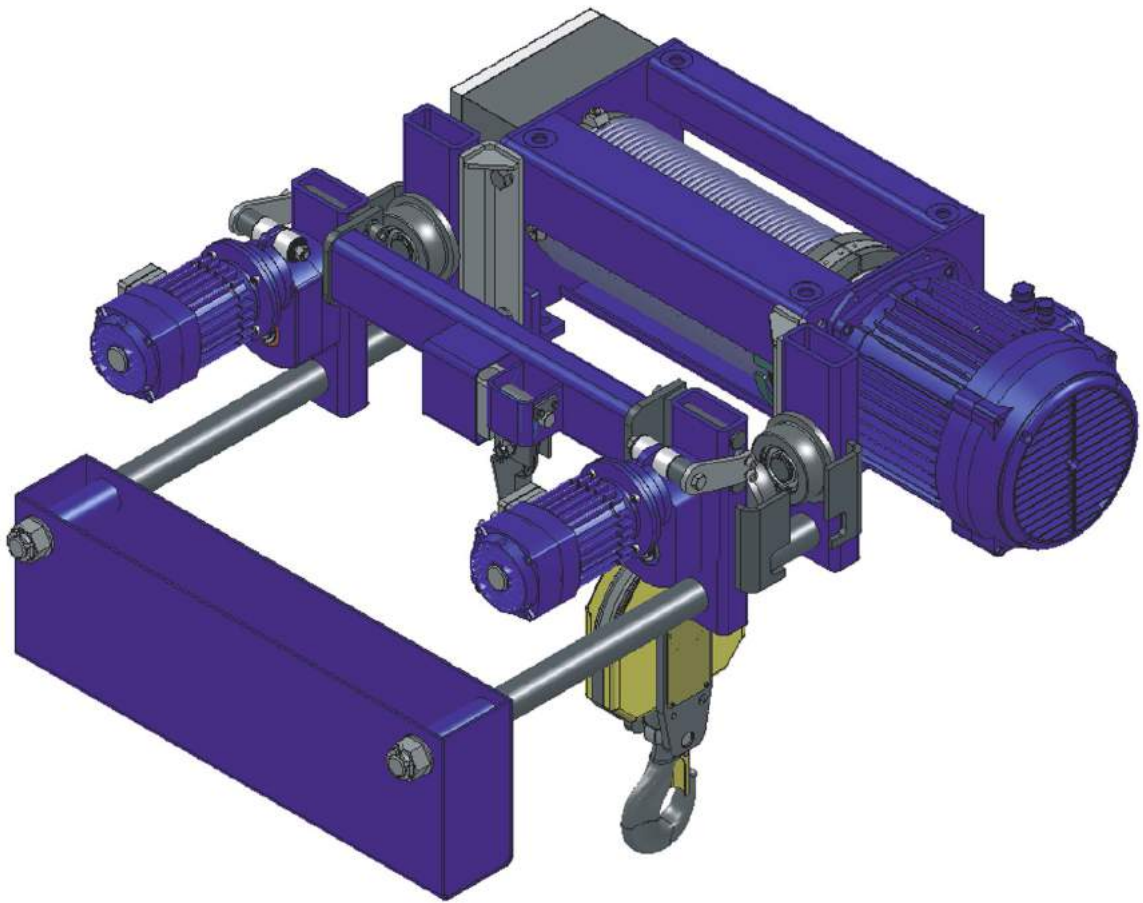




# Hydramach Overhead Crane

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## SPARE PARTS CATALOG

### LOW HEADROOM ELECTRIC WIRE ROPE HOIST TYPE CVAT

**EL  
MOT**

**CE**

## CONTENT:

1. <i>Directions for using the catalog</i>	2
2. <i>Travel mechanism – low headroom 2/1</i>	3,4
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### The present catalog complies with the following standards

БДС 2.601 – 82 *Документи експлоатационни*  
DIN V 8418 *Benutzerinformation*  
EN 292 – 2:1991 *Sicherheit von Maschinen*  
DIN 24420, Teil 1 *Erzatzteillisten, Aigemeines*  
DIN 24420, Teil 2 *Erzatzteillisten, Form und Bau des Textteiles*  
ГОСТ 2.601 – 68 *ЕСКД. Эксплуатационные документы*  
ISO 10973:1995(E) *Cranes – Spare Parts manual*

### Each purchase order should contain the following data:

1. **Type, serial number, year of production** of the electric hoist, written on the hoist label and the **group of operation**.
2. **Name** and **catalogue number** of the requested part.
3. **Quantity** –the quantity of the requested part.
4. **Catalogue number**, which can be found at the end of the last line of cover page.
5. **Shipment requirements**.
6. **Exact address for delivery**.

