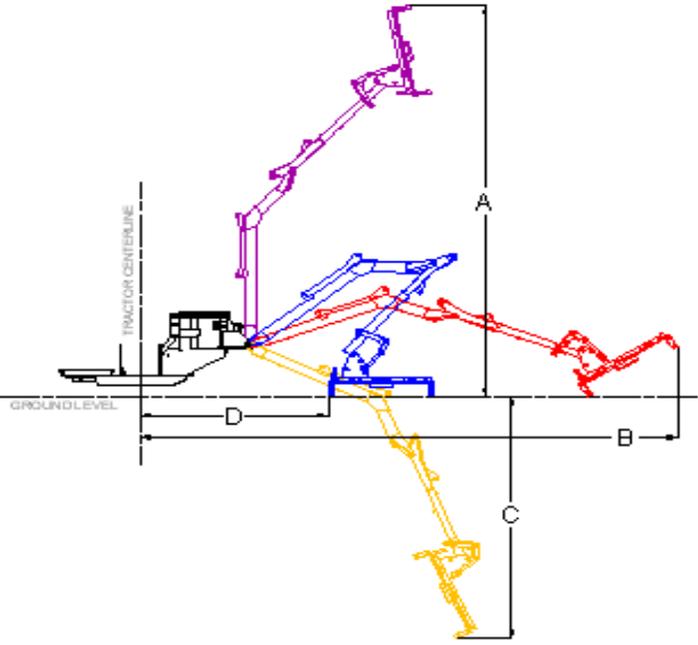


SPECIFICATIONS WHEEL LOADER MOUNTED 22.5' BOOM WITH 50" FLAIL MOWER

SPECIFICATIONS REQUIRED	COMPLY (Yes/No)	DEVIATIONS/EXCEPTIONS/COMMENTS
<u>General</u>		
<p>It is the purpose of the following specifications to describe a self-propelled, hydraulically driven, boom type, rotary mower, which shall mow forward and right of the right front tire, and extend by means of an articulated, two-section boom. This unit shall be constructed to receive, in lieu of the 50" flail boom mower, a 63" flail boom mower, a 50" or 60" rotary boom mower, a 22" rotary ditcher or a 22" rotary boom ditcher, and a 48" saw blade head. The unit shall be of the manufacturer's current production model, meeting or exceeding the terms of these specifications. Unit(s) shall be the manufacturer's most heavy-duty model available. The manufacturer shall furnish parts and operation manuals for the unit(s) bid. The manufacturer shall also guarantee equipment against defects in workmanship and materials for a period of (1) year.</p>		
<u>SAFETY SPECIFICATIONS</u>		
<ul style="list-style-type: none"> ●Unit shall meet or exceed the following industry standards: SAE J1001, J115, J208, J715, J898, J909, J920, J1150, J1500. ANSI/ASAE S441, S318.7, S217.10, S278.6, EP363. ASTM A370. A compliance report shall be available upon request. 		
<u>CUTTING HEAD</u>		
<ul style="list-style-type: none"> ●Cutting width shall be 50" of actual cut. ●Cutting assembly shall be flail type, and hydraulically powered. ●Cutting head deck shall have 100,000 lb rated steel housing. ●Cutting head shall have 435° of combined rotation. ●Cutting shaft shall have a minimum of (48) dual purpose, 2 lb, 8" in length, brush and grass knives. Knives will be 10mm thick, and be capable of cutting brush 6" in diameter. Knives will be mounted with 1" grade 8 bolts to the cutting shaft. Knives shall be reversible. ●Cutting shaft shall be a minimum of 6" in diameter, with 2-3/16" diameter stub shafts and bearings. Cutting shaft bearings will be of the grip tight double shielded type. ●Cutting heads shall have 6-5/8" diameter rollers, 1-3/8" grip tight shielded bearings, and replaceable 1-3/8" stub shafts with external bearing hub caps and cap retainers. ●Cutting head weight shall be a minimum of 1060 lbs. ●Hydraulic motor assemblies shall have automatic belt self-tensioners. ●Cutting head shall have a minimum of 1/4"x25" solid steel sidewalls. ●Cutting bonnet thickness shall be a minimum of 1/8". ●Cutting shaft rpm shall be a minimum of 1700 (tip speed of 10224 fpm.) ●Hydraulic motor shall have a rating of 81.3 hp. ●Cutting head shall have removable skid shoes. 		
<u>BOOM SPECIFICATIONS</u>		
<ul style="list-style-type: none"> ●A hardened plain bearing having not less than 37 inches² of bearing surface shall support the boom. The base plate shall have an integral swing cylinder attachment point and be constructed of not less than 1" thick and 100,000 psi (T1) steel. ●Boom swivel bracket shall be triple anchored with 1" thick T-1 steel. All (3) anchors shall have 360° grease groove hardened spring steel replaceable split bushings. All (3) anchors shall each be equipped with a grease zerk. ●Counterweight shall weigh not less than 1,180 lbs, mounted on the unit frame opposite of the boom side. ●Inner boom structural tube shall not have less than the following sectional properties: Torsional 74.9" ⁴ Bending (Horizontal) 60.1" ⁴ Bending (Vertical) 23.8" ⁴. Inner boom shall be constructed of not less than 70,000 psi, 8"x6"x1/4" tube, and reinforced with not less than 3/8", 100,000 psi T1 steel ●Outer boom structural tube shall not have less than the following sectional properties: Torsional 25.0" ⁴ Bending (Horizontal) 22.1" ⁴ Bending (Vertical) 11.7" ⁴. The outer boom shall constructed of not less than 70,000 psi, 6"x4"x1/4" tube and reinforced with not less than 3/8", 100,000 psi T1 steel 		

SPECIFICATIONS WHEEL LOADER MOUNTED 22.5' BOOM WITH 50" FLAIL MOWER

SPECIFICATIONS REQUIRED	COMPLY (Yes/No)	DEVIATIONS/EXCEPTIONS/COMMENTS
		
<ul style="list-style-type: none"> ● Boom dimensions are measured from ground level and the tractor's centerline. Boom reach-out (B) is 22' 11", boom reach-in (D) is 7' 2", boom height (A) is 20' 3", boom Depth (C) is 15'. Boom reach, height, and depth may vary depending upon tractor and/or tire configuration. 		
<ul style="list-style-type: none"> ● A Polycarbonate lexan window shall be installed to provide safety protection for the operator. It can be installed in place of, or over the glass, or attached to a frame on the right side of the cab windows. 		
HYDRAULIC CYLINDERS		
<ul style="list-style-type: none"> ● Boom shall have a hydraulically operated swivel actuator for horizontal movement of the cutter head. Cutter head shall have the capability of moving 105° forward and 75° rearward with limited relief protection. 		
<ul style="list-style-type: none"> ● All cylinder mountings shall have replaceable, hardened bushings, of the grease-able type. 		
<ul style="list-style-type: none"> ● All cylinders are heavy duty industrial type, nitro steel rod welded. 		
<ul style="list-style-type: none"> ● Secondary boom cylinder shall have a spherical bearing on the rod end. 		
<ul style="list-style-type: none"> ● Hydraulic lift cylinders shall be mounted on the top of the boom arms. 		
<ul style="list-style-type: none"> ● Boom shall have (2) double acting hydraulic cylinders, and (1) single acting hydraulic cylinder with accumulator. 		
HYDRAULIC SYSTEM		
<ul style="list-style-type: none"> ● Lift control valves shall be electronic joystick with a 4/5-bank electro-hydraulic proportional, load sensing, and manual override at operators position. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir shall have a minimum capacity of 65 gallons. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir shall be filled to a maximum of 52 gallons. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir shall have a minimum of one fill sight glass. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir system shall be used as the power source for rotary cutting head. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir shall have a filter with 10 micron element, 75 gpm rated. 		
<ul style="list-style-type: none"> ● Hydraulic oil reservoir shall have a restriction gauge visible to the operator, and reservoir suction and return outlets shall be equipped with ball valves. 		
<ul style="list-style-type: none"> ● Hydraulic oil suction shall be an unrestricted 1.5" ID (specifically excluded shall be the suction filter and screens.) 		

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SPECIFICATIONS REQUIRED	COMPLY (Yes/No)	DEVIATIONS/EXCEPTIONS/COMMENTS
●Hydraulic oil pressure and return system hoses shall be 1" ID high pressure unrestricted. Hoses shall have a burst pressure 4x working pressure.		
●Hydraulic oil pressure, return, and lift system steel hydraulic lines shall be mounted at the rear of the boom arms.		
●Wire braid reinforced hydraulic lines shall be used at all flexible positions on the boom arm (hydraulic hoses/tubing shall not be allowed inside boom arms.)		
●Hydraulic pump and motor shall be gear type with cast steel housing and steel gears (specifically excluded shall be aluminum pumps, motors, and aluminum gears.)		
●Hydraulic pump shall have a rating of 98 hp (input.)		
●Hydraulic oil to the power center head shall not pass through a restriction causing valve while operating the cutting head.		
●Main hydraulic control valve shall be non-restrictive, electric solenoid type, with starter lockout switch (Optional hydraulic brake available.)		
●Hydraulic valve shall not cause restriction to generate drift while in the off position.		
<u>ENGINE/GENERATOR SPECIFICATIONS</u>		
●The weight of the complete unit (with fluids and including the boom) shall be a minimum of 7140 lbs.		
●Attachment brackets will be mounted on the vertical plate of the unit to allow mounting to the loader.		
●The unit's center of gravity shall be no more than 30" from the center of the wheel loader at boom's full extension, and shall be centered with the wheel loader when in the travel position.		
●Diesel engine shall have a minimum power output of 60 kW/80 hp @ 2500 rpm.		
●Diesel engine shall have a minimum rating of a Tier 2 emission certified OEM diesel engine.		
●Unit comes complete with cab mounted remote control capability (with gauges and auto shut down control,) 2-speed throttle, 30 gallon fuel tank, battery box & cables, fuel lines, radiator/fan/fan guard, and engine cover.		

Specifications are subject to change without notice
Revised 6/26/12