

Unifarm Machinery Corporation
PO Box 38 Wilson, NC 27893



Operator's Manual

Phoenix Line FLXM Series Flex Wing Mowers

Models
FLXM-312, FLXM-315, FLXM-317,
FLXM-320

903280002~00

Declares under its sole responsibility that the machine is:

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Authorized dealer

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Unifarm Machinery Corp. reserves the right to make any necessary changes without giving prior notice, in order to improve the quality and safety features and does not commit itself to updating this manual every time a change is made.

This booklet provides a thorough and accurate description of the use and maintenance standards to be observed on the flex wing mower you purchased. We congratulate you on your choice and remind you to read and scrupulously follow the instructions contained in this manual. This will assure normal operation of the equipment but, more importantly, will allow you to use it safely.

The manufacturer therefore declines any responsibility concerning problems arising from failure to observe the instructions and/or the operator's negligence.

The manual is divided into chapters and paragraphs and the pages are progressively numbered, so as to offer clear and concise information. You can look for information based on the use of key words such as the title of chapters, but especially by referring to the table of contents.

Should this manual be lost or damaged, please request a copy from the manufacturer or the dealer. It is possible that some devices described in the manual are not present on your equipment, according to the chosen outfitting and the market for which the equipment is intended.

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GENERAL INFORMATION

The information, descriptions and pictures contained in this manual reflect the state of the art when the machine is put onto the market.

The Manufacturer reserves the right to modify the equipment, at any time, for technical and commercial purposes. Such modifications do not oblige the Manufacturer to make changes to products sold up to then, or to consider this manual to be obsolete.

Should the Manufacturer consider it necessary to supply any additional information, this should be kept with the manual and considered an integral part thereof.

SYMBOLS

This booklet contains three "safety pictograms" which highlight the relevant danger levels or important information:

 Danger	This draws the operator's attention to particular situations that may jeopardize people's safety.
 Caution	This draws attention to situations that jeopardize the efficiency of the machine, but not people's safety.
 Important	This is used for general information, when people's safety or the efficiency of the machine are not at risk.

MACHINE IDENTIFICATION

The identification plates are applied to all multiple lawn mowers and are as follows:



When information or technical support are requested, it is necessary to specify the machine type and width.

INTENDED USE

The flex wing mower has been designed to be used exclusively in the agricultural sector and for maintaining lawns, cutting grass and cutting and crumbling according to the type of tool used. The machine is towed by the tractor by fixing the drawbar to the tow bar and works on the soil due to its weight and of the rotation of the blades parallel to the ground, which are driven by the power take-off of the tractor by means of the cardan connection. The machine is not indicated to be used for anything other than agricultural operations.



Any use of the machine other than that indicated above is to be considered unauthorized and dangerous.

INCORRECT USE

With the three-section Phoenix Flex Wing Mower, it is particularly forbidden to:

- Combine it with vehicles of unsuitable power or weight.
- Work on extremely stony soil.
- Use the machine without inserting the appropriate pins and split pins, where applicable.
- Work on strongly sloping ground.
- Lift the three mower components with the power take-off engaged.
- Approach the rotating parts with unsuitable work clothes.
- Get onto the machine while working or transporting.
- Transport the machine without raising the three single mowers and using all the locks provided.

TERMINOLOGY OF THE MAIN PARTS

The machine consists of three mowing decks operating simultaneously, each of which is equipped with 3 blades with a vertical axis, whose mowing elements rotate at a high speed. The three section flex wing mower consists of the following components.

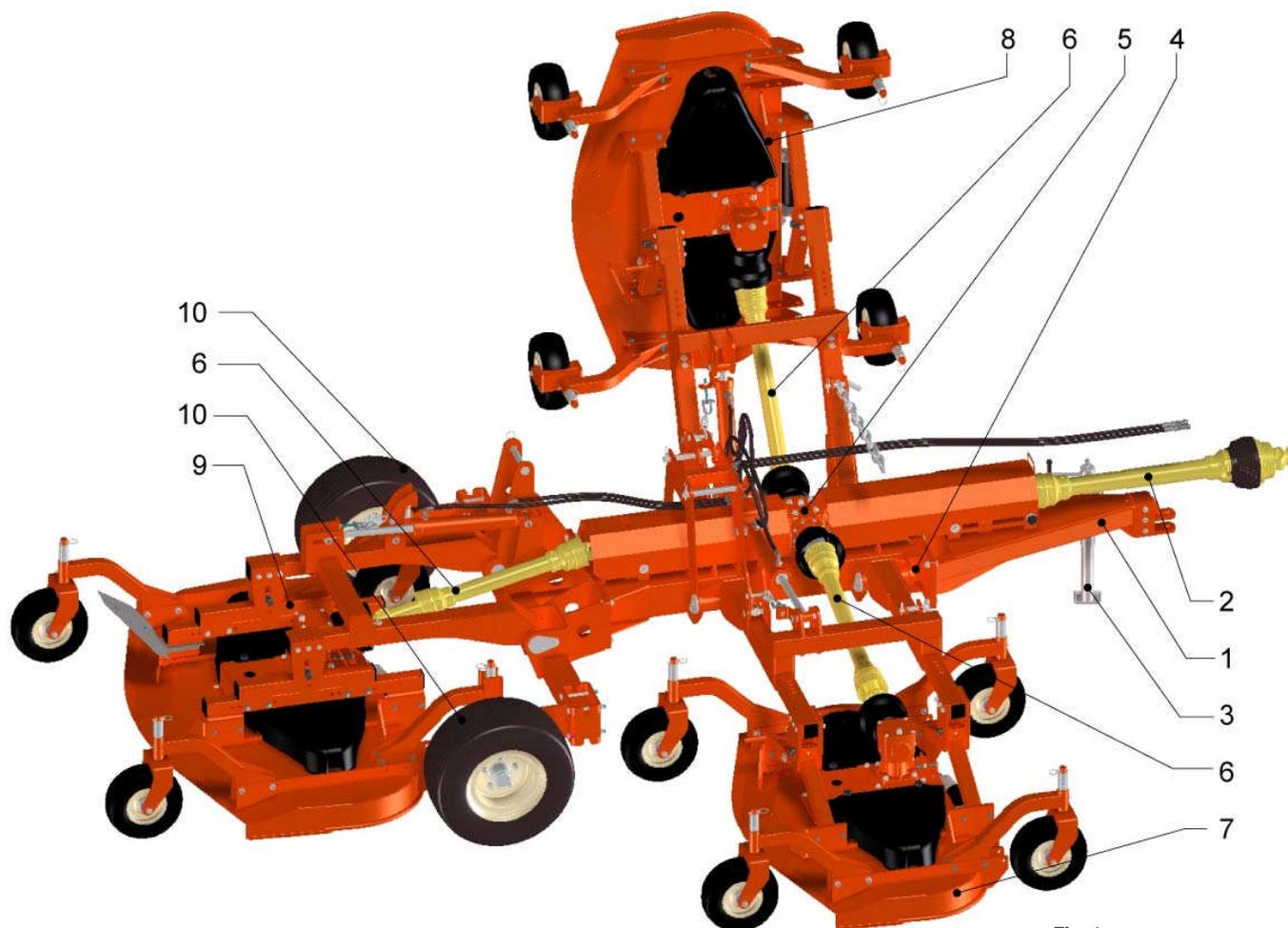


Fig. 1

Terminology

- | | |
|--------------------------------|----------------------------|
| 1) Drawbar connection | 6) Secondary cardan joints |
| 2) Power take-off cardan joint | 7) Right mowing deck |
| 3) Parking foot | 8) Left mowing deck |
| 4) Central body | 9) Rear mowing deck |
| 5) Three-output unit | 10) Adjustable wheels |

