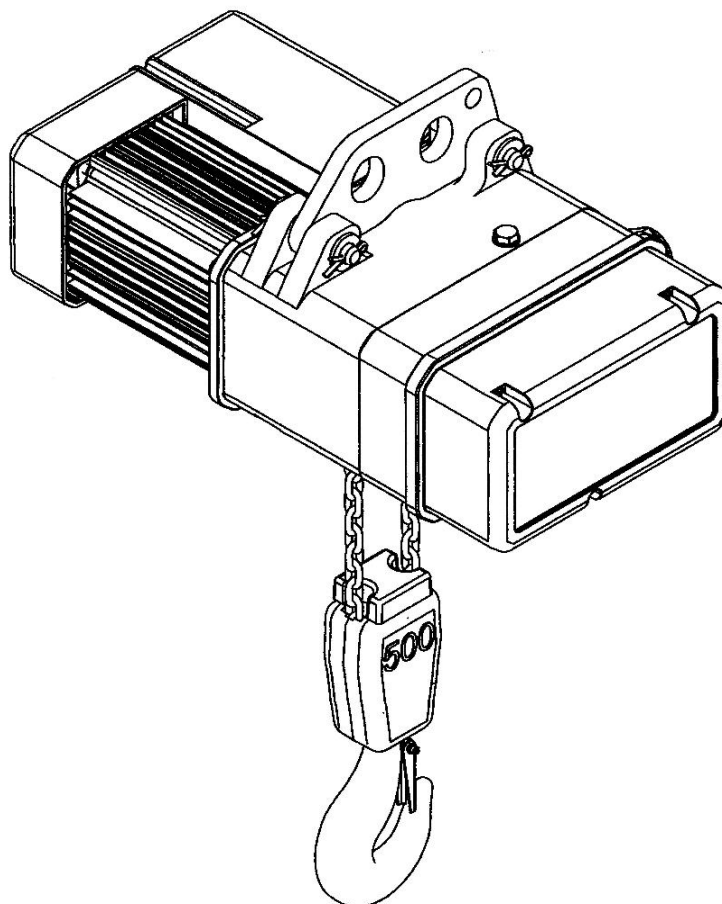
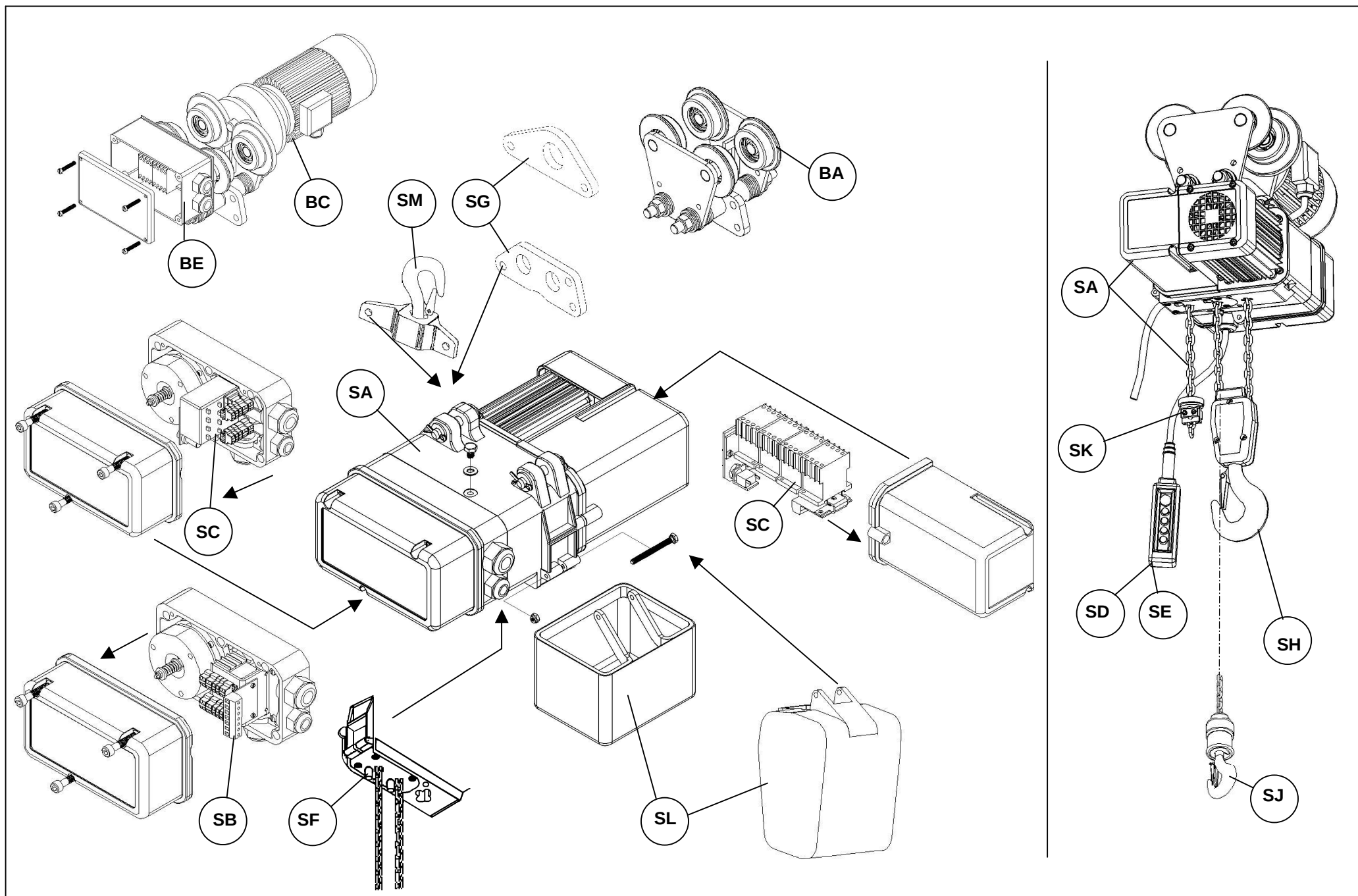


SPARE PART LIST STAR LIFTKET



Electric chain hoists STAR LIFTKET - Model 02../., 03../., 05../., 07../., 09../., 11../.

SP-Code	Description	Description of spare part section	Page
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SF	Electric limit switch for low voltage control		29
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Order form for spare parts

Customer-No. _____

Address _____

Telephone _____

Telefax _____

Delivery date _____

HOFFMANN Fördertechnik GmbH
Dresdener Straße 64-68
04808 Wurzen

Telephone: (0 34 25) 89 24 0
Telefax: (0 34 25) 89 24 99

Factory number of the electric chain hoist STAR	Pieces / Metre	Order number	Description	Version	Power supply	Price / item	Total price

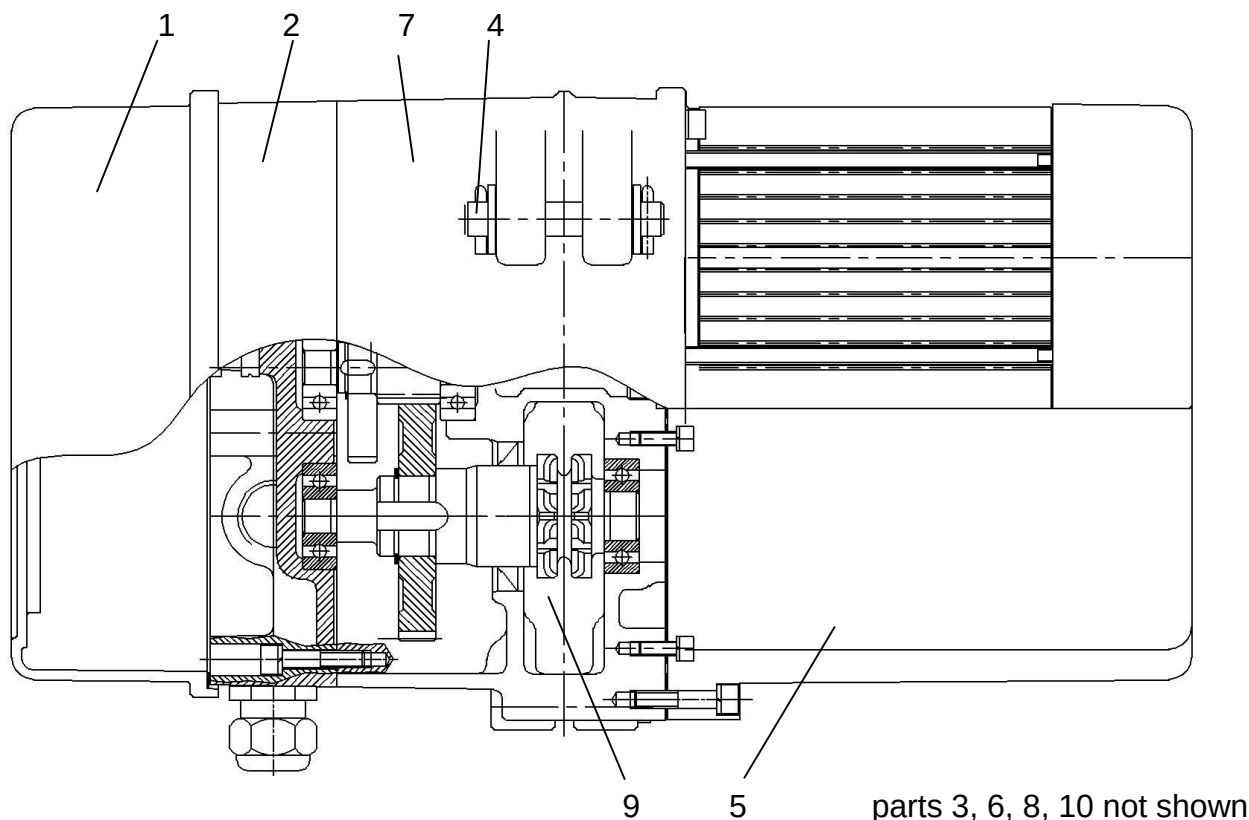
Example for order

No.:	Piece	Description	Order-No.: STAR 020/50 125/1-24 250/2-12	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,6 320/2-3/0,75
1	1	Cap for gear cover complete consisting of:	SA 01 03 9 020 50 004/0 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 020 50 036/0 3 hex. socket cap screws M6x40 DIN 912 3 tooth lock washers A6,4 DIN 6797		

Order-No. **SA 01 03 9 020 50 004/0** Cap for gear cover, complete (with gasket for cap of gear cover and fastening set)
 Order-No. **SA 01 03 0 020 50 036/0** only gasket for cap of gear cover

Factory number of the electric chain hoist STAR	Pieces / Metre	Order number	Description	Version	Power supply	Price / item	Total price
505001	1	SA 01 03 9 020 50 004/0	Cap for gear cover, complete	020/50	400 V, 3 ph		

Spare part list SA – Lifting gear Section 01: Hoist body



- Nr. 1 **Cap for gear cover, complete** consisting of:
cap, gasket, fastening set
- Nr. 2 **Gear cover, complete** consisting of:
gear cover, bearings, gasket, fastening set
- Nr. 3 **Oil filling screw** with gasket
- Nr. 4 **Set of bolts** consisting of:
bolts, washers, pins
- Nr. 5 **Cap for electrical control, complete** consisting of:
cap, gasket, fastening set
- Nr. 6 **Oil draining screw** with gasket
- Nr. 7 **Hoist body, complete** consisting of:
hoist body, bearings, shaft seals, plugs
- Nr. 8 **Hold down**
- Nr. 9 **Chain guide, complete** consisting of:
chain guide, fastening set, plastic pins of limit switches with clips and pressure springs (in operation with electric limit switches)
- Nr. 10 **Chain fork**

Remark: The assembly group electric limit switch is mentioned in Chapter SF of the spare part list.
The plugs for limit switches have to be ordered according to the version of control!
(On this see SB – direct control and SC – low voltage control).

Assembly instructions:

The protection tube has to be used for the protection of the sealing lip of the shaft seal for the pinion shaft I during assembly of pinion shaft I into the hoist body and during assembly of the gear cover.
(On this see SA – Lifting gear)

Electric chain hoists 400 V, 3 ph ~ version STAR 02../.. – STAR 03../..

Spare part list SA – Lifting gear Section 01: Hoist body

No.:	Piece	Description	Order-No.: STAR 020/50 125/1-24	Order-No.: STAR 020/52 125/1-8 250/2-4	Order-No.: STAR 020/53 150/1-6 500/2-3	Order-No.: STAR 020/54 150/1-8 500/2-4	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,5 320/2-3/0,75	Order-No.: STAR 021/53 25/1-8/2 250/2-4/1	Order-No.: STAR 030/50 150/1-12 500/2-6	Order-No.: STAR 030/52 100/1-8 1000/2-4	Order-No.: STAR 030/53 120/1-10 630/2-5	
1	1	Cap for gear cover, complete consisting of:					SA 01 03 9 020 50 004/0 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 020 50 036/0 3 hex. socket cap screws M6x45 DIN 912 3 tooth lock washers A6,4 DIN 6797						
2	1	Gear cover, complete consisting of:	SA 01 03 9 020 50 002/1 1 grooved ball bearing 6001 2Z 2 grooved ball bearings 6301 1 gasket for gear cover SA 01 03 0 020 50 035/0 6 hex. socket cap screws M6x30 DIN912 6 spring lock washers 6,1 DIN 7980 1 shaft seal A12x24x7 DIN 3760 SA 01 64 10012 02407 2 parallel pins 6m6x16 DIN 7 1 gear cover					SA 01 03 9 020 52 002/1 1 gear cover 1 grooved ball bearing 6200 1 grooved ball bearing 6001 2Z 2 grooved ball bearings 6301 1 gasket for gear cover SA 01 03 0 020 50 035/0 6 hex. socket cap screws M6x30 DIN 912 6 spring lock washers 6,1 DIN 7980 1 shaft seal A12x24x7 DIN 3760 SA 01 64 10012 02407 2 parallel pins 6m6x16 DIN 7					
3	1	Oil filling screw consisting of:					SA 01 01 9 00A 200/0 1 hex. head screw M8x10DIN 933 1 tooth lock washers A 8,2 DIN 6797 1 sealing ring A8x12 DIN 7603						
4	1	Set of bolts consisting of:					SA 01 03 9 020 50 210/0 2 bolts 12x70x58 DIN 1433 4 washers 13 DIN 125 4 split pins 4x28 DIN 94						
5	1	Cap for electric control, complete consisting of:					SA 01 03 9 020 50 005/0 1 cap for electric control 1 gasket for cap of electrical control SA 01 03 0 020 50 039/0 1 hex. socket cap screw M6x30 DIN 912 2 hex. socket cap screws M6x90 DIN 912 3 tooth lock washers A6,4 DIN 6797						
6	1	Oil draining screw consisting of:					SA 01 01 9 00A 201/0 1 hex. head screw M8x10 DIN 933 1 sealing ring A8x12 DIN 7603						
7	1	Hoist body, complete consisting of:	SA 01 03 9 020 50 001/1 1 hoist body 1 grooved ball bearing 6001 2Z 1 grooved ball bearing 6302 1 grooved ball bearing 6203 2Z 1 shaft seal A12x24x7 DIN 3760 SA 01 64 10012 02407 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=6,4					SA 01 03 9 020 52 001/1 1 hoist body 1 grooved ball bearing 6001 2Z 1 grooved ball bearing 6001 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6302 1 shaft seal A12x24x7 DIN 3760 SA 01 64 10012 02407 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=6,4					
8	1	Hold down					SA 01 53 S0020 02900 1 hold down				SA 01 53 S0030 02900 1 hold down		
9	1	Chain guide, not in operation with limit switches, complete consisting of:					SA 01 03 8 020 50 008/0 1 chain guide 4 hex. socket cap screws M5x16 DIN 912 4 tooth lock washers A5,1 DIN 6797				SA 01 03 8 030 50 008/0 1 chain guide 4 hex. socket cap screws M5x16 DIN 912 4 tooth lock washers A5,1 DIN 6797		
	1	Chain guide, in operation with limit switches, complete consisting of:					SA 01 03 9 020 50 008/0 1 chain guide with bore holes for clips 4 hex. socket cap screws M5x16 DIN 912 4 tooth lock washers A5,1 DIN 6797 2 plastic pins (integrated in chain guide) 2 clips for plastic pins of limit switches 2 pressure springs				SA 01 03 9 030 50 008/0 1 chain guide with bore holes for clips 4 hex. socket cap screws M5x16 DIN 912 4 tooth lock washers A5,1 DIN 6797 2 plastic pins (integrated in chain guide) 2 clips for plastic pins of limit switches 2 pressure springs		
10	1	Chain fork					SA 01 23 S0020 00070 1 chain fork						

Electric chain hoists 400 V, 3 ph ~ version STAR 05../.

Spare part list SA – Lifting gear Section 01: Hoist body

No.:	Piece	Description	Order-No.: STAR 050/52 250/1-24 500/2-12	Order-No.: STAR 050/53 400/1-10 800/2-5	Order-No.: STAR 051/50 125/1-24/6 250/2-12/3	Order-No.: STAR 051/52 250/1-12/3 500/2-6/1,5	Order-No.: STAR 051/55 250/1-18/4,5 500/2-9/2,3
1	1	Cap for gear cover, complete consisting of:			SA 01 03 9 050 50 004/0 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 050 50 036/0 3 hex. socket cap screws M6x70 DIN 912 3 tooth lock washers A6,4 DIN 6797		
2	1	Gear cover, complete consisting of:		SA 01 03 9 050 52 002/0 1 gear cover 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6302 1 grooved ball bearing 6203 1 gasket for gear cover SA 01 03 0 050 50 035/0 8 hex. socket cap screws M6x25 DIN 912 8 spring lock washers 6,1 DIN 7980 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 2 parallel pins 6m6x16 DIN 7		SA 01 03 9 051 52 002/0 1 gear cover 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6202 1 grooved ball bearing 6302 1 grooved ball bearing 6203 1 gasket for gear cover SA 01 03 0 050 50 035/0 8 hex. socket cap screws M6x25 DIN 912 8 spring lock washers 6,1 DIN 7980 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 2 parallel pins 6m6x16 DIN 7	SA 01 03 9 050 52 002/0 1 gear cover 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6302 1 grooved ball bearing 6203 1 gasket for gear cover SA 01 03 0 050 50 035/0 8 hex. socket cap screws M6x25 DIN 912 8 spring lock washers 6,1 DIN 7980 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 2 parallel pins 6m6x16 DIN 7
3	1	Oil filling screw consisting of:			SA 01 01 9 00A 200/0 1 hex. head screw M8x10DIN 933 1 tooth lock washer A 8,2 DIN 6797 1 sealing ring A8x12 DIN 7603		
4	1	Set of bolts consisting of:			SA 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94		
5	1	Cap for electric control, complete consisting of:			SA 01 03 9 050 50 005/0 1 cap for electric control 1 gasket for cap of electrical control SA 01 03 0 050 50 039/0 1 hex. socket cap screw M6x25 DIN 912 2 hex. socket cap screws M6x120 DIN 912 3 tooth lock washers A6,4 DIN 6797		
6	1	Oil draining screw consisting of:			SA 01 01 9 00A 201/0 1 hex. head screw M8x10 DIN 933 1 sealing ring A8x12 DIN 7603		
7	1	Hoist body, complete consisting of:		SA 01 03 9 050 52 001/0 1 hoist body 2 grooved ball bearings 6203 2Z 1 grooved ball bearing 6203 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5	SA 01 03 9 051 52 001/0 1 hoist body 2 grooved ball bearings 6203 2Z 1 grooved ball bearing 6202 1 grooved ball bearing 6203 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5	SA 01 03 9 050 52 001/0 1 hoist body 2 grooved ball bearings 6203 2Z 1 grooved ball bearing 6203 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5	
8	1	Hold down			SA 01 53 S0050 02900 1 hold down		
9	1	Chain guide, not in operation with limit switches, complete, consisting of:			SA 01 03 8 050 50 008/0 1 chain guide 4 hex. socket cap screws M5x20 DIN 912 4 tooth lock washers A5,1 DIN 6797		
	1	Chain guide, in operation with limit switches, complete consisting of:			SA 01 03 9 050 50 008/0 1 chain guide with bore holes for clips 4 hex. socket cap screws M5x20 DIN 912 4 tooth lock washers A5,1 DIN 6797 2 plastic pins (integrated in chain guide) SA 01 53 S0046 05001 2 clips for plastic pins of limit switches 2 pressure springs		
10	1	Chain fork			SA 01 23 S0020 00070 1 chain fork		

Electric chain hoists 400 V, 3 ph ~ version STAR 07../.

