SL3640E
SL3840E (EU)
SL4240E
SL4240E (EU)

Skid-Steer Loaders

Form No.
917334/
C0718
English

Operator's Manual

CHAPTER 2

SAFETY

This safety alert symbol means Attention! Become alert! Your safety is involved! It stresses an attitude of "Heads Up for Safety" and can be found throughout this Operator's Manual and on the decals on the machine.

Before operating this machine, read and study the following safety information. For further reference on the safe operation of skid-steer loaders, Manitou Group suggests that equipment owners obtain the Gehl "Skid-Steer Loader Safety" video, which is available through Gehl dealers. In addition, be sure that everyone who operates or works with this machine, whether family member or employee, is familiar with these safety precautions. It is essential to have competent and careful operators, who are not physically or mentally impaired, and who are thoroughly trained in the safe operation of the machine and the handling of loads. It is recommended that the operator be capable of obtaining a valid motor vehicle operator's license.

The use of skid-steer loaders is subject to certain hazards that cannot be eliminated by mechanical means, but only by exercising intelligence, care and common sense. Such hazards include, but are not limited to, hillside operation, overloading, instability of the load, poor maintenance and using the equipment for a purpose for which it is not intended or designed.

Manitou Group ALWAYS considers the operator's safety when designing its machinery, and guards exposed moving parts for the operator's protection. However, some areas cannot be guarded or shielded in order to assure proper operation. Furthermore, this Operator's Manual and decals on the machine warn of additional hazards and they should be read and observed closely.

Some photographs in this manual may show doors, guards and shields open or removed for illustrative purposes only. Be sure that all doors, guards and shields are in their proper operating positions before starting the engine to operate the unit.

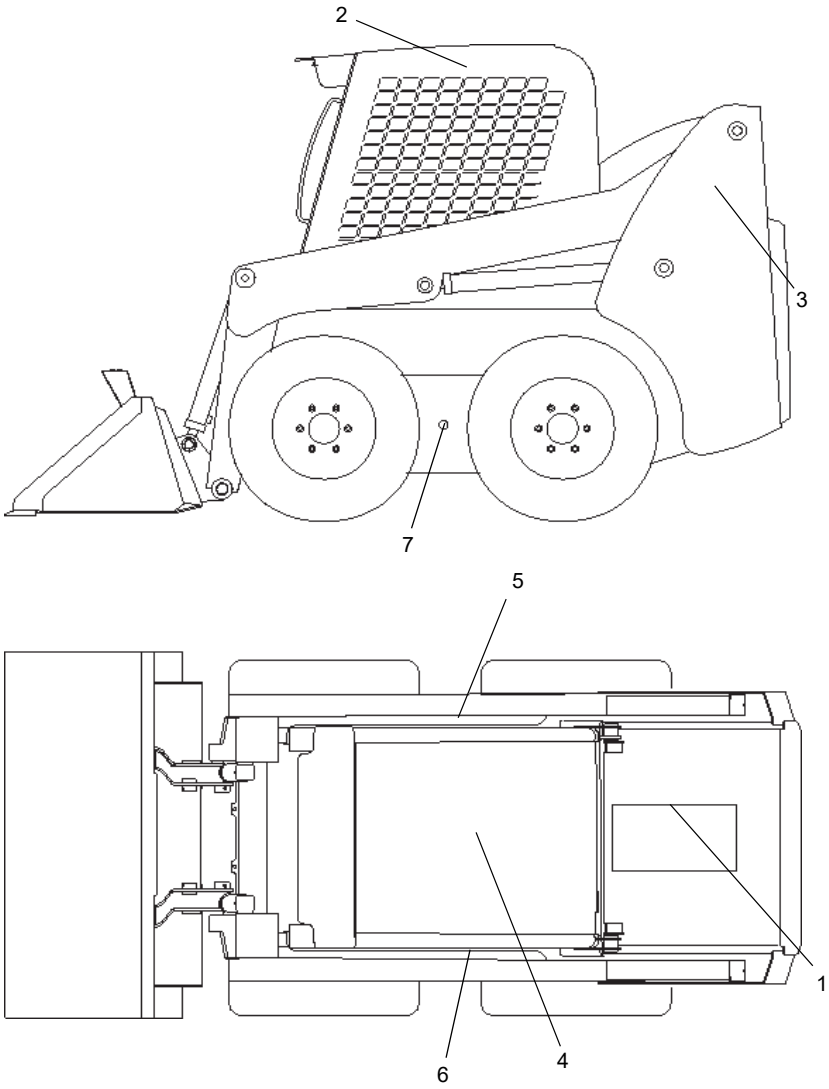
Different applications may require optional safety equipment, such as a back-up alarm, mirror, strobe light or an impact-resistant front door. Be sure you know the job site hazards and equip your machine as needed.

