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Catagodue is in accordance with the following legal texts:

1. **BDS 2.601-82**, Документи експлоатационни.
2. **DIN V 8418** Benutzerinformation.
3. **EN 292-2:1991** Sicherheit von Maschinen.
4. **DIN 24420, Teil 1**, Ersatzteillisten, Allgemeines.
5. **DIN 24420, Teil 2**, Ersatzteillisten, Form und Bau des Textteiles.
6. **ГОСТ 2.601-68**, ЕСКД. Эксплуатационные документы.
7. **ISO 10973:1995(E)**, Cranes - Spare parts manual.

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 address 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 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

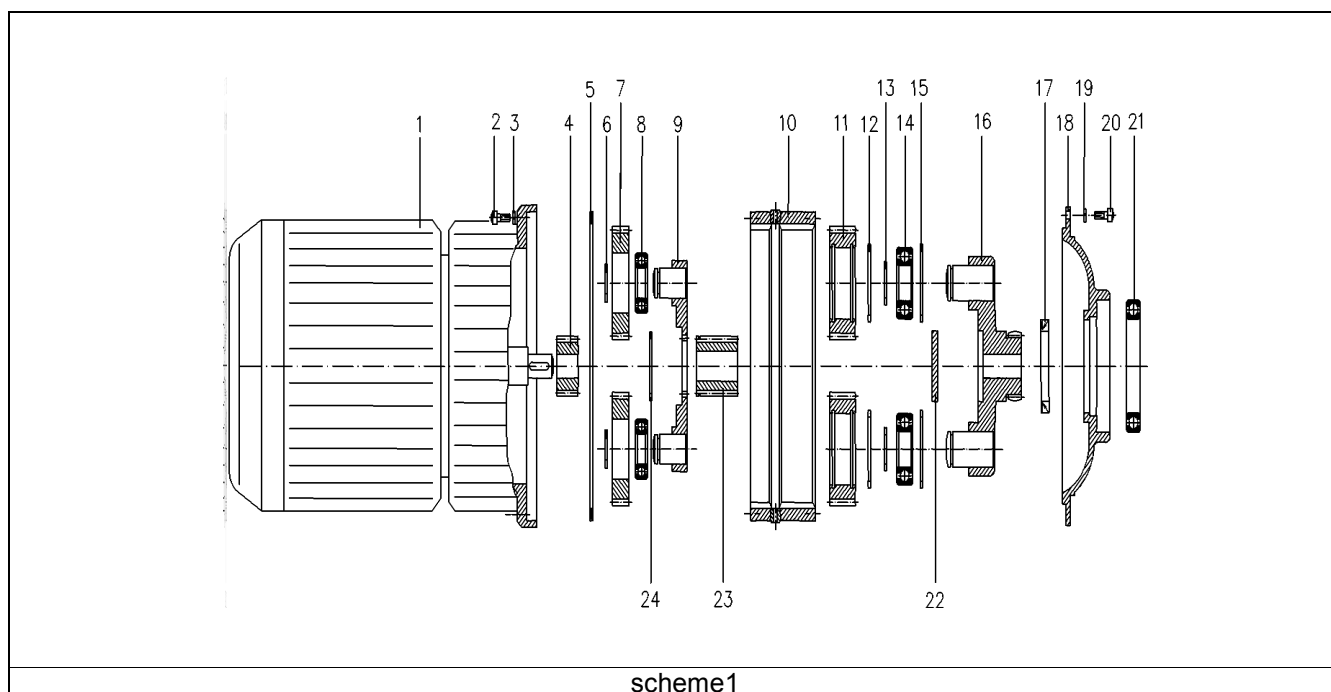


Table 1

sche me	position	NAME		pcs.	Lifting height (m/min)	Catalog number
1	1-24	Geared motor		1	8	10017
1	1-24	Geared motor		1	12	10018
1	1-24	Geared motor		1	8/2	10019
1	1-24	Geared motor		1	12/2	10020
1	1	Electric motor		1	8	10037
1	1	Electric motor		1	12	10038
1	1	Electric motor		1	8/2	10039
1	1	Electric motor		1	12/2	10040
1	4-21	Reduction gear		1		10223
1	(2)	Screw M8x25 – 6,5	BDS 2171-83	8		10132
1	(3)	Spring washer – 8H	BDS833-82	8		10139
1	4	First drive gear		1		10070
1	5	Seal	2	1		10058
1	6-9;23;24	First gear transmission		1		10045
1	(6)	Lock ring B30	BDS 2170-77	2		17314

1	[7;8]	Planet gear wheel with bearing		2	10083
1	7	Planet gear wheel		2	10087
1	(8)	Bearing –20x47x14	BDS 4853-85	2	10163
1	[9]	Carrier with axis		1	10091

Table 1 –

sh m	pos	name		pcs	Catalog number
1	23	Second drive gear		1	10079
1	(24)	Lock ring B50	BDS 2171-83	1	10152
1	10	Ring gear			10062
1	11-16;22	Second gear transmission		1	10050
1	11	Second planet gear wheel		3	10087
1	(12)	Lock ring A80	BDS 2171-83	3	10145
1	(13)	Lock ring		3	17314
1	(14)	Ball bearing	BDS 4843-84	3	10163
1	(15)	Lock ring		3	-
1	[16]	Second carrier with axis		1	10116
1	17	Seal		1	10142
1	18	Flange		1	10066
1	(19)	Spring washer 8H	BDS 833-82	8	10139
1	(20)	Screw M8x20 – 6,5	BDS 2171-83	8	10131
1	(21)	Ball bearing 6013-Z –65x100x18	BDS 4884-85	1	10163
1	22	Plug		1	10103

2. ROPE GUIDE

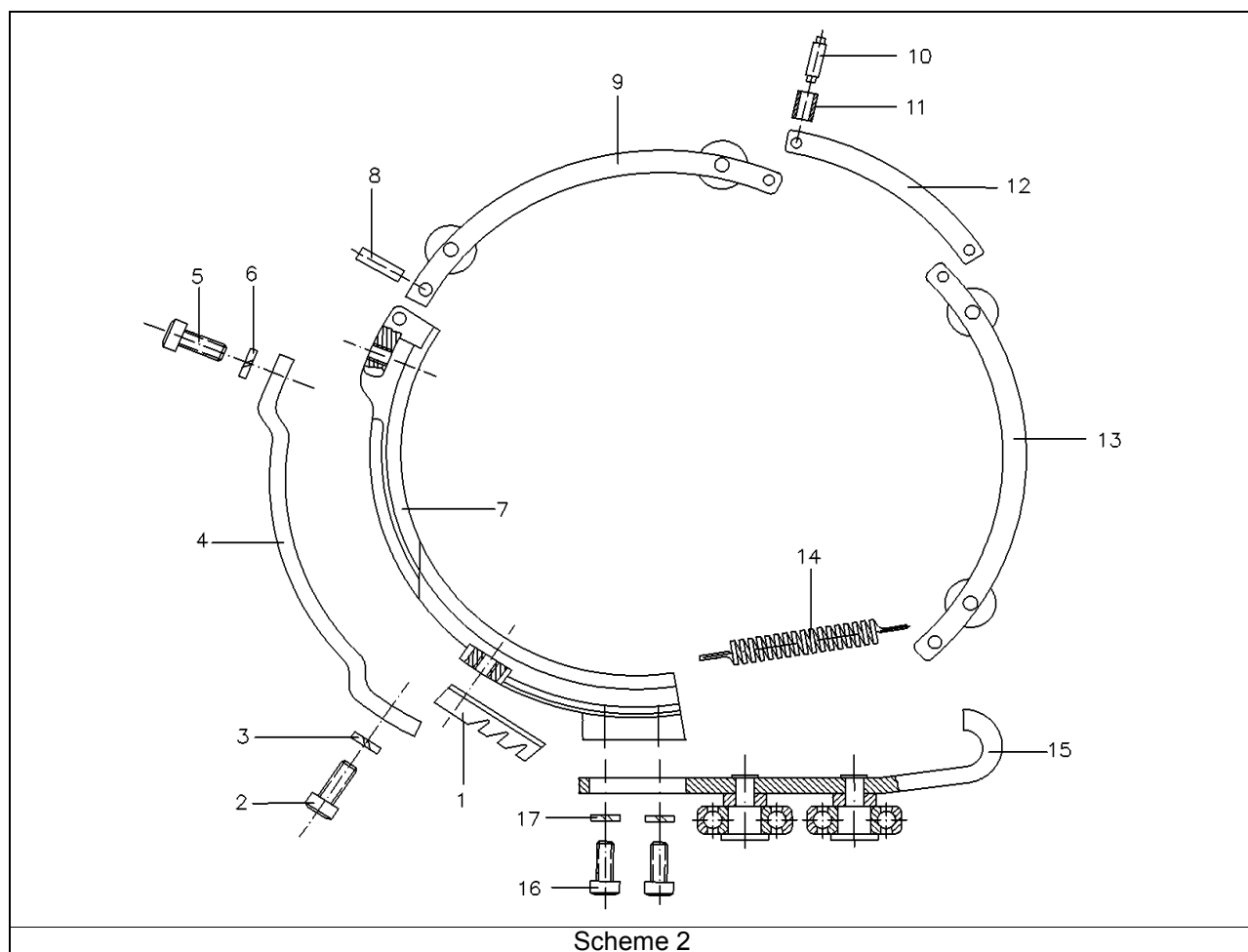


Table 2

reeving				2/1 и 4/1	
realization				NCB	HCB
sche me	Pos.	name	pcs	Catalog number	
2	1-16	Rope guide	1	14005	
2	1	Click	1	14009	
2	(2)	Bolt washer I M8x18 – 6,8	2	14087	
2	(3)	Spring washer – 8H	2	10139	
2	4	Rope catcher	1	14017	

Table 2

reeving				2/1 и 4/1	
Realization				NCB	HCB
sche me	Pos.	name	pcs	Catalog number	
2	(5)	Bolt I M8x18 – 6,8	2	14087	
2	(6)	Spring washer – 8H	2	10139	
2	7	Sector supporting	1	14022	
2	8	Spring pin	1	14025	
2	9	Sector pressing	1	14061	
2	10	Axis	2	14066	
2	11	Distance bush	2	14038	
2	12	Sector connectional	2	14034	
2	13	Sector pressing	1	14062	
2	14	Spring	1	14012	
2	[15]	Guide	1	14042	
2	(16)	Bolt M6x16 – 6,8	2	14085	
2	(17)	Spring washer – 6H	2	10138	

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

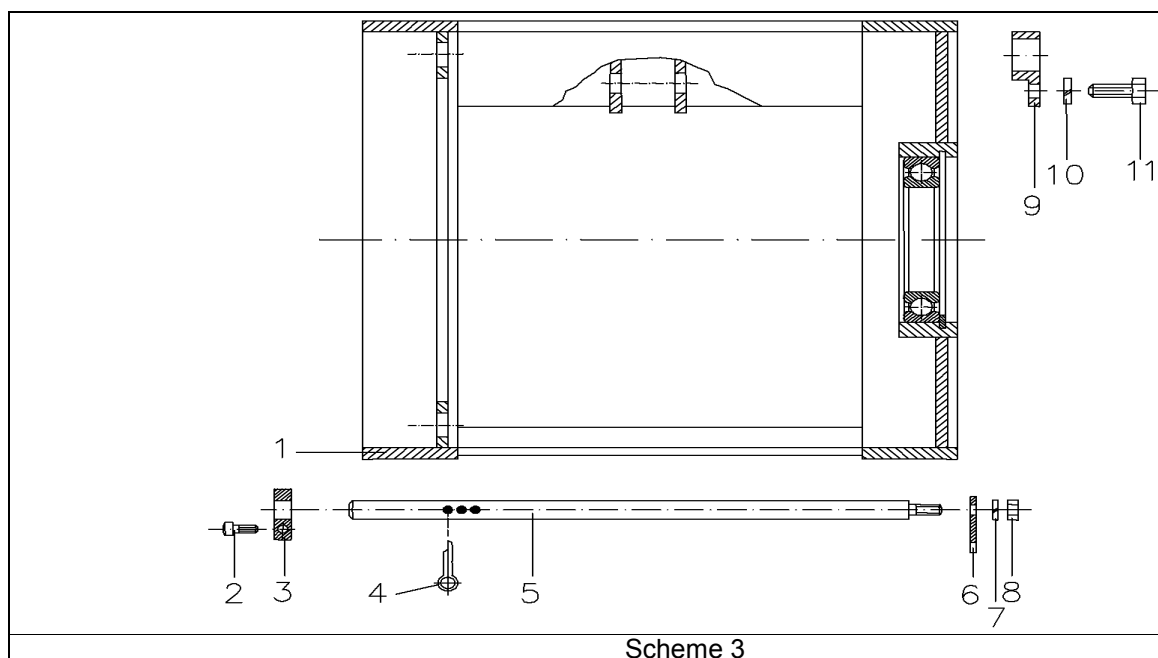


Table 3

sch eme	Pos.	name	re evi ng	pcs	realization							
					stationary							
					Lifting height (m)							
					6,3	9	12,5	15	18	25	30	36
3	1	Body	2/1	1	12029	12030	12031	-	12032	12030	-	-
3	1;8;9;10	Body	4/1	1	12356	12357	12358	-	-	-	-	-
3												
3					With trolley							
3	1	Body	2/1	1	126298	12630	12631	12632	12633	-	-	--
3	1;8;9;10	Body	4/1	1	12714	12715	12716			-	-	-
3												
3					Low headroom							
3	1	Body	2/1	1	12118	12119	12120	-	12121	12122	-	-
3	1;8;9;10	Body	4/1	1	12399	12400	124091			-	-	-
3					Details common to all performances							
3	(2)	Bolt M6x20 – 5,6	2/1;4/1	2	20127	20127	20127	20127	20127	20127	20127	20127
3	3	Ring	2/1;4/1	2	573282	573282	573282	573282	573282	573282	573282	573282
3	(4)	Split	2/1;4/1	2	20126	20126	20126	20126	20126	20126	20126	20126