Spare part list SA – Lifting gear Section 01: Hoist body

No.:	Piece	Description	Order-No.: STAR 070/51 500/1-10 1000/2-5	Order-No.: STAR 070/53 1000/1-10 2000/2-5	Order-No.: STAR 070/54 800/1-8 1600/2-4	Order-No.: STAR 070/55 1000/1-6 2000/2-3	Order-No.: STAR 070/56 1250/1-8 2500/1-4	Order-No.: STAR 070/57 630/1-10 1250/2-5	Order-No.: STAR 071/53 500/1-10/2,5 1000/2-5/1,25	Order-No.: STAR 071/55 1000/1-6/1,5 2000/2-3/0,75
1	1	Cap for gear cover, complete consisting of:					SA 01 03 9 050 50 004/0 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 050 50 036/0 3 hex. socket cap screws M6x70 DIN 912 3 tooth lock washers A6,4 DIN 6797			
2	1	Gear cover, complete consisting of:					SA 01 03 9 070 51 002/0 1 gear cover 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 4202 B 1 grooved ball bearing 6304 1 grooved ball bearing 6203 1 gasket for gear cover SA 01 03 0 050 50 035/0 8 hex. socket cap screws M6x25 DIN 912 8 spring lock washers 6,1 DIN 7980 1 shaft seal A17x32x7 SA 01 64 10017 03207 2 parallel pins 6m6x16			
3	1	Oil filling screw consisting of:					SA 01 01 9 00A 200/0 1 hex. head screw M8x10DIN 933 1 tooth lock washer A 8,2 DIN 6797 1 sealing ring A8x12 DIN 7603			
4	1	Set of bolts consisting of:	SA 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94				SA 01 03 9 070 56 210/0 2 bolts 16x75x62 DIN 1433 4 washers 17 DIN 125 4 split pins 4x28 DIN 94	SA 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94		
5	1	Cap for electric control, complete consisting of:					SA 01 03 9 050 50 005/0 1 cap for electric control 1 gasket for cap of electrical control SA 01 03 0 050 50 039/0 1 hex. socket cap screw M6x25 DIN 912 2 hex. socket cap screws M6x120 DIN 912 3 tooth lock washers A6,4 DIN 6797			
6	1	Oil draining screw consisting of:					SA 01 01 9 00A 201/0 1 hex. head screw M8x10 DIN 933 1 sealing ring A8x12 DIN 7603			
7	1	Hoist body, complete consisting of:	SA 01 03 9 070 51 001/0 1 hoist body 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6202 1 cylindrical roller bearing NJ304 1 grooved ball bearing 6205 2Z 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5				SA 01 03 9 070 56 001/0 1 hoist body 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6202 1 cylindrical roller bearing NJ304 1 grooved ball bearing 6205 ETVHC 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5	SA 01 03 9 070 51 001/0 1 hoist body 1 grooved ball bearing 6203 2Z 1 grooved ball bearing 6202 1 cylindrical roller bearing NJ304 1 grooved ball bearing 6205 2Z 1 shaft seal A17x32x7 DIN 3760 SA 01 64 10017 03207 1 cover for sprocket wheel 2 plugs for bore holes for pin of chain A=8,5		
8	1	Hold down					SA 01 53 S0070 02900 1 hold down			
9	1	Chain guide, not in operation with limit switches, complete, consisting of:					SA 01 03 8 070 50 008/0 1 chain guide 4 hex. socket cap screws M5x20 DIN 912 4 tooth lock washers A5,1 DIN 6797			
	1	Chain guide, in operation with limit switches, complete consisting of:					SA 01 03 9 070 50 008/0 1 chain guide with bore holes for clips 4 hex. socket cap screws M5x16 DIN 912 4 tooth lock washers A5,1 DIN 6797 2 plastic pins (integrated in chain guide) SA 01 53 S0046 05001 2 clips for plastic pins of limit switches 2 pressure springs			
10	1	Chain fork					SA 01 23 S0070 00070 1 chain fork			

Electric chain hoists 400 V, 3 ph ~ version STAR 09../.

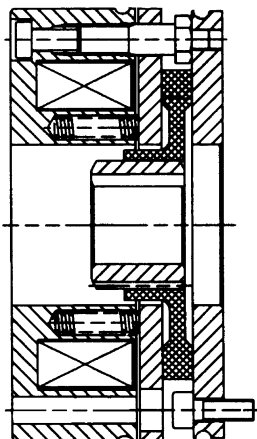
Spare part list SA – Lifting gear Section 01: Hoist body

No.:	Piece	Description	Order-No.: STAR 090/52 1000/1-10 2000/2-5	Order-No.: STAR 090/54 1000/1-8 2000/2-4	Order-No.: STAR 090/55 1600/1-8 3200/2-4	Order-No.: STAR 091/51 1000/1-8/2 2000/2-4/1	Order-No.: STAR 091/52 1000/1-10/2,5 2000/2-5/1,25	Order-No.: STAR 091/56 1600/1-10/2,5 3200/2-5/1,25	Order-No.: STAR 091/57 1600/1-16/4 3200/2-8/2	Order-No.: STAR 091/58 1600/1-12/3 3200/2-6/1,5
1	1	Cap for gear cover, complete consisting of:	SA 01 03 9 090 50 004/1 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 090 50 036/0 3 hex. socket cap screws M8x90 DIN 912 3 tooth lock washers A8,2 DIN 6797					SA 01 03 9 090 20 004/1 1 cap for gear 090/20 1 gasket for cap of gear cover SA 01 03 0 090 50 036/0 3 hex. socket cap screws M8x110 DIN 912 3 spring lock washers 8,1 DIN 7980		
2	1	Gear cover, complete consisting of:	SA 01 03 9 090 50 002/0 1 gear cover 1 grooved ball bearing 6204 2Z 1 cylindrical roller bearing NJ203 2 grooved ball bearings 6305 1 gasket for gear cover SA 01 03 0 090 50 035/0 8 hex. socket cap screws M8x30 DIN 912 8 spring lock washers 8,1 DIN 7980 1 shaft seal A20x32x7 DIN 3760 SA 01 64 10020 03207 2 parallel pins 10m6x24 DIN 7					from fabrication-number: 800000 SA 01 03 9 090 50 002/1 1 gear cover 1 grooved ball bearing 60/22-ZZ 1 cylindrical roller bearing NJ203 2 grooved ball bearings 6305 1 gasket for gear cover SA 01 03 0 090 50 035/0 8 hex. socket cap screws M8x30 DIN 912 8 spring lock washers 8,1 DIN 7980 1 shaft seal A22x35x7 DIN 3760 SA 01 64 10020 03207 2 parallel pins 10m6x24 DIN 7		
3	1	Oil filling screw consisting of:	SA 01 01 9 00A 200/0 1 hex. head screw M8x10DIN 933 1 tooth lock washer A 8,2 DIN 6797 1 sealing ring A8x12 DIN 7603							
4	1	Set of bolts consisting of:	SA 01 03 9 090 50 210/0 2 bolts 18x95x79 DIN 1433 4 washers 19 DIN 125 4 split pins 5x40 DIN 94							
5	1	Cap for electric control, complete consisting of:	SA 01 03 9 110 50 005/1 1 cap for electrical control 1 gasket for cap of electrical control SA 01 03 0 090 50 039/0 1 hex. socket cap screw M8x40 DIN 912 2 hex. socket cap screws M8x130 DIN 912 3 tooth lock washers A8,2 DIN 6797					SA 01 03 9 110 51 005/0 1 cap for electrical control 1 gasket for cap of electrical control SA 01 03 0 090 50 039/0 1 hex. socket cap screw M8x40 DIN 912 2 hex. socket cap screws M8x130 DIN 912 3 tooth lock washers A8,2 DIN 6797		
6	1	Oil draining screw consisting of:	SA 01 01 9 00A 201/0 1 hex. head screw M8x10 DIN 933 1 sealing ring A8x12 DIN 7603							
7	1	Hoist body, complete consisting of:	SA 01 03 9 090 50 001/0 1 hoist body 1 grooved ball bearing 6204 2Z 1 grooved ball bearing 6302 2 cylindrical roller bearings NJ205 1 cover disc NI NUP 205 AV 1 shaft seal A20x32x7 DIN 3760 SA 01 64 10020 03207							
8	1	Hold down	SA 01 53 S0090 02900 1 hold down							
9	1	Chain guide, not in operation with limit switches, complete, consisting of:	SA 01 03 8 090 50 008/0 1 chain guide 2 hex. socket cap screws M8x30 DIN 912 2 tooth lock washers A8,2 DIN 6797							
	1	Chain guide, in operation with limit switches, complete consisting of:	SA 01 03 9 090 50 008/0 1 chain guide with bore holes for clips 2 hex. socket cap screws M8x30 DIN 912 2 tooth lock washers A8,2 DIN 6797 2 plastic pins (integrated in chain guide) SA 01 53 S0046 09001 2 clips for plastic pins of limit switches 2 pressure springs							
10	1	Chain fork, complete	SA 01 03 2 090 50 007/0 1 chain fork, complete							

Electric chain hoists 400 V, 3 ph ~ version STAR 11../.. Spare part list SA – Lifting gear Section 01: Hoist body

No.:	Piece	Description	Order-No.: STAR 110/52 2500/1-10 5000/2-5	Order-No.: STAR 110/54 3200/1-8 6300/2-4	Order-No.: STAR 111/52 2500/1-10/2,5 5000/2-5/1,25	Order-No.: STAR 111/54 3200/1-8/2 6300/2-4/1
1	1	Cap for gear cover, complete consisting of:	SA 01 03 9 090 50 004/1 1 cap for gear cover 1 gasket for cap of gear cover SA 01 03 0 090 50 036/0 3 hex. socket cap screws M8x90 DIN 912 3 tooth lock washers A8,2 DIN 6797			
2	1	Gear cover, complete consisting of:	SA 01 03 9 110 50 002/0 1 gear cover 1 grooved ball bearing 6204 2Z 1 grooved ball bearing 6302 1 cylindrical roller bearing NJ204 2 cylindrical roller bearings NJ206 1 gasket for gear cover SA 01 03 0 110 50 035/0 8 hex. socket cap screws M8x30 DIN 912 8 spring lock washers 8,1 DIN 7980 1 shaft seal A20x32x7 DIN 3760 SA 01 64 10020 03207 2 parallel pins 10m6x24 DIN 7 from fabrication-number: 800000 SA 01 03 9 110 50 002/1 1 gear cover 1 grooved ball bearing 60/22-ZZ 1 grooved ball bearing 6302 1 cylindrical roller bearing NJ204 2 cylindrical roller bearings NJ206 1 gasket for gear cover SA 01 03 0 110 50 035/0 8 hex. socket cap screws M8x30 DIN 912 8 spring lock washers 8,1 DIN 7980 1 shaft seal A22x35x7 DIN 3760 SA 01 64 10022 03507 2 parallel pins 10m6x24 DIN 7			
3	1	Oil filling screw consisting of:	SA 01 01 9 00A 200/0 1 hex. head screw M8x10DIN 933 1 tooth lock washer A 8,2 DIN 6797 1 sealing ring A8x12 DIN 7603			
4	1	Set of bolts consisting of:	SA 01 03 9 110 50 210/0 2 bolts 25x115x97 DIN 1433 4 washers 26 DIN 126 4 split pins 6,3x45 DIN 94			
5	1	Cap for electric control, complete consisting of:	SA 01 03 9 110 50 005/1 1 cap for electric control 1 gasket for cap of electric control SA 01 03 0 090 50 039/0 1 hex. socket cap screw M8x40 DIN 912 2 hex. socket cap screws M8x130 DIN 912 3 tooth lock washers A8,2 DIN 6797	SA 01 03 9 110 51 005/0 1 cap for electric control 1 gasket for cap of electrical control SA 01 03 0 090 50 039/0 1 hex. socket cap screw M8x40 DIN 912 2 hex. socket cap screws M8x130 DIN 912 3 tooth lock washers A8,2 DIN 6797		
6	1	Oil draining screw consisting of:	SA 01 01 9 00A 201/0 1 hex. head screw M8x10 DIN 933 1 sealing ring A8x12 DIN 7603			
7	1	Hoist body, complete consisting of:	SA 01 03 9 110 50 001/0 1 hoist body 1 grooved ball bearing 6204 2Z 1 grooved ball bearing 6204 1 cylindrical roller bearing NJ203 2 cylindrical roller bearings NJ206 1 cover disc NI NUP 206 AV 1 shaft seal A20x32x7 DIN 3760 SA 01 64 10020 03207			
8	1	Hold down	SA 01 53 S0110 02900 1 hold down			
9	1	Chain guide, <u>not</u> in operation with limit switches, complete consisting of:	SA 01 03 8 110 50 008/0 1 chain guide 2 hex. socket cap screws M8x40 DIN 912 2 tooth lock washers A8,2 DIN 6797			
	1	Chain guide, in operation with limit switches, complete consisting of:	SA 01 03 9 110 50 008/0 1 chain guide with bore holes for clips 2 hex. socket cap screws M8x40 DIN 912 2 tooth lock washers A8,2 DIN 6797 2 plastic pins (integrated in chain guide) SA 01 53 S0046 11001 2 clips for plastic pins of limit switches 2 pressure springs			
10	1	Chain fork, complete	SA 01 03 2 110 50 007/0 1 chain fork, complete			

Spare part list SA – Lifting gear Section 02: Brake



DC disc brake

version STAR 02../.. to STAR 07../..

Remark: The following data have to be specify in spare part ordering:

dimension of the brake	06	06 – with brass film	08	08
brake torque	4 Nm	4 Nm	6 Nm	9,6 Nm
voltage	205 V	205 V	205 V	205 V
hub bore hole with parallel key groove	Ø12 mm	Ø12 mm	Ø17 mm	Ø17 mm

Electric chain hoists 400 V, 3 ph ~ version STAR 02../.. – STAR 03../.. Spare part list SA – Lifting gear section 02: Brake

No.:	Piece	Description	Order-No.: STAR 020/50 125/1-24	Order-No.: STAR 020/52 125/1-8 250/2-4	Order-No.: STAR 020/53 250/1-6 500/2-3	Order-No.: STAR 020/54 250/1-8 500/2-4	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,5 320/2-3/0,75	Order-No.: STAR 021/53 125/1-8/2 250/2-4/1	Order-No.: STAR 030/50 250/1-12 500/2-6	Order-No.: STAR 030/52 500/1-8 1000/2-4	Order-No.: STAR 030/53 320/1-10 630/2-5
1	1	DC disc brake 06 complete	SA 02 17 70B06 04205 1 DC disc brake with friction flange								SA 02 17 70B06 04205MS 1 DC disc brake with friction flange	SA 02 17 70B06 04205 1 DC disc brake with friction flange

Electric chain hoists 400 V, 3 ph ~ version STAR 05../.. Spare part list SA – Lifting gear section 02: Brake

No.:	Piece	Description	Order-No.: STAR 050/52 250/1-10 1000/2-12	Order-No.: STAR 050/53 400/1-10 800/2-5	Order-No.: STAR 051/50 125/1-24/6 250/2-12/3	Order-No.: STAR 051/52 1250/1-12/3 500/2-6/1,5	Order-No.: STAR 051/55 250/1-18/4,5 500/2-9/2,3
1	1	DC disc brake 08 complete	SA 02 17 70B08 09205 1 DC disc brake with friction flange		SA 02 17 70B08 06205 1 DC disc brake with friction flange		SA 02 17 70B08 09205 1 DC disc brake with friction flange

Electric chain hoists 400 V, 3 ph ~ version STAR 07../.. Spare part list SA – Lifting gear section 02: Brake

No.:	Piece	Description	Order-No.: STAR 070/51 500/1-10 1000/2-5	Order-No.: STAR 070/53 1000/1-10 2000/2-5	Order-No.: STAR 070/54 800/1-8 1600/2-4	Order-No.: STAR 070/55 1000/1-6 2000/2-3	Order-No.: STAR 070/56 1250/1-8 2500/1-4	Order-No.: STAR 070/57 630/1-10 1250/2-5	Order-No.: STAR 071/53 500/1-10/2,5 1000/2-5/1,25	Order-No.: STAR 071/55 1000/1-6/1,5 2000/2-3/0,75
1	1	DC disc brake 08 complete	SA 02 17 70B08 06205 1 DC disc brake with friction flange	SA 02 17 70B08 09205 1 DC disc brake with friction flange	SA 02 17 70B08 06205 1 DC disc brake with friction flange		SA 02 17 70B08 09205 1 DC disc brake with friction flange	SA 02 17 70B08 06205 1 DC disc brake with friction flange		

Electric chain hoists 230 V, 1 ph ~ version STAR 020/0.. – 070/0.. Spare part list SA – Lifting gear section 02: Brake

No.:	Piece	Description	Order-No.: STAR 020/01 250/1-8 500/2-45	Order-No.: STAR 050/01 125/1-24 250/2-12	Order-No.: STAR 050/02 500/1-8 1000/2-4	Order-No.: STAR 070/01 1000/1-6 2000/2-3	Order-No.: STAR 070/02 500/1-10 1000/2-5
1	1	DC disc brake 06 complete	SA 02 17 70B06 04205 1 DC disc brake with friction flange				
1	1	DC disc brake 08 complete	SA 02 17 70B08 06205 1 DC disc brake with friction flange			SA 02 17 70B08 06205 1 DC disc brake with friction flange	

Spare part list SA – Lifting gear section 02: Brake
version STAR 09../.. to STAR 11../..

Remark:

The following data have to be specify in spare part ordering:

dimension of the brake	10	12
brake torque	18 Nm	32 Nm
voltage	205 V	205 V
hub bore hole with parallel key groove	Ø20 mm	Ø20 mm

Electric chain hoists 400 V, 3 ph ~ version STAR 09../..

