

PARTS & SERVICE NEWS

REF NO.	AA00214
DATE	November 8, 2000

- SUBJECT:** IMPROVEMENT OF MAIN RELIEF VALVE OF CONTROL VALVE
- PURPOSE:** To introduce improved main relief valve to prevent a drop of relief set pressure of the main control valve.
- APPLICATION:** WA800-1 Wheel Loader Serial Number 10001 and up
 WA800-2 Wheel Loader Serial Numbers 10501 and up
 WA800-2L Wheel Loader Serial Numbers A20001 through A20019
 WA800-2LC Wheel Loader Serial Numbers A20020 through A20028
 WA800-3 Wheel Loader Serial Numbers 50001, 50003, 50007 through 50012, 50016, 50017
 WA800-3LC Wheel Loader Serial Numbers A50001 through A50003
 WA900-1 Wheel Loader Serial Numbers 10001 and UP
 WA900-1L Wheel Loader Serial Numbers A20001 through A20007
 WA900-1LC Wheel Loader Serial Numbers A20008 through A20024
 WA900-3 Wheel Loader Serial Numbers 50001 through 50013
 WA900-3LC Wheel Loader Serial Numbers A50001 through A50010

FAILURE CODE: P140Z9

DESCRIPTION:

1. Introduction:
Relief set pressure of the main control valve drops due to seat wear on the poppet in the main relief valve. To prevent this failure, this Parts and Service News introduces an improved relief valve.

PREPARATIONS FOR WORK:



WARNING! Please observe all safety and precautionary standards as dictated by the environment and work conditions under which the equipment will be inspected, reworked and repaired.

Remark

Consult the "Shop Manual" and your Komatsu district service manager with any and all questions regarding safety.



WARNING! Park the machine on a flat level surface, lower the boom and bucket to the ground. Shut off the engine and cycle the controls to remove any residual hydraulic pressure from the boom and bucket circuits. Fully apply the parking brake.



WARNING! Place chocks at the front and rear of all wheels to prevent the machine from moving.



WARNING! Place the safety bar on the machine.

- a. Remove the key from the start switch and retain it until the repairs are complete. Attach a tag on the steering wheel advising: **"This machine is being repaired. It should not be started or moved for any reason until the tag is removed by the person doing the work"**.
- b. For any welding always have a trained, experienced welder carry out the work.



WARNING! When carrying out welding work, always wear gloves, apron, glasses, cap and other clothes suited for welding work.



WARNING! Gas is generated and there is danger of fire or electrocution when carrying out welding, so never allow any unqualified personnel to carry out welding.



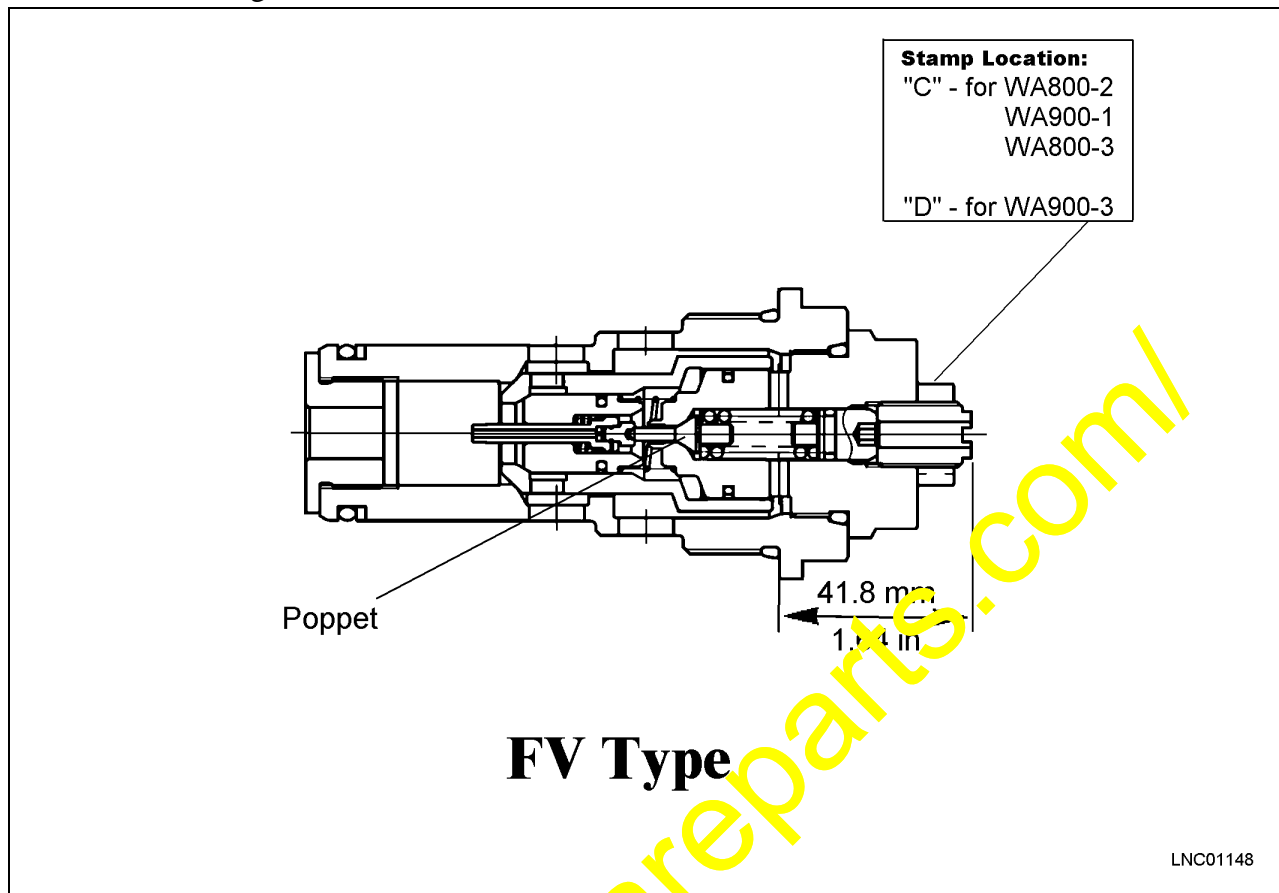
WARNING! The qualified welder must follow the precautions given below.

- H Disconnect the battery terminals to prevent explosion of the battery.
- H Remove the paint from the place being welded to prevent gas from being generated.
- H If hydraulic equipment or piping or places close to these are heated, flammable vapor or spray will be generated and there is a danger of this catching fire, so avoid applying heat to such places.
- H If heat is applied directly to rubber hoses or piping under pressure, they may suddenly burst, so cover them with fireproof sheeting.
- H Always wear protective clothing.
- H Ensure that there is good ventilation.
- H Clean up any flammable materials and make sure that there is a fire extinguisher at the workplace.

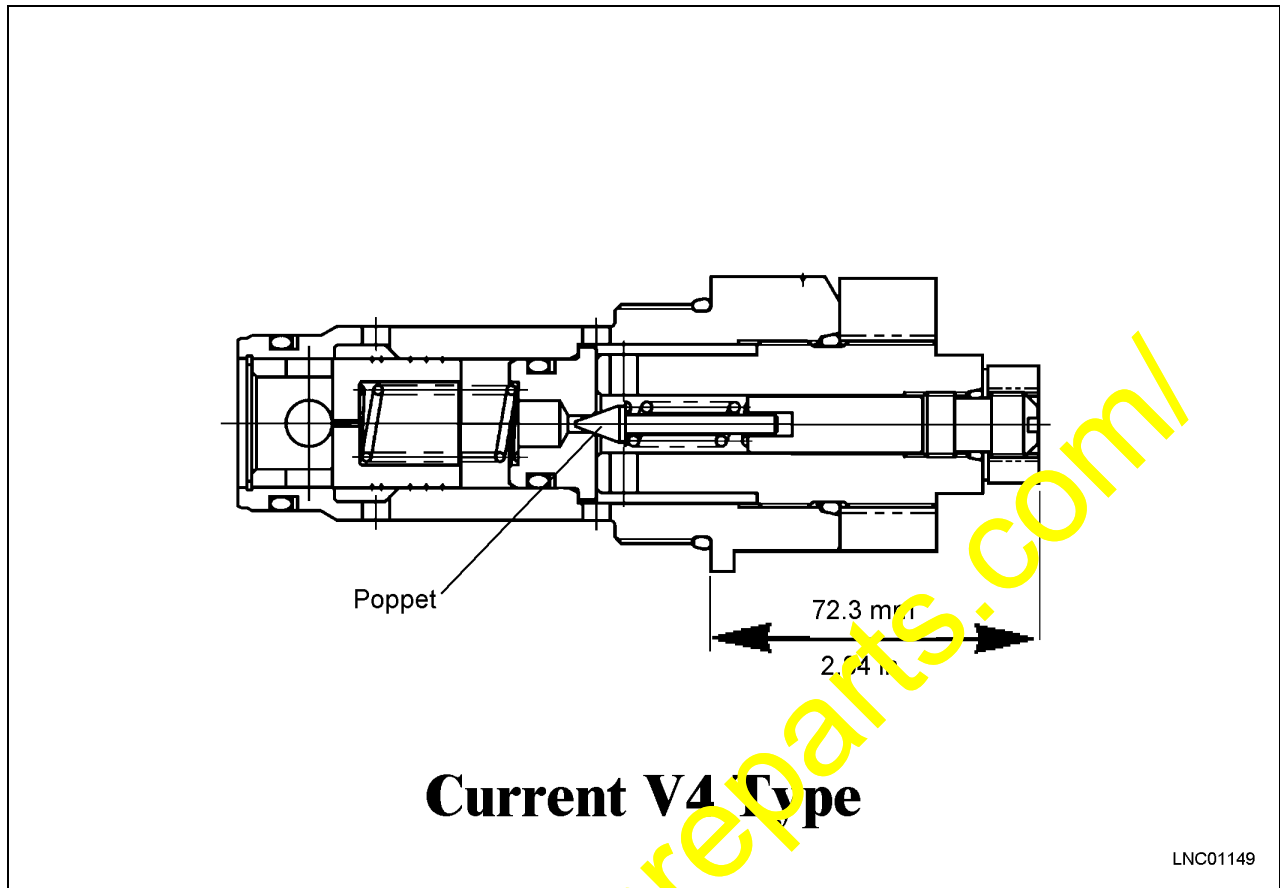
2. List of Parts

Part No.	Description	Qty	Application	Remarks	Stamp
709-10-54700	Relief valve	2	WA800-2, WA800-2L, WA800-2LC, WA800-3, WA800-3LC WA900-1, WA900-1L, WA900-1LC	320 kgf/cm ² set 4551.4 lbf/in ²	"C"
709-10-55900	Relief valve	2	WA900-3, WA900-3LC	350 kgf/cm ² set 4978.1 lbf/in ²	"D"

3. Detail of changes.



- Increase the contact area on the poppet.
- Change the structure to no occurrence of edge load.



4. Modification procedure.

Replacement Procedure:

- a. Before starting work.

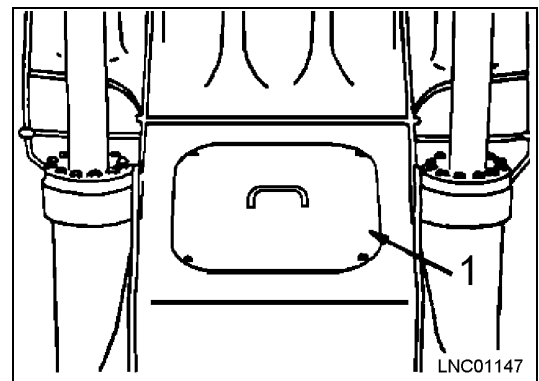


WARNING! Stop the machine on level ground and install the safety bar on the frame. Lower the work equipment to the ground and stop the engine. Then apply the parking brake and put blocks under the wheels to prevent the machine from moving.



WARNING! Loosen the filler cap to remove the pressure in the hydraulic oil tank, and repeat shifting the operation lever for the work equipment between TILT and NEUTRAL forty times or more to remove the remaining pressure in the accumulator and the piping.

- b. Remove the cover (1) from the front frame.



- c. Replace the existing relief valves with the improved relief valves.
The torque value for the new main relief valves is 33 ± 4.5 kgf m (239 ± 33 lbf ft)

- d. Refilling with oil
 - 1) Add oil through the oil filler of the hydraulic tank to the specified level.
 - 2) Before starting the engine, bleed air from the piston pump circuit.
 - H For details, see TESTING AND ADJUSTING section of the shop manual.
 - H After bleeding air, run the engine to circulate the hydraulic oil through the system.
Check the oil level again.

- e. Install the cover (1) on the front frame.

<https://hespareparts.com/>