Minimum Bid Specifications for a New Hydraulic Excavator

**Overall Specifications**

Operating weight shall be no greater than 20,000 lbs

Rated Net Power shall be no less than 56.0 hp

**Engine**

Engine shall be certified to EPA Final Tier 4/EU Stage IV

Engine shall have four cylinders

Engine shall have auto-idle mode to reduce engine speed when hydraulics are not in use to reduce fuel consumption and noise

Engine oil interval shall have a scheduled 500 hour interval for reduced operating costs

Fuel filter shall include a water separator

The engine will have a cold start aid such as glow plugs

The engine oil and fuel filters will be remotely mounted for ease of access

**Cooling**

Engine coolant shall protect the machine to temperature of -34°

The radiator and oil cooler will be protected with a trash screen to protect against debris

A fan guard inside the engine compartment will help prevent contact with the engine fan blades

**Power Train**

Two speed propel will be standard with auto-shifting when travel motors encounter heavier load. A switch will be provided to allow selection of either high or low speed propel

The hydraulic pilot levers shall have short stroke and low effort to reduce fatigue.

The swing brake shall be wet disk, or equivalent, spring applied and hydraulically released

The propel brake shall be spring applied and hydraulically released

**Hydraulics**

The hydraulic system shall be open center, load sensing

The main pumps shall be three variable-displacement axial-piston pumps

Boom and arm shall have reduced drift valves for greater stability and positioning

**Electrical**

Two work lights shall be provided: one mounted on the frame, the other on the boom

The fuse box shall be well protected from the elements and shall be opened without tools

A safety cover will protect the positive terminal of the battery

**Undercarriage**

The undercarriage shall have one carrier roller and five track rollers per side

Track and carrier rollers shall be lubricated for life

Drawbar pull shall be at least 13,000 lbs

The track shall be sealed and lubricated to extend life

Minimum 17” rubber crawler tracks

**Upper-structure**

Right and left hand exterior mirrors shall be standard

Window bars shall be provided to prevent contact with a moving boom

Side panels shall be recessed to prevent damage if the structure swings into a pile

Vandal locks with ignition key will be provided for: cab door; engine hood; fuel cap; and service doors

**Operators Station**

The operator’s station shall be mounted on silicon fluid-filled elastic or rubber mounts to take shock out of the cab and make for smooth operations.

AM/FM radio will be standard

Auto climate control/air conditioner heater and pressurizer will be provided with an option for fresh air mode to route outside air into the cab and an air recirculating mode.

The machine will have at minimum the following modes: one work mode, two power modes, and numerous attachment modes

For the operator’s convenience, the cab shall have a cell-phone power outlet, 12 volt, 60 watt, 5 amp

The monitor shall have a gauge display of: engine coolant temperature; and fuel level

The monitor shall display the following indicators: engine air filter restriction; alternator voltage; check engine; engine oil pressure; engine coolant temperature.

The monitor shall be capable of storing maintenance/service interval information on items like engine oil, engine oil filter, hydraulic oil, hydraulic oil filter, and air cleaner filter.

The monitor shall be capable of showing machine diagnostic information including error messages, fault codes and system operating information.

An interior light shall be standard

A hot/cool-box compartment and large cup holder will be in the cab

The windshield wiper shall have intermittent speeds and built in washer with fluid.

Cab front windows – top and bottom shall be capable of opening

The top roof hatch shall be transparent, operable and will be tinted to protect from glare. A roof hatch sunshade will be standard.

A pilot control shut-off lever will shut off hydraulic pilot pressure to all pilot control valves and will lock machine travel.

The seat will be a deluxe adjustable cloth seat with suspension, reclining backrest, and headrest.

Propel pedals and levers shall be standard

**Operating Specifications**

Equipped with a minimum 6’ 10” arm, the arm force shall be no less than 6,900 lb

Equipped with a minimum 6’ 10” arm, the bucket digging force shall be no less than 10,470 lb

Digging depth with one piece boom and a minimum 6’ 10” arm shall be no less than 14’ 10”

**Attachments**

42” ditching bucket

48” brush cutter

Windshield guard

Backfill blade

**Warranty**

Machine shall be bid with a minimum of 36 month, 3,000 hour power train plus hydraulic warranty