

570ST The KING Backhoe Loader

SERVICE MANUAL

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CASE
CONSTRUCTION



SERVICE MANUAL

570ST - The KING

Link Product / Engine

Product	Market Product	Engine
570ST - The KING Two-Wheel Drive (2WD)	Asia Pacific	8045.45.748
570ST - The KING Four Wheel Drive (4WD)	Asia Pacific	8045.45.748

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INTRODUCTION

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Safety rules


Personal safety





This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Safety rules

⚠ DANGER

**Improper operation or service of this machine can result in an accident.
Do not operate this machine or perform any lubrication, maintenance, or repair on it until you have read and understood the operation, lubrication, maintenance, and repair information.
Failure to comply will result in death or serious injury.**

D0010A

⚠ WARNING

**Maintenance hazard!
Always perform all service procedures punctually at the intervals stated in this manual. This ensures optimum performance levels and maximum safety during machine operation.
Failure to comply could result in death or serious injury.**

W0132A

NOTICE: *Extreme working and environmental conditions require shortened service intervals.*

Use Case fluids, lubricants, and filters for the best protection and performance of your machine. All fluids, lubricants, and filters must be disposed of in compliance with environmental standards and regulations. Contact your Dealer with any questions regarding the service and maintenance of this machine.

Use this manual with the operator's manual to understand and perform the complete service procedures. Read the safety decals and information decals on the machine. Read the Operator's Manual and safety manual. Understand the operation of the machine before you start any service.

Before you service the machine, put a "Do Not Operate" tag on the steering wheel or over the key switch. Ensure the tag is at a location where everyone who might operate or service the machine may see clearly.

Plastic and resin parts

- Avoid using gasoline, paint thinner, etc. when cleaning plastic parts, console, instrument cluster, etc.
- Use only water, mild soap, and a soft cloth when you clean these parts.
- Using gasoline, thinners, etc. can cause discoloration, cracking, or deformation of the part being cleaned.

Safety rules - Ductile iron

**▲ DANGER**

Altering cast ductile iron can cause it to weaken or break.

Before you weld, cut, or drill holes on any part of this machine, make sure that the part is not cast ductile iron.

Failure to comply will result in death or serious injury.

D0148A

Altering cast ductile iron can cause it to weaken or break. Unauthorized modifications to cast ductile iron parts can cause death or serious injury. Do not weld, cut, drill, repair, or attach items to cast ductile iron parts on this machine.

Before you weld, cut, or drill holes on any part of this machine, make sure the part is not cast ductile iron. See your dealer if you do not know if a part is cast ductile iron.

The following items are examples of cast ductile iron parts. There may also be other parts made of cast ductile iron that are not on the list below.

- two-wheel drive steering link
- dump links
- front axle
- stabilizers
- extend-a-hoe
- swing tower
- bucket linkage
- Air-Conditioning (A/C) compressor mounting bracket

Do not make any unauthorized modifications. Consult an authorized dealer before making any changes, additions, or modifications to this machine.

Safety rules - Ductile iron



⚠ DANGER

Improper operation or service of this machine can result in an accident.

Any unauthorized modifications made to this machine can have serious consequences. Consult an authorized dealer on changes, additions, or modifications that may be required for this machine. Do not make any unauthorized modifications.

Failure to comply will result in death or serious injury.

D0030A

Before you weld, cut, or drill holes on any part of this machine, make sure the part is not cast ductile iron. See your dealer if you do not know if a part is cast ductile iron. The following are cast ductile iron parts:

- two wheel drive steering link
- dump links
- front axle
- stabilizers
- extendahoe
- swing
- bucket linkage
- Air Conditioning (A/C) compressor mounting bracket

Unauthorized modifications to cast ductile iron parts can cause injury or death. Welding, cutting, or drilling can cause cast ductile iron to break. Do not weld, cut, or drill to repair or to attach items to cast ductile iron parts on this machine.

