

H&S MANUFACTURING, INC.

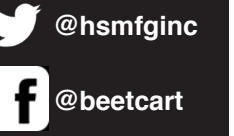


**DESIGNED AND TESTED BY
FARMERS FOR FARMERS**

**AGRICULTURAL EQUIPMENT: BEET CARTS, BROADCAST SPRAYERS
ROW CROP EQUIPMENT**



H&S MANUFACTURING, INC.



H&S MFG., INC.
32506 430TH ST. NW
STEPHEN, MN 56757

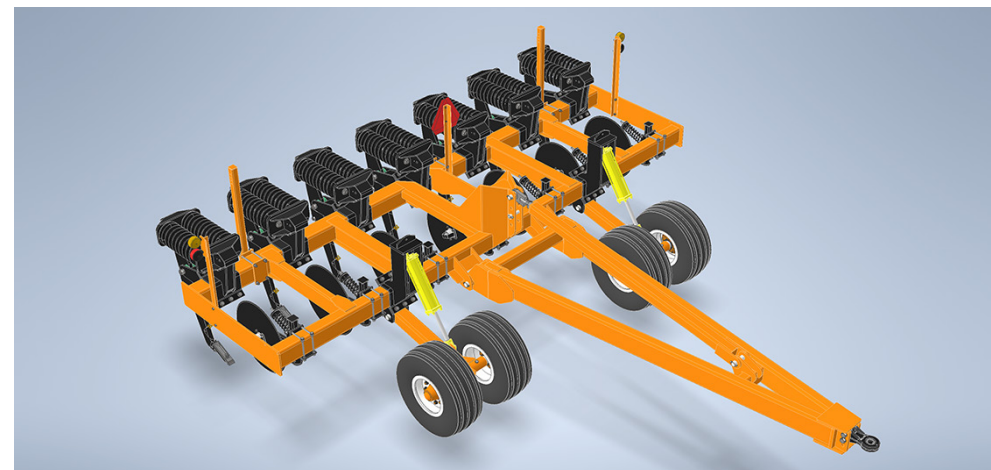
1-800-ROW-CROP
218-478-2229
www.hsmfginc.com





PREMIER PROVIDERS OF BEET

CARTS AND BROADCAST SPRAYERS



HISTORY

H&S began in 1971 by developing row crop equipment for the sugar beet industry in the Red River Valley. In the 50 years since then, product lines continue to expand to meet the ever changing needs of the agricultural industry. More recently, H&S has been a leader in the manufacturing of beet carts and sprayers.

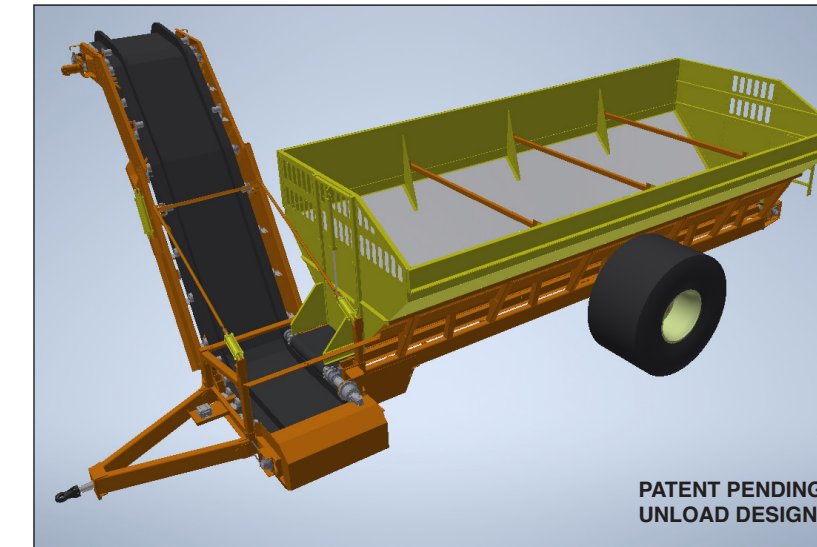
WHO WE ARE

H&S is a team of farmers, engineers, product specialists, salespeople, welders, machinists, painters, and assemblers, all who take pride in designing and manufacturing equipment with the farmer's needs in mind. We hang our hat on creating products with superior quality and durability - farm equipment designed and tested by farmers, for farmers. We strive to align product development with trends which the industry demands. This is what makes H&S "head and shoulders above the rest".

WHAT WE DO

H&S is a premier provider of agricultural equipment. We work to continually upgrade our process and products to be technologically advanced and meet the needs of the future agricultural industry. H&S services customers with timely responses to help our farmers make the best decisions possible and maximize farming efficiency with an optimal H&S product experience.

