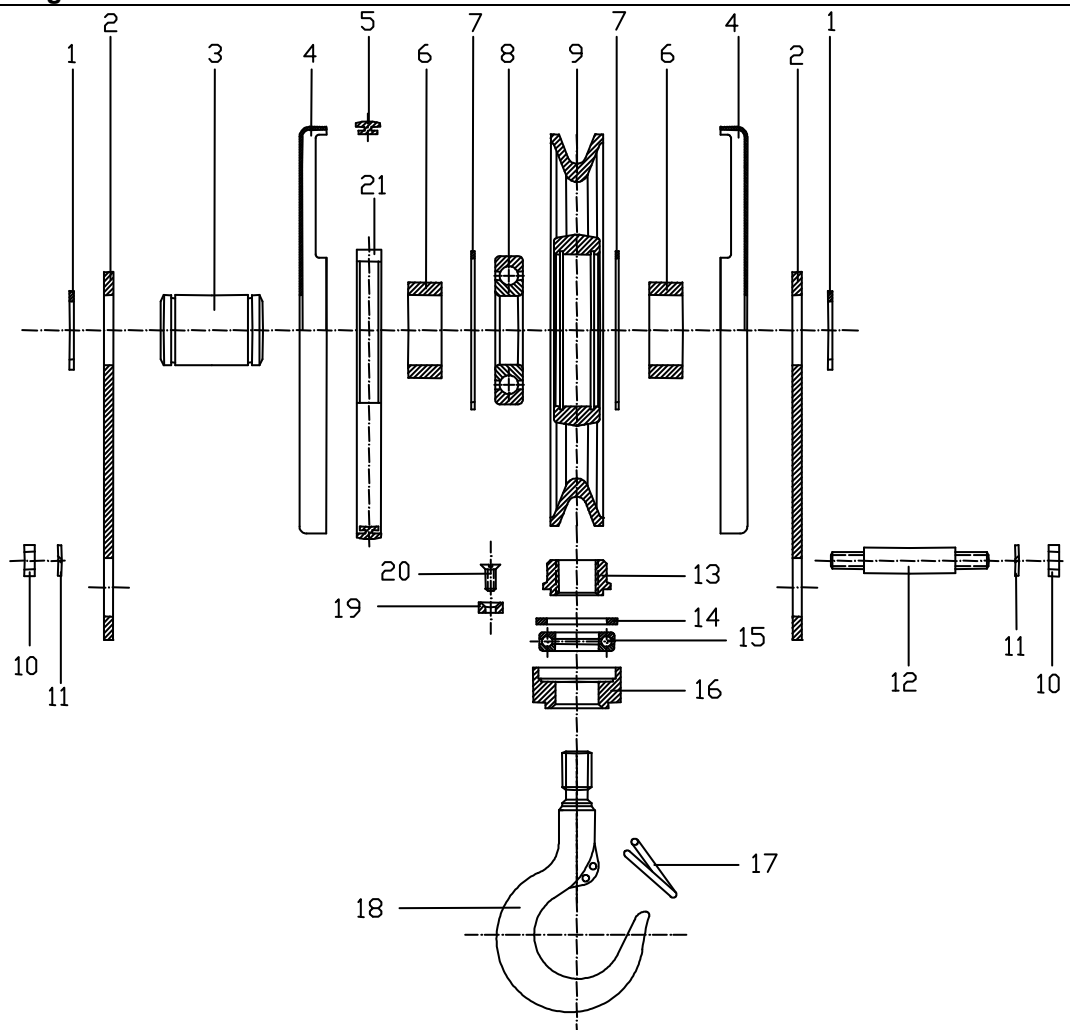


Fig. 7

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	16067
7	(1)	Lock ring B60 BDS 2170-77	2	10153
7	2	Strap	2	16068
7	3	Axis	1	16075
7	4	Half-cover	2	16072
7	5	Top band	1	16078
7	6	Distance bush	2	16050
7	(7)	Lock ring A130 BDS 2170-77	2	16083
7	(8)	Ball bearing – 6312 – 2Z BDS 4843-84	1	16081
7	9	Roll	1	16076
7	(10)	Nut II M10 BDS 1250-77	4	16084
7	(11)	Spring ring 2 10H BDS 833-82	4	10140
7	12	Stud	2	16079
7	13	Nut	1	16036
7	14	Cap	1	16027
7	15	Bearing 51109 BDS 4852-85	1	16080
7	16	Traverse	1	16069
7	17	Spring (catch)	1	16016
7	18	Крюк однорогий	1	16008
7	19	Strap	1	16109
7	(20)	Screw M6x12 BDS 15615-91	2	16082
7	20	Bottom band	1	16070

Reeving 4/1

Table 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
	1÷21	Roller block	1	16514
8	1	Lock ring B60	2	10153
8	2	Half - cover	4	16072
8	3	Top band	2	16078
8	4	Distance bush	2	16051
8	5	Ball bearing 6212 – Z BDS 4843 – 84	4	16519
8	6	Roll	2	16077
8	7	Lock ring A110 BDS 2170-77	2	16062
8	8	Strap	2	16516
8	9	Bolt M6x14 – 6,8 BDS 1234-85	4	16520
8	10	Spring washer 2 – 6H BDS 833-82	4	10138
8	11	Strap	2	16507
8	12	Axis	1	16518
8	13	Screw M6x12 BDS 15615-91	1	16082
8	14	Strap	1	16107
8	15	Nut	1	16037
8	16	Cap	1	16023
8	17	Bearing 51112 BDS 4852-85	1	16118
8	18	Traverse	1	16515
8	19	Spring	1	16014
8	20	Hook	1	16009
8	21	Bottom band	2	16070

Reeving 4/1

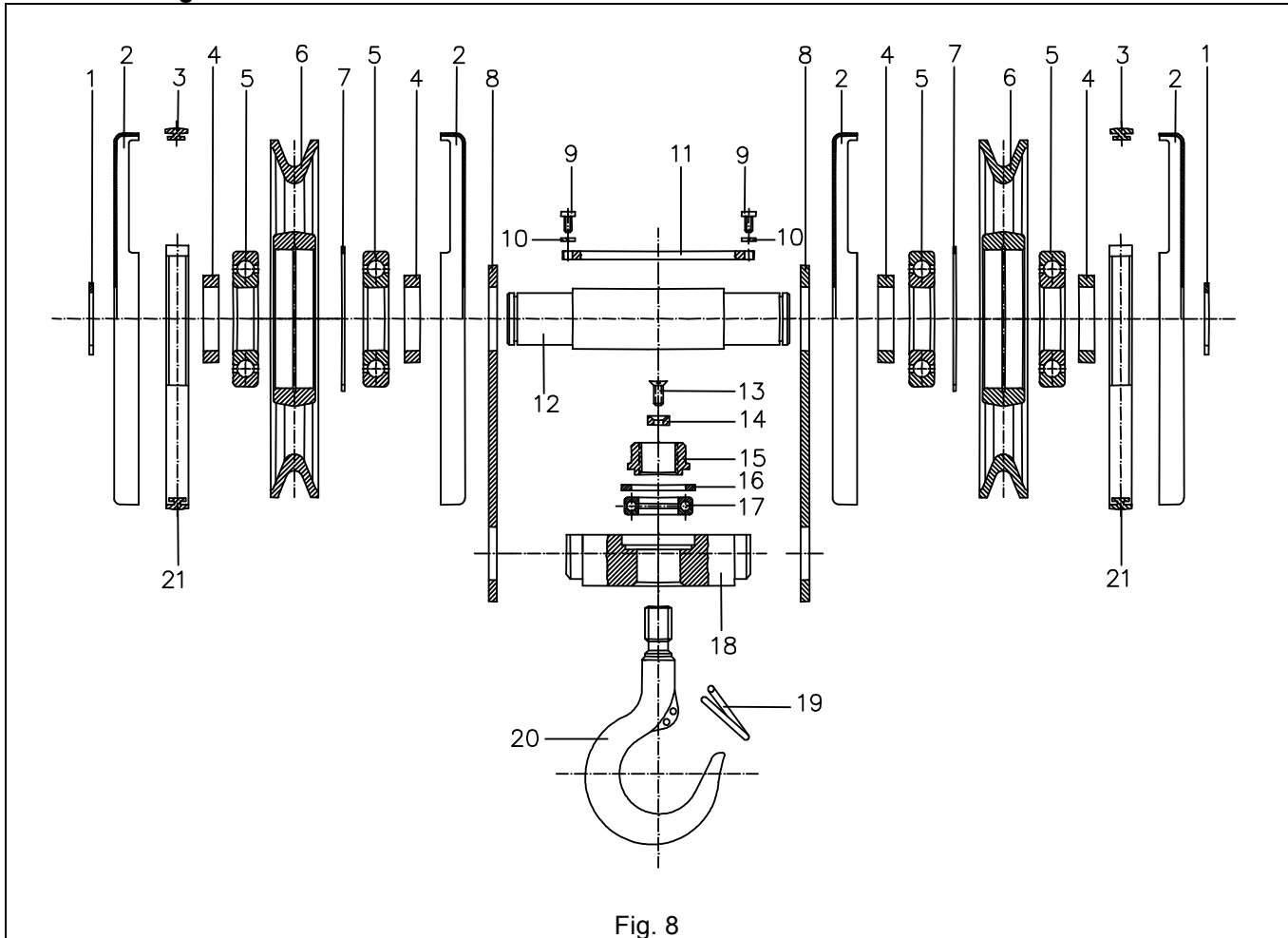


Fig. 8

7. LOAD LIMITER

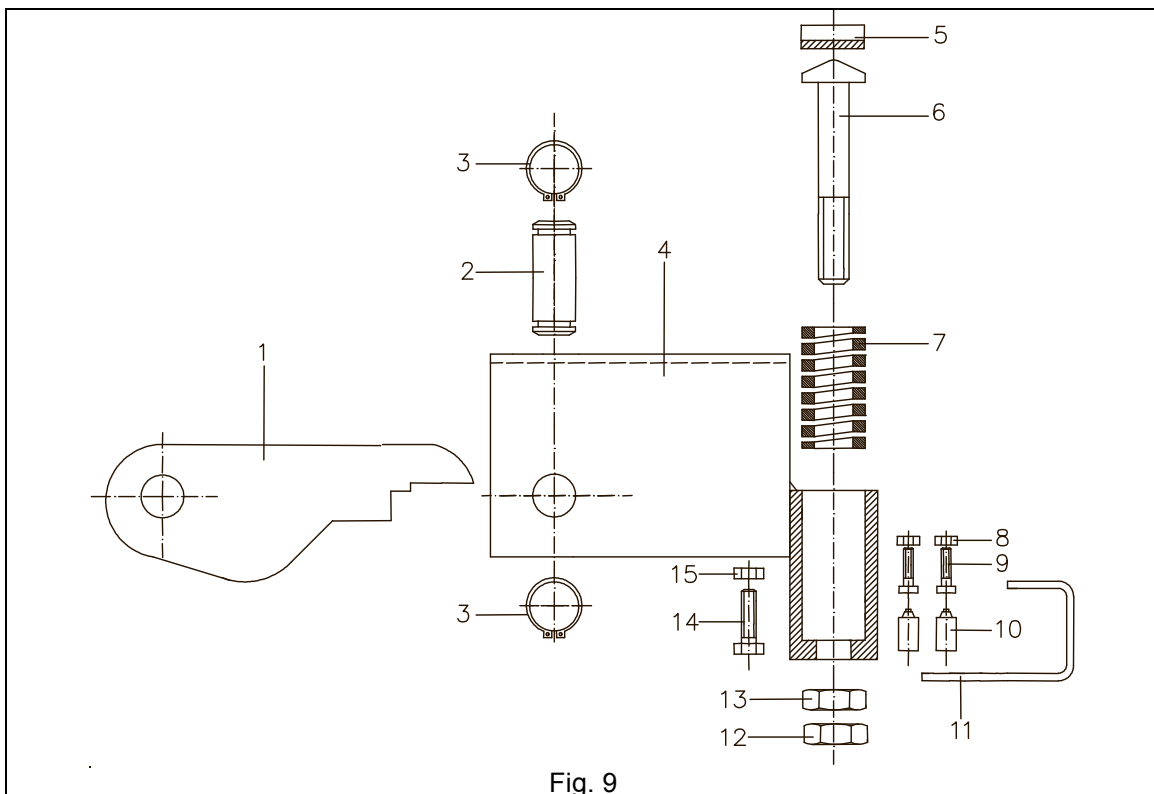


Fig. 9

Table 7

Reeving				2/1; 4/1	Note
Fig	Pos	Name	Pcs	Catalog number	
9	1÷12	Load limiter	1	13024	
9	1	Rocker	1	13027	
	2	Axis	1	13025	
9	(3)	Lock ring B25 BDS – 2170-77	2	13037	
9	[4]	Frame	1	13031	
9	5	Plate	1	13029	
9	6	Special bolt	1	13028	
9	7	Spring A32-064	1	13038	"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 M12x40 – 6,6 BDS 1234-85	1	13040	
9	(15)	Nut M12 – 6 BDS 744-91	1	13039	

