

# OPERATORS MANUAL

## PEGASUS 7000

### STANDARD

[www.croplands.com.au](http://www.croplands.com.au)

**CROPLANDS**

**STOP**

**BEFORE COMMENCING**  
operation, **ENSURE** you read  
& understand this manual, its  
contents, and any additional  
information supplied.



BT-OMPEG7STD-A

# INTRODUCTION

## GENERAL MANAGER'S WELCOME



**Sean Mulvaney**  
**General Manager**

Congratulations on the purchase of your new Croplands sprayer. Croplands has been in the business of building and selling spraying equipment since 1972. For over 45 years we have been supplying spray equipment 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 has taken steps to ensure this operator's manual is as current and as accurate as possible. Due to the ever-changing markets of cropping and farming, Croplands is constantly striving to be at the forefront of innovation and technology. While the information in this manual is considered accurate at the time of writing, Croplands reserves the right to change this information without notice. Croplands will not accept liability for any inaccuracy in this publication, or changes forthwith.

We welcome any feedback from you about our equipment. On the back page, you will find our contact details, and locations where our staff can be reached during business hours. After hours, you can email 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**

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# SECTION 1

## IMPORTANT INFORMATION

### FOREWORD

Croplands Equipment is a subsidiary of Nufarm Australia Ltd and operates as Croplands Equipment Pty Ltd in Australia and Croplands Equipment Ltd in New Zealand. Croplands are a leading manufacturer and supplier of spraying equipment.

This operator's manual covers the Croplands Pegasus 7000 Standard Broadacre sprayer.

Manufactured to a high standard for use in Broadacre farming, every effort has been made to include all information needed for the correct use of your Sprayer.

### ABOUT THIS MANUAL

This manual provides assembly, setting up, operating and maintenance instructions for the Croplands Pegasus 7000 Standard, broadacre 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.

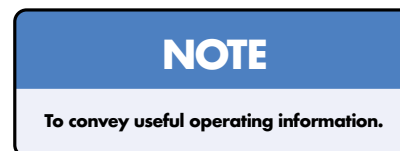
This manual, BT-OMPEG7STD-A, was published in June 2020.

**Check online** as there may be more recent revisions of this manual.

### TERMINOLOGY

These terms/symbols used throughout this manual:

<b>NOTE</b>	to convey useful operating information.
<b>CAUTION</b>	to highlight potential injury or machinery damage.
<b>WARNING</b>	to stress potential dangers and the importance of personal safety.
<b>DANGER</b>	probability of death or serious injury if accident occurs.



### BEFORE OPERATING YOUR SPRAYER

1. Before attempting to use your sprayer, make sure you **read all Operator Manuals** for this sprayer including but not limited to:

- This Operator's Manual
- Quick Start Guide, Part No. BT-PEG7STD-QS1
- Croplands Safety Part No. GP-SAFE-A
- Croplands BA7000 Operators Manual (if applicable)
- Pentair Hypro Series 9316, or Ace (brand) equivalent, Instruction Manual
- Arag Visio



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

#### and properly understand:

- All Safety Issues.
  - Assembly & Installation instructions.
  - Calibration of the sprayer.
  - Sprayer Operation.
  - Sprayer Maintenance.
2. Read and follow instructions on chemical manufacturers' labels.
3. Always wear applicable protective clothing.

# SECTION 1

## IMPORTANT INFORMATION

### WARRANTY & PRE-DELIVERY BOOKLET

Refer to your Croplands Warranty and Pre-Delivery Booklet supplied with your sprayer.

Always make contact with your Croplands Dealer first and foremost for warranty matters.

### NOTE

For full conditions of warranty and warranty policy, please see the Warranty & Pre-Delivery booklet provided with this sprayer.

## SPRAYER SPECIFICATIONS WARRANTY & PRE-DELIVERY BROADACRE

[www.croplands.com.au](http://www.croplands.com.au)

**CROPLANDS**



**STOP**

BEFORE COMMENCING operation, ENSURE you read & understand the operator manual(s), the contents, and any additional information supplied!

Part No. GP-WARB-A

# SECTION 2

## SAFETY

### SAFETY FIRST

Please read and understand all supplied manuals, guides and safety decals before operating this sprayer. This includes the Croplands Operators Safety Manual – as pictured here.

This manual is available on the Croplands Web site, or for printed versions contact Croplands customer support and ask for part number GP-SAFE-A (or later version if available).

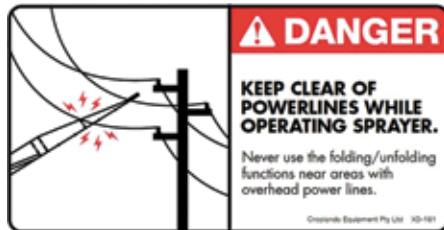


# SECTION 2

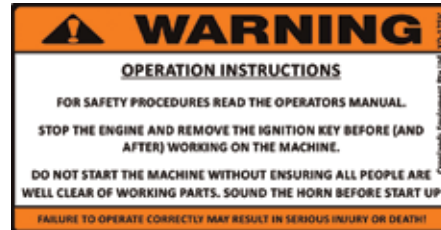
## SAFETY

### OUR WARNING LABELS

**Decals** - Please order replacements if required. Make sure all safety decals are clear and in place. Replace them if damaged.



Part No: XD-181



Part No: XD -125V



Part No: XD-190



Part No: XD-125



Part No: XD -123



Part No: XD -126V



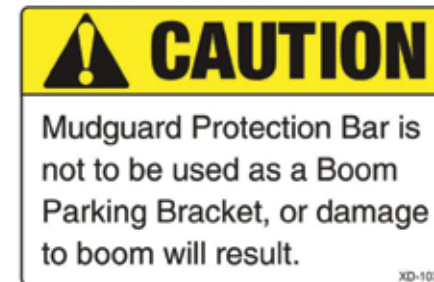
Part No: XD-182



Part No: XD -177



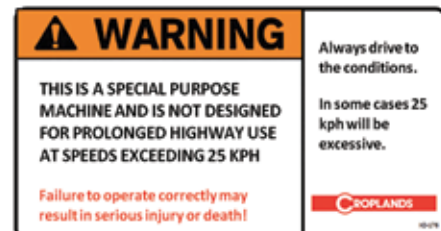
Part No: XD -175



Part No: XD -103



Part No: XD-178



Part No: XD -176



Part No: XD -124V

# SECTION 3

## PRODUCT SHIPPING, IDENTIFICATION & SPECIFICATION

### SHIPPING INFORMATION

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

#### Approx Weight

#### Model Approx Dry Weight

7000 litre tba (36m boom)

#### Maximum Towing Speed

Do not exceed 25 kph when towing on roads. Maximum speed is limited by boom wheel oscillation, which will vary depending on road conditions.

#### Dimensions & Weight (Approx)

Width (3.0m axle): 3.62m

Drawbar Weight:

Boom open (tanks empty) 0.50 kg

Boom folded (tanks empty) 800 kg

Boom open (tanks full) 5610 kg

Boom closed (tanks full) 6460 kg

### PRODUCT IDENTIFICATION

Always use the serial number of the Sprayer 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.



Sprayer's Serial Number Identification plate.

### CONTROLLER SERIAL NUMBER

The Controller Serial Number is located on the back of the console (D).



Controller Serial Number.

### 7000 DESCRIPTION & SPECIFICATIONS



Pegasus 7000

#### 7000 litre Main Tank

7000 litre polyethylene tank, fitted with hinged lid and controlled overflow plumbing, filling strainer, top fill and fully draining sump. Comes standard with dual agitators, tank rinsing facility and drain outlet. UV and chemical resistant. Special tank shape helps control foaming issues. Main tank has calibration marks.

#### 1500 litre Tank

1500 litre polyethylene tank, fitted with dual lids and controlled overflow plumbing. Top fill and fully draining sump. Red tank for reduced algae issues. UV and chemical resistant. Easy to see sight gauge.

#### Chassis

Heavy duty fabricated chassis with easy access walk over platform designed for maximum accessibility and safety.



# SECTION 3

## PRODUCT SHIPPING, IDENTIFICATION & SPECIFICATION

Easy access to main tank lid. Fitted standard with 710/70R x 42 single wheels and tyres.

Standard axle is fixed track 3.0m axle with airbag suspension and automatic ride height valve. Mudguards and mudflaps are standard.

Heavy duty adjustable ARDS draw bar with air bag suspension and automatic ride height valve. Drum rack on right hand side below the flush tank.



The ARDS drawbar airbag

### Boom

33 and 36 metre compact XL, fully hydraulic fold boom - stronger and designed for smoother, more accurate spraying and long life. Hydraulic accumulator boom suspension system protects the boom and improves the boom ride. Independent outer wing fold fitted standard. Parallelogram 2000mm hydraulic lift, adjustable boom breakaways with self-returning boom ends. Boom hydraulically side folds and locks for transport. Self-levelling. Protected nozzle bodies and skids standard. Wing tip protection standard on all booms. Chemical and corrosion resistant finish.

Manual boom flushing taps, in-line boom filters and stainless steel boom lines standard. Agrotop AirMix® low pressure air-induction nozzles, 110° #02 fitted as standard. Standard boom is 500mm nozzle spacing.

Optional: Hydraulic wing lift with electric/hydraulic operation with in-cab control panel available on all booms. 25cm nozzle spacing.

### Chemical Handling

60 litre Chem-e-Flush hopper with drop down leg. Separate 30 litre fresh water/hand washing tank fitted for operator safety.

Optional: Integrated suction probe transports chemical directly into the main tank, without putting neat chemical through the pump. 2" Arag Orton electro magnetic fill meter.

### Pump

Fitted with a Hypro Forcefield hydraulically driven centrifugal pump. This is a large capacity pumps for high speed self filling and fast response to the demands for auto section controls. Ideal with large tanks demanding good agitation.

Optional: Stainless steel pump. Fenceline nozzles. 3" fast fill kit.

### Fill & Filtration

2" self filling pump delivers water to the control panel rotary valve, filling main tank or flush tank. Multiple filtration points: Basket 18 mesh (main tank only); 2 x filling 32 mesh 2 x pressure 80 mesh; Multiple 100 mesh boom in-line filters, fitted to the blanket line. Self filling 3" coupling and plumbing feeds the Hypro pump that delivers the water at high pressure to the 2" directional fill system.



BA7000 Controller Console

### Controls

Easy to use main control panel, hinged for easy access to plumbing. Electric compressor with large air reservoir for airbag suspension to main axle and ARDS drawbar. BA7000 automatic sprayer controller for increased spraying accuracy, 5 section standard (optional 7 sections).

Electric motorised valves with 1" servo valve and ARAG Wolf flowmeter. Electric dump valve standard.



Visio Flowmeter

# **SECTION 4**

## **PRE-OPERATION**

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# SECTION 4

## PRE-OPERATION

### HOOK UP

#### Connect the Sprayer to the Tractor

The Pegasus 7000 Sprayer utilises an hydraulically driven centrifugal pump.

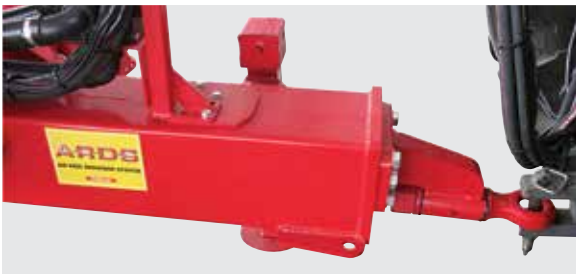
Please read the set-up procedure and instructions for the drive carefully.



Hydraulically driven Hypro centrifugal pump

Four steps are required to hook up the Pegasus 7000 Sprayer to your tractor.

1. Connect the Sprayer hitch to the tractor drawbar.



Connect the sprayer to the tractor

2. Connect hydraulic hoses to the tractor for the:

- Boom fold & operation, and
- Hydraulic pump drive, then, set the Hydraulic Pump Drive.

3. Fit the Controllers:

- BA7000 Controller
- Boom Controller
- Visio Controller
- Other optional controller(s).



Boom Controller



BA7000 Controller

4. Connect all power leads direct to the battery.

After the completing the tractor sprayer hook-up and connections, check & adjust the Boom.

#### 1. Connect the Sprayer Hitch to the Tractor

To connect the Sprayer hitch to a suitable tractor:

1. Align & connect the Sprayer hitch to the tractor drawbar.

Insert the drawbar pin.



Using the hitch jack, adjust the hitch tongue to the level of the tractor drawbar

2. Lower the Sprayer hitch onto the tractor drawbar:
  - a) Rotate the jack handle until the Sprayer fully rests on the tractor drawbar and the hitch jack base plate is raised off the ground.
  - b) Release the spring loaded lock pin and rotate the hitch jack until it locks into the transport position.
  - c) Ensure the drawbar pin is locked in place.

# SECTION 4

## PRE-OPERATION



Rotate the hitch jack until it locks into the transport position



Ensure the drawbar pin is locked-in



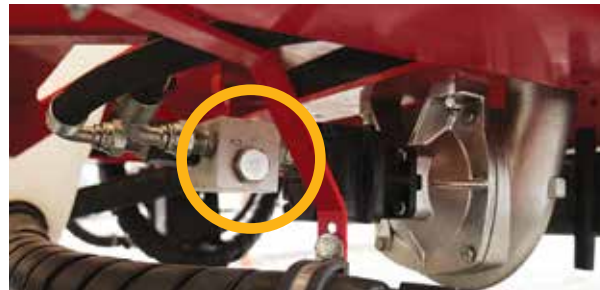
The transport safety chain must be fitted

3. Fasten the safety chain securely to both the Sprayer hitch and the tractor for transporting the sprayer.

### 2. Connect Hydraulic Hoses to the Tractor

The Sprayer uses:

- Hydraulic drive Centrifugal pump.
- Hydraulic folding of the Boom for operation and parking.



Hydraulic pump & over-run check valve assembly

Connect to the tractor the:

1. Pump drive hydraulic hoses, and
2. Boom hydraulic hoses.

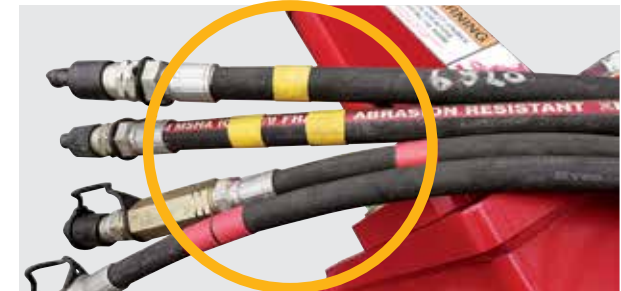
## NOTE

**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.**

### Connect the Boom Hydraulic Hoses

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

1. Select the Boom hydraulic hoses. These hoses are identified by the **red coloured bands** located near the end of the hoses.



Connect the hydraulic hoses to the tractor

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 and 2 coloured bands (red).
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.



Connect the boom hydraulic hoses to the tractor

# SECTION 4

## PRE-OPERATION

### Connect the Pump Drive Hydraulic Hoses

To connect the hydraulic pressure and return line of the Centrifugal Pump drives to the tractor remotes:



Pressure Line hoses are identified by two coloured bands and a cable-tie.

1. Select the pump hydraulic hoses. The pump hydraulic hoses have **yellow bands** (pressure line has 2 colour bands & a cable-tie), and is closest to the chassis rail
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 and 2 coloured bands.
4. Connect the Pressure line to the pressure line of the tractor remotes.



Connect the Primary Spray Pump hydraulic hoses to the tractor.

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 our pressure line (see picture above).**

### Hydraulic Motor Driven Centrifugal Pump - 9316C3U-C3U-M10

Recommended for use on the following hydraulic systems:

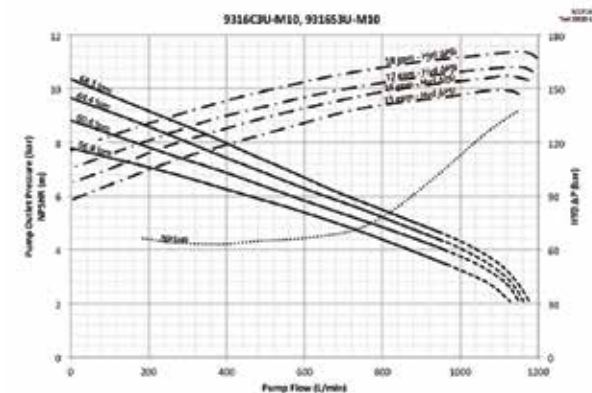
- Pressure Compensating Closed Center
- Load Sensing or Pressure Flow Compensating Closed Center
- Open Center up to 1177 l/min.



Hydraulically driven Hydrocentrifugal pumps - BA7000 Controller Console. Left: Cast Iron; Right: Stainless Steel (optional).

## NOTE

**The pump used on your sprayer may not be the same as shown. Always refer to the pump manual shipped with your sprayer.**



Performance Chart of the Forcefield™ Hydro Centrifugal Pump - Model 9316C3U-C3U-M10.

# SECTION 4

## PRE-OPERATION

### Specifications:

- Open Center up to 1177/min
- Maximum Pressure 128 psi
- Suction 3" / Discharge 2"
- Integral Needle Valve bypasses up to 1177 l/min on Open Centre systems
- Standard Ceramic seal or Optional Silicon Carbide Seal
- Chemical Resistant Nylon or Optional Polypropylene or XT Impeller
- Stainless Steel Shaft and Wear Ring.



### 3. Fit the Controllers:

- BA7000 Controller (optional)
- Boom Controller
- Visio Controller
- Other optional controller(s).

### Fit the BA7000 Controller

To fit the B7000 Controller:

1. Unpack the B7000 Console, looms and mounting components.
2. Position the Console in the tractor cab so that it is:
  - Easily-reached for operating
  - Easily-read



Position the Console in the tractor cab & fix the mount

3. Firmly fix the Console mount to the tractor with the screws & nuts provided.
4. Fit the loom connectors to the Console:
  - a) Align the loom connector to the Console's base connector & push them together.
  - b) Rotate the ring-lock clockwise to lock the connectors in place.
  - c) Align the loom connector to the Console's side connector & push them together.
  - d) Rotate the lock clockwise to lock the connectors in place.
5. Connect the power loom connectors of the Console.



Fit the loom connectors to the Console.



Connect the Console power loom connectors

6. Run the other end of the Console loom to the rear of the tractor.



Run the other end of the Console loom to the rear of the tractor.

# SECTION 4

## PRE-OPERATION

7. At the rear of the tractor, connect the Console & Sprayer looms:
  - a) Remove the dust caps from the Console & Sprayer looms.
  - b) Align the female connector with the male connector & push them together.



Align the female & male connectors & push them together

- c) Rotate the clips and lock the connectors in place.
- d) Lock the male & female dust caps together, to keep them clean.



Rotate the clips & lock the connectors in place.

8. Firmly fix the loom connector base to the rear of the tractor
9. Run the Console Power loom to the tractor battery.



### Fit the Boom Controller



Lock the male & female dust caps together, to keep them clean



Boom Controller

To fit the Boom Controller:

1. Unpack the Boom Console, looms and mounting components.
2. Position the Console in the tractor cab so that it is easily-reached for operating
3. Firmly fix the Console mount to the tractor with the screws & nuts provided.
4. Fit the loom connectors to the Console:
  - a) Align the Power loom connector to the Console Power connector & push them together until the clip locks in place.
  - b) Align the loom connector to the Console's loom connector, then, rotate and lock them together.
5. Run the other end of the Console loom to the rear of the tractor.
6. At the rear of the tractor, connect the Console & Sprayer looms:
  - a) Remove the dust caps from the Console & Sprayer looms.
  - b) Align the female connector with the male connector & push them together.
7. Run the Console Power loom to the tractor battery.



Unpack the Visio Console, looms & mountings.

# SECTION 4

## PRE-OPERATION

### Fit the Visio Controller

To fit the Visio Controller:

1. Unpack the Visio Console, looms and mounting components.
2. Position the Console in the tractor cab so that it is:
  - Easily-reached for operating
  - Easily-read
3. Firmly fix the Console mount to the tractor with the screws & nuts provided.



Position the Console in the tractor cab & fix the mount

4. Fit the loom connectors to the Console:
  - a) Align the Power loom connector to the Console Power connector & push them together until the clip locks in place.

**CAUTION:** A RED cable-tie is fitted to the Power connector. Ensure this connector is fitted to the Power connector. Damage will occur to the controller if fitted incorrectly.



- b) Align the loom connector to the Console's loom connector & push them together until the clip locks in place.



5. Run the other end of the Console loom to the rear of the tractor.
6. At the rear of the tractor, connect the Console & Sprayer looms:

- a) Remove the dust caps from the Console & Sprayer looms.



- b) Align the female connector with the male connector & push them together.

7. Run the Console Power loom to the tractor battery.





# SECTION 4

## PRE-OPERATION

### Fit Other Optional Controllers



Optional Electric Fence Line Controller

Other option controller may include:

- Electric fence-line controller.

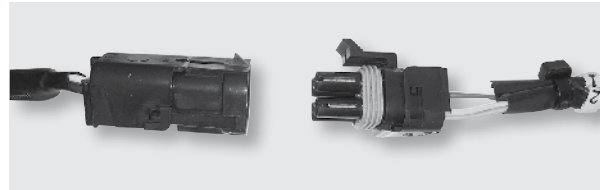
To fit the Electric Fence Line Controller:

1. Unpack the Electric Fence Line Controller (including Controller loom & Power loom) 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 separately.**

4. Connect the Sprayer Fenceline Controller loom to the Tractor Controller loom:



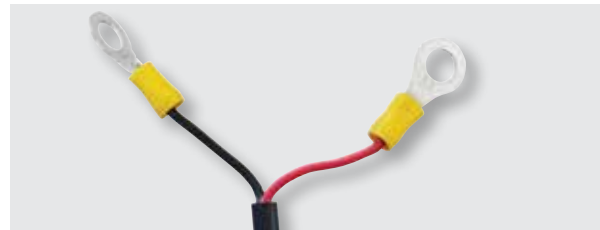
Connect the Fenceline Controller loom.

- a) Remove the dust caps from the ends of the looms.
- b) Align the female loom 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 Fenceline Power Loom to the tractor battery.



Optional Fenceline Controller power loom.



Bravo, Visio & Trailing Boom Controller power looms

### 4. Connect All Power Leads to the Tractor Battery

Connect all power leads **directly to the battery**, namely the:

- BA700 Controller
- Boom Controller
- Visio Controller
- Other optional controller(s).

### CAUTION

**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 the systems if power leads are reversed or incorrectly fitted.**

### NOTE

**ALWAYS "FIRST" Switch-On a Spray Controller - Before engaging hydraulic pump drives. The Air system should ALWAYS be Turned ON - BEFORE starting pump drives. It is also recommended that airbags are fully inflated before travel or filling the Sprayer with water.**

### WARNING

**DO NOT have pesticides in the spraytank when checking the sprayer.**

# SECTION 4

## PRE-OPERATION

### IMPORTANT START-UP PROCEDURE

The Pegasus 7000 Sprayer uses compressed air in the:

- Main Axle airbag suspension
- ARDS Drawbar airbag, and
- Boom nozzle switching system (if fitted).

**Regularly** drain the water from the air tank and regulators.

To charge the **Air System**, TURN-ON the Main Controller. This engages the compressor to charge the air system.

Always charge/inflate the Air System **BEFORE engaging hydraulic drives** which drive the centrifugal pumps of the sprayer.

It is also recommended that airbags be fully inflated before travel or filling the Sprayer with water.

### AIRBAG & HITCH HEIGHT ADJUSTMENT

For the first time setup, consult the Pegasus Quick Start Guide.



Pegasus 7000 Quick Start Guide

Setup & adjustment is best done with the Pegasus Sprayer hitched to the tractor and on level ground and the booms opened to their spraying position.

For optimum results the Pegasus boom height should be set according to the nozzles fitted.

The Pegasus Sprayer Airbag suspension and drawbar system are factory set according to the instructions given here.

If required the following settings can be checked and adjusted on the Sprayer:

- Drawbar hitch height
- Main axle airbag inflation level
- ARDS Drawbar airbag inflation level.



Main Axle airbag



The ARDS drawbar airbag at the rear of the hitch

To make adjustments, follow the instructions that follow.

The chassis angle of the Sprayer is designed to operate at a nominal 5 degrees forward -sloping-down.



Nominal 5 degrees forward-sloping-down chassis

However some variation (+/- 1 degree) is acceptable.

Follow the procedures outlined to correctly adjust the ride height.

The recommended procedure for the Sprayer height adjustment is:

1. First, connect the sprayer to the tractor (refer to instructions on page 11 - 12).
2. Set the ARDS Drawbar airbag adjustment to "standard" height



The front drawbar hitch tongue is height adjustable

# SECTION 4

## PRE-OPERATION

3. Set the Main Axle airbag adjustment to “standard” height.
4. Adjust the Sprayer hitch tongue to match the height of the tractor drawbar and maintain the 5 degree forward sloping angle of the Sprayer’s chassis.

### NOTE

**Ensure tyres of the sprayer and boom are correctly inflated:**

- **Sprayer standard tyre pressure is 24 psi (Optional fitted tyres may be different)**
- Tyre inflation and soil conditions can also affect ride quality.**



Regularly open the valve to drain water from the air tank & regulators

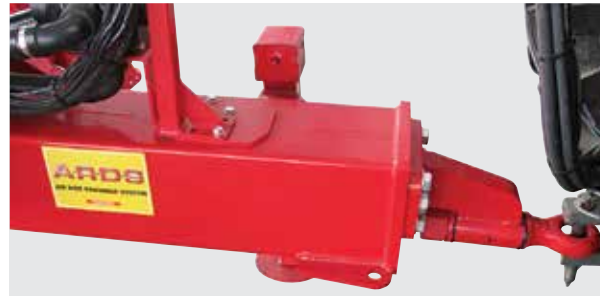
### RIDE HEIGHT ADJUSTMENT

#### 1. Connect the Sprayer to the Tractor

First, connect the sprayer to the tractor (refer to instructions on page 2.14).

The starting position is with the hitch tongue located in the top holes (opposite to that pictured above).

The hitch tongue is height adjustable and can also be turned 180 degrees.



Connect the sprayer to the tractor



The ARDS drawbar inflatable airbag mechanism

#### 2. Set the ARDS Drawbar Airbag “Standard” Height

The ARDS drawbar airbag level is set using the air valve adjustment rod (on the left hand side underside of the chassis adjacent to the drawbar).



Adjust the ARDS drawbar airbag pressure to 40 psi using the pressure adjustment valve.

The inflation of the ARDS drawbar airbag is supplied via the pressure regulator attached to the air tank. It is factory set at 40 psi (via pressure regulator).



Start with 35mm gap between drawbar and the rubber stop plate above it.

