

# CROPLANDS

## Croplands Operators Manual

### CropPak Motorised 200/400/800

Models:

200 litres – US200/20/HR16G

200 litres – US200/20/HR16G

200 litres – US200/30/HR16G

400 litres – US400/30/HR30TG

800 litres – US800/30/HR30TG



## ***Introduction***

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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 importer, manufacturer and supplier of spraying equipment primarily to the New Zealand and Australian markets, with expanding sales into the USA and Europe. Established in 1972, Croplands is one of the four largest suppliers, with the largest range, of spraying equipment to the Australasian market.

This manual covers Croplands' range of Motorised CropPak Sprayer's with tank capacities of 200 litres, 400 litres & 800 litres.

Manufactured to a high standard, every effort has been made to ensure the unit can be used correctly and with customer satisfaction.

As the owner of a Croplands unit, please read this manual thoroughly to fully familiarise yourself with all aspects of the safe and correct operation of your Motorised CropPak Sprayer. Maintenance information and useful tips have been noted so please use these to get the best from your unit.

Should you need any support or advice on the set up and use of your sprayer, contact your local Croplands dealer or contact Croplands Customer Support.

Croplands Dealers are listed on [www.croplands.com.au](http://www.croplands.com.au) under "dealers" in the menu

Croplands can be contacted in Australia on 1800 999 162, and in New Zealand on 0800 106 898.

No liability can be accepted for any inaccuracies or omissions in this publication, although due care has been taken to make it as complete and accurate as possible.

The information, illustrations and technical data were considered to be correct at the time of preparation.

In accordance with our policy of continuous development, Croplands Equipment Pty Ltd reserves the right to make changes at any time without notice.

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## About Your Warranty

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Croplands Equipment Pty Ltd will honour any warranty repair in line with the policy outlined on the following page. The following information will assist you in understanding our warranty procedures.

Any authorised Croplands Dealer or service outlet can perform warranty repairs, however we recommend that the Dealer or Reseller from whom you bought the machine carry out any such repairs.

Most warranty repairs are handled routinely, but sometimes requests for repairs cannot be accepted under warranty. Normal wear and tear is not covered by warranty nor does warranty apply if a machine fails prematurely and that failure can be attributed to abuse or neglect. Whilst Croplands will abide by its warranty policy under all genuine circumstances, we must emphasise that such can only apply when our equipment has been used in applications for which it was designed and manufactured and that a reasonable degree of care and common sense has been exercised by the operator.

### Warranty Repair Site

The warranty provides for repairs to be carried out at the servicing dealer's normal place of business. An owner may elect to have repairs carried out at his own residence, but whilst Croplands will accept the actual repair cost of the failed component(s), the travelling costs will not be covered under warranty.

### Items Not Covered By Warranty

The warranty does not allow for the cost of the following items. ***These are the responsibility of the owner.***

1. Labour to travel to and from a breakdown or for any distance charges
2. Labour premiums that might apply for any repairs that are made outside the dealer's normal business hours
3. Transportation costs of the machine to and from the service outlet
4. Freight costs of the machine to and from the service outlet
5. Telephone or fax calls made by the owner in connection with the repairs

# 1. Warranty Policy

Croplands Equipment Pty Ltd (trading as Croplands) warrants to its authorised Dealer, who in turn, warrants to the original purchaser (Owner) that each new Croplands' sprayer, part or accessory will be free from proven defects in material and workmanship for twelve (12) months from the date of delivery to the first Owner according to the conditions outlined. This warranty does not cover damages resulting from abuse, accidents, alterations, normal wear or failure to maintain or use the Croplands product with due care.

During the warranty period, the authorised Croplands Dealer shall repair or replace, at Croplands option, without charge for parts and labour any part of the Croplands product, which fails because of defects in material or workmanship. The Owner must provide the authorised Dealer with prompt written notice of the defect (within 14 days of its occurrence), and allow reasonable time for replacement or repair. Repair may, at Croplands option, include the replacement of parts with functionally equivalent reconditioned or new parts. Replacement parts will be warranted for the balance of the original warranty period or for ninety (90) days, whichever is longer. Croplands (at its option) may request failed parts to be returned to the factory. Any travel time of a service technician and/or transportation of the Croplands product to the authorised servicing Dealer for warranty work are the responsibility of the Owner.

## EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

THIS WARRANTY IS IN LIEU OF ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PURPOSE OR OTHER REPRESENTATIONS, WARRANTIES OR CONDITIONS, EXPRESSED OR IMPLIED. The remedies of the Owner set forth herein are exclusive. CROPLANDS neither assumes nor authorises any person to assume for it any other obligation or liability in connection with the sale of covered machines. Correction of defects, in the manner and for applicable period of time provided above, shall constitute fulfilment of all responsibilities of CROPLANDS to the Owner, and CROPLANDS shall not be liable for negligence under contract or in any manner with respect to such machines. IN NO EVENT SHALL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT.

## Conditions of Warranty

1. The warranty is not transferable.
2. The Warranty Registration Form must be returned to Croplands by the Owner Operator within 14 days of taking delivery of the unit. Only when warranty registration is completed and returned, can Croplands fulfil all warranty obligations.
3. **Schedule of components and conditions not covered by warranty are:**

<b>Abuse</b>	Failure resulting from neglect, such as improper operation, lack of required maintenance or continued use of a sprayer after the discovery of a defect which results in greater damage to the unit.
<b>Environmental Conditions and Application</b>	Deteriorated or failed components such as: diaphragms, O-rings, hoses, seals, electrical wiring and connections damaged by corrosive chemicals, dirt and sand, excessive heat or moisture. Owners should ensure the type and strength of chemicals used in the sprayer are compatible with the design of the unit. Warranty determination for these types of failures will be made by Croplands only after inspection of failed components. In most instances these will incur inspection charges and cost of replacement parts.
<b>Normal Wear</b>	Normal wear and consumable items such as: oils and lubricants, diaphragms, filter elements, flow meters, clutches, fan belts, drive belts, pivot pins, paint, light bulbs and nozzles are considered to be normal wear items and are not warranted.
<b>Maintenance</b>	Component failure caused by not performing scheduled maintenance service such as: oils, grease, failure to clean tanks, pumps, filters, spray lines, nozzles or any other blocked components. Not tightening or replacing loose or missing bolts, nuts, fittings, shields and covers.
<b>Damage</b>	Damages or machine failure caused by carelessness or accidental damage, improper operation, excessive speed during travel and operation, inappropriate transportation or storage of the sprayer or attachment.
<b>Power Source</b>	Failures due to faulty or inadequate electrical sources of power. Owners who use their own 12 volt power source must make sure that it is suitable for operating the spraying equipment.
<b>Alterations</b>	Any unauthorised alteration, modification, attachments or unauthorised repairs to the Croplands sprayer or attachments. Written approval must be obtained from Croplands for any such items to maintain warranty.
<b>Removal &amp; Installation</b>	The time taken to remove and re-install a warranted part or component into other brands of sprayers will not be covered by Croplands warranty. Only parts and labour directly attributable to the repair of the Croplands unit is covered.
<b>Clean-up Time</b>	Croplands do not pay for cleaning the sprayer, parts, accessories or work area before or after the warranty repair. Clean-up time is affected primarily by the application or conditions in which the sprayer is operated and maintained. Since clean-up time can be so variable, cleaning time should be considered a customer expense.
<b>Transportation</b>	Warranty does not cover transportation or insurance costs for sprayers or other equipment needing repair or replacement of warranted components. Nor does it cover any freight or insurance costs in obtaining new parts or returning old parts to Croplands for inspection purposes.
<b>Costs</b>	Warranty does not cover time required to diagnose a warranty problem. Diagnostic time is affected greatly by the training and expertise of the technician employed to do the job. With proper training of service personnel, diagnostic time should be at a minimum.
<b>Diagnostic Time</b>	Croplands expects that Dealers will assign a well trained and proficient technician to handle any warranty repairs. Since Croplands is not in control of either of these responsibilities, we elect not to cover diagnostic time.
<b>Non-Genuine Parts</b>	Use of parts other than Croplands parts for repair of warranted parts will automatically negate any warranty. Warranted components must be replaced with genuine Croplands repair parts.
<b>Unauthorised Repairs</b>	Repairs by an unauthorised agent will automatically forfeit any warranty. An authorised Croplands Dealer must carry out warranty repairs.

## 2. Warranty Registration & Pre Delivery Check List

### Warranty Policy:

The Warranty Registration Form must be returned to Croplands by the Owner Operator within 14 days of taking delivery of the unit. Only when warranty registration is completed and returned, can Croplands fulfil all warranty obligations.

The warranty policy commences with installation. The warranty period is 12 months under normal conditions (6 months for contractors).

This **form must be completed by both Owner and Dealer**, and the original returned by the Dealer to Croplands. (Dealer and customer should keep a copy).

Date Purchased:

Serial Number:

Tick Each box to affirm completion	✓	Tick Each box to affirm completion	✓
<b><u>Operators manual supplied</u></b>		<b><u>Pump</u></b>	
- Pump	<input type="checkbox"/>	- Check mounts	<input type="checkbox"/>
- Motorised CropPak unit (Croplands)	<input checked="" type="checkbox"/>	- Check operation	<input type="checkbox"/>
- Honda Motor (Honda)	<input type="checkbox"/>	- Check oil level	<input type="checkbox"/>
<b><u>Tank</u></b>		<b><u>Decals</u></b>	
- Undamaged	<input type="checkbox"/>	Undamaged	<input type="checkbox"/>
	<input type="checkbox"/>	Appropriate decals in place	<input type="checkbox"/>
<b><u>Suction line &amp; filter</u></b>		<b><u>Hose Reel &amp; gun</u></b>	
- Undamaged	<input type="checkbox"/>	Undamaged	<input type="checkbox"/>
- Hoses not rubbed or kinked	<input type="checkbox"/>	Check operation	<input type="checkbox"/>
- All joins sealed	<input type="checkbox"/>		
- Filter clean & sealed	<input type="checkbox"/>		

### Important:

By executing this Installation & Warranty Certificate:

#### 1. The Owner:

- 1.1 Agrees that all Sprayer operators must read the Operator's Manual before using the Sprayer and follow all the procedures in the manual for the use of the Sprayer, and will exercise due care in the use of the Sprayer;
- 1.2 Agrees that Croplands' liability for any loss or damage suffered by the owner in connection with the owner's use of the Sprayer is limited to the cost of repair or replacement of the Sprayer;
- 1.3 Agrees that the owner will bear any loss the owner suffers as a consequence of any failure by the owner to comply with 1.1 above;
- 1.4 Acknowledges that the owner is trained and is fully responsible for the safe and correct operation of the Sprayer;
- 1.5 Agrees that the owner will fully train any person who is required to operate the Sprayer, as to how to operate the Sprayer in a safe and correct manner.

**2. The Dealer:** undertakes that it has met the obligations of installation, service and warranty start up.

<p><b>Owner:</b>            Farmer <input type="checkbox"/> Contractor <input type="checkbox"/>            Name (Print): .....            .....            Address: .....            .....            Postcode:.....            Phone: .....            Fax: .....            Email: .....            Owner's Signature:            .....            Installation Date: .....</p>	<p><b>Dealer:</b>            Dealership Name (Print): .....            .....            Address: .....            .....            Postcode:.....            Phone: .....            Fax: .....            Email: .....            Dealer representative's Name:            .....            Dealer representative's Signature:            .....            Date: .....</p>
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### **3. Safety Information**

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#### **Rules for Motorised CropPak Sprayer Operation:**


- Always read your operator's manual thoroughly before operating. Accidents occur every year because of careless use of farm chemicals and farm machinery. You can avoid these hazards by observing these safety instructions.
- Dispose of all chemical containers as per instructions on label. Failure to do so could result in contaminating the environment with chemicals.
- Inspect hose and hose connections daily. Always wear rubber gloves when tightening connections. Damaged, loose or worn hoses could result in operator being exposed to chemicals, which could result in illness or faulty operation.
- Always use the proper application rate. To assure proper application rate calibrate sprayer correctly. The wrong application rate of a pesticide concentration that is too high may expose the operator and the environment to danger.
- When transporting or moving your spray tank always sit it on a stable surface, failing to do this could allow the tank to fall, this could result in crushing of personnel.
- Check the entire sprayer, prior to each use, for any loose connections, loose bolts, and any leaks, these precautions can prevent injury to personnel and damage to equipment.
- Use only genuine Croplands, Honda or AR parts for any necessary replacement. All parts are important to the equipment design. Homemade parts may look the same but might be dangerous in operation.
- Always replace warning decals when damaged, and make certain operator understands proper safety practices.
- Always be sure all guards are properly installed on machine before operating. Failure to do so could result in entanglement in moving parts resulting in serious injury to operator.
- Always stand well clear of sprayer when operating. Any particle of spray drift is dangerous and may be hazardous to humans.
- Always wear gloves and wash the machine before doing any disassembly repair work. Chemical residues on the machine parts could contaminate operator or service personnel causing serious illness.
- Follow the chemical manufacturer's precautions before cleaning the sprayer. Exposure to chemicals could result in serious illness or death.
- Do not disconnect any hoses nozzles or filters while sprayer is operating. Disconnecting components while under pressure will result in uncontrolled spray discharge, which may be hazardous to humans.
- Do not ride on machine when in motion. This is an unsafe practice and can lead to serious injury should the rider fall from the sprayer.
- Always relieve system pressure before doing any work on the machine. Failure to do so could cause operator to be exposed to high pressure spray of chemical resulting in serious injury or machine damage.
- Always be sure all guards are properly installed on machine before operating. Failure to do so could result in serious injury to operator.
- Should any welding be required on the steel parts of the sprayer, always clean the unit and disconnect the power before doing any repairs. Cover rubber hoses, and all other flammable parts. Keep a fire extinguisher near the unit when welding. Have good ventilation when grinding or welding painted or galvanised parts. Wear dust mask when grinding. Toxic dust or gas can be produced.
- Do not tip the unit, or the Honda engine over, doing this may fill the carburettor with oil and cause it to stop working.

The chemicals you use will require your workplace to have a Material Safety Data Sheet (MSDS), for reference in the case of an emergency. This can be obtained from the supplier or manufacturer.

**Failure to follow these instructions may result in serious injury or death!**

## Safety Decals

If any of the safety warning decals are missing, or become unreadable, then they should be replaced. This can be done by ordering them from your Croplands dealer. Part No. PP-6 and Part No. PP-18

**WARNING**

**SAFETY INSTRUCTIONS**

- 1 Read your operator's manual thoroughly before operating the sprayer
- 2 Inspect hoses, connections and nozzles daily
- 3 Clean filters regularly
- 4 Always follow correct maintenance schedules outlined in operator's manuals
- 5 Always read chemical manufacturers labels before use
- 6 Always observe all warnings on chemical products
- 7 Regularly check all bolts and nuts are tight
- 8 Always wear rubber gloves and wash sprayer down before doing any repair work
- 9 Do not ride on sprayer when moving
- 10 Keep clear of moving parts when sprayer is operating
- 11 Always keep guards in place when sprayer is operating
- 12 Be sure tank lid is closed before operating basket mixing facility
- 13 Stand well clear of sprayer when operating
- 14 Do not disconnect hoses, nozzles or filters while sprayer is operating

PP-6

**WARNING**

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

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

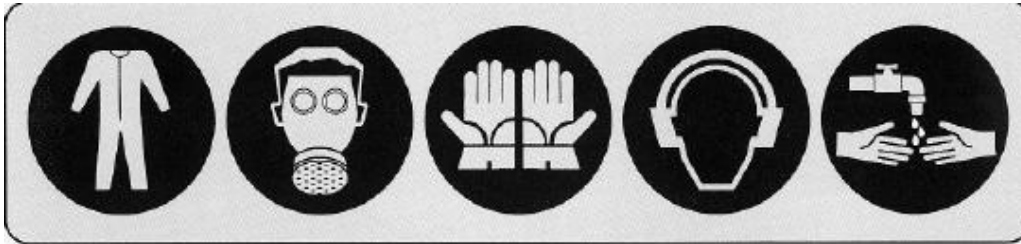
**DO NOT EXCEED THE VEHICLE MANUFACTURERS SPECIFIED SAFE LOAD CARRYING AND TOWING CAPACITIES.**

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

PP-18

## Safety With Chemicals

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**Safety must be an Integral Part of Chemical Farming Operations, not Just an After Thought!**

### The Hazard

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

### Poisoning

- **Oral** - Direct by drinking, splashing into mouth, eating and smoking with contaminated hands, eating sprayed produce, cleaning nozzles with mouth.
- **Inhalation** - Nose, mouth, but predominately the lungs.
- **Dermal** - Absorption through the skin. Increased when skin is broken or perspiring.
- What protective clothing and equipment is needed?
- Know the correct first aid/safety in case of poisoning.
- Seek medical advice if chemicals affect health.

### Using the Product

- Use the right protective clothing when handling the chemical.

### Rate of Absorption

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

### Keep Motorised CropPak tank and Safety Equipment in Good Working Condition

- Replace hoses and fittings, or seals if they leak.
- Do not use worn, faulty or contaminated safety equipment.

### Protective Safety Equipment

- The amount and type of protective clothing and equipment is determined by the type of chemicals, degree and duration of exposure, weather conditions and application equipment used. Read and follow the direction on the label. Over protection can be uncomfortable and unnecessary.

### Safety Precautions

1. **Be SURE** the equipment is functioning correctly. Check all aspects of the machine operation are correct.
2. **Be SURE** to follow the warning labels.
3. Make sure you have access to the Material Safety Data Sheet (MSDS), in the case of an emergency.

## 4. Specifications

### Tank:

Constructed from UV-stabilised medium density polyethylene for low distortion qualities & impact resistance.

Capacity of 200, 400 & 800 litres.

All tanks have a calibrated level indicator.

NOTE: a minimum of two able-bodied people is needed to lift this unit. Under no circumstances is the unit to be lifted or moved with water in it. (unless mounted on a trailer).

### Pump:

AR30 Pump

32 l/min

0-40 Bar pump

### Filter:

1" Filter 50 Mesh



### Dimensions:

#### 200 litre

Length: 1160 mm

Width: 580 mm

Height: 1060 mm

Dry weight:

Approx: 90 kg

#### 400 litre

Length: 1490 mm

Width: 760 mm

Height: 1100 mm

Dry weight:

Approx: 110kg

#### 800 litre

Length: 1740 mm

Width: 1000 mm

Height: 1200 mm

Dry weight:

Approx: 150 kg

### Warning !

- When lifting unit, use an appropriate lifting device
- Take note of the total weight of the unit
- If the unit has water in it, it may be very heavy
- 1 litre of water = 1kg  
400 litres = 400 kg

### Hose reel:

Steel construction, fitted with 30 metres of 10 mm diameter hose. (40 BAR rating).

### Spray gun:

Turbo 400 Gun

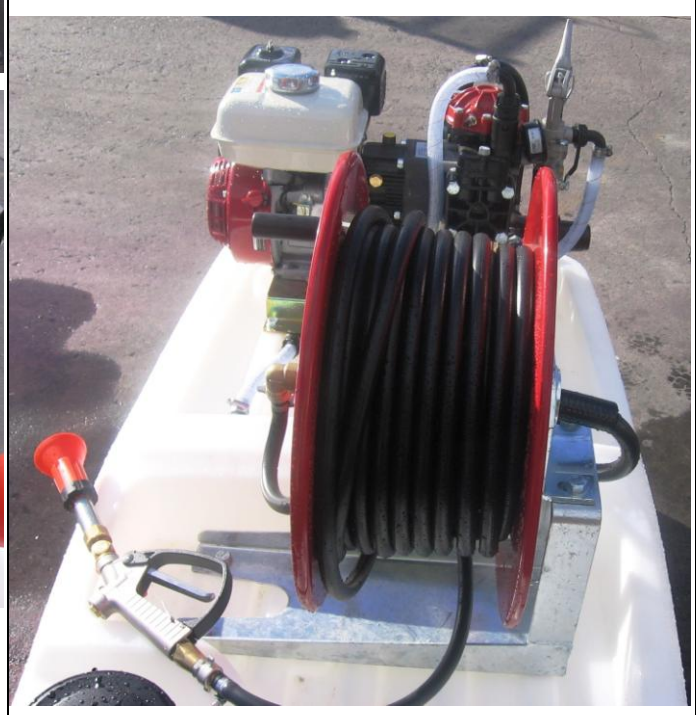
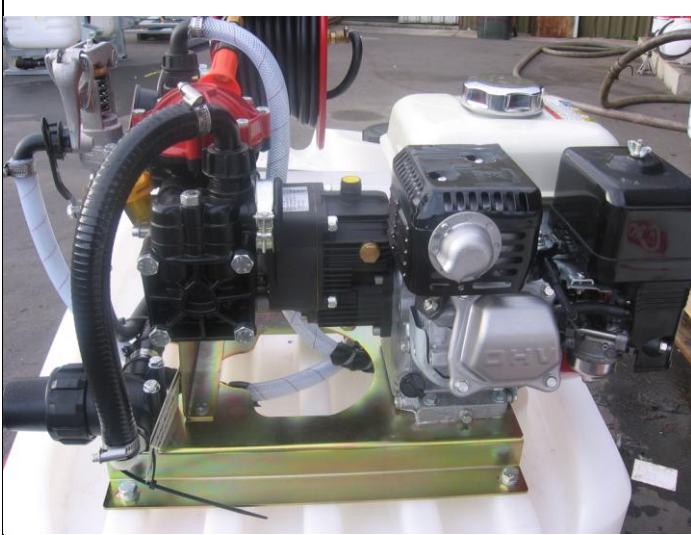


### Drive:

Honda GX160 pull-start engine direct coupled to the AR30 Pump



**5. Pictures:**



## 6. Operation

### Operation:

Fill unit with clean water.  
Close the lid securely after filling.

Before operation, check the oil in the engine, and from time to time check the air-filter to avoid problems with the unit.

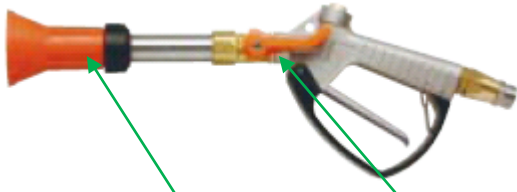
READ THE HONDA MANUAL THOROUGHLY TO FAMILIARISE YOURSELF WITH MAINTENANCE PROCEDURES.

### Warning!

Ensure that you are complying to the vehicle manufacturer's load carrying capacity and specifications.

### Turbo 400 Gun:

Use the adjustable nozzle to adjust the liquid stream as required.



The Turbo 400 Nozzle has a lever for adjustable stream.  
The cone also is adjustable, unscrew the black ring, and slide cone up or down, and re-tighten.

### Starting the Motorised CropPak:

1. Before starting unit, check oil levels:

**Motor:** Check oil on dip-stick, top up as required.

**Pump:** Top up until visual indicator shows full

**Gearbox:** Check oil dip-stick, top up as required.

**Do not start unit unless oil levels are correct!**

Read manual for the correct type of refill oil.

2. When starting the unit for the first time; conduct a trial run to familiarise yourself with the operation of the components and to check that all systems are functioning correctly without any leaks.

3. Ensure the pressure line tap is open (in line with the direction of flow). Also check that spare tap is in off position.

4. Ensure that the Turbo 400 Gun's trigger is in the off position.

5. Pull start the engine and set the throttle to  $\frac{3}{4}$  RPM. Adjust the regulator to suit the pressure required, and then start using as required.

6. There is a pressure regulator as seen in the below picture.

The pressure regulator has been calibrated to the following:

To Adjust the pressure, release the lever, and put the adjusting clip onto the desired number then recompress the lever:

Setting 1 = 10 Bar

Setting 2 = 20 Bar

Setting 3 = 30 Bar

Setting 4 = 40 Bar

(These can be re-calibrated by adjusting the brass adjuster).



## 7. Sprayer Maintenance

### Daily Maintenance

Before carrying out any maintenance, turn unit off, and release pressure in hoses.

#### General

During the first few days of operation, before starting each day check that all hardware is tight and inspect the unit for leaks while running, and tighten all hose clamps.

Basic maintenance:

- Run the motor and pump at least once every month or two.
- Check the Honda motor, Pump & Gearbox oil level and regularly
- Check Honda motor air cleaner regularly.
- Lubricate o-rings or seals from time to time as required
- Keep the unit clean
- Use clean water during operation – or at least as clean as possible

#### Oil levels:

**Oil levels need to be checked every time the unit is used.**

**Do not start unit unless oil levels are correct!**

Read manual for the correct type of refill oil.

#### Pump:

Check the oil level in the viewer daily and if necessary top up with SAE 20-40 multigrade engine oil.

#### Gearbox:

Check oil dip-stick, top up as required.

**Do not start unit unless oil levels are correct!**

Read manual for the correct type of refill oil.

**Motor:** Check oil on dip-stick, top up as required.

#### Spray Filters:

Clean all filters daily. More frequent cleaning may be found necessary depending upon circumstances. The best method for cleaning filters is to wash them with a soft bristle brush.

Check for any tears or holes and replace if damaged. Check and if necessary clean the basket strainer under the tank lid before each fill.

Always clean the suction filter before each tank refill and at the end of the day. Close the stop valve by pushing the cap in and turning it in the direction indicated on the cap out, then unscrew the filter cover to remove the filter element – refer picture in Operation section.

Ensure the 'O' ring is in good condition when refitting.

#### Tank and Spray Lines:

At the end of each day run clean water through the pump and lines to purge them of chemicals.

Rinse out the tank to remove powdered material.

Never leave chemicals in the tank that may settle to the bottom, harden and break into lumps as this may block the suction filter.

### Annual Maintenance

#### Diaphragm Pump

Drain the oil from the diaphragm pump annually, or at the end of each spraying season, and refill with SAE 20-40 multi-grade engine oil.

Remove the pump heads, carefully inspect the diaphragms and replace if necessary. Also check the inlet and outlet valves, seats and springs for wear, damage or chemical corrosion and replace as necessary.

Check the air pressure in the surge chamber at the end of the pump, which smoothes out the pulsations in fluid flow. The air pressure behind the chamber's diaphragm should be set in accordance with the spraying pressure being used – see the pump section for more details.

Adjust the pressure at the valve fitting on the chamber using a compressed air hose fitted with a tyre valve connection and a reliable pressure gauge.

Refer to the pump instruction manual for further details on the above maintenance operations.

#### Hardware:

At the end of each season generally inspect the sprayer for any signs of damage and check that all bolts are securely tightened.

#### Honda Motor:

There is a comprehensive booklet covering all parts, operational instructions and safety tips. Keep this with your CropPak Motorised Sprayer or in handy location for reference.

To look after the **Croplands** components of the CropPak Motorised Sprayer:

- Store the unit out of the sun to avoid damage from the sun
- Check all mounting bolts for tightness every 6 months
- Check all hoses & seals before use
- Check all taps and the nozzle regularly
- Drain the unit for storage
- Replace faulty parts immediately
- Keep instruction booklets handy to the unit

## Sprayer Maintenance:

### Using Tank & Equipment Cleaners

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

To use the tank & equipment cleaner:

- 1 Fill the spray tank approximately half full of fresh water.
- 2 Add cleaning agent (use according to the manufacturer's instructions).
- 3 Switch On the pump.
- 4 Place the lance into the tank and hold down the hand grip lever to circulate cleaning fluid through the suction line, pressure line, hand gun and back to the tank.
- 5 If you require the cleaning agent to soak or stand for a period, shut Off the hand gun by releasing the hand grip lever and switch the power Off.
- 6 When soaking is completed, start the sprayer following steps 3 & 4 to flush the suction lines, pressure lines and hand gun.
- 7 Stop flushing by releasing the hand grip lever and then switch the power Off.
- 8 Remove the spray tank drain plug and allow cleaning mixture to drain from the tank.
- 9 Again completely flush the sprayer with fresh water as outlined on the previous page.
- 10 Check the filter to ensure scale deposits are removed from the filter if they are present. Often the cleaning agent will dislodge chemical build-up from spray lines and fittings.

## 8. Sprayer Calibration:

### Adding Chemical to the Spray Tank

Chemical should only be added to the spray tank after initial start up procedure is complete.

The steps for adding chemical to the tank are:

- 1 Calculate the amount of chemical required.
- 2 Part fill the spray tank with water.
- 3 Measure and pre-mix the chemical.
- 4 Add the pre-mixed chemical to the tank.

### Step 1 Calculate the Amount of Chemical Required

To add the correct amount of chemical to a tank, it is necessary to calculate the amount of chemical required.

The method of calculating the amount of chemical required for the sprayer tank is dependent on the chemical rate recommendations. Use the information supplied on the chemical label to determine the tank-mix concentration.

If you are unsure of the mix required, ALWAYS check with a qualified advisor or the supplier of the chemical you intend to use.

#### CAUTION

*Do not add chemicals to the spray tank until the initial start-up or daily start-up procedure has been carried out. This avoids having a tank full of toxic chemical and then finding a sprayer problem.*

#### NOTE

*Be sure to mix only enough spray mixture to cover the area required. Mixing too much chemical creates unnecessary waste and costs.*

### Step 2 Part Fill the Spray Tank with Water

Part fill the sprayer tank with clean water.

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

Ensure water quantity is sufficient to allow correct product blending.

### Step 3 Measure & Pre-Mix the Chemical

Read and follow the instructions on the chemical manufacturers label before mixing & adding chemicals to the spray tank.

Chemicals should be accurately measured and thoroughly premixed in a separate container before adding to the spray tank:

- 1 Measure out the required liquid chemical in a graduated measuring cylinder or bucket.
- 2 Add chemical to a small volume of water in a container and thoroughly mix the chemical.

### Step 4 Add the Chemical to the Tank

Always make sure the filling basket is in place when adding water or chemical to the tank.

To add the premixed chemical to the tank:

- 1 Add the pre-mixed chemical to the tank, thoroughly rinsing the chemical pre-mix container and adding the rinse to the tank.
- 2 Top up the tank with water to the required volume.
- 3 Close the tank lid securely.

#### CAUTION

*Always follow chemical label instructions. When handling chemicals always wear protective clothing ie. gloves, face mask, spray suit.*

#### CAUTION

*Should chemical come in contact with skin immediately rinse off with water. Always follow chemical label safety instructions.*

#### NOTE

*Do not to use chemicals which settle without adequate agitation in the tank of CropPak sprayers except for those fitted with a 4000 series pumps and regulator kit.*

## 9. Bill of Materials:

Part No.	Description	Qty	
P200B-RAW	TANK 200L FREE STANDING POLY RAW	1	EA
P400-RAW	TANK 400L FREE STANDING POLY RAW	1	EA
P800-RAW	TANK 800L FREE STANDING POLY RAW	1	EA
UP-171	PUMP MOUNTING BRACKET 200/400/800	1	EA
UP-172	HOSEREEL BRACKET 200/400/800	1	EA
AR30-CRGI	PUMP AR30 GEARBOX & CONT 30622	1	EA
GX160QX	MOTOR 5 HP HONDA STRAIGHT SHAF	1	EA
AR30BRKT	AR30 MOTORISED PUMP STAND	1	EA
L-R0260BARE	SIDE MOUNT HOSE REEL BARE	1	EA
HPW10/40	HOSE 10MM 40 BAR	30	MTR
B26.901.165MK2	GUN TURBO 400 METAL GRIP & LEV	1	EA
B162.604.2	HOSETAIL 10MM C/W 1/2" WINGED - to connect hose to Turbo 400 Gun	2	EA
TFEL1212MF	ELBOW 1/2" BSPM X 1/2" BSPF - to connect hose to centre of hose reel	1	EA
HPW12/40	HOSE 12MM 40 BAR - hose from pump pressure line to hose reel	2	EA
A-A3412	HOSEBARB 3/4" BSPM X 1/2" BARB	1	EA
TR38HC	HOSE CLAMP 10MM	2	EA
A-F1000	PLUG NYLON 1" BSP - Drain Plug	1	EA
A118215	PIPE 1/2 X 1/2 SINGLE PIECE 90 - through tank fitting, elbow	2	EA
AG40002	FLAT SEAL 1/2" EPDM - flat seal for A118215	2	EA
HTP12	HOSE 12MM (TMP) - Clear hose, return line.	4	EA
TR12HC	HOSE CLAMP 10MM	8	EA
A250041	NIPPLE 1" - through tank suction fitting	1	EA
A205040	BACK NUT 1" - for through tank suction fitting	1	EA
AG40004	FLAT SEAL 1" EPDM - for through tank suction fitting	1	EA
A116425	ELBOW 0.25 FOR FLY - to fit on suction fitting A250041	1	EA
AG10041	O RING 1" - Seal for A116425	2	EA
A200040	FLY NUT 1" - part of elbow, to fit on suction fitting A250041	2	EA
A-EL1010	ELBOW 1" BSPM X 1" BARB - fitting from filter to pump (vertical line)	1	EA
A-A1010	HOSEBARB 1" BSPM X 1" BARB - fitting from suction hose into filter	1	EA
A3244043	FILTER 1" 50 MESH FEMALE THREAD	1	EA
TR1HC	HOSE CLAMP 25MM	6	EA
B162.604.11	HOSETAIL 1/2" C/W HEX NUT 1/2" - to controller	1	EA
HP-263	PVC PIPE 20MM PER METRE - inside tank	1	EA
A106425	TAIL 1" TO 25MM - inside tank	1	EA
S/NO	SERIAL NUMBER PLATE W/ ENGRAVING	1	EA
SW502-001C	TANK LID ASSY RED	1	EA

### AR30 – CRGI

Repair kit options:

AR1930	Diaphragm kit for AR30 pump
AR1917	Valve & O-ring kit for AR30
AR1916	O-ring kit for AR30
AR1915	Overhaul kit AR30

Croplands Technical Service  
1300 650 724

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