

Service Call:

5FC Compensation System Bleeding Procedures

Model(s):

5FC

Introduction

If there is a pocket of air between the lower boom lift cylinder and the compensation cylinder, then the upper boom will not begin to move until the air is compressed.

By the time the air is compressed, the platform is out of level since the platform mechanical leveling system is part of the compensation/upper boom cylinder assembly.

Tech Tip Safety Rules



Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

Step 1

During this procedure the upper and lower booms will be raised, lowered, and rotated.

Verify the unit is set up properly for ground conditions with wheel chocks and outrigger pads. Check for overhead obstructions before operation.

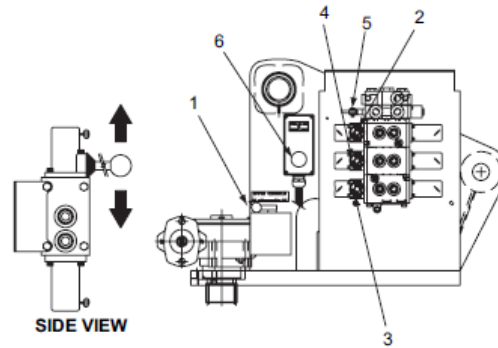
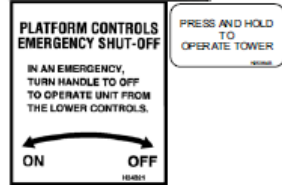
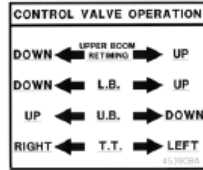
Step 2

Depress and hold the palm switch. Using the lower boom valve at the lower controls, raise the lower boom to the full up position. At this point the upper boom will be near horizontal.

Using the upper boom valve raise the upper boom approximately 2 to 3 feet to ensure that the boom has enough travel when operating the retiming valve (platform rescue).

The drawings on the next page illustrate the two versions of lower controls that could be installed on the unit.

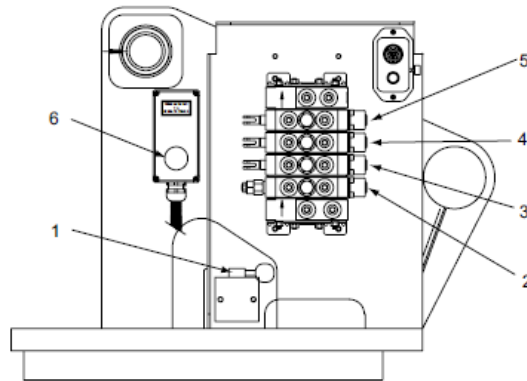
LOWER CONTROLS




ITEM	CONTROL	DESCRIPTION
1.	Platform Controls Emergency Shut Off Valve	Shuts off control pressure to control head and tool pressure to give lower control override in case of malfunction of control head. The control valve has manual handles to provide positive override of upper controls under all conditions. The interlock system must be activated by pressing the palm switch before operating the lower controls.
2.	Lower Boom	Controls movement of lower boom.
3.	Boom Rotation	Controls rotation of booms.
4.	Upper Boom	Controls movement of upper boom.
5.	Platform Rescue	Controls movement of the upper boom compensation cylinder and boom tip platform as a unit. Platform can tilt 1 degree for each 1 degree the lower boom is raised.
6.	Palm Switch	Part of the interlock system. Switch must be depressed and held for lower hydraulic controls to be operational.

NOTE: Lower boom, upper boom, and rotation sequence may vary. Refer to decal on Aerial Device.

LOWER CONTROLS



ITEM	CONTROL	DESCRIPTION
1.	Top Control and Option Shut Off 	Controls oil flow to the option valve and hydraulic tool at the platform. In the "OFF" position no oil is available at the platform valve. Must be in the "ON" position to operate the platform rotate and hydraulic tools at the platform location.
2.	Boom Rotation	Controls rotation of booms.
3.	Upper Boom	Controls movement of upper boom.
4.	Lower Boom	Controls movement of lower boom.
5.	Retiming Valve	Controls movement of the upper boom compensation cylinder and boom tip platform as a unit. (Platform does not self level during this function.)
6.	Palm Switch	Part of the interlock system. Switch must be depressed and held for lower hydraulic controls to be operational.

NOTE: Lower boom, upper boom, and rotation sequence may vary. Refer to decal on Aerial Device.

Step 3

Using the retiming valve at lower controls, stroke the lever for upper boom retiming down. Upper boom will move towards the lower boom.

Stop retiming before the platform contacts any obstructions.

Step 4

Raise the upper boom back to the original starting point using the lower control upper boom valve.

Rotate the boom to a position that will allow the lower boom lift cylinder to be completely retracted. Using the lower controls, bring the lower boom to its full down position.

During the lower boom function, the upper boom will also comp (compensate) down. The upper boom may be all the way in the rest.

Step 5

Raise the upper boom approximately 5 feet with the lower control valve. Then use the retiming valve down function to bring the upper boom down.

This step may have to be done more than once to get the compensating cylinder rod to be fully extended and the upper boom cylinder rod to be fully retracted when the boom is in time.

The boom compensation is in time when the upper boom cannot be fully stored with the retiming valve.

