Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

OPERATING MANUAL
WARRANTY

WOOD GRIPPERS				
				
UWG1	**UWG2**	**UWG3**	**UWG2M**	**UWGPG**
1-ARM	2-ARMS	STANDARD	MAXI	GOLIAT

Bytow 2023 Revision 01

ORIGINAL INSTRUCTIONS

+48 59 822 34 88 kolaszewski.com kolaszewski@kolaszewski.com

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

NOTE!

These instructions for use must be read before use and the safety instructions contained therein must be observed.
The instruction manual is the basic equipment of the machine!

The instructions should be kept in a safe place, where they should be available to the user and operator throughout the life of the machine.
If lost or damaged, a new copy must be purchased by ordering one from the machine's point of sale or from the manufacturer.
If the machine is sold or made available to another user, the operating instructions together with the declaration of conformity for the machine must be included.

The manufacturer has the right to make changes to the manual without prior notice and is under no obligation to replace earlier editions with newer ones.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

Table of contents

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

1. Introduction

It is imperative that you read this manual with understanding and follow all the instructions before using the wood grippers for the first time.

NOTE!
Read the operating instructions before using the wood grippers. Keep this manual in a safe place

This manual contains a description of the hazards that may occur if the safety rules are not observed when working with and operating the wood grippers. The manual lists the precautions to be taken to minimize or avoid hazards.

The manual also contains rules on the correct handling of the machine and explains the maintenance work to be carried out.

If you do not understand the information given in the instructions, please ask the manufacturer directly for clarification.

NOTE!
The symbol warns of a hazard.
This warning symbol indicates important information on the hazard given in the instructions.
Please read the information given carefully, follow the instructions and take special care.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

2. Work safety rules

2.1 User safety

Wood grippers should only be operated by adults who are familiar with the operation of the grippers and the contents of this manual, and who have the necessary qualifications. The grippers should be operated with all precautions in mind, in particular:

- In addition to the instructions in this manual, also observe the general rules of health and safety at work.
- Observe the warning symbols on the machine.
- Never allow a vehicle operating wood grippers to be driven by anyone other than its operator, and under no circumstances allow other persons to be on the vehicle and machine during operation.
- Wood grippers may be operated by a person who is qualified to drive the vehicle to which the gripper is attached in accordance with the recommendations of the machine and vehicle manufacturer. In addition, a license to drive a forklift truck is advisable.
- The operator's workstation when working with wood grippers is the cab of the vehicle to which the gripper is mounted.
- The vehicle that is working with the gripper must be technically sound, properly marked and illuminated.
- The operator must ensure that organisation and adequate security is in place when moving loads that may present a potential hazard.
- Please note that there are several places on the wood grippers that can cause injury (sharp edges, protruding components, etc.). When working, increased caution must be exercised when moving near the critical areas mentioned and personal protective equipment such as:
  - protective clothing,
  - protective gloves,
  - safety footwear
- It is forbidden to transport persons, animals or objects that are not structurally suitable for transport by gripper.
- It is forbidden to move or shift solid objects that have not been secured, prepared for transport.
- It is not permitted to suspend any load by ropes or other slings to the grippers and so carry them.
- Before starting work, the operator must familiarise himself with the condition of the roads, the strength of the ground, the weight of the goods, the weight of the gripper, the safety devices, the clamping equipment, the shape and size of the load to be transported and get to know the weather conditions for carrying out the work.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

- The operator must determine the transport options: estimate the weight of the log and predict its centre of gravity, making sure that it is safe to carry out the planned, intended work.
- Before starting work, visually inspect the vehicle and the mounted clamp for damage. Any damage, cracks or deformations eliminate the clamp from operation.
- Work in the open air must be stopped if weather conditions deteriorate to such an extent that the safe operation of machinery is endangered and a danger to the operator and others is created.
- The haul road must ensure stability during use, under all foreseeable conditions, considering the type of ground.
- It is forbidden to work with the gripper on unstable surfaces (holes, ruts, etc.).
- It is forbidden to move loads over unsecured work areas, where working people or members of the public are habitually present.
- Loads lifted by the gripper must not be left unattended.
- It is forbidden to attach ropes, straps or other load pulling tools to the gripper.
- Do not jam loads between the forks of the clamp base frame.
- It is forbidden to operate wood grippers by outsiders who are not familiar with the instructions for use and the load characteristics.
- It is forbidden to load the clamp and the vehicle beyond its permissible load capacity and to transport loads that are not compatible with the dimensions of the clamp.
- A worker carrying out off-site clamping work should hold a WJO Category I licence for specialised forklift trucks and be provided with a first aid kit containing first aid supplies with instructions for their use.
- In case of poisoning or infection, contact a doctor immediately.
- Ensure a safe transport height of 0.15m when moving the vehicle with a non-working gripper mounted.
- The load should be carried raised 70-100mm above the ground.
- The transport speed should be adapted to the condition of the road surface and the weight of the object to be transported.
- To maintain proper handling, the gripper must be adapted to the vehicle in accordance with the manufacturers' recommendations - vehicle and fork and the suspension system used. For mounting rules from the manufacturer of wood grippers see
  See section 5.1 - Mounting wood grippers - of this manual.
- It is important to ensure that during operation, the axle load of any vehicle with a mounted timber gripper is not less than 20% of its total weight.
- Do not leave the vehicle with the log gripper on slopes or other inclines without securing the vehicle to prevent it from rolling off on its own. The gripper must be lowered to the ground. Place chocks under the wheels of the vehicle.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

