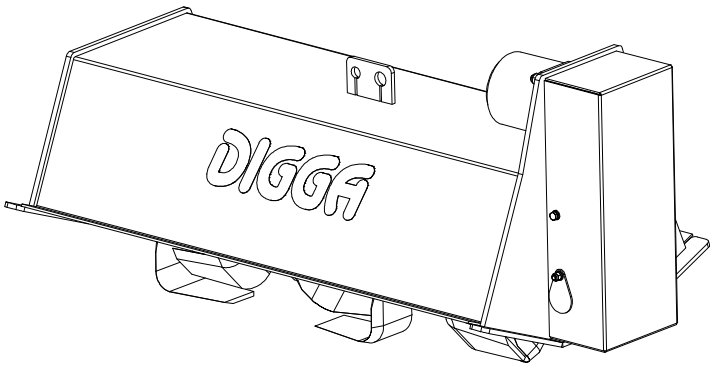
MINI ROTARY TILLER
OPERATOR'S MANUAL



DIGGA®

PM-000056-A

V8.0

MY.DIGGA.COM

DECAL IS APPLIED TO THE ATTACHMENT

MY.DIGGA.COM

DECAL TO BE APPLIED TO WINDOW OF MACHINE

ACCESS OPERATOR MANUALS RISK ASSESSMENTS AND MORE

Table of Contents

To the Purchaser

Thank you and congratulations on the purchase of your new Digga Mini Rotary Tiller.
This product was carefully designed and manufactured to give you years of dependable service. It is mandatory to read these instructions to keep the equipment running in top working condition.

Before Operation
Inspect the attachment for shipping damage and if any damage does exist, do not operate until the damaged parts have been replaced or repaired. The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understood this manual. If there is any portion of this manual or function you do not understand, contact your local authorized Digga dealer or the manufacturer to obtain further assistance. Keep this manual available for reference. Provide the manual to any new owners and/or operators.

About This Manual
This manual has been designed to help you do a better and safer job. **Read this manual carefully and become familiar with its contents before connecting and operating this unit.**

Service
Use only manufacturer replacement parts. Substitute parts may not meet the required standards.

CAUTION

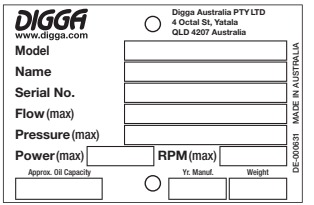
Never allow anyone to operate this attachment without reading the “Safety precautions” and “Operating instructions” sections of this manual. Always choose hard and level ground to park the vehicle on and set the brake, so the unit cannot roll.

MODELS COVERED IN THIS MANUAL
MINI ROTARY TILLER
ML-000445

Your Digga Mini Rotary Tiller model provides important information about the product. Compare the model engraved on the serial plate to the list above.

Product Identification

Your Digga Mini Rotary Tiller is a user serviceable part. When servicing or assembling your product, use only genuine Digga replacement parts. Substitute parts may not meet the standards required for safe and dependable operation. Use of non genuine Digga parts will void warranty and Digga accept no liability what so ever for consequential or special damages. All service must be performed by qualified professionals. Contact your local Digga dealer for details. To facilitate warranty or service, record the model and serial number of your unit in the space provided on this page. This information may be obtained from the identification plate located on the product.



DE-000631

Model: _____

Serial Number: _____

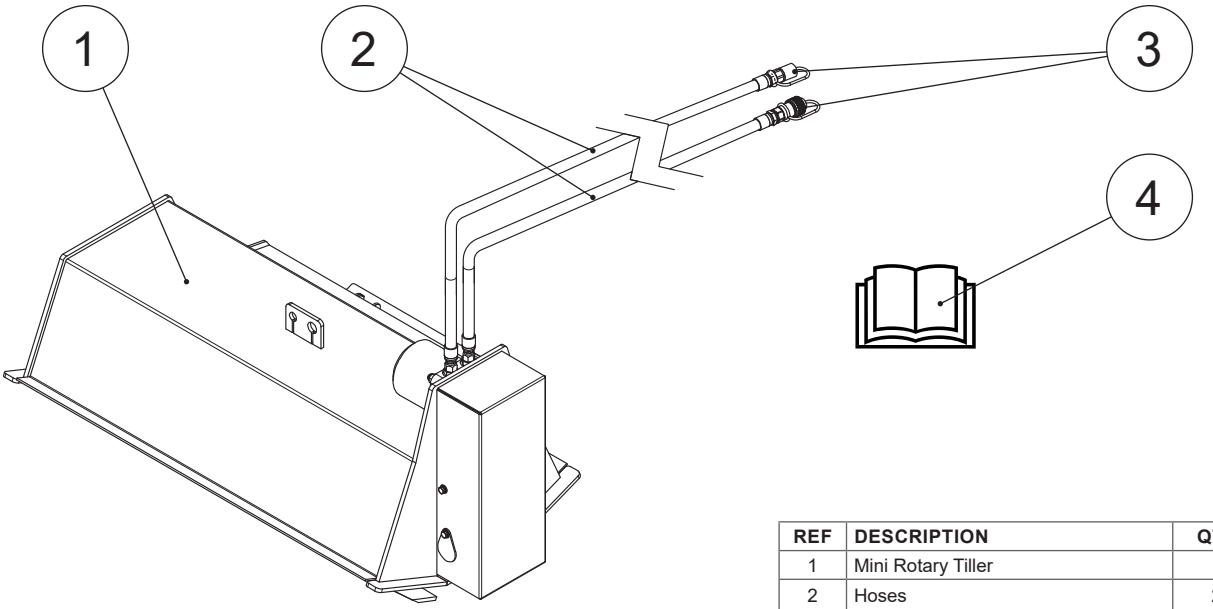
Purchase Date: _____

NOTE

The parts department needs this information to ensure accurate parts can be sent to the authorized service agent.

Preparation for use

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered. Items may differ depending on type of machine the Mini Rotary Tiller is to be fitted to.



REF	DESCRIPTION	QTY
1	Mini Rotary Tiller	1
2	Hoses	2
3	Quick Release Couplers	2
4	Operator's Manual	1

Safety Precautions - General Information

You must understand all safety statements shown on your attachment and in this manual. Especially note the information called out by the designations shown below. Follow these safety precautions, when operating or maintaining the attachment.

DANGER

The DANGER designation indicates an imminently hazardous situation that, if not avoided, will result in death.

WARNING

The WARNING designation indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

The CAUTION designation indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury or property damage.

NOTE

You will also see information called out with the NOTE designation. This additional safety or general information is important to the maintenance and operation of your loader.

During day-to-day operation of your attachment, you will encounter a variety of situations beyond those listed in this manual. We encourage you to assess the risk present at any job site and in every work task before beginning work. Apply appropriate risk mitigation strategies to make safety a first priority at all times, and if these are not sufficient, stop the job and immediately seek the help of a qualified safety consultant.

