

A detailed close-up photograph of the cutting teeth of a trencher. The teeth are made of heavy-duty metal and are arranged in a row. They are mounted on a dark metal frame with visible bolts and pins. The teeth have a curved, chisel-like shape designed for digging into the ground.

MINI BIGFOOT TRENCHER OPERATORS MANUAL

PM-000042-A

**CRITICAL - DO NOT CONNECT OR OPERATE YOUR TRENCHER WITHOUT FIRST HAVING READ AND UNDERSTOOD THIS STATEMENT**

Your Digga Mini Bigfoot Trencher is a high performance attachment, fitted with a Digga planetary gearbox, that is designed for trenching. To avoid premature wear and failure, and to fulfil your terms of warranty please read this statement.

Your Digga Mini Bigfoot Trencher gearbox must have a first oil change within the **first 30 hours (extreme use)** or **50 hours (moderate use)** or **3 months (whichever comes first)** of use to ensure the bed in of the gearbox. For more detailed information please read page 28.

If the first oil change is not performed within this period, excessive wear within the gearbox can occur that will cause premature failure. All warranty will be void.

Oil must then be changed thereafter every 300/500hrs and a full service every 12mths 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 TRENCHER** 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 (including serial number of gearbox and hydraulic motor) records. Service must be performed by an **authorised Digga service agent**.

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THANK YOU

Congratulations on the purchase of your new DIGGA Trencher!

Contact your DIGGA dealer for any further information pertaining to this product or for further information on other products available in the DIGGA range.

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.

		○	CE	
Model				MADE IN AUSTRALIA DE-000063
Serial No.				
Flow (max)				
Pressure (max)				
Power				
Approx. Oil Capacity		○	Weight	



SAFETY ALERT SYMBOL

This is the “Safety Alert Symbol” used by this industry. This symbol is used to warn of possible injury. Be sure to read all warnings carefully. They are included for your safety and for the safety of others working with you.

4 **SERVICE & PREPARATION FOR USE**

All DIGGA Trenchers are designed and manufactured to give dependable service. To keep it running efficiently read the instructions in this operator’s manual. Each section is clearly identified so that you can easily find the information you need - whether it is operation, lubrication or maintenance.

Trencher equipment options are available to help you do a better job in special conditions. These are noted throughout this manual and can be purchased from your DIGGA dealer eg. Chains, wearparts, crumber bar, spare parts, different width chains.

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.

ALL SERVICE FOR WARRANTY MUST BE PERFORMED BY AN
AUTHORISED DIGGA SERVICE AGENT. CONTACT YOUR
LOCAL DIGGA DEALER FOR DETAILS.

MODEL _____

SERIAL NUMBER _____

DATE PURCHASED _____

IMPORTANT: EXCEPT FOR OIL CHANGES, GENERAL MAINTENANCE OF CHAINS AND BEARINGS, ALL SERVICE AND REPAIR FOR WARRANTY AND ASSESSMENT FOR WARRANTY MUST BE PERFORMED BY AN AUTHORISED DIGGA SERVICE AGENT, ONLY GENUINE DIGGA REPLACEMENT PARTS CAN BE USED. SUBSTITUTE PARTS WILL 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.

○

CE

Model

Serial No.

Flow (max)

Pressure (max)

Power

Approx. Oil Capacity

Weight

○

DE-000063

MADE IN AUSTRALIA

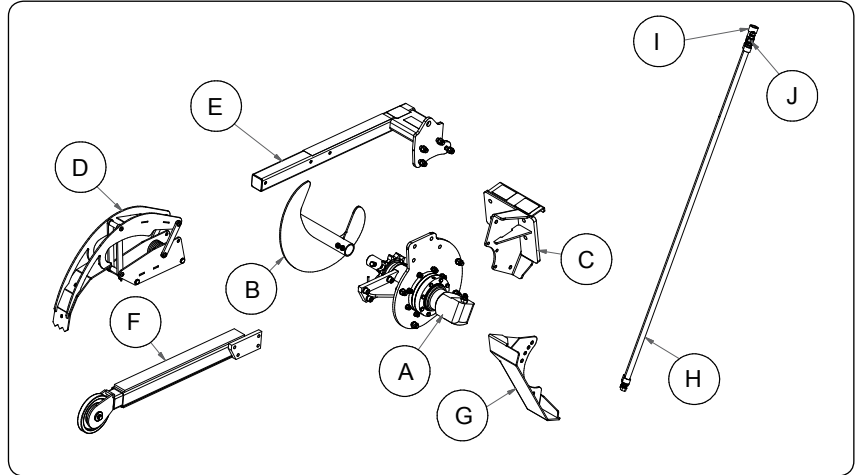
The parts department needs this information to insure accurate parts can be sent to the authorised service agent.

MODELS COVERED IN THIS MANUAL	
Mini Bigfoot Trencher	

4 SERVICE & PREPARATION FOR USE

To avoid any inconvenience before operation, please check that you have received the following items which you may have ordered

REF	DESCRIPTION	QTY
A	GEAR BOX AND MOTOR ASSEMBLY	1
B	SPOIL AUGER	1
C	HITCH PLATE-SLIDING SIDE SHIFT	1
D	CRUMBER BAR	1
E	DANGER BAR	1
F	OUTER BOOM	1
G	ADJUSTABLE SKID FOOT	1
H	HYDRAULIC HOSES	2
I	MALE COUPLER	1
J	FEMALE COUPLER	1



The DIGGA Trencher receives its power from the Parent Machine through the Auxiliary Valve circuit with Quick Release Couplers normally located on the machine arms near the front.

Attaching points on the Trencher are the same as the bucket attaching points on your machine. Assemble the Trencher if required. Hook up hoses to Auxiliary Hydraulics.

Engine must be shut off. Check that the chain rotation on the Trencher is anti-clockwise when viewed from the Motor side of the Trencher. NB: Two way flow is required for anti-clockwise rotation. To assure optimum motor life, run Hydraulic motor for one hour on approx. 1/3 RPM before application of full load. Ensure your machines flow and pressures do not exceed the maximum rated flow and pressures of the Trencher (Refer Pg 5 To the Purchaser / Serial Tag)

IF YOU ARE IN ANY DOUBT CONTACT YOUR NEAREST DIGGA DEALER FOR ASSISTANCE

5 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 machine's 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.

5 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.

WARNING



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.

5 SAFETY PRECAUTIONS - GENERAL INFORMATION

WARNING OPERATING THE TRENCHER



- 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 20 feet (6 meters) away from the working area of the drive.
- Do not allow Site workers to climb or ride on Trencher 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.

WARNING



- Reduce speed when driving over rough terrain, on a slope, or turning, to avoid overturning the vehicle.
- Travel only with the trencher 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.
- 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.
- 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 trencher from the prime mover before transporting to and from the job site.

WARNING



- Trenchers 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.

5 SAFETY PRECAUTIONS - GENERAL INFORMATION

WARNING



OPERATING THE TRENCHER CONT....

- The trencher must be stopped before making adjustments to the attachment.
- Spoil augers shall be cleaned only when the rotating mechanism is in neutral and the spoil auger stopped; a long-handled shovel shall be used to move cuttings from the auger. Materials heavier than 10kgs must be moved mechanically or by using at least two people.
- Trenching 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.
- A trench that is left for prolonged periods of time must be capped and flagged so it is clearly identified on the work site.

WARNING



STORAGE OF THE TRENCHER

- 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.
- Check that trencher motor and hoses are full of clean oil and planetary is full.
- Coat liberally with grease the output shaft and collar, extension shaft and collar, and all connecting pins to prevent rust and reduce wear.
- Tighten loose nuts, cap screws and hydraulic connections.
- 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.

5 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 6 metres of it operating.
- Loose fitting clothing, long hair, jewellery and equipment which might become entangled in moving equipment are prohibited while working near the Trencher.
- Operators, helpers, and other personnel working near Trencher 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 TRENCHER

- 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.

WARNING



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.

WARNING



TIE DOWN POINTS

- 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 attachment as recommended.
- Check attachment 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.

5 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 Trencher on a machine that is not equipped with a cab or ROPS, and operator restraints (seat belts or equivalent devices).

6 SAFETY - WORKING WITH THE ATTACHMENT

WHEN DEALING WITH HYDRAULICS DURING ANY TYPE OF ASSEMBLY, OPERATION, MAINTENANCE, OR OTHER WORK ON OR NEAR THIS PRODUCT

- Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. 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's manual for detailed instructions on connecting and disconnecting hydraulic attachments.
- Make certain that all parts meet the specifications for this product when installing or replacing hydraulic hoses or fittings.
- After connecting hydraulic lines:
 - Slowly and carefully raise the loaders 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.
 - Make certain that the hoses cannot interfere with or actuate the quick-attach mechanism.
 - Make certain that hoses will not be pinched, or get tangled, in any equipment.
- Do not lock the auxiliary hydraulics of your power unit in the "ON" position.
- Refer to Machines operator manual and this manual for procedures and intervals, then inspect and maintain the entire hydraulic system to insure that the fluid remains clean, that all devices function properly, and that there are no fluid leaks.

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 quick-attach Frame or Hitch (Machine Mount).
- If this product does not fit properly, contact your Digga Dealer before operating.
- 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.
- 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 Trencher.
- When making repairs use only authorised Digga service agents, and genuine Digga parts. For fasteners, hydraulic hoses, or hydraulic fittings, use only properly rated parts.
- Replacement parts must also have safety signs attached.

For additional safety information please see Risk Management booklet. To obtain a copy contact Digga Head Office on +61 7 3807 3330

7 BEFORE USE



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS BEFORE BEGINNING ANY TRENCHER MAINTENANCE.

BEFORE FIRST USE

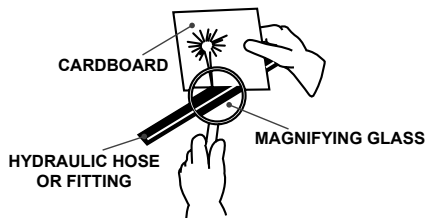
- Inspect the attachment for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.

BEFORE EACH USE

- Make sure that all nuts and bolts are in place and properly tightened.
- Make sure that all other fasteners are in place and are performing their specified function.
- Make sure that all hydraulic fittings are tightened and that there are no leaks in any fittings or hoses.
- Make sure that all safety signs are in place, are clean, and are legible. (SEE THE SAFETY SIGN SECTION)
- Check for any oil leaks.
- Wear and tear on pins, linkages, clips, bushes and hood.
- Ensure any damage or excessively worn parts are replaced.
- 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 INSTALLATION AND OPERATING INSTRUCTIONS

The following instructions will help you to mount your Trencher onto your machine. The Trencher uses the quick-attach system for ease of installation. Therefore, if you know how to attach your loader bucket, attaching the Trencher should prove no problem. Remember to read all safety warnings, decals and operating instructions before operating the Trencher.

