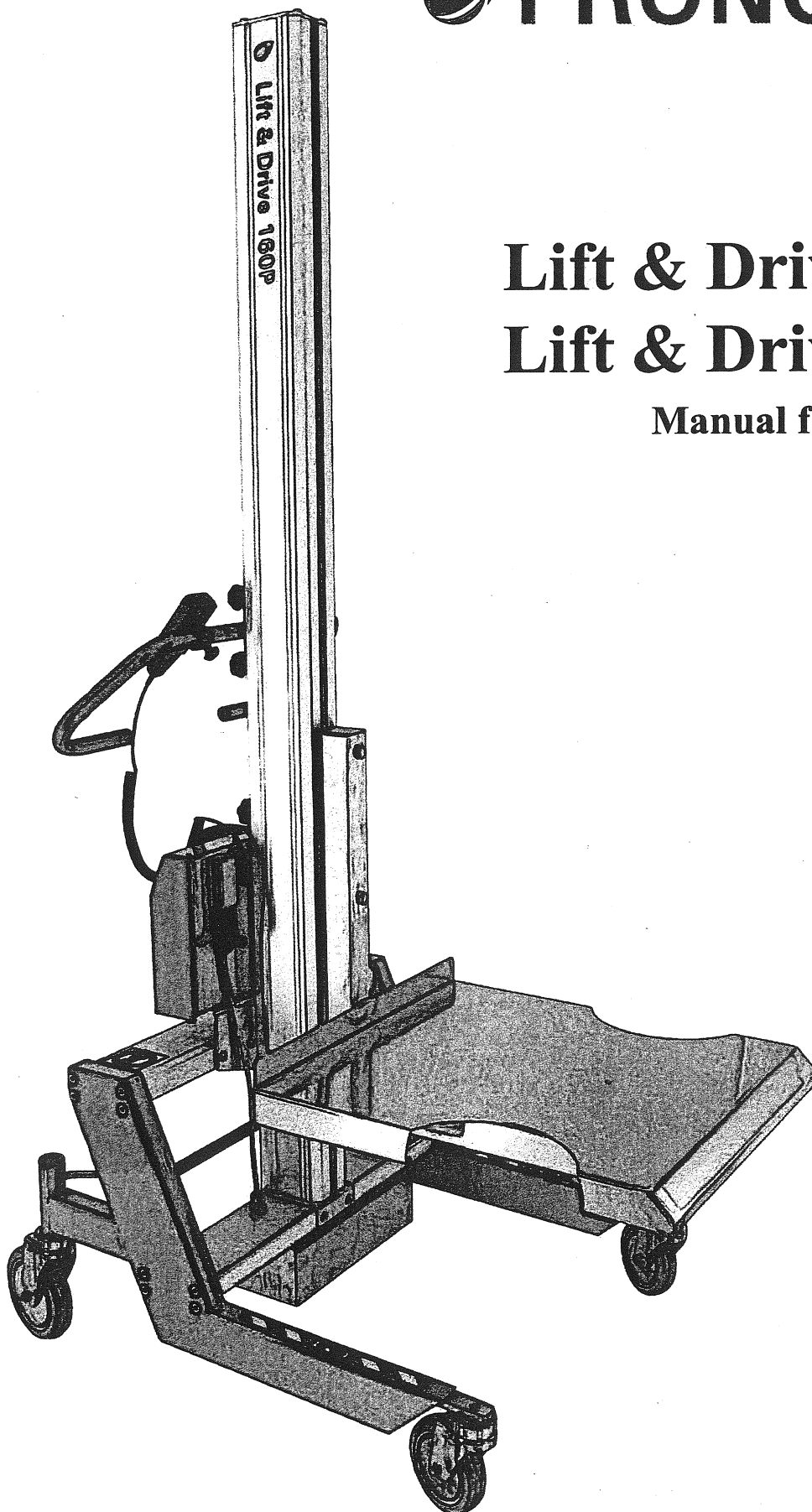


 **PRONOMIC**

Lift & Drive 160P

Lift & Drive 225P

Manual for lift-trolley



Important! Please read through this manual before using the
Lift & Drive 160P / Lift & Drive 225P.

Should you need further information – please contact your local distributor.

Pronomic AB

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1	Warranty	3
2	Instruction	4
2.1	Assembly	4
2.1.1	Assembling a partly assembled lifter	4
2.1.2	Assembling a lifter from scratch	6
2.1.3	Disassembling	6
2.1.4	Transport and storage	7
2.2	Safety measures when lifting and moving	7
2.3	Charging	9
2.4	Power Pack	10
2.5	Exchanging the nut track within the sledge	10
2.6	Maintenance	11
2.6.1	Every day	11
2.6.2	Every year	11
2.7	Trouble shooting	12
2.7.1	Changing fuses	12
3	Overview of product range	13
4	Dimensional sketches	14
4.1	Lift & Drive 160P	14
4.2	Lift & Drive 225P	15
5	Electrical schematics	16
6	Spare parts	17
7	Technical specifications	24
8	CE approved standard accessories	25
9	Test Protocol	26
10	Declaration of Conformity	27

1 Warranty

The warranty is valid for one (1) year from delivery for material and manufacturing defects. In order for the warranty to be valid, the lifter must have been maintained according to instructions. This warranty does not cover normal maintenance, settings or regular adjustments, nor does it extend to damage due to misuse or incorrect application of the equipment., which automatically voids the warranty.

2 Instruction

The lifter is normally delivered completely or partly knocked down in a box so as to minimise freight charges.

Lift & Drive lifters are manufactured out of reusable materials which are therefore environment-friendly. We do not use nickel/cadmium, preferring less polluting lead-acid batteries, which are gas-tight and maintenance-free. Your choice of lifter therefore takes account of the environment as well.

When the machine is due for scrapping, the chassis is to be handed in completely with batteries to an environmental collection point so as to guarantee therecycling and safe handling of all parts of the trolley.

2.1 Assembly

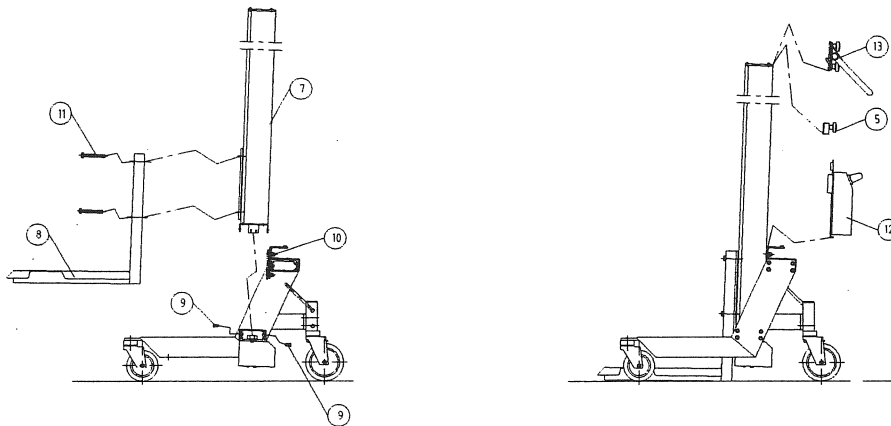
Protective footwear should be worn while assembling the lifter, since the components could cause injury if dropped.

2.1.1 Assembling a partly assembled lifter

1. Position the wheeled chassis on the floor. Press the brake rod down into its lowermost position, at which the wheel brake will lock.
2. Remove the three screws (9) which are carried on the lower cross-member and undo the four nuts (10) which will be found on either side of the column mounting of the upper cross-member.
3. Check that the red ring gear on the motor coupling has not fallen off.
4. Push the slide of the column down to its bottommost position. Now fit the column over the screw rails on the upper cross-member and push the column down so that the lower attachment plate straddles the lower cross-member. If the column does not slide down into the end position, i.e. if it does not position itself directly with its lower attachment plate on the lower cross-member, pull the slide slowly upwards until the column slips into position.

Carry out an extra check to ensure that the lower attachment plate is resting on the lower cross-member.

5. Screw in the three screws (9) which centre the column, then tighten the four nuts (10).
6. Fit the upper lock(s) (5) of the electronic unit into the grooves on the rear of the column; the knob must be upwards (somewhat off-centre). Mind the weight of the electronic unit during assembly. Lift the electronic unit (12) by raising the upper lock (5), and fit the unit (12) so that its lower catch docks in the column attachment. Lower the upper catch (5) over the backplate and turn the knob. Plug the motor cable of the cross-member into the socket of the electronic unit, which is designed to accept it.



7. Fit the handle into the grooves on the rear of the column and secure it with the knob at a convenient height. See that the bracket for the control box is fixed on the handle at a convenient point. Put the control box into the bracket and insert the DIN plug into the socket on the electronic unit.
8. Mount the load deck in the column slide using the accompanying bolt, washer and nut.

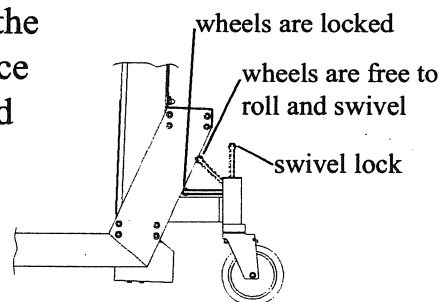
The lifter is now ready for use

9. Activate the lifter with the red button on the electronic unit.

2.1.2 Assembling a lifter from scratch

1. Place the lower cross-member standing up. Take one of the legs and screw it in place (do not tighten) on to the cross-member using 4 socket head cap screws M8x60. The motor cable of the cross-member is to be on the left side, seen from behind.
2. Screw the upper cross-member in place (do not tighten) on to the same legs with another four M8x60 socket head cap screws. The mounting plate with the screw nut track should be placed facing forward (the front casters)

3. Turn the cross-members and the leg and insert the brake rod into the hex hole in the mounting piece of the rear wheels. The brake rod is to be angled facing straight forwards, which is the locking position of the wheels. Fit the other leg on, making sure the brake rod is inserted into the hex hole in the mounting piece of the rear wheels. Screw the leg on according to description above.



