



Industrial Hydraulic Principles

IHP

20 ideas you will take back to work and use!

1. Why system pressure should not be set higher than necessary
2. Which hydraulic circuits use relief valves that are set to a “full-flow” setting and which circuits are set to a “cracking-pressure” setting and how to set the relief valve for each.
3. Why electric motors driving pumps shut down on overload
4. Why hydraulic systems get hot and how to correct the problem
5. What causes actuator-related hydraulic shock
6. Why ‘shock’ is destructive and how to eliminate
7. Understand hydraulic valve and pump symbols for the purpose of ‘reading’ schematics
8. Learn the 12 basic hydraulic control circuits and how they work
9. What is the proper directional control for various cylinder and hydraulic motor circuits
10. Why directional control valve solenoids fail
11. Why directional control valve spools stick and how to fix the problem
12. How hydraulic speed control really works
13. When we should use meter-in speed control systems
14. When we should use meter-out speed control systems
15. When does a hydraulic cylinder require load control and how it is set up
16. When does a hydraulic cylinder require load holding
17. What are the 4 most important hydraulic applications that must use a ‘float’ center directional control valve and not use a ‘closed’ center directional control valve
18. Hydraulic pumps produce unyielding flow
19. How pressure-compensated pumps control system pressure
20. How to set any pressure compensated pump and a spike pressure relief