



ALAMO INDUSTRIAL BID SPECIFICATIONS

MANTIS 4142 MOWING SYSTEM

It is the purpose of this specification document to describe a purpose-built Mantis 4142 Prime Mover with multiple mowing attachment options. These versatile options can be used for different cutting or clearing operations and can be readily changed for the task at hand.

GENERAL SPECIFICATIONS

- Curb weight: 12,000 lbs.
- GVRW: 21,000 lbs.
- Transport width: 102" (with attachments)
- Transport speed: 25 MPH
- Normal working speeds: 0.5 – 8 MPH
- Fuel capacity: 45 Gallons
- DEF capacity: 5 Gallons
- Hydraulic oil capacity: 45 gallons

CAB/OPERATOR ENVIRONMENT

- Cab designed for maximum visibility
- HVAC system
- External mirrors
- Air ride seat with arm rests and training seat
- Dome light, large cup holder, and blue tooth compliant radio
- Convenience outlets and personal storage compartments for personal electronic devices
- Speedometer, mower indicators, brake pedal, steering wheel
- 12" LCD video monitor provides real-time data feedback to the operator in an easy-to-read and simplified format
- The CAN-bus controls will adapt the machine to fit the attachment requirements

OPERATOR/TRAFFIC SAFETY EQUIPMENT

- Cab design is configured for ISO 3477- Operator Space Requirements
- Clear polycarbonate protective window on the RH side is standard
- Certified Roll-over protective structure (ROPS): Exterior Mounted- ISO
- Back-Up Alarm: 114DB
- Rear View Camera System:
- Lighting meets applicable ISO safety standards, and DOT regulations

BODY/CLADDING STRUCTURE

- Stylish hood with three (3) lockable access panels.
- Hood will be constructed of reinforced fiberglass

ENGINE/ HYDRAULIC SYSTEMS

- Engine: Perkins 142 HP. Tier IV Final, turbo charged diesel with intercooler
- Engine Cooling System: Cooling system will feature an automatic reversing fan system.
- Hydraulic Pumps: Piston-Type
- Hydraulic Cooler: cooling capacity for a maximum oil temperature of 185 degrees @ 120 degree ambient temperature.
- Hydraulic Reservoir: 45 Gallons Minimum
- Filters: 100 Micron Suction
- Oil Type: ISO AW 68 (18/16/14 ISO 4406 Standard)
- Drive: Hydrostatic Pump and Motors

REAR DRAWBAR/HITCH

- Optional Rear Drawbar
- Optional Rear PTO: 540RPM
- Optional 2 Rear SCV Hydraulic Remotes

CHASSIS/DRIVETRAIN

- Forward-mounted cab with good visibility during mowing and transport.
- Solid steerable axles, rear axle pivoting.
- Brakes: Internal hydraulic disc with parking brake
- Differential Lock: Hydraulic activation
- Electronically Controlled 4-wheel Steering Has Three Separate Steering Modes:
- Circular, Crabbing, or Traditional Front-Axle Only
- Mid-Mounted universal mower attachment for all Mantis 4142 side attachment tools.

TIRES & WHEELS

- High impact 10 ply tires with R4 type tread.
- Wheel Type: Welded Steel- Fixed Position
- Optional high flotation tires.

FRONT 3-PT HITCH

- CAT II Three-Point-Hitch: Front Mounted
- Optional Universal Skid Steer Attachment Plate
- SCV Remotes
- Standard Lift Capacity: 4500 lb.
- Optional Front PTO
- Optional Front Mower Offset Kit features a parallel linkage design allowing the front mower to be hydraulically offset 24" from centerline to each side of the machine

WIDE AREA MOWER

- 21 ft. hydraulic driven mower option with center deck out front.
- Available as a rotary or flail-type mower style.
- The wing mowers telescope to adjust cutting widths.
- The wings will raise or lower within 3 -4 seconds.
- The mowing heights will be adjustable between 1" – 9".
- The mower decks will be of the 'clean deck' style having a sloped deck that does not catch grass.
- Mower heads have float capability.
- The wing mower attachment is located behind the cab.
- Utilizing the optional Front Mower Offset Kit allows the front mower to be hydraulically offset 24" from centerline to each side of the machine
- Replaceable skid shoes will be standard.
- Positive latching for transport and service positions.
- Mower attachment can be changed in less than 30 minutes with standard tools and a forklift.

BOOM MOWER

- Boom reach of 22 feet or 30 feet from center of the machine to the edge of cut.
- The boom will fold behind the cab for a transport width of 102"
- Fully adjustable joystick mount in the cab.
- Seven boom functions of which three are proportional control.
- Protected boom hoses and lines.
- Hardened boom and dipper pins.
- Capable of mowing within 16" of tires.
- A swing back breakaway feature will be incorporated in the boom design.
- Positive latching for transport and service positions.
- The Available Head Options Will Be:
 - 48" Flail Head
 - 60" Rotary Head
 - 60" Grass Flail Head
 - 3-Blade Saw Head

FRONT ATTACHMENTS

- Under Guardrail front-mounted mower

WARRANTY

- 1 Year Standard Warranty