4. Place the frame on its wheels and stand the construction on a level floor. Put pressure on the legs so that each wheel has contact with the floor. Now, tighten all the bolts that hold the legs in place.
5. Check that the wheels work. When the brake rod is angled facing straight forward the brake is on. Check that both the wheels lock. When the brake rod position sticks out forward at an angle, the brake is not in action. Check that the wheels move and turn freely. When the brake rod is angled straight upwards it is in locking position. Check that the wheels lock when you try to push the trolley its driving direction.
6. Follow the instructions given above under the heading 2.1.1 Erecting a partly assembled lifter

2.1.3 Disassembling

In order to disassembly the trolley you proceed as described under the heading 2.1 Assembly. Perform the disassembly in reverse order to the description.

2.1.4 Transport and storage

When transporting and storing the trolley, both Power Pack and motor cable are to be disconnected.

2.2 Safety measures when lifting and moving

Where to use

The trolley is only intended for in-door use and on flat plain ground.

Safety

The maximum load must not be exceeded
(max weight, see heading 7 Technical specifications)

The trolley may not be used for lifting people.

The operator is asked to be aware of the risk of injury that exists when raising or lowering the loading platform. Avoid putting your arm through the handlebar when trying to get hold of or pick up something from the loading platform. The operator must always be aware of not holding his hands or other parts of his body under a hanging load.

Brakes, Directional lock

Always engage the wheel lock when loading or unloading. When handling heavy loads transporting these can be facilitated by engaging the central lock lever in its highest possible position. By doing this both wheels will no longer swivel and the trolley can now be moved either straight forward or straight backwards.

Loading platform

Always lower the platform to the lowest possible level that the circumstances at ground level allow for, before any transport of goods is attempted. The load shall always be centred and stand as close to the column as possible in order to provide maximum stability. Be especially careful when passing over thresholds, door steps, cables and other obstacles on the floor. When working always make sure you keep the load platform on the same level as the object you intend to put down. If you are loading or unloading a number of items, always raise/lower the loading platform to the right height. In order to work under the best ergonomic conditions the load shall be pushed or pulled off and onto the loading platform. Please take note of that the loading platform does not have any edges. This means the load can fall off if the trolley brakes too sharply.

Handlebar

By loosening the black adjusting knobs you can easily adjust the handlebar to any desired height. The handlebar is fixed at the desired height by turning the black adjusting knobs clockwise and fastening them. It is important that you always adjust the handlebar to a comfortable height to obtain the best working conditions. Keep the hands inside the handlebar during transport. This protects hands if the trolley should touch a corner, a wall or any obstacle.

Remote control

Remember to place the remote control so that the load platform can be easily manoeuvred. The holder is fixed on the handlebar and can easily be moved to another position. By turning the holder's adjusting knob counter clockwise you can easily loosen it. The holder can then be fixed at a position of your choice by turning the black adjusting knob in clockwise direction.

2.3 Charging

Charging the trolley's batteries can be done at a suitable place where there is a wall socket. The trolley shall be charged every night, over weekends, holidays and longer periods when not in use, otherwise the batteries will be spoiled.

When the charger is connected only to Lift & Drive, no lamp will be on. When it is connected to the trolley and a wall socket a yellow light will come on, indicating that Lift & Drive is charging. When the trolley is fully charged the yellow and the green lamp will come on. The trolley can be left on charge indefinitely, without any risk of overcharging until you want to use the trolley again.

Yellow lamp = voltage is connected, charging in progress.
Yellow and green lamp = the batteries are fully charged.

Only use the charger supplied with trolley or a charger that Pronomic has approved of.

Attention! Charger is not to be exposed to water.

To save electricity, when the lifter is not used for a period of time, you can switch it off by pressing the red ON/OFF-button on the Power Pack. The charging of the batteries continues although the trolley is switched off. After charging process is completed the Power Pack must be activated for two minutes before the volt-meter display indicates that batteries are fully charged.

2.4 Power Pack

The lifter will automatically enter sleep mode if left unused for more than 60 minutes. Use the red switch on the Power Pack to reactivate the lifter. Even when the lifter enters sleep mode, it still consumes energy. To completely shut down the lifter use the red switch. The charging of the batteries also goes on while the trolley is switched off. The trolley has entered sleep mode when the entire voltmeter display flashes. Use the red switch on the Power Pack to reactivate the lifter. When only part of the voltmeter display flashes, the batteries need be charged.

The Power Pack must stay activated for two minutes after that charging is completed. The voltmeter display should then indicate that the batteries are fully charged.

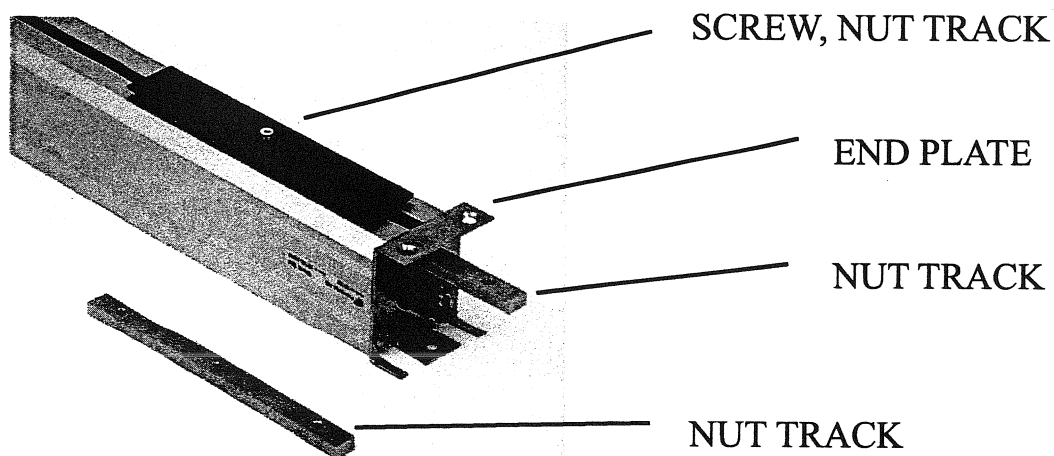
2.5 Exchanging the nut track within the sledge

At the inside of the sledge the nut track that the platform or other accessories is attached to, is to be found. The nut track exists in two models, M10 thread or UNC 3/8 thread.

The nut track can easily be exchanged if you remove the column, see under 2.1, Assembly. Move the sledge to the lowest position. Then remove the screw at the centre of the sledge. When this is done you can easily slide the nut track out by pushing it from the top of the sledge and out through the lower end plate. Insert the new nut track and re-screw the centre screw.

The nut track M10 is marked with a "M" on the edge.

The nut track UNC 3/8 is marked with an "U" on the edge.



2.6 Maintenance

In order to make your Lift & Drive stay in good working condition it is important that you regularly perform the following maintenance work described below.

2.6.1 Every day

Batteries

The trolley's batteries are to be charged every night. This applies also when the trolley is not going to be used for a longer period of time. The batteries can not be "over charged".

Cleaning

Wipe the lifter down with a wet cloth using a non-aggressive cleaner suitable for powder coat surfaces, aluminium and stainless steel. Follow the instructions given on the detergent. Wipe the lifter dry. Do not use any high pressure cleaning equipment. It could damage both the electronics as well as the frame/chassis.

2.6.2 Every year

Electrical connections

Check all the connections and take care of any damage and signs of wear. If necessary replace with new parts.

Nuts and bolts

Check that all nuts and bolts are tight.

Column

Take the column out of the chassis. Lubricate the screw with ball bearing grease.

Wheels

Check that all wheels run smoothly and lubricate the ball bearings. Check that the wheel rubber is not worn or damaged.

Central braking system

Check that wheel brake (lowest position), neutral position (central position) and directional lock (highest position)

Locking bars for handlebar and holder for the remote control

Check that the locking bars can be loosened and tightened properly.

Identification plates and warning signs

Make sure all signs are in place and readable. They are for your safety.

2.7 Trouble shooting

Lift & Drive 160P/225P lifter is designed for effective and reliable performance providing the maintenance instructions are followed. Should problems occur, follow the checklist for trouble shooting below.

If problems persist, please contact repairman or Pronomic AB.

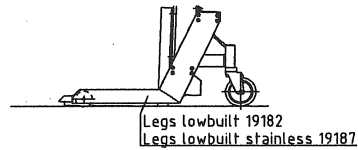
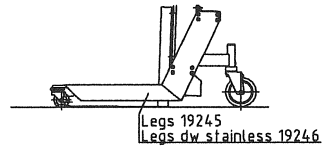
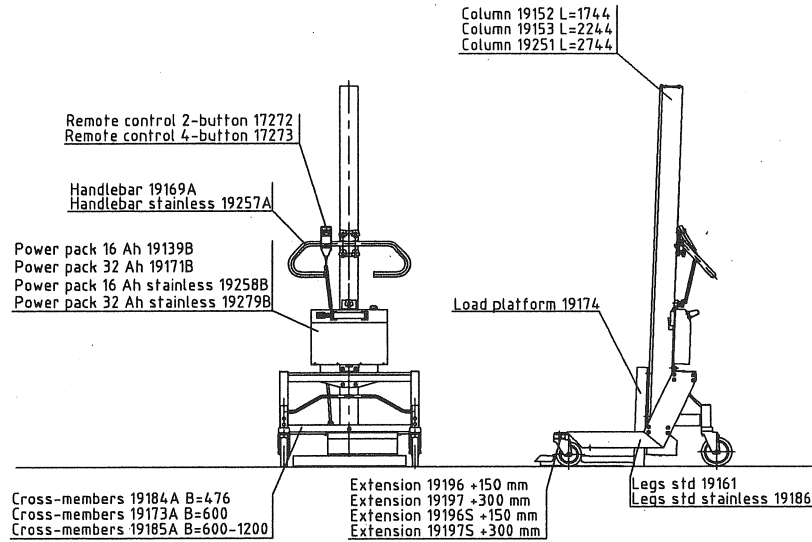
Symptom		To do	
1	Motor does not turn at all	A	If left unused for 60 minutes the lifter automatically enters sleep mode. Use the red ON/OFF switch on top of the Power Pack to reactivate the lifter.
		B	Check the voltmeter on the Power Pack. If the display is flashing the batteries must be charged. Please also read section #A. If the voltmeter is not lit, read section #D
		C	Check the battery voltage which should be 24 volt.
		D	Inside the Power Pack on the backside of the column, where the batteries are located, there are 2pcs 30 -ampere fuses and 1pcs 1-ampere glass fuse. Check if these are intact. See section 2.7.1 Changing fuses.
		E	Make sure connections with motor are intact.
		F	Make sure connections to and from the battery charger have been ok during charging process
		G	Check that the lamps on the battery charger are lit, see section 2.3 Charging
2	The platform does not move either up or down, but the motor works.	A	Check above under heading Symptom, section 1.
		B	Make sure maximum load is not exceeded.
		C	Make sure the column is fastened tightly and in its lowest position, see section 2.1.1 Assembly
3	The load platform moves slowly	A	See above under heading Symptom, section 1, heading To do, sections 1B, 1C, 1E and 1F.
4	The lifting device sounds strange while lifting/lowering	A	Check through the listed tasks in section 2.6 Maintenance.

