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Question:

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Answer:

self locking property - torque required to lower the load, T= Wtan($\varphi - \alpha$)xd/2 self locking property of the threads-if $\varphi > \alpha$ the torque required to lower the the load will be positive, indicating that an effort is applied to lower the load. if friction angle is greater than the helix angle or coefficient of friction is greater than the tangent of helix angle(2marks) Over hauling of screwsin the above expression, if $\varphi < \alpha$,then the torque required to lower the load will be negative. The load will start moving downward without the application of any torque, such a condition is known as over hauling of screws.