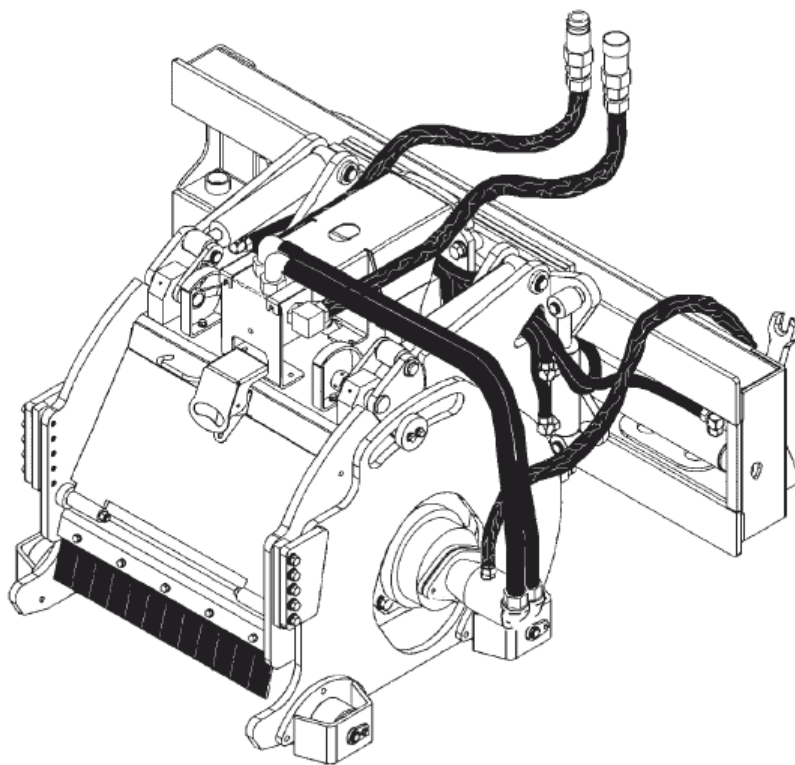




Profila

450 x 150 Road Profiler



Operator's Manual

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Manufacturers of Planetary Drives, Augers, Trenchers, Wear
Parts, Pallet Forks, Brooms, Aluminium Ramps, Cement Mixers,
Spreader Bars, etc.

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2 To the Purchaser

GENERAL COMMENTS

Congratulations on the purchase of your new DIGGA product! This product was carefully designed and manufactured to give you years of dependable service. Only minor maintenance (such as cleaning and lubricating) is required to keep it in top working condition. Be sure to observe all safety precautions and maintenance procedures as described in this manual.

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. (See Sections B and G respectively.) Unless noted otherwise, right and left sides are determined from the position of the operator when behind the product facing forward.



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 your.

SERVICE

When servicing your product remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation. To facilitate parts ordering, 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.

MODEL _____

SERIAL NUMBER _____

DATE PURCHASED _____

The parts department needs this information to insure that you receive the correct parts for your specific model.



3 Technical Specifications

DESCRIPTION

A. Overall Width.....	1000MM
B. Overall Height	1050MM
C. Overall Length.....	1050MM
D. Planing Width.....	400MM
E. Planing Depth.....	150MM
Drum Diameter.....	700MM
Number of Picks	60 approx
Weight	950kgs
High Flow Requirement	85-150 LPM (22-40 GPM)
Operating Pressure.....	17MPa (2500-3500 PSI)

4 Preparation for Use

The DIGGA Profila 150 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 Profila 150 are the same as the bucket attaching points on your machine.

Assemble Profila 150 if required. Refer Pg.4 Preparation for use.

Install DIGGA Profila 150 on the Skid Steer as you would a bucket. (See Skid Steer Manual).

Hook up hoses to Auxiliary Hydraulics. Engine must be shut off.

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 Profila 150.(Refer Pg 3 To the Purchaser / Serial Tag)

If you are in any doubt contact your nearest DIGGA Dealer for assistance



5 Safety

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.

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.

SAFETY PRECAUTIONS

GENERAL INFORMATION

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 vehicle 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" (as described in Section A and at the beginning of Section B) 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.

TO THE OPERATOR

The primary responsibility for safety with the equipment falls to the operator. Make sure that the equipment is operated only by responsible individuals with the proper instruction. 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 and never operate equipment that is not in proper working order.

BEFORE YOU START

1. **Read the entire loader and attachment operator's manuals** before ever attempting to use the loader. This knowledge is necessary for safe operation.
2. **Follow all safety decals**. Keep them clean and replace them if they become worn, damaged or illegible.
2. **Do not paint over**, remove or deface any safety signs or warning decals on your equipment.
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 a fall when getting on or off equipment.
6. Use handholds and step plates when getting on/off . Failure to do so could cause a fall.
7. **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.
8. **Never take passengers on your equipment**. There is no safe place for a passenger.
9. Never try to board equipment while it is moving.
10. **Turn off engine before performing maintenance**. All maintenance can be performed with the machine 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.
11. **Reduce speed when driving over rough terrain**, on a slope, or turning to avoid overturning the loader.
12. Test all controls before you begin.



13. **Do not smoke when refueling.** Allow room in the gas tank for expansion.

Wipe up any spilt fuel. Secure cap tightly when done.

WORKING WITH THE ATTACHMENT

1. Never operate the unit without first reading and understanding the operator's manual.
2. Operate the attachment only in daylight or sufficient artificial light.
3. **Do not carry load with arms in the raised position.** Always carry loads close to the ground. Do not step off platform with load raised.
4. **Check your work area and know where all utility lines are.** Avoid hitting underground electrical wires, cables, pipes, fence posts, gas lines, etc.
5. **Never operate equipment while under the influence** of alcohol, or prescription drugs which could inhibit physical and/or mental capacity.
6. Do not exceed rated operating capacity, as machine may become unstable which may result in loss of control.
7. **Slow down before turning.** Sharp turns on any terrain may cause loss of control.
8. **Always lower the loader arms to the ground,** shut off the engine and remove the key before getting off the unit.

TRANSPORTING THE ATTACHMENT

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

MAINTENANCE

1. Never work on equipment while it is running.
2. Never make hydraulic repairs while the system is under pressure.
Injury or death could result.
3. **Observe proper maintenance schedules** and repairs to keep the unit in safe working order.
4. Always wear safety goggles or glasses when working on equipment.
5. Use a drift and hammer when pressing out pins to prevent the pin from shattering.
6. **Use only manufacturer recommended replacement parts.** Other parts may be substandard in fit and quality.

WARNING!

