Ask Jon Eakes

How can I stop the vibration from my front loading washing machine?

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All washing machines vibrate when they go into the spin cycles. Top loading machines have the tubs suspended on springs that create a primary bad vibration as they build up to speed. If the load is too unbalanced, they bang around and the machine stops. If the load is only a bit unbalanced, the springs can usually take the bouncing until the speed of the spin gets fast enough to get past the initial harmonic vibration and it settles into a fast spin. Any vibration that is left actually slows down the spin.Front loading machines are designed to spin much faster and they are more easily unbalanced. When placed on concrete floors they usually don't have a problem. If placed on ordinary wooden floors, they can almost destroy the house with light filaments breaking, dishes walking out of cupboards and even reports of drywall popping off the walls or ceiling below. Yet front loading machines are the most energy efficient on the market and some almost displace the use of the dryer because they spin out the water so well.Manufactures are very aware of these vibration problems and high tech solutions are beginning to show up. Digital machines (that actually have computers on board) handle the problem better than Analog machines (timers only). Suspension systems are being developed that react differently to different vibrations, hence getting past that speed up problem -- but for the moment they are expensive.Precaution number one: if installing a washing machine on a wooden floor, this floor should really be reinforced with more joist bracing, and ideally be located above a supporting wall. You can glue and screw extra plywood to the floor to make it stiff and massive, but do not simply place a piece of plywood on a wood or tile floor, it will dance and make things worse.Precaution number two: a primary element that creates vibration is too much soap. I am serious. Some manufacturers specify low suds soaps, and in general we tend to use too much soap in all our machines. Just a suggestion of a bubble on the water is the limit of soap. The reason too much soap causes a problem is that the suds displace the clothes in such a manner as to create the imbalance. Along with this you really should sort your clothes not only by colour, but by density. Washing very light material with very dense material will cause vibration as well. This is not much of a problem with the top loading machines but it is important for front loading machines. Also small loads do not work well in front loading machines.As it turns out, unstable floors and ad-hoc efforts at damping the vibrations can actually cause damage inside the machines because these can cause the machine to develop unusual vibrations that were not planned for in the manufacture. It has even been found that if the leveling feet are extended too far, it can create even more vibration because the connection between the floor and the machine begins to act like another resonator. Keep the leveling feet as short as possible, just what it takes to get it level.The best solutions that have been found so far are building stable floors to begin with and then use specially developed vibration pads under the feet. These can go over both wood and tile floors and are specifically designed not to slip. If your floor is really bouncy, forget buying a front loading machine.I have had several people test the inexpensive "KE Shake Away Plus" pads. These pads have a "this side up" notation on them that is important, and have found it critical that the feet be placed squarely in the center of the pad. In a week or two it will create an indentation in the first of several layers of resilient material which will prevent any walking. The test results varied from "fantastic" to "did some good" but were all generally positive. On a steel frame floor the report was that vibration was reduced with the pads, but not enough to solve the problem. That problem was solved by moving up to the new washer technology beginning to show up on the market - in this case a "Samsung WF 337 AAG with Vibration Reduction Technology (VRT)".

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