

QUICK HITCH GRAPPLE OPERATOR'S MANUAL

MODEL COMPATIBILITY

This kit is compatible with the following	Quick Hitch	Angling Kit
Tractor models:		
318, 322, 332-----	(BM18121)	(BM18125)
420, 430-----	(BM18122)	(BM18125)
425, 445, 455-----	(BM17650)	(BM17347)
X400, X500 & X700 Ultimate Series tractors-----	(BM19782)	(BM25609)
2210, 2305-----	(BM20921)	(BM20922)
1023E, 1025R, 1026R-----	(BLV10159)	(LVB26108)

It is recommended to install the hydraulic lockout valve for your tractor model. This will increase the speed of the quick hitch.

It is recommended to use the maximum amount of rear ballast that your tractor model is rated for.

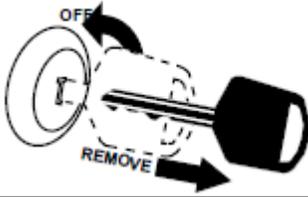
It is recommended that you install a tow relief valve in accordance with your tractor models towing or loader installation guidelines.

COMMON PRACTICES FOR EQUIPMENT OF THIS TYPE

Tractor Shutdown

Before leaving operator's seat:

- ▲ Lower attached implement to the ground.
- ▲ Put tractor in park, turn off engine, and remove key to prevent unauthorized starting.



Avoid Underground Utilities

- ▲ **Dig Safe, Call 811.**
Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.
- ▲ Be sure to ask how close you can work to the marks they positioned.



Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ **DO NOT DELAY.** If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.



Keep Riders Off Machinery

- ▲ Never carry riders or use machinery as a personlift.
- ▲ Riders obstruct operator's view.
- ▲ Riders could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.



Wear Protective Equipment

- ▲ Wear protective clothing and equipment appropriate for the job. Clothing should be snug fitting without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the operator's full attention. Avoid wearing radio headphones while operating machinery.



Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.



SAFETY AT ALL TIMES

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them. Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- The operator must not use drugs or alcohol as they can change the alertness or coordination of that person while operating equipment.
- The operator should, if taking over-the-counter drugs, seek medical advice on whether he/she can safely operate the equipment.
- Operator should be familiar with all functions of the unit.
- Make sure all guards and shields are in place and secured before operating implement.
- Start tractor with steering levers and hydraulic controls in neutral.
- Keep all persons away from equipment and work area.
- Operate implements from the driver's seat only.
- Dismounting from a moving unit can cause serious injury or death.
- Keep hands, feet, and clothing away from power-driven parts. Watch out for objects overhead and alongside such as fences, buildings, wires, trees, limbs, etc., while transporting and operating attached implement.
- It is not recommended to carry loads that are wider than the tractor as they could hit something or someone and cause damage, injury or death. Use caution, know your surroundings and move slowly when traveling.
- Only travel on level ground when carrying an object with the grapple.
- Detach and store implement in an area where children do not play.
- Secure grapple in the closed position when removed from the quick hitch.
- Only open upper grapple jaw to grasp objects. Close completely during travel and at all other times.
- While your grapple is capable of lifting considerably more than 400lbs, it is recommended that you do not exceed 400lbs. Exceeding this capacity could cause damage to your quick hitch or tractor. It can also lead to instability of the tractor when traveling.

PARKING SAFELY

1. Stop machine on a level surface, not on a slope.
2. Disengage mower blades or any other attachments.
3. Lower attachments to the ground.
4. Lock the park brake.
5. Stop the engine.
6. Remove the key.
7. Wait for engine and all moving parts to stop before you leave the operator's seat.
8. Close fuel shut-off valve, if your machine is equipped.
9. Disconnect the negative battery cable or remove the spark plug wire (for gasoline engines) before servicing the machine.

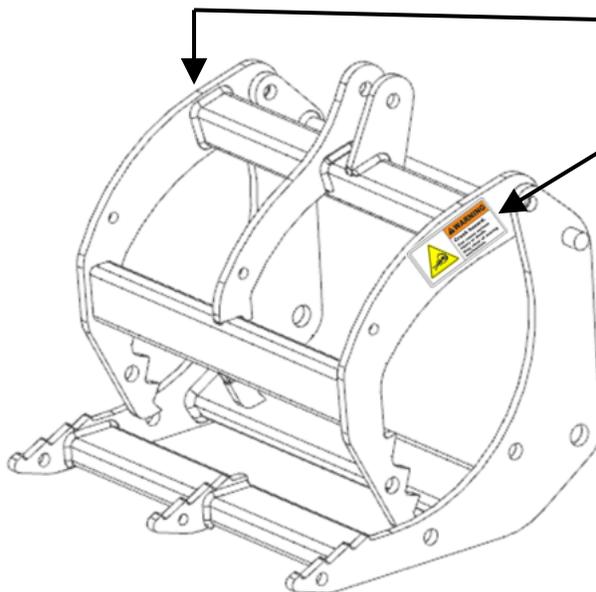
HELP AVOID INJURY FROM SUDDEN STOPS

- When approaching object to be grasped, approach slowly with hitch in the fully raised position. When approximately 1 foot away, stop the tractor and lower grapple to the ground and leave in the float position. Slowly move forward to slide the lower grapple jaw under the object. If down pressure is needed to get under an object in order to lift it, apply down pressure while proceeding forward very slowly until the grapple gets under the object and then stop. Return to the float position and continue forward until fully under the object.

SAFETY LABELS

Your Grapple comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Refer to this section for proper label placement. Replace all damaged or missing labels. To obtain replacement labels, contact Innovative Tractor Attachments LLC.
3. Refer to this section for proper label placement. To install new labels:
 - a. Clean the area the label is to be placed with soapy water.
 - b. Peel backing from label. Press firmly onto the surface.
 - c. Squeeze out air bubbles with the edge of a credit card or with a similar type straight edge.



Safety labels are located on each side of the upper jaw of the grapple. If labels become unreadable, damaged or fall off, order new labels immediately and do not use grapple until replaced. Refer to note (3) in safety label section for label installation procedure.

EQUIPMENT CLEARANCES

It is important to check clearance before putting grapple into operation. Make sure hoses are long enough and won't become pinched or entangled in the equipment. Also, make sure the grapple does not come in contact with tractor frame and tires by carefully going through its full range of motions.

1. Visually inspect hydraulic hoses for possible pinch points and shortness. Make hose adjustments before putting equipment into service.
2. Start tractor and raise grapple approximately 1 inch off the ground.
3. If necessary, have someone stand nearby that can motion for the operator to stop if a problem develops while completing steps 4.
4. Fully extend hydraulic cylinder to pivot upper jaw fully down watching for interferences between tractor and grapple frame. Make sure hydraulic hoses are long enough and do not become pinched through the full range of motion. If a problem is noticed or suspected, shut off tractor and relieve the hydraulic pressure in both cylinders. Inspect closely to identify and eliminate potential issues.
5. Fully retract cylinder to fully open upper jaw watching for interferences between tractor and grapple frame. Make sure hydraulic hoses are long enough and do not become pinched through the full range of motion. If a problem is noticed or suspected, shut off tractor and relieve the hydraulic pressure in both cylinders. Inspect closely to identify and eliminate potential issues.
6. Raise grapple fully up and repeat steps 4 & 5.

For more information or questions please contact us at:
contact@innovtracattach.com