### For supply of spare parts refer to the following address:

DISTRIBUTION PARTNER  
Hydrmach Overhead Crane Inc

7662 Industrial Way  
Agassiz, BC CANADA V0M 1A2

TEL : 1 604-796-9221

EMAIL : [integrity@hydrmachcrane.com](mailto:integrity@hydrmachcrane.com)

**Instructions to the user:**

The present catalogue covers all parts needed for manufacturing the electric hoists series VAT, with travel mechanism- low headroom.

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

The client can order the whole assembled unit, not separate parts of it. The assembled unit positions are marked with medium brackets. The undetachable units are depicted as such on the figures and they are delivered as a whole. The positions of the undetachable units are marked with big brackets.

The positions of standardized items such as bolts, nuts, washers, safety rings and etc., are marked with small brackets. Usually they are not delivered as spare parts by the manufacturer, but they could be ordered by the customer as an exception. When replacing the carrying elements the client should observe the strength class.

The electric hoists ,VAT series, with low headroom, have been developed for lifting speeds according to Table 1 and for lifting heights according to Table 2.

Table 1

Lifting speed	V1		V2		V5		V6	
Reeving	2/1	4/1	2/1	4/1	2/1	4/1	2/1	4/1
Size	m/mm							
CVAT 10	8	4	8/2	4/1	12	6	12/2	6/1
CVAT 20	8	4	8/2	4/1	12	6	12/2	6/1
CVAT 30	8	4	8/2	4/1	12	6	12/2	6/1
CVAT 40	8	4	8/2	4/1	12	6	12/2	6/1
CVAT 50	8	4	8/2	4/1	12	6	12/2	6/1

Table2

Size	Capacity [kg]	Reeving	Lifting height [m]				
			H1	H2	H3	H4	H5
CVAT10	1000	2/1	6,5	9,0	12,0	18,0	24,0
	2000	4/1	6,0	9,0	12,0		
CVAT20	2000	2/1	8,5	11,5	15,0	22,0	29,0
	5000	4/1	7,5	11,0	14,5		
CVAT30	3200	2/1	7,5	10,0	13,0	19,0	25,0
	7000	4/1	6,5	9,5	12,5		
CVAT40	5000	2/1	6,5	9,5	12,5	18,5	25,5
	10000	4/1	6,0	9,0	12,5		
CVAT50	8000	2/1	-	9,0	12,0	18,0	24,0
	16000	4/1	6,0	9,0	12,0		

Designations used in the catalog:

**V** – travel speed  
**H** – lifting height  
**a** – reeving

**THE MANUFACTURER RESERVES THE RIGHT TO MAKE CHANGES IN THE PARTS CATALOG.**

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

**TRAVEL MECHANISM  
LOW COMPLETE – 2/1**

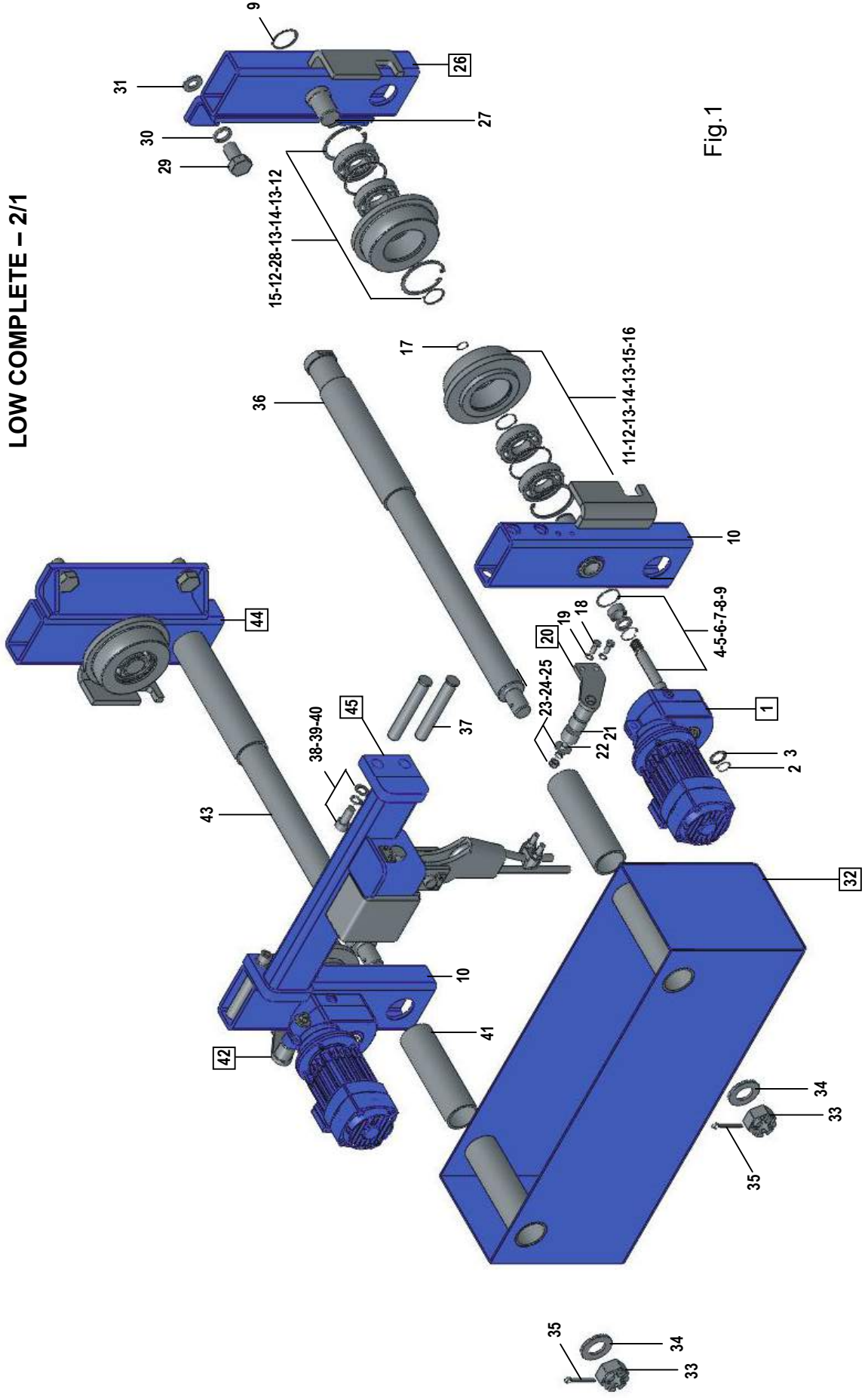


Fig. 1

**TRAVERSE COMPLETE**

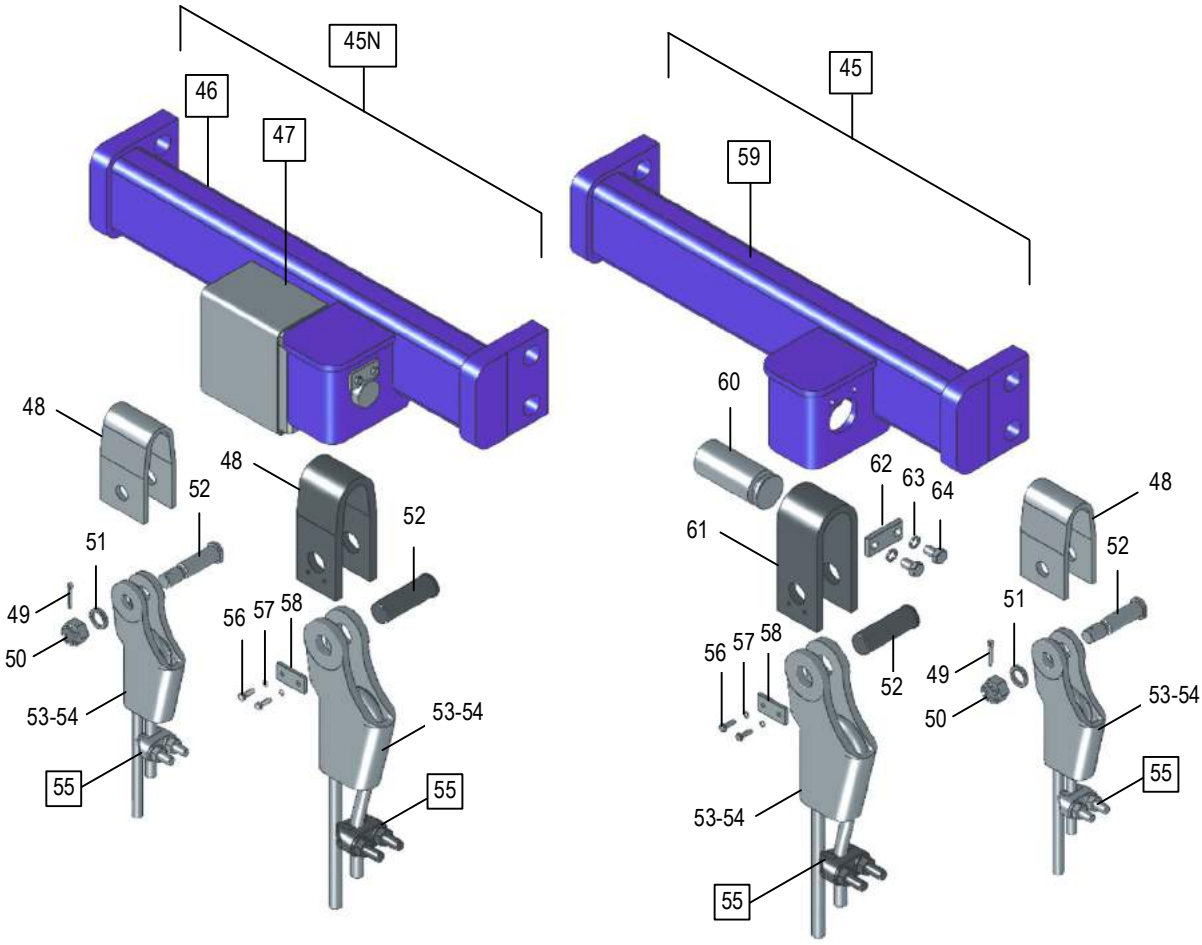


Fig.2

**EXAMPLE FOR DRIVING TRAVEL WHEEL**



Fig.3

Table 3

Pos.	Denomination		Qty.	SIZE					2/1
				VAT10	VAT20	VAT30	VAT40	VAT50	
[1]	Geared motor	10 m/min	2	TP1160.43 AK71-4	TP1160.56 AK71-4	TP1160.56 AK71-4	TP1160.64 AK71-4	TP1160.79 AK71-4	
		16 m/min	2	TP1160.21 AK71-2	TP1160.36 AK71-4	TP1160.36 AK71-4	TP1160.79 AK71-2	TP1160.49 AK71-4	
		20 m/min	2	TP1160.43 AK71-4	TP1160.56 AK71-2	TP1160.56 AK71-2	TP1160.64 AK71-2	TP1160.79 AK71-2	
		32 m/min	2	TP1160.21 AK71-2	TP1160.36 AK71-2	TP1160.36 AK71-2	TP1160.39 AK71-2	TP1160.49 AK71-2	
		10/3 m/min	2	TP1160.43 AK80B12/4	TP1160.56 AK80B12/4	TP1160.56 AK80B12/4	TP1160.64 AK80B12/4	TP1160.79 AK80B12/4	
		16/5 m/min	2	TP1160.28 AK80B12/4	TP1160.36 AK80B12/4	TP1160.36 AK80B12/4	TP1160.43 AK80B12/4	TP1160.49 AK80B12/4	
		20/5 m/min	2	TP1160.43 AK71-8/2	TP1160.56 AK71-8/2	TP1160.56 AK71-8/2	TP1160.64 AK71-8/2	TP1160.79 AK71-8/2	
