MCINTOSH DOUBLE BALE FEEDER

User Manual

McIntosh Brothers Engineers Ltd
Phone 06 356 7056
PO Box 4240
Palmerston North
New Zealand
www.mcintosh.net.nz

WARRANTY CONFIRMATION

Your bale feeder is covered by a 24-month warranty from the date it enters service, provided it has not been subjected to improper use, excessive speed over rough terrain, or any other conditions that go against the manufacturer's specifications or recommendations.

The dealer has instructed me on the use of the bale feeder and maintenance requirements.

Serial # _____

Owners Information:

Signed:	_____	Signed:	_____
Owner:	_____	Company:	_____
Date:	_____	Sales Person:	_____
		Date:	_____

Please return this completed form to:

McIntosh Brothers Engineers Ltd
PO Box 4240
Palmerston North, 4442
Production@mcintosh.net.nz

MCINTOSH

Please note: It is recommended that both the owner and the dealer retain a copy of the completed warranty form for their records.

MCINTOSH

Double Bale Feeder

GENERAL OPERATION AND MAINTENANCE INSTRUCTIONS

MANUFACTURED BY:	DISTRIBUTED BY:
Mcintosh Brothers Engineers LTD Palmerston North New Zealand	

SAFETY
must have
PRIORITY

Safety Guidelines

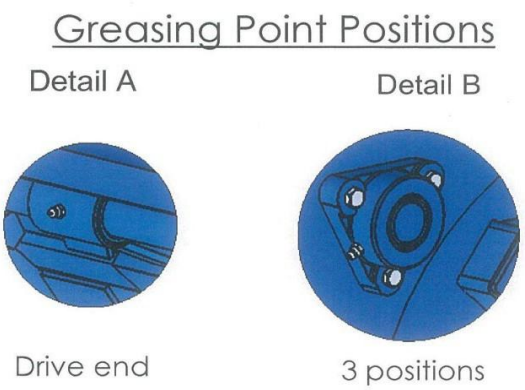
- **Keep the machine well maintained and in good working condition.**
- **Ensure all guards and shields are securely in place during operation.**
- **Disconnect hydraulic supply lines before performing any maintenance, greasing, or adjustments.**
- **Keep hands, feet, and clothing away from all moving or power-driven parts.**
- **Ensure bystanders are clear of the machine when in use.**
- **Always shut down the hydraulic system before leaving the tractor seat.**
- **Never allow anyone to ride on the bale feeder.**

HUMAN ERROR IS
THE MAJOR FACTOR IN ACCIDENTS

MAINTENANCE

Daily & Weekly Greasing:
Your Double Bale Feeder has the following grease points:

- Cradles: 4
- Lifting Arms: 8
- Swivel: 1
- Jack: 1
- Hubs: 2
- Walking Beams: 2
- Drive Shafts: 2



Grease the machine daily for the first week of use, then weekly thereafter. (Refer to Details A & B for visual guidance.)

Chains

The roller chains are self-adjusting. Regularly oil them and check that the slat bolts are tight.

Tyres & Wheel Torque

Standard and optional tyre options:

- 11.5/80-15.3: 69 PSI
- 11.5 x 15.3 Tractor Tread: 58 PSI
- 400/60 x 15.3: 50 PSI

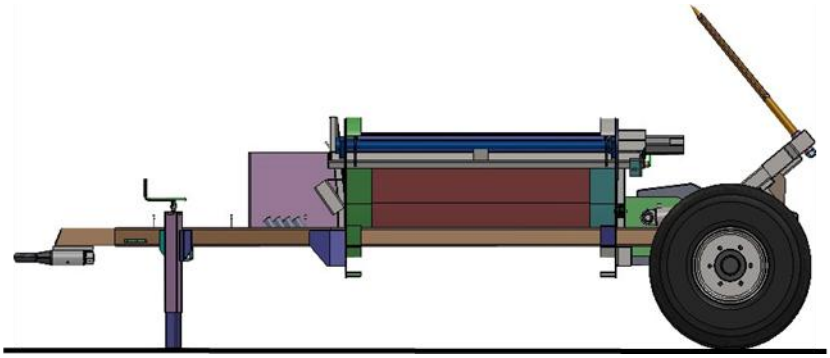
Wheel nut torque: M18 – 200 ft/lbs or 270 Nm

Lifting Arms

Lifting arm greasing is critical for smooth operation.

