



UM 6150 POTATO DIGGER

User manual and Spare parts

Edition	2025
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Language	ENG

Original user manual

Warranty

This Underhaug product is guaranteed against manufacturing and material defects for one year. Components not produced by Underhaug, such as electrical and hydraulic equipment, power take-off shafts, and tires, are covered according to the original manufacturer's warranty terms.

The following components have limited warranty terms due to their function: tires, skirts, blade tips, breaker pins, fuses, hydraulic seals in pumps, motors, valves, cylinders, etc., as found on new machines. Deterioration due to wear and tear during use is considered normal for these parts. Therefore, the warranty for these parts is limited to manufacturing defects such as breakage, deviations in workmanship, transport damage, etc., found on a new machine.

If damage is expected to be covered by the product warranty, the owner or the owner's representative must inform the dealer when parts and/or repair work are requested. Warranty claims must be reported within the warranty period. The dealer must complete a claim form for each warranty case and send it to Underhaug's sales company/importer by the 10th of the month following the damage report.

The damaged parts must be marked with the claim form number and stored for up to 6 months so that Underhaug's sales company/importer can inspect the parts.

Since the use of Underhaug products occurs outside of the manufacturer's control, we can only guarantee product quality, not performance or any consequential damages.

The warranty may be voided if: a) non-original spare parts are used or the product is repaired or modified without Underhaug's approval. b) The manufacturer's usage and service instructions have not been followed. c) The machine is used for purposes other than what it was designed for.

The warranty does not cover damage due to wear and tear.

Public safety regulations require the manufacturer of this machine to carefully assess safety during proper use of this machine type. Therefore, Underhaug and our importer/sales company are not responsible for the function of components not shown in the spare parts catalogue for this product.

Underhaug reserves the right to make design changes without obligation for previously delivered machines.



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Safety

Before operating the machine

Before operating, adjusting, or repairing the machine, the user, repairer, and owner must familiarize themselves with the safety instructions provided in this manual (Fig 1). Be attentive and cautious when working with agricultural machinery. Read and take note of the safety instructions in this manual.

Safety at work is your responsibility

General safety instructions

Exercise caution when other people or animals are nearby

Never start the machine when people or animals are close to the machine and tractor. Never stand between the tractor wheels and the machine (Fig 2).

Be aware of regulations concerning the operation of agricultural machinery by minors.

Using the machine

The machine should only be used for its intended purpose.

Use personal protective equipment

Do not wear loose clothing that could get caught in moving parts of the machine. Use an approved mask in dusty working conditions (Fig 3).

Be aware of the dangers of high noise levels. Some tractor-implement-combinations may under certain conditions produce noise levels above 85 dB, even inside soundproofed cabs. In such cases, hearing protection must be used. Keep the tractor's

windows and doors closed to reduce the noise level around the driver

Ensure proper tractor compatibility

The tractor's weight must match the machine's maximum working weight. Follow applicable public regulations (Fig 4).

Verify that the correct PTO gear ratio is connected. A machine designed for 540 RPM must never be connected to a tractor with a 1000 RPM. PTO engaged the machine's standard. PTO speed is indicated on a label near the power transmission system.

Important safety symbol



Pay special attention to this symbol. It indicates a safety hazard and outlines precautions to avoid accidents.

This symbol may appear throughout this manual and on warning labels on the machine. They are there for your safety and must be noted.

Connecting the tractor and machine

Always follow the instructions in the manual when connecting the machine. If the connection is made by an agricultural hitch, one part (tractor or machine hitch) must have a clevis design. The hitch pin must be secured with a locking pin (Fig 5).

Follow applicable regulations for road transport

Some countries require the use of safety chains when transporting a towed machine.

Think safety while working

The tractor engine should be stopped and the ignition key removed before performing any repair work, lubrication, or other maintenance on the machine. (Fig. 6).

Protective covers

Ensure that all covers are in good condition and properly mounted. Do not attempt to start the machine until this has been done. Damaged covers should be repaired or replaced immediately. (Fig. 7). Pay special attention to all protective covers related to the power take-off shafts. Replace damaged covers. Safety chains must always be attached to the machine and/or tractor to prevent the protective sleeves from rotating.

Hydraulics

Be cautious when handling hydraulic systems. Wear eye protection and gloves. Oil released under high pressure can penetrate the skin and cause serious internal damage. Seek medical attention if you have been exposed to such injury. (Fig. 8).

Ensure that no one is near the machine when hydraulic functions are operated.

