





CE DECLARATION OF CONFORMITY



FOR THE MACHINE

METAL-FACH COMPANY

ul. Kresowa 62
16-100 SOKÓŁKA

acting as the manufacturer

Machine:

<p>CULTIVATOR</p> <p>type/model: U741-.....</p> <p>serial number:</p> <p>year of manufacture:.....</p>
--

Function: soil cultivation before sowing and after stubble

We declare that the machine which this declaration concerns meets the following requirements:
- Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL dated May 17th 2006 on machines and the Resolution of the Minister of Economy of October 21st 2008 concerning general requirements for machinery (Journal of Laws, issue 199 item 1228);
The following harmonised standards were used for compliance evaluation:

PN-EN ISO 4254-1: 2013
PN-EN ISO 13857:2010
PN-EN ISO 12100:2012

- and the following standards: PN-ISO 3600:1998, PN-ISO 11684:1998; and the Declaration of the Ministry of Transportation, Construction and Marine Economy dated 06/06/2013 on the publication of the consolidated text of the Resolution of the Ministry of Infrastructure on the technical requirements for vehicles and the scope of their necessary equipment (Journal of Laws of 22/08/2013, item 951), as amended.

Safety Test Report no.

Person authorised to prepare the technical documentation: Metal-Fach Technical Department
This Declaration of Conformity becomes null and void if the machine design is changed or modified in any manner without prior consent from the manufacturer.

Sokolka

President of the Management Board

Jacek Marek Kucharewicz

Symbols in the Operating Instructions

Legend:



ATTENTION!

THIS SYMBOL REQUIRES SPECIAL ATTENTION TO THE TEXT DESCRIBING HAZARDS OR IMPORTANT INFORMATION ABOUT THE PRODUCT.



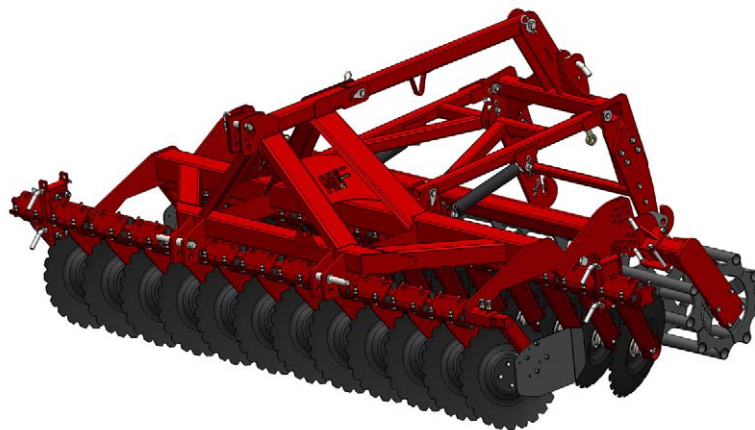
IMPORTANT

THIS SYMBOL INDICATES ADDITIONAL INFORMATION WHICH ALLOWS TO OPTIMISE THE PRODUCT OPERATION.



WARNING!

THIS IS A WARNING SYMBOL AND REQUIRES SPECIAL ATTENTION TO THE OPERATOR AND BYSTANDERS' SAFETY REQUIREMENTS OR SAFE OPERATION REQUIREMENTS.



Thank you for choosing our U741 disc cultivator with hydro-pack, a machine designed for effective and reliable operation. The following Manual will let you fully use the advantages of our cultivator and to optimise the soil cultivation process. The Manual contains a detailed table of contents followed by descriptions which will allow to easily identify the device and to make the best use of it.

The information regarding safety and comfort of operation, description of coupling with a tractor, technical service activities and storage conditions are listed on the following pages of the Manual.

A spare parts catalogue containing the list of the cultivator major components allowing for easy ordering is attached to the Manual in a digital form on a CD. A printed version of the catalogue can be purchased at authorised service outlets or directly from the manufacturer.

Both the Manual and the Spare Parts Catalogue contain basic information on the product. The elements fitted to the equipment may be slightly different from those presented in the Manual.

The manufacturer reserves the right to introduce changes without notice.



IMPORTANT

The latest Operating Manuals and Parts Catalogues are available on our website:
<http://www.metalfach.com.pl/en/materialy-do-pobrania>

TABLE OF CONTENTS

1.	CULTIVATOR IDENTIFICATION, GENERAL SAFETY RULES	6		
1.1.	Identification of the u741 disc cultivator – 3.0 M	6	5.4.	Finishing the work with the cultivator 16
1.2.	Intended use	7	6.	PERIODIC INSPECTION 17
1.3.	Cultivator design	7	6.1.	Lubrication and storage 17
1.4.	Cultivator characteristics	7	7.	AUTHORISED SERVICE 18
1.5.	Cultivator dimensions	8	7.1.	Warranty service 18
1.6.	Warning symbols	10	7.2.	Ongoing maintenance 18
1.7.	Location of symbols on the machine	11	7.3.	Ordering spare parts 18
1.8.	General safety rules	11	8.	TRANSPORTING THE CULTIVATOR 18
2.	DRIVE OPERATION 13		8.1.	Load transport 18
2.1.	Coupling the cultivator with the drive	13	8.2.	Travelling on public roads 19
2.2.	Decoupling the cultivator from the drive	13	8.3.	Light signalling (optional) 20
2.3.	Stability of the tractor/cultivator assembly	13	9.	CULTIVATOR STORAGE 20
3.	COMMISSIONING 14		10.	TROUBLESHOOTING 21
4.	ONGOING ADJUSTMENTS 15		11.	DISMANTLING, DISPOSAL AND ENVIRONMENTAL PROTECTION 21
5.	OPERATING THE CULTIVATOR 15		12.	RESIDUAL RISKS 22
5.1.	Preparing the machine for work after storage	15	12.1.	Description of residual risks 22
5.2.	Operation of the cultivator with the hydropack coupled to a seeder	16	12.2.	Evaluation of the residual risk 22
5.3.	Cultivator hydraulic system	16	13.	WARRANTY CONDITIONS 23

1. CULTIVATOR IDENTIFICATION, GENERAL SAFETY RULES

1.1. IDENTIFICATION OF THE U741 DISC CULTIVATOR – 3.0 M

The cultivator is identified by its nameplate securely fastened to the main frame of the machine. The information presented on the U741cultivator 3.0 m nameplate is shown in the diagram below.



