

BID SUBMITTAL FORM
Alabama County Joint Bid Program
Heavy Equipment – Bid Item: TRACK-MOUNTED EXCAVATOR
OPTION C-2

Company Name: Warrior Tractor & Equipment Company, Inc.

Address: 6801 McFarland Blvd W., Northport, AL 35476

Bid Submitted by: David Schafer
(Name of company representative)

Title: Sales Manager E-mail address: dschafer@warriortractor.com

Phone: 205-339-0300 Fax: 205-333-0101

By submitting this bid, we agree:

The equipment model number identified below meets the bid specs for this bid item

Initials

DS

That the bid price will be honored for all counties for the period from January 1, 2023 to December 31, 2023.

DS

The equipment will be delivered at the bid price to all counties participating in the joint bid program

DS

The company representative listed above will be the contact person for purchasing this bid item under the joint bid program

DS

The bid is accompanied by a current catalog or model specification document for the model number identified below

DS

The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications

DS

The bid includes the e-verify documentation required by Alabama law

DS

If awarded the bid, a performance bond will be provided upon request

DS

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine**

DS

TRACK-MOUNTED EXCAVATOR - OPTION C-2

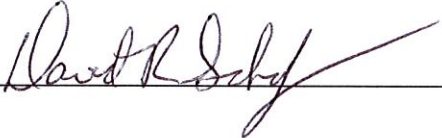
Total Bid Price for Standard Machine: \$ 221,357.00
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) *

Freight Preparation and Delivery: \$ 7,500.00
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 263,331.00

Equipment Model #: John Deere 160P

Description: Excavator

Signature of company representative submitting bid: 

Title: Sales Manager

***NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

BID SUBMITTAL FORM: OPTION COST SHEET TRACK-MOUNTED EXCAVATOR - OPTION C-2

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine*

10%

The bid documents include the Manufacturer's Suggested Retail Price Sheet (MSRP) with **any available Options** for the Standard Machine

10%

Equipment Model #: John Deere 160P

Description: Excavator

Signature of company representative submitting bid: David R. Schif

Title: Sales Manager

***NOTE:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

BID SPECIFICATIONS FOR TRACK-MOUNTED EXCAVATOR - OPTION C-2

GENERAL

These specifications shall be construed as the minimum acceptable standards for a track mounted hydraulic excavator with long undercarriage. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturers' equipment. The excavator must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

Use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size and quality of equipment considered best adapted to the uses of the counties participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the bid submittal form included in the invitation to bid package. All written warranties to be submitted shall be attached to the bid submittal form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates, and all other applicable costs and refunds.

MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one [1] repair manual, and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment. If any replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the county to use at no cost to the county until such time as the parts are delivered to the county so it can affect repairs to its machine.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of maximum of 36 hours within notification by county.

Yes No
Page# _____
or
Attachment

WEIGHT

Minimum 39,000 lbs. equipped with minimum 28-inch-wide track shoes.

Yes No
Page # 13 & 14

Maximum 40,000 lbs. equipped with minimum 28-inch-wide track shoes.

Yes No
Page # 13 & 14

ENGINE

Four Cylinder, turbocharged, minimum 269 cubic inch displacement diesel engine capable of a minimum 115 net horsepower.

Yes No
Page # 14

Engine shall be designed and manufactured by the equipment manufacturer.

Yes No
Page # 14

UNDERCARRIAGE

Track length shall be minimum 12' 10".

Yes No
Page # 16

Track shoe width shall be minimum 28" (Triple grouser Shoes)

Yes No
Page # 14

Minimum seven (7) track rollers per side.

Yes No
Page # 14

Minimum two (2) carrier rollers per side.

Yes No
Page # 14

CAPACITIES

Fuel Tank Capacity – 75 gallon minimum

Yes No
Page # 15

Hydraulic Tank Capacity – 28 gallon minimum

Yes No
Page # 15

Engine Coolant – 6 gallon minimum

Yes No
Page # 15

BOOM AND STICK

One piece boom with minimum 16' 9" length

Yes No
Page # 15

Stick shall be a minimum 8' 6" long

Yes No

DIMENSIONS

Reach at ground level –28' 7" minimum

Yes X No
Page # 15

Lifting Capacity at ground level, 15' over front of machine shall be a minimum 15,250 lbs.

Yes X No
Page # 16

Lifting Capacity at ground level, 15' over side of machine shall be a minimum 9,150 lbs.

Yes X No
Page # 16

Bucket breakout force – minimum 26,000 lbs.

Yes X No
Page # 16

Stick digging force – minimum 17,500 lbs.

Yes X No
Page # 16

BUCKET

Standard with no bucket. Buckets will be considered optional attachments.