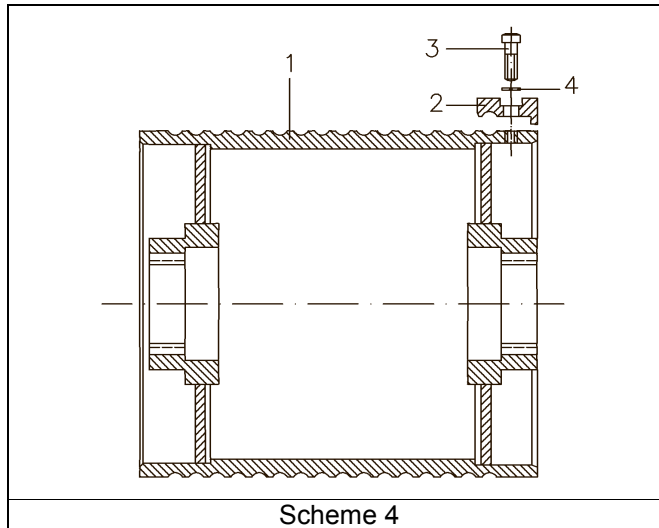
Table 3

sch eme	Pos.	name	ree vin g	P c s	realization							
					stationary							
					Lifting height (m)							
					6,3	9	12,5	15	18	25	30	36
3	5	Rod	2/1	1	20033	20034	20035	-	20036	20037		
3	5	Rod	4/1	1	20028	20029	20030			-	-	-
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	12411	12411	12411			-	-	-
3	(10)	Spring washer 2-8H	4/1	2	10138	10138	10138			-	-	-
3	(11)	Bolt I M6x18 - 6,8	4/1	2	12434	12434	12434			-	-	-

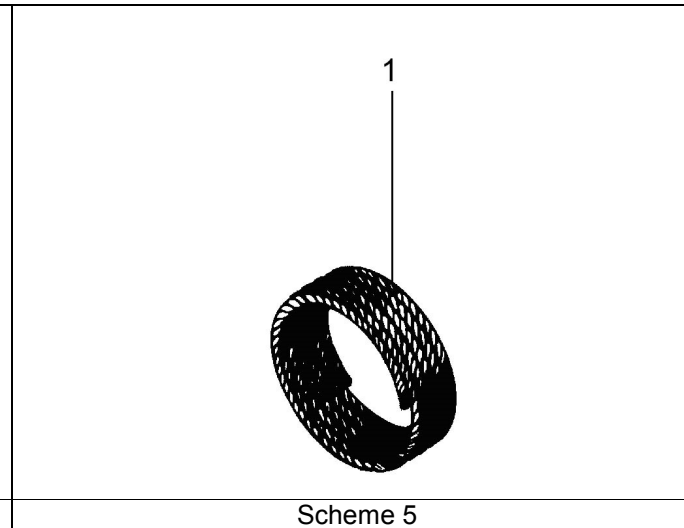
4. DRUM KIT, ROPE

Table 3.5.1

sche me	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	15064	15065	15066	-	15067	15068	15069	15070
4	[1]	4/1	Drum kit	1	15066	15067	15068	15069	15070	-	-	-
4	2	2/1;4/1	Strap	3	15074							
4	(3)	2/1;4/1	Screw M6x20 – 8,8	6	15093							
4	(4)	2/1;4/1	Spring washer 2 – 6H	6	10138							
5	1	2/1	Rope	1	20068	20069	20070		20071	20072		
5	1	4/1	Rope	1	20521	20522	20523			-	-	-



Scheme 4

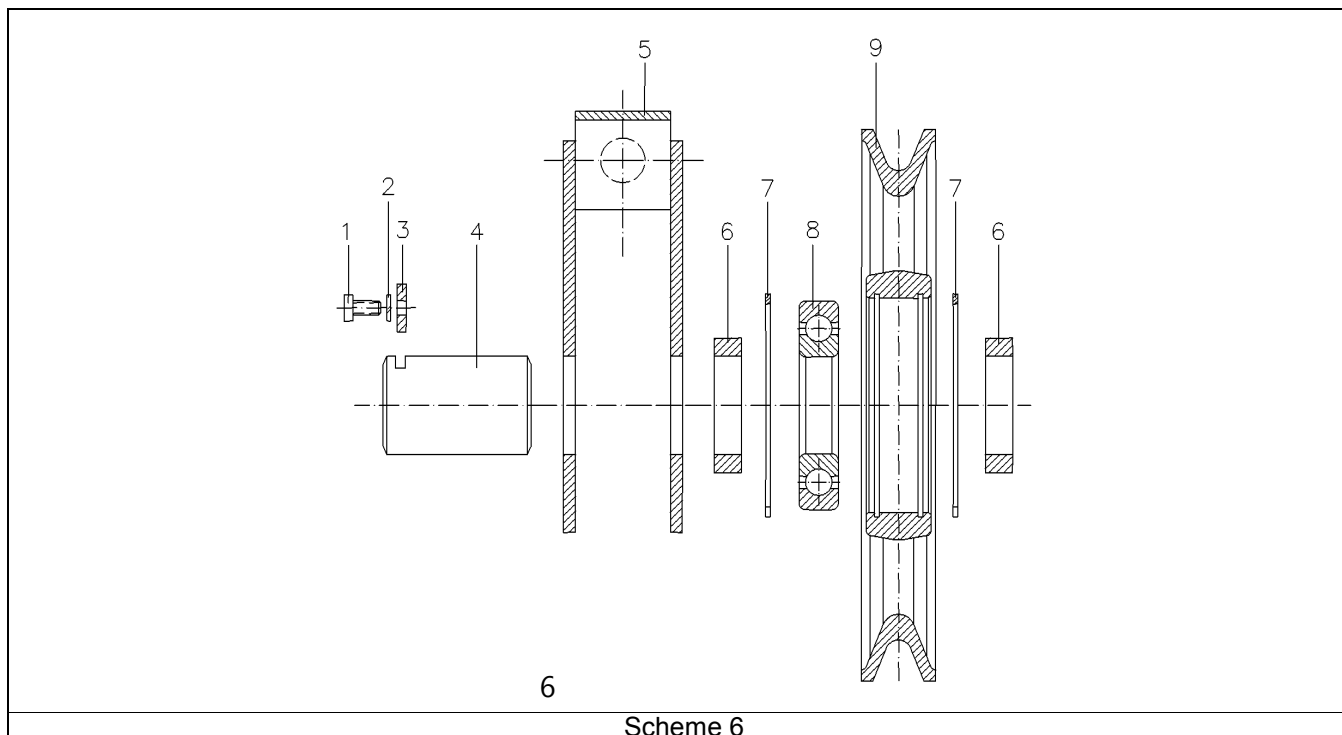


Scheme 5

5. TRAVERSE WITH ROLL KIT

Table 5

Reeving					4/1	
Realization					NCB.	HCB
sch	pos	name		pcs	Catalog number	
6	1+9	Traverse with roll		1	19005	
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	19025	
6	4	Axis		1	19016	
6	5	Traverse		1	19021	
6	6	Bush		2	19010	
6	(7)	Lock ring A72	BDS 2170-77	2	16543	
6	(8)	Ball bearing 6207-2Z	BDS 4884-85	1	19040	

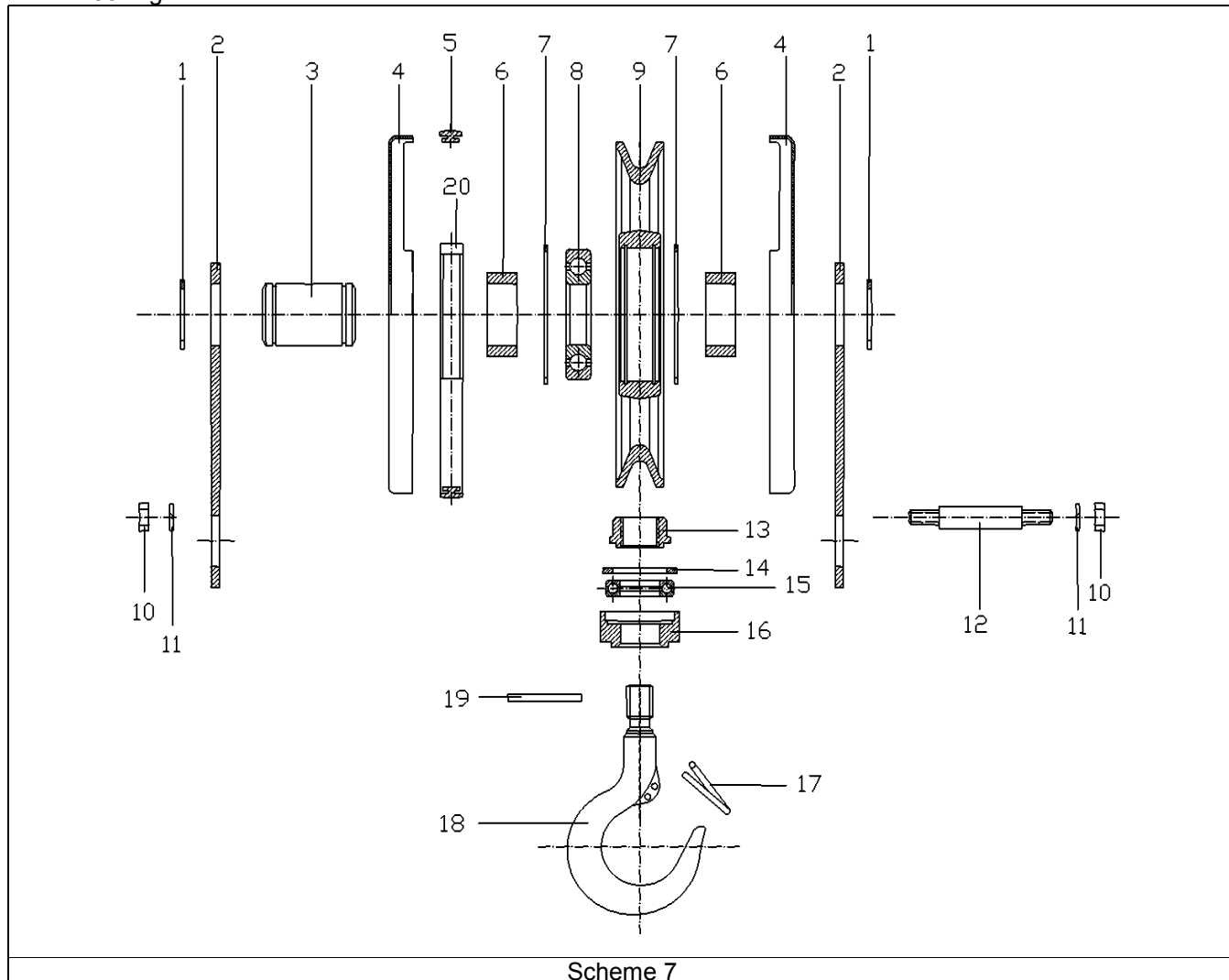


6

Scheme 6

6. ROLLER BLOCK

reeving 2/1



Scheme 7

Reeving 2/1

Table 6

Reeving					2/1
Capacity , (t) , working group				2m	2
Hook N DIN15400					1
Diameter of rope, mm					10
sche-me	pos	Name		pc s	Catalog number
7	1+19	Roller block		1	16125
7	(1)	Lock ring B35	BDS 2170-77	2	10149
7	2	Strap		2	16126
7	3	Axis		1	16131
7	4	Half-cover		2	16130
7	5	Top band		1	16134
7	6	Distance bush		2	16052
7	(7)	Lock ring A72	BDS 2170-77	2	16543
7	(8)	Ball bearing – 6207 – 2Z	BDS 4843-84	1	19040
7	9	Roll		1	16132
7	(10)	Nut II M6	BDS 1250-77	4	16139
7	(11)	Spring ring 2 6H	BDS 833-82	4	10138
7	12	Stud		2	16135

