# MINI AUGER DRIVE OPERATOR'S MANUAL





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PM-000114-C

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DECAL IS APPLIED TO THE ATTACHMENT

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DECAL TO BE APPLIED TO WINDOW OF MACHINE

#### ACCESS OPERATOR MANUALS RISK ASSESSMENTS AND MORE

### **Table of Contents**

Table of Contents
Critical Information - Service Intervals
To the Purchaser
Product Identification
Preparation for use
Safety Precautions - General Information
Safety - Working with the Attachment
Safety - Decal Labels
Safety - Decal Location
Before Use
Commissioning Procedure
Optional Cement Mixer Installation
Operating Instructions
Maintenance
Technical Specifications
Troubleshooting
Warranty Statement

### **Critical Information - Service Intervals**

### <u>NOTE</u>

Do not connect or operate your Mini Auger Drive unit without first having read and understood the following statement.

Your Digga Mini Auger Drive is a high performance attachment that is designed for drilling, screw anchoring (Pier) installation, core barreling and other extreme applications where it is seeing high levels of torque. To avoid premature wear and failure, and to fulfil your terms of warranty please read this statement.

All Digga Mini Auger Drive must have a first oil change within the first 30 hours (extreme use) or 50 hours (moderate use) or 3 months of use, which ever comes first to ensure the bed in of the drive unit. For more detailed information please read the maintenance section of this manual.

If the first oil change is not performed within this period, excessive wear within the gearbox will occur that will cause premature failure and all Warranty will be voided.

Oil must then be changed thereafter every 300 hours (extreme use) or 500 hours (moderate use) and a full service every 12 months must be performed by an authorised service agent to ensure Warranty requirements are met.

In the event of a failure under the warranty period:

- Contact Digga immediately, do not disassemble your drive without first obtaining written permission and instructions from Digga.
- Proof of service must be provided in hard copy form of both operational and service history records (including serial number of gearbox and hydraulic motor). Service must be performed by an authorised Digga service agent.

### To the Purchaser

Thank you and congratulations on the purchase of your new Digga Mini Auger Drive.

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.



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 AUGER DRIVES			
SINGLE AXIS (TWO-WAY) SWING DUAL AXIS (FOUR-WAY) SWING			
ML-000173 – MULTIFIT	ML-000453 – MULTIFIT		
ML-000324 – VERMEER	ML-000290 – VERMEER		
ML-000277 – VERMEER (INT)	ML-000178 – MULTIFIT		
ML-000278 – MULTIFIT	ML-000361 – AVANT 200		
ML-000392 – MULTIFIT 35GF	ML-000359 – NEW HOLLAND		
	ML-000288 – TORO		

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

### **Product Identification**

Your Digga Mini Auger Drive is a user non serviceable part. Unauthorised disassembly will void warranty. 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.

Difference     Differe	DIGGEN Central Structures Operation Automatic and the structures   WWW.diggsb.com A deta als Naturation Operation Automatic and the structures   Name Serial No. Flow (max)   Pressure (max) RPM(max) Weight   Pressure (max) RPM(max) Weight   Apprex of Capacity V. Mant. Weight
Model:	DE-000020
Serial Number:	
Purchase Date:	

#### <u>NOTE</u>

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 Auger Drive is to be fitted to.



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.



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



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



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 earthmoving.

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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.

#### **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 Auger Drive, 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 Auger Drive**

- 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 Auger Drive 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.
- 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 Auger Drive in a safe transport position to prevent the uncontrolled movement.
- Drive slowly over rough ground and on slopes.
- Tether any auger, anchor or extensions connected to the drive with a chain if necessary, to prevent uncontrolled swinging of the attachments when moving from position to position.

- 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 Auger Drive .
- 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.
- Drill stem rotation must be stopped before adding or removing sections, or making adjustments to the drill stem or sampling equipment.
- Open bore holes must be capped and flagged.
- The Mini Auger Drive shall be cleaned only when the mechanism is in neutral and stopped; long-handled shovels shall be used to move debris from the Mini Auger Drive. Materials heavier than 10 kg must be moved mechanically or by using at least two people.
- The Mini Auger Drive 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.



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



During Mini Auger Drive 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 Auger Drive.

