



MINI POWER RAKE OPERATORS MANUAL

PM-000051-A

1 TO THE PURCHASER

Congratulations on the purchase of your new DIGGA Mini Power Rake! This product was carefully designed and manufactured to give you years of dependable service. To keep it running efficiently please read the instructions in the manual to keep it in top working condition.

Be sure to observe all safety precautions and maintenance procedures as described in this manual.

No responsibility will be taken by Digga for any omissions or errors in this manual as all data is correct at time of print, however Digga reserve the right to revise this manual without further notice.

The Mini Power Rake has multifit mounting. Please contact your DIGGA dealer for any further information pertaining to this product or for further information on other Digga products.

ABOUT THIS MANUAL

This manual has been designed to help you do a better, safer job. **Read this manual carefully and become familiar with its contents.** Remember; never let anyone operate this unit without reading the "Safety Precautions" and "Operating Instructions" sections of this manual. Unless noted otherwise, right and left sides are determined from the position of the operator when behind the product facing forward.

DIGGA www.digga.com	○	CE	DE-00063 MADE IN AUSTRALIA
Model			
Serial No.			
Flow (max)			
Pressure (max)			
Power			
Approx. Oil Capacity	○	Weight	

Your Digga Mini Power Rake is a user non serviceable part. Unauthorised disassembly will void warranty. All service and warranty must be performed by an authorised DIGGA service agent. 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.

IMPORTANT: WHEN SERVICING OR ASSEMBLING YOUR PRODUCT, REMEMBER TO USE ONLY GENUINE DIGGA REPLACEMENT PARTS. SUBSTITUTE PARTS MAY NOT MEET THE STANDARDS REQUIRED FOR SAFE, DEPENDABLE OPERATION. USE OF NON GENUINE DIGGA PARTS WILL VOID WARRANTY AND DIGGA WILL ACCEPT NO LIABILITY WHAT SO EVER FOR CONSEQUENTIAL OR SPECIAL DAMAGES.

MODEL _____

SERIAL NUMBER _____

DATE PURCHASED _____

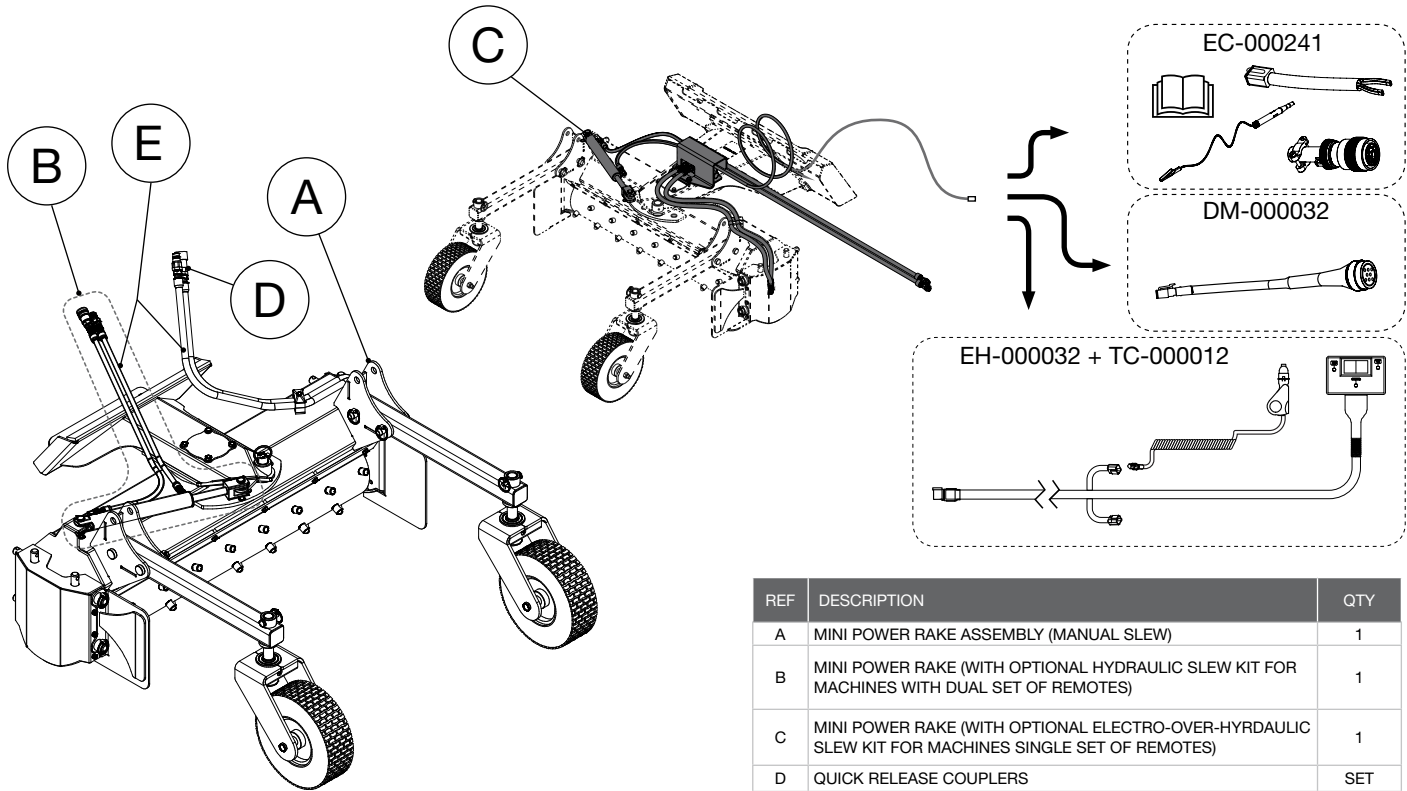
The parts department needs this information to insure accurate parts can be sent to the authorised service agent.