		32/8 m/min	2	TP1160.28 AK71-8/2	TP1160.36 AK71-8/2	TP1160.36 AK71-8/2	TP1160.39 AK71-8/2	TP1160.49 AK71-8/2	
(2)	Ring DIN471		2	30 x 1,5	30 x 1,5	30 x 1,5	30 x 1,5	30 x 1,5	
3	Washer		2	2625358	2625358	2625358	2625358	2625358	
4	Shaft		2	2555883	2555862	2555862	2555878	2555820	
(5)	Cotter DIN6885		2	8 x 7 x 90	8 x 7 x 90	8 x 7 x 90	8 x 7 x 90	8 x 7 x 90	
(6)	Ring DIN472		2	30 x 1,2	-	-	42 x 1,75	42 x 1,75	
(7)	Gasket БДC9954-83		2	20 x 30 x 7	25 x 35 x 7	25 x 35 x 7	30 x 42 x 7	-	
(8)	Bearing - SKF		2	NKI 17/16	NKI 22/20	NKI 22/20	NKI 28/20	NKI 28/20	
(9)	Ring DIN471		4	40 x 1,75	50 x 2	50 x 2	60 x 2	60 x 2	
10	Operating carrier		2	2640622	2640512	2640512	2640554	2640507	
11	Hollow axle		2	2567071	2566942	2566942	2566979	2566680	
(12)	Ring DIN472		6	-	80 x 2,5	80 x 2,5	90 x 3	110 x 4	
			4	72 x 2,5					
(13)	Bearing - SKF		8	6306 – 2z	6208 – 2z	6208 – 2z	6210 – 2z	6310 – 2z	
14	Space bush Ring DIN472		4	-			2552840	2552421	
			4	-	80 x 2,5	80 x 2,5			
15	Ring DIN471		4	30 x 1,5	40 x 1,75	40 x 1,75	50 x 2	50 x 2	
16	Driving travel wheel		2	2561499	2561420	2561420	2561457	2561195	
16a	Driving travel wheel		2	2660130	2561436	2561436	2561462	2561216	
16b	Spline clutch		2	2555883	2660119	2660119	2660125	2660104	
