

Animation Worksheet: Traction Fluids

Name: _____ Date: _____

1. Traction fluids are a special class of _____ primarily used in mechanical systems to transfer power.
2. Instead of using traditional gears or belts, these mechanical systems transfer power through _____ contact.
3. Traction fluids transfer force by developing high _____ resistance without metal-to-metal contact.
4. By keeping moving parts from rubbing directly against each other, these fluids successfully reduce _____.
5. Because traction fluids normally have a low _____, they flow easily and keep system parts cool.
6. When two metal surfaces make rolling or sliding contact, the pressure at that point can skyrocket, often exceeding 1 to 3 _____.
7. Under extreme pressure, the fluid's thickness behaves almost like a solid _____.
8. When subjected to this extreme pressure, the viscosity of the fluid can increase by up to 100 _____ times.
9. Pulleys in continuously _____ transmissions rely on these specific fluids to ensure smooth and efficient power transfer.
10. The sudden increase in viscosity under high pressure provides the necessary _____ for the belt or chain to grip the pulleys.