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MODELS COVERED IN THIS MANUAL	
PR-480001 48" MINI POWER RAKE (AUTO SLEW)	PR-480003 48" MINI POWER RAKE (MANUAL SLEW)
PR-48150 MINI POWER RAKE MANUAL SLEW (VERMEER)	PR-480148 MINI POWER RAKE WITH ASV RC30 HYDRAULIC SLEW (PLUG AND GO)
PR-480152 MINI POWER RAKE MANUAL SLEW (TOYOTA 4SDK5)	PR-480004 MINI POWER RAKE MANUAL SLEW (PLUG AND GO) (ASV RC30)
PR-480151 MINI POWER RAKE HYDRAULIC SLEW (TOYOTA 4SDK5)	PR-480006 MINI POWER RAKE HYDRAULIC SLEW - DIRECT CONNECT
PR-480149 MINI POWER RAKE MANUAL SLEW (BOBCAT 463)	PR-000155 MANUAL TO AUTO SLEW CONVERSION KIT (FOR DUAL REMOTE HYDRAULICS)
PR-000166 MANUAL TO AUTO SLEW CONVERSION KIT WITH ELECTRO OVER HYDRAULIC SLEW (FOR SINGLE REMOTE HYDRAULICS)	

3 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 the type of machine your Mini Power Rake is to be fitted to:



4 SAFETY PRECAUTIONS - GENERAL INFORMATION

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

THIS SYMBOL MEANS:



**ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**

SIGNAL WORDS: Note the use of signal words DANGER, WARNING, and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER: Indicates an imminently hazardous situation, which if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components which, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices and indicate potential failure or damage to equipment.

CAUTION: Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

This section is composed of various warnings and safety tips. **Read and learn all the information in this section before you attempt to use your attachment.** Also read your machines owner's manual before using your equipment. This knowledge will help you operate your unit safely. **Do not take this information lightly, it is presented for your benefit and for the benefit of others working around you.**

The "Safety Alert Symbol"  will be used throughout this manual. It will appear with the word **DANGER**, **WARNING**, or **CAUTION**, and a safety message pertaining to the specific topic being covered. Take the time to read these messages as you come across them.

4 SAFETY PRECAUTIONS - GENERAL INFORMATION

WARNING



KNOW WHERE UTILITIES ARE

Observe overhead electrical and other utility lines. Be sure equipment will clear them. When digging, call DIAL BEFORE YOU DIG ON 1100 (in Australia), or your local UTILITIES location service provider for location of buried utility lines, gas, water, and sewer, as well as any other hazard you may encounter.

