

**KNOWLEDGE BASE**Article Type: **Instructions****Hydraulic Adjustments on; Models  
22HF, 16HF & 1600 machines****Description:**

Instruction sheet on how to make proper hydraulic valve adjustments  
Compression and Stripper Beam cylinder adjustments.

**WARNING**

Never work on, clean or service this unit, control panel or any machine or open or remove any protective cover, guard, grate, door, or maintenance panel until the power or energy sources has been turned off, locked out / tagged out, and all moving parts have come to a complete stop and or blocked to prevent movement. Machinery is dangerous - avoid personal injury and or death by following manufacture, Local, and OSHA safety procedures. Contact Columbia Machine for safety decals, guards, horns and beacons.

## Hydraulic Adjustments on 22, 16 & 1600 Block Machines

Earlier machines with P.O. check valves do not have adjustment

Feed drawer forward flow control speed adjustment clockwise rotation/decreases speed counter clockwise rotation/increases speed.

Feed drawer back flow control speed adjustment clockwise rotation/decreases speed counter clockwise rotation/increases speed.

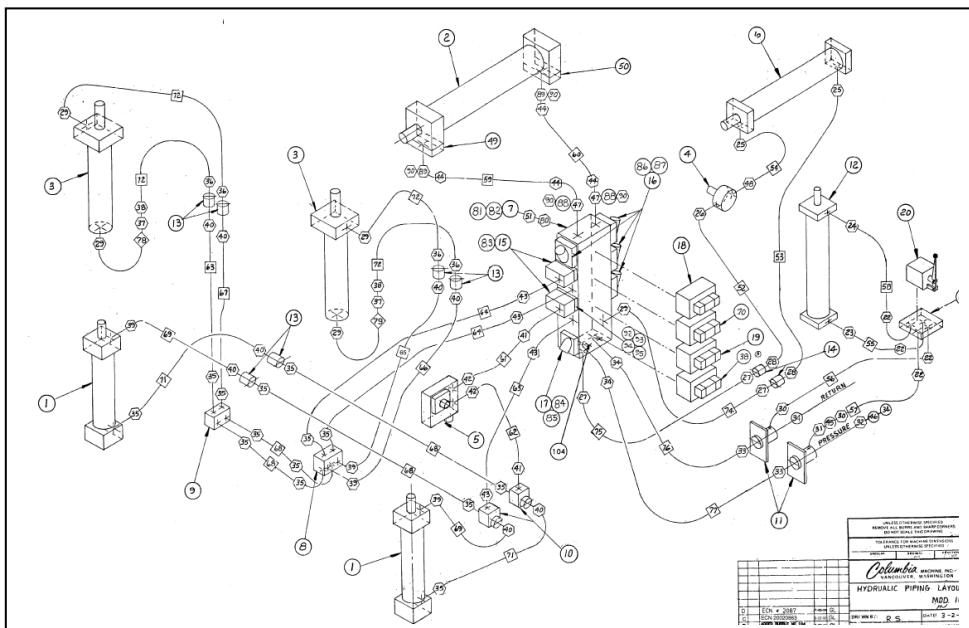
Compression beam counterbalance valve adjustment clockwise rotation Increases drifting. Counterclockwise rotation until beam stops traveling down. To set load turn an additional 3/4 to 1 full turn & tighten lock nut.

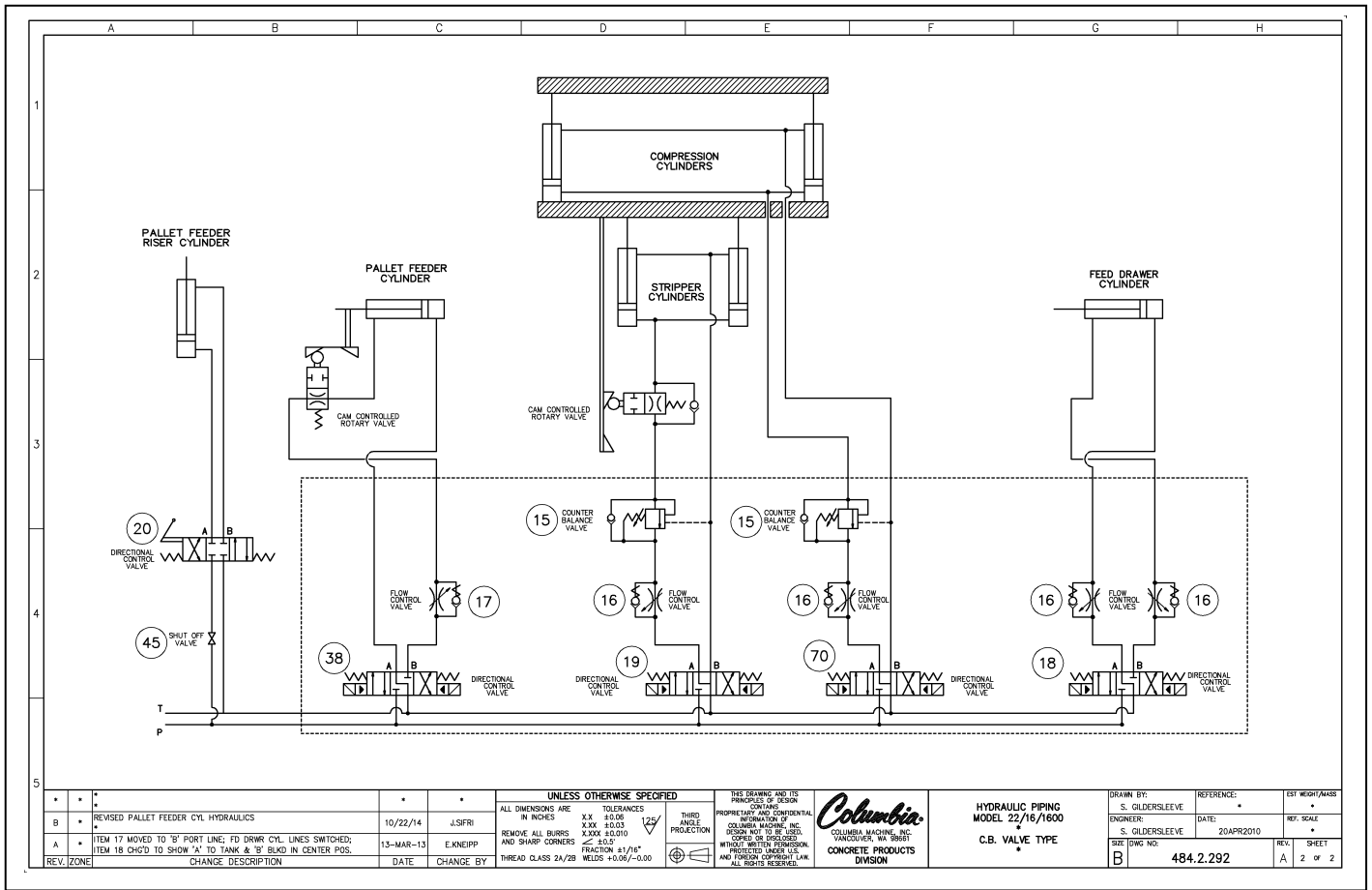
Compression beam down flow control speed adjustment clockwise rotation/decreases speed counter clockwise rotation/increases speed. Head up speed can be adjusted on main valve spool stop. Clockwise rotation decreases speed / counterclockwise rotation increases speed

Stripper beam counterbalance valve adjustment clockwise rotation Increases drifting. Counterclockwise rotation until beam stops traveling down. To set load turn an additional 3/4 to 1 full turn & tighten lock nut.

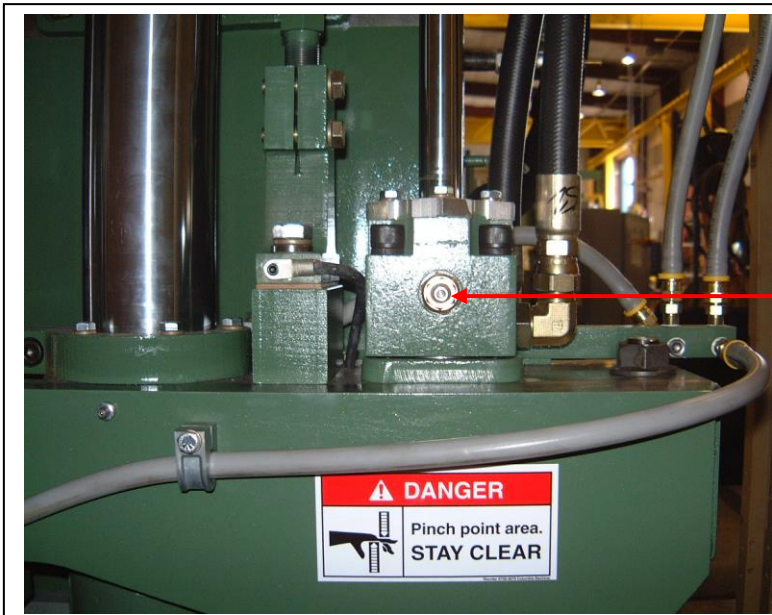
Stripper beam down flow control speed adjustment clockwise rotation/decreases speed counter clockwise rotation/increases speed.

Pallet feeder flow control speed adjustment clockwise rotation/decreases speed counter clockwise rotation/increases speed.

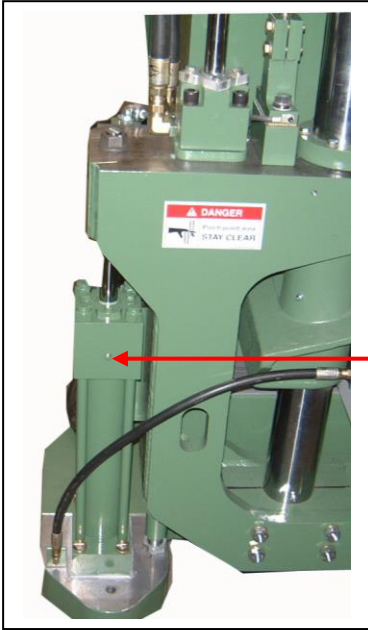




### Other hydraulic adjustments



Upon installation of new cylinders start with both the cushions turned fully in clockwise and backed out 1 1/2 turns to start. If oil is cold you will need to make final adjustments after oil has warmed up. Start pump and run compression beam up and down several times if you believe you have air in the lines you may need to bleed the air from the cylinders before proceeding with cushion adjustments. As the beam travels to the up position watch to see if beam racks or one cylinder is slow to reach end of stroke at full extension. The side that is slow to reach the end of stroke usually is the one that will be adjusted to open up the cushion a little more. Using an Allen wrench in the adjustment screw back out counter clockwise to open the cushion up more but only turn out 1/4 turn tighten down the locknut holding the screw so that it doesn't turn while locking the nut down. Again run the beam up and down several times watching to see if beam is level throughout travel up and down no racking. You may need to make similar adjustments a couple times to get the cylinders on both sides to extend the same reaching the end of stroke at the same time. If you notice the beam bounces or at end of stroke you may need to adjust both cushions in to tighten cushions so that you have a smooth end of stroke when the cylinders fully extend. If oil was not up to operating temperature minor cushion adjustments may need to be made.



Stripper cushion start by adjusting cushion screw in clockwise until it stops and back out counter clockwise 1/4 turn. If making adjustments with cold oil you may need to make final adjustments once oil warms up to operating pressure. Run beam up and down several times making sure at the end of full stroke you have good cushion and rod cushions don't hit hard at end of stroke.