# MCINTOSH TIPPING TRAILERS

# 4.5 to 20 Tonne Models

McIntosh Brothers Engineers Ltd
Phone 06 356 7056 - Fax 06 356 7055
PO Box 4240
PALMERSTON NORTH
NEW ZEALAND
www.mcintosh.net.nz



# **Tip Trailer**

# GENERAL OPERATION AND MAINTENANCE INSTRUCTIONS

MANUFACTURED BY
MCINTOSH BROTHERS ENGINEERS LTD
PALMERSTON NORTH
NEW ZEALAND

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# Safety must have PRIORITY

- Maintain your machine in good working condition.
- Keep other people clear of machine when in use
- Disconnect hydraulic supply lines when any maintenance, greasing or adjustments are undertaken.
- Always shut down the tractor and apply the handbrake before leaving the tractor seat.
- Don't allow people to travel on the trailer.
- Be aware of ground contours especially when tipping.
- Be careful of machine overturning when deck is raised.
- Maintain the hydraulic hoses in good condition and replace if any sign of damage.
- Ensure that the tractor is capable of safely pulling and stopping the trailer and load on the terrain that the trailer is to be operated on.

# HUMAN ERROR IS THE MAJOR FACTOR IN ACCIDENTS

### **MAINTENANCE**

# PLEASE CHECK NUTS, BOLTS, GRUB SCREWS AND FITTINGS AFTER A FEW HOURS OF OPERATION

Maintenance is a very important part of your machines performance and safety. Please ensure your machine is correctly maintained.

### **GREASING**

Grease machine every 10 hours of operation.

The amount of grease nipples on the machine are marked on the serial number identification plate. This is located on the left side panel of the machine.

### **HOSES**

Maintain hydraulic hoses and ram in good condition. Replace damaged components as soon as they become evident, regular checks of these components is recommended.

### **OTHER CHECKS**

Check and regularly tighten all bolts and nuts especially the wheel nuts and hydraulic ram securing bolts.

Check pivot pins and bushes regularly for wear and any signs of damage. Replace as required.

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NEVER PERFORM GREASING AND MAINTENANCE ON THE MACHINE WHILE THE DECK IS RAISED.

### **OPERATOR COMPETENCY**

Only competent and trained operators are to use this machine. Please make sure all personal are instructed in and correctly use the Tipping Trailer.

The operator must have read and understand this operator's manual and operate the machine in a competent manner.

Serious injury or death may occur if this machine is operated in any other way.

Don't consume alcohol or medicines that cause drowsiness when operating this machine

### **Swinging Tail Gate**

If you have a swinging tail gate fitted open the tail gate when tipping and attach chain.

Once unloaded, swing the tail gate back to the closed position. **Do not** travel with the tail gate open or you may damage the swinging hinge on the tail gate.

### **OPERATION**

Connect the Tipping Trailer to the tractor with a suitable drawbar pin with a retaining clip. The tractor's drawbar must be fitted with a double tongue.

Ensure that the tractor size is capable of pulling and braking (stopping) the trailer with the intended load during use and in the terrain proposed for it to be used in. Set the drawbar of the tractor to its minimum length setting to ensure the pivot point is as close as possible to the tractor.

Connect the hydraulic hose to the tractor remotes. If the tractor is fitted with a single acting remotes or setting screw, use this to prevent excessive pressurizing of hydraulic hoses.

Load the trailer evenly and do not exceed the trailers capacity or the tractors maximum downward drawbar load. Ensure the deck is totally down on the chassis before loading and transporting.

## NEVER ALLOW OTHER PEOPLE TO TRAVEL ON THE TRAILER DURING USE

When travelling, drive safely and cautiously. Do not go on steep or very uneven terrain. Travel at a speed which is safe to do so and be aware of changing conditions.

When unloading, make sure that the rear wheels of the trailer are on a solid and level surface. Set the tailgate to release or if fitted make sure that the auto tailgate release is working correctly. If spreader chains are required, set these **before** lifting the deck. Only use spreader chains with fine sand or gravel mixes. Large material can clog the trailers tailgate and make the trailer unload unevenly and may cause the trailer to overturn.

When raising the deck, be stationary where possible. Be cautious of over head and high tension power lines. ("LOOK UP AND LIVE"). Ensure all people are clear from behind and side of the trailer. When travelling and spreading the load ensure that the ground is level and solid to prevent overturning.

### When empty, fully lower deck as soon as possible before travelling off.

Maintain you machine in good working condition. Grease machine at regular intervals, keep hydraulic hoses in good condition and replace immediately if damaged. Check for loose bolts and wheel nuts on a regular basis.

Be aware of sticky material (i.e. clay and drainage material) remaining in the top corners of the deck. This can cause the trailer to overturn.

LOOK AFTER THE MACHINE AND IT WILL LOOK AFTER YOU

### **HAZARDS**

HAZARD IDENTIFIED	RISK SOURCE	CONTROL MEASURE
Operator injury risk	Inexperience	Operators manual is supplied covering all aspects of trailer operation.
Risk of being crushed	Trailer overturning	Use only on solid and even surfaces. Lower deck as soon as it is empty. Do not leave tractor seat when lifting deck. Keep off steep or very uneven terrain
Risk of electrocution	Over head power	Do not raise deck around power lines. Warning decals fitted.
Risk of crushing	Raising / lowering deck	Only operate from tractor seat. Keep other people clear of trailer when operating. Warning decals fitted.
Risk of crushing	Raised deck	Never maintain trailer with deck raised.

### **HYDRAULIC FLUID SAFETY**

**WARNING** Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin, causing serious personal damage. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injury by escaping fluid occurs, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administrated immediately.

# **TYRE PRESSURES**

	PSI
11.5/80-15.3	69
12.5/80-15.3	68
400/60-15.5	50
15/70 x 18	62
500/60-22.5	44
550/60-22.5	40
600 x 40 x 22.5	41
600/50-22.5	39
385/65 R22.5	68