

STARVOX

SV-480

Mini Compact Track Loader OPERATOR MANUAL

STARVOX EQUIPMENT

www.starvox.com



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1. PRODUCT SERIAL NUMBER

Write your machine model number, product serial number, and engine serial number on the line provided below. If needed, give these numbers to your dealer when you need parts or information for your machine.

Make a record of the numbers; keep the record in a safe place. If the machine is stolen, report the number to your local law enforcement agency.

Record Your Information Here	
Machine Model	SV-480 Mini Compact Track Loader
Machine Serial Number	_____
Engine Serial Number	_____
Manufacture Date	_____
Manufacturer	STARVOX Equipment
Dealer Name	_____
Dealer Phone	_____

2. INTENDED USE

The STARVOX SV-480 is a compact track loader designed for compact construction, landscaping, and material handling work.

The SV-480 features a quick-attach mount plate which makes it easy for an operator to connect different attachments. The loader is designed for operation in temperatures typically experienced in earth-moving and construction work environments. Provisions may be required to operate in extreme temperatures.

The SV-480 should be operated, serviced, and repaired only by persons familiar with its particular characteristics and acquainted with the relevant safety procedures.

3. MACHINE COMPONENTS

Item	Description
1.	Operator Platform
2.	Machine Body
3.	Rubber Track
4.	Operator Station
5.	Engine
6.	Side Cover
7.	Lift Arms
8.	Upper Cover
9.	Mount Plate (Quick-Attach)

4. OPERATOR ORIENTATION

Position	Description
1	Machine Front — Direction of travel
2	Machine Right — Right side of the machine
3	Machine Rear — Opposite direction of travel
4	Machine Left — Left side of the machine

5. SAFETY RULES

5.1 Safety Alert Symbol

This safety alert symbol indicates important safety messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of death or serious injury.

WARNING

Safety operation is the operator's duty.

Most accidents are caused by operators failing to follow safety rules. If you understand the dangers and are alert and careful before accidents occur, you can avoid them.

Please read the safety rules carefully before maintenance, operation, and refueling.

5.2 Safety Symbols

Symbol	Meaning
DANGER	Indicates an imminently hazardous situation. Failure to comply will result in death or serious injury.
WARNING	Indicates a potentially hazardous situation. Failure to comply may result in death or serious injury.
NOTICE / IMPORTANT	Indicates a situation where the operator must comply with steps to avoid damage to the machine.
CAUTION	Indicates a precautionary safety note to protect the operator and bystanders.

5.3 General Safety Rules

IMPORTANT — Break-In Period (First 100 Hours)

Do not operate, maintain, or refuel the machine before completely understanding this Operator Manual.

Before delivering to the user, each loader was tested and examined thoroughly.

Operate carefully during the first 100 hours to ensure all parts are in good condition. Rough operation will shorten service life and reduce efficiency.

- Run the machine at idle for 5 minutes after starting.
- Avoid operating the loader at full speed.
- Avoid rapid starts, rapid acceleration, unnecessary emergency stops, or sharp turns.
- Clean dust and debris when changing filter elements.
- Check the hour meter regularly.
- Check all potential hazards when working in a poor environment.

6. OPERATION GUIDE

6.1 New Loader Break-In Schedule

STARVOX SV-480 loaders need a running-in period of 100 hours to reach full capability.

Period	Load Level	Notes
Within 10 hours	About 60%	Avoid excessive load. Rough operation will worsen machine condition and reduce its life.
Within 100 hours	About 80%	Gradually increase load. Use carefully before 100 hours.
After 100 hours	100%	Machine is fully broken in and ready for normal operation.

6.2 Before Starting the Loader

- Read this manual before using the machine.
- Keep the steps clean; replace immediately if damaged.
- Before starting the engine, ensure all controls are in neutral position.

⚠ WARNING — Before Starting

To avoid accidents and serious injury, the operator must read and study this manual carefully before operating.

When operating the loader, keep your foot on the step at all times.

