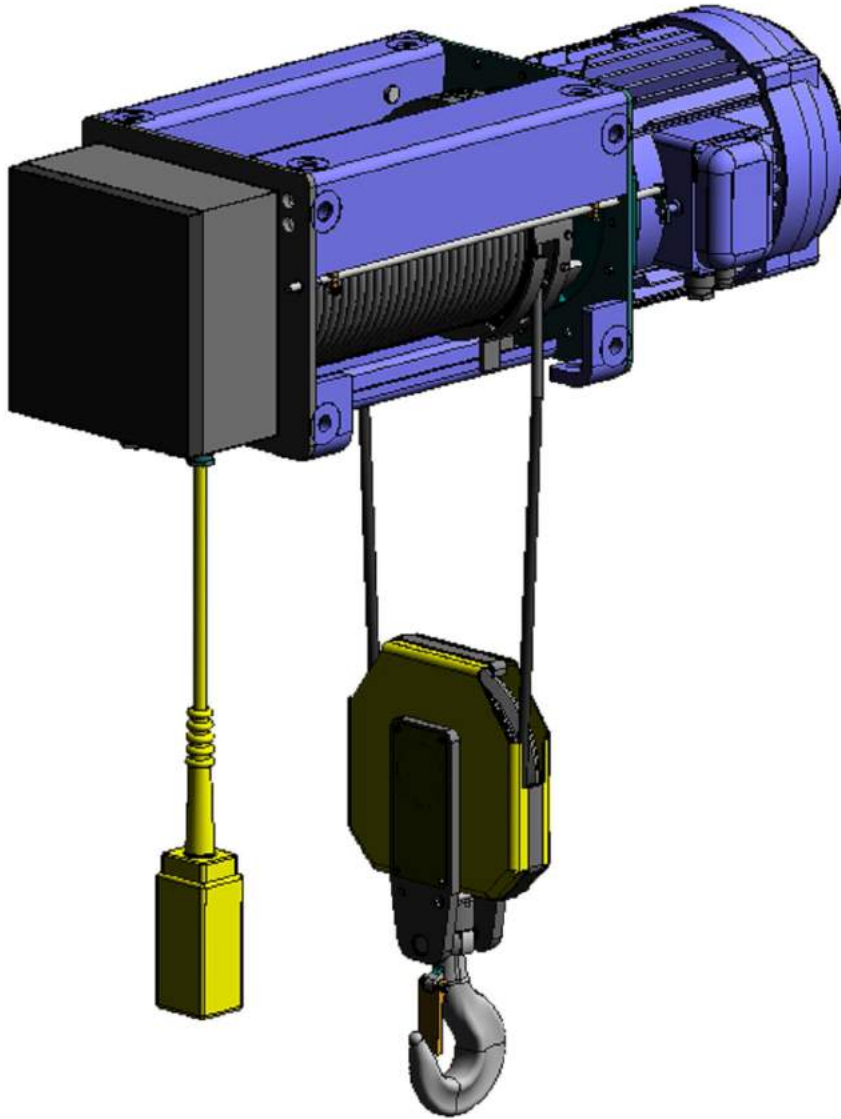




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SPARE PARTS CATALOGUE

ELECTRIC WIRE ROPE HOISTS SERIES VAT

**EL
MOT**

CE

CONTENT:

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The present catalogue complies with the following standards:

BDS 2.601 – 82	<i>Exploitation documents</i>
DIN V 8418	<i>Benutzerinformation</i>
EN 292 – 2:1991	<i>Sicherheit von Maschinen</i>
DIN 24420, Teil 1	<i>Erzatzteillisten, Allgemeines</i>
DIN 24420, Teil 2	<i>Erzatzteillisten, Form und Bau des Textteiles</i>
GOST 2.601 – 95	<i>Exploitation documents</i>
ISO 10973:1995(E)	<i>Cranes – Spare Parts manual</i>

Each purchase order for spare parts should contain the following data:

1. **Type, serial number, production year** of the electric hoist, written on the hoist label and the **group of operation**.
2. **Name and catalogue number** of the required spare part.
3. **Quantity** required of each spare part.
4. The **catalogue index**, which is written in the down right corner of each page.
5. **Shipment requirements**
6. **Exact address** for delivery

For spare parts supply, please refer the following address:

DISTRIBUTION PARTNER
Hydramach Overhead Crane Inc

7662 Industrial Way
Agassiz, BC CANADA V0M 1A2

TEL : 1 604-796-9221

EMAIL : integrity@hydramachcrane.com

How to use this catalogue

The present catalogue covers the existing modifications of electric hoists series "VAT". It contains all parts, details and standard units.

The tables contain figure number and detail position and in the opposite – designation, quantity and catalogue number of the corresponding execution.

The customer could order a whole assembled unit but not its components. The assembled unit positions are marked with medium brackets {}. The undetachable units are drawn in the corresponding figure as a whole and they are delivered as a whole. Their positions in the tables are marked with big brackets [].

Standard items such as bolts, screws, washers, nuts, safe rings and others, are not supplied by the manufacturer as spare parts, but they could be ordered by the customer as an exception. Their positions are marked with small brackets. If some carrying details are replaced, a special attention to keeping their strength class should be paid.

The electric wire rope hoists series "VAT" are developed for the following lifting speeds (Table 1) and lifting heights (Table 2)

Table 1

Lifting speed	V1		V2		V3		V4		V5		V6	
	2/1	4/1	2/1	4/1	2/1	4/1	2/1	4/1	2/1	4/1	2/1	4/1
Rope falls												
Hoist size	[m/min]											
VAT 10	8	4	8/2	4/1	5	2,5	5/1,2	2,5/0,6	12	6	12/2	6/1
VAT 20	8	4	8/2	4/1	-	-	-	-	12	6	12/2	6/1
VAT 30	8	4	8/2	4/1	-	-	-	-	12	6	12/2	6/1
VAT 40	8	4	8/2	4/1	-	-	-	-	12	6	12/2	6/1
VAT 50	8	4	8/2	4/1	-	-	-	-	12	6	12/2	6/1
VAT 60	8	4	8/1,2	4/0,6	5	2,5	5/1,2	2,5/0,6	-	-	-	-
VAT 60B	8	4	8/2	4/1	-	-	-	-	12	6	12/2	6/1
VAT 64	8	4	8/1,2	4/0,6	5	2,5	5/1,2	2,5/0,6	-	-	-	-

Table 2

Hoist size	Capacity [kg]	Rope falls	Lifting height [m]								
			H1	H2	H3	H4	H5	H6	H7	H8	H9
VAT 10	1000	2/1	6,5	9	12	18	24	30	36	42	48
	2000	4/1	6	9	12	15	18	21	24		
VAT 20	2000	2/1	8,5	11,5	15	22	29	36	43	50	
	5000	4/1	7,5	11	14,5	18	21,5	25			
VAT 30	3200	2/1	7,5	10	13	19	25	31	37	43	49
	7000	4/1	6,5	9,5	12,5	15,5	18,5	21,5	24,5		
VAT 40	5000	2/1	6,5	9,5	12,5	18,5	25,5	31,5	36,5	42,5	48,5
	10000	4/1	6	9	12,5	15,5	18	21	24		
VAT 50	10000	2/1	6,5	9	12	18	24	36	48	60	72
	20000	4/1	6	9	12	18	21	24	27	30	36
VAT 60	12500	2/1	-	8,5	14	17	23	29	35,5	41,5	47,5
	25000	4/1	7	8,5	11,5	14,5	17,5	20,5	24		
VAT 64	16000	2/1	6,5	11,5	14	19	24,5	29,5	35	40	
	32000	4/1	5,5	7	9,5	12	14,5	17,5	20		

Designations used in this catalogue:

V – Lifting speed

H – Lifting height

a – Rope falls

LIFTING SPEEDS SHOWN IN EUROPEAN 50Hz multiply by x 1.2 TO GET 60Hz FOR NORTH AMERICA

THE MANUFACTURER KEEPS THE RIGHT TO MODIFY AND CHANGE THE PRESENT SPARE PARTS CATALOGUE.