Spare part list SA – Lifting gear section 02: Brake

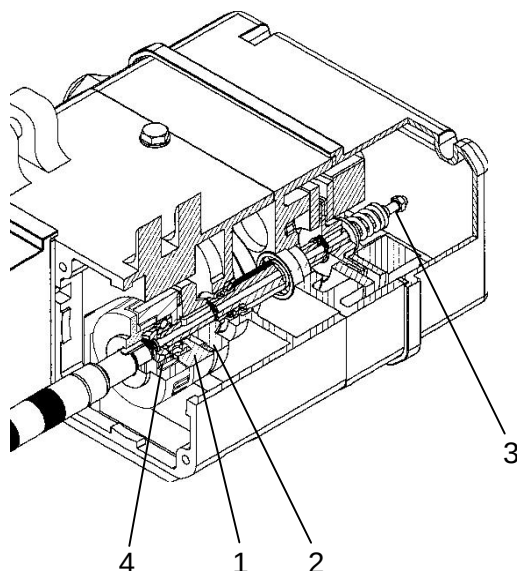
No.:	Piece	Description	Order-No.: STAR 090/52 1000/1-10 2000/2-5	Order-No.: STAR 091/51 1000/1-8/2 2000/2-4/1	Order-No.: STAR 091/52 1000/1-10/2,5 2000/2-5/1,25	Order-No.: STAR 090/54 1000/1-8 2000/2-4	Order-No.: STAR 090/55 1600/1-8 3200/2-4	Order-No.: STAR 091/56 1600/1-10/2,5 3200/2-5/1,25	Order-No.: STAR 091/57 1600/1-16/4 3200/2-8/2	Order-No.: STAR 091/58 1600/1-12/3 3200/2-6/1,5
1	1	DC disc brake 10 complete	SA 02 17 70B10 12205 1 DC disc brake with friction flange							
1	1	DC disc brake 12 complete				SA 02 17 70B12 22205 1 DC disc brake with friction flange				

Electric chain hoists 400 V, 3 ph ~ version STAR 11../..

Spare part list SA – Lifting gear section 02: Brake

No.:	Piece	Description	Order-No.: STAR 110/52 2500/1-10 5000/2-5	Order-No.: STAR 110/54 3200/1-8 6300/2-4	Order-No.: STAR 111/52 2500/1-10/2,5 5000/2-5/1,25	Order-No.: STAR 111/54 3200/1-8/2 6300/2-4/1
1	1	DC disc brake 12 complete	SA 02 17 70B12 22205 1 DC disc brake with friction flange			

Spare part list SA – Lifting gear Section 03: Clutch



Clutch – STAR LIFTKET

Version STAR 02../.. to STAR 11../..

- Nr. 1 **clutch drive disc complete** consisting of:
clutch drive disc with grooved ball bearing and glued on clutch lining
- Nr. 2 **clutch disc with conical shoulder complete** consisting of:
clutch disc, parallel key, retaining ring; support shim (not for STAR 05../... and 07../...)
- Nr. 3 **assecory for sliding clutch** consisting of:
tension rod, pressure ring, spring plate, washer, pressure spring, 2 self locking nuts
- Nr. 4 **gear rim**

remark:

The adjustment of the friction torque has to be done in compliance with the operation instruction!

Electric chain hoists 400 V, 3 ph ~ version STAR 02../.. – STAR 03../..

Spare part list SA – Lifting gear

section 03: Clutch

No.:	Piece	Description	Order-No.: STAR 020/50 125/1-24	Order-No.: STAR 020/52 125/1-8 250/2-4	Order-No.: STAR 020/53 250/1-6 500/2-3	Order-No.: STAR 020/54 250/1-8 500/2-4	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,5 320/2-3/0,75	Order-No.: STAR 021/53 125/1-8/2 250/2-4/1	Order-No.: STAR 030/50 250/1-12 500/2-6	Order-No.: STAR 030/53 320/1-10 630/2-5	Order-No.: STAR 030/52 500/1-8 1000/2-4
1	1	Clutch drive disc complete, consisting of:					SA 03 14 2 020 50 003/1 1 clutch drive disc 1 glued on clutch lining 1 grooved ball bearing 6001-2Z					
2	1	Clutch disc, complete, consisting of:					SA 03 14 9 020 50 005/0 1 clutch disc 1 parallel key B4x4x18 DIN 6885-1 1 retaining ring 12x1 DIN 471 1 support shim S12x18x2 DIN 988					
3	1	Accessory for clutch		SA 03 14 9 020 52 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 10 DIN 1440 1 pressure spring C2,5x12,5x22 DIN 2098 1 self locking nut M5 DIN 980 1 self locking nut M5 DIN 985			SA 03 14 9 020 50 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 10 DIN 1440 1 pressure spring C2,8x14x32,5 DIN 2098 1 self locking nut M5 DIN 980 1 self locking nut M5 DIN 985		SA 03 14 9 020 52 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 10 DIN 1440 1 pressure spring C2,5x12,5x22 DIN 2098 1 self locking nut M5 DIN 980 1 self locking nut M5 DIN 985			SA 03 14 9 030 52 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 10 DIN 1440 1 pressure spring C3,0x16,4x34 DIN 2098 2 self locking nuts M5 DIN 980
4	1	Gear rim					SA 03 54 00240 05502 1 gear rim					

Assembly tool

5	1	Bit for tension rod of clutch					SA 03 91 01000 00050 1 bit M5					
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Electric chain hoists 400 V, 3 ph ~ version STAR 05../.

Spare part list SA – Lifting gear

section 03: Clutch

No.:	Piece	Description	Order-No.: STAR 050/52 250/1-24 500/2-12	Order-No.: STAR 050/53 400/1-10 800/2-5	Order-No.: STAR 051/50 125/1-24/6 250/2-12/3	Order-No.: STAR 051/52 250/1-12/3 500/2-6/1,5	Order-No.: STAR 051/55 250/1-18/4,5 500/2-9/2,3
1	1	Clutch drive disc complete, consisting of:					SA 03 14 2 050 50 003/1 1 clutch drive disc 1 glued on clutch lining 1 grooved ball bearing 6002-2Z
2	1	Clutch disc, complete, consisting of:					SA 03 14 9 050 50 005/0 1 clutch disc 1 parallel key B5x5x20 DIN 6885 1 retaining ring 16x1 DIN 471
3	1	Accessory for clutch					SA 03 14 9 050 50 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 16 DIN 1440 1 pressure spring C4x20x33,5 DIN 2098 2 self locking nuts M6 DIN 980, 985
4	1	Gear rim					SA 03 54 00240 05502 1 gear rim

Assembly tool

5	1	Bit for tension rod of clutch	SA 03 91 01000 00060 1 bit M6				
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Electric chain hoists 400 V, 3 ph ~ version STAR 07../.

Spare part list SA – Lifting gear

section 03: Clutch

No.:	Piece	Description	Order-No.: STAR 070/51 500/1-10 1000/2-5	Order-No.: STAR 070/53 1000/1-10 2000/2-5	Order-No.: STAR 070/54 800/1-8 1600/2-4	Order-No.: STAR 070/55 1000/1-6 2000/2-3	Order-No.: STAR 070/56 1250/1-8 2500/1-4	Order-No.: STAR 070/57 630/1-10 1250/2-5	Order-No.: STAR 071/53 500/1-10/2,5 1000/2-5/1,25	Order-No.: STAR 071/55 1000/1-6/1,5 2000/2-3/0,75
1	1	Clutch drive disc complete, consisting of:	SA 03 14 2 050 50 003/1 1 clutch drive disc 1 glued on clutch lining 1 grooved ball bearing 6002-2Z							
2	1	Clutch disc, complete, consisting of:	SA 03 14 9 050 50 005/0 1 clutch disc 1 parallel key B5x5x20 DIN 6885 1 retaining ring 16x1 DIN 471							
3	1	Accessory for clutch	SA 03 14 9 050 50 010/0 1 tension rod 1 pressure ring 1 spring plate 1 washer 16 DIN 1440 1 pressure spring C4x20x33,5 DIN 2098 2 self locking nuts M6 DIN 980, 985							
4	1	Gear rim	SA 03 54 00240 05502 1 gear rim							

Assembly tool

5	1	Bit for tension rod of clutch	SA 03 91 01000 00060 1 bit M6							
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Electric chain hoists 400 V, 3 ph ~ version STAR 09../.

Spare part list SA – Lifting gear

section 03: Clutch

No.:	Piece	Description	Order-No.: STAR 090/52 1000/1-10 2000/2-5	Order-No.: STAR 091/51 1000/1-8/2 2000/2-4/1	Order-No.: STAR 091/52 1000/1-10/2,5 2000/2-5/1,25	Order-No.: STAR 090/54 1000/1-8 2000/2-4	Order-No.: STAR 090/55 1600/1-8 3200/2-4	Order-No.: STAR 091/56 1600/1-10/2,5 3200/2-5/1,25	Order-No.: STAR 091/57 1600/1-16/4 3200/2-8/2	Order-No.: STAR 091/58 1600/1-12/3 3200/2-6/1,5
1	1	Clutch drive disc complete, consisting of:					SA 03 14 2 090 50 003/0 1 clutch drive disc 1 glued on clutch lining 1 grooved ball bearing 6203-2Z			
2	1	Clutch disc, complete, consisting of:					SA 03 14 9 090 50 005/0 1 clutch disc 1 parallel key B6x6x22 DIN 6885 1 retaining ring AK 20-BLS DIN 983 1 support shim S20x28x1,5 DIN 988			
3	1	Accessory for clutch	SA 03 14 9 090 51 010/0 1 tension rod 1 pressure ring 1 spring plate 1 pressure spring C5x25x41 DIN 2098 2 hexagonal nuts M8 DIN 934				SA 03 14 9 090 50 010/0 1 tension rod 1 pressure ring 1 spring plate 1 pressure spring C6,3x27,7x52 DIN 2098 2 hexagonal nuts M8 DIN 934			
4	1	Gear rim					SA 03 54 00380 09502 1 gear rim			

Assembly tool

5	1	Bit for tension rod of clutch	SA 03 91 01000 00080 1 bit M8							
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Electric chain hoists 400 V, 3 ph ~ version STAR 11../.

Spare part list SA – Lifting gear

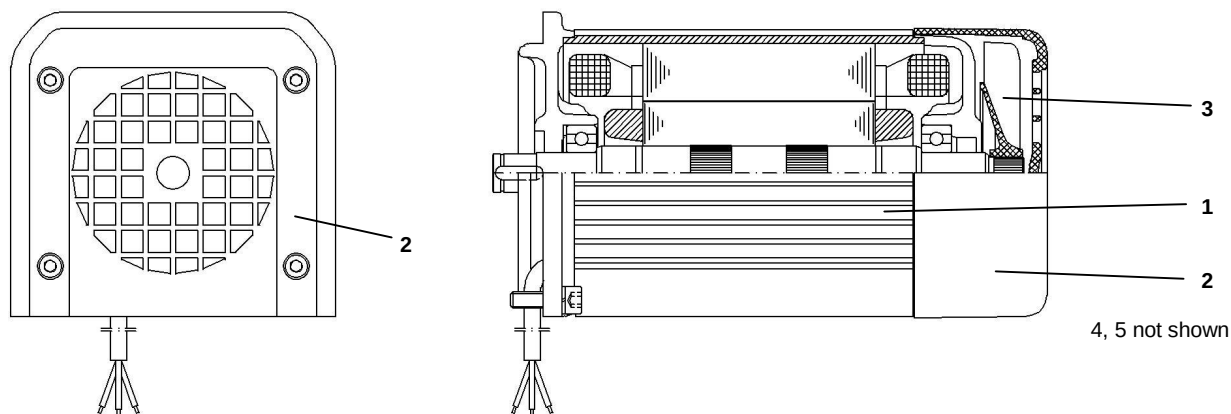
section 03: Clutch

No.:	Piece	Description	Order-No.: STAR 110/52 2500/1-10 5000/2-5	Order-No.: STAR 110/54 3200/1-8 6300/2-4	Order-No.: STAR 111/52 2500/1-10/2,5 5000/2-5/1,25	Order-No.: STAR 111/54 3200/1-8/2 6300/2-4/1
1	1	Clutch drive disc complete, consisting of:	SA 03 14 2 090 50 003/0 1 clutch drive disc 1 glued on clutch lining 1 grooved ball bearing 6203-2Z			
2	1	Clutch disc, complete, consisting of:	SA 03 14 9 090 50 005/0 1 clutch disc 1 parallel key B6x6x22 DIN 6885 1 retaining ring AK 20-BLS DIN 983 1 support shim S20x28x1,5 DIN 988			
3	1	Accessory for clutch	SA 03 14 9 090 50 010/0 1 tension rod 1 pressure ring 1 spring plate 1 pressure spring C6,3x27,7x52 DIN 2098 2 hexagonal nuts M8 DIN 934			
4	1	Gear rim	SA 03 54 00380 09502 1 gear rim			

Assembly tool

5	1	Bit for tension rod of clutch	SA 03 91 01000 00080 1 bit M8			
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Spare part list SA – Lifting gear Section 04: Motor



- Nr. 1 **motor, complete** consisting of:
motor, clutch hub with parallel key and retaining ring, fan impeller,
rubber u-profile, fastening set;
sealant for sealing of the motor
- Nr. 2 **fan cap for motor, complete** consisting of:
fan cap, fastening set
- Nr. 3 **fan impeller**
- Nr. 4 **clutch hub, complete** consisting of:
clutch hub, parallel key, retaining ring
- Nr. 5 **Assembly tool**



remark:

The mains voltage and frequency have to be specified by ordering spare parts of the motor.

Electric chain hoists 400 V, 3 ph ~ version STAR 02../.. – STAR 03../..

Spare part list SA – Lifting gear

section 04: Motor

No.:	Piece	Description	Order-No.: STAR 020/52 125/1-8 250/2-4	Order-No.: STAR 020/50 125/1-24	Order-No.: STAR 020/53 250/1-6 500/2-3	Order-No.: STAR 020/54 250/1-8 500/2-4	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,5 320/2-3/0,75	Order-No.: STAR 021/53 125/1-8/2 250/2-4/1	Order-No.: STAR 030/50 250/1-12 500/2-6	Order-No.: STAR 030/52 500/1-8 1000/2-4	Order-No.: STAR 030/53 320/1-10 630/2-5
1	1	motor, complete consisting of:	SA 04 42 9 063K20 000/0 1 motor 63K2 incl. fan impeller 1 clutch hub 1 parallel key B5x5x12 DIN 6885 1 retaining ring 14x1 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 063G20 000/0 1 motor 63G2 incl. fan impeller 1 clutch hub 1 parallel key B5x5x12 DIN 6885 1 retaining ring 14x1 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor			SA 04 42 9 063G82 000/0 1 motor 63G8/2 incl. fan impeller 1 clutch hub 1 parallel key B5x5x12 DIN 6885 1 retaining ring 14x1 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor			SA 04 42 9 063G20 000/0 1 motor 63G2 incl. fan impeller 1 clutch hub 1 parallel key B5x5x12 DIN 6885 1 retaining ring 14x1 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor		
2	1	fan cap for motor, complete consisting of:					SA 04 42 9 063K40 011/0 1 fan cap 4 hex. socket cap screws M5x30 DIN 912 4 tooth lock washers A5,1 DIN 6797					
3	1	fan impeller					SA 04 53 S0055 00560 1 fan impeller					
4	1	clutch hub, complete consisting of					SA 04 14 9 020 50 001/0 1 parallel key 1 parallel key B5x5x12 DIN 6885-1 1 retaining ring 14x1 DIN 471					

Electric chain hoists 400 V, 3 ph ~ version STAR 05../.

Spare part list SA – Lifting gear

section 04: Motor

No.:	Piece	Description	Order-No.: STAR 050/52 250/1-24 500/2-12	Order-No.: STAR 050/53 400/1-10 800/2-5	Order-No.: STAR 051/50 125/1-24/6 250/2-12/3	Order-No.: STAR 051/52 250/1-12/3 500/2-6/1,5	Order-No.: STAR 051/55 250/1-18/4,5 500/2-9/2,3	
1	1	motor, complete consisting of:	SA 04 42 9 071G20 000/0 1 motor 71G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 071G40 000/0 1 motor 71G4 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 071G82 000/0 1 motor 71G8/2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 080G82 000/0 1 motor 80G8/2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor		
2	1	fan cap for motor, complete consisting of:	SA 04 42 9 071G40 011/0 1 fan cap 4 hex. socket cap screws M5x35 DIN 912 4 tooth lock washers A5,1 DIN 6797					
3	1	fan impeller	SA 04 53 S0055 00780 1 fan impeller					
4	1	clutch hub, complete consisting of	SA 04 14 9 050 50 001/0 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471					

Electric chain hoists 400 V, 3 ph ~ version STAR 07../.

Spare part list SA – Lifting gear

section 04: Motor

No.:	Piece	Description	Order-No.: STAR 070/51 500/1-10 1000/2-5	Order-No.: STAR 070/53 1000/1-10 2000/2-5	Order-No.: STAR 070/54 800/1-8 1600/2-4	Order-No.: STAR 070/55 1000/1-6 2000/2-3	Order-No.: STAR 070/56 1250/1-8 2500/1-4	Order-No.: STAR 070/57 630/1-10 1250/2-5	Order-No.: STAR 071/53 500/1-10/2,5 1000/2-5/1,25	Order-No.: STAR 071/55 1000/1-6/1,5 2000/2-3/0,75
1	1	motor, complete consisting of:	SA 04 42 9 071G20 000/0 1 motor 71G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screw M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 080G20 000/0 1 motor 80G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 071G20 000/0 1 motor 71G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 080G20 000/0 1 motor 80G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 071G20 000/0 1 motor 71G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 080G82 000/0 1 motor 80G8/2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor		
2	1	fan cap for motor, complete consisting of:	SA 04 42 9 071G40 011/0 1 fan cap 4 hex. socket cap screws M5x35 DIN 912 4 tooth lock washers A5,1 DIN 6797							
3	1	fan impeller	SA 04 53 S0055 00780 1 fan impeller							
4	1	clutch hub, complete consisting of	SA 04 14 9 050 50 001/0 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471							

Electric chain hoists 400 V, 3 ph ~ version STAR 09../.

Spare part list SA – Lifting gear

section 04: Motor

No.:	Piece	Description	Order-No.: STAR 090/52 1000/1-10 2000/2-5	Order-No.: STAR 090/54 1000/1-8 2000/2-4	Order-No.: STAR 090/55 1600/1-8 3200/2-4	Order-No.: STAR 091/51 1000/1-8/2 2000/2-4/1	Order-No.: STAR 091/52 1000/1-10/2,5 2000/2-5/1,25	Order-No.: STAR 091/56 1600/1-10/2,5 3200/2-5/1,25	Order-No.: STAR 091/57 1600/1-16/4 3200/2-8/2	Order-No.: STAR 091/58 1600/1-12/3 3200/2-6/1,5
1	1	motor, complete consisting of:	SA 04 42 9 090L20 000/0 1 motor 90L2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 090L40 000/0 1 motor 90L4 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor		SA 04 42 9 090L82 000/0 1 motor 90L8-2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor		SA 04 42 9 100L82 000/0 1 motor 100L8-2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 tension rod M6x265 DIN 1768 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 100V82 000/0 1 motor 100LV8-2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 tension rod M6x315 DIN 1768 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	
2	1	fan cap for motor, complete consisting of:	SA 04 42 9 090L20 011/0 1 fan cap 4 hex. socket cap screws M6x55 DIN 912 4 tooth lock washers A6,4 DIN 6797					SA 04 42 9 100V82 011/0 1 fan cap		
3	1	fan impeller	SA 04 53 S0055 00900 1 fan impeller					SA 04 53 S0055 01000 1 fan impeller		
4	1	clutch hub, complete consisting of	SA 04 14 9 090 50 001/0 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471							

Electric chain hoists 400 V, 3 ph ~ version STAR 11../.

