

508 — 510 — 512



New John Deere Tractor Mounted Sprayers

800 to 1200 litre capacity



JOHN DEERE

When John Deere introduced the 800 Series trailed sprayers, farmers and contractors agreed that they set new standards for productivity, spraying quality, operator comfort and convenience. Now, you can get many of the same high technology features found on the outstanding 800 Series sprayers in one of three new tractor mounted models.

The new 508, 510 and 512 sprayers are ideal for both large and small fields as well as in hilly conditions. They're designed to give you greater control over spraying schedules, improve timeliness, help you reduce crop protection costs and keep environmental concerns in check.

Best of all, they're designed and built by John Deere ... so you can expect year after year of reliable performance.

The most advanced technology ever



attached to a three-point hitch



- Faster, easier and safer tractor hook-ups
- Robust frame design
- Central operator station to control ALL functions from left side
- Three-point parallelogram for larger boom height range
- Spray booms with more versatility, stability and strength
- Vacuum Recirculation System (VRS)
- Optional GreenStar controller

TECHNOLOGY THAT PAYS

TRACTOR MOUNTED SPRAYERS

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John Deere parallelogram design

For years, tractor mounted sprayer owners have requested a parallelogram system similar to designs that are found on trailed sprayers. But it was never technically possible because it would have moved the centre of gravity too far from the tractor. Until now.

Thanks to a completely new frame and tank design, 500 Series sprayers feature a slim and low tank that improves both weight distribution and stability. What's more, the centre of gravity stays close to the tractor because the width of the tank is not limited by the lower parallelogram arms.

Benefits of parallelogram design include:

- All season long application (even in tall crops like oilseed rape and corn)
- Ability to spray at lower heights to reduce drift (especially in pre-emerge applications)
- Less load and stress on frame
- Better boom ride and less yawing
- Better shock absorption on rough fields and high speed transport



To accommodate the large spray tank (and larger tractors), all 500 Series sprayers feature a new, stronger frame. This John Deere design surrounds the tank with 120 x 80 x 5 mm thick tubular steel.

The lower link of the parallelogram bisects the tank in the centre, tying the frame, boom lift and tractor together as a single, rigid unit. You'll appreciate this innovative design for its durability and stability if you spray on hillsides or in bumpy terrain.

offers unmatched strength and stability

FRAME

The stronger frame allows faster field and transport speeds. In fact, you can travel down the road at speeds up to 50 km/h (where allowed). And even in those countries where such speeds aren't yet allowed by law, you'll appreciate the rock solid base and narrow transport width – as slim as 2.55 m.



Hooking up a sprayer has never been simpler. Whether you choose the optional quick coupling shaft or the standard automatic linkage with 3-point hitch triangle, one thing is certain: coupling a sprayer to the tractor is now safer, easier and quicker than ever. The strong, triangular linkage is the same design you'll



find on fertiliser spreaders. Note how the front of the sprayer is perfectly smooth and leans slightly away from the tractor. Together with the telescopic PTO shaft, this gives you ample room to attach the hydraulic hoses, electric cables and PTO shaft. So you won't get dirty trying to wriggle yourself between



the tractor wheels and sprayer. A hook on the frame holds the PTO shaft when the sprayer is disconnected. Parking slots are available for all hoses and electric cables.

You're spraying more than chemicals on your field ... you're spraying money. And John Deere knows that the more accurate your sprayer, the more money you'll save. Accurate spraying results in higher yields and better quality crops, not to mention the beneficial aspects of judicious chemical use on the environment.

That's why you'll find a long list of chemical saving, high accuracy features built into every 500 Series sprayer.

How important is accuracy? Please see the example (below). As new, environmentally friendly chemicals with lower amounts of active ingredients are introduced, precise distribution is paramount. You can count on John Deere to help make every drop count.