BODI WITH SWITCHING SYSTEM AND REEVING – ROPE FALLS 2/1

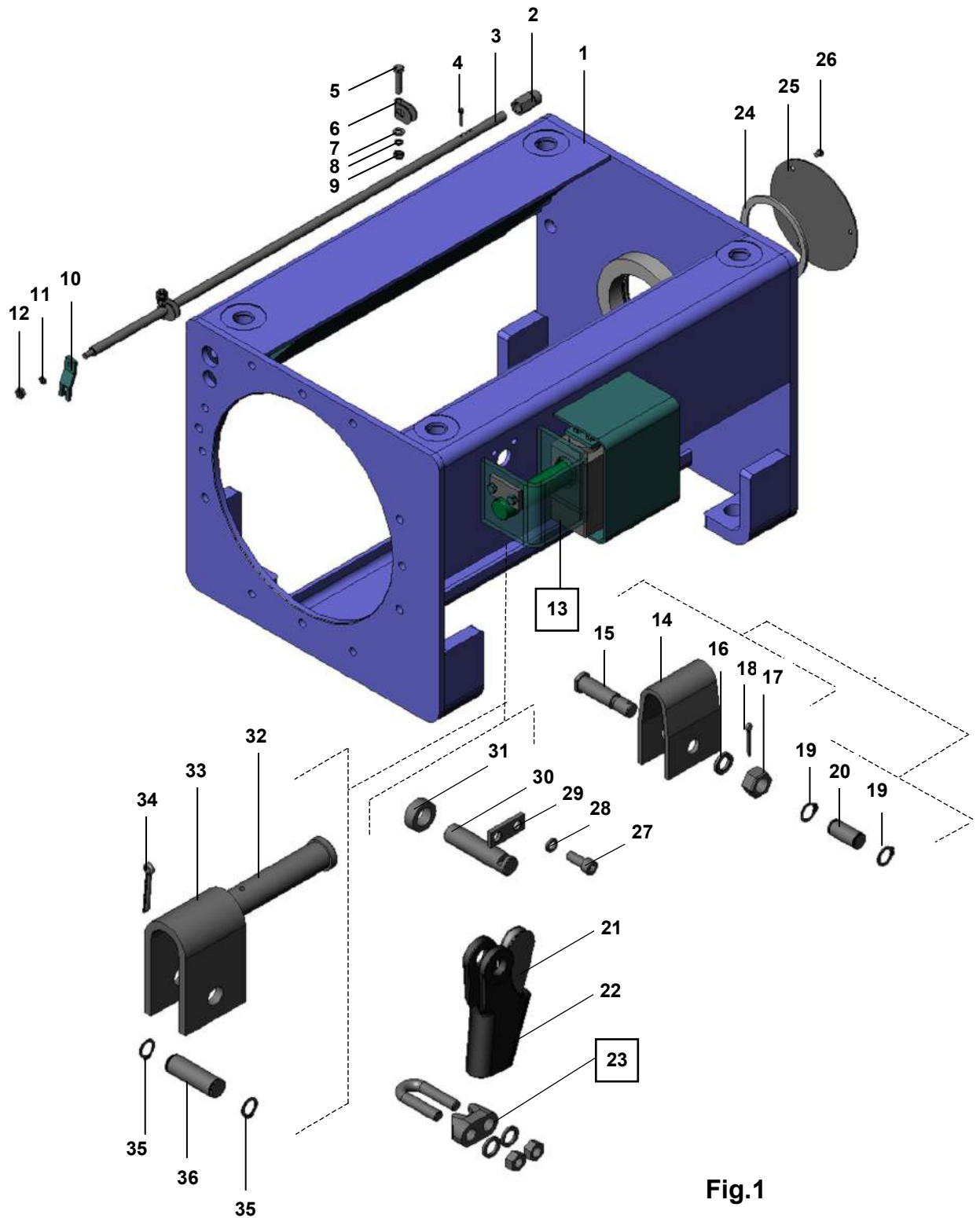


Fig.1

BODI WITH SWITCHING SYSTEM AND REEVING – ROPE FALLS 4/1

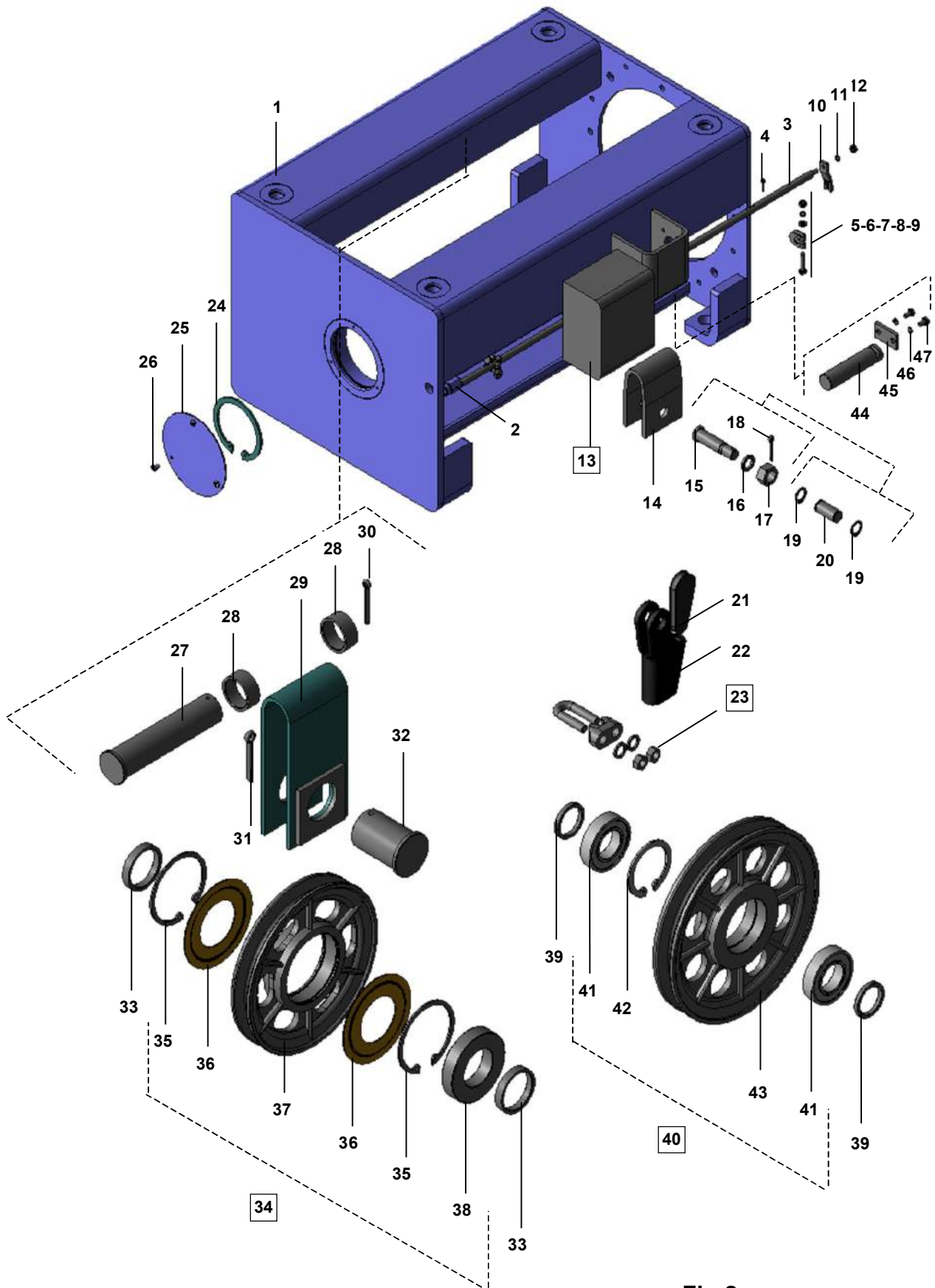


Fig.2

Details and units depending on the lifting height for electric hoists with rope falls 2/1 and 4/1

Table 3

Fig.	Pos.	Designation	a	Lifting height									
				H1	H2	H3	H4	H5	H6	H7	H8	H9	
HOIST SIZE VAT10													
1	1	Body	2/1	1111696	1111701	1111717	1115109	1115114	1324138	1324143	1324159	1324164	
1	1	Body with NOT	2/1	1116448	1116453	1116469	1116474	1116488	1324172	1324185	1324190	1324206	
2	1	Body	4/1	1324211	1324227	1324232	1324248	1324253	1324269	1324274			
2	1	Body with NOT	4/1	1324782	1324798	1324803	1324819	1324824	1324838	1324845			
1	3	Bar	V1,V5,V2,V6	2/1	2322833	2322849	2324854	2324867	2324872	2635434	2635443	2635455	2635460
2	3	Bar	V1,V5,V2,V6	4/1	2324854	2324867	2324872	2635434	2635443	2635455	2635460		
HOIST SIZE VAT20													
1	1	Body	2/1	1111387	1111392	1111408	1112684	1112696	1324379	1324384	1324390		
1	1	Body with NOT	2/1	1114105	1114110	1114126	1114131	1114147	1324410	1324426	1324431		
2	1	Body	4/1	1113080	1113096	1113101	1324625	1324630	1324646				
2	1	Body with NOT	4/1	1116359	1116364	1116374	1324651	1324667	1324672				
1	3	Bar	V1,V2,V5,V6	2/1	2321672	2321688	2321693	2321709	2321714	2635655	2635660	2635675	
2	3	Bar	V1,V2,V5,V6	4/1	2321693	2321709	2321714	2635655	2635660	2635675			
1	3	Bar	V2, V6	2/1	2321720	2321735	2321740	2321756	2321761	2635680	2635696	2635701	
2	3	Bar	V2, V6	4/1	2321740	2321756	2321761	2635680	2635696	2635701			
HOIST SIZE VAT30													
1	1	Body	2/1	1111387	1111392	1111408	1112684	1112696	1324379	1324384	1324390	1324405	
1	1	Body with NOT	2/1	1114105	1114110	1114126	1114131	1114147	1324410	1324426	1324431	1324447	
2	1	Body	4/1	1112820	1112836	1112841	1324452	1324468	1324473	1324489			
2	1	Body with NOT	4/1	1116317	1116322	1116338	1324494	1324507	1324515	1324520			
1	3	Bar	V1	2/1	2315805	2315810	2315826	2320375	2320380	2635476	2635481	2635497	2635502
2	3	Bar	V1	4/1	2315826	2320375	2320380	2635476	2635481	2635497	2635502		
1	3	Bar	V2, V6	2/1	2320396	2320401	2320417	2320422	2320438	2635518	2635523	2635539	2635544
2	3	Bar	V2, V6	4/1	2320417	2320422	2320438	2635518	2635523	2635539	2635544		
1	3	Bar	V5	2/1	2323067	2323072	2323088	2323093	2323109	2635557	2635565	2635570	2635586
2	3	Bar	V5	4/1	2323088	2323093	2323109	2635557	2635565	2635570	2635586		
HOIST SIZE VAT40													
1	1	Body	2/1	1111874	1111886	1111895	1114971	1114985	1324536	1324541	1324557	1324562	
1	1	Body with NOT	2/1	1115638	1115643	1115659	1115664	1115678	1324583	1324599	1324604	1324610	
2	1	Body	4/1	1114702	1114718	1114723	1324007	1324688	1324693	1324709			
2	1	Body with NOT	4/1	1116385	1116390	1116404	1324012	1324740	1324756	1324761			
1	3	Bar	V1	2/1	2317467	2317472	2317488	2324390	2324406	2332679	2635628	2635633	2635649
2	3	Bar	V1	4/1	2317488	2324390	2324406	2332679	2635628	2635633	2635649		
1	3	Bar	V2,V5,V6	2/1	2324411	2324427	2324432	2324448	2324453	2332663	2635591	2635607	2635612
2	3	Bar	V2,V5,V6	4/1	2324432	2324448	2324453	2332663	2635591	2635607	2635612		
HOIST SIZE VAT50													
1	1	Body	2/1	1114754	1115486	1115450	1115491	1115507	1115727	1324871	1324892	1324913	
1	1	Body with NOT	2/1	1324929	1324934	1324941	1324955	1324960	1324976	1324997	1325016	1325037	
2	1	Body	4/1	1114880	1115554	1115564	1115575	1115580	1325220	1325236	1325241	1325262	
2	1	Body with NOT	4/1	1116411	1116427	1116432	1325278	1325283	1325299	1325304	1325317	1325330	
1	3	Bar		2/1	2323931	2329184	2329197	2329205	2329210	2329226	2635764	2635785	2635806
2	3	Bar		4/1	2329197	2329205	2329210	2329226	2635759	2635764	2635774	2635785	2635806

Table 3

Fig.	Pos.	Designation	a	Lifting height								
				H1	H2	H3	H4	H5	H6	H7	H8	H9
HOIST SIZE VAT60												
1	1	Body	2/1		1118546	1118555	1118560	1118576	1324069	1324075	1324080	1324096
1	1	Body with NOT	2/1		1325346	1325351	1325367	1325372	1325388	1325393	1325409	1325414
2	1	Body	4/1	1118775	1118780	1118796	1118801	1118817	1118822	1324054		
2	1	Body with NOT	4/1	1325519	1325524	1325534	1325545	1325550	1325566	1325571		
1	3	Bar	2/1		2331083	2331099	2331104	2331110	2635371	2635387	2635392	2635408
2	3	Bar	4/1	2331099	2331104	2331110	2635371	2635387	2635392	2635408		
HOIST SIZE VAT64												
1	1	Body	2/1	1118546	1118555	1118560	1118576	1324069	1324075	1324080	1324096	
1	1	Body with NOT	2/1	1325422	1325435	1325440	1325456	1325461	1325477	1325482	1325498	
2	1	Body	4/1	1118775	1118780	1118796	1118801	1118817	1118822	1324054		
2	1	Body with NOT	4/1	1325587	1325592	1325608	1325613	1325629	1325634	1325648		
1	3	Bar	2/1	2331083	2331099	2331104	2331110	2635371	2635387	2635392	2635408	
2	3	Bar	4/1	2331099	2331104	2331110	2635371	2635387	2635392	2635408		

