

(1) No Load Interlock

(Patent number 3079274JP)

“No load signal” isn’t sent out when sensing positive pressure valve is turned on, when it is “Loaded” (load is hanged) .

So, if put “unclamp” or “vacuum off” buttons wrongly, it doesn’t work.

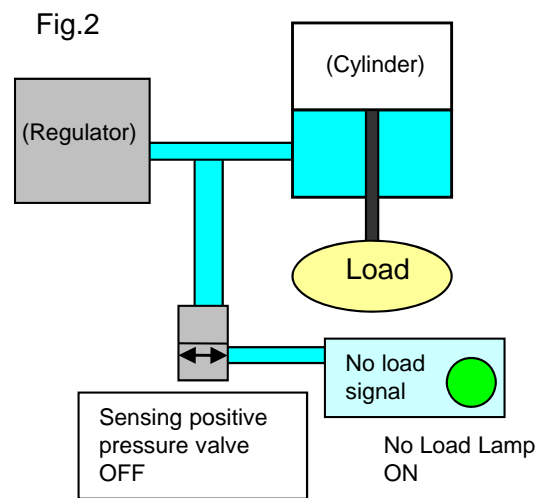
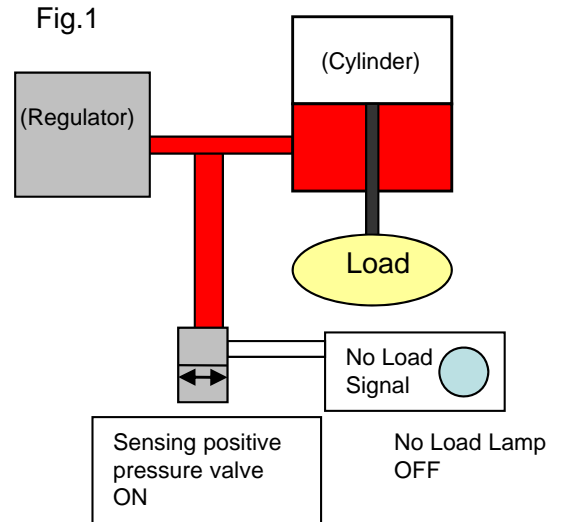
“No load signal” is sent out when sensing positive pressure valve is turned off.

When load inside the cylinder is declined and load comes down as fig.2, “unclamp” and “vacuum OFF” becomes effective.

If “No load lamp” is lighted, “unclamp/vacuum OFF” is effective.

To decline the load, balancer should be came down.

If put “unclamp/vacuum OFF”, the equipment comes down until the level of sensing “no load” because of “descent” order.



(2) Sensing Vacuum Interlock

Fig.3

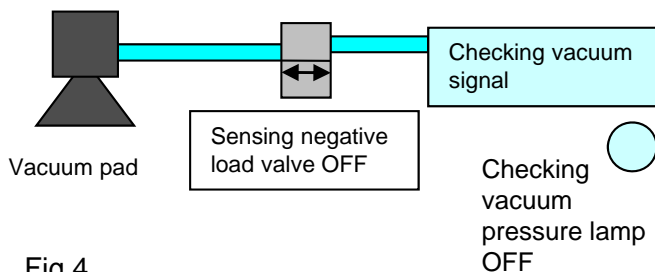
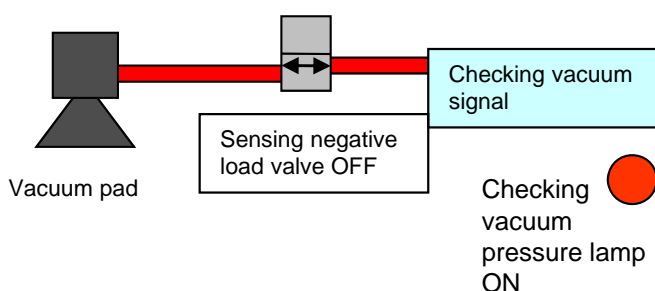


Fig.4



The vacuum pressure comes short of set pressure (enough negative pressure to keep load) as fig.3, sensing negative pressure valve is turned off.

“Checking vacuum pressure valve” is turned off.

The vacuum pressure comes to set pressure (enough negative pressure to keep load) as fig.4, sensing negative pressure valve is turned on.

“Checking vacuum pressure lamp” is turned on.

If “checking vacuum lamp” is lighted, it goes up safely.

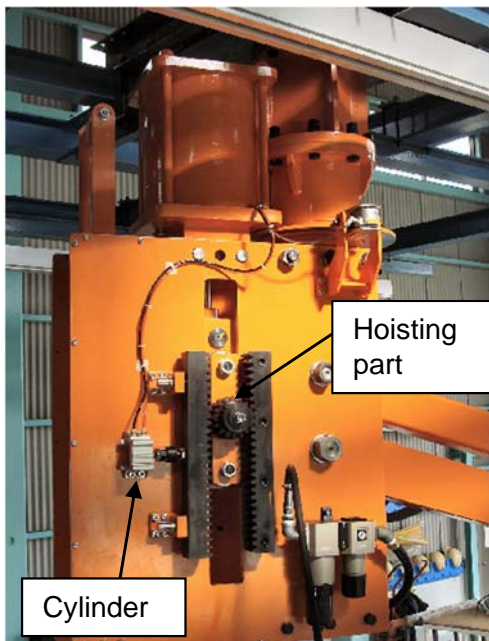
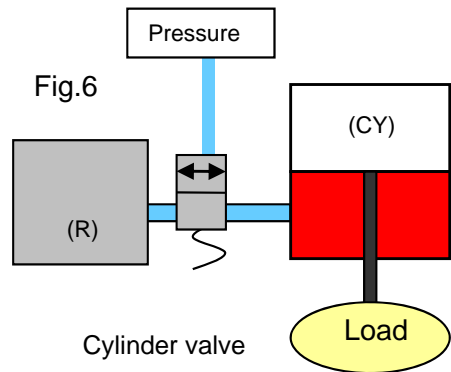
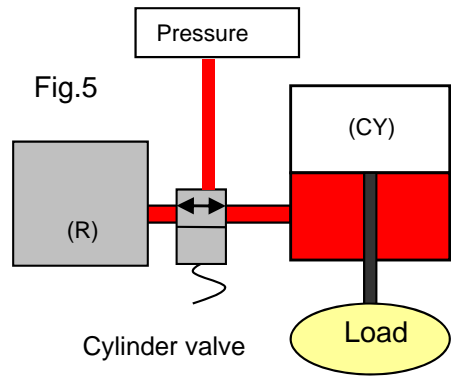
(3) Measure for pressure's falling down

When the pressure is turned on as fig.5, cylinder valve includes air and (R)pilot regulator and balancing cylinder is connected

When the pressure is turned off as fig.6, cylinder valve is shut down and the air at balancing cylinder is sealed, it doesn't work.

The range of arm's falling down is depends on the moving speed of cylinder valve.

Usually 10-20mm.



Arm's hoisting can be locked coercively and make it not to hoist as fig.7.

Fig.7