Spare part list SA – Lifting gear

section 04: Motor

No.:	Piece	Description	Order-No.: STAR 110/52 2500/1-10 5000/2-5	Order-No.: STAR 110/54 3200/1-8 6300/2-4	Order-No.: STAR 111/52 2500/1-10/2,5 5000/2-5/1,25	Order-No.: STAR 111/54 3200/1-8/2 6300/2-4/1
1	1	motor, complete consisting of:	SA 04 42 9 100S20 000/0 1 motor 100S2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 tension rod M6x265 DIN 1768 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 100V82 011/0 1 fan cap	SA 04 42 9 100V82 000/0 1 motor 100LV8-2 incl. fan impeller 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471 4 tension rod M6x315 DIN 1768 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	
2	1	fan cap for motor, complete consisting of:	SA 04 42 9 100V82 011/0 1 fan cap			
3	1	fan impeller	SA 04 53 S0055 01000 1 fan impeller			
4	1	clutch hub, complete consisting of	SA 04 14 9 090 50 001/0 1 clutch hub 1 parallel key AB8x7x20 DIN 6885 1 retaining ring 28x1,5 DIN 471			

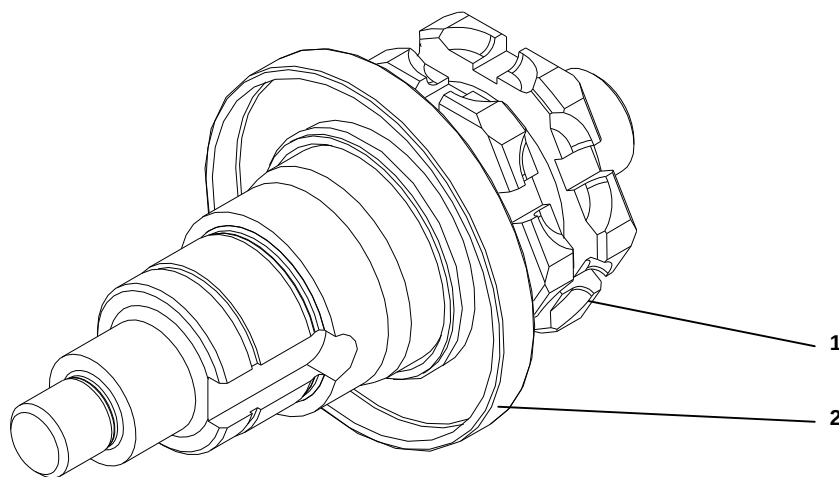
Assembly tool

4	1	bit for tension rod of the motor	SA 04 91 01000 00060 1 bit M6
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Electric chain hoists 230 V, 1 ph ~ version STAR 020/.. – STAR 070/.. Spare part list SA – Lifting gear section 04: Motor

No.:	Piece	Description	Order-No.: STAR 020/01 250/1-8 500/2-4	Order-No.: STAR 050/01 125/1-24 250/2-12	Order-No.: STAR 050/02 500/1-8 1000/2-4	Order-No.: STAR 070/01 1000/1-6 2000/2-3	Order-No.: STAR 070/02 500/1-10 1000/2-5
1	1	motor, complete consisting of:	SA 04 42 9 063G20E 000/0 1 motor 63G2 incl. fan impeller 1 clutch hub 1 parallel key B5x5x12 DIN 6885 1 retaining ring 14x1 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor	SA 04 42 9 071G20E 000/0 1 motor 71G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor			SA 04 42 9 080G20E 000/0 1 motor 80G2 incl. fan impeller 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471 4 hex. socket cap screws M6x20 DIN 912 4 spring lock washers 6,1 DIN 7980 1 rubber u-profile 50 ml sealant for sealing of the motor
2	1	fan cap for motor, complete consisting of:	SA 04 42 9 063K40 011/0 1 fan cap 4 hex. socket cap screws M5x30 DIN 912 4 tooth lock washers A5,1 DIN 6797		SA 04 42 9 071G40 011/0 1 fan cap 4 hex. socket cap screws M5x35 DIN 912 4 tooth lock washers A5,1 DIN 6797		
3	1	fan impeller	SA 04 53 S0055 00560 1 fan impeller		SA 04 53 S0055 00780 1 fan impeller		
4	1	clutch hub, complete consisting of	SA 04 14 9 020 50 001/0 1 parallel key 1 parallel key B5x5x12 DIN 6885-1 1 retaining ring 14x1 DIN 471		SA 04 14 9 050 50 001/0 1 clutch hub 1 parallel key AB6x6x18 DIN 6885 1 retaining ring 19x1,2 DIN 471		

Spare part list SA – Lifting gear Section 05: Gear



- Nr. 1 **sprocket wheel complete consisting of:**
sprocket wheel with parallel key and retaining ring, shaft seals, sealing washer (09../11..)
- Nr. 2 **shaft seal of sprocket wheel**

remark:

The change of the chain guide and the hold down would be recommended if the replacement of the sprocket wheel is necessary.
(On this see SA – Lifting gear, section 01: hoist body, parts No. 8 and 9)

Assembly instructions:

The protection sleeve has to be used for the protection of the sealing lip of the shaft seal for the pinion shaft I during assembly of the gear cover.

Electric chain hoists 400 V, 3 ph ~ version STAR 02../... – STAR 03../... Spare part list SA – Lifting gear section 05: Gear

No.:	Piece	Description	Order-No.: STAR 020/50 125/1-24	Order-No.: STAR 021/51 250/1-8/2 500/2-4/1	Order-No.: STAR 021/52 160/1-6/1,5 320/2-3/0,75	Order-No.: STAR 021/53 125/1-8/2 250/2-4/1	Order-No.: STAR 030/50 250/1-12 500/2-6	Order-No.: STAR 030/52 500/1-8 1000/2-4	Order-No.: STAR 030/53 320/1-10 630/2-5
1	1	sprocket wheel consisting of:	SA 05 03 9 020 50 025/0 1 sprocket wheel 1 parallel key AB8x7x17 DIN 6885 1 retaining ring 28 DIN 471 1 shaft seal for sprocket wheel A35x52x7 DIN 3760 SA 05 64 10035 05207 1 shaft seal for pinion shaft I A12x24x7 DIN 3760 SA 05 64 10012 02407 1 protection sleeve for assembly Ø12x120mm				SA 05 03 9 030 50 025/0 1 sprocket wheel 1 parallel key AB8x7x23 DIN 6885 1 retaining ring 28 DIN 471 1 shaft seal for sprocket wheel A35x52x7 DIN 3760 SA 05 64 10035 05207 1 shaft seal for pinion shaft I A12x24x7 DIN 3760 SA 05 64 10012 02407 1 protection sleeve for assembly Ø12x120mm		

Electric chain hoists 400 V, 3 ph ~ version STAR 05../... Spare part list SA – Lifting gear section 05: Gear

No.:	Piece	Description	Order-No.: STAR 050/52 250/1-24 500/2-12	Order-No.: STAR 050/53 400/1-10 800/2-5	Order-No.: STAR 051/50 125/1-24/6 250/2-12/3	Order-No.: STAR 051/52 250/1-12/3 500/2-6/1,5	Order-No.: STAR 051/55 250/1-18/4,5 500/2-9/2,3
1	1	sprocket wheel consisting of:	SA 05 03 9 050 50 025/0 1 sprocket wheel 1 parallel key AB10x8x20 DIN 6885 1 retaining ring 38 DIN 471 1 shaft seal for sprocket wheel A45x75x10 DIN 3760 SA 05 64 10045 07510 1 shaft seal for pinion shaft I A17x32x7 DIN 3760 SA 05 64 10017 03207				

Electric chain hoists 400 V, 3 ph ~ version STAR 07./...

Spare part list SA – Lifting gear section 05: Gear

No.:	Piece	Description	Order-No.: STAR 070/51 500/1-10 1000/2-5	Order-No.: STAR 070/53 1000/1-10 2000/2-5	Order-No.: STAR 070/54 800/1-8 1600/2-4	Order-No.: STAR 070/55 1000/1-6 2000/2-3	Order-No.: STAR 070/56 1250/1-8 2500/1-4	Order-No.: STAR 070/57 630/1-10 1250/2-5	Order-No.: STAR 071/53 500/1-10/2,5 1000/2-5/1,25	Order-No.: STAR 071/55 1000/1-6/1,5 2000/2-3/0,75
1	1	sprocket wheel consisting of:	SA 05 03 9 070 50 025/0 1 sprocket wheel 1 parallel key AB12x8x31 DIN 6885 1 retaining ring 40 DIN 471 1 shaft seal for sprocket wheel A45x75x10 DIN 3760 SA 05 64 10045 07510 1 shaft seal for pinion shaft I A17x32x7 DIN 3760 SA 05 64 10017 03207							

Electric chain hoists 400 V, 3 ph ~ version STAR 09./...

Spare part list SA – Lifting gear section 05: Gear

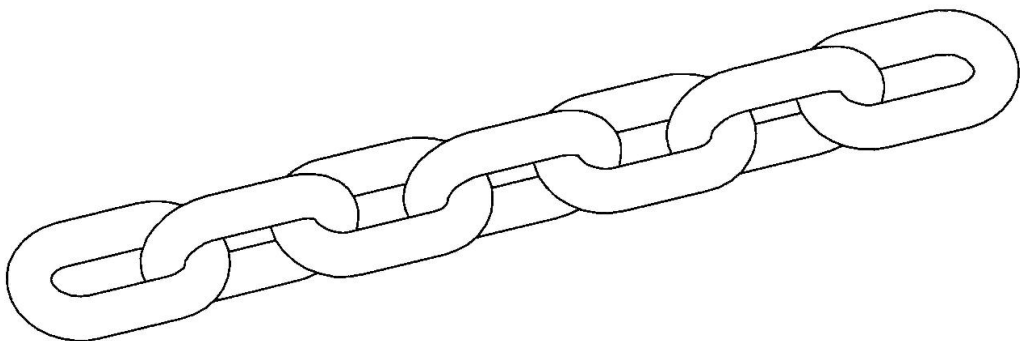
No.:	Piece	Description	Order-No.: STAR 090/52 1000/1-10 2000/2-5	Order-No.: STAR 091/51 1000/1-8/2 2000/2-4/1	Order-No.: STAR 091/52 1000/1-10/2,5 2000/2-5/1,25	Order-No.: STAR 090/54 1000/1-8 2000/2-4	Order-No.: STAR 090/55 1600/1-8 3200/2-4	Order-No.: STAR 091/56 1600/1-10/2,5 3200/2-5/1,25	Order-No.: STAR 091/57 1600/1-16/4 3200/2-8/2	Order-No.: STAR 091/58 1600/1-12/3 3200/2-6/1,5
1	1	sprocket wheel consisting of:	SA 05 03 9 090 50 025/0 1 sprocket wheel 1 parallel key B18x11x30 DIN 6885 1 retaining ring 60 DIN 471 1 shaft seal for sprocket wheel A65x100x10 DIN 3760 SA 05 64 10065 10010 1 sealing washer for NJ205 SA 05 96 NJ000 00205NI 1 shaft seal for pinion shaft I A20x32x7 DIN 3760 SA 05 64 10020 03207 1 protection sleeve for assembly Ø20x120mm from fabrication-number: 800000 SA 05 03 9 090 50 025/1 1 sprocket wheel 1 parallel key B18x11x30 DIN 6885 1 retaining ring 60 DIN 471 1 shaft seal for sprocket wheel A65x100x10 DIN 3760 SA 05 64 10065 10010 1 sealing washer for NJ205 SA 05 96 NJ000 00205NI 1 shaft seal for pinion shaft I A22x35x7 DIN 3760 SA 05 64 10022 03507 1 protection sleeve for assembly Ø20x120mm							

Electric chain hoists 400 V, 3 ph ~ version STAR 11./...

Spare part list SA – Lifting gear section 05: Gear

No.:	Piece	Description	Order-No.: STAR 110/52 2500/1-10 5000/2-5	Order-No.: STAR 111/52 2500/1-10/2,5 5000/2-5/1,25	Order-No.: STAR 110/54 3200/1-8 6300/2-4	Order-No.: STAR 111/54 3200/1-8/2 6300/2-4/1
1	1	sprocket wheel consisting of:	SA 05 03 9 110 50 025/0 1 sprocket wheel 2 parallel keys B18x11x40 DIN 6885 1 retaining ring 60 DIN 471 1 shaft seal for sprocket wheel A85x120x10 DIN 3760 SA 05 64 10085 12010 1 sealing washer for NJ205 SA 05 96 NJ000 00205NI 1 shaft seal for pinion shaft I A20x32x7 DIN 3760 SA 05 64 10020 03207 1 protection sleeve for assembly Ø20x120mm from fabrication-number: 800000 SA 05 03 9 110 50 025/1 1 sprocket wheel 2 parallel keys B18x11x30 DIN 6885 1 retaining ring 60 DIN 471 1 shaft seal for sprocket wheel A85x120x10 DIN 3760 SA 05 64 10085 12010 1 sealing washer for NJ205 SA 05 96 NJ000 00205NI 1 shaft seal for pinion shaft I A22x35x7 DIN 3760 SA 05 64 10022 03507 1 protection sleeve for assembly Ø20x120mm			

Spare part list SA – Lifting gear section 06: Chain



remark:

The change of the chain guide and the hold down would be recommended, when the replacement of the chain is necessary.
(On this see SA – Lifting gear, section 01: hoist body)

Other qualities of the chain, e.g. rust- or acid-resistant are available on request.

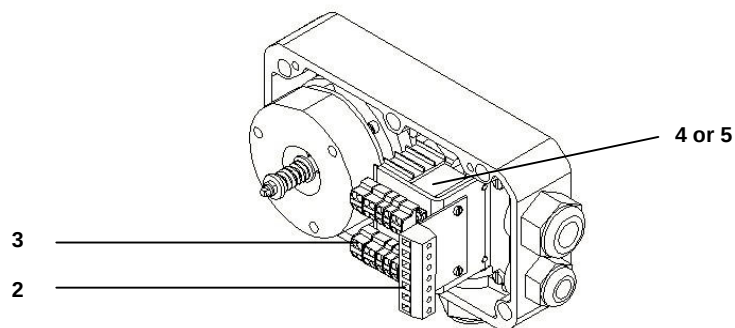


The technical data of the chain according to the inspection certificate have to be specified in the order and to be notified in the inspection and test log book.

version	STAR 02../..	STAR 03../..	STAR 05../..	STAR 07../..	STAR 09../..	STAR 11../..
chain EN 818-7, quality grade T type DAT RTS	4x12 mm	5.2x15 mm		7.2x21 mm	9x27 mm	11.3x31 mm
Order-No.:	SA 06 47 04012 00002	SA 06 47 05215 00002		SA 06 47 07221 00002	SA 06 47 09027 00002	SA 06 47 11331 00005

Example for order: **3 m SA 06 47 04012 00002** 3 m chain 4x12 mm for version STAR 020/50

Spare part list SB – Direkt control



- Nr.1 **direct control complete** with fastening set
 Nr.2 **rectifier complete**
 Nr.3 **set of terminal blocks**
 Nr.4 **brake contactor** (only for type with 2 lifting speeds)
 or
 Nr.5 **current contactor** (only for type with 2 lifting speeds)
 Nr.6 **plugs for electric limit switches** (not shown)

Electric chain hoists with one lifting speed 400 V, 3 ph ~

No.:	Piece	Description	Order-No.: STAR 020/... STAR 030/...	Order-No.: STAR 050/... STAR 070/...	Order-No.: STAR 090/...
1	1	direct control complete		SB 01 10 9 020 50 000/1 direct control complete 2 slotted cheese head screws M5x12 DIN 84 2 washers 5,3 DIN 125-A	
2	1	rectifier		SB 01 20 00040 00040M 1 rectifier	
3	1	set of terminal blocks (brake side)		SB 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	
6	2	plugs		SB 01 53 SA000 00203 1 plug A=18,8	

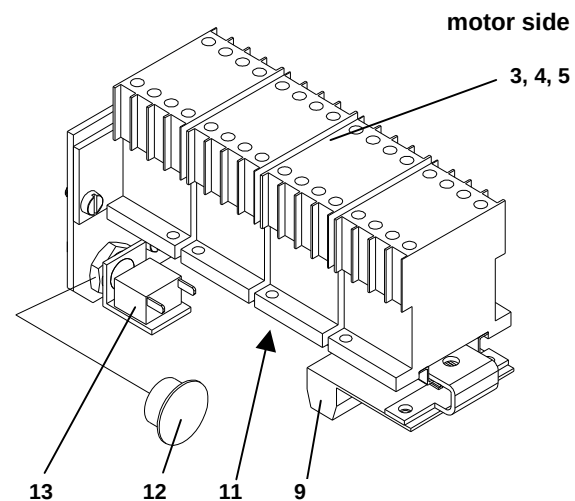
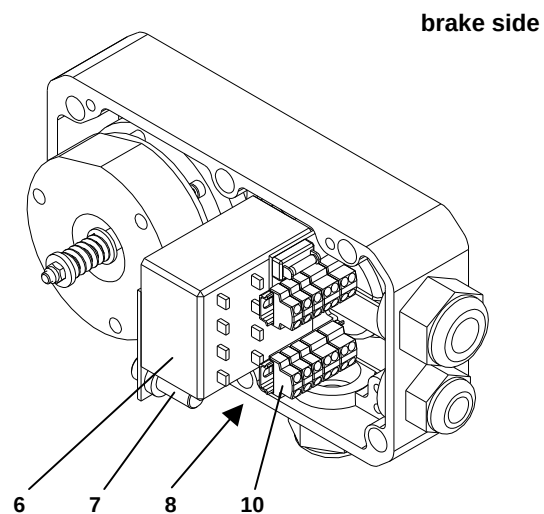
Electric chain hoists with two lifting speeds 400 V, 3 ph ~

No.:	Piece	Description	Order-No.: STAR 021/.. STAR 031/..	Order-No.: STAR 051/.. STAR 071/..	Order-No.: STAR 091/51 STAR 091/52
1	1	direct control complete		SB 01 10 9 021 50 000/0 direct control complete 2 slotted cheese head screws M5x12 DIN 84 2 washers 5,3 DIN 125-A	
2	1	rectifier		SB 01 20 00040 00040M 1 rectifier plate complete; with insulation	
3	1	set of terminal blocks (brake side)		SB 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	
4	1	brake contactor		SB 01 74 3DSL3 10400 1 brake contactor	
5	1	current contactor	SB 01 11 0 10A LC1/0 1 current contactor	SB 01 11 0 10D LC1/0 1 current contactor	SB 01 11 0 090 15 LC1/0 1 current contactor
6	2	plugs		SB 01 53 SA000 00203 plugs A=18,8	

Electric chain hoists with one lifting speed 230 V, 1 ph ~ (without figure)