2.7.1 Changing fuses

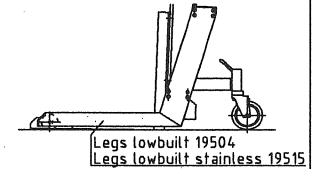
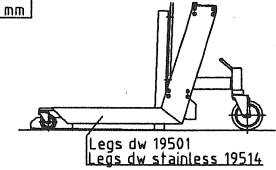
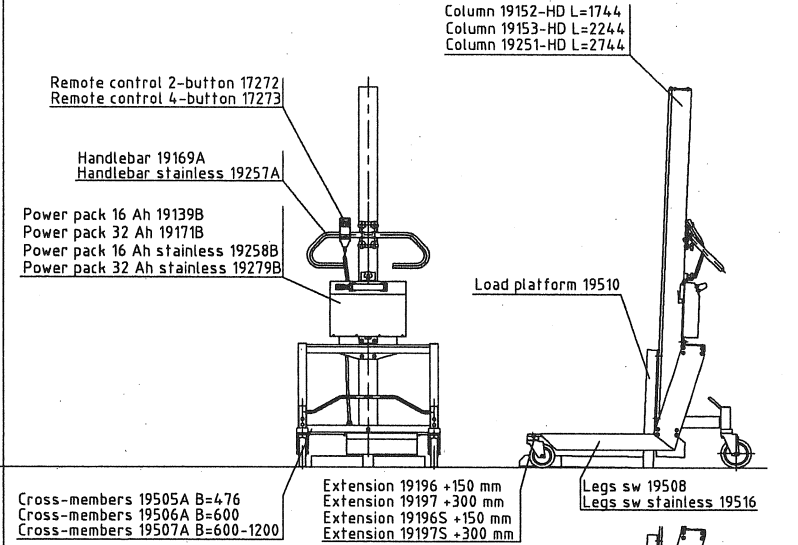
Take care when disassembling the Power Pack. If the Power Pack is tilted forwards when the lid has been removed, the batteries can slide out of the Power Pack and get damaged or cause injury by falling on your feet.

3 Overview of product range

160P



225P



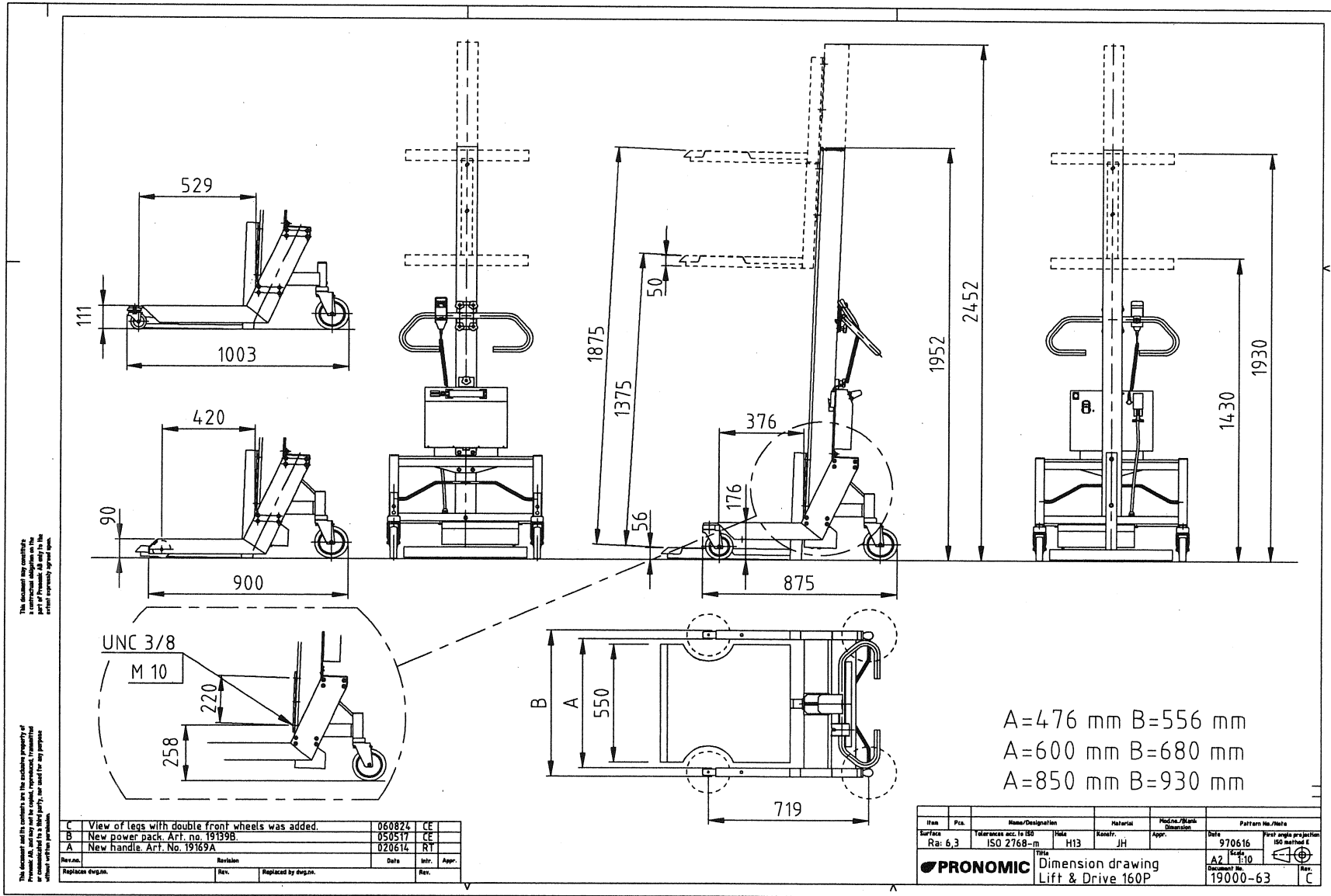
Lift & Drive 160P, 225P - 13

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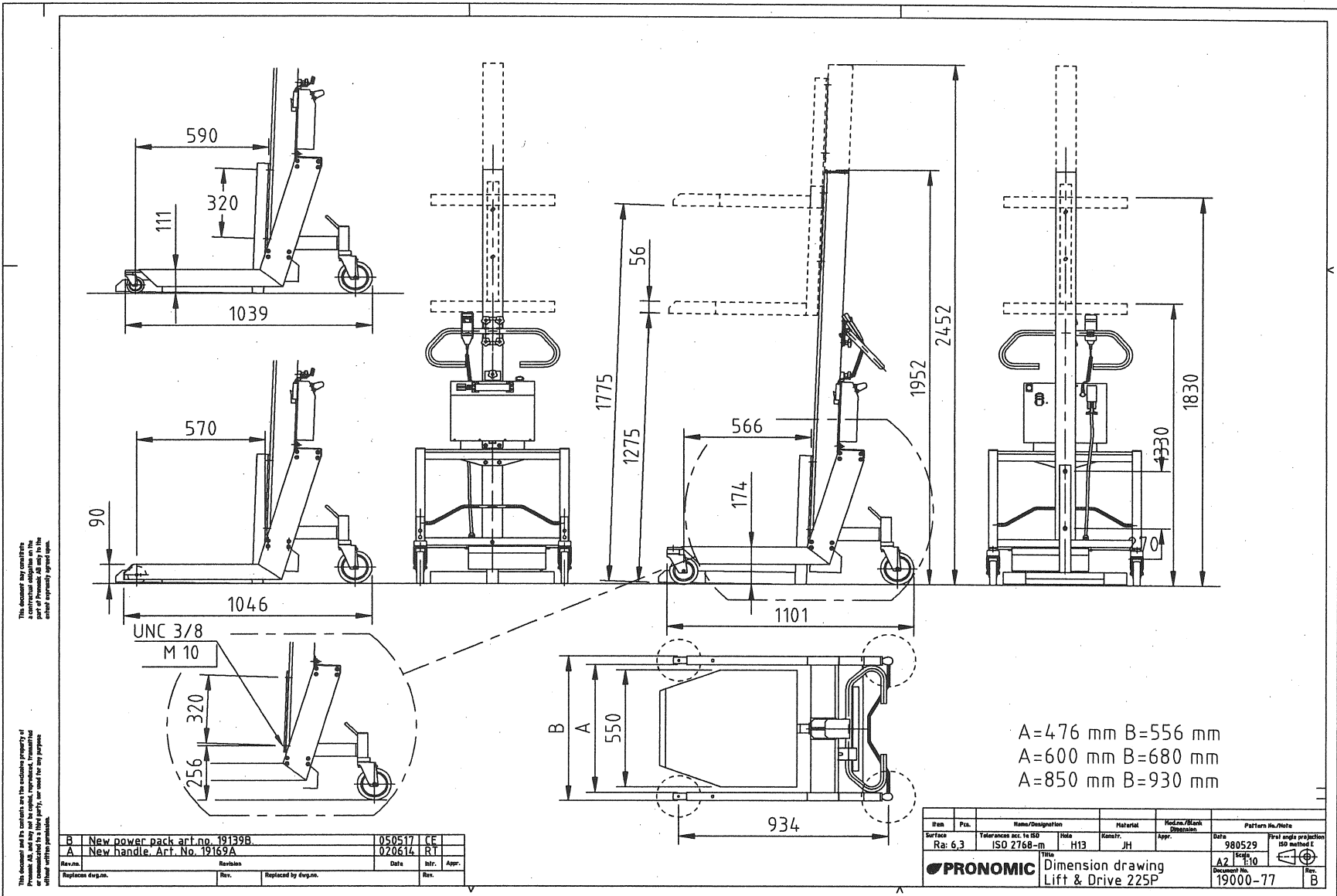
Rev.	Description	Date	By	Appr.

