Module-hydraulic

hydraulic.force\_pascal(pressure, area)

Return force(lbs.). Pressure is (psi). Area is (square inches). Pressure \* Area

hydraulic.pressure\_pascal(area, force)

Return pressure(psi). Area is (square inches). Force is (lbs.). Force/Area

hydraulic.area\_pascal(pressure, force)

Return area(square inches). Pressure is (psi). Force is (lbs.). Force / Pressure

hydraulic.horsepower\_pump(pressure, flow)

Return horsepower. Pressure is (psi). Flow is (gpm). (Pressure \* flow)/1714

hydraulic.pump\_flow(displacement, speed)

Return hydraulic pump flow(gpm). Displacement is (cir). Speed is (rpm). (displacement \* speed)/231

hydraulic.horsepower\_motor1(torque, speed)

Return horsepower. Torque is (in-lbs.). Speed is (rpm). (Torque \* Speed)/5252

hydraulic.horsepower\_motor2(torque, speed)

Return horsepower. Torque is (ft-lbs.). Speed is (rpm) (Torque \* Speed)/63025

hydraulic.torque\_motor(displacement, pressure)

Return torque(in-lbs.). Displacement is (cir). Pressure is (psi). (displacement \* pressure)/6.28

hydraulic.cylinder\_velocity(stroke, time)

Return velocity(in/min). Stroke is (inches). Time is seconds. Stroke \* (60/time)

hydraulic.flow\_velocity(velocity, area)

Return flow(gpm). Velocity is (in/min). Area is (inches squared). (velocity\*area)/231

hydraulic.bore\_area(diameter)

Return bore area(inches squared). Diameter \* diameter \* .7854

hydraulic.flow\_valve(cv, pressure\_drop, specific\_gravity)

Return flow valve rating(gpm). Pressure drop is (psi). cv flow coefficient.

hydraulic.velocity\_conductor(flow, area)

Return fluid velocity(ft/sec). Flow is (gpm). Area is (sq-in)

Hydraulic.burst\_pressure(working\_press, sf)

Return working pressure(psi) \* safety factor