Fig. 1. Nameplate

	WARNING!	It is forbidden to drive the cultivator on public roads without its nameplate or with an illegible nameplate.
	ATTENTION!	Should you have any doubts about the intended use of this machine, consult the manufacturer. The right selection of your work machines and the understanding of its use will improve your work safety.

**THE MANUAL IS A PART OF THE CULTIVATOR
ESSENTIAL EQUIPMENT.**

**KEEP THE OPERATING INSTRUCTIONS FOR FUTURE
USE.**

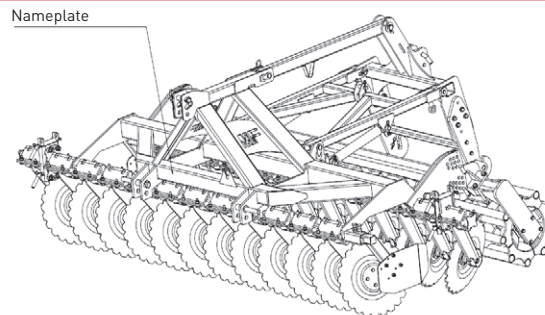


Fig. 2. Nameplate location on the machine

If the machine is sold to another user, it must be supplied with the Operating Manual. It is advised that the supplier has a confirmation stating that the Manual has been transferred together with the machine, signed by the buyer and filed.

Carefully read the Operating Manual.

	IMPORTANT	When purchasing the machine, check the serial number indicated in the Manual and the warranty sheet against the serial number stamped on the nameplate.
--	------------------	---

1.2. INTENDED USE

The cultivator is a universal tool for the cultivation of the top layer of soil to the depth of 5 cm to 15 cm. It is designed for use after harvest and before sowing following ploughing or in soil cultivation without ploughing, when the vegetation remains are not covered but mixed with the top soil layer (i.e. mulched). In combination with the integrated seeder, the machine can be operated for soil cultivation and seeding. The cultivator can be used on all types of soils including those with stones thanks to the use of elastic suspension of the harrow discs. The harrow allows for opening and mixing of the soil and in connection with the packer also for packing and compressing of soil. Due to the resistance to clogging the harrow is well suited for the cultivation of tall stubbles which remain after the harvest of crops and corn and for cultivation of aftercrop intended to be used as fertiliser.

1.3. CULTIVATOR DESIGN

The cultivator structure comprises the main frame built of sections, the service assembly frame, the harrow discs with maintenance-free hubs, the rear round packer, and the seeder hydraulic lift.

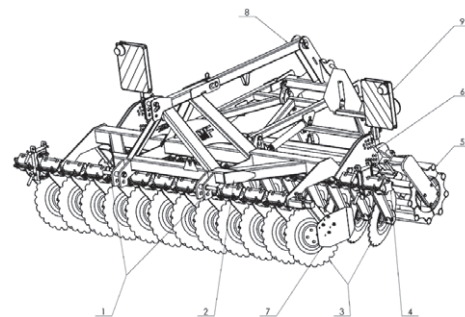


Fig. 3. Cultivator design

1- lower hitch pins; 2 - machine frame, 3 - front/rear harrow discs; 4 - outer plate folding support; 5 - round packer, 6 - mechanical working depth adjustment; 7 - side screens; 8 - hydropack; 9 - lamps (optional).

1.4. CULTIVATOR CHARACTERISTICS

	<p>No person is allowed to remain on the machine or within its operating area when the cultivator is working.</p>
<p>ATTENTION!</p>	

Item no.	Content	
I General data		
1.	Type	Cultivator
2.	Manufacturer	METAL-FACH Sp. z o.o. 16-100 Sokółka, ul. Kresowa 62
3.	Type (model)	U741
5.	Nameplate location	main frame
6.	S/N stamping location	on the nameplate and underneath

7.	Service width [m]	3.0
8.	Number of discs [pcs]	24/2 rows
9.	Packer type:	
		round, Ø 500 Packer, Ø 500
10.	Main/outer disc diameter [mm]	Ø 510/ Ø 460
11.	Depth adjustment range [cm]	5 - 15
12.	Disc pitch [mm]	250
13.	Power demand [kW/HP]	60-83/80-110
14.	Operators [no. of persons]	1 operating person
15.	Efficiency [ha/h]	3.0 - 5.0
15.	Overall dimensions	
	transport position (hydropack lifted)	
	width [mm]	3000
	height [mm]	2340
	length [mm]	1860
	service position	
	width [mm]	3530
height [mm]	1390	
	length [mm]	1860