17	Ring DIN471		2/4	17 x 1	20 x 1,2	20 x 1,2	25 x 1,2	25 x 1,2	
(18)	Bolt DIN933 / 8.8		4		M10 x 35	M10 x 35	M12 x 25	M12 x 25	
	Screw DIN912 / 8.8		4	M10 x 22					
(19)	Washer DIN7980		4	10H	10H	10H	12H	12H	
{20}	Carrier arm set - 1		1	1358125	1358104	1358104	1358083	1358083	
21	Pad		4	2249497	2249497	2249497	2249497	2249497	
(22)	Bolt DIN931 / 8.8		2	M14 x 120	M14 x 140	M14 x 140	M14 x 150	M14 x 150	
23	Washer		2	2625363	2625363	2625363	2625363	2625363	
(24)	Washer DIN7980		2	14H	14H	14H	14H	14H	
(25)	Nut – 5 DIN935		2	M14	M14	M14	M14	M14	
{26}	Operated carrier I		1	1355680	1355585	1355585	1355627	1355669	
27	Axle		2	2567087	2566958	2566958	2566984	2566696	
28	Driven travel wheel		2	2561504	2561441	2561441	2561478	2561200	
(29)	Bolt DIN931 / 8.8		4	M16 x 35	M20 x 40	M20 x 40	M24 x 50	M33 x 60	
(30)	Washer DIN7980		4	16H	20H	20H	24H	33H	
31	Washer		4	2327213	2322917	2322917	2325085	2330886	
{32}	Counterweight		H1	1	1368683	1368484	1368484	1368568	-
			H2	1	1368699	1368496	1368496	1368573	1368641
			H3	1	1368704	1368505	1368505	1368589	1368657
			H4	1	1368717	1368510	1368510	1368594	1368662
			H5	1	1368725	1368526	1368526	1368603	1368678
(33)	Castle nut – 5 DIN935		2	M36	M36	M36	M42 x 3	M42 x 3	

