MATENG

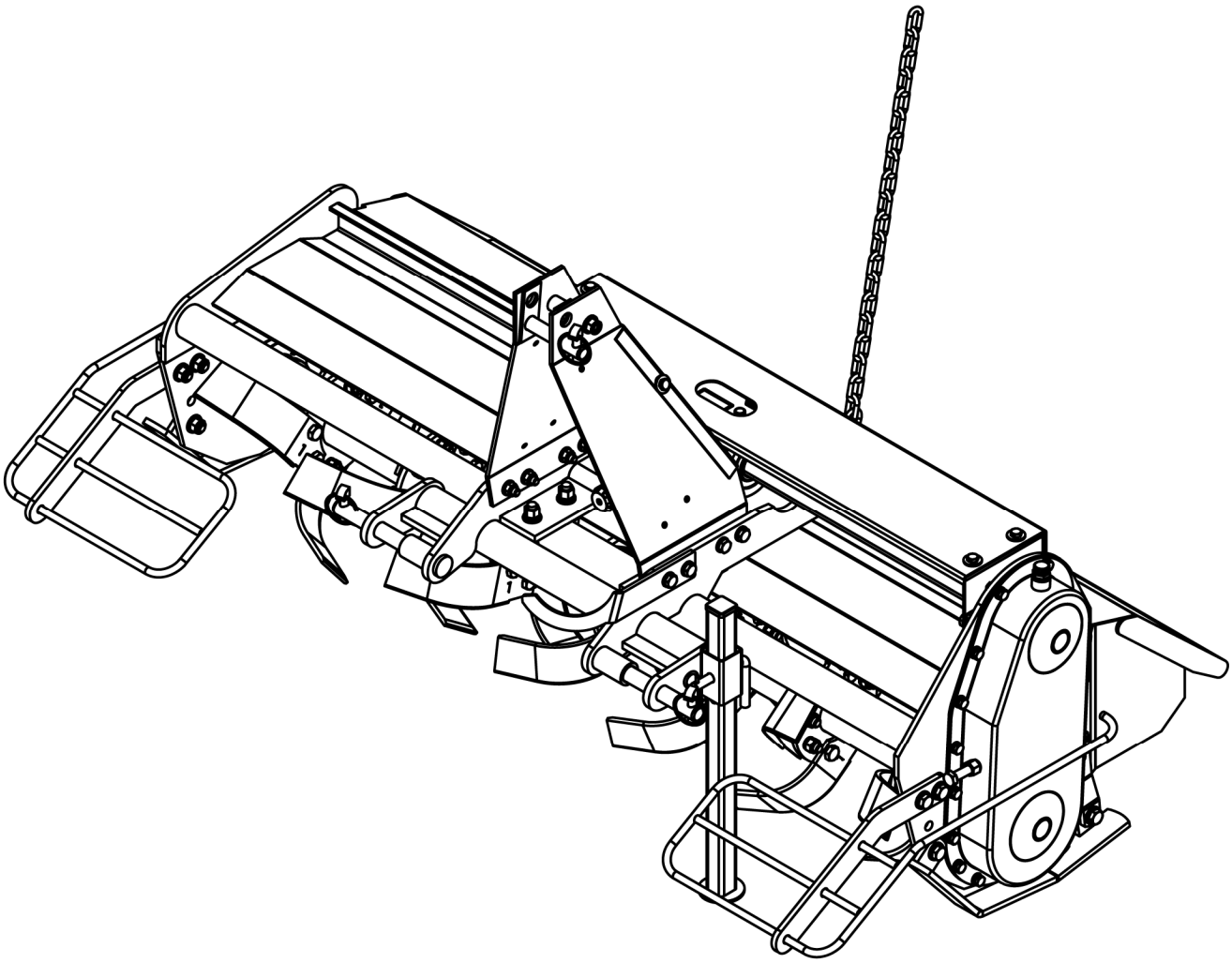
Rotary Tiller

OPERATOR'S MANUAL

ME-RT32-S ME-RT36-S

ME-RT40-S ME-RT45-S

ME-RT48-S ME-RT54-S



Please carefully read this manual and follow all the instructions. Failure to comply with the warnings and precautions may result in serious injury or death.

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Content

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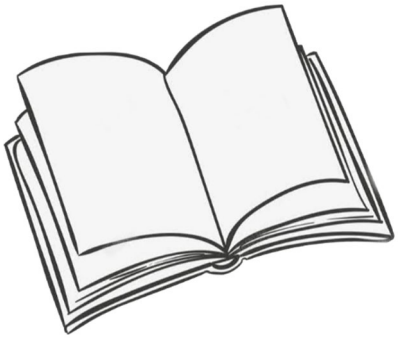
SAFETY PRECAUTIONS

Listed below descriptions are common practices that may or may not be applicable to the products described in this manual.

Safety First

Careful operation is your best assurance against an accident.

Please be fully aware that you are responsible for the safe operation and maintenance of your implement. You must ensure that you and anyone else who is going to operate, maintain or work around the implement is familiar with the operating and maintenance procedures and related safe information contained in this manual. This manual is prepared to guide you through all essential operations related to this implement and alert you to all good safety practices that should be strictly followed.



Please constantly bear in mind that good safety practices not only protect you but also the people around you. Incorporate these practices an inseparable part into your safety program. Make sure that who operates this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury of death by ignoring good safety practices.

- Thoroughly read and understand the "Safety Labels" section. Read all instructions noted on them.
- Do not operate the equipment while under the influence of drugs or alcohol, as they impair your ability to safely and properly operate the equipment.
- The operator should be familiar with all functions of the tractor and attached implement, and be able to handle emergencies quickly.
- Make sure all guards and shields appropriate for the operation are in place and secured before operating the implement.
- Keep all bystanders away from equipment and work area. Start tractor from the driver's seat with hydraulic controls in neutral.
- Operate tractor and controls from the driver's seat only.
- Never dismount from a moving tractor or leave tractor unattended with engine running.
- Do not allow anyone to stand between the implement and tractor while backing up to the implement.

- Keep hands, feet, and clothing away from power-driven parts.
- While transporting and operating equipment, watch out for objects overhead and along the sides such as fences, trees, buildings, wires, etc.
- Do not turn tractor so tight as to cause hitched implement to ride up on the tractor's rear wheel.
- Store implement in a safe and secure area where children normally do not play. When needed, secure implement against falling with support blocks.

Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety and extra precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. Hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Be Aware of Signal Words

A signal word designates a degree or level of hazard seriousness. They are:

⚠ **DANGER**: Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠ **WARNING**: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ **CAUTION**: Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

Be Aware of Special Notices

Special notices are intended to point out important and helpful information that should be followed. They are:

ATTENTION: Indicates that equipment or property damage could result if instructions are not followed.

NOTE: Indicates supplementary explanations that will be helpful when using the equipment.

Safety for Children

Tragedy can occur if the operator is not alert to the presence of children, Children generally are attracted to implements and their work.

- Never assume children will remain where you last saw them.

- Keep children out of the work area and under the watchful eye of a responsible adult.
- Be alert and shut the implement and tractor down if children enter the work area.
- Never carry children on the tractor or implement. There is not a safe place for them to ride. They may fall off and be run over or interfere with the control of the power machine.
- Never allow children to operate the power machine, even under adult supervision.
- Never allow children to play on the power machine or implement.

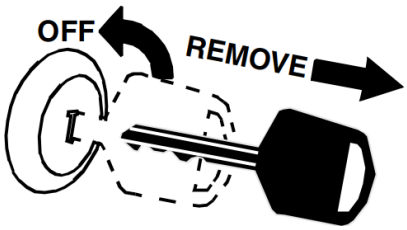
Operation Safety

Use extra caution when backing up. Before the tractor starts to move, look down and behind to make sure the area is safety and clear.

Tractor Shutdown Safety

If engaged, disengage power take-off.

Park on solid, level ground and lower implement to ground or onto support blocks.



- Put tractor in park or set park brake.
- Turn off engine and remove ignition key to prevent unauthorized starting.
- Relieve all hydraulic pressure to auxiliary hydraulic lines.
- Wait for all components to stop before leaving operator's seat.
- Use steps, grab-handles and anti-slip surfaces when stepping on or off the tractor.
- If engaged, disengage power take-off.
- Park on solid, level ground and lower implement to ground or onto support blocks.
- Put tractor in park or set park brake.
- Turn off engine and remove ignition key to prevent unauthorized starting.
- Relieve all hydraulic pressure to auxiliary hydraulic lines.
- Wait for all components to stop before leaving operator's seat.
- Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

Use a Safety Chain

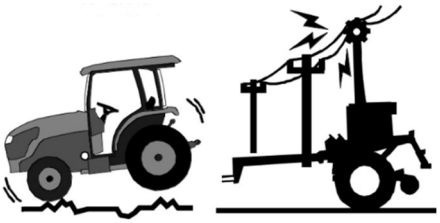
A safety chain will help control drawn machinery should it separate from the tractor drawbar.

Use a chain with the strength rating equal to or greater than the gross weight of the towed implement.

- Attach the chain to the tractor drawbar support or other specified anchor location. Allow only enough slack in the chain to permit turning.
- Always hitch the implement to the machine towing it. Do not use the safety chain to tow the implement.

Transport Safely

- Comply with federal, state, and local laws.
- Avoid contact with any overhead utility lines or electrically charged conductors.
- Engage park brake when stopped on an incline.
- Maximum transport speed for an implement is 30 km/h. DO NOT EXCEED.



- Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.
- Do not tow an implement that, when fully loaded, weights more than 1.5 times the weight of towing vehicle.

Avoid Crystalline Silica (Quartz) Dust

Because crystalline silica is a basic component of sand and granite, many activities at construction sites produce dust containing crystalline silica. Trenching, sawing, and boring of material containing crystalline silica can produce dust containing crystalline silica particles. This dust can cause serious injury to the lungs (silicosis). There are guidelines which should be followed if crystalline silica (quartz) is present in the dust.

- Be aware of and follow OSHA (or other local, State, or Federal) guidelines for exposure to airborne crystalline silica.
- Know the work operations where exposure to crystalline silica may occur.
- Participate in air monitoring or training programs offered by the employer.
- Be aware of and use optional equipment controls such as water sprays, local exhaust ventilation, and enclosed cabs with positive pressure air conditioning if the machine has such equipment. Otherwise respirators shall be worn.
- Where respirators are required, wear a respirator approved for protection against crystalline

silica containing dust. Do not alter respirator in any way. Workers who use tight-fitting respirators cannot have beards/ mustaches which interfere with the respirator seal to the face.

- If possible, change into disposable or washable work clothes at the work site; shower and change into clean clothing before leaving the work site.
- Do not eat, drink, use tobacco products, or apply cosmetics in areas where there is dust containing crystalline silica.
- Store food, drink, and personal belongings away from the work area.
- Wash hands and face before eating, drinking, smoking, or applying cosmetics after leaving the exposure area.

Avoid Contact Blades

Keep away from rotating blades to avoid death or serious injury from blade contact.

- Stay away and keep hands, feet and body away from rotating blades, drivelines and parts until all moving elements have stopped.
- Do not put hands or feet under implement hood.
- Stop rotating blades disengage PTO and wait for blade to stop rotating before raising implement hood or swings.
- Stop look and listen before approaching the implement to make sure all rotating motion has stopped.
- If a material blockage occurs in the inlet or discharge areas, shut down tractor engine, disengage the PTO and wait for all rotating motions to stop. Place the tractor in park position, engage the parking brake and remove the key before leaving the operator's seat. Clear the blockage before processing. Be sure to keep feet and hands clear of the blades. If you raise the implement or swing to access the blockage, engage the swing lock up latch and securely block up the implement before placing any parts of the body beneath the implement.

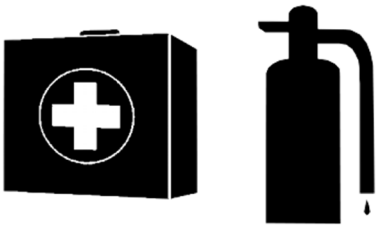
Maintenance Safety

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Follow good shop practices.
- Keep service area clean and dry.
- Be sure electrical outlets and tools are properly grounded.
- Use adequate light for the job at hand.
- Make sure there is plenty of ventilation. Never operate the engine of the tractor in a closed area. The exhaust gas may cause healthy problem.

- Before maintenance, shut off the tractor (See Tractor Shutdown).
- Allow equipment to cool before maintenance operation.
- Never work under the machine unless it is secured by a mechanical stand.
- Use personal protection devices such as safety goggles, hand gloves and hearing protectors, when performing any service or maintenance work. Use heavy gloves when handling blades.
- Only use original parts for service and maintenance.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
- Periodically tighten all bolts, nuts and screws and check that all pins are properly installed to ensure unit is in a safe condition.
- Do not weld or torch on galvanized metal as it will release toxic fumes.
- Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- Disconnect battery (If the implement has the battery) ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- Do not grease or oil implement while it is in operation.
- Do not work under any hydraulically supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand.
- When completing a maintenance or service function, make sure all safety shields and devices are installed before placing machine in service.

Preparation before Maintenance

- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for ambulance, hospital and fire department near the working area.



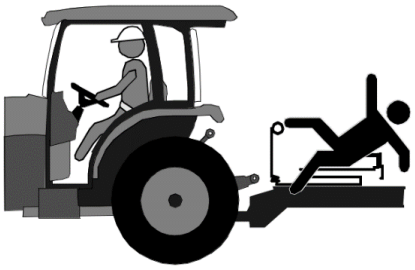
Personal Protective Equipment

- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.

- Operating a machine safely requires the operator's full attention. Avoid wearing headphones while operating equipment.

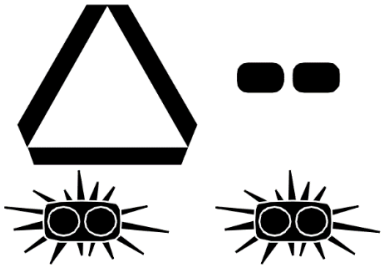
Keep Riders off Machinery

- Never carry riders on the tractor or implement.
- Riders obstruct operator's view and interfere with the control of the power machine.
- Riders can be struck by objects or thrown from the equipment.
- Never use the tractor or implement to lift or transport riders.



Safety Lights and Devices

- A slow moving power machine can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Flashing warning lights and turn signals are recommended whenever driving on public roads.
- For tractors and other agriculture equipment, a Slow Moving Vehicle (SMV) sign is required when traveling on public roads.



Seat Belt and ROPS

- We recommends the use of a CAB or roll-over-protective structures (ROPS) and seat belt in almost all power machines. Combination of a CAB or ROPS and seat belt will reduce the risk of serious injury or death if the power machine should be upset.
- If ROPS is in the locked-up position, fasten seat belt snugly and securely to help protect against serious injury or death from

falling and machine overturn.

Hydraulic System Safety

- Escaping fluid under pressure will penetrate the skin or eyes causing serious injury.
- Relieve all residual pressure before disconnecting hydraulic lines or performing work on the hydraulic system.
- Make sure all hydraulic fluid connections are properly tightened/torqued and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.

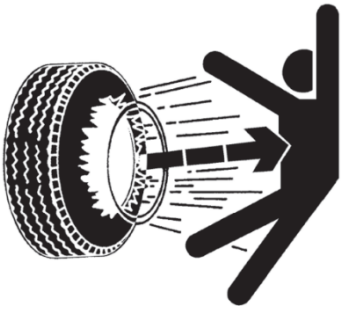
- Wear proper hand and eye protection when searching for a high pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
- DO NOT DELAY. If an accident occurs, seek immediate emergency medical care or gangrene may result.

Handle Chemicals Properly

- Protective clothing should be worn.
- Handle all chemicals with care.
- Follow instructions on container label.
- Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- Inhaling smoke from any type of chemical fire can be a serious health hazard.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.

Tire Maintenance Safety

- Tire changing can be dangerous and must be performed by trained personnel using the correct tools and equipment.
- Always properly match the wheel size to the properly sized tire.
- Always maintain correct tire pressure. Do not inflate tires above recommended pressures shown in the Operator's Manual.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.



- Securely support the implement when changing a wheel.
- When removing and installing wheels, use wheel handling equipment adequate for the weight involved.
- Make sure wheel bolts have been tightened to the specified torque.

Storage and Disposal Safety

Storage Safety

1. Store the machine in an area away from human activity. Do keep the machine out of the children's reach. Do not permit children to play on or around the stored machine.
2. Store the machine in a dry, level area.
3. Clean grease and oil as required and protect it from the elements.

Disposal Safety

1. Improper disposal of oil or other waste may be hazardous to the environment.
2. When oil is emptied from the machine, it must be poured into a leak-proof container suitable for oil. It is not permissible to store oil in a container used for food or drink, in order to avoid the oil being consumed by mistake and causing serious injury. It is prohibited to spill oil on the ground, or pour it into a drain or anywhere leading to a water source.
3. Discarded oil, fuel, coolant, brake fluid, filters and batteries may not be thrown away or emptied in just any way. Contact your local authority for further information.

Safety Labels

Your implement comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Replace all damaged or missing labels.
3. When ordering new components make sure the correct safety labels are included in the request.
4. Refer to steps below for proper label placement.

a) Clean surface area where label is to be placed.

