

Update Kit Reactive Steering


Kit P/N: ED-C8900-CBVK

Fits Case Tractor Models:

7110	7210
7120	7220
7130	7230
7140	7240
7150	7250



Read and Follow Safety Messages

- In these instructions, you will see the heading **WARNING** and the safety alert symbol . They indicate a hazardous situation that, if not avoided, could result in death or serious injury. The safety messages provide information to identify a hazard associated with potential injury.
- Before installing, operating, or performing maintenance or service on any part of the system:
 - Read and understand the Automated Steering Kit Installation Guide
 - Read and understand the Automated Steering System User Guide
- Do not allow anyone to operate without instruction
- Keep these instructions and all related safety information with the manual for your machine and other implements.

If you have any questions or need assistance, contact your local dealer or distributor.

Overview

A series of equipment specific kits has been developed to work in conjunction with your automated steering system.

This kit contains the necessary components and instructions to update your ED-C8900 automated steering kit to work with the reactive style steering on your tractor.

Please read this manual thoroughly before beginning the installation.

WARNING:

To avoid serious injury or death during machine operation, install the appropriate kit for your machine make and model.

Machine Preparation

WARNING:

Inspect the machine and perform any needed maintenance (for example, contaminated hydraulic fluid) before installing the Automated Steering Hydraulic Installation Kit. This kit cannot perform as intended on a machine that is not maintained properly. Errors in performance increase the risk of operator and bystander injury or death.

Failure to maintain clean hydraulic fluid and operational hydraulic components can cause loss of directional control resulting in serious injury or death.

To avoid serious injury, wear hand and eye protection and use wood or cardboard when checking for leaks.





Turn off the machine and power off the automated steering controller when installing or performing maintenance.

Before attempting to install any of the components, park the machine on a clean level floor with adequate clearance to work all around.

To prevent hydraulic system contamination, it is essential to thoroughly clean hydraulic system fittings and hose connections prior to disconnecting or removing. Use a spray cleaner such as 'Brake Clean' to prevent hydraulic system contamination. Note that o-rings used on ORB and ORFF type fittings, referred to in the Kit Contents section, may be damaged by solvent cleaners such as 'Brake Clean'. If a fitting is to be cleaned internally, the o-ring should first be removed and cleaned with a fiberless cloth.

Kit Contents

Unpack the hydraulics installation kit and identify the required parts as shown. Kit items are A, B, C etc. with an H (Hydraulic) prefix.

REF	PART NUMBER	QTY	DESCRIPTION	PHOTOGRAPH
HA	760-0001	1	Assy, Counterbalance Valve	
Bag H1 of 1 contains HB and HC				
HB	760-2083	2	Adapter, Hyd. - #8maleORF x #8mORB	
HC	760-2080	2	Adapter, Hyd. - 90 deg elbow #8mJIC x #8maleORB	
HD	760-1237	2	Counterbalance Valve Hoses, Hyd. - 3/8" x 16", #8fJIC x #8fORF	

Installation

⚠ WARNING:

Before installing, disconnecting or repairing the hydraulic hoses and components, turn off the machine and relieve all pressure from the hydraulic system by turning the steering wheel left and right. Failure to remove the pressure can result in serious injury or death from unexpected machine movement.

To avoid burn injury when installing, disconnecting or repairing the hydraulic hoses and components, turn off the machine and allow the system to cool down prior to touching the parts of the machine that are heated.

1. Prepare the counterbalance valve.

NOTE: Make sure the counterbalance valve (CBV) is clean and dust free.

- a. Using a pair of pliers remove the two metal caps from the counterbalance valve (Figure 1a).
- b. Loosen the two locking nuts on the valve studs. Do not remove the nuts from the valve studs. Using an allen wrench turn the two valve studs clockwise three complete turns (Figure 1b).
- c. Retighten the locking nuts on the valve studs and replace the metal caps.
- d. Install the straight adapters **HB** into the **C1** and **C2** ports of the counterbalance valve and the elbow adapters **HC** into the **V1** and **V2** ports (Figure 1c).
- e. Install the run-tees provided in your ED-C8900 installation kit in the adapters **HB** in the **C1** and **C2** ports on the counterbalance valve (Figure 1d).

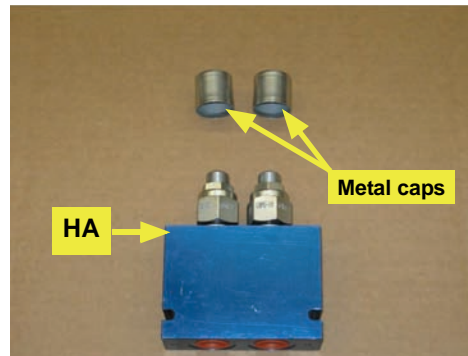


Figure 1a: CBV - metal caps removed

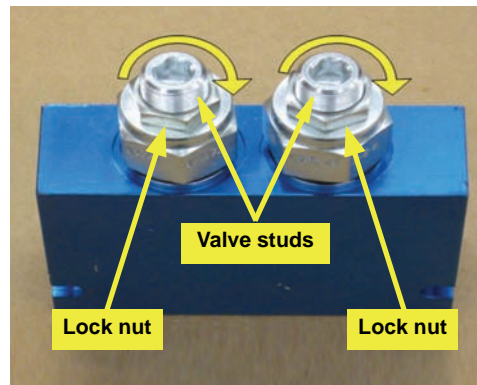


Figure 1b: CBV - turning the valve studs (lock nuts loosened)

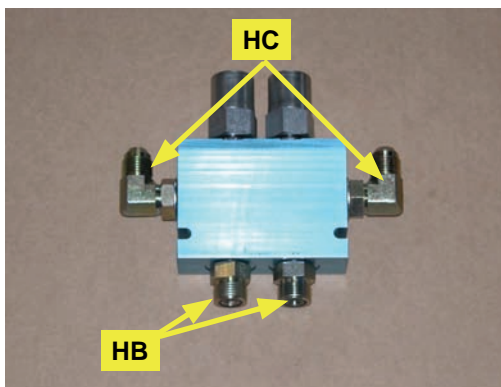


Figure 1c: Elbow and straight adapters installed in the CBV

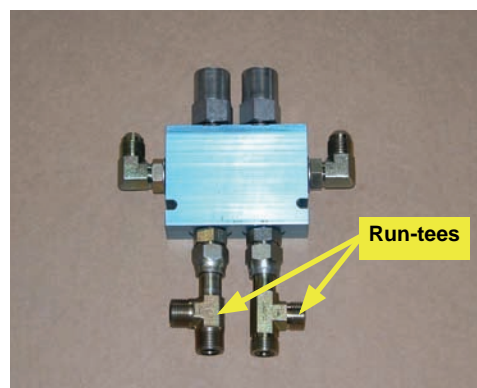


Figure 1d: Run-tees installed on the straight adapters in the CBV

2. **Install the counterbalance valve.**

- a. Locate the left and right steering lines on the top left side of the steering orbital in front of the cab (Figure 2a).

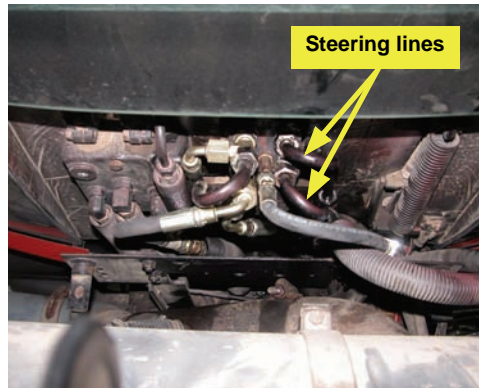


Figure 2a: Left and right steering lines

- b. Remove the steel portions of the left and right steering lines and attach the remaining rubber portions to the ends of the run-tees installed on the counterbalance valve (Figure 2b).

NOTE:

*The **left** steering line must be connected to the **C1** run-tee and the **right** steering line must be connected to the **C2** run-tee.*

Use plastic caps to prevent leakage from open ports.

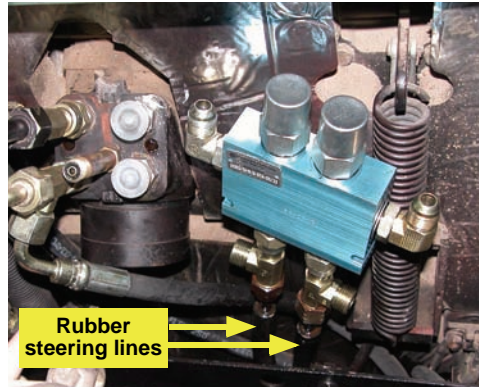


Figure 2b: Installed counterbalance valve

3. **Install the steering hoses.**

- a. Install the left and right steering hoses provided in your ED-C8900 kit to the branches of the run-tees at the counterbalance valve (Figure 3a).

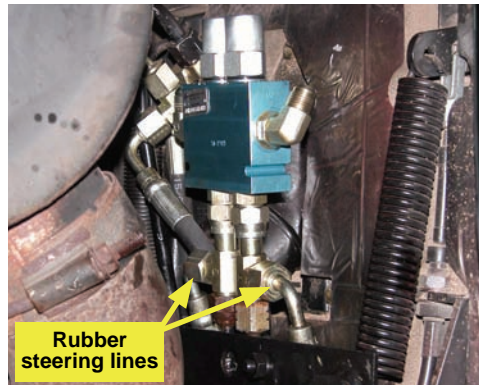


Figure 3a: Left and right steering hoses installed at the CBV

- b. Route the left and right steering hoses down to the hydraulic steering block. Attach the hoses to the **A** and **B** ports of the hydraulic steering block (Figure 3b).

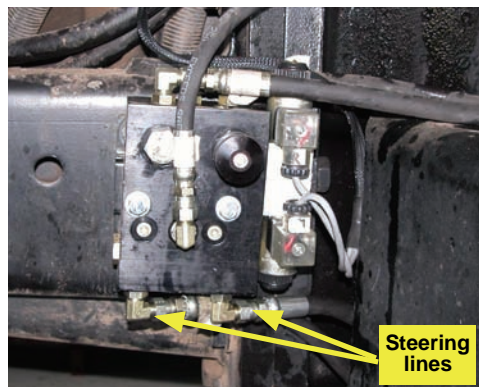


Figure 3b: Installed left and right steering hoses at the steering block.

4. **Install the counterbalance valve hoses.**
- a. Connect the counterbalance valve hoses **HD** between the **V1** and **V2** ports of the counterbalance valve and the left and right steering ports of the tractor steering orbital (Figures 4a and 4b).

NOTE:

*The **V1** port of the counterbalance valve must be connected to the **left** steering port of the orbital and the **V2** port must be connected to the **right** steering port of the steering orbital.*

- b. Tighten all the hydraulic connections and use the provided heavy tie straps to secure hoses for problem free operation.

5. **Verify operation.**

⚠ WARNING: *During tests of the hydraulic system, the machine may move unexpectedly. Be prepared for machine movement to avoid injury.*

Keep others away and stay clear of mechanical steering linkages to prevent serious injury or death from pinch point hazards while manually operating the hydraulic steering circuit.

- a. Tighten all connections and clean up the installation area around the tractor and make certain that it is safe to operate.
- b. Start the tractor and check hydraulic connections for any leaks.
- c. Rotate the steering wheel from one extreme to the other and back.

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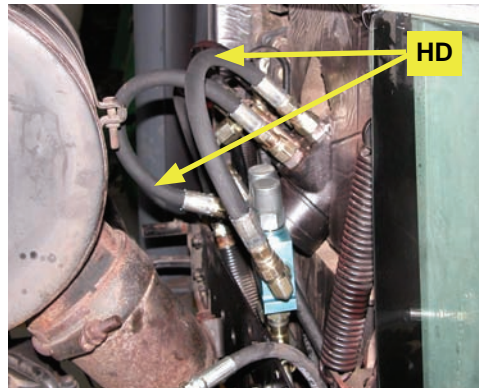


Figure 4a: CBV hoses installed between CBV and steering orbital

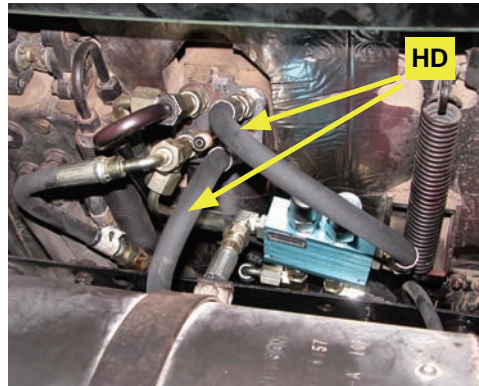


Figure 4b: CBV hoses installed at orbital