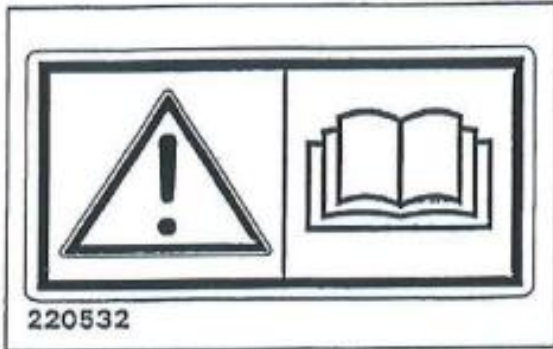


Fig. 1

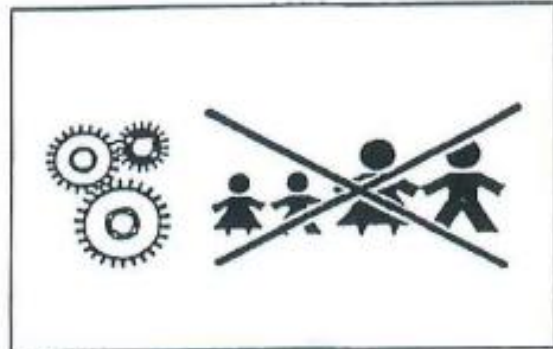


Fig. 2



Fig. 3

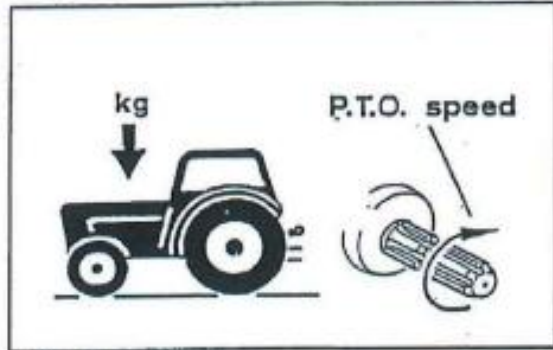


Fig. 4

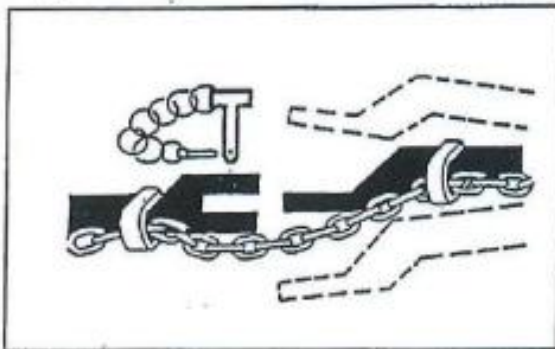


Fig. 5

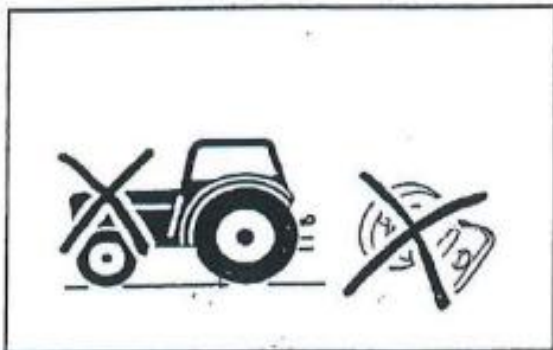


Fig. 6

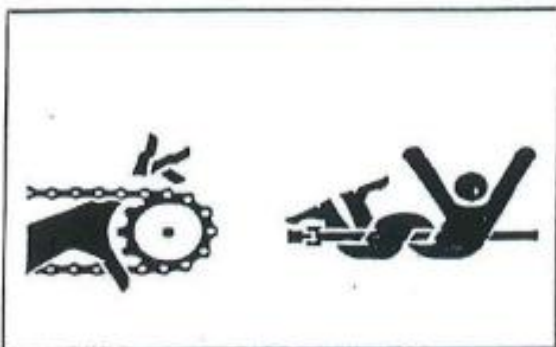


Fig. 7



Fig. 8

When disconnecting the machine and leaving the tractor/machine

Set all hydraulic functions to the neutral position when disconnecting the machine. Lower the movable working components to the ground or set them in the transport position and secure them. If the machine is equipped with parking blocks, these should be used. Do not allow children to play or remain near agricultural machines. (Fig. 9).

Drive Safely

Remember, you are responsible – carelessness and negligence can cause serious injury or even death. (Fig. 10).

Check the wheel bolts and the connection

between the machine and tractor before transport on public roads. Also disconnect the hydraulic system.

Drive carefully. Reduce speed in turns and when driving on uneven surfaces. Ensure that the towed machine does not move uncontrollably sideways.

Be aware of the tipping hazard when driving on slopes and on soil with low bearing capacity. Reduce the load.

Lights

The owner/operator is responsible for equipping the machine with the correct sound and reflectors when driving on public roads. Follow public regulations. (Fig. 11).

Safety equipment

Always carry first aid equipment in the tractor. Follow public regulations regarding fire extinguishing equipment. When working with flammable materials such as hay and straw, fire extinguishing equipment must always be available. (Fig. 12).

Spare parts

For safety reasons, we recommend using only original spare parts. The product warranty is invalid if non-original parts are used. (Fig. 13).

Maintenance

Ensure that the machine is properly maintained and kept in good condition. Never make modifications to the machine's technical design. (Fig. 14).



