

ONE (1) COMPACT HYDRAULIC EXCAVATOR

The intent of this specification is to describe Compact Hydraulic Excavator.

Only new current standard production models built for the U.S. market will be considered acceptable. Printed literature and specification describing the equipment offered must be included with the bid proposal. Any recent changes to standard features and/or changes required for the intended use will be supplied. All accessories required by these specifications shall be identical in quality and design to those normally supplied for sale through regular commercial channels.

NOTE: To be eligible for award, bidder must indicate whether the equipment being bid meets, exceeds, or deviates from the specifications. Bidder shall use the "check if as compliant" column or explain any deviations fully. Use an additional sheet if necessary.

Bid specifications for Compact Excavator			
Make:			
Model:			
	Compliance	Remarks	
Engine			
The excavator engine power will be rated at no less than 47 hp (35.5 kw)	yes____ no____		
Engine displacement shall be no less than 159 cu in	yes____ no____		
Service interval for the engine oil, oil and fuel filters shall be at 500 hours to reduce operating and maintenance costs	yes____ no____		
The operator will be able to choose an exact engine rpm for operating conditions, using a an electronic rotary dial system or equivalent	yes____ no____		
The engine will have a self-priming pump for quick re-start if it runs out of fuel.	yes____ no____		
The fuel filter will have a water separator	yes____ no____		
The engine will be certified to EPA interim Tier 4 emissions.	yes____ no____		
Cooling			
A coolant recovery tank will be standard and will display the coolant level	yes____ no____		
Unit shall have a fan-guard	yes____ no____		
The radiator and oil cooler will be installed side by side for ease of cleaning and more efficient cooling.	yes____ no____		
The cooling fan will be equipped with a linear clutch to adjust fan speed continuously to reduce noise and fuel consumption.	yes____ no____		
Power Train			
Two speeds will be standard with auto-shifting when travel motors encounter heavier load	yes____ no____		
In high speed, the machine shall reach 2.8 mph (4.5 km/h) to improve job site maneuverability	yes____ no____		
The swing speed shall be at least 9.3 rpm	yes____ no____		
The two speed propel switch will be located for convenient operation	yes____ no____		

Bid specifications for Compact Excavator

Make:		
Model:		
	Compliance	Remarks
The swing brake shall be automatic, spring applied, hydraulically released and maintenance free.	yes____ no____	
The propel brake shall be automatic, spring applied, hydraulically released and maintenance free.	yes____ no____	
Hydraulic System		
The hydraulic system will be open center type with one piston pump	yes____ no____	
The pump flow rate shall be at least 38 gpm (144 L/m)	yes____ no____	
The auxiliary pump flow shall be at least 22.5 gpm (85.2 L/m)	yes____ no____	
The controls shall be hydraulic, pilot operated for boom, arm, bucket, swing, boom-swing swing, backfill blade, travel and auxiliary functions.	yes____ no____	
The hydraulic oil tank will have an oil level sight gauge for fast and easy monitoring	yes____ no____	
Wear-resistant hoses will be protected in critical joints and will be of split design to simplify replacement.	yes____ no____	
Hydraulic oil change will have a service interval of at least 2000 hours	yes____ no____	
A control pattern changer valve will be provided (excavator to backhoe control) and will display the selected pattern.	yes____ no____	
Auxiliary hydraulics with convenient flat face quick couplers that connect and disconnect under pressure shall be standard	yes____ no____	
Electrical		
The alternator shall be rated at 50 amps, 12 volts	yes____ no____	
Switches and electrical connectors are sealed from moisture and dirt to help prevent corrosion	yes____ no____	
Undercarriage		
The undercarriage will be high density rubber tracks for durability	yes____ no____	
The steel core will have curved ends to protect the rubber shoe edge from damage even when riding on curbs	yes____ no____	
The width of the rubber track shall be at least 16 in (400 mm)	yes____ no____	
Ground pressure with rubber track shall be no more than 4.93 psi (34 kPa)	yes____ no____	
Track ground contact with rubber track shall be no less than 6 ft 6 in. (2.5 m)	yes____ no____	
Track tension will be maintained without special tools, using common tools like grease gun and wrench.	yes____ no____	
Rubber tracks	yes____ no____	
Upperstructure		
The upperstructure will be capable of a 360 degree rotation	yes____ no____	

Bid specifications for Compact Excavator

Make:			
Model:			
	Compliance		Remarks
	yes____	no____	
The swing boom to the left shall be no less than a 70 degree arc	yes____	no____	
The swing boom to the right shall be no less than 55 degrees.	yes____	no____	
The boom cylinder shall be protected with a guard to reduce the likelihood of cylinder damage	yes____	no____	
The hoses in the articulation joint shall be protected by a guard.	yes____	no____	
The swing post will have a single pin to improve the stiffness in the boom and arm.	yes____	no____	
Unit shall have 3 front working lights	yes____	no____	
Front Attachments			
The standard boom shall be no less than 9 ft. 9 in (2965 mm)	yes____	no____	
The standard arm shall be no less than 4 ft 11 in (1500 mm) .	yes____	no____	
The bucket to arm joint will be wear-resistant and shall be protected with a substance like Tungsten Carbide for longevity	yes____	no____	
The bushings will be oil-impregnated to enhance durability and extend grease intervals to 500 hours for the arm-and-boom joint, and 100 hours for the bucket.	yes____	no____	
The backfill blade will be as wide as the tracks	yes____	no____	
The backfill blade digging depth shall be no less than 1 ft 3 in (390 mm) drop below ground.	yes____	no____	
The backfill blade lift shall be no less than 17 in (430 mm) above ground	yes____	no____	
The backfill blade height shall be at least 16 in (420 mm)	yes____	no____	
The backfill blade shall have float capability	yes____	no____	
The backfill blade shall have angle capability	yes____	no____	
Mechanical wedge style bucket coupler shall be provided to make bucket changing easier	yes____	no____	
The front hoses shall be split and joined at the machine cover ports and at the back of the boom for easy replacement. They shall also be protected by the articulation hose shield.	yes____	no____	
Hydraulic quick couplers to end of boom shall be standard.	yes____	no____	
Operator's Station			
The operator structure shall meet ROPS/TOPS/OPG standards	yes____	no____	
The operator station will be mounted on shock-absorbing rubber mounts to ensure comfortable operation	yes____	no____	
When not in use, the foot pedals shall be foldable to provide additional foot room	yes____	no____	
2 in (50 mm) Retractable seat belt shall be provided	yes____	no____	

Bid specifications for Compact Excavator

Make:			
Model:			
	Compliance		Remarks
The monitor shall have gauges to display the coolant temperature and fuel level.	yes____	no____	
The monitor will have the following indicators: engine oil pressure; high coolant temperature; engine preheat; low fuel; alternator voltage.	yes____	no____	
An hour meter shall be on the monitor in the operator's station.	yes____	no____	
The monitor shall include two trip meters that can be set independently of each other for service or job related hours	yes____	no____	
Wrist rests will be standard	yes____	no____	
A cup holder will be provided	yes____	no____	
A storage compartment in the operator's station shall be provided for the operator's manual	yes____	no____	
A 12 -volt auxiliary power port shall be standard	yes____	no____	
The seat will be adjustable forward and back.	yes____	no____	
A horn will be standard	yes____	no____	
A motion alarm with cancel switch will be standard.	yes____	no____	
Machine shall be equipped with a fully enclosed cab with factory installed, air conditioning, heater, defroster, windshield wiper/washer, retractable upper front window, removable front window, sliding side window.	yes____	no____	
Unit shall have both hand and foot travel controls	yes____	no____	
Cab shall have a skylight for visibility when loading at height	yes____	no____	
General Specifications			
The operating weight with standard arm and standard counterweight shall be approximately 12,500 lbs	yes____	no____	
The digging depth with standard arm shall be no less than 12 ft 4 in (3377 m)	yes____	no____	
Digging reach with standard arm shall be no less than 20 ft in. (6110 mm)	yes____	no____	
The maximum dumping height shall be no less than 13 ft 8 in (4.17 m)	yes____	no____	
The maximum transport length shall be no more than 18 ft 11 in (5.76 m) and the transport width shall be no more than 6 ft 7 in (2 m)	yes____	no____	
The bucket breakout force shall be no less than 9217 lb (41.0 kN)	yes____	no____	
The arm breakout force with standard arm shall be no less than 5644 lb	yes____	no____	
The ground clearance under the excavator shall be at least 1 ft (310 mm)	yes____	no____	

Bid specifications for Compact Excavator

Make:		
Model:		
	Compliance	
	Remarks	
The undercarriage X-beams and track frames shall be sloped to shed material buildup for easier clean-out.	yes____ no____	
All service checks shall be easily accessible without using tools to open covers.	yes____ no____	
Machine shall have 100% pilot controls	yes____ no____	
All controls shall be isolated when the control consoles are raised for entrance or exit of the operator station	yes____ no____	
Optional Attachments		
(1) 12" pin-on digging bucket	yes____ no____	
(1) 24" pin-on digging bucket	yes____ no____	
Hydraulic Thumb	yes____ no____	
(1) Operators manuals	yes____ no____	
(1) Service manuals	yes____ no____	
(1) Parts manuals	yes____ no____	
Radio: Factory installed am/fm radio	yes____ no____	