

LS TRACTOR

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SERVICE MANUAL

XR4100 SERIES



**LS** Mtron

# PREFACE

This repair manual is to provide servicing personnel with information for precise and quick service for XR series tractors with high-end technologies. It contains various information on the general specifications, fundamental structure and operating principle, instructions for disassembly, assembly, inspection and adjustment, and troubleshooting on each component for easier and precise service.

This vehicle should be well-maintained and serviced properly for ultimate satisfaction of users. Therefore, it is necessary for servicing personnel to understand information in this manual thoroughly and keep it handy for service.

Most accidents during servicing occur by negligence on safety precautions and instructions.

Therefore, servicing personnel should be fully aware of service procedures, methods, inspection points and safety precautions described in this manual for precise and safe service as well as ultimate satisfaction of customers.

As LS genuine parts are manufactured under the rigid quality assurance system, only genuine parts should be used in this tractor to maintain its optimal condition. Mtron always puts every effort into development and manufacture of quality products.

Also, information contained in this manual is subject to change without notice for quality and performance improvement of this tractor.

Keep this repair manual in a safe and handy place. If there is any typo, wrong information or question for this manual, feel free to contact Mtron.

## ※ REMARKS

- This manual does not contain information for every possible accident and precautions during service. Therefore, the tractor should be serviced only by well-trained servicing personnel with care.
- Using unspecified parts, including engine oil and transmission fluid, or poor-quality fuel can damage the tractor severely.
- Information and figures in this manual should not be copied or used without prior permission by Mtron.

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# I SAFETY AND GENERAL INFORMATION

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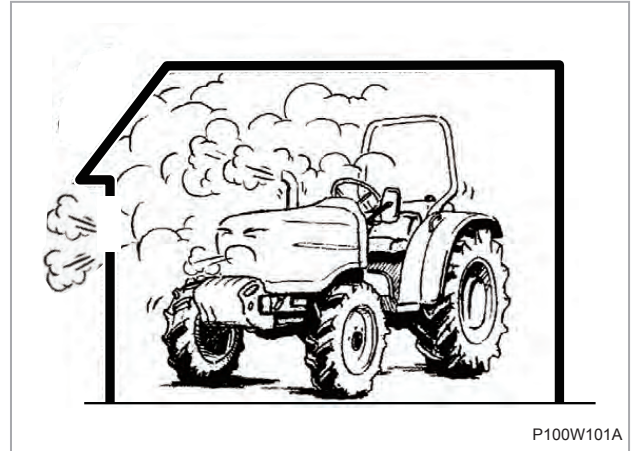


## 1.1 SAFETY TIPS

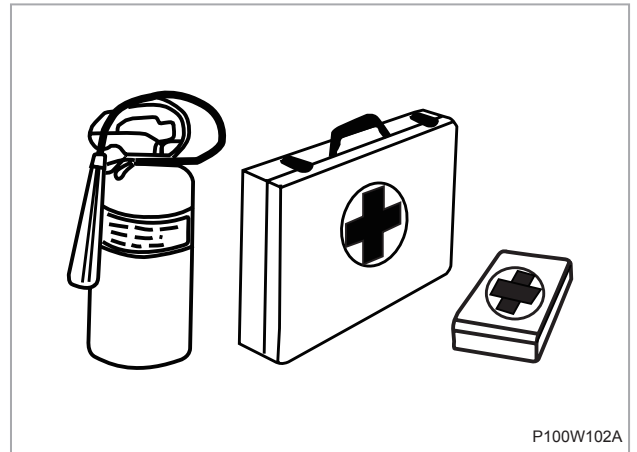
### 1.1.1 GENERAL SAFETY

Extra attention is needed and the following safety precautions should be strictly followed in your work place for service.