Fig. 9

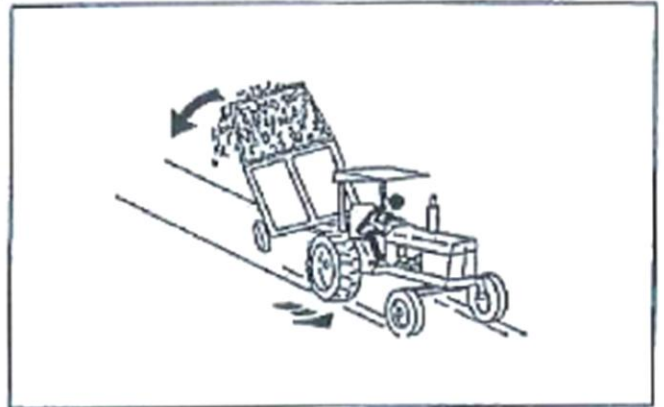


Fig. 10

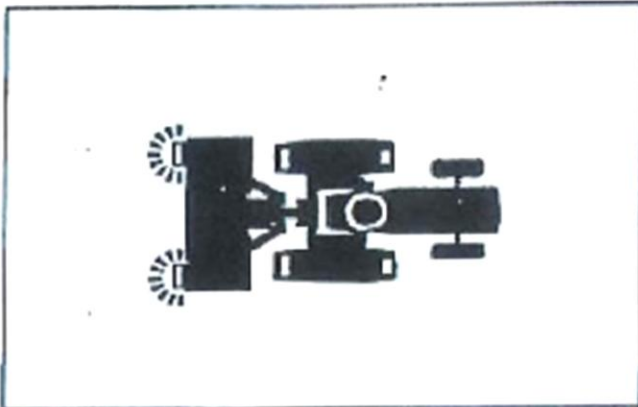


Fig. 11

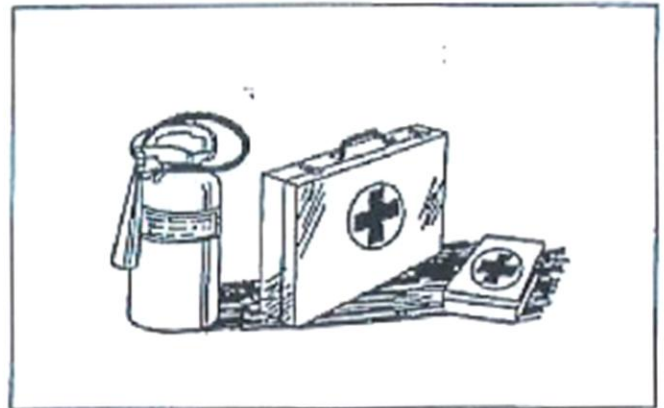


Fig. 12

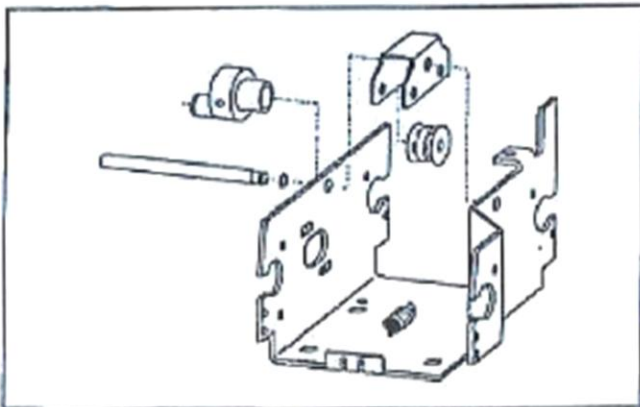



Fig. 13



Fig. 14

Supplementary safety instructions for UM 6150 Potato Harvester

This equipment is marked with this warning label . If the label is damaged, it must be replaced.

Warning label 2935064 (fig. 1). Be cautious. Read and understand the instruction manual before using the equipment, and before adjusting and performing maintenance.

Warning label 220525B (fig. 2). Due to the high risk of pinching, it is important to keep people at a safe distance from the equipment while in use. Hands and legs can be pinched under/in the machine. Maintain distance during use, but also during transport and adjustments.

Warning label 220539 (fig. 3). Fingers can be cut if they come between the belt and the belt drive/safety shields.

Warning label 220575 (fig. 4). Be cautious. Risk of pinching between the machine and the tractor.

Warning label 220574 (fig. 5). The machine is designed for 540 rpm. Read more about this under technical data.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Important!

Before the machine is used, adjusted, or overhauled, it is crucial that this instruction manual is read thoroughly. This will ensure the highest level of safety and help the machine operate satisfactorily.

All references to left and right directions refer to the positions of components when standing behind the machine and facing the direction of travel.

The dealer should be contacted if operational problems arise. The staff there are familiar with the machine and can offer advice.

**Note! Keep safety in mind for yourself and others.
 Follow the safety instructions.**

After the first hours of operation, and periodically thereafter, check and tighten all screws and nuts.

Safe use of the machine

- When adjusting, setting, inspecting, or servicing, the PTO (Power Take-Off) must not be connected.
- The tractor driver must have good experience and knowledge of the operation of the equipment and must exercise great caution.
- The tractor driver must ensure that people maintain a safe distance during operation, adjustment, lifting, and lowering of the machine.
- The tractor driver must ensure that only qualified personnel, who have also read the instruction manual, work on the machine.
- The machine must be parked in a suitable and secure position on as flat a surface as possible.
- Exercise caution in uneven terrain.
- Never walk/stand under the machine. Never climb on or into the machine. Never hang from the machine.
- The tractor should not be running when connecting the PTO. Wear close-fitting clothing near the PTO.
- Operation of the machine should be done at low/control speeds (max 3 km/h).

Technical Data

Type:	1-row three-point mounted storage harvester
Working components:	Cutter, belt, belt drive, shaker wheels
Capacity:	1-4 da per hour
Row spacing:	70 cm
Belt width:	49.5 cm
Effective belt length:	180 cm (Sole length)
Weight:	300 kg
Depth wheels:	4.00 x 4
Transport dimensions:	270 x 140 x 125 cm (L x W x H)

Technical Information

1. Tractor connection

The machine is connected to the tractor's three-point linkage, category 1 or 2.

2. Adjustment and use

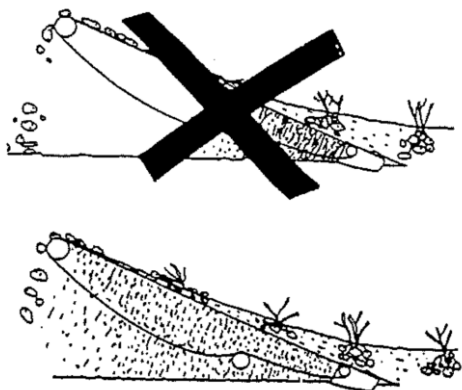
How the machine is used and adjusted has a significant impact on the final result, i.e., the quality of the potatoes, cleaning, etc.

3. Placement in row

Drive into the field. Adjust the drag connections so that the drill enters the middle of the blade. If the machine is not aligned properly, it could lead to poorer performance, as well as uneven wear on the belt and gears.

4. Sifting capacity

The machine should be driven so that soil follows the belt almost all the way to the top. This protects the potatoes from damage. Even sifting depends on many factors, and the machine's effectiveness must be regularly checked and adjusted. Illustration of even sifting below.



4.1 Top link length

- Short top link = Heavy sifting
- Long top link = Light sifting (increased wear on the belt)

4.2 Working depth

Adjusted using the hydraulic position control and depth wheels.

- Normal setting = as shallow as possible
- Exception: On light sandy soil, set deeper to get more soil on the belt.

