CROPLANDS WEED-IT 4000 - 6000







Operator's Manual

Contents

Foreword

Important Information	Section 1
Pre-Operation	Section 2
Operation	Section 3
Calibration	Section 4
Lubrication & Maintenance	Section 5
Trouble Shooting	Section 6
Assembly Drawings & Parts Listings	Section 7

Foreword

About This Manual

This manual provides assembly, setting up, operating and maintenance instructions for the Croplands Pegasus sprayer.

Some features explained in this manual may not be installed on your sprayer.

Please pass on this manual with the sprayer at the time of resale for usage by the new owner.

Terminology

These terms/symbols used throughout this manual:

- NOTE
- to convey useful operating information.
- CAUTION to highlight potential injury or machinery damage.
- WARNING -
- to stress potential dangers and the importance of personal safety.

NOTE

Refers to important and useful information which should not be overlooked.

CAUTION

Highlights hazards, unsafe/unwise practices which could cause injury, damage to property, machinery or loss of crop yield if instructions are not followed.



WARNING

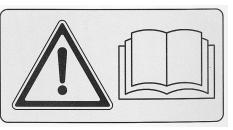
Indicates the strong possiblility of severe personal injury or damage to machinery if instructions are not followed.

Before Operating Your Sprayer

- 1 Before attempting to use your sprayer, make sure you read all Operator Manuals for this sprayer:
 - · This Operator's Manual
 - In Field use & Set up Training - Croplands March 2013
 - Boom Parking, Quick Start Guide, Croplands Part no. BT-OMWEED QSG
 - User Manual, Model 2013,

and properly understand:

- All Safety Issues.
- Assembly & Installation instructions.
- Calibration of the sprayer.
- Sprayer Operation.
- · Sprayer Maintenance.



Read and understand this Operators' Manual before operating the sprayer.

- 2 Read and follow instructions on chemical manufacturers' labels.
- 3 Always wear applicable protective clothina.

Other manuals for this sprayer are:

- · Parts List WEEDit Ag, October 2013
- Service Manual, Model 2013

Introduction	1.2	
General Specifications	1.3	
Shipping Information & Product ID	1.5	



BT-OMWEED 012015 - Rev 1 1.1



Sean Mulvaney, General Manager of Croplands

Congratulations on the purchase of your new Croplands sprayer.

Croplands have been in the business of building and selling spraying equipment since 1972. For over 40 years we have been supplying sprayers to farmers, contractors, growers and all our customers involved in growing crops and in the control of pests and diseases.

Croplands is a wholly owned subsidiary of Nufarm Ltd, the largest supplier of crop protection chemicals in Australasia, and one of the fastest growing global suppliers world-wide.

At Croplands, we pride ourselves on our commitment to supplying machinery that is at the forefront of the industry's needs. We believe we can back up our products and through constant research and development, bring to you the best equipment you can find.

CROPLANDS

We welcome any feedback from you about our equipment.

On this page you will find our contact details, and locations where our staff can be reached during business hours.

After hours, you can e-mail us and expect a reply the following morning.

Please read this manual in its entirety before you operate your sprayer. This will ensure you have a trouble-free start up.

We trust you will get years of good use from your Croplands Sprayer.

Yours sincerely

Sean Mulvaney General Manager Contact details:

AUSTRALIA

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General Specifications



4000 litre WEEDit Sprayer with 24m Single line boom.

General Description & Specifications

Tank

4000, 5000 or 6000 litre polyethylene tank with hinged lid, filling strainer, top/bottom fill point, large sump with drain, dual agitators, direct chemical induction & tank rinsing jet. Calibrated sight gauge fitted. UV and chemical resistant finish.

Chassis

Strong, fabricated wide-rail chassis, fully welded for maximum strength. Standard with solid fixed-width axle. Adjustable-height drawbar hitch with cast swivel eye and heavy duty jack-stand. Optional air suspension axle and/or adjustable track axle, 2.1 - 3 metres.

Wheels & tyres

?? on 4000 & 5000 litre models;

?? on 6000 litre models;

?? Mudguards optional (all models).

?? Mudflaps optional (all models).



Single line boom.

Pump:

- Single Line Models Ace hydraulic motor driven centrifugal pump standard.
- Dual Line Models Ace hydraulic motor driven centrifugal pump standard, and AR positive displacement oil-bath four diaphragm pump, chemical resistant, rated to 20 bar.

 Normal operating range 1 to 8 bar. Standard 185 l/min output (at zero pressure), optional 250 & 280 l/min pumps available. PTO drive standard, hydraulic optional.

Booms

Trailing 24, 30 & 36 metre booms, constructed of high quality steel. Finish is in epoxy-coat paint for chemical resistance. Outer boom wings feature hydraulically adjusted steering wheels & castor wheels.

Boom liquid tubing is polythene tubing.

Each side boom section folds rearwards behind the sprayer. Hydraulically adjusted steering wheels facilitate steering & folding. Each side is hydraulically locked/unlocked in both transport & work positions.



Dual line boom.

Controller & Boom Systems:

 Single Line Models:
 WEEDit Ag fully automatic controller & weed detection sensors.

• Dual Line Models:

WEEDit Ag fully automatic controller & weed detection sensors. Blanket sprayline fitted with a fully automatic controller.

Three electric (motorized) boom section valves fitted standard (4 or 5 optional), dump & servo fitted, Polmac rapid-check flowmeter with in-cab console with switches, showing spray rate & other functions. Optional ISO or Arag 400S.

Filtration

Filtration points: Basket (18 mesh), Filling filter (32 mesh), Suction filter (50 mesh [second line only]) and Pressure filter (100 mesh).

Agitation

Dual supa-flow agitators are fitted. Pump bypass also aids agitation & mixing.



??

Chemical handling

Integrated chemical mixer/induction unit is fitted with a drop-leg device. Options include a chemical suction probe, envirotransfer kit and a Dosmatic injection kit. A 20 litre hand-wash tank is also fitted for safety.

Flushing & controls

A 340 litre flushing tank is fitted, operated from the easy-to use control panel, located on the left hand side of the sprayer.

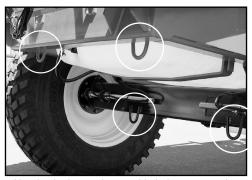
Options

Hydraulic pump drive, 280 l/min pump, 4/5/7 boom sections, single or dual lines, axle width adjustment kit, air-ride axle kit, mudguards and mudflaps, Arag 400S controller, induction probe, enviro-transfer kit, filling flowmeter, foam marker and/or GPS Guidance system, electric fence-line nozzles, larger wheels and tyres.

Machine specifications are subject to change without prior notification.

Shipping Information & Product ID

Important Information



Use the tie-down points provided when transporting.

Shipping Information

The following shipping information is provided but variations can occur without prior notification.

Approx Weight

Model	Approx Dry Weight		
4000 litre	3900 kg	(24m boom)	
5000 litre	4300 kg	(30m boom)	
6000 litre	5000 kg	(36m boom)	

Maximum Towing Speed

Do not exceed 30 kph when towing on roads.

Dimensions (Approx)

Model	WxLxH
4000 litre	2.6m x 7.9m x ??m (24m boom)
5000 litre	2.6m x 7.7m x ??m (30m boom)
6000 litre	3.5m x 7.7m x ??m (36m boom)
	(with boom folded)



6000 litre WEEDit with 36m dual line boom.

Product Identification

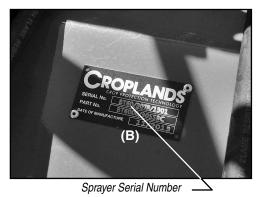
Always use the serial number of the WEEDit when requesting service information or when ordering parts.

Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure for specific service operations.

WEEDit Unit Serial Numbers

Each WEEDit unit has a Serial Number located on the back of the unit (A).





Sprayer Serial Number Plate

The Sprayer Serial Number Plate is located on the chassis above the hitch adjustment **(B)**.

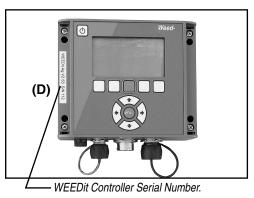
This plate shows name of manufacturer, serial number, product code and date of manufacture.

AR Pump Serial Number

The AR Pump Serial Number Plate is located on the pump **(C)**.

This plate shows name of manufacturer, serial number, type of pump, year of manufacture, maximum flow rate and maximum working pressure of the pump.





Controller Serial Number(s)

The WEEDit Controller Serial Number is located on the side of the console **(D)**.

If using a dual spray model, a second Spray Controller Serial Number is located on the second console.

1.4 BT-OMWEED 012015 - Rev 1

Safety	2.2
Boom Assembly	2.10
Hook-up	2.12
Un-hook	2.25
Main Controls & Functions	2.26
Pre-Operation Check	2.27

BT-OMWEED 012015 - Rev 1 2.1

Safety is the Operator's Responsibility

The WEEDit is designed to meet the most demanding farming conditions, where large areas, uneven terrain, and weather-controlled deadlines set the toughest challenges.

The WEEDit is capable of spraying a wide range of pesticides and fungicides and the operator must be aware of the hazards associated with the WEEDit operation.

The dealer explains the capabilities, application and restrictions of the WEEDit.

The dealer demonstrates the safe operation of the WEEDit according to Croplands instruction material, which are also available to operator.

The dealer can also identify unsafe modifications or use of unapproved attachments.

The following publications provide information on the safe use and maintenance of the WEEDit and attachments:

- The Operator's Manual delivered with the WEEDit gives operating information, as well as routine maintenance and service procedures. It is a part of the WEEDit and must stay with the machine when it is sold.
- Replacement Operator's Manuals can be ordered from your Croplands dealer, WEEDit Part No. BT-OMWEED.
- The WEEDit has machine signs (decals) which instruct on the safe operation and care. The signs and their locations are shown in the Operator's Manual.

Replacement signs are available from your Croplands dealer (as shown on pages 2.4, 2.5, 2.6).

Farm Owner Operations Manager Machinery Spray Operator Agronomist Dealer/Manufacturer Spray Contractor Chemical Supplier Spray Parts Retailer Chemical Company Accredited Trainer

Safe Operation Needs a Qualified Operator

A Qualified Operator Must Do the Following:

1 Understand the Written Instructions, Rules & Regulations

- The written instructions from Croplands are included in the WEEDit Operation Manual and on the machine's decals.
- Check the rules and regulations at your location. The rules may include any Federal and State safety requirements for the chemical applicator.

2 Have Training with Actual Operation

- Operator training must consist of a demonstration & verbal instruction. This training is given by your dealer before the WEEDit is delivered.
- The new operator must start in an area without bystanders and use all the controls until they can operate the WEEDit safely all conditions of the work area.

3 Know The Work Conditions

- The operator must know any prohibited uses or work areas.
 They need to know about excessive slopes and rough terrain.
- Wear protective clothing as recommended by the chemical manufacturer. Always wear safety goggles when maintaining or servicing WEEDit.
- For an operator to be qualified, they must not use drugs or alcoholic drinks which impair alertness or coordination while working.

An operator who is taking prescription drugs must get medical advice to determine if they can safely operate a machine.

NOTE

There are accredited training programmes for spray application in each state. We recommend all operators have accredited training.

2.2 BT-OMWEED 012015 - Rev 1

Section 2 Safety









Rules for Safe WEEDit Operation

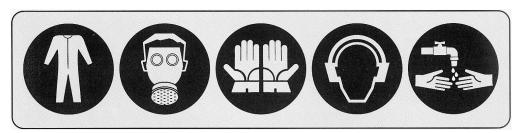
- Always read your sprayer operator's manual thoroughly before operating. Accidents occur every year because of careless use of farm chemicals and farm machinery. You can avoid these hazards by observing these safety instructions.
- Dispose of all chemical containers as per instructions on label. Failure to do so could result in contaminating the environment with chemicals.
- Inspect hose and hose connections daily. Always wear rubber gloves when tightening connections.
 Damaged, loose or worn hoses could result in operator being exposed to toxic chemicals which could result in serious illness or faulty sprayer operation.
- Always use the proper application rate. To assure proper application rate calibrate sprayer correctly.
 The wrong application rate of a pesticide concentration that is too high may expose the operator and the environment to danger.

- Follow the chemical manufacturer's precautions before cleaning the sprayer. Exposure to chemicals could result in serious illness or death.
- Always wear gloves and wash the machine before doing any disassembly repair work. Chemical residues on the machine parts could contaminate operator or service personnel causing serious illness.
- Always relieve system pressure before doing any work on the machine. Failure to do so could cause operator to be exposed to high pressure spray of chemical resulting in serious injury or machine damage.
- Always be sure all safety guards are properly installed on machine before operating. Failure to do so could result in entanglement in moving parts resulting in serious injury to operator.
- Always keep PTO guard in place when sprayer is operating. Failure to do this may result in entanglement.

- Be sure to disconnect the battery before attempting welding repairs.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Failure to do so could result in serious injury.
- Always stay out from under the sprayer unless it is resting on the ground or supported on solid blocks. Hydraulics or jacks could fail letting the sprayer fall. This could result in pinning or crushing of personnel.
- Check the entire sprayer, prior to each use, for any loose bolts or mechanical connections. These precautions can prevent injury to personnel and damage to equipment.
- Only inflate tyres to rated pressures.
 Over inflating causes tyres to burst resulting in serious injury.
- Use only genuine Croplands parts for any necessary replacement.
 Special alloy steels are used in many parts which are important to the equipment design. Home made parts may look the same but might be dangerous in operation.

- Do not ride on machine when in motion. This is an unsafe practice and can lead to serious injury should the rider fall from the machine.
- Always replace warning decals when damaged and make certain operator understands proper safety practices.
- Always stand well clear of the sprayer when operating. The sprayer is capable of spraying chemicals 20-30 metres from the boom which may be hazardous to humans.
- Do not disconnect any hoses, nozzles or filters while sprayer is operating.
 Disconnecting components while under pressure will result in uncontrolled spray discharge which may be hazardous to humans.
- Always clean the WEEDit and disconnect the battery before doing any welding repairs. Cover rubber hoses, and all other flammable parts. Keep a fire extinguisher near the WEEDit when welding. Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.

BT-OMWEED 012015 - Rev 1 2.3





Make sure all boom safety decals are clear and in place. Replace them if damaged



Danger of arms crushing. This area must be kept clear during equipment operation.



Danger of body crushing. This area must be kept clear during equipment operation.



Danger of body crushing.

This area must be kept clear during equipment operation. do not stand within range of boom arms



Danger of PTO entanglement.

This is a common injury in farming. Ensure PTO covers are always in place.

Rules for Safe Use of Chemicals

- Always read the label before using chemicals. Follow instructions from chemical manufacturer on how to select, use and handle each chemical. Note protection information each time before opening the container.
- Always observe all warnings on chemical products. Failure to do so could result in operator or others being exposed to toxic chemicals which could result in serious illness. Remember chemical manufacturers go to much research and expense to develop labels for your protection.
- Be sure you recognise the categories of toxicity and their key words.
- Verbal warnings must be given if written warnings cannot be understood by workers.

- Do not spill chemicals on skin or clothing. If chemicals are spilled, remove contaminated clothing immediately and wash skin (and clothing) thoroughly with soap and water.
 - Wash hands and face with soap and water and change clothing after spraying. Wash clothing each day before reuse.
- The spray tank and system should be emptied of chemical mixture and flushed with clean water before servicing the spray system or spraying components. Clean the WEEDit of all chemical residue before servicing.
- Avoid inhaling chemicals. When directed on the label, wear protective clothing, face shield or goggles.
- Never smoke while spraying or handling chemicals.
- Cover food and water containers when spraying around livestock or pet areas.

- If symptoms of illness occurs during or shortly after spraying, call a physician or go to a hospital immediately.
- Follow label directions and advice to keep residues on edible portions of plants within the limits permitted by law.
- Keep chemicals out of the reach of children, pets and unauthorised personnel. Store them outside of the home, away from food and feed and lock them in a secure area.
- Keep bystanders away from spray drift.
- Always store chemicals in original containers and keep them tightly closed. Never keep them in anything but the original containers.

Read labels for hazards about chemical reaction with certain types of metals.

BT-OMWEED 012015 - Rev 1

Decals - Please order replacements if required

AWARNING

IF OPERATED INCORRECTLY THIS MACHINE COULD CAUSE SERIOUS INJURY OR DEATH.

FOR SAFETY PROCEDURES READ THE OPERATORS MANUAL.

STOP THE ENGINE AND REMOVE THE IGNITION KEY BEFORE WORKING ON THE MACHINE.

DO NOT START THE MACHINE WITHOUT ENSURING ALL PEOPLE ARE WELL CLEAR OF WORKING PARTS.

SOUND THE HORN BEFORE START UP.

WARNING

Water
for operator
washing only.
Do Not Drink.

AWARNING ONLY

WATER ONLY

PP-15

1 Do not exceed PTO operating speed of 540 rpm 2 Excessive vibration may occur if using PTO speeds less than 350 rpm when filling 3 Grease sliding shafts of PTO daily PP-1

3 Clean filters regularly

operating the sprayer

4 Always follow correct maintenance schedules outlined in operator's manuals

SAFETY INSTRUCTIONS

1 Read your operator's manual thoroughly before

2 Inspect hoses, connections and nozzles daily

- 5 Always read chemical manufacturers labels before use
- 6 Always observe all warnings on chemical products
- 7 Regularly check all bolts and nuts are tight
- 8 Always wear rubber gloves and wash sprayer down before doing any repair work
- 9 Do not ride on sprayer when moving
- 10 Keep clear of moving parts when sprayer is operating
- 11 Always keep guards in place when sprayer is operating
- 12 Be sure tank lid is closed before operating basket mixing facility
- 13 Stand well clear of sprayer when operating
- **14** Do not disconnect hoses, nozzles or filters while sprayer is operating

DD e

WARNING

DO NOT FILL THE TANK IN EXCESS OF THE CARRYING CAPACITY OF THE VEHICLE WITH WHICH THE TANK WILL BE USED, AS SPECIFIED BY THE VEHICLE MANUFACTURER.

1Litre water = 1 Kg 50 Litres water = 50 Kg

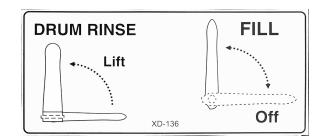
DO NOT EXCEED THE VEHICLE MANUFACTURERS SPECIFIED SAFE LOAD CARRYING AND TOWING CAPACITIES.

READ THE OPERATORS INSTRUCTION MANUAL AND CHECK UNLADEN WEIGHT BEFORE ATTACHING OR USING THIS PRODUCT.

Decals - Please order replacements if required

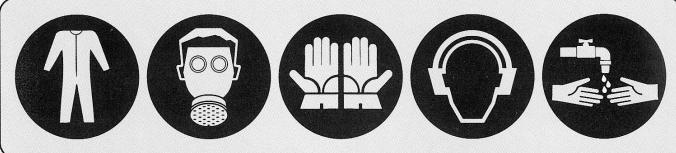






Section 2 Safety





Safety must be an Integral Part of Chemical Farming Operations

Not Just an After Thought!

The Hazard

All agricultural chemicals or pesticides, as they are commonly called, are biologically active. When handled incorrectly or carelessly, they can be dangerous to all living organisms such as humans, birds, fish, bees, domestic animals and plants.

Method of Pesticide Entry

- Oral Direct by drinking, splashing into mouth, eating and smoking with contaminated hands, eating sprayed produce, cleaning nozzles with mouth.
- Inhalation Nose, mouth, but predominately the lungs.
- Dermal Absorption through the skin. Increased when skin is broken or perspiring.

Rate of Absorption

While pesticides are absorbed more completely orally and by inhalation, greater exposure and more poisonings occur through skin (dermal) contact.

Hazard and Chance of Poisoning

The hazard and chance of poisoning is much higher when handling pesticides in concentrate form than in the dilute form.

Safe Handling

Know your Pesticides:

- STOP!! Read the label
- Is it the right pesticide?
- What is its poisons schedule or toxicity?
- What safety precautions are required?
- What is its persistence and withholding period?
- What is its mode of action?
- Will it be a hazard to neighbouring crops and people?

- What protective clothing and equipment is needed?
- Know the correct first aid/safety in case of poisoning.
- Seek medical advice if health is affected by chemicals.

Mixing the Product

- Reduce or eliminate operator contact by using closed loading systems, auto fillers, wettable powder mixtures or wettable dispersable granules.
- Use the right protective clothing when handling the concentrate. The user is at greatest risk when handling chemical in concentrate form.
- Open bags carefully. Cut to open, do not tear.
- Do not stir chemicals with hands or arms.
- Choose the mixing site carefully & the fate of the probable residues.
- Do not mix more spray solution than is needed and avoid needless disposal of unwanted chemicals.

Plan your Spray Route

- Observe weather conditions, especially wind direction & speed.
- Try to travel across wind and into untreated crop.
- Prevent double or over spraying.
- Prevent or minimise drift onto other crops, workers, etc.

Disposal of Unwanted Pesticides and Containers

- Calibrate correctly to ensure you do not have a large quantity of unwanted spray left over.
- Rinse empty containers and pour residue into the spray tank.
- Dispose of containers in the correct manner and where provided, use pesticide drum disposal schemes.

BT-OMWEED 012015 - Rev 1 2.7

Safety **Pre-Operation**



Fresh water on the sprayer for personal safety.

Decontamination

- □ Change out of protective clothing and shower as soon as possible after spraying.
- www Wash before eating, drinking or smoking.
- Provide clean water at filling site and on sprayer in case of field contamination.
- Wash and clean respirators regularly.

Keep Sprayers and Safety Equipment in Good Working Condition

- Replace hoses and fittings when they leak.
- Clean sprayer regularly.
- Replace respirator filters regularly.
- □ Do not use worn, faulty or contaminated safety equipment.



1, 3, 5 litre measuring jugs & 25 litre mixing bucket.

Storage

- Store pesticides in a locked, well ventilated store.
- Do not pour pesticides into other containers, especially not drink containers.

Pesticide Free Tractor Cabs

- Ensure the cab filter is adequate for the pesticide used.
- Be careful not to contaminate the cabin environment.
- □ Cabin filters alone are not adequate when the operator is required to leave the cab to refill the sprayer. Safety equipment used outside the cab should not be stored in the cab.



Kasco helmet, Breathable spray suit & gloves.

Protective Safety Equipment

The amount and type of protective clothing and equipment is determined by the type of chemicals, degree and duration of exposure, weather conditions and application equipment used.

Read and follow the direction on the label.

Over protection can be uncomfortable and unnecessary.

A respirator left hanging around your neck is useless.

Measuring

Croplands' calibrated, easypour 1, 3 and 5 litre measuring jugs and 25 litre chemical mixing bucket are practical, easy to clean. U.V. resistant and chemical resistant.



Spray Suits are

Respirator, Breathable spray suit & gloves.

Clothing

 Cover as much of the body as possible, especially the neck. chest and forearms. Use washable fabric overalls. disposable overalls or preferably waterproof clothing especially when coming in contact with large quantities of pesticides. Wear the trouser legs outside the boots.

Gloves and Boots

 Never use leather or cloth materials because they absorb pesticides and provide a constant source of contamination. Gloves should be un-lined for this reason.

Croplands Nitrile Chemical Handling Gloves are recommended.

BT-OMWEED 012015 - Rev 1 2.8

Section 2



Safety goggles for eye protection.



Hard hats, washable hats, goggles, spray helmets and face shields are important when handling concentrates.

Croplands Spray Goggles feature sealed, anti-fog, double lens goggles for practical, comfortable eye protection. Croplands Kasco Spray Hood is fully approved by D.I.R.

Respirators

Choose the correct type and have the correct cartridge fitted.

Replace cartridges regularly and write the date on each cartridge.

Ensure there is an adequate fit to the face.

Croplands' respirators are recommended for most spraying applications.



Respirator.

Operator Safety

When handling pesticides, always use elbow-length gloves, long clothes and above all, a respirator.

If you and your clothing become contaminated with spray, DO NOT WORK ON.

Stop work, remove clothing and wash affected areas thoroughly with soap and water. Put fresh clothing on before starting again.

Ensure that contaminated clothing is washed thoroughly before being used again.