- Before carrying out any preparation, assembly, disassembly, or adjustment work, switch off the drive, vehicle engine, immobilise the vehicle
  and wait until all moving parts of the machine have stopped and the pressures have stopped.
- After the first hour of operation, check the condition of all detachable connections, min. screw connections.
- The gripper should be stored on a flat, level, paved surface out of the reach of bystanders and animals.
- Care must be taken when mounting and dismounting the clamp, paying particular attention to the structural components responsible for the attachment of the
  with the vehicle.
- Before working with the wood gripper, check the technical condition of it and the mating vehicle. The unit, vehicle and gripper must be
  in good technical condition. Worn or damaged parts must be replaced immediately with new parts.
- The wood gripper must be fitted with all guards (if provided by the manufacturer) to prevent access to moving parts. The guards must be complete and in full working order.
- The grippers have hydraulic power systems. During aggregation and operation, attention should be paid to the tightness of the system, the routing of the hoses and the cleanliness of the couplings.
- The weight of the gripper suspended from the vehicle may affect steering. Special care should be taken in this situation.
- The operating instructions must be kept with the machine. When lending a wood gripper, it must be handed over in working order together with the instructions for use.
- Before work, the wood gripper should be prepared according to the recommendations under: 5 Using the machine, Wood gripper assembly.
- It is prohibited to attach additional means of transport to the grippers.
- It is forbidden to transport or move the vehicle with the gripper mounted on the suspension system on public roads.
- Check the condition of the clamp during initial start-up.
- Due to the natural wear and tear of materials, the recommendations described in in Chapter 6 Operation and Maintenance.
- When receiving and transporting the wood gripper, check the machine for damage by checking its condition.
- It is forbidden for people and animals to be underneath the raised grab, as there is a risk of being crushed by structural components and transported objects.
- Do not insert fingers or limbs between machine components during adjustment.
- The operator of a vehicle that works with a timber gripper must take care that no one comes close to the fork or is in proximity while working.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

- When turning or reversing, manoeuvring with timber grippers, ensure that you have adequate visibility or have the assistance of a suitably trained person. Such a person should be in direct contact with the vehicle operator.
- It is forbidden for the operator to be between the vehicle and the gripper while the vehicle engine is running.
- It is forbidden to work and load only one side of the gripper. Symmetrical loading, grabbing the centre of gravity of the log - the basis for safe work!
- Working on slopes more than 4% is not permitted.
- Exercise extreme caution when turning the vehicle
  with the clamp suspended, both during transport and when turning, especially if there are people, animals, or objects in the vicinity.
- A vehicle working with a timber gripper must have a cab or safety cage of the appropriate design class.
- Never leave the vehicle with the engine running. Before leaving the operator's seat, lower the gripper to the ground, switch off the vehicle engine, remove the ignition key, apply the handbrake.
- Do not use unbuttoned, dangling pieces of workwear when working and when assembling, dismantling, adjusting. Keep them away from items that can catch them.
- The storage of wood grippers should take place in
  in places that are safe from unauthorised persons and animals and where there is no risk of accidental injury, on a flat, hardened surface and under a roof.
- In the event of a breakdown, the drive carried from the vehicle must be switched off immediately.
- It is not permissible for persons under the influence of alcohol or other intoxicants to operate wood grippers.
- Any maintenance operation that requires you to be at the clamp should only be carried out with the clamp lowered to the ground and the vehicle engine switched off.
- The timber gripper can only be controlled from the operator's cab of the vehicle to which the gripper is connected.
- It is forbidden to work with a vehicle with an internal combustion engine to which a grabber is attached
  in enclosed spaces. There is
  a risk of exceeding the permissible concentrations
  and intensities, causing poisoning.

Non-compliance with these rules may endanger the operator and bystanders as well as damage to the clamp. Damage resulting from non-compliance with these rules is the responsibility of the user.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

Timber grippers are not intended for use on public roads. Transporting the gripper mounted on the vehicle suspension system on public roads is prohibited.

2.1.1. Basic principles for safe storage

Storage areas and yards should meet safety requirements according to the type and characteristics of the materials stored.

When storing:

- Determine for each type of material stored the location, method, and permissible height of storage.
- Ensure that the weight of the stored load, including the weight of the equipment designed to transport it, allows stable and safe operation.
- Post clear information on the work of woodworking and transport.
- When stacking materials, ensure binding between layers. Maintain a distance between piles to allow for safe stacking and transport.
- Stacks should be stacked so that the centre of gravity of the stored items remains within the contour of the stacks, ensuring proper stack stability.
- Stacks should be unloaded sequentially, starting with the topmost layers.
- It is not permitted to remove materials from the centre of the piles.

All timber transport and storage operations must always be carried out with extreme care, safety guidelines for timber storage, in accordance with the conditions set out in the process manuals, common sense and good manufacturing practices.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

2.2. Safety signs on wood grippers

1.0 - Read the instruction manual before use

C.2.26

1.1 - Switch off the engine and remove the key before carrying out maintenance or repairs

C.2.7

1.5.1 - Do not stand do not walk do not ride on the forks and materials being transported

C.2.1

1.2 - Keep a safe distance from the raised boom, the goods being transported

A.7.2 + B.2.6

1.2.2 - Keep a safe distance from the machine. Crushing of toes or foot - Force applied from above

C.2.44

1.8 - Avoid exposure to pressurised liquids. Familiarise yourself with the operating instructions for maintenance operations

3.1 - Hydraulic system pressure warning

Stickers firmly affixed to the machine in a visible location, unaffected by abrasion and dirt.
The marking must be legible during the normal life of the machine.

