



# **CHASER BIN OPERATORS MANUAL**

**From Serial No. CB6713**

**To Serial No. CB10014**



Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

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## INTRODUCTION

Davimac thanks you for purchasing one of our products.

The range of Davimac Chaser Bins has been developed to cater for the needs of the progressive farmer. Davimac has drawn on its years of experience in the harvesting industry to build a range of chaser bins that have a superior build quality, with heavy duty frame construction and high quality drive systems. You are assured a quality built product for the farmer who only wants the best.

It is the responsibility of the user to understand the operation, safety, maintenance and lubrication before operating the Chaser Bin. It is the user's responsibility to check and service the machine as specified in this manual.

This manual will familiarise you with safety, assembly, operation, adjustments, maintenance and troubleshooting aspects of the machine.

By reading this manual and following the recommendations within it, you will help to ensure safe and efficient operation, as well as years of satisfactory use from the machine.

### Models Covered in this Manual

- 18/25/30 Ton Single axel
- 35 Ton Dual axel

### Description of Unit

Our dedication to building a quality Davimac Chaser Bin is represented by our standard features. One of the best parts of owning a Davimac Chaser Bin is that you can unload your combine on the go and increase harvest efficiency - saving valuable time and money. It's tough and sturdy design ensures strength and durability for the farmer who only wants the best.

- Class leading design.
- A low 3.3m loading side height enhances on-the-go-transfer efficiency.
- The rugged drive train design combines a hydraulic drive 16" cross auger and a heavy duty direct drive gearbox for the 20" vertical auger.
- Steep bin sides, so even hard to flow grains will flow.
- Easy clean out - bin design eliminates places for grain to sit.
- The axel is rated to 34 ton (40 ton on 30 ton single axel) (80ton on the dual axel).
- Unique heavy duty chassis puts the Davimac Chaser Bin in a class of its own.

### Advantages of owning a Davimac Chaser:

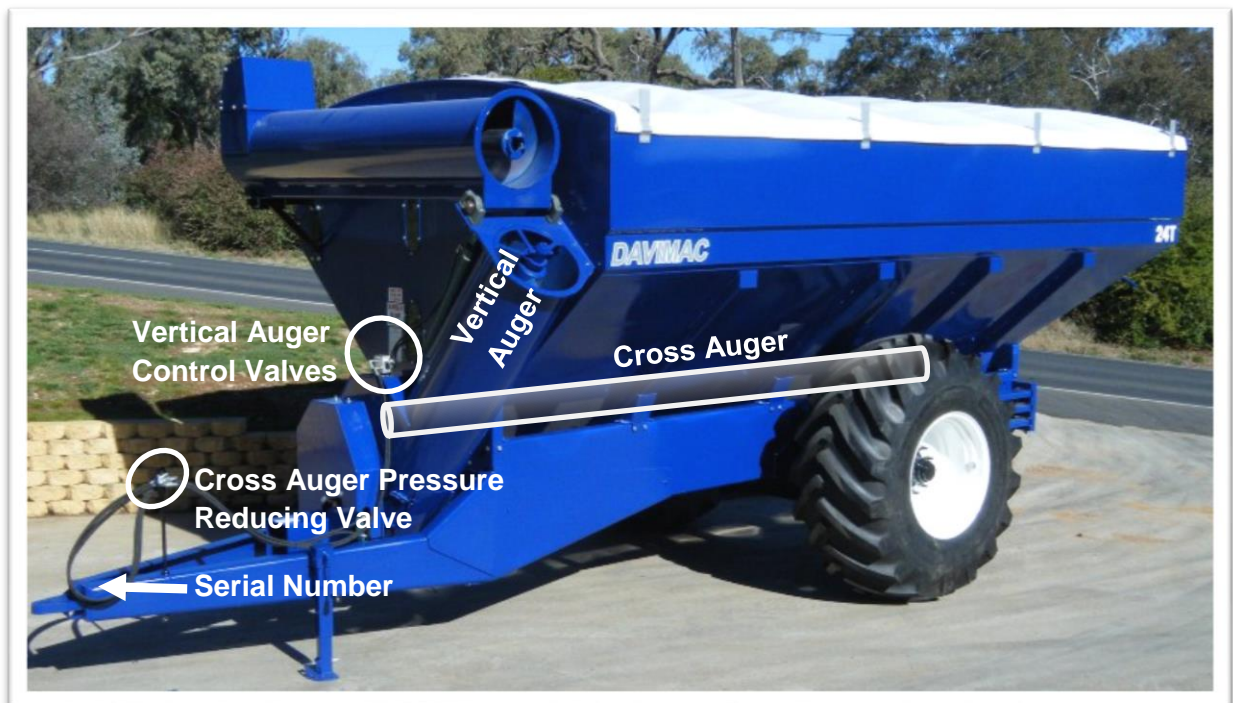
- Increased header capacity up to 30%
- Able to harvest in wetter conditions.
- Less wear and tear on header running across fields
- A product that is built to last.
- Less compaction (no trucks in the fields).

### Standard Features:

- Capacity: Sizes range from 18 tonne to 35 tonne.
- The 16" cross auger is driven by a heavy duty gearbox.
- Heavy Duty frame manufactures from 6.4mm, 10mm and 16mm plate with all structural joints plated for greater strength.
- The bin is constructed of 3mm sheet in the sides and 6.4mm plate in the front and back of the bin. The bin has a full length clean out slide and steep 55 degree sides so that the bin empties completely.
- Heavy duty floatation wheels are fitted. On the 18 tonne bin 30.5x32 16 ply tyres are fitted and on the 25/35 tonne bin 800/60 R32 tyres are fitted as standard or 900/60R32 tyres can be fitted to give superior floatation.
- The 20" vertical auger flight is constructed in 10mm steel. These heavy gauge flights combined with a 3mm barrel ensure long life. The cross auger has a large 165mm pipe so there is no need for troublesome middle bearings.

### Options:

- Auger mounted work light.
- Spout for filling auger hoppers.
- 3 metre wheel centres.
- Rear lights with revolving light.
- Freight available if required.
- Scales



## WARRANTY

Davimac Pty Ltd warrants against defects in materials or workmanship that result in failure during normal usage for 3 year from date of delivery.

Davimac Pty Ltd reserves the right to inspect and decide whether material or workmanship was the cause of the fault or whether the fault was as a result of abuse, accident, misuse tampering, improper maintenance or servicing thus voiding warranty.

Warranty service must be undertaken by a dealer or service centre approved by Davimac Pty Ltd. Warranty service will be performed without charge to the purchaser if the warranty claim is valid. If the original purchaser sells or transfers this product to a third party the warranty does not transfer to the third party in any way.

To process a warranty claim first contact the dealer who sold the unit and provide the serial number of your unit and details of the problem you are experiencing. The dealer will then contact Davimac Pty Ltd to get approval to assess your machine and to proceed with any warranted repairs.

Davimac Pty Ltd will provide replacement parts and repairs but does not cover additional costs incurred for travel and transport beyond work at the approved service location. Excluded from warranty are travel, transport and labour costs for repairs or replacement parts when the owner elects for these to occur at a location other than at an approved service location.

Davimac Pty Ltd does not warrant tires supplied as these items are covered by the tire manufacture. Davimac Pty Ltd will facilitate the warranty process with the appropriate manufacture but the outcome will be a result of the tyre manufactures investigation.

Davimac Pty Ltd reserves the right to make product design changes at any time without notice. They shall not be obligated or liable for the replacement of previously sold products that do not match design updates included in latest models.

Davimac Pty Ltd does not warrant faults relating to wheel nut tightness. It is the responsibility of the operator to check and maintain wheel nut torque on a regular basis. (Refer to the Maintenance section of this manual for requirements).

## Serial Number

The serial-number plate is stamped onto the top of the pitch plate.

Record your chaser bin model and serial number on the front cover of this manual for quick reference.

Quote this number when ordering spare parts, or when you require service.





## SAFETY

Safety is the responsibility of the operator to know how to operate and service the machine.

Thoroughly read and understand the instructions in this manual before operating or servicing the machine. Read all instructions noted on the safety decals.

Below are identified safety points. Identified safety risks can never be considered comprehensive and the operator should always do a safety evaluation of the machine within the operating environment before operating the machine.

### General

- Be familiar with all chaser bin functions.
- Operate machinery from the driver's seat only.
- Do not leave chaser bin unattended with tractor engine running.
- Do not dismount a moving tractor.
- Always look up for power lines before raising the vertical auger.
- Always look for trees and other obstacles before raising your vertical auger.
- Keep hands, feet and clothing away from power-driven parts.
- Wear snug-fitting clothing to avoid entanglement with moving parts.
- Make sure all persons are clear of working area.
- Do not turn tractor too tightly, causing chaser bin to ride up on wheels. This could cause personal injury or equipment damage.
- Do not break suddenly and always make sure you break when driving in a straight line to avoid risk of jack knifing.
- Never permit any persons other than the operator to ride on the tractor.
- Never ride on the chaser bin or allow others to ride on the chaser bin.
- Do not allow anyone to stand between the hitch and towing vehicle when backing up to the chaser bin.
- Do not operate or do maintenance on the chaser bin unless you are trained to do so.
- Before doing any maintenance do a safety evaluation.
- Do not service the hydraulics while there is pressure in the system.

Throughout this manual, important safety information is indicated by these symbols.



A Blue Caution indicates a hazard that may cause damage to property if the caution is ignored.



A Yellow Warning indicates a hazard that could cause injury or death if the warning is ignored.

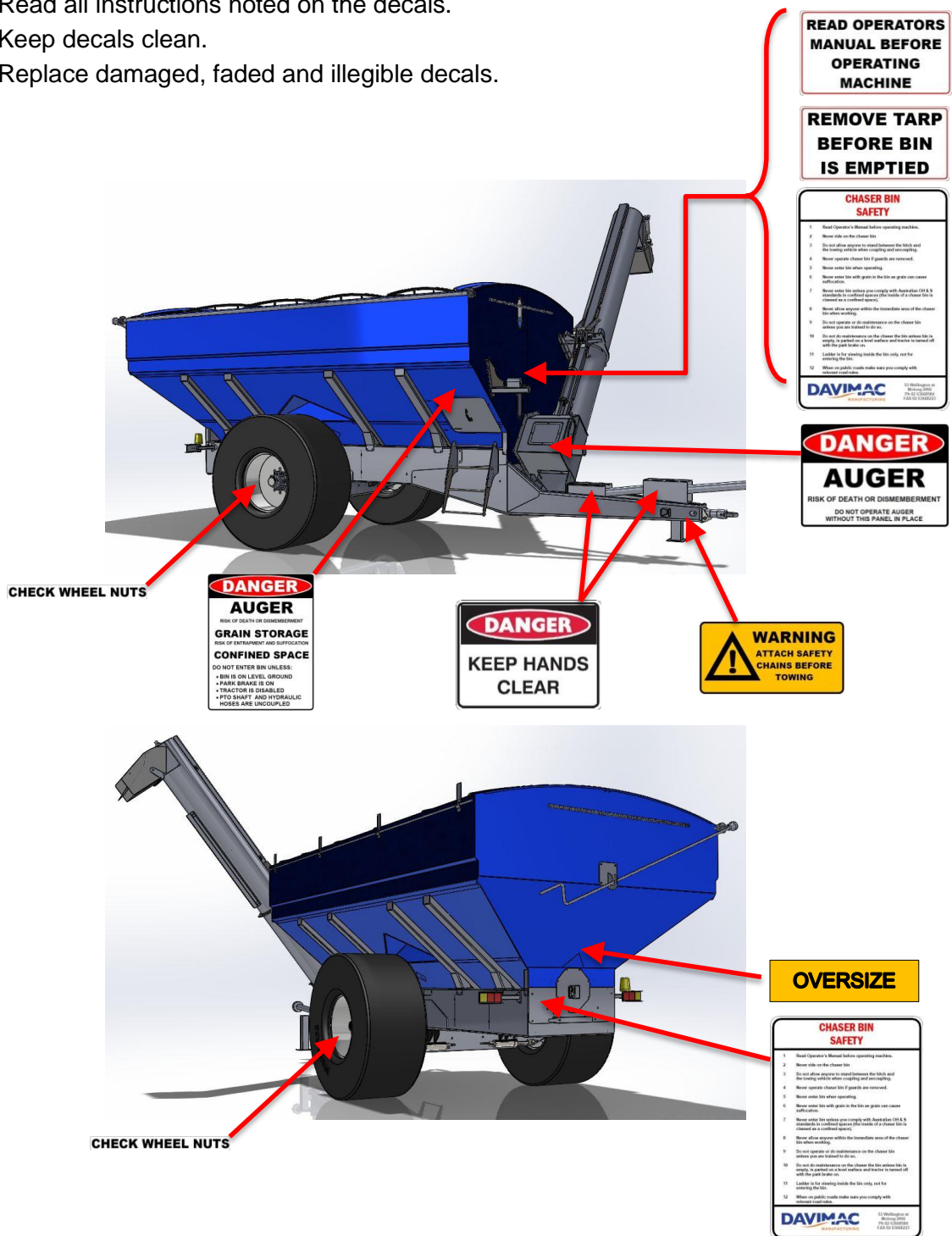
## Protective Equipment

Wear protective clothing and equipment.

- Wear clothing and equipment appropriate for the job.
- Avoid loose-fitting clothing.
- Wear suitable hearing protection such as earmuffs or earplugs.
- Avoid wearing radio headphones while operating machinery.

## Safety Decals

- Read all instructions noted on the decals.
- Keep decals clean.
- Replace damaged, faded and illegible decals.



## High Pressure Fluids



Warning - High Pressure Fluid Hazard: Escaping fluid under pressure can have sufficient pressure to penetrate the skin. Check all hydraulic lines and fittings before applying pressure. Fluid escaping from a very small hole can be almost invisible. Use paper or cardboard, and wear heavy gloves to check for suspected leaks. If an accident occurs seek immediate medical assistance.

- Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard to check for suspected leaks.
- Wear protective gloves and safety glasses or goggles, and other appropriate safety equipment when working with hydraulic systems.
- If an accident occurs seek medical assistance immediately.

## Tyre Safety



Tyre changing can be dangerous and should be performed by trained personnel using correct tools and equipment.

- When inflating tyres, use a clip-on nozzle with an extension hose long enough for you to stand to one side of tyre assembly.
- Never walk away while a tyre is inflating. Stay and ensure the tyre is not over inflated.
- When removing and installing wheels, use wheel-handling equipment adequate for weight involved.

## Safe Maintenance

- Understand procedure before doing work. Use proper tools and equipment. Refer to this manual for additional information.
- Always use and wear appropriate personnel safety equipment.
- Work in a clean, dry area.
- Put the tractor in park on flat level ground, turn off engine, and remove key before performing maintenance.
- Make sure all moving parts have stopped and all system pressure is relieved.
- Remove build-up of grease, oil or debris.
- Ensure removal of all tools and unused parts from chaser bin before operation.



## OPERATION AND SETUP

### Tractor Requirements



Warning – Collision Hazard: Confirm tractor is rated to tow the load of fully loaded chaser bin. The chaser bin loaded weights for each model are listed in the specifications section of this document.

Check that tractor compatibility and power are sufficient for the chaser bin and that it has two remote hydraulic outlets. If the unit has the option of a variable hydraulic auger spout or full hydraulic drive you will need an additional outlet for each feature. (E.g. up to 4 outlets may be required).

- For the 18 and 25 Ton chaser you will need 120 l/min of oil flow
- For the 30 and 35 Ton chaser you will need 135 l/min of oil flow

### Hitching Tractor to Chaser Bin



Warning – Crushing Hazard: When hooking chaser bin to the towing vehicle the operator has the responsibility of safety for other persons in the area. Persons should not stand in between tractor and chaser bin. Stop tractor engine and set park brake before installing the hitch pin.

1. Make sure the tractor and chaser bin are on level ground.
2. With chaser bin tongue level, adjust chaser bin hitch on tongue to match your tractor-drawbar height.
3. When chaser bin hitch matches tractor-drawbar height, hitch chaser bin to tractor.
4. Securely attach chaser bin safety chain to an anchor on tractor capable of pulling chaser bin load.
5. Attach PTO shaft. Ensure guards are in place and in good working condition.
6. Connect hydraulic hoses which are labelled to help with connection:

	Vertical Auger <b>FOLD</b>
	<b>CROSS</b> Auger Drive
	<b>VERT</b> ical Auger Drive (Optional)
	Hydraulic Variable <b>SPOUT</b> (Optional)



Warning – High Pressure Fluid Hazard: Escaping fluid under pressure can have sufficient pressure to penetrate the skin. Check all hydraulic lines and fittings before applying pressure. Fluid escaping from a very small hole can be almost invisible. Use paper or cardboard, and wear heavy gloves to check for suspected leaks. If an accident occurs, seek immediate medical assistance.

7. Raise the jack.



Caution: When towing check that the safety chain is attached.

Caution: When towing on public roads check that you comply with all road rules

Caution: When loaded do not exceed 10 km/h

## Transporting

1. Fold up discharge chutes.
2. Locate jack stand in transport position.
3. Maximum towing speed 30 km/h when empty.
4. Ensure towing vehicle requirements are adequate for the towed vehicle e.g. mass / brakes etc.
5. Braking when towing can cause the load to jack knife. Use extra care when towing in adverse conditions such as mud, inclines and sharp bends.
6. Lower towing speeds are recommended on farm roads/tracks and where one wheel is on or over a road verge.
7. Attach safety chains to tractor. Note: The safety chains are provided with sufficient length to cater for all towing vehicles. Safety chains must be shortened by cutting off excess length so that if the coupling fails the drawbar will not hit the ground.

## Pre Start Checklist

1. Check wheel nuts are tight.
2. Check tyre pressure is as specified within this manual.
3. Check for oil leaks.
4. Check that no foreign objects are in the chaser bin.
5. Check the chassis for cracks or damage.
6. Ensure PTO shaft guards and all other guards are in place and in good working condition.

## Field Operation



Caution: The chaser bin needs to be filled evenly so that the loading to the tractor hitch does not tend to lift or put downward force on the hitch connection.

Caution: When loaded do not exceed 10 km/h

Caution: You cannot turn or be on an angle when the PTO shaft is engaged. This will cause damage to your universal joint.

To start the augers:

1. Check for power lines, other augers, trees or other equipment and obstacles.
2. Once you have come to a stop you are ready to fold your auger out.
3. Fold out auger using hydraulics.
4. Engage the PTO to start the vertical auger whilst the tractor is idling.
5. Start the cross auger with hydraulics.
6. Increase tractor RPM to desired speed.

To stop the augers:

1. Reduce tractor RPM to idle.
2. Disengage hydraulic drive for cross auger.
3. Once the vertical auger is empty disengage the PTO drive.
4. Fold down vertical auger. It is advised to wait 30 seconds for residual grain to flow back down the auger.

Emergency Stop Procedure:

1. In an emergency you can disengage the PTO drive which will stop grain flowing immediately.
2. Then disengage the hydraulic drive for the cross auger.

NOTE: You will need to restart the augers and follow the correct stop procedure to be able to fold the vertical auger up.



Caution: The emergency stop should not be used unless necessary as it causes grain to compact at the base of the auger which will cause premature wear to your machine if done regularly.

## MAINTENANCE AND LUBRICATION

### Maintenance

Proper servicing and maintenance is the key to long implement life. With careful and systematic inspection, you can avoid costly maintenance, downtime and repair. Always turn off and remove the tractor key before making any adjustments or performing any maintenance.



Warning – Crushing Hazard: Never perform maintenance while machine is loaded. Park on level ground, insure wheels are sufficiently chocked, tractor is disabled and park brake engaged.



Warning – High Pressure Fluid Hazard: Escaping fluid under pressure can have sufficient pressure to penetrate the skin. Check all hydraulic lines and fittings before applying pressure. Fluid escaping from a very small hole can be almost invisible. If an accident occurs seek immediate medical assistance.

1. After using the chaser bin for several hours, check all bolts to be sure they are tight.
2. Lubricate areas listed under “Lubrication”.
3. Check tyre inflation as specified in “Tyre Inflation Chart”.
4. Clean out grain from feed bin regularly.
5. Replace any worn, damaged or illegible safety decals.

## Lubrication

Area	Weekly	Pre-Season
Grease drive line bearings	✓	
Auger Hinge Bearing		✓
Check Gearbox oil and top up if required	✓	
Change Gearbox oil		✓

Note recommended Gear Oil: 80W/90 Gear Oil

## Tyre Inflation Chart

Tyre Size	psi	kPa
30.5 x 32 16 ply	42	289
800/60 R32	49	340
900/60 R32	55	379



Caution: Tyre pressure should be checked weekly

## Bolts and Hardware

Check wheel nuts every day for the first 3 days and weekly after that. Wheel nuts should be tightened to 1025Nm (756 ft-lbs).

Note: Davimac Pty Ltd does not warrant faults relating to wheel nut tightness. It is the responsibility of the operator to check and maintain wheel nut torque on a regular basis.

Check all bolts and hardware after the first 50 hours of use. All fasteners should be checked and retightened as required during an annual service.



Caution: Use only metric tools on metric bolts to avoid damage to bolt heads and to prevent tools slipping and causing injury.

## Torque Chart

Bolt Dia	Class 4.6		Class 8.8		Class 10.9	
	Nm	ft-lbs	Nm	ft-lbs	Nm	ft-lbs
8	8	6	22	16	32	24
10	17	13	44	32	63	46
12	30	22	77	57	109	80
14	51	38	133	98	189	139
16	73	54	190	140	270	199
18	108	80	281	207	399	294
20	143	105	372	274	528	389
24	248	183	640	472	914	674
30	491	362	1314	969	1817	1340

Bolts should only be replaced with higher grade bolts. If replaced by a higher grade bolt then the original bolt torque should be applied.

## Storage



Warning – Make sure the chaser bin is stored on level ground, with the key removed and all drives disengaged.

The chaser bin should be stored under cover when not in use for longer life.

1. Unload bin.
2. Thoroughly clean grain residue from the box and auger.
3. Remove any dirt and debris that can hold moisture and cause corrosion.
4. Inspect chaser bin for worn or damaged parts. Make repairs and service during the off season.
5. Use spray paint to cover scratches, chips and worn areas on the chaser bin to protect the metal.

## TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
<b>Cross auger not driving</b>	Poor flowing grain (e.g. Faba Bean, rice)	Turn the pressure up on the pressure reducing valve located in the hydraulic motor lines. (See Figure 1 below)
<b>Slow cross auger operation</b>	Hydraulic flow rate too low	<ol style="list-style-type: none"> <li>1. Turn pressure up on the pressure reducing valve.(See figure 1)</li> <li>2. Tractor does not have sufficient hydraulic flow. Review tractor selection or performance.</li> </ol>
<b>Vertical auger folding is too slow or too fast</b>	Flow control valve set to low	Adjust flow control valve. (Black knob shown in figure 2 below)
<b>Vertical auger not folding</b>	Relief valve set too low	Adjust relief valve. (See figure 2 below)



**Ensure the correct relief valve is adjusted.**  
**Over adjustment can cause premature wear.**  
**If this valve is not set properly it can cause damage.**

Figure 1 - Pressure Reducing Valve

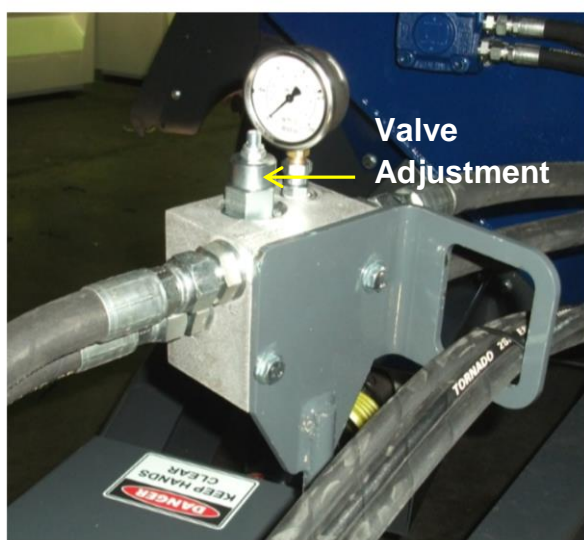
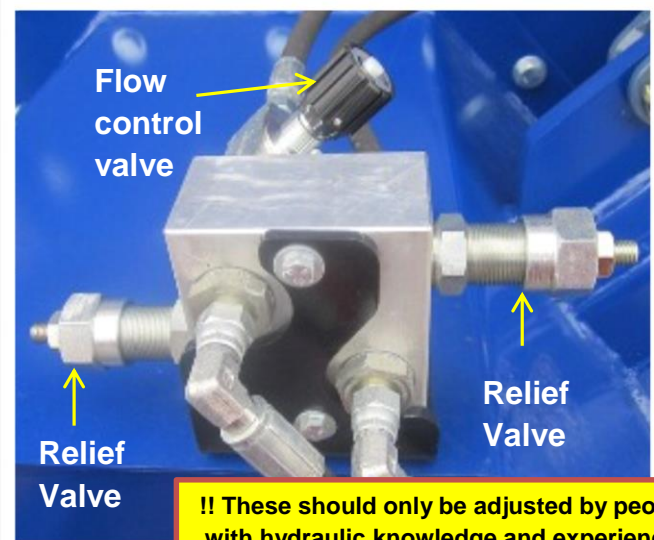


Figure 2 - Vertical Auger Control Valve





## SPECIFICATIONS AND CAPACITIES

Capacity:	18 tonne Wheat	25 ton Wheat	30 ton Wheat	35 ton Wheat
<b>Auger Size:</b>	20" auger (12 ton/min)	20" auger (12 ton/min)	20" auger (12 ton/min)	20" auger (12 ton/min)
<b>Auger Flight Thickness:</b>	10mm	10mm	10mm	10mm
<b>Auger Spout Height:</b>	4.2m	4.2m	4.2m	4.2m
<b>Bin Side Height:</b>	3.35m	3.35m	3.35m	3.35m
<b>Overall Length:</b>	7.3m	8.8m	10m	11m
<b>Overall Width:</b>	3.480m (3.850m with 3m axle option)	3.480m (3.850m with 3m axle option)	3.480m (3.850m with 3m axle option)	3.480m (3.850m with 3m axle option)
<b>Tyres:</b>	30.5 x 32 18 ply	800/60 x 32 ply Optional 900/60 x 32 tyres on 3 metre axle	900/60 x 32 tyres.	800/60 x 32 ply Optional 900/60 x 32 tyres on 3 meter axle
<b>Wheel Tracks:</b>	2.66m standard 3m optional	2.66m standard 3m optional	2.66m standard 3m optional	3m standard
<b>Weight (Unloaded):</b>	4.92 tonnes	5.84 tons	8.2 tons	10.3 tons
<b>Weight (Loaded):</b>	23 tons	31 tons	39 tons	46 tons

## AFTER SALES OPTIONS

Description	
Load Cells	
Auger Hopper Chute	
Rear Lights Set with Revolving Unit Auger Mounted Work Light	
Axel Widening Hydraulic Kit	

## HAZARD IDENTIFICATION & RISK ASSESSMENT

Each hazard is to be considered for its probability and consequence through the following ranges:

Probability (P)	Consequence (C)
5 Expected	5 Death or Dismemberment
4 Often	4 Permanent Disability
3 Sometimes	3 Lost Time Injury
2 Rarely	2 Medical treatment
1 Highly Unlikely	1 First Aid Injury

Level of risk is assessed by multiplying the values associated with each category together.

- 15-25: High risk activities
- 5-10: Medium risk activities
- 1-5: Low risk activities

Operation	P	C	Risk	Control Measures
Clearing debris from auger while in operation	5	5	HIGH	Do not inspect for debris or attempt to clear auger while power is on
Standing on top of the grain in the bin during auger operation	4	5	HIGH	Do not walk on top of grain in bin
Performing maintenance to auger system while in operation	5	5	HIGH	Do not attempt any interaction with auger while power is on
Standing inside bin while in operation	4	5	HIGH	Do not enter the chaser bin while in operation
Inspecting hydraulic lines for leak by hand	4	3	MED	Use paper or cardboard and wear heavy gloves to check for suspected leaks
Tyre changing by untrained personnel or using incorrect tools	3	4	MED	Operation is to be performed by trained personnel using correct tools and equipment
Chaser bin being pulled by tractor with insufficient power to safely tow bin	3	5	HIGH	Confirm tractor is rated to tow the fully loaded chaser bin. Do not tow chaser bin with smaller tractor than required
Standing between chaser bin and towing vehicle while aligning vehicles for hooking	2	5	MED	Operator to take responsibility for all persons in area, only moving vehicles when safe to do so
Performing maintenance without chocking wheels or parked on slope	3	5	HIGH	Do not perform maintenance unless machine is on level ground and wheels are sufficiently chocked, tractor is disabled and park brake engaged
Towing chaser without safety chain attached	2	5	MED	Do not tow chaser without safety chain attached
Exceeding 10km/hr. when fully loaded	2	5	MED	Chaser bin not exceed 10km/hr. when fully loaded
Filling chaser bin while unhooked	4	5	MED	Do not fill chaser bin if unhooked
Walking around chaser bin	1	1	Low	Be aware of chaser bin proportions to avoid bumping head

## Customer Hazard Identification and Risk Assessment

In the event of any activity taking place with the chaser bin which has not been considered by Davimac Pty Ltd it is the customers responsibility to perform their own hazard identification and risk assessment, and to implement reasonable control measures to avoid injury to any person. The following form is supplied to facilitate safety in such occasions.

Probability (P)	Consequence (C)
5 Expected	5 Death or Dismemberment
4 Often	4 Permanent Disability
3 Sometimes	3 Lost Time Injury
2 Rarely	2 Medical treatment
1 Highly Unlikely	1 First Aid Injury

Level of Risk:

15-25: High risk activities

5-10: Medium risk activities

1-5: Low risk activities

Multiply the assigned Probability (P) and Consequence (C) values to define 'Level of Risk' and devise reasonable control measures to avoid injury.

Operation	P	C	Risk	Control Measures



## Warranty Registration Form and Safety Check List

This form must be completed with a Davimac representative and returned to Davimac to validate your warranty.

Customer Name	
Serial Number	
Address	

A Davimac representative is to go through the following points with the customer. The customer must initial each item as confirmation that they fully understand each point.

- Write the Model number and Serial number on the front of the customer's manual
- Run through with the customer the warranty section in the manual (Page 3) \_\_\_\_\_
- Go through all the safety information on pages 6-13 in the manual with the customer and pointing out these issues on their chaser bin \_\_\_\_\_
- Show the customer the Tractor Requirements (Page 9) and the loaded weight of their chaser bin (Page 14). The tractor that is to tow the chaser bin must be rated to tow the chaser bin when fully loaded. (failure to do so could result in series injury or death) \_\_\_\_\_
- Show the customer the Hitching Tractor to Chaser Bin section in the manual (Page9) and ensure they understand \_\_\_\_\_
- Show the customer the Transporting Section in the manual (Page10) and ensure they understand \_\_\_\_\_
- Show the customer the Pre Start Checklist (Page10) and ensure they there understand \_\_\_\_\_
- Show the customer the Field Operation (Page10-11) and ensure they understand \_\_\_\_\_
- Show the customer the Maintenance and Lubrication (Page11-13) and ensure they understand \_\_\_\_\_

I have been shown and fully understand the safety and operating procedures required for the correct use of the Davimac Chaser Bin		
Customer name	Signature	Date
Approved representative	Signature	

**Thank you on behalf of Davimac for purchasing a Davimac Chaser Bin**