Owner's Manual



25/50/65/85 Cubic Foot Ground Drive Models

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Model and Serial Number

Attached to the frame is an ID plate showing the serial number. Record your implement information and serial number in the space provided below. ABI will use this information to give you prompt, efficient service when you order parts.

| Size: | |
|---------------------|--|
| Serial number: | |
| Invoice number: | |
| Purchaser's name: _ | |

Thank you!

On behalf of the ABI family, we would like to thank you for your recent purchase of your ABI Classic Spreader. Our company's goal is to provide you with innovative, quality tools as well as first rate customer service.

This setup guide will help you to get your new ABI Classic Spreader off the delivery pallet and into use. Once you have put your ABI Classic Spreader to work, if you have any questions, please feel free to contact our support department at 855.211.0598.

To the Operator:

The information presented in this manual will prepare you to operate the ABI Classic Spreader in a safe and knowledgeable manner. Operating the ABI Classic Spreader in a proper manner will provide a safer working environment and create a more efficient result. Read this manual fully and understand the entire manual prior to setup, operation, adjusting, performing maintenance, or storing the ABI Classic Spreader. This manual contains information that will allow you to get years of dependable performance from your spreader.

This manual will provide you with information on safely operating and maintaining the ABI Classic Spreader. Operating the ABI Classic Spreader outside of the stated safety and operations guidelines may result in injury to the operator and equipment, or void the warranty.

The information provided in this manual was current at the time of printing. Variations may be present as ABI Attachments, Inc. continues to improve and upgrade the ABI Classic Spreader for future use. ABI Attachments, Inc. reserves the right to implement engineering and design changes to the ABI Classic Spreader as may be necessary without prior notification.

Safety Precautions

Please exercise caution at all times when setting up, operation, or performing maintenance on the ABI Classic Spreader. Remember, any piece of equipment like the ABI Classic Spreader can cause injury/damage if operated improperly, or if the user does not understand how to operate the equipment. Exercise caution at all times with using the ABI Classic Spreader.

- Never permit any person to ride or board the ABI Classic Spreader at any time. **NEVER** ALLOW RIDERS ON THE ABI CLASSIC SPREADER!
- Ensure the implement is properly mounted, adjusted and in good operating condition.
- Be sure the tractor is in neutral before starting the engine.
- Use care and maintain minimum ground speed when operating the ABI Classic Spreader on a hillside or when operating close to ditches, fences, or water sources.
- Personal protection equipment including safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining and/or repairing the implement.
- Be sure that no one is near the machine prior to engaging or while the machine is working.
- Operate the ABI Classic Spreader in the daylight or under good artificial light. Operator should always be able to clearly see where they are going.
- Be alert for hidden hazards. Always operate the ABI Classic Spreader with caution over work environments that may have buried obstacles.
- Stay clear of all moving parts. Keep all limbs clear of attachments when making adjustments with all hydraulically operated attachments.
- Use caution when operating the ABI Classic Spreader in icy, wet, or snowy conditions.
- Do not use the ABI Classic Spreader on highways or public thoroughfares. The ABI Classic Spreader is designed for off road use only.
- Operate the implement only with a tractor equipped with an approved Roll-Over-Protective-System (ROPS). Always wear your seatbelt. Serious injury or even death could result from falling off the tractor.
- Always follow your tractor manufacturer's rules for safe operation of the tractor and for proper procedures for attaching and disconnecting attachments. Contact your local tractor dealership for an owner's manual for any questions related to the safe operation of the tractor.
- The use of this equipment is subject to certain hazards which cannot be prevented by mechanical means or product design. All operators of this equipment must read and understand this manual, paying particular attention to safety and operating instructions, prior to using.
- Do not operate the tractor/ATV and implement when you are tired, sick, or when using medication.

- Keep all helpers and bystanders at least 50 feet away from the machine. Only properly trained people should operate this machine.
- The majority of accidents involve operators being knocked off the tractor by low hanging limbs and then being run over by the implement. Accidents are most likely to occur with machines that are loaned or rented to someone who has not read the operator's manual and is not familiar with the implement.
- Always stop the tractor, set brake, shut off the tractor engine, remove the ignition key, lower implement to the ground, and allow rotating parts to come to a complete stop before dismounting tractor. Never leave equipment unattended with the tractor running.
- Never place hands or feet under implement with tractor engine running or before you are sure all motion has stopped. Stay clear of all moving parts.
- Do not reach or place yourself under equipment until it is blocked securely.
- Never place hands or feet under implement with tractor engine running or before you are sure all motion has stopped. Stay clear of all moving parts.
- Keep hands, feet, hair, and clothing away from moving parts.
- Never operate tractor and implement under trees with low hanging limbs. Operators can be knocked off the tractor and then run over by implement.
- Reduce speed on slopes and sharp turns to minimize tipping or loss of control. Be careful when changing directions on slopes.
- Inspect the entire machine periodically. Look for loose fasteners, worn or broken parts, and leaky or loose fittings.
- Pass diagonally through sharp dips and avoid sharp drops to prevent "hanging up" tractor and implement.
- Avoid sudden starts and stops while traveling up or downhill.
- Always use down slopes; never across the face. Avoid operation on steep slopes. Slow down on sharp turns and slopes to prevent tipping and/or loss of control.

Use caution when operating the ABI Classic Spreader. Using the ABI Classic Spreader outside of stated safety and operations guidelines may result in injury to operator or others, property damage, or a void of warranty.

CAUTION: Our machines are designed considering safety as the most important aspect and are the safest available in today's market. Unfortunately, human carelessness can override the safety features built into our machines. Injury prevention and work safety, aside from the features on our tools, are very much due to the responsible use of the equipment. It must always be operated prudently following with great care, the safety instructions laid out in this manual.

Information on the ABI Classic Spreader

1/3 Heavier than most competitor's

When it comes to equipment made of steel; weight is a good thing. The heavier the manure spreader, the more high density steel is being used. Using higher density steel means the manure spreader will last longer and perform better. Weight is a quality metric you can feel.

Shredded output

Shredding the material has a number of advantages. It exposes more of the manure to sunlight, which reduces eggs/fly larva and allows manure to decompose far more quickly than non-shredded material. It also enables the manure to decompose quickly to encourage a healthy pasture and greatly reduces the amount of time between spreading and horses grazing again on the pasture.

Variable flow control

Variable flow control enable ts the operator to apply just the right amount of material to the ground. This ensures proper application rates of material to maximize its nutritional value, while also minimizing waste and reducing nitrogen burn to vegetation. All ABI Classic manure spreaders feature the ability to control the flow rate of manure being applied to the ground. Both the PTO and ground drive manure spreaders have 4 different speed settings that are controlled by the lever (ground drive models) or a pull rope (PTO models). Flow control is accomplished by speeding up or slowing down the apron chain (conveyor) that feeds the manure to the back beaters. You now have the choice of emptying the spreader as fast as possible or applying controlled amounts of manure.

The combination of shredded output, controlled spread, and variable flow control makes the ABI Classic Spreader one of the most eco-friendly spreaders on the market.

All welded COR-TEN steel construction

All ABI Classic Spreaders are fully welded for a long life and made of COR-TEN steel to resist rust and corrosion. Unlike standard mild steel used by competitors, COR-TEN is "weathering" steel originally engineered as a corrosion resistant steel for the construction industry. This steel may be exposed to the elements, even unpainted, and not rust of many years (ABI spreaders are painted for black for cosmetic reasons, however). Most competitors bolt together many components of of their spreaders. ABI Classic Spreaders are fully welded to take on the most punishing situations for many years.