4.3 Driving speed and RPM

PTO RPM: 200-250 rpm

The forward driving speed should also be considered based on the amount of material being fed into the machine.

4.4 Belt shaking

On very light soil, it might be beneficial to replace the front and rear shaker wheels with belt wheels.

5. Screws

Tighten screws and nuts regularly. Pay special attention to the nuts on the shaker wheel axles and screws that fasten the bevel gearbox to the frame.

6. Belt

When the belt wears, it loosens. Remove one or more pins using the lock pin (with flat ends) to "tighten" the belt. Wear due to soil contact can be reduced if the blades and stone deflectors are in good condition.

Wear can also be corrected by adjusting the drill to the least worn side.

When the belt is replaced, the belt drive gears should also be replaced.

7. Safety clutch

A power take-off shaft with a slip clutch must be used (slip torque 400 Nm).

8. Lubrication

Interval

Belt rollers:

-Every 8 hours (2 grease nipples)

Drive shaft bearings (older models):

-Every 8 hours (1 grease nipple)

Power take-off shaft:

-Every 8 hours (5 grease nipples + bearing surfaces)

Crankshaft bearings:

-Every 8 hours (1 grease nipple)

Gear housing:

Oil change after 1 season, and then every third season.

Note: Remember to check and refill if necessary!

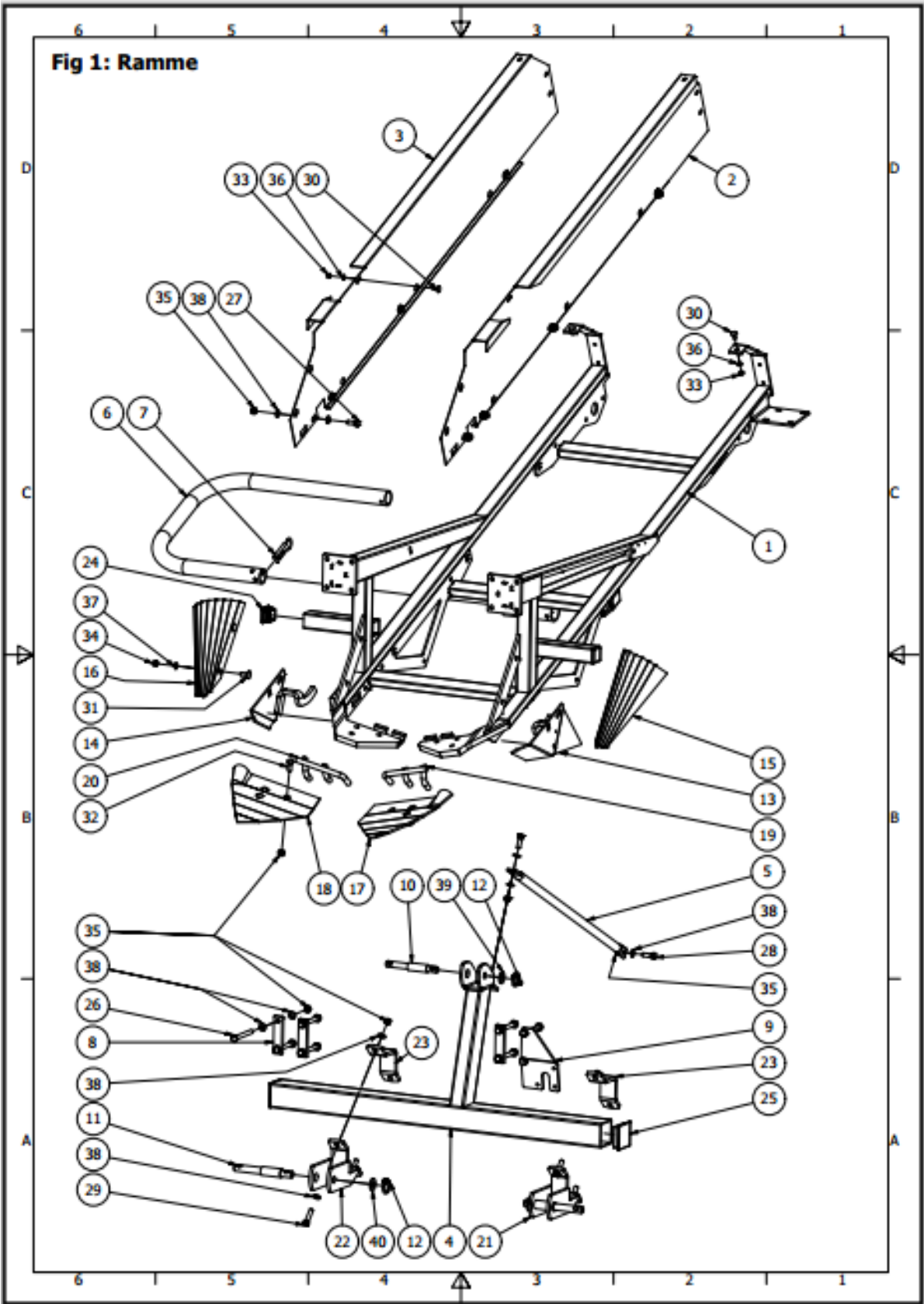
Gear oil: Meropa 320

Level: To the plug, approx. 0.4L

9. Spare parts

Efforts have been made to replicate the original parts as closely as possible. However, Underhaug AS reserves the right that some new parts may not fit older models (UM-2000, 550) of Underhaug Potato Harvesters, as production of these models was discontinued in 2002.

