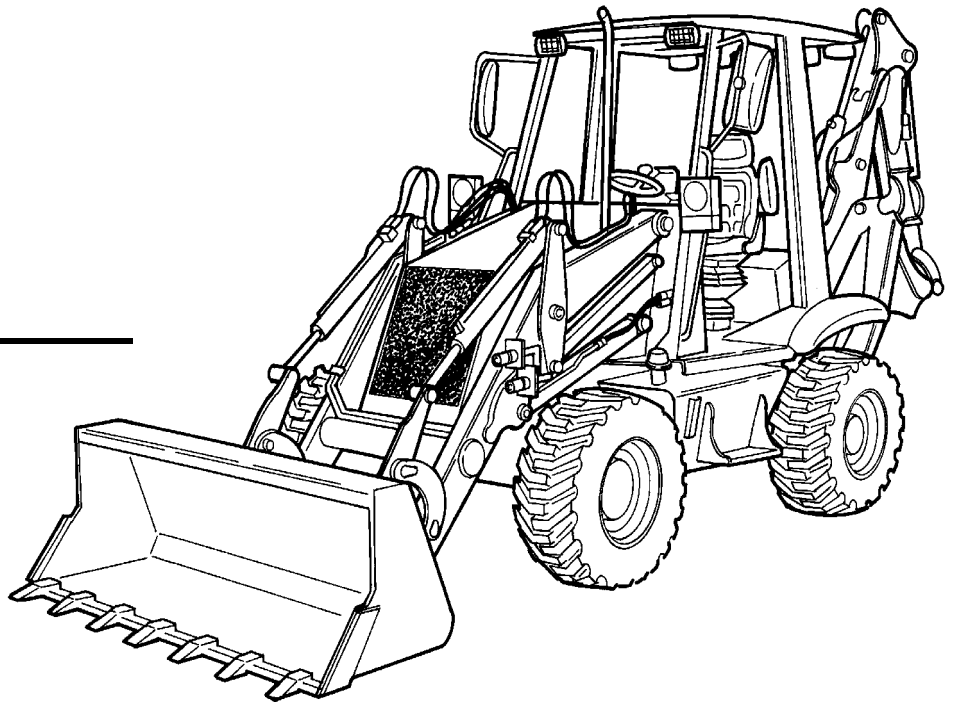


**BL-470
BL-475**



Service Manual

**BL 470 (S/N 570511001 & Above)
BL 475 (S/N 571911001 & Above)**



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MAINTENANCE SAFETY

WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, 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-2003-0199

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



CORRECT

B-10731a

 Never service the Ingersoll-Rand Loader Backhoe without instructions.



CORRECT

B-16842

 Always use an approved lift arm support device when servicing the loader backhoe with the lift arm raised. Replace the lift arm support device if damaged or missing.

 Disconnecting or loosening any hydraulic tubeline, hoe, fitting component, or part failure can cause lift arms or backhoe boom to drop.



CORRECT

B-16865

 Cleaning and maintenance are required daily.

 NEVER modify equipment or add attachments not approved by Ingersoll-Rand.

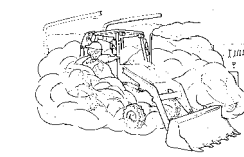


WRONG

B-16815

 Have good ventilation when welding or grinding painted parts.

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

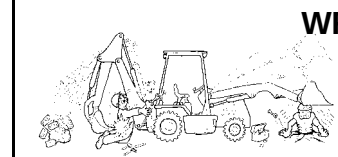


WRONG

B-16881

 Vent exhaust to outside when engine must be run for service.

 Exhaust system must be tightly sealed. Exhaust fumes can kill without warning.

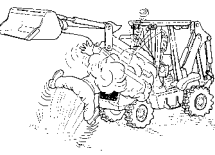


WRONG

B-16826

 Never work on loader backhoe with lift arms raised unless supported by an approved lift arm support device.

 Always lower the backhoe bucket to the ground before doing any maintenance.



WRONG

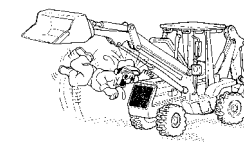
B-16885

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

 Never service or adjust machine 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.



WRONG

B-16814

 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 engine cover closed except for service. Close and latch engine cover before operating the loader backhoe



WRONG

B-6589

 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 INGERSOLL-RAND SERVICE PERSONNEL**. Always use genuine Ingersoll-Rand replacement parts.

MSW18-0602



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