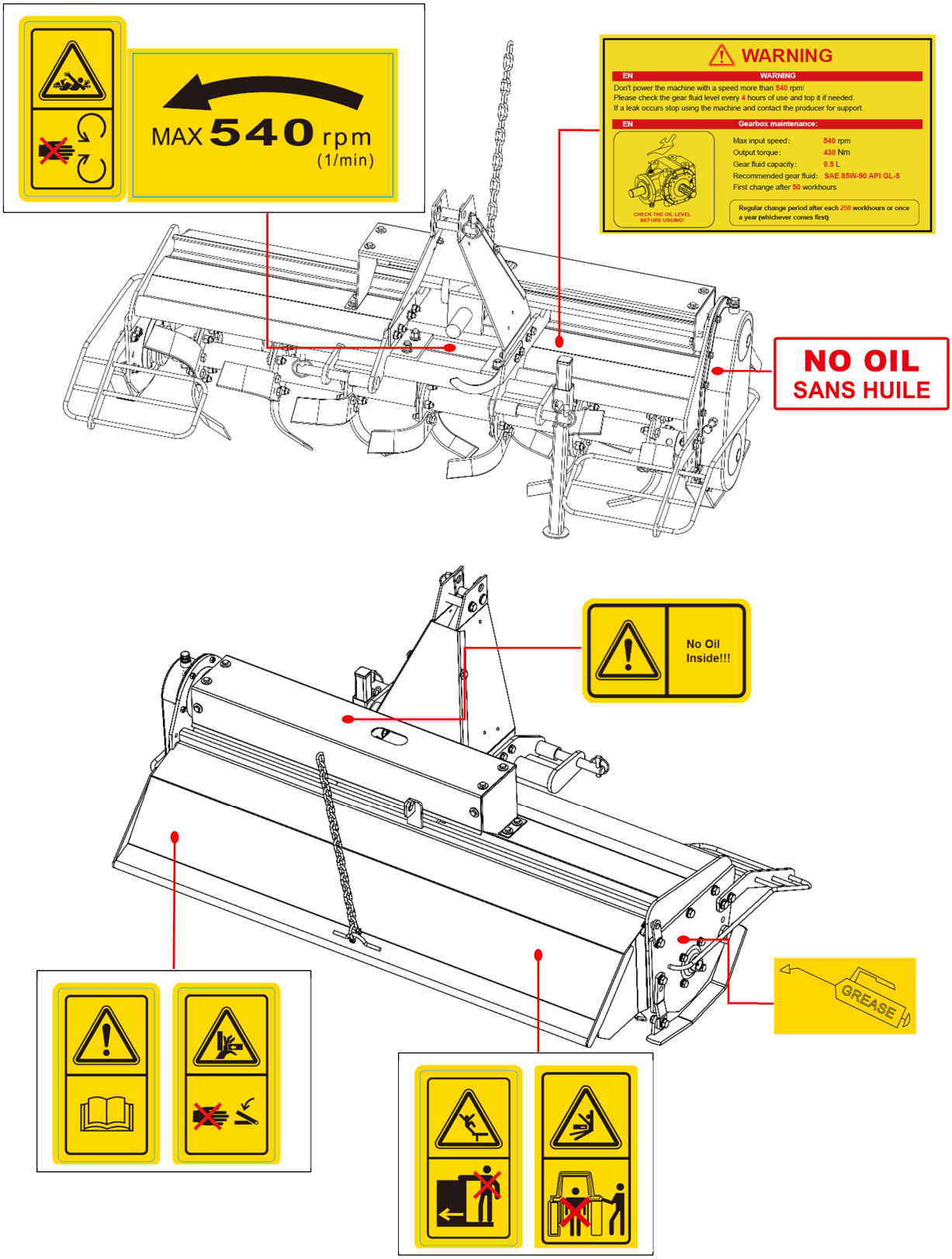
b) Spray soapy water onto the cleaned area.

c) Peel backing from label and press label firmly onto the surface.

d) Squeeze out air bubbles with edge of a card or with a similar type of straight edge.

Labels Location

Labels locations below are common practices of ME-RT54-S machine that may or may not be applicable to the products described in this manual. .



PRODUCT INTRODUCTION

Listed figure is common tiller of ME-RT54-S that may or may not be applicable to the products described in this manual.

See Figure 1

This series rotary tiller is used adjustable rear flap for safety as well as providing a smooth finish, 6 extra strong blades per flange for a more thorough tilling of top soil, height adjustable skids for depth control, extra strong design for long life and reliability performance.

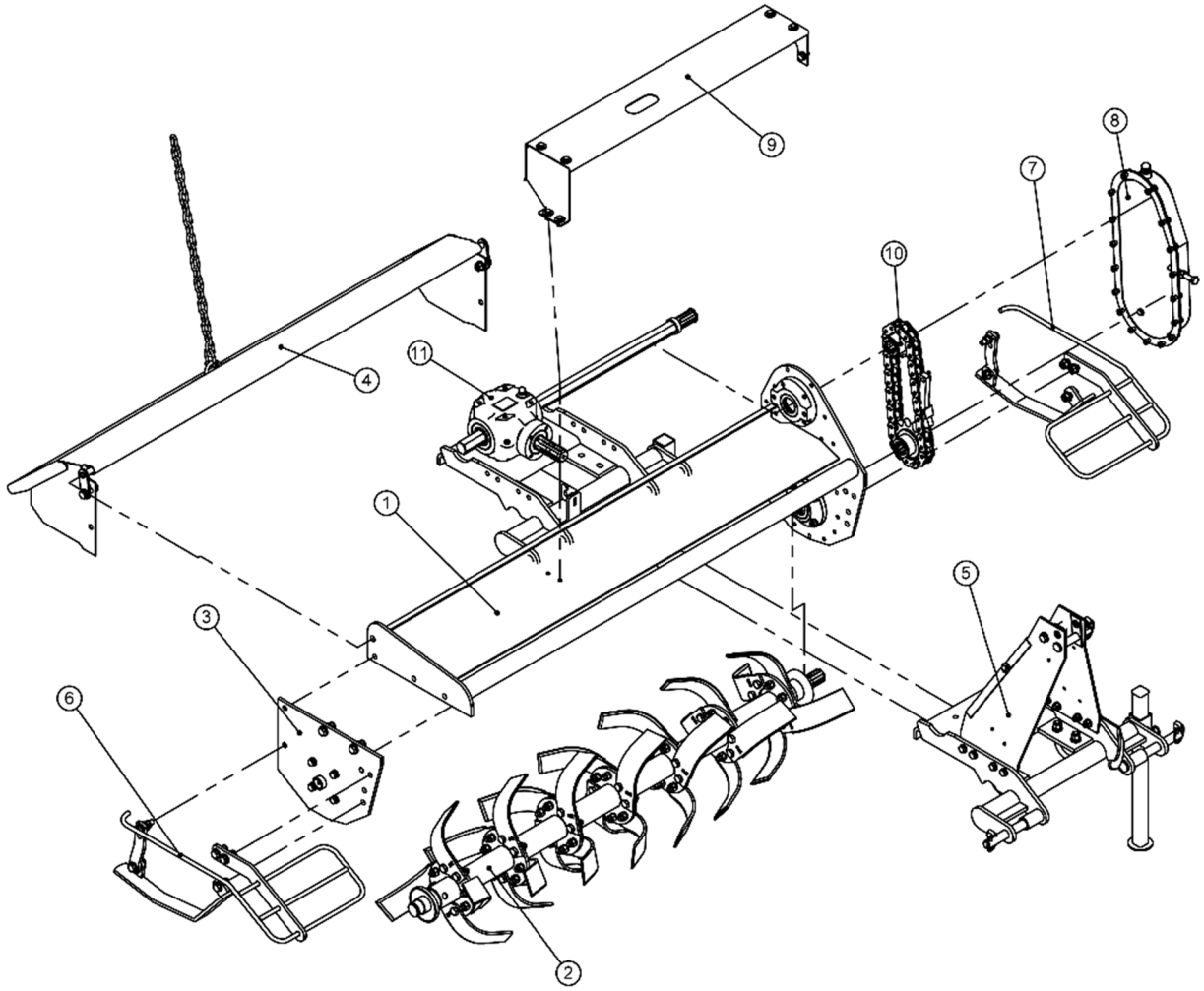


Figure 1

Main parts name and function list:

Item	Name	Functional Description
1	Hood assembly	Protecting people from harm during working procedure.
2	Knife shaft assembly	The light-duty C-shaped blades are arranged in a spiral shape, which can reduce the working load. They are connected by high-strength bolts.
3	Right plate component	Connect with right protective guard.
4	Rear deflector	See chapter **Adjusting Rear Deflector**.
5	Hitch component	Connect to tractor via 3-point suspension, and the feet will be supported the tiller when it is in the maintenance or storage status.
6	Right protective guard	Avoid damaging the surface of the machine during operation process. Skid shoes are used for support when the tiller is in idle, and it plays a guiding role during operation.
7	Left protective guard	
8	Pulley cover	Protects the chain component from damage during operation.
9	Protection cover	Protects the gearbox and drive shaft from damage.
10	Chain component	Transport the movement.
11	Gear box	Connect with PTO component.

Technical Data

See figure 2

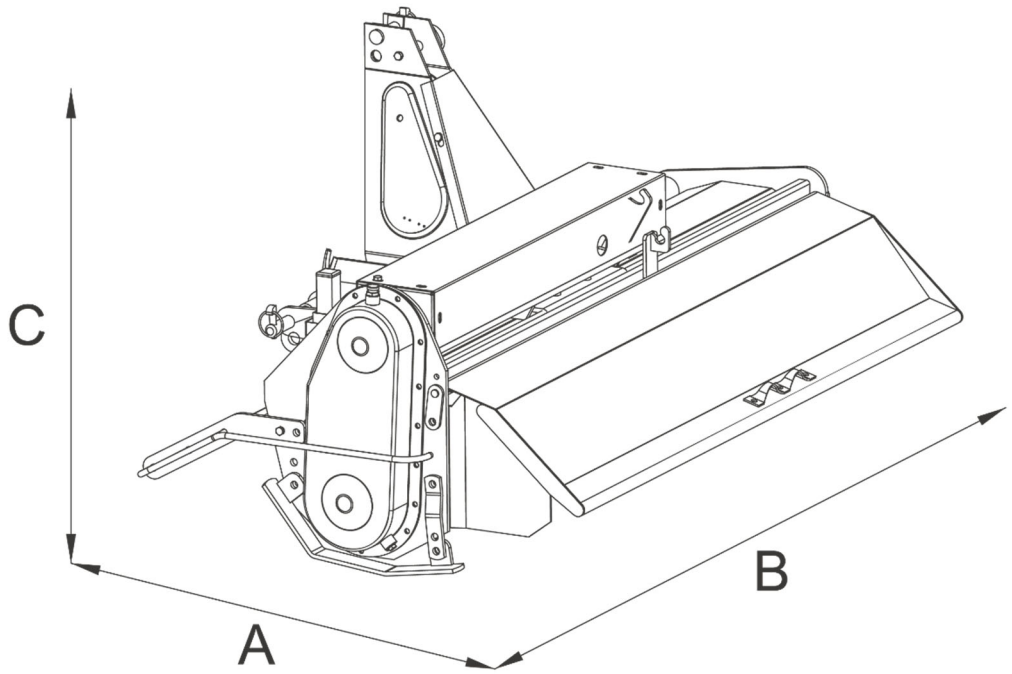
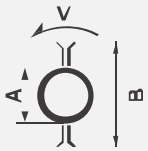
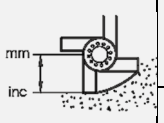
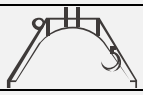


Figure 2

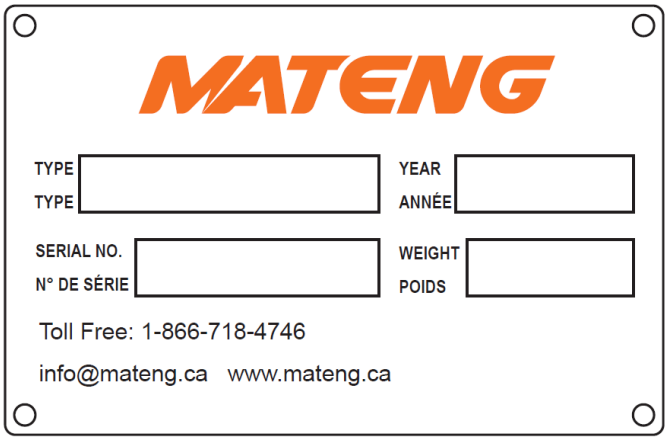
Implement specification table:

Model		ME-RT32-S	ME-RT36-S	ME-RT40-S	ME-RT45-S	ME-RT48-S	ME-RT54-S
A	mm	**845**					
B		**1032**	**1132**	**1232**	**1332**	**1432**	**1532**
C		**842**					
	mm	**850**	**950**	**1050**	**1150**	**1250**	**1350**
	A (mm)	**60**					
	B (mm)	**370**					
	V (m/s)	**5.4**					
	HP	**23**					
	mm	**16**					
	in	**6**					

Model		ME-RT32-S	ME-RT36-S	ME-RT40-S	ME-RT45-S	ME-RT48-S	ME-RT54-S
	N	**5**	**5**	**6**	**6**	**7**	**7**
	N	**20**	**20**	**24**	**24**	**28**	**28**
	PTO (rpm)	**540**					
	CAT.	**CAT. I**					
	HP	**15-25**					
	Kg	**140**	**143**	**147**	**153**	**160**	**165**

Implement Identification

The identification nameplate is affixed to the frame of each implement. It contains: the Manufacturer, Type, Serial Number, Model Number, Weight. The nameplate (Shown in the below) is for reference only and is based on the real thing.



UNPACKING

After unpacking, please check the components shown in **Figure 3**. If you have any problem, please contact us freely.

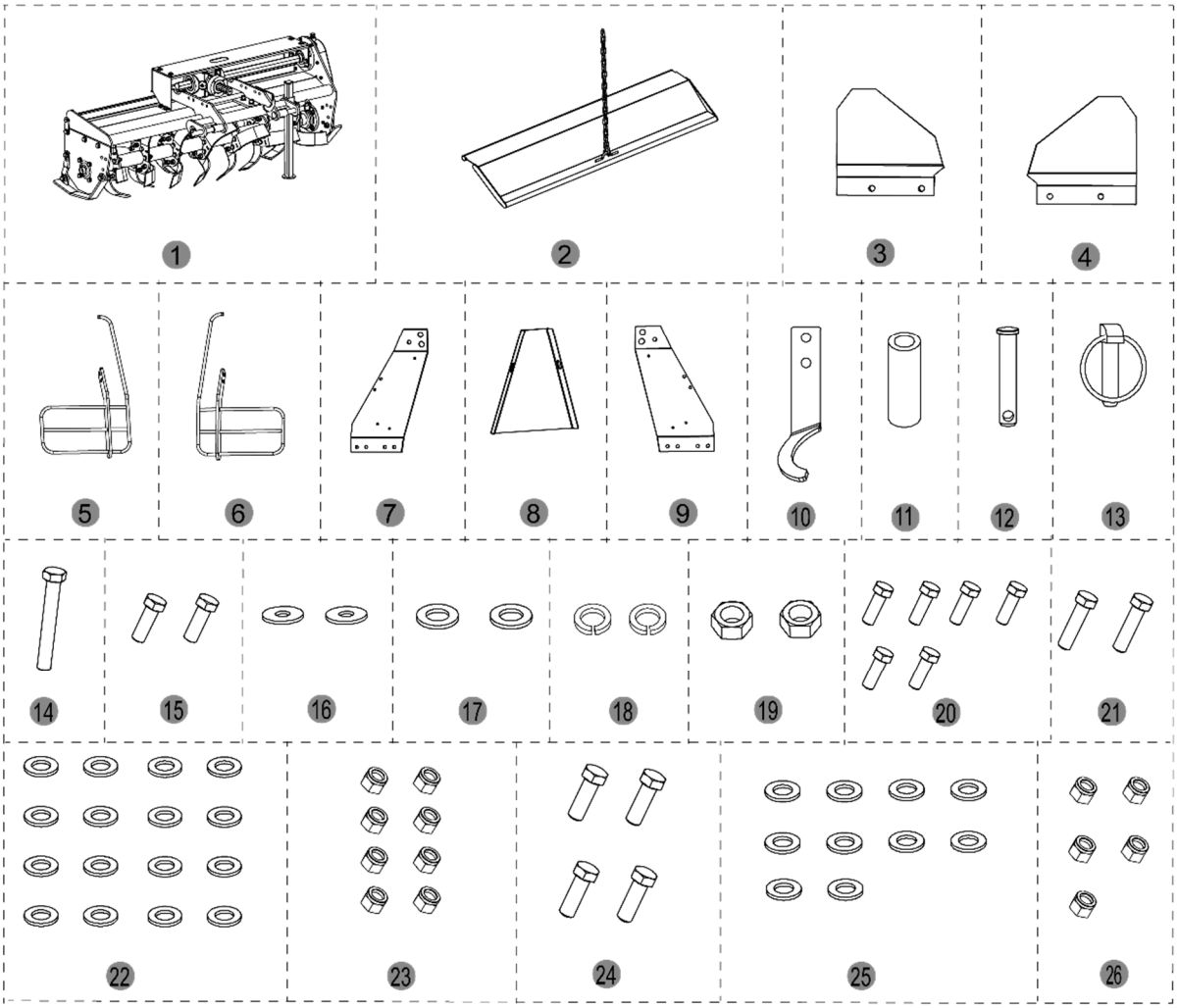


Figure 3

Unpacking parts description list:

Item	Specification	Description	Qty.	Packing
1	/	Host	1	Single pack
2	/	Rear deflector	1	Single pack
3	F06013A05000-002	Left support plate	1	Single pack
4	F06013A05000-001	Right support plate	1	Single pack
5	F06013A06100-000	L-protective guard	1	Single pack
6	F06013A07200-000	R-protective guard	1	Single pack
7	F06013A10200-000	Right panel	1	Single pack

Item	Specification	Description	Qty.	Packing
8	F06013A10000-001	Rear panel	1	Single pack
9	F06013A10300-000	Left panel	1	Single pack
10	F06013A10000-003	PTO plate	1	Single pack
11	F06013A10000-004	Bushing	1	Bale
12	MT95003	Upper pin	1	Bale
13	GB/T4329-12-EP•Zn	Locking pin	1	Bale
14	GB/T5783-M12×85-8.8	Full thread hex. bolt	1	Bale
15	GB/T5783-M8×25-8.8	Full thread hex. bolt	2	Bale
16	GB/T96.2-8-EP•Zn	Large washer	2	Bale
17	GB/T95-8-EP•Zn	Flat washer	2	Bale
18	GB/T93-8-EP•Zn	Spring washer	2	Bale
19	GB/T41-M8-5-EP•Zn	Hex. nut	2	Bale
20	GB/T5783-M10×35-8.8	Full thread hex. bolt	6	Bale
21	GB/T5783-M10×40-8.8	Full thread hex. bolt	2	Bale
22	GB/T95-10-EP•Zn	Flat washer	16	Bale
23	GB/T889.1-M10-8-EP•Zn	Hex. locking nut	8	Bale
24	GB/T5783-M12×35-8.8	Full thread hex. bolt	4	Bale
25	GB/T95-12-EP•Zn	Flat washer	10	Bale
26	GB/T889.1-M12-8-EP•Zn	Hex. locking nut	5	Bale

Tools for installation process list:

No.	Description	Specification	Conditions of Use	Qty.
1	Open end wrench	/	M8/M10/M12ning	2
2	Hex key	/	M8/M10/M12 fastening	1
3	Hammer	/	/	1
4	Torque wrench	10-220N.m	Measuring torque	1
5	Wind gun	1280t	Match the corresponding sleeve instead of the wrench to tighten the bolt	1

ASSEMBLY & SET-UP

Assembling Hitch Component

The hitch component consists of three metal panels (left panel, right panel & rear panel) that require bolting together.