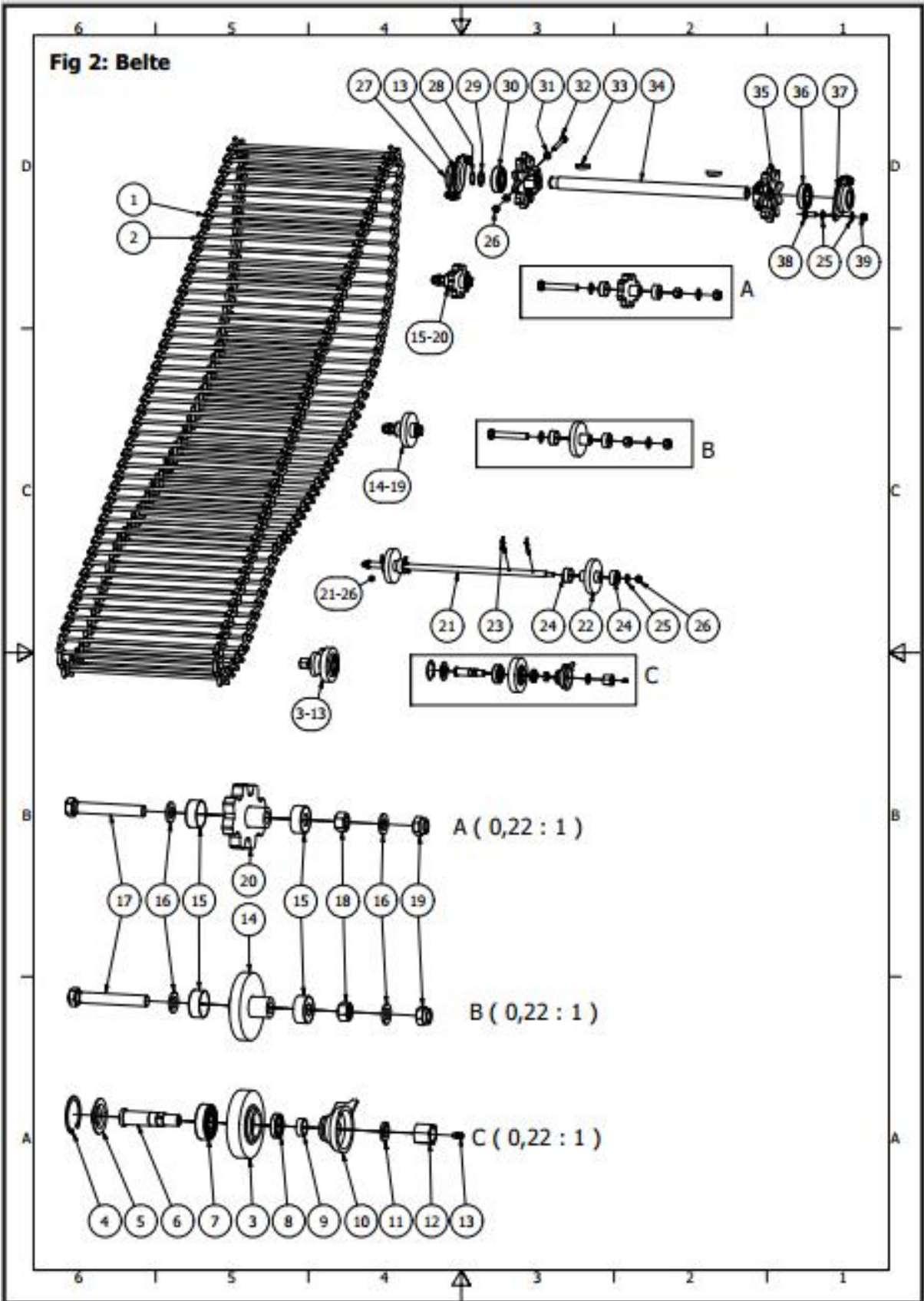
Fig. 1: Frame



SPARE PARTS UM 6150 – Fig. 1: Frame

Ref.	Art. No.	Qty	Item Description
1	UH150001	1	Frame
2	UH150002	1	Side plate left
3	UH150003	1	Side plate right
4	UH150004	1	Front frame
5	UH150005	1	Diagonal stay
6	UH150007	1	Parking foot
7	UH231414	1	Safety pin
8	UH150033	3	Fastener
9	UH150035	1	Bearing clamp
10	UH231165	1	Top link bolt
11	UH150063	2	Lower link bolt
12	UH867061	3	Link bolt pin
13	UH281113	1	Stone rejector left
14	UH281114	1	Stone rejector right
15	UH281601	1	Guide plate left
16	UH281602	1	Guide plate right
17	UH281611	1	Cutting edge left
18	UH281612	1	Cutting edge right
19	UH281111	1	Stone cather left
20	UH281112	1	Stone cather right
21	UH150036V	1	Tow hitch left
22	UH150036H	1	Tow hitch right
23	UH150039	2	Clevis for drawbar
24	970032	2	Plug 50 x 50
25	908617	2	Plug 80 x 80
26	032604	8	Hex. scr 931-1-M12x120
27	033630	12	Hex. scr 933-M12x30
28	033635	2	Hex.scr 933-M12x35
29	033650	4	Hex.scr 933-M12x50
30	821420	4	Locking scr 603-M8x20
31	811530	4	Loking scr 603-M10x30
32	UH824638	6	Special plow bolt M12x38
33	852158	4	Loking nut 985-M8
34	852160	4	Locking nut 985-M10
35	852162	32	Locking nut 985-M12
36	012903	4	Washer 125-A8,4
37	012916	4	Washer 125-A10,5
38	012919	62	Washer 125-A13
39	012930	1	Washer 125-A21
40	805109	2	Washer 125-A23