8. SUSPENSION

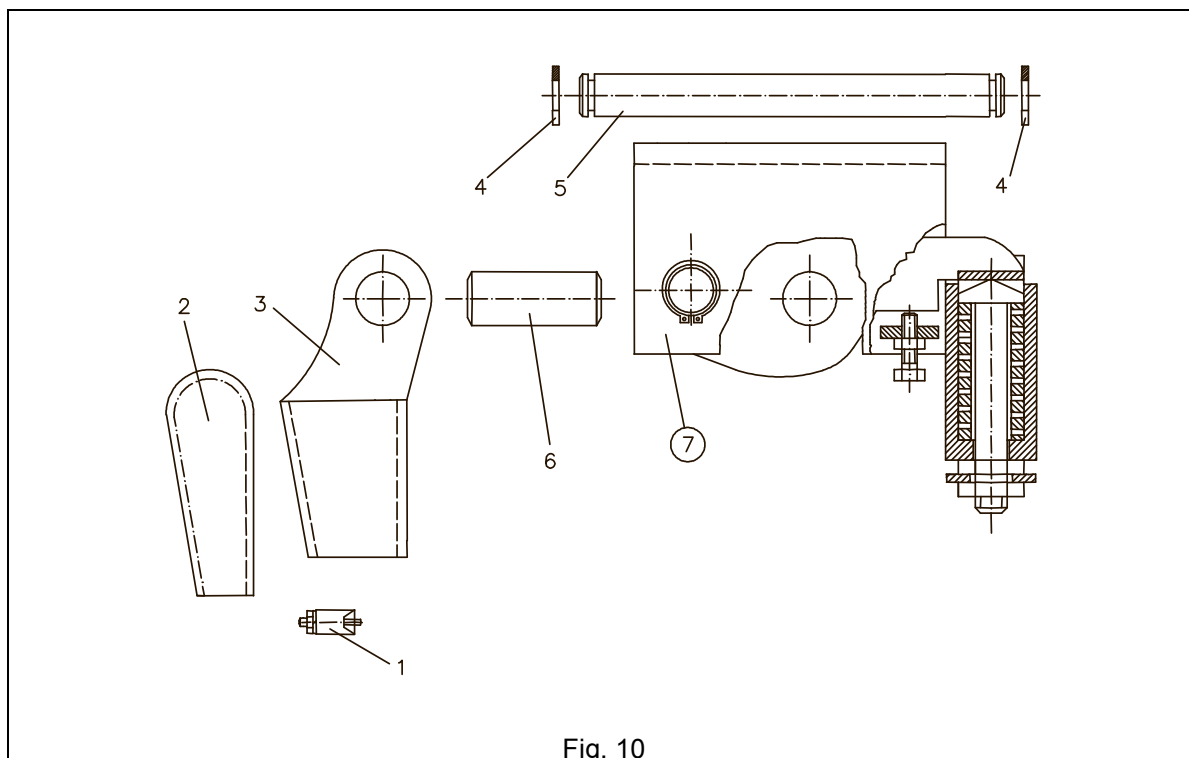


Table 8

Reeving				2/1; 4/1	Note
Fig	Pos	Name	Pcs	Catalog number	
10	1	Slamp 15 DIN1142	1	20137	
10	2	Werge	1	260212	
10	3	Bush wedge	1	260200	
10	4	Lock ring B30 BDS 2170-77	2	10148	
10	5	Axis	1	20076	
10	6	Axis	1	13025	
10	7	Load limiter	1	-	Table 7

9. TRAVELING MECHANISM – NORMAL HEADROOM

9.1 Traveling mechanism

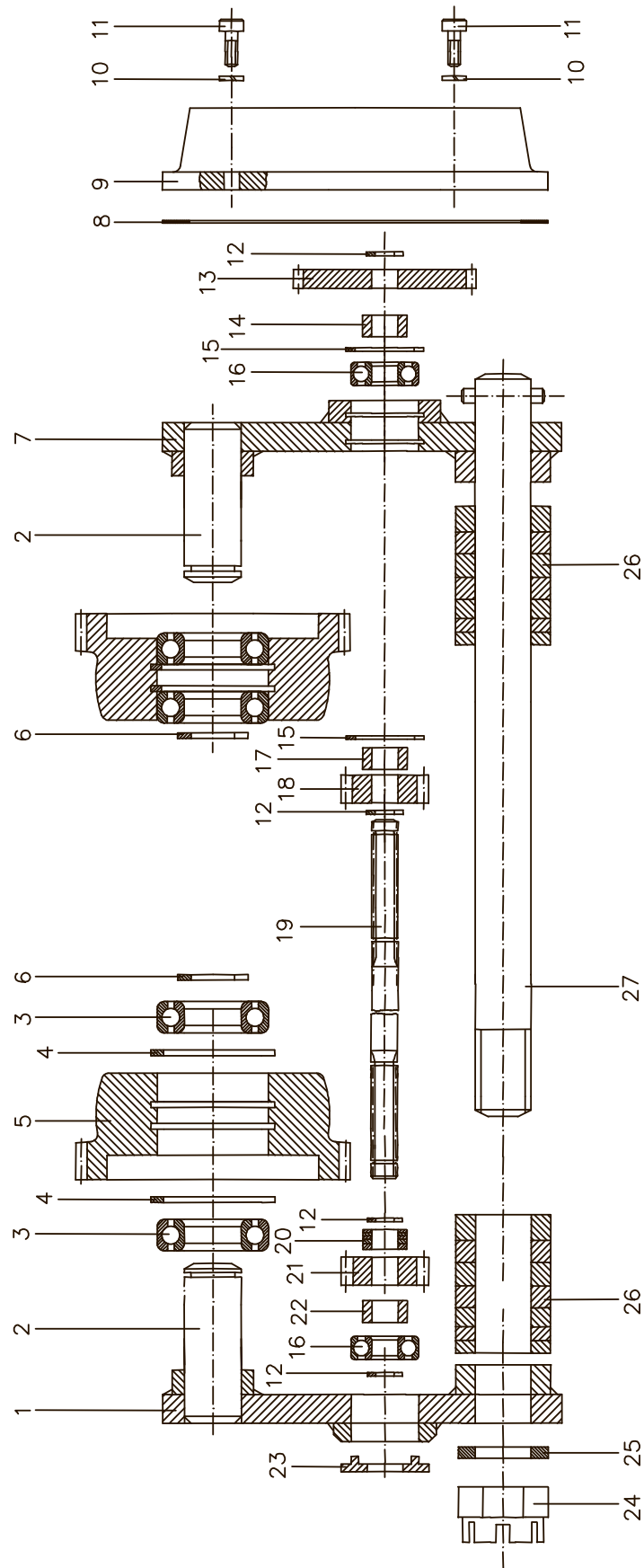


Fig. 11

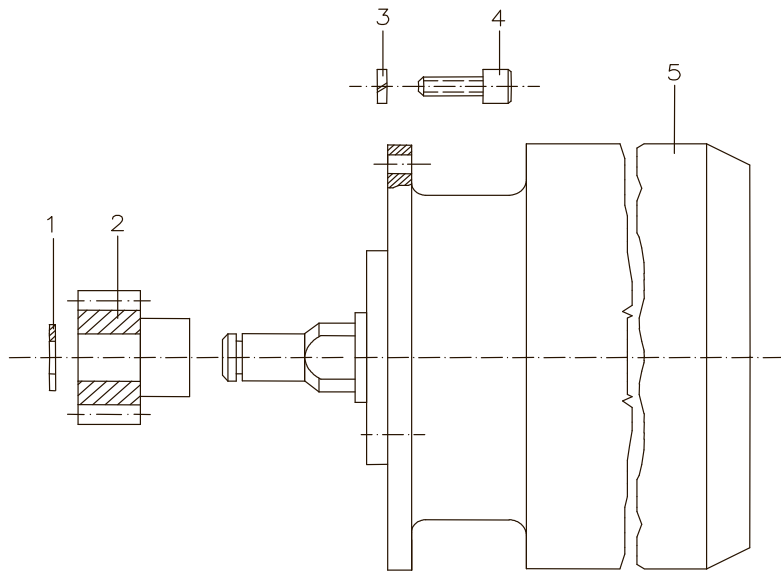


Fig. 12

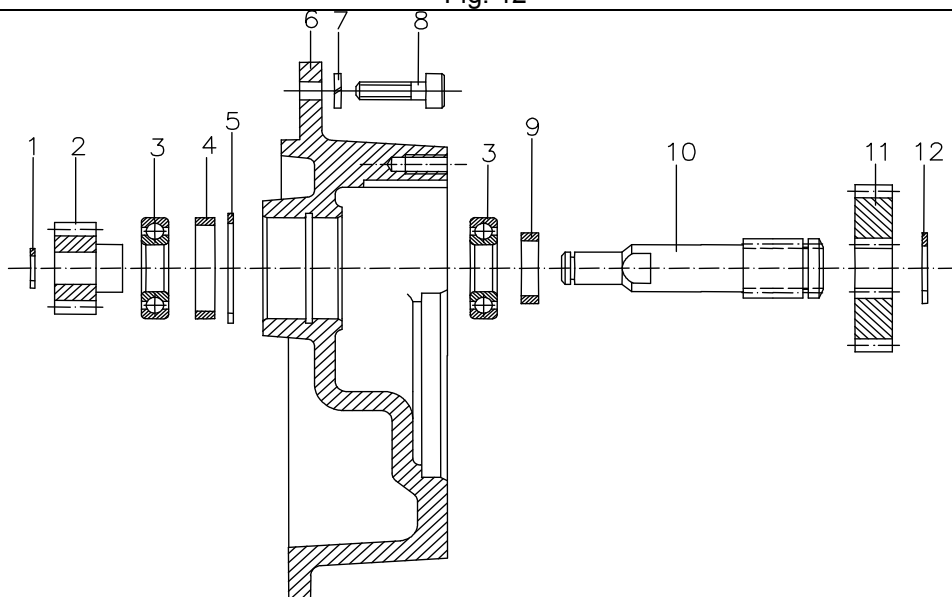


Fig. 13

Table 9.1.1

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

Reeving 2/1

Table 9.1.1 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
		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	5	130+300	7;10;12	1	Electric motor	17302
12	5	130+300	16;20	1	Electric motor	17303
12	5	130+300	25;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	2	130+300	7;10;12	1	Pinion	17240
12	2	130+300	16;25	1	Pinion	17241
12	2	130+300	20;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
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 BDS2171-83	17324
13	1+12	130+300	7; 12/3,5	1	Adaptor	17230
13	1+12	130+300	10; 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	16; 25	1	Adaptor	17235
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;21/7	1	Pinion	17238
13	2	130+300	16;25	1	Pinion	17239
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;12/3,5	1	Gear wheel	17165
13	11	130+300	10;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	16;25	1	Gear wheel	17166
13	11	130+300	25/8	1	Gear wheel	17166

