



Complete Turn Unit

Model 220066 and 220067

User's manual

Original instructions



It is important that you read and understand this manual before the attachment is used.
Questions? – Contact your supplier or the manufacturer.

PRONOMIC AB

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1 Description of the attachment

The turn unit is ergonomically designed for maximum handling safety. Before using the unit, all operators must read and understand this manual.

In order to understand and operate the complete unit, i.e. a turn unit with attachment, the supplementary manual/documentation must also be read.

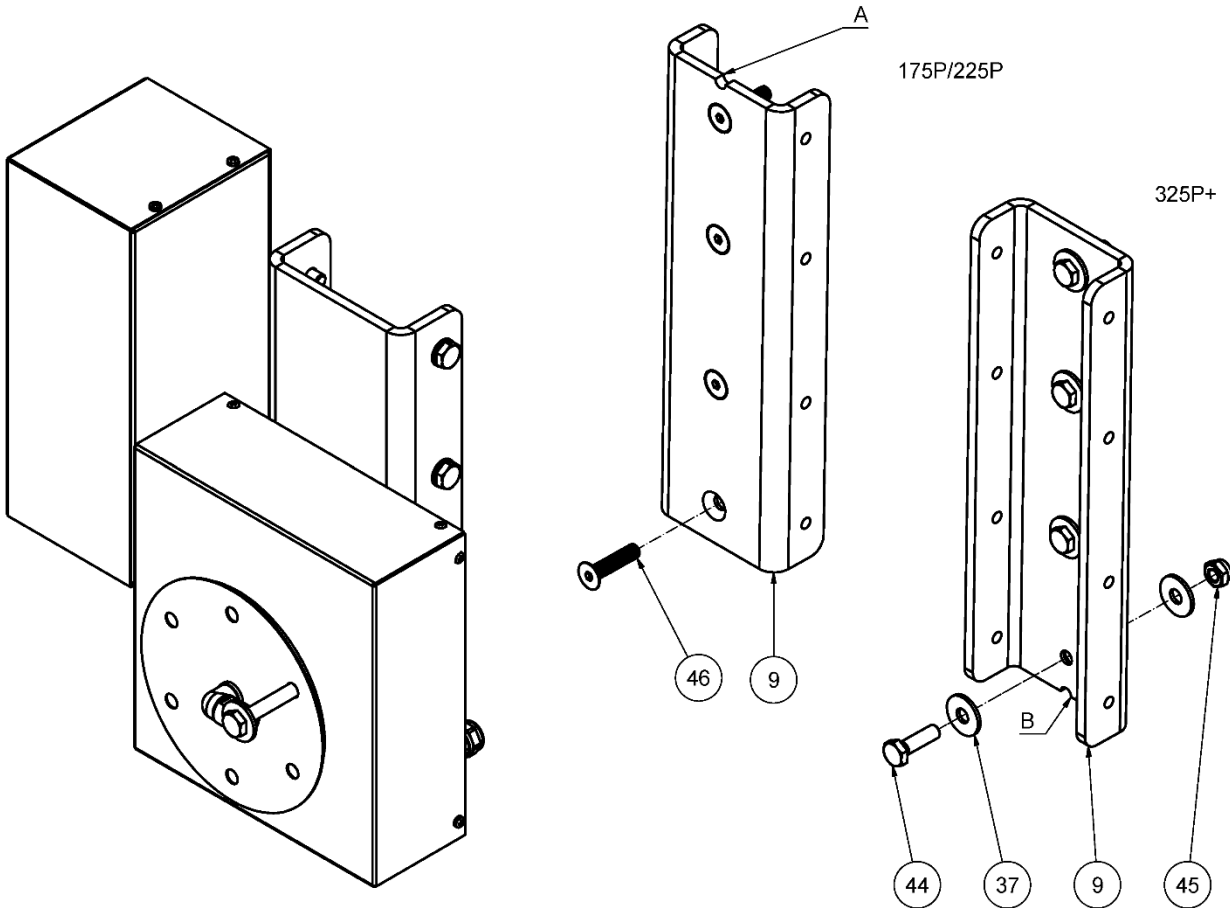
After many years of service, the turn unit should be recycled correctly. If you have any questions, contact Pronomic AB.