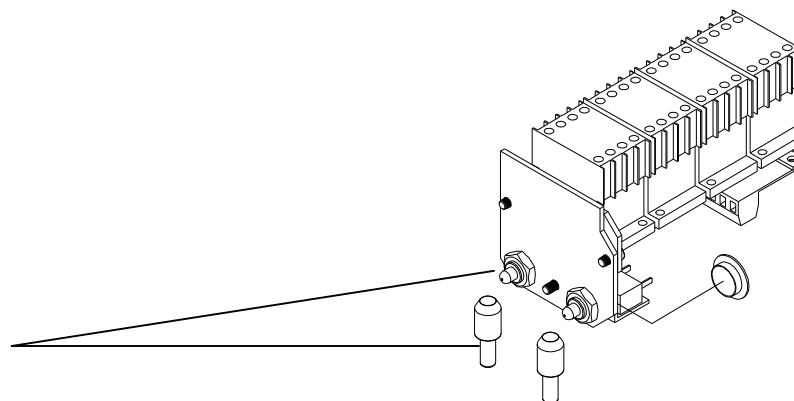
No.:	Piece	Description	Order-No.: STAR 020/0..	Order-No.: STAR 050/0..	Order-No.: STAR 070/0..
1	1	direct control complete	SB 01 10 9 020 02 000/0 direct control complete 2 slotted cheese head screws M5x12 DIN 84 2 washers 5,3 DIN 125-A	SB 01 10 9 050 01 000/0 direct control complete 2 slotted cheese head screws M5x12 DIN 84 2 washers 5,3 DIN 125-A	SB 01 10 9 070 01 000/0 direct control complete 2 slotted cheese head screws M5x12 DIN 84 2 washers 5,3 DIN 125-A
2	1	rectifier	SB 01 20 00040 00040M 1 rectifier plate complete; with insulation		
3	1	terminal blocks (brake side)	SB 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor		
	1	terminal blocks (motor side)	SB 01 11 9 020 01 500/0 1 set of terminal blocks with flange consisting of: 1 end plate 7 two-conductor through terminal blocks 2 four-conductor through terminal blocks 1 earth conductor	SB 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	
4	1	electronic starter	SB 01 74 40060 02220 1 electronic starter 230V		
5	1	capacitor	SB 01 20 00100 00041 1 motor starting capacitor 40 µF	SB 01 20 00100 00060 1 motor starting capacitor 60 µF	SB 01 20 00100 00125 1 motor starting capacitor 125 µF
6	2	plugs	SB 01 53 SA000 00203 plugs A=18,8		

Spare part list SC – Low voltage control



- Nr. 1 **low voltage control with emergency stop** completely wired
- Nr. 2 **low voltage control without emergency stop** completely wired
- Nr. 3 **contactor for emergency stop**
- Nr. 4 **contactor for lifting/lowering**
- Nr. 5 **contactor for 2nd lifting speed**
- Nr. 6 **transformer**
- Nr. 7 **primary fuse**
- Nr. 8 **secondary fuse**
- Nr. 9 **rectifier complete**
- Nr. 10 **terminal blocks (brake side)**
- Nr. 11 **terminal blocks (motor side)**
- Nr. 12 **plugs** (sealing of bore holes for types without electric limit switches)
- Nr. 13 **electric limit switches**

Remark: For individual ordering of the electric limit switches and of the plastic pins with clip and pressure spring see chapter SF.



Electric chain hoists version STAR 02../.. – STAR 07../.. with one or two lifting speeds 400 V, 3 ph ~

No.:	Piece	Description	Order-No.: STAR 020/...; STAR 030/... lifting gear with 1 lifting speed	Order-No.: STAR 021/...; STAR 031/... lifting gear with 2 lifting speeds	Order-No.: STAR 050/... lifting gear with 1 lifting speed	Order-No.: STAR 051/... lifting gear with 2 lifting speeds	Order-No.: STAR 070/... lifting gear with 1 lifting speed	Order-No.: STAR 071/... lifting gear with 2 lifting speeds
1	1	low voltage control complete <u>with</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 020 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 021 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 2 hex. socket cap screws M5x14 DIN912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 051 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 2 hex. socket cap screws M5x14 DIN912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 070 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 2 hex. socket cap screws M5x14 DIN912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 071 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
	1	low voltage control complete <u>with</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 020 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 021 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x14 DIN 12 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 051 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 070 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 071 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
2	1	low voltage control complete <u>without</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 020 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 021 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 12 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 051 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 070 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 071 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
	1	low voltage control complete <u>without</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 020 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 021 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 3 hex. socket cap screws M5x14 DIN912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN84 2 hex. socket cap screws M5x14 DIN912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 051 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 070 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 071 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
3	1	contactor for emergency stop K1	SC 01 74 3DSL3 01024		SC 01 74 3LC1K 91024			
4	1	contactor for lifting/lowering K2, K3	SC 01 74 3DSL3 10024 2 pieces		SC 01 74 3LC2K 91024 1 piece			
5	1	contactor for 2. lifting speed K4	---	SC 01 74 3DSL3 22024	---	SC 01 74 3LC1K 98024	---	SC 01 74 3LC1K 98024
6	1	transformer 230-400V/24 V	SC 01 88 00400 UI024		SC 01 88 00400 EI024			
7	1	primary fuse	SC 01 20 00060 00082 micro-fuse 1,25 A					
8	1	secondary fuse	SC 01 20 00060 00082 micro-fuse 1,25 A					
9	1	rectifier	SC 01 20 00040 00040M 1 rectifier with insulation					
10	1	terminal blocks (brake side)	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor		SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor			
11	1	terminal blocks (motor side)	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor
12	2	plugs	SC 01 53 SA000 00202 plugs A=10,7					

Electric chain hoists version STAR 09../.. – STAR 11../.. with one or two lifting speeds 400 V, 3 ph ~

No.:	Place	Description	Order-No.: STAR 090/... lifting gear with 1 lifting speed	Order-No.: STAR 091/... lifting gear with 2 lifting speeds	Order-No.: STAR 110/... lifting gear with 1 lifting speed	Order-No.: STAR 111/... lifting gear with 2 lifting speeds
1	1	low voltage control complete <u>with</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 090 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 091 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 110 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 111 011N 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
	1	low voltage control complete <u>with</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 090 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 091 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 110 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 111 011NE 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
2	1	low voltage control complete <u>without</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 090 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 091 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 110 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 111 011 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
	1	low voltage control complete <u>without</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 090 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 091 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 110 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 111 011E 00/4 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 3 hex. socket cap screws M5x10 DIN 912 5 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control
3	1	contactor for emergency stop K1	SC 01 74 3LC1K 91024			
4	1	contactor for lifting/lowering K2, K3	SC 01 74 3LC2K 91024 1 piece			
5	1	contactor for 2. lifting speed K4	---	SC 01 74 3LC1K 98024	---	SC 01 74 3LC1K 98024
6	1	transformer 230-400V/24 V	SC 01 88 00400 EI024 1 transformer			
7	1	primary fuse	SC 01 20 00060 00082 1 micro-fuse 1,25 A			
8	1	secondary fuse	SC 01 20 00060 00082 1 micro-fuse 1,25 A			
9	1	rectifier	SC 01 20 00040 00040M 1 rectifier			
10	1	terminal blocks (brake side)	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor			
11	1	terminal blocks (motor side)	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 050 50 500/0 1 set of terminal blocks TS35 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor
12	2	plugs	SC 01 53 SA000 00202 plugs A=10,7			

Electric chain hoists version STAR 020/0.. – STAR 070/0.. with one lifting speed 230 V, 1 ph ~ (without figure)

No.:	Piece	Description	Order-No.: STAR 020/01	Order-No.: STAR 050/01	Order-No.: STAR 050/02	Order-No.: STAR 070/01	Order-No.: STAR 070/02
1	1	low voltage control complete <u>with</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 020 101N 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 101N 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control		SC 01 11 2 070 101N 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	
	1	low voltage control complete <u>with</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 020 101NE 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 101NE 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control		SC 01 11 2 070 101NE 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	
2	1	low voltage control complete <u>without</u> emergency stop <u>without</u> electric limit switches	SC 01 11 2 020 101 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 101 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control		SC 01 11 2 070 101 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	
	1	low voltage control complete <u>without</u> emergency stop <u>with</u> electric limit switches	SC 01 11 2 020 101E 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	SC 01 11 2 050 101E 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control		SC 01 11 2 070 101E 00/1 low voltage control complete 2 slotted cheese head screws M5x12 DIN 84 2 hex. socket cap screws M5x14 DIN 912 4 spring lock washers 5,1 DIN 7980 50 ml sealant for sealing of the control	
3	1	contactor for emergency stop K1	SC 01 74 3DSL3 01024	SC 01 74 3LC1K 91024			
4	1	contactor for lifting/lowering K2, K3	SC 01 74 3DSL3 10024 2 pieces	SC 01 74 3LC2K 91024 1 piece			
5	1	transformer 230-400V/24 V	SC 01 88 00400 UI024	SC 01 88 00400 EI024			
6	1	primary fuse		SC 01 20 00060 00082 micro-fuse 1,25 A			
7	1	secondary fuse		SC 01 20 00060 00082 micro-fuse 1,25 A			
8	1	rectifier		SC 01 20 00040 00040M 1 rectifier with insulation			
9	1	terminal blocks (brake side)	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor		SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	
10	1	terminal blocks (motor side)	SB 01 11 9 020 01 500/0 1 set of terminal blocks with flange consisting of: 1 end plate 7 two-conductor through terminal blocks 2 four-conductor through terminal blocks 1 earth conductor	SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor		SC 01 11 9 020 50 500/0 1 set of terminal blocks TS15 consisting of: 2 end plates 13 two-conductor through terminal blocks 4 four-conductor through terminal blocks 1 earth conductor	
11		electronic starter	SB 01 74 40060 02220 electronic starter				
12		capacitor	SB 01 20 00100 00041 1 motor starting capacitor 40 µF	SB 01 20 00100 00060 1 motor starting capacitor 60 µF		SB 01 20 00100 00125 1 motor starting capacitor 125 µF	
13	2	plugs	SC 01 53 SA000 00202 plugs A=10,7				

Spare part list SD – Control pendant of the lifting gear for direct control

Spare parts No. 1 control pendant and No. 2 control cable

Order-No. control pendant	Number of buttons	Switching functions	Control cable	Order-No. control cable
SD 01 81 B0100 AK000	2	lifting / lowering 1- step (for single phase electric chain hoists)	8x1,5	SD 01 45 0YMH0 08015
SD 01 81 B0100 AK0NH	3	lifting / lowering 1- step (for single phase electric chain hoists) with emergency stop		
SD 01 81 B0100 00000	2	lifting / lowering 1- step	7x1,5	SD 01 45 0YMH0 07015
SD 01 81 B0100 000NH	3	lifting / lowering 1- step with emergency stop		
SD 01 81 B0101 00000	4	lifting / lowering 1- step travelling left / right 1 - step	8x1,5	SD 01 45 0YMH0 08015
SD 01 81 B0101 000NH	5	lifting / lowering 1- step travelling left / right 1 - step with emergency stop		
SD 01 81 B0102 00000	4	lifting / lowering 1- step travelling left / right 2 - steps	12x1,5	SD 01 45 0YMH0 12015
SD 01 81 B0102 000NH	5	lifting / lowering 1- step travelling left / right 2 - steps with emergency stop		
SD 01 81 B0200 00000	2	lifting / lowering 2- steps	7x1,5	SD 01 45 0YMH0 07015
SD 01 81 B0200 000NH	3	lifting / lowering 2- steps with emergency stop		
SD 01 81 B0201 00000	4	lifting / lowering 2- steps travelling left / right 1 - step	10x1,5	SD 01 45 0YMH0 10015
SD 01 81 B0201 000NH	5	lifting / lowering 2- steps travelling left / right 1 - step with emergency stop		
SD 01 81 B0202 00000	4	lifting / lowering 2- steps travelling left / right 2 - steps	12x1,5	SD 01 45 0YMH0 12015
SD 01 81 B0202 000NH	5	lifting / lowering 2- steps travelling left / right 2 - steps with emergency stop		

Example for order: **SD 01 81 B0200 00000** control pendant for direct control complete with switching functions lifting / lowering 2-steps / with emergency stop

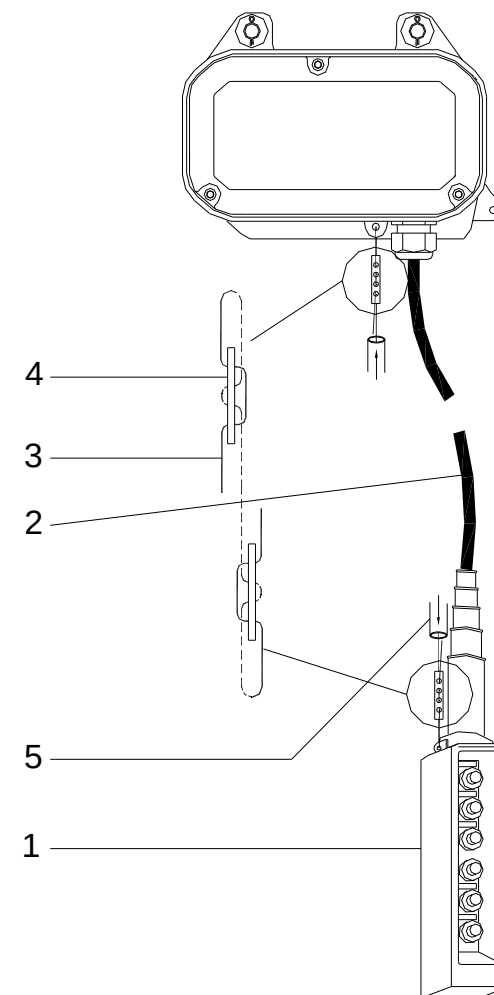
Single spare parts for control pendant

Order-No.	Switching functions
SD 01 81 XES0D 02201	1 speed up to 3.0 kW (lifting or travelling)
SD 01 81 XES0D 02241	1 speed (for single phase electric chain hoists)
SD 01 81 XES0D 01191	1 speed up to 2.0 kW (travelling)
SD 01 81 XES0D 01291	2 speeds up to 2.2 kW (lifting or travelling)
SD 01 81 XAC0S 00499	emergency stop
SD 01 81 ZA2BS 00054	emergency stop button
SD 01 81 XAC0B 09111	rubber spare parts for buttons white
SD 01 81 XAC0B 09112	for 1-step function black
SD 01 81 XAC0B 09211	rubber spare parts for buttons white
SD 01 81 XAC0B 09212	for 2-step function black

Single spare parts for strainer clamp no. 3, 4 and 5

No.	Piece	Description	Order-No.
3	length in metre*)	wire	SD 01 18 03055 02000
4	2	sheet metal for strainer clamp	SD 01 45 0 00A 001/0
5	2	insulating tube	SD 01 42 00000 00012

*) **remark:** The necessary length of the wire of strainer clamp results from the length of the control cable plus 0,5 m.



Spare part list SE - Control pendant of the lifting gear for low voltage control

Spare parts No. 1 control pendant and No. 2 control cable

Order-No. control pendant	No. of buttons	Switching functions	Control cable	Order-No. control cable
SE 01 81 A0100 00000	2	lifting / lowering 1- step	4G1.5	SE 01 45 0H070 04G15
SE 01 81 A0100 000NH	3	lifting / lowering 1- step with emergency stop	5G1.5	SE 01 45 0H070 05G15
SE 01 81 A0101 00000	4	lifting / lowering 1- step travelling left / right 1- step	7G1.5	SE 01 45 0YMH0 07G15
SE 01 81 A0101 000NH	5	lifting / lowering 1- step travelling left / right 1- step with emergency stop	7G1.5	SE 01 45 0YMH0 07G15
SE 01 81 A0102 00000	4	lifting / lowering 1- step travelling left / right 2- steps	7G1.5	SE 01 45 0YMH0 07G15
SE 01 81 A0102 000NH	5	lifting / lowering 1- step travelling left / right 2- steps with emergency stop	12G1.5	SE 01 45 0H070 12G15
SE 01 81 A0200 00000	2	lifting / lowering 2- steps	5G1.5	SE 01 45 0H070 05G15
SE 01 81 A0200 000NH	3	lifting / lowering 2- steps with emergency stop	7G1.5	SE 01 45 0YMH0 07G15
SE 01 81 A0201 00000	4	lifting / lowering 2- steps travelling left / right 1- step	7G1.5	SE 01 45 0YMH0 07G15
SE 01 81 A0201 000NH	5	lifting / lowering 2- steps travelling left / right 1- step with emergency stop	12G1.5	SE 01 45 0H070 12G15
SE 01 81 A0202 00000	4	lifting / lowering 2- steps travelling left / right 2- steps	12G1.5	SE 01 45 0H070 12G15
SE 01 81 A0202 000NH	5	lifting / lowering 2- steps travelling left / right 2- steps with emergency stop	12G1.5	SE 01 45 0H070 12G15

Example for order: **SE 01 81 A0201 000NH** control pendant for low voltage control cpl. with functions lifting/lowering 2-steps / travelling left/right 1-step with emergency stop

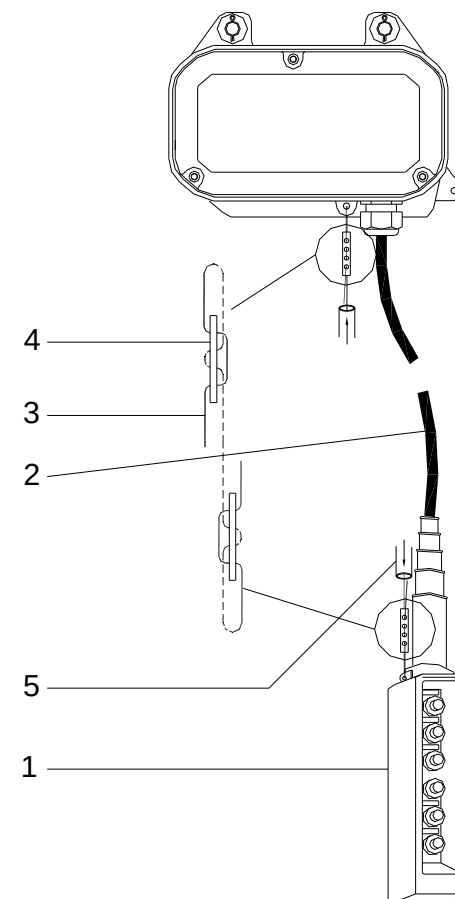
Single spare parts for control pendant

Order-No.	Switching functions	
SE 01 81 ZB2BE 00101	contactor blocks	1 speed (lifting / lowering or travelling)
SE 01 81 ZB2BE 00201		2. speed (lifting / lowering without trolley)
SE 01 81 XEN0G 01191		2 speeds (lifting / lowering or travelling)
SE 01 81 ZB2BE 00102		emergency stop
SE 01 81 ZA2BS 00834	emergency stop button	
SE 01 81 XAC0A 09411	rubber spare parts for buttons	white
SE 01 81 XAC0A 09412		black

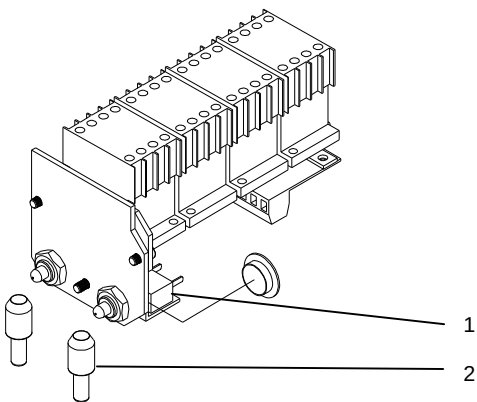
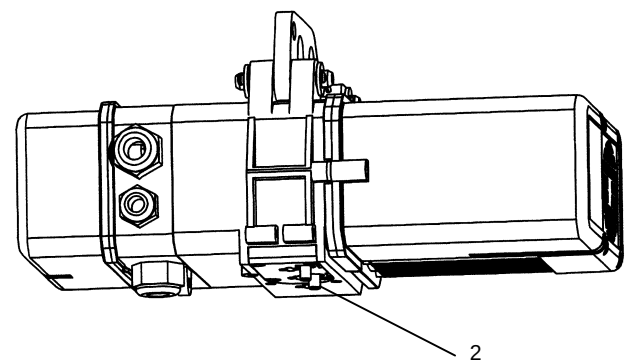
Single spare parts for strainer clamp no. 3, 4 and 5

No.	Piece	Description	Order-No.
3	length in metre*)	wire	SE 01 18 03055 02000
4	2	sheet metal for strainer clamp	SE 01 45 0 00A 001/0
5	2	insulating tube	SE 01 42 00000 00012

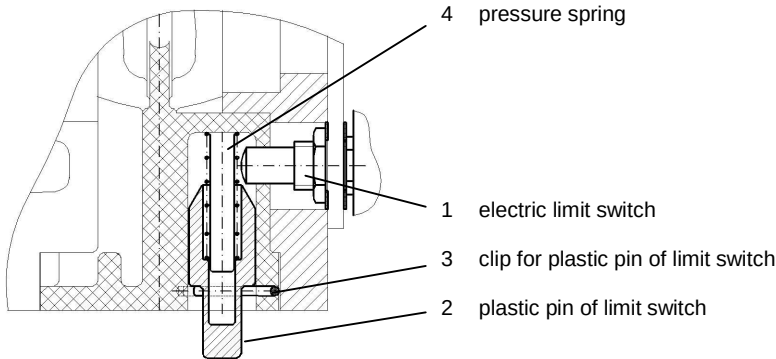
*) **remark:** The necessary length of the wire of strainer clamp results from the length of the control cable plus 0,5 m.