DANGER **"DANGER" indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.**

WARNING **"WARNING" indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

CAUTION **"CAUTION" indicates a potentially hazardous situation which, if not avoided may result in minor or moderate injury. May also alert against unsafe practices.**

Product and Component Plate Locations



Product and Component Plates

1. Engine plate: with e.g. type designation, product and serial number
2. Operator protective system plate: with e.g. model, certification and operator protection system serial number
3. Product plate: with Product Identification Number and e.g. model/type designation
4. Seat plate according to ISO 7096
5. Component plate rear drive axle: with e.g. product and serial number
6. Component plate front drive axle: with e.g. product and serial number
7. Component plate transmission: with e.g. product and serial number

10. **Keyswitch –** In a clockwise rotation, these positions are:

    OFF Position – With the key vertical, power from the battery is disconnected to the controls and instrument panel electrical circuits. This is the only position the key can be inserted or removed from the keyswitch.

    ON (or Run) Position – With the key turned one position clockwise from vertical, power from the battery is supplied to all control and instrument panel electrical circuits.

    START Position – With the key turned fully clockwise, the electric starter energizes, start the engine. Release the key to the RUN position after the engine starts.

Note: *The engine cannot be started unless the operator is sitting in the seat and the restraint bar is lowered.*

11. **Parking Brake Switch –** Used to manually apply the parking brake. The red indicator on the switch lights when the parking brake is applied.
12. **Light Switch –** Controls all the lights on the loader. Symbols denote the four positions of the light switch. In a clockwise direction these are:
    - OFF
    - Tail Lights ON
    - Front Work Lights with Tail Lights ON
    - both Front and Rear Work Lights

    For the lights to function, the keyswitch must be in the RUN position.
13. **Circuit Breakers –** Four circuit breakers on the instrument panel protect the loader's electrical circuits.

Important: *Do not attempt to defeat the circuit protection by jumping across a circuit breaker or by using a higher amperage circuit breaker.*

14. **Accessory Outlet –** 12-volt DC power outlet.

Removing Attachments

1. Tilt the attachment bracket back until the attachment is off the ground.
2. Exercise the MANDATORY SAFETY SHUTDOWN PROCEDURE (page 6).
3. Relieve any hydraulic pressure in the auxiliary and attachment lines.
   a. Turn the key switch, but do not start the engine.
   b. With the restraint bar down, move the auxiliary hydraulic control back and forth. This will relieve the pressure in the hydraulic system.
4. With the engine OFF, leave the operator's compartment, disconnect the auxiliary hydraulic hoses and rotate the latch levers completely vertical to fully retract the latch pins.
5. Start the engine and be sure that the lift arm is fully lowered and in contact with the loader frame.
6. Tilt forward and slowly back the loader until the attachment is free from the loader.

Self-Leveling (optional)

The feature is designed to keep the attachment level while the lift arm is being raised.

Using a Bucket

WARNING **Always maintain a safe distance from electric power lines and avoid contact with any electrically charged conductor or gas line. Accidental contact or rupture can result in electrocution or an explosion. Contact the "Digger's Hotline" or proper local authorities for utility line locations before starting to dig.**

Driving over Rough Terrain

When traveling over rough terrain, drive slowly with the bucket lowered.

Driving on an Incline

When traveling up or down on an incline, travel with the heavy end pointing uphill. Try to avoid traveling on an incline, but always travel with the bucket as possible to maintain stability.

Loader Lowering Procedure

When service or adjustment procedures are complete, the skid-steer loader can be taken down from the "raised" position. To lower the loader onto its tires:

1. Using a jack or hoist, raise the front of the loader until its weight no longer rests on the front blocks.
2. Carefully remove the blocking under the front of the loader.
3. Slowly lower the loader until the front tires are resting on the ground.
4. Repeat Steps 1 through 3 for the rear of the loader. When the procedure is finished, all four tires will be on the ground and the blocks removed from under the loader.

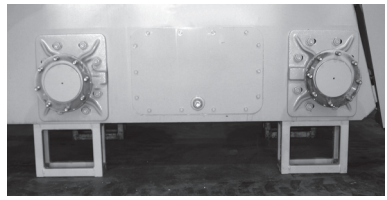


Figure 25 Blocked Loader

Replacement Parts

Part Description	Gehl Part No.
Air Cleaner Element, Primary	188814
Air Cleaner Element, Secondary	188817
Hydraulic Oil Filter Element	074830
Engine Oil Filter Element	137500
Fuel Filter Cartridge	270979

Note: *Part numbers may change. Your Gehl dealer will always have the latest part numbers.*

Adjustments

Control Handles

The control handles do not require routine adjustment. Refer to the *Service Manual* for the initial setup procedure.

Fuel Sender

The fuel sender, located in the fuel tank, sends a signal to the fuel gauge indicating the amount of fuel left in the fuel tank.

Check the fuel sender periodically to ensure that the mounting screws are tight and that there is no fuel seepage around the gasket. If replacement is required, apply an RTV or gasket sealant around the gasket when restoring the fuel sender.

Bucket Cutting Edge

The bucket cutting edge should be replaced when it is worn to within 1 in. (25 mm) of the bucket body.

Wheel Nuts

Wheel nut torque must be checked before initial operation and every two hours thereafter until the wheel mounting hardware torque stabilizes at the recommended setting of 120-130 ft-lbs (161-175 N·m). When tires are removed and replaced, this procedure must be repeated.

Tires

Rear tires usually wear faster than the front ones. To keep tire wear even, rotate the tires from front to rear and rear to front.

It is important to keep the same size tire on each side of the loader to prevent excessive wear on tires or other damage. If different sizes are used, each tire will be turning at different speeds, causing excessive wear.

The tread bar of all tires must face the same direction.

Mounting Tires

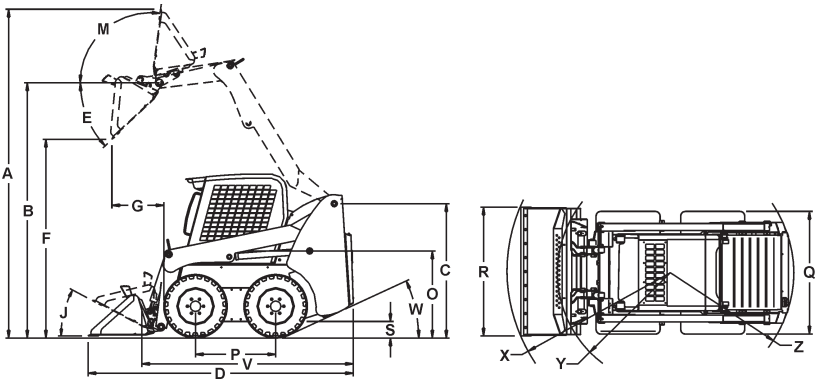
⚠ WARNING Inflating or servicing tires can be dangerous. When possible, trained personnel should service and mount tires. To avoid possible death or serious injury, follow the safety precautions below.

1. Be sure the rim is clean and free of rust.
2. Lubricate the tire beads and rim flanges with a soap solution. Do not use oil or grease.
3. Use a clip-on tire chuck with remote hose and gauge, allowing you to stand clear while inflating the tire. Do not place your fingers on the tire bead or rim during inflation.
4. Never inflate beyond 35 psi (240 kPa) to seat the beads. If the beads have not seated by the time the pressure reaches 35 psi (240 kPa), deflate the assembly, reposition the tire on the rim, lubricate both parts and re-inflate. Inflation pressure beyond 35 psi (240 kPa) with unseated beads may break the bead or rim with explosive force sufficient to cause death or serious injury.
5. After seating the beads, adjust the inflation pressure to the recommended operating pressure.
6. Do not weld, braze or otherwise attempt to repair and use a damaged rim.

Hydraulic System

Problem	Possible Cause	Remedy
Lift/Tilt controls fail to respond.	Hydraulic oil viscosity is too heavy.	Allow longer warm-up or replace with proper viscosity oil.
	Hydraulic oil level is low.	Check oil level in reservoir. If oil is low, check for an external leak. Repair and add oil.
	Solenoid valve(s) malfunctioning.	Check electrical connections to lift solenoid and repair.
	Restraint bar or seat switch malfunction.	Check switches.
Auxiliary hydraulics do not function.	Restraint bar is raised.	Lower the restraint bar.
	Lock solenoid malfunctioning	Check electrical connections to lock solenoid and repair connections as needed. If lock solenoid is still not functioning properly, contact your dealer.
	Restraint bar switch malfunctioning.	Check electrical connections to restraint bar switch and repair connections as needed. If switch is still not functioning properly, contact your dealer.
Hydraulic cylinder action is slow for lift and/or tilt functions.	Low engine speed.	Operate engine at higher speed.
	Hydraulic oil viscosity is too heavy.	Allow longer warm-up or replace existing oil with proper viscosity oil.
	Control linkage is restricted.	Check for control linkage restriction and adjust.
	Hydraulic oil leaking past cylinder piston seals.	Contact your dealer.
	Worn gear pump.	Contact your dealer.
	Solenoid valve(s) could be malfunctioning.	Check electrical connections to lift solenoid and repair connections as needed. If lift solenoid valve is still not functioning properly, contact your dealer.
	Relief valve in control valve not functioning correctly. (Squealing noise should be evident while operating.)	Contact your dealer.

Dimensional Specifications



SL3640E & SL3840E (EU)		10.5 ft³ (0.3 m³) Bucket w/27 x 8.5 x 15 Tires	
		inches	mm
A	Overall Operation Height – Fully Raised	139.6	3546
B	Height to Hinge Pin – Fully Raised	108.1	2746
C	Overall Height – to ROPS	70.3	1786
D	Overall Length – Bucket Down	114.0	2896
E	Dump Angle at Full Height	42°	
F	Dump Height	84.5	2146
G	Dump Reach – Bucket Full Height	22.8	579
J	Rollback at Ground	29°	
M	Rollback Angle at Full Height	99°	
O	Seat to Ground Height	32.6	828
P	Wheel Base – Nominal	34.5	876
Q	Overall Width – Less Bucket	48.4/58.2	1229/1428
R	Bucket Width – Overall	55.3	1404
S	Ground Clearance – to Chassis (Between Wheels)	6.0	152
V	Overall Length (Less Bucket)	88.9	2258
W	Departure Angle	26°	
X	Clearance Circle – Front (With Bucket)	69.4	1763
Y	Clearance Circle – Front (Less Bucket)	44.1	1120
Z	Clearance Circle – Rear	54.1	1374