

LEON

Operator Manual



“8 Way” Pull Blade Scraper GZ300 Model

LEON'S MFG. COMPANY INC.

P.O Box 5002

135 York Road East

Yorkton, Saskatchewan

Canada

S3N3Z4

1-800-667-1581

Fax: 306-782-1884

Email: sales@leonsmfg.com

Website: www.leonsmfg.com

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NOTE: THIS MANUAL APPLIES TO ALL MODELS MANUFACTURED IN 2013 AND LATER.

TO THE DEALER:

Warranty Registration

The warranty registration form must be completed and signed by both dealer and customer before or upon machine delivery. Give the owner their copy.

Pre-Delivery

Using the Pre-Delivery Inspection Report, be sure the scraper is completely set up, lubricated and in proper working order upon delivery to the customer.

Operator's Manual

The Operator's Manual is a very important part of the equipment purchase. With the use of the manual be sure to instruct the owner and operator regarding:

- Safety precautions
- Operation and adjustments
- Lubrication and maintenance

BE SURE to give this **MANUAL** to the **OWNER**.

TRANSPORTING

- Use a tractor with adequate power, adequate weight and with adequate towing and braking capacity to safely tow and handle the scraper.
- Always adjust the drawbar length to properly accommodate the scraper as per the recommended connection specifications.
- Always use correct hitch pin size and secure the pin with a retainer clip or pin.
- Attach a transport safety chain between the tractor drawbar support and scraper hitch.
- Always lock tractor brake pedals together when traveling on a public road.
- Always make the necessary safety precautions prior to transporting scraper on public roads:
 - Be sure SMV (Slow Moving Vehicle) sign is mounted and clean and visible.
 - Use flashing warning lights, except where required by law. Ensure that they are clearly visible and in proper working condition.
- Comply with provincial or state and local laws and regulations governing highway safety when moving machinery.
- Use good judgment when transporting scraper on the highway. Maintain complete control of machine at all times.
- When traveling up or down steep grades, use extreme caution to prevent scraper from jackknifing, overturning or causing loss of control of the towing vehicle.

TO THE CUSTOMER:

Warranty Registration

Be sure to sign the registration form and keep a copy.

Know the Equipment

Before operating the scraper, read this operator's manual to become completely familiar with the machine.

Right and Left-Handed Sides of the Machine

Stand behind the machine and face the direction of travel to determine the right hand (RH) and left hand (LH) sides of the machine.

Serial Number

Record the scraper serial number. The dealer needs this information to order parts and process warranty claims.

Authorized Service

For factory authorized service and parts, see your dealer. The dealer's trained service staff uses the latest service techniques, and the parts personnel provide prompt delivery of quality parts.

SAFETY IS IMPORTANT!

- Develop and follow good safety procedures and encourage others to do the same.
- Always operate farm machinery in a careful, safe manner.
- Never attempt to clean, adjust or lubricate a machine while it is running.
- Always stop and shut off the engine before leaving the tractor seat.

WARNING!

IF BLADE SCRAPER IS TOO HEAVY OR IS TOWED TOO FAST, LOSS OF CONTROL CAN OCCUR. DO NOT EXCEED SPEEDS AND TRACTOR/ IMPLEMENT WEIGHT RATIOS LISTED BELOW. DO NOT EXCEED THE MAXIMUM 325HP RATING OF THE TRACTOR TOWING THE SCRAPER. THE SCRAPER MUST NOT BE OPERATED WITH A 4WD TRACTOR.

- To ensure load does not exceed recommended weight ratio, add ballast to the tractor, reduce load size and/or increase tractor size.
- Stopping distance increases as weight, speed and ground slope increase. Always observe the following for towed equipment:
 - Do not exceed 32 kmh (20 mph)
 - Loaded implement weight must not be more than 1.5 times tractor weight.

WARRANTY

REGISTRATION (OWNER'S COPY)

Leon's Mfg. Company Inc. warrants all products manufactured by Leon's Mfg. Company Inc. for a period of one year from the date of purchase for private use, or a period of 90 days for commercial use.

Leon's Mfg. Company Inc. warrants tires for a period of 60 days for private use or a period of 30 days for commercial use.

This warranty provides that the equipment shall be free of defective materials and workmanship, or we will replace or repair at our factory any part that our inspection shows to be defective.

If any product or portion thereof is modified, changed or tampered with in any way, this warranty shall be deemed null and void.

All hydraulic cylinders, valves, hoses, tires, spindles and other purchased products, except as specifically included in the warranty above, are not manufactured by Leon's and are, therefore, covered by the warranties of the manufacturer of these products.

All parts shipped to the factory shall be shipped prepaid and will be returned F.O.B. Factory. Leon's Mfg. Company Inc. does not assume responsibility for shipping, labour or travel expenses.

Although Leon's products are designed to minimize tractor strain, Leon's Mfg. Company Inc. will assume no responsibility for damage to tractors or other equipment.

Leon's Mfg. Company Inc. reserves the right to make improvements and reserve the right to change the design, materials and specifications without notice or obligation.