TECHNICAL DATA

Tab.1

MODEL	FLXM-312	FLXM-315	FLXM-317	FLXM-320
Transport Width	2300 (7 ft. 2 in.)	2500 (8 ft. 2 in.)	2650 (8 ft. 8 in.)	2900 (9 ft. 6 in.)
Working Width	3600 (12 ft.)	4500 (14 ft. 9 in.)	5000 (16 ft. 9 in.)	6000 (19 ft. 8 ft.)
Transport Tires	23x10.5x12	23x10.5x12	23x10.5x12	23x10.5x12
Transport Height	2000 (6 ft. 7 in.)	2400 (7 ft. 9 in.)	2650 (8 ft. 8 in.)	3100 (10 ft. 2 in.)
PTO Speed	540 rpm	540 rpm	540 rpm	540 rpm
Tractor Power	35-80 HP	35-80 HP	35-80 HP	35-80 HP
Maximum Overall Dimensions	3750 (12 ft. 3 in.)	4550 (15 ft.)	5150 (16 ft. 11 in.)	6100 (20 ft.)
Maximum Length	4550 (14 ft. 11 in.)	4700 (15 ft. 5 in.)	4800 (15 ft. 9 in.)	5000 (16 ft. 5 in.)
Input Cardan Shaft	homocin./clutch series 6	homocin./clutch series 6	homocin./clutch series 6	homocin./clutch series 6
Connection Adjustment	4 positions	4 positions	4 positions	4 positions
Pressure on the Ground	0.50 Kg/cm ² (7.1 lb./sq.in.)	0.52 Kg/cm ² (7.3 lb./sq.in.)	0.54 Kg/cm ² (7.7 lb./sq.in.)	0.7 Kg/cm ² (9.9 lb./sq.in.)
Transmission Ratio	1:2,83	1:2,83	1:2,83	1:2.83 (spiroidal input)
Cardan Joint	Eurocardan series 4	Eurocardan series 4	Eurocardan series 4	Eurocardan series 4
Transmission type	Multiplier and belts	Multiplier and belts	Multiplier and belts	Multiplier and belts
Mower Deck Thickness	Steel 4 mm (0.16 in.)	Steel 4 mm (0.16 in.)	Steel 4 mm (0.16 in.)	Steel 5 mm (0.20 in.)
Mower Deck Cover	150 - 240 mm (6 - 9 in.)	150 - 240 mm (6 - 9 in.)	150 - 240 mm (6 - 9 in.)	150 - 240 mm (6 - 9 in.)
Lifting Cylinders	60x310 (2.5x12) double eff.	60x310 (2.5x12) double eff.	60x310 (2.5x12) double eff.	60x310 (2.5x12) double eff.
Cutting Heights	30 - 120 mm (1 to 5 in.)	30 - 120 mm (1 to 5 in.)	30 - 120 mm (1 to 5 in.)	30 - 120 mm (1 to 5 in.)
Central Mowing Deck Width	1500 mm (60 in.)	1800 mm (72 in.)	1800 mm (72 in.)	2100 mm (84 in.)
Lateral Mowing Deck Width	1200 mm (48 in.)	1500 mm (60 in.)	1800 mm (72 in.)	2100 mm (84 in.)
Individual Mowing Deck Wheels	(12) 13x5.00-6 pneumatic	(12) 13x5.00-6 Pneumatic	(12) 13x5.00-6 pneumatic	(12) 13x5.00-6 pneumatic
Blades Tangential Speed	70.2 m/s (13808 fpm)		72.1 m/s (14198 fpm)	77.6 m/s (15274 fpm)
Belt Adjustment	Single screw on sliding plate, without tensioner	Single screw on sliding plate, without tensioner	Single screw on sliding plate, without tensioner	Single screw on sliding plate, without tensioner
Blade Dimensions	6x60x424 (1/4x2 1/3x16 3/4) 6x60x516 (1/4x2 1/3x20 1/3)	6x60x516 (1/4x2 1/3x20 1/3) 6x60x616 (1/4x2 1/3x24 1/4)	6x60x616 (1/4x2 1/3x24 1/4)	8x65x731 (1/3x2 1/2x28 3/4)
Working Weight	1600 kg (3520 lb.)	1700 kg (3740 lb.)	1800 kg (3960 lb.)	2000 kg (4400 lb.)

SAFETY LABELS

The safety labels and information on the machine (listed below) must be always respected. Failure to observe them can cause death or severe personal injury. Make sure that the labels are always present and legible; if not, contact the closest PHOENIX/Uniform dealer to request new ones.

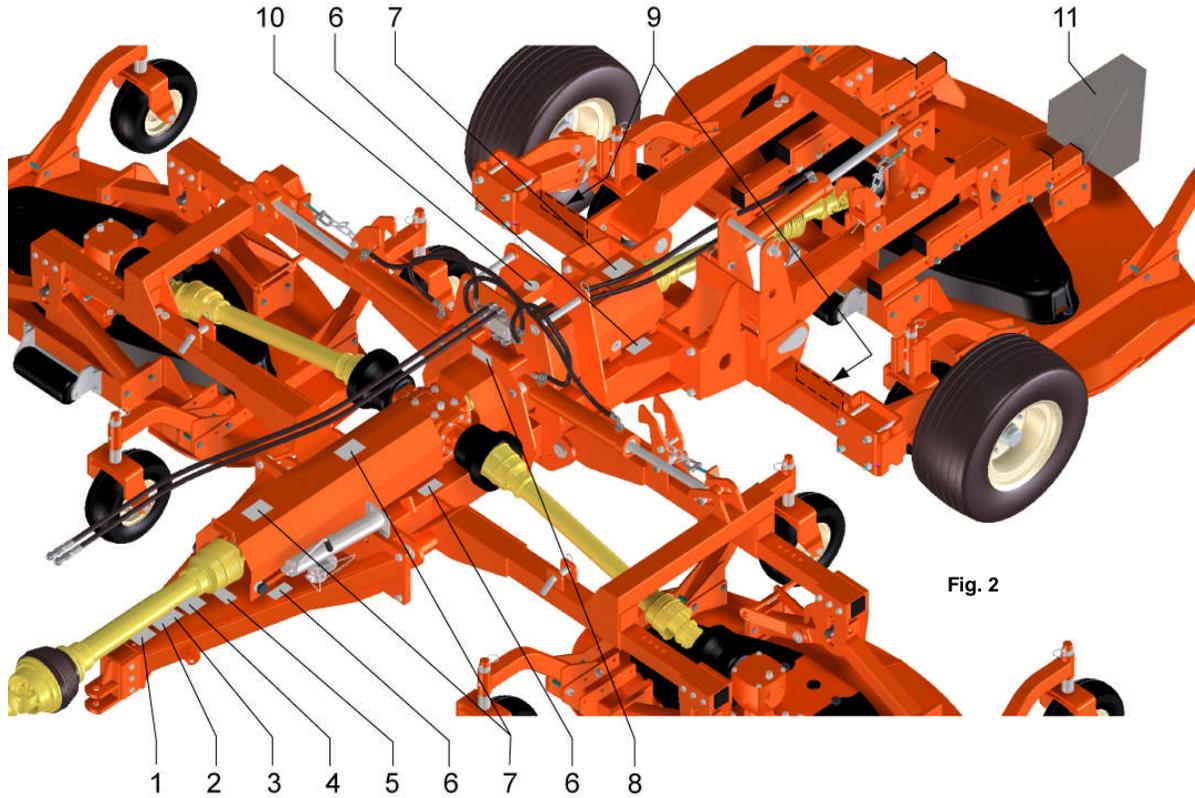


Fig. 2

<p>Ref 1 4781005</p>	<p>Ref 2 4781042</p>	<p>Ref 3 4781029</p>	<p>Ref 4 5782702</p>	<p>Ref 5 5782705</p>	
<p>Ref 6 1140003</p>	<p>Ref 7 1140001</p>	<p>Ref 8 4781043</p>	<p>Ref 9 4781721</p>	<p>Ref 10 478103</p>	<p>Ref 11 5782832</p>

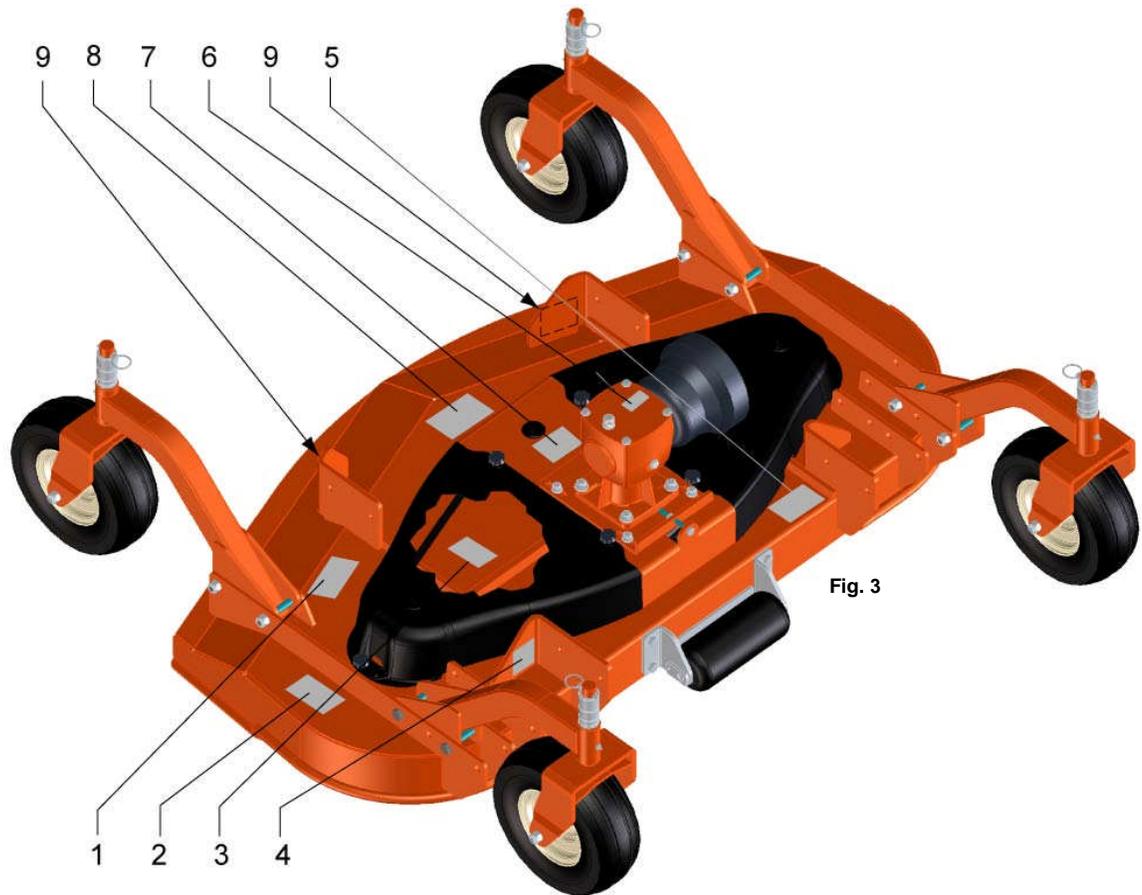


Fig. 3

Ref 2
5782706



Ref 3
5782708



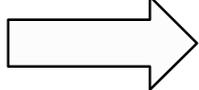
Ref 4
4781720
 (external side)