Common details and units for electric hoists with rope falls 2/1 and 4/1

Table 4

Fig.	Pos.	Designation	Pcs	HOIST SIZE							
				VAT10	VAT20	VAT30	VAT40	VAT50	VAT60	VAT64	
1,2	2	Guiding bush	1	2320586	2320586	2320586	2320586	2320586	2320586	2320586	
1,2	(4)	Split pin DIN 94	2	2,5 x 14	2,5 x 14	2,5 x 14	2,5 x 14	2,5 x 14	2,5 x 14	2,5 x 14	
1,2	5	Bolt DIN931 / 5.6	2	M6x20	M6x32	M6x32	M6x32	M6x32	M6x32	M6x32	
1,2	(6)	Bracelet	2	2328678	2328678	2328678	2328678	2328678	2328678	2328678	
1,2	(7)	Washer DIN 125	2	M6	M6	M6	M6	M6	M6	M6	
1,2	(8)	Washer DIN7980	2	2 6H	2 6H	2 6H	2 6H	2 6H	2 6H	2 6H	
1,2	(9)	Nut DIN934 / 5	2	M6	M6	M6	M6	M6	M6	M6	
1,2	10	Fork	V1	1	2316861	2320595	2320595	2317556	2323994	2331167	2331167
1,2	10	Fork	V2	1	-	2320600	2328657	-	2323994	2331167	2331167
1,2	10	Fork	V2	1	2330472	2328657	2328657	2320595	-	2331167	2331167
1,2	10	Fork	V5	1	2316861	2320595	2320600	2320595	2323994	2331167	2331167
1,2	10	Fork	V6	1	-	2320600	2328657	-	2323994	2331167	2331167
1,2	10	Fork	V6	1	2330472-	2328657	2328657	2320595	-	2331167	2331167
1,2	(11)	Washer DIN7980	1	2 6H	2 6H	2 6H	2 6H	2 6H	2 6H	2 6H	
1,2	(12)	Nut DIN934 / 5	1	M6	M6	M6	M6	M6	M6	M6	
1,2	14	Carrier		2328479	2321143	2321143	2323355	2324170	1118712	1342430	
1,2	14	Carrier /with NOT/	1	-	-	-	-	2888044	2888044	-	
1,2	15	Axle	1	-	2319548	2319548	2323360	-	-	-	
1,2	16	Washer	1	-	2319553	2319553	2323376	-	-	-	
1,2	(17)	Nut DIN935	1	-	M16	M16	M20	-	-	-	
1,2	(18)	Split pin DIN 94	1	-	4x28	4x28	4x32	-	-	-	
1,2	(19)	Ring DIN 471	2	14 x 1	-	-	-	30 x 1,5	30 x 1,5	40 x 1,75	
1,2	20	Axle	1	2328484	-	-	-	2324165	2331188	2565514	
1,2	21	Cotter	1	2316903	2316458	2316458	2317603	2325957	2326136	2670149	
1,2	[23]	Clamp DIN 1142	1	S8	S10	S13	S16	S19	S19	S26	
1,2	(24)	Ring DIN 472	1	62 x 2	95 x 3	95 x 3	100 x 3	130 x 4	180 x 4	180 x 4	
1,2	25	Cap	1	2328107	2326822	2326822	2326838	2328112	2540091	2540091	
1,2	(26)	Screw DIN7985 / 5.8	3	M4x12	M5x8	M5x8	M5x8	M8x12	M8x12	M8x12	

Details for electric hoists with rope falls 2/1

Table 5

Fig.	Pos.	Designation	Pcs	HOIST SIZE						
				VAT10	VAT20	VAT30	VAT40	VAT50	VAT60	VAT64
1	[13]	NOT E2	1	1883166	1882948	1882864	1882969	1884793	1884793	1884835
1	22	Втулка клинова	1	2316898	2328662	2328662	2317598	2326120	2325944	1313105
1	(27)	Screw DIN912 / 8.8	2	-	M10x25	M10x25	-	-	-	-
1	(28)	Washer DIN7980	2	-	2 10H	2 10H	-	-	-	-
1	29	Plate	1	-	2315906	2315906	-	-	-	-
1	30	Axle	1	-	2315915	2315915	-	-	-	-
1	31	Bush	1	-	2315894	2315894	-	-	-	-
1	32	Axle	1	2316882	-	-	2317577	2324008	2331172	2331172
1	33	Traverse	1	1111827	-	-	2317561	2324034	1118712	1342430
1	(34)	Split pin DIN 94	1	5 x 40	-	-	6,3 x 50	6,3 x 80	10 x 100	10 x 100
1	(35)	Ring DIN 471	2	14 x 1	-	-	22 x 1,2	30 x 1,5	30 x 1,5	40 x 1,75
1	36	Axle	1	2316877	-	-	2317582	2326047	2331188	2565514

Details for electric hoists with rope falls 4/1

Table 6

Fig.	Pos.	Designation	Pcs	HOIST SIZE						
				VAT10	VAT20	VAT30	VAT40	VAT50	VAT60	VAT64
2	[13]	NOT E3	1	1883464	1882885	1882906	1882927	1883014	1883014	1884840
2	22	Cotter bush	1	2316898	2316442	2316442	2317598	2325944	2325944	1313105
2	27	Axle	1	2565891	2321179	2321179	2323334	2324186	2332087	2332087
2	28	Bush	2	-	2551208	2321185	2323287	-	-	-
2	29	Carrying traverse	1	1343255	1113117	1112857	1114697	1114917	1118843	1118843
2	(30)	Split pin DIN 94	1	6,3 x 50	6,3 x 63	6,3 x 63	10 x 90	6,3 x 90	10 x 100	10 x 100
2	(31)	Split pin DIN 94	1	6,3 x 50	8 x 71	8 x 80	10 x 90	-	-	-
		Ring DIN 471	1(2)	-	-	-	-	60 x 2	70 x 2,5	70 x 2,5
2	32	Axle		2565907	2321908	2321206	2323329	2324150	2332092	2332092
2	33	Bush	2	2551365	2321892	2321190	2323287	-	-	-
2	[34]	Roller	1	1344023	1344065	1344070	1344018	-	-	-
2	(35)	Ring БДС2170-77	2	A72	A90	A110	A140	-	-	-
2	36	Ring	2	-	-	-	2575124	-	-	-
2	37	Roller	1	2665013	2665055	2665034	2665029	-	-	-
2	(38)	Bearing SKF	1	6207-2z	6210-2z	6212-2z	6411	-	-	-
2	39	Bush	2	-	-	-	-	2324144	2332108	2332108
2	[40]	Roller block	1	-	-	-	-	1114901	1118859	1344353
2	(41)	Bearing SKF	2	-	-	-	-	6312z	6314z	6314z
2	(42)	Ring DIN 472	1	-	-	-	-	130 x 4	150 x 4	150 x 4
2	43	Roller	1	-	-	-	-	2328458	2332417	2665165
2	44	Axle	1	2565885	2321138	2321138	2323340	2324008	2331172	2331172
2	45	Plate	1	Split pin 4 x 28 DIN 94	2321122	2321122	2328711	Split pin 6,3 x 80 DIN 94	Split pin 10 x 100 DIN 94	Split pin 10 x 100 DIN 94
2	(46)	Washer DIN7980	2		2 6H	2 6H	2 6H			
2	(47)	Bolt DIN933 / 5.6	2		1 M6x14	1 M6x14	1 M6x14			

DRUM, ROPE GUIDE AND WIRE ROPE - Fig. 3

Table 7

Pos.	Designation	a	Pcs	HOIST SIZE							
				VAT10	VAT20	VAT30	VAT40	VAT50	VAT60	VATA64	
1	Bearing - SKF	2/1;4/1	1	6206z	6012z	6012z	6211z	6312z	6024-2z	6024-2z	
2	Bearing bracelet	2/1;4/1	1	1111680	1111481	1111481	1111869	1114744	1118534	1118534	
[3]	Drum	2/1	H1	1	1111722	1112972	1111441	1111900	-	-	1336384
			H2	1	1111738	1112988	1111455	1111916	1115512	1118581	1336395
			H3	1	1111743	1112993	1111460	1111921	1115528	1118597	1336405
			H4	1	1115120	1113007	1112705	1114990	1115533	1118602	1336410
			H5	1	1115135	1113012	1112710	1115004	1115549	1118618	1336426
			H6	1	1336651	1336777	1336693	1336735	1337346	1336541	1336431
			H7	1	1336667	1336782	1336709	1336740	1115732	1336557	1336447
			H8	1	1336672	1336798	1336714	1336756	1336850	1336562	1336520
			H9	1	1336688		1336720	1336761	1336866	1336578	
			H10	1					1336871		
			H11	1					1336887		
			H12	1					1336892		
			H13	1					1336908		
[3]	Drum	4/1	H1	1	1111743	1112993	1111460	1111921	1115528	1118597	1336395
			H2	1	1115120	1113007	1112705	1114990	1115533	1118602	1336405
			H3	1	1115135	1113012	1112710	1115004	1115549	1118618	1336410
			H4	1	1336651	1336777	1336693	1336735	1337346	1336541	1336426
			H5	1	1336667	1336782	1336709	1336740	1115732	1336557	1336431
			H6	1	1336672	1336798	1336714	1336756	1336850	1336562	1336447
			H7	1	1336688		1336720	1336761	1336866	1336578	1336520
			H8	1					1336871		
			H9	1					1336887		
			H10	1					1336892		
			H11	1					1336908		
4	Rope	2/1	H1	1	2316919	2321777	2315920	2317619	-	-	2630457
			H2	1	2316924	2321782	2315936	2317624	2327428	2331193	2630462
			H3	1	2316933	2321798	2315941	2317630	2327433	2331209	2630478
			H4	1	2324888	2321803	2320443	2324741	2327449	2331214	2630483
			H5	1	2324893	2321819	2320459	2324757	2327454	2331223	2630499
			H6	1	2630771	2631052	2630881	2630923	2631911	2630551	2630504
			H7	1	2630787	2631068	2630897	2630939	2327463	2630567	2630510
			H8	1	2630792	2631073	2630902	2630944	2631157	2630572	2630525
			H9	1	2630808		2630918	2630955	2631162	2630588	
			H10	1					2631178		
			H11	1					2631183		
			H12	1					2631199		
			H13	1					2631204		
4	Rope	4/1	H1	1	2630813	2328725	2328620	2328683	2330163	2332033	2630682
			H2	1	2630829	2328730	2328636	2328699	2330179	2332045	2630698
			H3	1	2630834	2328746	2328641	2328704	2330184	2332050	26307
			H4	1	2630841	2635717	2631010	2630965	2631932	2332066	26307
			H5	1	2630855	2635722	2631026	2630970	2330192	2332071	26307
			H6	1	2630860	2635738	2631031	2630986	2631309	2630750	26307
			H7	1	2630876		2631047	2630991	2631314	2630766	26307
			H8	1					2631320		
			H9	1					2631335		
			H10	1					2631340		
			H11	1					2631356		
5	Plate	2/1;4/1	3	2518380	2518396	2518396	2518401	2323926	2331675	2331675	
(6)	Washer DIN7980	2/1;4/1	6	2 6H	2 10H	2 10H	2 12H	2 16H	2 16H	2 16H	
(7)	Screw DIN912 / 8.8	2/1;4/1	6	M6x25	M10x25	M10x25	M12x25	M16x35	M16x45	M16x45	
[8]	Rope guide	2/1;4/1	1	1111759	1113028	1111429	1111937	1114770	1118623	1330162	
9	Spring	2/1;4/1	1	2317184	2321834	2315606	2317907	2323690	2208068	2208068	
[10]	Guiding nut set	2/1;4/1	1	1111853	1113033	1111434	1112019	1114854	1118733	1332112	
11	Guide	2/1;4/1	1	2317191	2322592	2322592	2317891	2323685	2600092	2600092	
(12)	Washer DIN7980	2/1;4/1	4	2 6H	2 6H	2 6H	2 6H	2 8H	2 8H	2 8H	
(13)	Bolt DIN933 / 5.6	2/1;4/1	4	M6x18	M6x14	M6x14	M6x16	M8x20	M8x25	M8x25	

