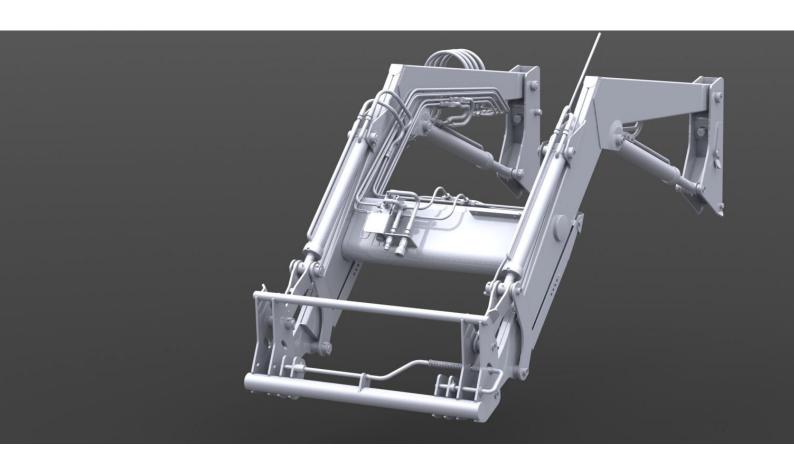


## Front Loader

# Operators Manual





Ensure that everybody that operates the machine reads and fully understands this manual prior to operation.

This manual is considered a permanent part of the machine and should remain with the machine at all times.

# Operators Manual FL35, FL45, FL60, FL65, FL85, FL105, SL60, SL65, SL85 & SL105 Loaders (English)

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## Introduction

### Thank you for purchasing a New Rossmore Front Loader

Take the time to fully read this manual carefully – it has been written to ensure that you get the very best from your purchase. Failure to do so may result in serious injury or fatality to the driver or others and/or machine damage.

This manual is considered a permanent part of the machine and should remain with the machine when you sell it.

Please fill in the following information for future reference:							
Machine Type:  Model :  Serial Number:  Purchased from:  Date of purchase:	Front Loader  RE						

#### **Foreword**

To ensure personal safety and the safety of others, please ensure that **everybody** that operates the machine **reads and fully understands** this manual **prior to** operation. It is essential that you observe all safety instructions. It is the responsibility of the owner to advise the operator of the operating instructions and make sure they fully understand all instructions. Failure to do so may lead to personal injury and/or machine damage.



#### **Intended Use**

The intended use of the front loader is designed solely for use in customary agriculture or similar operations. Use of the Front Loader in any other way is considered contrary to the intended use. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacture also constitute essential elements for the intended use.

**Important!** We reserve the right to introduce changes to the design and specifications, or improvements at any time, without prior notice.

## Safety Awareness

**Warning Symbol.** Please pay particular attention to the machine and the sections of this manual that carry this warning symbol.



It is important that **all** operators of the machine carefully read, understand and follow **all** safety instructions **before** commencing operation. Ensure that all warning signs are in good condition, completely readable and clear to understand.

#### **Safety Decals**

Safety decals are placed on various areas of the loader and implements.

Damaged or missing safety decals must be replaced immediately. Safety decals are available directly through a local dealer or from Rossmore Engineering Stores. Any additions or changes to a Rossmore machine including replacement equipment or repairs, replacement safety decals must be included.

#### Safe Operation

No persons should operate this machine before fully reading and understanding the user manual. Learn how to operate the machine correctly and safely. If you are not an experienced driver, read and study the manual with an experienced driver who can explain things to you. In addition to this ensure a safe system of work is in place by the operator/owner.

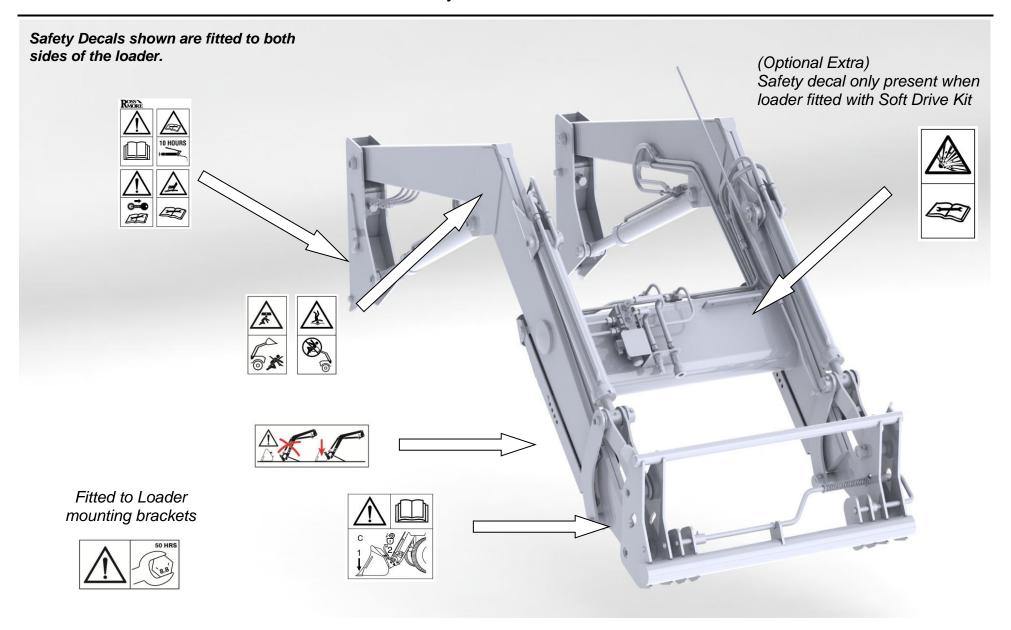
Keep the machine in proper working order at all times. Do not carry out any unauthorized modifications to any Rossmore machine as this may affect the designed purpose of the machine and its lifespan.

