



Croplands Operators Manual - AdBlue Transfer Units

Models:

100 litres: US100AB



US100AB

1 : Introduction

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 the Croplands' range of AdBlue transfer tanks. AdBlue is also known as DEF (Diesel Exhaust Fluid) and AUS32 (Aqueous Urea Solution 32.5%)

These tanks are manufactured to a high standard for use in Agriculture, Horticulture and Mining, for operators / contractors big and small.

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

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 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.

2 : Contents:

1 : Introduction	2
2 : Contents:.....	3
3 : About Your Warranty.....	4
4 : Warranty Policy.....	5
5 : Pre Delivery Check List & Warranty Registration	6
6 : Notes re AdBlue (DEF / AUS32)	7
7 : Safety Information	7
8 : Safety With Chemicals	8
9 : Specifications	9
10 : Operation	10
11 : Maintenance	11
12 : Spare Parts	11



3 : About Your Warranty

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



4 : 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 AdBlueects 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 AdBlueects in material or workmanship. The Owner must provide the authorised Dealer with prompt written notice of the AdBlueect (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, which ever 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 AdBlueects, 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:

Abuse	Failure resulting from neglect, such as improper operation, lack of required maintenance or continued use of a sprayer after the discovery of a AdBlueect which results in greater damage to the unit.
Environmental Conditions and Application	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.
Normal Wear	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.
Maintenance	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.
Damage	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.
Power Source	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.
Alterations	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.
Removal & Installation	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.
Clean-up Time	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.
Transportation	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.
Costs	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.
Diagnostic Time	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.
Non-Genuine Parts	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.
Unauthorised Repairs	Repairs by an unauthorised agent will automatically forfeit any warranty. An authorised Croplands Dealer must carry out warranty repairs.

5 : Pre Delivery Check List & Warranty Registration

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:	
<i>Tick Each box to affirm completion</i>	✓
Operator manuals supplied:	
- This Manual	
- Pump Operators information	
Tank:	
- Undamaged	
- Lid fitted & can be locked	
Earthing: - Earth Lead & Clip attached	
Suction line:	
- Undamaged	
- Pump & fittings sealed	

Serial Number:	
<i>Tick Each box to affirm completion</i>	✓
Pump:	
- Power lead & Clips in good order	
- Check operation	
Delivery hose:	
- Undamaged	
- Hoses & fittings sealed	
- Hoses not kinked	
- Check operation	
AdBlue gun:	
- Undamaged	
- Check operation	

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>Owner:</p> <p>Farmer <input type="checkbox"/> Contractor <input type="checkbox"/></p> <p>Name (Print):</p> <p>Address:</p> <p>Postcode:</p> <p>Phone:</p> <p>Fax:</p> <p>Email:</p> <p>Owner's Signature:</p> <p>Installation Date:</p>	<p>Dealer:</p> <p>Dealership Name (Print):</p> <p>Address:</p> <p>Postcode:</p> <p>Phone:</p> <p>Fax:</p> <p>Email:</p> <p>Dealer representative's Name:</p> <p>Dealer representative's Signature:</p> <p>Date:</p>
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6 : Notes re AdBlue (DEF / AUS32)

- AdBlue is also known as DEF (Diesel Exhaust Fluid) and AUS32 (Aqueous Urea Solution 32.5%)
- AdBlue is aggressive to some materials and corrosive to some metals. In case of spillage rinse with plenty of water and dry with a clean cloth.
- AdBlue is not defined as a hazardous material. Safe handling procedures as outlined in (AdBlue) supplier Material Safety Data Sheet (MSDS) sheets should be followed when handling this product.
- AdBlue is 32.5% urea giving it corrosive properties. It must be stored in Polyethylene, Polypropylene or Stainless Steel containers to avoid product contamination.
- Urea concentration must be 32.5%, the remaining 67.5% is demineralised water. If there is possibility of incorrect fluid or expired product in the unit, the concentration may be tested or drained and replaced.
- Storage containers should be kept closed to reduce evaporation and crystallization.
- Shelf life is 6 to 12 months; recommendation is to stock no more than a six month supply.
- AdBlue begins to freeze at 12° F (-11° C).
- Shelf life of the product deteriorates when stored in conditions above 77° F (25° C) therefore consideration should be given to the amount kept on hand in areas with sustained temperatures above 77° F (25° C).
- Due to the corrosive nature of the product, handling equipment such as tanks, hoses, nozzles and meters used should only be those designed for use with AdBlue.
- Using containers or transfer pumps that have been used with ANY other fluid can cause engine damage. Containers and transfer pumps for AdBlue must ONLY be used for AdBlue and never for other fluids.
- Refer to the (engine) owner's manual for additional information not covered in this notice.

7 : Safety Information

Rules for AdBlue Tank Operation:

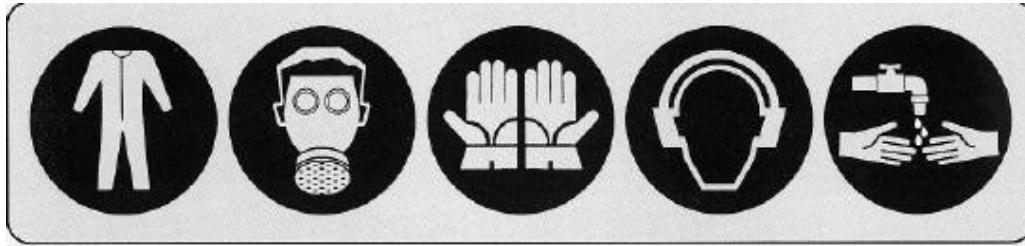
- Always read your AdBlue tank operator's manual thoroughly before operating. Accidents occur every year because of careless use of farm chemicals and farm machinery. You can avoid these hazards by observing these safety instructions.
- Inspect hose and hose connections daily. Always wear rubber gloves when tightening connections. Damaged, loose or worn hoses could result in operator being exposed to AdBlue, which could result in illness or faulty operation.
- When transporting or moving your AdBlue tank always position it on a stable surface, failing to do this could allow the tank to fall, which could result in crushing of personnel.
- Check the AdBlue tank, prior to each use, for any loose connections, and any leaks. These precautions can prevent injury to personnel and damage to equipment.
- Use only genuine Croplands parts for any necessary replacement. All parts are important to the equipment design. Homemade parts may look the same but could be dangerous in operation.
- Do not disconnect any hoses nozzles or filters while AdBlue pump is in operation. Disconnecting components while under pressure will result in uncontrolled spray discharge, which may be hazardous to humans.
- Always make certain operator understands proper safety practices and is familiar with handling procedures as outlined in (AdBlue) supplier Material Safety Data Sheet (MSDS) sheets
- Keep unit under cover to prolong the life of the AdBlue pump and unit.

Your workplace should have a Material Safety Data Sheet (MSDS) if storing AdBlue, for reference in the case of an emergency.

To obtain a MSDS for the AdBlue you bought, ask the supplier of the AdBlue for the MSDS, they are required to be able to supply a MSDS with the fuel they store.

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

8 : Safety With Chemicals



**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 AdBlue 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.

9 : Specifications

Tank:

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

Lid is lockable.

Capacity of 100 litres

Pump:

Self Priming (max 2m head), diaphragm positive displacement pump. Specially designed for AdBlue use – with EPDM membrane.

Read pump instructions for allowable liquids.

12V DC 260W, 22Amp max
Max open flow: 36 ltr/min
IP55

12 Volt Only

Duty cycle: 20 minutes. This means 20 minutes on, and then 20 minutes power off cooling phase. Failure to follow this will void warranty.

Warning:

Functioning pump under by-pass conditions (pump on, trigger not pulled) can only be run for a short time (2 minutes maximum). **Failure to run pump without approved liquid for more than 2 minutes may cause damage to the pump, and is not covered by warranty.**

Operating temperature of pump:

Min: -5°C

Max: +40°C

Never start or stop the pump by connecting or disconnecting the power supply.

Warning:

AdBlue pump should be kept under cover, and not exposed to wet weather.

Water may cause pump to fail – this is not covered by warranty.

Electricity can be very dangerous in wet weather. Do not expose motor or wiring to wet weather.

Read pump instructions for extra information.

Filters:

There is a stainless steel strainer attached to the foot of the suction line.



Earthing Strap:

The earth strap is for use whilst filling or dispensing AdBlue, attach to the pump filling the tank, or to the unit you are filling. This is to avoid a possible spark causing danger, (especially in hot weather).

Dimensions:

US100AB

Length: 710 mm

Width: 800 mm

Height: 475 mm



10 : Operation

To transfer AdBlue:

1. Read instruction manual.
2. Read warning labels on tank and pump (if applicable).
3. When you understand the first two, then proceed to the following steps.
4. Attach earth strap to suitable (grounded) object.
5. Remove filler cap, fill the tank with AdBlue from supply (take care to not splash AdBlue), replace filler cap. You are now ready to transfer Adblue.
6. Ensure pump is switched off, then attach power cords to a 12 volt battery. **Failure to turn pump off before connecting, could damage pump, and is not covered by warranty.**
7. Remove fuel cap from item to fill.
8. Uncoil hose and put nozzle into the unit to fill.
9. Turn the pump on. Note ...
 - Do not leave pump on for more than 2-3 minutes without pulling trigger on the handpiece.
 - Turn pump off when not filling.
10. Pull the trigger on the nozzle handpiece.
11. Watch the level of the AdBlue to ensure that you do not overfill the tank.
12. Return everything back to original state for storage.

Padlock can be used here



11 : Maintenance

General maintenance

Before using the tank, check for any leaks in the seals and fittings.

Before doing any maintenance disconnect power from power source, to stop unexpected pump operation.

Filters

Clean inlet filters as needed, checking each time you fill the tank. If this filter is collecting too much dirt, then you may be required to check the filter on the inlet.

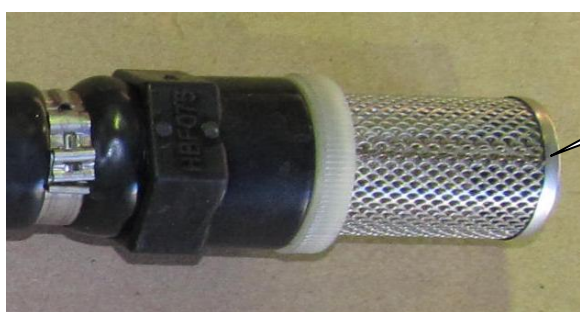
If undoing any fittings, when you put them together again, apply appropriate thread tape or sealant to ensure a good seal.

Pump usage:

AdBlue pump should be kept under cover, and not exposed to wet weather.

Water may cause the pump to fail – and this is not covered by warranty.

Electricity can be very dangerous in wet weather. Do not expose to wet weather.



There is a filter on the suction dropper.

12 : Spare Parts

Use the below codes when ordering spare parts. Not all hardware items are listed.

Part Number	Group	Description
P100AB-RAW	RAWTANK	TANK 100L UTEMATE ADBLUE
AL20400	PUMP	PUMP ADBLUE 35LPM 12VOLT PIUSI
AL147610	NOZZLE	NOZZLE ADBLUE PIUSI 80LPM
A354030	LID	LID 4" C/W BREATHER & SEAL
UP-174	CABLE	EARTH CLIP & CABLE ASSY
UP-183	STRAINER	¾" STRAINER SS
GP-POMADBL-2012	MANUAL	Operators Manual, AdBlue Tank

Croplands Technical Service
1300 650 724

Croplands Australia:
Freecall 1800 999 162
Freefax 1800 623 778

sales@croplands.com.au

www.croplands.com.au