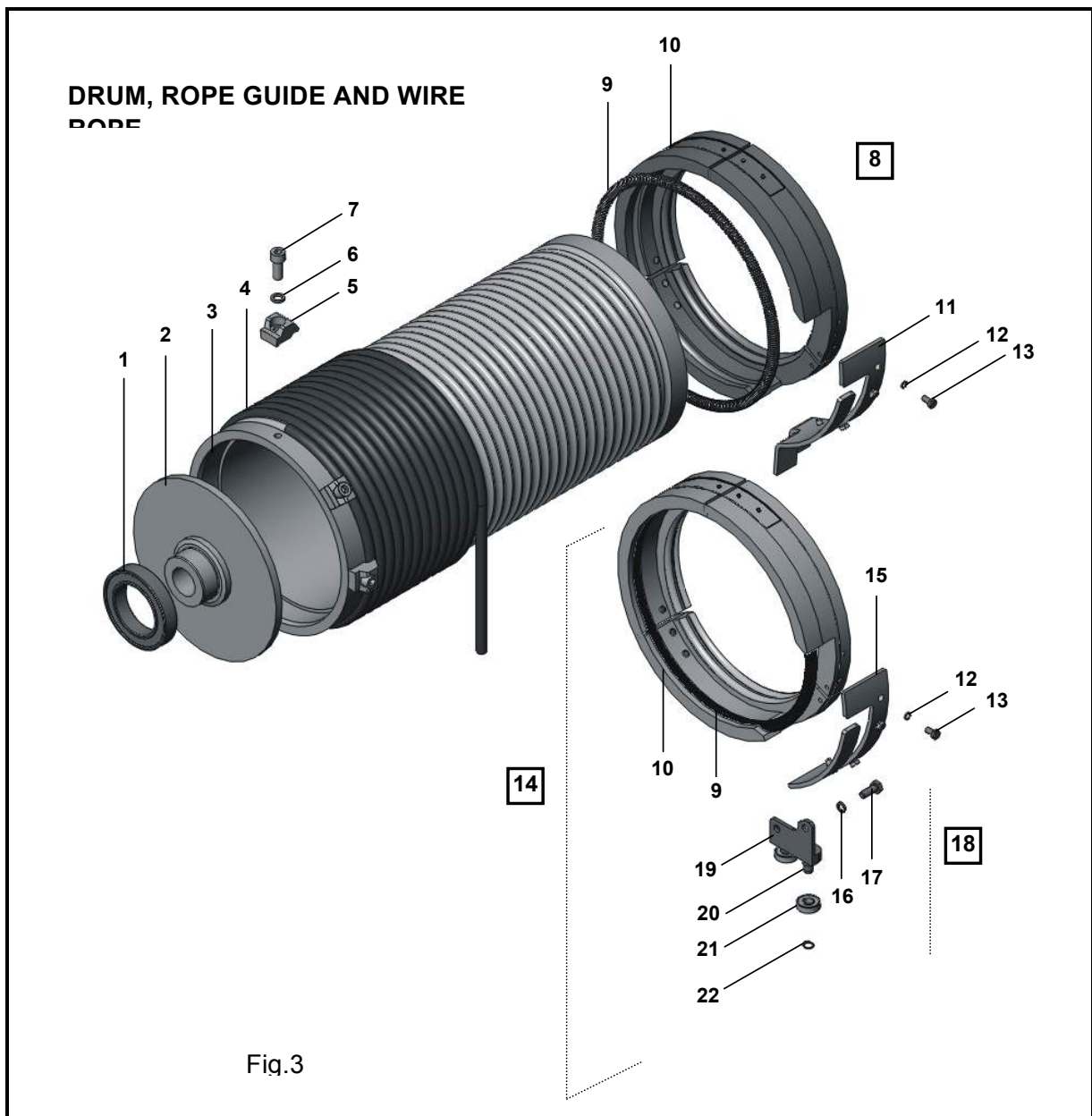


Table 7

Pos.	Designation	a	Pcs	HOIST SIZE						
				VAT10	VAT20	VAT30	VAT40	VAT50	VAT60	VATA64
[14]	Rope guide with rollers	2/1;4/1	1	1330398	1118885	1118877	1118864	1330335	1330293	1330309
9	Spring	2/1;4/1	1	2317184	2321834	2315606	2317907	2323690	2208068	2208068
[10]	Guiding nut set	2/1;4/1	1	1111853	1113033	1111434	1112019	1114854	1118733	1332112
15	Short guide	2/1;4/1	1	2600176	2320726	2320726	2332459	2600155	2600129	2600129
(16)	Washer DIN7980	2/1;4/1	2	2 6H	2 8H	2 8H	2 8H	2 8H	2 8H	2 8H
(17)	Bolt DIN931 / 8.8	2/1;4/1	2	M6x18	M8x20	M8x20	M8x20	M8 x 20	M8x20	M8x20
[18]	Guiding block	2/1;4/1	1	1344924	1112731	1112731	1116343	1344882	1344840	1344840
{19}	Carrier	2/1;4/1	1	2640423	2320747	2320747	2326911	2640387	2640376	2640376
20	Axle	2/1;4/1	2	2566172	2565928	2565928	2565933	2566062	2566062	2566062
(21)	Bearing SKF	2/1;4/1	2	609-2z	6000-2z	6000-2z	6001-2z	6001-2z	6001-2z	6001-2z
(22)	Ring DIN471	2/1;4/1	2	9 x 1	10 x 1	10 x 1	12 x 1	12 x 1	12 x 1	12 x 1

The normal Rope Guide execution contains the items from Pos.1 to Pos.13 . A version of Rope Guide with rollers is shown from Pos.14 to Pos.22.

