Safety rules

General safety rules

Use caution when you operate the machine on slopes. Raised equipment, full tanks and other loads will change the center of gravity of the machine. The machine can tip or roll over when near ditches and embankments or uneven surfaces.

Never permit anyone other than the operator to ride on the machine.

Never operate the machine under the influence of alcohol or drugs, or while you are otherwise impaired.

When digging or using ground-engaging attachments, be aware of buried cables. Contact local utilities to determine the locations of services.

Pay attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety.

Hydraulic oil or diesel fuel leaking under pressure can penetrate the skin, causing serious injury or infection.

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper.
- Stop the engine, remove the key, and relieve the pressure before you connect or disconnect fluid lines.
- Make sure that all components are in good condition. Tighten all connections before you start the engine or pressurize the system.
- If hydraulic fluid or diesel fuel penetrates the skin, seek medical attention immediately.
- Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

Keep clear of moving parts. Loose clothing, jewelry, watches, long hair, and other loose or hanging items can become entangled in moving parts.

Wear protective equipment when appropriate.

DO NOT attempt to remove material from any part of the machine while it is being operated or while components are in motion.

Make sure that all guards and shields are in good condition and properly installed before you operate the machine. Never operate the machine with shields removed. Always close access doors or panels before you operate the machine.

Dirty or slippery steps, ladders, walkways, and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.

A person or pet within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.

Raised equipment and/or loads can fall unexpectedly and crush persons underneath. Never allow anyone to enter the area underneath raised equipment during operation.

Never operate the engine in enclosed spaces as harmful exhaust gases may build up.

Before you start the machine, be sure that all controls are in neutral or park lock position.

Start the engine only from the operator's seat. If you bypass the safety start switch, the engine can start with the transmission in gear. Do not connect or short across terminals on the starter solenoid. Attach jumper cables as described in the manual. Starting in gear may cause death or serious injury.

Always keep windows, mirrors, all lighting, Slow-Moving Vehicle (SMV) emblem and Speed Identification Symbol (SIS) clean to provide the best possible visibility while you operate the machine.

Operate controls only when seated in the operator's seat, except for those controls expressly intended for use from other locations.

Do not make any adjustments (e.g. seat, steering, light, mirror, ...) while the machine is in motion. Ensure that all adjustments are locked prior to use. Check the tightness of the securing screws and that the adjustment controls are working properly. Fitting and/or repairing the seat shall only be performed by skilled personnel.

Modifications made to this machine may increase the likelihood or potential for debris accumulations that would normally not be present. Modifications include frame-mounted attachments, plates, screens, or other aftermarket equipment. Operators of modified machines must be aware of accumulations of organic debris and/or material and overall machine cleanliness.

Modified machines require additional and more frequent inspection and cleaning during usage. The machine may require inspection and cleaning multiple times per day during usage. Operators must be aware of the operating environment and conditions. Operators must take appropriate actions to maintain the machines during use. In particular, pay attention to the following machine areas:

- In and around the engine compartment
- Hot exhaust components
- Moving, turning, or rotating machine components

Operators that operate the machine in atypical applications and/or conditions must be aware of accumulations of organic debris and/or material and overall machine cleanliness. Pay particular attention where material accumulations are possible or may result.

Machines that operate in atypical applications or conditions require additional and more frequent inspection and cleaning during usage. The machine may require inspection and cleaning multiple times per day during usage. Operators must be aware of the operating environment and conditions. Operators must take appropriate actions to maintain the machines during use. In particular, pay attention to the following machine areas:

- In and around the engine compartment
- Hot exhaust components
- Moving, turning, or rotating machine components

Before you leave the machine:

1. Park the machine on a firm, level surface.
2. Put all controls in neutral or park lock position.
3. Engage the parking brake. Use wheel chocks if required.
4. Lower all hydraulic equipment — Implements, header, etc.
5. Turn off the engine and remove the key.

When, due to exceptional circumstances, you would decide to keep the engine running after you leave the operator's station, then you must follow these precautions:

1. Bring the engine to low idle speed.
2. Disengage all drive systems.
3. **⚠ WARNING**

   Some components may continue to run down after you disengage drive systems.
   Make sure all drive systems are fully disengaged.
   Failure to comply could result in death or serious injury.

   W0113A

   Shift the transmission into neutral.
4. Apply the parking brake.

General maintenance safety

Keep the area used for servicing the machine clean and dry. Clean up spilled fluids.

Service the machine on a firm, level surface.

Install guards and shields after you service the machine.

Close all access doors and install all panels after servicing the machine.

Do not attempt to clean, lubricate, clear obstructions, or make adjustments to the machine while it is in motion or while the engine is running.

Always make sure that working area is clear of tools, parts, other persons and pets before you start operating the machine.

Unsupported hydraulic cylinders can lose pressure and drop the equipment, causing a crushing hazard. Do not leave equipment in a raised position while parked or during service, unless the equipment is securely supported.

Jack or lift the machine only at jack or lift points indicated in this manual.

Incorrect towing procedures can cause accidents. When you tow a disabled machine follow the procedure in this manual. Use only rigid tow bars.

Stop the engine, remove the key, and relieve pressure before you connect or disconnect fluid lines.

Stop the engine and remove the key before you connect or disconnect electrical connections.

Scalding can result from incorrect removal of coolant caps. Cooling systems operate under pressure. Hot coolant can spray out if you remove a cap while the system is hot. Allow the system to cool before you remove the cap. When you remove the cap, turn it slowly to allow pressure to escape before you completely remove the cap.

Replace damaged or worn tubes, hoses, electrical wiring, etc.

The engine, transmission, exhaust components, and hydraulic lines may become hot during operation. Take care when you service such components. Allow surfaces to cool before you handle or disconnect hot components. Wear protective equipment when appropriate.

When welding, follow the instructions in the manual. Always disconnect the battery before you weld on the machine. Always wash your hands after you handle battery components.

Do not climb on the machine. Do not use the attachment as a ladder, or platform for working at heights. Use appropriate means according to national/local safety rules (for example, an individual rolling platform, etc.) to access the areas of the machine not reachable from the ground level.

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.

Wheels and tires

Make sure that tires are correctly inflated. Do not exceed any recommended load or pressure. Follow the instructions in the manual for proper tire inflation.

Tires are heavy. Handling tires without proper equipment could cause death or serious injury.

Never weld on a wheel with a tire installed. Always remove the tire completely from the wheel prior to welding.

Always have a qualified tire technician service the tires and wheels. If a tire has lost all pressure, take the tire and wheel to a tire shop or your dealer for service. Explosive separation of the tire can cause serious injury.

DO NOT weld to a wheel or rim until the tire is completely removed. Inflated tires can generate a gas mixture with the air that can be ignited by high temperatures from welding procedures performed on the wheel or rim. Removing the air or loosening the tire on the rim (breaking the bead) will NOT eliminate the hazard. This condition can exist whether tires are inflated or deflated. The tire MUST be completely removed from the wheel or rim prior to welding the wheel or rim.

Install stalk stompers, stubble mats, or other devices to prevent tire damage when:

- working on harvested fields with rough stubble
- working on harvested fields in dry conditions, when the stubble is harder and tougher

Driving on public roads and general transportation safety

Comply with local laws and regulations.

Use appropriate lighting to meet local regulations.

Make sure that the SMV emblem and Speed Identification Symbol (SIS) are visible.

Make sure that the brake pedal latch is engaged. You must lock brake pedals together for road travel.

Use safety chains for trailed equipment when safety chains are provided with machine or equipment.

Lift implements and attachments high enough above ground to prevent accidental contact with road.

When you transport equipment or a machine on a transport trailer, make sure that it is properly secured. Be sure the SMV and SIS on the equipment or machine are covered while being transported on a trailer.

Be aware of overhead structures or power lines and make sure that the machine and/or attachments can pass safely under.

Travel speed should be such that you maintain complete control and machine stability at all times.

Slow down and signal before turning.

Pull over to allow faster traffic to pass.

Follow correct towing procedure for equipment with or without brakes.

Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.

Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.

With the front wheel spacers installed refer to the dedicated safety instruction in this manual regarding the limitation of the maximum permissible speed and front axle weight.

Fire and explosion prevention

Fuel or oil that is leaked or spilled on hot surfaces or electrical components can cause a fire.

Crop materials, trash, debris, bird nests, or flammable material can ignite on hot surfaces.

Always have a fire extinguisher on or near the machine.

Make sure that the fire extinguisher(s) is maintained and serviced according to the manufacturer’s instructions.

At least once each day and at the end of the day, remove all trash and debris from the machine especially around hot components such as the engine, transmission, exhaust, battery, etc. More frequent cleaning of your machine may be necessary depending on the operating environment and conditions.

At least once each day, remove debris accumulation around moving components such as bearings, pulleys, belts, gears, cleaning fans, etc. More frequent cleaning of your machine may be necessary depending on the operating environment and conditions.

Inspect the electrical system for loose connections and frayed insulation. Repair or replace loose or damaged parts.

Do not store oily rags or other flammable material on the machine.

Do not weld or flame cut any items that contain flammable material. Clean items thoroughly with non-flammable solvents before welding or flame-cutting.

Do not expose the machine to flames, burning brush, or explosives.

Promptly investigate any unusual smells or odors that may occur during operation of the machine.

General battery safety

Always wear eye protection when you work with batteries.

Do not create sparks or have open flame near a battery.

Ventilate the area when you charge a battery or use a battery in an enclosed area.

Disconnect the negative (-) terminal first and reconnect the negative (-) terminal last.

When you weld on the machine, disconnect both terminals of the battery.

Do not weld, grind, or smoke near a battery.

When you use auxiliary batteries or connect jumper cables to start the engine, use the procedure shown in the operator's manual. Do not short across terminals.

Follow the manufacturer's instructions when you store and handle batteries.

Battery post, terminals, and related accessories contain lead and lead compounds. Wash hands after handling.

Battery acid causes burns. Batteries contain sulfuric acid. Avoid contact with skin, eyes, or clothing. Antidote (external): Flush with water. Antidote (eyes): flush with water for 15 minutes and seek medical attention immediately. Antidote (internal): Drink large quantities of water or milk. Do not induce vomiting. Seek medical attention immediately.

Keep out of reach of children and other unauthorized persons.

Instructional seat safety

- Extra riders, especially children, are not allowed to ride on the tractor.
- The instructional seat is to be used only when training a new operator or when a service technician is diagnosing a problem.
- When required for the purposes of training or diagnostics, only one person may accompany the operator, and that person must be seated in the instructional seat.

When the instructional seat is occupied, the following precautions must be followed:

- Tractor should be driven only at slow speeds and over level ground.
- Avoid driving on highways or public roads.
- Avoid quick starts and stops.
- Avoid sharp turns.
- Always wear correctly adjusted seat belts.
- Keep doors closed at all times.

Operator presence system

Your machine is equipped with an operator presence system to prevent the use of some features while the operator is not in the operator's seat.

Never disconnect or bypass the operator presence system.

If the operator presence system is inoperable, then it must be repaired.

Power Take-Off (PTO)

PTO-driven machinery can cause death or serious injury. Before you work on or near the PTO shaft or service or clear the driven machine, put the PTO lever in the disengage position, stop the engine, and remove the key.

Whenever a PTO is in operation, a guard must be in place to prevent death or injury to the operator or bystanders.

When doing stationary PTO work, keep clear of all moving parts and make sure that appropriate guards are in place.

Reflectors and warning lights

You must use flashing amber warning lights, according to national/local safety rules, when you operate equipment on public roads.

Seat belts

Seat belts must be worn at all times.

Seat belt inspection and maintenance:

- Keep seat belts in good condition.
- Keep sharp edges and items than can cause damage away from the belts.
- Periodically check belts, buckles, retractors, tethers, slack take-up system, and mounting bolts for damage and wear.
- Replace all parts that have damage or wear.
- Replace belts that have cuts that can make the belt weak.
- Check that bolts are tight on the seat bracket or mounting.
- If the belt is attached to the seat, make sure that the seat or seat brackets are mounted securely.
- Keep seat belts clean and dry.
- Clean belts only with soap solution and warm water.
- Do not use bleach or dye on the belts because this can make the belts weak.

Operator protective structure

Your machine is equipped with an operator protective structure, such as: a Roll Over Protective Structure (ROPS), Falling Objects Protective Structure (FOPS), or a cab with a ROPS. A ROPS may be a can frame or a two-posted or four-posted structure used for the protection of the operator to minimize the possibility of serious injury. The mounting structure and fasteners forming the mounting connection with the machine are part of the ROPS.

The protective structure is a special safety component of your machine.

DO NOT attach any device to the protective structure for pulling purposes. DO NOT drill holes to the protective structure.

The protective structure and interconnecting components are a certified system. Any damage, fire, corrosion, or modification will weaken the structure and reduce your protection. If this occurs, THE PROTECTIVE STRUCTURE MUST BE REPLACED so that it will provide the same protection as a new protective structure. Contact your dealer for protective structure inspection and replacement.

After an accident, fire, tip over, or roll over, the following MUST be performed by a qualified technician before returning the machine to field or job-site operations:

- The protective structure MUST BE REPLACED.
- The mounting or suspension for the protective structure, operator's seat and suspension, seat belts and mounting components, and wiring within the operator's protective system MUST be carefully inspected for damage.
- All damaged parts MUST BE REPLACED.

DO NOT WELD, DRILL HOLES, ATTEMPT TO STRAIGHTEN, OR REPAIR THE PROTECTIVE STRUCTURE. MODIFICATION IN ANY WAY CAN REDUCE THE STRUCTURAL INTEGRITY OF THE STRUCTURE, WHICH COULD CAUSE DEATH OR SERIOUS INJURY IN THE EVENT OF FIRE, TIP OVER, ROLL OVER, COLLISION, OR ACCIDENT.