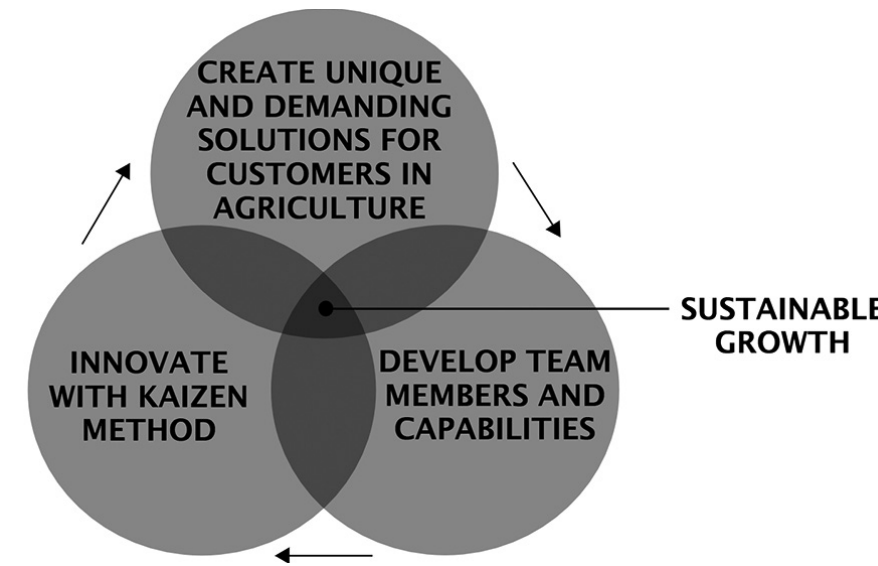
PRODUCT DEVELOPMENT PROCESS



PROTOTYPE TESTING

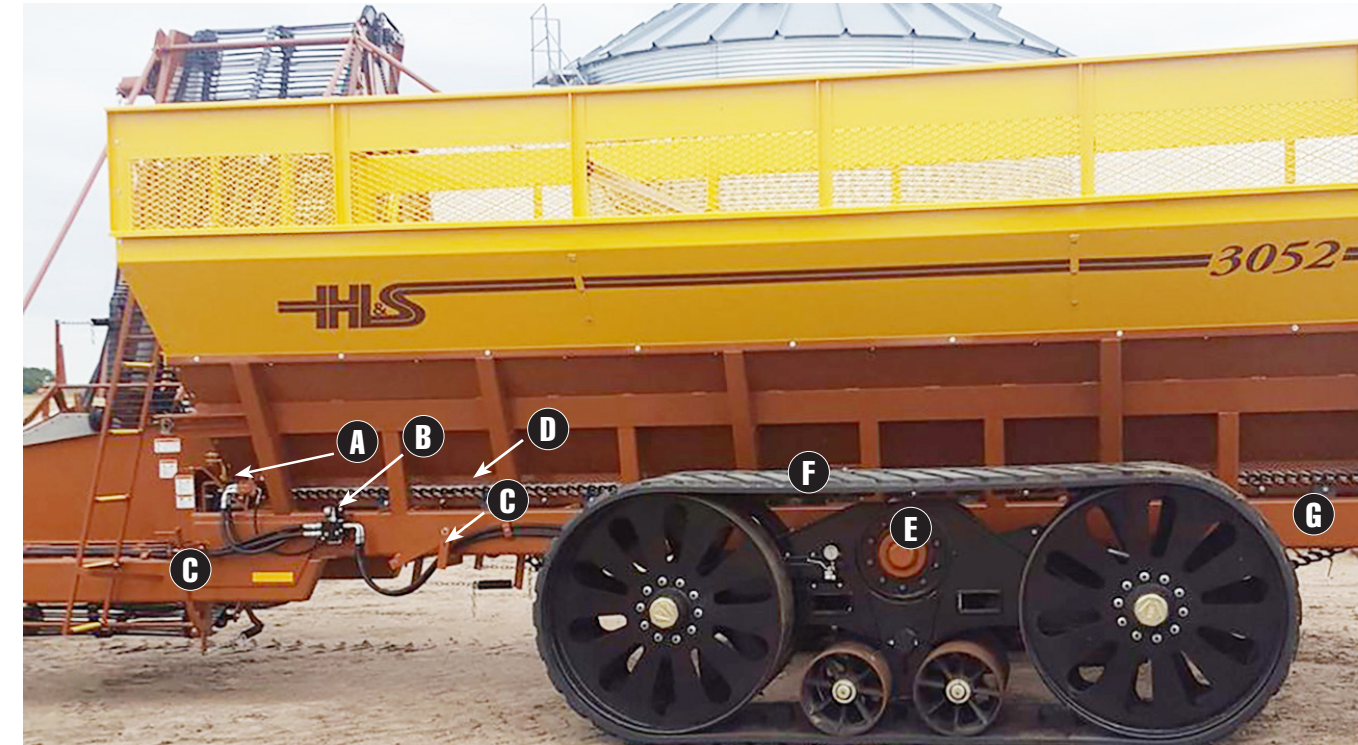
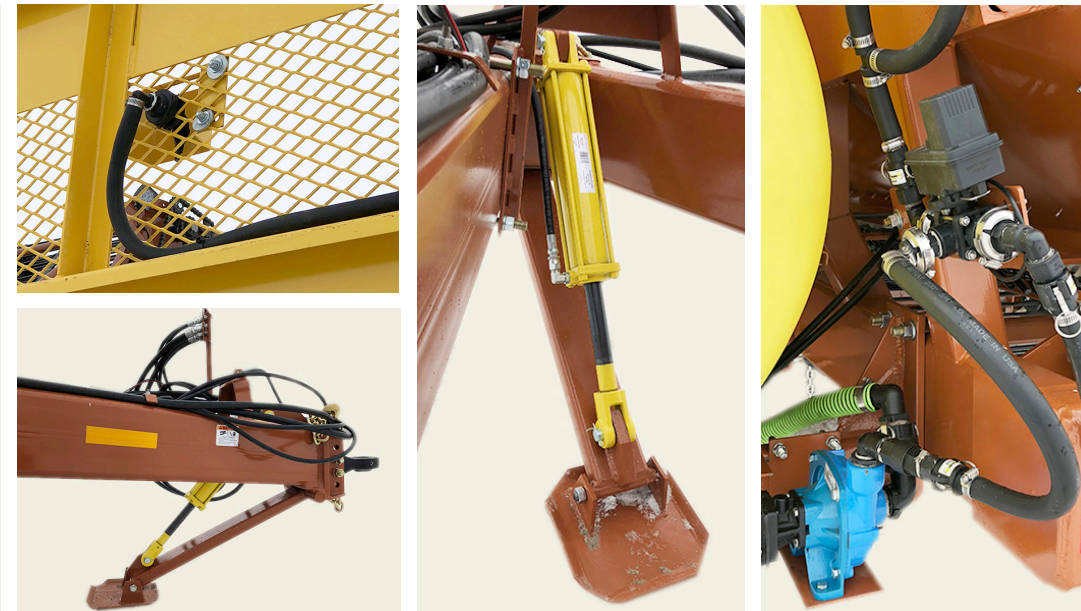


