What do you mean by mechanical stresses in the maritime transport or Ship Motion in Seaway?

**Mechanical Stresses or Ship Motion in Seaway:**

Ship freely floating is subject to 6 degrees of freedom.

There are two types of ship motions in seaway. These are:

i) Translational or Linear: Motion related to linear distance.

ii) Rotational or Rotatory: Motion related to angular distance.

**Three are Translational**:

* 1. Heave (z): Motion along z - axis.
  2. Sway (y) ): Motion along y - axis.
  3. Surge (x) ): Motion along x - axis.

**Three are Rotational**:

1. Yaw (z): Motion about z - axis.

2. Pitch (y) : Motion about z - axis.

3. Roll (x) : Motion about z - axis.



**Ship’s Axes and Degrees of Freedom**