The manufacturer accepts no liability for damage or injury resulting from the misuse of the machine. These risks are borne solely by the user.

Rossmore Engineering Limited cannot be responsible for damage to either the machine or injury to members of the public caused by defects in the machine as a result of servicing, repairs or alterations put in place incorrectly or as a result of work being undertaken by a non-qualified personnel.

Contact your local dealer or Rossmore Engineering Ltd on +353 (0) 504 42230 if you do not understand any part of the Operator's Manual.

## Safety Decal Locations



## Safety Decals

## **Understanding Safety Decals**

Safety decals are placed at several important places on this machine. They are affixed to identify potential dangers from residual risks. It is important that if they become damaged or removed they are replaced immediately. The following identifies their location and a brief explanatory text.

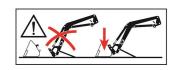
To ensure your safety and the safety of others, please ensure that <b>everybody</b> who operates the machine <b>reads and fully understands</b> this manual <b>prior to</b> operation.	
Important to check and grease the loader at regular intervals, after 10 hours of operation. See manual (Service & Maintenance) for location of grease points.	10 HOURS
Important! Before carrying out any work on the loader; Lower the front loader, place handbrake on and place transmission in park, <i>turn off ignition</i> and remove key.	
Never check hydraulic hoses for leakages with fingers or hands. Use a piece of cardboard. Pressurised oil can penetrate skin. Ensure hydraulic pressure is relieved beforehand.	
Never allow anyone to walk or work under a raised loader. Ensure bystanders are clear of the machine while machine is in operation.	**
Do not transport or lift any persons or animals using the loader or implements. Do not use the loader or implements as a working platform.	

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## Safety Decals

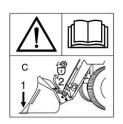
#### **Loader Stands**

When the loader is detached from the tractor make sure it is stored in a secure safe position. Store the loader on a hard level surface with an Implement attached.



#### **Implement Carrier (Quick Attach)**

Never leave an implement partially attached. Visually confirm it is locked correctly in position. See manual on safe attaching and detaching of loader implements.



#### **Accumulator Cover (Optional Extra)**

Accumulators contain gas and oil under pressure. Ensure they are disconnected and any work or servicing is carried out by a trained mechanic.



#### **Loader Brackets**

Tighten carrier bracket bolts after every 50 hours of operation. See torque table for correct values.

(Position of safety decal will vary in position as mounted brackets vary for each tractor.)



# Following safety decals are fitted inside tractor cab on right hand pillar (May vary depending on tractor make and model).

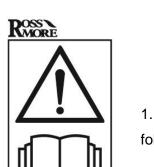
Never leave an implement partially attached. Visually confirm it is locked correctly in position.



When finished operating the loader, lower it down to ground level, ensuring tractor is placed in park, handbrake placed on, ignition turned off and key removed.



## Safety Decals



# Fitted inside the tractor cab on right hand pillar. (May vary depending on tractor make and model).

- 1. It is important that **all** operators of the machine carefully read, understand and follow **all** safety instructions **before** commencing operation.
- 2. Avoid falling bales. Use only correct bale handling equipment.
- 4. Carrying loads which are contained in, and fully supported by the implement. Avoid falling debris by keeping bucket level and not overloading.
- 5. Do not transport or lift any persons or animals using the loader or implements. Do not use the loader or implements as a working platform.
- 6. Never allow anyone to walk or work under a raised loader. Ensure bystanders and animals are clear of the machine while the machine is in operation.
- 7. Check height clearance before raising the loader. Always take notice of electrical power lines. Look up when working near power lines.
- 8. Never leave the loader raised when the machine is not in use.
- 9. Avoid injury or death from rollover by following safety instructions on page 11.
- 10. Never check hydraulic hoses for leakages with fingers or hands. Use a piece of cardboard.
- 11. Before carrying out any maintenance ensure the tractor is in park, handbrake on, loader is lowered to the ground, ignition turned off and remove key.

















## Safety Instructions

#### Protection

- 1. Check the loader on a weekly basis for any defects or blemishes.
- 2. Do not allow anyone to walk under a raised loader at any time.
- 3. Keep people and livestock clear of the working area of the machine during operation. It is the operators 100% responsibility to be aware of their surroundings when in operation.
- 4. Do not use the loader as a platform.
- 5. Do not use the loader or attached implements to transport or lift any persons or livestock.
- 6. Use only recommended implements for correct jobs.
- 7. For improved safety work with a safety exclusion zone of 2m around the tractor and loader.

#### Storage

Before disconnecting the loader, relieve all hydraulic pressure from the loaders hydraulics. When the loader is disconnected from the tractor ensure it is stored in a secure safe position. Store the loader on a hard level surface with an implement attached. Incorrect storage may lead to serious injury or even death. Store the loader clear of bystanders and children.

#### Carry out the following during loader storage

- a) Clean the loader thoroughly. Remove any debris, dirt, excess grease or oil.
- b) Apply a thin layer of grease on visible piston rods in order to protect them.
- c) Paint the loader where needed.
- d) Replace any damaged or missing parts, decals, hoses or hardware.
- e) Place a cover on the loader when storing outdoors.

#### **Protective Clothing**

Correct Personal Protective Equipment (PPE) and correct clothing is essential when working with or operating any machinery. Choose appropriate equipment for the job. (Example: Fitted clothing, ear defenders, gloves, safety glasses/goggles, dust mask and safety boots). Use of mobile phones and music headphones is not permitted during machine operation.

## Safety Instructions

#### **Power Lines and Digging**

Always take notice of electrical power lines. Be aware of potential shock hazards associated with electrical distribution equipment – follow safety signs, keep away from electrical transmission and distribution power lines. Look up when working near power lines, and check location of cables, water mains and gas lines prior to digging.