1.1 Warranty

The warranty applies for one (1) year from the date of delivery for material- and manufacturing faults. For the warranty to apply, maintenance should be carried out according to the instructions. This warranty does not cover normal maintenance, settings or regular adjustments. Neither are labour costs from such measures covered by the warranty. Damages caused by misuse or improper use of the equipment also void the warranty.

2 Assembly

Protective shoes should be worn when mounting the attachment, as the parts can cause injury if dropped. The tool shall be mounted on the lift trolley in different ways depending on which model of Lift & Drive you have. Always use the fastener supplied.



2.1 Mounting on a 175/225P trolley

1. Turn and mount the plate (9) with the groove facing upwards (arrow A). Use the countersunk screws, M10x45. When assembling model 175P, only use the mounting holes at the bottom and those that are second from top.
2. Now dock the turn unit as in the figure above. This is most simply achieved by resting the turn unit on a table and then rolling the trolley forward. Ensure that the turn unit is stably positioned on the table top when doing this use hexagonal screws M10x20 with washers supplied. Start with the top two bolts, one on each side, and then insert the bottom two. The trolley may need to be operated upwards or downwards in order to fit the screws in. Exercise caution when this is done. Fit all screws.

3. Loosen and slide up the handlebar from the column. Slide the control box down to the slot in the column and tighten above the trolley's electronics unit. Refit the handlebar. The spiral cable between the turn unit and its control box should be on the left-hand side of the trolley's column. Connect the power cable from the control box to the trolley's electronics unit, "Power out" socket.
4. Test the tool and ensure that the turn unit is not making any abnormal sounds. Run the trolley's carriage with turn unit at top and bottom to check that the spiral cable is moving correctly and not getting caught. Finally, the trolley should be tested correctly with the planned accessory before the machine is put into operation.

2.2 Assembly on a 325P+ trolley

5. Turn and mount the plate (9) with the groove facing downwards (arrow B). Use the hexagonal screws M10x35 supplied with accompanying lock nuts and washers. Installation is against the fixing plate which connects the two carriages in the lifting columns.
6. Now dock the turn unit as in the figure above. This is most simply achieved by resting the turn unit on a table and then rolling the trolley forward. Ensure that the turn unit is stably positioned on the tabletop when doing this Use hexagonal screws M10x20 with washers supplied. Start with the top two bolts, one on each side, and then insert the bottom two. The trolley may need to be operated upwards or downwards in order to fit the screws in. Exercise caution when this is done. Fit all screws.
7. Loosen and slide up the handlebar from the column. Slide the control box down to the slot in the column and tighten above the trolley's electronics unit. Refit the handlebar. The spiral cable between the turn unit and its control box should be on the left-hand side of the trolley's column. Connect the power cable from the control box to the trolley's electronics unit, "Power out" socket.
8. Test the tool and ensure that the turn unit is not making any abnormal sounds. Run the trolley's carriage with turn unit at top and bottom to check that the spiral cable is moving correctly and not getting caught. Finally, the trolley should be tested correctly with the planned accessory before the machine is put into operation.

2.3 Dismantling

For dismantling, see section 2.1 Assembly. Perform points 1-3 in reverse order.

3 Use

3.1 Instructions

The turn unit is controlled by the joystick on the control box. The turn plate can be rotated 360 degrees at variable speed. There can be instructions from other manufacturers of tools for the turn unit. The turn plate starts moving as soon as the joystick is angled from the central position.

4 Safety

The operator should use the personal protective equipment (for example, protective shoes) which handling the specific material requires.

The maximum load prescribed must not be exceeded.

Be aware of the crushing risk that exists between load bearer and frame or floor when raising and lowering the load bearer. Avoid placing hands or others part of the body beneath the load.

4.1 Storage and transport

When storing and transporting, the power cable to the control box must be unplugged.