FULL PRODUCTION

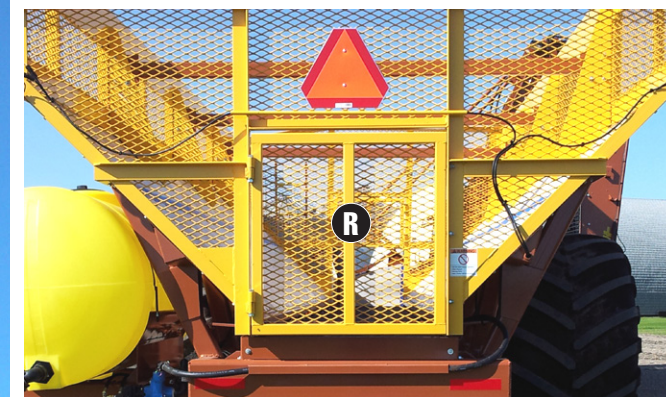




SUGAR BEET CART



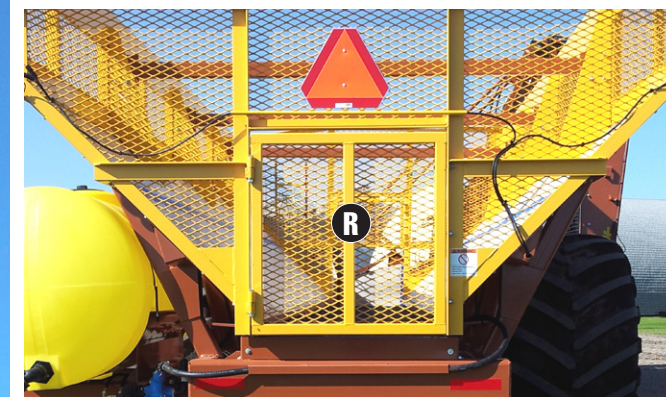
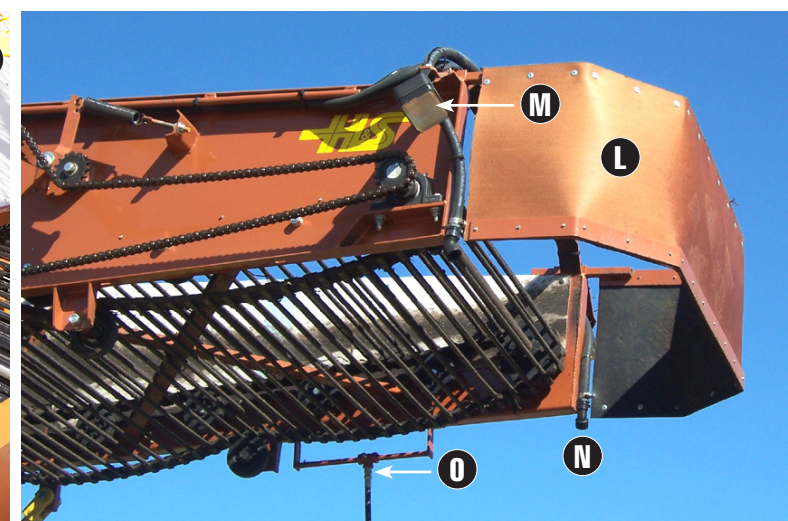
- A. Hydraulic Driven Chain Bed
- B. Hyd. Release Safety Valve
- C. Bottom Chain Tightener
- D. 5/8 x 39 x 2.37 Bed Chain
- E. H.D. Hubs with 22mm Stud Bolt
- F. 900/60Rx32 Bar Grip Tires
*1050/50Rx32 Bar Grip Tires
*Trailed Tracks System
- G. H.D. 10x4 Frame
- H. Wide 1/2x42x2.00 Dodged Elevator Hook Chain Std.
*Optional Belted Chain
- 42" Boom / 1/2 x 42 x 50mm
- 52" Boom / 1/2 x 52 x 50mm
- 64" Boom / 1/2 x 64 x 50mm
- I. *Plastic Side Wall
- J. Front Access Door
- K. Inside Boom Chain Tightener
- L. Boom Chute
- M. Work Lights
- N. Water Outlet
- O. Truck Guide
- P. *300 Gallon Water Kit with Hyd. Pump
- Q. *Bottom Fill
- R. Rear Access Door
*Optional



EXPERIENCE: NEARLY 30 YEARS OF MANUFACTURING SUGAR BEET CARTS CREATES A PRODUCT WITH THE CUSTOMER'S NEEDS IN MIND.