#### Safe Maintenance

Before commencing maintenance, engage handbrake on tractor, place transmission in park, **lower the loader to the ground**, disengage engine, \*relieve hydraulic pressure in loader and remove key.



**Warning!** Never service a machine with a raised loader. If the loader has to be raised it must be securely supported underneath.



Never service, adjust or lubricate the loader while in operation or the tractor is engaged.

It is important to keep the loader in good condition at all times. Repair any damage immediately. Replace worn or broken hoses and parts. Any build up of grease, oil or debris should be removed.

Any machine parts that need to be raised for service work should be securely supported. Do not work or walk under a raised loader or implement unless it is securely supported in a safe position.

\* To relieve hydraulic pressure from the loader – disengage the tractor and operate the joystick in a circular motion, forward and backwards, left and right. Then allow the loader to cool before carryout any repairs or service.



All repairs and servicing should be undertaken by fully qualified personnel. Warranty is negated when works, repairs and servicing are undertaken by non-qualified personnel.

## Safe Operation



Improper use of a front loader can lead to serious injury or death. Only use implements which are specifically designed for the job.

#### Safe Working Area

Always ensure that work is carried out in a safe environment. Ensure that all individuals, especially children and animals are clear before starting the machine and commencing work. For improved safety, work with a safety exclusion zone of 2m around the tractor and loader. If individuals or animal enter the exclusion zone, stop the machine, engage transmission in park and handbrake ON. Do not recommence work until the exclusion zone is clear.



Never leave the loader with a partially attached bucket or implement. Always visually check the attachment is properly connected and the pins are in a locked position. Check implement works correctly, ensuring hydraulics have been securely fitted before commencing work.





Warning! Do not use the loader or implements as a working platform.



Warning! Do not transport or lift any persons or animals using the loader or implements.





Never allow anyone to walk or work under a raised loader. Ensure bystanders are clear of the machine while the machine is in operation.



## Safe Operation

#### Avoid falling bales by;

- Using an approved bale handling device.
- Lifting only the recommended capacity.
- Lifting bales while the tractor is on a level surface.
- If the ground is unlevel approach the bale with the tractor facing an uphill direction.
- Carry the bale at a lowered safe height. This will also reduce the danger of a tractor roll over.



#### Avoid falling debris by;

- While raising the loader, manually level the bucket using the joystick control.
- Not tilting the bucket towards the tractor while the loader is in a raised position.
- Not overloading the bucket.



#### Avoid roll over by;

- Ensuring as much visibility at all times
- Avoid working on slopes where possible.
- Keep the load at a lowered safe height, lower centre of gravity.
- Reduce speed, avoiding sharp turns, holes, ditches and other obstructions.
- Staying within loader capacity and not overloading.
- Equip the loader with a rollover protective structure (ROPS) and wear a seatbelt. This will help prevent personal injury or death caused by rollover accidents.

#### Increase load stability by;

- Using approved implements for each job.
- Carrying the correct and recommended load.
- Carrying loads which are contained in, and fully supported by the implement.
- Keep the load at a lowered safe height, lower centre of gravity.
- Avoid fast movements when lowering or lifting loads.



## Single Lever Joystick Control

#### Single Lever Joystick

The loader is controlled using a single lever joystick control. This allows the operator to control all loader functions in an easy and precise way. The lever is fitted with a safety locking system to prevent accidental movements. Our entire joystick range is pre-fitted with an optional 3<sup>rd</sup> service selector.



Always apply the joystick lock when travelling along the road or when exit the cab to avoid accidental loader movements.

#### **Operating the Joystick**



## Operating 3<sup>rd</sup> or 4<sup>th</sup> Service

- Press and hold the required service button on the front of the joystick.
- Use the tilt joystick function while holding select button to operate.
- 3<sup>rd</sup> and 4<sup>th</sup> service functions will vary depending on the piping of the implement tool.

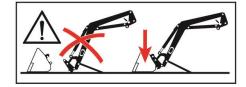
Warning: Ensure familiarity with implement operation before commencing work.



## Detaching the Front Loader

When the loader is detached from the tractor make sure it is stored in a secure safe position. Store the loader on a *hard level surface* with an *implement attached*. Incorrect storage may lead to serious injury or even death. Store the loader clear of bystanders and children. Carry out the process of attaching and detaching slowly and carefully. Ensure the tractor is in *Low Transmission* and a *Low Gear*.

#### Safely detaching the Loader



- ✓ Implement attached to the loader.
- ✓ Parked on a hard level surface.
- ✓ Low Transmission and Low Gear Selected.
- 1. Lower down the loader and level the implement parallel to the ground, leaving a distance of 50 60mm between implement and ground.
- 2. Place transmission in park and place handbrake On.
- 3. Drop the stands down until they reach (or are closest to) the ground and insert the pin into the nearest aligning hole.
- 4. Loosen both pillar bolts.
- 5. Slowly tilt the implement forward until the main pins become loose.
- 6. Remove the two main pins.
- 7. Slowly tilt the implement backwards and the loader will lift out of the pillar hooks.
- 8. Turn off ignition.
- 9. Relieve all hydraulic pressure from the loader.
- 10. Remove electrical wire (3<sup>rd</sup> service wire), hydraulic \*hoses and fit \*\*dust covers.
- 11. Reverse out tractor slowly and carefully.

\*If the loader is fitted with a multi-dock unit ensure the unit is disconnected properly and clear from being dragged during reversing.

\*\*All dust covers are colour coded to ensure all hydraulic hoses are correctly reconnected and to prevent a build up of dust and dirt while out of use. Any damaged or removed dust covers must be replaced immediately.

## Attaching the Front Loader

#### Safely attaching the Loader

Similarly when re-attaching the loader, dangers can occur. Ensure once more there are no bystanders or children. Carry out the process slowly and carefully. Ensure the tractor is in *Low Transmission* and a *Low Gear*.

- ✓ Low Transmission and Low Gear Selected
- ✓ No bystanders or children playing.
- 1. Drive into the loader slowly and cautiously.
- 2. Place handbrake on and place transmission in park and turn off ignition and remove key.
- 3. Relieve hydraulic pressure on loader valve and joystick.
- 4. Remove dust covers and reconnect hoses (or multi-dock unit) to the valve and plug in 3<sup>rd</sup> service electric wire.
- 5. Start up tractor.
- 6. Using the tilt function, slowly tilt the implement forward until the loader sits back into the pillar hooks.

Tip: If you discover you have not driven into the loader enough, use the lift function on the joystick. This will push the pillars back towards the tractor. Then continue to use the tilt function.

- 7. When the loader is sitting in the hooks, continue to tilt forward until the main pin holes line up.
- 8. Place handbrake on and place transmission in park.
- 9. Fit and lock main pins in place.
- 10. Raise the loader to a maximum height of 12 inches from the ground.
- 11. Tighten both pillar bolts.
- 12. Finally close the stands and secure in place.

## Attaching Implements

**Important!** Rossmore Engineering Loaders are designed to be used only with Rossmore implements. Rossmore Engineering accept no liability for injury or damage resulting from the use of third party implements.

Should you install third party implement(s), these must be CE certified, be compatible and safe to use with the correct loader model. Contact your local dealer or Rossmore Engineering to make sure the implement(s) are compatible with the loader specifications.

#### Safely Attaching Implements

- 1) Lower the front loader, place handbrake on and place transmission in park.
- 2) Pull quick attach handle to open implement locking pins.
- 3) Tilt quick attach head forward.
- 4) Align top of quick-attach with implement hooks.
- 5) Raise the loader picking up the implement.
- 6) Tilt back the implement to auto-lock pins in place.



Repeating *Step 1* and visually confirm that the implement is fully locked in position and pins are fully inserted.



Never leave the loader with a partially attached implement. Always visually check the attachment is properly locked in place.

For implements that require 3 or more services;

- i. Before connecting hydraulics, level implement and lower to the ground.
- ii. Place handbrake on and place transmission in park and turn off ignition.
- iii. Relieve hydraulic pressure by moving the joystick left and right, forwards and backwards.
- iv. Attach individual couplers.

#### Caution! Check implement works correctly, ensuring hydraulics have been securely fitted.



It is the operators 100% responsibility to be aware of their surroundings during operation. Always follow safety exclusion zone policy.

## **Detaching Implements**

#### **Safely Detaching Implements**

- 1) Lower front loader, engage tractor in park and engage handbrake and Shut Off engine. For implements with 3 or more services, relieve hydraulic pressure using the joystick.
- 2) Open quick attach locking pins (and disconnect hydraulic couplers).
- 3) Start engine and tilt quick attach head forward.
- 4) Lower the loader until the implement is unhooked.
- 5) Cautiously reverse out from the implement.



It is the operators 100% responsibility to be aware of their surroundings when in operation. Always follow the safety exclusion zone policy.



Store implements on the ground at all times to prevent any falls. Store in a safe place and make sure any sharp edges are covered.

## Soft Drive (Anti Bounce) System

Soft Drive (Anti bounce) system contains two gas-hydraulic accumulators which provide enhanced comfort and safety during road travel and transport on rough surfaces.

Using an anti-bounce system greatly reduces the stress on your front loader (pins, bushings and hydraulic cylinders), your tractor (tyre stress and damage to front drive components) and also increases cab comfort significantly.

#### Safe Usage



A soft drive (anti-bounce) system is only to be used while **transporting**. Ensure the tap is turned to an 'off' position when carrying out any other type of work. (e.g. loading, excavation etc)

#### **Manual activated Soft Drive**

Figure 1 and 2 below, illustrate the 'On' and 'Off' positions for an anti bounce system.



Fig. 1 Turned On



Fig. 2 Turned Off



Before turning On or Off anti bounce system, lower front loader, engage tractor in park and engage handbrake On.

**Important!** The two gas-hydraulic accumulators work under high pressure. Have the accumulators removed and serviced by your local dealer.



## Anti Bounce (Soft Drive) System

#### **Electrically activated Soft Drive**

An electrically activated soft drive is turned on and off through the use of a rocker switch fitted inside the cab. The on/off positions are clearly marked. Various rocker switches are illuminated with an LED with turned on.

Figure 1 below, shows an electrically activated Soft Drive system. Fig 2 shows an illuminated rocker switch (On).



Fig 1. Electrically Activated Soft Drive



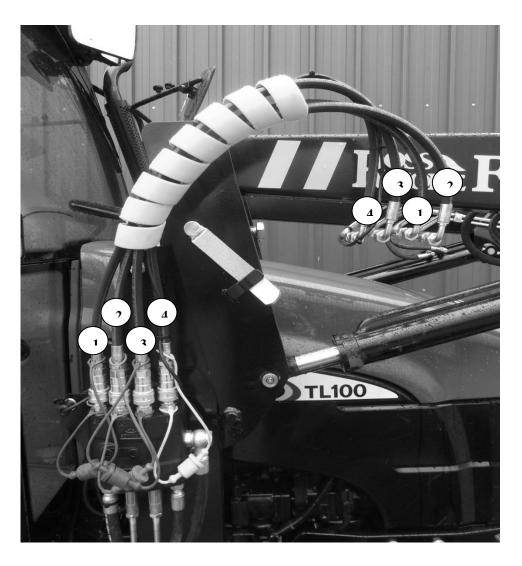
Fig 2. Rocker Switch.



A soft drive (anti-bounce) system is only to be used while transporting. Ensure the switch is in an 'off' position when carrying out any other type of work. (E.g. loading, excavation etc).