Rev.	Part	Material	Quantity	Notes
Rev 5.3	ISO 2768-m	M13	CE	060823
PRONOMIC Parts				AI 10
Lift & Drive 160P/225P				160/225parts

4 Dimensional sketches 4.1 Lift & Drive 160P



4.2 Lift & Drive 225P



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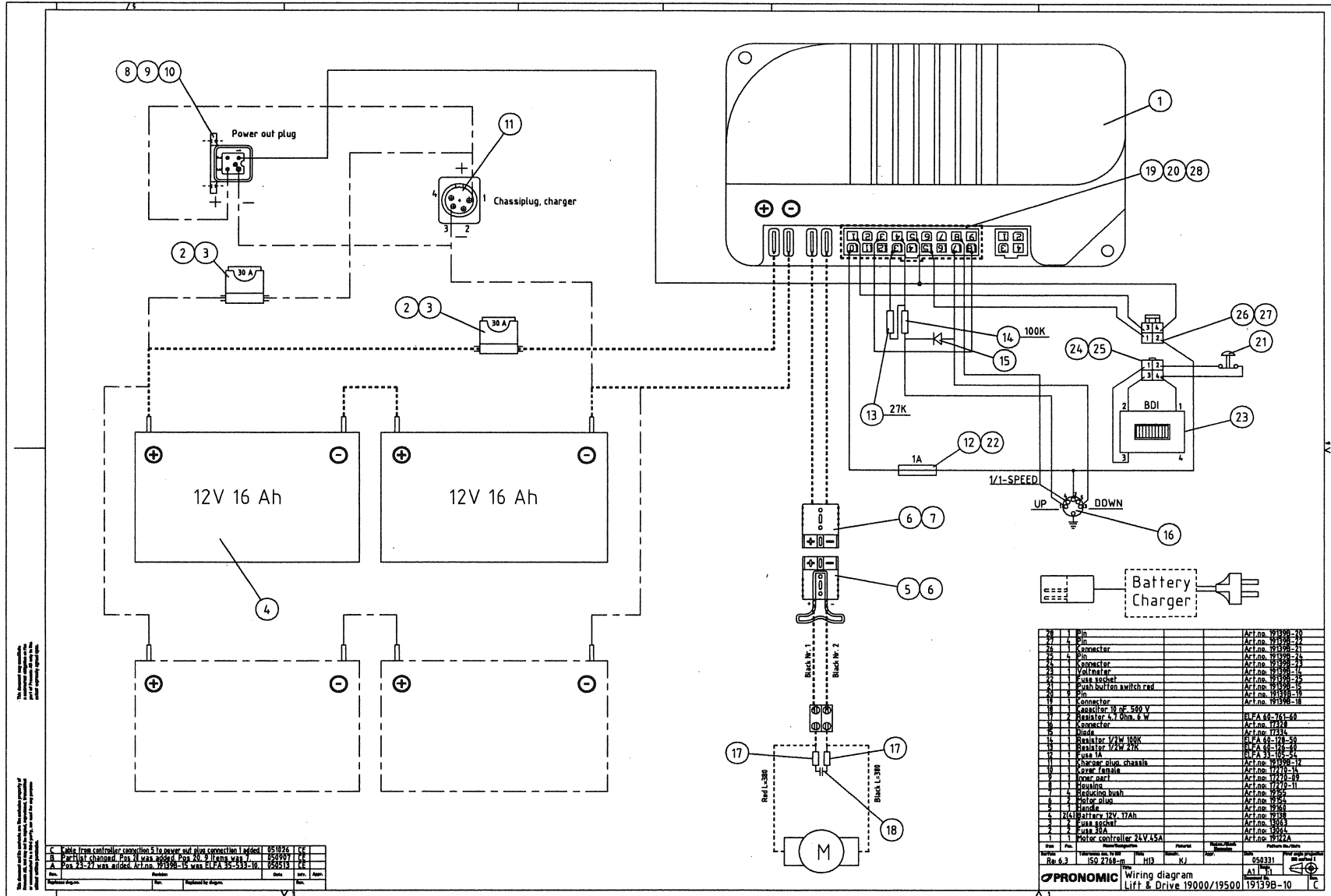
A=476 mm B=556 mm
 A=600 mm B=680 mm
 A=850 mm B=930 mm

B	New power pack art no. 19139B	050517	CE
A	New handle Art. No. 19169A	020614	RT
Rev. no.	Revision	Date	Intr. Appr.
Replaces design.	Rev.	Replaced by design.	Rev.

Item	Pcs.	Name/Designation	Material	Mod.no./Blank Dimension	Part no./Note
Surface	Ra: 6,3	Tolerances acc. to ISO 2768-m	H13	Constr. JH	Appr.
PRONOMIC Title Dimension drawing Lift & Drive 225P					Date 980529 Scale 1:10 Document No. 19000-77 First angle projection ISO method F Rev. B

Lift & Drive 160P, 225P - 15

5 Electrical schematics



The diagram shows the electrical system for the lift and drive unit. It includes a battery pack, a power out plug, a chassislug charger, a motor controller, a motor, a speed control switch, and a battery charger. The diagram is a wiring diagram for the lift and drive unit.

C	Cable from controller, connection 5 to power out plug connection 1 added	05/02/96	JCC
A	Pin 12 changed, Pin 11 was added, Pin 20, 21 from 22 to 23	05/03/97	JCC
A	Pin 22-24 was added, Pin 11, 12 to 11-12-13-14-15	05/03/97	JCC

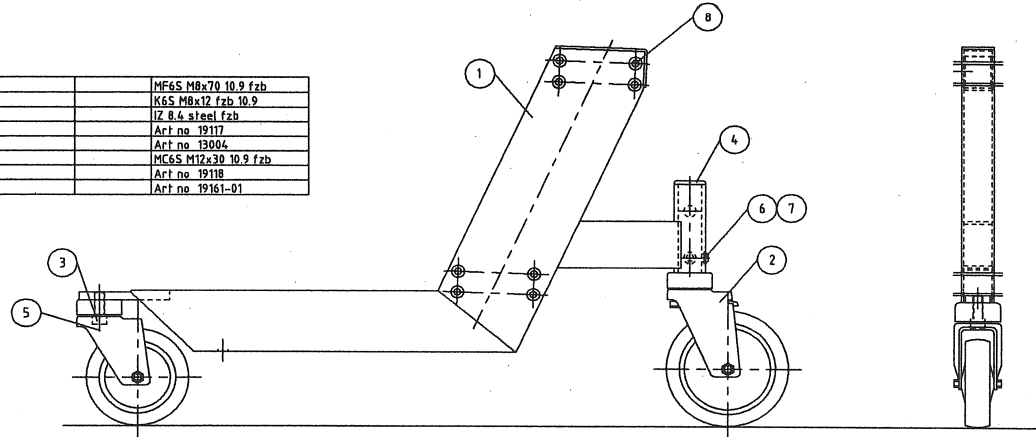
Ref.	Part	Description	Part No.	Notes
1	Pin		Art.no. 19198-10	
2	Pin		Art.no. 19198-11	
3	Pin		Art.no. 19198-12	
4	Pin		Art.no. 19198-13	
5	Pin		Art.no. 19198-14	
6	Pin		Art.no. 19198-15	
7	Pin		Art.no. 19198-16	
8	Pin		Art.no. 19198-17	
9	Pin		Art.no. 19198-18	
10	Connector		Art.no. 19198-19	
11	Connector		Art.no. 19198-20	
12	Connector		Art.no. 19198-21	
13	Connector		Art.no. 19198-22	
14	Resistor	1/2W 100K	Art.no. 19198-23	
15	Resistor	1/2W 27K	Art.no. 19198-24	
16	Switch	1/1-SPEED	Art.no. 19198-25	
17	Motor controller	24V 15A	Art.no. 19198-26	
18	Motor		Art.no. 19198-27	
19	Terminal block		Art.no. 19198-28	
20	Terminal block		Art.no. 19198-29	
21	Terminal block		Art.no. 19198-30	
22	Terminal block		Art.no. 19198-31	
23	Terminal block		Art.no. 19198-32	
24	Terminal block		Art.no. 19198-33	
25	Terminal block		Art.no. 19198-34	
26	Terminal block		Art.no. 19198-35	
27	Terminal block		Art.no. 19198-36	
28	Terminal block		Art.no. 19198-37	