EXPOSURE TO RESPIRABLE CRYSTALLINE SILICA DUST ALONG WITH OTHER HAZARDOUS DUSTS MAY CAUSE SERIOUS OR FATAL RESPIRATORY DISEASE.

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

WARNING



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 area. Allow fumes to disperse at least 15 minutes before welding or heating.

WARNING



END OF LIFE DISPOSAL

At the completion of the useful life of the unit, drain all fluids and dismantle 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 POWER RAKE

WARNING



- 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 equipment.
- All bystanders should be kept a minimum of 15 meters (50 feet) away from the working area of the Mini Power Rake.
- Do not allow Site workers to climb or ride on Mini Power Rake at any time, including while stationary, in operation or being moved.
- Operate only from the operator's station.
- Avoid steep hillside operation which could cause the machine to overturn. Consult your machines operator's and safety manuals for maximum incline allowable.
- Flow and pressure gauges, fittings, and hoses must have a continuous operating pressure rating of at least 25% higher than highest pressures of the system.

4 SAFETY PRECAUTIONS - GENERAL INFORMATION

WARNING



OPERATING THE MINI POWER RAKE (CONTINUED)

- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.
- Travel only with the Mini Power Rake in a safe transport position to prevent uncontrolled movement. Drive slowly over rough ground and on slopes.
- Do not drive close to ditches, excavations, etc., cave in could result.
- Before exiting the machine, lower the attachment to the ground, apply the parking brakes, turn off the prime mover's engine, and remove the key.
- Do not smoke when refueling the prime mover. Allow room in the fuel tank for expansion. Wipe up any spilled fuel. Secure cap tightly when done.
- Remove the Mini Power Rake from the prime mover before transporting to and from the job site.
- The Mini Power Rake must be stopped before making adjustments to the attachment.
- All Raking 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.
- Mini Power Rake shall be used only for their designed intent and shall not be loaded beyond their rated capacity. Overloading or exceeding the manufacturers specifications will void all warranty.

WARNING



STORAGE OF THE MINI POWER RAKE

WARNING



- Seal hydraulic couplers from contaminants and secure all hydraulic hoses off the ground to help prevent damage.
- Clean the unit thoroughly, removing all mud, dirt, and grease.
- Inspect for visible signs of wear, breakage, or damage. Order any parts required and make the necessary repairs to avoid delays upon removal from storage.
- Tighten loose nuts and cap screws.
- Replace decals that are damaged or in unreadable condition.
- Store unit in a dry and protected place. Leaving the unit outside will materially shorten its life.

4 SAFETY PRECAUTIONS - GENERAL INFORMATION

WARNING



GROUND PERSONNEL AND BYSTANDERS

- Be alert to others in the work area. Be sure others know when and where you will be working. Make sure no one is behind equipment or within 15 meters (50 feet) of it operating.
- Loose fitting clothing, long hair, jewellery and equipment which might become entangled in moving equipment are prohibited while working near the Mini Power Rake.
- Operators, helpers, and other personnel working near Mini Power Rake must wear steel-toe safety shoes, safety glasses, and hard hats as a minimum. Hearing protection, respirators, and personnel protective clothing will be specified in the site-specific Health and Safety Plan.

WARNING



MAINTAINING THE MINI POWER RAKE

- Before performing maintenance, lower the attachment to the ground, apply the parking brakes, turn off the engine, and remove the key.
- Never adjust a relief valve for pressure higher than recommended by the machine's manufacturer.

TRANSPORTING

Follow all local government regulations that may apply along with recommended tie down points and any equipment safety precautions at the front of this handbook when transporting your attachment.

TIE DOWN POINTS

WARNING



- Tie down points are identified by tie down decals where required. Securing to trailer at other points is unsafe and can damage attachment.
- Do not attach tie down accessories around cylinders or in any way that may damage hoses or hydraulic components.
- Attach tie down accessories to unit as recommended.
- Check unit stability before transporting.

Verify that all tie down accessories (chains, slings, ropes, shackles and etc.) are capable of maintaining attachment stability during transporting and are attached in such a way to prevent unintended disengagement or shifting of the unit. Failure to do so could result in serious personal injury or death.

4 SAFETY PRECAUTIONS - GENERAL INFORMATION

TO THE OPERATOR

The primary responsibility for safety with this equipment falls to the operator. Make sure that the equipment is operated only by trained individuals that have read and understand this manual. Don't hurry the learning process or take the unit for granted.

It is the skill, care, common sense, and good judgement of the operator that will determine how efficiently and safely the job is performed. Know your equipment before you start. Know its capabilities and how to operate all the controls.

Visually inspect your equipment before you start, ensure correct assembly and installation of the attachment and never operate equipment that is not in proper working order.

Practice the operation of your new attachment and become familiar with the controls and the way it handles on your machine. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer.

1. Never operate the Attachment without first reading and understanding the entire operator's manual.
2. Do not paint over, remove or deface any safety signs or warning decals on your equipment.
3. Follow all safety decals. Keep them clean and replace them if they become worn, damaged or illegible.
4. Know your equipment inside and out. Know how to operate all controls and know emergency shut down procedures.
5. Keep all stepping surfaces, pedals, and controls free from dirt, grease and oil. Keep equipment clean to help avoid injury from slipping or a fall when getting on or off equipment.
6. Operate the attachment only in daylight or with sufficient artificial light.
7. Always carry loads close to the ground. Do not step off machine platform with load raised.
8. Turn off engine before performing maintenance. All maintenance can be performed with the machine arms lowered. 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.
9. Do not exceed rated operating capacity of the host machine, as machine may become unstable resulting in loss of control.
10. Always lower the loader arms or machine boom to the ground, shut off the engine and remove the key before getting off the unit.
11. Never use the Mini Power Rake on a machine that is not equipped with a cab or ROPS, and operator restraints (seat belts or equivalent devices).

WHEN MOUNTING THIS PRODUCT TO YOUR MACHINE

- Refer to the operator's manuals of your machine, and your quick-attach for special or detailed mounting instructions.
- This product should fit onto the tool bar/quick-attach mechanism of your machine.
- If this product does not fit properly, contact your Digga Dealer before operating.
- Where 'Dead Man' connections are connected or installed it is illegal to disengage, tamper with or remove them.

WHEN ADJUSTING, SERVICING OR REPAIRING THIS PRODUCT

- Make no modifications to your Mini Power Rake.
- When making repairs use only authorised Digga service agents, and genuine Digga parts.
- Replacement parts must also have safety signs attached.

6 INSTALLATION AND OPERATING INSTRUCTIONS

The DIGGA Mini Power Rake 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 Power Rake.

Ensure your machines flow, pressures and load ratings do not exceed the maximum ratings stated on your Mini Power Rake serial tag. It is the responsibility of the operator to ensure the unit's maximum rated flows, pressures and load ratings are never exceeded. Exceeding these ratings will void warranty.

Check the work site and identify the extent of the work to be carried out and note any possible hazards or constraints; Underground cables, services etc, please check with relevant government departments on the location of these before commencement of any work. Review the job at hand and determine the Mini Power Rake is appropriate for the intended conditions.

LOADER SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
Weight of power unit without Mini Power Rake	1500 Kg Maximum
Tipping load of Loader	725 Kg Maximum
Lifting Capacity of Power Units Loader	363 Kg Maximum
Hydraulic Pressure Output	3000 psi / 206 Bar Maximum
Rear or Front Ballast	As required to maintain full power unit stabilization (Note: See your operator(s) manual for your power unit and quick-attachment for ballasting needs

INSTALLATION INSTRUCTIONS

1. Remove the shipping banding from around the Mini Power Rake and Frame.
2. Remove any attachments from the front of the Machine.
3. Ensure you have read the serial tag on the Mini Power Rake to obtain the max flow, pressure and load ratings. Ensure you machine flow, pressure and load settings are aligned with the requirements of the Mini Power Rake.

NEVER EXCEED THE MAX FLOW AND PRESSURE RATINGS AS 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 Power Rake 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 INSTALLATION AND OPERATING INSTRUCTIONS

6. Ensure all worn parts are replaced. Worn parts will become ineffective and severely diminish the overall performance of the Mini Power Rake.



NOTE: LUBRICATE ALL GREASE FITTINGS BEFORE CONNECTING THE PRODUCT TO YOUR POWER UNIT'S HYDRAULIC SYSTEM. REFER TO THE MAINTENANCE PAGE AND FOLLOW THE INSTRUCTIONS.

HYDRAULIC CONNECTION INSTRUCTIONS

1. Disconnect the hydraulic hose quick couplers (or purchase locally, if not supplied) from one another and attach the quick couplers to your power unit as per the instructions on your power units operators manual
2. Carefully raise the loader arm and cycle the tilt cylinders or lower link arms to check clearance and to check for any interference.
3. Cycle the hydraulic cylinders on this product several times from fully retracted to fully extended until all air has been completely removed from the cylinders.



NOTE: WHEN SHIPPED, THE HYDRAULIC CYLINDERS ON THIS PRODUCT CONTAINED AIR OR AN AIR-FLUID MIXTURE. ALSO, THERE ARE ORIFICES BENEATH THE PORTS ON THE HYDRAULIC CYLINDER BARRELS THAT WILL RESTRICT THE EXIT OF THAT AIR. FAILURE TO REMOVE ALL THE AIR FROM THE HYDRAULIC CYLINDERS CAN CAUSE UNEVEN, JERKY CYLINDERS MOVEMENT WHEN HYDRAULIC CONTROLS ARE BEING OPERATED AND UNWANTED CYLINDER MOVEMENT WHEN THOSE CONTROLS ARE NOT BEING OPERATED.



WARNING: DO NOT LOCK THE AUXILIARY HYDRAULICS OF YOUR POWER UNIT INTO THE ON POSITION. FAILURE TO OBEY THIS WARNING COULD RESULT IN DEATH OR SERIOUS INJURY

SETUP PROCEDURES

ROLLER

The roller and mini power rake (front to back) should be positioned level with the ground. To adjust, raise or lower the gauge wheels and/or use the power units tilt cylinder.

To allow the roller to penetrate the ground deeper, raise the gauge wheels. During operation, depth control can be adjusted further by tilting the power rake back up to raise the gauge wheels, allowing more roller penetration.

DEFLECTORS

Under average conditions, the normal gap between the roller and deflector should be about 32mm, This gap can be adjusted by loosening the 2 carriage bolts that hold the deflector and adjusting it up or down in the square corner slot. A wider opening will allow more dirt and rock to pass through. DO NOT let the roller hit the deflector. The gap should be consistent across the deflector and this can be verified by either measuring or matching height marks on the two tabs that protrude up through a slot in the deflector support area.

6 INSTALLATION AND OPERATING INSTRUCTIONS

SETUP PROCEDURES (CONT)

END PLATES

The end plates contain the material in front of the roller while clean material passes between the roller and deflector. With the end plates mounted in the working position and the mini power rake parallel with the power units tyres, material can be moved along, filling in low spots. Hydraulic drive unit end plates can be mounted to the front or back of the mini power rake, depending on raking direction. When moving the end plates from front to back, move the left one to the right side and the right one to the left side. Pin the top bushing only to secure the end plates. The end plates can be stored using the top front bushing and storage tabs or tabs on the main frame.

ANGLE

Set the rake straight for conditioning and collecting debris.

Angle the rake for windrowing debris or fill. Angling is also used to change grade.

OPERATING PROCEDURES



WARNING: FAILURE TO OBEY THE FOLLOWING PROCEDURES COULD RESULT IN DEATH OR SERIOUS INJURY. NEVER LIFT THIS PRODUCT ABOVE THE OPERATORS EYE LEVEL OR TO A HEIGHT WHERE VISIBILITY IS OBSTRUCTED

STANDARD OPERATION

1. Never raise the Mini Power Rake more than a few inches off the ground when travelling from job site to job site.
2. For the roller to operate efficiently, it must rotate in the opposite direction of the power unit wheels (see illustration below). Roller direction is controlled by power unit hydraulic controls.