## **Hose Connections**

**Quick Couplers:** Use the diagram below to correctly identify hoses and/or replace missing coloured dust covers;



No.	Functions	Colour		
1.	Loader - Raise function	Blue		
2.	Loader - Lower function	Green		
3.	Quick attach -Tilt backwards	Red		
4.	Quick attach – Tilt forwards	Yellow		

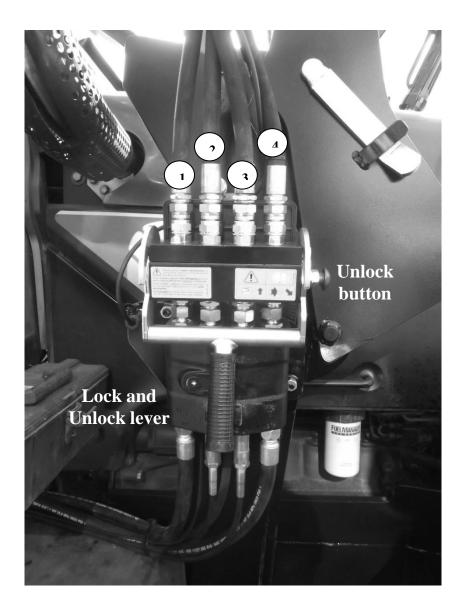


Caution: Before working with hydraulics, lower front loader to ground, place transmission in park, engage handbrake, turn off ignition, remove key & relieve all hydraulic pressure.

## **Connecting Hoses**

#### Multi - dock Unit

The multi dock unit hoses are pipes in the same numerical order as the quick couplers on previous page.



To disconnect the multi-dock, press in the unlock button on the right hand side on the unit and lift up the unlock lever on the multi-dock.



Caution: Before working with hydraulics, lower front loader to ground, place transmission in park, engage handbrake, turn off ignition, remove key & relieve all hydraulic pressure.

## Use of public roads

#### **Exiting an entrance**

While exiting an entrance on to a public road ensure that the loader is fully raised to avoid collision with blind traffic.



Caution: Be aware of all overhead electrical cables and any other obstructions before raising loader fully. Be aware of low electrical cables. In the event of contact with an electrical cable, DO NOT leave the operators seat.



Where incur total blind view onto an exiting road, seek assistance to be beckoned out.

#### **Driving on roads**

Ensure the front loader is raised to an adequate position minimum of 2m from the ground, thus allowing maximum field of view.



Before travelling on a road, ensure the joystick is securely locked in a neutral position, eliminating the danger of accidentally lowering of the loader.



It is prohibited to travel with a loaded bucket on public streets.

If the loader is equipped with an anti bounce kit, ensure the tap is turned **On** for a smooth ride.

Caution: Ensure to turn off the tap when loader commences work.

#### **Lubrication & Greasing**

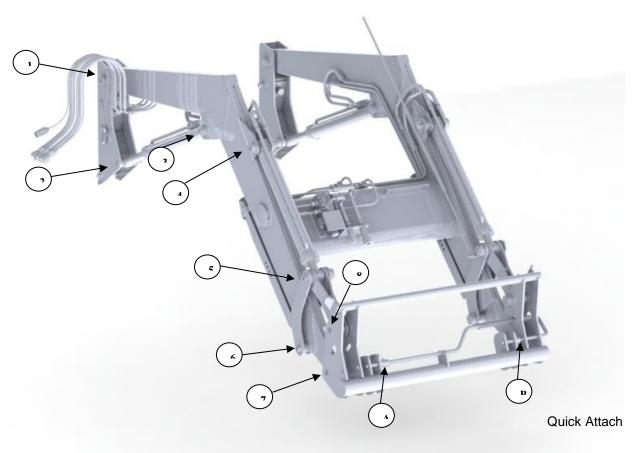
Grease your loader after every **10 hours** of work. Rossmore Engineering LTD recommends only *Pin and Bush grease*.

Pin and bush grease is lithium based containing molybdenum disulphide and high grade graphite to enhance anti-wear characteristics. Used where adhesion, pivoting and shock loading is present.

#### **Loader Boom**

There are 8 grease points on each side of a FL Model loader as numbered in the diagram below.

#### **Standard Rossmore Front Loader (FL Models)**



#### **Quick Attach**

Each quick attach unit contain 2 grease points, points  ${\bf A}$  and  ${\bf B}.$ 

There are **11 grease points** on each side of a SL Model (Mechanical Self-Levelling) loader as number in the diagram below. Previous points 1 - 8 (page 22) and points 9 – 11. Point 4\* is moved to the levelling linkage plate.

## **Self Level Rossmore Front Loader (SL Models)**



#### **Replacement Parts**

**Important!** When a spare part is needed for regular maintenance or service, use only genuine, original equipment spare parts to restore your equipment to original specifications. The manufacturer is not responsible for damages that may occur due to installation of non-approved parts and/or accessories.

#### Loader mounting frame

After the first **10 hours** of operation, check that all set screws are tightened to specific torque.

Following initial check, set screws should be checked and torque to specific values after every **50 hours** of operation.



Table contains torque values for dry set screws. (Screws with no oil, lubrication etc).

	Diameter	Class 8.8	Class 10.9
0	1/2"	85 lb – ft (100Nm)	114 lb – ft (154.6 Nm)
Metric	5/8"	170 lb – ft (230Nm)	222 lb – ft (301 Nm)
Σ	3/4"	300 lb – ft (405Nm)	325 lb – ft (440.6 Nm)
	M14	119 Nm (88 lb-ft)	176 Nm (130 lb-ft)
<u>.</u>	M16	199 Nm (140 lb-ft)	271 Nm (130 lb-ft)
Imperial	M18	265 Nm (195 lb-ft)	375 Nm (275 lb-ft)
=	M20	385 Nm (284 lb-ft)	542 Nm (400 lb-ft)
	M20	385 Nm (284 ID-π)	542 Nm (400 lb-π)

#### **Wheel Bolts**

At the time of checking Loader mounting brackets, we also recommend you check and torque the tractor wheel bolts.

See your tractor operator's manual for correct torque values.

#### **Hydraulic hoses**

Inspect hydraulic hoses on a **monthly** basis. Ensure there are no leaks, twists, kinks or defects in the hoses. Remove any debris, dirt and grime.



Never check hydraulic hoses for leakages with fingers or hands. Use a piece of cardboard. Pressurised oil can penetrate skin. Ensure hydraulic pressure is relieved beforehand. In the occurrence of an accident seek medical attention immediately.



After 6 years, it is recommended to replace hydraulic hoses due to wear and tear.

## Trouble shooting

Through regular maintenance and correct intended use of a Rossmore front loader, frequently caused faults can be avoided. In the event a fault occurs please check the following factors which may help to identify the problem.

- ✓ Ensure tractors hydraulic oil tank has correct amount of clean oil.
- ✓ No moisture in the oil tank. A commons sign of moisture present is foaming. Change oil and filter.
- ✓ Correct oil is used in the tank. (See tractor operators manual).
- ✓ Allow sufficient time for the oil to reach operating temperature. Cold mornings can have an effect on the reaction time of loader.
- ✓ Tractors hydraulic pump operating correctly.
- ✓ No defects in hydraulic hoses, breaks, kinks or twists.
- ✓ Quick couplers correctly connected and no signs of defects.
- ✓ Lift and tilt cylinders operate correctly to their end positions. Repeat several times if required. This will remove air from the cylinders, hoses and pipes.

It is often the case the nature of a loader problem is simple and easily rectified. The following 'troubleshooting table' will aid with identifying, locating and rectifying problems.

	Troubleshooting Table						
Problem	Cause	Action					
	Insufficient oil levels.	Check tractor hydraulic oil levels.					
nts	Engine speed too slow.	Increase engine speed.					
Slow or jerky movements	Capacity overload.	Reduce load capacity. Review					
MoV		recommended load capacity.					
<u>r</u> ky	Cold hydraulic fluid.	Allow sufficient time for hydraulics to warm					
or je		to operating temperature.					
MO_	Faulty quick – coupler.	Replace quick – coupler.					
Ø	Loss in hydraulic pressure.	Pressure control valve faulty.					
		Contact Rossmore dealer.					

# Trouble shooting

Problem	Cause	Action					
	Internal leakage of control valve.	Contact Rossmore dealer.					
	Internal leakage of cylinders.	Test for leakages. Repair using cylinder					
		repair seal kit.					
	Low pump capacity.	Fault in hydraulic pump – refer to tractor					
		manual.					
	Restrictions in hydraulic hose or pipe.	Check for hose/pipe restrictions. Replace					
		where necessary.					
	Inquifficient oil levels	Charle tractor budroulia cil lovala					
d/or	Insufficient oil levels	Check tractor hydraulic oil levels.					
Insufficient lift capacity and/or restricted tilt operations.	Capacity overload.	Reduce load capacity. Review recommended					
acity erat		lift capacity.					
cap; t op	Control valve leakage.	Contact Rossmore dealer.					
d iii	Internal lift cylinder leakage.	Test for leakages. Repair using cylinder					
ient icte		repair seal kit.					
ıffic estr	Pressure control valve faulty.	Contact Rossmore dealer.					
Insu	Damaged hydraulic hoses or pipes.	Locate defect and replace.					
	Loose hose connections.	Tighten hose connections. Repair defect					
		connections.					
aks	Damaged hose or pipe.	Replace damaged hose or pipe.					
Oil leaks	Hydraulic cylinder leakage.	Repair using cylinder repair seal kit.					
•	Defect quick coupler.	Replace quick coupler.					
	Damaged seals in control valve.	Contact Rossmore dealer.					
	_						

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# Trouble shooting

Problem	Cause	Action					
Lift or Tilt cylinders Not functioning.	Insufficient oil levels.  Hydraulic hoses/pipes not connected properly.  Hydraulic quick couplers (or multi dock unit) not connected properly.  Damaged or stretched joystick cable.	Check tractor hydraulic oil levels.  See Hose Connections for proper connection.  Connect couplers (or multi dock unit) properly.  Replace joystick cable.					
3 <sup>rd</sup> Service not working	Loose wire connection in joystick. Fuse gone. Relay defected.  7 pin plug and/or socket damaged. Solenoid plug damaged. Solenoid coil faulty. Quick couplers not connected correctly. Loose or defected wire.  Power source defected or earthed.	Check joystick connection.  Replace fuse – 35 amps.  When ignition is off press button on joystick. If there is no 'clicking' sound – relay is burned out.  Replace plug and/or socket.  Replace plug.  Replace coil.  Correctly connect couplers.  Follow wire from joystick down to solenoid ensure it is not damaged or connections loose.  Wire to power source is defected or has become earthed with another connection.					

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## Waste Disposal

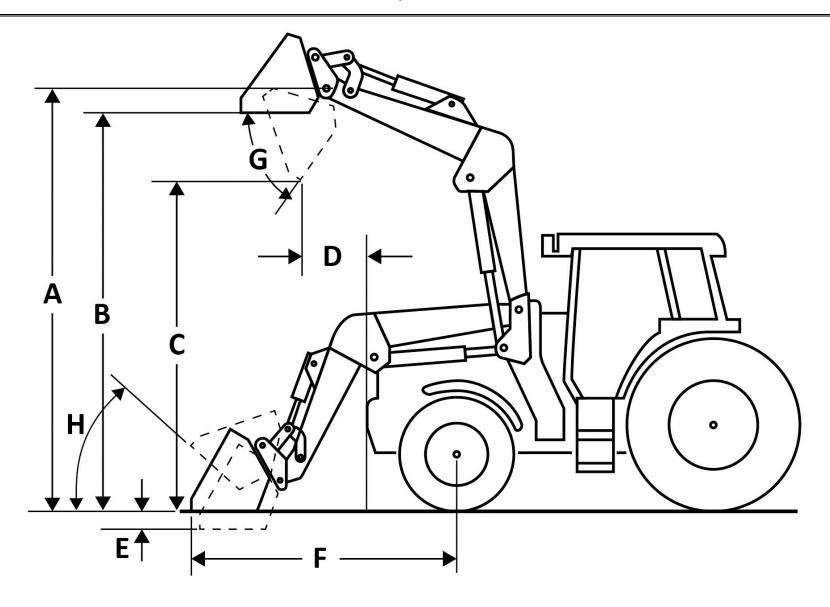
Improper waste disposal is a continuous threat to the environment. Ensure that you dispose of any waste in a correct and safe manner.

#### Such waste from Rossmore machines include;

Oil, Hydraulic hoses, Plastic, Rubber and Steel.

Use leak proof containers when disposing of oil. Do not use beverage or food containers as this may mislead someone into drinking them. Do not pour waste oil onto the ground, down a drain or into any water source.

Local recycling and environmental centres will inform you on the proper procedure to dispose of or recycle any waste.



# **Loader Specifications**

			FL Models (Non Parallel)					SL Models (Parallel)			
Lifting Force at 180 Bar		FL35	FL45	FL60	FL65	FL85	FL105	SL 60	SL65	SL85	SL105
Lift capacity at pivot point - Full height	kg	520	1205	1025	1155	1235	1630	1025	1155	1235	1630
		Lift capa	city includi	ing the weig	ht of the in	plement					
- At ground level, 300mm from pivot point	kg	585	1605	1640	1400	1550	1770	1640	1400	1550	1770
- At 2m, 300mm from pivot point	kg	545	1350	1250	1235	1400	1750	1250	1235	1400	1750
- At full height, 300mm from pivot point	kg	500	1180	1000	1150	1205	1610	1000	1150	1205	1610
Tear out force of bucket	kg	520	1205	1025	1155	1235	1630	1025	1155	1235	1630
Clearance Height											
(A) - at pivot point	m	2.50	3.00	3.58	3.65	3.95	4.00	3.58	3.60	3.95	4.00
(B) - level bucket	m	2.20	3.00	3.32	3.40	3.72	3.75	3.30	3.32	3.72	3.75
(C) - at bucket dump angle	m	1.85	2.31	2.66	2.69	3.10	3.17	2.65	2.70	3.10	3.17
(D) Reach at Max Lift and 45' dump	m	0.40	0.57	0.77	0.54	0.44	0.47	0.77	0.77	0.44	0.47
(E) Dig Dept	m	0.17	0.08	0.09	0.09	0.25	0.10	0.08	0.08	0.25	0.2
Angles											
(G) - Max dump angle at full height	degrees	42	62	62	62	55	55	52	52	52	52
(H) - Max tilt back angle at ground	degrees	45	42	42	42	42	42	37	37	37	37
Lift time @ 1500 rpm	seconds	9.1	11	7.0	6.0	7.5	9.5	7.2	7.5	7.75	9.5
Loader Weight	kg	240	420	440	440	480	540	450	450	490	550

<sup>\*</sup>Specifications and design subject to change without notice

## Conditions of Warranty

#### **Limited Warranty**

Rossmore Engineering LTD, Clonoulty, Cashel, Co. Tipperary, Ireland (hereinafter referred to as "the company") warrants the original retail purchaser that new products sold, shall be at the time of delivery be free from defects in material and workmanship, and that such equipment is covered under Limited Warranty providing the machine is used and serviced in accordance with the recommendations in the operators manual.

The Limited Warranty covers the equipment for a period of 12 months starting from the date the equipment is delivered to the original retail purchaser.

These conditions are subject to the following expectations;

- 1. Warranty claims will only be assessed when all alleged faulty parts have been returned to the manufacturer. All parts dispatched to replace damaged parts under warranty consideration are chargeable, pending decision on claim.
- 2. Parts of a Rossmore Engineering machine which are not of Rossmore manufacture, such as PTO shafts, slip clutches, hydraulic cylinders, selected hydraulic hoses, etc are not covered by this limited warranty but are subject to the warranty of the original manufacturer. Warranty claims applying to these types of parts must be submitted in the same way as if these parts were manufactured by Rossmore. However, compensation will be paid in accordance with the agreement of the manufacturer concerned.
- 3. This limited warranty does not apply to failure through normal wear and tear, to damage resulting from negligence or from lack of inspection, from misuse, from lack of maintenance and/or if the machine has been involved in an accident, lent out or used for purposes other those for which it was intended by the company.
- 4. This limited warranty will not apply to any product that has been altered or modified in any way without the express permission of the company, or if parts not approved by Rossmore Engineering are used in repair.
- 5. Warranty is negated when works, repairs and servicing are undertaken by non-qualified personnel.

## **Conditions of Warranty**

- 6. The company take no responsibility for any additional costs, including loss of oil and/or consumables incurred during the failure and repair of a product.
- 7. The company cannot be held responsible for any claims or injuries to the owner or third party, nor to any resulting responsibility.
- 8. Also, on no account can the company be held liable for incidental or consequential damages (including loss of anticipated profits) or for any impairment due to failure, a latent defect or a breakdown of a machine.

#### The customer will be responsible for the following cost;

Normal maintenance such as greasing, adjusting oil levels etc. As specified in the operators manual.

Labour charges other than original agreed, incurred in the removal and replacement of components.

Dealers travel time and costs to and from the machine.

Parts defined as normal wear items such as, but not limited to blades, chains, tines, tine barrels, slip clutches, pins and bushings etc. that are not covered under the limited warranty.

#### Terms and Conditions of Sale

- a) Where the Purchaser deals as a consumer within the meaning of Sales of Goods and Supply of Service Act 1980, the goods are sold subject to any condition and warranties implied by the Sales of Goods Acts, 1893 and 1980 or any amending statue.
- b) Save in the case where the Purchaser deals as a consumer as herein before defined, all statements, representations and conditions or warranties as to the quality of the Goods or their fitness for any particular purpose whether expressed or implied by law or otherwise are hereby expressly excluded.
- c) Whilst every care is taken that the goods are in accordance with specifications and of good material standard and workmanship, the Company shall not be liable for any loss or injury arising directly or indirectly from the use of the Goods or any component thereof whether manufactured or supplied by them or otherwise.
- d) In the case of products manufactured by the Company, as our manufacturing policy is one of continuous improvement, the Company reserves the right to amend specifications, without notice.
- e) Except where the Purchaser of the Goods is a consumer as hereinbefore defined, all terms and conditions as implied by statute or by common law in the case of contracts for the supply of goods and services are hereby expressly excluded.

#### **Repairs and Alterations**

Any products accepted for repair or alteration by the company and are held by the Company are entirely at the customers own risk.

#### **General Considerations**

- Rossmore Engineering Ltd shall hereinafter be referred to as "the Company".
- All products and/or components or whatever kind and all services sold by the Company shall be sold subject to
  these terms and conditions of sale and shall hereinafter be referred to as "the Goods".
- The buyer of the goods shall be hereinafter referred to as "the Purchaser".
- a) The conditions of sale shall be deemed to be incorporated in all tenders, quotations, delivery dockets, invoices, credit notes, and other documents of a similar nature submitted by the Company for the supply of Goods.
- b) Any Terms or Conditions in the Purchaser's order which are inconsistent of these Terms and Conditions of sale shall not form part of any contract between the Company and the Purchaser unless accepted in writing.
- c) Unless previously withdrawn, offers by the company shall remain open for acceptance for a period of 30 days or such longer period as the Company may agree in writing.
- d) Each and every provision of these conditions of Sale and Reservation of Title Clause and ever part of every such provision shall be separate and severable, and enforceable accordingly.
- e) The Law of the Republic of Ireland shall govern operations and interpretation of these Conditions of Sale and Reservation of Title Clause, but the Company may sue for monies on foot of any sale in any jurisdiction.

#### Terms and Conditions of Sale

#### **Purchasers Rights**

Nothing contained herein or in any other document in relation to any contracts is intended to affect or prejudice nor will affect or prejudice the contractual rights enjoyed by the purchaser by virtue of Sale of Goods Act 1893 and 1980 and in particular, of sections 12, 13, 14 and 15 of the said Act of 1893 as amended or where Goods are sold outside the jurisdiction of the Republic of Ireland, the statutory rights of a Purchaser who is a Consumer as hereinbefore defined.

#### **Force Majeure**

If circumstances occur which not have been foreseen at the time the contract was concluded and which are beyond the control of the Company and directly or indirectly prevent, hinder or make more difficult the full or partial performance of the contract, such circumstances being, inter alia war, threat of war, civil war, natural disasters, riots, strikes, lockouts, fire, breakdown in the company's factory, delayed or incorrect deliveries by the companies suppliers, government measures, blockades, the Company shall have the right without incurring further liability, whether to suspend performance of the contract wholly or in part or to treat the contract as cancelled and thereupon all amounts due to the Company by the Purchaser committing an act of bankruptcy, suspending payments of its debts, entering into an agreement with its creditors, closing its business or in case of a limited company, having a Receiver of Liquidator appointed over its assets (liquidation for the purpose of restricting excepted).

#### **Prices and Terms of Payment**

- a) All prices are subject to alteration without notice and prices charged for goods and services are those ruling on date of dispatch. This clause also applies to backorders. All prices are exclusive of VAT and same, together with carriage when charged, shall be borne by the Purchaser.
- b) The Company must be paid in full without deduction irrespective of alleged disputes or counter-claims in accordance with the terms specified, by the last day of the month following month of invoice.
- c) If part only of an order shall be supplied, the terms of the payment shall apply to the Goods actually delivered, notwithstanding the shortfall.

#### **Damage in Transit and Shortages**

On delivery, the Goods must be checked against the Delivery Note which shall be signed by or on behalf of the Purchaser. Such signature is an acknowledgement that the Goods have been received in good condition and order. The company will accept no responsibility for damage in transit or shortages unless the same are noted on the Delivery Note before the signature. In any event all claims must be received in writing by the company within 7 days of the receipt of the Goods by the Purchaser.

#### Risks and Reservations of Title

- a) Ownership of the Goods, the subject matter of this contract shall not pass to the Purchaser until the invoice covering same has been paid in full.
- b) The Goods shall be at the Purchasers risk from the date of delivery until they are paid for in full and during this time the purchaser shall store the Goods so as clearly show them to be the property of the Company.
- c) The personnel of the Company, its servants or agents will be allowed full access to the Goods and place of storage at all reasonable times with the intention that such personnel may remove such Goods in exercise of any provisions in the clause. Any expense incurred in so doing shall be borne by the purchaser.

## **EC** Declaration of Conformity

#### Directive 2006/42/EC, Annex 2A

Rossmore Engineering Ltd,
Coolanga, Clonoulty,
Cashel,
Co. Tipperary,
Ireland

Tel: +353 (0) 504 42230

Hereby certifies that:

From January 2013, all FL and SL model loaders;

FL 35, 45, 60, 65, 85 and 105 SL 60, 65, 85 and 105

are manufactured to comply with EU provisions:

The person authorised to compile technical documentation at Rossmore Engineering Ltd is Jason Forrestall, Product Development Director.

Jerry Carroll (Company Director)