New spray system is

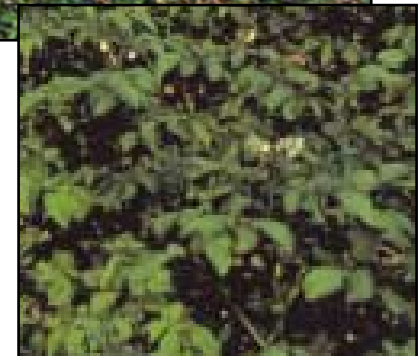


Crop: Potatoes
Disease: Phytophthora Infestans
Pesticide: Shirlan flow

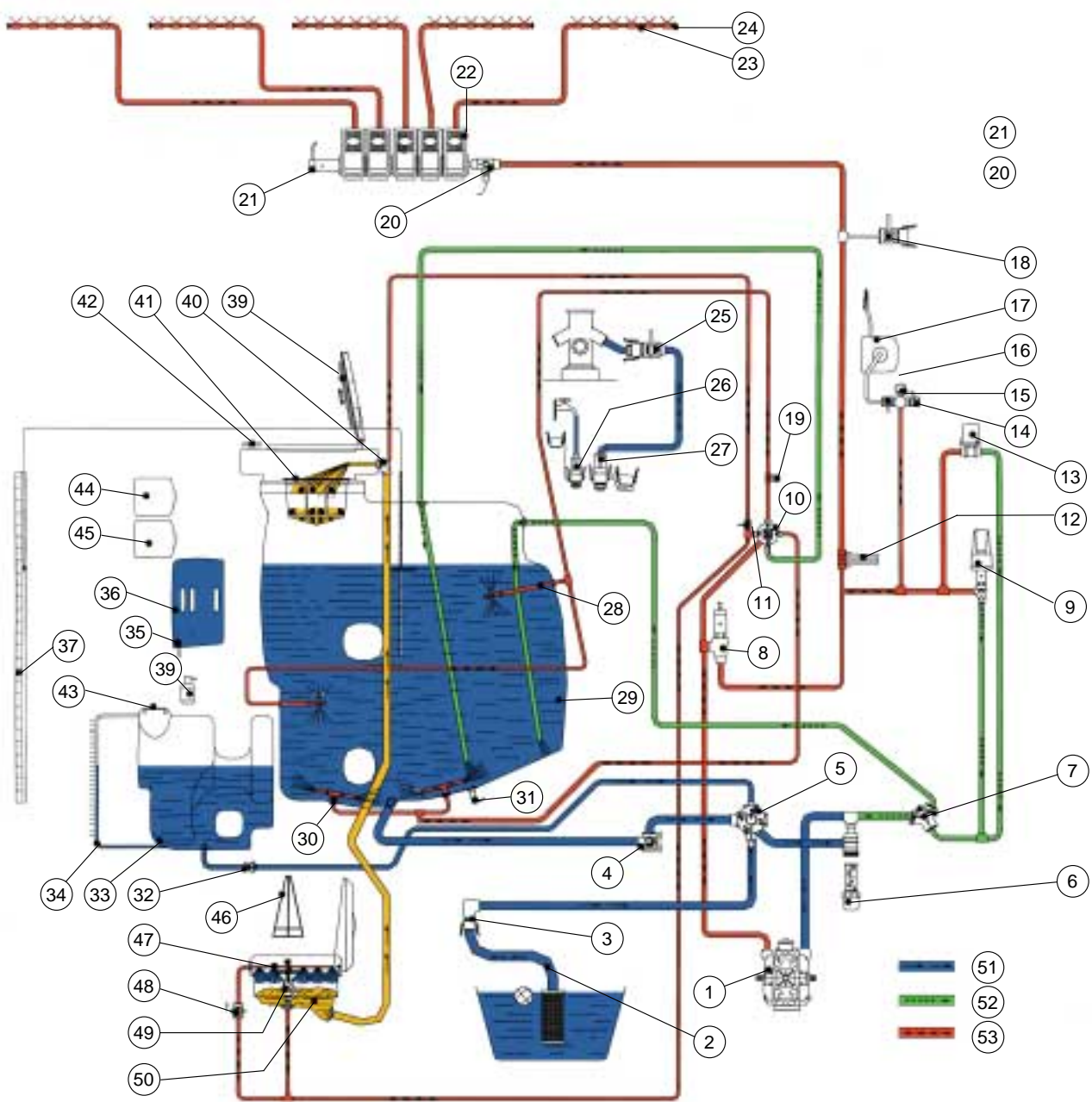
	Per hectare	Per m ²
Water	200 L	20 cc
Chemical	0.4 L	0.04 ml
Active ingredient	0.2 L	0.02 ml

This typical example shows that each square metre of your field receives only 0.02 ml of active ingredient. And there are herbicides available today with recommended dosages as low as 10 grams per hectare, or .001 gram/m²! If your sprayer accuracy is reduced only

slightly, fields won't be treated properly, resulting in higher incidents of disease and wasted chemicals (and money). Just another reason not to trust your fields to anything less than a new John Deere 500 Series tractor mounted sprayer.



filled with refinements



Nr	Description
1	Piston diaphragm pump
2	Filling hose with strainer and float
3	Filling hose connection
4	Drain valve solution tank
5	Suction selection valve
6	Suction filter
7	Recirculation valve
8	Primary pressure regulator
9	Electric spray pressure regulator
10	Pressure selection valve
11	Shut-off valve injector for chemical inductor
12	Pressure filter
13	Electric operated master valve
14	Spray gun connection
15	Pressure gauge
16	Shut-off valve brush with hose reel
17	Brush with hose reel
18	Transfer valve with hose connection
19	Strainer tank rinsing nozzles
20	Flow sensor
21	Pressure sensor
22	Electric boom section valves
23	Spray line
24	End cap with quick coupling
25	Shut-off valve external pump filling connection
26	Waterline filling connection
27	External pump filling connection
28	Rotating tank rinsing nozzles
29	Solution tank
30	Hydro injectors for agitation
31	Tank pressure sensor for digital tank level indication
32	Non return check valve rinse tank
33	Rinse tank
34	Liquid level indicator rinse tank
35	Drain tap hand wash tank
36	Hand wash tank
37	Liquid level indicator solution tank
38	Soap pump dispenser
39	Hinged tank lid
40	Injector chemical inductor
41	Basket strainer
42	Tank deaeration
43	Tank lid rinse tank
44	Protective clothing locker (clean clothing)
45	Protective clothing locker (used clothing)
46	Tenter for chemical inductor
47	Ring line chemical inductor
48	Shut-off valve ring line chemical inductor
49	Rinsing head chemical inductor
50	Chemical inductor
51	Suction line
52	Return line
53	Pressure line

The new central operating system sets new standards for convenience ... while offering more functionality than any other tractor mounted sprayer.

This central bank on the left side of the sprayer houses all the solution valves, filters and options you need to operate. This includes solution valves, filters, chemical inductor and filling and transfer connections. Protective clothing lockers and hand wash tank are also conveniently located here.



This spray system is as



Fill the sprayer quickly with the self-priming sprayer pump or with an external pump through a separate filling connection with quick couplers. An optional electronic tank level control lets you set the desired filling level. An audible alarm sounds when the tank reaches the designated level. Filling is more accurate and remnants are prevented. With the optional transfer connection, you can pump remaining solutions (such as liquid fertiliser) easily back into a storage tank.



Easy, safe, quick filling of agrochemicals. The large, 60 litre chemical inductor swings out easily for quick access. Agrochemicals in various formulations can be added to the reservoir from the ground and are directly mixed with clean water. An injector sucks the solution directly into the basket strainer of the solution tank without passing through the pump.



The vessel cleaner removes every last drop of residue from chemical containers. This can save money and reduce environmental concerns. Simply place the container over the rinse head and push it down to activate the cleaner.

convenient as it is productive



All major functions can be operated with only two valves. You can fill the solution tank with water and chemicals, rinse chemical containers, engage or disengage agitation, rinse and clean the sprayer, inside and out. Clear, logical symbols make it easier to operate faster and with fewer mistakes.



A huge, 185 litre rinse tank sits underneath the solution tank. This allows easy filling from ground level. The sprayer can be flushed with clean water, either with a full or empty tank. Thanks to the recirculation valve, the return flow of the pump to the tank can be redirected to the suction side of the pump to prevent any return of rinse water into the tank. So if you have to interrupt spraying (e.g. because of rain) you can flush the sprayer without diluting the tank solution and start again later with a clean sprayer.



Two storage lockers provide a convenient place to stow protective clothing, as well as nozzles, filters or cleaning brushes. One locker can be used for contaminated equipment, the other for clean parts.



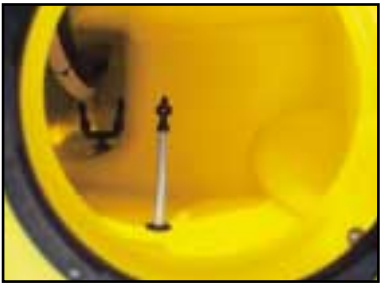
The new polyethylene tank is strong, smooth and easy to clean. Two tunnels within the tank act as baffle plates, preventing liquid from sloshing around during transport or in bumpy fields, enhancing stability. Tank walls are 8 mm thick, ensuring durability and strength. Its steep profile and deep sump boost spraying performance on steep slopes (up to 30 percent) and allow the tank to be emptied completely.

Agitation can be switched off manually or electrically (optional) from the cab to prevent foaming with some chemicals and to allow complete emptying of the tank. With the GreenStar Controller (see pages 16 – 17), it's even possible to automatically switch off agitation below a programmable level. The centre mounted tank level indicator is easy to read, both from the cab and from the filling place. A very accurate digital tank read-out in the cab is available as an option with the GreenStar controller.

The wet system has both a high pressure and low pressure circuit and the primary pressure regulator ensures that a high pressure is always available for the hydro injectors for tank agitation. Thorough, powerful agitation ensures a homogeneous spraying solution, even when spraying at low pressures (to reduce drift, for instance).



The hinged tank lid with large 400 mm diameter and basket strainer provides ample room to add chemicals or inspect the tank. The raised design prevents spillage during transport.



Rotating nozzles inside the tank provide a thorough cleaning of the tank in the field.



When filling is completed, wash your hands and protective clothing with clean water from a separate 20 l hand wash tank and soap from a handy dispenser. The handwash tank can easily be removed to fill with clean water.

John Deere offers three levels of regulation systems for application rate control:

1. Constant Pressure System.

Pressure is controlled by a large diaphragm electric pressure regulator that ensures a stable, constant pressure. Constant pressure ensures that the desired spray quality is maintained under different circumstances. This improves control of crop coverage and drift. In extreme conditions that lug down the tractor's engine (steep hills, for instance), the constant pressure regulation prevents under and over dosages.

2. Constant Volume System.

The constant volume system has a volumetric flow-control valve that distributes pump flow in constant relation between the boom and return line to the tank. Since the flow rate (l/min) is proportional with the engine's rpm, tractor speed can be changed (within certain limits) within one gear without affecting application rate (l/ha).

3. Automatic Rate Control.

With automatic rate control, the flow rate (l/min) is proportional to the real tractor speed, resulting in a constant application rate (l/ha), even at varying speeds when changing gears. Simply enter the desired application rate and nozzle type into the controller (EL-4 or GreenStar) and start spraying.

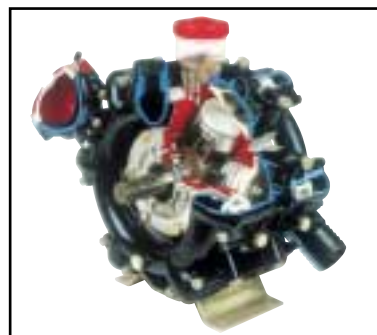
John Deere can offer automatic rate control in three different versions:

- pressure based
- flow based
- pressure and flow based

Pressure based regulation offers the highest accuracy; flow based regulation is the ideal choice for working with liquid fertiliser. The solution with both pressure and flow based regulation combines the best of both worlds.



A three stage filtration system includes a basket strainer in the filling opening, a large 30 mesh screen suction filter and a central pressure filter with a 50 or 80 mesh screen. These help prevent undiluted chemicals from the inductor from entering the tank, protect the pump from contaminants and prevent nozzle clogging. Suction and pressure filters are placed together at the left side of the sprayer for easy access.



New spraying application



Master and boom section valves can be electrically operated from the cab. The durable stainless steel ball valves are grouped at the centre of the boom, reducing dead volume. Start/stop of individual boom sections is completed in .25 seconds to help conserve chemicals and reduce overlap or missed areas. For sprayers without automatic rate control, three way boom section valves with pressure calibration are fitted. When switching off boom sections, the pressure calibration ensures that the pressure and application rate remains constant.

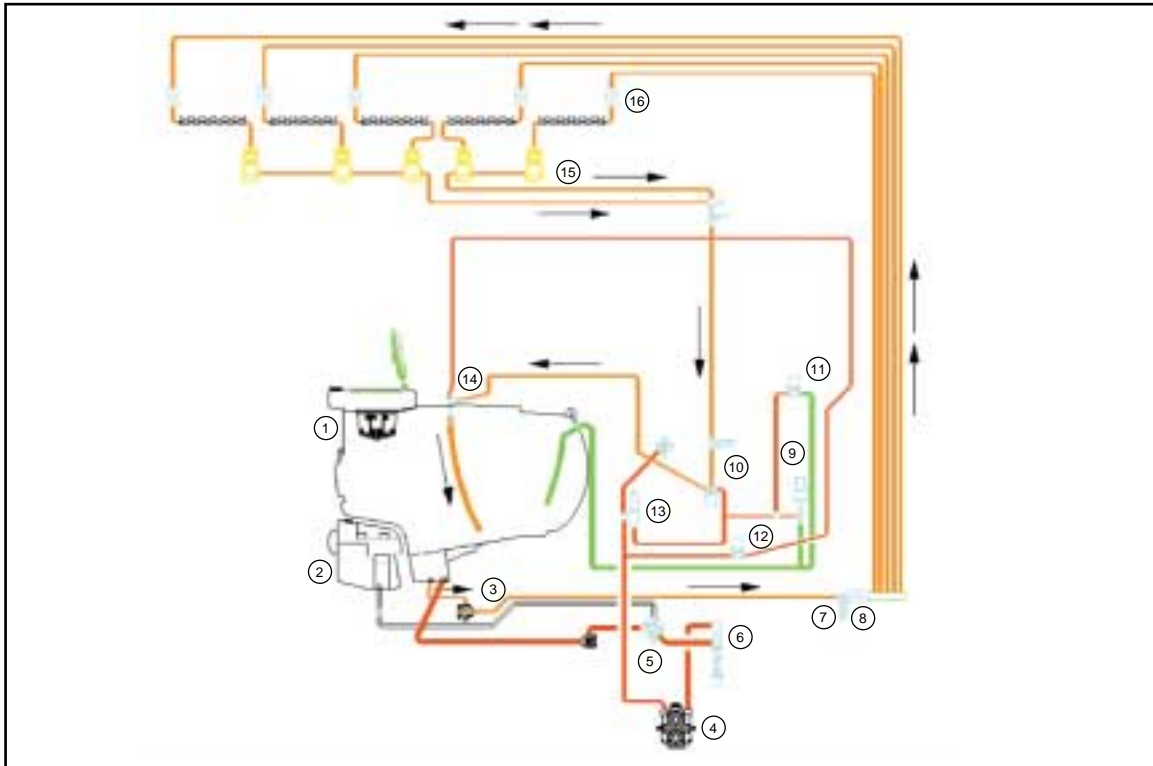
No need to readjust pressure calibration for different nozzles anymore, thanks to a pre-set colour coded dial. The colours of the disc correspond with the colours of the different nozzle caps. Simply turn the dial to the right colour if you change nozzles and the pressure calibration is set properly.

Self priming piston diaphragm pumps offer long life and dependable performance, even at higher pressures. Pumps are available with 115 l/min capacity (3 cylinder), 160 l/min (4 cylinder) or 250 l/min (6 cylinder). All three pump types feature a pressure accumulator. This ensures continuous flow without pulsations. An optional oil level sensor and alarm help prevent pump

failures or costly damage from low oil levels. And since the pump is located at the back of the sprayer, hose routings are shorter. This minimises dead volume and wasted chemicals significantly. The pump is easily accessed for maintenance.

systems offer more accuracy

Recirculation with the John Deere VRS System



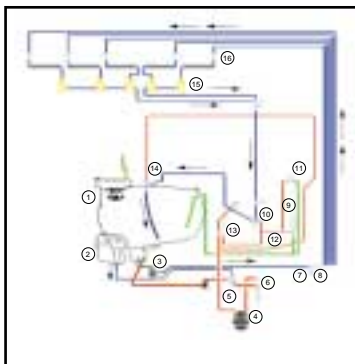
Non return valves at the end of each section prevent circulation from the spray lines to the tank while spraying. No problems occur with flow-based control systems for automatic application rate control. So when you're spraying, VRS operates like a normal sprayer, since there is no circulation through the spray lines. After spraying is completed, clean water from the rinse tank can be drawn directly into the spray lines to rinse the lines without actually spraying. So you can rinse the sprayer whenever – or wherever – you want. Unlike other continuous recirculation systems with individual nozzle shut-off, VRS requires no special air or electrical supply. It's a simple, reliable, cost effective system.

VACUUM RECIRCULATION SYSTEM (VRS)

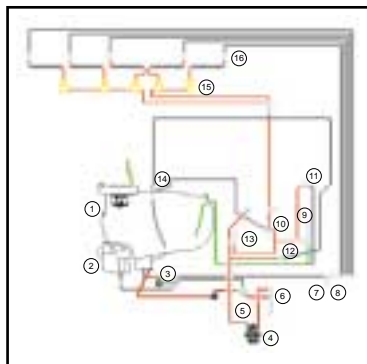
Think of the time and chemical you waste when you clean out the spray system ... or when you start spraying a field for the first time. After the sprayer has been cleaned with rinse water and the tank is refilled with chemical again, it has to be purged from spray lines on the headland before chemical reaches all nozzles. The headland can get an excessive dose of chemical that leads to burnt patches. And the first part of the field may not be effectively treated which shows up later as triangles of weeds or disease.

The remarkable VRS technology speeds and simplifies cleanout and lets you begin spraying immediately upon entering a field. No need to waste chemical at the headlands while you wait for the spraying system to charge.

Rinsing with the John Deere VRS System



Spraying with the John Deere VRS System



Index:

1. Solution tank
2. Rinse tank
3. VRS suction valve
4. Pump
5. Suction unit
6. Suction filter
7. VRS filter
8. Central non return check valve
9. Pressure Regulator
10. Electric valve recirculation line
11. Master valve (by-pass)
12. Electric valve to switch on/off injector
13. Pressure regulator high pressure
14. Injector
15. Section valve
16. Non return check valve

An all-new boom brings new levels of strength, stability and accuracy to every spraying job.

A special cross structure minimises torsion and stress, resulting in high reliability and long life.

Exceptional boom strength,



unmatched versatility

BOOMS



This double folded boom is available in boom widths from 15 to 24 m but folds to less than 2.55 m for transport.



With a height adjustment range of 150 cm, the new boom design with parallelogram provides all season long application. It's the perfect answer when you need the utmost in versatility for spraying immature crops or for late season spraying of tall crops. The boom height can be read from the cab on an optional scale located on the sprayer.



All swivel points of the boom have self-adjusting ball and socket bearings to ensure dependability and long life. The bearings also ensure that the boom will not sag, even after many years of operation.



***Spray booms fold in and out quickly.** Both boom arms fold in/out at the same time. When folding on slopes, a connecting rod between the right and left arms prevent one side from*



folding faster than the other. It is also possible to fold in the boom tips to spray with a reduced working width (optional) – great for small headlands. Folding of individual boom tips is



very helpful when spraying along obstacles in the field, such as electrical lines.

***As a further enhancement, variable geometry is available.** You can raise and lower the booms independently of each other to spray sloping fields (A).*

New boom targets fields with

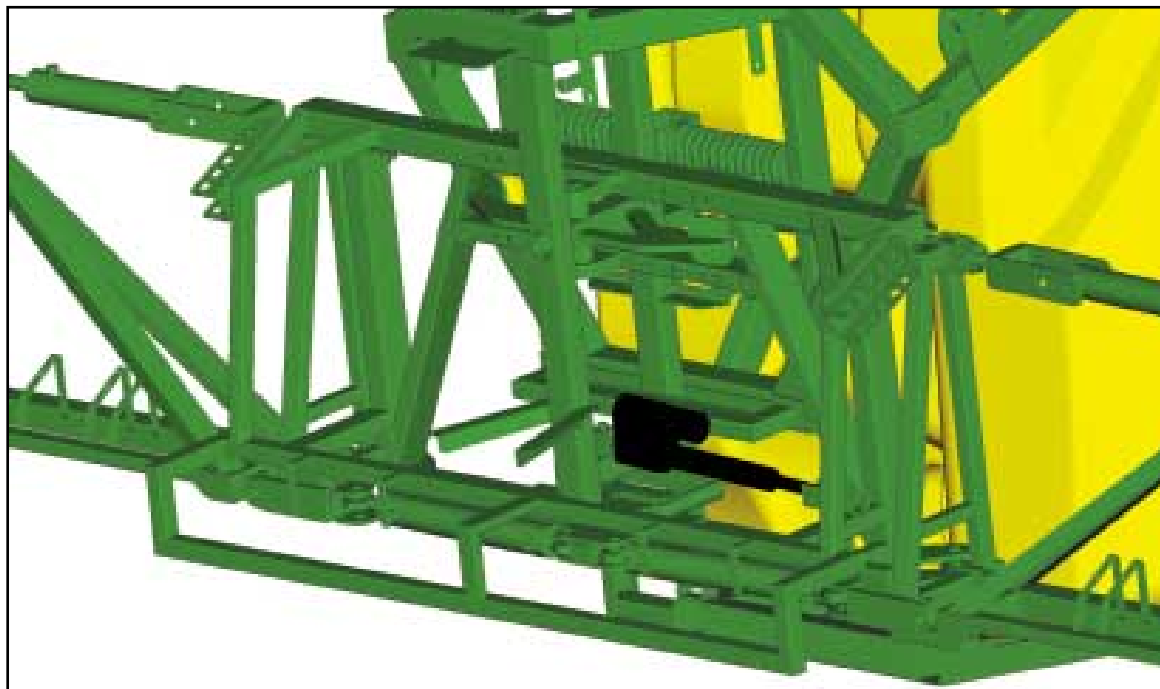


Rough fields and slopes can have a major impact on spray accuracy. That's why the new John Deere design offers an outstanding three-way boom suspension; a central pendulum system with shock absorbers; an anti-yaw system with polyurethane dampers that tie the left and right boom arms together around a pivoting central axis; and the vertical shock absorption with the hydro-pneumatic suspension of the parallelogram.



***Electric boom** tilt adjusts the boom's position on slopes, keeping the boom parallel with the field while allowing full pendulum action. The boom tilt can be controlled with a rotary switch (optional for EL-4 Controller, standard with ELC-1 and EHC-2 Controllers).*

pinpoint precision



High quality, stainless steel spray lines offer years of dependable, trouble free service. The spray lines are completely protected along the entire boom length. End plugs and supply hoses are fitted with quick connect couplings. Rinsing the sprayer or fitting a second spray line with droplet hoses is therefore simple and fast.



Breakaway protection works in three directions. It allows the boom ends to fold forward, backward or upwards if an obstacle is encountered. After passing the obstacle, the boom will automatically return to its original position.

BOOMS

Adapt your John Deere Sprayer to your specific application needs



Choose rugged single or multiple nozzle bodies. The product range includes 80 and 110 degree extended range flat fan nozzles, low drift deflector nozzles, air induction venturi nozzles and special 8 hole nozzles for liquid fertiliser. Colour coded bayonet caps make it easy to identify the correct nozzle. The diaphragm check valve prevents dripping. Rotating nozzle bodies let you quickly switch from up to five different nozzles in the field. A blind position between each nozzle position lets you quickly shut off individual nozzles.



Special asymmetric edge tips can be mounted 20 cm from the last nozzle for spraying at field boundaries. If the edge tip is used, the last nozzle should be closed. This strongly reduces emission of chemicals into the boundary of the field. The edge tips can be controlled electrically from the cab (optional). In some countries, the use of edge tips along surface water is already mandatory.



Special nozzles, droplet pipes or droplet hoses with separate spray lines are available to apply liquid fertiliser in late growing stages or to sensitive crops. All fitting material on the sprayer is composed of stainless steel or treated with a special coating to protect against the corrosive action of liquid fertiliser.

Now, you can choose between different levels of control boxes to operate your mounted sprayer and tailor it to your needs. For simple, reliable performance, choose one of the electric control boxes (with or without automatic rate control). For additional functionality and future applications, select the CAN-BUS based control boxes with the GreenStar controller.

ELB-1 *The basic ELB-1 electric control box lets you control pressure, boom master control valve (up to 9 boom section valves) and electric boom tilt. Upgrade to the EL-4 box (below) and in addition control electric boom tilt with rotary switch and edge nozzles. Plus, the EL-4 control box has an integrated automatic application rate controller.*

Large durable switches are easy to operate. The frequently used boom master valve switch is larger for easy identification. Hydraulic boom functions can either be operated by the hydraulic control valves of the tractor or by connecting the new electro-hydraulic extension box EHB-1 to the ELB-1 or EL-4 control box. With the electro-

hydraulic extension, you can operate boom folding, folding boom tips left and right, boom lock, boom height and individual boom raise and lower (variable geometry).

The integrated spray rate controller combines accuracy with easy operation. Simply choose the colour of the nozzle and the desired target application rate and the controller does the rest. You can simultaneously monitor travel speed, pressure, application rate and alternating volume sprayed and hectares treated. You can also change the target application rate on-the-go for temporary over or under dosing in certain



EL-4

areas; for example, with liquid fertiliser or herbicides.

These monitors are so



EHB-1

ELB-1

The ELC-1 and EHC-2 control boxes are highly advanced controllers. Both feature a state-of-the-art CAN-BUS system similar to that found on high-tech tractors and cars. This electronic system reduces the number of cables and connections, improves diagnostics and offers much more functionality. The ELC-1 control box offers electronic control of all sprayer functions, while hydraulic functions are operated through the tractor's hydraulic control valves.



The EHC-2 control box offers electro-hydraulic control of all boom functions.

advanced, they're simple



The ELC-1 and EHC-2 control boxes work together with the GreenStar display. This is the same unit found in John Deere tractors, combines and self propelled forage harvesters.

When the sprayer is connected, you will see and handle all the information and regulation for the sprayer through this same display. The display is easy to read, in daylight or at night and all the information on the display is shown through menus.

This one terminal replaces up to 5 separate units that you would have needed in the past. Think about the space you gain in the cab! You can control application rate, droplet size and tank level.

The GreenStar controller also lets you store important productivity information, including area sprayed

and volume, working time, total working time, working distance and total distance. It continuously monitors functions for wheel speed, flow, pressure, tank level and pump oil level. And the monitor provides full diagnostics for fast troubleshooting. Less risk of costly downtime.

But most important of all, the highly advanced spraying control system will allow easy upgrades to future sprayer functions, such as direct injection. It will also enable you to use GreenStar precision farming solutions using GPS, such as field documentation, variable rate control and parallel tracking.



ELC-1
Control

The ELC-1 box lets you control: spraying pressure, boom master control valve, section valves (up to 9), edge tips, foam marker, boom tilt, agitation, working lights, pendulum lock, automatic tank filling and free function.



EHC-2
Control

The EHC-2 box offers control of all ELC-1 box functions, plus: control of up to 15 sections, boom height adjustment, boom folding left/right, folding in/out, boom tips left/right and variable geometry of boom left/right.

MONITORS



Both ELC-1 and EHC-2 monitors offer a new way of section control. You can open and close all boom sections sequentially with just three switches. Operation is much easier and the control boxes remain much smaller. You don't have to search for the switches when switching sections on/off one after another when spraying in angled fields. The LEDs show you the status of the sections (on/off). With the skip button you can select any other possible configuration. Instead of having to use up to 15 section switches, you now have much easier control with only 3 switches. That's technology that pays!

TRACTOR MOUNTED SPRAYERS

Like their innovative and larger counterparts, the 800 Series trailed sprayers, these three new 500 Series sprayers are built at a new, state-of-the-art factory by John Deere trained employees using the latest, most advanced engineering systems and tooling. The result? A brand new standard of excellence that other manufacturers will scramble to copy.

What's more, John Deere raised the standard on testing. In fact, every single sprayer is tested before it leaves the factory. This results in unmatched accuracy, safety and performance. Plus, you'll use (and waste) less agrochemicals, saving money and reducing the impact on the environment.

Designed, built and



John Deere's comprehensive testing of every sprayer exceeds the strictest standards currently required by law in Europe ... as well as the proposed future European standards prEN13790.

tested by John Deere

TRACTOR MOUNTED SPRAYERS



John Deere engineers designed and tested the 500 Series sprayers using advanced Pro-Engineer technology ... a state-of-the-art system that allows incredibly precise measurements. It's a behind-the-scenes benefit that ensures higher spraying accuracy in your fields.



The new John Deere sprayer factory in Horst, The Netherlands, combines the best of both worlds: the latest manufacturing tools and systems of the world's leading manufacturer of agricultural equipment and the long time sprayer know-how that comes from building sprayers since 1947. Today, the John Deere factory is capable of building sprayers in more than 20,000 different configurations. One is perfect for YOUR needs!



John Deere's comprehensive factory testing exceeds the toughest current European standards. For example, if a sprayer passes John Deere's tests, it's automatically certified for two years in Germany and The Netherlands, where the sprayer test is already mandatory.

