

HUSKY[®]



REAR MOUNT SOIL INJECTOR

OPERATOR'S MANUAL

GUARANTEE

All Husky Farm Equipment manufactured by Husky Farm Equipment Limited is guaranteed. Guarantee covers all the replacement cost or repair of all parts said to be defective from manufacture. Guarantee also covers labour installing said parts, if installed at Husky's Manufacturing plant. Time and use is the essence of the guarantee. If equipment is used on a private property for an individual's use, guarantee will be in effect for twelve months from date of invoice. If equipment is used for commercial use to do custom work for money then guarantee will be in effect for three months only from date of invoice.

EXEMPTIONS FROM GUARANTEE

Cost of transportation of equipment to or from Husky Farm Equipment Limited either by customer or by Husky's service staff or cost of mail or of public transportation is not covered. Tires and electric or hydraulic motors are covered by manufacturer's warranty and although Husky may assist to get warranty, Husky will not be responsible other than that allowed by manufacture's warranty. Items subject to normal wear from use is not covered by guarantee if faulty part is simply worn.

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
	Serial Number Location	04
1	Introduction.....	05
2	Safety.....	06
2.01	General Safety.....	07
2.02	Operating Safety.....	08
2.03	Maintenance Safety.....	08
2.04	Hydraulic Safety.....	09
2.05	Transport Safety.....	09
2.06	Manure Storage Facility Safety.....	10
2.07	Storage Safety.....	10
2.08	Safety Decals.....	10
2.09	Sign-Off Form.....	11
3	Operation.....	12
3.01	To the New Operator Or Owner.....	12
3.02	How The Machine Works.....	12
3.03	Break - In.....	13
3.04	Pre-Operation Checklist.....	13
3.05	Operation of Injector.....	13
3.06	In Field Adjustments to the Soil Injector.....	13
3.07	Clean-Up.....	14
3.08	Storage.....	14
3.08.1	Placing In Storage.....	14
3.08.2	Removing From Storage.....	14
4	Service and Maintenance.....	15
4.01	Maintenance.....	15
4.02	Service Intervals.....	15
5	Index.....	16
6	Parts Book.....	16

SERIAL NUMBER LOCATION

Always give your dealer the serial number of your Husky Rear Mount Soil Injector when ordering parts or requesting service or other information.

The serial number plate(s) is located where indicated. Please mark the number in the space provided for easy reference.



SERIAL NUMBER LOCATION

Model Type _____

Serial Number _____

Production Year _____

1 INTRODUCTION

Congratulations on your choice of a Husky Rear Mount Soil Injector to compliment your farming operation. This equipment has been designed and manufactured to meet the need of most discerning operators. The highest quality components are used throughout, and each step of Husky manufacturing is inspected under strict quality control.

Safe, efficient and trouble-free operation of your Husky Rear Mount Soil Injector requires that you and everyone else who will be operating or maintaining the machine read and understand all of the safety, operation, maintenance and trouble shooting information contained within this Operator's Manual.

Keep this manual handy for frequent reference and pass on to new operators or owners. Call your Husky Dealer if you need assistance, information or additional copies of the manuals.



OPERATOR ORIENTATION

The directions left, right, front and rear, as mentioned throughout the manual, are as seen from the tractor driver's seat and facing in the direction of travel.

2 SAFETY

SAFETY ALERT SYMBOL

This Safety Alert Symbol Means
**ATTENTION! BECOME ALERT
YOUR SAFETY IS INVOLVED**



The Safety Alert symbol identifies important safety messages on the Husky Rear Mount Soil Injector and in this manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

**Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided**

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines

DANGER - An immediate and specific hazard which **WILL** result in severe personal injury or death if the proper precautions are not taken.

WARNING - A specific hazard or unsafe practice which **COULD** result in severe personal injury or death if the proper precautions are not taken.

CAUTION - Unsafe practices which **COULD** result in personal injury if the proper practices are not taken, or as a reminder of good safety practices.