Seat belts are part of your protective system and must be worn at all times. The operator must be held to the seat inside the frame in order for the protective system to work.

Air-conditioning system

The air-conditioning system is under high pressure. Do not disconnect any lines. The release of high pressure can cause serious injury.

The air-conditioning system contains gases that are harmful to the environment when released into the atmosphere. Do not attempt to service or repair the system.

Only trained service technicians can service, repair, or recharge the air-conditioning system.

Personal Protective Equipment (PPE)

Wear Personal Protective Equipment (PPE) such as hard hat, eye protection, heavy gloves, hearing protection, protective clothing, etc.

Do Not Operate tag

Before you start servicing the machine, attach a 'Do Not Operate' warning tag to the machine in an area that will be visible.

Hazardous chemicals

If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolant, etc. required for the function of your machine can be hazardous. They may be attractive and harmful to domestic animals as well as humans.

Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling and storage procedures, first aid measures, and procedures to take in the event of a spill or accidental release. MSDS are available from your dealer.

Before you service your machine check the MSDS for each lubricant, fluid, etc. used in this machine. This information indicates the associated risks and will help you service the machine safely. Follow the information in the MSDS, and on manufacturer containers, as well as the information in this manual, when you service the machine.

Dispose of all fluids, filters, and containers in an environmentally safe manner according to local laws and regulations. Check with local environmental and recycling centers or your dealer for correct disposal information.

Store fluids and filters in accordance with local laws and regulations. Use only appropriate containers for the storage of chemicals or petrochemical substances.

Keep out of reach or children or other unauthorized persons.

Applied chemicals require additional precautions. Obtain complete information from the manufacturer or distributor of the chemicals before you use them.

Utility safety

When digging or using ground-engaging equipment, be aware of buried cables and other services. Contact your local utilities or authorities, as appropriate, to determine the locations of services.

Make sure that the machine has sufficient clearance to pass in all directions. Pay special attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines.

Retract raised or extended components, if necessary. Remove or lower radio antennas or other accessories. Should a contact between the machine and an electric power source occur, the following precautions must be taken:

- Stop the machine movement immediately.
- Apply the parking brake, stop the engine, and remove the key.
- Check if you can safely leave the cab or your actual position without contact with electrical wires. If not, stay in your position and call for help. If you can leave your position without touching lines, jump clear of the machine to make sure that you do not make contact with the ground and the machine at the same time.
- Do not permit anyone to touch the machine until power has been shut off to the power lines.

Electrical storm safety

Do not operate machine during an electrical storm.

If you are on the ground during an electrical storm, stay away from machinery and equipment. Seek shelter in a permanent, protected structure.

If an electrical storm should strike during operation, remain in the cab. Do not leave the cab or operator's platform. Do not make contact with the ground or objects outside the machine.

Mounting and dismounting

Mount and dismount the machine only at designated locations that have handholds, steps, and/or or ladders.

Do not jump off of the machine.

Make sure that steps, ladders, and platforms remain clean and clear of debris and foreign substances. Injury may result from slippery surfaces.

Face the machine when you mount and dismount the machine.

Maintain a three-point contact with steps, ladders, and handholds.

Never mount or dismount from a moving machine.

Do not use the steering wheel or other controls or accessories as handholds when you enter or exit the cab or operator's platform.

Working at heights

When tractor maintenance requires you to work at heights:

- Correctly use installed steps, ladders, and/or hand holds.
- Do not stand on tractor areas that are not designed as steps or platforms.
- When necessary, use appropriate means according to national/local safety rules (for example, an individual rolling platform, etc.) to reach components such as mirrors, rotating beacons, air filters, GPS receivers, or other components not reachable from the ground.
- Never use steps, ladders, and/or hand holds when the tractor is in motion.

Do not use the tractor as a lift, ladder, or platform for working at heights.

Lifting and overhead loads

Never use loader buckets, forks, etc. or other lifting, handling, or digging equipment to lift persons.

Do not use raised equipment as a work platform.

Know the full area of movement of the machine and equipment and do not enter or permit anyone to enter the area of movement while the machine is in operation.

Never enter or permit anyone to enter the area underneath raised equipment. Equipment and/or loads can fall unexpectedly and crush persons underneath it.

Do not leave equipment in raised position while parked or during service, unless securely supported. Hydraulic cylinders must be mechanically locked or supported if they are left in a raised position for service or access.

Loader buckets, forks, etc. or other lifting, handling, or digging equipment and its load will change the center of gravity of the machine. This can cause the machine to tip on slopes or uneven ground.

Load items can fall off the loader bucket or lifting equipment and crush the operator. Care must be taken when lifting a load. Use proper lifting equipment.

Do not lift load higher than necessary. Lower loads to transport. Remember to leave appropriate clearance to the ground and other obstacles.

Equipment and associated loads can block visibility and cause an accident. Do not operate with insufficient visibility.

Multifunction Handle

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

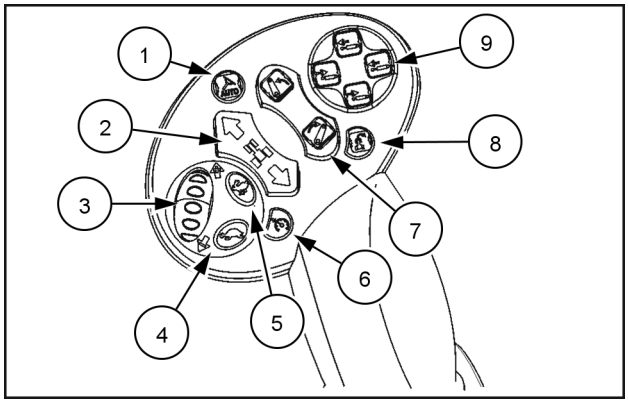
⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A

The Multifunction handle allows one handed operation of several tractor functions, all of which are explained in full detail as you read through the manual.

1. Autoguidance engagement (where fitted)
2. Transmission shuttle switches
3. Thumb wheel
4. Speed range upshift switch
5. Speed range downward switch
6. Auto/Cruise mode switch
7. Hitch raise/lower switches
8. Headland turn step switch (where fitted)
9. Remote cylinder controls (only with EHRs fitted)



SVIL17TR03615AA 1

Integrated Control Panel (ICP)

⚠ WARNING

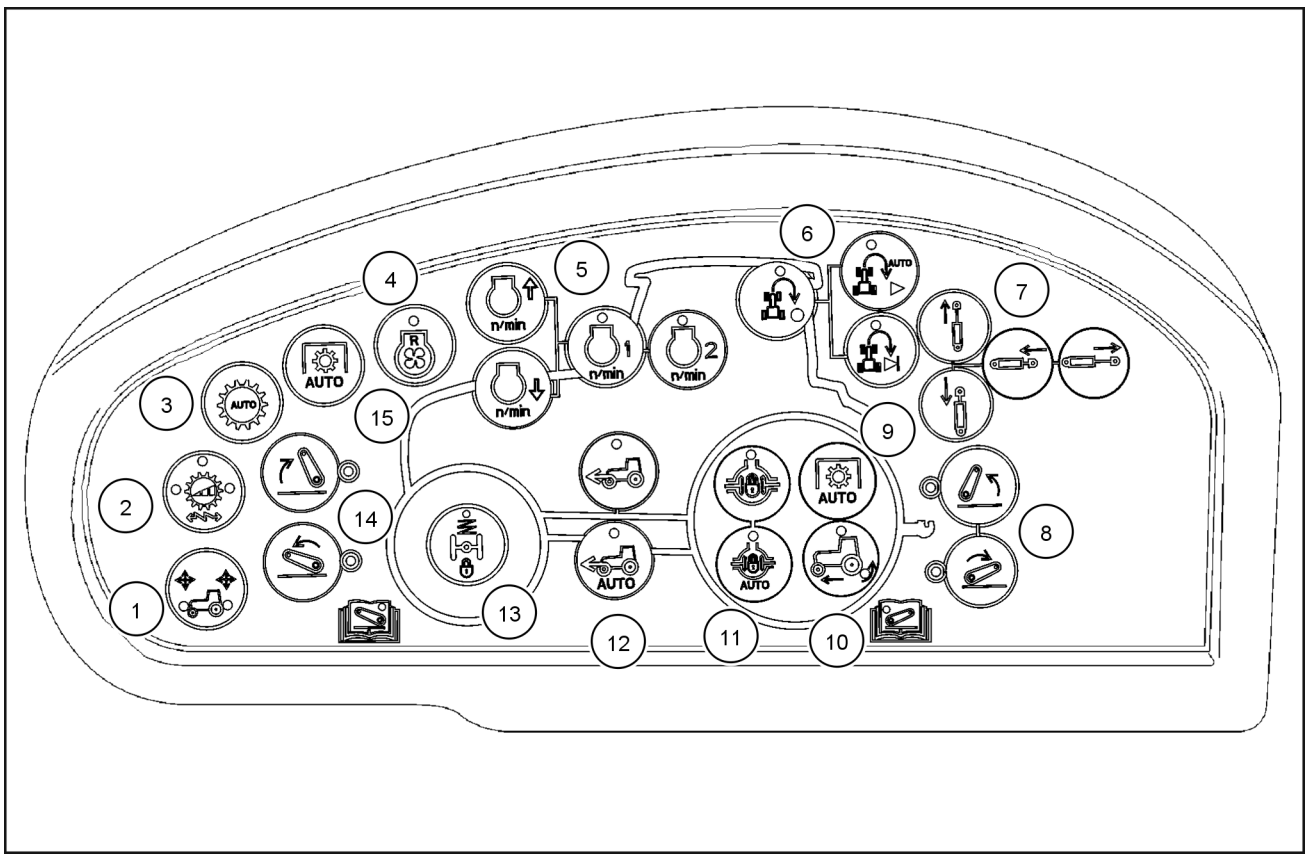
Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A



SVIL17TR03696FA 1

Your tractor is equipped with a number of electronic control switches located on the right- hand side of the cab. Depending on the options fitted to your tractor, some of these switches may have more than one function. A full explanation of individual switch operation can be found in the relevant pages of this manual.

The grouping of the switches on the ICP in your tractor may appear different to those shown in some illustrations in Operator's Manual. However, their operation will be identical to that described.

1. Front/ rear joystick control selector
2. Shuttle aggressiveness Acceleration/deceleration rate control
3. Not used Auto mode
4. Not used
5. Engine Speed Management settings
6. HTS Record/ Auto/ Manual select
7. Hydraulically adjusted top and right hand link
8. Rear 3- point hitch EDC operation
9. Rear Auto PTO control
10. Wheel slip engagement
11. Rear axle differential lock, Auto/ Manual engagement
12. 4WD Auto or Manual engagement
13. Front axle suspension lock
14. Front 3- point hitch operation

15. Front Automatic PTO (where fitted)

Hydraulic master switch

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A

EHR / Hitch transport lock

When travelling on the road, both mid-mount and rear electronic remote control valves as well as the front and rear hitch, can be locked to prevent in advertent lowering of the implement which may cause damage to the tractor or road surface.

NOTE: *Depending on the hydraulic pump used the symbol on the switch may be different.*

The switch on the cab 'C' pillar has three positions and provides the following functions.

Depress the top of the switch **(1)** to energize the electronic rear remote valves and the mid-mount remote control valves (where fitted).

Depress the bottom of the switch **(2)** to energize the electronic rear remote valves, the mid-mount remote control valves (where fitted) and the front and rear hitch controls.

Bring the switch to the Mid position **(3)** to lock all hydraulic functions of the electronic rear remote valves, the mid-mount remote control valves (where fitted) and the front and rear hitch.

NOTE: *The top of the switch **(1)** has no function related to the front and rear hitch system.*

⚠ WARNING

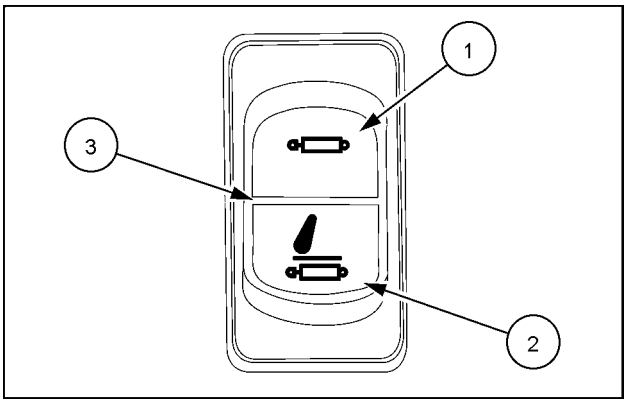
Misuse hazard!
Always use the hydraulic master switch to disable the front hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.
Failure to comply could result in death or serious injury.

W1792A

⚠ WARNING

Misuse hazard!
Always use the Hydraulic Master switch to disable the rear hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.
Failure to comply could result in death or serious injury.

W1603A



SVIL17TR00867AA 1

Electronic Draft Control (EDC) operation

⚠ WARNING

Misuse hazard!
Always use the Hydraulic Master switch to disable the rear hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.
Failure to comply could result in death or serious injury.

W1603A

Pre-operation settings

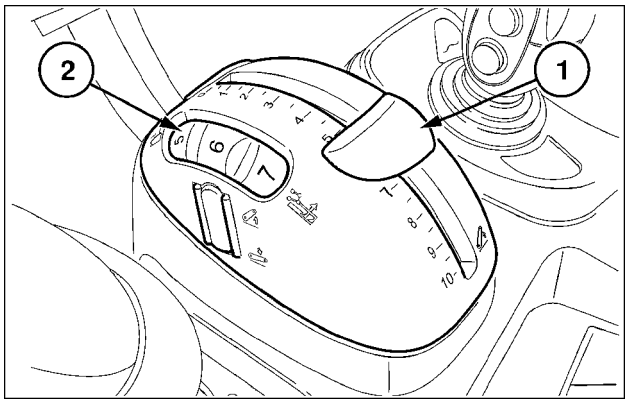
Ensure the hydraulic master switch is in the "ON" position to allow the three-point hitch to function, see page **Hydraulic master switch (35.000)**.

Attach the implement to the three-point.

Turn the draft loading wheel **(2)** fully forward (position 10), this is the position control setting.

Start the engine and using the position control lever **(1)**, raise the implement in stages, ensuring there is at least **100 mm** (**3.94 in**) clearance between the implement and any part of the tractor.

Note the figure in the central display. If the reading is less than '100' it means that the implement is not fully raised.



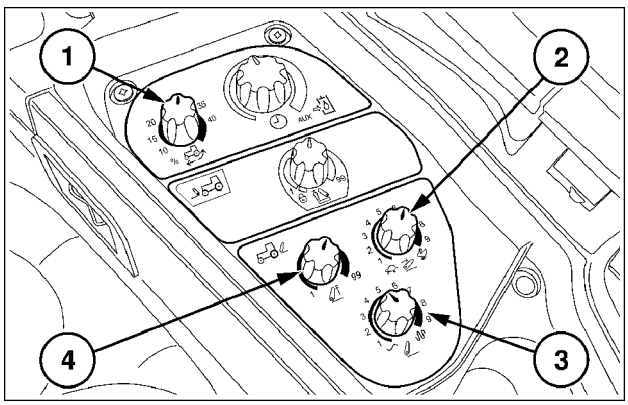
BRL6112B 1

Adjust the height limit control knob **(4)** to prevent the hitch being raised further and so avoid the possibility of the implement damaging the tractor when fully raised.

When the raise/lower switch or the position control lever is used to raise the implement, it will only raise to the height set by the limit control, as determined in the previous step.

Adjust the rate of drop, to suit the size and weight of the attached implement by rotating the drop rate control knob **(2)**. Turn the knob clockwise to speed up the drop rate or counterclockwise to slow down the drop rate.

NOTICE: *When first setting the implement up for work, keep the drop rate control knob in the slow drop position ('tortoise' symbol).*



BRL6122B 2

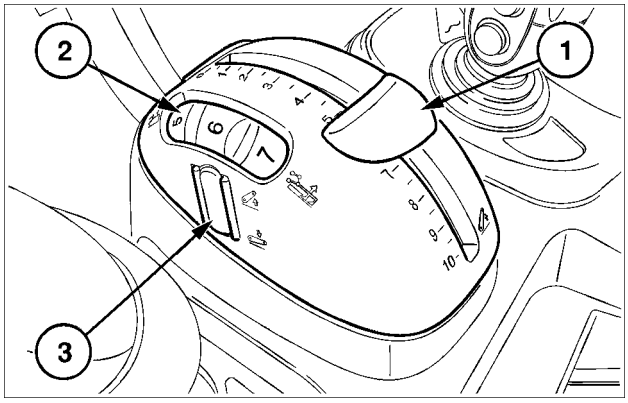
When the raise/lower switch is used to lower the implement, it will lower at a controlled rate as determined in the previous step.

Position control operation

To operate in position control, the draft loading wheel **(2)** should, ideally, be rotated fully forward to position 10.

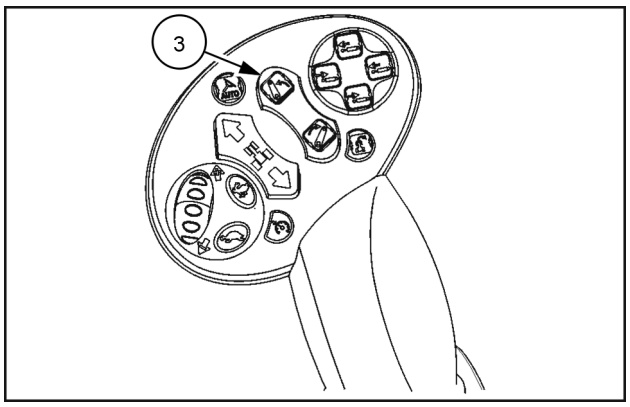
Use the position control lever **(1)** to raise and lower the three-point hitch. The implement will raise and stop at the height set by the height limit control knob.

NOTE: *The rate of lift will be adjusted automatically. If a large movement of the position control lever is made then the lower links will respond by moving rapidly. As the links approach the position set by the position control lever, implement movement will be slower.*



BRL6112C 3

If it is required to raise the implement at the headland, momentarily depress the top of the raise switch on the EDC pod or transmission lever **(3)** to lift the implement to the position set by the height limit control knob. When reentering the work area, momentarily depress the bottom of the switch and the implement will return to the height originally set by the position control lever **(1)**.



SVIL17TR03615AA 4

Draft control operation

To ensure the best performance in the field it will be necessary to adjust the draft control system to suit the implement and ground conditions.

The position of the draft sensitivity knob **(3)** determines the sensitivity of the system. Set the knob to the mid-position before lowering the implement into work.

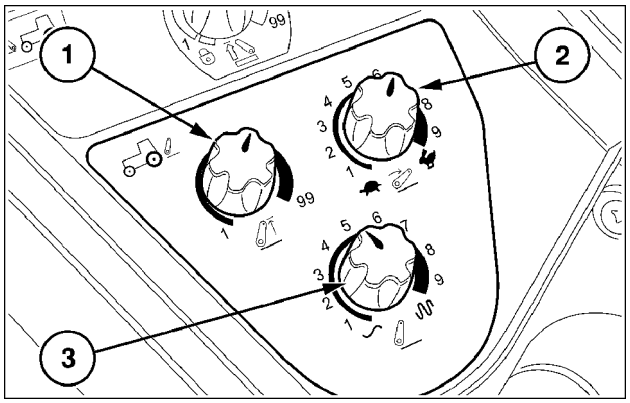
The draft loading wheel **(2)** figure **[Invalid Reference]** determines implement depth by setting a required force on the draft sensing pins. Set the wheel to the mid-position, marked 5, prior to commencing work.

Drive the tractor into the field and lower the implement into work by moving the position control lever **(1)** forward.

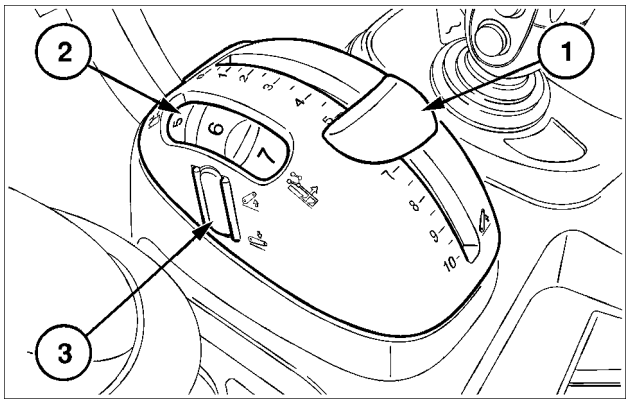
Set the required implement working depth by adjusting the setting on the draft loading wheel **(2)**, DR will be shown in the lower centre display of the front instrument cluster. When the required depth has been achieved, move the position control lever rearwards until the implement starts to raise, DR will revert to a hitch position value, then move forward again in small increments to set the maximum depth limit. DR should reappear to indicate draft sensing is taking place.

When adjusted correctly, the position control setting will prevent the implement form 'diving' or working too deep if an area of soft or light soil is encountered.

Once the draft loading and maximum depth have been set, raise and lower the implement using the fast raise on the transmission lever or EDC pod **(3)**.



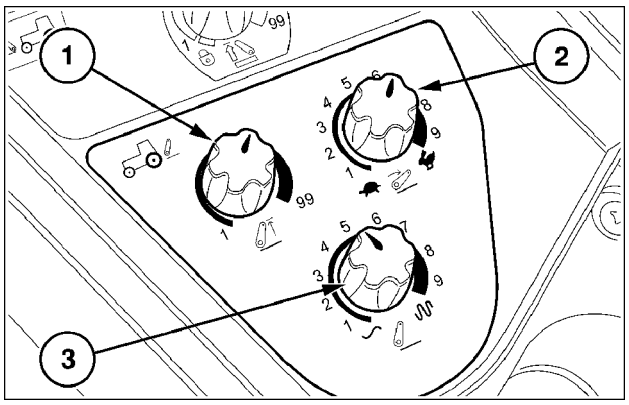
BRL6123B 5



BRL6112C 6

Observe the implement as it pulls trough the soil and adjust the draft sensitivity knob **(3)** until the tendency for the hitch to raise and lower, due to variations in soil resistance, is satisfactory. Once set, the tractor hydraulic system will automatically adjust implement depth to maintain an even pull (draft load) on the tractor.

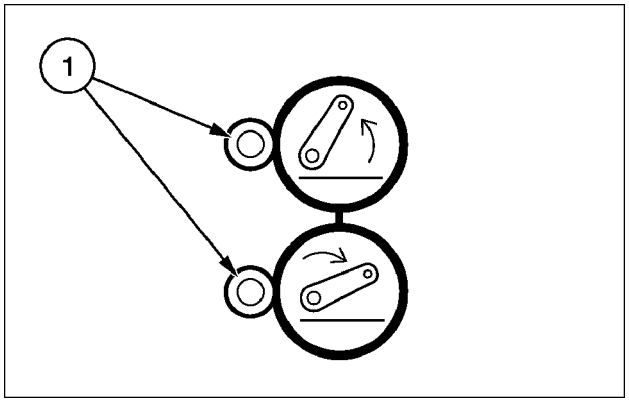
The optimum setting will be achieved by observing the movement indicator lights **(1)** figure **8**. The upper light will illuminate every time the system raises the implement as normal draft corrections occur. The lower light will illuminate as the implement lowers.



BRL6123B 7

Turn the draft sensitivity knob **(3)** figure **7**, slowly clockwise. The system will respond with smaller, quicker movements as will be seen by both the indicator lights flickering. At this point, turn the knob slightly counterclockwise until either of the indicator lights flashes once every **2 s** or **3 s** or, as required, to suit the soil conditions.

Once the required working conditions have been established there is no need to move the position control lever again until the work in hand is completed.



BRL6100D 8

Upon reaching the headland, momentarily depress the top of the fast raise switch **(1)** to quickly lift the implement to the position set by the height limit control.

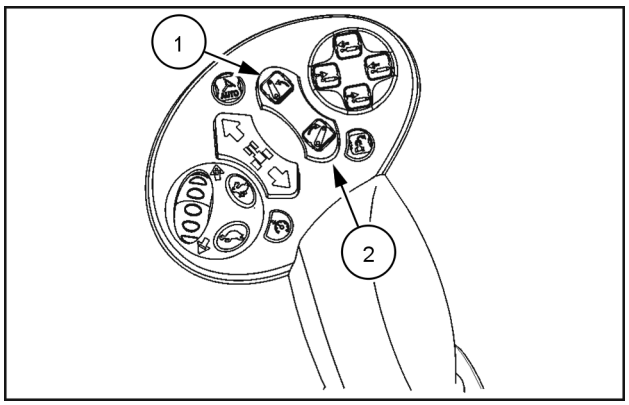
During the raise cycle, momentarily depressing the fast raise switch will pause implement lift.

When reentering the working area, momentarily depress the bottom of the switch, the implement will lower at the rate set by the drop rate control knob and stop when it reaches the depth set by the draft loading wheel.

NOTE: *Depressing the fast raise switch during the lift cycle will temporarily disable the hitch. Depressing the switch again will re-enable hitch operation but initial movement will be slow.*

Where faster implement penetration is required, for example, after turning at a narrow headland or where the implement is reluctant to penetrate, press and hold the bottom of the raise/lower switch **(2)**. The implement will lower at the rate set by the drop rate control knob, until it contacts the ground.

Continue to depress the switch and the drop rate and the position control settings will be overridden. The implement will quickly penetrate the ground, rising to the preset working depth when the switch is released.



SVIL17TR03615AA 9

Rear wheel slip limit setting

Setting the slip limit with the control knob

The slip limit control knob **(1)** available only with the optional radar sensor unit, enables the operator to select a wheel slip threshold above which the implement will raise until wheel slip returns to the preset level.

Slip limit temporarily overrides the normal draft control sensing signals and reduces the working depth of the implement. As soon as the wheel slip falls below the operating limit the implement will return to it's original working depth.

Care must be taken not to select a wheel slip limit that is either too high or too low.

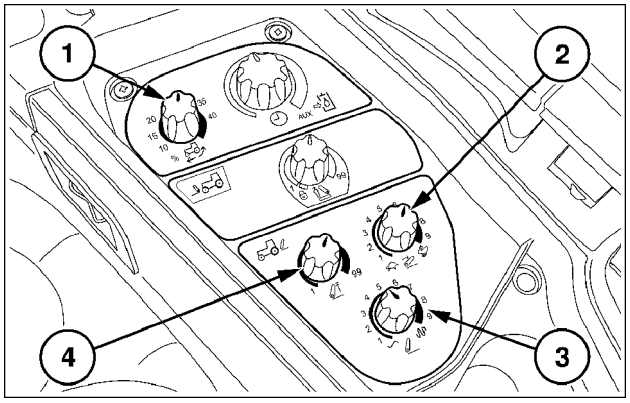
Setting the slip limit to a very low level, unobtainable in wet conditions, may have a detrimental effect on the work rate and depth.

NOTE: *The wheel slip function does not work in position control.*

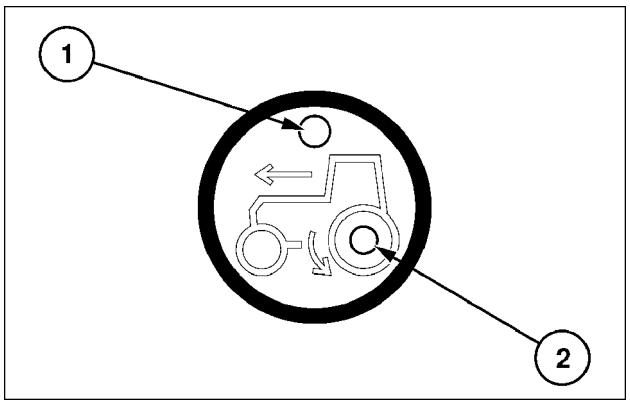
The slip limit 'on' indicator **(1)** will illuminate when the slip function is activated by depressing the switch on the armrest unit. When the slip control is in operation, the warning light **(2)** will also illuminate and the implement will raise to reduce the slip rate.

Where the amount of wheel slip approaches the preset limit, a warning will also appear in the display.

To disengage the slip function depress the switch on the arm rest unit.



BRL6122B 10



BRL6108B 11

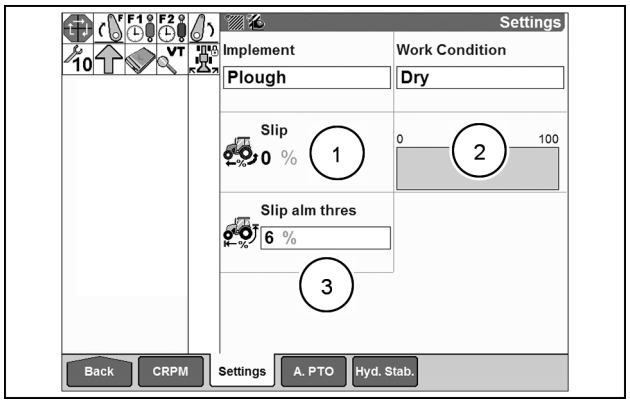
Setting the slip limit with color display

☞ Settings

☞ Implement. Use the popup screen to select, change or add a new implement category.

☞ Work condition. Use the popup screen to select, change or add a new category of work condition.

1. Percentage slip figure, this will change as wheel slip increases and decreases.
2. Same as **(1)** above but in bar graph format.
3. ☞ to access the popup for setting wheel slip alarm threshold. Set the figure using ◀ or ▶ then press Enter. The selected figure will appear in the slip alarm box.

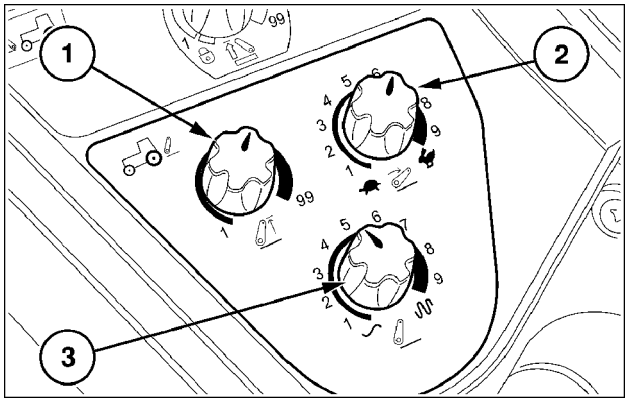


SVIL15TR02390AA 12

Dynamic ride control

When transporting equipment on the three-point hitch, implement bounce can lead to lack of steering control at transport speeds. With dynamic ride control selected, when the front wheels hit a bump, causing the front of the tractor to rise, the hydraulic system will immediately react to counter the movement and minimize implement bounce to provide a smoother ride.

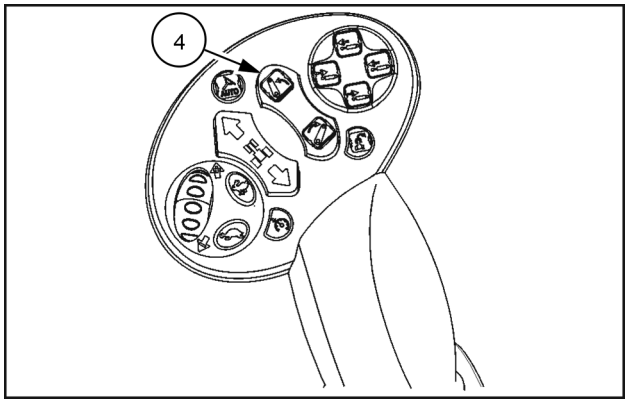
To engage ride control, depress the top of the raise/lower switch **(4)** figure **14** to raise the implement to the height set by the height limit control **(1)**.



BRL6123B 13

Turn the drop rate control knob **(2)** fully counterclockwise to the transport lock position (padlock symbol).

Ride control will only operate at speeds above **8 km/h** (**5.0 mph**). When tractor speed exceeds **8 km/h** (**5.0 mph**), the implement will drop by 4 - 5 points (as displayed on the instrument panel) as the hydraulic system makes corrections to counteract implement bounce. When tractor speed falls below **8 km/h** (**5.0 mph**) the implement will raise again to the height set by the height limit control and ride control will become inoperative.



SVIL17TR03615AA 14

Roading

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

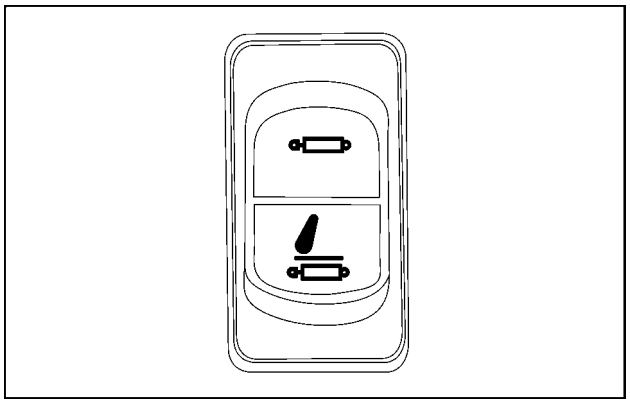
⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A

Always fully raise the hitch for road transport.

Use the Hydraulic master switch to lock the hitch and remote valves during road transport.



SVIL17TR00867AA 15

Front hitch operation

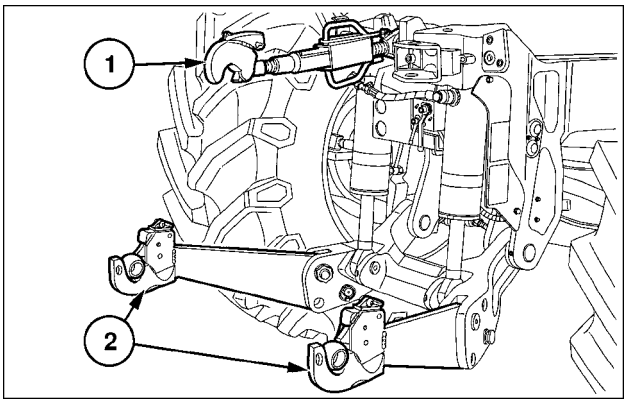
⚠ WARNING

Misuse hazard!
Always use the hydraulic master switch to disable the front hitch. A Drop Rate Setting of 0% is not intended to be a safety lock mechanism.
Failure to comply could result in death or serious injury.

W1792A

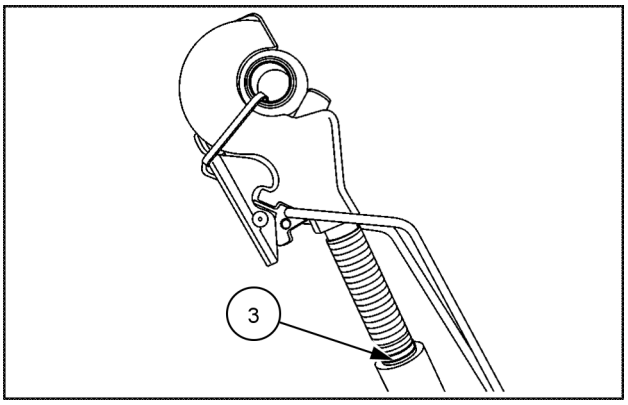
The optional front hitch consists of an adjustable top link **(1)** and a pair of folding lower links **(2)**. The top link and the lower links have open claw ends that permit rapid coupling and uncoupling of implements.

The claws are equipped with self- locking latches to ensure positive retention of the 3- point hitch to the implement.



BRJ5356D 1

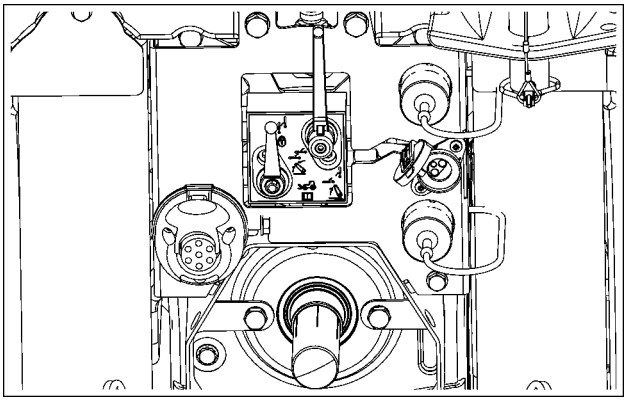
NOTICE: *Extend the lift rod only until the notch **(3)** in the thread is visible to avoid damage of the thread.*



SVIL14TR00023AC 2

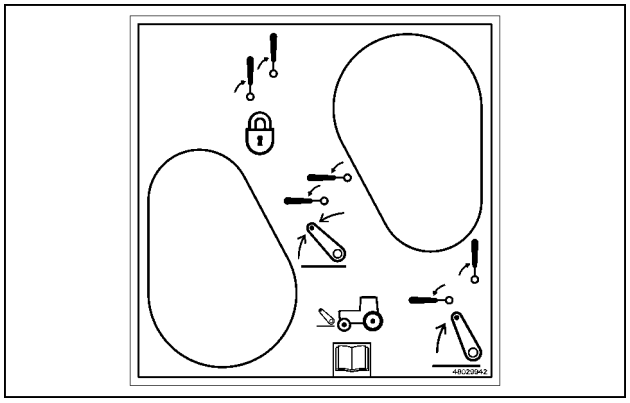
Setting the Hitch Operating Mode with Standard axle

Located on the front of the hitch assembly, the two selector levers permit the front hitch to be operated in single-acting mode, double-acting mode, or to be set at a fixed height..



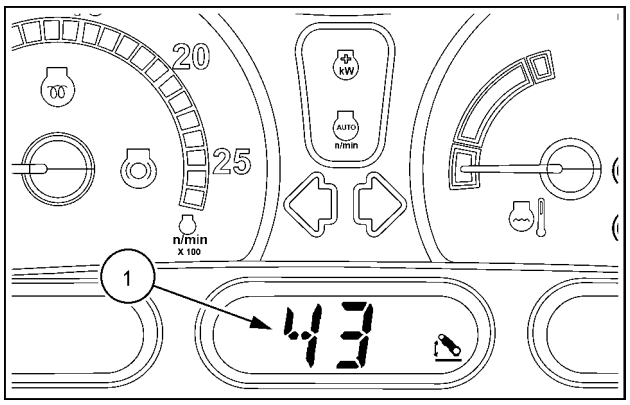
SVIL17TR01907AA 3

- Single-acting mode: Right-hand lever vertical, left-hand lever horizontal. Front hitch operates in single-acting mode being hydraulically raised but lowered using weight of implement.
- Lock position: Both levers vertical. With the levers in this position, both lift cylinders are hydraulically 'locked' preventing movement of the lower link arms. It is recommended this mode should be selected when transporting front mounted equipment on the highway.
- Double-acting mode: Both levers horizontal. Hitch operates in double-acting mode being hydraulically raised and lowered. Operating in this mode will provide additional penetration for ground engaging equipment in hard soil conditions or when using a front mounted scraper blade.



SVIL17TR00369AA 4

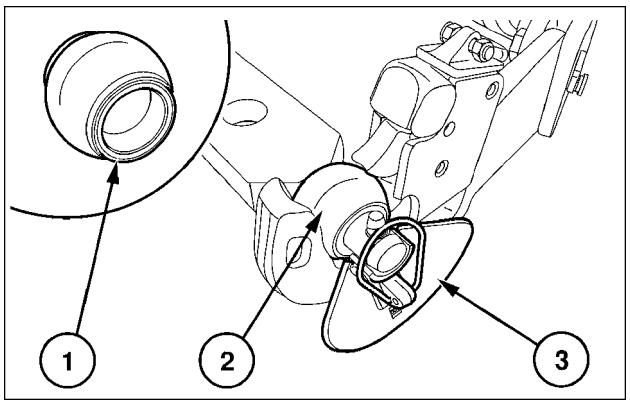
The front hitch can be operated by a rear or mid- mount remote valve (where fitted). The height of the hitch **(1)** can be shown in the Central Display as a percentage (%) ranging from 0 (fully lowered) to 100 (full raise).



SVIL17TR00632AA 5

Three ball- bushings are supplied for installation on the implement, if required. The ball- bushing with projecting lips **(1)** should be installed on the implement upper hitch pin.

The two plain ball- bushings **(2)** with their detachable guides **(3)** should be installed on the implement lower hitch pins.



BRJ5352B 6

Operating the Front Hitch

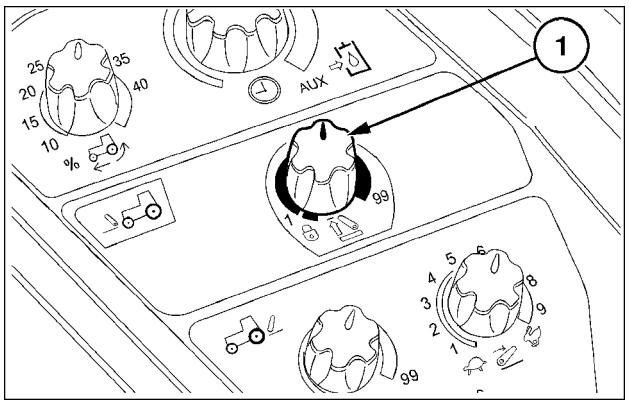
The front hitch may be operated by electronic rear remote valves or, where fitted, electronic mid- mount remote valves.

Setting the Height of the Front Hitch with Electronic Remote Valves only

A height limit control permits the operator to set a pre-determined limit on the maximum lift height of the hitch. Height limit adjustment is set by the knob **(1)** on the EHC console. Turn clockwise to set the maximum height, turn anti- clockwise to reduce the height.

The position of the hitch will be shown in the display as a percentage (%) between 0 (fully lowered) and 100 (full raise).

Turn the control fully anti- clockwise to disable the height limit function.



BRL6125B 7

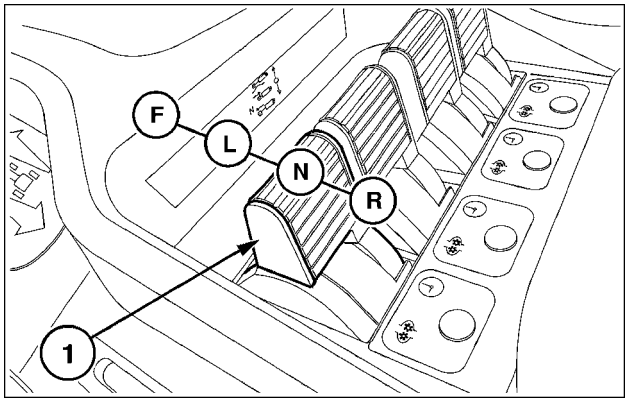
Hitch Operation with Electronic Rear Remote Valves:

Electronic rear remote valves may be used to operate the front hitch using the control lever **(1)** or the joystick, (where fitted).

As a factory fitted option, the default valve to operate the hitch will always be valve number 1 whether rear mount or mid- mount valves are used.

With the front hitch connected to valve number 1, move the lever rearwards **(R)** to raise the hitch. Move the lever to **(N)** to stop hitch movement, the hitch will remain at this height. Select **(L)** to lower the hitch. Moving the lever to the float position **(F)** will permit the hitch to 'float' up and down allowing the implement to follow the ground contours.

Valve number 1 is programmed to operate in conjunction with the front hitch height limiter previously described.



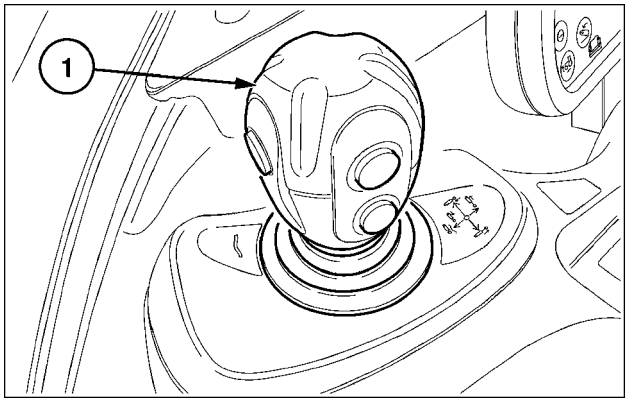
BRL6126B 8

Hitch Operation with Joystick and Electronic Rear or Mid Mount Remote Valves:

The joystick **(1)**, can be used to control the front hitch using the electronic rear remote valves or, where fitted, the mid- mount remote valves.

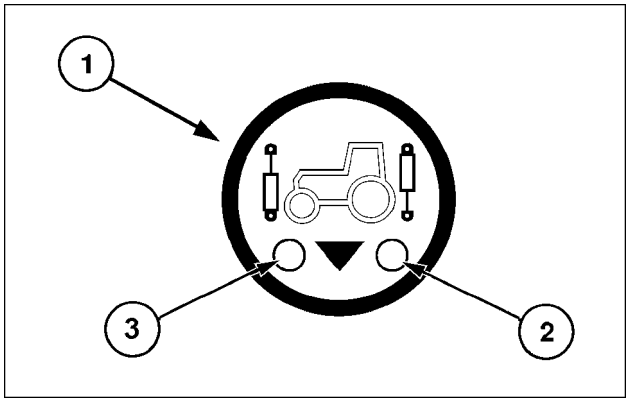
Where a front hitch is supplied as a factory option, the tractor will be fitted with a joystick and electronic mid-mount remote valves. Valve number 1 will be used to operate the hitch.

On tractors equipped with both mid and rear mounted electronic valves, the joystick can be used to control either valve assembly.



BRL6116B 9

A selector switch **(1)** on the console allows the operator to switch joystick control between the mid- mount and rear mount valves.



SS10K090 10

Repeated pressing of the switch will cycle between the mid- mount and rear mount valves. Lights in the switch **(2)** and **(3)** will confirm which valves are activated.

NOTE: *Switching the joystick from mid- mount to rear valve operation will automatically suspend lever operation of the rear remote valves.*

NOTICE: *Before switching joystick operation between mid and rear mount valves or vice versa, ensure all remote valve levers and the joystick are in the neutral position.*

At key- off, the joystick function is de- activated. The joystick will be reactivated when the operator is in the seat with the engine running for more than three seconds.

When the joystick is de- activated, the warning lights in the front/ rear selector switch will flash.

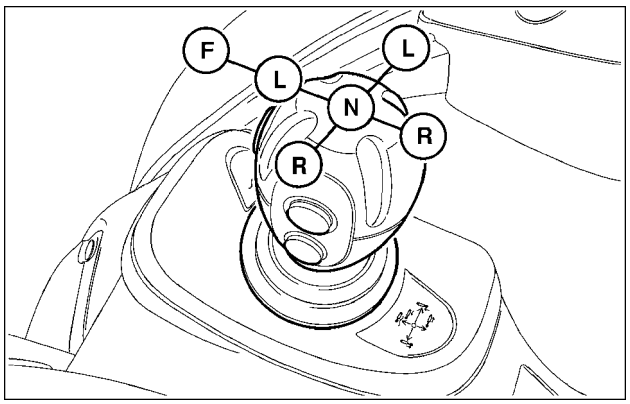
NOTE: *Operation of the joystick will be disabled if the operator leaves the seat or the tractor engine is stopped.*

Where it is required to operate the front hitch using the rear remote valves and joystick, depress the switch and the rear remote valve indicator lamp **(2)** will start to flash.

After five seconds the rear indicator lamp will stop flashing and will remain on, confirming joystick control of the rear remote valves has been activated.

Operation of the front hitch is now controlled by the joystick through the rear remote valves.

Both mid- mount and rear mount electronic remote valves offer the following functions when operated by the joystick.



BRL6119C 11

Remote valve 1:
Move the joystick forwards or backwards to select Raise, Neutral, Lower and Float on the front hitch.

Remote Valve 2:
Move the joystick left or right to provide oil flow through the front couplers (where fitted).

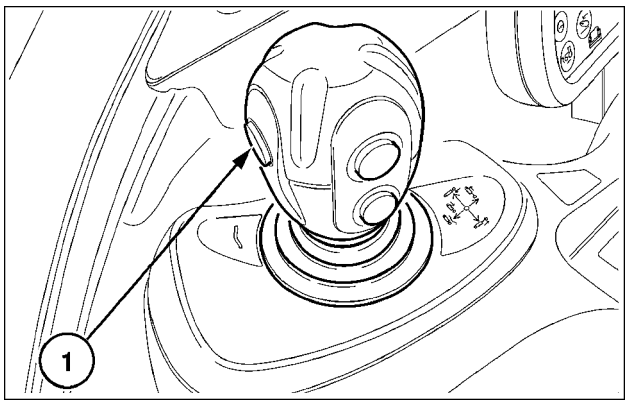
Where valves 3 or 4 are fitted, the joystick functions as follows. This applies to both rear mount or mid- mount valves.

Remote valve 3:
Depress and hold the button **(1)** and move the joystick forwards or backwards to operate Raise, Neutral, Lower and Float.

Rear Remote Valve 4:
Depress and hold the button **(1)** and move the joystick left or right to operate Raise, Neutral and Lower.

NOTE: *The yellow and green buttons have no function when the joystick is used to operate a front hitch.*

NOTE: *The joystick should not be used for hydraulic motor operation.*



BRL6116C 12

Move the joystick rearwards **(R)** to raise the implement. When the front hitch reaches the position set by the height limit control the hitch will stop.

Pushing the joystick forward to the 'lower' position **(L)** will cause the implement to lower to the ground at a controlled rate of descent.

Further forward movement of the joystick will select 'float' **(F)** which will allow the implement to lower under its own weight.

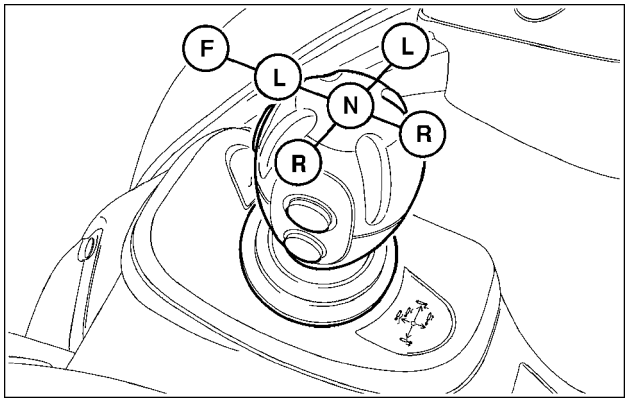
Float can also used to let the hitch lift cylinder extend or retract freely allowing front mounted equipment to follow ground contours.

NOTE: *Always use the 'float' position to lower a single-acting cylinder. The 'lower' position is for double- acting cylinders only.*

NOTE: *With the joystick operating the rear electronic remote valves, the float position for valves 2 and 4 (lateral movement of the joystick) is not available.*

The joystick may also be moved laterally, **(R)** and **(L)** to provide oil flow for equipment connected to the optional front couplers.

By moving the joystick diagonally, two cylinders may be operated simultaneously.

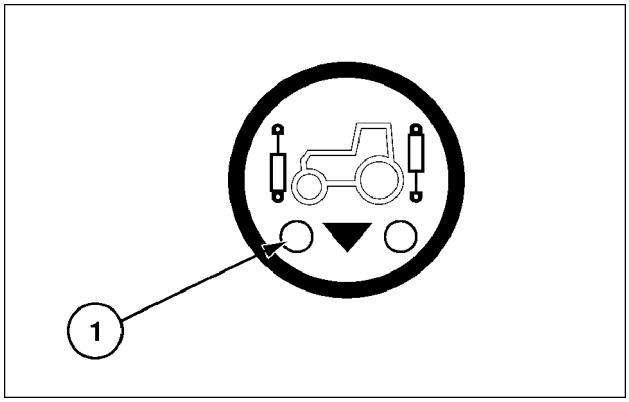


BRL6119C 13

To reinstate lever control of the rear valves, depress the selector switch to activate the mid- mount valves. The rear indicator lamp will go out and the mid- mount indicator lamp **(1)** will start to flash.

After **2 s** the mid- mount lamp will stay on confirming joystick operation has been switched back to the mid- mount valves (where fitted).

The rear remote valves are now controlled by their respective levers.



BRL6106C 14

Joystick Functionality Screen

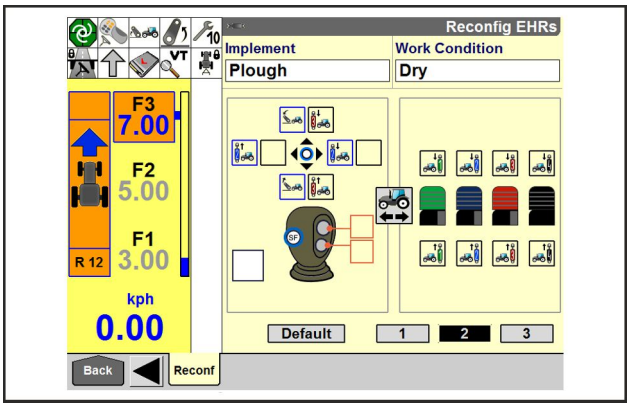
On tractors fitted with the colour display, the operator can access the joystick screen which provides details on joystick functionality.

☞ Remote Valves

Use ▲▼ to scroll the through the menu until Joystick is displayed.

☞ Reconf

The joystick functionality screen identifies the number of valves controlled by the joystick and the corresponding movement required to operate each valve. Valves marked with a blue border can be operated by simply moving the joystick, valves with a black border require the switch to be depressed before moving the joystick, see **(1)**, Figure **12** .



SVIL17TR01299AA 15

When the switch is depressed a symbol will appear in the screen on the lower right- hand side.