Ref 5
5782702



Ref 6
5782701



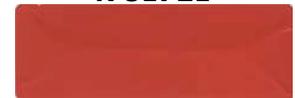
Ref 7
5782704



Ref 8
4781019



Ref 9
4781721



SAFETY AT WORK

Most accidents that happen while the operator is using the machine or equipment occur during maintenance and repair activities and are caused by failure to observe the basic safety precautions. Therefore the potential risks must be fully understood and special attention must be paid to the possible effects of the actions undertaken.

If you are aware of potentially dangerous situations, accidents can be prevented!

USER REQUIREMENTS

This machine must only be used by authorized, suitably trained and qualified personnel. The operator must familiarize him/herself with the correct use of the machine, as well as read and understand all the instructions contained in this manual.

The personnel using or operating the equipment must meet all the following characteristics:

Physical: Good eyesight, coordination and ability to safely perform all the required functions for use.

Mental: Ability to understand and apply the regulations, rules and safety measures described. They must be careful and use common sense for their own safety and the safety of other people

Training: Users must have read and understood this manual, its pictures and charts and the identification and hazard plates. They must be specialized, trained and qualified in all the use and maintenance activities.

WORK CLOTHING

The following clothing and protective equipment must be used when working and performing maintenance and repair activities:

- Overalls or any other comfortable garments, that are not too loose as they could get caught in the moving parts.
- Protective gloves.
- Goggles or a mask to protect the eyes and face.
- Safety helmet.
- Safety shoes.
- Headphones for hearing protection.



Make sure that the personal protective equipment is in good condition and complies with the local regulations

GENERAL SAFETY RULES

Always take into account the characteristics of the working area:

- Inspect the ground where the work is to be performed, in advance, and remove any obstacles, if possible. Remember that on downward slopes it is preferable to work in the direction of the maximum slope.
- Do not stand within the action radius of the flex wing mower or any other machine accessory when the equipment is running.
- Make sure that nobody is standing around the machinery. Particular attention must be paid to children and pets (keep any third parties at a distance of a few dozen meters from the machinery).
- If during operation the machine starts to bang or shake, turn the tractor engine off immediately and investigate the possible causes.

Preparation for the work:

- Before and during work, do not drink alcohol or take drugs or any other substances which may affect your ability to use the equipment.
- Make sure that there is sufficient fuel in the tractor to prevent a forced stop during work, perhaps during a critical maneuver.
- If the necessary safety conditions are not possible, do not use the equipment. E.g. do not make temporary repairs just to start working; do not work at night if the area is not well lit.

When working or performing maintenance activities, remember that:

- The plates and labels providing instructions on the use of the equipment or information on dangers must not be removed or hidden, and must be legible.
- Do not remove the safety devices, covers and safety guards, except for during maintenance activities. If the safety devices must be removed, turn the engine off, remove them carefully and re-install them before turning the tractor on and using the equipment.
- Do not lubricate, clean or adjust any moving parts.
- Do not use your hands to perform maintenance or adjustment operations for which specific tools are envisaged.
- Do not use damaged or unsuitable tools, such as: pliers rather than spanners etc.
- Before carrying out any activities on hydraulic lines under pressure, or disconnecting any elements, make sure that the line is no longer under pressure and that it does not contain any hot fluids.
- Check all the fittings and make sure that they are well connected before supplying pressure to the hydraulic lines.
- After all maintenance and repair activities, make sure that no tools, cloths or any other materials are left inside compartments or guides with moving parts.
- During work maneuvers, do not give instructions or make signals at the same time as other people. Any indications and load maneuvering signals must be given by one person only.

- Do not unexpectedly call an operator, without a good reason. Do not startle the operator or throw objects, even as a joke.
- When the equipment is not needed, turn the vehicle engine off and park it on a flat surface in first gear with the parking brake engaged. The machine should be resting on the ground and the power take-off disengaged.
- Do not carry out any cleaning, lubrication, repair or adjustments when the engine is running and the equipment is in the raised position.
- Never work on steep slopes, if the stability of the vehicle could be jeopardized.
- Any unauthorized modification to this machine will release Unifarm Machinery Corporation from any liability for damage or injury which may occur to operators, third parties or objects.
- Unifarm Machinery Corporation cannot be liable for any unforeseeable improper use of the machine which could cause potential danger.
- Make sure all safety pictograms are legible. Clean them and replace them with new ones, if necessary.
- Before using the machine, make sure that all safety devices are properly connected and in good condition; should any failure or damage occur to guards, replace them immediately.
- Before getting off the tractor and before any maintenance operations, engage the parking brake, turn off the engine, remove the ignition key from the dashboard and keep it in a safe place.
- Do not leave the machine unattended when the tractor is running.
- Never use the machine to transport people, animals or objects.
- During operation, the machine can cause the emission of dust if it is used to work on dry products (hay, straw, etc.). It is recommended to periodically check the filters on the cab ventilation system or to use appropriate respiratory tract protection systems, such as anti-dust masks.

FIRE-FIGHTING MEASURES

- The machine operators should be familiar with the main intervention techniques in the event of fire, as all fuels and most lubricants and hydraulic fluids are flammable.
- Turn off the tractor engine before refueling and do not refuel indoors. Do not smoke during refueling or topping up the fluid levels; do not refuel in the vicinity of open flames and do not pour fuel.
- Before starting the tractor engine, check that there are no leaks or fuel/lubricant/fluid residuals which could cause small fires.
- Do not store flammable substances in inappropriate places, do not pierce or burn pressurized containers or cylinders, do not accumulate materials soaked in flammable substances.
- Be cautious about where the cloths or replaced materials are stored as they may contain flammable residuals.
- In order to minimize the risks of combustion, periodically clean the machine with appropriate equipment (pressure washer or compressed air).
- Always use appropriate fire-fighting equipment: carbon dioxide, foam, chemical powder. Avoid using water jets. Only use water jets to cool surfaces exposed to the fire.
- Never use gasoline, solvents or other flammable or toxic fluids to clean the mechanical parts: use homologated commercial solvents, which are non-flammable and non-toxic.
- Do not carry out welding close to tanks, piping, containers, electrical cables or flammable materials in general. If it necessary to weld, protect the flammable parts with proper screens.

Uniform Machinery Corp. declines any responsibility for the non-observance of these instructions.

COMMISSIONING

CENTRAL BODY ASSEMBLY

It is recommended to read the instruction manual carefully before assembling and commissioning. The flex wing mower is delivered packed and complete and must only be assembled by experienced personnel.