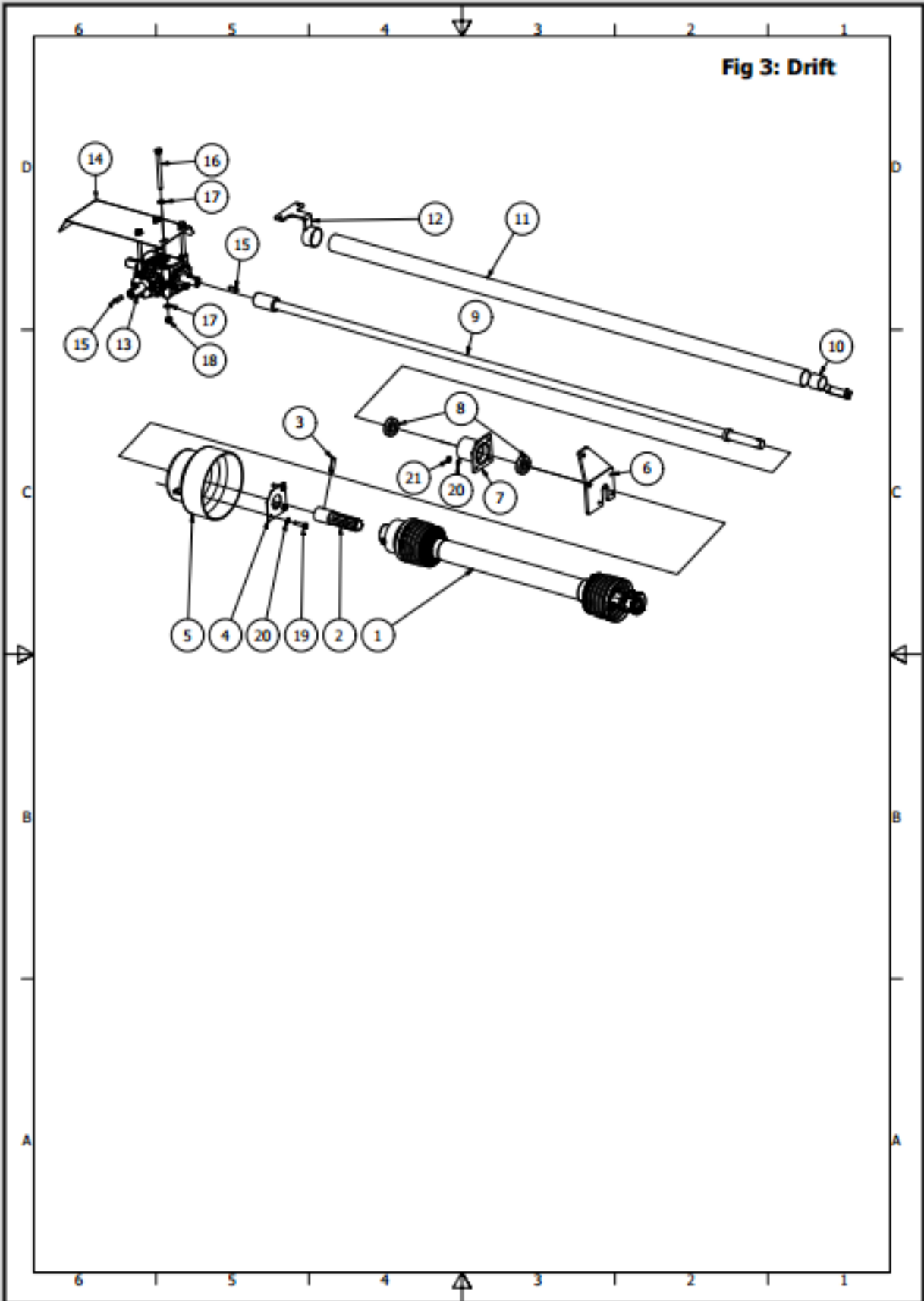
Fig. 2: Belt



SPARE PARTS UM 6150 – Fig. 2: Belt

Ref.	Qty	Art. No.	Item Description
1-2	1	UH281120	Belt cpl. UM6150
1	98	UH281304	Belt rod
2	2	UH281303	Locking rod
3-13	2	UH281137	Belt roller cpl.
3	1	UH281076	Belt roller
4	1	868552	Locking ring 472-52x2
5	1	UH281633	Cover
6	1	UH281456	Axle
7	1	010755	Bearing 6304
8	1	UH871254	Sealing ring
9	1	UH281459	Ring
10	1	UH281009	Flange cup
11	1	012989	Spring washer 127-A16
12	1	UH281457	Nut M16 spec.
13	1	873540	Grease nipple M6
14-19	2	UH150088	Belt wheel cpl.
15-20	4	UH150086	Agitation wheel cpl.
14	1	UH281057	Belt wheel
15	2	UH281617	Capsule plate
16	2	012927	Washer 125-A17
17	1	032703	Hex. scr 933 M16x110
18	1	015825	Nut 934-M16
19	1	016010	Locking nut 985-M16
20	1	UH281064	Agitation wheel welded
21-26	1	UH150089	Return rollers cpl.
21	1	UH150031	Axle for belt wheel
22	2	UH281057	Belt wheel
23	4	UH150034	Pin ISO 1234-5x35
24	4	UH281617	Capsule plate
25	2	012919	Washer 125-A13
26	4	852160	Locking nut 985-M10
27	1	UH411649	Bearing housing Ø72
28	1	UH868430	Locking ring 471-A30x1,5
29	1	UH868606	Support ring 30x42x2,5
30	1	870731	Ball bearing 6306-RS1
31	8	012916	Washer 125-A10,5
32	4	032575	Hex.scr 931-1-M10x75
33	2	UH868202	Keyed washer 3912 8x16
34	1	UH150010	Cross shaft
35	2	UH281062	Sprocket
36	1	870736	Ball bearing 6207-2RS1
37	1	UH411648	Bearing housing w/hole Ø72-Ø46
38	4	03630	Hex.scr 933-M12x30
39	4	852162	Locking nut 985-M12