ROLLER ROTATION	TRAVEL DIRECTION

3. Normal operating ground speed is between 5 - 8 kph. In heavy rock, reduce speed to 2 - 5 kph.
4. For hydraulic drive, normal operating rotations per minute of the roller is approximately 170. If operating in heavy rock reduce speed as appropriate.
5. Operating depth will determine how much dirt is carried ahead of the roller. Ideal depth will vary from skimming the surface to about 75mm deep.
6. When making the first windrow, the level of dirt may be halfway up the deflector. After moving the windrow 2 or 3 times, the level of dirt

6 INSTALLATION AND OPERATING INSTRUCTIONS

STANDARD OPERATION CONT

6. May be to the top of the deflector. Try to prevent material from flowing over the top of the deflector. Volume and density of material will dictate how many times a windrow can be moved.
7. The following are common operating applications

APPLICATION	ROLLER POSITION	ENDPLATE POSITION	HYDRAULIC FLOAT POSITION
Pulverising Topsoil	Angled or Straight	Stored	Rigid
Debris Removal	Angled or Straight	Windrow or Collect	Float
Finish Grading	Straight	Collect	Float
Spreading Fill and Topsoil	Angled	Windrow	Rigid
Changing grade	Angled	Windrow	Float
Thatching existing grass area	Straight	Stored	Rigid

8. When adjusting the gap between the roller and deflector; a wider opening will allow more dirt and rock to pass through. For finer raking, reduce the gap.
9. Tyres: check the air pressure of your tyres before each use. Maintain recommended tyre pressure to maintain a consistent even grade.

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.
3. Start the machines 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/s in a dry and protected place. Leaving the attachment/s outside will materially shorten its life.

WHEN ATTACHMENTS NOT ON PARENT MACHINE

It is a requirement of the Australian Work place Health and Safety act 1995 that safe systems of work are employed when handling any attachment. Complete compliance with Work place Health and 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 minimise 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.

7 SPARE PARTS

For further information on spare parts please contact one of the Digga sales office below your closest authorised Digga Dealer.

DIGGA INTERNATIONAL SALES OFFICES

ASIA PACIFIC

DIGGA HEAD OFFICE - BRISBANE

4 Octal St, Yatala QLD 4207

PH: (07) 3807 3330

EMAIL: info@digga.com

DIGGA NEW SOUTH WALES

Unit 2, 36 Bluett Drive,
Smeaton Grange NSW 2567

PH: 1300 2 DIGGA

EMAIL: nsw@digga.com

DIGGA VICTORIA

27 Metcalf Street,
Dandenong, VIC 3175

PH: 1300 2 DIGGA

EMAIL: vic@digga.com

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NORTH AMERICA

DIGGA NORTH AMERICA

2325 Industrial Parkway SW
Dyersville IA 52040

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EUROPE

DIGGA EUROPE

Unit 6, Smitham Bridge Road
Hungerford Trading Estate,
Hungerford, Berkshire RG17 0QU
England, United Kingdom

PH: +44 (0) 1488 688 550

WEB: www.diggaeurope.com

EMAIL: info@diggaueurope.com

8 MAINTENANCE

The key feature of your Digga Mini Power Rake is low maintenance. It contains no user serviceable parts, un-authorised disassembly will void warranty.

BEFORE FIRST USE

- Inspect the attachment for shipping damage. If damage does exist, Contact your local Digga Dealer, 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. (SEE THE SAFETY SIGN SECTION)
- Check for wear and tear on pins, linkages, cutting edges.
- Replace any damaged parts and excessively worn parts.
- Use only manufacturer recommended replacement parts. Other parts may be substandard in fit and quality.
- Always wear safety goggles or glasses when inspecting equipment.
- Make sure all shielding is in place.
- Make sure that all tyres are inflated to recommended load pressure indicated on the tyre. Do not over inflate.

EVERY WEEK

- Lubricate all pivot points.

EVERY 40 HOURS OF USE

- Grease all fittings

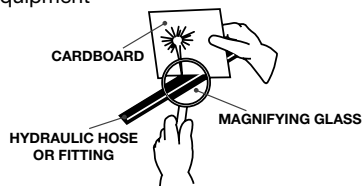
Note: Some of the hydraulic cylinders have two grease fittings on the cross tube end of the barrel section of the cylinder. Only one of these two fitting must be greased.

Always wear safety goggles or glasses when inspecting equipment

WARNING!



If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment.



Escaping fluid under pressure can have sufficient force to penetrate the skin 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. Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

8 MAINTENANCE - OIL CHANGE

REMOVING WIRE, TWINE, WEEDS, ETC. THAT ARE WRAPPED AROUND THE ROLLER

1. Park your power unit on a level surface with this product properly attached.
2. Place your power units transmission in park and engage the parking brake.
3. Lower the product onto the prepared blocking that will support the motor guards of this product so that the teeth are not in contact with the ground.



WARNING: DO NOT USE BLOCKING MADE OF CONCRETE BLOCKS, LOGS , BUCKETS, BARRELS OR ANY OTHER MATERIAL THAT COULD SUDDENLY COLLAPSE OR SHIFT POSITIONS. DO NOT USE WOOD OR STEEL BLOCKING THAT IS WARPED, TWISTED, OR TAPERED. FAILURE TO OBEY THIS WARNING COULD RESULT IN DEATH OR SERIOUS INJURY.

4. Shut off your power units engine and remove the key, wait for all moving parts to come to a stop, and relieve all the pressure in the hydraulic lines.
5. Disconnect the hydraulic lines from your power unit and connect the two ends to each other. This should permit the roller to rotate.
6. Pull the material from the roller while allowing it to rotate.

ALTERNATE METHOD FOR SKID STEER LOADERS

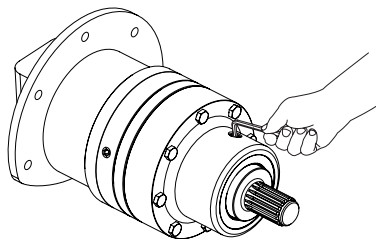
If your power unit is equipped with safety stops for the lift arms of the loader that can be activated from the operator's position or if the safety stops must be activated from outside the operator's position and a second person is present, then the method above may be replaced with these steps:

1. Park your power unit on a level surface with this product properly attached.
2. Place your power unit's transmission in "Park" and engage the parking brake.
3. Disconnect the hydraulic lines from your power unit and connect the two ends to each other. This should permit the roller to rotate freely.
4. Fully raise the lift arms and fully extend the tilt cylinders to the fully dumped position.
5. Shut off your power unit's engine, remove the starter key, wait for all moving parts to come to a stop, and relieve all pressure in the hydraulic lines.
6. Pull the material from the roller while allowing it to rotate.

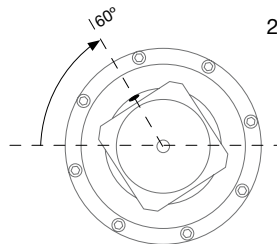
REPLACING DEFLECTOR STRIPS

1. Perform steps 1 through 5 above.
2. Remove worn strip by removing bolts and nuts that secure the strip.
3. Replace the strip, making sure the steel backing strip is re-installed.

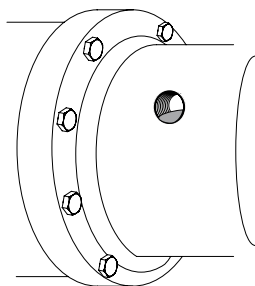
TO TOP UP THE OIL



1. Lay the gear box flat on the ground with the oil fill bung facing up. Using an 8mm Allen key remove the bung



2. Rotate the unit until the oil fill hole is sitting between 60° - 70° from horizontal



3. Once the filler hole is at approx 60° the oil should be sitting at the base of the filler hole thread

Use only Castrol Alpha SP320 Gear Oil
(Mineral Oil) in your gear box
- qty 550ml (PR-480001)

4. If the oil level is too low to reach the thread it should be topped up. Rotate the Unit so the filler hole is sitting at the top and add oil. Repeat steps 2 - 4 until you have achieved the correct level

NOTE: If your unit is leaking oil after you have performed the daily checks consult your local authorised service agent

8 MAINTENANCE - OIL CHANGE



IMPORTANT: OIL CHANGE SCHEDULE

GEARBOX OIL SCHEDULE FOR MINI POWER RAKE:

THE GEARBOX OIL CAPACITY IS ENGRAVED ONTO THE SERIAL TAG LOCATED ON THE SIDE OF THE MINI POWER RAKE.

