Full down oad: http://manualplace.com/download/



435 # - 5 - 5 89002109

12/2007



To the Owner

This manual contains information concerning the operation, adjustment, and maintenance of Buhler Versatile 4WD tractors. You have purchased a dependable machine. With only proper care and operation can you expect to receive the performance and long service built into this tractor.

HAVE ALL OPERATORS READ THIS MANUAL CAREFULLY AND KEEP IT AVAILABLE FOR READY REFERENCE.

The tractor was designed to pull agricultural equipment in agricultural applications at field speeds of 7.2 KPH (4.5 MPH) or greater. Proper ballasting to provide equal traction to front and rear axles under moderate to heavy load will improve tractor performance and life. Your Buhler Versatile dealer will instruct you in the general operation of your tractor. Your dealer's staff of factory—trained service technicians will be glad to answer any questions that may arise regarding the operation of your tractor.

For engine maintenance not covered in this manual, follow the instructions provided in the Cummins Engine Operator's manual. Before putting the tractor in service, become familiar with the procedures outlined in both manuals.

At this time biodiesel blends up to B5 are the only blends approved for use in all Cummins engines for both On highway and Off highway markets. B5 which is a blend of 5 percent pure biodiesel (B100) and 95 percent standard petroleum diesel has demonstrated to have no impact on engine performance, durability or maintenance. The industry standard known as ASTM D6751 defines the specification for B100. However, this standard currently lacks a specification for stability. Without a specification for stability, the quality of the fuel blends higher than B5 could degrade to a point which could damaging to engines. Cummins is supporting industry efforts to add a stability spec to the current ASTM standard, and continues to evaluate the impact of these blends on the durability of engines. Until this spec is developed and tested, other blends of biodiesel will be unsuitable for use in Cummins On highway and Off highway engines.

The warranty coverage that is extended to your Buhler Versatile 4WD tractor is explained in the Warranty and Limitation of Liability Agreement form. Your dealer will provide you with a copy of the warranty and retain a copy which you have signed. After you read the warranty, ask your dealer to explain any points that you may not understand.

Do not modify, alter, or permit anyone else to modify or alter this tractor or any of its components, or any tractor function, without first consulting an authorized Buhler Versatile dealer. If you have any questions regarding tractor modifications, contact Buhler Versatile Inc., 1260 Clarence Ave, Winnipeg MB, R3C 4E8.

Your safety, and the safety of those around you depends upon the care and good judgement you use while operating this equipment. Read the safety precautions carefully.

For a complete list of the delivery service checks performed by your dealer, refer to the Delivery Report in this manual. The first copy is your record of the service performed and the second copy, which is to be removed from the manual, is your dealer's record.

MAKE SURE THAT BOTH COPIES ARE SIGNED BY YOURSELF AND YOUR DEALER.

After you have operated the tractor for 50 hours, have your dealer perform the factory recommended first 50-hour service. Return this manual with your tractor to the dealer so the "First 50-Hour Service" checklist can be filled out. You will be responsible for the cost of lubricants, fluids, filters and other items replaced as part of normal maintenance. Prior to taking the tractor to your selling dealer for service, it is recommended that you contact them to determine any other charges for which you may be responsible.

All data given in this book is subject to production model variations. Dimensions and weights are approximations only, and the illustrations do not necessarily show tractors in standard condition. For exact information about any particular tractor, please consult your Buhler Versatile dealer.

CAUTION: THIS SYMBOL IS USED THROUGHOUT THIS BOOK WHENEVER PERSONAL SAFETY IS INVOLVED. TAKE TIME TO READ AND FOLLOW THE INSTRUCTIONS.

CAUTION: PICTURES IN THIS MANUAL MAY SHOW PROTECTIVE SHIELDING OPEN OR REMOVED TO BETTER ILLUSTRATE A PARTICULAR FEATURE OR ADJUSTMENT.

BE CERTAIN, HOWEVER, TO CLOSE OR REPLACE ALL SHIELDING BEFORE OPERATING THE MACHINE.

Improvements

Buhler Versatile Inc. is continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.