#### Storing your Mini Auger Drive

- Seal hydraulic couplers from contaminants using dust caps or by connecting the couplers to each other.
- 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.

#### Maintaining the Mini Auger Drive

- All maintenance should be performed with the host machine's 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 Auger Drive**

- 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 and to ensure that the attachment is firmly fastened without causing any damage to it.
- Lifting/tie down points (if equipped) are indicated by decals.
- Do not attach tie down accessories around the hydraulic motor 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.

### Safety - Working with the Attachment

#### **Complete a Risk Assessment**

Your Digga Mini Auger Drive 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	<b>DOCUMENT THE ACTIVITY</b> Assemble those involved in the activity. Write down the tasks required for the activity in step-by-step form.
2	<b>IDENTIFY THE HAZARDS</b> 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	<b>DOCUMENT THE CONTROL MEASURES</b> 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	<b>IDENTIFY THE RESPONSIBLE PERSON</b> Document the name of the person responsible for implementation of the mitigation measure.
5	<b>MONITOR AND REVIEW</b> 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 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 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.

### <u>NOTE</u>

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

### Safety - Working with the Attachment

#### 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.



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 Auger Drive.
- 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.



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 Auger Drive. 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.



### Safety - Decal Labels

ITEM 4	PINCH POINT HAZARD	ITEM 5	1 5 BEFORE YOU DIG		MY.DIGGA.COM
			BEFORE YOU DIG www.byda.com.au		
Keep ha distance	<b>WARNING</b> Inds and body parts a safe of from actuating parts.	Before lodge a utilities "Know 10.	<b>CAUTION</b> starting any digging project, n enquiry with your local location service. Refer to where utilities are" on page	NOT Scan th my.digg Find ma guides	E ne QR-code to access: ga.com anuals, safety information, and more.

#### **Safety - Decal Location**



### <u>NOTE</u>

The following figure and table show typical safety decal labels location. The actual position and quantity of the labels on your product may differ.



ſ	DKIT1073					
	ITEM	QTY	PART NUMBER	DESCRIPTION		
ſ	1	1	DE-002064-1-SM	READ OPERATOR'S MANUAL - 45mmW X 90mmH		
ĺ	2	1	DE-000648-1	HIGH PRESSURE FLUID - 45mmW x 90mmH		
	3	2	DE-000630-1-SM	ENTANGLEMENT/KEEP DISTANCE - 45mmw X 90mmH		
	4	2	DE-000646-3	PINCH POINT HAZARD - 45mmW x 90mmH		
	5	1	DE-000046	BEFORE YOU DIG - 90mmW x 35mmH		
	6	1	DE-000850	MY DIGGA (QR CODE) - 50mmW x 50mmH		
	7	2	DE-000047	DIGGA LOGO 175mmW x 50mmH		
	8	1	DE-000631	SERIAL TAG- AUS/NZ - 65mmW x 43mmH		
ł	7 8	2	DE-000047 DE-000631	DIGGA LOGO 175mmW x 50mmH SERIAL TAG- AUS/NZ - 65mmW x 43mmH		

### **Before Use**

The key feature of your Digga Mini Auger Drive is low maintenance, regular oil changes only are required. It contains no user serviceable parts, unauthorised disassembly will void warranty. Written permission from Digga must be obtained before performing any disassembly.



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

#### **Before First Use**

Inspect the Mini Auger Drive 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 pivot pins are well lubricated and the gimbal is moving freely. Regrease if required.
- 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 "Safety Decal Labels" on page 19).
- 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.

### **Before Use**



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.





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.

The Digga Mini Auger Drive 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 Auger Drive.

When a Mini Auger Drive is purchased from Digga 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 Auger Drive 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 Auger Drive 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 Auger Drive 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 10). Review the job at hand and determine the Mini Auger Drive is appropriate for the intended conditions. For example: Do not use earth teeth in medium to hard conditions.

#### **Operating Parameters - HP (kW) Power Ratings**

The hydraulic motor of your Mini Auger Drive 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 Auger Drive and parent machine. Never exceed the maximum ratings listed on the serial tag attached to the top of the frame weldment (see page 21). The following charts indicate the maximum capacities of the Digga Mini Auger Drives range.