Initial (Bed-in) oil change:

The first oil change must be carried out within the first 30 hours of operation. Thereafter, every 300 hours.

FIRST OIL CHANGE	Within the first 30 hours of use
2ND OIL CHANGE PLUS SUBSEQUENT OIL CHANGES	After 300 hours of use thereafter
GEARBOX OIL:- CASTROL ALPHASYN EP 320 (SYNTHETIC)	

9 SAFETY - STICKER LOCATION

MINI POWER RAKE MODEL

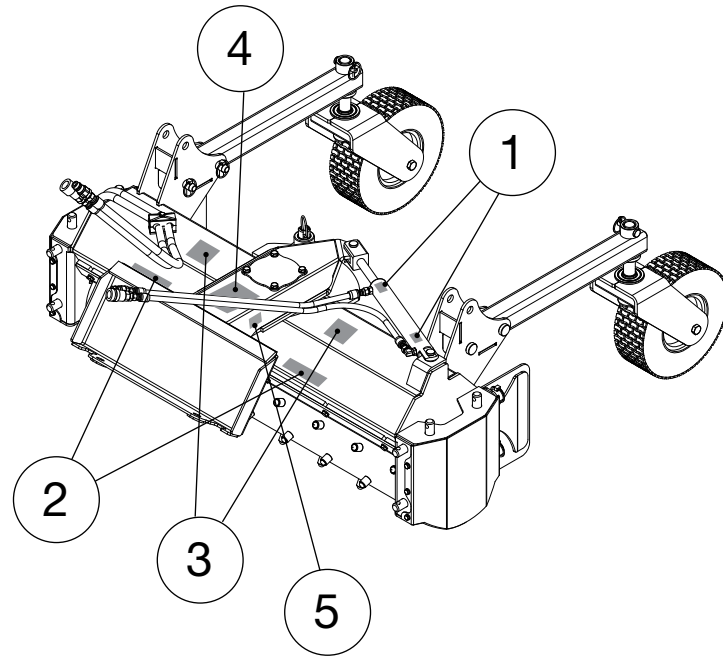
PLACEMENT OR REPLACEMENT OF SAFETY SIGNS

1. Clean the area of application with non-flammable solvent, then wash the same area with soap & water.
2. Allow the surface to fully dry.
3. Remove the backing from the safety sign, exposing the backing surface.
4. Apply the safety sign to the position shown in the diagram above and smooth out any bubbles.

INSTRUCTIONS

- Keep all safety signs clean and legible.
- Replace all missing, illegible, or damaged safety signs.
- Replacement parts for parts with safety signs attached must also have safety signs attached.
- Safety signs are available from your dealer or from Digga Australia.

ITEM NO	ORDER CODE	DESCRIPTION	QTY
1	DE-000055	Pressure Test Decal	2
2	DE-000129	Pinch Point Decal	2
3	DE-000089	Warning Decal	2
4	DE-000088	Caution Decal	1
5	DE-000063	Serial Tag	1



ITEM 1



ITEM 2



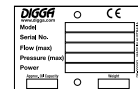
ITEM 3



ITEM 4



ITEM 5



10 TROUBLESHOOTING

MINI POWER RAKE

TROUBLE	POSSIBLE CAUSE	REMEDY
Ripping teeth from Drum	Hitting rocks	Repair
	Abuse	Repair
Drum Spinning in opposite to preferred direction	Incorrect Hosing	Switch Hose couplings around
Leaking Hoses	Loose Fittings	Tighten Fittings

WARRANTY

Motor - Limited warranty up to 12 months subject to manufacturers inspection

Gearbox - Warranty up to 12 months subject to manufacturers inspection

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.

In the event of failure within twelve (12) months from initial retail sale, lease or rental date (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 at 4 Octal Street Yatala, Queensland, or to a location specified by Digga. Any goods returned to Digga by the customer under warranty or repair must have all freight charges prepaid for on the customers account. 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 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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