If the accessory is mounted on a lift trolley, this should be fastened in order to avoid the risk of overturning during transportation. The tool should also lowered to the lowest position possible.

If the accessory is transported separately, it should be properly packed in order to protect turn unit and control box.

4.2 Moving

The accessory should always be lowered to the lowest possible level that the circumstances at ground level allow before any transport of goods takes place, in order to ensure safer and more stable handling. Observe extra care when crossing thresholds, cables and other objects on the floor.

When moving heavy loads, transportation is facilitated by using the directional lock on the lift trolley, Lift & Drive.

4.3 Loading and unloading

It is the operator's responsibility to ensure that the attachment is used correctly.

Do not place any parts of the body beneath the load when lowering.

5 Maintenance

5.1 Every day

Wipe off the attachment if it gets dirty. Do not use water or high-pressure washing.

5.2 Every month, or as needed

Check that no abnormal noises can be heard from the turn unit.

1. Connectors and cables: Check all connectors and cables after damage and wear. Change components if necessary.
2. Screws and nuts: Check that all screws and nuts are correctly tightened.
3. Labels: Check that all labels are intact and fully legible.

5.3 Signs and decals

Check that the following signs and decals are attached and fully legible

Sign/decals	Description	Position
Unit designation	Decal with serial number	One decal on the rear of the turn unit
Instruction decal	Decal which instructs the operator	Front of the control box

5.4 Troubleshooting

The turn unit is designed for safe and effective operation, however, the maintenance instructions must be followed. If any problems arise, start by consulting the table below:

Symptom		Action	
1	The turning plate does not rotate	A	Check the battery levels, which should be 24V
		B	Check the connections to the turn unit as well as the spiral cable.
		C	Check the connections between control box and the trolley's electronics unit.
2	The turning plate does not rotate,	A	Check that nothing has become caught in the turning plate or it is
3	The turning plate rotates slowly	A	See above 1A
4	The turn unit makes abnormal sounds when rotating.	A	See 2A.

For other faults, first and foremost, refer to manual for your Lift & Drive trolley.

If the problem persists? Contact your dealer or PRONOMIC AB.