REDUCTION GEAR

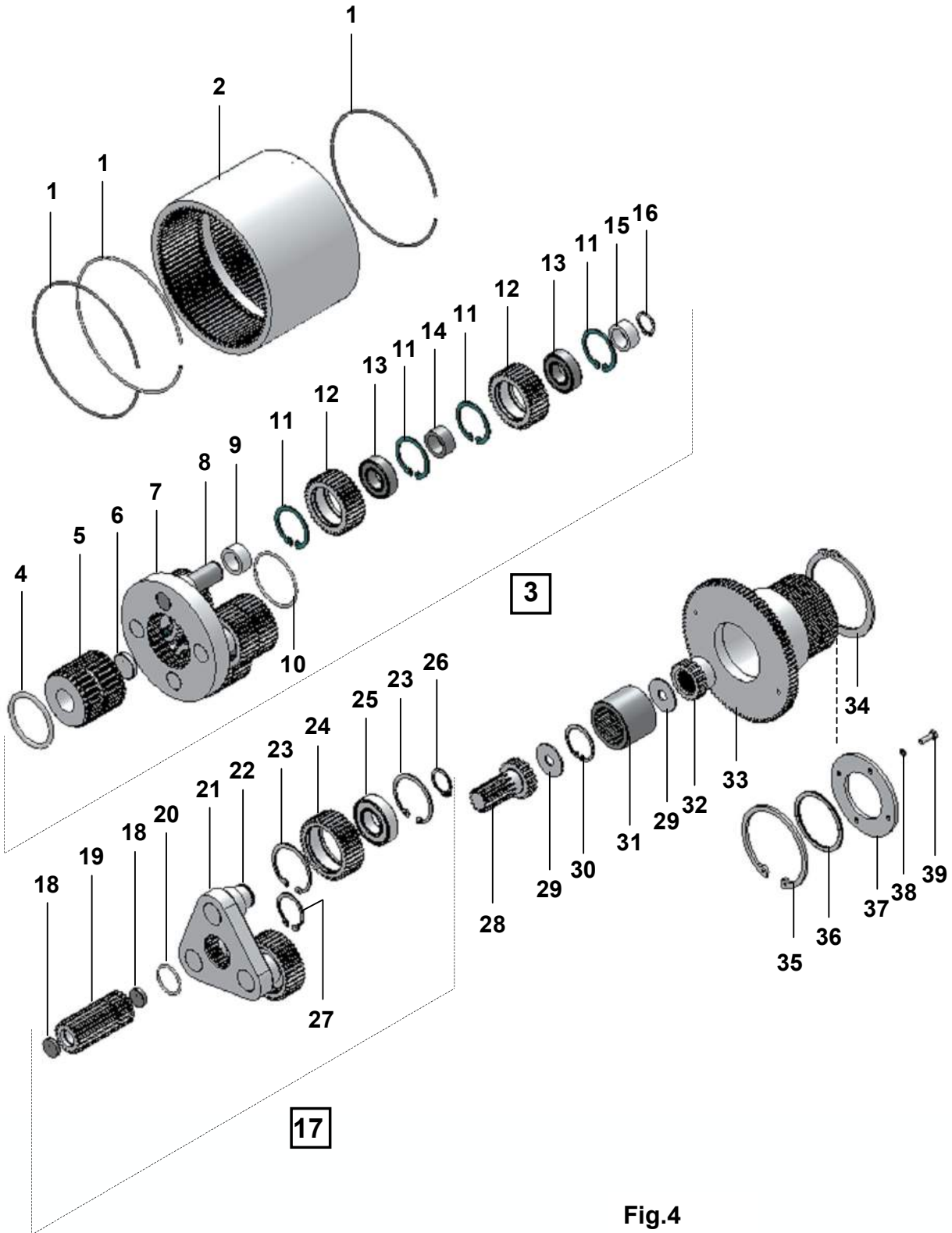


Fig.4

REDUCTION GEAR

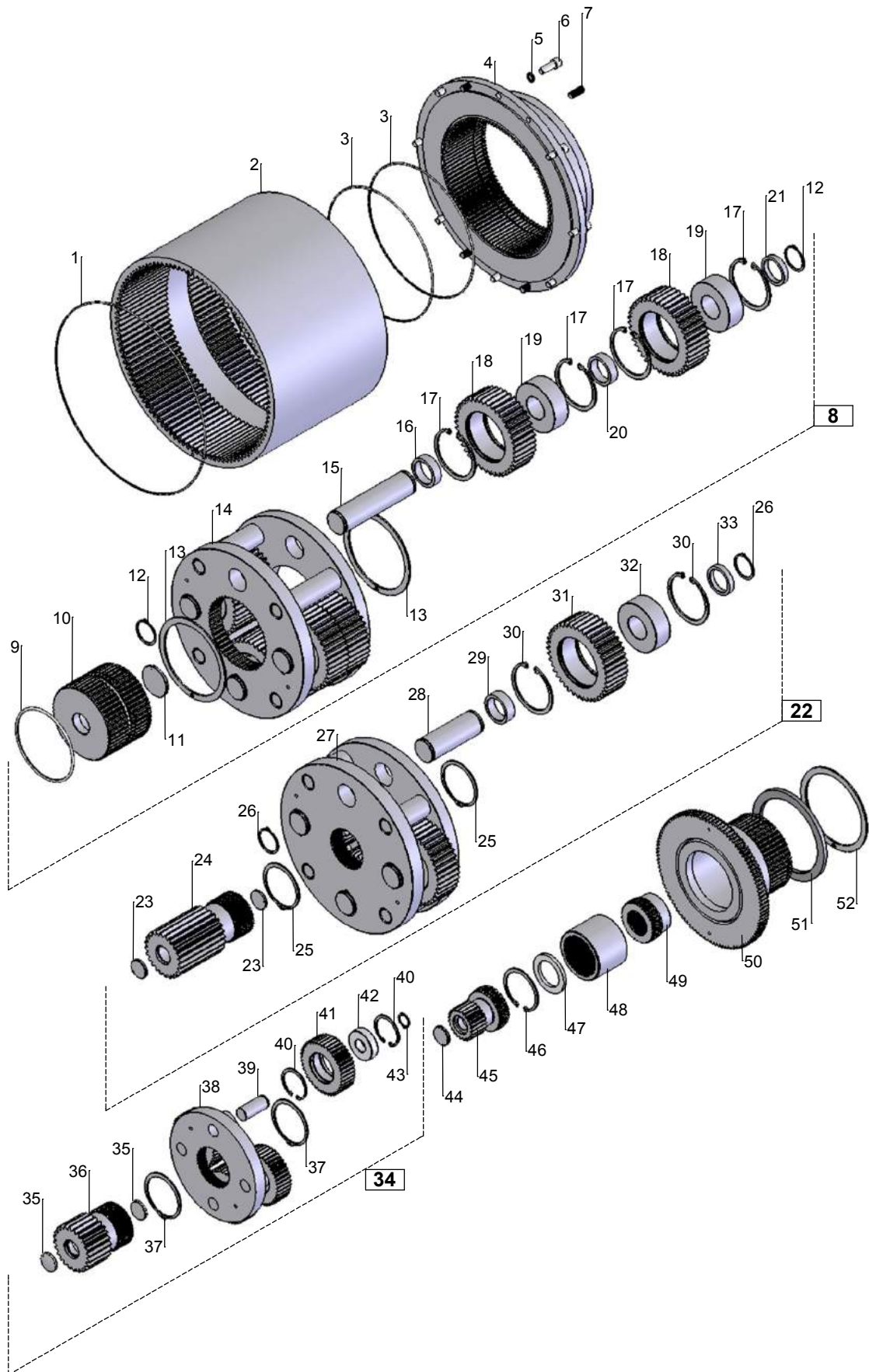


Fig.4a

REDUCTION GEAR – Fig. 4

Table 8

Pos.	Designation	HOIST SIZE									
		VAT10		VAT20		VAT30		VAT40		VAT50	
1	Ring	2316820	3	2315852	3	2315852	1	2317509	3	2323952	3
2	Annular gear	2316814	1	2315847	1	2315847	1	2317493	1	2323947	1
[3]	Gearing II	1111764	1	1111586	1	1111371	1	1111942	1	1114807	1
(4)	O-ring BDS7947-85	30 x 5,3	1	65,5 x 5,8	1	65,5 x 5,8	1	65,5 x 5,8	1	90 x 5	1
5	Output shaft	2317231	1	2315240	1	2315240	1	2318062	1	2323748	1
6	Cap	2317294	1	2315302	1	2315302	1	2315302	1	2324055	1
{7}	Guide II	2317252	1	2321824	1	2315318	1	1112045	1	1114875	1
8	Axle	2317289	3	2315297	3	2315297	4	2318099	3	2323785	3
9	Bush	-	-	-	-	-	-	2318083	3	2323769	3
10	Ring	-	-	2315260	1	2315260	1	2315260	1	2323795	1
	Ring DIN 471	40x1,75	1	-	-	-	-	-	-	-	-
(11)	Ring DIN 472	35 x 1,5	12	52 x 2	12	52 x 2	16	72 x 2,5	12	90 x 3	12
12	Planet gear II	2317268	6	2315276	6	2315276	8	2318104	6	2323706	6
(13)	Bearing SKF	6202	6	6205	6	6205	8	6207	6	6308	6
14	Bush	2317273	3	2315281	1	2315281	4	2318083	3	2323774	3
15	Bush	-	-	-	-	-	-	2318078	3	2323800	3
(16)	Ring DIN 471	15 x 1	3	25 x 1,2	3	25 x 1,2	4	35 x 1,5	6	40 x 1,75	6
[17]	Gearing I	1111772	1	1111366	1	1111366	1	1111958	1	1114791	1
18	Cap	2317309	2	2315187	2	2315187	2	2318146	2	2318146	2
19	Sun gear I	2317315	1	2315192	1	2315192	1	2318151	1	2323816	1
20	Ring	2317341	1	2315234	1	2315234	1	2315234	1	-	-
	Ring DIN471	-	-	-	-	-	-	-	-	48 x 1,75	1
{21}	Guide I	2317320	1	2315229	1	2315229	1	2318167	1	2323842	1
22	Axle	2317336	3	2315208	3	2315208	3	2318172	3	2323821	3
(23)	Ring DIN 472	35x1,5	6	62x2	6	62x2	6	72x2,5	6	90x3	6
24	Planet gear I	2317268	3	2315213	3	2315213	3	2318104	3	2323837	3
(25)	Bearing SKF	6202	3	6206	3	6206	3	6207	3	6308	3
(26)	Ring DIN 471	15 x 1	3	30 x 1,5	3	30 x 1,5	3	35 x 1,5	3	40 x 1,75	3
(27)	Ring DIN 471	30 x 1,5	1	42 x 1,75	1	42 x 1,75	1	42 x 1,75	1	50 x 2	1
28	Shaft gear	2316835	1	2315868	1	2315868	1	2317514	1	2323968	1
29	Compensating disk	2323224	*	2315957	*	2315957	*	2324385	1	-	-
(30)	Ring DIN 472	22 x 1	1	45 x 1,75	1	45 x 1,75	1	55 x 2	1	75 x 2,5	1
31	Coupling bush	2316840	1	2315873	1	2315873	1	2317526	1	2323973	1
32	Disk	-	-	2315962	1	2315962	1	2317535	1	2324047	1
33	Stopping bush	1111785	1	1111413	1	1111413	-	1111963	1	1114765	1
34	Ring DIN 471	75 x 2,5	1	100 x 3	1	100 x 3	1	100 x 3	1	-	-
35	Ring DIN 472	-	-	-	-	-	-	-	-	135 x 4	1
	Washer	-	-	-	-	-	-	-	-	2330158	1
36	Washer	-	-	-	-	-	-	-	-	2330404	1
	Washer	-	-	-	-	-	-	-	-	2330413	1
37	Limitier	-	-	-	-	-	-	-	-	2324013	1
38	Washer DIN7980	-	-	-	-	-	-	-	-	2 6H	4
(39)	Bolt DIN933 - 5.6	-	-	-	-	-	-	-	-	M6x14	4

The reduction gear of “VAT” series hoists is not a separate unit.

REDUCTION GEAR – Fig. 4a

Table 8a

Pos.	Designation	HOIST SIZE							
		VAT60		VATA60		VATB60		VATAB60	
			pcs		pcs		pcs		pcs
1	Ring	2331130	1	2331130	1	2331130	1	2331130	1
2	Annular gear	2331125	1	2331125	1	2331125	1	2331125	1
3	Ring	2331240	2	2331240	2	2331240	2	2331240	2
[4]	Annular gear I	1118707	1	1118707	1	1118707	1	1118707	1
(5)	Washer DIN7980	2 12H	8	2 12H	8	2 12H 5,8	8	2 12H	8
(6)	Screw DIN912 - 8.8	M12x35	8	M12x35	8	M12x35	8	M12x35	8
7	Pin	2323989	4	2323989	4	2323989	4	2323989	4
[8]	Gearing III	1118691	1	1317103	1	1118691	1	1317103	1
(9)	O-ring BDS7947-85	120 x 5	1	120x5	1	120x5	1	120x5	1
10	Output shaft	2331680	1	2331680	1	2331680	1	2331680	1
11	Cap	2331743	1	2331743	1	2331743	1	2331743	1
(12)	Ring DIN 471	40 x 1,75	6	40 x 1,75	8	40 x 1,75	6	40 x 1,75	8
(13)	Ring DIN 471	130 x 4	1	130 x 4	1	130 x 4	1	130 x 4	1
{14}	Guide III	1118749	1	1320128	1	1118749	1	1320128	1
15	Axle III	2331722	3	2331722	4	2331722	3	2331722	4
16	Bush	2331696	3	2331696	4	2331696	3	2331696	4
(17)	Ring DIN 472	80 x 2.5	12	80 x 2.5	16	80 x 2.5	12	80 x 2.5	16
18	Planet gearII	2331701	6	2331701	8	2331701	6	2331701	8
(19)	Bearing SKF	22208 CW33	6	22208 CW33	8	22208 CW33	6	22208 CW33	8
20	Bush	2331738	3	2331738	4	2331738	3	2331738	4
21	Bush	2331717	3	2331717	4	2331717	3	2331717	4
[22]	Gearing II	1118644	1	1118644	1	1118644	1	1118644	1
23	Cap	2331785	2	2331785	2	2331785	2	2331785	2
24	Sun gear III	2331790	1	2331790	1	2331790	1	2331790	1
(25)	Ring DIN 471	100 x 3	2	100 x 3	2	100 x 3	2	100 x 3	2
(26)	Ring DIN 471	40 x 1,75	6	40 x 1,75	6	40 x 1,75	6	40 x 1,75	6
{27}	Guide II	1118754	1	1118754	1	1118754	1	1118754	1
28	Axle II	2331806	3	2331806	3	2331806	3	2331806	3
29	Bush	2331811	3	2331811	3	2331811	3	2331811	3
(30)	Ring DIN 472	80 x 2.5	6	80 x 2.5	6	80 x 2.5	6	80 x 2.5	6
31	Planet gear II	2331701	3	2331701	3	2331701	3	2331701	3
(32)	Bearing SKF	22208 CW33	3	22208C W33	3	22208 CW33	3	22208 CW33	3
33	Bush	2331717	3	2331717	3	2331717	3	2331717	3
[34]	Gearing I	1118639	1	1118639	1	1317141	1	1317141	1
35	Cap	2331885	2	2331885	2	2331885	2	2331885	2
36	Sun gear II	2331853	1	2331853	1	2331853	1	2331853	1
(37)	Ring DIN 471	75 x 2.5	2	75 x 2.5	2	75 x 2.5	2	75 x 2.5	2
{38}	Guide I	1118763	1	1118763	1	1320133	1	1320133	1
39	Axle	2331874	3	2331874	3	2331874	3	2331874	3
(40)	Ring DIN 472	42 x 1,75	3	42 x 1,75	3	42 x 1,75	3	42 x 1,75	3
41	Planet gear I	2331869	3	2331869	3	2560469	3	2560469	3
(42)	Bearing SKF	6004	6	6004	6	6004	6	6004	6
(43)	Ring DIN 471	20 x 1.2	3	20 x 1.2	3	20 x 1.2	3	20 x 1.2	3
44	Cap	2331235	1	2331235	1	2331235	1	2331235	1
45	Sun gear I	2331146	1	2331146	1	2560474	1	2560474	1
(46)	Ring DIN 472	72 x 2.5	1	72 x 2.5	1	72 x 2.5	1	72 x 2.5	1
47	Washer II	2329163	*	2329163	*	2329163	*	2329163	*
48	Coupling bush	2330619	1	2330619	1	2330619	1	2330619	1
49	Disk	2330624	1	2330624	1	2330624	1	2330624	1
[50]	Stopping bush	1118650	1	1118650	1	1118650	1	1118650	1
51	Bush	2331298	1	2331298	1	2331298	1	2331298	1
(52)	Ring DIN 471	150 x 4	1	150 x 4	1	150 x 4	1	150 x 4	1

