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QUESTION 1

Dry friction is a force that opposes the relative lateral motion of two solid surfaces in contact. Dry friction also occurs at the interface between two bodies in relative motion with contact. Dry friction has two dominant components which are static and kinetic friction. Example of dry friction is when a person is riding a bicycle and presses the brakes, the rough edges on the brake pads rub against the bicycle rim and it ends up slowing down the rim. While,

Fluid friction occurs between fluid layers that are moving relative to each other. This internal resistance to flow is named viscosity. In everyday terms, the viscosity of a fluid is described as its thickness. Example of fluid friction is Air resistance is an example of fluid friction caused by the particles that make up air.

QUESTION 2

TYPES OF MACHINES

Wedges: is a triangular shaped tool, and is a portable inclined plane, and one of the classical simple machines. Wedges can be used to separate two objects or portions of an object, lift up an object, or hold an object in place.

SQUARE THREADED SCREWS: its commonly screw thread form, used in high load applications such as leadscrews and jackscrews. It gets its name from the square cross section of the thread. It is lowest friction and most efficient thread form and it is difficult to fabricate.

JOURNAL BEARINGS: journal bearings is essentially a cylindrical shaft in a cylindrical cavity of larger diameter and the space between them contains a liquid lubricant. The portion of the shaft which is in actual contact with the bearing is known as journal. For every machine and engine, it is necessary to have a provision for the support of rotating shaft.