6 Technical data

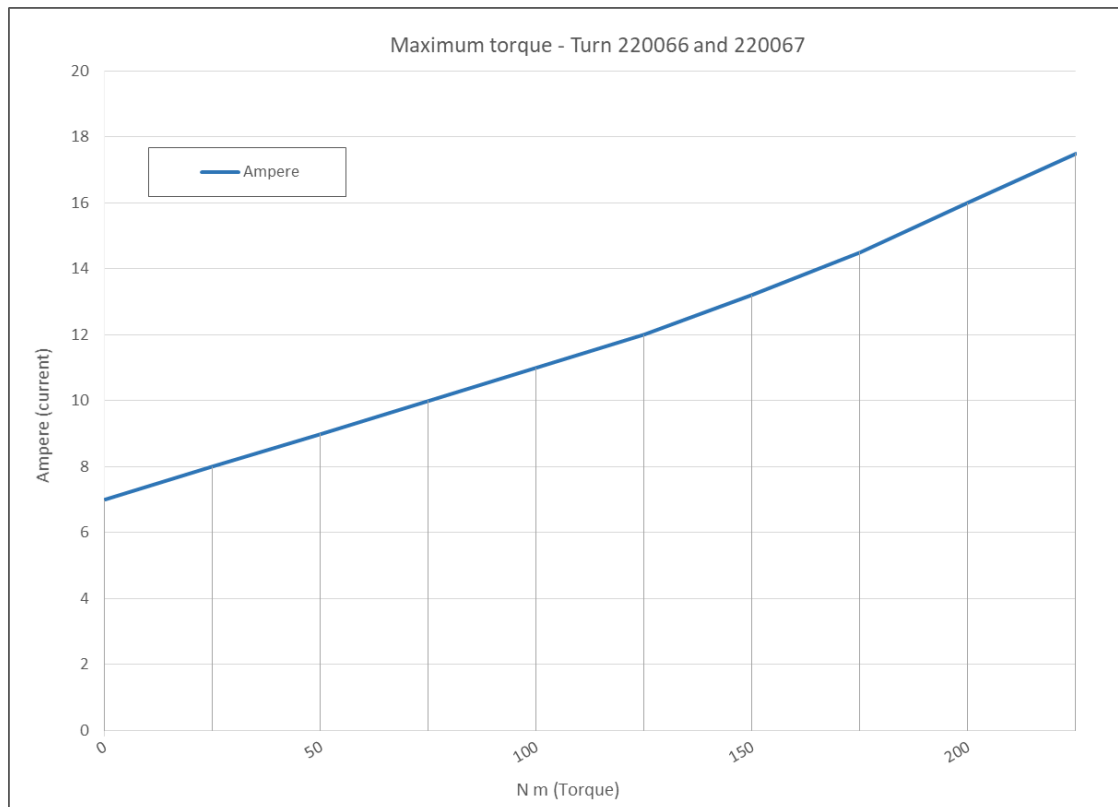
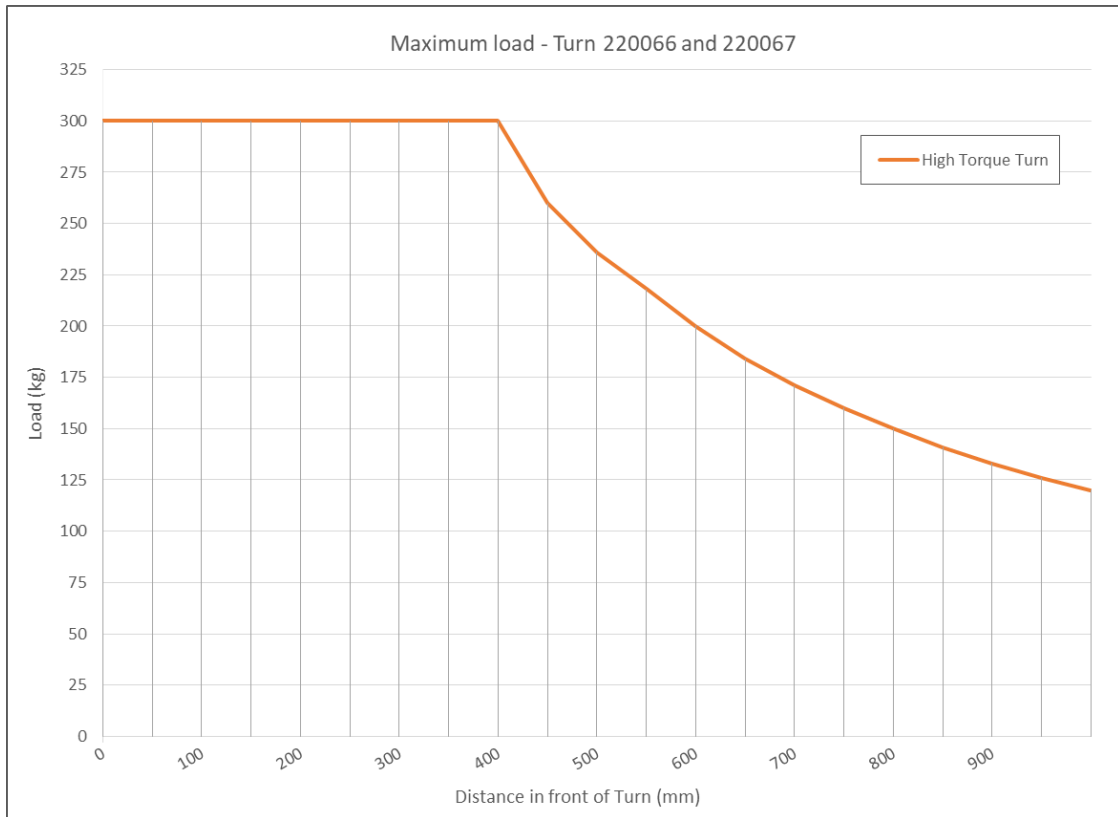
Type:	Complete turn unit with control 220066 & 220067 Turn unit without control 220068 & 220069
Rotation angle:	~
Turning speed:	1.6 rpm
Nominal battery voltage	24V
Maximum torque:	200Nm at 16A

Note. There can be limitations in the trolley's design configuration.