	MODE	EL			MAX POWER		MAX POWER MAXIMUM FLOW		MAXIMUM PRESSURE	
MODEL	**PRV	**ECV	CASE DRAIN	RECOMMENDED FLOW	HP	ĸw	LPM (	@ BAR	BAR @	) LPM
ML-000173	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000178	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000277	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000278	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000288	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000290	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000324	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000359	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000361	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000392	N/A	N/A	N/A	20-60	34	25	60	160	205	40
ML-000453	N/A	N/A	N/A	20-60	67	50	60	160	205	40

All Digga Mini Auger Drives are despatched from the factory full of fluids (hydraulic and gearbox oil) unless a warning decal is attached. The decal is only applied in special circumstances, for example if a drive unit needs to be air-freighted to the customer. Air transportation regulation prohibits certain fluids from being air-freighted. If there are no fluids in the drive unit at the time of despatching, then the decal **DE-000127** will be applied to the drive unit.



Once you have determined if the drive unit has gearbox oil in or requires oil, ensure that the correct grade and quantity of oil is used. **Do not run the drive unit without gearbox oil**. Connect the hydraulic hoses and if required, additional electrical harness to the machine. If the customer has ordered the optional Pressure differential kit and the Diggalign kit, then there will be 2 additional electrical harnesses to connect.



Before the drive unit is even connected to the machine ensure that it is full of hydraulic oil and the gearbox is full of gear oil. For details, see "Procedure to Check the Gearbox Oil Level" on page 38.

All Mini Auger Drives listed in this manual use ISO EP 320 (mineral oil) gearbox oil for operating in tropical ambient temperatures. See maintenance section of this manual for gearbox oil volume, gearbox oil volume checking as well as the gearbox oil recommended for cold climate conditions. The gearbox oil quantity is also engraved on the serial tag located on the top of the frame weldment (see page 21).

To ensure best motor life, run motor for approximate one hour at 30% of rated pressure before application to full load. Be sure that motor and gearbox are full of fluids prior to any load application. When procuring any hose assemblies for use on your Digga Mini Auger Drive unit ensure that the maximum operating pressure of the hoses is always 25% higher than what the excavator or machine can produce (which the Mini Auger Drive unit will be used on).

#### Installation instructions

- 1. Remove the shipping banding from around the Mini Auger Drive and Frame.
- 2. Remove any attachments from the front of the Machine.
- 3. Ensure you have read the serial tag on the Mini Auger Drive to obtain the maximum flow and pressure ratings. Ensure your machine flow and pressure settings are aligned with the requirements of the drive.

### <u>NOTE</u>

#### Never exceed the maximum 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 Auger Drive onto your Machine.

### <u>NOTE</u>

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 and after making sure that there is not any 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.
- 8. Check the auger teeth and pilots are not worn. Ensure all worn parts are replaced. Worn parts will be ineffective and severely diminish the overall performance of the Mini Auger Drive and Auger.
- 9. With the unit lying horizontally on the ground connect the auger or extension.
- 10. Ensure the Auger Pin and Safety clip is installed correctly.
- 11. The machine is now ready for use.

### **Optional Cement Mixer Installation**

#### Mini Auger Drive with optional Cement Mixer

The Mini Auger Drive is equipped with an adjustable cradle suitable for use with Digga Cement Mixer Bowls. To install the Cement Mixer onto the Mini Auger Drive, follow all Safety Precautions (Refer to page 9) and complete the following steps:

- 1. Ensure compatibility between the Cement Mixer hub and the shaft of your Mini Auger Drive. Consult your Digga Dealer for shaft adaptors if necessary.
- 2. Place the Cement Mixer on flat ground with its hub pointing upwards and the bowl opening facing the ground.
- 3. Remove any Augers or extensions from the Mini Auger Drive.
- 4. Remove any lynch pins and pins from both the Mini Auger Drive and the Cement Mixer.
- 5. Lower the Mini Auger Drive into the Cement Mixer hub, noting the alignment of the pin holes.
- 6. Insert the pin across the cement mixer hub and the Mini Auger Drive shaft, securing it in place with the lynchpin.



