

Used John Deere 6430, Standard Cab, MFWD, 16 X 16 Power Quad Plus

General		
It is the intent of this specification to describe an industrial self propelled used mower tractor. The unit shall have less than 1900 hours. The tractor's (2) model shall meet or exceed the terms of this specification. The unit shall be complete and fully operational upon delivery to the purchasers site with in 14 days ARO. For any offer to be considered all items must be of a standard production model and not modified for bid purposes. Please state Warranty remaining on unit_____		
The unit shall be complete and fully operational upon delivery to the purchasers site within 14 Days A.R.O.		
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Specification Required	Comply	Exceptions, Deviations, and Explanations
	Yes or No	List
Engine		
95 PTO horsepower (71 KW) @ 2300 RPM		
115 Engine horsepower (86 KW) @2300 RPM		
4 cylinder Turbo charged diesel engine		
two (2) Valve in Head with Wet Sleeve design		
276 CID (4.53 Liters)		
Dual temp cooling system		
Coolant cooled charged air cooler		
Dry type air cleaner with safety element and pre cleaner		
Under hood muffler with vertical exhaust		
Engine service side shields		
Thermostat starting aid		
Water in fuel sensor		
Antifreeze		
Front auxillary drive preparation		
Transmission		
Power Quad, 16 forward speeds, 16 reverse speeds, with left hand mechanical reverser (19 mph / 30kmh)		
Park lock		
Hydraulic "wet" clutch		
Steering and Brakes		
Hydrostatic Steering		
Dual stage disc brakes		
Hydraulics		
Load sensing constant flow pressure compensated system		
21.1 GPM pump capacity @ 2300 engine RPM		
Dual selective control valve with couplers		
Power beyond, allows hydraulic pump to power implements that have independent control valves		
Power Take off Shaft		
Independent 540 RPM rear with shields		
Hydraulic clutch		
Neutral start		
Seat activated PTO warning		
Electrical		
12 volt electrical system		
Battery (830 CCA, 110 Ah)		
7 terminal ASAE outlet socket		
key engine shutoff		
90 amp alternator		
one remote three point hitch switch		
Instrumentation		
Tachometer		
Speedometer		
Hour meter		
Electronic fuel gauge		
Oil pressure indicator light		
Air Cleaner restriction indicator		

Specification Required	Comply Yes or No	Exceptions, Deviations, and Explanations List
Rock Shaft and Draw Bar		
One fender mounted 3 point hitch control		
Rear dual cylinder rock shaft		
Category 2 hitch		
Left hand telescopic draft link		
Electronic hitch and control		
Swinging draw bar		
Left hand stabilizer bar		
Lights		
Two front grille		
Single rear work light		
Flashing warning lights		
Combination tail and implement		
Rear Axle Wheels and Tires		
Flanged axle		
Eight position rear wheels		
18.4 x 34 In. 144A8 R1W Radial (480/85R34 In. 147 A8 R1W Radial)		
Front Axle Wheels and Tires		
4WD front axle - Caster Action Mechanical		
Tire Size - 12.4R24 121A8 R1W Radial		
Miscellaneous		
Hydraulic differential lock		
SMV emblem		
Full length structural frame		
43.6 gallon fuel tank		
Tilttable engine enclosure		
Horn		
Comfort Guard Cab		
Two doors		
Two front roof working lights		
Air conditioning		
Tilt steering wheel		
Console mounted shift levers		
Air suspension seat, 3 in. cushion, horizontal suspension, backrest adjustment, arm rests, mechanical lumbar support, side rails, swivel 15 degrees left and 15 degrees right, operator presence switch, retractable seat belt, operators manual holder		
Radio prep package, antenna, cable, two speakers, wiring harness for speakers and radio		
Hand and foot throttle		
Viscous drive fan		
Front windshield wiper		
A post mounted cup holder		
Telescopic rear view mirrors (2) manually adjustable		
Cab Tilts 90° to right for service.		
Warranty		
State warranty to be provided.		

BENGAL SERIES TRB-60C- SS BOOM MOWER

General (USED BOOM MOWER)

It is the purpose of the following specifications to describe a used hydraulic driven rotary boom mower. Mowing is forward and right of the right rear tire and extended by means of an articulated Two section boom with hydraulic break away. This unit shall be constructed to interchange with any of the following: 50" Rotary Cutting Head, 63" Flail cutting head, 50" Flail Cutting Head, 48" Saw Blade, Boom Snow Blower, 22" Rotary Ditcher, 60" Side Rotary Mower or 75" Side Flail Mower.

The unit will be the manufacturer's current production model with a minimum of (1) one year previous production, meeting or exceeding the terms of these specifications. Unit's shall be manufacturer's heaviest duty model available. The vendor shall guarantee that a stock of component parts be available at a location convenient to the user. For any offer to be considered, all items must be of a standard production model, not modified for bid purposes. All deviations must be spelled out and explained in full.

SPECIFICATIONS REQUIRED	COMPLY YES / NO	EXCEPTIONS, DEVIATIONS, and ANSWERS
SAFETY AND TESTING		
Shall meet the following industry standards: SAE: J232, J284, J990, J1065. ANSI/ASAE- 201.4, S203.13, S205.2, S279.12, S350, EP363.1, S483, S493. ASTM: A370. Submit compliance report signed by a registered Professional Engineer.	<input type="checkbox"/>	
Unit shall be equipped with a 7 second brake valve on the cutting assembly. Brake valve shall be plumbed with JIC and O-Ring fittings.	<input type="checkbox"/>	
Electric Solenoid control transport lock to be integrated into the mower control box.	<input type="checkbox"/>	
A: MAIN FRAME		
Main side supports shall be 1/2" x 16.75" x 19.5" steel connected under tractor by 3/4" x 12" x 42" steel welded channel and gusseted on each side by 5/8" x 5" x 32". No over hood brace to obstruct visibility. Secured to tractor by 20 mm grade 8 bolts and braced to absorb side torque and impact of severe applications.	<input type="checkbox"/>	
Boom mower to be mounted structurally to the tractor. Mower mounting and support system shall not be lower than the boom mounting bracket to provide optimum ground clearance.	<input type="checkbox"/>	
B: PRIMARY BOOM		
Minimum of 70,000 PSI 8" x 6" x 1/4" structural tube and reinforcement with 100,000 PSI 1/4" steel. Sectional properties: Torsional 74.9"⁴ Horizontal 60.1"⁴ Vertical 38.6"⁴	<input type="checkbox"/>	
Primary boom shall have a one piece reinforced cylinder attaching rib, double lightning holes attached to the top surface of tube, with the end welds strategically welded around end of rib to boom upper surface. Inner end of Primary boom shall have a 1 1/2" diameter 105,800 PSI yield, hardened, nitride surface pin, with a high-strength, teflon, composit reinforced bearing installed.	<input type="checkbox"/>	
Base shall have integral swing cylinder attachment clevis with spherical bearing and constructed of 1" thick 100,000 PSI steel and 1" thick gussets to support 12"x1 1/2" swing pivot	<input type="checkbox"/>	
Pressure and return lines will be preformed steel tubes with hoses at pivot points and mounted to back of boom	<input type="checkbox"/>	
Horizontal cylinder shall be double acting, welded industrial type and move 26° forward and 28° rearward with limited relief protection	<input type="checkbox"/>	
Top mounted double acting lift cylinder shall have a nitrogen accumulator and auto cushioning device.	<input type="checkbox"/>	
Cylinder ends have replaceable bearings and are greaseable	<input type="checkbox"/>	
C: BOOM SWIVEL BRACKET		
Boom shall be supported by a swivel bracket with a single 100,000 PSI, 53/64" thick verticle tang, tange shall contain a 2 3/8"OD x 1 1/4" ID, greaseless spherical bearing (attached to primary boom lift cylinder). Boom shall swivel fore and aft with a 3"OD x 1 3/4" ID verticle boss, with a high-strength, teflon, composit reinforced bearing installed. Verticle pin shall be a 105,800 PSI yield, hardened, nitride surface pin.	<input type="checkbox"/>	
The swivel bracket weldment shall be completely boxed in and continously welded.	<input type="checkbox"/>	
Base shall have integral swing cylinder attachment clevis with a high-strength, teflon, composit reinforced bearing installed and constructed of a minimum of 3/4" thick 100,000 PSI steel, and supported by a 3 1/4" OD x 1/4" thick, Non-metalic, thrust washer.	<input type="checkbox"/>	