As a valve is operated the white background will change to orange.

When joystick operation is transferred between rear and mid- mount valves, the valve identification will change from R1, R2 etc. to F1, F2. This feature is not available with mechanically operated remote valves.

If the tractor is fitted with a front hitch the joystick functionality screen also identifies the valve used to operate the front hitch.

Roading

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

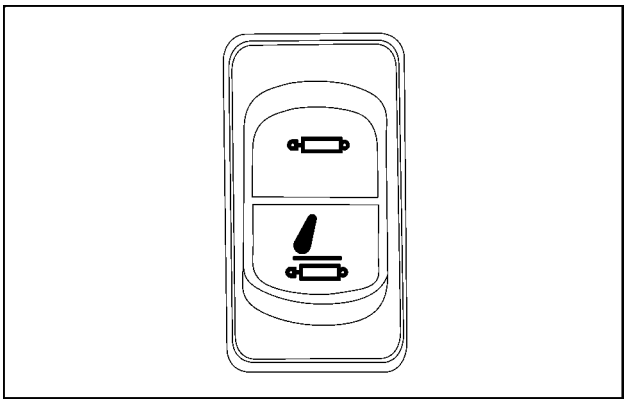
⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A

Always fully raise the hitch for road transport.

Use the Hydraulic master switch to lock the hitch and remote valves during road transport.



SVIL17TR00867AA 16

Remote control valves

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

NOTE: *See page* ***Transmission rear axle and hydraulic system oil level (21)*** *for available oil quantities when powering external hydraulic equipment.*

When operating in manual mode, electro hydraulic remote control valves (EHRs) perform in a similar manner to mechanical valves providing Raise, Neutral, Lower and Float functions selected by the operator.

However, where an implement requires repeated hydraulic movements, such as extending and retracting hydraulic cylinders, EHRs allow the operator to create an automated programme of these movements.

Each programme is supported by visual displays in the EHR display screen.

NOTE: *Where a hydraulic service is locked out by the master switch, a symbol will appear in the status display on the top left side of the color display. See item* ***(1)*** *on page* ***Settings and adjustments (35.204)****.*

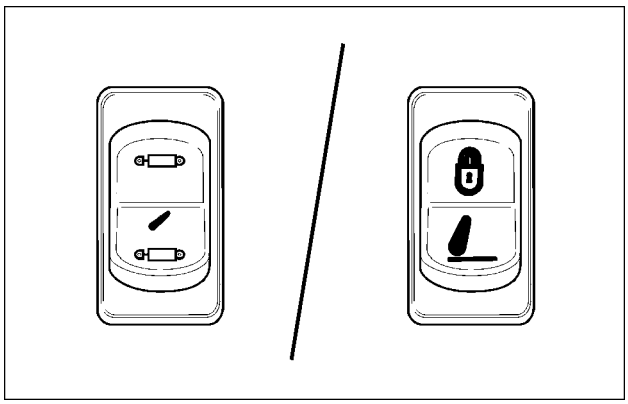
NOTE: *Where mid mount EHR's are installed, these will also be locked out when the switch is in the central position.*

NOTE: *Where a valve is not in neutral at start up, a symbol and the corresponding valve number will appear in the dot matrix display. Where more than one valve is not in neutral, the display will scroll sequentially through each valve number.*

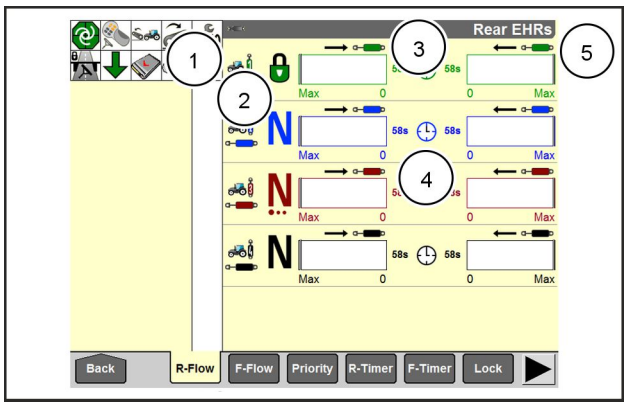
NOTE: *At start up, EHR operation is disabled until the engine speed has been detected to be over* ***500 RPM*** *for approximately* ***3 s****.*

Should a remote valve become inoperable or stuck in one position, that valve will become disabled until the fault is rectified or the valve electronically disconnected from the system. Should this occur, consult your authorized dealer.

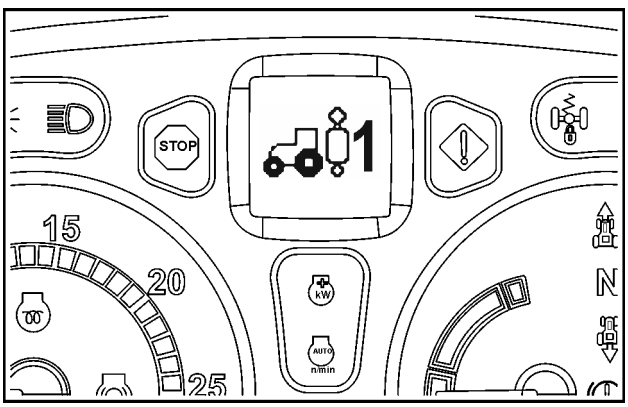
NOTE: *In the unlikely event that a remote valve ceases to operate or respond correctly to lever movements, the system will require the attention of your authorized dealer.*



SVIL18TR02290AA 1



SVIL17TR01291AA 2



SVIL17TR00635AB 3

Control lever operation

The default configuration is that the levers control rear EHR 1-4, but they can be assigned to control rear or mid mount valves.

⚠ WARNING

Uncontrolled equipment movement!
Because the electronic remote control valves have detented lever positions, it is not recommended to use them for front-end loader operations. Consult your authorized dealer.
Failure to comply could result in death or serious injury.

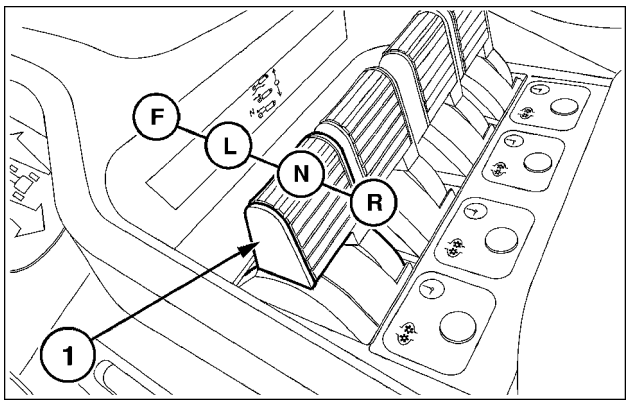
W0428A

Each remote valve lever **(1)** has four positions, Raise, Neutral, Lower and Float. In Raise and Lower modes, the detented positions are used for timed remote valve functions.

In the following text lever positions may be described as Raise, Neutral, Lower and Float or Extend, Neutral, Retract and Float. The functionality however, remains the same.

The 'float' position is also used for retracting a single- acting cylinder and is the OFF position for operating hydraulic motors.

Pull the lever back from the neutral position, **(N)** to the Raise position, **(R)**. From neutral, push forward to the (Lower) position, **(L)**. Push the lever fully forward to the Float position, **(F)**. Float will permit a hydraulic cylinder to extend or retract freely, allowing equipment such as scraper blades to "float" or follow the ground contour.



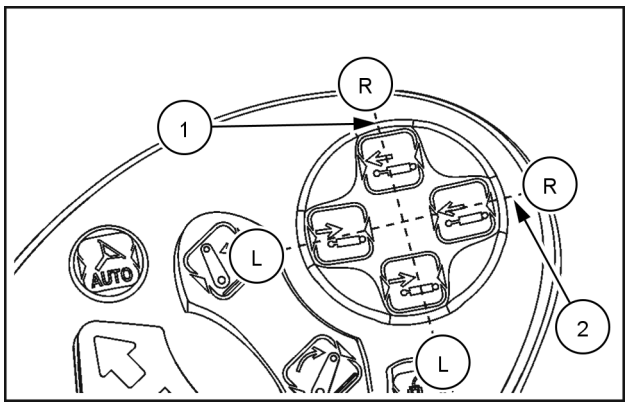
BRL6126B 4

NOTE: *In the unlikely event that a remote valve ceases to operate or respond correctly to lever movements, the system will require the attention of your authorized dealer.*

NOTICE: *Care must be taken when operating in the manual mode that the remote valve lever is not left in the detented extend or retract positions when using remote cylinders.*
When the cylinder has reached the end of its stroke the control lever must be returned to the neutral position manually.
Failure to observe this procedure may cause overheating of the hydraulic oil and may lead to failure of hydraulic or drive line components.

NOTICE: *Never use the neutral position from the extend or retract position to stop a hydraulic motor. Sudden hydraulic lock up of the system may cause extensive damage to the motor. To operate hydraulic motors always use motor mode, see on page* ***Programming tractor functions (35.204)*** *and the following.*

EHR quad switch



SVIL17TR03617AA 5

The multifunction lever incorporates a spring centred toggle switch which can be used to operate two electro hydraulic remote control valves.

A number of hydraulic functions can be operated using the quad switch:

NOTE: *The quad switch operates only in the Raise, Neutral and Lower modes. To select Float depress the float button on the Multi- Function lever.*

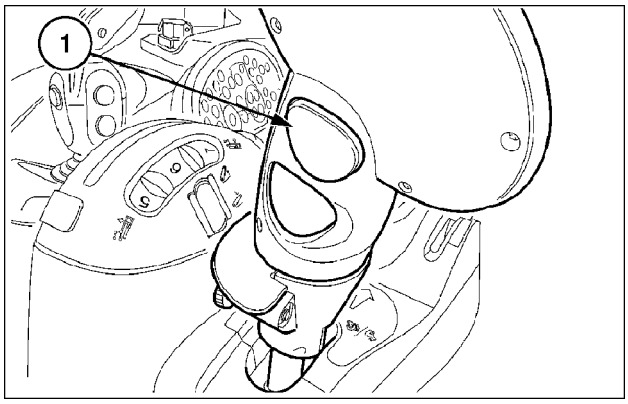
Option A
(with 3 or 4 rear valves only)
Vertical axis **(1)**, Rear valve 1
Horizontal axis **(2)**, Rear valve 2

Option B
(with mid- mount and 3 or 4 rear mounted valves)
Vertical axis **(1)**, Rear valve 1
Horizontal axis **(2)**, Mid valve 1

Option C
(with 5th rear valve)
Vertical axis **(1)**, Rear valve 1
Horizontal axis **(2)**, Rear valve 5

Option D
(with mid- mount and 5th rear valve)
Vertical axis **(1)**, Mid valve 1
Horizontal axis **(2)**, Rear valve 5

Option E
(with loader, mid- mount and 5 rear valves)
Vertical axis **(1)**, Rear valve 1
Horizontal axis **(2)**, Rear valve 5



BRL6113C 6

The float switch **(1)** operates in conjunction with the quad switch and provides a float facility for valves controlled by the quad switch.

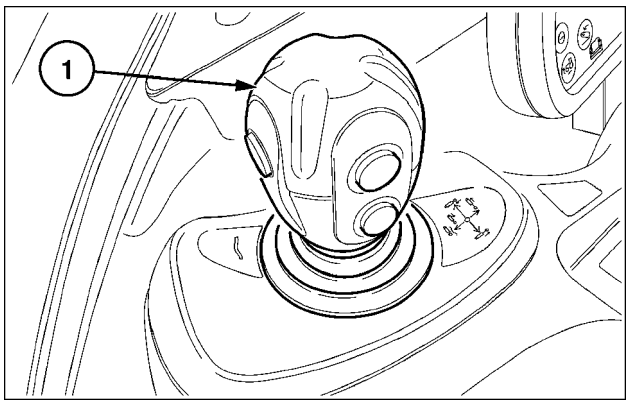
To engage the float facility, depress/hold the switch **(1)** and then depress/hold the lower (retract) side of the quad switch for the appropriate valve. Release the float switch.

If the float function has been activated on rear valve number 5 (where fitted), it can be cancelled by depressing the quad switch twice.

Electronic joystick operation (where fitted)

NOTICE: *The following descriptions of joystick operating procedures refer to tractors not equipped with a factory installed loader kit. For information on loader functions consult the loader Operator's Manual or see page* ***Joystick operation with a front loader (90.151)****.*

The optional electronic joystick **(1)** can be used to operate either mid-mounted or rear mounted EHRs. Where the joystick is being used to control the rear mounted valves, the operation of the mid mount valves will be transferred to EHR lever control.



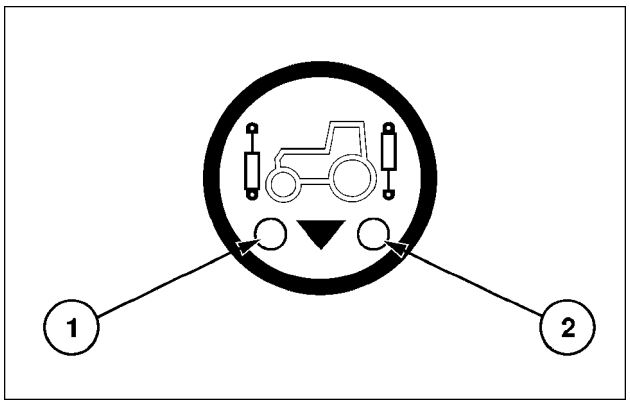
BRL6116B 7

With mid and rear mounted EHRs, the switch on the integrated control panel, permits joystick control of either mid-mounted or rear mounted valves.

Indicator lights **(1)** and **(2)** confirm which valves are controlled by the joystick.

NOTE: *Where tractors are fitted with mid mount EHRs and mechanical rear remote vales, depressing the switch* ***(1)*** *will have no effect and the light* ***(2)*** *will remain illuminated.*

At key-on, assuming the joystick set to operate the mid-mount valves, the indicator light **(1)** will be on. To switch joystick control from mid- mount to rear mount valves, depress and hold the switch for **2 s** until light **(1)** is extinguished and light **(2)** starts to flash.



BRL6106D 8

Release the switch and light **(2)** will stop flashing and will remain illuminated. Control is now transferred to the rear mounted valves.

Before transferring joystick control between EHRs, it is important that all remote valves are in neutral. Any valves not in neutral will be disabled and the EHR display will identify the number and 'R' (rear) or 'FR' (front). If a joystick transfer is attempted and one of the target valves is not in neutral the indicator light will flash until the disabled EHR has been reactivated.

To reactivate a valve, use the newly assigned EHR control (lever or joystick) and cycle the valve through neutral into raise or lower and back to neutral.

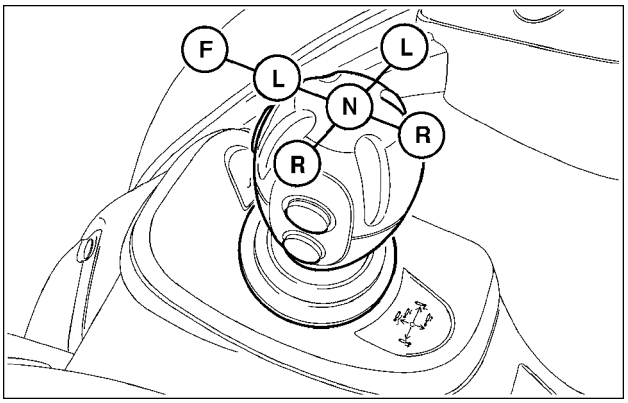
At key- off, the current joystick setting (mid or rear mount control) will be retained in the EHR memory for reactivation at key-on.

Where mid- mount valves are not fitted to the tractor, the switch is used to select lever or joystick control of the rear EHR's only. Where no lights appear in the switch, operation of the valves is by lever, when light **(2)** is illuminated, operation is by joystick.

NOTE: *Switching the joystick from mid-mount to rear valve operation will automatically suspend lever operation of the rear remote valves.*

NOTE: *Switching the joystick operation between mid- and rear valve packs or vice versa with the switch on the ICP is only possible if the remote valve setting is in default mode, see page* ***Operating with remote valves (35.204)****. With the remote valves in costumer mode, the joystick operation can be swapped only with the joystick functionality screen as described below.*

The joystick operates in two axis, forward/rearward and side/side. Forward/rearward movement provides Raise, Neutral, Lower and Float on valve 1, moving the joystick sideways gives Raise, Neutral and Lower on valve 2.



BRL6119C 9

Move the joystick rearwards or leftwards **(R)** to extend a hydraulic cylinder.

Pushing the joystick forward or rightwards to the ‘lower’ position **(L)** will retract the cylinder. Further forward movement of the joystick will select ‘float’ **(F)** which will allow the cylinder to extend or retract freely.

Two services can be operated simultaneously by moving the joystick diagonally.

Where additional hydraulic services are required, the joystick can offer optional functions activated by depressing and holding the switch **(1)** on top of the joystick.

Remote valve 1:
Move the joystick forwards or backwards to operate Raise, Neutral, Lower and Float.

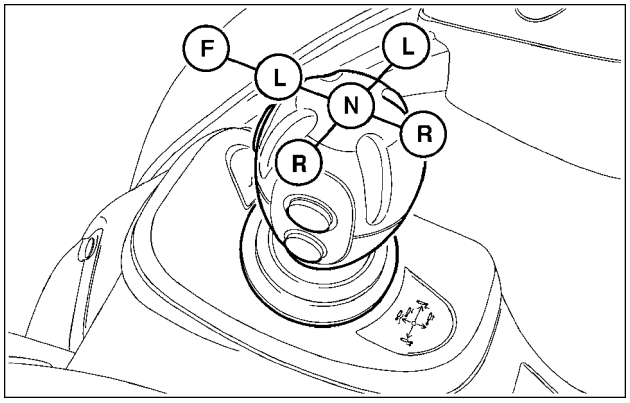
Remote Valve 2:
Move the joystick left or right to operate Raise, Neutral and Lower.

Remote valve 3:
Depress and hold the button **(1)** and move the joystick forwards or backwards to operate Raise, Neutral, Lower and Float.

Remote Valve 4 (rear only):
Depress and hold the black button **(1)** and move the joystick left or right to operate Raise, Neutral and Lower.

NOTE: *Always use the 'float' position to lower a single-acting cylinder. The 'lower' position is for double-acting cylinders only.*

NOTE: *At key-off, the joystick function is deactivated. To activate the joystick the operator must be in the seat with the engine running for more than* ***3 s****.*

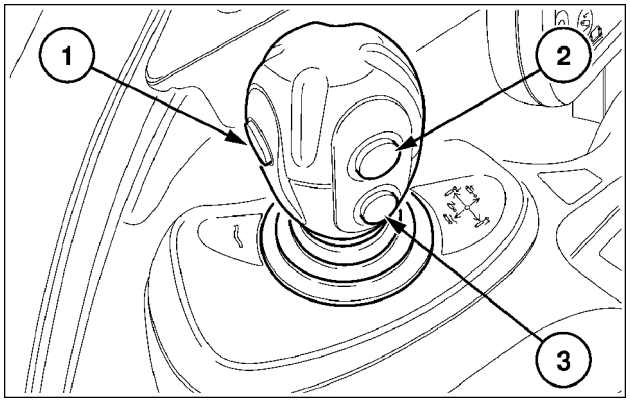


BRL6119C 10

Switch function

Switch Number	Functionality
1	To operate valves 3 and 4,depress/ hold switch while moving joystick
2	* Operates remote hydraulic service via relay and additional valve
3	* Operates remote hydraulic service via relay and second additional valve

*Applies only to tractors equipped with factory installed loader.



BRL6116E 11

Joystick float operation

⚠ WARNING

Crushing hazard!
Make sure no one will be injured by moving equipment when relieving pressure in the system. Before disconnecting cylinders or equipment, make sure the equipment or implement is supported securely.
Failure to comply could result in death or serious injury.

W0424A

Where it is necessary to exhaust hydraulic pressure from valves 2 and 4, i.e. before disconnecting a hydraulic hose from the tractor, a float switch is provided on the armrest. The following procedure must be carried out with the engine running.

Valves 1 and 3: With the engine running move the joystick forward into the float position, then stop the engine (valve 1). For valve 3, depress the button **(2)** and move the joystick forward into float. Stop the engine.

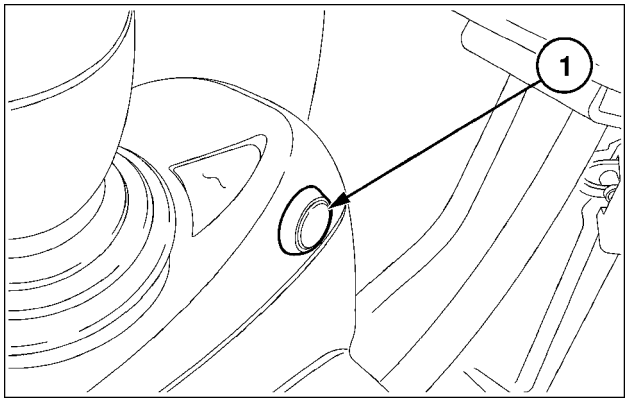
Valves 2 and 4:

With the engine running, depress and hold the switch **(1)**, move the joystick fully to the raise position **(R)** and then back to neutral **(N)**. Switch off the engine and disconnect the hydraulic hoses from remote valve number 2.

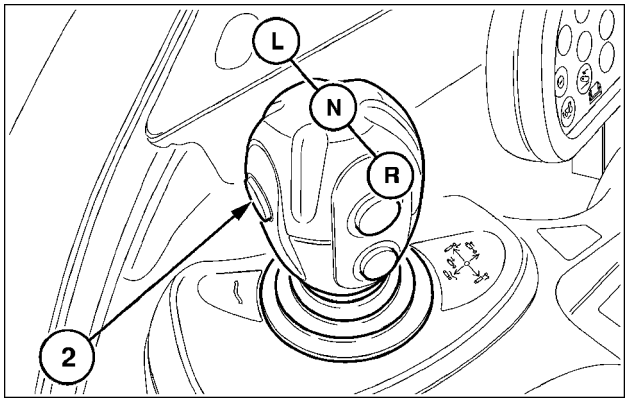
To release the pressure in the hoses for valve number 4 follow the same procedure but depress/hold switches **(1)** and **(2)** before moving the joystick to the fully raise position **(R)**.

NOTE: *The above procedure can also be used to select float on valves 2 and 4 during normal operation.*

To cancel float mode, move the joystick in any direction to the raise or lower position and then back to neutral.



BRL6133B 12



BRL6116D 13

EHR functionality screen (with color display)

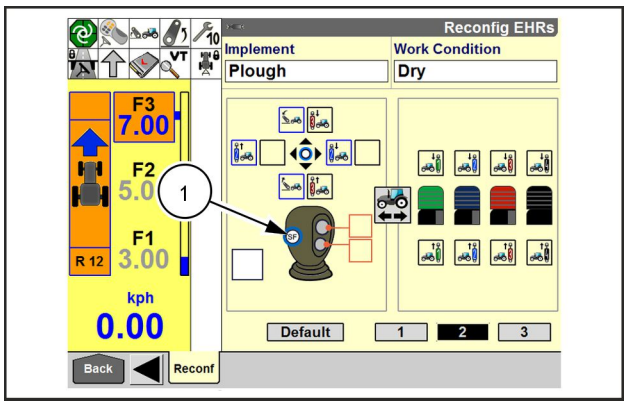
On tractors fitted with the color display, the operator can access the joystick screen which provides details on the joystick functionality.

☞ Remote Valves

Use ▲▼ to scroll through the menu until Joystick is displayed.

☞ Reconf

The joystick and lever functionality screen identifies the number of valves controlled by the joystick / levers and the corresponding movement required to operate each valve. Valves marked with a black border can be operated simply by moving the joystick /lever.



SVIL17TR01299AA 14

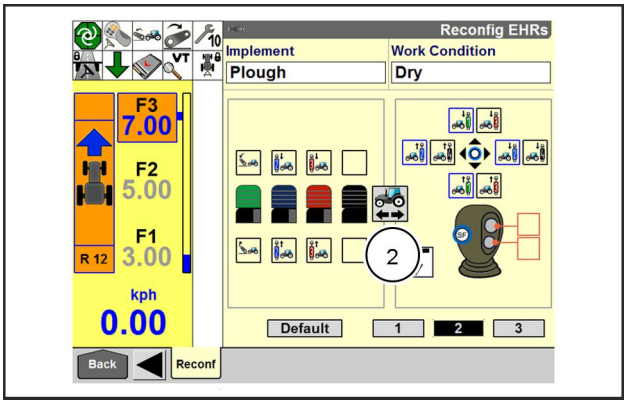
Switching between front/rear EHR

When the joystick or lever operation is transferred between rear and mid mount valves, the screen will also change to display the new setting. The light part of the screen corresponds to the front EHRs, while the right side of the screen corresponds to the rear EHRs. In the example, Figure **15**, the levers can currently be assigned to front EHRs and the joystick to the rear EHRs.

Click on the tractor symbol **(2)** to change the joystick selection from the front EHRs to the rear EHRs and vice versa.

If the tractor is fitted with a front hitch the joystick functionality screen also identifies the valve used to operate the front hitch.

Where tractors are equipped with a factory fitted front loader, the functionality screen will show joystick movement for loader arm raise/lower and bucket roll out/roll back.



SVIL17TR01305AA 15

Joystick operation with a front loader

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading.
Failure to comply could result in death or serious injury.

W1587A

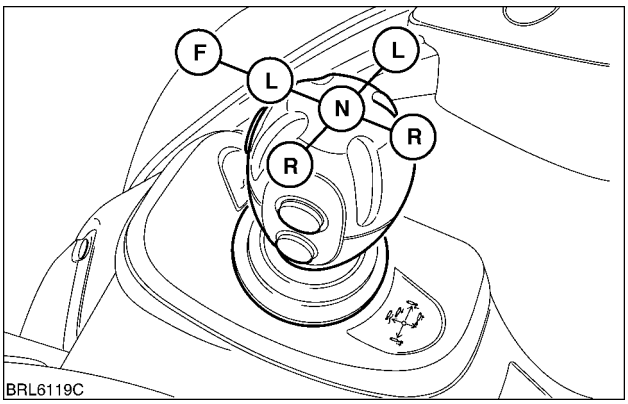
⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer.
Failure to comply could result in death or serious injury.

W1789A

Where a front loader is installed as a factory option, an electronic joystick is provided to control the electronic remote valves (EHRs) used for operating the loader and attachments. Up to three remote valves may be operated simultaneously by the joystick.

Joystick for 2 remote valves



BRL6119C 1

Remote valve 1:
Move the joystick forwards **(L)** or backwards **(R)** to raise and lower the loader boom.

Pushing the joystick forward to the 'lower' position **(L)** will allow the loader boom to lower to the ground at a controlled rate of descent.