Know where utilities are

- Observe overhead electrical and other utility lines. Be sure the equipment will clear them.
- Before starting any digging project, lodge an enquiry with BYDA (Before you Dig Australia) or your local utilities location service for the identification of buried electrical, telephone, cable wires, gas, water and sewer lines are likely to be present. Unintentionally disrupting these hidden hazards while working with your loader can result in dangerous situations and property damage.
- Only commence works after having received and studied the underground plans and information thoroughly. Never begin work until the work area has been fully marked for underground utilities.
- For more information about digging best practices access www.byda.com.au. Many countries offer a similar service which advises the location of underground services in your area. If available use this service prior to digging, drilling, trenching or any form of excavating and earth-moving.

CAUTION

You must ensure that underground utilities have been officially marked before working in the area. Markings must be valid according to state law or practice.

Exposure to Respirable Crystalline Silica Dust Along with Other Hazardous Dusts

- It is recommended to use dust suppression, dust collection, and if necessary personal protective equipment during the operation of this or any other machine attachment that may cause high levels of dust.

Safety Precautions - General Information

Remove Paint Before Welding or Heating

- Hazardous fumes/dust can be generated when paint is heated by welding, soldering, or using a torch.
- Do all work outside or in a well ventilated area and dispose of paint and solvent properly.
- Remove paint before welding or heating. When sanding or grinding paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from the area. Allow fumes to disperse at least 15 minutes before welding or heating.

End of Life Disposal

- At the completion of the useful life of the Mini Rotary Tiller, drain all fluids and dismantle it, by separating the different materials (rubber,steel, plastic, etc.). Follow all federal, state and local regulations for recycling and disposal of the fluid and components.

Operating the Mini Rotary Tiller

- The primary responsibility for safety with this equipment falls to the operator. Make sure that the equipment is operated only by trained individuals, who have read and understood this manual.
- An operator must not use drugs or alcohol, which can change his or her alertness or coordination. An operator taking prescription or over-the-counter drugs should seek medical advice on whether or not he or she can safely operate the equipment.
- Don't hurry the learning process or take the unit for granted.
- It is the skill, care, common sense, and good judgment of the operator that will determine how efficiently and safely the job is performed.
- Visually inspect your equipment, ensure correct assembly and installation is done and never operate the equipment that is not in proper working order.
- Know the capabilities of your equipment and practice its operation to become familiar with the controls, emergency shut down procedures, and the way it handles on your machine.
- Follow all safety decals and keep them clean. Replace them, if they become worn, damaged or illegible.
- Do not paint over, remove or deface any safety signs or warning decals on your equipment.
- Operate only from the operator's station and operate only in daylight or with sufficient artificial light.
- Always carry loads close to the ground and do not exit the machine with the loader arms raised.
- Do not exceed rated operating capacity (ROC) of the host machine, as machine may become unstable resulting in loss of control. Overloading or exceeding the manufacturers specifications will also void all warranty.
- Always lower the loader arms or the machine boom to the ground, shut off the engine and remove the key before getting off the unit.
- Remove the Mini Rotary Tiller from the parent machine before transporting to and from the job site.
- Never use the attachment on a machine that is not equipped with a cab rollover protective structure (ROPS) and/or falling object protective structure (FOPS), and operator restraints (seat belts or equivalent devices). Although, this is not applicable when using this attachment on a stand-on mini loader.

Safety Precautions - General Information

- Establish and maintain a minimum 6 meters (20 feet) exclusion zone around the working area. No person other than the operator should enter the work zone, while the parent machine's engine is running.
- Do not allow site workers to climb on the attachment at any time, including while stationary, in operation or being moved.
- Avoid steep hillside operation which could cause the machine to overturn. Consult your machine operator's and safety manual for maximum allowable incline.
- Reduce speed when driving over rough terrain, on a slope or turning to avoid overturning the machine.
- Travel only with the Mini Rotary Tiller in a safe transport position to prevent the uncontrolled movement.
- Drive slowly over rough ground and on slopes.
- Tether any accessory connected to the Mini Rotary Tiller with a chain if necessary, to prevent uncontrolled swinging of the attachments.
- Do not drive close to ditches and excavations, etc., as cave in could result.
- Flow and pressure gauges, fittings, and hoses must have a continuous operating pressure rating of at least 25% higher than the highest pressure of the system.
- All operations must be stopped in the event of local thunderstorm or lightning activity. During operation, weather conditions shall be monitored, operations shall cease during electrical storms or when electrical storms are imminent. Ground personnel and bystanders.
- Be alert to others in the work area. Be sure others know when and where you will be working.
- Loose fitting clothing, long hair, jewellery and equipment which might become entangled in moving equipment are prohibited while working near the Mini Rotary Tiller .
- Operators, helpers, and other personnel working near the attachment must wear steel-toe safety shoes, safety glasses, and hard hats as a minimum. Hearing protection, respirators, and personal protective clothing will be specified in the site-specific Health and Safety Plan.
- The Mini Rotary Tiller shall be cleaned only when the mechanism is in neutral and stopped; long-handled shovels shall be used to move debris from the Mini Rotary Tiller. Materials heavier than 10 kg must be moved mechanically or by using at least two people.

- The Mini Rotary Tiller shall be used only for its designed intent and shall not be loaded beyond its rated capacity. Overloading or exceeding the manufacturers specifications will void all warranty.

CAUTION

Wait for the mechanism completely stop before making any adjustments or cleaning.

DANGER

During Mini Rotary Tiller operation, maintain a minimum “no-work zone” buffer of 10 feet (3 meters) from any overhead electrical service and 6 feet (2 meters) from any underground service . All bystanders should be kept at a minimum of 20 feet (6 meters) away from the working area of the Mini Rotary Tiller.

Storing your Mini Rotary Tiller

- Seal hydraulic couplers from contaminants. Use the supplied dust covers on the quick couplers, or connect the couples together.
- Secure all hydraulic hoses off the ground to help prevent damage.
- Clean the unit thoroughly by removing all mud, dirt, grease, etc..
- Inspect for visible signs of wear, breakage, or damage. If required, order any damaged parts and perform the necessary repairs to avoid delays upon removal from storage.
- Check that hydraulic motor and hoses are full of clean oil and apply grease to all grease nipple points.
- Coat liberally with grease all connecting pins to prevent rust and reduce wear.
- Tighten loose nuts, cap screws, and hydraulic connections.
- Replace safety decals that are damaged or in an unreadable condition.
- Store unit in a dry and protected place, as leaving the unit outside will materially shorten its life.

Safety Precautions - General Information

Maintaining the Mini Rotary Tiller

- All maintenance should be performed with the engine turned off, parking brakes applied, machine arms lowered, and hydraulic pressure relieved.
- Lock out and tag out the equipment before repairs or maintenance is performed.
- Only properly trained and qualified individuals are permitted to perform repairs and maintenance.
- If lift arms must be left raised for any reason, use a positive lift arm lock to secure the arms in place. Serious damage or personal injury could result from lift arms accidentally lowering.
- Never adjust a relief valve for pressure higher than recommended by the machine's manufacturer.

Transporting the Mini Rotary Tiller

- When transporting your attachment, follow all local government regulations that may apply along with any equipment safety precautions provided in this manual.
- It is the responsibility of the operator that safe systems of work are employed while handling this attachment.
- No tie down points are provided on the attachment and it is the responsibility of the operator to ensure that the attachment is firmly fastened without causing any damage to it.
- Do not attach tie down accessories around the chain guard or in any way that may damage hoses or hydraulic components.
- Attachment should be well secured, when being moved or in transit and furthermore prior to moving, storing, loading/unloading,or parking.
- Verify that all tie down accessories (chains, slings, ropes, shackles, etc.) are capable of maintaining attachment stability during transporting and are attached in such a way to prevent unintended engagement or shifting of the unit.
- Use extra care when loading or unloading the attachment on to a trailer or truck and disconnect hydraulic couplers during the transportation. No responsibility for loss or damage to persons or property in any regard can be attributed to Digga.

Complete a Risk Assessment

Your Digga Mini Rotary Tiller is a versatile machinery attachment, capable of performing its tasks in a safe and effective manner. To ensure the safety of operators and others, it is important to document the work at hand for hazard and risk. Before beginning work, complete a risk assessment. The following steps provide a framework for this activity:

1	**DOCUMENT THE ACTIVITY** Assemble those involved in the activity. Write down the tasks required for the activity in step-by-step form.
2	**IDENTIFY THE HAZARDS** Next to each task, identify what part of the task may cause injury to those engaged in the task or others in the vicinity. Rate the consequences and likelihood of the hazard using the risk assessment matrix.
3	**DOCUMENT THE CONTROL MEASURES** Using the results from the risk assessment matrix, determine which hazards require attention. List all mitigation measures that are required to eliminate or minimize those hazards.
4	**IDENTIFY THE RESPONSIBLE PERSON** Document the name of the person responsible for implementation of the mitigation measure.
5	**MONITOR AND REVIEW** Ensure that the activity is supervised and that the documented process is being followed.

NOTE

Remember, Personal Protection Equipment (PPE) provides a level of protection during work, but PPE is the last level of hazard control and prevention. Always refer to the hierarchy of hazard control, when planning a safety process.

Safety - Working with the Attachment

Take Extreme Care When Dealing with Hydraulics - Whilst Assembling, Operating, Maintaining or Performing any work on or near this product.

- Hydraulic fluid under pressure can penetrate the skin and may develop gangrene or other permanent disabilities. **Hydraulic leaks under pressure may not be visible!**
- If any fluid penetrates the skin, **get immediate medical attention!**
- Wear safety glasses, protective clothing, and use a sound piece of cardboard or wood when searching for hydraulic leaks. **Do not use your hands!**
- Before connecting or disconnecting hydraulic hoses, read your machine or power unit's operator manual for detailed instructions on connecting and disconnecting hydraulic attachments.
- Ensure that all parts meet the specifications for this product when installing or replacing hydraulic hoses or fittings.
- After connecting hydraulic lines:
  - □ Slowly and carefully raise the loader's arm(s) and cycle the rollback/dump cylinders to check hose clearances and to check for any interference.
  - □ Operate the hydraulics on this product to ascertain forward and reverse.
  - □ Ensure that the blade is rotating counter-clockwise (when viewed from the right hand side) when connected to the loader.
  - □ Ensure that the hoses cannot interfere with or actuate the quick-attach mechanism.
  - □ Ensure that hoses will not be pinched, or get tangled, in any equipment.
- Do not lock the auxiliary hydraulics in the "ON" position.
- Refer to host machine operator's manual and this manual for procedures and service intervals, then inspect and maintain the entire hydraulic system to ensure that the fluid remains clean, that all devices function properly, and that there are no fluid leaks.

NOTE

For any additional safety information please see “Risk Management Booklet”. To obtain a copy of this document please contact Digga Head Office.

When Mounting this Product to Your Machine

- Refer to the operator’s manual of your host machine for any special or detailed mounting instructions regarding quick-attach mechanism.
- This product should fit onto the quick-attach frame or hitch (machine mount). If this product does not fit properly, contact your Digga dealer before operating.
- Where enabler ‘Dead Man’ controls are installed it is illegal to disengage, tamper with, or remove them.

WARNING

Never place any part of your body into the mounting plate, frame, hitch or loader holes. A slight movement of the power unit and this product could cause serious injury.

When Adjusting Servicing or Repairing this Product

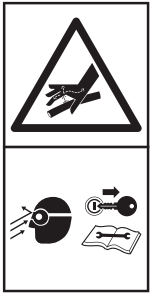
- Do not make any modifications to your Digga Mini Rotary Tiller.
- When making repairs use only authorized Digga service agents and use only genuine Digga parts. For fasteners, hydraulic hoses, or hydraulic fittings, use only properly rated parts.
- Replacement parts must also have safety signs attached.

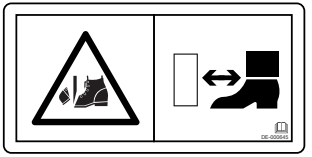
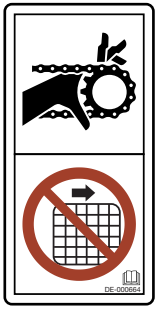
CAUTION

Wait for all moving parts to stop completely before making any adjustments or cleaning.

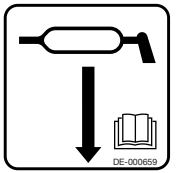
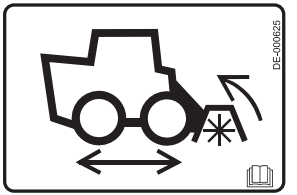
Safety - Decal Labels

This section provides a glossary of safety labels found on your Digga Mini Rotary Tiller. These labels are important! Become familiar with both their meaning and location prior to operating the attachment. Ensure that each label is clean, visible, and legible at all times. To clean the decal, use a soft cloth, water, and soap. Avoid the use of solvents, gasoline, or other harsh chemicals, as these may damage the decal. If a label has been damaged or removed, it must be replaced.

READ OPERATOR'S MANUAL	HYDRAULIC FLUID INJECTION	DO NOT RIDE ON ATTACHMENT
		
DANGER **Completely read and understand this operator's manual before using your attachment. Keep the manual with the attachment at all times.**	**WARNING** **Pressure injection risk of injury: This machine operates on high-pressure hydraulic fluid. Always wear eye protection and shut-off the engine before performing maintenance on this machine. See page 16.**	**DANGER** **Do not allow persons over the attachment. Do not ride on the attachment.**

FLYING DEBRIS	LACERATION HAZARD	PINCH POINT
		
WARNING **Keep all bystanders at least 6m (20ft) from the equipment.**	**DANGER** **Keep feet and other body parts away from the attachment.**	**WARNING** **Do not remove the roller chain cover guard when the equipment is operational. Refer to "Transmission Inspection" on page 32.**

Safety - Decal Labels

GREASE POINT BELOW	BLADE DIRECTION	MY.DIGGA.COM
		
NOTE **The label indicates the position of the grease nipples. Refer to "Lubrication" on page 31.**	**NOTE** **The tilling blades must always rota counter-clockwise when viewed from the right hand side of the attachment. Refer to "Operating Procedure" on page 27.**	**NOTE** **Scan the QR-code to access:** **my.digga.com** **Find manuals, safety information, guides and more.**

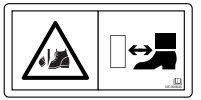
Safety - Decal Locations

ITEM	ORDER CODE	DESCRIPTION	QTY
1	DE-000647	READ MANUAL/ HYDRAULIC PRESSURE/ DO NOT RIDE	1
2	DE-000665	FLYING DEBRIS / KEEP AWAY	1
3	DE-000645	KEEP FEET AWAY	2
4	DE-000664	HANDS OFF / DO NOT REMOVE GUARD	1
5	DE-000659	GREASE POINT BELOW	2
6	DE-000625	BLADE DIRECTION	1
7	DE-000454	DIGGA LOGO	1
8	DE-000850	MY.DIGGA.COM	1
9	DE-000631	SERIAL TAG	1

Item 1

Item 2

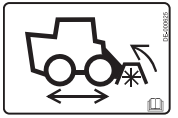
Item 3



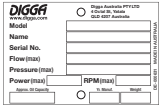
Item 4

Item 5

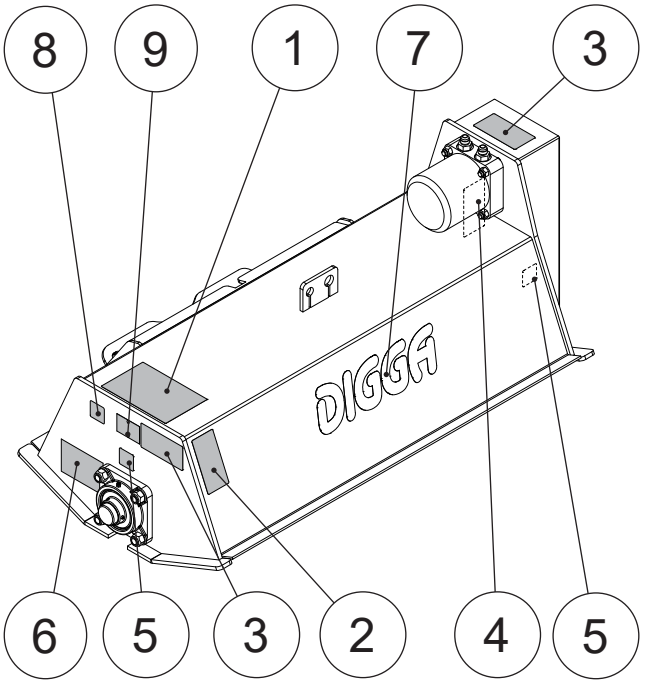
Item 6



Item 9



Item 8



Before Use

The key feature of your Digga Mini Rotary Tiller is low maintenance. It contains user serviceable parts. When servicing your product remember to use only genuine Digga replacement parts. Use of non-genuine Digga parts will void warranty and Digga will accept no liability what so ever for consequential damages as a result thereof.

DANGER

Safety first!! Read and understand the safety instructions before beginning any maintenance.

Before First Use

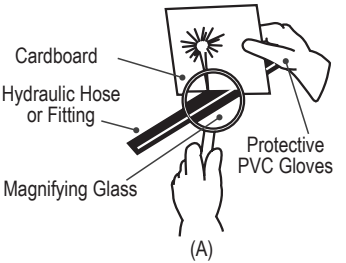
Inspect the Mini Rotary Tiller for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.

Before Each Use

- Make sure that all nuts and bolts are in place and properly tightened.
- Make sure that all other fasteners are in place and are performing their specified function.
- Make sure that all hydraulic fittings are tightened and that there are no leaks in any fittings or hoses.
- Make sure that all safety signs are in place, are clean, and are legible (refer to "Safety - Decal Labels" on page 18).
- Check for wear and tear on pins, linkages, cutting edges and replace any damaged parts and excessively worn parts.
- Use only manufacturer recommended replacement parts. Other parts may be substandard in fit and quality.
- Ensure any damage or excessively worn parts are replaced.
- Always wear safety goggles or glasses when inspecting equipment.

WARNING

Escaping fluid under pressure as low as 100 PSI can have sufficient force to penetrate the skin up to 4" (100mm) away causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks (A). Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak and use heavy duty PVC protective gloves. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.



WARNING

Always wear the correct PPE, when operating or performing maintenance on this attachment. If a hydraulic fluid injection injury occurs, seek emergency medical attention immediately. Explain to medical staff that the injury is the result of pressurized fluid injection. Remember that even if the point of entry appears as a minor pin hole, this potentially could be a major injury, especially if not treated in time.

Commissioning Procedure

The Digga Mini Rotary Tiller attaches to the tool bar/quick-attach mechanism of your Machine. Due to this arrangement, thorough knowledge of the machinery controls is necessary for machine operation. Read and understand your machine operator's manual for information regarding machine operation before attempting to use the Mini Rotary Tiller.

When a Mini Rotary Tiller is purchased from DIigga or a Digga Dealer/Distributor, the frame/attachment is matched for suitability and compatibility to the flow, pressures and load ratings of the original machine it was purchased for. For fitment of the Mini Rotary Tiller to other machines you must first contact your DIGGA dealer and receive written confirmation to ensure you do not incorrectly fit the attachment to a machine with higher pressure, or lower rated load capacities than what the product was designed for.

Warranty will be void if the Mini Rotary Tiller is fitted to an alternative machine without first receiving written confirmation from your Digga dealer. Exceeding the recommended maximum flow, pressure, or rated load capacity of the Mini Rotary Tiller as stated on the serial tag will void all warranty.

Check the work site and identify the extent of the work to be carried out and note any possible hazards or constraints. Overhead cables, underground utilities, services, etc. Check with relevant service providers on the location of these before commencement of any work (see "Know where utilities are" on page 9). Review the job at hand and determine the Mini Rotary Tiller is appropriate for the intended conditions. For example: Do not use it as a lifting device.

Operating Parameters - HP (kW) Power Ratings

The hydraulic motor of your Mini Rotary Tiller has a maximum power rating. Maximum pressure and flow cannot be achieved at the same time. Ensure you know and understand the maximum flow, pressure and power ratings of your Mini Rotary Tiller and parent machine. Never exceed the maximum ratings listed on the serial tag attached to the side of the hood.

Installation instructions

1. Remove the shipping banding from around the Mini Rotary Tiller and Frame.
2. Remove any attachments from the front of the machine.
3. Ensure you have read the serial tag on the Mini Rotary Tiller to obtain the maximum flow and pressure ratings. Ensure your machine's flow and pressure settings align with the requirements of the Mini Rotary Tiller.

NOTE

Never exceed the maximum flow and pressure ratings as the warranty will be void.

4. Following all standard safety practices and the instructions for installing an attachment in your machine operator's manual, install the Mini Rotary Tiller onto your machine.

NOTE

It is important to make sure the locking mechanism on your quick attach is engaged, therefore locking the attachment onto the machine.

5. Lower the unit to the ground and remove the key from the parent machine.
6. Relieve any pressure from the auxiliary hydraulic system. After ensuring that there is no foreign matter on the hydraulic couplers, connect the power and return couplers to the auxiliary hydraulic system of your machine.
7. Route the hoses in such a fashion as to avoid pinching or chafing.

Operating Instructions

Mini Rotary Tiller Operation

The Digga Mini Rotary Tiller attachment is designed for soil cultivation and intended for use on a seated or stand-on mini loader. When in operation, it is recommended to move the loader in reverse, allowing the Mini Tiller to engage with the ground after the loader has passed over it. However, forward movement is also possible, though it may result in ground compaction.

1. Blade rotation and attachment installation:
    - □ Ensure the blade is rotating counterclockwise (viewed from the right-hand-side), as indicated by the decal on the right-hand side (RHS) of the attachment.
    - □ Responsibility falls on the end user to install quick couplers to match the supply and return flow of the loader's quick couplers.
2. Soil condition and travel speed:
    - □ The speed of the loader determines soil conditions. Slower speeds create softer soil, while faster speeds result in a chunkier texture.

Before Operating the Mini Rotary Tiller

- Clear the work area of bystanders, pets, and livestock.
- Confirm tightness of tiller blades (tines), bolts, and nuts, ensuring chain guards are in place.
- Remove rocks, branches, and other foreign objects.
- After thorough checks and work area preparation, commence tilling.

NOTE

Mow tall grass and weeds to prevent interference with the tine assembly, optimizing tiller performance.

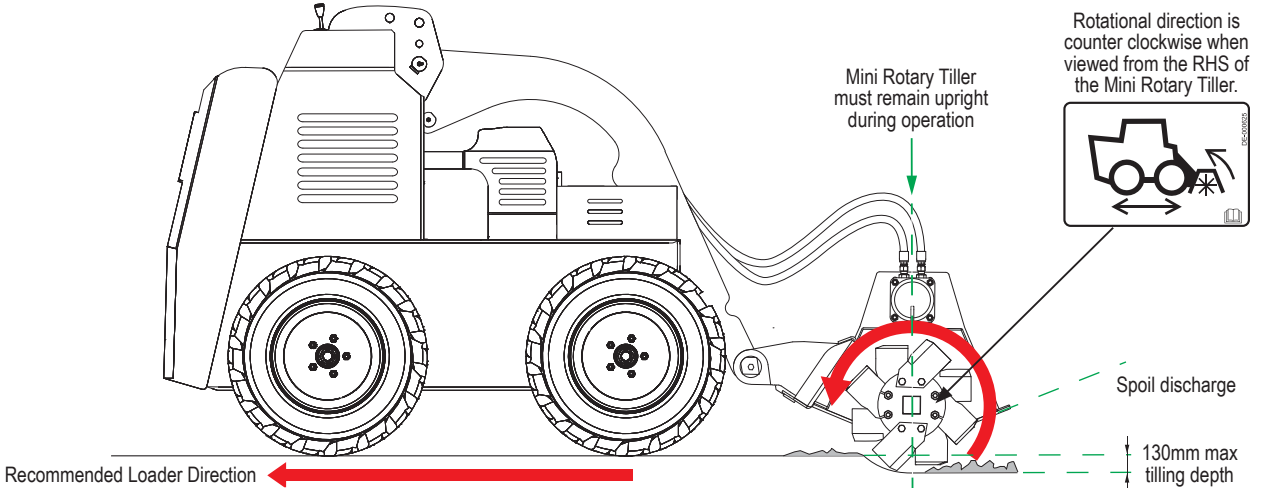
Operating Procedure

1. Following the loader's manuals for operation and safety, start the loader and position it at the starting location.
2. Idle the loader with arms fully back and lowered; engage auxiliary hydraulics to initiate tiller rotation.

NOTE

Ensure blades (tines) rotate counterclockwise when viewed from the right-hand side.

3. Position the tiller parallel to the ground, increase engine RPM, and carefully lower it to the ground. Do not exceed 130mm (5") for the tilling depth.
4. Gradually increase speed until desired results are achieved.



Operating Instructions

NOTE

Periodically stop to check tiller depth after running a few meters.

WARNING

Be prepared for sudden loader movement when lowering the tiller; rotating tines can pull or push the loader.

DANGER

Rotating tines hazard; stay clear when the engine is running. Follow the loader's safe shutdown procedure when leaving the workstation

DANGER

Flying debris hazard; maintain a 6m (20 ft) distance from bystanders during operation.

Finish Tilling Operation

- Recommended to operate the tiller while driving in reverse for a skid-steer, covering the right tracks and completing the tilling operation.

Common Issues

- Avoid tilling in wet conditions as soil may stick to the tines.
- If the tiller "walks up," adjust engine RPM and travel speed. Check blades (tines) for sharpness and integrity.

When the attachment is not on the parent machine

It is a requirement that safe systems of work are employed when handling any attachments. Complete compliance with all safety issues is compulsory and all due care and attention must be observed at all times in any method of moving, transporting or storing any such device when not attached to a parent machine. We recommend attachments are well secured when being moved or in transit and furthermore prior to moving, storing, loading/unloading or parking it is suggested that the attachment is strapped/secured to a pallet or enclosed in a suitable container to minimize any movement or loss of the load during such activity. NO responsibility for loss or damage to persons or property in any regard can be attributed to Digga.

Transporting the attachment

1. Follow all federal, state and local regulations when transporting the unit on public roads.
2. Use extra care when loading or unloading the machine onto a trailer or truck. Disconnect hydraulic couplers during transportation.

Removal and Storage

1. Set the attachment on the ground and follow the standard shut down procedure in your loader operators manual.
2. With the loader OFF, disengage the attachment lock pins, release hydraulic pressure from the auxiliary hydraulic system and disconnect the hydraulic couplers from the loader.
3. Start the machine's engine and make sure that the lift arm is lowered and in contact with the loader frame.
4. Roll the attachment mechanism forward and slowly back up until the attachment is free from the machine.
5. Remove and store the attachment in a dry and protected place. Leaving the Mini Rotary Tiller outside will materially shorten its life.

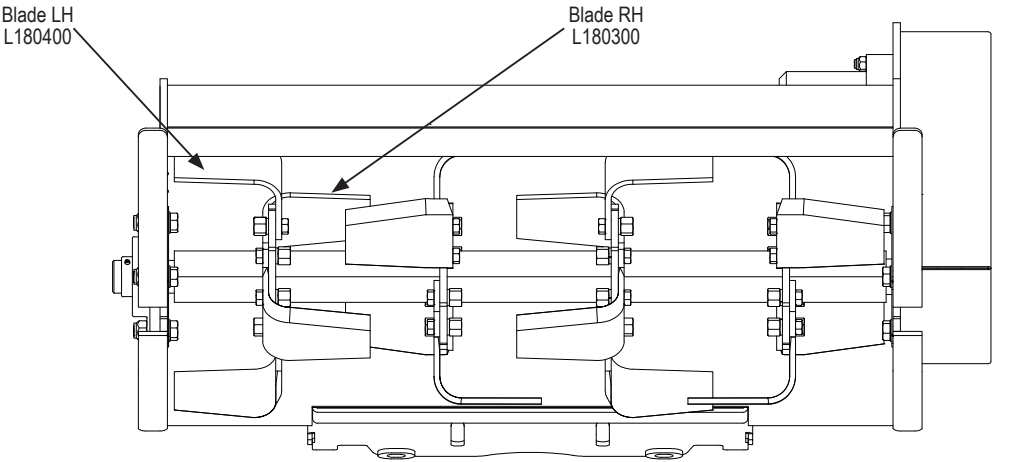
Maintenance

Replacing blades (tines)

1. Set the Mini Rotary Tiller on the ground in a location where a hoist is available.
2. Remove the attachment from the hosting machine.
3. Securely attach the hoist to the front portion of the Mini Rotary Tiller and rotate the attachment until it rests on the quick-attach mounting plate.
4. Inspect all blades and replace any as required.
5. Torque the fasteners to 150 Nm (110 ft·lb).

NOTE

Be sure to install the new blades in the same direction as the blades being removed.

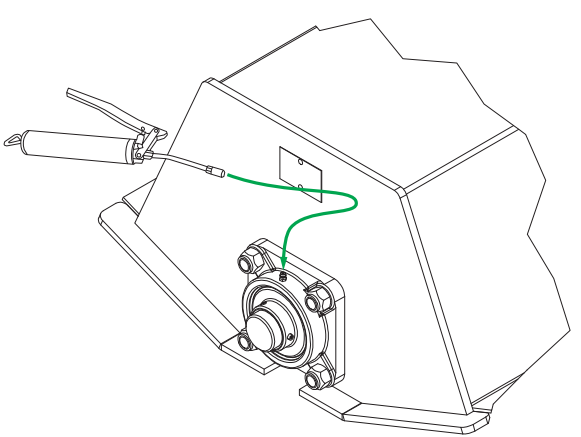


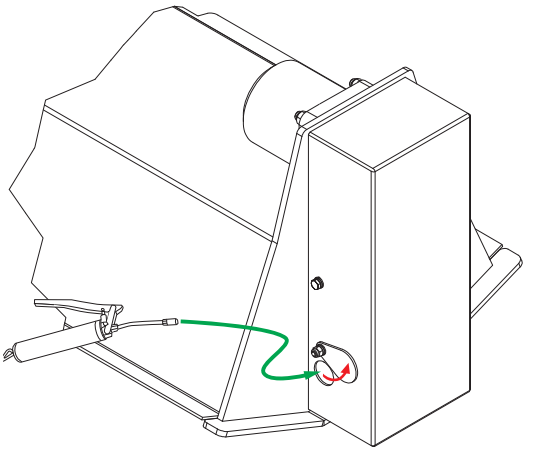
Lubrication

1. Lubricate the grease nipples weekly or every 40 hours of operation.
2. Lubricate the right-hand bearing using the grease nipple located on the top of the bearing housing.
3. To lubricate the left-hand side bearing, flip the teardrop cover to allow the grease gun access through the opening on the drive chain guard. Flip the cover back when finished.
4. Lubricate the drive chain periodically using a chain lubricant. Refer to "Transmission Inspection" on page 32 for instructions on how to remove the drive chain guard.

NOTE

Avoid excessive greasing and chain lubrication. Dirt collects on exposed grease and increases wear. After lubrication, wipe off excessive grease from fittings and chains.



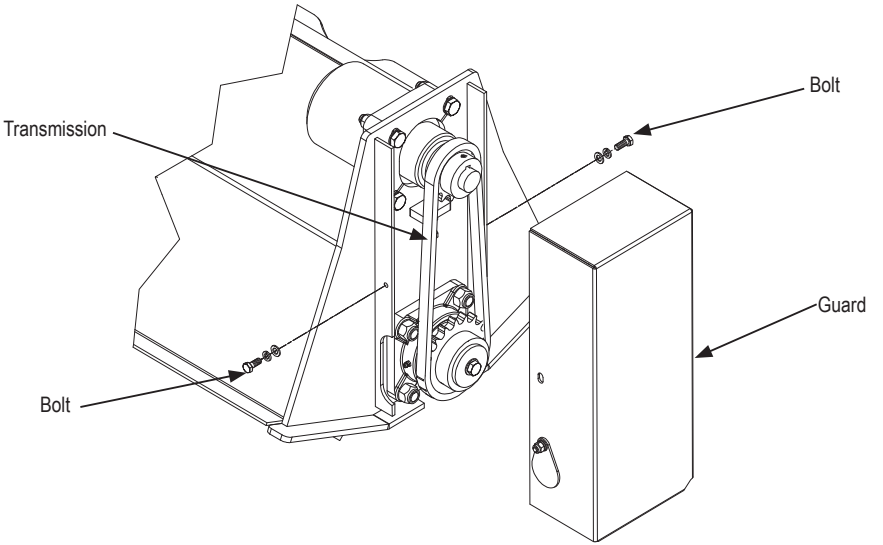


Transmission Inspection

To inspect the transmission and lubricate the drive chain it is required to remove the guard. Unfasten the two bolts and remove the guard.

WARNING

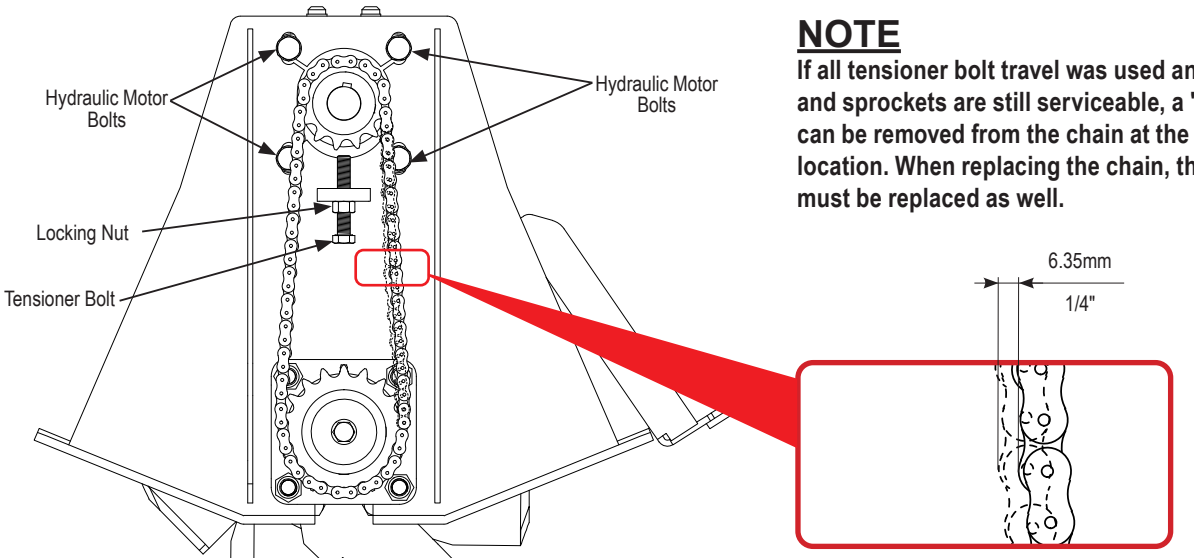
Turn off the hosting machine and disconnect the hydraulics before removing the guard. Do not operate the machine without the drive chain guard.



Chain Adjustment

Adjust the chain after the initial 4 hours of operation and monthly thereafter.

1. Remove the drive chain guard (refer to "Transmission Inspection" on page 32).
2. Loosen the four hydraulic motor mounting bolts.
3. Loosen the locking nut and screw the tensioner bolt against the motor assembly until the chain is tight.
4. The adequate chain slack is around 6.35mm (1/4"). Overtensioning will cause premature wear.
5. Tighten the locking nut and the hydraulic motor bolts.
6. Reinstall the guard.



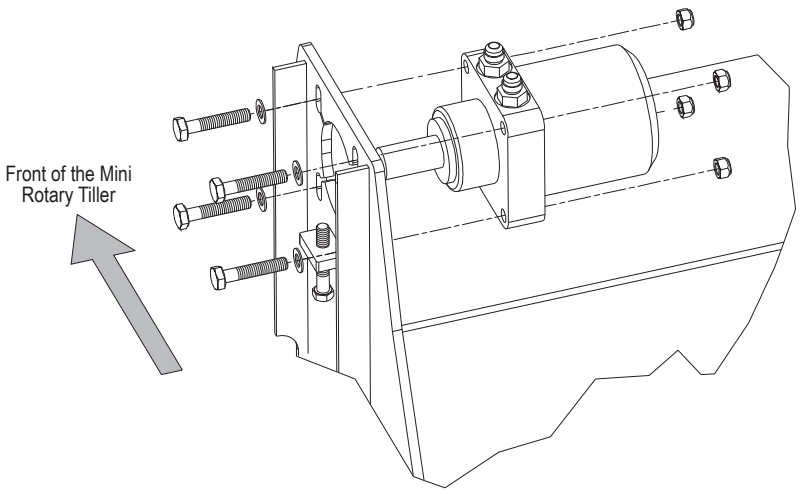
NOTE

If all tensioner bolt travel was used and the chain and sprockets are still serviceable, a "half link" can be removed from the chain at the master link location. When replacing the chain, the sprockets must be replaced as well.

Maintenance

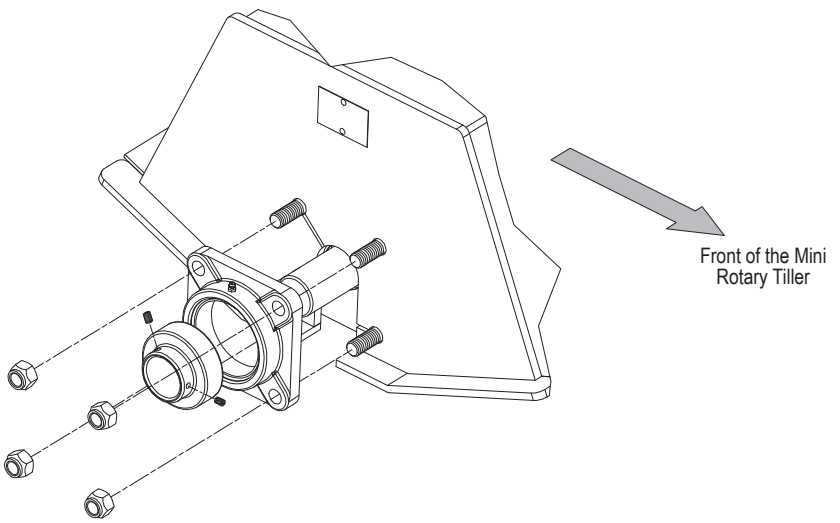
Replacing the hydraulic motor

1. Remove the chain guard. Refer to "Transmission Inspection" on page 32.
2. Release the chain tension unfastening the tensioner bolt. Refer to "Chain Adjustment" on page 33.
3. Remove the top sprocket and chain. Refer to "Replacing chain and sprockets" on page 37.
4. Tag and disconnect the hydraulic hoses and fittings from the hydraulic motor.
5. Remove the 4 bolts securing the motor.
6. Install the new hydraulic motor to the plate using the existing fasteners. Do not tighten the bolts yet.
7. Reconnect the hydraulic hoses and fittings to the new motor in the same position and port as previously installed.
8. Reinstall the top sprocket and chain. Refer to "Replacing chain and sprockets" on page 37.



Replacing right-hand-side bearing

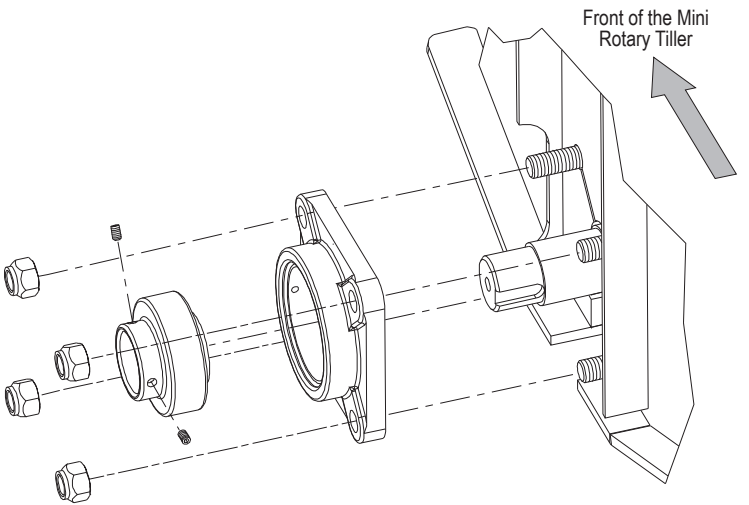
1. Set the Mini Rotary Tiller on levelled and firm ground and place supports under the assembly to keep the weight of the unit off the tines and shaft.
2. Remove the grub screws holding the bearing locking collar in place.
3. Remove the nuts securing the bearing assembly to the attachment and remove the bearing assembly.
4. Position the new bearing assembly over the shaft and reinstall all the fasteners.



Maintenance

Replacing left-hand-side bearing

1. Set the Mini Rotary Tiller on levelled and firm ground and place supports under the assembly to keep the weight of the unit off the tines and shaft.
2. Remove the chain guard. Refer to "Transmission Inspection" on page 32.
3. Remove the chain and bottom sprocket. Refer to "Replacing chain and sprockets" on page 37.
4. Remove the grub screws holding the bearing locking collar in place.
5. Remove the nuts securing the bearing assembly to the attachment and remove the bearing assembly.
6. Position the new bearing assembly over the shaft and reinstall all the nuts and grub screws.
7. Reinstall the sprocket and chain.



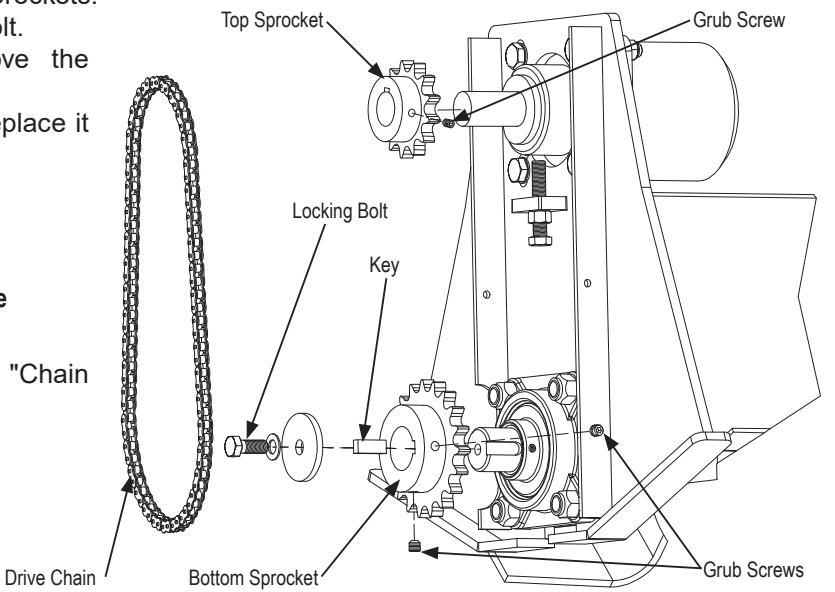
Replacing chain and sprockets

1. Set the Mini Rotary Tiller on levelled and firm ground and place supports under the assembly to keep the weight of the unit off the tines and shaft.
2. Remove the chain guard. Refer to "Transmission Inspection" on page 32.
3. Release the chain tension unfastening the tensioner bolt and loosening hydraulic motor bolts. Refer to "Chain Adjustment" on page 33.
4. Remove the chain from the sprockets.
5. Remove the grub screws from the sprockets.
6. Undo the bottom sprocket locking bolt.
7. Using a gear/pulley puller, remove the sprockets from their shafts.
8. Inspect the bottom sprocket key. Replace it if required.
9. Reinstall the new sprockets.

NOTE

Using a straight edge, ensure the sprockets are aligned to avoid premature wear.

10. Adjust the drive chain. Refer to "Chain Adjustment" on page 33.
11. Reinstall the chain guard.



Technical Specifications

DESCRIPTION	MINI ROTARY TILLER	
Width	1160 mm	45.6"
Height	600 mm	23.6"
Length	670 mm	26.4"
Weight	155 kg	342 lbs
Cutting Depth	150 mm	6"
Cutting width	1000 mm	39.4"
Max. Hyd. Flow (cont.)	76 lpm	20 gpm
Max. Hyd. Flow (intermittent.)	95 lpm	25 gpm
Max. Hyd. pressure (cont.)	240 bar	3480 psi
Max. Hyd. pressure (intermittent.)	276 bar	4000 psi
Max. Torque (cont.)	671 Nm	495 ft·lbs
Max. Torque (intermittent.)	753 Nm	555 ft·lbs
Max. Power	31 kW	41 HP
Blade Shaft RPM @ 76 lpm	260 RPM	
Blade Shaft RPM @ 50 lpm	172 RPM	
Blade Shaft RPM @ 30 lpm	103 RPM	

Spare Parts

For spare parts of your Mini Rotary Tiller, obtain the serial number from the aluminium serial tag located on the side of the hood of the Mini Rotary Tiller. The serial number allows Digga to trace all production and service records. Ensure all service and maintenance is performed by an authorized Digga service agent and all service records are kept. For all spare parts contact your nearest Digga dealer or Digga Head Office.

For further information on spare parts, please contact one of the Digga sales offices shown below, or contact your local authorised Digga dealer.

DIGGA INTERNATIONAL SALES OFFICES

ASIA PACIFIC

DIGGA HEAD OFFICE - BRISBANE
4 Octal St, Yatala QLD 4207
Phone: +61 7 3807 3330
Email: info@digga.com

DIGGA NEW SOUTH WALES
19 Mckay Close,
Wetherill Park, NSW 2164
Phone: 1300 2 DIGGA
Email: nsw@digga.com

DIGGA VICTORIA
17-21 Babbage Dr,
Dandenong, VIC 3175
Phone: 1300 2 DIGGA
Email: vic@digga.com

Web: www.digga.com

NORTH AMERICA

DIGGA NORTH AMERICA
2325 Industrial Parkway SW
Dyersville IA 52040
Phone: + 1 563 875 7915
Email: infous@digga.com

Web: www.diggausa.com

EUROPE

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Phone: +44 (0) 1488 688 550
Email: infouk@digga.com

Web: www.diggaeurope.com

Troubleshooting

Mini Rotary Tiller

TROUBLE	POSSIBLE CAUSE	REMEDY
Tiller is not rotating	Loader auxiliary hydraulics are not engaged.	Refer to loader's operator's manual.
	Inadequate hydraulic flow from loader.	Check hydraulic flow to tiller.
	Low hydraulic oil supply.	Add hydraulic oil.
	Couplers not engaged.	Engage couplers.
	Air in hydrulic hoses.	Run system unitil all air is purged from the system.
	Broken hose.	Replace damaged hose.
	Obstruction in hydraulic lines.	Remove obstructions. Replace fitting/hoses if necessary.
	Loose or damaged hydraulic connection.	Tighten or Replace fittings.
	Obstruction between tiller and housing.	Remove obstruction.
	Hydraulic motor damaged or broken seal.	Contact Digga service department.
	Chain broken or off sprockets.	Replace chain.
		Check chain for tension and motor adjustment plate capscrews.
Tillage depth insufficient	Key sheared or found mising.	Check and replace motor key or driven shaft key as required.
	Tiller carried by the loader.	Lower loader's arms.
	Insufficient power.	Increase engine RPM.
	Worn or bent tines.	Replace as necessary.
	Obstacles entangled in tine assembly.	Clear obstacles from tine assembly.

TROUBLE	POSSIBLE CAUSE	REMEDY
Tiller making excessive noise and/ or vibrating	Bearings worn or damaged.	Replace as required.
	Chain too loose.	Check chain and adjust as needed.
Tiller skips or leaves grass residue	Worn tines.	Replace as needed.
	Ground speed too fast for soil conditions.	Reduce ground speed.
Tiller bumping on the ground	Tiller RPM too slow.	Increase RPM.
	Ground speed too fast.	Reduce ground speed.
Tines bailling up with soil	Obstacles entangled in tine assembly.	Clear obstacles from tine assembly.
	Soil too wet.	Delay tilling until the soil dries.
	Worn or bent tines.	Replace as needed.
	Ground speed too fast for soil conditions.	Reduce ground speed.

Notes

Warranty Statement

All new Digga products are warranted to be free from defects in materials or workmanship, for a period of twelve (12) months from date of original purchase, which may cause failure under normal usage and service when used for the purpose intended. Digga Australia Pty Ltd warrants its equipment for a period of twelve (12) months dating from delivery to the original user.

In the event of failure (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads), if after examination, Digga determines failure was due to defective material and/or workmanship, parts only will be repaired or replaced. Digga may request defective product or products be returned prepaid to them for inspection at their place of business or to a location specified by Digga. The warranty will be considered void if the product or any part of the product is modified or repaired in any way not expressly authorized by Digga, or if closed components are disassembled prior to return. Closed components include, but are not limited to: gearboxes, hydraulic pumps, motors, cylinders and actuators. Any goods returned to Digga by the customer under warranty or repair must have all freight charges prepaid for on the customers account.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by Digga outside the time period specified above shall be deemed waived.

Damage or failure through operator abuse or negligence voids warranty.

This warranty is in lieu of all other warranties expressed or implied and there are no warranties of merchantability or of fitness for a particular purpose. In no event shall Digga be liable for consequential or special damage. Digga's liability for any and all losses and damages to buyer, resulting from any cause whatsoever, including Digga's negligence, irrespective of whether such defects are discoverable or latent, shall in no event exceed the purchase price of the particular products with respect to which losses or damages are claimed, or, at the election of Digga, the repair or replacement of defective or damaged products.


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