Maximum load:	300kg for Lift & Drive 325P 200Kg for Lift & Drive 225P 150kg for Lift & Drive 175P
Dead load:	25 kg
Slip ring (only 220067/69)	4x12A nom.
Intermittence (motor):	S2 60
Vibrations:	The vibration value does not exceed 2.5 m/s^2
Sound level:	The sound level does not exceed 70 dB(A)

7 Maximum load for the turn unit

The diagram below shows the maximum load for the turn unit. Remember that the maximum load for a complete machine is also determined by the lift trolley model and other parts of the design.



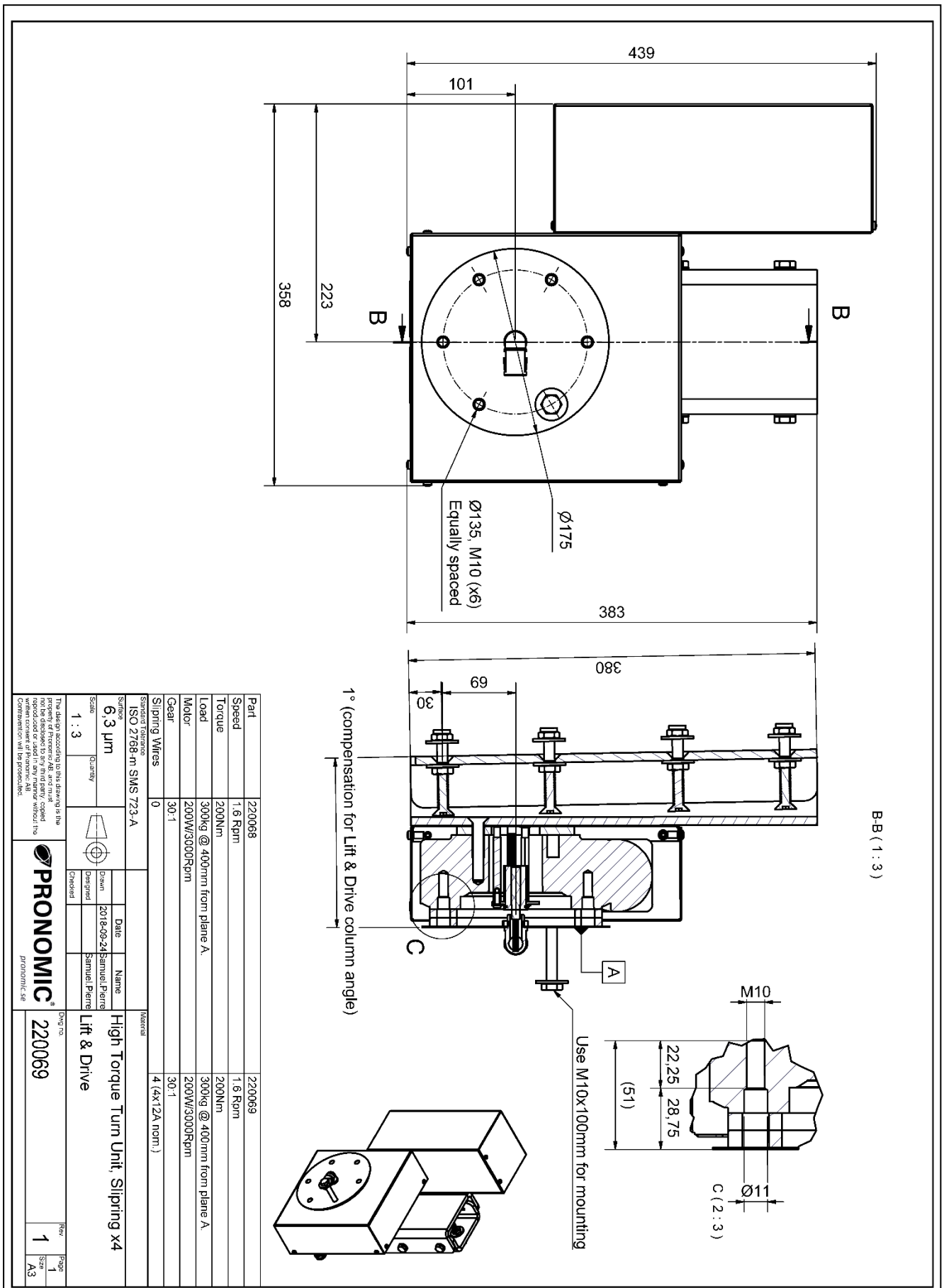
8 Approved attachments for Lift & Drive trolleys