Operator's Manual - Contents

ection 1 - Safety Information	.1-5
ection 2 - General Information	.2-1
ection 3 - Operation	.3-1
ection 4 - Lubrication and Maintenance	.4-1
ection 5 - Troubleshooting	.5-1
ection 6 - Specifications	.6 -1
ndex	6-23
eliverv Report	6-27





Section 1 Contents - Safety Information

Introduction to the Manual $\dots\dots\dots\dots\dots\dots\dots$ 1 -(
Tractor Statement of Use
Precautionary Statements
Personal Safety
Machine Safety
The Tractor
Driving the Tractor
Operating the Tractor
Operating the PTO
Servicing the Tractor1-1
Diesel Fuel
Safety Cab1-12
Safety Labels
Additional Safety Items
Articulation Lock
Emergency Exit1-16
Safety Cab
ROPS Maintenance and Inspection
Damage to the Cab/ROPS



Introduction to this manual

This manual has been prepared to assist you in the correct procedure for breaking in, driving, operating, and maintaining your tractor.

The manual is divided into 6 sections with contents page at the beginning of each section itemizes the section in detail. A detailed index is also provided at the back of this manual.

The sections are:

Section 1 - Safety Information

Section 2 - General Information

Section 3 - Operation

Section 4 - Lubrication and maintenance

Section 5 - Troubleshooting Charts

Section 6 - Specifications

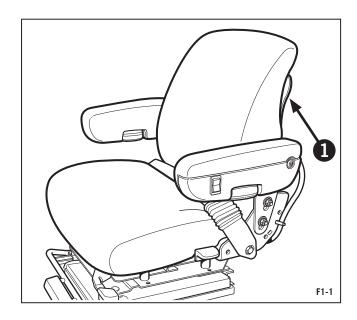
Read this manual carefully and keep it along with other tractor information in the storage pocket attached to the rear of the seat (1) for future reference. If at any time you require advice concerning your tractor, do not hesitate to contact your authorized Buhler Versatile dealer. He has factory trained personnel, genuine replacement parts, and the necessary equipment for your service requirements.

Your tractor has been designed and built to give maximum performance, economy and ease of operation under a wide variety of operating conditions. Prior to delivery, the tractor was carefully inspected, both at the factory and by your dealer, to ensure that it reaches you in optimum condition. To maintain this condition and ensure trouble–free operation, it is important that the routine services, as specified in this manual, are carried out at the recommended intervals.

All data given in this book is subject to production variations. Dimensions and weights are approximate only, and the illustrations do not necessarily show tractors in standard condition. For exact information about any particular tractor, please consult your authorized dealer.

The company policy is one of continuous improvement, and the right to change prices, specifications or equipment at any time without notice is reserved.

Section 1 of this manual lists the precautions to be observed to ensure your safety and the safety of others. Read the safety precautions carefully and follow the advice offered **BEFORE** operating the tractor.



Tractor Statement of Use

Buhler Versatile has designed the 435, 485 and 535 4WD articulated tractors to be used in customary agricultural applications. Using the tractor in an industrial only application (ie. road building) will not be covered by warranty.

The machine is constructed to use specific tire combinations along with additional ballast to properly distribute weight and power for the operation of agricultural equipment.

To obtain maximum performance and durability, the tractor must be operated and maintained in a manner as described in this manual. Failure to follow the information contained in this manual may lead to premature deterioration or personal injury.

You have made a substantial investment in this agricultural tractor and it demands proper operation and maintenance.

PLEASE FOLLOW YOUR OPERATOR'S MANUAL.



Precautionary Statements

Personal Safety

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION", "WARNING", and "DANGER") followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.



CAUTION: THE WORD "CAUTION" IS USED WHERE A SAFE BEHAVIORAL PRACTICE ACCORDING TO OPERATING AND MAINTENANCE INSTRUCTIONS AND COMMON SAFETY PRACTICES WILL PROTECT THE OPERATOR AND OTHERS FROM ACCIDENT INVOLVEMENT.



WARNING: THE WORD "WARNING" DENOTES A POTENTIAL OR HIDDEN HAZARD WHICH HAS A POTENTIAL FOR SERIOUS INJURY. IT IS USED TO WARN OPERATORS AND OTHERS TO EXERCISE EVERY APPROPRIATE MEANS TO AVOID A SURPRISE INVOLVEMENT WITH MACHINERY.



DANGER: THE WORD "DANGER" DENOTES A FORBIDDEN PRACTICE IN CONNECTION WITH A SERIOUS HAZARD.

FAILURE TO FOLLOW THE "CAUTION", "WARNING", AND "DANGER" INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

Machine Safety

Additional precautionary statements ("ATTENTION" and "IMPORTANT") are followed by specific instructions. These statements are intended for machine safety.

ATTENTION: The word "ATTENTION" is used to warn the operator of potential machine damage if a certain procedure is not followed.

IMPORTANT: The word "IMPORTANT" is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.



Safety

Precautionary Statements

National Safety Council statistics indicate many people die or suffer serious injury each year as a result of farm accidents.

Don't become a statistic or victim.

Carefully review the procedures given in this manual with all operators ANNUALLY. It is important that all operators be familiar with, AND FOLLOW, safety precautions.

Operating instructions must be given to everyone using the tractor before operation and at least once yearly thereafter in compliance with OSHA Regulation 1928.57 (United States).

A careful operator is the best operator. Most accidents can be avoided by observing certain precautions. To help prevent accidents, read and take the following precautions before operating the tractor. Equipment should be operated only by those who are responsible and instructed to do so.

The Tractor

- Read the Operator's Manual carefully before using the tractor. Lack of operating knowledge can lead to accidents.
- 2. Only allow properly trained and qualified persons to operate the tractor.
- Do not permit anyone but the operator to ride on the tractor, especially children. The instructional seat (optional) is used for instructing or service diagnosing only.
- Keep safety decals free of dirt or grime. Replace safety decals if missing, illegible or damaged.
- Do not modify, alter, or permit anyone else to modify or alter the tractor or any of its components or any tractor function without first consulting an authorized Buhler Versatile dealer.
- 6. Install all shields before starting or operating the tractor.
- 7. Always use the steps and handrails when entering and exiting the tractor. Never jump from the tractor. There is a danger of catching clothing on protruding parts.

Driving the Tractor

- 1. Always sit in the driver's seat while starting or driving the tractor.
- 2. When driving on public roads always use hazard lights (and extremity lights where applicable). Have consideration for other road users by pulling to the side of the road so that any following traffic may pass.
- 3. Dim the tractor lights when meeting a vehicle at night. Make sure the lights are adjusted to prevent blinding the driver of an oncoming vehicle.
- 4. Reduce engine speed before turning or applying the brakes.
- Any towed vehicle whose total weight exceeds that of the towing tractor must be equipped with brakes for safe operation.
- 6. Never apply the differential lock when turning. When engaged, the differential lock will increase the effort required to turn the tractor and increase the turning radius.
- Always check overhead clearance, especially when transporting the tractor. Watch where you are going, especially at row ends, on roads, and around trees and low overhanging obstacles.
- 8. To avoid overturns, drive the tractor with care and at speeds compatible with safety, especially when operating over rough ground, when crossing ditches or slopes and when turning corners.



- 9. Use extreme caution when operating on steep slopes.
- Keep the tractor in the same gear when going down hill as would be used when going uphill.
 Do not coast or freewheel down hills.
- 11. When descending steep grades, select a sufficiently low gear to maintain control with minimum braking.
- 12. Drive the tractor slowly on hillsides and curves to eliminate the danger of tipping. Avoid slopes which are too steep for safe operation. Avoid sharp uphill turns.
- 13. When driving out of a ditch, gully or up a steep hillside, engage the clutch slowly. Avoid sharp uphill turns.
- Use caution when driving near the edge of a ditch or gully. It may cave in, causing the tractor to roll over.
- 15. Use extreme caution when operating the tractor on single wheels. The danger of tipping increases. Do not travel at high speeds.
- Before transporting the tractor and implement on public roadways, check with authorities for local regulations.
- 17. Use the wide transport marker lights to clearly indicate the full width of the tractor with those tire options.
- 18. Ensure towed implements are equipped with slow-moving vehicle (SMV) signs when traveling on public roads.
- 19. Install additional lights on implement rear to safeguard against rear—end collisions. Daybreak and dusk are particularly dangerous. Buhler Versatile tractors have seven—pin trailer connectors to facilitate installation of extra lighting.
- 20. Be aware of the transport width of towed implements. Install additional lights to the sides of wide implements to alert passing traffic. Keep clear of the approaching lane.
- 21. Use hazard warning flashers as required by law when transporting or driving the tractor on public roads. Use extremity lighting kit when required or deemed necessary.
- 22. Use extreme caution when pulling heavy loads at road speeds. Avoid hard application of the tractor brakes at high speed.

Operating the Tractor

- Apply the parking brake, place the PTO control in the "OFF" position, the lift control in the down position, the remote control valve levers in the neutral position and the transmission lever in neutral before starting the tractor.
- Do not start the engine or operate controls while standing beside the tractor. Always sit in the tractor seat when starting the engine or operating the controls.
- 3. Do not bypass the transmission neutral start circuit. Consult your authorized dealer if your neutral start controls malfunction.
- 4. Use jumper cables only in the recommended manner. Improper use can result in a tractor runaway.
- 5. Avoid accidental contact with the gear shift lever while the engine is running. Unexpected tractor movement can result from such contact.
- 6. Do not get off the tractor while it is in motion.
- 7. Shut off the engine and PTO and apply the parking brake before getting off the tractor.
- 8. Do not park the tractor on a steep incline.
- Do not operate the tractor engine in an enclosed building without adequate ventilation. Exhaust fumes can cause death.
- The cab air filter is designed to remove dust from the air but will not exclude chemical vapor. Follow the chemical manufacturer's directions regarding protection from dangerous chemicals.
- 11. Always wear a protective mask when working with toxic spray chemicals. Follow the directions on the chemical container.
- 12. If the power steering or engine ceases to operate, stop the tractor immediately as the tractor will be more difficult to control.



13. WARNING: RELIEVE PRESSURE BEFORE STOPPING THE ENGINE TO CONNECT OR DISCONNECT HYDRAULIC, STEERING, WATER, OR FUEL LINES.

Precautionary Statements



- 14. Pull only from the drawbar. Use only a drawbar pin that locks in place. Pulling from the tractor rear axle or any point above the axle may cause the tractor to overturn.
- 15. Be sure hydraulic couplers are properly mounted and will disconnect safely in case of accidental detachment of the implement.
- 16. Do not leave equipment in the raised position when the vehicle is stopped or unattended.
- 17. Ensure any attached equipment or accessories are approved for use and are correctly installed. Maintained in accordance with the instructions issued by the equipment or accessory manufacturer.
- 18. Remember that your tractor, if abused or incorrectly used, can be dangerous and become a hazard both to the operator and to bystanders. Do not overload or operate with attached equipment which is unsafe, not designed for the particular task, or is poorly maintained.
- 19. The cab is designed to meet and exceed the applicable noise level standards (86dBA). However, noise (sound pressure level) in the workplace can exceed this level when the cab window is open. Therefore, it is recommended that the operators wear suitable ear protectors when operating in high noise level conditions.
- Always keep sleeves, jackets or other clothing relatively tight and belted. Loose clothing may catch in moving parts and result in personal injury or death.
- 21. Use steps and hand holds when mounting and dismounting the tractor or for servicing components too high to reach from the ground.
- 22. Lock the seat in position and buckle your safety belt before operating the tractor.
- 23. Do not operate the tractor when you are tired, sick, or impaired in any way.
- 24. Never operate the tractor in confined areas, or when visibility next to the tractor is reduced. Injury to bystanders or damage to the tractor or equipment may result.

- 25. When hitching drawn equipment to the drawbar, only allow an assistant between the tractor and implement if the tractor is off, in neutral and the brakes are engaged.
- 26. Do not leave implements with the hydraulic cylinders fully extended or retracted where the heat from the sun can cause the hydraulic fluid to expand. Hydraulic pressure can rupture the hoses, releasing high pressure oil causing personal injury.
- 27. Be careful when turning with an implement. Lift it from the ground if possible during turns. Side thrust caused by the implement could damage the tire and implement.
- 28. Use transport locks, lower the implement to the ground and securely block the frame before servicing the implement. Relieve pressure from the hydraulic system and shut off the tractor.

Operating the PTO

- When operating PTO-driven equipment, shut off the engine and wait until the PTO stops before getting off the tractor and disconnecting the equipment.
- 2. Do not wear loose clothing when operating the power take-off or when near rotating equipment.
- 3. When operating stationary PTO-driven equipment, ensure that the park brake is set and the gearshift lever is in neutral, block the rear wheels front and rear and engage the articulation lock. Do not leave the tractor unattended. If you must leave the tractor for any reason, stop the engine and remove the key.
- To avoid injury, do not clean, adjust, unclog or service PTO driven equipment when the tractor engine is running.
- 5. Make sure all PTO shields are in position at all times.
- 7. Take special care in hook-up of implements to the PTO.



Servicing the Tractor

Most accidents can be avoided by observing certain precautions. To help prevent accidents, read and take the following precautions before servicing the tractor.

- The cooling system operates under pressure which
 is controlled by the radiator cap. It is dangerous
 to remove the cap while the system is hot. Always
 turn the cap slowly to the first stop and allow the
 pressure to escape before removing the cap
 entirely. Wear gloves when removing the cap.
- 2. Do not smoke while refueling the tractor. Keep any type of open flame away.
- Keep the tractor and equipment, particularly brakes and steering, maintained in a reliable and satisfactory condition to ensure your safety and comply with legal requirements.
- 4. To prevent fire or explosion, keep open flames awayfrom the battery or cold—weather starting aids. To prevent sparks which could cause explosion, use jumper cables according to instructions.
- 5. Do not attempt to service the air conditioning system. It is possible to suffer severe frost bite or injury from escaping refrigerant. Special equipment and instruments are required to service the air conditioning system which uses R134A refrigerant. See your authorized Buhler Versatile dealer for service.
- 6. Stop the engine before performing any service on the tractor.
- 7. Escaping diesel/hydraulic fluid under pressure can penetrate the skin causing serious injury.
 - DO NOT use your hand to check for leaks.
 Use a piece of cardboard or paper to search for leaks.
 - Stop the engine and relieve pressure before connecting or disconnecting lines.
 - Tighten all connections before starting the engine or pressurizing lines.
 - If fluid is injected into the skin, obtain medical attention immediately or gangrene may result.

- 8. Do not modify, alter or permit anyone else to modify or alter the tractor or any of its components or any tractor function without first consulting an authorized Buhler Versatile dealer.
- Unqualified persons should not remove or attempt to adjust a pump, injector, nozzle or any other part of the fuel injection system. Failure to follow these instructions can result in serious injury.
- Continuous long-term contact with used engine oil may cause skin cancer. Avoid prolonged contact with used engine oil. Wash skin promptly with soap and water.
- 11. Tractor wheels are very heavy. Handle with care and ensure, when stored, they cannot fall and cause injury.
- 12. Dispose of all drained fluids and removed filters properly. Follow local laws governing disposal of used engine oil.
- 13. Never oil, grease or adjust the tractor while it is running. Do not leave the engine running while the tractor or drawn equipment is being adjusted, repaired or cleaned.
- 14. Be sure all connections are tight and lines and hoses are undamaged. Before disconnecting hydraulic lines, relieve all pressure. Do not overfill the hydraulic tank.
- 15. Do not smoke and avoid open flames when servicing batteries.
- 16. Starting fluid is highly flammable. Do not use near fire, sparks, or open flames.
- 17. Remove mud, crop residue, chains and tools from steps and operator's platform. They may interfere with pedal operation or entry/exit from the tractor.
- 18. Never operate the tractor with a damaged tire. The tire may explode.
- 19. Tighten all connections before starting the engine or pressurizing lines.

Precautionary Statements



Diesel Fuel

- Under no circumstances should gasoline, alcohol
 or blended fuels be added to diesel fuel. These
 combinations can create an increased fire or
 explosive hazard. In a closed container, such as a
 fuel tank, these blends are more explosive than
 pure gasoline. Do not use these blends.
- Do not smoke while refueling the tractor or when standing near fuel. Keep any type of open flame away.
- 3. Never remove the fuel cap or refuel with the engine running. Allow the tractor to cool off before fueling.
- 4. Use the proper fuel transfer hose and nozzle. Make sure the nozzle and hose are grounded to dissipate static electric charges.
- When refueling, make sure the nozzle is in contact with the filler neck of the tractor fuel tank before fuel starts to flow and during the entire time fuel is flowing.
- 6. Maintain control of the fuel filler pipe nozzle when filling the tank.
- 7. Do not fill the fuel tank to capacity. Allow room for expansion.
- 8. Wipe up spilled fuel immediately.
- 9. Always tighten the fuel tank cap securely.
- If the original fuel tank cap is lost, replace it with a genuine replacement cap. A non-approved cap may not be safe.
- 11. Keep equipment clean and properly maintained.
- 12. Do not drive equipment near open fires.
- 13. Never use fuel for cleaning purposes.
- 14. Arrange fuel purchases so that summer grade fuels are not held over and used in the winter.
- 15. Ground fuel storage tanks to prevent static buildup.

Safety Cab

Your tractor is equipped with a safety cab which must be maintained in a serviceable condition. Be careful when driving through doorways or working in confined spaces with low headroom.

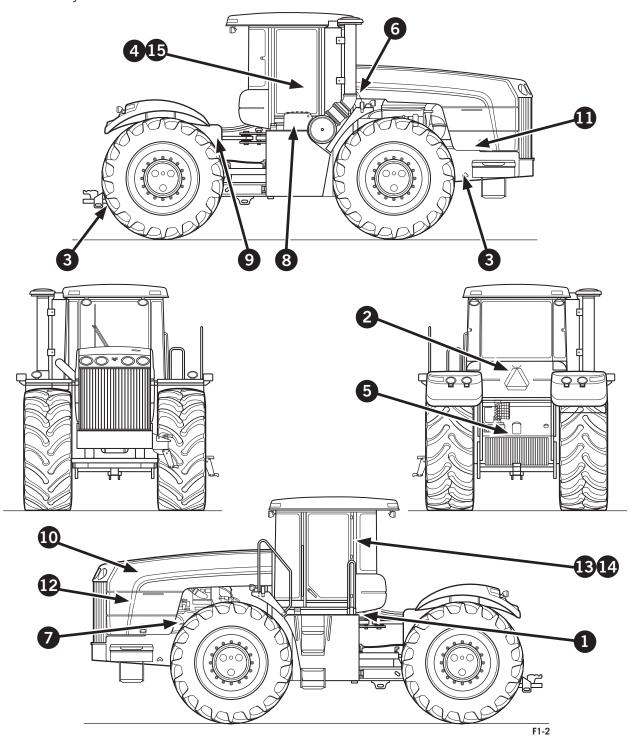
- 1. Do not modify, drill, weld, or alter the safety cab in any way. Doing so could render you liable to legal prosecution in some countries.
- Never attempt to straighten or weld any part of the main frame or retaining brackets which have suffered damage. By doing so you may weaken the structure and endanger your safety. Replace all damaged parts.
- 3. Never attach chains or ropes to the cab or main frame for pulling purposes.
- 4. Never take unnecessary risks even though your safety cab affords you the maximum protection possible.
- 5. Do not carry harmful chemicals in the cab. Chemicals may rupture the container, and the fumes may poison the operator.
- 6. The tractor cab is not designed to provide a "sprayer safe" environment for the operator. When applying chemicals from a spray unit, do not rely on the cab filter elements to provide protection to the operator from the airborne chemicals.



Safety Labels

The following warning signs are installed on the tractor in the areas indicated. They are intended for your safety and for those working with you. Please become familiarized with the content and location of these warning signs.

Make sure all warning signs are legible. Clean or replace where necessary. Replacements warning signs can be obtained from your Buhler Versatile dealer.





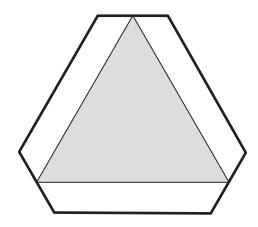
BOTECTIVE STRUCTURE PROTECTIVE STRUCTURE FOR TRACTORS: 435/485/535

PROTECTIVE STRUCTURE PART NO: 86031286

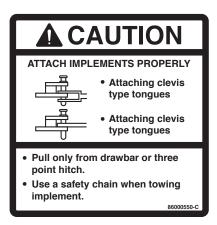
MEETS OSHA REGULATION CERTIFIED TO CSA STANDARD

86033283

1. ROPS Certificate - Located left underside of cab.



2. Slow-Moving Vehicle - Located on rear of cab.



5. Implement Attaching - Located above the drawbar at the rear of the tractor.



6. Accumulator Pressure - Located on the fender support above the multifunction valve.



Tie down brackets
 Located on frames.



4. Park Brake - Located inside cab on right hand window



7. Jump starting - Located on the left side frame next to the starter.

DO NOT CONNECT JUMPER CABLE TO NEGATIVE POST OF DISCHARGE BATTERY • DO NOT LEAN OVER BATTERIES WHILE MAKING CONNECTIONS • DO ENSURE POSITIVE AND NEGATIVE CLAMOS ARE NOT IN CONTACT • DO ENSURE VEHICLES ARE NOT IN CONTACT BATTERY BOOST INSTRUCTIONS • Apply parkbrake, set transmission in neutral and turn all electrical connections off • Connect one end of jumper cable to positive terminal of discharged battery • Connect one end of negative cable to negative post of battery and other end to tractor frame at least 300 mm (12") from discharged battery

Battery Boosting - Located on the underside of the battery cover.



AWARNING

ARTICULATING JOINT

STAY CLEAR OF THIS AREA WHEN ENGINE IS RUNNING

TO PREVENT PERSONAL INJURY

- Shut off engine before servicing articulation area.
- Engage articulation lock before lifting tractor, transporting tractor on another vehicle, performing maintenance in articulation area or operating stationary PTO equipment.
- . Disengage lock before driving the tractor,
- Pivoting Frames Located on the right and left sides



10. Radiator Cap Pressure - Located on the left side of the hood at the access hole for the radiator cap.



11. Hot Exhaust - Located on the right side frame under engine hood.



12. Engine Cooling Fan - Located on both sides of radiator under the engine side shields



This instructional seat has been provided only for training operators or diagnosing machine problems.

Keep all other riders off the tractor and equipment.

Always wear your seat belt.

86033512

13. Instructional Seat - Located inside cab on left hand door post.

ACAUTION

This roll over protective structure meets OSHA and other safety standards when installed in accordance with approved factory mounting instructions

The protection afforded may be impaired if it has been subjected to alteration, structural damage, or involved in an overturn accident. In these cases the entire structure must be replaced.

BE SURE OPERATION AND SAFETY INSTRUCTIONS ARE GIVEN TO ANYONE USING THIS TRACTOR AT THE TIME OF INITIAL ASSIGNMENT AND ANNUALLY THEREAFTER.

Read the operator's manual provided. BEFORE STARTING:

- Know all the operating and safety instructions in the operator's manual and on the machine.
- Securely fasten your seatbelt.
- Be sure the transmission is in neutral, PTO is disengaged and implement hydraulic levers are in neutral.
- · Be sure all shields are in place.
- Hitch only to drawbar or three point hitch lift points.
- No riders should be permitted in the cab or on the tractor.
- Make sure everyone is clear of the machinery.
- Do not allow children to operate the tractor.

WHEN OPERATING:

- Avoid operating tractor near holes, ditches or steep slopes.
- Reduce speed when turning, crossing slopes and on rough, slick, or muddy surfaces.
- · Avoid jerky starts or stops.
- Use flashers and extremity lights when required.

BEFORE DISMOUNTING, SERVICING, CLEANING OR ADJUSTING TRACTOR OR IMPLEMENT:

- Bring tractor to a complete stop. Lower implement, shift transmission to neutral, set park brake.
- Stop engine and wait for all moving parts to come to a complete halt. Remove key if leaving tractor.

FAILURE TO FOLLOW ALL OF THE ABOVE INSTRUCTIONS COULD LEAD TO SERIOUS INJURY.

86000553-

14. ROPS Caution - Located inside cab on left hand door post.

IMPORTANT

CLUTCH PEDAL MUST BE DEPRESSED & TRANSMISSION MUST BE IN NEUTRAL TO START TRACTOR

F1-3E

15. Clutch Pedal operation - Located inside cab on right hand window

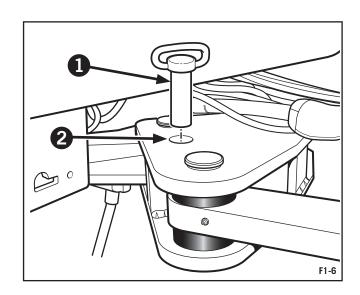


Additional Safety Items

Articulation Locks

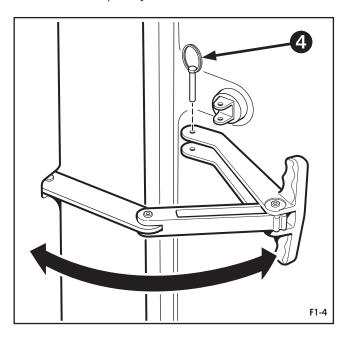
- 1. Use the articulation lock during stationary applications, servicing, jacking or overhaul operations. Do not use when the tractor is operating.
- 2. Before engaging the lock, drive the tractor to a level surface, put the steering straight, engage the park brake, put the gearshift in neutral and stop the engine.
- 3. Remove the pin (1) from the storage position located on the right of the swing frame and insert the pin through the hole on the left of swing frame (2).

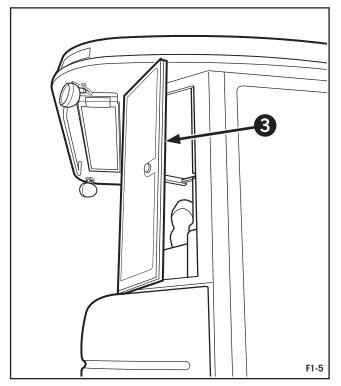
NOTE: It may be necessary to start the engine and articulate the frame slightly to enable the articulation pin to seat properly through the swing frame and front frame.



Emergency Exit

1. The cab has an emergency exit located in the right rear of the cab (3). To operate, pull out the pin (4) attaching the lever to the glass window. This will allow the window to open beyond the latch. If greater access is required, the silicone hinge/seal can be cut to remove the window completely.







Safety Cab

A safety cab incorporates a Roll Over Protective Structure (ROPS). Safety belts are standard fitted equipment for the tractor at the time of factory assembly. The safety belt, when used by the operator, maximizes the protection offered by the ROPS.



WARNING: ALWAYS USE YOU SAFETY BELT WITH THE CAB/ROPS TO PREVENT BEING THROWN FROM THE TRACTOR IN THE EVENT OF ROLLOVER. SAFETY BELTS SAVE LIVES WHEN THEY ARE USED.

Information regarding the safety cab/ROPS and safety belt are available from your authorized Buhler Versatile dealer.

ROPS Maintenance and Inspection

After the first 50 hours of operation and every 1500 of operation (or yearly, whichever comes first):

- 1. Check the torque of the cab/ROPS mounting bolts, as detailed in the lubrication and maintenance section of this manual.
- 2. Check the operators seat mounting bolts and safety belt mounting bolts. Tighten the seat mounting bolts to 40 N·m (30 ft-lbs.). Replace any worn or damaged parts.

Damage to the Cab/ROPS

If the tractor has rolled over or the cab has been damaged (such as striking an overhead object during transport), it must be replaced to provide the original protection.

IMPORTANT: Do not try to weld or straighten the cab/ROPS.

After an accident, check for damage to the cab/ROPS, operator's seat, safety belt and safety belt mountings. Replace all damaged parts before operating the tractor.



WARNING: NEVER ATTACH, CHAINS, ROPES OR CABLES TO THE CAB/ROPS FOR PULLING PURPOSES. ALWAYS PULL FROM THE TRACTOR DRAWBAR. BE CAREFUL WHEN DRIVING THROUGH DOOR OPENINGS OR UNDER LOW OVERHEAD OBJECTS. MAKE SURE THERE IS SUFFICIENT OVERHEAD CLEARANCE FOR THE CAB/ROPS.



WARNING: IF THE CAB/ROPS IS REMOVED OR REPLACED, MAKE CERTAIN THAT THE PROPER HARDWARE IS USED AND THE RECOMMENDED TORQUE VALUES ARE APPLIED TO THE ATTACHING BOLTS. SEE YOUR AUTHORIZED BUHLER VERSATILE DEALER.





Section 2 Contents - General Information

Tractor Orientation
Overall Description
Tractor Terminology
Tractor Identification Data
Vehicle Identification Plate
Tractor Identification
Engine Identification
Transmission Identification
Front & Rear Axle Identification2-5
Protective Shielding
Engine Side Covers
Starter Solenoid Shield
Battery Cover
Break-In period
Towing the Tractor
Transporting the Tractor