If there is any portion of this manual that you do not understand, contact your DIGGA dealer.

- Digga Trenchers are designed for cutting narrow, straight trenches in the soil prior to laying electrical, telephone and cable lines, or water and gas pipes.
- The DIGGA Trencher attaches to the toolbar/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 Trencher.
- When a Trencher is purchased from DIGGA or a DIGGA Dealer/Distributor the gearbox and motor configuration is matched for suitability and compatibility to the flows and pressure of the original machine it was purchased for. For fitment of the Trencher to other machines, you must first contact your DIGGA dealer and receive written confirmation to ensure you do not incorrectly fit the trencher to a machine with higher flows or pressure than what the Trencher was designed for.
- Refer to the serial tag for max flow and pressure ratings. Warranty will be void if the Trencher is fitted to an alternative machine without first receiving written confirmation from DIGGA or your DIGGA dealer.
- 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. DIAL 1100 (in Australia) or your relevant authority to obtain underground hazard information before you commence trenching.
- Review the job at hand and determine the chain type is appropriate for the intended trenching conditions. I.e. Do not use cup teeth in medium to hard conditions, Diggatrac is the correct selection.



IMPORTANT! THE TRENCHER IS NOT A CHAINSAW AND MUST NOT BE USED ABOVE GROUND FOR CUTTING, SHEARING OR ANY OTHER USE BUT WHAT THE TRENCHER HAS BEEN DESIGNED FOR.

8 INSTALLATION AND OPERATING INSTRUCTIONS



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS BEFORE BEGINNING ANY TRENCHER MOUNTING

1. Remove the shipping banding from around the Trencher and Frame/Hitch.
2. Remove any attachments from the front of the Parent Machine.
3. Check that all nuts and bolts are tightened on the frame or hitch and that the frame/hitch is correctly mounted on the trencher.
4. Following all standard safety practices and the instructions for installing an attachment in your machine operator's manual, install the Trencher 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. Once the trencher is connected via the frame/hitch 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. Make sure the couplers are fully connected and locked
8. Route the hoses in such a fashion as to avoid pinching or chafing.
9. The machine is now ready for use.
10. Check the Chain teeth are not worn. Ensure all worn parts are replaced. Worn parts will become ineffective and severely diminish the overall performance of the Trencher.



DO NOT LOCK THE AUXILIARY HYDRAULICS OF YOUR MACHINE IN THE "ON" POSITION. FAILURE TO OBEY THIS WARNING COULD RESULT IN DEATH OR SERIOUS INJURY.



SAFETY FIRST!! READ AND UNDERSTAND THE SAFETY INSTRUCTIONS BEFORE BEGINNING ANY TRENCHER OPERATING



FAILURE TO OBEY THE FOLLOWING PROCEDURES COULD RESULT IN DEATH OR SERIOUS INJURY

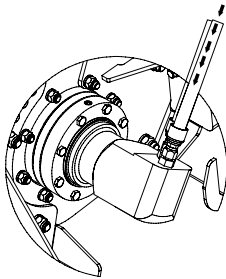
Never lift this product:

- Above the operator's eye level OR to a height where visibility is obstructed, which ever is lower.

IMPORTANT: SHUT DOWN TRENCHER & MACHINE BEFORE ANY ADJUSTMENTS ARE MADE

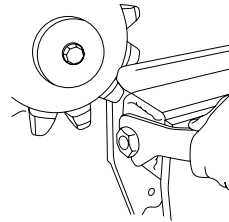
HYDRAULIC HOSE CONNECTION

SUPPLY FROM MACHINE



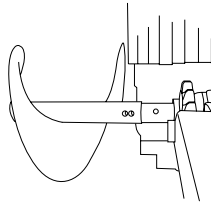
1. The Trencher chain must rotate in an anti-clockwise direction (when viewed from the Motor side of the Trencher). The Supply Line from the Parent machine must be connected to the 'A' port on the Trencher Motor

BOOM ADJUSTMENT



1. Use spanner supplied to wind adjuster nut clockwise for loosening, anti-clockwise for tightening

AUGER ADJUSTMENT

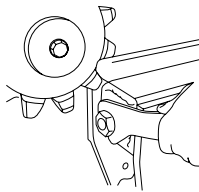


1. The spoil removal Auger is double ended . When a 150mm or 200mm chain is being used. The Augers must be on the correct way around. This illustration shows the Augers being fitted with the narrow end closest to the chain.

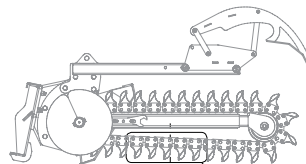
8 INSTALLATION AND OPERATING INSTRUCTIONS

CHAIN ADJUSTMENT

1. To either adjust chain or remove chain – remove the ½" Bolt holding spanner to outer boom

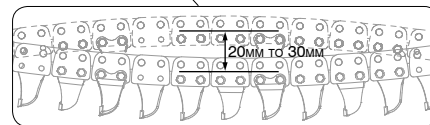


2. Use spanner supplied to wind adjuster nut clockwise for loosening, anti-clockwise for tightening



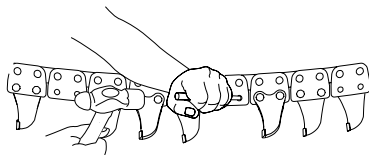
3. To achieve the correct chain tension: Adjust the tension on the lower chain section at the midway point between the sprockets to allow 20-30mm of vertical movement

Chain
midway point
between sprockets



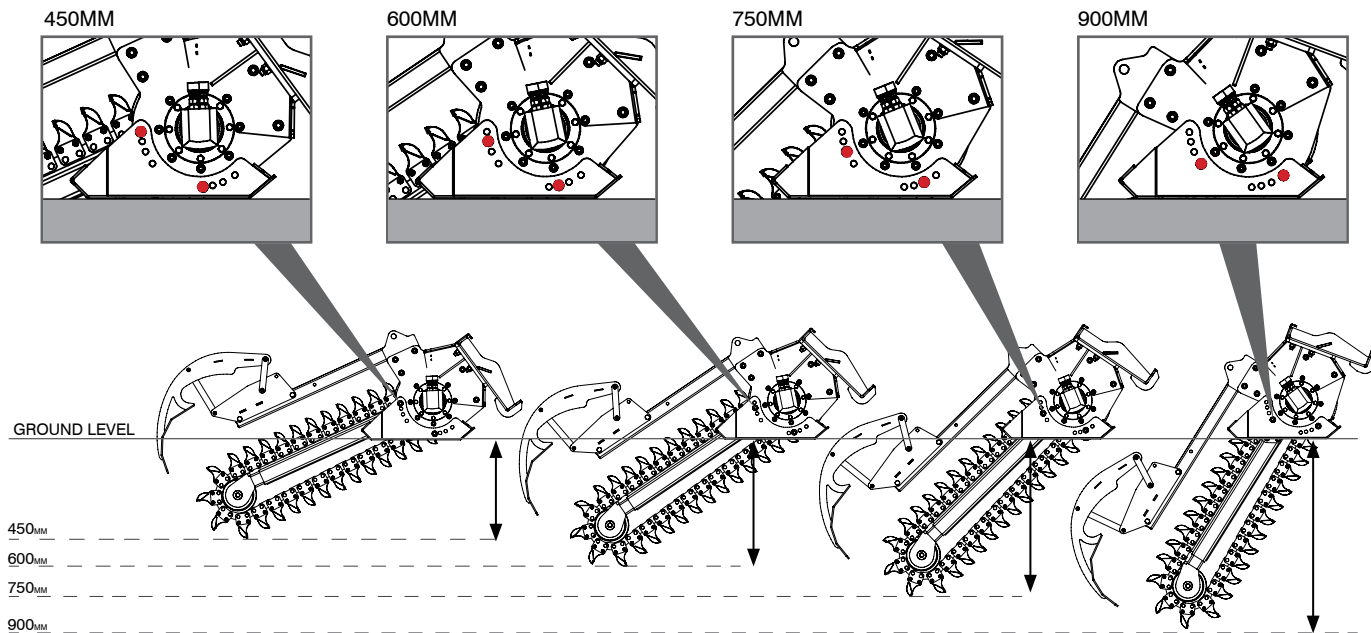
CHAIN REMOVAL AND ASSEMBLY

TO REMOVE CHAIN; FOLLOW STEPS 1 & 2 CHAIN ADJUSTMENT



1. Use a 5mm punch to dislodge joining pin (Frost or Diggatac chain only).
Be careful that all body parts are well clear when performing this operation as the chain can swing or fall heavily.
Remove chain off sprocket.
To join the chain simply reverse the operation. Ensure the teeth on the chain are facing the correct direction

8 INSTALLATION AND OPERATING INSTRUCTIONS - DIGGING DEPTH ADJUSTMENT



Maximum Dig Depth 900mm

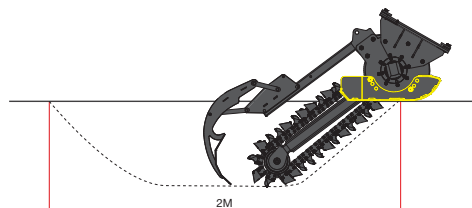
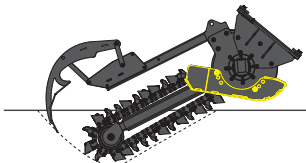
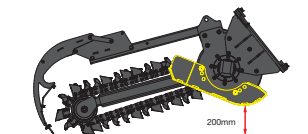
8 INSTALLATION AND OPERATING INSTRUCTIONS



WHILE CHAIN IS MOVING ALL BYSTANDERS MUST BE A MINIMUM OF 6M/20FT AWAY. IT IS THE RESPONSIBILITY OF THE OPERATOR TO ENSURE ALL SAFETY PROCEDURES ARE FOLLOWED