### **Optional Cement Mixer Installation**

- 7. Lift the Mini Auger Drive and Cement Mixer assembly, carefully laying the cement mixer with its bowl wall onto the ground. Ensure the Mini Auger Drive shaft aligns with the longitudinal axis of the hosting machine, adjusting the machine's position if necessary.
- 8. Fully retract the machine's toolbar until the Mini Auger Drive's gimbal contacts the provided stoppers.
- 9. Remove the two pins securing the Mini Auger Drive cradle.
- 10. Swing the cradle up until the holes align with the cement mixer position.
- 11. Replace the pins and lock them in place using the lynch pins.
- 12. Slowly lift the assembly until the gearbox rests over the cradle. The Cement Mixer is now ready for use.
- 13. Refer to PM-000044 Cement Mixer Operator's Manual for information on using the Cement Mixer.

## <u> warning</u>

Do not use fingers or any part of the body to align pin to holes.



#### **Cold Weather Startup Information**

The information that is contained on this page is an aid to the operation and maintenance of your Digga Mini Auger Drive in cold weather. When you operate the host machine in temperatures from 9°C (48°F) to -40°C (-40°F) refer to the operation and maintenance manual of your machine. It is difficult to outline the operation and maintenance of a machine that is used in freezing temperatures for a general publication. The difficulty in outlining the requirements is caused by the following conditions:

- The unlimited differences in weather conditions
- Applications and ground conditions
- Supplies that are available in your area

In order to provide the best possible guidelines, use the information provided in this manual and other criteria such as: varying factors, recommendations from your machinery dealer, and past proven practices.

#### **Hints for Cold Weather**

Make sure that you read the information for selecting the correct oils for use in cold weather. For details refer to the Maintenance section of this manual. Prepare the machine for the weather conditions as instructed in your machines operator's manual.

#### Procedure for Startup in Cold Weather

Your Digga Mini Auger Drive is designed to operate within ambient temperatures of 5°C (41°F) and 30°C (86°F). For temperatures below 5°C (41°F) it is recommended to slowly start the drive under no load, at minimum speed. This will allow warm hydraulic oil from your host machine to circulate through the hydraulic motor of your drive and slowly bring it to the minimum recommended operating temperature.

Once the minimum temperature has been achieved it is recommended to slowly introduce load to the output of the drive unit, which in turn will increase the internal gear oil temperature.

### <u>NOTE</u>

The host machines cooling system and the lubrication system for the engine do not lose heat immediately upon shutdown. The transmission and the hydraulic system lose heat more rapidly because of more exposed areas. The planetary gearbox and motor cases cool rapidly, since the cases do not operate as warm as other compartments. Therefore, after any period of down time on the machine, ensure you achieve full operating temperatures through following start up instructions. Thick oil can also cause high case pressures which in turn cause shaft seal problems.

#### **Operating Procedure - AUGERING**

This unit is designed for drilling vertical or horizontal holes or rotating piers into the ground. Use in any other way is considered contrary to the intended use. After all installation instructions have been completed, safety information read and understood, and the rest of this operator's manual has been reviewed, your Digga Auger Drive is now ready for use.

- With the auger raised off the ground and the host machine's engine set at a low RPM, activate the host machine's drive control valve to determine which position the control valve lever must be in to turn auger in a forward (clockwise) rotation. This is the "digging" position.
- Before beginning to dig, experiment with auger speed to determine a suitable auger RPM. Generally in light and sandy soil a high RPM is desirable. In hard, rocky, or frozen soils a slower RPM is desirable. To increase auger RPM, increase host machine's engine RPM. To decrease auger RPM, decrease host machine's engine RPM.
- Raise the Auger Drive so the auger hangs vertical and the drive is clear of the cradle, then lower the auger into the starting position.



Your Digga Mini Auger Drive is specifically designed for drilling and rotational operation only, it is not a lifting device!

- Ensure the crowd on your machine is forward and not back. This will keep the drive unit clear of the cradle and allow the auger to move freely from side to side and forward and back. The pendulum action must not be hindered otherwise damage / bending of the shaft or auger may occur. Lower the auger into the ground ensuring the auger drive does not stall and remains in a vertical position, start rotation of the auger.
- As the auger starts to load up with spoil, stop the rotation whilst still in the hole and raise the auger vertically. Move away from the hole, rotate the auger and stop, rotate the auger and stop in the forward direction to remove the spoil. Do not rapidly engage forward/reverse action to remove spoil.
- Do not remove the auger on an angle out of the hole, as you will run the increased risk of bending the auger or shaft.
- If trying to remove the auger full of material and you experience strong resistance, reverse the auger slowly whilst raising the auger vertically to assist with removal. Do not pull with the machine as you may run the risk of shaft damage to the drive.
- Do not flick the dirt (especially mud or clay) from the auger, as you may run the increased risk of bending the auger shaft.
- Keep clearing the auger hole regularly as you drill deeper. This will help prolong the life of the auger and the wear parts. In rocks it is recommended to add a slow stream of water to help the performance and life of the rock teeth.