Unique chain engagement mechanism

To virtually eliminate drive chain slip when engaging or disengaging the drive chain, ABI Classic Spreaders utilize a mechanism that gradually lifts the chain off the sprocket one tooth at at a time to disengage. To re-engage, this mechanism then gently lays the chain back on the sprocket seating the chain on each tooth of the sprocket. This process keeps the chain and sprocket in alignment and reduces the possibility the chain will slip or fall off the sprocket causing unneeded repair, wear and tear, and breakage. This mechanism is controlled by the front right operating lever (as you are looking toward the rear of the spreader). Most competitor engagement mechanisms do not keep the chain and sprocket in alignment and do not assist in the reseating of the chain on each sprocket tooth.

Dual wheel ground drive with ratcheting hubs

Unlike many ground drive systems, the ABI Classic Spreader incorporates a sophisticated system that enables better ground traction and provides constant power to the apron chain and beater bars. As you look from the rear to the front of the spreader, the right wheel primarily drives the apron chain (conveyor) and the left wheel primarily drives the beater bars. Additionally, both wheels act in unison to maximize traction and prevent the apron and beater from running at different speeds. This eliminates slipping and binding of the moving parts and reduces wear and tear and breakages to the chains, sprockets, and gears. The hubs on the ABI Classic Spreader have a ratcheting override when moving in reverse or taking sharp corners. This allows the wheels to move independently when taking sharp corners or in reverse, even while engaged.

Shredder beaters

Unlike most spreaders that only use one beater bar to spread material, the ABI Classic Spreader uses 2 or 3 beaters depending on the unit size. On the 25, 50, and 65 cu. ft. models, the spreader has one beater bar that shreds the manure and bedding into smaller pieces before the manure is passed through to the wide spread paddles and thrown from the spreader. This additional shredding process breaks down the material for quick decomposition which promotes a healthy pasture.

Coal tar epoxy box liner and tongue & groove poly floor

To further prevent corrosion and rust, the inside of the box is sprayed with a coal tar epoxy liner. This box liner is not a traditional truck bed plastic insert liner that can cause corrosion underneath and it is not a soft rubbery material that can tear. This box liner is ideally suited for the unique demands of a manure spreader. Coal tar epoxy offers great "flex", so it is perfectly suited to expand and contract with climate and can handle the abrasion and acidity of manure flowing through the spreader. Coal tar epoxies are famous for protection from moisture and are commonly used on garage floors, underground pipelines/tanks, and even the hulls of barges.

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The floor of the ABI Classic Spreader is constructed of a tongue and groove poly lumber, so it will never rot or rust. The tongue and groove construction prohibits the individual poly boards that make up the floor from warping, which would cause the apron chain to get caught and bind on the flooring. This is a premium maintenance free flooring that will last and comes with a limited lifetime warranty.

"5 Point" Corrosion and Rust Resistance

Corrosion and rust resistance is one of the top concerns customers have in buying manure spreaders. ABI does not take this concern lightly. To ensure our spreaders will last for many years to come, we have implemented a suite of measures to prevent against corrosion and rust.

- 1. We start with corrosion resistant COR-TEN Steel.
- 2. All steel components are sandblasted before painting. This cleans the impurities off the steel and opens the pores to absorb the paint for the best bond.
- 3. Rust-Oleum "Stops-Rust" paint is applied. This paint is easy to repair and touch up. Unlike powder coating, moisture cannot get behind the paint to rust from the underside.
- 4. Coal tar epoxy box liner is applied inside the box.
- 5. Tongue and groove (plastic lumber) floor will not rust, corrode, or rot. This floor has a limited lifetime warranty.

Features

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|-------------------------|--------------------|--------------------|--------------------|
| Platform: | Compact | Compact | Compact |
| Ground Driven: | Yes | Yes | Yes |
| Steel Type: | COR-TEN | COR-TEN | COR-TEN |
| Steel of Gauge: | 12 | 12 | 12 |
| # of Beaters: | 2 | 2 | 2 |
| # of Spreading Paddles: | 8 | 10 | 10 |
| # of Shredding Blades: | 32 | 32 | 32 |
| Flow Control Speeds: | 4 | 4 | 4 |
| Speed Adjustment: | Lever | Lever | Lever |
| Spray Shield: | Yes | Yes | Yes |
| Bed Liner: | Yes | Yes | Yes |
| Poly Lumber Floor: | Yes | Yes | Yes |
| Jack Stand: | Dolly Wheel | Dolly Wheel | Dolly Wheel |
| Tires: | Ag Traction | Ag Traction | Ag Traction |
| Ratcheting Hubs: | Yes | Yes | Yes |

Min. Vehicle Requirements

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|-----------------------|--------------------|--------------------|--------------------|
| Tractor Type: | Mower | Sub & Compact | Sub & Compact |
| Min. Horsepower: | 18 hp | 22 hp | 25 hp |
| Utility Vehicle Type: | ATV, UTV | ATV, UTV | Large ATV, UTV |
| Min. CC: | 350cc | 550cc | 600cc (4WD) |

Weights

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|-------------------|--------------------|--------------------|--------------------|
| Unit Weight: | 680 lbs | 825 lbs | 947 lbs |
| Shipping Weight: | 854 lbs | 1,001 lbs | 1,225 lbs |

Unit Dimensions

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|-------------------|--------------------|--------------------|--------------------|
| Total Length: | 110" (9' 2") | 132" (11') | 151" (12' 7") |
| Total Width: | 48" (4') | 54" (4'6") | 58" (4' 10") |
| Total Height: | 43" (3' 7") | 43" (3' 7") | 54" (4' 6") |
| Box Length: | 60" (5') | 76" (6' 4") | 84" (7') |
| Box Width: | 28" (2' 4") | 35" (2' 11") | 35" (2' 11") |
| Box Height: | 16" (1' 4") | 19" (1' 7") | 19" (1' 7") |
| Box Flared Width: | 33" (2' 9") | 40" (3' 4") | 40" (3' 4") |
| Loading Height: | 33" (2' 9") | 34" (2' 10") | 36" (3') |

Warranty

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|--------------------|--------------------|--------------------|--------------------|
| Mechanical: | 24 Months | 24 Months | 24 Months |
| Workmanship: | 24 Months | 24 Months | 24 Months |
| Poly Lumber Floor: | Lifetime | Lifetime | Lifetime |

Capacity

| Classic Spreader: | 25 ft ³ | 50 ft ³ | 65 ft ³ |
|-------------------|--------------------|--------------------|--------------------|
| Heaped Capacity: | 25 cu ft | 50 cu ft | 65 cu ft |
| Struck Capacity: | 15 cu ft | 29 cu ft | 39 cu ft |
| # of Horses: | Up To 4 | Up To 8 | Up To 11 |





Safety First

Level Surface

Make sure set up is on a level surface. We don't want the skid or spreader sliding away from you (or on top of someone else) while you're setting it up!

Spacial Awareness

Do you have enough space to connect the tow vehicle once you have the front end assembled?

Tools Required

- Safety Glasses
- Gloves
- Knife
- 0 9/16" wrenches and/or socket

Initial Set-up

Identifying Parts

- a. Engagement levers already on tool; secured in a downward position
- b. Notch plates (side specific)-already on tool; secured in a downward position [fig.1]
- c. Tongue with jack (wheel jack optional) [fig.2]
- d. End gate and litter pan will come installed if ordered



Lever Assembly

- a. Remove and install one notch plate at a time to avoid confusion [fig. 3]
- b. Locate deepest notch indicates top of plate
- c. Identify mounting bracket that secures lever assembly to the spreader body
- d. Remove two carriage bolts toward the front of the mounting bracket
- e. Raise lever to upward-facing position
- f. Slide notch plate between mounting bracket and lever arm [fig.4]
- g. Replace and tighten bolts
- h. Place lever in first/top/deepest notch
- i. Repeat for other side



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Almost Done! Time To Hook It Up

Use provided hitch pin to connect your new ABI Classic Spreader to your tow vehicle. Please drive forward slowly as you pull the spreader up, over, and out of the skid. Once you use your Spreader a few times and are completely satisfied, please transform the skid into kindling and enjoy a nice big bon fire complementary of ABI!

Tongue Installation

- a. Locate and remove carriage bolts in front frame c-channel [fig.5]
- b. Remove jack from jack plate [fig.6]
- c. Slide tongue under frame with jack plate facing up [fig.7]
- d. Lift up to position tongue c-channel inside of frame c-channel [fig.8]
- e. Pull tongue toward front of tool compressing tongue inside of frame [fig.9]
- f. With assistance, adjust tongue forward until bolt holes align
- g. Replace and tighten bolts



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Usage

Swing away jack (w/ optional wheel)



The swing away jack is used to hold the spreader in a safe level position when not connected to a tow vehicle. Use the jack to raise or lower the spreader for easy connection to the tow vehicle. With option wheel attachment, the spreader can be easily maneuvered around without having to attach the spreader to a tow vehicle. To rotate the jack, remove the attached pin from the holder, rotate, and reinsert the pin. Always raise the jack when in operation.

Never disconnect the spreader from the tow vehicle without securing the jack in the down position.

If you have a wheel jack, never perform repairs on the spreader unless it is attached to a tow vehicle with the tow vehicle placed in park and the brakes applied. If unattached, the spreader may roll and cause injuries.

Spreader Bed



Make sure to rinse out the bed of the ABI Classic Spreader after every use. This will help to ensure longevity of your spreader. It is important to avoid putting excess soil or stones into the spreader. The ABI Classic Spreader was not designed to spread soil or stone. Getting stones caught in the bed will damage the spreader and is not covered under warranty.

Use caution when spreading wet manure. You will want to use a slow speed to prevent bridging or building and allow the manure to be properly shredded and spread.

Operating Levers



The operating levers engage the apron chain as well as the beater bars. Lever #1 is used to engage and disengage the apron chain (conveyor). This lever has 5 notches. The first notch at the top is neutral, meaning the bed does not move. Each notch down increases the web drive speed and creates a heavier flow out the back of the spreader. To engage either lever, squeeze the latch handle fully and lower the lever to the desired notch. Be sure the latch is fully set in its slot before operating the spreader. When the spreader is not in use or in transport mode, return the levers to the disengaged (raised) position.

Caution: If you engage the web drive (conveyor) of the spreader, be sure to also engage the beater bars before moving forward. Failure to do so can cause the manure to jam at the beater bars and require you to manually empty out the spreader.

Chain Engagement Mechanism

The operating lever labeled #2 in the above photo controls the chain engagement mechanism. When this chain is engaged, it engages the beater bars on the rear of the spreader. This mechanism allows the chain to be engaged and disengaged one tooth at a time and helps to keep the chain and sprocket in alignment. This also helps reduce unneeded repair, wear and tear, and breakage.



The above photo reflects the chain mechanism for units built prior to 1/7/2016. Newer units may look different, but use the same mechanism

Web Drive Apron Chain Adjustment



To adjust the web drive apron chain (conveyor), loosen the two bolts labeled #1. Then turn the nut labeled #2 to adjust the tension on the apron chain. For proper tension on your apron chain, you want no more than 3" of lift in the middle of the bed on the apron chain. You will need to make this adjustment on both sides of the spreader. Be sure to keep track of how many times you turn the adjustment nut. To keep the apron chain even/level, you must adjust both sides equally.

Once you adjust the apron chain, remember to retighten bolt set #1 to set your adjustment.



Operating Lever Rod Adjustments

Both operating levers are attached to a rod that runs to the rear of the spreader to engage the web drive and beater bar mechanisms. These rods may need adjustment as they can develop play over time. To readjust the rods, move both levers to the disengaged/neutral position. Loosen the bolts holding the rod in place and adjust to remove the play in the rod. Retighten the bolts when finished. For the beater bar mechanism rod, the adjustment is located toward the front of the spreader (#1). For the web drive rod, the adjustment is located toward the rear of the spreader by the tire (#2).

For the web drive adjustment (#2), the collar on the rod should be adjusted so there is a ¼" gap between the star wheel and roller cam.