To assemble the hitch component:

1. Bolt the left panel (**A2**) to the inside of rear panel (**A3**) and, using the bolt M8*25 (**A9**), large washer (**A10**), flat washer (**A11**), spring washer (**A13**), assemble as shown below and tighten the bolt with hex. nut (**A12**).
2. Repeat step 1 to bolt the right panel (**A1**) to the inside of rear panel.
3. Place the bushing (**A14**) between left and right panels top parts and make sure it aligns the rear assembly holes. Locate them via the bolt M12*85 (**A6**), large washer (**A10**), flat washers (**A7**), assemble as shown below and tighten the bolt with hex. nut M12 (**A8**).
4. Install the upper pin (**A4**) from right to left and tighten it with locking pin (**A5**).

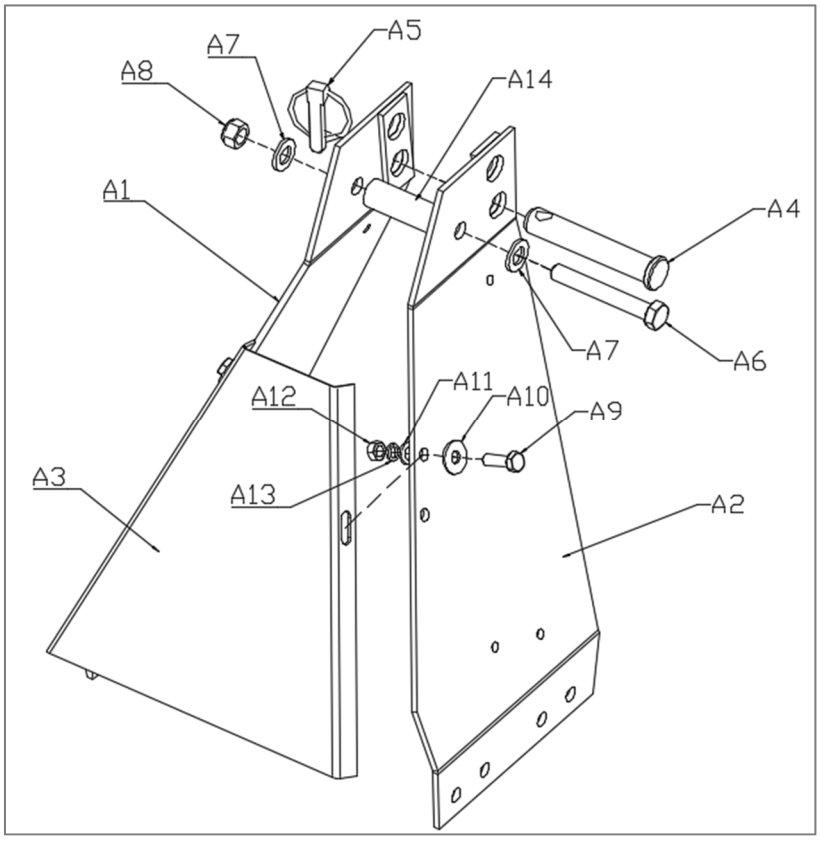


Figure 4

Connecting Hitch to Tiller

The connecting hitch to tiller steps should be performed after assembling hitch component. The connection consists of two parts: hitch component (**B1**) and PTO plate (**B5**).

To connect hitch to tiller:

1. Align the installation holes of right and left panels to connection position of host, see figure below.
2. Bolt the left panel holes of hitch (**B1**) to the inside of host, using four bolts M10*35 (**B2**), flat washers (**B3**), assemble as shown below and tighten it with hex. nut M10 (**B4**).

- The head of the bolt should be on the outside of the host with the washer and hex. nut with flat washer on the inside of hitch.

3. Bolt the rear two holes of right panel to the inside of host, using two bolts M10*35 (**B2**), flat washers (**B3**), assemble as shown below and pre-tighten it with hex nut M10 (**B4**).

- The head of the bolt should be on the outside of the host with the washer and hex. nut with flat washer on the inside of hitch.

4. Bolt the PTO plate (**B5**) to the outside of host, using two bolts M10*40 (**B6**), flat washers (**B7**), assemble as shown below and pre-tighten it with hex nut M10 (**B8**).

- The head of the bolt should be on the outside of the PTO plate with the washer and hex. nut with flat washer on the inside of hitch.

5. Tighten all hex. nuts of right panel.

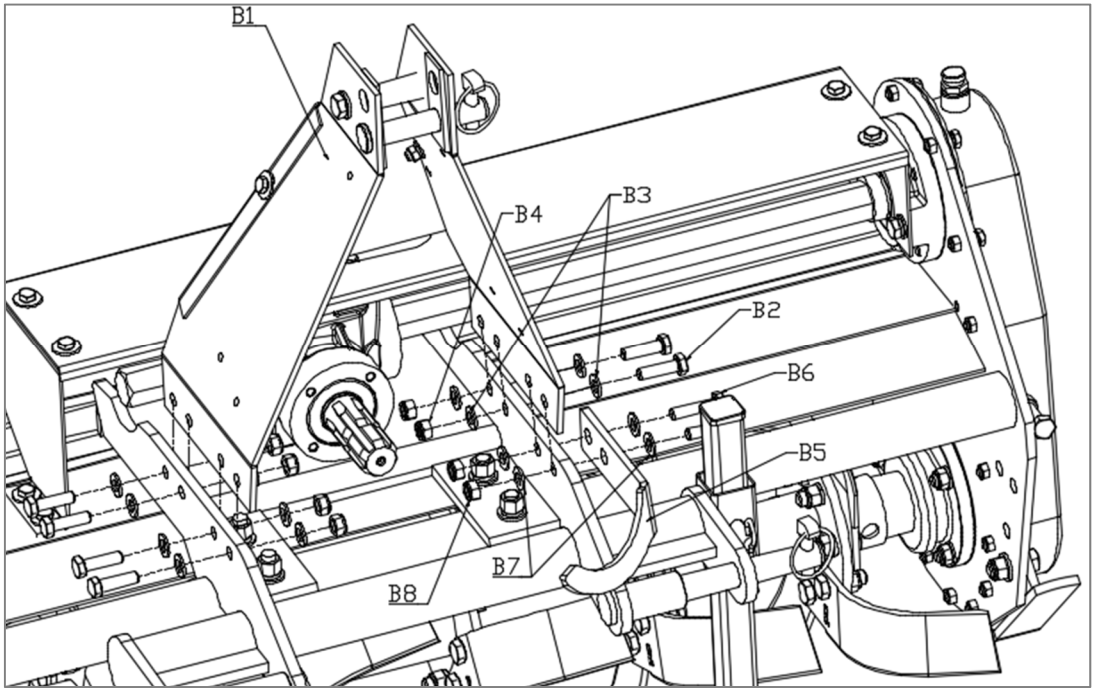


Figure 5

Installing Protection Guards

To install protection guards:

1. Bolt the left protection guard (**C1**) to the outside of host, using two bolts M12*35 (**C3**), flat washers (**C4**), assemble as shown below and tighten it with hex. locking nut (**C5**).

- The head of the bolt should be on the outside of left protection guard with the washer and hex. locking nut with flat washer on the inside of host.

2. Bolt the right protection guard (**C2**) to the outside of host, using two bolts M12*35 (**C3**), flat washers (**C4**), assemble as shown below and tighten it with hex. locking nut (**C5**).

- The head of the bolt should be on the outside of right protection guard with the washer and hex. locking nut with flat washer on the inside of host.

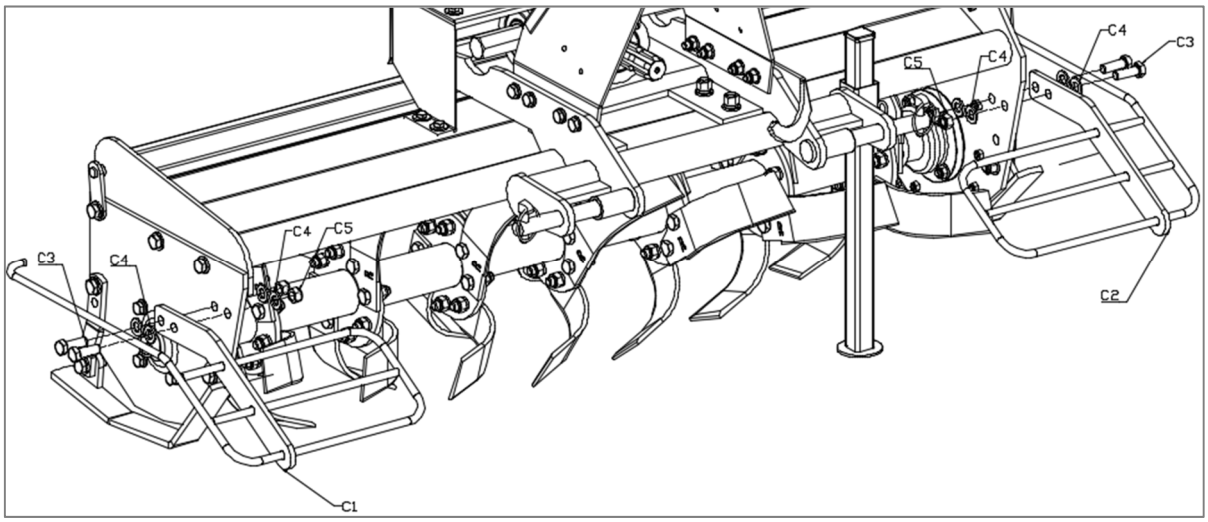


Figure 6

Installing Rear Deflector

The installation of rear deflector consists of three parts: left support plate (**D1**), right support plate (**D2**) and rear deflector (**D7**).

To install rear deflector:

1. Detach right and left rotation shafts (**D6**) from host, and set them aside for reinstallation.
2. Bolt the lower hole of right support plate (**D2**) using a bolt M12*45 (**D3**), flat washers (**D4**), assemble as shown below and tighten it with hex. locking nut (**D5**).

- The head of the bolt should be on the outside of hood component with the washer and hex. locking nut with flat washer on the inside of right support plate.
- The upper hole of right support plate need not install at this step.

3. Repeat step 2 to install left support plate
4. Align the rear deflector (**D7**) to host.

5. Insert the rotation shaft (**D6**) through the host.
6. Bolt the upper hole of right support plate (**D2**) using a bolt M12*45 (**D3**), flat washers (**D4**), assemble as shown below and tighten it with hex. locking nut (**D5**), see figure below.

➢ The head of the bolt should be on the outside of hood component with the washer and hex. locking nut with flat washer on the inside of right support plate (**D2**).

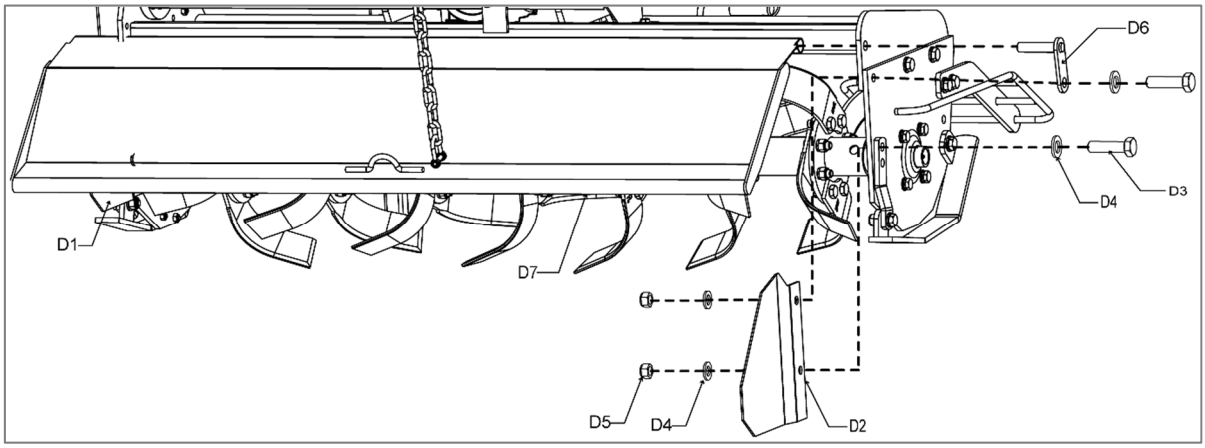


Figure 7

Tractor Shutdown

The following are basic tractor shutdown procedures. Follow these procedures and any additional shutdown procedures provided in your tractor Operator's Manual before leaving the operator's seat.

1. Reduce engine speed and disengage power take-off if engaged.
2. Park tractor and implement on level, solid ground.
3. Lower implement to ground or onto non-concrete support blocks.

NOTE: Due to the over running clutch, the rotor blades will continue to spin after the driveline stops.

4. Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
5. Relieve all hydraulic pressure to auxiliary hydraulic lines.
6. Wait for all components to come to a complete stop before leaving the operator's seat.
7. Use steps, grab-handles and anti-slip surfaces when stepping on or off the tractor.

Tractor Hook-up

WARNING

- A crushing hazard exists while hooking-up and unhooking the implement. Keep people and animals away while approaching the implement or pulling away from the implement. Do not operate hydraulic controls while a person or an animal is nearby.
- Always follow "Tractor Shutdown" to power off.
- Tractor horsepower and hitch category should be within the required range. The lower 3-Point arms must be stabilized to prevent side-to-side movement.

Note:

- This tiller is featured with a hitch design. Attaching a tiller to the front of a tractor typically follows a similar process to attaching it to the rear, although there may be some differences based on the specific tractor. Make sure the tiller is compatible with your tractor's attachment system.
- There are one pair of extra hitch pins delivered at your disposal.

See Figure 8

1. Be certain tractor drawbar does not interfere. Move drawbar ahead or remove if required.
2. Remove all hitch pins and linchpins.
3. Attach tractor's top center link and lower arms with 3-point hitch correspondingly and secure with pins accordingly.
4. The upper clevis has slots to compensate for uneven ground and to keep the roller in contact with the ground. After setting the work height, adjust the length of the top center link until hitch pin is close to the rear of the slot to ensure that the tiller will work correctly.
5. The lower arms of a 3-point hitch for an offset/vertical tiller has one end longer than the other to accommodate the offset design of the tiller. This allows the tiller to reach areas that a center-mounted tiller cannot, such as along fence lines or ditches.

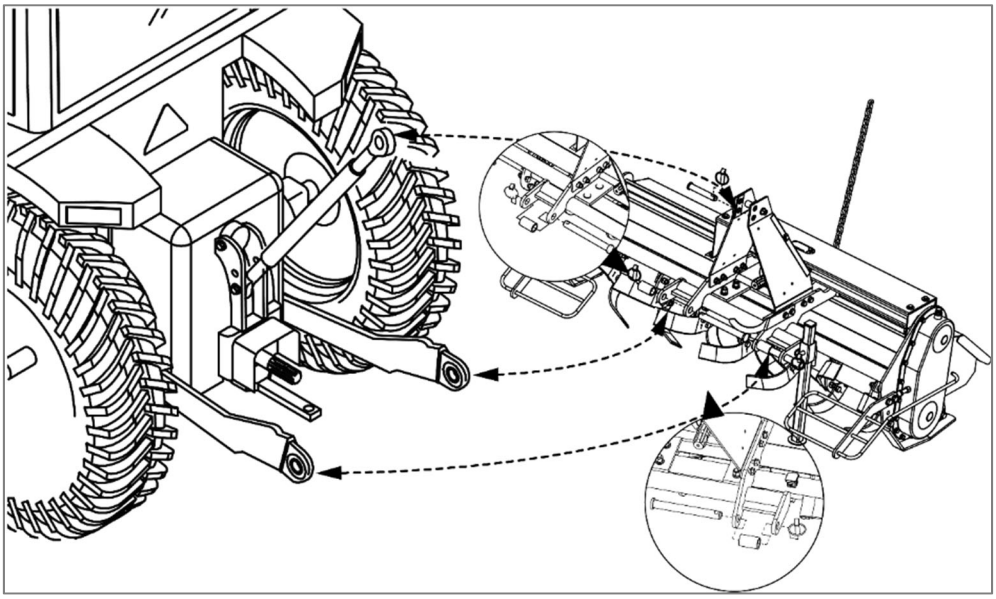


Figure 8

Driveline Installation

Listed below are common practices that may or may not be applicable to the products described in this manual.

Note: There are 3 types of PTO shafts available.

⚠DANGER

- Do not engage tractor PTO while hooking-up and unhooking the prop shaft or stand near a rotating prop shaft. A person's body and/or clothing may get entangled to cause severe injury.
- Do not use a power take-off adapter. The adapter will increase strain on the tractor's power take-off shaft causing possible damage to shaft and driveline. It will also defeat the purpose of the tractor's power take-off shield.
- Make certain driveline yokes are securely fastened at each end. A loose yoke can work free allowing the driveline to rotate uncontrollably.

See Figure 9

Type A shaft has interchangeable ends for installation;

Type B shaft shall have the end where safety pin locates connected with the implement;

Type C shaft shall have end where the clutch locates connected with the implement.

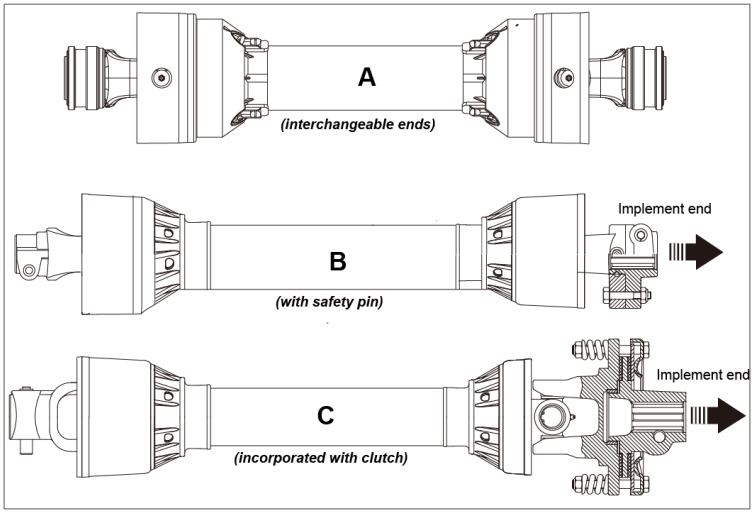


Figure 9

1. Park tractor on a level surface. Slowly engage tractor 3-Point lift lever to raise implements until gearbox shaft is in line (level) with tractor PTO shaft.
2. Support implements deck at this height with support jacks or blocks to keep implement from drifting down.
3. Place gear selector in park, set park brake, shut tractor off, and remove switch key.
4. Slide inner yoke (implement end) of driveline onto the gearbox. Secure driveline with yoke locking device.
5. Slide outer yoke of driveline over the tractor PTO shaft. Secure driveline with yoke locking device
6. If the driveline is too long and does not fit between tractor and gearbox, skip to **Customize Driveline** to shorten the driveline.
7. The driveline should now be moved back and forth to ensure secured connection at both ends. Reattach any end that is loose. Go to **Driveline Length Check** to ensure proper accommodation.
8. Hook driveline safety chain on the tractor end of driveline to the tractor. Re-latch safety chain to the driveline shield.
9. Hook driveline safety chain on the implements end of driveline to the implements frame. Re-latch safety chain to the driveline shield.

Driveline Length Check

Before operating the implement, ensure that the size of driveshaft is adequate. The driveshaft supplied with the machine has a standard length, therefore it may need an adaptation of the length, depending of the tractor which the implement is attached with.

Maximum compressed position

The power take-off shaft and gearbox input shaft must be aligned and level with each other when checking driveline minimum length. A driveline that is too long can damage tractor and implement.

See Figure 10

Hold inner and outer drivelines parallel to each other as shown and measure distance ***L1:***

1. If ***L1*** is less than 1” (2.5 cm), skip to Customize Driveline to shorten the driveline.
2. If ***L1*** is greater than or equal to 1” (2.5 cm), skip to Maximum Extended Position below.

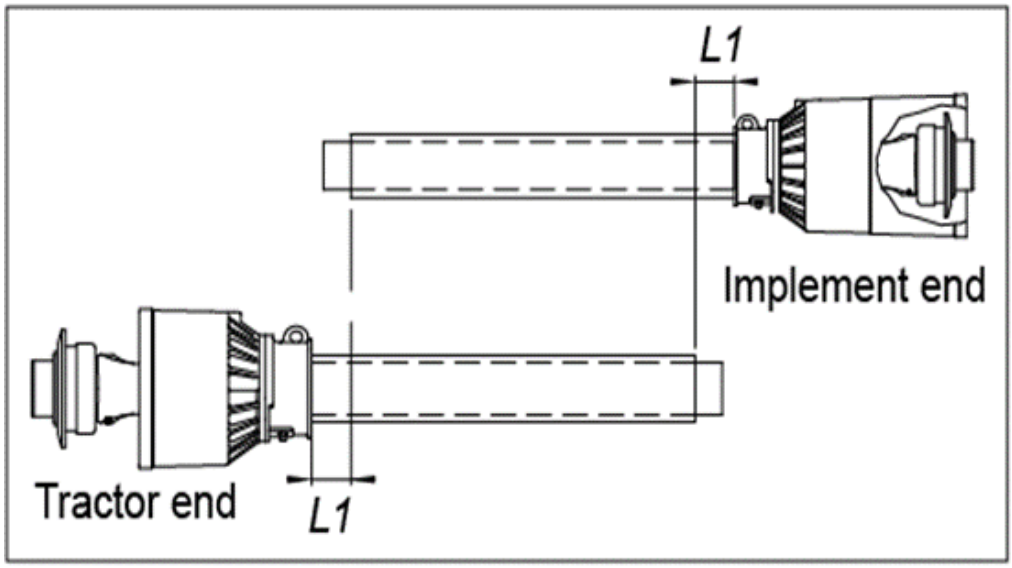


Figure 10

Maximum Extended Position

See Figure 11

The driveline maximum allowable length must, when fully extended, have a minimum overlap (***L2***) of profile tubes by not less than 1/3 the free length with both inner and outer profile tubes being of equal length.

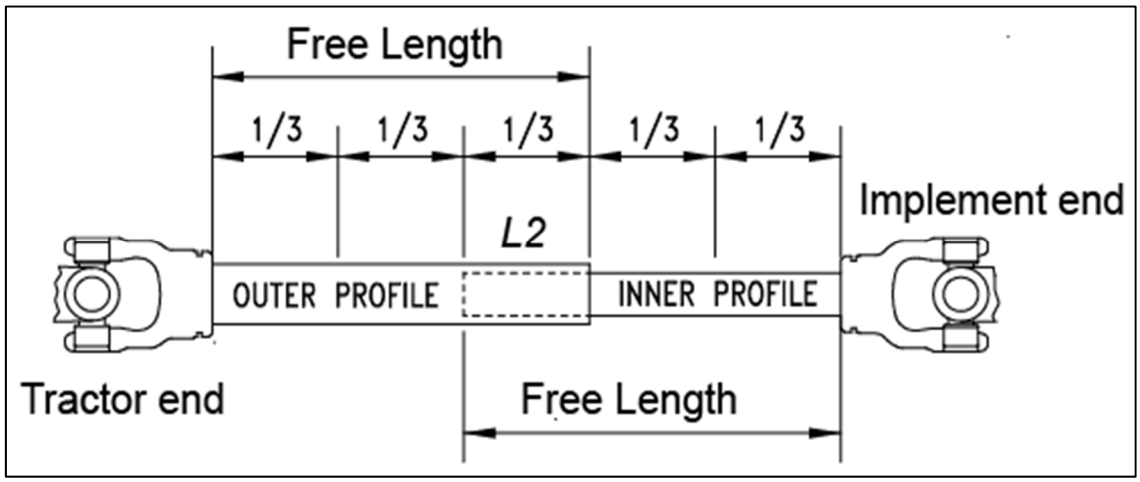


Figure 11

Customize Driveline

See Figure 12

1. Un-hook driveline from tractor PTO shaft and pull outer and inner drivelines apart.
2. Re-attach outer driveline to tractor PTO shaft. Pull on inner and outer drivelines to be sure universal joints are properly secured.
3. Hold inner and outer drivelines parallel to each other:

a. Measure 1" (2.5 cm) ("***L1***" dimension) back from outer driveline universal joint shield and make a mark at this location on the inner driveline shield.

b. Measure 1"(2.5 cm) ("***L1***" dimension) back from the inner driveline universal joint shield and make a mark at this location on the outer driveline shield.

4. Remove driveline from tractor and gearbox shafts.
5. Measure from end of inner shield to scribed mark ("X" dimension). Cut off inner shield at the mark. Cut same amount off the inner shaft ("X1" dimension).
6. Measure from end of outer shield to scribed mark ("Y" dimension). Cut off outer shield at the mark. Cut same amount off the outer shaft ("Y1" dimension).
7. Remove all burrs and cuttings.
8. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.

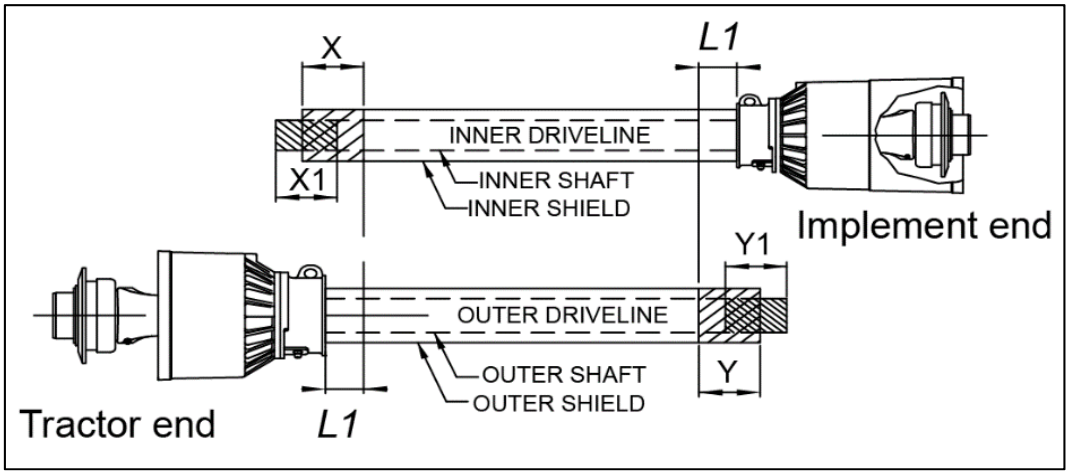


Figure 12

Driveline Interference Check

See Figure 13

Lowly engage tractor 3-Point control lever to lower implements while checking for sufficient tongue clearance. Move tongue ahead, aside, or remove if required.

1. Raise and lower implement to find maximum extended driveline length. Check to make certain the driveline does not exceed the maximum allowable length and 25° up or down.
2. If needed, set tractor 3-Point lift height to keep driveline from exceeding the maximum allowable length and 25° up or down.

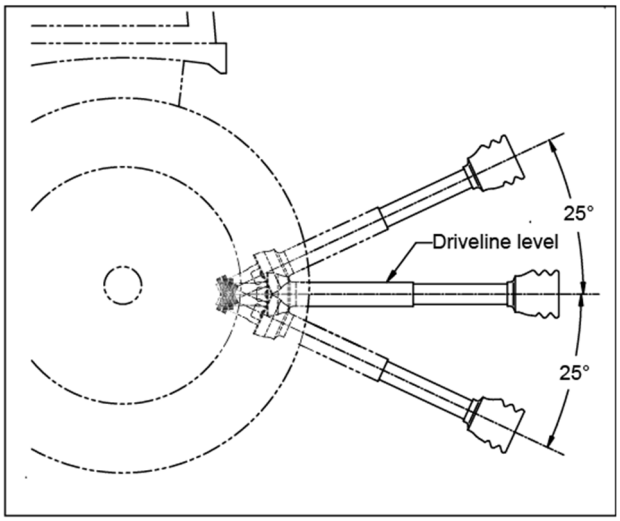


Figure 13

Note: If you have any problem during operation, please contact us freely!

OPERATION

General Operating Instructions

Now that you have familiarized yourself with the Operator's Manual, completed the Operators Checklist, properly attached your implements to your tractor, made the right offset or center adjustments, and preset your tilling height, you're almost ready to begin using the implement.

- Now that you have properly prepared yourself and your tiller, it's time to do some tilling. Carefully drive the tractor to the site where you intend to till. You should have already cleared this site of any large limbs, rocks, trash, metal or other debris. Lower the tiller half way to the ground and reduce your tractor engine speed to about one quarter throttle. Engage the power take-off and gradually increase the engine speed until you reach full power take-off speed of 540 rpm. Lower the tiller to the ground and simultaneously commence forward travel of approximately 2 mph (3.2 km/h). Do not make turns or attempt to back up while tiller is in the ground. See important note below.
- Travel about 50 feet (15 m) and then stop to check your results. When stopping, remember to stop tractor, lift tiller slightly out of the ground, reduce engine speed, disengage power take-off, set park brake, shut off tractor, and remove the key. If you are tilling too shallow or too deep, adjust the skid shoes accordingly. If the soil texture is too coarse, lower the rear deflector and reduce your ground speed. If the soil texture is too fine, you will need to raise your rear deflector and increase your ground speed. For any other problem conditions that may arise, refer to the "Troubleshooting" .
- When you are done tilling for the day, make sure you use proper tractor shutdown procedures before you get off of the tractor. If you are detaching your tiller, make sure you park it on a dry and level surface leaving it clean and ready for the next use.
- With a little practice and a few adjustments, you will soon be achieving the results you want with your Land Pride Rotary Tiller. Do not operate close to ditches or creeks. Slow down when operating over rough ground.
- Always be sure the implement is in the fully raised position when in transport.
- When adjusting the assembly, be sure that your feet are never under the rotary tiller.
- Use extreme caution when backfilling deep holes or trenches.
- Be careful to avoid catching the rotary tiller on stumps or other immovable objects.
- Use care when working on slopes.

! CAUTION

Engage parking brake, shut off tractor, remove key, and disengage PTO before making any adjustments!

! CAUTION

Ensure implement with special supports if it is necessary to lift implement off the ground to make adjustments! If not supported, the implement could fall causing serious injury to those present.

Checklist before Operation

⚠CAUTION

Hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training involved in the operation, transport, storage, and maintenance of the implement. Therefore, it is absolutely essential that no one operates the machine without first having read, fully understood, and become totally familiar with the Operator's Manual. Make sure all operators have completed the Checklist below.

Before operating the machine, the following steps should be inspected carefully:

1. Before starting up the machine, check and lubricate all grease points, on the machine and drive shaft. Check the oil level in the gearbox. Add as required.
2. Use only an agricultural tractor with horsepower within limits of the implement.
3. Check that the machine is properly attached to the tractor. Be sure retainers are used on the mounting pins.
4. Be sure extra weights are mounted on the front of the tractor, if required.
5. Check that the tractor PTO shaft turns freely and that the machine driving shaft can telescope easily.
6. Check the blades. Be sure they are not damaged or broken and swing freely in their mount. Repair or replace as required.
7. Check and tighten the blade bolts.
8. Check for entangled material in all rotating parts. Remove this material.
9. Install and secure all guards, hook and covers before starting.
10. Before installing the PTO ensure the engine is stopped and the PTO shaft is in safe working order.
11. All other people shall leave the area before connecting the driving power from the tractor.
12. Before cleaning, repairing and lubricating the machine, stop the motor and take the key away with you.
13. When the PTO shaft is not connected with the tractor, support it through the frame to protect it from lying in the dirt.
14. Don't approach the machine when it is operating.
15. Clear area to be tilled of rocks, branches, and other foreign objects.
16. Tall grass and weeds should be mowed before tilling.
17. Tilling should not be done in wet conditions as soil will stick to tines.
18. At first begin tilling at a slow forward speed and shift up as ground conditions warrant.
19. Operate tiller with deck level to the ground.

20. After tilling the first 50 feet (15 m), stop and check to see that the tiller is adjusted properly.

Levelling the Tiller

Levelling adjustments are made at the tractor's 3-Point lower arms and top center link.

1. Park tractor and implement on a flat level surface.
2. Raise implement with the tractor's Hydraulic 3-Point lift slowly until the unit is about 1 to 2" above the ground.
3. Ensure that the lower arms are stabilized to prevent excessive side movement.
4. Place a spirit level on the top cover running from left to right and adjust one of the lower 3-Point arms up or down until the implement is level from left to right.
5. Adjust tractor's top center link to place the upper hitch pin vertically above or slightly behind the lower hitch pins.
6. Slowly operate the tractor's 3-Point hydraulic control up and down to check for clearance between the tires, frame, drawbar.

Adjusting Rear Deflector

To adjust rear deflector:

1. Rear deflector (#3) can be adjusted closer to the ground to produce a fine soil texture or raised to produce a coarse soil texture.
2. Adjust rear deflector up or down by repositioning chain (#2) in slot (#1).

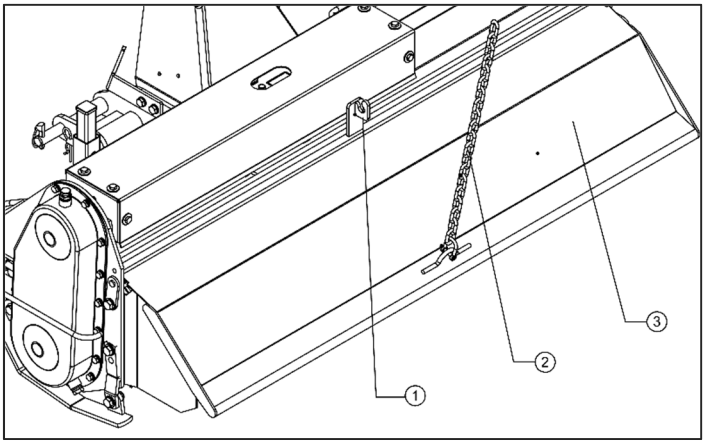


Figure 14

Adjusting Park Stand

CAUTION

To avoid serious injury or death:

An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.

See figure 15

1. Hook-up tiller to a tractor, see **Tractor Hook-up**.
2. Lower tiller until skid shoes (#6) are resting on support blocks. Park stand feet (#1) should be off the ground by several inches.
3. Shut tractor down before dismounting using **Tractor Shutdown**.
4. Remove R pin (#3), and L-Pin (#2).
5. Adjust park stand feet (#1) to realign 1 of 2 holes “#8” with mounting holes “#7”.
6. Attach stand (#1) to center holes in park stand mount (#5) with L-Pin (#2) and R Pin (#3).

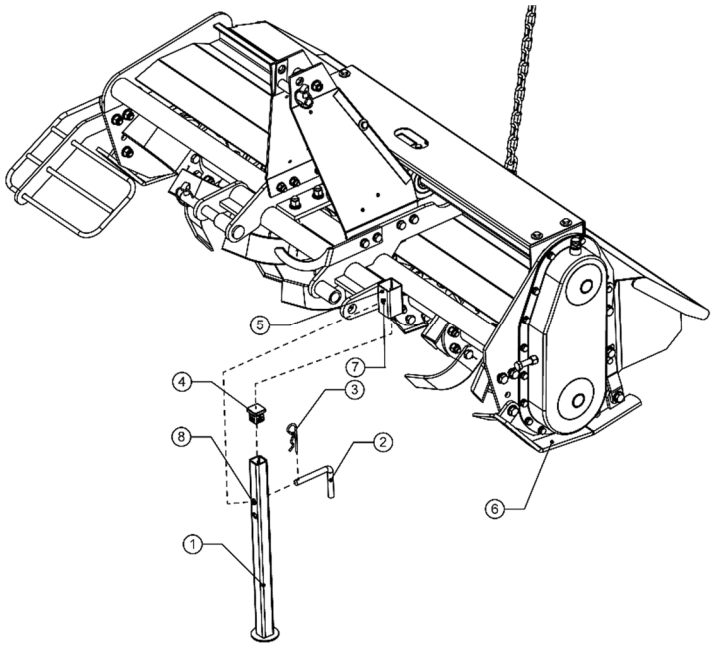


Figure 15

Note: if you have any problem during operation, please contact us for supporting.