- Competitive price with minimal parts replacement costs and proven resale market holding its value.
- Fast unload while providing scrub cleaning capacity for producer tare incentive.
- Added efficiency to keep harvester moving during the short window of fall beet harvest.
- Water kit options to spray both trucks and tank of cart.
- Tire and tracks options with ability to continue harvest in extreme, muddy conditions.
- Scale option to know your truck weights.
- Hydraulic and/or PTO drive options.

Beet Cart Specifications:				
Main Frame	Heavy Duty 10" x 4"			
Model Size	24ton	30ton	35ton	44ton
Elevator Boom Width	42", 52", or 64" Belted Chain			
Elevator Boom Support	Hydraulic fold with adjustable double boom support braces and 3rd lateral stability brace			
Tire Options	900/60Rx32	900/60Rx32 or 1050/50Rx32	1050/50Rx32	N/A
Track Options	Elmers TT36 or Camso TTS110	Elmers TT36 or Camso TTS110	Elmers TT36 or Camso TTS110	Camso TTS110
Transport Width	11'-2" (3,40m) tank without boom/tires			12'-0" (3,66m) tank
	16'-10" (5,13m) with boom and tires/tracks			
Beet Cleaning	Hopper bed chain along with special, industry leading tare cleaning scrub chain at elevator boom			
Recommended Tractor Engine	200hp	250hp	300hp	400hp
Recommended Tractor Hydraulic Flow	42gpm	48gpm	60gpm	60gpm(+)
Hitch	Bull Pull articulating hitch - Cat. 4			
Standard Features	Hydraulic jack, Light package includes 3 flood lights and safety flashers			
Optional Features	Truck waterkit, Cart tank waterkit, Scale kit			

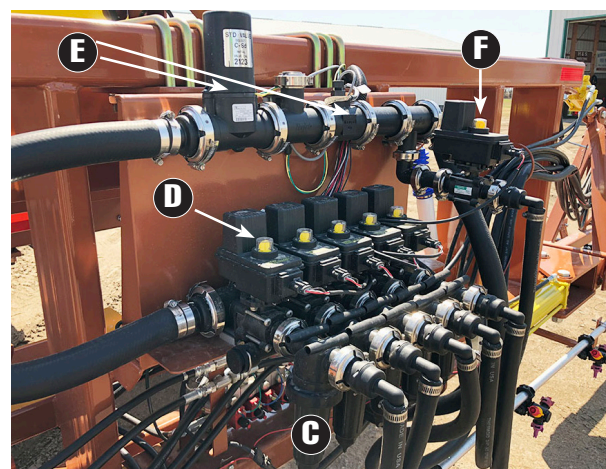
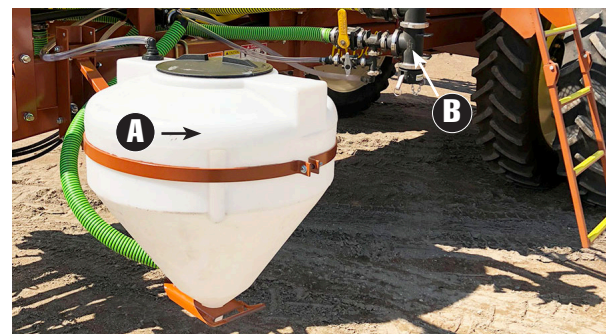




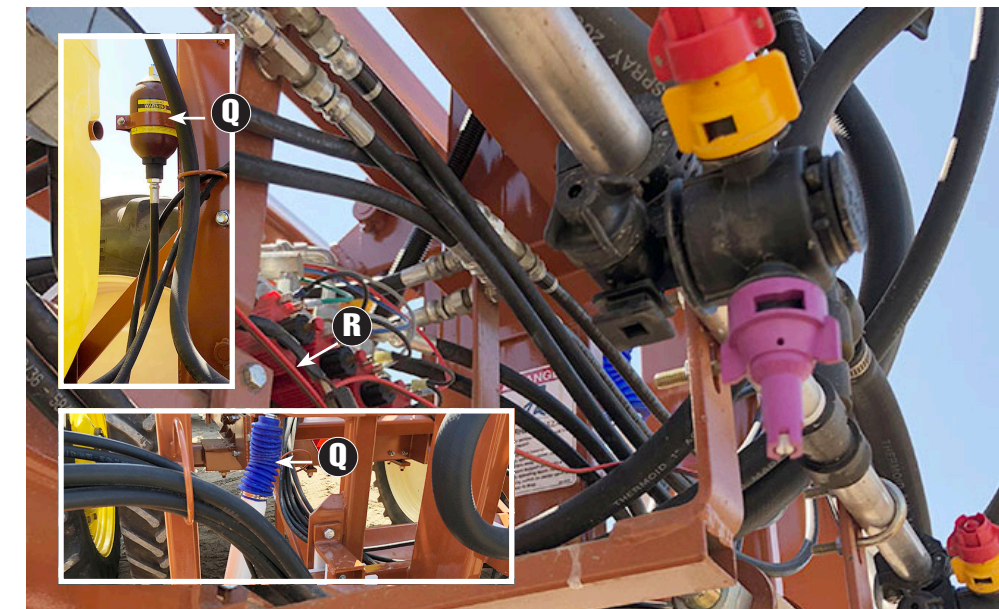
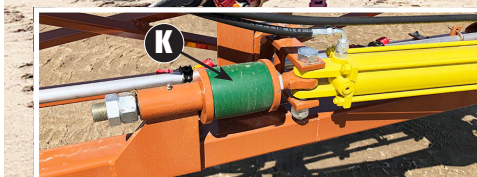
BROADCAST

SPRAYER

A Broadcast Sprayer That is Field Tested... Farmer Approved.



- A. Mix 'n Fill Cone – 15 or 35 gallon on parallel linkage for lowering when filling.
- B. Bottom fill for main tank and rinse tank.
- C. Inline filters optional.
- D. Electric ball valves. Fittings are flanged with O-Rings. Flow back manifold.
- E. Optional Raven Regulator and Flow Meter
- F. Optional electric agitation
- G. Optional 200 gal. boom and tank rinse.



- H. Standard Ace 150 hyd. pump
- I. Optional rate controller
- J. Clean outs are standard for complete rinsing of boom
- K. Urethane cushion wing
- L. Superior boom construction for years of service. Available in 90 ft. to 150 ft. widths.
- M. Wet booms available in aluminum or stainless steel 3/4" & 1" sizes
- N. Optional spring loaded touch down wheels. (Not shown)
- O. Large safety platform with fold-up steps.
- P. 380/90Rx50 or optional 380/90Rx46 tire with large hub and spindle for optional dual extensions.
- Q. Self-leveling boom uses a hydraulic accumulator along with shocks and spring to insure a smooth and level ride.
- R. Electric over hydraulic banks.
- S. All cylinders are ORB fittings, 3,000 PSI and with nitro-steel shafts.



RIDGER, DERIDGER, CULTIVATOR



RIDGER



RIDGER ADVANTAGES

- Eliminates Wheel Tracks
- Holds Moisture
- Warmer Seed Bed Promotes Quicker Emergence

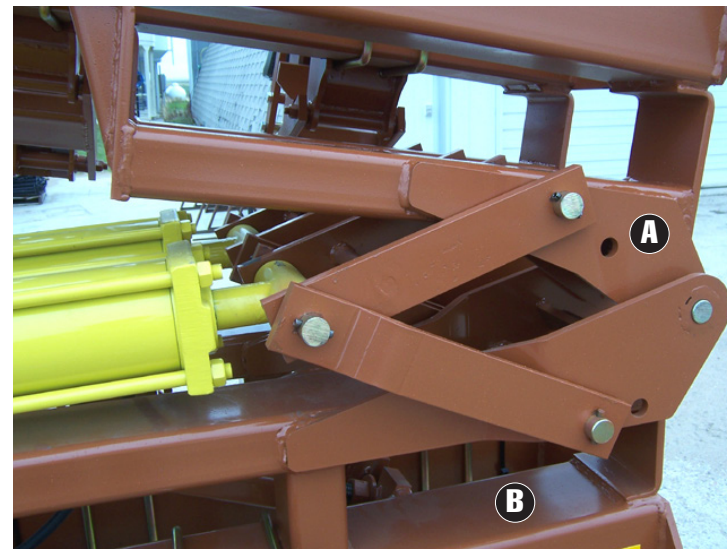


A. Double Folding Hinge

B. 7 x 7 x 1/4" Double Bar

•Eliminate Wing Flex

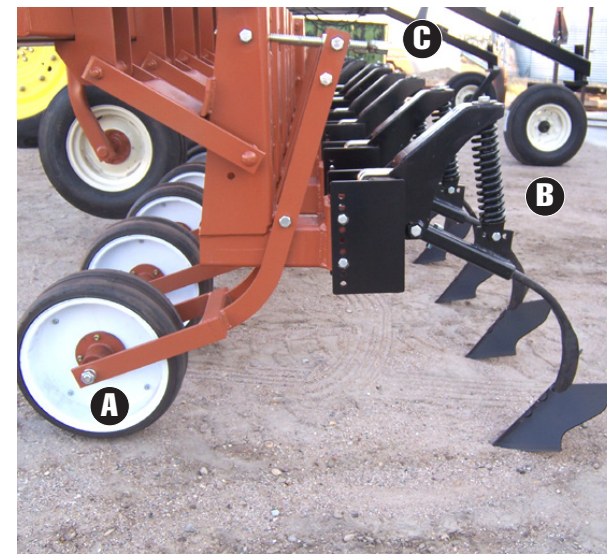
•Increased Strength & Durability



A. 6 x 16 Gauge Wheel

B. High Tension Spring to Maintain Constant Pitch on Shovel

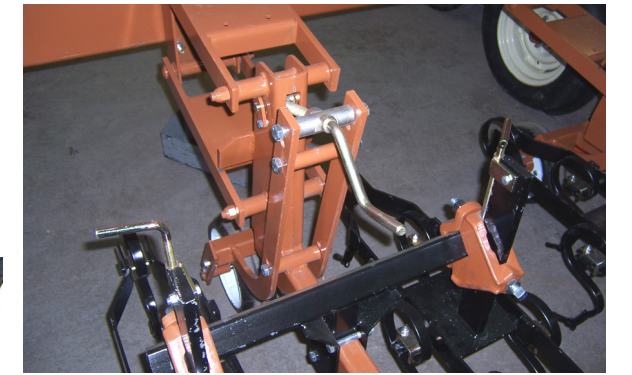
C. Individual Unit Adjustment for Precise Depth Control



DERIDGER

DERIDGING FOR FIELD PREPARATION

Ease of Depth Control • Durable Construction • Various Sizes Available



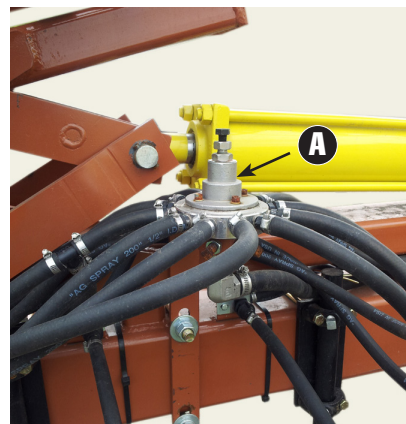
CULTIVATOR





SIDE DRESSER, TRENCH FILLER, TRENCHER

SIDE DRESSER

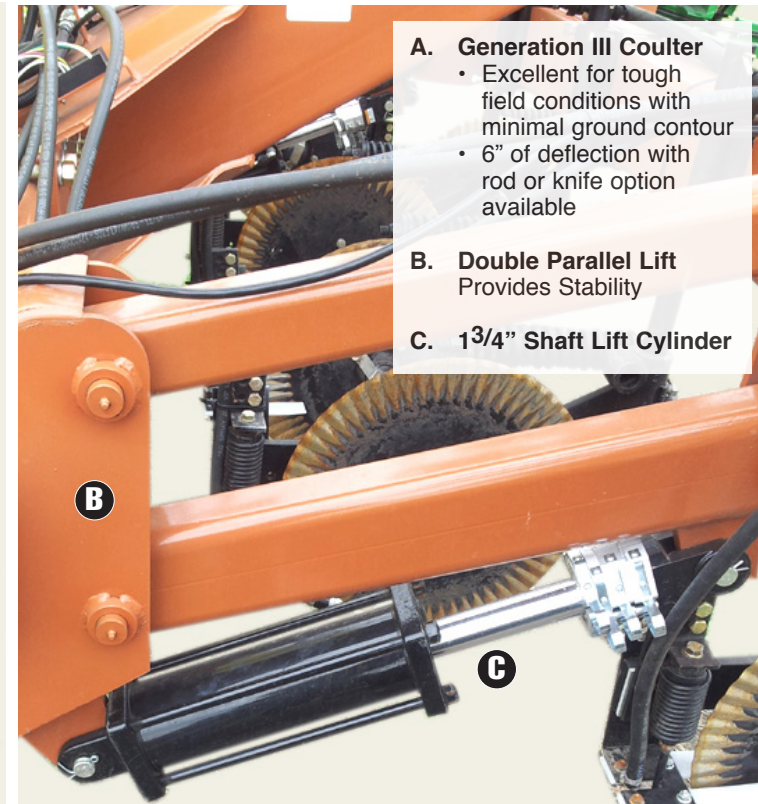
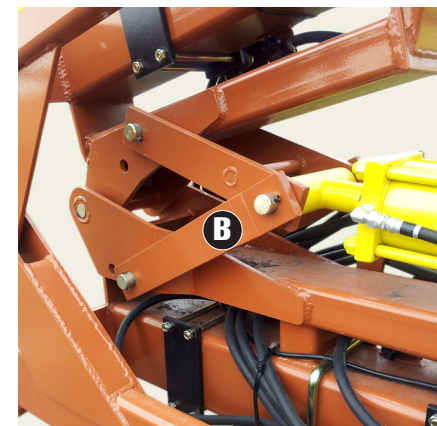


A. John Blue Impellicone

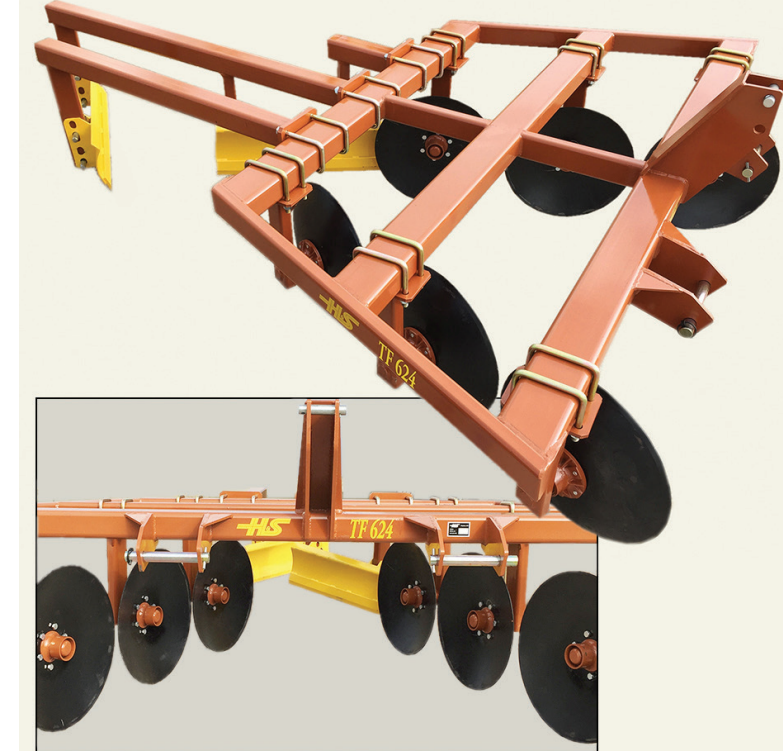
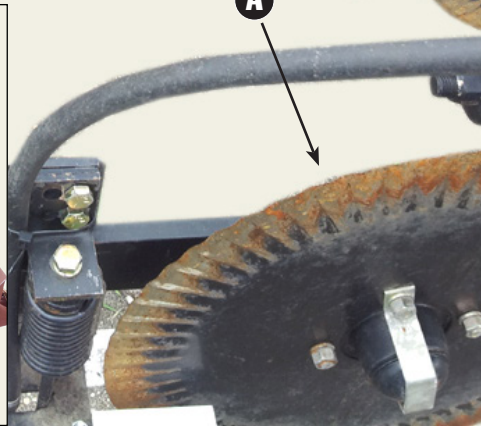
- Allows for efficiency and control of targeted rates
- Variable rate application

B. Double Bar

- Increased strength and durability
- Eliminate wing flex



- A. Generation III Coulter
 - Excellent for tough field conditions with minimal ground contour
 - 6" of deflection with rod or knife option available
- B. Double Parallel Lift Provides Stability
- C. 1 3/4" Shaft Lift Cylinder



DRAIN TILE TRENCH FILLER ADVANTAGES & SPECIFICATIONS

- (6) 24" diameter discs with lateral adjustment.
- Discs close trench and cut up large clumps
- (2) 42" long, staggered leveling blades follow behind discs

- Leveling blades have two settings of vertical adjustment for final hill height allowing settlement over the closed trench
- Heavy duty steel frame
- Quick attach Cat II or Cat III for fast and easy use
- High strength U-Bolt connections for disc adjustment and removable option for rear leveling blade support arms

TRENCH FILLER



TRENCHER ADVANTAGES & SPECIFICATIONS

- Ensures rainfall will run out of the fields quickly
- Removes ridges left by spring tillage
- 28" cone with 2" cutting blade
- Leaves an 8" trench when weighted
- Weight baskets with side attachments for front tractor weights
- Quick point attachment makes for fast and easy use

TRENCHER



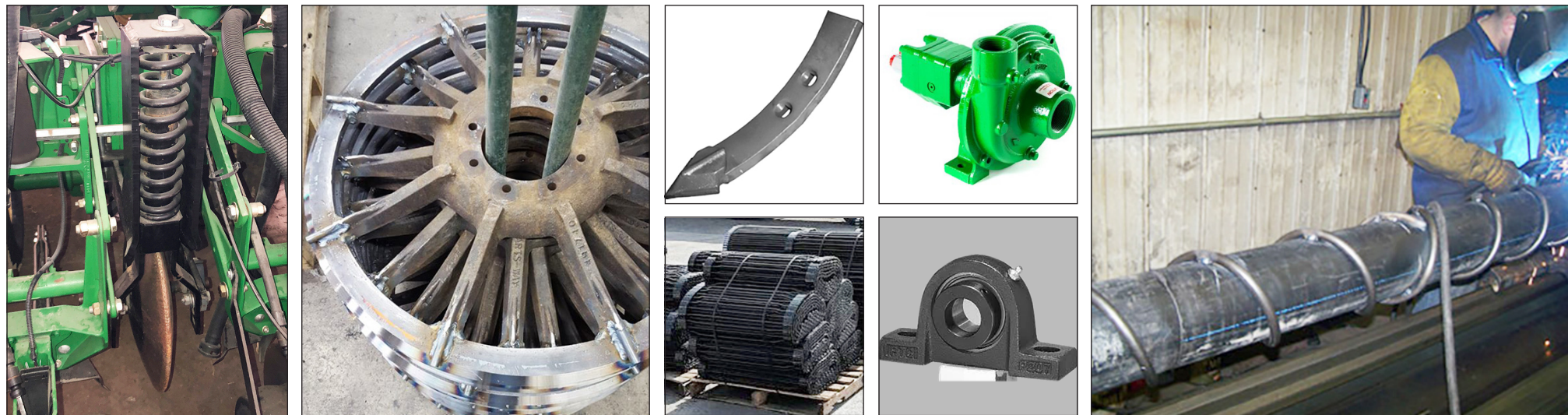
PARTS & REPAIR SERVICE

PARTS

- BEET CART PARTS
- SPRAYER PARTS
- NOFFSINGER CHAIN & FLAILS
- TILLAGE SHOVELS
- PLANTER ATTACHMENTS
- BEARINGS
- HYDRAULICS

REPAIR

- AG EQUIPMENT PARTS REPLACEMENT
- BEET HARVESTER GRABROLL REPAIR
- LIFTER WHEEL RE-RIM
- WELDING AND STRAIGHTENING REPAIR OF METAL STRUCTURES