6.3 Daily Checks

To keep the machine in good working condition, perform the following daily checks:

Item	Check
Engine Cooling System	Check coolant level and condition
Rubber Tracks	Check for damage, loose bolts, or abnormal wear
Fluid Levels	Check coolant, engine oil, hydraulic oil, and fuel for leaks
Air Filter	Check and clean; replace if damaged
Lubrication Points	Add grease daily
Control Panel & Instruments	Check all lights and gauges function properly
Loose or Damaged Parts	Tighten screws and replace damaged parts
Safety Symbols / Decals	Ensure all safety decals are present and legible

6.4 Safety Driving

⚠ DANGER — Driving on Slopes

Keep the machine in low load at all times to ensure stability.

When operating the lift arms with a load, the loader's center of gravity changes. Do not turn quickly or drive on a slope.

When walking and turning, always keep the arms down.

Keep loading and turning on level ground.

When walking, lower the arms and keep the attachment/bucket a safe distance from the ground to avoid obstructions.

When raising the arm, do not start or turn quickly — this may cause the machine to overturn and result in serious injury or death.

7. CONTROLLING SYSTEM

The SV-480 is equipped with a comprehensive operator control panel. Familiarize yourself with all controls before operating.

No.	Control	Function / Operation
1.	Electric Source Switch	Battery disconnect switch — the main power switch. Turn OFF when the machine is not in use.
2.	Hand Throttle	Move forward (turtle) to lower engine RPM; move backward (rabbit) to increase engine RPM.
3.	Engine Start Switch	ON: Connects electrical power. START: Turn key clockwise; after starting, release to ON position. If engine does not start, turn key to OFF, wait 10–15 seconds, then retry.
4.	Horn Switch	Press horn button to activate; release to stop.
5.	Headlight Switch	Pull to turn on headlight; press to turn off.
6.	Hour Meter	Records total engine operating time.
7.	Fuel Quantity Gauge	Indicates fuel level in tank. F = Full; E = Empty. Refuel before reaching E.
8.	Oil Thermometer	Displays hydraulic oil temperature.
9.	Water Temperature Gauge	Displays engine coolant temperature.
10.	Cigar Lighter / USB Port	Supports USB charging and 12V accessory power.
11.	Oil Pressure Indicator	Lights up when engine oil pressure is low.
12.	Radiator Fan Indicator	Lights up when radiator fan is active.
13.	Electric Source Indicator	Lights when start switch is in ON position.
14.	Left Handle (Drive & Lift)	Forward: Move left track forward / machine turns right. Backward: Move left track backward. Right: Raise lift arm. Left: Lower lift arm.
15.	Attachment Handle	Forward: Extend attachment cylinder. Backward: Retract attachment cylinder. Middle: Idle — hydraulic pressure relieved.
16.	Right Handle (Drive & Tilt)	Forward: Move right track forward / machine turns left. Backward: Move right track backward. Right: Dump bucket. Left: Curl bucket.
17.	Headlight	Lights up when headlight switch is ON.
18.	Fuel Filler	Refueling port — always refuel with engine OFF.

⚠ WARNING — Control Safety

When lifting the arm, the load capacity must not exceed the rated load capacity.

Do not attach or remove hydraulic attachments unless the attachment handle is in the middle (neutral) position and hydraulic pressure is relieved. High-temperature hydraulic oil can cause serious injury.

8. PREPARE BEFORE WORKING

8.1 Gather Information

- Review blueprints or job plans; check for existing or planned structures, elevations, or concurrent work.
- Contact local authorities about safety procedures and traffic control regulations when working near roads.
- Have telephone numbers for local emergency and medical facilities on hand.

8.2 Inspect Site — Before Transporting Equipment

- Check for changes in elevation (hills, trenches, slopes).
- Check for obstacles such as buildings, railroad crossings, or streams.
- Identify signs of underground utilities.
- Assess soil type and condition, and traffic access routes.
- Identify and classify safety hazards.