Table 9.1.1 – continued

Fig	Pos	B _r	V _b (m/mi)	Pcs	Name	Catalog number
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	Axis	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	Hind 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 1 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	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	23	130÷300	+	1	Cap	17104
11	24	130÷300	+	2	Nut M24 BDS 1253-83	17322
11	25	130÷300	+	2	Chock bush	17095
11	26	130÷300	+	4	Composition of washers:	
				6	Washer for one stud (2x3)	17098
				2	Washer for 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	17075
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

Reeving 4/1

Table 9.1.2

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
		150	8	1	Traveling mechanism	18001
		150	12	1	Traveling mechanism	18002
		150	14	1	Traveling mechanism	18003
		150	19	1	Traveling mechanism	18004
		150	22	1	Traveling mechanism	18005
		150	29	1	Traveling mechanism	18006
		150	35	1	Traveling mechanism	18007
		150	13/4	1	Traveling mechanism	18008
		150	22/11	1	Traveling mechanism	18009
		150	29/9	1	Traveling mechanism	18010
		300	8	1	Traveling mechanism	18011
		300	12	1	Traveling mechanism	18012
		300	14	1	Traveling mechanism	18013
		300	19	1	Traveling mechanism	18014
		300	22	1	Traveling mechanism	18015
		300	29	1	Traveling mechanism	18016
		300	35	1	Traveling mechanism	18017
		300	13/4	1	Traveling mechanism	18018
		300	22/11	1	Traveling mechanism	18019
		300	29/9	1	Traveling mechanism	18020
		130+300	8	1	Traveling mechanism	18021
		130+300	12	1	Traveling mechanism	18022
		130+300	14	1	Traveling mechanism	18023
		130+300	19	1	Traveling mechanism	18024
		130+300	22	1	Traveling mechanism	18025
		130+300	29	1	Traveling mechanism	18026
		130+300	35	1	Traveling mechanism	18027
		130+300	13/4	1	Traveling mechanism	18028
		130+300	22/11	1	Traveling mechanism	18029
		130+300	29/9	1	Traveling mechanism	18030
12	1;2;5	130+300	8	1	Electric motor with pinion	17212
12	1;2;5	130+300	12, 14	1	Electric motor with pinion	18061
12	1;2;5	130+300	19	1	Electric motor with pinion	18062
12	1;2;5	130+300	22	1	Electric motor with pinion	18063
12	1;2;5	130+300	29	1	Electric motor with pinion	17217
12	1;2;5	130+300	35	1	Electric motor with pinion	17218
12	1;2;5	130+300	13/4	1	Electric motor with pinion	17218
12	1;2;5	130+300	22/11	1	Electric motor with pinion	17219
12	1;2;5	130+300	29/9	1	Electric motor with pinion	17219
12	1;2;5	130+300	8	1	Electric motor	17302
12	5	130+300	12, 14	1	Electric motor	17303
12	5	130+300	19	1	Electric motor	18079
12	5	130+300	22	1	Electric motor	18079
12	5	130+300	29	1	Electric motor	17305
12	5	130+300	35	1	Electric motor	17305
12	5	130+300	13/4	1	Electric motor	17307
12	5	130+300	22/11	1	Electric motor	18080
12	5	130+300	29/9	1	Electric motor	18081
12	1;2;5	130+300	8	1	Pinion	17240
12	2	130+300	12, 14	1	Pinion	17240
12	2	130+300	19	1	Pinion	17241
12	2	130+300	22	1	Pinion	17237
12	2	130+300	29	1	Pinion	17241
12	2	130+300	35	1	Pinion	17237
12	2	130+300	13/4	1	Pinion	17240
12	2	130+300	22/11	1	Pinion	17240
12	2	130+300	29/9	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	8	1	Adaptor	17230
13	1+12	130÷300	12, 13/4	1	Adaptor	17231
13	1+12	130÷300	14	1	Adaptor	17232
13	1+12	130÷300	19, 29	1	Adaptor	17235
13	1+12	130÷300	29/13	1	Adaptor	17235
13	1	130÷300	+	1	Lock ring B12 BDS 2170-77	17313
13	2	130÷300	8	1	Pinion	17237
13	2	130÷300	12, 13/4	1	Pinion	17238
13	2	130÷300	14	1	Pinion	17239
13	2	130÷300	19,29, 29/13	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	8,12,14	1	Gear wheel	17165
13	11	130÷300	19, 29,29/13	1	Gear wheel	17166
13	12	130÷300	+	1	Lock ring B20 BDS 2170-77	17314
11	1	130÷300	+	1	Hind carrier	17208
11	2	130÷300	+	2	Axes	17179
11	3	130÷300	+	4	Ball bearing 6408 - Z BDS 4884-85	18084
11	4	130÷300	+	4	Lock ring A110 BDS 2170-77	16062
11	5	130÷300	+	2	Moves wheel	17173
11	6	130÷300	+	2	Lock ring B40 BDS 2170-77	10150
11	7	130÷300	+	2	Front carrier basic	17247
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	13037
11	13	130÷300	8,22; 35; 22/11	1	Gear wheel	17167
11	13	130÷300	12,13/4	1	Gear wheel	17168
11	13	130÷300	14;19;29; 29/9	1	Gear wheel	17169
11	14;17; 22	130÷300	+	3	Distance bush	17156
11	15	130÷300	+	2	Lock ring A62	18085
11	16	130÷300	+	2	Ball bearing 6305 – Z BDS 4884-85	18083
11	18;21	130÷300	+	2	Gear wheel	17161
11	19	130÷300	+	1	Drive shaft	18049
11	19	150	+	1	Drive shaft	18040
11	19	160	+	1	Drive shaft	18041
11	19	180	+	1	Drive shaft	18042
11	19	200	+	1	Drive shaft	18043
11	19	220	+	1	Drive shaft	18044
11	19	240	+	1	Drive shaft	18045
11	19	260	+	1	Drive shaft	18046
11	19	280	+	1	Drive shaft	18047
11	19	300	+	1	Drive shaft	18048
11	20	130÷300	+	1	Composition of washers:	
				5	Washer	17099
				1	Washer	17185

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 M27 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
		150	+	1	Addition bush	18052
		160	+	1	Addition bush	18053
		180	+	1	Addition bush	18054
		200	+	1	Addition bush	18055
		220	+	1	Addition bush	18056
		240	+	1	Addition bush	18057
		260	+	1	Addition bush	18058
		280	+	1	Addition bush	18059
		300	+	1	Addition bush	18060
11	27	150	+	2	Stud	18031
11	27	160	+	2	Stud	18032
11	27	180	+	2	Stud	18033
11	27	200	+	2	Stud	18034
11	27	220	+	2	Stud	18035
11	27	240	+	2	Stud	18036
11	27	260	+	2	Stud	18037
11	27	280	+	2	Stud	18038
11	27	300	+	2	Stud	18039
11	27	130+300	+	2	Stud	18039

V_t – traveling speed;

B_r – width of profile of rail way;

„+” – data refers to all realization

9.2 Traveling block

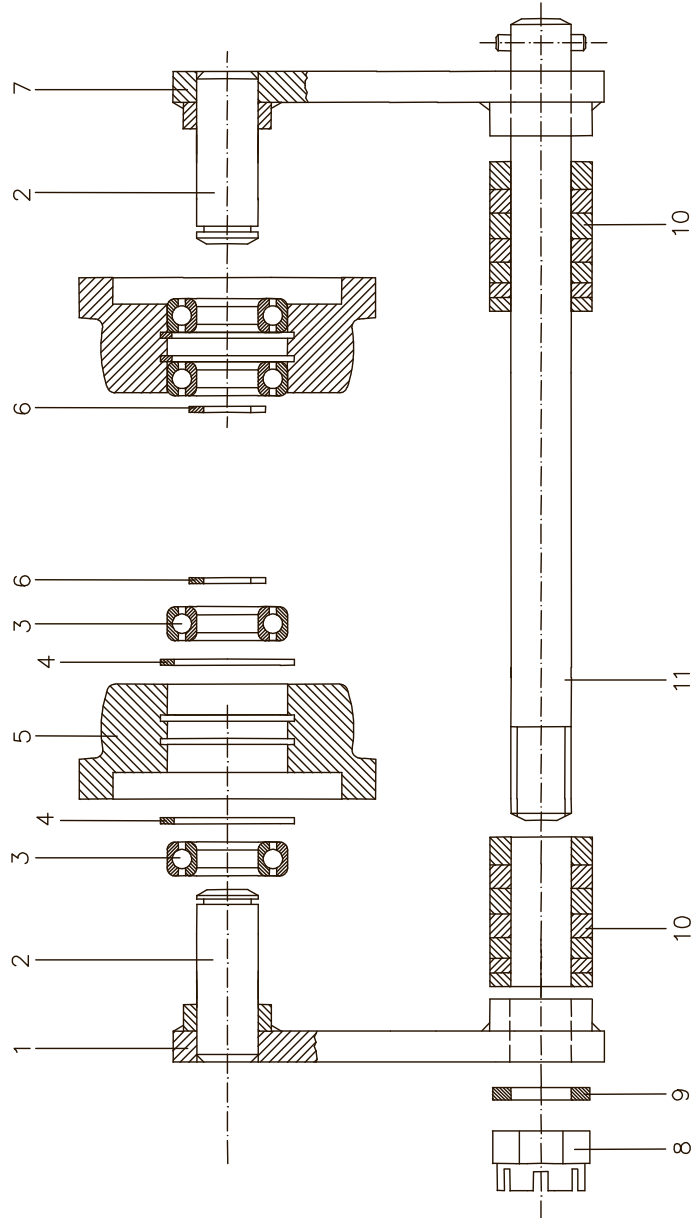


Fig. 14

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	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 9.2.1 – continued

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog 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 –z 40x110x27 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 profile from 150 to 300 mm.

