

**SPECIFICATIONS FOR SIDE MOUNT 60" ROTARY MOWER W/DOUBLE DECK
DESIGN MOUNTED ON TRACTOR**

**ACCEPTABLE TRACTOR BRANDS/MODELS: JOHN DEERE 5090E, NEW HOLLAND
T6.145 w/ AUTO COMMAND TRANSMISSION OR EQUIVALENT**

ACCEPTABLE MOWER BRAND/MODEL: TIGER TSR-60C 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

It is the purpose of the following specifications to describe a self-propelled, hydraulically powered rotary type mower, which shall mow forward and right of rear tire. Unit shall be a manufacturer's heavy-duty model.

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.

OPERATOR PROTECTION & SAFETY

- The mower cutter head shall have a six-second emergency shutdown engaged by the operator from inside the tractor cab. The button shall be located within easy reach for complete power shutoff of motor circuit.
- The boom controls shall feature a master ON/OFF switch for complete power shutdown.
- An "Enable" function shall be incorporated into controls to prevent incidental boom movement.
- Polycarbonate (Lexan[®]) window protection shall be offered as standard on CAB tractors as well as on ROPS (Roll-Over Protection Structure) tractor variations.

MAIN FRAME

- Unit shall be secured and braced to front/rear axle housing to absorb side torque and impact of severe applications.
- Cutting head shall be attached to main frame by a draft beam with bearing area in excess of 47 sq. inches.
- Draft beam shall be a box construction with tapered side walls and having lift weldments through upper and lower surfaces.

SIDE MOWER

- The cutting width shall be 60" of actual cut.
- The cutter head shall not weight less than 1,050 lbs.
- The dish shall have no structural welds. The unit shall be one piece, dynamically balanced (per ISO quality G2.5 spec), 80,000PSI yield steel, ½" X 37 9/16" diameter with a formed 40degree angle outer edge extending 3 ½" beyond bend radius and attached with six (6) 5/8" X 1 ¾" grade 8 bolts.
- Dish assembly shall accommodate 2 standard or optional 3, 4, or 6 suction type knives.
- The knives shall be attached by a 1 ¾" x 3 3/8" shouldered and keyed bolts, backed by T-1 spacers and hex lock nuts.
- The spindle shall be direct drive with the housing attached to the deck as to absorb 240,000 lbs. of shear force and distribute the load over 169 sq. inches.
- The spindle shall rotate at 19,000 FPM blade tip speed at the rated tractor RPM. The spindle shall be one (1) piece forged alloy steel, mounted in double tapered roller bearings and sealed in oil.
- The spindle diameter shall be 7 ¼" X 10 7/8" length and bearing areas of 2" and 2 5/8" with 5" minimum between centers.
- The spindles shall have bearing wrap protection.
- Cutter head arc shall be 159 degrees from vertical position.
- Cutting height shall be 1 ½" to 7 ½".
- Decks shall have ¼" steel top and full length 3/8" steel sides with replaceable skid shoes.
- The cutter head shall have 26 ¼" of inboard travel.

HYDRAULICS

- The two-stage hydraulic pump shall have a rating of 99 HP.
- The motor shall have cast steel housing with steel gears.
- The hydraulic pump shall be gear type with a rating of 96 input HP, 45.1 GPM at 3,250 PSI.
- The pump driveshaft shall have a rating of no less than 180 HP.
- The hydraulic reservoir shall be internally treated against corrosion with an industry approved chemical agent at the time of manufacture. It shall be equipped with an intank filter rated at 75 GPM, 10-micron, 200 beta absolute element with restriction gauge and ball valve at the suction line.

- The hydraulic oil system shall have a 39.3-gallon minimum capacity. The hydraulic system shall have a minimum of one (1) PSI pressure at the reservoir suction outlet.
- A non-restrictive mower control valve shall stop cutter assembly in maximum of 7 seconds from full RPM.
- Oil to cutter head shall not pass through a restriction causing valve, while operating.
- Valve shall be electrically controlled pilot operated floating spool with starter lockout and shall not cause restriction to generate drift while in the off position.
- Hydraulic pressure connections shall meet SAE o-ring and JIC standards.
- Pressure and return system hoses shall be 1" unrestricted inside diameter.
- Hoses shall have a burst pressure of 4 times working pressure.
- The lift assembly shall have two (2) single acting hydraulic cylinders controlling inboard and outboard ends or optional one single and one double acting cylinders controlling inboard and outboard ends of cutter head.
- Lift control shall have two (2) spool metering type valves, spring-centered, with detented float position and pilot relief valve.
- Suction line shall be an unrestricted 1 ¼" inside diameter. (Specifically excluding suction filters and screens.)
- Safety chains on front shall be standard. Safety discharge rubber deflector shall be provided or optional rear chains.

(NOTE: NO HYDRAULICS WILL BE USED FROM THE TRACTOR)

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.

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.

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, 75 PTO HP, 4WD

**ACCEPTABLE BRANDS/MODELS: JOHN DEERE 5090E, NEW HOLLAND T6.145 w/
AUTO COMMAND TRANSMISSION OR EQUIVALENT**

ALL SPECIFICATIONS ARE CONSIDERED MINIMUM UNLESS OTHERWISE NOTED.

- Shipping Weight (S.A.E.): 8,150 lbs-10,560 lbs.
- Engine: Tier IVB, turbocharged air-to-air-aftercooled diesel w/cold starting aid. Must be B-20 compatible while maintaining full warranty.
- Fuel Moisture Separator: Required
- Cylinders: 4
- Displacement: Minimum 4.5L; 274 cubic inches
- Exhaust: Vertical w/bent 90-degree spout or rain cap
- PTO Horsepower: Minimum 75 hp
- Rated Engine Power (ISO): Minimum 90 hp
- Transmission: Minimum 12F – 12R, w/left hand power reverser.
- Clutch: Wet required
- Main Tractor Hydraulic System: Direct Gear Driven. (Note: Mower not to be plumbed to tractor hydraulics)
- Hydraulic Pump Rated Output Minimum, GPM: Main – 15.9; Steering – 6.6; Total 22.5

- Remotes Hydraulic Valves: One (1) set of dual remotes required. (Note: Mower must be operated through mower hydraulics.)
- Final Drive: Planetary
- Wheels: Eight position adjustable front & rear. Thread width to be delivered approximately 76" center to center.
- Differential Lock: Required
- Brakes: Wet disk required
- PTO w/Guard & Wet Clutch: 540/540E RPM, independent guard, electric hydraulic engagement. (NOTE: Two stage clutch is unacceptable) Digital PTO speed indicator.
- Adjustable Telescopic Sway Bars: Right & left side of the draft lift arms required, tube type with pins or screw type with pin are acceptable. (NOTE: Adjustable chains are not acceptable) Dealer installed acceptable.
- Hitch: Category 2, 3-point with telescopic link ends, top link & draft control
- Tires (Bias): Front – 12.4 x 24; Rear – 18.4 x 30
- Factory Cab Option: Factory installed w/heater & air conditioner & ROPS. Items advertised as standard, to include tinted safety glass. OSHA & ANSI approved.
- Seat: Suspension seat w/seat belt & arm rest.
- Digital Ground Speed Indicator, Dash Mounted: Required
- Manufacturer's Standard Gauges: 1) Lighted instrument panel; 2) Tachometer; 3) Electric Hour meter; 4) Fuel Gauge; 5) Temperature Gauge; 6) Warning Lights for Oil Pressure & Alternator; 7) PTO Warning Buzzer or Light.
- Throttle: Hand & foot
- Steering: Power w/tilt & telescopic column
- Electrical System: 12-volt, key start, minimum 120 AMP alternator , minimum 950 CCA
- Fuel Capacity: Minimum 30 gallons
- Def Tank- Minimum 2.5 gallons
- Lighting Package: Two (2) headlights, two (2) taillights
- Warning Flashers: Required
- Rear Fenders: Required
- SMV (Slow Moving Vehicle)Emblem: Required
- Color: Manufacturer's standard
- Unit to contain all equipment advertised as standard by 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 & one (1) service manual-paper, CD or internet access. One (1) operator safety CD required for safe operation training.
- Parts & Service Requirement: 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.