HOW TO TRENCH

1. Ensure the foot of your trencher is set in the correct position for the depth you wish to achieve.
2. For Trenchers purchased after August 2014 your trencher will be fitted with a Headstart crumber bar. The crumber is an essential component of the trencher and draws the spoil up from the bottom of the trench, onto the chain. The crumber ensures you achieve a clear, clean trench. The crumber can be removed, but the trencher will not be able to effectively remove all of the spoil without the crumber. The Patented Digga Headstart crumber allows the operator to start the trench with the crumber in the locked down position. Ensure the chain is rotating freely before increasing RPM.
3. Raise the Trencher so it is horizontal to the ground, with the skid foot at approx 200mm off the ground, start the rotation of the chain.
4. Increase the machines RPM and engage the trencher slowly into the ground with a slight crowding forward so that the nose of the trencher engages first.
5. Slowly crowd the trencher over and allow it to engage into the ground. DO NOT attempt to reach your full depth immediately, as you will potentially damage the crumber and danger bar. While slowly reversing your machine, continue rolling the trencher forward until the foot of your trencher is flat to the ground. This process should be done over a 2-4m distance until you reach the desired depth. (It will take approximately 2m of trenching before you can operate at the desired depth).
6. Efficient trenching is a combination of power and speed. Once your trenching depth has been achieved, continue to reverse your machine ensuring you trench in a straight line.
7. If your trencher has the new Headstart crumber bar, you can start trenching with the crumber in the down position. Reverse the machine slowly from the moment your begin to trench. Never attempt to reach desired depth without reversing.



8 INSTALLATION AND OPERATING INSTRUCTIONS

The Crumber has springs to give constant down pressure on the bottom of the trench in order to scoop all spoil missed in the initial cut of the chain, throwing it back onto the chain to be carried back to the surface

- The trencher is designed to cut straight trenches, it cannot be used for cutting trenches around corners. However If desired a curved trench can be achieved by cutting in a slow wide arc.
- The parent machine is to be reversed when trenching. You cannot trench while driving forward.
- If the trencher stalls while digging, move forward or raise slightly to free the trencher then continue. Do not continually stall the trencher. Allow the trencher time to cut and clear spoil.
- Never use earth chains when digging in difficult hard ground conditions
- Always check chain condition and ensure teeth are tightened before use
- Never continue to dig if the chain begins to jump (due to incorrect style/type of teeth used in harder ground conditions)

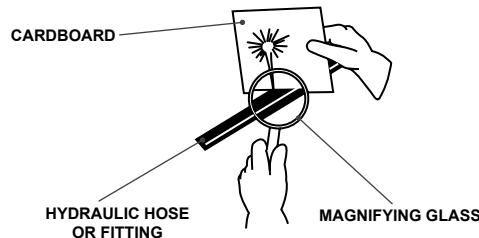


CAUTION: DO NOT RAPIDLY ENGAGE FORWARD AND REVERSE OR ON/OFF ROTATIONAL MOVEMENT TO CLEAR THE TRENCHER. THIS ACTION CAN CAUSE CAVEATATION OF THE MOTOR AND VOID MOTOR WARRANTY



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.

9 MAINTENANCE

NOSE ROLLER BEARING REPLACEMENT

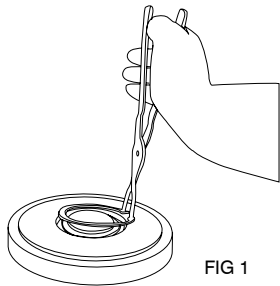


FIG 1

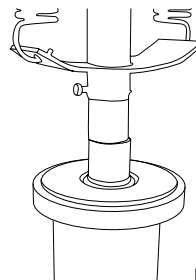


FIG 2

1. To replace the nose roller bearing, firstly remove circlip using a pair of straight circlip pliers Fig 1.
2. Use a press to push the bearing out ensuring the pipe underneath is larger than the bearing Fig 2
3. When pressing the new bearing in ensure the drift used is the correct size. ie; The drift must sit against the outside shell of the bearing being careful not to damage the ring that holds the bearing together, make sure the bearing is sitting against the lip on the opposite side of the nose roller and replace circlip.

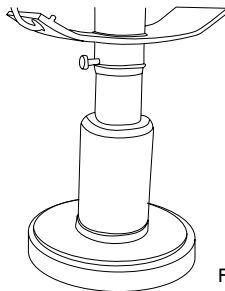
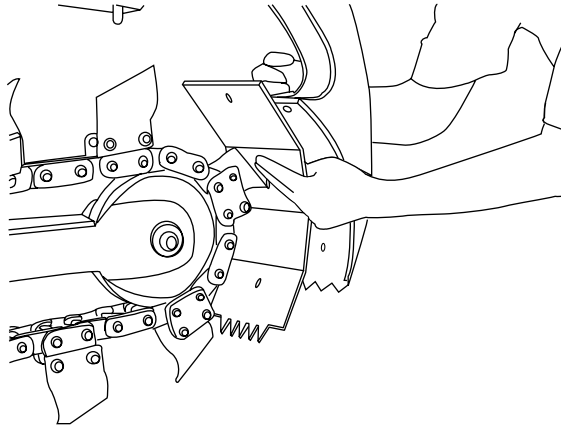


FIG 3

NOTE: A hammer is not recommended for this procedure as it can damage the new bearing.

SCRAPER SHOE REPLACEMENT**SCRAPER SHOE (steel)**

The steel scraper shoe is designed to gives the operator an extended use before replacing. When replacing the shoe, remove the 3 bolts that attaches the scrapper to the Cumber bar.

9 MAINTENANCE

SPROCKET REPLACEMENT

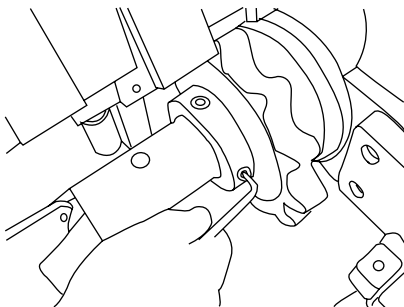


FIG 1

Firstly remove ½" bolt holding the auger, then remove auger. Using a 3/16" Allen key loosen the 2 grub screws in the retaining collar and slide collar off the shaft. (shown in Fig 1)

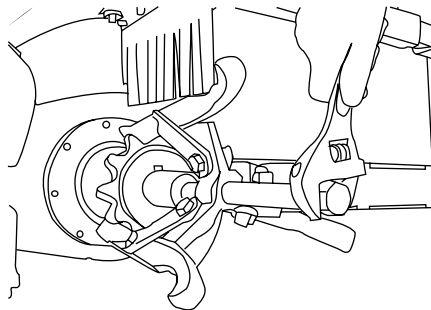


FIG 2

Slide the sprocket off the shaft and replace with new sprocket. It is recommended Anti-seize be applied to shaft before replacement of sprocket. (Shown in Fig 2)

NOTE: IF THE SPROCKET CANNOT BE REMOVED BY TAPPING WITH A HAMMER THEN A PULLER MAY HAVE TO BE USED.

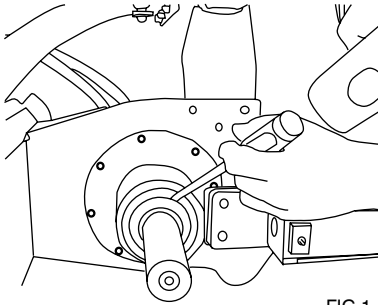
SEAL REPLACEMENT

FIG 1

Before the seal can be replaced remove retaining collar and sprocket as shown in sprocket replacement. Then remove the key and seal protector. Place a screwdriver between outside of seal and inside of housing. Tap gently with a hammer until the seal can be levered out Fig 1. Inspect the inside of the housing for damage and if damaged or burred, clean up with emery cloth.

NOTE: MAKE SURE ALL GEAR OIL IS DRAINED AT THIS POINT

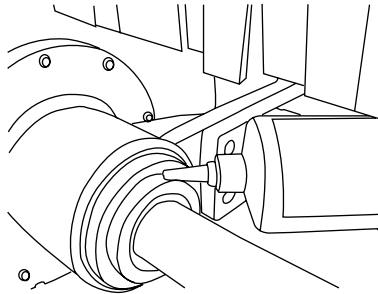


FIG 2

Before the seal can be replaced run some grease around the inside lip of the seal for lubrication to the shaft. Ensure there are no burrs on the shaft between the end of the shaft and the end of the housing. File if necessary. Using loctite 243 (or equivalent) run a small bead around the outside of the seal see Fig 2.

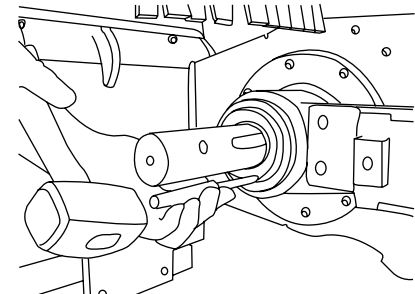


FIG 3

Proceed to fit the seal by using a large punch and gently tap the seal into place ensuring the seal is punched in evenly (see Fig 3). This is very important as any misalignment could cause damage to the seal and promote a leak. The seal must be flush with the end of the housing. Replace seal protector, key, sprocket and retaining collar. Refill the planetary with gear oil (See lubrication for correct amount, grade of gear oil, and oil filling procedures).

9 MAINTENANCE

PLANETARY GEAR OIL

The Trencher Planetary Unit is a sealed Unit. If there is any sign of oil leaks please contact your nearest DIGGA dealer before carrying out any repairs, as there can be other causes for seal leaks.

OPERATING IN ASIA PACIFIC AND EUROPE

The Planetary Drive Unit in the Trencher when operating in Asia Pacific and Europe uses the Gear Oil **VALVOLINE EPG ISO 320** (mineral oil) for lubrication of gears and bearings. **Minimum and maximum gear oil operating temperatures** for these regions is **-5°C (23°F) to 120°C (248°F)**. Please contact your Digga specialist for the recommended Gear Oil if operating outside this range.

OPERATING IN NORTH AMERICA

The Planetary Drive Unit in the Trencher when operating in North America uses the Gear Oil **CHEVRON MEROPA ISO 320** (mineral oil) for lubrication of gears and bearings. Minimum and maximum gear oil operating temperatures for this region is **-18°C (-0.4°F) to 107°C (225°F)**. Please contact your Digga specialist for the recommended Gear Oil if operating outside this range.

- Continuous operating temperature must not exceed 80°C.
- During extended stationary periods (one month or more), the unit should be run monthly to immerse all internals in oil, thereby preventing corrosion.
- Oil should be changed when hot, to prevent a build up of sludge deposits. Flush interior of unit with fluid recommended by oil companies.
- Check for leaks regularly and if an oil leak is detected contact your nearest DIGGA Dealer for remedy instructions.
- Use only the prescribed oil when refilling. Valvoline EPG ISO 320 Gear Oil.
- DO NOT mix oil of different viscosity, NOT even those of the same brand.
- NEVER mix mineral and synthetic oils.
- Cleanliness is necessary when changing oil.

OIL CHANGED SCHEDULE



IMPORTANT

- 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, trenching in hard ground.) Thereafter, every 300 hours.

THE GEARBOX OIL CAPACITY IS ENGRAVED ONTO THE SERIAL TAG LOCATED ON THE TRENCHER

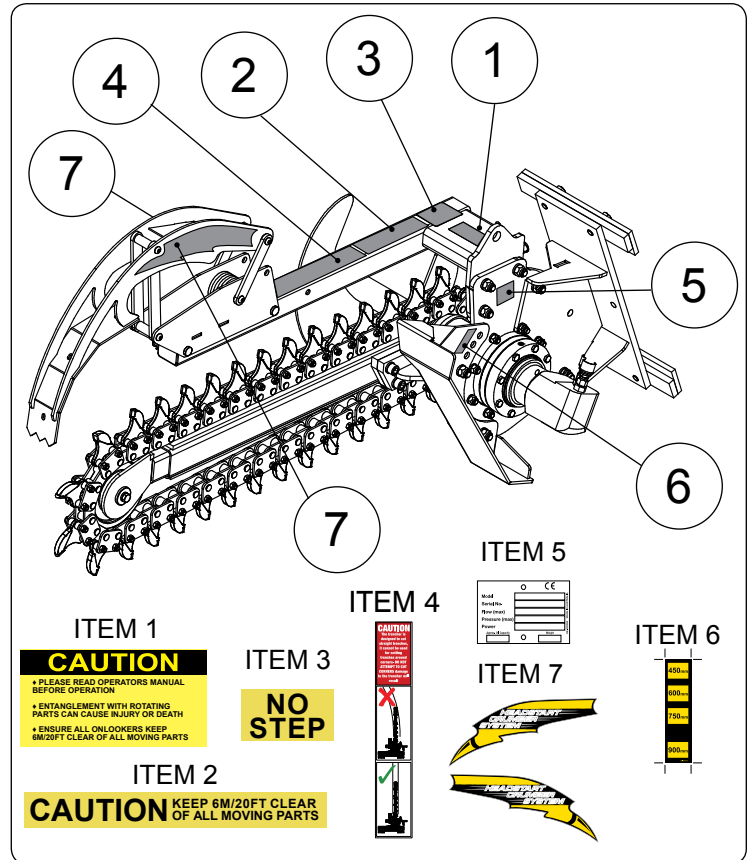
PLACEMENT OR REPLACEMENT OF SAFETY SIGNS

1. Clean the area of application with non-flammable solvent, then wash the same area with soap and water.
2. Allow the surface to fully dry.
3. Remove the backing from the safety sign, exposing the adhesive 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	ORDER CODE	DESCRIPTION	QTY
1	DE-000039	CAUTION - PLEASE READ	1
2	DE-000034	CAUTION - 6M/20FT CLEAR	1
3	DE-000054	DECAL - NO STEP	1
4	DE-000167	CAUTION - TRENCH STRAIGHT	1
5	DE-000063	SERIAL TAG	1
6	DE-000443	MINI TRENCHER- DIG DEPTH SETTINGS DECAL	1
7	DE-000441	HEADSTART CRUMBER DECAL	2



11 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

FAX: (07) 3807 1499

EMAIL: info@digga.com

DIGGA NEW SOUTH WALES

Unit 2, 36 Bluett Drive,
Smeaton Grange NSW 2567

PH: (02) 4647 1400

FAX: (02) 4647 1433

EMAIL: nsw@digga.com

DIGGA VICTORIA

27 Metcalf Street,
Dandenong, VIC 3175

PH: (03) 9706 6171

FAX: (03) 9706 6164

EMAIL: vic@digga.com

WEB: www.digga.com

NORTH AMERICA

DIGGA NORTH AMERICA

2325 Industrial Parkway SW
Dyersville IA 52040

PH: + 1 563 875 7915

WEB: www.diggausa.com

EMAIL: info@diggausa.com

EUROPE

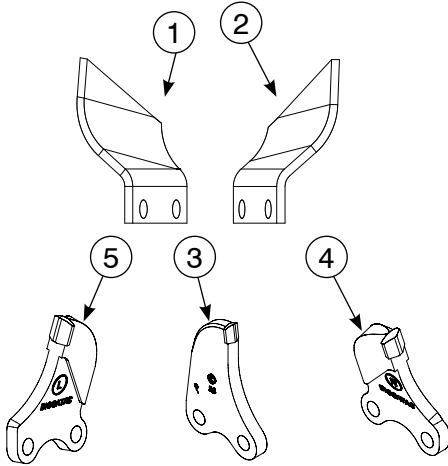
DIGGA EUROPE

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@diggaeurope.com



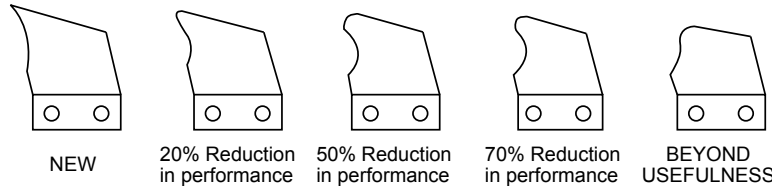
TRENCHER PART LIST

			TEETH
REF NO.	DESCRIPTION	QTY	ORDER CODE
1	1 5/8" CUP TOOTH RIGHT	1	W-000083
2	1 5/8" CUP TOOTH LEFT	1	W-000081
3	1 5/8" DIGGATAC TOOTH CENTER	21	TDC
4	1 5/8" DIGGATAC TOOTH RIGHT HAND	9	TDR
5	1 5/8" DIGGATAC TOOTH LEFT HAND	9	TDL

*TEETH ARE LEFT OR RIGHT AS VIEWED WHEN LOOKING FROM THE BACK OF THE TRENCHER

TYPE OF DIGGING CONDITIONS.