7	13	Nut		1	16038
7	14	Cap		1	16028
7	15	Bearing 51105	BDS 4852-85	1	16137
7	16	Traverse		1	16127
7	17	Spring (catch)		1	16018
7	18	Крюк однорогий		1	16010
7	19	Spring pin	DIN1481	1	16138
7	20	Bottom band		1	16128

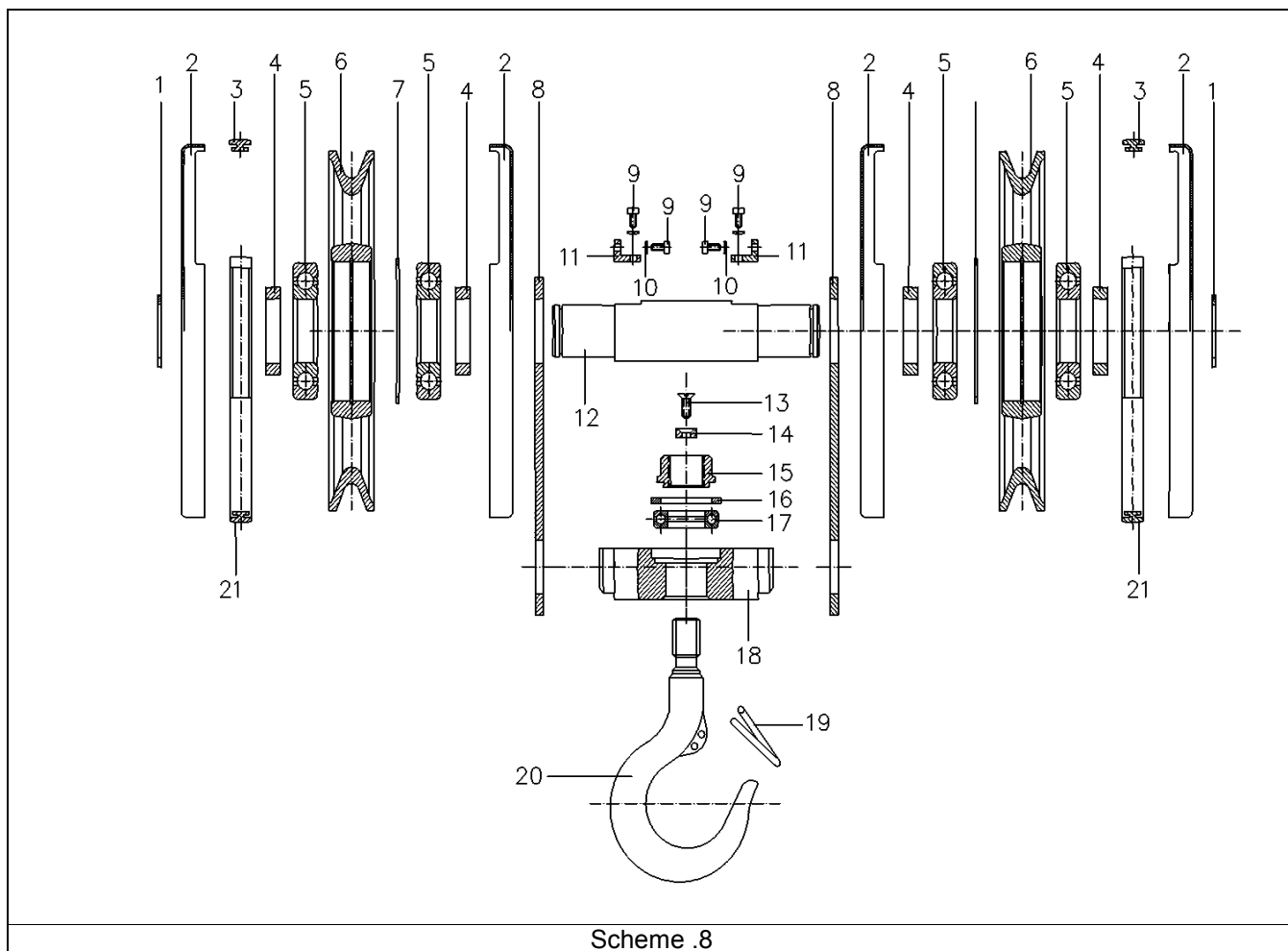
Reeving 4/1

Таблица

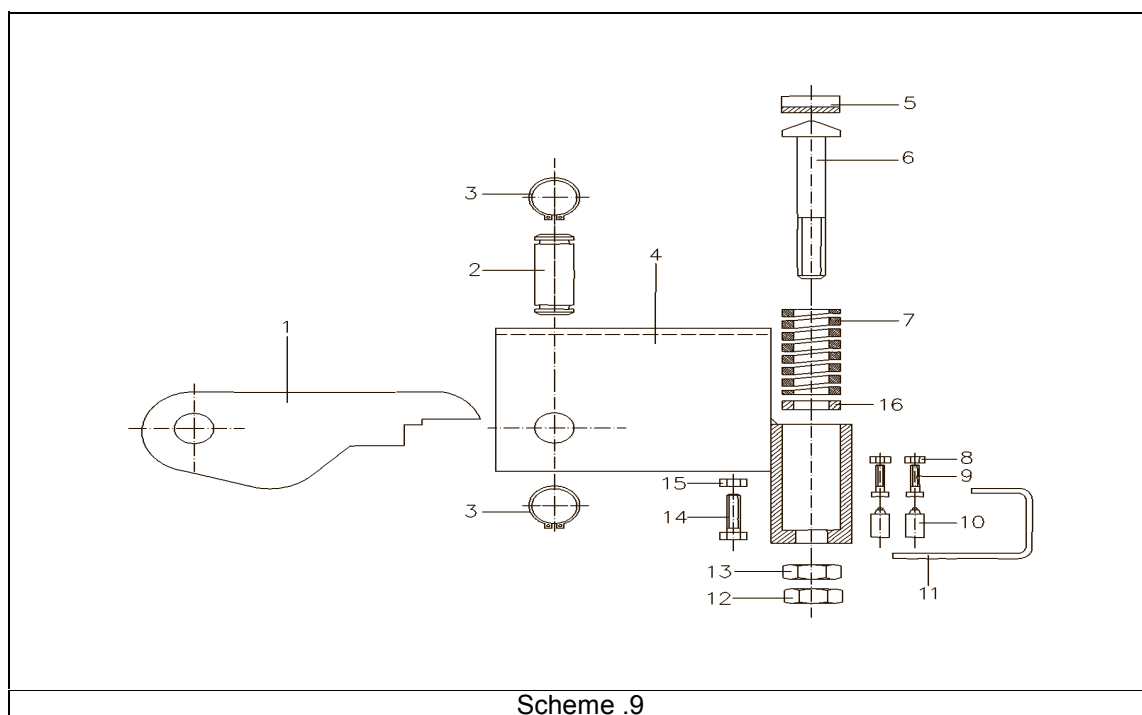
6.1

Reeving					4/1
Capacity , t , working group				2m	4
Hook N DIN15400					2,5
Diameter of rope, mm					10
sche me	pos	Name		P c s	Catalog number
8	1÷21	Roller block		1	16550
8	1	Lock ring B35		2	10149
8	2	Half - cover		4	16130
8	3	Top band		2	16134
8	4	Distance bush		2	16052
8	5	Ball bearing 6207 – Z	BDS 4843 – 84	4	16542
8	6	Roll		2	16132
8	7	Lock ring A72	BDS 2170-77	2	16543
8	8	Strap		2	16552
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	16554
8	13	Nut		1	16039
8	14	Cap		1	16029
8	17	Bearing 51107	BDS 4852-85	1	16059
8	18	Traverse		1	16551
8	19	Spring		1	16017
8	20	Hook		1	16011
8	21	Bottom band		2	16128

Reeving 4/1



7. LOAD LIMITER



9

Table 7

Reeving					/1; 4/1	Note
sche	pos	Name		pcs	Catalog number	
9	1÷12	Load limiter		1	13070	

9	1	Rocker		1	13074	
9	2	Axis		1	13072	
9	(3)	Lock ring B14	BDS – 2170-77	2	13077	
9	[4]	Frame		1	13071	
9	5	Plate		1	13051	
9	6	Special bolt		1	13075	
9	7	Spring G20-032		1	13078	"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	13076	
9	(12)	Nut M10 – 6	BDS 744-91	2	13060	
9	(13)	Nut M10 – 6	BDS 744-91	2	13060	
9	(14)	Bolt I M10x30 – 6,6	BDS 1234-85	1	13079	
9	(15)	Nut M10 – 6	BDS 744-91	1	13060	

8. SUSPENSION

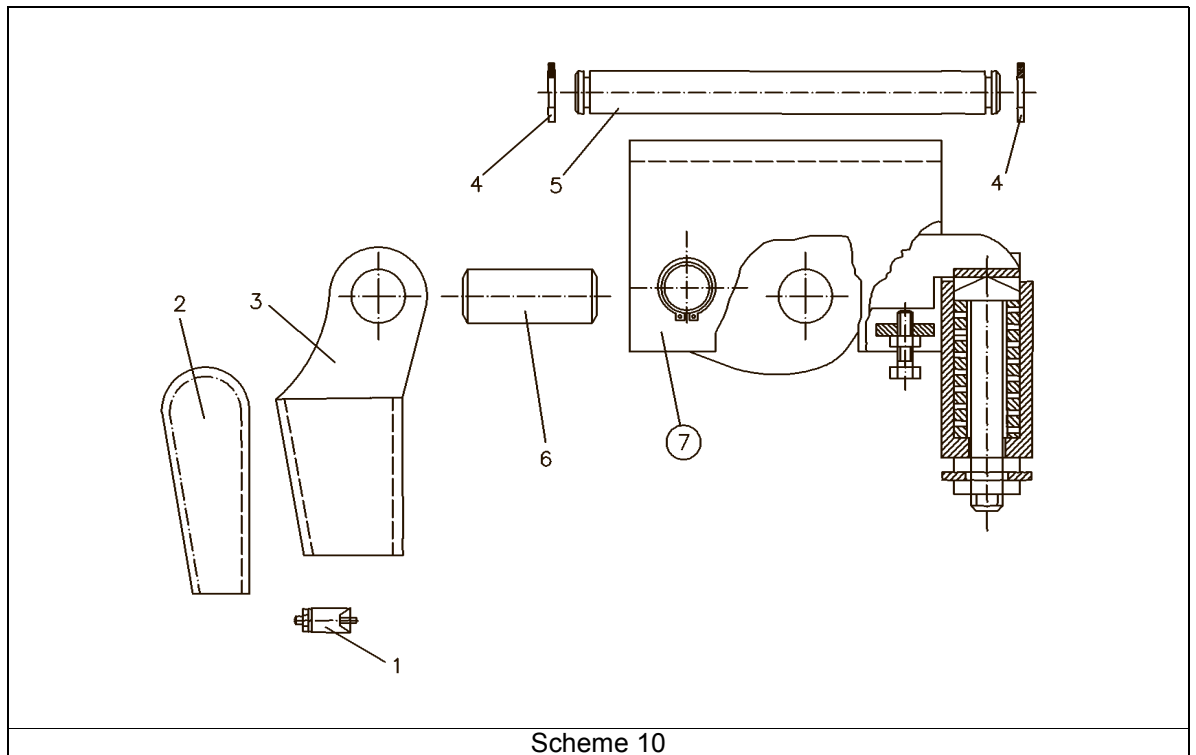
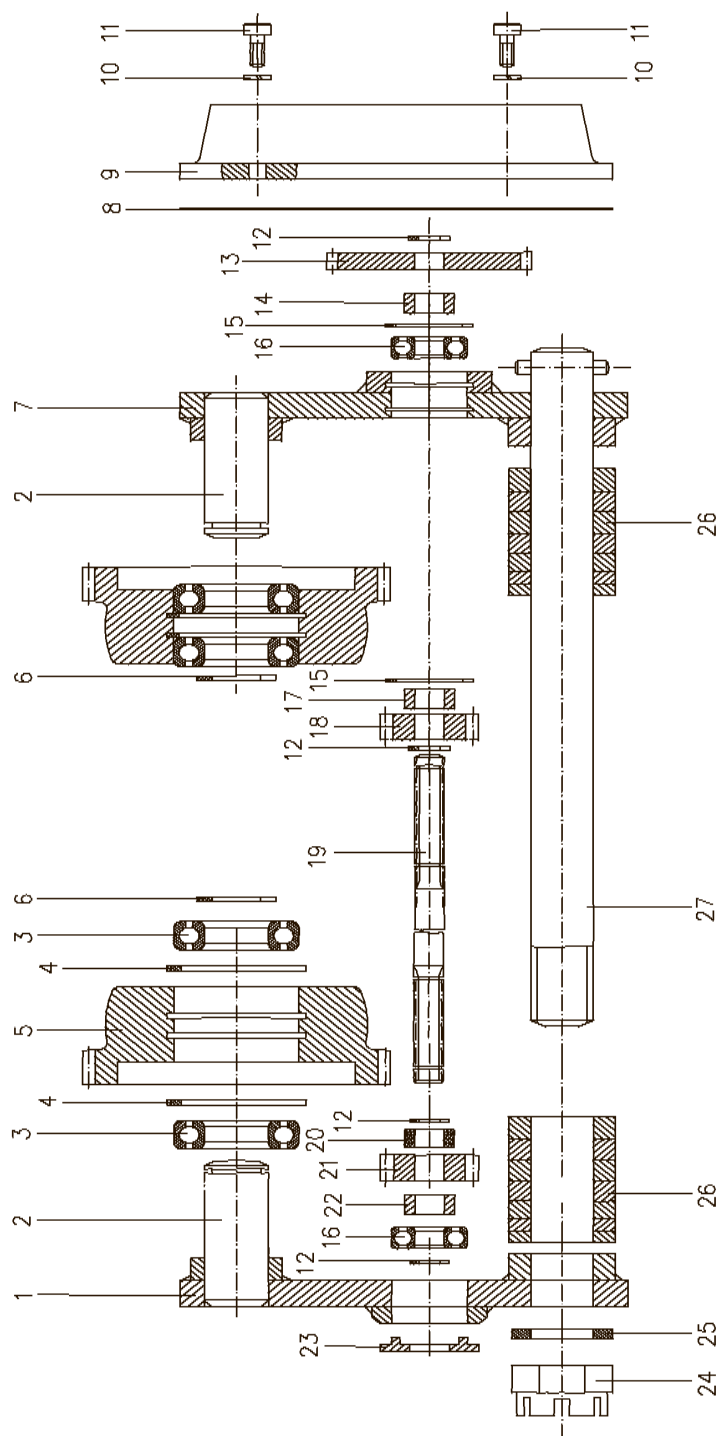