Don't guess when choosing protective equipment. Feel free to call Croplands and make use of our safety database for comprehensive information on safety, handling and storage exposure levels, symptoms, health effects, first aid and personal protection.



Sample of Agrichemical Manual.

Spraying Precautions

Agricultural chemicals applied under unfavourable weather conditions or from poorly adjusted and operated equipment can cause damage due to run-off and/or drift problems.

Crops and pastures are more susceptible to spray drift of herbicides while people, stock and water supplies are generally more susceptible to insecticide drift.

Pollution, crop damage and the potential health hazards are something agriculture can ill afford. It is simply not acceptable, socially or environmentally.

Additionally, pesticide which drifts or runs Off the target reduces the efficiency of the pesticide on the target. Spray failures are a waste of money and effort.

NOTE

A full agri-chemical manual is available in Australia and New Zealand. Talk to your local Agronomist for more information.



Safety

Read the Chemical Label

- Fragment Survey and the equipment is functioning correctly. Check that nozzles are in good condition. Check all other aspects of machine operation are correct.
- Be SURE pesticides are mixed thoroughly and according to the label.
- Be SURE the recommended registered pesticide is used for the job at hand.
- Be SURE pesticides are applied at recommended rates.
- Be SURE only target plants are sprayed.
- Be SURE to follow the safety precautions on the label.

2.9

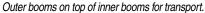


6000 litre 36m dual line WEED, loaded for transport.

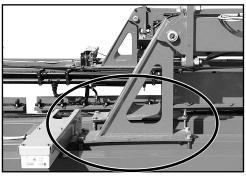
Boom Assembly

The WEEDit has been asembled & tested at the factory, but for transport the:

- Outer boom sections are removed and attached on top of the inner boom sections using:
 - 2 end pivot mounts
 - 6 mount brackets
- 2 pivot braces.
- Outer castor wheels are removed and shipped on a pallet
- Two truck tray supports are also used.







Remove the bolts at the base of the end pivot mount & the holding plates at the bottom the inner boom beam.

Outer Boom Assembly

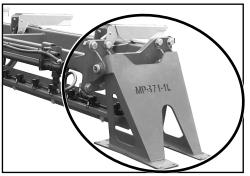
The outer booms (removed for transport) require a suitable crane or forklift to lift and re-assemble each boom.

To reassemble each outer boom:

- 1 Ensure the WEEDit is on level ground, then, position a crane or forklift to support & lift one of the outer booms.
- 2 Remove the bolts (8) from the base of the end pivot mount & holding plates at the base of the inner boom beam.
- 3 Remove the lower bolts & bottom clamp plate from each of the mount brackets (2).

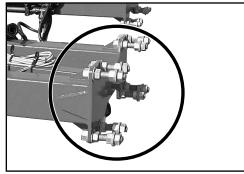
Remove the lower bolts & clamp plates from each mount bracket.





Remove the bolts, then, the end pivot mount.

- 5 Lift the outer boom from the inner boom, then, remove the:
 - End pivot mount requires the removal of 8 bolts.
 - Mount brackets (2) each requires the removal of 4 bolts & a top plate.



Remove the outer nuts & washers (8) from the end of the inner boom.

- 6 Remove the outer nuts and washers (8) from the end of the matching inner boom.
- 7 Relocate, align the joining brackets of the inner & outer booms, then, refit the washers & nuts.
- 8 Adjust the nuts either side of the joining plates to:
 - Maintain 1m camera spacing
 - Align the boom horizontally, and
 - Align the boom longitudinally.

Once aligned, fully tighten the nuts to lock the boom in position - use a 3/4" socket & tighten to approx 450 ft/lb.

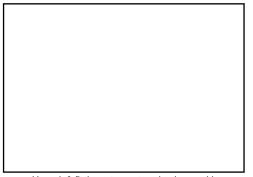
Recheck alignment after tightening.

Remove the bolts	(4 each), then,	attachment jigs	(2)

Align each boom horizontally & longitudinally. BT-OMWEED 012015 - Rev 1

2.10

Boom Assembly



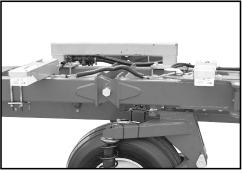
Unpack & fit the outer castor wheel assembly.

8 Unpack & fit the outer castor wheel assembly (supplied on a pallet).

Position the castor wheel between the second & third camera from the outer end of the boom (approx 2.5m from the boom end).

Ensure the bolt heads are located on the clamp plate side (not the wheel side).

Once all clamp bolts are fitted, fully tighten them.



Remove the bolts (8), then. U-shaped clamp from each inner boom.

- 10 Repeat steps 1 9 for the other outer boom.
- 11 Once the assembly of the second outer boom is completed, remove the bolts (8), base plates, then, the body of the pivot brace from each each of the inner boom sections.
- 12 Reconnect all plumbing lines for each outer boom.

Reconnect all plumbing lines for each outer boom.

Reconnect all electrical cables for each outer boom.

13 Reconnect all electrical cables for outer each boom.

Ensure the "Power Return" cable is connected to the last camera on both ends of the boom.

- 14 Pack and return all transport components to Croplands:
 - End pivot mounts (2)
 - Mount brackets (4)
 - Truck tray supports (2)
 - Pivot braces (2).

15 Install the parking bumpers (supplied on a seperate pallet) - see drawing for positioning (page ?).

Pack & return all transport components to Croplands.

Once WEEDit boom is fully assembled,

it is necessary to:

Reconnect all boom electrical cables.

 Inflate the air suspension of the boom steering and castor wheels.

- Minimum required air pressure is 110 psi. Any less than this will cause undue wear of the shock absorbers - refer to step 6 - Inflate Shock Absorbers & Adjust Boom Height - page 2.23.
- · Level the boom so that the base of the cameras are 1100mm above the ground surface.

To inflate the shock absorbers & check the boom hieght, it is recommended to connect the WEEDit sprayer to the tractor.



CAUTION

DO NOT attempt to inflate the shock absorbers without lifting the wheels off the ground.

Damage to shock absorbers will occur if inflation is attempted without taking all weight off the wheels.

Repeat steps 1 - 9 for the other outer boom.

BT-OMWEED 012015 - Rev 1

Connect the WEEDit Sprayer to the Tractor

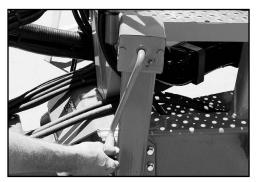
Single line WEEDit sprayers utilise hydraulic-drive for the centrifugal pump.

Dual line sprayers may use hydraulic-drive and PTO drive.

Please read the set-up procedure instructions for the drives carefully.

Six steps are required to hook up the WEEDit sprayer to your tractor.

- 1 Connect the WEEDit hitch to the tractor drawbar.
- 2 Connect hydraulic hoses to the tractor for the:
 - Trailed boom fold & operation, and
 - · Hydraulic pump drive.
 - · Set the Hydaulic Pump Drive.
- 3 Fit the Controllers:
 - WEEDit Controller
 - Trailing Boom Controller
 - Other optional controller(s).
- 4 Fit the PTO shaft (If supplied for Dual Line Sprayers only).
- 5 Connect all power leads direct to the battery.
- 6 Inflate shock absorbers and adjust boom height.



Adjust the hitch jack until the work platform is level.

1 Connect the WEEDit Hitch to the Tractor

To connect the WEEDit hitch to a suitable tractor:

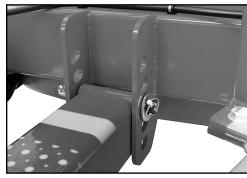
- 1 Check the WEEDit is level fore & aft, and the base of cameras closest to the chassis are 1100mm above ground.
 - If not, adjust the hitch up or down using the hitch jack until the base cameras are 1100mm above ground.
- 2 Connect the WEEDit hitch to the tractor drawbar.

If the WEEDit hitch is higher or lower than the tractor drawbar, adjust the height of the WEEDit hitch to match the tractor drawbar height.

NOTE

The WEEDit hitch must be correctly adjusted so that the camera closest to the chassis is 1100mm above the ground (ground to base of camera) when connected to the tractor.

If the hitch hieght is adjusted too low or too high, the camera height will not be correct, which will adversely affect accuracy of boom camera & spray operation.



Remove the pin to adjust the hitch height as required.

To adjust the Hitch Height:

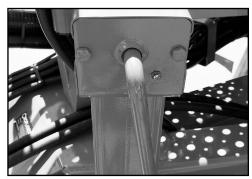
- 1 Use the front and/or rear pins, holding the hitch in place, to adjust the height of the hitch tongue to match your tractor drawbar.
 - Ensure the pins are correctly reinstalled after adjustment is complete.
- 2 Insert the drawbar pin & lock the retaining pin in position to ensure the pin cannot come out while transporting or operating.

Ensure the drawbar pin is locked-in.



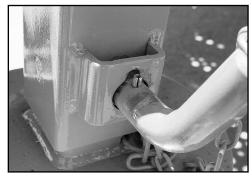
BT-OMWEED 012015 - Rev 1

Section 2 Hook-up



Rotate the jack handle lowering hitch onto the drawbar.

- 3 Lower the sprayer hitch onto the tractor drawbar and fold up the hitch jack:
 - a) Rotate the jack handle until the sprayer fully rests on the tractor drawbar and the hitch jack base plate is off the ground.
 - b) Rotate the jack pin to align the lock-pin with the slot, then remove the jack pin to lift-up the jack footplate.



Rotate and align the pin & slot to remove the jack pin.

c) When fully lifted-up, refit the jack pin and turn it clockwise, to lock the pin in position.



The transport safety chain must be fitted.

- 4 Fasten the safety chain securely to both the WEEDit hitch and the tractor for transporting the sprayer.
- 5 Recheck the distance from the ground to the base of cameras (closest to the WEEDit chassis) still measures 1100mm.

If not, re-adjust the hitch height until the distance measures 1100mm when the WEEDit is hitched to the tractor.



The Centrifugal Pump is hydraulically driven.

2 Connect Hydraulic Hoses to the Tractor

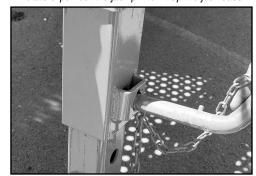
The WEEDit Sprayer uses:

- Hydraulic drive for the Centrifugal pump.
- Hydraulic folding and locking of the Trailed Boom for operation and transport.

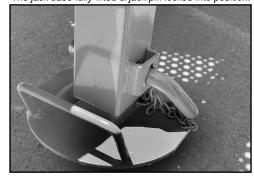
Connect to the tractor the:

- 1 Pump drive hydraulic hoses, and
- 2 Trailing boom hydraulic hoses.

Rotate & pull-out the jack pin to lift-up the jack base.



The jack base fully-lifted & jack pin locked into position.



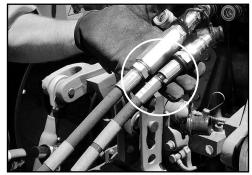
NOTE

Please read the following page to ensure you know if your tractor has open or closed centre hydraulics.

This is VERY IMPORTANT to ensure your pump drive works correctly.

2.13

Hook-up Pre-Operation



The Pressure Line hose is identified by the cable-tie.

Connect the Trailed Boom Hydraulic Hoses

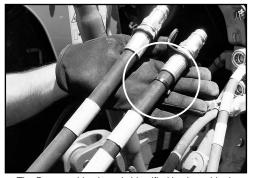
To connect the hydraulic pressure and return lines of the Trailed Boom to the tractor remotes:

- 1 Select the Trailing Boom hydraulic hoses. These hoses are identified by the red coloured bands located near the end of the hoses.
- 2 Remove the dust caps and clean the connectors with a clean cloth.
- 3 Select the Pressure line which has a cable tie next to the connector.
 The pressure line hose also features 2 coloured bands (red).



Connect the Trailing Boom hoses to the tractor.

- 4 Connect the Pressure line to the pressure line of the tractor remotes.
- 5 Connect the Return line to the return line of the tractor remotes.
- 6 Join the male & female dust caps together, to keep the caps free of dirt.

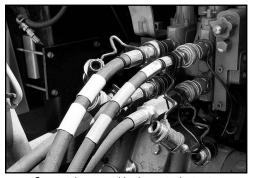


The Pressure Line hose is identified by the cable-tie.

Connect the Pump Drive Hydraulic Hoses

To connect the hydraulic pressure and return lines of the Centrifugal Pump drive to the tractor remotes:

- Select the pump hydraulic hoses. These hoses are identified by the yellow coloured bands located near the end of the hoses.
- 2 Remove the dust caps and clean the connectors with a clean cloth.
- 3 Select the Pressure line which has a cable tie next to the connector.
 The pressure line hose also features 2 coloured bands (yellow).



Connect the pump drive hoses to the tractor.

- 4 Connect the Pressure line to the pressure line of the tractor remotes.
- 5 Connect the Return line to the return line of the tractor remotes.
- 6 Join the male & female dust cap ends together, to keep the caps free of dirt.

Join the male & female dust caps together.

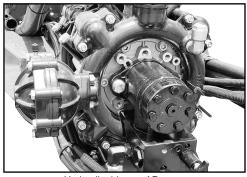


NOTE

Ensure the marked hydraulic line is designated as your pressure line (see picture above)

2.14 BT-OMWEED 012015 - Rev 1

Section 2 Hook-up



Hydraulic drive on AR pump.

Set the Hydraulic Pump Drive

Set the speed adjustment flow-control valve on the hydraulic drive according to whether your tractor has open or closed centre hydraulics.

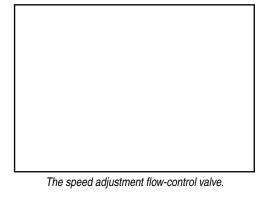
Open Centre System

- Open the speed adjustment flowcontrol valve fully by winding it out anti-clockwise. This must be done prior to engaging your hydraulics.
- 2 Engage the hydraulic control in the tractor cab.
- 3 Close the speed adjustment flowcontrol valve slowly by turning it clockwise until the desired RPM of the pump is reached. Ensure the RPM does NOT exceed 540.

NOTE

Consult your Croplands dealer if you require assistance with determining pump RPM.

The Dealer will be able to calibrate this using an RPM meter or rev counter.



Open Centre vs Closed Centre Hydraulics:

For the best operation of your hydraulicdrive centrifugal pump, there are some adjustments that can be made by your dealer on your tractor hydraulics for best performance & lower heat generation to protect your tractor.

In general terms, three hydraulic systems. are outlined following:

• Open Centre Systems

In an open centre system, the hydraulic pump on the tractor puts out a constant flow. If the pump puts out more oil than the hydraulic-drive motor can use, a portion of the oil must be bypassed around the motor. When the oil is bypassed around a loop and does no work, the energy put into it by the pump turns into heat. Therefore, the amount of oil bypassed should be kept to a minimum.

Tractor adjustments may be necessary. Consult your Dealer if you are unsure.

Closed Centre (Pressure Compensated) Systems.

The closed centre pressure-compensated system has a variable displacement pump which will deliver flow at the necessary rate to maintain a specified pressure.

It is best to have the pump operating at around 1800 to 2100 psi with the relatively low-flow hydraulic drive motor fitted to the WEEDit sprayer.

Tractor adjustments may be necessary. Consult your Dealer if you are unsure.

Closed Centre Load Sensing Systems (Flow and Pressure Compensating).

The closed centre flow-compensated system is a variation of the pressure-compensated system, designed primarily for more efficient operation and less heat generation.

It works on the principle of maintaining a constant pressure drop from the pump to the work port of a selector valve.

Any variation in the demand at the motor will cause a change in flow.

The system senses this change in flow due to the change in pressure drop across the valve, and causes the pump to compensate by varying the pump flow.

No restrictor is required in the pressure line and no oil is bypassed.

Check with your Dealer to see if your tractor has this system.

2.15

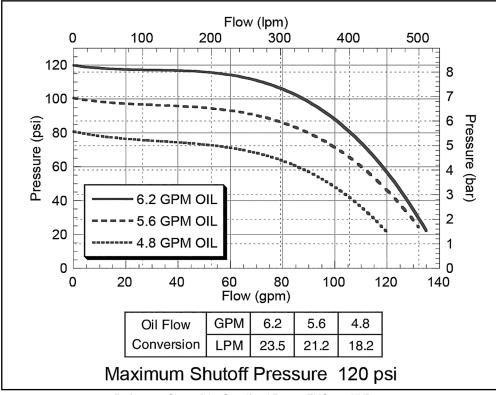


Centrifugal Pump - FMC-150-HYD-206.

Hydralic Motor Driven Centrifugal Pump - FMC-150-HYD-206

Recommended for use on the following hydraulic systems:

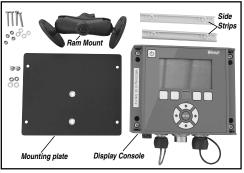
- Pressure Compensating Closed Center
- Load Sensing or Pressure Flow Compensating Closed Center
- Open Center up to 60 l/min.



Performanc Chart of the Centrifugal Pump - FMC-150-HYD-206.

Specifications:

- Open Center up to 60 l/min
- Suction 1½" / Discharge 1¼"
- Integral Needle Valve bypasses up to 34 l/min on Open Cente systems
- Standard Viton® Carbon/Ceramic seal or Optional Severe Duty Silicon Carbide Mechanical Seal
- Chemical Resistant Valox® or Optional Cast Iron or Polypropylene Impeller
- Stainless Steel Shaft and Wear Ring.



The WEEDit Controller Console components.

3 Fit the Controllers:

- · WEEDit Controller, and
- WEEDit Power Cable
- Trailed Boom Controller
- Other Optional controller(s)

Fit the WEEDit Controller

To fit the WEEDit Controller:

- 1 Unpack the Controller Console and mounting components.
- 2 Attach the ram mount to the Console mounting plate using the screws, washers and nuts provided.

Attach the ram mount to the Console mounting plate.



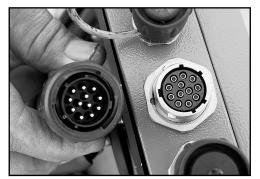
2.16 BT-OMWEED 012015 - Rev 1

Section 2



Fix the mounting plate to the Console.

- 3 Fix the mounting plate to the Console using the screws, washers and nuts provided.
- 4 Fit the side covers to the Console.
- 5 Position the Console in the tractor cab so that it is:
 - · Easily-reached for operating
 - Easily-read
- 6 Frmly fix the ram-mount base to the tractor.



Align the cable connectors & push them together.

- 7 Connect the Console cable to the Console:
 - a) Align the female cable connector to the male Console connector and push them together.
 - b) Rotate the ring-lock clockwise to lock the connectors in place.
- 8 Run the other end of the Console cable to the rear of the tractor.



Align the Console cable connectors & push them together.

- 9 Connect the Console cable to the WEEDit Sprayer:
 - a) Remove the dust caps from the Console cable and Sprayer cable.
 - b) Align the female cable connector to the male Console connector and push them together.
 - c) Rotate the ring-lock clockwise to lock the connectors in place.
 - d) Lock the male & female dust caps together, to keep them clean.



Hook-up

The WEEDit Power Cable.

Fit the WEEDit Power Cable

To fit the tractor WEEDit Power Cable:

- 1 Unpack the WEEDit Power Cable.
- 2 Fix the cable connector bracket to the rear of the tractor.
- 3 Connect the Sprayer WEEDit Power Cable to the tractor Power Cable connector:
 - a) Align the sprayer male cable connector to the tractor female cable connector, then, push them together.

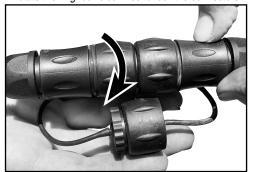
Assembled Console & cable ready for tractor installation.



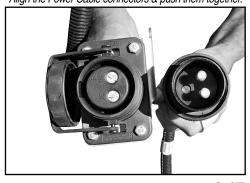
Rotate the ring-lock clockwise to lock the connectors.



Rotate the ring-lock clockwise to lock the connectors.

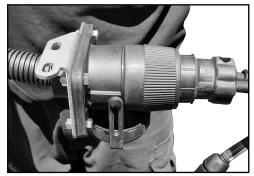


Align the Power Cable connectors & push them together.



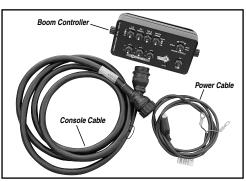
BT-OMWEED 012015 - Rev 1

2.17



Rotate the ring-lock clockwise to lock the connectors.

- b) Rotate the ring-lock clockwise to lock the connectors in place.
- 4 Run the other end of the Power Cable to the tractor battery.



The Boom Controller, tractor cable & power cable.

Fit the Trailed Boom Controller

To fit the Trailed Boom Controller:

- Unpack the Trailed Boom Controller, Controller cable and Power cable.
- 2 Locate the Controller in the tractor cab so that it is easily-reached for operating.
- 3 Firmly fix the cradle base of the Controller to the tractor.



Connect the Power cable to the back of the Controller.

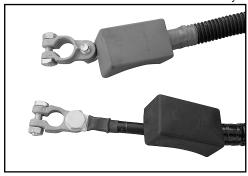
- 4 Connect the Controller cable to the back of the Controller:
 - a) Align the female cable connector to the male Console connector and push them together.
 - b) Rotate the ring-lock clockwise to lock the connectors in place.
- 5 Run the other end of the Console cable to the rear of the tractor.



Align the Power cable connectors & push them together.

- 6 Connect the Controller cable to the Boom cable on the Sprayer:
 - a) Remove the dust caps from the Controller and Sprayer cables.
 - b) Align the female cable connector to the male Controller connector and push them together.
 - c) Rotate the ring-lock clockwise to lock the connectors in place.
 - d) Lock the male & female dust caps together, to keep them clean.





Rotate the ring-lock clockwise to lock the connectors.

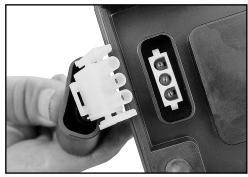


Rotate the ring-lock clockwise to lock the connectors.



2.18 BT-OMWEED 012015 - Rev 1

Section 2 Hook-up



Pull back the dust cover to access the male connector.

- 7 Connect the Power cable to the Controller:
 - a) Pull back the rubber dust cover to access the white male connector.
 - Align the white male connector with the female connector on the back of the Controller, then, push-in the male connector in until it clicks in place.



Fit the dust cover to the back of the console.

- c) Fit the dust cover to the back of the console, to seal the connectors from dust.
- 5 Run the other end of the Power cable to the tractor battery.



Optional Electric Fence Line Controller.

Fit Other Optional Controllers

Other option controller may include:

- Electric fence-line controller
- MT3405, BA7000 or ZYNX X20 Spray Controllers for Dual line models.

To fit the Electric Fence Line Controller:

- Unpack the Electric Fence Line Controller (including Controller cable & Power cable) and mounting bracket.
- 2 Locate the Controller in the tractor cab so that it is easily-reached for operating.
- 3 Firmly fix the mounting bracket of the Controller to the tractor, then, slide the Controller onto the bracket until it locks into place.

NOTE

For operating instructions of this model of spray controller you have been supplied, refer to the controller manual supplied seperately.



Connect the Fenceline Controller cable.

- 4 Connect the Sprayer Fenceline Controller cable to the Tractor Controller cable:
 - a) Remove the dust caps from the ends of the cables.
 - Align the female cable connector to the male Controller connector, then, push them together until they click in place.
 - c) Lock the male & female dust caps together, to keep them clean.
- 5 Run the battery connectors of the Fencline Power Cable to the tractor battery.

Align, then, push-in the male connector until it clicks in place.



Run the other end of the cable to the tractor battery.



BT-OMWEED 012015 - Rev 1

Hook-up

Pre-Operation



MT3405 Controller - Dual Line Sprayer option.

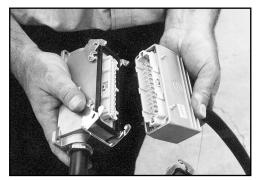
To fit the optional MT 3405 Spray Controller (applicable to Dual Line WEEDit Sprayers only):

- Unpack the Spray Controller and cables.
- 2 Fit the Spray Controller console into the tractor cab in a convenient and safe location for the operator.



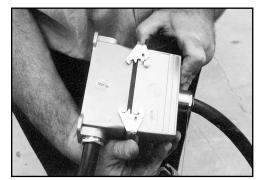
Connect the leads to the rear of the Controller.

3 Connect the leads at the rear of the Spray Controller.



Connect the main loom couplings.

4 Align, connect and lock together the main loom couplings at the rear of the tractor.

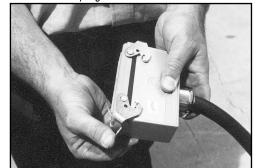


Lock the Controller couplings together.

Ensure dust caps are fitted to the Controller cable couplings when disconnected.

NOTE

For operating instructions of this model of spray controller you have been supplied, refer to the controller manual supplied seperately.



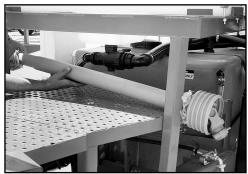
NOTE

Ensure any colour coded cable-ties on the looms are matched.

If the ZYNX X20 controller is fitted, refer to the X20 Instruction manual for installation guidelines and connection diagrams.

2.20 BT-OMWEED 012015 - Rev 1

Section 2 Hook-up



Remove the PTO shaft from its transport position.

4 Fit the PTO Shaft

This Option is only applicable to Dual Line Sprayers and is not applicable to a WEEDit Sprayer fitted with a hydraulic pump drive option.

The standard fitted PTO shaft has been packed for transit.

To fit PTO shaft:

- 1 Remove the PTO shaft which is strapped to the WEEDit platform.
- 2 Check the PTO shaft has not been damaged in transit.



Correctly fit the PTO shaft to the AR Pump.

3 Measure and fit the PTO to the WEEDit sprayer ensuring the locking pin is correctly located.

Be sure to read, understand and follow instructions on page 2.12, "The important factors for fitting the PTO shaft".

- 4 Grease the universal joins and telescoping shafts.
- 5 Fit the PTO to the AR Pump ensuring the locking pin is correctly located.



Check all safety guards & chains are in place.

6 Before operating the drive shaft, be sure that all safety guards and chains are securely in place.

Important Factors when Fitting the PTO Shaft

The following three factors must be correct to avoid pump damage and maximise PTO operating life:

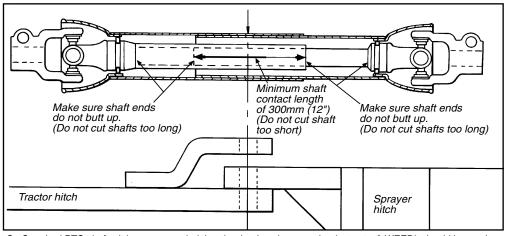
When travelling straight ahead, the point at which the sprayer drawbar pin is joined to the tractor should be as close to centre as possible, between the universal joints of a Standard PTO shaft, as illustrated.

The tractor is then able to make maximum turns with minimal bending of the universals.



Incorrect fitting of PTO shaft will result in excessive pump vibration, and will likely damage the PTO and pump prematurely.

BT-OMWEED 012015 - Rev 1 2.21



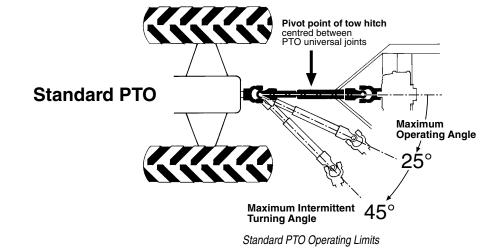
On Standard PTO shafts, it is recommended that the drawbar pin connecting the tractor & WEEDit should be as close as possible, between the two universal joints of the PTO shaft.

2 When the tractor is towing the sprayer straight ahead, the two telescopic sections of the power take-off shaft are at maximum extension.

When turning or crossing an inversion, the telescopic shaft sections close up.

3 The height difference between the tractor PTO spline and the PTO spline of WEEDit should not be more than 100mm.

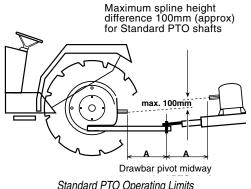
This ensures PTO joint angles are approx equal and do not exceed limits. If greater than 100mm, a wide angle (constant velocity) PTO should be used. See Hitch height adjustment instructions on page?.



Heed the Operating Limits of the Standard PTO Shaft

The standard WEEDit is fitted with a STANDARD PTO shaft.

The maximum intermittent turning angles of the Standard PTO shaft is only recommended where should not exceed 45° turning angle of the PTO.



Standard PTO Operating Limits

NOTE

IMPORTANT: Do not allow more than 10% difference in the two halves of drawbar length. If more than 10% difference occurs, a wide angle shaft must be used.



CAUTION

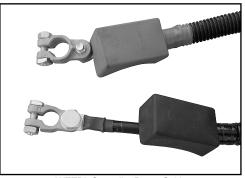
Ensure that the drive shaft is the correct length to avoid any "butt up" damage to the pump.



CAUTION

Pump warranty is not valid for damage caused by incorrect PTO shaft mounting.

2.22 BT-OMWEED 012015 - Rev 1 Section 2







Boom Controller power cable.

5 Connect Power Leads to the Tractor Battery

Connect all power leads <u>directly to the</u> <u>battery</u>, namely the:

- WEEDit Controller Power Lead
- Boom Controller Power Lead
- Optional Controller Power Leads

6 Inflate Shock Absorbers& Adjust Boom Hieght

Individually lift each of the boom steering wheel and castor wheels off the ground, then, inflate the shocker absorber to 110 psi.

The boom wheel shock absorbers require no less than 110 psi minimum inflation pressure.

If the shock absorbers operated with inflation pressure less than 110 psi, excessive wear will occur in moving components.

Raising or lowering air pressure in the boom steering and castor wheel shock absorber systems is used to adjust the boom:

Hook-up

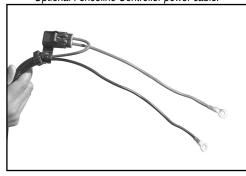
- Height the base of the WEEDit cameras must be set 1100mm above the ground.
- Level boom height must be consistent across the full width of the boom.

A WARNING

Make absolutely certain that:

- Red leads are connected to the positive terminal, and
- Black leads are connected to the negative terminal.

Damage can occur to units if power leads are reversed or incorrectly fitted.



Optional Fenceline Controller power cable.

CAUTION

<u>DO NOT</u> attempt to inflate the shock absorbers <u>without lifting the wheels off the ground.</u>

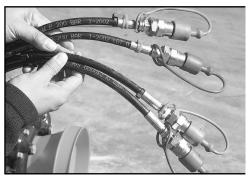
<u>Damage to shock absorbers will occur</u> if inflation is attempted without taking all weight off the wheels.

BT-OMWEED 012015 - Rev 1 2.23

Hook-up

Pre-Operation

2.24 BT-OMWEED 012015 - Rev 1

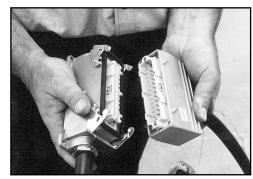


Disconnect hydralulic hoses & PTO shaft.

Unhitching

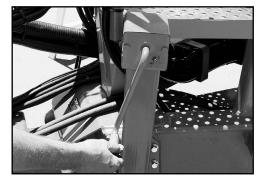
To disconnect the WEEDit Sprayer from the tractor, follow the procedure below:

- 1 Ensure the Trailing Boom arms are in the folded position.
- 2 Locate the sprayer on level ground and disconnect the:
 - PTO shaft (if fitted)
 - Hydraulic hoses for the:
 - Boom
 - Centifigal Pump drive
 - Other pump drives (if fitted)
 - Filling pump (if fitted)
 - · Electric Controller Cables.



Disconnect the main loom coupling.

3 Unlock, unpin and wind down the hitch jack.



Unlock, unpin & wind down the hitch jack.

- 4 Pin & lock the hitch jack into position and, then, adjust the hitch height using the hitch jack.
- 5 Unlock and remove the tractor drawbar pin.



For safety purposes, steps above must be performed on level ground.

NOTE

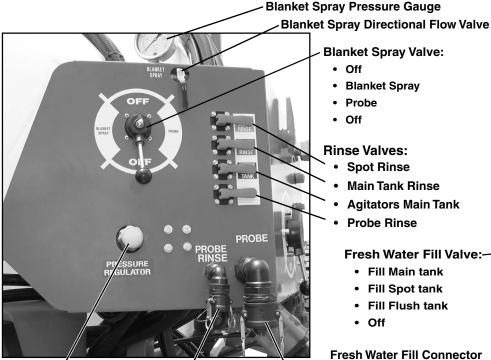
It is recommended that the trailing boom arms are folded prior to parking and <u>un-hooking</u> the sprayer.

NOTE

Fit dust covers to hydraulic remote connectors to avoid dirt/dust contamination.

Main Controls & Functions

The WEEDit main control panel & valve location facilitates central, easy access of all control points for filling, mixing, spraying & cleaning functions:



Blanket Spray Valve:

- Off
- Blanket Spray
- Probe
- Off

Rinse Valves:

- Spot Rinse
- Main Tank Rinse
- **Agitators Main Tank**
- **Probe Rinse**

Fresh Water Fill Valve:-

- · Fill Main tank
- Fill Spot tank
- · Fill Flush tank
- Off

Fresh Water Fill Connector

Blanket Spray Pressure Regulator

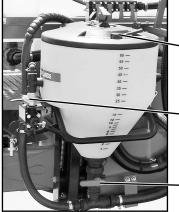
Chemical Probe Rinse Connector **Chemical Probe** Connector



Fresh Water Tap



WEEDit Flush Line Tap



Chem-E-Flush Rinse valve

Chem-E-Flush **Drum Rinse/Fill valve**

Chem-E-Flush Transfer valve

Blanket Spray Suction Line Valve:

- Spray Main Tank
- Flush

Pony Flow 4 Meter

WEEDit Ramsey Valve:

- Ramsey Valve **Return to Spot** Tank
- Ramsey Valve **Return to Main** Tank

WEEDit Vent Valve:

- Vent Return to Spot Tank
- Vent Return to **Main Tank**

Fresh Water Fill Filter

Blanket Spray Suction Filter

Batched-Chemical Fill Valve

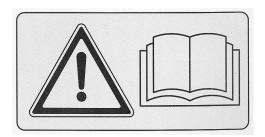
Batched-Chemical Fill Connector

WEEDit Suction Line Valve:

- Main Tank
- Spot Tank
- Flush

2.26

Pre-Operation Check



Read Operators' Manuals before operating machine.

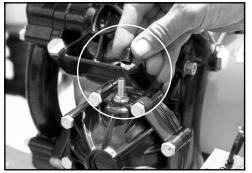


- 1 Read Operator's Manuals
 thoroughly, before attempting to
 use this machine.
- 2 Read and follow instructions on chemical manufacturers labels.
- 3 Always wear applicable protective clothing.
- 4 Check that all maintenance procedures have been followed.
- 5 Check all plumbing and fittings to ensure they are tight, not damaged or leaking.
- 6 If fitted, check the PTO shaft is correctly set up.
- 7 If fitted, grease the PTO shaft.
- 8 Check hydraulic connections.



Check pump oil level.

9 If fitted, check the diaphragm pump oil level.



Check pump air chamber pressure.

10 If fitted, check the air pressure in the diaphragm pump air chamber is 70 - 100 kPa (10- 15 psi).

As a general guideline it should be 10% - 20% of operating pressure.



Check the Blanket Spray suction filter is clean.

11 Check the Blanket Spray suction filter is clean.

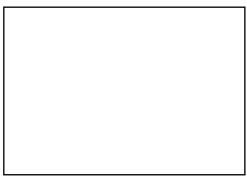
Thoroughly clean the suction filter out after initial use.

NOTE

IMPORTANT: Clean the suction filter out after initial use.

Whilst all precautions are taken during assembly, it is possible to get filings in the tank and lines. These will accumulate in the suction filter during first use.

BT-OMWEED 012015 - Rev 1



Check the pressure filter is clean.

11 Check the pressure filter is clean.

Thoroughly clean the pressure filter out after initial use, and nozzles if necessary.



Check the Trailing Boom functions correctly.

13 Check the Trailing Boom Controller functions correctly.



Check the WEEDit Controller spraying functions.

- 14 Check all WEEDit Controller spraying functions:
 - · Refer to the instruction in the "WEEDit User Manual"

15 Refer to instructions provided in other Operators Manuals supplied with the Sprayer.

NOTE

IMPORTANT: Clean the pressure filter out after initial use.

Whilst all precautions are taken during assembly, it is possible to get filings in the tank and lines. These will accumulate in the filter during first use.



WARNING

Ensure wheel nuts are tight before every use. Torque settings:

> M18 x 1.5 Stud = 270Nm $M20 \times 1.5 \text{ Stud} = 380 \text{Nm}$ $M22 \times 1.5 \text{ Stud} = 510 \text{Nm}$

2.28 BT-OMWEED 012015 - Rev 1

Pre-Operation Check

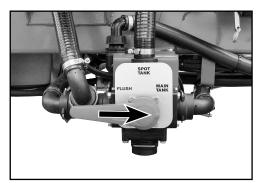


Single Line Sprayer - WEEDit Controller standard.

Check the WEEDit Controller Operation

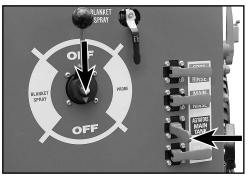
When the WEEDit Sprayer is first used or when setting up for operation, the following steps should be followed:

- 1 Connect WEEDit Sprayer to tractor (see instructions pages 2.10-2.18).
- 2 Fill an appropriate quantity of clean water into spray tank (see instructions pages 3.2-3.4).



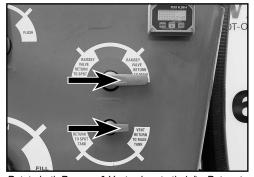
Place the suction valve in "Main Tank" position.

3 Place the Suction Line valve in the "Main Tank" position, or alternatively. place the Suction Line valve in the "Spot Tank" positon (depending on which tank is being used).



Rotate the Blanket Spray Valve to "Off", then, open the "Agitators Main Tank" valve.

- 4 If the main tank is the source of spray liquid, rotate the Blanket Spray Valve to "Off" position, then, open the "Agitators Main Tank" valve.
- 5 Rotate the Blanket Spray Suction Line Valve to "Spray Main Tank".



Rotate both Ramsey & Vent valves to their "... Return to Main Tank" positions.

- 6 Rotate both Ramsey & Vent valves to to their "... Return to Main Tank" positions.
- 7 Press the Controller Power Button to switch-on the Controller.
 - Follow the instructions in the separate WEEDit Controller User Manual.
- 8 Engage the appropriate hydraulic remote and bring pump speed to 540 RPM.

The WEEDit Console will show the default screen and the air compressor should start running.



WARNING

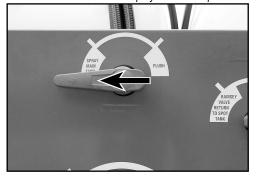
Do not have pesticides in the spraytank when checking the sprayer.

NOTE

Additional copies of the WEEDit User manual can be downloaded in a PDF file format from the Internet.

Always follow the instructions of the separate WEEDit Controller User Manual - for start-up, calibration and Sprayer Operation.

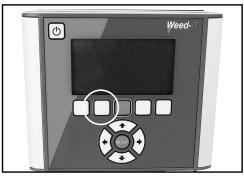
Rotate Main Tank Valve to "Spray Main Tank" position.



WEEDit Controller Power Button - On/Off.



BT-OMWEED 012015 - Rev 1



Press the Flush Buttom to flush & check pressure.

9 Press the Flush button to check the pressure of the system by briefly flushing it.

Flush the system and check if the pressure remains 3.0 bar at all the nozzles. The air compressor should start running after flushing begins.

Adjust the pressure if required, as follows.



Adjust the air pressure at the rear of the Sprayer.

10 Adjust the pressure using the air pressure adjustment valve located at the rear of the Sprayer on the right hand side.

To adjust the spraying pressure:

- a) Pull the knob on the air pressure valve outwards.
- b) Rotate the knob to set the required pressure.
- c) Push the knob in again to lock it in place.

Maximum working pressure be set at 4 BAR (60 psi). If the maximum pressure is above this, damage to your sprayer may result.

- 11 Visually check that both tank agitators are working.
- 12 Turn the Controller Boom switch ON & OFF and check all boom sections switch off together.
- 13 If fitted, turn the Fenceline nozzles ON & OFF to check operation.
- 14 While water is being pumped through the boom, check:
 - For any leakages or blockages throughout the Sprayer.
 - All hoses, connections, valves, filters, boom fittings etc.
 - All nozzles are operating correctly.

Rectify any problems.

- 15 With all booms operating, check the pressure drop in the feeding lines is not too big, by checking the actual pressure at the nozzle outlet. You could use a nozzle tester for this.
- 16 Switch booms ON & OFF several times, ensuring each section is operating individually, and that the non-drip nozzle bodies are working.
- 17 On completion of checking the sprayer, turn the controls Off.
- 18 Disengage the pump hydraulic drive after the Spray Controls are switched off.

NOTE

To maintain the right pressure at the nozzles at all times, a Ramsay valve (an accumulator fed by a small air compressor) regulates sprayline pressure.

Desired pressure is achieved by using an air regulator installed between the air compressor and the Ramsay valve.

! CAUTION

Ensure that the system does not suck in any air.

Ensure all suction lines (from the spray tank) and all couplings are absolutely water tight.

Even the smallest leakage may result in pressure variations or even complete pump failure.

Sucked-in air may result in "nozzle's dripping".

NOTE

The maximum spraying pressure will vary with different nozzles.

We recommend you re-adjust your maximum pressure if you change your nozzle selection.

2.30 BT-OMWEED 012015 - Rev 1

Pre-Operation Check



Dual Line Sprayer - MT3405 Controller option.

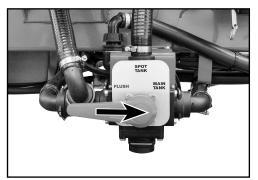


The automatic Spray Controller controls all aspects of the second line spray application.

To check the unit:

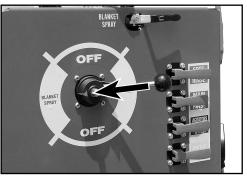
- 1 Connect WEEDit to tractor (see instructions pages 2.10-2.18).
- 2 Fill an appropriate quantity of clean water into spray tank (see instructions pages 3.2-3.4).

Do not have pesticides in the spraytank when



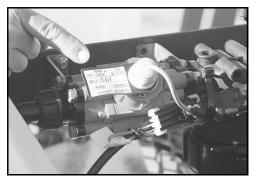
Place the suction valve in "Main Tank" position.

3 Place the Suction Line valve to "Main Tank" position.



Rotate the Pressure Control Valve to "Spray Blanket" position.

4 Rotate the Pressure Control Valve to "Blanket Spray" position.



Enter the flow meter calibration factor.

- 5 Follow the instructions in the Spray Controller Instruction Manual - to calibrate and operate the Controller. If a X20 controller is installed, it will need to be charged prior to use. Refer to manufacturer's installation instructions for details.
- 6 Place the master switch of the Spray Controller in OFF position for start up. Ensure the controller power switch is ON.
- 7 Engage the PTO and bring the PTO (pump) speed up to 540 RPM.

In the case of a hydraulic drive, engage the appropriate hydraulic remote.

All pumped liquid is now being passed through the dump valve back into the tank. The system is not pressurised and tank agitators are not working.

8 Pressurise the system and operate the tank agitators.

2.31

Additional copies of the Spray Controller manual can be downloaded in a PDF file format from the Internet.

For the micro-trak MT3405 or MT9000 controllers. log onto www.micro-trak.com and follow the menu. For the Teejet 854, send an email with your request to teejetoz@spray.com and they will forward you a spare copy.



X20 Controller

BT-OMWEED 012015 - Rev 1



checking the sprayer.

NOTE

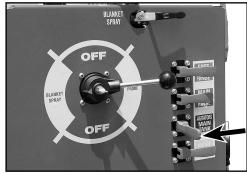
Pre-Operation



Adjust the manual pressure relief valve.

- 9 Adjust the spraying pressure as follows with the tractor & sprayer stationary:
 - (a) On the Spray Controller, select the MANUAL mode using the appropriate key.
 - (b) Switch on all boom valves, and switch the controller into the "RUN" position. Water will now be flowing out the nozzles.
 - It is recommended to do this with the boom open in the spraying position.
 - (c) Use the "+" key on the Spray Controller to fully close the electric servo valve. This will take a few seconds.
 - (d) When the servo is fully closed, adjust the manual pressure relief valve as shown to the maximum working pressure. In the case of the WEEDit, we recommend the maximum working pressure be set at 8 BAR (120 psi).

If the maximum pressure is above this, damage to your sprayer may result.



Open the tank agitator valve.

- (e) Use the "-" key to reduce the pressure to your normal spraying pressure 2-4 BAR (30-60 psi).
- 10 Open the tank agitator valve.
- 11 Visually check that both tank agitators are working.



+/- keys and auto/man key.

- 12 Turn the Controller Master switch ON & OFF and check all boom sections switch off together.
- 13 Turn fenceline* nozzle ON & OFF to check it is working correctly (*if fitted)
- 14 While water is being pumped through the boom, check for any leakages or blockages throughout the sprayer.

Check all hoses, connections, valves, filters, boom fittings etc.

Check the nozzles are operating correctly.

Rectify any problems.



Boom switches on, master switch in hold.

- 15 With all boom operating, re-check pressure range by alternating from "+" to "-" on the Spray Controller while in MANUAL mode.
 - Ensure maximum pressure does not exceed 8 BAR. Minimum pressure should reach almost zero.
- 16 Switch booms ON & OFF several times, ensuring each section is operating individually, and that the non-drip nozzle bodies are working.
- 17 On completion of checking the sprayer, turn controls Off by placing the master switch and boom switches in OFF position.
- 18 Disengage PTO or Hydraulic pump drive after the Spray Controller is switched off.

NOTE

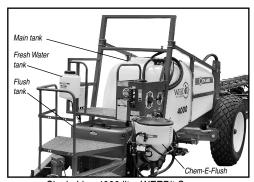
The maximum spraying pressure will vary with different nozzles.

We recommend you re-adjust your maximum pressure if you change your nozzle selection.

2.32 BT-OMWEED 012015 - Rev 1

Filling	3.2
Filters	3.5
Tank Agitation & Axle Adjustment	3.7
Cleaning	3.8
Operating the Boom	3.12
Operating the Sprayer	3.16
Chemical Mixing	3.17

3.1



Single Line 4000 litre WEEDit Sprayer.

Filling the WEEDit Tanks

The WEEDit tanks can be filled by bottom-filling and/or through the top lid opening.

Single Line Sprayers

Single Line models have three tanks:

		Top	Fresh Wate
	<u>Tank</u>	<u>Fill</u>	<u>Fill</u>
1	Main tank	✓	✓
2	Flush tank	✓	✓
3	Fresh Water tank	1	Х



Dual Line 6000 litre WEEDit Sprayer.

Dual Line Sprayers

Dual Line models have four tanks:

		Top	Fresh Wate
	<u>Tank</u>	<u>Fill</u>	<u>Fill</u>
1	Main tank	✓	✓
2	Spot tank	✓	✓
3	Flush tank	✓	✓
4	Fresh Water tank	1	х

Use clean, fresh water (preferably rainwater), free of suspended organic matter or clay. Some chemicals are deactivated when they contact these materials.

Always calculate the correct water quantity required, and when filling, allow sufficient water quantity for adding and mixing chemicals. If necessary top up the tank to required quantity after adding chemicals.

Use your preferred filling method.



Clean the Fresh Water Fill filter.

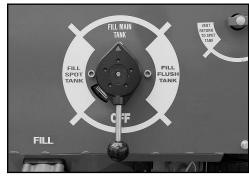
Fresh Water Filling

The Fresh Water Fill facility requires a pressured water source and can be used to fill the main tank and the flush tank.

Main Tank

To fill the Main tank using the Fresh Water Fill inlet connector:

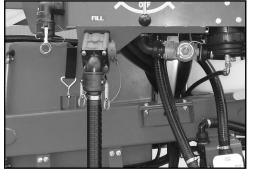
- 1 Clean the Fresh Water Fill filter.
- 2 Connect the filling hose to the Fresh Water Fill inlet connector.



Rotate the Fresh Water Fill valve to "Fill Main Tank"

- 3 Rotate the Fresh Water Fill valve to "Fill Main Tank" position.
- 4 Fill the Main tank with the required amount of water using your water source.
- 5 Rotate the Fresh Water Fill valve to "Off" position after filling is completed.

Connect the filling hose to the Fresh Water Fill connector.



NOTE

The WEEDit can be fitted with an optional filling flowmeter.

Zero the filling flowmeter prior to filling.

3.2 BT-OMWEED 012015 - Rev 1

Section 3 Filling



Rotate the Fresh Water Fill valve to "Fill Flush Tank" position.

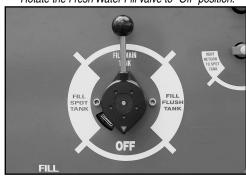
Flush Tank

To fill the Flush tank using the Fresh Water Fill inlet connector:

- 1 Ensure the Fresh Water Fill filter is clean.
- 2 Rotate the Fresh Water Fill valve to "Fill Flush Tank" position.
- 3 Fill the Flush tank with the required amount of water using your water source.
- 4 Rotate the Fresh Water Fill valve to "Off" position after filling is completed.

On completion, unlock and remove the filling hose, then, replace the Fresh Water Fill Connector end cap.

Rotate the Fresh Water Fill valve to "Off" position.



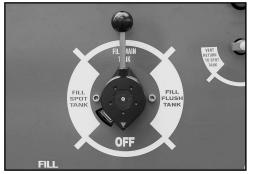


Rotate the Fresh Water Fill valve to "Fill Spot Tank" position.

Spot Tank (Dual Line models)

To fill the Spot tank (on Dual Line models only) using the Fresh Water Fill inlet connector:

- 1 Ensure the Fresh Water Fill filter is clean.
- 2 Rotate the Fresh Water Fill valve to "Fill Spot Tank" position.
- 3 Fill the Flush tank with the required amount of water using your water source.



Rotate the Fresh Water Fill valve to "Off" position.

4 Rotate the Fresh Water Fill valve to "Off" position after filling is completed.

On completion, unlock and remove the filling hose, then, replace the Fresh Water Fill Connector end cap.

Top-Filling

All WEEDit tanks can be filled via the top lid.

Main Tank

Use clean, fresh water (preferably rainwater), free of suspended organic matter or clay. Some chemicals are deactivated when they contact these materials.

Always calculate the correct water quantity required, and when filling, allow sufficient water quantity for adding and mixing chemicals. If necessary top up the tank to required quantity after adding chemicals.

BT-OMWEED 012015 - Rev 1 3,3

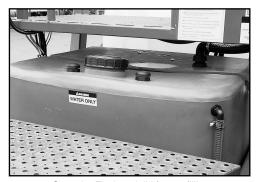
Sprayer Operation



Open the Main tank lid for top-filling.

To top-fill the Spray tank:

- a) Open the Spray tank lid and ensure the basket filter is in place.
- b) Fill the Spray tank with the required amount of water.
- c) Close and lock the tank lid after filling.



Open the Flush tank lid for top-filling.

Flush Tank

Use clean, fresh water (preferably rainwater) in the 340 litre flush tank. Always fill the flushing tank before spraying.

To top-fill the Flush tank:

- a) Unscrew the Flush tank lid.
- b) Fill the Flush tank.
- c) Replace tighten the lid after filling.



Open the Fresh Water tank lid for top-filling.

Fresh Water Tank

The WEEDit incorporates a 30 litre fresh water tank for personal safety when operating the unit in the field. Always fill the fresh water tank before spraying.

To fill the fresh water tank:

- a) Unscrew the tank lid.
- b) Fill the tank using only rainwater.
- c) Replace & tighten the lid after filling.



Open the Spot Water tank lid for top-filling.

Spot Tank (Dual Line Only)

Use clean, fresh water (preferably rainwater) in the Spot tank. Always fill the Spot tank before spraying.

To top-fill the Spot tank:

- a) Unscrew the Spot tank lid.
- b) Fill the Spot tank.
- c) Replace tighten the lid after filling.

3.4 BT-OMWEED 012015 - Rev 1

Section 3 Filters



WARNING

Always wear protective gloves when cleaning filters containing toxic chemicals.

Cleaning Filters

Filters are used to stop solids entering the liquid system and blocking lines, nozzles or damaging the pump.

The WEEDit sprayer incorporates a:

- · Main tank, fitted with a basket filter
- · Flush tank, fitted with a basket filter
- Fresh Water tank
- Spot tank, fitted with a basket filter (Dual Line models only).

The system incorporates filling and suction filters, boom pressure filters and nozzle filters.

Always ensure the basket filter is in place when filling the main tank, Flush tank and Spot tank via the lid opening.

All filters should be cleaned regularly or after each spraying period.

If the filter screen is damaged, replace with a new screen.



Clean the Fresh Water Fill filter regularly.

Bottom-Fill Filter

The Fresh Water Fill filter should be cleaned regularly or before each filling of the spray tank.

To clean the Fresh Water Fill filter:

- 1 Completely stop all sprayer functions.
- 2 Ensure the Fresh Water Fill valve is in "Off" position.
- 3 Remove the outer filter screw and bowl, and then remove the filter and thoroughly clean it before re-assembling the filter.

Clean Blanket Spray Suction filter regularly. Blanket Spray Suction Filter

The Blanket Spray Suction filter should be cleaned regularly or after each spray tank has been emptied.

To clean the Blanket Spray Suction filter:

- 1 Completely stop all sprayer functions.
- 2 Turn the Blanket Spray Suction Line valve to "Off" position to shut Off liquid from the spray tank.
- 3 Remove the outer filter screw and bowl, and then remove the filter and thoroughly clean it before re-assembling the filter.
- 4 Return the Blanket Spray Suction Line valve to "Spray Main Tank" position.



Clean the pressure filter regularly.

Blanket Spray Pressure Filter

The Blank Spray Pressure filter should be cleaned regularly or after each spray tank has been emptied.

To clean the Blank Spray Pressure filter:

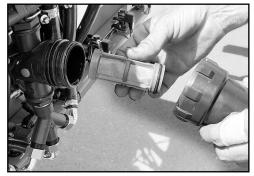
- Completely stop all sprayer functions.
- 2 Rotate the Blanket Spray valve to "Off" position.
- 3 Open the valve at the bottom of the filter to ensure all pressure is removed from the filter.
- 4 Remove the outer filter bowl, and then remove the filter and thoroughly clean it before re-assembling the

NOTE

Be careful not to damage or deform the mesh or O-ring while cleaning and refitting the filters.

BT-OMWEED 012015 - Rev 1

Sprayer Operation



Clean the WEEDit Inline filter regularly.

WEEDit Inline Filters

The WEEDit Inline filters should be cleaned regularly or after each spray tank has been emptied.

To clean the Inline filter:

- 1 Completely stop all sprayer functions.
- 2 Rotate the WEEDit Suction Line valve to "Off" position.
- 3 Remove the outer filter bowl, and then remove the filter and thoroughly clean it before re-assembling the filter.



Clean Inline filters regularly (Dual Line Inline filter shown).

Blanket Spray Inline Filters

The Blanket Spray Inline filters should be cleaned regularly or after each spray tank has been emptied.

To clean the Inline filter:

- Completely stop all sprayer functions.
- 2 Rotate the Blanket Spray valve to "Off" position.
- 3 Remove the outer filter bowl, and then remove the filter and thoroughly clean it before re-assembling the filter.



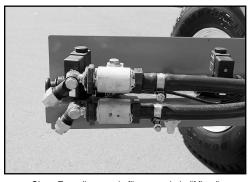
Clean nozzle filters regularly (Dual line nozzle filter only).

Blanket Spray Nozzle Filters

Blanket Spray Nozzle filters should be cleaned regularly and when a nozzle spray pattern is effected by blockage.

To clean the Blanket Spray Nozzle filters:

- Completely stop all sprayer functions.
- 2 Ensure all pressure is removed from the spray lines.
- 3 Remove the nozzle cap and nozzle, and then remove Nozzle filter.
 - Thoroughly clean Nozzle filter (and nozzle if necessary) before re-fitting the nozzle & nozzle cap.
- 4 Repeat step 3 for each nozzle.



Clean Fenceline nozzle filters regularly (if fitted).

Fenceline Nozzle Filters (Option)

Nozzle filters of the Fencline nozzle option, if fitted, should be cleaned regularly and when a nozzle spray pattern is effected by blockage.

To clean the Nozzle filters:

- Completely stop all sprayer functions.
- 2 Ensure all pressure is removed from the spray lines.
- 3 Remove the nozzle cap and nozzle, and then remove Nozzle filter.
 - Thoroughly clean Nozzle filter (and nozzle if necessary) before re-fitting the nozzle & nozzle cap.
- 4 Repeat step 3 for each nozzle.

NOTE

Be careful not to damage or deform the mesh or gasket while cleaning and refitting the filters and nozzle caps.

NOTE

In some circumstances you may find the nozzle filters are best not used.

If your nozzle filters continuously block, check that your main pressure filter is not torn or that the product you are using is not the cause.

NOTE

Be careful not to damage or deform the mesh or O-ring while cleaning and refitting the filters.

3.6 BT-OMWEED 012015 - Rev 1

Tank Agitation & Axle Adjustment



Ensure agitator valve is open before adding chemical.

Air Filter

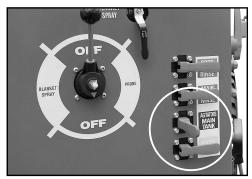
The air filter used by the compressor on the WEEDit sprayer, is located on the top right hand side, rear chassis upright. The air fillter should be cleaned regularly.

To clean the air filter:

- 1 Completely stop all sprayer functions.
- 2 Remove the air filter cover and then remove the air filter element.
- 3 Thoroughly clean the air filter by tapping the filter and or using compressed air to remove the dust build-up.

If necessary replace with a new filter element.

4 Re-assemble the clean filter element and cover.



Open the Agitators Main Tank valve before adding chemical.

Tank Agitation

When chemical is added to the main tank, the pump and Agitators Main Tank valve must be open at all times to ensure chemical does not settle in the tank.

Check to see that tank agitation is correctly adjusted.

If agitation causes too much foaming in the tank, try closing Off one agitator to reduce foaming

If chemical settles, through pump break down or another reason, start up the sprayer after the fault has been rectified and let the mixture in the tank agitate for a length of time to ensure thorough mixing of the chemical.



Shift the sensor cable, then, loosen the lock nuts.

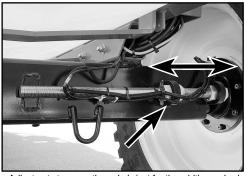
Axle Adjustment Option

To suit varying row widths, the wheel width of the WEEDit sprayer can be altered using an axle adjustment option.

When adjustment is required, make half the overall adjustment (to be made) on each side of the sprayer.

To adjust or alter the wheel width:

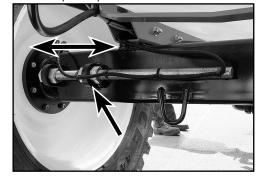
- 1 Remove the cable ties holding the sensor cable.
- 2 Carefully shift the sensor cable clear of the adjustment bolt.
- 3 Use two spanners to loosen the lock nuts on the threaded adjustment bolt.
- 4 Use a jack to lift one wheel off the ground.



Adjust nuts to move the axle in/out for the width required

- 5 Adjust the nuts to move the axle in or out as required to meet the wheel width required.
- 6 Tighten the lock nuts when adjusted width is reached.
- 7 Neatly refit the sensor cable using cable ties.
- 8 Lower the wheel to the ground.
- 9 Repeat steps 1 8 on the second side to complete the wheel width adjustment.

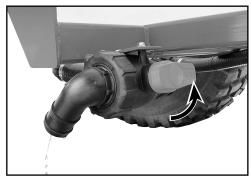
Repeat steps 1 - 8 on the second side.



BT-OMWEED 012015 - Rev 1 3.7

Cleaning

Sprayer Operation



Open the Main Tank Drain valve to drain the tank.

Flushing the WEEDit

The WEEDit is equipped with a flush tank for cleaning the sprayer when changing chemicals, and at the end of the day.

Depending on tanks and lines used, it may be necessary to flush:

- Both lines (blanket & spot spray), and
- Both tanks (main & spot).

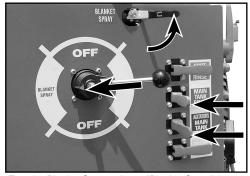
Flushing the Blanket Spay Lines & Main tank

To flush the Blanket Spay line & Main tank:

 Ensure the site for flushing and cleaning the WEEDit meets with environmental and statutory regulations.

NOTE

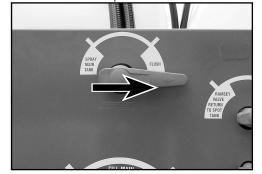
Ensure the drained mixture is disposed of as required by law. Read chemical instructions.



Turn the Blanket Spray valve to "Blanket Spray" & open the Blanket Spray Direction Flow, Main Tank Rinse & Agitator valves.

- 2 Open the Tank Drain valve to drain any remaining spray mixture from the tank.
- 3 Rotate the Blanket Spray valve to "Blanket Spray" position.
- 4 Open the Blanket Spray Directional Flow valve. (?not sure on this one?)
- 5 Open the Agitators Main Tank valve.
- 6 Open the Main Tank Rinse valve.
- 7 Rotate the Blanket Spray Suction Line valve to the "Flush" position

Turn the Blanket Spray Suction Line Valve to "Flush" position.

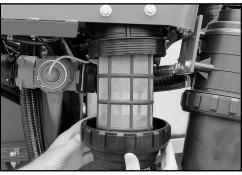


8 Start tractor and place sprayer controls in start up position according to Controller operating instructions (see page ??).

9 Engage the pump drive and bring

- the pump to full operating speed.

 All pumped liquid is now being passed through the dump valve back into the tank. The system is not pressurised and tank agitators are not working.
- 10 Pressurise the system to operate tank rinse and agitators.
- 11 Adjust pressure to desired operating pressure by adjusting pressure up or down.



Remove and clean the suction filter

12 Turn the spray boom sections ON.

Fresh water now flushes through the suction line, suction filter, pump, agitator(s), pressure lines, boom sections and nozzles.

All water comes into the spray tank from the flush tank. Water remaining in the tank drains out of the tank through the drain outlet.

- 13 On completion of flushing, shut down all contols and disengage the pump drive.
- 14 Remove and clean the suction filter & screen, and reassemble.

3.8 BT-OMWEED 012015 - Rev 1

Cleaning



Remove and clean the pressure filter

- 15 Remove and clean the pressure filter & screen, then, reassemble.
- 16 Adjust valves back to their operating mode:
 - a) Close the Main Tank Rinse valve
 - b) Close the Blanket Spray Suction Line valve to "Spray Main Tank" position
 - c) Close the Main Tank Rinse valve
 - d) Close the Tank Drain valve.
- 17 Wash/hose down the outside of the sprayer.





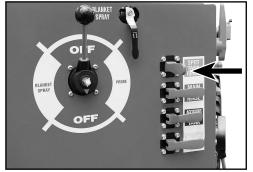
Open the Spot Spray Tank Drain valve to drain the tank.

Flushing the Spot Spay Lines & Spot tank

To flush the Spot Spay line & spot tank:

- Ensure the site for flushing and cleaning the WEEDit meets with environmental and statutory regulations.
- 2 Open the Spot Tank Drain valve to drain any remaining spray mixture from the tank.
- 3 Check the Blanket Spray & Agitators Main Tank valves are "Off".
- 4 Open the Spot Tank Rinse valve.

Open the Spot Tank Rinse valve.





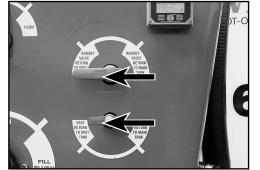
Open the WEEDit Flush Line Tap.

- 5 Open the WEEDit Flush Line Tap.
- 6 Rotate the WEEDit Ramsey valve to "Ramsey Valve Return to Spot Tank".
- 7 Rotate the WEEDit Vent valve to "Vent Valve Return to Spot Tank".



Return to Spot Tank", and the WEEDit Vent valve to the

"Vent Valve Return to Spot Tank".





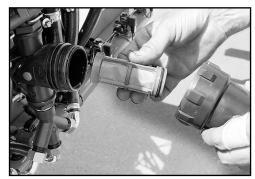
Rotate the WEEDit Suction Line valve to the "Flush" position.

- 8 Rotate the WEEDit Suction Line valve to the "Flush" position.
- 9 Start tractor and place sprayer controls in start up position according to Controller operating instructions (see page ??).
- 10 Engage the pump drive and bring the pump to full operating speed.
 - All pumped liquid is now being passed through the dump valve back into the tank. The system is not pressurised and tank agitators are not working.
- 11 Pressurise the system to operate tank rinse and agitators.
- 12 Adjust pressure to desired operating pressure by adjusting pressure up or down.

3.9

BT-OMWEED 012015 - Rev 1

Sprayer Operation



Remove and clean inline pressure filters & screens.

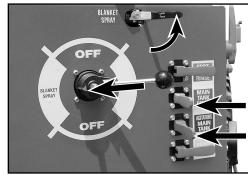
- 13 Turn the spray boom sections ON.
 - Fresh water now flushes through the suction line, suction filter, pump, pressure lines, boom sections and nozzles.
 - All water comes into the spray tank from the flush tank. Water remaining in the tank drains out of the tank through the drain outlet.
- 14 On completion of flushing, shut down all contols and disengage the pump drive.

- 15 Remove and clean the inline pressure filters & screens, then, reassemble.
- 16 Adjust all valves back to operating mode:
 - a) Close the Spot Tank Rinse valve
 - b) Turn the WEEDit Suction Line valve to "Spot Tank" position
 - c) Close the Spot Tank Drain valve
 - d) Close the WEEDit Flush Line Tap.
- 17 Wash/hose down the outside of the sprayer.

Using Tank and Equipment Cleaners

If a cleaning agent is required (refer to chemical label), first completely flush the WEEDit with water as outlined for:

- Blanket Spray Lines & Main Tank -See Steps 1 to 17 on pages 3.8 - 3.9.
- Spot Spray Lines & Spot Tank -See Steps 1 to 17 on pages 3.9 - 3.10.



Turn the Blanket Spray valve to "Blanket Spray" & open the Blanket Spray Direction Flow, Main Tank Rinse & Agitator valves.

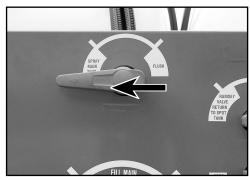
To Use Cleaners in Blanket Spray Lines & Main Tank:

- 1 Fill the Main spray tank with fresh water to the desired level.
- 2 Add cleaning agent into the required tank (use according to instructions).
- 3 Rotate the Blanket Spray valve to "Blanket Spray" position.
- 4 Open the Blanket Spray Directional Flow valve. (?not sure on this one?)
- 5 Open the Agitators Main Tank valve.
- 6 Open the Main Tank Rinse valve.

Close the Spot Spray Tank Drain valve.

3.10 BT-OMWEED 012015 - Rev 1

Section 3 Cleaning



Turn the Blanket Spray Suction Line valve to "Spray Main Tank" position.

- 7 Turn the Blanket Spray Suction Line valve to "Spray Main Tank" position
- 8 Start tractor and place sprayer controls in start up position according to Controller operating instructions (see page 2.24).
- 9 Engage the pump and bring the pump to full operating speed.
 - All pumped liquid is now being passed through the dump valve back into the tank. The system is not pressurised and tank agitators are not working.
- 10 Pressurise the system to operate tank rinse and agitators.
- 11 Adjust pressure to desired operating pressure by adjusting pressure up or down.

- 12 Turn the spray boom sections ON.
 - Fresh water now flushes through the suction line, suction filter, pump, agitator(s), pressure lines, boom sections and nozzles.
- 13 If you require the cleaning agent to soak or stand for a period, turn the spray booms Off, and completely shut down the sprayer for a period.
- 14 Repeat steps 8 12 after soaking is completed.
- 14 Turn the spray booms OFF and shut down the sprayer.
- 15 Open the Main Tank Drain valve.
- 16 After the tank is drained, completely flush the Blanket Spray Lines & Main Tank again, following steps 1 17, on pages 3.8 3.9.

To Use Cleaners in Spot Spray Lines & Spot Tank:

- 1 Fill the Spot spray tank with fresh water to the desired level.
- 2 Add cleaning agent into the required tank (use according to instructions).
- 3 Check the Blanket Spray & Agitators Main Tank valves are "Off".
- 4 Open the Spot Tank Rinse valve.
- 5 Open the WEEDit Flush Line Tap.
- 6 Rotate the WEEDit Ramsey valve to "Ramsey Valve Return to Spot Tank".
- 7 Rotate the WEEDit Vent valve to "Vent Valve Return to Spot Tank".

- 8 Rotate the WEEDit Suction Line valve to the "Flush" position.
- 9 Turn the Blanket Spray Suction Line valve to "Spray Main Tank" position
- 10 Start tractor and place sprayer controls in start up position according to Controller operating instructions (see page 2.24).
- 11 Engage the pump and bring the pump to full operating speed.
 - All pumped liquid is now being passed through the dump valve back into the tank. The system is not pressurised and tank agitators are not working.

3.11 BT-OMWEED 012015 - Rev 1

Sprayer Operation







Move the MASTER switch up to ON position.

- 12 Pressurise the system to operate tank rinse and agitators.
- 13 Adjust pressure to desired operating pressure by adjusting pressure up or down.
- 14 Turn the spray boom sections ON.
- Fresh water now flushes through the suction line, suction filter, pump, agitator(s), pressure lines, boom sections and nozzles.
- 15 If you require the cleaning agent to soak or stand for a period, turn the spray booms Off, and completely shut down the sprayer for a period.
- 16 Repeat steps 8 12 after soaking is completed.

- 17 Turn the spray booms OFF and shut down the sprayer.
- 18 Open the Main Tank Drain valve.
- 19 After the tank is drained, completely flush the Blanket Spray Lines & Main Tank again, following steps 1 17, on pages 3.8 3.9.

Opening & Closing the Spray Boom

The unfolding & folding of the trailing boom must be undertaken on **level ground**.

Unfolding the boom involves using the toggle switches on the boom controller to:

- Unlock the stay arm locks
- Rotate the main wheels to open out the wings while reversing the tractor & WEEDit sprayer, then,
- · Open the stay arms
- · Connect the stay arms,
- Lock the stay arms into positon
- Rotate & lock the wheels into spraying position.

Opening the Boom for Spraying

To open the WEEDit sprayer boom from transit to spraying position:

- 1 Connect the sprayer to the tractor. Follow instructions on pages 2.10 - 2.20 of this manual. Move the unit onto level ground for opening the boom.
- 2 Remove the boom's transport chain and arm locking device ready for opening the boom.
- 3 Move the MASTER switch up to ON position to turn on the boom controller.

NOTE

The initial boom alignment is carried out at the factory and checked by your dealer.



Make sure there are no people, things or power lines with in range of the spray boom when folding or unfolding

3.12 BT-OMWEED 012015 - Rev 1

Section 3

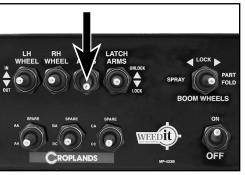


Hold UP the LATCH ARMS switch to unlock the latches.

4 Hold UP the LATCH ARMS switch to hydraulically move the boom stay arm lock latches into their unlocked position.

When unlocked, the latch locking ram is fully retracted & the locking mechanism is retracted ready for connecting the boom stay arms.

5 Check both locking ram and latch are fully retracted on each side of the sprayer.



Hold DOWN the FOLD ARMS switch to open the stay arms.

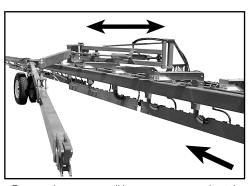
6 Hold DOWN the FOLD ARMS switch to open the wing stay arms.

Hold DOWN the switch until each wing stay arm is fully opened.



Move the BOOM WHEELS switch to PART FOLD.

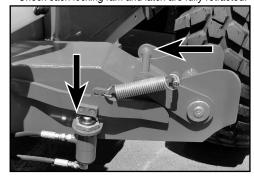
- 7 Move the BOOM WHEELS switch to PART FOLD. This only allows the main boom wheels to rotate ½ of their travel.
- 8 Hold DOWN both LH & RH WHEEL switches & slowly move the sprayer forwards (below 5 km/h).



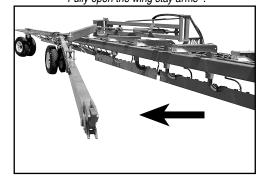
Reverse the sprayer until booms open approximately half way.

Move forward until both boom wings are approximately half open - this will take approximately 10 to 30 metres of travel, depending on soil conditions.

Check each locking ram and latch are fully retracted.



Fully open the wing stay arms



Hold DOWN both LH & RH WHEEL switches & slowly



NOTE

Depending on the soil conditions, it requires approximately 10 - 30 metres of reverse travel to open the booms half way.

BT-OMWEED 012015 - Rev 1

Sprayer Operation



When the boom is half open, move the BOOM WHEELS switch to LOCK position.

6 When the boom is half open, move the BOOM WHEELS switch to LOCK position.

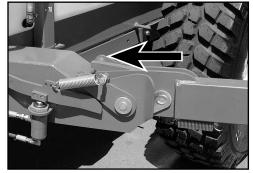


Hold UP both LH & RH WHEEL switches to rotate the wheels.

- 7 Hold UP both LH & RH WHEEL switches to rotate the wing wheels back to their original position (in-line with the boom). This normally takes a few seconds.
- 8 Reverse the sprayer slowly until:
 - Both boom arms are fully open &
 - Both stay arms are latched into the sprayer locks.

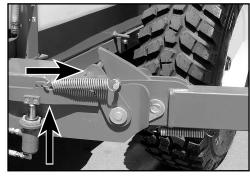
This will normally take about 10 metres of travel to accomplish, depending on soil conditions.

If one side latches before the other, use the wheel switch to rotate the wheel to field position to prevent the wheels bulldozing.



Check that the boom stay arms are docked & each latch is correctly positioned.

- 9 Check that both boom stay arms are docked & locked. Each latch must be correctly positioned (stay arm latch resting on the locking mechanism).
- 10 Hold DOWN the LATCH ARMS switch to hydraulically move the arm latches to lock the stay arms in place.



The locking ram mechanism fully extended & locked.

When locked, the latch locking ram mechanism is fully extended & locks the stay arm in place (preventing the stay arm latch from moving).

Check each side of the sprayer to ensure both locking mechanisms are corectly locked.

NOTE

Depending on the soil conditions, it will normally take a further 10 metres of travel to fully open the boom wings, connect & latch the stay arms.

! CAUTION

If one boom stay connects & latches in place before the other, hold DOWN the WHEEL switch (for that wing wheel) to rotate the wheel to the spray position (at 90 degrees to the boom).

This must be done to allow the opened wing wheels to roll. Otherwise the wheels will be pushed sideways (bulldozing) with further travel which may damage boom components.

Hold DOWN the LATCH ARMS switch to lock the latches in place.



! CAUTION

Be sure to check that the locking ram (on each side of the sprayer) mechanism is fully extended with the stay arm firmly locked into position.

Failure to ensure the locking mechanisms are correctly locked in place may result in the stay arms releasing during spraying operations which may, in turn, cause damage to the sprayer.

3.14 BT-OMWEED 012015 - Rev 1



Hold DOWN both LH & RH WHEEL switches to rotate the main wheels to face forward in the direction of travel.

11 Hold DOWN the LH & RH WHEEL switches to rotate the main wing wheels to face forward in the direction of travel (at 90 degrees to the boom).

This will normally take a few seconds to complete.



Move the BOOM WHEELS switch to SPRAY position.

12 Move the BOOM WHEELS switch to SPRAY position to lock the boom wheels into their spraying postion.

This allows the boom wheels to float when turning.

On completion of these steps, the boom is opened & ready for spraying.



Move the BOOM WHEELS switch to LOCK position.

Hold UP the LATCH ARMS switch to unlock & release the stay arm latches.

Closing the Boom for Transit

To close the WEEDit sprayer boom for transit:

- 1 Move the BOOM WHEELS switch to the LOCK position to lock the main boom wheels in the direction of travel.
- 2 Hold UP the LATCH ARMS switch to hydraulically unlock the boom stay arm latches.

When unlocked, the latch locking ram mechanisms are fully retracted & ready for disconnection.

3 Hold UP both LH & RH WHEEL switches & slowly drive the sprayer forwards (below 5 km/h) to disconnect the stay arms and begin closing the boom wings.

Holding the LH & RH WHEEL switches UP moves the wheels into the transport position (in-line with the boom) while moving forward.

Inset: Main wing wheels in unfolding position. Rotate the wheels to face forward - in the direction of travel.



Hold UP the LATCH ARMS switch to unlock the boom stay arm latches.

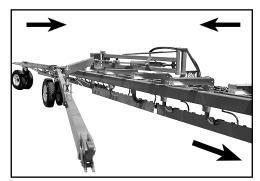


Hold UP both LH & RH WHEEL switches & slowly drive the sprayer forwards.



BT-OMWEED 012015 - Rev 1

Sprayer Operation



Slowly move the sprayer forward until both boom wings are fully closed (into the transport position).

Slowly move the sprayer forward until both boom wings are fully closed (into the transport position).

4 When the boom is fully closed, hold UP the FOLD ARMS switch to close the wing stay arms.



Hold UP the FOLD ARMS switch until each wing stay arm is fully closed.

Hold UP the FOLD ARMS switch until each wing stay arm is fully closed.



Move the MASTER SWITCH to OFF position to turn off the boom controller.

5 For safe transport:

- Fit the boom transport chain and arm locking device.
- Move the MASTER SWITCH to OFF position to turn off the boom controller.

After completing these steps, the sprayer is ready for transport.



WEEDit User Manual

Operating the Sprayer

For detailed operating instructions for spraying operation, refer to:

- The WEEDit User manual and
- Other Controller Manuals supplied for controller(s) fitted to your sprayer.
- Refer to pages 2.23 2.28 & 3.19 of this manual for spray operating instructions.

Hold UP the FOLD ARMS switch to fully close the stay arms.



3.16 BT-OMWEED 012015 - Rev 1



Accurately calculate the amount of chemical required.

Calculate Water & **Chemical Quantities**

Before spraying it is necessary to calculate the exact quantities of water and chemical needed to spray the required area.

The following formulae may be useful:

1 For chemical rates expressed in litres or kg per hectare (land area), calculate the amount of chemical needed, using the formula:

Chemicals required (litres) =

Tank Volume (I) x Recommended Chemical Rate (I/ha) ÷ Spray Application Rate (I/ha)

eg. $[4000 \times 3] \div 150$ = 80 litres.



Pull the lever to unlock & lower the Chem-E-Flush.

2 For volume of mixture required to spray the selected area, calculate the liquid required, using the following formula:

Tank Volume Required (litres) = Area (ha) x Spray Application Rate (I/ha)

eg. 300 x 150

= 45,000 litres

3 For area covered by a given volume of mixture, calculate the area, using the following formula:

Area Covered (ha) =

Tank Volume (litres) + Spray Application Rate (I/ha)

ea. 4000 ÷ 150

= 26.7 hectares

NOTE

IMPORTANT! Be sure to mix only enough spray mixture to cover the area required. Avoid wastage and problems of needless chemical disposal.



Lower hopper into the filling position.

Adding Chemical To the Spray Tank

Chemical can be added to the Main Tank the:

A) Chem-E-Flush hopper (if fitted), or the

B) Optional Chemical Probe (if fitted).



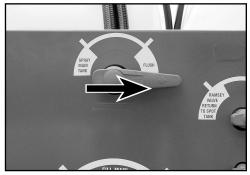
A) Chem-E-Flush Hopper

Only use the Chem-E-Fllush to add chemical the Main Tank with agitation.

To add chemical to the Main Tank using the Cheme-E-Flush:

- 1 Make sure sufficient water is added to the main tank and the flush tank.
- 2 Pull the Unlock Lever the toward the Chem-E-Flush to release and lower the unit.
- 3 Lower the hopper to its filling position.

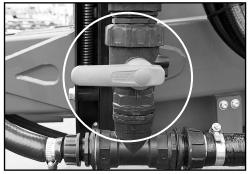
Sprayer Operation



Turn the Blanket Spray Suction Line Valve to "Flush" position.

- 5 Turn the Blanket Spray Suction Line valve to "Flush" position.
- 6 Open the Agitators Main Tank valve.

Open the Agitators Main Tank valve before adding chemical.



Close the Transfer valve at the base of the hopper.

- 7 Close the Transfer valve at the base of the hopper.
- 8 Start the tractor and operate the pump with the tractor engine at idling speed only.

On Single Line models, the pump is the hydraulically driven centrifugal pump. On Dual Line models, the pump can be "as above" or the second line pump and tank.

Warning! Operating the pump at faster than idling speed, may burst lines.

9 Pressurise the pressure lines by switching the appropriate spray controller ON & in RUN mode with booms OFF. (Refer to your controller operator manual for instructions).

NOTE

IMPORTANT! Ensure agitation of spray tank continues after chemical is added to the spray tank.



Open hopper lid & add chemical powder/liquid.

- 10 Open the hopper lid & add chemical powder/liquid to the hopper.
- 11 Close the hopper lid & open the Fill valve to add water and mix the chemical.



Close the Fill valve

- 12 Close the Fill valve after the chemical is mixed.
- 13 Open the Transfer valve at the base of the hopper to transfer chemical mixture to the spray tank.
- 14 Close the Transfer valve at the base of the hopper when transfer is completed.





Open the Transfer valve to transfer the mixture.



3.18 BT-OMWEED 012015 - Rev 1



Open the hopper lid & place the container over the drum rinse valve.

To rinse a chemical container:

- 1 Open the Hopper lid and place the container over the rinse nozzle inside the hopper.
- 2 Ensure the Transfer valve at the base of the hopper is closed.
- 3 Ensure the Chem-E-Flush Fill valve is closed.
- 4 Lift the Drum Rinse valve to open it and rinse the drum.



Close the hopper lid._

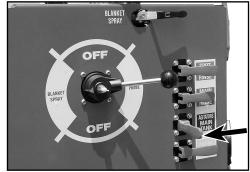
To rinse the hopper:

- 1 Close the hopper lid.
- 2 Close the Transfer valve at the base of the hopper.
- 3 Close the Fill valve.
- 4 Open the Hopper Rinse valve to rinse the hopper.
- 5 Close the Hopper Rinse valve after rinsing the hopper.



Open the Transfer valve to transfer the rinse mixture.

- 6 After rinsing, transfer the rinse mixture to the spray tank, by opening the Transfer valve at the base of the hopper.
- 7 Repeat the rinse procedure, if necessary, to thoroughly cleanse the hopper.
- 8 Close the Transfer valve at the base of the hopper when transfer is completed.

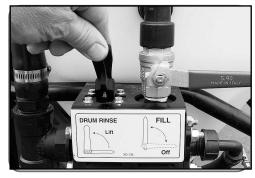


Rotate the Blanket Spray valve to "Blanket Spray" position.

After completing the mixing procedures:

- 1 Check the Transfer valve at the base of the hopper is closed.
- 2 Rotate the Blanket Spray valve to "Blanket Spray" positon.
- 3 Turn the Suction Line valve to "Spray" position
- 4 Return the hopper back to its transport position. Push the hopper inwards until the latch mechanism is engaged.

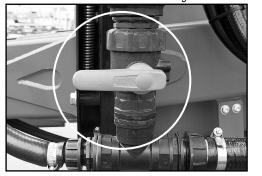
Lift the Drum Rinse valve to rinse the container.



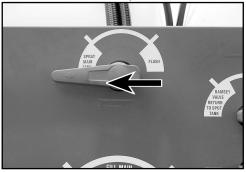
Lift the Hopper Rinse valve to rinse the hopper.



Close the Transfer valve after transfering the mixture.



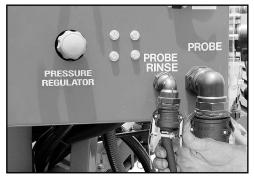
Turn the Blanket Spray Suction Line valve to "Spray Main Tank" position.



BT-OMWEED 012015 - Rev 1

3.19

Sprayer Operation

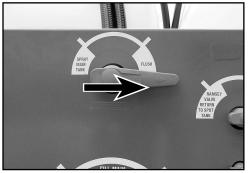


Connect the Probe & Probe Rinse hoses.

B) Chemical Probe

To add chemical to the Main Tank using the chemical probe (optional), follow the steps outlined:

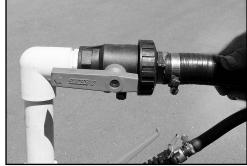
- 1 Make sure sufficient water is added to the spray tank and the flush tank.
- 2 Connect the Probe and Probe Rinse hoses to the connectors (on the front control panel).
- 3 Rotate the Blanket Spray valve to "Probe" position.



Turn the Blanket Spray Suction Line Valve to "Flush" position.

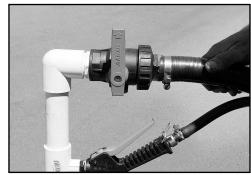
- 5 Turn the Blanket Spray Suction Line valve to "Flush" position.
- 6 Open the Agitators Main Tank valve.
- (f) Open the Probe Rinse valve.
- g) Start the tractor and operate the pump with the tractor engine at idling speed only.





Open Probe valve to transfer mixture to spray tank.

- h) Place the probe in the chemical and open the Probe valve to transfer chemical to the spray tank.
- i) Open the Probe Rinse gun to rinse the container while the Probe valve is open.

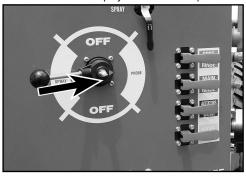


Close probe valve.

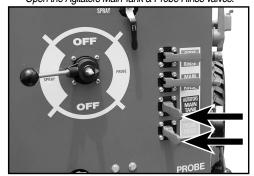
- j) Close the Probe valve when the chemical transfer is completed.
- k) Close the Probe Rinse valve.
- Rotate the Pressure Control lever to "Spray" position.
- m) Turn the Suction Line valve to "Spray" position
- n) Disconnect the Probe and Probe Rinse hoses and refit the connector caps.



Rotate the Blanket Spray valve to "Probe" position.



Open the Agitators Main Tank & Probe Rinse valves.



Open the Probe Rinse gun to rinse the container.



NOTE

IMPORTANT! Ensure agitation of spray tank continues after chemical is added to the spray tank.

3.20 BT-OMWEED 012015 - Rev 1

Calibration Procedure	4.2
Blanket Spray	4.2
Spot Spray	4.9
WEEDit Rate Chart	4.10
Air-Mix & Turbodrop® Nozzle Chart	4.12
Calibration Work Sheet	4.14

BT-OMWEED 012015 - Rev 1 4.1

Calibration Procedure

Sprayer Calibration



Proper calibration considers all spraying variables.

Applying the correct amount of chemical to a crop is only possible if:

- the sprayer is calibrated correctly.
- the sprayer is operated correctly.
- the sprayer is maintained correctly.

The variables of spray application (distance, time, working width, liquid and chemical volumes) must be measured and controlled accurately to ensure chemicals are applied at the correct rate.

Automatic spray controllers measure and control the variables of speed and flow rate to give constant application.

However proper nozzle selection, checking calibration of nozzles, speed and flow rate as well as correct mixing of chemicals must be done to ensure the accuracy and performance of the sprayer and its controller.

Accurate calibration is essential to ensure uniform application of the recommended dose of chemical to the target.

Proper calibration involves setting up the sprayer (nozzle selection, pressure, speed), calculating chemical and water rates and measuring the performance of the sprayer itself. Only then can you be totally confident in applying chemical correctly.

Fully Automatic Spray Controllers

Fully automatic spray controllers maintain application rates (set by the operator) when operated in Auto position.

Such controllers monitor speed of travel (speed sensor) and flow rate (flow meter) and automatically adjust flow rate (via a servo valve) to maintain correct application rate irrespective of speed variations within the limits of the nozzles used.

NOTE

For setting and calibrating the WEEDit Spray Controller function, refer to pages 13 - 16 of the spray controller manual.

IMPORTANT:

- 1 It should be remembered that the spray controller does not eliminate the necessity to measure and check the accuracy of nozzle spray patterns and outputs. These must be checked regularly to ensure correct and uniform application rates because nozzles wear with use.
- 2 Flow meters used by a controller also need to be checked and calibrated on a regular basis.

On the following page, you will see how to maintain and check an dual line model optional Rapid-check flowmeter.

It is recommended you do this regularly during the spraying season.

See the Controller Operator's Manual for detailed information and calibrating procedures specific to the spray controller.



Optional Dual Line Rapid Check Flowmeter

Blanket Spray Calibration Procedure

This procedure is applicable to Blanket Spray applications only.

For accurate spray rate application, follow this calibration procedure:

Step 1 Ensure Equipment Is In Good Working Order.

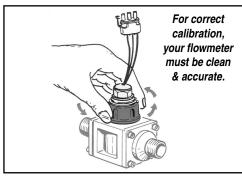
Tank, pump, boom, filters and nozzles must be clean, free of leakages and functioning properly.

Follow the pre-operation checklist, maintenance and operating instructions in this manual.

Install, calibrate and operate the spray controller according to the spray controller Installation/Operators Manual.

4.2 BT-OMWEED 012015 - Rev 1

Calibration Procedure - Blanket Spray

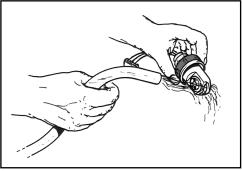


Unscrew the the Rapid Check assembly.

Daily Check & Maintenance of Flowmeter

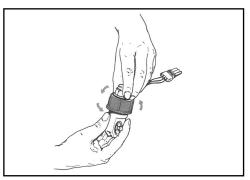
This is to be performed every day after work is finished:

- 1 Unscrew the assembly that holds the Rapid Check unit in the body.
- 2 Remove the Rapid Check unit from the body.



Wash any impurities out of the removable turbine unit.

- 3 Use clean water to wash any impurities out of the removable turbine unit.
- 4 Use compressed air to verify that the turbine unit rotates freely (maximum air pressure 1 BAR [15 psi]).

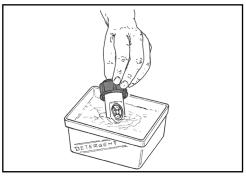


Unscrew the sensor.

Every 50 Hours

Carry out the following procedure after every 50 hours of operation:

- 1 Unscrew the sensor.
- 2 Separate the sensor from the Rapid Check unit.



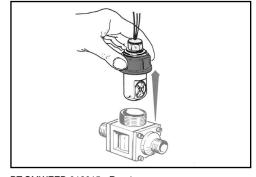
Place the Rapid Check unit in a detergent bath.

- 3 Place the Rapid Check unit in a detergent bath for a few hours.
- 4 Remove the Rapid Check unit from detergent bath.

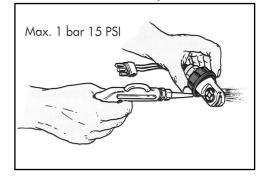
Use compressed air to verify that the turbine unit rotates freely (maximum air pressure 1 BAR [15 psi]).

If necessary, replace the Rapid Check unit with a new one.

Remove the Rapid Check unit.



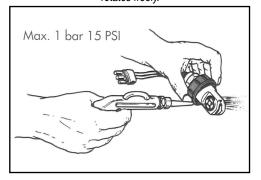
Use compressed air to check that the turbine unit rotates freely.



Separate the sensor from the Rapid Check unit.



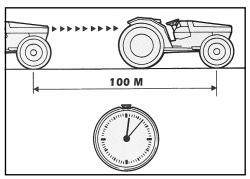
Use compressed air to check that the turbine unit rotates freely.



BT-OMWEED 012015 - Rev 1

Calibration Procedure - Blanket Spray

Sprayer Calibration



Determine actual speed of travel.

Step 2 Determining the Actual Speed Of Travel

Your WEEDit sprayer has been factory set with a calibration number. This should be fine-tuned prior to commencement of spraying and checked by your dealer. This is done by traveling a known distance (usually 100 metres) and comparing the distance measured by the Spray Controller to the known distance. If there is a discrepancy, the Spray Controller Manual explains how to easily adjust the calibration number automatically.

Step 3 Measure Swath Width

The spray controller requires the boom width to be entered in 3/4/5/6 parts.

Measure the nozzle spacing and multiply nozzle spacing by the number of nozzles on each boom section to establish the width of each boom section.

eg, $0.5m \times 12 = 6m$ $0.5m \times 12 = 6m$ $0.5m \times 12 = 6m$



Buyers Guide - courtesy of Teejet.

Step 4 Select Nozzle Type & Size

Select Nozzle Type & Size according to:

- · Chemical recommendations.
- Application rate required.
- Pressure setting.
- · Swath width.
- Chosen speed of travel. (Use actual speed of travel, refer to step 2)

Two methods of selecting nozzle output are:

- a) Use the charts on pages 4.9 to4.11 or the manufacturer's nozzle chart
- b) Calculate Required Nozzle Flow Rate.



Al nozzle - courtesy of Teejet.

a) Use Your Manual's Chart Or Manufacturer's Nozzle Chart.

Using the chart on pages 4.9 to 4.11 or the manufacturer's nozzle rate chart, reference:

- Application rate (eg 50 l/ha),
- Speed of travel (eg 12km/hr), &
- Pressure setting (eg 250kPa), find the nearest nozzle to suit your requirements.

Also check to see what speed variations are available for applying the same rate. See pages 4.9 to 4.11.

It is usually best to select mid range pressure as this will allow the spray controller to adjust pressure up or down when speed variations occur.

NOTE

For setting and calibrating the WEEDit Spray Controller function, refer to pages 13 - 16 of the spray controller manual.

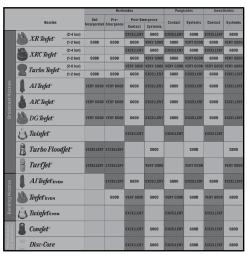
NOTE

Boom sections may vary on some booms.

NOTE

Use your own experience or a registered rate calibration consultant to determine effective application rates in litres per hectare.

4.4 BT-OMWEED 012015 - Rev 1



Nozzle selection chart- courtesy of Teejet.

b) Calculate Required Nozzle Flow Rate

If you know:

- the application rate required (eq 50 l/ha),
- speed of travel (eg 12km/hr),
- swath width (eg 18m), &
- the number of nozzles on the boom (eg 36).

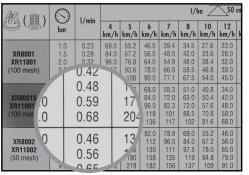
The following formula can be used to establish required flow rate per nozzle:

Nozzle Flow Rate (I/min) =

Speed (km/hr) x Swath Width (m) x Application Rate (l/ha) ÷ 600 ÷ Number of nozzles

eg, $[(12 \times 18 \times 50) \div 600] \div 36$

= 0.5 l/min for each nozzle



L/min column on nozzle chart - courtesy of Teejet.

An alternative formula is:

Nozzle Flow Rate (I/min) =

Speed (km) x Nozzle Spacing (cm) x Application Rate (I/ha) ÷ 60,000

eg, [12 x 50 x 50] ÷ 60,000

= 0.5 l/min

Now using the nozzle chart look down the nozzle capacity column (I/min) and select a nozzle to suit the output (eg 0.5 I/min). Refer to pages 4.9 to 4.11 for nozzle charts.

Step 5 Fit the Selected Nozzles to the Boom

Fit the selected nozzles to the boom as per the nozzle manufacturers specifications.



Test the actual output of the nozzles.

Step 6 (Recommended) Check Nozzle Accuracy & Determine Nozzle Output

Test the actual output of the nozzles using the following procedure:

a) Ensure there is adequate water in the tank.

IMPORTANT: Do not use mixed pesticides for testing.

b) Start the sprayer and set the spray Controller master switch into MANUAL position and adjust the operating pressure (*PTO to continue instructions*).

NOTE

Always use Actual Speed of Travel for speed in the above formula.

NOTE

Remember when selecting nozzle outputs that higher pressures and wider spray angles usually give finer droplet sizes than lower pressures and narrower spray angles.