By moving the joystick fully forward into 'float' **(F)** the loader boom will lower quickly under its own weight. When float is engaged with the boom in the fully lowered position, the bucket or attachment will follow the ground contours.

⚠ WARNING

Crushing hazard!
Lower all components, attachments, or implements to the ground before leaving the cab.
Failure to comply could result in death or serious injury.

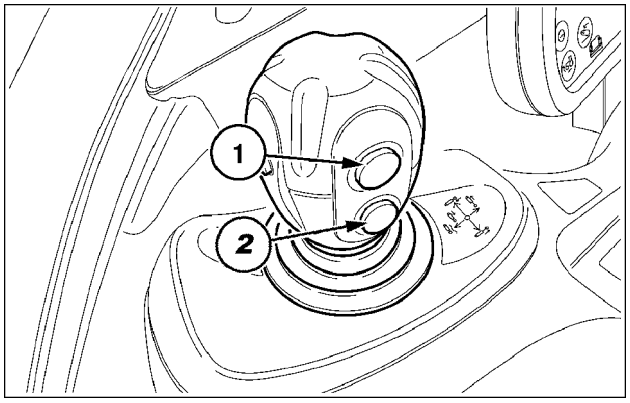
W0419A

NOTE: *The 'float' position is not available on remote valve 2 and 3.*

Remote Valve 2:
Moving the joystick to **(R)** operates bucket rollback, moving the joystick to **(L)** to operate bucket dump.

NOTE: *By moving the joystick diagonally, both loader boom and bucket actions can be operated simultaneously.*

Where additional hydraulic services are required, the joystick can offer optional functions activated by depressing and holding the switches **(1)** and **(2)** on the joystick.



SS10M166 2

Switch function

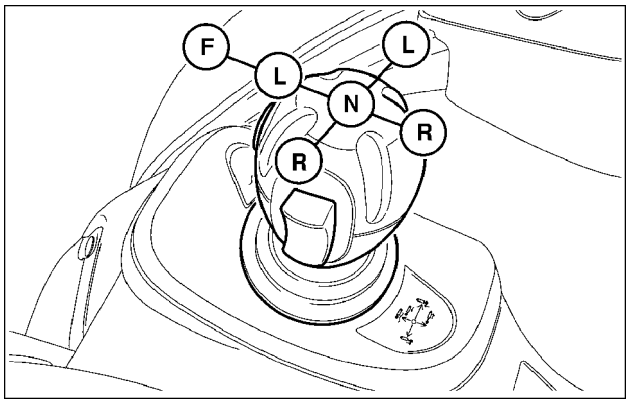
Switch number	Functionality
1	Operates remote hydraulic service via relay and additional valve
2	Operates remote hydraulic service via relay and second additional valve

Joystick for 3 remote valves

Remote valve 1:
Move the joystick forwards **(L)** or backwards **(R)** to raise and lower the loader boom.

Pushing the joystick forward to the 'lower' position **(L)** will allow the loader boom to lower to the ground at a controlled rate of descent.

By moving the joystick fully forward into 'float' **(F)** the loader boom will lower quickly under its own weight. When float is engaged with the boom in the fully lowered position, the bucket or attachment will follow the ground contours.



BRL6119F 3

⚠ WARNING

Crushing hazard!
Lower all components, attachments, or implements to the ground before leaving the cab. Failure to comply could result in death or serious injury.

W0419A

NOTE: *The 'float' position is not available on remote valve 2 and 3.*

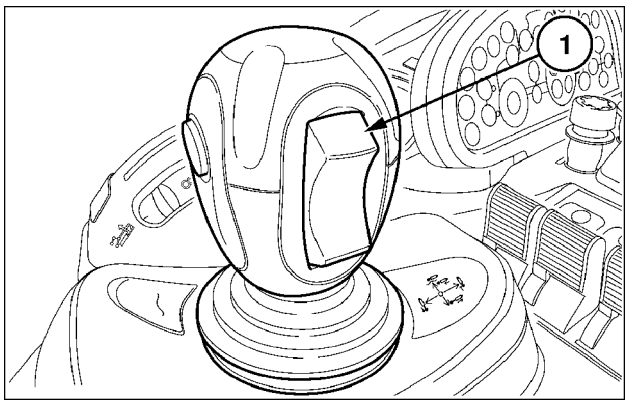
Remote Valve 2:
Moving the joystick to **(R)** operates bucket rollback, moving the joystick to **(L)** to operate bucket dump.

NOTE: *By moving the joystick diagonally, both loader boom and bucket actions can be operated simultaneously.*

Remote valve 3 (where fitted):
Where a third hydraulic service is required to operate an attachment such as a bale fork eject plate or 4 in1 bucket jaw, switch **(1)** is used to control the third valve.

The control for this valve is a progressive, self centring rocker switch. This type of switch allows the operator to control the speed at which a hydraulic cylinder is extended or retracted.

By lightly depressing the switch, a minimal oil flow is generated to provide a slow speed, depressing the switch further will increase the flow and therefore the speed.



BRL6134B 4

Joystick activation and calibration

At key-off, the joystick function is deactivated. To activate the joystick, the operator must be in the seat with the engine running for more than **5 s**.

When the joystick is deactivated, the warning light **(1)** will flash.

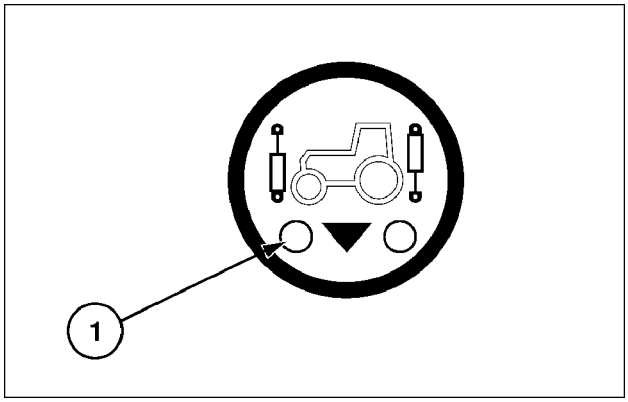
NOTE: *If the operator leaves the seat with the engine running, joystick operation will be deactivated and the warning light* ***(1)*** *will start to flash. When the operator is re-seated, joystick operation will be reactivated after* ***2 s****. The warning light will stop flashing and will remain illuminated.*

NOTICE: *Where a loader has been retrofitted to a tractor having the remote valves configured for front hitch operation or front coupler operation, it is most important the valves are re-configured by your authorized dealer for loader operation.*

This will provide the advanced features available when the loader is used in conjunction with the color display, and will also disable the auto function so joystick operation cannot be included in HTS programmes.

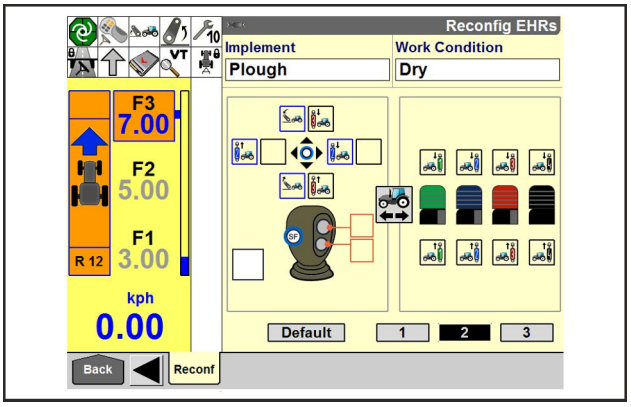
The re-configuration procedure requires the use of special tools and must be carried out by an authorized dealer.

NOTICE: *Before switching joystick operation between mid and rear valve packs or vice versa, ensure both remote valve levers and joystick are in the neutral position.*



BRL6106C 5

Joystick functionality screen (where fitted)



SVIL17TR01299AA 6

Where tractors are equipped with a factory fitted front loader, the functionality screen will show joystick movement for loader arm raise/lower and bucket rollout/rollback.

To access the joystick screen:

☞ Back

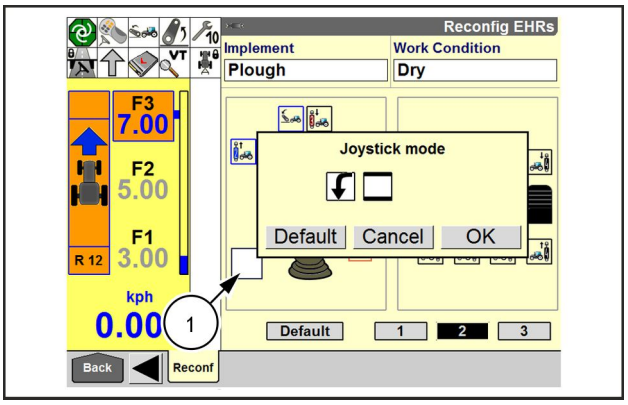
☞ Remote valves

☞ 'Reconf'

The screen shows the setting of the remote valves and front hitch to the joystick.

Click on the joystick mode **(1)** to choose two different option modes:

- Normal
- Hold

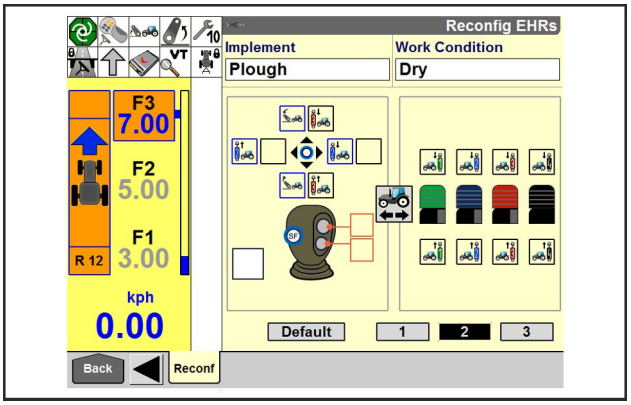


SVIL17TR01303AA 7

Normal mode

The joystick is by default set to normal mode. The operation is as described before.

The joystick screen shows the movement direction of the joystick by illuminating the appropriate bucket symbol in red.



SVIL17TR01299AA 8

Hold mode

This option is intended for a loader with pallet forks to be locked out e.g. during transporting.

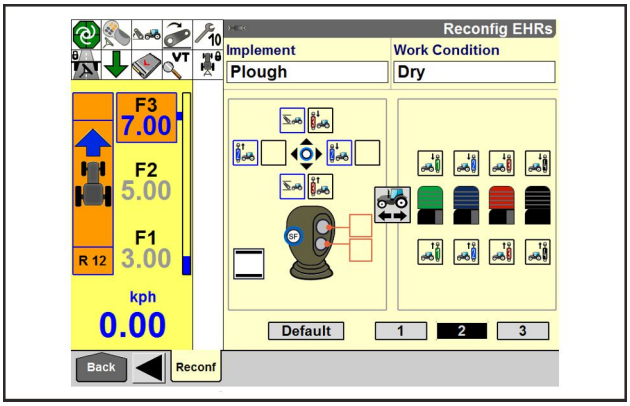
The option selected means the joystick is locked permanently in the left and right direction.

Move the joystick to the rear and press the joystick switch. The raising loader arms stop immediately. Move the joystick to neutral and again to the rear to continue the lift movement.

Every time when the joystick switch is pressed during the joystick is in the forward/lowering or reward/lifting movement, the loader arms stop.

The bucket symbol with horizontal lines appears on the screen for the left and right direction of the joystick and becomes red illuminated when the joystick is moved forward and reward and the joystick switch is pressed.

NOTE: *Move the joystick out of neutral before pressing the joystick switch. In the other way the hold function can not be enabled.*



SVIL17TR01307AA 9

Mid mount remote valves

⚠ WARNING

Moving parts!
Always use the Hydraulic Master switch to disable the hitch and remote valve controls before roading. Failure to comply could result in death or serious injury.

W1587A

⚠ WARNING

Unexpected machine movement!
Always use the machine's locking devices to prevent any unintentional movements of the machine (mounted or towed) or parts of it that may occur while roading or servicing (unfold, swing out, or other). Read and follow all related instructions in the manual provided by the machine manufacturer. Failure to comply could result in death or serious injury.

W1789A

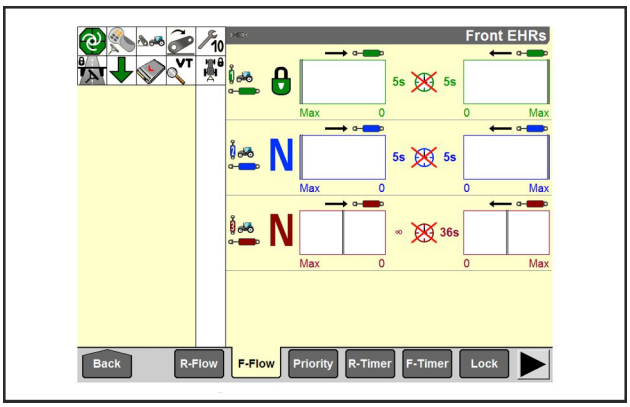
Adjustments

A number of settings and adjustments can be made to the mid mount EHR valves. This can be done using the navigator or the color display.

Adjustments and settings will include:

1. Oil flow adjustment, retract and extend.
2. Timer period settings, retract and extend.
3. Timer on/off.
4. Valve lock or unlock.

Full details on mid mount EHR adjustments can be found in this section beginning on page **Remote control valves (35.204)**.



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This maintenance step below is required **EVERY 750 HOURS OR EVERY 2 YEARS**.

Check the handbrake

The handbrake should be checked and adjusted by your authorized dealer as the procedures require the removal of some components.