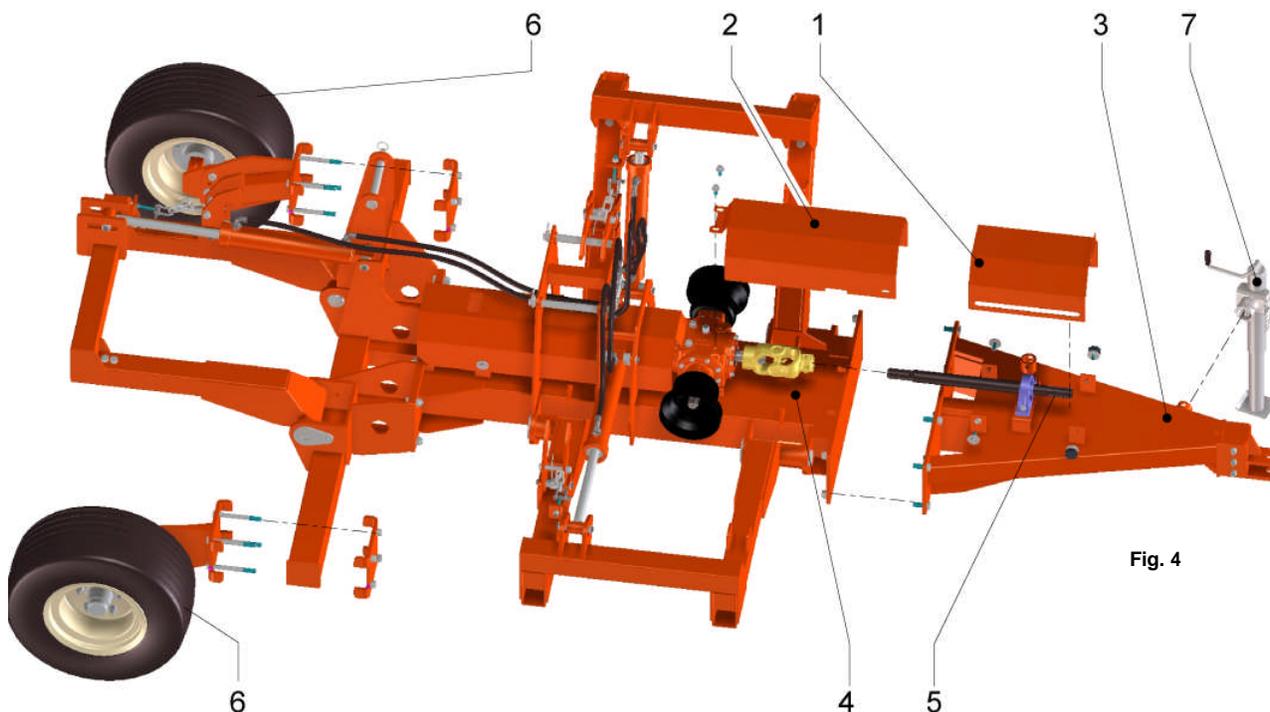
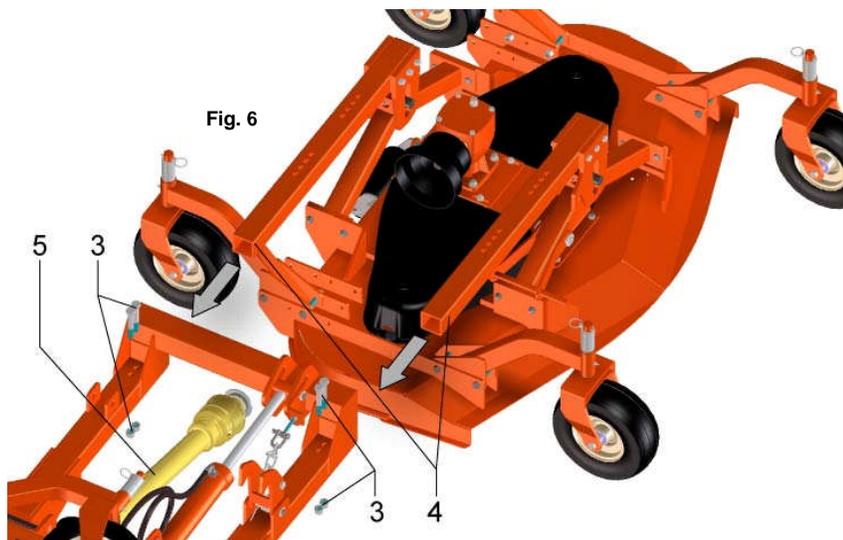
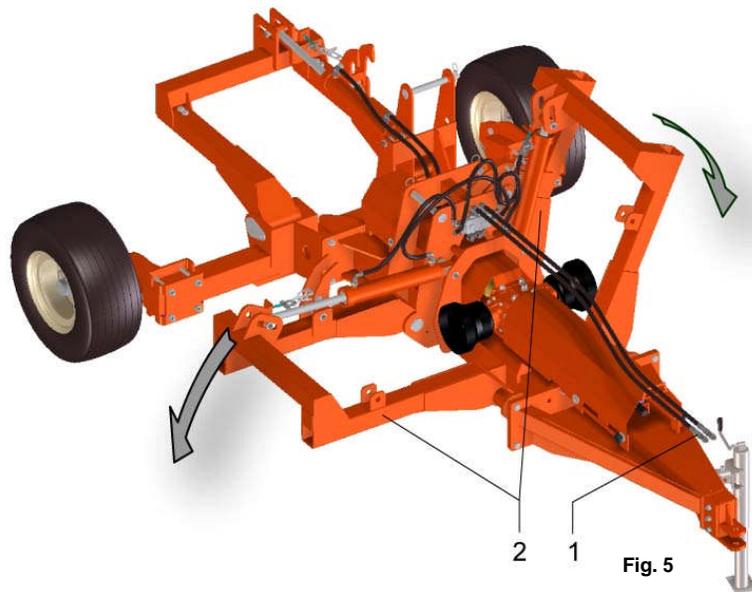


Fig. 4

- Take guard **1** and detach guard **2** from the central body **4**
- Fix the drawbar **3** to the central body **4** using the bolts already present in the anchoring holes and insert the transmission shaft at the same time **5** in the cardan joint
- Overturn the wheels **6**, already mounted on the central body, taking out the screws from the shaped plates and fixing the wheels themselves to the frame in the desired position
- Insert the support foot **7** and adjust it so that the central body **4**, previously mounted to the drawbar **3**, is in the horizontal position and parallel to the ground

LATERAL MOWER DECK ASSEMBLY

- Connect the quick couplings **1** to the hydraulic circuits of the tractor.
- Turn the lateral oscillating frames **2** downwards by means of the hydraulic circuits actuating the control lever of the tractor.



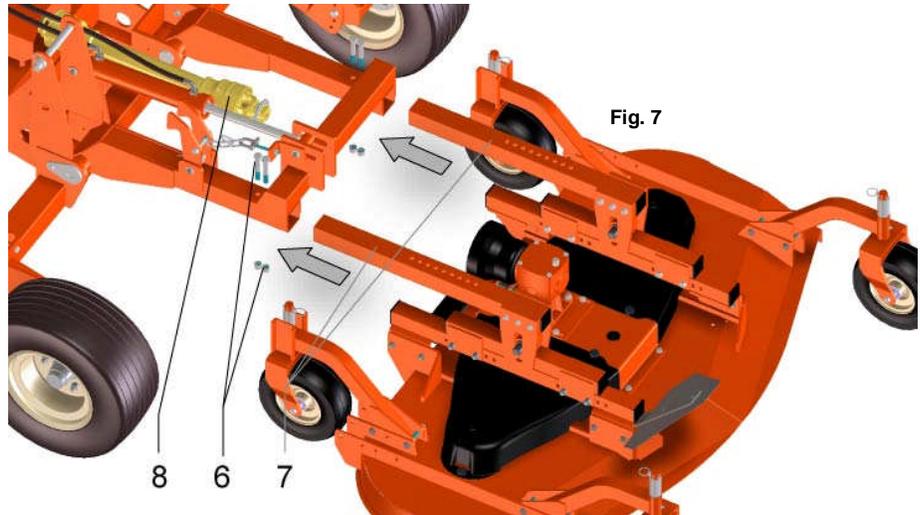
- Unscrew the bolts **3**.
- Insert the square pipes **4** of the lateral mower deck in the relative square pipes of the oscillating frames, leaving out the number of holes according to table no. 2.
- Re-insert and tighten the bolts as in tab. 4 page 30.
- Connect the cardan joints **5**.

Tab. 2

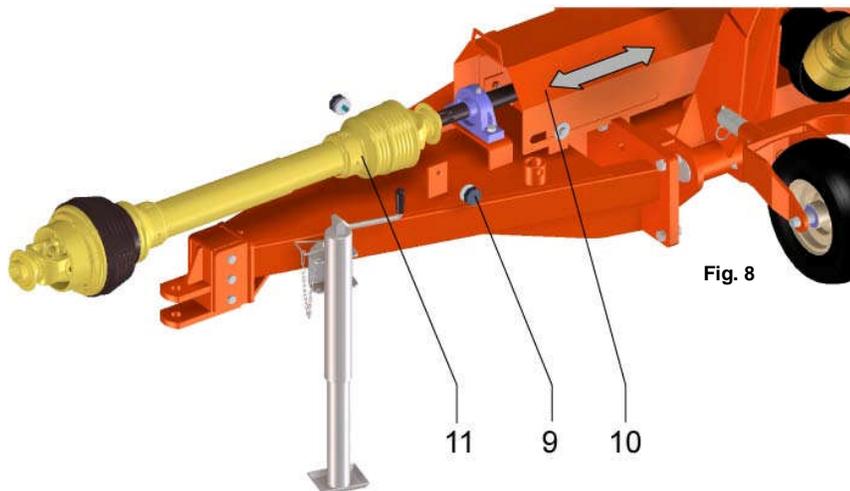
HOLE POSITIONING ON THE SQUARE PIPES				
UNIT	4860	6072	7272	8484
LATERAL	0	4	0	5
REAR	0	0	0	2

REAR MOWER DECK ASSEMBLY

- Unscrew the bolts **6**.
- Insert the square pipes **7** of the rear mower deck into the corresponding square pipes of the oscillating frame, until the front wheels of the lawn mower are lined up with the axis of the wheels on the central body.
- Re-insert and tighten the bolts as in tab. 4 page 30.
- Connect the cardan joint **8**.