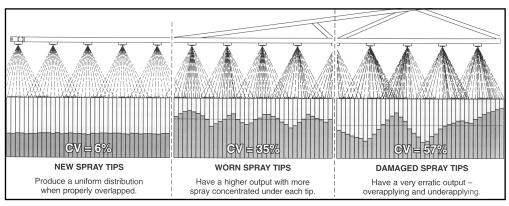


Do not use mixed pesticides for testing. Use only clean water.

Use of pesticides when testing is hazardous to your health.

Calibration Procedure - Blanket Spray

Sprayer Calibration



Spray tip wear - courtesy of Teejet.

c) Collect and measure the volume of spray from one nozzle and adjust pressure so that the nozzle gives the specified output (eg 0.5 l/min).

IMPORTANT:

Do not use a worn nozzle to set the pressure setting and nozzle rates.

If the boom is not fitted with new nozzles, fit one new nozzle and use it to set the flow rate and pressure setting.

This sets the standard flow rate, pressure setting and spray pattern with which to test the performance of other nozzles.

- d) When the pressure is set to give a specified nozzle output (using a new nozzle), collect and measure the volume of spray from each nozzle for one minute in a collection jar or calibrating jug.
 - Specially designed nozzle testing equipment such as nozzle calibrating jugs can be used to simplify nozzle calibration.
- e) Visually check nozzle spray patterns and spray angle for accuracy and, if necessary, replace any faulty nozzles.

- f) Discard and replace any nozzle that deviates more than 10% from the specified output (eg with a 0.5 l/min specification- discard any nozzles 0.45 l/min and under or 0.55 l/min and over).
- g) Check replacement nozzles by collecting and measuring output from each replacement.
- h) Record the output of each nozzle on the boom. Add the outputs together and divide by the number of nozzles to get the required output of each nozzles in one minute.
 - eg, Total spray output 18 l/min ÷ 36 nozzles = 0.5 l/min per nozzle.

Step 7 Calculate Application Rate

When operating the spray controller, the controller automatically calculates and shows the rate of application.

Application Rate (I/ha) =

Spray Output (I/min) x 600 ÷ Speed (km/hr) x Swath Width (m)

eg, [18 x 600] ÷ [12 x 18]

= 50 I/ha

!\ CAUTION

Do not use a worn nozzles to set the pressure setting and nozzle rates, otherwise inaccurate calibration will occur.

4.6 BT-OMWEED 012015 - Rev 1



+/- keys.

Step 8 If tested application is not satisfactory:

- a) In Auto mode if application rate is not being achieved:
 - Operating pressure will climb if nozzles are too small or blocked or speed is too slow.
 - Likewise, if your pressure filter is blocked (even partially), you may experience excessive pressure at the pump.

Make adjustments accordingly.

 Operating pressure will fall if nozzles are too large or speed is too slow. Make adjustments accordingly.

- **b) In Manual mode -** the Controller application rate can be altered by:
 - i) Adjusting pressure up or down to increase or decrease rate of application (use +/- keys).
 - ii) Adjusting spraying speed up or down to decrease or increase rate of application.
 - iii) Changing to a different nozzle capacity.

Repeat necessary testing procedures and calculation of application rate if adjustments or changes are made.

NOTE

Full instructions of controller operation are contained in your seperate Controller Manual.

NOTE

All nozzles have a pressure and flow rate range to acheive the best results.

Ensure you have selected the nozzle which best suits your application to avoid any problems.

Step 9

Add The Correct Amount Of Chemical To The Tank

a) For land area rates (litres or kg per hectare), use the following formula:

Chemical Required (litres) =

Tank Volume (litres) x
Recommended Chemical Rate
(I/ha) ÷ Spray Application Rate
(I/ha)

eg, [2000 x 2.0] ÷ 50

= 80 litres

b) If chemical recommendation is given in water volume rates use the following formula:

Chemical Required (litres) =

Tank Volume (litres) x Recommended Chemical Rate (I/100 litres) ÷ 100

eg, [2000 x 4] ÷ 100

= 80 litres

c) For land area covered, use the formula:

Area Covered (ha) =

Tank Volume (litres) ÷ Spray Application Rate (l/ha)

eg, 2000 ÷ 50

= 40 hectares

d) For tank volume required, use the formula:

Tank Volume Required (litres) =

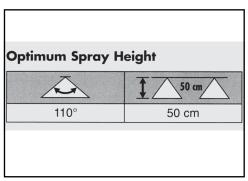
Area (ha) x Spray Application Rate (I/ha)

eg, 20 x 50

= 1000 litres

NOTE

Mix only the amount required. Avoid wastage and the problem of needless chemical disposal.



Boom height - courtesy of Teejet.

Step 10 Adjust Boom Height

Boom height should be adjusted to suit the type of nozzle used, terrain and crop or soil being sprayed.

Minimum boom height recommendations depend on the nozzle spray angle and nozzle spacing.

Refer to Nozzle chart recommendations.

Step 11 Record All Data For Future Reference

Record all your calibration data on the work sheets given at the end of this section.

Photocopy the work sheets to obtain the number of work sheets required.

4.8 BT-OMWEED 012015 - Rev 1

Calibration Procedure - Spot Spray

30 Degree WEEDit Rate Chart

Sprayer Calibration

Nozzle Size	Pressure (Bar)	Droplet Size	Droplet VMD	Flow rate (I/min)	Effective Spray Width	Flowrate (L/min/ nozzle)	d (kph)					
			(micron)		(cm)	90%	14	16	18	20	22	25
Boom height 750mm												
	2	С	345	0.66	0.32	0.53	71	62	55	50	45	40
3002	2.5	С	302	0.73	0.32	0.58	78	68	61	55	50	44
	3	M	273	0.8	0.32	0.64	86	75	67	60	55	48
	2	VC	405	0.98	0.32	0.78	105	92	82	74	67	59
3003	2.5	С	360	1.1	0.32	0.88	118	103	92	83	75	66
	3	С	327	1.2	0.32	0.96	129	113	100	90	82	72
					Boor	n Height 65	0mm					
	2	С	345	0.66	0.28	0.53	81	71	63	57	51	45
3002	2.5	С	302	0.73	0.28	0.58	89	78	70	63	57	50
	3	M	273	0.8	0.28	0.64	98	86	76	69	62	55
	2	VC	405	0.98	0.28	0.78	120	105	93	84	76	67
3003	2.5	С	360	1.1	0.28	0.88	135	118	105	94	86	75
	3	С	327	1.2	0.28	0.96	147	129	114	103	94	82
					Boor	n Height 55	0mm					
	2	С	345	0.66	0.25	0.53	91	79	70	63	58	51
3002	2.5	С	302	0.73	0.25	0.58	100	88	78	70	64	56
	3	M	273	0.8	0.25	0.64	110	96	85	77	70	61
	2	VC	405	0.98	0.25	0.78	134	118	105	94	86	75
3003	2.5	С	360	1.1	0.25	0.88	151	132	117	106	96	84
	3	С	327	1.2	0.25	0.96	165	144	128	115	105	92

40 Degree WEEDit Rate Chart

Nozzle Size	Pressure (Bar)	Droplet Size	Droplet VMD (micron)	Flow rate (I/min)	Effective Spray Width	Flowrate (L/min/ nozzle)			Speed	l (kph)		
			(IIIICIOII)		(cm)	90%	14	16	18	20	22	25
Boom height 750mm												
	2	С	300	0.66	52	0.59	49	43	38	34	31	27
4002	2.5	С	275	0.73	52	0.66	54	47	42	38	34	30
	3	С	250	0.8	52	0.72	59	52	46	42	38	33
	2	С	360	0.98	52	0.88	73	64	57	51	46	41
4003	2.5	С	340	1.1	52	0.99	82	71	63	57	52	46
	3	С	320	1.2	52	1.08	89	78	69	62	57	50
					Boor	n Height 65	0mm					
	2	С	300	0.66	43	0.59	59	52	46	41	38	33
4002	2.5	С	275	0.73	43	0.66	65	57	51	46	42	37
	3	С	250	0.8	43	0.72	72	63	56	50	46	40
	2	С	360	0.98	43	0.88	88	77	68	62	56	49
4003	2.5	С	340	1.1	43	0.99	99	86	77	69	63	55
	3	С	320	1.2	43	1.08	108	94	84	75	68	60
					Boor	n Height 55	0mm					
	2	С	300	0.66	35	0.59	73	64	57	51	46	41
4002	2.5	С	275	0.73	35	0.66	80	70	63	56	51	45
	3	С	250	0.8	35	0.72	88	77	69	62	56	49
	2	С	360	0.98	35	0.88	108	95	84	76	69	60
4003	2.5	С	340	1.1	35	0.99	121	106	94	85	77	68
	3	С	320	1.2	35	1.08	132	116	103	93	84	74

Air-Mix & Turbodrop® Nozzle Chart

Sprayer Calibration

	Litres/ha @ 500mm nozzle spacing													
Nozzle	Bar	l/min	5km/h	6km/h	7km/h	8km/h	10km/h	12km/h	16km/h	20km/h	25km/h	30km/h	35km/h	
TDAM015 TD015 (Green)	1 2 3 4 5 6 7 8 9	0,346 0,490 0,600 0,693 0,775 0,849 0,917 0,980 1,039 1,095	83 118 144 166 186 204 220 235 249 263	69 98 120 139 155 170 183 196 208 219	59 84 103 119 133 146 157 168 178 188	52 74 90 104 116 127 138 147 156 164	42 59 72 83 93 102 110 118 125 132	35 49 60 69 77 85 92 98 104 109	26 36 45 52 58 64 69 74 78 82	21 29 36 42 47 51 55 59 63 66				
TDAM02 TD02 (Yellow)	1 2 3 4 5 6 7 8 9	0,462 0,653 0,800 0,924 1,033 1,131 1,222 1,306 1,386 1,460	111 157 192 222 248 271 293 313 332 350	92 131 160 185 207 226 244 261 277 292	79 112 137 159 177 94 209 224 237 250	69 98 120 139 155 170 183 196 208 219	55 78 96 111 124 136 147 157 166 175	46 65 80 92 103 113 122 131 139 146	35 49 60 69 77 85 92 98 104 110	28 39 48 56 62 68 73 78 83 88				
TDAM025 TD025 (Lilac)	1 2 3 4 5 6 7 8 9	0,577 0,816 1,000 1,154 1,291 1,414 1,528 1,632 1,732 1,826	138 196 240 278 310 339 366 391 415 438	115 163 200 231 259 283 305 326 346 365	99 140 171 199 221 243 261 280 296 313	87 122 150 174 194 213 229 245 260 274	69 98 120 139 155 170 184 196 208 219	58 82 100 115 129 141 153 163 174 183	43 61 75 86 96 106 115 122 130 138	35 49 60 70 78 85 92 98 104 110				
TDAM03 TD03 (Blue)	1 2 3 4 5 6 7 8 9	0,693 0,980 1,200 1,385 1,549 1,697 1,833 1,960 2,078 2,191	166 234 288 333 372 408 440 460 498 526	139 196 240 278 310 340 366 392 416 438	119 168 206 238 266 292 314 336 356 376	104 147 180 208 232 254 276 294 312 328	83 118 144 166 186 204 220 236 250 264	69 98 120 138 154 170 184 196 208 218	52 74 90 104 116 128 138 148 156 164	42 59 72 84 94 102 110 118 126 132				

Air-Mix & Turbodrop® Nozzle Chart

							Litres/h	na @ 50	00mm r	ozzle s	spacing)		
Nozzle	Bar	l/min	5km/h	6km/h	7km/h	8km/h	10km/h	12km/h	16km/h	20km/h	25km/h	30km/h	35km/h	
TDAM04 TD04 (Red)	1 2 3 4 5 6 7 8 9	0,924 1,306 1,600 1,847 2,066 2,263 2,444 2,612 2,771 2,921	222 313 384 444 496 542 586 626 664 700	185 261 320 370 414 452 488 522 554 584	158 224 274 318 354 388 418 448 474 500	139 196 240 278 310 340 366 392 416 438	111 157 192 222 248 272 294 314 332 350	92 131 160 184 206 226 244 260 278 292	69 98 120 138 154 170 184 196 208 220	55 78 96 112 124 136 146 156 166				
TDAM05 TD05 (Brown)	1 2 3 4 5 6 7 8 9	1,155 1,633 2,000 2,309 2,582 2,828 3,055 3,264 3,464 3,651	277 392 480 556 620 678 732 682 830 876	231 327 400 462 518 566 610 652 692 730	198 280 342 398 442 486 522 560 592 626	173 245 300 348 388 426 458 490 520 548	139 196 240 278 310 340 368 392 416 438	116 163 200 230 258 282 306 326 346 366	87 122 150 172 192 212 230 245 260 276	69 98 120 140 156 170 184 196 208 219				
TDAM06 TD06 (Grey)	1 2 3 4 5 6 7 8 9	1,386 1,960 2,400 2,771 3,098 3,394 3,666 3,919 4,157 4,382	333 470 576 666 744 816 880 940 996 1052	277 392 480 556 620 680 732 784 832 876	238 336 412 476 532 584 628 672 712 752	208 294 360 416 464 508 552 588 624 656	166 235 288 332 372 408 440 475 500 528	139 196 240 276 308 340 368 392 416 436	104 147 180 208 232 256 276 296 312 328	83 118 144 168 188 204 220 236 252 264				

BT-OMWEED 012015 - Rev 1 4.13

Calibration Work Sheet - Blanket Spray

Sprayer Calibration

Step 1

Check the Sprayer is in Good Working Order

Step 2

Determine Actual Speed of Travel

Follow Instructions on page 4.4 (Speed Calibration page).

Tractor model	
Gear	
Range	
Dual power	
Engine RPM	
Speed in Km/h	

Step 3

Measure Boom Widths

Boom section 1:

Boom section 2:

Boom section 3:

Boom section 4:

Boom section 5:

Boom section 6:

Boom section 7:

Step 4

Select Nozzle Type & Size

- Chemical:
- Type of Nozzle:
- Pressure Setting:
- Travel speed (km/hr):
- Total number of nozzles to be used

Nozzle Flow Rate (I/min)

=

Speed (km/hr) x Swath Width (m) x Application Rate (l/ha) ÷ 600 ÷ Number of nozzles

X	X	÷	600 ÷	
---	---	---	-------	--

=l/min for each nozzle

Step 5

Fit Selected Nozzles to Boom

Nozzle Type:

Nozzle Size:

Nozzle Colour:

Step 6

Check Nozzle Accuracy & Determine Nozzle Output

Thoroughly check nozzles & test the actual output of each nozzle.

- Pressure Setting:
- Individual Nozzle Outputs:
- Sum of Nozzle Outputs:

Step 7

Calculate Application Rate

The spray Controller automatically calculates and shows the rate of application.

Application Rate (I/ha)

Spray Output (I/min) x 600 ÷ Speed (km/hr) x Swath Width (m)

[x 600] ÷	[x]
_	

Step 8 If Tested Application is Not Satisfactory - Make Changes & Repeat Procedure

Step 9

Add Correct Amount of Chemical

- Chemical:
- Water Quantity:
- Chemical Added:

Step 10

Boom Height

Step 11

Nozzle pressure

Tested Output in I/min

Actual Litres/Hectare

Record Data	
Date	
Farm location	
Crop to be sprayed	
Spray Volume litres/ha	
Nozzle type	
Nozzle size &colour	
No. of nozzles used	

Calibration Work Sheet - Blanket Spray

Step 1

Check the Sprayer is in Good Working Order

Step 2

Determine Actual Speed of Travel

Follow Instructions on page 4.4 (Speed Calibration page).

Tractor model	
Gear	
Range	
Dual power	
Engine RPM	
Speed in Km/h	

Step 3

Measure Boom Widths

Boom section 1:

Boom section 2:

Boom section 3:

Boom section 4:

Boom section 5:

Boom section 6:

Boom section 7:

Step 4

Select Nozzle Type & Size

- Chemical:
- Type of Nozzle:
- Pressure Setting:
- Travel speed (km/hr):
- Total number of nozzles to be used

Nozzle	Flow	Rate	(I/min)
--------	------	------	---------

=

Speed (km/hr) x Swath Width (m) x Application Rate (l/ha) ÷ 600 ÷ Number of nozzles

x ÷ 600 ÷

=l/min for each nozzle

Step 5

Fit Selected Nozzles to Boom

Nozzle Type:
Nozzle Size:

Nozzle Colour:

Step 6

Check Nozzle Accuracy & Determine Nozzle Output

Thoroughly check nozzles & test the actual output of each nozzle.

- Pressure Setting:
- Individual Nozzle Outputs:
- Sum of Nozzle Outputs:

Step 7

Calculate Application Rate

The spray Controller automatically calculates and shows the rate of application.

Application Rate (I/ha)

Spray Output (I/min) x 600 ÷ Speed (km/hr) x Swath Width (m)

Step 8

Changes & Repeat Procedure	

If Tested Application is Not Satisfactory - Make

Step 9

Add Correct Amount of Chemical

- Chemical:
- Water Quantity:
- Chemical Added:

Step 10

Boo	m H	eigł	nt				

Step 11

Tested Output in I/min

Actual Litres/Hectare

Record Data	
Date	
Farm location	
Crop to be sprayed	
Spray Volume litres/ha	
Nozzle type	
Nozzle size &colour	
No. of nozzles used	
Nozzle pressure	

Calibration Work Sheet - Blanket Spray

Sprayer Calibration

Step 1

Check the Sprayer is in Good Working Order

Step 2

Determine Actual Speed of Travel

Follow Instructions on page 4.4 (Speed Calibration page).

Tractor model	
Gear	
Range	
Dual power	
Engine RPM	
Speed in Km/h	

Step 3

Measure Boom Widths

Boom section 1:

Boom section 2:

Boom section 3:

Boom section 4:

Boom section 5:

Boom section 6:

Boom section 7:

Step 4

Select Nozzle Type & Size

- Chemical:
- Type of Nozzle:
- Pressure Setting:
- Travel speed (km/hr):
- Total number of nozzles to be used

Nozzle Flow Rate (I/min)

=

Speed (km/hr) x Swath Width (m) x Application Rate (l/ha) ÷ 600 ÷ Number of nozzles

X	X	÷	600 ÷	
---	---	---	-------	--

=l/min for each nozzle

Step 5

Fit Selected Nozzles to Boom

Nozzle Type:
Nozzle Size:

Nozzle Colour:

Step 6

Check Nozzle Accuracy & Determine Nozzle Output

Thoroughly check nozzles & test the actual output of each nozzle.

- Pressure Setting:
- Individual Nozzle Outputs:
- Sum of Nozzle Outputs:

Step 7

Calculate Application Rate

The spray Controller automatically calculates and shows the rate of application.

Application Rate (I/ha)

Spray Output (I/min) x 600 ÷ Speed (km/hr) x Swath Width (m)

[x 600] ÷ [X	
_		

Step 8 If Tested Application is Not Satisfactory - Make Changes & Repeat Procedure

Step 9

Add Correct Amount of Chemical

- Chemical:
- Water Quantity:
- Chemical Added:

Step 10

Boor	n F	le	ig	hi	t													

Step 11

Record Data

Actual Litres/Hectare

Date	
Farm location	
Crop to be sprayed	
Spray Volume litres/ha	
Nozzle type	
Nozzle size &colour	
No. of nozzles used	
Nozzle pressure	
Tested Output in I/min	

Greasing & Service Procedures	5.2
Sprayer Grease Points	5.3
Diaphragm Pumps	5.4
Filters	5.6
Compressor & Motor Valves	5.8
Booms	5.9
Airbag Suspension Option	5.12

BT-OMWEED 012015 - Rev 1 5.1

Greasing & Service Procedures

- 1 Clean suction line filter with each tank load.
- 2 Clean bottom-fill line filter after each tank fill if necessary.
- 3 Clean pressure line filter.
- 4 Check nozzle filters.
- 5 Check tyre pressure (350kPa), and check wheel nuts.
- 6 Check flush tank straps and tighten if necessary.
- 7 If fitted, clean Rapid-check flowmeter (refer to page 4.3).

8 If fitted, grease tractor to sprayer PTO universal joints every 8 hours.

Grease lightly until grease becomes firm in seals. Over greasing will break seals and allow dust and moisture to penetrate - increasing wear.

Grease PTO inner tubes every 8 hours.

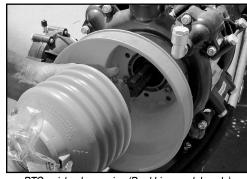
To lubricate the inner tube, slide PTO shaft apart, clean the telescopic tubes, grease and reassemble.

Grease the PTO covers every 20 hours.

- 9 If an AR Diaphragm pump is fitted, check pump air chamber pressure on a regular basis. As a general guideline it should be 10%-20% of operating pressure (70-100 kPa [10-15 psi]). Refer to page 5.4 for more information.
- 10 To ensure trouble free spraying, flush the sprayer with fresh water thoroughly each day, and before changing chemicals.

Dispose of tank wash according to chemical manufacturers instructions.

11 Grease all boom joints, height adjuster points and other grease points.



PTO quick release pins (Dual Line models only).

Every 200 Hours or 6 Months - Whichever Comes Sooner

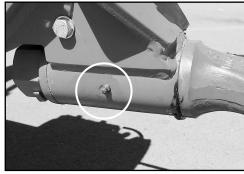
- Lubricate quick release lock pins on PTO shaft (if fitted).
- 2 Re-pack wheel bearings with grease.
- 3 Inspect air-axle (if fitted) and adjust if necessary.
- 4 Change air filter on the WEEDit air compressor pump.
- 5 Grease all tank lid seals with vaseline.

NOTE

Ensure the sliding inner tubes of the PTO are greased every 8 hours (working around the clock equals 3 times/day), especially when doing a lot of tight turning

5.2 BT-OMWEED 012015 - Rev 1

Sprayer Grease Points

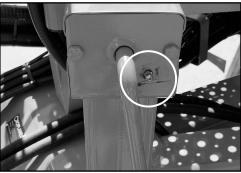


Rotating hitch tongue grease point.

Sprayer Grease Points

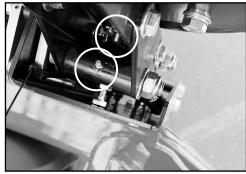
Grease points on the single line & dual line WEEDit sprayers include:

- 1 Rotating hitch tongue (1).
- 2 Adjustable hitch pin (1).



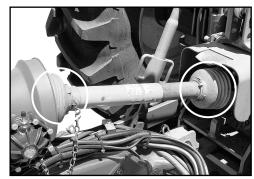
Hitch jack mechanism grease point.

- 3 Hitch jack mechanism (1).
- 4 Main wheels (2).



Chemeflush hopper upper hinge grease points.

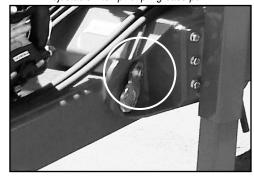
- 5 Upper hinges of the Chemeflush hopper (2).
- 6 Lower hinges of the Chemeflush hopper (2).



PTO universal joints (Dual line models only, if fitted).

6 Universal joints on the PTO shaft (if fitted [Dual line models only]) (2).

Adjustable hitch pivot pin grease point.



Main wheel grease point.



Chemeflush hopper lower hinge grease points.



BT-OMWEED 012015 - Rev 1 5.3

Diaphragm Pumps

Lubrication & Maintenance

Diaphragm Pump Maintenance (if fitted)

Annovi & Reverberi (A&R) pumps are of the piston-diaphragm type. All parts in contact with the spray liquid, which are subject to corrosion, are protected, making them ideal for spraying (herbicides, insecticides, fungicides, fertilisers, etc.), disinfection and washing.

Daily Before Starting the Pump

- 1 Check that oil is visible in sight glass (half way up) and top up if necessary with good clean motor oil 20W/30 or 20W/40.
- 2 Clean all sprayer filters. Blocked or semi blocked filters place extra stress on diaphragms.
- 3 Start with zero pressure and the pump will self prime immediately and clear air locks in suction line.

Daily after Use

- 1 Flush pump with clean water.
- 2 Drain filters and clean. A high percentage of pump failures are due to blocked filters.

/ CAUTION

Running a diaphragm pump faster than specified will not improve performance, but will damage and wear out moving parts.

Warranty will be made void by speeds in excess of those indicated on the pump name plate.



AR pump air chamber - on a Dual Line model.

Every 50 Hours

Check surge chamber pressure and adjust as follows:

 Air pressure 70-100kPa (10- 15psi) [Should be 10-20% of operating pressure].

Vibration of the delivery hose usually indicates that the air pressure in the surge chamber is incorrect.

The main cause of surge chamber diaphragm fracture is low pressure in this chamber.

Surge chamber pressure can be checked with an ordinary tyre gauge.

The above pressure range is a guide to the correct pressure.

However, if difficulties recur, adjust the pressure until an even flow is obtained from the pump (no pulsing of liquid at operating RPM). The pressure is best increased with a bicycle pump.



AR pump oil filler - on a Dual Line model.

Every 250 hours or Every Season - Whichever Comes Sooner

1 Change oil and refill with 20W/30 oil.

Attention should be made to remove trapped air behind the diaphragms by rocking from side to side as instructed.

It is also good practise to run the pump for 10 minutes without pressure, and then, top up with oil before working the pump.

When changing the pump oil, check diaphragms and replace them if they are showing signs of wear.

This is normally a pre-season maintenance procedure which can be done easily as no special tools are required.

You can avoid unnecessary down time in spraying seasons by carrying out the proper maintenance.

3 Also check inlet and outlet valves and replace if worn. Worn valves not only reduce the output of the pump, but may reduce the life of the diaphragms.

5.4 BT-OMWEED 012015 - Rev 1

Excessive Diaphragm Failure

If you have excessive diaphragm failure check the following points. These will cause failure of diaphragms due to added stress or chemical attack.

- 1 Most Important Pump not being flushed out daily with clean water after use.
- 2 Oil level too low allowing air between piston and diaphragm.
- 3 Air leaks in suction line.
- 4 Restricted suction line.
- 5 Restriction through suction filter.
- 6 Not cleaning suction filter regularly.
- 7 Worn suction and discharge valves.

- 8 Bypass line too small to carry full capacity of pump.
- 9 In cold climates frozen suction/ discharge lines or water remaining in the pump after flushing.
- 10 Incorrect air setting or no air in air chamber.
- 11 Agitator excessively restricting bypass from pump.
- 12 Diaphragm material construction incorrect for chemical or solution being pumped.
- 13 Chemicals containing toluene or other aggressive solvents may require viton diaphragms
 - particularly if the pump is not properly flushed after use.



Pre-delivery checklist.

Pre-Season Servicing

For thorough pre-season servicing - check all aspects of the WEEDit and its operating components as outlined in the pre-delivery check list of the Warranty Booklet.

Pump Storage and Corrosion Protection

1 Warm Climates

If you operate in a warm climate with no chance of frost in the winter, you will not have any problems with frost damage.

If you are storing your sprayer between seasons, ensure your pump has been thoroughly flushed with clean water. A good idea is to run a mixture of 1% solution of summer mineral spraying oil through the pump and plumbing system. Summer spraying oil is water-soluble oil such as DC-Tron. This will coat and protect all internal pump parts. Ensure this mixture is flushed out before spraying commences in the new season.

2 Cold Climates

For prolonged storage, an anti-freeze mixture can be flushed through the pump. Ensure this is thoroughly flushed out prior to the commencement of spraying again.

If the pump is being stored overnight and a risk of freezing is imminent, drain all liquid from the pump and lines, including boom lines.

BT-OMWEED 012015 - Rev 1 5.5



Clean the Fresh Water Fill filter regularly.

Filter Maintenance

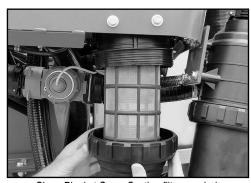
Clean filters ensure that no solids enter the spraying system to block or damage pump or nozzles.

All filters should be cleaned regularly or after each spraying period.

Fresh Water Fill Filter

The Fresh Water Fill filter should be cleaned regularly, or after each spray tank has been filled.

See cleaning instructions on page 3.8.



Clean Blanket Spray Suction filter regularly.

Blanket Spray Suction Filter

The Blanket Spray Suction filter should be cleaned regularly, or after each spray tank has been emptied.

See cleaning instructions on page 3.8.

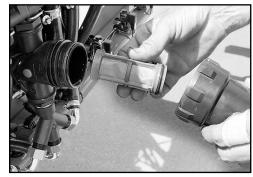


Clean the Blanket Spray pressure filter regularly.

Blanket Spray Pressure Filters

The pressure filters should be cleaned regularly, or after each spray tank has been emptied.

See cleaning instructions on page 3.8.



Clean the WEEDit Inline filter regularly.

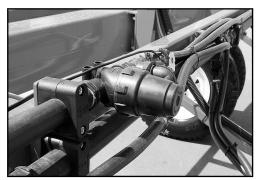
WEEDit Inline Filter

The WEEDit inline filter should be cleaned regularly, or after each spray tank has been emptied.

See cleaning instructions on page 3.8.

5.6 BT-OMWEED 012015 - Rev 1

Section 5 Filters



Clean Inline filters regularly (Dual Line Inline filter shown).

Blanket Spray Inline Filters

The Blanket Spray Inline filters should be cleaned regularly or after each spray tank has been emptied.

See cleaning instructions on page 3.8.



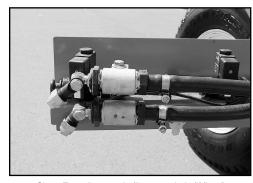
Clean nozzle filters regularly (Dual line nozzle filter only).

Blanket Spray Nozzle Filters

Blanket Spray Nozzle filters should be cleaned regularly and when a nozzle spray pattern is effected by blockage.

See cleaning instructions on page 3.6.

If leaking occurs from the nozzle cap, check caps are correctly fitted with seals &/or the condition of the seals. Replace if necessary.



Clean Fenceline nozzle filters regularly (if fitted).

Blanket Spray Fenceline Nozzle Filters (Option)

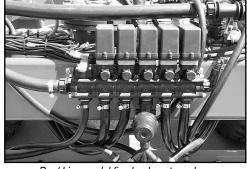
Blanket Spray Nozzle filters of the Fencline nozzle option, if fitted, should be cleaned regularly and when a nozzle spray pattern is effected by blockage.

If leaking occurs from the nozzle cap, check caps are correctly fitted with seals &/or the condition of the seals. Replace if necessary.

BT-OMWEED 012015 - Rev 1 5.7



Clean the WEEDit compressore air filter regularly.



Dual Line model five-bank motor valves.

Electric Motor-Valve

Air Filter

The air filter used by the compressor on the WEEDit sprayer, is located on the top right hand side, rear chassis upright. The air fillter should be cleaned regularly.

To clean the air filter:

- 2 Remove the air filter cover and then remove the air filter element.
- 3 Thoroughly clean the air filter by tapping the filter and or using build-up.
- 4 Re-assemble the clean filter element

- 1 Completely stop all sprayer functions.
- compressed air to remove the dust
 - If necessary replace with a new filter element.
- and cover.

Maintenance 1 Flush system with clean water after

- each day's use, especially when using wettable powders.
- 2 Clean and drain the system for storage.
- 3 Do not apply lubricating oils or other petroleum products to the valves, as this may cause swelling of the rubber parts.

- 4 Check with the chemical manufacturer to be sure chemicals being used are compatible with the valve parts.
- 5 Check the ON/OFF operation of the valves periodically, especially if nozzles cannot be seen while operating.
- 6 Visually check electrical connections to ensure they are clean and secure.

$/! \setminus$ CAUTION

Do not use compressed air when cleaning the air filter as it may damage the air filter element.

5.8 BT-OMWEED 012015 - Rev 1



Upper grease point of the main boom hinge.

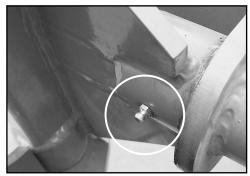
Boom Maintenance

Careful and regular maintenance will ensure good, long operational life.

Daily Maintenance

Clean the boom at the end of each working day or whenever the equipment is stopped for a period of time exceeding on hour.

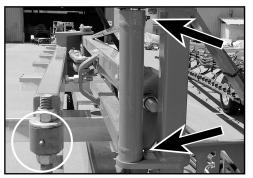
Rinse the plumbing lines and let clean water flow from the nozzles. Clean external surface with a water jet.



Right grease point of the main boom hinge.

Ensure nozzles and nozzle bodies are correctly fixed and sealed when operating. also ensure non-drip mechanism are working.

Grease all grease-points.

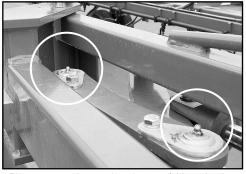


Pivot grease points on the wing stay fold mechanism.

Every 50 Hours Maintenance

Carry out the following maintenance procedures every 50 hours:

- 1 Make sure bolt and pin boom components are intact and tightened.
- 2 Retouch damage painted parts.
- 3 Grease all grease points.

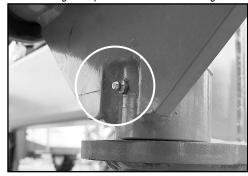


Pivot grease points on the wing stay fold mechanism.

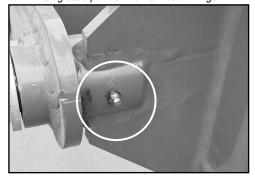
End of Season Maintenance

- 1 Before storage, clean all equipment thoroughly.
- 2 If necessary protect sprayer plumbing components with anti-freeze fluid to avoid damage in severe temperatures.
- 3 Grease all grease points.

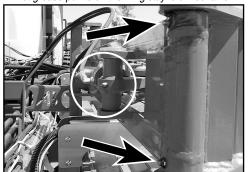
Lower grease point of the main boom hinge.



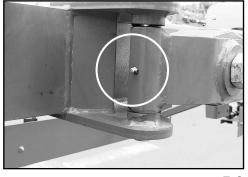
Left grease point of the main boom hinge.



Pivot grease points on the wing stay fold mechanism.



Hinge grease point on the wing stay.

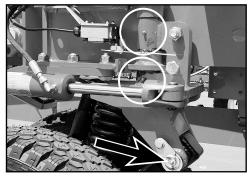


BT-OMWEED 012015 - Rev 1

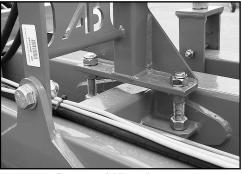
5.9

Booms

Lubrication & Maintenance

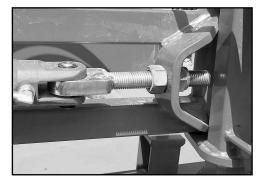


Pivot grease points on the main wing wheels.



Boom stay folding adjustment.

Boom Adjustments



Boom stay folding adjustment.



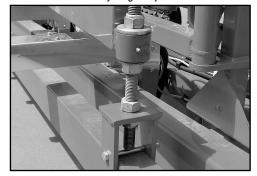
Main wing wheel rotation sensor adjustment.

Steering Wheel Setup

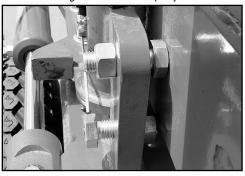
Pivot grease points on the extension wing wheels.



Boom stay height adjustment.



Main wing wheel rotation stop adjustment.



BT-OMWEED 012015 - Rev 1

Section 5 Booms

Castor

5.11

Important Information

5.12 BT-OMWEED 012015 - Rev 1

Centrifugal Pump Problems	6.2
Diaphragm Pump Problems	6.4
General Sprayer Problems	6.6
Hydraulic Pump Drive Problems	6.7
WEEDit Problems/Troubleshooting	6.8
Boom Tracking & Parking Problems	6.9
Motor Valve Problems	6.10

BT-OMWEED 012015 - Rev 1 6.1

6.2 BT-OMWEED 012015 - Rev 1

Centrifugal Pump Problems

BT-OMWEED 012015 - Rev 1 6.3

Diaphragm Pump Problems

Trouble Shooting

PROBLEM	PROBABLE CAUSE	REMEDY				
A Pump does not draw or deliver liquid.	One or more valves are not seating properly.	1 Clean valve seating.				
Pressure gauge fluctuates badly.	2 The pump is sucking in air through suction line.	2 Examine the suction hose and ensure it is firmly secured.				
	3 Air has not been entirely evacuated from the pump.	3 Rotate the pump with outlet hose and taps open.				
	4 Blocked suction filter.	4 Clean suction filter.				
	5 Damaged or worn suction valves.	5 Replace suction valves.				
B Liquid flow is irregular (Also check items under A)	The air in the air chamber of the pump is incorrectly set.	1 Check pressure in air chamber of pump. Set at 210-280Kpa (30-40 psi).				
	2 Diaphragm split.	2 Replace diaphragm.				
	3 Damaged or worn valves.	3 Replace valves.				
	4 Foreign matter holding valves open.	4 Clean valves.				
C Pump delivers insufficient pressure	Regulating valve:	1 Fix the regulator:				
	Sticking open	Unstick the valves.				
	Not set for pressure.	Set the pressure.				
	 Damaged or worn seat or spring. 	Replace the spring.				
	2 Cylinder diaphragm ruptured.	2 Replace diaphragms.				
	3 Pump valves blocked, worn or damaged.	3 Unblock valves and or replace.				
	4 Spray nozzles worn, missing or exceed pump capacity.	4 Replace spray nozzles with appropriate size.				
D Output drops & pump is noisy.	1 Oil level is too low.	1 Top up with oil to correct level (1/2 way up the sump sight glass).				

Diaphragm Pump Problems

PROBLEM	PROBABLE CAUSE	REMEDY
E Oil being discharged through delivery line or discoloured oil in sight glass of pump.	One or more diaphragms split or ruptured.	Immediately drain oil from pump and flush to remove all spray residues from sump. Remove pump heads & fit new diaphragms.
		Fill to correct level with motor oil 20W/30.
	SUCTION SIDE OF PUMP	
F Suction hose vibration.	1 Air getting into suction.	Seal all joints securely with tape or stag. Firm up clamps.
G Pump valves hammering.	Suction tap partly turned off.	1 Turn tap fully on.
	2 Suction strainer(s) blocked.	2 Clean filters.
H No water flow on suction hose.	Obstruction in tank or suction line.	Clean foreign material from tank & suction line.
	DISCHARGE SIDE OF PUMP	
I Pressure gauge pointer swings violently.	Pressure control valve spindle doesn't move easily.	1 Lubricate with light oil or C.R.C.
J AR control valve leaking from spindle.	1 Split diaphragm or O-rings.	Remove 4 body set screws, replace diaphragm and O-rings.
K Pressure gauge showing correct	1 Burst discharge line.	1 Replace discharge line.
working pressure no pressure at nozzle.	2 Blocked discharge filter where fitted.	2 Clean discharge filter.
	3 O-ring(s) jamming flow in discharge line.	3 Clean discharge line of foreign materials.
	4 Ants, wasps build nests in discharge line or nozzles.	4 Clean nozzles of foreign materials with tooth brush

BT-OMWEED 012015 - Rev 1

General Sprayer Problems

Trouble Shooting

PROBLEM	PROBABLE CAUSE	REMEDY
1 No spray when turned on.	1 Filter on the inlet side of the pump blocked.	1 Dismantle, clean & re-assemble.
	2 Faulty pump.	2 Change pump.
2 Sprays for short time only.	1 Air inlet to tank blocked.	1 Clean air vent.
	Filter on suction side of pump blocking or blocked.	Dismantle, clean & re-assemble the filter. If filter problem persists, clean out the tank & start again.
3 Spray is uneven around the boom.	Some nozzle filters or tips are blocked.	1 Remove, clean & check. Check output & for streaks.
	2 Nozzle tips worn.	2 Check nozzle output, replace worn nozzles.
	3 Different pressure along the boom.	3 Remove a nozzle in each boom section & check that flow rate is the same. If different, check for blockages.
4 Pressure going up - output going down.	Nozzle filters blocking.	Dismantle, clean & refit. Check pressure returns to normal. Check all filters and spray mixture.
5 Pressure falling.	1 Filter on suction side blocked.	1 Dismantle & clean the filter.
	2 Nozzle tips worn.	2 Check nozzle output, replace worn nozzles.
	3 Pressure gauge faulty.	3 Check with new pressure gauge.
	4 Pump worn.	4 Repair or replace the pump.
6 Spray pattern narrow.	1 Pressure too low.	Check that the correct nozzles are being used.
	2 Pressure too low & spluttering.	2 Check that the tank is not empty. If not, there is an air leak between the pump & tank or in the pump. Check plumbing & repair.
7 Foam in the tank.	1 Too much agitation.	Check that the return line is at the bottom of the tank. Partly close agitation and valve
8 Spray pattern streaky.	1 Nozzle partly blocked.	Remove & clean. If it continues, the nozzle is damaged. Replace with same size tip, check flow rate of replacement nozzle.

6.6 BT-OMWEED 012015 - Rev 1

Hydraulic Pump Drive Problems

PROBLEM	PROBABLE CAUSE	REMEDY
A Hydraulic system overheating	1 Improper hydraulic motor size.	Refer to pump selection guide to determine proper size for your system.
	2 Bypass adjustment screw set to bypass too much oil.	 Close adjustment screw on side of hydraulic motor to lessen the amount of bypassing oil.
	3 Insufficient hydraulic hose size.	3 Check hydraulic hose size. Hose should be at least ½". For large open-centre systems ¾".

BT-OMWEED 012015 - Rev 1

6.8 BT-OMWEED 012015 - Rev 1

Boom Tracking & Parking Problems

BT-OMWEED 012015 - Rev 1 6.9

Motor Valve Problems - Blanket Spray

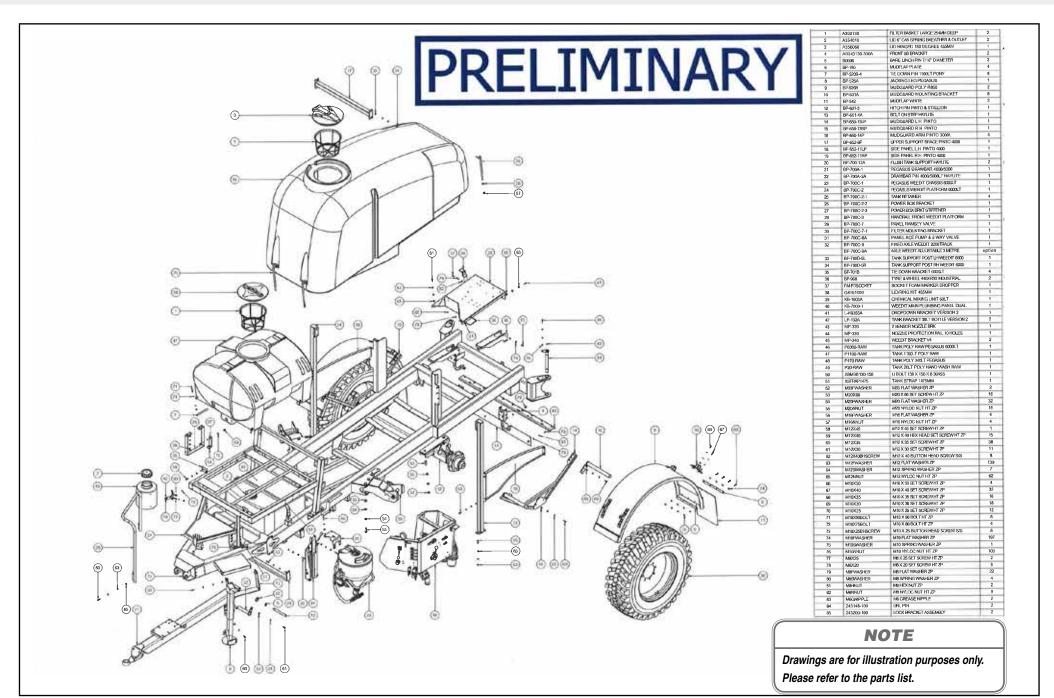
Trouble Shooting

PROBLEM	PROBABLE CAUSE	REMEDY
A Boom line valve opens when it should be closed and closes when it should be open.	1 Wiring incorrect.	Reverse polarity of valve by changing wires at the valve cap.
B Water leaks past valve when valve is shut.	1 Worn seat.	Replace seat/hosetail and/or valve system if necessary.
C Valve won't operate.	1 No power to valve.	Check all connections, supply - loom.
	2 Motor failure.	2 Replace motor.
	3 Valve clogged.	3 Clean internals of valve and/or put a new valve kit in the valve.
D Servo valve not regulating flow.	1 Valve jamming.	Clean our valve or replace.
	2 No power.	2 Check all power leads and supply, or replace motor.
	3 Valve clogged.	3 Clean out valve and/or put a new valve kit in the valve.
E Dump valve not releasing pressure in system	1 No power to valve.	Check power supply and all connections.
on shut-off.	2 Valve motor failed.	2 Check motor and replace if required.
	3 Dump-line blocked.	3 Clean valve and return line.

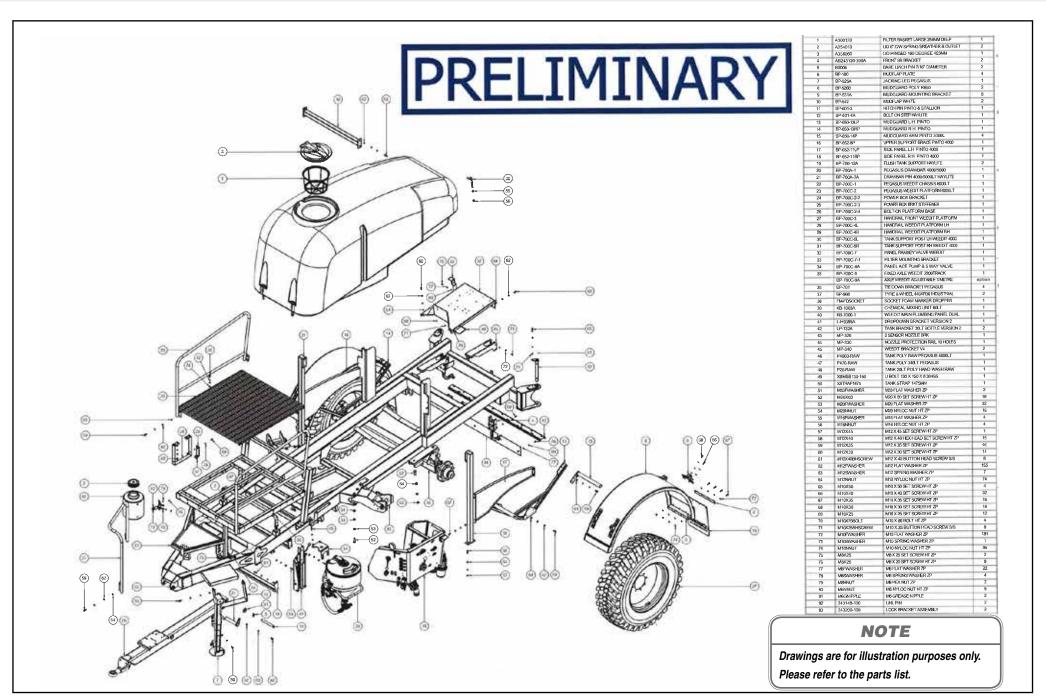
Assembly Drawings & Parts Listings

Section 7

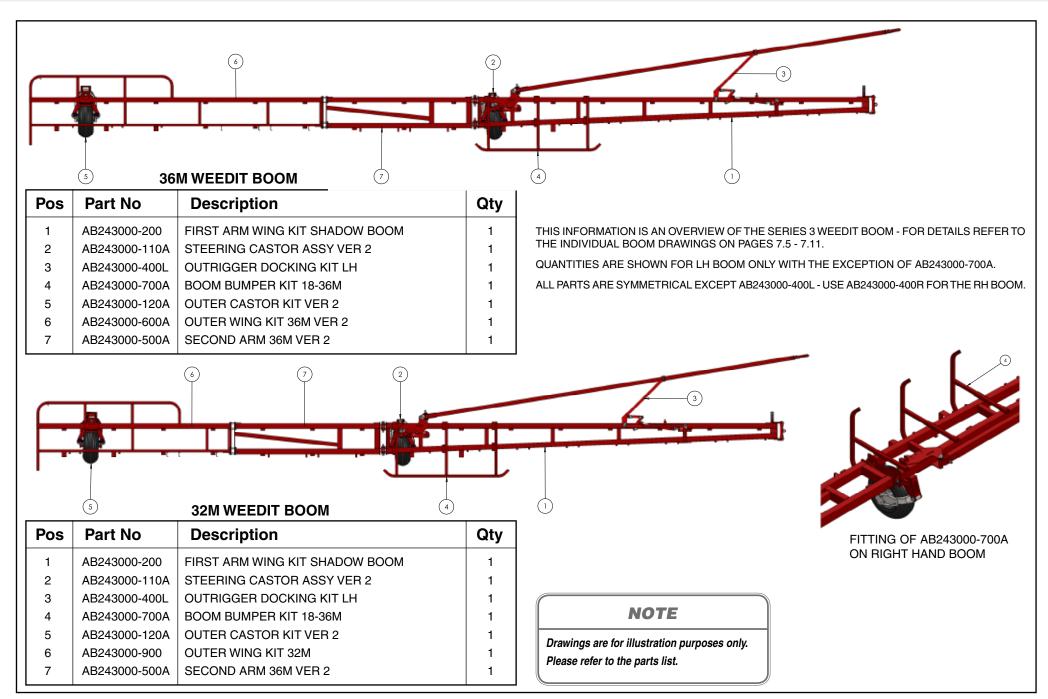
Tank & Chassis	7.2
WEEDit Boom Assemblies	7.4
Plumbing Diagrams	7.12



Tank & Chassis - 4000 Litre

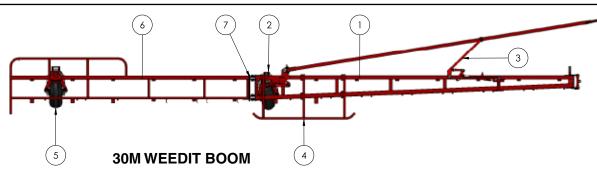


WEEDit Boom Assemblies - 36 & 32m Assembly Drawings & Parts

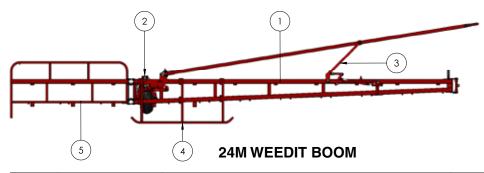


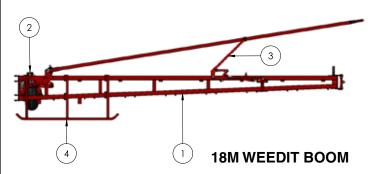
7.4 BT-OMWEED 012015 - Rev 1

WEEDit Boom Assemblies - 30, 24 & 18m



Pos	Part No	Description	Qty
1	AB243000-200	FIRST ARM WING KIT SHADOW BOOM	1
2	AB243000-110A	STEERING CASTOR ASSY VER 2	1
3	AB243000-400L	OUTRIGGER DOCKING KIT LH	1
4	AB243000-700A	BOOM BUMPER KIT 18-36M	1
5	AB243000-120A	OUTER CASTOR KIT VER 2	1
6	AB243000-600A	OUTER WING KIT 36M VER 2	1
7	AB243308-100A	HINGE PLATE 30M SERIES 3 WEEDIT	1





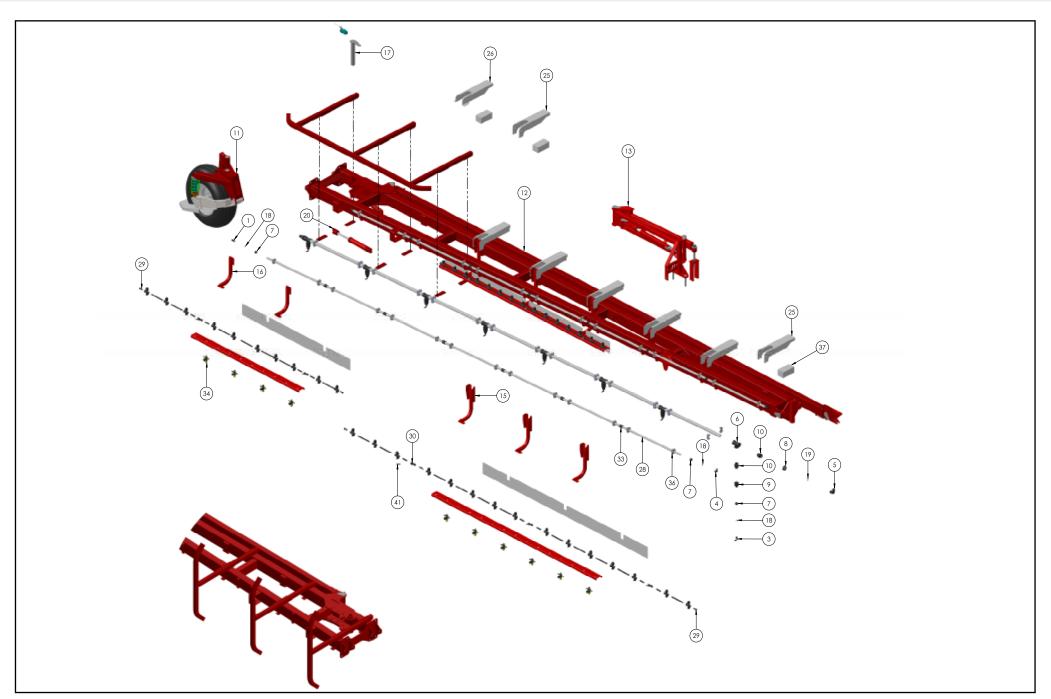
Pos	Part No	Description	Qty
1	AB243000-200	FIRST ARM WING KIT SHADOW BOOM	1
2	AB243000-110A	STEERING CASTOR ASSY VER 2	1
3	AB243000-400L	OUTRIGGER DOCKING KIT LH	1
4	AB243000-700A	BOOM BUMPER KIT 18-36M	1

Pos	Part No	Description	Qty
1	AB243000-200	FIRST ARM WING KIT SHADOW BOOM	1
2	AB243000-110A	STEERING CASTOR ASSY VER 2	1
3	AB243000-400L	OUTRIGGER DOCKING KIT LH	1
4	AB243000-700A	BOOM BUMPER KIT 18-36M	1
5	AB243000-800A	OUTER WING KIT 24M VER 2	1

NOTE

Drawings are for illustration purposes only.

Please refer to the parts list.

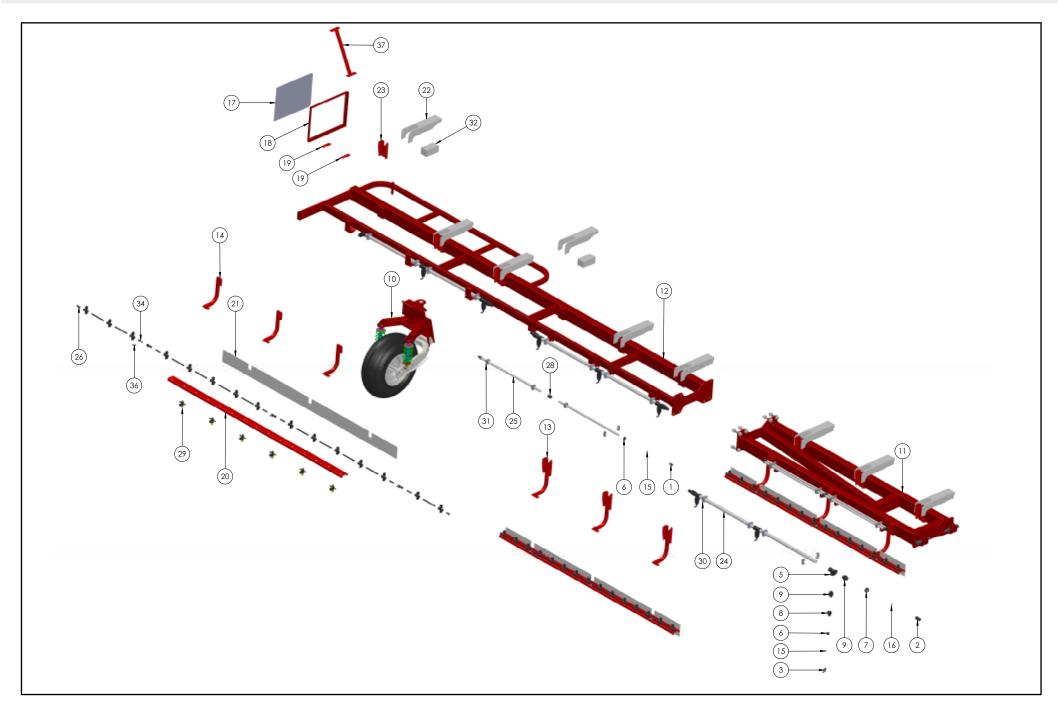


Inner Arm Assemblies

Pos	Part No	Description	Qty
1	A106320	TAIL 3/4"	2
2	A106533	TAIL 1 1/4" TO 32MM	1
3	A116313	ELBOW D13 FOR FLY NUT 3/4"	8
4	A116320	ELBOW 3/4" - 20MM HOSE	2
5	A116533	ELBOW 1 1/4" - 32MM HOSE	1
6	A1302050	TEE 1 1/4"	8
7	A200030	FLY NUT 3/4"	12
8	A200050	FLY NUT 1 1/4"	2
9	A245035	REDUCER 3/4" MALE - 1 1/4" FEMALE	8
10	A250050	NIPPLE 1 1/4"	10
11	AB243000-110A	STEERING CASTOR KIT SHADOW BOOM	1
12	AB243000-200	FIRST ARM WING KIT SHADOW BOOM	1
13	AB243000-400	OUTRIGGER SUPPORT KIT SHADOW BOOM	1
14	AB243000-700A	BOOM BUMPER KIT 18-36M	1
15	AB243130-300A	SPRAYBAR BRKT WITH CAMERA BRKT	6
16	AB243130-300B	BRACKET SPRAYBAR	2
17	AB243204-110	50MM PIN	1
18	AG10031	O RING 3/4"	12
19	AG10051	O RING 1 1/4"	2
20	HP-015	HYDRAULIC CYLINDER 2.0 X 8	1
21	MP-320	2 SENSOR NOZZLE BRK	1
22	MP-321	3 SENSOR NOZZLE BRK	2
23	MP-330	NOZZLE PROTECTION RAIL 10 HOLES	1
24	MP-331	NOZZLE PROTECTION RAIL 15 HOLES	2
25	MP-340	SENSOR BRACKET	7

Pos	Part No	Description	Qty
26	MP-340A	SENSOR BRACKET	1
27	MP-350	POLYPIPE 1 1/4" 950MM	7
28	MP-354 3/4"	2200 POLYTUBE	14
29	MP-360	END CAP 15mm JOHN GUEST	6
30	MP-361	TEE 15mm JOHN GUEST	6
31	MP-361	TEE 15MM JOHN GUEST	2
33	PH4322	SOCKET 3/4"	12
34	QJ39685-2-500-N	TEE BODY	16
35	UP-429	CLAMP PP SINGLE 43MM	14
36	UP-431	3/4" Stauff Clamp	28
37	WI46004407	WEEDIT SENSOR VER2011	8
38	WI46004491L	195MM LONG **SPARE COMES IN 1 METRE LENGTH**	29
39	WI46004491L	70MM LONG **SPARE COMES IN 1 METRE LENGTH**	16
40	WI6004450	SOLENOID SET COMPLETE NOZZLE ASSY	40
41	WI6004492	PUSH FIT 15MM TO HOSE CON 12MM	6

8T-OMWEED 012015 - Rev 1



Outer Arm Assemblies

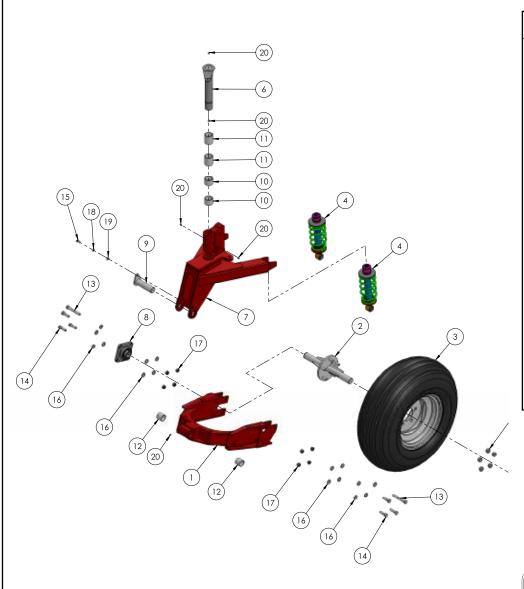
Pos	Part No	Description	Qty
1	A106320	TAIL 3/4"	6
2	A106533	TAIL 1 1/4" TO 32MM	7
3	A116313	ELBOW D13 FOR FLY NUT 3/4"	8
4	A126055	ELBOW 1 1/4" X 1 1/4" MALE/FEMALE	1
5	A1302050	TEE 1 1/4"	8
6	A200030	FLY NUT 3/4"	14
7	A200050	FLY NUT 1 1/4"	7
8	A245035	REDUCER 3/4" MALE - 1 1/4" FEMALE	9
9	A250050	NIPPLE 1 1/4"	15
10	AB243000-120A	OUTER CASTOR KIT VER 2	1
11	AB243000-500A	SECOND ARM 36M VER 2	1
12	AB243000-600A	WEEDIT BOOM OUTER ARM	1
13	AB243130-300A	SPRAYBAR BRKT WITH CAMERA BRKT	3
14	AB243130-300B	BRACKET SPRAYBAR	6
15	AG10031	O RING 3/4"	14
16	AG10051	O RING 1 1/4"	7
17	BP-700-8FA	OVERSIZE SIGN 2 PIECE	1
18	MP-310	FRAME TOP	1
19	MP-312	WEEDIT OVERSIZE SIGN PLATE	2
20	MP-321	3 SENSOR NOZZLE BRK	3
21	MP-331	NOZZLE PROTECTION RAIL 15 HOLES	3
22	MP-340	SENSOR BRACKET	9
23	MP-341A	CAMERA BRACKET MOUNT	6
24	MP-350	POLYPIPE 1 1/4" 950MM	6
25	MP-354 3/4"	2200 POLYTUBE	6
26	MP-360 END CAP 1	5mm JOHN GUEST	6
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Pos	Part No	Description	Qty
27	MP-361	TEE 15mm JOHN GUEST	9
28	PH4322	SOCKET 3/4"	3
29	QJ39685-2-500-N	TEE BODY	18
30	UP-429	CLAMP PP SINGLE 43MM	12
31	UP-431	3/4" Stauff Clamp	12
32	WI46004407	WEEDIT SENSOR VER2011	9
33	WI46004491L	195MM LONG **SPARE COMES IN 1 METRE LENGTH**	33
34	WI46004491L	70MM LONG **SPARE COMES IN 1 METRE LENGTH**	18
35	WI6004450	SOLENOID SET COMPLETE NOZZLE ASSY	45
36	WI6004492	PUSH FIT 15MM TO HOSE CON 12MM	9
37	MP-311	WEEDIT OVERSIZE SIGN BRACKET	1

7.9

Steering Wheel Assembly

Assembly Drawings & Parts



Pos	Part No	Description	Qty
1	AB243901-110	STEERING WHEEL SWING ARM	1
2	AB243903-100	WEEDIT BOOM SUSPENSION AXLE	1
3	HP-202R	WHEEL 12Lx15 MULTI RIB 5/140	1
4	MP-391A	SHOCK ABSORBER HI RISE W/ COIL	2
5	MP-392	WHEEL NUT M16 X 1.5	5
6		50MM PIN	1
7		TOP MOUNT	1
8		40MM BEARING 102MM MOUNTING HOLES	2
9		STEERING WHEEL SWING ARM PIN	1
10		PERMAGLIDE BUSH 50 X 40	2
11		PERMSGLIDE BUSH 50 X 60	2
12		PERMAGLIDE BUSH 40 X 40	2
13		M14 X 110 BOLT HT ZP	2
14		M14 X 50 BOLT HT ZP	6
15		M10 X 20 SET SCREW HT ZP	1
16		M14 FLAT WASHER ZP 1	6
17		M14 NYLOC NUT HT ZP	8
18		M10 SPRING WASHER ZP	1
19		M10 FLAT WASHER ZP	1
20		M6 GREASE NIPPLE	5

NOTE

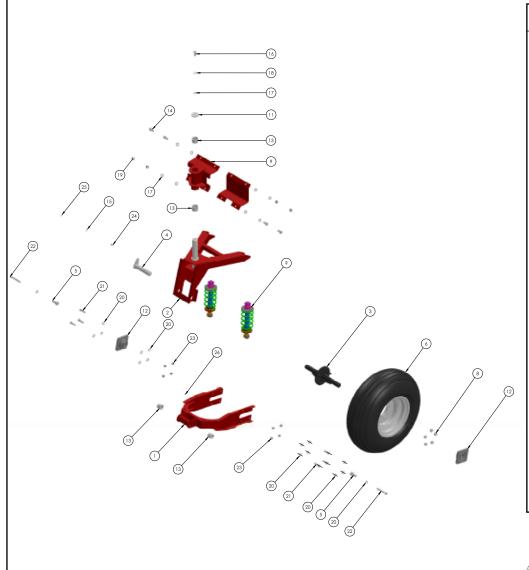
Drawings are for illustration purposes only.

Please refer to the parts list.

NOTE

Items without a Part No are non stocked items and may need to be specially ordered.

Castor Wheel Assembly



Pos	Part No	Description	Qty
1	AB243901-100	WEEDIT OUTER CASTOR SWING ARM	1
2	AB243902-004	OUTER CASTOR WHEEL PIVOT	1
3	AB243903-100	WEEDIT BOOM SUSPENSION AXLE	1
4	AB243904-100	OUTER WHEEL SWING ARM PIN	1
5	AB243905-100	SHOCK ABSORBER FERULE	2
6	HP-202R	WHEEL 12Lx15 MULTI RIB 5/140	1
7	MP-391A	SHOCK ABSORBER HI RISE W/ COIL	2
8	MP-392	WHEEL NUT M16 X 1.5	5
9		PIVOT TOP PLATE	1
10		PIVOT BOTTOM PLATE	1
11		RETAINING PLATE	1
12		40MM BEARING 102MM MOUNTING HOLES	2
13		PERMAGLIDE BUSH 40 X 40	4
14		M16 X 45 HEX HEAD SET SCREW HT ZP	4
15		M10 FLAT WASHER ZP	1
16		M16 X 40 HEX HEAD SET SCREW	1
17		M16 FLAT WASHER ZP	9
18		M16 SPRING WASHER	1
19		M16 NYLOC NUT HT ZP	4
20		M14 FLAT WASHER ZP	16
21		M14 X 50 BOLT HT ZP	6
22		M14 X 110 BOLT HT ZP	2
23		M14 NYLOC NUT HT ZP	8
24		M10 X 20 SET SCREW HT ZP	1
25		M10 SPRING WASHER ZP	1
26		M6 GREASE NIPPLE	2

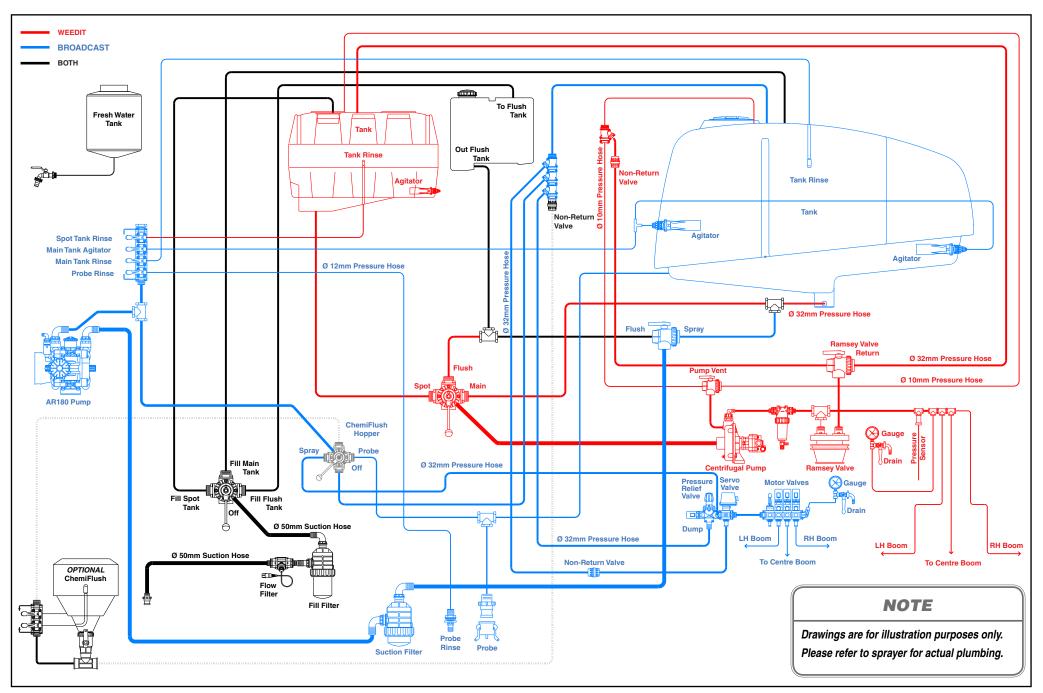
NOTE

Drawings are for illustration purposes only. Please refer to the parts list.

NOTE

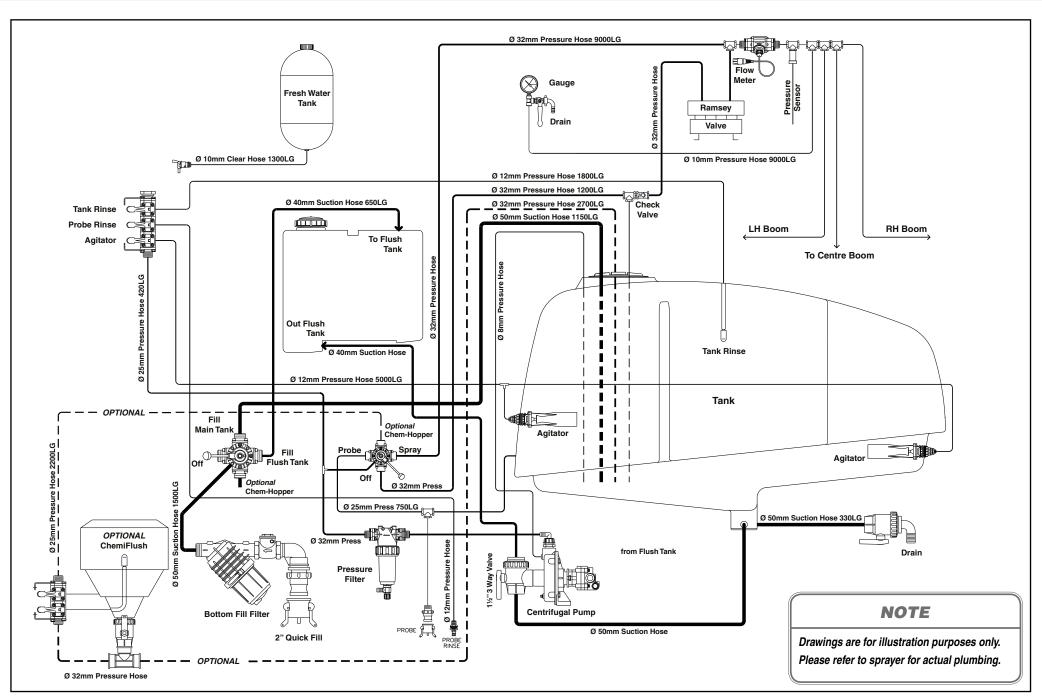
Items without a Part No are non stocked items and may need to be specially ordered.

WEEDit Dual Line Plumbing Diagram Assembly Drawings & Parts



7.12 BT-OMWEED 012015 - Rev 1

WEEDit Single Line Plumbing Diagram



Assembly Drawings & Parts

7.14 BT-OMWEED 012015 - Rev 1

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