

HYDRAULIC EXCAVATOR

**SHOP
MANUAL**

model

**SK450(LC)-6
SK480(LC)-6**

INDEX

1	SPECIFICATION SECTION
2	MAINTENANCE SECTION
3	SYSTEM SECTION
4	DISASSEMBLY SECTION
5	TROUBLESHOOTING
6	ENGINE SECTION
7	PROCEDURES FOR OPTIONAL ATTACHMENT

MAINTENANCE SPECIFICATION

SYSTEM

DISASSEMBLING

TROUBLESHOOTING

E/G

OPT

KOBELCO

Book code No. S5LS0009E②



WARNING

SAFETY

WARNING

The proper and safe lubrication and maintenance for this machine, recommended by KOBELCO are outlined in the OPERATION & MAINTENANCE GUIDE for this machine.

Improper performance of lubrication or maintenance procedures is dangerous and could result in injury or death. Read and understand the OPERATION & MAINTENANCE GUIDE before performing any lubrication or maintenance.

The serviceman or mechanic may be unfamiliar with many of the systems on this machine. This makes it important to use caution when performing service work. A knowledge of the system and or components is important before the removal or disassembly of any component.

Because of the size of some of the machine components, the serviceman or mechanic should check the weights noted in this Manual. Use proper lifting procedures when removing any components.

Following is a list of basic precautions that should always be observed.

1. Read and understand all Warning plates and decals on the machine before operating, lubricating or repairing this product.
2. Always wear protective glasses and protective shoes when working around machines. In particular, wear protective glasses when pounding on any part of the machine or its attachments with a hammer or sledge. Use welders gloves, hood / goggles, apron and other protective clothing appropriate to the welding job being performed. Do not wear loose-fitting or torn clothing. Remove all rings from fingers when working on machinery.
3. Disconnect battery and discharge any capacitors before starting to work on machine. Hang "Do Not Operate" tag in the Operator's Cab.
4. If possible, make all repairs with the machine parked on a level, hard surface. Block machine so it does not roll while working on or under machine.
5. Do not work on any machine that is supported only by lift jacks or a hoist. Always use blocks or jack stands to support the machine before performing any disassembly.

WARNING

Do not operate this machine unless you have read and understand the instructions in the OPERATORS MANUAL. Improper machine operation is dangerous and could result in injury or death.

6. Relieve all pressure in air, oil or water systems before any lines, fittings or related items are disconnected or removed. Always make sure all raised components are blocked correctly and be alert for possible pressure when disconnecting any device from a system that utilizes pressure.
7. Lower the bucket, blade, ripper or other attachment to the ground before performing any work on the machine. If this cannot be done, make sure the bucket, blade, ripper or other attachment is blocked correctly to prevent it from dropping unexpectedly.
8. Use steps and grab handles when mounting or dismounting a machine. Clean any mud or debris from steps, walkways or work platforms before using. Always face machine when using steps, ladders and walkways. When it is not possible to use the designed access system, provide ladders, scaffolds, or work platforms to perform safe repair operations.
9. To avoid back injury, use a hoist when lifting components which weigh 23 kg (50 lbs) or more. Make sure all chains, hooks, slings, etc., are in good condition and are in the correct capacity. Be sure hooks are positioned correctly. Lifting eyes are not to be side loaded during a lifting operation.
10. To avoid burns, be alert for hot parts on machines which have just been stopped and hot fluids in lines, tubes and components.
11. Be careful when removing cover plates. Gradually back off the last two bolts or nuts located at opposite ends of the cover or device and pry cover loose to relieve any spring or other pressure, before removing the last two bolts or nuts completely.
12. Be careful when removing filler caps, breathers and plugs on the machine. Hold a rag over the cap or plug to prevent being sprayed or splashed by liquids under pressure. The danger is even greater if the machine has just been stopped because fluids can be hot.

 **WARNING**

13. Always use tools that are in good condition and be sure you understand how to use them before performing any service work.
14. Reinstall all fasteners with same part number. Do not use a lesser quality fastener if replacements are necessary.
15. Repairs, which require welding, should be performed only with the benefit of the appropriate reference information and by personnel adequately trained and knowledgeable in welding procedures. Determine type of metal being welded and select correct welding procedure and electrodes, rods or wire to provide a weld metal strength equivalent at least to that of parent metal. Always disconnect battery during welding operations to protect sensitive electric equipment.
16. Do not damage wiring during removal operations. Reinstall the wiring so it is not damaged nor will it be damaged in operation by contacting sharp corners, or by rubbing against some object or hot surface. Do not connect wiring to a line containing fluid.
17. Be sure all protective devices including guards and shields are properly installed and functioning correctly before starting a repair. If a guard or shield must be removed to perform the repair work, use extra caution.
18. Loose or damaged fuel, lubricant and hydraulic lines, tubes and hoses can cause fires. Do not bend or strike high-pressure lines or install ones, which have been bent or damaged. Inspect lines, tubes and hoses carefully. Do not check for leaks with your hands. Pinhole (very small) leaks can result in a high velocity oil stream that will be invisible close to the hose. This oil can penetrate the skin and cause personal injury. Use cardboard or paper to locate pinhole leaks.
19. Tighten connections to the correct torque. Make sure that all heat shields, clamps and guards are installed correctly to avoid excessive heat, vibration or rubbing against other parts during operation. Shields that protect against oil spray onto hot exhaust components in event of a line, tube or seal failure must be installed correctly.
20. Do not operate a machine if any rotating part is damaged or contacts any other part during operation. Any high speed-rotating component that has been damaged or altered should be checked for balance before reusing.
21. On track-type machines, be careful when servicing or separating tracks. Chips can fly when removing or installing a track pin. Wear safety glasses and long sleeve shirts. Track can unroll very quickly when separated. Keep away from front and rear of machine. The machine can move unexpectedly when both tracks are disengaged from the sprockets. Block the machine to prevent it from moving.

Book Code No. Distribution Year—Month			Index No	Title	
S5LS0109E 2003-03	S5LS0109E① 2003-10		SPECIFICATION	OUTLINE	LS01
S5LS0209E 2003-03	S5LS0209E① 2003-10			SPECIFICATION	LS02
S5LS0309E 2003-03	S5LS0309E① 2003-10			ATTACHMENT DIMENSION	LS03
S5LS1109E 2003-03	S5LS1109E① 2003-10		MAINTENANCE	TOOLS	LS11
S5LS1209E 2003-03	S5LS1209E① 2003-10			STANDARD MAINTENANCE TIME SCHEDULE	LS12
S5LS1309E 2003-03	S5LS1309E① 2003-10			MAINTENANCE STANDARD AND TEST PROCEDURE	LS13
S5LS2109E 2003-03	S5LS2109E① 2003-10		SYSTEM	MECHATRO CONTROL SYSTEM	LS21
S5LS2209E 2003-03	S5LS2209E① 2003-10			HYDRAULIC SYSTEM	LS22
S5LS2309E 2003-03	S5LS2309E① 2003-10			ELECTRICAL SYSTEM	LS23
S5LS2409E 2003-03	S5LS2409E① 2003-10			COMPONENTS SYSTEM	LS24
S5LS2509E 2003-03	S5LS2509E① 2003-10			AIR-CONDITIONER SYSTEM	LS25
—	—			—	
S5LS3109E 2003-03	S5LS3109E① 2003-10		DISASSEMBLING	DISASSEMBLING AND ASSEMBLING	LS31
S5LS3209E 2003-03	S5LS3209E① 2003-10			ATTACHMENT	LS32
S5LS3309E 2003-03	S5LS3309E① 2003-10			UPPER STRUCTURE	LS33
S5LS3409E 2003-03	S5LS3409E① 2003-10			TRAVEL SYSTEM	LS34
S5LS4109E 2003-03	S5LS4109E① 2003-10		TROUBLESHOOTING	MECHATRO CONTROL	LS41
S5LS4209E 2003-03	S5LS4209E① 2003-10			HYDRAULIC	LS42
S5LS4309E 2003-03	S5LS4309E① 2003-10			ELECTRICAL	LS43
S5LS4409E 2003-03	S5LS4409E① 2003-10			ENGINE	LS44
S5LS5109E 2003-03	S5LS5109E① 2003-10		E/G	ENGINE	LS51
S5LS6102E 2003-07	←		OPT.	LMN & BREAKER	LS61
LS07-01201~ YS07-01101~	LS07-01201~ YS07-01101~ LS08-01236~ YS08-01146~			APPLICABLE MACHINES	



Thank you very much
for your reading.
Please click here
to get more information.