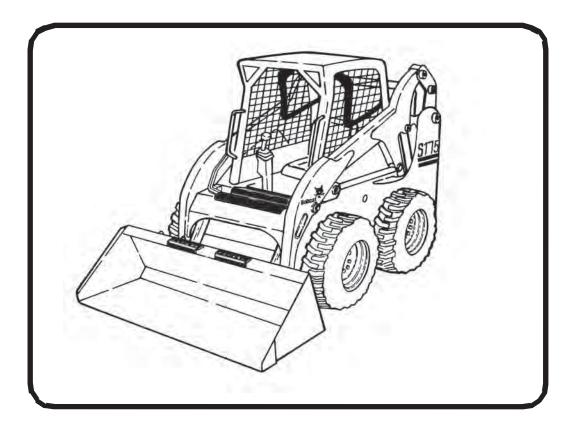


Service Manual S175 Skid-Steer Loader

S/N A8M460001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS)





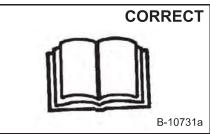


Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903

A

Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



Never service the Bobcat Skid-Steer Loader without instructions.



Have good ventilation when welding or grinding painted parts.

Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.

Avoid exhaust fume leaks which can kill without warning. Exhaust system must be tightly sealed.

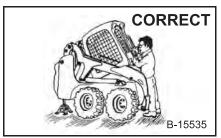


Stop, cool and clean engine of flammable materials before checking fluids.

Never service or adjust loader with the engine running unless instructed to do so in the manual.

Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate the skin or eyes.

Never fill fuel tank with engine running, while smoking or when near open flame.



Lise the correct procedure to lift or lower operator cab.



Disconnecting or loosening any hydraulic tubeline, hose, fitting, component or a part failure can cause lift arms to drop. Do not go under lift arms when raised unless supported by an approved lift arm support device. Replace it if damaged.



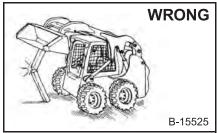
Keep body, jewelry and clothing away from moving parts, electrical contact, hot parts and exhaust.

Wear eye protection to guard from battery acid, compressed springs, fluids under pressure and flying debris when engines are running or tools are used. Use eye protection approved for type of welding.

Keep rear door closed except for service. Close and latch door before operating the loader.



Cleaning and maintenance are required daily.



Never work on loader with lift arms up unless lift arms are held by an approved lift arm support device. Replace if damaged.

Never modify equipment or add attachments not approved by Bobcat Company.



Lead-acid batteries produce flammable and explosive gases.

Keep arcs, sparks, flames and lighted tobacco away from batteries.

Batteries contain acid which burns eyes or skin on contact. Wear protective clothing. If acid contacts body, flush well with water. For eye contact flush well and get immediate medical attention.

Maintenance procedures which are given in the Operation & Maintenance Manual can be performed by the owner/operator without any specific technical training. Maintenance procedures which are **not** in the Operation & Maintenance Manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL. Always use genuine Bobcat replacement parts.** The Service Safety Training Course is available from your Bobcat dealer.

MSW07-0805

Dealer Conv -- Not for Resale

Thanks very much for your reading,

Want to get more information,

Please click here, Then get the complete
manual



NOTE:

If there is no response to click on the link above, please download the PDF document first, and then click on it.

Have any questions please write to me: admin@servicemanualperfect.com



ALPHABETICAL INDEX

ACCESS PANEL (INSIDE)		HEATER COIL	
ACCESS PANEL (INSIDE) (SJC)		HEATER FAN	
AIR CLEANER		HEATER SYSTEM	
AIR CLEANER SERVICE		HEATER UNIT	
ALTERNATOR	60-30	HEATER VALVE	
		HIGH FLOW VALVE	
BACK-UP ALARM SYSTEM		HYDRAULIC CONNECTION SPECS	SPEC-30
BATTERY		HYDRAULIC CONTROL VALVE (ACS) OR (S	
BOBCAT CONTROLLER (ACS)	60-71	HYDRAULIC CONTROL VALVE (STANDARD) 20-40
BOBCAT CONTROLLERS		HYD./HYDRO FLUID SPECIFICATIONS	SPEC-40
(GATEWAY AND AUXILIARY)	60-70	HYDRAULIC FLUID RESERVOIR	20-90
BOBCAT CONTROLLER (SJC) (DRIVE)	60-72	HYDRAULIC/HYDROSTATIC FILTERS	20-80
BOBCAT INTERLOCK CONTROL		HYDRAULIC/HYDROSTATIC SYSTEM	10-120
SYSTEM (BICS)	60-100	HYDARULIC PUMP (SJC)	20-70
BOB-TACH (HAND LEVER)		HYDRAULIC PUMP (SJC) (HIGH FLOW)	
BOB-TACH (POWER)		HYDRAULIC PUMP (STANDARD)	
BRAKE (SINGLE SPÉED)		HYDRAULIC PUMP (STANDARD) (HIGH FLO	
BRAKE (TWO-SPEED)		HYDRAULIC SYSTEM INFORMATION	,
BUCKET POSITION VALVE		HYDROSTATIC MOTOR	
		HYDROSTATIC MOTOR CARRIER	
CALIBRATION	60-160	(SINGLE AND TWO-SPEED WITH	
CAMSHAFT AND TIMING GEARS		MANUAL CONTROLS)	30-30
CASE DRAIN FILTER		HYDROSTATIC MOTOR CARRIER	
CHAINCASE		(SINGLE AND TWO-SPEED WITH	
CHARGE PRESSURE		SJC CONTROLS)	30-31
CONTROL HANDLE/LEVER		HYDROSTATIC MOTOR (TWO SPEED)	30-21
CONTROL HANDLE/LEVER (ACS)		HYDROSTATIC PUMP	30-50
CONTROL HANDLE/LEVER (SJC)		HYDROSTATIC PUMP (SJC)	
CONTROL PANEL		HYDROSTATIC YOM (330)	
CONTROL PANEL SETUP		TIT DROSTATIO STSTEM IN ORMATION	50-10
CONTROL PANEL (SJC)		INSTRUMENT PANELS	60-50
CONTROL PEDALS AND LINKAGES		INSTRUMENT PAINLES	00-30
CONTROL PEDALS (ACS)		LIFT ARM BYPASS CONTROL VALVE	20.50
CONTROL SYSTEM (ACS)		LIFT ARMS	
CONVERSIONS		LIFT ARM SUPPORT DEVICE	
CRANKSHAFT AND PISTONS		LIFTING AND BLOCKING THE LOADER	
CYLINDER (BOB-TACH)		LIGHTS	
CYLINDER (BOB-TACH)	70 90	LOADER SPECIFICATIONS	
CYLINDER HEAD		LOADER STORAGE & RETURN TO SERVICE	
CYLINDER (LIFT)CYLINDER (TILT)		LUBRICATING THE LOADER	
CTLINDER (TILI)	20-21	LUBRICATION SYSTEM	
DIAGNOSTIC SERVICE CODES	60.00	LUBRICATION STSTEW	/ 0-00
DRIVE BELT		MAIN RELIEF VALVE	20.20
DRIVE BELLDRIVE COMPONENTS		MAINTENANCE CLOCK	
DRIVE COMPONENTS	40-20		
ELECTRICAL/HYRAULIC CONTROLS	60 140	MUFFLER	/ 0-30
		OIL COOLED	20 100
ELECTRICAL/HYRAULIC CONTROLS (SJ	,	OIL COOLER	
ELECTRICAL SYSTEM INFORMATION		OPERATOR CAB1	
ENGINE COOLING SYSTEM	· ·	OPERATOR SEAT (OLIOPENIOLO)	
ENGINE INFORMATION		OPERATOR SEAT (SUSPENSION)	50-31
ENGINE LUBRICATION SYSTEM		DA COMMODE OF THE	00.400
ENGINE SPEED CONTROL		PASSWORD SETUP	
ENGINE SPEED CONTROL (SJC)	70-21	PIVOT PINS	
ENIAL BONG TO ANGLES COLONIA	05) 40 405	POWER BOB-TACH BLOCK	20-130
FINAL DRIVE TRANSMISSION (CHAINCA			
FLYWHEEL AND HOUSING			
FLYWHEEL RPM SENSOR			
FRONT AUXILIARY HYD. COUPLER BLO			
FUEL SYSTEM			
FUEL TANK	50-80		

ALPHABETICAL INDEX (CONT'D)

REAR AUXILIARY DIVERTER VALVEREAR DOOR	50-70
REAR GRILL	
REGULAR MAINTENANCE	80-20
REMOTE START TOOL KIT-MEL1563	10-60
REMOTE START TOOL (SERVICE TOOL)	
KIT-6689779	10-61
SEAT BAR	50-10
SEAT BAR SENSOR	60-110
SERVICE PC (LAPTOP COMPUTER)	60-150
SERVICE SCHEDULE	
SPARK ARRESTOR MUFFLER	10-170
SPEED SENSORS (SJC)	60-80
STARTER	
STEERING DRIFT COMPENSATION	
STOPPING THE ENGINE AND	
LEAVING THE LOADER	10-200
TIRE MAINTENANCE	10-160
TORQUE SPECIFICATIONS FOR BOLTS	
TOWING THE LOADER	
TRACTION LOCK	
TRANSPORTING LOADER ON A TRAILER	
TROUBLESHOOTING	
TWO-SPEED VALVE	
WINDOW (FRONT DOOR)	50-133
WINDOW (REAR)	
WINDOW (REAR)	
WINDOW (TOP)	
VVIINDOVV (TOF)	

CONTENTS

FOREWORDII
SAFETY INSTRUCTIONSV
FIRE PREVENTION
SERIAL NUMBER LOCATIONSIX
DELIVERY REPORTX
LOADER IDENTIFICATION
SAFETY AND MAINTENANCE 10-01
HYDRAULIC SYSTEM
HYDROSTATIC SYSTEM
DRIVE SYSTEM
MAIN FRAME 50-01
ELECTRICAL SYSTEM & ANALYSIS 60-01
ENGINE SERVICE
HEATER
SPECIFICATIONS SPEC-01

SAFETY & MAINTENANCE

HYDRAULIC SYSTEM

HYDROSTATIC SYSTEM

DRIVE SYSTEM

MAIN FRAME

ELECTRICAL SYSTEM & ANALYSIS

ENGINE SERVICE

HVAC

SPECIFICATION

FOREWORD

This manual is for the Bobcat loader mechanic. It provides necessary servicing and adjustment procedures for the Bobcat loader and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, Starting procedure, daily checks, etc.

A general inspection of the following items must be made after the loader has had service or repair:

 Check lift arm support device, replace if damaged. (Stored Position)



9. The parking brake must function correctly.



2. Check that ROPS mounting hardware is tightened and is Bobcat approved.



10. Enclosure door latches must open and close freely.



3. The seat belt must be correctly installed, functional and in good condition.



11. Bob-Tach wedges and linkages must function correctly and be in good condition.



4. The seat bar must be correctly adjusted, clean and lubricated.



12. Safety treads must be in good condition.



5. Check lift arm support device; replace if damaged.



 Check for correct function of indicator lamps (Optional on some models).



6. Machine signs must be legible and in the correct location.



14. Check hydraulic fluid level, engine oil level and fuel supply.



7. Steering levers and foot pedals must return to neutral.



Inspect for fuel, oil or hydraulic fluid leaks.



8. Check for correct function of the work lights



16. Lubricate the loader.



17. Check the condition of the battery and cables.



22. Operate the loader and check all functions.



18. Inspect the air cleaner for damage or leaks. Check the condition of the element.



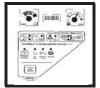
23. Check for any field modification not completed.



19. Check the electrical charging system.



24. Check for correct function of the Bobcat Interlock Control System (BICS™) before the machine is returned to the customer.



20. Check tires for wear and pressure.



Recommend to the owner that all necessary corrections be made before the machine is returned to service.



21. Inspect for loose or broken parts or connections.







Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903



Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

The following publications provide information on the safe use and maintenance of the Bobcat machine and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine is in safe operating condition.
- The Operation & Maintenance Manual delivered with the machine or attachment contains operating information as well as routine maintenance and service procedures. It is a part of the machine and can be stored in a container provided on the machine. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat dealer.
- Machine signs (decals) instruct on the safe operation and care of your Bobcat machine or attachment. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat dealer.
- An Operator's Handbook fastened to the operator cab.
 It's brief instructions are convenient to the operator.
 The handbook is available from your dealer in an English edition or one of many other languages. See your Bobcat dealer for more information on translated versions.
- The AEM Safety Manual delivered with the machine gives general safety information.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop-type service and repair work.
- The Skid-Steer Loader Operator Training Course is available through your local dealer or at www.training.bobcat.com or www.bobcat.com. This course is intended to provide rules and practices of correct operation of the Skid-Steer Loader. The course is available in English and Spanish versions.
- Service Safety Training Courses are available from your Bobcat dealer or at www.training.bobcat.com or www.bobcat.com. They provide information for safe and correct service procedures.
- The Skid-Steer Loader Safety Video is available from your Bobcat dealer or at www.training.bobcat.com or www.bobcat.com.

SI SSL-1007 SM

SAFETY INSTRUCTIONS (CONT'D)

The dealer and owner / operator review the recommended uses of the product when delivered. If the owner / operator will be using the machine for a different application(s) he or she must ask the dealer for recommendations on the new use.



Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Do not exceed Permissible Exposure Limits (PEL) to silica dust as determined by OSHA or other job site Rules and Regulations. Use a respirator, water spray or other means to control dust. Silica dust can cause lung disease and is known to the state of California to cause cancer.

SI SSL-1007 SM

FIRE PREVENTION



Maintenance

The machine and some attachments have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.

Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.

All fuels, most lubricants and some coolants mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Electrical



Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.

Battery gas can explode and cause serious injury. Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump staring. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

Hydraulic System

Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.

Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Fueling



Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Starting

Do not use ether or starting fluids on any engine that has glow plugs. These starting aids can cause explosion and injure you or bystanders.

Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting.

Spark Arrestor Exhaust System

The spark arrestor exhaust system is designed to control the emission of hot particles from the engine and exhaust system, but the muffler and the exhaust gases are still hot.

Check the spark arrestor exhaust system regularly to make sure it is maintained and working properly. Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrestor muffler (if equipped).

SI SSL-1007 SM

FIRE PREVENTION (CONT'D)

Welding And Grinding

Always clean the machine and attachment, disconnect the battery, and disconnect the wiring from the Bobcat controllers before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.

Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.

Dust generated from repairing nonmetallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

Fire Extinguishers



Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

SI SSL-1007 SM

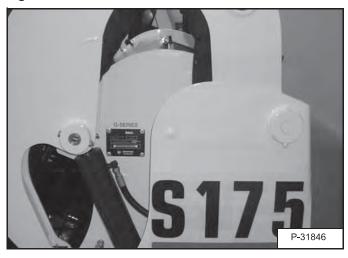
viii

SERIAL NUMBER LOCATIONS

Always use the serial number of the loader when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

Loader Serial Number

Figure 1



The loader serial number plate is located on the outside of the loader frame [Figure 1].

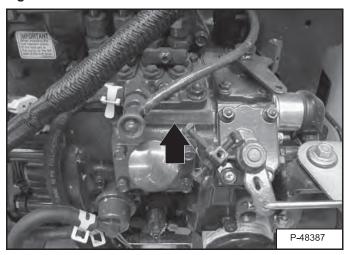
Explanation of loader Serial Number:

XXXX	XXXXX
	Model 2Production Sequence (Series)

- 1. The four digit Model/Engine Combination Module number identifies the model number and engine combination.
- 2. The five digit Production Sequence Number identifies the order which the loader is produced.

Engine Serial Number

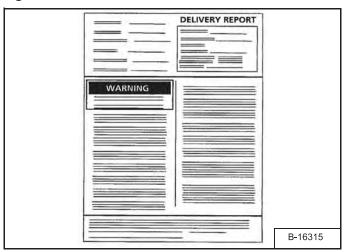
Figure 2



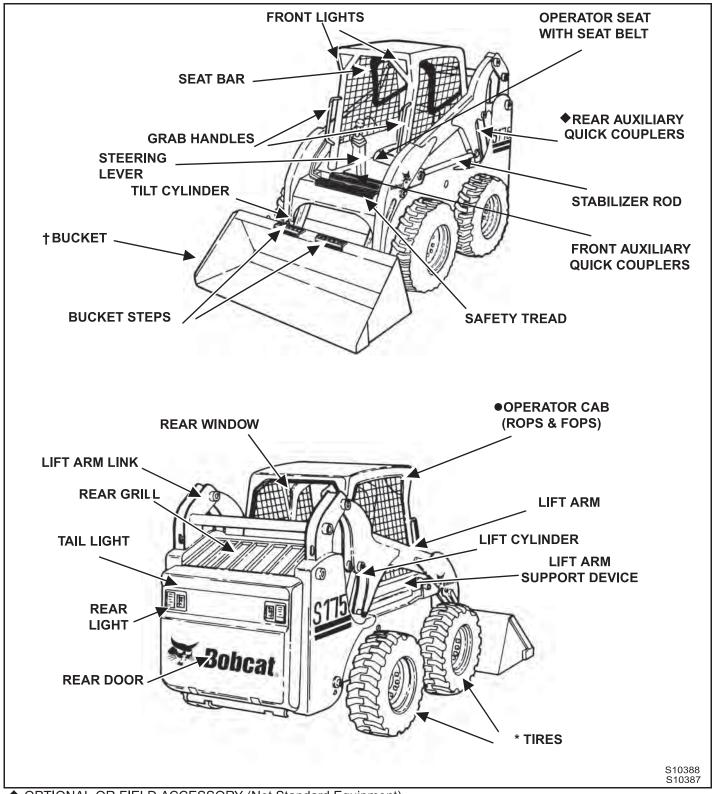
The engine serial number is in the location shown [Figure 2].

DELIVERY REPORT

Figure 3



The Delivery Report must be filled out by the dealer and signed by the owner or operator when the Bobcat loader is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 3].



- ◆ OPTIONAL OR FIELD ACCESSORY (Not Standard Equipment)
- * TIRES The Bobcat loader is factory equipped with heavy duty flotation tires. See Specifications Section and your Bobcat dealer for available tires.
- † BUCKET Several different buckets and other attachments are available for the Bobcat loader.
- ROPS, FOPS Roll Over Protective Structure, per SAE J1040 and ISO 3471, and Falling Object Protective Structure per SAEJ1043 and ISO 3449, Level I. Level II is available. The Bobcat loader is base-equipped with a standard operator cab as shown. Extra insulated cab is available as an option (Reduced noise level).



xii