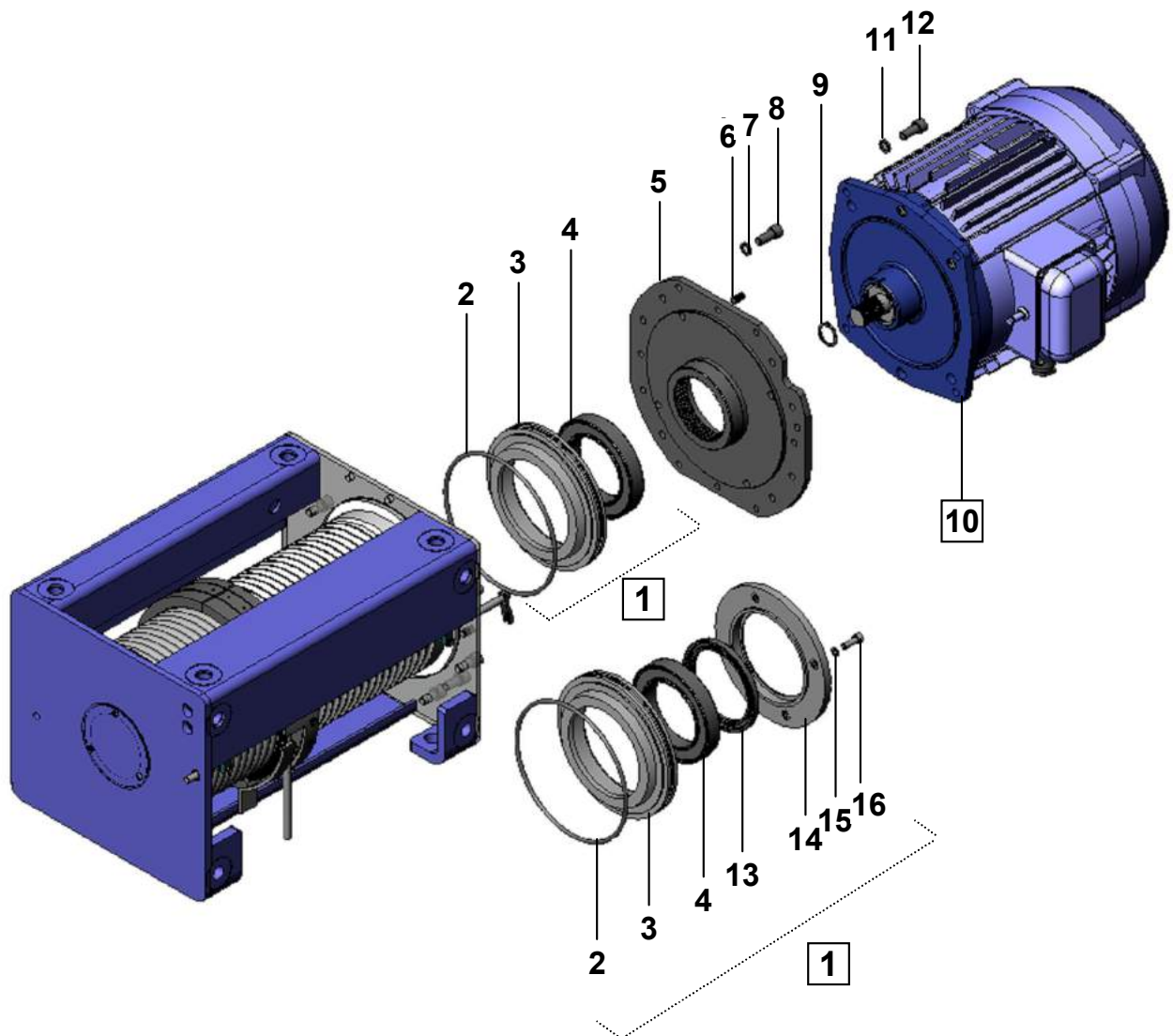
CLOSING UNIT AND DRIVING OF THE ELECTRIC HOIST**Fig.5**

Table 10

Pos.	Designation			Pcs	HOIST SIZE			
					VAT10	VAT20	VAT30	VAT40
[1]	Supporting disc set			1	1111806	1111502	1111502	1111984
(2)	O-ring BDS7947-85 / BNK			1	140 x 3	205 x 5	205 x 5	250 x 5,3
3	Disc			1	2317425	2315737	2315737	2318036
(4)	Bearing FAG			1	6015z	6020z	6020z	6020z
5	Flange 1A			1	1111790	1111497	1111497	1111979
6	Pin			4	2316856	2315889	2315889	2317540
(7)	Washer DIN7980			8	2 8H	2 10H	2 10H	2 12H
(8)	Screw DIN912 / 8.8			8	-	M10x25	M10x25	M12x30
	Bolt DIN931 / 8.8			4	M8x20			
(9)	Ring BDS2170-77			1	-	B30	B30	B40
[10]	Electric motor	2m	V1	1	KV 1001-6	KV 4002-6	KV 3002-6	KV 4002-6
			V2	1	-	-	KV 3004-24/6	-
			V5	1	KV 1001-4	KV 4001-4	KV 3001-4	KV 4001-4
			V6	1	-	-	KV 3004-24/4	-
		3m	V2	1	KV 1003-24/6	KV 4003-24/6	KV 3003-24/6	KV 4003-24/6
			V6	1	KV 1003-24/4	KV 4003-24/4	KV 3003-24/4	KV 4003-24/4
(11)	Washer DIN7980			4	2 8H	2 12H	2 12H	2 16H
(12)	Screw DIN912 / 8.8			4	M8 x 20	M12 x 30	M12 x 30	M16 x 35

Table 10

Pos.	Designation			Pcs	HOIST SIZE		
					VAT50	VAT60	VAT64
[1]	Supporting disc set			1	1114828	1118670	1118670
(2)	O-ring BDS7947-85 / BNK			1	284 x 6,2	340 x 3,55	340 x 3,55
3	Disc			1	2323905	2331958	2331958
(4)	Bearing FAG			1	6030z	61932	61932
5	Flange 1A			1	1114812	1118665	1118665
6	Pin			4	2323989	2323989	2323989
(7)	Washer DIN7980			8	2 12H	2 14H	2 14H
(8)	Screw DIN912 / 8.8			8	M12 x 35	M14 x 40	M14 x 40
[10]	Electric motor	V1 , V3		1	KV 5002-6	KV 6002-6	KV 6002-6
		V2 , V4		1	KV 5003-24/6	KV 6003-24/6	KV 6003-24/6
		V5		1	KV 5001-4	KV 6002-4	KV 6002-4
		V6		1	KV 5003-24/4	KV 6003-24/4	KV 6003-24/4
(11)	Washer DIN7980			4	2 18H	2 18H	2 18H
(12)	Screw DIN912 / 8.8			4	M18 x 40	M18 x 40	M18 x 40
(13)	Gasket BDS9954-83			1	Б 160 x 200 x 15	Б 180 x 200 x 13	Б 180 x 200 x 13
14	Cap			1	2326969	2331963	2331963
15	Screw DIN912 / 8.8			4	M8 x 16	M8 x 16	M8 x 16
16	Washer DIN7980				2 8H	2 8H	2 8H