16.	Weight w/packer and hydropack [kg]	1180
17.	Hitch category	2 or 3

1.5. CULTIVATOR DIMENSIONS

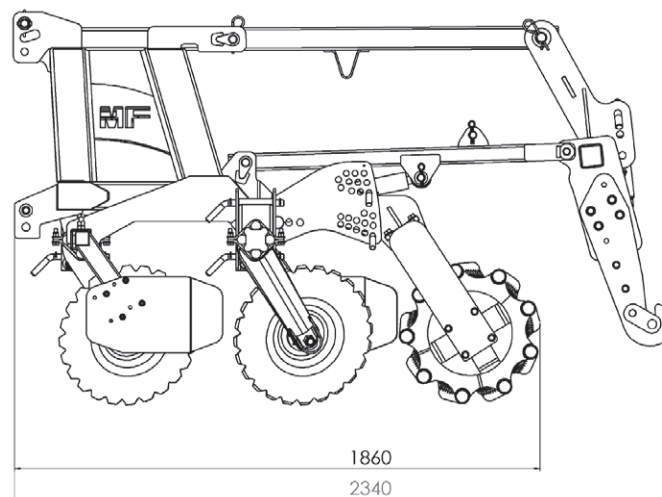


Fig. 4. Cultivator side view

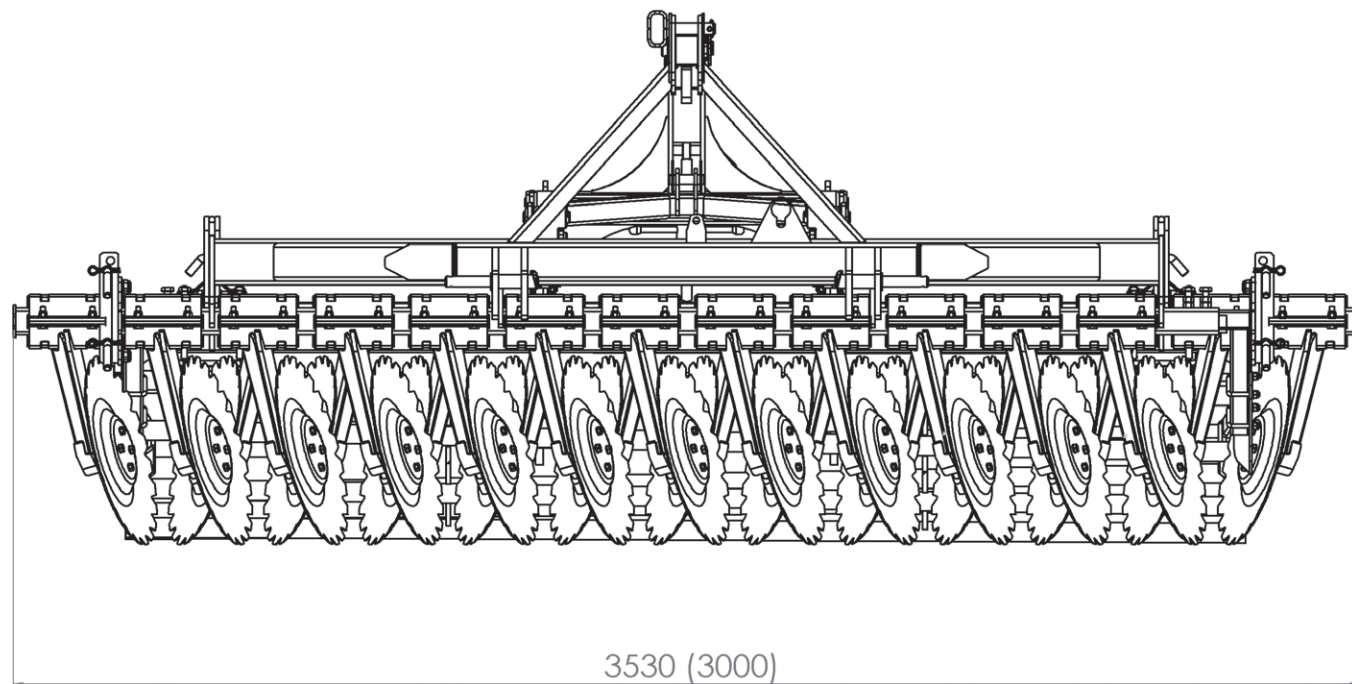


Fig. 5. Cultivator rear view

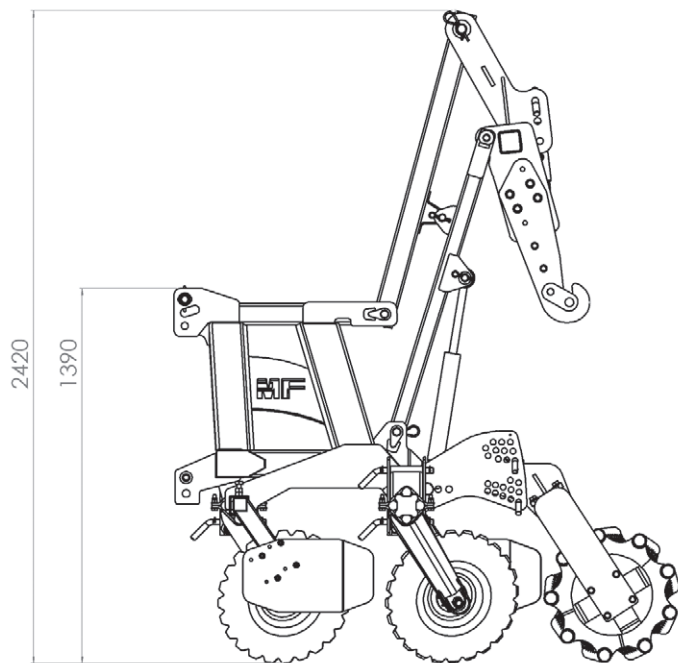







Fig. 6. Cultivator side view, with the hydro-pack lifted

1.6. WARNING SYMBOLS

Item no.	Safety symbol (sign)	Meaning of the symbol (sign) or text
1.		Read the Operating Instructions.
2.		Turn off the engine and remove the ignition key before servicing or repairs.
3.		Keep a safe distance from the machine. Danger of being crushed by the machine.
4.		Do not reach into the crushing area if the machine may move.
5.		Keep a safe distance from the machine. Danger of crushing of toes or feet. Force applied from above.
6.		Attachment points for loading on a means of transport.
7.		Lift the cultivator when turning around.

8.		Cultivator service depth.
9.		Lubrication point.
10.		Check the disc hub tightening.

1.7. LOCATION OF SYMBOLS ON THE MACHINE

 ATTENTION!	<p>The cultivator user is required to keep the warning symbols and text on the cultivator legible during its entire operating life. If damaged or destroyed, replace with new ones.</p>
 ATTENTION!	<p>The symbols can be purchased directly from the manufacturer or the nearest Metal-Fach authorised representative.</p>

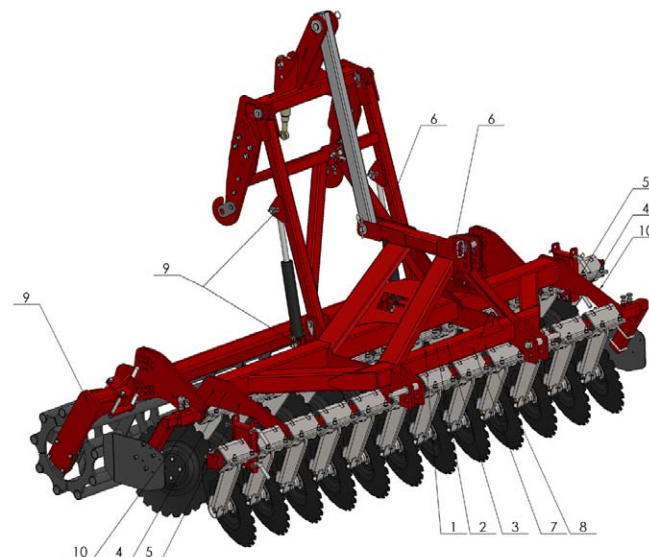


Fig. 7. Locations of signs on the cultivator

1.8. GENERAL SAFETY RULES

The safety regulations given below apply to the machine. Regardless of those regulations the user must also follow the general safety and accident prevention regulations and the traffic code.

The machine (cultivator + tractor) should be operated maintaining all rules of safe operation, in particular:

1. Before every start-up check the machine and the tractor – whether they are in condition which guarantees safety during movement and operation;
2. To maintain steerability the machine may only be coupled to a tractor with a full set of weights on the front axle. When the machine is coupled the load on the tractor's front axle must be at least 20% of the tractor's own weight, see Section 2.3;
3. Follow the maximum permissible axle loads, total weight and transport dimensions;
4. When coupling the machine to the tractor, raising and lowering the machine using the tractor's hydraulic system, unfolding the machine to its transport or working position, and on headlands, the operator must make sure that there are no bystanders near by, especially children;
5. When the engine is running, no person is allowed between the tractor and the machine;
6. Noise – the equivalent sound pressure emission corrected by A characteristics (LpA) does not exceed 70 dB;
7. When connecting the hydraulic lines to the tractor's hydraulic system the operator must make sure that the system is not under pressure; the operator must check the positions of the tractor hydraulic system control levers;
8. It is only allowed to operate the hydraulic elements when no person is nearby;
9. The hoses and pipes in the hydraulic lines must be checked on a regular basis and replaced with new ones if they are damaged;
10. All hydraulic lines must be replaced every 6 years;
11. Lifting, lowering, folding, unfolding, and moving the machine should be done slowly and without jerking movements;
12. Do not reverse the tractor or make turns when the machine is lowered to its working position;
13. When turning, bear in mind that there are protruding elements in the machine, the use of tractor's independent brakes must be avoided;
14. The user must check the tyre pressure on the tractor and on the machine;
15. During transport no person should be allowed to stand on the machine nor any load may be placed on it;
16. Any repairs, lubrication or cleaning of the service assembly required during work may only be performed with the engine turned off and the machine lowered;
17. Uncouple the machine only when its service assembly rest on stable firm ground and the engine is off;
18. The machine may only be stored in its unfolded position and resting on all service assemblies;
19. When not in use, the machine should be stored in places where it cannot be accessed by unauthorised persons and animals;
20. During operation, use appropriate protective clothing and shoes with anti-slip soles;
21. Follow the traffic code regulations and the manufacturer's recommendations when travelling on public roads, see section 8.2;
22. Before entering public roads, perform a visual inspection of the transported machine;
23. It is forbidden to operate the cultivator while under influence of alcohol;
24. Do not leave agricultural equipment on slopes or any other terrain inclinations without securing it against accidental rolling;
25. The machine must not be used by underage persons, especially children;
26. Do not operate the cultivator while under the influence of drugs or medicinal products with narcotic effects;
27. If injured (by laceration/cutting), administer first medical aid; if the injuries are severe, immediately seek medical attention;
28. If involved in a collision or a traffic accident, call emergency services and follow the road traffic regulations.

2. DRIVE OPERATION

2.1. COUPLING THE CULTIVATOR WITH THE DRIVE

Couple the cultivator with the agricultural tractors rated at a minimum of 80 HP and equipped with the three-point hitch system.

The cultivator is coupled with the tractor in the following way:

- Reverse the tractor to a distance which allows to couple the machine with the tractor lower hitch links.
- Couple the upper 3-point hitch link to the cultivator and remove any play; then level the cultivator.
- Connect the electric power supply and do a functional test (the lighting system is an optional accessory).
- Connect the hydraulic line and check for proper seal.
- Lift the cultivator and verify that the tractor front axle load is over 20% of the tractor weight. The tractor should remain fully steerable. See Section 2.3.
- The machine should be adjusted during the first pass.