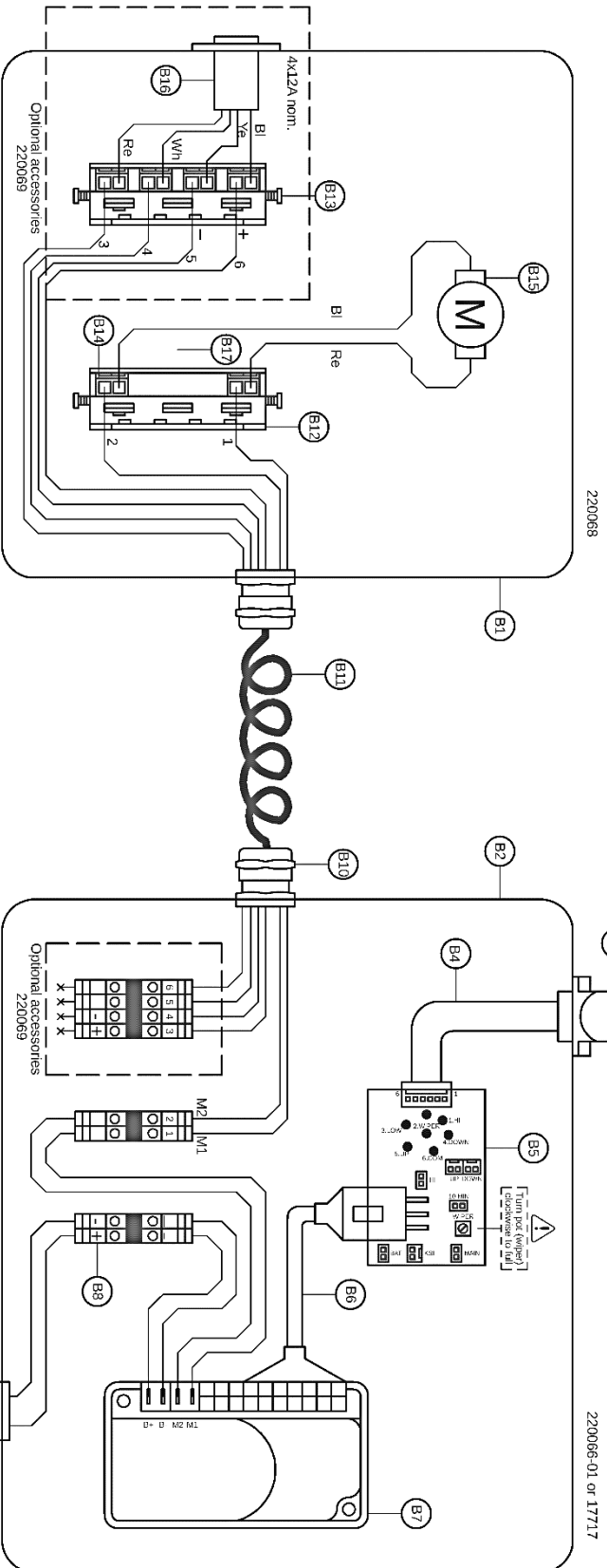
Complete turn units 220066 and 220067

	70E	90E	90IE	90IE	90P	130P	175P	225P	325P+
15012	X	X	X	X	X	X			
15013	X	X	X	X	X	X	X	X	
15014	X	X	X	X	X	X	X	X	
15015	X	X	X	X	X	X	X	X	
15016	X	X	X	X	X	X	X	X	
15017	X	X	X	X	X	X	X	X	
15018			X	X					
15019	X	X	X	X	X	X			
19472					X	X			
19473					X	X			
19474					X	X	X	X	
19475							X	X	
19476							X	X	
19477							X	X	
19478							X	X	
19480							X	X	
19510							X	X	
19980							X	X	
20022			X	X	X	X			
20205A-10			X	X	X	X			
20080A	X	X	X	X	X	X			
21851-21854	X	X	X	X	X	X			
220066-220069							X	X	X

The table is displayed in shortened form. See the manual for the lift trolley for complete

9 Dimensions and electrical diagram





Balloon	Quantity	Pronomic artnr	EifaCon artnr	Description
1	1	220066-02		Aluminium box (small)
2	1	17717		Aluminium box (large)
3	1	20001-29		JC120 joystick
4	1	20001-30		Cable set for joystick
5	1	20001-65_1		PCB
6	1	220008		Cable set for Curtis 1212
7	1	220007		Curtis 1212
8	8	148-28-307		Weldmuller pilot
9	1	17270-10		Connector CKM-03
10	2	16016	155-10-821	Cable gland PC9
11	1	6215303		Spiral cable 7-pol
12	2	220029	301-17-432	Wago 222 505 strain relief
13	2	220028	300-93-166	Wago 221-500 mounting holder
14	6	21300-03	300-78-183	Wago 221-412 2-pol
15	1	10039		Motor
16	1	68100-07		Slipring
17	1	008101059902		DIN-rail
18	1	19293-01		Power cable

CURTIS PARAMETERS	Turn
Drive Menu	
Accel Max Speed	0.4
Accel Min Speed	0.4
Decel High Speed	0.2
Decel Low Speed	0.2
Rev Accel Max Speed	0.4
Rev Accel Min Speed	0.2