HOOK BLOCK – 2/1

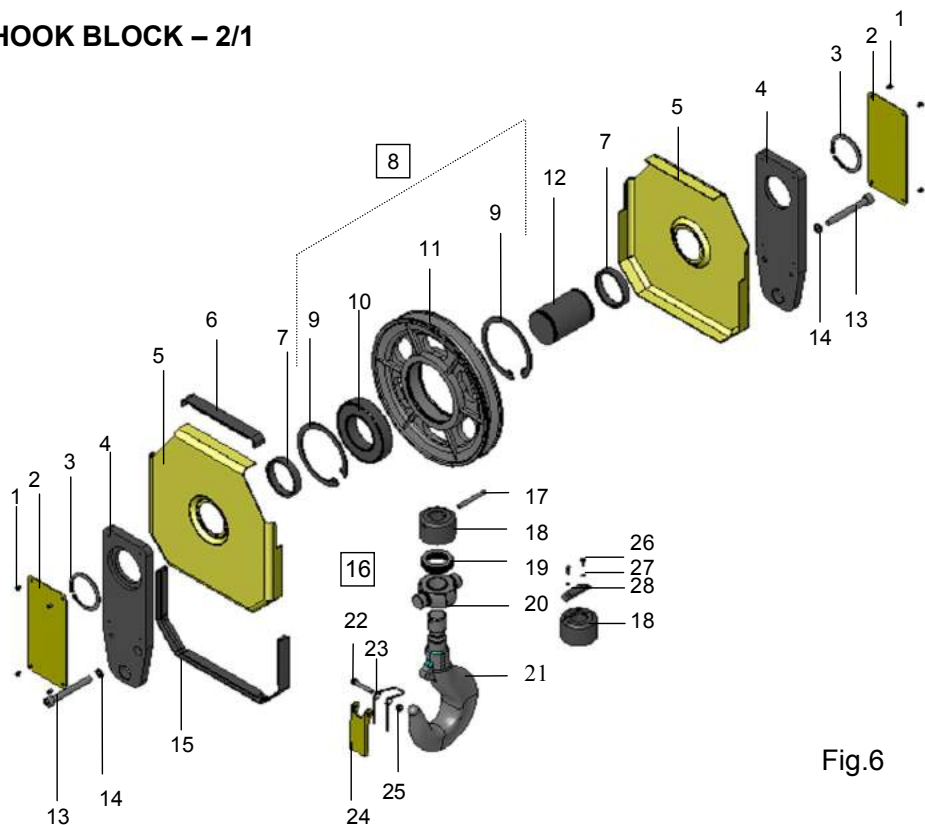


Fig.6

Table 11

Pos.	Designation	Pcs	HOIST SIZE						
			VAT 10	VAT 20	VAT 30	VAT 40	VAT 50	VAT 60	VAT 64
Set.	Hook block	-	1344217	1344222	1344180	1344238	1344442	1118686	1344395
(1)	Screw DIN7985 / 5.8	8	M4x5	M4x5	M4x5	M4x5	M5x8	M5x8	M5x8
2	Sign	2	2296053	2296065	2296070	2296086	2671027	2671032	2671048
(3)	Ring DIN471	2	35x1,5	50x2	60x2	60x2	60x2	70x2,5	70x2,5
4	Carrying plate	2	2516467	2516471	2516488	2516493	2517057	2516996	2516996
5	Cover	2	2585216	2585221	2585237	2585242	2585305	2585279	2585279
6	Profile	1	2506569	2506511	2506527	2506532	2506899	2506663	2506663
7	Bush	2	2550639	2550644	2550651	2550618	2551014	2550733	2550733
[8]	Roller complete	1	1344278	1344285	1344196	1344133	1115329	1118859	1344353
(9)	Ring BDS2170-77	-	A72 /26p.	A90/26p.	A110/26p.	A130/26p.	-	-	-
	Ring DIN472	-	-	-	-	-	130x4/16p./	150x4/16p./	150x4/16p./
(10)	Bearing SKF	-	6207-2z	6210-2z	6212-2z	6312-2z	6312-2z	6314-2z	6314-2z
11	Roller	1	2665097	2665102	2665118	2665081	2326162	2332417	2665165
12	Axle	1	2565430	2565446	2565451	2565467	2565692	2565687	2565687
(13)	Screw DIN912 / 8.8	2	M6x70	M8x80	M10x90	M12x130	M12x150	M12x150	M12x150
(14)	Washer DIN7980	2	2 6H	2 8H	2 10H	2 12H	2 12H	2 12H	2 12H
15	Profile	1	2506574	2506490	2506506	2506548	2506883	2506658	2506658
[16]	Hook set	1	1344243	1344259	1344201	1344264	1115313	1115313	1115313
(17)	Pin DIN 1481	1	4x45	4x55	6x60	8x70	-	-	-
18	Carrying nut	1	2319354	2580108	2316243	2318701	2322519	2322519	2322519
(19)	Bearing SKF	1	51105	51106	51107	51108	51214	51214	51214
20	Traverse	1	2532049	2532054	2316259	2532062	2326157	2326157	2326157
21	Hook DIN 15401	1	2537052	2537068	2537047	2537010	2537031	2537031	2537031
(22)	Bolt DIN 931 / 6.6	1	M6x30	M6x40	M6x40	M6x40	M8x55	M8x55	M8x55
23	Spring	1	2605153	2605148	2605148	2605127	2605132	2605132	2605132
24	Tongue	1	2670133	2670023	2670039	2670018	2670065	2670065	2670065
(25)	Nut DIN985 / 6	1	M6	M6	M6	M6	M8	M8	M8
(26)	Bolt DIN933 / 6.6	2	-	-	-	-	M10x20	M10x20	M10x20
(27)	Washer DIN7980	2	-	-	-	-	2 10H	2 10H	2 10H
28	Stopping plate	1	-	-	-	-	2328196	2328196	2328196

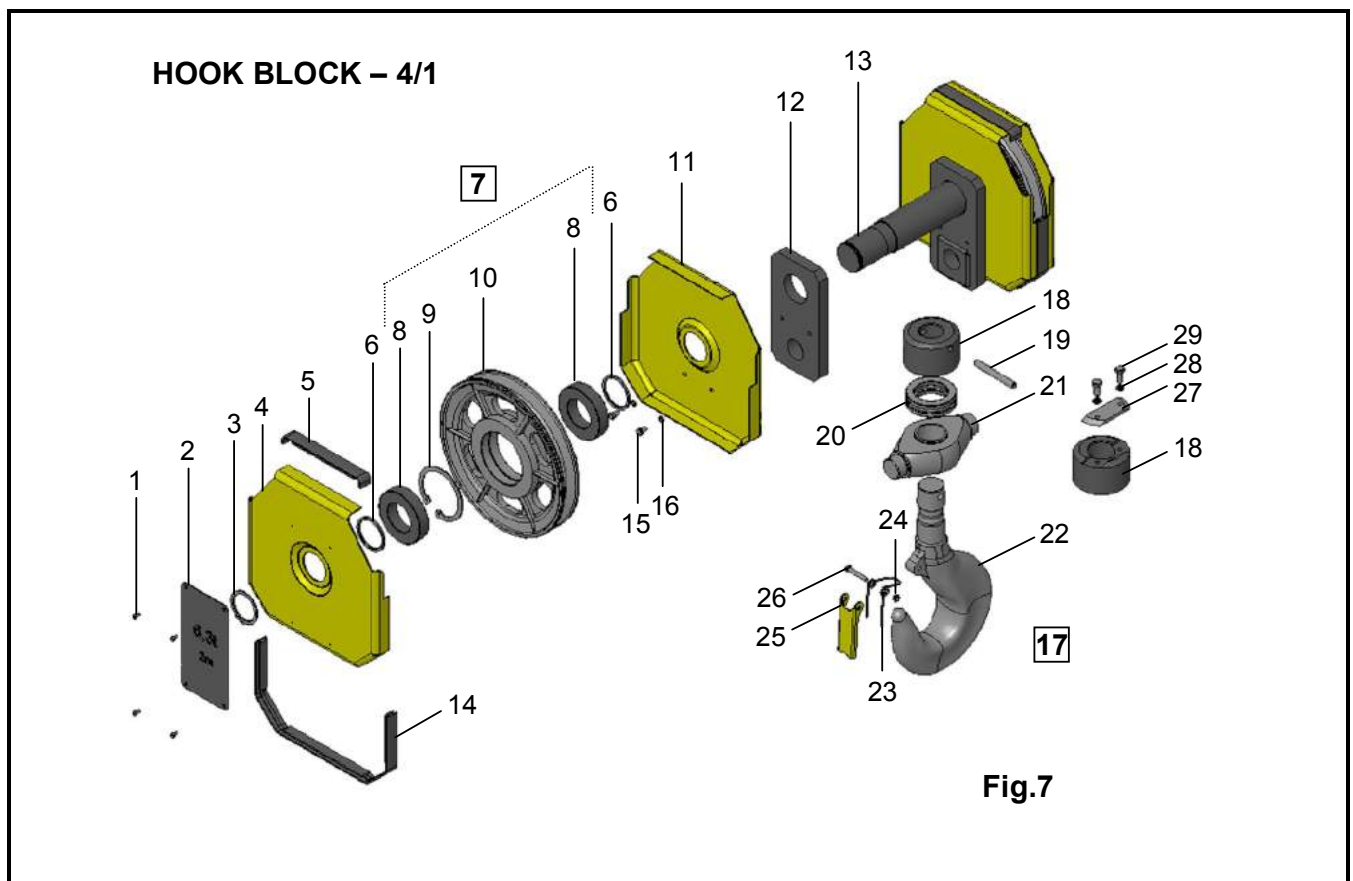


Table 12

Pos.	Designation	Pcs	HOIST SIZE						
				VAT 20	VAT 30	VAT 40	VAT 50	VAT 60	VAT 64
Set.	Hook block- 2m bearing	-	1344180	1344086	1344091	1344107	1344458	1118838	1344369
(1)	Screw DIN7516-A / 5.6	8	M4x8	M4x8	M4x8	M4x8	AM3x6-H	M3x6-A	M3x6-A
2	Sign	2	2296018	2266023	2236039	2256044	2671011	2671053	2671069
(3)	Ring DIN471	2	35x1,5	35x1,5	50x2	60x2	60x2	70x2,5	70x2,5
4	Cover	2	2585195	2585153	2585169	2585174	2585310	2585284	2585284
5	Profile	2	2506569	2506511	2506527	2506532	2506899	2506663	2506663
6	Bush	4	2550639	2550597	2550602	2550618	2551014	2550733	2550733
[7]	Roller complete	2	1344278	1344112	1344128	1344133	1115329	1118859	1344353
(8)	Bearing SKF	-	6207-2z	6207-2z	6210-2z	6312-2z	6312-2z	6314-2z	6314-2z
(9)	Ring BDS2171-77	-	A72	A72	A90	A130	-	-	-
	Ring DIN472	-	-	-	-	-	130x4	150x4/16p	150x4/16p
10	Roller	2	2665097	2665060	2665076	2665081	2326162	2332417	2665165
11	Cover	2	2585182	2585127	2585132	2585148	2585305	2585279	2585279
12	Carrying plate	2	1360092	1360108	1360113	1360129	1360160	1360134	1360134
13	Axle	1	2565411	2565383	2565399	2565404	2565708	2565525	2565525
14	Profile	2	2506574	2506490	2506506	2506548	2506883	2506658	2506658
(15)	Bolt DIN931 - 6.6	4	M6x12	M6x12	M6x12	M8x16	M8x16	M8x16	M8x16
(16)	Washer DIN7980	4	2 6H	2 6H	2 6H	2 8H	2 8H	2 8H	2 8H
[17]	Hook set	1	1344201	1344149	1344154	1344164	1115347	1344332	1344332
18	Carrying nut	1	2316243	2318701	2318827	2322477	2330713	2326267	2326267
(19)	Pin DIN1481	1	6x60	8x70	10x90	-	-	-	-
(20)	Bearing SKF	1	51107	51108	51210	51214	51218	51220	51220
21	Traverse	1	2316259	2532012	2532028	2532033	2326272	2330823	2330823
22	Hook DIN 15401	1	2318811	2537010	2537026	2537031	2326251	2537073	2537073
23	Spring	1	2605148	2605127	2605127	2605132	2605132	2605195	2605195
(24)	Nut DIN985 /6	1	M6	M6	M6	M8	M8	M16	M16
25	Tongue	1	2670039	2670018	2670018	2670056	2670056	2326288	2326288
(26)	Bolt DIN931 / 6.6	1	M6x40	M6x40	M6x40	M8x55	M8x55	M16x100	M16x100
27	Stopping plate	1	-	-	-	2328196	2326817	2516692	2516692
(28)	Washer DIN7980	2	-	-	-	2 10H	2 10H	2 10H	2 10H
(29)	Bolt DIN931 / 6.6	2	-	-	-	M10x20	M10x20	M10x20	M10x20

