

## SPECIFICATIONS FOR 21' HEAVY DUTY MID MOUNT BOOM MOWER

SPECIFICATION REQUIRED	COMPLY	EXCEPTIONS / DEVIATIONS
<u>GENERAL</u>	yes / no	
<p>It is the purpose of the following specifications to describe a hydraulically driven boom mower. Mowing is forward and right of the right rear tire and extended by means of an articulated two section boom. This unit shall interchange with any of the following: 60" rotary brush mower head, 60" flail mower head.</p> <p>The unit shall be the manufacturer's heaviest duty model available. All deviations must be spelled out and explained in full.</p>		
<u>BOOM MAIN FRAME</u>		
Main frame shall be constructed of 4" x 4" x 3/8" structural Steel Tubing with 50,000 psi tensile strength.		
Main frame mount shall have braces to back axle on both sides.		
Main frame shall connect to tractor with grade 8 bolts.		
<u>MAIN SWING POST</u>		
Main swing post shall be constructed of 6" x 6" x 3/8" structural steel tubing with 50,000 psi tensile strength		
Inner boom attachment plates shall be constructed of 3/4" thick 100,000 psi steel		
Main swing post shall be double shear design with 2" diameter 4140 chrome-molly pins.		
Main swing post shall have 2" diameter steel bushings with grease zerks for pivot.		
Swing ram shall be welded industrial type 3-1/2" diameter with 1-1/2" rod. Pins to be 1" grade 5 bolts		
Main swing post shall move 20* forward and 90* rearward.		
<u>INNER BOOM</u>		
Inner boom shall be constructed of 6" x 6" x 3/8" structural steel tubing with 50,000 psi tensile strength.		
Inner boom shall reinforced at all stress points with 100,000 psi tensile strength steel		
Inner boom pivot points shall have 1-1/2" grease able & replaceable hardened steel bushings with a Rockwell hardness of C50		

Inner boom pivot pins shall be 1-1/2" 100,000 psi. tensile strength steel case hardened to a Rockwell hardness of C50		
Inner boom lift cylinder shall be welded industrial type 4" diameter with 2" rod and hardened steel replaceable bushings on both ends. Pins to be 1-1/4" 100,000 psi. tensile strength steel case hardened to a Rockwell of C50		
<u>OUTER BOOM</u>		
Outer boom shall be constructed of 5" x 5" x 3/8" structural steel tubing with 50,000 psi tensile strength.		
Outer boom shall be reinforced at all stress points with 100,000 psi tensile strength steel.		
Outer boom pivot points shall have 1-1/2" grease able & replaceable hardened steel bushings with a Rockwell hardness of C50		
Outer boom Pivot pins shall be 1-1/2" 100,000 psi. tensile strength steel case hardened to a Rockwell hardness of C50		
Dipper cylinder shall be welded industrial type 4" diameter with 2" rod and hardened steel replaceable bushing in rod end. Rod end pin to be 1-1/4" 100,000 psi. tensile strength steel case hardened to a Rockwell hardness of C50. Base pin to be 1-1/4" chrome molly steel		
Deck roll cylinder shall be welded industrial type 3-1/2" diameter with 1-1/2" rod with hardened steel replaceable bushing on rod end. Pins to be 1" grade 5 bolts		
<u>REACH</u>		
Mower shall reach 18'-10" up / 13'-10" down / 21' out		
Reach is measured from center line of tractor and may vary depending on model of tractor or tire size.		
<u>HYDRAULICS</u>		
Reservoir shall be 65 gallon walk over style and equipped with in tank filter rated at 75 G.P.M., 10 micron element. Tank shall have shut off valve at suction line.		
Pump shall be front mounted tandem steel gear type with heavy duty drive line.		
Pump shall be 37 G.P.M. @ 2,200 R.P.M. @ 2,500 P.S.I. for mower drive and 10 G.P.M. @ 2,200 R.P.M. @ 2500 P.S.I. For control valve.		

Suction Hose shall be 2" inside diameter. Pressure hose shall be 1" diameter rubber hose rated at 3000 P.S.I. working pressure.		
All hydraulic fittings shall o-ring / JIC type fittings.		
<u>MOWER VALVE</u>		
Mower on / off valve shall be electric controlled with hydraulic brake feature for shut down, and starter lock out		
<u>MOWER CONTROL VALVE</u>		
Shall be 4 bank tapered spool hydraulic valve with morse cable controls.		
Mower shall have frame mounted relief valve for swing break away.		
<u>CUTTER HEAD</u>		
shall have 60" ( actual ) cutting width.		
Cutter head bonnet shall be 10 gauge steel. End plates shall be 3/8" thick steel.		
Cutter head back angle shall be formed 1/4" HS steel. Front cutter head cross tube shall be 2" x 2" x 1/4" structural steel tubing.		
Cutter head shall have skid runners.		
Cutter head shall have heavy duty rubber conveyor belting rear debris deflector.		
Hydraulic motor drive shall be machined housing with tapered bearings. Motor shall drive rotor with double banded v belt.		
Rotor shaft shall be constructed of 4-1/2" OD x 3/8" wall DOM steel tubing.		
Rotor shaft bearings shall 2-3/16" ID self aligning cartridge flange style.		
Rear roller shall be 6" OD with 1-1/4" diameter, replaceable shaft. It shall be adjustable from 0" to 6" for cutting height.		
Hydraulic motor shall be heavy duty steel gear type .		
<u>COUNTER WEIGHT</u>		
Shall be 1800 lbs. Frame mounted . ( mounted under oil tank )		