2.3 - Wear a protective suit

2.6 - Wear protective footwear

2.4 - Wear protective gloves

2.8 - Wear a safety helmet

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

2.3 Hazards in the operation of wood grippers

Lp.	*Threat*	*Source of danger (cause)*	*Possible effects of the risk*	*Hazard protection measures*
1	Overloading the musculoskeletal system (physical strain)	Working in a standing, stooping-forced position, walking, moving	Diseases of the musculoskeletal system, spinal injuries, tendon ruptures	Familiarisation with operating instructions, job training about lifting standards for manual handling, correct lifting and jacking techniques, use of a second person, handling aids e.g. jack, winch
2	Falling on the same level (tripping, slipping, etc.).	Uneven ground, clutter - lying and standing objects, obstructed traffic routes, slippery surfaces	Bruises, dislocations, joint sprains, bone fractures, cuts	Appropriate work footwear, use of personal protective equipment, level ground, paying attention, maintaining order, familiarisation with operating instructions
3	Impact on non-moving protruding sharp parts of the machine	The machine, its environment	Personal injuries, bruising, bumps, bruises, cuts	Proper assembly of the machine, safe space to move around, proper organization of work, paying attention, use of personal protective equipment - safety helmet, gloves, familiarization with operating instructions
4	Impact from moving objects, transported loads	Logs, branches, transported objects falling from the machine	Contusions, injuries, crushes	Attention, delimitation of the danger zone, prohibition of movement around the working machine, prohibition of standing under the weight - raised machine, use of personal protective equipment - safety helmet, goggles, familiarisation with operating instructions
5	Sharp dangerous edges	Protruding machine components, use of hand tools	Injuries to fingers, hands, scratches, catching with protruding parts of clothing	Personal protective equipment - protective gloves, work attire, paying particular attention
6	Moving parts of the machine	Moving machine parts, moving jaws, no guarding of moving parts	Lacerations, wounds to extremities, crushed fingers, and hands	Prohibition to move in the vicinity of working machinery, special care, use of guards for moving parts, reading of operating instructions
7	Weight of the suspended and standing machine, weight of the loaded machine, load to be transported	Incorrect assembly, aggregation, poor machine positioning, poor operation, leaving the suspended machine on the tractor, poor loading of the transported load	Contusions, injuries, crushed feet, hands	Exercise extreme caution, no standing under the load - raised machine, use of personal protective equipment - safety footwear, protective gloves, safe work, good organisation, use of a second person, use of jacks, cranes, familiarisation with operating instructions
8	Microclimate - variable atmospheric conditions	Work carried out in various weather conditions	Overheating (heat stroke), sunburn,	Appropriate work clothing, drinks, sunscreen, rest, familiarisation with operating instructions, ventilation of the vehicle cab
9	Noise	Excessively high speed of vehicle, machine, damaged, loose vibrating parts	Irritability, lack of concentration, neuroses	Working with an efficient vehicle, machine, ongoing maintenance, proper vehicle rotation, familiarisation with operating instructions

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

3. Purpose of the device

Timber grippers are designed for grasping, gripping timber (logs, bundle of logs, branches), and transporting internally (over short distances) the load held by the upper jaw of the gripper. They are used as vehicle tools for agricultural and forestry work in timber harvesting. The grippers allow the transported timber to be lifted, stacked, and pushed.
They are professional attachments for front loaders, telehandlers and mini loaders with various attachments as standard.

Mounting of grippers to the vehicle is possible via the following attachments: Euro; Weidemann; Manitou; Schaffer; Kramer; SMS; Giant; Avant; Volvo; Class; TUZ. The manufacturer provides a wide range and individual approach to the mounts.
The unit works perfectly when mounted on all TUR front loaders. The mountings should be selected in accordance with the vehicle and log gripper manual.

The working element is a frame with forks, made of special material using modern technology to ensure the durability and robustness of the machine. The gripper has a clamp (jaw) controlled by a hydraulic system that allows smooth adjustment of the clamp to the transported goods.

Compliance with the manufacturer's operating and repair requirements in accordance with the manufacturer's instructions and the strict adherence to these instructions are a prerequisite for the proper use of the machine.
for the intended use. The grippers may only be used, operated, and repaired by persons who are familiar with their detailed characteristics and who are familiar with the rules of conduct regarding health and safety at work.

The manufacturer stocks a wide range of machines. It also provides specialist advice on choosing the right equipment for your needs.

Any confusion regarding the intended use of the device should be clarified by contacting the manufacturer of the Timber Gripper. Proper selection of the device and awareness of its intended use will increase work safety.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

4 Description of the device

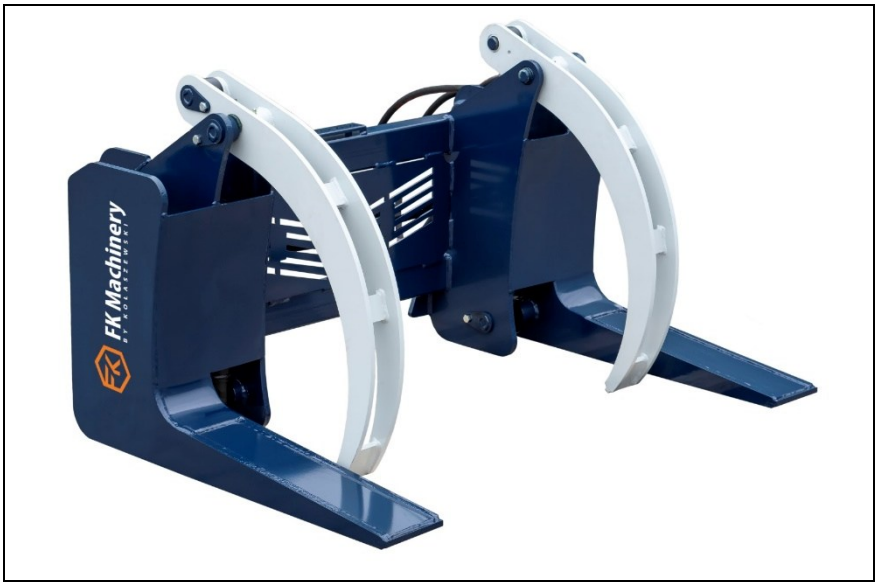


Fig.1 General view - wood gripper

Timber grippers with hydraulic control are suitable for use
with a vehicle having a mounting system (suspension) in the standard of rear and front mountings used on agricultural vehicles and front attachment standard for agricultural vehicles.

The timber grippers are constructed from two main structural elements connected by a pivot. The first element, **the gripper frame with forks, is** made of steel elements welded together and forms a compact strong construction - a rigid frame. The second element - the **jaw (clamp)** is the moving part of the machine. It is made of steel elements and sections, joined together by welding. Both components are made with technology ensuring high strength properties. The control system of the jaw pressure allows smooth adjustment to the material being transported.

The working range and dimensions of the grippers are type-dependent, manufactured in a wide range of dimensions - tailored to the user's needs - **Table** 2

The fitting of the clamp to the vehicle, carrier should be made considering the vehicle, suspension, and clamp manufacturer's comments. In
no case should the weight of the load to be taken on exceed the rated capacity of the carrier with the attachment attached.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

4.1 Equipment and fittings

4.1.1. Basic

The basic equipment of the wood gripper includes:

- Hydraulic control system with supply lines
- Operating instructions
- Warranty card

The portable warning-light device and the triangular plate to distinguish slow-moving vehicles are not part of the basic equipment of the timber grippers. These can be purchased at an additional cost from the manufacturer or from an agricultural equipment depot. Every user should have a functioning warning-light device and a triangular plate to distinguish slow-moving vehicles. Failure to wear these during transport and operation may result in an accident. The operator of the machine is responsible for any damage caused in the event of an accident.

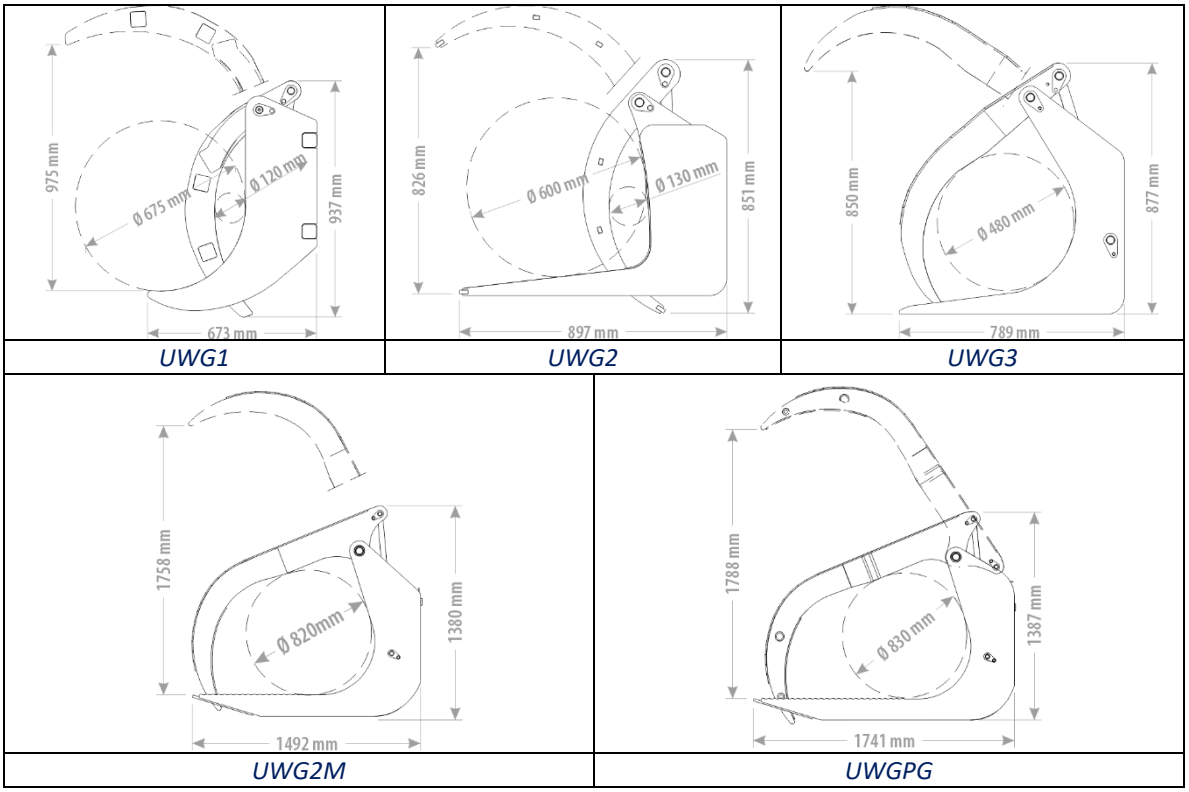
4.2 Technical characteristics

Table 2 TECHNICAL DATA OF WOOD GRIPPERS

No	***Specification***	***UoM***	***Gripper type***				
1.	Type - INDEX	-	UWG1	UWG2	UWG3	UWG2M	UWGPG
2.	Overall dimensions Width Depth Height	 [mm] [mm] [mm]	 685 673 937	 1315 897 851	 1210 789 877	 1284 1492 1380	 1284 1740 1387
3.	Jaw opening	[mm]	975	826	850	1758	1984
4.	Mass	[kg]	163	243	249	543	618
5.	Load capacity *)	[kg]	1000	1200	1300	3000	3500
6.	Jaw opening - grip	[mm]	975	826	850	1758	1984
7.	Control	-	Hydraulic control system				
8.	Machine type	-	Suspended heavy class				
9.	Working pressure of the hydraulic system	[MPa]	10 ÷ 19				
10.	Transport clearance	[mm]	300				
11.	Transport speed	[km/h]	5 ÷ 15				
12.	Number of operators	[pcs.]	1				
13.	Vehicle power requirement	[KM]	from 70				

*) - *even (symmetrical) load on the gripper*

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56



UWG1 | *UWG2* | *UWG3*

UWG2M | *UWGPG*

Fig.2 Dimensions of the grippers' working range.

