Read the operator manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Illustrations may show optional equipment not supplied with standard unit.
Machine Identification
Record your machine details in the log below. If you replace this manual, be sure to transfer this information to the new manual.

If you or the dealer have added options not originally ordered with the machine, or removed options that were originally ordered, the weights and measurements are no longer accurate for your machine. Update the record by adding the machine weight and measurements with the option(s) weight and measurements.

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Dealer Contact Information
Name: ____________________________
Street: __________________________
City/State: ________________________
Telephone: ________________________
Email: __________________________
Dealer's Customer No.: ____________
To our customer:

Congratulations on the purchase of your Great Plains product. Great Plains welcomes you to its growing family of new product owners. Your product has been designed and built by skilled workers using quality materials.

Your dealer has performed the necessary pre-delivery service to your machine, and will advise you of the proper maintenance and operating practices that will give you long, satisfactory use of your machine. Do not hesitate to contact your dealer when you have a question related to your machine.

Your machine has been designed to run efficiently in most operating conditions, and will perform relative to the service it receives. If you need customer service or repair parts, contact your dealer who has trained personnel, repair parts, and equipment specially designed for Great Plains products.

Read this manual carefully before using the machine. It will familiarize you with safety, operation, adjustments, and maintenance of your new equipment. This manual must always be kept with your machine.

Great Plains wants you to be satisfied with your product. If for any reason you do not understand any part of this manual or are otherwise dissatisfied, please take the following actions first:

1. Discuss the matter with your dealership service manager. Make sure he is aware of any problems so he can assist you.

2. If you are still unsatisfied, seek out the owner or general manager of the dealership.

If your dealer is unable to resolve the problem or the issue is parts related, please contact:

Great Plains Service Department
1525 E. North St.
P.O. Box 5060
Salina, KS, USA 67402-5060

Great Plains reserves the right to revise and improve its products at any time. This publication describes the state of this product at the time of its publication, and may not reflect the product in the future. The content of this publication may be changed without notice.
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Introduction

Great Plains welcomes you to its growing family of new product owners. Your product SS0300 has been designed with care and built by skilled workers using quality materials. For best user experience, read this manual and follow all instructions carefully. These pages will guide you through the operation and contain tips for easier adjustment and maintenance. Proper setup, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

The SS0300 Sub-Soiler Inline Ripper is a one-section machine. It is designed to break up soil crust on hard dried fields while eliminating compaction layers. An optional berm conditioner may be added to the rear of each shank.

■ Intended Use Statement

The SS0300 with standard equipment and/or authorized attachments and options is intended to be used as a deep vertical tillage tool when operated according to instruction and safety precautions in this manual, machine decals and other information provided with the machine.

Use this tillage tool to eliminate compaction layers and soil density created by horizontal tillage tools such as plows, disks, and sweep implements.

With working depth of 12" to 16" this fall tillage tool resets the soil profile and maintains uniform soil density with minimal topsoil disturbance and no residue burial.

Prohibited Use

Do not use this machine for any purpose or in any way other than what is described in this manual, machine decals, or any other information provided with the machine. These materials define the intended use of the machine.

Unauthorized modifications to the machine will relieve the manufacture of all liability for any resulting injury or damage.

■ CE Identification

The CE identification is located on the left hand hitch truss.

■ Machine Serial Number

Your machine’s parts were specially designed and should only be replaced with Great Plains parts. Always use the serial and model number when ordering parts from your dealer. The ID plate is on the front face of the center frame on the left hand side.

■ Target Group for Operator Manual

Simplified Illustrations

Illustrations of the machine in the operator manual are shown without protective equipment - or with the protective equipment open - for better understanding. Be sure to observe the safety information and follow the handling instructions in the operator manual. Serious or fatal injury may be caused as a result.

This operator manual is aimed at trained agriculturists and persons who are otherwise qualified for agricultural activities and have received instruction in working with this machine.

For your safety - You must familiarize yourself with the contents of this operator manual before assembly or initial operation of the machine. In this way, you will achieve optimum work results and operational safety. The operator manual forms an integral part of the machine and must always be kept at hand. This will ensure that you:

- avoid accidents.
- comply with warranty conditions.
- have a fully functional machine in good working order at all times.
Training and Instruction
Your dealer will provide instruction on operation and care of the machine.

Information for the employer - All personnel are to be regularly, at least once a year, instructed on the use of the machine, in accordance with the regulations of the national organization for Health and Safety at Work. Untrained or unauthorized persons are not permitted to use the machine.

You are responsible for ensuring that the machine is operated and maintained safely. Make sure that you and all other persons that operate, maintain, or work in close proximity with the machine are familiar with the operating and maintenance regulations, as well as the corresponding safety instructions in this operator manual.

Document Family
596-224M    Operator Manual (this document)
596-224P    Parts Manual
Safety Information

The safety symbol indicates a potential safety hazard to persons operating or near the machine and advises on how to avoid it.

The notice symbol indicates a potential for machine or property damage from operator error and advises on how to avoid misuse.

The information symbol indicates useful - but not crucial - information for machine operation, assembly, or adjustment.

Before Getting Started

1. Read this manual in its entirety before attempting to start and operate the machine.
2. Only use operators that are thoroughly trained by the owner or trained by someone with the owner’s consent. The operator must be familiar with all functions of the tractor and attachments, and be able to handle emergencies quickly.
3. Maintain attention on operation at all times. Do not operate if using a smart phone, tablet, or similar electronic device, and never operate machine while impaired by alcohol, medication, any controlled substance, or while fatigued.
4. Do not ever allow passengers to ride the machine at any time, for any reason.
5. Before operation, make sure that all tractor cab levers are in their neutral positions and that the parking brake is engaged.
6. Check brakes, link pins, and other mechanical parts for wear before using machine.
7. Never wear loose or bulky clothing around machine. Use additional safety equipment, such as hard hats, eye and ear protection, safety boots, etc., as needed.
8. Do not modify the machine. Unauthorized modification can result in unsafe conditions that lead to machine damage or personal injury.

Operation

1. Always stop the tractor, put in Park and turn off engine before leaving the cab. Dismounting from a moving tractor can cause serious injury or death.
2. Consider turning radius of tractor and implement in the field. Turning tractor too tight can cause hitched implement to ride up on wheels which can result in injury or equipment damage.
3. Pull machine only from the hitch at the end of the tongue. Never pull from jack stand, safety chain, or any point other than the hitch.
4. Never leave the tractor cab unattended while the implement is running. Remove key and turn off tractor before exiting the tractor cab.
5. Watch your surroundings at all times. Do not operate with bystanders nearby, and avoid contacting overhead obstructions.
6. Check that all guards and shields are undamaged, installed, and secure before operating implement.
7. Keep children out of the work area. Do not operate or turn on machine while children are in the area.
8. Do not operate near ditches, holes, steep slopes, embankments, or other surfaces which may collapse under the machine’s weight or tip the machine over.
9. Never stand between tractor and implement unless parking brake is applied.
Handling and Disposing of Chemicals

Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil and property.

1. Read chemical manufacturer’s instructions carefully, and then take appropriate precautions before use.
2. Wear protective clothing.
3. Wash hands and face before eating after working with chemicals. Shower as soon as application is completed for the day.
4. Apply only with acceptable wind conditions. Make sure wind drift of chemicals will not affect any surrounding land, people or animals.
5. Dispose of unused chemicals and chemical waste as specified by the manufacturer. Observe all the local ordinances and regulations in your area.

Operation Noise Hazard
1. Use proper ear protection like headphones or earplugs while working.

PTO

1. Wait until all moving components have completely stopped before adjusting, cleaning, or servicing any PTO driven equipment.
2. Before installing or using PTO driven equipment, read the tractor manual and review the safety labels attached to the equipment.
3. When operating stationary PTO driven equipment, always apply the parking brake and place chocks behind wheels.
4. Stay clear of and never step over any rotating parts.

Maintenance

1. Understand procedure before doing work. Use proper tools and equipment.
2. Work in a clean, dry area.
3. Lower the implement. Put tractor in Park, turn off engine. To prevent unauthorized starting, remove key before performing maintenance or service work.
4. If work must be performed with wings raised, set the wing tilt locks to the road position.
5. Make sure all moving parts have stopped and all system pressure is relieved.
6. Relieve hydraulic pressure before disconnecting hydraulic lines or performing any work on the system.
7. Do not work underneath any hydraulically supported components. Hydraulics can settle, leak, or be accidentally lowered. If working underneath hydraulically supported components is necessary, secure implement with stands or suitable blocking beforehand.
8. Disconnect electronic monitor and lighting harness from the tractor before servicing or adjusting electrical systems.
10. Remove buildup of grease, oil, or debris.
11. Check and replace worn brake lines as needed.
12. Remove all tools and unused parts from implement before operation.

Tire Safety

1. Check tires for cuts, bulges, and correct pressure. Replace worn or damaged tires.
2. Tire changing can be hazardous and must be performed by trained personnel using correct tools and equipment.
3. Tire explosion and/or serious injury can result from over inflation. Do not exceed tire inflation pressures.
4. When removing and installing wheels, use wheel-handling equipment adequate for weight involved.
5. Tighten wheel bolts only to the specified torque.
High Pressure Fluids

1. Escaping fluid from holes in hydraulic lines is difficult to spot. Do not use your hands or bare skin to search for suspected leaks; instead, use a piece of cardboard or wood. If injured by escaping hydraulic fluid, see a medical professional immediately. Exposure can result in gangrene or severe allergic reaction.

2. Check that hydraulic fittings are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.

3. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.

**Transporting**

1. As with transporting any piece of heavy machinery, comply with all local laws and regulations before and during transport process.

2. Transport only at recommended transport speed for implement. Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.

3. Before towing implement on roads, make sure to empty out all material from the hoppers or boxes.

4. Know transport height and width of implement.

5. Do not tow an implement that, when fully loaded, weighs more than 1.5 times the weight of towing vehicle.

6. Keep clear of overhead power lines and other obstructions when transporting.

7. Do not fold or unfold the implement while the tractor is moving.

8. Reduce speed when turning, and make as wide a turn as possible. Turning tractor too tight can cause implement to tip over.

9. When towing on a trailer, secure implement with tie downs and chains.

10. When towing on a trailer, sudden braking can cause a trailer to swerve and upset. Reduce speed if trailer is not equipped with brakes.

Safety Chain

1. Use a chain with a strength rating equal to or greater than the gross weight of towed machinery.

2. Replace chain if any links or end fittings are broken, stretched or damaged.

3. Do not use safety chain for towing.

Safety Lights and Devices

1. Always use safety lighting. Slow-moving tractors and towed machinery can create a hazard when driven on public roads. They are difficult to see, especially at night.

2. If equipped, use flashing warning lights and turn signals whenever driving on public roads.

3. Use safety devices provided with implement.

4. Keep safety lights and signs clean and visible from front and rear of machine.

5. Keep lights in operating condition.

**Shutdown and Storage**

1. Park the tractor and implement on a solid, level surface where children normally do not play.

2. Fold and tilt wings.

3. Put tractor in park or set the parking brake. Turn off engine and remove switch key to prevent unauthorized starting.

4. Wait for all components to come to a complete stop before leaving the operator’s seat.

5. Turn lockout valve and wing lock levers to locked position to prevent the wings from lowering.

6. Detach the tractor. Secure the implement using blocks.

**Proper Waste Disposal**

1. Dispose of waste properly to avoid threatening the environment and ecology. Potential harmful waste includes oil, fuel, filters, and batteries.

2. Use a leak-proof container for draining fluids. Do not use a food or beverage container that may be mistaken for a consumable product.

3. Do not drain or pour waste onto the ground, down a drain, or into any water source.

4. Contact your local environmental or recycling center for the proper way to recycle or dispose of waste.
Safety Decals

Your implement comes equipped with safety reflectors and decals in place. Read and follow decal directions. Keep all safety decals clean and legible. Replace all damaged, faded, or missing decals.

Order new decals from your Great Plains dealer. Refer to this section for proper decal placement. When ordering new parts or components, also request corresponding safety decals.

To install new decals:

- Clean the area on which the decal is to be placed.
- Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.

Reflectors - Red Triangle

833-399C
Two red triangles at rear of unit.

Reflectors - Fluorescent Panels

843-183C
On the back sign mount weldment both sides. 2 total

Reflector - Amber

833-886C
Two on the rear outside center frame both sides.
Hazard Decals

858-636C
Do not preform any procedure that loosens hardware, take appropriate precautions outlined in the manual, carefully read all instructions for machine use, do not move tractor with someone on machine.
One on the front of center frame.

Eye Protection

848-510C
Always wear eye protection when working on or around unit.
One on front of frame.

Do Not Ride

848-511C
Do not allow riders on unit at any time.
One on front of frame.
Pinch Point

848-531C
Do not place hands between moving parts.
One on front of frame.

Tire Not a Step

848-507C
Use ladder, not tires to climb on machine.
Two decals - one on outside each gauge wheel jack,

Tire Pressure

858-615C
Inflate tires no more than maximum pressure.
Two decals - one on each tire arm.

30KM Per HR

848-398C
Do Not exceed recommended speed limit.
One on rear of speed limit bracket.
Preparation and Setup

This section helps you prepare your tractor and SS0300 Product for use, and covers tasks that need to be done seasonally, or when the tractor/product configuration changes.

Before using the product in the field, you must hitch it to a suitable tractor, inspect systems and level the product. Before using the product for the first time, and periodically thereafter, certain adjustments and calibrations are required.

Prior to Going to the Field Checklist

Complete this checklist before routine setup:

☑ Read and understand “Safety Information” on page 3.
☑ Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
☑ Make sure your tractor horsepower matches the implement you are pulling. This is important so the implement can do the best possible job.

Hitching with 3-Point

The sub-soiler is designed to use either Category II or III tractors. See drawing for correct pins and hole positions for Category II.

Crushing Hazard

You may be severely injured or killed by being crushed between the tractor and drill. Do not stand or place any part of your body between drill and moving tractor. Stop tractor engine and set park brake before installing hitch pins.

Hitching Ripper to Tractor

Connect your tractor 3-point to the sub-soiler 3-point hitch. If using quick hitch be sure sub-soiler locks into hitch securely.

Raise tractor 3-point just enough to relieve pressure from parking stands.

Swing up and pin up 3-point stands. See “Storing Parking Stands” on page 10.
Great Plains | 596-224M | 04/26/2019

Sub-Soiler Inline Ripper

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Preparation and Setup

Electrical Connection
1. Make sure tractor is shut down with accessory power off before making connections.
2. Connect lighting connector and any options or after-market electronics to tractor outlets.
3. Tie up excess cable, allowing enough slack for the drill to tilt back.

Make Electrical Connections
Make connections prior to machine movement.

Make Electrical Connections

1. #1 Yellow - LH Flashing Lights
2. #6 Red - Brake Lights
3. #5 Empty
4. #4 Green - RH Flashing Lights
5. #3 White - Ground
6. #2 Blue - Aux Power
7. #7 Brown - Tail Lights

Load Sway Risk:
Adjust 3-point hitch arms and sway blocks to minimize any side-to-side sway to assure proper tracking in the field and safe road travel.

Storing Parking Stands

4. While holding the parking stand (1), remove the snap lock pin (2).
5. Slide the stand out the bottom of the holder (3) and position stand across frame as shown.
6. Install snap lock pin through aligned holes to secure.

Machine Adjustments

Pre-Leveling of Machine
Front to Rear Leveling
7. Pre-leveling of machine may be done on a level floor. Lower the machine down until the shank tips are just above the floor.
8. Adjust the 3 point top link until the front and rear points are level.

Auto Reset Shank Adjustment
9. The dual spring package should be preloaded so both top and bottom springs are loaded evenly and measure 23.8” from end of coil to end of coil.

Spring pack is pre-loaded at factory and should not be disassembled in the field. You could be severely injured or killed by instant release of stored energy.
Gauge Wheel Adjustment

1. The jacks should only be used to help raise and lower the gauge wheels. The cross pin still needs to be used in order to avoid overloading the jack.
2. Adjust the gauge wheel as shown on the decal on the front of the frame.

Coulter Adjustment

Coulter Height

1. Determine the desired depth of the shank and set the gauge wheel in the appropriate hole.
2. Subtract 8” from the shank depth. Take this distance and measure from the top of the frame to the top of the coulter shank. This will allow the coulter to run approximately hub deep. If trying to deep rip less than 8”, position the top of the coulter shank flush with the top of the tube.

Coulter Alignment

3. Loosen the bottom set screw (1), jam nut (2) and swivel limiter set screw (3). Lower the ripper in the ground and drive forward a few feet.
4. Leave the ripper in the ground and tighten the bottom set screw (1) and jam nut (2). Position the swivel limiter in the center of the slot and tighten the set screw (3).
5. Check alignment of the coulter and shank. Move either the coulter or shank so the shank is in the center of the groove made by the coulter.

Note: If you want the coulter to swivel, loosen the bottom set screw (1) and jam nut (2). Retighten jam nut to prevent from loosing set screw.
Coulter Spring

1. The coulter springs are preset at the factory to between 9 7/8” to 10”. This is measured from the inside surface of the coulter spring washer to the inside surface of the coulter bushing.

- Adjusting the spring below 9 7/8” could cause premature part failure and void the warranty.

Berm Conditioner

1. The berm conditioner may be adjusted pulling up on handle sliding to a different notch.

- For maximum down pressure move handle towards rear.
Distance from Center of Gravity

Observe the total weight, axle loads, tire load-bearing capacity and minimum ballast specifications.

The front or rear attachment of machines must not cause the tractor’s permissible total weight, its permissible axle load, or its tire load-bearing capacity to be exceeded. In order for steering capability to be maintained, the front axle must bear at least 20% of the tractor’s unladen weight.

By investing some effort in making the calculations, you can determine the:

- total weight
- axle load
- tire load-bearing capacity
- minimum ballast

For this calculation, the following data is required:

**Data from the tractor’s operator manual:**

- (A) Unladen weight in kg.
- (B) Front axle load in kg.
- (C) Rear axle load in kg.

Take into consideration any further weights, such as water in the tires, additional equipment, etc.

**Data from this operator manual:**

- (D) Total weight of the machine in the rear attachment. For hitched machines, the supporting load in kg.
- (E) Total weight of the machine in the front attachment in kg.
- (F) Distance between the machine’s center of gravity in the front attachment and front axle midpoint in m.
- (G) Distance between the lower link ball midpoint and the machine’s center of gravity in the rear attachment in m. With hitched machine:
  - Maximum empty (main seed box, dual seed or native grass, and small seeds) - G=1.48 m.
  - Minimum empty (main seed box only) - G=1.47 m.

**Data to be measured:**

- (H) Tractor’s wheel base in m.
- (I) Distance between the rear axle midpoint and the lower link ball midpoint in m.

**Calculations**

The values (A) to (I) can be inserted in the formulas.

**Ballast with front weights**

Calculation of the ballast with front weights for rear-mounted machines.

Front ballast in kg:

\[
D \cdot (I + G) - (B \cdot H) + (0.2 \cdot A \cdot H) \over F + H
\]

**Ballast with rear weights**

Calculation of the ballast with rear weights for front-mounted machines.

Rear ballast in kg:

\[
(E \cdot F) - (C \cdot H) - (0.45 \cdot A \cdot H) \over H + I + G
\]

**Front axle load**

Calculating the actual front axle load (J)

Front axle load in kg:

\[
E \cdot (F + H) + (B \cdot H) - (D \cdot (I + G)) \over H
\]

**Total weight**

Calculating the actual total weight (K).

Total weight in kg:

\[
K = E + A + D
\]

**Rear axle load**

Calculating the actual rear axle load (L).

Rear axle load in kg:

\[
L = K - J
\]
Tire load-bearing capacity

Information about the tire load-bearing capacity of the front and rear wheels can be found in the tire manufacturer’s details.

The front tire load-bearing capacity for two wheels is equal to twice the permissible tire load-bearing capacity of a single front wheel. The rear tire load-bearing capacity for two wheels is equal to twice the permissible tire load-bearing capacity of a single rear wheel.

Summary

The actual values for the rear axle load must be less than the permissible values given in the tractor’s operator manual. The tire load-bearing capacity must be greater than the values for the rear axle load given in the operator manual.

The actual total weight must be less than the permissible total weight given in the tractor’s operator manual. If not, the machine must not be coupled to the tractors.
Operation

This section covers general operating procedures. Experience, machine familiarity, and the following information will lead to efficient operation and good working habits. Always operate farm machinery with safety in mind.

## Pre-Start Checklist

Perform the following steps before transporting the product product to the field.

- Carefully read “Safety Information” on page 3.
- Lubricate product as indicated under “Lubrication” on page 35.
- Check all tires for proper inflation. “Tire Inflation Chart” on page 39
- Check all bolts, pins, and fasteners. Torque as shown in “Torque Values Chart” on page 39.
- Check product for worn or damaged parts. Repair or replace parts before going to the field.
- Check hydraulic hoses, fittings, and cylinders for leaks. Repair or replace before going to the field.

## Field Operation

You may be severely injured or killed by being crushed between the tractor and implement. Do not stand or place any part of your body between implement and moving tractor. Stop tractor engine and set park brake before installing pins.

1. Hitch implement to a suitable tractor.
2. Check to be sure machine is running level from front to rear when running machine at depth desired. See “Front to Rear Leveling” on page 10
3. Adjust gauge wheels to desired tillage depth. See “Gauge Wheel Adjustment” on page 11.
4. Adjust and align coulters to desired tillage depth. “Coulter Alignment” on page 11
5. Always lift implement out of the ground when turning at field ends and for other short-radius turns.

Both the Auto reset and Rigid shank mounts are protected by shear bolts for extreme overloads. If the shank bolt shears replace the lower bolt with the correct shear bolt, use GP part number 802-060C. (HHCS 5/8-11 x 4 Gr5).

## Transporting

### Loss of Control Hazard:

Use a tractor rated for the load. Add tractor ballast as needed. Do not exceed 20 mph. Towing the product with a vehicle that is not adequate, or at high speeds, could lead to loss of vehicle control. Loss of vehicle can result in a serious road accident, severe injury or death. Check that your tractor has enough to handle the weight of the product. Refer to your tractor’s operator manual for capacities and ballast requirements.

See “Hitching Ripper to Tractor” on page 9 before transporting the product.

### Check Tractor Capacity and Configuration

- Consult your tractor manual for 3-point limitations.
- Add weights to tractor as required.

When determining the weight of your product, be sure to include the weight of any options.

### Transport Checklist

- Plan the route. Avoid steep hills. Keep Clearances in mind.
- Make all electrical and hydraulic connections. See “Hitching Ripper to Tractor” on page 9.
- Raise product.
- Always have lights on for highway operation.
- Comply with all federal, state and local safety laws when traveling on public roads.
- Travel with caution. Allow safe clearance.

Remember that the product is wider than the tractor.
Parking

Perform the following steps when parking the implement.

