

In this 1942 episode of Superman, the hero sabotages the Yokohama Navy Yard in Japan. Superman, as a character, was generally not involved in acts of war, but this WWII era cartoon obviously acted as propaganda against U.S. enemies.

This classic cartoon also offers a nice point of discussion about Newton's Laws of Motion and the forces of friction. Superman uses his great strength to force the ship into the bay where it sinks. To do so, he must overcome the frictional force between the ship and rails as well as the force required to break the ropes. While Superman might be strong enough to do such things, the frictional force between his feet and the ground, which acts as the opposite and equal force to that exerted by Superman, is clearly not sufficient to hold him in place.

Which force is greater: the frictional force between the ship and rails or between Superman and the rails? Clearly, the normal force acting on the ship is much greater than that acting on Superman, so, unless Superman has super sticky feet, his frictional force is much less than that acting on the ship.