- If the second arm doesn't return fully to loading position, apply more grease—this typically solves the issue.
- If the bale falls into the cradle before you've removed the plastic/net, the most common cause is air in the circuit. Bleed the valve block and rams, then re-test.

End-of-Season Storage



Both Rams – Closed Position Off Season Storage

- Clean all feed residue and wash down the machine.
- Fully grease all points.
- Oil the chains to prevent seized links.
- Store rams in the closed position. If any chrome shaft is exposed, grease it to prevent rust which can damage seals.

  Note: Even in the closed position, the smaller ram will still show 75–80 mm of shaft.
- Check tyre pressure before putting the machine back into use.

WHEN INSPECTIONS AND ADJUSTMENTS ARE BEING MADE, HYDRAULIC POWER MUST BE DISCONNECTED

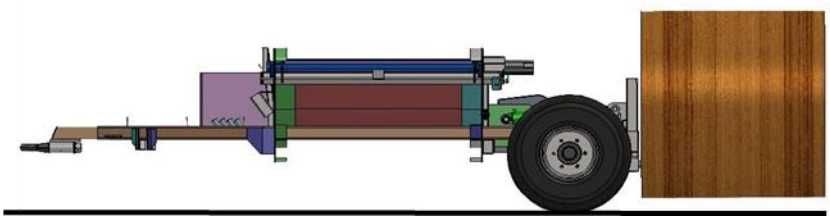
Operating Instructions

Hydraulic Setup:

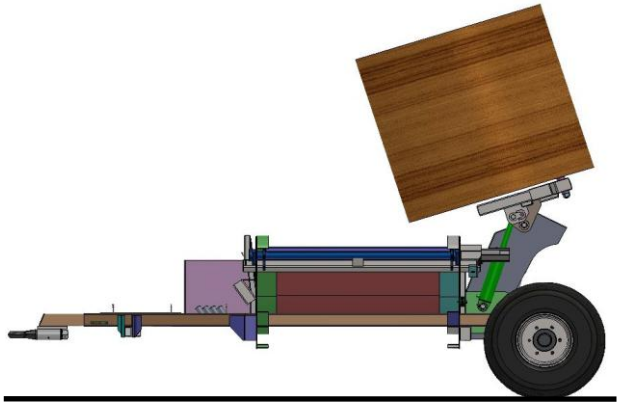
- ½” hoses: Cradle drive
- ⅜” hoses: Lifting arms

Loading Bales

1. Lower the forks fully to suit 4–5 ft bales.
   For 6 ft bales, raise fork tips 100–150 mm.
2. Load the first bale, then back straight into the second. This ensures alignment and helps with visibility.
3. Leave a gap between the bales for removing the plastic wrap.
4. Cut plastic from the end of the bale before loading.
5. Raise the bale roughly 400 mm above the cradle (adjust as needed to remove netting easily).
6. Remove netting either from the checker plate or after cutting and flipping.
7. Avoid stopping the bale at full height load in one smooth motion to maintain power.
8. Operate at idle speed for better control.
9. To remove forks from bale:
   - Reverse oil flow. The main ram lowers while the small ram floats.
   - When the main ram is fully retracted, the small ram will flip the forks into position.
10. Travel with forks up unless carrying a bale.
11. On steep terrain, lower the second bale or remove it until the first has been fed out.



Start Position - Loading



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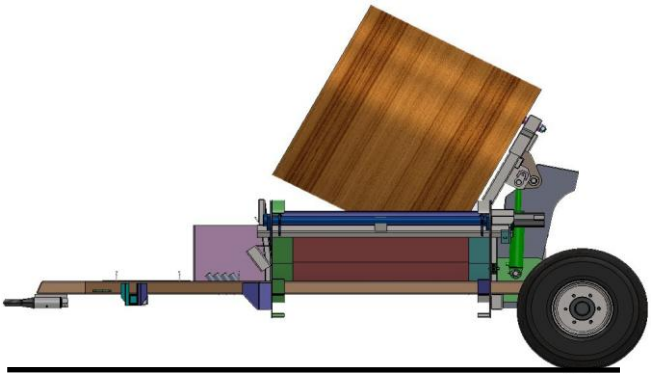

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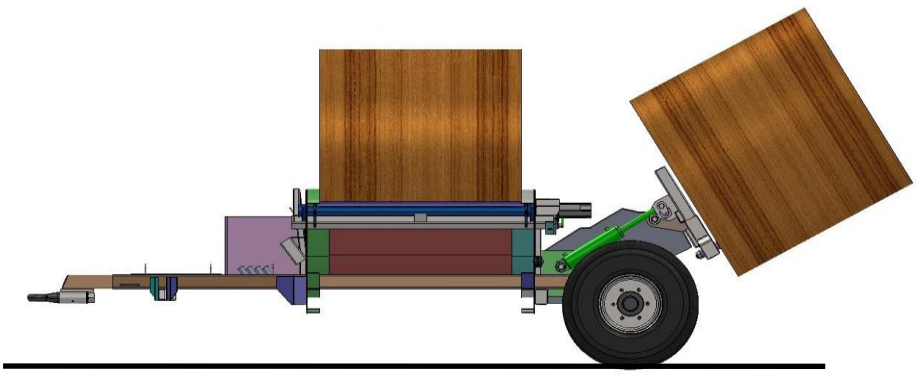


Travel Position

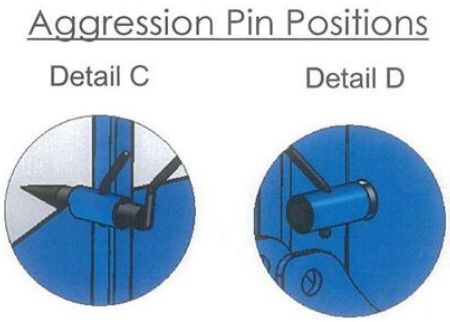
Feeding Out

- Bales can be loaded either direction.
- If bale is slow to unroll, increase tractor revs temporarily.
- Slow revs once feeding is underway.
- Aggression pins help with tough bales.
- **Max recommended oil flow: 50 L/min -** exceeding this can damage the motor and increase wear.

Aggression Pins

Used only when bales won't start unrolling (e.g. mouldy or tight centre).

- Insert pins in slat holes at bale ends.
- Restart machine to break into the bale.



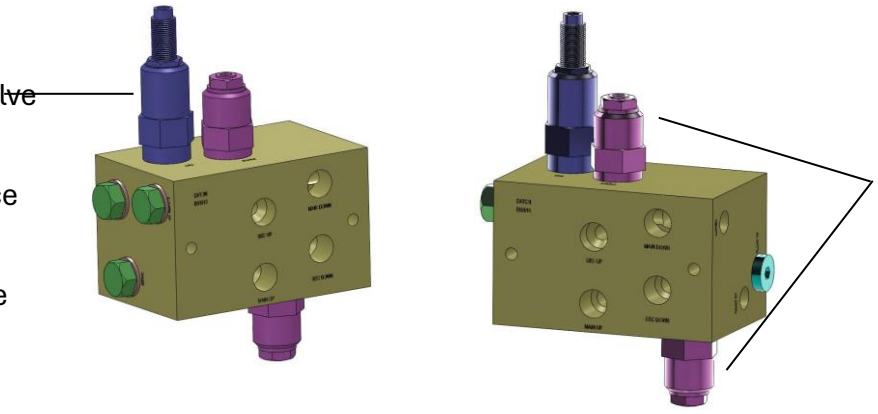
Valve Adjustments & Troubleshooting

Sequence Cartridges (Set at 2½ turns out):

- Controls which ram activates first (main left before tip ram).

Return Relief Valve (Set fully out / 50 PSI default):

- Allows the small ram to float when removing forks.
- If set too far in, forks may try to lift bale during removal.



Common Problems & Fixes

You can't pick the bale off the ground:

- Check your tractor pressure, this is usually an issue with the tractor.

Forks won't lower parallel to load:

- Check for lack of grease in pins.

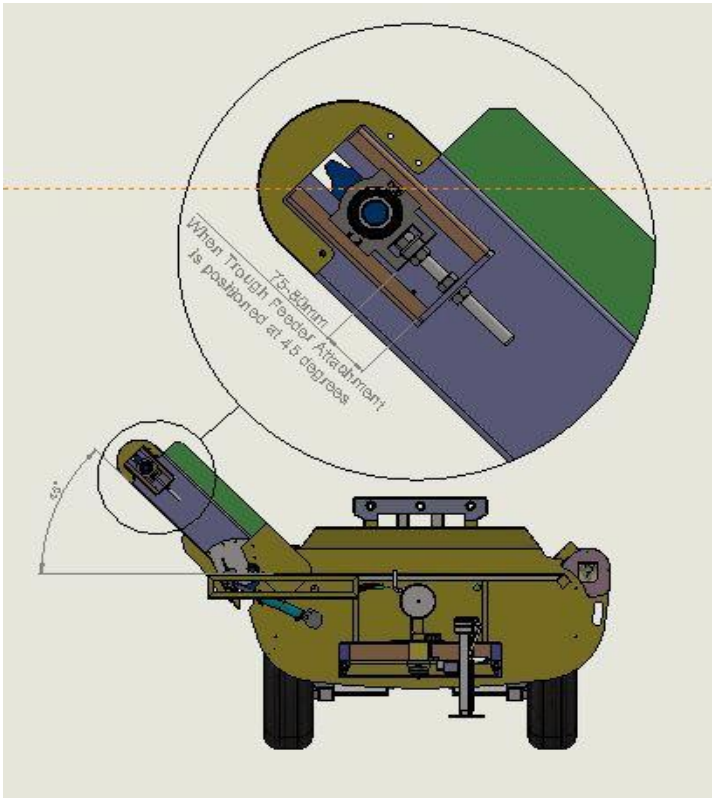
Bale drops into cradle too early / can't hold it to take the plastic off:

- Bleed air from the small ram.
- Check/replace sequence valve.

Trough Bale Feeder Only

- Always load with the arm down.
- Travel with the arm up until ready to feed.
- Arm can be lifted up to 45° for feeding (chains will still run, if it is straight up but it is hard on the machine).
- Adjust chains only when the arm is raised to 45°.

  DO NOT adjust when arm is down.
- Store with the arm down and ram closed. If stored extended, grease exposed shaft.



Service Information

Location of Valve Assemblies:

- Double Bale Feeders: Rear left-hand side near the wheel.

These valve blocks have:

- 2 throttle valves (tip and return speeds)
- 1 relief valve (fork pressure returning to load)

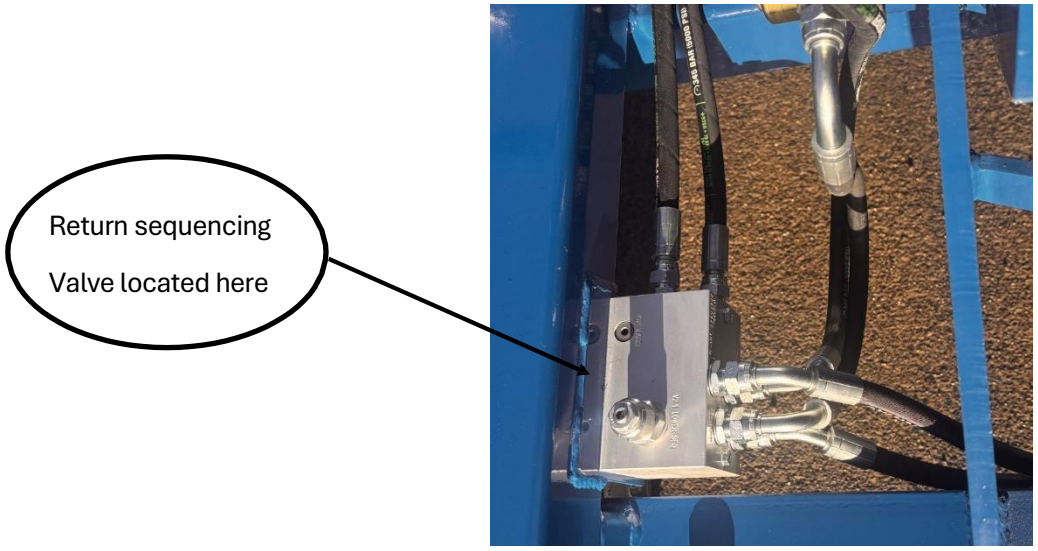
Adjustment tips:

- Adjust only one valve at a time.
- Use ½ turn increments and test after each change.
- If issues persist, reset to factory settings.

Specific Troubleshooting Examples

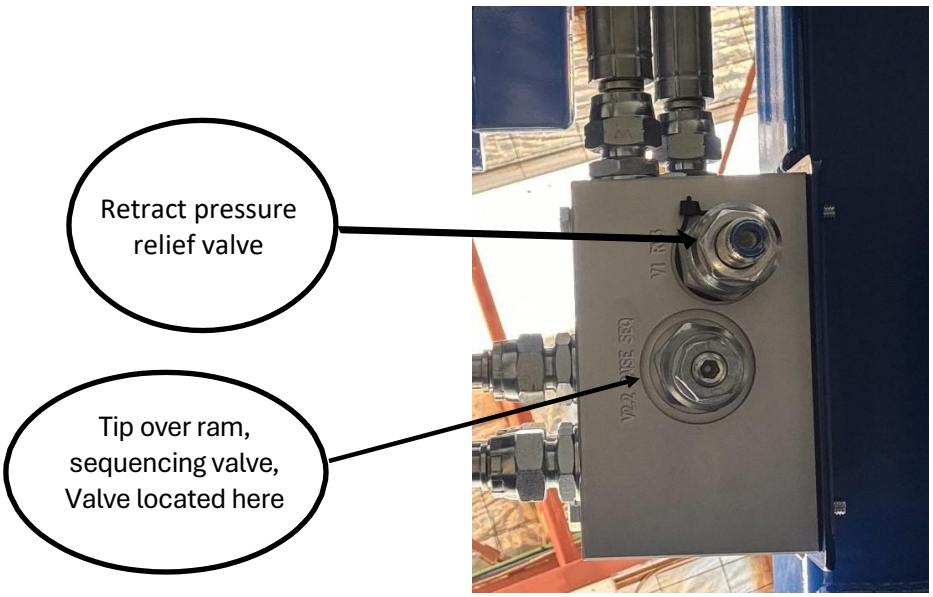
Problem: Forks won't return to fully dropped load position or creep down when carrying a bale:

- Adjust return sequencing valve outward by ½ turn.
- Standard Factory setting: 3.5 to 4 turns out.



Problem: Forks won't tip over into feeding cradle or drop in too fast:

- If not tipping, unscrew tip sequencing valve ¼ turn at a time.
- If dropping too hard, screw it into slow descent.
- Factory setting: 2.5 to 3 turns out.



Problem: Forks try to lift bale back out when returning:

- First, reduce tractor oil flow to 40–65 L/min.
- If issue persists, unscrew the return relief valve.

Problem: Fork Arm drops Bale into Cradle:

- Inspect small sequencing valve cartridges, take out the two smaller sequencing valve cartridges and check if the O-rings or backing rings are cracked or broken.
- Replace if O-rings or backing rings are worn or broken.
- May also be caused by excessive oil flow over 50 L/min.