HYDRAULICS

Hydraulic pump output shall be a minimum of 78 GPM

Yes X No
Page # 14

CAB

Enclosed ROPS cab:

Yes X No
Page # 24

Heater

Yes X No
Page # 24

Factory installed air conditioning

Yes X No
Page # 24

AM/FM radio

Yes X No
Page # 24

Suspension seat

Yes X No
Page # 24

160 P-Tier Excavator

27-Dec-2022



Code	Description	QTY	List Price (USD)
04DOFF	<p>160 P-Tier Excavator</p> <p>160 P-tier Standard Equipment</p> <p>HYDRAULICS:</p> <ul style="list-style-type: none">Open Center, Load Sensing with Variable Displacement PumpsHydraulic Pilot ControlsAxial Piston Swing MotorMultiple Wet Disk Swing BrakeAuxiliary Valve SectionAdjustable Flow for Attachments Through MonitorBoom and Arm Reduced Drift ValvesPower BoostAuto Power LiftHydraulic Tank Site Gauge5,000 Hour Hydraulic Oil Change IntervalHydraulic Oil Sampling ValveInline DEF Filter <p>UNDERCARRIAGE:</p> <ul style="list-style-type: none">Two Speed Propel with Auto-ShiftAxial Piston Propel MotorsPropel Motor ShieldsPlanetary Final DrivesSealed Track ChainFront and Center Track GuidesProvisions for Tie DownsX-Frame Car BodyHydraulic Track AdjusterSeven Lower RollersTwo Upper RollersSpring Applied Hydraulic Released Propel Brake <p>UPPER STRUCTURE:</p> <ul style="list-style-type: none">Right, Left Mirrors(2)ToolboxVandal Locks for:<ul style="list-style-type: none">Cab DoorService DoorsFuel CapTool BoxCounterweight, 7,055 lbs. (3,200 kg)Work Lights:<ul style="list-style-type: none">One Mounted on FrameOne Mounted on BoomDebris Screening Side PanelRemote Mounted Engine Oil and Fuel Filters <p>FRONT ATTACHMENT:</p> <ul style="list-style-type: none">Steel BushingsThrust PlatesTungsten Carbide Thermal Coating on arm to Bucket JointCentralized Lubrication SystemDirt Seals on Bucket Pins	1	\$272,148.00

Less Boom
Less Arm
Less Bucket

OPERATOR'S STATION:

Adjustable Control Positions (Levers to Seat, Seat to Pedals)
4" Arm Rests Attached to Side Consoles
Pilot Control Shut-Off Lever
Short Stroke, Low Effort Pilot Levers
Switches for Auxiliary Hydraulic Control on RH Pilot Lever
Deluxe Adjustable Cloth Seat with Suspension, Reclining Backrest, Headrest, and Adjustable Lumbar Support
Multifunction, Color LCD Monitor System with:
Diagnostic Capability
Systems Monitoring Capability
Multiple Language Capability
Maintenance Tracking
Control Pattern Changer
Engine Coolant Temperature Gauge
Engine Coolant Temperature Warning Indicator with Audible Alarm
Engine Oil Pressure Warning Indicator with Audible Alarm
Fuel Gauge with Low Fuel Indicator
Diesel Exhaust Fluid Gauge
Work Mode Indicator
Auto Idle Indicator
Alternator Charge Indicator
Air Filter Restriction Indicator
Fault Code Alert Indicator
Check Engine Indicator
Wiper Mode Indicator
Work Lights On Indicator
Fuel Rate Display
Clock
Hour Meter
Mode Selection:
One Work Mode
Three Power Modes
Numerous Attachment Modes
Auto-Climate Control/Air Conditioner, Heater with Pressurizer
AM-FM Radio
USB Charge Port
Pilot Lever Lock
Rear View Camera
Machine Information Center (MIC)
Windshield Wiper/Washer with Intermittent Speed
12V-60W, 5 Amp Cell Phone Power Outlet
3 In. Retractable Seat Belt
Tinted Safety Glass
Hot/Cold Box Compartment
Horn
Two Cup Holders
Interior Light
Coat Hook
Floor Mat
Motion Alarm with Cancel Switch
Transparent Tinted Roof Hatch with Sunshade
Four Fluid-Filled Elastic Mounts
Easy Access Air Conditioning Filter

Code	Description	QTY	List Price (USD)
04D0FF	160 P-Tier Excavator	1	\$272,148.00
	DESTINATION AND LANGUAGE		
	Destination Codes		Basic Factory Options - Required
0202	Destination Code - United States		No Added Cost
	Operator's Manual and Decals		Basic Factory Options - Required
0259	English Customer Delivery Packet		No Added Cost
	PACKAGES		
	Trim Packages		Basic Factory Options - Required
0601	Level 1 Includes: - Seat, Standard Mechanical - Standard Front LED Worklights		No Added Cost
0602	Level 2 Includes: - Seat, Heated Air-Suspension - Standard Front LED Worklights		\$1,680.00
0603	Level 3 Includes: - Seat, Heated Air-Suspension - Deluxe Front LED Worklights - Chrome Exhaust		\$4,515.00
0604	Level 4 Includes: - Seat, Premium Leather – Thermal Heating and Active Cooling - Deluxe Front LED Worklights - Chrome Exhaust		\$5,775.00

Code	Description	QTY	List Price (USD)
	OPERATOR'S CONTROLS		
	Detection System		Basic Factory Options - Required
1100	Rear Camera System		No Added Cost
1101	Right, Rear and Left Camera System Includes: - Right, Rear and Left LED Lighting		\$4,597.00
	PRECISION TECHNOLOGY SOLUTIONS		
	Machine Connectivity		Basic Factory Options - Required
170K	JDLink™ Includes integrated cab wiring harness, antenna, and JDLink Modem (MTG). JDLink connectivity is enabled separately through the JDLink website. Connectivity service is subject to country availability.		No Added Cost
	Grade Systems		Basic Factory Options - Required
2000	Less Grade Reference Ready Mounts		No Added Cost
	ENGINE		
	Engine		Basic Factory Options - Required
4070	John Deere PowerTech PSS 4.5L meets FT4/EU Stage IV Emissions		No Added Cost
	MAIN FRAME		
	Boom		Basic Factory Options - Required

Code	Description	QTY	List Price (USD)
6665	Less Boom, Less Boom Cylinders Recommend: Hyd. Filter Restriction Indicator Kit		(\$16,223.00)
6666	Less Boom with Boom Cylinders with plumbing to Main Frame Boom Not Included Recommend: Hyd. Filter Restriction Indicator Kit		(\$6,077.00)
6667	One Piece Boom w/Arm Cyl. and Plumbing 5.1 M (16 ft 8 in) Boom		No Added Cost
	Arm		Basic Factory Options - Required
6715	Less: Arm If bucket is desired, must order attachment separately Recommend: - Hyd. Filter Restriction Indicator Kit and Indicator Coupler		(\$11,047.00)
6717	Arm: Standard 2.6 M (8 ft 6 in) Arm with Bucket Cylinder and Linkage		No Added Cost
6719	Arm: Long 3.1 M (10 ft 2 in) Arm with Bucket Cylinder and Linkage		\$1,568.00
	HYDRAULICS		
	Auxiliary Hydraulics		Basic Factory Options - Required
7000	Less: Auxiliary Hydraulics		(\$5,878.00)
7001	Auxiliary High-Flow Lines with AFL and Auxiliary Relief Pressure Adjustment Includes: - Combination auxiliary hydraulic piping with dedicated stop valves for each attachment. - Auxiliary Function Lever (AFL) right-hand joystick for electronic proportional auxiliary control. - Ability to set, confirm, and adjust the auxiliary relief pressure for an attachment.		\$5,238.00
7005	Aux High-Flow Lines Only with Push Button Control Grip		No Added Cost

Code	Description	QTY	List Price (USD)
	Includes: - Combination auxiliary hydraulic piping with dedicated stop valves for each attachment. - Requires dealer installed 1-way solenoid kit, 2-way solenoid kit or a foot pedal kit for auxiliary hydraulics functionality.		
	Hydraulic Coupler Ready		Basic Factory Options - Required
7040	Less: Hydraulic Coupler Ready		No Added Cost
7041	Hydraulic Coupler Ready Lines and Controls - Adds dedicated hydraulic lines and control circuit for hydraulic quick coupler installations.		\$3,255.00
TRACKS			
	Track Shoes		Basic Factory Options - Required
5702	600 mm (24 In.) Steel Track with Triple Semi-Grouser Shoes		(\$1,142.00)
5707	700 mm (28 In.) Steel Track with Triple Semi-Grouser Shoes Recommended for general conditions and soft terrain.		No Added Cost
ATTACHMENTS			
	Buckets		Basic Factory Options - Required
7800	Less: Bucket		No Added Cost
7813	36 In. Heavy Duty Bucket w/ Teeth 36 Inch (900MM) 0.94 Cubic Yard (0.72 Cubic Meter) Heavy Duty Bucket Includes Five (5) TK300 Series Teeth		\$8,115.00
7814	42 In. Heavy Duty Bucket w/ Teeth 42 Inch (1050MM) 1.14 Cubic Yard (0.87 Cubic Meter) Heavy Duty Bucket Includes (5) TK400 Series Teeth.		\$8,741.00
7815	48 In. Heavy Duty Bucket w/ Teeth		\$9,444.00

Code	Description	QTY	List Price (USD)
	48 Inch (1220 MM) 1.96 Cubic Yard (1.50 Cubic Meter) Heavy Duty Bucket Includes Six (6) TK400 Series Teeth		
	MISCELLANEOUS PRODUCT LINE		
	Filter		Field Installed Attachments - Optional
8124	Fuel Filter, Severe-Duty Recommended for harsh conditions.		\$184.00
	Single Pedal Propel		Field Installed Attachments - Optional
8261	Single Pedal Propel Additional pedal for tracking both tracks simultaneously in the same direction		\$2,372.00
	Shipping Preparation		Field Installed Attachments - Optional
8262	Special Export Preparation-- Do not install front for shipping		No Added Cost
	Cold Weather Package		Field Installed Attachments - Optional
8500	Cold Weather Package Includes Engine Block Heater		\$630.00
	Debris Package		Field Installed Attachments - Optional
8501	Debris Package Includes Reversing Variable Speed Fan Drive - Reversing fan features selectable intervals and manual override.		\$2,625.00
	MISCELLANEOUS		
	Hydraulics		Field Installed Attachments - Optional

Code	Description	QTY	List Price (USD)
AT390776	Single Pedal Propel Kit		\$2,143.00
AT461528	Proportional Auxiliary Hydraulic Control Kit Includes joysticks, wiring, and valves.		\$3,091.00
AT442872	Hydraulic Filter Restriction Indicator Kit For IT4 and FT4 only.		\$797.00
AT445459	Control Solenoids for 2-Way Auxiliary Hydraulics Monitor can be used to control hydraulic flow. Can be used with either right-hand or left-hand control handle.		\$808.00
AT445803	Hydraulic Filter Restriction Indicator Kit		\$797.00
AT327652	Control Handle for Auxiliary Hydraulics, Left-Hand Requires control solenoid for either 1-way or 2-way auxiliary hydraulics. Recommended for use with auxiliary hydraulic lines.		\$530.00
	Guards		Field Installed Attachments - Optional
AT390802	Cab FOPS Guard FOPS Level II, ISO 10262 Certified		\$3,259.00
	Operator Environment		Field Installed Attachments - Optional
BYT11141	Full Length Front Guards		\$1,547.00
BYT11977	Light Kit, 130-350 LED LIGHT KIT		\$1,700.00
ETN93549	Stereo adapter for phone or music device.		\$226.00

Code	Description	QTY	List Price (USD)
	Hydraulic Couplers		Field Installed Attachments - Optional
BYT12948	Hydraulic Quick Coupler (Variable-type Pin-Grabber) 160 - Coupler Only Coupler kit ONLY. Includes coupler, jumper hoses, and one set of dead pins. Controls components NOT included. Also purchase Controls Kit BYT11627. Not compatible with hydraulic thumb AT379644, AT379645, AT379646, or AT379647.		\$9,340.00
BYT11626	Hydraulic Quick Coupler (Variable-type Pin-Grabber) - Coupler Only Coupler kit ONLY. Includes coupler, jumper hoses, and one set of dead pins. Controls components NOT included. Also purchase Controls Kit BYT11627. Not compatible with hydraulic thumb AT379644, AT379645, AT379646, or AT379647.		\$9,964.00
BYT11627	Hydraulic Quick Coupler Controls Kit, (Variable-type Pin-Grabber) - Controls Kit Only Controls kit ONLY. Includes hydraulic control components, electrical control components and components to manifold on end of arm. Does not include hydraulic quick coupler - also purchase BYT11626. May not be required if replacing existing hydraulic quick coupler.		\$1,774.00
AT452017	Hydraulic Quick Coupler (Non-Variable type) - Coupler and Controls Kit Includes non-variable hydraulic quick coupler with hydraulic and electrical control components		\$9,324.00
AT345608	Installation Charge for Hydraulic Quick Coupler When ordering Hydraulic Quick Coupler (Variable-type Pin-Grabber) must order both Coupler and Controls attachment kits. Installation Charge Order also requires attachment part number, SHIP-TO address for Paladin Custom Works, AND reference related machine order number. The related machine order must reference the attachment order number. Order code available only for Kernersville, North Carolina installations.		\$1,471.00
	G.R.Mfg.		Field Installed Attachments - Optional
AT430874	Slant Top Rub Rails		\$2,092.00
AT430878	Counterweight, Bottom Mount, 1500 lbs. Counterweights are painted yellow		\$8,234.00
AT430784	Rear Work Lights Package		\$1,993.00
ETN210311	Front Window Guard, Polycarbonate		\$3,982.00

Code	Description	QTY	List Price (USD)
	Overall Vehicle		Field Installed Attachments - Optional
BYT11005	Vandal Covers After Serial # 57100		\$3,053.00
	BUCKETS		
	Buckets, Heavy-Duty		Field Installed Attachments - Optional
BYT11154	36 In (914 mm), 0.81 yd3 (0.62 M3) Heavy-Duty Bucket Includes Five (5) John Deere TK-Series Fanggs Teeth (TK350FD).		\$5,856.00
BYT11155	42 In (1067 mm), 0.99 yd3 (0.76 M3) Heavy-Duty Bucket Includes Five (5) John Deere TK-Series Fanggs Teeth (TK350FD)		\$6,119.00
BYT11156	48 In (1220 mm), 1.17 yd3 (0.89 M3) Heavy-Duty Bucket Includes Six (6) John Deere TK-Series Fanggs Teeth (TK350FD).		\$6,628.00
BYT11152	24 In (610 mm), 0.47 yd3 (0.36 M3) Heavy-Duty Bucket Includes Four (4) John Deere TK-Series Fanggs Teeth (TK350FD). Not compatible with Progressive Hydraulic Thumb.		\$4,998.00
BYT11153	30 In (762 mm), 0.64 yd3 (0.49 M3) Heavy-Duty Bucket Includes Four (4) John Deere TK-Series Fanggs Teeth (TK350FD). Not compatible with Progressive Hydraulic Thumb.		\$5,367.00
	Buckets, Side Cutters		Field Installed Attachments - Optional
AT342511	Edge Protector Kit		\$655.00
AT342512	Side-Cutter Kit, 3 inch		\$679.00
	Hydraulic Thumb Kits		Field Installed Attachments - Optional

Code	Description	QTY	List Price (USD)
AT379644	<p>Hydraulic Thumb Kit, Direct</p> <p>Teeth matching between the bucket and thumb will depend on the bucket width, number of teeth, and tooth spacing. Please see DMAC solution 94331 for optimum thumb and bucket teeth engagement. Not compatible with couplers.</p>		\$9,877.00
AT379645	<p>Hydraulic Thumb Kit, Direct for Couplers</p> <p>Teeth matching between the bucket and thumb will depend on the bucket width, number of teeth, and tooth spacing. Please see DMAC solution 94331 for optimum thumb and bucket teeth engagement. Not compatible with Hydraulic Quick Coupler (Variable-type Pin-Grabber) BYT11626.</p>		\$9,877.00
AT379646	<p>Hydraulic Thumb Kit, Progressive</p> <p>Teeth matching between the bucket and thumb will depend on the bucket width, number of teeth, and tooth spacing. Please see DMAC solution 94331 for optimum thumb and bucket teeth engagement. Only available for the following arm lengths: 160 3.1M (10'2") Not compatible with couplers.</p>		\$12,286.00
AT379647	<p>Hydraulic Thumb Kit, Progressive for Couplers</p> <p>Teeth matching between the bucket and thumb will depend on the bucket width, number of teeth, and tooth spacing. Please see DMAC solution 94331 for optimum thumb and bucket teeth engagement. Only available for the following arm lengths: 160 3.1M (10'2") Not compatible with Hydraulic Quick Coupler (Variable-type Pin-Grabber) BYT11626.</p>		\$12,286.00

Manufacturer's Suggested List Price shown. Retail prices may vary by dealer. Unless stated otherwise, taxes, freight, setup, delivery and other dealer specific charges not included in the pricing. Options/items noted with anything other than price will have additional costs. Pricing, availability, and specifications subject to change without notice. Special program pricing may be available on certain models. See dealer for details. Prices shown are in U.S. dollars and valid only in the U.S.

Excavator / 160 P / US

160 P Preliminary Specifications

Base engine for use in U.S., U.S. Territories and Canada

Manufacturer and Model	John Deere PowerTech PWS 4.5 L		
Non-Road Emission Standards	Certified to Final Tier 4 / EU Stage IV emissions		
Net Rated Power (ISO 9249)	90 kW @ 2,200 rpm	121.73	hp
Cylinders	4		
Displacement	4.5 L	274.61 cu in.	
Off Level Capacity	70%	35°	
Aspiration	Series Turbocharged, air-to-air charge-air cooler		

Optional engine for use outside the U.S. and U.S. Territories

Manufacturer and Model	John Deere 4045H		
Non-Road Emission Standards	meets Tier 3 / Stage IIIA emissions		
Net Rated Power (ISO 9249)	90 kW @ 1,900 rpm	120.69	hp
Cylinders	4		
Displacement	4.5 L	274.61 cu in.	
Off Level Capacity	70%	35°	
Aspiration	turbocharged, air-to-air charge air cooler		

Cooling

Cool-on-demand hydraulic-driven, suction-type fan with remote-mounted drive

Powertrain

Two Speed Propel with Automatic Shift

Maximum Travel Speed

Low	3.4 km/h	2.11 mph
High	5.3 km/h	3.29 mph
Drawbar Pull	17 250 kg	38029.74 lb.

Hydraulics

Open Center, Load Sensing

Main Pumps

two variable-displacement axial-piston pumps

Maximum Rated Flow	191.0 L/m	50.46	gpm	2 x
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Pilot Pump

one gear

Maximum Rated Flow	33.6 L/m	8.88	gpm
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Pressure Setting	3,930 kPa	570.00	psi
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System Operating Pressure

Implement Circuits	34 336 kPa	4980.02	psi
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Travel Circuits	34 336 kPa	4980.02	psi
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Swing Circuits	34 336 kPa	4980.02	psi
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Power Boost	38 000 kPa	5511.43	psi
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Controls

Pilot Levers, Short Stroke, Low Effort Hydraulic Pilot Controls with Shut Off

Cylinders

Boom (2)

Bore	110 mm	4.33	in.
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Rod Diameter	80 mm	3.15	in.
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Stroke	1110 mm	43.70	in.
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Arm (1)

Bore	120 mm	4.72	in.
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Rod Diameter	90 mm	3.54	in.
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Stroke	1365 mm	53.74	in.
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Bucket (1)

Bore	105 mm	4.13	in.
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Rod Diameter	75 mm	2.95	in.
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Stroke	935 mm	36.81	in.
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Electrical

Number of Batteries (12 volt) 2

Battery Capacity 950 CCA

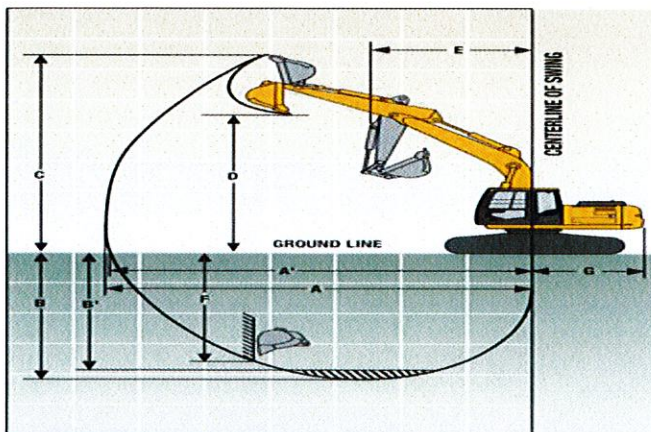
Alternator Rating 100 amp

Work Lights 2 LED - 1 on LH side of boom, 1 on frame

Undercarriage

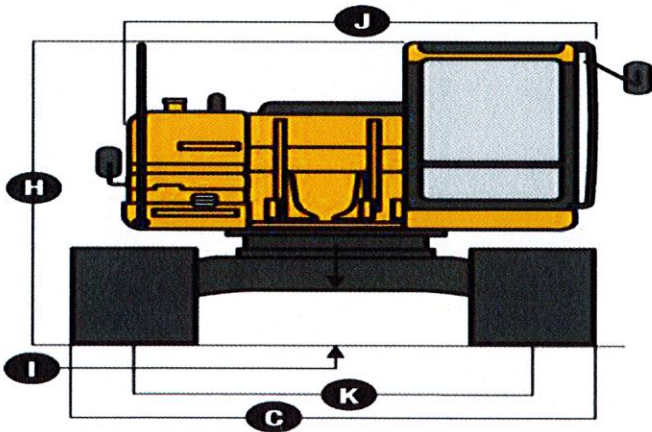
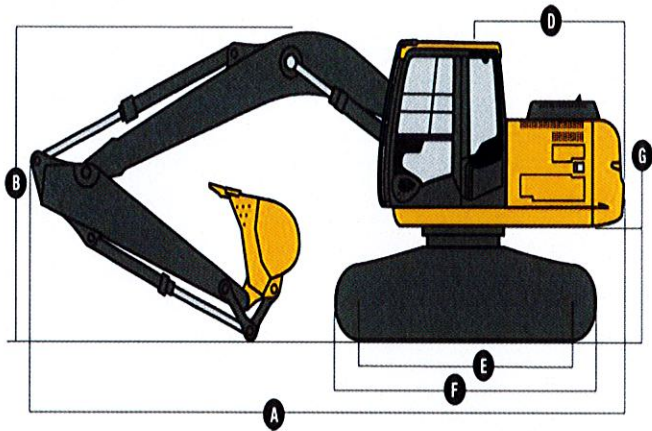
Carrier Rollers (per side)	2		
Track Rollers (per side)	7		
Shoes (per side)	43		
Track Adjustment	Hydraulic		
Track Guides	Front and Center		
Track Chain	Sealed and Lubricated		
Ground Pressure			
600 mm (24-in.) Triple Semi-Grouser Shoes	41 kPa	5.95	psi
700 mm (28-in.) Triple Semi-Grouser Shoes	35 kPa	5.08	psi
Swing Mechanism			
Swing Speed	13.3 rpm		
Swing Torque	44000 Nm	32352.94	lb. ft
Serviceability			
Refill Capacities			
Fuel Tank	285 L	75.29	gal
Cooling System	23.5 L	24.83	qt.
Engine Oil with Filter	17.0 L	17.96	qt.
Hydraulic Tank	125 L	33.02	gal
Hydraulic System	210 L	55.48	gal
Swing Gearbox	6.2 L	6.55	qt.
Propel Gearbox (each)	6.8 L	7.19	qt.
Pump Drive Gearbox	0.9 L	0.95	qt.
DEF Tank	26.7 L	28.16	qt.

Operating Weights		
With Full Fuel Tank; 79 kg (175-lb.) Operator; 914 mm (36-in.), 0.60 m ³ (0.78-cu.-yd.), 528 kg (1,164-lb.)		
	17 945 kg	39526.43 lb.
	17717.00 kg	39024.23 lb.
Optional Components		
Undercarriage		
600 mm (24-in.) Triple Semi-Grouser Shoes	6316 kg	13911.89 lb.
700 mm (28-in.) Triple Semi-Grouser Shoes	6530 kg	14383.26 lb.
One-Piece Boom (with arm cylinder)	1300 kg	2863.44 lb.
Arm with Bucket Cylinder and Linkage		
2.60 m (8 ft 6 in.)	788 kg	1735.68 lb.
3.10 m (10 ft 2 in.)	874 kg	1925.11 lb.
Boom Lift Cylinders (2) Total Weight	306 kg	674.01 lb.
Operating Dimensions		