To set the drawbar airbag level, loosen the hose clamp, slide the control rod up or down, then retighten the clamp:

- Start with 35mm gap between drawbar and rubber stop plate above the hitch.
- Adjustment range is 20 ~ 50mm.

The Sprayer’s chassis should be maintained as near as possible to the 5 degree nominal angle.

# SECTION 4

## PRE-OPERATION



To set the drawbar airbag level, loosen the hose clamp, slide the control rod up or down, then retighten the clamp.

### 3. Set the Main Axle Airbag to "Standard" Height

The main axle airbag ride height is set using the air valve rod (on the left hand side, underside of the chassis adjacent to the axle).

To set main axle airbag ride height, loosen the hose clamp, slide the control rod up or down, then retighten the clamp:

- Start with airbag setting of 310mm
- Adjustment range is 270 ~ 350mm.



To set axle ride height, loosen the hose clamp, slide the control rod up or down, then, retighten the clamp



The front drawbar hitch tongue is also height adjustable

### 4. Adjust Suspension & Drawbar Height Using the Main Axle Airbag Adjustment

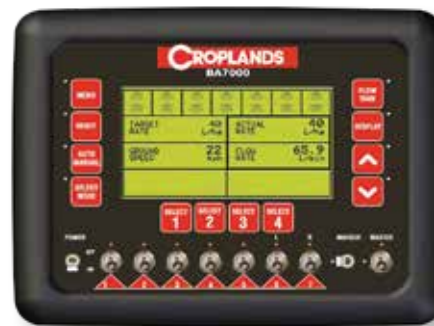
To adjust the Sprayer's air suspension:

1. Start the air compressor and charge the air tank.

The air compressor starts automatically when the BA7000 Controller is switched on.

The air tank is factory set at 100 psi - this is the ideal pressure for the main axle airbags.

This pressure is shown on the front gauge panel.



Push the Power Switch On to start the air compressor

2. Check the air tank pressure is charged to the recommended 100psi.



Check the air tank pressure is charged to 100psi

3. If in the unlikely event it is necessary, to adjust the air pressure setting of the main axle airbags:

- Remove the electrical fitting from the air valve



Remove the electrical fitting from the air valve

# SECTION 4

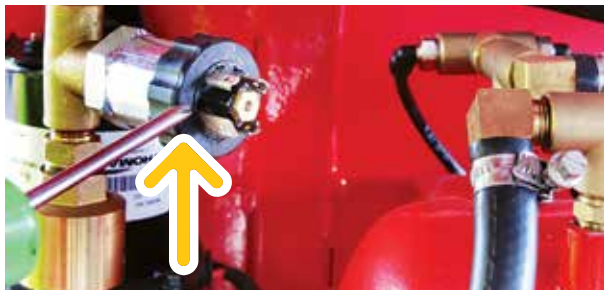
## PRE-OPERATION

- Adjust maximum pressure (100 psi) using the centre hole & allen key [shown below]



Adjust maximum pressure (100 psi) using the centre hole & allen key [shown]

- Adjust the level switch (hysteresis) set at 70 psi via the side hole [shown below at end of screwdriver].



Adjust the level switch (hysteresis) set at 70 psi via the side hole on the valve [shown at end of screwdriver]

4. If more adjustment is required, adjust the axle ride height by adjusting the hose clamp on the control rod.

### UN-HOOK

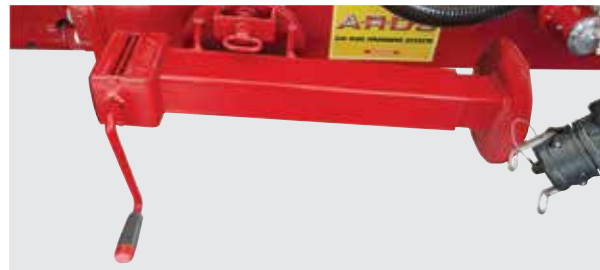


Disconnect hydraulic hoses

### Unhitching

To disconnect the 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:
  - Hydraulic hoses for the:
    - Boom
    - Centrifugal Pump drives
    - Filling pump (if fitted)
  - Electric Controller Looms.



Unpin & rotate the hitch jack down

3. Unpin and rotate the hitch jack down.
4. Lock the hitch jack into position and, then, adjust the hitch height using the hitch jack.
5. Unlock and remove the tractor drawbar pin.



Lock the hitch jack in position, then adjust the hitch height

**! CAUTION**

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 un-hooking the sprayer.

**NOTE**

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

# SECTION 4

## PRE-OPERATION

### BOOM SET-UP ADJUSTMENT

#### Boom Adjustments - 33 & 36 metre

The Pegasus 7000 Plus Sprayer features the 33 & 36 metre compact XL, fully hydraulic folding boom.

Both Horizontal Levelling and Yaw Adjustment (Fore & Aft) are required to provide boom alignment and accurate spray coverage.

Before operation, pre-check the boom is adjusted and operates correctly.

Reduce pressure on the inner boom springs by lowering the boom onto supports.

Spring tensions can change over time. It is recommended to check the boom regularly and make the necessary adjustments as required.

There are five boom adjustments available:

1. Boom Levelling (on each section)
2. Boom Yaw
3. Boom Tilt
4. Bolt Stops & Boom Locking plates
5. Outer Boom Breakaways.



Boom fully raised



Boom fully lowered

Follow the instructions in Steps 1 - 5 to adjust the boom:

#### Step 1: Level the Boom Sections

To make adjustments to level each section of the boom:

1. Fully open the boom on level ground
2. Reduce the pressure on the inner boom springs by placing supports under the boom, then, lowering the boom or use a forklift or similar to lift the boom.

Make sure this is done on ground which is as level as possible.



Reduce pressure on the inner boom springs by lowering the boom onto supports.

3. Level each inner Boom section using the adjustment nut at the end of the spring on each hydraulic cylinder rod.

Adjust the nut in or out until the desired level is achieved.

Adjust the level of both inner boom sections.



Adjust the nut, until the desired level is found

4. Raise the boom off the supports and check the accuracy of the levelling adjustment.

Repeat steps 2 to 4 if further adjustment is necessary.



## WARNING

Ensure there are no people, things or power lines within range of the spray boom when folding or unfolding.

# SECTION 4

## PRE-OPERATION

### NOTE

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

### NOTE

Leave hydraulic pressure on the extension side of ram to assist preventing rod from turning during adjustment.

5. Level the Second Sections of the Boom using the turnbuckles. Unlock the lock-nut so it is free from the sleeve.



Unlock the lock-nut on the turnbuckle

6. Adjust the sleeve until the boom section is at the desired level. Lock the lock-nut to secure the setting.

7. Repeat the steps 5 & 6 on the other side.



Adjust the sleeve until the boom is at the desired level, then re-lock the lock nut to secure the setting

8. Level the Outer Boom sections. Unlock the lock-nuts (2).



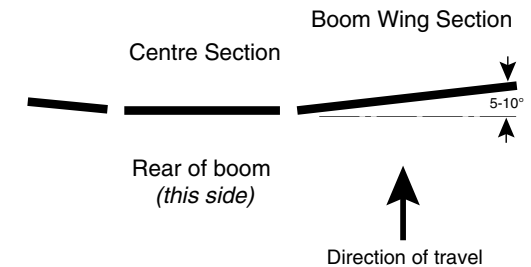
Unlock the lock-nuts (2)

9. Adjust the nuts to raise or lower the outer boom as required. Lock the lock-nuts to secure the setting.



Adjust the nuts to raise or lower the outer boom as required

10. Repeat the procedure on the other side.

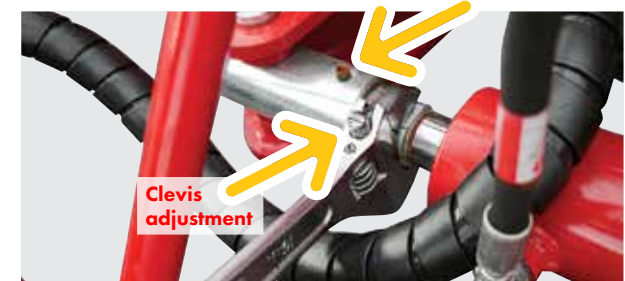


Ensure the boom wings are slightly forward in relation to the centre section (approx 5-10 degrees)

### Step 2: Adjust the Yaw Setting

The Yaw setting is the fore or Aft positioning of each wing of the boom from its vertical axis or pivoting point on the centre section.

The Yaw Setting determines the wing positions the boom when fully opened for spraying.



Remove the Allen key & adjust the clevis, then, return the Allen key to lock the setting in place

The ideal position for each wing is slightly forward (approx 5-10 degrees) of the centre section (as shown in the diagram above).

# SECTION 4

## PRE-OPERATION

Adjust the clevis on the rod end of each fold ram on the centre section to bring each wing forward 5-10 degrees.

To adjust the Yaw angle:

1. Ensure the boom fully opened.
2. Relieve the pressure on the wing-fold cylinders by loosening fittings on one cylinder to release some oil.
3. Remove the Allen key from each clevis, then, adjust the clevis in or out to achieve the desired Yaw setting. Return the Allen key in each clevis and lock the setting in place.



**When releasing oil from and cylinders, be sure to cover the fittings with a cloth to prevent oil from spraying out, as it is hazardous.**

### Step 3: Adjust the Boom Tilt

The tilt setting establishes the level position of the booms and centre section as a whole. It is important the centre section of the boom is level for spraying.

To adjust the Boom Tilt:

1. Undo the lock-nut on each turnbuckle.



Unlock the lock-nut on the turnbuckle

2. Adjust the turnbuckle sleeve until the centre section is level.



Adjust the turnbuckle sleeve until the centre section is level

3. Lock the lock-nut to secure the setting.

### Step 4: Adjust the Bolt Stoppers & Boom Locking Plates

The outer wing section bolt stoppers and locking plates keep the boom locked in place while spraying.



Unlock the bolt stopper lock-nut

When locked the hook part of the wing section locking lever should be in contact with the front edge of the locking slot to ensure no movement during spraying.



Adjust each bolt stopper to stop the boom at the position required

To adjust the Bolt Stops on each outer wing:

1. Unlock the bolt stopper lock-nut.
2. Adjust each bolt stopper to stop the boom at the position required.
3. Lock the lock-nut to secure the setting.



Loosen the holding bolts (2 shown) of the wing locking plate

To adjust the Wing Section Locking Plates:

1. Loosen the holding bolts of the wing locking plate. There are 3 holding bolts (as shown above & upper right).
2. Loosen the lock-nut of the adjustment bolt, then, adjust the bolt to position the wing section locking plate to the desired position.



# SECTION 4

## PRE-OPERATION

When the wing section is locked into position, the hook of the locking lever should be in contact with the front edge of the locking slot (bottom right pg23).



Loosen the holding bolts (1 shown) of the wing locking plate

3. After adjustment is completed, re-tighten the adjustment bolt lock-nut.
4. Retighten the holding bolts (3) of the boom section locking plate.
5. Repeat steps 1 - 5 on the other wing.



Loosen the lock-nut, then, adjust the adjusting bolt to position the plate to the desired position



When locked the hook of the locking lever should be in contact with the front edge of the locking slot

### Step 5: Adjust the Outer Boom Breakaway Spring Tension.

The cable mechanism of the outer boom breakaway should be adjusted so that the outer wing section is firmly held in position but still able to breakaway if necessary.



Adjust the breakaway arm spring pressure to the desired setting to hold the wing section firmly

To adjust the outer boom section breakaway:

1. Loosen the inside nut, then, adjust the spring tension to the desired setting.

2. Retighten the inside nut to secure the setting.
3. Repeat steps 1 - 2 on the other wing.

On completion of the 5 boom adjustments, recheck all boom adjustments and all boom functions.

If necessary make further adjustment as required.

# SECTION 4

## PRE-OPERATION

### MAIN CONTROLS & FUNCTIONS

#### 7000 Main Control Panel



#### Valves :

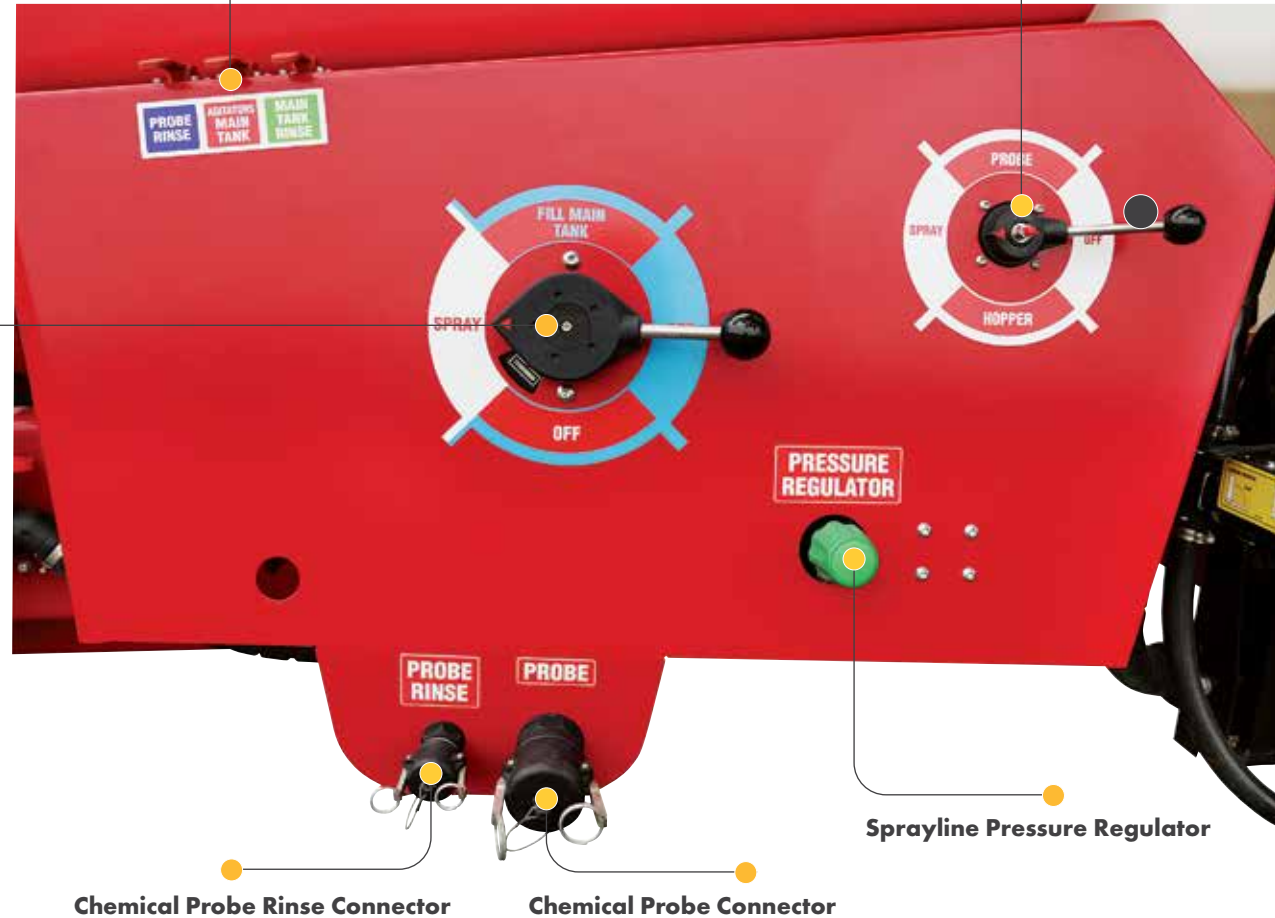
- Probe Rinse
- Agitators Main Tank
- Main Tank Rinse

#### Fill Valve :

- Fill Main Tank
- Off
- Off
- Spray

#### Pressure Valve :

- Probe
- Off
- Hopper
- Spray



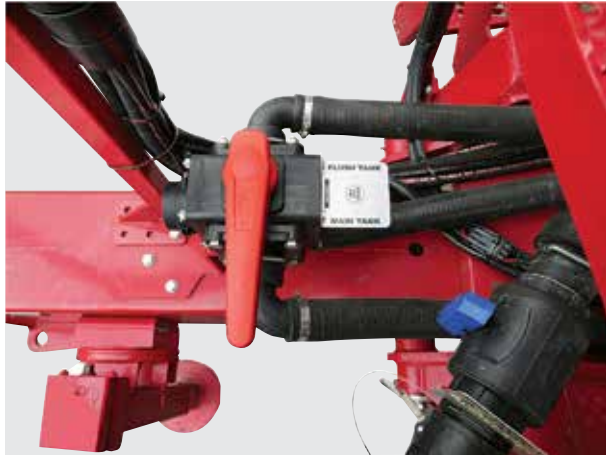
Sprayline Pressure Regulator

Chemical Probe Rinse Connector

Chemical Probe Connector

# SECTION 4

## PRE-OPERATION



Tank Selection Valve



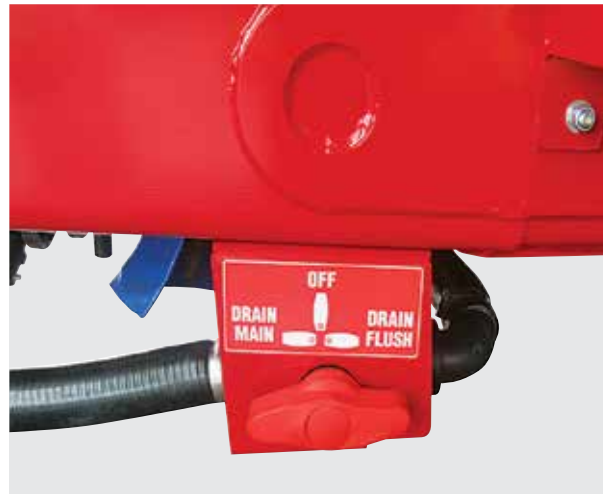
Flush Tank Fill Connector (2")



Main Tank Fill Connector (2")



Fresh Water Tank: Fill Cap & Tap



Tank Drain Valve: Main - Off - Flush



60L Chem-E-Flush Hopper

# SECTION 4

## PRE-OPERATION

### PRE-OPERATION CHECK

#### Pre-Operation Check List

1. Read the Operator's Manuals thoroughly, before attempting to use this machine.



Read Operators' Manuals before operating machine

2. Read and follow instructions on chemical manufacturers labels.
3. Always wear appropriate protective clothing.
4. Check that all maintenance procedures have been followed.



Check the Main Tank filling filter is clean



Check the Boom functions correctly

5. Check all plumbing and fittings to ensure they are tight, not damaged or leaking.
6. Check hydraulic connections.
7. Check all filters are clean:
  - a) Main Tank filling filter
  - b) Two pressure filtersThoroughly clean all filters after initial use, and nozzles if necessary.
8. Check the Boom Controls function correctly.



### WARNING

Ensure wheel nuts are tight before every use.

Minimum Torque settings:  
M16 x 1.5 Stud = 190Nm  
M18 x 1.5 Stud = 270Nm  
M20 x 1.5 Stud = 380Nm  
M22 x 1.5 Stud = 510Nm

### NOTE

Additional copies of the Pegasus 7000 STD Operators manual can be downloaded in a PDF file format from the Internet. Always follow the instructions of the separate BA7000 Operators Manual - for Start-up, Calibration and Sprayer Operation.

### NOTE

**IMPORTANT: Clean all pressure filters 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.**

# SECTION 4

## PRE-OPERATION

### Check the Sprayer & Controller Operation



BA7000 Controller Console

When the Sprayer is first used or when setting up for operation all spraying functions should be checked before use.

It is recommended to do this with the tractor & sprayer stationary & the boom open in the spraying position.

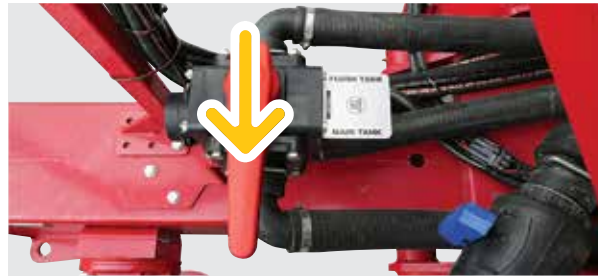
To check Sprayer operation:

1. Connect Sprayer to tractor (see instructions pages 4.2-4.10).
2. Fill an appropriate quantity of clean water into Spray tank (see instructions pages 5.2-4).
3. Rotate the Tank Selection valve to "Main Tank" position.
4. Rotate the Pressure Valve to "Spray" position.
5. Open the "Agitators Main Tank" valve.



## WARNING

**DO NOT have pesticides in the spraytank when checking the sprayer.**



Rotate the Tank Selection valve to "Main Tank" position



Rotate the Pressure Valve to "Spray" position



Open the Agitators Main Tank valve

6. Press the Controller Power Switch down to turn-on the Controller.

Follow the instructions in the separate BA7000 Controller User Manual.



BA7000 Controller Power Switch - On/Off



## 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".**

# SECTION 4

## PRE-OPERATION

The BA7000 Console will show the default screen and the air compressor should start running.

If the compressor does not start with the controller, check the BA7000 set-up menu & ensure the control is set to Air.

7. Engage the Pump hydraulic drive & adjust to required speed. Liquid now circulates through the selected spray lines & back to the tank without the nozzles spraying.
8. While water is being pumped through the system, check:
  - For any leakages or blockages throughout the Sprayer.
  - All hoses, connections, valves, filters, boom fittings etc.
9. Set the Spraying pressure:
  - (a) On the Spray Controller, select the MANUAL mode using the appropriate key.
  - (b) Switch on all boom sections, then, move the Master toggle switch to "ON" position. Water will now be flowing through the nozzles.



Switch ON the Boom Section toggle switches & Master switch



Fully close the server valve using the "▲" key

- (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 Regulator valve to the maximum working pressure. Recommended maximum working pressure is 8 BAR (120 psi). If the maximum pressure is above this, damage to your sprayer may result.

Check the pressure setting using the Pressure Gauge on the front of the Sprayer.



Manually adjust the Pressure Regulator



Airbag & Spray Pressure Gauges located on the front of the Sprayer

10. Visually check that both tank agitators are working.
11. Turn the Controller Master switch ON & OFF and check all boom sections switch off together



Visually check both tank agitators are working



Check Fenceline nozzles are working correctly

# SECTION 4

## PRE-OPERATION

12. Turn fenceline nozzle ON & OFF to check it is working correctly (if fitted)
13. 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.
14. 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.
15. Switch booms ON & OFF several times, ensuring each section is operating individually, and that the non-drip nozzle bodies are working.
16. On completion of checking the sprayer, turn controls Off by placing the master switch and boom switches in OFF position.
17. On completion of checking the sprayer, turn the controls Off.
18. Disengage the pump hydraulic drive after the Spray Controls are switched off.



Switch Boom Sections On & Off several times.

# **SECTION 5**

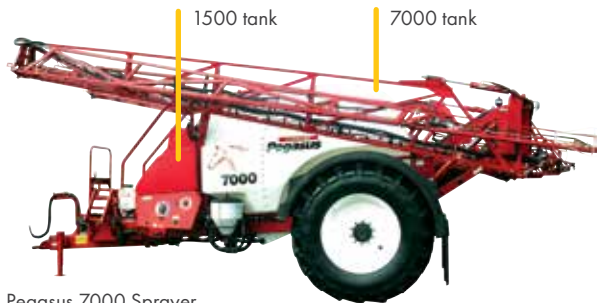
## **OPERATION**

<b>FILLING</b>	<b>33</b>
<b>TANK AGITATION</b>	<b>36</b>
<b>FILTERS</b>	<b>37</b>
<b>FILTERS &amp; TANK INSPECTION</b>	<b>39</b>
<b>CHEMICAL MIXING</b>	<b>40</b>
<b>CLEANING TANKS &amp; SPRAYLINES</b>	<b>45</b>
<b>CLEANING USING CLEANING AGENTS</b>	<b>47</b>
<b>OPERATING THE SPRAYER</b>	<b>48</b>
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# SECTION 5

## OPERATION | FILLING



Pegasus 7000 Sprayer

### Filling the Sprayer Tanks

The Sprayer incorporates two tanks - 7000 litre Main tank and 1500 litre Flush tank. Each tank is filled separately via separate 2" inlets.

Always use clean, fresh water, free of suspended organic matter or clay. Some chemicals are deactivated when they contact these materials.

A filling filter is fitted to the Sprayer for filling the main 7000 litre tank only. Use of a 32 mesh filter is recommended for filling the 1500 litre tank.

## NOTE

**Always calculate the correct quantity of water 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.**

### Self Filling the 7000 litre Main Tank

The Sprayer's 2" Hypro Centrifugal Pump is used to self-fill the 7000 litre Main tank. The total capacity of this tank is 7320 litres.

To fill the 7000 litre tank from the 2" Inlet connector:

1. Remove the Camock cap and connect the filling hose to the 2" Self-Fill Inlet connector.

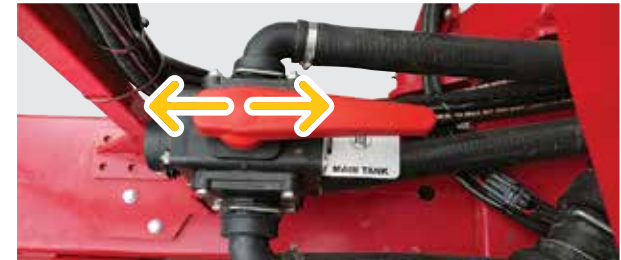


Remove the Camlock cap and connect the filling hose



Open the Self-Filling valve

2. Open the Self-Filling valve.
3. Rotate the Tank Selection valves to Off position (as shown above)
4. Rotate the Fill Valve on the Main Control Panel to "Fill Main Tank" position.



Rotate both Tank Selection valves to Off position (as shown - either direction)



Rotate the Fill valve to "Fill Main Tank" position

5. Engage the Pump, then, adjust the pump speed and tank filling speed via the hydraulic oil supply to the pump.
6. Fill the Main tank with the required amount of water from your water source.
7. Stop the Pump when the required amount of water is filled.
8. Close the Self-Filling valve.
9. Disconnect the filling hose from the 2" Inlet connector & refit the Camlock cap.

# SECTION 5

## OPERATION | FILLING

10. Clean the filter after each fill.

### NOTE

Self-fill time varies significantly depending on pump speed, hose size, hose length and the height of the water source. Croplands' testing using a long 2" dia hose took about 17 minutes.

#### Filling the 1500 Litre Tank

Filling the 1500 litre Flush tank requires an external pump and water source.

To fill the 1500 litre Flush tank:

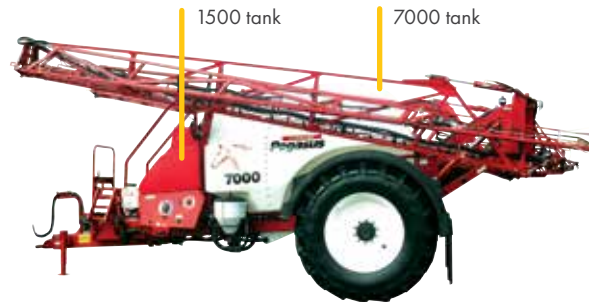
1. Remove the Camock cap and connect the filling hose to the 2" Inlet connector.



Open the Self-Filling valve

2. Open the Self-Filling valve.

3. Fill the 1500 litre tank with the required amount of water from your water source.
4. Close the Self-Filling valve.
5. Disconnect the filling hose from the 2" Inlet connector & refit the Camock cap.



Pegasus 7000 Sprayer

#### Transferring Liquid from the 1500 Litre Tank

The 1500 litre tank can be used to increase the spraying capacity of the unit between refills. Liquid can be transferred from the 1500 litre tank using the Pump to:

- The Main 7000 litre tank and
- The Chem-E-Flush hopper.

Transfer time will vary depending upon pump speed. Typical transfer rate is typically 300 - 400 litres per minute.

**Note: It is not possible to transfer liquid from the Main 7000 tank to the 1500 tank.**

#### Transferring from 1500 litre Tank to Main 7000 Litre Tank

To transfer from the 1500 litre tank to the Main 7000 litre tank:

1. Rotate the Tank Selection valve to "Flush Tank" position.



Rotate the front Tank Selection valve to "Flush Tank" position

2. Rotate the Fill Valve on the Main Control Panel to "Fill Main Tank" position.



Rotate the Fill valve to "Fill Main Tank" position

# SECTION 5

## OPERATION | FILLING

3. Rotate the Pressure Valve on the Main Control Panel to "Off" position.



Rotate the Pressure valve to "Off" position

4. Engage the Pump then, adjust the pump speed and tank filling speed via the hydraulic oil supply to the pump.
5. Fill the 7000 litre tank with the required amount of water from the 1500 litre tank.
6. Stop the Pump when the required amount of water is filled.

On completion, return the valves to their original positions as required.

### Filling the Chem-E-Flush Hopper

To fill the Chem-E-Flush hopper from the Flush tank:

1. Rotate the front Spray Selection valve to "Main Tank" or "Flush Tank" position as required:
  - For Probe, Spray, Agitation & most hopper operations, select Main Tank.



Rotate the front Tank Selection valve to "Flush Tank" position

- For all Flushing & some Hopper operations, select Flush Tank (shown above).

Note: All liquids return to the Main tank.



Rotate the Fill valve to "Hopper" position

2. Rotate the Fill Valve on the Main Control Panel to "Spray" position.
3. Rotate the Pressure Valve on the Main Control Panel to "Off" position.

4. Engage the Pump, then, adjust the pump speed and tank filling speed via the hydraulic oil supply to the pump.
5. Fill the Chem-E-Flush hopper with the required amount of water from your water source.
6. Stop the Pump when the required amount of water is filled.



### Filling the Hand Wash Tank

The 20 litre Hand Wash Tank should contain clean water from a trusted source at times at all times for personal cleaning & safety.

To fill the Hand Wash Tank:

1. Remove the tank lid.
2. Manually fill the tank with clean water from a trusted source.
3. Replace the tank lid.

# SECTION 5

## OPERATION | TANK AGITATION

When chemical is being added and after chemical is added to the Main 7000 litre tank, the agitators must be operating at all times to ensure chemical does not settle in the tanks.

To operate the agitators in the Main 7000 litre tank:

1. Engage the Pump, then, adjust for the required pump speed via the hydraulic oil supply to the pump.
2. Open the "Agitators Main Tank" valve above the Main Control Panel before adding chemical.



Open the Agitators Main Tank valve

3. Check inside the tank to see that tank agitation is correctly adjusted. If agitation causes too much foaming in the tank, try closing Off one agitator or slow down the pump speed 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.



Visually check both tank agitators are working

# SECTION 5

## OPERATION | FILTERS



### WARNING

**Always wear protective clothing 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 system incorporates a filling filter, main pressure filters, inline boom filters and nozzle filters.

Always use a 32 mesh filter when filling the Main 7000 litre tank.

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

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

#### Main Pressure Filters



Clean the main pressure filters regularly

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

To clean the pressure filters:

1. Completely stop all sprayer functions.
2. Rotate the Spray Valve on the Main Control Panel to "Off" position
3. Remove the outer filter bowls, then, remove the filters and thoroughly clean them before re-assembling each filter.

### NOTE

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

#### Inline Boom Pressure Filters (where applicable)

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

To clean the pressure filters:

1. Completely stop all sprayer functions.
2. Rotate the Spray Valve on the Main Control Panel to "Off" position.
3. Remove the outer filter bowls, then, remove the filters and thoroughly clean them before re-assembling each filter.

#### Nozzle Filters & Fenceline Option

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

To clean the Nozzle filters:

1. Completely stop all sprayer functions.
2. Ensure all pressure is removed from the spray lines.

### NOTE

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

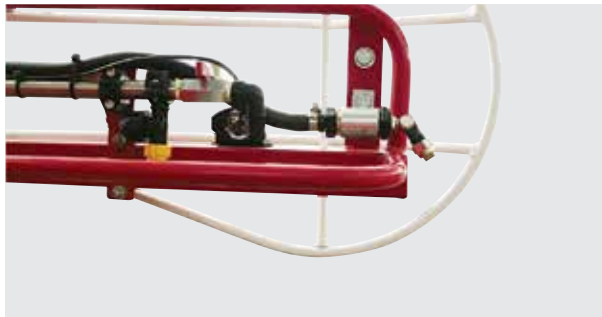


Clean nozzle filters regularly

# SECTION 5

## OPERATION | FILTERS

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 cap.



Clean Fenceline nozzle filters regularly (if fitted)

4. Repeat step 3 for each nozzle.

# SECTION 5

## OPERATION | FILTERS & TANK INSPECTION



Clean the compressor air filter regularly

### Air Filter

The air filter used by the compressor on the sprayer, is located on top of the parking bracket support frame. The air filter 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.

### Top-Lids

Top lids are provided for inspection of the tanks.

It is possible to fill tanks via the top lid, if necessity arose, but it is not recommended.



Open the Main tank lid for inspection

### Main 7000 Litre Tank

To inspect inside the Main 7000 litre tank:

- a. Unlock & open the tank lid.
- b. Close & lock the tank lid after inspection.



Main tank inspection lid closed & locked

### 1500 Litre Tank

To inspect inside the 1500 tank:

- a. Open the tank lids (2).
- b. Close & lock the tank lids after inspection.



Open the Flush tank lids for inspection



Replace Flush tank lids after inspection



Always use gloves when handling chemical

# SECTION 5

## OPERATION | CHEMICAL MIXING

### 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:

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

$$\text{Chemicals required (litres)} = \frac{\text{Tank Volume (l)} \times \text{Recommended Chemical Rate (l/ha)}}{\text{Spray Application Rate (l/ha)}}$$

eg.  $\frac{[4000 \times 3] \div 150}{= 80 \text{ litres}}$



Lower the 60 litre Chem-E-Flush into the filling position

- For volume of mixture required to spray the selected area, calculate the liquid required.

Use chemical recommendations given in water volume rates L/100L.

Use the following formula:

$$\text{Chemical Required (litres)} = \frac{\text{Tank Volume (litres)} \times \text{Recommended Chemical Rate}}{\text{Spray Application Rate (l/ha)}}$$

eg.  $\frac{(l/100 \text{ litres}) \div 100}{[2000 \times 4] \div 100} = 80 \text{ litres.}$

### NOTE

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

### Adding Chemical To the Main Tank

Chemical can be added to the Main 7000 litre tank using the:

- Chem-E-Flush hopper, or
- Optional Chemical Probe.

### A. 60 Litre Chem-E-Flush Hopper

To add chemical using the 60 litre Chem-E-Flush:

- Make sure sufficient water is added to the 7000 litre tank.
- Pull the Unlock Lever toward the Chem-E-Flush to release and lower the unit.



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



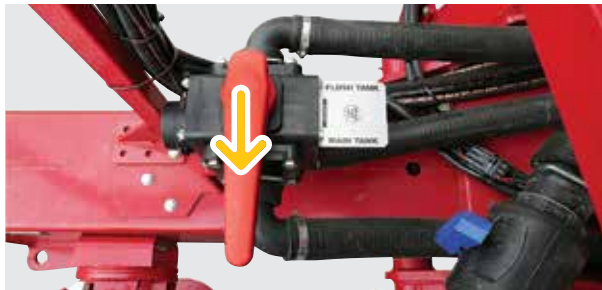
Release & lower the hopper



# SECTION 5

## OPERATION | CHEMICAL MIXING

3. Lower the hopper to its filling position.
4. Rotate the Tank Selection valve to "Main Tank" position.



Rotate the Tank Selection valve to "Main Tank" position

5. Rotate the Pressure valve to "Hopper" position.



Rotate the Pressure Valve to "Hopper" position

6. Open the Agitators Main Tank valve.
7. Close the Transfer valve at the base of the hopper.



Open the "Agitators Main Tank valve before adding chemical



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.

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



## 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.**

10. Open the hopper lid & add chemical powder/liquid to the hopper.



Open hopper lid & add chemical powder/liquid

11. Close the hopper lid & open the Fill valve to add water and mix the chemical.

# SECTION 5

## OPERATION | CHEMICAL MIXING



Close the lid & open the Fill valve to add water and mix the chemical

12. Close the Fill valve after the chemical is mixed.



Close the Fill valve

13. Open the Transfer valve at the base of the hopper to transfer chemical mixture to the spray tank.



Open the Transfer valve to transfer the mixture

14. Close the Transfer valve at the base of the hopper when transfer is completed.

**To rinse a chemical container:**

1. Open the Hopper lid and place the container over the rinse nozzle inside the hopper.



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

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.



Lift the Drum Rinse valve to rinse the container

**To rinse the hopper:**

1. Close the hopper lid.



Lift the Drum Rinse valve to rinse the container

2. Close the Transfer valve at the base of the hopper.  
3. Close the Fill valve.  
4. Lift the Hopper Rinse valve to rinse the hopper.

# SECTION 5

## OPERATION | CHEMICAL MIXING



Lift the Hopper Rinse valve to rinse the hopper

5. Close the Hopper Rinse valve after rinsing the hopper.
6. After rinsing, open the Transfer valve at the base of the hopper to transfer the rinse mixture to the spray tank.



Open the Transfer valve to transfer the rinse mixture

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.



Close the Transfer valve after transferring the mixture

After completing the mixing procedures:

1. Stop the Pump.
2. Check the Transfer valve at the base of the hopper is closed.
3. Rotate the Pressure valve to "Spray" position.



Rotate the Pressure valve to "Spray" position

4. Turn the Tank Selection valves to its required position.
5. Return the hopper back to its transport position. Push the hopper inwards until the latch mechanism is engaged.



Return the hopper back to its transport position. Push the hopper inwards until the latch mechanism is engaged

### B. Chemical Probe

The Probe option can be used to add chemical to the Main 7000 litre Tank &

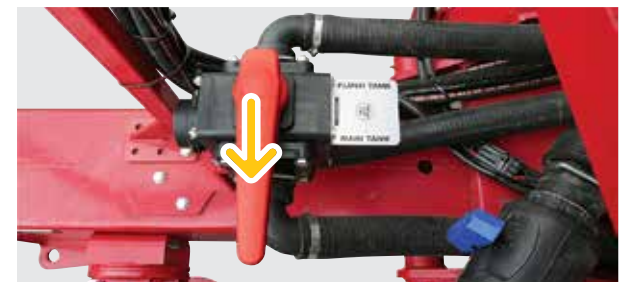
To add chemical using the Probe:

1. Make sure sufficient water is added to the 7000 litre tank.
2. Connect the Chemical Probe to the "Probe" inlet.
3. Connect the Probe Rinse hose to the "Probe Rinse" connector.



Connect the Probe Rinse & Probe" hoses

4. Rotate the Tank Selection valve to "Main Tank" position.



Rotate the Tank Selection valve to "Main Tank" position

# SECTION 5

## OPERATION | CHEMICAL MIXING

5. Rotate the Pressure valve to "Probe" position.



Rotate the Pressure valve to the "Probe" position

6. Open the Agitators Main Tank valve.



Open the "Agitators Main Tank" valve before adding chemical

7. Open the Probe Rinse valve.
8. Start the tractor and operate the pump with the tractor engine at idling speed only.

9. Place the probe in the chemical and open the Probe valve to transfer chemical to the spray tank.



Open the "Probe Rinse" Valve

8. Start the tractor and operate the pump with the tractor engine at idling speed only.
9. Place the probe in the chemical and open the Probe valve to transfer chemical to the spray tank.
10. Open the Probe Rinse gun to rinse the container while the Probe valve is open.



Open Probe valve to transfer mixture to spray tank

11. Close the Probe valve when the chemical transfer is completed.



Open Probe valve to transfer mixture to spray tank

12. Close the Probe Rinse valve located on the main control panel. Keep the Pump running to keep tank agitation active.



Close the probe valve

13. On completion, disconnect the Probe & Probe Rinse hoses and refit the connector caps.



Close the Probe Rinse valve on the main control panel

# SECTION 5

## OPERATION | CLEANING TANKS & SPRAYLINES



Pegasus 7000 Sprayer

### Flushing the Sprayer

Always flush the spraying system tank and boom lines after use.

It is never recommended to leave chemicals standing in the tanks or spraying system because of chemical settling issues, even though it may sometimes be necessary on occasions, if weather or machinery problems means spraying needs to be interrupted without emptying the spray tanks.

If spraying is interrupted and chemical mix is to be left in tanks, it is recommended to flush chemical from both spraying systems and spraylines to avoid premature wear or failure of components and seals in the systems.

### NOTE

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

### Flushing Tank & Spraylines

To flush the 7000 litre tank and lines:

1. Ensure the site for flushing and cleaning the sprayer meets with environmental and statutory regulations.
2. Open the Main 7000 litre Tank Drain valve to drain any remaining spray mixture from the Main tank.

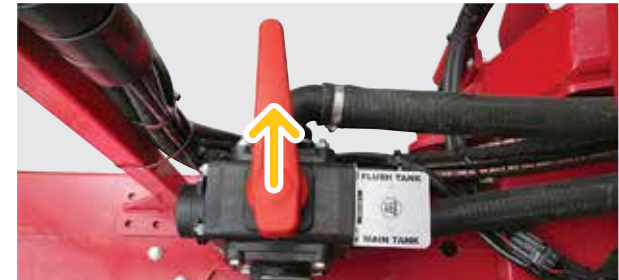


Open the "Drain Main" valve to drain remaining spray mixture from the Main tank

**CAUTION**

**ALWAYS "FIRST" Switch-On a Spray Controller - Before engaging the hydraulic pump drive. It is recommended the Air system be turned ON - BEFORE filling the Sprayer and starting pump drives.**

3. Rotate the Tank Selection valve to "Flush Tank" position.



Rotate the Tank Selection valve to "Flush Tank" position

4. Rotate the Pressure Valve on the Main Control Panel to "Spray" position.



Rotate the Pressure valve to "Spray" position

5. Open the "Probe Rinse", "Agitators Main Tank" & "Main Tank Rinse" valves on the Main Control Panel.



Open the "Probe Rinse", "Agitators Main Tank" & "Main Tank Rinse" valves

# SECTION 5

## OPERATION | CLEANING TANKS & SPRAYLINES

- Start tractor and place sprayer controls in start up position according to Controller operating instructions.
- Engage the pump drive and bring the pump to full operating speed.

All pumped liquid is now being returned into the tank. The system is not pressurised and tank agitator is not working.

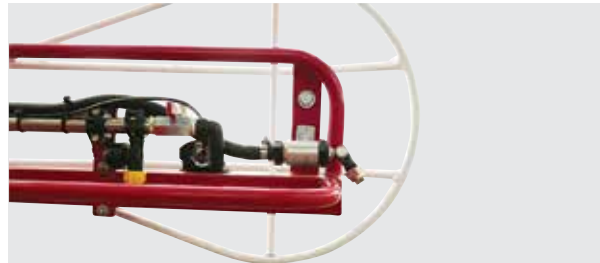
- Adjust pressure to desired operating pressure by adjusting pressure up or down.
- Turn the spray boom sections ON. Fresh water now flushes through the suction line, pump, pressure lines, boom sections and nozzles.

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



Open the Sprayline Pressure gauge valve to flush the chemicals

- Open the Sprayline Pressure gauge valve at the front of the sprayer to flush any chemicals from the gauge and line, then, close the valve.



If fitted switch the fenceline sprayer nozzles "On & Off" several times to flush them

- If fitted, switch the fenceline nozzles "On & Off" to flush the lines & nozzles.
- Rotate the Pressure valve to "Probe" position to flush the Probe and Probe lines.



Rotate the Pressure valve to the "Probe" position

- Rotate the Pressure valve to "Hopper" position to flush & clean the Chem-E-Flush hopper and lines.



Rotate the Pressure valve to the "Probe" position

- On completion of flushing, shut down all controls and disengage the pump drive.



Clean the pressure filters

- Remove and clean the pressure filters, then, reassemble.
- Wash/hose down the outside of the sprayer.

# SECTION 5

## OPERATION | CLEANING USING CLEANING AGENTS

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

To Use Cleaners in Spray Lines & Main Tank:

1. Fill the appropriate spray tank with fresh water to the desired level.
2. Add cleaning agent into the required tank (use according to instructions).
3. Position the valves for the tank required according to the flushing instructions.
4. Start tractor and place sprayer controls in start up position according to Controller operating instructions (see page ??).
5. Engage the pump and bring the pump to full operating speed. All pumped liquid is now being returned back into the tank. The system is not pressurised and tank agitators are not working.
6. Pressurise the system to operate the tank rinse (and agitators) if fitted.
7. Adjust pressure to desired operating pressure by adjusting pressure up or down.
8. Turn the spray boom sections ON. Fresh water now flushes through the suction line, pump, agitator, pressure lines, boom sections and nozzles.
9. 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.
10. Repeat steps 8 - 12 after soaking is completed.
11. Turn the spray booms OFF and shut down the sprayer.
12. Open the appropriate Tank Drain valve.
13. After the tank is drained, completely flush the spraylines & tank again.



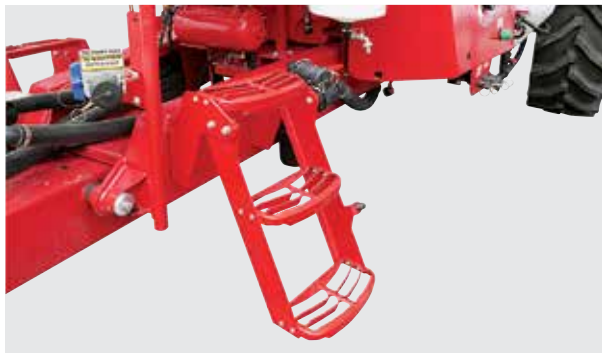
Pegasus 7000 Operator Manual

# SECTION 5

## OPERATION | OPERATING THE SPRAYER

For detailed operating instructions for Spraying, refer to:

- The Pegasus 7000 Operators Manual
- The BA7000 User manual
- Other Controller Manuals supplied for controller(s) fitted to your sprayer.
- Refer to chapters 2, 3 & 4 of this manual for sprayer set-up and operating instructions.



Folding steps on each side at the front of the Sprayer

### **Fold-Up the Steps Before Spraying**



Fold-up the steps on each side at the front of the Sprayer before proceeding to spray



Boom folded on the Pegasus 7000 Sprayer

It is recommended to fold-up the steps on each side at the front of the Sprayer before proceeding to spray.

If left down, the steps have low clearance and damage may occur with uneven ground surfaces and/or with other objects.



# SECTION 5

## OPERATION | OPERATING THE BOOM

### Unfolding & folding the Spray Boom

Understand the safety precautions below before operating the folding mechanism of the spray boom.

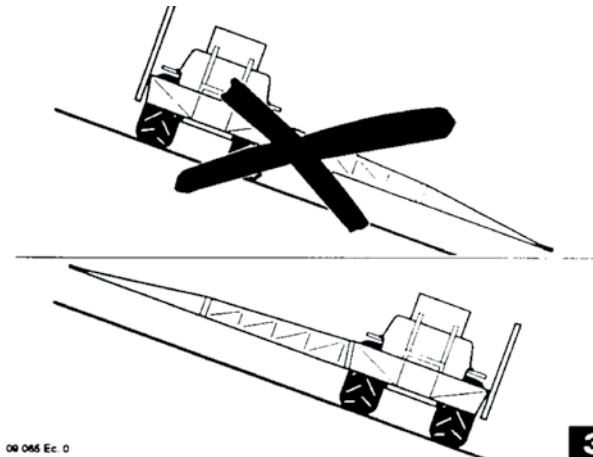


#### DANGER - WARNING:

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

## WARNING

**Keep well clear of power lines when folding, lifting & travelling your spray boom.**



09 065 Ec 0



#### CAUTION:

If working on steep terrain, please note the following:

- Lock the balancing device (if the unit is provided with hydraulic locking).
- For vehicle stability, always unfold the up-hill side of the boom before unfolding the down-hill side of the boom (see figure 3 above).
- For vehicle stability, always fold the down-hill side of the boom before folding the up-hill side of the boom.
- Never operate with the down-hill side of the boom lowered and the up-hill side of the boom folded.



**3**

Pegasus 7000 Boom Controller Switchbox

### Prepare for boom opening / closing

To open the sprayer boom from transit to spraying position:

1. Connect the sprayer to the tractor. Follow instructions on pages 4.2 - 4.12 of this manual. Move the unit onto level ground for opening the boom.
2. The red light "On" in the centre of the boom controller panel shows the power is connected for boom controls.
3. Adjust the tractor oil flow to 1/8th and engage the hydraulic bank for continuous flow.

## NOTE

**The Pegasus 7000 have independent outer fold / GVAR**

# SECTION 5

## OPERATION | OPERATING THE BOOM

**! WARNING**

Ensure there are no people, things or power lines within range of the spray boom when folding or unfolding.

**! CAUTION**

Check for obstructions as the boom arms open.



Push and hold to Boom Lift

1. To Open the boom from parked.  
Lift the boom out of the parking bracket, enough to clear the parking bracket. Push and hold to Boom Lift.
2. Open the inner wings (both sides simultaneously), all the way. Push and hold to Open.



Push and hold to Open

3. Open the outer wings (both sides simultaneously), all the way. Push and hold to Open.



Push and hold to Open

4. Lower the boom (both sides simultaneously), to the working height. Push and hold to Lower.



Push and hold to Lower

Boom is now unfolded and ready to go.  
To park the boom is almost the opposite.

5. To Fold and Park the boom from the operating position.  
Raise the boom high enough to clear the parking bracket (but not so high that it might totally clear the inner side of the bracket). Push and hold to Boom Lift.



Push and hold to Boom Lift

6. Fold the outer wings (both sides simultaneously), all the way to rest against the inner arms. Push and hold to Outer Fold.



Push and hold to Outer Fold

**! CAUTION**

Check for obstructions as the boom arms close.

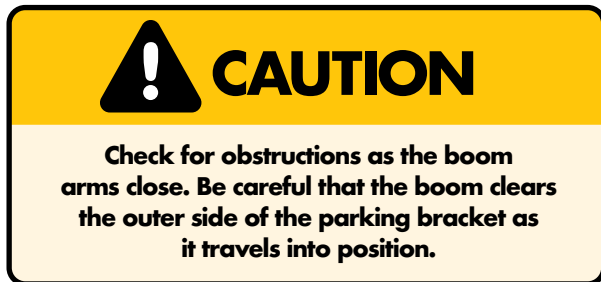
# SECTION 5

## OPERATION | OPERATING THE BOOM

- Fold the boom arms (inner and outer folded together), both sides simultaneously, all the way in until the boom arms rest against the long vertical side of the parking bracket. Push and hold to Outer Fold.



Push and hold to Outer Fold



Push and hold to Lower

- Lower the Boom until it rests into the parking bracket. Push and hold to Lower.



The supplied boom will also be fitted with the GVAR function. This enables the operator to raise and lower (won't go below horizontal) the outer sections of the boom to suit operational (undulating) terrain.



Push and hold to Right Wing to raise and down to lower  
To raise the Right hand outer arm, push and hold to Right Wing, and to lower again push down.



Push and hold to Left Wing to raise and down to lower

To raise the Left hand outer arm, push and hold to Left Wing and to lower again push down.



Push and hold to Right Wing to raise and down to lower

The two tilt switches (i, j, k, l) are not used on this boom.



Push and hold to Right Wing to raise and down to lower

# SECTION 5

## OPERATION | CHEMICAL TRANSFER

### Optional SHURflo AG Runner chemical transfer pump

This option is used to transfer chemical from Envirodrums to the hopper.



Optional SHURflo AG Runner chemical transfer pump

To transfer chemical from Envirodrums to the hopper:

1. Always wear protective clothing when handling chemical.
2. Attach transfer hose to Camlock fitting and the other end to chemical supply via Envirodrum coupling.



AG Runner chemical transfer hose



Attach the chemical transfer hose to the Camlock fitting

3. Make sure Chemical hopper lid is closed.



Open the ball valve to fill the hopper

4. Open the ball valve to fill hopper position.
5. Turn on the pump.  
Pump the required amount of chemical to the hopper.  
Don't open the hopper lid whilst the transfer pump is operating.



Turn the pump "On" to start & "Off" at completion

6. Once completed, turn off the pump.
7. Transfer the chemical from Hopper to the main tank as per instructions.



Connect the Envirodrum coupling to the flush fitting

8. Connect the Envirodrum coupling to the flush fitting, then, repeat the above processes 5-7 to flush chemicals from the Agrunner system.

For more thorough rinsing, leave the hopper "running" whilst flushing.

9. Close the AG Runner valve to the hopper, then, disconnect the hose.



Close the Ag Runner tap to the hopper

# SECTION 5

## OPERATION | PRE-OPERATION CHECKLIST

This checklist assumes:

- The sprayer has been unloaded & adjusted ready to spray (see separate Pegasus 7000 Quick Start Guide)
- Assumes a knowledge of this manual and all associated manuals.

Use the following list, to check all pre-operation procedures have been completed before proceeding to spray:

### 1. Safety

Do not operate this sprayer without complying with all safety obligations. See pages 4,6,7 & safety manual.

### 2. Connect Sprayer to Tractor

See pages 11, 12 & 21 (unhook).

### 3. Connect Controllers & Electrical

See pages 14, 15, 16 & 17.

### 4. Engage, Check & confirm the air system

See pages 18, 19, 20 & 21.

### 5. Check Boom Settings

See pages 22, 23, 24, 25 & 28.

### 6. Connect Hydraulics

See pages 12 & 13.

Never engage the hydraulic pumps before the air system.  
See page 18.

### 7. Filters checked

See pages 28, 37 & 38.

The following checks will require some liquid in the tanks - ideally fresh water:

### 8. Pumps Checked

Do not run pumps dry.

See pages 13 & pump manual.

### 9. Application Pressures Checked

See pages 29, 30 & 31.

### 10. Tank Agitators Checked

See pages 36.

The following checks require:

- The sprayer to be have been previously calibrated (See section 6)
- &
- The operator is skilled in chemical application/operating on advice from Agronomist.

## NOTE

**Upon completion of spraying, thoroughly rinse & clean the sprayer.  
See pages 45. 46 & 47**

# SECTION 6

## SPRAYING INFORMATION

### CALIBRATION PROCEDURE



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.

### 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.

### Flow Meters

For accurate spray rate application, follow the calibration procedures outlined.

### Calibration Procedure

For accurate spray rate application, follow this calibration procedure:



Rapid Check Flowmeter

### 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.

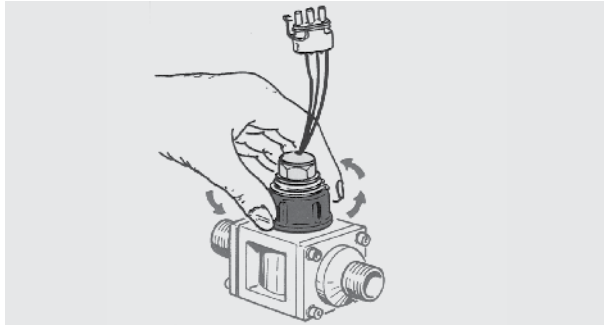
#### Daily Check & Maintenance of Flowmeter

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

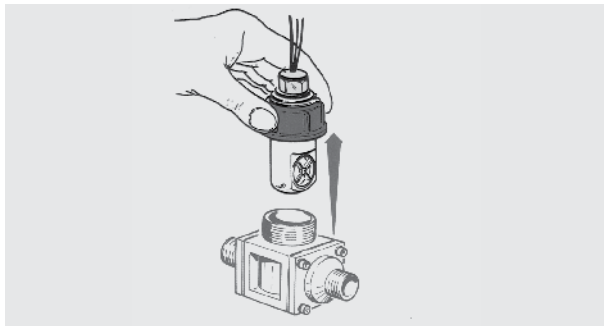
1. Unscrew the assembly that holds the Rapid Check unit in the body.
2. Remove the Rapid Check unit from the body.

# SECTION 6

## SPRAYING INFORMATION

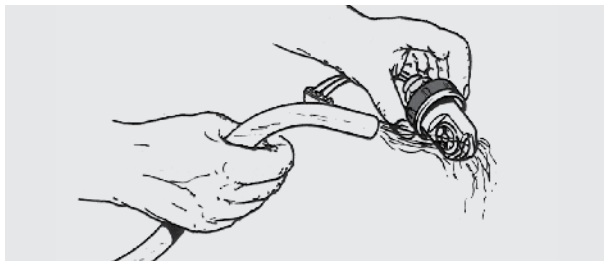


Unscrew the Rapid Check assembly

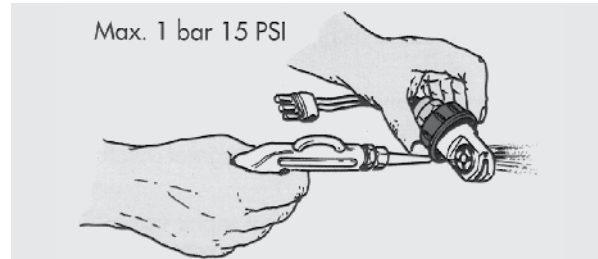


Remove the Rapid Check unit

3. Use clean water to wash any impurities out of the removable turbine unit.



Wash any impurities out of the removable turbine unit



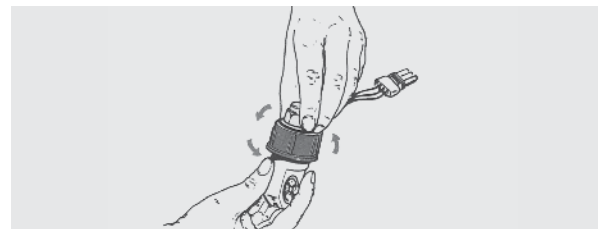
Use compressed air to check that the turbine unit rotates freely

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

### Every 50 Hours

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

1. Unscrew the sensor.



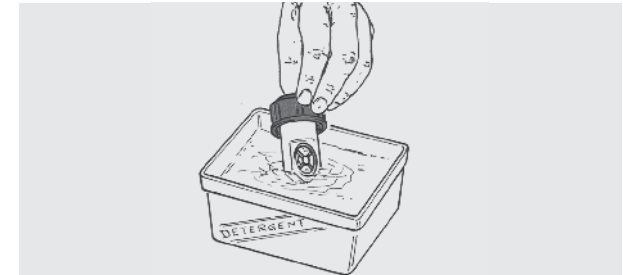
Unscrew the sensor

2. Separate the sensor from the Rapid Check unit.



Separate the sensor from the Rapid Check unit

3. Place the Rapid Check unit in a detergent bath for a few hours.

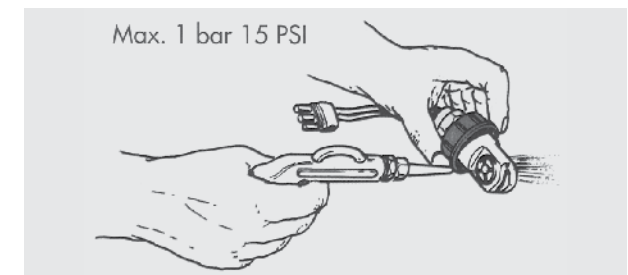


Place the Rapid Check unit in a detergent bath

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.



Use compressed air to check that the turbine unit rotates freely

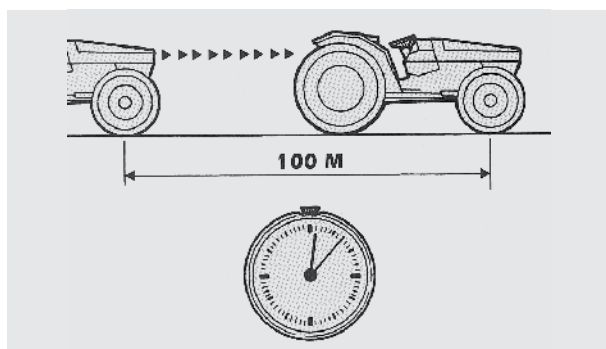
# SECTION 6

## SPRAYING INFORMATION

### Step 2

#### Determining the Actual Speed Of Travel

Your sprayer has been factory set with a calibration number. This should be fine tuned prior to commencement of spraying



Determine actual speed of travel

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.  $0.5\text{m} \times 12 = 6\text{m}$   
 $0.5\text{m} \times 12 = 6\text{m}$   
 $0.5\text{m} \times 12 = 6\text{m}$

## NOTE

Boom sections may vary on some booms.



Agrotop TDam-110-015 Airmix nozzle

### 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)



AI nozzle - courtesy of Teejet

Two methods of selecting nozzle output are:

- Use the charts on pages 61-63 or the manufacturer's nozzle chart.
- Calculate Required Nozzle Flow Rate.

## NOTE

Boom sections may vary on some booms.

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

Using the chart on pages 61-63 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.



# SECTION 6

## SPRAYING INFORMATION

Also check to see what speed variations are available for applying the same rate. See pages 61-63.

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.

### NOZZLE SELECTION AGROTOP

	WEED-STOP (1.6 BAR)	WEED-STOP (3.0 BAR)	WEED-STOP (4.5 BAR)	WEED-STOP (6.0 BAR)
<b>NOZZLE OPTIONS</b>				
<b>KEY INFORMATION</b>	<ul style="list-style-type: none"> <li>• Ideal pressure range: 1-4 Bar</li> <li>• Close speed control and great results</li> <li>• Up to 95% herb reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal pressure range: 4-8 Bar</li> <li>• Close speed control, plant health and leaf burn</li> <li>• Up to 95% herb reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal pressure range: 8-12 Bar</li> <li>• Close speed control, plant health and leaf burn</li> <li>• Up to 95% herb reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal pressure range: 12-16 Bar</li> <li>• Close speed control, plant health and leaf burn</li> <li>• Up to 95% herb reduction</li> </ul>
<b>KEY BENEFITS</b>	<ul style="list-style-type: none"> <li>• Durable valve</li> <li>• Proven performer</li> <li>• Proven spray control - reduces spray drift</li> <li>• Compact design</li> <li>• Protected or valve to avoid blockage</li> <li>• Low noise for easy cleaning</li> <li>• Also available in an off-camber model</li> </ul>	<ul style="list-style-type: none"> <li>• Durable valve with built-in nozzle</li> <li>• Proven performer</li> <li>• Proven spray control - reduces spray drift</li> <li>• Up to 95% herb reduction</li> <li>• Low noise for easy cleaning</li> <li>• Also available in an off-camber model</li> </ul>	<ul style="list-style-type: none"> <li>• Durable valve with built-in nozzle</li> <li>• Proven performer</li> <li>• Proven spray control - reduces spray drift</li> <li>• Up to 95% herb reduction</li> <li>• Low noise for easy cleaning</li> <li>• Also available in an off-camber model</li> </ul>	<ul style="list-style-type: none"> <li>• Specifically designed for use with the WEED-STOP Spray Controller</li> <li>• Durable valve with built-in nozzle</li> <li>• Proven performer</li> <li>• Proven spray control - reduces spray drift</li> <li>• Up to 95% herb reduction</li> <li>• Low noise for easy cleaning</li> <li>• Also available in an off-camber model</li> </ul>
<b>NOZZLE SPACING</b>	20 to 30	25 to 35	30 to 40	40
<b>NOZZLE PRICE</b>	\$ 55.00	\$ 65.00	\$ 75.00	\$ 85.00

#### b. Calculate Required Nozzle Flow Rate

If you know:

- the application rate required (eg 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:

$$\text{Nozzle Flow Rate (l/min)} = \frac{\text{Speed (km/hr)} \times \text{Swath Width (m)} \times \text{Application Rate (l/ha)} \div 600 \div \text{Number of nozzles}}$$

eg.  $\frac{[(12 \times 18 \times 50) \div 600] \div 36}{= 0.5 \text{ l/min for each nozzle}}$

An alternative formula is:

$$\text{Nozzle Flow Rate (l/min)} = \frac{\text{Speed (km)} \times \text{Nozzle Spacing (cm)} \times \text{Application Rate (l/ha)} \div 60,000}$$

eg.  $\frac{[12 \times 50 \times 50] \div 60,000}{= 0.5 \text{ l/min}}$

Now using the nozzle chart look down the nozzle capacity column (l/min) and select a nozzle to suit the output (eg 0.5 l/min). Refer to pages 61-63 for nozzle charts.

			L/HA AT VARIOUS SPEEDS (KM/HR) BASED ON A 50CM NOZZLE SPACING																	
Flow Rate (l/min)	Speed (km/hr)	Swath Width (m)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			0.1	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.38	0.40	0.42	0.44
0.2	0.24	0.28	0.32	0.36	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.76	0.80	0.84	0.88	0.92	0.96	1.00
0.3	0.36	0.42	0.48	0.54	0.60	0.66	0.72	0.78	0.84	0.90	0.96	1.02	1.08	1.14	1.20	1.26	1.32	1.38	1.44	1.50
0.4	0.48	0.56	0.64	0.72	0.80	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00
0.5	0.56	0.64	0.72	0.80	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08
0.6	0.64	0.72	0.80	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16
0.7	0.72	0.80	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24
0.8	0.80	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32
0.9	0.88	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32	2.40
1.0	0.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32	2.40	2.48
1.2	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32	2.40	2.48	2.56	2.64
1.5	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00	2.08	2.16	2.24	2.32	2.40	2.48	2.56	2.64	2.72	2.80	2.88	2.96
2.0	1.92	2.00	2.08	2.16	2.24	2.32	2.40	2.48	2.56	2.64	2.72	2.80	2.88	2.96	3.04	3.12	3.20	3.28	3.36	3.44
2.5	2.40	2.48	2.56	2.64	2.72	2.80	2.88	2.96	3.04	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68	3.76	3.84	3.92
3.0	2.88	2.96	3.04	3.12	3.20	3.28	3.36	3.44	3.52	3.60	3.68	3.76	3.84	3.92	4.00	4.08	4.16	4.24	4.32	4.40
3.5	3.36	3.44	3.52	3.60	3.68	3.76	3.84	3.92	4.00	4.08	4.16	4.24	4.32	4.40	4.48	4.56	4.64	4.72	4.80	4.88
4.0	3.84	3.92	4.00	4.08	4.16	4.24	4.32	4.40	4.48	4.56	4.64	4.72	4.80	4.88	4.96	5.04	5.12	5.20	5.28	5.36
4.5	4.32	4.40	4.48	4.56	4.64	4.72	4.80	4.88	4.96	5.04	5.12	5.20	5.28	5.36	5.44	5.52	5.60	5.68	5.76	5.84
5.0	4.80	4.88	4.96	5.04	5.12	5.20	5.28	5.36	5.44	5.52	5.60	5.68	5.76	5.84	5.92	6.00	6.08	6.16	6.24	6.32
5.5	5.28	5.36	5.44	5.52	5.60	5.68	5.76	5.84	5.92	6.00	6.08	6.16	6.24	6.32	6.40	6.48	6.56	6.64	6.72	6.80
6.0	5.76	5.84	5.92	6.00	6.08	6.16	6.24	6.32	6.40	6.48	6.56	6.64	6.72	6.80	6.88	6.96	7.04	7.12	7.20	7.28
6.5	6.24	6.32	6.40	6.48	6.56	6.64	6.72	6.80	6.88	6.96	7.04	7.12	7.20	7.28	7.36	7.44	7.52	7.60	7.68	7.76
7.0	6.72	6.80	6.88	6.96	7.04	7.12	7.20	7.28	7.36	7.44	7.52	7.60	7.68	7.76	7.84	7.92	8.00	8.08	8.16	8.24
7.5	7.20	7.28	7.36	7.44	7.52	7.60	7.68	7.76	7.84	7.92	8.00	8.08	8.16	8.24	8.32	8.40	8.48	8.56	8.64	8.72
8.0	7.68	7.76	7.84	7.92	8.00	8.08	8.16	8.24	8.32	8.40	8.48	8.56	8.64	8.72	8.80	8.88	8.96	9.04	9.12	9.20
8.5	8.16	8.24	8.32	8.40	8.48	8.56	8.64	8.72	8.80	8.88	8.96	9.04	9.12	9.20	9.28	9.36	9.44	9.52	9.60	9.68
9.0	8.64	8.72	8.80	8.88	8.96	9.04	9.12	9.20	9.28	9.36	9.44	9.52	9.60	9.68	9.76	9.84	9.92	10.00	10.08	10.16

## NOTE

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

**Step 5**  
Fit the Selected Nozzles to the Boom

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

## 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.**

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

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

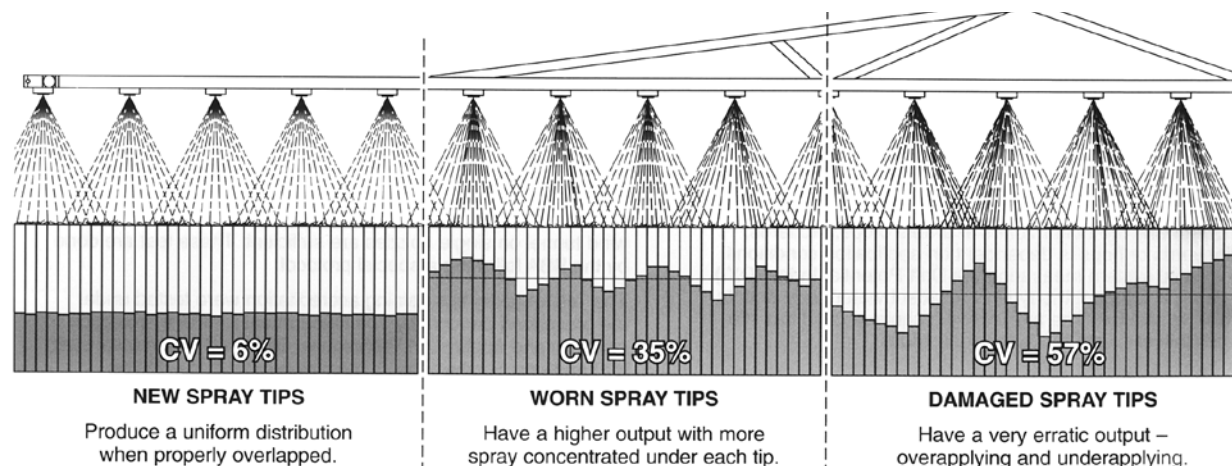
- Ensure there is adequate water in the tank.  
**IMPORTANT:** Do not use mixed pesticides for testing.
- Start the sprayer and set the spray Controller master switch into MANUAL position and adjust the operating pressure.
- Collect and measure the volume of spray from one nozzle and adjust pressure so that the nozzle gives the specified output (eg 0.5 l/min).

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## SPRAYING INFORMATION



Test the actual output of the nozzles



Spray tip wear - courtesy of Teejet



### WARNING

**Do not use mixed pesticides for testing. Use only clean water. Use of pesticides when testing is hazardous to your health.**

#### IMPORTANT:

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



### CAUTION

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

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.

# SECTION 6

## SPRAYING INFORMATION

$$\frac{\text{Application Rate (l/ha)}}{\text{Spray Output (l/min)} \times 600 \div \text{Speed (km/hr)} \times \text{Swath Width (m)}}$$

eg. 
$$\frac{[18 \times 600] \div [12 \times 18]}{= 50 \text{ l/ha}}$$

### 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:
- Adjusting pressure up or down to increase or decrease rate of application (use +/- keys).
  - Adjusting spraying speed up or down to decrease or increase rate of application.
  - Changing to a different nozzle capacity.

### 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:

$$\frac{\text{Chemical Required (litres)}}{\text{Tank Volume (litres)} \times \text{Recommended Chemical Rate (l/ha)} \div \text{Spray Application Rate (l/ha)}}$$

eg. 
$$\frac{[2000 \times 2.0] \div 50}{= 80 \text{ litres}}$$

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

$$\frac{\text{Chemical Required (litres)}}{\text{Tank Volume (litres)} \times \text{Recommended Chemical Rate (l/100 litres)} \div 100}$$

eg. 
$$\frac{[2000 \times 4] \div 100}{= 80 \text{ litres}}$$

- c. For land area covered, use the formula:

$$\frac{\text{Area Covered (ha)}}{\text{Tank Volume (litres)} \div \text{Spray Application Rate (l/ha)}}$$

eg. 
$$\frac{2000 \div 50}{= 40 \text{ hectares}}$$

- d. For tank volume required, use the formula:

$$\frac{\text{Tank Volume Required (litres)}}{\text{Area (ha)} \times \text{Spray Application Rate (l/ha)}}$$

eg. 
$$\frac{20 \times 50}{= 1000 \text{ litres}}$$

## NOTE

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

## NOTE

**All nozzles have a pressure and flow rate range to achieve the best results. Ensure you have selected the nozzle which best suits your application to avoid any problems.**

### Step 10

#### Adjust Boom Height

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

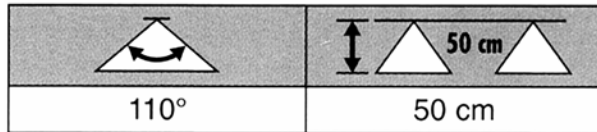
Minimum boom height recommendations depend on the nozzle spray angle and nozzle spacing.

Refer to Nozzle chart recommendations.

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## SPRAYING INFORMATION

### Optimum Spray Height



Reference technical section page 93 for

#### 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.

# SECTION 6

## SPRAYING INFORMATION

### AIR-MIX & TURBODROP® NOZZLE CHART

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

# SECTION 6

## SPRAYING INFORMATION

### AIR-MIX & TURBODROP® NOZZLE CHART

		Application Rate (l/ha with km/h @ 50cm nozzle spacing)															
Nozzle Type	Pressure Bar	Flow Rate l/min	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35
110-015	1	0.231	46.2	46.2	34.7	27.7	23.1	19.8	17.3	15.4	13.9	12.6	11.6	10.7	9.9	9.24	7.92
	1.5	0.283	84.9	56.6	42.5	34	28.3	24.3	21.2	18.9	17	15.4	14.2	13.1	12.1	11.3	9.7
	2	0.327	98.1	65.4	49.1	39.2	32.7	28	24.5	21.8	19.6	17.8	16.4	15.1	14	13.1	11.2
	3	0.4	120	80	60	48	40	34.3	30	26.7	24	21.8	20	18.5	17.1	16	13.7
	4	0.462	139	92.4	69.3	55.4	46.2	39.6	34.7	30.8	27.7	25.2	23.1	21.3	19.8	18.5	15.8
	5	0.517	155	103	77.6	62	51.7	44.3	38.8	34.5	31	28.2	25.9	23.9	22.2	20.7	17.7
	6	0.566	170	113	84.9	67.9	56.6	48.5	42.5	37.7	34	30.9	28.3	26.1	24.3	22.6	19.4
110-015	1	0.346	69.2	69.2	51.9	41.5	34.6	29.7	26	23.1	20.8	18.9	17.3	16	14.8	13.8	11.9
	1.5	0.424	127	84.8	63.6	50.9	42.4	36.3	31.8	28.3	25.4	23.1	21.2	19.6	18.2	17	14.5
	2	0.49	147	98	73.5	58.8	49	42	36.8	32.7	29.4	26.7	24.5	22.6	21	19.6	16.8
	3	0.6	180	120	90	72	60	51.4	45	40	36	32.7	30	27.7	25.7	24	20.6
	4	0.693	208	139	104	83.2	69.3	59.4	52	46.2	41.6	37.8	34.7	32	29.7	27.7	23.8
	5	0.775	233	155	116	93	77.5	66.4	58.1	51.7	46.5	42.3	38.8	35.8	33.2	31	26.6
	6	0.849	255	170	127	102	84.9	72.8	63.7	56.6	50.9	46.3	42.5	39.2	36.4	34	29.1
110-02	1	0.462	92.4	92.4	69.3	55.4	46.2	39.6	34.7	30.8	27.7	25.2	23.1	21.3	19.8	18.5	15.8
	1.5	0.566	170	113	84.9	67.9	56.6	48.5	42.5	37.7	34	30.9	28.3	26.1	24.3	22.6	19.4
	2	0.653	196	131	98	78.4	65.3	56	49	43.5	39.2	35.6	32.7	30.1	28	26.1	22.4
	3	0.8	240	160	120	96	80	68.6	60	53.3	48	43.6	40	36.9	34.3	32	27.4
	4	0.924	277	185	139	111	92.4	79.2	69.3	61.6	55.4	50.4	46.2	42.6	39.6	37	31.7
	5	1.033	310	207	155	124	103	88.5	77.5	68.9	62	56.3	51.7	47.7	44.3	41.3	35.4
	6	1.131	339	226	170	136	113	96.9	84.8	75.4	67.9	61.7	56.6	52.2	48.5	45.2	38.8
110-025	1	0.577	115	115	86.6	69.2	57.7	49.5	43.3	38.5	34.6	31.5	28.9	26.6	24.7	23.1	19.8
	1.5	0.707	212	141	106	84.8	70.7	60.6	53	47.1	42.4	38.6	35.4	32.6	30.3	28.3	24.2
	2	0.816	245	163	122	97.9	81.6	69.9	61.2	54.4	49	44.5	40.8	37.7	35	32.6	28
	3	1	300	200	150	120	100	85.7	75	66.7	60	54.5	50	46.2	42.9	40	34.3
	4	1.154	346	231	173	138	115	98.9	86.6	76.9	69.2	62.9	57.7	53.3	49.5	46.2	39.6
	5	1.291	387	258	194	155	129	111	96.8	86.1	77.5	70.4	64.6	59.6	55.3	51.6	44.3
	6	1.414	424	283	212	170	141	121	106	94.3	84.8	77.1	70.7	65.3	60.6	56.6	48.5

# SECTION 6

## SPRAYING INFORMATION

### AIR-MIX & TURBODROP® NOZZLE CHART

Application Rate (l/ha with km/h @ 50cm nozzle spacing)																	
Nozzle Type	Pressure Bar	Flow Rate l/min	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35
110-03	1	0.693	139	139	104	83.2	69.3	59.4	52	46.2	41.6	37.8	34.7	32	29.7	27.7	23.8
	1.5	0.849	255	170	127	102	84.9	72.8	63.7	56.6	50.9	46.3	42.5	39.2	36.4	34	29.1
	2	0.98	294	196	147	118	98	84	73.5	65.3	58.8	53.5	49	45.2	42	39.2	33.6
	3	1.2	360	240	180	144	120	103	90	80	72	65.5	60	55.4	51.4	48	41.1
	4	1.386	416	277	208	166	139	119	104	92.4	83.2	75.6	69.3	64	59.4	55.4	47.5
	5	1.549	465	310	232	186	155	133	116	103	92.9	84.5	77.5	71.5	66.4	62	53.1
	6	1.697	509	339	255	204	170	145	127	113	102	92.6	84.9	78.3	72.7	67.9	58.2
110-04	1	0.924	185	185	139	111	92.4	79.2	69.3	61.6	55.4	50.4	46.2	42.6	39.6	37	31.7
	1.5	1.113	334	223	167	134	111	95.4	83.5	74.2	66.8	60.7	55.7	51.4	47.7	44.5	38.2
	2	1.306	392	261	196	157	131	112	98	87.1	78.4	71.2	65.3	60.3	56	52.2	44.8
	3	1.6	480	320	240	192	160	137	120	107	96	87.3	80	73.8	68.6	64	54.9
	4	1.848	554	370	277	222	185	158	139	123	111	101	92.4	85.3	79.2	73.9	63.4
	5	2.066	620	413	310	248	207	177	155	138	124	113	103	95.4	88.5	82.6	70.8
	6	2.263	679	453	339	272	226	194	170	151	136	123	113	104	97	90.5	77.6
110-05	1	1.155	231	231	173	139	116	99	86.6	77	69.3	63	57.8	53.3	49.5	46.2	39.6
	1.5	1.414	424	283	212	170	141	121	106	94.3	84.8	77.1	70.7	65.3	60.6	56.6	48.5
	2	1.633	490	327	245	196	163	140	122	109	98	89.1	81.7	75.4	70	65.3	56
	3	2	600	400	300	240	200	171	150	133	120	109	100	92.3	85.7	80	68.6
	4	2.309	693	462	346	277	231	198	173	154	139	126	115	107	99	92.4	79.2
	5	2.582	775	516	387	310	258	221	194	172	155	141	129	119	111	103	88.5
	6	2.828	848	566	424	339	283	242	212	189	170	154	141	131	121	113	97
110-06	1	1.386	277	277	208	166	139	119	104	92.4	83.2	75.6	69.3	64	59.4	55.4	47.5
	1.5	1.697	509	339	255	204	170	145	127	113	102	92.6	84.9	78.3	72.7	67.9	58.2
	2	1.96	588	392	294	235	196	168	147	131	118	107	98	90.5	84	78.4	67.2
	3	2.4	720	480	360	288	240	206	180	160	144	131	120	111	103	96	82.3
	4	2.771	831	554	416	333	277	238	208	185	166	151	139	128	119	111	95
	5	3.098	929	620	465	372	310	266	232	207	186	169	155	143	133	124	106
	6	3.394	1018	679	509	407	339	291	255	226	204	185	170	157	145	136	116

# SECTION 6

## SPRAYING INFORMATION

### CALIBRATION WORK SHEET

#### Step 1

Check the Sprayer is in Good Working Order

#### Step 2

##### Determine Actual Speed of Travel

Follow Instructions on page 6.4 (Speed Calibration).

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

$$\boxed{\phantom{000}} \times \boxed{\phantom{000}} \times \boxed{\phantom{000}} \div 600 \div \boxed{\phantom{000}}$$

$$= \boxed{\phantom{000}} \text{ l/min for each nozzle}$$

#### 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 (l/ha) =**  
**Spray Output (l/min) x 600 ÷ Speed (km/hr)**  
**x Swath Width (m)**

$$[ \boxed{\phantom{000}} \times 600 ] \div [ \boxed{\phantom{000}} \times \boxed{\phantom{000}} ]$$

$$= \boxed{\phantom{000}}$$

#### 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

##### Record Data

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 l/min	
Actual Litres/Hectare	



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Spray Volume litres/ha	
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Nozzle size & colour	
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Nozzle pressure	
Tested Output in l/min	
Actual Litres/Hectare	

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Nozzle type	
Nozzle size & colour	
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Nozzle pressure	
Tested Output in l/min	
Actual Litres/Hectare	

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$$= \boxed{\phantom{000}}$$

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Chemical Added:	

#### Step 10

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#### Step 11

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Crop to be sprayed	
Spray Volume litres/ha	
Nozzle type	
Nozzle size & colour	
No. of nozzles used	
Nozzle pressure	
Tested Output in l/min	
Actual Litres/Hectare	

# SECTION 7

## LUBRICATION & MAINTENANCE

### GREASING & SERVICE PROCEDURES

#### Greasing & Service Procedures

1. Check and clean filling filters before each tank fill.



Clean the Fresh Water Fill filter regularly

2. Clean all pressure line filters.
3. Check tyre pressures:
  - 24 psi (164kPa) for standard sprayer wheels.
  - Optional tyres may be different.
4. Check wheel nuts are tight.
5. 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.
7. Grease all boom and other grease points.

### NOTE

**The sprayer wheel tyre pressures given above are a general guide - always check and follow the minimum pressure of the supplied tyre.**



Remove & clean all pressure filters

#### Every 200 Hours or 6 Months - Whichever Comes Sooner

1. Re-pack wheel bearings with grease.
2. Inspect air-axle and adjust if necessary.
3. Change air filter on the Sprayer air compressor pump.



Change the compressor air filter every 200 hours or 6 months

4. Grease all tank lid seals with vaseline.

#### Sprayer Grease Points

Grease points on the Pegasus 7000 Plus Sprayer include:

1. Hitch jack (2).
2. Hitch pivot pins (2).

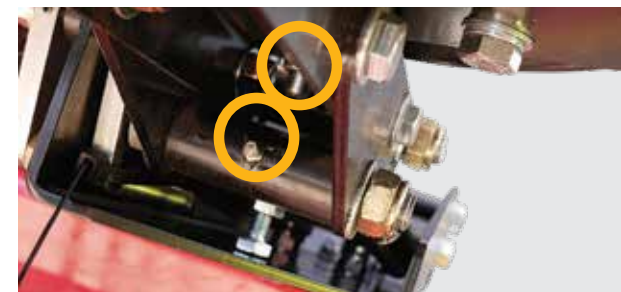


Grease the hitch jack



Grease the hitch pivot pin grease points

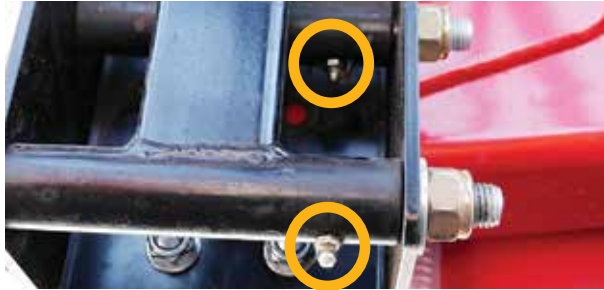
3. Upper hinges of the Chem-E-flush hopper (2).
4. Lower hinges of the Chemeflush hopper (2).



Chem-E-flush hopper upper hinge grease points

# SECTION 7

## LUBRICATION & MAINTENANCE

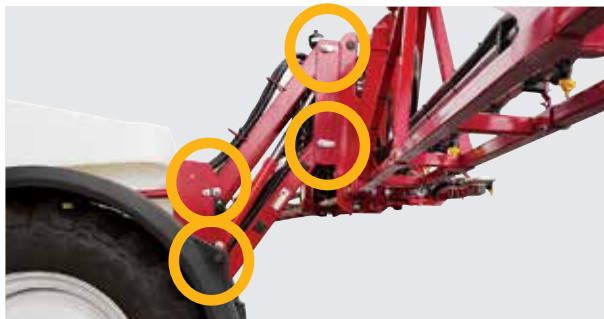


Chem-E-flush hopper lower hinge grease points

### 5. All boom hinge points:

- Boom lift hinges (14)
- Inner boom fold hinges (10)
- Second section fold hinges (14)

Refer to boom maintenance on page 7.5 for full details.



Boom lift hinge grease points

### Pre-Season Servicing

For thorough pre-season servicing - check all aspects of the Pegasus 7000 Plus Sprayer and its operating components as outlined in the pre-delivery check list of the Warranty Booklet

## CAUTION

It is not necessary nor is it recommended to grease the main wheels of the Pegasus 7000 Plus Sprayer. Greasing may damage the axle seals.



Check the spacing between the speed sensor & magnets

Section 1		CROPLANDS		Pre-Delivery Check List	
The Pre-Delivery Check List must be completed by the Dealer & signed by both the Dealer and the Owner, and the initial copy returned by the Dealer to Croplands.					
1 Operator's Manual Required:	2 Tires	3 Power Drive	4 Hydraulic Pump Drive & Filling Pump	5 Check All Tank Fittings Are Sealed	6 Boom & Lift Device
7 Tiller	8 Wheel	9 Spray Gun	10 Pressure Lines	11 Boom PIV (Spray Gun Tank)	12 Boom
13 Nozzles	14 Check & Flush all Hoses	15 Chemical Probe of Tank	16 Block Curves (Standard)	17 Auto Spray Rate Controller (if fitted)	18 Fresh Water & Flushing Tanks
19 Filter Maintenance	20 Fan Motor	21 Fan Motor	22 Fan Motor	23 Fan Motor	24 Diesel

Pre-delivery checklist

### Check the Speed Sensor

Check the speed sensor for any damage. Check the spacing between the speed sensor and magnets. The ideal distance is 5mm (4-6mm). Adjust where necessary.

### 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.

### Remote Fill Filters

Remote fill filters should be cleaned regularly, or after each spray tank has been filled.

### Pressure Filters

The pressure filters (4), should be cleaned regularly, or after each spray tank has been emptied, refilled and flushed.

See cleaning instructions on page 5.16



Remove & clean all pressure filters

# SECTION 7

## LUBRICATION & MAINTENANCE

### Nozzle Filters

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

See cleaning instructions on page 5.16 If leaking occurs from the nozzle cap,

check caps are correctly fitted with seals &/or the condition of the seals. Replace if necessary.

### Fenceline Nozzle Filters (Optional)

Spray Nozzle filters of the Fenceline 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.

### 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.

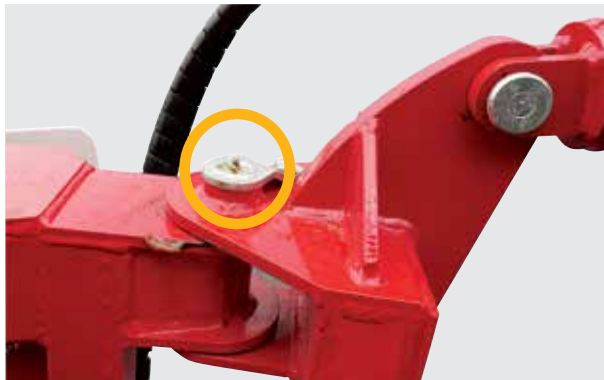
Ensure nozzles and nozzle bodies are correctly fixed and sealed when operating. also ensure non-drip mechanism are working.



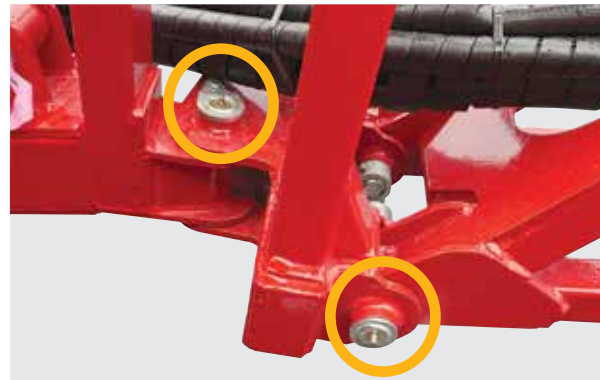
Grease the upper inner-boom hydraulic ram hinges

Grease all grease-points:

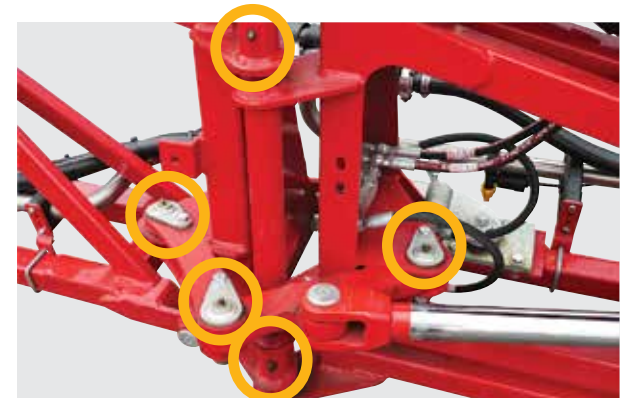
- Boom lift (14)
- Inner fold (10)
- Outer fold (14)



Grease all inner-fold pivot points



Grease the lower inner-fold pivot points



Grease all outer-fold pivot points

# SECTION 7

## LUBRICATION & MAINTENANCE

### Inner Fold Pivot

The inner boom fold is designed to incorporate the “Yaw” (fore & aft motion) suspension of the 33/36m boom, which means it is constantly moving during operation.



Inner-fold “Yaw” adjustment

Ensure all pins are secure and hydraulic cylinder adjusting clevis is locked with grub screws.

Refer to page 4.15 for more information.

### Outer Fold Pivot

The outer fold is designed to be held securely by hydraulic pressure when in the open position to prevent movement.



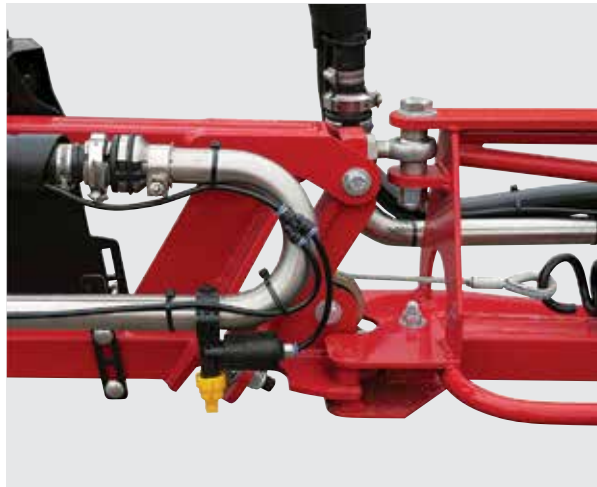
Outer-fold pivot

Ensure the hinge joint is held securely against stop bolts and lock out lever (if fitted).

### Breakaway Arm

The breakaway arms are double acting (forwards & backwards motion) with a spring load return to centre assembly.

Ensure spring tension is maintained to provide correct operation of the breakaway arm.



Breakaway arm pivot mechanism

### Periodical Maintenance

1. Check all hydraulic hoses and fittings for wear and replace if necessary.
2. Check breakaway spring's tension and cables for wear and replace if necessary.
3. Check “Yaw” position of boom and reset if required.

4. Before storage thoroughly clean and flush entire sprayer both internally and externally.

### 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.

### 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.



Remove & clean non-drip diaphragms

### Non-Drip Diaphragm Nozzle Bodies

Non-drip diaphragms should be cleaned regularly to prevent dripping from nozzles.

To clean the non-drip diaphragms:

# SECTION 7

## LUBRICATION & MAINTENANCE

1. Completely stop all sprayer functions.
2. Open boom line drain taps.
3. Unscrew and remove the diaphragm cap.
4. Remove and clean any sediment off the diaphragm - replace diaphragm if damaged.
5. Ensure spring/plunger assembly in cap operates correctly.
6. Refit diaphragm into cap.
7. Refit the diaphragm cap and carefully tighten.
8. Close boom line drain valves and test system to confirm non-drip operation.



Clean the compressor air filter regularly

### Air Compressor Filter & Tank Drain Valve

Moisture should be drained from the Air Compressor tank regularly and the air filter should be cleaned regularly.

The air filter used by the compressor on the sprayer, is located on top of the parking bracket support frame.

To clean the air filter:

1. Completely stop all sprayer functions.
2. Remove the air filter cover and then remove the air filter element.



Drain moisture from the compressor tank regularly

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.  
To drain moisture from the Air Compressor tank, open the valve at the base of the tank until all moisture is released, then, close the valve. Do this regularly.



### Electric Motor-Valve Maintenance

1. Flush system with clean water after each day's use, especially when using wetttable powders.
2. Clean and drain the system for storage.
3. Do not apply lubricating oils or other petroleum



Motor valves

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.

## AIR-RIDE SUSPENSION & CONTROL VALVES

### Air Reservoir Drain Valve

The air reservoir features a drain valve fitted to the bottom of the air reservoir.

The valve should be used regularly to remove any condensation build up from the air system.

To remove moisture from the air reservoir:

1. Disconnect power from the 12volt air compressor.
2. Open drain valve until all moisture is removed from the air reservoir.



# SECTION 7

## LUBRICATION & MAINTENANCE



Drain moisture from the compressor tank regularly

3. Close drain valve.
4. Reconnect power supply to the 12volt compressor and run compressor to recharge to air system.

### Ride Leveling Adjustable Linkage Assembly



Air axle & levelling valve with adjustable linkage

To assemble the adjustable linkage of the air levelling valve:

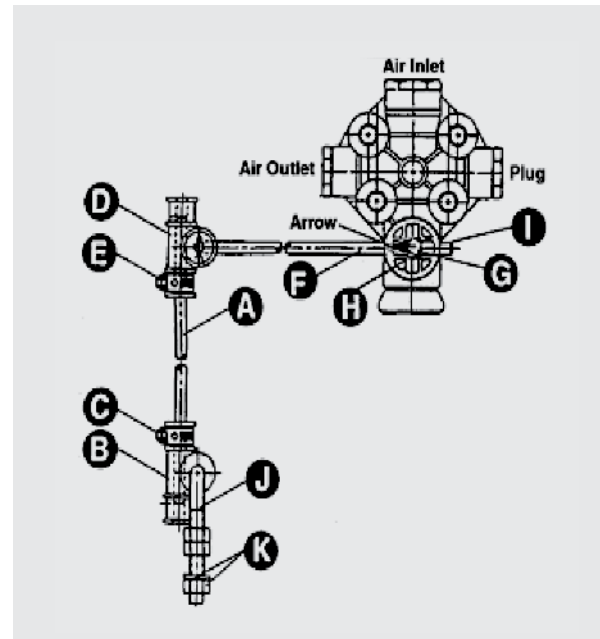
1. Insert the 1/4" straight rod (A) into the rubber dampener link (B) and tighten the clamp (C).
2. Insert the lever arm (F - 1/4" rod with 90 degree bend) into the valve making sure the centre punch on the cam face is pointing toward the vertical linkage.

3. Tighten the cap screw (G) to 5 ft/lbs.
4. Attach the rubber dampener (D) and clamp (E).  
Do not tighten until installation and setup is complete.

**Note:** To select the right or left hand position, hold the valve and rotate lever (F) to the desired position.

The Pegasus air ride suspensions uses variable length lever arms.

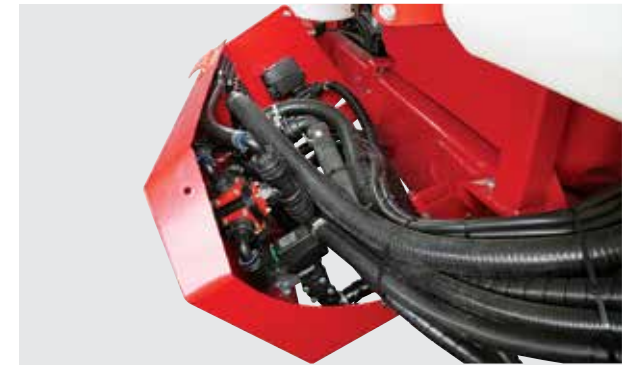
Tuning the valve to your suspension is done by increasing or decreasing to obtain optimum performance when the lever arm approaches 45 degree maximum up or down from a neutral horizontal position (refer page 4.11).



Ride Level Valve Assembly illustration

### Main Control Panel Valve Maintenance

When maintenance of valves and plumbing behind the Main Control Panel is required, the Control Panel can be dropped down to give easy access.



The Main Control Panel drops down for easy access to the valves and plumbing components

To drop the front of the Main Control Panel down, remove the two holding bolts in the top corner of the panel, then, drop the panel down.

Lift and refit the panel & bolts when maintenance is completed.

# SECTION 8

## TROUBLESHOOTING

### GENERAL SPRAYER PROBLEMS

PROBLEM	PROBABLE CAUSE	REMEDY
<b>1 No spray when turned on</b>	1 Faulty pump	1 Change pump
<b>2 Sprays for short time only</b>	1 Air inlet to tank blocked	1 Clean air vent
	2 Filter on suction side of pump blocking or blocked	2 Dismantle, clean & re-assemble the filter. If filter problem persists, clean out the tank & start again
<b>3 Spray is uneven around the boom</b>	1 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
<b>4 Pressure going up - output going down</b>	1 Nozzle filters blocking	1 Dismantle, clean & refit. Check pressure returns to normal. Check all filters and spray mixture
<b>5 Pressure falling</b>	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
	5 Low PAV pressure	5 Check air pressure regulator operation
	6 Damaged PAV diaphragm	6 Replace diaphragm
<b>6 Spray pattern narrow</b>	1 Pressure too low	1 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
<b>7 Foam in the tank</b>	1 Too much agitation	1 Check that the return line is at the bottom of the tank. Partly close agitation and valve
<b>8 Spray pattern streaky</b>	1 Nozzle partly blocked	1 Remove & clean. If it continues, the nozzle is damaged. Replace with same size tip, check flow rate of replacement nozzle

# SECTION 8

## TROUBLESHOOTING

### CENTRIFUGAL PUMP PROBLEMS

PROBLEM	PROBABLE CAUSE	REMEDY
<b>A Hydraulic system overheating</b>	1 Improper hydraulic motor size.	1 Refer to pump selection guide to determine proper size for your system.
	2 Bypass adjustment screw set to bypass too much oil.	2 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 1/2". For large open-centre systems 3/4".
<b>B Blown seal in hydraulic motor</b>	1 Most common cause is failure to correctly connect pressure return line before operating.	1 Always double check return line hose connection.
<b>C Pump overheating/damage to seals</b>	1 Running the pump dry or excessive cavitation.	1 Never run dry/match pump speed to flow.
<b>D Pump does not prime</b>	1 Leak in suction line.	1 Check hose and fittings for leaks and correct.
	2 Obstruction in suction line.	2 Inspect hose for obstructions and remove.
	3 Suction hose stuck to tank.	3 Cut a notch or "V" in end of suction hose.
	4 Clogged strainer.	4 Check strainer and clean regularly.
<b>E Low discharge</b>	1 Pump rotates incorrectly.	1 Correct rotation of pump.
	2 Blocked suction hose.	2 Inspect suction hose and repair as necessary.
	3 Pump worn.	3 Repair pump.

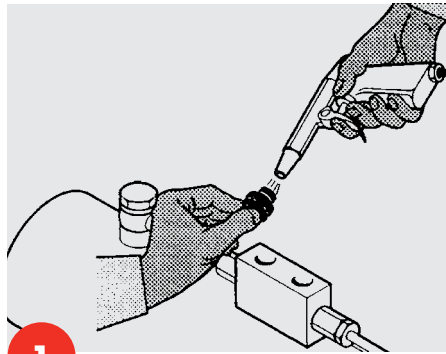
### AIRBAG SUSPENSION PROBLEMS

PROBLEM	PROBABLE CAUSE	REMEDY
<b>A Air compressor runs constantly</b>	1 Air leakage in the system	1 Find the air leak. Test by using full air pressure and applying soapy water. Fix any air leaks. Use Loctite 569 on all air threads.
<b>B Airbags lose pressure (when left standing for less than a week)</b>	1 Air leakage in the system	1 Find the air leak by using soapy water to test. Fix any air leaks
	2 Uneven valve settings	2 Adjust the valve settings (see page 41)
	3 Leaky/dirty valve	3 Drain air chamber. Clean/replace the valve
<b>C Airbags not responsive</b>	1 Worn linkage grommets	1 Replace worn grommets
	2 Hard, non-pliable grommets	2 Replace new pliable grommets
	3 Grommets loose on rods	3 Tighten loose grommets

# SECTION 8

## TROUBLESHOOTING

### BOOM PROBLEMS



1

**Problem:**

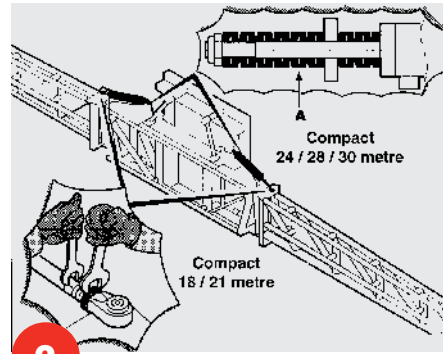
The boom unfolds halfway and then stops.

**Probable Cause:**

Impurity in calibrated joint during assembly of cylinders.

**Remedy:**

Disassemble joints and clean, shown in figure 1.



2

**Problem:**

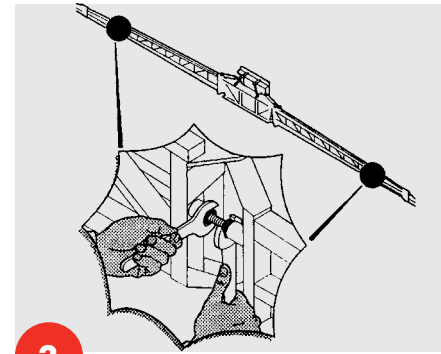
The boom does not align when unfolding.

**Probable Cause:**

1. Ball joint of the unfolding cylinder not adjusted.
2. Shock absorber springs (A) not adjusted or damaged.

**Remedy:**

1. Adjust the joint according to the "Wing Alignment" instructions on page 3.12 to 3.16.



3

**Problem:**

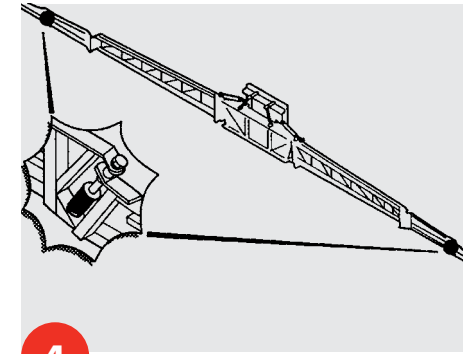
The wing extensions do not align when folding.

**Probable Cause:**

Stop bolt not adjusted.

**Remedy:**

Adjust the screw to obtain alignment, as shown in figure 3.



4

**Problem:**

The ball joint of the wing extension moves during the unfolding and folding operation.

**Probable Cause:**

Loose joint.

**Remedy:**

Compress the spring, as shown in figure 4.

# SECTION 8

## TROUBLESHOOTING

### CENTRIFUGAL PUMP PROBLEMS

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

# SECTION 8

## TROUBLESHOOTING

### OTHER PROBLEMS

PROBLEM	PROBABLE CAUSE	REMEDY
<b>Hydraulic system overheating</b>	1 Improper hydraulic motor size.	1 Refer to pump selection guide to determine proper size for your system.
	2 Bypass adjustment screw set to bypass too much oil.	2 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".
<b>Chemical hopper operation is too slow</b>	1 Insufficient flow through venturi.	1 Increase oil flow to Centrifugal pump (increase tractor rpm),
		OR
		2 Check pump bypass screw - close if necessary.
<b>Self-fill function is too slow</b>	1 Insufficient pump speed.	1 As above.

# **SECTION 9**

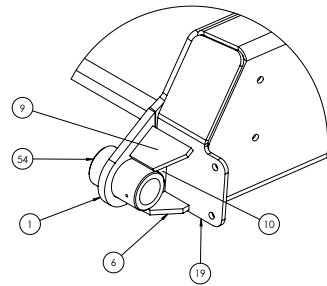
## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

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<b>SUB-ASSEMBLIES</b>	<b>82</b>
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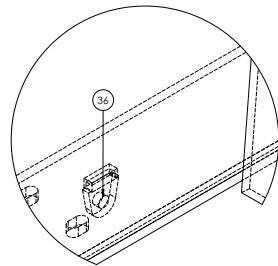
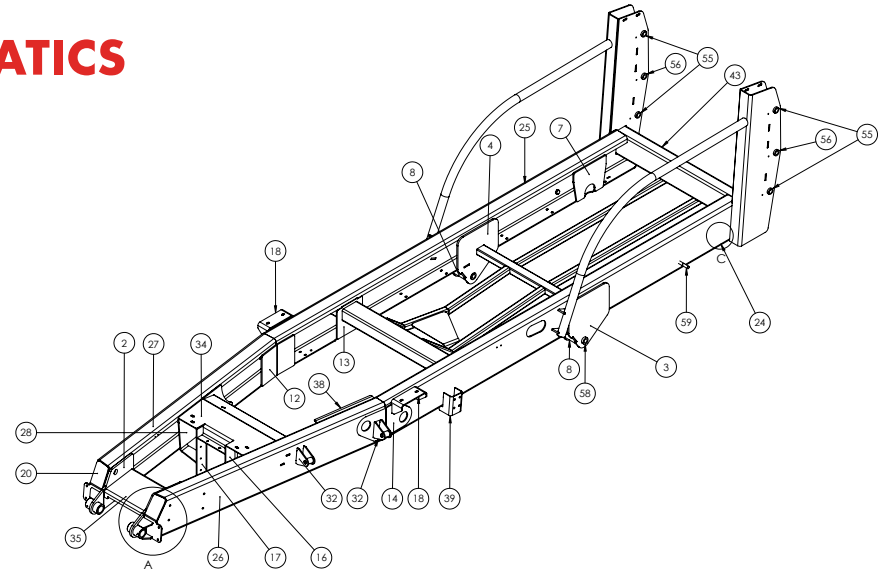
# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

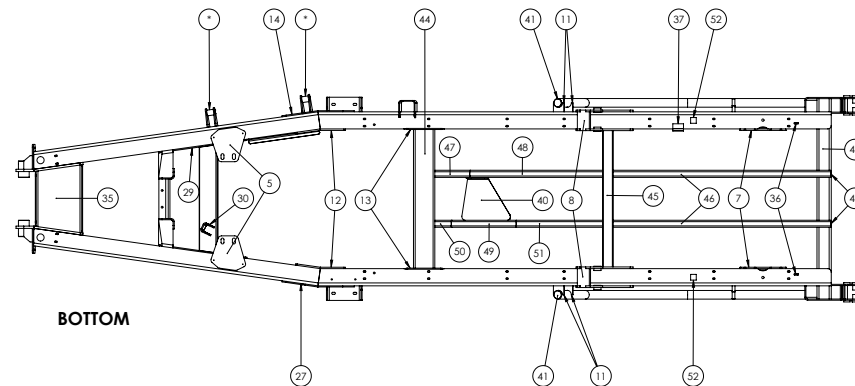
CHASSIS - 7000 LITRE



DETAIL A  
SCALE 1 : 5



DETAIL C  
SCALE 1 : 2



BOTTOM



# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### CHASSIS - 7000 LITRE

ITEM NO.	DESCRIPTION	PLATE THICKNESS	LENGTH	SIZE	QTY.
1	DRAWBAR PLATE L.H.	16			1
2	DRAWBAR PLATE R.H.	16			1
3	OUTSIDE AXLE PLATE	12			2
4	INSIDE AXLE PLATE	12			2
5	DRAWBAR AIRBAG SUPPORT MOUNT	12			2
6	DRAWBAR BUSH GUSSET BOTTOM	10			2
7	SUSPENSION AIRBAG CLEAT	10			2
8	SUSPENSION GUSSET	10			2
9	DRAWBAR BUSH GUSSET TOP	10			2
10	DRAWBAR BUSH GUSSET MIDDLE	10			2
11	SIDE RAIL MOUNTING TAB	10			4
12	CHASSIS BEND GUSSET	10			2
13	FRONT TANK SUPPORT CLEAT	8			2
14	FISH PLATE L.H.	8			1
15	FISH PLATE R.H.	8			1
16	DRAWBAR SLIDE L.H.	8			1
17	DRAWBAR SLIDE R.H.	8			1
18	H-FRAME MOUNT	8			2
19	CHASSIS RAIL END CAP L.H.	8			1
20	CHASSIS RAIL END CAP R.H.	8			1
21	INNER BACK WING	8			2
22	BACK WING OUTER L.H.	8			1
23	OUTER BACK WING R.H.	8			1
24	MAIN CHASSIS RAIL L.H.	8			1
25	MAIN CHASSIS RAIL R.H.	8			1
26	FRONT CHASSIS RAIL L.H.	8			1
27	FRONT CHASSIS RAIL R.H.	8			1
28	DRAWBAR CLEAT R.H.	8			1
29	DRAWBAR CLEAT L.H.	8			1
30	DRAWBAR SHOCK MOUNT	8			1
31	PARALLELOGRAM BRACE	8			2
32	PANEL MOUNT TAB	8			4
33	PARALLELOGRAM BRACE 2	8			2
34	FLUSH TANK SUPPORT PLATE	6			1
35	PUMP PLATE	6			1
36	DROOP LIMITER MOUNT	6			2
37	AIR RIDE VALVE MOUNT	6			1
38	HOT TANK SUPPORT	6			1
39	60L CHEM HOPPER BRACKET	6			1
40	MAIN TANK SUPPORT	3			1
41	SIDE RAIL END CAP	3			2
42	MAIN TANK SUPPORT END CAP	3			2
43	REAR CROSS MEMBER		1406	200x100x6 RHS	1
44	MAIN TANK FRONT CROSSMEMBER		1204	150x100x5 RHS	1
45	MAIN TANK MID SUPPORT		1204	75x50x3 RHS	1
46	MAIN TANK SUPPORT 1		1526	50x50x4 SHS	2
47	MAIN TANK SUPPORT 2		361.49	50x50x4 SHS	1
48	MAIN TANK SUPPORT 3		939.15	50x50x4 SHS	1
49	MAIN TANK SUPPORT 4		462.22	50x50x4 SHS	1
50	MAIN TANK SUPPORT 5		192.31	50x50x4 SHS	1
51	MAIN TANK SUPPORT 6		612.32	50x50x4 SHS	1
52	BUMP LIMITER		28.2	40x40 SQ	2
53	MAIN TANK SIDE SUPPORT RAIL		2296.97	60.30x3.60 CHS	2
54	DRAWBAR BUSH			DIA. 75 BRIGHT ROUND 1020	2
55	BP-700A-035-008, BUSH 45 X 30.3 X 20			DIA. 45 BRIGHT ROUND S1020	8
56	BP-700A-035-009, BUSH 45 X 25.8 X 40			DIA. 45 BRIGHT ROUND S1020	4
57	PANEL MOUNT BUSH			DIA. 40 BRIGHT ROUND 1020	2
58	SUSPENSION BUSH			DIA. 50 BRIGHT ROUND 1020	4
59	0.75" x 1.25"UNC BOLT				2

# **SECTION 9**

## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

### **SUB-ASSEMBLIES**

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# **SECTION 9**

## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

### **SUB-ASSEMBLIES**

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# **SECTION 9**

## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

### **SUB-ASSEMBLIES**

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# **SECTION 9**

## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

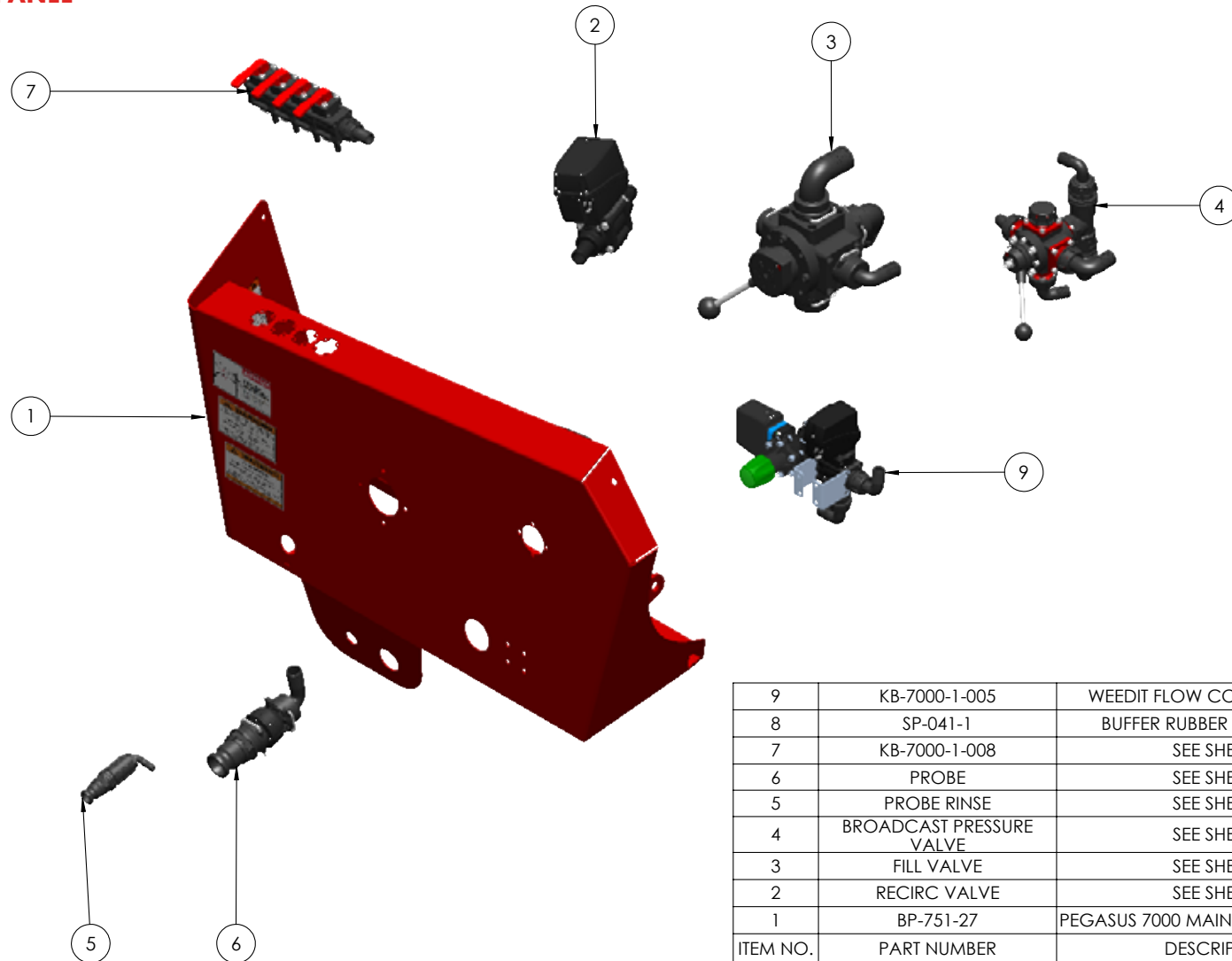
### **SUB-ASSEMBLIES**

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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### MAIN CONTROL PANEL



9	KB-7000-1-005	WEEDIT FLOW CONTROL VALVE	1
8	SP-041-1	BUFFER RUBBER FEMALE M10	1
7	KB-7000-1-008	SEE SHEET 7	1
6	PROBE	SEE SHEET 6	1
5	PROBE RINSE	SEE SHEET 5	1
4	BROADCAST PRESSURE VALVE	SEE SHEET 4	1
3	FILL VALVE	SEE SHEET 3	1
2	RECIRC VALVE	SEE SHEET 2	1
1	BP-751-27	PEGASUS 7000 MAIN CONTROL PANEL	1
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### ROTARY VALVES

#### 2" Rotary Valve

Part No: POL10405899  
Seal Kit (5 pieces)

(Kit includes seals & O-rings, but not the ball, body or fittings).



### NOTE

Drawings are for illustration purposes only.  
Please refer to sprayer for actual plumbing.

### NOTE

This parts list is indicative of this model  
sprayer. For further parts information  
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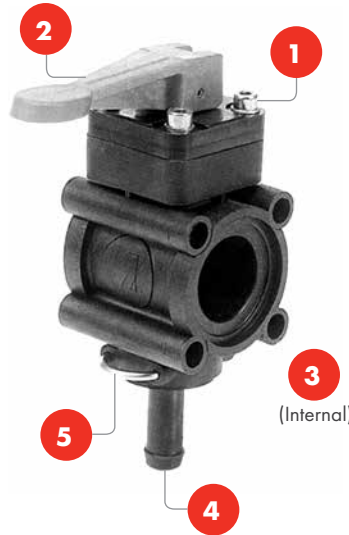
# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### LIQUID SYSTEM

#### Shut-Off Taps - Tank Rinse, Probe Rinse & Agitators

Pos	Part No	Description	Qty
1	A463051	Complete Valve	1
2	A463051.140	Handle	1
3	A463051.550	Regulator Stem Kit	1
4	A463001.A13	Tail	1
5	A010002	Clip	1



#### Drain Valve 2"

Pos	Part No	Description	Qty
1	A454137	Valve Complete	1
2	A454236.050	Tap Handle	1
3	A-EL200	Tail	1



### NOTE

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### NOTE

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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### FILTERS

**Pressure Filters Sprayline**  
(shown on sprayer)



**Bottom-Fill Filter**  
(shown below on sprayer)



**Compressor Air Filter**  
(shown below on sprayer)



### NOTE

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### NOTE

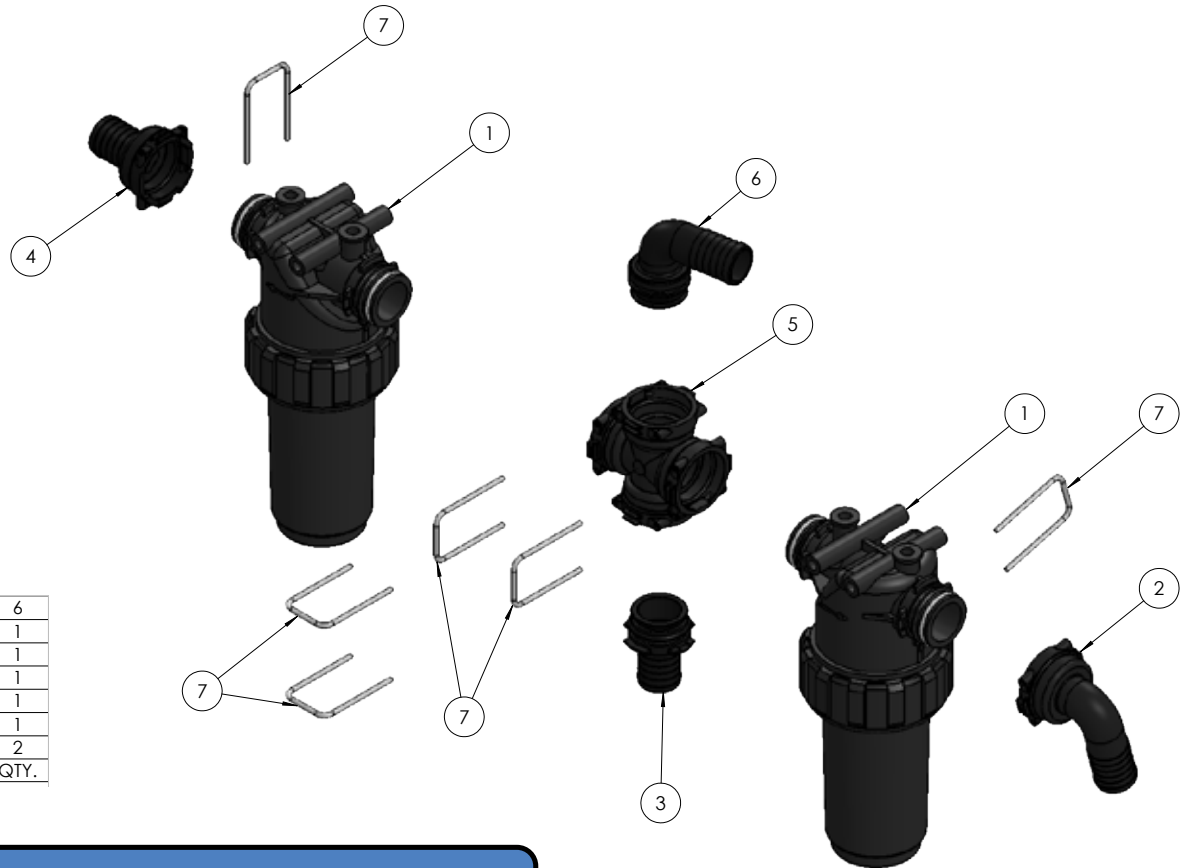
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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### FILTERS

KB-7501-2



7	A010005	INLET FORK	6
6	A1191532	ELBOW T5 32MM	1
5	A159055	T5F CROSS	1
4	A1090532	HOSE TAIL T5F D32	1
3	A1091532	HOSETAIL T5M D.32	1
2	A1190532	ELBOW T5F D.32	1
1	A32620D35	FILTER 80MESH T1	2
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

### NOTE

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### NOTE

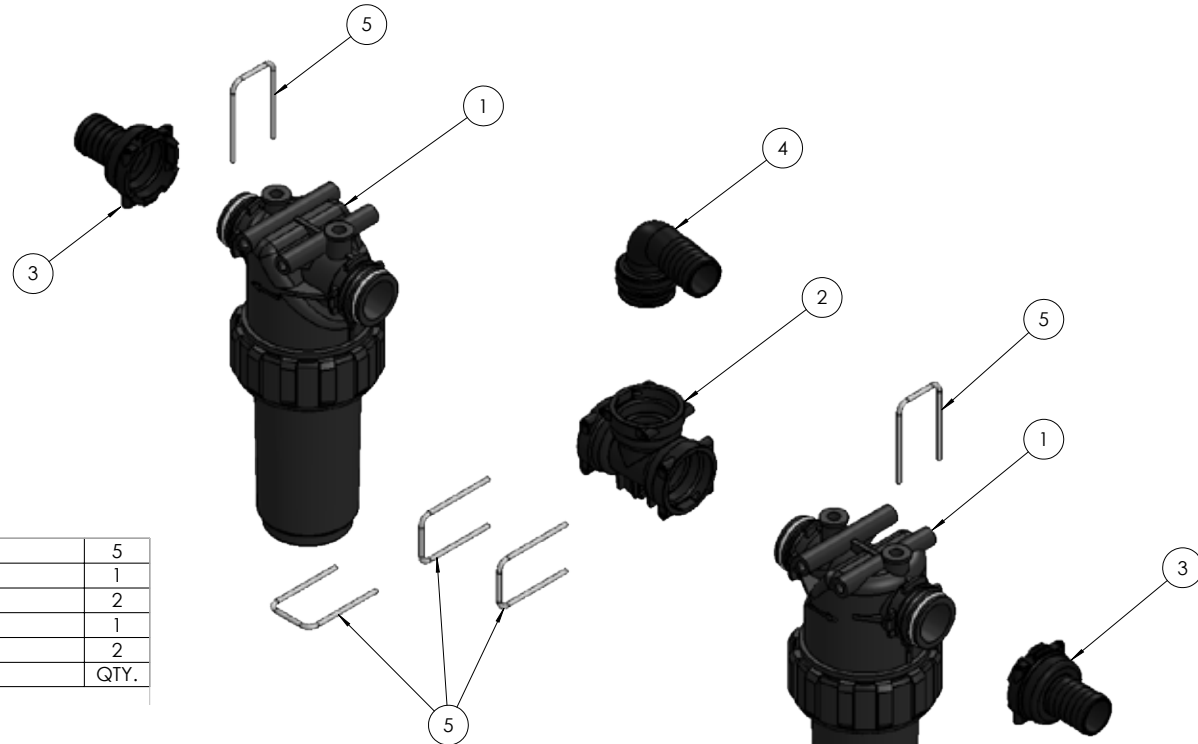
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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### FILTERS

KB-7501-3



5	A010005	INLET FORK	5
4	A1191532	ELBOW T5 32MM	1
3	A1090532	HOSE TAIL T5F D32	2
2	A139055	TEE T5F	1
1	A32620D35	FILTER 80MESH T1	2
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

### NOTE

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### NOTE

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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### LIDS, VENTURIS & TANK RINSE JET

#### Main Tank Lid



Tank Lid

Pos	Part No	Description	Qty
1	A356060	Lid Complete	1
2	A356660.02	Seal Ring	1



#### Flush Tank Lids



Flush Tank Lids

Pos	Part No	Description	Qty
1			1

### NOTE

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### NOTE

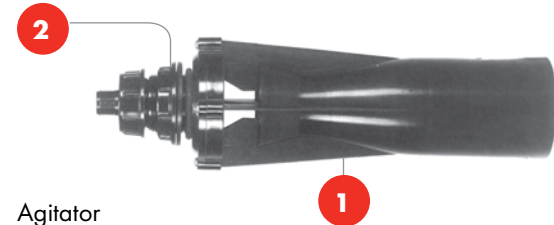
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#### Tank Rinsing Jet & Agitator



Tank Rinse Jet

Pos	Part No	Description	Qty
1	POL63408399	Tank Rinsing Jet	1



Agitator

Pos	Part No	Description	Qty
1	A502163	Agitator Complete	1
2	A200050	Fly nut 1 1/4"	1

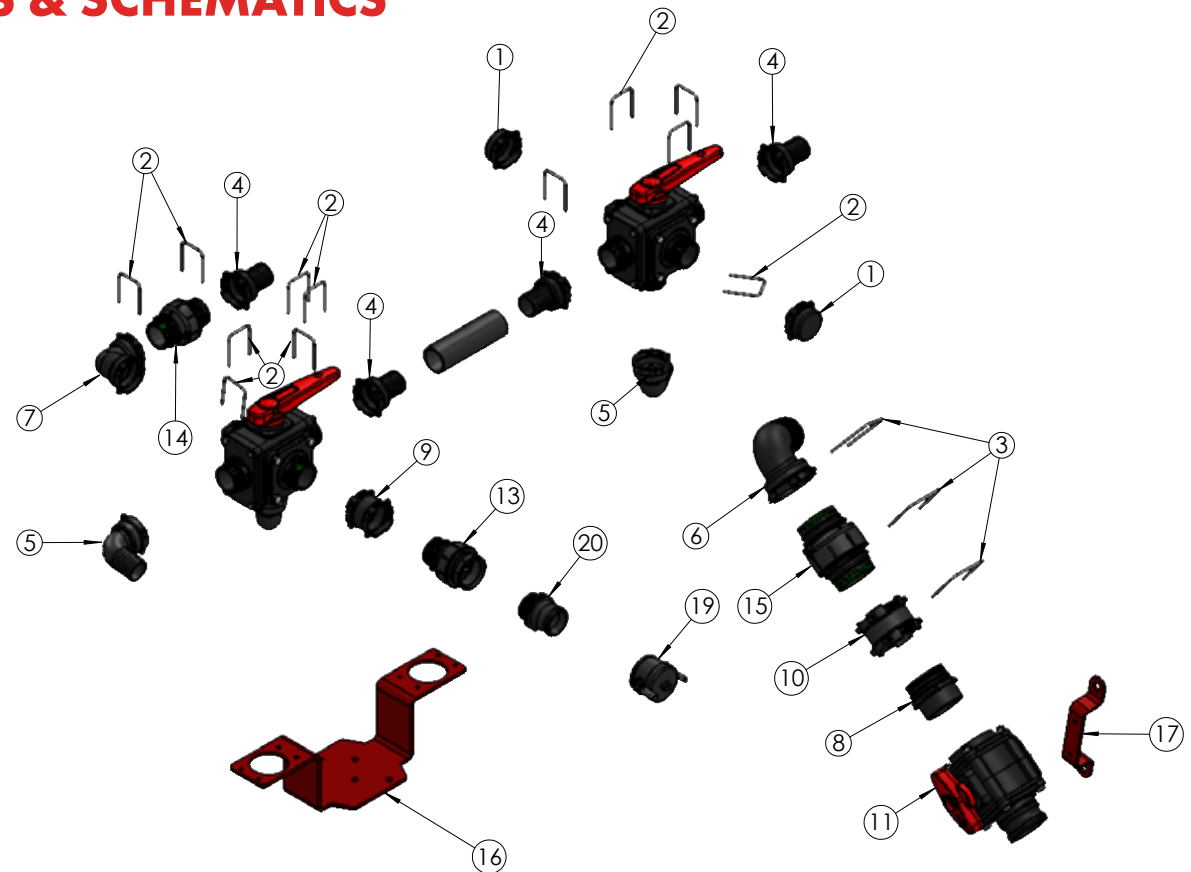
# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### LIDS, VENTURIS & TANK RINSE JET

#### KB-7501-4

23		M8 NYLOC NUT HT ZP	8
22		M8 FLAT WASHER ZP	8
21		M8 X 25 SET SCREW HT ZP	8
20	K-200-F	CAMLOCK 2" MALE THREAD "F" POLY	1
19	K-200-CAP	CAMLOCK 2" CAP "DC" POLY GLASS	1
18	HEP50		1
17	BP-751-31	3 INCH FILL VALVE BRACKET PEG 7K	1
16	BP-751-18	7000 PEGASUS TANK VALVE MOUNT	1
15	A504201H	FOOT VALVE T9F-T9F	1
14	A504201F	FOOT VALVE T7-T7	1
13	A5042007F	FOOT VALVE T7F-T7M	1
12	A453457S77	A453457S77	2
11	A453407D99T	BALL VALVE 3" 2 WAY T HANDLE	1
10	A259099	THREADED SOCKET T9F	1
9	A259077	A259077	1
8	A249199	HOSETAIL T9M 3" M	1
7	A129077	ELBOW F-F T7	1
6	A1190975	ELBOW T9F D.75	1
5	A1190750	HOSETAIL T7F D.50	3
4	A1090750	HOSETAIL T7F D.50	4
3	A010009	FORK D.5 INTERN.59	3
2	A010007	FORK D.5 INTERN.59	13
1	A219-070	BLANK CAP T7F	2
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.



## NOTE

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## NOTE

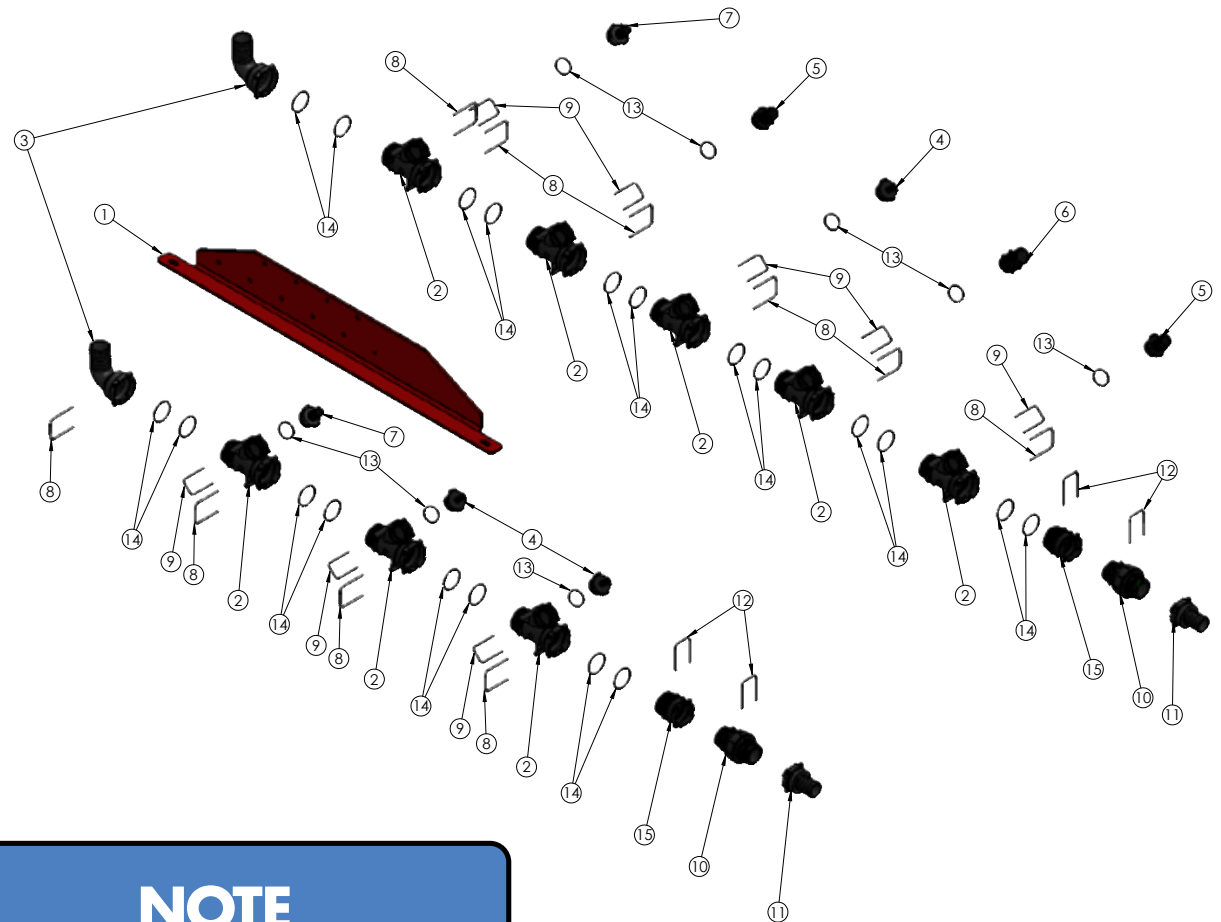
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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### LIDS, VENTURIS & TANK RINSE JET

KB-7501-5



15	A259267	REDUCTION T6F - T7M	2
14	AG11017	O RING	20
13	AG11063	O RING EPDM	9
12	A010006	FORK 453 SERIES	4
11	A1090640	HOSETAIL T6F D.40	2
10	A504201E	FOOT VALVE T6 -T6	2
9	A010005	INLET FORK	8
8	A010007	FORK D.5 INTERN.59	10
7	A1091525	HOSETAIL T5M D.25	2
6	A1091540	HOSE BARB T5M TO 1 1/2	1
5	A1091532	HOSETAIL T5M D.32	2
4	A1091513	HOSETAIL T5M D.13	3
3	A1190750	HOSETAIL T7F D.50	2
2	A179275	MANIFOLD 3 WAY T7	8
1	BP-750-21	MANIFOLD BRACKET 7000	1
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.

## NOTE

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## NOTE

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# **SECTION 9**

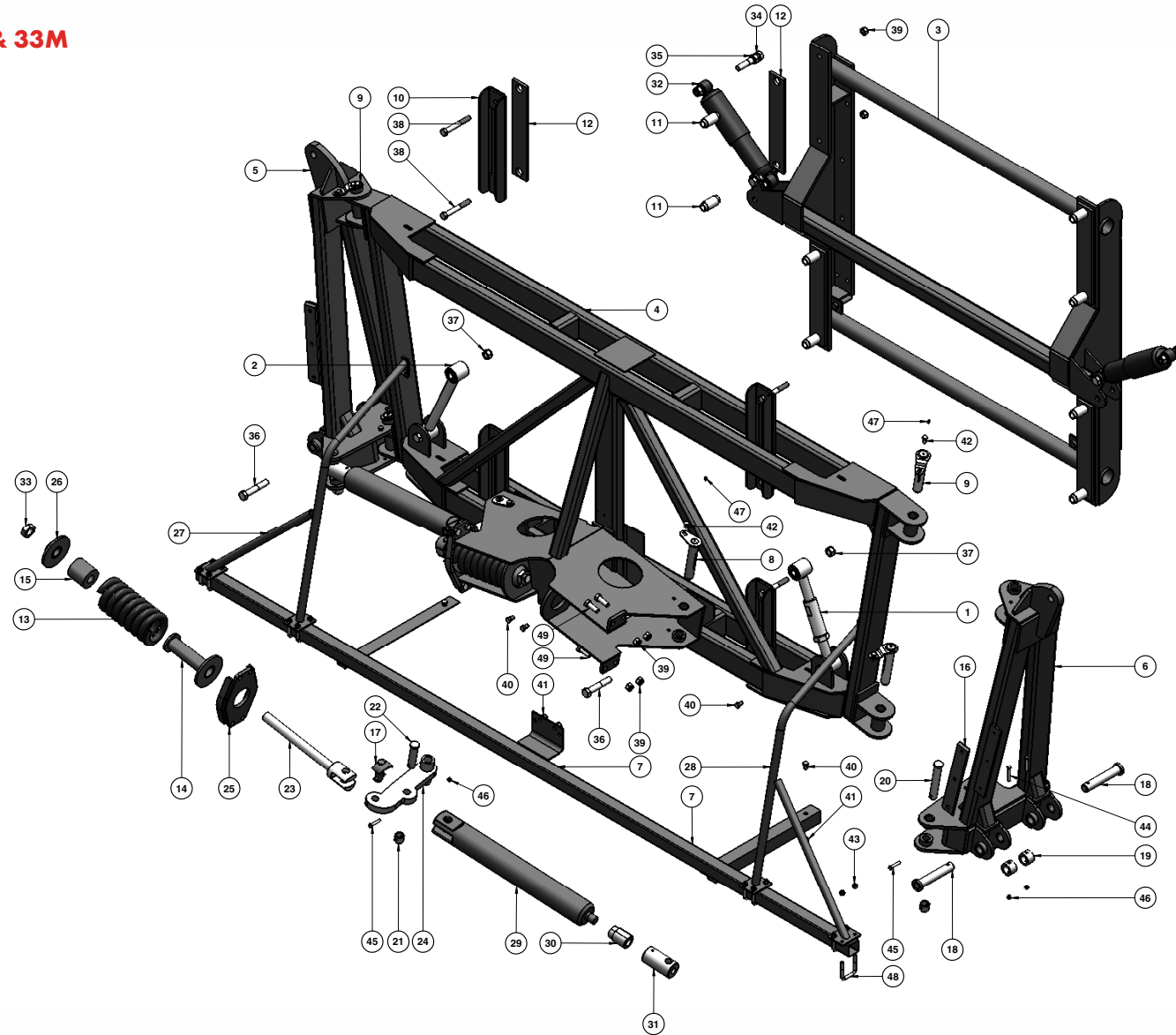
## **ASSEMBLY DRAWINGS, PARTS & SCHEMATICS**

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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### BOOM ASSEMBLIES - 36 & 33M





# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### BOOM ASSEMBLIES - 36 & 33M

Pos	Part No	Description	Qty
1	AB191-100	SELF LEVELLER ADJUSTER	1
2	AB191-101	SELF LEVELLER FIXED ARM	1
3	AB19101	CENTRE SECTION HANGER	1
4	AB19102A	CENTRE SECTION MAIN FRAME	1
5	AB19103BL	INNER FOLD PIVOT L.H.	1
6	AB19103BR	INNER FOLD PIVOT R.H.	1
7	AB19108	CENTRE SPRAY BAR SUPPORT	1
8	AB19120A	PIN Z BAR PIVOT	2
9	AB19120	INNER FOLD PIVOT PIN	4
10	AB19121	WEAR PAD SUPPORT	4
11	AB19122	WEAR PAD SPACER	8
12	AB19123	WEAR PAD SELF LEVELLER	8
13	AB19127	SPRING YAW CENTRE FRAME	2
14	AB19131A	SPRING BUFFER HOLDER	2
15	AB19131A-1	BUFFER POLY URETHANE	2
16	AB19143	BOOM FOLD STOP PAD	2
17	AB19156C	CYLINDER CLEVIS BOOM PIN VER 2	2
18	AB19183-130	PIN FIRST ARM 164 X 30	4
19	AB19183-2	COLLAR DIA 30MM	4
20	AB19184-125	PIN FOLD CYLINDER 155 X 25.4	2
21	AB19184-2	COLLAR DIA 25.4MM	4
22	AB19184-70	PIN FOLD CYLINDER 100 X 25.4	2
23	AB19191B	PIN YAW SPRING CLEVIS END	2
24	AB19192F	INNER FOLD Z BAR	2
25	AB19193	YAW SPRING CLAMP	2
26	AB19194A	SPRING BUFFER HOLDER	2
27	AB19195L	BOOM PROTECTION L.H.	1
28	AB19195R	BOOM PROTECTION R.H.	1

Pos	Part No	Description	Qty
29	AB19199	CYLINDER INNER FOLD 3" X 16" EZFIT	2
30	AB19199-M	ROD END MALE INNER FOLD CYLINDER	2
31	AB19199-F	ROD END FEMALE INNER FOLD CYLINDER	2
32	BP-607	SHOCK ABSORBER AIR RIDE P126	2
33	1.25NNUTUNF	1 1/4" UNF LOCK NUT	2
34	0.75X100UNCBOLT	3/4" X 4" UNC BOLT HT ZP	4
35	0.75UNCNNUT	3/4" UNC NYLOC NUT HT ZP	6
36	M20X110BOLT	M20 X 110 HEX HEAD BOLT HT ZP	4
37	M20NNUT	M20 NYLOC NUT HT ZP	4
38	M16X120BOLT	M16 X 120 HEX HEAD BOLT HT ZP	8
39	M16NNUT	M16 NYLOC NUT HT ZP 1	6
40	M12X20	M12 X 20 HEX HEAD SET SCREW HT ZP	6
41	M12NNUT	M12 NYLOC NUT HT ZP	4
42	M10X20	M10 X 20 SET SCREW HT ZP	6
43	M10NNUT	M10 NYLOC NUT HT ZP 1	6
44	M8X55BOLT	M8 X 55 HEX HEAD BOLT HT ZP	4
45	M8X45BOLT	M8 X 45 HEX HEAD BOLT HT ZP	4
46	M8NNUT	M8 NYLOC NUT HT ZP	8
47	M6GNIPPLE	M6 GREASE NIPPLE	6
48	XBMBB50	U-BOLT 50MM X 10	8
49	M16X45	M16 X 45 HEX HEAD SET SCREW HT ZP	8

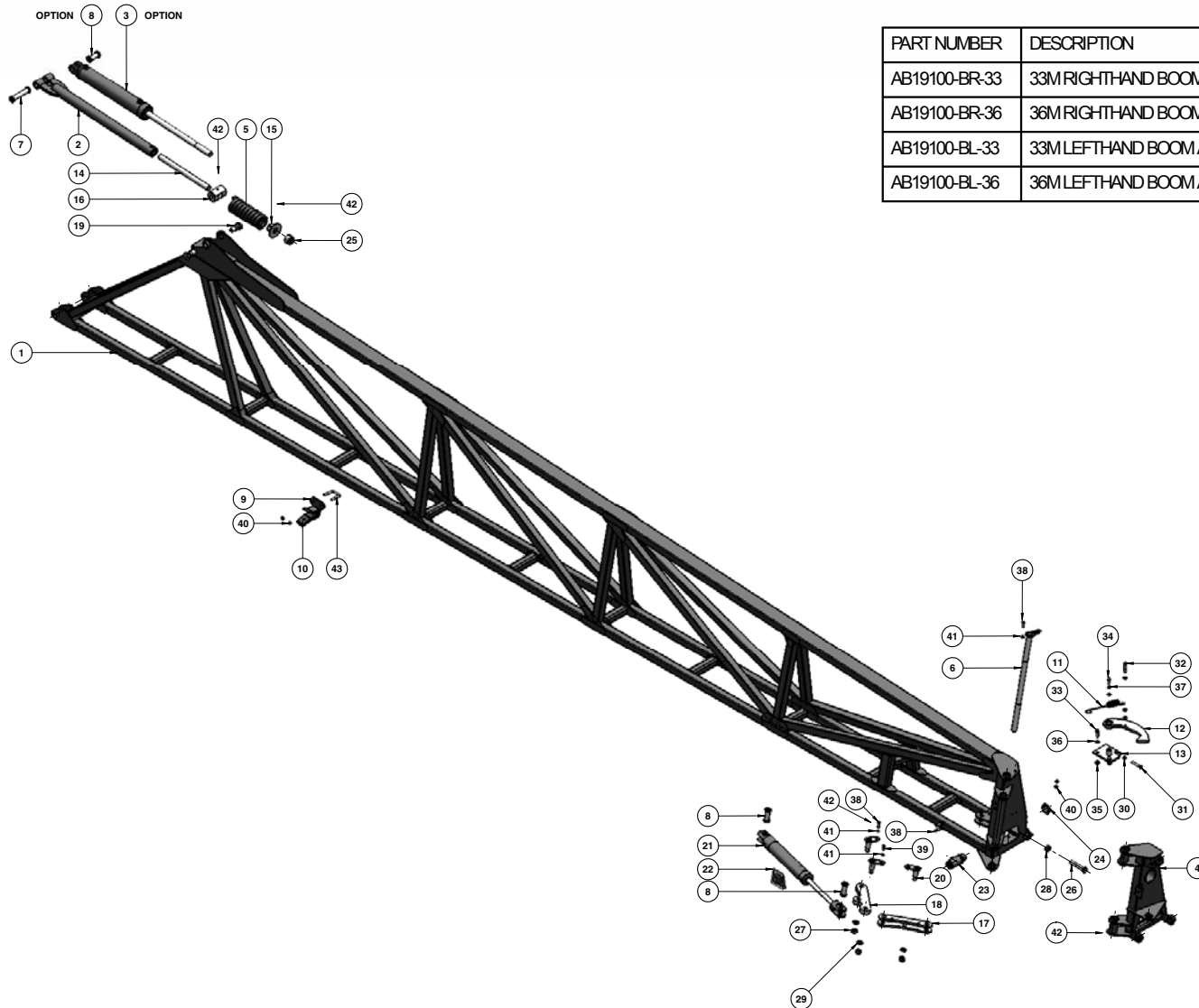
**NOTE**

Parts in italics are non-stock items and may need to be ordered.

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### INNER ARM ASSEMBLIES



PART NUMBER	DESCRIPTION
AB19100-BR-33	33M RIGHTHAND BOOM ARM COMPLETE
AB19100-BR-36	36M RIGHTHAND BOOM ARM COMPLETE
AB19100-BL-33	33M LEFTHAND BOOM ARM COMPLETE
AB19100-BL-36	36M LEFTHAND BOOM ARM COMPLETE

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### INNER ARM ASSEMBLIES

Pos	Part No	Description	Qty
1	AB19107R	FIRST ARM R.H. 33/36M	1
	AB19107L	FIRST ARM L.H. 33/36M	1
2	AB19100-A-2	FIXED WINGTIP ADJUSTMENT	1
3	AB19100-A-3	HYDRAULIC WINGTIP ADJUSTMENT	1
4	AB19113CR	FOLD PIVOT OUTER R.H.	1
	AB19113CL	FOLD PIVOT OUTER L.H.	1
5	AB19135	PIN 36M 1ST ARM TO 2ND	1
6	AB19150-130	PIN 130 X 30	1
7	AB19150-65	PIN 65 X 25.4	3
8	AB19157A	BRACKET OUTER BOOM	1
9	AB19157Apad	PAD OUTER BOOM SUPPORT	1
10	AB19159	SPRING LOCK ARM	1
11	AB19160R	ARM HINGE LOCK R.H.	1
	AB19160L	ARM HINGE LOCK L.H.	1
12	AB19161R	PLATE HINGE LOCK RH	1
	AB19161L	PLATE HINGE LOCK L.H.	1
13	AB19163	ROD G-FIX	1
14	AB19164	SPRING RETAINER PLATE	1
15	AB19165	PIVOT BLOCK	1
16	AB19178	ARM FOLD PIVOT OUTER	1
17	AB19179	LINK PLATE OUTER FOLD RAM	1
18	AB19180	PIN PIVOT BLOCK	2
19	AB19181	PIN OUTER FOLD SCISSOR JOINT	3
20	AB19197	CYLINDER OUTER FOLD 3.5 X 12	1
21	AB19197-SK	SEAL KIT HP-016 CYLINDER	1
22	AB20800	CYLINDER FOLD LOCK 35 X 38.1	1
23	AB20800-1	LOCK NUT 1 1/4" BSP	1
24	1.25UNFNUT	1 1/4" UNF NYLOC NUT	1

Pos	Part No	Description	Qty
25	M20X100BOLT	M20 X 100 HEX HEAD BOLT HT ZP	1
26	M20NNUT	M20 NYLOC NUT HT ZP	3
27	M20HNUIT	M20 HALF NUT ZP	1
28	M20FWASHER	M20 FLAT WASHER ZP	3
29	M12HNUIT	M12 HEX NUT HT ZP	2
30	M12X70	M12 X 70 SET SCREW HT ZP	1
31	M12X60BOLT	M12 X 60 BOLT HT ZP	1
32	M12X40	M12 X 40 SET SCREW HT ZP	3
33	M12X25	M12 X 25 SET SCREW HT ZP	1
34	M12NNUT	M12 NYLOC NUT HT ZP	3
35	M12FWASHER	M12 FLAT WASHER ZP	12
36	M12SWASHER	M12 SPRING WASHER ZP	1
37	M10X30	M10 X 30 SET SCREW HT ZP	4
38	M10X20	M10 X 20 SET SCREW HT ZP	2
39	M10NNUT	M10 NYLOC NUT HT ZP	6
40	M10FWASHER	M10 FLAT WASHER ZP	8
41	M6GNIPPLE	M6 GREASE NIPPLE	11
42	XBMBB50	U-BOLT 50MM X 10	1

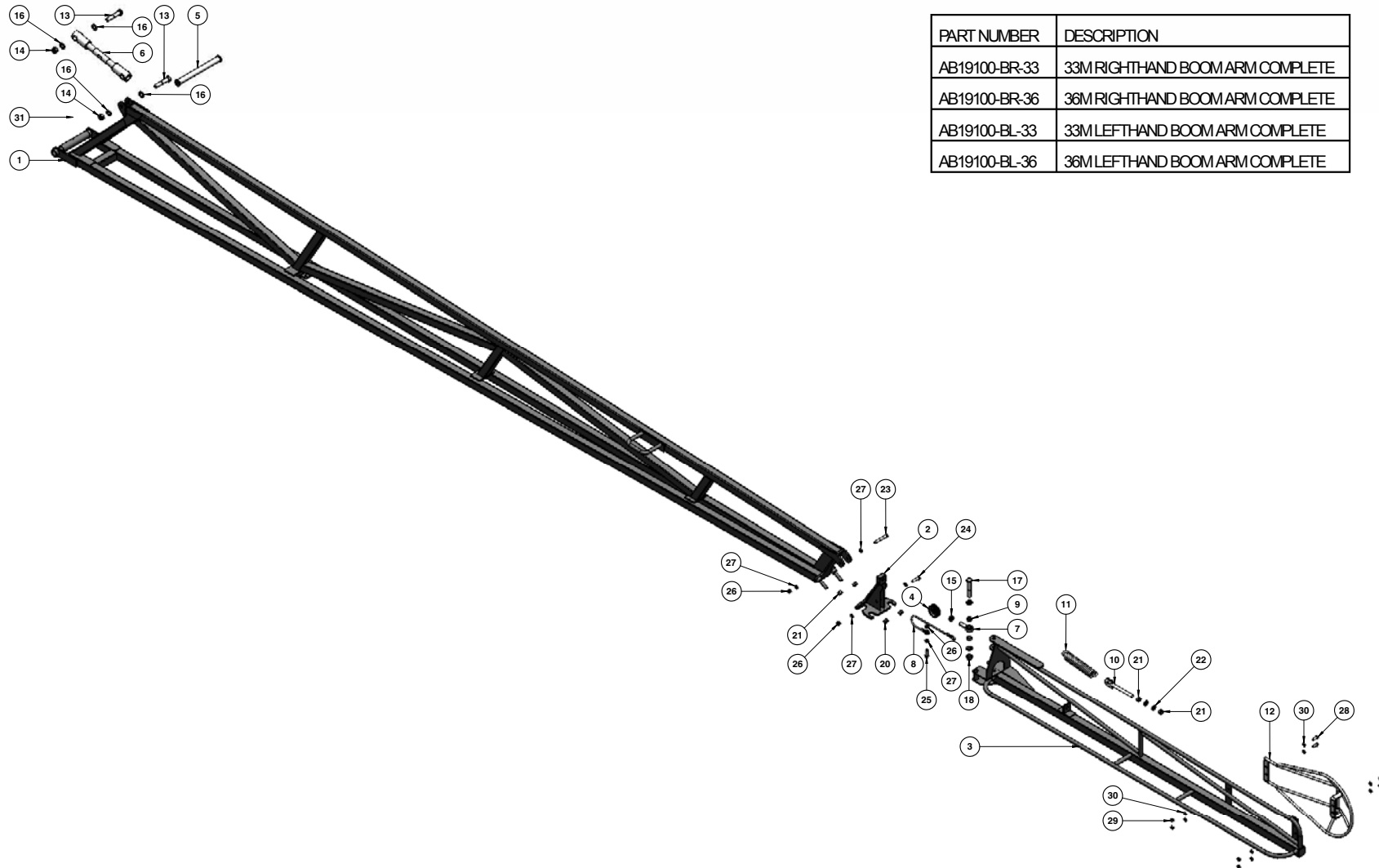
**NOTE**

Parts in *italics* are non-stock items and may need to be ordered.

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### OUTER ARM ASSEMBLIES



PART NUMBER	DESCRIPTION
AB19100-BR-33	33M RIGHTHAND BOOM ARM COMPLETE
AB19100-BR-36	36M RIGHTHAND BOOM ARM COMPLETE
AB19100-BL-33	33M LEFTHAND BOOM ARM COMPLETE
AB19100-BL-36	36M LEFTHAND BOOM ARM COMPLETE

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### OUTER ARM ASSEMBLIES

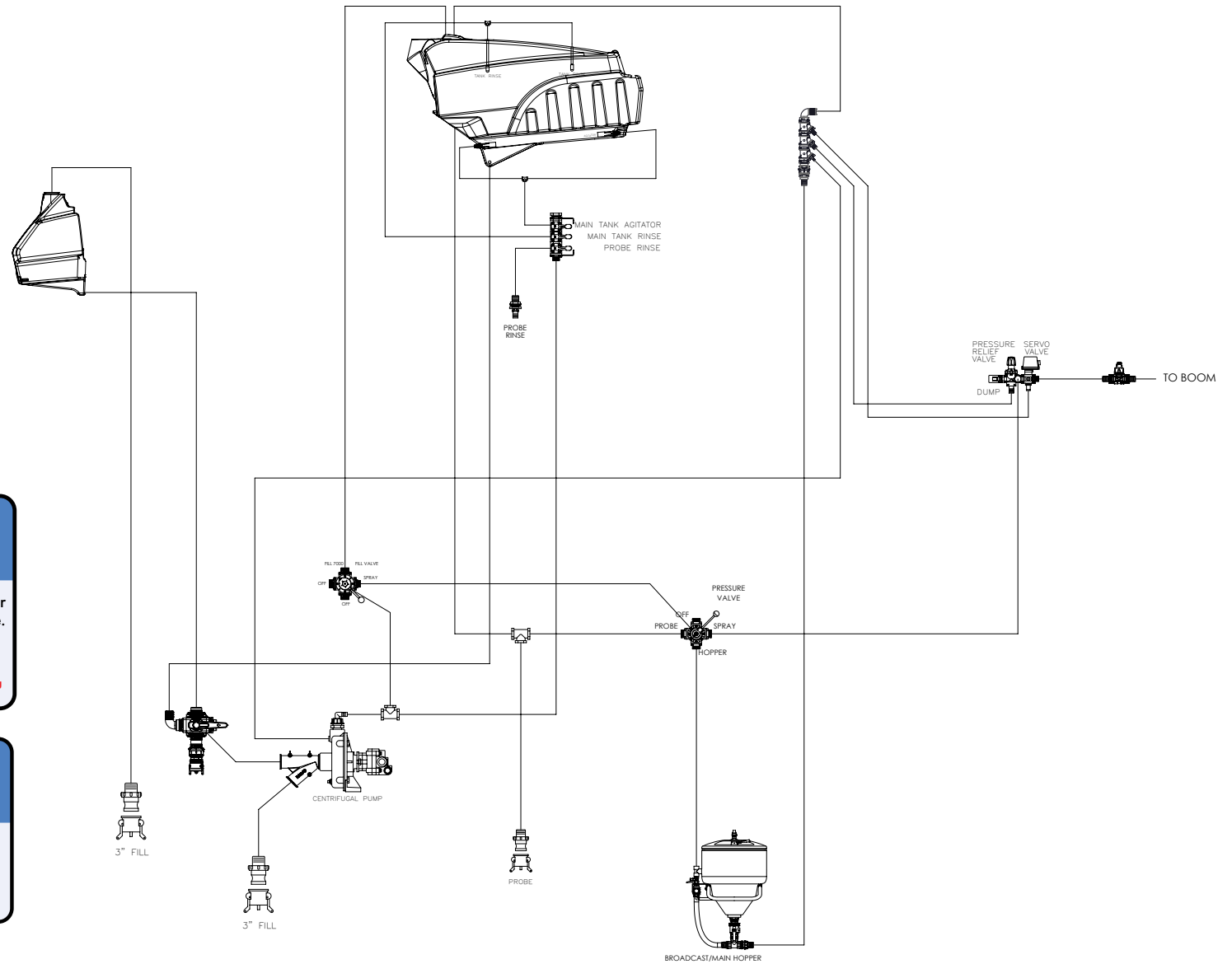
Pos	Part No	Description	Qty
1	AB19109AL	BOOM ARM OUTER LH 36M	1
	AB19109AR	BOOM ARM OUTER RH 36M	1
	AB19110L	BOOM ARM OUTER LH 33M	1
	AB19110R	BOOM ARM OUTER LH 33M	1
2	AB19111A	BREAK-AWAY HITCH	1
3	AB19106AL	BREAK-AWAY TIP	1
4	AB19126-5	PULLEY	1
5	AB19152-330A	PIN OUTER BOOM SUPPORT	1
6	AB21200A	TOP LINK ADJUSTMENT	1
	AB21200A-1	BUSH	2
7	AB19126-4	MALE ROD END	1
8	AB19126-6	CABLE, PULLEY	1
9	AB19126-7	SPACER BUSH	2
10	MP-413	ADJUSTABLE SPRING HITCH	1
11	MP-519	SPRING	1
12	MP-598A	PROTECTION BRACKET FENCELINE V2	1
13	0.75X100UNCBOLT	3/4" X 4" UNC BOLT HT ZP	2
14	0.75UNCNNUT	3/4" UNC NYLOC NUT HT ZP	2
15	0.75UNFHNNUT	3/4" UNF HEX HALF NUT	1
16	0.75FWASHER	3/4" FLAT WASHER ZP	4
17	M20X100BOLT	M20 X 100 HEX HEAD BOLT HT ZP	1
18	M20NNUT	M20 NYLOC NUT HT ZP	1
19	M20FWASHER	M20 FLAT WASHER ZP	2
20	M16NNUT	M16 NYLOC NUT HT ZP	2
21	M16HNNUT	M16 HEX NUT HT ZP	4
22	M16FWASHER	M16 FLAT WASHER ZP	2
23	M12X90	M12 X 90 BOLT HT ZP	1
24	M12X50	M12 X 50 SET SCREW HT ZP	1
25	M12X40	M12 X 40 HEX HEAD SET SCREW HT ZP	1
26	M12NNUT	M12 NYLOC NUT HT ZP	3
27	M12FWASHER	M12 FLAT WASHER ZP	7
28	M10X30	M10 X 30 SET SCREW HT ZP	4
29	M10NNUT	M10 NYLOC NUT HT ZP	4

Pos	Part No	Description	Qty
30	M10FWASHER	M10 FLAT WASHER ZP	8
31	M6GNIPPLE	M6 GREASE NIPPLE	1
<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; margin: 0;">NOTE</p> <p style="text-align: center; margin: 0;">Parts in <i>italics</i> are non-stock items and may need to be ordered.</p> </div>			
<b>AB19106A-(L or R)-KIT - Complete Breakaway Assembly</b>			
2	AB19111A	BREAK-AWAY HITCH	1
3	AB19106AL	BREAK-AWAY TIP	1
4	AB19126-5	PULLEY	1
7	AB19126-4	MALE ROD END	1
8	AB19126-6	AB19126-6 CABLE, PULLEY	1
9	AB19126-7	SPACER BUSH	2
10	MP-413	ADJUSTABLE SPRING HITCH	1
11	MP-519	SPRING	1
15	0.75UNFHNNUT	3/4" UNF HEX HALF NUT	1
17	M20X100BOLT	M20 X 100 HEX HEAD BOLT HT ZP	1
18	M20NNUT	M20 NYLOC NUT HT ZP	1
20	M16NNUT	M16 NYLOC NUT HT ZP	2
21	M16HNNUT	M16 HEX NUT HT ZP	4
22	M16FWASHER	M16 FLAT WASHER ZP	2
24	M12X50	M12 X 50 SET SCREW HT ZP	1
25	M12X40	M12 X 40 HEX HEAD SET SCREW HT ZP	1
26	M12NNUT	M12 NYLOC NUT HT ZP	3
27	M12FWASHER	M12 FLAT WASHER ZP	7
28	M10X30	M10 X 30 SET SCREW HT ZP	4
29	M10NNUT	M10 NYLOC NUT HT ZP	4
30	M10FWASHER	M10 FLAT WASHER ZP	8

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### PLUMBING DIAGRAM



### NOTE

Drawings are for illustration purpose only - refer to sprayer for actual plumbing. Parts listed are indicative of the sprayer type.  
 Items in italics or without a part number are non stocked items and may need to be specially ordered.  
 For further parts information refer to: [www.croplands.com.au](http://www.croplands.com.au)

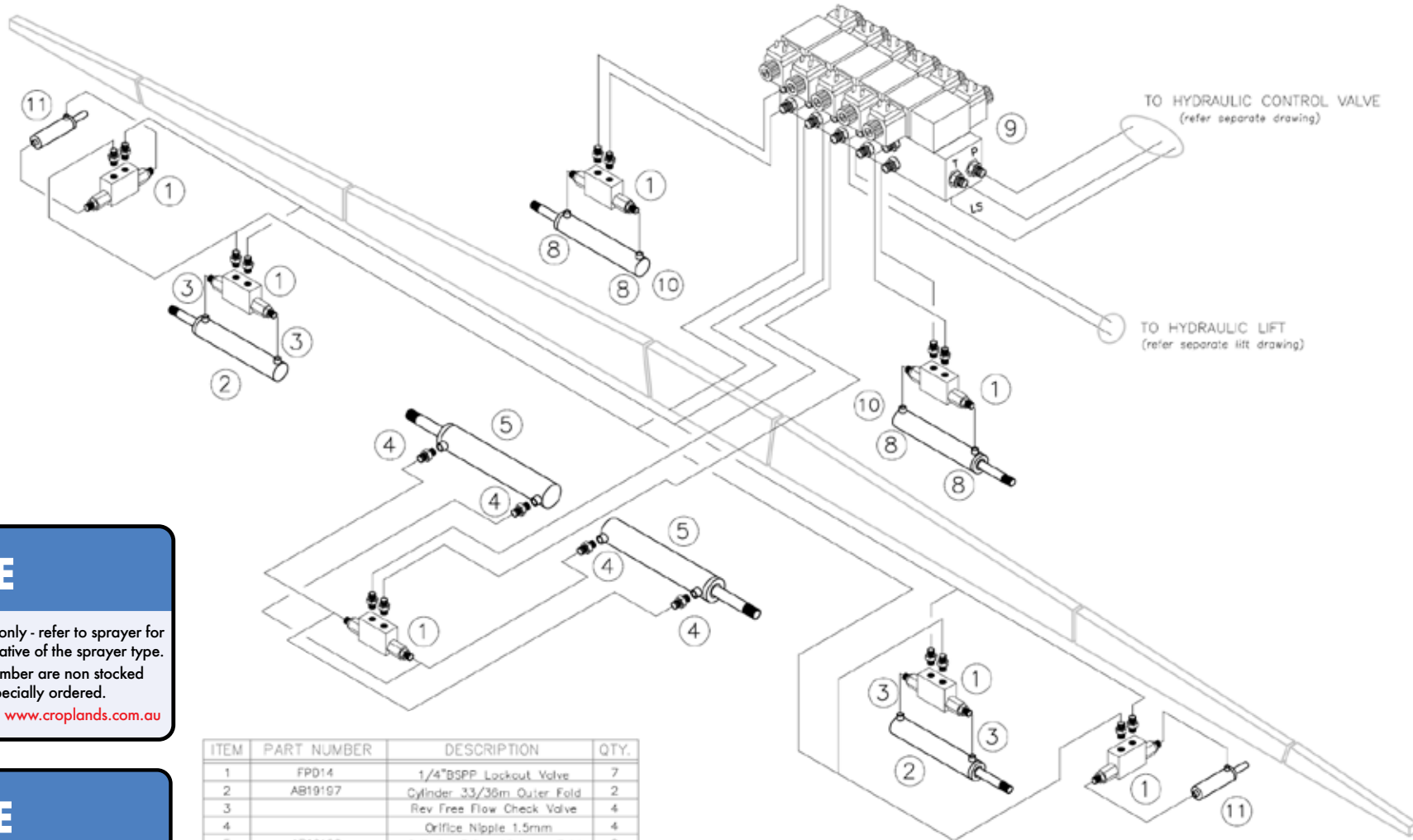
### NOTE

Contact Croplands Technical Support  
 for further information:  
 1800 999 162

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### HYDRAULIC DIAGRAM



### NOTE

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### NOTE

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for further information:  
1800 999 162

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	FPD14	1/4"BSPP Lockout Valve	7
2	AB19167	Cylinder 33/36m Outer Fold	2
3		Rev Free Flow Check Valve	4
4		Orifice Nipple 1.5mm	4
5	AB19199	Cylinder 3.0 x 16 Inner Fold	2
8		Orifice Nipple 1.5mm	4
9	MP-631LS	Hyd Valve Manifold 5 Function	1
10	AB19100-A-3	Cylinder 33/36m G-var	2
11	AB20800	Hyd Cylinder Outer fold Lock	2

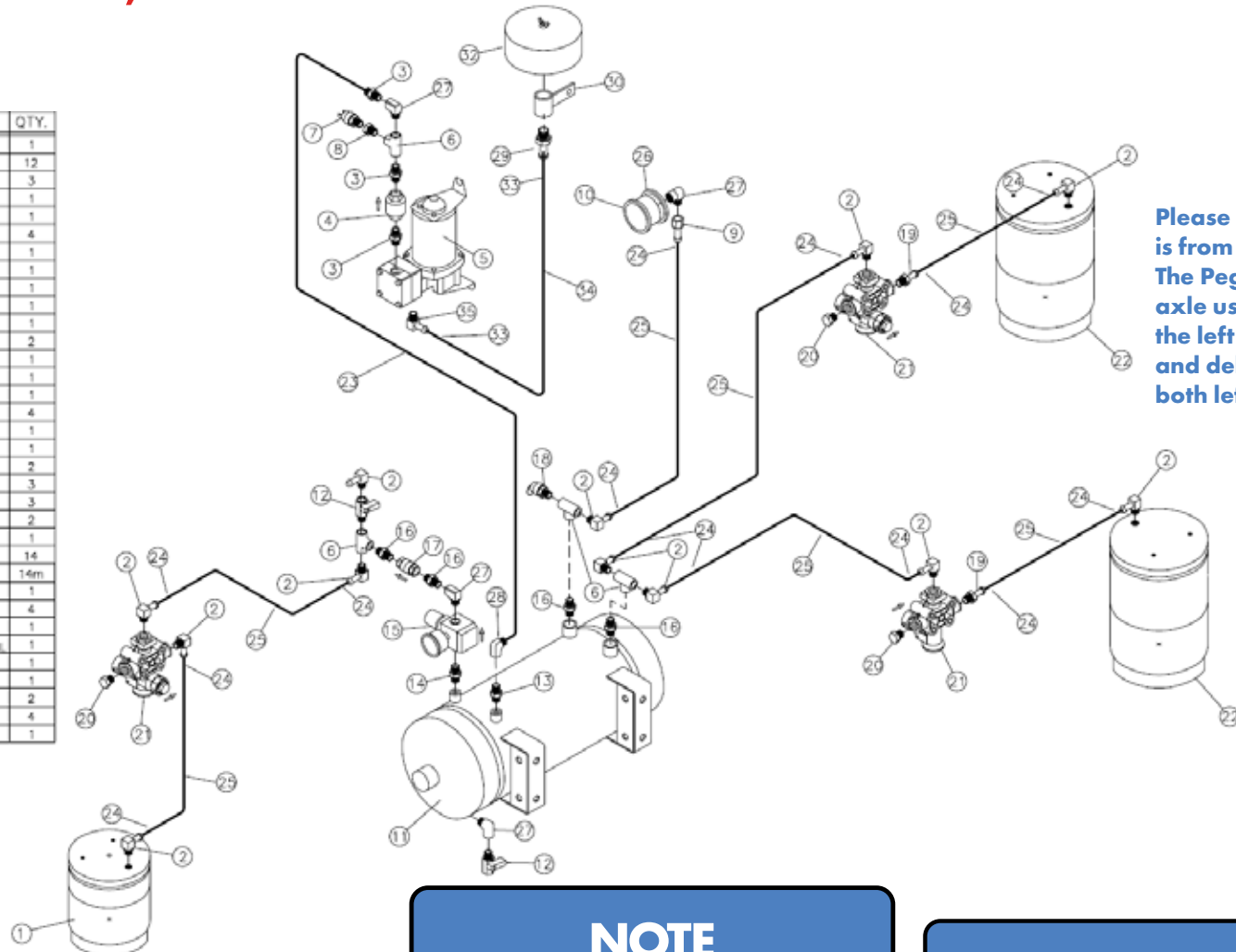
33/36m BOOM G-VAR OPTION  
HYDRAULIC FOLD WITH WINGLIFT OPTION

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### AIR DIAGRAM

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	BP-608B	AIRBAG SPRING S-21208	1
2	TFEL1438	ELBOW 1/4 X 3/8 TAIL	12
3	TFM3614	NIPPLE 3/8 x 1/4 BRASS	3
4	FM-NRV	NON RETURN VALVE 3/8"	1
5	BP-606	AIR COMPRESSOR AIRRIDE	1
6	TFT1414FF	TEE 1/4" FEMALE	4
7	BP-609	PRESSURE SWITCH	1
8	TFRB1418NPT	REDUCING BUSH 1/4 x 1/8	1
9	TFA1438F	TAIL BRASS 1/4 x 3/8 FM	1
10	L-G1421	6.3MM GAUGE	1
11	BP-620A	AIR TANK	1
12	BALL14MF2M	BALL VALVE 1/4 MF	2
13	TFM1236	NIPPLE 1/2 x 3/8	1
14	TFM1412	NIPPLE 1/4 x 1/2 BRASS	1
15	FM-403	REGULATOR ASSEMBLY	1
16	TFM1414	NIPPLE 1/4" BRASS	4
17	FM-NRV14	NON RETURN VALVE 1/4"	1
18	BP-622	RELIEF VALVE	1
19	TFA1438	TAIL 1/4 x 3/8 M	2
20	TFF14	PLUG 1/4" BRASS	3
21	BP-610	AIRRIDE VALVE SPO204	3
22	BP-808	AIR BAG HNC20127	2
23	BP-834	HOSE COMP - TANK	1
24	TR38HC	HOSE CLAMP 3/8"	14
25	HPW10	HOSE 10mm	14m
26	PR71-6	PANEL MOUNT KIT	1
27	TFEL1414MF	ELBOW 1/4M x 1/4FM	4
28	TFEL3838MF	ELBOW 3/8M x 3/8FM	1
29	A-A3412	HOSEBARB 3/4"M x 12MM TAIL	1
30	FM-FDSOCKET	3/4" GAL SOCKET	1
32	BP-623	AIR FILTER ASSEMBLY	1
33	TR12HC	1/2" HOSE CLAMP	2
34	HPW12	HOSE 12MM	4
35	TFEL1412	ELBOW 1/4M x 1/2 BARB	1



Please note; This schematic is from the Pegasus 8000. The Pegasus 7000 main axle uses 1 airbag valve on the left side of the chassis and delivers the same air to both left and right airbags.

### NOTE

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### NOTE

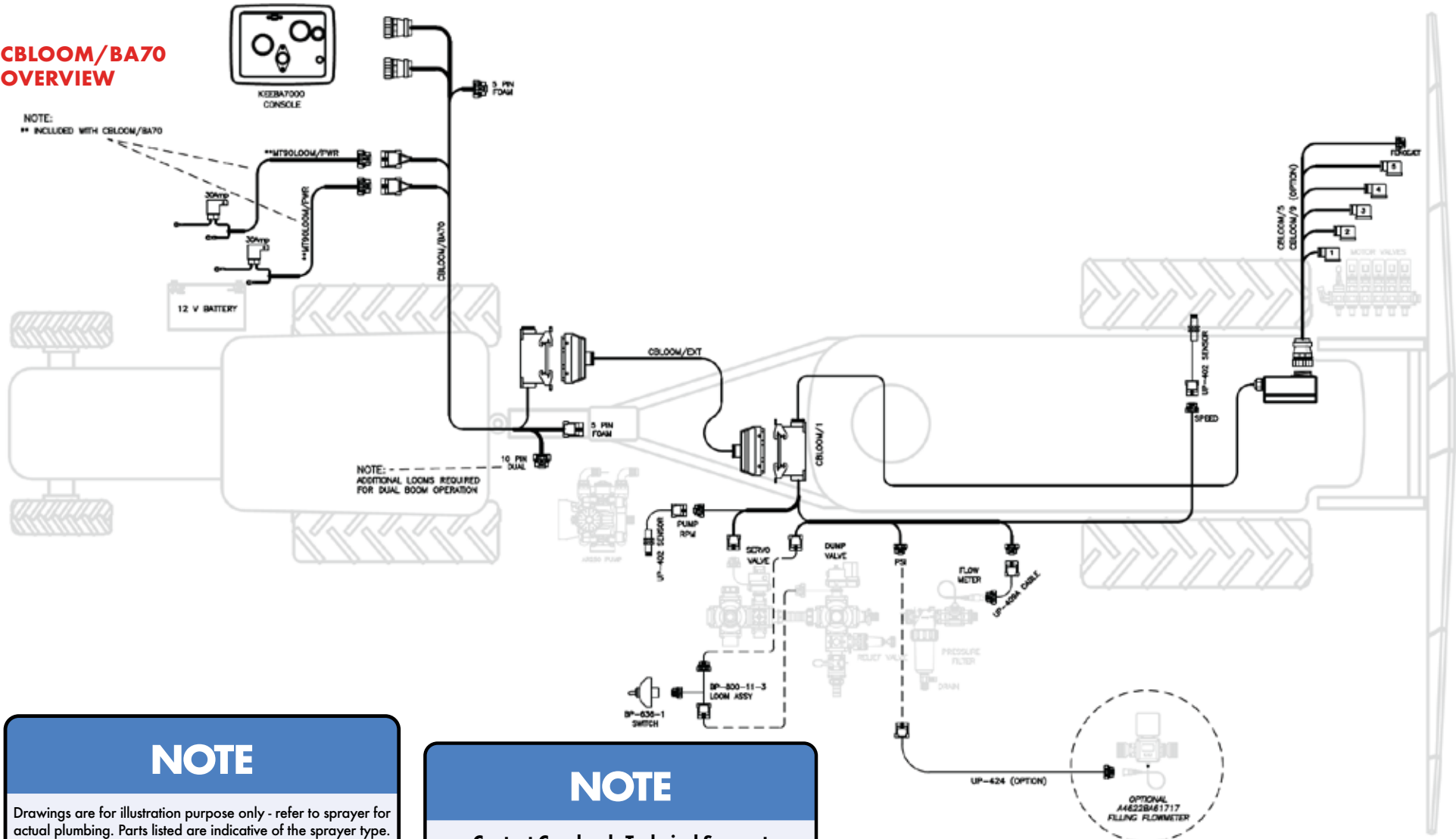
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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### CBLOOM/BA70 OVERVIEW



### NOTE

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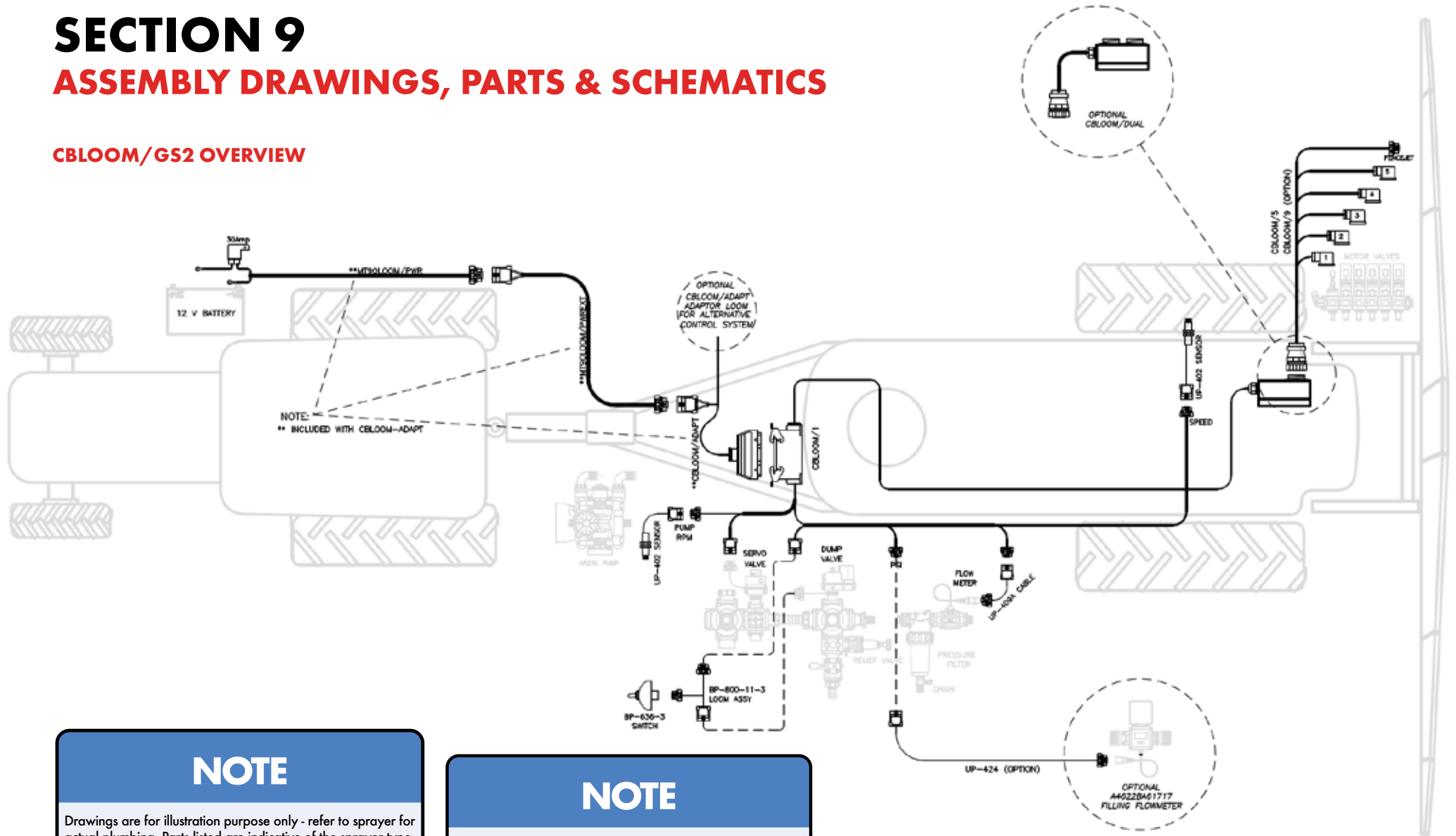
### NOTE

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# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### CBLOOM/GS2 OVERVIEW



### NOTE

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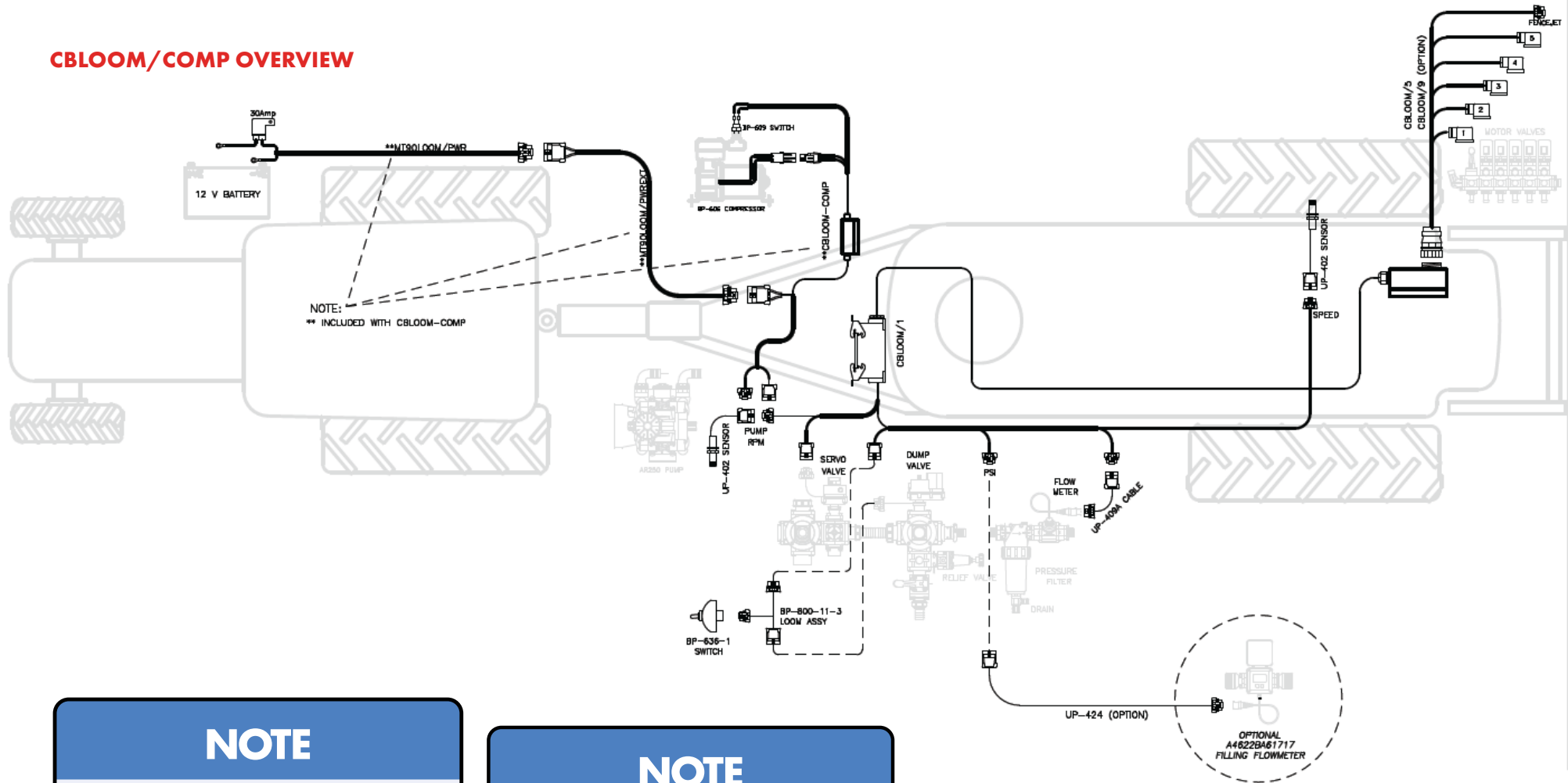
### NOTE

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1800 999 162

# SECTION 9

## ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

### CBLOOM/COMP OVERVIEW



**NOTE**

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**NOTE**

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## **Croplands**

### **AUSTRALIA**

Croplands Equipment Pty Ltd  
ACN 006 450 184

PO Box 2441  
Dry Creek  
50 Cavan Road  
Dry Creek SA 5094  
Australia

Freecall: 1800 999 162  
Freefax: 1800 623 778  
Email: [sales@croplands.com.au](mailto:sales@croplands.com.au)  
Website: [www.croplands.com.au](http://www.croplands.com.au)

### **NEW ZEALAND**

Croplands Equipment Ltd  
PO Box 2004,  
Stortford Bridge, Hastings 4120

Location:  
1422 Omahu Road,  
Hastings 4120  
New Zealand

Freecall: 0800 106 898  
Freefax: 0800 117 711  
Email: [sales@croplands.co.nz](mailto:sales@croplands.co.nz)  
Website: [www.croplands.co.nz](http://www.croplands.co.nz)

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