

Brains behind hydraulics over 2000 years



ARCHIMEDES (250 B.C)

- Principle of Buoyancy
- Screw Pump



LEONARDO DA VINCI (1475 A.D)

- Principle of Continuity
- Sketched Hydraulic Machines



GALILEO (1600 A.D)

- Concept of Hydrostatic Balance



TORRICELLI (1620 A.D)

- Barometric Height to atmosphere pressure liquid trajectory



BLAISE PASCAL (1640 A.D)

- Discerned Hydrostatic Paradox
- Pressure Transmissibility



ISSAC NEWTON (1690 A.D)

- Fluid Resistance
- Jet contraction



Bernoulli (1700 A.D)

- Flow – energy equation



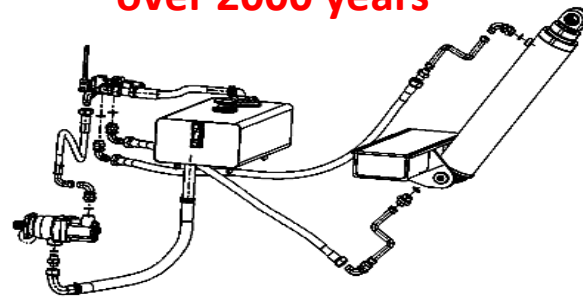
PITOT (1700 A.D)

- Velocity through different head

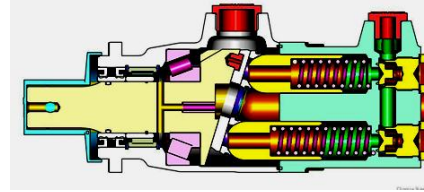


EULER (1760 A.D)

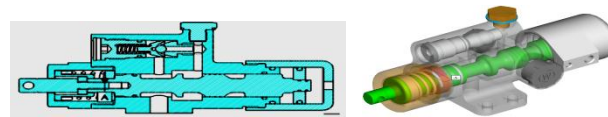
- Pressure in fluid flow
- Concept of cavitation
- Principle of centrifuge machinery



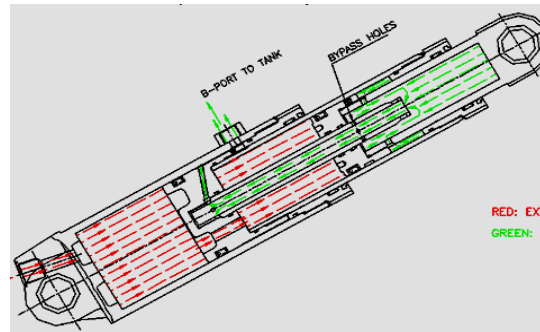
Example-Tipping kit with tank ,hoses ,pipes ..



Axial piston pump



Pneumatic/Manual valve



Double acting Telescopic cylinder



DE COULOMB (1780 A.D)

- Experiments on fluid resistance
- 1st & 2nd order velocity



HAGEN (1800 A.D)

- Laminar & turbulent flow



DARCY (1820 A.D)

- Pipe resistance for flow



STOKES (1830 A.D)

- Viscous Resistance



JOSEPH BRAMAH (1820 A.D)

- Built & demonstrated hydraulic press



LORD KELVIN (1860 A.D)

- Introduced turbulence



-REYNOLDS (1880 A.D)

- Experiments on turbulence
- and equations



RAYLEIGH (1880 A.D)

- Laminar flow studies