SAFETY

YOU are responsible for the SAFE operation and maintenance of your Husky Rear Mount Soil Injector. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Rear Mount Soil Injector be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating this equipment.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

Soil Injector owners must give operating instructions to operators or employees before allowing them to operate the Husky Rear Mount Soil Injector and at least annually thereafter per OSHA regulation 1928.57.

Husky Rear Mount Soil Injector owners must follow safety practices as recommended by the Agriculture Safety Associations across Canada .

The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. All accidents can be avoided.

A person who has not read and does not understand all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes themselves and bystanders to possible serious injury or death.

Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

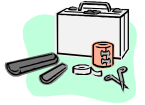
Think SAFETY! Work SAFELY!

2.01 GENERAL SAFETY

1. Read and understand the Operator's Manual and safety signs before operating, maintaining or adjusting the Soil Injector.



2. Have a first aid kit available for use should the need arise and know how to use it.



3. Have a fire extinguisher available for use should the need arise and know how to use it.



4. Install and properly secure all shields and guards before operating.

5. Do not allow riders on the machine or tractor.

6. Stop tractor engine, disengage PTO clutch, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

7. Never enter manure storage facility without appropriate respiratory equipment and an independent oxygen supply.

8. Review safety related items with all operators annually.

2.02 OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting or unplugging.
2. Do not allow riders on the Husky Rear Mount Soil Injector or the tractor during operation or transport.
3. Do not operate a PTO driven system unless the required shields are in place and secured.
4. Never wear loose fitting clothing, keep hands, feet, hair and clothing away from all moving and/or rotating parts, while working with machinery, use personal protective clothing and eye and ear protection as needed.
5. Stop tractor engine, disengage PTO clutch, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
6. Before applying hydraulic pressure to the system, make sure everyone is clear and that all connections are tight and all components are in good repair.
7. Never enter manure tank or manure storage facility without wearing appropriate breathing gear that carries an independent supply of oxygen.
8. Always use a tractor of sufficient size and weight to maintain vehicle stability during transport and during use.
9. Clean or install reflectors and SMV emblem before transporting and add extra lights for transporting during times of limited visibility.
10. Make sure parking brake on the tractor is set and block wheels so it cannot roll.
11. Review all safety instructions annually.

Think SAFETY! Work SAFELY!

2.03 MAINTENANCE SAFETY

1. Read and understand all the information contained in the Operator's Manual regarding maintenance, adjusting and operating Husky Rear Mount Soil Injector.
2. Block the frame up securely and firmly if adjustments and maintenance to the Rear Mount Soil Injector are required.
3. Exercise extreme caution when working around or with high-pressure hydraulic systems. Depressurize the system when connecting or disconnecting the hose couplers.
4. Wear heavy gloves and eye protection when searching for suspected hydraulic leaks. A high- pressure concentrated stream of hydraulic fluid can pierce the skin. If such an event happens, seek immediate medical attention as infection and toxic reaction could develop.
5. Do not attempt any adjustment or maintenance to any system of the Husky Rear Mount Soil Injector when the implement is in motion.
6. Stop the engine, place all controls in neutral, remove the ignition key, set the park brake and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging any system or component.
7. Never enter tank or manure storage facility without wearing appropriate breathing gear that carries an independent supply of oxygen. The buddy system is also a recommended procedure.

2.04 HYDRAULIC SAFETY

1. Make sure that all components in the hydraulic system are kept in good condition and are clean.
2. Replace any worn, cut, abraded, flattened or crimped hoses and metal lines.
3. Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high-pressure; 1600 to 2300 pounds per square inch. Such repairs will fail suddenly and create a hazardous and unsafe condition.

4. Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.



5. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.
6. Before applying pressure to the system, make sure all components are tight and that lines, hoses and couplings are not damaged and kept in good repair.
7. Make sure all hydraulic hoses are not snagged on anything .

2.05 TRANSPORT SAFETY

1. Make sure you are in compliance with all local regulations regarding transporting agricultural equipment on public roads and highways. Consult your local law enforcement agency for further information.
2. Ensure that the SMV (Slow Moving Vehicle) emblem and all reflectors and lights required by the local highways and transport authorities are in place and are clean and visible by overtaking and oncoming traffic.
3. Ensure that the Husky Rear Mount Soil Injector is hitched positively and safely to the tanks 3-Point Hitch System, or parallel linkage system.
4. Transport according to local regulations covering maximum width, weight and length.
5. Do not exceed speed limits. Reduce speed on rough roads and surfaces.
6. Always use a tractor of sufficient size and weight to maintain vehicle stability during transport.
7. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

Think SAFETY! Work SAFELY!

2.06 MANURE STORAGE

FACILITY SAFETY

1. Never enter tank or manure storage facility without wearing appropriate breathing gear that carries an independent supply of oxygen .
2. Keep others, especially children, out of these structures.
3. Use special care when opening storage facilities to prevent yourself or others from falling in.
4. Stored manure gives off hydrogen sulfide gas. One breath can kill. Keep away. Keep others away.



5. Do not enter storage facility without oxygen supplying equipment. The surface always crusts and looks solid. It is not. Stay away.
6. Always have a ladder in storage tank as a means of getting out should you inadvertently fall in.

2.07 STORAGE SAFETY

1. Store the Husky Rear Mount Soil Injector on a firm, level surface.
2. Store away from areas of human activity. Do not permit children to play on or around the stored Rear Mount Soil Injector.
3. Make sure the unit is sitting, or blocked up firmly and solid and will not tip or sink into a soft area.

2.08 SAFETY DECALS

1. Keep safety decals and signs clean and legible at all times.
2. Replace safety decals if destroyed, missing, painted over or unreadable.
3. If a section of the Soil Injector is replaced that carries a safety decal, apply a new decal immediately.
4. Safety decals or signs are available from your Dealers Parts Department.

HOW TO INSTALL SAFETY DECALS:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Wash area with soapy water and install decal while still soapy, then it can be smoothed out easily.
- Place the sign in position and slowly peel back the remaining paper, smoothing the sign as it is applied.

3 OPERATION

3.01 TO THE NEW OPERATOR OR OWNER

Husky Farm Equipment's Rear Mount Soil Injectors are designed to efficiently inject manure into the ground. Many of the features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide maximum efficiency. The manual will take you step-by-step through your working day. By following the operating instructions in conjunction with a good maintenance program, your Husky Rear Mount Soil Injector will provide many years of trouble-free service.

General Information About the Husky Rear Mount Soil Injector

Husky Farm Equipment Limited designs and manufactures all of its products so they can be operated safely. However the responsibility for safe operation rests with those who use and maintain these products.

The Husky Rear Mount Soil Injector should be operated only by those who have been trained to do so, and who have read these operating instructions and operating manual.

Failure to follow the instructions, procedures and safety precautions in this manual may increase the possibility of an accident or injury.

3.02 HOW THE MACHINE WORKS

The Husky Rear Mount Soil Injector is either a 3-Point Hitched or Parallel Linkage tool bar that will Inject manure to the ground through Soil Injectors. The manure will enter the Injector through a hose from the Spreader. It will then enter a distributor that will evenly distribute manure to each of the Injector Teeth. The Soil Injector opens up the ground and allows the manure to enter penetrating directly where the nutrients are best utilized.

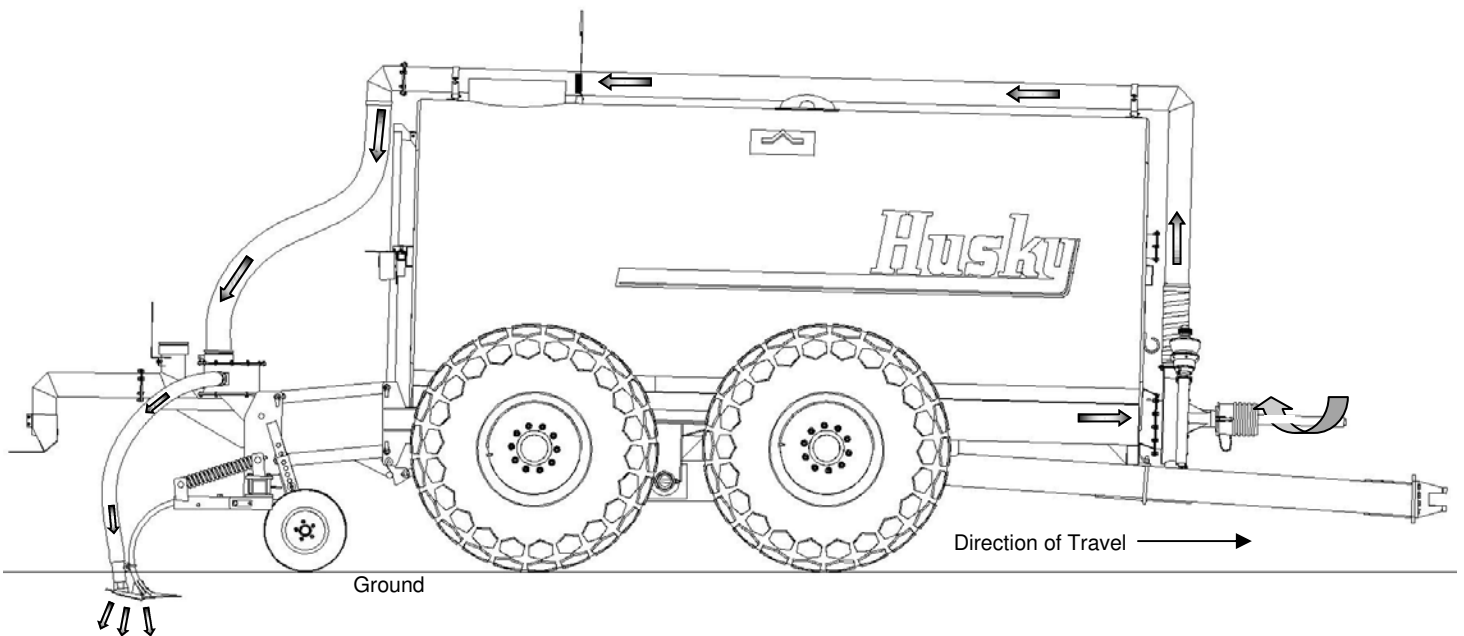


FIG. 1 PRINCIPLES OF OPERATION

3.03 BREAK-IN FOR SOIL INJECTOR

Although there are no operational restrictions on the Husky Rear Mount Soil Injector when it is new, there are some mechanical checks that must be done to insure long term integrity of the unit. When using the Soil Injector for the first time, follow this procedure:

A. Before Using

1. Lubricate all grease points.
2. Adjust tilt of toolbar if required, and ensure all hardware has been tightened, and that nothing has loosened during transport.
3. Adjust Depth Wheels to desired height.

B. After 5 hours of use:

1. Check all hardware. Tighten as required.
2. Lubricate all grease points.

C. Then go to the service schedule as outlined in the maintenance schedule.

3.04 PRE-OPERATION CHECKLIST

Efficient and safe operation of the Husky Rear Mount Soil Injector requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both personal safety and maintaining the good mechanical condition of the Soil Injector that this checklist be followed.

1. Lubricate the machine per the schedule outlined in the "Maintenance Section".
2. Use only a tractor of adequate power and weight to operate the Spreader & Injector.
3. Ensure that the machine is properly attached to the tractor using a pin and lynch system that is supplied when new.
4. Be sure that any lights, reflectors or SMV signs if installed are clean.
5. Ensure that all hoses are securely fastened, and free of any obstructing debris.

3.05 OPERATION OF INJECTOR

1. Attach 6" or 8" hose to distributor on toolbar.
2. Attach tractor to spreader, ensuring all machinery is secured.
3. Slowly start down the field, lower the Rear Mount Soil Injector into the ground, turn on tractor PTO, and open front valve on spreader.
4. Never turn tractor with Rear Mount Soil Injector still in the ground. Always raise up when cornering.

3.06 IN FIELD ADJUSTMENTS TO THE SOIL INJECTOR

The following is a list of components on the Husky Soil Injector that can be adjusted to fine tune the application of manure.

- The front valve, located on the front discharge pipe of the spreader is used to adjust the flow rate of the manure, and shut off the flow of manure when making turns at the head land.
- Depth Wheels can be adjusted up or down to hold the height required for the injectors
- Adjustment to the link arms on the injector's lift mechanism will allow the injector to 'tilt' which can effect how the teeth go into the ground.

3.07 CLEAN-UP

At the end of the job of injecting manure with the Rear Mount Soil Injector, follow this procedure to clean the machine:

1. Stop tractor engine, disengage PTO clutch, set park brake, remove ignition key and wait for all moving parts to stop before cleaning.
2. Make sure all manure has been thoroughly drained from the system.
3. Using high pressure washer, clean outside of injector to remove all manure residue.

3.08 STORAGE

3.08.1 PLACING IN STORAGE

After the seasons use, inspect all systems of the Husky Rear Mount Soil Injector. Repair or replace any worn or damaged components to prevent any down time at the beginning of the next season. Since the machine works with manure, it is necessary to thoroughly wash the unit to prevent manure acids from working on the components while in storage. All manure, debris, and residue should be removed. It is good practice to have a small canister sprayer and to spray light oil on the Injector both before and after each use.


1. Inspect all hydraulic hoses, lines, couplers and fittings. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded or is separating from the crimped end of the fitting.
2. Inspect all 3" hose to ensure that there are no cracks, and that the ends are secured to the couplers.
3. Lubricate all grease fittings (see Maintenance Section). Make sure that all grease cavities have been filled with grease to remove any water residue from the washing.
4. Grease exposed chrome shafting on Hydraulic Cylinders to prevent any rust from forming while in storage.
5. If removing Injector from Spreader, make sure unit is securely supported. Failure to ensure that the Injector is properly secured could result in personal injury, as well as damage to the unit if it were to fall over.
6. Touch up all paint nicks and scratches to prevent rusting.

3.08.2 REMOVING FROM STORAGE

Before starting to use the machine, the customer should do a thorough inspection and servicing. Follow this procedure:

1. Lubricate all grease fittings to remove any condensation that accumulated during the storage period.
2. Inspect all hydraulic hoses, lines, couplers and fittings. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded or is separating from the crimped end of the fitting.

4 SERVICE AND MAINTENANCE



MAINTENANCE SAFETY

1. **Stop tractor engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, repairing, adjusting or unplugging.**
2. **Be careful when working around a high-pressure hydraulic system. Wear the proper eye and hand protection when searching for leaks. Use a piece of wood or cardboard as a backdrop when searching for leaks.**
3. **Seek immediate medical attention if hydraulic fluid pierces the skin as toxic reaction and infection could develop.**
4. **Keep hands, feet, hair and clothing away from all moving or rotating parts.**
5. **Make sure that all shields and guards are in place before operating.**
6. **Clear the area of bystanders, especially children, when carrying out any maintenance or making adjustments.**
7. **Always securely support the frame with stands or large blocks when removing a tire or working under the machine.**
8. **Never enter a tank without wearing appropriate breathing equipment that carries an independent supply of oxygen. Keeps others out of tank.**

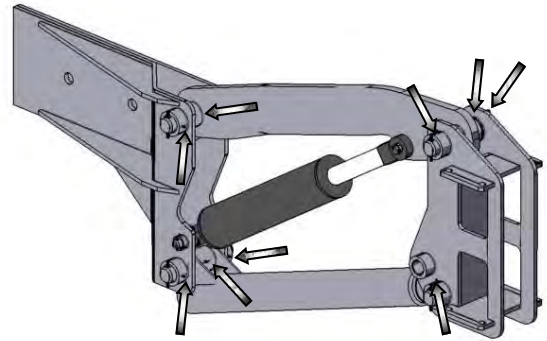


FIG 3 GREASE LOCATION 1

The HD Lift Arms have 12 grease fittings per lift arm assembly (24 total). Make sure all fittings are greased daily.

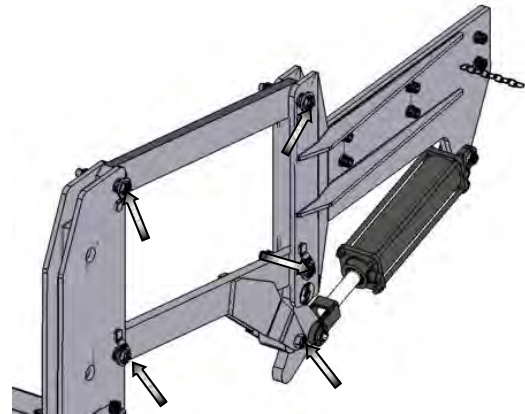


FIG 4 GREASE LOCATION 2

The STD Lift Arms have 4 (or 5 depending on model) grease fittings per lift arm assembly (8 total). Grease Daily.

4.01 MAINTENANCE

The efficient and safe operation of your Husky Rear Mount Soil Injector will depend a great deal on your diligence in following the maintenance and adjustment procedures outlined in this section. If you follow these recommendations, your Husky Rear Mount Soil Injector should work to its maximum potential.

Grease pivot point of boom arms. Make sure to grease the shaft both when you have the arms closed and open. This will make sure that the grease is more thoroughly applied. See Figure 3.

4.02 SERVICING INTERVALS

8 HOURS OR DAILY

1. Grease pivot locations - Figure 3 & 4
2. Grease injector - if equipped with grease fitting.
3. Check wheel bolt torque

ANNUALLY

1. Inspect all hoses, replace/repair if needed.
2. Inspect all hardware, tighten or replace as needed.

5 INDEX

	PAGE		PAGE
		B	
Break - In for Drag Boom	13		
		C	
Clean-Up	14		
		E	
Employee Sign-Off Form	11		
Exemptions from Guarantee	02		
		G	
General Safety	07		
Grease Locations	15		
Guarantee	02		
		H	
How the Machine Works	12		
How to Install Safety Decals	10		
Hydraulic Safety	09		
		I	
Introduction	05		
In Field Adjustments to Drag Boom	13		
		M	
Maintenance	15		
Maintenance Safety	08		
Manure Storage Facility Safety	10		
		O	
Operation	12		
Operation of Injector	13		
Operating Safety	08		
Operator Orientation	05		
		P	
Parts Book	16		
Placing in Storage	14		
Pre-Operation Checklist	13		
Principals of Operation	12		
		R	
			S
			T
Removing from Storage	14		
Safety	07		
Safety Alert Symbol	06		
Safety Decals	10		
Serial Number Location	04		
Service and Maintenance	15		
Servicing Intervals	15		
Sign-Off Form	11		
Storage	14		
Storage Safety	10		
Table of Contents	03		
To the New Operator or Owner	12		
Transport Safety	09		

6 PARTS BOOK

The Parts Book with a list of all the parts on your Rear Mount Soil Injector is enclosed with this manual at the time you purchase the equipment new¹.

Contact your local dealer or the factory if you need a copy of the parts book or you need a new copy of this operator's manual.

At the time of printing there is no charge for these books to an owner of Husky Liquid Manure Equipment.

1. Husky does not guarantee that a parts book will be available at time of purchase for the specific equipment you have purchased.

HUSKY FARM EQUIPMENT LIMITED

7440 Wellington Rd #17

R.R. # 2 ALMA

Ontario, Canada

N0B 1A0

Phone(519) 846-5329

Fax (519) 846-9378