1. Park implement on a level, solid area.
2. Lower implement until shanks are resting on the ground.
3. Lower and pin parking stands.
4. Unplug light harness lead from tractor receptacle. Do not allow lead to rest on the ground.
5. Unhitch from the tractor 3-point.
6. To prepare for long-term storage, see “Storage” on page 34.
SS0300 Light Layout
SS0300-03-70cm Machine Layout S/N GP-2573YY-
SS0300-03-70cm Machine Layout Export S/N GP-2574YY+
SS0300-03-75cm Machine Layout S/N GP-2573YY-
SS0300-04-70cm Machine Layout S/N GP-2573YY-
SS0300-04-70cm Machine Layout Export S/N GP-2574YY+
SS0300-04-75cm Machine Layout S/N GP2573YY-
SS0300-04-75cm Machine Layout Export S/N GP-2574YY+

Transport Length without Berm Conditioner

201 cm (79 in)

37.5 cm (14.63 in)

75 cm (29.5 in) Typ

76 cm (30 in) Typ

300 cm (118 in) Transport Width

Sign Mount Weldment Position 1

Sign Mount Weldment Position 1

TP-69424
SS0300-05-68cm Machine Layout S/N GP2573YY-
SS0300-05-68cm Machine Layout Export S/N GP-2574YY+
SS0300-05-70cm Machine Layout S/N GP-2573YY-
SS0300-05-70cm Machine Layout Export S/N GP-2574YY+

NOTE: THE TRANSPORT WIDTH FOR THIS SHANK CONFIGURATION EXCEEDS 3 METERS.

TP-69426
SS0300-06-54cm Machine Layout S/N GP-2573YY-

- 155cm (60.75in) Transport Length without Berm Conditioner
- 54cm (21.25in)  
- 27cm (10.63in)  
- 300cm (118in) Transport Width
- 112cm (44in) TYP
- 28cm (11in) TYP
SS0300-06-54cm Machine Layout Export S/N GP-2574YY+

Transport Length without Berm Conditioner

200 cm (79 in)

112 cm (44 in) TYP

54 cm (21.25 in) TYP

27 cm (10.63 in)

300 cm (118 in) Transport Width

Sign Mount Weldment Position 3

TP-69427
SS0300-06-56cm Machine Layout S/N GP-2573YY-
SS0300-06-56cm Machine Layout Export S/N GP-2574YY+

NOTE: THE TRANSPORT WIDTH FOR THIS SHANK CONFIGURATION EXCEEDS 3 METERS.

Transport Length without Berm Conditioner

200cm (79"

56cm (22"

28cm (11"

122cm (44"

308cm (121"

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3

Sign Mount Weldment Position 3
Maintenance

1. Proper servicing and maintenance is the key to long implement life. With careful and systematic inspection, you can avoid costly maintenance, downtime and repair.

2. Always turn off and remove the tractor key before making any adjustments or performing any maintenance.

3. After using the implement for several hours, check all bolts to be sure they are tight.

4. After one hour and again after five hours re-torque the grade 8 bolts (1) to 400 FT LBS. Retorque periodically.

5. Lubricate areas listed under “Lubrication” on page 35.


7. Replace or rotate worn parts as needed -- hinge bolts, clevis pins, bearings, etc.

8. Grease wheel bearings and walking beams sparingly. Over greasing may cause damage to seals and reduce the life of the bearing. Grease hinge points periodically.

9. If machine is stored outdoors over the winter months, it is a good idea to fold the machine then set it down on the ground so all the cylinders are retracted to protect the cylinder rods. This will extend the life of the cylinder seals and reduce internal and external leaks.

Storage

10. Store implement where children do not play. If possible, store the implement inside for longer life.

11. Remove any dirt and debris that can hold moisture and cause corrosion.

12. Lubricate areas noted under, “Lubrication” on page 35.

13. Inspect implement for worn or damaged parts. Make repairs and service during the off season.

14. Use spray paint to cover scratches, chips and worn areas on the implement to protect the metal.

By following and maintaining a routine service and lubrication program, your tillage equipment will give you many years of service.
Lubrication

Shank Pivot Arms

Inspect bearings for end play Annually. If excessive endplay exists it is recommended to disassemble, clean and repack the wheel bearings. For machines stored outdoors or operating in extreme conditions bearings should be checked more often.

Wheel Bearings

One on each gauge wheel.
Type of Lubrication: Grease
Quantity: Pump grease into bearings until resistance is felt, being careful not to pressurize seal or blow out cap.

Coulter Swing Arms

1 zerk on each hub;
Type of Lubrication: Grease
Quantity: Until grease emerges.
Coulter Hubs

1 zerk on each hub;
Type of Lubrication: Grease
Quantity: Pump grease until resistance is felt, being careful not pressurize seal or blow out cap.

Berm Conditioner

2 zerk on each basket;
Type of Lubrication: Grease
Quantity: Sparingly, Do Not Over Grease.
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive blowout</td>
<td>Going too fast.</td>
<td>Slow down.</td>
</tr>
<tr>
<td></td>
<td>Ripping too shallow.</td>
<td>Raise gauge wheel.</td>
</tr>
<tr>
<td></td>
<td>Coulter not deep enough.</td>
<td>Lower coulter, see “Coulter Height” on page 11.</td>
</tr>
<tr>
<td></td>
<td>Shank not aligned with coulter.</td>
<td>Align shank with trench made by coulter, see “Coulter Alignment” on page 11.</td>
</tr>
</tbody>
</table>
## Specifications

<table>
<thead>
<tr>
<th>Model Information</th>
<th>SS0300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shank Spacing</td>
<td>70cm (27 1/2in)</td>
</tr>
<tr>
<td>Number of Shanks</td>
<td>3</td>
</tr>
<tr>
<td>Tractor Requirements</td>
<td>112-179kW (150-240hp)</td>
</tr>
<tr>
<td>Weight (Rigid-No-Till Shank)</td>
<td>921kg (2030lbs)</td>
</tr>
<tr>
<td>Weight (Auto Reset-No-Till Shank)</td>
<td>1247kg (2750lbs)</td>
</tr>
<tr>
<td>Gauge Wheels Tire Size</td>
<td>20.5x8 10ply</td>
</tr>
</tbody>
</table>

### Dimensions

| Working Width     | 210cm (6ft 9in) | 225cm (7ft 3in) | 280cm (9ft) | 300cm (9ft 9in) |
| Transport Width   | 300cm (9' 9")  | 300cm (9' 9")  | 300cm (9' 9") | 300cm (9ft 9in) |
| Transport Length  | 205cm (81in)    | 205cm (81in)    | 201cm (79in) | 201cm (79in)    |
| Lower Linkage Height | 80.4cm (31.6in) |                  |              |                 |

| Shank Spacing     | 68cm (26 3/4in) | 70cm (27 1/2in) | 54cm (21 1/4in) | 56cm (22in) |
| Number of Shanks  | 5      | 5    | 6    | 6    |
| Tractor Requirements | 187-299kW (250-400hp) | 187-299kW (250-400hp) | 224-358kW (300-480hp) | 224-358kW (300-480hp) |
| Weight (Rigid-No-Till Shank) | 1170kg (2580lbs) | 1170kg (2580lbs) | 1297kg (2860lbs) | 1297kg (2860lbs) |
| Weight (Auto Reset-No-Till Shank) | 1715kg (3780lbs) | 1751kg (2780lbs) | 1950kg (4300lbs) | 1950kg (4300lbs) |
| Gauge Wheels Tire Size | 20.5x8 10ply | 20.5x8 10ply | 20.5x8 10ply | 20.5x8 10ply |

### Dimensions

| Working Width     | 340cm (11ft 3in) | 350cm (11ft 6in) | 324cm (10ft 6in) | 336cm (11ft) |
| Transport Width   | 300cm (9ft 9in)  | 307cm (10ft)    | 300cm (9ft 9in) | 307cm (10ft) |
| Transport Length  | 205cm (81in)     | 205cm (81in)    | 200cm (79in)    | 200cm (79in) |
| Lower Linkage Height | 80.4cm (31.6in) |                  |              |                 |
### Tire Inflation Chart

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5x8.0-10 ply LRE</td>
<td>620 kPa</td>
</tr>
<tr>
<td></td>
<td>90 psi</td>
</tr>
</tbody>
</table>