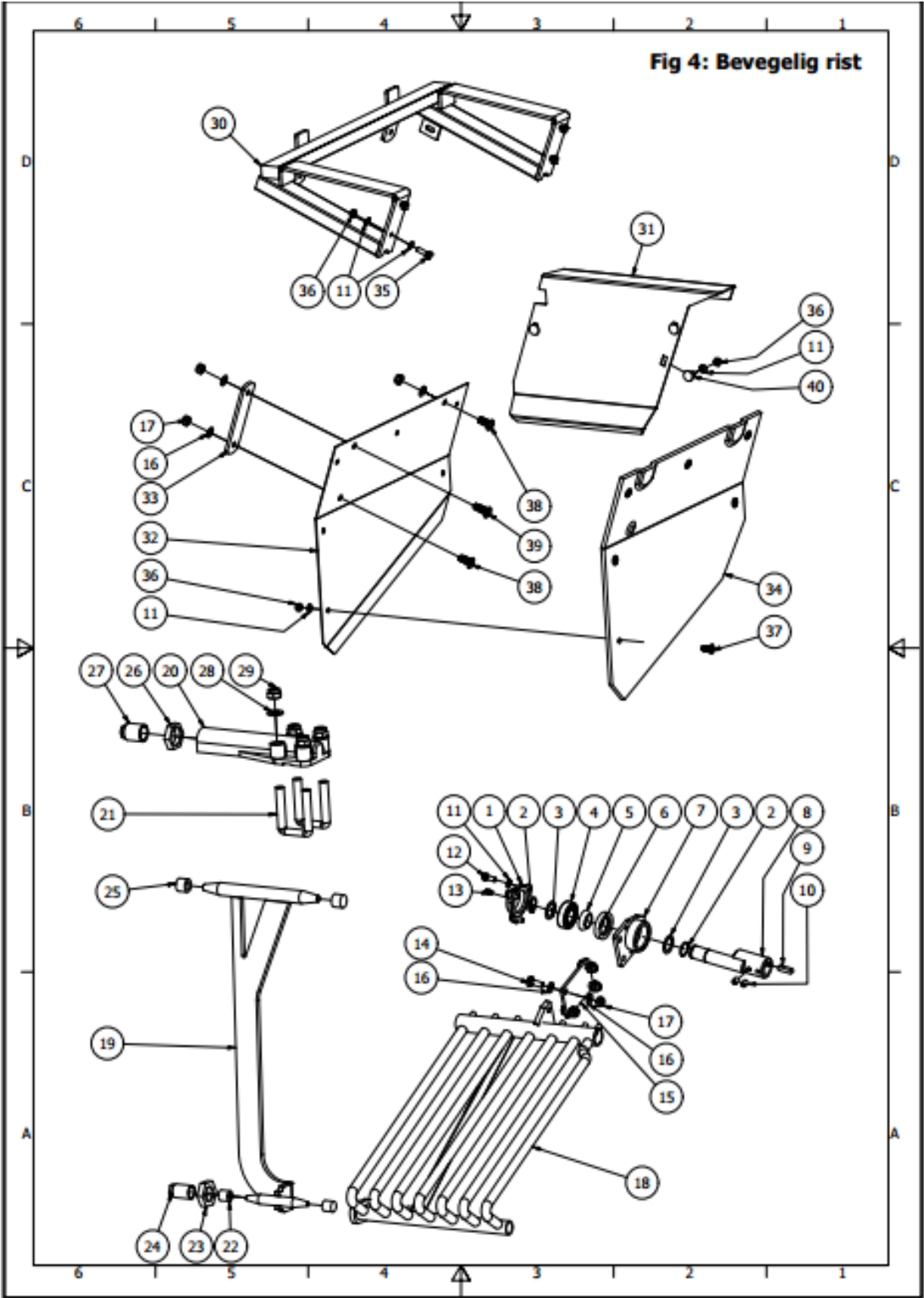
Fig. 3: Operation



SPARE PARTS UM 6150 – Fig. 3: Operation

Ref.	Qty	Art. No.	Item Description
1	1	UH150014	PTO
2	1	UH150012	Spline shaft
3	1	UH866540	Bushing 8752-10x40A
4	1	UH150015	Clamp plate for protective cover
5	1	UH150013	Funnel
6	1	UH150035	Bearing bracket
7	1	UH150037	Bearing housing
8	2	870727	Ball bearing 6205-2 RS
9	1	UH150009	Drive shaft
10	1	UH150038	PVC tube holder welded
11	1	UH150018	PVC tube
12	1	UH150019	PVC support upper
13	1	UH150080	Gear box S1018
14	1	UH150058	Crankcase guard
15	3	UH150016	Wedge 6885-A8x7x32
16	4	032593	Hex.scr 933-M10x120
17	8	012916	Washer 125-A10,5
18	4	852160	Locking nut 985-M10
19	3	813435	Hex.scr 933-M8x35
20	6	012903	Washer 125-A8,4
21	3	852158	Locking nut 985-M8

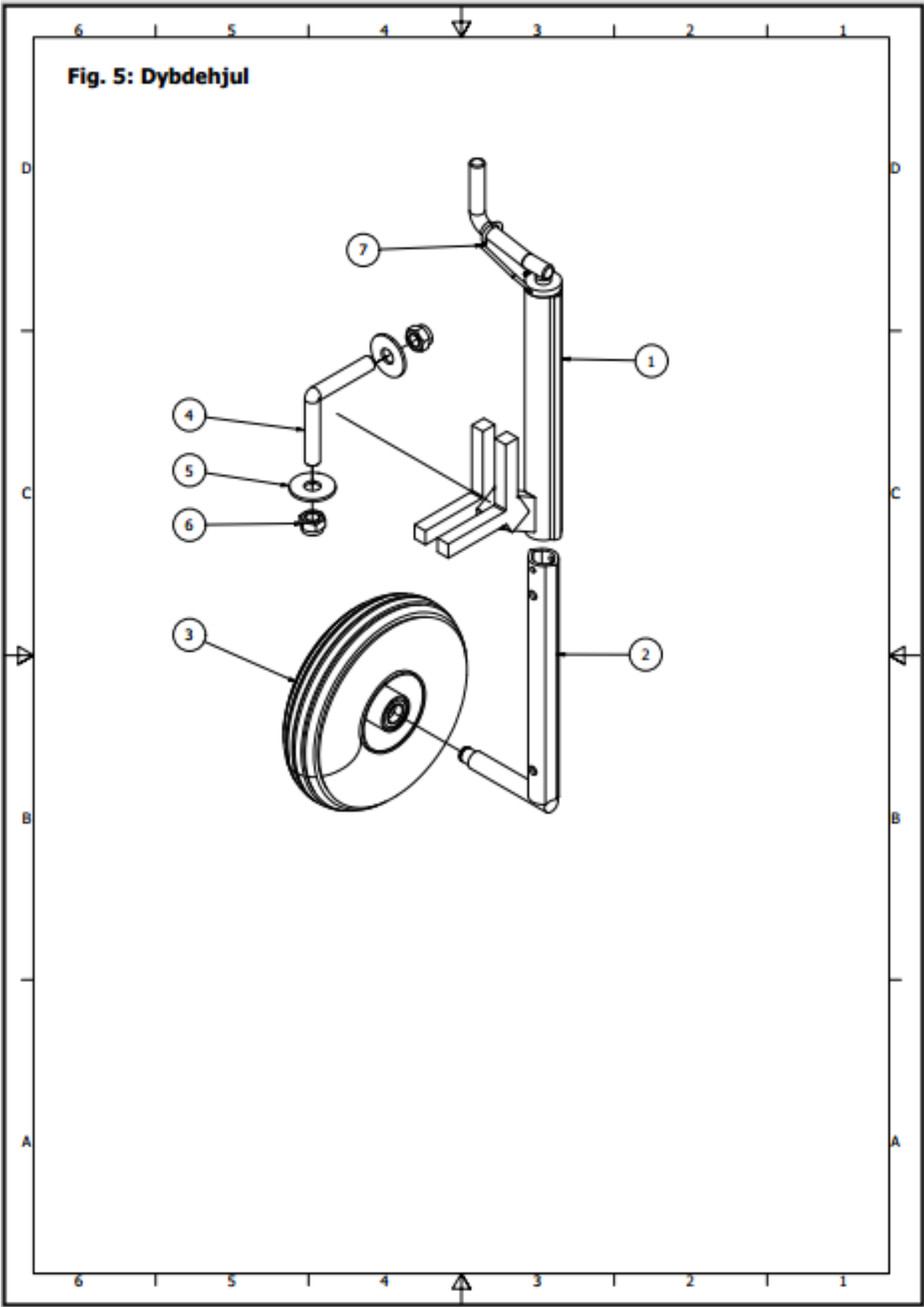
Fig. 4: Movable Strip



SPARE PARTS UM 6150 – Fig. 4: Movable Strip

Ref.	Qty	Art. No.	Item Description
1-40	1	UH150040	Movable strip cpl.
1-17	1	UH150060	Crank cpl.
1	1	UH281002	Crankshaft bearing cover
2	2	868425	Locking ring 471-25x1,2
3	2	UH868605	Support ring Ø25x35x2
4	1	UH870525	Spherical ball bearing 1205
5	1	UH281433	Spherical ring
6	1	UH871303	Tightening ring
7	1	UH281001	Crank bearing housing
8	1	UH150062	Crank
9	1	UH150016	Wedge 7x8x32
10	2	032115	Set scr 4026-M10x10
11	3	012903	Washer 125-A8,4
12	3	813420	Hex.scr 933-M8x20
13	1	873540	Grease nipple M6-straight
14	4	813530	Hex.scr 933-M10x30
15	1	UH281644	Connection plate
16	8	012916	Washer 125-A10,5
17	4	852160	Locking nut 985-M10
18-29	1	UH150048	Pendulum w/grate
18	1	UH150050	Side grate welded
19	1	UH281118	Pendulum welded
20	1	UH281003	Pendulum bearing
21	2	UH281313	Clevis
22	2	UH281805	Bearing liner Ø20
23	1	UH873226	Counter nut 3/4"
24	1	UH281338	Bearing plug R 3/4"
25	2	UH281806	Bearing liner Ø25
26	1	UH873228	Counter nut 1"
27	1	UH281339	Bearing plug R 1"
28	4	012927	Washer 125-A17
29	4	016010	Locking nut 985-M16
30	1	UH150045	Frame
31	1	UH150053	Side shield
32	1	UH150054	Rear shield
33	1	UH150055	Brace
34	1	UH150056	Back cover
35	4	813425	Hex.scr 933-M8x25
36	4	852158	Locking nut 985-M8
37	6	821720	Torx. 7380-2M8x20
38	2	821925	Torx. 7380-2M10x25
39	1	821930	Torx. 7380-2M10x30
40	3	821420	Locing scr 603-M8x20

Fig. 5: Dept Wheel



SPARE PARTS UM 6150 – Fig. 5: Dept Wheel

Ref.	Qty	Art. No.	Item Description
1-7	1	289095	Dept wheel cpl.
1	1	3-155001	Outer pipe
2	1	4-155002	Inner pipe
3	1	241285	Wheel 4,00x4 cpl.
4	1	15004	Mounting hoop
5	2	012938	Washer 9021 – 22
6	2	852167	Nylock nut 985-M20
7	1	288599	Locking hoop



EU - DECLARATION OF CONFORMITY

Responsible person

Name	Atle Årsland
Position	General Manager
Company	Underhaug AS
Address	Torlandsvegen 3 4365 Nærbø, NORWAY
Phone	+47 51 43 49 78

Declares that the following machine:

Manufacturer:	Underhaug AS
Type:	<i>UM 5150 Potato Planter</i>
Serial Number:	
Production Year:	

complies with the following directive:

Maximum regulation 554 (for 2009-05-20-554) and meets essential health and safety requirements.

Basic standard ISO 12100

A handwritten signature in blue ink, appearing to read "Atle Årsland".

Atle Årsland

Nærbø, date



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www.underhaug.no/eng