9.2.2 traveling block of hoist reeving 4/1 – capacity 10 t

Table 9.2.2

Fig	Pos	B _r	V _t (m/min)	Pcs	Name	Catalog number
14	1÷11	150	+	1	Traveling block	18069
14	1÷11	160	+	1	Traveling block	18070
14	1÷11	180	+	1	Traveling block	18071
14	1÷11	200	+	1	Traveling block	18072
14	1÷11	220	+	1	Traveling block	18073
14	1÷11	240	+	1	Traveling block	18074
14	1÷11	260	+	1	Traveling block	18075
14	1÷11	280	+	1	Traveling block	18076
14	1÷11	300	+	1	Traveling block	18077

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	18078
14	1	150÷300	+	1	Hind carrier	17294
14	2	150÷300	+	1	Axis	17179
14	3	150÷300	+	4	Ball bearing 6408–Z40x110x27 BDS 4884-85	18084
14	4	150÷300	+	4	Lock ring A110 BDS 2170-77	16062
14	5	150÷300	+	2	Moves wheel	17176
14	6	150÷300	+	2	Lock ring B40 BDS 2170-77	10150
14	7	150÷300	+	1	Front carrier	17300
14	8	150÷300	+	2	Nut M27 – 8,8 BDS 1253-83	18082
14	9	150÷300	+	2	Chock bush	17097
14	10	150÷300	+	4	Composition of washers:	
14		150÷300	+	3	Washer	17100
14		150÷300	+	1	Washer	17103
14		150	+	1	Addition bush	18052
14		160	+	1	Addition bush	18053
14		180	+	1	Addition bush	18054
14		200	+	1	Addition bush	18055
14		220	+	1	Addition bush	18056
14		240	+	1	Addition bush	18057
14		260	+	1	Addition bush	18058
14		280	+	1	Addition bush	18059
14		300	+	1	Addition bush	18060
14		150÷300*	+	1	Addition bush	18052
14		150÷300*	+	1	Addition bush	17194
14		150÷300*	+	1	Addition bush	17195
14		150÷300*	+	1	Addition bush	17196
14		150÷300*	+	1	Addition bush	17197
14	11	150	+	2	Stud	18031
14	11	160	+	2	Stud	18032
14	11	180	+	2	Stud	18033
14	11	200	+	2	Stud	18034
14	11	220	+	2	Stud	18035
14	11	240	+	2	Stud	18036
14	11	260	+	2	Stud	18037
14	11	280	+	2	Stud	18038
14	11	300	+	2	Stud	18039
14	11	150÷300*	+	2	Stud	18039

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

9.3 Hinged block

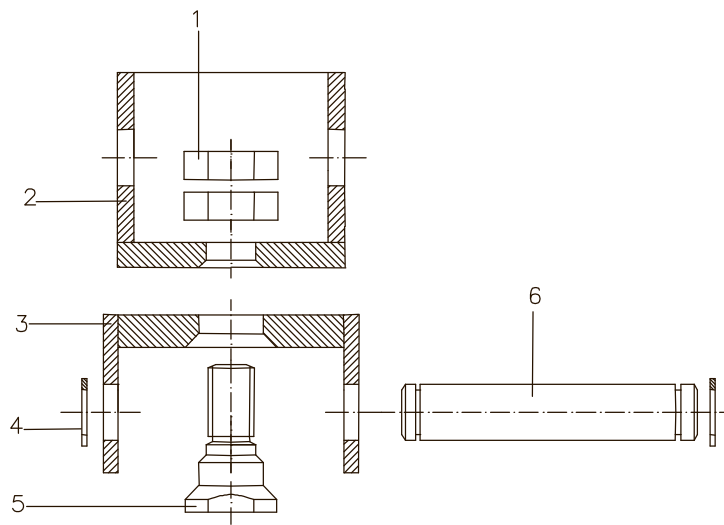


Fig. 15

Table 9.3

Fig	Pos	Pcs	Name	Catalod number	
				Reeving 2/1	Reeving 4/1
15	1 - 6	2	Hinget block	22001	-
15	1	2	Nut I 30 BDS 1251-83	22026	-
15	2	1	Top carrier	22018	-
15	3	1	Bottom carrier	22008	-
15	4	4	Lock ring B32 BDS 2170-77	22024	-
15	5	1	Bolt	22006	-
15	6	2	Axis	22004	-

