## Scope

This Safe Operating Procedure (SOP) applies to those who operate or assist in the operation of the XXXXXX. Refer to the manufacturer’s manual for full instructions on research application such as calibration, or trial requirements prior to use.

**NOTE:** Operation of the XXXXX is a multi-person task; an operator and XXXX assistants.

## Training

The operator and the assistants must receive training on the XXXXX and review its use before the start of each XXXXX season.

Training to the use of the XXXXX includes reviewing the manufacturer’s manual and this SOP. The components training and participant list must be documented (e.g. verbal instruction, visual demonstration of the machinery components, etc.). See Appendix A.

Following training, the operator must be fully acquainted with the controls, and components of the XXXXX and be able to instruct the assistants in the safe parameters of their role in relation to use of the XXXXXX. Training records must be retained.

## Personal Protective Equipment

The following PPE is to be worn by operators and those working near machine, when appropriate.

1. Safety footwear is always required for all personnel.
2. Tightly fitting clothing must be worn, suitable for farm and field work.

Assistants on the XXXXXXX need: *list all applicable PPE such as:*

1. Eye protection? including safety glasses / sunglasses etc.
2. Hearing protection?
3. Dust mask? may be needed on windy days and respiratory protection? needed for pesticides/ pesticide treated seeds and must be used following completion of the Respiratory Protection Program requirements, including fit testing.

|  |  |  |  |
| --- | --- | --- | --- |
| N95 mask outlineDust Mask or Respirator\*  | Glasses outlineSafety Glasses or Sunglasses | Boot outlineSafety Boots | Ear outlineHearing Protection |

## Before Operating

### **General**

1. Complete a circle check of the machine and verify components are in place, the machine hoses are not leaking and there are no loose parts.
2. The safety instructions for XXXXXXXXXXXX operation must be complied with and safe hitching procedures followed, as appropriate.
3. Only use articulated shafts if the articulated shaft guard is in good condition. Be sure to observe the articulated shaft manufacturer’s safety instructions.
4. No one is permitted to ride on the towed attachment XXXXXX when on public or campus roads.
5. Before starting the machine, ensure that there are no people within the danger zone of the machine.

Check that:

1. The machine is in technically sound condition and without external damage or defects. Faults that may affect safety must first be repaired.
2. The warning and information signs on the machine are visible.
3. Belts, hoses and chains are tight on the machines.
4. The machine is greased (see grease points listed on the side equipment) and excess greased cleaned off. Lubricate the grease nipples and moving parts.
5. All machine guards and covers are closed and secured in place.
6. Seating is adjusted, as needed, and seat belts to hold assistants in seats are in place.
7. Inspect machine for visible loose nuts, bolts, pulleys, sprockets, and set screws

Review that:

1. Protruding parts are removed or adjusted prior to driving on roads and paths.
2. Operation levels are in neutral position and the hydraulic system is not under pressure.
3. Towing lights are activated, as appropriate.

**NOTE: No persons** are not permitted between the towing vehicle and planter or directly at the XXXXXX when it is being hitched. Follow safe hitching and towing practices, including choosing the appropriate size tractor in order to avoid damage to the XXXXXX.

Once machine is in position to XXXXX, and assistants are seated:

1. Check for unusual noises, rattling bolts and that lights are operational
2. Assistants on the XXXXX must use the seat belt at all times once seated in order to be prepared when the towing vehicle is operational.

## During Operation

**CAUTION:**

1. Raise or lower the XXXXXX slowly without jerking.
2. Before starting off or moving the machine, ensure that no person is located under, behind, or in front of the towing vehicle or machine.
3. Do not drive in reverse when ….
4. Drive cautiously when turning, the machine swings out on curves.
5. Tractor operator must communicate with the assistants on the XXXXXX when the end of the plot is reached, and a turn is to commence.

## General Safety Reminders

1. Maintain 3-points of contact when climbing onto the XXXXXX, using designated hand holds.
2. Turn the tractor on and drive to the designated field. Accelerate carefully and only drive XXXXXX.
3. Always be aware of your surroundings on all sides and especially cautious of people around you. When the XXXXX is operating in the field, a distance of 10 metres must be maintained between the unit and other personnel.
4. All safety guards and covers must be in place when the machine is operating.
5. Make sure the machine is stopped and turned off and de-energized before carrying out lubrication, adjustments, repairs, etc.
6. All personnel must be in a safe position – the seated assistants signal their readiness for the tractor operator to start up and begin, prior to operating the tractor.
7. Immediately clean up any spilled oil or grease from the XXXXX’s platform, the floor of the tractor and controls.
8. Turn off the engine prior to dismounting the tractor, whenever possible.
9. The operator must be seated and wearing their seatbelt when tractor is in motion.
10. Note: The XXXXX must be equipped with lights if towing the XXXXX on a public thoroughfare, and other signs (e.g., slow-moving vehicle) or other adjustments or modifications as required by traffic law.

## *Name Farm / Field Use Activity*

1. To start XXXXX, the XXXXX must be lowered and XXXX…
2. Go slowly and be aware of surroundings as you travel through the plot
3. After the plot is driven through, the operator must communicate with the assistants prior to XXXXX and executing a turn or driving to the next plot.
4. The assistants will …
5. Repeat until XXXXX is complete.
6. When complete, lower the XXXXX, turn it off to park and remove the key.
7. Assistants may then dismount the XXXXX while maintaining 3-point contact.

## Transportation - Trailer Requirements *– detail, if transport used*

### Dimensional Data:

|  |  |
| --- | --- |
| Length |  |
| Width |  |
| Height |  |
| Ground Clearance |  |
| Gross Weight |  |

### Trailer:

Detail whether a professional hauling company must be retained to transport the planter or the departmental team may trailer the equipment. List requirements for an appropriate trailer, tie-downs etc. including MTO requirements needed.

### Sample Loading Procedure:

The professional hauling company is responsible for safe loading and unloading of equipment from the trailer. This should include consideration of the following:

1. With ramps down and trailer secured, lift header assembly to obtain proper clearance.
2. Slowly drive combine forward onto trailer - exercise caution to avoid accidents to operator or machine.
3. Position machine for proper weight distribution.
4. Lower header and secure machine to trailer firmly.

**Note to the Professional Hauling Company:** Avoid securing machine at points which could cause damage during transport. Attach chains to main frame of combine only. Do not attach chains to the header assembly; this will cause damage to the header pivot point.

### Unloading: Reverse above procedure.

## Maintenance

See Appendix B and C for combine maintenance and annual inspection checklists.

## Appendix A: Training Session Attendance/SOP Review Record

Date:

Training given by:

Operational Reminders:

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Safety Reminders:

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| --- | --- |
| Attendee Name (please print) | Signature |
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## Appendix B: XXXXX Maintenance Inspection Checklist

The following equipment inspection checks must be completed before XXXXX season and prior to the combine being trailered off-site.

* The machine must be disconnected from the tractor or the tractor stopped and the PTO disengaged before carrying out lubrication, adjustments, repairs, etc. If repairs require the machine to be actively on for troubleshooting etc., take care when close to a moving belt, chain, sprocket, pulley, or moving part. Do not approach or climb over the PTO while it is in motion.
* The table must be lowered before any part of the hydraulic system is disconnected.
* The table must be securely blocked before anyone goes underneath it to work, or for inspection, etc.
* Hydraulics reservoir – check fluid level and fill if necessary.
* Hydraulic fluid lines - inspect for damage, escaping fluid, proper clearance to frame and body section and moving parts.
* Lubricate chains, grease tie rod ends, grease rear axle.
* Check torque hub oil level or axle oil level, fill as needed.
* Hydraulic Cylinders - Check for proper operation, loose pins; proper clearance to framework.
* Dana Axle – Check oil level; use 90 wt gear lube.
* Visually inspect tires, inflate as per listed specs on tire.
* Clean hydraulic reservoir breather cap.
* Check motor oil level, fill as needed.
* Change oil in oil bath air cleaner.
* Repack rear wheel bearings.
* Repack cylinder tachometer gear box.
* Replace suction and return hydraulic filters.

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| Notes: (any repairs completed) |

Date completed:

Completed by:

## Appendix C: Annual Inspection Checklist

The following checks must be completed annually:

* Check
	+ Belt drives and guards
	+ Drive chain and guards
	+ Fluid leaks
	+ Hydraulic hoses
	+ Tire pressure and wear
	+ Linkages and pivots
* Grease points

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| --- |
| Notes: (any additional repairs completed) |

Date completed:

Completed by: