

**SPECIFICATIONS FOR ARTICULATED MID-MOUNT 28' DOUBLE STACK GEAR
PUMP MOWER MOUNTED ON TRACTOR**

**ACCEPTABLE TRACTOR BRANDS/MODELS: JOHN DEERE 6145M, NEW HOLLAND
T6.175 W/ AUTO COMMAND TRANSMISSION OR EQUIVALENT**

ACCEPTABLE MOWER BRAND/MODEL: 28' TIGER SABER OR EQUIVALENT

**MOWER PORTION MUST BE BID AS A SEPARATE INSTALLED UNIT AND A
COMPLETE UNIT WITH TRACTOR AS LISTED.**

ALL SPECIFICATIONS ARE CONSIDERED MINIMUM UNLESS OTHERWISE NOTED.

GENERAL

The unit bid must be a current production model that has been in production on the open market for a minimum of one (1) year that meets or exceeds the following minimum specifications.

AXLE STABILIZER:

- An axle stabilizer system shall be installed and shall be compatible with both tractor and mower supplied.
- Axle stabilizer shall be incorporated to realize the entire weight of the boom assembly and apply a load to the right front axle of tractor.
- Axle stabilizer shall utilize a 1 1/2" x 8" hydraulic cylinder to load front axle.
- Axle stabilizer shall be equipped with a safety device to prevent excessive loads to the axle.
- Axle stabilizer shall fully retract (specifically excluding contact with axle or wheel assembly while in the transport position) to prevent oscillation of front axle in the transport position. **VENDOR REQUIREMENT:** Vendor shall describe the axle stabilizer in the transport position.

Saber 28 ft Boom Mowers (Modular Frame / T4F 30S-SB)

It is the purpose of the following specifications to describe an extreme duty hydraulic driven boom mower. Mowing is forward and right of the right rear tire and extended by means of an articulated two section boom with hydraulic break

away. This unit shall be constructed to interchange with any of the following: 60" Side Rotary Mower, 75" Side Flail Mower, 90" Side Flail Mower, and 22" Rotary Ditcher.

The unit will be the manufacturer's current production model with a minimum of (1) one-year previous production, meeting or exceeding the terms of these specifications. Unit's shall be manufacturer's most robust/heavy duty model available. The vendor shall guarantee that a stock of component parts be available at a location convenient to the end user. For any offer to be considered, all items must be of a standard production model, not modified for bid purposes. It is a requirement of this bid that vendor submit the pertinent information requested in each section marked

"(VENDOR REQUIREMENT)". In the event the requested material and responses are not supplied, by the vendor, the bid submitted will be considered non-responsive and will automatically be rejected.

SAFETY AND TESTING

- Shall meet the following industry standards: SAE: J232, J284, J990, J1065. ANSI/ASAE- 201.4, S203.13, S205.2, S279.12, S350, EP363.1, S483, S493. ASTM: A370. (VENDOR REQUIREMENT) Submit compliance report signed by a registered Professional Engineer (PE).
- Unit shall be equipped with a "Red Emergency Stop Button" integrated into the mower control panel and a 7 second brake valve on the cutting assembly.
- Electric Solenoid control transport lock to be integrated into the mower control box.
- A roof mounted light bar must be supplied and installed. Light bar shall include stop, turn, tail, and brake lights.

MAIN FRAME

- Main Frame shall be constructed to be supported on the front tractor bolster, center of tractor and rear axle housings, to absorb side torque and impact of severe applications.
- Main Frame shall be constructed of fabricated 80,000 PSI steel, bolted directly to each side of tractor frame. An underbelly frame member, running under engine, shall be welded, box frame constructed, and connect

the mainframe to each side of tractor (specifically excluding frames over hood designs). A bolt on mast assembly shall have an integral swing cylinder as a welded assembly with the mast assembly.

- Main Frame shall have a bolt on mast assembly to allow easy change from Boom Mowers to Side Mower attachments. Weldment shall bolt face to face with tower and shall have a mounting surface with not less than 10, 3/4" grade 5 bolts. Mounting surface shall be constructed of 80,000 lbs. steel 1/2" thick. (VENDOR REQUIREMENT) Vendor shall submit diagram of mast mounting.

BOOM SWIVEL BRACKET

- Boom swivel device shall be mounted with a minimum clearance to the ground of 40"
- Must be able to fully extend all boom cylinders in order to achieve maximum boom reach while rear tractor tire is within 6 inches of a minimum 32-inch tall guard rail. This specification allows for maximum boom reach and minimized traffic lane incursion.
- Swivel shall be a welded box construction, with a double section swivel cylinder tang, and a vertical bearing boss of not less than 3 1/2" diameter, with a 7/16" wall thickness. A high-strength bearing, steel backed, porous bronze inner structure, acetal resin overlay, with grease pockets built in shall support a 2 1/2" vertical pin. Pin shall be constructed of 4140 cold drawn steel, pre-hardened (heat treated), to a minimum yield of 105,000 PSI, pin shall be zinc plated. (VENDOR REQUIREMENT) Submit manufacturer of bearing, model and size.
- Swivel shall connect to inner boom cylinder with a greaseless spherical bearing. (VENDOR REQUIREMENT) Submit type of bearing and size.
- Swivel shall be supported by a greaseless thrust washer to eliminate galling between swivel bracket and boom mounting bracket. (VENDOR REQUIREMENT) Submit ID and OD dimensions and thickness.
- Hydraulic Hoses shall be routed thru hose clamp/guides with hose guards to prevent chaffing.
- Horizontal swing cylinder shall have an internal cushion device to limit flow when boom is operated to the forward boom position.

PRIMARY BOOM

- Primary boom shall be an 8" x 6" structural tube of not less than 100,000 PSI Domex® steel and have two inner, one-piece, reinforced cylinder attaching ribs with the end welds strategically welded around end of rib to the boom upper surface. Inner reinforcement shall be 1/4", 100,000 PSI Domex® steel anchor plates, saddle mounted to the top and sides of boom.
- Top anchor plate shall be structurally welded to main tube and have 4, 5/8" x 3 3/4" core welds on each side connecting top anchor plate to inner primary boom tube. Inner end of Primary boom shall have a 1 1/2" diameter 105,000 PSI yield, hardened, nitride surface pin, with a high-strength bearing, steel backed, porous bronze inner structure, acetal resin overlay, with grease pockets built in. (VENDOR REQUIREMENT) Submit a complete description of boom, materials, and boom reinforcements.
- Pressure and return lines shall be pre-formed steel tubes, or hoses, with hoses at pivot points and mounted to back of boom. (Specifically excluding hoses and tubing inside or front of booms)
- Top mounted double acting lift cylinder shall have a nitrogen accumulator.
- Cylinder end attach points shall have replaceable bearings. Primary boom lift cylinder shall not be less than 5" in diameter and 25" of stroke. Secondary lift cylinder shall not be less than 4 1/2" diameter and have 26 1/2" of stroke. Both cylinders shall be equipped with spherical bearings located at each end of the cylinders. Cylinders shall be welded, double acting and mounted to top of boom.

SECONDARY BOOM

- Secondary boom shall be constructed of with a minimum of, 100,000 PSI yield Domex® steel, with a 6" x 4" tube, reinforced at all stress points, including both top and sides of secondary boom, with 100,000 PSI Domex® steel. Cylinder anchor, for head roll, shall be 2, 3/8" A514 steel ears integrally welded to secondary boom.
- Pressure and return lines are preformed steel tubes and hoses mounted to rear of boom.
- Deck roll cylinder shall be 4" diameter and have a stroke of not less than 15". Cylinder shall be welded, double acting and mounted to top of boom.
- Outer end of secondary boom shall be boxed reinforced to mounting boss. Boss shall be 2 1/4" diameter A513, DOM tubing integrally welded into box section. The connecting pin shall be 1 1/2" diameter and shall be

supported by replaceable, steel backed bearings, of porous bronze inner structure, and acetal resin overlay with grease pockets built in.

- Cutter head shall be connected to deck roll cylinder with an H type rotating device attached to head clamp with 1 1/2" diameter pins supported with replaceable steel backed bearings, of porous bronze inner structure, and acetal resin overlay with grease pockets built in.
- Outer end of secondary boom shall have an integrally designed mounting boss, box sectioned into the boom. (Specifically excluding external boom end reinforcements)

HYDRAULICS

- Tandem section gear pump shall be direct drive from the tractor front crankshaft adapter.
- Pump shall be direct drive from the tractor front crankshaft adapter. Front drive shall have a steel adaptor mounted to the tractor's crankshaft pulley with bolts through steel bushings, mounted into rubber bushings. (rubber mounted engine design shall have a double u-joint pump drive shaft in lieu of rubber bushing design). (VENDOR REQUIREMENT) Submit a complete description of shaft attachment and number of u-joints if supplied.
- Pump driveshaft rated not less than 122 HP.
- Hydraulic Oil Cooler shall be mounted on the LH side of the tractor support frame. The hydraulic cooler shall have bypass protection. This system will have on / off controls located in the cab of the tractor. These controls will be equipped with a reversing mode to remove debris from radiator fins. Coolers mounted in front of tractor that block lights and are susceptible to damage will not be accepted.
- A hydraulic temperature gauge shall be incorporated into the mower system control box and be located in the cab of the tractor.
- Reservoir shall be internally treated against corrosion with industry approved chemical agent at time of manufacture. Reservoir shall have a in tank filter rated at 75 GPM, 10-micron, 200 beta, element with bypass, restriction gauge, minimum (1) one PSI pressure at suction outlet and have ball valve at suction line. Tank pressurized to 3 PSI. (VENDOR REQUIREMENT) Submit material used to treat reservoir. Type, design and micron size of filter element.
- Reservoir shall be mounted in tractors left hand rear wheel well. Reservoir shall have sufficient clearance for proper cooling and shall be a minimum

37 gallons of oil in an operating condition. Reservoir shall have a minimum of not less than 5" clearance (oil cold) from top of reservoir for expansion. Hydraulic fluid level and temperature gauge to be built-in reservoir.

- Hydraulic pressure connections shall meet SAE O-ring and JIC standards.
- Tandem Pump shall be front mounted, cast steel housing, steel gears, rated at 3500 PSI, 45 GPM and 96 HP input. (specifically excluding piston type pumps and cast aluminum housing pumps)
- Suction hose shall be unrestricted (Specifically excluding suction filters and screens)
- Hydraulic oil shall meet a cleanliness standard of ISO 46 rating, and the ISO Code 16/14/11 or better. (VENDOR REQUIREMENT) Submit report of oil sample.
- Hydraulic hoses and tubes shall be cleaned with pneumatic, triple projectile cleaning, and shall maintain a JDS-G169, class 5.6. ISO cleanliness rating. (VENDOR REQUIREMENT) Submit method of cleaning and standard met.
- Motor shall have cast steel housing with steel gears.
- Mower control valve shall be an electrically controlled, pilot operated. Logic elements shall be used to control pressures and ramp up and down speed to prevent excessive pressure spikes to system. Valve shall stop mower from turning in the off position and will not cause a restriction to generate drift while in the off position.
- Mower control valve shall stop cutter assembly in maximum of 7 seconds from full RPM. (VENDOR REQUIREMENT) State time to stop from full RPM.

JOY-STICK CONTROL LIFT VALVE

- Joy-Stick Valve Option: Shall be an electro-hydraulic, load sensing valve. Valve shall have interchangeable spools and shall have a manual over-ride for each section, and 12-volt electrical actuation.
- Valve (Joystick) shall have load-independent flow control, oil flow to individual function is independent of the load pressure of the function. Valve shall have built in pressure relief in pump side module (PVP), with system capabilities of pressures of not less than 4,350 psi continuous, and 4,640 psi intermittent. PVP shall have a pressure gauge connection for service and have an open center option for fixed displacement pumps.
- Valve (Joystick) body shall have interchangeable spools, integrated pressure compensator, check valves, and different spool variants. Valves shall be

configured with manual over-ride levers on one end and an electronic actuation module on the other.

- Electrohydraulic (Joystick) actuation module shall integrate directly with proportional valve body. Module shall have integrated electronics, sensors, and actuators, and shall have a feedback transducer measuring spool movement in relation to input signal, module shall control the direction, velocity, and position of main valve spool. Module shall have automatic active fault monitoring, and directional indication and LED light indication. Module shall have low hysteresis and shall have attachment for a sealed Deutsch connector. (REQUIRED) Vendor shall provide module hysteresis value, brand of connector, and IP rating of connector.
- Joy-Stick controller shall be an ergonomic right-hand control, with two proportional functions on X-Y mode, and a top grip to house two proportional rollers. Controller handle shall have a leather-like grained surface to allow hand to breathe during operation. Controller rollers shall have a spring centered potentiometer with a working range of + or - 42°. Controller shall be adjustable with dead band adjustment, independent voltage limiting potentiometers for each function, and integrated direction switches for each proportional module. Controller shall have integral cable plug in, and an RF shielded cable shall be supplied by the manufacturer. (VENDOR REQUIREMENT) Vendor shall state the manufacturer, model, and type of electronic module, joystick, and valve.

COUNTERWEIGHT

- Counterweight, total ballast weight (wheel weight and Beet Juice Solution) shall be a maximum of 3750 lbs. VENDOR REQUIREMENT: Wheel weight shall be cast steel, mounted flush to outside of wheel, and shall weigh not more than 2550 lbs. (specifically excluding flame cut steel and or frame mounted weights) Vendor to state total ballast weight and describe and list wheel weight.

OPERATOR PROTECTION

- Shall have 1/2" right side, hard surfaced, polycarbonate protection for operator. Installed into the original cab manufactured door and or side window. (VENDOR REQUIREMENT) State thickness, manufacturer, and type of hard surface to polycarbonate.

STOW SYSTEM

- Boom shall stow to the rear of tractor, with all hydraulic pressure relieved from the boom system. An electro-hydraulic lock-up, engaged from the operator's position, shall prevent cutter head from moving while in the transport position.
- Stow system shall consist of a welded assembly holding the secondary boom. The system shall arch over the tractors 3pth hitch area and allow for use of the 3-point hitch while the boom is not in the transport position. The stow system shall directly attach to an axle brace on the right- and left-hand side for strength and support.
- The upper stow assembly shall be constructed of 1/4" x 4" x 4" square tubing saddle mounted to axle brace extending above, below, and behind the right rear axle.
- The "J-Hook" stow plate shall be a welded assembly, attached to upper stow assembly. The J-hooks shall contact both sides of the secondary boom and rest upon a quantity of (2) 2 1/2" pucks welded integral with the secondary boom. The lower hook to engage the secondary boom puck shall not be more than 24" above the axle center line and not more than 48" behind the axle center line.
- **VENDOR REQUIREMENT:** Vendor shall state maximum height of stowed boom for transport. Vendor shall also state the stow dimension above and behind axle center line.

50" Rotary Head

CUTTING HEAD:

- Shall be constructed of 110,000 PSI yield Domex® steel 1/8" deck and 1/4" thick side walls and (4) four trapezoidal formed 50,000 PSI Domex steel reinforcements. Top to be continuously welded for strength and eliminate debris from collecting under reinforcements. (VENDOR REQUIREMENT) Vendor shall indicate manufacturers material, PSI, and type of welding.
- Shall have full length replaceable abrasion resistant skid shoes.
- Rubber safety shield shall be bolted to back side of deck.
- Safety shield shall be operated mechanically and shall extend below the cutting plane. Safety door shall be constructed of 100,000 PSI Domex Steel and meets all ANSI / SAE tests for rotary mowers.
- Head shall weigh no less than 805 lbs.

- Head shall rotate 180° around outer boom and cutter head shall have 50" of actual cut.
- Cutter head attachment assembly shall be fully welded and integrated into the cutter head design. (VENDOR REQUIREMENT) Vendor shall provide line drawing of pivot assembly.

SPINDLE:

- Spindle shall be (1) one piece forged and heat treated with integral 7 1/4" O.D. drive hub. (specifically excluding multi-piece shafts and direct drive spindle assembly's) (VENDOR REQUIREMENT) Vendor to provide line drawing of spindle indicating overall length, diameter of cutting assembly attachment, and material used, including material yield strength.
- Spindle shall be attached to hydraulic motor by a flexible coupler and dust cover. (Specifically excluding direct drive motor/spindle assembly's) (VENDOR REQUIREMENT) Vendor shall describe spindle motor attachment.
- Spindle assembly shall have minimum torsional shear capacity of 4,174 ft-lb torque, 231,000 PSI yield rotational strength and distribute load over 169 sq. inch area. (VENDOR REQUIREMENT) Vendor shall provide size of attachment, number, grade, and size of bolts used to attach.
- Spindle shall have stationary wire wrap protection. Wire wraps shall be a minimum of 4 3/8" x 4 3/4", 3/8" thick. The wraps will also act as reinforcements for spindle housing. Wraps shall be not less than 1/16" from the drive spindle. The top of spindle housing shall have 2" x 3 1/2", 3/8" thick welded reinforcements. (VENDOR REQUIREMENT) Vendor shall describe wire wraps.
- Spindle shall be mounted in sealed, double tapered roller bearing, grease reservoir with an O-ring plug and port to drain old grease. Assembly shall be filled with synthetic grease. (Specifically excluding barrel and spherical bearings) (VENDOR REQUIREMENT) Vendor to indicate manufacture and type of bearing.
- Spindle shall rotate 19,000 FPM blade tip speed at rated (2,300) tractor RPM. (VENDOR REQUIREMENT) Vendor shall indicate speed.
- Spindle drive area shall be enclosed and fully protected from outside debris entering into the drive coupler.

KNIFE CARRIER:

- Shall be one piece, laser cut, 100,000 PSI, rectangular steel bar. The bar shall not be less than 7 1/4 "x 41 5/16 " x 1 1/4", bar shall be tapered to 5" at the knife bolt mounting holes, and attach to spindle with (6) six, 5/8" x 1 3/4" NF Grade 8, mounting bolts. Mounting bolts shall be recessed so as the bolt head is below the surface level of the bar. The bar shall extend a minimum of 5 3/8" beyond the center of the knife mounting hole. (VENDOR REQUIREMENT) Vendor shall provide line drawing or exploded parts drawing of knife carrier
- Shall have 2 free swinging 360 degree, 5/8" x 5 x 18 3/4", single edge, flat (no bends), 5/8" brush knives
- Knives shall be attached by a 1 1/8" x 3 1/4" shouldered and keyed bolts, backed by grade 8 washer spacers and hex lock nuts
- Cutter knives shall be shot peened with a chamfered bolt hole

60" Rotary Head

CUTTING HEAD:

- Shall be constructed of 110,000 PSI yield Domex® steel 1/8" deck and 1/4" thick side walls and (4) four trapezoidal formed 50,000 PSI Domex steel reinforcements. Top to be continuously welded for strength and eliminate debris from collecting under reinforcements. (VENDOR REQUIREMENT) Vendor shall indicate manufacturers material, PSI, and type of welding
- Shall have full length replaceable abrasion resistant skid shoes
- Rubber safety shield shall be bolted to back side of deck
- Safety shield shall operate hydraulically from operators position and shall extend below the cutting plane. Safety door shall be constructed of 100,000 PSI Steel and meets all ANSI / SAE tests for rotary mowers. (VENDOR REQUIREMENT) Vendor shall indicate door protection type and maximum hydraulic pressure required to maintain door placement
- Head shall rotate 180 degrees around outer boom
- Head shall weigh no less than 845 lbs.
- Head shall have 60" of actual cut

SPINDLE:

- Spindle shall be (1) one piece forged and heat treated with integral 7 1/4" O.D. drive hub. (specifically excluding multi-piece shafts and direct drive

spindle assembly's) (VENDOR REQUIREMENT) Vendor to provide line drawing of spindle indicating overall length, diameter of cutting assembly attachment, and material used, including material yield strength

- Spindle shall be attached to hydraulic motor by a flexible coupler and dust cover. (Specifically excluding direct drive motor/spindle assemblies)
- Spindle assembly shall have minimum torsional shear capacity of 4,174 ft-lb torque, 231,000 PSI yield rotational strength and distribute load over 169 sq. inch area. (VENDOR REQUIREMENT) Vendor shall provide size of attachment, number, grade, and size of bolts used to attach
- Spindle shall have stationary wire wrap protection. Wire wraps shall be a minimum of 4 3/8" x 4 3/4", 3/8" thick. The wraps will also act as reinforcements for spindle housing. Wraps shall be not less than 1/16" from the drive spindle. The top of spindle housing shall have 2" x 3 1/2", 3/8" thick welded reinforcements. (VENDOR REQUIREMENT) Vendor shall describe wire wraps
- Spindle shall be mounted in sealed, double tapered roller bearing, grease reservoir with an O-ring plug and port to drain old grease. Assembly shall be filled with synthetic grease. (Specifically excluding barrel and spherical bearings) (VENDOR REQUIREMENT) Vendor to indicate manufacture and type of bearing
- Spindle shall rotate 19,000 FPM blade tip speed at rated (2,300) tractor RPM. (VENDOR REQUIREMENT) Vendor shall indicate speed
- Spindle drive area shall be enclosed and fully protected from outside debris entering into the drive coupler

KNIFE CARRIER:

- Shall be one piece, laser cut, 100,000 PSI, rectangular steel bar. The bar shall not be less than 7 1/4 "x 41 5/16 " x 1 1/4", bar shall be tapered to 5" at the knife bolt mounting holes, and attach to spindle with (6) six, 5/8" x 1 3/4" NF Grade 8, mounting bolts. Mounting bolts shall be recessed so as the bolt head is below the surface level of the bar. The bar shall extend a minimum of 5 3/8" beyond the center of the knife mounting hole. (VENDOR REQUIREMENT) Vendor shall provide line drawing or exploded parts drawing of knife carrier
- Shall have 2 free swinging 360o, 5/8" x 5 x 18 3/4", single edge, flat (no bends), 5/8" brush knives

- Knives shall be attached by a 1 1/8" x 3 1/4" shouldered and keyed bolts, backed by grade 8 washer spacers and hex lock nuts
- All knives to be shot peened with a chamfered bolt hole.

MOUNTING:

- Head shall mount to boom with a tube clamp assembly (specifically excluding, direct bolt on cutter heads). (VENDOR REQUIREMENT) Vendor shall supply line drawing of cutter head attachment.
- Steel Tube shall not be less than 4" X 4", Clamp shall have not less than 6, 5/8", Grade 8 bolts, clamping assembly to tube.

28' BOOM DIMENSIONS (Specify Dimensions with 50" Rotary Head):

- Reach Out 28.77 feet
- Reach Down 15.96 feet
- Reach Up 26.05 feet
- Reach In 6.80 feet

PARTS AND SERVICE

- Each bidder must be a manufacturer's franchised dealer that must have parts, sales & service, service trucks within 250 miles on the spreadsheet for regional address attachment

Operation and Maintenance:

- Successful bidder shall be required to furnish a qualified individual(s) to provide operator preventative maintenance & safety orientation for approx. four (4) hours at each delivery location.

Safety and Testing

- Due to the severe mowing conditions, safety tests are a requirement for the operator's safety and highway traffic safety. All equipment must meet or exceed the requirements on attachment D.