Table 8

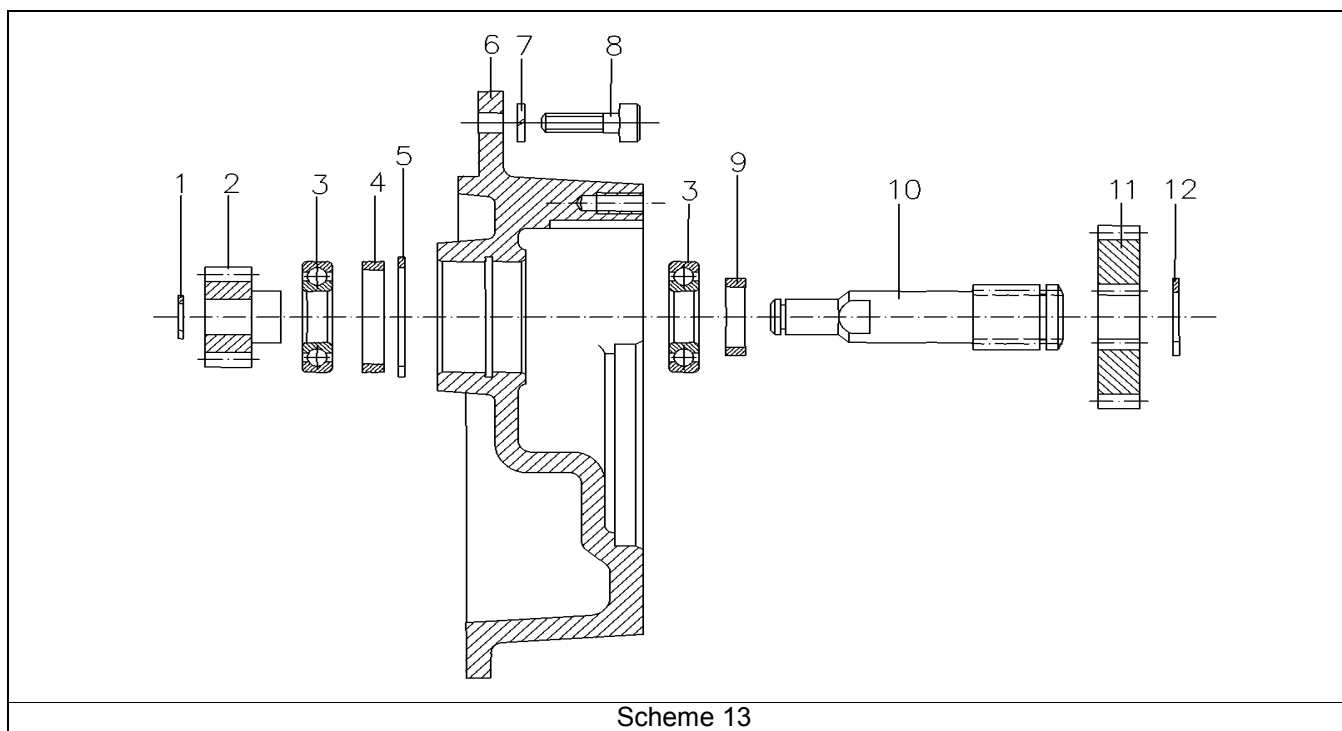
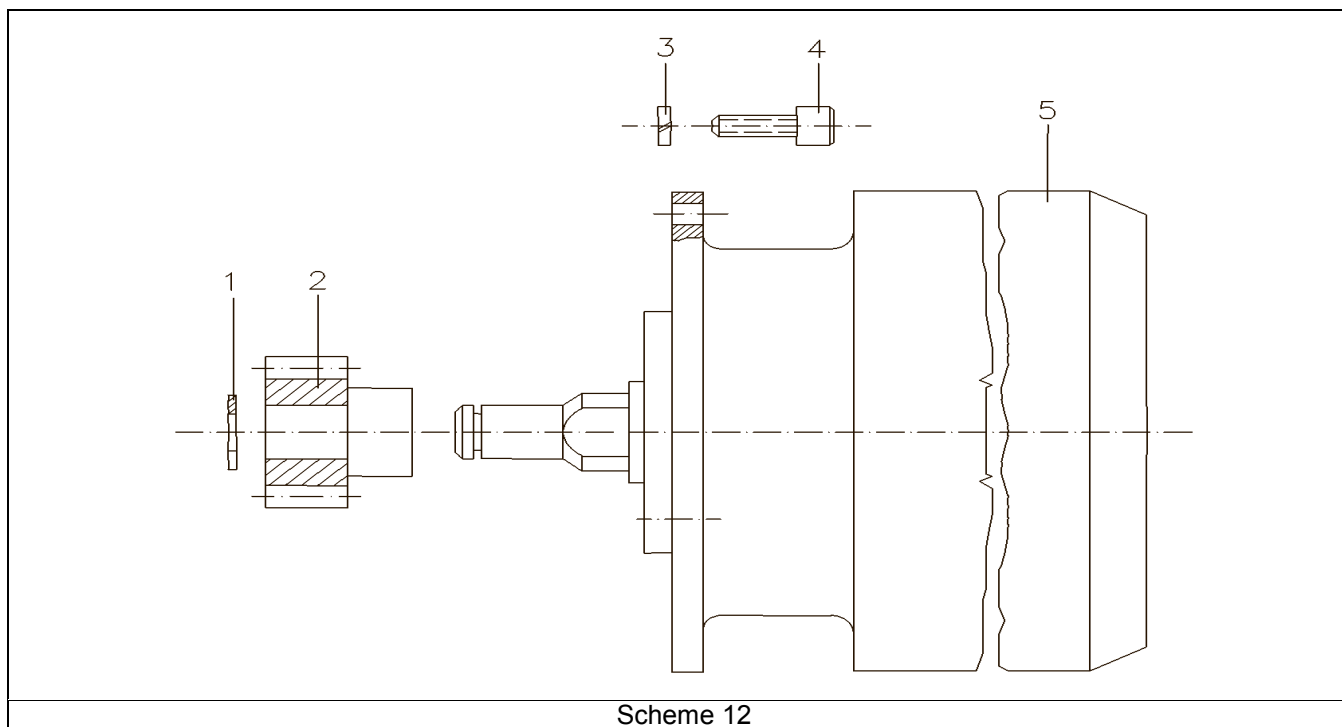
Reeving					2/1; 4/1	Note
sch	pos	Name		pcs.	Catalog number	
10	1	Slamp 10	DIN1142	1	20139	
10	2	Werge		1	260209	
10	3	Bush wedge		1	260197	
10	4	Lock ring B25	BDS 2170-77	2	130141	
10	5	Axis		1	20078	
10	6	Axis	10	1	13073	
10	7	Load limiter		1	13070	Table 7

9. TRAVELING MECHANISM – NORMAL HEADROOM

9.1 Traveling mechanism



Scheme 11



Reeving 2/1

table 9.1.1

Рис	Поз.	B_r	V_t (m/min)	Шт.	Наименование		Каталожный номер
		110	15	1	Traveling mechanism		17316
		110	20	1	Traveling mechanism		17362
		110	25	1	Traveling mechanism		17363
		110	30	1	Traveling mechanism		17364
		110	36	1	Traveling mechanism		17365
		110	43	1	Traveling mechanism		17366
		110	33/10	1	Traveling mechanism		17367
		110	36/11	1	Traveling mechanism		17368

		110	43/13	1	Traveling mechanism		17369
		300	15	1	Traveling mechanism		17370

Reeving 2/1

table 9.1.1

sch	pos	B _r	V _t (m/min)	pcs	Name	Catalog number
		300	20	1	Traveling mechanism	17371
		300	25	1	Traveling mechanism	17372
		300	30	1	Traveling mechanism	17373
		300	36	1	Traveling mechanism	17374
		300	43	1	Traveling mechanism	17375
		300	33/10	1	Traveling mechanism	17376
		300	36/11	1	Traveling mechanism	17377
		300	43/13	1	Traveling mechanism	17378
		300	15	1	Traveling mechanism	17379
		300	20	1	Traveling mechanism	17380
		110÷300	25	1	Traveling mechanism	17381
		110÷300	30	1	Traveling mechanism	17382
		110÷300	36	1	Traveling mechanism	17383
		110÷300	43	1	Traveling mechanism	17384
		110÷300	33/10	1	Traveling mechanism	17385
		110÷300	36/11	1	Traveling mechanism	17386
		110÷300	43/13	1	Traveling mechanism	17387
12	1;2;5	110÷300	15	1	Electric motor with pinion	17456
12	1;2;5	110÷300	20	1	Electric motor with pinion	17457
12	1;2;5	110÷300	25	1	Electric motor with pinion	17458
12	1;2;5	110÷300	30	1	Electric motor with pinion	17459
12	1;2;5	110÷300	36	1	Electric motor with pinion	17460
12	1;2;5	110÷300	43	1	Electric motor with pinion	17461
12	1;2;5	110÷300	33/10	1	Electric motor with pinion	17462
12	1;2;5	110÷300	36/11	1	Electric motor with pinion	17463
12	1;2;5	110÷300	43/13	1	Electric motor with pinion	17464
12	5	110÷300	15	1	Electric motor	17308
12	5	110÷300	20	1	Electric motor	17308
12	5	110÷300	25	1	Electric motor	17308
12	5	110÷300	30	1	Electric motor	17522
12	5	110÷300	36	1	Electric motor	17522
12	5	110÷300	43	1	Electric motor	17522
12	5	110÷300	33/10	1	Electric motor	17310
12	5	110÷300	36/11	1	Electric motor	17310
12	5	110÷300	43/13	1	Electric motor	17310
12	2	¹ 110÷300	15	1	Pinion	17465
12	2	110÷300	20	1	Pinion	17466
12	2	110÷300	25	1	Pinion	17467
12	2	110÷300	30	1	Pinion	17468
12	2	110÷300	36	1	Pinion	17466
12	2	110÷300	43	1	Pinion	17467
12	2	110÷300	33/10	1	Pinion	17517
12	2	110÷300	36/11	1	Pinion	17518
12	2	110÷300	43/13	1	Pinion	17519
12	1	110÷300	+	1	Lock ring 130	BDS 2170-77 17521

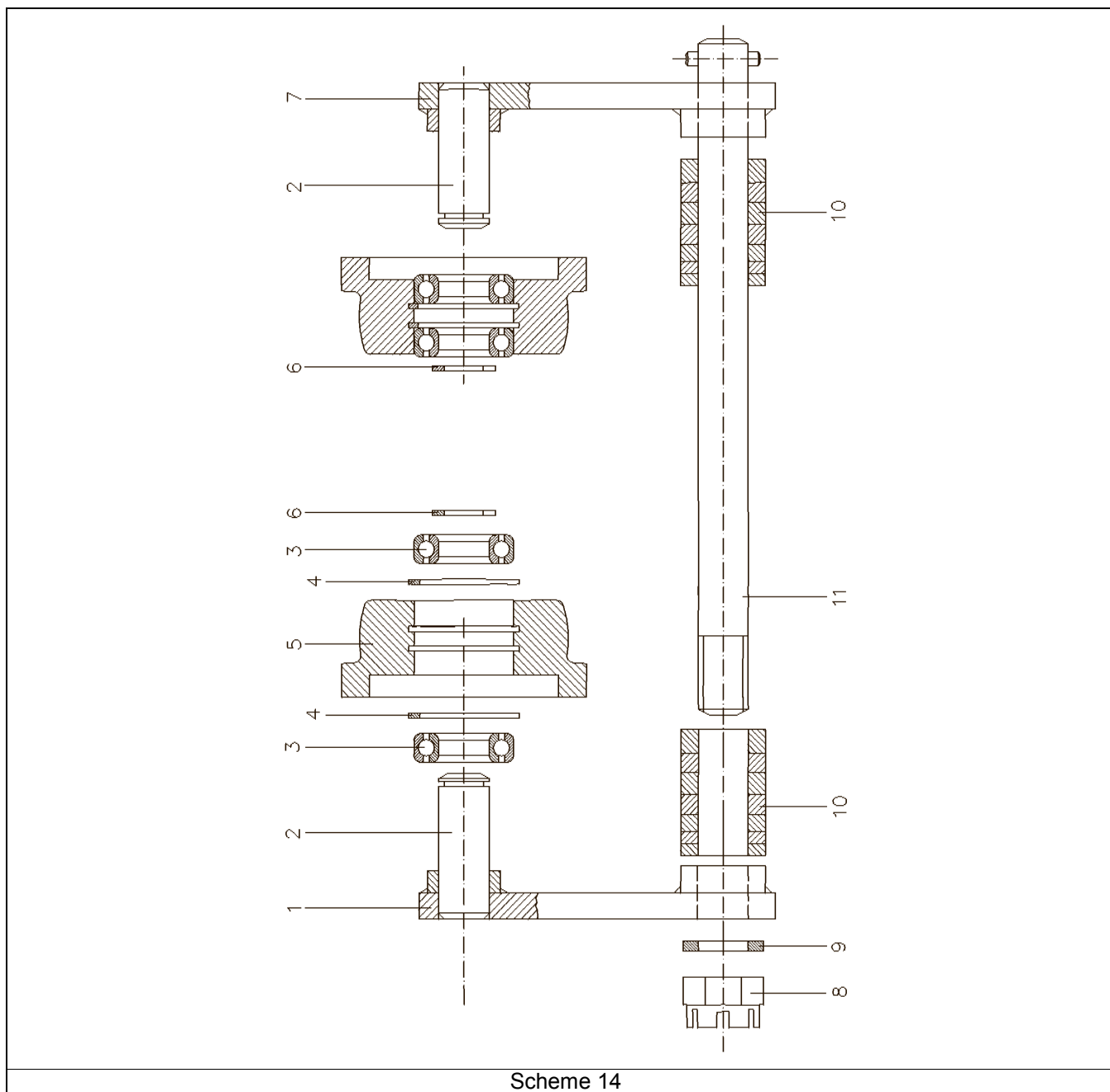
12	3	110+300	+	3	Spring washer 2 8H	BDS 833-82	10139
12	4	110+300	+	3	Screw 1 M8x20 – 8,8	BDS 2171-83	17324

Reeving 2/1

table 9.1.1

Sch	pos.	Br	V _t (m/min)	pcs	Name		Catalog number
11	1	110+300	+	1	Hind carrier		17452
11	2	110+300	+	2	Axis		17442
11	3	110+300	+	4	Ball bearing 6206 - Z	BDS 4884-85	17507
11	4	110+300	+	4	Lock ring A62	BDS 2170-77	18085
11	5	110+300	+	2	Moves wheel		17440
11	6	110+300	+	2	Lock ring B30	BDS 2170-77	10148
11	7	110+300	+	2	Hind carrier basic		17469
11	8	110+300	+	1	Seal		17446
11	9	110+300	+	1	Case		17446
11	10	110+300	+	4	Spring washer 2 8H	BDS 833-82	10139
11	11	110+300	+	4	Screw 1 M8x20 – 8,8	BDS 2171-83	17324
11	12	110+300	+	4	Lock ring B15	BDS 2171-83	17504
11	13	110+300	15;	1	Gear wheel		17436
11	13	110+300	20; 30; 36/11	1	Gear wheel		17437
11	13	110+300	25;43; 43/133	1	Gear wheel		17438
11	14;17; 22	110+300	+	3	Distance bush		17432
11	15	110+300	+	2	Lock ring A42		17506
11	16	110+300	+	2	Ball bearing 6302 – Z	BDS 4884-85	17508
11	18;21	110+300	+	2	Gear wheel		17435
11	19	110+300	+	1	Drive shaft		17418
11	20	110+300	+	1	Composition of washers:		
				5	Washer		17170
				1	Washer		17184
11	14;17; 22	130+300	+	3	Distance bush		17155
11	23	110+300	+	1	Cap		17104
11	24	110+300	+	2	Nut M20	BDS 1253-83	17322
11	25	110+300	+	2	Chock bush		17096
11	26	110+300	+	4	Composition of washers:		
				3	Washer		17099
				1	Washer		17102
				1	Addition bush		17119
11	27	110+300	+	2	Stud		17400

9.2 Traveling block



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

table 9.2.1

Таблица 9.2.1 –

продолжение

sch	pos	B _r	V _t (m/min)	pcs	Name		Catalog number
14	1+11	110+300	+	1	Traveling block		17502
14	1	110+300	+	1	Hind carrier		17493
14	2	110+300	+	1	Axis		17442
14	3	110+300	+	4	Ball bearing 6206	BDS 4884-85	177507
14	4	110+300	+	4	Lock ring A62	BDS 2170-77	18085
14	5	110+300	+	2	Moves wheel		17441
14	6	110+300	+	2	Lock ring B30	BDS 2170-77	10148
14	7	110+300	+	1	Front carrier		17496
14	8	110+300	+	2	15 Nut M16 – 8,8	BDS 1253-83	17509

14	9	110÷300	+	2	Chock bush		17401
14	10	110÷300	+	4	Composition of washers		
14		110÷300	+	3	Washer		17401
14		110÷300	+	1	Washer		17170
14		110÷300	+	4	Addition bush		17198
14		110÷300	+	4	Addition bush		17449
14		110÷300	+	8	Addition bush		17198
14		110÷300	+	4	Addition bush		17200
14	11	110÷300	+	2	Stud		17400

Note : The symbol „ 110 – 300 „ means that the traveling block is produced with stud for specific width of rail profil from 110 to 300 mm or the traveling block is produced with stud providing width control of rail profil from 110 to 300 mm

The symbol „ 110÷300 „ means that the traveling block is produced with stud providing width control of rail profil from 110 to 300 mm.

9.3 Hinged block

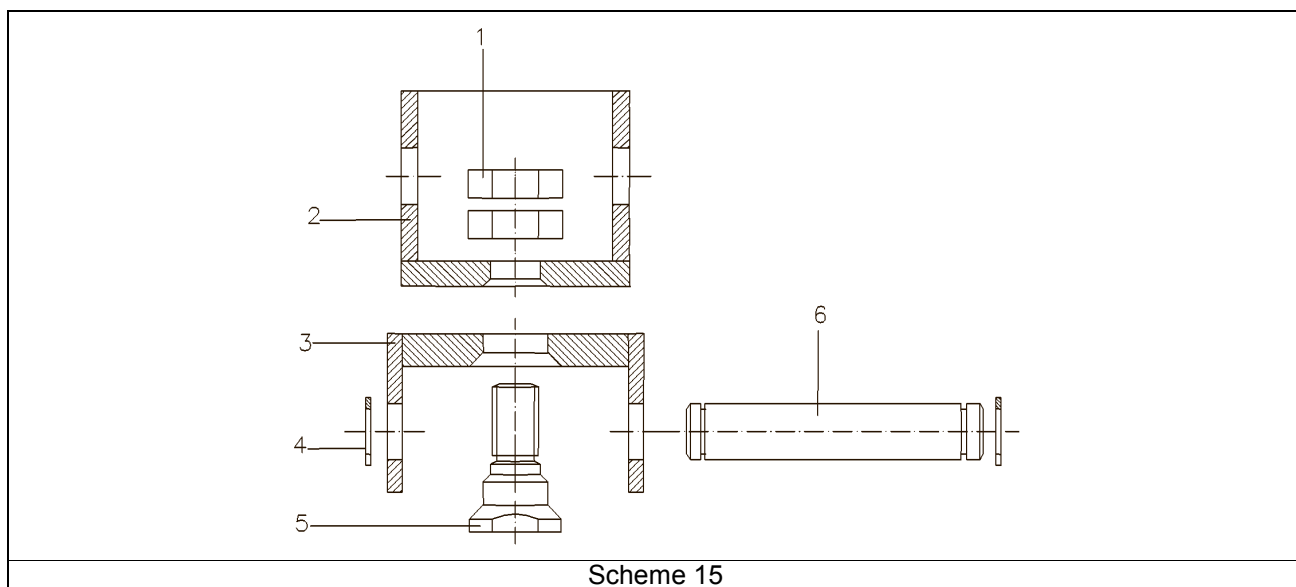
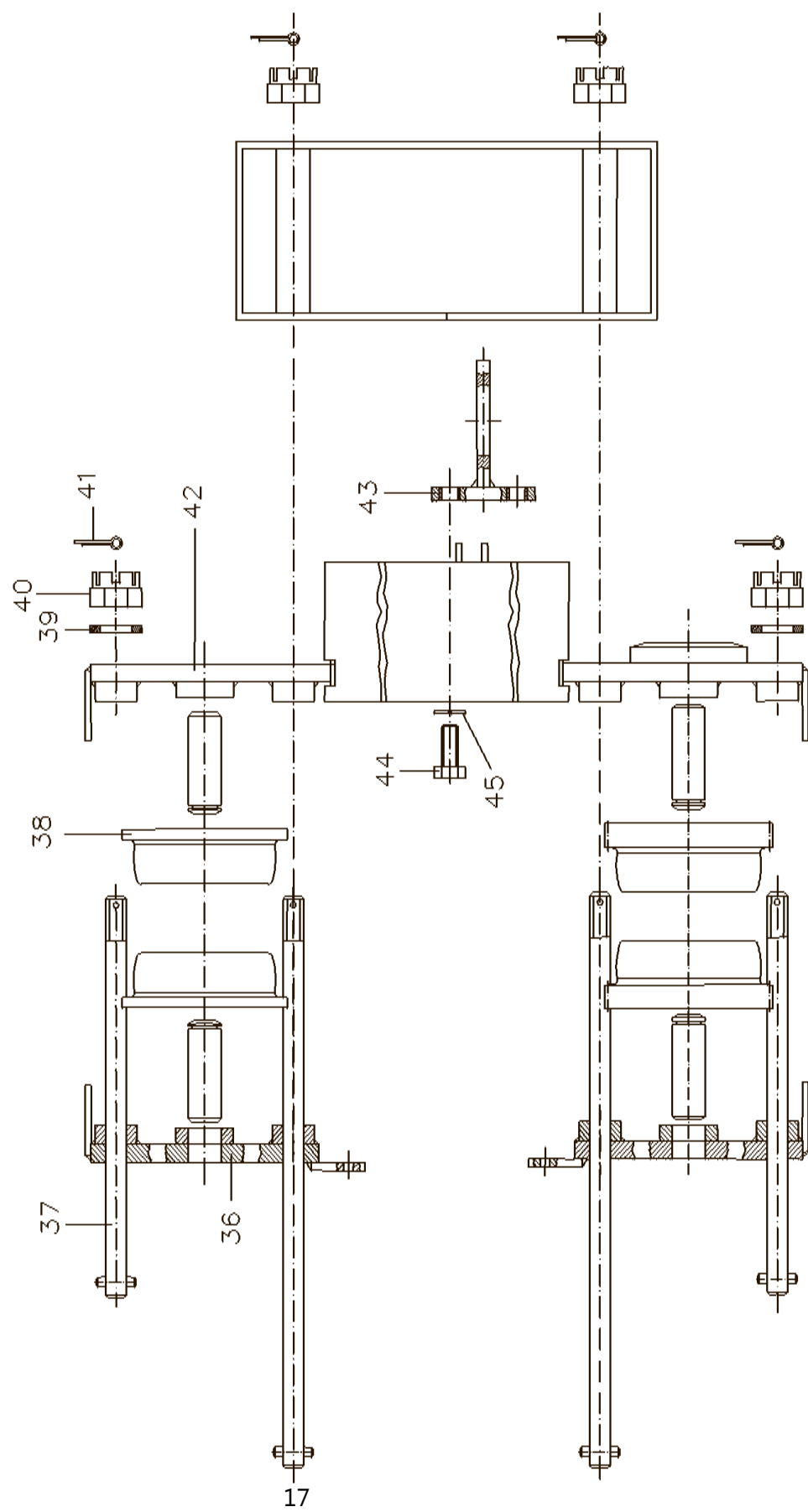
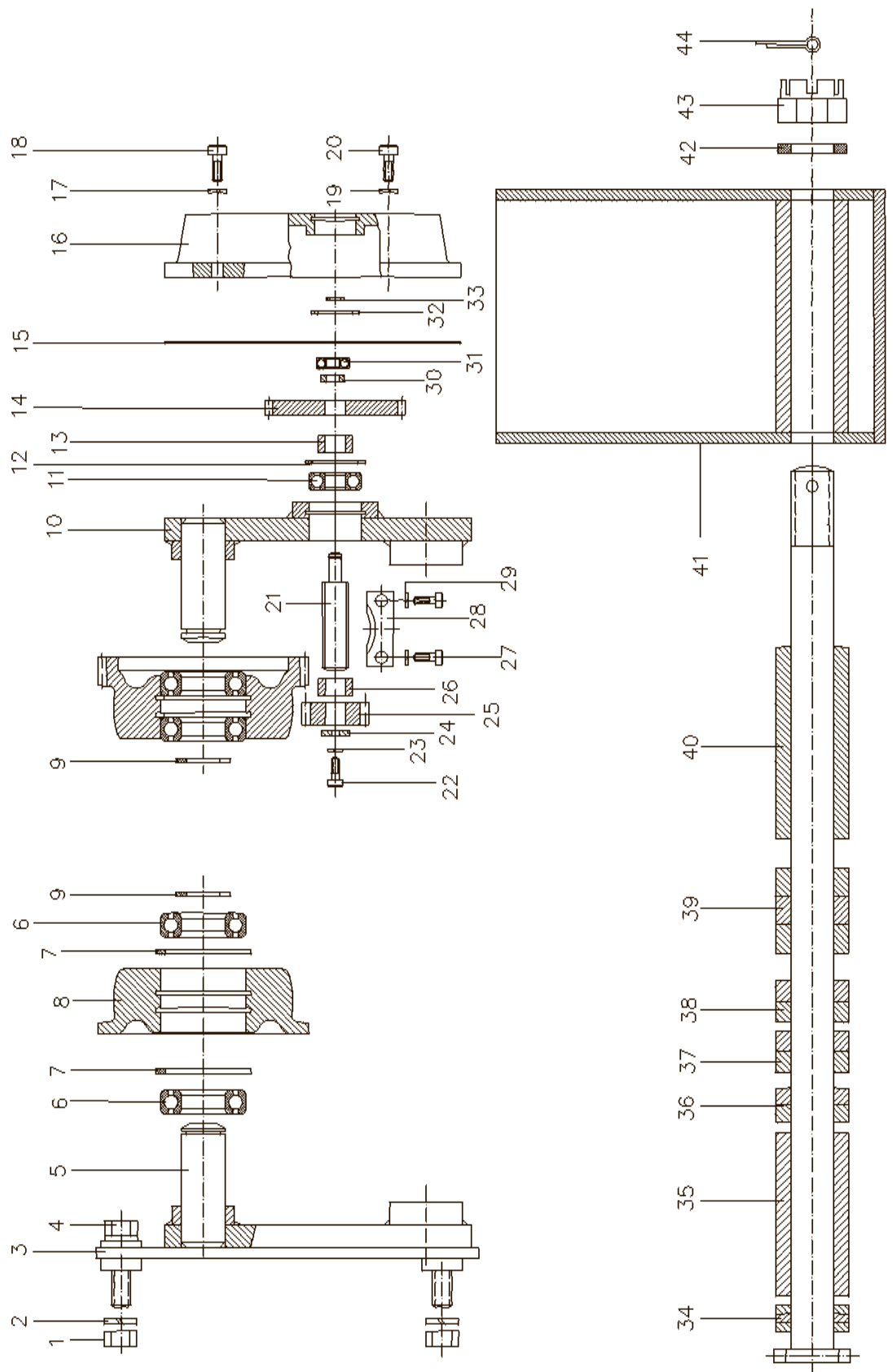