ATTENTION!

Be extremely careful when coupling the cultivator with the tractor. Do not stay between the cultivator and the tractor when coupling the machines together.

2.2. DECOUPLING THE CULTIVATOR FROM THE DRIVE

Do the following to decouple the cultivator from the tractor:

- Make sure that there are no bystanders, especially children, in the coupling area.
- Place the cultivator for storage on a hard, flat and level ground.
- Disconnect the electric power supply (if applicable).
- Disconnect the hydraulic line.
- Disconnect the 3-point upper link and the tractor lower links.

2.3. STABILITY OF THE TRACTOR/CULTIVATOR ASSEMBLY

The tractor should have appropriate ballast at its front end to provide proper steering and braking performance. When the machine is coupled the load on the tractor's front axle must be at least 20% of the tractor's own weight (Fig. 8).

Remember that the road and the coupled machine influence the driving characteristics. The driving style should be adjusted to terrain conditions and type of soil.

While negotiating corners with the coupled or suspended machine, it is important to bear in mind the reach and weight of the machine.

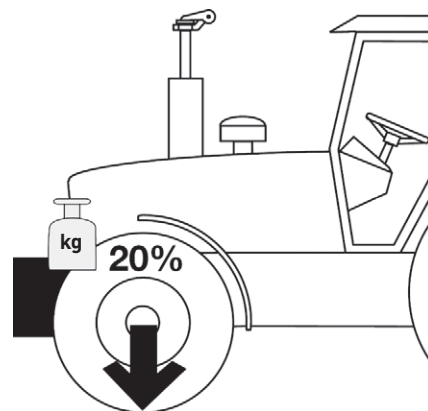


Fig. 8. Minimum load on the tractor front axle.

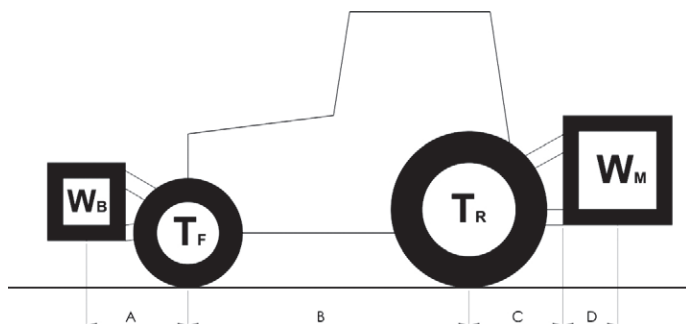


Fig. 9. Static stability

The following data is required for the calculations:

$$W_B = (W_M * [C + D] - T_F * B + 0,2 * T_C * B) / (A + B)$$

A [m] – distance between the centre of gravity of the front ballast / front mounted equipment and the centre of the front axle;

B [m] – distance between the tractor wheels;

C [m] – distance between the centre of the rear axle and the lower link ball;

D [m] – distance between the lower link ball and the centre of gravity of the rear mounted machine;

T_C [kg] – tractor own weight;

T_F [kg] – front axle load of an unloaded tractor;

T_R [kg] – rear axle load of an unloaded tractor;

W_M [kg] – total weight of the machine installed in the rear;

W_B [kg] – total weight of the front ballast/front mounted machine.

3. COMMISSIONING



ATTENTION!

Before commissioning the cultivator, read and understand this Manual, and pay special attention to the sections concerning the safety of the operator and bystanders.



IMPORTANT

If there are any doubts about safety, please contact your sales representative or the manufacturer.

4. ONGOING ADJUSTMENTS

The working depth of the harrow disks can be adjusted using the tractor's three point hitch or the mechanical or hydraulic shaft adjustment mechanism. Adjust the packers with the pins placed in appropriate openings in the packer bracket plate and secured with cotter pins (see Fig. 10).

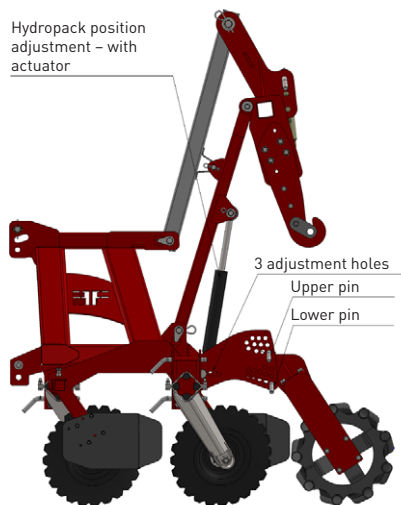


Fig. 10. Machine adjustment

5. OPERATING THE CULTIVATOR


Before commencing fieldwork with the machine, do the following:

- check the condition of the bolted joints – if any play is found, retighten the bolts and nuts;
- check the folding and unfolding of the hydropack (if equipped);
- check the hydraulic lines; replace if necessary;
- remove the warning signs;
- set the cultivator service depth;
- lower the tractor lift to the set service depth.

If the cultivator is clogged with vegetation remains, it must be cleared by operating the tractor hydraulic system to raise the machine for a short time.

The machine should be adjusted during the first pass.

If the machine is properly levelled, the frame is parallel to the field's surface.

	<ul style="list-style-type: none"> • Avoid jerky movements while operating the cultivator. • Make turns gently, with the machine raised in the transport position. • Do not reverse or turn the tractor around with the machine in the working position as it may cause damage to the machine.
ATTENTION!	

5.1. PREPARING THE MACHINE FOR WORK AFTER STORAGE

Do the following to prepare the machine for work after a period of storage:

- check the condition of the bolted joints;
- check the condition of service/working units;
- check the condition of the hydraulic system;
- check the condition of the paint coats;
- check the condition of the hitch pins;
- relubricate as instructed in Section 6.1.