Product Liability Insurance

- Suppliers shall include a copy of mowing equipment manufacturer's **Certificate of Insurance for Product Liability of at least \$25,000,000 for the products** subject to its bid.

SPECIFICATIONS FOR TRACTOR, 116 PTO HP, 4WD HEAVY DUTY BOOM MOWER
TRACTOR

**ACCEPTABLE BRANDS/MODELS: JOHN DEERE 6145M, NEW HOLLAND T6.175 W/
AUTO COMMAND TRANSMISSION, OR EQUIVALENT**

ALL SPECIFICATIONS ARE CONSIDERED MINIMUM UNLESS OTHERWISE NOTED.

- Shipping Weight Unballasted (S.A.E.): Minimum: 12,555 lbs.
- Engine: Tier 4B, turbocharged, air-to-air intercooled diesel, w/cold starting aid. Must be B-20 compatible while maintaining full warranty.
- Fuel Moisture Separator: Required
- Cylinders: 4-cylinder frame-mounted
- Displacement: 4.5L; 274 cubic inch minimum
- PTO Horsepower (SAE): 116 hp minimum
- Rated Engine Power (ISO): 145 hp minimum
- Transmission: Minimum 16F/16R, w/left hand power reverser, power shift through 4 gears in each of the four ranges
- Clutch: Wet
- Main Tractor Hydraulic System: Direct gear driven
- Selective Control Valves: 2 mechanical minimum
- Main Hydraulic Pump: Load Sensing Variable Displacement Pump
- Front Mount Crankshaft for Hydraulic Pump Drive: Required
- Hydraulic Pump Flow at a Single SCV: 114 L/min
- Remote Hydraulic Valves: Two (2) sets of dual remotes from tractor main hydraulic system
- Exhaust: Vertical
- Final Drive: Planetary
- Rear Axle: Bar Axle, Flange not acceptable
- Differential Lock: Required
- Brakes: Wet disk
- PTO w/Guard & Wet Clutch: 540/1000, electric hydraulic engagement.
Digital PTO speed indicator

- Adjustable Telescopic Sway Bars: Right & left side of the draft lift arms, tube type with pins (**NOTE:** Adjustable chains are not acceptable) Dealer installed is acceptable.
- Hitch: Category 2, 3-point w/telescopic link ends w/top link
- Draft Sensing Method: Lower Link Required
- Wheels: Bar or Rack & Pinion Thread width to be delivered approximately 76" center to center.
- Factory Cab: Factory installed w/heater & air conditioner, ROPS (Roll-Over Protection Structure). Items advertised as standard to include tinted safety glass. OSHA & ANSI approved.
- Seat: Spring suspension, w/seat belt & arm rest
- Digital ground speed indicator, dash mounted- required
- Manufacturer Standard Gauges: **1)** Lighted Instrument Panel; **2)** Tachometer; **3)** Electric Hour Meter; **4)** Temperature Gauge; **5)** Warning Lights for Oil Pressure & Alternator; **6)** Fuel gauge; **7)** PTO Warning Light or Buzzer.
- Steering: Power, w/tilt & telescopic column
- Throttle: Hand & Foot
- Electrical System: 12-volt, key start, 120 AMP alternator, 1230 CCA battery.
- Fuel Capacity: 52.2 gallons minimum
- Lighting Package: Two (2) headlights; two (2) taillights
- Warning Flashers: Required
- Rear Fenders: Required
- SMV (Slow Moving Vehicle) Emblem: Required
- Color: Manufacturer standard
- Unit to Contain All Equipment Advertised as Standard by the Manufacturer.
- Anti-Freeze Solution: Protected to -34 degrees F.
- Access to Parts Inventory: Successful bidder shall provide access to manufacturer's repair parts inventory through factory web access or DVD.

Manuals: One (1) operator & (1) service manual-paper, CD or internet access. One operator safety CD required for safe operation training.

PARTS AND SERVICE

Each bidder must supply a manufacturer's franchised dealer list that must have parts, sales, & service, service trucks within 250 miles on the spreadsheet for regional address attachment.