Table 9.3

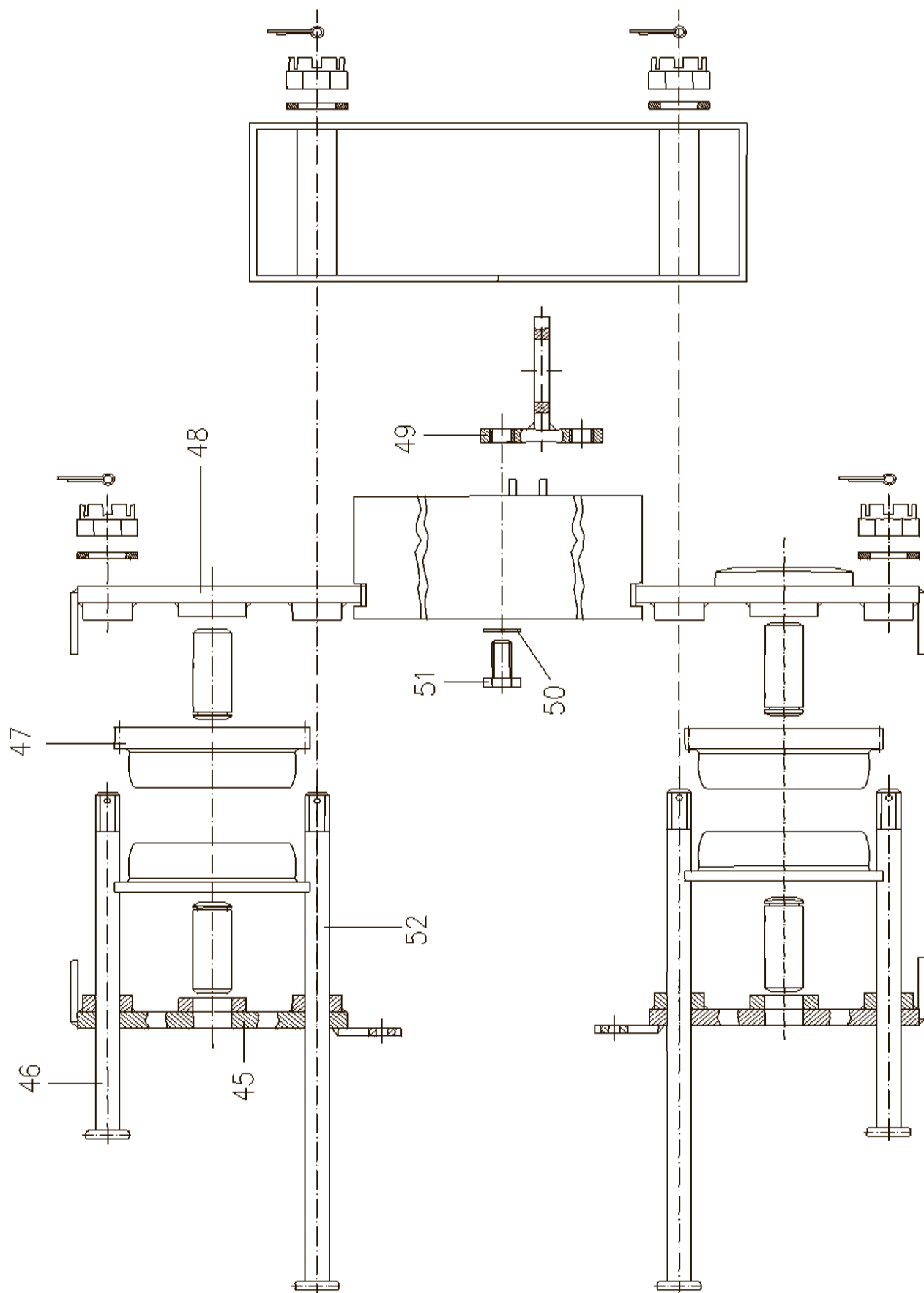
sch	Pos.	pcs	Name		Catalod number	
					Reeving 2/1	Reeving 4/1
15	1 - 6	2	Hinget block		22001	22002
15	1	2	Nut I 24	BDS 1251-83	22025	-
15	1	2	Nut I 30	BDS 1251-83	-	22026
15	2	1	Top carrier		22017	22018
15	3	1	Bottom carrier		22007	22008
15	4	4	Lock ring B25	BDS 2170-77	13037	-
15	4	4	Lock ring B32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

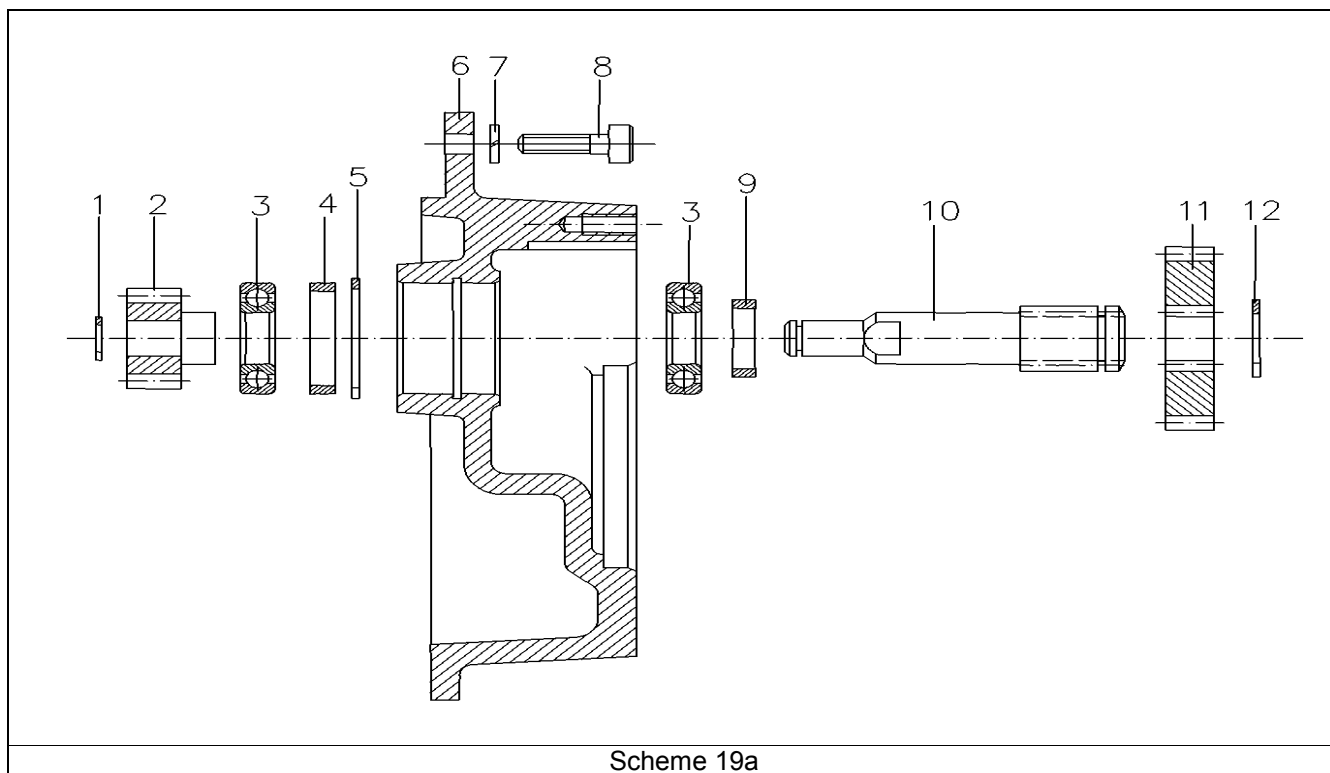
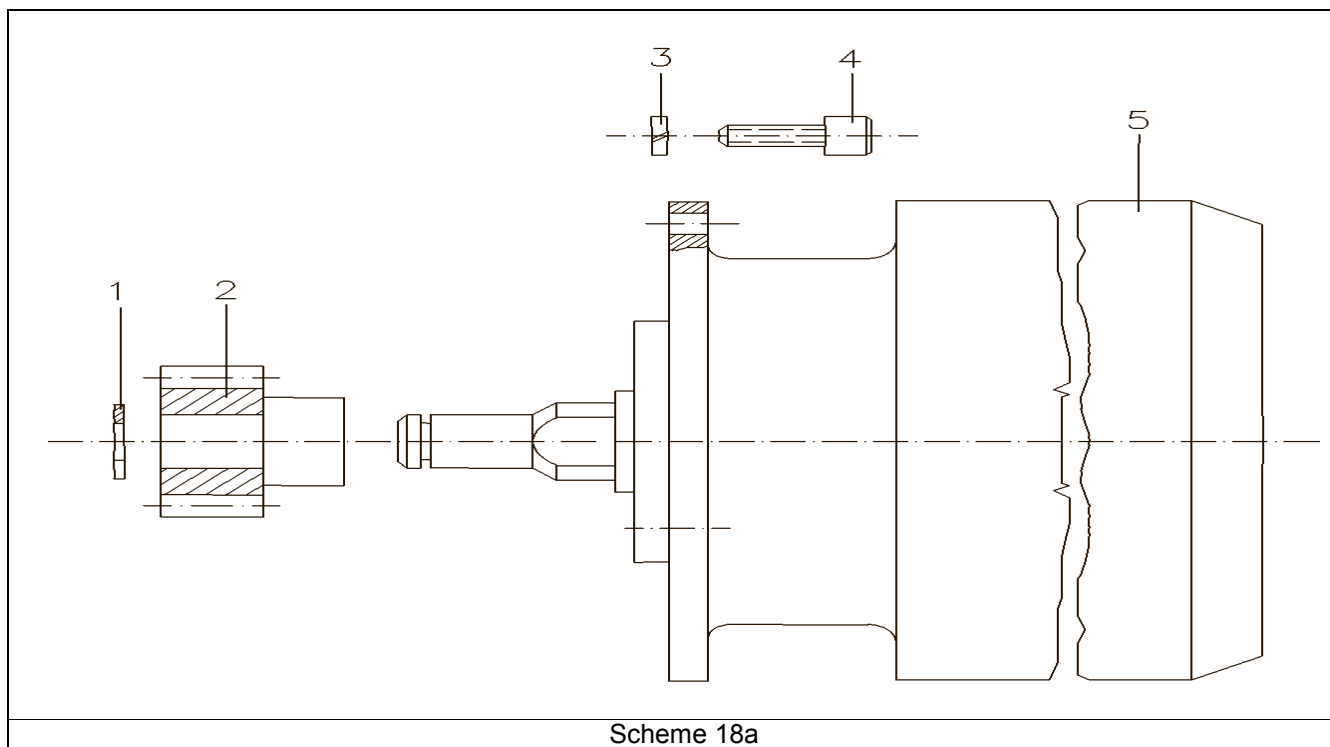