CUP TEETH WEAR ON THE TIP AND SIDE BULGE IN VARYING AMOUNTS. WEAR PATTERNS CHANGE WITH DIFFERENT DIGGING CONDITION. ROCKS WILL TAKE THE POINTS OFF FASTER THAN SIDES. SANDSTONE OR HIGHLY ABRASIVE MATERIALS WILL WEAR OUT THE SIDE BULGES FASTER. ROCK WILL BE THE MOST SEVERE. SHARP TEETH ARE IMPORTANT TO GOOD PERFORMANCE, WHEN TEETH WEAR OUT, PRODUCTION WILL DROP SHARPLY, INCREASING WEAR AND TEAR ON OTHER COMPONENTS.



Normal replacement should be made between 30% and 60% reduction in performance.

Diggatac and frost teeth and chains will greatly improve cost/benefits in severe materials. These special options are built up from hard rock mining machine components and utilise hard carbide tipped teeth.

12 TROUBLESHOOTING

CHAIN

TROUBLE	POSSIBLE CAUSE	REMEDY
Chain does not turn	Quick Coupler not completely engaged	Check and complete engagement
	Quick Coupler failure	Replace faulty coupler
	An obstruction in one of the Hoses	Remove obstruction
	Hydraulic Motor failure	Repair or replace. Contact DIGGA dealer
	Chain drive failure	Check & repair. Contact DIGGA dealer
	Nose roller bearing failed	Replace bearing
	Digging chain too tight	Loosen chain tension
	Sand or spoil material build up in tooth root of sprocket	A. Raise out of ditch, reverse chain & run to clear build up B. Loosen chain tension

DIGGING

TROUBLE	POSSIBLE CAUSE	REMEDY
Does not dig fast enough	Worn Teeth	Replace teeth if necessary
	Relief valve set below specifications	Test and reset if necessary
	Quick coupler or Hose restriction	Inspect and repair as needed
	Hydraulic system too hot	Shut down and cool
	Cutting a ditch size beyond the machine capabilities	REMEMBER: Your Trencher only has the horsepower transmitted through the Hydraulic Hoses, NOT the full horsepower of the engine

HYDRAULIC OIL

TROUBLE	POSSIBLE CAUSE	REMEDY
Hydraulic oil overheating	Relief valve set too low on Parent Machine	Test & set as needed
	Restriction in Quick Release Coupler or hose	Inspect and repair as needed
	Hydraulic Motor or hoses not size balanced to Parent Machine	Check flows and recommendations and change if necessary (see DIGGA dealer)
	Parent Machine not equipped with oil cooler or sufficient sump capacity	Stop and allow to cool naturally when it gets hot

BOOM, DANGER BAR, FOLDBACK CRUMBER BAR

TROUBLE	POSSIBLE CAUSE	REMEDY
Trenching Boom bent	Abuse	Replace
Danger Bar bent	Abuse	Replace
Foldback CRUMBER BAR bent	Abuse	Replace

WARRANTY

Motor - Warranty up to 2 years, subject to manufacturers inspection.

Gearbox - Warranty up to 3 years, subject to manufacturers inspection.

All new DIGGA products are warranted to be free from defects in material and 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. The warranty does not extend to transportation cost of parts nor does it cover consequential loss, damage to Hydraulic Hoses or ground-engaging parts such as Sprockets, Digging Chain, Bearings, and Teeth.

DIGGA EQUIPMENT MUST BE OPERATED IN ACCORDANCE WITH THE RECOMMENDED PROCEDURES AND WITHIN THE RANGES AS SPECIFIED BOTH ON THE UNIT AND CONTAINED IN THE OPERATING MANUAL.

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 fourteen (14) days after the buyer learns of the facts upon which claim is based. All claims not made in writing and not received by DIGGA within the time specified above may be deemed waived. DIGGA will not be responsible for or accept any charges for work carried out by any repairers, or for charges for any spare parts fitted to any DIGGA products without written approval from DIGGA.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND THERE ARE NO WARRANTIES OR MERCHANT ABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL DIGGA BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES. DIGGA'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES TO BUYER RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING DIGGA NEGLIGENCE IRRESPECTIVE OF WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PARTICULAR PARTS, WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, OR, AT THE DISCRETION OF DIGGA THE REPAIR OR REPLACEMENT OF DEFECTIVE OR DAMAGED PARTS. ANY GOODS RETURNED TO DIGGA BY THE CUSTOMER UNDER WARRANTY OR REPAIR MUST HAVE ALL FREIGHT CHARGES PREPAID FOR ON THE CUSTOMER'S ACCOUNT.



Australian Designed and Manufactured