MODEL NO. _____ **DATE OF PURCHASE** _____

SERIAL NO. _____ **DEALER** _____

TOWN _____ **PROV. / STATE** _____

OWNER _____ **ADDRESS** _____

TOWN _____ **PROV. / STATE** _____

What make and model of tractor will this product be used with? - _____

Will this product be used: commercially? _____

Privately? _____

Why did you buy **Leon**? Advertising _____

Previous Owner _____

Recommendation _____

Special Features _____

Comments:

NOTE: This warranty is effective only if the warranty registration is filled in and mailed by the original purchaser within ten days after the date of delivery.

WARRANTY

REGISTRATION (MANUFACTURER'S COPY)

Leon's Mfg. Company Inc. warrants all products manufactured by Leon's Mfg. Company Inc. for a period of one year from the date of purchase for private use, or a period of 90 days for commercial use.

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 Previous Owner _____
 Recommendation _____
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Comments:

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SAFETY

SAFETY ALERT SYMBOL



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The symbol above calls your attention to instructions concerning your personal safety. It is found throughout the manual as well as on the machine to point out specific hazards and ways to avoid them. Always follow the instructions to minimize the risk of personal injury or death.

OPERATING

- In addition to equipment configuration and design, hazard control and accident prevention depend on awareness, concern, prudence and proper training of personnel in the operation, maintenance, transport and storage of equipment.
- Always shut off tractor engine, shift to "PARK" position or shift to neutral, set brakes and allow scraper to completely stop before dismounting tractor or working around the machine.
- Remove tractor start key when tractor and scraper will be unattended for adjustments or maintenance.
- Do not attempt to lubricate or adjust scraper while machine is in operation.
- Machinery operation should be performed only by persons who are trained and qualified to do so and are knowledgeable of the scraper.
- Only the operator should be permitted on the tractor (unless the tractor has a factory installed passenger seat) when the tractor and scraper are in motion. Never permit anyone to ride in or on the scraper at any time.
- Avoid wearing loose-fitting clothing or jewelry when working around the scraper and tie up long hair that can entangle in moving parts.
- Wear personal protective equipment (PPE) such as, but not limited to, protection for eyes, lungs, ears, head, hands and feet when operating, servicing or repairing equipment.
- Be sure bystanders are clear before engaging and operating the tractor or scraper.
- Do not leave tractor or scraper unattended with tractor engine running.
- Never attempt to operate the scraper unless sitting in the tractor driver's seat.
- Keep all guards and shields in place when scraper is in operation.
- Do not stand between tractor and scraper to install hitch pin when tractor is running.
- Regulate ground speed to field conditions, and maintain control at all times.
- Be sure tractor has sufficient weight to operate scraper on public roads, on hillsides and under any other adverse conditions.
- Do not allow children to ride on, play on, or operate equipment. Always keep children away from equipment operating, servicing and storage areas.
- Be sure tractor is in safe operating condition and has adequate braking capabilities.
- Tractor should be equipped with rollover protective structure (ROPS), enclosed cab and seat belts. Use seat belts during operation.
- Detach and store scraper where children do not normally play. Always block the wheels and ensure that the hitch jack is stable and secured to scraper properly.

WARNING:

DO NOT OPERATE THE SCRAPER WITH A TRACTOR EXCEEDING THE 325 HP DRAWBAR RATING. DO NOT OPERATE THE SCRAPER WITH A 4WD TRACTOR. WARRANTY WILL BE VOID IF THE SCRAPER IS OPERATED WITH THESE TYPE OF TRACTORS.

PRE-DELIVERY INSPECTION

The scraper may have been partially disassembled for shipping. If assembly is required, contact Leon's Mfg. Company Inc. for assembly instructions.

- 1) Install the wheel/tire assemblies on to the axles and secure with wheel bolts or wheel nuts. Refer to page 10 for wheel torque requirements.
- 2) Check and adjust the tire inflation pressure as per requirements on page 10.
- 3) Lubricate all bearings with premium quality multi-purpose grease where applicable.
- 4) Ensure that the safety SMV emblem and safety warning lights have been installed properly (if applicable).
- 5) Connect warning safety lights and ensure that they work properly for all operation functions (if applicable).
- 6) Ensure that all bolts and fasteners are in place and properly tightened.
- 7) Hook up the scraper and perform a test run. Ensure that the area around the scraper is clear of obstacles and other people. Cycle the hydraulics and raise and lower the blade, angle the blade from side to side and tilt the blade from left to right at all times ensuring that no interference occurs.
- 8) If the blade scraper is equipped with blade skid shoes ensure that they are properly secured to the blade with the mounting bolts supplied.
- 9) If the blade scraper is equipped with folding side plates ensure that the plates are pinned and secured to each side of the blade and that they pivot freely from working to storage position above the blade.

OPERATION AND MAINTENANCE

Attaching the Scraper

- 1) Ensure that your Leon GZ300 Blade Scraper Pre-Delivery Inspection has been completed prior to hook up.
- 2) Ensure that your tractor has sufficient power and weight and adequate braking capability to safely and properly control the scraper in field and road conditions.
- 3) Use a properly sized hitch pin to attach the scraper.
- 4) Connect the drawbar safety chain to the scraper hitch and tractor drawbar.
- 5) Ensure that hitch jack is secured properly in storage location.
- 6) Connect the hydraulic hoses as per the instructions in the pre-delivery inspection.
- 7) Connect the safety warning lights and ensure that they are working properly for all operating functions.
- 8) Ensure that the area around the scraper is clear prior to operation.

BEFORE OPERATING SCRAPER

- Lubricate scraper bearings, walking axles and blade pivots.
- Check and adjust tire pressure.
- Check wheel bolt torque as listed below.
- Hitch scraper to tractor and cycle operate the entire scraper while empty. Stop tractor and make adjustments as required.
- **Remove all hydraulic locks.**
- Cycle all hydraulic functions several times to ensure proper operation of hydraulics. Ensure to raise and lower the blade fully. When all the cylinders are retracted, check the tractor oil level, adding to maintain normal levels.
- Approximate oil volumes required to charge the hydraulic system:
Model GZ300 - 20 liters

WHEEL BOLT TORQUE

IMPORTANT! New Scrapers: Tighten all wheel bolts after 4 hours of use. Tighten hub bolts to:

Model GZ300	5/8 bolts	180 ft-lbs
	3/4 bolts	300 ft-lbs

TILT PLATE BOLT TORQUE

3/4 bolts	300 ft-lbs
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TRANSPORT SAFETY CHAIN / SAFETY LIGHTS

Always use a transport safety chain and Safety Lights in use on roads as per Highway Traffic Regulations.

TIRE PRESSURE

Tire Size	PSI
425/65 R22.5	100

OPERATION AND MAINTENANCE

TRACTOR 3PT HITCH LIFT ARMS

Maintain lowest position to avoid scraper hitch damage when turning.

HITCH JACK

TO PREVENT INJURY AND JACK FAILURE ALWAYS POSITION HITCH JACK IN SUPPORT POSITION PRIOR TO UNHITCHING SCRAPER FROM TRACTOR.

- Do not operate scraper when unhitched from tractor.
- Stand clear of hitch when raising or lowering hitch jack
- Securely block wheels before unhitching on uneven terrain.
- Store hitch jack on scraper frame after hitching to tractor and before towing spreader.

Activate the tractor hydraulics to raise the blade. Note that one hydraulic system is required to activate each operation of the blade. When the hydraulic system is activated and the blade is raised, the transport straps can be disconnected and then raised over the hitch tube for storage position. Ensure that the blade moves freely in all six directions.

BEFORE STORAGE

Clean and lubricate machine. Park the scraper on the level surface and use hitch jack to elevate front of the machine slightly to ensure that water will flow out. Install blocks in front of tires.

MAINTENANCE

- Always follow proper safety precautions.
Never attempt any service, maintenance, adjustment or repair unless you have been properly trained and are qualified to do so.
Always shut off the tractor, engage the park brake and take steps to ensure no person can start up the machine while you are working on it.
- Axles, Wheels & Tires.
Check wheel bolts hourly for the first day of operation and every 50 hours of operation thereafter. Check tires daily for sign of damage or noticeably low air pressure. Every 50 hours check the tire pressure. Grease walking beam bearings every 8 hours and wheel bearings every 50 hours with premium quality multi-purpose grease.

LUBRICATION AND CHECK SUMMARY

- | | |
|--------|---|
| 8 hrs | Grease Blade Pivot Shafts
Grease walking beam bearings
Check tires
See Parts Manual – page 6 |
| 50 hrs | Check wheel bolts
Check air pressure
Grease wheel bearings |

DETAILS AND SPECIFICATIONS SUMMARY

BLADE DIMENSIONS

GZ300-12FT
144" Blade Width x 32" High

GZ300-14FT
168" Blade Width x 32" High

GZ300-16FT
192" Blade Width x 32" High

TIRE AND WHEEL –All Models:

Tire: 16.5 x 22.5 (425/65R x 22.5)

Rim: 11.75 x 22.5 x 8-bolt
TR-501 metal valve

Hub: 8-bolt

CYLINDERS

Lift Cylinders: All Models

Bore Diameter: -3.0"
Shaft Diameter: -1.25"
Stroke: -13.25"
Design Pressure: -3000 psi
Test Pressure: -3500 psi

Angle Cylinders: All Models

Bore Diameter: -3.0"
Shaft Diameter: -1.25"
Stroke: -13.25"
Design Pressure: -3000 psi
Test Pressure: -3500 psi

Tilt Cylinders: All Models

Bore Diameter: -3.0"
Shaft Diameter: -1.25"
Stroke: -13.25"
Design Pressure: -3000 psi
Test Pressure: -3500 psi

Steering Cylinders: All Models

Bore Diameter: -2.0"
Shaft Diameter: -1.250"
Stroke: -14"
Design Pressure: -3000 psi
Test Pressure: -3500 psi

