RT-75 MAX-Series
Standard Machine
Bid Specifications

Operating Specifications:

- Loader Arms shall be Radial.
- Operating Weight shall be 9060 lbs | 4110 kg
- Shipping weight shall be 8313 lbs | 3771 kg
- Ground pressure at operating weight maximum of 3.5 psi | 24.1 kPa
- Rated operating capacity at 35% of tipping load shall be 2750 lbs | 1247 kg
- Operating capacity at 50% of tipping load shall be 3929 lbs | 1782 kg
- Tipping Loading of machine shall be 7857 lbs | 3564 kg
- Travel speed, at maximum 1^{st} Speed shall be 6.3 mph | 10.1 kph
- Travel speed at maximum 2^{nd} Speed shall be 9.3 mph | 15 kph minimum
- Ground clearance shall be minimum of 14.4 inches | 366 mm
- Bucket hinge pin height shall be minimum of 125.5 inches | 3188 mm
- Rear angle of departure shall be minimum of 38 degrees
- Bucket break out force shall be minimum of 5800 lbs | 2631 kg
- Lift arm force shall be minimum of 7300 lbs | 3311 kg
- Maximum machine width to outside of tracks shall be 70 inches | 1778 mm

Engine:

- Type of engine to be Diesel, 4-cylinder, intercooled and turbocharged
- Model of engine will be Cummins QSF2.8
- Displacement: 171 in^3 | 2.8 L
- Gross power rating: 74 hp | 55 kW @ 2500 RPM
- Torque, peak: 221 ft-lb | 300 Nm
- Cooling system: Hydraulically-driven fan and coolant/anti-freeze filled radiator
- Intake air cleaner: Three-stage
- Fan speed shall be controlled automatically by a system monitoring coolant temperature, charge air temperature, and hydraulic oil temperature inputs to assure optimum operating temperature of each.
- Radiator and hydraulic oil cooler shall be side-by side with no stacking
- Cooling system shall be designed to operate effectively for 100% engine load, 100% of the time, in ambient temperature of 118 degrees F minimum.
- Radiator and oil cooler shall be rear tilting for ease of service and cleaning.
- Drive and auxiliary pumps shall be direct driven from engine flywheel without the use of belts.
- Engine shall not use DPF to meet emissions.
- Emissions levels: Meets all U.S EPA Tier 4 final standards
- 120V block heater shall be standard.
- All systems shall be designed for ambient operating range of -22F to +118F.
- Engine access shall be via tilting top hood and two swing-out side panels for maximum

accessibility from all sides.

- System shall include self-monitoring and warning mechanism including coolant temperature, air filter blocked, water in fuel, and hydraulic temperature.
- System shall include self-diagnostics that monitor faults and logs them in operator accessible display.

Undercarriage:

- Track type: General purpose track constructed of rubber compound with embedded co-polymer cords, all-purpose treads, and shall contain no steel.
- Width of the standard tracks 18 in. | 475 mm
- Length of track on ground to be 71 in. | 1803 mm
- Ground contact area: 2556 in^2 | 1.65 m^2 minimum
- Drive system: Two hydrostatic direct drive sprockets; controlled by a single joystick
- Track drive sprockets: Elevated with low-friction, replaceable sprocket rollers
- Undercarriage suspension: Two independent torsion axles per undercarriage
- Roller wheels: 24 high-density polyurethane and rubber wheels per track. Wheels include sealed bearings
- Roller wheel suspension: Each 2 bogie wheel sets to be independently suspended by rubber torsion allowing inside and outside wheel sets to act independently
- Roller wheel diameter shall be listed below:
    - Front wheels: 15 in. | 381 mm
    - Rear Wheels: 15 in. | 381 mm
    - Middle wheels: 10 in. | 254 mm
- Track shall be tensioned using simple screw-type mechanism not requiring grease or hydraulic pressure to maintain tension.

Aux. Hydraulic System:

- The standard auxiliary flow output should be a variable from 0 – 22.6 gpm (85.5 lpm)
- The Pump capacity for the high flow shall be 35.7 gpm (135 lpm)
- High flow shall be selectable to operate via thumb operated rocker switch from 0-35.7 GPM
- Standard flow system pressure be 3300 psi | 22,750 kPa
- High flow system pressure to be 3300 psi | 22,750 kPa
- High flow horsepower rating shall be minimum of 68.7 HP.
- The auxiliary hydraulic system shall be a gear pump.
- Auxiliary Controls: Intermittent via joystick button, or continuous via console switch, flow mode selectable via console mounted switch
- Couplers: Push – to – connect quick coupler mounted on loader arms
- Pressure relief valve mounted to coupler block
- Cooling system: High efficiency side – by-side radiator and oil cooler
- Hydraulic cooling system shall be designed to operate effectively for 100% load, 100% of the time, in ambient temperature of 118 degrees F minimum.

- Hydraulic system must not require additional coolers on attachment or added to machine roof to run standard attachments in ambient temp up to 118F.
- Boom raise cycle time form full down to full up shall be 4.2 seconds.
- Boom lower cycle time from full up to full down shall be 4.8 seconds.
- Bucket curl cycle time from full dump to full curl shall be 1.5 seconds.
- Bucket dump cycle time from full curl to full dump shall be 2.0 second.s

Electrical System:

- Nominal charge: 12 V
- Battery: 950 CCA
- The charging system shall be 120-amp alternator.
- Outlets: 1 -12 V port inside operator station
- Wiring: Pre-wired for all factory – available accessories
- Standard Features: Attachment control kit, block heater.
- Machine Fuse and relay panels shall be fully sealed to an IP 66 standard minimum.

Operator Station:

- Seat: Adjustable contour vinyl with built-in operator presence switch, lap bar and 2 in. | 51 mm seat belt.
- Loader control: Right-hand pilot hydraulic joystick controls loader lift lower and tilt, plus intermittent control of auxiliary hydraulic
- Drive control: Left-hand pilot hydraulic joystick controls machine speed and direction
- Engine speed control: Hand-operated throttle
- Machine Display should include:
    - Engine RPM
    - Fuel level
    - Coolant temperature
    - Engine oil pressure
    - Voltage
    - Hydraulic oil temperature
    - Engine hour-meter
    - Trip meter
    - Adjustable gauge settings to include engine torque, injection rail pressure, intake manifold temp, fuel rate, and throttle position
- ROPS: Meets ISO 3471
- Restraint: Meets ISO 6683, SAE J2292, Cal OSHA 1596
- FOPS: Meets ISO 3449 level 1 (level 2 optional)
- Illumination of the machine should include the following:
    - 2 Adjustable forward-facing LED lights
    - 2 adjustable rear-facing LED lights
    - 1 interior light

    - 2 Red rear tail-lights
- 12 V power port
- Horn
- Backup alarm
- Cup holder
- Rear view mirror
- Roof shall have removable hatch emergency exit.
- Cab shall include glass breaker and seat belt cutter for emergency use.
- Operator footwell shall include drain for cleaning.

Service Refill Capacities:

- Fuel tank to hold 18.4 gal | 70 L
- Hydraulic tank to hold 8 gal | 30 L
- Engine coolant/antifreeze to hold 5.5 gal | 20.8 L
- Engine oil, including filter to hold 9 quarts | 4.7 L

Other:

- 4 Machine lift points shall be standard.
- 4 chain down points shall be standard.
- All loader grease zerks shall be on the end of the pins for ease of access.
- Cab shall tilt up rearward and feature self-activating tilt hold mechanism.
- Service items including engine oil, hydraulic system, fuel tank, and radiator shall include drain plugs for routine service without the removal of hoses.
- Frame shall include 3 removable bellypans for maximum access to all components and cleanability.
- Machine shall be equipped with hydraulic power management to maximize drive power while preventing engine stalling
- Loader arm control shall include float
- Machine shall be equipped with charge pressure check port
- Machine shall be equipped with spin-on, horizontally mounted, fuel, engine oil, and hydraulic filters for ease of service.

Machine Options (circle those required):

- All weather cab with heat and A/C (indented included as standard with all MAX-Series cabs)
    - Door to be easily removable and machine operable without the use of tools or switch bypassing.
    - Cab Sides to be all-clear with no screens blocking visibility except in open area of sliding window.
    - Glued in windows for maximum sealing.
    - Cab pressurization of 50 pascals or greater.
    - 7-vent heat and A/C with vents exiting left, right, front, back, above head, and below

knees for equal air distribution for comfort and defogging of all window locations.
    - Curved Glass frameless front door for maximum visibility.
    - 3-panel rear window for maximum visibility.
- Bluetooth Radio with USB
- Mechanical Suspension seat
- 8-pin electronic attachment control
- 2-speed travel (10.6 mph / 17.1 Kph)
- High Flow (minimum 27.4 GPM / 104 Lpm)
- Hydraulic Quick Attach
- 3-inch wide seat belt
- Suspension air ride seat
- Beacon light
- 7" color display panel with operator codes, job clock, trip meter, critical systems monitoring, maintenance interval monitoring with reminders, clock, fuel consumption tracking, contacts storage, multiple languages, and programmability without the use of special service tools.
- Foot throttle
- Back-up camera
- Phone holder
- 4-way adjustable arm rests and controls
- Over the glass bolt on side screens
- Ride Control
- Bucket-Leveling
- LED side lighting
- 20-inch wide tracks
- Front door. ½-inch polycarbonate with wiper

Optional Attachments (circle those required):

- 72-inch Dirt Bucket w/ bolt on cutting edge
- Tooth bar 72-inch
- 74-inchDirt bucket with bolt on cutting edge
- Tooth bar, 74-inch
- 72-inch Tooth bucket (with welded on teeth)
- 74-inch tooth bucket (with welded on teeth)
- Pallet Fork, 48-inch
- Loftness Cutter 61-inch G4 with carbide teeth 35.7 GPM
- Loftness Cutter 61-inch G4 with Quadco teeth 35.7 GPM
- Loftness 61 inch BattleAX with Quadco teeth 35.7 GPM
- Loftness 61 inch BattleAX with carbide teeth 35.7 GPM
- Grapple, 48-inch - 4 Tine Extreme Demo
- Grapple, Tine 72 Inch
- Grapple, 11 Tine Extreme Demo 72 Inch
- Quick Attach Dozer Blade, 72 Inch
- Other_____

Warranties:

- Standard full machine warranty shall be minimum of 2 year with 2000 hours of use.
- Engine warranty shall be minimum of 2 years with up to 2000 hours of use.
- Track warranty shall be minimum of 2 years or 2000 hours. Proration may start after 500 hours of use.
- Track warranty shall include coverage of track derailment with additional travel and installation coverage if derailment occurs.
- Customizable extensions shall also be available but above shall be included as standard.