Rev Decel High Speed	0.2
Rev Decel Low Speed	0.2
Current Menu	
Main Current Limit	24A
Boost Current	28A
Boost Time	2s
Speed	
Max Speed	100%
Min Speed	1%
Rev Max Speed	100%
Rev Min Speed	1%
Compensation menu	
IR Comp	40%
Miscellaneous Menu	
Sleep	0

For more parameters
Parameters for Curtis_1212_220066-01_1.xls

PRONOMIC

Descr: High torq turn unit

File: 220067_2

Date: 2019-02-28 09:57

Rev: 2

Sheet:1/1

Other: CURTIS parameters in Parameters for Curtis_1212_220066-01_1

Declaration of incorporation of partly completed machinery

ORIGINAL

(in accordance with 2006/42/EC, Annex II 1B)

Manufacturer	PRONOMIC AB Box 5504 SE-192 05 Sollentuna
Model designation	Turn unit <input type="checkbox"/> 220066 <input type="checkbox"/> 220067 <input type="checkbox"/> 220068 <input type="checkbox"/> 220069
Serial number	

Authorised person	Samuel Pierre, Pronomic AB, BOX 5504, 192 05 Sollentuna
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Directives applied:

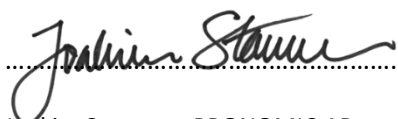
2006/42/EC	Machinery directive
2014/30/EC	EMC directive

Standards applied:

SS-EN ISO 12100:2010	Safety of machinery – General principles for design. Risk assessment and risk reduction.
SS-EN 349+A1:2008	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body

We hereby declare that the above attachment in this manual, mounted on compatible lift trolley (Lift & Drive), is in conformity with stated directives and standards.

Sollentuna, 2018-11-07


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Joakim Stannow, PRONOMIC AB

Distributed by: