



**CRS – Fall 2024**

**Cyclone Rake Single Pin Hitch System**

# What Is A CRS?

- The CRS is our new single-pin lawn and leaf vacuum. We've taken our years of experience and innovation in vacuum design and applied it to create a high-quality single-pin option. It's designed to offer the same level of performance and reliability you expect from us, just in a different configuration that some user might prefer or find more compatible with their equipment.
- The choice between a CRS single-pin vacuum and our traditional dual-pin models often comes down to personal preference and the customers' specific equipment setup. Understanding the customer's needs is crucial to understanding which model they feel is best for them.

# Why Are We Launching This?

- Expanding the Cyclone Rake Product Offering
- The growing popularity of Zero Turn tractor sales over the last several years.
- Leveraging our expertise in vacuum systems in the director to consumer space.
- Some people just like Single Pin Systems

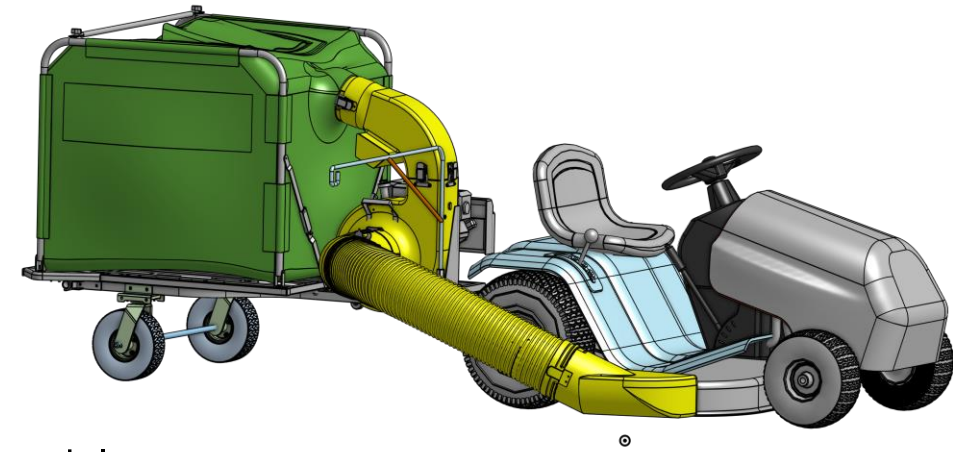
# Why Are We Launching This?

- The new CRS can be preferable for some users, especially those with zero-turn mowers or newer equipment designed for single-pin attachments. Some folks simply prefer the feel and operation of a single-pin attachment. It's also worth noting that some of the newest mowers, particularly some battery-power models, are designed with single-pin hitches in mind.

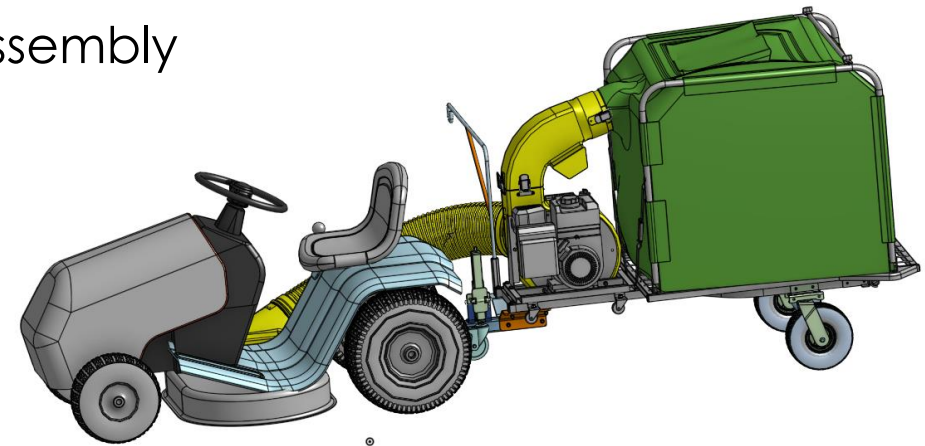
# Key Features

- The single-pin offers enhanced turning for those who are comfortable with a single-pin setup.
- While other companies use lightweight PVC hoses, we have chosen to use the top-of-the-line **Urethane hose**.
- We've designed a new non-swivel wheel assembly that provides excellent stability and can handle substantial loads. It has been tested to support over 1,000 pounds!
- With our upcoming conversion kits that will be available starting in October, a customer will have the flexibility to switch between single-pin and dual-pin configurations.
- Easy storage! The unit can be taken down and stored away in less than 10 minutes.
- Same great performance and durability our customers have always received.

# Cyclone Rake Revolutionizes the Single Pin Setup

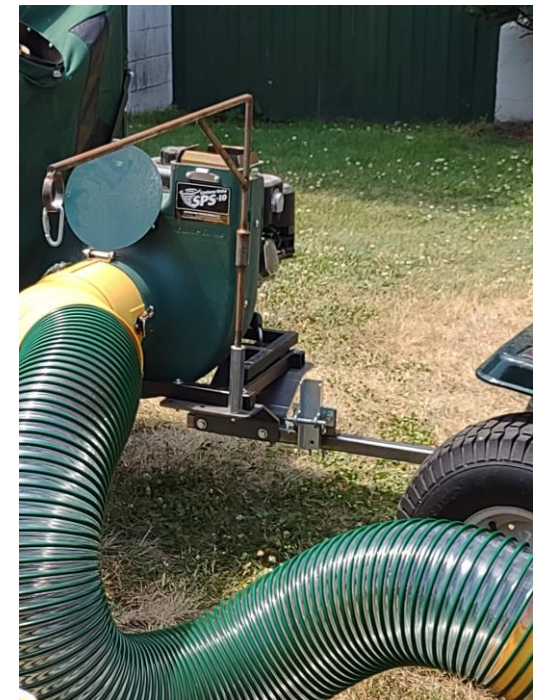
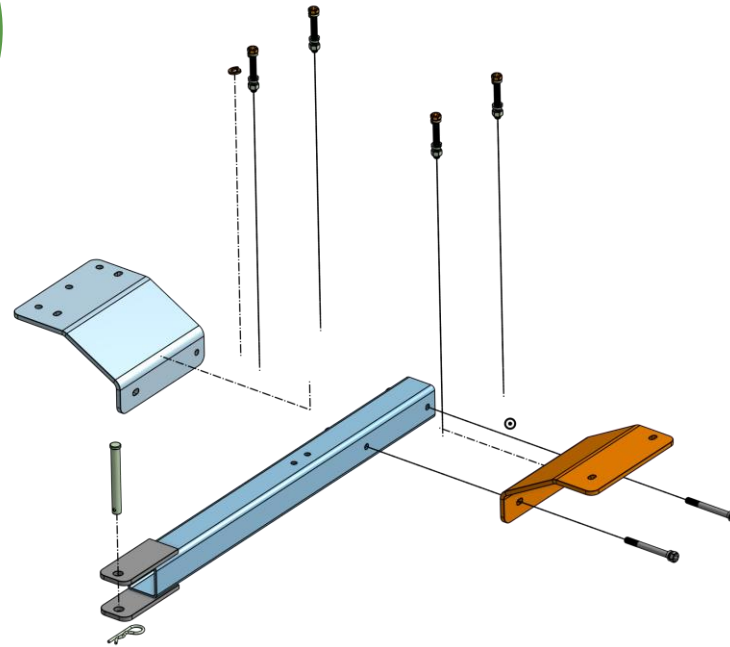
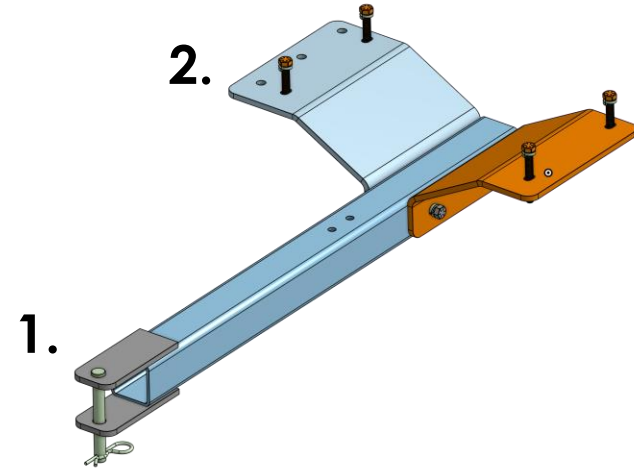


- Tow Bar Assembly
- Hose Hanger
- Hammock
- Wheel Axle Assembly



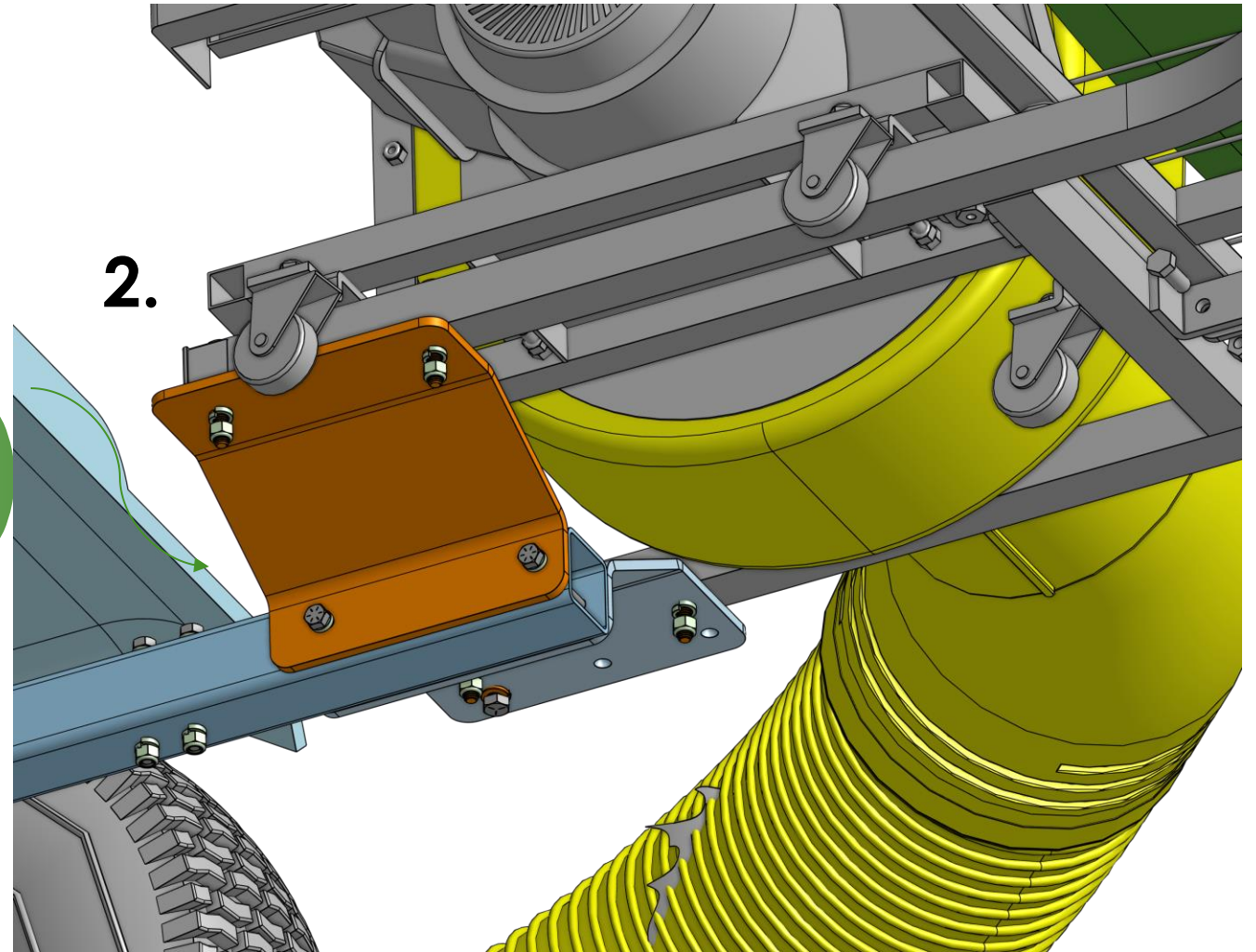
# Tow Bar Design

The single-pin setup replaces the need for separate hitch forks. We've introduced our new HTB (Hitch Tow Bar), which connects seamlessly to the existing chassis and extends forward to reach the tractor's single-pin hitch.



# Tow Bar Design Continued

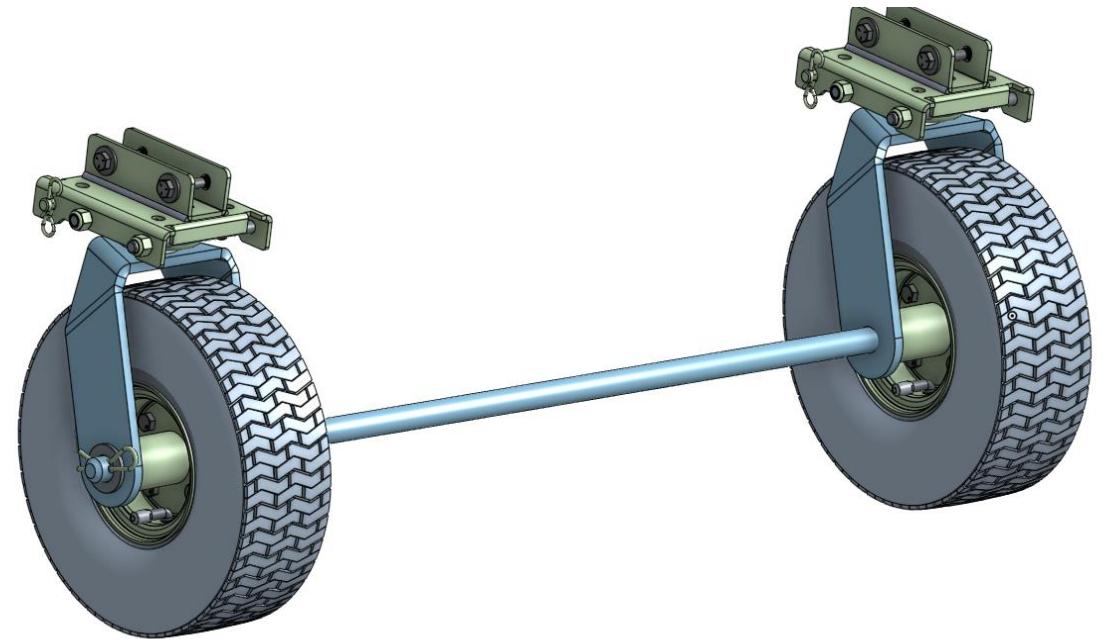
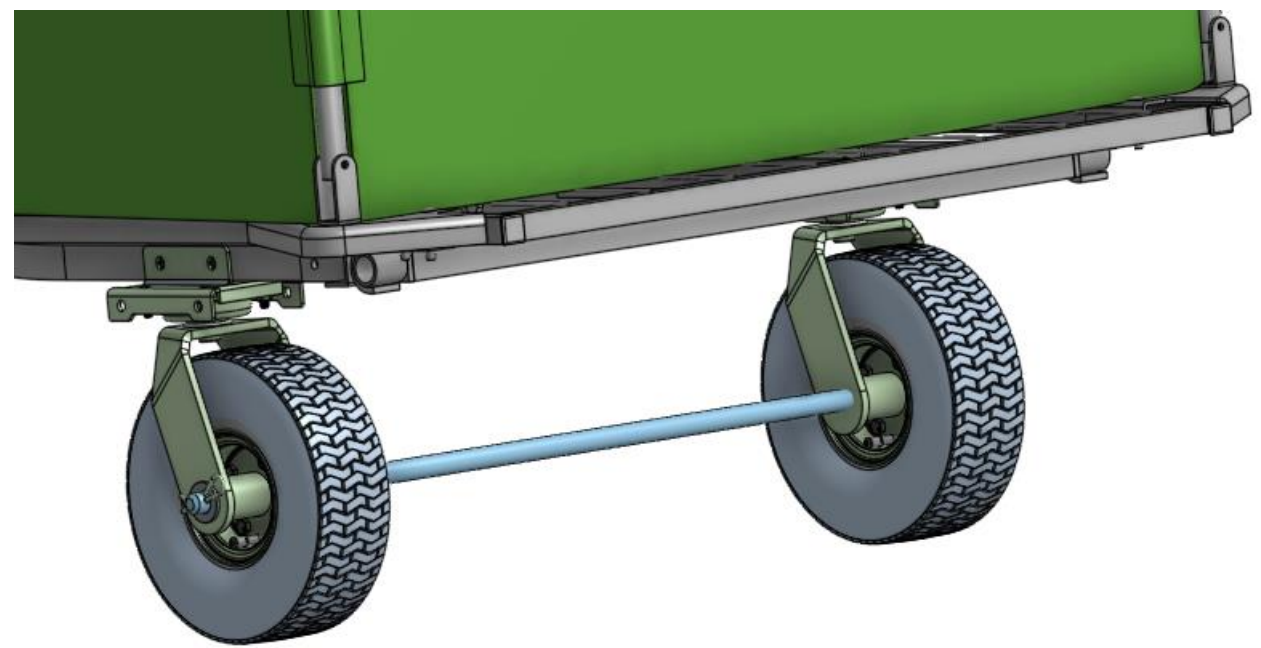
Connects to the existing standard single-point hitch on the customers' tractor and attaches to the chassis at the same points as the dual hitch forks.





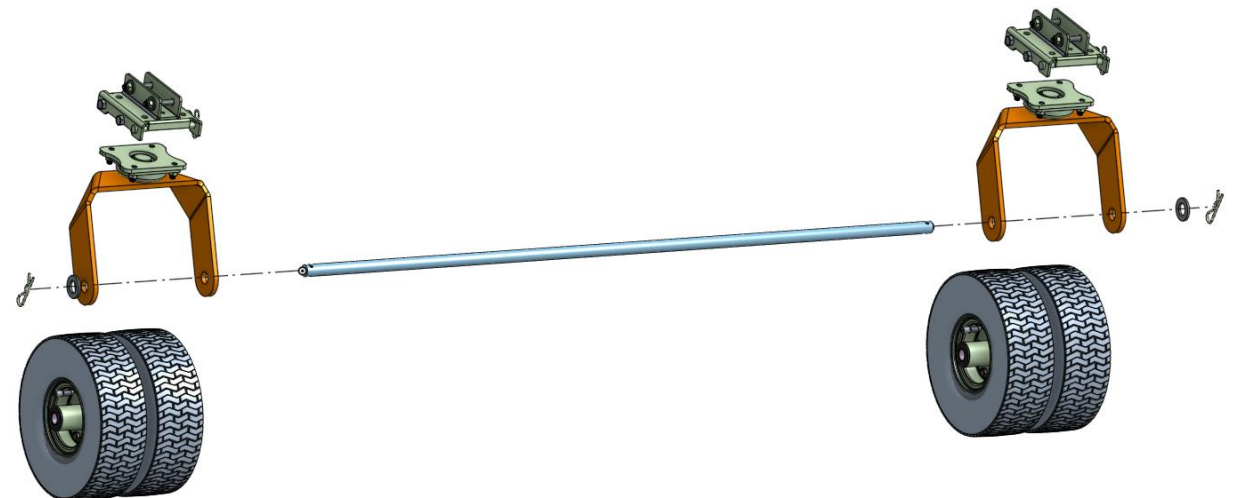
# Wheel/Axle Design

With the single-pin hitch, the wheels can't swivel, so we've added an axle tube to stabilize them. This setup uses the same wheel assembly with an axle and revised wheel forks, ensuring smooth, controlled movement.



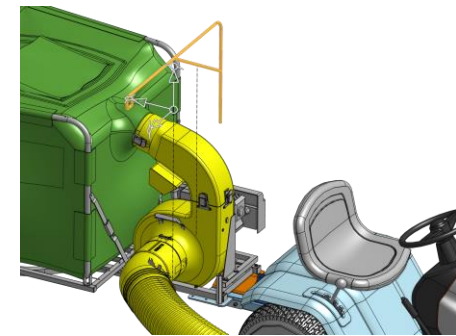
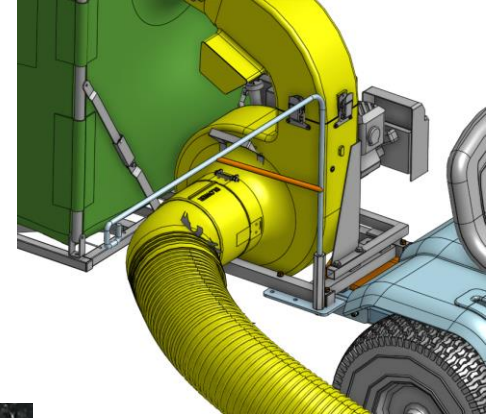
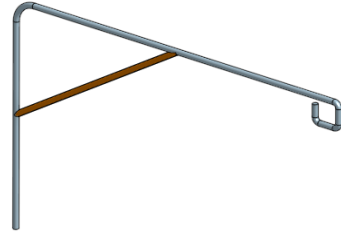
# Wheel/Axle Design Continued

The axle will be available in both single and dual wheels. Commander will come standard with single wheels and XL will come standard with dual wheels.



# Hose Hanger

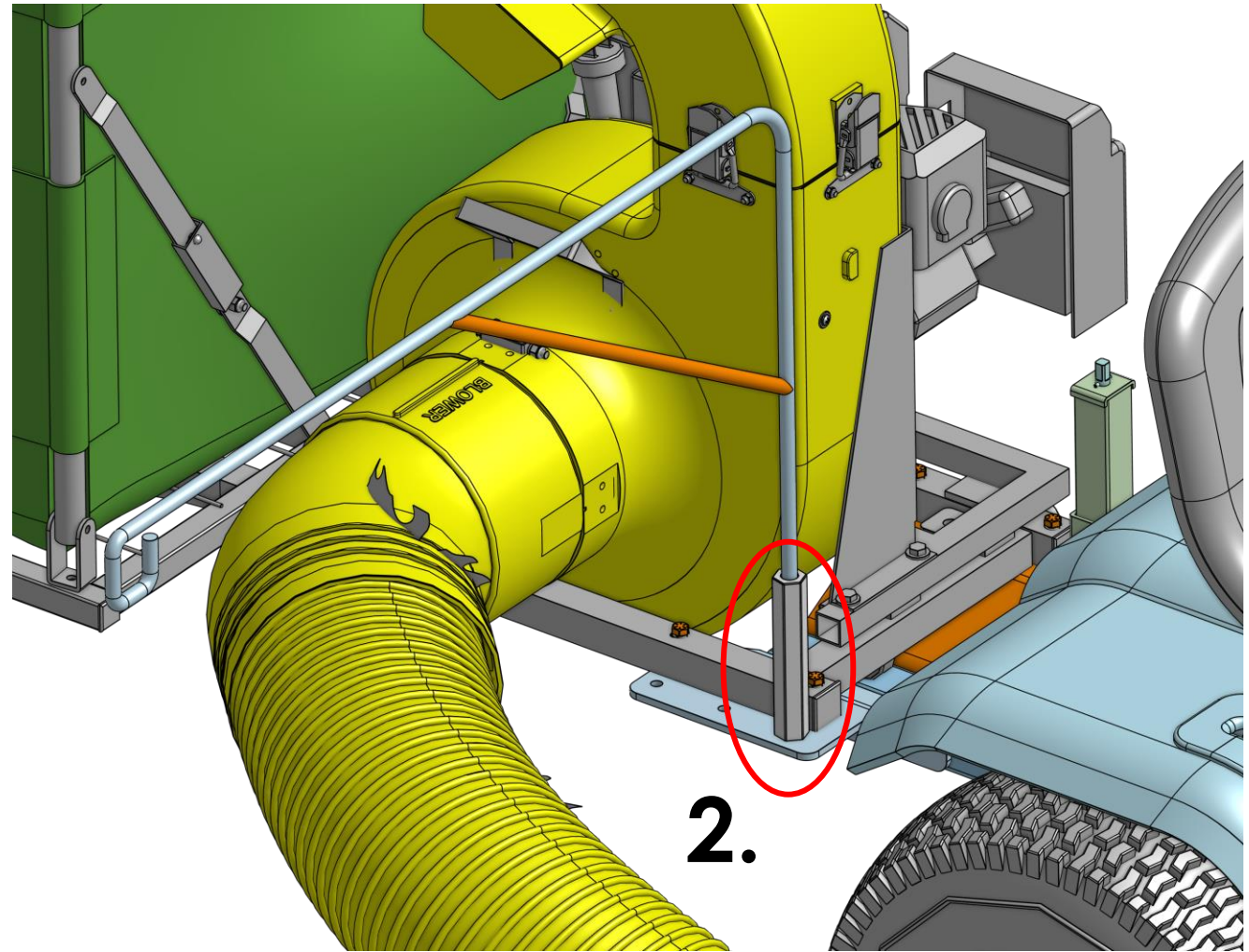
To support the longer hose, we've designed a multi-position hose hanger and fabric support that keeps the hose off the ground. This setup accommodates the constant movement as the tractor turns left and right, preventing the hose from dragging.



# Hose Hanger

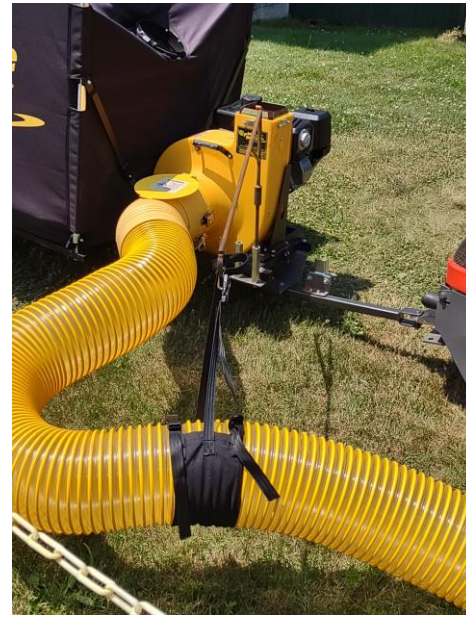
We feel our hose hanger arm system is the best in the business. It allows for more adjustability and customization for the customer's specific needs and setup.

It slides into a mount attached to the tow bar assembly. There are 3 different locations to place it to allow the customer to position the hose in a spot that works the best with their tractor.



# The Hose Hammock

The hammock is used with the hose hanger to help suspend the hose off the ground which can also be adjusted.



# Maneuverability

- **CRS (Single-Pin System):**
  - **Turning Dynamics:** The single-pin hitch provides a flexible turning experience, allowing the vacuum to pivot smoothly during turns. This flexibility can be advantageous for properties with complex layouts or when working around landscaping features.
  - **Adaptability:** The design accommodates a variety of turning conditions, ensuring that the equipment can handle different types of terrain and mowing patterns effectively.
  - **Backing Up:** When reversing, the single-pin system allows for easier adjustments, enabling the vacuum to pivot more freely behind the mower. This feature is particularly useful for maneuvering in tight spaces or when precise positioning is required. The CRS will operate more like a tractor-trailer than a bus."

# Maneuverability

- **Traditional Cyclone Rake (Dual-Pin System):**
  - **Turning Dynamics:** The dual-pin hitch offers a consistent turning experience, with the vacuum closely following the mower's path. This is particularly beneficial for maintaining straight lines and ensuring even coverage across larger areas.
  - **Stability During Turns:** The dual attachment points provide a stable turning experience, which is helpful on uneven terrain or when the equipment is heavily loaded.
  - **Backing Up:** The dual-pin system offers increased stability during reverse maneuvers, as the two attachment points help maintain alignment with the mower. However, this system requires a more deliberate approach when backing up, as the vacuum is less likely to pivot freely compared to the single-pin system. The CR will operate more like a bus than a tractor trailer.

# Maneuverability

- Both the single-pin and dual-pin systems are designed to offer effective turning and backing capabilities, with each system tailored to different user preferences and property needs. The single-pin system allows for more flexible adjustments during backing up, while the dual-pin system provides greater stability and control. The choice between them depends on the specific requirements of the user's equipment and the type of terrain they are working with.



# Key Differences

- **Wheels:** With the single-pin hitch, the wheels can't swivel, so we've added an axle tube to stabilize them. This setup uses the same wheel assembly with an axle and revised wheel forks, ensuring smooth, controlled movement.
- **Hitch:** Since most tractors and mowers are equipped with a single-pin hookup, there's no need for a separate hitch. This simplifies the connection process and eliminates the need for a dual-pin hitch.
- **Hitch Forks:** The single-pin setup replaces the need for separate hitch forks. We've introduced our new HTB (Hitch Tow Bar), which connects seamlessly to the existing chassis and extends forward to reach the tractor's single-pin hitch.
- **Hose:** The hose length doubles with the single-pin system, providing more reach as the tractor maneuvers. We're offering 10-foot sections made of durable urethane deck hoses for added stability and function.
- **Hose Hanger and Hose Hammock:** To support the longer hose, we've designed a multi-position hose hanger and fabric support that keeps the hose off the ground. This setup accommodates the constant movement as the tractor turns left and right, preventing the hose from dragging.

