AGT INDUSTRIAL AGT-ECSSCT72

Skid Steer Side Shift Trencher Attachment

User Manual

1. Introduction

This manual provides essential information for the safe and efficient operation, setup, and maintenance of your AGT INDUSTRIAL Skid Steer Side Shift Trencher Attachment. Please read this manual thoroughly before operating the equipment to ensure proper use and to prevent injury or damage.

The trencher attachment is designed for high-flow hydraulic systems, offering versatile trenching capabilities for various soil conditions. Its robust construction and adjustable features make it suitable for a wide range of digging applications.

2. Safety Information

Always prioritize safety when operating heavy machinery. Failure to follow safety instructions can result in serious injury or death.

- **Read the Manual:** Understand all instructions and warnings before operation.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including safety glasses, hard hat, steel-toed boots, and gloves.
- **Machine Inspection:** Before each use, inspect the trencher for any loose bolts, damaged hoses, or worn components. Ensure all guards are in place.
- **Clear Work Area:** Keep bystanders, children, and pets away from the operating area. Be aware of underground utilities.
- **Hydraulic System Safety:** Relieve hydraulic pressure before disconnecting hoses. High-pressure fluid can cause serious injury.
- **Secure Attachment:** Ensure the trencher is securely attached to the skid steer before operation.
- **Emergency Shut-off:** Know the location and operation of the skid steer's emergency shut-off.

3. Components Overview

The AGT INDUSTRIAL Skid Steer Side Shift Trencher Attachment consists of several key components working in unison to perform trenching operations.

Figure 3.1: Overall view of the Skid Steer Side Shift Trencher Attachment, showing the main frame, digging chain, and hydraulic connections.

- **Digging Chain:** Equipped with various teeth types for different soil conditions.
- **Hydraulic Motor:** Powers the digging chain.
- **Hydraulic Hoses:** Connect the trencher to the skid steer's hydraulic system.
- **Scraper Shoe:** Helps to clear loose soil from the trench.
- **Side Shift Mechanism:** Allows for manual or hydraulic adjustment of the trencher's position relative to the skid steer.
- **Mounting Plate:** Standard skid steer universal quick attach plate for easy connection.

4. Setup

Proper setup is crucial for safe and effective operation.

4.1 Attaching to Skid Steer

1. Ensure the skid steer is on a level surface, engine off, and parking brake engaged.
2. Align the trencher's mounting plate with the skid steer's quick attach system.
3. Engage the quick attach levers to secure the trencher. Verify a secure connection by gently lifting and wiggling the attachment.

4.2 Hydraulic Connections

The trencher requires three hydraulic hoses for operation: two 1/2" hoses for hydraulic flow (In and Out) and one case drain line (3rd hose) for releasing motor pressure. Flat-faced couplers are included.