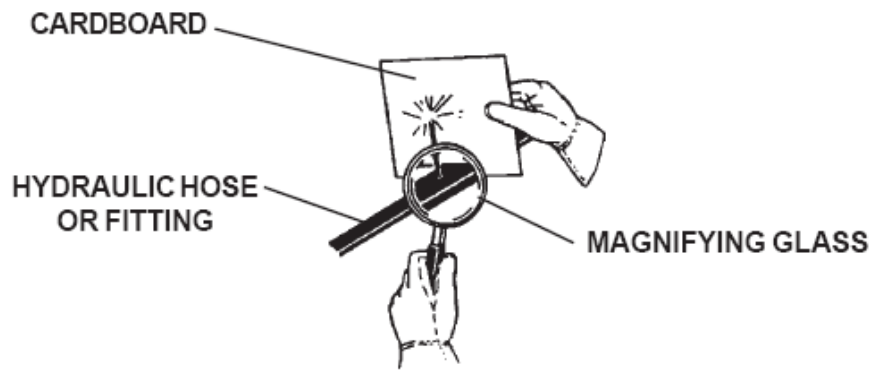


Escaping fluid under pressure can have sufficient force to penetrate the skin causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks.



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.

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.



For additional safety information please see Risk Management booklet.



INTERNATIONAL SYMBOLS

As a guide to the operation of your equipment, various international symbols have been utilized on the instruments and controls. The symbols are shown below with an indication of their meaning.

	Engine speed		Alternator charge
	Hours recorded		Power take-off (on)
	Engine water temperature		Power take-off (off)
	Lights		"Tortoise," slow or minimum setting
	Horn		"Hare," fast or maximum setting
	Engine oil pressure		Caution
	Hazard warning		Control lever operating direction
	Axle connect		Rock shaft (raised)
	Axle disconnect		Rock shaft (lowered)
	Continuously variable		Remote cylinder (extended)
	Increase		Remote cylinder (retracted)
	Decrease		Remote cylinder (FLOAT)
	Diesel fuel		Differential lock
	Creeper range		Read operators manual
	High range		Neutral
	Low range		Forward
			Reverse



6 Pre-Operation

GENERAL INFORMATION

The purpose of this manual is to assist in setting up, operating and maintaining your DIGGA planer. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance.

Unless otherwise noted right and left are determined from the position of the skidsteer operator sitting in the operator's seat facing forward.

Remember to read the "Safety Precautions" and "Operating Instructions" sections of the manual BEFORE you attempt to install or use the planer.

NOTE: The illustrations and data used in this manual were current (according to the information available to us) at the time of printing, however, we reserve the right to redesign and change the Profilas as may be necessary without notification.

PREPARING THE VEHICLE

WARNING! Never let anyone operate this attachment without understanding all of the "Safety Precautions" and "Operating Instructions" sections of this manual. (See Section B and G respectively.)

Always choose hard, level ground to park the attachment on and set the brake so the vehicle cannot roll.

SKID-STEER

The DIGGA 150 planers are designed for use on high flow skidsteers.

Profila and skid-steer compatibility is determined by the recommended lifting capacity and hydraulic output of your skid-steer.

WARNING! Do NOT attach or operate any attachment that exceeds the recommended lifting capacity of your skid-steer.

Skid-steers MUST be equipped with optional high flow, auxiliary boom hydraulics, case drain and a multi-function electric control kit to run the Profila.

BEFORE OPERATION

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.

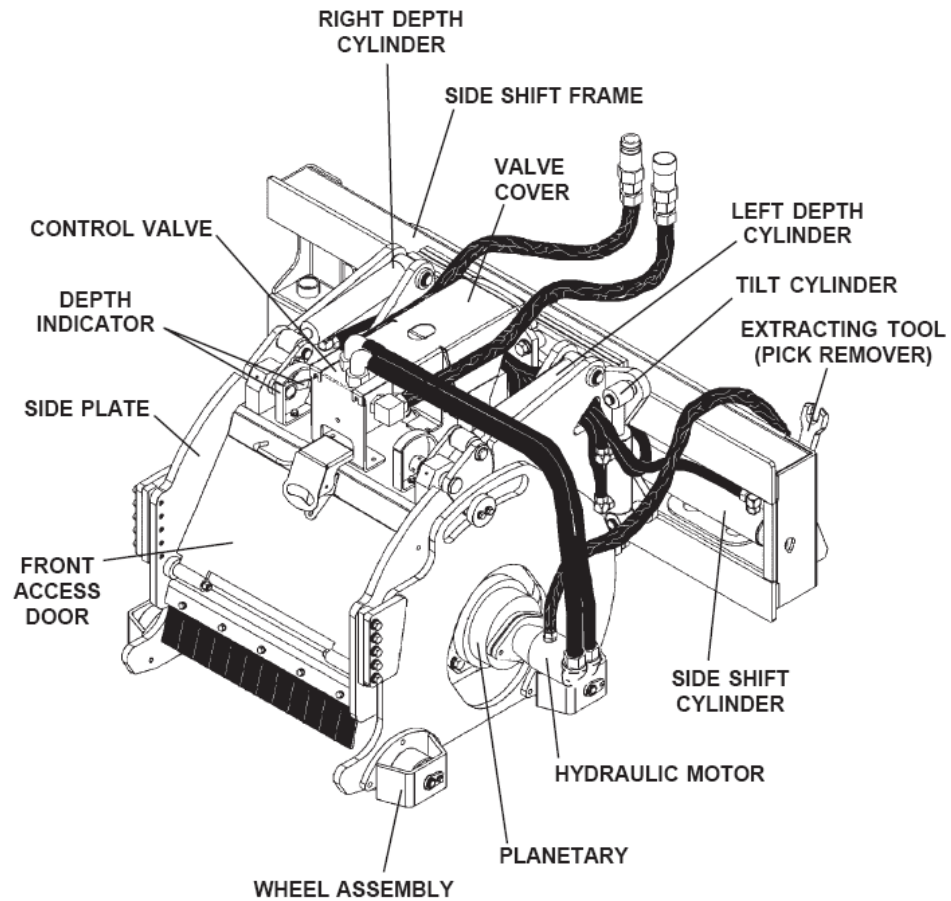
Practice the operation of your new equipment and become familiar with the controls and the way it handles on your machine.

If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer.



MAJOR NOMENCLATURE

Throughout this manual, reference is made to various attachment components. The purpose of this section is to acquaint you with the various names of these components. This knowledge will be helpful when reading through the manual or when ordering service parts.



7 Installation Instructions

GENERAL INFORMATION

The following instructions will help you to mount your planer onto your skidsteer loader. The planer uses the quick-attach system for ease of installation. Therefore, if you know how to attach your loader bucket, attaching the Profila should prove no problem.

Remember to read all safety warnings, decals and operating instructions before operating the attachment. If there is any portion of this manual that you do not understand, contact your dealer.

WARNING! THE 150 PLANERS ARE DESIGNED FOR USE ON HIGH FLOW HYDRAULIC SYSTEMS.



DO NOT ATTACH OR OPERATE ANY ATTACHMENT THAT EXCEEDS THE RECOMMENDED LIFTING CAPACITY OF YOUR SKIDSTEER.

INSTALLATION INSTRUCTIONS

1. Remove the shipping banding from around the planer and skid.
2. Remove any attachments from the front of the loader.
3. Following all standard safety practices and the instructions for installing an attachment in your skid-steer operator's manual, install the planer onto your skid-steer.

NOTE: It is important to make sure the locking mechanism on your quick attach is engaged, therefore locking the attachment onto the skid-steer.

4. Lower the unit to the ground and remove the key.
5. 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 high flow auxiliary hydraulic system of your skid-steer loader.
6. Connect the case drain coupler to the case drain on your skid-steer loader.
7. Route the hoses in such a fashion as to avoid pinching or chafing.

CAUTION! BE SURE CASE DRAIN COUPLER IS COMPLETELY ENGAGED.



IMMEDIATE HYDRAULIC MOTOR SEAL FAILURE AND PLANETARY DAMAGE WILL OCCUR IF CASE DRAIN IS



NOT SUCCESSFULLY CONNECTED.

8. Connect the electrical wire harness from the Profila to the auxiliary electrical connector on the front of the skid-steer (if so equipped). If your skidsteer is not equipped with an electrical connector and you are using the
9. DIGGA control handle, connect the wiring harness to the control handle and place the control handle inside of the skid-steer operator's station.

WARNING!



Do not operate the Profila from outside of the skid-steer operator's station.

10. Following all standard safety practices, start the skid-steer and run all cylinders through their full cycle to purge any air from the system. Check that all controls function in accordance with the operating control decal.
11. If your planer is equipped with an optional water kit, install the female coupler supplied to your water line coming from the water tank on the skid-steer.

Connect the female coupler to the male coupler on the planer water kit.

Your planer is now installed and ready for operation.

DISCONNECT INSTRUCTIONS

1. Center the planer on the sideshift frame.
2. Adjust depth and tilt setting to "0".
3. Set Profila on a firm level surface.
4. Following Safety Shut Down Procedures; stop the engine and set the parking brake. Relieve any pressure in the hydraulic lines.
5. Disconnect the power and return hoses from the auxiliary hydraulics.
6. Disconnect the electrical wire harness from the auxiliary electrical connector or the DIGGA control handle and after turning the ball valve to the shut off position disconnect the water line at the couplers.
7. Following all standard safety practices and the instructions for disconnecting an attachment in your skid-steer operator's manual, disconnect the planer from your skid-steer allowing the mounting bracket to lower toward the ground as the skid-steer is disengaged.
8. Connect the hydraulic couplers on the attachment together to prevent contaminants from entering the hydraulic system.

GENERAL INFORMATION

The DIGGA planer attaches to the toolbar/quick-attach mechanism of your skid-steer loader. Due to this arrangement, thorough knowledge of the skid-



steer controls is necessary for machine operation. Read and understand your skid-steer operator's manual for information regarding skid-steer operation before attempting to use the planer.

Check the surface to be planed. The standard all purpose picks can be used to mill both asphalt and concrete. There are optional concrete picks that are recommended if the planer is to be used extensively for concrete. These picks do not perform as well when milling asphalt, especially in warmer weather.

Review the job at hand and determine the required depth and tilt of the cut and also the side shift position of the planer. Best performance is obtained when the Profila is in the center position. Side shift should be used when visibility is a determining factor such as milling around manholes or when milling next to an obstacle such as a building.

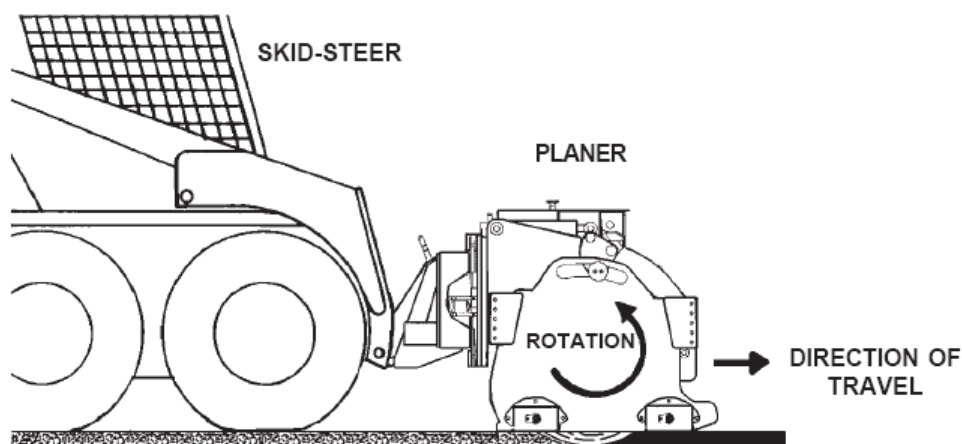
NOTE: The optional wheel assemblies may be removed when distance is a factor such as milling next to an obstacle or building.

OPERATING INSTRUCTIONS

1. Clear area of all bystanders.
2. Lift the planer until the drum is off the ground and start planer rotation.

(Teeth at the bottom of the drum must be moving in the same forward direction that the planer travels.)

NOTE: Mill only when the skid-steer is traveling forward. Do not operate when traveling in reverse.



NOTE: Hydraulic cylinders tilt the planer, adjust the depth of both the left and right side of the planer individually, and also shift the planer to the left or right.

3. Increase engine RPM and with the drum turning you can make any necessary adjustments to the side shift. Do not side shift the Profila during milling operation. Once the desired side shift position has been achieved you are ready to begin. The drum will not cut in a side to side motion. Tilt and Depth control can both be activated during milling.

IMPORTANT: The drum MUST be turning to make any hydraulic adjustment to the planer.



4. Position the planer at the desired starting point. Set the left and right depth gauge to the desired depth mark on the planer. Maximum depth of each cut is determined by the type of material, the horsepower of the skid-steer being used and the size of the planer. It is recommended for maximum performance that you start at approximately .75" to 50mm in concrete and 1.50" to 100mm in asphalt.

5. With the engine at full RPM and the planer rolled back, lower the loader arms completely down and slowly roll out the planer until the weight of the planer is resting on the rear wheel assemblies. Continue to exert down pressure by rolling the loader forward until the front wheels of the planer are on the ground and the front wheels of the skid-steer are raised approximately 2-3 inches off the planing surface to assure sufficient pressure for stable operation.

NOTE: It is recommended to try a sample cut until the desired depth is achieved.

6. Slowly advance forward.

NOTE: If drum stalls you have been traveling too fast or cutting too deep. Back out of the cut until the drum restarts (make necessary adjustments) and then continue operation.

NOTE: If the drum tends to ride up out of the cut, decrease travel speed, be sure the planer is level (front to back) and exert down pressure until the planer is riding on the skids/wheel assemblies. For optimal cutting and reduced vibration, maintain down pressure on the planer with all four planer wheels on the ground when cutting.

NOTE: Avoid side to side movement while planing as this may cause excessive drum wear or planetary failure.

7. When you have reached the end of the pass, stop the skid-steer and raise the planer out of the cut. Reposition skid-steer for the next cut and repeat steps 4, 5 & 6. If you are not starting a new cut, raise the planer and retract the drum into the planer housing using the depth control cylinders. Do not transport the planer with drum turning.

CAUTION!



Periodic observation must be made of the transmission oil temperature indicator when planing with high flow hydraulic systems.

Depending on the ambient temperature and the duty cycle of the machine, hydraulic oil may overheat.

If indicator comes on, shut off the Profila and allow the skid-steer to idle until the temperature falls below 160° Fahrenheit.

If the system continues running hot it may be necessary to clean any debris from the oil cooler and radiator. Check engine air filter and also the hydraulic oil level.



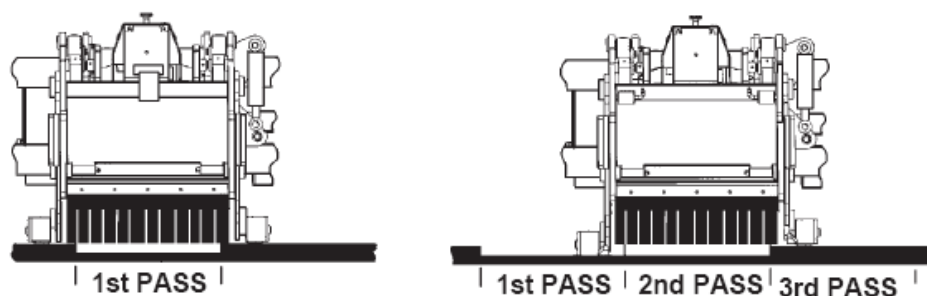
Continuous or excessive overheating may cause machine damage.

SPECIAL APPLICATIONS

LARGE AREA

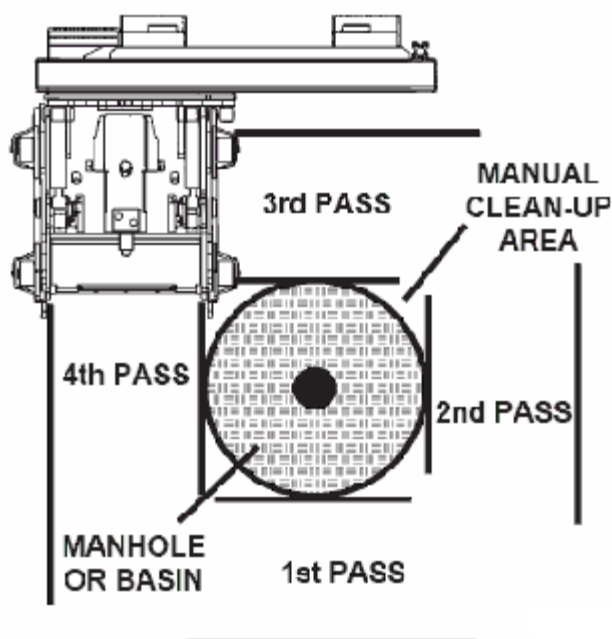
DIGGA'S independent depth control design allows for continuous milling.

Instead of planing pass 1, 3, 5 and then going back and resetting the planer for passes 2 and 4, the DIGGA planer allows for individual depth control from the operator's seat to enhance performance and continually mill large areas.



MILLING AROUND MANHOLES

For best visibility when milling around manholes it is recommended that the planer be shifted to the right. The planer is not designed to mill around tight corners, therefore it is recommended that four to six passes be made on each side of the manhole. **NOTE:** The more passes the less amount of manual clean-up required.



DEEP CUTS

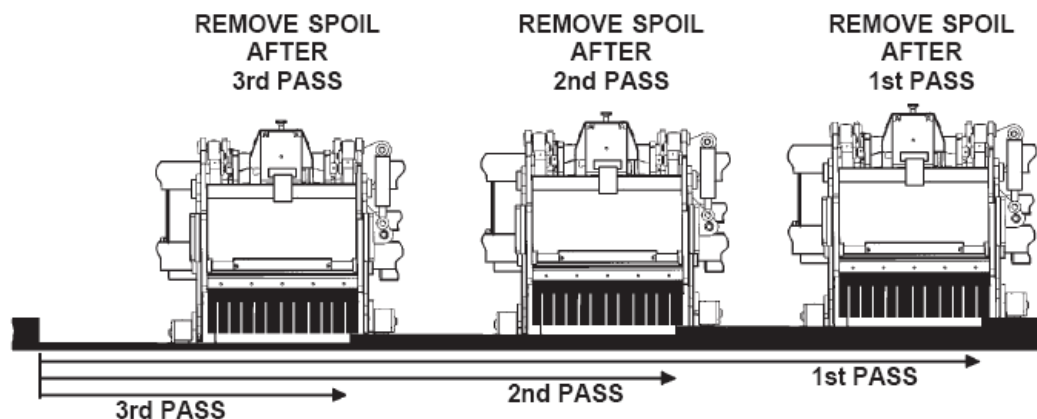
To achieve a deep cut the width of the drum, make the first cut at the recommended depth for the material being milled and then reposition the planer at the beginning of the pass and reset for double the recommended depth. Example: Make the first cut with the depth controls set at 100mm and then set the depth control at 100mm for the second pass and so on and so forth until the desired depth is obtained.



To achieve a 150mm cut of a large area it is recommended to cut the entire area at the recommended depth and then clear the spoil from the area before making the second cut.

Removing the spoil between cuts will enhance the productivity of the planer and maintain an even cut.

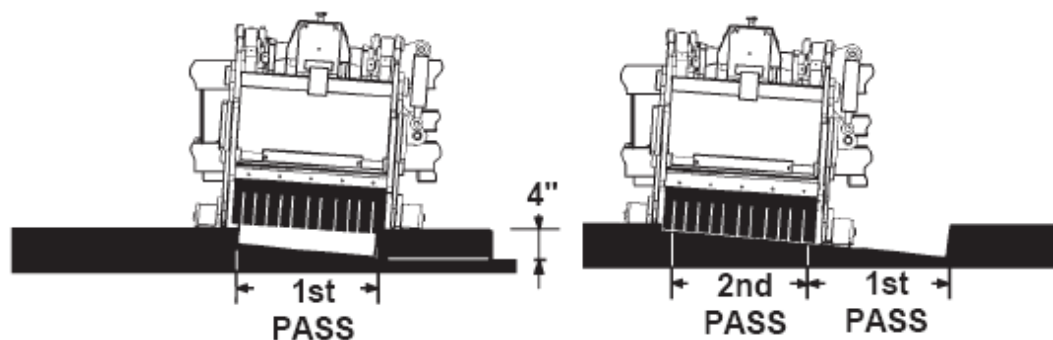
If trying to achieve a critical cutting depth it is recommended that the spoil from one cut be cleared away before making another pass. This will eliminate the possibility of the planer riding on and off the spoil and creating an uneven surface.



MILLING TAPER CUTS

When adding to or joining new paved surfaces to existing paving, a taper cut may be required at the interacting joints so the new paving would appear seamless. See the chart below for the angle of cut per size of Profila.

Example: To achieve a taper cut from 0 to 100mm over a 1200mm distance with a 600mm wide Profila it is recommended that you set one side of the planer at 100mm and the other at 100mm and the tilt set at 4° for the first pass. Then make a second pass with both sides of the planer set at 0mm and the tilt still at 4°.



OFFSET	25mm	50mm	75mm
ANGLE OF CUT (degrees)	2	4	6



8 Maintenance and Service

GENERAL INFORMATION

Economical and efficient operation of any machine is dependent upon regular and proper lubrication of all moving parts with a quality lubricant. Neglect leads to reduced efficiency, wear, breakdown and needless replacement of parts.

All parts provided with grease fittings should be lubricated as indicated. If any grease fittings are missing, replace them immediately. Clean all fittings thoroughly before using the grease gun.

IMPORTANT: Avoid excessive greasing. Dirt collects on exposed grease and greatly increases wear. After greasing, wipe off excessive grease from fittings.

LUBRICATION SYMBOLS

The following symbols are used on the lubrication diagram below. It is reproduced here with its meaning for your convenience.



Lubricate daily or every 8 hours of operation, whichever comes last, with SAE Multi-Purpose Lubricant or equivalent SAE Multi-Purpose type grease.



Lubricate weekly or every 40 hours of operation, whichever comes last, with SAE Multi-Purpose Lubricant or equivalent SAE Multi-Purpose type grease.

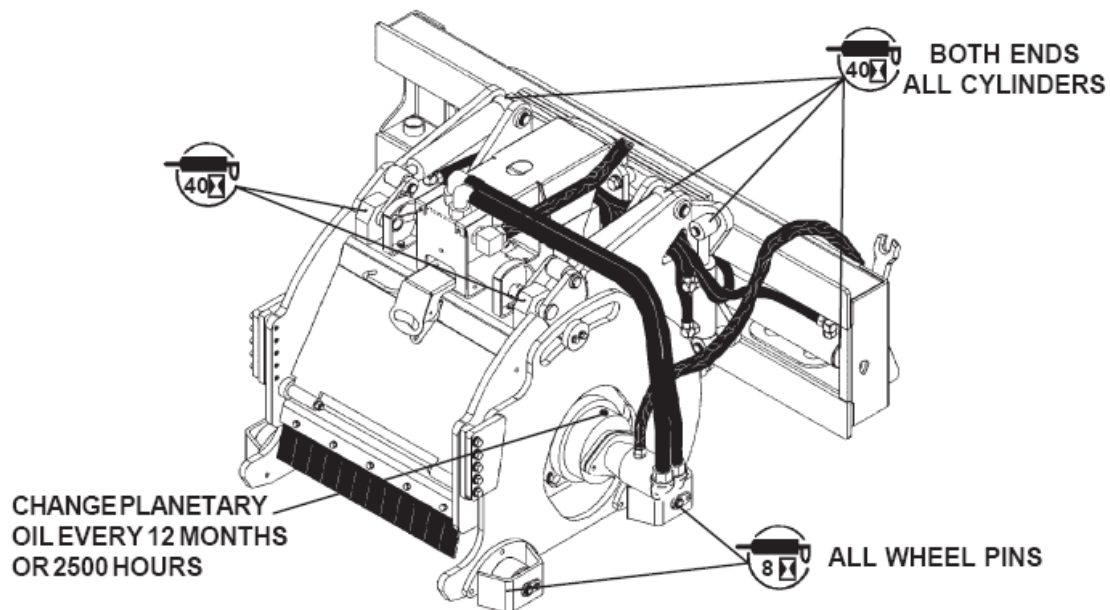


CAUTION! SHUT OFF ENGINE BEFORE LUBRICATING EQUIPMENT.

The planer planetary 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. The planetary uses the Gear Oil (Castrol SP 320) for lubrication of gears and bearings. The unit holds approximately 2 quarts of gear oil.

The planetary gear oil should be drained and replaced after the first 8 months of use. Thereafter every 12 months or 2500 hours - whichever comes first.





GENERAL INFORMATION

Regular maintenance is the key to long equipment life and safe operation.

Maintenance requirements have been reduced to an absolute minimum. However it is very important that these maintenance functions be performed as described below.

WARNING!



Never do any maintenance to the planer while it is running.
Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** BEFORE working on or around the planer.

DAILY

- Check to be sure case drain coupler is completely engaged.
- Check skid-steer hydraulic system to ensure an adequate level of hydraulic oil.
- Check all hardware and tighten if necessary. See Section "O" for Bolt Torque Specifications.
- Check hydraulic system for hydraulic leaks.
- Check for missing or illegible Safety / Warning Decals.
- Check picks for freedom of rotation, flat spots and wear. Replace worn or missing picks or any picks that are not rotating freely or have flat spots.
- Visually inspect the machine for worn parts or cracked welds and repair as necessary.
- Lubricate grease fittings on Wheel pivot pins.

EVERY 40 HOURS

- Lubricate grease fittings on cylinder ends and front of planer.



EVERY 2500 HOURS OR 12 MONTHS

- Change gear oil in planetary.

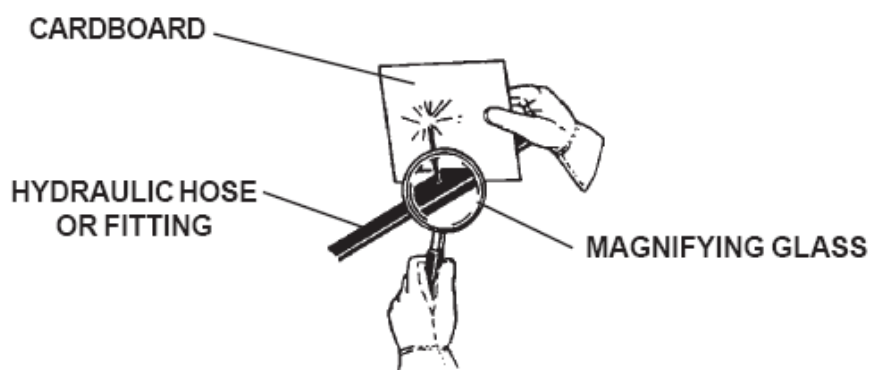
WARNING!



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.

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.



IMPORTANT: When replacing parts use only factory approved replacement parts.

Manufacturer will not claim responsibility for use of unapproved parts or accessories and/or other damages as a result of their use.

PICK REPLACEMENT

Picks should be replaced if you are changing to a different application pick, they are broken, worn, flat spot or are seized in the pick holder and do not rotate freely.

WARNING!



Always wear safety glasses with side shields when striking metal. Failure to heed could result in serious injury to the eyes or other parts of the body.

Do all pick maintenance through access door.

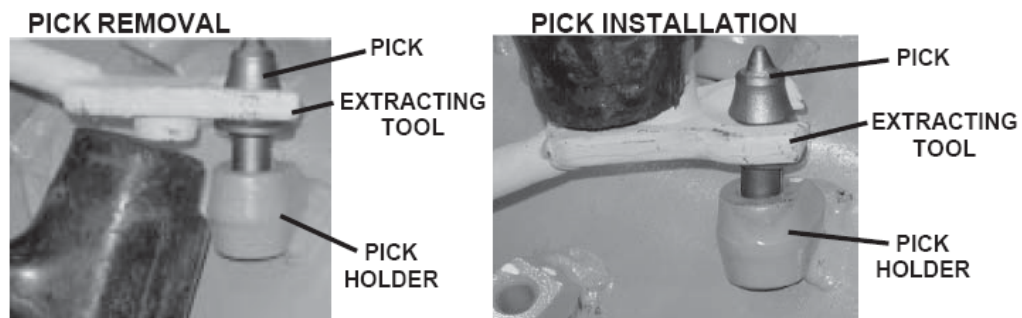
DO NOT attempt to check the picks with the planer in a raised position without first blocking the planer. Before exercising the MANDATORY SAFETY SHUTDOWN PROCEDURE find an elevated surface to set the planer on or have a second person block the planer in place before shutting down the machine.

1. Open front access door.
2. Rotate the drum until the pick to be removed is conveniently accessible.
3. Hold the extracting tool (pick puller) in one hand and place the jaws in the groove of the pick, with the offset handle pointing away from the pick holder.



4. Using a lead hammer or rubber-headed mallet, hit the raised pad on the tool until the pick starts to move. Continue tapping until the pick is removed.
5. Insert the new pick into the jaws of the extracting tool (pick puller) so that the raised pad of the tool is pointing in the same direction as the pick point.
6. Position the new pick in the pick holder on the drum and with a lead hammer or rubber-headed mallet, hit the raised pad of the tool to start the pick into the pick holder. (Clean out any foreign material from the pick holder before installing the new pick.)
7. Once the pick is started into the pick holder strike the tool pad one strong blow to pop the pick into the holder.

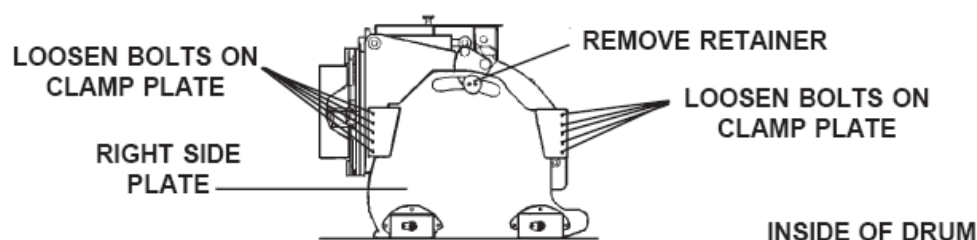
The pick is properly seated when its shoulder is against the face of the pick holder. Check to be sure the pick rotates freely.



CHANGING THE DRUM

Due to the weight of the unit, place the planer in a convenient location with a hoist available for lifting the planer off the drum.

1. Remove the right side plate by first removing the two bolts in the retainer and then loosen the ten .50" bolts on the clamp plates. Slide the right side plate off.



2. Remove the eight M16 hex nuts securing the drum to the planetary.

M16 HEX
NUTS



3. Using a pry bar, pry the drum off of the planetary and slide out until the drum clears the planetary.

lift the planer off of the drum.

PRY DRUM OFF OF PLANETARY

4. Install the new drum by positioning it over the studs on the planetary and installing the existing M16 hex nuts using Locktite 271 (Red) and torquing to 155 ft. lbs.

PRY BAR



5. Reinstall the right side plate.



CHANGING THE PLANETARY

To gain access to the planetary the drum must first be removed. Follow the above procedure for removing the drum.

1. Tag and disconnect the power and return hoses along with the case drain hose from the hydraulic motor and plug the motor ports to prevent contaminants from entering the hydraulic system.
2. Remove the .6100mm bolts securing the planetary to the planer and remove the planetary.

3. Check to be sure the new planetary is filled with oil. If not, fill with approximately 2 quarts of Castrol SP 320 gear oil.

4. Remove the hydraulic motor from the planetary. Scrape any silicone from the hydraulic motor and apply new RV 10 silicone to the motor to seal the connection between the motor and the planetary.

Bolt the hydraulic motor onto the new planetary using the existing hardware.

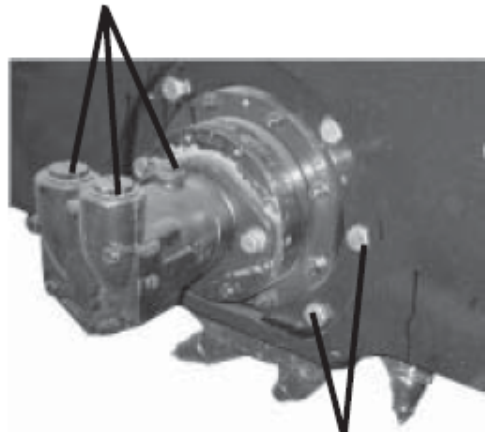
5. Position the new planetary into the planer housing and reinstall the .6100mm capscrews, flat washers and lock nuts.

Check to ensure that the hydraulic motor is in the correct position with the ports turned up. Torque to specification

6. Reinstall the drum as described in "CHANGING THE DRUM".

7. Re-connect the hydraulic hoses and fittings to the motor.

**TAG AND REMOVE
HYDRAULIC HOSES
FROM MOTOR**



**REMOVE PLANETARY FROM
PLANER BY UNBOLTING .62" X 2.50"
CAPSCREWS**

CHANGING HYDRAULIC MOTOR

1. Position the planer on its side or in such a fashion that the planetary oil will not leak out when replacing the motor.
2. Tag and disconnect the power and return hoses along with the case drain hose from the hydraulic motor.
3. Remove the capscrews securing the motor to the planetary.
4. Scrape the mating surface of the planetary, removing all existing silicone, to prepare it for the new motor.
5. Apply new RV 10 silicone to the motor to seal the connection between the motor and the planetary. Bolt the new hydraulic motor onto the planetary using the existing hardware. (Check to ensure that the hydraulic motor is in the correct position with the ports turned up.) Torque to specification
6. Re-connect the hydraulic hoses and fittings to the motor.



9 Troubleshooting

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Motor on the planer will not operate	Auxiliary hoses not hooked up to the skid-steer	Engage Couplers
	Obstruction in hydraulic lines	Remove obstruction and replace if necessary
	Hydraulic motor damaged or seals blown	Call Digga service department for instructions
	Skid-steer auxiliary valve not engaged	Engage auxiliary valve
Drum rotates sluggishly	Insufficient hydraulic flow from the skid-steer	Refer to skid-steer's owners manual
	Damaged quick coupler	Replace if necessary
	Hydraulic motor damaged or seals blown	Call Digga service department for instructions
	Oil filter on skid-steer is dirty.	Refer to skid-steer's owners manual.
Leaking Oil	Loose or damaged hydraulic line	Tighten or replace.
	O-Rings on fittings damaged or blown	Replace if necessary
	Hydraulic motor damaged or seals	Call Digga service department for instructions
	Fittings loose or damaged	Tighten or replace
	Cylinder seals damaged	Replace cylinder seals
Insufficient power	Insufficient hydraulic flow from the skid-steer	Refer to skid-steer's owners manual
	Relief valve setting adjusted too low	Refer to skid-steer's owners manual
	Hydraulic motor damaged or seals blown	Call Digga service department for instructions
	Oil filter on skid-steer is dirty	Refer to skid-steer's owners manual
Drum rotates in the wrong direction	Hoses from the valve to the motor incorrectly connected	Switch hoses at the motor end
Excessive vibration during planing operation	Picks are worn or broken	Visually inspect the picks and replace as necessary
	Picks contain flat spots or are not rotating freely	Visually inspect the picks and replace as necessary
	Insufficient down force due to incorrect operating procedure	Refer to the Operating section of this manual

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
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Excessive oil temperature	Hydraulic oil level too low.	Refer to skid-steer's owners manual
	Obstruction in hydraulic lines	Remove obstruction and replace if necessary
	Hydraulic oil or oil filter in skid-steer is dirty	Refer to skid-steer's owners manual
	Relief valve setting adjusted too low	Refer to skid-steer's owners manual
	Couplers not engaged	Engage couplers
A Hydraulic cylinder not operating	Insufficient hydraulic flow from the skid-steer	Refer to skid-steer's owners manual
	Cylinder rod bent	Visually inspect the cylinder for damage
	Cylinder seals damaged	Replace cylinder seals
	Obstruction in hydraulic lines	Remove obstruction and replace if necessary
Hydraulic cylinders only operating in one direction	Contaminants in the hydraulic system and solenoid valve	Remove spool from solenoid valve and check for foreign material. Clean or replace. Also check seals for damage. Replace if necessary
	Damaged electrical wiring.	Test and replace if necessary.
	Solenoid valve spool bent	Replace spool
	Nut on Solenoid valve too tight	Loosen nut
All hydraulic cylinders not functioning	Blown fuse on skid-steer	Refer to skid-steer's owners manual
	Damaged electrical wiring	Test and replace if necessary
	Solenoid valve spool bent	Replace spool
	Nut on Solenoid valve too tight	Loosen nut



10 Bolt Torque Specifications

GENERAL TORQUE SPECIFICATION TABLE

Use the following torques when special torques are not given. These values apply to fasteners as received from suppliers, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to all METRIC, UNF and UNC threads. Remember to always use grade five or better when replacing bolts.

Bolt Size		TORQUE				TORQUE				TORQUE			
		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters	
Inches	Millimeters	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16	11.11	30	25	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2	12.70	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1-1/8	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1-1/4	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1-3/8	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1-1/2	38.10	-	-	-	-	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

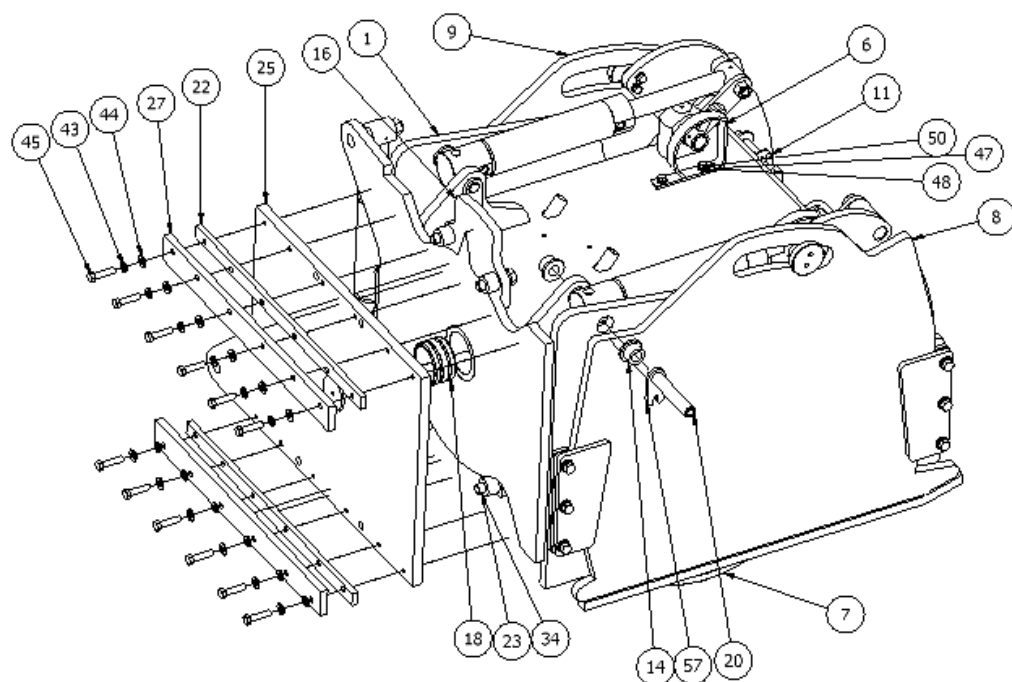
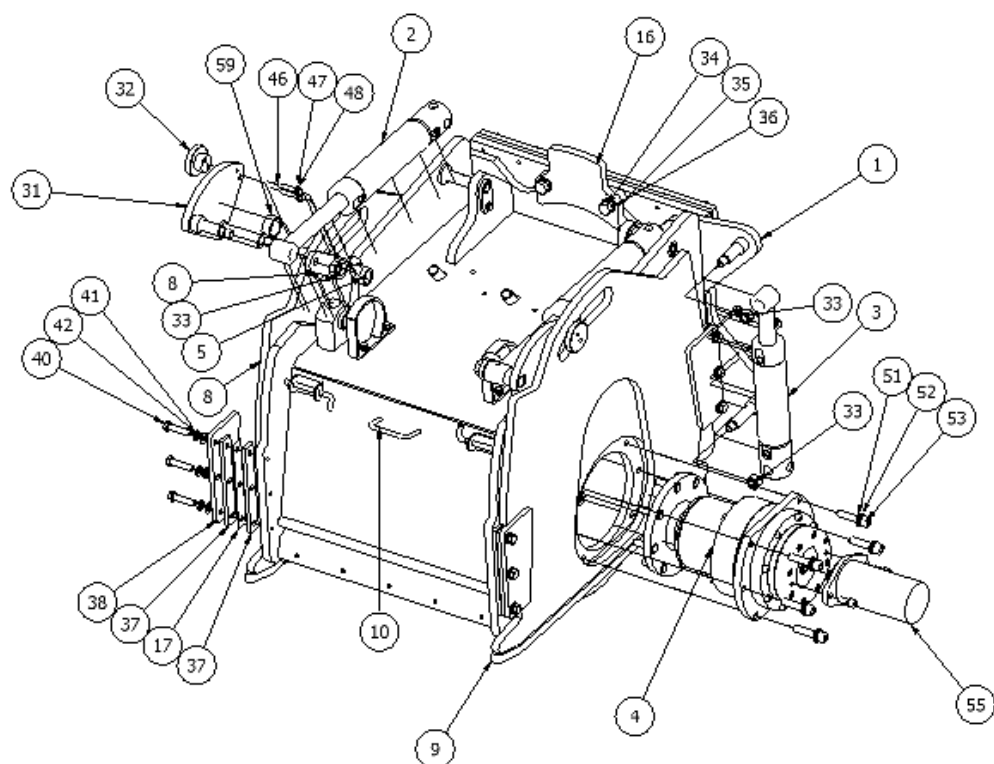
- Thick Nuts must be used with Grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS

Size of Screw	Grade No	Coarse Thread			Fine Thread		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	1.0	12-17	16.3-23
	8.8		5.8-9.4	7.9-12.7			
	10.9		7.2-10	9.8-13.6			
M8	5.6	1.25	7.2-14	9.8-19	1.0	19-27	25.7-36.6
	8.8		17-22	23-29.8		22-31	29.8-42
	10.9		20-26	27.1-35.2		20-29	27.1-39.3
M10	5.6	1.5	20-25	27.1-33.9	1.25	35-47	47.4-63.7
	8.8		34-40	46.1-54.2		40-52	54.2-70.5
	10.9		38-46	51.5-62.3		31-41	42-55.6
M12	5.6	1.75	28-34	37.9-46.1	1.25	56-68	75.9-92.1
	8.8		51-59	69.1-79.9		62-75	84-101.6
	10.9		57-66	77.2-89.4		52-64	70.5-86.7
M14	5.6	2.0	49-56	66.4-75.9	1.5	90-106	122-143.6
	8.8		81-93	109.8-126		107-124	145-168
	10.9		96-109	130.1-147.7		69-83	93.5-112.5
M16	5.6	2.0	67-77	90.8-104.3	1.5	120-138	162.6-187
	8.8		116-130	157.2-176.2		140-158	189.7-214.1
	10.9		129-145	174.8-196.5		100-117	136-158.5
M18	5.6	2.0	88-100	119.2-136	1.5	177-199	239.8-269.6
	8.8		150-168	203.3-227.6		202-231	273.7-313
	10.9		175-194	237.1-262.9		132-150	178.9-203.3
M20	5.6	2.5	108-130	146.3-176.2	1.5	206-242	279.1-327.9
	8.8		186-205	252-277.8		246-289	333.3-391.6
	10.9		213-249	288.6-337.4			



11 Parts List



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CP-010000	Full Assembly
2	2	BC001-200	Bucket Cylinder Assembly
3	1	BC001-150	Bucket Cylinder Assembly
4	1	100265	Road Profiler Gearbox
5	2	CP-006000	Depth Indicator Assy
6	2	CP-004000	Depth Indicator Assy
7	1	SRPD-10	Road Profiler Drum
8	1	CP-001100	Height Adjuster Assembly
9	1	CP-001200	Depth Adjuster Plate Assy
10	1	CP-005000	Front Door Assy
11	2		Latch Assembly
12	2	CP-000060	Bush
13	2	CP-000180	Depth Pivot Block
14	4	CP-000240	Clevis Bush
15	2	CP-000290	Shackle Plate
16	1	CP-000300	Angle Indicator Plate
17	4	CP-000310	Spacer Shim
18	1	CP-000340	Bearing
19	1	CP-000360	Tilt Cylinder Pin
20	2	CP-000380	Pivot Pin
21	1	CP-000400	Guide Plate
22	2	CP-000440	Clamping Bar
23	4	CP-000450	Spacer
24	1	CP-000430	Pivot Retainer Plate
25	1	CP-000410	Mounting Plate
26	1	CP-000460	Stub Shaft
27	2	CP-000470	Clamping Bar
28	1	CP-000420	Pivot Pin
29	2	CP-003010	Pivot Pin
30	2	CP-003020	Cylinder Pivot
31	2	CP-003030	Level Adjustor Plate
32	2	CP-003040	Cam Roller
33	4	ISO 4032 - M20	Hex Nut
34	4	ISO 4017 - M20 x 70	Hex-Head Bolt
35	4	ISO 7091 - ST 20 - 100 HV	Washer
36	4	ASME B18.21.1 - 13/16	Helical Spring Lock Washer
37	8	CP-000090	Spacer Bar



38	4	CP-000110	Depth Plate Guide Plate
39	1	CP-005050	Cover Hinge Pin
40	12	ANSI B18.2.3.5M - M14 x 2 x 60	Hex Bolt
41	12	ANSI B18.22 M - 14 N	Plain Washer
42	12	ASME B18.21.1 - 9/16	Helical Spring Lock Washer
43	14	ASME B18.21.1 - 1/2	Helical Spring Lock Washer
44	12	ANSI B18.22 M - 12 N	Plain Washer
45	12	ANSI B18.2.3.5M – M12 x 1.75 x 50	Hex Bolt
46	4	ANSI B18.2.3.5M – M10 x 1.5 x 55	Hex Bolt
47	14	ANSI B18.22 M - 10 N	Plain Washer
48	8	ASME B18.21.1 - 7/16	Helical Spring Lock Washer
49	4	ANSI B18.2.4.2M - M10 x 1.5	Hex Nut - Style 2 <= M16
50	4	ANSI B18.2.3.5M - M10 x 1.5 x 35	Hex Bolt
51	6	ANSI B18.3.1M - M16x2 x 70	Socket Head Cap Screw Metric
52	12	ANSI B18.22 M - 16 N	Plain Washer
53	6	ASME B18.21.1 - 11/16	Helical Spring Lock Washer
54	6	ANSI B18.2.4.2M - M16 x 2	Hex Nut - Style 2 <= M16
55	1	EATON 74315 & 74318	Sae B Motor Mount Flange
56	2	ANSI B18.3 - 1/2 - 13 – 1 1/4	Hexagon Socket Head Cap Screw
57	2	CP-000210	
58	2	ANSI B18.2.3.5M - M10 x 1.5 x 30	Hex Bolt
59	2	CP-003050	Wear Ring



12 Warranty

All new Digga products are warranted to be free from defects in materials or workmanship which may cause failure under normal usage and service when used for the purpose intended.

In the event of failure within twelve (12) months from initial retail sale, lease or rental date (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads & broom bristles), if after examination, Digga determines failure was due to defective material and/or workmanship, parts will be repaired or replaced. Digga may request defective part or parts be returned prepaid to them for inspection at their place of business at Stapylton, Queensland, or to a location specified by Digga.

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 within the time period specified above shall be deemed waived.

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.

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