Safety rules

Unless otherwise instructed, always perform these steps before you service the machine:

1. Park the machine on a flat, level surface.
2. Place the backhoe in the transport position with the swing lock pin installed for transport.
3. Place the loader bucket on the ground, with the bottom of the loader bucket parallel to the surface.
4. Place the direction control lever and the transmission in neutral.
5. If you need to open the hood to perform service, raise the loader arms and install the support strut.
6. Shut down the engine.
7. Place a 'Do Not Operate' tag on the key switch so that it is visible to other workers or remove the key.

Personal safety

1. Make sure to arrest all fuel leaks. Any fuel or oil spilled on hot surface or electrical components may cause fire accidents. Make sure that the machine is sealed from leakage.
2. Do not allow straw, trash, bird nests or flammable material in the machine and remove the same as they can ignite fire on hot surfaces.
3. Make sure the fire extinguisher installed on or near the machine. If already equipped, the fire extinguisher is maintained and serviced according to the manufacturer's instructions.
4. Check and make sure to clean all the trash from the machine especially around hot components such as the engine, transmission, exhaust, battery, etc. Do these checks and clean the machine at least once a day, probably at the end of the day. More frequent checks and cleaning of machine may be necessary depending on the operating environment and conditions.
5. Inspect the electrical system for loose connections and frayed insulation. Repair or replace the loose or damaged parts.
6. Check and remove the debris accumulation around moving components such as bearings, pulleys, belts, gears, cleaning fans, etc. More frequent cleaning of the machine may be necessary depending on the operating environment and conditions.
7. Check all fuses, relay, and MCB's for correct ratings and validity. Replace the defective or non-complaint parts. Do not to bypass/override/tamper any safety systems of the machine.
8. Check and remove any oily rags or other flammable material on the machine. Do not to store such material around or on the machine.
9. Make sure that do not weld or flame cut any items that contain flammable material. Clean the items thoroughly with non-flammable solvents before welding or flame-cutting.
10. Immediately investigate any unusual smells or odors that may emerge during operation of the machine. Always aware of such observations and actions thereof.
11. Make sure that the machine is serviced only by authorized CASE CONSTRUCTION dealer service team and not by any external parties.
12. Check and remove any non-recommended devices that are fitted on the machine. Do not to use any devices that are not a standard fitment by the company.
13. The personnel make sure that they do not smoke or use mobiles while refuelling. It is not advisable to park the machine near a place which poses fire hazard (Workshops where welding, grinding, gas cutting etc is underway, bonfires etc).

NOTICE: Any damage to the machine due to non-adherence of the above guidelines and instructions may lead the warranty void for the machine.

Safety rules - Ecology and the environment

Soil, air, and water are vital factors of agriculture and life in general. When legislation does not yet rule the treatment of some of the substances required by advanced technology, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

NOTE: *The following are recommendations that may be of assistance:*

- Become acquainted with and ensure that you understand the relative legislation applicable to your country.
- Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, antifreeze, cleaning agents, etc., with regard to their effect on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid filling tanks using cans or inappropriate pressurized fuel delivery systems that may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of them contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when draining off used engine coolant mixtures, engine, gearbox and hydraulic oils, brake fluids, etc. Do not mix drained brake fluids or fuels with lubricants. Store them safely until they can be disposed of in a proper way to comply with local legislation and available resources.
- Modern coolant mixtures, i.e. antifreeze and other additives, should be replaced every two years. They should not be allowed to get into the soil, but should be collected and disposed of properly.
- Repair any leaks or defects in the engine cooling or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
- Protect hoses during welding as penetrating weld splatter may burn a hole or weaken them, allowing the loss of oils, coolant, etc.

Basic instructions - Important notice regarding equipment servicing

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local CASE Dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer.

In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The information in this manual is up-to-date at the date of the publication. It is the policy of the manufacturer for continuous improvement. Some information could not be updated due to modifications of a technical or commercial type, or changes to the laws and regulations of different countries.

In case of questions, refer to your Case New Holland Construction Equipments Sales and Service Networks.

Basic instructions

⚠ WARNING

Explosive gas!

Batteries emit explosive hydrogen gas and other fumes while charging. Ventilate the charging area. Keep the battery away from sparks, open flames, and other ignition sources. Never charge a frozen battery.

Failure to comply could result in death or serious injury.

W0005A

⚠ WARNING

Hazardous chemicals!

Battery electrolyte contains sulfuric acid. Contact with skin and eyes could result in severe irritation and burns. Always wear splash-proof goggles and protective clothing (gloves and aprons). Wash hands after handling.

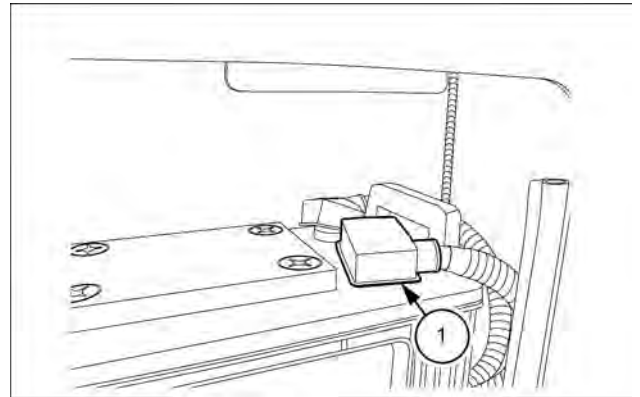
Failure to comply could result in death or serious injury.

W0006A

- Do not run the engine with the alternator wires disconnected.
- Before using an electric welder, disconnect the alternator wires, instrument cluster and batteries.
- Do not use a steam cleaner or a cleaning solvent to clean the alternator.
- Keep the battery vents clean. Ensure the battery vents are not restricted.

Disconnect battery

1. Open the battery compartment cover on the right hand side step of the vehicle, using the key.
2. Disconnect the negative battery cable **(1)** from the negative battery terminal.



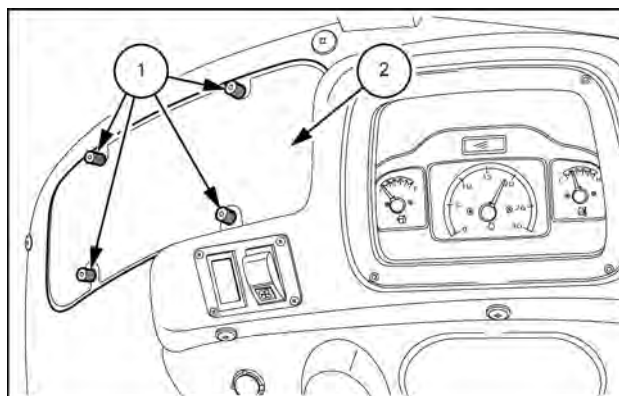
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Basic instructions - Fuse and relay locations

The machine is equipped with a fuse located on the side console.

Side console box

1. Turn the thumb screws (1) to loosen the panel cover (2) for the fuse box. Remove the panel cover.
2. Remove the fuse box covers as needed.
3. Refer to the decal on top of the panel cover for fuse, relay, and/or diode functions.



PTIL13TLB0302AB 1

SI No.	Fuse details	Fuse rating
1	Front work light	15 A
2	12 V power output	10 A
3	Rear work light	15 A
4	Horn, hazard light control	15 A
5	Cabin, fan, radio	10 A
6	Installer ignition	10 A
7	Wiper	10 A
8	Driving lamp LOW	15 A
9	Driving lamp HIGH	15 A
10	Cabin dome light	10 A
11	HVAC (If fitted)	20 A
12	Loader self level	10 A
13	Side shift lock	10 A
14	Cluster	10 A
15	Speedometer	10 A
16	Stop lamps	10 A
17	Hazard lights control ignition	10 A
18	Fuel shutoff	10 A
19	4WD (If fitted)	10 A
20	Shuttle control	10 A

The fuses are arranged as per the figure 2.

1	15 A	10 A	15 A	15 A	10 A	10 A	10 A	15 A	15 A	10 A	10
31	FRONT WORK LIGHT	MOBILE CHARGES	REAR WORK LIGHT	HORN, HAZARD LITE CTL	CABIN FAN, RADIO	INSTAL LER IGN	WIPER	DRIVING LAMP- LOW	DRIVING LAMP- HIGH	CABIN DOME LIGHT	40
21	20 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	30
11	HVAC	LOADER SELF LEVEL	SIDE SHIFT LOCK	CLUSTER	SPEEDO METER	STOP LAMPS	HAZARD LITE CTL IGN	FUEL SHUTOFF	4WD	SHUTTLE CONTROL	20

PTIL12TLB0441AA 2

Lamp details

Before using the machine, it is recommended to check that all lights are clean and correctly operating.

SI No.	Lamp description	Lamp wattage
1	Head lamp	65 W/ 55 W
2	Front work light	55 W
3	Rear work light	55 W
4	Stop lamp	21 W
5	Park lamp	10 W
6	Revers lamp	21 W
7	Turn lamp	21 W
8	Direction indicators	5 W
9	License plate lamp	5 W

Basic instructions

⚠ WARNING

Crushing hazard!

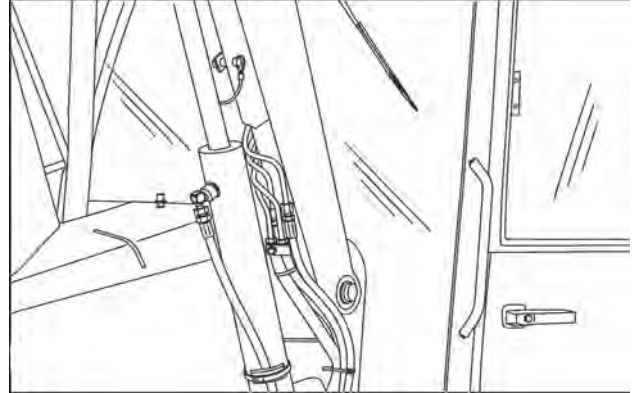
If you service the machine with the loader lift arms raised, always use the support strut. Remove the retaining pin and place the support strut onto the cylinder rod. Install the retaining pin into the support strut. Lower the lift arms onto the support strut.

Failure to comply could result in death or serious injury.

W0230A

Raise and support loader lift arms:

1. Empty the loader bucket.
2. Raise the loader lift arms to the maximum height.
3. Shut down the engine.



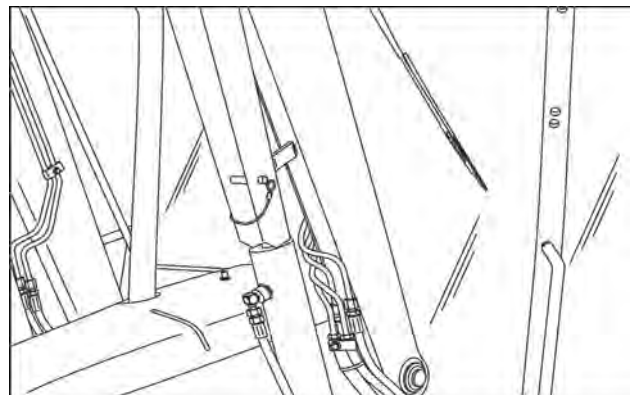
RCPH10TLB230AAF 1

4. Remove the retaining pin.
5. Lower the support strut onto the cylinder rod.
6. Install the retaining pin.



RCPH10TLB221AAF 2

7. Start the engine.
8. Slowly lower the lift arms so that the end of the support strut rests on the cylinder.



RCPH10TLB227AAF 3