

WHEEL LOADERS
BID SPECIFICATION

Compliant?

BASIC SPECIFICATIONS

- Y__ N__ Engine max net power according to SAE J1349 shall be at least 225 hp (168 kW) at 1700 rpm.
- Y__ N__ Engine gross power according to SAE J1995 shall be at least 225 hp at 2200 rpm.
- Y__ N__ Machine operating weight shall be no less than 40500 lb average with a 4.25 cubic yard (3.3 cubic meters) general-purpose bucket with bolt-on edges.
- Y__ N__ Machine height to top of ROPS shall be approximate 11'
- Y__ N__ Ground clearance with 23.5R25 - L3 tires shall be 1' 5" average
- Y__ N__ Machine wheelbase shall be 11' average
- Y__ N__ 4.25 cubic yard (3.3 cubic meter) general-purpose bucket with bolt-on cutting edges must be 4.75 cubic yards (3.63 cubic meters) at 110% rated capacity
- Y__ N__ Bucket design shall provide greater than or equal to 100% of rated material retention and have integrated spill guards.

ENGINE

- Y__ N__ Engine shall be EPA Tier IV Final compliant.
- Y__ N__ Engine electronic control modules and sensors shall be completely sealed against moisture and dust.
- Y__ N__ Deutsche connectors and electrical wire braiding shall ensure that electrical connections resist corrosion and premature wear.
- Y__ N__ Engine shall have displacement of 425 cubic inches average
- Y__ N__ Engine max net power according to SAE J1349 shall be at least 225 hp (168 kW) at 1700 rpm.
- Y__ N__ Passive engine regeneration, without operator input and a different fuel source, shall be standard.
- Y__ N__ Engine shall provide low rpm idle feature to conserve fuel.
- Y__ N__ Engine shall have a 24-volt starting and charging system.
- Y__ N__ Alternator shall be at least 145 amp.
- Y__ N__ Machine shall have two maintenance free 1400 CCA batteries.
- Y__ N__ A heavy-duty electric starter shall be standard.
- Y__ N__ Cooling system shall be isolated from the engine compartment by a non-metallic shield.
- Y__ N__ Engine air pre-cleaner shall remove 93% of particles from the air before reaching the primary filter.
- Y__ N__ Variable speed fan shall draw air in from the rear of the machine and exhaust it out the sides and top of the hood.
- Y__ N__ Machine shall have an electronic power shift countershaft transmission.
- Y__ N__ Machine shall have standard open differential for both front and back axle, must be 4 wheel drive.
- Y__ N__ A drum style parking brake shall be standard for ease of service.
- Y__ N__ Machine should have five speeds forward and three reverse preferably
- Y__ N__ Machine shall have an hydraulic controlled, variable on-demand speed fan.

STEERING

Y__ N__ A dedicated pump shall be standard for steering. When not steering, more engine power is available for rim-pull, breakout force, and lift force

Y__ N__ HMU steering must allow operator to articulate machine by operating steering circle at all operating speeds.

HYDRAULIC SYSTEM

Y__ N__ Hydraulic pump output shall be 65 gal. average

Y__ N__ Machine shall feature load-sensing hydraulics to automatically adjust to operating conditions and provide only hydraulic flow required by the implement.

Y__ N__ Control of raise/lower and rack back/dump shall be able to be operated simultaneously.

Y__ N__ Pilot-operated hydraulic implement controls shall provide the operator the ability to adjust kick outs to prevent material spillage.

AXLES

Y__ N__ Machine shall have a fixed front axle that is rigidly mounted to the frame.

Y__ N__ Rear axle shall oscillate +/- 12° and follow the contour of the ground to allow the cab to stay steady.

OPERATOR'S STATION

Y__ N__ The operator sound pressure level for a standard machine configuration shall be a maximum of 75 dB(A) with the cooling fan speed set at 70% of maximum value, per ISO 6396:2008.

Y__ N__ Cab shall be attached to the frame with viscous mounts to reduce shock loads from the ground.

Y__ N__ An integrated ladder with aggressive-tread steps shall keep debris buildup to a minimum.

Y__ N__ Platforms shall be wide enough to allow ease of movement to the front or rear of the machine.

Y__ N__ Front hinged cab door shall be able to be opened and closed by the operator while seated and shall feature sliding windows on both sides that can be opened incrementally with one hand operation.

Y__ N__ Front hinged cab door shall open automatically with the assistance of a gas strut.

Y__ N__ Pull type door handle shall be located on the lower right hand corner of the door for easy access when standing on the ground or first step of the ladder.

Y__ N__ Wet-arm wipers shall be on both front and back windows.

Y__ N__ Cab roof shall have channels to direct rain off the corners of the cab to keep the windows clear.

Y__ N__ Cab shall have an overhang on all sides to protect the operator from glare.

Y__ N__ Standard rear vision camera shall be located on the hood to protect it from damage and the elements and help monitor movement behind the loader.

Y__ N__ Main control panels shall retain large rocker style switches that do not wear out with time.

Y__ N__ Seat shall have air suspension.

Y__ N__ Seat shall have a cast one piece back and seat pan to prevent protrusions under the cushions.

Y__ N__ RH implement controls shall be floor mounted and integrate adjustable armrest; left armrest should be seat-mounted for better ergonomics.

Y__ N__ Stop, tail, and turn signal lights shall be standard equipment.

- Y__ N__ Cab shall contain at least 1 x 12-volt outlets.
- Y__ N__ A monitoring system shall be available for critical systems to alert the operator to potential need for service. Three levels of warning shall allow the operator to assess the situation more accurately.
- Y__ N__ The operator station shall be removable
- Y__ N__ Cab shall have channels on the cab floor and no threshold at the door for easy cleaning.
- Y__ N__ Machine shall have heat and A/C

LOADER LINKAGE

- Y__ N__ Articulated static tipping load with a 4.25 cubic yard (3.3 cubic meter) general-purpose bucket with bolt-on edges and rigid tires shall be a average of 25,500 lb and will be fully compliant to ISO (2007) 14397-1 Sections 1 thru 5.
- Y__ N__ Breakout force shall be a average of 33500 lb. with a 4.25 cubic yard (3.3 cubic meter) general-purpose bucket with bolt-on edges.
- Y__ N__ Linkage shall be a single-tilt Z-bar design.
- Y__ N__ Linkage rack and dump stops shall be integrated at single interface points between the tilt lever the cross member to eliminate induced torsion on linkage components due to uneven contact points.

SERVICEABILITY

- Y__ N__ Machine shall have well protected, easily visible sight gauges for transmission oil, hydraulic oil, and radiator coolant.
- Y__ N__ If necessary, the entire hood shall be removable using the built-in lift points.
- Y__ N__ Panels located behind the tires shall swing out and can be removed for additional access.
- Y__ N__ Roading fenders shall be mounted on engine enclosure.
- Y__ N__ A perforated and corrugated grill shall minimize debris buildup and shall swing out for easy cleaning and access to the cooling cores.
- Y__ N__ Cab air filters shall be easily accessible from the exterior of the cab.
- Y__ N__ Brake wear indicators shall be standard for ease of inspection.
- Y__ N__ Grease fittings shall be grouped and accessible from the ground level.
- Y__ N__ Transmission oil and hydraulic filters shall be located left or right-side access platform. The hydraulic oil tank shall be drainable from this location.
- Y__ N__ Maintenance free batteries relay panel, jump start receptacle, and optional toolbox shall be located below the left or right side access platform.
- Y__ N__ Master shutdown switch shall be included.
- Y__ N__ Pressure taps for the steering and hydraulic systems, transmission (optional), and brakes shall be available.
- Y__ N__ Machine should have quick connect test ports on the hydraulic system

MINIMUM SERVICE FILL CAPACITIES

- Y__ N__ Fuel tank shall hold at least 70 gal average
- Y__ N__ DEF tank shall hold at least 4.5 gal average

ADDITIONAL FEATURES

- Y__ N__ Certified operator training shall be included
- Y__ N__ A system shall be included to collect and track information on machine location, service meter hours, and other relevant items.
- Y__ N__ Warranty shall be 5yrs 5000hr premier