11. TRAVELING MECHANISM – LOW HEADROOM -ONE-SIDE DRIVEN



Scheme 16a





11.1 reeving 2/1

Table 11.1

sch	pos.	B _r	V _t (m/min)	H _p (m)	pcs	Name		Catalog number
		+	15	6,3	1	Traveling mechanism		23012
		+	20	6,3	1	Traveling mechanism		23013
		+	25	6,3	1	Traveling mechanism		23014
		+	30	6,3	1	Traveling mechanism		23015
		+	36	6,3	1	Traveling mechanism		23016

		+	43	6,3	1	Traveling mechanism		23017
		+	29/9	6,3	1	Traveling mechanism		23018
		+	35/11	6,3	1	Traveling mechanism		23019
		+	41/13	6,3	1	Traveling mechanism		23020
		+	16/8	6,3	1	Traveling mechanism		23021
			22/11	6.3	1	Traveling mechanism		23022
			27/13	6.3	1	Traveling mechanism		23023
		+	15	9	1	Traveling mechanism		23036
		+	20	9	1	Traveling mechanism		23037
		+	25	9	1	Traveling mechanism		23038
		+	30	9	1	Traveling mechanism		23039
		+	36	9	1	Traveling mechanism		23040
		+	43	9	1	Traveling mechanism		23041
		+	29/9	9	1	Traveling mechanism		23042
		+	35/11	9	1	Traveling mechanism		23043
		+	41/13	9	1	Traveling mechanism		23044
		+	16/8	9	1	Traveling mechanism		23045
			22/11	9	1	Traveling mechanism		23046
			27/13	9	1	Traveling mechanism		23047
16a;	1-44	+	15	12,5	1	Traveling mechanism		23060
17a;	45-52	+	20	12,5	1	Traveling mechanism		23061
18a;	1-5	+	25	12,5	1	Traveling mechanism		23062
19a	1-12	+	30	12,5	1	Traveling mechanism		23063
		+	36	12,5	1	Traveling mechanism		23064
		+	43	12,5	1	Traveling mechanism		23065
		+	29/9	12,5	1	Traveling mechanism		23066
		+	35/11	12,5	1	Traveling mechanism		23067
		+	41/13	12,5	1	Traveling mechanism		23068
		+	16/8	12,5	1	Traveling mechanism		23069
			22/11	12.5	1	Traveling mechanism		23070
			27/13	12.5	1	Traveling mechanism		23071
		+	15	18	1	Traveling mechanism		23084
		+	20	18	1	Traveling mechanism		23085
		+	25	18	1	Traveling mechanism		23086
		+	30	18	1	Traveling mechanism		23087
		+	36	18	1	Traveling mechanism		23088
		+	43	18	1	Traveling mechanism		23089
		+	29/9	18	1	Traveling mechanism		23090
		+	35/11	18	1	Traveling mechanism		23091
		+	41/13	18	1	Traveling mechanism		23092
		+	16/8	18	1	Traveling mechanism		23093
			22/11	18	1	Traveling mechanism		23094
			27/13	18	1	Traveling mechanism		23095
		+	15	25	1	Traveling mechanism		23108
		+	20	25	1	Traveling mechanism		23109
		+	25	25	1	Traveling mechanism		23110
		+	30	25	1	Traveling mechanism		23111
		+	36	25	1	Traveling mechanism		23112
		+	43	25	1	Traveling mechanism		23113
		+	29/9	25	1	Traveling mechanism		23114

		+	35/11	25	1	Traveling mechanism		23115
		+	41/13	25	1	Traveling mechanism		23116
		+	16/8	25	1	Traveling mechanism		23117
			22/11	25	1	Traveling mechanism		23118
			27/13	25	1	Traveling mechanism		23119
	5	+	15	+	2	Electric motor		17308
		+	20	+	2	Electric motor		17308
	5	+	25	+	2	Electric motor		17308
	5	+	30	+	2	Electric motor		17522
	5	+	36	+	2	Electric motor		17522
	5	+	43	+	2	Electric motor		17522
	5	+	29/9	+	2	Electric motor		17310
	5	+	35/11	+	2	Electric motor		17310
18a	5	+	41/13	+	2	Electric motor		17310
	5	+	16/8	+	2	Electric motor		17326
			22/11		2	Electric motor		17326
			27/13		2	Electric motor		17326
	2	+	15	+	2	Pinion		17465
	2	+	20	+	2	Pinion		17466
	2	+	25	+	2	Pinion		17467
	2	+	30	+	2	Pinion		17468
	2	+	36	+	2	Pinion		17466
	2	+	43	+	2	Pinion		17467
	2	+	29/9	+	2	Pinion		17468
	2	+	35/11	+	2	Pinion		17466
			41/13		2	Pinion		17467
			16/8		2	Pinion		17465
			22/11		2	Pinion		17466
			27/13		2	Pinion		17467

Table - 11.1

sch	Pos.	Br	V _t (m/min)	Hp (m)	pcs	Name		Catalog number
18a	1	+	+	+	1	Lock ring B10	BDS 2170-77	17521
	3	+	+	+	3	Spring washer 2 8H	BDS 833-82	10139
	4	+	+	+	3	Screw 1 M8x16 – 8,8	BDS 2171-83	17324
	1	+	+	+	4	Nut M16 – 8	BDS 1234-85	21337
	2	+	+	+	4	Spring washer 2 16H	BDS 833-82	21342
	3	+	+	+	1	Hind plate basic		21820
	4	+	+	+	4	Bolt M16x50 – 8,8	BDS 1234-85	21340
	5	+	+	+	4	Axis		17178
	6	+	+	+	8	Ball bearing 6206-Z	BDS 4884-85	17320
	7	+	+	+	8	Lock ring A62	BDS 2170-77	10145
	8	+	+	+	2	Moves wheel		17441
	9	+	+	+	4	Lock ring B30	BDS 2170-77	10148
	10	+	+	6,3	1	Traverse with carrier		23263
	10	+	+	9	1	Traverse with carrier		23264
	10	+	+	12,5	1	Traverse with carrier		23265
	10	+	+	18	1	Traverse with carrier		23266
	10	+	+	25	1	Traverse with carrier		23267

	11	+	+	+	2	Ball bearing 6302-Z	BDS 4884-85	23287
	12	+	+	+	2	Lock ring A42	BDS 2170-77	17506
	13	+	+	+	2	Distance bush		17516
	14	+	15	+	2	Gear wheel		17436
		+	20	+	2	Gear wheel		17437
		+	25	+	2	Gear wheel		17438
16a		+	30	+	2	Gear wheel		17439
		+	36	+	2	Gear wheel		17437
		+	43	+	2	Gear wheel		17438
		+	29/9	+	2	Gear wheel		17439
		+	35/11	+	2	Gear wheel		17437
		+	41/13	+	2	Gear wheel		17438
		+	16/8	+	2	Gear wheel		17439
			22/11			Gear wheel		17437
			27/13			Gear wheel		17438
	15	+	+	+	2	Seal		17445
	16	+	+	+	2	Case		21848
	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		23234
	23	+	+	+	2	Spring washer 2 6H	BDS 833-82	10139
	22	+	+	+	2	Screw M6x12 – 6,8	BDS 2171-83	17324
	24	+	+	+	2	Washer		23239
	25	+	12	+	2	Gear wheel		23231
	26	+	+	+	2	Distance bush		21861
	27	+	+	+	4	Screw M6x14 – 6,8	BDS 2171-83	16520
	28	+	+	+	2	Fixsing strap		21852
	29	+	+	+	2	Spring washer 2 6H	BDS 833-82	10138
	30	+	+	+	2	Distance bush		21857
	31	+	+	+	2	Ball bearing 6000	BDS 4883-85	23286
	32	-	-	-	-	-		-
	33	+	+	+	2	Lock ring B10	BDS2170-77	17521
	34	+	+	+	24	Washer L=1		21708

Table – 11.1

sch	Pos.	B _r	V _t (m/min)	Hp (m)	pcs	Name		Catalog number
	35	+	+	+	4	Addition bush L=100		21876
	36	+	+	+	12	Addition bush L=40		21873
	37	+	+	+	4	Addition bush L= 20		21870
	38	+	+	+	4	Addition bush L=10		21867
16a	39	+	+	+	8	Washer L=5		21711
	40	+	+	+	2	Bush L=330		21530
	41	+	+	6,3	1	Box for countreweight		21570
	41	+	+	9	1	Box for countreweight		21571
	41	+	+	12,5	1	Box for countreweight		21572
	41	+	+	18	1	Box for countreweight		21573
	41	+	+	25	1	Box for countreweight		21574
16	42	+	+	+	4	Box for countreweight		21616
16	43	+	+	+	4	Nut M20-8	BDS 1253-83	17322

16	44	+	+	+	4	Split 4x40	BDS 55-77	17510
16	45	+	+	+	1	Hind plate		21547
15	46	+	+	+	2	Stud		21748
16	47	+	+	+	2	Moves wheel		17440
16	52	+	+	+		Stud		21764

11.2 reeving 4/1

table 11.2

sch	pos	B _r	V _t (m/min)		Hp (m)	pcs	Name	Catalog number
			15		6,3	1	Traveling mechanism	23192
			20		6,3	1	Traveling mechanism	23193
			25		6,3	1	Traveling mechanism	23194
			30		6,3	1	Traveling mechanism	23195
			36		6,3	1	Traveling mechanism	23196
			43		6,3	1	Traveling mechanism	23197
			29/9		6,3	1	Traveling mechanism	23198
			35/11		6,3	1	Traveling mechanism	23199
			41/13		6,3	1	Traveling mechanism	23200
			16/8		6,3	1	Traveling mechanism	23201
			22/11				Traveling mechanism	23202
			27/13				Traveling mechanism	23203
			15		9	1	Traveling mechanism	23204
16a;	1-44		20		9	1	Traveling mechanism	23205
17a;	45-52		25		9	1	Traveling mechanism	23206
18a;	1-5		30		9	1	Traveling mechanism	23207
19a	1-12		36		9	1	Traveling mechanism	23208
			43		9	1	Traveling mechanism	23209
			29/9		9	1	Traveling mechanism	23210
			35/11		9	1	Traveling mechanism	23211
			41/13		9	1	Traveling mechanism	23212
			16/8		9	1	Traveling mechanism	23213
			22/11				Traveling mechanism	23214
			27/13				Traveling mechanism	23215
			15		12,5	1	Traveling mechanism	23216
			20		12,5	1	Traveling mechanism	23217
			25		12,5	1	Traveling mechanism	23218
			30		12,5	1	Traveling mechanism	23219
			36		12,5	1	Traveling mechanism	23220
			43		12,5	1	Traveling mechanism	23221
			29/9		12,5	1	Traveling mechanism	23222
			35/11		12,5	1	Traveling mechanism	23223
			41/13		12,5	1	Traveling mechanism	23224
			16/8		12,5	1	Traveling mechanism	23225
			22/11				Traveling mechanism	23226
			27/13				Traveling mechanism	23227
	5	+	15		+	2	Electric motor	17308
		+	20		+	2	Electric motor	17308
	5	+	25		+	2	Electric motor	17308
	5	+	30		+	25	Electric motor	17522