Table 3 – extension

Pos.	Denomination		Qty.	SIZE				2/1	
				VAT10	VAT20	VAT30	VAT40	VAT50	
34	Washer		2					2625185	
	Washer DIN125		2	M36	M36	M36	M42		
(35)	Splint DIN94		2	6,3 x 63	6,3 x 63	6,3 x 63	8 x 80	8 x 80	
36	Bush 2*		2	2552924	2552793	2552793	2552835	2552400	
37	Axle		4	2567066	2566937	2566937	2566963	2567045	
(38)	Screw DIN912 / 8.8		4	M8 x 25	M16 x 32	M16 x 32	M16 x 32	M20 x 45	
(39)	Washer DIN7980		4	8H	16H	16H	16H	20H	
(40)	Washer DIN125		4	M8	M16	M16	M16	M20	
41	Bush 1*		2	2552919	2552772	2552772	2552861	2552416	
{42}	Carrier arm set - 2		1	1358130	1358114	1358114	1358099	1358099	
43	Axle		2	2565666	2565493	2565493	2318900	2567050	
{44}	Operated carrier II		1	1355695	1355590	1355590	1355632	1355674	
[45]	Traverse complete		H1	1	1389148	1388432	1388432	1388715	-
			H2	1	1389153	1388448	1388448	1388720	1388992
			H3	1	1389169	1388453	1388453	1388736	1388998
			H4	1	1389174	1388469	1388469	1388741	1389001
			H5	1	1389184	1388474	1388474	1388757	1389017
[45N]	Traverse complete with HOT		H1	1	1389298	1388537	1388488	1388762	-
			H2	1	1389305	1388542	1388495	1388778	1389022
			H3	1	1389310	1388558	1388500	1388783	1389038
			H4	1	1389326	1388563	1388516	1388799	1389043
			H5	1	1389331	1388579	1388521	1388804	1389059
{46}	Traverse with HOT		H1	1	1389347	1388631	1388631	1388867	-
			H2	1	1389352	1388647	1388647	1388872	1389106
			H3	1	1389368	1388652	1388652	1388888	1389111
			H4	1	1389373	1388668	1388668	1388893	1389127
			H5	1	1389389	1388673	1388673	1388909	1389132
[47]	Load limiter - HOT		1	1883464	1882885	1882906	1882927	1883014	
48	Carrier		1	2328479	2319532	2319532	2323355	2888044	
(49)	Splint DIN94		1	-	4 x 28	4 x 28	4 x 32	-	
(50)	Castle nut – 5 DIN935		1	-	M16	M16	M20	-	
51	Washer		1		2319553	2319553	2323376	-	
(51)	Ring DIN471		2	14 x 1					
52	Axle		1		2319548	2319548	2323360	2566104	
53	Wedge bush		1	2316898	2316442	2316442	2317598	2325944	
54	Wedge		1	2316903	2316458	2316458	2317603	2325957	
(55)	Clamp DIN1142		1	S8	S10	S13	S16	S19	
(56)	Bolt DIN933 / 8.8		2	-	-	-	-	M6 x 14	
(57)	Washer DIN7980		2	-	-	-	-	6H	
58	Safety plate		1	-	-	-	-	2888364	
{59}	Traverse		H1	1	1389195	1388584	1388584	1388812	-
			H2	1	1389200	1388591	1388591	1388825	1389064
			H3	1	1389216	1388605	1388605	1388830	1389070
			H4	1	1389221	1388610	1388610	1388846	1389085
			H5	1	1389237	1388626	1388626	1388851	1389090
60	Axle		1	2565886	2321138	2321138	2323340	2324008	
61	Carrier		1	-	-	-	-	2324170	
62	Safety plate		1	2321122	2321122	2321122	2321122	2518600	
(63)	Washer DIN7980		2	6H	6H	6H	6H	12H	
(64)	Bolt DIN933 / 8.8		2	M6 x 12	M6 x 14	M6 x 14	M6 x 14	M12 x 20	

# TRAVEL MECHANISM LOW COMPLETE – 4/1

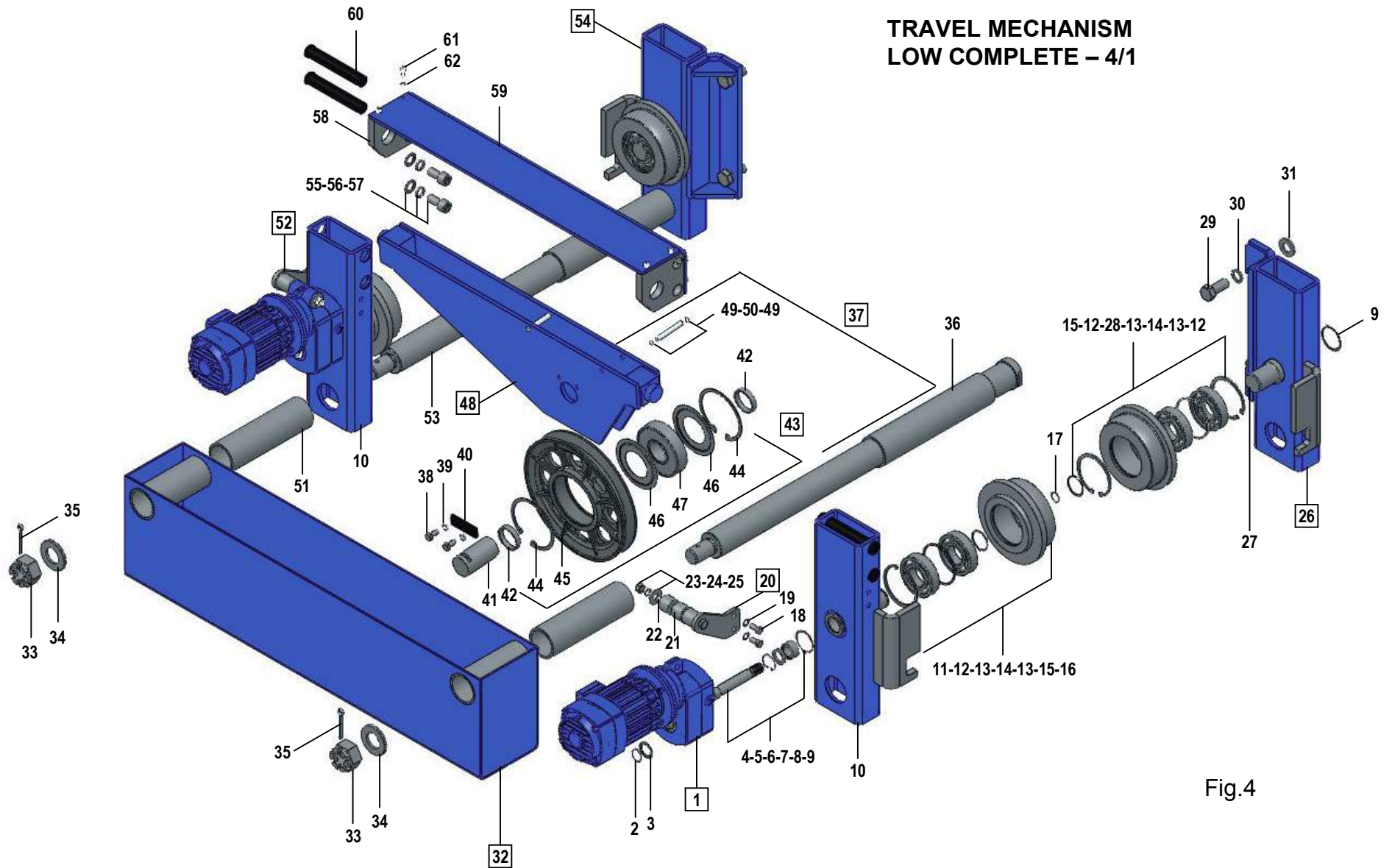


Fig.4



Table 4

Pos.	Denomination		Qty.	Size				4/1
				VAT10	VAT20	VAT30	VAT40	VAT50
[1]	Geared motor	10 m/min	2	TP1160.56 AK71-4	TP1160.64 AK71-4	TP1160.64 AK71-4	TP1160.79 AK71-4	TP1200.70 AK80-6
		16 m/min	2	TP1160.36 AK71-4	TP1160.79 AK71-2	TP1160.79 AK71-2	TP1160.49 AK71-4	TP1200.70 AK80-4
		20 m/min	2	TP1160.56 AK71-2	TP1160.64 AK71-2	TP1160.64 AK71-2	TP1160.79 AK71-2	TP1200.57 AK80P4
		32 m/min	2	TP1160.36 AK71-2	TP1160.39 AK71-2	TP1160.39 AK71-2	TP1160.49 AK71-2	TP1200.36 AK90-4
		10/3 m/min	2	TP1160.56 AK80B12/4	TP1160.64 AK80B12/4	TP1160.64 AK80B12/4	TP1160.79 AK80B12/4	-
		16/5 m/min	2	TP1160.36 AK80B12/4	TP1160.43 AK80B12/4	TP1160.43 AK80B12/4	TP1160.49 AK80B12/4	TP1200.70 AK80P12/4
		20/5 m/min	2	TP1160.56 AK71-8/2	TP1160.64 AK71-8/2	TP1160.64 AK71-8/2	TP1160.79 AK71-8/2	TP1200.57 AK90-12/4
		32/8 m/min	2	TP1160.36 AK71-8/2	TP1160.39 AK71-8/2	TP1160.39 AK71-8/2	TP1160.49 AK71-8/2	TP1200.36 AK90P12/4
(2)	Ring DIN471		2	30 x 1,5	30 x 1,5	30 x 1,5	30 x 1,5	35 x 1,5
3	Washer		2	2625358	2625358	2625358	2625358	2625431
4	Shaft		2	2555862	2555878	2555878	2555820	2555658
(5)	Cotter DIN 6885		2	8 x 7 x 90	8 x 7 x 90	8 x 7 x 90	8 x 7 x 90	10 x 8 x 92
(6)	Ring DIN472		2	-	42 x 1,75	42 x 1,75	42 x 1,75	45 x 1,75
(7)	Bearing- SKF		2	NKI 22/20	NKI 28/20	NKI 28/20	NKI 28/20	NKI 30/20
(8)	Gasket БДC9954-83		2	25 x 35 x 7	30 x 42 x 7	30 x 42 x 7	-	30 x 45 x 7
(9)	Ring DIN471		4	50 x 2	60 x 2	60 x 2	60 x 2	75 x 2,5
10	Operating carrier		2	2640512	2640554	2640554	2640507	2640659
11	Hollow shaft		2	2566942	2566979	2566979	2566680	2565980
(12)	Ring DIN472		6	80 x 2,5	90 x 3	90 x 3	110 x 4	140 x 4
(13)	Bearing - SKF		8	6208 – 2z	6210 – 2z	6210 – 2z	6310 – 2z	6313 – 2z
14	Space bush		4		2552840	2552840	2552421	
	Ring DIN472		4	80 x 2,5				140 x 4
15	Ring DIN471		4	40 x 1,75	50 x 2	50 x 2	50 x 2	65 x 2,5
16	Driving travel wheel		2	2561420	2561457	2561457	2561195	2560778
16a	Driving travel wheel		2	2561436	2561462	2561462	2561216	2561516
16b	Spline clutch		2	2660119	2660125	2660125	2660104	2660151
17	RingDIN471		2/4	20 x 1,2	25 x 1,2	25 x 1,2	25 x 1,2	30 x 1,5
(18)	Bolt DIN933 / 8.8		4	M10 x 35	M12 x 25	M12 x 25	M12 x 25	M12 x 25
(19)	Washer DIN7980		4	10H	12H	12H	12H	12H
{20}	Carrier arm set - 1		1	1358104	1358083	1358083	1358083	1358188
21	Pad		4	2249497	2249497	2249497	2249497	2249497
(22)	Bolt DIN931 / 8.8		2	M14 x 140	M14 x 150	M14 x 150	M14 x 150	M14 x 150
23	Washer		2	2625363	2625363	2625363	2625363	2625363
(24)	Washer DIN7980		2	14H	14H	14H	14H	14H
(25)	Nut – 5 DIN935		2	M14	M14	M14	M14	M14
{26}	Operated carrier I		1	1355648	1355606	1355606	1355564	1355449
27	Axle		2	2566958	2566984	2566984	2566696	2567092
28	Driven travel wheel		2	2561441	2561478	2561478	2561200	2560762
(29)	Bolt DIN931 / 8.8		4	M16 x 35	M20 x 40	M20 x 40	M24 x 55	M33 x 60
(30)	Washer DIN7980		4	16H	20H	20H	24H	33H

