



NH³ Parts and Equipment Catalog



Ph: 800-747-8300 | www.DavisEquip.com

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Davis Equipment - Parts Contacts

Brad Funkhouser

General Manager | bfunkhouser@davisequip.com

Mike Carder

Parts Sales | mcarder@davisequip.com

Rachel O'Brien

Parts Sales | robrien@davisequip.com

Mike Hilbrands

Parts Sales | mhilbrands@davisequip.com



TOLL FREE PARTS AND SERVICE NUMBER

Expert help is just a free call away at:

1-800-747-8300

Instant Fax Order Line

Fax in your order to our fax lines, instantly!

515-270-0117

Extended In-Season Parts Hours

We offer extended hours during your busy season.

In-Season Emergency
Parts and Service

We're here to help you out, with emergency assistance at 1-800-747-8300.

Prices are subject to change without notice.





Locations

Come see us in:



Johnston, IA

5225 NW Beaver Drive
Johnston, IA 50131



Twin Cities, MN

2963 Yorkton Blvd, Suite F
Little Canada, MN 55117

Salesmen Contacts



Zach Davis
CEO

Joe Funkhouser
President

jfunkhouser@davisequip.com
Ph: 515-270-8300

Chad Harbaugh

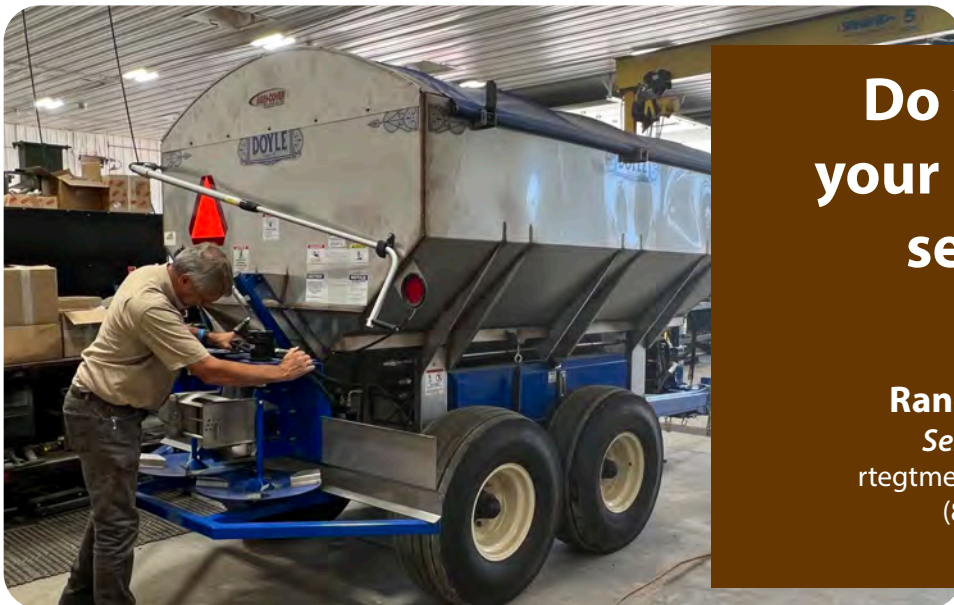
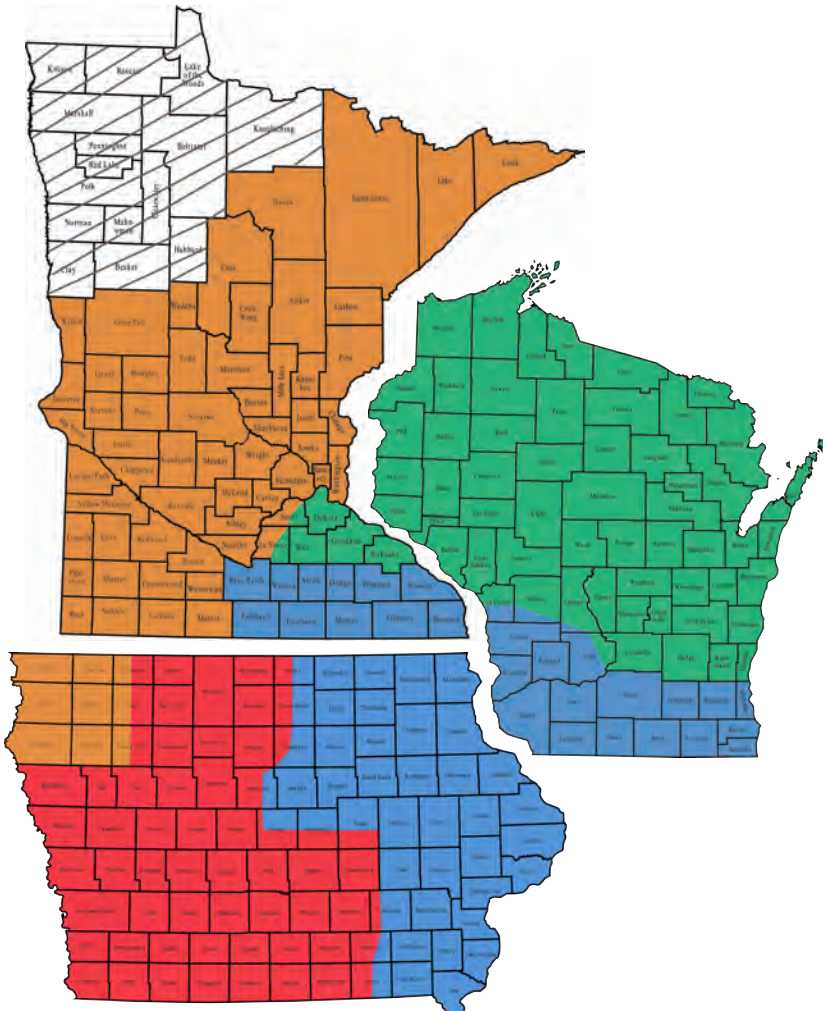
Territory Manager
charbaugh@davisequip.com
Ph: 563-543-5818

Kevin Adams

Territory Manager
kadams@davisequip.com
Ph: 515-851-7149

Call for Salesman

Ph: 800-747-8300



Do you need
your equipment
serviced?

Let us help.

Randy Tegtmeier

Service Manager

rtegtmeyer@davisequip.com
(800) 747-8300



Doyle Fertilizer Tenders



Doyle Equipment Manufacturing Company is the global leader for quality dry fertilizer handling equipment.

The newest member to the family:

304 SS TOP AUGER TENDER

Call today for pricing!



Doyle Fertilizer Tenders



10' Rear Discharge Tender

Standard Features:

- (2) 165 cu. ft. compartments in 12 ga. 304 stainless steel
- 10" x 12 ga. 304 stainless-steel auger tube, and augers with 304 stainless-steel flighting and mild steel pipe
- Heavy duty 304 stainless-steel square tubing main frame
- 1.75 ton per minute discharge rate
- Stainless-steel, manually operated slide gates
- Tender with front and rear ladder
- 20 ft. hydraulically raised and lowered discharge auger, 14 foot discharge height
- Stainless-steel trailer fenders, with Doyle mud flaps
- 18.5 gallon hydraulic tank with temperature gauge, site glass, and large hydraulic filters, metal shot blasted and powder coated bright blue
- Hydraulic pump, cylinders, lines, hoses and fittings
- Roll tarp with stainless-steel end caps
- D.O.T. approved lights, tail and marker
- Factory assembled & tested

16' Side Discharge Tender

Standard Features:

- (4) 129 cu. ft. compartments in 12 ga. 304 stainless steel
- Hoppers have 40 degree side slope
- 10" x 12 ga. 304 stainless-steel auger tube, and augers with 304 stainless-steel flighting and mild steel pipe
- Heavy duty mild steel square tubing main frame, with mild steel "boxed" support arm and cross braces
- 1.75 ton per minute discharge rate
- Stainless-steel manually operated slide gates
- Tender with front and rear ladder
- 20 ft. hydraulically raised and lowered discharge auger, 14 foot discharge height
- Mild steel fenders, with Doyle mud flaps
- 18.5 gallon hydraulic tank with temperature gauge, site glass, and large hydraulic filters, metal shot blasted and powder coated bright blue
- Hydraulic pump, cylinders, lines, hoses and fittings
- Roll tarp with stainless steel end caps
- D.O.T. approved lights, tail and marker
- Factory assembled & tested

Available in all stainless steel.



16' Side Discharge Tender

16' Rear Discharge Tender

Standard Features:

- (2) 241 cu. ft. compartments in 12 ga. 304 stainless steel
- 10" x 12 ga. 304 stainless-steel auger tube, and augers with 304 stainless-steel flighting and mild steel pipe
- Heavy duty 304 stainless-steel square tubing main frame
- 1.75 ton per minute discharge rate
- Stainless-steel, manually operated slide gates
- Tender with front and rear ladder
- 20 ft. hydraulically raised and lowered discharge auger, 14 foot discharge height
- Stainless-steel trailer fenders, with Doyle mud flaps
- 18.5 gallon hydraulic tank with temperature gauge, site glass, and large hydraulic filters, metal shot blasted and powder coated bright blue
- Hydraulic pump, cylinders, lines, hoses and fittings
- Roll tarp with stainless-steel end caps
- D.O.T. approved lights, tail and marker
- Factory assembled & tested

24' Side Discharge Trailer Tender

Standard Features:

- (3) 258 cu. ft. compartments in 12 ga. 304 stainless steel
- Hoppers have 40 degree side slope
- 10" x 12 ga. 304 SS auger tube, and augers with SS flighting
- Heavy duty mild-steel square tubing main frame, with mild steel "boxed" support arm and cross braces
- 1.75 ton per minute discharge rate
- Stainless-steel manually operated slide gates
- Tender with rear ladder
- 20' hydraulically raised and lowered discharge auger, 16 foot discharge height
- Mild steel fenders, with Doyle mud flaps
- Kabota 66 h.p., 4 cylinder, water cooled diesel engine
- 22 gallon steel diesel tank, metal shot blasted and powder coated safety yellow
- 52 gallon hydraulic tank with temperature gauge, site glass, and large hydraulic filters, metal shot blasted and powder coated Doyle green
- Tandem hydraulic pump
- Roll tarp with stainless-steel end caps
- 14" 43# dual certified wide flange beam main frame
- 2 speed landing gear, rated at 50,000 lbs. of lift
- New Hutch 9700 under slung suspension with 3 leaf high arch spring suspension
- Rockwell 25,000 lb. outboard drums and 16.5" x 7" air brakes
- 22.5 (10) hole Hubpilot
- 255/70R22.5 16-ply radial tires

24' Rear Discharge Trailer Tender Available - Call for Details!



Doyle Fertilizer Spreaders

Quality

Runs In The Family



5 & 6 Ton
Ground Wheel Drive

5 Ton
Mid Clearance

8 Ton
Lime / Fertilizer

PTO
Spreaders

2 Ton
Ground Wheel
Drive

The Family is all here!

5 Ton Spreader



Standard Features:

- 14 ga. #304 stainless-steel hopper construction
- Includes front window in hopper
- 2" x 6" tubing frame
- Bolt on box to frame features allows for easy hopper removal from frame
- Heavy duty adjustable hitch
- Heavy duty tongue jack 8,000#
- Tandem 8,000# torsion style axles with 8-bolt hubs
- 14 L x 16.1 hi-speed implement rib tires
- 1" x 1" mesh type heavy duty 8" conveyor chain
- Twin dished type spinners 20 5/16" diameter with 4 adjustable stainless-steel blades – standard 50' spread pattern
- Includes hydraulic cylinder to engage metal turn-clean style press wheel
- Running gear of spreaders are metal shot blasted, and coated bright blue for unmatched corrosion resistance

Doyle Fertilizer Spreaders



6 Ton Spreader



Standard Features:

- 14 ga. #304 stainless-steel hopper construction
- Includes front window in hopper
- 2" x 6" tubing frame
- Bolt on box to frame features allows easy hopper removal from frame
- Heavy duty adjustable hitch
- Heavy duty 4x4 tongue jack 12000#
- Tandem 8000# torsion style axles with 8-bolt hubs
- 14 L x 16.1 high speed implement rib tires
- 1" x 1" mesh type heavy duty 8" conveyor chain
- Twin dished type spinners 20 5/16" diameter with 4 adjustable SS blades
- standard 50' spread pattern
- Includes hydraulic cylinder to engage metal turn-clean style press wheel
- Running gear of spreaders are metal shot blasted, and coated bright blue for unmatched corrosion resistance

Standard Features:

- Heavy duty #304 stainless steel hopper construction
- Includes front window in hopper
- Bolt on box to frame feature allows for easy hopper removal from frame
- Tandem 10,000# torsion style axles with 8-bolt hubs
- 19 L x 16.1 tires
- 1" x 1" mesh type heavy duty #304 stainless steel conveyor chain - 8" wide
- Conveyor is driven by press wheel, engaged and disengaged with hydraulic cylinder connected to tractor
- Utilize two sets of sprockets for conveyor rates
- Includes adjustable material divider for proper material placement on spinners to insure uniform spread pattern at all application rates, material diverter manufactured in stainless steel
- Hydraulically driven twin "dished type" spinners, 24" diameter with 4 blades per spinner - standard 60' spread pattern
- Tandem 10 k highway axles
- Heavy duty 4x4 tongue jack

8 Ton Spreader



8 Ton Combo Lime & Fertilizer Spreader



Standard Features:

- Heavy duty #304 stainless steel hopper construction
- Includes front window in hopper
- Bolt on box to frame features allows easy hopper removal from frame
- Heavy duty 4x4 tongue jack 12000#
- Tandem 10,000 # torsion style axles with 8-bolt hubs
- 19 L x 16.1 tires
- 1" x 1" mesh type heavy duty #304 SS conveyor chain-20" wide
- Conveyor is driven by press wheel, engaged and disengaged with hydraulic cylinder connected to tractor
- Utilize two sets of sprockets for conveyor rates
- Includes adjustable material divider for proper material placement on spinners to insure uniform spread pattern at all application rates, material divider manufactured in #304 stainless steel
- Hydraulically driven twin "dished type" spinners, 24" diameter with 4 blades per spinner

Doyle Big Shot Series



6 & 8 Ton Capacity Row Crop Spreader

- #304 stainless steel hopper construction
- Bolt together design, hopper to chassis
- Adjustable axle with 10-bolt oil bath hubs
- Axle adjustment from 88" to 120" centers
- (2) 380/90R-46 tires
- 1" x 1" mesh type heavy duty #304 SS conveyor chain, 8" wide
- Conveyor driven by press wheel, engaged and disengaged with hydraulic cylinder connected to tractor
- Hydraulically driven twin "dished" spinners, 24" diameter with 4 blades per spinner, specially designed for extremely accurate broadcasting of spreader



Big Shot Floater Truck Spreader

- 102-1/4" wide, #304 stainless steel hopper construction
- Hoppers available in 11' thru 17' lengths
- 30" wide belt over chain, heavy duty pintle chain, 3/8" thick cross bars with multi-ply belt
- Double PWM valves for belt & spinner control
- Closed loop spinner control
- Extra heavy duty 6:1 reducer spur gear conveyor drive (high efficiency- low maintenance)
- 24" dual dished spinners, mounted on #304 stainless steel undercarriage
- "Easy-set" fully adjustable material divider which allows fine adjustment in spread pattern (fertilizer or lime) all #304 stainless steel



Big Shot Row Crop

- 102-1/4" wide, #304 stainless steel hopper construction
- 88" - 120" adjustable tire widths (2 different models)
- Hoppers available in 11' thru 14' lengths
- 30" wide belt over chain, heavy duty pintle chain, 3/8" thick cross bars with multi-ply belt
- Double PWM valves for belt and spinner control
- Extra heavy duty 6:1 reducer spur gear conveyor drive (high efficiency- low maintenance)
- Standard with 24" dual disc dished spinners, mounted on #304 stainless steel undercarriage
- "Easy-set" fully adjustable material divider which allows fine adjustment in spread pattern (fertilizer or lime)



Big Shot Double Barrel Spreader

- 102" wide, #304 stainless steel hopper construction
- 30" wide belt over chain, heavy duty pintle chain, 3/8" thick cross bars with multi-ply belt
- Extra heavy duty 6:1 reducer spur gear conveyor drive
- Standard with 24" dual disc dished spinners, mounted on #304 stainless steel undercarriage
- "Easy-set" fully adjustable material divider which allows fine adjustment in spread pattern (fertilizer or lime) all #304 stainless steel
- 2nd compartment #304 stainless steel insert (removable)
- 20" wide SS conveyor chain



Top Shot Aggregate Lime/ Fertilizer Conveyor



Standard Features:

- Heavy duty 7 ga. #304 stainless steel conveyor frame
- 30" wide, 3-ply, 330# smooth top rubber belting
- 12'-6" discharge height
- 4" heavy duty troughing rollers and straight rollers with sealed bearings
- Automatic hydraulic belt tensioners
- Kubota V1505T 45hp. turbo diesel engine
- Heavy duty gear box drive
- Super single flotation tires
- Low profile intake hopper



Field Loader Conveyor

Standard Features:

- 35' overall length, with a 10' horizontal section, and a 25' incline section
- 13'-6" discharge height
- #304 stainless steel conveyor, with powder coated mild steel tubing undercarriage (SS optional)
- 24" wide Crescent top belt, with stainless steel lacing
- 20 HP Honda gas engine drive
- Up to 150 tons per hr. discharge rate (based on 60 lb. per cu. ft. material)
- Square tubing style take-up assemblies



Doyle Fertilizer Blending & Handling Equipment

The World Depends on **DOYLE**

Fertilizer Blending and Handling Equipment



Field Loader

16" & 24" Portable Belt Undercar Conveyors



2, 5, 6, 8, 10, 13, & 16 Ton Rotary Blenders



1212 & 1616 Flat / Incline Chain Paddle Conveyors



6,8,& 10 Ton Vertical Blenders



2 Ton Free Standing Conditioner Hopper



18" & 24" Portable Belt Conveyors



10,13 & 16 Ton "Fatboy" Vertical Blenders



8 Ton Paddle Mixer



FBL 1212 & FBL 1214 Overhead Chain Paddle Conveyors



12", 18" & 24" Chain Belt Conveyors



Doyle Fertilizer Blending & Handling Equipment



Autobatch Blend Systems

Automate your fertilizer blending operations with a Doyle Autobatch Blend System. Increase accuracy, speed and efficiency.

Improve inventory control, by capturing the actual weight of each product in the blend, or with straight product direct load out.

The system reduces operator fatigue by allowing them to operate the system from the loader with an iPad.

By utilizing 36" product conveyors this is one of the fastest systems available for blending large volumes of fertilizer, or the blend drum can be bypassed to provide for loading unblended product directly to trucks.

Doyle's AUTOBATCH® Blend System will integrate with most agronomy and accounting software programs.

- Operate either a rotary or vertical blender with one or more hoppers from the loader
- Impregnation units can also be operated from the loader
- Each time a product is added to a hopper, the operator can "capture" the weight of the product on the iPad
- Orders can be sent to the iPad from customer's accounting software
- Software integration: When an order is complete, the scale weights for each product are sent back to the customer's software to:
 - A) Generate load tickets
 - B) Product is deducted from inventory
 - C) Loads are ready for invoicing
 - D) Can be utilized in feed mills, for polymers, and most bulk blended products



Improve inventory control
Lessens operator fatigue from getting on and off the loader
Faster quality blending
Multiple hopper systems - Legal for trade. No truck scale required.

Doyle Fertilizer Blending & Handling Equipment



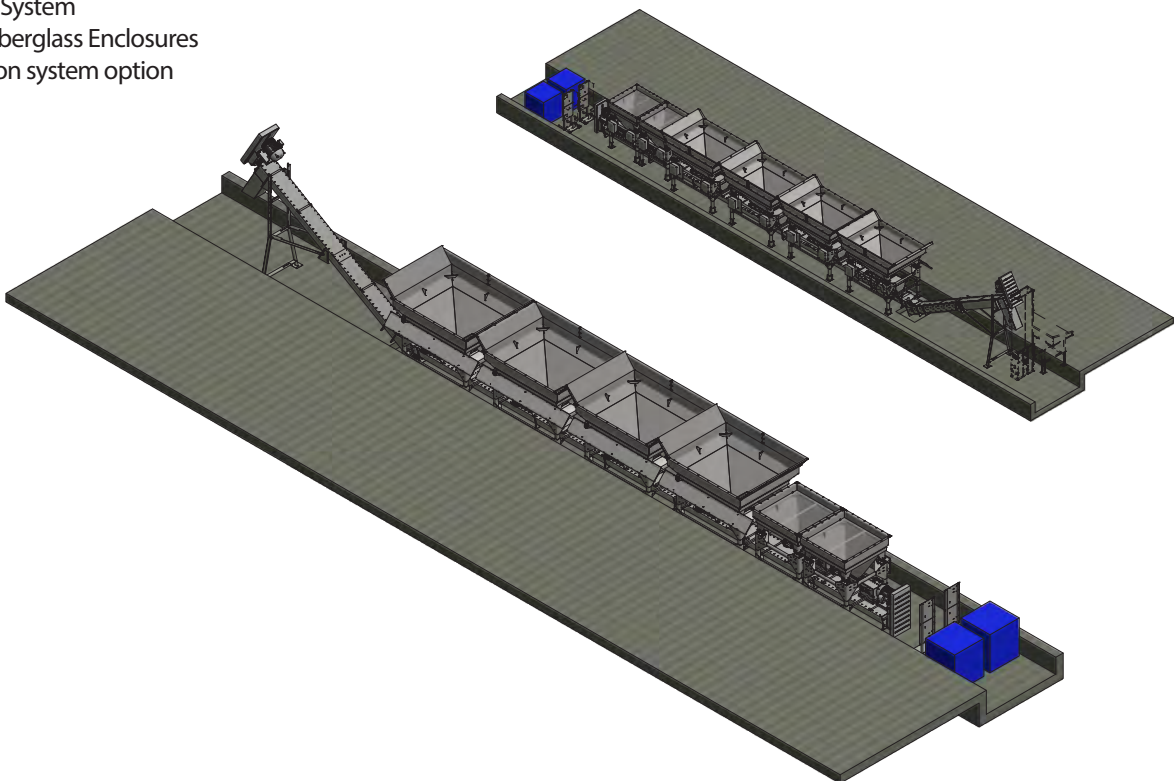
Declining Weight Blend System

The Doyle Declining Weight Blend System uses a High Capacity Stainless Steel "Flat-Wire Chain" Metering System.

The system reduces operator fatigue by allowing them to operate the system from the loader with an iPad, or the system can be operated from a control room desk top computer.

Declining weight bins and micronutrient hoppers features include:

- Stainless Steel Heavy Tubular Support Frame
- Shaft Mounted Gear Reducer Drive
- Variable Frequency Drive System
- Stainless Steel Rice Lake 4 Load Cell System
- Doyle's Operating and Blending Software – written and serviced by Kahler Automation
- Software Integration option with most major agronomy and accounting software
- Main Disconnect Panel, Breakers and Motor Starters for all 3-Phase Equipment with Resettable Overloads
- Interlocked System
- NEMA 4X Fiberglass Enclosures
- Impregnation system option



Doyle Fertilizer Blending & Handling Equipment



DOYLE 24 TON DIRECT DRIVE ROTARY BLENDER

STANDARD FEATURES INCLUDE THE FOLLOWING:

- 120" DIAMETER BLENDER DRUM
- 3/16" #304 STAINLESS STEEL DRUM AND FLIGHT CONSTRUCTION
- BLENDER FRAME 6" X 6" X 3/8" MILD STEEL TUBING FRAME CAPPED ALL ENDS
- 125 HP. TEFC 3-PHASE MOTOR
- P7300 ZF INDUSTRIES PLANETARY DRIVE GEAR REDUCER
- HEAVY DUTY GREASEABLE TRUNION WHEELS
- MACHINED CASTER RING (100% ROUND)
- # 304 STAINLESS STEEL HEAD IN DRUM WITH STAINLESS STEEL INTERFACING GUSSETS
- INCLUDES DISCHARGE CHUTE
- INCLUDES 28" DIAMETER STAINLESS STEEL INTERNAL AUGER, PIPE AND FLIGHTING
- OPTIONAL 304-STAINLESS STEEL FRAME

24 TON ROTARY WITH AUTOBATCH® SYSTEM



Simonsen Flow-Max Top Auger Tenders

Truck and Trailer Mounted

The top auger tender offers a number of advantages for fertilizer handling and transportation!

Durability

409 or 304 stainless-steel hopper construction, auger tubing and flighting combined with heavy-duty frame construction, with maximum bracing, struts and heavy-duty hydraulics set the standard quality.

Flexibility

Increased unloading height, as high as 20' off the ground.

Efficiency

A steep, 40-degree side slope on each of the compartment walls means fast, complete unloading, virtually eliminating material bridging. The durable 10-13-10 auger system is powered by direct drive hydraulic motors with no chains or sprockets. All hydraulic controls are located conveniently at the rear of the tender on the fender. The augers system makes quick work of delivering the materials to their destination.

Versatility

The top auger unloading system which allows the operator to unload into multiple compartment fertilizer applicators by simply swinging the auger instead of moving the truck. The auger rotates a full 270 degrees.



Specifications

- Augers are 10" bottom, 13" vertical, 10" discharge.
- All augers have stainless steel tube and flighting.
- Maximum unloading height with standard height bodies is 20'-6"
- Overall height with standard height bodies:
 - Truck mount with 40" truck frame height (body height 112") - overall height 12'-8"
 - Trailer mount with 40" trailer frame height (body height 113.5") - overall height 12'-9.5"
- Delivery auger length - 15'.
- Hydraulic controls for all bodies are at the left rear.
- Unloading rate up to 3500 lbs. per minute.
- Available in 16-18-24 ton models with 2, 3 or 4 compartments.

GSI InterSystems Fertilizer Solutions

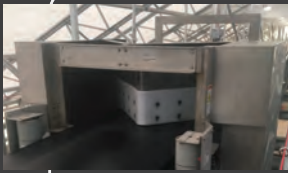


FULL SITE EQUIPMENT SOLUTIONS BEST CUSTOMIZED BLENDS. SHORTEST WAIT TIMES. BETTER BOTTOM LINE.

Unequaled Mixing Efficiency

DUAL SHAFT HORIZONTAL BLENDER

Engineered by Scott Equipment specifically for GSI. 4- and 8-ton blenders utilize twin-shaft paddle agitators to offer a high rotation mixing action in combination with an end-to-end conveyance, resulting in shorter cycle times and better repeatability. **Cycle times are as low as 30 seconds for a 4-ton batch; as low as 45 seconds for 8-ton.** Blended nutrients are discharged through full-width drop bottom discharge gates ("Bombay doors") which eliminate leakage and promote clean operation. An oversized intervent system allows for dust-free air exchange between the mixer and surge hopper.



NEW FERTILIZER PLOW

LIGHTER, SMALLER, MORE COST-EFFECTIVE

Save money with no loss in capacity. By maintaining an even pile peak, the new plow is 20-30% more efficient than a drag conveyor. Eliminates product pile voids between gates. Three belt-cleaning wipers eliminate waste.

New Installations:

Nearly 70% lighter than a tripper, significantly reducing the point load (an important factor for fabric buildings.) Smaller footprint requires a smaller head-house and is installed closer to a building's endwalls (more product/same space!)

Update Existing System:

Compared to a drag conveyor, this plow requires less maintenance and is less expensive. Increase your capacity within existing cavity!

BLENDING TOWERS: RELIABLE, FLEXIBLE, LONG-LASTING

In addition of up to 300 tons of storage in customizable stainless steel major and minor bins, all GSI InterSystems blending systems include: blender bypass, re-elevate, impregnation, and galvanized support structures.

TRIED & TRUE

STANDARD SINGLE WEIGH HOPPER

Up to 18-ton capacity weigh hopper

Up to 18-ton vertical tapered auger blenders

Largest two-stage gates in the industry

2nd lane wholesale spout

FASTER BLEND & LOAD

RETAIL DOUBLE WEIGH HOPPER HORIZONTAL BLENDER

Two 4-ton or 8-ton weigh hoppers

4-ton or 8-ton paddle high speed, high quality, high efficiency blender

8-ton or 16-ton surge hopper

2nd lane wholesale

INDUSTRY FIRST

HYBRID: RETAIL & WHOLESALE TRIPLE WEIGH HOPPER

Three weigh hoppers:
Two 16 or 18-ton and
One 5-ton for micros

Retail and Wholesale built into one tower

Blend and Wholesale simultaneously to two lanes without sacrificing speed



ENGINEERED TO ORDER

QUOTE

Every successful project begins with an accurate quote, offering the best solutions based on your specifications.

PLAN & DESIGN

Our in-house mechanical and structural engineers design each project based on the needs of the customer and aren't limited by a catalog of equipment or a standard site layout. Regular communication with customers and contractors keeps everyone on the same page.

MANUFACTURING & DELIVERY

Our state-of-the-art facility is packed with the latest technology and automation ensuring the highest quality equipment. A dedicated Project Manager shepherds each piece through manufacturing and delivery, supporting the millwright and contractors.

INSTALLATION

Equipment is delivered to the site, tagged and staged to simplify the installation process.

COMMISSIONING

Your Project Manager is available and on-site during installation and commissioning.

SUPPORT

Once a site is up and running, our team stands ready to assist with any questions, needed parts and maintenance.



GSI InterSystems Fertilizer Solutions



More Product in Bins at No Extra Cost

The fully-enclosed load-shoe of the Open Belt Conveyor allows the tail section to be positioned outside the building. The plow can be closer to the end wall for a tighter discharge point.

Improved Access

The OBC's gravity take-up box can be positioned anywhere along the conveyor.



Cleaner Operation

Perforated and hinged floor of Enclosed Belt Conveyor eases maintenance and cleaning.

In today's rapidly changing ag market, operations with the most flexibility to adapt to end-user requirements and volatile market conditions win. The current standard isn't going to cut it for forward-thinking agricultural retail and commercial co-ops. By selecting GSI's InterSystems' brand of engineered-to-order heavy-duty fertilizer processing equipment, you're making the bold choice to go beyond what's expected. And, you're choosing to get your customers loaded and back in the field faster with the high-quality blends they demand.

Unequaled Mixing Efficiency 8-TON DUAL SHAFT HORIZONTAL BLENDER

Cycle times are shorter and blends remain consistent from batch to batch.

Strong Support

Standard elevator support tower eliminates the use of inadequate guy wires

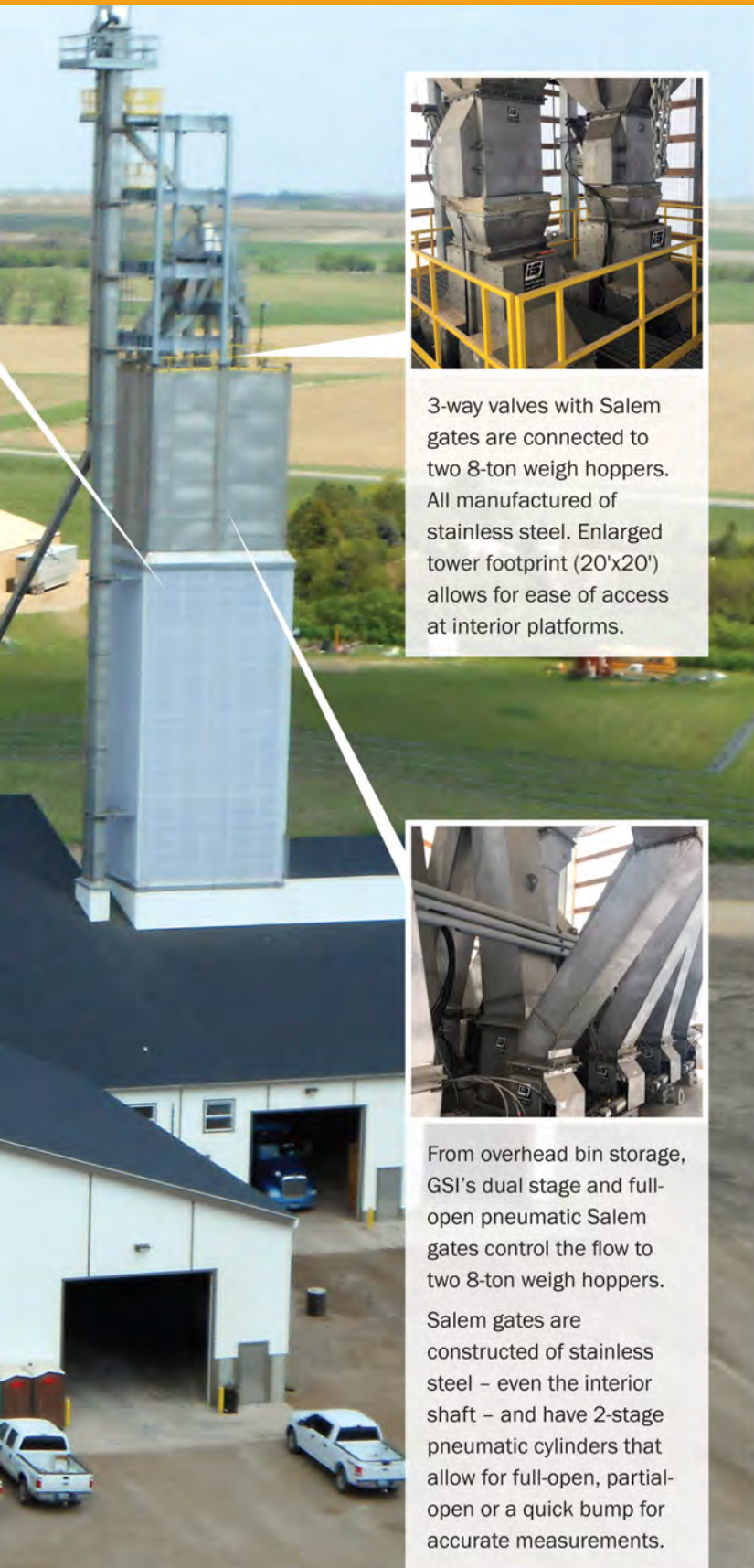
Option Rich

Available options include: rack-and-pinion clean-out gates, magnets (receiving), shovel pockets for clean-up, and hazard-monitoring package.

Customized & Quick BLEND TOWER STRUCTURE DESIGN

GSI's patented design removes cross-bracing and promotes quick installation. The seismic and environmental variables of each site are analyzed prior to final design. Beams are hot dipped galvanized steel.

GSI InterSystems Fertilizer Solutions



3-way valves with Salem gates are connected to two 8-ton weigh hoppers. All manufactured of stainless steel. Enlarged tower footprint (20'x20') allows for ease of access at interior platforms.



From overhead bin storage, GSI's dual stage and full-open pneumatic Salem gates control the flow to two 8-ton weigh hoppers. Salem gates are constructed of stainless steel – even the interior shaft – and have 2-stage pneumatic cylinders that allow for full-open, partial-open or a quick bump for accurate measurements.



GAME CHANGER.

NEW FERTILIZER PLOW WINS WITH LIGHTER, SMALLER AND MORE COST-EFFECTIVE DESIGN.

GSI's InterSystems brand has introduced a new fertilizer plow that can replace a standard tripper, is lighter, smaller and more cost-effective with no loss in capacity. And, by maintaining an even pile peak, it is 20-30 percent more efficient than a drag conveyor by eliminating the voids in the product piles between gates.

The fertilizer plow requires a smaller building head-house, offering further savings in the construction of new processing facilities.

The plow can also offer a competitive advantage by replacing fill conveyor systems in existing fertilizer plants, as was the case at the North Central Grain Cooperative in Bisbee, North Dakota.

Joe Kremer, North Central Grain's agronomy division manager, said the plow operates at 950 tons per hour, compared to 200 tons with the plant's previous drag conveyor. "It's really fast and can handle everything we throw at it," he said. "It's been a very efficient addition to our operation." Kremer noted the facility also operates a tripper conveyor housed in a new building recently added to the plant. The plow, he said, costs about one-third of the tripper, which required a much larger space and increased the cost of the expansion project by over \$300,000.



NH3 Tanks & Wagons

Product Specs

- Custom sizes available upon request
- Standard 1-1/2" liquid withdraw valve(s)
- Standard stainless steel float gauge
- All tanks equipped with heavy-duty base legs
- 41" & 46" diameter tanks are powder coated
- 60" & 72" diameter tanks are liquid painted
- Conforms to the latest edition and addenda of the ASME code for pressure vessels, Section VIII, Division 1. Complies with ANSI K61.1-1999
- Registered with the National Board



Tanks sold in 1,000 Gal • 1,465 Gal, • 2,000 Gal. • 3,000 Gal. sizes.



Eye Wash Container
Our tanks are equipped with permanently attached stainless steel brackets to accommodate top and side mount eye wash container and safety kit (sold separately).



Grab Bars
Grab bars welded to both sides of roll guard for stability when filling tank.



Adjustable Track Wagons

- 60" to 80" Wheel Track
- 1,000 or 1,450 Gallon Tank

Low Profile Twin Wagons

- Twin 1,000 Gallon Tanks

Gooseneck Twin Wagons

- Twin 1,000 or 1,450 Gallon
- NH₃ Tank



Dalton Ag Products - Wagons



Dalton's heavy duty running gears feature a walking tandem rear axle for smoother towing and greater stability while minimizing compaction. The gooseneck design minimized the turning radius along with spring lift assist and extendable tongue making for easier hookups. Dalton's NH3 tank wagon is also available in single axle. Models available to accommodate twin 1,000 gallon tanks up to a single 3,000 gallon tank.



WN Series Wagons

Specifications:

- Fifth wheel type reach pole trailer
- Available w/ adjustable axle or non-adj. axle
- 2" spindles on 1300 Wagon Series
- Heavy 2.5" spindles on 1600 Wagon Series
- Front & rear axles are made of 3"x5" tubing on 1300 Wagon Series
- Rear hitch & wheels: 15x10x6 - bolt are standard 16x11x8 - bolt on 1800 Wagon Series
- Front & rear axles made of 4"x6" steel tubing on 1600 Wagon Series
- Standard trailer is equipped w/ two front bolster springs and block on rear bolster
- 13' turning radius
- 17" axle clearance
- 6 leaf spring 4000#
- 100, 1,450 & 2,000 gallon models available

WNDDT Series Wagons

Specifications:

- Frame made of 6x4 rectangular tube
- Tank mounting bracket made of reinforced heavy channel
- Cross axle tube made of 6x4x3/8 rectangular tube
- Tandem walking rear axle
- Expandable metal deck
- Tread plate steps
- 8-bolt hubs & spindles
- Length = 25' including tongue
- Width = 114" with 14L Tires
- Track Width Front = 60"
- Track Width Back = 97"
- Weight with (2) 11Lx8 ply and (4) 14L x 12 ply tires less tank = 3060#

WNDDT-GN Series Wagons

Specifications:

- 60" front track
- 97" rear track on 1000 GN
- 102" rear track on 1450 GN
- 93" rear track on 2000 GN
- 93" rear track on 3000 GN
- Safety chains
- Plumbing kit
- Helper lift assist on tongue
- Fifth wheel assembly
- 425/255 tires mounted on 22.5x13.5 8-bolt wheels
- Powder coat paint

Options:

- 2-wheel brakes
- 4-wheel brakes
- 120" rear track
- 90" front & rear track
- Hose holder
- Extendable tongue

Dalton Ag Products - Spreaders

Three models to fit your operation:

- 6 Ton (220 c.f. capacity)
- 8 Ton (270 c.f. capacity)
- 10 Ton (333 c.f. capacity) **NEW**

POWDER COAT



MOBILITY 800 Row Crop Dry Fertilizer Spreader

VALUE FEATURES

- Hopper constructed of 409 stainless steel for longer life.
- VRT-ready option for precision farming operations.
- Twin PTO-driven or tractor hydraulic spinners adjust to 40', 50' or 60' spread pattern.
- Retractable roll tarp standard on all models.
- Up to 44" ground clearance under spinners, up to 37" under frame.
- 42"-46" high profile row crop wheels and tires standard – duals available on Model 1000.
- State-of-the-art powder coat white paint.
- 24-month limited warranty.



MOBILITY 600 Row Crop Dry Fertilizer Spreader



Adjustable spinners with several drive options.



Axle width adjustable up to 120".



Roll tarp with manual roll-back standard.



Optional CAT 4 Bull Pull Hitch with safety chains.

SPREADER SPECIFICATIONS

FEATURES	600	800	1000
Capacity (weight)	6 tons	8 tons	10 tons
Hopper length	108"	120"	148"
Hopper width	93"	93"	93"
Hopper capacity (volume)	220 cu. ft.	270 cu. ft.	333 cu. ft.
Overall length	203"	215"	250"
Overall height	112"	120"	120"
Overall width	132"	136"	136"
Empty weight	3,800 lbs.	4,900 lbs.	5,900 lbs.
Ground clearance	44" under spinners 36" under frame	44" under spinners 37" under frame	44" under spinner 37" under frame
Spread pattern	40', 50', 60'	40', 50', 60'	40', 50', 60'
Hopper construction	409 stainless	409 stainless	409 stainless
Spinner drive system	540 PTO Standard 540/1000 PTO Optional Tractor Hydraulic Optional	540 PTO Standard 540/1000 PTO Optional Tractor Hydraulic Optional	Tractor Hydraulic Standard
Hydraulic On/Off for ground-drive conveyor	Standard	Standard	n/a
Spinners	Dual gearbox driven	Dual gearbox driven	Dual gearbox drive
Jack	5,000 lbs.	5,000 lbs.	5,000 lbs.
Hitch	HD Clevis Standard CAT4 Bull Pull Optional	HD Clevis Standard CAT4 Bull Pull Optional	CAT4 Bull Pull
Axle	72"-120" adjustable	80"-120" adjustable	80"-120" adjustable
SRT roll tarp	Standard	Standard	Standard
Tires and wheels	320/90/R42	380/90/R46	380/90/R46 Duals Optional
Light kit	Optional	Optional	Optional
Variable rate ready	Optional	Optional	Standard
Scale kit with monitor	Optional	Optional	Optional
Paint (white)	Powder coat	Powder coat	Powder coat
Warranty	24 months	24 months	24 months

Dalton Ag Products - Spreaders



**MODELS: C220
C300
C400**

Dalton AG PRODUCTS

Lime & Fertilizer Combo Spreaders

C-SERIES

FEATURES	C220	C300
Capacity (volume)	220. Cu. Ft.	300 Cu. Ft.
Capacity (weight)	10 Tons	12 Tons
Overall Length	239"	268"
Overall Width	102"	147.5"
Overall Height	99"	108"
Hopper Length	120"	156"
Hopper Width	93"	93"
Construction - hopper	409 SS	409 SS
Construction - frame	8X2 Rect. Tube	8X2 Rect. Tube
Metering Gate	Adjustable	Adjustable
Axle(s)	Tandem	Single
Wheels	22.5 X 13.5	28 X 30.5
Tires	Used 425/65R 22.5	850/50R30.5
Braking System	N/A	N/A
Conveyor	20" SS Mesh	20" SS Mesh
Conveyor Drive	Hydraulic	Hydraulic
Conveyor Rate	Variable	Variable
Spinners	24"	24"
Spinner Drive	Hydraulic	Hydraulic
Spread Coverage	80' Fertilizer	80' Fertilizer
Control System	Raven	Raven
Tongue/Hitch	Adj. Clevis or Pintle	Adj. Clevis or Pintle
Jack	12K	12K
Tractor Hydraulic System Req.	28 GPM	28 GPM
Lighting	Optional	Optional
Scale System	Optional	Optional
Roll Tarp	Optional	Optional
Standard Colors	White	White



Precision Tank

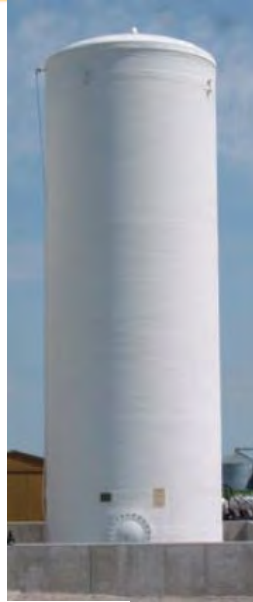
Precision Tank offers the industry's broadest line of storage and field-use tanks. Our team of welders and construction technicians take pride in their workmanship. Tanks are welded externally and internally, so you see the quality in every weld.

Fiberglass Tanks - Features & Options

- Fiberglass tanks are designed to eliminate the effects of fertilizer & chemical corrosion, providing long-term performance. All Precision fiberglass tanks come with a 3-year warranty.
- Isophthalic polyester resin is used throughout our standard tanks. Vinyl ester resin is also offered, for harsh environmental storage installations.
- The final gel coat exterior has the best resistance to ultraviolet light, and will last the entire tank life – no more repainting like mild steel tanks.
- 24" manhole and cover is standard on all tanks.
- 3" or 4" outlets and vents are available, depending on tank size and customer requirements.
- Fiberglass tanks are 60% lighter and have a higher strength-to-weight ratio than steel tanks.

Tank Sizes Available

15,000 gallons
20,000 gallons
25,000 gallons
30,000 gallons



- Bulk Chemical Storage Tanks.
- N-Serve Bulk Chemical Storage Tanks.
- Stainless Steel Nurse Tanks.
- Vertical Mild Steel Storage Tanks.
- Vertical Mild Steel Cone Bottom Tanks.
- Mini Bulk Chemical Tanks.
- Mini Bulk N-Serve Tanks.



Standard-Nurse

- Sump with 2" outlet
- 48" V sump w/ 2" outlet
- Tank Baffle
- 1.5"-2" stainless sparger pipe
- Mild steel banded skid
- Mild steel weld-on skid
- Stainless steel weld-on skid
- Box Sump with 2" or 3" outlet
- 36" or 96" or 144" V Sump w/ 3" outlet



Bulk Chemical Vertical Cone

The vertical storage tanks are available in either a flat bottom (FB) or a cone bottom (CB). Chemical storage tanks are also available in horizontal (HZ) designs.

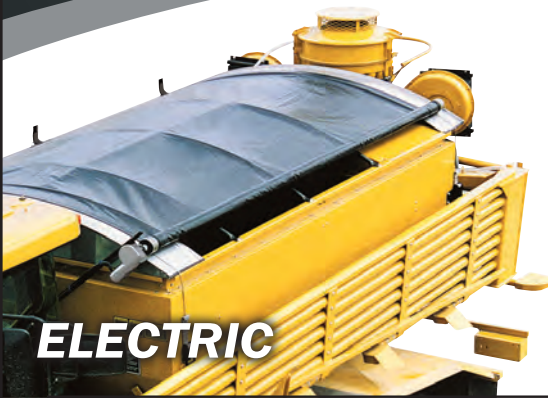
All chemical storage tanks are constructed of type 304 stainless steel with a #4 finish, and manufactured with openings and fittings as specified by the customer.



AGRI-COVER® TARPS MADE TO LAST!

SRT-2™ Spool Roll Tarp

The SRT-2 is the original Spool Roll Tarp system and is highly recommended in the fertilizer industry for boxes under 24'. The unique constant tension system allows you to safely roll it in windy conditions. As a manual tarp, the flex drive and telescoping handle allows the operator to roll the tarp open or closed from a stationary position. Add the electric option now to give your operators safety and efficiency. Available in GV and Aluminum for non-fertilizer applications.



ELECTRIC



MANUAL

EZ-LOC® Roll-Tarp System

EZ-LOC Stainless Roll Tarp is available on boxes up to 53' and gives you some options the competition does not offer; 14" deep caps for more tarp coverage on top, no weld end caps, tarp attached to roll tube with rope in channel for tighter fit, and lots of stainless steel components to stand the test of time. Add the electric option now for safer and more efficient operation.



ELECTRIC



MANUAL

AUTOLOCK™

The AutoLock Dual Drive tarp system is a premium electric tarp with a 3" extruded aluminum roll tube that helps roll the tarp in windy conditions. The Dual Tension System mounted to the side of the box keeps constant tension during all points of travel and leaves the back of the trailer open for a rear discharge unit on tender trailers. Stainless Steel end caps are optional.



Tarp, meet motor. Convert your side locking semi tarp system into electric with the Roltec™ Electric Tarp Conversion. This system makes tarping easy, saves time & money and is safer to operate. The all-new Roltec™ system is expertly engineered to keep your tarp rolling with ease from the comfort of your cab.

ROLTEC™ Electric Tarp Conversion



Case IH Nutri-Placer 930 Pull-Type Applicator



NUTRI-PLACER 930 PULL-TYPE FERTILIZER

Available on a rugged 4-by-6-foot frame and in five widths ranging from 27.5 to 47.5 feet, the Nutri-Placer 930 has proven ground-engaging components for optimal anhydrous ammonia placement. From the hydraulic single-point depth control to double fold wing cylinders and radial tires, the Nutri-Placer 930 easily moves from field to field, helping you cover more acres efficiently.

NUTRI-PLACER	930 SERIES					
MODEL	27.5 FT. (8.4 M)	32.5 FT. (9.9 M)	37.5 FT. (11.4 M)	42.5 FT. (12.2 M)	47.5 FT. (14.5 M)	
Frame Style	Pull-type					
Row Spacing (Shank)	15 m., 20 in., or 30 in.					
Row Spacing (HSLD)	30 in. (76 cm)					
Main Frame & Wing Tubing	4 in. x 6 in. double-rank (10 cm x 15 cm)					
Pull Frame	A-Frame 4 in. x 10 in. tubes (10.1 cm x 25.4 cm)					
Fold Type	Single fold		Double fold			
Transport Height	10 ft. 6 in. (3.2 m)	12 ft. 4 in. (3.7 m)	13 ft. 10 in. (4.2 m)	13 ft. 6 in. (4.1 m)		
Transport Width	16 ft. 10 in. (5.1 m)			18 ft. 6 in. (5.6 m)		
Main Transport Wheels (Shank)	Standard single – 12.5L x 15 FI (8-bolt); Optional single – 320/70R15 radial (8-bolt); Optional walking tandem – 11L x 15 FI (6-bolt); Optional walking tandem – 280/70R15 (6-bolt)			Standard single – 340/60R16.5 (8-bolt); Optional walking tandem – 12.5L x 15FI (8-bolt); Optional walking tandem – 320/70R15 radial (8-bolt)	Standard walking tandem – 12.5L x 15FI (8-bolt); Optional walking tandem – 320/70R15 radial (8-bolt)	
Wing Wheels (Shank)	Standard Single – 9.5L x 15 FI (6-bolt); Optional single – 320/70R15 radial (8-bolt); Optional walking tandem – 9.5L x 15 FI (6-bolt); Optional walking tandem – 280/70R15 (6-bolt)			Standard single – 280/70R15 radial (6-bolt); Optional walking tandem – 9.5L x 15 FI (6-bolt); Optional walking tandem – 280/70R15 radial (6-bolt)	Standard walking tandem – 9.5L x 15 FI (6-bolt); Optional walking tandem – 280/70R15 radial (6-bolt)	
Main Transport Wheels (HSLD)	Standard single 320/70R15 radial (8-bolt); Optional walking tandem 280/70R15 radial (6-bolt)			Standard Walking Tandem 320/70R15 Radial (6-bolt)		
Wing Wheels (HSLD)	Standard single 280/70R15 radial (6-bolt); Optional walking tandem 280/70R15 radial (6-bolt)			Standard Walking Tandem 280/70R15 Radial (6-bolt)		
Outer Gauge Wheel	None				Pin Adjust Qty. 2 – 9.5L x 15 stubble-resistant FI tires	
Hitch	Category 3 clevis		Category 3 clevis (opt. cat. 4)	Category 4 clevis (opt. cat. 5)		
Wing Flex	3 Section Flex (7° Down & 16° Up)					
Engine HP Requirement (Shank)	165 – 220 HP	195 – 260 HP	225 – 300 HP	255 – 340 HP	285 – 380 HP	
Engine HP Requirement (HSLD)	220 – 275 HP	260 – 325 HP	300 – 375 HP	340 – 425 HP	380 – 475 HP	
Operating Speed (Shank)	5 – 7 mph (8.0 – 11.3 kph)					
Operating Speed (HSLD)	6 – 11 mph (9.7 – 17.7 kph)					
Depth Adjustment	Single-point hydraulic					
Wheel Pivotal Lubrication	Composite self-lubricating bushing					
Hinge Lubrication	Composite self-lubricating bushing					
Shank Options	Rigid Mtd.; HD Spring Mtd.; Rigid CS. HD Spring CS. or High Clearance Shank (HCS)					
Coultter Options (Shank)	20 in. (51 cm) coultters, 24 in. (61 cm) coultters					
Sealer Options (Shank)	14 in. (36 cm) spring double disk, 18 in. (46 cm) spring double disk-notched, 18 in. (46 cm) spring double disk-dull					
Rear Hitch	Optional constant level rear hitch 25,000 lb. (11 340 kg) towing capacity					
HSLD Row Unit	22.6-inch (57.4 cm) coultter; 4-degree blade angle; Cast-iron knife with carbide inserts; Walking tandem closing system with SharkTooth blade and press wheel					
Weight (Shank)	10,200 lb. (4 627 kg)	11,200 lb. (5 080 kg)	14,200 lb. (6 441 kg)	15,200 lb. (6 895 kg)	16,600 lb. (7 530 kg)	
Weight (HSLD)	10,500 lb. (4 763 kg)	12,500 lb. (5 670 kg)	14,500 lb. (6 577 kg)	15,500 lb. (7 031 kg)	17,000 lb. (7 711 kg)	

Case IH Nutri-Placer 940 Pull-Type Applicator



NUTRI-PLACER 940 PULL-TYPE FERTILIZER

The Nutri-Placer 940 allows you to take control of your nitrogen application. These tough, durable applicators offer commercial quality 6-by-6-inch frames available in five widths ranging from 50 to 65 feet. Single-point depth control and a constant level rear hitch provide safe, reliable hook-up. You also get to choose from a variety of agronomically designed coulters or shank and sealer options to deliver uniform depth and sealing.

NUTRI-PLACER	940 SERIES		
MODEL	50 FT. (15.2 M)	60 FT. (18.3 M)	65 FT. (19.8 M)
Frame Style	Pull-type		
Row Spacing (Shank)	15 in. (938 cm) or 30 in. (76 cm)		
Row Spacing (HSLD)	30 in. (76 cm)		
Main Frame & Wing Tubing	6 in. x 6 in. triple-rank (15 cm x 15 cm)		
Pull Frame	T-Bone 6 in. x 10 in. tubes (15.24 cm x 25.4 cm)		
Fold Type	5 Section fold, 3 section flex	7 Section fold, 5 section flex	7 Section fold, 5 section flex
Transport Height	13 ft. 9 in. (4.2 m)		
Transport Width	18 ft. 9 in. (5.7 m)		
Main Transport Wheels (Shank)	Standard walking tandem – 16.1L x 16.1FI (8-bolt); Optional walking tandem – 440/55R18 radial (8-bolt)		
Wing Wheels (Shank)	Standard walking tandem – 12.5L x 15FI (6-bolt); Optional walking tandem – 320/70R15 radial (6-bolt)		
Main Transport Wheels (HSLD)	Standard walking tandem – 440/55R18 radial (8-bolt)		
Wing Wheels (HSLD)	Standard walking tandem – 320/70R15 radial (6-bolt)		
Wing Gauge Wheel (Shank)	None		Pin adjust
Wing Gauge Wheel (HSLD)	None	Pin adjust 20.5–8 load range D (inner & outer wings)	
Hitch	Category IV/V		Category IV/V
Wing Flex	5 Section flex (inner wings – 20 degrees up & 9 degrees down; outer wings – 7 degrees up and down)		
Engine HP Requirement (Shank)	300–460 HP	360–550 HP	390–598 HP
Engine HP Requirement (HSLD)	315–500 HP	375–600 HP	405–650 HP
Operating Speed (Shank)	5–8 mph (8.0–12.9 kph)		
Operating Speed (HSLD)	6–11 mph (9.7–17.7 kph)		
Depth Adjustment	Single-point hydraulic		
Wheel Pivot Lubrication	Composite self-lubricating bushing		
Hinge Lubrication	Composite self-lubricating bushing		
Coulters Options	24 in. (61 cm) coulters		
Shank Options	HD Spring Mounted or High Clearance Shank (HCS)		
HSLD Row Unit	22.6-mch (57.4 cm) coulters; 4-degree blade angle; Cast-iron knife with carbide inserts; Walking tandem closing system with SharkTong blade and press wheel		
Sealer Options	18 in. (46 cm) Spring double disk-notched, 18 in. (46 cm) Spring double disk-dull		
Weight (Shank)	21,150 lb. (9,752 kg)	22,500 lb. (10,206 kg)	23,000 lb. (10,433 kg)
Weight (HSLD)	23,600 lb. (10,705 kg)	26,800 lb. (12,156 kg)	28,000 lb. (12,700 kg)
Rear Hitch	Optional constant level rear hitch 25,000 lb. (11,340 kg) towing capacity		

Case IH HSLD Pull-Type Applicator

CASE IH
AGRICULTURE

NUTRI-PLACER

HIGH-SPEED LOW DISTURBANCE (HSLD) COULTER

SPECIFICATIONS



WHERE PRODUCTIVITY MEETS PERFORMANCE.

- The Nutri-Placer HSLD places nutrients up to 6 inches deep in the root zone—when and where crops need it most
- New 22.6-inch single coulters cut through residue with minimal soil disturbance for improved nutrient retention
- Industry's highest speed capability provides increased acres per hour, lower tractor hours and reduced fuel consumption
- Cast-iron components and reduced maintenance keep you in the field.

CREATE THE PERFECT FIELD FINISH.

- Cuts through heavy residue without plugging — even at high speeds and in tough, fast-changing conditions
- In Case IH field testing, the Nutri-Placer HSLD provided better residue cover, significantly fewer clods and reduced lateral soil movement compared with competitive coulters-style applicators
- Uniform surface finish preserves valuable ground cover in highly erodible land and heavy, no-till corn conditions
- Improves soil and moisture retention to reduce run-off and maximize crop uptake

LOW SOIL DISTURBANCE.

- Preserves valuable ground cover in highly erodible land and heavy, no-till corn conditions
- Provides the opportunity for fall, preplant or earlier side-dress applications
- In Case IH field tests, preserved greater amounts of residue, reduced lateral soil movement and produced smaller berms compared with the leading coulters-style applicator competition
- Superior field finish increases nutrient uptake, minimizes runoff and delivers higher returns

Available in:

11 | 13 | 15 | 17 | 19 | 20 | 24 | 26

row pull-type applicators.

Case IH Pull-Type Applicator



MAXIMUM PRODUCTIVITY, MINIMAL SOIL DISTURBANCE.

Capable of speeds up to 11 mph, the Nutri-Placer 930 fertilizer applicator with new High-speed Low Disturbance (HSLD) coulters helps you cover acres fast and efficiently. And this increased productivity is matched with superior agronomic performance. In field testing, the HSLD coulters provided better residue cover and a more level surface finish than other coulters-style applicators available — properly sealing nutrients to lock in each crop's profit potential.



SINGLE-DISK COULTER DESIGN

- Places nitrogen in the root zone — up to 6 inches deep — when and where crops need it the most
- Cuts through heavy crop residue without plugging — even at high speeds

HIGH SPEED, GREATER PRODUCTIVITY

- Increases your acres per hour and return on investment:
 - Case IH recommended max. speed — 11 mph: 15-coulter opener HSLD covers 42.5 acres per hour

LOW SOIL DISTURBANCE

- Preserves valuable ground cover in highly erodible land and heavy, no-till corn conditions
- Provides the opportunity for fall, preplant and earlier side-dress applications
- In Case IH field tests, preserved greater amounts of residue, reduced lateral soil movement and produced smaller berms compared with the leading coulters-style applicator competition
- Superior field finish increases nutrient uptake, minimizes runoff and delivers higher returns

RIGHT PLACE, RIGHT TIME

- Proud partner of the 4R Nutrient Stewardship initiative
- Promotes best management practices to achieve cropping system goals while minimizing field-nutrient loss and maximizing crop uptake
- The Nutri-Placer 930 HSLD embodies the 4R approach to nutrient stewardship by:
 - Applying the right fertilizer source

BUILT FOR HIGH-EFFICIENCY FARMING.

The Nutri-Placer 930 HSLD row unit features the durability, productivity and agronomic performance you can depend on to make the most of every acre, every application.



HSLD COULTER

A 22.6-inch, single-disk coulters cuts through residue with minimal soil disturbance up to 11 mph. The 4-degree blade angle opens a precise slot for accurate nutrient placement while right and left coulters positioning delivers accuracy down to each individual row.

KNIFE

The cast-iron, spring-loaded knife features carbide inserts for wear and protection of fertilizer tubes. A separately replaceable, extra-long Beaver Tail design with tungsten carbide weld aids in sealing.

WIPER WHEEL

While the coulters opens a slot, the wiper wheel holds soil in place. The open design of the wheel eliminates soil and residue between the scraper and coulters blade.

CLOSING SYSTEM

The SharkTooth™ blade and walking tandem press wheel firm the soil as the implement rolls through the field. This system works on a pivot to closely follow the ground contour, minimizing closing disturbance. No-tools-required spring down pressure and pivot range adjustments make changes quick and easy.



ADDITIONAL FEATURES

- 1 Radial tires: handle higher loads and float over rough terrain with reduced compaction
- 2 LED lighting: provides bright, reliable and safe transport
- 3 Weight kits: available to help customize the toolbar to your individual field conditions (optional)

Case IH Pull-Type Applicator



NUTRI-TILLER 955 & 5310

STRIP-TILL APPLICATORS



CONFIGURATION	8-ROW	12-ROW	16-ROW	24-ROW
SPECIFICATIONS				
Frame Style	Pull-type			
Working Width (30 in. (76 cm) centers)	20 ft. (6.1 m)	30 ft. (9.1 m)	40 ft. (12.2 m)	60 ft. (18.3 m)
Main Frame and Wing Tubing	4 in. x 6 in. (102 mm x 152 mm) double-rank			6 in. x 6 in. (152 mm x 152 mm) triple-rank
Pull Frame	A-frame 4 in. x 10 in. (102 mm x 254 mm) tubes			"T-Bone" pull hitch, 6 in. x 10 in. x 1/2 in. (152 mm x 254 mm x 13 mm) wall
Fold Type	Single fold		Double fold	Triple fold (fold forward outer wings)
Transport Height	8 ft. 6 in. (2.6 m)	13 ft. 6 in. (4.1 m)		13 ft. 9 in. (4.2 m)
Transport Width	18 ft. 6 in. (5.6 m)	19 ft. 8 in. (6 m)	19 ft. 8 in. (6 m)	18 ft. 9 in. (5.7 m)
Standard Tire Size	Main frame - walking tandem 12.5 L x 15 L IF tires (8-bolt hubs)	Main frame - walking tandem 12.5 L x 15 L IF tires (8-bolt hubs) Wing frame - walking tandem 9.5 L x 15 L IF tires (6-bolt hubs)		Main frame - walking tandem 16.5 L x 16.1 L IF tires (8-bolt hubs) wing frame - walking tandem 12.5 L x 15 L IF tires (6-bolt hubs)
Stubble-Resistant Tires	Main frame - walking tandem IF320/70R15	Main frame - walking tandem IF320/70R15 (8-bolt hubs) Wing Frame - walking tandem IF280/70R15 (6-bolt hubs)		Main frame - walking tandem 440/55R18 (8-bolt hubs) Wing Frame - walking tandem IF320/70R15 (6-bolt hubs)
Hitch	Category 3 clevis	Category 4 clevis		Category 5 clevis
Wing Flex	Rigid	3-section flex (7° down and 16° up)		5-section flex (inner - 9° down 20° up; outer - 7° down, 7° up)
Operating Speed	5 - 7 mph (8 - 11.3 kph)			
HP Requirement	150 - 200 engine HP	225 - 300 engine HP	300 - 400 engine HP	450 - 620 engine HP
Shanks	HCS ST spring reset [adjustable 850 lbs. (386 kg) or 1,250 lbs. (567 kg)]	HCS ST spring reset [adjustable 850 lbs. (386 kg) or 1,250 lbs. (567 kg)]		HCS ST spring reset [adjustable 850 lbs. (386 kg) or 1,250 lbs. (567 kg)]
Depth Adjustment	Single-point hydraulic			
Hinge Lubrication	Composite self-lubricating bushing			
Rear Hitch	Optional constant level rear hitch 25,000 lbs. (11 340 kg) towing capacity			
Options	24 in. (610 mm) coulters			
	HCS ST mount row cleaners with adjustable down pressure			
	18 in. (457 mm) berm builders for HCS ST shank			
	N/A	Dry fertilizer air packages		N/A
	Rear NH3 mounting bracket kit			
Concave or flat 14 in. (356 mm) berm conditioner baskets				

Case IH Pull-Type Applicator



NUTRI-PLACER 920 PULL-TYPE LIQUID FERTILIZER APPLICATOR

Features

- 23 or 25 rows for big productivity and to match 24-row planters
- Outer wings can be folded to 15 coulters to match 16-row planters
- High Capacity Jack Stand w/ 10" x 10" footprint
- Narrow Hitch for tight turning radius
- X-Wing Frame Fold for narrow transport width and low transport height
- Forward mounted applicator frame for easy viewing of applicator
- 5 section boom application capable
- Applicator frame mounted to parallel arms for level lifting and lowering for better fertilizer placement
- 5 section flex with active down pressure for better fertilizer placement
- Greaseless poly bushings in wing pivots for low maintenance
- Frame strength and smooth gusseting for stress relief and long toolbar life
- 3" Tank Fill easy to reach and away from any electronics
- 1650 gallon tank for more time in the field and less time filling
- Low center of gravity tank for more stability
- Front and Rear tank level sight gauge
- Wash tank conveniently mounted near product fill area.
- Hydraulic drive pump for better rate control and easier rate adjustment
- Mount provided for section and rate control valves
- High Capacity 420/80R46 tires for larger footprint and less compaction



NUTRI-PLACER 920 PULL-TYPE APPLICATOR	60 FT. (18.3 M)
Frame Style	Pull-Type
Row Spacing	30 in. (76 cm)
Number of Coulters	23 or 25
Tank Capacity	1,650 gal. (6,246 L) poly tank
Fold Type	Hydraulic X-Fold
Transport Height	13 ft. 4 in. (4.1 m)
Transport Width	16 ft. 8 in. (5.1 m)
Wing Flex	5 section (inner wing - 7 degrees up/7 degrees down; outer wings - 7 degrees up/7 degrees down)
Tire Size	Singles Qty. 2 - 420/80R46 w/ 10-bolt hub)
Wheel Spacing	120 in. (3 m)
Gauge Wheels	Qty. 4 - 20.5 x 8 pin adjust
Hitch	Category 4 clevis
Pull-Frame Tubing	Double 4 in. x 8 in.
Coulters Frame Tubing	Dual rank mainframe 4 in. x 7 in. tubing - center 19 rows; Single 4 in. x 6 in. tube - remaining rows
Crop Clearance to Tank Frame	33 in.
Crop Clearance to Toolbar Frame	24 in.
Row Unit	Coulters w/ Injectors or Knives
Wash Tank Capacity	7 gal.
Weight Empty	16,390 lbs.
Tongue Weight	6,310 lbs.
Minimum Hp Requirement	240 Engine hp
Options	Hydraulic driven pump



Case IH NPX2800

The NPX2800 allows you to apply the right amount of fertilizer at the right time and at the right soil location to maximize fertilizer utilization and yields.

The NPX2800 can accommodate 30, 36, 38 and 40 in. row spacings. An adjustable axle allows for 62, 72, 76 and 80 in. spacings or an optional fixed axle can be chosen for 120 in. spacing. The optional ground drive includes a 7.0 – 14 Dyna-Trak bar lug tire for improved traction, spring cushioning to protect the pump, a stainless-steel drive chain and an optional one- or two-piston John Blue pump.

For better visibility, the coulter bar and ground drive system are mounted in front of the tank. The parallel linkage system raises and lowers the coulter bar while the tank remains stationary. The coulter assembly stays perpendicular when the bar is raised; no individual coulter depth adjustment is needed. The tank is mounted lengthwise for improved visibility during transport.

The NPX2800 is designed to maintain constant tongue weight whether the tank is loaded or empty, and the pressure gauge is easily visible from the tractor seat. Choose a tank capacity of either 500, 850 or 1,000 gallons to best fit your operation.

The NPX2800 1300 gallon unit sidedresses liquid fertilizer faster with a wider application width and a larger volume capacity. This unit features three working widths and can accommodate a wide variety of row spacings. The coulter bar and ground drive are mounted in front of the tank for excellent visibility, and the active hydraulic system maintains down force to keep coulters at the desired operating depth across the full width of the applicator – a key advantage over other competitive models.

The parallel linkage system raises and lowers the coulter bar while the tank remains stationary, and the wings raise slightly when making end-row turns for additional clearance.

The unit converts from 15 coulters for 16, 30 in. rows to 11 coulters for 12, 30 in. rows (and the 14 in. of space to the bottom of the coulter allows for greater crop clearance). The NPX2800 1300 gallon unit is designed to maintain constant and consistent tongue weight whether the tank is loaded or empty, and the pressure gauge is easily visible from the tractor seat.

The 4 x 8 in. frame and hitch tubing combined with two ranks of 4 x 6 in. tubing with diagonal bracing add strength and durability to the toolbar.

In addition, pin adjust gauge wheels allow for quick and easy wing depth adjustment to match the center section operating depth. Large 420/80 R46 tires provide extra flotation, and the low (101 in.) and narrow (85 in.) tank provides for an optimal center of gravity and better rearward visibility for the operator. The solid formed steel sheet the tank rests on also distributes stress loads more evenly.



The NPX2800 provides the most advanced root zone banding technology available in the market.

Case IH NPX2800



The NPX2800 1,300-gallon unit follows ground contours up to 6° down and 30° up, providing for extra clearance on turns and flexibility when operating in the field. The Active Hydraulic System™ provides 1000 lbs. of hydraulic pressure on the wing-fold cylinders to force coulters into the soil, and the pressure reducing/relieving valve maintains down pressure while allowing the wings to follow the contours.



- Sidedress up to 16 30" rows.
- Capable of accommodating multiple row spacings.
- 500, 850, 1,000, or 1,300-gallon tanks.
- Liquid coulters assemblies available with either knife or injector.
- Flashing and warning tail lamps standard.
- Folds for easy transport.
- Constant tongue weight, whether loaded or unloaded for better stability.
- Front hose stand keeps hoses and wires away from tractor hitch.
- All models accommodate 30", 36", 38" and 40" row spacing.
- Parallel linkage system raises and lowers the coulters while the tank remains stationary.