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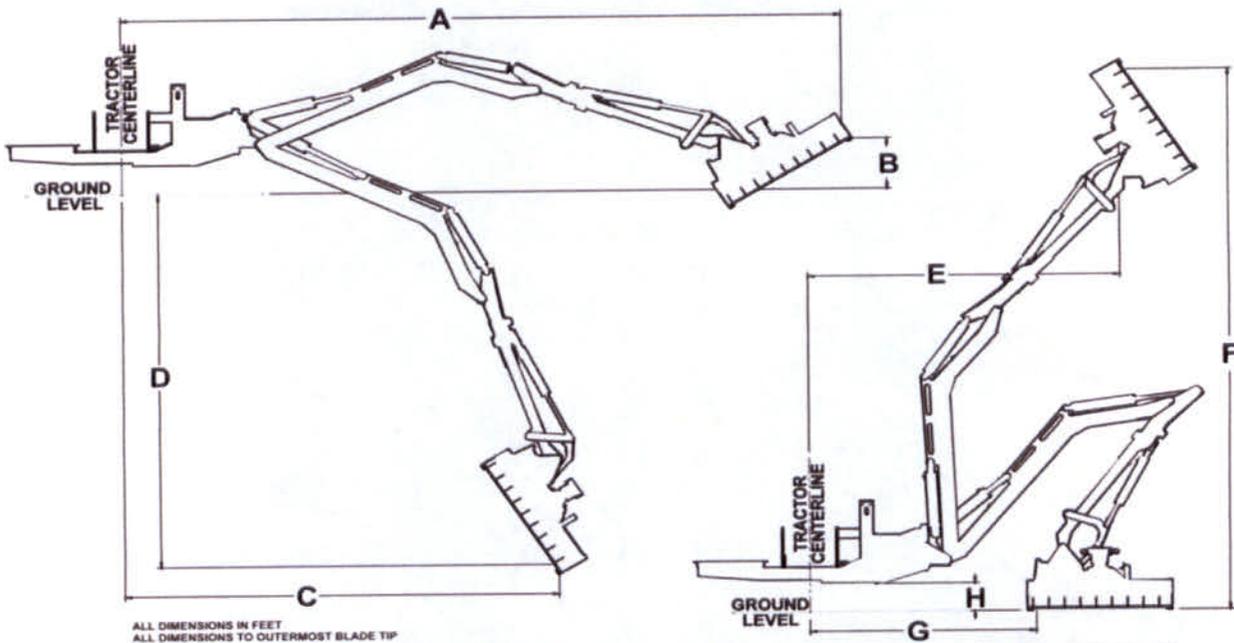
SPECIFICATIONS REQUIRED	COMPLY YES / NO	EXCEPTIONS, DEVIATIONS, and ANSWERS
D: SECONDARY BOOM		
Minimum of 50,000 PSI yield 6" x 4" tube and reinforced at all stress points.		
Grease able spherical bearings on hydraulic cylinder rod end.		
Pressure and return lines are preformed steel tubes and hoses mounted to rear of boom.		
Cylinders shall be welded, double acting and mounted to top of boom.		
Outer end of secondary boom shall have a 7" x 3" OD x 1 1/2" ID mounting boss, directly attached to the boom structure, box sectioned into the boom (no external reinforcements allowed)		
E: HYDRAULICS		
Pump shall be direct drive from the tractor front crankshaft adapter.		
Reservoir shall be internally treated against corrosion with industry approved chemical agent at time of manufacture. Reservoir shall have a in tank filter rated at 75 GPM, 10 micron, 200 beta, element with bypass, restriction gauge, minimum (1) one PSI pressure at suction outlet and have ball valve at suction line. Tank pressurized to 3 PSI.		
Reservoir to provide maximum turning radius front tires. Hydraulic fluid level and temperature gauge to be built-in reservoir. Built in cooler shelf shall be provided.		
Reservoir shall be attached to mainframe with 2, 5/8" Grade 5, verticle rods that extend through a 1 1/8" x 3" x 1/4" channel. (Strap-type hold down specifically excluded.)		
Hydraulic pressure connections shall meet SAE O-ring and JIC standards		
Pump shall be front mount, cast steel housing, steel gears, rated at 3250 PSI, 45 GPM and 96 HP input.		
Suction hose shall be unrestricted 1" I.D. (Specifically excluding suction filters and screens)		
Pressure and return lines will be unrestricted 1" I.D. with (4) four times working pressure rating.		
Hydraulic oil shall meet A cleanliness standard of ISO 46 rating.		
Pump driveshaft rated not less than 122 HP.		
Motor shall have cast steel housing with steel gears and rated for 116 HP output.		
Mower control valve is electrically controlled, pilot operated, floating spool with starter lockout and will not cause restriction to generate drift while in the off position.		
Non-restrictive mower control valve will stop cutter assembly in maximum of 7 seconds from full RPM.		
F: LIFT CONTROL VALVE		
Valve shall be five tapered, metered spools, equipped with ten pilot pressure relief's, protecting all functions. Cable controls standard equipment.		
Joy-Stick Valve Option: Five bank electro-hydraulic, proportional, load sensing, with single lever joystick controller and manual over-ride at operators position functions used with selector valve. Electrical connections shall be Deutsh connectors (with a minimum IP-69K rating), hysteresis of not more than 2%, and equipped with automatic fault monitoring.		
Tractor hydraulics shall be used for mower's lift system.		
Lift valve(s) shall be installed behind tractor (no lift valves allowed in wheel well)		
G: CUTTING HEAD		
60" rotary deck shall be constructed of Minimum yield 100,000 PSI yield, 3MM thick steel with (4) four 2mm thick trapezoidal formed 100,000 PSI steel reinforcements placed on the top of the		
Deck side walls shall be constructed of (2) two layers, continuous 3 mm plus 1/4" strategic reinforcement for 3/8" 100,000 PSI yield steel		
Deck shall have full length, abrasion resistant, hardened, replaceable skid shoes		
Safety shield will operate hydraulically from operators position and shall extend below the cutting plane. Safety door shall be constructed of Domex Steel and meets all ANSI / SAE tests for rotary mowers.		
Rubber stop shall be bolted to back side of safety shield hinge.		
Cutter head pivot assembly shall be fully welded and integrated into the cutter head design.		
Head shall have combined rotation of 435° and 60° of actual cut		
Head shall weigh no less than 835 lbs		
H: SPINDLE		
Spindle shall be (1) one piece forged and heat treated. Minimum 131,000 PSI yield alloy steel with 7 1/4" O.D. and 10 7/8" over all length with a 2 5/8" I.D. lower bearing and 2" upper bearing		
Spindle shall be attached to hydraulic motor by a flexible coupler and dust cover		
Spindle assembly shall have minimum torsional shear capacity of 4174 ft-lb torque, 231,000 PSI yield rotational strength and distribute load over 169 sq. inch area.		
Spindle Housing shall be one piece and have stationary wire and string wrap protection.		
Spindle drive area shall be enclosed and fully protected from outside debris entering into the drive coupler		

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SPECIFICATIONS REQUIRED	COMPLY YES / NO	EXCEPTIONS, DEVIATIONS, and ANSWERS
H: SPINDLE CONTINUED		
Spindle shall be mounted in sealed double tapered roller bearings and utilize Mobilith SHC 220 grease.		
Spindle shall rotate 19,000 FPM blade tip speed at rated tractor RPM.		
Spindle has spin formed hub attached to deck to support and distribute load evenly around a radial axis		
I: KNIFE CARRIER		
Blade Bar cutting assembly shall be constructed of 1 1/4" T-1 Steel. The bar shall extend a minimum of 5 3/8" inches beyond the center of the knife mounting hole.		
Shall accommodate (2) 5/8" x 5 x 17", 360° swinging, single edge, brush or suction grass knives		
Knives shall be attached by a 1 1/8" x 3 1/4" shouldered and keyed Grade 8 bolts, backed by T-1 spacers and Grade 8 hex lock nuts.		
All knives to be shot peened with a chamfered bolt hole.		
J: COUNTERWEIGHT		
Left rear tire will be calcium filled and no less than 1,300 lb cast-iron weight inserted flush into wheel (Specifically excluding flame cut steel and or frame mounted weight(s)).		
K: OPERATOR PROTECTION		
Shall have 3/8" right side, hard surfaced, polycarbonate protection for operator. Installed into the original cab manufactured door and or side window.		

DIMENSIONAL SPECIFICATION

EXCEPTIONS: § ALL DIMENSIONS BASED ON 1.1 FT GROUND CLEARANCE WITH MOUNTING FRAME.
(TRACTOR MODEL, TIRE SIZE AND OTHER FACTORS MAY AFFECT VALUES.)



	REACH OUT (Centerline to Blade Tip)	GROUND LEVEL to BLADE TIP	REACH OUT @ Max. Down	REACH DOWN (Ground level to Blade Tip)	REACH OUT @ Max. Up	REACH UP (Ground Level to Blade Tip)	REACH IN (Centerline to Blade Tip)	MAINFRAME TO GROUND LEVEL §
Bengal™	A	B	C	D	E	F	G	H
TRB60C-SS	23.0'	1.7'	12.9'	13.6'	8.5'	19.5'	6.1'	1.0'

SS (Side Stow) § ALL DIMENSIONS BASED ON 1.1 FT GROUND CLEARANCE WITH MOUNTING FRAME (TRACTOR MODEL, TIRE SIZE AND OTHER FACTORS MAY AFFECT VALUES.)