Spare part list SF - Electric limit switches for low voltage control



detail of limit switch:



Remark:

The chain guide in operation with electric limit switches has to be chosen from spare part list SA 01 (lifting gear, hoist body).

- Nr. 1 **electric limit switches complete** with soldered on cables
- Nr. 2 **plastic pin complete consisting of:**
plastic pin, clip for plastic pin of limit switch and pressure spring

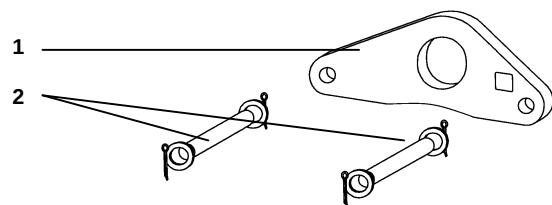
Remark: No. 2 is contained in the chain guide, in operation with electric limit switches (SA 01, no. 9).

No.:	Piece	Description	Order-No.: for chain 4x12 for version STAR 02../..	Order-No.: for chain 5,2x15 for version STAR 03../..	Order-No.: for chain 5,2x15 for version STAR 05../..	Order-No.: for chain 7,2x21 for version STAR 07../..	Order-No.: for chain 9x27 for version STAR 09../..	Order-No.: for chain 11,3x31 for version STAR 11../..
1	2	electric limit switch with soldered on cables	SF 01 46 9 020 50 217/0 1 limit switch 2 sealing ring 2 hexagon thin nuts					
2	2	plastic pin for limit switch	SF 01 46 9 020 50 300/0 1 plastic pin 1 clip for plastic pin of limit switch 1 pressure spring	SF 01 46 9 050 50 300/0 1 plastic pin 1 clip for plastic pin of limit switch 1 pressure spring		SF 01 46 9 090 50 300/0 1 plastic pin 1 clip for plastic pin of limit switch 1 pressure spring	SF 01 46 9 110 50 300/0 1 plastic pin 1 clip for plastic pin of limit switch 1 pressure spring	

Example for order: 01 46 9 020 50 217/0 electric limit switches with soldered on cables

Spare part list SG – suspension eyes

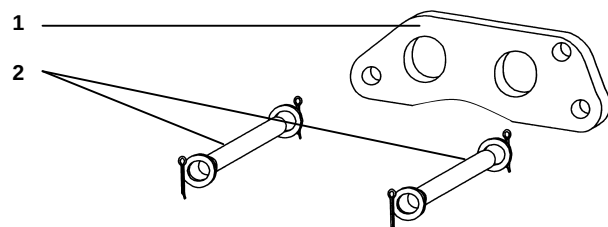
Section 01: Single hole suspension eye



No.:	Piece	Description	Order-No.: load capacity max. 500 kg for version of STAR: 020/50; 020/52; 020/53; 020/54; 021/51; 021/52; 021/53; 030/50	Order-No.: load capacity max. 1000 kg for version of STAR: 030/52; 030/53	Order-No.: load capacity max. 1000 kg for version of STAR: 050/52; 050/53; 051/50; 051/52; 051/55	Order-No.: load capacity max. 2000 kg for version of STAR: 070/51; 070/53; 070/54; 070/55; 070/57; 071/53; 071/55	Order-No.: load capacity max. 2500 kg for version of STAR: 070/56	Order-No.: load capacity max. 3200 kg for version of STAR: 090/52; 090/54; 090/55; 091/51; 091/52; 091/56	Order-No.: load capacity max. 6300 kg for version of STAR: 110/52; 110/54; 111/52; 111/54
1	1	single hole suspension eye without bolts, washers, split pins	SG 01 55 0 020 50 003/0	SG 01 55 0 030 50 004/1	SG 01 55 0 050 50 002/0	SG 01 55 0 070 50 004/0	SG 01 55 0 070 56 004/0	SG 01 55 0 090 50 004/0	SG 01 55 0 110 50 003/0
2	1	set of bolts	SG 01 03 9 020 50 210/0 2 bolts 12x70x58 DIN 1433 4 washers 13 DIN 125 4 split pins 4x28 DIN 94		SG 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94		SA 01 03 9 070 56 210/0 2 bolts 16x75x62 DIN 1433 4 washers 17 DIN 125 4 split pins 4x28 DIN 94	SA 01 03 9 090 50 210/0 2 bolts 18x95x79 DIN 1433 4 washers 19 DIN 125 4 split pins 5x40 DIN 94	SA 01 03 9 110 50 210/0 2 bolts 25x115x97 DIN 1433 4 washers 26 DIN 126 4 split pins 6,3x45 DIN 94

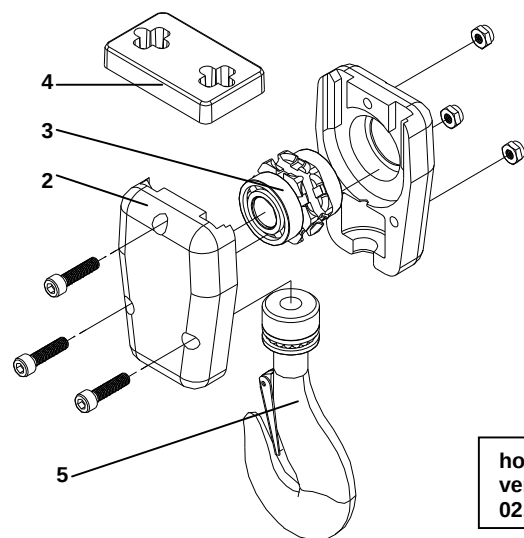
Example for order: **SG 01 55 0 020 50 003/0** for single hole suspension eye 4x12 mm with a load capacity of 500 kg

Section 02: suspension eye with two bore holes

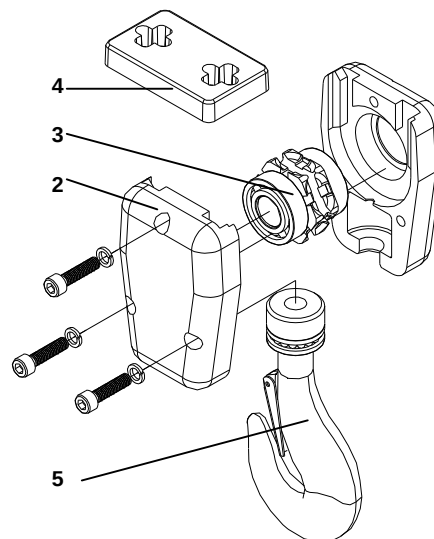


No.:	Piece	Description	Order-No.: load capacity max. 500 kg for version of STAR: 020/50; 020/52; 020/53; 020/54; 021/51; 021/52; 021/53; 030/50	Order-No.: load capacity max. 1000 kg for version of STAR: 030/52; 030/53	Order-No.: load capacity max. 500 kg for version of STAR: 050/52; 051/50; 051/52; 051/55	Order-No.: load capacity max. 1000 kg for version of STAR: 050/53	Order-No.: load capacity max. 2000 kg for version of STAR: 070/51; 070/53; 070/54; 070/55; 070/57; 071/53; 071/55	Order-No.: load capacity max. 2500 kg for version of STAR: 070/56	Order-No.: load capacity max. 3200 kg for version of STAR: 090/52; 090/54; 090/55; 091/51; 091/52; 091/56; 091/57; 091/58	Order-No.: load capacity max. 6300 kg for version of STAR: 110/52; 110/54; 111/52; 111/54
1	1	suspension eye N without bolts, washers, split pins	SG 02 55 0 020 50 002/1	SG 02 55 0 030 50 001/0	SG 02 55 0 070 50 001/0	SG 02 55 0 070 50 001/0		SG 02 55 0 070 56 001/0	SG 02 55 0 090 50 001/0	SG 02 55 0 110 50 001/0
	1	suspension eye S1 without bolts, washers, split pins		SG 02 55 0 030 50 002/0		SG 02 55 0 070 50 002/0		SG 02 55 0 070 56 002/0	SG 02 55 0 090 50 002/0	
	1	suspension eye S2 without bolts, washers, split pins		SG 02 55 0 030 50 003/0		SG 02 55 0 070 50 003/0		SG 02 55 0 070 56 003/0	SG 02 55 0 090 50 003/0	
2	1	set of bolts	SG 01 03 9 020 50 210/0 2 bolts 12x70x58 DIN 1433 4 washers 13 DIN 125 4 split pins 4x28 DIN 94		SG 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94		SG 01 03 9 070 56 210/0 2 bolts 16x75x62 DIN 1433 4 washers 17 DIN 125 4 split pins 4x28 DIN 94	SG 01 03 9 090 50 210/0 2 bolts 18x95x79 DIN 1433 4 washers 19 DIN 125 4 split pins 5x40 DIN 94	SG 01 03 9 110 50 210/0 2 bolts 25x115x97 DIN 1433 4 washers 26 DIN 126 4 split pins 6.3x45 DIN 94	

Spare part list SH – hook block



hook blocks for
versions STAR
02../... – 07../...



hook blocks for
versions STAR
09../... + 11../...

- Nr. 1 **hook block complete**
for versions STAR 02../... – 07../... :
with hexagon screws and self locking nuts
for versions STAR 09../... + 11../...
with hexagon screws and spring lock washers
- Nr. 2 **casing of hook block**
- Nr. 3 **sprocket wheel**
- Nr. 4 **rubber buffer**
- Nr. 5 **safety latch**

Electric chain hoists version STAR 02../... – STAR 11../...

No.:	Piece	Description	Order-No.: load capacity max. 500 kg for chain 4x12 STAR 020../... ; STAR 021../...	Order-No.: load capacity max. 1000 kg for chain 5,2x15 STAR 030../... ; STAR 031../... STAR 050../... ; STAR 051../...	Order-No.: load capacity max. 2000 kg for chain 7,2x21 STAR 070../... ; STAR 071../...	Order-No.: load capacity max. 2500 kg for chain 7,2x21 STAR 070/56	Order-No.: load capacity max. 3200 kg for chain 9x27 STAR 090../... ; STAR 091../...	Order-No.: load capacity max. 6300 kg for chain 11,3x31 STAR 110../... ; STAR 111../...
1	1	hook block complete consisting of:	SH 01 20 2 020 50 000/0 No. 2-5, as well as 1 load hook RSN 025-V 1 hook nut RSN 025 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51103	SH 01 20 2 030 50 000/0 No. 2-5, as well as 1 load hook RSN 025-V 1 hook nut RSN 025 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51103	SH 01 20 2 070 50 000/0 No. 2-5, as well as 1 load hook RSN 05-V 1 hook nut RSN 05 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51104	SH 01 20 2 070 56 000/0 No. 2-5, as well as 1 load hook RSN 05-V 1 hook nut RSN 05 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51104	SH 01 20 2 090 50 000/0 No. 2-5, as well as 1 load hook RSN 1-V 1 hook nut RSN 1 1 grooved pin 6x16 DIN 1471 1 thrust ball bearing 51205	SH 01 20 2 110 50 000/0 No. 2-5, as well as 1 load hook RSN 2.5-P 1 hook nut RSN 2.5 1 grooved pin 8x60 DIN 1481 1 thrust ball bearing 51108
2	1	casing of the hook block complete consisting of:	SH 01 20 9 020 50 001/0 2 casings of hook block 3 hex. socket cap screws M6x40 DIN 912 3 self locking nuts M6 DIN 985		SH 01 20 9 070 50 001/2 2 casings of hook block 3 hex. socket cap screws M8x50 DIN 912 3 self locking nuts M8 DIN 985		SH 01 20 9 090 50 001/0 2 casings of hook block 3 hex. socket cap screws M10x50 DIN 912 3 spring lock washers 10.1 DIN 7980	
3	1	sprocket wheel consisting of:	SH 01 20 2 020 50 005/0 1 sprocket wheel 2 grooved ball bearings 6203	SH 01 20 2 030 50 005/0 1 sprocket wheel 2 grooved ball bearings 6203	SH 01 20 2 070 50 005/0 1 sprocket wheel 2 grooved ball bearings 6304	SH 01 20 2 070 56 005/0 1 sprocket wheel 2 grooved ball bearings 6205E	SH 01 20 2 090 50 005/0 1 sprocket wheel 2 grooved ball bearings 6207	SH 01 20 2 110 50 005/0 1 sprocket wheel 2 grooved ball bearings 6308
4	1	rubber buffer	SH 01 35 S0020 00200		SH 01 35 S0020 00700		SH 01 35 S0020 00900	
5	1	safety latch consisting of:	SH 01 20 9 020 50 003/0 1 safety latch for RSN 025 1 tension spring for RSN 025 1 semi-tubular rivet 3x20 DIN 6791		SH 01 20 9 070 50 003/1 1 safety latch for RSN 05 1 tension spring for RSN 05 1 semi-tubular rivet 4x25 DIN 6791		SH 01 20 9 090 50 003/0 1 safety latch for RSN 1 1 tension spring for RSN 1 1 semi-tubular rivet 4x25 DIN 6791	
							until ca. 2002: SH 01 20 2 00R 003/0 1 safety latch for RSN 2.5 1 tension spring for RSN 2.5 1 semi-tubular rivet 6x35 DIN 6791 since ca. 2002: SH 01 20 9 110 50 003/1 1 safety latch complete 1 semi-tubular rivet 6x35 DIN 6791	

Example of order: SH 01 20 2 020 50 005/0 for sprocket wheel complete with grooved ball bearing for chain 4x12 mm

Spare part list SJ – Hook tackle

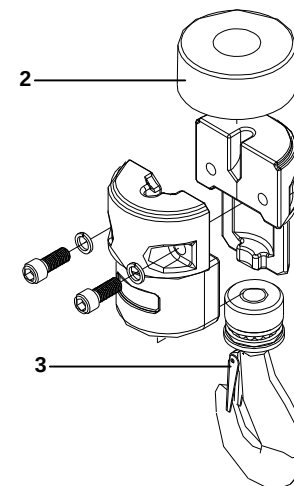
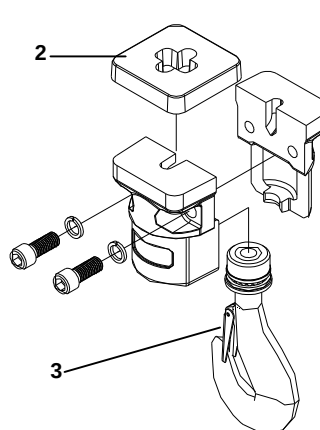
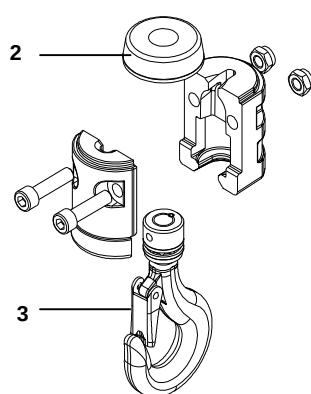
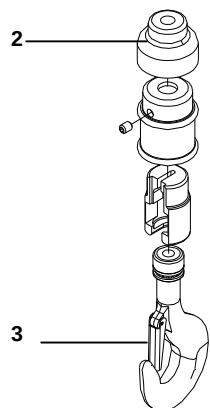
for chain 4x12
load capacity max 250 kg
STAR 02../..

for chain 5,2x15
load capacity max 500 kg
STAR 03../..; STAR 05../..

for chain 7,2x21
load capacity max 1250 kg
STAR 07../..

for chain 9x27
load capacity max 1600 kg
STAR 09../..

for chain 11,3x31
load capacity max 3200 kg
STAR 11../..

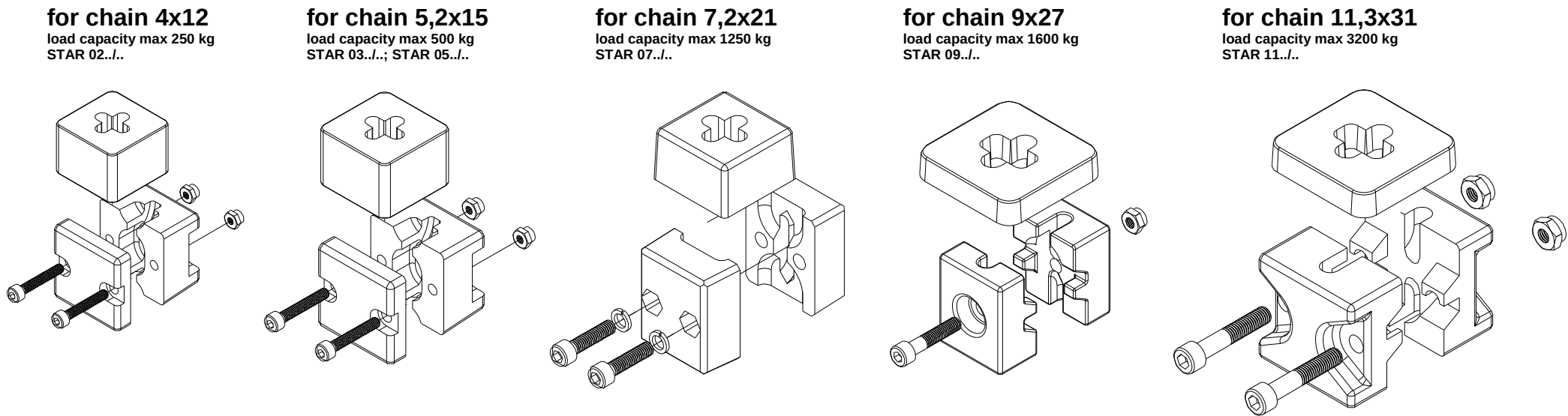


- Nr. 1 **hook tackle complete**
Nr. 2 **rubber buffer**
for hook tackles of the chains
4x12 and 5,2x15 rubber
buffers with metal washer
Nr. 3 **safety latch**

No.:	Piece	Description	Order-No.: load capacity max. 250kg for chain 4x12 STAR 020/... ; STAR 021/...	Order-No.: load capacity max. 500 kg for chain 5,2x15 STAR 030/...; STAR 031/...; STAR 050/...; STAR 051/..	Order-No.: load capacity max. 1250 kg for chain 7,2x21 STAR 070/...; STAR 071/...	Order-No.: load capacity max. 1600 kg for chain 9x27 STAR 090/... ; STAR 091/...	Order-No.: load capacity max. 3200 kg for chain 11,3x31 STAR 110/...; STAR 111/...
1	1	hook tackle complete, consisting of	SJ 01 15 2 020 50 000/0 No. 2+3, as well as 1 hook casing 1 safety cover 1 hex. socket set screw with flat point M8x16 DIN 913 1 load hook RSN 012-V 1 hook nut RSN 012-V 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51101 1 washer 13 DIN 1440	SJ 01 15 2 030 50 000/0 No. 2+3, as well as 1 hook casing 1 safety cover 1 hex. socket set screw with flat point M8x16 DIN 913 1 load hook RSN 012-V 1 hook nut RSN 012-V 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51101 1 washer 13 DIN 1440	SJ 01 15 2 070 50 000/2 No. 2+3, as well as 1 hook casing 1 cover for hook casing 2 hex. socket cap screws M10x40 DIN 912 2 self locking nuts M10 DIN 985 1 load hook RSN 025-V 1 hook nut RSN 025 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51103 1 washer 18 DIN 1440	SJ 01 15 2 090 50 000/1 No. 2+3, as well as 1 hook casing 1 cover for hook casing 2 hex. socket cap screws M12x30 DIN 912 2 spring lock washers 12.1 DIN 7980 1 load hook RSN 05-V 1 hook nut RSN 05 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51104 1 washer 20 DIN 7728	SJ 01 15 2 110 50 000/0 No. 2+3, as well as 1 hook casing 1 cover for hook casing 2 hex. socket cap screws M12x35 DIN 912 2 spring lock washers 12.1 DIN 7980 1 load hook RSN 1-V 1 hook nut RSN 1 1 grooved pin 4x8 DIN 1471 1 thrust ball bearing 51205 1 washer 26 DIN 126
2	1	rubber buffer	SJ 01 35 S0015 00300 (with metal washer)		SJ 01 35 00015 00700	SJ 01 35 S0015 00901	SJ 01 35 00015 01100
3	1	safety latch consisting of:	SJ 01 15 9 020 50 003/0 1 safety latch for RSN 012 1 tension spring for RSN 012 1 semi-tubular rivet 3x20 DIN 6791		SJ 01 20 9 020 50 003/0 1 safety latch for RSN 025 1 tension spring for RSN 025 1 semi-tubular rivet 3x20 DIN 6791	SJ 01 20 9 070 50 003/1 1 safety latch for RSN 05 1 tension spring for RSN 05 1 semi-tubular rivet 4x25 DIN 6791	SJ 01 20 9 090 50 003/0 1 safety latch for RSN 1 1 tension spring for RSN 1 1 semi-tubular rivet 4x25 DIN 6791

Example for order: **SJ 01 15 9 020 50 003/0** for safety latch of hook tackle 250 kg for chain 4x12 mm or for hook tackle 500 kg for chain 5,2x15 mm

Spare part list SK – Lift limiter



Lift limiter complete with rubber buffer consisting of:
lift limiter casing, hexagon socket cap screws, hexagon nuts

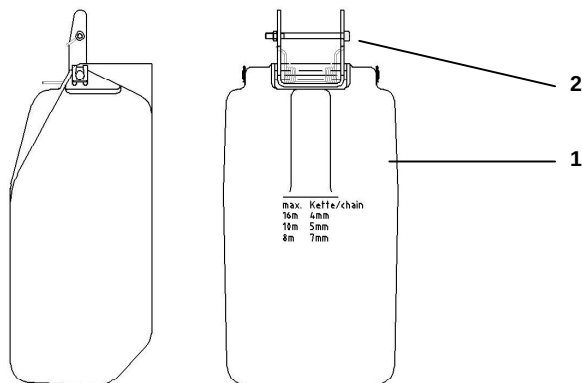
remark: If the rubber buffer has a metal washer (chain 7,2x21), then this should be mounted towards the electric chain hoist body.

No.:	Piece	Description	Order-No.: for chain 4x12	Order-No.: for chain 5,2x15	Order-No.: for chain 7,2x21	Order-No.: for chain 9x27	Order-No.: for chain 11,3x31
1	1	lift limiter complete	SK 01 03 2 020 50 010/1	SK 01 03 2 030 50 010/1	SK 01 03 2 070 50 010/0	SK 01 03 2 090 50 010/0	SK 01 03 2 110 50 010/1
		1 rubber buffer	SK 01 35 S0001 00300	SK 01 35 S0001 00300	SK 01 35 S0001 00700	SK 01 35 S0015 00901	SK 01 35 S0015 00901

Example for order: **SK 01 03 2 020 50 010/1** lift limiter complete with rubber buffer for chain 4x12 mm

Spare part list SL – Chain box

Section 01: Plastics chain box



- 1 **Plastics chain box complete**
with adapter, but without fastening set to attach to the hoist body
- 2 **Fastening screw with self locking nut**

Plastic chain box for electric chain hoists version STAR 02../... – STAR 03../...

type of chain box		max. filling quantity of chain		Order-No. of chain box complete
4/12	5/8	12 m - 4x12	8 m - 5,2x15	SL 01 30 2 020 50 000/1
4/16	5/10	16 m - 4x12	10 m - 5,2x15	SL 01 30 2 030 50 000/1

Plastic chain box for electric chain hoists version STAR 05../... – STAR 07../...

type of chain box		max. filling quantity of chain		Order-No. of chain box complete
5/8	7/5	8 m - 5,2x15	5 m - 7,2x21	SL 01 30 2 050 51 000/1
5/10	7/8	10 m - 5,2x15	8 m - 7,2x21	SL 01 30 2 050 50 000/1

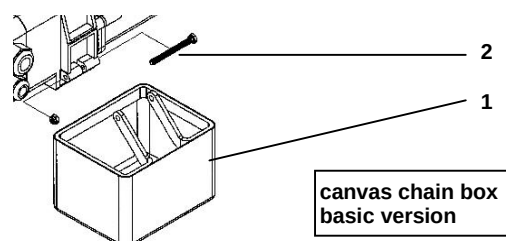
Example for order: **SL 01 30 2 030 50 000/1** plastics chain box 5/10 complete with adapter for max. 10 m chain 5,2x15

Fastening screws for electric chain hoists version STAR 02../... – STAR 07../...

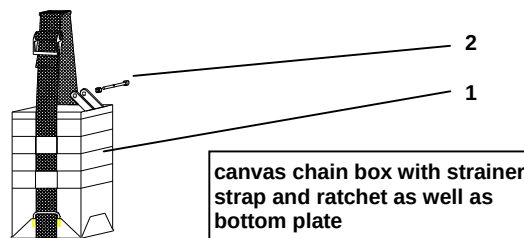
version STAR LIFTKET	Order-No. of fastening screw complete
STAR 02../... STAR 03../...	SL 01 30 9 020 50 100/0 1 hexagon head bolt M 5x72 DIN 931 1 self locking nut M5 DIN 985
STAR 05../... STAR 07../...	SL 01 30 9 050 50 100/0 1 hexagon head bolt M6x72 DIN 931 1 self locking nut M6 DIN 985

Spare part list SL – Chain box

Section 02: Canvas chain box



canvas chain box
basic version



canvas chain box with strainer
strap and ratchet as well as
bottom plate

- 1 Chain box complete
with chain box frame and swivel limiter,
without fastening set to attach to the hoist body
- 2 Fastening screw with self locking nut

Chain box for electric chain hoists version STAR 02../... – STAR 03../...

type of chain box	max. filling quantity of chain	order-No. of chain box complete	version
4/10	5/8	10 m - 4x12	8 m - 5,2x15
4/20	5/18	20 m - 4x12	18 m - 5,2x15
4/30		30 m - 4x12	
4/40	5/25	40 m - 4x12	25 m - 5,2x15
4/50	5/40	50 m - 4x12	40 m - 5,2x15
4/80	5/60	80 m - 4x12	60 m - 5,2x15
	5/70		70 m - 5,2x15
	5/90		90 m - 5,2x15

Chain box for electric chain hoists version STAR 05../... – STAR 07../...

type of chain box	max. filling quantity of chain	order-No. of chain box complete	version
5/8		8 m - 5,2x15	
5/18	7/8	18 m - 5,2x15	8 m - 7,2x21
5/25	7/18	25 m - 5,2x15	18 m - 7,2x21
5/40	7/24	40 m - 5,2x15	24 m - 7,2x21
5/50		50 m - 5,2x15	
5/60	7/30	60 m - 5,2x15	30 m - 7,2x21
5/70		70m - 5,2x15	
5/90		90m - 5,2x15	
	7/40		40m - 7,2x21
	7/50		50m - 7,2x21
	7/60		60m - 7,2x21

Chain box for electric chain hoists version STAR 09../... – STAR 11../...

type of chain box	max. filling quantity of chain	order-No. of chain box complete	version
9/10	11/6	10 m - 9x27	6 m - 11,3x31
9/18	11/12	18 m - 9x27	12 m - 11,3x31
9/30	11/20	30 m - 9x27	20 m - 11,3x31
9/40	11/25	40 m - 9x27	25 m - 11,3x31
9/50	11/30	50 m - 9x27	30 m - 11,3x31
9/60	11/40	60 m - 9x27	40 m - 11,3x31
9/75	11/50	75 m - 9x27	50 m - 11,3x31

Example for order: **SL 02 30 2 030 54 000/0** canvas chain box 5/40 complete with strainer strap and ratchet for STAR 03../... max. 40 m chain 5,2x15mm

Fastening screws for electric chain hoists version STAR 02../... – STAR 11../...

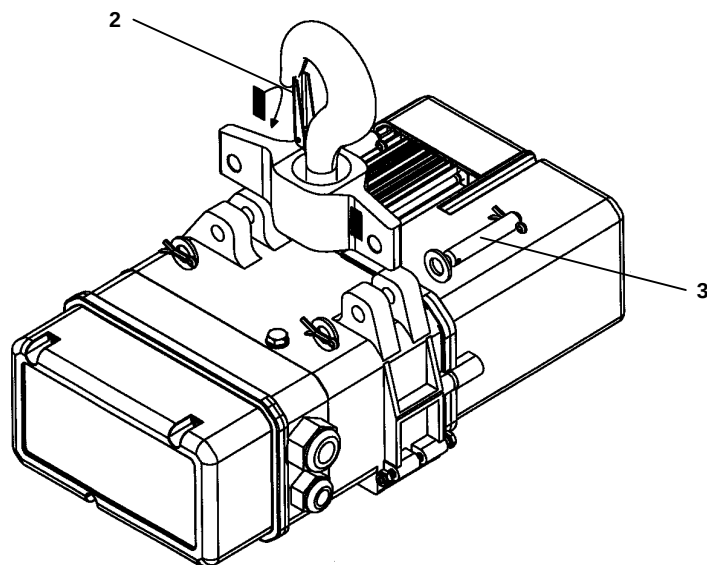
version STAR LIFTKET	order-No. of fastening screw complete
STAR 02../... STAR 03../...	SL 01 30 9 020 50 100/0 1 hexagon head bolt M 5x72 DIN 931 1 self locking nut M5 DIN 985
STAR 05../... STAR 07../...	SL 01 30 9 050 50 100/0 1 hexagon head bolt M6x72 DIN 931 1 self locking nut M6 DIN 985
STAR 09../...	SL 01 30 9 090 50 100/0 1 hexagon head bolt M 8x100 DIN 931 1 self locking nut M8 DIN 985
STAR 11../...	SL 01 30 9 110 50 100/0 1 hexagon head bolt M 8x110 DIN 931 1 self locking nut M8 DIN 985



For spare part delivery of oversized chain boxes with a high chain weight the assembly of the strainer strap with ratchet for the chain box is necessary.

The strain relief has to be realized in stationary application by means of a strainer strap and ratchet and in application with trolley by means of a tandem trolley.
(On this see spare part list BG – tandem trolley)

Spare part list SM – Hook suspension

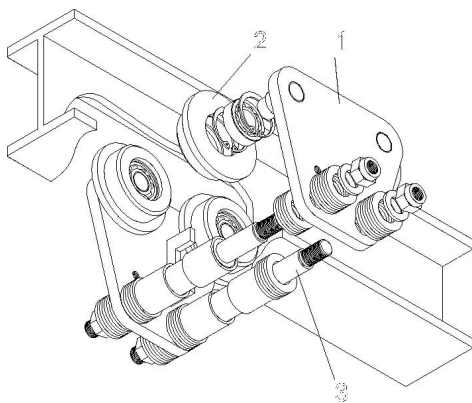


- Nr. 1 **hook suspension complete** consisting of:
traverse, load hook with safety latch
- Nr. 2 **safety latch** consisting of:
safety latch, tension spring, semi-tubular rivet
- Nr. 3 **set of bolts** consisting of:
bolts, washers, split pins

No.:	Piece	Description	Order No.: HA 500/1000 for chain 4x12 and 5,2x15 STAR 02../... STAR 03../...	Order No.: HA 500/1000 for chain 5,2x15 STAR 05../...	Order No.: HA 1000/2000 for chain 7,2x21 STAR 07../...	Order No.: HA 1250/2500 for chain 7,2x21 STAR 070/56	Order No.: HA 1600/3200 for chain 9x27 STAR 09../...	Order No.: HA 3200/6300 for chain 11,3x31 STAR 11../...
1	1	hook suspension complete consisting of:	SM 01 56 2 020 50 000/0 1 traverse 1 load hook RSN 025-V 1 hook nut RSN 025 1 grooved pin 4x8 DIN 1471 1 washer 18 DIN 1440 including No. 2	SM 01 56 2 050 50 000/0 1 traverse 1 load hook RSN 025-V 1 hook nut RSN 025 1 grooved pin 4x8 DIN 1471 1 washer 18 DIN 1440 including No. 2	SM 01 56 2 070 50 000/0 1 traverse 1 load hook RSN 05-V 1 hook nut RSN 05 1 grooved pin 4x8 DIN 1471 1 washer 22 DIN 1440 including No. 2	SM 01 56 2 070 56 000/0 1 traverse 1 load hook RSN 05-V 1 hook nut RSN 05 1 grooved pin 4x8 DIN 1471 1 washer 22 DIN 1440 including No. 2	SM 01 56 2 090 50 000/0 1 traverse 1 load hook RSN 1-V 1 hook nut RSN 1 1 grooved pin 6x16 DIN 1471 1 sleeve including No. 2	SM 01 56 2 110 50 000/0 1 traverse 1 load hook RSN 2,5-P 1 hook nut RSN 2,5 1 split pin 8x60 DIN 1481 including No. 2
2	1	safety latch consisting of:	SM 01 20 9 020 50 003/0 1 safety latch for RSN 025 1 tension spring for RSN 025 1 semi-tubular rivet 3x20 DIN 6791		SM 01 20 9 070 50 003/1 1 safety latch for RSN 05 1 tension spring for RSN 05 1 semi-tubular rivet 4x25 DIN 6791		SM 01 20 9 090 50 003/0 1 safety latch for RSN 1 1 tension spring for RSN 1 1 semi-tubular rivet 4x25 DIN 6791	<i>bis ca. 2002:</i> SM 01 20 2 00R 003/0 1 safety latch for RSN 2,5 1 tension spring for RSN 2,5 1 semi-tubular rivet 6x35 DIN 6791 <i>ab ca. 2002:</i> SM 01 20 9 110 50 003/1 1 safety latch complete 1 semi-tubular rivet 6x35 DIN 6791
3	1	set of bolts consisting of:	SM 01 03 9 020 50 210/0 2 bolts 12x70x58 DIN 1433 4 washers 13 DIN 125 4 split pins 4x28 DIN 94	SM 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94	SM 01 03 9 070 50 210/0 2 bolts 14x75x62 DIN 1433 4 washers 15 DIN 125 4 split pins 4x28 DIN 94	SM 01 03 9 070 56 210/0 2 bolts 16x75x62 DIN 1433 4 washers 17 DIN 125 4 split pins 4x28 DIN 94	SM 01 03 9 090 50 210/0 2 bolts 18x95x79 DIN 1433 4 washers 19 DIN 125 4 split pins 5x40 DIN 94	SM 01 03 9 110 50 210/0 2 bolts 25x115x97 DIN 1433 4 washers 26 DIN 126 4 split pins 6,3x45 DIN 94

Example for order: **SM 01 56 2 020 50 000/0** hook suspension complete for version STAR 020/50

Spare part list BA – Push trolley



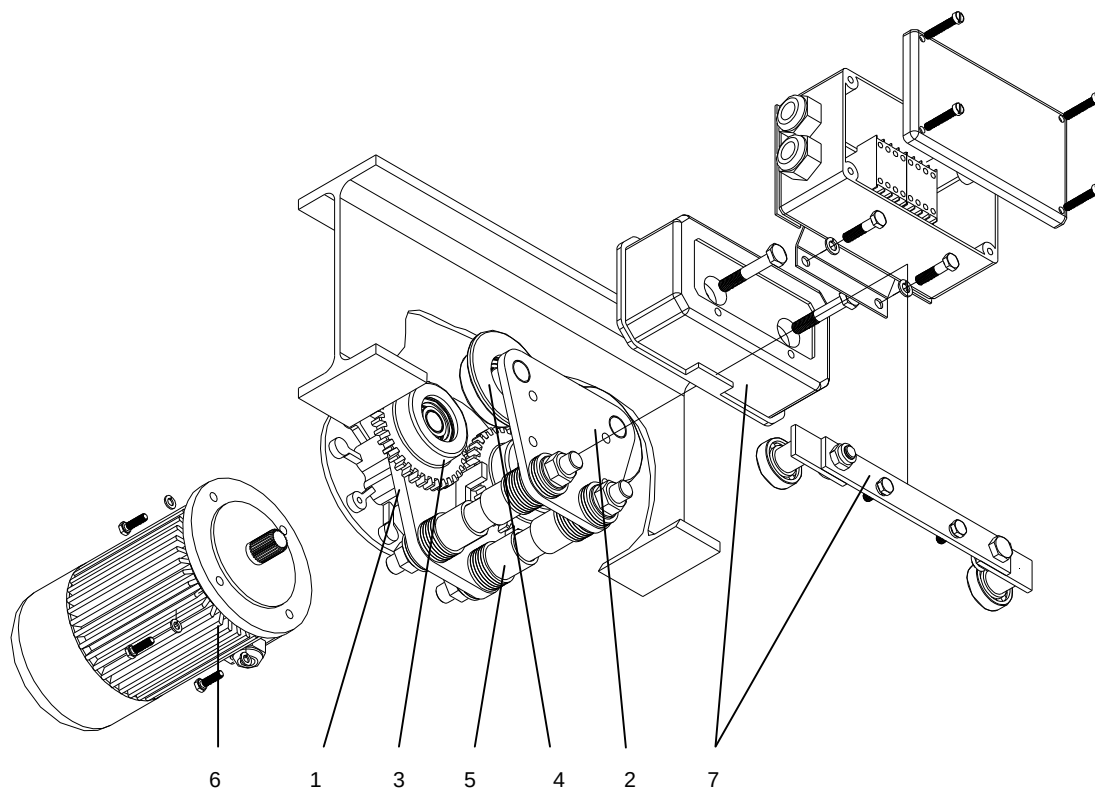
- Nr. 1 **side plate complete** consisting of:
side plate, bolts for wheels, wheel emergency bracket
- Nr. 2 **wheel complete** consisting of:
wheel, grooved ball bearing, retaining rings
- Nr. 3 **set of suspension bolts** consisting of:
suspension bolts, distance tube, distance washers, washers for self locking nuts, self locking nuts

remark: The suspension eye is not part of the spare part delivery of the push trolley!
(On this see spare part list AG – suspension eye for LIFTKET)
(On this see spare part list SG – suspension eye for STAR LIFTKET)

No.:	Piece	Description	Order-No.: load capacity 500 kg setting range: N 50-106 S1 110-200 S2 210-300	Order-No.: load capacity 1000 kg setting range: N 66-135 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 66-135 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 82-155 S1 137-215 S2 220-300	Order-No.: load capacity 3200 kg setting range: N 82-155 S1 137-215 S2 220-300
1	2	side plate complete (for all setting ranges) consisting of:	BA 01 35 9 00A 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BA 01 35 9 00H 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BA 01 35 9 00J 001/1 1 side plate 2 bolts for wheel 1 wWheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BA 01 35 9 00L 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BA 01 35 9 00P 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471
2	4	wheel complete (for all setting ranges) consisting of:		BA 01 35 9 00A 010/1 1 wheel 1 grooved ball bearing 6004 2Z 2 retaining rings 42 DIN 472 1 retaining ring 20 DIN 471		BA 01 35 9 00L 010/1 1 wheel 1 grooved ball bearing 6305 2Z 2 retaining rings 62 DIN 472 1 retaining ring 25 DIN 471	
3	1	set of suspension bolts N (for setting range N) consisting of:	BA 01 35 9 00A 014/1 2 suspension bolts 4 distance tubes 40 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00H 014/1 2 suspension bolts 4 distance tubes 48 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00J 014/1 2 suspension bolts 4 distance tubes 48 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00L 014/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 01 35 9 00P 014/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985
	1	set of suspension bolts S1 (for setting range S1) consisting of:	BA 02 35 9 00A 014.1/1 2 suspension bolts 4 distance tubes 60 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00H 014.1/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00J 014.1/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00L 014.1/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 02 35 9 00P 014.1/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985
	1	set of suspension bolts S2 (for setting range S2) consisting of:	BA 03 35 9 00A 014.2/1 2 suspension bolts 4 distance tubes 60 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00H 014.2/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00J 014.2/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00L 014.2/1 2 suspension bolts 4 distance tubes 44 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 03 35 9 00P 014.2/1 2 suspension bolts 4 distance tubes 44 distance washers 26 DIN 126 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985

Example for order: **BA 01 35 2 00A 014/1** set of suspension bolts N complete for push trolley with a load capacity of 500 kg

Spare part list BC – Electric trolley



Electric trolleys with one travelling speed

- Nr. 1 **motor side plate complete** consisting of:
side plate, 2 bolts for wheels, wheel emergency bracket
- Nr. 2 **side plate complete** consisting of:
side plate, 2 bolts for wheels, wheel emergency bracket
- Nr. 3 **geared wheel complete** consisting of:
wheel, grooved ball bearing, retaining rings
- Nr. 4 **ungeared wheel complete** consisting of:
wheel, grooved ball bearing, retaining rings
- Nr. 5 **set of suspension bolts complete** consisting of:
suspension bolts, distance tubes, distance washers, washers for self locking nuts, self locking nuts
- Nr. 6 **travelling motor** consisting of:
pinion with rotor, stator with bearing plates and fastening set, brake complete, cap for brake including fastening set

Electric trolleys with two travelling speeds

- Nr. 1 **motor side plate complete** consisting of:
side plate with assembled gear box, lubricated gear complete, 2 bolts for wheel, wheel emergency bracket
- Nr. 2 **side plate complete** consisting of:
side plate, 2 bolts for wheel, wheel emergency bracket
- Nr. 3 **geared wheel complete** consisting of:
wheel, grooved ball bearing, retaining rings
- Nr. 4 **ungeared wheel complete** consisting of:
wheel, grooved ball bearing, retaining rings
- Nr. 5 **set of suspension bolts complete** consisting of:
suspension bolts, distance tubes, distance washers, washers for self locking nuts, self locking nuts
- Nr. 6 **travelling motor** consisting of:
motor with brake, gasket, fastening set
- Nr. 7 **assembly group for compensation of weight (only if required)**
assembly group counter wheels for electric trolley
assembly group counter weight for electric trolley

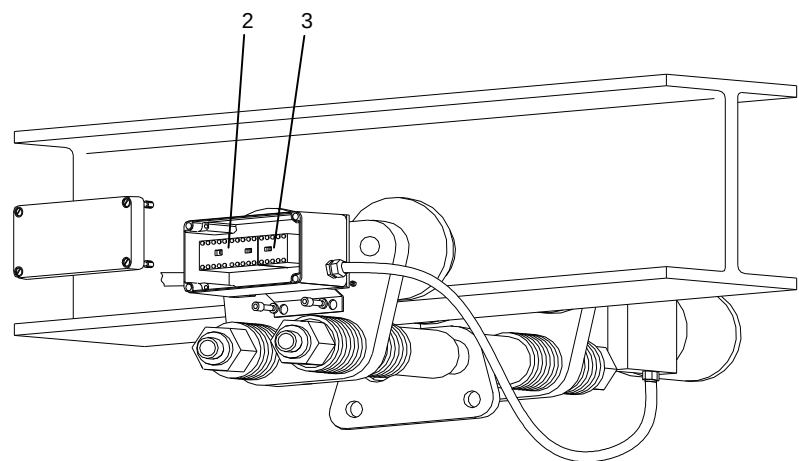
remark: The suspension eye is not part of the spare part delivery of the electric trolley!
(On this see spare part list SG – suspension eye)

No.:	Piece	Description	Order-No.: load capacity 500 kg setting range: N 50-106 S1 110-200 S2 210-300	Order-No.: load capacity 1000 kg setting range: N 66-125 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 66-125 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 82-155 S1 137-215 S2 220-300	Order-No.: load capacity 3200 kg setting range: N 82-155 S1 137-215 S2 220-300	Order-No.: load capacity 5000 / 6300 kg setting range: N 90-155 S1 160-226 S2 240-310
1	1	motor side plate complete, <u>1 travelling speed</u> consisting of:	BC 01 39 9 00A 006/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00H 006/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00J 006/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00L 006/1 1 side plate with transmission gear 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 distance bushes 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BC 01 39 9 00P 006/1 1 side plate with transmission gear 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 distance bushes 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	---
	1	motor side plate complete, <u>2 travelling speeds</u> consisting of:	BC 01 39 9 00A 020/1 side plate with assembled gear box, lubricated gear complete 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00H 020/1 side plate with assembled gear box, lubricated gear complete 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00J 020/1 side plate with assembled gear box, lubricated gear complete 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 39 9 00L 020/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BC 01 39 9 00P 020/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BC 01 39 9 00R 020/0 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6307 2Z 4 retaining rings 80 DIN 472 2 retaining rings 35 DIN 471
2	1	side plate complete consisting of:	BC 01 35 9 00A 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 35 9 00H 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 35 9 00J 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6004 2Z 4 retaining rings 42 DIN 472 2 retaining rings 20 DIN 471	BC 01 35 9 00L 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BC 01 35 9 00P 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6305 2Z 4 retaining rings 62 DIN 472 2 retaining rings 25 DIN 471	BC 01 39 9 00R 001/1 1 side plate 2 bolts for wheel 1 wheel emergency bracket 2 wheels 2 grooved ball bearings 6307 2Z 4 retaining rings 80 DIN 472 2 retaining rings 35 DIN 471
3	2	geared wheel complete (for all setting ranges) consisting of:	BC 01 39 9 00A 011/1 1 wheel 1 grooved ball bearing 6004 2Z 2 retaining rings 42 DIN 472 1 retaining ring 20 DIN 471	BC 01 39 9 00H 011/1 1 wheel 1 grooved ball bearing 6004 2Z 2 retaining rings 42 DIN 472 1 retaining ring 20 DIN 471		BC 01 39 9 00L 011/1 1 wheel 1 grooved ball bearing 6305 2Z 2 retaining rings 62 DIN 472 1 retaining rings 25 DIN 471		BC 01 39 9 00R 011/1 1 wheel 1 grooved ball bearing 6307 2Z 2 retaining rings 80 DIN 472 1 retaining rings 35 DIN 471
4	2	ungeared wheel complete (for all setting ranges) consisting of:		BA 01 35 9 00A 010/1 1 wheel 1 grooved ball bearing 6004 2Z 2 retaining rings 42 DIN 472 1 retaining ring 20 DIN 471		BA 01 35 9 00L 010/1 1 wheel 1 grooved ball bearing 6305 2Z 2 retaining rings 62 DIN 472 1 retaining rings 25 DIN 471		BA 01 39 9 00R 010/1 1 wheel 1 grooved ball bearing 6307 2Z 2 retaining rings 80 DIN 472 1 retaining rings 35 DIN 471
5	1	set of suspension bolts N (for setting range N) consisting of:	BA 01 35 9 00A 014/1 2 suspension bolts 4 distance tubes 40 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00H 014/1 2 suspension bolts 4 distance tubes 48 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00J 014/1 2 suspension bolts 4 distance tubes 48 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 01 35 9 00L 014/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 01 35 9 00P 014/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 01 39 9 00R 014/1 2 suspension bolts 4 distance tubes 32 distance washers 39 DIN 126 4 washers 37 DIN 125 4 shim rings 40x1,0x50 DIN 988 4 self locking nuts M36x1,5 DIN 985
	1	set of suspension bolts S1 (for setting range S1) consisting of:	BA 02 35 9 00A 014.1/1 2 suspension bolts 4 distance tubes 60 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00H 014.1/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00J 014.1/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 02 35 9 00L 014.1/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 02 35 9 00P 014.1/1 2 suspension bolts 4 distance tubes 40 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 02 39 9 00R 014.1/1 2 suspension bolts 4 distance tubes 32 distance washers 39 DIN 126 4 washers 37 DIN 125 4 shim rings 40x1,0x50 DIN 988 4 self locking nuts M36x1,5 DIN 985
	1	set of suspension bolts S2 (for setting range S2) consisting of:	BA 03 35 9 00A 014.2/1 2 suspension bolts 4 distance tubes 60 distance washers 21 DIN 125 4 washers 17 DIN 125 4 shim rings 20x1,0x28 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00H 014.2/0 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00J 014.2/1 2 suspension bolts 4 distance tubes 56 distance washers 23 DIN 125 4 washers 17 DIN 125 4 shim rings 22x1,0x32 DIN 988 4 self locking nuts M16x1,5 DIN 985	BA 03 35 9 00L 014.2/1 2 suspension bolts 4 distance tubes 44 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 03 35 9 00P 014.2/1 2 suspension bolts 4 distance tubes 44 distance washers 26 DIN 125 4 washers 23 DIN 125 4 shim rings 25x1,0x35 DIN 988 4 self locking nuts M22x1,5 DIN 985	BA 03 39 9 00R 014.2/1 2 suspension bolts 4 distance tubes 32 distance washers 39 DIN 126 4 washers 37 DIN 125 4 shim rings 40x1,0x50 DIN 988 4 self locking nuts M36x1,5 DIN 985

No.:	Piece	Description	Order-No.: load capacity 500 kg setting range: N 50-106 S1 110-200 S2 210-300	Order-No.: load capacity 1000 kg setting range: N 66-125 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 66-125 S1 137-215 S2 220-300	Order-No.: load capacity 2000 kg setting range: N 82-155 S1 137-215 S2 220-300	Order-No.: load capacity 3200 kg setting range: N 82-155 S1 137-215 S2 220-300	Order-No.: load capacity 5000 / 6300 kg setting range: N 90-155 S1 160-226 S2 240-310
6	1	travelling motor complete for trolleys with one travelling speed (for all setting ranges) consisting of:	<u>travelling speed 16 m/min</u> BC 01 43 9 00A 000/0 motor complete with brake fan cap fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 00051</i>			<u>travelling speed 8 m/min</u> BC 01 43 9 00A 000/0 motor complete with brake fan cap fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 00051</i>		
			<u>travelling speed 25 m/min</u> BC 01 43 9 01A 000/0 motor complete with brake fan cap fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 00051</i>			<u>travelling speed 12 m/min</u> BC 01 43 9 01A 000/0 motor complete with brake fan cap fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 00051</i>		
	1	travelling motor complete for trolleys with two travelling speeds (for all setting ranges) consisting of:	<u>travelling speed 5+20 m/min</u> <i>up to ca. 09/2004</i> <i>since ca. 09/2004</i> BC 01 39 9 00A 221/1 brake motor with pinion fan impeller and fan cap gasket fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 000E2</i>			<u>travelling speed 5+20 m/min</u> BC 01 43 9 05020 L 000/0 brake motor with pinion fan impeller and fan cap gasket fastening set 1 rectifier for brake of trolley <i>BC 01 20 00040 000E2</i>		
7	1	counter wheels for electric trolleys complete	BC 01 32 2 00A 000/0 1 kit with fastening set					

Example for order: **BC 01 43 9 05020 A 000/0** travelling motor for two travelling speeds complete for electric trolleys with a load capacity of 500 kg

Spare part list BE – Low voltage control for electric trolley



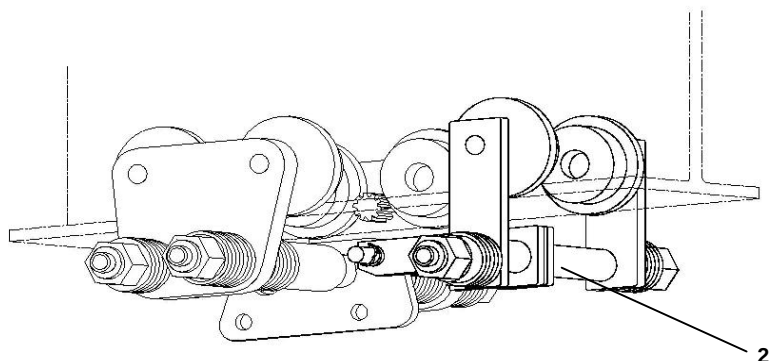
Electric trolleys with one or two travelling speeds

- Nr. 1 **low voltage control complete** consisting of:
control box, base plate, contactors, cables, screwed cable glands, fastening set
- Nr. 2 **contactor for travelling left / right**
- Nr. 3 **contactor for 2nd travelling speed**
(converting contactor for trolleys with two travelling speeds)

No.:	Piece	Description	Order-No.: for trolleys with one travelling speed	Order-No.: for trolleys with two travelling speeds
1	1	low voltage control complete consisting of:	BE 01 41 2 00A 000/0 1 control box 1 base plate 1 contactor 2 screwed cable glands M20x1,5 with counter nut 1 cable lifting gear – low voltage control 1 cable low voltage control – motor 2 hexagon head screws M8x20 DIN 933 2 spring lock washers 8,1 DIN 7980	BE 01 41 2 00G 000/0 1 control box 1 base plate 1 contactor 1 contactor for 2nd travelling speed 2 screwed cable glands M20x1,5 with counter nut 1 cable lifting gear – low voltage control 1 cable low voltage control – motor 2 hexagon head screws M8x20 DIN 933 2 spring lock washers 8,1 DIN 7980
2	1	contactor K5/K6	BE 01 74 3LC2K 91024	
3	1	contactor for 2nd speed K7	--	BE 01 74 3LC1K 98024

Example for order: BE 01 41 2 00A 000/0 low voltage control for electric trolley complete

Spare part list BG – tandem trolley



- Nr. 1 **tandem trolley complete** consisting of:
connection bar for suspension eye complete, side plates, wheels complete, set of suspension bolts
- Nr. 2 **set of suspension bolt complete** consisting of:
suspension bolt, distance tubes, distance washers, washers for self locking nuts, self locking nuts

remark: For spare part delivery of oversized chain boxes with a high chain weight the assembly of the strainer strap with ratchet for the chain box is necessary. The strain relief has to be realized in application with trolley by means of a tandem trolley.

No.:	Piece	Description	Order- No.: for trolleys with load capacity up to max. 2000 kg for STAR 03../..., STAR 05../... and STAR 07../... types of chain boxes:			Order- No.: for trolleys with load capacity up to max. 3200 kg for STAR 070/56, STAR 09../..., types of chain boxes:			Order- No.: for trolleys with load capacity up to 6300 kg for STAR 11../... types of chain boxes:		
			4/50 5/40 5/50 5/60 5/70 5/90	5/50 5/60 7/30 5/70 5/90 7/40 7/50 7/60		9/30 11/20 9/40 11/25 9/50 11/30 9/60 11/40 9/75 11/50			9/30 11/20 9/40 11/25 9/50 11/30 9/60 11/40 9/75 11/50		
			setting range N	setting range S1	setting range S2	setting range N	setting range S1	setting range S2	setting range N	setting range S1	setting range S2
1	1	tandem trolley complete	BG 01 31 2 00D 000/0	BG 02 31 2 01D 000/0	BG 03 31 2 02D 000/0	BG 01 31 2 00L 000/0	BG 02 31 2 01L 000/0	BG 03 31 2 02L 000/0	BG 01 31 2 00R 000/0	BG 02 31 2 01R 000/0	BG 03 31 2 02R 000/0
2	1	set of suspension bolt consisting of:	BG 01 31 9 00D 012/0 1 suspension bolt 2 distance tubes 20 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 02 31 9 00D 012.1/1 1 suspension bolt 2 distance tubes 24 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 03 31 9 00D 012.2/1 1 suspension bolt 2 distance tubes 18 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 01 31 9 00D 012/0 1 suspension bolt 2 distance tubes 20 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 02 31 9 00D 012.1/1 1 suspension bolt 2 distance tubes 24 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 03 31 9 00D 012.2/1 1 suspension bolt 2 distance tubes 18 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 01 31 9 00D 012/0 1 suspension bolt 2 distance tubes 20 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 02 31 9 00D 012.1/1 1 suspension bolt 2 distance tubes 24 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985	BG 03 31 9 00D 012.2/1 1 suspension bolt 2 distance tubes 18 washers 21 DIN 125 2 washers 17 DIN 125 for self locking nuts 2 self locking nuts M16x1,5 DIN 985

Example for order: BG 01 31 2 00D 000/0 tandem trolley complete for trolleys with load capacity up to max. 1000 kg for STAR 030