

OPERATOR'S AND PARTS MANUAL

DT1136 TRENCHER ***CAT. I 3-POINT HITCH***



MANUAL #5MP76341

FRONTIER
EQUIPMENT

M-2190 4-8-09

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SAFETY STATEMENTS



THIS SYMBOL BY ITSELF OR WITH A WARNING WORD THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

FRONTIER ALWAYS TAKES THE OPERATOR AND HIS SAFETY INTO CONSIDERATION AND GUARDS EXPOSED MOVING PARTS FOR HIS PROTECTION. HOWEVER, SOME AREAS CANNOT BE GUARDED OR SHIELDED IN ORDER TO ASSURE PROPER OPERATION. IN ADDITION, THE OPERATORS MANUAL AND DECALS ON THE MACHINE ITSELF WARN YOU OF FURTHER DANGER AND SHOULD BE READ



DANGER

THIS SIGNAL WORD IS USED WHERE SERIOUS INJURY OR DEATH WILL RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



WARNING

THIS SIGNAL WORD IS USED WHERE SERIOUS INJURY OR DEATH COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



CAUTION

THIS SIGNAL WORD IS USED WHERE MINOR INJURY COULD RESULT IF THE INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.

NOTICE

NOTICE INDICATES A PROPERTY DAMAGE MESSAGE.

GENERAL SAFETY PRECAUTIONS

WARNING!

READ MANUAL PRIOR TO INSTALLATION



Improper installation, operation, or maintenance of this equipment could result in serious injury or death. Operators and maintenance personnel should read this manual, as well as all manuals related to this equipment and the tractor thoroughly before beginning installation, operation, or maintenance. **FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND THE TRACTOR MANUAL(S).**



READ AND UNDERSTAND ALL SAFETY STATEMENTS

Read all safety decals and safety statements in all manuals prior to operating or working on this equipment. Know and obey all OSHA regulations, local laws, and other professional guidelines for your operation. Know and follow good work practices when assembling, maintaining, repairing, mounting, removing, or operating this equipment.



KNOW YOUR EQUIPMENT

Know your equipment's capabilities, dimensions, and operations before operating. Visually inspect your equipment before you start, and never operate equipment that is not in proper working order with all safety devices intact. Check all hardware to ensure it is tight. Make certain that all locking pins, latches, and connection devices are properly installed and secured. Remove and replace any damaged, fatigued, or excessively worn parts. Make certain all safety decals are in place and are legible. Keep decals clean, and replace them if they become worn or hard to read.

GENERAL SAFETY PRECAUTIONS

WARNING!



PROTECT AGAINST FLYING DEBRIS

Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.

WARNING!



LOWER OR SUPPORT RAISED EQUIPMENT

Do not work under raised booms without supporting them. Do not use support material made of concrete blocks, logs, buckets, barrels, or any other material that could suddenly collapse or shift positions. Make sure support material is solid, not decayed, warped, twisted, or tapered. Lower booms to ground level or on blocks. Lower booms and attachments to the ground before leaving the cab or operator's station.

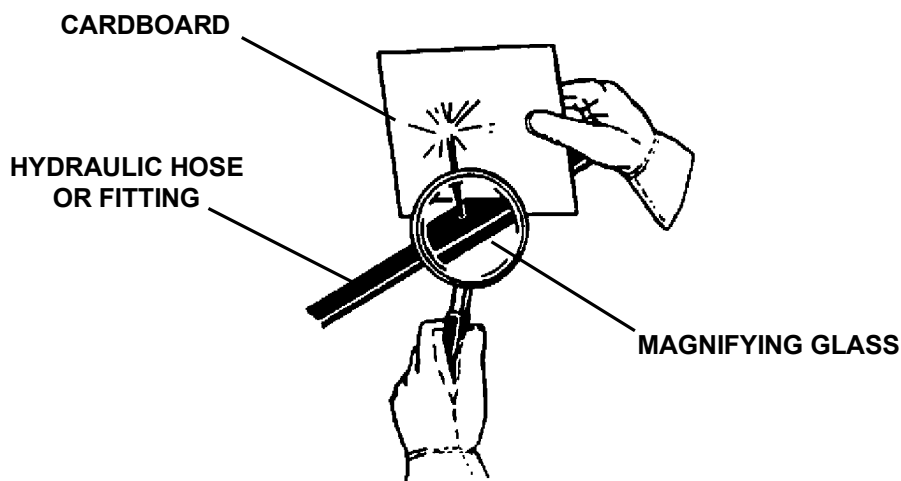
WARNING!



USE CARE WITH HYDRAULIC FLUID PRESSURE

Hydraulic fluid under pressure can penetrate the skin and cause serious injury or death. Hydraulic leaks under pressure may not be visible. Before connecting or disconnecting hydraulic hoses, read your tractor operator's manual for detailed instructions on connecting and disconnecting hydraulic hoses or fittings.

- 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.
- Wear safety glasses, protective clothing, and use a piece of cardboard or wood when searching for hydraulic leaks. **DO NOT USE YOUR HANDS!** SEE ILLUSTRATION.



GENERAL SAFETY PRECAUTIONS

WARNING!



DO NOT MODIFY MACHINE OR ATTACHMENTS

Modifications may weaken the integrity of the attachment and may impair the function, safety, life, and performance of the attachment. When making repairs, use only the manufacturer's genuine parts, following authorized instructions. Other parts may be substandard in fit and quality. Never modify any ROPS (Roll Over Protection Structure) or FOPS (Falling Object Protective Structure) equipment or device. Any modifications must be authorized in writing by the manufacturer.

WARNING!



SAFELY MAINTAIN AND REPAIR EQUIPMENT

- Do not wear loose clothing or any accessories that can catch in moving parts. If you have long hair, cover or secure it so that it does not become entangled in the equipment.
- Work on a level surface in a well-lit area.
- Use properly grounded electrical outlets and tools.
- Use the correct tools for the job at hand. Make sure they are in good condition for the task required.
- Wear the protective equipment specified by the tool manufacturer.



SAFELY OPERATE EQUIPMENT

Do not operate equipment until you are completely trained by a qualified operator in how to use the controls, know its capabilities, dimensions, and all safety requirements. See your machine's manual for these instructions.

- Keep all step plates, grab bars, pedals, and controls free of dirt, grease, debris, and oil.
- Never allow anyone to be around the equipment when it is operating.
- Do not allow riders on the attachment or the tractor.
- Do not operate the equipment from anywhere other than the correct operator's position.
- Never leave equipment unattended with the engine running, or with this attachment in a raised position.
- Do not alter or remove any safety feature from the tractor or this attachment.
- Know your work site safety rules as well as traffic rules and flow. When in doubt on any safety issue, contact your supervisor or safety coordinator for an explanation.

WARNING!



KNOW WHERE UTILITIES ARE

Observe overhead electrical and other utility lines. Be sure equipment will clear them. When digging, call your local utilities for location of buried utility lines, gas, water, and sewer, as well as any other hazard you may encounter.

EQUIPMENT SAFETY PRECAUTIONS



TRANSPORTING THE TRENCHER

- Travel only with the attachment as close to the ground as possible.
- When driving on public roads use safety lights, reflectors, Slow Moving Vehicle signs etc., to prevent accidents. Check local government regulations that may affect you.
- Use headlights, flashing warning lights and turn signals day and night. Follow local regulations for equipment lighting and marking. Repair or replace lighting and marking that has been damaged or lost.
- Do not drive close to ditches, excavations, etc., cave in could result.
- Reduce speed when traveling on inclines, turning or under any adverse surface conditions.



MAINTAINING THE TRENCHER

- Before performing maintenance, find a level surface, lower the attachment to the ground, apply the brakes, turn off the engine, and remove the key. Service work does not require going underneath the trencher.
- Never perform maintenance on the trencher unless you are authorized and qualified to do so. Always read the operator's service section for correct functioning of the trencher. If not functioning properly, always tag "DO NOT OPERATE" until all problems are corrected.
- Worn, damaged, or illegible safety decals must be replaced. New safety decals can be ordered from your Frontier Dealer.
- Never work under a raised attachment.
- Replace all safety shields and guards when done performing maintenance. Do not operate trencher with protective equipment removed.



REMOVE PAINT BEFORE WELDING

Hazardous fumes/dust can be generated when paint is heated by welding, soldering or using a torch. Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do all work outside or in a well ventilated area and dispose of paint and solvent properly. Remove paint before welding or heating.

- If 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.



AVOID TIP-OVER

- Use seatbelt when present.
- Avoid holes, ditches, and obstructions which may cause the machine to tip, especially on hillsides.
- Never drive near the edge of a ditch, creek, gully or steep embankment.
- Slow down when turning, or traveling over rough ground and when turning on hillsides.

EQUIPMENT SAFETY PRECAUTIONS



OPERATING THE TRENCHER

- PTO Operated Attachment: Rotating driveline contact can cause death. Do not operate without all driveline, tractor and equipment shields in place. Drivelines securely attached at both ends and driveline shields that turn freely on drivelines.
- Make sure driveline is correct length to prevent bottoming out or pulling apart during operation.
- Make sure spring-activated locking pin or collar slides freely and is seated firmly in tractor PTO splined groove.
- A minimum of 20% tractor and equipment weight must be on tractor front wheels with attachment in “transport” position. Without this weight, tractor could tip over causing personal injury or death. The weight may be attained with a loader, front wheel weights, ballast in tires, or front tractor weights. When attaining weight you must not exceed the Roll Over Protection Structure (ROPS) weight certification. Weigh the tractor and equipment. Do not estimate.
- Ensure shields and guards are properly installed and in good condition. Replace if damaged.
- Operate only from the operator’s station. Always use the seat belt if the tractor has a ROPS. Do not use a seat belt if there is no ROPS. Check the seat belt daily and replace if frayed or damaged.
- Never drop a boom with a rapidly moving digging chain on the ground. The force of the trencher may cause the tractor to move suddenly and unexpectedly.
- Use caution when operating on slopes. The natural vibration will cause the unit to creep sideways downhill. Try to dig with the trencher in a level position.
- Do not adjust relief valve settings. Incorrect valve settings could result in equipment damage and/or personal injury.
- 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.
- Do not use the trencher crumber bar or chain as a step when climbing on or off of the tractor.
- Be alert to changes in the work area. Watch out for bystanders, changes in the weather and soil conditions.
- Do not make sharp turns while trenching. Trencher could become wedged in the trench and damaged.
- Keep equipment and bystanders away from the trench after it has been dug. The weight could cause cave in.
- If chain becomes jammed, never attempt to free it while the unit is running. Stop the unit, shut off the engine and review the situation.
- Before exiting the tractor, lower the attachment to the ground, apply the brakes, turn off the tractor’s engine, and remove the key.

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