10. TRAVELING MECHANISM – LOW HEADROOM DOUBLE SIDE DRIVEN

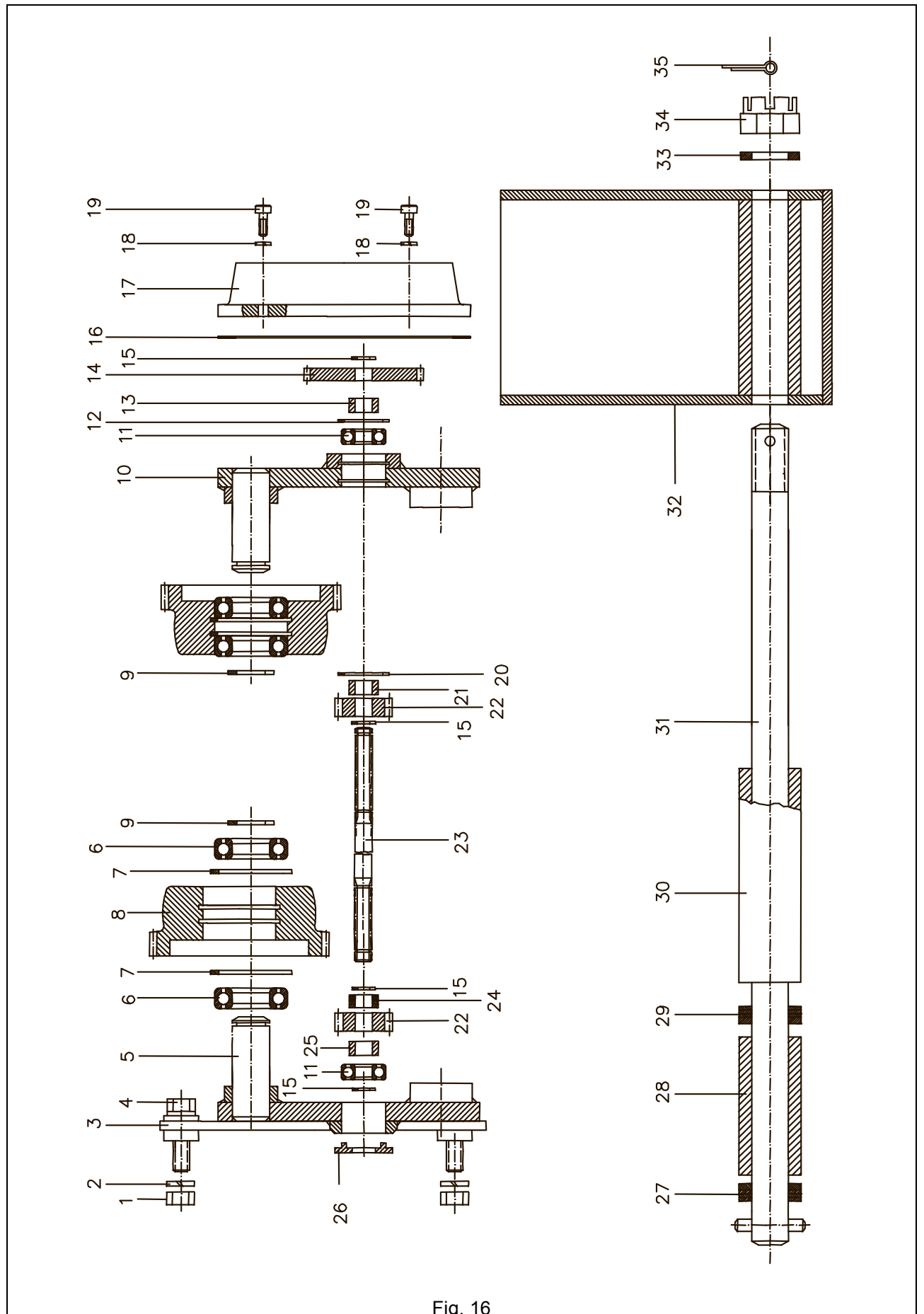


Fig. 16

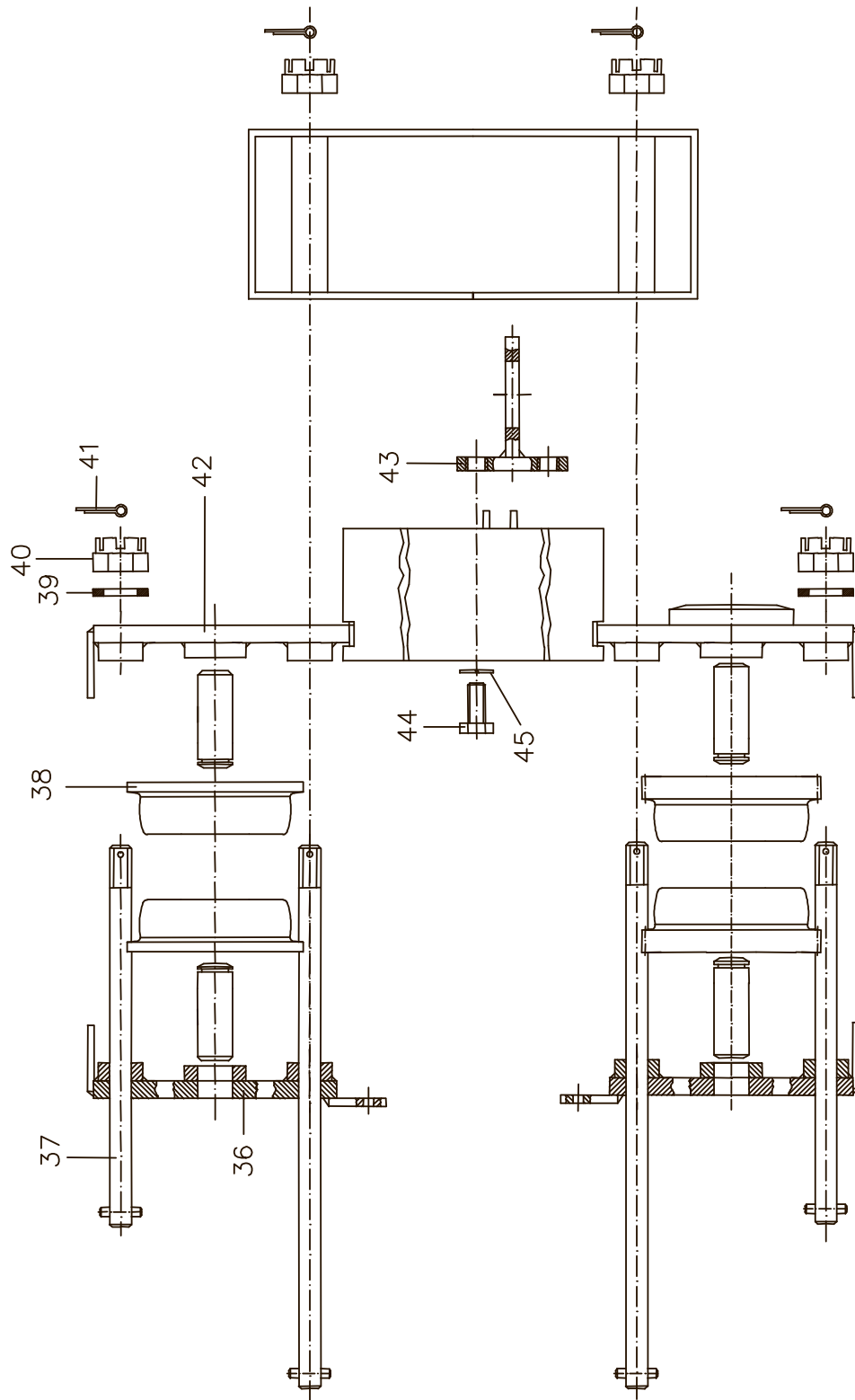


Fig. 17

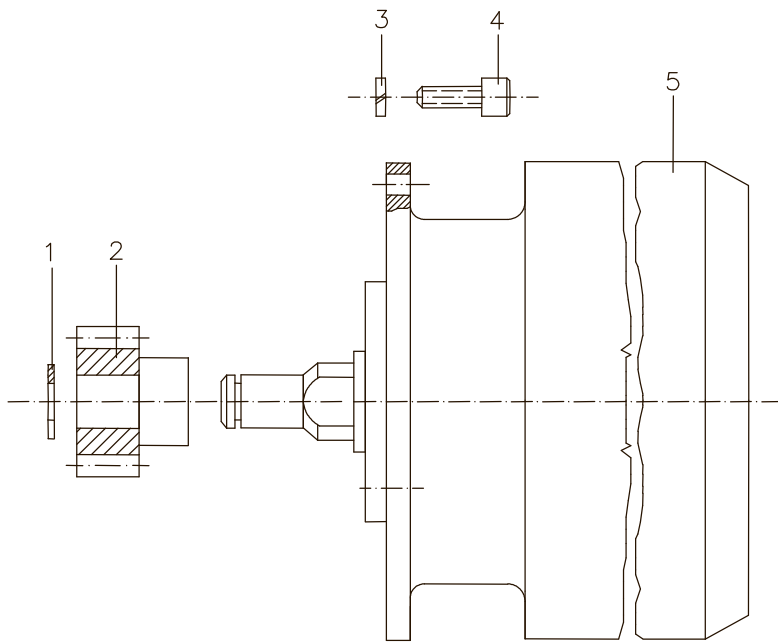


Fig. 18

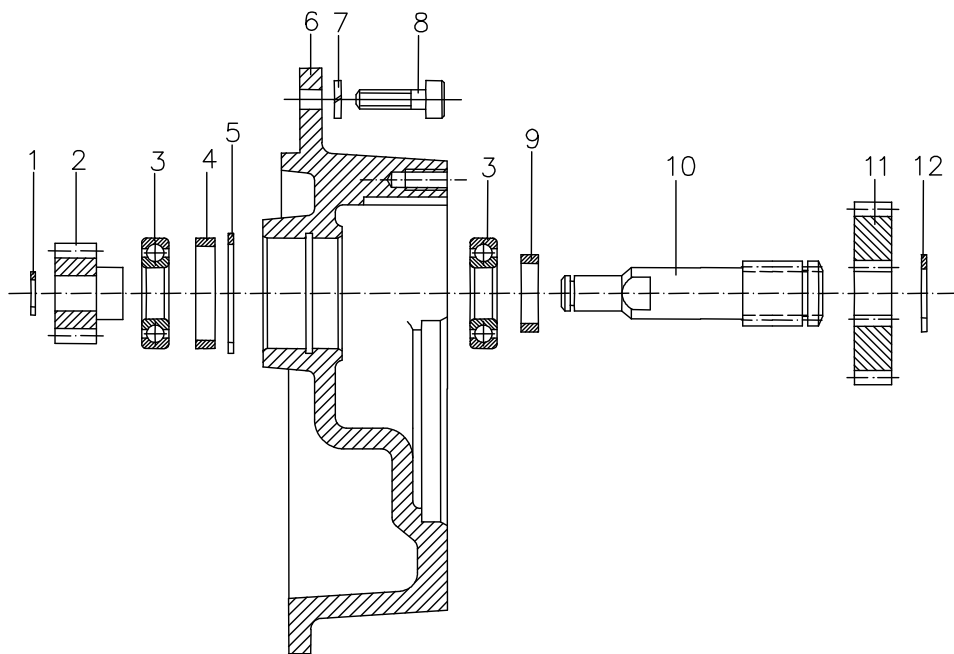


Fig.19

10.1 Reeving 2/1

Table 10.1

Fig	Pos	B _r	V _t (m/min)	H _p (m)	Pcs	Name	Catalog number
16; 17; 18 19	1-32	130	12	6,3	1	Traveling mechanism	21352
	1-32	130	16	6,3	1	Traveling mechanism	21353
	1-32	130	20	6,3	1	Traveling mechanism	21354
	1-32	130	25	6,3	1	Traveling mechanism	21355
	1-32	130	29	6,3	1	Traveling mechanism	21356
	1-32	130	42	6,3	1	Traveling mechanism	21357
	1-32	130	12/3,5	6,3	1	Traveling mechanism	21358
	1-32	130	15/5	6,3	1	Traveling mechanism	21359
	1-32	130	21/7	6,3	1	Traveling mechanism	21360
	1-32	130	25/8	6,3	1	Traveling mechanism	21361
	1-32	130	12	9	1	Traveling mechanism	21364
	1-32	130	16	9	1	Traveling mechanism	21365
	1-32	130	20	9	1	Traveling mechanism	21366
	1-32	130	25	9	1	Traveling mechanism	21367
	1-32	130	29	9	1	Traveling mechanism	21368
	1-32	130	42	9	1	Traveling mechanism	21369
	1-32	130	12/3,5	9	1	Traveling mechanism	21370
	1-32	130	15/5	9	1	Traveling mechanism	21371
	1-32	130	21/7	9	1	Traveling mechanism	21372
	1-32	130	25/8	9	1	Traveling mechanism	21373
	1-32	130	12	12,5	1	Traveling mechanism	21376
	1-32	130	16	12,5	1	Traveling mechanism	21377
	1-32	130	20	12,5	1	Traveling mechanism	21378
	1-32	130	25	12,5	1	Traveling mechanism	21379
	1-32	130	29	12,5	1	Traveling mechanism	21380
	1-32	130	42	12,5	1	Traveling mechanism	21381
	1-32	130	12/3,5	12,5	1	Traveling mechanism	21382
	1-32	130	15/5	12,5	1	Traveling mechanism	21383
	1-32	130	21/7	12,5	1	Traveling mechanism	21384
	1-32	130	25/8	12,5	1	Traveling mechanism	21385
	1-32	130	12	18	1	Traveling mechanism	21388
	1-32	130	16	18	1	Traveling mechanism	21389
	1-32	130	20	18	1	Traveling mechanism	21390
	1-32	130	25	18	1	Traveling mechanism	21391
	1-32	130	29	18	1	Traveling mechanism	21392
	1-32	130	42	18	1	Traveling mechanism	21393
	1-32	130	12/3,5	18	1	Traveling mechanism	21394
	1-32	130	15/5	18	1	Traveling mechanism	21395
	1-32	130	21/7	18	1	Traveling mechanism	21396
	1-32	130	25/8	18	1	Traveling mechanism	21397
	1-32	130	12	25	1	Traveling mechanism	21403
	1-32	130	16	25	1	Traveling mechanism	21404
	1-32	130	20	25	1	Traveling mechanism	21405
	1-32	130	25	25	1	Traveling mechanism	21406
	1-32	130	29	25	1	Traveling mechanism	21407
	1-32	130	42	25	1	Traveling mechanism	21408
	1-32	130	12/3,5	25	1	Traveling mechanism	21409
	1-32	130	15/5	25	1	Traveling mechanism	21410
	1-32	130	21/7	25	1	Traveling mechanism	21411
	1-32	130	25/8	25	1	Traveling mechanism	21412
18	5	+	12	+	1	Electric motor	17302
		+	16,20	+	1	Electric motor	17303
	5	+	25,29	+	1	Electric motor	17304
	5	+	42	+	1	Electric motor	17305
	5	+	12/3,5	+	1	Electric motor	17306
	5	+	15/5	+	1	Electric motor	17306
	5	+	21/7	+	1	Electric motor	17307
	5	+	25/8	+	1	Electric motor	17307
	2	+	12	+	1	Pinion	17240
	2	+	16, 25	+	1	Pinion	17241
	2	+	20, 29	+	1	Pinion	17237
	2	+	42	+	1	Pinion	17238
	2	+	12/3,5	+	1	Pinion	17240
	2	+	15/5	+	1	Pinion	17240
	2	+	21/7	+	1	Pinion	17241
	2	+	25/8	+	1	Pinion	17241

10.1 Reeving 2/1

Table 10.1

ig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number	Note
18	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
19	1÷12	+	12	+	1	Adapter		17232
	1÷12	+	12/3,5	+	1	Adapter		17230
	1÷12	+	15/5	+	1	Adapter		17231
	1÷12	+	21/7	+	1	Adapter		17234
	1÷12	+	16; 25	+	1	Adapter		17235
	1÷12	+	15/8	+	1	Adapter		17235
	1	+	+	+	1	Lock ring B12	BDS 2170-77	17313
	2	+	12	+	1	Pinion		17239
	2	+	12/3,5	+	1	Pinion		17237
	2	+	15/5	+	1	Pinion		17238
	2	+	16; 25	+	1	Pinion		17238
	2	+	25/8	+	1	Pinion	17239	
	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
	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	+	16; 25	+	1	Gear wheel		17166
	11	+	25/8	+	1	Gear wheel		17166
16	12	+	+	+	1	Lock ring B20	BDS 2170-77	17314
	1	130	+	+	4	Nut M20 – 8	BDS 1234-85	21343
	2	130	+	+	4	Spring washer 2 20H	BDS 833-82	21341
	4	130	+	+	4	Bolt M20x45 – 8,8	BDS 1234-85	21340
	3	130	+	+	1	Hind plate basic		21245
	5	130	+	+	4	Axis		17177
	6	130	+	+	8	Ball bearing 6308-Z	BDS 4884-85	17318
	7	130	+	+	8	Lock ring A90	BDS 2170-77	10146
	8	130	+	+	2	Moves wheel		17171
	9	130	+	+	4	Lock ring B40	BDS 2170-77	10150
	10	130	+	6,3	1	Traverse with carriers	21231	Poz.42shceme 16
	10	130	+	9	1	Traverse with carriers		21232
	10	130	+	12,5	1	Traverse with carriers		21233
	10	130	+	18	1	Traverse with carriers		21234
	10	130	+	25	1	Traverse with carriers		21235
	11	130	+	+	2	Ball bearing 6204-2Z	BDS 4884-85	17319
	12	+	+	+	1	Lock ring A47	BDS 2170-77	17316
	13	130-300	+	+	1	Distance bush		17154
	14	130	12	+	1	Gear wheel		17164
			16	+	+	Gear wheel		17164
			20	+	+	Gear wheel		17162
			25	+	+	Gear wheel		17164
			29	+	+	Gear wheel		17162
			42	+	+	Gear wheel		17163
			12/3,5	+	+	Gear wheel		17162
			15/5	+	+	Gear wheel		17163
			21/7	+	+	Gear wheel		17163
			25/8	+	+	Gear wheel		17164
	15	+	+	+	4	Lock ring B20	BDS 2170-	17314
	16	+	+	+	1	Seal		17183
	17	+	+	+	1	Case		17182
	18	+	+	+	10	Spring washer 2 8H	BDS 833-	10139
	19	+	+	+	10	Screw M8x18 – 8,8	BDS 2171-	17324
	20	+	+	+	1	Lock ring A47	BDS 2170-	17316
	21	130	+	+	1	Distance bush		17154
	22	+	+	+	2	Gear wheel		17159
	23	140	+	+	1	Drive shaft		17131
		150	+	+	1	Drive shaft		17132
		160	+	+	1	Drive shaft		17133

Table 10.1 – continued

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pce	Name	Catalog number
		180	+	+	1	Drive shaft	17134
		200	+	+	1	Drive shaft	17135
		220	+	+	1	Drive shaft	17136
		240	+	+	1	Drive shaft	17137
		260	+	+	1	Drive shaft	17138
		280	+	+	1	Drive shaft	17139
		300	+	+	1	Drive shaft	17140
16	24		+	+		Composition of washers	
		130-300	+	+	5	Washer	17170
					1	Washer	17184
	25	130-300	+	+	1	Distance bush	17154
	26	130-300	+	+	1	Cap	17104
	27,29	130-300	+	+	32	Composition of washers	
					6	Washer –on one stud	17098
					2	Washer –on one stud	17001
	28	130	+	+	4	Addition bush	21207
		140		+	4	Addition bush	21208
		150	+	+	4	Addition bush	21209
		160	+	+	4	Addition bush	21210
		180	+	+	4	Addition bush	21211
		200	+	+	4	Addition bush	21212
		220	+	+	4	Addition bush	21213
		240	+	+	4	Addition bush	21214
		260	+	+	4	Addition bush	21215
		280	+	+	4	Addition bush	21216
		300	+	+	4	Addition bush	21217
	31	130	+	+	2	Stud	21233
		140	+	+	2	Stud	21234
		150	+	+	2	Stud	21235
		160	+	+	2	Stud	21236
		180	+	+	2	Stud	21237
		200	+	+	2	Stud	21238
		220	+	+	2	Stud	21239
		240	+	+	2	Stud	21240
		260	+	+	2	Stud	21241
		280	+	+	2	Stud	21242
		300	+	+	2	Stud	21243
	32	+	+	6,3	1	Box for countweight	21413
		+	+	9	1	Box for countweight	21414
		+	+	12,5	1	Box for countweight	21415
	32	+	+	18	1	Box for countweight	21416
		+	+	25	1	Box for countweight	21417
	34	+	+	+	2	Nut M24-8 BDS 1253-83	17321
	35	+	+	+	2	Split 5x50 BDS 55-77	17323
	36	+	+	+	1	Hind plate	21247
	37	130	+	+	2	Stud	17073
		140	+	+	2	Stud	17074
		150	+	+		Stud	17075
		160	+	+		Stud	17076
		180	+	+		Stud	17077
		200	+	+		Stud	17078
		220	+	+		Stud	17079
		240	+	+		Stud	17080
		260	+	+		Stud	17081
		280	+	+		Stud	17082
		300	+	+		Stud	17083
	38	+	+	+	2	Moves wheel	17174
	39	+	+	+	2	Chock bush	17095
	40	+	+	+	2	Nut M24-8 BDS 1253-83	17322
	41	+	+	+	2	Split 5x50 BDS 55-77	17323