# Pros and Cons

Feature	CRS (Single-Pin System)	Traditional Cyclone Rake (Dual-Pin System)
<b>Hitch Configuration</b>	<b>Pro:</b> Uses the tractor's existing single-pin hitch. No additional drilling or hitch needed.	<b>Pro:</b> Provides a stable attachment.
	<b>Con:</b> May not be compatible with all equipment	<b>Con:</b> Requires drilling and additional setup.
<b>Turning Dynamics</b>	<b>Pro:</b> Provides a flexible turning experience, ideal for properties with intricate layouts.	<b>Pro:</b> Offers a consistent turning experience, ensuring uniformity in mowing patterns.
	<b>Con:</b> May require more attention to prevent jackknifing during sharp turns.	<b>Con:</b> May not turn as tightly as the single-pin system.
<b>Backing Up</b>	<b>Pro:</b> Allows pivoting during reverse operations such as going around corners. Reverses like a tractor	<b>Pro:</b> Straight and stable reversing. No risk of jackknifing. Reverses like a bus.
	<b>Con:</b> Can jackknife if not handled carefully.	<b>Con:</b> May require more space to back up. Imagine a 16 ft long bus that only goes in one direction.
<b>Terrain Adaptability</b>	<b>Pro:</b> Designed for a variety of terrains and mowing patterns, including complex landscapes.	<b>Pro:</b> Ideal for maintaining straight lines on larger and more uniform areas.
	<b>Con:</b> May require more skill to handle on very uneven terrains.	<b>Con:</b> Less adaptable to intricate landscapes.
<b>Wheel Setup</b>	<b>Pro:</b> Specific wheel design tailored for single-pin configuration provides smooth operation.	<b>Pro:</b> Standard wheels are robust and designed for dual-pin stability.
	<b>Con:</b> Single-pin wheels may not provide the same level of stability on all terrains as dual-pin wheels.	<b>Con:</b> May not be as smooth in turns as single-pin wheels.
<b>Compatibility</b>	<b>Pro:</b> Compatible with newer equipment favoring single-pin attachments, including many zero-turn	<b>Pro:</b> Compatible with a wide range of equipment, especially those requiring dual-pin systems.
	<b>Con:</b> Limited to single-pin compatible equipment.	<b>Con:</b> May require additional setup to match specific equipment types.
<b>Storage Process</b>	<b>Pro:</b> Can be broken down and stored efficiently, identical to traditional CR.	<b>Pro:</b> Can be broken down and stored efficiently, identical to CRS.
<b>Warranty &amp; Guarantee</b>	<b>Pro:</b> Same great 2-year warranty for the XR950 and 3 years for the Vanguard Engines. Same great 12-month guarantee.	<b>Pro:</b> Same great 2-year warranty for the XR950 and 3 years for the Vanguard Engines. Same great 12-month guarantee.

# Packaging Overview

1. The CR Single will have the same number of boxes as the current system.
2. Hose Hanger and Axle will be added to the Collector box.
3. Tow bracket and Hose Hanger Stand will be shipped in their own box.
4. The Hose Hammock will be in Box 1.

Dual Pin CR	Single Pin CR	
Chassis	Chassis	No Change
MDA	MDA	No Change
Blower	Blower	No Change
Hose	Hose	No Change
Collector	Collector	CRS Collector will have a change to the package.
Wheels	Wheels	CRS will have its own specific wheels.
Box 1	Box 1	CRS will not have hitch forks. The Hose Hammock will be included.
Hitch	Tow Bar	CRS will not have a hitch included but will have a Tow Bar.

# Changes in CRS Boxes

- CRS Box 1
  - New products for both CRS Commander and CRS XL
    - Hose Hammock inside a mesh bag
    - Different CRS Owners Manual
    - Hitch Forks are eliminated
- CRS Collectors
  - Include CRS Wheel Axle and Hose Hanger Arm
    - The Hose Hanger will be packaged in a sleeve inside the collector box.
    - The Axle will be zip-tied to the collector frame.
- CRS Wheels
  - New CRS Wheels for both Single and Dual
    - Wheel forks with no axle tube or axle bolt
- Dual Pin Hitch Excluded
  - No Dual dual-pin hitch will be included with any CRS sale
- CRS Tow Bar Assembly

Each CRS will now include the new CRS Tow Bar

# New Packaging

- The Hose Hanger will be packaged in a sleeve inside the collector box.
- The Axle will be zip-tied to the collector frame.



# New Packaging

- The Tow Bar Assembly and Hardware will be packed in a bag within the box.



# Timeline

In order to launch on 09/01/2024 we are sourcing the first batch of components domestically.

- All is ready for a 9.1.24 launch

# Selling

- The projected selling price will be \$100 more than the Commander Dual Pin Model and \$130 more than the XL Dual Pin Model. This increase is due to the additional cost of producing the extra hose length and metal components.
- Both the CRS Commander and the CRS XL will be available with the same upgrades or accessories as the Dual Pin model
- A retrofit kit will be made available in October for existing Dual Pin Rake owners should they want to have either a single-pin or dual-pin system.



# Website

- New CRS Products on the Cyclone Rake Models pages
- Parts Pages updates with new product support parts
- In October Retrofit kit addition to website

# Thank You

The CRS – The next great improvement in  
leaf and lawn care