4.3 Forces acting on wood grippers.

It is the responsibility of the user to ensure that the forces acting on the clamp are evenly and symmetrically distributed. Do not operate the clamp with a load on one side.

To increase work safety, care should be taken to ensure that the forces applied during operation load the gripper evenly.
It is essential to inspect the material to be transported. Consider dimensions, weight distribution, terrain, and weather conditions. Be particularly careful when using the gripper in rain or snow. Wet logs can be a serious hazard to the operator and the gripper due to the potential for slippage.

The weight of the load to be transported (received) must not, in any case, exceed the rated capacity of the lift with the attached equipment.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

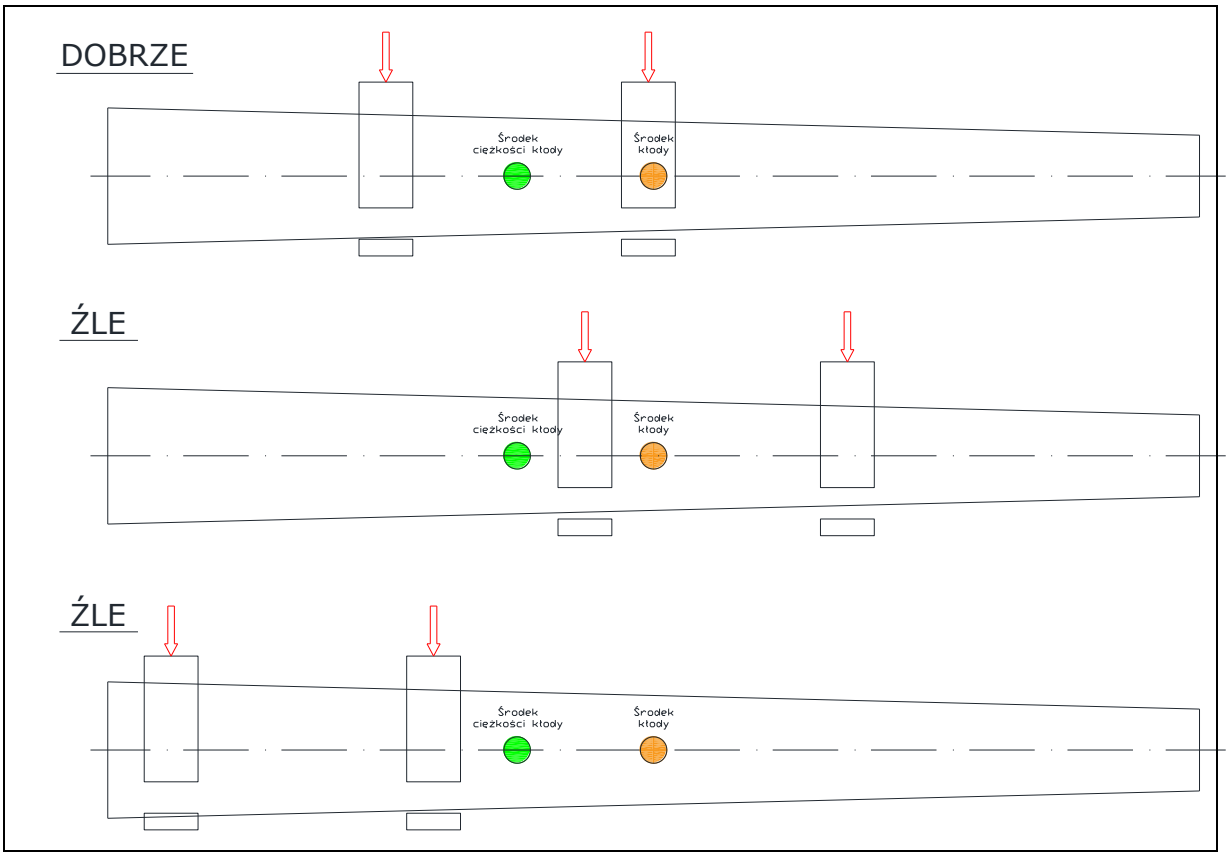


Fig.3 Examples of safe grabbing (grasping) of logs

4.4 Assessment of the stability of the tractor with the machine

The following section outlines the stability requirements of the tractor and machine and how to calculate the ballast weights required. The maximum permissible operating weights of machines are given in Table 2. Please refer to the vehicle's user manual for vehicle data.

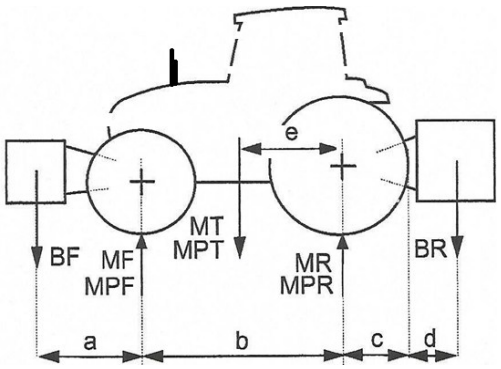
A tractor coupled to a machine can lose stability.
The weights of the machine and the tractor must be properly matched.
It is imperative to read the stability assessment and ensure that the following conditions are met before starting work.