Nutri-Placer 2800 Sidedress Applicator Specifications

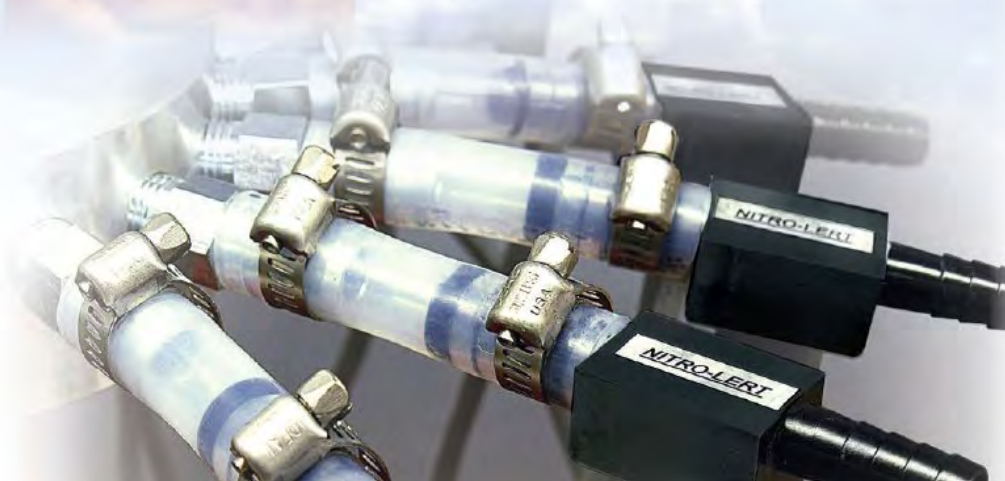
MODELS	500 or 850 GALLON	1,300 GALLON
Tank capacity	500 or 850 gallons (1893 or 3218 L)	1,300 gallons (4921 L)
Coulters	7, 9, or 11 at 30 in. (76 cm) spacing	11, 13, or 15 at 30 in. (76 cm) spacing
Working widths	17 ft. 6 in. – 27 ft. 6 in. (5.3 – 8.4 m)	27 ft. 6 in. – 37 ft. 6 in. (8.4 – 11.4 m)
Transport dimensions	12 ft. 4 in. (3.8 m) width x 9 ft. 8 in. (3.0 m) height – max.	12 ft. 6 in. (3.8 m) width x 13 ft. (4.0 m) height
Tire size	8-bolt hub with 14Lx16.1 12PR	10-bolt hub with 420/80R46
Wheel spacing	Adjustable: 62, 72, 76, and 80 in. (157, 183, 193, and 203 cm) Fixed: 120 in. (305 cm)	Adjustable: 120, 144, and 156 in. (305, 366, and 396 cm)
Gauge wheels	NA	Pin adjust
Frame tubing	4 x 4 in. (10 x 10 cm)	4 x 8 in. (10 x 20 cm) frame & hitch; 4 x 6 in. (10 x 15 cm) toolbar
Constant-balance tongue weight	< 1,000 lb. (454 kg) with 7 coulters, < 1,200 lb. (544 kg) with 11 coulters	< 2,500 lb. (1134 kg) with 15 coulters
Clevis	Combination single or double	Combination single or double
Ground drive	Dyna-Trak tire; stainless-steel drive chain; John Blue 1- or 2-piston pump	Dyna-Trak tire; stainless-steel drive chain; John Blue 2-piston pump
Flashing & warning tail lamps	Standard	Standard
Wash tank	NA	Standard
Wing-fold hydraulics	Standard	Standard
Active hydraulics	NA	Standard

Hiniker Nitro-Lert & Bull-Pull Hitch



NITRO-LERT™

ANHYDROUS AMMONIA KNIFE MONITOR



NITRO-LERT ALERTS THE OPERATOR:

- When a knife is plugged or partially blocked.
- When a manifold outlet is plugged or partially blocked.

INDEPENDENT FREE-STANDING SYSTEM

- In-cab bar graph display constantly monitors each manifold outlet.
- Audible alarm alerts operator of malfunction.
- User-friendly interface.

Call to order your Nitro-Lert today!



The vital union of your tractor and implement gets the attention it deserves.

- Eliminates backlash for precise control.
No more jarring implement slams means less wear and tear on your tractor and yourself.
- Heavy duty for heavy loads.
High-strength austempered ductile iron with heat-treated steel for superior wear, strength and durability.
- Easy installation.
A variety of implement mountings available for direct replacements of standard pintle hitches.
- Increase the life of drawbars.
Articulating joint reduces drawbar and drawpin wear.
- Superior construction means more pulls for your money.
The heat-treated grease-able ball joint works hard and lasts long.
- Precision hitch allows for more control.
Allows for more control, especially with GPS navigation.

Black Ace has developed a better implement receiver hitch!



Kestrel Weather Meters



FEATURES

- Data hold function
- Large easy-to-read display
- Waterproof and floats
- Quick-response, external thermometer
- Innovative design for stability and accuracy in abrupt condition changes
- Patented, user-replaceable impeller (no tools needed)
- Ultralight impeller is mounted in jewel bearings for precision, wide range of speeds and low startup speed
- Impeller is shock-mounted in a glass-reinforced plastic housing
- All instruments and accessories are completely assembled in the USA

The Kestrel 2000 also includes:

- A slip-on protective cover or soft carry pouch
- Neck lanyard
- Five Year Warranty
- User-replaceable CR2032 coin cell battery with average life of 300 hours or 2 AAA batteries with average life of 400 hours
- Kestrel Certificate of Conformity



Replacement Impellers available.



	1000	2000	3000	4000
Part No.	K0800	K0803	K0808	K0840
Price	\$85.71	\$110.00	\$171.43	\$291.43
Current Wind Speed	X	X	X	X
Maximum Wind Gust	X	X	X	X
Average Wind Speed	X	X	X	X
Current Air Flow				
Temperature		X	X	X
Wind Chill		X	X	X
Relative Humidity			X	X
Heat Stress Index			X	X
Dewpoint Temp			X	X
Barometric Pressure				X
Altitude				X
Wet Bulb Temp				X
Density Altitude				X
Backlit Display		X	X	X
Waterproof & Floats	X	X	X	X
Hard Cover	X	X	X	Optional
Clock				X
Computer Interface				Optional
Pressure Trend				X
Data Storage				X
Two Year Warranty	X	X	X	X

VSN™ VISUAL GUIDANCE

The latest technology advancement from Raven, VSN™ transforms machine guidance through emerged crops. This patent-pending innovation utilizes a non-contact stereo vision camera to navigate crop rows, allowing the operator to focus on all other aspects of effective application control. Minimizing crop damage, covering more acres in a day and essentially providing an easier machine operation leads to a quick return on investment to maximize yield profitability.

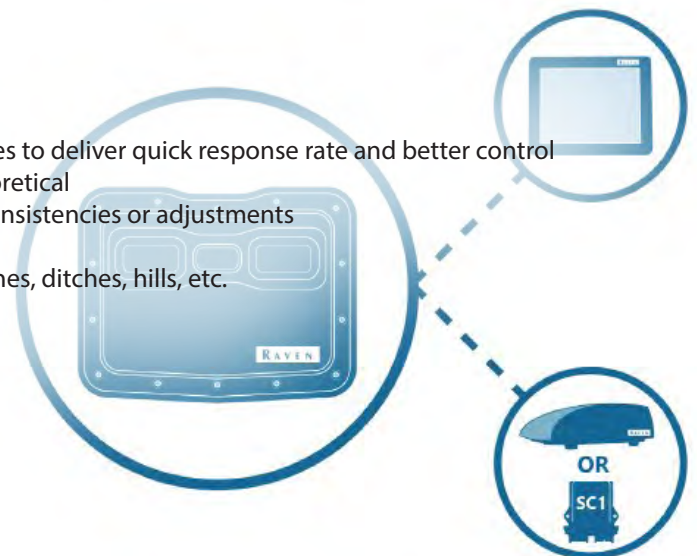
How VSN Enhances Your Operation

- Reduces operator fatigue
- Enhanced steering control and simple operation results in minimal crop damage and more acres covered in each day
- Operates at high speeds, exceeding 20 mph
- Operates in challenging terrains, with demonstrated success in areas exceeding eight degrees of slope
- Maintains row guidance in crops from less than four inches to nearly full canopy
- Quick, one-time calibration with up to five saved profiles for easy crop transitions
- Proven in corn, soybeans



Features & Benefits

- Enhanced machine control for sprayer efficacy
- Reduces operator fatigue and crop damage
- Uses state-of-the-art image sensor and processing technologies to deliver quick response rate and better control
- Tracks machine paths accurately to the actual planting vs. theoretical
- Allows machine ability to automatically adjust to planting inconsistencies or adjustments
- Enables faster vehicle speed
- Works in areas of limited GPS/GNSS coverage — next to tree lines, ditches, hills, etc.
- Live video row overlays in CRX and ROS platforms
- In-field calibration
- ISO UT user interface, custom control widgets
- Slingshot® telematics and OTA software update support
- Pair with Viper® 4+ and RS1™ or SC1™ guidance



Raven Viper 4+



VIPER® 4+

Viper® 4+ integrates with Raven's full line of products into one networked platform that offers a capacitive touchscreen and an intuitive, tablet-style interface with swiping features and horizontal or vertical orientation. Customize your Viper 4+ by user and machine - it's color blind which means it works with equipment of every brand. Easy job set-up, fewer touches, and greater efficiency allow for extraordinary data management capabilities.

What's New:

- Faster boot-up time - approximately 30 seconds
- Capacitive touchscreen - versus a resistive screen
- Screen up to 3 times brighter with improved peripheral viewing
- Ignition switch start-up and boot-down
- Built-in-self-test capabilities to help identify software or hardware issues with the unit itself

RAVEN OPERATING SOFTWARE (ROS)

Raven Operating Software (ROS) gives operators the ability to customize screen layouts to fit your application and other user preferences. Grower, farm, and field file structures help ensure you get the data you need in an organized and meaningful manner. Machine and product profiles offer even further customizing, making the Viper 4+ the perfect match for each unique operation and user.

SLINGSHOT® READY

Powered by Raven Operating Software and a high-speed processor, Viper 4+ harnesses the power of Slingshot for outstanding data management functionality and the ability to wirelessly update your field computer software. You get powerful tools for gathering, tracking and reporting. Getting the data you need, organizing it and turning it into meaningful information is faster and easier. And Slingshot gives you access to live remote support from Raven's team of experts.



RAVEN

Raven CR7 & Slingshot

The latest innovation from Raven is the CR7 - a 7" lightweight, scalable field computer with a simplified widget concept. The CR7 contains ISO VT and Task Controller capabilities, making this mighty unit a plug-and-play option for building an affordable system. Pair the CR7 with a compatible GPS receiver and antenna to get all the benefits of Slingshot® file transfer and remote support, autosteer and guidance, AccuBoom™, Raven serial consoles, and sub-meter single frequency GPS and GLONASS.

Features & Benefits

- Simplified, customized widget layout
- Ability to access settings page from inside a job
- Map-based navigation
- Auto field boundaries keep you organized automatically
- Interactive field/job list and map view
- Slingshot-ready for file transfer, remote support, and OTA software updates
- Compatible w/ Raven AccuBoom, serial SCS consoles, & external lightbar support
- ISO Universal Terminal and Task Controller functionality via unlock
- Straight A-B, A plus heading, pivot, contour, and last pass guidance
- Compatible with autosteer products including SmarTrax and SmarTrax MD
- Sub-meter single frequency GPS and GLONASS (optional external)
- Scalable GPS (optional external)
- SLINGSHOT® READY

CR7



CR7 harnesses the power of Slingshot for outstanding data management functionality giving you powerful tools for gathering, tracking and reporting. Getting the data you need, organizing it and turning it into meaningful information is faster and easier. And Slingshot gives you access to live remote support from Raven's team of experts.

UTILIZE CR7 WITH THESE ENHANCEMENTS

SmarTrax™ MD | SmarTrax™ & SmarTrax™ RTK | AccuBoom™
Slingshot® file transfer and remote support | Raven ISO Product Control

RAVEN

The Slingshot platform is the backbone of our efficiency-enhancing portfolio. Combining our software capabilities and high-quality hardware allows us to create a Connected Workflow™ that syncs operations from the office to the field. And, that gives you the ability to see your business differently and find new ways to run it even better than before.

Ag retailers are finding 20% efficiencies gained when they use the Slingshot platform with Raven's solutions in the cab. The ability to connect the office to the field while monitoring the support equipment required to bring that system together is paying dividends. Everything across the operation runs more smoothly by using technology to increase effectiveness and reduce variability across day-to-day activities.

No longer do you have to wonder about the key variables impacting your performance such as work time, idle time and transit time. With Raven's integrated system, you can quickly analyze and address these figures and manage your fleet and business in real-time.





RAVEN RATE CONTROL MODULE (RCM)

The RCM uses Raven's innovative control algorithms to make it the most precise application controller on the market today. It fits a variety of applications—up to five product liquid and granular control, NH₃ (including AccuFlow™ HP+), air cart and generic applicators. Sixteen-section control eliminates expensive skips and overlaps for all phases of your operation, from spraying to NH₃, and fertilizer application to planting.

The RCM is incredibly user friendly. We've simplified the setup, introduced integrated help content, and added advanced diagnostic information to quickly identify issues and reduce costly downtime. Customized user interfaces give the operator the flexibility to see and control what fits their needs, and configurable machine profiles allow the RCM to easily move between machines and implements without re-setting machine configurations. The RCM is compatible with many ISOBUS virtual terminals on the market, including the Viper® 4 and Viper® 4+ and CR7 from Raven.

The Raven Rate Control Module is AEF Certified

- Designed to ensure compatibility between ISOBUS products from different manufacturers
- Proves that a specific product complies to ISO 11783 and the additional AEF Guidelines

Features & Benefits

- Liquid, NH₃ and dry applications
- Easily navigate and manage multiple products, tallies, and sensor data
- Diagnostic tests and reading to easily calibrate, tune, and troubleshoot system
- Diagnostic tri-color LED indicators reflecting power, system and connectivity status
- Compatible with ISOBUS Virtual Terminal and Task Controllers
- IP 67 environmental rating for the harshest of environmental conditions
- Integrated magnet mount option to easily attach and detach with any metal frame
- Dynamically configure run screen based on operator preferences to show most relevant data during operation
- Customizable user interface provides flexibility to control the specific product needs and/or move between machines and implements w/o re-setting machine configurations





Raven Hawkeye 2

HAWKEYE 2 NOZZLE CONTROL

The most precise nozzle control system, Hawkeye® 2 ensures accurate droplet coverage up to 2.5 times more accurate out of the tip than comparable systems. It provides consistency across the boom which ensures precise droplet coverage, optimizing input costs. And Raven's legacy of performance and support means less downtime and more acres covered in a day.

The next generation nozzle control valve (NCV) builds upon the previous system: individual nozzle control reduces skips and overlaps; consistent droplet rate and size reduces drift and increases application quality; and turn compensation minimizes over and under application, achieving the ideal application rate across the boom.

Features & Benefits

NEXT GENERATION NOZZLE CONTROL

- Over 17% increased flow per nozzle
- Support up to 192 nozzles or 192 virtual sections
- Over 70% reduction of power consumption per nozzle
- IP69k rating per NCV

OPTIMIZABLE OPERATING RANGE

- Increased operating pressure of 10 to 120 psi

ENHANCED DIAGNOSTICS

- Independent feedback loop to RCM
- Simplified LED light on NCV lets you know when there's an issue
- Blockage Detection per nozzle

EXCLUSIVE CABLING IMPROVES PERFORMANCE

- Increased durability, power reduction, diagnostic abilities
- Over-molded connection provides UV protection and strain relief

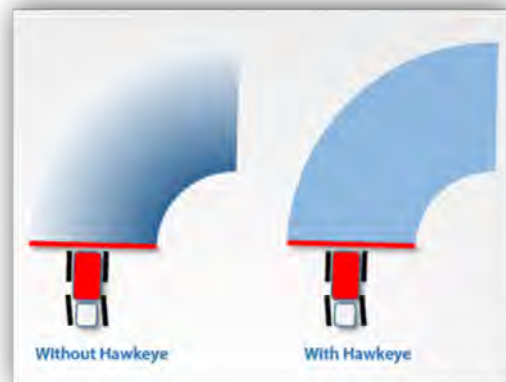
SCALABLE OFFERING GROWS WITH YOUR OPERATION

HAWKEYE 2 BASE

- PWM enabled with 16 virtual sections
- Turn Compensation
- Blockage Detection (go/no-go)

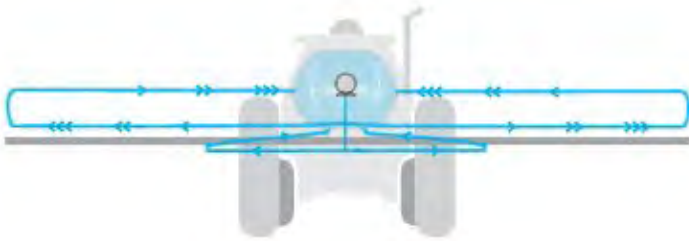
HAWKEYE 2 PREMIUM

- Individual Nozzle Control up to 192 virtual sections when paired with compatible VT





BOOM RECIRCULATION™ SYSTEM



Boom Recirculation

Boom Recirculation uses add-on hardware to aid in efficient clean out of the boom and plumbing system. By circulating liquid from the outside tip of the boom and back to the center section, product settling is reduced and waste is eliminated.

Boom Prime

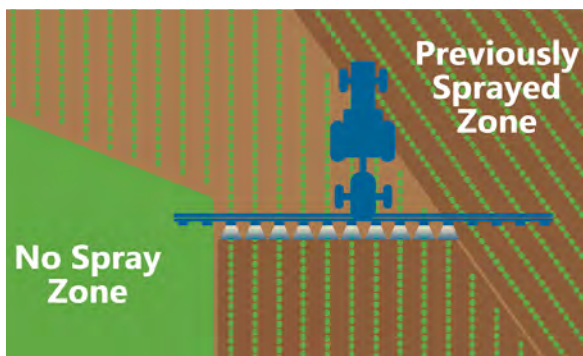
Boom Prime prepares each individual nozzle, beginning on the outside of the boom. Nozzles are opened in timed sections, each one purging remaining chemical before moving down to the next section on the boom until boom priming is complete.

ACCUBOOM™

Greater fuel and chemical savings, faster spraying times, ease-of-operation and more accurate spraying all add up quickly to improve your return on investment each and every season. Dollar for dollar, AccuBoom offers the fastest payback in precision ag equipment. AccuBoom automatic section control is your best protection against rising input costs.

Features & Benefits

- Automatic on-off control for up to 10 sections
- Eliminate costly skips and overlaps
- Adjustable look ahead function lets you adjust settings easily for the overlap you choose
- Speed compensation function accounts for how fast you are driving and ensures properly timed shut-off
- Opt. remote control to help check nozzles quickly



AUTOBOOM® XRT

Raven's latest advancement in boom control is AutoBoom XRT. Industry-leading radar sensor technology uses simultaneous ground and canopy detection to maintain optimal spray height for maximum product efficacy.

Pressure-based control allows for smooth movement and quicker reaction time while center rack stability technology with optional dampers gives the operator complete control, maximizing boom life.

Features & Benefits

- Full boom management solution maintains optimal spray height for maximum product efficacy
- Radar sensor technology
- Center rack stability technology with optional dampers
- Faster Sampling and Update Rates than standard ISO
- AutoBoom
- ISOBUS compatible

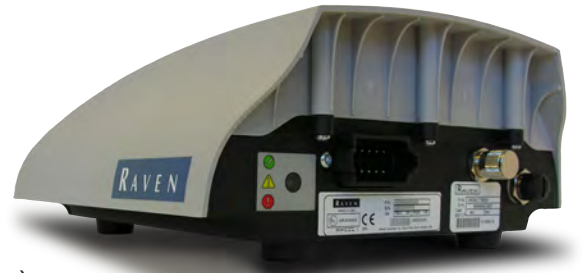


RS1™

Incredible accuracy at both high and low speeds with quick line acquire improves efficiency and gives you the power to cover more acres in a day. Best-in-class diagnostics gather machine performance data while you work, alerting Raven of issues and connecting you to support as you need it. The unit is designed with a simple set up and integrated help guides, enhanced further by Slingshot - providing remote support, file transfer, OTA software updates and fleet management and logistics.

Features & Benefits

- Enhanced Steering Performance in a wide range of terrain
- Enhanced 3D compensation for rugged terrain
- Wide Temperature Range for Inertial Sensors (-40 to 70 deg. C)
- Simplified Field Calibration Procedure
- Fully Scalable GPS Solution
- Enhanced Diagnostics and Health Tests
- Remote Service Support (OTA Updates, Remote Service, Telematics)
- Multiple Methods of System Connectivity (Cellular, WiFi, Ethernet)
- Serial GPS Output (NMEA 0183) or Radar Output
- Compatible with ISOBUS 11783 Curvature Messages for both ISO Steer Ready and Raven Aftermarket Steering Controllers



SC1™

Designed to provide cutting-edge, hands-free machine steering with incredible accuracy at both low and high speeds up to 29 mph. Coupled with a Raven field computer and GPS solution of your choice, SC1 is designed to provide cutting-edge, hands-free machine steering. Incredible accuracy at both low and high speeds up to 29 mph with quick line acquire improves efficiency and gives you the power to cover more acres in a day.

Features & Benefits

- Single product node footprint with temperature compensated inertials
- Similar functionality and user interface to RS1
- Installs in cab - out of site with direct interface for ISO valve
- Enhanced steering performance with incredible accuracy up to 29 mph
- Machine-specific tune sets
- Utilizes external GPS/GNSS with Raven 500S, 600S, or third party GPS
- Utilizes internal Viper4(+) GPS/GNSS
- Ability to upgrade to Slingshot with additional hardware or GPS/GNSS solution
- Compatible with ISOBUS 11783 Curvature Messages for both ISO Steer-Ready and Raven aftermarket steering controllers
- Ability to configure third-party radio on field computer; tested and supported solutions include 450/900 Mhz AG715 radios; additional radio configurations may be compatible but require additional validation



RAVEN DIRECSTEER™

DirecSteer is Raven's most intuitive retrofit autosteer solution for tractors and self-propelled farm machines. Its electric drive packs high torque and silent operation into a cost-competitive, easy-to-install unit for all equipment brands. DirecSteer is a smart motor-based solution with built-in intelligence. Electrical current and torque are measured and controlled internally.

Features & Benefits

- High-torque electric-drive motor
- Easy to install and transfer between machines
- Silent operation
- Scalable from sub-meter to sub-inch precision
- Consistent in all field conditions
- Allows for manual steering
- Compatible with all major equipment brands
- Affordable solution that drives you forward on your Path to Autonomy



SIDEKICK PRO™ DIRECT INJECTION

The Sidekick Pro™ direct injection system sets a new standard for chemical applications of every type, with unprecedented precision, savings, and safety. No tank mixing required and with the industry's first automatic calibration feature, you're ready to go in minutes. Utilize Rinse Assist to automatically flush the pump quickly and thoroughly. The whole system is amazingly simple and pays off with greater precision, higher yields and unrivaled efficiency.

Sidekick Pro Features & Benefits:

- High resolution encoder that provides smoother pump control and exceptional lock on target rate technology
- Remote closed-system calibration, eliminating the need for calibration catch tests and exposure to chemicals
- Compatibility with additives that reduce maintenance on your application system
- Automatic priming feature and real-time diagnostics
- Raven CAN/ISO/ICD compatible pumps
- Pump options
 - Low volume pump with capacity of 1-40 ounces per minute
 - High volume pump with capacity of 5-200 ounces per minute

RINSE ASSIST FOR DIRECT INJECTION

Automatic rinse system that can clean the chemical out with the push of a button



700S™ RECEIVER

The 700S is a fully scalable GNSS smart antenna that comes standard with GLONASS and Autonomous dual-frequency GL1DE™. Receive the full benefits of 700S through a simple upgrade into GS and RTK corrections to enhance the performance of your entire precision suite of technology. Upgrading to Satellite GS corrections will enhance the performance of your steering system, as well as variable rate applications, planter and seeder controls, AccuBoom™ section control and Hawkeye® nozzle control.



Need Assistance?

If you need technical support for your Raven Control systems, give our team a call.

With over 50 years of precision ag experience, our team has the knowledge and capability to handle our Raven troubleshooting calls.

800-747-8300

SCS CONTROL CONSOLES

Raven spray control systems (SCS) have been setting the standard for outstanding performance and everyday reliability and operation for more than three decades. That same measure of excellence continues today in our full line of SCS consoles, specially designed to match your application needs reliably and economically.

Whether you start small or are looking for a spray console with more performance capability, you're sure to find it in our product guide below. And when you're ready for the next step, Raven has a multi-function field computer with your name on it and a simple way to help you make the transition with our handy Switch Pro control console.

Standard SCS Console Features

- Simple operation
- Low-limit function
- Digital boom pressure read-out
- Supports a variety of Flow Meters and Control Valves
- Audible alarms
- Self-test function
- Rate bump features



Raven
invented speed
compensated
rate control in
1978.

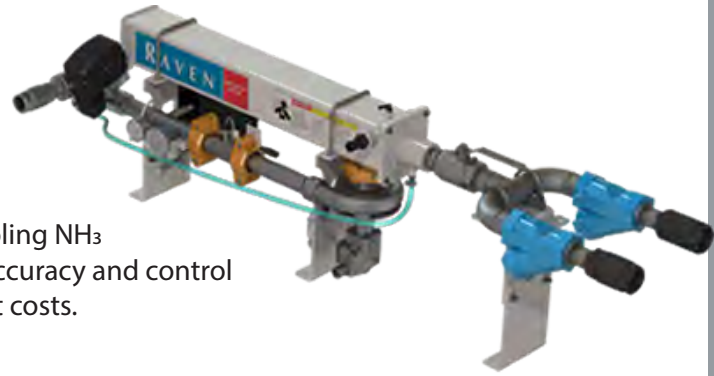
Raven Accu-Flow NH₃ Control Systems

Raven has raised NH₃ application technology to new levels of performance with the AccuFlow Vortex cooler and AccuFlow HP (high performance) Plus. Both models use super cooling technology to stabilize NH₃ as a liquid for superior accuracy and control.

Paired with your Raven control system, AccuFlow Vortex super cooling NH₃ technology replaces the dual cooler system to give you superior accuracy and control over your applications for higher yields, less waste and lower input costs.

Features & Benefits

- Reduced from 50+ fittings in older dual cooler system to less than 30 fittings for the Vortex cooler
- Gruv-lock couplings
 - Easier maintenance of the Flow Meter
 - Less than 10 min to remove and re-install flow meter
 - Only a single socket 7/8" wrench required
- Safety bleed down circuit
 - Positioned at the front of the toolbar and empties into the vapor lines
 - Additional needle valve for bleed down at the flow meter
 - Operator is removed from the point of exhaust
- Faster bleed down - 30 minutes or less for full bleed down
 - Refrigerant Line Y-Strainer
 - 1/2" strainer placed in the refrigerant or coolant line designed to catch debris before it can reach the orifice of the cooler



The High Performance Difference

AccuFlow Vortex 1"	30 GPM*
AccuFlow Vortex 1 1/2"	50 GPM*
AccuFlow HP Plus w/ Vortex	80 GPM*

* Systems were tested at 40° F and 60 tank PSI.



Stainless-Steel Fittings



90 Elbow

Part No.	Size
STSEL018-90	1/8"
STSEL025-90	1/4"
STSEL038-90	3/8"
STSEL050-90	1/2"
STSEL075-90	3/4"
STSEL100-90	1"
STSEL125-90	1 1/4"
STSEL150-90	1 1/2"
STSEL200-90	2"
STSEL300-90	3"
STSEL400-90	4"



45 Elbow

Part No.	Size
STSEL018-45	1/8"
STSEL025-45	1/4"
STSEL038-45	3/8"
STSEL050-45	1/2"
STSEL075-45	3/4"
STSEL100-45	1"
STSEL125-45	1 1/4"
STSEL150-45	1 1/2"
STSEL200-45	2"
STSEL300-45	3"
STSEL400-45	4"



Tee

Part No.	Size
STSTEE018	1/8"
STSTEE025	1/4"
STSTEE038	3/8"
STSTEE050	1/2"
STSTEE075	3/4"
STSTEE100	1"
STSTEE125	1 1/4"
STSTEE150	1 1/2"
STSTEE200	2"
STSTEE300	3"
STSTEE400	4"



Coupling

Part No.	Size
STSCPLG018	1/8"
STSCPLG025	1/4"
STSCPLG038	3/8"
STSCPLG050	1/2"
STSCPLG075	3/4"
STSCPLG100	1"
STSCPLG125	1 1/4"
STSCPLG150	1 1/2"
STSCPLG200	2"
STSCPLG300	3"
STSCPLG400	4"



Male/Female Reducer Bushing (Hex)

Part No.	Size
STSRB025-018	1/4" x 1/8"
STSRB038-025	3/8" x 1/4"
STSRB050-025	1/2" x 1/4"
STSRB050-038	1/2" x 3/8"
STSRB075-025	3/4" x 1/4"
STSRB075-050	3/4" x 1/2"
STSRB100-050	1" x 1/2"
STSRB100-075	1" x 3/4"
STSRB125-100	1 1/4" x 1"
STSRB150-075	1 1/2" x 3/4"
STSRB150-100	1 1/2" x 1"
STSRB150-125	1 1/2" x 1 1/4"
STSRB200-150	2" x 1 1/2"
STSRB300-200	3" x 2"
STSRB400-300	4" x 3"



Reducer Bell

Part No.	Size
STSRC025-018	1/4" x 1/8"
STSRC038-018	3/8" x 1/8"
STSRC038-025	3/8" x 1/4"
STSRC050-025	1/2" x 1/4"
STSRC050-038	1/2" x 3/8"
STSRC075-038	3/4" x 3/8"
STSRC075-050	3/4" x 1/2"
STSRC100-050	1" x 1/2"
STSRC100-075	1" x 3/4"
STSRC125-075	1 1/4" x 3/4"
STSRC150-100	1 1/2" x 1"
STSRC200-100	2" x 1"



Cap

Part No.	Size
STSCAP018	1/8"
STSCAP025	1/4"
STSCAP038	3/8"
STSCAP050	1/2"
STSCAP075	3/4"
STSCAP100	1"
STSCAP125	1 1/4"
STSCAP150	1 1/2"
STSCAP200	2"
STSCAP300	3"
STSCAP400	4"



Square Plug

Part No.	Size
STSPUG018	1/8"
STSPUG025	1/4"
STSPUG038	3/8"
STSPUG050	1/2"
STSPUG075	3/4"
STSPUG100	1"
STSPUG125	1 1/4"
STSPUG150	1 1/2"
STSPUG200	2"
STSPUG300	3"
STSPUG400	4"



90 Street Elbow

Part No.	Size
STSSL018-90	1/8"
STSSL025-90	1/4"
STSSL038-90	3/8"
STSSL050-90	1/2"
STSSL075-90	3/4"
STSSL100-90	1"
STSSL125-90	1 1/4"
STSSL150-90	1 1/2"
STSSL200-90	2"
STSSL300-90	3"



Union

Part No.	Size
STSun018	1/8"
STSun025	1/4"
STSun038	3/8"
STSun050	1/2"
STSun075	3/4"
STSun100	1"
STSun125	1 1/4"
STSun150	1 1/2"
STSun200	2"



Cross

Part No.	Size
STSCR038	3/8"
STSCR050	1/2"
STSCR075	3/4"
STSCR100	1"
STSCR125	1 1/4"
STSCR150	1 1/2"
STSCR200	2"
STSCR300	3"

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Stainless-Steel Nipples & Hose Barbs



Part No.	N.P.T.	Length
STSNIP018-CN	1/8"	close
STSNIP018-2	1/8"	2"
STSNIP018-3	1/8"	3"
STSNIP018-4	1/8"	4"
STSNIP018-5	1/8"	5"
STSNIP018-6	1/8"	6"
STSNIP025-CN	1/4"	close
STSNIP025-2	1/4"	2"
STSNIP025-3	1/4"	3"
STSNIP025-4	1/4"	4"
STSNIP025-5	1/4"	5"
STSNIP025-6	1/4"	6"
STSNIP038-CN	3/8"	close
STSNIP038-2	3/8"	2"
STSNIP038-3	3/8"	3"
STSNIP038-4	3/8"	4"
STSNIP038-5	3/8"	5"
STSNIP038-6	3/8"	6"
STSNIP050-CN	1/2"	close
STSNIP050-2	1/2"	2"
STSNIP050-3	1/2"	3"
STSNIP050-4	1/2"	4"
STSNIP050-5	1/2"	5"
STSNIP050-6	1/2"	6"
STSNIP075-CN	3/4"	close
STSNIP075-2	3/4"	2"
STSNIP075-3	3/4"	3"
STSNIP075-4	3/4"	4"
STSNIP075-5	3/4"	5"
STSNIP075-6	3/4"	6"
STSNIP100-CN	1"	close
STSNIP100-2	1"	2"
STSNIP100-3	1"	3"
STSNIP100-4	1"	4"
STSNIP100-5	1"	5"
STSNIP100-6	1"	6"

STSNIP125-CN	1 1/4"	close
STSNIP125-2	1 1/4"	2"
STSNIP125-3	1 1/4"	3"
STSNIP125-4	1 1/4"	4"
STSNIP125-5	1 1/4"	5"
STSNIP125-6	1 1/4"	6"
STSNIP150-CN	1 1/2"	close
STSNIP150-3	1 1/2"	3"
STSNIP150-4	1 1/2"	4"
STSNIP150-5	1 1/2"	5"
STSNIP150-6	1 1/2"	6"
STSNIP200-CN	2"	close
STSNIP200-3	2"	3"
STSNIP200-4	2"	4"
STSNIP200-5	2"	5"
STSNIP200-6	2"	6"
STSNIP300-CN	3"	close
STSNIP300-4	3"	4"
STSNIP300-6	3"	6"
STSNIP400-CN	4"	close
STSNIP400-6	4"	6"

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316 STAINLESS-STEEL HOSE BARBS



FEATURES
316 S.S. precision castings.
Hex flats.

Stainless Steel Hose Barbs	
Part No.	Description
HB025SS	1/4" Male Thread x 1/4" Hose Shank
PPHB025/038SS	1/4" Male Thread x 3/8" Hose Shank
PPHB025/050SS	1/4" Male Thread x 1/2" Hose Shank
HB038SS	3/8" Male Thread x 3/8" Hose Shank
HB038-050SS	3/8" Male Thread x 1/2" Hose Shank
PPHB050SS	1/2" Male Thread x 1/2" Hose Shank
HB050-058SS	1/2" Male Thread x 5/8" Hose Shank
HB050-075SS	1/2" Male Thread x 3/4" Hose Shank
HB075-050SS	3/4" Male Thread x 1/2" Hose Shank
PPHB075SS	3/4" Male Thread x 3/4" Hose Shank
PPHB075/100SS	3/4" Male Thread x 1" Hose Shank
HB100-075SS	1" Male Thread x 3/4" Hose Shank
PPHB100SS	1" Male Thread x 1" Hose Shank
PPHB125SS	1 1/4" Male Thread x 1 1/4" Hose Shank
PPHB150SS	1 1/2" Male Thread x 1 1/2" Hose Shank
PPHB200SS	2" Male Thread x 2" Hose Shank
PPHB300SS	3" Male Thread x 3" Hose Shank

Pipe Fittings - Forged Steel for Anhydrous Ammonia



Cross	
Part No.	Size
XHCR050	1/2"
XHCR075	3/4"
XHCR100	1"
XHCR125	1 1/4"
XHCR150	1 1/2"
XHCR200	2"



Square Head Plug	
Part No.	Size
XHPLUG050	1/2"
XHPLUG075	3/4"
XHPLUG100	1"
XHPLUG125	1 1/4"
XHPLUG150	1 1/2"
XHPLUG200	2"
XHPLUG300	3"



45 Elbow	
Part No.	Size
XHEL050-45	1/2"
XHEL075-45	3/4"
XHEL100-45	1"
XHEL125-45	1 1/4"
XHEL150-45	1 1/2"
XHEL200-45	2"



Caps	
Part No.	Size
XHCAP018	1/8"
XHCAP025	1/4"
XHCAP038	3/8"
XHCAP050	1/2"
XHCAP075	3/4"
XHCAP100	1"
XHCAP125	1 1/4"
XHCAP150	1"
XHCAP200	2"
XHCAP300	3"

Pipe Fittings For
All Of Your Needs

Rectorseal &
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90 Elbow	
Part No.	Size
XHEL050-90	1/2"
XHEL075-90	3/4"
XHEL100-90	1"
XHEL125-90	1 1/4"
XHEL150-90	1 1/2"
XHEL200-90	2"
XHEL300-90	3"



Union	
Part No.	Size
XHUN050	1/2"
XHUN075	3/4"
XHUN100	1"
XHUN125	1 1/4"
XHUN150	1 1/2"
XHUN200	2"
XHUN300	3"
RV219-0000-076	1" Teflon Gasket
RV219-0000-091	1 1/4" Teflon Gasket
RV219-0000-156	1 1/2" Teflon Gasket

Bell Reducers

Part No.	Size
XHRC038-025	3/8" x 1/4"
XHRC075-025	3/4" x 1/4"
XHRC100-075	1" x 3/4"
XHRC125-100	1 1/4" x 1"
XHRC150-050	1 1/2" x 1/2"



90 St. Elbow	
Part No.	Size
XHSL050-90	1/2"
XHSL075-90	3/4"
XHSL100-90	1"
XHSL125-90	1 1/4"
XHSL150-90	1 1/2"
XHSL200-90	2"

Pipe Fittings – Forged Steel for Anhydrous Ammonia

Forged Steel Black Iron

Part No.	Size
XHNIP018-CN	1/8" x Close
XHNIP018-2	1/8" x 2"
XHNIP018-3	1/8" x 3"
XHNIP018-4	1/8" x 4"
XHNIP018-5	1/8" x 5"
XHNIP018-6	1/8" x 6"
XHNIP025-CN	1/4" x Close
XHNIP025-2	1/4" x 2"
XHNIP025-3	1/4" x 3"
XHNIP025-4	1/4" x 4"
XHNIP025-5	1/4" x 5"
XHNIP025-6	1/4" x 6"
XHNIP038-CN	3/8" x Close
XHNIP038-2	3/8" x 2"
XHNIP038-3	3/8" x 3"
XHNIP038-4	3/8" x 4"
XHNIP038-5	3/8" x 5"
XHNIP038-6	3/8" x 6"
XHNIP050-CN	1/2" x Close
XHNIP050-2	1/2" x 2"
XHNIP050-3	1/2" x 3"
XHNIP050-4	1/2" x 4"
XHNIP050-5	1/2" x 5"
XHNIP050-6	1/2" x 6"
XHNIP075-CN	3/4" x Close
XHNIP075-2	3/4" x 2"
XHNIP075-3	3/4" x 3"
XHNIP075-4	3/4" x 4"
XHNIP075-5	3/4" x 5"
XHNIP075-6	3/4" x 6"
XHNIP100-CN	1" x Close
XHNIP100-2	1" x 2"
XHNIP100-3	1" x 3"
XHNIP100-4	1" x 4"
XHNIP100-5	1" x 5"
XHNIP100-6	1" x 6"



Part No.	Size
XHNIP125-CN	1 1/4" x Close
XHNIP125-2	1 1/4" x 2"
XHNIP125-3	1 1/4" x 3"
XHNIP125-4	1 1/4" x 4"
XHNIP125-5	1 1/4" x 5"
XHNIP125-6	1 1/4" x 6"
XHNIP150-CN	1 1/2" x Close
XHNIP150-2	1 1/2" x 2"
XHNIP150-3	1 1/2" x 3"
XHNIP150-4	1 1/2" x 4"
XHNIP150-5	1 1/2" x 5"
XHNIP150-6	1 1/2" x 6"
XHNIP200-CN	2" x Close
XHNIP200-3	2" x 3"
XHNIP200-4	2" x 4"
XHNIP200-5	2" x 5"
XHNIP200-6	2" x 6"
XHNIP300-CN	3" x Close



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Forged Steel Pipe

Part No.	Black Pipe Per Foot - 21' Lengths
XH038	3/8" Schedule 80 Black Pipe Per Foot
XH050	1/2" Schedule 80 Black Pipe Per Foot
XH075	3/4" Schedule 80 Black Pipe Per Foot
XH100	1" Schedule 80 Black Pipe Per Foot
XH125	1 1/4" Schedule 80 Black Pipe Per Foot
XH150	1 1/2" Schedule 80 Black Pipe Per Foot
XH200	2" Schedule 80 Black Pipe Per Foot
XH300	3" Schedule 80 Black Pipe Per Foot

Forged Steel Tees

Part No.	Size
XHTEE025	1/4"
XHTEE050	1/2"
XHTEE075	3/4"
XHTEE100	1"
XHTEE125	1 1/4"
XHTEE150	1 1/2"
XHTEE200	2"
XHTEE300	3"

Forged Steel Couplings

Part No.	Size
XHCPLG025	1/4"
XHCPLG050	1/2"
XHCPLG075	3/4"
XHCPLG100	1"
XHCPLG125	1 1/4"
XHCPLG150	1 1/2"
XHCPLG200	2"
XHCPLG300	3"

Forged Steel Bushings

Part No.	Size
XHRB038-025	3/8" x 1/4"
XHRB050-018	1/2" x 1/8"
XHRB050-025	1/2" x 1/4"
XHRB050-038	1/2" x 3/8"
XHRB075-025	3/4" x 1/4"
XHRB075-038	3/4" x 3/8"
XHRB075-050	3/4" x 1/2"
XHRB100-025	1" x 1/4"
XHRB100-050	1" x 1/2"
XHRB100-075	1" x 3/4"
XHRB125-050	1 1/4" x 1/2"
XHRB125-075	1 1/4" x 3/4"
XHRB125-100	1 1/4" x 1"
XHRB150-075	1 1/2" x 3/4"
XHRB150-100	1 1/2" x 1"
XHRB150-125	1 1/2" x 1 1/4"
XHRB200-075	2" x 3/4"
XHRB200-100	2" x 1"
XHRB200-125	2" x 1 1/4"
XHRB200-150	2" x 1 1/2"
XHRB300-200	3" x 2"
XHRB400-300	4" x 3"



Safety Equipment



Chemical Gloves	
Part No.	Description
G96001	Gloves
G96001XL	XL Gloves



Goggles	
Part No.	Description
W95001	Vented Goggle
W95001NV	Non-Vented Goggle
W95002	Vented Goggle HD
W95003	Goggle Face Mask
W95004	Vented Goggle HD Tinted



Disposable Coveralls

Disposable coverall is made of Dupont Tyvek material for durability, economy, and practicality. Full cut for comfort with full length zipper and shirt collar. Unique structure creates an excellent barrier against acids and chemicals. Please specify size when ordering.

Disposable Coveralls	
Part No.	Description
F85020	Large Coveralls
F85020XL	XL Coveralls
F85020XXL	XXL Coveralls

Protective Clothing Size Chart (Tyvek Coveralls)		
Height	Weight	Size
5'	110-140	L
5'2"	110-160	L
5'4"	110-160	L
5'6"	110-200	L
5'8"	130-220	XL
5'10"	130-220	L / XL
6'	160-250	XL / XXL
6'2"	160-250	XL / XXL
Above	Above 250	XXL

ChemWash Emergency Wash Kit

The ChemWash provides 6.6 gallons of fresh water for emergency rinsing. This package includes hoses, fittings, a cradle for mounting and a compartment for storing other safety related equipment.

ChemWash Kits	
Part No.	Description
MHCW/Y	6.6 Gallon Emergency Wash Kit



Safety Equipment



MSA Gas Masks	
Part No.	Description
MSA448938	Gas Mask
F85004	Filter
MSAD2056734	Case



NH3 Gloves	
Part No.	Description
G96000	14" NH ₃ Gloves
MEM6412	Double Dipped Green
KIN4184L	Orange 14" Insulated



Pry Bars	
Part No.	Description
SPB-1	1 X1 X 45" Double Hook Bar
SPB-2	1 X 1 X 23" Point Bar with 7° Taper

These pry-bars are manufactured from the finest chromium spring steel available. This material is fine-grained double-rolled 5160 chromium-manganese steel that is heat-treated and tempered for strength, durability, and toughness that cannot be matched by the cheap imported spring steels available.

Only the highest quality materials are used in the manufacture of your tillage tools. Same with this pry-bar — it's made of the material that wrecking bars used to be made of — 100% made in USA. Use it and abuse it with pride.



Safety Chains	
Part No.	Description
JTL610500	Safety Chain



Water Bottle	
Part No.	Description
DE45910	Eye Wash Water Bottle

NH3 Knives | Accessories



NH3 Knife	
Part No.	Description
K4TS	Thin Knife
K4TSB	Thin Knife 3/8" & 3/4" Tube

Shield Deep Furrow Knife	
Part No.	Description
AP100DF	Knife
AP100DFB	Knife 3/8" & 3/4" Tube
AP100DF-F	Freezeless Knife
AP100DFB-F	Freezeless Knife 3/8" & 3/4" Tube



Shield AP200 NH3 Knife	
Part No.	Description
AP200	Knife
AP200T	Knife w/ Sealer
AP200B	Knife 3/8" & 3/4" Tube
AP200TB	Knife 3/8" & 3/4" Tube w/ Sealer
AP200F	Freezeless Knife
AP200FT	Freezeless Knife w/ Sealer
AP200FTB	Freezeless Knife 3/8" & 3/4" Tube w/ Sealer
AP200FB	Freezeless Knife 3/8" & 3/4" Tube

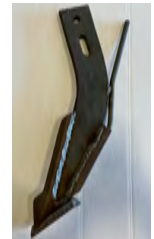


Wako Knife	
Part No.	Description
MAG50T	Knife w/ Sealer
MAG50TB	Knife 3/8" & 3/4" Tube w/ Sealer
MAG50	Knife
MAG50B	Knife 3/8" & 3/4" Tube

A50MM Minimum Movement Fertilizer Knife	
Part No.	Description
A50MM	Minimum Movement Fertilizer Knife
A50MMB	Knife w/ Vapor Tube



Wako Mopher Knife	
Part No.	Description
KKNK100A	Mopher Knife 3/8"
KKNK100A3DTP	Mopher Knife w/ Dual Tube



Vapor Tubes	
Part No.	Description
RV214-0002-002	3/4" Vapor Tube



Wiese Model A50SK Side Mount Knife	
Part No.	Description
A50SK103X	w/ Insert (shown)
A50SK113X	w/ Sealer
A50SKC1103/83/4BT	w/ Dual Tube, w/ Sealer



Wiese Model CO-50 Side Mount Knife	
Part No.	Description
CO501010	Knife
CO50104X	Knife
CO501000	Plain 3/8" Tube



1 1/2" to 2" shorter than other knives. Extra thin knife and 3/8" tube.

Replacement Tubes	
Part No.	Description
1218F	3/8" OD x 12" Closed
1212SOE	1/2" OD Open & Flattened
1234F	3/4" OD Open & Flattened

Knife Bolts	
Part No.	Description
413-836	1/2" x 2" GR5
425-108	1/2" Nut
50F275HCS8Y	1/2" x 2" GR8 Fine Thread
50FNVCOY	1/2" Fine Thread Nut



Sealers	
Part No.	Description
AS75-N	Sealer 3/8" Knife
AS75-W	Sealer 1/2" Knife
K500B	Sealer for AP100TB
K500W	Sealer 1/2" Knife

Chisel Plow & Field Cultivator NH₃ Knives

DT3	
Part No.	Description
DT310	Plain Surfaced
DT3HS	Hard Surfaced



Dual Tillage Knife for use with 1 1/4" wide shank for NH₃. Application with field cultivator. 7/16" holes on 1 3/4" to 2" centers.

DT4	
Part No.	Description
DT4	Plain Surfaced
DT4HS	Hard Surfaced
DT4HS-BT	Hard Surface with Sealer



Thin profile with 7/16" holes on 1 5/8" to 2" hole centers. For field cultivator.

Wako Chisel Knife	
Part No.	Description
KKNC755	Chisel Knife 3/8" Tube



Model CP-65	
Part No.	Description
CP65	Plain Surfaced
CP65HS	Hard Surfaced
1218F	Replacement Tube for CP65



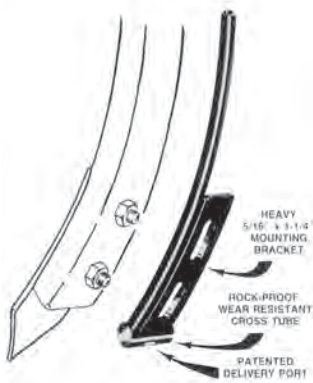
2" wide at top, covers the shank with ribs that fit on side to eliminate twisting. 12" long, 1/2" holes on 2 1/4" - 1 1/2" center.

Model CP-70	
Part No.	Description
CP70	Plain Surfaced
CP70HS	Hard Surfaced
CP70Cl4	Chromium Insert



Thin profile with 1/2" holes on 2 1/4" centers. For chisel plows.

Chisel/Cultivator Tubes Self-Clearing Port For Continuous Flow



Complete with replaceable chrome insert. Made from 2 1/4" x 3/4" stock.

CP-90	
Part #	Description
CP90	Knife, 3/8" Tube
CP90P	Knife, 3/8" Tube, Hard Surface Bead
CP90-1/2	Knife, 1/2" Tube
CP90P-1/2	Knife, 1/2" Tube, Hard Surface Bead
CP9034	Dual Tube Knife, 3/8" & 3/4" Vapor
761573	Replacement Chrome Point
BRP12114	Replacement Roll Pin



Heavy-Duty Chisel Plow Knife with trash guard. Heaviest in the Industry, Chrome Point weighs 1.5 lbs.

CPK-1E	
Part #	Description
CPK-1E	Chisel Plow Knife 3/8" Tube
CPK-1E1/2	Chisel Plow Knife 1/2" Tube
CPK-1EB	Dual Tube, 3/8" & 3/4"
CPK-1TPT	Chisel Plow Knife, 3/8" Tube
CPK-1TPT 3 4DA	Dual Tube, 3/8" & 3/4"

Chisel / Cultivator Tubes	
Part No.	Description
CPI	Chisel Tube - 3/8"
FCI	Cultivator Tube - 3/8"
CPI-1	Chisel Tube - 1/2"

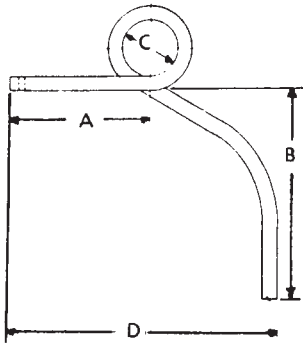
K800	
Part No.	Description
K800	3/8" NH ₃ Tube Assy.

(K800)

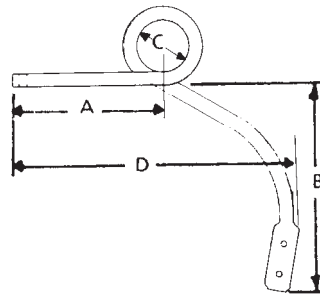
For use behind tillage spike or sweep. 3/8" OD pinched and drilled tube x 12" long. Mounting bracket has 9/16" hole punching with adjustable hole centers.



Toolbar Shanks



1 1/4" square coil shank.
Mounting hole is 1 1/16".
This shank requires knife
side-plate brackets.



1 1/4" square coil shank.
Top mounting hole is 1 3/16".
1 7/32" holes spaced at 2 3/4"
allow side mount knife to
be bolted directly to foot
without use of knife side-
plate brackets.

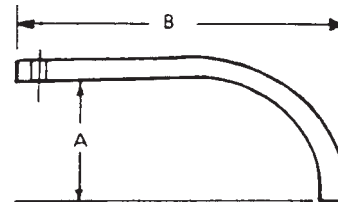
One-Hole Shanks

OEM	A	B	C	D	Part No.
DMI	11 3/4"	16"	4 1/2"	21"	KSC-90
Clark	13 1/2"	14 1/4"	4 1/2"	24"	KSC-94
John Blue (Long)	13 1/2"	18 1/2"	4 1/2"	23 1/2"	KSC-97
John Blue (Short)	13 1/4"	13 1/4"	4 1/2"	23"	KSC-98

Three-Hole Shanks

OEM	A	B	C	D	Part No.
TCI	13"	20"	4 1/2"	25 1/4"	KSC-95

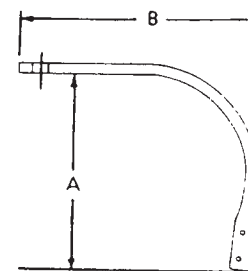
1" x 2" Flat Shanks



1" x 2" flat "chisel" shank.
Mounting hole is 1 3/16".
This shank requires knife
side-plate brackets.

OEM	Part No.
DMI	33020013

A = 13 1/4" B = 26"

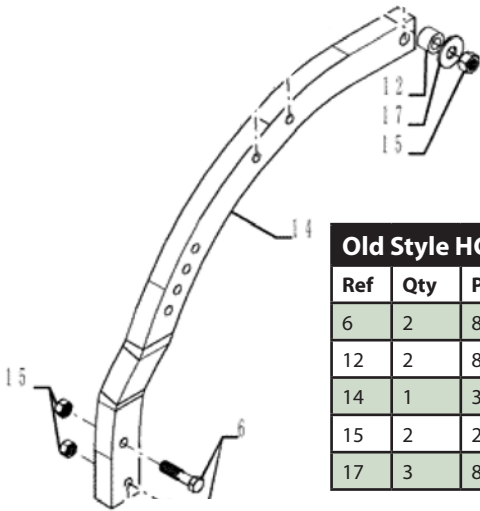


OEM	Part No.
DMI	33020017S

A = 20 1/2" B = 25 3/4"

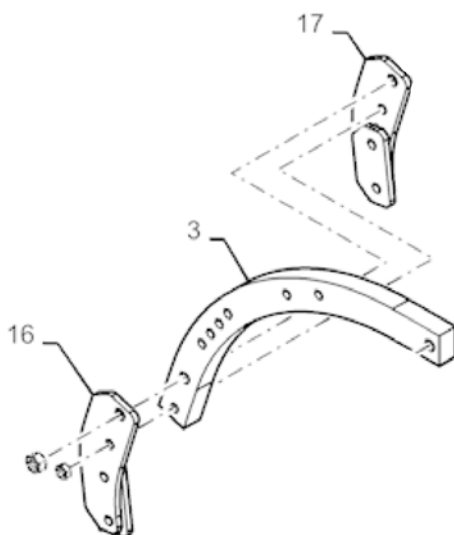
OEM	Part No.
BLU-JET	KSC-1295

A = 15" B = 19 3/8"



Old Style HCS Shank

Ref	Qty	Part #	Description	Usage
6	2	87975	Bolt, Hex 1/2"	
12	2	87515446	Bushing	HT
14	1	33020031	Shank	
15	2	280431	Nut, 1/2" - 13, G5	
17	3	86992215	Lock Nut, 1/2" - 13, GC	



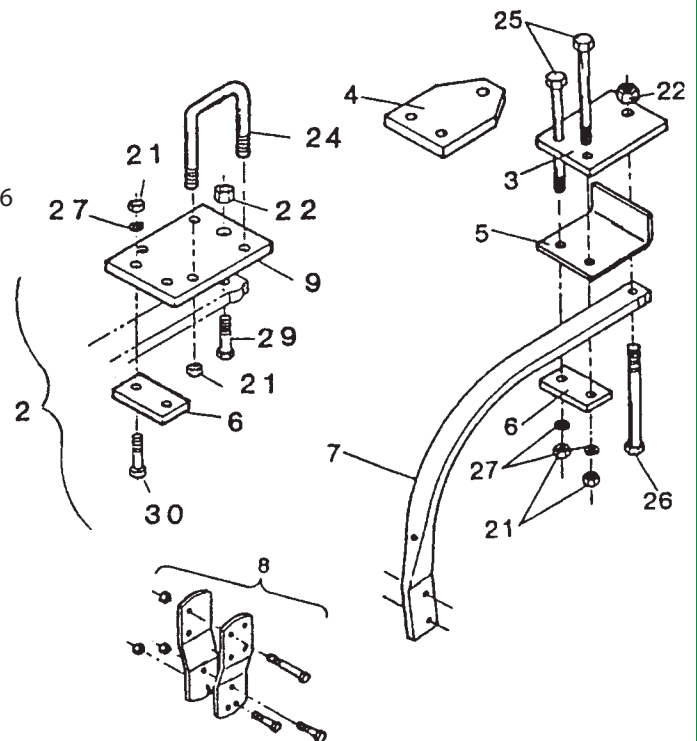
New Style HCS Shank w/ Side Plates

Ref	Qty	Part #	Description	Usage
3	1	51428430	Shank, HCS Flat	Shank, HCS Flat
16	1	47792026		Spacer, HCS, RH Knife
17	1	47828734		Spacer, HCS, LH Knife
		88693	Bolt, Hex 5/8"	
		87972	Bolt, Hex 1/2"	

Spring Shank Assembly

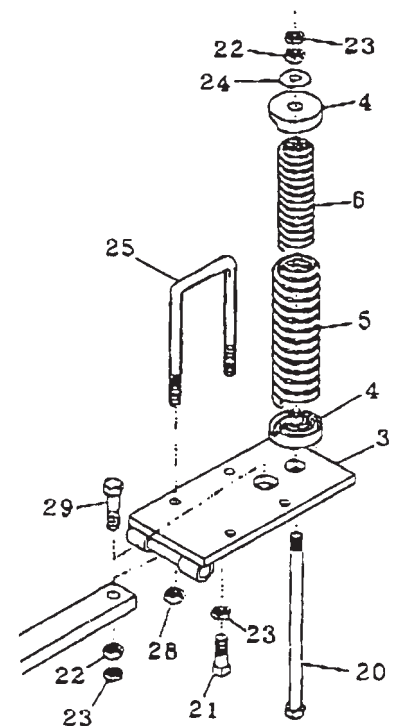
Rigid Shank Mount

Ref. No.	Part No.	Description
-	09232000	Complete Ridged Shank Mount
7	330200175	1" x 2" Side Mount Shank
	33020013	1" x 2" Flat Shank
9	04620510	Plate
	87452642	U-Bolt Hardware Bag for 4 x 4 and 4 x 6
	87452654	Hardware Bag 4 x 6
3	09213000	Top Clamp Plate
4	09213100	Center Top Clamp Plate
5	09235000	Lower Clamp Plate
6	09236000	Clamp Plate
8	02422000	Knife Brackets with hardware for Non-Side Mount 1" x 2" shanks
21	280374	5/8" NC Hex Nut
22	425-1012	3/4" NC Hex Nut
24	87427161	5/8" x 4" x 5 1/2" U-Bolt
	87427170	5/8" x 4" x 8" U-Bolt
25	413-10128	5/8" x 8" NC Hex Bolt Grade 2
26	281036	3/4" x 7 1/2" NC Hex Bolt Grade 5
27	12034871	5/8" Lock Washer
29	413-1248	3/4" x 3" NC Capscrew Grade 5
30	424-1048	5/8" x 3" NC Capscrew Grade 2



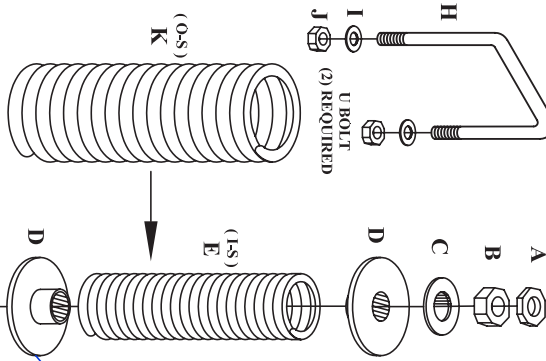
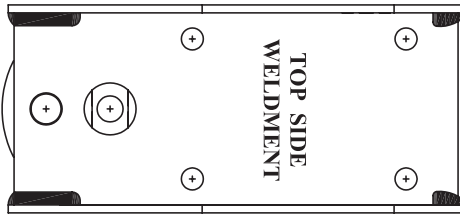
Heavy-Duty Spring Mount

Ref. No.	Part No.	Qty.	Description
	84428992	1	H.D. Spring Mount (Less hardware)
	87452654	1	Hardward Bag
3	04665410	1	H.D. Spring Pivot
4	20090120	2	Double Spring Casting
5	24162504	1	Compression Spring 4 1/16" OD
6	24143812	1	Compression Spring 1 1/2" OD
Hardware			
20	16912609	1	3/4" x 14" NC Hex Bolt
21	16812084	1	3/4" x 2" Square Head Set Screw
22	425-1012	A/R	3/4" NC Hex Nut
23	86632557	A/R	3/4" NC Hex Jam Nut
24	495-21081	1	3/4" Std. Washer
25	87427161	2	5/8" x 4" x 5 1/2" U-Bolt
	87427170	2	5/8" x 4" x 8" U-Bolt
28	280374	A/R	5/8" NC Hex Nut
29	413-1248	1	3/4" x 3" NC Cap Screw Grade 5

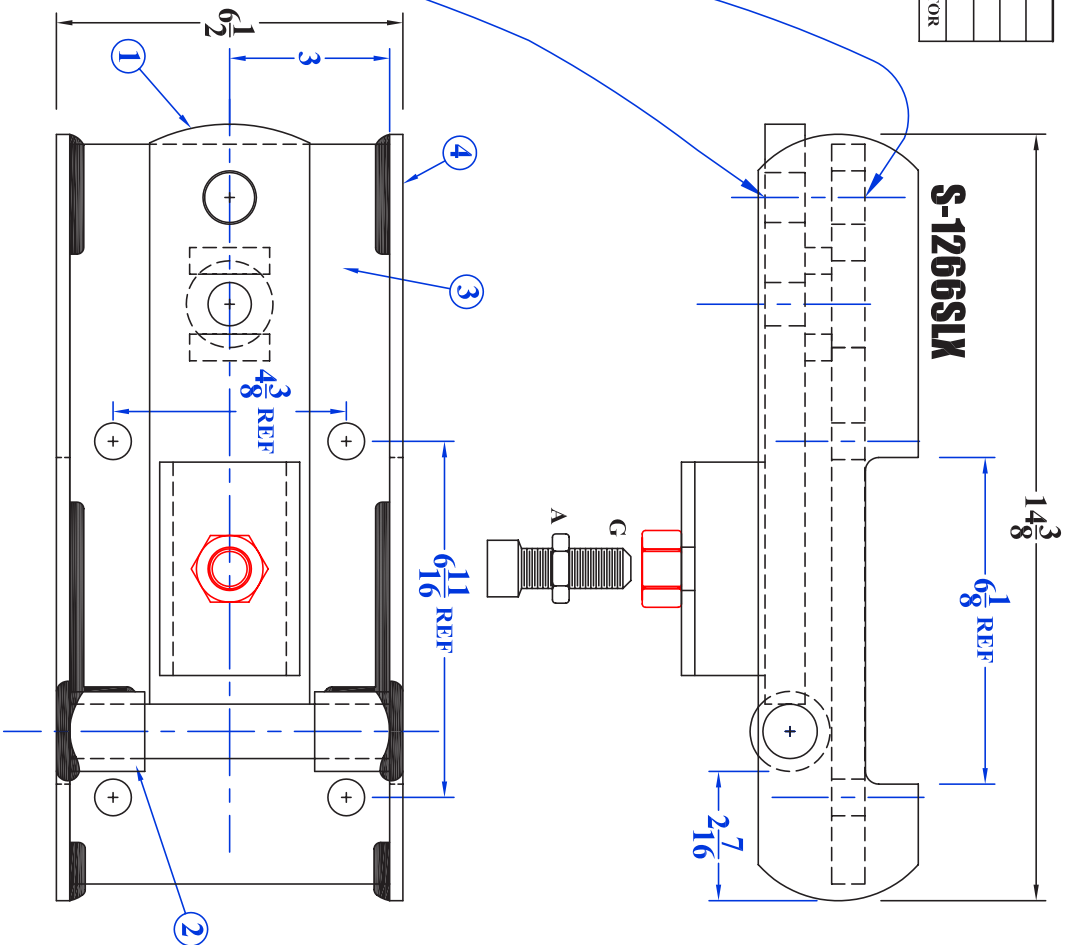


6 X 6 H.D. Spring Shank Mount

ITEM #	QUAN.	PART #	DESCRIPTION
1	1	S1244SL-TW	SPRING CLAMP TONGUE WELDMENT
2	2	S1244SL-HT	HINGE TUBE 1.50"ODx1.02"IDx1 3/8"LONG
3	1	S1246SL-MP	Mount PLATE 5886.0x11.5
4	2	S1246SL-TBG	TOOL BAR GUIDE 1/4x3x14-3/8 SIDE LOCATOR

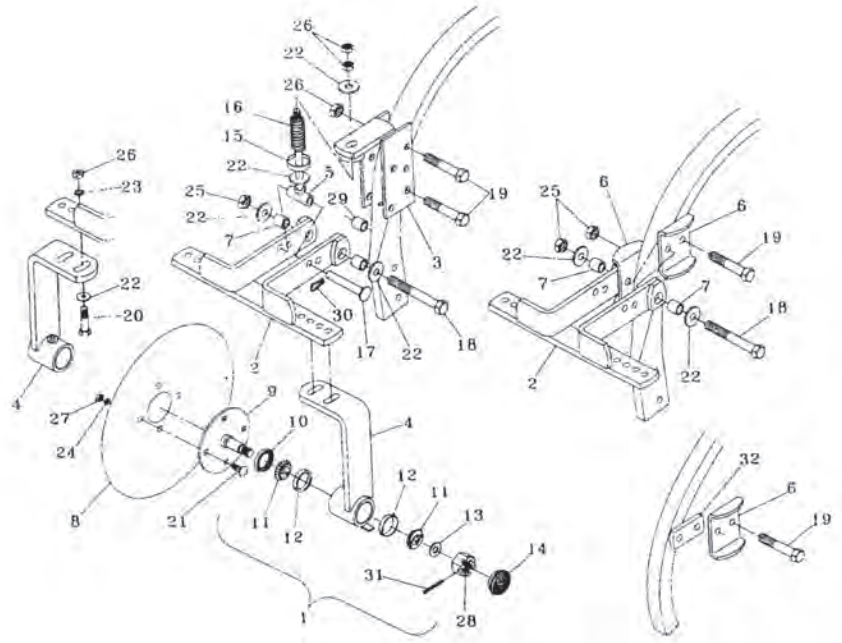


ITEM #	QUAN.	PART #	DESCRIPTION
A	2	N6J	JAM NUT
B	1	N6	NUT
C	2	MF6H	WASHER
D	2	SASC06	CAP
E	1	SPR-1	INSIDE SPRING (1S)
F	1	106-N1	BOLT
G	1	106-B1	SCREW
H	2	AP-505018	U BOLT
I	2	LW5	WASHER
J	2	N5	NUT
K	1	SPR-2	OUTSIDE SPRING (O-S)



CNH 14" Reversible Spring Double Disc Sealer

Ref. No.	Part No.	Qty. No.	Description
1	02325200 02327010	2	Sealer Arm Assembly (straight arm) RH Sealer Arm Assembly (previous style)
	02325010		LH Sealer Arm Assembly (previous style)
2	02335300	1	Sealer Frame
3	02334000	1	Bracket
4	02325150	1	Sealer Arm with Cups
5	02333500	1	1/2" diameter Spring Pivot Bolt
6	02335120	2	Shank Spacer (1" x 2" Shank)
7	02323100	2	Bushing
8	443623A1	2	14" Disc Blade
9	04666420	2	Hub and Shaft (straight arm)
10	21931000	2	Seal CR10035
11	21870750	4	3/4" Bore Cone (LM11949)
12	21881780	4	1.781" OD Cup (LM11910)
13	495-11081	4	3/4" SAE Washer
14	28400400	2	Grease Cap
15	17506010	1	Cup Washer
16	24120701	1	Compression Spring
17	14808291	1	1/2" x 3 5/8" El Clevis Pin
18	413-888	1	1/2" x 5 1/2" NC Hex Bolt Gd. 5
19	NSI	2	1/2" x 3 1/4" NC Hex Bolt Gd. 5
20	NSI	4	1/2" x 1 3/4" NC Hex Bolt Gd. 5
21	280430	8	3/8" x 3/4" NC Carriage Bolt
22	495-21056	6	1/2" Flat Washer
23	492-11050	4	1/2" Lock Washer
24	492-11038	8	3/8" Lock Washer
25	86992215	2	1/2" Hex Lock Nut
26	425-108	8	1/2" Hex Nut
27	425-106	8	3/8" Hex Nut
28	14051202	2	3/4" NF Slotted Nut
30	14720411	1	1/8" x 2" Hair Pin
31	80755	1	1/8" x 1" Cotter Pin
	18534222		DMI Spring Sealer Decal
32	02321000	2	*Spacer Plate (1 1/4" coil shank) *= two needed for 1 1/4" coil shank

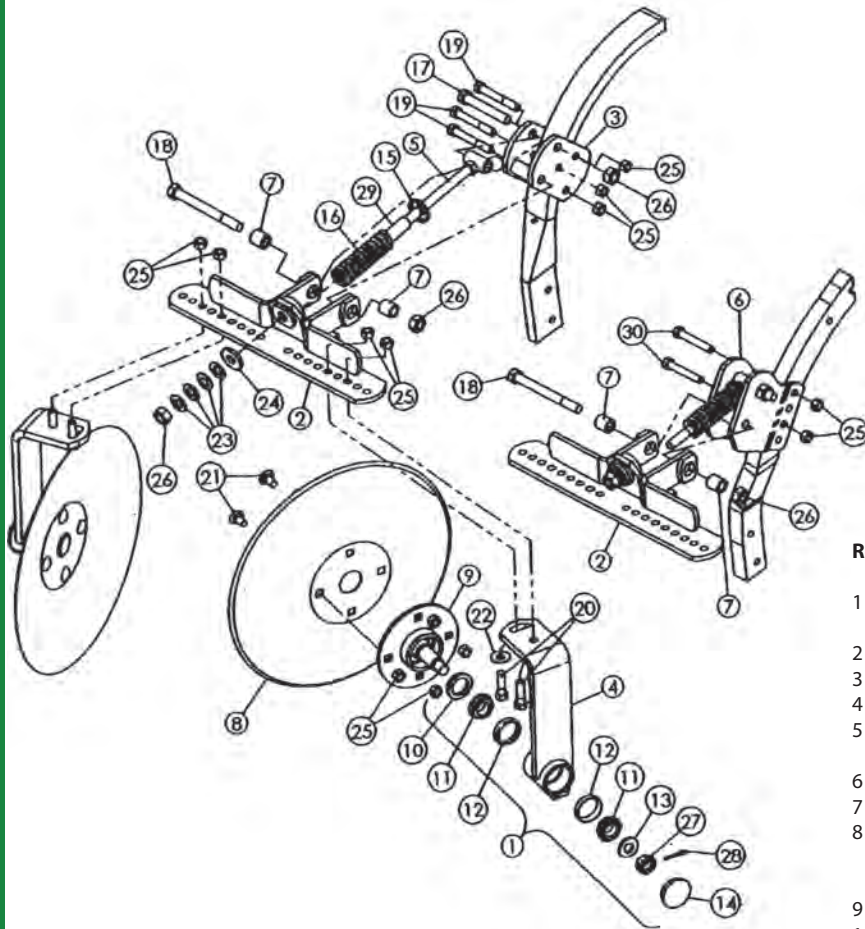


NSI - NON-STOCKING ITEM - Purchase locally as standard hardware item.



Part No.	Description
02400100	Reversible Spring Disc Sealer (1" x 2" or 1 1/4" shank)
02335140	Two Regular Disc Sealer mounting plates** (for 1 1/4" coil shank)
02321000	*Spacer Plate (for 1 1/4" coil shank) **two needed for 1 1/4" coil shank

CNH 18" Reversible Spring Double Disc Sealer



Ref. No.	Part No.	Qty. No.	Description
1	84296819	2	Sealer Arm Assembly (includes #4, 9, 10, 11-14, 27-28)
2	04693145	1	Sealer, H-frame Weldment
3	04693195	1	1" x 2" Sealer Mount
4	84304050	2	Sealer Arm with cups
5	04693150	1	T-Bolt Wedlment
6	04693165	1	Sealer Mount Weldment
7	44006204	2	Bushing
8	443628A1	2	18" Disc Blade – Sharp
	443625A1	2	18" Disc Blade – Dull
	84380560	2	18" Notched Blade
9	09103120	2	Disc Spindle Weld
10	21931375	2	1.37" Seal
11	463911R9	4	1.00" Bore Cone (Timken #L44643)
12	572564R1	4	1.980" Cup (Timken #L44610)
13	17412001	2	3/4" I.D. Washer, Heat-Treated
14	28420021	2	Grease Cap
15	17506020	1	0.656" I.D. Cup Washer
16	24120701	1	Compression Spring
17	86977740	1	5/8" x 4" NC Hex Bolt, Gd. 5, Z.P.
18	88264	1	5/8" x 6" NC Hex Bolt Gd. 5, Z.P.
19	824-856	3	1/2" x 3 1/2" NC Hex Bolt Gd. 5
20	NSI	4	1/2" x 1 3/4" NC Hex Bolt, Gd. 5
21	433-816	8	1/2" x 1" Carriage Bolt
22	495-21056	2	1/2" Standard Washer
23	17511000	4	1 1/16" Spring Washer
24	594-81028	1	1 1/16" I.D. x 1 3/4" x .25" Washer
25	NSI	A/R	1/2" NC Stover Lock Nut
26	NSI	3	5/8" NC Stover Lock Nut
27	14051202	2	3/4" NF Slotted Hex Nut
28	432-816	2	1/8" X 1" Cotter Pin
29	04693158	1	Tube
30	87339	4	1/2" x 3" NC Hex Bolt Gd.5, Z.P.