Do not rapidly engage forward reverse operation to remove soil from the Auger, this creates excessive pressure spikes which will adversely effect performance and longevity of the motor.

#### All Mini Tracked/Wheeled Loaders

Be aware that the boom moves in an arc and to maintain a plumb drilling position, you will need to compensate for this movement by adjusting the dipper arm or moving your machine backwards or forwards to ensure you are drilling straight. You must take extreme care when doing this to prevent the auger or screw pile from bending or pulling flights against the inside of the hole.

#### All other machines

Ensure the vertical position is maintained when drilling.



#### **Operating Procedure - EXTENSIONS AND TELESCOPIC AUGER EXTENSIONS**

• Once you have obtained the maximum depth with the extension and auger you have, raise the auger out of the hole and clear the spoil from the auger. Place the auger back into the hole ensuring the auger is bottomed out in the hole and the hub of the extension is clear and easily accessible. Remove the auger pin to disengage the drive unit from the auger.



Ensure personal safety at all times, determine if access to the auger hub, once the auger is in the hole, is safe, if not safe for persons assisting, place boards or covers across the hole before attempting to reach across to the hub.

- Install the additional extension onto the auger drive with pin and safety clip, lower the extension and attach to the auger with second pin and safety clip. Always ensure persons assisting are clear and visible to the operator at all times.
- Recommence drilling, once you have reached the maximum depth, raise the auger and extension out of the hole until the eyelets of the extension are visible and just above the hole. Slide the two support bars through the two heavy duty eyelets or U-brackets welded to the outer extension. Either then remove the pin and section of extension and place away from the hole. Then re-pin back to the bottom section, take the weight of the rest of the extension and auger on the machine and remove the support bars. Clear the auger and then keep repeating these steps.
- For telescopic extensions, use the same method as above, but slide the inner extension back into the auger and pin.

### <u>NOTE</u>

Digga does not accept any liability for injury or damage resulting from the operator using the extension (s) outside the designed operating procedure.

#### **Operating Procedure - SCREW ANCHORING (PILE/PIER)**

- Installation is to be performed by a trained and/or certified installer.
- Connect the manufacturer's approved adapters to the Mini Auger Drive. If you have two speed operation, start installation in the high speed, low torque setting and start installing pile. As the pressure builds and the torque increases, change the two speed controller to High Torque low speed and complete the pile installation to your required depth and torque. If your drive is single speed install the pile in one continuous motion until the desired depth and torque is achieved.
- Install pile/pier with a continuous motion. The rate should match the pitch on the pile. Make sure to apply just enough downward pressure to help the advancement of the pile into the ground, but not to much that you are driving or drilling the pile into the ground. Always maintain a plumb line so that you do not bend the pile.

Inefficiencies occur with machinery that can reduce the torque output, such as heat, cold, age of machine etc. It is therefore highly recommended that Torque monitoring equipment to keep record of the torque and pressure is installed. Contact Digga Head Office or your local Digga Dealer for further information regarding torque monitoring options.

### <u>NOTE</u>

It is the responsibility of the installer to correctly calculate, plan and execute the installation of the piers to the nominated required torques. Digga does not accept any liability or consequential loss that is incurred from incorrect installation, over torquing or under torquing of piles.

#### **Oil Change**

The gearbox oil capacity is engraved onto the serial tag located on the frame weldment (see page 21).

#### Initial (Bed-in) Oil Change:

- The first oil change must be carried out within the first 50 hours of use under moderate operating conditions. Thereafter, every 500 hours.
- Change the gear oil after the first 30 hours of severe operating conditions\* (i.e. severe ambient temperature conditions of +40°C or below 0°C, when augering, screw piling or core barrelling in hard ground). Thereafter, every 300 hours.

OIL CHANGE SCHEDULE	MODERATE OPERATING CONDITIONS	SEVERE OPERATING CONDITIONS*		
FIRST OIL CHANGE	Within 3 months OR initial 50 hours of use	Within the first 30 hours of use		
2nd OIL CHANGE PLUS SUBSEQUENT OIL CHANGES	After 500 hours or 12 months of use	After 300 hours of use thereafter (Drive requires a major stripdown, inspection and rebuild)		
Gearbox Oil: ISO EP 320 Extreme Pressure Mineral Gear Oil AUST/UK - 2 and 4 way Mini Auger Drives				

### <u>NOTE</u>

\*Severe/extreme operating conditions include but not limited to ambient temperature conditions of +40°C (104°F) or below 0°C (32°F), working in hard ground, anchor applications and/or extended and continuous hours of operation. The gearbox oil capacity is engraved onto the serial tag located on the attachment (see page 21).

Minimum and maximum gear oil operating temperature for gearboxes



Refer to "Cold Weather Startup Information" on page 30 for instructions on how to warm up a drive if operating below 5°C (41°F). Please read and understand these instructions.

#### Procedure to Check the Gearbox Oil Level

Unfortunately, there is no provision to make a quick visual inspection of the gearbox oil level. There is no window or sightglass provision. The gearbox is filled to the correct level at the factory. Unless there are clear signs of gearbox oil leakage it should not require topping up between scheduled oil changes or services. To check the correct oil level see illustration in maintenance on page 41.

#### Procedure to Drain Gearbox Oil

It is advisable to replace the output shaft seal at the first oil change as this is the most important oil change to prolong the life of bearings and gears. The reasoning behind this is that whilst bedding in, gearboxes can generate fine metallic contamination. This will find its way to the lowest part of the gearbox and collect in the output seal thus allowing an abrasive paste to wear the output seal and the output shaft. Refer to "Seal Replacement" on page 43.

It is advisable that oil changes are performed by a Digga Authorised Service Agent, however it is not always possible for many reasons to get this done by a Dealer however what is important is that the oil is changed at the required intervals.

- 1. Ensure that the gearbox is stable, secure and safe to work on prior and that the drive unit is vertical and that there is an appropriate sized drip tray to catch the drained oil.
- 2. Before commencing to drain any oil, check the serial tag of the unit to determine the quantity of oil which the gearbox holds. This will indicate the quantity of oil which has to be replaced into the gearbox and size of bucket needed to contain the oil. Remove the drain plug from the output housing. This will allow the bulk of the gearbox oil to drain out (this will not drain the gearbox entirely). The lower section of the output housing, below the plug will still contain some oil.
- 3. Refer to "2-way Swing (Single Axis Swing)" on page 39 or "4-way Swing (Dual Axis Swing)" on page 40 to drain the remaining oil. Alternatively, the remaining oil can be drained by removing the output shaft seal. Refer to "Seal Replacement" on page 43 for instructions on removing the output shaft seal.

#### 2-way Swing (Single Axis Swing)

The drive unit can either be left in the frame and the whole frame can be tilted or the drive unit can be removed from the frame in order to drain the gearbox oil.

- 1. To remove the drive unit from the frame, remove the 2 x M10 x 60mm long bolts and nyloc nuts (See Fig 1).
- 2. Remove the 2 pivot pins. Clean pins and housings and apply multipurpose grease.
- 3. Remove the <sup>1</sup>/<sub>4</sub> inch BSP drain plug (see Fig 2) using an allen key.
- 4. Tilt the drive to drain the gearbox oil.
- 5. Refer to "Procedure for refilling the gearbox oil" on page 41. Reverse the operation to reassemble the unit.



### <u>NOTE</u>

Remember to consider the environment, state and federal laws relating to disposal of oil. Dumping and spillage of oil onto land, storm water outlets and waterways is illegal. Oil must be disposed of by professional waste disposal or recycle specialists.

#### 4-way Swing (Dual Axis Swing)

Drive unit will have to be removed from the frame in order to gain access to remove the gearbox drain plug.