SERVICE AND MAINTENANCE

General Service

The period recommended is based on normal operating conditions. Severe or unusual conditions may require more frequent service.

Each 4 hours of work:

Check and tighten nuts and bolts.

Grease with lithium based grease when it is indicated by the symbol GREASE.

After 50 hours of work:

Check and fill the gearbox to the required level, using oil type SAE EP 90W.

Gearbox Maintenance

The oil should be drained out and replaced after the first 50 hours of operation. Then the oil should be changed every 250 hours.

Drain oil from the gearbox thoroughly. Check and clean it. Fill with new gear oil up to the dedicated oil level.

The draining procedure is as follows: remove the draining bolt under the gear box, so that the oil drains off. After the oil is drained out, put the plug back and fill with gear oil up to the dedicated oil level.

PTO Shaft Maintenance

It is recommended to lubricate the PTO shaft with multi-purpose grease after every 8 to 10 hours of use during heavy use. The PTO shaft is designed to telescope to allow for dimensional changes as the machine goes through its operating range. A tubular guard encloses the driving components and is designed to turn relative to the driving components. The shaft should telescope easily and the guard turn freely on the shaft at all times. Annual disassembly, cleaning and lubrication is recommended to insure that all components function as intended. To maintain the shaft, follow this procedure:

1. Remove the shaft from the machine.
2. Pull shaft apart.
3. Use a screwdriver to pry the tabs out of the sleeves on each end.
4. Pull the shaft out of the plastic tubular guard.

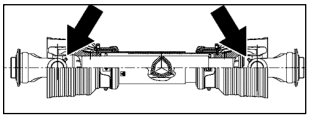
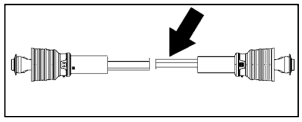
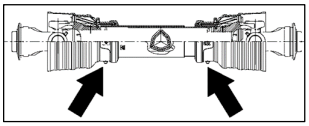
5. Use a solvent to clean the male and female portions of the telescoping ends.
6. Apply a light coat of grease to each end.
7. Clean the grooves on each end where the tabs are located. Clean each tab also.
8. Apply a light coat of grease to each groove.
9. Insert the shaft into its respective guard and align the slots with the groove.
10. Insert the tabs through the slots and seat in the groove.
11. Check that each guard turns freely on the shaft.
12. Assemble the shaft.
13. Check that the shaft telescopes easily.
14. Replace any components that are damaged or worn.
15. Install the shaft on the machine.

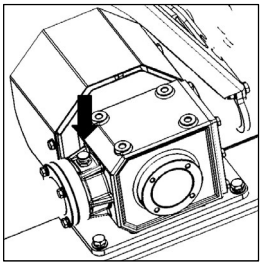
Lubrication Parts

Lubrication legend list:

Name	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	Intervals in hours at which lubrication is required
Image				

Lubrication parts list:

Interval	Type	Name	Parts Image	Remark
	 Multi-purpose Grease	**Driveline Shaft U-Joints**		Quantity - 4 to 8 Pumps
		Driveline Profiles		Quantity - Clean & coat inner profile tube of driveline with a light film of grease and then reassemble.
		Inner Tube Bearings		Quantity - As Required

Interval	Type	Name	Parts Image	Remark
As Required	 SAE EP 90W Gear Lube	**Gearbox**		Add visual to the center of the gear oil Reinstall plugs and tighten. **Do not overfill!** Should your gearbox require service, take it to your Manufacturer dealer.
25 Hours	 Multi-purpose Grease	**Other parts**	If the GREASE labels () are posted on the machine, you need to lubricate it regularly. Recommend lubrication interval is 25hours.	

Tightening Torque

Please follow the table below to identify the torque value as required.

Torque Values Chart for Common Bolt Sizes													
	Bolt Head Identification							Bolt Head Identification					
Bolt Size (inches)	Grade 2		Grade 5		Grade 8		**Bolt Size** (Metric)	5.8 Class 5.8		8.8 Class 8.8		10.9 Class 10.9	
in-tpi [1]	N · m [2]	ft-lb [3]	N · m	ft-lb	N · m	ft-lb	mm x pitch [4]	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1-1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1-1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1-1/4" - 12	750	555	1680	1240	2730	2010	[1] in-tpi = nominal thread diameter in inches-threads per inch						
1-3/8" - 6	890	655	1990	1470	3230	2380	[2] N· m = newton-meters						
1-3/8" - 12	1010	745	2270	1670	3680	2710	[3] ft-lb= foot pounds						
1-1/2" - 6	1180	870	2640	1950	4290	3160	[4] mm x pitch = nominal thread diameter in millimeters x thread pitch						
1-1/2" - 12	1330	980	2970	2190	4820	3560							
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above. All locknuts or lubricated fasteners: Use 75% of torque value. (i.e. 1/2"-13 GR5 = 76 ft-lb; 75% of 76 or .75 x 76 = 57 ft-lb)													

- This chart is an approximate estimate of torque values.
- Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.
- Fasteners must always be replaced with the same grades as specified in the manual.
- Always use the proper tool for tightening hardware; SAE for SAE hardware and Metric for Metric hardware.
- Make sure that fastener threads are clean and that you properly start thread engagement.

Replacing the Blade

Frequently check rotor blades to make sure they are in good working condition and properly secured to the rotor.

Replace worn or damaged parts with new blades.

IMPORTANT:

- Make sure that the replacement of blade with other same weight. This will be a balance of rotor spinning.
- Recommend blade is the original factory accessories.

Blades replacement steps:

1. Remove locknut (#4), spring washer (#3), hexagon head bolt (#1) from knife shaft location (#5).
2. Remove existing blade (#2)
3. Install a new blade.
4. Install blade with bolt, washers, spring washer and locknut, refer to **Figure 16.**
5. Tighten locknut with correct torque.
6. Lubricate points.

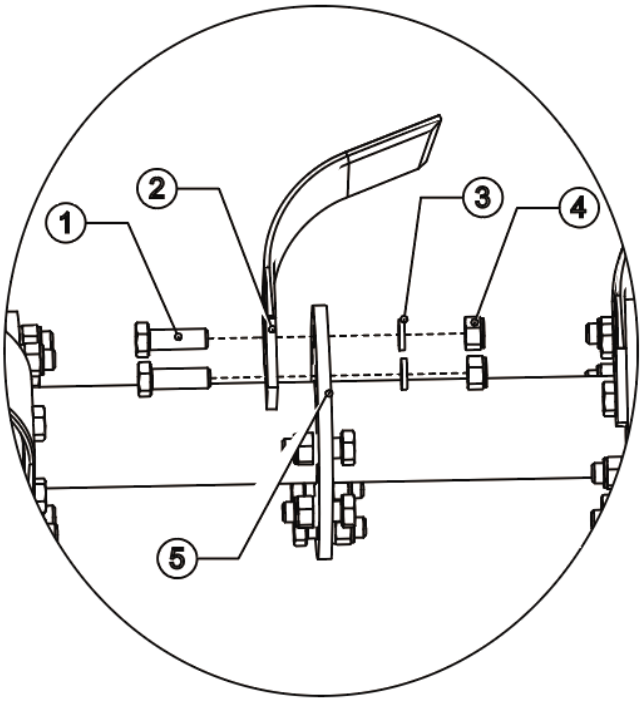


Figure 16

Note: If the images shown in the above figure are different from the machine, please check **EXPLODED VIEW AND PARTS LIST**.

STORAGE AND TRANSPORT

Storage

⚠WARNING

- To avoid serious injury or death:
- Always disconnect driveline from the tractor and secure the implement in the up position with solid, non-concrete supports before servicing the underside. A person can become entangled in the drivetrain if the tractor is started and power take-off is engaged or crushed by an unsupported implement.

Clean, inspect, service, and make necessary repairs to the implement when storing it for long periods and at the end of the season. This will help to ensure the unit is ready for field use the next time you hook-up to it.

1. Clean off any dirt and grease that may have accumulated on the tiller and moving parts. Scrape off compacted dirt from bottom of tiller and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the areas where paint has been worn off from use to minimize oxidation.
2. Check tines and tine bolts for wear. Replace if necessary. Inspect tiller for loose, damaged or worn parts and adjust or replace as needed.
3. Inspect tiller for loose, damaged or worn parts and adjust or replace as needed.
4. Repaint parts where paint is worn or scratched to prevent rust.
5. A coating of oil may be applied to worn surfaces in lieu of painting to minimize oxidation.
6. Replace all damaged or missing labels.
7. Lubricate as noted in "**Lubrication Parts**".
8. Store tiller on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer tiller life.
9. Follow all "**Tractor Hook-up**" when disconnecting tractor from tiller.

Transport

⚠WARNING

- Always disengage power take-off before raising tiller to transport position.

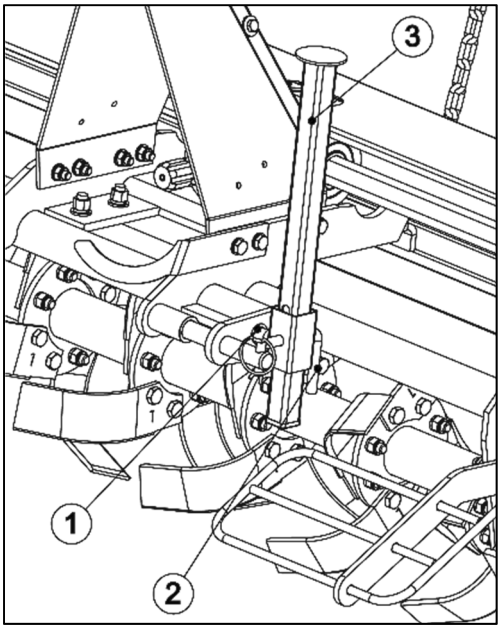
- When traveling on roadways, travel in such a way that other vehicles may pass you safely. Always use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence.
- Always comply with all federal, state, and local laws.

Before transport the implement, you should following the steps below:

1. When raising implement to transport position, be sure driveline does not contact tractor or implement. If needed, adjust and set tractor 3-point lift height to limit implement movement and to protect driveline.
2. Be sure to reduce tractor ground speed when turning, leaving enough clearance so that the implement does not contact obstacles such as buildings, trees, fences, etc.
3. Select a safe ground travel speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass safely.
4. When traveling over rough or hilly terrain, shift tractor to a lower gear.
5. Set park stand for transport.

- **IMPORTANT**: To prevent damaging the park stand, always store the stand in its transport position before moving the tiller.
- Always adjust park stand up before traveling with tiller hitched to a tractor.

1. Raise tiller up until park stand (#3) is slightly above the ground.
2. Shut tractor down without lowering the tiller before dismounting.
3. Remove R pin (#1).
4. Rotate park stand (#3) up as shown below.
5. Reinsert L-Pin (#2) and R pin in upper holes.



TROUBLESHOOTING

Listed general troubleshooting is the common malfunction that may or may not be application to the described in this manual. If you have any problem not covered in the list, please contact us for technical supporting.

General troubleshooting list:

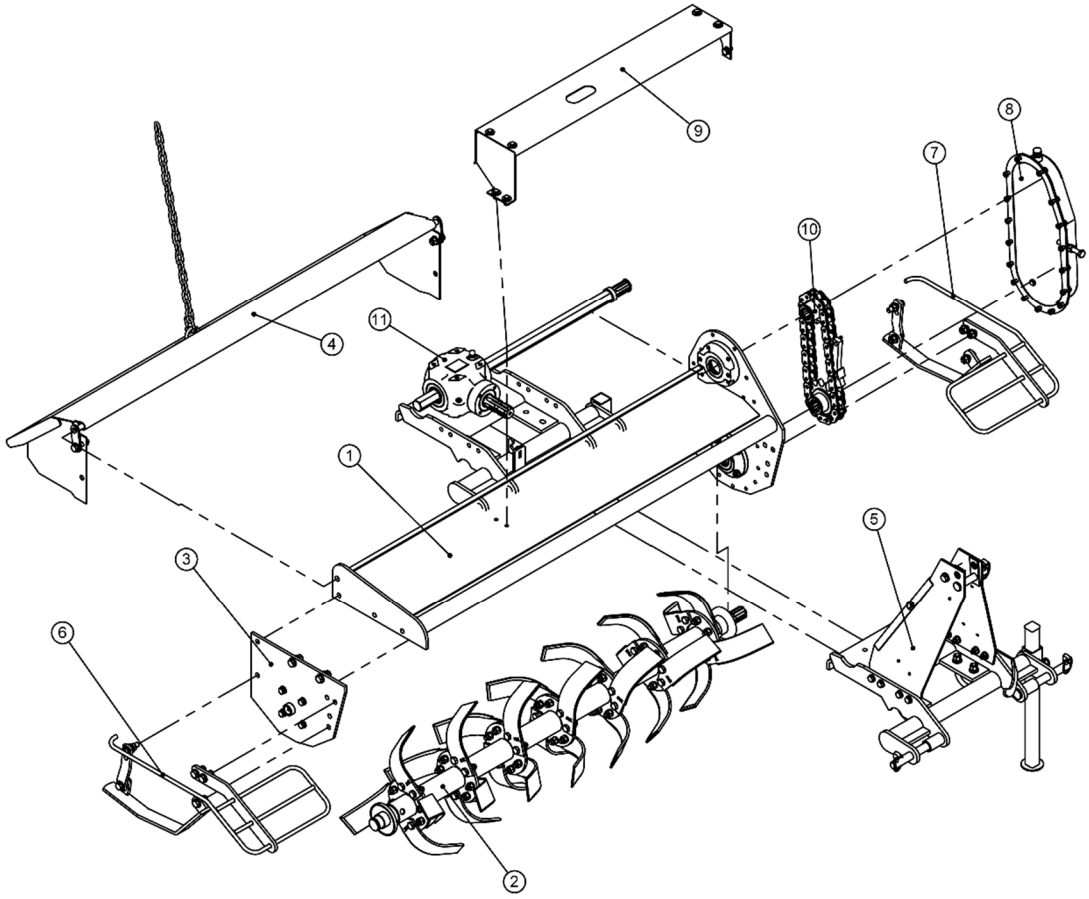
Malfunction	Possible Cause	Solution
Implement makes intermittent clicking noise.	Tines are loose.	Tighten tines.
	Gearbox teeth damage	Replace a new one
Driveline vibrates.	Universal joint is worn.	Replace universal joint.
	Excessive trash is wrapped on rotor.	Remove trash.
	Implement is lifted too high.	Lower implement & readjust tractor lift stop.
Gearbox noise is noticeable and constant.	May be normal on new implement.	Allow time for break-in.
	Low oil level.	Add oil to the gearbox.
	Worn gears.	Replace gears in the gearbox.
	May be normal on new implement.	Allow time for break-in.
Oil leaking from gearbox.	Seals and/or gaskets are damaged.	Replace seals or gaskets in the gearbox.
	Gearbox is overfilled.	Drain oil to proper level.
Oil leaking from gear case.	Seals and/or gaskets are damaged.	Replace seals or gaskets in the gear case.
	Gear case is overfilled.	Drain oil to proper level.
Gear case noise is noticeable and constant.	May be normal on new implement.	Allow time for break-in.
	Worn gears.	Add oil to the gear case.
	Low oil level.	Replace gears in the gear case.

Malfunction	Possible Cause	Solution
Rotor will not turn.	Power take-off is not engaged.	Engage power take-off.
	Friction clutch is slipping.	Reduce tiller load or replace/service clutch.
Tillage depth insufficient.	Tiller is carried by tractor.	Lower tractor 3-point arms.
	Tractor has insufficient power.	Increase power take-off speed to 540 rpm.
	Skid shoes need adjusting.	Adjust skid shoes
	Tines are worn or bent.	Replace tines.
	Tines are incorrectly installed.	Check tine placement.
	Obstacles are entangled in tines and/or rotor.	Clear rotor and/or tines of obstacles.
Soil texture too coarse.	Leveling door is too high.	Lower leveling door.
	Power take-off speed is too slow.	Increase power take-off speed to 540 rpm.
	Ground speed is too fast.	Decrease ground speed.
Soil texture too fine.	Leveling door is too low.	Raise leveling door.
	Ground speed is too slow.	Increase ground speed.
Implement skips or leaves crop residue.	Tines are badly worn.	Replace worn tines.
	Friction clutch is slipping.	Reduce load or replace/service clutch.
	Ground speed is too fast for conditions.	Reduce ground speed.
Tines operating behind tractor tires show increased wear.	Tractor tires can compact soil causing tines that operate in the compacted soil to have increased wear.	Considered as normal wear. Replace worn tines.
Tines balling up with soil	Tines are worn or bent.	Replace tines.
	Tines are incorrectly installed.	Install tines correctly.

Malfunction	Possible Cause	Solution
	Rear deflector is too low.	Raise rear deflector.
	Tractor speed is too fast.	Decrease tractor speed.
	Soil is too wet.	Wait until soil dries.
Tiller bumping on ground	Obstacles are entangled in tines and/or rotor.	Clear rotor and/or tines.
	Tines are not installed correctly.	Install tines correctly.
	Tines are worn or bent.	Replace tines.
Tiller shaking	Ground is compacted and/or dry.	Irrigate soil and resume tilling.