1" x 2" Shank

Part No.	Description
84399997	18" Reverse Spring Sealer, Notched Blade

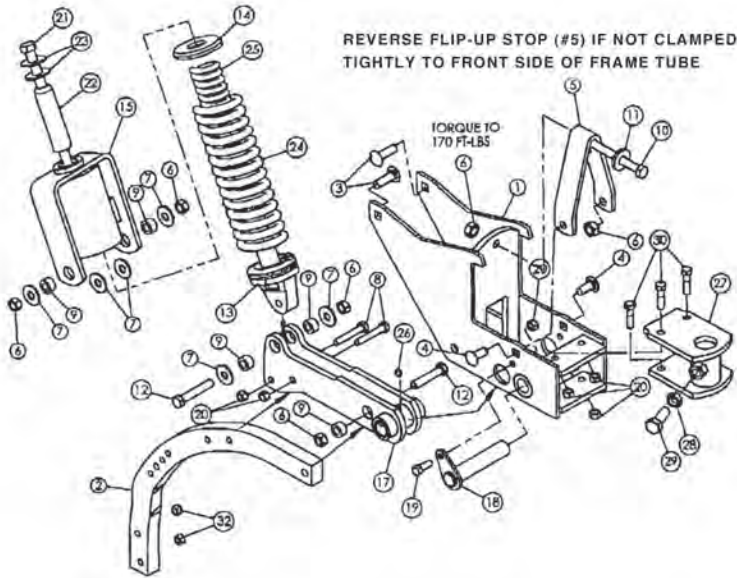
HCS Only

Part No.	Description
84299644	18" Reverse Spring Sealer, Notched Blade

NSI - NOT A SERVICE ITEM
A/R - AS REQUESTED

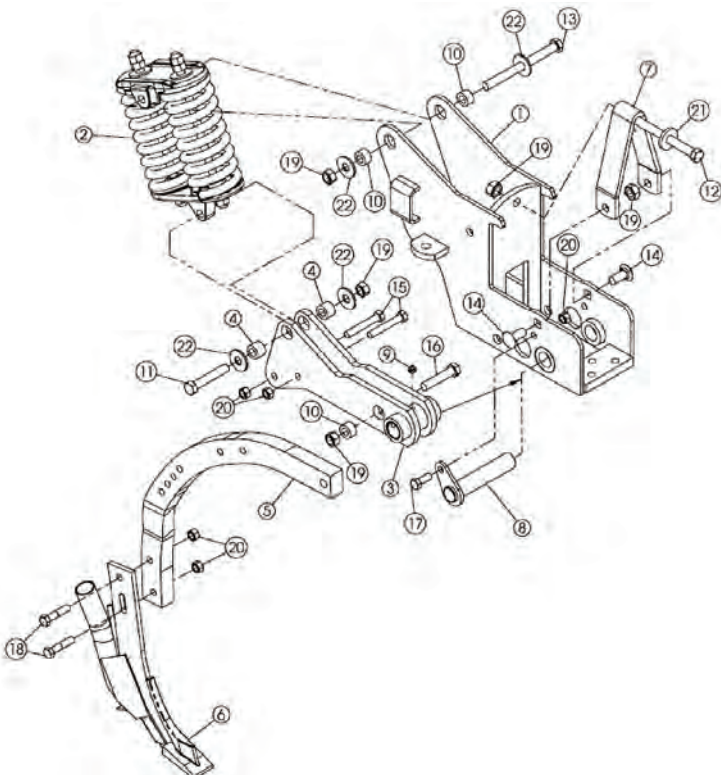
CNH High-Clearance Shank Assembly (HCS)

Generation 1 HCS



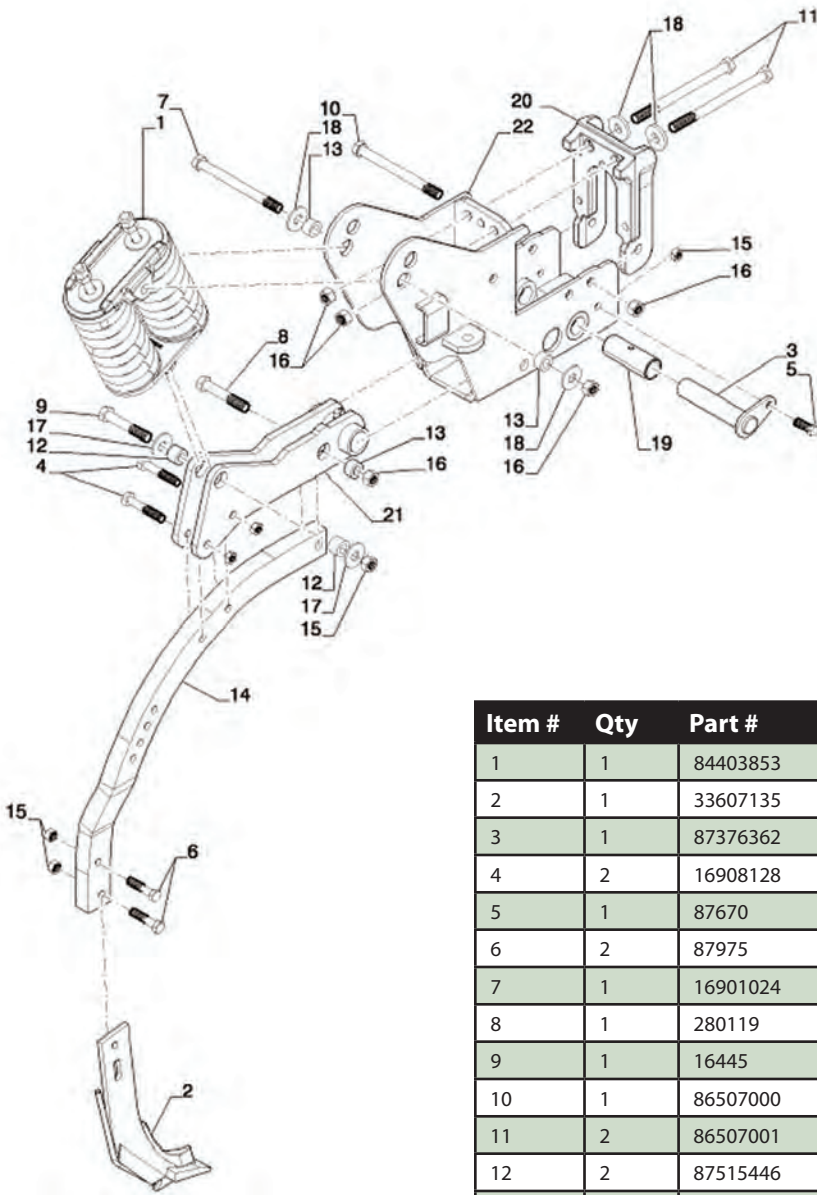
Ref. No.	Part No.	Qty. No.	Description
1	04691710	1	Weldment, Shank Mount
2	33020031	1	Formed Shank
3	16110085	2	5/8" x 2" Carriage Bolt, Gd. 5 Z.P.
4	16110065	2	5/8" x 1 1/2" Carriage Bolt, Gd. 5 Z.P.
5	04691717	1	Flip-up Stop
6	86992216	7	5/8" NC Stover Lock Nut
7	495-21069	6	5/8" Standard Washer
8	16908128	2	1/2" x 3" NC Hex Bolt A325, Z.P.
9	44006201	5	Bushing H.T.
10	16010305	1	5/8" x 7 1/2" NC Hex Bolt Gd. 5 Z.P.
11	495-81028	1	1 1/8" ID 1/3/4" OD Washer
12	280119	2	5/8" x 3 1/2" NC Hex Bolt Gd. 5 Z.P.
13	04691725	1	Spring Bolt Weldment
14	20090124	1	Double Spring Casting
15	04691730	1	Spring Canister Weldment
17	04691735	1	Shank Pivot Weldment
18	87376362	1	Flag Pin Weldment
19	87670	1	1/2" x 1 1/4" NC Hex Bolt Gd. 5 Z.P.
20	86992215	7	1/2" NC Stover Lock Nut
21	16901244	1	3/4" x 11 1/2" NC Hex Bolt Gd. 5 Z.P.
22	04691721	1	Wear Tube
23	17012001	2	3/4" Standard Washer Z.P.
24	24162506	1	Compression Spring
25	24143816	1	Compression Spring
26	219-86	1	1/8" NPT Zerk, Self Trap
27	04691745	1	Coulter Mount Weldment
28	86632557	1	3/4" NC Hex Jam Nut Z.P.
29	16012085	1	3/4" x 2" NC Hex Bolt Gd. 5 Z.P.
30	413-832	4	1/2" x 2" NC Hex Bolt Gd. 5 Z.P.
31	16008105	2	1/2" x 2 1/2" NC Hex Bolt Gd. 5 Z.P.
32	425-108	2	1/2" NC Hex Bolt

Generation 2 HCS



Ref. No.	Part No.	Qty. No.	Description
1	87379645	1	SHANK - HCS, Does Not Include Knife & Hardware
1	87532483	1	MOUNTING PARTS - Shank Weldment
2	87532498	1	KIT, SPRING - HCS Pak Assembly
3	87532493	1	PIVOT - Shank Weldment
4	87515446	1	BUSHING - Heat Treated
5	33020031	1	SHANK - Formed
6	33607130	1	KNIFE - Strip-Till, Dry Only
6	33607135	1	KNIFE - Strip-Till, NH3 Only
7	04691717	1	STOP - Flip-Up
8	14820475	1	PIN, TOWBAR - 1 1/4", Flag
9	219-86	1	NIPPLE, LUBE - 1/8" x .62"lg, Drive
10	44006201	5	BUSHING - Heat Treated
11	413-1060	1	BOLT - Hex, 5/8"-11 x 3 3/4", G5
12	413-10128	1	BOLT - Hex, 5/8"-11 x 8", G5
13	16901024	1	BOLT - 5/8" - 11 x 7 1/4", Gd 5
14	433-1024	2	BOLT, CARRIAGE - Short NK, 5/8" - 11 x 1 1/2", G5
15	16908128	2	BOLT - 1/2 x 3, A-325
16	413-1056	1	BOLT - Hex, 5/8"-11 x 3 1/2", G5
17	413-820	1	BOLT - Hex, 1/2"-13 x 1 1/4", G5 Full Thd
18	413-836	2	BOLT - Hex, 1/2"-13 x 2 1/4", G5
19	85700693	5	NUT, LOCK - 5/8"-11, GC
20	86992215	5	NUT, LOCK - 1/2"-13, GC
21	495-21081	1	WASHER - 3/4"
22	80299	4	WASHER - 5/8"

Gen. "3" High Clearance Shank Assembly (HCS)



CNH High Clearance Shank Assembly	
Part No.	Description
51441356	4 X 6 Bar HCS Assy GEN 3
51441355	6X6 Bar HCS Assy GEN 3

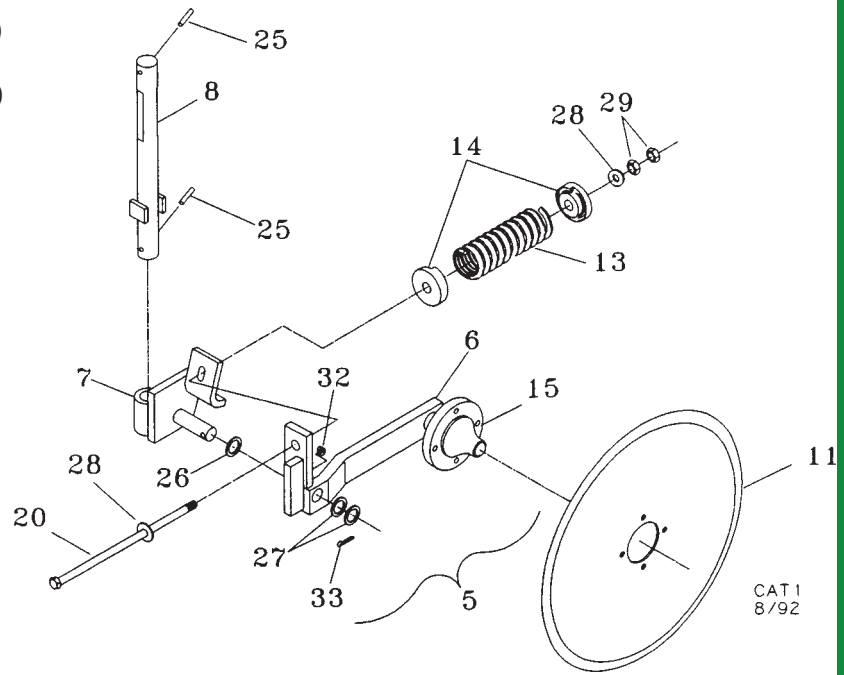


Item #	Qty	Part #	Description	
1	1	84403853	SPRING	
2	1	33607135	KNIFE	
3	1	87376362	PIN	
4	2	16908128	BOLT	.5 x 3.0 NC A325 HEX BLT, ZND
5	1	87670	BOLT	Hex, 1/2"-13 x 1 1/4", G5, Full Thd
6	2	87975	BOLT	Hex, 1/2"-13 x 2 1/4", G5
7	1	16901024	BOLT	5/8"-11 X 7 1/4 GR 5 ZN 1 IN. THRD
8	1	280119	BOLT	Hex, 5/8"-11 x 3 1/2", G5
9	1	16445	BOLT	Hex, 5/8"-11 x 3 3/4", G5
10	1	86507000	BOLT	Hex, 5/8"-11 x 6 1/2", G5
11	2	86507001	BOLT	Hex, 5/8"-11 x 8 1/2", G5
12	2	87515446	BUSHING	H.T.
13	3	44006201	BUSHING	H.T.-S
14	1	33020031	SHANK	
15	2	280431	NUT	1/2"-13, G5
16	6	86992216	LOCK NUT	
17	3	86992215	LOCK NUT	1/2"-13, GC
18	6	80299	WASHER	5/8"
19	2	44012504	BUSHING	0.656 x 1.75 x 0.239 CST ZND
20	1	84223909	CLAMP	
21	1	87532493	PIVOT	
22	1	84236985	MOUNT	

CNH 20" & 24" Coulters Assembly & Mount

The Ultimate In Cutting Ability In Any Residue Situation

5	04663000	20" Coulters Arm Assembly (1 3/4")
	04663050	24" Coulters Arm Assembly
6	04663100	20" Coulters Arm with Hub (1 3/4")
	04663300	24" Coulters Arm with Hub
7	04663200	20" and 24" Coulters Pivot (1 3/4")
8	04663150	20" Coulters Shaft (1 3/4")
	84293454	24" Coulters Shaft
11	443626A1	CNH 20" Coulters Blade
	33502042S	Shield 20" Coulters Blade
	33502442S	Shield 24" Coulters Blade
	443638A1	CNH 24" Coulters Blade
	33502043S	20" Fluted Coulters Blade
13	24143880	Compression Spring (20")
	24156205	Compression Spring (24")
14	20090050	Spring Holder Casting
15		See 633 Hub on Hub Page
20	413-10176	5/8" x 11 NC Hex Bolt (20")
	413-10216	5/8" x 13 1/2" Hex Bolt (24")
25	438-32840	7/16" x 2 1/4" Roll Pin
	138-314	3/8" x 2 1/4" Roll Pin 20" (1 1/2")
	49529000	24" Coulters Bottom Collar (old)
26	17620030	1 1/4" Machined Bushing 10 Gauge
27	17620020	1 1/4" Machined Bushing 14 Gauge
28	495-81028	5/8" Washer x 1/4" Thick
29	280374	5/8" NC Hex Nut
32	219-86	1/8" NPT Grease Zerk
33	80753	1/4" x 1 1/2" Cotter Pin



CAT 1
8/92

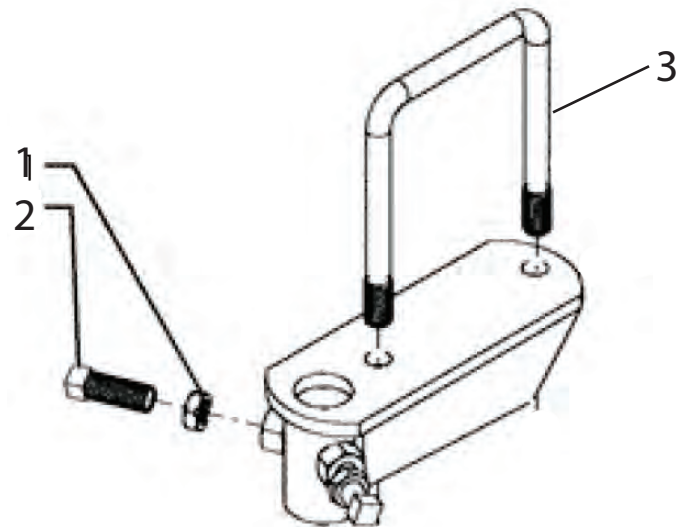
CNH Coulters Assembly

Part No.	Description
84371648	20" Coulters Assembly (1 3/4" shafts) 4 x 6
84371554	24" Coulters Assembly 930 (1 3/4" shafts) 4 x 6
84379516	24" Coulters Assembly 940 (1 3/4" shafts) 6 x 6

Standard Coulters Mountings for 20" and 24" Coulters

Coulters Mountings	
Part No.	Description
87460812	Standard Mount ONLY (1 3/4" shaft) 4 X 6
84328533	Standard Mount ONLY (1 3/4" shaft) 6 X 6

Item	Part No.	Description	Qty.
1	86632557	Jam Nut	2
2	16812084	3/4" x 2" Set Screw	2
3	87427182	U-Bolt 4 X 8	1
	87427188	U-BOLT 6 X 8	



Dalton 18" Independent Disc Sealer

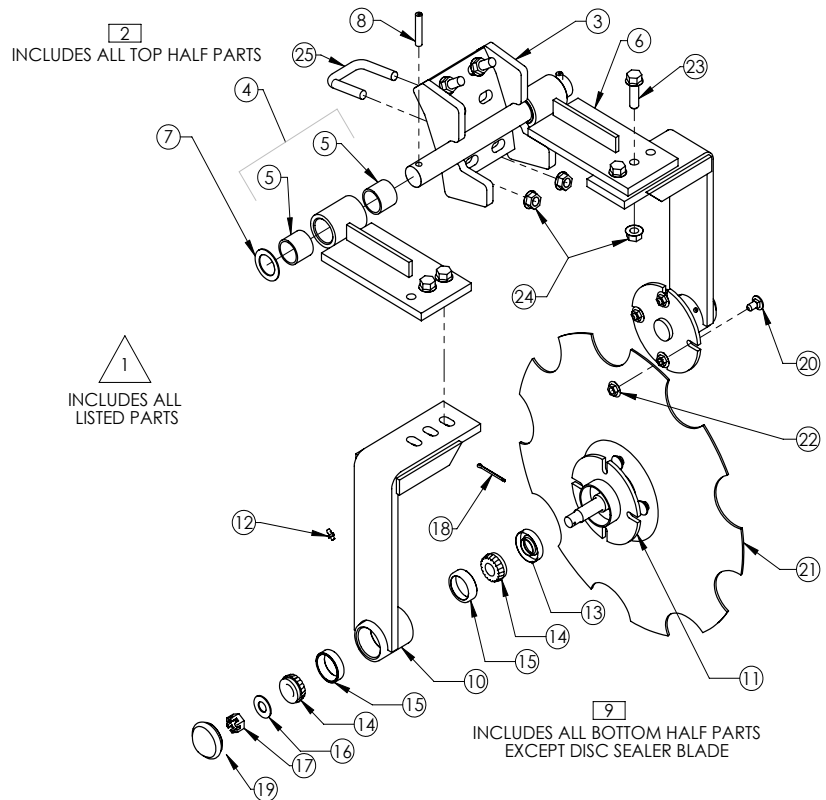


Independent arms with 18" notched blades, arms pivot on 1 ¼" shaft and have been fitted with a cast bronze grease-able bushing. The arms are made adjustable so that you can vary the pitch on the blades depending on conditions. With the 18" blade & the position of the blades relative to the knife, lets it shed residue without bunching. This feature lets you run the blades straighter which reduces the wear & tear on the bearings & pivot points.

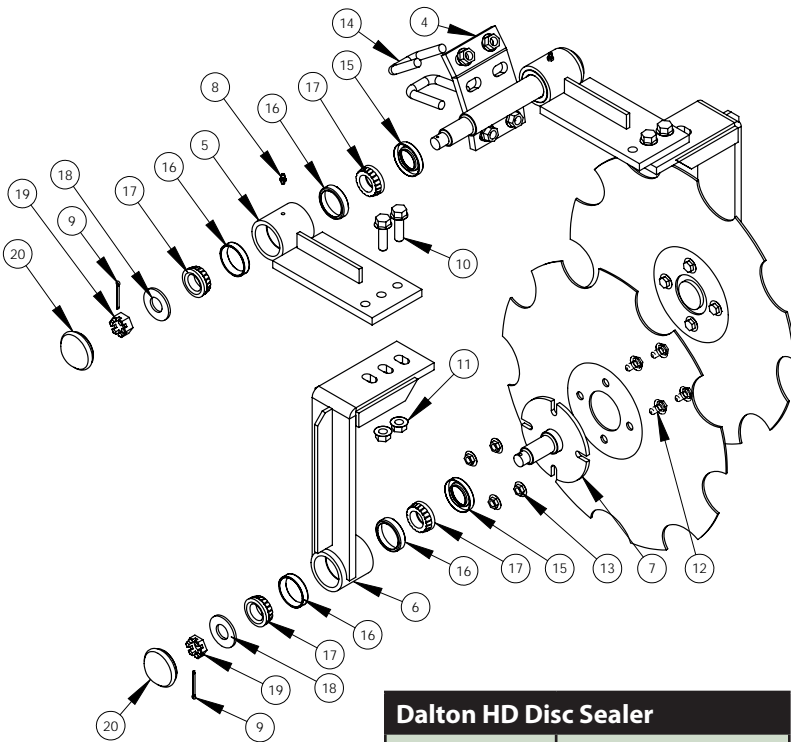
Disc Sealers	
Part No.	Description
JT14410171	18" Disc Sealer
JT14410190	14" Disc Sealer

4410171 - Disc Sealer, Independent Style, 18" Notched

#	Part No.	Description	Qty.
1	4410171	Independent Style	1
2	4410174	Upper Mounting Bracket	1
3	4420271	Shank Mounting Bracket	1
4	4410256	Pivot Arm W Bushing, Lh	1
5	4440857	Bushing, Composite	2
6	4410255	Pivot Arm W Bushing, Rh	1
7	150251	Flat Washer, 1.25 Id X 1.875 Od	2
8	101689	Spring Pin .375X2	2
9	4420277	Hub Assembly, Std	2
10	4420273	Hub Bracket, Std, Weldment	1
11	4420201	Spindle Hub, Std, Weldment	1
12	151222	Grease Zerk, 0.25 Self Tapping	1
13	21931000	Grease Seal	1
14	21870750	Bearing Cone	2
15	21881780	Bearing Cup	2
16	150224	Flat Washer, 0.625	1
17	425-1310	Slotted Nut 5/8"	1
18	150406	Cotter Pin, 0.125 X 2	1
19	4441387	Dust Cap, 1.75	1
20	151835	Carriage Bolt .375X.75 Nc Pltd	8
21	4440785	Blade, 18 Inch Notched	2
22	158005	Flange Nut, 0.375 Nc	8
23	158006	Flange Bolt, 0.5 Nc X 1.75, G5	4
24	158007	Flange Nut, 0.5 Nc	8
25	4440788	U-Bolt, 2 X 2.5 X 0.5 Nc, Square Head	2
25	4440788-EDGE	Edge For High Clearance Shank U-Bolt	2



Dalton H.D. Disc Sealer

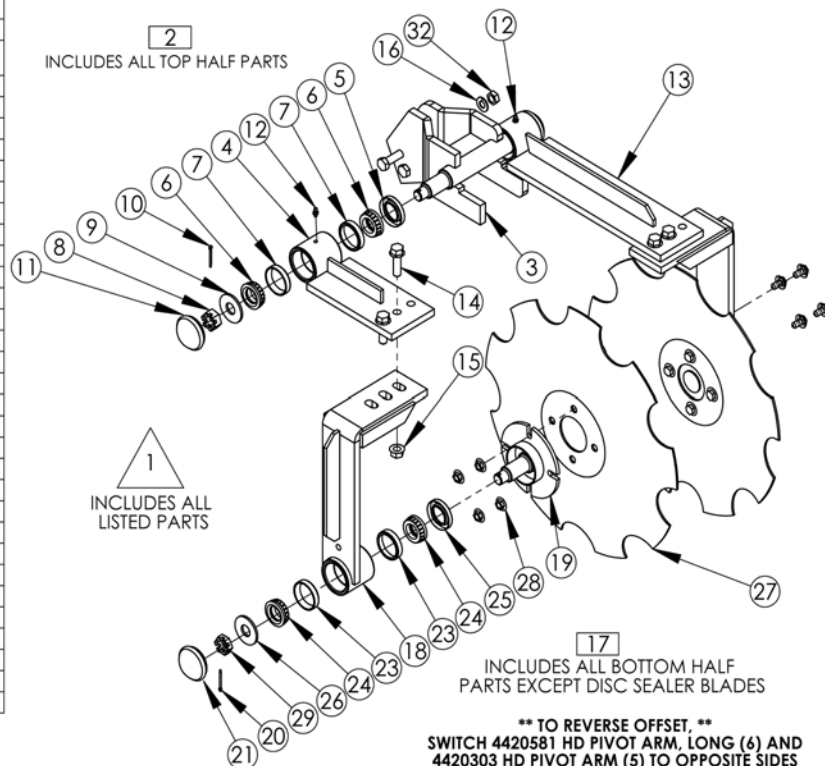


Dalton HD Disc Sealer	
Part No.	Description
JT14410223-EXP	18" HD Disc Sealer
JT14410223-HCS	HCS 18" HD Disc Sealer

Item No.	Part No.	Description	Qty
	4410223	HD Independent Disc Sealer	1
	4420310	HD Independent Upper Mount Assembly	1
	4410263	HCS Upper Mount Assembly HCS Shank	
	4420309	HD Hub Assembly	2
	4420303-1	Arm - Offset Arm	1
	4420309	Complete Arm	1
4	4420302	HD Shank Mount Bracket	1
5	4420303	HD Pivot Arm	2
6	4420304	HD Hub (Bracket Only)	2
7	4420305	HD Spindle	2
8	151224	Grease Zerk, 1/4" Self Tapping	4
9	150409	Cotter Pin, 1/8" x 1 1/2"	4
10	158006	Flange Bolt, 1/2" NC x 1 3/4"	4
11	158007	Flange Nut, 1/2" NC	8
12	158004	Flange Bolt, 3/8" NC x 3/4"	8
13	158005	Flange Nut, 3/8" NC	8
14	4440788	2" x 2 1/2" x 1/2" NC	2
15	4440815	Seal, 2"	4
16	4440817	Race	8
17	4440816	Bearing	8
18	158012	Spindle Washer	4
19	158002	Castle Nut, 3/4" NC	4
20	4440814	Dust Cap, 2"	4

OS HCS Disc Sealer, with Offset Arms

#	PART NUMBER	Q
1	4410262 OS HCS DISC SEALER, WITH OFFSET ARMS	1
2	4410263 OS HCS UPPER MOUNT ASSEMBLY, w OFFSET ARMS	1
3	DS 4420497 HCS UPPER MOUNTING BRACKET	1
4	DS 4420303 PIVOT ARM, HD	1
5	4440815 SEAL	2
6	4440816 BEARING	4
7	4440817 RACE	4
8	158003 SLOTTED NUT, .75 NC	2
9	158012 SPINDLE WASHER, .75	2
10	150409 COTTER PIN, .125 x 1.5, PLAIN	2
11	4440814 DUST CAP, 2 INCH	2
12	151222 GREASE ZERK, .25 SELF TAPPING	2
13	4420581 PIVOT ARM, HD, LONG	1
14	158006 FLANGE BOLT, .5 NC x 1.75, G5	4
15	158007 FLANGE NUT, .5 NC	4
16	150217 LOCK WASHER, .5	2
17	4420309 HD HUB ASSEMBLY □	2
18	DS 4420304 HUB BRACKET, WELDMENT, HD	1
19	DS 4420305 SPINDLE HUB, HD, WELDMENT	1
20	150409 COTTER PIN, .125 x 1.5, PLAIN	1
21	4440814 DUST CAP, 2 INCH	1
22	151222 GREASE ZERK, .25 SELF TAPPING	1
23	4440817 RACE	2
24	4440816 BEARING	2
25	4440815 SEAL	1
26	158012 SPINDLE WASHER, .75	1
27	DS 4440785 BLADE, 18 INCH NOTCHED	1
28	158005 FLANGE NUT, .375 NC	4
29	158002 SLOTTED NUT, .75 NC THIN	1
30	158004 FLANGE BOLT, .375 NC x .75, G5	4
31	152225 BOLT, .5 NC x 3, G8	2
32	150060 NUT, .5 NC, LOCKING, PLTD	2



** TO REVERSE OFFSET, **
SWITCH 4420581 HD PIVOT ARM, LONG (6) AND
4420303 HD PIVOT ARM (5) TO OPPOSITE SIDES

Continental SF-3000 Equalizer



SF-3000 Equalizer



Features

- High flows heat exchanger 30 GPM capacity
- Guaranteed N-Serv Compatible
- 1 1/4" NPT in and out
- Stainless steel interior
- Available with or without mounting bracket
- Versatile design provides operability with any flow meter or ground driven pump
- Orifices optional
- 2 additional dump tubes for increased distribution



Continental	
Part No.	Description
CA-SF-3000	Superflow Cooler
CA-SF-RK	O-Ring Repair Kit



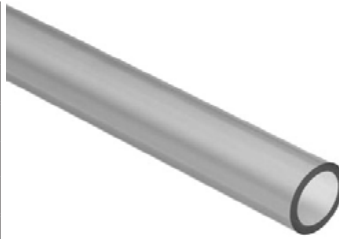
Anhydrous Ammonia Hose & Accessories

Eva Tubing (Available in Black or Tinted Blue)

Application: Used in applying anhydrous ammonia, aqua ammonia, herbicides, phosphates and all liquid fertilizers.

Construction: Clear ethylene vinyl acetate plastic tubing.

Part No.	ID	Wall	PSI	Roll Length
G96026	3/8"	1/8"	75	500'
G96026-BL	3/8"	1/8"	75	500'
G96020	1/2"	1/8"	75	300'
G96020-BL	1/2"	1/8"	75	250'
G96023	3/4"	1/8"	60	200'
G96023-BL	3/4"	1/8"	60	200'
G96022	1"	1/8"	60	150'
G96022-BL	1"	1/8"	60	100'



Reinforced Eva Tubing

Application: Same uses as standard EVA tubing. Offers a higher working pressure and has great stress and crack resistance at low temperatures.

Construction: Clear ethylene vinyl acetate plastic tubing, reinforced with a synthetic cord.



Part No.	ID	PSI	Roll Length
G96026B	3/8"	250	300'
G96020B	1/2"	200	300'
G96023B	3/4"	175	300'
G96022B	1"	150	200'

Clear Vinyl Tubing

Application: Site gauge and safety water can usage. Construction: Clear extruded vinyl tubing. In 100' rolls.

Part No.	ID	Wall	PSI	Roll Length
G96039	1/4"	1/8"	70	100'
G96036	3/8"	1/8"	60	100'
G96040	1/2"	1/8"	45	100'
G96037	5/8"	1/8"	40	100'
G96041	3/4"	1/8"	35	100'
G96042	1"	1/8"	25	100'
G96043	1 1/4"	1/4"	20	50'
G96044	1 1/2"	1/4"	20	50'



Stainless Steel Hose Clamps

Part No.	ID	Hose Size
DE45001	5/16" - 7/8"	3/8" - 1"
42H000012B	9/16" - 1 1/4"	3/4"
DE45002	1 1/16" - 1 1/2"	1/2" - 1"
DE45007	1 1/16" - 2"	1 - 1/4"
DE45003	1 5/16" - 2 1/4"	1 - 1/2"
DE45008	2 1/16" - 3"	2"
DE45005	3 1/16" - 4"	3"

Anhydrous Ammonia Hose

Part No.	Size & Braid
GF050-150	1/2 x 15'0 Nylon
GF100-032	1 x 32' Nylon
GF100-030	1 x 3'0 Nylon
GF100-040	1 x 4'0 Nylon
GF100-080	1 x 8'0 Nylon
GF100-100	1 x 10'0 Nylon
GF100-120	1 x 12'0 Nylon
GF100-150	1 x 15'0 Nylon
GF100-200	1 x 20'0 Nylon
GF125-032	1 1/4 x 32' Nylon
GF125-100	1 1/4 x 10' Nylon
GF-125-120	1 1/4 x 12' Nylon
GF125-150	1 1/4 x 15'0 Nylon
GF125-300	1 1/4 x 30' Nylon



**1-1/2"
& 2"
NH3 Hose
sizes
available
also!**

**Any length
available!**

ACME Couplings - Adapters - Caps

Acme Safety Couplings

Part No.	Inlet Conn.	Outlet Conn.	Brand
CA-577-B	1" MPT	1 3/4" ACME	Continental
S110645	1" MPT	1 3/4" ACME	Squibb
CA-577-C	1 1/4" MPT	1 3/4" ACME	Continental
CA-577-D	1 1/4" MPT	2 1/4" ACME	Continental
S110650	1 1/4" MPT	2 1/4" ACME	Squibb
CA-577-G	1 1/2" MPT	2 1/4" ACME	Continental
S110651	1 1/2" MPT	2 1/4" ACME	Squibb
CA-577-BLC	1" MPT	1 3/4" ACME, Locking	Continental
CA-577-CLC	1 1/4" MPT	1 3/4" ACME, Locking	Continental
CA-577-DLC	1 1/4" MPT	2 1/4" ACME, Locking	Continental
CA-577-GLC	1 1/2" MPT	2 1/4" ACME, Locking	Continental

Squibb



Continental



Acme Adaptor Cap

Part No.	Male Acme	Female Acme
CA-580	1 3/4"	1 3/4"
S150573	1 3/4"	2 1/4"
CA-582	1 3/4"	2 1/4"
S122131	1 3/4"	3 1/4"
CA-584	1 3/4"	3 1/4"
CA-586	2 1/4"	1 3/4"

Acme Couplings

Part No.	Male Pipe Thread	Acme Thread	Length	MFG
CB-521-B	1"	1 3/4"	3 3/4"	Continental
S110684	1 1/4"	2 1/4"	4"	Squibb



Male Acme x Female NPT Adapter

Part No.	Acme Size	FPT Size
S150571	1 3/4"	3/4"
CA-525	1 3/4"	3/4"
S111466	1 3/4"	1"
CA-525-B	1 3/4"	1"
S122055	2 1/4"	1 1/4"
CA-533-G	2 1/4"	1 1/2"
S111561	3 1/4"	2"
CA-544	3 1/4"	2"

Male Acme x Male NPT Adapter



Part No.	Acme Size	FPT Size
S111415	1 3/4"	1/2"
CA-524-A	1 3/4"	1/2"
S111420	1 3/4"	3/4"
CA-524	1 3/4"	3/4"
S111425	1 3/4"	1"
CA-524-B	1 3/4"	1"
S111430	1 3/4"	1 1/4"
CA-524-C	1 3/4"	1 1/4"
S111537	2 1/4"	1"
S111539	2 1/4"	1 1/4"
CA-532	2 1/4"	1 1/4"
S1115570	2 1/4"	1 1/2"
CA-533-G	2 1/4"	1 1/2"
S122055	2 1/4"	2"
CA-534	2 1/4"	2"



Acme Caps & Chains

Part No.	Acme Size
S110680	1 3/4"
CA-529-C	1 3/4"
S110696	2 1/4"
CA-535-C	2 1/4"
S110701	3 1/4"
CA-545-C	3 1/4"

Nylon Acme Dust Cap w/ Chain



Part No.	Acme Size
C22-63-FC	1 3/4"

Male Acme Adapter

Part No.	Acme Size
S111436	1 3/4"
S111446	2 1/4"
S122107	3 1/4"



Spanner Wrench



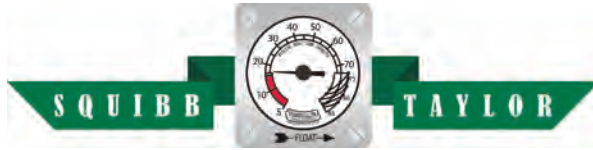
Type Number	Overall Length	Construction Material
S122631	18"	Aluminum

Male Acme Adapter & Plug

Part No.	Acme Size
S111463	1 3/4"
CA-524-WBLC	1 3/4"
S111500	2 1/4"
CA-532-WB	2 1/4"



Hose Couplings | Manual Ball Valve



Did you know?

You can now order parts online!

Simply visit
www.DavisEquip.com
 and look for this icon!

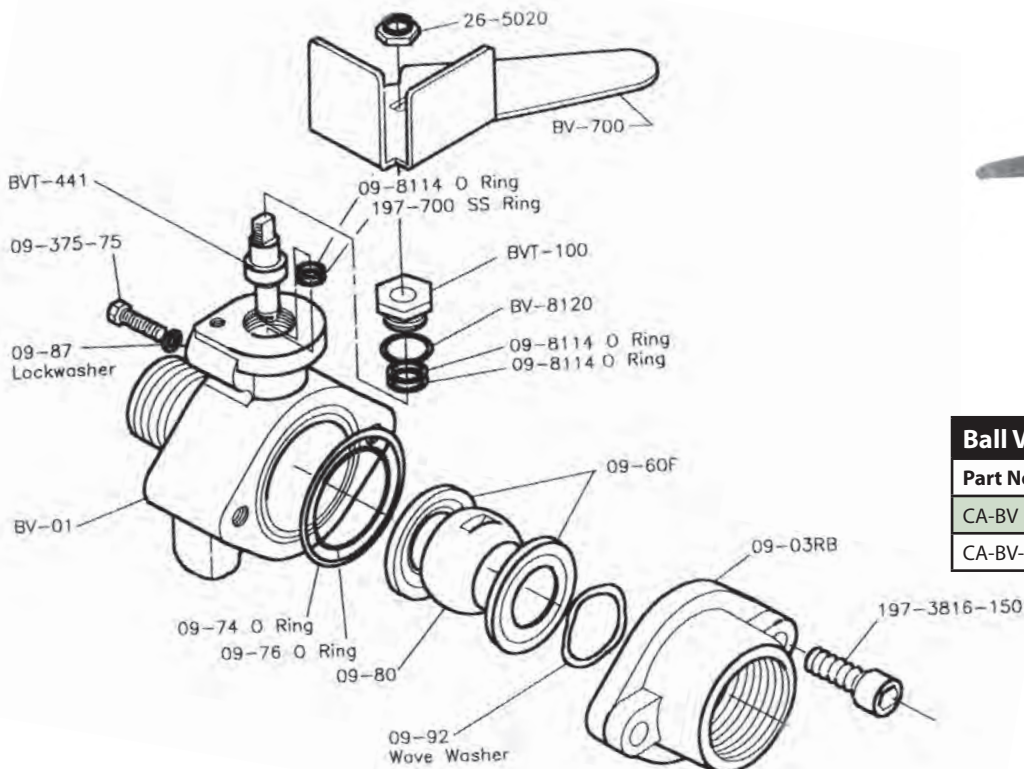
Place your order when it's
 convenient for you. We will be in
 touch once we receive it.



Order Parts

Swivel Hose Adapter Unions

Part Number	Description
TH1404-4-4	1/4" MPT x 1/4" FPT
TH1405-4-4	1/4" FPT x 1/4" FPT
TH1404-6-6	3/8" MPT x 3/8" FPT
TH1405-6-6	3/8" FPT x 3/8" FPT
TH1404-8-8	1/2" MPT x 1/2" FPT
TH1405-8-8	1/2" FPT x 1/2" FPT
TH1404-12-12	3/4" MPT x 3/4" FPT
TH1405-12-12	3/4" FPT x 3/4" FPT
DMI15081006	1" MPT x 1" FPT
TH1405-16-16	1" FPT x 1" FPT
DMI15081007	1 1/4" MPT x 1 1/4" FPT
108-280F	1 1/4" FPT x 1 1/4" FPT
DMI15081008	1 1/2" x 1 1/2" FPT
SMI15081009	2" FPT x 2" FPT



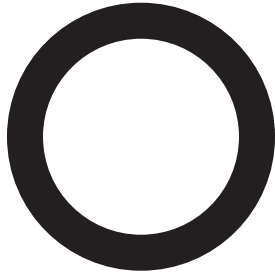
Ball Valves

Part No.	Description
CA-BV	1 1/4" Manual Valve
CA-BV-RK	Repair Kit

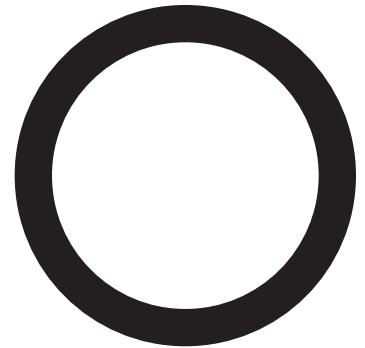
Anhydrous Gaskets

Acme Gaskets

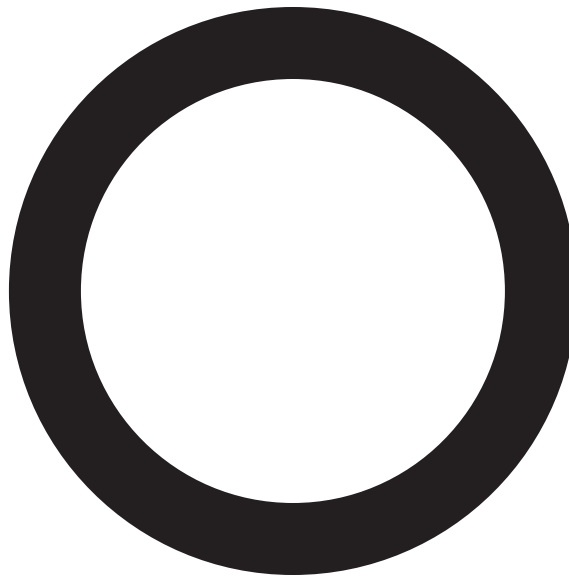
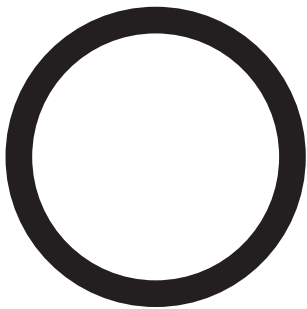
Acme gaskets are made of Buna-N material and are designed for NH3 service. They are shown in actual size and fit acme thread end of valves, adapters, speed couplers, and quick couplers.



Part No.	Description
C22-71-F	1 3/4" Acme Gasket

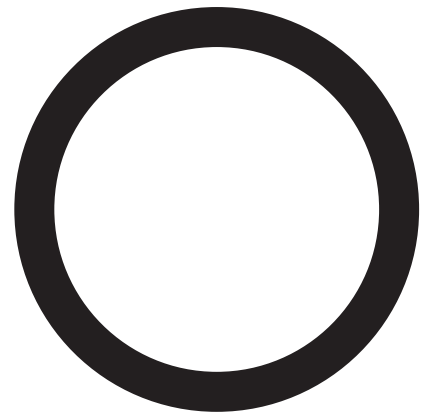
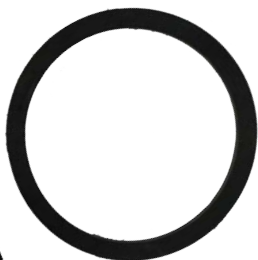


Part No.	Description
C20238	2 1/4" Acme Gasket
S129055	2 1/4" Acme O-Ring



Part No.	Description
C20243	3 1/4" Acme Gasket
S127069	3 1/4" Acme O-Ring

Part No.	Description
S130128	Junior Volume Gauge



Part No.	Description
C20059	Senior Volume Gauge



N-Serve Poly Tank Lid - 110 Gallon	
Part No.	Description
SOLLID5	Lid (sharp thread)
NORLID5	Lid (dull thread)
60366	Gasket*

* Sold Separately

Sealants - Teflon Tape - Hose Barbs - Plugs - Y Casting



Rectorseal No. 5

Part No.	Size
DE45960	1 pint

Pipe Thread Sealant

Part No.	Size
COMRECTRU12PT	½ Pint



PLS Premium Thread and Gasket Sealant



Part No.	PLS 2
PB04	¼ Pint Can



Teflon Tape

Part No.	Description
DE45962	¾"
DE45963	½" natural gas (yellow)
DE45962BM	¾" Blue Monster



Y Dual Hose Consolidators

Part No.	Description
CA-200150SS-WY	SS Y Fitting, 2" MPT x 1 ½" MPT
CBBY200125	1 ¼" FPT Dual Inlet x 2" FPT Outlet
CBBY200150	1 ½" FPT Dual Inlet x 2" FPT Outlet
CA-SF-CDKT2	Adjustable SS Bracket



Manifold Hose Barbs

Part No.	Thread Size	Hose Size	Description
CA-1132	¼" MPNT	¾"	Hose Barb - Plain
CA-1132-2	¼" MPNT	¾"	Hose Barb w/ ⅜" Orifice
CA-1138	¼" MPNT	½"	Hose Barb - Plain
CA1138-2	¼" MPNT	½"	Hose Barb w/ ⅜" Orifice
CA-6132	⅛" MPNT	¾"	Hose Barb - Plain
CA-6132-2	⅛" MPNT	¾"	Hose Barb w/ ⅜" Orifice
CA-6138	⅛" MPNT	½"	Hose Barb - Plain
CA6138-2	⅛" MPNT	½"	Hose Barb w/ ⅜" Orifice

Plugs

Part No.	Description
CA-1135	Plug - ¼" MPNT
CA-6135	Plug - ⅛" MPNT

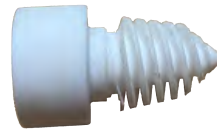


Manifolds - Splitters - Hydrostatic Relief - Vapor Relief Valves

John Blue Impellicone Splitter & Manifold



Part No.	Description	Needle	O-Ring
JBIPS2-4	4-Port Impellicone Splitter, Inlet	JB116162-01	JB116163-01
JBIPS2-6	6-Port Impellicone Splitter, Inlet	JB116162-01	JB116163-01
JBSM	Mount for Splitter		
JBM	1" Elbow - 90° Elbow with Mount		
JBIP-1300	13 Outlet Manifold	JB115520-01	JB115521-01
JBIP-0600	6 Outlet Manifold	JB115520-01	JB115521-01



Continental A-BWS Ammonia Splitter



Part No.	Description
CA-360SP	3-10 Outlets, Up to 200 pounds N per Acre
CA-360-SP-J	3-6 Outlets, 200 and up pounds N per Acre

Continental A-360 Series Manifold System

Part No.	Description
CA-360SP-5	Manifold, 5 Port
CA-360SP-6	Manifold, 6 Port
CA-360MA-C	3-16 Outlets, Up to 225 pounds N
CA-360MA-J	3-16 Outlets, 225 pounds N and up

Squibb Taylor Manifolds & Splitters

Part No.	Description
S111670	21- Port Junior Manifold
S111665	16- Port Sweet 16 Manifold
S111655	2-Way Splitter, 1" Inlet
S111660	3-Way Splitter, 1" Inlet
S111675	4-Way Splitter, 1" Inlet
S111669	5-Way Splitter, 1" Inlet
S111259	16 outlet - 1/4" FPT



Hydrostatic Relief Valve

Part No.	Size	PSI	Dust Cap
CA-400	1/4"	375	C400-DC
S110815	1/4"	350	S110817
CA-400-A	1/4"	312	C400-DC
CA-400-C	1/4"	350	C400-DC



Continental Bleed Down Valve

Part No.	Description
CA-411-HB	Bleed Down Valve
CA-410-HB	Outage Valve w/HB



Relief Valve Manifold

Part No.	Tank Conn.	Brand	Includes	Packing Kit
CA-462	2" FPT	Continental	Manifold Only	CA-462-RK
S110835	2" FPT	Squibb	Manifold Only	S119376
S110855	2" FPT	Squibb	Manifold and (2) Reliefs	S119376



Vapor Relief Valves

Part No.	Size	Brand
CA-402-VA	3/4"	Continental
S110750	3/4"	Squibb
CA-417-AB	1 1/4"	Continental
S110795	1 1/4"	Squibb

Relief Valve Adapters

Part No.	Inlet Conn.	Outlet Conn.	Port
S110825	1" MPT	1" FPT	1/4"
S110830	1 1/4" MPT	1 1/4" FPT	1/4"
S110832	1 1/2" MPT	1 1/2" FPT	1/4"



Bleeder Valve

Part No.	Description
S111411	1/4" Bleed Valve, T Handle
S111410	1/4" Bleed Valve, Knurled Handle
CA-410	1/4" Outage Valve
CA-411	1/4" Bleed Valve, T Handle
CA-411-S	1/4" Bleed Valve, Knurled Handle



Outage Valve Length = Diameter of Tank x .208

Squibb-Taylor Valves | Remote Shutdown

Squibb Taylor Hose End & Transfer Valves

Part No.	Inlet	Outlet	Body Type
S110505	1" FNPT	1" FNPT	Globe
S110515	1" FNPT	1" FNPT	Angle
S110516	1 1/4" FNPT	1 1/4" FNPT	Angle



Squibb Taylor Turbo-Flo LE Transfer Valves

Part No.	Inlet	Outlet	Discharge @ Disconnect
S150840	2" FNPT	3 1/4" Female Acme	.09 CC
S150278	2" FNPT	3 1/4" Female Acme	.09 CC



NH3 Remote Shutdown & Push Button

Part No.	Description
S113800	Storage Remote Shutdown
S113801	15 AMP Converter Box
S113805	1 - Function Transmitter
S113806	Push To Close Button - Electric 5 AMP
S113813	Push To Close Button - Electric 15 AMP
S113802	Solenoid Valve Module for Air Actuators

Relief Valve Caps – Ammonia Gauges



2 1/2" Ammonia Gauge
1/4" Bottom Stem, 304 Stainless Steel

Part No.	Graduation			PSI Range
	Number	Major	Minor	
AG60	10	10	1	0-60
AG400	50	50	10	0-400
AG150	20	10	5	0-160

Series ASG 4" Ammonia Gauge
1/4" Bottom Stem, 304 Stainless Steel

Part No.	Graduation			PSI Range
	Number	Major	Minor	
AG60-4	10	10	2	0-60
AG150-4	20	10	5	0-160

Series ASG 2 1/2" Liquid-Filled Gauge
All Stainless Steel Case & Internals
1/4" Bottom Stem, Stainless Steel

Part No.	Graduation			PSI Range
	Number	Major	Minor	
WGGSS60	10	10	2	0-60
WGGSS100	20	10	2	0-100
WGGSS160	20	10	2	0-160
WGGSS400	50	50	10	0-400

NH3 Volume Gauge Pricing

Part No.	Mount	Tank Dia.
C20326	Top Senior	37"
R30015	Top Senior 1000	41"
C20320	Top Senior 1450	46"
C20324	Top Senior	48"
C20321	45° Angle Senior	30"
C20322	45° Angle Senior	37"
S130447	45° Angle Senior	41"
R30017	45° Angle Senior	46"
S130457	End Senior	41"
C20327	End Senior	46"
C20333	Top Senior Stainless Steel	41"
C20330	Top Senior Stainless Steel	46"
C20060	Screws (4 Per Gauge)	
S130120	Straight SR - Screw	
S130461	End Mount Gauge, 4" Dial	46"
S130131	Gasket for S130461	

Find gaskets
on pg. 66

Relief Valve Caps

Part No.	Description
C400-DC	Dust Cap - 1/4"
CA-402-N-DC	3/4" Plastic Cap
CA-417-DC	1 1/4" Plastic Cap
S122665	Rubber Dust Cap
RAA3135	1 1/4" Rain Cap



Plastic Screw on Lens

Part No.	Description
DE45030	Lens



Ball Valve Poly with Buna Seal

Part No.	Description
LVHB038V	3/8" 2 Way Ball Valve
LVHB050V	1/2" 2 Way Ball Valve



Rochester Dial

Part No.	Description
C20061	Senior Flat Dial
C20064	Jr. Flat Dial

Taylor Dial

Part No.	Description
S130018	Squibb Dial
S130010	2" Visible Dial



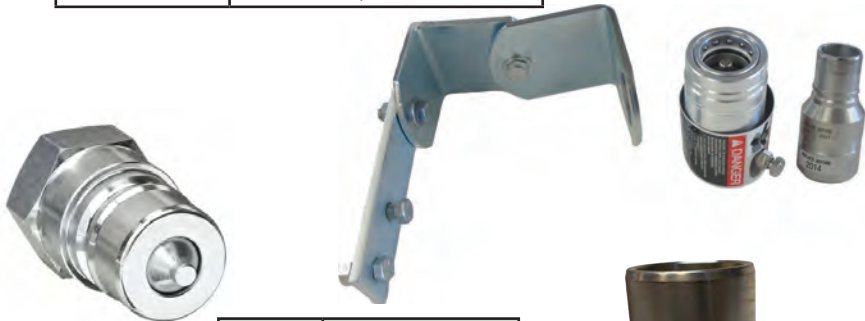
3,000 Gallon Arcosa 73" Tank Dial

Part No.	Description
S131833	Complete Gauge
S131839	Replacement Dial Assy.

NH3 Breakaway Couplers | Safety Containers

1" Pioneer Breakaway Coupler with Bracket

Part No.	Description
4555-6	1" Female Assy. w/ Bracket



Part No.	Description
4510-6M	1" Male Tip
4510-6	1" Male Tip w/FPT

Part No.	Description
4510-7	1 1/4" Male Tip

Part No.	Description
P91022	Nylon O' Ring
P91021	Nylon Retainer



1 1/4" Pioneer Breakaway Coupler

Part No.	Description
4555-7	1 1/4" Female Assy. w/ Bracket

Part No.	Description
9070034	Decal-Operating Instructions



Part No.	Description
45-600-6A	Snap Ring



Water Can Hose

Clear Vinyl Hose With 1/2" Sidewall

Part No.	Description	Size	Amount Required	Reel Size
G96037	P & H Top Mount Container	5/8"	6'	100'
G96037	P & H Side Mount Container	5/8"	2'	100'
G96041	Ag Systems Water Container	3/4"	6'	100'
G96040	Farmland Water Container	1/2"	6'	100'
G96041	FEi CRM - 6000-35 Container	3/4"	4'	100'

Safety Kit

Safety Equipment Container provides weatherproof protection for gloves, goggles, respirator, etc. Mounts on any sized tank either individually or in conjunction with P & H safety water containers. Comes complete with mounting hardware and decal.



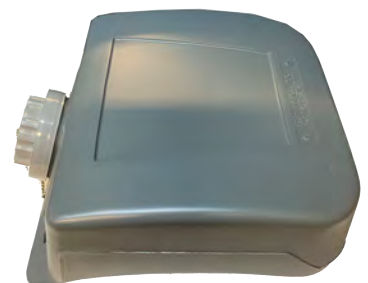
Part No.	Description
75649	Safety Equipment Container

WATER CONTAINERS

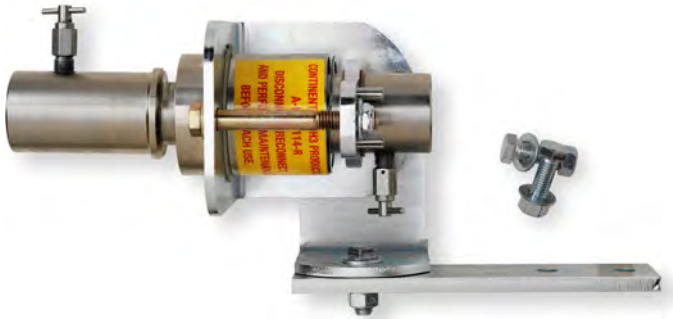


Part No.	Description
F85000S	Side Mount Water Container
F85002	Screw on Lid

Part No.	Description
F85000	Top Mount Water Container



Breakaway Couplers



Breakaway Coupler with Bracket

Part No.	Description
CA-HFC-114R	1 1/4" High Flow Tool Bar Coupler



Continental NH3 SWV Breakaway Coupler

Part No.	Description
CA-SWV-125	1 1/4" Full Flow
CA-SWV-150G	1 1/2" Full Flow
CA-SWV125150-RK	Repair Kit



Integral Shear Check-Lock

Part No.	Description	Inlet Conn.	Outlet Conn.
S110630	Safety Coupling	1" MNPT	1 3/4" F. Acme
S110635	Safety Coupling	1 1/4" MNPT	2 1/4" F. Acme
S110631	Check Valve w/ ACME O-Ring	1 3/4" F. Acme	1 1/4" MNPT
S110636	Check Valve w/ ACME O-Ring	2 1/4" F. Acme	1 1/4" MNPT
S110632	Bell Adaptor	1 1/4" FNPT	1" MNPT

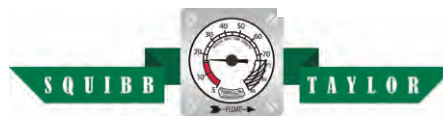
In-Line Breakaway Coupling

Part No.	Inlet Conn.	Outlet Conn.	Description
S113250	1 1/4" FNPT	1 1/4" FNPT	Breakaway Coupling



Flo-Max Couplers

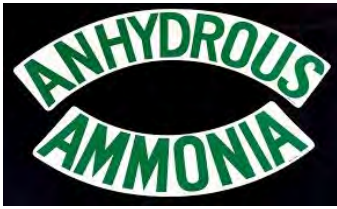
Part No.	Description
S113026	1 1/4" Flo-Max Less Bracket
S113027	1 1/4" Flo-Max w/ Std Bracket
S113028	1 1/4" Flo-Max w/ EZ Bracket
S113202	1 1/2" Flo-Max w/ EZ Bracket
S113023	Standard Bracket Only
S113019	EZ Bracket (Fits FM & Pioneer)
S111595	Spacer for 1" Pioneer (Required)
S111596	Spacer for 1 1/4" Pioneer (Required)



FM 126/125 Replacement Parts

Part No.	Description
S113044	Repair Kit w/ Wrench
S113041	Plunger Kit
S113046	O-Ring Kit
S113048	Quad Ring
S119395	O-Ring for Male Tip
P5-133-R0	O-Ring
P5-015-R4	O-Ring
S113013	Safety Decal
S119394	Male Plug
S113047	Female Half
S113049	Male Half

Nurse Tank Decals



Part No.	Description
CD35026	DOT 'UN' Number



Part No.	Description
CD35022	Anhydrous Ammonia - Circular (4" Letters)
CD35025	Anhydrous Ammonia - Rectangular (4" Letters)
CD35033	Anhydrous Ammonia - Green on White (2" Letters)

Part No.	Description
CD35032	Inhalation Hazard - 2" Letters
CD35031	Inhalation Hazard - 3" Letters
CD35037	Inhalation Hazard - 6" Letters



Part No.	Description	Qty.
CD35036	VAPOR	12 per sheet
CD35035	LIQUID	12 per sheet

Part No.	Description
CD5014	60' Spread Decal
CD5013	40' Spread Decal
CD5015	50' Spread Decal



Part No.	Description
CD35006	Water Decal



Part No.	Description
CD35009	NH ₃ 82% Nitrogen Decal



Part No.	Description
CD35027	Liquified



Part No.	Description
CD35023	Ammonia - 6"



Part No.	Description
CD35024	Anhydrous - 6"



Part No.	Description
CD35012	Wear Your Goggles Decal



Part No.	Description
CD35003	Caution Ammonia - Red Letters - 6"
CD35002	Caution Ammonia - Circle - 5"

Part No.	Description
CD35004	ID Decal

Seven individual 1" x 3" red on white valve identification decals on one sheet.



Part No.	Description
CD35005	3 pt. Caution



Part No.	Description
CD35016	Yellow Vapor



Part No.	Description
CD35015	Orange Liquid



Metermatic Parts - Meters - Shut-Off Valves

Repair Kits	
Part No.	Description
CA-4125-RS	2500 Repair Kit
CA-4125-RS	4100 Repair Kit

Rotary Actuator	
Part No.	Description
CR-6572	Rotary Actuator

Singly 1" & Multiple (14) Outlets	
Part No.	Description
C-4103-RPR	Single 1" Outlet
C-2503-RPR	Single 1" Outlet
C-4100-RPR	Multiple Outlet (14)
C-2500-RPR	Multiple Outlet (14)

SINGLE DIAL SETTING

C-2500: 250-2500# Nitrogen per Hour
C4100: 250-4100# Nitrogen per Hour



Continental NH3 B9500 Meter

Part No.	Description
CB-9500-M	B9500 with 1 1/4" single outlet



Continental NH3 Shut-Off Valve R-9590

Part No.	Description
CR-9590	1" FPT
CR-9590-B	1 1/4" FPT

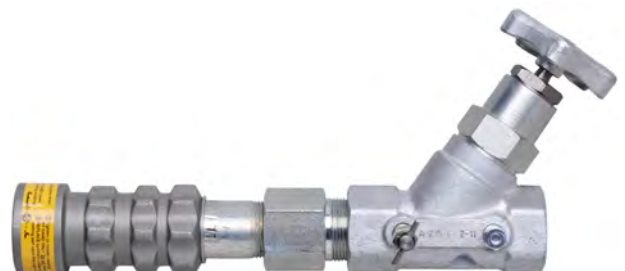
Continental Electronic Control & Shut-Off Ball Valve

Part No.	Description
CA-CBVT-125-CT	Ball Valve
CA-BVT-1-SO	1" Shut-Off Valve
CA-BVT-125-SO	1 1/4" Shut-Off Valve
CA-CBVT-125-CT	1 1/4" 120 Degree Control Valve Only
CA-BVT-125-CT	1 1/4" 90 Degree Control Valve Only



Continental High-Flow Valves

Part No.	Inlet Conn.	Outlet Conn.	Coupling Used
CA-215-L	1 1/4" MNPT	1 3/4" ACME	Iron
CA-216-L	1 1/4" MNPT	2 1/4" ACME	Iron
CA-217-L	1 1/2" MNPT	2 1/4" ACME	Iron



Continental Valves | Squibb Taylor Valves

Globe Valves

Part No.	Type	Thread Size	Repair Kit
CB-1350-C	Globe, 45	1" FPT	CA-2212-RK
CA-2525-H	Globe, 45	1 1/4" FPT	CA-25H-RK
CA-2550-H	Globe, 45	1 1/2" FPT	CA-2550H-RK
CA-2700	Globe, 45	2" FPT	CA-26-RK
CB-1650	Globe	1" FPT	CA-2212-RK
CA-1625	Globe	1 1/4"	CA-25H-RK



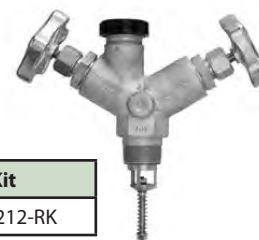
Angle Valves

Part No.	Type	Thread Size	Repair Kit
CB-1250	Angle	1" FPT	CA-2212-RK
CA-2425	Angle	1 1/4" FPT	CA-24-RK
CA-2450	Angle	1 1/2" FPT	CA-24-RK
CA-2600	Angle	2" FPT	CA-26-RK



NH₃ Fill and Vapor Valve

Part No.	Inlet Conn.	Outlet Conn.	Flow Check	Repair Kit
CB-1201	1 1/4" MPT	1 3/4" ACME	42 GPM	CA-2212-RK



NH₃ Combo Valve

Part No.	Inlet Conn.	Outlet Conn.	Flow Check	Repair Kit
CB-1205	1 1/4" MPT	1" FPT & 1 3/4" Acme	42 GPM	CA-2212-RK



NH₃ Withdrawal Valve

Part No.	Inlet Conn.	Outlet Conn.	Flow Check	Repair Kit
CB-1206-E	1 1/4" MPT	1" FPT	42 GPM	CA-2212-RK
CB-1206-F	1 1/4" MPT	1 1/4" FPT	42 GPM	CA-2212-RK
CA-1406-F	1 1/4" MPT	1 1/4" FPT	45 GPM	CA-25H-RK
CA-1406-G	1 1/4" MPT	1 1/2" FPT	45 GPM	CA-25H-RK
CA-1507-F	1 1/2" MPT	1 1/4" FPT	60 GPM	CA-25H-RK
CA-1507-G	1 1/2" MPT	1 1/2" FPT	60 GPM	CA-25H-RK
CA-1708-GA	1 1/2" MPT	2 1/4" ACME	60 GPM	CA-25H-RK
CA-1507-F-45	1 1/2" MPT	1 1/2" FPT	45 GPM	CA-25H-RK
CA-1708-F	1 1/2" MPT	1 3/4" ACME	60 GPM	CA-25H-RK



NH₃ Globe Valve

Inlet / Outlet Connections	Part No. Globe	Repair Kit
1/2" FNPT	S110535	S119279
3/4" FNPT	S110255	S119039
1" FNPT	S110280	S119059
1 1/4" FNPT	S110320	S119109
1 1/2" FNPT	S110355	S119109
2" FNPT	S110375	S119169
2" ANSI Flanged	S110378	S119169
3" FNPT	S110415	S119217
3" ANSI Flanged	S110420	S119217

Squibb Taylor Hi-Flow Hose End Valves and Valve Assemblies



Part No.	Inlet Conn.	Outlet Conn.	Coupling Used	Repair Kit
S110333	1" FPT	1" FPT	Aluminum	329-22
S110334	1" FPT	1 1/4" FPT	Iron	S119228
S110336	1 1/4" FPT	1 1/4" FPT	Iron	S119228
S110338	1 1/4" FPT	1 1/4" FPT	Aluminum	333-22
S110337	1 1/2" FPT	1 1/2" FPT	Aluminum	333-22
S110857	1" FPT	1 3/4" FPT	Iron	S119059
S110860	1 1/4" FPT	1 3/4" FPT	Iron	S119228
S110862	1 1/4" FPT	2 1/4" FPT	Iron	S119228
S110901	1 1/2" FPT	2 1/4" FPT	Aluminum	333-22

Squibb Taylor Valves | RotaSeal

Hi-Flow Nurse Tank Valves							
Item Number	Part Number	Application	Tank Connection	Outlet Connection	Fill Rate @ 50 PSI Δ	Excess Flow Rate	Repair Kit
111155 •	A525P	Filling	1 1/4" MNPT	1 3/4" M. Acme	100 GPM	45 GPM	310-22 (119059)
		Vapor Return			-----		
110776 •	A502N-45	Filling	1 1/2" MNPT	1 1/2" FNPT	150 GPM	45 GPM	480-22 (119306)
		Liquid Withdrawal			-----		
110777 •	A502N-60	Filling	1 1/2" MNPT	1 1/2" FNPT	150 GPM	60 GPM	
		Liquid Withdrawal			-----		
110778 •	A506N-45	Filling	1 1/2" MNPT	1 1/4" FNPT	150 GPM	45 GPM	
		Liquid Withdrawal			-----		
111150 •	A520R *	Liquid Withdrawal	1 1/4" MNPT	1" FNPT	-----	45 GPM	310-22 (119059)
111151 •	A521P			-----	-----		
110771 •	A484N-45 ~			1 1/4" FNPT	-----		
110772 •	A480N-45 ~		1 1/2" MNPT	1 1/4" FNPT	-----	60 GPM	480-22 (119306)
110773 •	A480N-60 ~			-----	-----	45 GPM	
110774 •	A482N-45 ~			1 1/2" FNPT	-----	60 GPM	
110775 •	A482N-60 ~			-----	-----	60 GPM	
111156 •	A525P-RD +	Filling	1 1/4" MNPT	1 3/4" M. Acme	100 GPM	45 GPM	310-22RD (119057)
		Vapor Return			-----		
111152 •	A521P-RD +	Liquid Withdrawal		1" FNPT	-----		

* With Built-In Relief.

~ With A1327 Hydrostat Installed.

+ Has Rubber Disc Instead of Zytel®.

Sizing Excess Flows - Refer To Local Codes.



A525P



A525P-RD



A520R



A521P



A480N, A482N, & A484N



A502N & A506N

ID Tags



Triangle - 45 GPM



Circle - 60 GPM

NH₃ Angle Valve

Inlet / Outlet Connections	Part No. Globe	Repair Kit
1/2" FNPT	S110540	S119279
3/4" FNPT	S110260	S119039
1" FNPT	S110300	S119059
1 1/4" FNPT	S110335	S119109
1 1/2" FNPT	S110365	S119125
2" FNPT	S110395	S119169
2" ANSI Flanged	S110398	S119169
3" FNPT	S110425	S119217
3" ANSI Flanged	S110429	S119217



RotaSeal Hose Swivel

Part No.	Description	Repair Kit
S112051	3/4" MNPT x FNPT	S112052
S112056	1" MNPT x 1" FNPT	S112057
S112061	1 1/4" MNPT x 1 1/4" FNPT	S112065

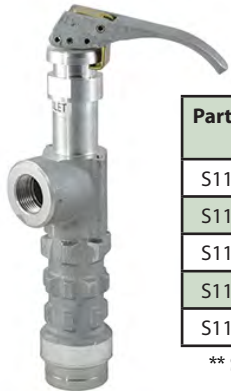
Continental Valves | Squibb Taylor Valves



Riser Valves

Part No.	Description
S110600	Bushing

Part No.	Inlet Conn.	Outlet Conn.	Max Flow	Hyd. Relief Included	Repair Kit
S110733	1 1/4" MPT	1 1/4" FPT	45 GPM	NO	S119059
S110586	2" MPT	1" FPT	70 GPM	NO	S119059
S110588	2" MPT	1 1/4" FPT	70 GPM	NO	S119059
S110591	2" MPT	1 1/4" FPT	95 GPM	YES	S119306
S110593	2" MPT	1 1/4" FPT	110 GPM	YES	S119306
CB-1208-FR	1 1/4" MPT	1 1/4" FPT	70 GPM	NO	NA
CB-1208-FRB	1 1/4" MPT	1 1/4" FPT	70 GPM	YES	NA
CB-1508-FR	1 1/2" MPT	1 1/4" FPT	95 GPM	NO	NA
CB-1508-FRB	1 1/2" MPT	1 1/4" FPT	95 GPM	YES	NA



Angle Hose End Valves Minimum Loss Hose End Valves

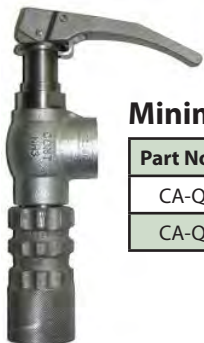
Part No.	Inlet Conn.	Outlet Conn.	Body Type	Repair Kit
S110450	1" FPT	1 3/4" ACME	Angle **	S119351
S110505	1" FPT	1" FPT	Globe	S119361
S110515	1" FPT	1" FPT	Angle	S119361
S110516	1 1/4" FPT	1 1/4" FPT	Angle	S119361
S110451	1 1/4" FPT	1 3/4" ACME	Angle **	S119351

** STANDARD MINIMUM LOSS

Riser Safety Shear

Part No.	Description	Size	GPM
C53-RSS	Shear Only	1"	53
C72-RSS	Shear Only	1 1/4"	72
C98-RSS	Shear Only	1 1/4"	98
CJJ6-710	Bungi Cord Ring	1 1/4"	-
CJJ6-700	Bungi Cord Ring	1"	-

Part No.	Des.	Flow
CA-53-RSS	1"	53 GPM
CA-72-RSS	1 1/4"	72 GPM
CA-98-RSS	1 1/4"	98 GPM



Minimum Bleed Valves

Part No.	Size	Repair Kit
CA-QOVM-100	1"	CA-QOVM-RK
CA-QOVM-125	1 1/4"	CA-QOVM-RK



Fast Fill Minimum Bleed Valve

Part No.	Size	Repair Kit
CA-QOVM-125FF	1 1/4"	CA-QOVMFF-RK

3" Globe Valves

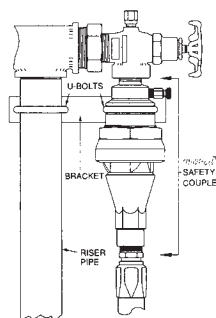
Part No.	Size	Repair Kit
CA-2800	3"	CA-2800-RK
CA-2900	3"	CA-2800-RK

- Powered coating
- Standard or high-flow design
- 20% faster flow with high-flow valve
- Affordably priced!



Tri-Pod™ Safety Coupler

Part No.	Inlet Conn.	Outlet Conn.	Capacity
S113051	1" MPT	1" MPT	55 GPM
S113056	1" MPT	1" MPT	77 GPM
S113059	1 1/4" MPT	1 1/4" MPT	126 GPM
S113065	3" MPT	3" MPT	350 GPM



Rego Valves



NH₃ Globe Valve

Part No.	Size	Repair Kit
RA7507AP	1"	RA7507-50
RA7509BP	1 1/4"	RA7509-50
RA7511AP	1 1/2"	RA7511-50
RA7513AP	2"	RA7513-50
RA7517AP	3"	RA7515-50



NH₃ Angle Valve

Part No.	Size	Repair Kit
RA7508AP	1"	RA7507-50
RA7510BP	1 1/4"	RA7509A-50
RA7512AP	1 1/2"	RA7511-50
RA7514AP	2"	RA7513-50
RA7518AP	3"	RA7515-50



NH₃ Quick Acting Globe & Angle Valve

Part No.	Size	Repair Kit
RA7708L	1" Angle	RA7707-50
RA7707L	1" Globe	RA7707-50



NH₃ Fill Valve

Part No.	Description	Repair Kit
RA8016DP	NH ₃ Fill Valve	RA8016B-50

NH₃ Withdrawal Valve

Part No.	Description
RA8017DH	NH ₃ Withdrawal Valve
RA8016B-50	Repair Kit



NH₃ Withdrawal Valve

Part No.	Description
RA8017DP	NH ₃ Withdrawal Valve
RA8016B-50	Repair Kit



Quick-Acting Minimum Loss Hose-End Valve

Part No.	Description	Repair Kit
RA7797	Hose-End Valve	RA7797-50



Combination Fill / Withdrawal Valve

Part No.	Description	Repair Kit
RA8018DP	Combination Valve	RA8016B-50
RA8018-9	Back Check	-



Rectorseal &
Teflon Tape
p. 67

Miscellaneous Anhydrous Ammonia Items

Master Model 4607A & 4607B Gauges

Tank Dia.	Tank Opening	Model Type	Part No.	Std. Dial
72"	2"	A	S138000	S130090
	2 1/2"	B	S138005	S130090
82"	2"	A	S138010	S130090
	2 1/2"	B	S138015	S130090
84"	2"	A	S138020	S130090
	2 1/2"	B	S138025	S130090
96"	2"	A	S138030	S130090
	2 1/2"	B	S138035	S130090
104" - 108"	2"	A	S138040	S130090
	2 1/2"	B	S138045	S130090
130'	2"	A	S138050	S130090
	2 1/2"	B	S138055	S130090



Snappy Joe

Part No.	Description
S122585	1 1/4" FNPT
S122590	2" FNPT
S122595	3" FNPT

Container Thermometers

Container Connection	Stem Length	Part No.
1/2" MNPT	4"	S121245
	6"	S121250



Flow Indicators

Service	Pipe Size	Part Number	Includes
NH3 or LP-gas	2"	S130050	5305 Adapter (2" MNPT)
	2 1/2"	S130055	5318 Adapter (2 1/2" MNPT)
	3"	S130060	5305 Adapter (2" MNPT)

Continental In-Line Back Check Valves

Part No.	Application	Inlet Conn.	Outlet Conn.
CA-14BC	In-Line	1 1/4"	1 1/4"
CB-15BC	In-Line	1 1/2"	1 1/2"

Flexible Connectors

Part Number	MNPT Size	Length	Material
S200820	1 1/4"	18"	Stainless
S200825	1 1/4"	24"	Stainless
S200830	2"	18"	Stainless
S200835	2"	24"	Stainless
S200840	3"	18"	Stainless
S200845	3"	24"	Stainless



Excess Flow Valves

Part No.	Type	Inlet Conn.	Outlet Conn.	Closing Flow
S111335	A	1 1/4" MPT	1 1/4" FPT	50 GPM
S111381	A	2" MPT	2" FPT	110 GPM
S111356	B	2" MPT	2" FPT	95 GPM
S111371	B	3" MPT	2" FPT	225 GPM
S111340	C	1 1/4" MPT	1 1/4" FPT	50 GPM
S111347	C	2" MPT	1 1/4" MPT	95 GPM
S111375	C	3" MPT	2" MPT	165 GPM
S111382	C	3" MPT	2" MPT	225 GPM
S111361	C	2" MPT	2" MPT	95 GPM
S111364	C	3" MPT	3" MPT	165 GPM
S111365	C	3" MPT	3" MPT	225 GPM
CA-EFV-45-G	-	1 1/2"	1 1/2"	45 GPM
CA-EFV-45	-	1 1/4"	1 1/4"	45 GPM



Style A



Style B



Style C



Back Check Valves

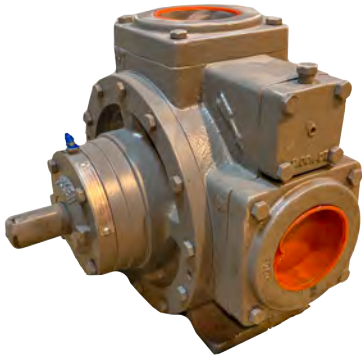
Part No.	Application	Inlet Conn.	Outlet Conn.
S111383	Tank or In-line	3/4" MPT	3/4" FPT
S111385	Tank or In-line	1 1/4" MPT	1 1/4" FPT
S111390	Tank or In-line	2" MPT	2" FPT
S111395	Tank or In-line	3" MPT	3" FPT
S111400	Tank or In-line	2" MPT	2" FPT
S111398	In-line Full Flow	1 1/4" FPT	1 1/4" FPT
S111399	In-line Full Flow	1 1/2" FPT	1 1/2" FPT



Back Check



Corken Pump Info-Vapor King Transfer



Positive displacement pump line that is designed for stationary applications at bulk plants.

- Only Corken Coro-Vane pumps have heavy duty roller bearings for longer service life. The bearings are interchangeable in all sizes of Coro-Vane pumps.

- All parts, including the hydraulically self adjusting blades, are easily accessible for inspection or replacement without disturbing the piping.
- Models 521 and 1021 have a built-in internal relief valve for added safety.
- Flanges of ductile iron save money by eliminating pipe unions and also simplify installation. Steel slip on welding flanges also available.

Specifications

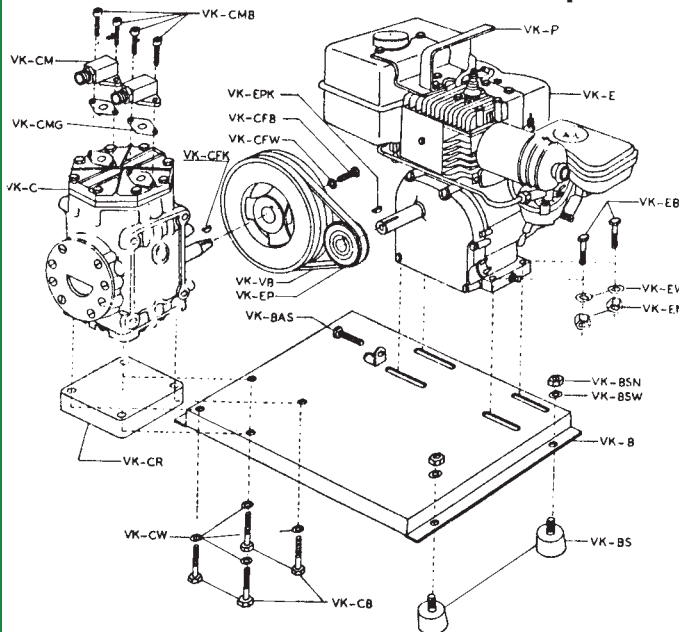
Suction Flange:	2 1/2" (521) 3" (1021)
Discharge Flange:	2" (521) 3" (1021)
Maximum RPM:	950
Minimum RPM:	420
Maximum Temperature:	225°F
Minimum Temperature:	-25°F
Maximum Working Pressure:	400 psig
Maximum Differential Pressure:	125 psig

Corken Pumps

Pump Model Number	RPM	Motor Horse Power	Capacity GPM*	Maximum Differential Pressure	Inlet	Piping Sizes Outlet	Bypass Vapor	Hose Sizes		Vapor
								Valve	Liquid	
521	780.00	5.00	70.00	55 psig	2"	1 1/2"	1 1/4"	1 1/2"	1 1/2"	1"
	950.00	7.50	95.00	65 psig	3"	2"	1 1/4"	1 1/4"	2"	1 1/4"
1021	780.00	7.50	165.00	30 psig	3"	2 1/2"	1 1/4"	2"	2"	1 1/4"
	950.00	10.00	200.00	30 psig	4"	3"	2"	2"	2"	1 1/2"
1521	640.00	10.00	260.00	20 psig	4"	3"	2"	2"	2"	1 1/2"
	780.00	15.00	325.00	25 psig	4" - 6"	4"	2"	2"	2"	1 1/2"
	860.00	20.00	350.00	25 psig	6"	4"	2"	2"	2"	1 1/2"

VAPOR KING

Vapor Transfer Compressor Unit



Features

- Saves Dollars - Eliminates Waste
- Saves Time - Faster Filing
- Eliminates Dangerous Vapor Loss
- Eliminates Crop Damage
- Does not Rely on Tank Pressure

Specifications

- 3 H.P. Briggs & Stratton Engine,
- 10 C.F.M. York Compressor, Inlet
- & Outlet Connections - 1/2",
- Portable - Total Weight 54 Lbs.

Vapor transfer units are used on NH₃ caddy applicators to transfer product from nurse tank to applicator when side dressing crops with anhydrous ammonia. The pump is used to build pressure in the nurse tank to force product into the applicator tank. Make sure you use high pressure NH₃ hose when transferring product. These are normally 1/2" NH₃ hoses, so please call for your various length requirements.

Vapor King

Part No.	Description
VK-1	Vapor Transfer Unit Complete Less Hoses
VK-C	Replacement Compressor Only
VK-CM	Manifold Block
VK-CMG	Manifold Block Gasket

Corken Pump & Compressor Repair Parts



521, 522 and T522

Part No.	Description	Qty Needed
1162-2	Cam	1
1163-2*	Side Plate	2
1166-1X1R	Rotor & Shaft (521)	1
1166-1X2R	Rotor & Shaft (522 & T522)	1
1168-7*	Blade – LP 1168-7 Blade LP - NH3	10
1172	Flange (specify 2" or 2 1/2")	2
1769-XRA*	Seal Assembly	2
1769	Bearing Housing	2
2754-X*	Bearing	2
2-234A*	Flange "O" Ring	2
2-261A*	Head "O" Ring	2
2904-X2	Repair Kit – LP Only- NH3 *(Includes Asterick Items)	1

T722, TS722, and TR722

Part No.	Description	Qty Needed
254-X4*	Thrust Absorber	1
1769-XRA*	Seal Assembly	2
1769	Bearing Housing	2
1849-1*	Cam	1
2754-X*	Bearing	2
3932*	Side Plate	2
3981*	Blade	6
3983-X2R	Rotor & Shaft	1
2-261A	Head "O" Ring	2
2905-X7	Repair Kit – Conversion LP - NH ₃ *(Includes Asterisk Items)	1
2905-X5	Repair Kit – 7226 LP - NH ₃	1
2905-X6	Conversion Kit – 722F to 722G LP - NH ₃	1

490 Compressor

Part No.	Description	Qty Needed
1063-400	Pressure Gauge – Gas	2
1302	Oil Pressure Gauge	1
1384-X	Crosshead Assembly	2
1452-1X1	Packing Set	2
1481	Head Gasket	1
1481-XA	Gasket – Set	1
1491	Connecting Rod Bearing	2 Pr.
1773	Rings	6
1776	Ring Expanders	6
1985-X	Piston Assembly	2
2439-X	Discharge Valve Assembly	2
2448	Cage	2
2532-X1	Suction Valve	2
3551-X1	Repair Kit	1

1021 and 1022

Part No.	Description	Qty Needed
1201-2	Cam	1
1208-1X1R	Rotor & Shaft (1021)	1
1208-1X2R	Rotor & Shaft (1022)	1
1209-1*	Side Plate	2
1308-9*	Blade – LP 1168-7 Blade LP-NH3	10
1358*	Grease Seal	2
1769-XRA*	Seal Assembly	2
1769	Bearing Housing	2
2754-X*	Bearing	2
2-112A*	"O" Ring	2
2-228A*	"O" Ring	2
2-245A*	Flange "O" Ring – 3"	2
2-249A*	Flange "O" Ring – 4"	2
2-268A*	Head "O" Ring	2
2906-X2	Repair Kit – LP - NH3 *(Includes Asterisk Items)	1

290 Compressor

Part No.	Description	Qty Needed
90-4RX2	Suction Valve	2
1063-400	Pressure Gauge – Gas	2
1132-X2	Crosshead Assembly	2
1281-XA	Gasket Set	2
3550-X1	Repair Kit	1

1021 and 1022

Part No.	Description	Qty Needed
1358*	Grease Seal	2
1769-XRA*	Seal Assembly	2
1792-1	Cam	1
2014*	Grease Seal	2
2754-X*	Bearing	2
3209*	Bearing Assembly	2
3350-X2R*	Rotor & Shaft	1
3476L*	Side Plate (Left)	1
3476R*	Side Plate (Right)	1
3477*	Blade	6
2-234A*	"O" Ring	2
2-238A*	"O" Ring	2
2-245A*	"O" Ring	2
2-249A*	"O" Ring	2
2-268A*	"O" Ring	2
2907-X3	Repair Kit – LP - NH3 *(Includes Asterisk Items)	1

Corken Coro-Vane

Stationary Pump Units

Four Sizes to Economically Handle Bulk Pumping Application

Corken Coro-Vane Stationary Pump - Models 521 or 1021

Ref No.	Part No.	Code No. (2")	Part No.	Code No. (3")	Description
	521 (2")		1021 (3")		
1	1162-2	DVS	1201-2	DVS	Cam
2	2832	DVS	2841	DVS	Case
3	1172-2 1/2	4907000	1206-3	4907001	Flange
4	2-234A	4907033	2-245A	4907034	Flange "O" Ring
5	2-212	4907002	2-212A	4907002	Adjusting Screw "O" Ring
6	2590	4907003	2590	4907003	1/8" Flush Steel Plug
7	2252	4907004	2252	4907004	Relief Valve Adjusting Screw
8	1174	DVS	1207	DVS	Valve Cap
9	1242	4907008	1227	4907009	Relief Valve Spring Guide
10	2-224A	4907011	2-228A	4907011	Relief Valve Cap "O" Ring
11	1240	4907012	1226	4907013	Relief Valve Spring
12	1241	4907014	1224	4907015	Relief Valve
13	1170	4907016	1309	4907017	Cam Key
14	1168-7 (10)	4907043	1308-9 (10)	4907044	Blade (NH3)
15	1166-1X1R	DVS	1208-1X1R	DVS	Rotor and Shaft Assy. w/2755
16	1358	DVS	1358	DVS	Grease Seal
17	1164-1	4907019	1164-1	4907019	Bearing Cap
18	2158	4907020	2158	4907020	Grease Zerk
19	1769	4907021	1769	4907021	Bearing Housing
20	1343	4907022	1343	4907022	Relief Fitting (Seal Vent)
21	1769XRA	DVS	1769XRA	DVS	Seal Assy. - Less Bearing
22	1163-2	DVS	1209-1	DVS	Side Plate
23	1161-2	DVS	1205-2	DVS	Head
24	2754X	DVS	2754X	DVS	Roller Bearing Complete
25	2760-244	4907027	2760-244	4907027	Retainer Ring
26	1343	4907022	1343	4907022	Relief Fitting
27	2-128A	4907028	2-128A	4907028	Shaft "O" Ring
28	1822	4907029	1822	4907029	Seat Adapter Plate
29	2-240A	4907030	2-240A	4907030	Adapter Plate "O" Ring
30	2-261A	4907035	2-268A	4907035	Case "O" Ring
31	2270	4907031	2270	4907031	Key
32	2649		2649		Name Plate
33					1/4" NPT Plug
34	2697X	*	2697-X	*	Retainer Assembly
35	2700	*	2700	*	Disc
36	2-223A	4907047	2-223A	4907047	Rotor "O" Ring
37	2696	*	2696	*	Rotor
38	2-227A	4907010	2-227A	4907010	Seat "O" Ring
39	2695	*	2695	*	Seat

- Model 321 – Capacities up to 40 GPM (151 Lit/Min) at 950 RPM
- Model 521 – Capacities up to 90 GPM (341 Lit/Min) at 950 RPM
- Model 1021 & F1021 – Capacities up to GPM (757 Lit/Min) at 950 RPM
- Model F1521 – Capacities up to 350 GPM (1325 Lit/Min) at 860 RPM



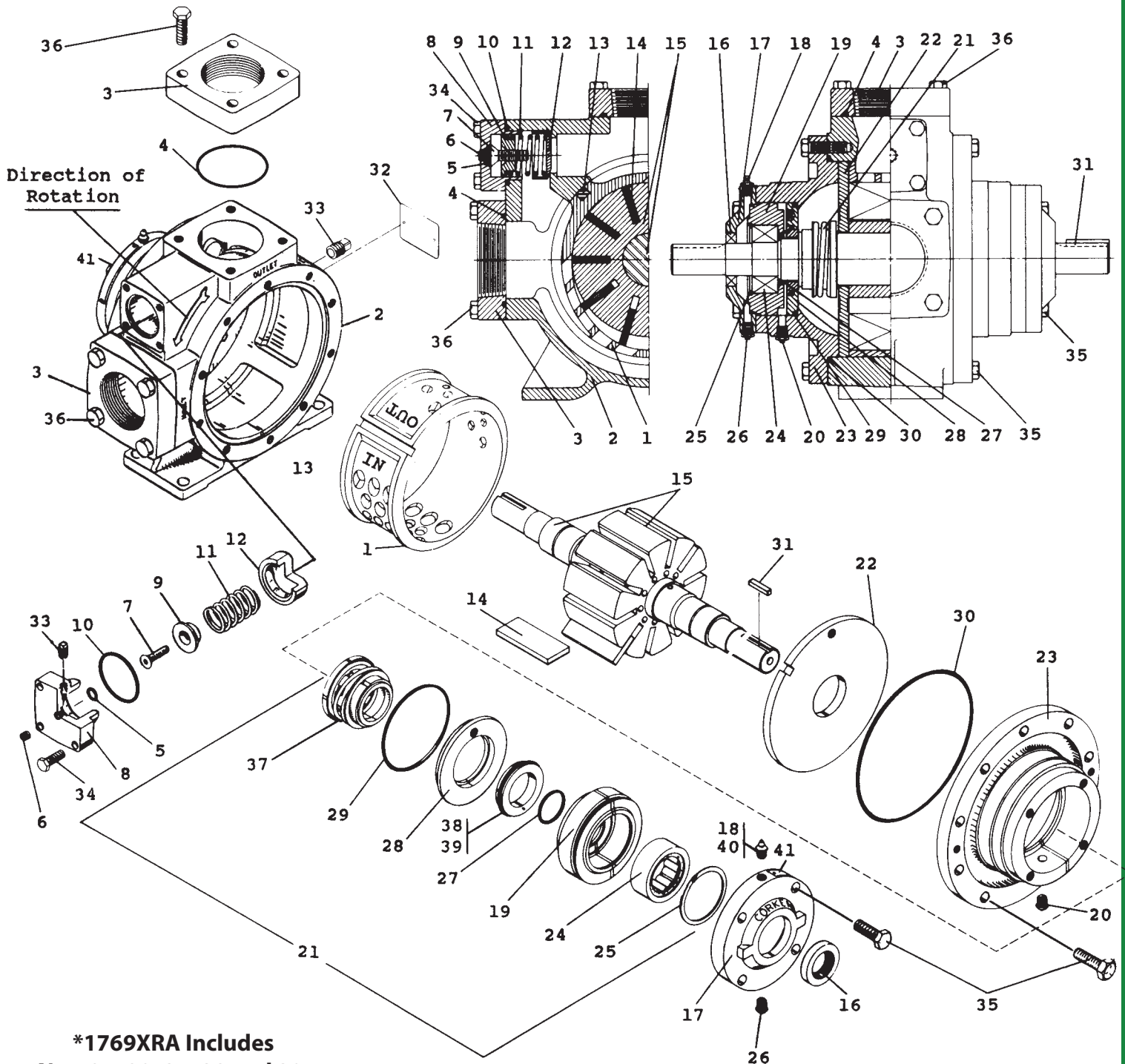
Part No.	Description
521E	Model 521 2" Bare Pump NH ₃ -LP
1021E	Model 1021 3" Bare Pump NH ₃ -LP
103-107-215T	Baseplate Assy. 1021 3" Pump
2904-X2	Repair Kit – 521/522 2" Pump NH ₃ -LP
2906-X2	Repair Kit – 1021/1022 2" Pump NH ₃ -LP
2907-X3	Repair Kit – 1521/1522 4" Pump NH ₃ -LP
1769-XRA	Seal Assy. NH ₃ -LP
S140740	Grease Seal NH ₃ -LP
2754-X	Roller Bearing NH ₃ -LP
1308-9	Vanes – 10 required price ea. NH ₃ -LP
2-245A	"O" Ring – Flange NH ₃ -LP
2-268A	"O" Ring – Case NH ₃ -LP
1201-2	Cam-Liner NH ₃ -LP

103-107-215T Baseplate Assembly is for 3" 1021E pump. It comes with base, guards, v-belts and sheaves less motor. It will accept 7 1/2 or 10 horsepower motor.

Corken Pump Repair Parts

CORKEN PART DETAILS

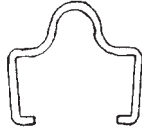
Coro-Vane Pumps. Models 521, 522, 1021, 1022, S/N CT115372 and later obsolete models 321, 322.



CNH Parts & CNH Wing Extensions

Hose Clips

Part No.	Description
22510801	1 ¼" Shank
22510803	1" x 2" Shank



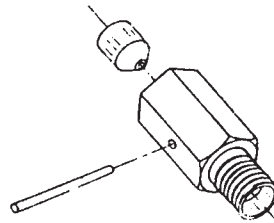
Stroke Control Kit

Part No.	Description
25800010	1 ¼" Dia. Rod



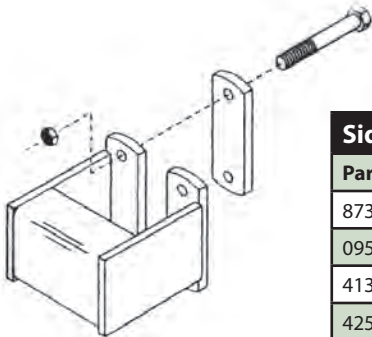
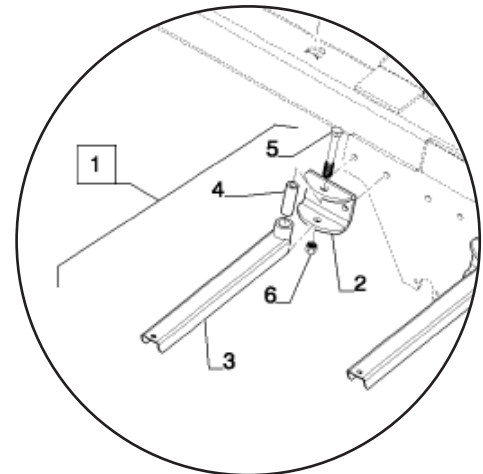
Throttle

Part No.	Description
25405003	Purple Throttle Valve-NPT
25405009	Yellow Throttle Valve-SAE



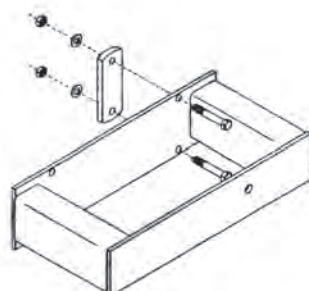
Safety-Swing Quick Coupler with Regulator Stand

Ref No.	Part No.	Description
1	04660300	MOUNTING PARTS
2	04660320	BAR ASSY.
3	04660330	CHANNEL
4	04660340	TUBE
5	280120	BOLT
6	86992217	LOCK NUT



Sidedress Bracket

Part No.	Description
87339126	Bracket
09576757	Strap
413-14104	Bolt
425-1014	Nut



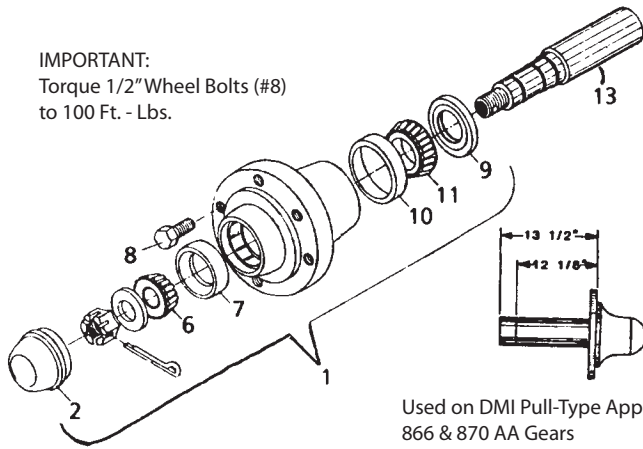
Extension Wings

Part No.	Description
87338702	15" Wing Extension (Single, Less Hardware)
87339130	28" Wing Extension (Single, Less Hardware)
P5430428	28" Wing Extension (Pair, with Hardware)

CNH Hub & Spindle Assemblies



IMPORTANT:
Torque 1/2" Wheel Bolts (#8)
to 100 Ft. - Lbs.



Used on DMI Pull-Type Applicators,
866 & 870 AA Gears

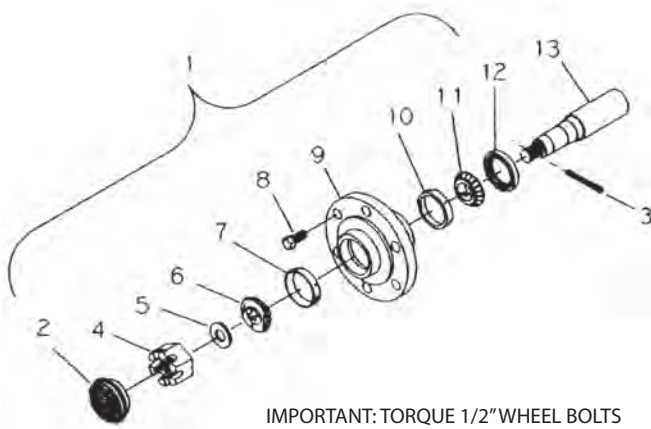
Q 888 6-Bolt

Ref No.	Part No.	Description
1	28188800	Q-888 Hub Assembly
2	28477700	Hub Cap
6	21871250	1.25 Bore Cone (Tim.#LM67048)
7	21882330	2.33 OD Cup (Tim.#LM67010)
8	198056	1/2" x 1 1/2" Lug Bolt
9	21931630	1.63 ID x 2.57 OD Seal (CR#16289)
10	61801C1	2.48 OD Cup (Tim.#JL69310)
11	21871496	1.50 Bore Cone (Tim.#JL69349)
12	28088801	Hub & Spindle Assembly (12 1/8")
	28088802	Hub & Spindle Assembly (13 1/2")
13	28388801	Spindle

783 6-Bolt

Used on Model 3300 Single and Tandem Spindle Arm Assemblies. Models 4250, 4300, 5250, and 5300 Wing Single Gauge Wheel Assemblies and Model 5300 Main Frame and Wing Walking Axle Assemblies.

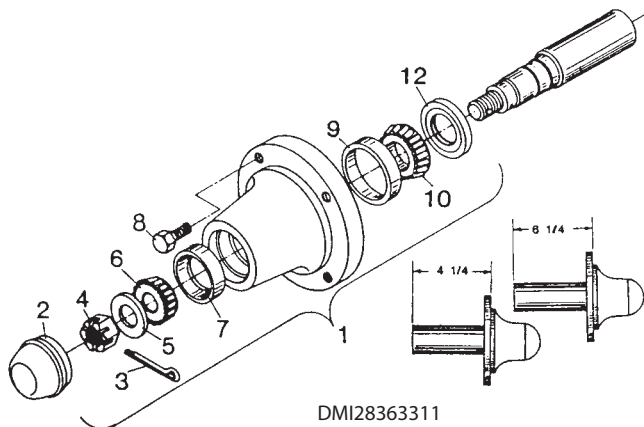
Ref No.	Part No.	Description
	28078372	Hub and 1 7/8" Spindle Assembly
	28078361	Hub and 2 1/2" Spindle Assembly
1	28178300	783 6-Bolt Hub Assembly
2	28477700	Hub Cap
3	432-1024	5/32" x 1 1/2" Cotter Pin
4	425-1314	7/8" NF Slotted Nut
5	495-61094	7/8" Washer 2" O.D.
6	21871250	1.25 Bore Cone - Timken #LM67048
7	21882330	2.33" O.D. Cup - Timken #LM67010
8	198056	1/2" NF x 1 1/2" Lug Bolt
9	28278300	Hub with cups
10	21882890	2.89" O.D. Cup - Timken #LM501310
11	21871630	1.625" Bore Cone - Timken #LM501349
12	21931870	1.875" I.D. x 3.005" O.D. Seal - CR #18823
	145769C91	Seal 940
13	28378371	1.875" Spindle
	28378361	2 1/2" Spindle
	84241414	Spindle 940



IMPORTANT: TORQUE 1/2" WHEEL BOLTS TO 100 FT.-LBS.

633 Hub & Spindle Assembly

Ref No.	Part No.	Qty. No.	Description
1	28163300	1	633 4-Bolt Hub Assy. w/Tapered Lub Bolts
	28163311	1	633 4-Bolt Hub Assy. w/Flat Head Bolts
2	28463300	1	Hub Cap
3	432-1024	1	5/32" x 1 3/8" Cotter Pin
4	425-1312	1	3/4" NF Slotted Nut
5	495-11081	1	3/4" XAE Washer
6	21870750	1	.75 Bore Cone Timken #LM11949
7	21881780	1	1.78 OD Cup Timken #LM11910
	414-820	4	1/2" x 1 1/4" NF Flat Head Bolt
9	21882330	1	2.33 OD Cup Timken #LM67010
10	21871250	1	1.25 Bore Cone Timken #LM67048
	2816331	1	Hub (4 1/4")
12	21931501	1	1.50 ID x 2.33 OD Seal CR#1499975
13	28363331	1	Spindle



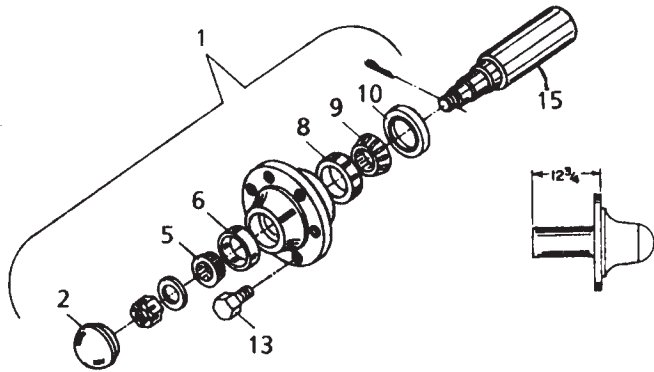
DMI28363311

NSI - Not A Service Item

CNH Hub & Spindle Assemblies

Q 803 6-Bolt

Used on Pull Type Applicators



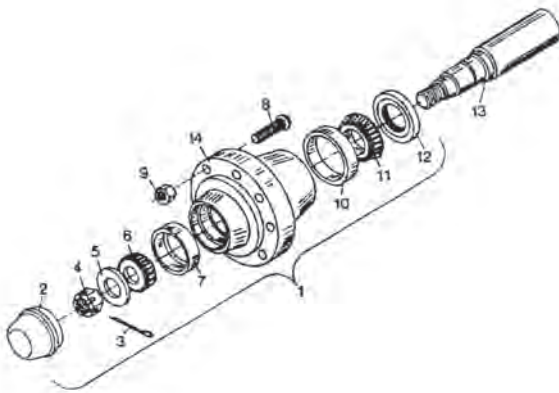
IMPORTANT:

Torque 9/16" Wheel Bolts (#13) to 150 Ft. - Lbs.

Ref. No.	Part No.	Description
1	28180300	Q-803 Hub Assembly
2	87449447	Hub Cap
5	560953R91	1.37 Bore Cone (Tim.#25877)
6	86516462	2.87 Cup (Tim.#25821)
8	86900365	3.270 Cup (Tim.#25520)
9	300426R91	1.800 Bore Cone (Tim.#25590)
10	491715R9	2.00 ID x 3.625 OD Seal (CR#521430)
13	16409053	5/16" NF x 1 1/8" Lug Bolt
	16409093	5/16" NF x 2 1/8" Drive In Bolt
15	28377801	Spindle (Q-803 & Q-813)

50-8 Hub & Spindle

Used on 4300 and 5300 Main Frame H.D. Single Assembly and Model 5300 Main Frame Walking Axle Assembly.

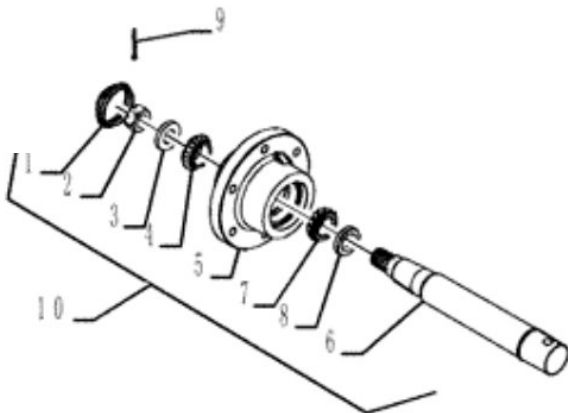


IMPORTANT: Torque 1/2" Wheel Bolts (#8) to 100 Ft.-Lbs.

Ref No.	Part No.	Description
	28050885	50-8 Hub and Spindle Assembly
1	28150800	50-8 8-Bolt Hub Assembly
2	560950R1	Hub Cap
3	432-1232	3/16" x 2" Cotter Pin
4	425-1316	1" NF Slotted Nut
5	87367	1" SAE Washer
6	21871630	1.62" Bore Cone - Timken #LM501349
7	21882890	2.89" O.D. Cup - Timken #LM501310
8	366021R2	5/8" NF x 2 1/4" Wheel Bolt
9	554480R1	5/8" NF Wheel Nut
10	199955	3.22" O.D. Cup - Timken #JLM104910
11	21872005	2.00" O.D. Bore Cone - Timken #LM104948
12	21932502	2.50" I.D. x 3.25" O.D. Seal - CR #24909
13	28350805	Spindle

940 - 783 Hub & Spindle

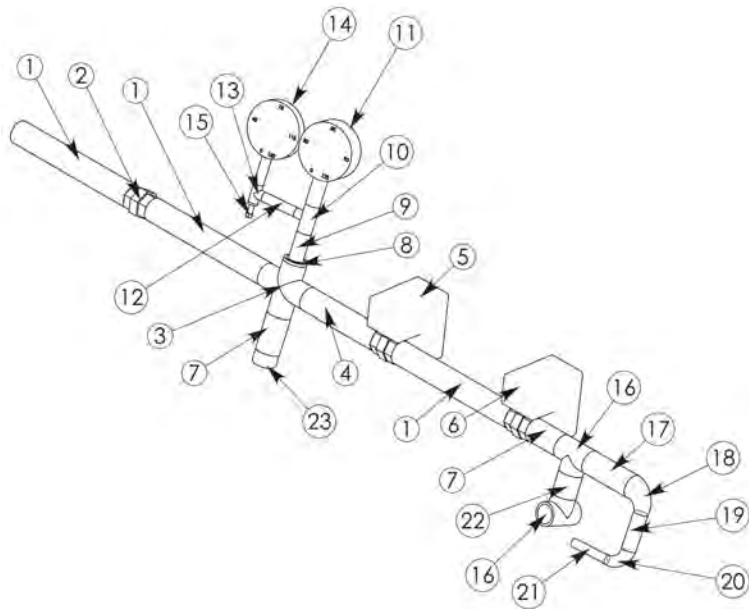
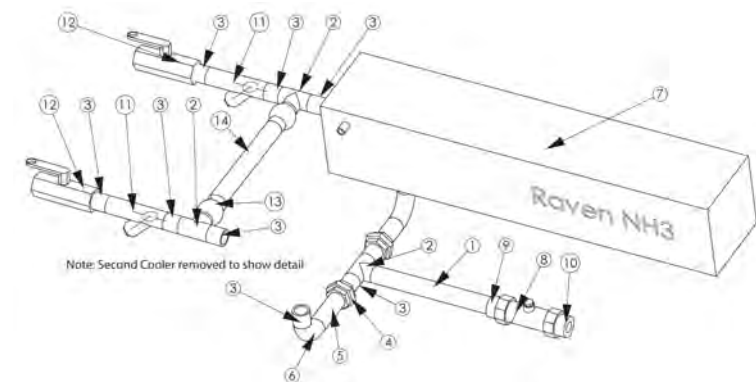
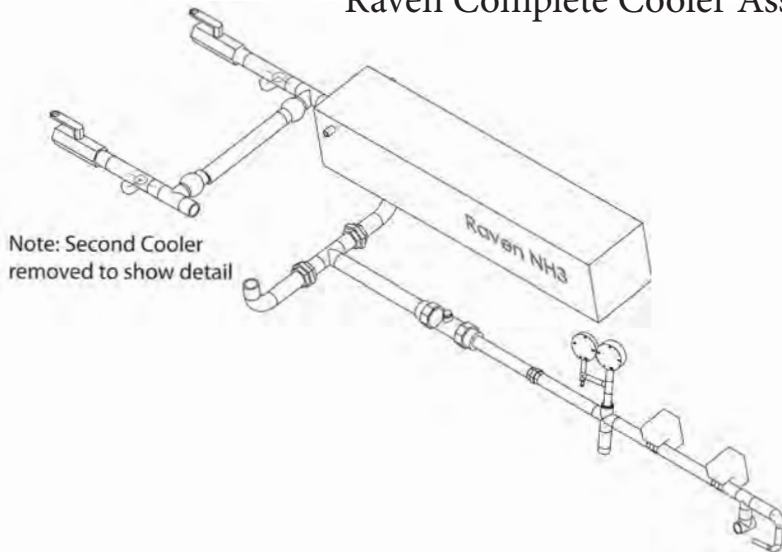
Used on 940 Wing Walking Axle Assembly.



Ref No.	Part No.	Description
1	28477700	Hub Cap
2	84151573	Nut
3	17915000	Washer
4	651818R91	Roller Bearing, 31.77 mm ID x 16.8mm
5	28278300	Hub
6	84241414	Spindle
7	663557R91	Bearing Assy, 1.625: ID x 2.892" OD x 0.77"
8	145769C91	Oil Seal
9	88350	Cotter Pin, 5/32" x 1 1/2"
10	84296783	Hub Assembly

Raven AccuFlow Parts Breakdown

Raven Complete Cooler Assembly 1 1/4" Inlet



NH₃
Super
Cooler

Raven
Industries

Raven Cooler Bracket
107-0171-063

Raven Cooler Assembly

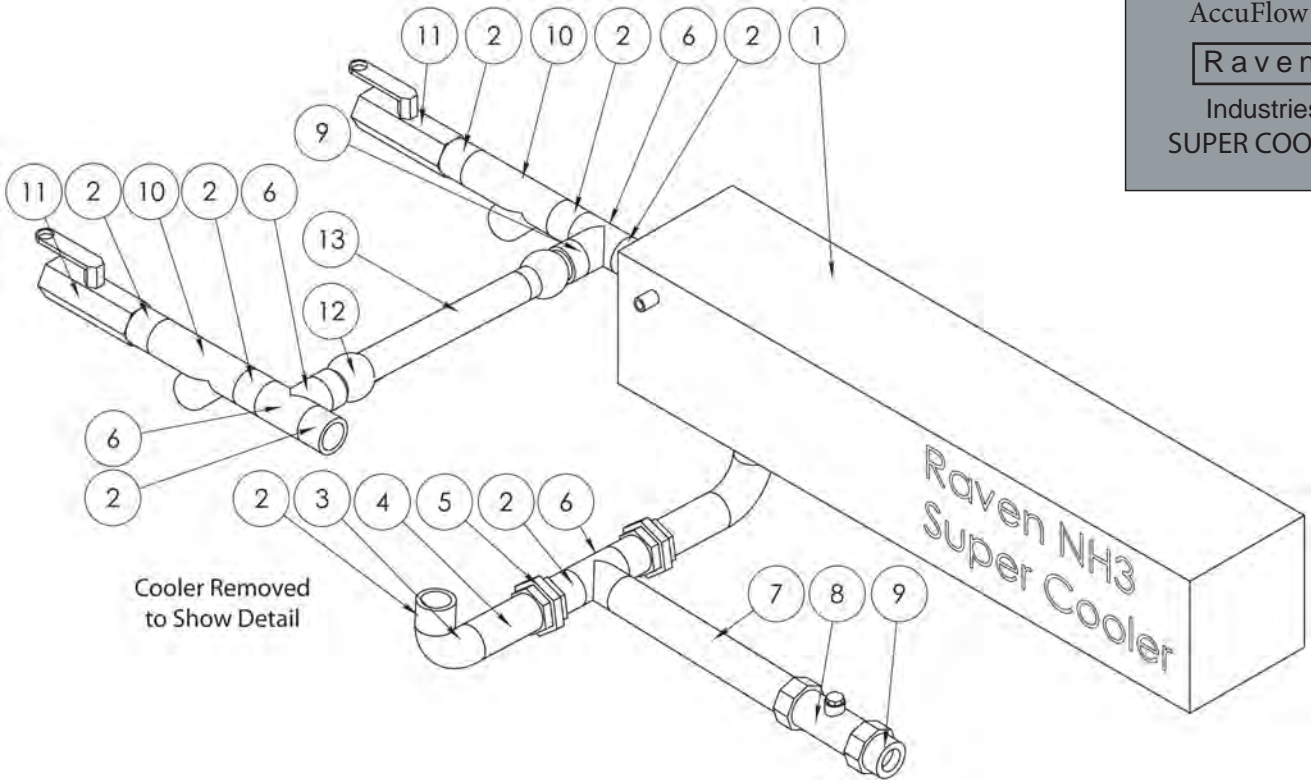
Item #	Qty.	Part #	Description
1	1	XHNIP125-12	1.25" x 12" Pipe Nipple
2	3	XHTEE125	1.25" Tee
3	10	XHNIP125-CN	1.25" x CN Pipe Nipple
4	2	XHUN125	1.25" Union
5	2	XHNIP125-4	1.25" x 4" Pipe Nipple
6	2	XHEL125-90	1.25" Elbow 90 Degree
7	2	RV063-0172-877	Raven Super Cooler
8	1	RV063-0171-666	Raven 60s Flowmeter
9	1	XHRB150-125	1.5" x 1.25" Reducing Bushing
10	1	XHRB150-100	1.5" x 1" Reducing Bushing
11	2	RV333-9000-025	1.25" Strainer With Magnet
12	2	RV019-0159-245	1.25" Valve With Rope Hole
13	2	15081007	1.25" Swivel
14	1	GF125-0015	1.25" x 15" NH3 Hose
-	1	RV219-0000-027	1.25" Union Gasket (Teflon)
-	1	RV117-0171-353	HP Pump Seal Kit
-	1	RV117-0171-354	Hyd. Motor Seal Kit

Raven Valve Assembly

Item #	Qty.	Part #	Description
1	3	XHNIP100-8	1" x 8" Pipe Nipple
2	1	XHUN100	1" Union
3	1	XHCR100	1" Cross
4	1	XHNIP100-5	1" x 5" Pipe Nipple
5	1	RV063-0172-977	Raven Control Valve
6	1	RV063-0172-978	Raven On/Off Valve
7	1	XHNIP100-2	1" x 2" Pipe Nipple
8	1	XHRB100-050	1" x .5" Reducing Bushing
9	1	XHNIP050-CN	.5" x Close Pipe Nipple
10	1	RV333-0004-009	.5" x .5" x .25" Tee
11	1	RV417-0001-009	Raven Temp Gauge
12	1	XHNIP025-2	.25" x 2" Pipe Nipple
13	1	XHTEE025	.25" Tee
14	1	AG150	150# PSI Gauge
15	1	S111410	.25" Bleeder
16	2	XHTEE100	1" Tee
17	1	XHNIP100-3	1" x 3" Pipe Nipple
18	1	XHPLUG100	1" Plug
19	1	RV333-0005-010	1' X .5" Reducing Elbow
20	1	XHNIP050-	2.5" x 2" Pipe Nipple
21	1	RV333-0005-009	.5" x .25" Reducing Elbow
22	1	CA-1132	.25" Hose Barb
23	1	XHNIP100-CN	1" x Close Pipe Nipple

Raven AccuFlow Parts Breakdown

Raven Complete Cooler Assembly 1 1/2" Inlet



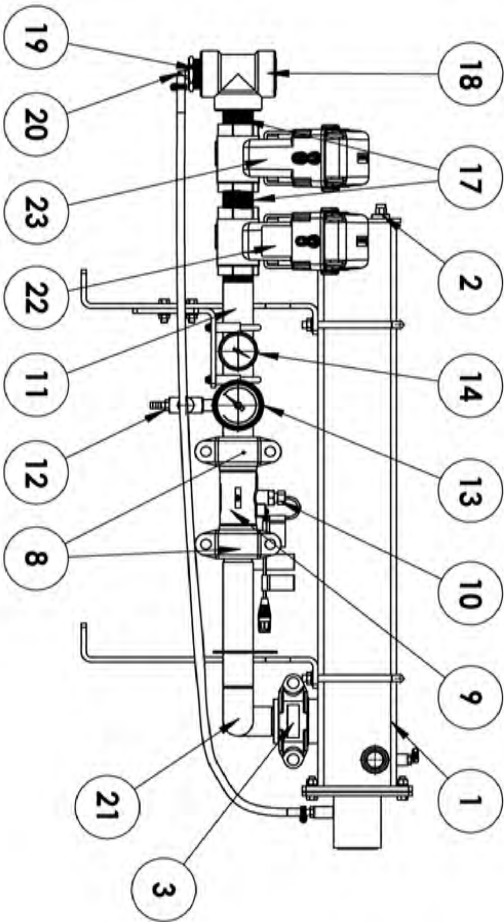
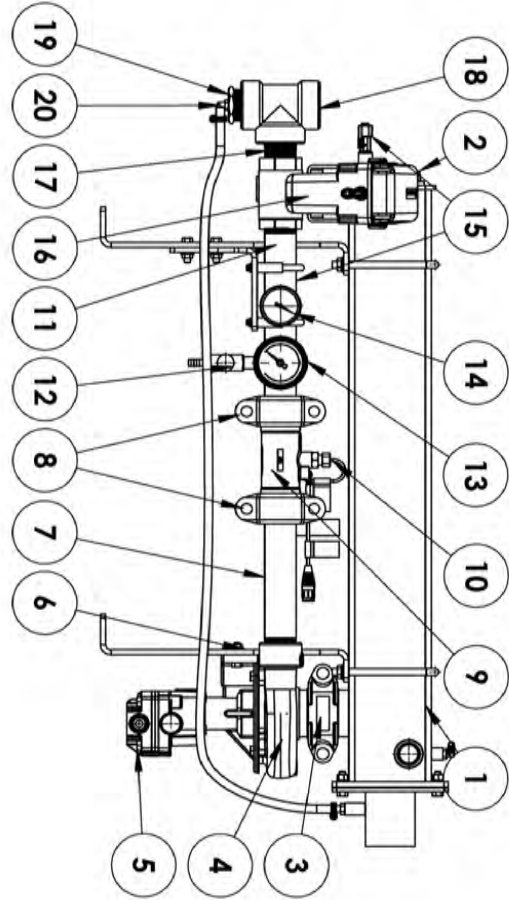
1 1/2" AccuFlow Cooler

Item No.	Part No.	Description	Qty.
1	RV063-0173-314	Raven Super Cooler	2
2	XHNIP150-CN	1.5" X CN Pipe Nipple	10
3	XHEL150-90	1.5" Elbow 90 Degree	2
4	XHNIP150-4	1.5" X 4" Pipe Nipple	2
5	XHUN150	1.5" Union	2
6	XHTEE150	1.5" Tee	3
7	XHNIP150-12	1.5" X 12" Pipe Nipple	1
8	RV063-0171-666	Raven 60s Flowmeter	1
9	XHRB150-125	1.5" X 1.25" Reducing Bushing	3
10	RV063-0173-312	1.5" Strainer with Magnet	2
11	RV019-0159-571	1.5" Valve with Rope Hole	2
12	15081007	1.25" Hose Swivel	2
13	GF125-0015	1.25" x 15" NH3 Hose	1

1 1/2" Plumbing

Item No.	Part No.	Description	Qty.
1	XHNIP125-8	1.25" x 8" Pipe Nipple	3
2	XHUN125	1.25" Union	1
3	XHNIP125-6	1.25" x 6" Pipe Nipple	1
4	RV063-0173-202	Raven Control Valve	1
5	RV063-0173-203	Raven On/Off Valve	1
6	XHNIP125-2	1.25" x 2" Pipe Nipple	1
7	XHTEE125	1.25" Tee	3
8	XHNIP125-CN	1.25" x CN Pipe Nipple	1
9	XHEB125-050	1.25" x 5" Reducing Bushing	2
10	XHNIP050-2	.5" x 2" Pipe Nipple	2
11	XHEL050-90	XHEL050-90	1
12	XHTEE050	.5" Tee	1
13	RV333-0002-006	.25" x 3.75" Hose Barb	2
14	XHNIP050-1.5	.5" x 1.5" Pipe Nipple	1
15	RV333-0004-009	.5" x .5" x .25" Tee	1
16	RV417-001-009	Raven Temp Gauge	1
17	XHNIP025-2	.25" x 2" Pipe Nipple	1
18	XHCR025	.25" Cross	1
19	AG150	150# PSI Gauge	1
20	XHPLUG025	.25" Plug	1
21	SII1410	.25" Bleeder	1

Raven Vortex AccuFlow Assembly Drawings



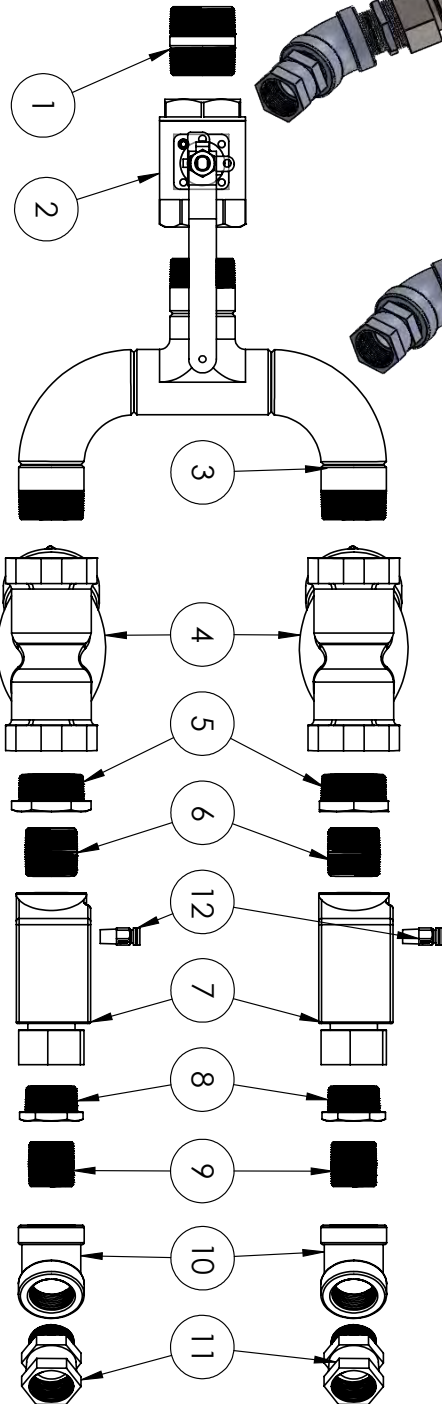
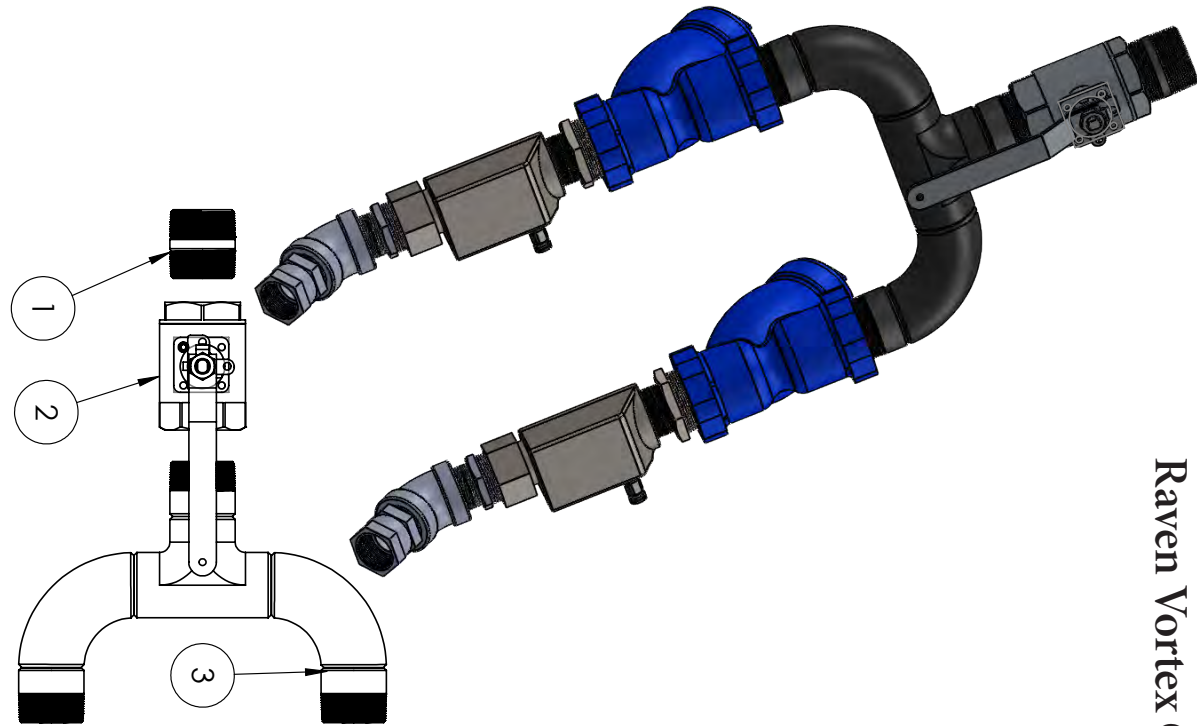
NO.	PART NO.	DESCRIPTION	QTY.
1	RV063-0173-663	Cooler Assembly, Vortex	1
-	RV117-0171-591	Vortex Cooler Seal Kit	1
2	CA400	Relief Valve	1
3	RV333-0006-031	Coupling, Grov-Lok 2.5"	1
-	RV219-0003-266	Coupling Gasket, 2.5"	1
4	RV416-1001-010	HP+ NH3 Boost Pump*	1
-	RV117-0171-577	HP+ NH3 Boost Pump Seal Kit*	1
5	RV416-8000-005	HP+ Hyd Motor*	1
-	RV117-0171-576	HP+ Hyd Motor Seal Kit*	1
6	RV334-0001-042	HP+ PWM Hyd Valve*	1
7	RV019-0159-591	Pipe Nipple, Gruv-Lok*	1
8	RV333-0006-032	Coupling, Grov-Lok 2" x 1.5"	2
-	RV219-0003-267	Coupling Gasket, 2" x 1.5"	2
9	RV063-0173-618	RFM 60SG NH3 Flowmeter, Gruv-Lok	1
-	RV117-0171-590	RFM 60SG Parts Kit	1
10	RV063-0171-669	Flowmeter Sensor	1
11	RV116-0159-743	Gauge Tree Manifold 1.5"	1
12	S118203	.25" Bleed Valve	1
13	RV417-0001-031	Temp Gauge	1
14	RV417-0001-030	Pressure Gauge	1
15	RV422-0000-090	Pressure Transducer, MetriPack*	2
-	RV422-0000-119	Pressure Transducer, Deutsch*	2
16	RV063-0173-626	Fast Valve Assembly 1.5"	1
-	RV063-0173-666	Fast Valve Motor Only*	1
-	RV334-0001-066	Valve Only 1.5"	1
17	XHNP150-CN	Nipple 1.5" x Close	1
18	XHTE150	Tee 1.5"	1
19	XHRB150-025	Reducing Bushing 1.5" x .25"	1
20	PPHB025/038SS-90	Hose Barb 90° .25 x .375 Hose	1
21	RV116-0159-752	Cooler Outlet Manifold**	1
22	RV063-0173-667	Control Valve 1.5"	1
-	RV063-0173-664	Control Valve Motor Only**	1
-	RV334-0001-066	Valve Only 1.5"	1
23	RV063-0173-668	On/Off Valve 1.5"	1
-	RV063-0173-664	On/Off Valve Motor Only**	1
-	RV334-0001-066	Valve Only 1.5"	1

* Vortex HP+ Only ** Vortex Only

Raven Vortex AccuFlow Assembly Drawings

Raven AccuFlow Inlet Drawing

Raven Vortex Cooler Inlet Plumbing

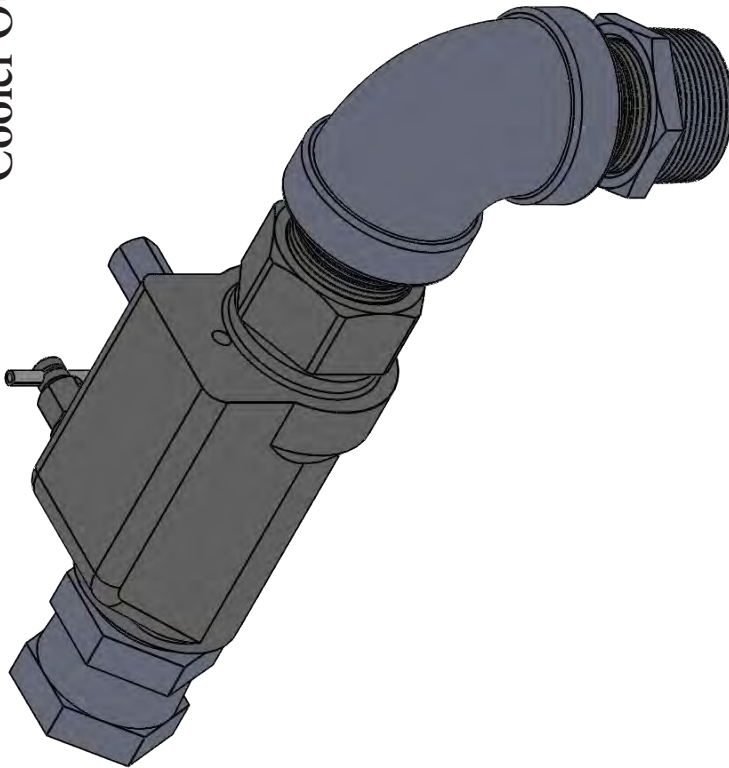


NO.	PART NO.	DESCRIPTION	QTY.
1	XHNIP200-CN	2"xCN Nipple, Extra Heavy	1
2	RV334-0001-065	2" Hand Shutoff Valve	1
3	RV116-0159-742	2" Inlet Y, Stainless Steel	1
4	RV333-9000-074	2" Strainer	2
5	XHRB200-150	2"x1.5" Reducing Bushing, Extra Heavy	2
6	XHNIP150-CN	1.5"xCN Pipe Nipple, Extra Heavy	2
7	CA-15BC	Back Check Valve, 1.5"	2
8	XHRB150-125	1.5"x1.25" Reducing Bushing, Extra Heavy	2
9	XHNIP125-CN	1.25xCN Nipple, Extra Heavy	2
10	XHEL125-45	1.25"x45° Elbow, Extra Heavy	2
11	DM115081007	1.25" Hose Swivel	2
12	S111410	Bleeder, Knurled Handle	2

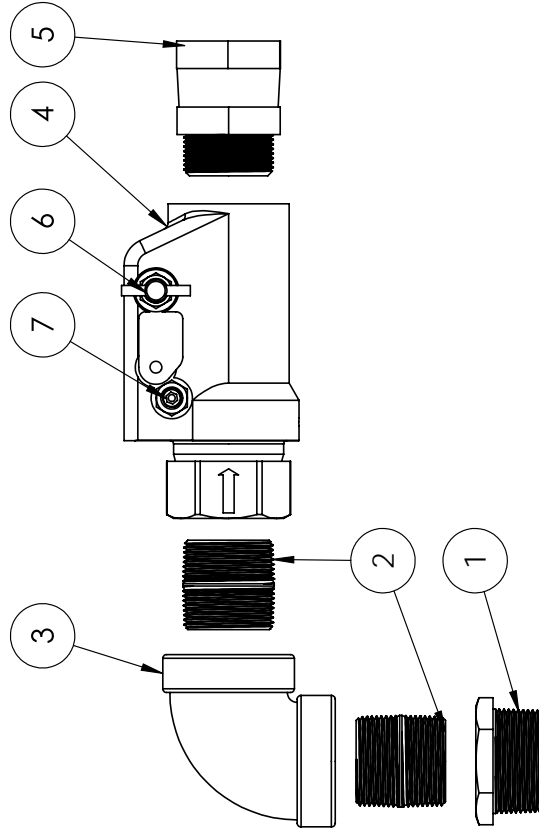
Raven Vortex AccuFlow Assembly Drawings

Raven AccuFlow Outlet Drawing

Cooler Outlet Plumbing



NO.	Davis Part #	DESCRIPTION	QTY.
1	XHRB150-125	1.5"x1.25" Reducing Bushing, Extra Heavy	1
2	XHNIP125-CN	1.25xCN Nipple, Extra Heavy	2
3	XHEL125-90	1.25"x90° Elbow, Extra Heavy	1
4	S111398	1.25" Back Check Valve	1
5	DMI15081007	1.25" Hose Swivel	1
6	S111411	Bleeder, T Handle	1
7	CA-400	Relief Valve, .25"	1

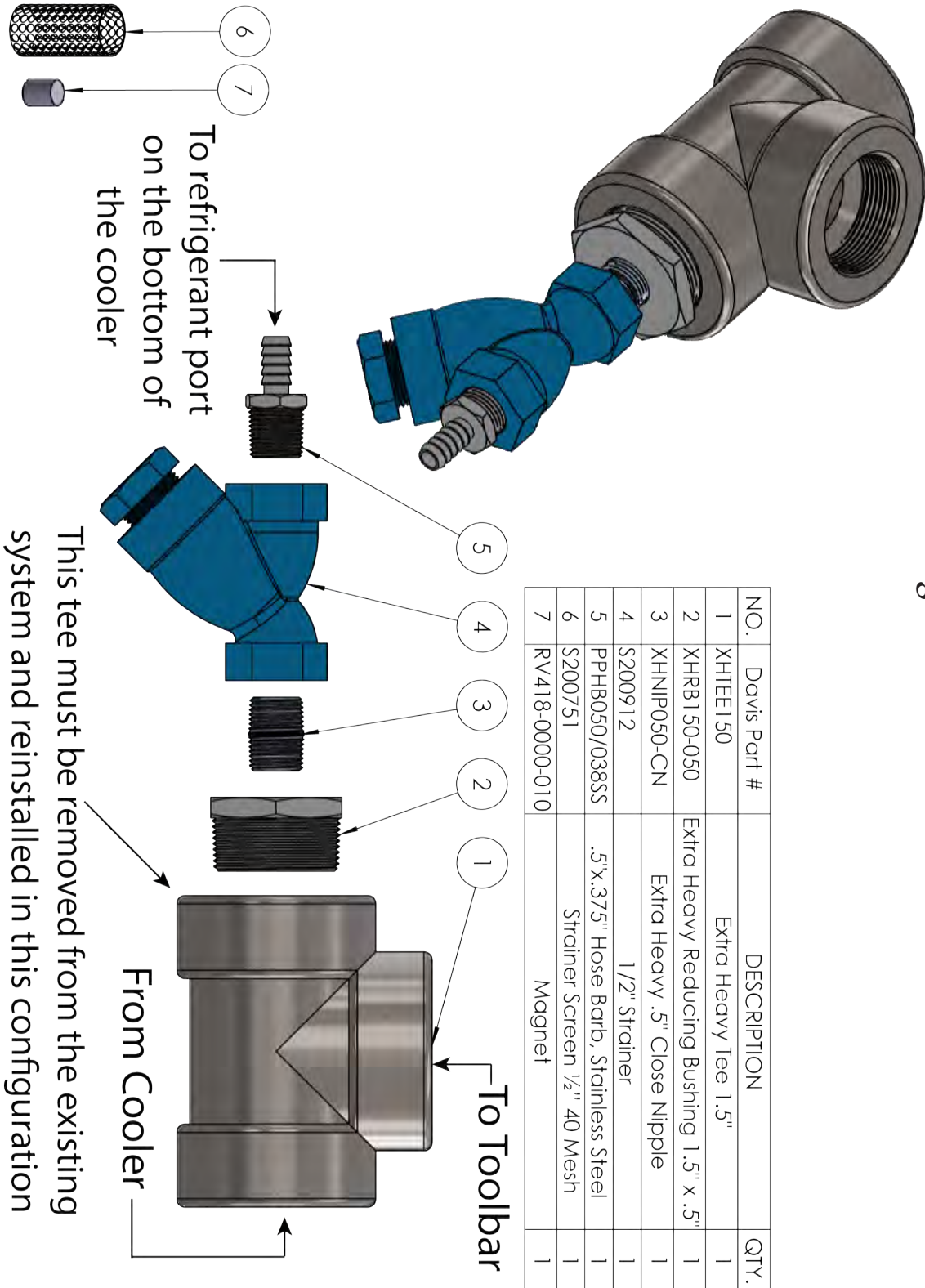


Recommended plumbing configuration. Failure to plumb your bar in this manner could result in unexpected results or decreased performance. Please also check local and state regulations to make this and all plumbing requirements are met.

Raven Vortex AccuFlow Assembly Drawings

Raven Refrigerant Line Strainer

Raven Refrigerant Line Strainer



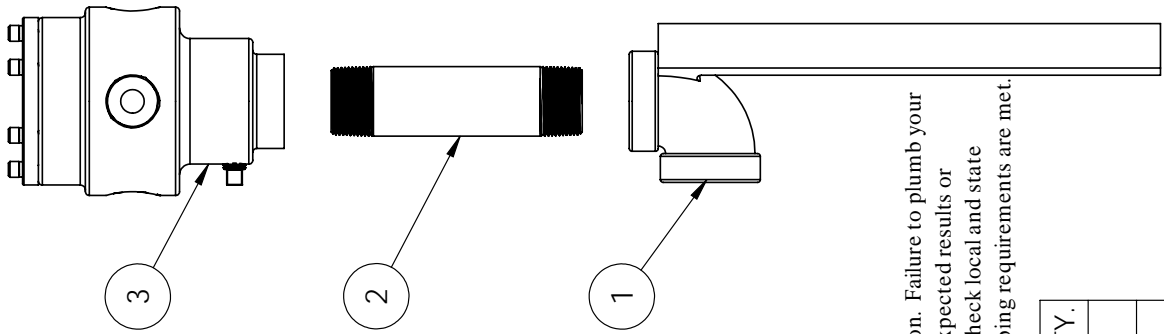
NO.	Davis Part #	DESCRIPTION	QTY.
1	XHTEE150	Extra Heavy Tee 1.5"	1
2	XHRB150-050	Extra Heavy Reducing Bushing 1.5" x .5"	1
3	XHNIP050-CN	Extra Heavy .5" Close Nipple	1
4	S200912	1/2" Strainer	1
5	PPHB050/038SS	.5"x.375" Hose Barb, Stainless Steel	1
6	S200751	Strainer Screen 1/2" 40 Mesh	1
7	RV418-0000-010	Magnet	1

This tee must be removed from the existing system and reinstalled in this configuration

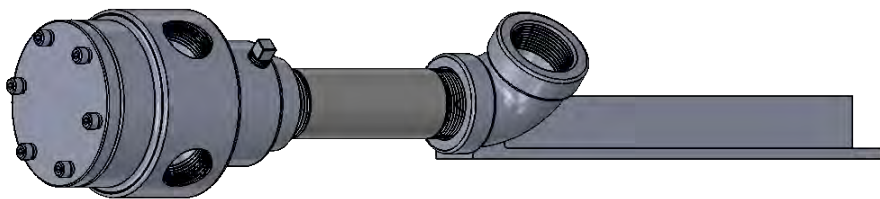
Raven Vortex AccuFlow Assembly Drawings

Raven AccuFlow Section Distribution without N-Serve Drawing

Section Distribution without N-Serve Drawing



Recommended plumbing con guration. Failure to plumb your bar in this manner could result in unexpected results or decreased performance. Please also check local and state regulations to make this and all plumbing requirements are met.

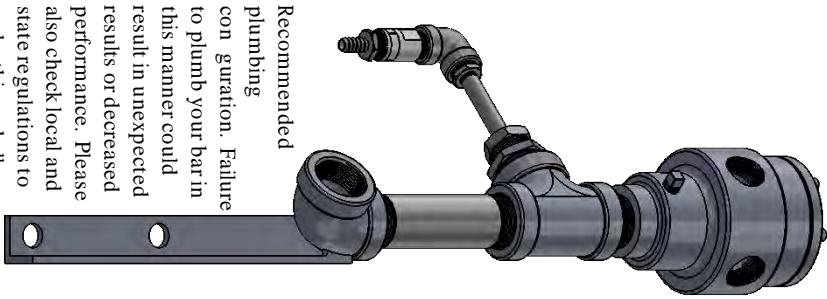


NO.	PART NO.	DESCRIPTION	QTY.
1	JBSM	John Blue Splitter Mount	1
2	XHNIP125-6	1.25"x6" Pipe Nipple, Extra Heavy	1
3	JBIPS2-4	John Blue 4 Port Splitter	1

Raven Vortex AccuFlow Assembly Drawings

Raven AccuFlow Section Distribution with N-Serve Drawing

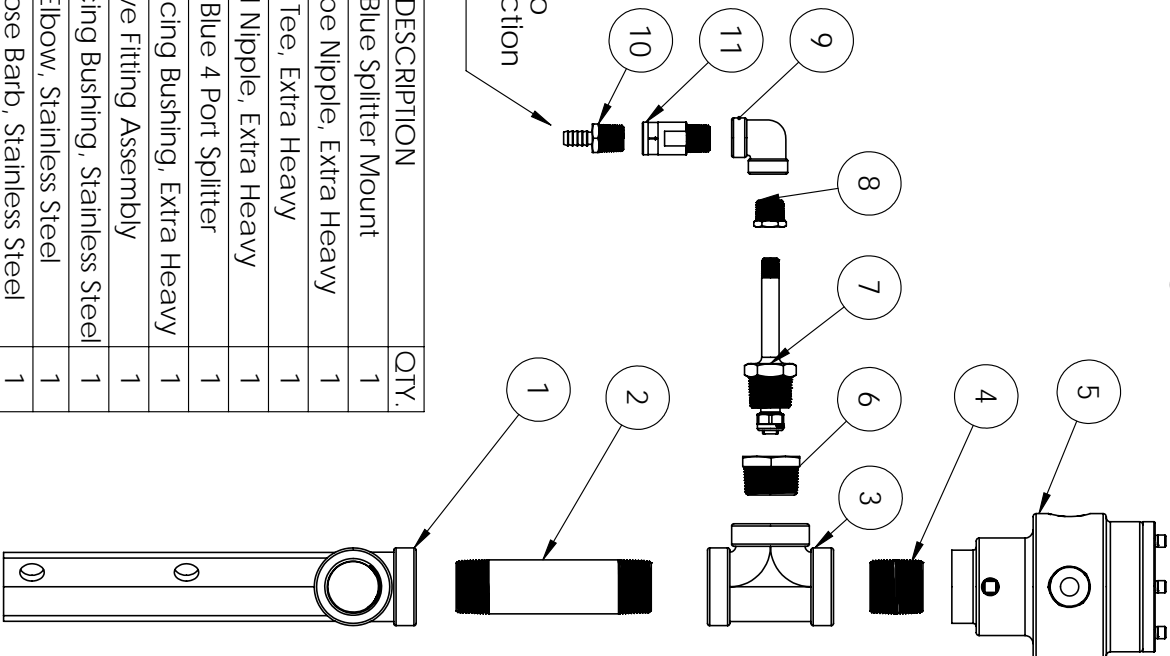
Section Distribution with N-Serve Drawing



Recommended plumbing configuration. Failure to plumb your bar in this manner could result in unexpected performance. Please also check local and state regulations to make this and all plumbing requirements are met.



3/8" Hose to Raven Injection Pump



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	JBSM	John Blue Splitter Mount	1
2	XHNIP125-6	1.25"x6" Pipe Nipple, Extra Heavy	1
3	XHTEE125	1.25" Tee, Extra Heavy	1
4	XHNIP125-CN	1.25xCN Nipple, Extra Heavy	1
5	JBIPS2-4	John Blue 4 Port Splitter	1
6	XHRB125-100	1.25"x1" Reducing Bushing, Extra Heavy	1
7		N-Serve Fitting Assembly	1
8	STSRB050-025	.5"x.25" Reducing Bushing, Stainless Steel	1
9	STSEL050-90	.5"x90° Elbow, Stainless Steel	1
10	PPHB050/038SS	.5"x.375" Hose Barb, Stainless Steel	1
11	RV333-0011-102	Back Check Valve, Stainless Steel	1

Raven Vortex AccuFlow Assembly Drawings

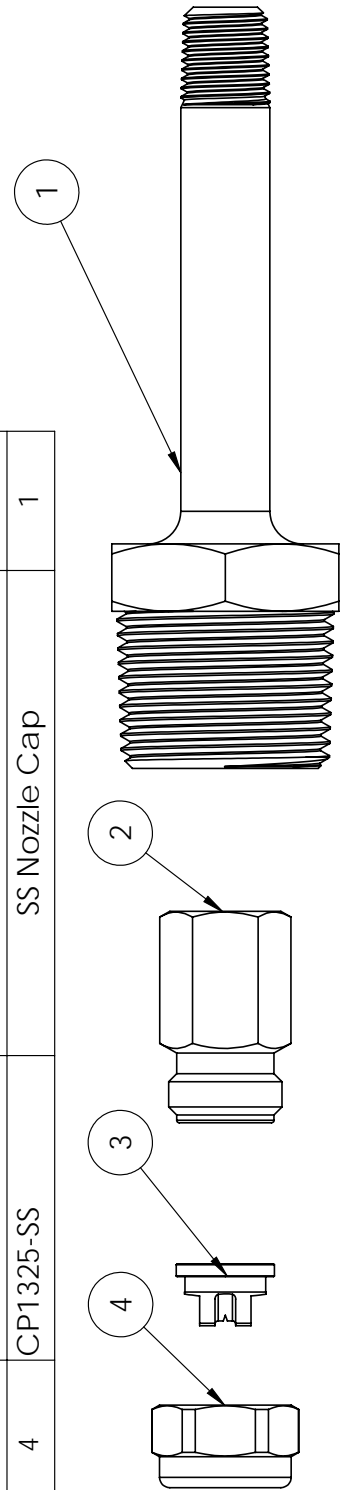
N-Serve Injection Point Drawing

N-Serve Injection Point Drawing



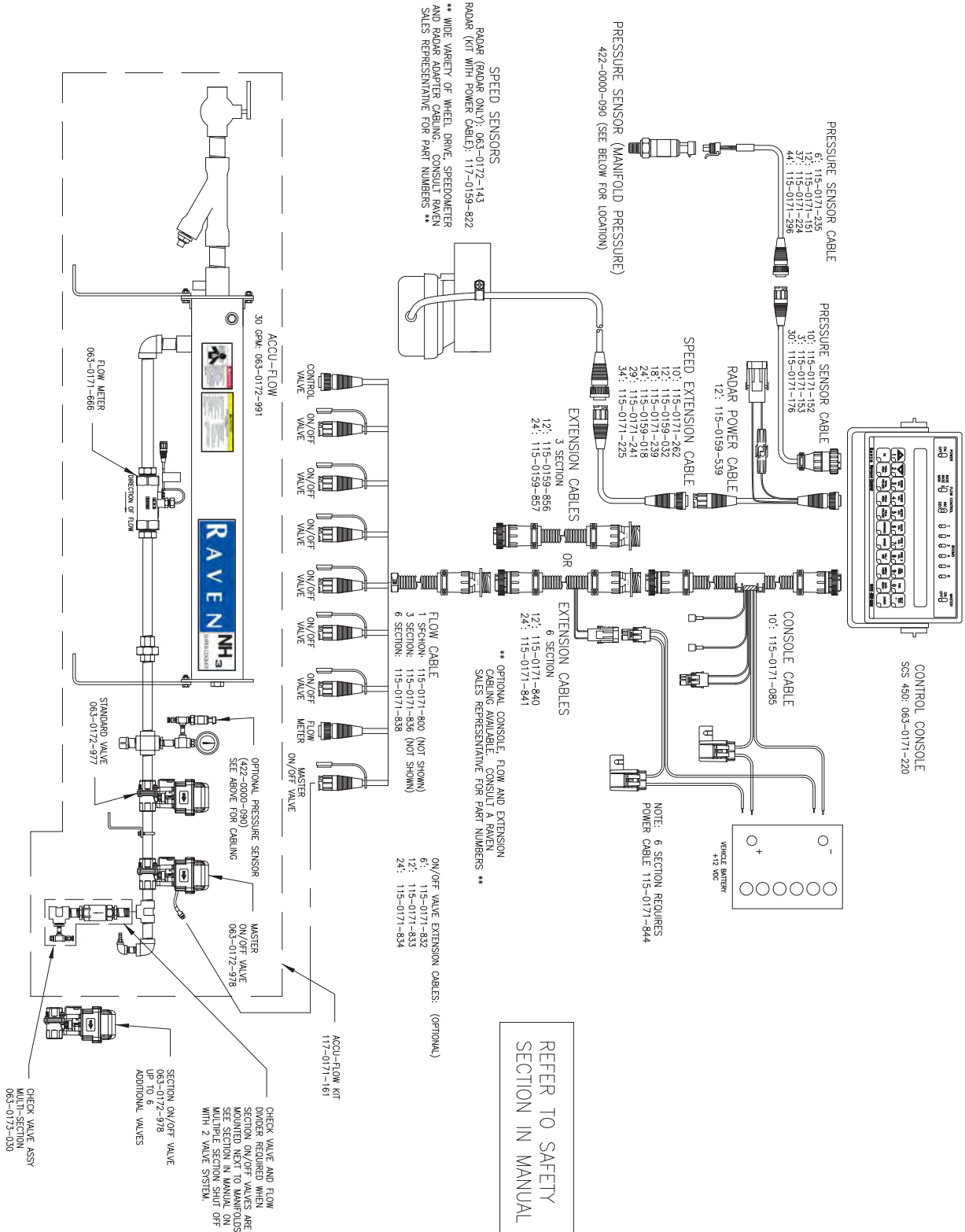
Recommended plumbing con-
guration. Failure to plumb your
bar in this manner could result in
unexpected results or decreased
performance. Please also check local
and state regulations to make this and
all plumbing requirements are met.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	NSERVEFTG	N-Serve Injection Fitting	1
2	CP1321-SS	SS Nozzle Body	1
3	TO150-05-SS	SS Tip	1
4	CP1325-SS	SS Nozzle Cap	1



Raven 450 Single/Multi Section System Diagram

Raven 450 Single/Multi Section System Diagram



Raven Replacement Parts List

SCS440/450 NH3 & Cabling	
SCS 450 Console	RV063-0171-220
SCS 440/450 Console Bracket	RV106-0159-437
SCS 440/450 Console Bracket Knobs	RV106-0159-438
SCS 440/450 Console Cable	RV115-0171-085
SCS 440/450 Flow Cable Single Section	RV115-0171-800
SCS 440/450 Flow Cable Three Section	RV115-0171-836
SCS 440/450 Flow Extension Cable 12'	RV115-0159-856
SCS 440/450 Flow Extension Cable 24'	RV115-0159-857
Adapter Cable for New Flow Cable to Old Control Valve	RV115-0171-857
Adapter Cable for New Flow Cable to Old On/Off Valve	RV115-0171-856
Adapter Cable for Old Flow Cable to New Control Valve	RV115-0171-807
Adapter Cable for Old Flow Cable to New On/Off Valve	RV115-0171-808
On/Off Valve Extension Cable 6'	RV115-0171-832
On/Off Valve Extension Cable 12'	RV115-0171-833
On/Off Valve Extension Cable 24'	RV115-0171-834
Suction Cup Mount 4½"	WPGLJ45AMC

AccuFlow Cooler Kits	
Raven AccuFlow Vortex HP+ w/ Fast Valve, Dual Inlet, SS	RV117-0171-714
Raven AccuFlow Vortex w/ Fast Valve, Dual Inlet, SS	RV117-0171-715
Raven AccuFlow Vortex w/ Dual Valves, Dual Inlet, SS	RV117-0171-716
Raven AccuFlow Vortex w/ Fast Valve, Single Inlet, SS	RV117-0171-717
Raven AccuFlow Vortex w/ Dual Valves, Single Inlet, SS	RV117-0171-718
Raven AccuFlow Vortex w/ Dual Valves, Dual Reverse Inlet, SS	RV117-0171-720
Raven AccuFlow 1" Vortex w/ Dual Valves, Dual Inlet, SS	RV117-0171-730

Raven Replacement Parts List

Non-Vortex Flowmeter	
Flowmeter 1½" SS	RV063-0173-867
Flowmeter Rebuilt Kit for RFM60, 60SG	RV117-0171-590
Flowmeter Sensor Standard	RV063-0171-669
Flowmeter Sensor High Pulse	RV063-0172-004

Non-Vortex AccuFlow Parts	
Cooler Seal Kit (Complete Kit)	RV117-0171-121
Cooler Square Gasket Only for New Style Coolers	RV219-0000-143
O Ring for Cooler (2 Needed)	RV219-0000-036
Strainer Complete 1¼"	RV333-9000-025
Strainer Gasket 1¼"	RV219-0000-091
Strainer Screen 1¼"	RV333-9000-032
Strainer Complete 1½"	RV063-0173-312
Strainer Gasket 1½"	RV219-0000-154
Strainer Gasket Thick 1½"	YS12CITEFLON
Strainer Screen 1½"	RV333-9000-067
Strainer Magnet 1¼", 1½", 2"	RV418-0000-001
NH3 Temp Gauge	RV417-0001-009
Union Gasket 1¼"	RV219-0000-027
Union Gasket 1½"	RV219-0000-156
Union Gasket 1"	RV219-0000-076

Raven Replacement Parts List

SideKick Parts	
SideKick Balls for Solid Shaft	RV321-0000-380
SideKick Check Valve with Extreme Viton (½")	RV333-0011-102
SideKick Check Valve with Viton (¾")	RV333-0011-078
SideKick Console Cable	RV115-0171-130
SideKick Exhaust Valve	RV063-0172-504
SideKick Exhaust Valve with Pressure Sensor Port ¼"	RV063-0173-310
Sidekick Flow Sense Adapter Cable (New cable/Old Sensor)	RV115-0172-111
SideKick Flow Sense Adapter Cable (Old cable/New Sensor)	RV115-0172-110
SideKick Flow Sensor (Conxall/New style)	RV063-0173-492
SideKick Flow Sensor (Weatherpack/Old style)	RV063-0171-979
SideKick High Volume Motor Only	RV063-0172-500
SideKick Implement Cable	RV115-0171-138
SideKick Intake Valve	RV063-0173-677
SideKick Low Volume Motor Only	RV063-0172-527
SideKick Motor Bearing	RV063-0172-501
SideKick Piston	RV107-0172-467
SideKick Pro High Volume Complete	RV063-0173-200
SideKick Pro ICD High Volume Complete	RV063-0173-781
SideKick Pro ICD Low Volume Complete	RV063-0173-780
SideKick Pro ISO High Volume Complete	RV063-0173-421
SideKick Pro ISO Low Volume Complete	RV063-0173-420
SideKick Pro Low Volume Complete	RV063-0173-201
SideKick Pump Head	RV107-0171-526
SideKick Pump Only	RV063-0172-924
SideKick Pump Seal Kit	RV117-0159-987
SideKick Solid Shaft	RV063-0173-398
SideKick Tach Feedback Generator High Volume	RV063-0172-312
SideKick Tach Feedback Generator Low Volume	RV063-0172-935
SideKick Vacuum Switch	RV063-0171-035

AccuFlow Vortex Valves and Motors	
Valve Position Indicator Kit	RV117-0171-219

Raven Replacement Parts List

AccuFlow HP Parts	
AccuFlow HP Hyd Motor Seal Kit	RV117-0171-354
AccuFlow Nh3 Pump (Hypro) ***No Longer Available***	RV416-1001-009
AccuFlow NH3 Pump Seal Kit (Hypro)	RV117-0171-353

AccuFlow Vortex Flow Meter	
Flowmeter Rebuilt Kit for RFM60, 60SG	RV117-0171-590
Gruvlok Coupling with EPDM Gasket 2" x 1 ½"	RV333-0006-032
Gruvlok EPDM Gasket Only	RV219-0003-267
RFM 60SG Flowmeter	RV063-0173-869

AccuFlow Vortex Parts	
Bleed Valve ¼"	S111411
Check Valve 1½" SS	S111399/CA-15BC
Gruvlok Coupling with EPDM Gasket 2"	RV333-0006-033
Inlet Shut Off Valve 2"	RV063-0173-627
Inlet Y-Manifold	RV116-0159-742
Inlet Y-Manifold Kit 2"	RV117-0171-578
NH3 Pressure Gauge	RV417-0001-030
NH3 Temp Gauge	RV417-0001-031
Pressure Transducer Adapter from Detutsch Cable to Metripak	RV115-0172-122
Pressure Transducer with Round Metripak Connection	RV422-0000-090
Pressure Transducer with Triangle Deutsch Connection	RV422-0000-119
PWM Hydraulic Valve	RV334-0001-042
Relief Valve	CA-400-C
SS Vortex Cooler Assembly	RV063-0173-987
Strainer ½" Strainer Assembly	RV063-0173-897
Strainer ½" Complete Kit	RV117-0171-697
Strainer ½" Gasket	RV219-0000-167
Strainer ½" Magent	RV418-0000-010
Strainer ½" Screen	RV333-9000-076
Strainer 2" 40 Mesh Strainer Screen	RV333-9000-071
Strainer 2" Complete	RV063-0173-655
Strainer 2" Gasket	RV219-0000-161
Strainer Magnet 1¼", 1½", 2"	RV418-0000-001
Vortex Cooler Seal Kit	RV117-0171-591

Raven Replacement Parts List

AccuFlow HP+ Parts	
HP+ Boost Bearings (2 Required) (Ace)	BAC-37
HP+ Boost O'Ring (Ace)	BAC4A-E
HP+ Boost O'Ring (Ace)	40169
HP+ Boost Pump (Ace)	RV416-1001-010
HP+ Boost Pump Seal (Ace)	BAC-75CE
HP+ Boost Pump Seal Kit (Ace)	RV117-0171-577
HP+ Hydraulic Motor Seal Kit	RV117-0171-576

Raven CAN Parts	
Multi-Product Node	RV063-0173-236
Node Cable 3 Section	RV115-0171-946
Node Cable 6 Section	RV115-0171-947

Raven ISO (Gen I) Parts	
ISO Product Control Node	RV063-0173-006
Node Cable 3 Section	RV115-0171-946
Node Cable 6 Section	RV115-0171-947

Raven RCM Parts	
RCM Level 1 Kit (GEN III Cabling)	RV117-7100-002
RCM Level 2 Kit (GEN III Cabling)	RV117-7100-003
RCM Level 1	RV063-0173-941
RCM Level 2	RV063-0173-756
RCM Mounting Bracket Kit	RV117-0171-680
RCM Magnet Mount Kit	RV117-0717-648

Raven RCM GEN III Cabling	
Extension Cable 12' GEN III	RV115-7300-075
Extension Cable 6' GEN III	RV115-7300-074
Foot Switch	RV063-0173-080
Foot Switch Cable 23' GEN III	RV115-0172-398
IBIC to GEN III Cable (Hitch Cable) 20'	RV115-7300-118
IBIC to GEN III Cable (Hitch Cable) 24'	RV115-7300-119
RCM 47 Pin to 440 16 Pin Adapter	RV115-7347-012
RCM AccuFlow Cable 3 Section GEN III	RV115-7347-005
RCM Node Cable GEN III	RV115-7301-011
SideKick Pro Cable GEN III	RV115-7301-016

Raven Valve Quick Reference Guide



Old style valve



New style valve

1" VALVES NEW STYLE

DESCRIPTION	COMPLETE ASSEMBLY	MOTOR ONLY	VALVE ONLY	SEAL KIT
1" CONTROL VALVE	RV063-0173-877	RV063-0173-664	RV334-0001-071	N/A
1" ON/OFF VALVE	RV117-0173-876	RV063-0173-665	RV334-0001-071	N/A
1" FAST VALVE	RV063-0173-878	RV063-0173-666	RV334-0001-071	N/A

1" VALVES

DESCRIPTION	COMPLETE ASSEMBLY (NLA)	MOTOR ONLY	VALVE ONLY	SEAL KIT
1" CONTROL VALVE	RV063-0172-977	RV063-0173-206	RV117-0171-686	RV117-0159-410
1" ON/OFF VALVE	RV063-0172-978	RV063-0173-207	RV117-0171-686	RV117-0159-410
1" FAST VALVE	RV063-0172-979	RV063-0172-982	RV117-0171-686	RV117-0159-410

1 ¼" VALVES

DESCRIPTION	COMPLETE ASSEMBLY (NLA)	MOTOR ONLY	VALVE ONLY	SEAL KIT
1¼" CONTROL VALVE	RV063-0173-202	RV063-0173-206	N/A	RV117-0171-355
1¼" ON/OFF VALVE	RV063-0173-203	RV063-0173-207	N/A	RV117-0171-355
1¼" FAST VALVE	RV063-0173-204	RV063-0173-982	N/A	RV117-0171-355

1 ½" VALVES

DESCRIPTION	COMPLETE ASSEMBLY	MOTOR ONLY	VALVE ONLY	SEAL KIT
1½" CONTROL VALVE	RV063-0173-667	RV063-0173-664	RV334-0001-066	N/A
1½" ON/OFF VALVE	RV063-0173-668	RV063-0173-665	RV334-0001-066	N/A
1½" FAST VALVE	RV063-0173-626	RV063-0173-666	RV334-0001-066	N/A

1" VALVES RETROFIT KIT WITH 1 ¼" ADAPTORS

1" CONTROL VALVE w/PIPE ADAPTORS	RV117-0171-706
1" ON/OFF VALVE w/PIPE ADAPTORS	RV117-0171-705
1" FAST VALVE w/PIPE ADAPTORS	RV117-0171-707

Raven System Components

SkyTrak GPS Speed Sensor

Never Buy Another Radar Gun! The SkyTrak speed sensor brings the accuracy and ease of installation of a GPS receiver to equipment designed to measure speed pulses, such as automatic rate.

Features & Benefits

- Completely self-contained (GPS receiver, antenna, and velocity to pulses converter)
 - Raven® 3-pin Radar Connector
 - Micro-Trak® Connector
 - Dickey-John radar 4-pin connector
 - Channel GPS receiver
- 58.94 pulses / MPH (Can be used with all equipment that is compatible with radar type speed sensors)
0.1 MPH accuracy from 0.5 to 50 MPH (9 Hz update rate.)
- Surface, bracket, pipe, or magnetic mount

Physical Specifications

- Enclosure: UV stable plastic, fully sealed
- Cable Length: 15 feet
- Power: 8 to 16 Volts, 0.1 Amps max.
- Size: 4.50 x 2.43
- Operating Temp: -30 Deg. C to +65 Deg. C (-22 Deg. F to +140 Deg. F)

Part No.	Description
S113593	Sky Trak Speed Sensor
DS-GPSM-R10-WHT	GPS Speed Sensor



NH³ Flow Meters



Part No.	Description
063-0171-666	RFM-60S Stainless Steel NPT
063-0173-869	RFM-60SG Stainless Steel w/ Gruvlok
117-0171-590	RFM60, 60S, 60SG Rebuild Kit
063-0171-669	Standard Pulse Flow Sensor
063-0172-004	High Pulse Flow Sensor
333-0006-033	Gruvlok Coupling with EPDM Gasket 2" x 2"

Raven 450 Console



Part No.	Description
063-0171-220	450 Console
106-0159-437	440 Bracket
106-0159-438	440 Knobs

Raven RCM

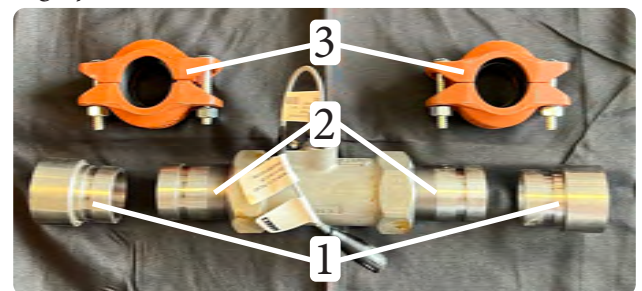


Part No.	Description
117-7100-002	RCM Level 1

Gruvlok Flow Meter Conversion

Key	Part No.	Description
	VIC2125M	Vic2 X 1¼" Male Pipe (not pictured)
1	VIC2150F	Vic2 X 1½" Female Pipe
2	VIC2150M	Vic2 X 1½" Male Pipe
3	7401.150	Gruvlok Coupling w/ EPDM Gasket 1½" x 1½"
4	RV333-0006-032	Gruvlok Coupling w/ EPDM Gasket 2" x 1½"

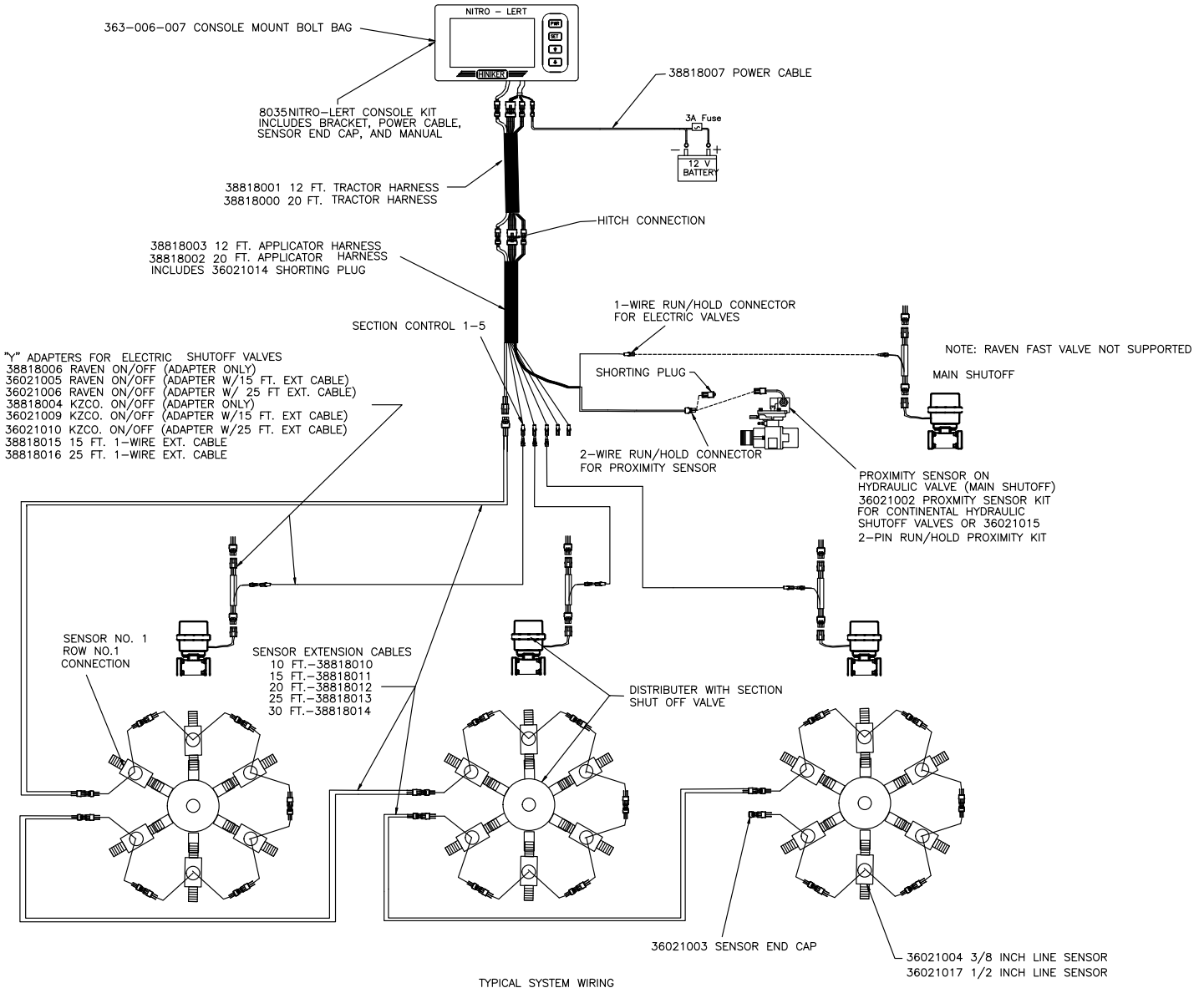
Legacy Flowmeter w/NPT



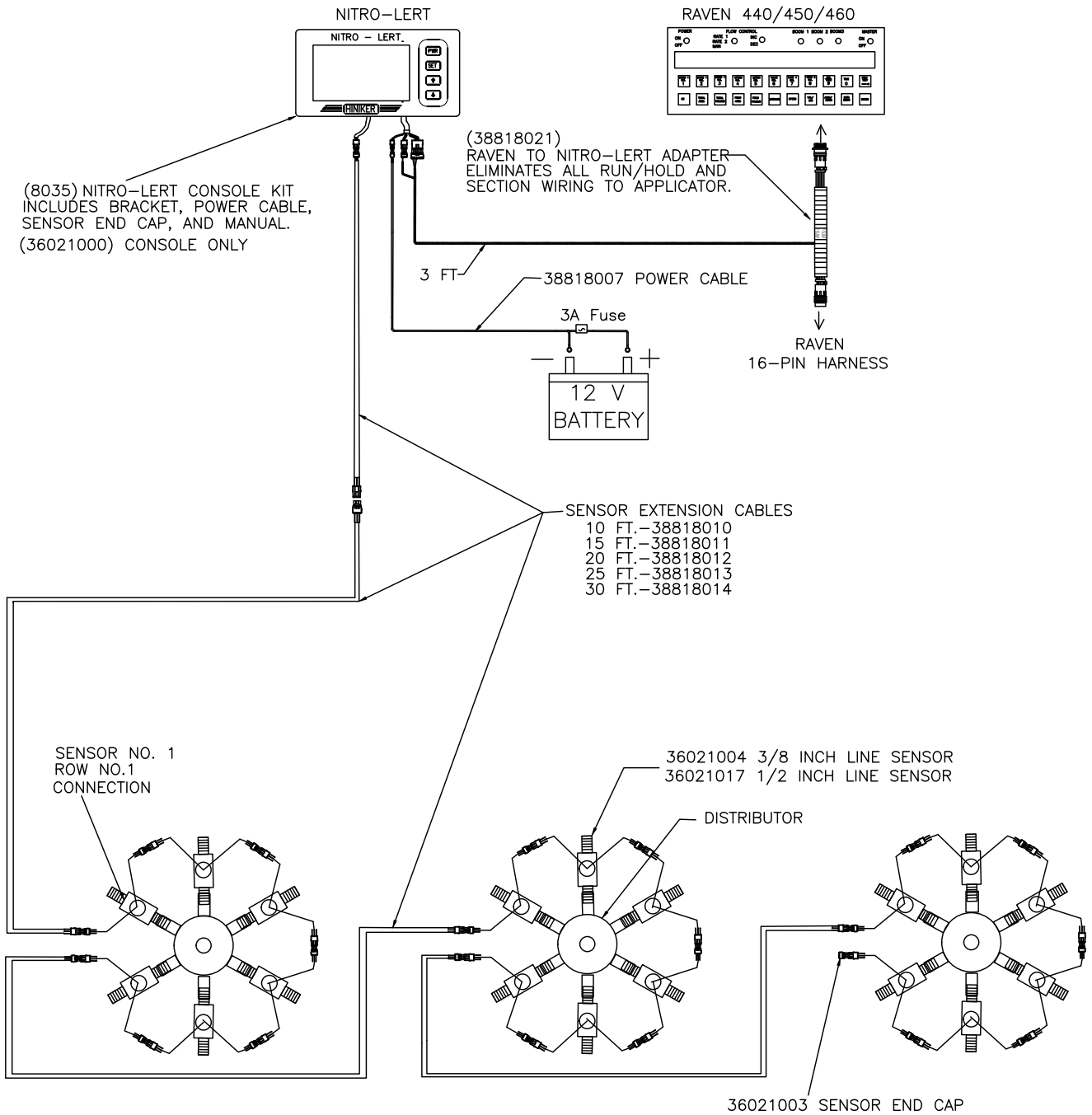
New Flowmeter w/Gruvlok



Hiniker Nitro-Lert



DWG NO: 7018A
DATE: 11-10-15

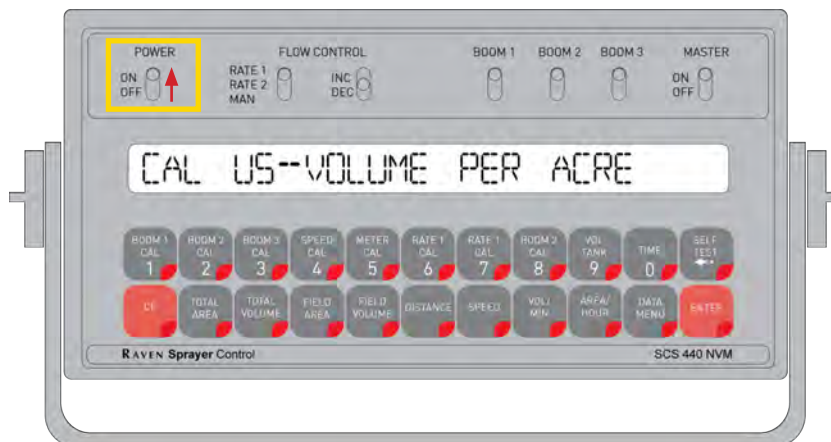


TYPICAL SYSTEM WIRING
 NITRO-LERT TO RAVEN SCS 440/450/460

Raven 440/450 Setup Guide

Set Console Units

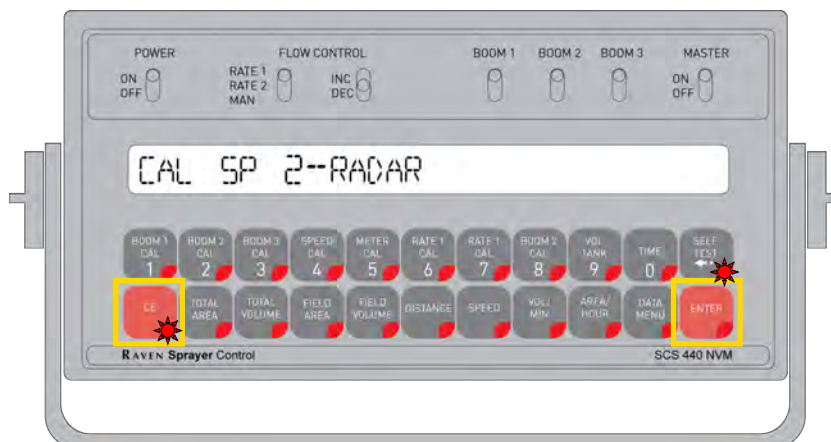
To begin programming, turn on and press ENTER to accept US VOLUME.



Speed Type

Display will now flash SP1-WHEEL DRIVE Press the CE button, display will now show SP2-RADAR SPEED SENSOR. ENTER to accept SP2.

If an error is made in the first three settings, see “Changing the First 3 Settings” on page 109.

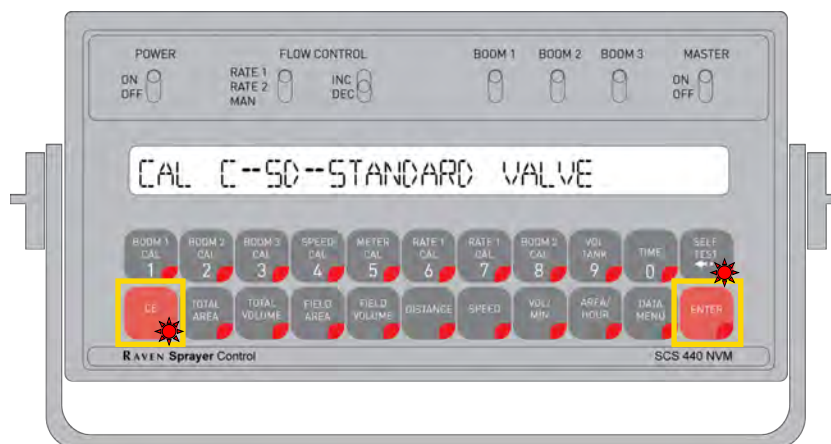


Valve Type

Display will now flash C-CD-STANDARD VALVE

a) If you have a 2 valve system (#2123 on the valve) then ENTER to accept standard valve.

b) If you have a single FAST VALVE (#743 on the valve) then press CE button until you come to C-FC-FAST CLOSE VALVE and ENTER to accept.

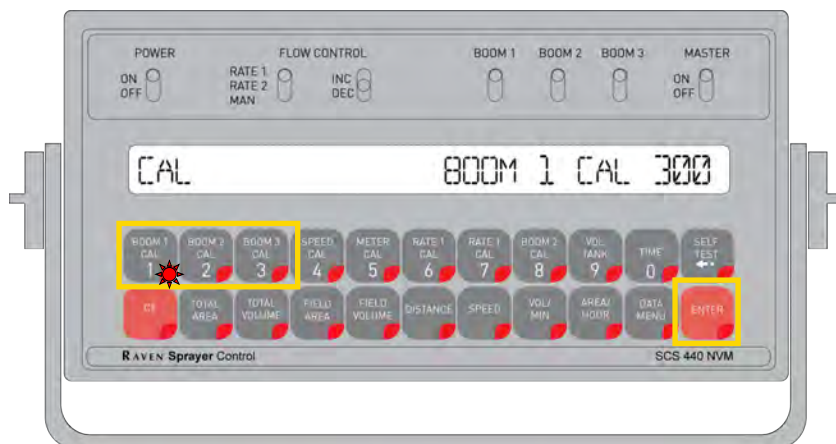


Raven 440/450 Setup Guide

Boom Cals

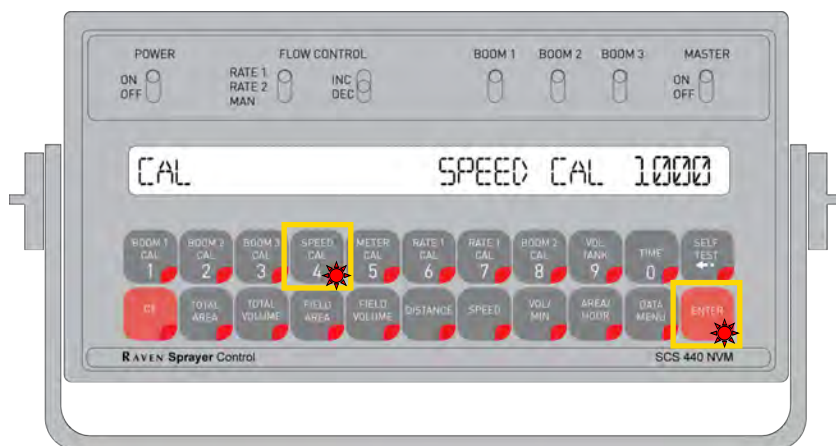
440: press BOOM 1 CAL button and then ENTER and then enter the width of your applicator in inches, then press ENTER to save. Do the same for BOOM 2 and BOOM 3 CAL.

450: Use the BOOM button and the arrows to select Boom 1, then ENTER and then enter the boom widths in inches. Press ENTER to save. Use the ARROWS to select the next next boom section and repeat. Check all sections to verify they have the correct width entered including zero width sections.



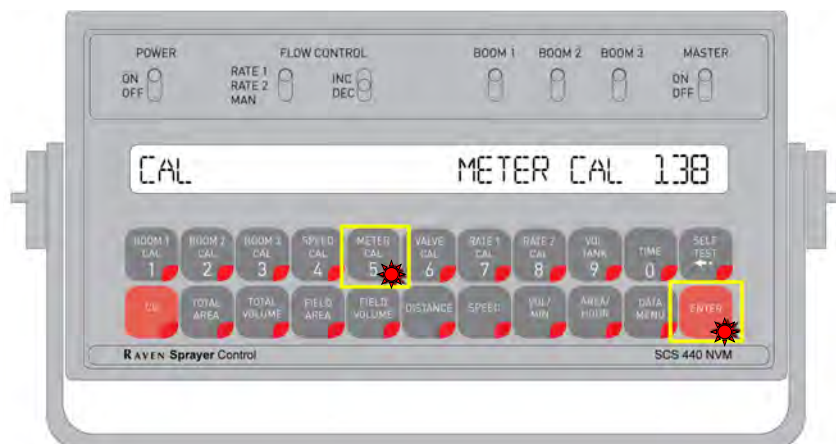
Speed Cal

Press SPEED CAL button then ENTER, then enter a speed calibration number, then ENTER. Make sure that verify your speed is correct by doing a distance test or comparing to GPS speed!



Meter Cal

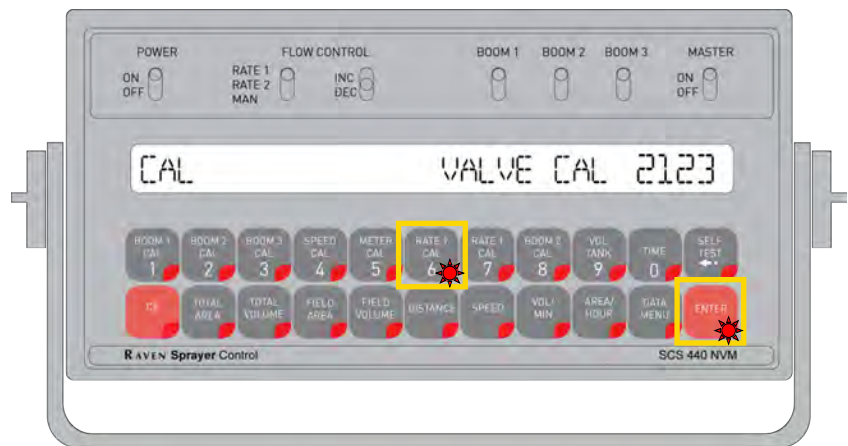
Press METER CAL button then ENTER, then enter the calibration number from the flow meter, then ENTER. The Meter Cal number is on a grey tag located on the flow meter under the Raven cooler. It will have a number (i.e.: 169/lbsN or 338/lbsN) on it. If only the gallons number is listed, divide the gallons number by 4.22 to get LBS.



Raven 440/450 Setup Guide

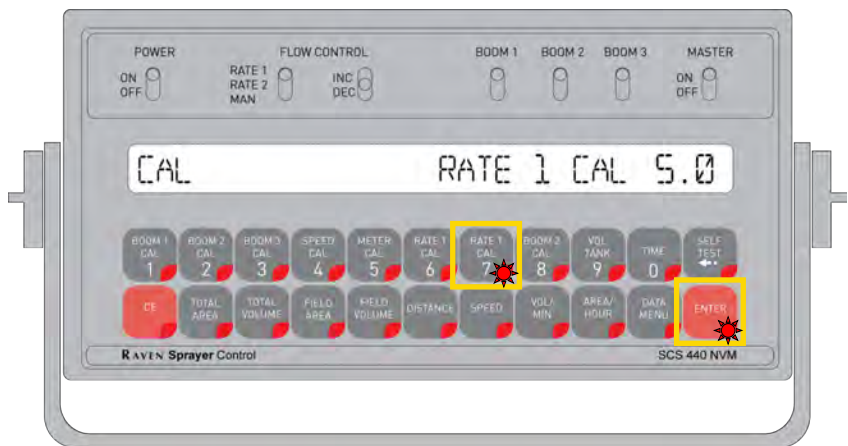
Valve Cal

Press VALVE CAL button then ENTER and enter your cal number then ENTER. Your Valve Cal number is on the valve. For a standard two-valve system the number is 2123. For a fast valve setup (single valve system), use 743.



Rate Cal

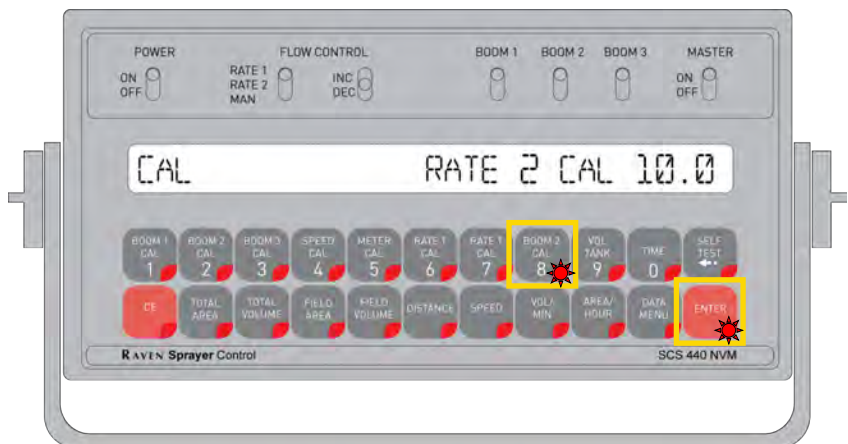
Press RATE 1 CAL button then ENTER, then enter desired lbs. of actual N to be applied, then ENTER. Remember, this setting has a decimal point so check your entry.



Rate Cal

Press RATE 2 CAL button then ENTER then enter Rate 2 desired lbs. of actual N to be applied then ENTER. Remember this setting has a decimal point so check your entry.

IMPORTANT NOTE: You must enter a number in RATE 2 to complete calibration process.



The console should now be displaying RATE 00 and CAL has disappeared. If not, go back and check buttons 1-9 for a missing value.

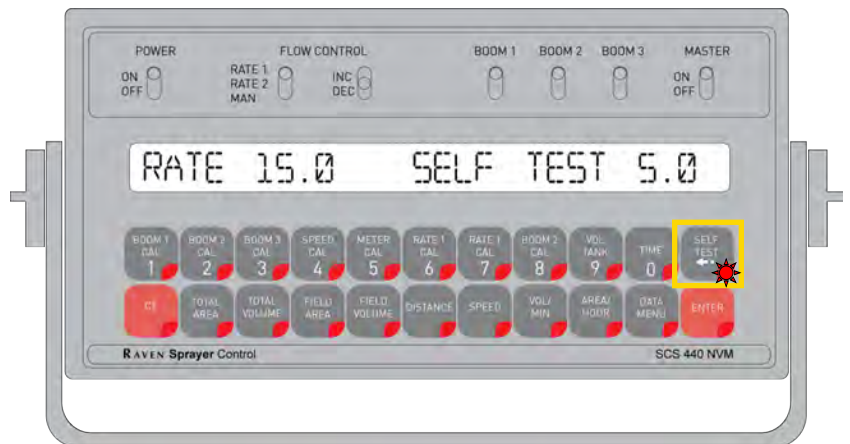
Raven 440/450 Setup Guide

Changing the First 3 Settings

If an error is made in the first 3 steps, you can fix it two ways.

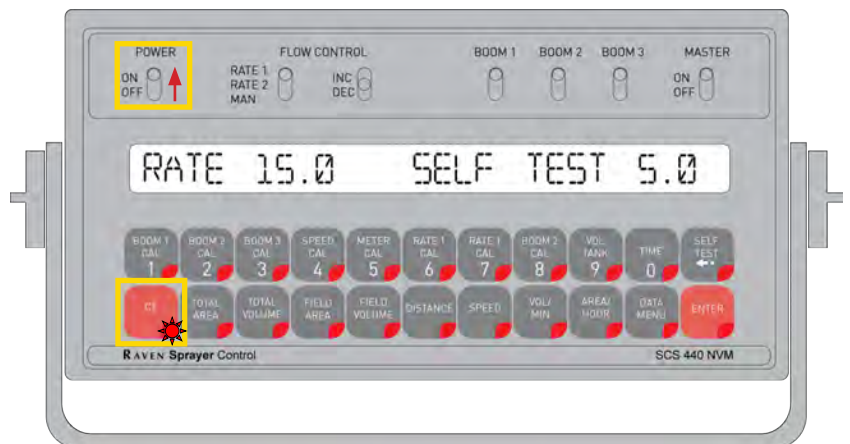
1.) Press and hold SELF TEST until it cycles through all the settings and stops. The screen will say 'UNITS US' (takes about 30 seconds). ENTER to advance to the setting you want to change. Press CE to change the value. ENTER to finish.

2.) Clear the console. See section below.



Clearing The Console

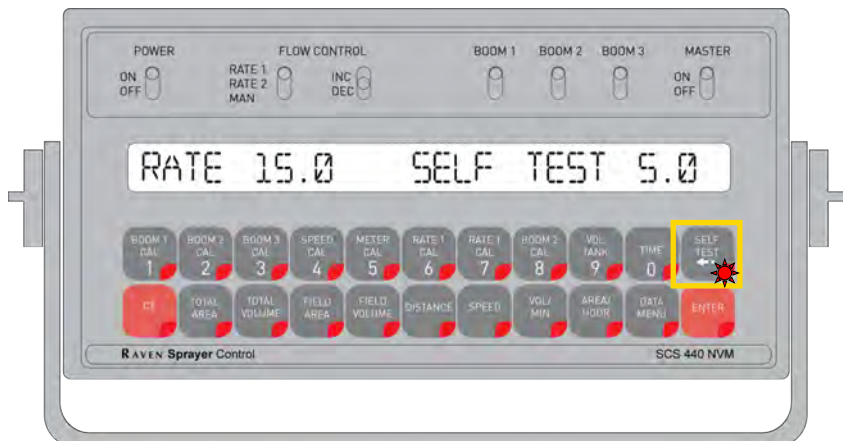
To clear the console, hold down the CE button while turning the console on. That will reset the console to the default settings.



Self-Test

Self-test allows speed simulation for testing the system while the machine is not moving. This is done by pressing SELF TEST then ENTER then desired speed then ENTER. This is great for testing valves before season.

Make sure the system is not charged, because the valves will open.



Flow Meter Sensor Changes

LEGACY (BLACK)



NEW (GRAY)



Note the color difference →

Legacy Sensor (Part no. 063-0171-669)

- Ex. For an RFM 60S or SG: Approximate Meter Cal of 710 Liquid and 168 for NH³ application

HP (High Pulse) Sensor (Part no. 063-0172-004) RFM 60S or SG

- Counts pulses twice as fast as Legacy Sensor
- Approximate Meter Cal of 1420 Liquid and 336 for NH³ applications (numbers doubled)



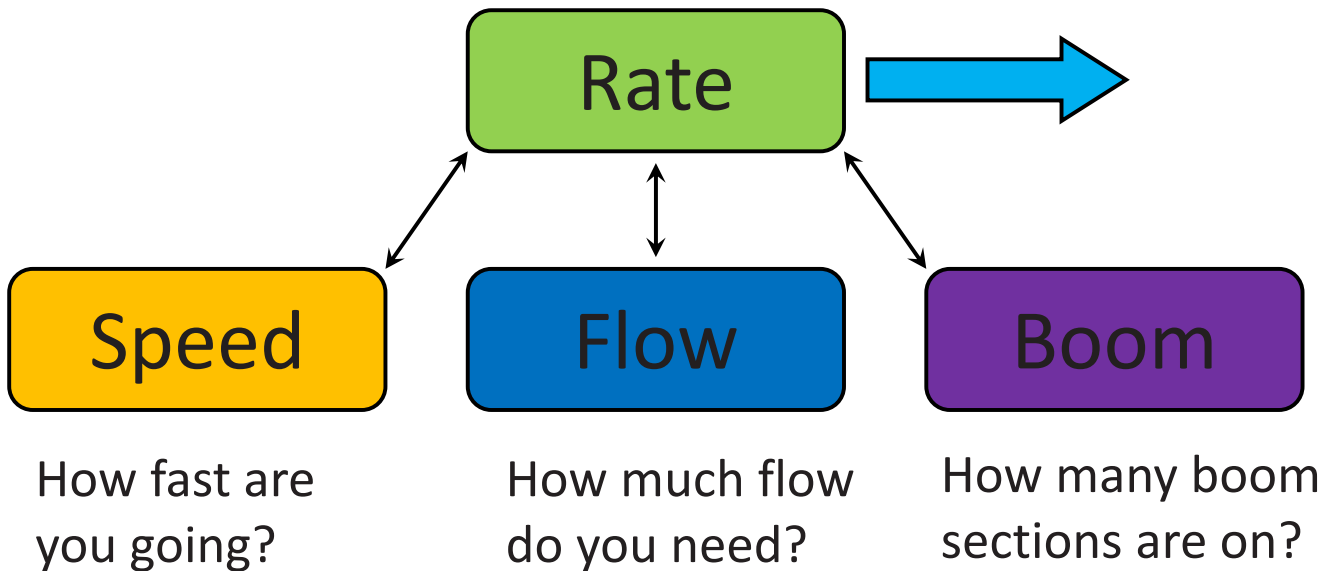
- All new Flow Meters from the factory will have the same HP Sensor (Compatible with all levels of Raven controllers; 440 up to RCM)
- No change to any Flow Meter itself, ONLY the sensor. Both sensors will work with a Raven Flow Meter
- If you replace a Legacy Sensor with a new HP Sensor, you must adjust the Meter Cal according to the listing on the HP Sensor tag
- The HP Sensor is NOT compatible with the old Deere GRC Rate Controller. The GRC cannot accommodate the higher frequency. You must replace with the Legacy Sensor
- The HP Sensor IS compatible with the JDRC 2000

Remember to check your Meter Cal if you are changing between the old and new sensors.

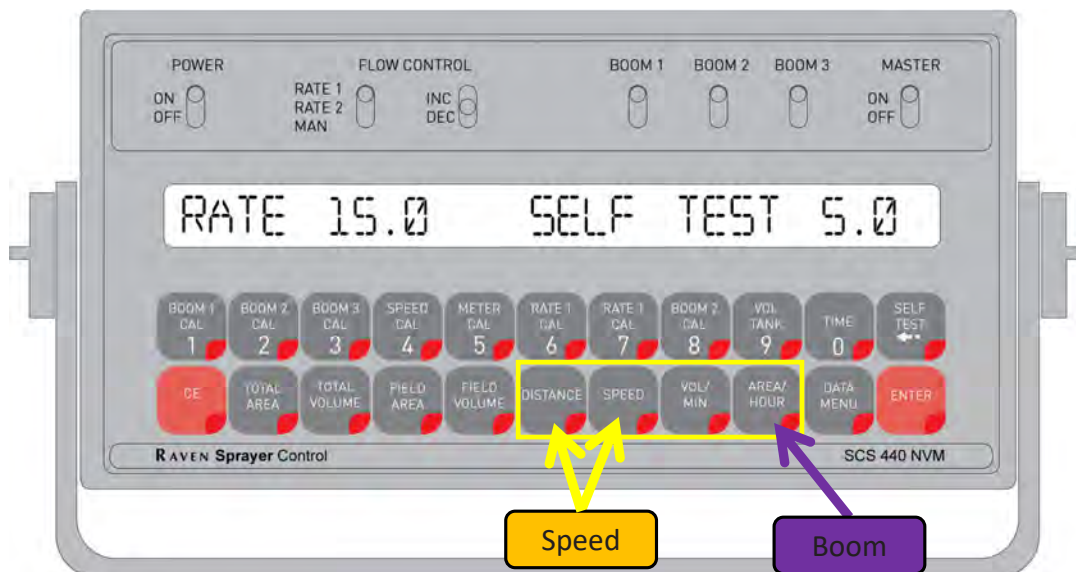


Controller Basics

$$\text{Speed} + \text{Flow} + \text{Boom Width} = \text{Actual Rate}$$

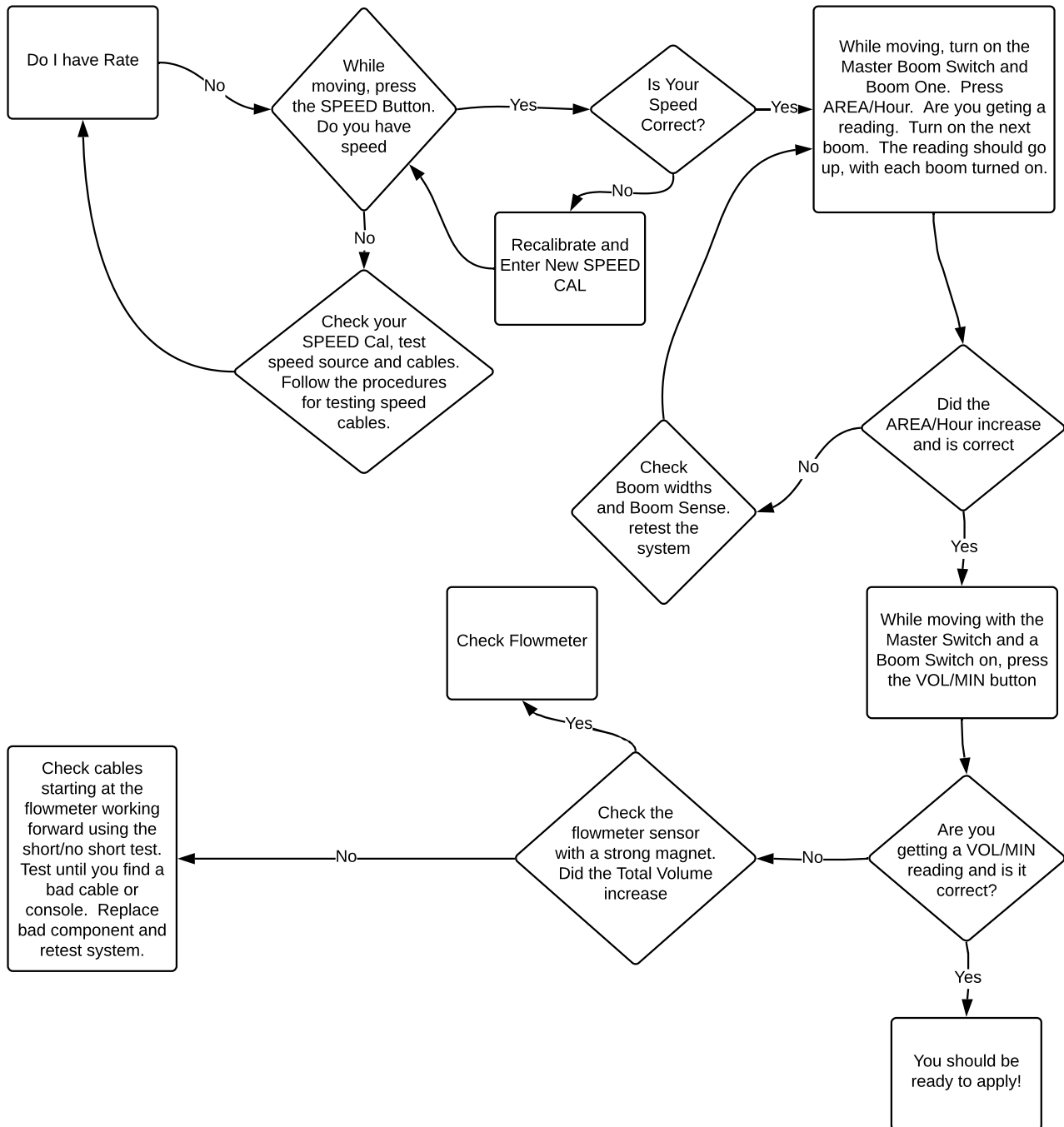


Troubleshooting Keys



No Rate

Raven “No Rate” Flowchart

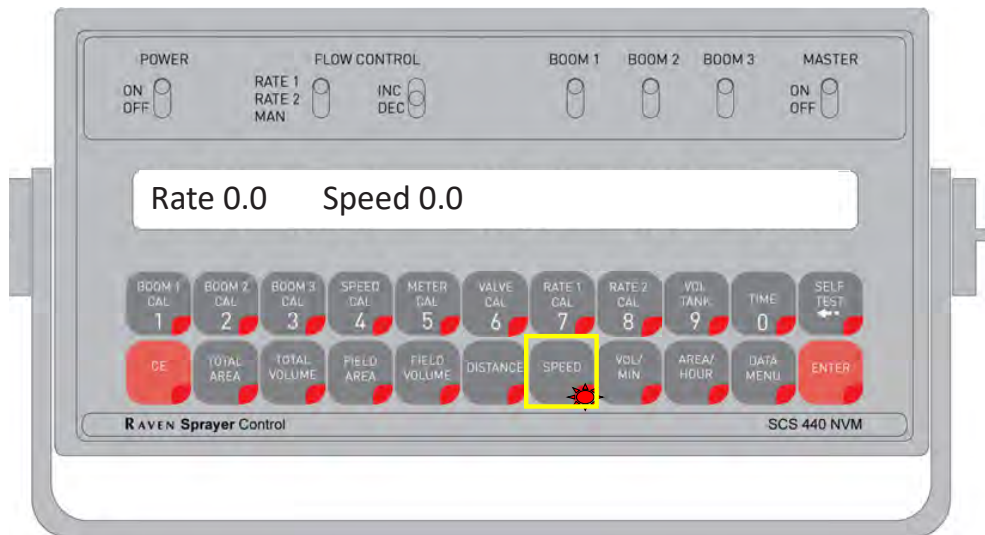


Troubleshooting

No Rate



No Speed



Troubleshooting Speed Cables

Pin Designations

- 2 o'clock socket location is power.
- 10 o'clock socket location is ground.
- 6 o'clock socket location is signal.

Voltage Readings

- 10 o'clock to 6 o'clock = +5 VDC. (12 VDC if radar)
- 10 o'clock to 2 o'clock = +5 VDC. (12 VDC if radar)



*If distance/speed is 0, test cable and console with a short no short test

1. Enter SPEED CAL 9999 in SPEED CAL key .
2. Press DISTANCE key.
3. Start at the speed source. With small jumper wire (or paper clip), short between the 10 o'clock and 6 o'clock sockets with a "short-no short" motion. Each time a contact is made, the DISTANCE should increase by increments of 1 or more counts.
4. If the DISTANCE increases, you have a problem with your speed source. Check power, connections, replace speed source...
5. If DISTANCE does not increase, remove the section of cable and repeat test at connector next closest to Console. Continue on until you find a bad cable or until you reach the back of the monitor. Don't forget to test the plug on the back of the monitor! Replace defective cable as required and retest from beginning.
6. Change SPEED CAL back to correct number when done testing.

Troubleshooting

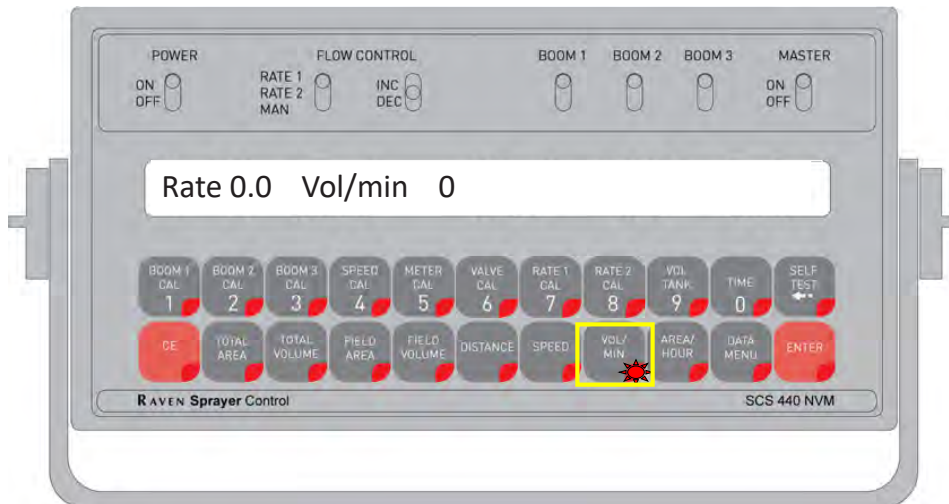
No Rate

Speed 100x Too High

If, for example, you are traveling at 5 mph, and your console says you are going 500 mph, check to make sure that you have the correct speed type selection. You probably have SP1 (Wheel sensor) selected and should have SP2 (Radar/GPS). Refer to “Changing the First 3 Settings” in the 440/450 Setup section.

If you have it set to SP2, verify your SPEED Cal.

No Flow



Troubleshooting Flow Cables

Pin Designations

- 2 o'clock socket location is ground.
- 10 o'clock socket location is power.
- 6 o'clock socket location is signal.

Voltage Readings

- 10 o'clock to 6 o'clock = +5 VDC.
- 10 o'clock to 2 o'clock = +5 VDC.



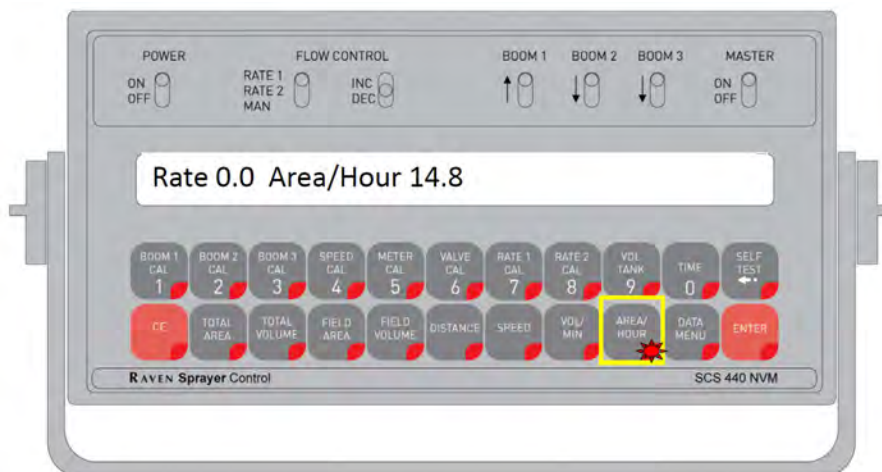
Troubleshooting

No Rate



1. Enter Meter CAL of 1 in METER CAL key.
2. Press TOTAL VOLUME key.
3. Place BOOM switches and MASTER switch to ON.
4. Check to make sure the flow direction indicator on the flowmeter sensor are inline with the flowmeter. If they are not, adjust the sensor so they are inline and recheck.
5. Remove the flowmeter sensor and pass a strong magnet back and forth in front of the sensor. The TOTAL VOLUME should increase each time the magnet goes past the sensor.
 - a. If the TOTAL VOLUME is increasing, check the flow meter. Check to make sure the turbine spins freely and interior of the flow meter is clean. Replace the flow meter if needed.
 - b. If the TOTAL VOLUME does not increase, continue to check the cabling.
6. With small jumper wire (or paper clip), short between the 2 o'clock and 6 o'clock sockets with a "short-no short" motion. Each time a contact is made, the TOTAL VOLUME should increase by increments of 1 or more counts.
 - a. If TOTAL VOLUME does not increase, remove the section of cable and repeat test at connector next closest to Console. Replace defective cable as required and recheck.

No Boom Sense



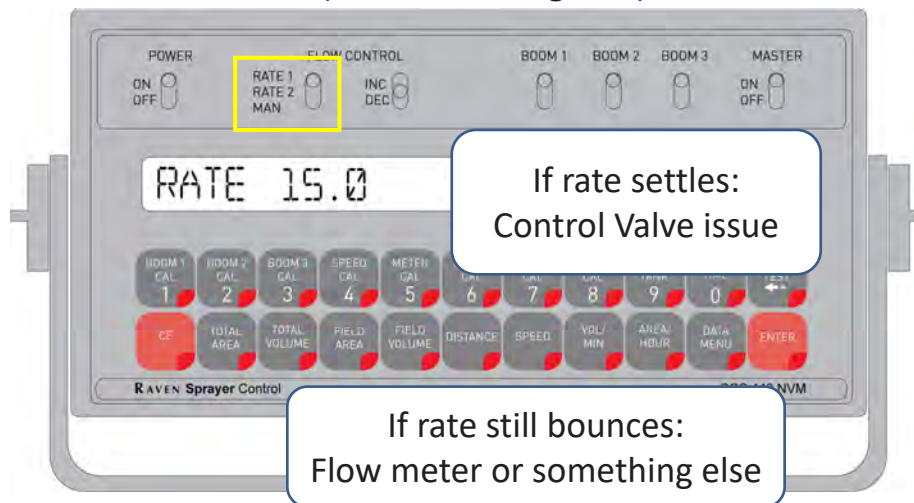
Area/Hour Testing

1. Turn the master switch and all boom switches off.
2. Begin moving or set a test speed.
3. Press the Area/Hour button. It should be 0.
4. Turn on the master switch and Boom 1. You now should have an Area/Hour.
5. Turn on Boom 2. Did your Area/Hour increase?
6. Do this for all booms one at a time.
7. Each time you turn a boom section on, the Area/Hour should increase.

Troubleshooting

Erratic Rate

Erratic Rate



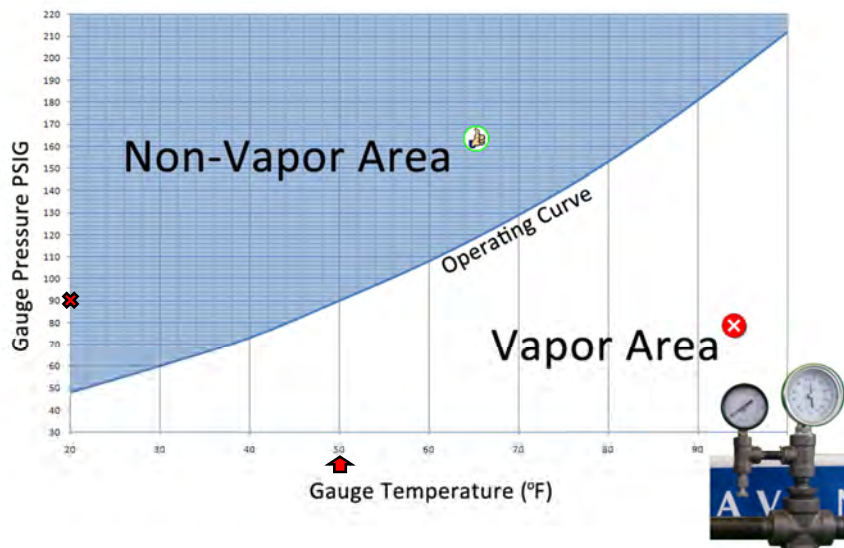
Causes of Actual Rate to Become Erratic:

1. You are outriving the capacity of the system.
2. You are metering vapor.

What To Do:

1. Slow down and see if that helps. If it does, you were applying faster than they system could operate.
2. Check the Vapor/Non-Vapor chart. Make sure you are in the non-vapor area.
3. Check the amount left in the tank. Try and leave 10-15% in the tank.
4. Check the vapor tubes to make sure they are not plugged.

Vapor/Nonvapor Chart



Troubleshooting

Erratic Rate/ NH³ Vapor Coming Out When Bar Is Shut Off



Checking Vapor Lines

 *Use extreme caution!*

1. Disconnect all the vapor lines from their respective knives.
2. Tie all the vapor lines up in the air so you can see them from the cab.
3. Return to applying as normal and check if NH³ is coming out of each of the vapor lines.
 - If vapor is coming out of each line, reattach the vapor lines to their respective knives. Your vapor lines are working as expected.
 - If vapor is not coming out a line, disconnect that line from the cooler and then return to applying as normal.
 - If vapor comes out of the cooler, then your line is likely plugged.
 - If no vapor comes out of the cooler, your cooler is likely plugged and needs to be replaced.

NH³ Vapor Coming Out When Bar Is Shut Off

1. Fast Valve System

If you are using a fast valve system, check your *Valve Type* that you selected in the first three steps of setting your 440/450 Console. Your setting needs to be C-FC-FAST CLOSE, not C-F. If your setting is set to C-F, hold the manual decrease switch down until the valve closes and NH³ stops coming out. Then go back to the first three settings on your console, and change the *Valve Type* to C-FC-FAST CLOSE. Now, you should be able to return to normal application.

2. Incorrect Plumbing

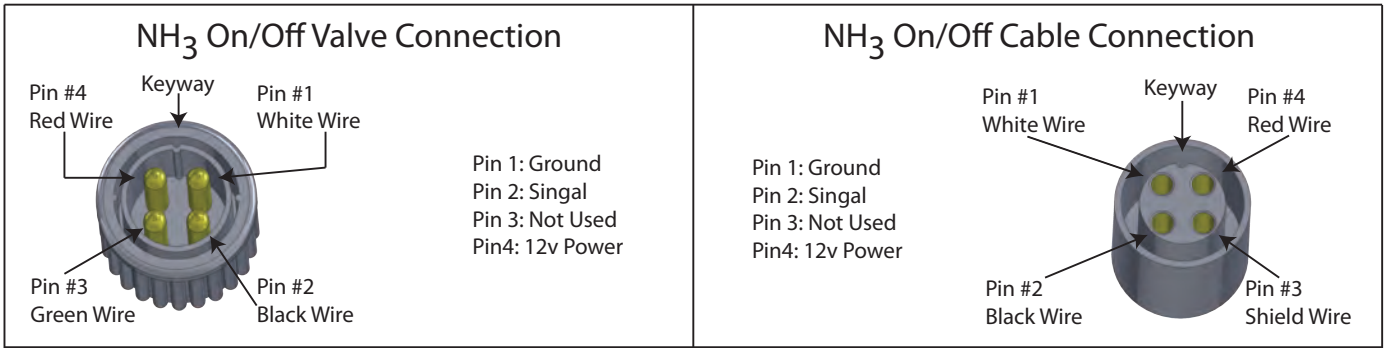
In some cases, the backcheck valve is the problem. It has either malfunctioned, has been plumbed into the wrong spot, or is missing. The backcheck valve is intended to stop the NH³ from flowing backwards into the cooler and coming out the vapor tubes. Correctly installing the backcheck valve in the plumbing system at the proper location will prevent NH³ vapor from coming out of your knives when you pick the toolbar up.

3. Bleed Valves

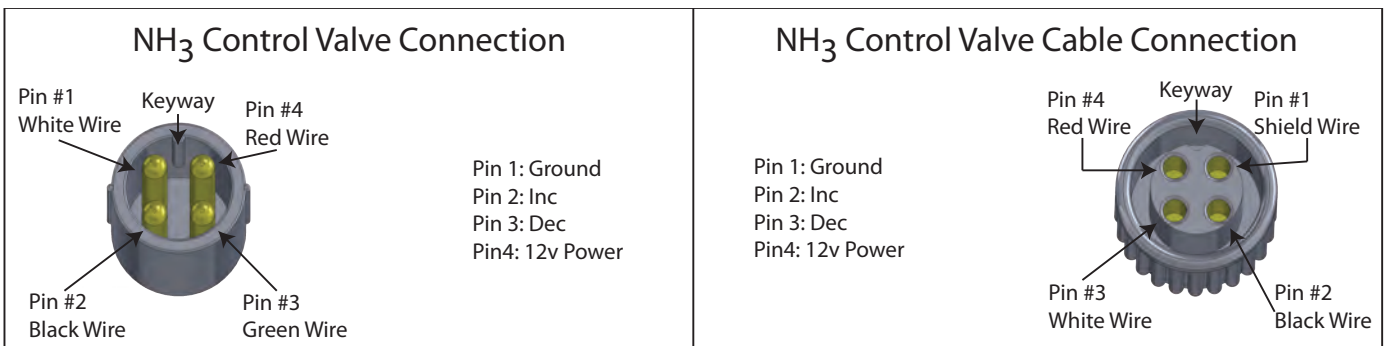
Check for open bleed valves if you are working with a newer Vortex system.

Component Testing

On/Off Valve Testing



Control Valve Testing



Sensor Alignment



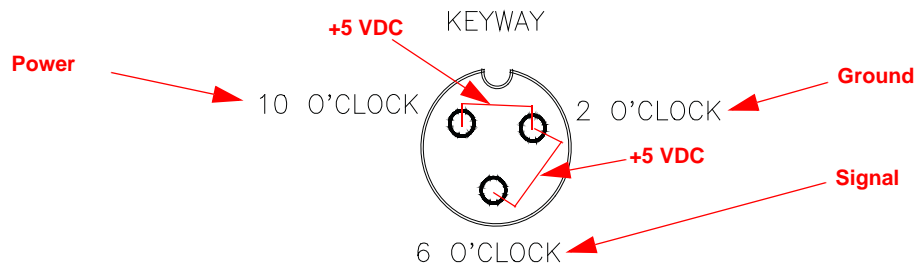
Sensor Arrow (notch) must align with the direction of flow on the Flow Meter.



Testing Flow Meter Cables

1. Disconnect the cable from the flow sensor.

FIGURE 1. Flow Sensor Connector Cable Connection



Note: If a +5 VDC voltage reading is not present, disconnect the speed sensor cable. If the flow reading is restored, refer to the *Testing Speed Sensor Extension Cables* section on page 48 to test the speed sensor extension cables.

1. Enter a METER CAL value of 1 into the console.
2. Press the TOTAL VOLUME button.
3. Place the RATE 1/RATE 2/MAN switch in the MAN position.
4. Turn the boom switches ON.
5. Create a short between the ground and signal sockets by inserting a small jumper wire or paper clip into both sockets simultaneously. Each time contact is made, the TOTAL VOLUME reading should increase in increments of 1 or more. If the TOTAL VOLUME does not increase:
 - a. Remove the section of cable closest to the console.
 - b. Repeat the ground-signal short test.
 - If the TOTAL VOLUME does not increase, replace the defective cable and repeat the ground-signal short test.
 - If the TOTAL VOLUME increases, replace the flow sensor.
6. Perform voltage checks as illustrated in the figure above.

Important: Re-enter the original METER CAL figure after testing is complete.



Recalibrating the Flow Meter

Note: This procedure should be performed when the tank is filled with water, not chemicals.

1. Enter a METER CAL value of 10 [38] into the console.
2. Enter a TOTAL VOLUME value of 0 into the console.
3. Turn OFF all booms.
4. Remove a boom hose and place it into a calibrated 5 gallon [19 liter] container.
5. Turn ON the boom switch for the boom hose that was removed.
6. Turn ON the Master switch and pump exactly 10 gallons [38 liters] of water. The TOTAL VOLUME readout is the new METER CAL number. This number should be within +/- 3% of the calibration number stamped on the tag of the flow meter.
7. Zero out the TOTAL VOLUME value and repeat the procedure several times to verify the accuracy of the new METER CAL value.
8. Verify the flow meter calibration.
 - a. Fill the tank with a predetermined amount of measured liquid (e.g., 250 gallons).

Important: Do not rely on the graduation numbers molded into the applicator tank - measure the liquid.

- b. Empty the tank under normal operating conditions.
- c. Check the TANK VOLUME value. If the number displayed is different from the predetermined amount of measured liquid by more than +/- 3%, perform the following calculation:

$$\frac{\text{METER CAL} \times \text{TOTAL VOLUME}}{\text{Predetermined amount of measured liquid}} = \text{Adjusted METER CAL value}$$

For Example:

METER CAL Value	=	720 [190]
TOTAL VOLUME Value	=	260 [984]
Predetermined amount of measured liquid	=	250 [946]
$\frac{720 \times 260}{250} = 749 \text{ (English)}$		
$\frac{[190] \times [984]}{[946]} = 198 \text{ (metric)}$		

9. Enter the adjusted METER CAL value before resuming application.

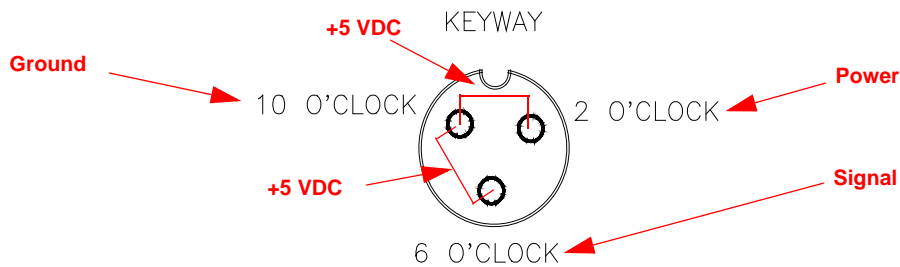


Speed Sensor Testing

Testing Speed Sensor Extension Cables

1. Disconnect the extension cable from the speed sensor assembly cable.

FIGURE 2. Speed Sensor Connector Cable Connection



Note: If a +5 VDC voltage reading is not present, disconnect the flow sensor cable. If the speed reading is restored, refer to the Testing Flow Meter Cables section on page 46 to test the flow meter cables.

If the speed system is a radar-type system, the voltage between the 10 o'clock and 2 o'clock positions may read +12 VDC.

1. Enter a SPEED CAL value of 9999 into the console.
2. Press the DISTANCE button.
3. Create a short between the ground and signal sockets by inserting a small jumper wire or paper clip into both sockets simultaneously. Each time contact is made, the DISTANCE reading should increase in increments of 1 or more. If the DISTANCE does not increase:
 - a. Remove the section of cable closest to the console.
 - b. Repeat the ground-signal short test.
 - If the DISTANCE does not increase, replace the defective cable and repeat the ground-signal short test.
 - If the DISTANCE increases, replace the speed sensor.
4. Perform voltage checks as illustrated in the figure above.

Important: Re-enter the original SPEED CAL figure after testing is complete.

Troubleshooting

Console Issues

Console Issues

Issue	Corrective Action
The console is on, but there are no lights lit up on the console.	<ol style="list-style-type: none"> 1. Check the fuse on the back of the console. 2. Check the battery connections. 3. Check the operation of the Power ON/OFF switch. 4. Return the console to the dealer to have the processor board assembly replaced.
All of the lights on the console are lit up at the same time.	Return the console to the dealer - this issue is not repairable in the field.
A digit cannot be entered via the buttons on the console.	Return the console to the dealer - this issue is not repairable in the field.
The indicator light on a key will not illuminate.	Return the console to the dealer - this issue is not repairable in the field.
The console display message flashes "CAL" whenever the vehicle's engine is started.	Check the battery voltage and connections.
The console display message flashes "CAL" whenever the Master switch is turned on or off.	Check the battery voltage and connections.
The console display message flashes "CAL" whenever the speed is changed.	Check battery voltage and connections.
The TIME function is inaccurate or drifting.	Return the console to the dealer - this issue is not repairable in the field.
Digits in the display are missing segments.	Return the console to the dealer - this issue is not repairable in the field.
The SPEED displays as "0".	<ol style="list-style-type: none"> 1. Check the speed sensor cable connector and the plug on the back of the console for loose pins. 2. Clean the pins and sockets on the speed sensor cable connections. 3. If a speed sensor extension cable is used, refer to the <i>Testing Speed Sensor Extension Cables</i> section on page 48. 4. If no extension cable is used, replace the speed sensor switch assembly.

Troubleshooting

Console Issues/ Rate Control Issues



Issue	Corrective Action
<p>The SPEED is inaccurate or unstable. (Wheel drive speed sensor)</p>	<ol style="list-style-type: none"> 1. Check the speed sensor. <ol style="list-style-type: none"> c. Run a speed check on a hard surface road. d. If the speed is accurate, move the speed sensor to a different wheel and perform a recheck. 2. Check the magnets. <ol style="list-style-type: none"> a. Remove one red magnet and one black magnet on the wheel. b. Reposition the remaining red and black magnets directly across from each other. c. Enter a SPEED CAL number in the console twice as large as the correct SPEED CAL number. d. Run a speed check on a hard surface road. e. Remove the two magnets and replace them with the other magnets previously removed. f. Run a speed check on a hard surface road. <ul style="list-style-type: none"> • If the speed is accurate with only one set of magnets, replace the bad set of magnets. • If the speed is inaccurate with both sets of magnets, replace the speed sensor assembly. <p>Important: <i>Re-enter the original SPEED CAL figure after testing is complete.</i></p>

Rate Control Issues

Issue	Corrective Action
<p>The RATE displays as "0000".</p>	<ol style="list-style-type: none"> 1. Verify that the SPEED is registering correctly. If the speed is zero, refer to the "The SPEED is inaccurate or unstable" issue in the Console Issues section for the appropriate troubleshooting steps. 2. Verify that the TOTAL VOLUME is registering flow. If not, refer to the "Total volume does not register" issue in this section.
<p>The RATE is inaccurate or unstable.</p>	<ol style="list-style-type: none"> 1. Verify that all values are entered into the console correctly. 2. Verify that the SPEED is registering accurately. If it is inaccurate, refer to the "SPEED is inaccurate or unstable" issue in the Console Issues section for the appropriate troubleshooting steps. 3. In MAN (manual) operation, verify that the RATE display (GPA) holds constant. If not, refer to the "Total volume registers flow inaccurately" issue in this section. 4. In MAN operation, check the low end and high end pressure range. If pressure cannot be adjusted manually, refer to the "Total volume registers flow inaccurately" issue in this section. 5. If the problem persists, return the console to the dealer to have the processor board assembly replaced.



Troubleshooting

Rate Control Issues

Issue	Corrective Action
Cannot vary the RATE in automatic or manual operation.	<ol style="list-style-type: none"> 1. Check the cabling to the motorized control valve for breaks in the line. 2. Verify the cable connections are clean. 3. Verify that there is voltage to the valve connector. <ol style="list-style-type: none"> a. Turn the Master switch ON. b. Switch the RATE 1/RATE 2/MAN switch to MAN. c. Turn the POWER switch ON. d. Manually operate the INC/DEC switch to verify voltage. 4. Verify that the valve is turning. If not, replace the motorized control valve.
The sprayer pressure is correct, but the RATE is low.	<ol style="list-style-type: none"> 1. Verify that the nozzle strainer screens and check valves are not plugged. 2. Verify that the pressure at each boom is the same. 3. Verify that all nozzles are of the correct and same orifice size. Refer to the <i>Calculate the Rate 1 and Rate 2 Cal Values</i> section on page 8 for the proper method to determine nozzle size.
TOTAL VOLUME does not register.	<ol style="list-style-type: none"> 1. Check the flow meter cable for breaks and shorts. Refer to the <i>Testing Flow Meter Cables</i> section on page 46. 2. Clean, adjust, and check the flow meter parts. Refer to the <i>Flow Meter Preventative Maintenance and Adjustment</i> section on page 45. 3. Replace the flow meter transducer.
TOTAL VOLUME registers the flow inaccurately.	Verify that the arrow on the flow meter is pointing in the direction of the flow. Refer to the <i>Flow Meter Preventative Maintenance and Adjustment</i> section on page 45 and the <i>Recalibrating the Flow Meter</i> section on page 47.
Motorized control valve rotates more than 1/4 turn.	Replace the motorized control valve.
There is water inside the cover of the motorized control valve.	<ol style="list-style-type: none"> 1. Replace the isolation flange assembly and coupler shaft. 2. Replace the entire motorized control valve if the PC board or motor is corroded and will not run.
Boom solenoids will not function.	<ol style="list-style-type: none"> 1. Check the cable for wires with breaks or shorts. 2. Verify that the cable connections are clean. 3. Verify that the boom switch and Master switch function properly. 4. Replace the boom valves.

Common NH³ Troubleshooting



When to Suspect the Flowmeter

- When you have no rate, after going through the No Flow Flowchart
- When you put the system into manual, drive at a constant speed, and the rate is still bouncing around
- When you adjust your meter cal number, but the rate is still coming out incorrect

When to Suspect a Cooler Problem

- When tank valves are turned on, system valves are closed and NH³ is coming out of the knives
- When pure liquid is coming out of the vapor tubes
- When no vapor is coming out of the vapor tubes
- When the cooler is frosting up in the non-frost areas

When to Suspect Something Else

- Any place where there is frost except certain parts off the cooler indicate a restriction in that area
- Rate is jumping around – check tank level then place system into manual to see if it settles down
- Can't reach target rate – slow down and check Vapor – Non-Vapor chart

When the Weigh Tickets Don't Match, but Things Look Like They are Working

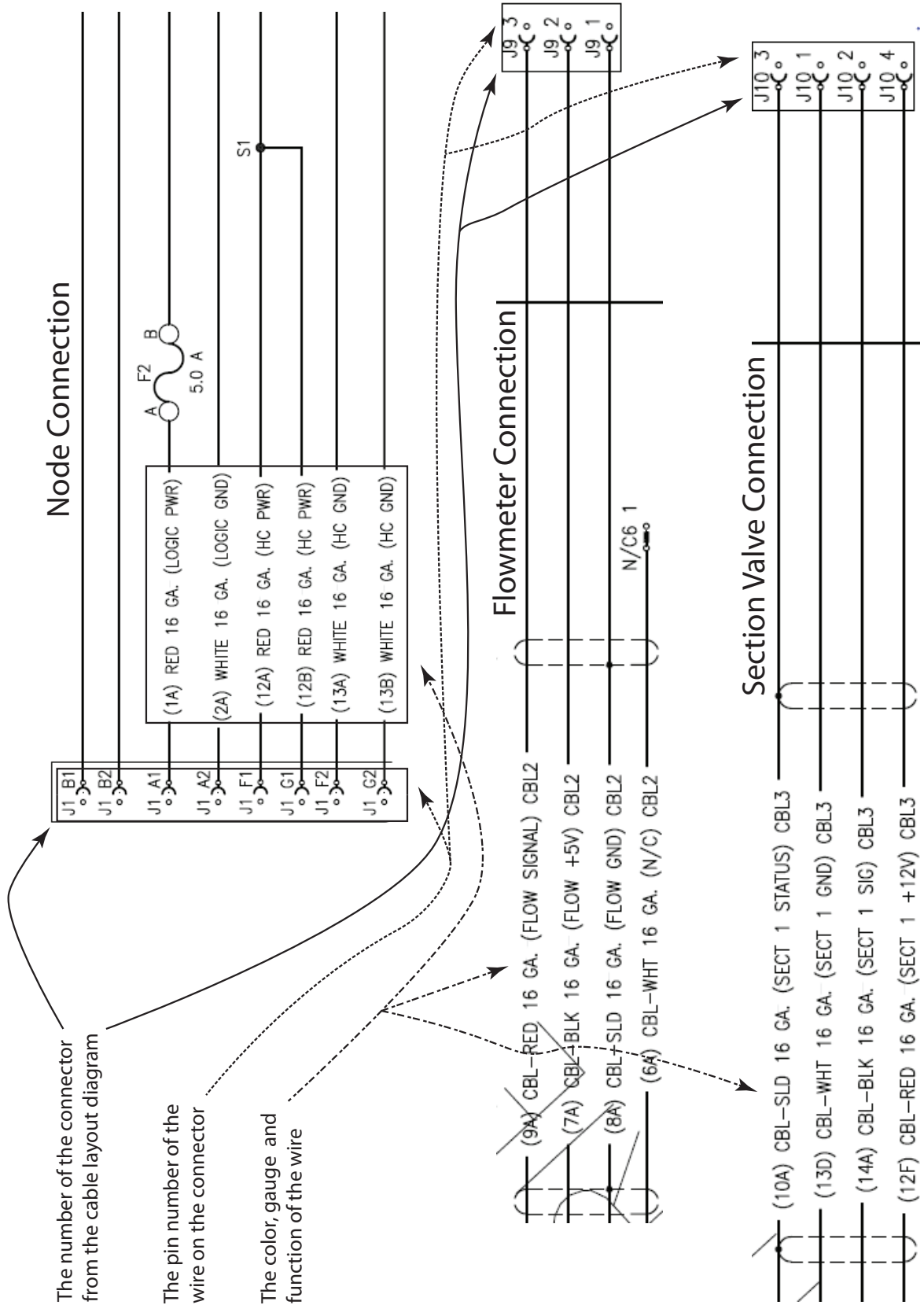
- Check the meter cal, speed cal and the boom cal's
- Check the strainers to see if they are plugged

When Liquid NH³ is Coming Out of Your Vapor Lines

- The internal O-rings of the cooler have possibly failed. Replace the O-rings.
- There is possibly an internal leak in the cooler. Replace the cooler.

Raven Wiring Diagram

N-Serve Injection Point Drawing



A graphic showing a red injection pump nozzle on the left and a red fan-like structure on the right, both set against a red background.

Injection Pump Maintenance

Daily Maintenance

Certain chemical formulations will require the injection pump to be flushed after each days use. Flushing agents will vary depending on formulations petroleum or water based. Contact your chemical representative for product flush recommendations.

Daily Flush

Flush any product remaining in the pump and injection line by turning 3-way valve feeding the injection pump. Draw rinse agent into the injection pump. Recommended inlet plumbing is 3/4 inch and outlet pump hose is 1/2 inch. Run volume for the injection pump will depend on the length and size of these hoses.

When rinsing product cannot be field applied legally, install a three way valve at the injection point to catch rinse product and dispose of per chemical label.

1. Prepare to catch rinse product or inject into the booms for field application of rinsing agent.
2. Turn 3-way valve to draw rinse product into pump.
3. Turn master on and injection pump on.
4. Monitor the total volume on the Control Console. (Press total volume key)
5. Field apply rinse product if legal or catch and dispose per chemical label. Run the Injection pump to the calculated value. Triple rinse for best results.
6. Your Daily rinse is complete.

Note: If freezing conditions are a concern, rinse with an agent that will not freeze or gel. In some cases, automotive antifreeze (mix to appropriate temp) or UAN32 can be utilized. But check with your chemical representative for compatibility. RV antifreeze should not be used because it does gel.

Automatic Rinse Kits available. Call our Parts Department for more information.

Injection Pump Maintenance

Storage Maintenance



Seasonal Storage

1. Rinse pump as outlined in Daily Flush above.
2. Remove, clean and inspect the intake and outlet valve cartridges in the pump head. It is best to perform maintenance on each valve cartridge independently to ensure each valve cartridge is re-installed correctly. While rinsing valve, open and close poppet valve to free any foreign matter. Be sure to re-install the discharge and intake valves. Failure to do so will result in the pump not calibrating correctly. See figures 1 and 2.
3. Once valve cartridges have been re-installed, remove valve cartridge heads for each side of the pump head. Clean inside of each head. Carefully remove the ball, shuttle magnet, and spring. Clean cavity with pipe cleaner, wipe parts clean and re-install. Set heads aside. See figure 2.
4. Remove pump body from motor. Clean cam and bearing, wiping all chemical residues and lubricating grease from area and re-apply all surfaces with a coating of grease. The bearing is sealed and does not require lubrication but should be replaced if it does not spin freely. See figure 2.
5. Remove pressure or voo sensors (depending on model) from valve head, rinse and clean sensor end and re-install.
6. Reinstall pump body over can and bearing and on to pump motor.
7. Re-install pump valve heads.
8. Perform a pump calibration with anti-freeze.

Your pump is ready for storage and next season's use.



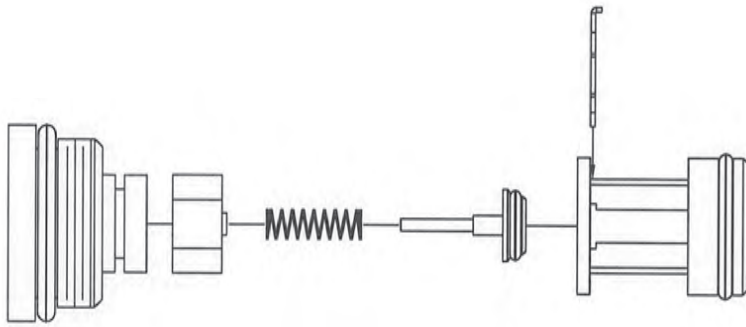
Watch Raven's video on Maintenance of the Sidekick Pro™ Injection Pump

You can use your phone's camera to scan this QR code. There should be a link that will pop up for you to click.

OR CLICK HERE

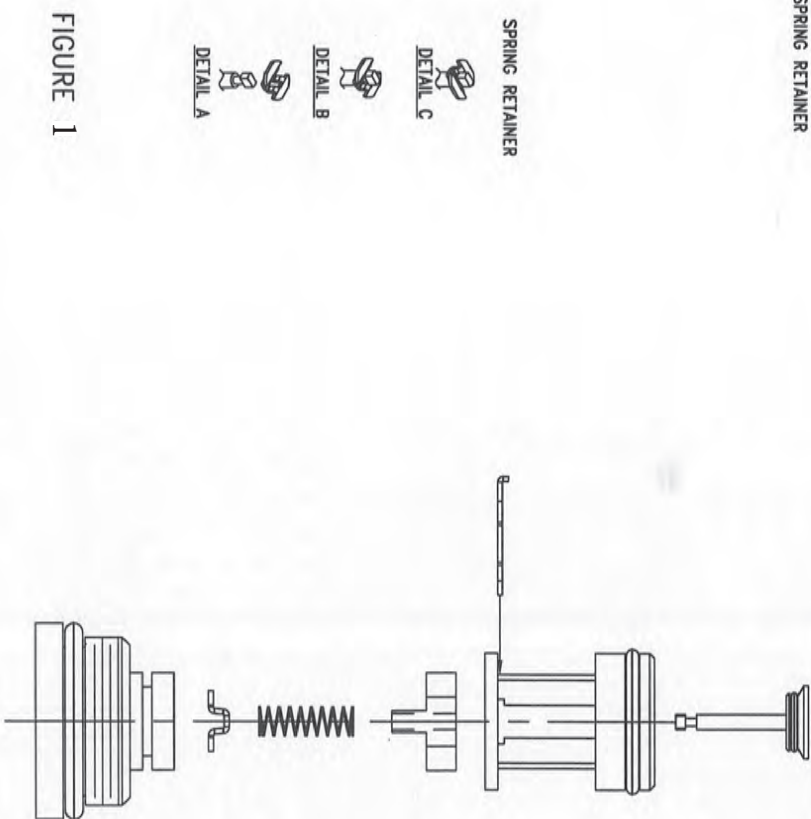
Injection Pump Maintenance

Drawings - Figure 1



DISCHARGE VALVE ASSEMBLY

INJECTION PUMP CHECK VALVE ASSEMBLIES
SEE PUMP MANUAL FOR DETAILED INSTRUCTIONS



SPRING RETAINER

SPRING RETAINER

DETAIL C

DETAIL B

DETAIL A

FIGURE 1

Injection Pump Maintenance

Drawings - Figure 2

INJECTION PUMP SEPARATION FROM MOTOR
SEE PUMP MANUAL FOR DETAILED INSTRUCTIONS

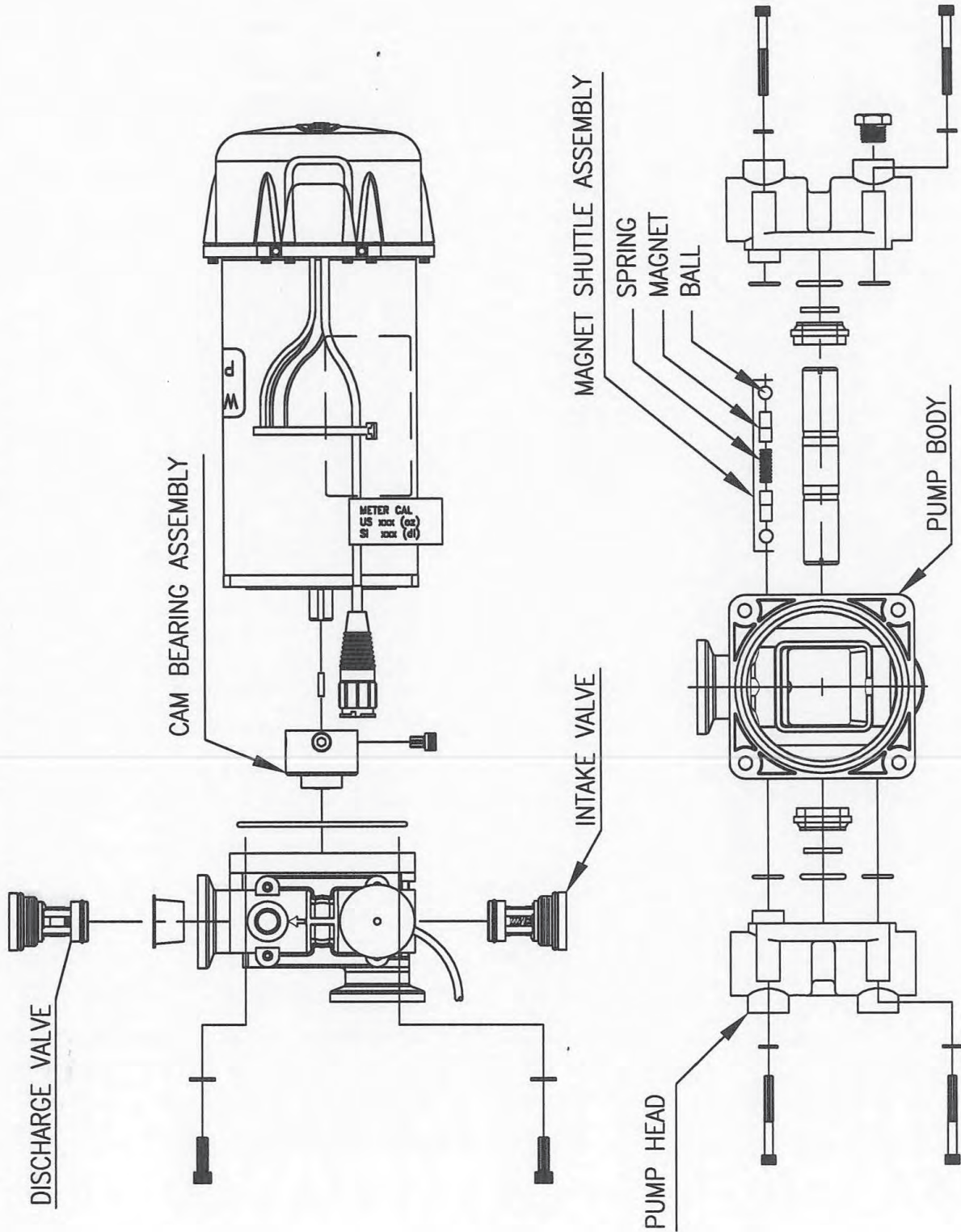


FIGURE 2



Proper Cleaning & Chemical Identification Techniques

Please read this information carefully on how to safely clean and identify chemicals used in injection pump systems, valves and flow meters used in conjunction with these systems prior to return to Raven Industries or Davis Equipment for service and/or repair.

Warning: Review the Material Safety Data Sheet (MSDS) prior to cleaning any contaminated items for proper personal protective equipment requirements. Failure to do so could result in serious injury or even death. Ensure you are in full compliance with all current federal, state, and local laws, ordinances, regulations, regarding the proper and safe handling, rinsing, and disposal of pesticides, hazardous waste, or any other chemical that was used with your Raven product.

For All Returns

Clean exterior surfaces of item returned to remove chemical contaminants and excessive dirt or other foreign materials.

Injection Pump Flush

For an operational pump system:

1. Fill injection tank with clean water or connect to a clean water “flush” tank.
2. Place three-way valve into “re-circulate” position or if using a flush tank, ensure outlet of pump is plumbed back to the flush tank and not the injection chemical tank.
3. Start injection system and pump approximately two gallons into injection / flush tank.
4. Reposition the three-way valve to allow rinse mixture to be injected and run at normal rate.
5. Repeat procedure three times (triple rinse) or until pump is free of all contaminants.

For a non-operational or impossible to run system:

1. Connect a fresh water supply hose to the inlet manifold and flush pump assembly.
2. Remove the pump head / valves and flush with clean water three times (triple rinse).
3. Flush remaining chemical from cavity of the pump until water is clean and free of
4. chemical.

Flowmeter Flush

1. Attach a clean water source to the inlet side of the flow meter.
2. Run clean water through for a minimum of two minutes or until water is free of
3. contaminants.

Cleaning Valves Used In Chemical Application Systems

1. Verify the ball or butterfly is in the open position.
2. Run clean water through for a minimum of two minutes or until water is free of
3. contaminants.

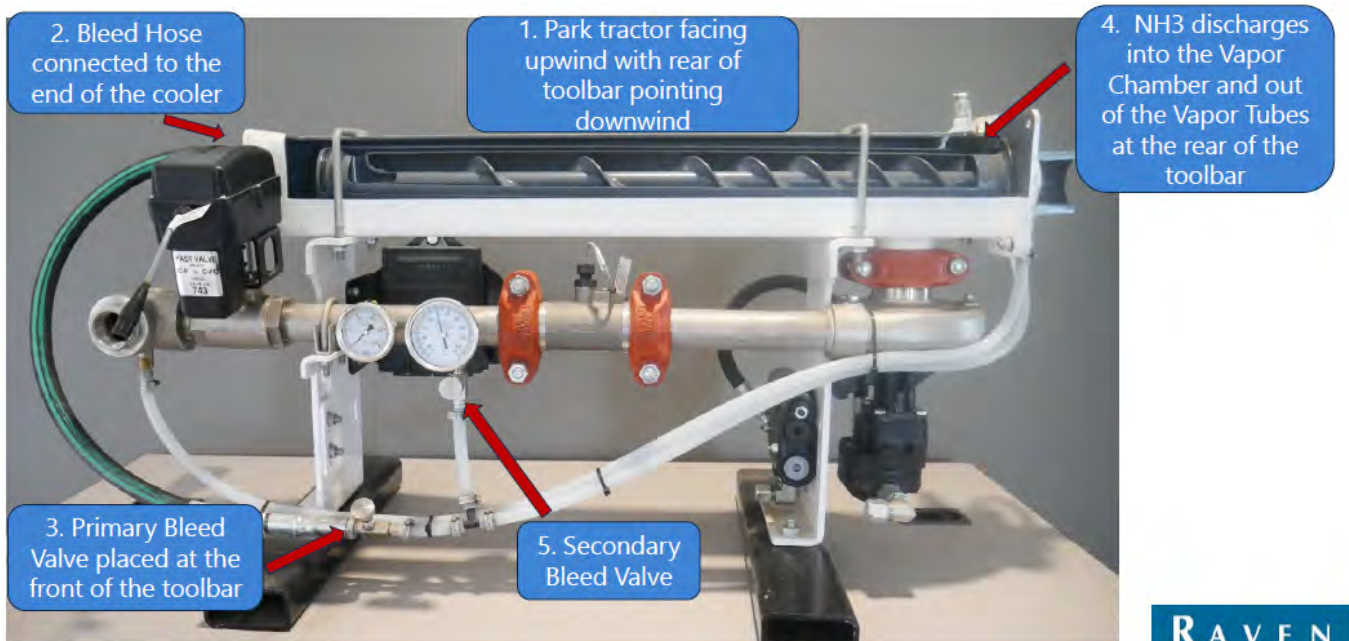
Discharging The Legacy Cooler

1. Toggle the console or vehicle master switch to the off position.
2. Completely close the main shut-off valve on the supply or nurse tank.
3. Resume field application until the pressure gauge reads no remaining pressure is in the AccuFlow system.
4. Verify that the console and/or vehicle master switch, and all section switches, are in the off position.
5. Completely close the emergency manual shut-off valve on the AccuFlow cooler.
6. Bleed and disconnect the nurse tank supply hose from the AccuFlow system.
7. Toggle the console master and all section switches to the on position.
8. While standing upwind from the implement, slowly open bleed valve(s) until fully open.
9. Allow a minimum of one (1) hour to fully discharge the system. Verify that the pressure gauge on the AccuFlow manifold reads zero and the super cooler is not cold to the touch before opening the system. This ensures that all liquid NH_3 has evaporated and pressure has been discharged.



Discharging The Vortex Cooler

1. Toggle the Master Switch to OFF position
2. Completely close the main shut-off valve on the tank
3. Resume field application until the pressure gauge reads no remaining pressure. NEVER ASSUME THE SYSTEM IS COMPLETELY EMPTY AT THIS TIME!
4. Verify the Master Switch and all Section Switches are in the OFF position.
5. Close the emergency shut-off valve (valve with manual handle).
6. Bleed and disconnect the nurse tank supply hose from the AccuFlow system.
7. While standing upwind from the implement slowly open the primary bleed valve until it is fully open. Ammonia will discharge out of the vapor knives on the toolbar.
8. Always bleed system slowly when time permits by leaving them open over a period of time.
9. Remain at the primary bleed valve until ammonia cloud is no longer coming out of vapor knives. Check pressure and temperature gauges to verify the pressure reads zero and no frost on the parts.
10. Open secondary bleed valve to relieve any remaining liquid ammonia.
11. Re-verify the pressure gauge reads zero and all components are NOT cold to the touch before opening the system.





Equipment Line Drawings

CNH Drawings

Pages 136 - 162

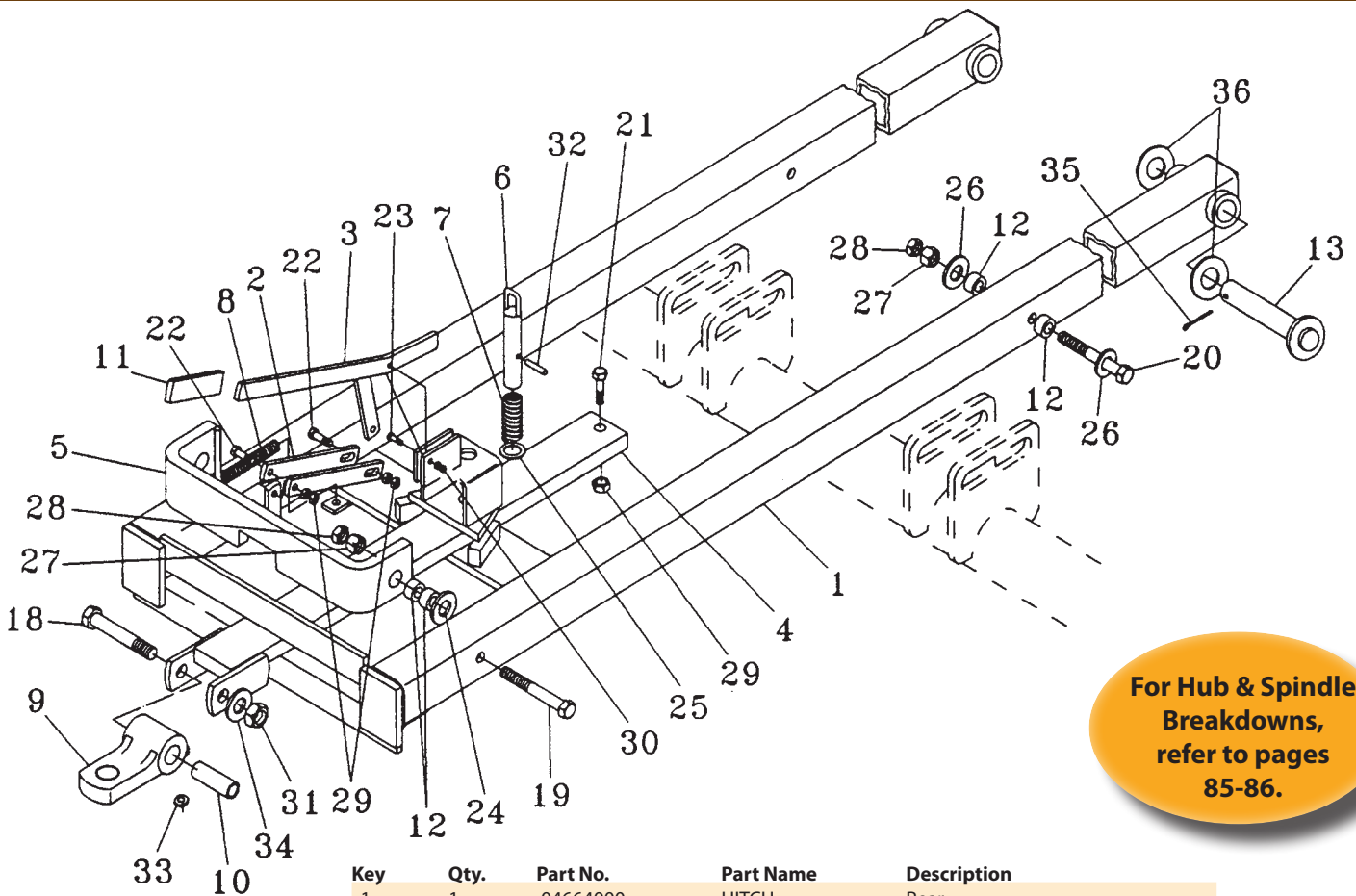
Dalton Ag Drawings

Pages 163 - 165

Yetter Magnum 10000 Drawings

Pages 166 - 172

CNH Rear Hitch 4250 / 5250 / 4300 / 5300



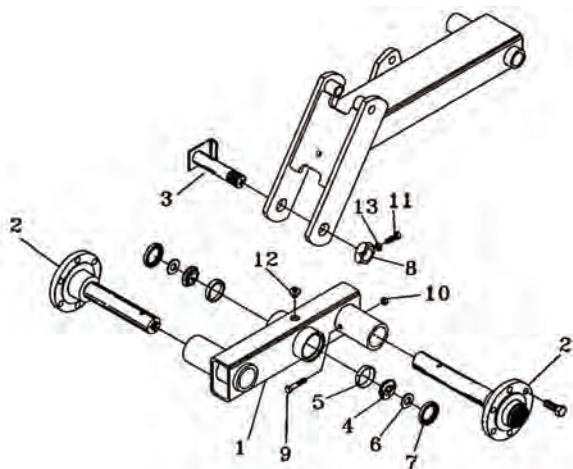
For Hub & Spindle
Breakdowns,
refer to pages
85-86.

Key	Qty.	Part No.	Part Name	Description
1	1	04664000	HITCH	Rear
2	2	04664130	LINK ASSY.	
3	1	04664200	HANDLE	
4	1	04664400	BAR	Tow
5	1	04664300	STOP	Draw Bar
6	1	14816166	PIN, HITCH	
7	1	24111200	SPRING	Compression
8	1	24312000	SPRING, COIL	Extension
9	1	20092085	CLEVIS	Single
10	1	44009370	SPACER	
11	1	30011100	HOLDER	Vinyl
12	8	44006200	BUSHING	
13	2	14820445	PIN, CLEVIS	1 1/4 Diameter
18	1	16901420	BOLT, SPECIAL	7/8 x 5 1/2
19	2	280232	BOLT	Hex, 5/8"-11 x 5 1/2", G5
20	2	88264	BOLT	Hex, 5/8"-11 x 6", G5
21	1	9627896	BOLT	Hex, 5/8"-11 x 1 3/4", G5
22	2	88436	BOLT	Hex, 3/8"-16 x 2", G5
23	1	280112	BOLT	Hex, 1/4"-20 x 1 1/2", G5
24	4	17618030	BUSHING, LARGE	1 1/8, 18 Gauge, Machine
25	1	17616020	WASHER	1, 14 Gauge, Machine
26	4	495-81028	WASHER	2 1/32" x 1 1/2" x .240"
27	4	280374	NUT	5/8"-11, G5
28	4	425-1410	NUT	Jam, 5/8"-11, G5
29	4	425-106	NUT	3/8"-16, G5
30	2	7770	NUT	1/4"-20, G5
31	1	86992218	NUT	7/8
32	1	438-11624	PIN, LOCK	1/4" x 1 1/2", Slotted
33	1	219-86	NIPPLE, LUBE	1/8" x .62" lg, Drive
34	1	17414012	WASHER	7/8
35	2	432-1632	PIN, SPLIT (COTTER)	1/4" x 2"
36	UAR	17620020	BUSHING	1 1/4, 14 Gauge, Machine

CNH 5300 Wing Walking & Frame Walking Axles

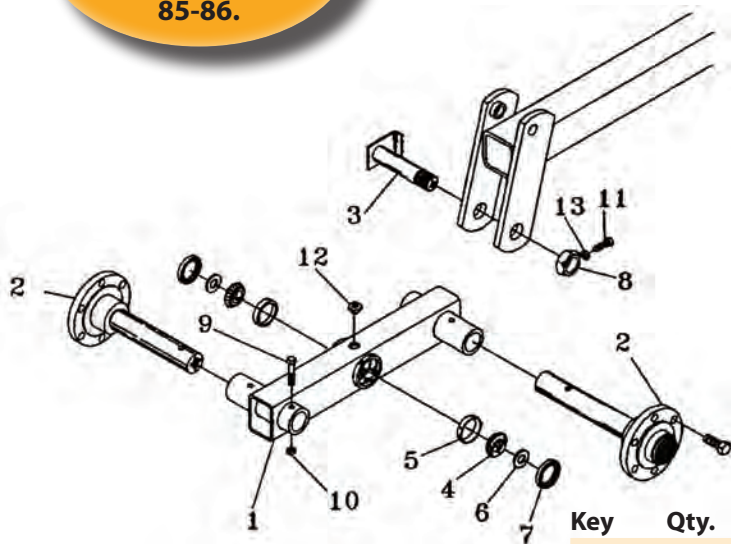


CNH 5300 Main Frame Walking Axle



Key	Qty.	Part No.	Part Name	Description
1	1	04683045	Axle	Walking, Rh
1	1	04683145	Axle	Walking, Lh
2	2	28078361	Hub Assy.	783 Hub & 2 1/2 Spindle
2	2	28050885	Stub Axle	50-8 Hub & Spindle
3	1	04683050	Pin, Axle	
4	2	21871501	Bearing, Cone	1.50 Bore, Timken 2776
5	2	86977427	Bearing, Cup	3.00 OD, Timken 2720
6	2	84422537	Spacer	
7	2	115950	Seal	3.148 Bore, CR22870
8	1	14032409	Nut, Special	1 1/2, Jam
9	2	413-864	Bolt	Hex, 1/2" - 13 x 4", G5
10	2	231-4248	Nut, Lock	
11	1	16806045	Screw	3/8 x 1, Square Head
12	1	219-86	Nipple, Lube	1/8" x .62" Lg, Drive
13	1	87016560	Nut	Jam, 3/8" - 16, G5

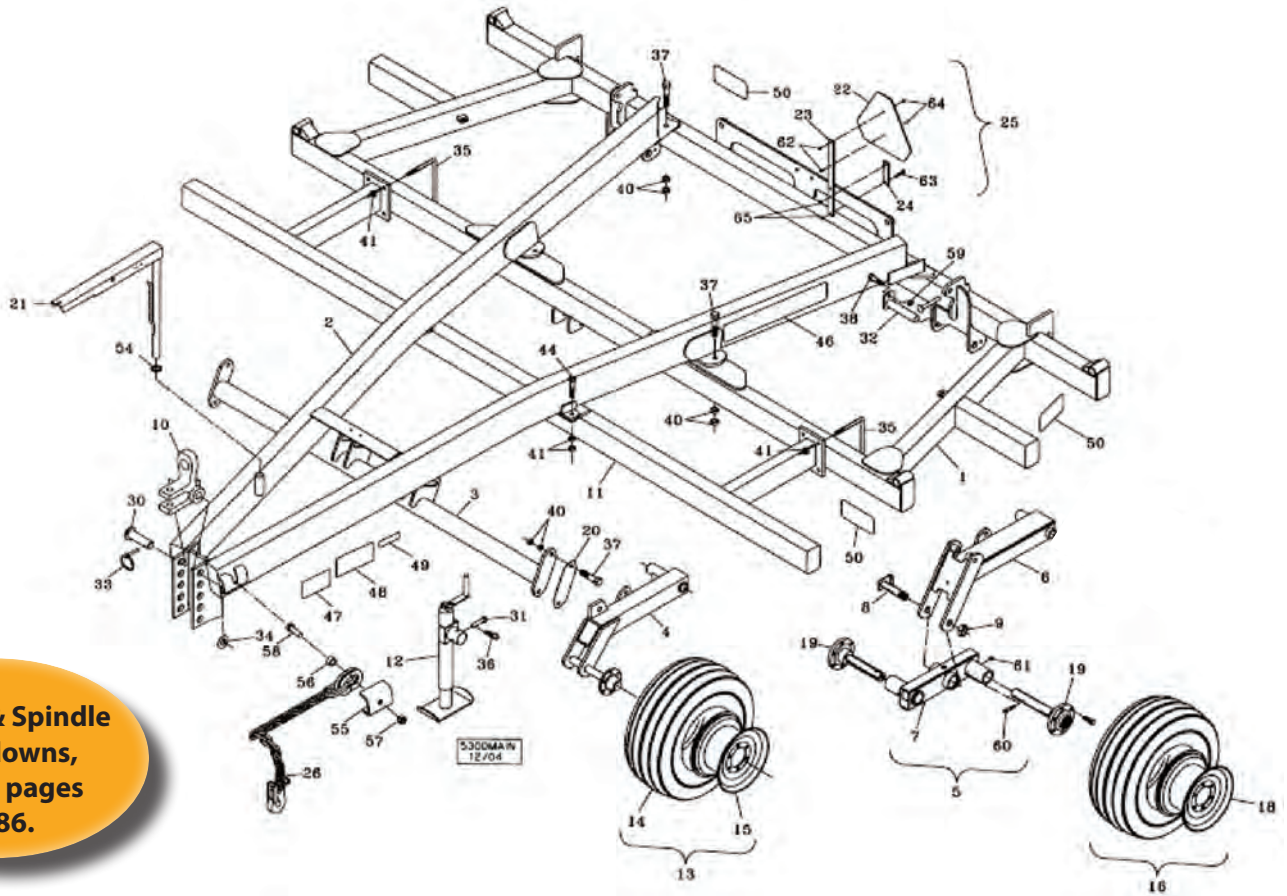
For Hub & Spindle Breakdowns, refer to pages 85-86.



CNH 5300 Wing Walking Axle

Key	Qty.	Part No.	Part Name	Description
1	1	04683245	Axle	Walking, Rh
1	1	04683345	Axle	Walking, Lh
2	2	28078372	Hub Assy.	783 Hub & 2 Spindle
3	1	04661850	Pin	Axle
4	2	21871500	Bearing, Cone	1.50 Bore, Timken LM29749
5	2	21882561	Bearing Set	2.56 OD, Timken LM29710
6	2	06201425	Spacer	
7	2	36060	Seal, Oil	2.094 Bore, CR20952
8	1	14032409	Nut, Special	1/2, Jam
9	2	413-852	Bolt	Hex, 1/2" - 13 x 4", G5
10	2	231-4248	Nut, Lock	
11	1	16806045	Screw	3/8 x 1, Square Head
12	1	219-86	Nipple, Lube	1/8" x .62" Lg, Drive
13	1	87016560	Nut	Jam, 3/8" - 16, G5

CNH 5300 Main Frame

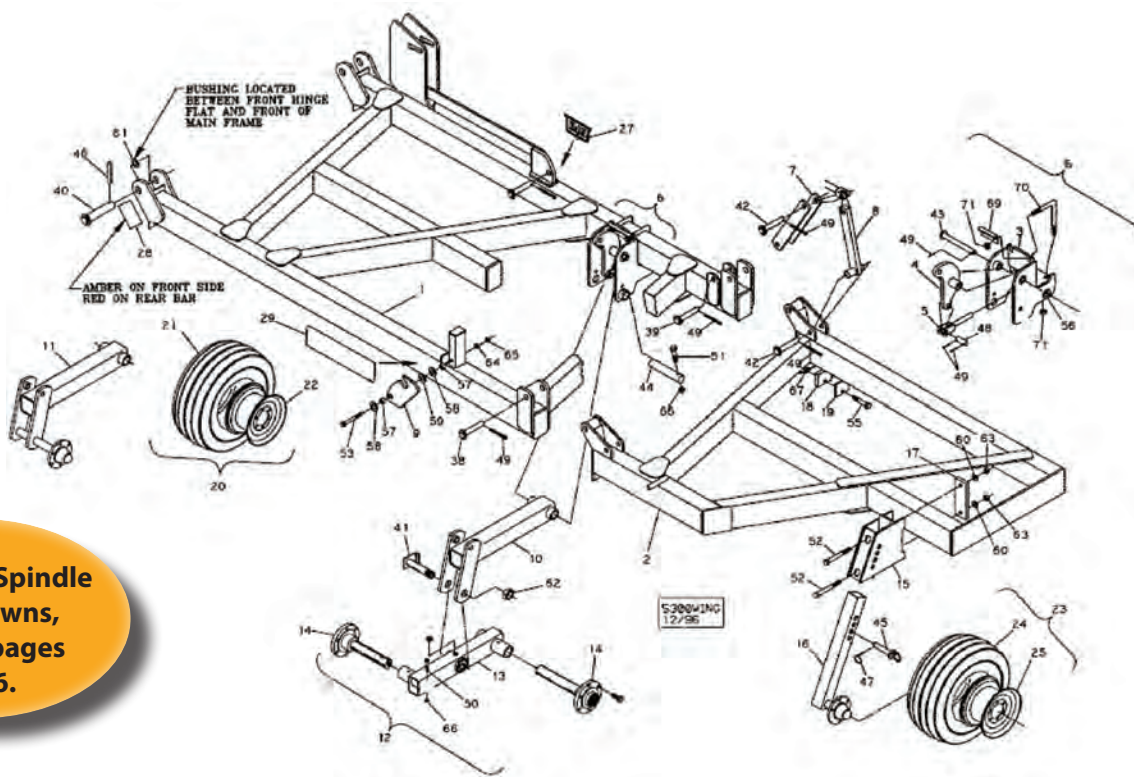


For Hub & Spindle Breakdowns, refer to pages 85-86.

Key	Qty.	Part No.	Part Name	Description
1	1	87554292	FRAME	Main
2	1	87338697	FRAME Assy.	Pull
3	1	87552165	TUBE	97.31, (HD Singles)
3	1	87552168	TUBE	92.12, (Tandems)
4	1	04681900	ARM	Spindle, HD, Single, 50-8, Rh
4	1	04681950	ARM	Spindle, HD, Single, 50-8, Lh
5	1	04683000	AXLE	Tandem, Main, Rh
5	1	04683100	AXLE	Tandem, Main, Lh
6	1	04683030	AXLE	Tandem, Main, Rh
6	1	04683130	AXLE	Tandem, Main, Lh
7	1	04683045	AXLE	Walking, Rh
7	1	04683145	AXLE	Walking, Lh
8	2	04683050	PIN, AXLE	
9	2	14032408	NUT, LOCK	1 1/2, Jam With Set Screw
10	1	20092310	CLEVIS	Combination
11	1	P5530300	BAR	Front Coultter
12	1	87416370	JACK Assy.	5-7K, Swivel
13	2	87447196	WHEEL Assy.	12.5L x 15, 12 Ply Tire, (HD Option)
14	2	NSS	NOT SERVICED SEPARATELY	12.5L x 15, 12 Ply (HD Option)
15	2	10110274	WHEEL	10 x 15, 8 Hole (HD Option)
16	4	10010250	WHEEL, LAND	11L x 15, 8 Ply Tire (Standard Tandem)
17	4	NSS	NOT SERVICED SEPARATELY	11L x 15, 8 Ply (Standard Tandem)
18	4	10108254	WHEEL	8 x 15, 6 Hole (Standard Tandem)
19	4	28078361	HUB Assy.	783, With Spindle, Main Frame
19	4	28050885	STUB AXLE/STRG.SPINDLE	50-8, With Spindle, Main Frame
20	2	04661154	SHIM	
21	1	05302150	STAND	Hose And Gauge
22	1	311860A1	EMBLEM	SMV
23	1	06000099	BRACE	SMV
24	1	04660050	BRACE	

Key	Qty.	Part No.	Part Name	Description
25	1	18584200	KIT	SMV
26	1	87389757	CHAIN	30,400, Safety
30	1	14820525	PIN, HITCH	1 5/8, OD
31	1	14810251	PIN, HEADED	5/8 x 3 1/8, Clevis
32	2	14820920	PIN	1 5/8, OD
33	1	D33805	PIN	7/16 x 2, Klik
34	1	17426001	WASHER	1 5/8, HD
35	4	87427186	U-BOLT	3/4 x 6 x 5 1/2
36	1	14720411	PIN, SPLIT (COTTER)	1/8 x 2, Hair
37	10	413-1448	BOLT	Hex, 7/8"-9 x 3", G5
38	4	413-1032	BOLT	Hex, 5/8"-11 x 2", G5
40	20	425-1014	NUT	7/8"-9, G5
41	8	425-1012	NUT	3/4"-10, G5
44	2	413-1240	BOLT	Hex, 3/4"-10 x 2 1/2", G5
46	2	18534249	DECAL	Nutri-Plac'r
47	1	18534107	DECAL	Patent
48	1	18534228	DECAL	Caution
49	1	18534174	DECAL	Other Patents Applied For
50	4	18534227	DECAL, DANGER	Danger
54	1	17620030	BUSHING	1 1/4, Machine
55	1	04681210	BRACKET	
56	1	04681211	BUSHING	
57	1	86992219	NUT, LOCK	1
58	1	413-1648	BOLT	Hex, 1"-8 x 3", G5
59	4	280374	NUT	5/8"-11, G5
60	4	413-864	BOLT	Hex, 1/2"-13 x 4", G5
61	4	8733862	NUT, LOCK	
62	2	9707580	BOLT	Hex, 1/4"-20 x 3/4", G5, Full Thd
63	2	9706689	BOLT	Hex, 3/8"-16 x 1 3/4", G5
64	2	86992211	NUT, LOCK	1/4
65	2	87039402	NUT, LOCK	3/8"-16, GB

CNH 5300 Wing

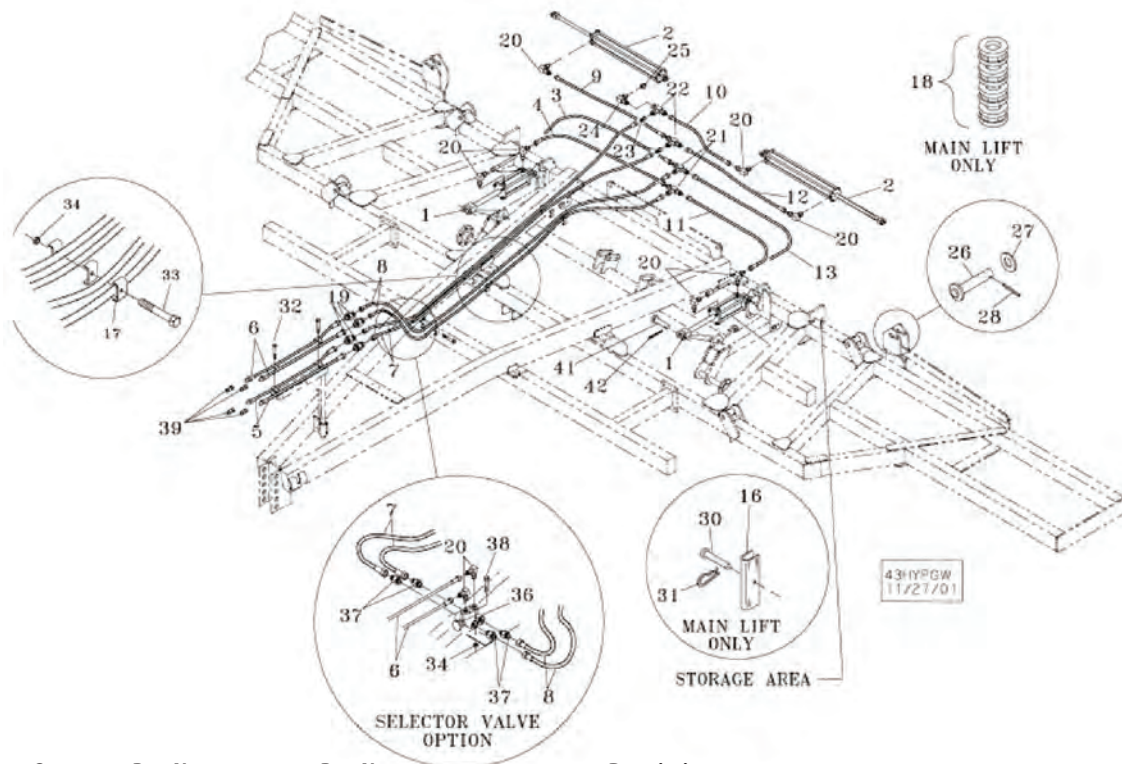


For Hub & Spindle Breakdowns, refer to pages 85-86.

Key	Qty.	Part No.	Part Name	Description
1	1	87339092	FRAME Assy.	110", Inner, Rh
1	1	87339064	FRAME Assy.	110", Inner, Lh
2	2	87339119	FRAME Assy.	Outer, 16 Row, 40 Units Only
2	1	87339121	FRAME Assy.	44", Outer, Rh, 42-1/2' Units
2	1	87339120	FRAME Assy.	44", Outer, Lh, 42-1/2' Units
2	1	87339123	FRAME Assy.	72", Outer, Rh, 47-1/2' Units
2	1	87339124	FRAME Assy.	72", Outer, Lh, 47-1/2' Units
3	2	04683575	BRACKET	Mounting, Gauge Wheel
4	2	04683545	PIVOT	Adjustment
5	2	04683586	EYEBOLT	
6	2	04683560	MOUNTING PARTS	Gauge Wheel
7	2	04662630	HINGE	Wing
8	2	04682260	LINK Assy.	
9	2	06220130	BRACKET	Outer Wing
10	2	04683225	ARM, LIFT	Spindle, Tandem
11	1	04683410	AXLE	Spindle, Rh, Single
11	1	04683460	AXLE	Spindle, Lh, Single
12	1	04683200	AXLE	Spindle Arm, Tandem, Rh
12	1	04683300	AXLE	Spindle Arm, Tandem, Lh
13	1	04683245	AXLE	Walking Axle, Rh
13	1	04683345	AXLE	Walking Axle, Lh
14	2	28078372	STUB AXLE/STRG.SPINDLE	783 Hub & Spindle
15	2	04661320	GAUGE	Mounting, Wheel
16	2	02380400	BAR Assy.	
17	2	09576610	LINKAGE	Gauge Wheel
18	2	04626130	SHIM	Wing Outer
19	UAR	04626120	SHIM	Wing, Outer
20	UAR	10008256	WHEEL, LAND	9.5L x 15, 8 Ply
20	UAR	10010250	WHEEL, LAND	11L x 15, 8 Ply
21	UAR	NSS	NOT SERVICED SEPARATELY	9.5L x 15, 8 Ply
21	UAR	NSS	NOT SERVICED SEPARATELY	11L x 15, 8 Ply
22	UAR	10108254	WHEEL	8 x 15, 6 Hole
23	2	87461162	WHEEL Assy.	8.5L x 14, 6 Ply
24	2	NSS	NOT SERVICED SEPARATELY	8.5L x 15, 6 Ply
25	2	87461169	WHEEL Assy.	14 x 8, 6 Hole
27	2	18534261	DECAL	DMI
28	1	18534243	REFLECTOR	Amber
28	2	18534244	REFLECTOR	Red

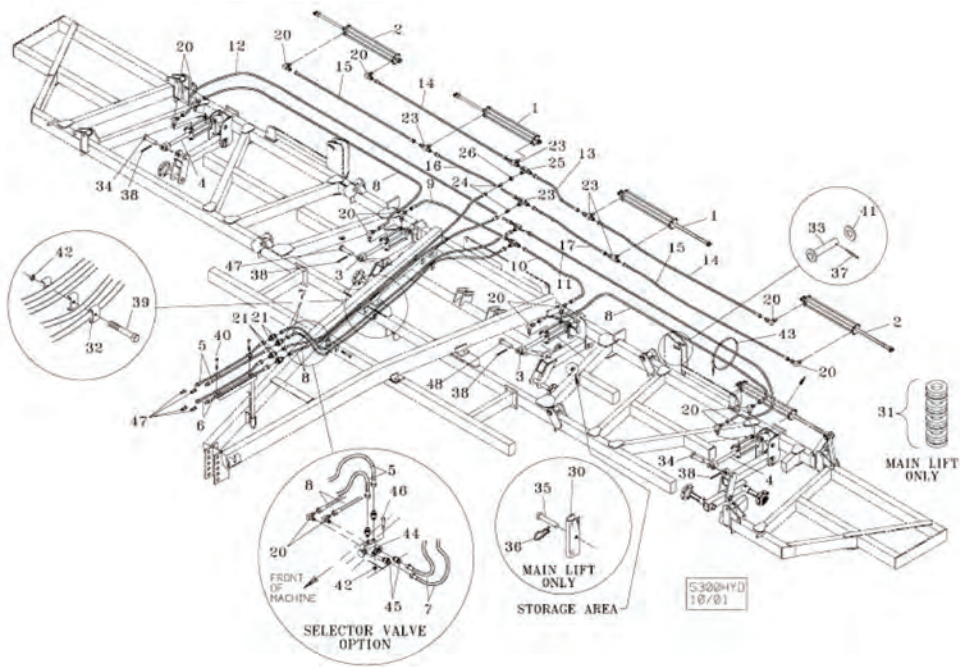
Key	Qty.	Part No.	Part Name	Description
29	1	87666428	DECAL	NPX5300, Rh
29	1	87666427	DECAL	NPX5300, Lh
38	4	14820445	PIN, CLEVIS	1 1/4 x 6.31
39	2	14816466	CLEVIS	1 x 5.81
40	4	14820650	PIN, HITCH	1 5/8 x 8 3/4, Hinge
41	2	04661850	PIN	Axle
42	4	14891660	PIN, SPECIAL	1 x 4.31
43	2	14816686	PIN, PIVOT	
44	2	14820640	PIN, SPECIAL	1 5/8, 1996 & Previous Production (Serial 3623524 & Before)
44	2	14892788	PIN	1 5/8, 1997 & After Production (Serial #720762 & After)
45	2	14816348	PIN	1 x 4 1/4
46	4	438-32840	PIN	7/16" x 2 1/2", Coiled
47	2	270184	PIN	1/4 x 1 3/4, Klik
48	2	14891619	PIN, SPECIAL	1
49	2	80753	PIN, SPLIT (COTTER)	1/4" x 1 1/2"
50	4	87339	BOLT	Hex, 1/2"-13 x 3", G5
51	2	413-1032	BOLT	Hex, 5/8"-11 x 2", G5
52	12	280223	BOLT	Hex, 3/4"-10 x 6 1/2", G5
53	2	413-1096	BOLT	Hex, 5/8"-11 x 6", G5
55	2	413-824	BOLT	Hex, 1/2"-13 x 1 1/2", G5, Full Thd
56	2	17616021	BUSHING	1, Machine
57	4	44006200	BUSHING	
58	4	495-81028	WASHER	2 1/32" x 1 1/2" x .240"
59	2	17620020	BUSHING	1 1/4, 14 Gauge, Machine
60	4	492-11075	WASHER, LOCK	3/4"
61	2	17627010	BUSHING	1 5/8, 14 Gauge, Machine
62	2	14032408	NUT, LOCK	1 1/2, Jam With Set Screw
63	12	425-1012	NUT	3/4"-10, G5
64	2	425-1010	NUT	5/8"-11, G5
65	2	425-1410	NUT	Jam, 5/8"-11, G5
66	4	86992215	NUT, LOCK	1/2"-13, GC
67	2	425-108	NUT	1/2"-13, G5
68	2	231-42410	NUT, LOCK	5/8"-11, GB
69	2	04683565	PLATE	Mounting
70	4	87427191	BOLT, SPECIAL	3/4, Square
71	8	425-1012	NUT	3/4"-10, G5

CNH 5300 Hydraulic w/ Pin Adjust Wheels



Key	Qty.	Part No.	Part Name	Description
1	2	84258230	HYDRAULIC CYLINDER	3 x 10
2	2	25335361	CYLINDER ASSY.	3 1/2 x 36
3	1	25600634	HOSE ASSY.	3/8 x 37
4	1	25600630	HOSE ASSY.	3/8 x 30
5	2	25610645	HOSE ASSY.	3/8 x 80
6	2	25610855	HOSE ASSY.	1/2 x 100
7	2	25600633	HOSE ASSY.	3/8 x 165
8	2	134216A1	HOSE	1/2 x 165
9	1	25600642	HOSE ASSY.	3/8 x 42
10	1	25600655	HOSE ASSY.	3/8 x 55
11	1	25600662	HOSE ASSY.	3/8 x 72
12	1	25600704	HOSE ASSY.	3/8 x 97
13	1	25600676	HOSE ASSY.	3/8 x 88
16	2	04632700	STAY	9 3/4
17	15	06200125	CLAMP, HOSE	
18	2	25800010	CYLINDER STOP	1 1/4, Stroke Control
19	4	128822	UNION	3/4"-16, 37° x 3/4"-16, 37°
20	11	128830	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
21	2	128996	TEE	3/4"-16, 37°
22	2	86513024	TEE	3/4"-16, 37° x 3/4"-16, O-Ring Br,
23	2	25405013	VALVE, CONTROL	Purple
24	1	248974	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, 37° Fem Sw,
25	1	25707534	ADAPTER	3/4 SAE M x 3/4 JIC F
26	2	14891660	PIN, SPECIAL	1 x 4 1/4, E.L. Clevis
27	2	495-21106	WASHER	1"
28	2	432-1632	PIN, SPLIT (COTTER)	1/4" x 2"
30	2	14810251	PIN, HEADED	5/8 x 3 1/8, E.L. Clevis
31	2	14720411	PIN, SPLIT (COTTER)	1/8 x 2, Hair
32	5	280161	BOLT	Hex, 3/8"-16 x 3", G5,
33	5	88546	BOLT	Hex, 3/8"-16 x 2 1/4", G5,
34	5	425-106	NUT	3/8"-16, G5, Selector Valve Items (PO466083)
35	14	386170C1	STRAP, CABLE	.30" x 27 1/2"
36	1	25401000	VALVE	Selector Valve Items (PO466083)
37	4	128818	CONNECTOR, HYD.	3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
38	2	87936	BOLT	Hex, 3/8"-16 x 2 1/2", G5, Selector Valve Items (PO466083)
39	4	87506450	COUPLING	3/4 SAE F, Male, ISO
41	2	14891672	PIN	1 x 9, For 4 x 6 Tube
41	2	14816466	CLEVIS	1 x 5.81, For 4 x 4 Tube
42	2	80753	PIN, SPLIT (COTTER)	1/4" x 1 1/2"

CNH 5300 Hydraulics 40 1/2' - 42 1/2'



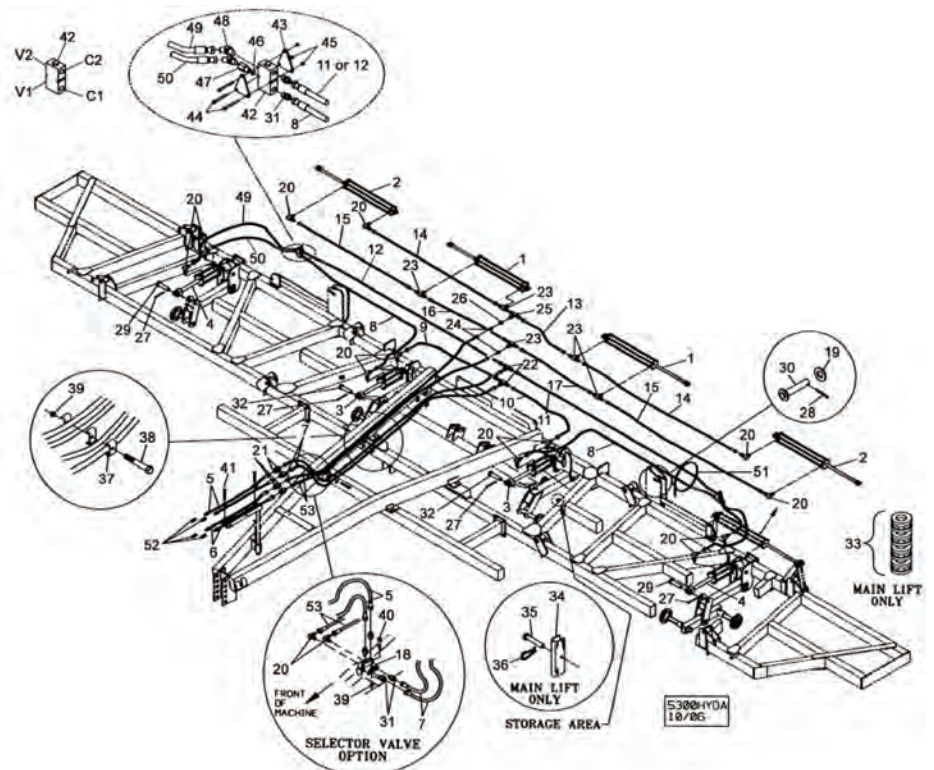
Key	Qty.	Part No.	Part Name	Description
1	2	25340362	CYLINDER ASSY.	4 x 36
2	2	25330241	CYLINDER ASSY.	3 x 24
3	2	87394803	HYDRAULIC CYLINDER	3 1/2 x 10, Rephase
4	2	87394795	HYDRAULIC CYLINDER	3 1/4 x 10, Rephase
5	2	25610855	HOSE ASSY.	1/2 x 100
6	2	25610645	HOSE ASSY.	3/8 x 80
7	2	134216A1	HOSE	1/2 x 165
8	4	25600633	HOSE ASSY.	3/8 x 165
9	1	25600630	HOSE ASSY.	3/8 x 30
10	1	25600662	HOSE ASSY.	3/8 x 72
11	1	25600695	HOSE ASSY.	3/8 x 220
12	1	25600615	HOSE ASSY.	3/8 x 173
13	1	25600655	HOSE ASSY.	3/8 x 55
14	2	25600650	HOSE ASSY.	3/8 x 128
15	2	25600669	HOSE ASSY.	3/8 x 114
16	1	25600634	HOSE ASSY.	3/8 x 37
17	1	25600704	HOSE ASSY.	3/8 x 97
20	12	128830	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
21	2	128822	UNION	3/4"-16, 37° x 3/4"-16, 37°,
23	5	86513024	TEE	37°, 3/4"-16 x 3/4"-16,
24	2	25405013	VALVE, CONTROL	Purple
25	1	218-845	TEE	37°, 3/4"-16 x 3/4"-16, Fem Sw Run
26	1	25707534	ADAPTER	3/4 SAE M x 3/4 JICF
30	2	04632700	STAY	9 3/4
31	2	25800010	CYLINDER STOP	1 1/4, Stroke Control
32	15	06200125	CLAMP, HOSE	
33	2	14891660	PIN, SPECIAL	1 x 4 1/4, E.L. Clevis
34	2	87430410	PIN, SPECIAL	1 x 5.54, E.L. Clevis
35	2	14810251	PIN, HEADED	3/8 x 3 1/8, E.L. Clevis
36	2	14720411	PIN, SPLIT (COTTER)	1/8 x 2, Hair
37	2	432-1632	PIN, SPLIT (COTTER)	1/4" x 2"
38	2	80753	PIN, SPLIT (COTTER)	1/4" x 1 1/2"
39	5	86507000	BOLT	Hex, 3/8"-16 x 2 1/4", G5
40	5	280161	BOLT	Hex, 3/8"-16 x 3", G5
41	2	87374	WASHER	1"
42	5	425-106	NUT	3/8"-16, G5, Selector Valve Items (PO466083)
43	UAR	386170C1	STRAP, CABLE	.30" x 27 1/2"
44	1	25401000	VALVE	Selector Valve Items (PO466083)
45	4	128818	CONNECTOR, HYD.	3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
46	2	87936	BOLT	Hex, 3/8"-16 x 2 1/2", G5, Selector Valve Items (PO466083)
47	4	87506450	COUPLING	3/4 SAEF, Male, ISO
48	2	14891672	PIN	1 x 9, Clevis, For 4 x 6 Tube
48	2	14816466	CLEVIS	1 x 5.81, For 4 x 4 Tube

CNH 5300 Hydraulics 47 1/2' - 52 1/2'

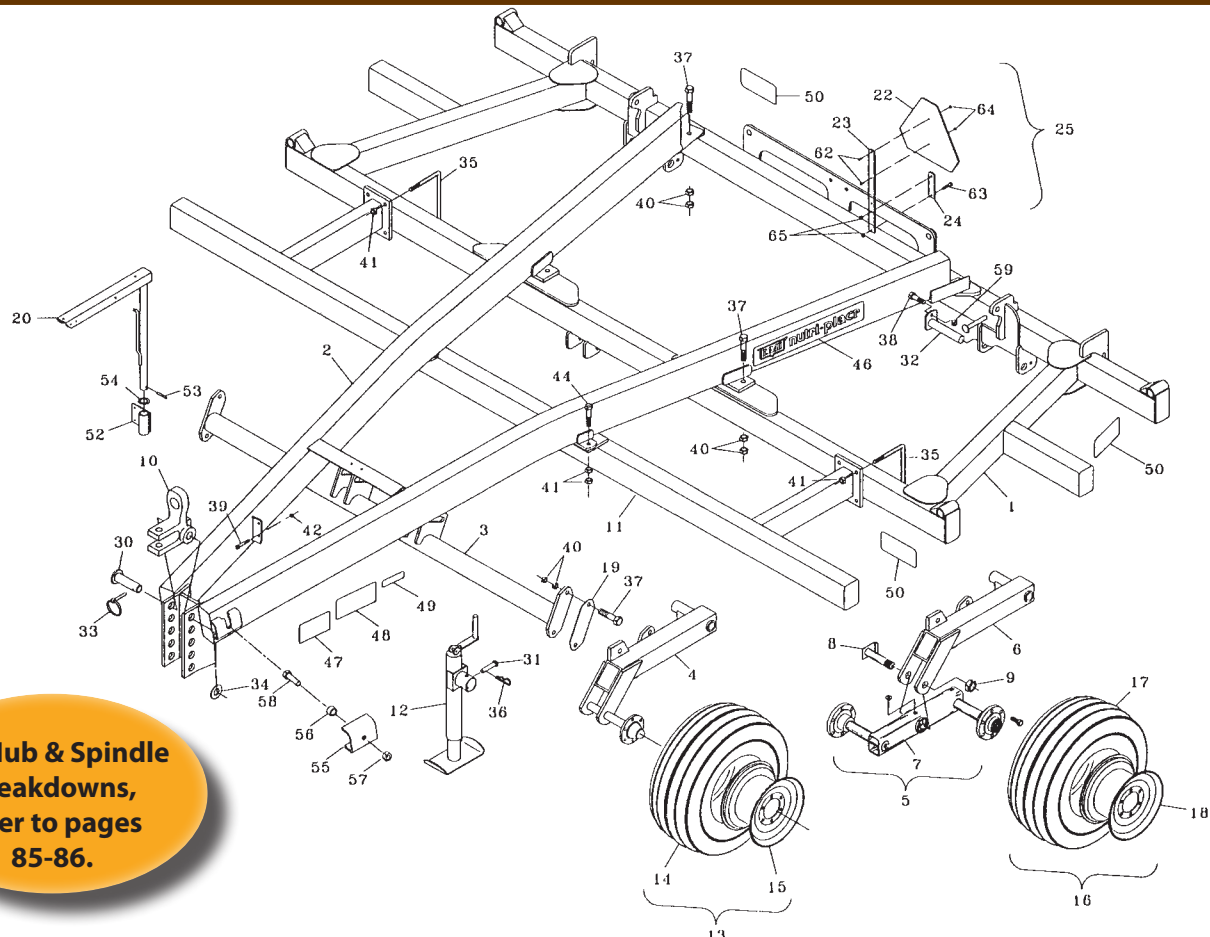
Key	Qty.	Part No.	Part Name	Description
1	1	25340362	CYLINDER ASSY.	4 x 36
2	2	25340242	CYLINDER ASSY.	4 x 24, 50 Foot Unit With 15 Shank Spacing Only
2	2	25335242	CYLINDER ASSY.	3 1/2 x 24, 47 1/2 & 52 1/2 Units
3	2	87394803	HYDRAULIC CYLINDER	3 1/2 x 10, Rephase
4	2	87394795	HYDRAULIC CYLINDER	3 1/4 x 10, Rephase
5	2	25610855	HOSE ASSY.	1/2 x 100
6	2	25610645	HOSE ASSY.	3/8 x 80
7	2	134216A1	HOSE	1/2 x 165
8	2	25600711	HOSE ASSY.	3/8 x 93
9	1	25600630	HOSE ASSY.	3/8 x 30
10	1	25600662	HOSE ASSY.	3/8 x 72
11	1	25600752	HOSE ASSY.	3/8 x 161
12	1	25600691	HOSE ASSY.	3/8 x 99
13	1	25600655	HOSE ASSY.	3/8 x 55
14	2	25600650	HOSE ASSY.	3/8 x 128
15	2	25600669	HOSE ASSY.	3/8 x 114
16	1	25600634	HOSE ASSY.	3/8 x 37
17	1	25600704	HOSE ASSY.	3/8 x 97
18	1	128818	CONNECTOR, HYD.	3/4"-16, 37° x 3/4"-16, O-Ring
19	2	495-21106	WASHER	1", 1.062 x 2 1/2 x .165
20	12	128830	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, O-Ring
21	2	128822	UNION	3/4"-16, 37° x 3/4"-16, 37°
22	2	128996	TEE	3/4"-16, 37°
23	5	86513024	TEE	37°, 3/4"-16 x 3/4"-16 Tube Swivel
24	2	25405013	VALVE, CONTROL	Purple
25	1	218-845	TEE	37°, 3/4"-16 x 3/4"-16, Fem Sw Run
26	1	25707534	ADAPTER	3/4 SAEM x 3/4 JICF
27	2	80753	PIN, SPLIT (COTTER)	1/4" x 1 1/2"
28	2	432-1632	PIN, SPLIT (COTTER)	1/4" x 2"
29	2	14816466	CLEVIS	
30	2	14891660	PIN, SPECIAL	1 x 4 1/4
31	4	128818	CONNECTOR, HYD.	3/4"-16, 37° x 3/4"-16, O-Ring
32	2	14891672	PIN	1 x 9, For 4 x 6 Tube
33	2	25800010	CYLINDER STOP	1 1/4" Stroke Control
34	1	04632700	STAY	9 3/4
35	2	14810251	PIN, HEADED	5/8 x 3 1/8
36	2	14720411	PIN, SPLIT (COTTER)	1/8 x 2

Key	Qty.	Part No.	Part Name	Description
37	15	06000125	CLAMP, HOSE	
38	5	88546	BOLT	Hex, 3/8"-16 x 2 1/4", G5
39	5	425-106	NUT	3/8"-16, G5
40	2	413-640	BOLT	Hex, 3/8"-16 x 2 1/2", G5
41	5	280161	BOLT	Hex, 3/8"-16 x 3", G5
42	1	298624A1	VALVE	Piloted
43	2	87577920	PLATE	
44	3	280566	BOLT	Hex, 1/4"-20 x 2 3/4", G5
45	3	86992211	NUT, LOCK	1/4
46	2	128825	O-RING	8-1, 90 Duro, .644" ID x .087" Thick
47	2	25407502	VALVE, CONTROL	Pink
48	2	216797	ELBOW	45°, 3/4"-16, 37° x 3/4"-16, O-Ring
49	2	25600620	HOSE ASSY.	3/8 x 64 1/2
50	2	25600708	HOSE ASSY.	3/8 x 50
51	UAR	386170C1	STRAP, CABLE	.30" x 27 1/2"
52	4	87506450	COUPLING	3/4 SAEF
53	2	25600633	HOSE ASSY.	3/8 x 165

930 Outer Wing HD Cylinder
84341604HD



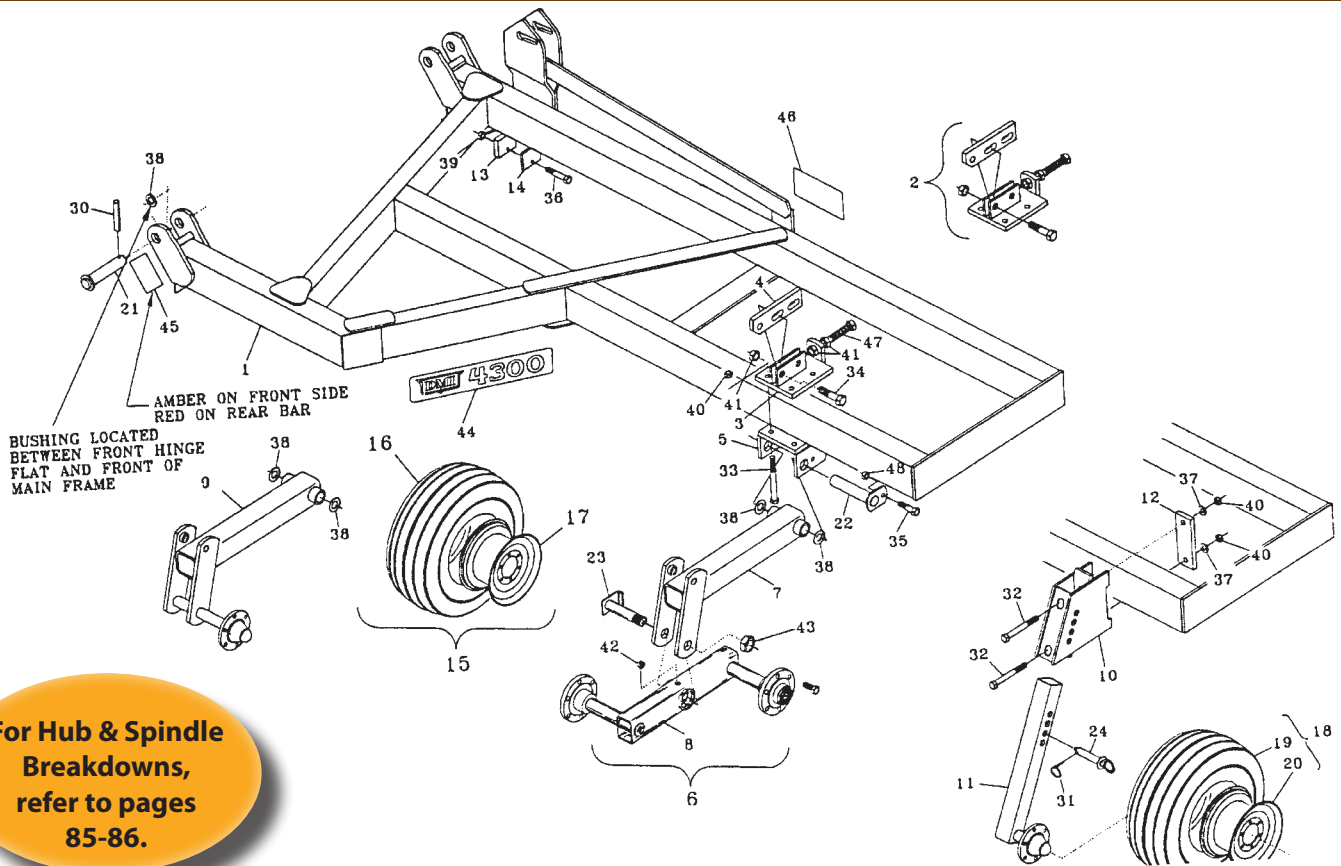
CNH 4300 Main Frame



For Hub & Spindle Breakdowns, refer to pages 85-86.

Key	Qty.	Part No.	Part Name	Description	Key	Qty.	Part No.	Part Name	Description
1	1	87554292	FRAME	Main	22	1	311860A1	EMBLEM	SMV
2	1	87338697	FRAME ASSY	Pull	23	1	06000099	BRACE	SMV
3	1	87552165	TUBE	97.31, Torque	24	1	04660050	BRACE	
4	1	04681900	ARM	Spindle, Heavy Duty, Single, 50-8, Rh	25	1	18584200	KIT	SMV
4	1	04681950	ARM	Spindle, Heavy Duty, Single, 50-8, Lh	30	1	14820525	PIN, HITCH	1 5/8, OD
5	1	87346471	AXLE	Spindle, Tandem 783, Rh, 1997 & Prior Production Used 888 Hub	31	1	14810251	PIN, HEADED	5/8 x 3 3/8, Clevis
5	1	87346472	AXLE	Spindle, Tandem 783, Lh, 1997 & Prior Production Used 888 Hub	32	2	14820920	PIN	1 5/8, OD
6	1	04662050	ARM	Spindle, Tandem, Rh	33	1	D33805	PIN	7/16 x 2, Klik
6	1	04662150	ARM	Spindle Tandem, Lh	34	1	17426001	WASHER	1 5/8, ID
7	1	04662070	BAR ASSY.	Walking Axle, 783, Rh	35	4	87427186	U-BOLT	3/4 x 6 x 5 1/2
7	1	04662170	BAR ASSY.	Walking Axle, 783, Lh	36	1	14720411	PIN, SPLIT (COTTER)	1/2 x 2, Hair
8	2	04661850	PIN	Axle	37	10	413-1448	BOLT	Hex, 7/8"-9 x 3", G5
9	2	14032408	NUT, LOCK	1 1/2, Jam with Set Screw	38	4	413-1032	BOLT	Hex, 5/8"-11 x 2", G5
10	1	20092310	CLEVIS	Combination	40	20	425-1014	NUT	7/8"-9, G5
11	1	87340631	BAR	Front Coulter	41	10	425-1012	NUT	3/4"-10, G5
12	1	87416370	JACK ASSY.	5-7 K, Swivel	44	2	413-1240	BOLT	Hex, 3/4"-10 x 2 1/2", G5
13	2	87447196	WHEEL ASSY	12.5L x 15, 12 Ply, Tire (HD Single Option)	46	2	18534249	DECAL	Nutri-Plac'r
13	2	10010260	WHEEL, LAND	12.5L x 15, 10 Ply, Tire (Standard Single Option)	47	1	18534107	DECAL	Patent
14	2	NSS	NOT SERVICED SEPARATELY	12.5L x 15, 12 Ply	48	1	18534228	DECAL	Caution
14	2	NSS	NOT SERVICED SEPARATELY	12.5L x 15, 10 Ply	49	1	18534174	DECAL	Other Patents Applied For
15	2	10110274	WHEEL	10 x 15, 8 Hole (HD Single Option)	50	4	18534227	DECAL, DANGER	Danger
15	2	10110254	WHEEL ASSY.	10 x 15, 6 Hole (Standard Single Option)	54	1	17620030	BUSHING	1 1/4, Machine
16	4	10010250	WHEEL, LAND	11L x 15, 8 Ply Tire, (Tandem Option)	55	1	04681210	BRACKET	
17	4	NSS	NOT SERVICED SEPARATELY	11L x 15, 8 Ply (Tandem Option)	56	1	04681211	BUSHING	
18	4	10108254	WHEEL	10 x 15, 6 Bolt, (Tandem Option)	57	1	86992219	NUT, LOCK	1
19	2	04661154	SHIM		58	1	84128	BOLT	Hex, 1"-8 x 3", G5
20	1	05302150	STAND	Hose and Gauge	59	4	280374	NUT	5/8"-11, G5
21	1	87389757	CHAIN	30, 400, Safety	62	2	9707580	BOLT	Hex, 1/4"-20 x 3/4", G5, Full Thd
					63	2	9706689	BOLT	Hex, 3/8"-16 x 1 3/4", G5
					64	2	86992211	NUT, LOCK	1/4
					65	2	87039402	NUT, LOCK	3/8"-16, GB
					66	2	14891672	PIN	1 x 9

CNH 4300 Wing

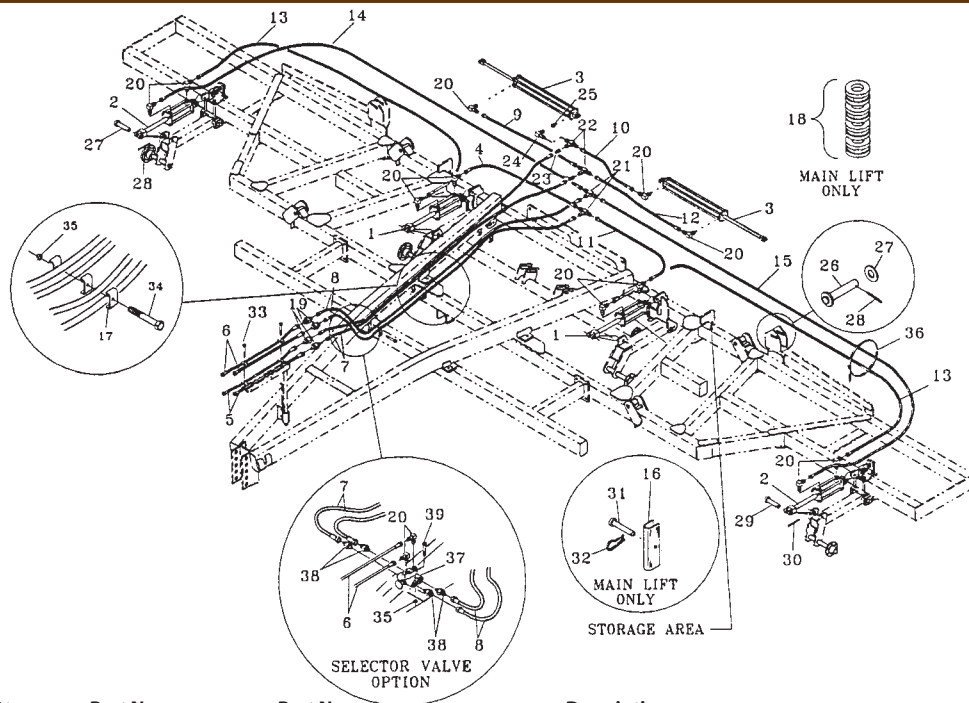


For Hub & Spindle Breakdowns, refer to pages 85-86.

Key	Qty.	Part No.	Part Name	Description
1	1	87338754	FRAME ASSY	72, Rh, 27 Foot Unit
1	1	87338996	FRAME ASSY	72, Lh, 27 Foot Unit
1	1	87339017	FRAME ASSY	96, Rh, 32 Foot Unit
1	1	87339024	FRAME ASSY	96, Lh, 32 Foot Unit
1	1	87339060	FRAME ASSY	124, Rh, 37 Foot Unit
1	1	87339056	FRAME ASSY	124, Lh, 37 Foot Unit
2	2	04661410	MOUNTING PARTS	Top
3	2	04661420	MOUNTING PARTS	Top
4	2	04661451	LUG	Cylinder, Adjustable
5	2	04661430	MOUNTING PARTS	Spindle
6	1	04661600	WHEEL	Gauge, Tandem, 888 Hub, Rh
6	1	04661700	WHEEL	Gauge, Tandem, 888 Hub, Lh
7	2	04661610	ARM	Spindle, Tandem
8	1	04662070	BAR ASSY.	Axle, Walking, 783 Hub, Rh, (1997 & Prior Used 888 Hub)
8	1	04662170	BAR ASSY.	Axle, Walking, 783 Hub, Lh, (1997 & Prior Production Used 888 Hub)
9	1	04661440	WHEEL	Gauge, Single, 783 Hub, Rh
9	1	04661540	WHEEL	Gauge, Single, 783 Hub, Lh
10	2	04661320	GAUGE	Mounting, Bracket
11	2	02380400	BAR ASSY.	
12	2	09576610	LINKAGE	Gauge Wheel
13	2	04662230	BLOCK	Wing Stop, Pin Adjust Only
14	UAR	04662231	SHIM	Wing Stop, Pin Adjust Only
15	UAR	10008256	WHEEL, LAND	9.5L x 15, 6 Ply
16	UAR	NSS	NOT SERVICED SEPARATELY	9.5L x 15, 6 Ply
17	UAR	10108254	WHEEL	8 x 15, 6 Hole
18	2	87461162	WHEEL ASSY.	8.5L x 14, 6 Ply
19	2	NSS	NOT SERVICED SEPARATELY	8.5L x 14, 6 Ply
20	2	87461169	WHEEL ASSY.	14 x 8, 6 Hole
21	4	14826552	PIN	Hinge
22	2	14820640	PIN, SPECIAL	1 5/8"

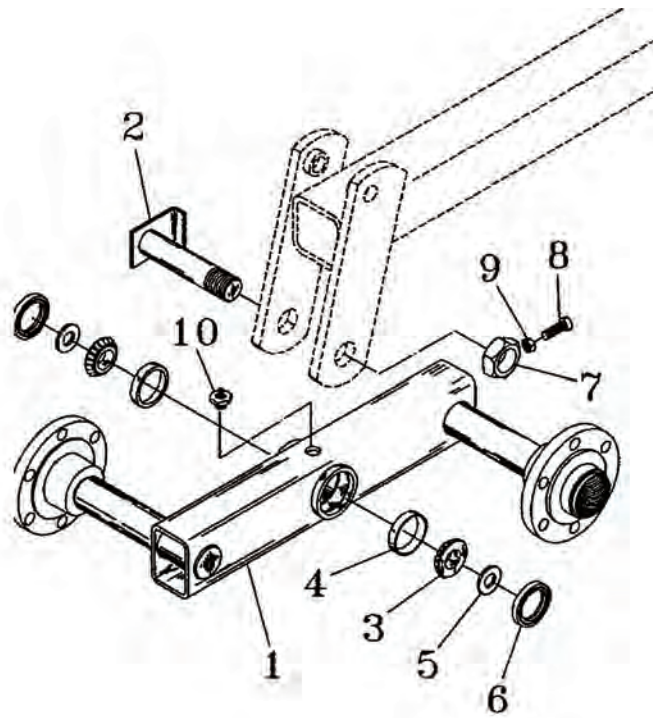
Key	Qty.	Part No.	Part Name	Description
23	2	04661850	PIN	Axle
24	2	14816348	PIN	1 x 4 1/4
30	4	438-32840	PIN	7/16" x 2 1/2", Coiled
31	2	270184	PIN	1/4 x 1 3/4, Klik
32	4	280223	BOLT	Hex, 3/4"-10 x 6 1/2", G5
33	8	86502676	BOLT	Hex, 3/4"-10 x 8 1/2", G5
34	2	413-1440	BOLT	Hex, 7/8"-9 x 2 1/2", G5
35	2	413-1032	BOLT	Hex, 5/8"-11 x 2", G5
36	2	413-832	BOLT	Hex, 1/2"-13 x 2", G5
37	4	492-11075	WASHER, LOCK	3/4"
38	2	17627010	BUSHING	1 5/8", 14 gauge, Machine
39	2	425-108	NUT	1/2"-13, G5
40	12	425-1012	NUT	3/4"-10, G5
41	6	425-1014	NUT	7/8"-9, G5
42	2	219-86	NIPPLE, LUBE	1/8" x .62" Lg, Drive
43	2	14032408	NUT, LOCK	1 1/2, Jam With Set Screw
44	1	87666428	DECAL	NPX5300, Rh
44	1	87666427	DECAL	NPX5300, Lh
45	1	18534243	REFLECTOR	Amber
45	1	18534244	REFLECTOR	Red
46	2	18534261	DECAL	DMI
47	2	16901411	BOLT	7/8 x 4
48	2	280374	NUT	3/8"-11, G5

CNH 4300 Hydraulics w/ Hydraulic Gauge Wheels



Key	Qty.	Part No.	Part Name	Description
1	2	87394803	HYDRAULIC CYLINDER	3 1/2 x 10, Rephase
2	2	87394795	HYDRAULIC CYLINDER	3 1/4 x 10, Rephase
3	2	25335361	CYLINDER ASSY.	3 1/2 x 36
4	1	25600630	HOSE ASSY.	3/8 x 30
5	2	25610645	HOSE ASSY.	3/8 x 80
6	2	25610855	HOSE ASSY.	1/2 x 100
7	2	25600633	HOSE ASSY.	3/8 x 165
8	2	134216A1	HOSE	1/2 x 165
9	1	25600634	HOSE ASSY.	3/8 x 37
10	1	25600655	HOSE ASSY.	3/8 x 55
11	1	25600662	HOSE ASSY.	3/8 x 72
12	1	25600704	HOSE ASSY.	3/8 x 97
13	2	25600667	HOSE ASSY.	3/8 x 187
14	1	25600695	HOSE ASSY.	3/8 x 220
15	1	25600707	HOSE ASSY.	3/8 x 246
16	2	04632700	STAY	9 3/4
17	15	06200125	CLAMP, HOSE	
18	2	25800010	CYLINDER	1 1/4
19	4	128822	UNION	3/4"-16, 37° x 3/4"-16, 37°
20	11	128830	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
21	2	128996	TEE	3/4"-16, 37°
22	2	86513024	TEE	3/4"-16, 37° x 3/4"-16, O-Ring Br
23	2	25405013	VALVE, CONTROL	Purple
24	1	248974	ELBOW	90°, 3/4"-16, 37° x 3/4"-16, 37° Fem Sw
25	1	25707534	ADAPTER	3/4 SAE M x 3/4 JICF
26	2	14891660	PIN, SPECIAL	1 x 4 1/4, E.L.Clevis
27	2	495-21106	WASHER	1"
28	2	432-1632	PIN, SPLIT (COTTER)	1/4" x 2"
29	2	87430410	PIN, SPECIAL	1 x 5.54, E.L. Clevis
30	2	80753	PIN, SPLIT (COTTER)	1/4" x 1 1/2"
31	2	14810251	PIN, HEADED	5/8 x 3 1/8, E.L. Clevis
32	2	14720411	PIN, SPLIT (COTTER)	1/8 x 2, Hair
33	5	280161	BOLT	Hex, 3/8"-16 x 3", G5
34	5	88546	BOLT	Hex, 3/8"-16 x 2 1/4", G5
35	5	425-106	NUT	3/8"-16, G5, Selector Valve Items (PO466083)
36	14	386170C1	STRAP, CABLE	.30" x 27 1/2"
37	1	25401000	VALVE	Selector, Selector Valve Items (PO466083)
38	4	128818	CONNECTOR, HYD.	3/4"-16, 37° x 3/4"-16, O-Ring, Selector Valve Items (PO466083)
39	2	87936	BOLT	Hex, 3/8"-16 x 2 1/2", G5, Selector Valve Items (PO466083)
40	4	87506450	COUPLING	3/4 SAEF, Male, ISO
41	2	14891672	PIN	1 x 9, Clevis, For 4 x 6 Tube
41	2	14816466	CLEVIS	1 x 5.81, Clevis, For 4 x 4 Tube

CNH 4300 Walking Axle



For Hub & Spindle
Breakdowns,
refer to pages
85-86.

CNH 4300 Wing Walking Axle Single Fold

Key	Qty.	Part No.	Part Name	Description
	1	04662070	Bar Assy.	Axle, Walking, 783 Hub, Rh
	1	04662170	Bar Assy.	Axle, Walking, 783 Hub, Lh
1	1	04662060	Axle	Walking, 783 Hub, Rh
1	1	04662160	Axle	Walking, 783 Hub, Lh
2	1	04661850	Pin	Axle
3	2	21871500	Bearing, Cone	1.50 Bore, Timken LM29749
4	2	21882561	Bearing Set	2.56 Od, Timken 29710
5	2	06201420	Spacer	
6	2	36060	Seal, Oil	2.094 Id, CR20952
7	1	14032408	Nut, Special	1 1/2" with Set Screw
8	1	16806045	Screw	3/8" x 1" Square Head
9	1	87016560	Nut	Jam, 3/8" - 16, G5
10	1	219-86	Nipple, Lube Grease Zerk	1/8" x .62" Lg, Drive
	1	28388807	Spindle	14 1/4" 888 Spindle
	1	28378304	Spindle	2" Dia. - 16 1/4" 888 Spindle

CNH Hydraulic Cylinder



930

CYLINDER NUMBER	DESCRIPTION	SEAL KIT
84341603	3.5" X 10" CYLINDER	87409038
84344027	3.25" X 10 CYLINDER	87409037
47576472	4" X 36" CYLINDER	25834024
47576474	3.5" X 36" CYLINDER	25833527
84341604	3.5" X 24" CYLINDER	25833527
84366455	3.00" X 24" CYLINDER	25833007

940

CYLINDER NUMBER	DESCRIPTION	SEAL KIT
84347694	3.5" X 12" CYLINDER	87409038
84347707	3.75" X 12" CYLINDER	87409040
84347708	4" X 12" CYLINDER	87409033
25330160	3" X 16" CYLINDER	9660V2
87493925	4.5" X 36" CYLINDER	87409042

5300

CYLINDER NUMBER	DESCRIPTION	SEAL KIT
84258230	3.5" X 10" CYLINDER	87409038
87394795	3.25" X 10" CYLINDER, SILVER RAM	80116C2
	3.25" X 10" CYLINDER, BLACK RAM	87409037
47582264	3" X 24" CYLINDER	25833007
47576465	4" X 24" CYLINDER	25834024
47576463	3.5" X 36" CYLINDER	25833527
47576466	4" X 36" CYLINDER	25834024

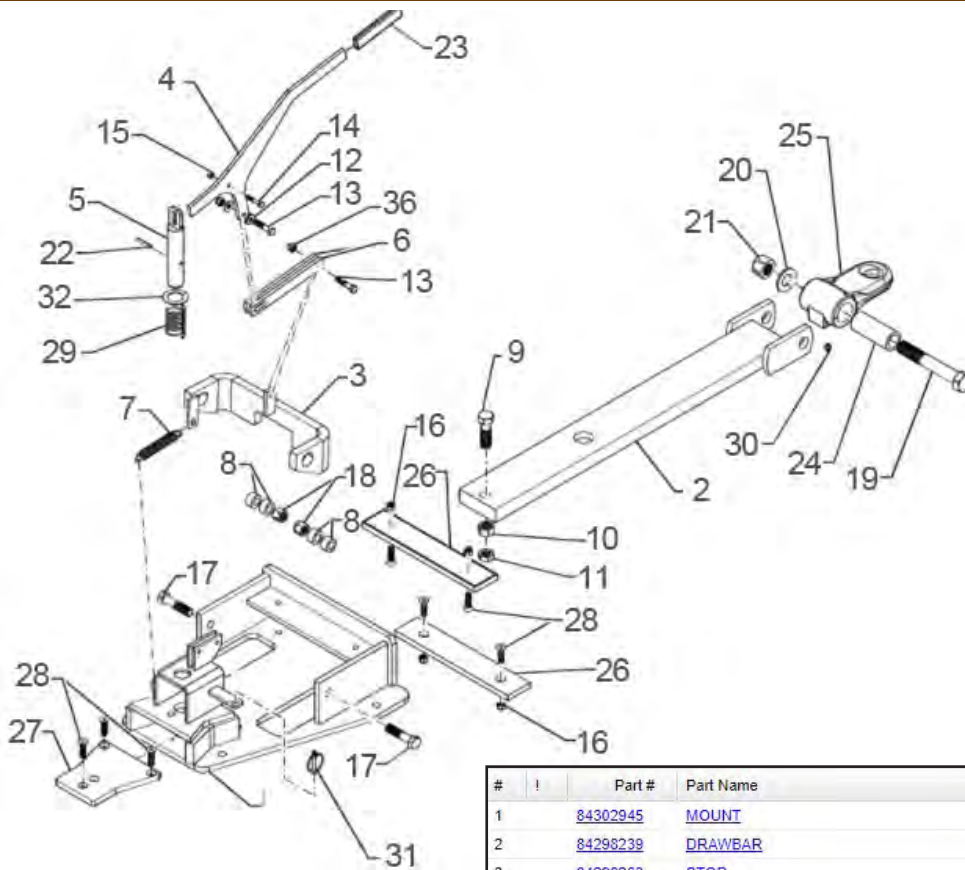
4250

CYLINDER NUMBER	DESCRIPTION	SEAL KIT
84258230	3.5" X 10" CYLINDER	87409038
87394795	3.25" X 10" CYLINDER, SILVER RAM	87409037
	3.25" X 10" CYLINDER, BLACK RAM	87409037
47582263	3" X 10" CYLINDER	25833007
25340301	4" X 30" CYLINDER	25804023

5250

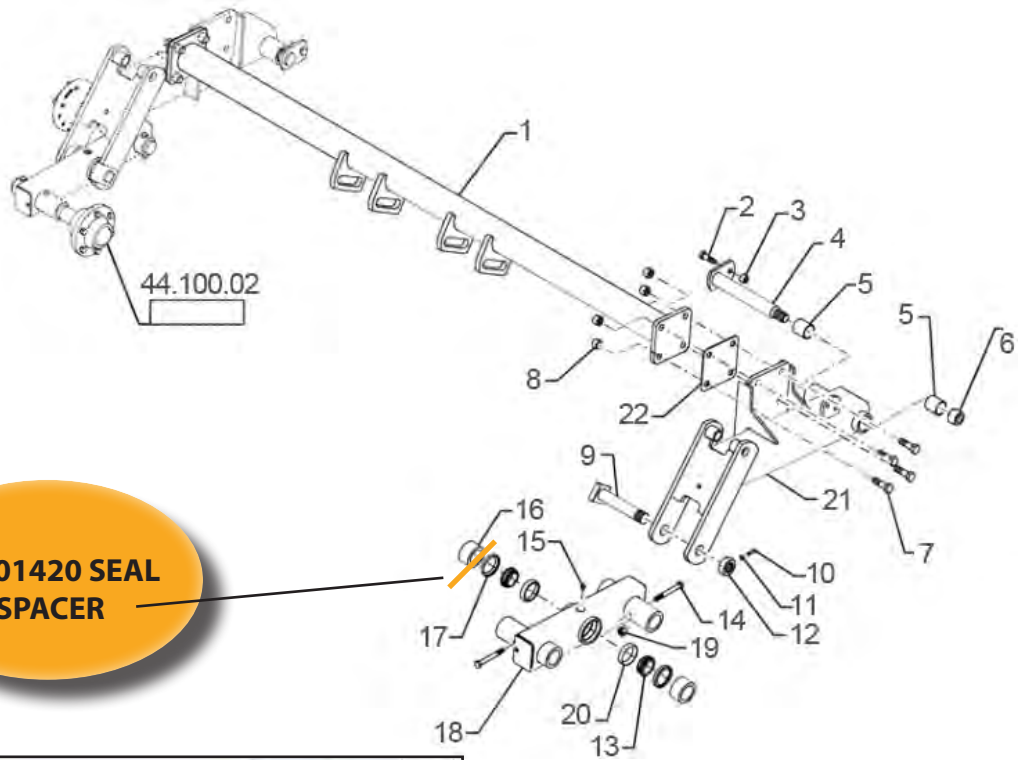
CYLINDER NUMBER	DESCRIPTION	SEAL KIT
84258230	3.5" X 10" CYLINDER	87409038
87394795	3.25" X 10" CYLINDER, BLACK RAM	87409037
47582264	3" X 24" CYLINDER	25803035
47575804	3.5" X 24" CYLINDER	25803526
25340301	4" X 30" CYLINDER	25804023

930/940 Nutri-Placer Rear Hitch Assembly



#	!	Part #	Part Name	Description	Qty
1		84302945	MOUNT	Drawbar Service	1
2		84298239	DRAWBAR	Rear Service	1
3		84298263	STOP	Rear Drawbar	1
4		84324317	HANDLE	Rear Hitch	1
5		84284698	PIN	129.29mm Long	1
6		84299077	LINK	196mm x 25.4mm	2
7		24312001	TENSION SPRING	119mm Long	1
8		44006201	BUSHING.16.38mm ID x 28.58mm OD x 15.75mm L	Steel. 15.74mm Long 31.75mm OD 16.25 ID	4
9		9706701	BOLT.Hex. 3/4" - 10 x 2 1/2" Gr 5		1
10		280954	NUT 3/4"-10_G5		1
11		86632557	JAM NUT.Jam. 3/4"-10_G5		1
12		80664	WASHER.0.36" ID x 0.86" OD x 0.08" Thk		2
13		9706689	BOLT.Hex. 3/8" - 16 x 1 3/4" Gr 5		2
14		280112	BOLT.Hex. 1/4" - 20 x 1-1/2" Gr 5		1
15		280129	NUT 1/4"-20		1
16		88902	NUT 3/8"-16		6
17		88693	BOLT.Hex. 5/8" - 11 x 2 3/4" Gr 5		2
18		85700693	NUT 5/8" - 11_Gr C		2
19		18681	BOLT.Hex. 1" - 8 x 6 1/2" Gr 5		1
20		87367	WASHER.1.06" ID x 2" OD x 0.13" Thk		1
21		9626600	NUT 1"-8_GC		1
22		87406	LOCK PIN.6.35mm OD x 38.1mm L_Slotted		1
23		30011100	HOLDER	Vinyl Handle	1
24		84286406	BUSHING	100mm Long 41.28mm OD 28.7mm ID	1
25		84301688	HITCH	Rear Machined, includes Grease Fitting	1
26		84302325	WEAR STRIP	Plastic. Bolt On. 320.5mm x 63.5mm	2
27		84302350	WEAR STRIP	Plastic. Drop In. 166mm x 12.7mm	1
28		280760	HEX SOC.SCREW.FLAT. 3/8" - 16 x 1-1/2"	Hex Soc 1/2-13X1-3/4 FH AST ZND	7
29		84298265	COMPRESSION SPRING	Compression Spring. 63.5 mm Long. 34 mm O.D.	1
30	!	87019498	FITTING	Grease	1
31		270184	LINCH PIN.6.35mm OD		1
32		87613235	WASHER.1.28" ID x 2" OD x 0.06" Thk		1

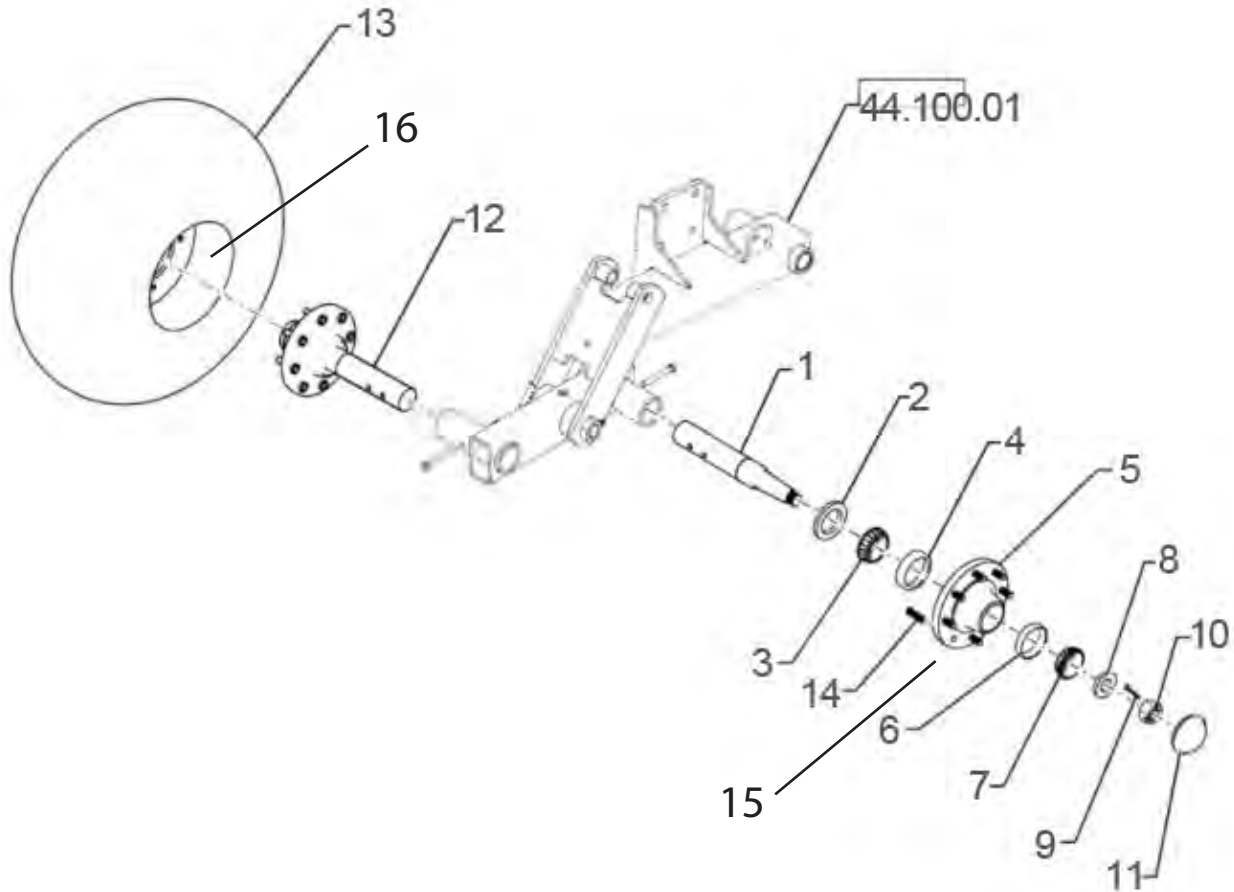
930 Main Frame Tandem - 42' - 47'



**06201420 SEAL
SPACER**

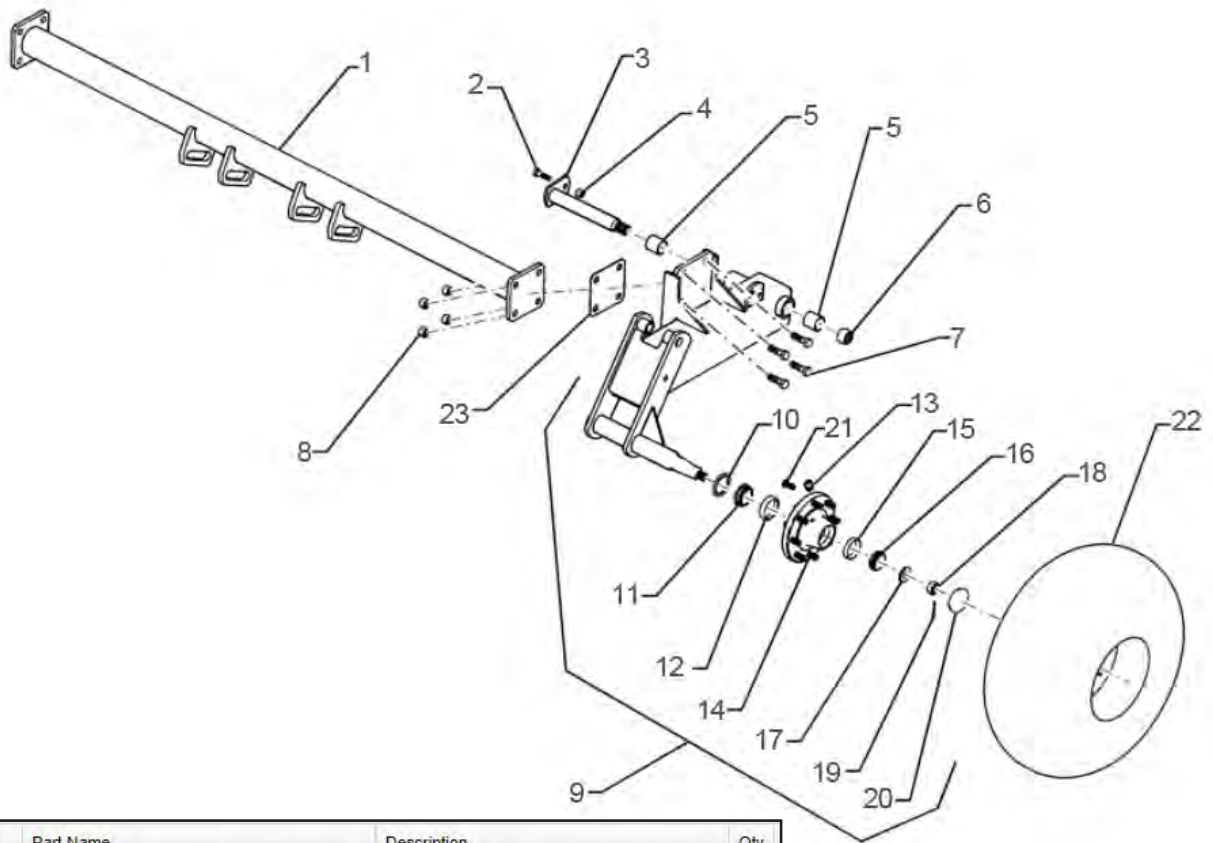
#	!	Part #	Part Name	Description ▲	Qty
1		84414351	SUPPORT TUBE		1
2		86508732	BOLT,5/8"-11 x 2.391" Cl 8		1
3		85700693	NUT,5/8" - 11, Gr C		1
4		84271660	PIN		1
5		87566586	BUSHING		2
6		86614103	NUT,1 1/4"-7, GC		1
7		9706701	BOLT,Hex, 3/4" - 10 x 2 1/2", Gr 5		8
8		280375	NUT,3/4"-10, GC		8
9		84422110	PIN		1
10		16806045	SET SCREW,Sq Hd, 3/8" - 16 UNC x 1"		1
11		87016560	JAM NUT,Jam, 3/8"-16, G5		1
12		14032409	NUT		1
13		21871501	BEARING CONE,38.1mm ID x 25.65mm		2
14		86505993	BOLT,Hex, 1/2" - 13 x 4", Gr 5		2
15	!	87019498	FITTING		1
16	!	84422537	SPACER		2
17	!	21932510	SEAL		2
18		04683145	AXLE	LH	1
18		04683045	AXLE	RH	1
19	!	88871	NUT,1/2" - 13, Gr C		2
20	!	17498D	TAPERED BEARING," ID x 76.2125 mm'		2
21	!	84385332	ARM	LH Includes 5	1
21	!	84385333	ARM	RH Includes 5	1
22		84414355	SHIM		1

930 Main Frame Tandem Hub Assembly - 42' - 47'



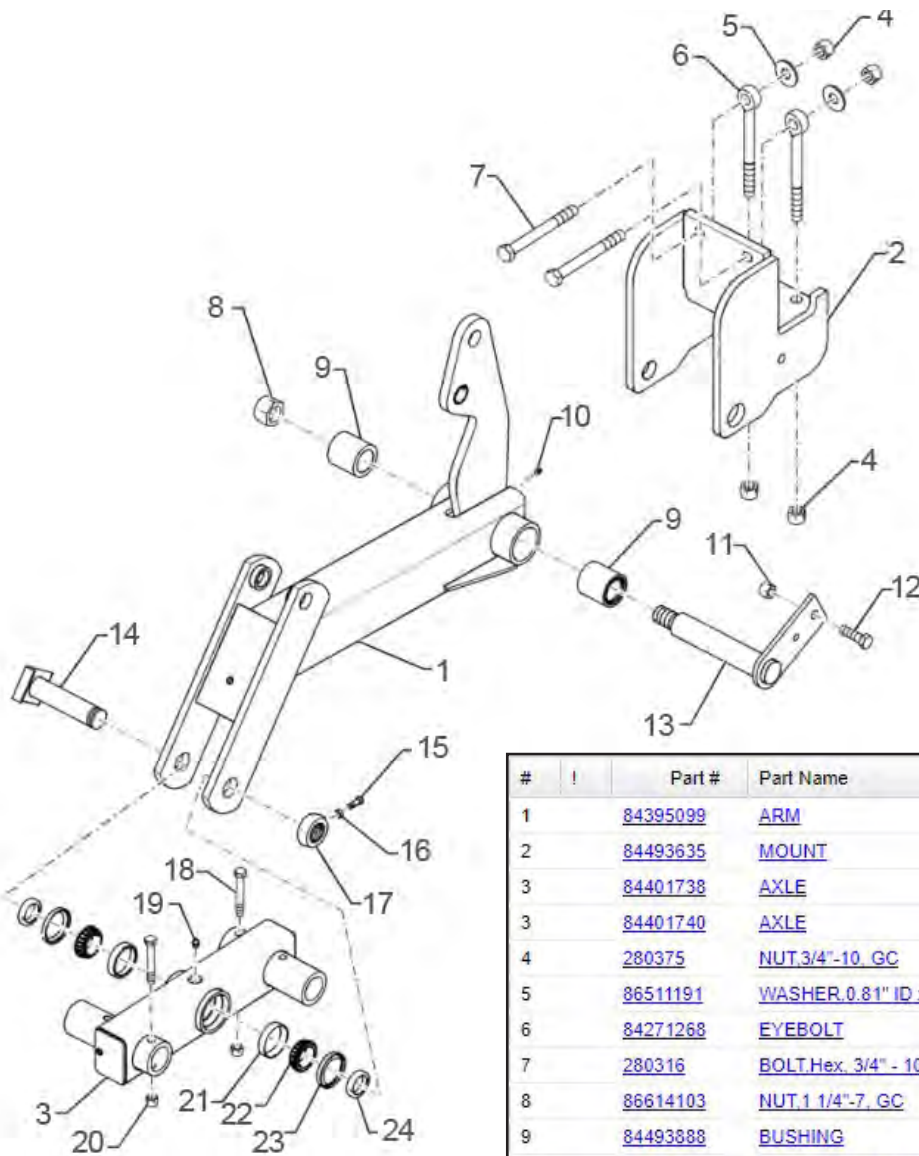
#	!	Part #	Part Name	Description	Qty
1		28350805	STUB AXLE/STEERING S		1
2		21932502	SEAL		1
3	?	21872005	ROLLER BEARING.50 mm ID	Bearing Cone	1
4	?	376463C1	BEARING CUP	Bearing Cup	1
5		28250800	HUB ASSY.	Includes Bearing Cups, Wheel Bolts and Lube Fitting, Ref 4, 6, 14 & 17	1
6	?	663558R1	BEARING CUP		1
7	?	663557R91	BEARING ASSY.1.625" ID x 2.892" OD x 0.77"		1
8		17916100	WASHER		1
9	?	14700600	COTTER PIN		1
10	?	14051603	SLOTTED NUT		1
11	?	84238032	DUST CAP		1
12	?	28050885	STUB AXLE/STEERING S	Includes Ref#'s 1-11 & 14	1
13			12.5L X 15 FI Tire Procure Locally		1
14	?	557309R1	BOLT		8
15		554480R1	WHEEL NUT	5/8 NF Lug Nuts (Not Shown)	8
16		10110274	WHEEL	Steel 8-Lug Wheel (Not Shown)	1
17	?	87645504	FITTING	Hub, Lube Fitting (Not Shown)	1

930 Main Frame Single Hub Assembly - 27' - 42'



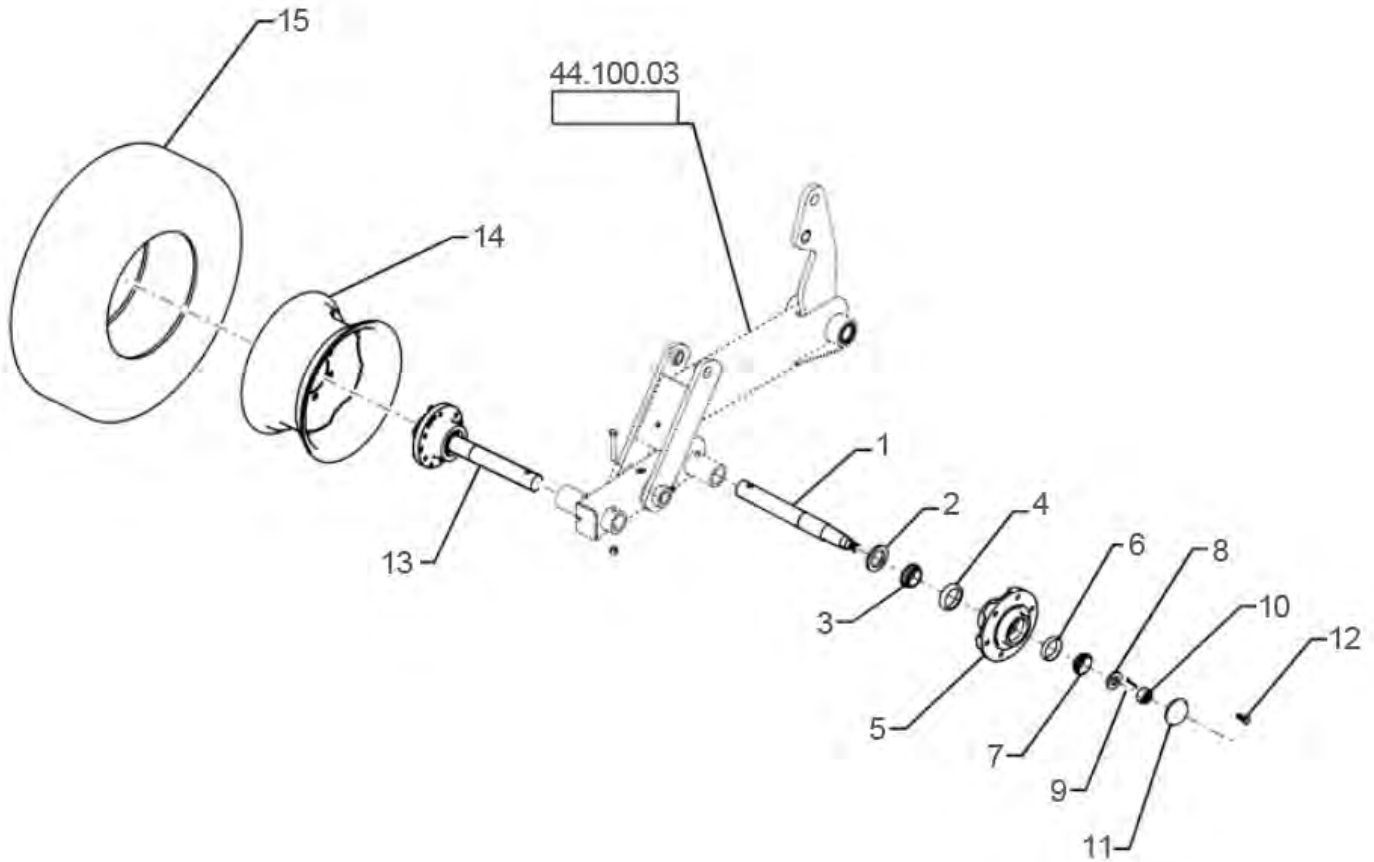
#	!	Part #	Part Name	Description	Qty
1		84414351	SUPPORT TUBE		1
2		86508732	BOLT,5/8"-11 x 2.391" CI 8		1
3		84271660	PIN		1
4		85700693	NUT,5/8" - 11, Gr C		1
5		87566586	BUSHING		2
6		86614103	NUT,1 1/4"-7, GC		1
7		9706701	BOLT,Hex, 3/4" - 10 x 2 1/2", Gr 5		4
8		280375	NUT,3/4"-10, GC		4
9		84414438	ARM	LH - Includes Arm & Ref 5, 10 - 21	1
		84414437	ARM	RH - Includes Arm & Ref 5, 10 - 21	1
10		21932502	SEAL		1
11	!	86980506	BEARING ASSY	Bearing Cone	1
12	!	376463C1	BEARING CUP	Bearing Cup	1
13	!	87645504	FITTING		1
14		84423047	HUB	Includes Cups and Studs Ref #'s 12 & 15 & 21	1
15	!	663558R1	BEARING CUP		1
16	!	663557R91	BEARING ASSY,1.625" ID x 2.892" OD x 0.77"		1
17		17916100	WASHER		1
18	!	427652	SLOTTED NUT,1"-14, G5		1
19		87400	COTTER PIN,3/16" x 2"		1
20	!	84238032	DUST CAP		1
21	!	557309R1	BOLT		1
22		NSS	NOT SOLD SEPARAT	12.5L X 15 FI Tire	1
23		84414355	SHIM	Shim, Torque Tube	1
24		554480R1	WHEEL NUT	Wheel Nut (Not Shown)	8

930 Wing Tandem Assembly - 42' - 47'



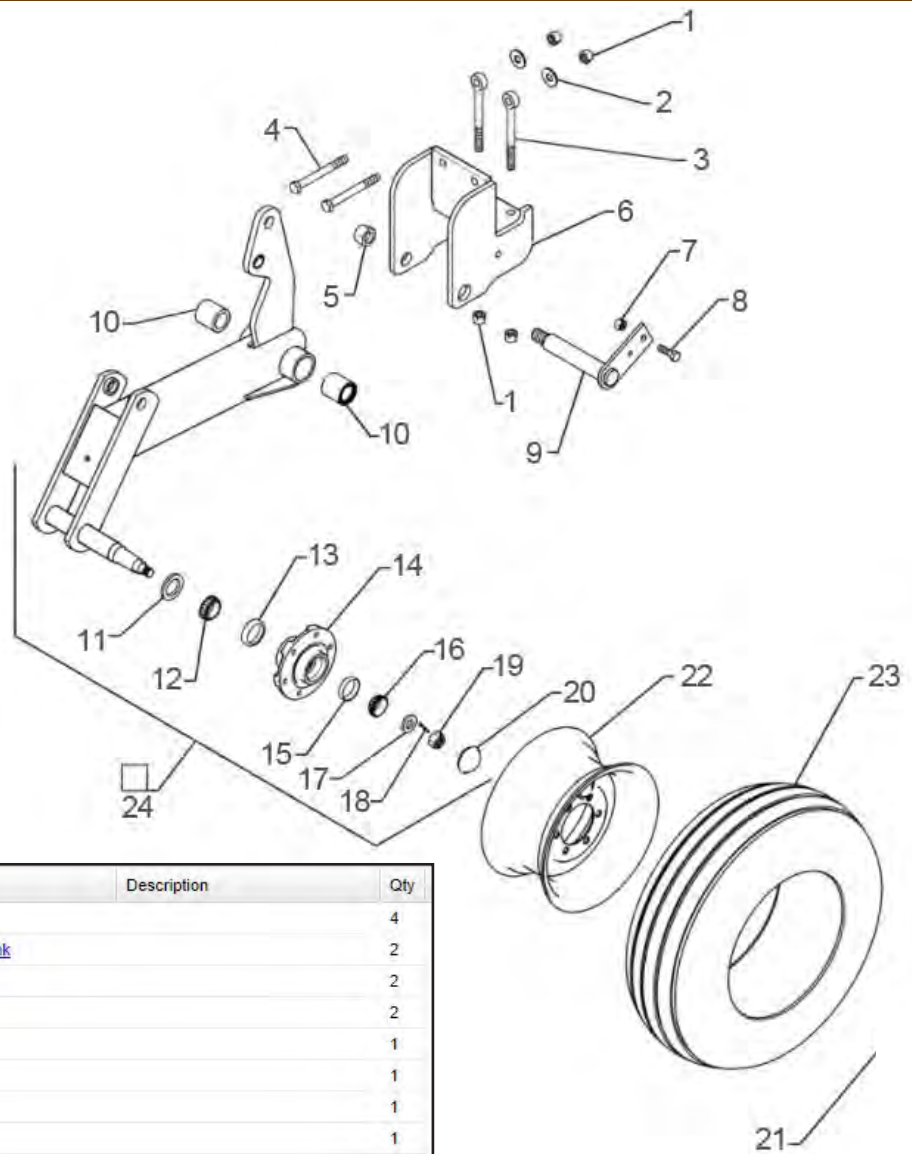
#	!	Part #	Part Name	Description	Qty
1		84395099	ARM	Includes Ref# 9	1
2		84493635	MOUNT		1
3		84401738	AXLE	LH	1
3		84401740	AXLE	RH	1
4		280375	NUT,3/4"-10_GC		4
5		86511191	WASHER,0.81" ID x 2" OD x 0.15" Thk		2
6		84271268	EYEBOLT		2
7		280316	BOLT,Hex. 3/4" - 10 x 7" Gr 5		2
8		86614103	NUT,1 1/4"-7_GC		1
9		84493888	BUSHING		2
10		87414	LUBE NIPPLE,1/4" - 28		1
11		85700693	NUT,5/8" - 11_Gr C		1
12		86508732	BOLT,5/8"-11 x 2.391" Cl 8		1
13		84493961	PIN		1
14		04661850	PIN		1
15		16806045	SET SCREW,Sq Hd. 3/8" - 16 UNC x 1"		1
16		87016560	JAM NUT,Jam. 3/8"-16_G5		1
17		14032409	NUT		1
18		9637417	BOLT,Hex. 1/2" - 13 x 3 1/2" Gr 5		1
19	+	87019498	FITTING		1
20	+	88871	NUT,1/2" - 13_Gr C		1
21	+	478793R1	BEARING CUP		2
22	+	160558C91	BEARING ASSY,1.5005" ID x 2.5635" OD x 0.72"		2
23	+	21932090	SEAL		2
24	+	06201425	SPACER		2

930 Wing Tandem Hub Assembly - 42' - 47'



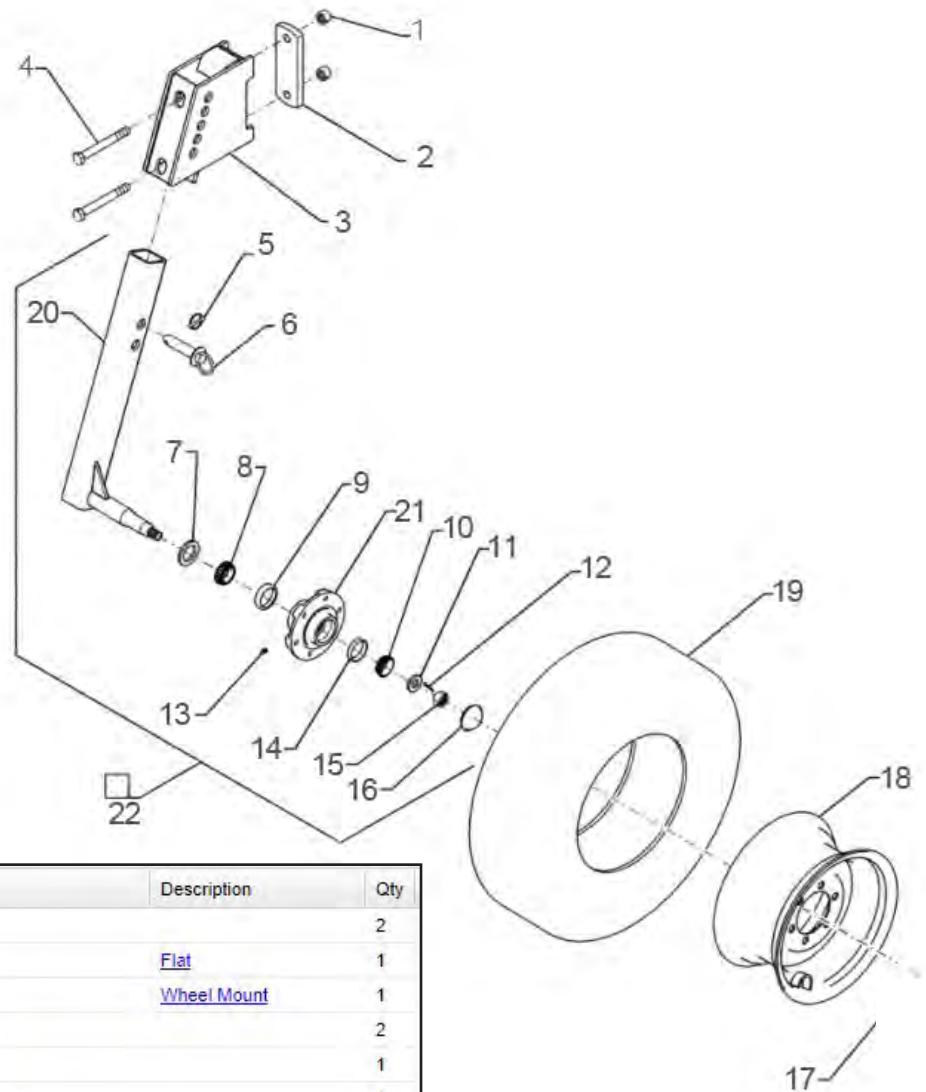
#	!	Part #	Part Name	Description	Qty
1		28378371	STUB AXLE/STEERING S	1.875"	1
2		145769C91	OIL SEAL		1
3	!	663557R91	BEARING ASSY.1.625" ID x 2.892" OD x 0.77"		1
4	!	663558R1	BEARING CUP		1
5	!	28278300	HUB	Includes 4 & 6	1
6	!	651817R1	BEARING CUP		1
7	!	651818R91	ROLLER BEARING.31.77 mm ID x 16.08 mm		1
8		17915000	WASHER		1
9	!	8835	ROLLER BEARING		1
10		84151573	NUT		1
11		28477700	HUB CAP		1
12	!	549962R1	BOLT.1 1/2" - 20 x 1 1/2". Class 3		6
13		28078372	STUB AXLE/STEERING S	Includes 1 - 12. 16	1
14		10108254	WHEEL		1
15			9.5L - 15F(E) Tubeless Tire. Procure Locally		1
16	!	15302005	FITTING	Not Shown	1

930 Wing Single Hub Assembly



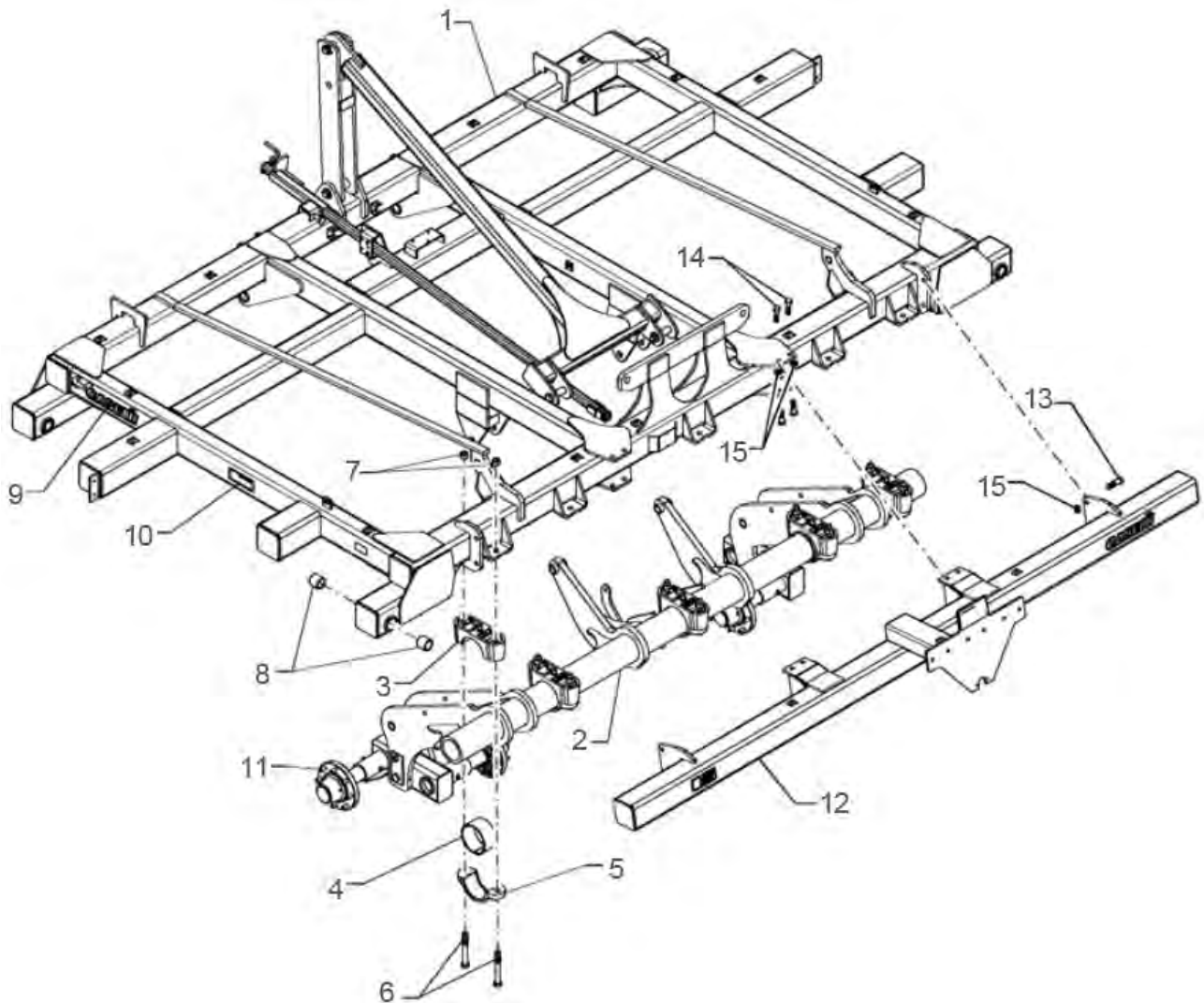
#	!	Part #	Part Name	Description	Qty
1		280375	NUT 3/4"-10_GC		4
2		86511191	WASHER 0.81" ID x 2" OD x 0.15" Thk		2
3		84271268	EYEBOLT		2
4		280316	BOLT Hex 3/4" - 10 x 7" Gr 5		2
5		86614103	NUT 1 1/4"-7_GC		1
6		84493635	MOUNT		1
7		85700693	NUT 5/8" - 11, Gr C		1
8		86508732	BOLT 5/8"-11 x 2.391" Cl 8		1
9		84493961	PIN		1
10		84493888	BUSHING		2
11		145769C91	OIL SEAL		1
12	!	663557R91	BEARING ASSY. 1.625" ID x 2.892" OD x 0.77"		1
13	!	663558R1	BEARING CUP		1
14	!	28278300	HUB	Includes Cups (Ref#s 13 and 15)	1
15	!	651817R1	BEARING CUP		1
16	!	651818R91	ROLLER BEARING 31.77 mm ID x 16.08 mm		1
17		17915000	WASHER		1
18		84151573	NUT		1
19		88350	COTTER PIN 5/32" x 1-1/2"		1
20		28477700	HUB CAP		1
21	!	549962R1	BOLT 1 1/2" - 20 x 1 1/2", Class 3		6
22		10108254	WHEEL		1
23			11L - 15 Procure Locally		1
24		84493838	ARM	LH. Includes 10 - 20	1
24		84493840	ARM	RH. Includes 10 - 20	1

930 Gauge Wheel Assembly



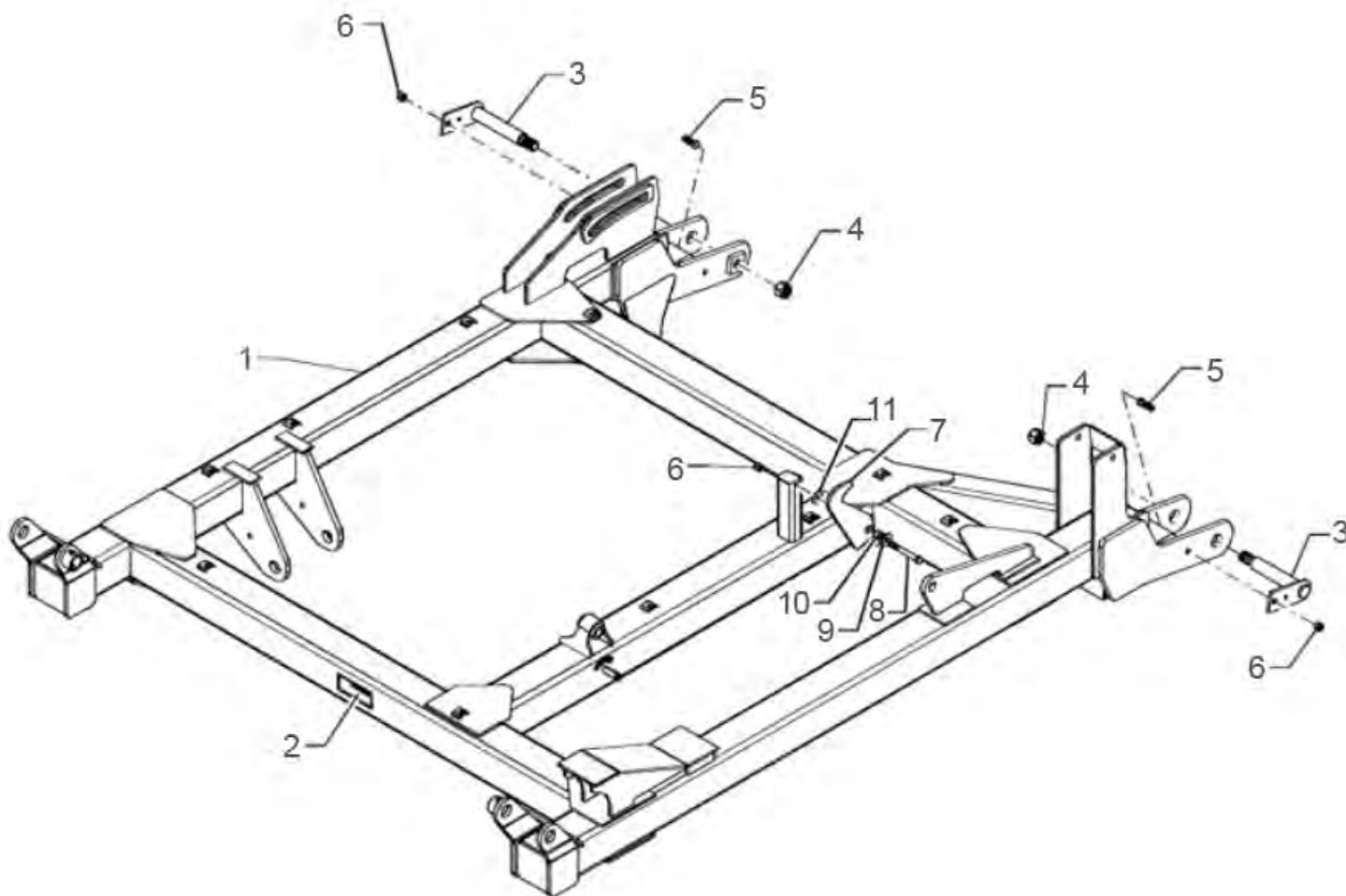
#	!	Part #	Part Name	Description	Qty
1		280375	NUT,3/4"-10, GC		2
2		09576610	LINKAGE	Flat	1
3		04661320	GAUGE	Wheel Mount	1
4		280223	BOLT,Hex, 3/4"-10 x 6 1/2", G5		2
5		270184	LINCH PIN,6.35mm OD		1
6		14816348	PIN,25.4mm OD x 133.35mm L		1
7		614410R91	SEAL		1
8		618023R91	BEARING ASSY,34.93mm ID x 18.2mm W		1
9	!	618024R1	BEARING CUP,65.113mm OD x 13.97mm W		1
10	!	651818R91	ROLLER BEARING,31.77 mm ID x 16.08 mm		1
11		17915000	WASHER		1
12		88350	COTTER PIN,5/32" x 1-1/2"		1
13	!	87019498	FITTING		1
14	!	651817R91	BEARING, CUP		1
15		84151573	NUT		1
16		28477700	HUB CAP		1
17	!	549962R1	BOLT,1 1/2" - 20 x 1 1/2", Class 3		5
18		10108254	WHEEL		1
19			Procure Locally 9.5L X 15 FI F		1
20			Included In 22		1
21		84421942	HUB	Includes 9 & 14	1
22		84338991	SPINDLE	Includes 7-17 & 20 - 21	1

940 Main Frame



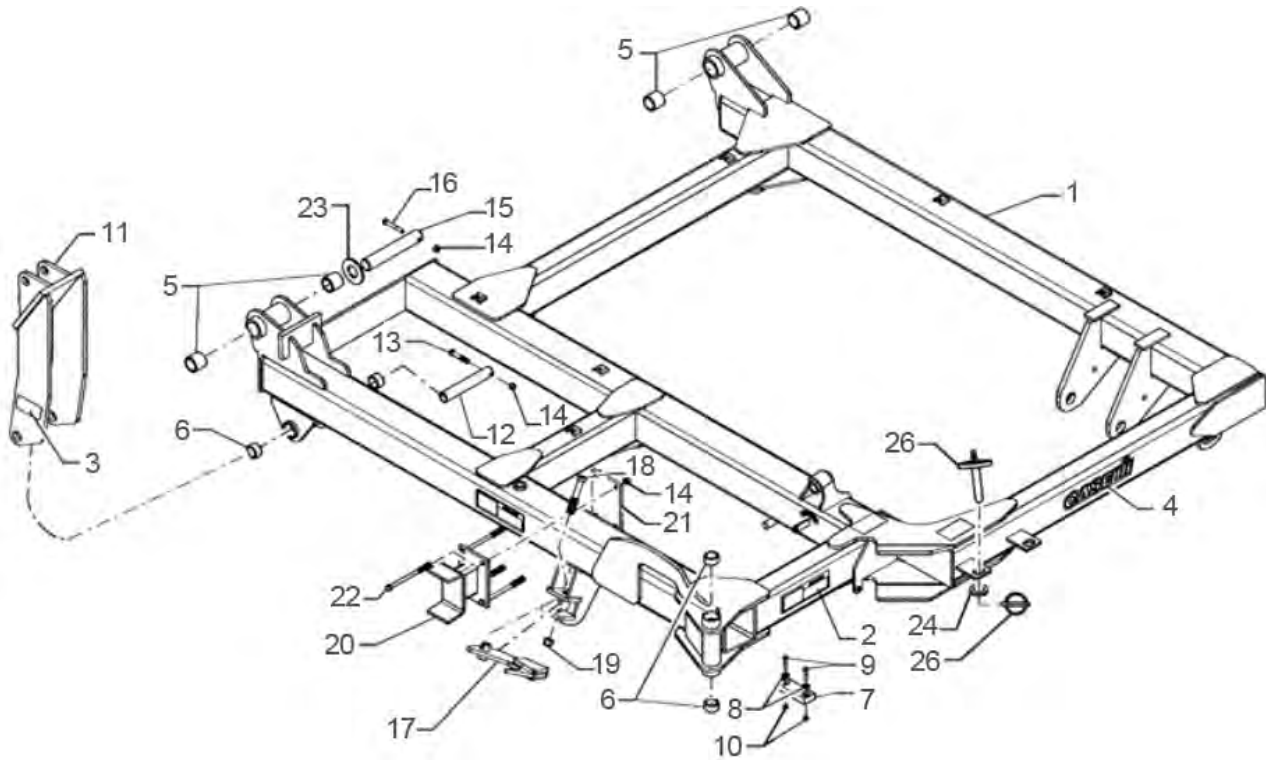
#	!	Part #	Part Name	Description	Qty
1		84410961	FRAME	Main Frame	1
2		84242465	ROCKSHAFT	Rock Shaft w/o Tandems	1
3	!	84141918	CASTING	RockShaft Bearing	5
4		87703164	BUSHING, 143mm ID x 155.7mm OD x 76.2mm L	Rockshaft 443mm Long	5
5		87715831	BEARING CAP	Casting	5
6		87490802	BOLT	7/8-9X7.00 GR 5	10
7		87681198	NUT,Hex, 7/8"-9, 0.45 high	7/8-9 HEX P/T DIR GR C	10
8		84239758	BUSHING	2.25 x 1.75 x 2	8
9		87653276	DECAL	CIH	2
10		18534227	DANGER DECAL	Crushing Hazard	2
11		28560803	HUB ASSY	8 Bolt Hub And Spindle Assy.	4
12	!	84262642	U-FRAME	With Decals	1
13	!	280173	BOLT,Hex, 3/4" - 10 x 2 3/4", Gr 5		4
14		87403	BOLT,Hex, 3/4" - 10 x 2 1/4", Gr 5		8
15		280375	NUT 3/4"-10, GC		12

940 Inner Wing



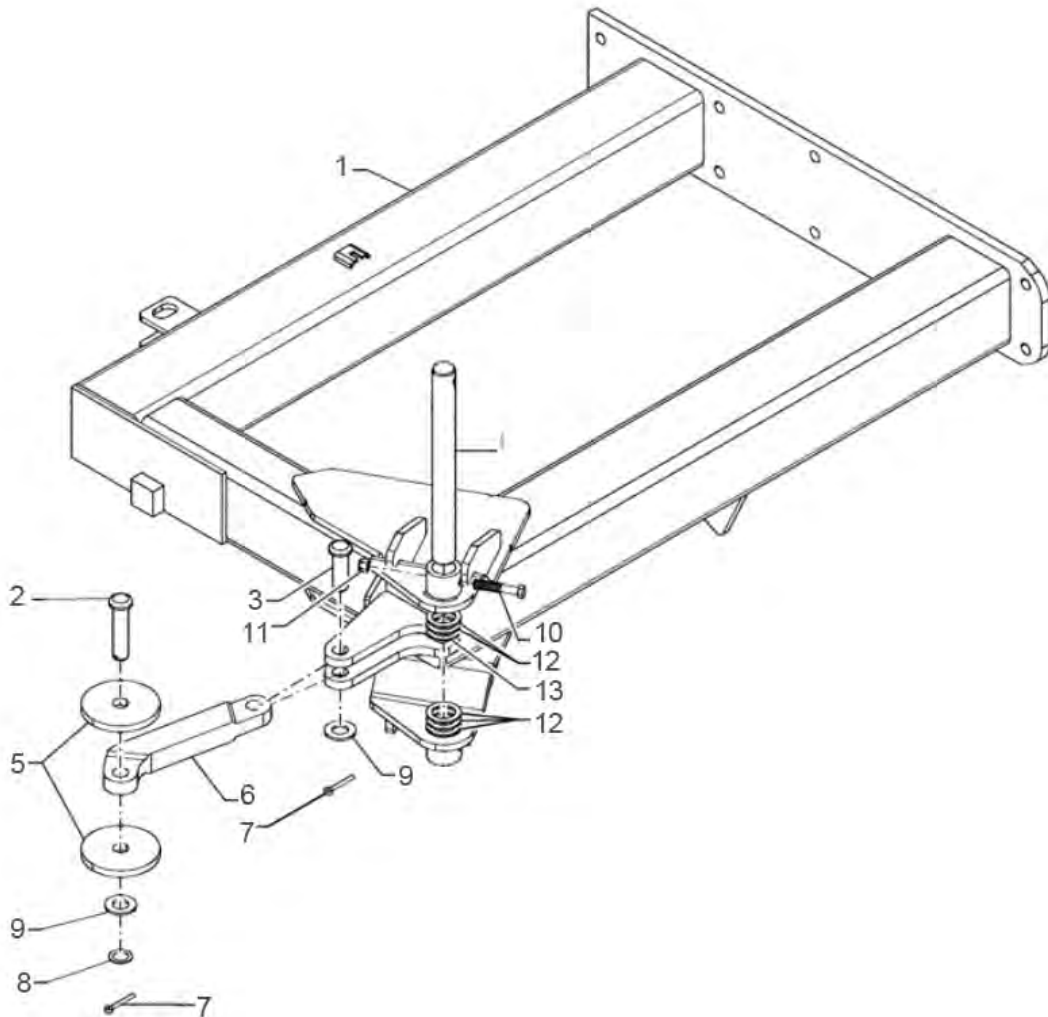
#	!	Part #	Part Name	Description	Qty
1		84263957	U-FRAME	Inner Wing Left Side With Decals	1
1		84263967	U-FRAME	Inner Wing Right Side With Decals	1
2		18534227	DANGER DECAL	Crushing Hazard	1
3		84250941	PIN	Flaq 1.75"	2
4		86614103	NUT.1 1/4"-7. GC		2
5		88556	BOLT,Hex. 5/8" - 11 x 2 1/4", Gr 5		2
6		85700693	NUT.5/8" - 11. Gr C		3
7		84126353	PLATE	Outer. Wing Gravity Latch	1
8		88729	BOLT,Hex. 5/8" - 11 x 5" Gr 5		1
9		80299	WASHER.0.69" ID x 1.75" OD x 0.13" Thk		1
10		44006200	BUSHING.16.38mm ID x 28.58mm OD x 15.75mm L		1
11		17618030	BUSHING	1-1/8 Machinery Bushing	2

940 Middle Wing



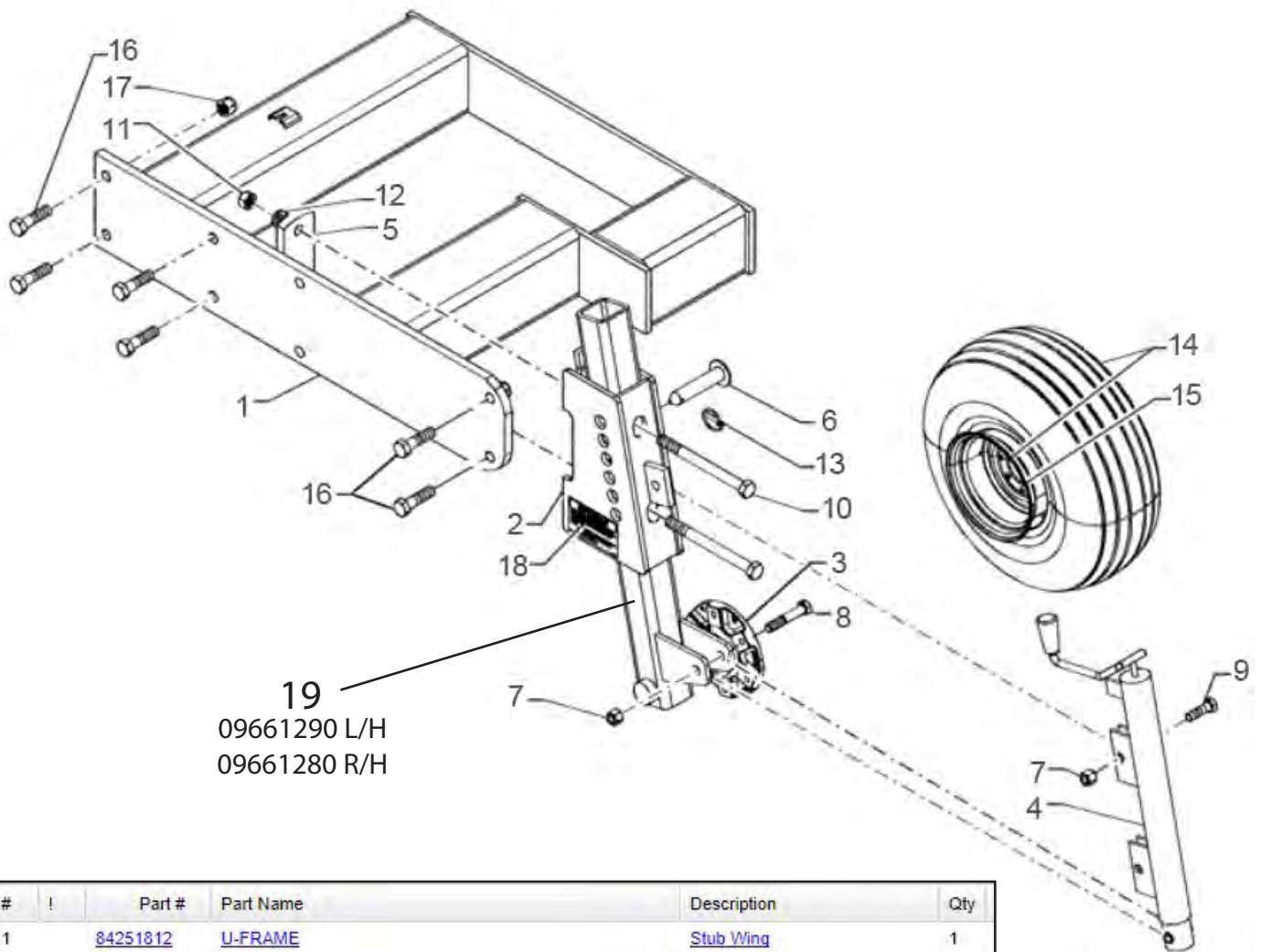
#	!	Part #	Part Name	Description	Qty
1		84263969	U-FRAME	Middle Wing, Left Side With Decals	1
1		84263971	U-FRAME	Middle Wing, Right Side With Decals	1
2		18534333	DANGER DECAL	Pinch Hazard	2
3		406860A1	DECAL	Pinch Hazard	1
4		87653276	DECAL	CIH	1
5		84239758	BUSHING	Composite	4
6		87624379	BEARING LINER,38.27 mm ID x 50.88 mm OD x 25.4 mm	Colter Pivot	2
7		04670230	SPACER	Rubber Pad	1
8		80702	WASHER,0.44" ID x 1" OD x 0.08" Thk		2
9		9706689	BOLT,Hex. 3/8" - 16 x 1 3/4", Gr 5		2
10		88902	NUT 3/8"-16		2
11		84294070	CONNECTING LINK	Middle Wing Fold	1
12		87755240	PIN		1
13		87339	BOLT,Hex. 1/2" - 13 x 3", Gr 5		1
14	!	88871	NUT,1/2" - 13, Gr C		6
15		84250969	PIN		2
16		88043	BOLT,Hex. 1/2" - 13 x 3 1/4", Gr 5		2
17		84361453	PLATE	Gravity Latch	1
18		9602203	BOLT,Hex. 3/4" x 5", Gr 8		1
19		280375	NUT,3/4"-10, GC		1
20		84247889	U-FRAME	Bolt On Wing Stop	1
21		84247892	PLATE	Wing Stop	1
22		280831	BOLT,Hex. 1/2" - 13 x 6", Gr 5		4
23		84359104	WASHER,1.88" ID x 3.38" OD x 0.19" Thk		2
24		87367	WASHER,1.06" ID x 2" OD x 0.13" Thk		1
25		14816348	PIN,25.4mm OD x 133.35mm L		1
26		270184	LINCH PIN,6.35mm OD		1

940 Outer Wing



#	I	Part #	Part Name	Description	Qty
1		84242110	U-FRAME	LH. Outer Wing	1
1		84254547	U-FRAME	RH. Outer Wing	1
2		86632563	HEADED PIN, 1" OD x 4-1/4" L, Gr 2	1" x 4.25"	1
3		87023161	HEADED PIN, 1" x 3"		1
4		84250895	PIN		1
5		84253278	PLATE		2
6		84255845	PLATE		1
7		88182	COTTER PIN, 1/4" OD x 2" L		2
8		17616021	BUSHING, .25.8mm ID x 38.1mm OD x 2.08mm L		1
9		87367	WASHER, 1.06" ID x 2" OD x 0.13" Thk		2
10		280234	BOLT, Hex. 1/2" - 13 x 3" Gr 5, Full Thd		1
11	!	88871	NUT 1/2" - 13, Gr C		1
12		86632584	WASHER, 1.53" ID x 2.25" OD x 0.12" Thk		1
13		86632585	WASHER, 1.53" ID x 2.25" OD x 0.06" Thk		1

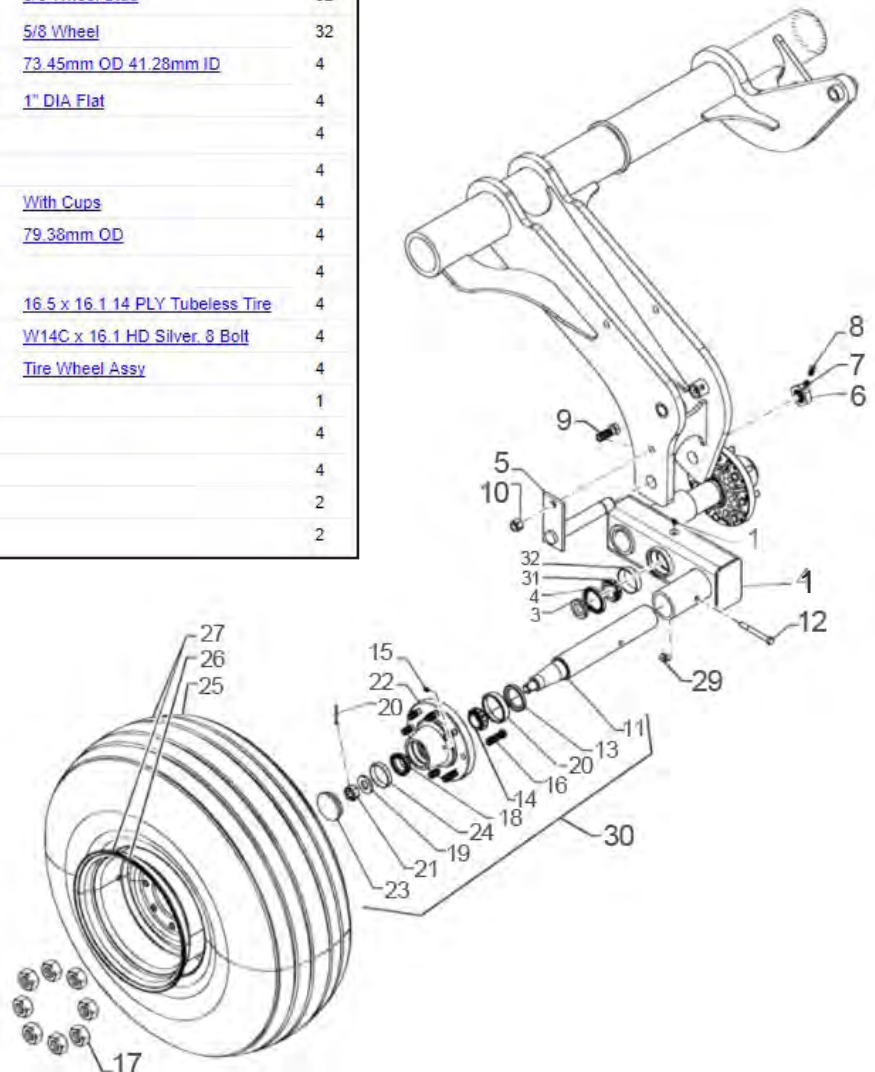
940 Stub Wing - 65'



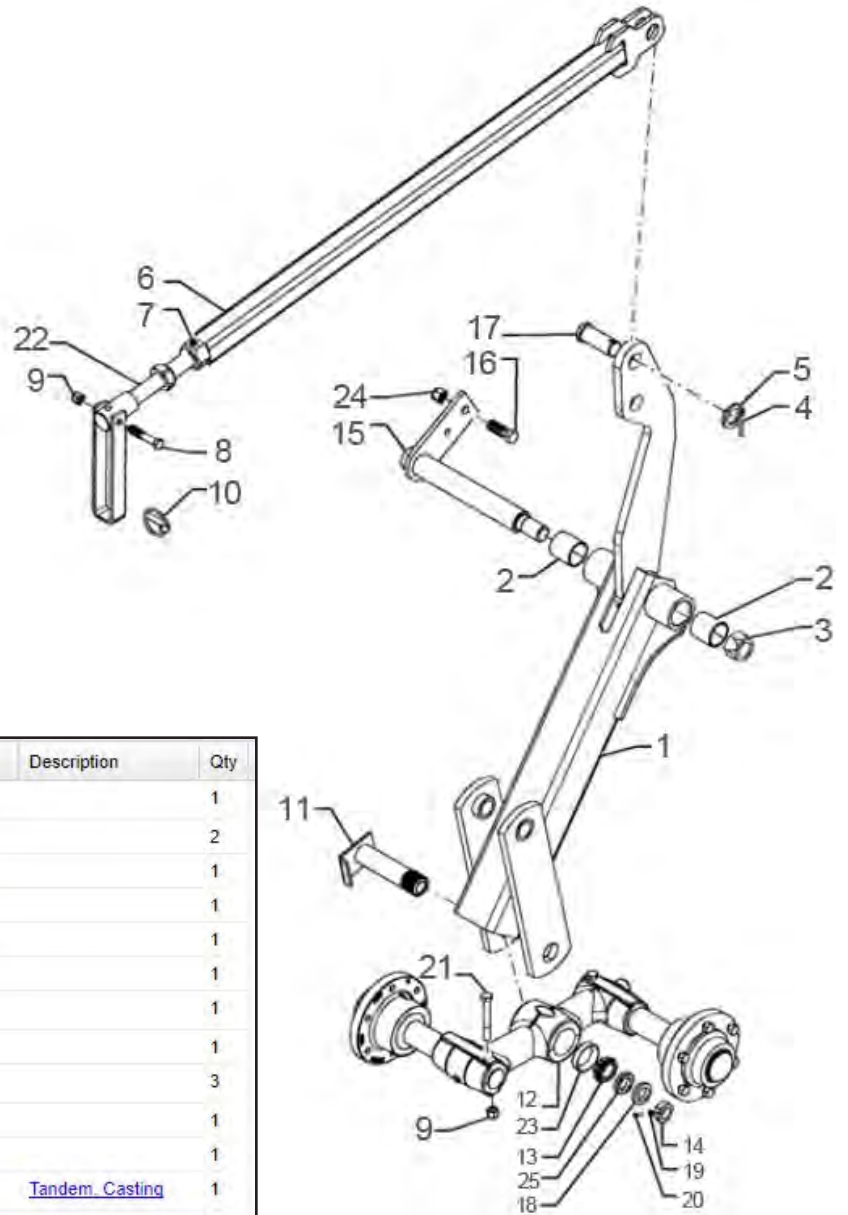
#	!	Part #	Part Name	Description	Qty
1		84251812	U-FRAME	Stub Wing	1
2		84410940	FRAME	Gauge Wheel	1
3	!	28071001	HUB ASSY.	710 - 6 Bolt	1
4		32253000	JACK ASSY.	5000LB	1
5		09576610	LINKAGE	Flat	1
6		14816348	PIN 25.4mm OD x 133.35mm L	1 x 4.25" Weldment	1
7		6395	LOCK NUT 5/8"-11_GB		2
8		280119	BOLT,Hex. 5/8" - 11 x 3 1/2", Gr 5		1
9		86505999	BOLT,Hex. 5/8" - 11 x 2", Gr 5		1
10		86502676	BOLT,Hex. 3/4" - 10 x 8 1/2", Gr 5		2
11		280954	NUT,3/4"-10_G5		2
12		87340	LOCK WASHER,Helical Spring, 0.759" ID, CST, ZND		2
13		270184	LINCH PIN,6.35mm OD	Klik	1
14		NSS	NOT SOLD SEPARAT	20.5-8 x 10 Tire And Wheel	1
15		10106202	WHEEL ASSY.	10 x 6 Silver Wheel	1
16	!	280173	BOLT,Hex. 3/4" - 10 x 2 3/4", Gr 5		6
17		280375	NUT,3/4"-10_GC		6
18		84252093	DECAL	Info. Jack, Pull Pin	2

940 Main Frame Tandem Assembly

#	!	Part #	Part Name	Description	Qty
1		84242398	AXLE SUPPORT	Right Side	1
1		84242396	AXLE SUPPORT	Left Side	1
2	!	87019498	FITTING	1/8 Grease	6
3	!	06400573	SPACER	Steel Seal	4
4	!	21932510	SEAL		4
5		84242401	PIN	223mm Long	2
6		14032409	NUT	Drilled Jam	2
7		87016560	JAM NUT.Jam. 3/8"-16. G5		2
8		16806045	SET SCREW Sq Hd. 3/8" - 16 UNC x 1"	3/8-16 UNC x 1" Square Head Set	2
9		87403	BOLT.Hex. 3/4" - 10 x 2 1/4". Gr 5		2
10		280375	NUT.3/4"-10. GC		2
11		28860803	SPINDLE	493.26mm Long 69.85mm OD	4
12		87996	BOLT.Hex. 1/2" - 13 x 4 1/2". Gr 5		4
13		21932750	SEAL	Grease	4
14		3216619R91	TAPERED BEARING.55mm ID x 26mm W	Cone	4
15	!	87645504	FITTING		4
16	!	557309R1	BOLT	5/8 Wheel Stud	32
17		554480R1	WHEEL NUT	5/8 Wheel	32
18	!	663557R91	BEARING ASSY.1.625" ID x 2.892" OD x 0.77"	73.45mm OD 41.28mm ID	4
19		17916100	WASHER	1" DIA Flat	4
20	!	663558R1	BEARING CUP		4
21		86020752	SLOTTED NUT		4
22		28760800	HUB ASSY	With Cups	4
23	!	560950R1	HUB CAP	79.38mm OD	4
24		625743C1	BEARING CUP.90mm OD x 18.5mm W		4
25		NSS	NOT SOLD SEPARAT	16.5 x 16.1 14 PLY Tubeless Tire	4
26		10114269	LAND WHEEL	W/14C x 16.1 HD Silver. 8 Bolt	4
27		NSS	NOT SOLD SEPARAT	Tire Wheel Assy	4
28		87400	COTTER PIN.3/16" x 2"		1
29	!	88871	NUT.1/2" - 13. Gr C		4
30		28560803	HUB ASSY		4
31		84235556	ROLLER BEARING		2
32	!	84229880	BEARING CUP		2



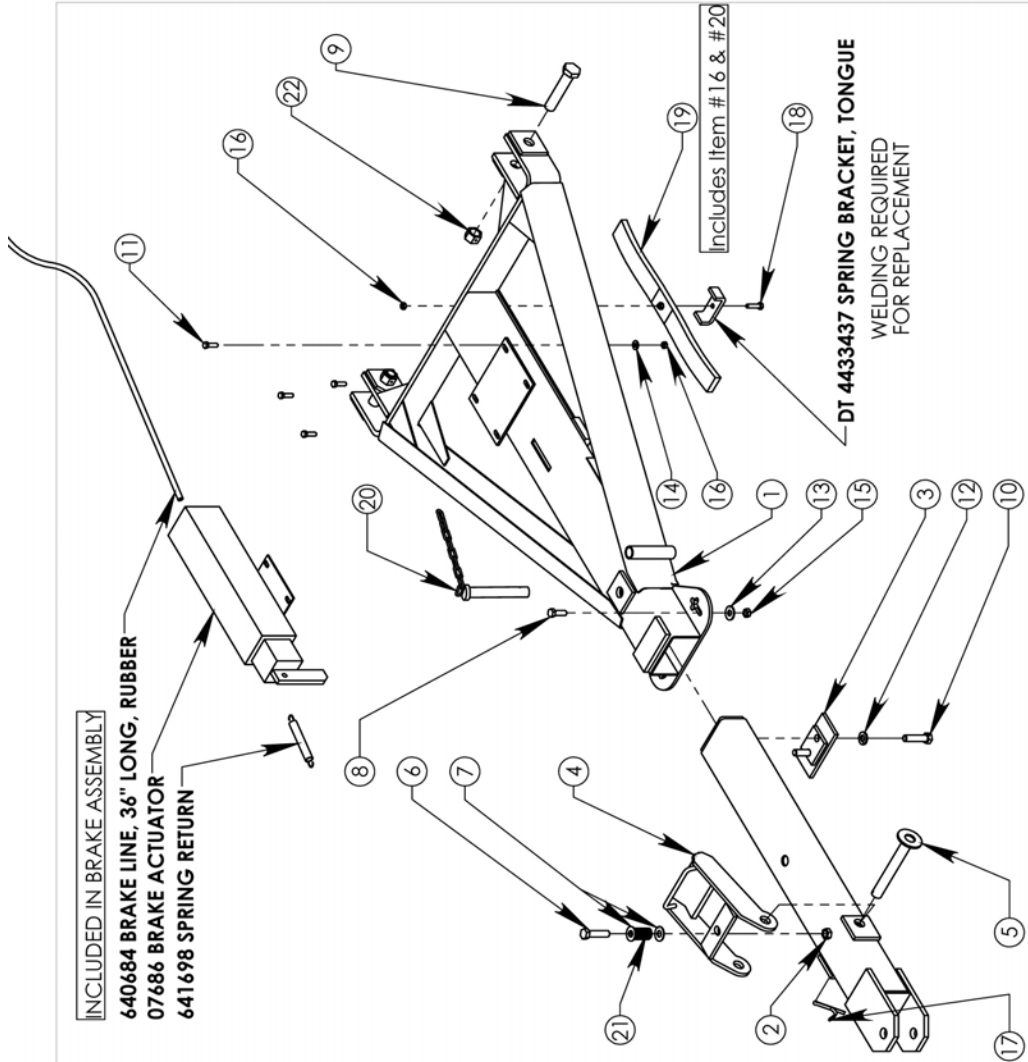
940 Wing Tandem Assembly



#	!	Part #	Part Name	Description	Qty
1	!	47995145	U-FRAME	Must also order item 2	1
2		87566586	BUSHING		2
3		86614103	NUT,1 1/4"-7, GC		1
4		88182	COTTER PIN,1/4" OD x 2" L		1
5		87613302	WASHER,1.31" ID x 1.98" OD x 0.18" Thk		1
6		84241496	LINK		1
7	!	87645504	FITTING		1
8		87974	BOLT,Hex, 1/2" - 13 x 2 3/4", Gr 5		1
9	!	88871	NUT,1/2" - 13, Gr C		3
10		D33805	PIN		1
11		04661850	PIN		1
12	!	87348188	AXLE	Tandem Casting	1
13	!	160558C91	BEARING ASSY,1.5005" ID x 2.5635" OD x 0.72"		2
14		14032409	NUT		1
15		84252600	PIN		1
16		86505999	BOLT,Hex, 5/8" - 11 x 2", Gr 5		1
17		84156992	PIN		1
18	!	06201425	SPACER		1
19		87016560	JAM NUT,Jam, 3/8"-16, G5		1
20		16806045	SET SCREW,So Hd, 3/8" - 16 UNC x 1"		1
21		86505992	BOLT,Hex, 1/2" - 13 x 3 3/4", Gr 5		2
22		84275023	ADJUSTMENT SCREW		1
23	!	476793R1	BEARING CUP		1
24		85700693	NUT,5/8" - 11, Gr C		1
25	!	21932090	SEAL		2

Dalton Ag Running Gear Tongue Assembly

4410168, EXTENDABLE TONGUE ASSEMBLY



extendable tongue assembly

4410168 EXTENDABLE TONGUE ASSEMBLY, LESS BRAKE ACTUATOR
 (Less Items to Right and #20)
4410169 EXTENDABLE TONGUE WITH BRAKE
 (Less Item #20)

#	PART NUMBER	QTY.
1	DT 4420260 BRAKE TONGUE FRAME	1
2	DT 4420264 BRAKE TONGUE INNER SLIDE	1
3	DT 4420265 BRAKE TONGUE KEEPER BLOCK	1
4	DT 4420263 BRAKE TONGUE, LATCH	1
5	4420262 PIN, 1 x 7.75, .3125 PIN HOLE, WN ADJ TONGUE	1
6	152409 BOLT, .625x2.5 NC GRD 5	1
7	150223 FLAT WASHER, .625 STD PLN	2
8	152206 BOLT, .5 NC x 1.5, G5, PLTD	2
9	152429 BOLT, 1 NC x 5, G5, PLTD	2
10	152407 BOLT, .625 NF x 2.5 G8, HH	2
11	151805 BOLT, .375 NC x 1.25, PLTD	4
12	150222 LOCK WASHER, .625, PLTD	2
13	150220 FLAT WASHER, .5 PLTD	2
14	150212 FLAT WASHER, .375 PLTD	4
15	150060 NUT, .5 NC, LOCKING, PLTD	2
16	150022 NUT, .375, LOCKING, PLTD	5
17	4440848 COTTER PIN, .3125 x 3	1
18	151806 BOLT, .375 NC x 1.5, G5, PLTD	1
19	4410188 TONGUE SPRING ASSEMBLY	1
20	4420261 LOCK-OUT PIN WELDMENT	1
21	140148 SPRING	1
22	150061 NUT, 1 NC, CENTERLOCK, PLTD	2

Available:
 610500-SAFETY CHAIN, PAIR

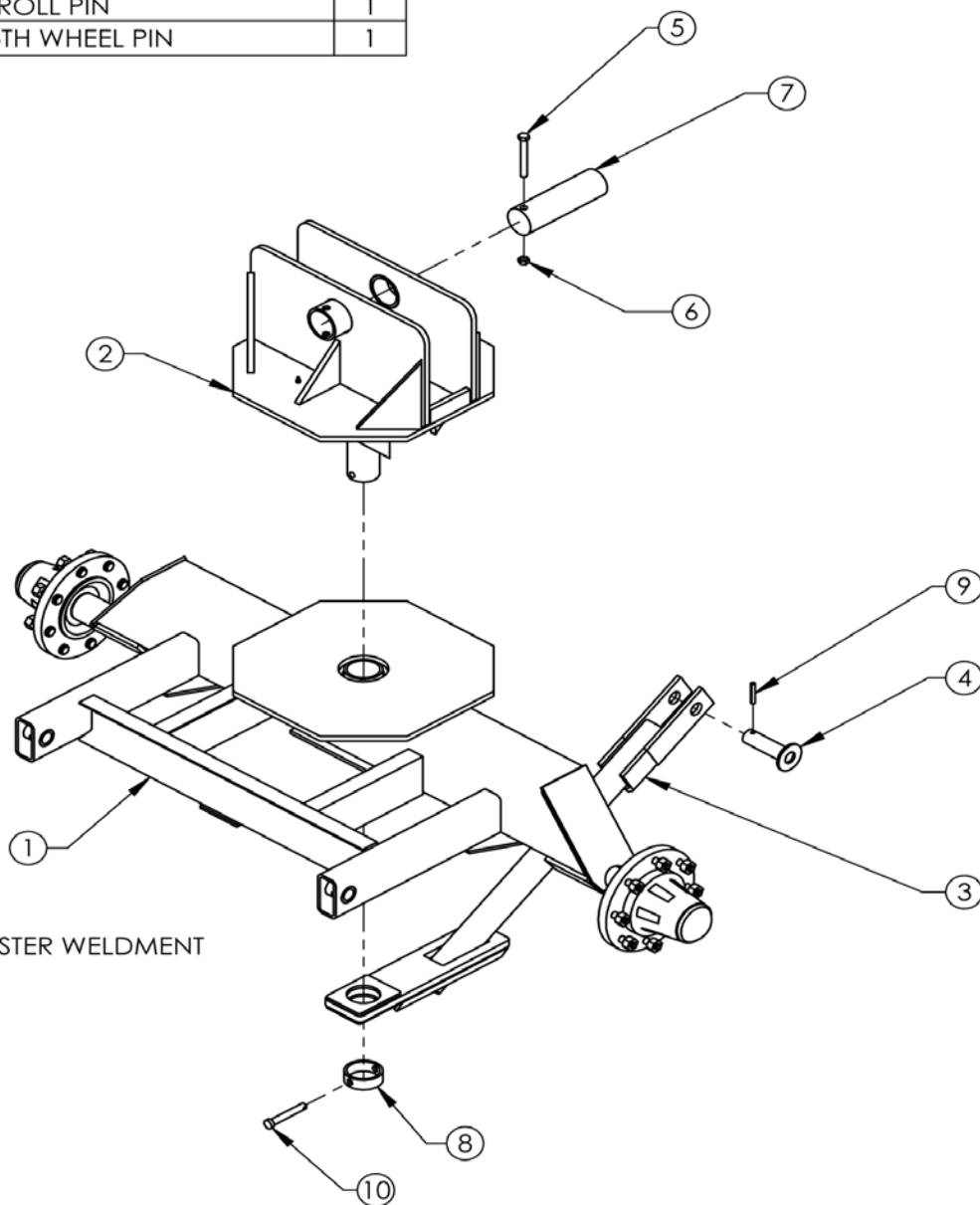
NOTE: #20 PIN MUST BE INSTALLED DURING FIELD OPERATION... REMOVE TO TRANSPORT!

Dalton Ag Running Gear 5th Wheel Assembly

5TH WHEEL ASSEMBLY

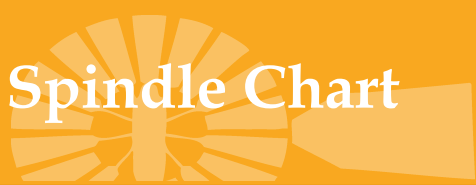
#	PART NUMBER	QTY.
1	4410170 FRONT BOLSTER ASSEMBLY w 8 BOLT HUBS	1
2	4420267 5TH WHEEL WELDMENT W KING PIN	1
3	4420268-1.125 BOLSTER BRACE, WELDMENT	1
4	4420269 PIN WELD, BOLSTER BRACE	1
5	152220 BOLT .5 NC x 4, G8	1
6	150008 NUT, .5 NC, PLTD	1
7	4431077 ROCKER PIN, 2.5 INCH ROUND	1
8	4431071 LOCK COLLAR, BOLSTER BRACE	1
9	640038 ROLL PIN	1
10	4440864 5TH WHEEL PIN	1

Part Number	Description
JTI4420268-11/8	Bolster Brace 1 1/8"
JTI4420268- 17/16	Bolster Brace 1 7/16"
JTI4420269-11/8	Pin Weld, 1 1/8"
JTI4420269- 17/16	Pin Weld, 1 7/16"



DT 4420266 FRONT BOLSTER WELDMENT
(LESS HUBS)

Dalton Ag Running Gear Hub & Spindle Chart



wndt & rp, spindle and hub sheet

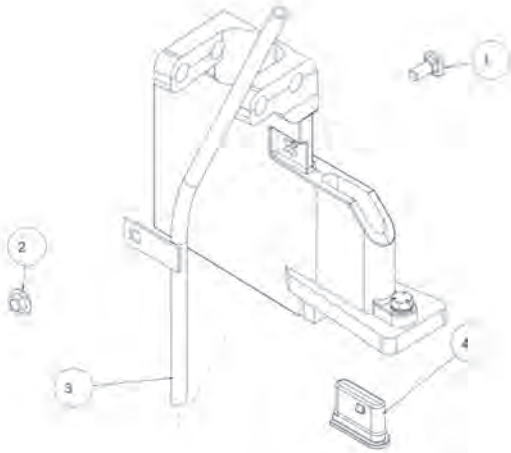
FRONT			WNDT MODELS	REAR		
SPINDLE	HUB	HUB ASSEMBLY		SPINDLE	HUB	HUB ASSEMBLY
641793-2.5"x14"	813	4410089	1000-SA	S5199-K-00-3"x18.25"	758	2001113
641793-2.5"x14"	813	4410089	1000	1002188-3"x18.25"	819	1002194
641793-2.5"x14"	813	4410089	1500	1002188-3"x18.25"	819	1002194
641793-2.5"x14"	813	4410089	2000	1002188-3"x18.25"	819	1002194
S5199-K-00-3"x18.25"	758	2001113	GN-SA-BOLT ON	S5199-K-00-3"x18.25"	758	2001113
1002188-2.5"x15"	819	1002194	1000GN-SA	S5199-K-00-3"x18.25"	758	2001113
1002188-2.5"x15"	819	1002194	2000GN-SA	S5199-K-00-3"x18.25"	758	2001113
1002188-2.5"x15"	819	1002194	1000GN	1002188-3"x18.25"	819	1002194
1002188-2.5"x15"	819	1002194	1500GN	1002188-3"x18.25"	819	1002194
S5199-K-00-3"x16"	758	2001113	1850GN	S5199-K-00-3"x18.25"	758	2001113
1002188-2.5"x15"	819	1002194	2000GN	1002188-3"x18.25"	819	1002194
1002188-2.5"x15"	819	1002194	3000GN	S5199-K-00-3"x18.25"	758	2001113
FRONT			REACH POLE MODELS	REAR		
SPINDLE	HUB	HUB ASSEMBLY		SPINDLE	HUB	HUB ASSEMBLY
4440633	Q888	4410086	1300/1360	4440633	Q888	4410086
140350-2.5"-13"	130752	4410087	1600/1660	140350-2.5"-13"	130752	4410087
641793-14"	813	4410089	1800/1860	641793-14"	813	4410089

**** BRAKE FLANGES ****
 635989-2.5 BRAKE FLANGE FOR 2.5" SPINDLE
 635989-2.75 BRAKE FLANGE FOR 2.75" SPINDLE
 635989-3 BRAKE FLANGE FOR 3" SPINDLE

Yetter Magnum 10000

PART IDENTIFICATION

2987-040-R (SHOWN) & 2987-040-L
NH3 (3/8" TUBE) FERTILIZER KIT

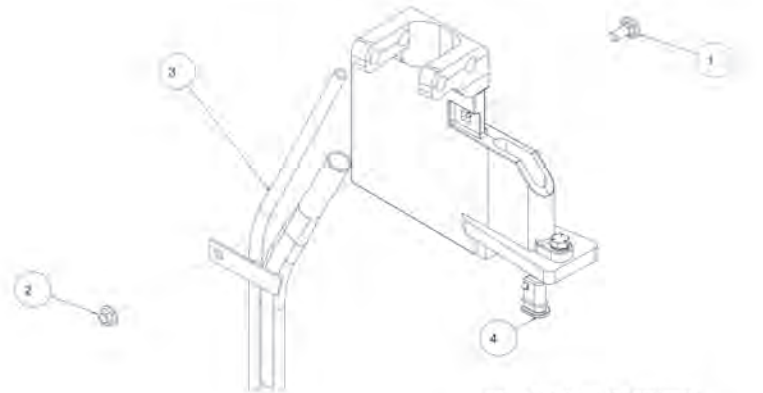


NOTE A: LH PARTS ARE DENOTED BY AN "L" OR "LH" SUFFIX ON PART NUMBER
RH PIECES HAVE THE SAME NUMBER WITH "R" OR "RH" AS A SUFFIX

ITEM	PART #	DESCRIPTION	QTY
1	2505-205	5/16-18 X 3/4 CARBOLT G5 ZP	1
2	2520-206	5/16-18 FLANGE LOCK NUT	1
A 3	2987-248-R	RH FERT TUBE W.A. L/N	1
4	2987-412	FULL PLUG	1

PART IDENTIFICATION

2987-042-R (SHOWN) & 2987-042-L
NH3 w/ VAPOR (3/8" & 3/4" TUBE) KIT



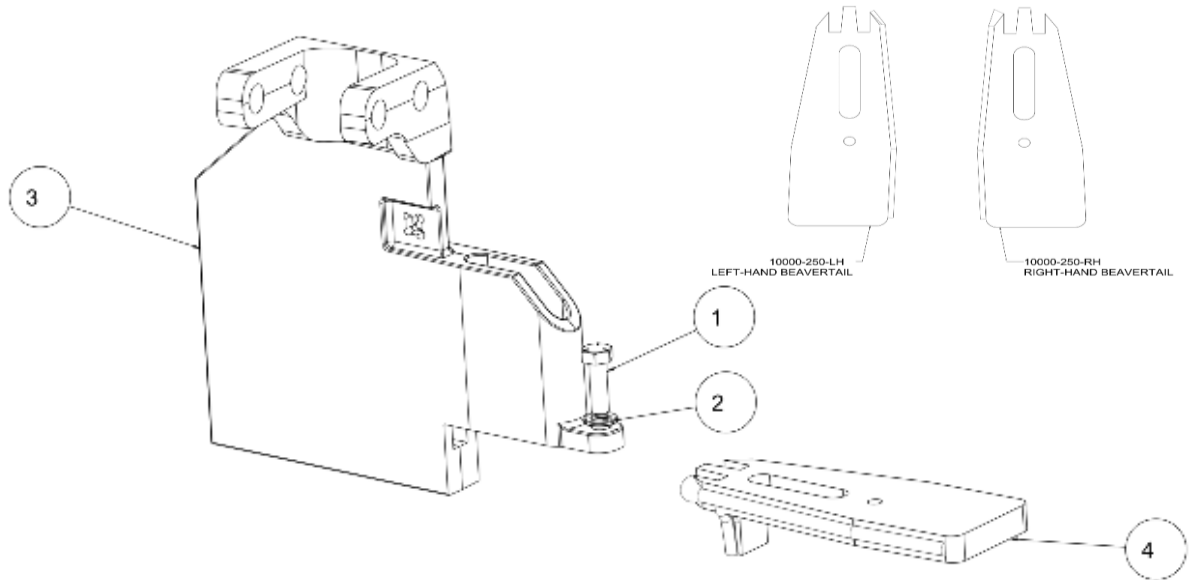
NOTE A: LH PARTS ARE DENOTED BY AN "L" OR "LH" SUFFIX ON PART NUMBER
RH PIECES HAVE THE SAME NUMBER WITH "R" OR "RH" AS A SUFFIX

ITEM	PART #	DESCRIPTION	QTY
1	2505-205	5/16-18 X 3/4 CARBOLT G5 ZP	1
2	2520-206	5/16-18 FLANGE LOCK NUT	1
A 3	2987-246-R	RH FERT TUBE W.A. NH3 W/V	1
4	2987-413	1/2 PLUG	1

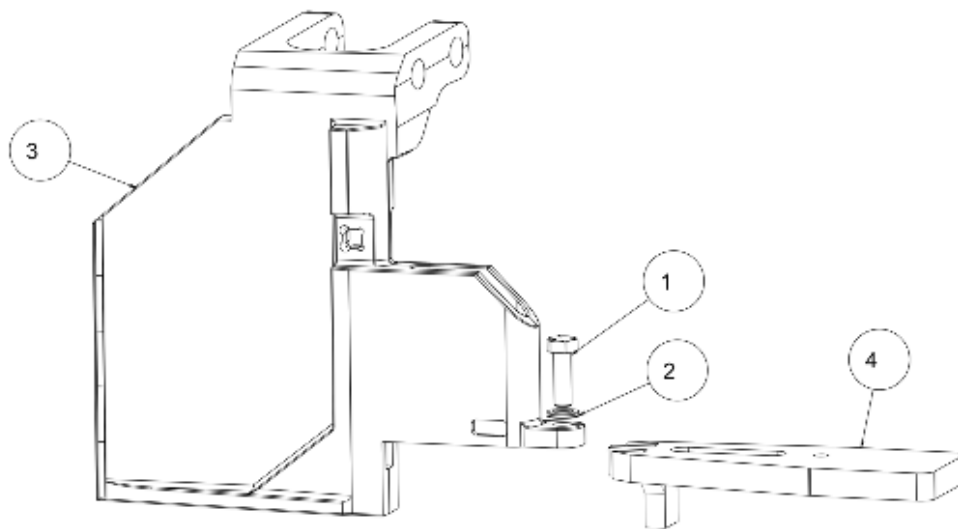
Yetter Magnum 10000

PART IDENTIFICATION

2987-406 RH (TOP) & 2987-407 LH (BOTTOM) MAGNUM KNIFE ATTACHMENT



ITEM	PART #	DESCRIPTION	QTY
1	2502-198	5/16-18 X 1 HHCS GR.5 ZP	1
2	2525-201	5/16 MED. LOCKWASHER ZP.	1
3	2987-406-C	SIDE KNIFE w/ CARBIDE RH	1
4	10000-250-RH	BEAVERTAIL RH W.A., 2IN	1



ITEM	PART #	DESCRIPTION	QTY
1	2502-198	5/16-18 X 1 HHCS GR.5 ZP	1
2	2525-201	5/16 MED. LOCKWASHER ZP.	1
3	2987-407-C	SIDE KNIFE w/ CARBIDE LH	1
4	10000-250-LH	BEAVERTAIL LH W.A., 2IN	1

Yetter Magnum 10000

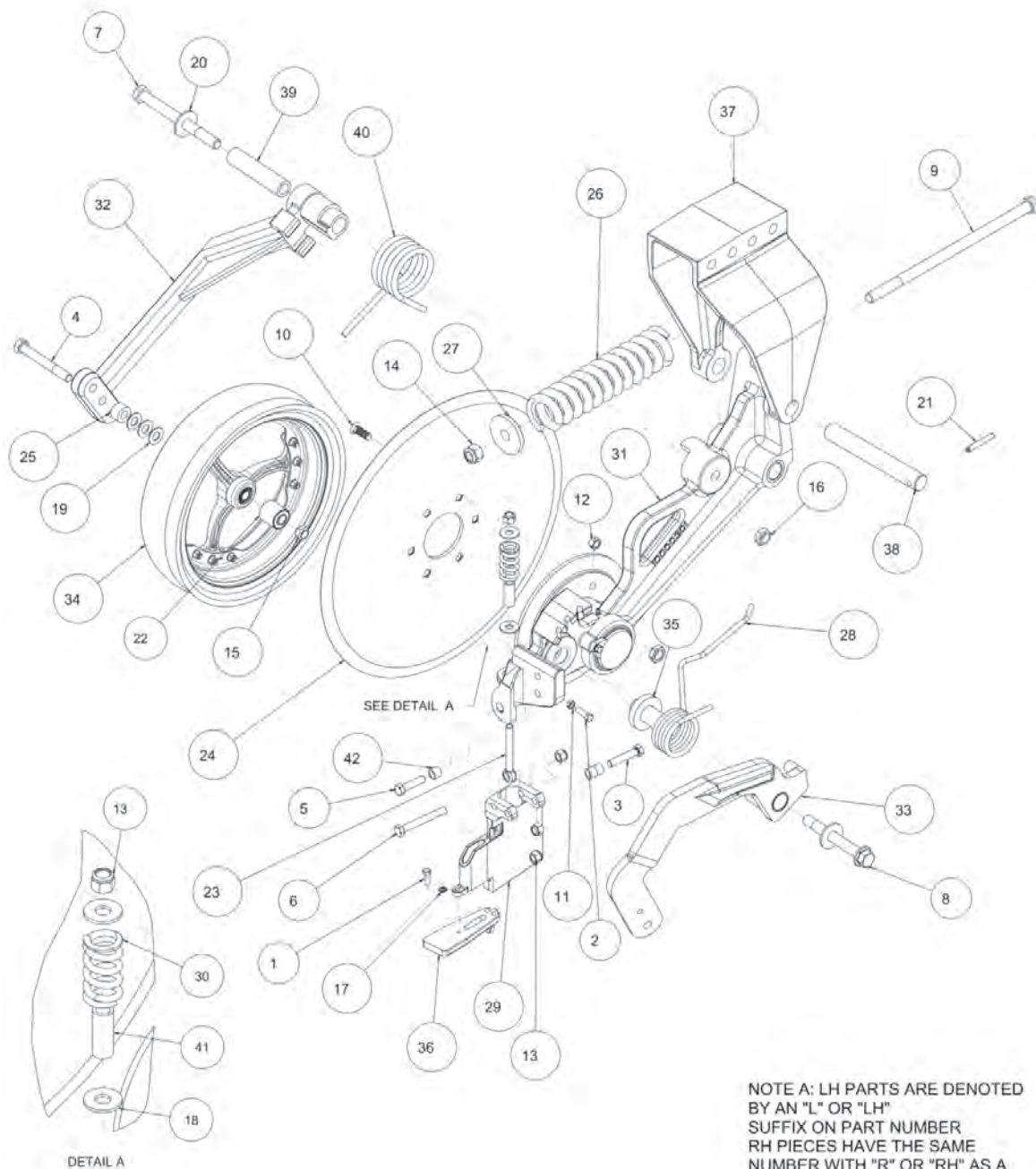
PART IDENTIFICATION 10000-100-LH (SHOWN) & 10000-1000-RH MAGNUM BASE ASSEMBLY

ITEM	PART #	DESCRIPTION	QTY
1	2502-198	5/16-18 X 1 HHCS GR.5 ZP	1
2	2502-244	3/8-16 X 1-1/4 HHCS GR 5 ZP	1
3	2502-296	1/2-13 X 2-1/2 HHCS GR5 ZP	1
4	2502-327	5/8-11 X 5 HHCS GR.5 ZP	1
5	2502-351	1/2-13 X 2 HHCS GR.5 ZP	1
6	2502-364	1/2-13 X 4 HHCS GR. 5 ZP	1
7	2502-405	3/4-10 X 8 HHCS GR. 5 ZP	1
8	2502-426	3/4-10 X 6 HHFS GR8, ZP	1
9	2502-525	3/4-10 X 16 HHCS GR. 5 ZP, 3" THREAD LENGTH	1
10	2506-306	1/2-13 X 1-1/2 #3 REPAIRPLWBLT	6
11	2520-253	3/8-16 JAM HEX NUT ZP	1
12	2520-357	1/2-13 LOCK HEX NUT, GR A, ZP	6
13	2520-363	1/2-13 NYL INSERT LOCKNUT, GR 2	4
14	2520-516	3/4-10NYLON INSERT LCKNT, GR 2, ZP	1
15	2520-603	5/8-11 HEX TOP LOCK	1
16	2520-604	3/4-10 HEX TOP LOCK	2
17	2525-201	5/16 MED. LOCKWASHER ZP.	1
18	2526-351	1/2 STANDARD FLATWASHER ZP	2
19	2526-453	5/8 SAE FLATWASHER ZP	3
20	2526-501	3/4 STANDARD FLATWASHER ZP	2
21	2530-208	3/8 X 2-1/2 ROLL PIN ZP	1
22	2570-069	40MM BEARING - AN212132 (5203KYY2)	1
23	2570-447	EYEBOLT, 1/2-13 X 4-1/4	1
24	2571-279	.256 X 22.60" COULTER BLADE	1
25	2967-302	SPACER, 3/4" PLATED	1
26	2986-342	COMPRESSION SPRING, AVENGER	1
27	2986-405	SPRING BUSHING	1
(A)	28 2987-395-L	PAINTED LH CLSNG ARM TORS SPRG	1
	29 2987-407	LH SIDE KNIFE CAST, MACH W/CARB	1
	30 3000-344	2-1/2" SPRING#LHL-1500B-2, BLK	1
(A)	31 10000-111-LH	MAGNUM LH MAIN ARM, ASSEMBLY	1
	32 10000-112	WW ARM W/ BUSHING, ASSY	1
(A)	33 10000-113-LH	CLOSING ARM LH W/ BUSHING	1
	34 10000-114	WIPER WHEEL	1
	35 10000-203	CLOSING PIVOT BUSHING	1
(A)	36 10000-250-LH	BEAVERTAIL LH W.A., 2IN	1
	37 10000-302	MOUNT OFFEST MAGNUM, MACHINED	1
	38 10000-307	MAIN PIVOT PIN	1
	39 10000-309	BUSHING, WIPER WHEEL PIVOT	1
(A)	40 10000-317-LH	MAGNUM WIPER WHEEL TORSION SPRING, LH	1
	41 10000-333	SPRING LIMITER BUSHING	1
	42 10000-347	PIVOT BUSHING	3

MANUFACTURED 7/2016 – 2/2018

Yetter Magnum 10000

PART IDENTIFICATION 10000-100-LH (SHOWN) & 10000-1000-RH MAGNUM BASE ASSEMBLY



MANUFACTURED 7/2016 – 2/2018

Yetter Magnum 10000

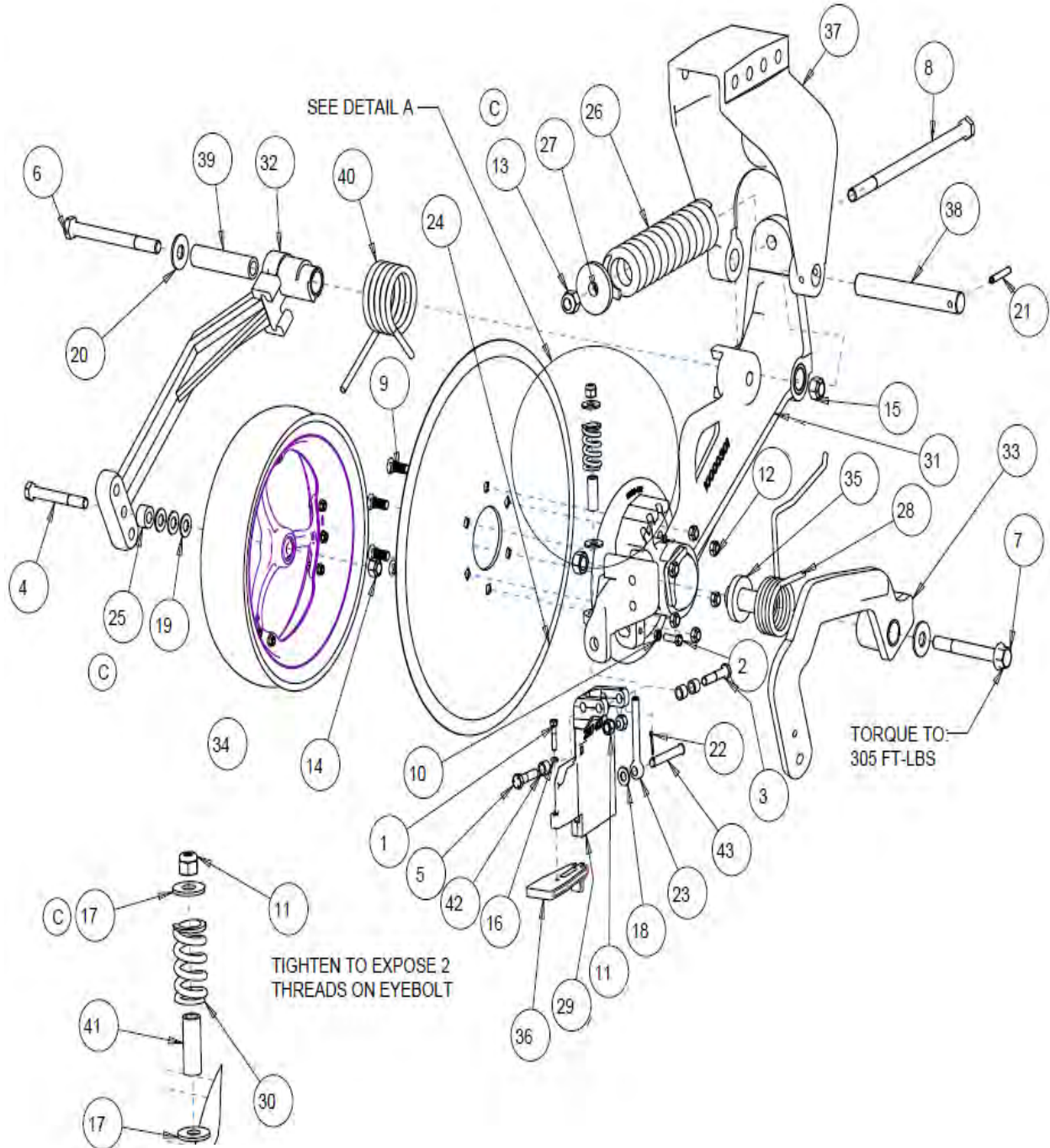
PART IDENTIFICATION 10000-100-LH

ITEM	PART NO.	DESCRIPTION	QTY
1	2502-206	5/16-18 X 1-1/2 HHCS GRADE 5	1
2	2502-244	3/8-16 X 1-1/4 HHCS GRADE 5	1
3	2502-296	1/2-13 X 2-1/2 HHCS GRADE 5	1
4	2502-327	5/8-11 X 5 HHCS GRADE 5	1
5	2502-351	1/2-13 X 2 HHCS GRADE 5	1
6	2502-405	3/4-10 X 8 HHCS GRADE 5	1
7	2502-426	3/4-10 X 6 HHCS GRADE 8	1
8	2502-525	3/4-10 X 6 HHFS GRADE 5 3" THREAD	1
9	2506-306	1/2-13 X 1-1/2 #3 PLOW BOLT	6
10	2520-253	3/8-16 JAM HEX NUT	1
11	2520-359	1/2-13 NYLON LOCK HEX NUT GRADE N8	3
12	2520-362	1/2-13 LOCK HEX NUT GRADE C	6
13	2520-516	3/4-10 NYLON LOCK HEX NUT	1
14	2520-603	5/8-11 TOP LOCK HEX NUT	1
15	2520-604	3/4-10 TOP LOCK HEX NUT	2
16	2525-201	5/16 LOCKWASHER	1
17	2526-351	1/2 STANDARD FLAT WASHER	2
18	2526-352	1/2 SAE FLAT WASHER	1
19	2526-453	5/8 SAE FLAT WASHER	3
20	2526-501	3/4 STANDARD FLAT WASHER	2
21	2530-208	3/8 X 2-1/2 ROLL PIN	1
22	2531-107	1/8 X 1 COTTER PIN	1
23	2570-447	EYEBOLT 1/2-13 X 4-1/4	1
24	2571-279	SMOOTH BLADE .256 X 22.60"	1
25	2967-302	SPACER 3/4"	1
26	2986-342	COMPRESSION SPRING	1
27	2986-405	SPRING BUSHING	1
28	2987-395-L	LEFT HAND TORSION SPRING	1
29	2987-407	LEFT HAND KNIFE	1
30	3000-344	2-1/2" COMPRESSION SPRING	1
31	10000-111-LH	LEFT HAND MAIN ARM ASSEMBLY	1
32	10000-112	WIPER WHEEL ARM ASSEMBLY	1
33	10000-113-LH	LEFT HAND CLOSING PIVOT ARM	1
34	6000-071	WIPER WHEEL	1
	2570-069	BEARING	1
35	10000-203	BUSHING, CLOSING ARM PIVOT	1
36	10000-250-LH	LEFT HAND BEAVERTAIL SEALER	1
37	10000-302	MOUNT OFFSET	1
38	10000-307	PIVOT PIN 1.25" X 9.125"	1
39	10000-309	BUSHING, WIPER WHEEL PIVOT	1
40	10000-317-LH	SPRING, LEFT HAND WIPER WHEEL TORSION	1
41	10000-333	BUSHING, SPRING LIMITER	1
42	10000-347	BUSHING, KNIFE PIVOT	3
43	10000-355	PIN, 1/2 X 3.5	1

MANUFACTURED 3/2018 – PRESENT

Yetter Magnum 10000

PART IDENTIFICATION 10000-100-LH

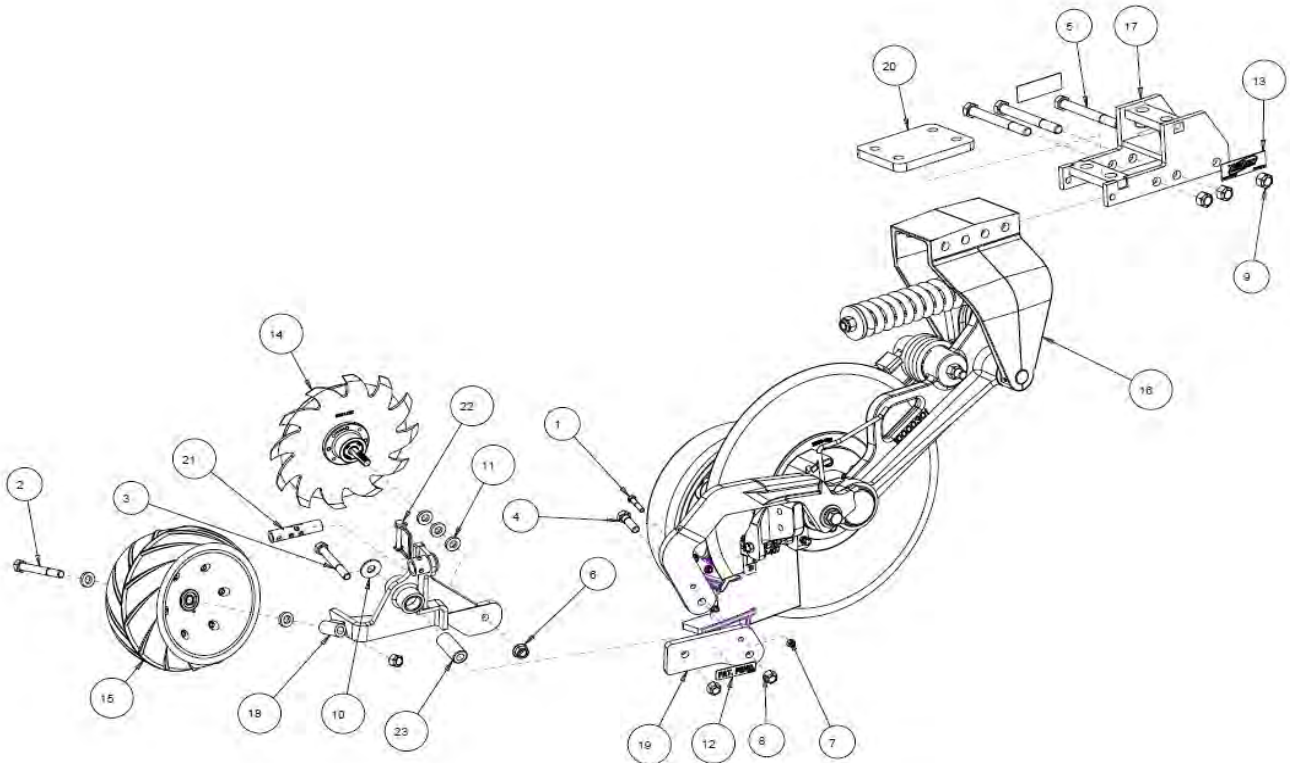


MANUFACTURED 3/2018 - PRESENT

Yetter Magnum 10000

PART IDENTIFICATION

10000-002-LH (SHOWN) & 10000-002-RH
MAGNUM w/ WALKING TANDEM
4" WIDE TOOLBAR, SHORT MOUNT



ITEM	PART NO.	DESCRIPTION	QTY.
1	2502-245	3/8-16 X 1-3/4 HHCS GR. 5	1
2	2502-327	5/8-11 X 5 HHCS GR. 5	1
3	2502-334	5/8-11 X 4-1/2 HHCS GR. 5	1
4	2502-391	5/8-11 X 2 HHCS GR. 5	1
5	2502-509	3/4-10 X 7 HHCS GR. 5	3
6	2520-465	5/8-11 FLANGE HEX NUT GR. 8	1
7	2520-601	3/8-16 TOP LOCK HEX NUT GR. C	1
8	2520-603	5/8-11 TOP LOCK HEX NUT GR. C	3
9	2520-604	3/4-10 TOP LOCK HEX NUT GR. C	3
10	2526-451	5/8 FLAT WASHER	1
11	2526-455	WASHER 21/32 ID. X 1-1/4 OD. X 1/4 THK	5
12	2565-071	PATENT DECAL	1
13	2565-162	YETTER DECAL	2
14	2987-142-L	LH CAST CLOSING WHEEL ASSEMBLY	1
15	6200-363	6.5 X 12 PRESS WHEEL ASSEMBLY	1
	2570-069	40MM BEARING	1
16	10000-100-LH	LH BASE ASSEMBLY	1
17	10000-201	4" MOUNT	1
18	10000-205-LH	LH TANDEM CLOSER PIVOT	1
	10000-332	SLEEVE 1.5" OD. X 1.25" ID. X 0.75" WIDTH	2
19	10000-308	TANDEM MOUNT PLATE	1
20	10000-311	CLAMP PLATE 4" TOOLBAR	1
21	10000-330	ADJUSTMENT TUBE	1
22	10000-334	3/8" WIRE PIN	1
23	10000-361	SEALER PIVOT BUSHING	1

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Mike Hilbrands

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