MAIN CARDAN JOINT (HOMOCINETIC)



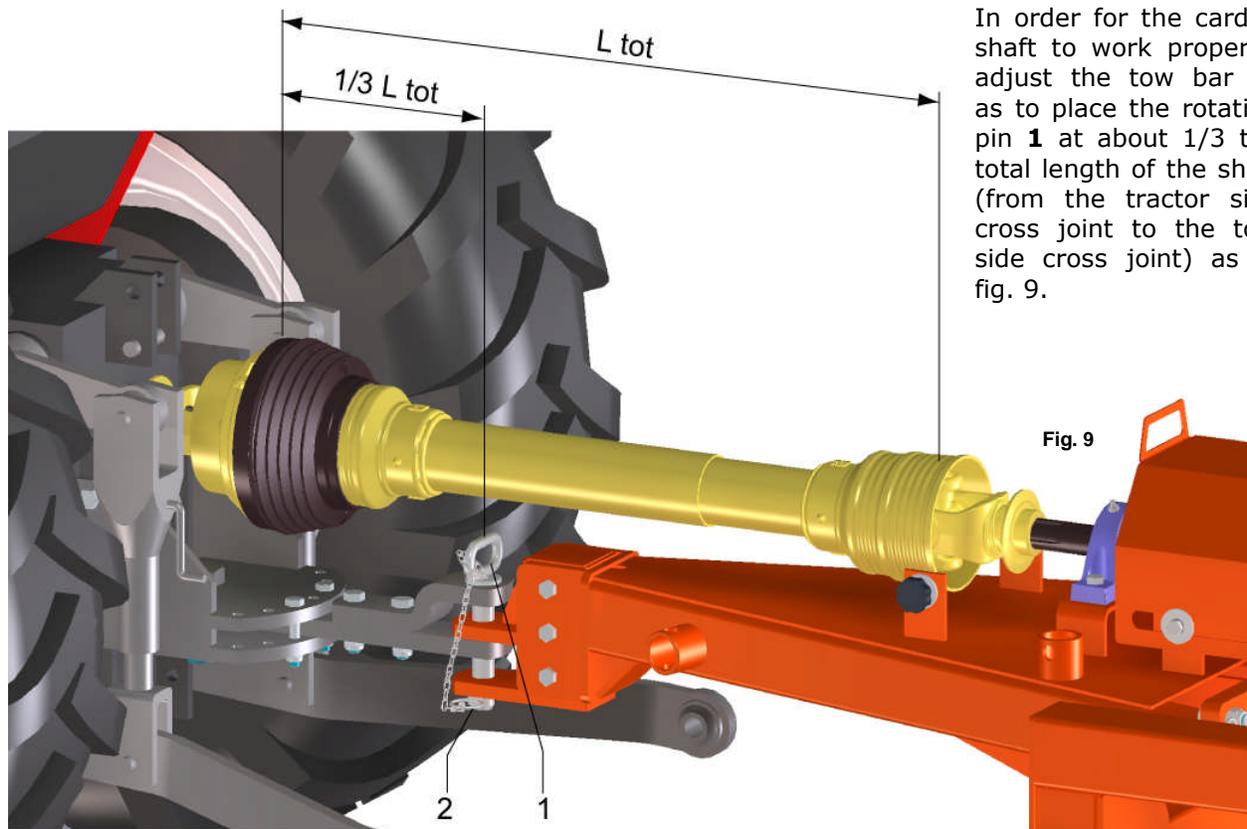
- Unscrew the knobs **9**.
- Push the guard **10** back.
- Insert the cardan **11** from the simple joint side.
- Replace the guard **10**.
- Screw the knobs **9** back on.

CONNECTING THE MACHINE TO THE TRACTOR

It is appropriate to read this user manual carefully as well as that of the tractor and cardan shaft manufacturer. Phoenix flex wing mowers are designed to be used with any tractor equipped with the special tow bar and hydraulic circuits with quick coupling.

The machine can be connected to the tractor with power take-off engaged at 540 rpm and suitable weight and power.

Before carrying out any connection to the tractor, place the machine on a flat and level surface and make sure that nobody is standing between the tractor and the flex wing mower; slowly move the tractor towards the multiple lawn mower lining up the fixing hole of the articulation pin with that of the lawn mower drawbar. Turn off the engine and engage the parking brake.



In order for the cardan shaft to work properly, adjust the tow bar so as to place the rotation pin **1** at about 1/3 the total length of the shaft (from the tractor side cross joint to the tool side cross joint) as in fig. 9.

- Insert the pin **1** supplied in the appropriate fixing hole and insert the safety plug **2**.
- Adjust the central body of the lawn mower so that it is parallel to the ground (see page 21).
- Adjust the cutting height of the lawn mowers according to requirement (see page 22).

Caution

At the end of this type of operations it is always best to check thoroughly that all nuts and bolts are properly tightened (see tab. 4 page 30)

Danger

Pay attention to the traction of the tractor's front wheels when the tool is mounted and raised off the ground; if they are too light, ballast the front part of the tractor.

Danger

These operations must only be carried out on the working ground with the engine turned off, the power take-off disengaged and the parking brake engaged. If necessary, lift the machine off the ground safely and place it on supports to prevent falling.

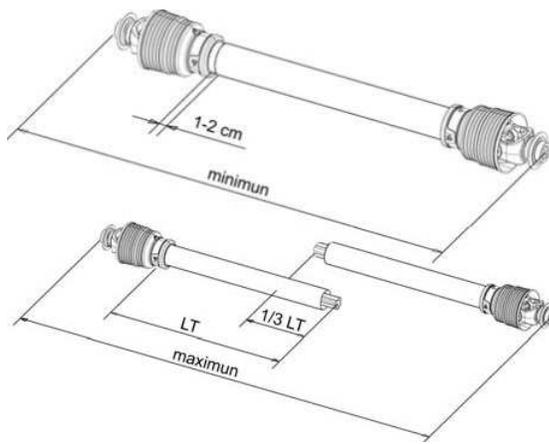
CONNECTION TO THE CARDAN SHAFT

It is important to check that the number of revolutions per minute and the rotation direction correspond to those of the tractor before mounting the cardan shaft. Carefully read the instructions provided by the cardan shaft and tractor manufacturers.

Before starting work, check that the guards are fitted on the power take-off of the tractor and the cardan shaft. In particular, check that they completely cover the cardan shaft.



In their maximum extension the protective plastic pipes must overlap by at least 1/3 of the length of said pipes (LT). When they are in the fully closed position, the minimum clearance allowed is 1-2 cm.



Check that the maximum and minimum lengths of the cardan shaft are those required by the machine-tractor coupling. If not, contact a specialized workshop or the cardan retailer.

After installation, fix the guard both to the tractor and the machine using the proper chains and make sure that it rotates freely.

Do not use a cardan shaft without the suitable guards required by law.

If the cardan shaft is provided with safety devices such as a torque limiter or free wheels, make sure that they are mounted on the operating machine side.

As for the use and maintenance of the cardan, refer to the relative booklet.



Always make sure you refrain from climbing over the cardan shaft, whether it is moving or still.

HYDRAULIC CONNECTIONS

This machine features hydraulic lifting of the lateral and rear lawn mowers. Connect the ends of the delivery and return pipes of the hydraulic system, equipped with quick coupling, to the hydraulic circuits of the tractor. Check the seal of all the connections and familiarize yourself with the displacement controls.

Before operating the machine, it is necessary to familiarize yourself with its controls and working options.

In all circumstances, always keep your whole body inside the tractor operator's station in order to minimize the risks of exposure to external dangers.

Before getting out of the tractor and before any maintenance and adjustment operations, engage the parking brake, turn off the engine, remove the ignition key from the dashboard and wait for all the moving parts to stop.

The operator's and other people's safety depends on their common sense and caution in using the machine. It is therefore necessary to be familiar with the position and function of all the controls.

The machine must always be in perfect operating condition and must be repaired solely with original Uniform replacement parts.

USING THE MACHINE

Before using the machine for the first time, or after a long period of inactivity, it is necessary to carry out the following operations:

- Check that the machine is not damaged;
- Check the mechanical elements, which must be in good condition and without rust;
- Check that the blades are not worn;
- Check that there are no oil leaks from the fittings and piping;
- Check that all guards are correctly positioned.
-

After these verifications, **never start the power take-off with the mower decks in the raised position but only after resting the tool on the working ground!**

Turn the parking foot **1** from the vertical position (parking position) to the horizontal position (transport position) after removing the trigger pin **2**, and reinsert it when the operation is complete (fig 9A).

At this point it is possible to engage the power take-off and start.

Similarly, in direction change operations, turns and in reverse, slightly raise the head from the ground, after disengaging the power take-off in order to avoid damage to the structure.

Before operating the machine, it is necessary to familiarize yourself with its controls and working options,

and to check that there are no people or animals within a 50 m radius of the machine.

Keep the engine at a revolution speed which gives the machine the necessary power for the relevant use.

Cover a short distance with the flex wing mower running and check the quality of the work; if it is unsatisfactory, repeat the operation and review the machine adjustment operations.

WORKING SPEED

The tractor's moving speed during work depends on the desired mowing quality.