EXPLODED VIEW AND PARTS LIST

MACHINE ASSEMBLY



Machine models description table:

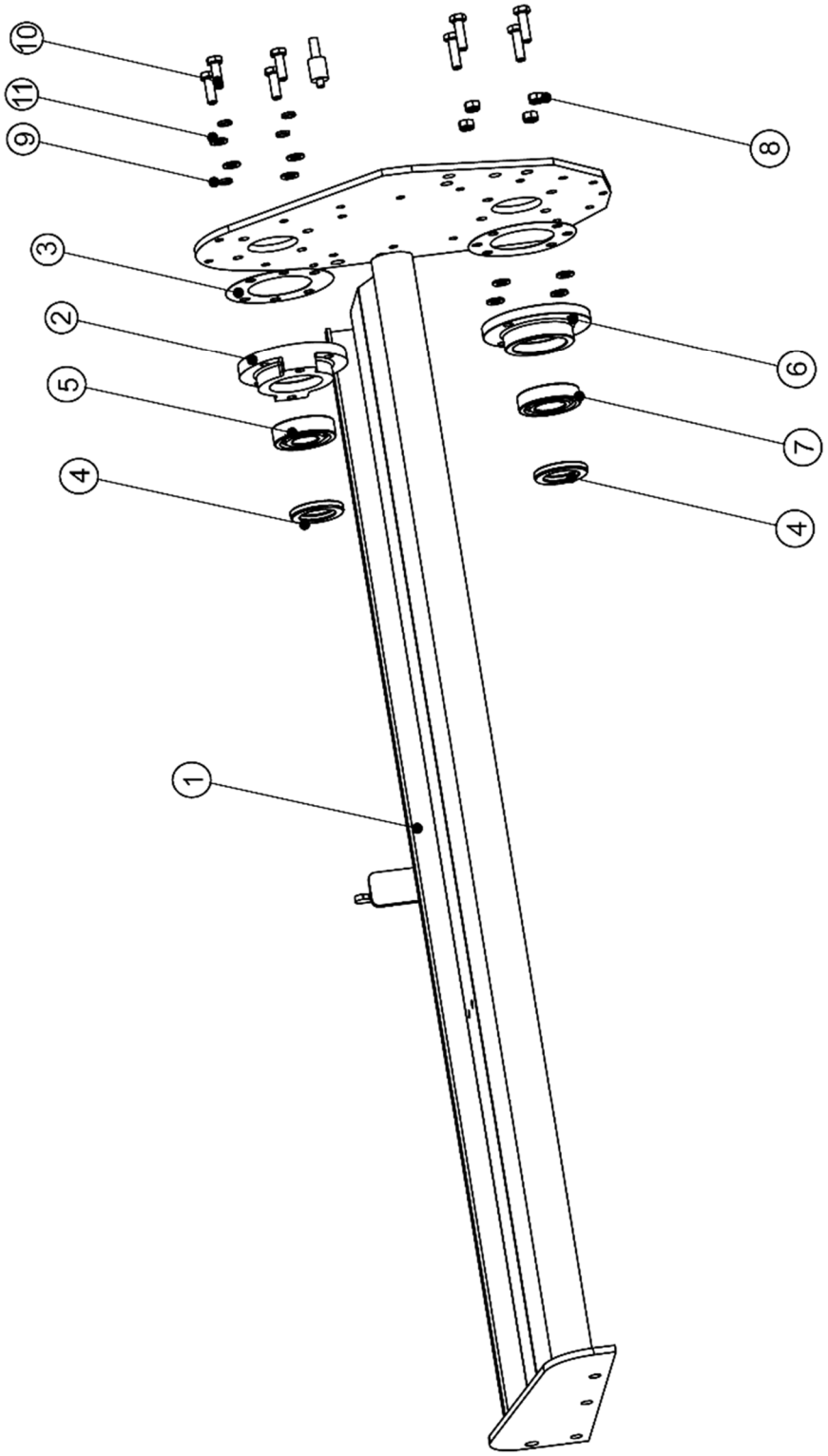
COD.	Specification	Name
6010600021	F06008A00000-000	ME-RT32-S Rotary tiller
6010600022	F06009A00000-000	ME-RT36-S Rotary tiller
6010600023	F06010A00000-000	ME-RT40-S Rotary tiller
6010600024	F06011A00000-000	ME-RT45-S Rotary tiller
6010600025	F06012A00000-000	ME-RT48-S Rotary tiller
6010600026	F06013A00000-000	ME-RT54-S Rotary tiller

Machine assembly parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2060105598	F06008A01000-000	Hood assembly	1	-	-	-	-	-
1	2060105597	F06009A01000-000	Hood assembly	-	1	-	-	-	-
1	2060105596	F06010A01000-000	Hood assembly	-	-	1	-	-	-
1	2060105595	F06011A01000-000	Hood assembly	-	-	-	1	-	-
1	2060105594	F06012A01000-000	Hood assembly	-	-	-	-	1	-
1	2060105593	F06013A01000-000	Hood assembly	-	-	-	-	-	1
2	2090000434	F06008A02000-000	Knife shaft assembly	1	-	-	-	-	-
2	2090000435	F06009A02000-000	Knife shaft assembly	-	1	-	-	-	-
2	2090000436	F06010A02000-000	Knife shaft assembly	-	-	1	-	-	-
2	2090000437	F06011A02000-000	Knife shaft assembly	-	-	-	1	-	-
2	2090000438	F06012A02000-000	Knife shaft assembly	-	-	-	-	1	-
2	2090000439	F06013A02000-000	Knife shaft assembly	-	-	-	-	-	1
3	2060105618	F06013A04000-000	Right plate	1	1	1	1	1	1
4	2060105624	F06008A05000-000	Rear deflector	1	-	-	-	-	-
4	2060105623	F06009A05000-000	Rear deflector	-	1	-	-	-	-
4	2060105622	F06010A05000-000	Rear deflector	-	-	1	-	-	-
4	2060105621	F06011A05000-000	Rear deflector	-	-	-	1	-	-
4	2060105620	F06012A05000-000	Rear deflector	-	-	-	-	1	-
4	2060105619	F06013A05000-000	Rear deflector	-	-	-	-	-	1
5	2060105626	F06013A10000-000	Hitch component	1	1	1	1	1	1
6	2060105633	F06013A07000-000	R-protective guard	1	1	1	1	1	1
7	2060105634	F06013A06000-000	L-protective guard	1	1	1	1	1	1
8	2060105635	F06013A09000-000	Pulley cover	1	1	1	1	1	1

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
9	2060105642	F06008A03000-000	Protection cover	1	-	-	-	-	-
9	2060105641	F06009A03000-000	Protection cover	-	1	-	-	-	-
9	2060105640	F06010A03000-000	Protection cover	-	-	1	-	-	-
9	2060105639	F06011A03000-000	Protection cover	-	-	-	1	-	-
9	2060105638	F06012A03000-000	Protection cover	-	-	-	-	1	-
9	2060105637	F06013A03000-000	Protection cover	-	-	-	-	-	1
10	2060105636	F06013A11000-000	Chain component	1	1	1	1	1	1
11	2060106992	F06008C08000-000	Gear box	1	-	-	-	-	-
11	2060106991	F06009C08000-000	Gear box	-	1	-	-	-	-
11	2060106990	F06010C08000-000	Gear box	-	-	1	-	-	-
11	2060106989	F06011C08000-000	Gear box	-	-	-	1	-	-
11	2060106988	F06012C08000-000	Gear box	-	-	-	-	1	-
11	2060106987	F06013C08000-000	Gear box	-	-	-	-	-	1

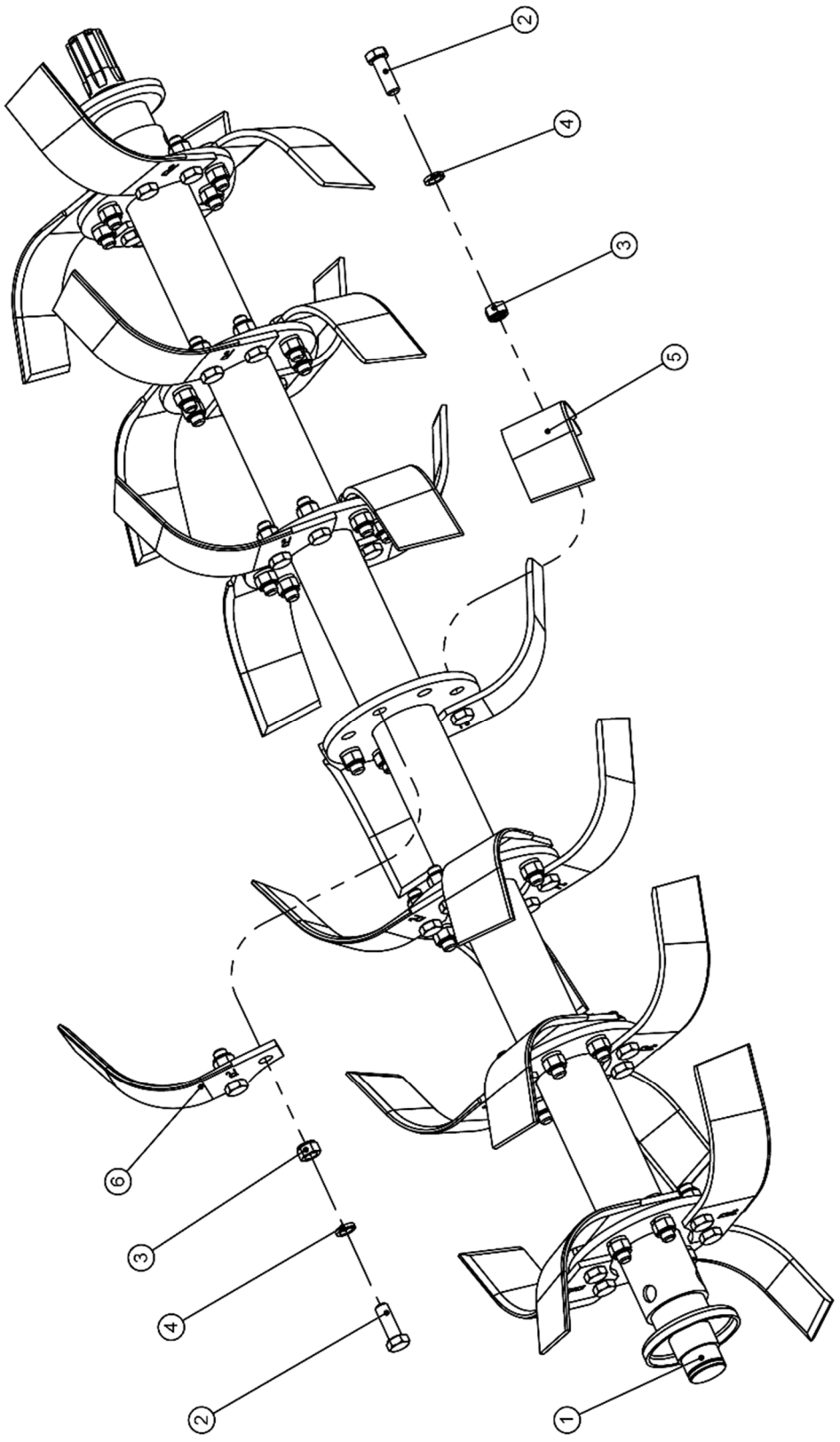
HOOD ASSEMBLY



Hood assembly parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2020001069	F06013A01100-000	Hood weldment	-	-	-	-	-	1
1	2020001068	F06012A01100-000	Hood weldment	-	-	-	-	1	-
1	2020001064	F06008A01100-000	Hood weldment	1	-	-	-	-	-
1	2020001065	F06009A01100-000	Hood weldment	-	1	-	-	-	-
1	2020001066	F06010A01100-000	Hood weldment	-	-	1	-	-	-
1	2020001067	F06011A01100-000	Hood weldment	-	-	-	1	-	-
2	3150100015	F06013A01000-001	Drive bearing pedestal	1	1	1	1	1	1
3	3170500028	F06013A01000-003	Drive shaft paper pad	2	2	2	2	2	2
4	3170100018	GB/T13871.1-FB-40×62×8-NBR	shaft seal	2	2	2	2	2	2
5	3100100048	GB/T276-6306	Deep groove ball bearing	1	1	1	1	1	1
6	3150100017	F06013A01000-002	Cutter shaft bearing seat	1	1	1	1	1	1
7	3100100037	GB_T276-6207	Deep groove ball bearing	1	1	1	1	1	1
8	3050500004	GB/T889.1-M10-8-EP•Zn	Locknut	4	4	4	4	4	4
9	3080100006	GB/T95-10-EP•Zn	Plain washer	8	8	8	8	8	8
10	3040100045	GB/T5783-M10×30-8.8-EP•Zn	Full-thread hexagon bolts	4	4	4	4	4	4
11	3080500008	GB/T93-10-EP•Zn	Spring washer	4	4	4	4	4	4

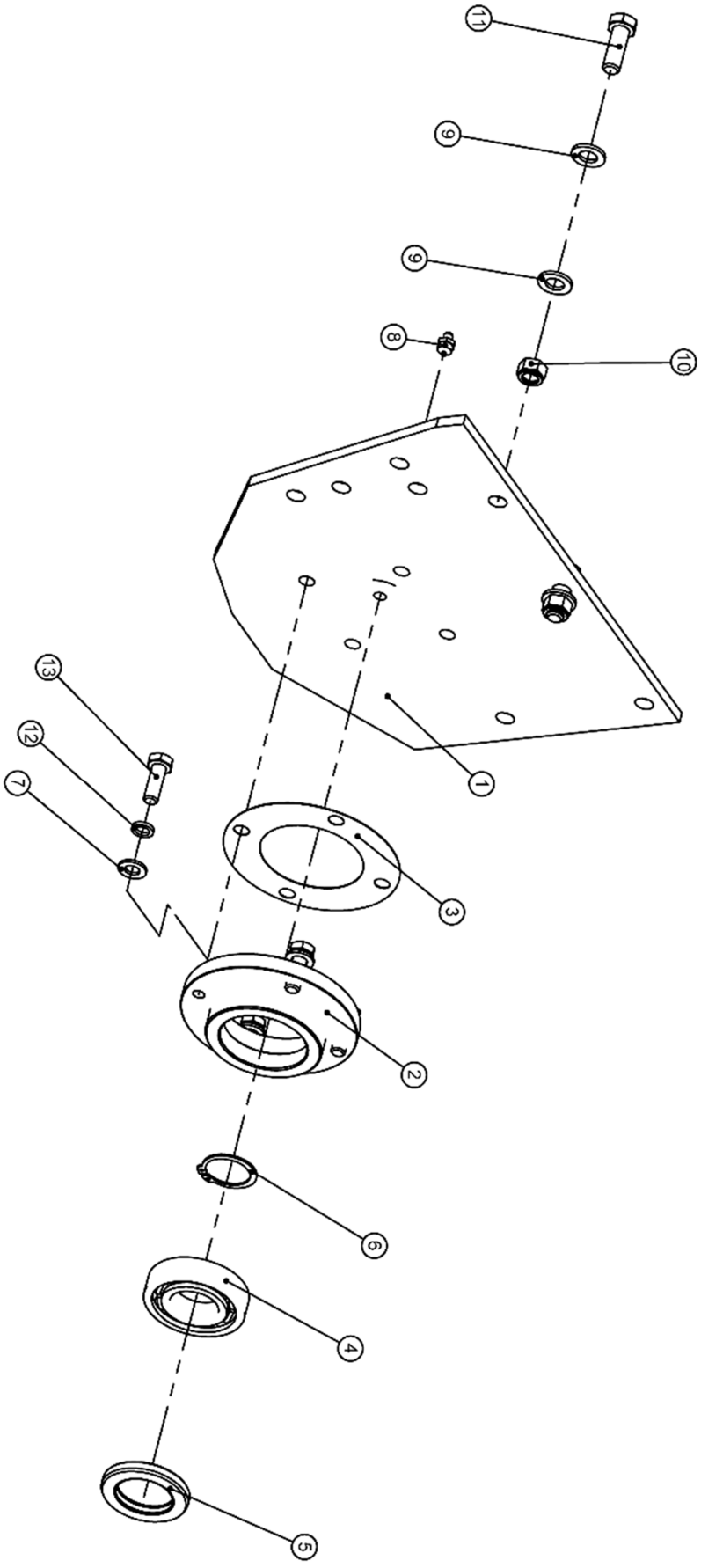
KNIFE SHAFT ASSEMBLY



Knife shaft assembly parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2020001058	TL85-017	Knife shaft weldment	1	-	-	-	-	-
1	2020001059	TL95-017		-	1	-	-	-	-
1	2020001060	TL105-017		-	-	1	-	-	-
1	2020001061	TL115-017		-	-	-	1	-	-
1	2020001062	TL125-017		-	-	-	-	1	-
1	2020001063	TL135-017		-	-	-	-	-	1
2	3040100069	GB/T5783-M12×35-8.8	Full-thread hex. bolt	40	40	48	48	56	56
3	3050500007	GB/T889.1-M12-8	Hex. locking nut	40	40	48	48	56	56
4	3080500009	GB/T93-12-EP•Zn	GB/T93-12-EP•Zn	40	40	48	48	56	56
5	3220100004	TL135.122	Blade-L	10	10	12	12	14	14
6	3220100005	TL135.123	Blade-R	10	10	2	12	14	14

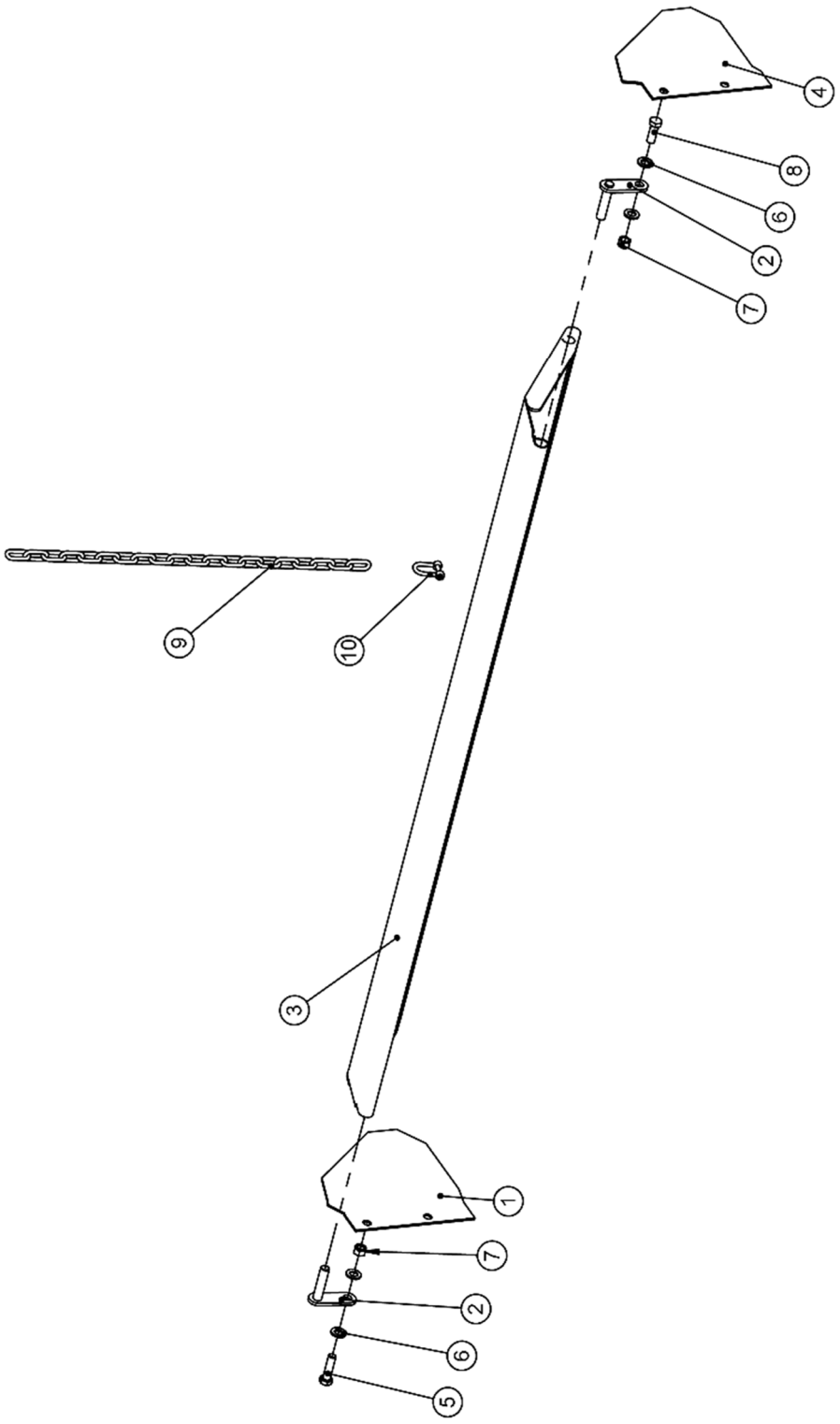
RIGHT PLATE COMPONENT



Right plate component parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2020001076	F06013A04100-000	Right side plate	1	1	1	1	1	1
2	3150100016	F06013A04000-001	Bearing seat	1	1	1	1	1	1
3	3170500028	F06013A01000-003	Sheet gasket	1	1	1	1	1	1
4	3100100037	GB_T276-6207	Deep groove ball bearing	1	1	1	1	1	1
5	3170100018	GB/T13871.1-FB-40×62×8-NBR	shaft seal	1	1	1	1	1	1
6	3080700023	GB/T894-35-A	Retaining rings for shaft	1	1	1	1	1	1
7	3080100006	GB/T95-10-EP•Zn	Plain washer	4	4	4	4	4	4
8	3170400004	JB/T7940.1-M10×1 304	Grease nipple	1	1	1	1	1	1
9	3080100007	GB/T95-12-EP•Zn	Plain washer	4	4	4	4	4	4
10	3050500007	GB/T889.1-M12-8	Locknut	2	2	2	2	2	2
11	3040100069	GB/T5783-M12×35	Full-thread hexagon bolts	2	2	2	2	2	2
12	3080500008	GB/T93-10-EP•Zn	Spring washer	4	4	4	4	4	4
13	3040100045	GB/T5783-M10×30	Full-thread hexagon bolts	4	4	4	4	4	4

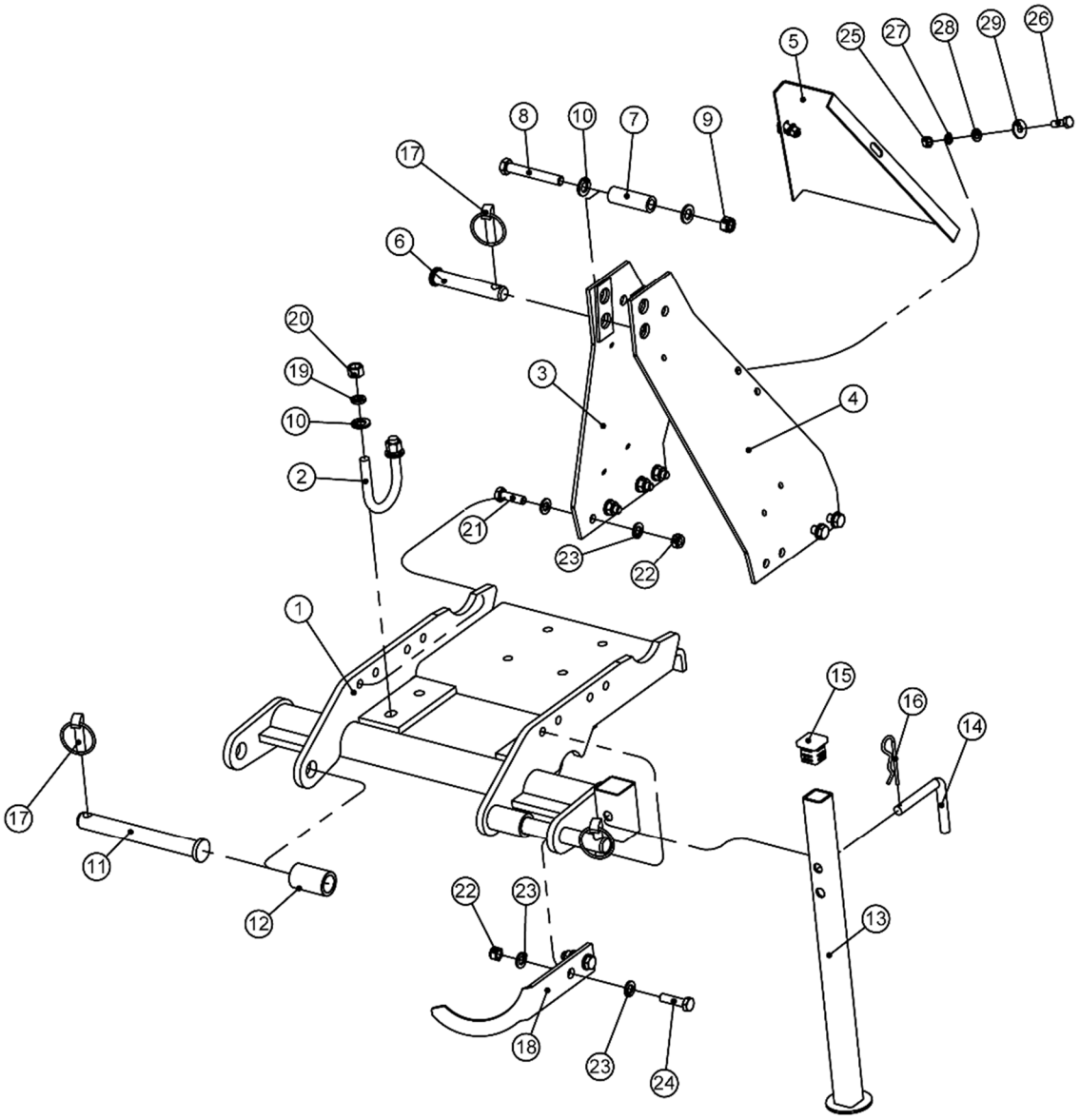
REAR DEFLECTOR



Rear deflector parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2000000504	F06013A05000-001	Support plate	1	1	1	1	1	1
2	2020001056	F06013A05100-000	Baffle shaft weldment	2	2	2	2	2	2
3	2020001075	F06013A05200-000	Rear baffle weldment	1	-	-	-	-	-
3	2020001074	F06012A05200-000	Rear cover weldment	-	1	-	-	-	-
3	2020001070	F06008A05200-000	Rear cover weldment	-	-	1	-	-	-
3	2020001071	F06009A05200-000	Rear cover weldment	-	-	-	1	-	-
3	2020001072	F06010A05200-000	Rear cover weldment	-	-	-	-	1	-
3	2020001073	F06011A05200-000	Rear cover weldment	-	-	-	-	-	1
4	2000000514	F06013A05000-002	Support plate	1	1	1	1	1	1
5	3040100072	GB/T5783-M12×45-8.8-EP•Zn	Full-thread hexagon bolts	1	1	1	1	1	1
6	3080100007	GB/T95-12-EP•Zn	Plain washer	4	4	4	4	4	4
7	3050500007	GB/T889.1-M12-8-EP•Zn	Locknut	2	2	2	2	2	2
8	3040100069	GB/T5783-M12×35-8.8-EP•Zn	Full-thread hexagon bolts	1	1	1	1	1	1
9	3130100016	8×32×28-20	Galvanized chain	1	1	1	1	1	1
10	3130600005	JB 8112-1999-8	D-ring	1	1	1	1	1	1

HITCH COMPONENT

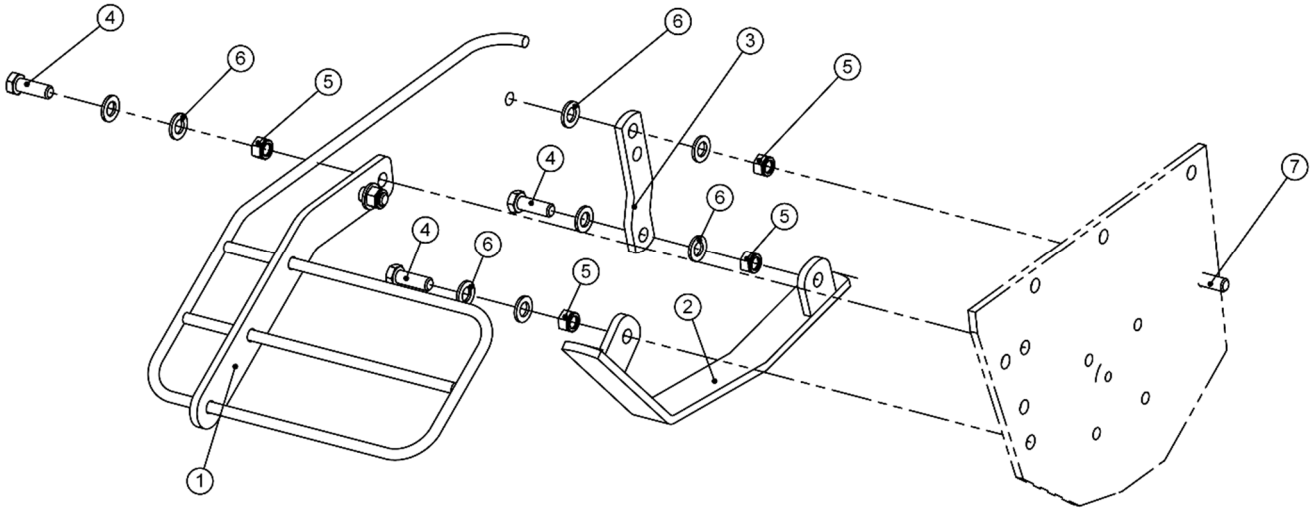


Hitch component parts name list:

POS.	COD.	Specification	Description	QTY
1	2020001054	F06013A10100-000	Gearbox base weldment	1
2	2010000379	F06013A10000-002	U-bolt	2
3	2020001053	F06013A10200-000	Suspension right side panel weldment	1
4	2020001079	F06013A10300-000	Suspension left side panel weldment	1
5	2000000501	F06013A10000-001	Back plate	1
6	3120500009	MT95003	Pin	1

POS.	COD.	Specification	Description	QTY
7	2010000380	F06013A10000-004	Suspension spacer	1
8	3040100080	GB/T5783-M12×85-8.8-EP•Zn	Full-thread hexagon bolts	1
9	3050500007	GB/T889.1-M12-8-EP•Zn	Locknut	1
10	3080100007	GB/T95-12-EP•Zn	Plain washer	6
11	3120500010	MT95014	Hitch pin-Lower	2
12	2010000049	F01037B09000-004	Pipe sleeve	2
13	2020001055	F06013A10400-000	Leg weldment	1
14	2010000017	G01001A16000-001	R pin	1
15	3210200006	31x31	Pipe Plug	1
16	3120400008	Din11024-4-EP•Zn	R Pin	1
17	3120400007	GB/T4329-12-EP•Zn	Pin	3
18	2000000505	F06013A10000-003	Drive shaft placement plate	1
19	3080500009	GB/T93-12-EP•Zn	Spring washer	4
20	3050100007	GB/T41-M12-5-EP•Zn	Hexagon Nuts	4
21	3040100046	GB/T5783-M10×35-8.8-EP•Zn	Full-thread hexagon bolts	6
22	3050500004	GB/T889.1-M10-8-EP•Zn	Locknut	8
23	3080100006	GB/T95-10-EP•Zn	Plain washer	16
24	3040100047	GB/T5783-M10×40-8.8-EP•Zn	Full-thread hexagon bolts	2
25	3050100004	GB/T41-M8-5-EP•Zn	Hexagon Nuts	2
26	3040100024	GB/T5783-M8×25-8.8-EP•Zn	Full-thread hexagon bolts	2
27	3080500007	GB/T93-8-EP•Zn	Spring washer	2
28	3080100004	GB/T95-8-EP•Zn	Plain washer	2
29	3080200008	GB/T96.2-8-EP•Zn	Large plain washer	2

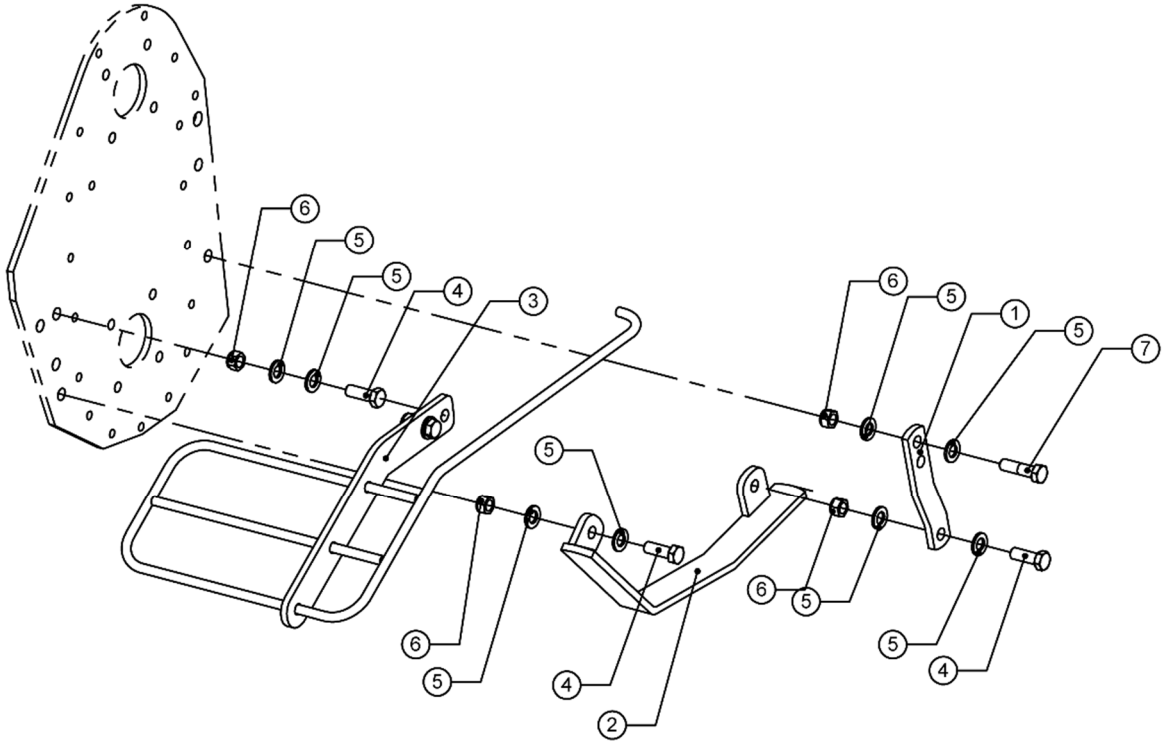
R-PROTECTIVE GUARD



R-protective guard parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2020001078	F06013A07200-000	Right guard rail weldment	1	1	1	1	1	1
2	2020001057	F06013A07100-000	Base plate weldment (right)	1	1	1	1	1	1
3	2000000503	F06013A06000-001	Base plate connecting plate	1	1	1	1	1	1
4	3040100069	GB/T5783-M12×35-8.8	Full-thread hexagon bolts	4	4	4	4	4	4
5	3050500007	GB/T889.1-M12-8-EP•Zn	Locknut	5	5	5	5	5	5
6	3080100007	GB/T95-12-EP•Zn	Plain washer	10	10	10	10	10	10
7	3040100072	GB/T5783-M12×45-8.8	Full-thread hexagon bolts	1	1	1	1	1	1