6 Spare parts

6.1 Legs, single front wheel

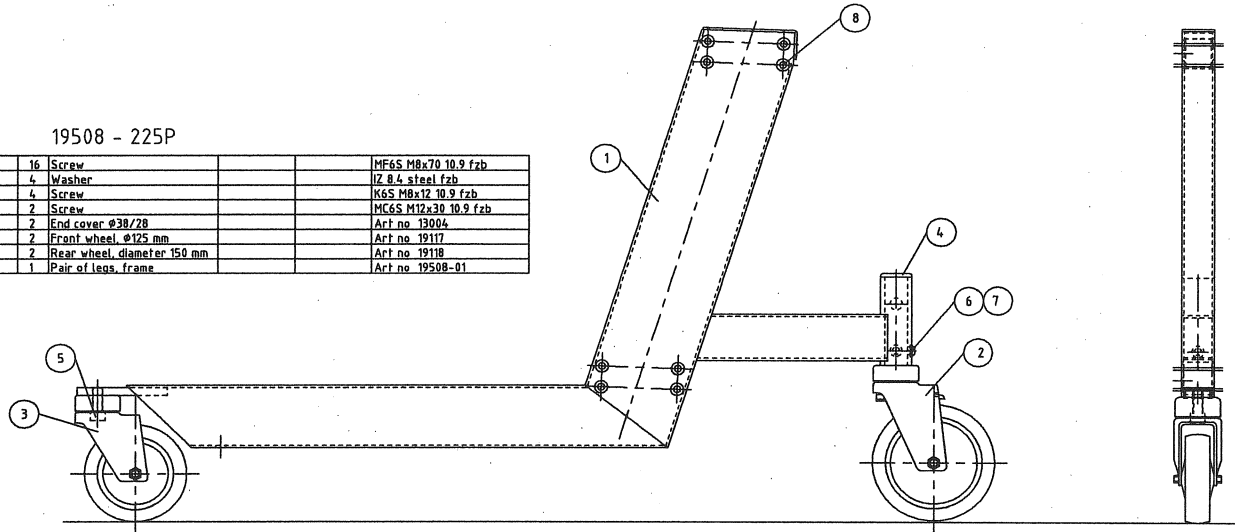
19161 - 160P

8	16	Screw	MF6S M8x70 10.9 fzb
7	4	Screw	K6S M8x12 fzb 10.9
6	4	Washer	I2 8.4 steel fzb
5	2	Front wheel, $\varnothing 125$ mm	Art no 19117
4	2	End cover $\varnothing 38/28$	Art no 13004
3	2	Screw	MC6S M12x30 10.9 fzb
2	2	Rear wheel, diameter 150 mm	Art no 19118
1	1	Pair of legs, frame	Art no 19161-01



19508 - 225P

8	16	Screw	MF6S M8x70 10.9 fzb
7	4	Washer	I2 8.4 steel fzb
6	4	Screw	K6S M8x12 10.9 fzb
5	2	Screw	MC6S M12x30 10.9 fzb
4	2	End cover $\varnothing 38/28$	Art no 13004
3	2	Front wheel, $\varnothing 125$ mm	Art no 19117
2	2	Rear wheel, diameter 150 mm	Art no 19118
1	1	Pair of legs, frame	Art no 19508-01



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Rev.	Issue	Date	Rev.	Appr.

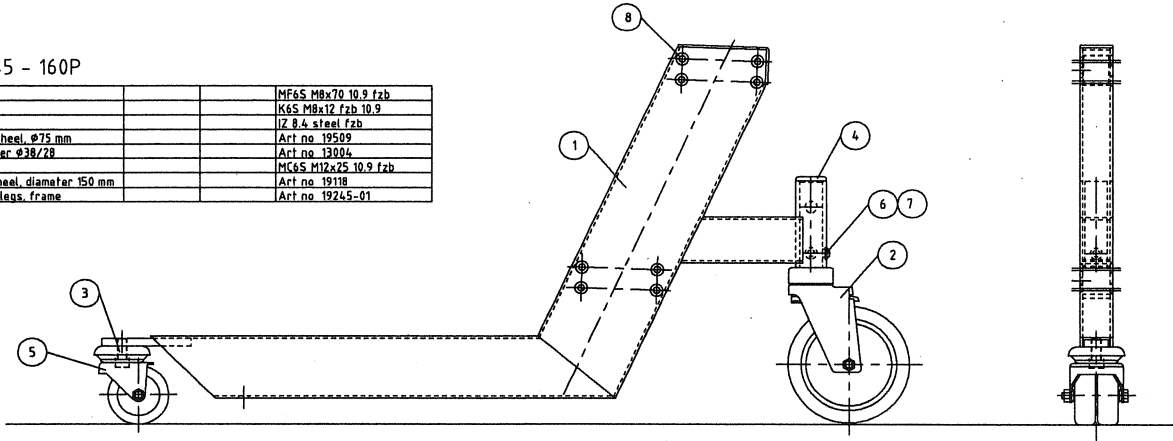
Rev.	Proj.	Rev./Particulars	Material	Quantity	Part Name
Rev. 6.3	ISO 2768-m	H13	CE	060816	Legs, single front wheels
PRONOMIC Lift & Drive 160P/225P					19161/19508

Lift & Drive 160P, 225P - 17

6.2 Legs, double front wheels

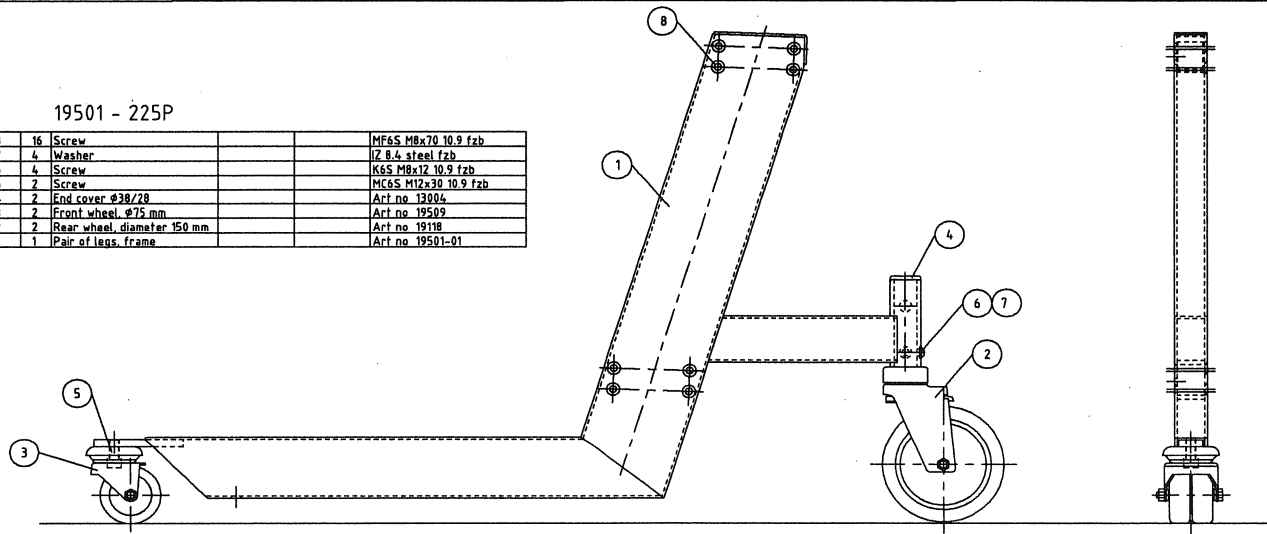
19245 - 160P

8	16	Screw		MFGS M8x70 10.9 fzb
7	4	Screw		KGS M8x12 fzb 10.9
6	4	Washer		IZ 8.4 steel fzb
5	2	Front wheel, ø75 mm		Art no 19509
4	2	End cover ø38/28		Art no 13004
3	2	Screw		MCGS M12x25 10.9 fzb
2	2	Rear wheel, diameter 150 mm		Art no 19118
1	1	Pair of legs, frame		Art no 19245-01



19501 - 225P

8	16	Screw		MFGS M8x70 10.9 fzb
7	4	Washer		IZ 8.4 steel fzb
6	4	Screw		KGS M8x12 10.9 fzb
5	2	Screw		MCGS M12x30 10.9 fzb
4	2	End cover ø38/28		Art no 13004
3	2	Front wheel, ø75 mm		Art no 19509
2	2	Rear wheel, diameter 150 mm		Art no 19118
1	1	Pair of legs, frame		Art no 19501-01



The drawing is intended for information only. It is not a manufacturing drawing. It is not to be used for manufacturing.

The drawing is intended for information only. It is not a manufacturing drawing. It is not to be used for manufacturing.

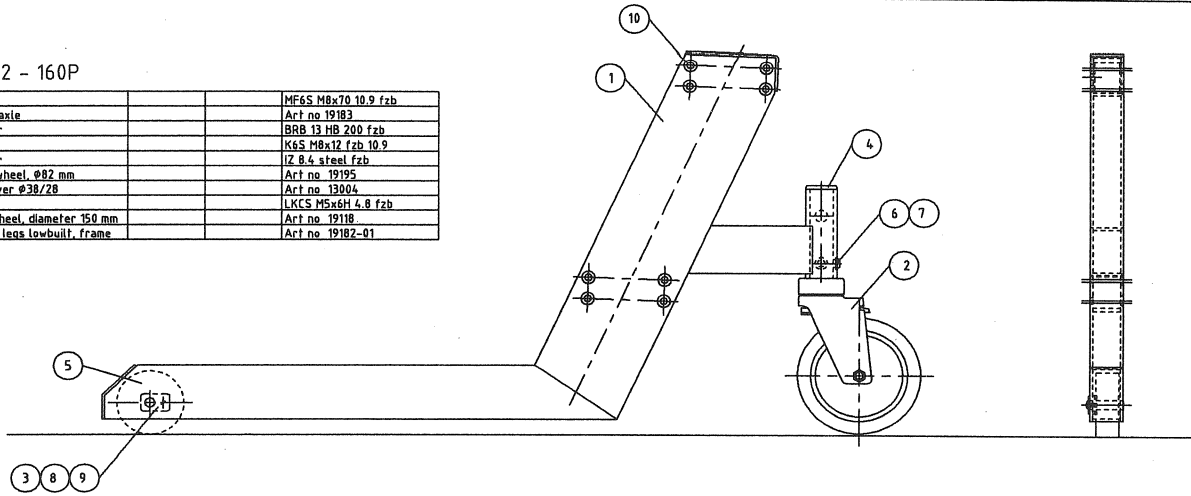
Rev.	Revision	Date	Appr.

Rev.	Part	Manufacturer	Material	Material	Part no. / Rev.
Rev. 4.3	ISO 2768-m	M13	CE	060816	A1.1.2.5
PRONOMIC Legs, double front wheels Lift & Drive 160P/225P					19245/19501

6.3 Legs, low-built, fixed front wheels

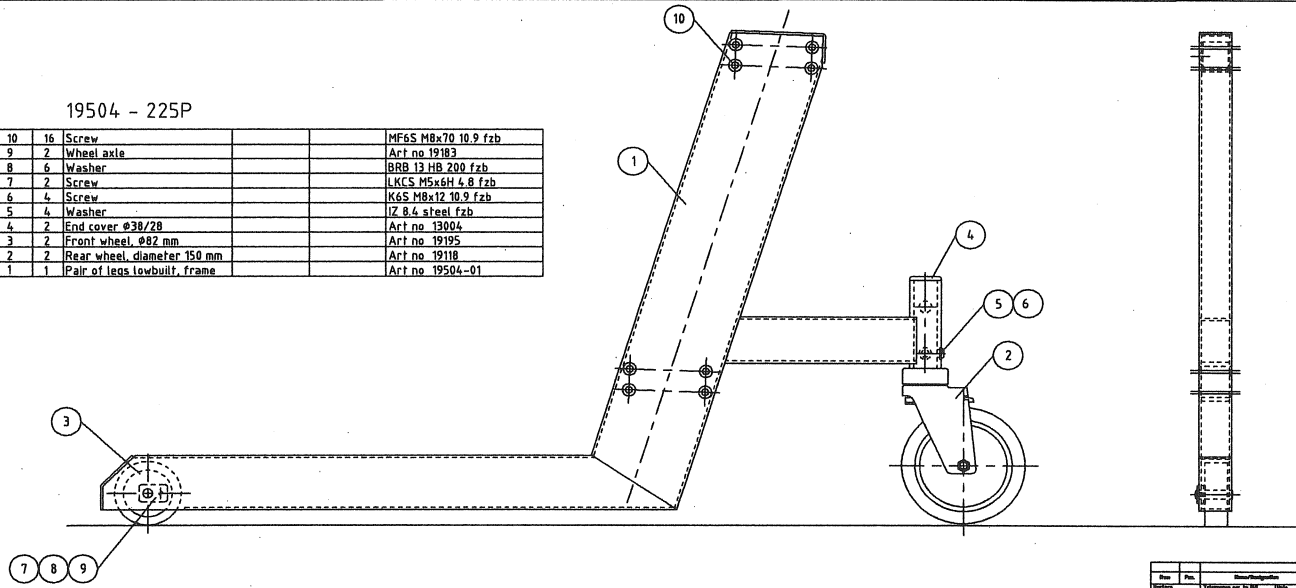
19182 - 160P

10	16	Screw	MF6S M8x70 10.9 fzb
9	2	Wheel axle	Art no 19183
8	6	Washer	BRB 13 HB 200 fzb
7	4	Screw	K6S M8x12 fzb 10.9
6	4	Washer	IJ 8.4 steel fzb
5	2	Front wheel, Ø82 mm	Art no 19195
4	2	End cover Ø38/28	Art no 13004
3	2	Screw	LKCS M5x6H 4.8 fzb
2	2	Rear wheel, diameter 150 mm	Art no 19118
1	1	Pair of legs lowbuilt, frame	Art no 19182-01



19504 - 225P

10	16	Screw	MF6S M8x70 10.9 fzb
9	2	Wheel axle	Art no 19183
8	6	Washer	BRB 13 HB 200 fzb
7	2	Screw	LKCS M5x6H 4.8 fzb
6	4	Screw	K6S M8x12 10.9 fzb
5	4	Washer	IJ 8.4 steel fzb
4	2	End cover Ø38/28	Art no 13004
3	2	Front wheel, Ø82 mm	Art no 19195
2	2	Rear wheel, diameter 150 mm	Art no 19118
1	1	Pair of legs lowbuilt, frame	Art no 19504-01



Lift & Drive 160P, 225P - 19

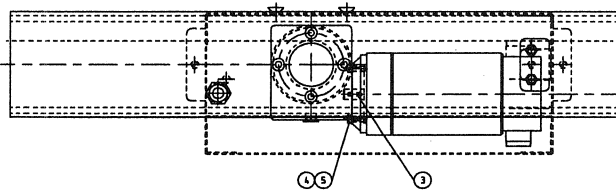
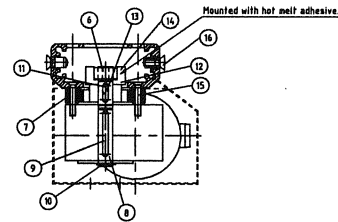
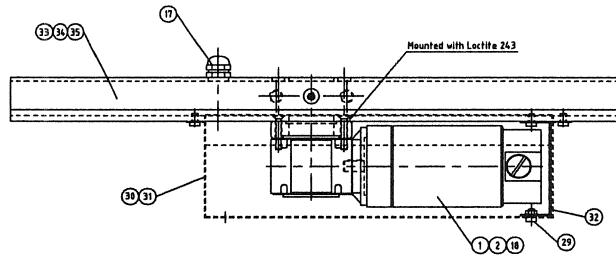
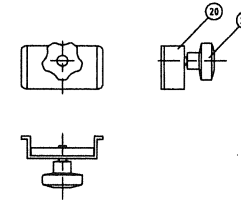
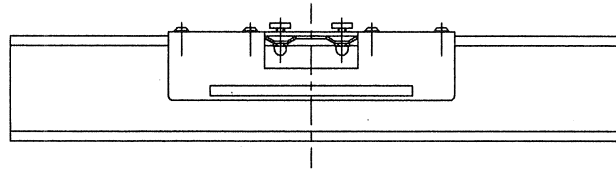
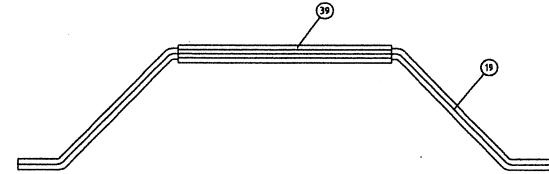
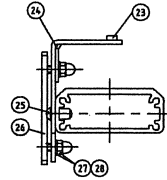
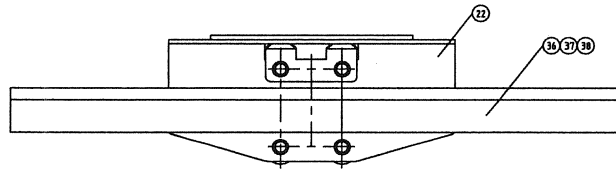
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This drawing is the property of PRONOMIC. It is not to be distributed outside the company without the written consent of the technical department.

Rev.	Revision	Date	Rev.	Appr.
1	1			

Rev.	Proj.	Revisão/Revisões	Revisão	Proj. / Proj. / Proj.	Proj. / Proj. / Proj.
Rev. 6.3	ISO 2768-m	H13	CE	060816	19182/19504
PRONOMIC					Legs, fixed front wheels
Lift & Drive 160P/225P					19182/19504

6.4 Cross-members, brake rod, lock upper cross-member (Lift & Drive 160P)



Caution! It's important that the motor is mounted correctly. Check the mounting of the key's and screws.

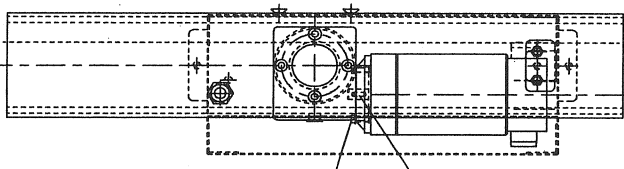
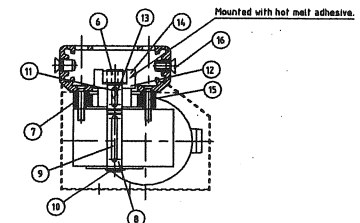
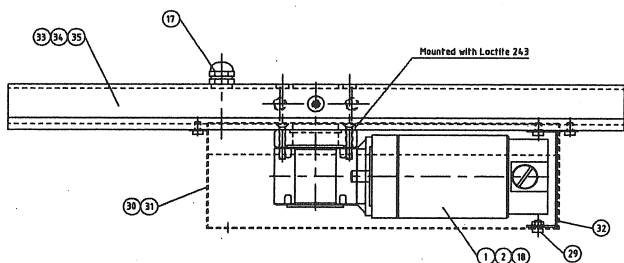
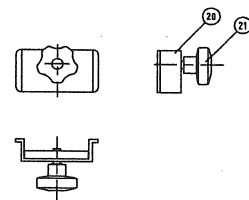
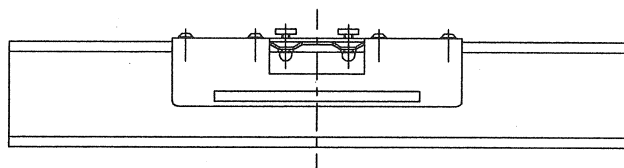
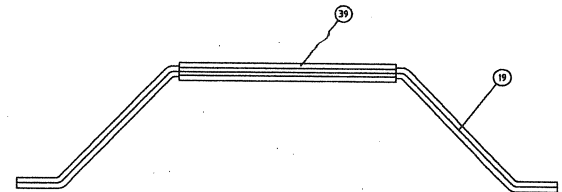
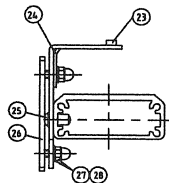
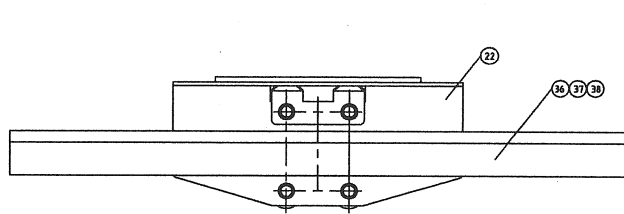
Variant	600-1200	600	476
Art.no.	19185A	19173A	19184A

QTY	Part No.	Description	Part No.	Part No.
1	17	Brake rod	Art.no. 19111	
1	18	Upper cross member	6-600-1200 Art.no. 19181	
1	19	Upper cross member	6-600 Art.no. 19182	
1	20	Upper cross member	6-476 Art.no. 19183	
1	21	Lever cross member	6-600-1200 Art.no. 19184	
1	22	Lever cross member	6-600 Art.no. 19185	
1	23	Lever cross member	6-476 Art.no. 19186	
1	24	Bracket	Art.no. 19187	
1	25	Motor cover narrow	Art.no. 19188	
1	26	Motor cover	Art.no. 19189	
1	27	Key M6x4x7	M6x4x7	
4	28	Washer	M6x1.6x3.2	
4	29	Screw	M6x1.6x3.2	
2	30	Bracket	Art.no. 19191	
4	31	Screw	M6x1.6x3.2	
1	32	Lever attachment	Art.no. 19192	
1	33	Lever cross member 191 19 25	Art.no. 19193	
1	34	Attachment nail	Art.no. 19194	
1	35	Lock knob	Art.no. 19195	
1	36	Lock upper	Art.no. 19196	
2	37	Ball tip	Art.no. 19197	
1	38	Wiring layout	Art.no. 19198	
1	39	Table fitting Pt 13.5	Art.no. 19199	
4	40	Screw	M6x1.6x3.2	
4	41	Screw	M6x1.6x3.2	
1	42	Lever rod	Art.no. 19200	
1	43	Screw	M6x1.6x3.2	
1	44	Coil spring	Art.no. 19201	
1	45	Key PK 5x5x20	Art.no. 19202	
1	46	Key PK 6x6	Art.no. 19203	
1	47	Key PK 5x5x45	Art.no. 19204	
1	48	Shaft	Art.no. 19205	
1	49	Motor flange	Art.no. 19206	
1	50	Lock	Art.no. 19207	
4	51	Washer	M6x1.6x3.2	
4	52	Screw	M6x1.6x3.2	
1	53	Key PK 6x6x16	Art.no. 19208	
1	54	Gear	Art.no. 19209	

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Rev.	Author	Date	Rev.	Appr.

6.4 Cross-members, brake rod, lock upper cross-member (Lift & Drive 225P)



Caution! It's important that the motor is mounted correctly. Check the mounting of the key's and screws.

Variant	600-1200	600	476			
Art.no.	19507A	19506A	19505A			
	L=343-363	L=343	L=221			
	1	1	1	39	1	Brake rod
				37	1	Upper cross member
				36	1	Upper cross member
				35	1	Lower cross member
				34	1	Lower cross member
				33	1	Lower cross member
				32	1	Bracket
				30	1	Motor cover narrow
				29	1	Motor cover
				28	1	Screw
				27	1	Washer
				26	1	Bracket
				25	1	Screw
				24	1	Lower attachment
				23	1	10 x 7 Selfad. rubber lat 10x5
				22	1	Attachment mast
				21	1	Lock knob
				20	1	Key, holder
				19	1	Brak bar
				18	1	Wiring layout
				17	1	Lein. filten. Pn 13.5
				16	2	Screw
				15	1	Screw
				14	1	Brake rod
				13	1	Screw
				12	1	Washer
				11	1	Key, PK 5x5x20
				10	1	Clamp pin
				9	1	Key, PK 5x5x25
				8	1	Shaft
				7	1	Motor flange
				6	1	Lube
				5	1	Washer
				4	1	Screw
				3	1	Key, PK 5x5x14
				2	1	Motor
				1	1	Motor

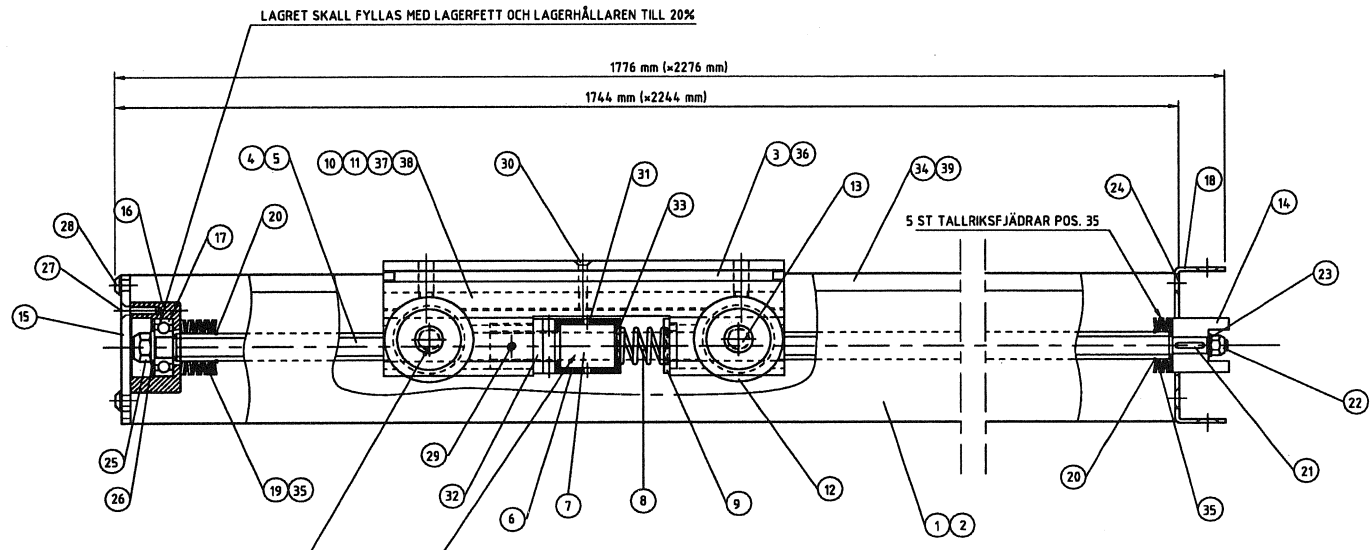
Lift & Drive 160P, 225P - 21

Technical drawing information and notes.

Rev.	Part	Quantity	Unit	Appr.
1	Motor	1	pc	
1	Key, PK 5x5x14	1	pc	
1	Washer	1	pc	
1	Screw	1	pc	
1	Brake rod	1	pc	
1	Key, holder	1	pc	
1	Lock knob	1	pc	
1	Attachment mast	1	pc	
1	10 x 7 Selfad. rubber lat 10x5	1	pc	
1	Lower attachment	1	pc	
1	Screw	1	pc	
1	Bracket	1	pc	
1	Motor cover narrow	1	pc	
1	Motor cover	1	pc	
1	Lower cross member	1	pc	
1	Upper cross member	1	pc	
1	Brake rod	1	pc	
1	Upper cross member	1	pc	
1	Motor	1	pc	

PRONOMIC Cross members Lift & Drive 225P 19505A

6.6 Column (mast)



LAGRET SKALL FYLLAS MED LAGERFETT OCH LAGERHÅLLAREN TILL 20%

1776 mm (x2276 mm)

1744 mm (x2244 mm)

5 ST TALLRIKSFJÄDRAR POS. 35

AXELTAPPAR LIMMAS MED PERMA BOND A 1046 METALLIM
 MUTTER LIMAS MED PERMA BOND C 737 BLACK MAGIC + PRIMER
 MUTTER BORRAS Ø4 DJUP 2 mm FÖR STOPPSKRUV

Std L 1744 mm Art no 19152
 x +500 L =2244 mm Art no19153
 Std extended sledge L=1744 Art no 19152-HD
 x +500 extended sledge L=2244 mm Art no 19153-HD

PLACING OF THE CUP SPRINGS ART NO 19152 & 19153 REFER TO DRAWING NO 19000-13
 PLACING OF THE CUP SPRINGS ART NO 19152-HD & 19153-HD REFER TO DRAWING NO 19535-00
 x x Bytes mot pos 10 eller pos 37

ÖVER OCH NEDERDEL PÅ SKRUV BEHANDLAS MED ROSTSKYDDSSPRAY TUNNFLYTANDE
 LÖHJULEN OCH AXELTAPPARNA SMÖRJES MED LAGERFETT
 SKRUVEN SMÖRJES PÅ BÅDA SIDORNA OM MUTTERN MED LAGERFETT

Item	Pcs.	Name/Description	Material	Notes/Blank	Part no/Note
39x	2	Brush list L=2230 mm			Art no 19123
38xx	1	Nut rail, UNC 3/8	L=380 mm		Art no 19178
37	1	Nut rail, M10	L=380 mm		Art no 19177
36	1	Sledge	L=380 mm		Art no 19176
35x	13/5	Cup spring 40x20,4x15			Art no 19175
34	2	Brush list L=1730 mm			Art no 19172
33	1	Spring governor, coupling			Art no 19111
32	1	Screw coupling, sledge			Art no 19110
31	4	Stop screw	T6SS M6x6 stål		Art no 19221
30	1	screw	MF6S M6x30 10,9 fzb		Art no 19212
29	1	Stop screw	SK6SS M6x10 stål		Art no 19220
28	4	screw	K6SS M6x20 10,9 fzb		Art no 19207
27	3	screw	MF6S M6x20 10,9 fzb		Art no 19211
26	1	Washer	BRB 13 HB 200 fzb		Art no 19308
25	1	Nut	Låsm. Din 985 M12 fzb		Art no 194.08
24	4	screw	MF6S M8x20 10,9 fzb		Art no 19214
23	1	Washer	BRB 8,4 HB 200 fzb		Art no 19303
22	1	Nut	Låsm. Din 982 M8 fzb		Art no 195.07
21	1	Flat key, PK 20x4			Art no 19151