- 1. To remove the drive unit from the frame, remove the 4 x M10 x 60mm long bolt and nyloc nuts (see Fig 3).
- 2. Remove the 4 pivot pins. Clean pins and housings and apply multipurpose grease.
- 3. Remove 1/4 inch BSP drain plug (see Fig 4) using an allen key.
- 4. Remove the drive unit from the frame to drain the gearbox oil.
- 5. Refer to "Procedure for refilling the gearbox oil" on page 41. Reverse the operation to reassemble the unit.



### <u>NOTE</u>

Remember to consider the environment, state and federal laws relating to disposal of oil. Dumping and spillage of oil onto land, storm water outlets and waterways is illegal. Oil must be disposed of by professional waste disposal or recycle specialists.

#### Procedure for refilling the gearbox oil

Ensure the use of the correct oil. Refer to page 36. For the oil quantity required, refer to "Gearbox Oil Capacity" on page 42. Follow the next steps for changing the oil of Mini Auger Drives:

- 1. Lay the drive unit flat on the ground with the oil fill bung facing up. Using an 8mm Allen key remove the bung (see Fig 5). To drain oil, turn the drive until the hole is facing down. Allow to drain until all oil has been removed.
- 2. Rotate the unit until the oil fill hole is sitting between 60° 70° from horizontal (see Fig 6).
- Once the filler hole is at approximately 60° the oil should be sitting at the base of the filler hole thread (see Fig 7).
- 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 that the oil takes time to work its way through the gearbox. Allow time for it to settle once it has reached the bung hole. Then check the level again until all seepage has occurred.



#### <u>NOTE</u>

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

#### **Gearbox Oil Capacity**

DRIVE UNIT	OIL CAPACITY IN LITRES	RECOMMENDED OIL FOR GEARBOX
ML-000173	0.45	ISO EP320 Mineral
ML-000324	0.45	ISO EP320 Mineral
ML-000277	0.45	ISO EP320 Mineral
ML-000392	0.45	ISO EP320 Mineral
ML-000178	0.45	ISO EP320 Mineral
ML-000288	0.45	ISO EP320 Mineral
ML-000290	0.45	ISO EP320 Mineral
ML-000278	0.45	ISO EP320 Mineral
ML-000359	0.45	ISO EP320 Mineral
ML-000361	0.45	ISO EP320 Mineral
ML-000453	0.45	ISO EP320 Mineral

### <u>NOTE</u>

Oil capacity charts are estimated for a gearbox being filled the first time. When changing the oil, not all oil will drain out, there will always be some residual oil left in the gearbox. Follow the procedure to fill the gearbox, using the oil capacity charts as a guide only.

#### Seal Replacement

- 1. Use a sharpened punch to remove the output shaft seal (Figure 1).
- 2. Clean the area where the shaft seal sits (Figure 2). It is recommended to clean the surface area with an alcohol-based cleaner.
- 3. Smear multipurpose grease to the inside of the new output shaft seal (Figure 3).
- 4. Add threadlocker medium strength (e.g. Loctite 243) around the outside of the shaft seal.(Figure 4)
- 5. Insert new shaft seal and tap it into place with a hammer and a piece of nylon or brass, until the seal is flush with the housing (Figure 5).





Figure 5



#### **Replacing Teeth on an Auger**

- 1. Position Auger so that it is easily accessible at the bottom.
- 2. Place Pilot on bottom of Auger and secure with nut and bolt.
- 3. Tap Tooth (felt side down) to ensure felt is attached firmly.



- 4. Press felt on the front of the tooth to ensure felt is attached firmly.
- 5. Place tooth in the pocket ensuring the tooth cutting edge is facing the same direction as the pilot.
- 6. With the tooth placed in the pocket, knock the tooth in with a soft head (copper) mallet.
- 7. Continue until all teeth are replaced as necessary.



Always wear safety glasses when replacing teeth on augers. risk of eye injury from flying objects.

#### Maintain your Auger Bit

The Auger is a ground engaging tool fitted with wear parts to dig holes. Therefore, the Auger Teeth and Pilot must be checked regularly and replaced with new wear parts. Failure to do so will cause premature wear and damage to the Auger Pockets and Flighting, and substantially reduce the drilling performance of the auger bit. Consult your Digga Dealer for information on Spare Parts. Refer to "Spare Parts" on page 47 for contact information.