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

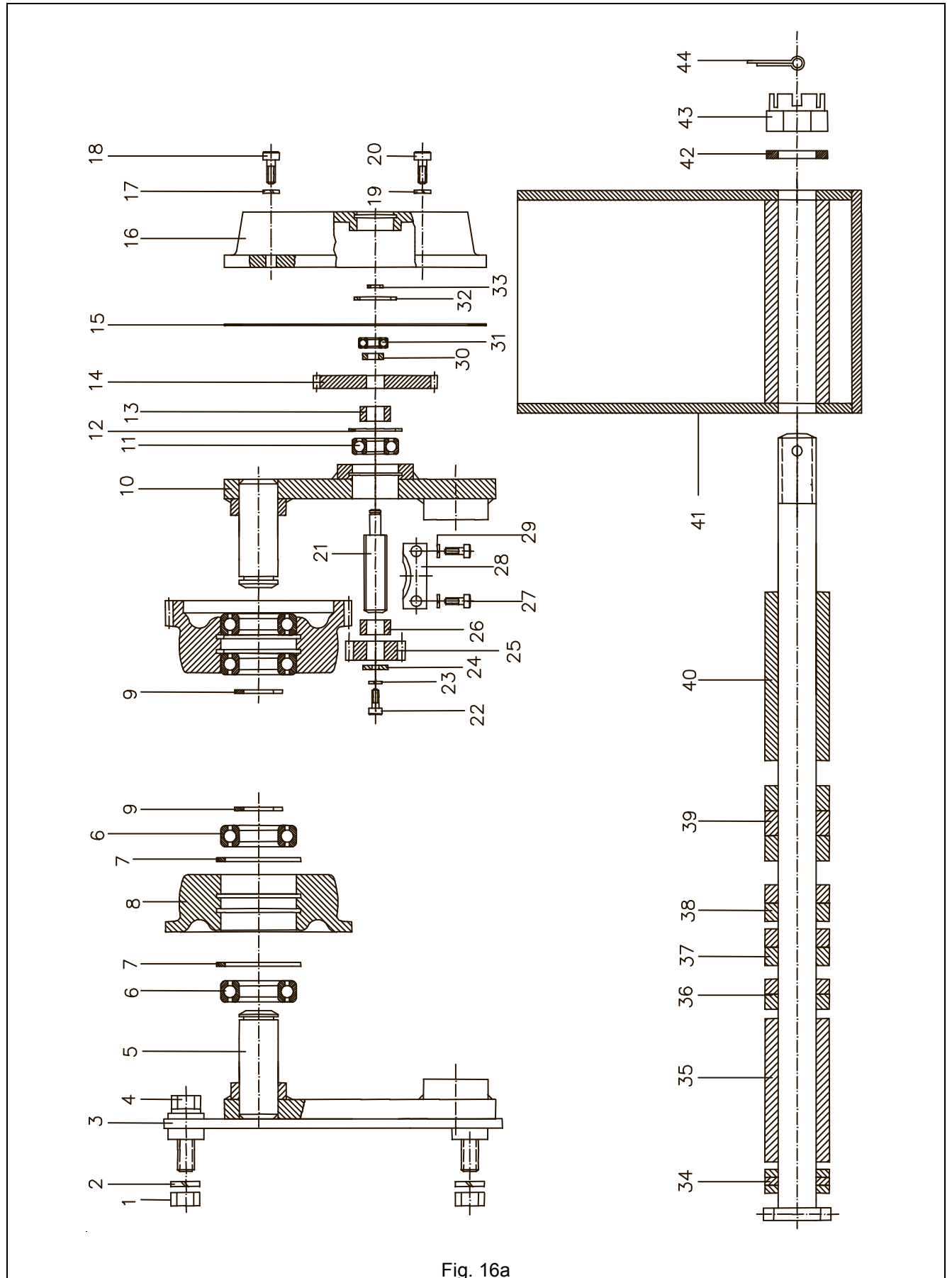


Fig. 16a

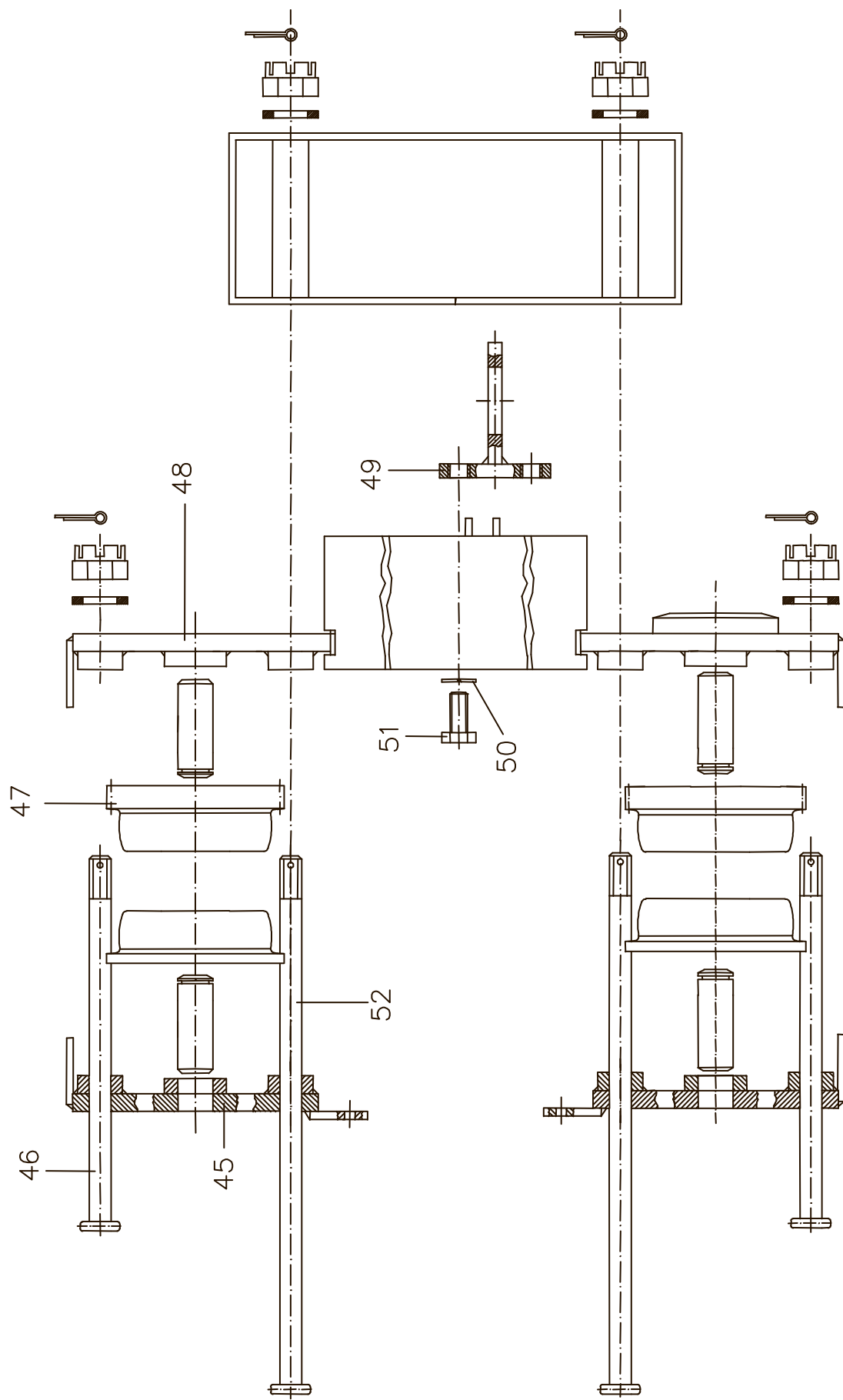


Fig. 17a

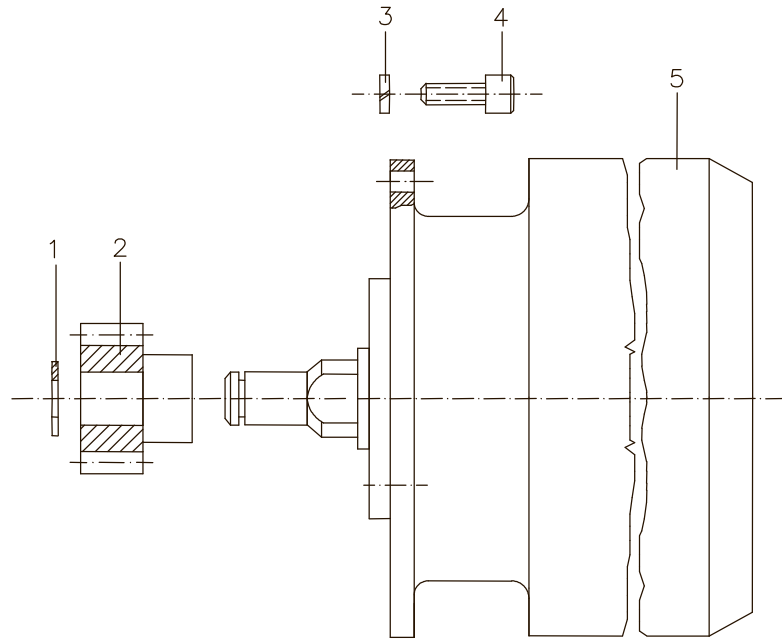


Fig. 18a

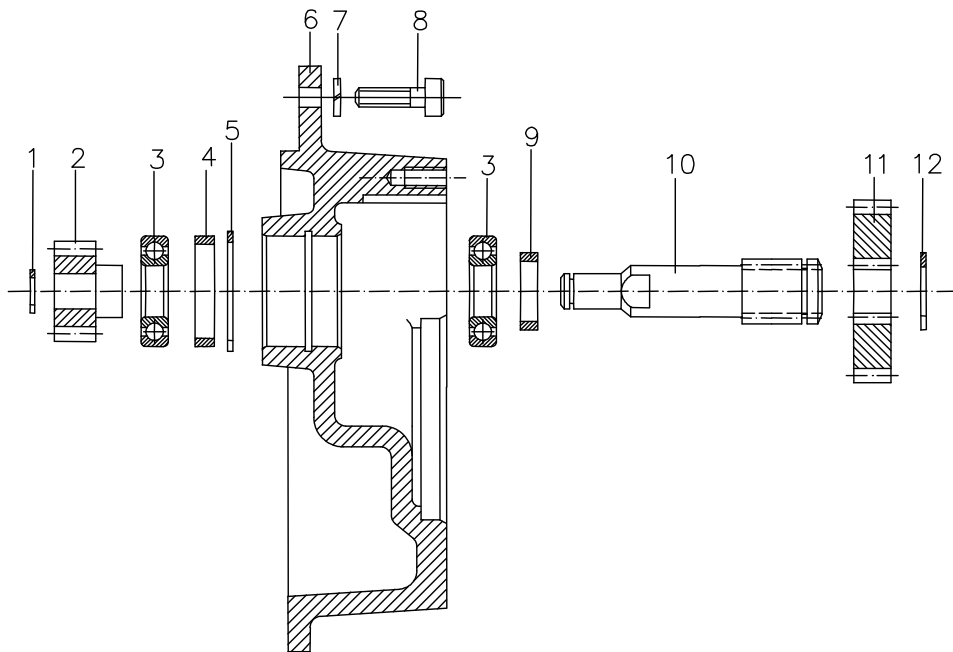


Fig. 19a

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	23002
		+	16	6,3	1	Traveling mechanism	23003
		+	20	6,3	1	Traveling mechanism	23004
		+	25	6,3	1	Traveling mechanism	23005
		+	29	6,3	1	Traveling mechanism	23006
		+	42	6,3	1	Traveling mechanism	23007
		+	12/4	6,3	1	Traveling mechanism	23008
		+	15/5	6,3	1	Traveling mechanism	23009
		+	21/7	6,3	1	Traveling mechanism	23010
		+	25/8	6,3	1	Traveling mechanism	23011
		+	12	9	1	Traveling mechanism	23026
		+	16	9	1	Traveling mechanism	23027
		+	20	9	1	Traveling mechanism	23028
		+	25	9	1	Traveling mechanism	23029
		+	29	9	1	Traveling mechanism	23030
		+	42	9	1	Traveling mechanism	23031
		+	12/4	9	1	Traveling mechanism	23032
		+	15/5	9	1	Traveling mechanism	23033
		+	21/7	9	1	Traveling mechanism	23034
		+	25/8	9	1	Traveling mechanism	23035
		+	12	12,5	1	Traveling mechanism	23050
		+	16	12,5	1	Traveling mechanism	23051
		+	20	12,5	1	Traveling mechanism	23052
		+	25	12,5	1	Traveling mechanism	23053
		+	29	12,5	1	Traveling mechanism	23054
		+	42	12,5	1	Traveling mechanism	23055
		+	12/4	12,5	1	Traveling mechanism	23056
		+	15/5	12,5	1	Traveling mechanism	23057
		+	21/7	12,5	1	Traveling mechanism	23058
		+	25/8	12,5	1	Traveling mechanism	23059
		+	12	18	1	Traveling mechanism	23074
		+	16	18	1	Traveling mechanism	23075
		+	20	18	1	Traveling mechanism	23076
		+	25	18	1	Traveling mechanism	23077
		+	29	18	1	Traveling mechanism	23078
		+	42	18	1	Traveling mechanism	23079
		+	12/4	18	1	Traveling mechanism	23080
		+	15/5	18	1	Traveling mechanism	23081
		+	21/7	18	1	Traveling mechanism	23082
		+	25/8	18	1	Traveling mechanism	23083
		+	12	25	1	Traveling mechanism	23098
		+	16	25	1	Traveling mechanism	23099
		+	20	25	1	Traveling mechanism	23100
		+	25	25	1	Traveling mechanism	23101
		+	29	25	1	Traveling mechanism	23102
		+	42	25	1	Traveling mechanism	23103
		+	12/4	25	1	Traveling mechanism	23104
		+	15/5	25	1	Traveling mechanism	23105
		+	21/7	25	1	Traveling mechanism	23106
		+	25/8	25	1	Traveling mechanism	23107
18a	5 5 5 5 5 5 5 5 2 2 2 2 2 2 2 2 2	+	12	+	2	Electric motor	17302
		+	16	+	2	Electric motor	17302
		+	20	+	2	Electric motor	17302
		+	25	+	2	Electric motor	17309
		+	29	+	2	Electric motor	17309
		+	42	+	2	Electric motor	17304
		+	12/4	+	2	Electric motor	17306
		+	15/5	+	2	Electric motor	17306
		+	21/7	+	2	Electric motor	17307
		+	25/8	+	2	Electric motor	17307
		+	12	+	2	Pinion	17240
		+	16	+	2	Pinion	17241
		+	20	+	2	Pinion	17237
		+	25	+	2	Pinion	17241
		+	29	+	2	Pinion	17237
		+	42	+	2	Pinion	17238
		+	12/4	+	2	Pinion	17240
		+	15/5	+	2	Pinion	17240

Table - 11.1 – continued

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
18a	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 1 M8x18 – 8,8 BDS 2171-83	17324
19a	1÷12	+	12	+	1	Adapter	17235
	1÷12	+	12/4	+	1	Adapter	17233
	1÷12	+	15/5	+	1	Adapter	17234
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	2	+	12	+	1	Pinion	17239
	2	+	12/4	+	1	Pinion	17237
	2	+	15/5	+	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	21821
	4	+	+	+	4	Bolt M20x45 – 8,8 BDS 1234-85	21344
	5	+	+	+	4	Axis	17177
	6	+	+	+	8	Ball bearing 6308-Z BDS 4884-85	17318
	7	+	+	+	8	Lock ring A90 BDS 2170-77	10146
	8	+	+	+	2	Moves wheel	17174
	9	+	+	+	4	Lock ring B40 BDS 2170-77	10150
	10	+	+	6,3	1	Traverse with carrier	23258
	10	+	+	9	1	Traverse with carrier	23259
	10	+	+	12,5	1	Traverse with carrier	23260
	10	+	+	18	1	Traverse with carrier	23261
	10	+	+	25	1	Traverse with carrier	23262
	11	+	+	+	2	Ball bearing 6304-Z BDS 4884-85	23237
	12	+	+	+	1	Lock ring A52 BDS 2170-77	23236
	13	+	+	+	1	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
		+	12/4	+	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	+	+	+	10	Spring washer 2 8H BDS 833-82	10139
	18,20	+	+	+	10	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	23240
	24	+	+	+	2	Washer	23238
	25	+	12	+	2	Gear wheel	23228
	26	+	+	+	2	Distance bush	21860
	27	+	+	+	4	Screw M6x14 – 6,8 BDS 2171-83	16520
	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
	32	-	-	-	-	-	-
	33	+	+	+	2	Lock ring B15 BDS2170-77	17504
	34	+	+	+	24	Washer L=1	21707

Table 11.1 – continued

Fig	Pos	B _r	V _t , (m/min)	H _p , (m)	Pcs	Name	Catalog number
16a	35	+	+	+	4	Addition bush L=105	21875
	36	+	+	+	12	Addition bush L=40	21872
	37	+	+	+	4	Addition bush L= 20	21869
	38	+	+	+	4	Addition bush L=10	21866
	39	+	+	+	8	Washer L=5	21710
	40	+	+	+	2	Bush L=400	21219
	41	+	+	6,3	1	Box for countreweight	21413
	41	+	+	9	1	Box for countreweight	21414
	41	+	+	12,5	1	Box for countreweight	21415
	41	+	+	18	1	Box for countreweight	21416
	41	+	+	25	1	Box for countreweight	21417
16	42	+	+	+	4	Box for countreweight	21615
16	43	+	+	+	4	Nut M27-8 BDS 1253-83	18082
16	44	+	+	+	4	Split 5x50 BDS 55-77	17323
16	45	+	+	+	1	Hind plate	21247
15	46	+	+	+	2	Stud	21645
16	47	+	+	+	2	Moves wheel	17171
16	52	+	+	+		Stud	21701

11.2 Reeving 4/1

Table 11.2

Fig	Pos	B _r	V _t , (m/min)	H _p , (m)	Pcs	Name	Catalog number
16a; 17a; 18a; 19a	1-44 45-52 1-5 1-12		8	6,3	1	Traveling mechanism	23371
			12	6,3	1	Traveling mechanism	23372
			14	6,3	1	Traveling mechanism	23373
			19	6,3	1	Traveling mechanism	23374
			22	6,3	1	Traveling mechanism	23375
			29	6,3	1	Traveling mechanism	23376
			35	6,3	1	Traveling mechanism	23377
			13/4	6,3	1	Traveling mechanism	23378
			22/11	6,3	1	Traveling mechanism	23379
			29/9	6,3	1	Traveling mechanism	23380
			8	9	1	Traveling mechanism	23381
			12	9	1	Traveling mechanism	23383
			14	9	1	Traveling mechanism	23383
			19	9	1	Traveling mechanism	23384
			22	9	1	Traveling mechanism	23385
			29	9	1	Traveling mechanism	23386
			35	9	1	Traveling mechanism	23387
			13/4	9	1	Traveling mechanism	23388
			22/11	9	1	Traveling mechanism	23389
			29/9	9	1	Traveling mechanism	23390
			8	12,5	1	Traveling mechanism	23391
			12	12,5	1	Traveling mechanism	23393
			14	12,5	1	Traveling mechanism	23393
			19	12,5	1	Traveling mechanism	23394
			22	12,5	1	Traveling mechanism	23395
			29	12,5	1	Traveling mechanism	23398
			35	12,5	1	Traveling mechanism	23399
			13/4	12,5	1	Traveling mechanism	23400
			22/11	12,5	1	Traveling mechanism	23401
			29/9	12,5	1	Traveling mechanism	23402
			8	15	1	Traveling mechanism	23403
			12	15	1	Traveling mechanism	23405
			14	15	1	Traveling mechanism	23405
			19	15	1	Traveling mechanism	23406
			22	15	1	Traveling mechanism	23407
			29	15	1	Traveling mechanism	23408
			35	15	1	Traveling mechanism	23409
			13/4	15	1	Traveling mechanism	23410
			22/11	15	1	Traveling mechanism	23411
			29/9	15	1	Traveling mechanism	23412
			8	18	1	Traveling mechanism	23413
			12	18	1	Traveling mechanism	23414
			14	18	1	Traveling mechanism	23415
			19	18	1	Traveling mechanism	23416
			22	18	1	Traveling mechanism	23417
			29	18	1	Traveling mechanism	23418
			35	18	1	Traveling mechanism	23419
			13/4	18	1	Traveling mechanism	23420
			22/11	18	1	Traveling mechanism	23421