	5	+	36		+	2	Electric motor		17522
18a	5	+	43		+	2	Electric motor		17522
	5	+	29/9		+	2	Electric motor		17310
	5	+	35/11		+	2	Electric motor		17310
			41/13				Electric motor		17310
			16/8				Electric motor		17326
			22/11				Electric motor		17326
			27/13				Electric motor		17326
	2	+	15		+	2	Pinion		17465
	2	+	20		+	2	Pinion		17466
	2	+	25		+	2	Pinion		17467
	2	+	30		+	2	Pinion		17468
			36				Pinion		17466
			43				Pinion		17467
			29/9				Pinion		17468
			35/11				Pinion		17466
			41/13				Pinion		17467
			16/8				Pinion		17465
			22/11				Pinion		17466
			27/13				Pinion		17467

Table 11.2

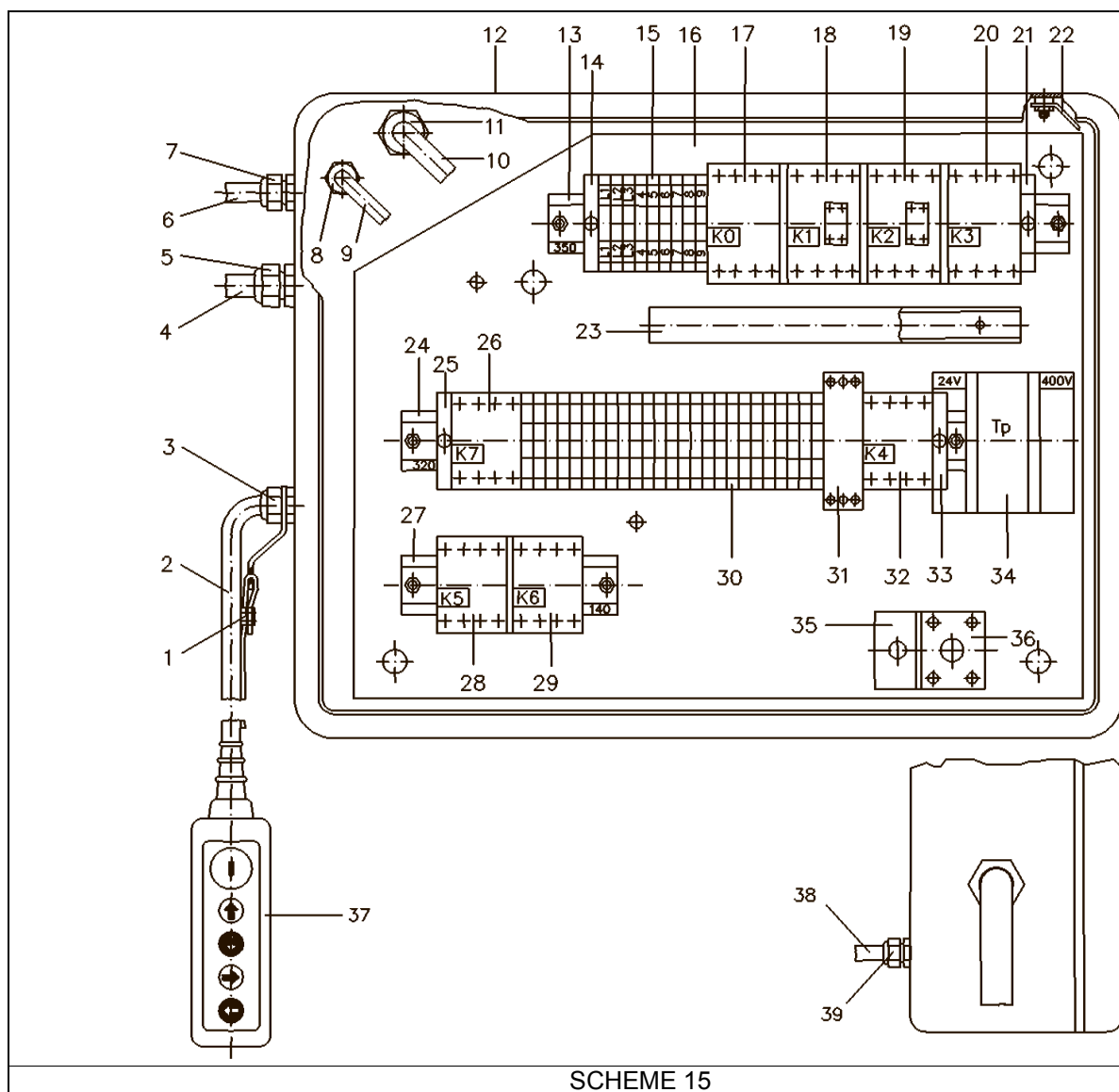
sch	pos	B _r	V _t (m/min)	Hp (m)	pcs	Name		Catalog number
	1	+	+	+	1	Lock ring B10	BDS 2170-77	17521
	3	+	+	+	3	Spring washer 2 8H	BDS 833-82	10139
	4	+	+	+	3	Screw I M8x20 8,8	BDS 2171-83	17324
	1	+	+	+	4	Nut M16 – 8	BDS 1234-85	21337
	2	+	+	+	4	Spring washer 2 20H	BDS 833-82	21341
	4	+	+	+	4	Bolt M16x50 – 8,8	BDS 1234-85	21347
	3	+	+	+	1	Hind plate left		21822
	5	+	+	+	4	Axis		17442
	6	+	+	+	8	Ball bearing 6206-Z	BDS 4884-85	17507
	7	+	+	+	8	Lock ring A62	BDS 2170-77	10145
	8	+	+	+	2	Moves wheel		18085
	9	+	+	+	4	Lock ring B30	BDS 2170-77	10148
	10	130	+	6,3	1	Traverse with carrier		23276
	10	130	+	9	1	Traverse with carrier		23277
	10	130	+	12,5	1	Traverse with carrier		23278
	11	+	+	+	2	Ball bearing 6302 – Z		23287
	12	+	+	+	2	Lock ring A42	BDS 2170-77	17506
	13	+	+	+	2	Distance bush		17516
16a	14	+	15	+	2	Gear wheel		17436
		+	20	+	2	Gear wheel		17437
		+	25	+	2	Gear wheel		17438
		+	30	+	2	Gear wheel		17439
		+	36	+	2	Gear wheel		17437
		+	43	+	2	Gear wheel		17438
		+	29/9	+	2	Gear wheel		17439
		+	35/11	+	2	Gear wheel		17437

		+	41/13	+	2	Gear wheel		17438
		+	16/8	+	2	Gear wheel		17439
			22/11			Gear wheel		17437
			27/13			Gear wheel		17438
	15	+	+	+	2	Seal		17445
	16	+	+	+	2	Case		21848
	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		23234
	23	+	+	+	2	Spring washer 2 6H	BDS 833-82	10139
	22	+	+	+	2	Screw M6x12 – 6,8	BDS 2171-83	23240
	24	+	+	+	2	Washer		23239
	25	+	12	+	2	Gear wheel		23231
	26	+	+	+	2	Distance bush		21861
	27	130	+	+	4	Screw M6x14 – 6,8	BDS 2171-83	16520

Table 11.2

sch	Pos.	B _r	V _t (m/min)	H _p (m)	pcs	Name		Catalog number
	28	+	+	+	2	Fixsing strap		21852
	29	+	+	+	2	Spring washer 2 6H	BDS 833-82	10138
	30	+	+	+	2	Distance bush		21857
	31	+	+	+	2	Ball bearing 6000	BDS 4883-85	23286
	33	+	+	+	2	Lock ring B10		17521
	34	+	+	+	24	Washer L=1		21708
	35	+	+	+	4	Addition bush		21876
	36	+	+	+	12	Addition bush		21873
16a	37	+	+	+	4	Addition bush		21870
	38	+	+	+	8	Addition bush		21867
	39	+	+	+	8	Addition bush		21711
	40	+	+	+	2	Bush L=400		21530
	41	+	+	6,3	1	Box for countreweight		21572
	41	+	+	9	1	Box for countreweight		21573
	41	+	+	12,5	1	Box for countreweight		21574
	42	+	+	+	4	Chock bush		21616
	43	+	+	+	4	Nut M20-8	BDS 1253-83	17322
	44	+	+	+	4	Split 4x40	BDS 55-77	17510
17a	45	+	+	+	1	Hind plate		21547
	46	+	+	+	2	Stud		21748
	47	+	+	+	2	Moves wheel		17440
	52	+	+	+		Stud		21764

11. CONTROL BLOCK



SCHEME 15

11.1 CONTROL BLOCK

sch	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	

11.2 control scheme

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

5	●	●			
6	●				

11.3 electric equipment

table 11.3

sch	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 tro
20		9	Cable control switch	1	60521	60521	With tro
20		12,5	Cable control switch	1	60522	60522	With tro
20		15	Cable control switch	1	-	60525	With tro
20		18	Cable control switch	1	60523	60523	With tro
20		25	Cable control switch	1	60524	-	With tro
20		30	Cable control switch	1	60525	-	With tro
20		36	Cable control switch	1	60526	-	With tro
20	2	6,3	Cable control switch	1	60527	60527	Wiithout tr
20		9	Cable control switch	1	60528	60528	Wiithout tr
20		12,5	Cable control switch	1	60529	60529	Wiithout tr
20		15	Cable control switch	1	-	60535	Wiithout tr
20		18	Cable control switch	1	60530	60530	Wiithout tr
20		25	Cable control switch	1	60531	-	Wiithout tr
20		30	Cable control switch	1	60532	-	Wiithout tr
20		36	Cable control switch	1	60533	-	Wiithout tr
20	3	+	Pipe – D22	1	60775	60775	
20	4	+	Cable power	1	61042	61042	
20	5	+	Pipe	1	60776	60776	ORTAC – F
20	6	+	Cable trolley	1	60559	60559	
20	7	+	Pipe	1	60777	60777	ORTAC – F
20	8		Pipe	1	60777	60777	ORTAC – F
20	9	6,3	Cable microlifting	1	60596	60596	
20		9	Cable microlifting	1	60597	60597	
20		12,5	Cable microlifting	1	60598	60600	
20		15	Cable microlifting	1	-	60601	
20		18	Cable microlifting	1	60599	60602	
20		25	Cable microlifting	1	60600	-	
20		30	Cable microlifting	1	60601	-	
20		36	Cable microlifting	1	60602	-	
20	9a	6,3	Cable I thermal protection	1	60639	60641	Cable with mi
20		9	Cable I thermal protection	1	60640	60642	
20		12,5	Cable I thermal protection	1	60641	60643	
20		15	Cable I thermal protection	1	-	60644	
20		18	Cable I thermal protection	1	60642	60645	
20		25	Cable I thermal protection	1	60643	-	
20		30	Cable I thermal protection	1	60644	-	
20		36	Cable I thermal protection	1	60645	-	

20	9В	6,3	Cable II thermal protection	1	60814	60816	Cable without r
20		9	Cable II thermal protection	1	60815	60817	
20		12,5	Cable II thermal protection	1	60816	60818	
20		15	Cable II thermal protection	1	-	60819	
20		18	Cable II thermal protection	1	60817	60820	
20		25	Cable II thermal protection	1	60818		
20		30	Cable II thermal protection	1	60819		
20		36	Cable II thermal protection	1	60820		
20	10	6,3	Cable lifting motor	1	60682	60684	
20		9	Cable lifting motor	1	60683	60685	
20		12,5	Cable lifting motor	1	60684	60686	
20		15	Cable lifting motor	1		60687	
20		18	Cable lifting motor	1	60685	60688	
20		25	Cable lifting motor	1	60686		
20		30	Cable lifting motor	1	60687		
20		36	Cable lifting motor	1	60688		
20	11	+	Pipe	1	60776	60776	ORTAC – I
20	12	+	Box	1	61041	61041	
20	13	+	Profile strip 35mm	1	61724	60724	L=210m
20	14;2 1	+	End clamp	2	60726	60726	
20	15	+	Clamp 4mm	15	60705	600705	
20	15a	+	Clamp neutral	1	61040	61040	
20	16	+	Plate	1	60724	60724	

Таблица

11.3 - продолжение

sch	pos	Hp (m)	Name	pcs	Reeving 2/1	Reeving 4/1	Note
					Catalod number		
20	17	+	Contactur	6	61038	61038	LC1KO601
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;3 3	+	End clamp	2	60716	60716	
20	26	+	Contactur / 2NO+2NC / - Ub=24V	1	60725	60725	ABB K6-22Z
20	27	+	Profile strip 35 mm	1	60706	60706	L=150mm
20	28	+	Contactur 6A Ub=24V	1	60707	60707	ABB B6-30-01
20	29	+	Contactur 6A Ub=24V	1	60707	60707	ABB B6-30-01
20	30	+	Clamp 2,5mm	34	60711	60711	
20	31	+	Timer 0-10s, 24VAC	1	60713	60713	RE8RA11B
20	32	+	Contactur 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.

✂

Приложение № 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 **MPM5..**