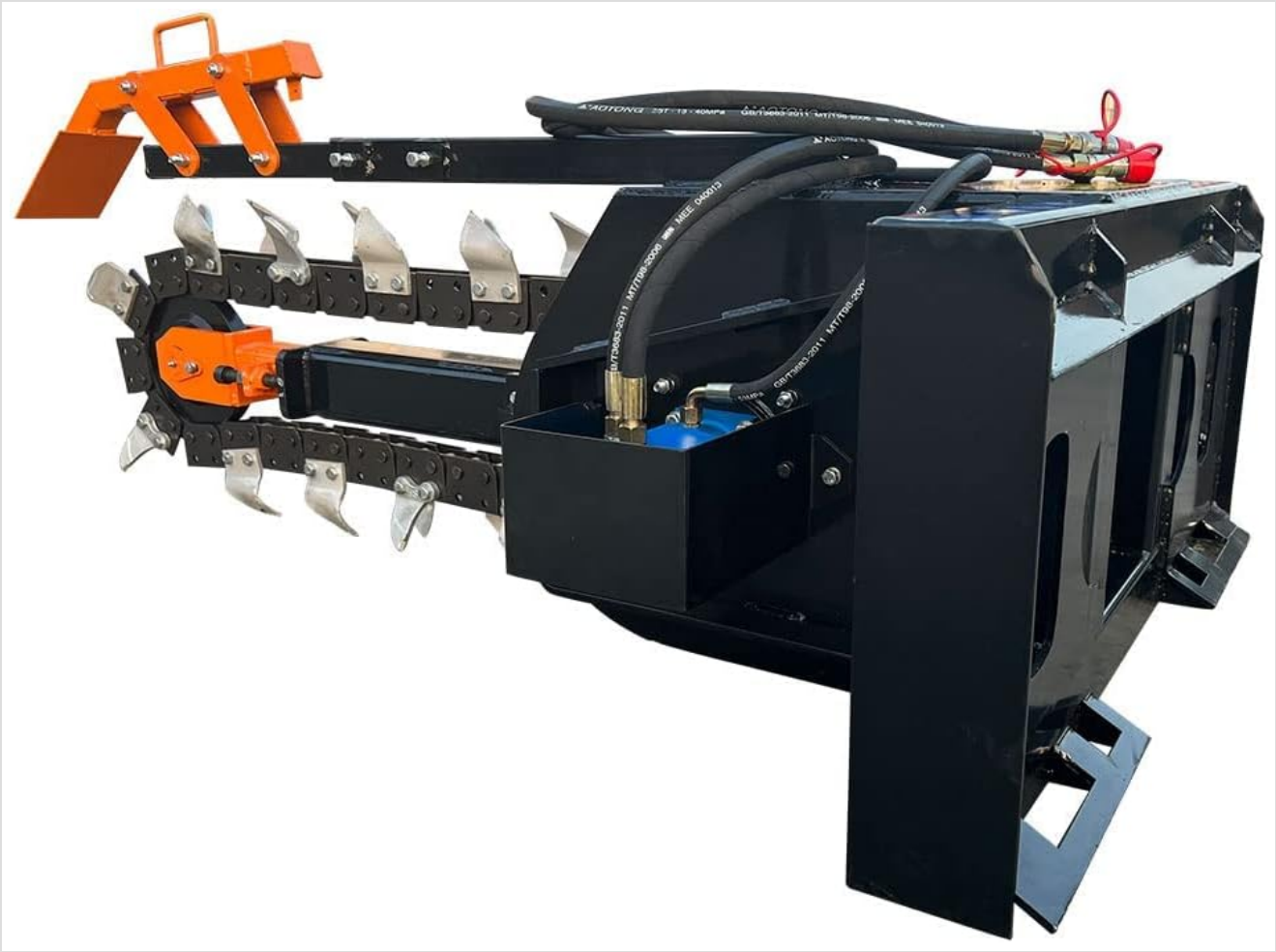

Figure 4.1: Hydraulic hose connections on the trencher attachment.

1. Clean all hydraulic couplers before connecting to prevent contamination.
2. Connect the two 1/2" hydraulic hoses to the corresponding ports on the skid steer.
3. Connect the case drain line to the skid steer's case drain port. This line is essential for proper motor function and longevity.
4. Ensure all connections are tight and free of leaks.

4.3 Chain Tension Adjustment

Proper chain tension is vital for efficient digging and to prevent premature wear. The chain tension is adjustable.

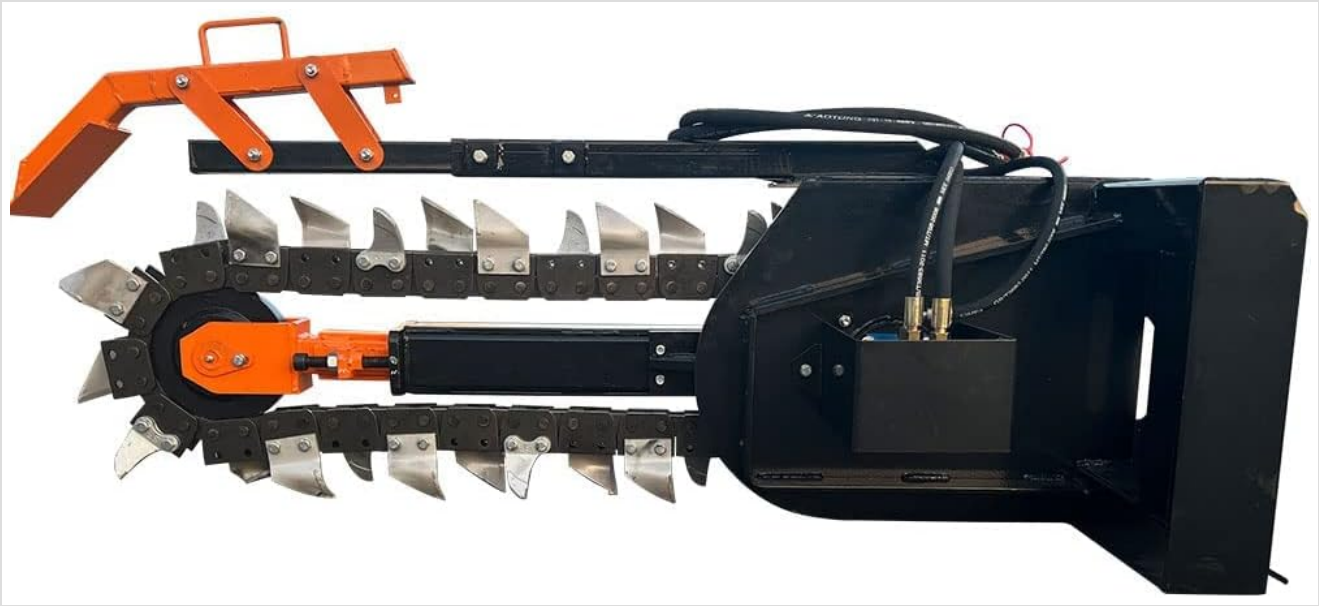

Figure 4.2: Close-up of the chain tensioning mechanism.

Refer to the specific instructions provided with the trencher for detailed steps on adjusting chain tension. Generally, the chain should have a slight amount of slack, but not enough to allow it to jump off the sprocket during operation.

5. Operating Instructions

Familiarize yourself with the controls of your skid steer and the trencher attachment before beginning work.

5.1 Hydraulic Flow Requirements

The trencher is designed for high-flow hydraulic systems and operates optimally with hydraulic flows between 20-40 gpm (76-151 lpm). Ensure your skid steer meets these requirements.

5.2 Digging Depth and Trench Width

The trencher offers adjustable digging depths from 36" to 60" (914-1524 mm) and trench widths from 6" to 12" (152-305 mm). Adjust these settings based on your project requirements and soil conditions.

5.3 Side Shift Operation

The trencher features a manual or hydraulic side-shift mechanism, allowing you to position the digging chain closer to obstacles or structures.

Figure 5.1: Top-down view illustrating the side-shift capability.

Consult your skid steer's manual for operating auxiliary hydraulic functions if using the hydraulic side-shift.

5.4 Chain and Teeth Selection

The trencher supports various chain and teeth configurations for optimal performance in different soil types:

- **Shark Teeth (Alloy Carbide Steel):** Recommended for rocky and gravel trenching.
- **Cup Teeth (Wear-resistant Edge, Alloy Carbide):** Ideal for general soil work trenching.
- **Double Standard Chains:** Recommended for harder, drier soil, featuring roughly twice the number of teeth.
- **Single Standard Chains:** Suitable for loose, damp soil.
- **Half Rock & Frost Chains:** Best for harder, frozen, and rocky digging conditions.

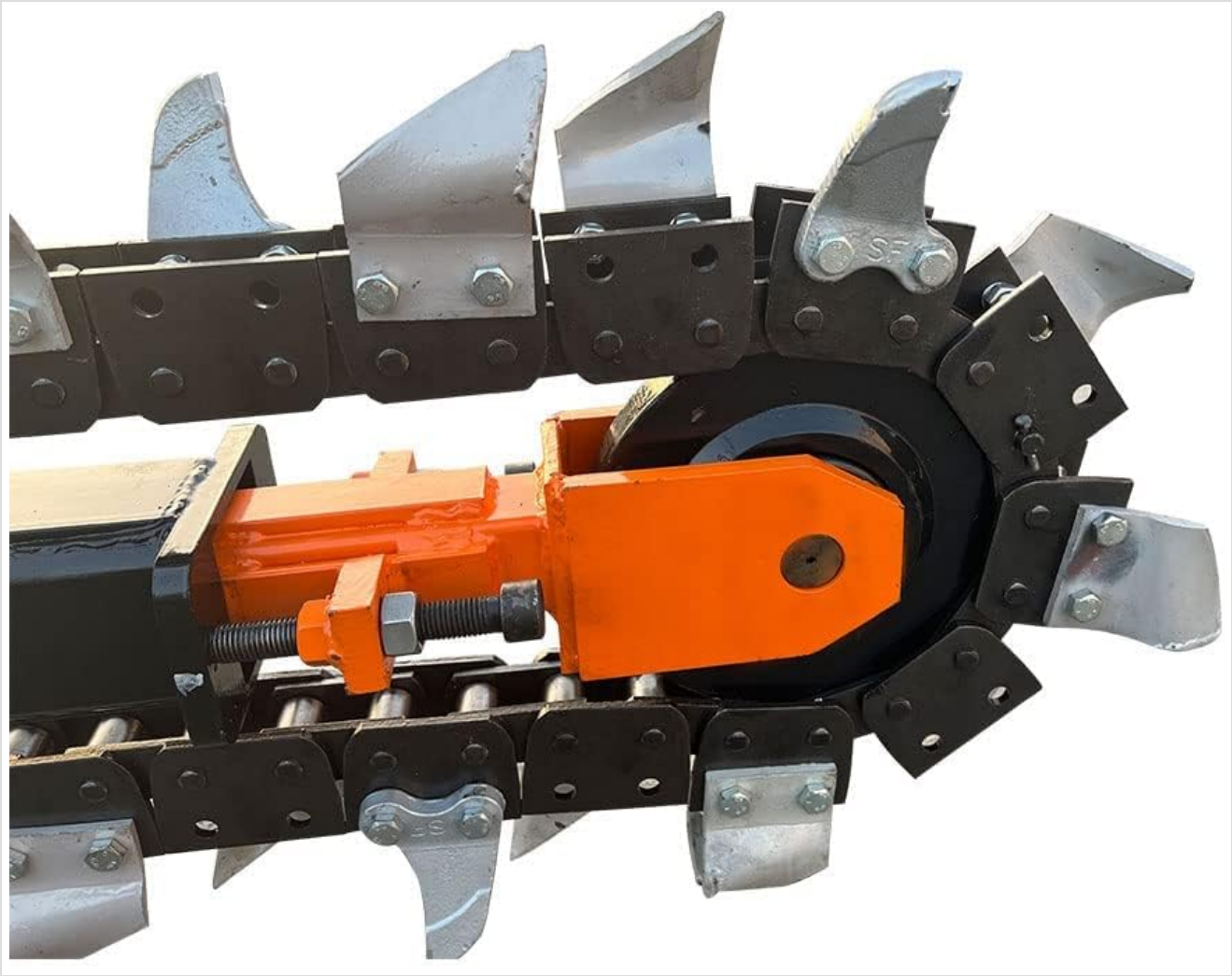

Figure 5.2: Close-up of the trencher chain and teeth configuration.

5.5 Trenching Procedure

1. Position the trencher at the starting point of your desired trench.
2. Lower the trencher until the digging chain makes contact with the ground.
3. Engage the hydraulic flow to start the chain rotation.
4. Slowly move the skid steer forward, allowing the trencher to dig. The large scraper shoe with built-in springs will help maintain loose soil that is clawed back to the chain to discharge and keep the trenched area clean.
5. Monitor digging depth and adjust as needed.
6. Once the trench is complete, disengage the hydraulic flow and raise the trencher.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your trencher attachment.

- **Daily Inspection:** Check for loose fasteners, worn teeth, damaged hoses, and proper chain tension. Tighten any loose bolts immediately.
- **Chain and Teeth:** Inspect teeth for wear and replace as necessary. Ensure chain links are not damaged or excessively worn.
- **Hydraulic System:** Check hydraulic hoses and fittings for leaks or damage. Ensure hydraulic fluid is clean and at the correct level in the skid steer's reservoir.
- **Cleaning:** After each use, clean dirt and debris from the trencher, especially around the chain, sprockets, and hydraulic components.

- **Lubrication:** Lubricate all grease points as recommended by the manufacturer.
- **Storage:** Store the trencher in a dry, protected area when not in use.

7. Troubleshooting

This section addresses common issues you might encounter with your trencher attachment.

Problem	Possible Cause	Solution
Trencher chain not rotating or rotating slowly	Insufficient hydraulic flow/pressure; Clogged hydraulic filter; Damaged hydraulic motor; Incorrect hose connection.	Verify skid steer hydraulic output; Check/replace hydraulic filter; Inspect motor for damage; Ensure hoses are correctly connected.
Poor digging performance	Worn or incorrect teeth type for soil; Incorrect chain tension; Operating too fast; Obstruction in trench.	Replace worn teeth or change to appropriate type; Adjust chain tension; Reduce ground speed; Clear obstructions.
Excessive vibration or noise	Loose fasteners; Worn chain or sprockets; Bent components.	Inspect and tighten all bolts; Check chain and sprockets for wear and replace if necessary; Inspect for bent parts.
Hydraulic fluid leaks	Loose fittings; Damaged hoses or seals.	Tighten fittings; Replace damaged hoses or seals.

8. Specifications

Key technical specifications for the AGT INDUSTRIAL Skid Steer Side Shift Trencher Attachment:

- **Model Number:** AGT-ECSSCT72
- **Manufacturer:** AGT INDUSTRIAL
- **Hydraulic Flow Requirement:** 20-40 gpm (76-151 lpm)
- **Operating Flow (L/min):** 45-75
- **Working Pressure (MPa):** 15
- **Digging Depths:** Adjustable 36"-60" (914-1524 mm), nominal 47.24"
- **Trench Widths:** Adjustable 6"-12" (152-305 mm), nominal 5.11"
- **Dimensions (L x W x H):** 78" 51" 23"
- **Weight:** 892.87 lbs
- **Teeth Material:** Shark teeth: Alloy carbide steel; Cup teeth: Wear-resistant edge (alloy carbide)

9. Warranty and Support

For specific warranty information regarding your AGT INDUSTRIAL Skid Steer Side Shift Trencher Attachment, please refer to the documentation provided at the time of purchase or contact AGT INDUSTRIAL directly. Warranty terms typically cover manufacturing defects for a specified period.

For technical support, parts, or service inquiries, please contact AGT INDUSTRIAL customer service. When contacting support, please have your model number (AGT-ECSSCT72) and purchase information readily available.