Table 11.2 – continued

Fig	Pos	B _r	V _t (m/min)	Hp (m)	Pcs	Name	Catalog number
			29/9	18	1	Traveling mechanism	23422
	5	+	8;12;14	+	2	Electric motor	17302
		+	19; 22	+	2	Electric motor	17303
	5	+	29;35	+	2	Electric motor	17304
	5	+	13/4;29/9	+	2	Electric motor	17307
	5	+	22/11	+	2	Electric motor	17308
	2	+	8;12;14	+	2	Pinion	17240
	2	+	19;29;29/9	+	2	Pinion	17241
	2	+	22;35	+	2	Pinion	17237
	2	+	22/11	+	2	Pinion	17237
	2	+	13/4	+	2	Pinion	17240
	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	+	8	+	1	Adapter	17230
	1÷12	+	12;13/4	+	1	Adapter	17231
	1÷12	+	14	+	1	Adapter	17232
	1÷12	+	19;29	+	1	Adapter	17235
	1÷12	+	29/9	+	1	Adapter	17235
	1	+	+	+	1	Lock ring B12 BDS 2170-77	17313
	2	+	8	+	1	Pinion	17237
	2	+	12;13/4	+	1	Pinion	17238
	2	+	14;19;29	+	1	Pinion	17239
	2	+	29/9	+	1	Pinion	17239
	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 1 M8x18 – 8,8 BDS 2171-83	17324
	9	+	+	+	1	Distance bush	17158
	10	+	+	+	1	Shaft	17236
	11	+	8;12;14	+	1	Gear wheel	17165
	11	+	13/4	+	1	Gear wheel	17165
	11	+	19;29	+	1	Gear wheel	17166
	11	+	29/9	+	1	Gear wheel	17166
	12	+	+	+	1	Lock ring B22 BDS 2170-77	17314
16a	1	+	+	+	4	Nut M22 – 8 BDS 1234-85	21484
	2	+	+	+	4	Spring washer 2 20H BDS 833-82	21483
	4	+	+	+	4	Bolt M22x50 – 8,8 BDS 1234-85	23482
	3	+	+	+	1	Hind plate left	21821
	5	+	+	+	4	Axis	17179
	6	+	+	+	8	Ball bearing 6408-Z BDS 4884-85	17318
	7	+	+	+	8	Lock ring A110 BDS 2170-77	16062
	8	+	+	+	2	Moves wheel	17176
	9	+	+	+	4	Lock ring B40 BDS 2170-77	10150
	10	+	+	6,3	1	Traverse with carrier	23435
	10	+	+	9	1	Traverse with carrier	23436
	10	+	+	12,5	1	Traverse with carrier	23437
	10	+	+	15	1	Traverse with carrier	23438
	10	+	+	18	1	Traverse with carrier	23439
	11	+	+	+	2	Ball bearing 6302 – Z	23485
	12	+	+	+	2	Lock ring A80 BDS 2170-77	10145
	13	+	+	+	2	Distance bush	23397
	14	+	8	+	2	Gear wheel	17167
		+	12	+	2	Gear wheel	17168
		+	14;19;29	+	2	Gear wheel	17169
		+	29/9	+	2	Gear wheel	17169
	15	+	+	+	2	Seal	17183
	16	+	+	+	2	Case	23430
	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	23424
	23	+	+	+	2	Spring washer 2 6H BDS 833-82	10139
	22	+	+	+	2	Screw M6x12 – 6,8 BDS 2171-83	23240
	24	+	+	+	2	Washer	23423
	25	+	12	+	2	Gear wheel	23230
	26	+	+	+	2	Distance bush	17102
	27	130	+	+	4	Screw M6x14 – 6,8 BDS 2171-83	16520

Table 11.2 – continued

Fig	Pos	B _r	V _t (m/min)	H _p (m)	pcs	Name	Catalog number
16a	28	+	+	+	2	Fixing strap	23429
	29	+	+	+	2	Spring washer 2 6H	BDS 833-82 10138
	30	+	+	+	2	Distance bush	23396
	31	+	+	+	2	Ball bearing 6302	BDS 4883-85 23485
	32	+	+	+	2	Lock ring A80	BDS 2170-77 10145
	33	+	+	+	2	Lock ring B15	17504
	34	+	+	+	24	Washer L=1	23457
	35	+	+	+	4	Addition bush L=105	23428
	36	+	+	+	12	Addition bush L=40	23427
	37	+	+	+	4	Addition bush L=20	23426
	38	+	+	+	8	Addition bush L=10	23425
	39	+	+	+	8	Washer L=5	21710
	40	+	+	+	2	Bush L=400	23460
	41	+	+	6,3	1	Box for countweight	23464
	41	+	+	9	1	Box for countweight	23465
	41	+	+	12,5	1	Box for countweight	23466
17a	41	+	+	18	1	Box for countweight	23467
	41	+	+	25	1	Box for countweight	23468
	42	+	+	+	4	Chock bush	23459
	43	+	+	+	4	Nut M30-8	BDS 1253-83 23481
	44	+	+	+	4	Split 6x60	BDS 55-77 23480
	45	+	+	+	1	Hind plate	23432
	46	+	+	+	2	Stud	23462
	47	+	+	+	2	Moves wheel	17173
	52	+	+	+		Stud	23463

12. CONTROL BLOCK

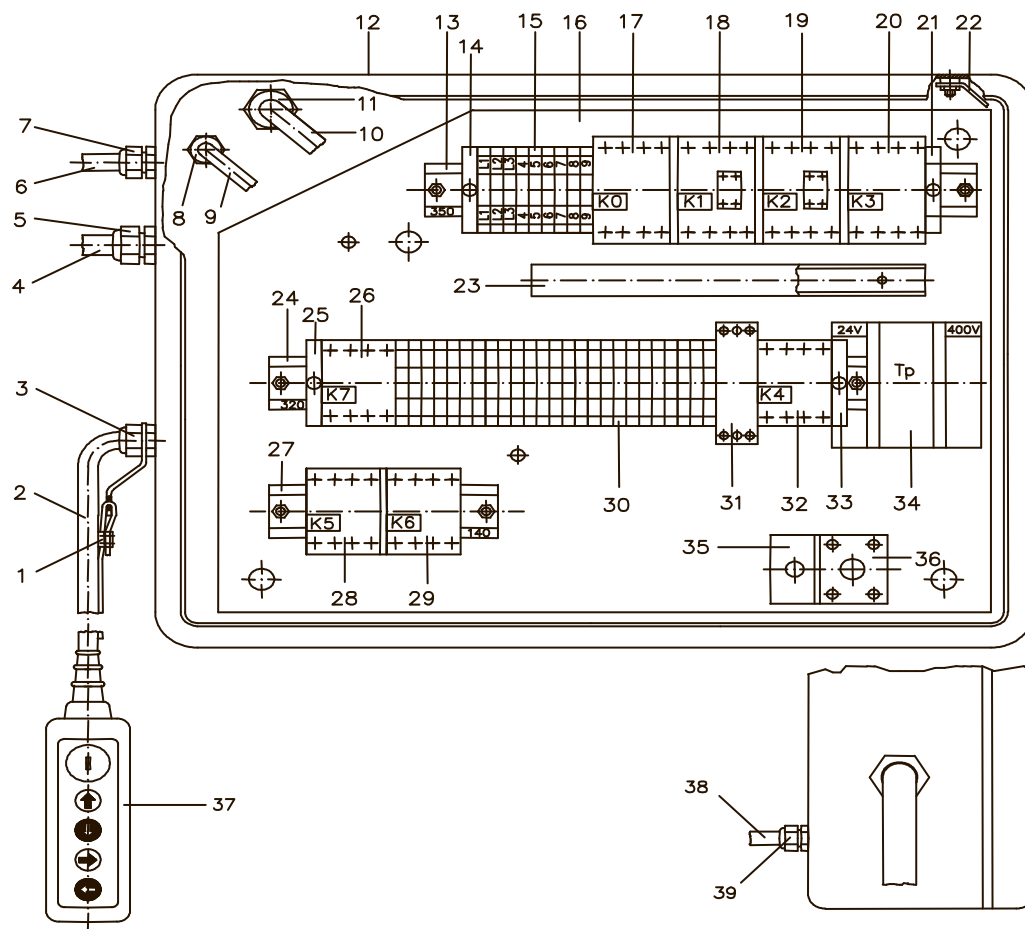


Fig. 20

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 12.3

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	60554	60554	
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	60575	60577	
20		9	Cable microlifting	1	60576	60578	
20		12,5	Cable microlifting	1	60577	60579	
20		15	Cable microlifting	1	-	60580	
20		18	Cable microlifting	1	60578	60581	
20		25	Cable microlifting	1	60579	-	
20		30	Cable microlifting	1	60580	-	
20		36	Cable microlifting	1	60581	-	
20	9a	6,3	Cable I thermal protection	1	60618	60620	Cable with microlifting
20		9	Cable I thermal protection	1	60619	60621	
20		12,5	Cable I thermal protection	1	60620	60622	
20		15	Cable I thermal protection	1	-	60623	
20		18	Cable I thermal protection	1	60621	60624	
20		25	Cable I thermal protection	1	60622	-	
20		30	Cable I thermal protection	1	60623	-	
20		36	Cable I thermal protection	1	60624	-	
20	9B	6,3	Cable II thermal protection	1	60793	60795	Cable without microlifting
20		9	Cable II thermal protection	1	60794	60796	
20		12,5	Cable II thermal protection	1	60795	60797	
20		15	Cable II thermal protection	1	-	60798	
20		18	Cable II thermal protection	1	60796	60799	

Table 12.3 – continued

Fig	Pos	Hp (m)	Name	Pcs	Reeving 2/1	Reeving 4/1	Note
					Catalog number		
20		25	Cable II thermal protection	1	60797	-	
20		30	Cable II thermal protection	1	60798	-	
20		36	Cable II thermal protection	1	60799	-	
20	10	6,3	Cable lifting motor	1	60661	60663	
20		9	Cable lifting motor	1	60662	60664	
20		12,5	Cable lifting motor	1	60663	60665	
20		15	Cable lifting motor	1	-	60666	
20		18	Cable lifting motor	1	60664	60665	
20		25	Cable lifting motor	1	60665	-	
20		30	Cable lifting motor	1	60666	-	
20		36	Cable lifting motor	1	60667	-	
20	11	+	Pipe	1	60776	60776	ORTAC – PG 21
20	12	+	Box	1	60831	60831	
20	13	+	Profile strip 35mm	1	60715	60715	L=350mm
20	14;2 1	+	End clamp	2	60716	60716	
20	15	+	Clamp 4mm	15	60722	60722	
20	15a	+	Clamp neutral	1	60723	60723	
20	16	+	Plate	1	60918	60918	
20	17	+	Contactor 26A Ub=24V	1	60922	60922	ABB A26-30-00
20	18	+	Contactor 30A Ub=24V	1	60921	60921	ABB A30-30-00
20	19	+	Contactor 30A Ub=24V	1	60921	60921	ABB A30-30-00
20	20	+	Contactor / 2NO+2NC / - Ub=24V	1	60920	60920	ABB A26-22-00
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=320mm
20	25;3 3	+	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	60919	60969	P=60VA
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 button - XAC-A - 2813	1	60930	60930	Control scheme №6
20	38	6,3	Cable load limiter	1	60736	60738	
20		9	Cable load limiter	1	60737	60739	
20		12,5	Cable load limiter	1	60738	60740	
20		15	Cable load limiter	1	-	607541	
20		18	Cable load limiter	1	60739	60742	
20		25	Cable load limiter	1	60740	-	
20		30	Cable load limiter	1	60741	-	
20		36	Cable load limiter	1	60742	-	
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 **MPM9..**