1. Keep your work place and surroundings clean and well-ventilated.



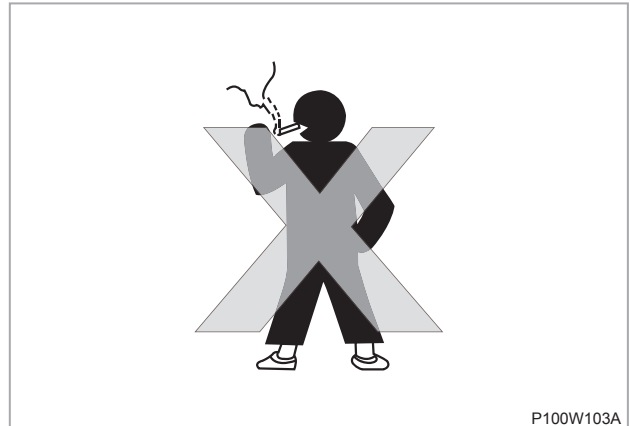
2. Keep an emergency kit and appropriate hygiene equipments handy in your workshop.
3. Keep a fire extinguisher handy in your workshop. Have your fire extinguisher checked regularly and have yourself well informed on its use.



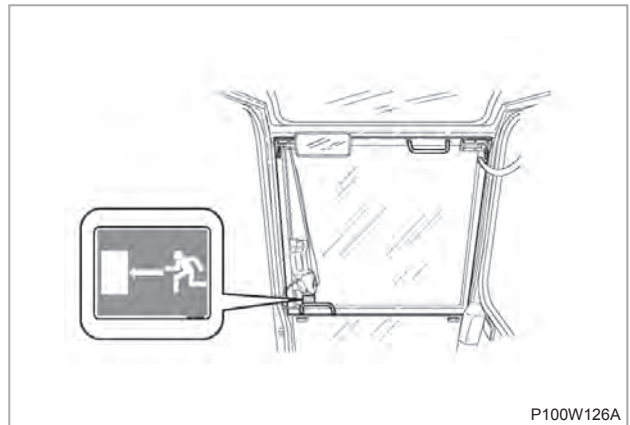
4. Mark the safety symbols and signs for clear view in emergency.



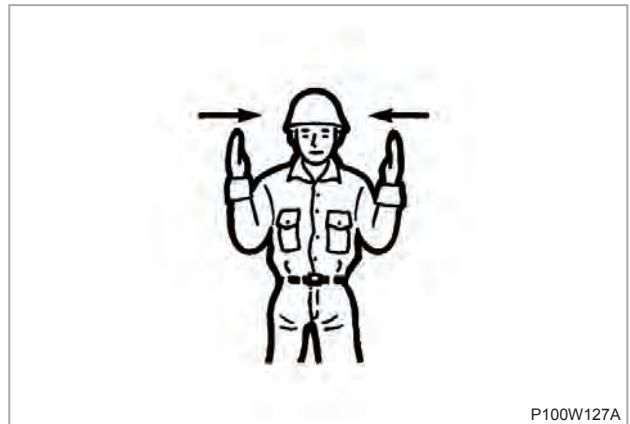
5. Never smoke in the workshop to avoid fire.



6. There should be an emergency exit and its sign for evacuation in emergency.

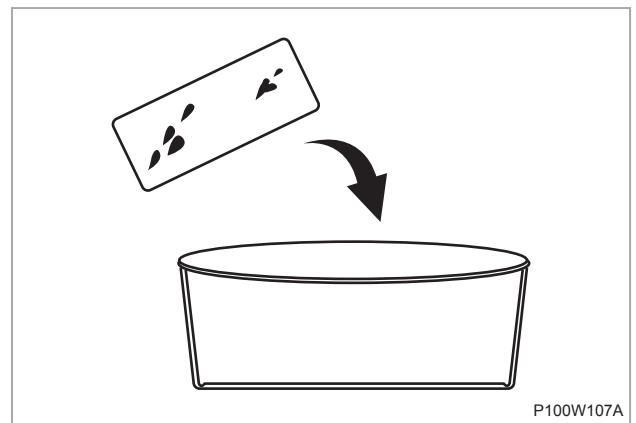
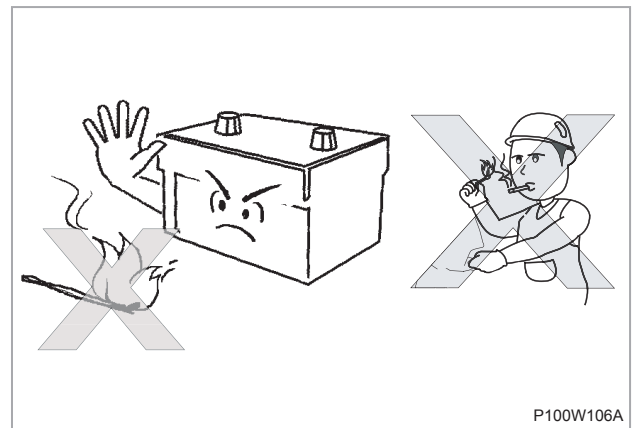
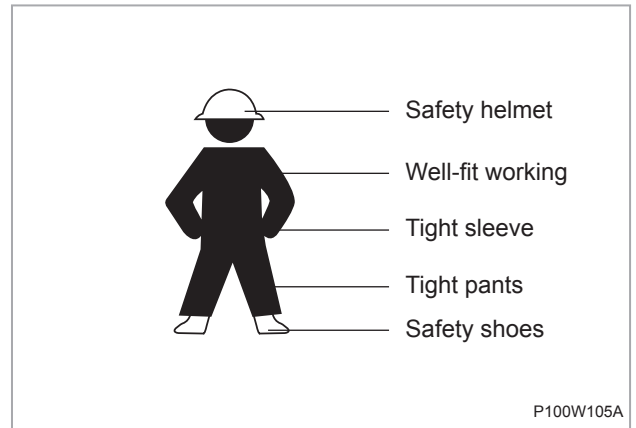


7. Follow helper's guidance for a special service.



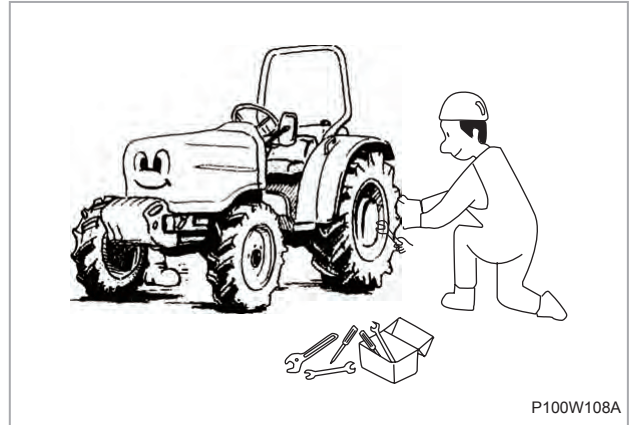
### 1.1.2 TO AVOID PERSONAL INJURIES

1. Never wear loose fitting clothing or clothing with wide sleeves when servicing the engine or tractor. The sleeves of the shirt and the hem of the pants should be tightly fitting. Elastic banded sleeve and hem are preferred. Do not wear accessories, such as earrings or necklace.
2. Make sure to wear safety gloves and safety goggles under the following conditions:
  - When handling an antioxidant.
  - When adding or changing oil or lubricant.
  - When handling compressed air or compressed oil. (allowable pressure is 2 bar or below.)
3. When working near any lifted part or equipment or working at a level above your head, always wear a safety helmet and fix all parts and equipments firmly.
4. Always wear safety shoes and use protective cream on your hands.
5. If your clothing gets wet, change it as soon as possible.
6. Make sure that ground and electric wirings are intact where the voltage capacity is 48 ~ 60 V. Keep your hands and feet dry and stand on an insulated scaffold.
7. When working near the battery or fuel tank, never smoke and avoid sparks.
8. Put cloth with oil, diesel fuel or solvent into a separate fireproof container.

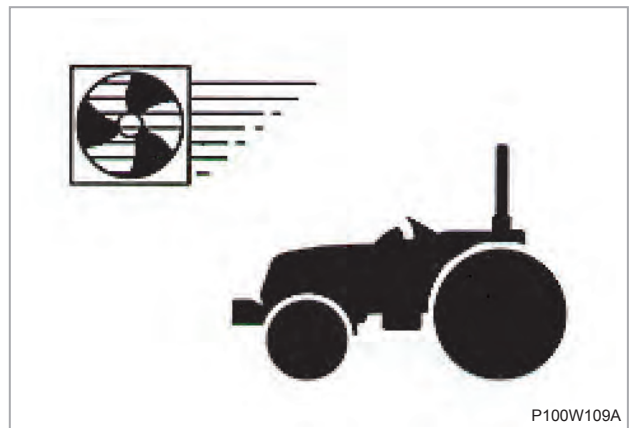




9. Use only specified service tools in a good condition. Check their condition frequently.



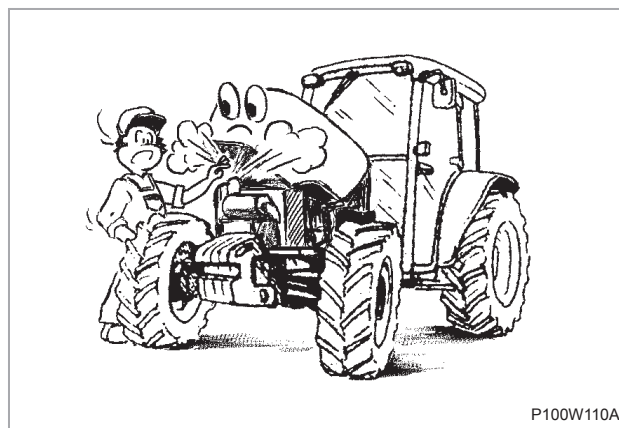
10. The service should be performed in a well-ventilated area to discharge exhaust gas while checking and servicing the tractor with the engine running.



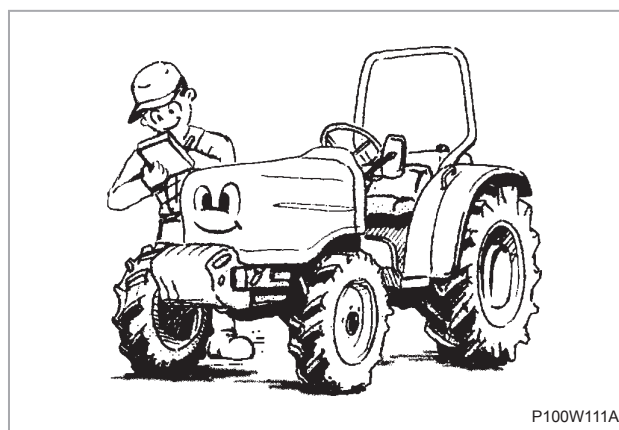
### 1.1.3 DURING SERVICING

1. Never open the filler cap of the radiator while the engine is hot. Hot steam under a high pressure can be surged, leading to a serious scald. Wait until it is cooled down to 50°C.

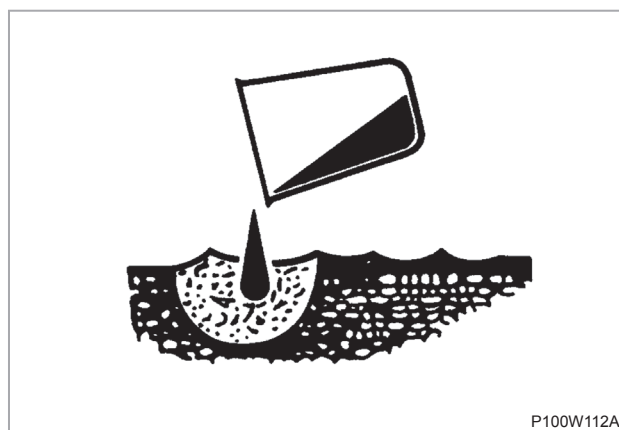
2. Never add coolant to the overheated engine.



3. Always perform service with the engine stopped. If it is required to run the engine for a certain service, be aware of every possible hazardous situation during service.



4. When draining engine oil or fuel, drain it in an appropriate container.



5. Wipe any oil, diesel fuel and solvent thoroughly from the engine.