WASTE CONTAINERS

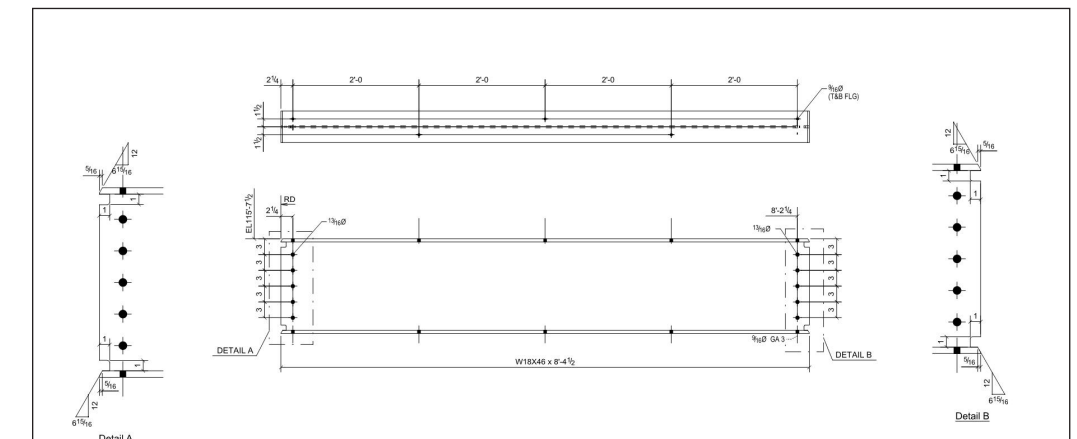
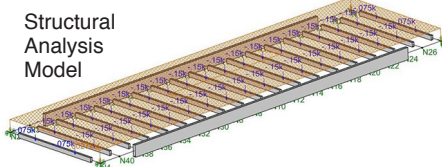
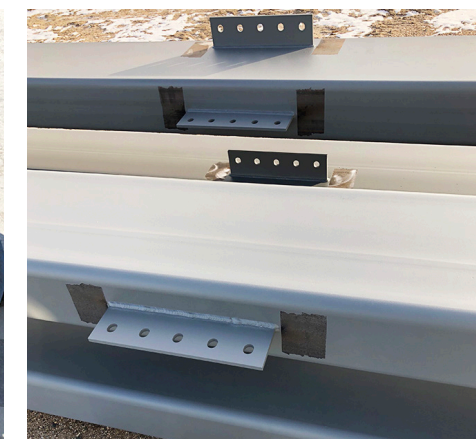
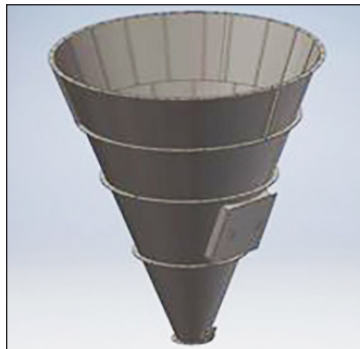
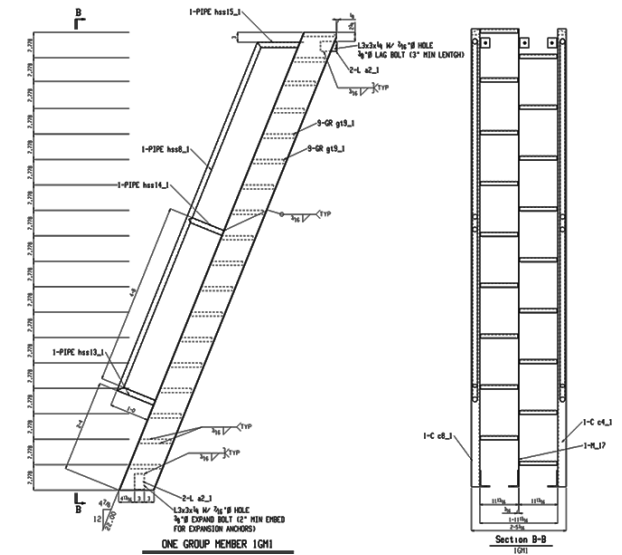
ROLLOFFS, REAR-LOAD DUMPSTERS, FRONT-LOAD DUMPSTERS (CUSTOMIZABLE AT YOUR REQUEST)





H & S CUSTOM FABRICATION

CUSTOM FABRICATION: STRUCTURAL STEEL, MISCELLANEOUS METAL STAIRS & RAILINGS, CUSTOM PRODUCT DESIGN AND FABRICATION (CARBON & STAINLESS STEEL)



MARK	QTY	DESCRIPTION	LENGTH FT. IN.	TOTAL WEIGHT	MATERIAL	REMARKS
B105	2	W18X46	8'-4 1/2"	770	AR6	
TOTAL WEIGHT				770		

1 09/16/2019 EJS FOR FABRICATION
0 08/22/2019 CC FOR APPROVAL

NOTES:
MATERIAL: ASTM A36 UNO
OPEN HOLES: 13/16" UNO

PAINT
PREP: SSPC-SP3
PRIME: STD. PRIMER
FINISH:

PROJECT: GVT ADD'N & REMODEL
LOCATION: ERSKINE, MN
CONTRACTOR: CONSTRUCTION ENGINEERS
DATE: 08/09/2019

H&S Manufacturing, Inc.
32506 430th Street NW, Stephen, MN 56757
218-478-2229

JOB NUMBER: 19003
DESIGNER: EJS
CHECK NUMBER:
DRAWN BY: AJW
B105