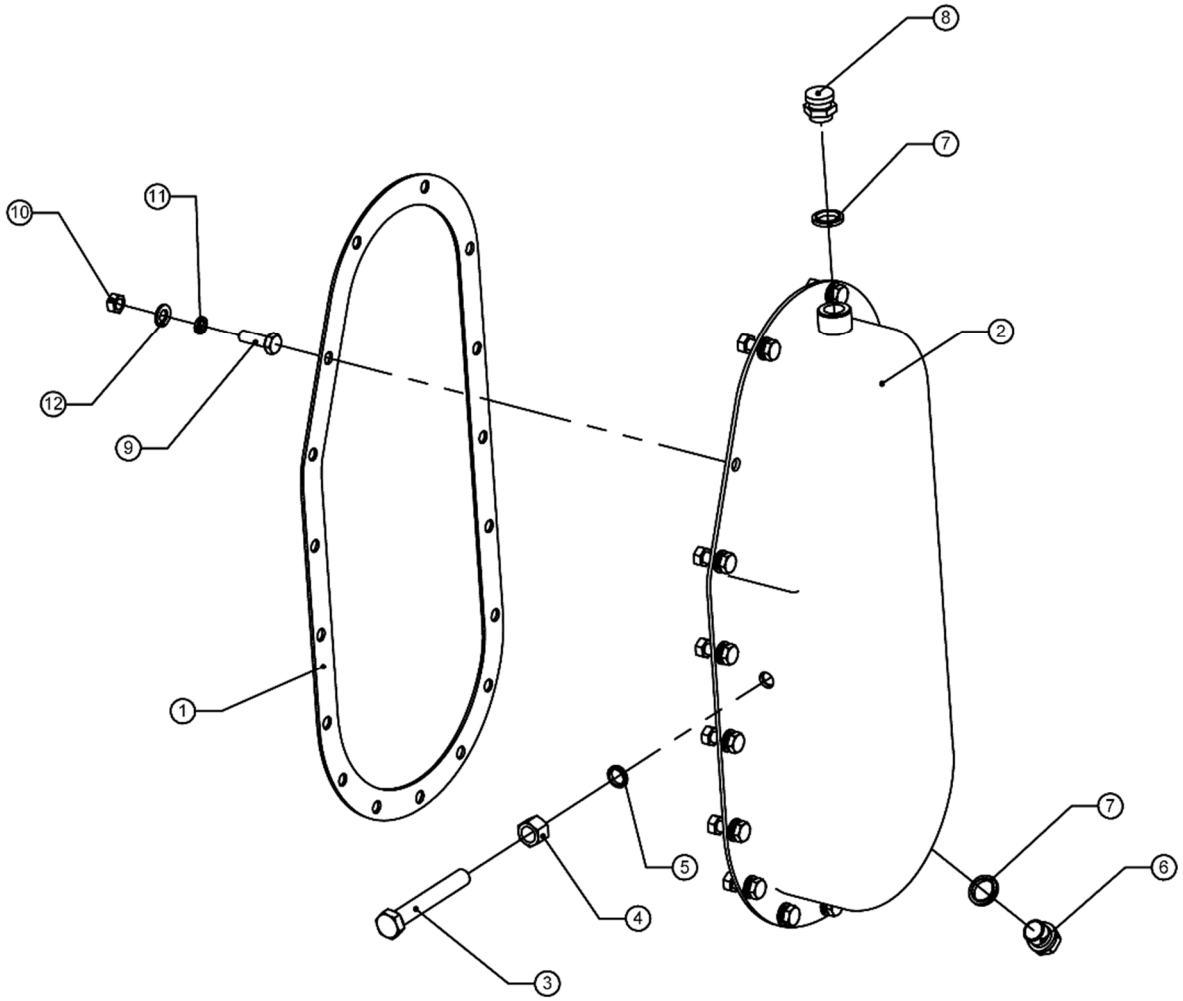
L-PROTECTIVE GUARD



L-protective guard parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2000000503	F06013A06000-001	Base plate connecting plate	1	1	1	1	1	1
2	2020001080	F06013A06200-000	Base plate weldment (left)	1	1	1	1	1	1
3	2020001077	F06013A06100-000	Left guard rail weldment	1	1	1	1	1	1
4	3040100069	GB/T5783-M12×35-8.8	Full-thread hexagon bolts	4	4	4	4	4	4
5	3080100007	GB/T95-12-EP•Zn	Plain washer	10	5	5	5	5	5
6	3050500007	GB/T889.1-M12-8	Locknut	5	10	10	10	10	10
7	3040100072	GB/T5783-M12×45-8.8	Full-thread hexagon bolts	1	1	1	1	1	1

PULLEY COVER

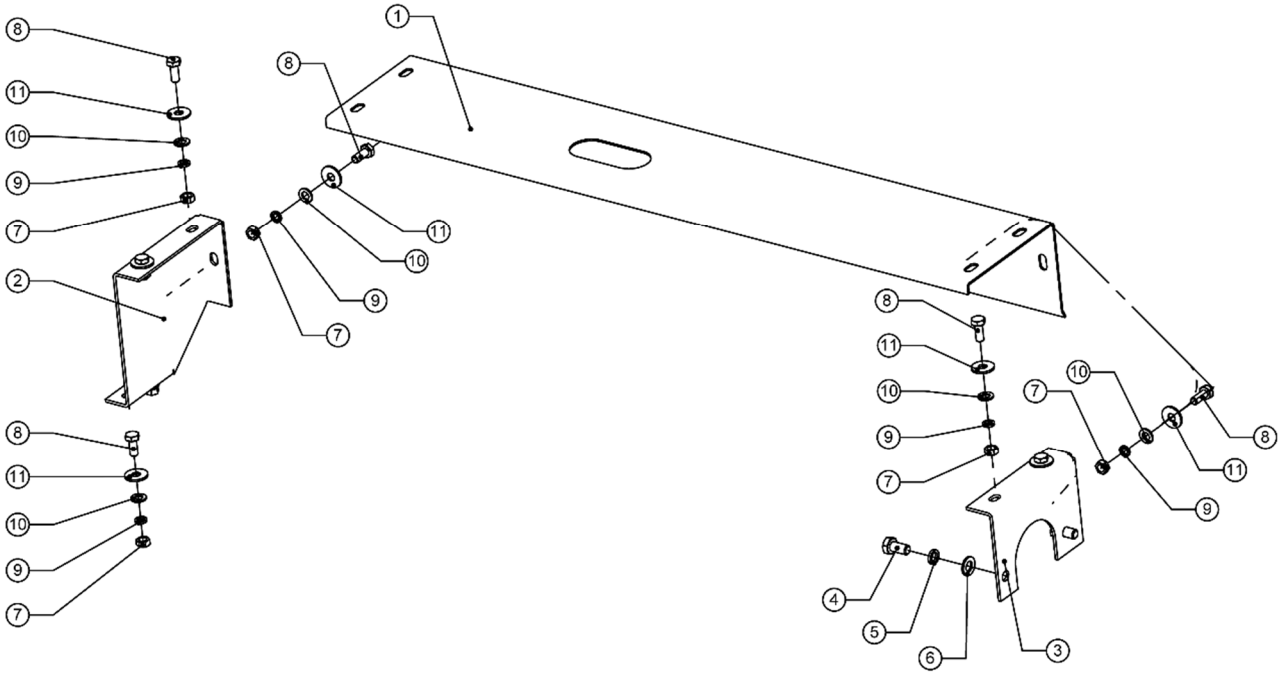


Pulley cover parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	3170500029	F06013A09000-001	Sheet gasket	1	1	1	1	1	1
2	2020001052	F06013A09100-000	Sprocket case cover	1	1	1	1	1	1
3	3040100080	GB/T5783-M12×85-8.8	Full-thread hexagon bolts	1	1	1	1	1	1
4	3050100007	GB/T41-M12-5-EP•Zn	Hexagon nuts	1	1	1	1	1	1
5	3170300010	BS-12.4×16×2-Q235	Combined sealing gaskets	1	1	1	1	1	1
6	3040500006	JB/ZQ4770-M16×1.5	Outer hexagonal plug	1	1	1	1	1	1
7	3170300012	BS-16.4×22×25-Q235	Combined sealing gaskets	2	2	2	2	2	2
8	3170400013	QC-T412(JYG-82)-M16×1.5	Grease nipple	1	1	1	1	1	1

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
9	3040100024	GB/T5783-M8×25-8.8	Full-thread hexagon bolts	17	17	17	17	17	17
10	3050100004	GB/T41-M8-5-EP•Zn	Hexagon Nuts	17	17	17	17	17	17
11	3080500007	GB/T93-8-EP•Zn	Spring washer	17	17	17	17	17	17
12	3080100004	GB/T95-8-EP•Zn	Plain washer	17	17	17	17	17	17

PROTECTION COVER

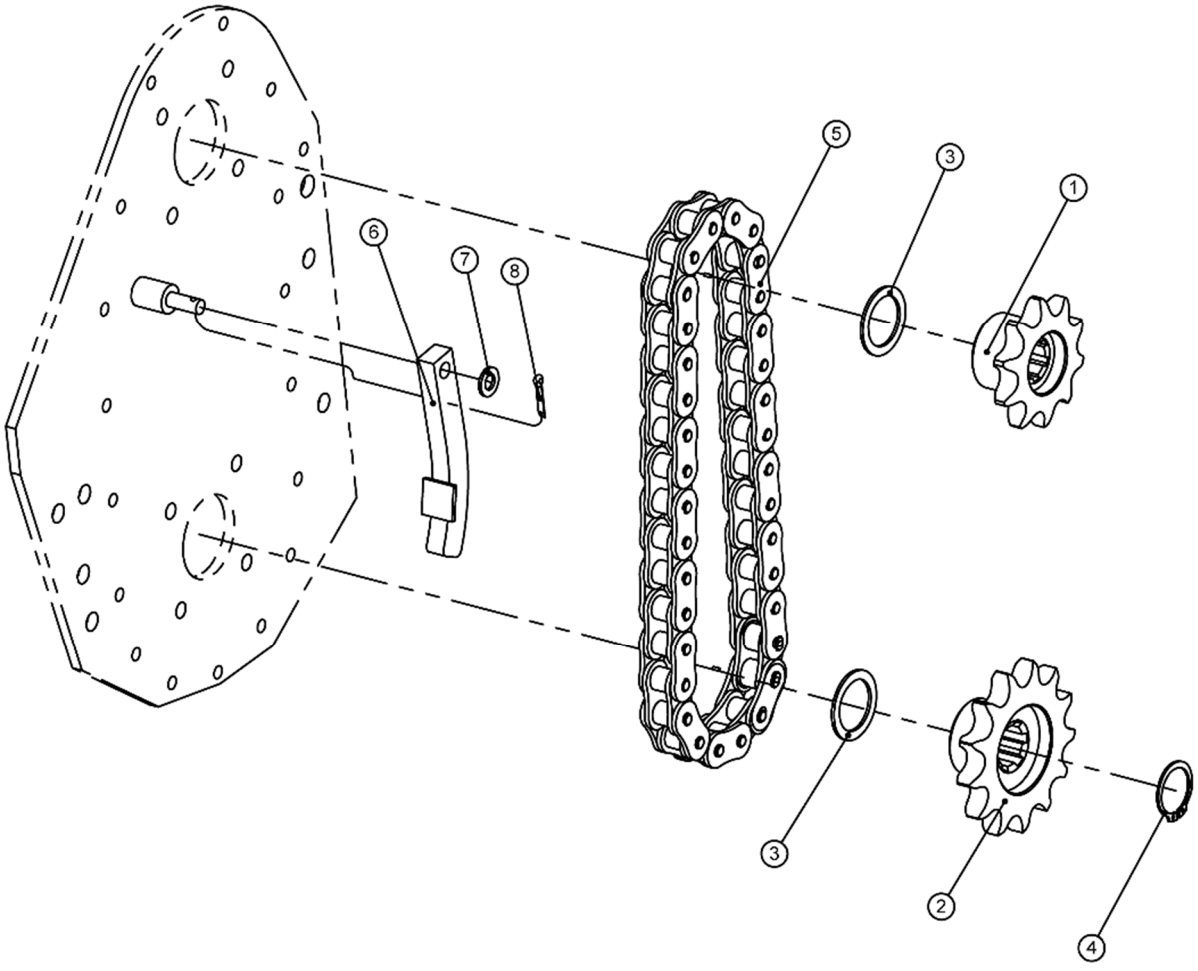


Protection cover parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	2000000513	F06013A03100-002	Protective cover (2)	-	-	-	-	-	1
1	2000000512	F06012A03100-002	Protective cover (2)	-	-	-	-	1	-
1	2000000508	F06008A03100-002	Protective cover (2)	1	-	-	-	-	-
1	2000000509	F06009A03100-002	Protective cover (2)	-	1	-	-	-	-
1	2000000510	F06010A03100-002	Protective cover (2)	-	-	1	-	-	-
1	2000000511	F06011A03100-002	Protective cover (2)	-	-	-	1	-	-
2	2000000507	F06013A03100-003	Protective cover (3)	1	1	1	1	1	1
3	2000000506	F06013A03100-001	Protective cover (1)	1	1	1	1	1	1

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
4	3040100041	GB/T5783-M10×20-8.8	Full-thread hexagon bolts	2	2	2	2	2	2
5	3080500008	GB/T93-10-EP•Zn	Spring washer	2	2	2	2	2	2
6	3080100006	GB/T95-10-EP•Zn	Plain washer	2	2	2	2	2	2
7	3050100004	GB/T41-M8-5-EP•Zn	Hexagon nuts	8	8	8	8	8	8
8	3040100022	GB/T5783-M8×20-8.8	Full-thread hexagon bolts	8	8	8	8	8	8
9	3080500007	GB/T93-8-EP•Zn	Spring washer	8	8	8	8	8	8
10	3080100004	GB/T95-8-EP•Zn	Plain washer	8	8	8	8	8	8
11	3080200008	GB/T96.2-8-EP•Zn	Large plain washer	8	8	8	8	8	8

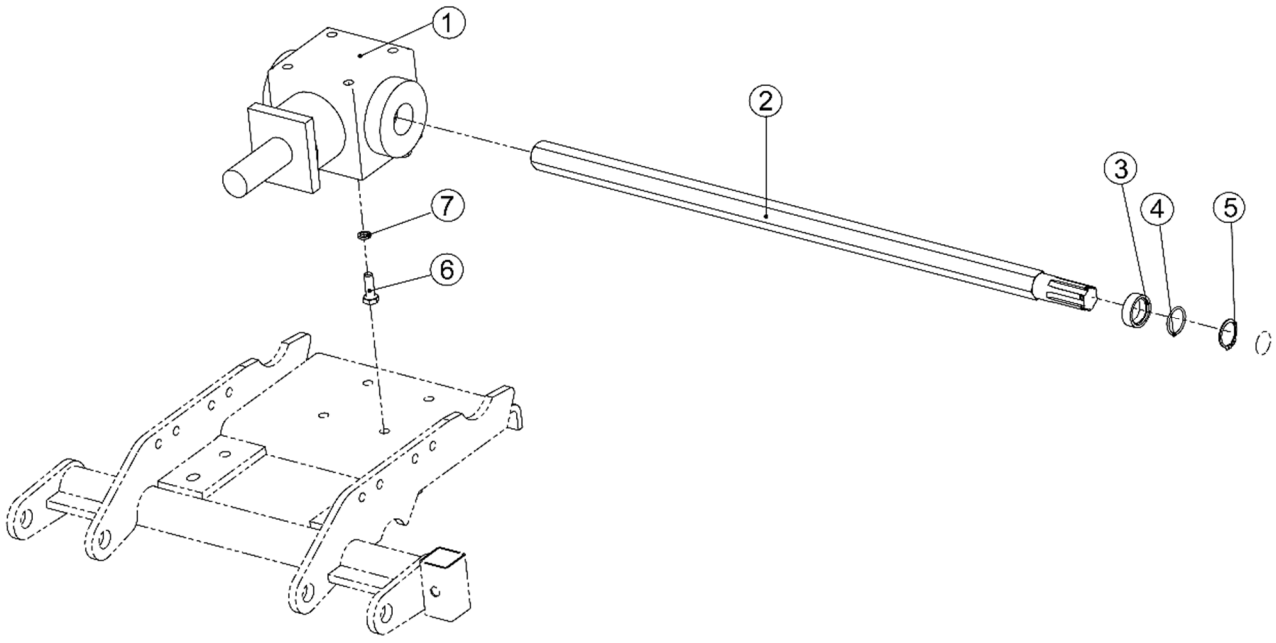
CHAIN COMPONENT



Chain component parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	3160700013	F06013A11000-002	Chain wheel	1	1	1	1	1	1
2	3160700012	F06013A11000-001	Chain wheel	1	1	1	1	1	1
3	2000000502	F06013A11000-003	Sprocket washer	2	2	2	2	2	2
4	3080700022	GB/T894-34-A	Retaining rings for shaft	1	1	1	1	1	1
5	3160800008	GB_T1243-16A-1×34	Roller chain	1	1	1	1	1	1
6	2020001051	F06013A11100-000	Tensioning plate	1	1	1	1	1	1
7	3080100006	GB/T95-10-EP•Zn	Plain washer	1	1	1	1	1	1
8	3120100089	GB/T91-4×20	Split pin	1	1	1	1	1	1

GEAR BOX



Gear box parts name list:

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
1	3160100728	KF023R146J0100	Gear box	1	1	1	1	1	1
2	3150200018	F06013A08000-001	Axle	1	-	-	-	-	-
2	3150200017	F06012A08000-001	Axle	-	1	-	-	-	-

POS.	COD.	Specification	Description	32-S /QTY	36-S /QTY	40-S /QTY	45-S /QTY	48-S /QTY	54-S /QTY
2	3150200013	F06008A08000-001	Axle	-	-	1	-	-	-
2	3150200014	F06009A08000-001	Axle	-	-	-	1	-	-
2	3150200015	F06010A08000-001	Axle	-	-	-	-	1	-
2	3150200016	F06011A08000-001	Axle	-	-	-	-	-	1
3	2010000377	F06013A08000-002	Oil proof spacer sleeve	1	1	1	1	1	1
4	3170200015	GB3452.1-30×2.4-NBR-70	O-Ring	1	1	1	1	1	1
5	3080700020	GB/T894-30-A	Retaining rings for shaft	1	1	1	1	1	1
6	3040100045	GB/T5783-M10×30-8.8	Full-thread hexagon bolts	4	4	4	4	4	4
7	3080500008	GB/T93-10-EP•Zn	Spring washer	4	4	4	4	4	4

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WARRANTY

The Manufacturer warrants to the original purchaser that this product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit and Driveline: 24 months Parts and Labor

Gearbox: 24 months on all components.

Blades: Consumables materials

This Warranty is limited to the replacement of any defective part by the Manufacturer and the installation by the dealer of any such replacement part, and does not cover common wear items. The Manufacturer reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Manufacturer's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Manufacturer dealer. The Manufacturer reserves the right to make changes in materials or design of the product at any time without notice. This Warranty shall not be interpreted to render Manufacturer liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, the Manufacturer shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.