OVERLOAD LIMITER TYPE "NOT" – ROPE FALLS 2/1

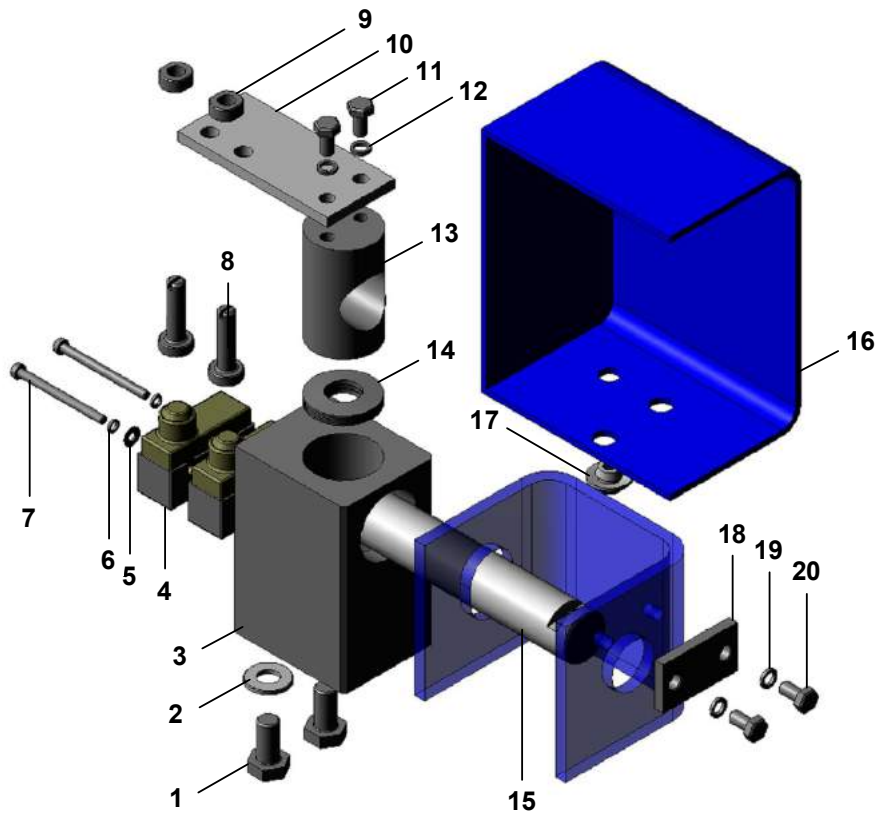


Fig.8

OVERLOAD LIMITER TYPE "NOT" – ROPE FALLS 4/1

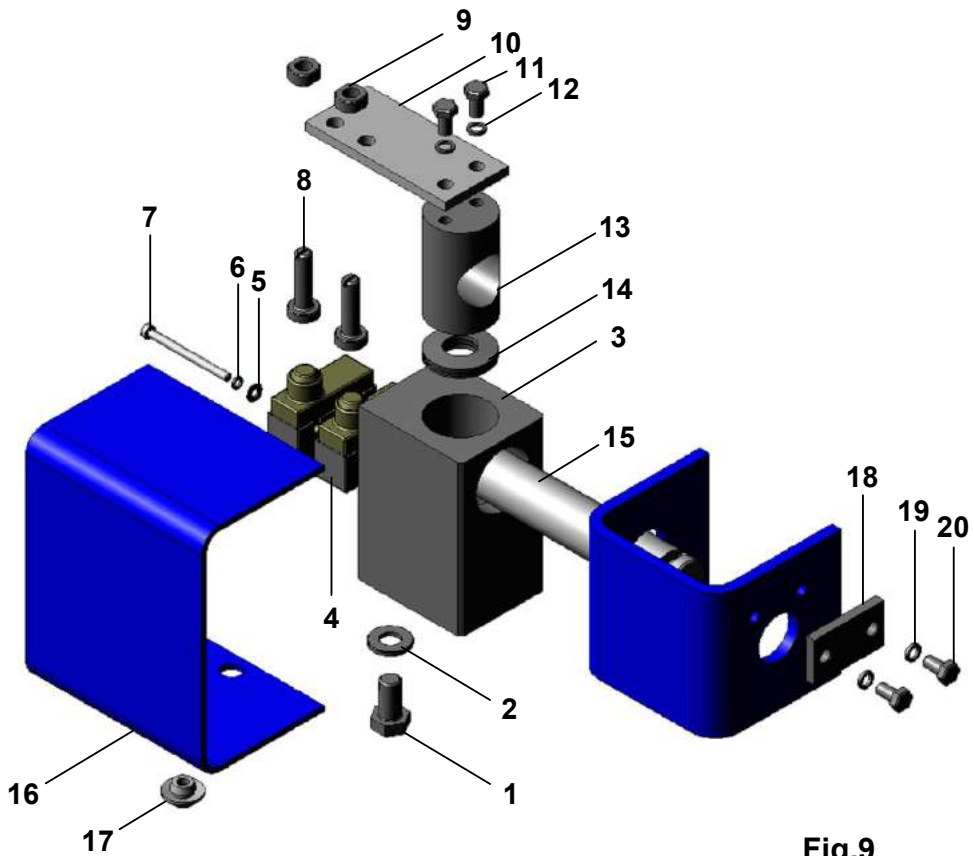


Fig.9

Fig.	Pos	Designation	a	Pcs	HOIST SIZE			
					VAT10	VAT20	VAT30	VAT40
8	Set	NOT E2	2/1	-	1883166	1882948	1882864	1882969
9	Set	NOT E3	4/1	-	1883464	1882885	1882906	1882927
8,9	1	Bolt DIN 933/5.6	2/1; 4/1	2	M10x20	M10x20	M10x20	M10x20
8,9	2	Washer DIN7980	2/1; 4/1	2	AM10	AM10	AM10	AM10
8	3	Body	2/1	1	2887947	2888489	2888469	2888474
9	3	Body	4/1	1	2888097			
8,9	(4)	Limit switch	2/1; 4/1	2	Z – 15GK55	Z – 15GK55	Z – 15GK55	Z – 15GK55
8,9	(5)	Washer DIN 125	2/1; 4/1	2	A M4	A M4	A M4	A M4
8,9	(6)	Washer DIN7980	2/1; 4/1	2	2 4H	2 4H	2 4H	2 4H
8,9	(7)	Screw DIN84 / 4.8	2/1; 4/1	2	1A M4x50	1A M4x50	1A M4x50	1A M4x50
8,9	8	Bolt	2/1; 4/1	2	2887690	2887690	2887690	2887690
8,9	9	Nut	2/1; 4/1	2	2887706	2887706	2887706	2887706
8,9	10	Plate 1	2/1; 4/1	1	2887968	2888537	2888537	2884134
8,9	(11)	Bolt DIN 933/5.6	2/1; 4/1	2	M6x12	M6x12	M6x12	M6x12
8,9	(12)	Washer DIN7980	2/1; 4/1	2	2 6H	2 6H	2 6H	2 6H
8,9	13	Piston	2/1; 4/1	1	2887952	2888495	2888495	2888500
8,9	(14)	Spring DIN 2093	2/1; 4/1	8	23x12,2x1,25	-	-	-
		Spring DIN 2093	2/1; 4/1	6	-	34x16,3x2	-	-
		Spring DIN 2093	2/1; 4/1	16	-	-	34x16,3x2	-
		Spring DIN 2093	2/1; 4/1	12	-	-	-	45x22,4x2,5
8,9	15	Axle	2/1; 4/1	1	2889420	2888542	2888542	2888542
8	16	Cowling E2	2/1	1	1882995	1882953	1882871	1882974
9	16	Cowling E3	4/1	1	1883323	1882890	1882911	1882932
8,9	17	Cap	2/1; 4/1	1	2887638	2887638	2887638	2887638
8,9	18	Plate	2/1; 4/1	1	2321122	2321122	2321122	2328711
8,9	(19)	Washer DIN7980	2/1; 4/1	2	2 6H	2 6H	2 6H	2 6H
8,9	(20)	Bolt DIN 933/5.6	2/1; 4/1	2	M6x12	M6x12	M6x12	M6x12

Fig.	Pos	Designation	a	Pcs	HOIST SIZE		
					VAT50	VAT60	VAT64
8	Set	NOT E2	2/1	-	1884793	1884793	1884835
9	Set	NOT E3	4/1	-	1883014	1883014	1884840
8,9	1	Bolt DIN 933/5.6	2/1; 4/1	2	M10x20	M10x20	M10x20
8,9	2	Washer DIN7980	2/1; 4/1	2	AM10	AM10	AM10
8,9	3	Body	2/1; 4/1	1	2887994	2887994	2887994
8,9	(4)	Limit switch	2/1; 4/1	2	Z – 15GK55	Z – 15GK55	Z – 15GK55
8,9	(5)	Washer DIN 125	2/1; 4/1	2	A M4	A M4	A M4
8,9	(6)	Washer DIN7980	2/1; 4/1	2	2 4H	2 4H	2 4H
8,9	(7)	Screw DIN84 / 4.8	2/1; 4/1	2	1A M4x50	1A M4x50	1A M4x50
8,9	8	Bolt	2/1; 4/1	2	2887690	2887690	2887690
8,9	9	Nut	2/1; 4/1	2	2887706	2887706	2887706
8,9	10	Plate 1	2/1; 4/1	1	2888013	2888013	2888013
8,9	(11)	Bolt DIN 933/5.6	2/1; 4/1	2	M6x12	M6x12	M6x12
8,9	(12)	Washer DIN7980	2/1; 4/1	2	2 6H	2 6H	2 6H
8,9	13	Piston	2/1; 4/1	1	2888008	2888008	2888008
8,9	(14)	Spring DIN 2093	2/1; 4/1	18	50x25,4x3	-	-
		Spring DIN 2093	2/1; 4/1	18	-	50x25,4x3	-
		Spring DIN 2093	2/1; 4/1	16	-	-	50x25,4x3
8,9	15	Axle	2/1; 4/1	1	2888034	2888034	2888034
8	16	Cowling E2	2/1	1	1884809	1884809	1884809
9	16	Cowling E3	4/1	1	1883009	1883009	1883009
8,9	17	Cap	2/1; 4/1	1	2887638	2887638	2887638
8,9	18	Plate	2/1; 4/1	1	2888364	2888364	2888364
8,9	(19)	Washer DIN7980	2/1; 4/1	2	2 6H	2 6H	2 6H
8,9	(20)	Bolt DIN 933-5.6	2/1; 4/1	2	M6x12	M6x12	M6x12