### Torque Values Chart

#### Bolt Size | Bolt Head Identification | Grade 2 | Grade 5 | Grade 8
---|---|---|---|---
1/4-20 | in-tpi | N-m | ft-lb | N-m | ft-lb | N-m | ft-lb |
1/8-18 | 7.4 | 5.6 | 11 | 8 | 16 | 12 |
1/4-28 | 8.5 | 6 | 13 | 10 | 18 | 14 |
5/32-24 | 15 | 11 | 24 | 17 | 33 | 25 |
5/32-24 | 17 | 13 | 26 | 19 | 37 | 27 |
5/16-24 | 27 | 20 | 42 | 31 | 59 | 44 |
5/16-24 | 31 | 22 | 47 | 35 | 67 | 49 |
7/16-14 | 43 | 32 | 67 | 49 | 95 | 70 |
7/16-20 | 49 | 36 | 75 | 55 | 105 | 78 |
7/16-20 | 66 | 49 | 105 | 76 | 145 | 105 |
5/8-20 | 75 | 55 | 115 | 85 | 165 | 120 |
9/16-12 | 95 | 70 | 150 | 110 | 210 | 155 |
9/16-18 | 105 | 79 | 165 | 120 | 235 | 170 |
9/8-11 | 130 | 97 | 205 | 150 | 285 | 210 |
9/8-18 | 150 | 110 | 230 | 170 | 325 | 240 |
3/4-10 | 235 | 170 | 360 | 265 | 510 | 375 |
3/4-16 | 260 | 190 | 405 | 295 | 570 | 420 |
3/8-9 | 225 | 165 | 585 | 430 | 820 | 605 |
5/32-14 | 250 | 185 | 540 | 475 | 905 | 670 |
1-8 | 340 | 250 | 875 | 645 | 1230 | 910 |
1-12 | 370 | 275 | 955 | 705 | 1350 | 995 |
1-1/8-7 | 480 | 355 | 1080 | 795 | 1750 | 1290 |
1-1/8-12 | 540 | 395 | 1210 | 890 | 1960 | 1440 |
1-1/4-7 | 680 | 500 | 1520 | 1120 | 2460 | 1820 |
1-1/4-12 | 750 | 555 | 1680 | 1240 | 2730 | 2010 |
1-1/2-6 | 890 | 655 | 1990 | 1470 | 3230 | 2380 |
1-1/2-12 | 1010 | 745 | 2270 | 1670 | 3680 | 2710 |
1-1/2-6 | 1180 | 870 | 2640 | 1950 | 4290 | 3160 |
1-1/2-12 | 1330 | 980 | 2970 | 2190 | 4820 | 3560 |

#### Bolt Size | Bolt Head Identification | Class 5.8 | Class 8.8 | Class 10.9
---|---|---|---|---
M 5 X 0.8 | N-m | ft-lb | N-m | ft-lb | N-m | ft-lb |
M 6 X 1 | 4 | 3 | 6 | 5 | 9 | 7 |
M 8 X 1 | 7 | 5 | 11 | 8 | 15 | 11 |
M 8 X 1.25 | 17 | 12 | 26 | 19 | 36 | 27 |
M 8 X 1 | 18 | 13 | 28 | 21 | 39 | 29 |
M 10 X 1.5 | 33 | 24 | 52 | 39 | 72 | 53 |
M 10 X 0.75 | 39 | 29 | 61 | 45 | 85 | 62 |
M 12 X 1.75 | 58 | 42 | 91 | 67 | 125 | 93 |
M 12 X 1.5 | 60 | 44 | 95 | 70 | 130 | 97 |
M 12 | 90 | 66 | 105 | 77 | 145 | 105 |
M 14 X 2 | 92 | 68 | 145 | 105 | 200 | 150 |
M 14 | 99 | 73 | 155 | 115 | 215 | 160 |
M 16 | 145 | 105 | 225 | 165 | 315 | 230 |
M 16 X 1.5 | 155 | 115 | 240 | 180 | 335 | 245 |
M 18 | 195 | 145 | 310 | 230 | 405 | 300 |
M 18 | 220 | 165 | 350 | 260 | 485 | 355 |
M 20 | 280 | 205 | 440 | 325 | 610 | 450 |
M 20 X 1.5 | 310 | 230 | 650 | 480 | 900 | 665 |
M 24 | 480 | 355 | 760 | 560 | 1050 | 780 |
M 24 X 2 | 525 | 390 | 830 | 610 | 1150 | 845 |
M 30 | 960 | 705 | 1510 | 1120 | 2100 | 1550 |
M 30 X 3.5 | 1060 | 785 | 1680 | 1240 | 2320 | 1710 |
M 36 | 1730 | 1270 | 2650 | 1950 | 3660 | 2700 |
M 36 X 2 | 1880 | 1380 | 2960 | 2190 | 4100 | 3220 |

a. in-tpi = nominal thread diameter in inches-threads per inch
b. N·m = newton-meters
c. mm x pitch = nominal thread diameter in mm x thread pitch
d. ft-lb = foot pounds

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.
ORIGINAL EC DECLARATION OF CONFORMITY

We, the manufacturer, Great Plains Manufacturing
1525 E. North Street
Salina, KS 67401
United States

and

Authorized representative in European Community Arable Systems Division
c/o Kverneland Group Gottmadingen N.V.
Industriepark 312
D-78244 Gottmadingen
Germany

Declare under our sole responsibility that the product,

Designation of machine: Tillage
Machine type: SubSoiler SS0300
Valid from serial no. GP-2418YY

corresponds to the above mentioned directive.

The following harmonized standards are applied.

EN ISO 4254-1:2015

Salina, KS, 20 - 06 -2018

Rye DeGarmo
Vice President of Engineering

Gottmadingen, 20 - 06 -2018

Michael Enders*
Product Safety & Homologation Harvesting Division
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