5.2. OPERATION OF THE CULTIVATOR WITH THE HYDROPACK COUPLED TO A SEEDER

The cultivator fitted with the hydropack can be coupled with a seeder by the three-point hitch. The hydropack position is shifted from transport to service by a hydraulic actuator. In order to set the proper service position, adjust the TPH upper link. Adjust during the first pass. Secure the cultivator in the transport position as shown in Fig. 11.



Fig. 11. Securing the cultivator in the transport position

5.3. CULTIVATOR HYDRAULIC SYSTEM

- When the cultivator is running, its hydraulic system is under high pressure.
- Inspect all hydraulic lines each time before work and replace them every 6 years.
- Use only the oil grades recommended by the manufacturer. Do not mix oils of different grades!
- Verify that the tractor hydraulic system is depressurized before connecting with the machine hydraulic system. Keep the hydraulic quick-release couplings clean at all times.
- If the hydraulic system is damaged, hydraulic oil may leak out. Have the system repaired by qualified personnel.
- Return waste hydraulic oil to an authorised disposal point.
- The oil purity grade in the tractor hydraulic power system must meet the 20/18/15 requirement according to ISO 4406-1996.

	<p>If injured by high-pressure jets of hydraulic oil, immediately seek medical attention. If the hydraulic oil contaminates the eyes, flush the eyes with plenty of water and seek attention of an ophthalmologist. Wear adequate protective clothing at work.</p>
<p>ATTENTION!</p>	

5.4. FINISHING THE WORK WITH THE CULTIVATOR

Place the machine on a hard, flat, level ground. Disconnect the electrical power supply (if the optional lighting system is installed) and the hydraulic supply line. Disconnect the 3-point upper link and the tractor lower links. Before a long period of storage the cultivator should be cleaned and all malfunctions should be repaired; also verify the paint coat. If it is required to make some touch-ups, it is advised to use the paint repair kit supplied by the manufacturer. Protect the machine against weather conditions.

6. PERIODIC INSPECTION

While preparing the machine for work, it is required to check its technical condition, and first of all, the condition of the service assemblies.

In addition it is required to:

- check the condition of the bolted joints – if any play is found, retighten the bolts and nuts;
- check whether the packer rotates freely by turning them by hand;
- lubricate the elements of the machine in accordance with the guidelines specified in section 6.1.



Secure the raised cultivator parts with safety pins before servicing.

ATTENTION!

6.1. LUBRICATION AND STORAGE

Before a long period of storage the machine should be cleaned and all malfunctions should be repaired. Protect the machine against weather conditions. The machine should be stored in the unfolded position on a level, hard surface. Secure the machine against access of children and animals. The durability and efficiency of the machine depends to a large degree on systematic lubrication.

Use mineral oils for lubricating the machine. Before adding grease clean the lubrication points. Lubricate according to Fig. 12. Use the ŁT-4S-3 grease for lubrication.



Always relubricate the service assemblies on the U741 cultivator before spring and winter.

IMPORTANT

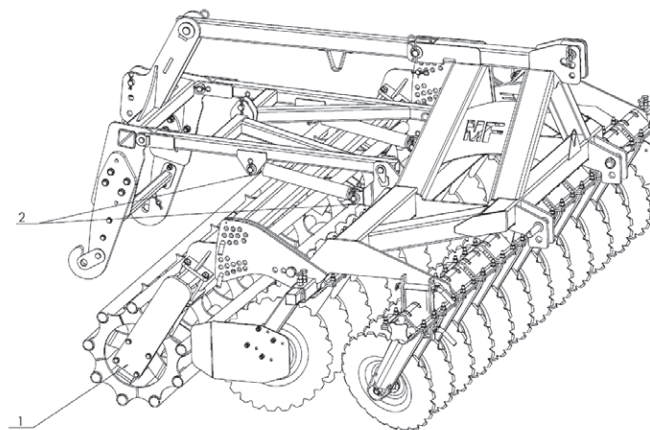


Fig. 12. Lubrication points

- 1 – packer bearing assembly: 2 points;
- 2 – Hydraulic cylinders (with the hydropack option only): 4 points.

7. AUTHORISED SERVICE

7.1. WARRANTY SERVICE

The manufacturer issues a warranty on conditions described in the warranty card. During the period covered by the warranty, repairs shall be made at authorised service stations or at the manufacturer's service point.

7.2. ONGOING MAINTENANCE

After the warranty period, authorised service stations perform periodical inspections, adjustments and repairs.

7.3. ORDERING SPARE PARTS

Spare parts should be ordered from authorised resellers or directly from the manufacturer stating the full name of the user or company name and address. Send your order with the name, symbol, serial number and year of manufacture of the machine, catalogue name of the part, catalogue number of drawing or standard, and number of ordered items. Then arrange the terms of payment.

8. TRANSPORTING THE CULTIVATOR

8.1. LOAD TRANSPORT

The machine is supplied to the user partially disassembled. How much the machine is disassembled depends on the used mean of delivery transport.

The components disassembled for delivery include:

- rear packer;
- seeder hydraulic lift.

Assembly procedure:

Seeder hydraulic lift:

- locate the hydropack bottom frame in its mounting locations on the cultivator frame, connect the assemblies with pins and secure the pins with cotter pins;
- locate the hydraulic cylinders, install the pins and secure them with cotter pins; next, install the threaded fasteners to mount the hydraulic lines to the cultivator frame;
- locate the hydropack upper beam and secure it with the pin and cotter;
- locate the seeder TPH in its mounting locations, install the pins and secure the pins with cotter pins.

Round packer:

- remove 8 packer bracket bolts;
- place the packer in the packer bracket support;
- install the packer bracket plate and secure with the removed bolts.



IMPORTANT

The cultivator is suitable for road and rail transport using carriers with appropriate load bearing capacity.

	While loading and unloading the machine, the parts of the frame indicated as lifting points with appropriate pictograms should be used for lifting the machine see section 1.6.
ATTENTION!	

	Due to the heavy weight of the individual parts, it is required to use lifting devices such as a gantry crane or a forklift during the dismantling process.
ATTENTION!	

8.2. TRAVELLING ON PUBLIC ROADS

The cultivator can be driven on public roads as a machine installed on the tractor 3-point hitch (TPH).

According to the road travel safety rules /Regulation by the Minister of Infrastructure of 21.12.2002 Journal of Laws no. 32 of 2002, item 262/. A unit consisting of a tractor with a coupled farming machine must meet the same requirements as an individual tractor.

	The machine (part of the unit consisting of the tractor and machine) is a part protruding outside the outline of the vehicle and obstructing the tractor rear lights, and as such it poses a threat to other vehicles travelling on the road.
WARNING!	

	Do not travel on the roads if the unit (tractor + machine) is without appropriate marking.
IMPORTANT	

When travelling on public roads with a unit consisting of the tractor and the machine, all rules of the Traffic Code specific to vehicles of this type apply, in particular:

- the cultivator hydropack must be folded to the transport position and secured with the pin against unfolding during transport;
- during transport on the road, the cultivator coupled to a tractor requires:
 - marking with warning plates with red and white stripes;
 - lights;
 - marking the elements protruding from the sides of the tractor (front marker lights – white);
 - repeated rear lights of the tractor (light clusters + reflective lights);
 - marking with a triangle plate indicating a slow moving vehicle;
- do not exceed the maximum allowable transport speed, which is:
 - 20 km/h maximum on paved roads;
 - 6 to 10 km/h on dirt roads or cobblestone;
 - 5 km/h maximum on uneven roads.

The speed must be adapted to road conditions and the condition of the road surface.

Special caution must be taken while passing or overtaking other vehicles and on corners. The maximum allowable width of the machine on public roads is 3.0 m.



Fig. 13. Transport position

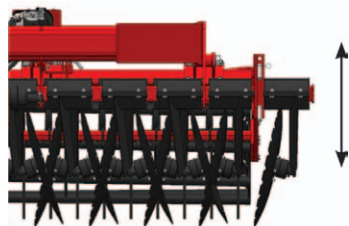


Fig. 14. Service position

8.3. LIGHT SIGNALLING (OPTIONAL)

Before entering public roads a warning plate with red and white stripes, signal lights and a bracket for the plate indicating slow moving vehicles must be installed (the means for installation are specified in Fig. 15). The power supply line shall be connected with the tractor electric system, and a triangle plate must be installed in the bracket. The power supply line shall be connected with the tractor electric system, and a triangle plate must be installed in the bracket.

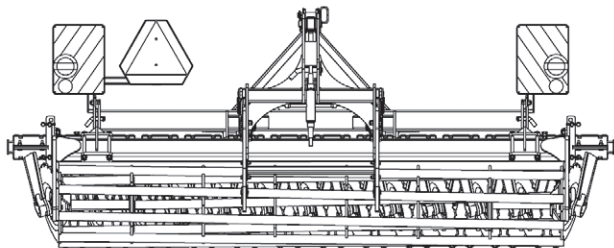


Fig. 15. Installation of the lighting system on the machine

9. CULTIVATOR STORAGE

Store the cultivator extended on a hard, flat, and level surface.

When the working season is over, clean the cultivator and check the condition of the protective paint coating. If it is required to make some touch-ups, it is advised to use the paint repair kit supplied by the manufacturer.

Check the hydraulic system components; replace if damaged.

Check the condition and legibility of the nameplate. If the plate is damaged, notify the service station.

Check the condition and legibility of the symbols. If they are damaged, replace them with new ones.

Plug the hydraulic line ends.



ATTENTION!

Store the cultivator in an atmosphere free of aggressive agents (e.g. ammonia, chemicals).

10. TROUBLESHOOTING

Item no.	Problem	Cause	Remedy
1.	The packer does not rotate or resists.	The packer is clogged with soil and plant remains. Damaged packer bearing assembly.	Clean the packer. Replace and relubricate the packer bearings.
2.	Hydropack is not lifted.	Incorrect connections of the hydraulic lines. Damaged hydraulic line. Hydraulic system is obstructed. No oil in the tractor system.	Verify the connections of the hydraulic lines. Replace with a new hydraulic line. Check for obstructions, remove if any and change the oil. Check the tractor oil level and refill if low.
3.	The harrow disc does not rotate or resists.	The harrow disc assembly is clogged with soil and plant remains. A harrow disc hub is damaged.	Clean the spaces between the harrow discs. Replace the hub.
4.	A harrow disc is loose.	Incorrectly tightened hub.	Retighten the harrow disc to 300 Nm.

11. DISMANTLING, DISPOSAL AND ENVIRONMENTAL PROTECTION

The disc cultivator is made of materials which do not pose a threat to the environment. After its service life expires and further operation is no longer warranted, the machine must be dismantled.

Due to the heavy weight of the parts it is required to use lifting devices such as a gantry crane or a forklift during the dismantling process.

Segregate the dismantled components. Pass the dismantled components to relevant collection points. Waste oil from the hydraulic system should be collected in sealed containers and released to a point which collects such waste.