Table 4 – extension

Pos.	Denomination		Qty.	Size				4/1
				VAT10	VAT20	VAT30	VAT40	VAT50
31	Washer		4	2327213	2322917	2322917	2325085	2330886
{32}	Counterweight	H1	1	1368615	1368531	1368531	1368458	1368306
		H2	1	1368620	1368547	1368547	1368463	1368311
		H3	1	1368636	1368552	1368552	1368479	1368327
(33)	Castle nut – 5 DIN935		2	M36 x 3	M42 x 3	M42 x 3	M42 x 3	M42 x 3
34	Washer		2				2625185	2625185
	Washer DIN125		2	M36	M42	M42		
(35)	Splint DIN94		2	6,3 x 63	8 x 80	8 x 80	8 x 80	8 x 80
36	Bush 2*		2	2552793	2552835	2552835	2552400	2700403
[37]	Turn roller set	H1	1	1345430	1345404	1345362	1345247	1344662
		H2	1	1345446	1345412	1345378	1345252	1344678
		H3	1	1345451	1345425	1345383	1345268	1344683
(38)	Bolt DIN933 / 8.8		2	M6 x 16	M12 x 20	M10 x 22	M12 x 25	M10 x 22
(39)	Washer DIN7980		2	6H	12H	10H	12H	10H
40	Safety plate		1	2515270	2319024	2516357	2319024	2516357
41	Axle		1	2565205	2332506	2332511	2565425	2567129
42	Space bush		2	2550288	2332478	2332527	2550623	2551370
[43]	Roller complete		1	1344568	1344065	1344070	1344018	1114901
(44)	Ring БДC2170-77		2	A72	A90	A110	A140	A130
45	Roller		1	2665191	2665055	2665034	2665029	2328458
46	Ring		2	-	-	-	2575124	-
(47)	Bearing - SKF		1	6207 – 2z	6210 – 2z	6212 – 2z	6411	
			2					6312 – 2z
{48}	Traverse	H1	1	1388956	1388926	1388689	1388343	1343805
		H2	1	1388961	1388935	1388694	1388359	1343810
		H3	1	1388977	1388940	1388709	1388364	1343826
(49)	Ring DIN471		2	10 x 1	12 x 1	12 x 1	12 x 1	12 x 1
50	Axle		1	2567024	2566997	2566997	2566895	2567113
51	Bush 1*		2	2552898	2552823	2552823	2552416	2700398
{52}	Carrier arm set - 2		1	1358114	1358099	1358099	1358099	1358193
53	Axle		2	2565493	2318900	2318900	2565598	2565996
{54}	Operated carrier II		1	1355653	1355611	1355611	1355577	1355433
(55)	Screw DIN912 / 8.8		4	M16 x 32	M16 x 32	M16 x 32	M20 x 40	M24 x 55
(56)	Washer DIN7980		4	16H	16H	16H	20H	247H
(57)	Washer DIN125		4	M16	M16	M16	M20	M24
58	Carrier		2	2640601	2640549	2640549	2640465	2640664
59	Connecting plate	H1	1	2519405	2519274	2519274	2518485	2517680
		H2	1	2519410	2519289	2519289	2518553	2517696
		H3	1	2519426	2519295	2519295	2518569	2517701
60	Axle		4	2566937	2566963	2566963	2566649	2567134
(61)	Screw DIN912 / 8.8		8	M6 x 14	M8 x 18	M8 x 18	M8 x 18	M10 x 20
(62)	Washer DIN7980		8	6H	8H	8H	8H	10H

\* – Execution of items depends on the width of the monorail track beam. The customer should specify the beam type upon order.