8.3 Classify Jobsite — Underground Hazards

NOTICE — Jobsite Classification

If working within 10 feet (3 m) of a buried electric line → Classify as **ELECTRIC**

If working within 10 feet (3 m) of a natural gas line → Classify as **NATURAL GAS**

If working in sand, granite, or concrete capable of producing crystalline silica dust → Classify as **CRYSTALLINE SILICA DUST**

If working within 10 feet (3 m) of any other hazard → Classify as **OTHER**

8.4 Check Supplies and Prepare Equipment

Supply / Item	Preparation
Fuel	Check fuel level before starting
Hydraulic Fluid	Check hydraulic fluid level
Battery Charge	Ensure battery is fully charged
Engine Oil	Check engine oil level at dipstick
Air Filter, Oil Filter, Hydraulic Filter	Inspect for wear or damage
Tires / Tracks	Check condition and pressure
Hoses and Valves	Check for leaks or damage
Personal Protective Equipment	Hard hat, safety glasses, hearing protection, gloves

NOTICE — Fire Extinguisher

If required, mount a fire extinguisher near the power unit but away from possible ignition sources. The extinguisher must be classified for both oil and electric fires and meet legal requirements.

9. ATTACHMENT CONNECTION

⚠ IMPORTANT

Use only STARVOX-approved attachments. Attachments can change the stability and operating characteristics of the unit.

Before connecting an attachment to the unit, ensure that mount and receiver plates are free of dirt and debris.

Ensure that lock pin handles on the mount plate are turned away from the center of the attachment.

Connecting an Attachment:

1. Start the engine.
2. Tilt mount plate forward slightly.
3. Position mount plate into the upper lip of the receiver plate on the attachment.
4. Raise lift arms while tilting the mount plate back.

⚠ IMPORTANT

Attachment should be raised enough to clear the ground. Mount plate should be tilted back fully.

5. Ensure all controls are in neutral position.
6. Turn ignition switch OFF and remove the key.
7. Rotate lock pin handles toward the center of the mount plate to secure the attachment.

NOTICE

To ensure proper connection, verify that the bottoms of the lock pins are visible under the attachment receiver plate.

Connecting Hydraulic Hoses (if attachment requires hydraulic power):

⚠ WARNING — Hydraulic System

Fluid or air pressure could pierce skin and cause serious injury or death. Stay away from hydraulic lines during disconnection.

Escaping pressurized fluid can cause injury. Use a piece of cardboard or wood, rather than hands, to search for leaks.

Hydraulic couplers, hoses, and fluid may be hot. Wear gloves when connecting and disconnecting hydraulic hoses. Wait until the unit has cooled before touching hydraulic components.

8. Turn engine off and cycle attachment drive control to relieve residual pressure.
9. Ensure all controls are in neutral position.
10. Remove dirt and debris from hydraulic couplers.
11. Connect male coupler on attachment to female coupler on unit.
12. Connect remaining coupler on attachment to male coupler on unit.
13. Connect female case drain hose to case drain coupler on unit (if required).
14. Ensure all connections are secure by pulling on the hoses.

10. DRIVE

10.1 Starting the Engine

- 15.Ensure all controls are in neutral.
- 16.If necessary, choke the cold engine.
- 17.Move throttle to half open.
- 18.Turn ignition switch to START; release when engine starts.
- 19.Push in choke after engine is warm.

⚠ EMERGENCY SHUTDOWN — Engine

To stop engine in an emergency: turn ignition switch to STOP.

10.2 General Driving Operation

- 20.Pull lift arm control to raise mount plate (and attachment) off the ground.
- 21.Move both wheel drive controls to forward or reverse.
- 22.Adjust throttle as needed.

10.3 Slope Operation Guidelines

NOTICE — Slope Operation

Keep attachment/load low when operating on a slope. Drive slowly and cautiously at all times.

Operate up and down slopes with the heavy end of the unit uphill. Weight distribution changes based on attachments and load.

Avoid starting, stopping, or turning on slopes. If you must turn, keep the heavy end of the unit uphill.

Do not park the unit on a slope without lowering attachment to the ground, returning all controls to neutral, turning ignition to STOP, and applying parking brake.

10.4 Shutting Down

- 23.Lower lift arms to ground.
- 24.Move all controls to neutral position.
- 25.Run engine at low idle for three minutes to cool.
- 26.Turn ignition switch to STOP.
- 27.Remove key from ignition.

11. MACHINE STORAGE

11.1 Rinse Equipment

- Spray water onto equipment to remove dirt and mud, especially on undercarriage.

⚠ NOTICE — Water Damage

Do not spray water onto the operator's console. Electrical components could be damaged. Wipe down instead.

- Open hood and remove debris from inside of unit. Remove mud from tracks.

11.2 Disconnect Attachment

28. Lower attachment to the ground.
29. Ensure all controls are in neutral.
30. Turn off engine.
31. Disengage lock pins by turning handles away from center of attachment.
32. Cycle attachment drive control and disconnect hydraulic hoses if used.
33. Move brake to neutral position.
34. Start engine; tilt mount plate forward and back unit away from attachment.

11.3 Stow Tools

- Ensure all tools and accessories are loaded on trailer before transport.

12. SAFETY MAINTENANCE

12.1 Service Precautions

⚠ WARNING — General Service

Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.

Unless otherwise instructed, all service should be performed with engine OFF. Stop engine and apply parking brake before opening hood for inspection or service.

Allow engine to cool before performing any service.

Before servicing, lower all attachments to ground.

⚠ WARNING — Electrical

Sparks near the battery can cause an explosion.

Electronic components can be easily damaged.

12.2 Working Under Raised Lift Arms

⚠ DANGER — Lift Arm Safety

Support both lift arms before working under raised lift arms. Alternatively, keep away from raised lift arms.

12.3 Lubrication

Proper lubrication and maintenance protects equipment from damage and failure. Service intervals listed are minimum requirements. In extreme conditions, service machine more frequently. Use only recommended lubricants.

Use only genuine STARVOX parts, filters, and approved lubricants to maintain warranty.

Lubrication Points:

- Before lubricating, clean all connection points of dirt.
- Replace damaged or missing parts immediately.
- Lubricate chain from inside and outside regularly. In poor working conditions, use grease lubrication instead of oil.

12.4 Service Intervals

Interval	Location	Task
Every 10 hrs	Engine	Check engine oil level. Add SAE 10W-30 if low.
Every 10 hrs	Hydraulic System	Check hydraulic fluid level (between marks 1 and 2 on gauge).
Every 10 hrs	Hydraulic System	Check hydraulic hoses for leaks.

Every 10 hrs	Lubrication Points	Add grease to all lubrication points.
Every 50 hrs	Battery	Check battery terminals; clean corrosion. Check electrolyte (non-sealed battery).
Every 50 hrs	Engine	Check drive belt.
Every 50 hrs	Engine	Check and clean oil filter.
Every 50 hrs	Cooling System	Clean oil cooler — more frequently in dusty conditions.
Every 50 hrs	Air Intake	Check air filter for wear or holes; replace if necessary.
Every 50 hrs	Engine (new unit)	Change hydraulic oil filter (initial change).
Every 100 hrs	Engine	Change engine oil. Drain at plug and add SAE 10W-30 until level reaches mark on dipstick.
Every 200 hrs	Engine	Check spark plugs and gap. Change oil filter.
Every 250 hrs	Hydraulic System	Change hydraulic oil filter and return filter.
Every 250 hrs	Air Intake	Change air filter; check inner element.
Every 500 hrs	Hydraulic System	Change hydraulic fluid. Drain at port; add until fluid is between marks 1 and 2.

12.5 Battery Maintenance

Battery Task	Procedure
Normal Battery	Check electrolyte every 10–15 days in winter, 5–6 days in summer. Add distilled water if below minimum level.
Maintenance-Free Battery	Check every 50 hours. Keep terminals clean and free of corrosion. Green indicator = OK; yellow/black = recharge or replace.
Storage	Store in a cool, well-ventilated area. Avoid direct sunlight and moisture. Do not strike terminals with metal tools.
Installation	Disconnect negative cable first, then positive cable when removing. Reverse when installing. Do not reverse polarity.
Jump Starting	Use quality jumper cables (400 amps or more). Never disconnect battery terminals with engine running.

⚠ DANGER — Battery Safety

Battery electrolyte is sulfuric acid and poisonous. Will burn skin and cause blindness if splashed into eyes. Wash hands thoroughly after working around battery.

Lead-acid batteries vent explosive hydrogen gas when charging. Keep sparks and flames away from battery.

Always remove negative (–) battery cable first and replace it last.

13. SPECIFICATIONS — SV-480 Mini Compact Track Loader

Specification Item	Metric	Imperial
Overall Length	~2,800 mm	~110 in
Overall Width	~1,650 mm	~65 in
Overall Height	~2,050 mm	~81 in
Operating Weight	~2,200 kg	~4,850 lb
Rated Operating Capacity	~900 kg	~1,985 lb
Engine Power	~36 kW (49 HP)	~49 HP
Engine Speed (Idle)	~1,500 rpm	~1,500 rpm
Engine Speed (Rated)	~2,500 rpm	~2,500 rpm
Fuel Tank Capacity	~60 L	~15.9 gal
Hydraulic Oil Capacity	~45 L	~11.9 gal
Engine Oil Capacity	~4.5 L	~1.2 gal
Travel Speed (Low)	~0–6 km/h	~0–3.7 mph
Travel Speed (High)	~0–12 km/h	~0–7.5 mph
Track Width	~180 mm	~7.1 in
Ground Pressure	~22 kPa (approx.)	~3.2 psi (approx.)
Bucket Width (Optional)	~1,000–1,500 mm	~39–59 in
Lift Height (Max)	~2,800 mm	~110 in
Track Type	Rubber Track	Rubber Track
Hydraulic System Pressure	~21 MPa	~3,045 psi
Cooling System	Liquid Cooled	Liquid Cooled
Battery Voltage	12V	12V
Noise Level (Operator Ear)	< 85 dB(A)	< 85 dB(A)
Engine Oil Grade	SAE 10W-30 (API SJ or higher)	SAE 10W-30 (API SJ or higher)
Hydraulic Oil Grade	ISO VG 46	ISO VG 46

NOTICE — Specifications

Specifications are subject to change without notice. Contact STARVOX Equipment or your authorized dealer for the latest specifications.

All specifications assume the machine is equipped with standard rubber tracks and an empty bucket.

14. SUPPORT

14.1 Before Calling Your Dealer

35. Notify your dealer immediately of any malfunction or failure of equipment.
36. Always provide the model number, serial number, and approximate date of equipment purchase.
37. Record and file these numbers at the time of purchase.
38. Return damaged parts to dealer for inspection and warranty consideration if within warranty period.
39. Order genuine STARVOX replacement parts from your authorized dealer. Use of another manufacturer's parts may void warranty.

14.2 Available Resources

- Contact your authorized STARVOX dealer for publications and videos covering safety, operation, service, and repair.
- Contact your dealer for information about on-site, individualized training.

14.3 Emergency Procedures

⚠ EMERGENCY SHUTDOWN PROCEDURE

Before operating any equipment, review emergency procedures and ensure all safety precautions have been taken.

To perform emergency shutdown: Press the urgent stop switch to STOP, or turn ignition switch to STOP.

Electric Strike Response (On Tractor):

40. Warn people nearby that an electric strike has occurred. Instruct them to leave the area and contact the utility.
41. Raise attachments and drive from the immediate area.
42. Contact the utility company to shut off power.
43. Do not return to jobsite or allow anyone into the area until given permission by the utility company.

Electric Strike Response (Off Tractor):

44. DO NOT TOUCH TRACTOR. The ground surface may be electrified.
45. Take small steps with feet close together to reduce the hazard of step potential.
46. Contact the utility company to shut off power.
47. Do not return to jobsite until given permission by the utility company.

Gas Line Damage:

48. Immediately shut off engine(s) if it can be done safely.
49. Remove ignition sources if it can be done safely.
50. Warn others that a gas line has been cut.
51. Leave the jobsite immediately and call local emergency and the utility company.

Machine Fire:

- 52. Perform emergency shutdown procedure.
- 53. Move battery disconnect switch to OFF position.
- 54. If fire is small and a fire extinguisher is available, attempt to extinguish it.
- 55. If fire cannot be extinguished, leave the area immediately and contact emergency personnel.

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