Failure to comply with the machine's stability requirements may lead to tractor instability. If this occurs, there is a risk of serious injury or death. Always consider and observe the stability requirements.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

THE CONDITIONS DESCRIBED ARE BASED ON AN EXAMPLE MACHINE ON LEVEL GROUND

Failure to consider the impact of slopes or terrain can lead to tractor instability. There is a risk of serious injury and death. The ballast weights and driving speed must be adjusted accordingly to ensure stable and precise handling of the tractor and the required braking performance in critical situations.



Weights, loads [kg]:
MT - Mass without load
MTP - Maximum permissible laden weight
MF - Front axle load unloaded
MPF - Maximum Permissible Front Axle Load
MR - Rear axle load unloaded
MPR - Maximum permitted load on the rear axle
BF - Front attachment or ballast weight
BR - Rear attachment or ballast weight

Distances [m]:
a - centre of gravity of the front load from the centre of the front axle
b - wheelbase
c - from the centre of the rear axle to the lower point of the three-point hitch.
d - centre of gravity of the rear cargo from the lower hitching point
e - from the centre of the rear axle to the centre of gravity of the tractor

Fig.4 Determination of stability parameters

1. The weight of the attachment including the load is to be added to the value under load.
2. To the MF, MR and MT values must be added the mass of the solid or liquid weights at the centre of the front or rear wheels.
3. In the case of an unbalanced trailer, the value 'c' is the distance between the centre of the rear axle and the hitch point, the value 'd' is 0 and BR is the vertical load of the trailer on the hitch

Minimum front axle load of the loaded tractor:
20% of the total weight of the MPT
Minimum rear axle load of the loaded tractor:
45% of total MPT

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

Table 4. Calculation of ballasts required.

FRONT BALLAST REQUIRED	REAR BALLAST REQUIRED
BFr - ballast required at the front when carrying BR cargo at the rear	BRr - ballast required at the rear during transport BF front loading
MT - e = MF - b e = (MF - b)/MT	MT - (b - e) = MR - b
BR - (c + d) - (MT - e) + (MPF - b) = BFr - (a +b)	BF - a - MT - (b - e) + (MPR - b) = BRr - (b + c + d)
MPF > 0,2 - MT *The maximum permissible front axle load must be greater than 0.2 × Unladen weight*	MPR > 0,45 - MT *The maximum permissible load on the rear axle must be greater than 0.45 × Unladen weight*
BFr > [BR-(c+d) - (MF-b) + (0,2-MT-b)] / (a+b)	BRr > [(BF-a) - (MR-b) + (0,45-MT-b)] / (b +c +d)

Refer to the vehicle (tractor) manual, know the maximum axle load and comply with the following conditions so that:

MPF < MPF_{max} tractor
MPR < MPR_{max} tractor
MPT < MPT_{max} tractor

Table 5. Calculation of maximum permissible masses

MAXIMUM PERMISSIBLE FRONT AXLE LOAD **MPF**	MAXIMUM PERMISSIBLE **MPR** REAR AXLE LOAD	MAXIMUM PERMISSIBLE LADEN MASS **MPT**
MPF = [BF-(a+b) +(MF-b)-BR-(c+d)]/b < MPF_{max}	MPR=MPT - MPF < MPR_{max}	MPT=BF + MT + BR < MPT_{max}

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

5 Use of the device

5.1 Assembly of the gripper

Ensure that the mounting components on the vehicle and the clamp are properly matched to each other to guarantee safe installation and operation.
If you are not sure, contact the vehicle or machine manufacturer.

I. Assembling the mechanical system of the vehicle and grabber.

Depending on the type of three-point linkage, take care of the original protection. Check the wear condition of the connecting elements: pins and pivots, each time they are fitted.

Removal of the gripper is carried out in reverse order, with safety in removing the mechanical system that separates the machine from the vehicle.

II. Assembly of the power hydraulics system

Timber grippers are equipped with hoses that must be connected to the vehicle's supply system spigots. Particular attention must be paid to the routing of the hoses and the cleanliness of the hydraulic connectors. The connection should be made according to diagram Fig. 5

5.2 Hydraulic control system

The timber grippers are fitted with hoses with the ends of the power hydraulic system. The operation of the gripper is controlled from the vehicle operator's cab once it has been connected in accordance with the instructions and checked for operation