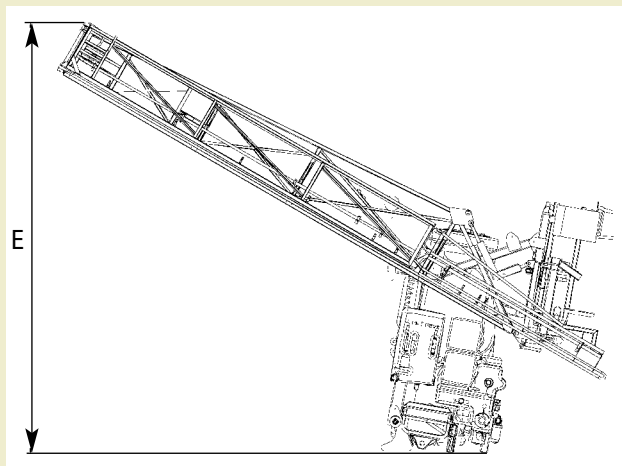


The advanced patternator moves automatically under the spray boom during operation and collects information on the transverse liquid distributor, separated in sections of 10 cm along the entire length of the boom. If the sprayer is equipped with five nozzle bodies, the test is repeated with five different nozzles.



All nozzles are tested before delivery to ensure uniform coverage that reduces over and under dose.

TRACTOR MOUNTED SPRAYERS SPECIFICATIONS**

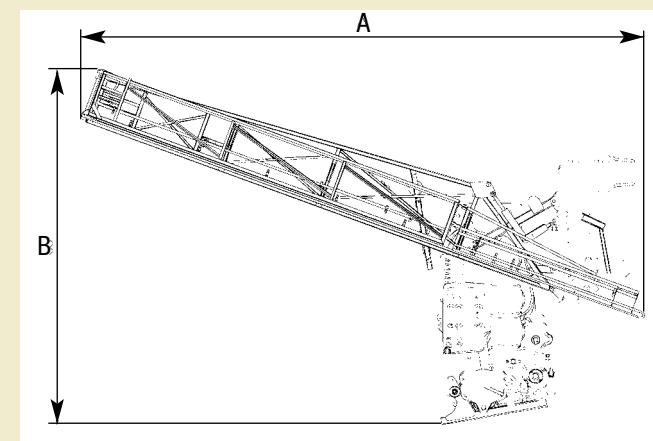
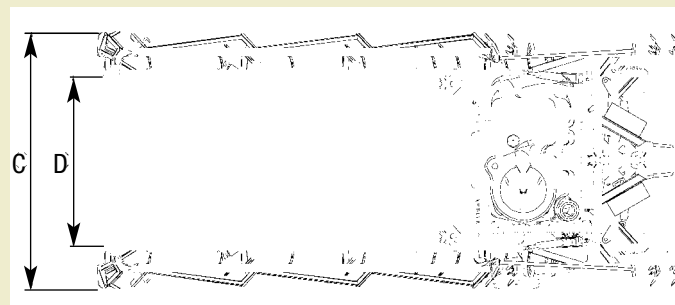


Measurements (cm)						
Base sprayer	Spray boom	A	B	C	D	E
508/510/512	15/09 m	397	321	254	168	348
508/510/512	18/12 m	565	373	254	168	423
508/510/512	20/12 m	565	373	254	168	423
508/510/512	21/12 m	565	373	254	168	423
508/510/512	24/12 m	572	373	254	168	423

A = Transport length (cm)
 B = Transport height (cm)
 C = Transport width (cm)
 D = Space between boom arms (cm)
 E = Storage height (cm)

Weights*			
	508 – 18 m	510 – 21 m	512 – 24 m
Total weight empty (kg)	1210	1280	1320
Total weight full (kg)	2215	2485	2725

* All weights are approximate with base equipment



Technical Specifications			
John Deere Mounted Sprayers	508	510	512
Nominal tank volume (l)	800	1000	1200
Real tank volume (l)	930	1105	1295
Rinse tank (l)	185	185	185
Hand wash tank (l)	20	20	20
Pump capacity (l/min) stan.	160	160	160
Pump capacity (l/min) opt.	250	250	250
Boom height range (cm)*	50 – 200	50 – 200	50 – 200

* with 3-pt linkage at 665 mm, tyre diameter 800 mm

** Specifications and design subject to change without notice.

Spray boom Widths		
Spray boom	No. of sections	Section widths (m)
15/9 m	5	3-3-3-3-3
18/12 m	6	3-3-3-3-3-3
20/12 m	5	4-4-4-4-4
21/12 m	5	4.5-4.5-3-4.5-4.5
21/12 m	7	3-3-3-3-3-3-3
24/12 m	4	6-6-6-6
24/12 m	6	4-4-4-4-4-4
24/12 m	8	3-3-3-3-3-3-3-3

Control Box				
Boom Functions	ELB-1/EL-4	ELB-1/EL-4 with EHB-1	ELC-1	EHC-2
Hydraulic boom folding and height adjustment	1 SA + 1 DA	N/A	1 SA + 1 DA	N/A
Hydraulic boom folding, height adjustment and folding boom tips	1 SA + 2 DA	1 SCV + free return	1 SA + 2 DA	1 SCV + free return
Hydraulic boom folding, height adjustment and independent folding tips left/right	–	1 SCV + free return	–	1 SCV + free return
Hydraulic boom folding, height adjustment, folding tips and variable geometry	–	1 SCV + free return	–	1 SCV + free return
Hydraulic boom folding, height adjustment, independent folding tips left/right and variable geometry	–	1 SCV + free return	–	1 SCV + free return