Dismantling procedure for the cultivator assemblies:

- drain waste hydraulic oil to a suitable catch pan and return the oil to an authorised disposal point;
- use adequate lifting equipment to dismantle the seeder lift and the rear round packer;
- lift the cultivator up, undo the disc brackets; segregate the rubber elements and release to an authorised disposal point;
- segregate the steel parts of the cultivator and release to an authorised scrap collection point.



During disassembly of the cultivator, wear proper protective clothing and shoes.

ATTENTION!



Due to the heavy weight of the individual parts, it is required to use lifting devices such as a gantry crane or a forklift during the dismantling process. Follow the OHS regulations and wear protective clothing with safety gloves and safety shoes when dismantling the cultivator.

ATTENTION!

12. RESIDUAL RISKS

12.1. DESCRIPTION OF RESIDUAL RISKS

The residual risk stems mostly from improper behaviour of the operator caused by lack of knowledge or attention. The highest residual risk occurs in the following situations:

- the machine is operated by minors or persons who are unfamiliar with the operating instructions;
- the machine is operated by persons under the influence of alcohol or other intoxicants;
- using the cultivator for purposes other than its intended use defined in the operating instructions;
- a person is present between the tractor and the machine with the tractor's engine running;
- bystanders, especially children are present near the working machine;
- the machine is cleaned while working;
- manipulation of the moving elements while the machine is working;
- checking the machine technical condition.


While presenting the residual risk the machine is treated as designed according to the state of knowledge in the year of its manufacture and maintaining the basic OHS rules.

12.2. EVALUATION OF THE RESIDUAL RISK

If the following guidelines are adhered to the occurrence of residual risk may be minimised:

- Always follow the safety regulations described in the operating instructions.
- Read and fully understand the operating instructions.
- Keep your hands away from hazardous spaces.
- It is forbidden to operate the machine in the presence of bystanders and children in particular.
- Maintenance and repair of the machine may only be performed by trained personnel.

- The machine may only be operated by persons who have been trained in its operation and have familiarised themselves with the Operating Instructions.
- The machine is protected against access of children.
- The machine is operated by persons in good physical condition who are not under the influence of any intoxicants.

	<p>The residual risks are present when the aforementioned rules are not followed.</p>
<p>ATTENTION!</p>	

13. WARRANTY CONDITIONS

1. Before work, the user shall read and understand the Operating Manual in full to avoid failure by negligence. Failure to properly operate the machine will compromise the performance and void all warranty rights.
2. The manufacturer provides the cultivator which has been designed and built in compliance with the current standards. The manufacturer guarantees that the supplied cultivator is free of manufacturing defects.
3. Metal-Fach Sp. z o.o. provides warranty service for 12 months starting from the date of first sale, provided that the cultivator is used as intended and the Manual is strictly followed.
4. The warranty card properly filled in at the Dealership is the confirmation of the manufacturer's warranty; the acceptance of the warranty conditions must be confirmed by the customer's signature.
5. The warranty covers the following defects:
 - incorrect assembly
 - incomplete delivery
 - workmanship faults of parts or assemblies
 - hidden faults of material
 - damage in transport (if carried by the manufacturer)
6. The warranty does not cover any damage of the hydraulic system caused by contaminated hydraulic oil. The oil purity grade in the tractor hydraulic power system must meet the 20/18/15 requirement according to ISO 4406-1996.
7. The warranty does not cover wearing parts worn in normal operating conditions, i.e. the harrow discs, the hydraulic lines, packer rakes, bearings, fluids and lubricants, and light bulbs.
8. The warranty does not cover any mechanical damage or other damage resulting from improper use, improper maintenance or improper adjustment of the cultivator.
9. The warranty does not cover any damage resulting from improper storage of the cultivator.
10. Any unauthorised modifications of the design of the machine made by the user will result in automatic termination of the warranty.
11. The manufacturer shall not be held responsible for any loss, damage or destruction of the product resulting from causes other than defects of the supplied machine.
12. During the warranty period the manufacturer will repair any defects which occurred as a result of the manufacturer's negligence with the exception of defects listed in items from 6 to 10.
13. Warranty repairs shall be made within 14 working days of the notification/supply of the cultivator to the designated service station or at another time agreed upon.
14. The warranty is extended by the time required to complete the repair.
15. During the warranty period all repairs which are not covered by the warranty are performed by authorised service stations at full cost chargeable to the user.
16. During the warranty period all repairs which are not covered by the warranty are performed by authorised service stations at a full cost chargeable to the user. Before such repairs, the service station will inform the user of the suggested cost, time and scope of the repair.
17. The decision whether to commence a chargeable repair of the cultivator with the warranty valid at the time of repair is made by the customer.

**ATTENTION!**

Current information about the products
available at
www.metalfach.com.pl

METAL-FACH

16-100 SOKÓŁKA, POLAND

UL. KRESOWA 62

WARRANTY CARD

CULTIVATOR

U741

The warranty service is provided on behalf of the manufacturer by:

filled out by the seller

Date of manufacture	Date of sale
Serial number	Dealer's signature
Customer's name and surname		
Address		
	Customer's signature		

SALES METAL-FACH®

16-100 Sokółka, ul. Kresowa 62
tel.: +48 85 711 98 44, fax: +48 85 711 07 89
handel@metalfach.com.pl

SUPPORT SERVICE METAL-FACH®

16-100 Sokółka, ul. Kresowa 62
tel.: +48 85 711 07 80, fax: +48 85 711 07 93,
serwis@metalfach.com.pl

SPARE PARTS & SHOP METAL-FACH®

16-100 Sokółka, ul. Kresowa 62
tel.: +48 85 711 07 81, fax: +48 85 711 07 93,
sklep.mf@metalfach.com.pl

METAL-FACH®

METAL-FACH Sp. z o.o.; Ul. KRESOWA 62; 16-100 SOKÓŁKA