Tightening the Beater Bar Chain (25, 50, 65 cubic foot spreaders)



Over time, the chain that controls the beater bars may get some slack in it and require adjustment. To remove this slack, you will need to loosen the two bolts located on the rear sprocket. There is a sprocket holder with two bolts on both sides of the beater bar (total of 4 bolts) that will need to be loosened. Once the bolts have been loosened, have a helper gently pull the whole wide spread beater bar back until most of the slack is taken out of the chain. Be sure the beater bar is not sitting at an angle after adjustment. Make sure both ends have been adjusted out at the same distance to prevent the beater bar from sitting at angle, as this may cause damage to the spreader.

Once the slack is taken out, retighten the 4 bolts back down. Over tightening the chain may cause damage to chain, sprockets, or other parts of the spreader. A small amount of slack in the chain is acceptable.

Tightening the Beater Bar Chain (85 cubic foot spreaders)

First, loosen all four bolts on either side to make the adjustment (#1). You will then loosen bolt #2. Then take a wrench and tighten bolt #3 until you reach the desired tension. You will want to leave some slack in the chain (about $\frac{1}{4}$ "). Once the adjustment is made, tighten bolts #1 and #2 back down to secure the adjustment.



End Gate (optional)



The optional end gate is used to prevent manure from spilling out during filling or transportation as well as to further deflect material from the operator during spreading. The end gate should never be down when the spreader is in use. Have this down during use may cause damage to the end gate hood or to the spreader.

For end gate installation instructions, see page 22

Shredder Hood

The shredder hood on the rear of the spreader helps prevent manure from flowing over the beaters as well as a shield for spray off. This helps with "clean" spreading and to help control the manure from hitting the operator.



Maintenance



Each area where the arrows point indicates where a grease point is located. Stickers on the spreader body further indicate where grease/lubrication points are located.

- The spreader should be greased using a grease gun every 25-30 loads and before storage. Make sure to grease all available grease areas before any period of storage.
- When greasing the hubs for the spreader, use caution to not over grease the hubs. Each hub requires 2-3 full pumps of grease from a manual grease gun every 30-35 loads. Hubs may need to be cleaned out once a year to remove old grease build up. All other grease points should be greased until the grease oozes out of the bearing to help flush out debris.

- Every 30-50 loads you may want to clean off the pawls on the sprockets located on the right side of the spreader. Grease from the hub may gather on the pawls and will need to be cleaned to prevent damage to the pawls.
- Clean chains after every use and oil chains after every 25-30 loads or before periods of storage to prevent any rust. To oil the chains, use SAE 30 or higher rated oil. It is not recommended to pour oil directly in the bed when oiling the apron chain. Instead, use a cloth with oil on it to apply oil to the apron and drive chains.
- Make sure to check all nuts and bolts to ensure they are tight after every 25-30 loads. If any nuts and bolts are found to be loose, properly tighten them before the next use.
- The wheels on your spreader need to be torqued down to 100 ft. pounds and should be re-tightened after first use and then check semi-annually.

Litter Pan Installation

Remove both cotter pins from the safety bar at the rear of the spreader and remove the safety bar. Install the litter pan in place of the safety bar and secure with cotter pins.





Remove the bottom left rear bolt from the spreader. This bolt will later be replaced with the longer bolt included with your litter pan.



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Install one of the locking collars on the rod pictured below, but leave it loose until everything is installed to allow for final adjustments.







On the same rod, install the latch arm with spring. Then install the other lock collar over the latch arm.

Install the longer bolt with the bracket for the spring in place of the bolt removed earlier in the installation. Adjust and tighten down the lock collars so the latch has enough clearance to attach to the litter pan.





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End Gate Installation



Using a screwdriver and hammer remove the two square punch outs on each side of the spreader. These punch outs are located along the top edge of the box of the spreader.



Remove the two bolts, nuts, and lockwashers from the brackets on the end gate.



Line up the brackets with the punched out holes. Insert the bolts from the bottom side and then install the lockwasher and nut. Once you have all 4 bolts in place, tighten down the nuts and your end gate is installed.