

SKID STEER TRENCHER



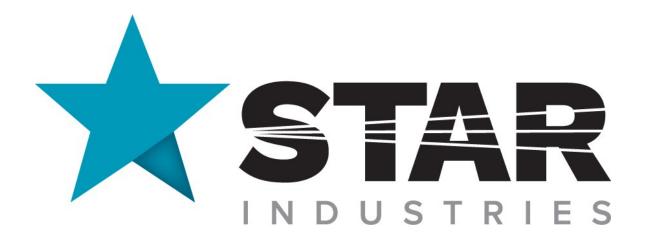
USE AND MAINTENANCE GUIDE

Part Number: 131-48

DOC1031

Read and understand the manual. This manual provides information and procedures to safely operate and maintain the Star Industries Skid Steer Trencher.





Proudly made in the USA, Star Industries' innovative attachments for forklifts, cranes, skid-steers and other machinery make life easier for equipment operators and are used by some of the largest equipment owners and operators in the United States and Canada. USA-made since 1982.

WWW.STARINDUSTRIES.COM

4101 Garland Dr., Fort Worth, TX 76117

Toll-free USA & Canada: <u>(800)</u> 541-1797

Phone: (817) 485-6073

Fax: (817) 428-6008

mail@starindustries.com

THANK YOU

Dear Owner:

We appreciate your business and thank you for choosing Star Industries as your provider of quality skid steer attachments. We are committed to providing you with a heavy duty product that will provide years of satisfaction and safe operation.

This manual will provide instructions on how to safely operate and maintain the Skid Steer Trencher. All users must read and understand this manual before operating this machine. Upon reading this manual, all users should sign the "Safety Acknowledgement Form" at the end of this manual. Store this manual in the document can ister attached to this machine.

Please record your model and dealer information on the inside front cover.

You will be asked to provide this information when ordering parts or requesting service. If you need more information on this product, contact your local dealer or visit www.starindustries.com.

Sincerely,



The Star Industries Team

CONTENTS

Introduction	<u>5</u>
1.1Welcome	5
1.2 Safe Operation	5
1.3 Specifications	6
1.4 Register this Product	7
Safety Information	8
2.1 Introduction	8
2.2 Safety Alert Symbols	9
2.3 Safety Pictograms	10
2.4 General Safety Instructions	11
SAFETY SIGNS AND LABELS	12
3.1 Safety Decals	12
3.2 Safety Sign Locations	13
3.3 Skid Steer Loader Requirements	14
Operating Procedures	15
4.1 Unpacking Your Trencher	15
4.2 How to Mount Your Trencher	16
4.3 Trencher Controls	17
4.4 Trencher Components	17
4.5 Initial Use Procedure	18
4.6 Trencher Operations	19-20
Maintenance Procedures	21
5.1 Maintenance Overview	21
5.2 Maintenance Schedule	22
5.3 Storage Tips	23
5.4 Chain Servicing	24
5.5 Chain removal	25
5.6 Chain Installation	25
Troubleshooting	26
PARTS INFORMATION	27
PARTS DIAGRAM	
SAFETY ACKNOWLEDGEMENT FORM	29-30
MAINTANENCE LOG	31-32

INTRODUCTION

1.1 WELCOME

Congratulations on your new Star Industries Skid Steer Trencher. This equipment has been designed and manufactured to meet the needs of discerning users. Many features incorporated into this trencher are the result of suggestions made by customers like you.

Read this manual carefully to learn how to operate the trencher safely and how to set it to provide maximum trenching efficiency. By following the operating instructions, in conjunction with a good maintenance program, your trencher will provide many years of trouble-free service.

1.2 SAFE OPERATION

Safe, efficient, and trouble-free operation of your trencher requires that you, and anyone else who will be using or maintaining the unit, read and understand the information contained within the Owner's Manual. Use this manual for frequent reference and to pass on to new operators or owners.

Upon reading this manual, all users should sign the "Safety Acknowledgement Form" at the end of this manual. Please record your model and dealer information on page 5. You will be asked to provide this information when ordering parts or requesting service.

WARNING READ AND UNDERSTAND MANUAL.



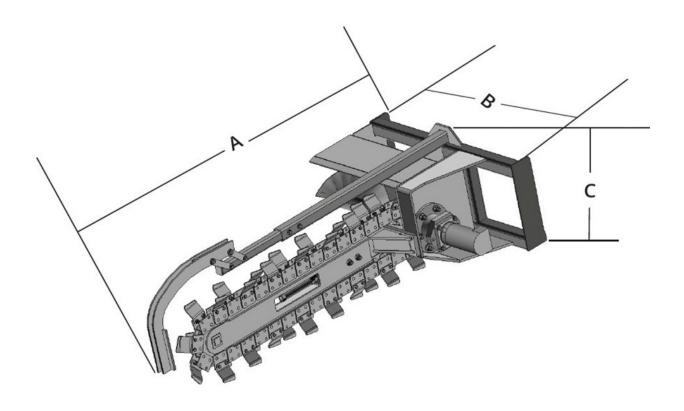
To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The trencher, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow operating, maintaining, adjusting, or cleaning of this trencher until the user has read this manual and has developed a thorough understanding of the safety precautions and functions of the unit. This trencher is designed for the specific purpose of digging. DO NOT modify or use this trencher for any application other than that for which it was designed. Trenchers maintained or operated improperly or by untrained personnel can be dangerous; exposing the user and/or bystanders to possible serious injury or death.



STORE THIS MANUAL IN THE DOCUMENT CANISTER ATTACHED TO THIS MACHINE.



1.3 SPECIFICATIONS



Skid Steer Trencher		
MODEL	131-48	
HYDRAULIC FLOW OPTIONS	20-30 GPM	
TRENCHER WEIGHT W/O CHAIN	686 lbs	
DIGGING DEPTH	48"	
CHAIN TYPES	dirt, rock/frost, combo	
CHAIN WIDTHS	6", 8"	
OVERALL MEASUREMENTS	Length (A): 90" • Width (B): 48" • Height (C): 25"	

Specifications subject to change without notice.

1.4 REGISTER THIS PRODUCT

PURCHASE
DATE
DEALER
NAME
ADDRESS
PHONE
NUMBER
MODEL
SERIAL NUMBER

SAFETY INFORMATION

2.1 INTORDUCTION

The following terms are used interchangeably throughout this manual.

Skid Steer Trencher	Skid Steer	Operator
implement, attachment, product, machine, trencher	skid steer loader, skid steer tractor, loader, prime mover	user, personnel

The Skid Steer Trencher is designed and manufactured with safety in mind. However, improper use and operator error can result in death or serious injury. It is important that you read and fully understand the safety instructions and operating procedures in this manual before operating this trencher. Accident prevention is a combination of good judgement, common sense, awareness and proper training!

BEFORE YOU OPERATE THIS TRENCHER:



- 1. KNOW how to safely operate your skid steer loader.
- 2. READ and UNDERSTAND the safety instructions and operating procedures contained in this manual.
- 3. ACKNOWLEDGE your understanding of all safety instructions presented in this manual by signing the "Safety Acknowledgement Form" at the end of this manual.

Although every effort has been made to ensure a safe product, every possible circumstance that could pose a potential hazard cannot be anticipated. The safety warnings in this manual and on this product, are therefore not all-inclusive.

In addition to the safety messages presented in this section, you must also read and understand the safety messages presented in the other sections of this manual.

2.2 SAFETY ALERT SYMBOLS



This is the safety alert symbol and will be accompanied with a descriptive pictorial. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers' attention to potential hazards. Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure.

2.3 SAFETY PICTOGRAMS

Pictograms are graphic symbols meant to alert you of a potential hazard. Read and understand the hazard description for each of these symbols.



PINCH HAZARD:

Keep clear of skid steer and trencher machine to prevent death or serious injury from pinching of moving parts.



FLYING DEBRIS HAZARD:

ONLY operate this machine using a skid steer that has a shatter proof cab to prevent death or serious injury from objects being thrown.



OPERATING MANUAL:

Operators must read and understand the safety instructions in the operating manual to prevent death or serious injury.



EYE PROTECTION & CARDBOARD:

Operators and Maintenance personnel must wear proper eye protection and use cardboard or wood to investigate hydraulic leaks to prevent death or serious injury from being injected with high pressure hydraulic fluid.



HIGH PRESSURE FLUID INJECTION

HAZARD:

Operators and maintenance personnel must not place fingers or hands directly over a hydraulic leak to prevent death or serious injury from being injected with high pressure hydraulic fluid.



NO BYSTANDERS:

DO NOT operate this machine near bystanders. Bystanders must stay back at least 300 feet from the machine to prevent death or injury from objects being thrown.



CRUSH HAZARD:

DO NOT place any part of the body under the machine or skid steer arms to prevent death or serious injury from being crushed.



SAFETY CHAIN:

Must be installed to prevent the trencher deck from being raised more than 2 feet from ground level.

2.4 GENERAL SAFETY INSTRUCTIONS

Below are general safety instructions that relate to the overall operation and maintenance of this machine. It is important that you read and understand each message to prevent serious injury or death.



ALWAYS

watch for overhead power lines.



DO NOT

place hands or feet under trencher deck while blades are spinning.



NEVER

operate this trencher when bystanders are within 300 feet of your work area. Flying debris could cause serious injury or death.



NEVER

position your body or limbs under an unsupported cutter deck.



DO NOT

allow this machine to contact buildings, utilities, large rocks or tree stumps or you may loose control of the skid steer loader.

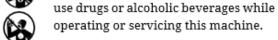


DO NOT

allow riders on the skid steer loader or on this attachment.



NEVER





ALWAYS

operate this attachment during daylight or well-lit areas.



ALWAYS

wear work gloves when handling cutter blades as they are often very sharp.



INSTALL

this trencher on a skid steer loader equipped with a thermoplastic polycarbonate door panel and side panels only.



PREVENT

the skid steer loader and implement from rolling forward, by stopping the engine and setting the parking brake when exiting the skid steer loader.



INSPECT

implement for missing hardware prior to using this machine.



DO NOT

allow children to play on or around this equipment at any time. Store this implement in an area not frequented by children.



ALWAYS

wear the proper personal protection equipment while operating or servicing this machine. NEVER operate or service this machine with bare feet, sandals, or other light footwear.



ALWAYS

use eye protection while operating or servicing this machine.



DO NOT

speed! Keep your driving speed between 2 and 5 mph.



DO NOT

operate this machine during lightning or severe weather conditions.

SAFETY SIGNS AND LABELS

3.1 SAFETY DECALS

The safety decals affixed to this machine are in place to keep you safe. DO NOT ignore these decals. Read and understand each decal's safety message. The following safety decals are affixed to this machine:

NOTICE

AUXILIARY
HYDRAULIC
FLOW NOT
TO EXCEED

20-30
GPM

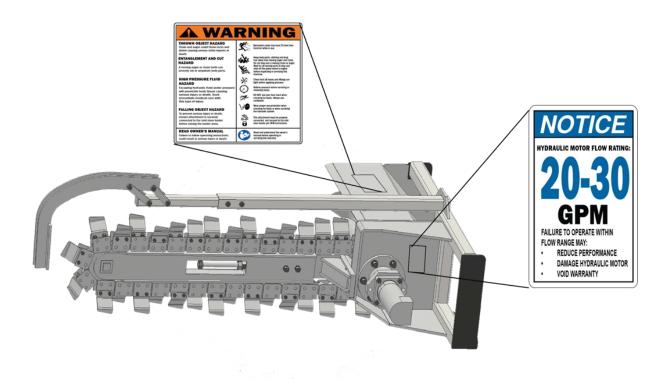
NOTICE

AUXILIARY
HYDRAULIC
FLOW NOT
TO EXCEED
15-20
GPM

SAFETY INSTRUCTIONS

- Decals must be kept clean and legible at all times.
- Operators must inspect the machine for safety decals.
- Replace missing, worn or damaged decals immediately.
- Use care when cleaning the machine. When using a hot pressure washer make sure water jet is not too close to the decal as this may cause the decal to peel.
- When replacing parts, be sure safety decals are in place prior to using the machine.
- Make sure metal surface is dry and free of dirt and grease before applying a new decal to this machine.
- Contact your local dealer to order replacement decals.

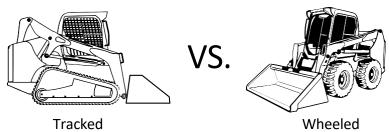
3.2 SAFETY SIGN LOCATIONS



3.3 SKID STEER LOADER REQUIREMENTS



A skid steer equipped with tracks (COMPACT TRACK LOADER) will provide superior stability in this application.





WARNING

Ensure your skid steer loader is in good operating condition. Follow the operating instructions found in your skid steer operator's manual. Failure to do so could result in minor or moderate injury.

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS









All operators should wear hearing protection, safety glasses, hand protection and dust mask while operating this machine.

OPERATING PROCEDURES

4.1 UNPACKING YOUR TRENCHER

Your attachment arrives from the factory strapped to a wood pallet, and requires no final assembly. Use a pair of tin snips to remove the steel strapping.



CAUTION

Shipping straps are under great tension, and could lash out uncontrollably when cut causing injuries to your body. Keep bystanders away and wear safety glasses and gloves while removing the straps.

	Pre-Operating Checklist
'	Trencher is securely attached to the skid steer loader.
'	Hydraulic hoses are connected and locked to the skid steer hydraulic couplers with no signs of hydraulic oil leaks present.
'	Chain is attached with proper tension.
'	Safety labels are present and legible.
'	Call 811. Know what's below before you dig.
'	The area of operation is clear of bystanders and any obstacles that could damage the equipment or cause injury to the operator.
'	The operator is of good health and not under the influence of any mind altering substances or alcohol.

4.2 HOW TO MOUNT TRENCHER

Refer to your skid steer operator's manual for specific instructions on how to mount and dismount your attachment.

GENERAL ATTACHMENT METHOD

- 1. Make sure the hydraulic lines are clear from the front side of the trencher's attachment plate and that the locking pins on the skid steer mounting plate are retracted.
- 2. Drive forward and place top of skid steer mounting plate under the attachment mounting flange. See Figure 4.2a below.
- 3. Slowly raise and tilt back the skid steer mounting plate until the trencher attachment plate rests flat against the skid steer mounting plate.
- 4. Activate your skid steer's lever lock switch to engage and lock the pins into the flange slots of the trencher's attachment plate. If your skid steer does not have this switch, push the latch handles down until you can see the lock pins extend into the attachment flange. See Figure 4.2b below.

NOTICE

To keep contaminants from entering the hydraulic system; wipe off any dirt or dust from the male or female hydraulic flat face couplers with a clean rag before attaching hoses.

5. Connect the attachment hydraulic hoses and the case drain hose to the auxiliary supply couplers located on your skid steer loader lift arm.

NOTICE

Check that the hydraulic hoses are locked into the skid steer couplers before starting trencher.

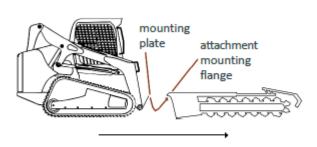


Figure 4.2a: Skid Steer Mounting Plate to Attachment Mounting Flange

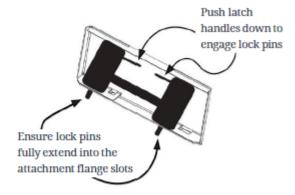


Figure 4.2b: Lock Pins Engaged

4.3 TRENCHER CONTROLS



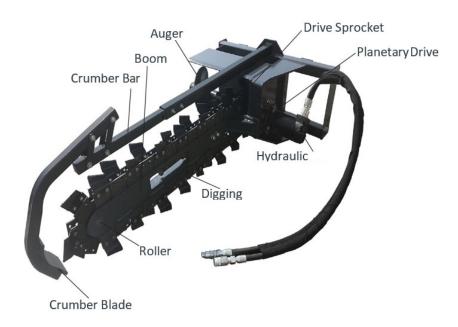
WARNING

Review the "Controls" section of your skid steer owner's manual before operating this trencher. Be familiar with the function of all controls to prevent a serious injury or death.

The Skid Steer Trencher is controlled using the appropriate controls on your skid steer loader.

SKID STEER CONTROL ACTION	TRENCHER ACTION
Push Right Joystick Forward (lower lift arms) Pull Right Joystick Backward (raise lift arms)	Raises and Lowers
Roll Right Joystick Left / Right	Tilts Up and Down
Counter Rotate Tires Left / Right	Moves Left and Right
Activate Auxiliary Hydraulics	Chain Rotates
Increase / Decrease Throttle	Chain Speed Increases / Decreases

4.4 TRENCHER COMPONENTS



4.5 INITIAL USE PROCEDURE

NOTICE

Before operating the trencher, check the skid steer's hydraulic oil level and add oil if necessary.

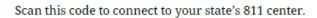
After starting skid steer, lift attachment 12 inches off the ground surface:

- 1. With the skid steer engine RPMs just above idle, activate the skid steer's auxilary hydraulic system.
- 2. Allow the trencher to run for 30 seconds to purge air from the system, then turn off hydraulic flow.
- Lower the trencher to ground level, set parking brake, shut off the engine and exit the operator's compartment.
- 4. Check the skid steer's hydraulic oil level, add oil if necessary.



BEFORE DIGGING

You must notify utility companies of your intent to dig or trench by calling 811 or making an online request with your state's 811 center a few days prior to digging or trenching.







https://call811.com/811-In-Your-State

	Before Digging Checklist
~	Mark the perimeter of the area to be excavated with white paint, chalk, or white flags.
~	Call 811 to have any utilities marked.
~	Become familiar with the type of soil you will be trenching in and install the proper digging chain.
~	Observe any obstacles and decide the best beginning and ending points of the trench.
~	Secure the work area with barricades and/or caution tape to warn bystanders of the work hazard.

4.6 TRENCHING OPERATIONS

DO NOT

use this machine to "push down" trees or remove vegetation.

Lift

the trencher above the ground surface before making any turns.

Avoid

excessive side loading on the trencher.

Position

the trencher in the most vertical position when trenching a curve. Keep the auger at ground level so that dirt spoils are moved away from the trench.

Reduce

the throttle speed when starting a trench to prevent a shock load to the trencher and loader as the teeth contact the soil. Increase the throttle once the digging chain is in the soil.

Ensure

digging chain has the proper tension before each use. (Refer to page 22 for chain adjustment procedure.)



WARNING

Keep clear of trencher boom while trenching. Contact with the digging chain and teeth while in motion could result in serious injury or death from being entangled or dismembered.



WARNING

Trencher may throw rocks and debris that could cause death or serious injury to bystanders. Do not operate the trencher when bystanders are within 20 feet of this machine.

NOTICE

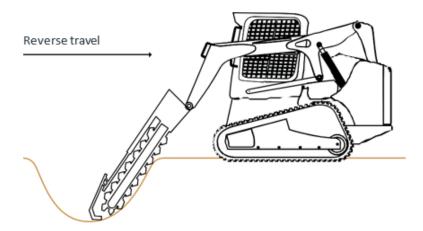
Trenching is always performed with the skid steer loader traveling in reverse.

4.6 TRENCHING OPERATIONS CONT.

STRAIGHT LINE TRENCHES

With the trencher secured to your skid steer:

- 1. Position skid loader on centerline of trench and 3 foot in front of the desired trench starting point.
- 2. Raise and tilt the trencher at a 45° angle so that the digging teeth are slightly above ground level.
- 3. Activate the auxiliary hydraulic system.
- With half throttle, slowly lower the trencher boom until the Crumber Support rolls back onto the crumber bar.
- 5. Increase the throttle and continue to lower the digging chain to the desired depth.
- After reaching the desired depth, slowly drive skid loader in reverse and increase the boom angle to 60°.



NOTICE

The trencher may stall if the skid steer loader is traveling too fast. Trench at a steady pace to prevent the trencher from stalling. Continual stalling of the trencher can cause the hydraulic oil to become too hot leading to possible pump failure. If the hydraulic oil temp is too hot, turn off the trencher and allow it to cool.

ENDING THE TRENCH

When you reach the end of your trench:

- 1. Continue trenching until the end of the digging chain has moved past the desired end point of the trench.
- 2. Stop the skid steer and raise the loader arms until the trencher has cleared the trench.
- 3. Turn off the auxiliary hydraulic system to stop the trencher.
- 4. Drive skid loader and trencher to next location.

MAINTENANCE PROCEDURES 5.1 MAINTENANCE OVERVIEW

The maintenance procedures described in this manual should only be carried out by qualified mechanics who have been trained to repair this machine.

Some procedures require special tools and skills to complete. DO NOT attempt to repair or perform service work on this machine unless you have the skills and tools to do so. Contact your local dealer for maintenance and repair services.

NOTICE

Improper maintenance or modifications to the design or performance of this machine will void the warranty. ONLY use genuine Star Industries replacement parts on this machine.

SAFETY INSTRUCTIONS

Obey the following safety instructions when servicing or repairing this machine.



WEAR

proper Personal Protective Equipment (PPE) while working on this machine, which may include safety glasses, hard hats, steel toe boots, gloves, etc.



WEAR

a welding helmet when welding to protect your eyes, face and neck from flash burn, ultra-violet radiation and heat.



ENSURE

all jack stands, lifts and hoists are in good working condtion and have the rated load capacity to support the load.



SERVICE

If servicing is performed while the trencher is attached to the skid steer, turn engine off, set parking brake and chock wheels to prevent skid steer from moving.



ONLY

perform service work in a well-lit area.



ALLOW

the machine to cool down before servicing this machine. Hot oils can burn your skin.

5.2 MAINTENANCE SCHEDULE

The Skid Steer Trencher will provide years of dependable service if routine maintenance procedures are performed. The maintenance tasks listed below are based on normal operating conditions. More frequent maintenance may be necessary with intense use or when operating in adverse environmental conditions.

Maintenance Task	Before each use	Weekly	Yearly
Check skid steer loader hydraulic fluid level. Add fluid as necessary.	~		
Check that all fasteners (nuts, bolts,, washers, pins, keepers) are in place. Tighten as necessary.	~		
Replace worn or missing teeth or bits.	~		
Inspect and replace any worn, torn, or missing safety decals.	/		
Inspect hydraulic plumbing (hoses and connectors) for damage or leakage. Repair or replace hydraulic items as necessary.		/	~
Check condition of chain. Replace as necessary.	~		
Pump No.2 lithium or molybdenum disulfide grease into all grease fittings until old grease is flushed from fittings.			~
Change oil in planetary gear box after 50 hours of first time use, then every 1,000 hrs. or yearly.		~	
Wash trencher.		~	~
Check Trencher for major scratches and dings. Sand and repaint these areas to prevent rust damage. Use a paint formulated for farm equipment which can be found at your local hardware store			~

MAINTENANCE LOG

Document all maintenance and service activities performed on this trencher using the maintenance log included at the end of this manual.

5.3 STORAGE TIPS

To get years of quality use out of your Skid Steer Trencher, follow these tips when storing:



THOROUGHLY WASH

then dry your trencher. Ensure trencher is free of debris, dirt, grime and grease.



STORE

your trencher in a dry area such as in a shed or garage.



COVER

your trencher with a waterproof tarp if storing outside.

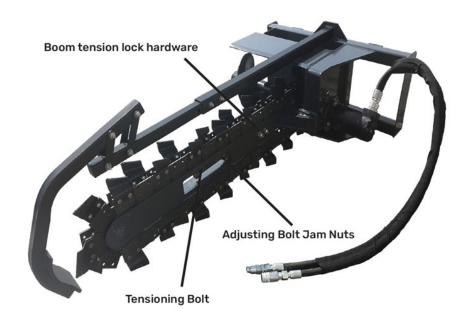
5.4 CHAIN SERVICING

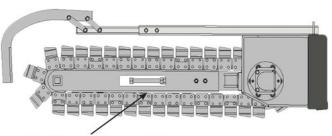
CHAIN TENSION

Check that the digging chain has the correct tension before each use. Trencher arm should be in the horizontal position when checking the chain tension.

To adjust the chain tension:

- 1. Loosen boom tension lock hardware.
- 2. Loosen the adjusting bolt jam nuts.
- 3. Turn the tensioning bolt clockwise until there is a 1-2 inches of sag between the chain and the middle section of boom.
- 4. Tighten jam nuts.
- 5. Tighten nuts on outer boom section.





1-2" sag between boom and chain

5.5 CHAIN REMOVAL

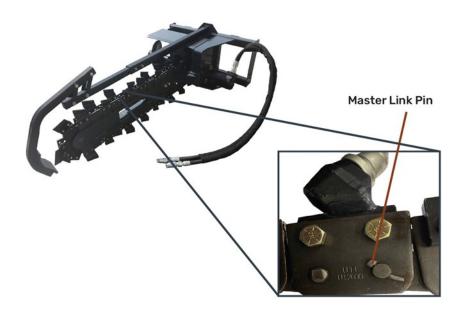


CAUTION

Chains contain sharp edges and are heavy and difficult to handle. Wear protective gloves and use proper lifting devices to position the chain to prevent a minor or serious injury.

With the trencher securely attached to skid steer and resting on the ground:

- 1. Relieve the chain tension. (See previous page.)
- 2. Rotate chain so that the master link pin can be accessed from both sides.
- 3. Secure a lifting strap to the chain to control it after removing the master link pin.
- 4. Remove master link pin.
- 5. Raise the lifting strap to pull chain off the boom.



5.6 CHAIN INSTALLATION

With the trencher securely attached to skid steer and resting on the ground:

- 1. Secure trencher to skid loader.
- 2. Using a lifting strap to assist you, place the chain onto the nose roller and over the drive sprocket. The cutting edge of the teeth should be facing away from the trencher.
- 3. Wrap each end of the chain under the boom and join together using a master link pin.
- 4. Adjust the chain tension. (See previous page.)

TROUBLESHOOTING



Problem	Cause	Resolution
	Hydraulic hose not properly connected	Check and reconnect hoses
	Skid Loader's hydraulic system not functioning	Check for hydraulic leaks
Digging chain will not turn when the auxiliary hydraulics	Digging chain too tight	Loosen chain
is activated	Chain is bound up with dirt and rocks	Clean chain at nose roller and sprocket
	Obstruction in ground	Investigate and clear obstruction
Digging chain falls off the boom	Incorrect chain tension.	Adjust chain tension (See page 22)
Trencher veers off in one di-	Improper digging tooth arrange- ment	Rearrange cutting teeth
rection	Tail roller or drive sprocket is worn	Replace tail roller and drive sprocket
	Reverse travel speed is too fast	Slow prime mover's travel speed
	Hydraulic system over heating	Turn off prime mover and allow system to cool
	Poor hydraulic flow/restricted hose line	Increase engine speed of prime mover if not running at max RPM
Trencher lacks power/speed	Loose or broken digging chain	Verify auxiliary circuit is providing sufficient flow
	Incorrect digging components for soil condition	Tighten or replace chain
	Chain not turning freely on boom	Check chain tension, and check for dirt build-up on tail roller or drive sprocket
Dirt is not expelled from the trench when using rock and frost teeth components	Missing or broken teeth.	Ensure the correct chain components are being used for the soil conditions that exist
1103t teetii components		Install cupped teeth

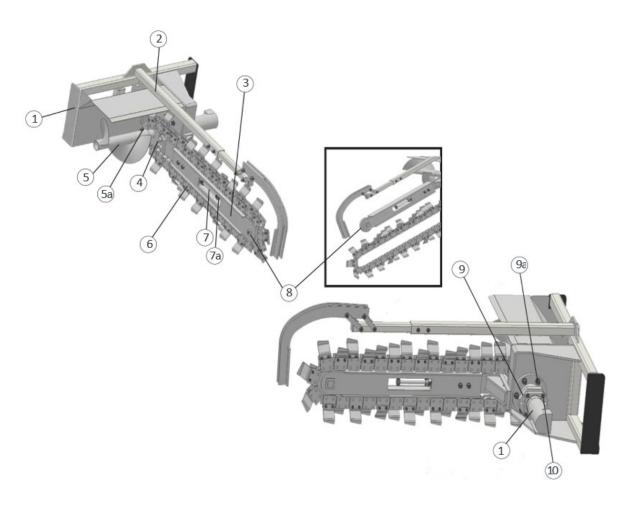
PARTS INFORMATION

Factory fresh parts specifically designed for your implement are readily available.

For hassle free service and to ensure you receive the correct parts for your implement, please provide your dealer with the following information.

Model	
Serial number	
GPM Requirements	
Date of Owners Manual (Bottom Right Corner of Cover Page)	
Parts Diagram Page Number	
Part Description	
Reference Number	
Quantity Desired	
Ship to Information	
Bill to/Payment information	

PARTS DIAGRAM



Ref	Description	QTY.
1	Frame Weldment	1
2	Crumber Tube Arm	1
3	Trencher Arm	1
4	Trencher Sprocket/Shaft Weldment	1
5	Auger	1
6	Chain	1
7	1" Threaded Tensioner Rod	1
7a	1" Tensioner Nut	1
8	Trencher Front Roller	1
9	Motor (CID 3033, CID 3032)	1
9a	Motor Mounting Hardware	1
10	Gearbox Motor (BC65)	1
10a	Gearbox Motor Mounting Hardware	1

SAFETY ACKNOWLEDGEMENT FORM

ATTN ALL OPERATORS: Print your name, sign and date in the boxes below to acknowledge that you have read and fully understand the safety instructions presented in this manual, and have been trained on how to safely operate this attachment.

Operator Name	Signature	Date

Operator Name	Signature	Date

MAINTENANCE LOG

Use this log sheet to document all routine maintenance and repair services performed on this machine.

DESCRIPTION OF MAINTENANCE	SERVICED BY	DATE

DESCRIPTION OF MAINTENANCE	SERVICED BY	DATE