REF	DESCRIPTION	QTY
L	LYNCH PIN	1
М	AUGER PIN	1
N	AUGER	1
Р	WEAR PART - PILOT	1
Q	WEAR PART - PADLOC TEETH	*



### <u>NOTE</u>

Check the wear parts on your auger on a regular basis. Ensure all replacement parts are genuine Digga wear parts.

### **Technical Specifications**

SPECIFICATIONS	STANDARD MODEL 2-WAY (SINGLE SWING)	STANDARD MODEL 4-WAY ( DUAL SWING)	
Weight	62 kg (137 lbs)	65 kg (143 lbs)	
Length (overall)	434mm (17 in)	475mm (18.7 in)	
Width (overall)	615mm (24.2 in)		
Height (overall)	483mm (19 in)		
Motor	Danfoss		
Rec Flow (LPM)	20 to 60 lpm (5 to 16 gpm)		
Max Flow (LPM)	Do not exceed 60lpm @ 160bar (16gpm @ 2300 psi)		
Max Pressure (BAR)	Do not exceed 205bar @ 40lpm (3000 psi @ 10 gpm)		
Torque	2900Nm @ 205bar (2140 ft·lbs @ 3000 psi)		

#### **Spare Parts**

For spare parts of your Mini Auger Drive, obtain the serial number from the aluminium serial tag located on the top of the frame of the Mini Auger Drive. 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

#### NORTH AMERICA

#### 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

#### DIGGA NORTH AMERICA

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

Web: www.diggausa.com

# EUROPE

Unit 1, Nexus Park Plenty Close Newbury, RG14 5RL England, United Kingdom Phone: +44 (0) 1488 688 550 Email: infouk@digga.com

Web: www.diggaeurope.com

### Troubleshooting

#### Single and Dual Axis Swing Drive Unit

Trouble	Possible Cause	Remedy
	Quick release coupler(s) not engaged	Check quick release coupler(s)
	Quick release coupler(s) faulty	Replace faulty coupler(s)
	Auxiliary valve on machine faulty	Refer to machine manual
No Rotation	Hydraulic oil tank low	Fill oil tank to maximum level
	Hydraulic motor failure	Contact your Digga Dealer*
	Output shaft bearing failure	Contact your Digga Dealer*
	Planetary gear failure	Contact your Digga Dealer*
	Machine oil pump faulty	Refer to machine manual
	Low oil flow	Check machine specifications
Slow Rotation	Drive unit too large for machine	Contact your Digga Dealer*
	Hydraulic system too hot	See hydraulic section
Looking Oil	Hose(s) or Fitting(s) Leaking	Tighten or replace
	Motor 'O' ring failure	Contact your Digga Dealer*
Output Shaft Looking Oil	Oil seal failure	Contact your Digga Dealer*
	Hydraulic motor failure	Contact your Digga Dealer*
	Oil pressure too low	Check machine specifications
No Torque	Drive unit too small for machine	Contact your Digga Dealer*
	Hydraulic system too hot	See hydraulic section
Grinding or Loud Noise	Gearbox failure	Contact your Digga Dealer*

### Troubleshooting

#### **Hydraulic System**

Trouble	Possible Cause	Remedy
Oil Over Heating	Oil Pressure too Low	Set Relief Valve to Machine Spec
	Restriction in Line	Inspect and Repair
	Auger Continually Stalling	Limit Down Pressure
	Drive Unit too Small	Contact your Digga Dealer
	Machine too Small	Fit Drive Unit to Larger Machine
	Hydraulic Oil Tank Low	Fill Oil Tank to Maximum Level
	Insufficient Oil Capacity	Fit Oil Cooler

#### Augers

Trouble	Possible Cause	Remedy
Slow Digging Speed	Worn Teeth or Pilot	Replace
	Ground too Hard	Contact your Digga Dealer
	Low Oil Flow	Check Machine Specifications
	Auger too Large for Drive Unit	Fit Larger Drive Unit
	Machine too Small	Fit Drive Unit to Larger Machine

\*Do not disassemble drive to assess fault, disassembly without written permission and instructions from Digga will void all warranty.

#### Notes

#### **Warranty Statement**

#### Mini Auger Drives - Used for Drilling Application

Motor - Warranty up to 3 years compliance with service Interval information and subject to manufacturers inspection.

Gearbox - Warranty up to 5 years subject to compliance with service Interval information and 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. 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.

