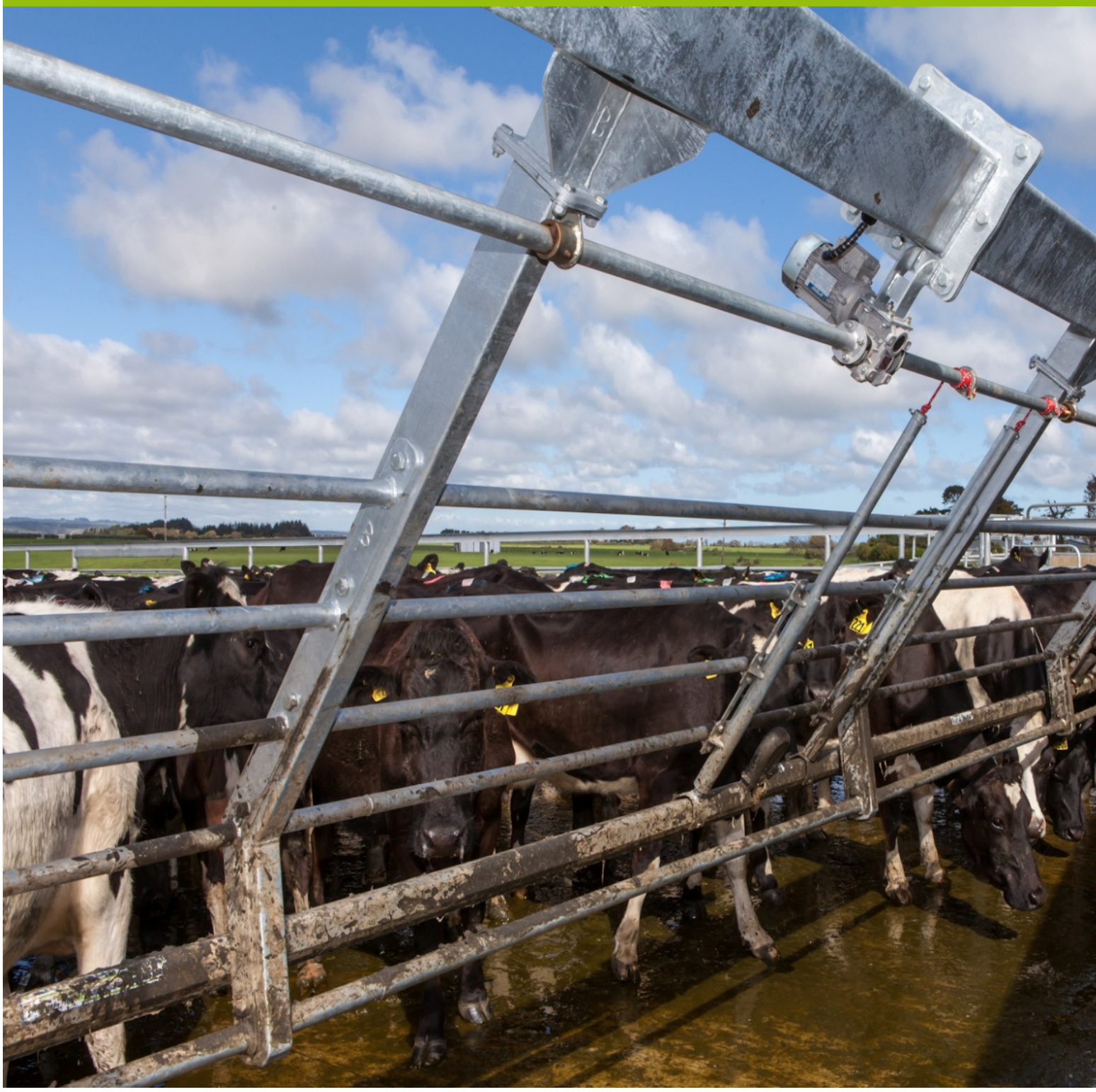
Herdflow® Crowd Gate

Gate Maintenance Guide



WEEKLY CHECKS

Ensure the Gate is Travelling Up and Down the Yard Evenly

Gearbox	
Main Drives	Check for Oil Leaks, check for abnormal noise
Winch	Check for Oil Leaks, check for abnormal noise
Dungbuster Lift	Check for Oil Leaks, check for abnormal noise
Wheels	
Drive Wheels	Check tension on spring – both sides should be the same at 130mm, check tread on wheels, ensure wheel is tracking straight, ensure wheel is on axle firmly by checking key steel is properly in place.
Drive System	Check the collar is snug fit against the gearbox and that there is no gap between them.
Idler Wheels	Check for abnormal noise, ensure wheels are rotating freely. Ensure seal is in place around axle.
Support Wheels	Check for abnormal noise, ensure wheels are rotating freely
Guide Wheels	Check for abnormal noise, ensure wheels are rotating freely
Ropes	
Gate Lifting Ropes	Rope should be in good condition with no frayed ends – The rope end must be tied to the gate with a BOWLINE knot only (if unsure please ask) Replace rope if damaged
Dungbuster Lifting Ropes	Rope should be in good condition with no frayed ends – The rope end must be tied to the sliders with a BOWLINE knot only. Ensure all ropes lifting evenly – adjust collars using Allen Key.
Gate Attitude	Ensure gate is hanging perpendicular when down and horizontal when up. Adjust TER switch – check with agent if necessary on how to do this.
Proximity Sensors	Ensure that the proximity sensors are approximately 5 mm from the steel stop tag. 3 Sensors to check: breech sensor, forward or front sensor and back or rear sensor, Dungbuster sensor (if installed).
Proximity Sensor Plates	Ensure plates a firmly attached to the “I” beam and the correct distance from the front and rear of the yard to ensure the gate stops in time.
Greasing	
Pivot Beams	There are 2 grease nipples on each side. Check that these joints rotate easily as the gate is lifted and lowered. 1 to 2 pumps of grease per month is all that is needed.
Nylon Rollers	There is to be one nylon roller on each side of the wire pusher (these are to push and pull the main cantanary cable) Replace nylon rollers if faulty. A dab of grease each month on about 5 positions along the catanary wire will help the rollers to mover easily along the wire.
Dungbuster Sliders	Ensure sliders lift freely without binding. Apply a few dabs of grease to ensure they slide easily.
Wheels	All wheels now have sealed bearings so will not need to be greased.
Welding	Check for any broken welds Repair welds if faulty

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Scheduled Maintenance to be Carried Out by Local agent

Drive Gearboxes	Run the gate and check the gearbox for noise. Remove gear box and electric motor from the “L” plate. Drain gear box of oil and check for water and any other contamination. Replace the oil with Herdflow Gear Box oil. Clean the top seal thoroughly. Place a thick layer of grease around the top seal. Lift in to position and set gear box cap on to attachment point. Bolt up gear box with cap in place ensuring that bolts are not over tightened *If there is doubt (noise, water contamination) change the gear box and return old one to Herdflow.*
Winch Gearboxes	Run the gate and check the gearbox for noise. Drain gear box of oil and check for water and any other contamination. Replace the oil with Herdflow Gear Box oil. *If there is doubt (noise, water contamination) change the gear box and return old one to Herdflow.*
Wash System Gearbox	Lower and raise the Dungbuster booms and listen for noise in the Gear box. There is no oil level check on this gear box. If the gear box is noisy replace with a new one.
Idler Wheels	We suggest you carry a complete left and right hand unit (excluding the guard) with you so that if a problem is identified it is quicker to change the whole unit over than change the bearing in the field. Clamp the gate off with a rope to prevent it running down the yard before letting off the tension on the drive wheel. Undo the large bolt on the tension spring and swing the drive motor out. This gives you access to the 4 bolts that hold the idler wheel in place. Undo the 4 bolts on the idler wheel and remove the whole unit. Remove the guard. Check that the idler wheel has the new bearing in place (should be NTN 6005LLU) and it should have a rubber seal on the shaft above the guard attachment bracket to prevent water running down the shaft. If neither of these is in place replace the unit and return the old one to Reporoa Engineering. If the new set of bearings and seal are in place check that the bearing runs freely. Check the tread on the idler wheel. Replace the checked or changed idler unit and replace the drive motor. Ensure that the tension spring is set to 130mm and that both sides are set the same.
Guide Wheels	Remove the guide wheels and check that they run freely on the bearings.
Support Wheels	Carry 4 spare support wheels with the new bearings in place. These are now solid cast wheels – not urethane treaded. Make sure you also have 4 x approx. 6mm spacers. These are cut out of 25mm galv. Pipe. To check the support wheels swing out the drive unit (see Drive Gear Boxes above) , remove the idler wheel unit (see Idler Wheels above) and the side mounted guide wheels. Lift up the whole drive unit on the side you are working with a jack or tractor to allow the support wheels to turn. Check that they turn freely. If not lift up so that the wheels can be dropped down. Take out the axles and check the bearings to ensure the new bearings are in place. If not change over the whole wheel and replace. Check each wheel (2 on each side).

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Scheduled Maintenance to be Carried Out by Local agent

Ropes	**Change at least annually.** Take spare lifting ropes with you and replace these if necessary. Check the Dungbuster lifting ropes for wear. Replace if necessary. Use a BOWLINE to tie on to the gate. When replacing the rope take note on how the old one comes off. One side goes over the top of the winch drum and the other side underneath. When replaced you will likely have to adjust the lift height and down position of the gate (it must hang vertically) by adjusting the cams on the TER switch (the yellow box on top of the winch motor).
Proximity Sensors- Forward Reverse	Test the gate to ensure the gate stops in the correct position at the front and rear of the yard. Shift the reading plates forward or back and ensure the proximity sensor is within 5mm of the plate. The sensor has a small light which illuminates when it is reading metal.
Proximity Sensors – Breech and Dungbuster lift	Test the gate to ensure the breech sensor and Dungbuster lift sensor are working. Adjust the sensor in or out to ensure the proximity sensor is within 5mm of the plate. The sensor has a small light which illuminates when it is reading metal.
Nylon Rollers	Nylon Rollers must be spaced at 1500mm centres maximum. Replace faulty nylon rollers with genuine part only. A dab of grease on the catanary wire on around 6 places will help the rollers to slide easily on the wire.
Nylon Rollers	There is to be one nylon roller to be each side of the wire pusher (these are to push and pull the main cantanary cable).
Wire Pusher and Pulley	The wire pusher should be in good condition with no worn groove in the pulley. Make sure the arm is at right angles to the gate frame and not bent out of alignment.
Painting	Wire brush, and then repaint any welds to protect from rust, which will ensure the longevity of your gate.
Electrical Cables	Make sure all glands are tight, and all electrical cables are in good condition.

Check List for Herdflow Crowd Gate

If slippage is occurring or the gate is not running straight please check the following:

- That all bearings (idler wheels, support wheels and locating wheels) are running freely and are not noisy. Change if they are not 100%.

- Ensure that the tension on the drive spring is the same on both sides. Tighten up to a maximum of 115mm on each side. Normal tension should be 130mm on each side.

- Ensure that the catanary wire down the side of the yard is running in the centre of the roller. Also grease the roller.

- Grease the first 10 orange ezy rollers.

- Check that the “I” beam is located down the centre of the nose cone – front and rear - of the gate.

- Check that the idler wheels have not delaminated.

- Make sure the drag hose for the Dungbuster water supply is dragging freely along the ground and not snagging anywhere.

ANNUAL CHECKLIST – Must be signed by our authorised agents only

ITEM	PASS ✓	FAIL x	DATE SERVICED (1st Year)	SIGNED	PASS ✓	FAIL x	DATE SERVICED (2nd Year)	SIGNED	PASS ✓	FAIL x	DATE SERVICED (3rd Year)	SIGNED
Drive Gearboxes												
Winch Gearboxes												
Wash System Gearbox												
Idler Wheels												
Guide Wheels												
Support Wheels												
Ropes - Lift												
Ropes – Wash Lift												
Proximity Sensors – Forward Reverse												
Proximity Sensors – Breech & Dungbuster Lift												
Nylon Rollers												
Wire Pusher & Pulley												
Electrical Cables												
Greasing – Pivot Points												
Greasing – Nylon Rollers												
Greasing – Dungbuster Sliders												

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