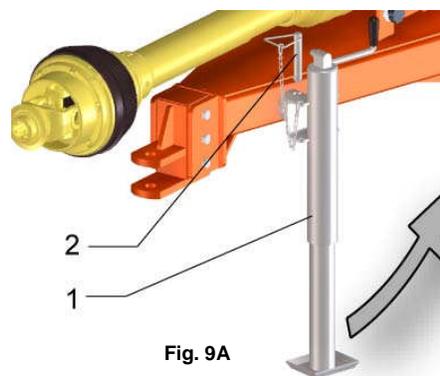


Fig. 9A

ADJUSTMENTS

FLEX WING MOWER CENTRAL BODY ADJUSTMENT

For the correct operation of the flex wing mower, its central body must be well adjusted so as to work horizontally.

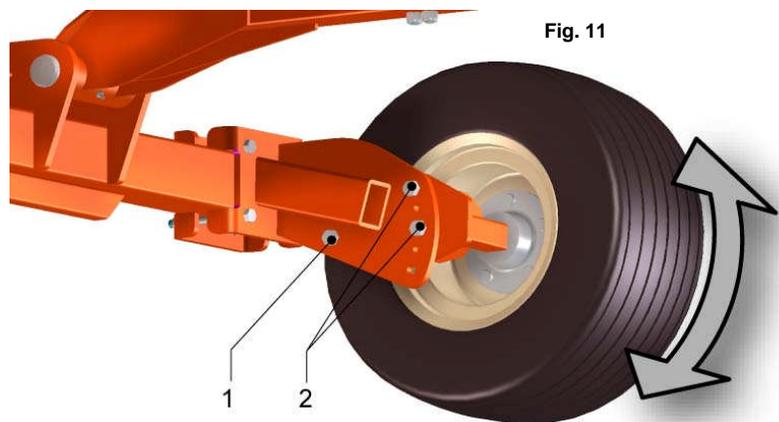
In order to carry out such adjustment, follow the instructions below:

- Adjust the height of the central body front part according to the position of the tractor's tow bar, raising or lowering the parking foot.
- If necessary, also adjust the height of the drawbar head.



Then, adjust the rear part of the flex wing mower, modifying the height of the wheels as described below:

- Raise the frame using a jack and loosen bolt **1**, unscrew and remove the screws **2**.
- Turn the hub support around the screw **1** until you reach the desired position.
- Re-insert and tighten all bolts previously unscrewed (tab. 4 page 30).



CUTTING HEIGHT ADJUSTMENT

The flex wing mower consists of three mowing bodies and it is necessary to adjust all bodies to the same height in order to obtain a smooth cut.

The working height of the cutting body depends on the position of the four wheels **6** of each individual mower deck.

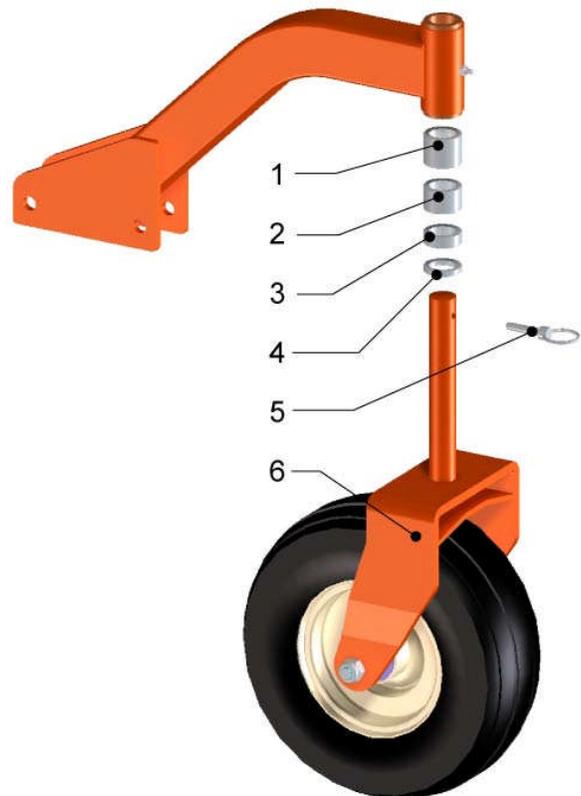
If you raise the wheels, the blades move closer to the ground; if you lower the wheels, the blades move away from the ground. Make sure that after modifying the working height the blades do not touch the ground as a direct contact could cause rapid wear.

Also make sure that the four wheels of each individual mowing body are at the same height, and that all the three lawn mowers have the same cutting height.

In order to adjust the cutting height of the mowing decks remove the pin **5** and adjust the height of the wheels according to the spacing bushings **1, 2, 3, 4** whose respective heights are 32mm, 25mm, 12.5mm and 6mm.

When these spacers are positioned all in the upper part, the cutting bodies cut the grass at the minimum height which is about 30mm.

After adjustment, re-insert pin **5**.

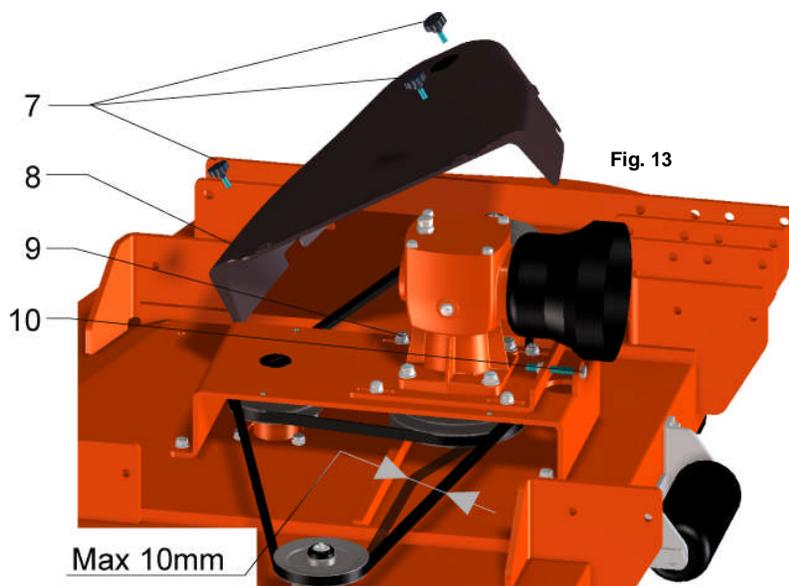


BELT ADJUSTMENT

It is possible to adjust the tension of the belts on the mowing decks; the right belt tensioning ensures that the machine works correctly and decreases the wear on the rotating parts.

To adjust the belt tensioning:

- Unscrew the knobs **7**.
- Remove the belt covers **8**.
- Loosen the bolts **9**.
- Adjust the tension using the screw **10** after loosening the locking nut.



Check that the belt oscillation does not exceed 10 mm as in the picture to the side.

Carry out the inverse operation for reassembly.



These operations must only be carried out on the working ground with the engine turned off, the power take-off disengaged and the parking brake engaged. If necessary, lift the machine off the ground safely and place it on supports to prevent falling.

ROAD TRANSPORT

During road transport, it is of extreme importance to follow all local highway regulations, paying particular attention to the speed.
When transiting on a public road, the flex wing mower must be in transport position (as shown in figure 14) making sure that the safety systems are guaranteed and that the tractor power take-off is disengaged.

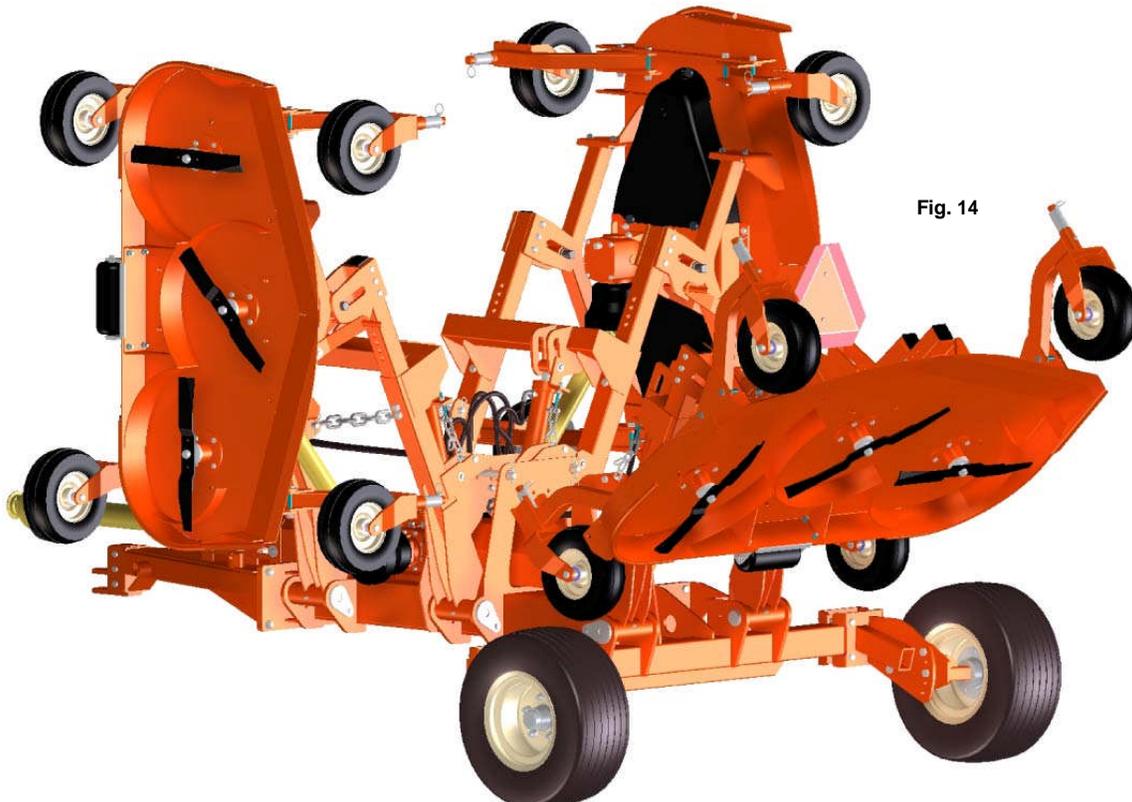


Fig. 14

It is therefore necessary to follow the procedures described to guarantee maximum safety.

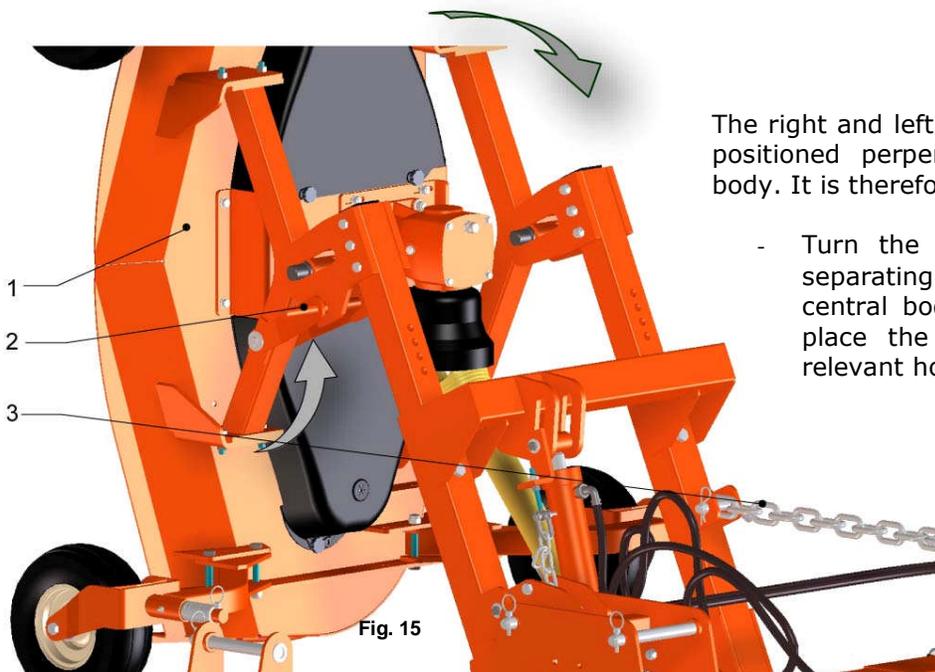


Fig. 15

The right and left mowing decks **1** must be positioned perpendicular to the machine body. It is therefore necessary to:

- Turn the lateral mower deck **1** separating its lower part from the central body, until it is possible to place the locking lever **2** in the relevant housing (fig. 15).

- Lock the two lateral mowing decks together by using the chain provided **3** and the locking pins **4**.
- Then fix the pins **4** with the relative elastic split pins **5** (fig. 16).
-



The above-described operations must be carried out by two operators.



It is absolutely forbidden to insert the power take-off with the mowing units raised

The weight of the machine alters the stability of the tractor-lawn mower combination, affecting its steering and braking capacity, therefore it is necessary to move at a moderate speed. Check the lifting capacity as well as the tractor's stability and, apply front ballasts, if necessary.

HANDLING AND TRANSPORT

Pay maximum attention to the safety instructions during the loading/unloading operations, which must be carried out by qualified personnel (slingers, fork-lift truck operators, etc.).

MAINTENANCE

Maintenance is crucial for the working life and efficiency of any agricultural equipment. If the equipment is properly maintained and operated, a long working life and operator safety are assured as well as optimal work performance.

The maintenance intervals indicated in this booklet are provided as a mere reference and relate to normal working conditions; changes may occur depending on the type of activities, environmental dust, seasonal factors, etc.

Before any maintenance interventions, the following operations must be carried out:

- The machine must be positioned on flat and compact ground;
- Turn off the tractor engine, engage the parking brake and remove the ignition key from the dashboard;
- Always use appropriate Personal Protective Equipment (safety shoes, overalls and working gloves, anti-dust mask);
- Take all the safety prevention measures envisaged for the type of operation in progress;
- If compressed air is used for cleaning the machine, it is necessary to wear protective goggles;
- Do not carry out repairs if you are not familiar with them. Always follow the instructions and contact the supplier or experienced personnel, if they are missing;
- Do not use lifting points other than those described above;
- Make sure the chosen lifting device is suitable for the operations to be carried out and respects the safety regulations;
- Never run the tractor engine indoors if the room does not have a ventilation system suitable for disposing of the dangerous exhaust gases which get concentrated in the air;
- Avoid long and repeated contact of the skin with lubricants, as they could cause skin problems or other diseases;
- In the event of accidental contact of the lubricant with the eyes, rinse the affected part thoroughly with water;
- Use utmost caution due to the possible high temperatures of discharged oil;
- Never perform any welding operations indoors or in places that are not adequately ventilated;
- Never carry out welding operations on painted surfaces or in their proximity, to prevent the formation of toxic vapors; hence, remove the paint with suitable products, wash the surfaces and leave them to dry.
- Discharge pressure from the circuits before any intervention;
- Never use your hands to find leaks in pressurized fluids;
- Pressurized fluid leaks can penetrate into the skin and the eyes with very serious consequences.

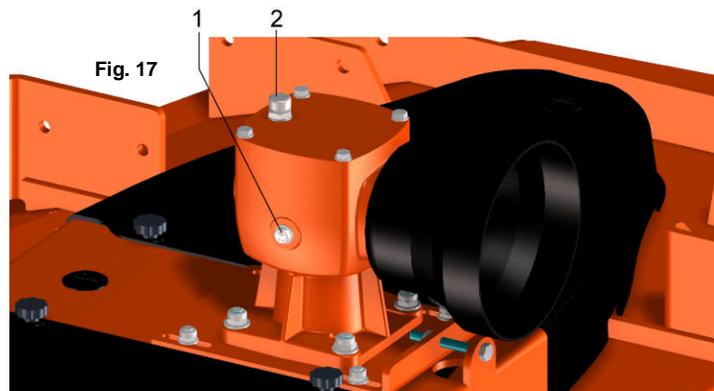
MAINTENANCE SCHEDULE



- **Before injecting lubricating grease into the greasers, clean the fittings to prevent mud, dust, or any other foreign bodies from contaminating the grease and reducing the lubrication effect.**
- **When topping up or changing the oil, use the same type of oil to prevent mixing oils with different characteristics.**
- **After the first few hours of work, check that all bolts and nuts are tightened properly; remember to check the machine guards frequently.**

First check

After 50 working hours, check the oil level in the multipliers and in the central gearbox from the porthole **1** and, if the oil is not visible any longer (fig.17), refill from the plug **2**. Make sure that all the bolts are properly tightened.



Every 20 working hours

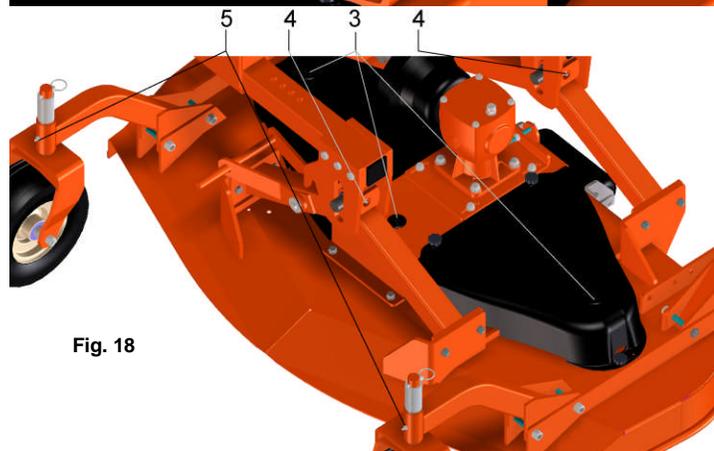
Lubricate the pulley support **3** (fig.18).

Every 30 working hours

Check the correct belt tensioning (page 22, fig.13).

Every 40 working hours

Lubricate all the greasing points **4, 5, 6, 7, 8** (fig. 18, 19, 20, 21).



After the first 50 working hours and every 500 working hours

Replace the oil in the central gearbox unscrewing the discharge plug located underneath the gearbox and accessing the compartment underneath the central body (fig. 23). Pour the quantity of oil indicated below from the plug **9** (fig. 22). Replace the oil in the 3 multipliers (fig. 17) by sucking and pouring the oil from the plug **2**.

Use **API GL-4 80W/90** oil (0.75 liters for each gearbox) and Total Marson 2 grease (lithium based multi functional grease) or equivalent.

Contact your nearest Uniform/Phoenix dealer for this type of maintenance.

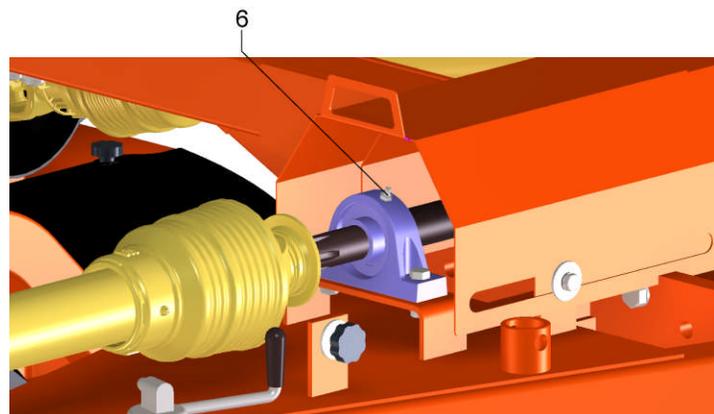


Fig. 19



The used oil must be disposed of in compliance with the local laws where these activities are carried out; do not dispose of waste oil on the ground.



Fig. 20

Fig. 21

8

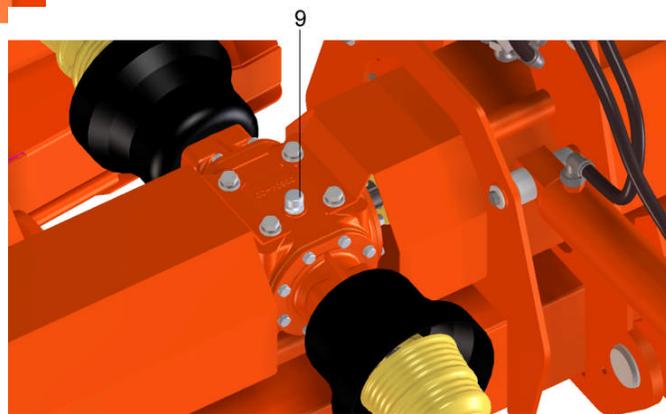


Fig. 22

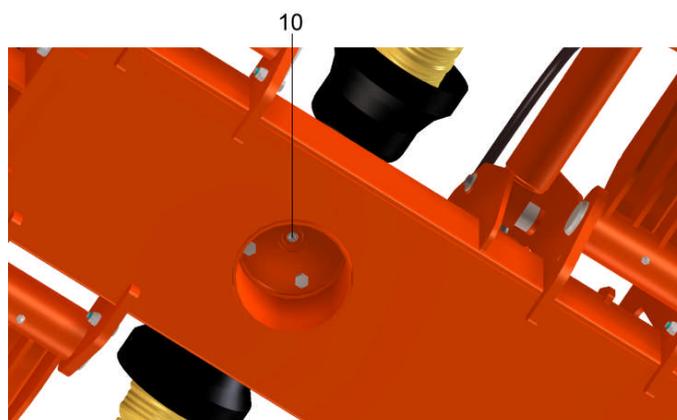


Fig. 23



The maintenance activities must be carried out with the engine off, the power take-off disengaged, the parking brake engaged, and the equipment placed on the ground.

BLADE CHECK AND REPLACEMENT

For perfect machine operation, frequently check the mower deck blades: make sure that they are efficient, sharp and perfectly anchored by means of the bolts. Follow the procedure below to replace the blades:

- Adopt all measures to prevent accidental machine start-up;
- Place the equipment on sturdy supports;
- Unscrew the nuts anchoring the blades, remove the old blades and install the new ones.

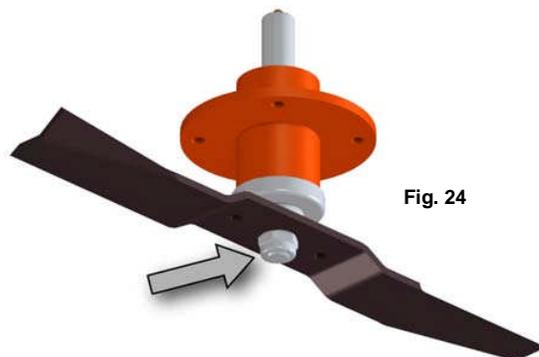


Fig. 24



Before replacing the blades, turn the tractor engine off, engage the parking brake, disengage the power take-off; raise the mower using the tractor lift, and install supports to prevent accidental falling of the machine.

HOW TO ORDER SPARE PARTS

Always use original Uniform spare parts for the best lawn mower performance.

To order spare parts, please refer to the spare parts tables in the following chapter.

Spare parts can be ordered from the dealer or service centers and the following information must always be provided:

- Machine model;
- Part number of the requested spare part; in the absence of this number, please refer to the number of the table containing it and the corresponding reference.
- Part name and requested quantity;
- Type of preferred transport. When this item is not specified, although special attention is paid to this service, the dealer or service centers shall not be responsible for shipment delays caused by problems beyond their control.

The freight charges shall be borne by the consignee.

HYDRAULIC LINE REPLACEMENT

Before replacing a line, it is necessary to adopt the safety measures envisaged for maintenance interventions. After closing the hydraulic system valves, make sure that there is no residual pressure in the circuit; unscrew the connection points of the damaged line paying attention to any oil leaks. Replace the damaged line with an OEM part checking the conditions of the relative fittings; tighten the line connections with care in order to avoid damaging the threads and check the repaired circuit seal.

TROUBLESHOOTING TABLE

Tab. 3

PROBLEM	CAUSE	REMEDY
Non-Uniform or Uneven Cut, Streaking	<ul style="list-style-type: none"> Worn or Damaged Blades Machine Poorly Adjusted (Mowing Elements Not Uniformly Adjusted) Machine Clogged Blade Mounted Incorrectly 	<ul style="list-style-type: none"> Replace/Sharpen Blades Adjust Mower Decks and/or Mower Frame Unclog the Blades and Reduce Tractor Speed Remove and Reinstall Blade Correctly
Blades Wearing Too Quickly	<ul style="list-style-type: none"> Stony or Very Sandy Soil Deck Cutting Height Too Low 	<ul style="list-style-type: none"> Pre-Inspect Work Area For Stones, Debris, Other Objects Adjust Cutting Height
Noise or Vibrations from the Machine	<ul style="list-style-type: none"> Damaged, Worn or Missing Blades Worn Bearings 	<ul style="list-style-type: none"> Replace Blades Replace Bearings

ORDERING SPARE PARTS

Spare parts can be ordered from the dealer or service centers and the following information must always be provided:

- Equipment type and width.
- Code number of the part.
- Part name and requested quantity.
- Type of preferred transport. When this item is not specified, although special attention is paid to this service, the dealer or service centers shall not be responsible for shipment delays caused by problems beyond their control. The freight charges shall be borne by the consignee.

REMOVING THE MACHINE

When parking the machine, it is necessary to:

- Engage the tractor parking brake;
- Place the three cutting elements on the ground;
- Disengage the tractor power take-off;
- Stop the tractor engine;
- Remove the key from the dashboard and put it away safely;
- Get out of the driving position;
- Turn the parking foot into the vertical position and adjust its height;
- Detach the cardan shaft;
- Take out the plug and the drawbar pin;
- Get on the tractor again;
- Start the tractor and move away with caution.

STORAGE

If the machine is not used for long periods, store it in a sheltered place away from atmospheric agents and protect it to prevent damage. Before storing it, it is recommended to clean it carefully and to lubricate all the mechanical elements properly to protect it from rust.

Before storing the machine for long periods, it is necessary to carry out the following operations:

- Clean the blades from any cutting residuals;
- Wash the machine carefully and dry it.
- Carry out a visual general check of the machine to identify any structural damage, any deep abrasions on the paintwork, check that all the original safety pictograms are in the proper position, undamaged and legible;
- Grease all the mechanical organs as well as the fixing pins;
- If possible, store the machine outdoors on a level and uniform surface.

SCRAPPING

In the event of scrapping, the machine must be disposed of in the relevant dumps, in compliance with the local laws in force.

Before scrapping, it is necessary to separate the plastic or rubber parts and the electric and electronic materials.

Recover any used oil and dispose of it per local applicable law.



Used oil must be properly disposed of and it must not be dispersed in the environment, as, according to the local regulations in force, it is classified as dangerous waste and therefore it must be collected in the certified collection centers.

For used oil collection, it is necessary to contact the local oil recycling center in your area. Parts completely made of plastic, aluminum and steel can be recycled if collected by the appropriate centers.

BOLTS AND NUTS TIGHTENING TABLE

For the correct tightening of the bolts and nuts present on the multiple lawn mower, it is recommended to use a special dynamometric wrench and to refer to the table below:

Tab. 4

THREADED BOLTS				
Thread	Bolt grade			
	8.8		10.9	
	Nm	Lb-ft	Nm	Lb-ft
M6	11	8.5	17	12
M8	28	20	40	30
M10	55	40	80	60
M12	95	70	140	105
M14	150	110	225	165
M16	240	175	305	225
M18	330	250	475	350