<i>Arm Length 2.60 m (8 ft 6 in.)</i>			
Arm Digging Force (SAE)	89.82	kN	20,193 lb.
Arm Digging Force (ISO)	92.69	kN	20,838 lb.
Bucket Digging Force (SAE)	104.96	kN	23,598 lb.
Bucket Digging Force (ISO)	112.0	kN	25179.86 lb.
A Maximum Reach	8.87	m	349.21 in. 29 ft 1 in.
A' Maximum Reach at Ground Level	8.7	m	342.52 in. 28 ft 7 in.
B Maximum Digging Depth	5.98	m	235.43 in. 19 ft 7 in.
B' Maximum Digging Depth at 2.44 m (8 ft) Flat Bottom	5.74	m	225.98 in. 18 ft 10 in.
C Maximum Cutting Height	8.88	m	349.61 in. 29 ft 2 in.
D Maximum Dumping Height	6.17	m	242.91 in. 20 ft 3 in.
E Minimum Swing Radius	2.91	m	114.57 in. 9 ft 7 in.
F Maximum Vertical Wall	5.16	m	203.15 in. 16 ft 11 in.
G Tail Swing Radius	2.55	m	100.39 in. 8 ft 4 in.
<i>Arm Length 3.10 m (10 ft 2 in.)</i>			
Arm Digging Force (SAE)	79.43	kN	17,857 lb.
Arm Digging Force (ISO)	81.0	kN	18210.43 lb.
Bucket Digging Force (SAE)	104.96	kN	23,598 lb.
Bucket Digging Force (ISO)	112.0	kN	25179.86 lb.
A Maximum Reach	9.33	m	367.32 in. 30 ft 7 in.
A' Maximum Reach at Ground Level	9.16	m	360.63 in. 30 ft 1 in.
B Maximum Digging Depth	6.49	m	255.51 in. 21 ft 4 in.
B' Maximum Digging Depth at 2.44 m (8 ft) Flat Bottom	6.27	m	246.85 in. 20 ft 7 in.
C Maximum Cutting Height	9.13	m	359.45 in. 29 ft 11 in.
D Maximum Dumping Height	6.40	m	251.97 in. 20 ft 12 in.
E Minimum Swing Radius	2.92	m	114.96 in. 9 ft 7 in.
F Maximum Vertical Wall	5.69	m	224.02 in. 18 ft 8 in.
G Tail Swing Radius	2.55	m	100.39 in. 8 ft 4 in.

Machine Dimensions



A Overall length 2.60 m (8 ft 6 in.) arm	8.62 m	339.37 in.	28 ft 3 in.
Overall length 3.10 m (10 ft 2 in.) arm	8.65 m	340.55 in.	28 ft 5 in.
B Overall Height 2.60 m (8 ft 6 in.) arm	2.87 m	112.99 in.	9 ft 5 in.
Overall Height 3.10 m (10 ft 2 in.) arm	3.11 m	122.44 in.	10 ft 2 in.
C Rear-End Length/Swing Radius	2.55 m	100.39 in.	8 ft 4 in.
D Distance Between Idler/Sprocket Centerline	3.10 m	122.05 in.	10 ft 2 in.
E Undercarriage Length	3.92 m	154.33 in.	12 ft 10 in.
F Counterweight Clearance	1030 mm	40.55 in.	3 ft 5 in.
G Upperstructure Width	2.50 m	98.43 in.	8 ft 2 in.
H Cab Height	2.95 m	116.14 in.	9 ft 8 in.
I Track Width with Triple Semi-Grouser Shoes			
600 mm (24-in.)	0.60 m	24 in.	2 ft 0 in.
700 mm (28-in.)	0.70 m	28 in.	2 ft 4 in.
J Gauge Width	1.99 m	78.35 in.	6 ft 6 in.
K Ground Clearance	470 mm	18.50 in.	1 ft 7 in.
L Overall Width With Triple Semi-Grouser Shoes 600 mm (24-in.)	2.59 m	101.97 in.	8 ft 6 in.
700 mm (28-in.)	2.69 m	105.91 in.	8 ft 10 in.

LIFT CHARTS

The load point is the arm tip position (bucketless), using standard counterweight, situated on firm, level, uniform supporting surface.

Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. Figures in bold are hydraulically-limited capacities. Remaining figures are stability-limited capacities.

Lift Capacity 160P		Bucket: N/A					Shoe: 600 mm (24 in)	
Arm: 2.60 m (8 ft 6 in.)		Horizontal Distance from Centerline of Rotation						
Lifting over front	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m							
	20 ft							
	4.5 m			4,570	4,300			
	15 ft			9,920	9,430			
	3.0 m		8,880	5,880	4,850			
	10 ft		18,910	12,710	10,570			
	1.5 m			7,270	4,950			
	5 ft			15,720	10,680			
	Ground line m		6,260	7,420	4,830			
	ft		14,450	15,970	10,420			
	-1.5 m	5,740	10,420	7,360	4,790			
	-5 ft	12,870	23,810	15,830	10,340			
	-3.0 m	10,310	11,050	7,430				
	-10 ft	23,240	23,930	15,990				
Arm: 2.60 m (8 ft 6 in.)		Bucket: N/A					Shoe: 600 mm (24 in)	
Lifting over side	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m							
	20 ft							
	4.5 m			4,570	3,490			
	15 ft			9,920	7,510			
	3.0 m		8,880	5,100	3,360			
	10 ft		18,910	11,020	7,240			
	1.5 m			4,770	3,210			
	5 ft			10,310	6,930			
	Ground line m		6,260	4,580	3,100			
	ft		14,450	9,880	6,700			
	-1.5 m	5,740	8,320	4,520	3,070			
	-5 ft	12,870	17,870	9,760	6,630			
	-3.0 m	10,310	8,470	4,580				
	-10 ft	23,240	18,210	9,900				

Lift Capacity 160P		Bucket: N/A					Shoe: 700 mm (28 in)	
Arm: 2.60 m (8 ft 6 in.)		Horizontal Distance from Centerline of Rotation						
Lifting over front	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m							
	20 ft							
	4.5 m			4,570	4,300			
	15 ft			9,920	9,430			
	3.0 m		8,880	5,880	4,850			
	10 ft		18,910	12,710	10,570			
	1.5 m			7,270	4,990			
	5 ft			15,720	10,770			
	Ground line m		6,260	7,480	4,880			
	ft		14,450	16,110	10,510			
	-1.5 m	5,740	10,420	7,420	4,830			
	-5 ft	12,870	23,810	15,960	10,430			
	-3.0 m	10,310	11,050	7,490				
	-10 ft	23,240	23,930	16,120				
Arm: 2.60 m (8 ft 6 in.)		Bucket: N/A					Shoe: 700 mm (28 in)	
Lifting over side	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m							
	20 ft							
	4.5 m			4,570	3,520			
	15 ft			9,920	7,590			
	3.0 m		8,880	5,150	3,390			
	10 ft		18,910	11,140	7,320			
	1.5 m			4,830	3,250			
	5 ft			10,430	7,010			
	Ground line m		6,260	4,630	3,140			
	ft		14,450	10,000	6,780			
	-1.5 m	5,740	8,410	4,570	3,100			
	-5 ft	12,870	18,080	9,870	6,710			
	-3.0 m	10,310	8,560	4,640				
	-10 ft	23,240	18,410	10,010				
Lift Capacity 160P		Bucket: N/A					Shoe: 600 mm (24 in)	
Arm: 3.10 m (10 ft 2 in.)		Horizontal Distance from Centerline of Rotation						
Lifting over front	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m				3,380			
	20 ft				7,170			
	4.5 m				3,870			
	15 ft				8,490			
	3.0 m		7,410	5,280	4,470	3,360		
	10 ft		15,820	11,420	9,750	6,760		
	1.5 m		7,570	6,780	4,960	3,560		
	5 ft		18,220	14,660	10,700	7,680		
	Ground line m		6,850	7,420	4,820	3,500		
	ft		15,760	15,970	10,390	7,550		
	-1.5 m	5,170	9,640	7,310	4,750			
	-5 ft	11,580	21,990	15,720	10,240			
	-3.0 m	8,710	11,680	7,330	4,780			
	-10 ft	19,610	25,280	15,780	10,310			
	-4.5 m			9,390	6,330			
	-15 ft			20,090	13,350			
Arm: 3.10 m (10 ft 2 in.)		Bucket: N/A					Shoe: 600 mm (24 in)	
Lifting over side	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m				3,380			
	20 ft				7,170			
	4.5 m				3,530			
	15 ft				7,600			
	3.0 m		7,410	5,180	3,380	2,400		
	10 ft		15,820	11,200	7,300	5,160		
	1.5 m		7,570	4,820	3,220	2,320		
	5 ft		18,220	10,410	6,940	5,010		
	Ground line m		6,850	4,570	3,080	2,270		
	ft		15,760	9,870	6,660	4,890		
	-1.5 m	5,170	8,210	4,470	3,020			
	-5 ft	11,580	17,650	9,650	6,520			
	-3.0 m	8,710	8,310	4,490	3,040			
	-10 ft	19,610	17,880	9,700	6,590			
	-4.5 m			8,590	4,660			

-15 ft		18,490	10,100		
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Lift Capacity 160P		Bucket: N/A					Shoe: 700 mm (28 in)	
Arm: 3.10 m (10 ft 2 in.)		Horizontal Distance from Centerline of Rotation						
Lifting over front	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m				3,380			
	20 ft				7,170			
	4.5 m				3,870			
	15 ft				8,490			
	3.0 m		7,410	5,280	4,470	3,360		
	10 ft		15,820	11,420	9,750	6,760		
	1.5 m		7,570	6,780	5,010	3,590		
	5 ft		18,220	14,660	10,790	7,750		
	Ground line m		6,850	7,490	4,860	3,530		
	ft		15,760	16,110	10,480	7,620		
	-1.5 m	5,170	9,640	7,370	4,790			
	-5 ft	11,580	21,990	15,850	10,330			
	-3.0 m	8,710	11,680	7,390	4,820			
	-10 ft	19,610	25,280	15,910	10,400			
	-4.5 m		9,390	6,330				
	-15 ft		20,090	13,350				
Arm: 3.10 m (10 ft 2 in.)		Bucket: N/A					Shoe: 700 mm (28 in)	
Lifting over side	m	1.5	3.0	4.5	6.0	7.5		
Load Point Height	ft	5	10	15	20	25		
	6.0 m				3,380			
	20 ft				7,170			
	4.5 m				3,560			
	15 ft				7,680			
	3.0 m		7,410	5,420	3,420	2,420		
	10 ft		15,820	11,310	7,380	5,220		
	1.5 m		7,570	4,870	3,250	2,350		
	5 ft		18,220	10,530	7,020	5,070		
	Ground line m		6,850	4,630	3,120	2,290		
	ft		15,760	9,990	6,740	4,950		
	-1.5 m	5,170	8,300	4,530	3,060			
	-5 ft	11,580	17,850	9,760	6,600			
	-3.0 m	8,710	8,410	4,550	3,080			
	-10 ft	19,610	18,080	9,820	6,670			
	-4.5 m		8,680	4,710				
	-15 ft		18,690	10,210				