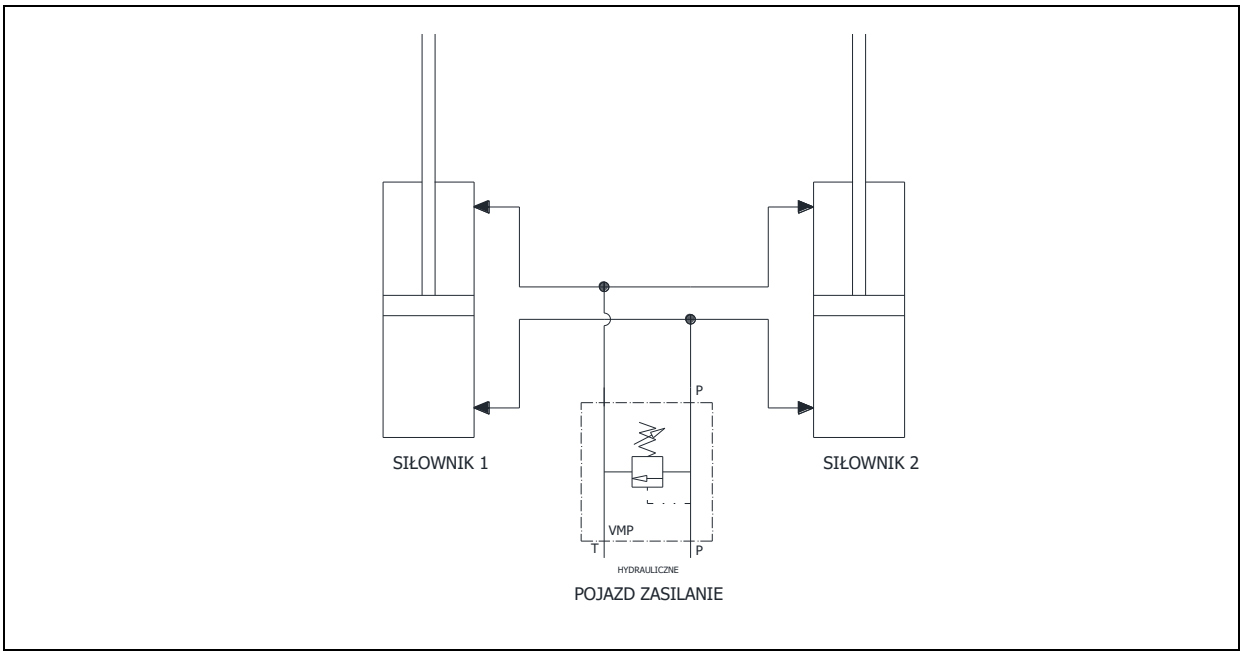


Fig.5 Diagram of the hydraulic system of the timber gripper

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

6. Operation and maintenance

Any operation of the pallet gripper may be carried out by the operator of the vehicle to which the gripper is fitted if he is authorised to operate that vehicle.

The gripper must only be operated after reading its operating instructions.

- After work service

Each time the clamp is finished working, it should be cleaned and placed on a flat, hard surface using wooden supports. This should be followed by an inspection of the clamp structure for cracks and an inspection of the connections of the parts and assemblies. Damaged and worn parts should be replaced with new parts. Check all bolted connections and tighten loose connections according to Table 4. Keep all safety signs on the clamp clean.

Table 4

SCREW AND NUT TIGHTENING TORQUES

Robustness	6.8	8.8	10.9	12.9
Metric thread	Tightening torque [Nm]			
M6	7,6	10	15	18
M8	18	25	36	43
M10	37	49	72	84
M12	64	85	125	145
M14	100	135	200	235
M16	160	210	310	365
M18	220	300	430	500
M20	310	425	610	710
M22	425	580	820	960
M24	535	730	1050	1220

6.1 Gripper wear - standards

The gripper is subjected to high pressures and loads during operation. Gripping, lifting, carrying, and stacking of loads causes wear and tear on the forks at the bottom of the clamp, which are usually in contact with the ground. Gripper operation is safe if the wear on the gripper base does not exceed 10% of the material loss from the nominal dimensions. The effect of such a loss is up to a 20% reduction in clamp load capacity.

The gripper must absolutely be replaced when it is found

- wear and tear more than 10% of the nominal base,
- bending of the gripper elements of more than 5%,
- excessive play in the pivot axis of the clamp - more than 1.5mm.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

- cracks found in the structural components of the clamp

It is forbidden to operate the clamp with a leaking hydraulic system
Checking for wear on the jaws and clamp frame every 2000 operating hours.

6.2 Post-season service

Includes all the steps listed under handling after work. In addition, the grippers should be stored under a canopy on a flat and firm surface. Wooden battens are recommended as a base for the gripper. Attention should be paid to the tightness of the paint coating. If there are any cavities, these areas should be cleaned, and the deficiencies filled in by applying a fresh coat of protective paint.

After use and before each use, the clamp should be inspected for wear, cracks, dents, and deformations (bending).
If cracks and defects are found - replace damaged clamp components with new (defect-free) ones.

Repairs are only allowed at the manufacturer's premises or at a specialised workshop that has the manufacturing and repair technology.

- Lubrication of moving connections

One of the basic maintenance activities is to lubricate the moving parts of the wood gripper. All moving parts of the clamp should be lubricated (protected) with the solid grease ŁT-42 before each operation (at least every 8 working hours). Before lubrication, clean the connections from dirt and old grease.
If there are signs of wear, the worn parts must be replaced with new ones.

Due to the high pressures and forces during operation, it is necessary to: - lubrication of the moving parts of the gripper every 8 operating hours
- inspection of all clearances and detachable connections every 100 operating hours
- every 500 operating hours inspection of the machine for cracks, inspection of welds, inspection of non-separable connections.

6.3 Disposal and environment

If the machine is completely worn out to the point where it can no longer be used, it must be disposed of. This also applies to ongoing repairs and the replacement of damaged parts. To do this, the machine must be thoroughly cleaned. Then disassemble, separating the parts according to the type of material used. The segregated parts must be taken to a scrap metal

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

collection point or for disposal. The machine is a fully environmentally friendly product. The materials used in production are 100% recyclable. Dispose of used machine parts in accordance with local environmental regulations. Throughout the life of the machine, care must be taken to avoid excessive amounts of grease on the guides, which can cause environmental contamination.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

7. Spare parts catalogue

All gripper parts are available directly from the manufacturer.
Purchases can be made by providing the device name, serial number, and production date.

Helpful materials include: photos of the machine, photos of the required (damaged) part, a photo of the nameplate, proof of purchase, or the symbol from the user manual.

Please send inquiries via e-mail or other communication channels, attaching the above materials to the message.

The manufacturer reserves all rights to the user manual.
Due to ongoing modernization and development of the machines, the information contained in the manual applies to a specific version and edition only.

The catalogue does not include commercially available standard elements that can be purchased in industrial or agricultural shops.
The standard elements (bolts, nuts, pins, etc.) used interchangeably must not be of a lower strength than those used by the manufacturer.

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

8 Guarantee

WARRANTY CARD

Serial No.	.....	Type	.....
Year of construction	.....	KJ	.....

Under the guarantee, the manufacturer undertakes to repair free of charge any physical defects discovered during the guarantee period, which is valid for 12 months from the date of sale.

The manufacturer is relieved of any warranty liability in the event of:

- Mechanical damage to the machine after handover to the user;
- Improper operation, maintenance, storage of the product, in particular non-compliance with the instructions for use;
- Carrying out repairs by unauthorised persons without the manufacturer's consent to do so;
- Making structural changes without consulting the manufacturer;

The warranty card is valid if it bears the signature of the dealer and the date of sale confirmed by the company stamp of the retailer. It must not contain any deletions or corrections by unauthorised persons.
A duplicate warranty card can be issued upon written request upon presentation of proof of purchase by the user.
In the event of an unfounded call for warranty repair, the costs involved will be borne by the user.
Complaints must be lodged by the user within 14 days of the damage occurring, directly with the dealer.
The manufacturer provides warranty service within 14 days from the date of notification to the date of repair.
The guarantee shall be extended by the repair time from the date of notification until the service has been provided if the defect has prevented the use of the machine.

Date of sale: _____ _____
(day, month, year) *(signature and stamp of outlet)*

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

RECORDS OF WARRANTY REPAIRS

To be filled in by the manufacturer

Date of complaint: _____

Scope of repair and parts replaced: _____

_____

_____

_____

Date of complaint handling: _____

The guarantee has been extended to: _____

_____
(signature and stamp of service)

Date of complaint: _____

Scope of repair and parts replaced: _____

_____

_____

_____

Date of complaint handling: _____

The guarantee has been extended to: _____

_____
(signature and stamp of the service)

Date of complaint: _____

Scope of repair and parts replaced: _____

_____

_____

_____

Date of complaint handling: _____

The guarantee has been extended to: _____

_____
(signature and stamp of service)

Date of complaint: _____

Scope of repair and parts replaced: _____

_____

_____

_____

Date of complaint handling: _____

The guarantee has been extended to: _____

_____
(signature and stamp of the service)

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

9. Declaration of conformity

Declaration of conformity

Within the meaning of the Machinery Directive 2006/42/EC, Annex II, 1.A

Manufacturer:
Name: …….. KOŁASZEWSKI Sp. z o.o.

Address: ……....77-100 Bytów, 22 Lęborska St.

The undersigned hereby declares that the product:

Trade name: **WOOD GRIPPER**

Type/Model: UWG1, UWG2, UWG3, UWG2M, UWGPG

Serial number:.....

Intended use of the machine:
- gripping and handling wood (logs, bundles of logs, branches) and internal transport over short distances of loads held by the upper jaw of the gripper;
- lifting, stacking and pushing transported wood.

complies with the requirements of the following European directives:

- **Machinery Directive 2006/42/EC** of 17 May 2006

  (Official Journal of the European Union L 157, 9 June 2006, p. 24)

complies with the requirements of the following harmonised standards:

- • **EN ISO 4254-1:2016** Agricultural machinery — Safety — Part 1: General requirements
- • **EN ISO 4413:2011** Hydraulic fluid power — General rules and safety requirements for systems and their components
- • **EN 12100:2010** Safety of machinery — General principles for design — Risk assessment and risk reduction
- •**ISO 11684:1998** Tractors, machinery for agriculture and forestry — Safety signs and hazard pictorials

and complies with the requirements of other applied technical standards and specifications:

- **ISO 9001:2023** Quality Management System Certificate covering the scope of: manufacture and sale of steel structures and metal products

Compliance with the requirements of the directives and standards has been confirmed on the basis of tests carried out by:
SIMP – Association of Polish Mechanical Engineers and Technicians in Gdańsk.
Tests carried out by: MSc Eng. Zbigniew Myszka – SIMP Expert, Certificate No. 9763

.....

place, date: *Authorized signature* *Name and surname*

Kolaszewski Sp. z o.o.
22 Lęborska St.
77-100 Bytów
tel. +48 59 822 24 75
NIP: 842 168 26 56

FK Machinery® BY KOŁASZEWSKI KOŁASZEWSKI FK Steel BY KOŁASZEWSKI

QUALITY POLICY STATEMENT

The goal of Kołaszewski limited liability company is to provide the services and manufactured products at a highest level by:

- implementation of projects in accordance with the expectations and requirements of Customers,
- communication with the Customer and after-sales service culture,
- compliance with standards and regulations, respecting the natural environment.

Quality Management System in the company Kolaszewski Sp.z o.o. (Ltd.) is compliant with ISO 9001:2015.

Strategic objectives of Kolaszewski Sp. z o.o.:

- operating business providing the highest quality products and services in the domestic and foreign markets
- Gaining and retaining of Customer confidence to offered products/services
- understanding of the quality objectives and requirements in all departments of the company
- continuous improvement of the Quality Management System.

Quality Policy contained in its objectives and Quality Management System documentation is known and used by all employees of the company.

The strategic objectives are achieved by:

- continuous improvement of the qualifications and skills of employees
- permanent equipping of the machine park with modern machinery
- observance of accepted standards in customer service
- continuous improvement of customer service and keeping of pro-customer attitude
- smooth, steady flow of internal information, organizational meetings
- Involvement of management in the implementation and continuous improvement of the Quality Management

Measurable operational objectives of the quality policy are determined annually during the review of the Quality Management System

Responsible for implementation	Confirmed
Edition V from 02.05.2023	PREZES Izabela Kołaszewska-Gabor
	WICEPREZES Piotr Kołaszewski