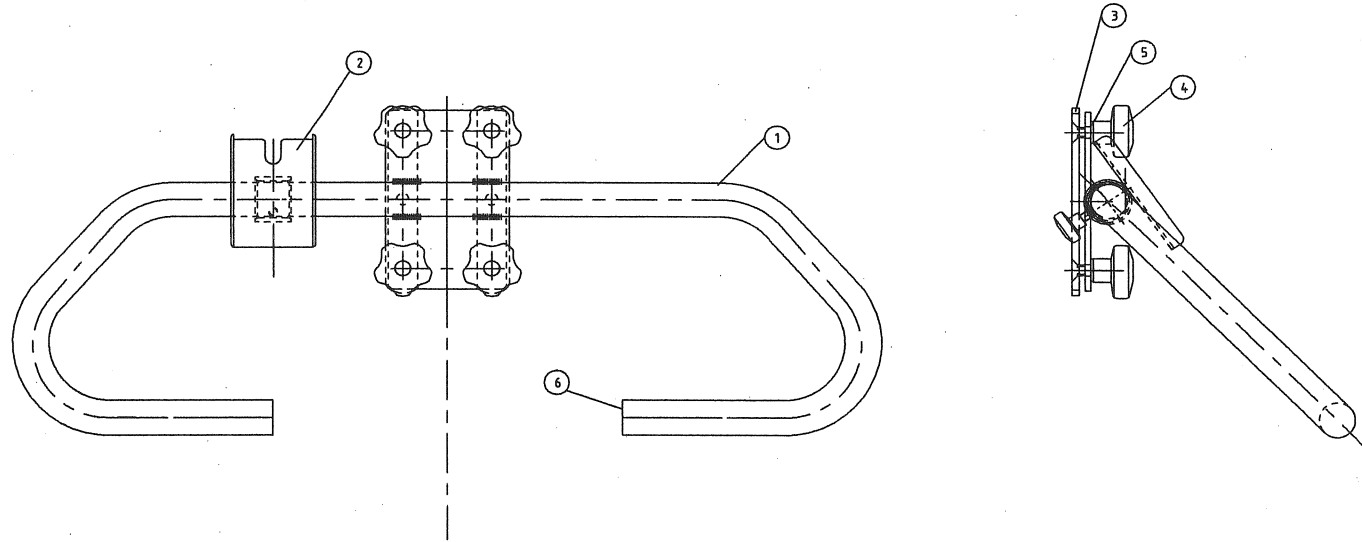
Item	Pcs.	Name/Description	Material	Notes/Blank	Part no/Note
20	2	Clamp ring			Art no 19107
19x	2/12	Cup spring, 40x20,4x2			Art no 19127
18	1	Lower end cover, mast			Art no 19128
17	1	Ball bearing			Art no 19102
16	1	Bearing cage			Art no 19114
15	1	Upper end cover, mast			Art no 19113
14	1	Shaft coupling, Rotex size 19 1a			Art no 19121
13	4	Axle journal to sledge			Art no 19116
12	4	Blade wheels to sledge			Art no 19115
11x	1	Nut rail, UNC 3/8	L=280 mm		Art no 19125
10	1	Nut rail, M10	L=280 mm		Art no 19124
9	1	Spring-actuated sledge			Art no 19112
8	1	Compression spring			Art no 19105
7	1	Nut elevating screw			Art no 19150
6	1	Screw coupling, screw			Art no 19109
5x	1	Elevating screw, L=2265 mm			Art no 19143: +500mm
4	1	Elevating screw, L=1765 mm			Art no 19143: Std
3	1	Sledge	L=280 mm		Art no 19106
2x	1	Mast L=2230 mm			Art no 19149: +500mm
1	1	Mast L=1730 mm			Art no 19149: Std

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A		Different drawings at number and placing of the cup springs		990907	JH	
Replaces design.	19000-43 B	Rev.	Replaced by design.	Date	Appr.	

Drawn: JH
 Appr.: JH
 Scale: 1:2
 Date: 990406
 Standard: ISO 9001
PRONOMIC General drawing MAST
 LIFT-O-FLEX 19000
 A2 19152-00 A

6.7 Manoeuvring handlebar



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Rev.no.	Revision	Date	intr.	Appr.
Replaces despos.	19000-48 A	Rev.	Replaced by despos.	Rev.

6	2	End cover Ø25			Art no 19169-03
5	4	Washer			BRB 8.4 HB 200 fzb
4	4	Lock knob VCT.40 B-M8			Art no 19166
3	2	Screw bar			Art no 19228
2	1	Bracket remote control			Art no 17201A
1	1	Handle			Art no 19169-02
Item	Pcs.	Name/Designation	Material	Prod.no./Blank Dimension	Pattern No./Note
Konstr.	KJ	Drawn	RT	Appr.	Scale 1:2
Date		Date		Date	
010910		010910		010910	
PRONOMIC Handle, painted. Model A -für ergonom. & mit/ü PRONOMIC 160P, 225P					First angle projection ISO method E
Standard					Document No. A2 19169A-00

7 Technical specifications

- Type Lifter, Lift & Drive 160P / 225P

Dimensions for:

trolley with single front wheels	160P	225P
• Length (without platform)	875 mm	1101 mm
• Wheel diameter, (front/rear)	125 / 150 mm	125 / 150 mm
trolley with double wrought wheels	160P	225P
• Length (without platform)	900 mm	1046 mm
• Wheel diameter, (front/rear)	75 / 150 mm	75 / 150 mm
trolley with low-built legs	160P	225P
• Length (without platform)	1003 mm	1039 mm
• Wheel diameter, (front/rear)	82 / 150 mm	82 / 150 mm

Common dimensions for the models	160P	225P
• Total height (std, +500, +1000)	<u>1952</u> , 2452, 2952 mm	<u>1852</u> , 2352, 2852 mm
• Max lifting height (std,+500,+1000)	<u>1430</u> , 1930, 2430 mm	<u>1330</u> , 1830, 2330 mm
• Stroke (std, +500, +1000)	<u>1375</u> , 1875, 2375 mm	<u>1275</u> , 1775, 2275 mm
• Maximum width	<u>556</u> , 680-1280 mm	<u>556</u> , 680-1280 mm
• Lowest height with platform	50 mm	50 mm
• Load platform	550x550 mm	550x610 mm
• Maximum load	160 kg	225 kg
• Weight of unit	70-90 kg	70-90 kg
• Lifting speed (empty)	100 mm/sec	76 mm/sec
• Lifting speed (maximum load)	67 mm/sec	52 mm/sec

- Battery type Valve-regulated gas-tight lead-acid batteries
- Voltage 24 V DC
- Battery capacity 16 Ah, 32 Ah
- Charging voltage 230V AC 50Hz or 115V AC 60Hz
- Intermittence 15% per 10 min. maximum load
- The measured square value for vibrations while lifting does not exceed 2,5m/s².
- The noise level while lifting does not exceed 70 dB (A).
- An EU Declaration of Conformity accompanies each lift trolley.
- CE-mark.
- Machine sign indicating manufacturer, year of manufacture and serial number is on every lifting trolley.
- Material Chassis in powder coated aluminium and steel, column is of aluminium.
Load platform in stainless steel, 18/8.

Underlined values apply for standard lifter

8 CE approved standard accessories

<u>Load platform / Accessories</u>		<u>160P</u>	<u>225P</u>
19174	Load platform	✓	
19250	Load platform, narrow	✓	
19510	Load platform		✓
17233	Turntable for V-block, plate	✓	✓
17229	V-block	✓	✓
19201	Pin for roll handling, max 160 kg	✓	✓
19271	Telescopic mast, max 110 kg	✓	✓
<u>Turn & xx</u>		<u>160P</u>	<u>225P</u>
19475	Turn (0x)	✓	✓
19480	Turn (2x)	✓	✓
19476	Turn (2x)	✓	✓
19477	Turn (2x)	✓	✓
19478	Turn (4x)	✓	✓
19479	Turn (4x)	✓	✓

9 Test Protocol

- Proof loaded with 160 kg (350-lbs).
The overload protection operates (if Lift & Drive 160P is tested).
- Proof loaded with 225 kg (495-lbs).
The overload protection operates. (if Lift & Drive 225P is tested).
- The sledge stops correctly when it approaches the uppermost end position, both with maximum load and without load.
- Disconnection function in the sledge operates correctly with and without load.
- The maneuvering handlebar is adjustable and is in fixed position when locked.
- Surface condition.
- Machine plate - signs - language.
- The front wheels can rotate free from the load platform.
- Check of sound level from motor and column is normal.
- Accessories - check order/ requisition.
- Manuals, including Declaration of Conformity, Instructions for recharging, Assembly instructions.
- The battery charger operates together with the lift trolley. Charged over night.
- The motor cable and the Power Pack are disconnected when delivery is to take place.

Approved by:



Date: 08-10-13

10 Declaration of Conformity
Referring to Directive for machines - Annex 1, 98/37/EEC

Manufacturer: **Pronomic AB**
Company
Box 5504, 192 05 Sollentuna, Sweden
Address

Description of: **Lift & Drive 160P** **Lift & Drive 225P**
machine Type reference

Serial number: 190005-0421

Regulations: **AFS 1994:48 (Annex 1, 98/37/EEC)**
Regulations that the machine complies with

Standards: **EN 292-2:1991/A1:1995, EN 349 (1993)**
EN 50 081-1: 1992, EN 50 082-2: 1995

The above machine, that is built and equipped with standard accessories listed in this manual, is hereby warranted to be in conformity with the fundamental requirements of the Machine Directive - Annex 1, 98/37/EEC.

Pronomic AB

The trolley has been equipped with customized accessories as specified in **document:**

The trolley, complete with accessories, is hereby warranted to be in conformity with the fundamental requirements of the Machine Directive - Annex 1, 98/37/EEC.

Company: _____ **Signature:** _____

Represented by: