How to Fill Tractor Tires with water and calcium chloride

Tractor Agriculture is focusing on a topic called *How to Fill Tractor Tires with Water and Calcium Chloride.* This question came in one of the exams I had applied after completing my bachelor's degree. While writing, I am feeling happy alongside reviving some of my childish memories.

Now the Question arises, why do we need to add water or calcium chloride to tyres?

The answer is that we need to add weight to the tyres to avoid tire slippage. There are different ways to add weights to the tyres i.e. foam, fluid or cast iron weight can also be used. Today, we will explain how to fill tractor tyres with water and calcium chloride which ultimately helps in increasing <u>tire life</u>.

Sometimes we have to fill water inside the tires and there are some ways which have to be followed to accomplish this process. The **Tractor Tires** go through regular wear and tear with regular usage. For filling tire with water or calcium chloride, follow the below listed steps.

- 1. Firstly, you should jack up the wheel and then remove the valve from the tube.
- 2. After the tube removal, the tube deflation work needs to be done.
- 3. Try to turn the wheel in such a way that valve is on top position.
- 4. Using a special adopter, the hose should be attached to the body of valve.

- 5. After this step, turn on the water source and allow the water to flow inside.
- 6. The water should be allowed to fill up to the upper rim level.
- 7. After the water has been filled to the desired level, the adapter should be removed and valve should be replaced.
- 8. The air should be filled to the normal working pressure levels.
- 9. The valve should be checked for apt tightness and leakage possibilities.

Finally, remove the tyre.

The same steps should be followed for filling the water in second tyre. To fill tractor tires with water, the water has to be put in tire tube with the help of a pump or by gravity.

Another important condition that has to be met when you are about to fill tractor tires with water is that the water inside the tube should fill only 75% of the space and the rest of the space should be filled with air. This condition is necessary during the filling process.

The air inside the tube is important as it facilitates cushioning effect and absorbs any shock.

How to Empty the Tube after filling tractor tires

After you have been able to fill tractor tires with water, you need to empty the tube.

To empty the tube, you should turn the tyre in such a way that valve is at the bottom. Remove the valve and automatically water will start coming out. The complete draining process of tube will only be possible if tube is removed from the tyre.

There are some precautions that you need to follow: The tires with water in them should be checked more frequently as compared to air filled tires. Also, the pressure should only be checked when the valve is in top position.

Fill Tractor Tires with Calcium Chloride Solution

In countries that have freezing point temperatures, the water cannot be put in tyres easily. The reason is water gets frozen inside the tyre due to very low temperatures. The alternative to water in cold countries is calcium chloride solution. The advantages of using calcium chloride are listed below:

- 1. It never freezes inside the tyre due to low temperatures.
- 2. It has 30% more weight than water and obviously results in more final weight.
- 3. In any way, this solution does not have any harmful effect on the tire or tube.

Some precautions have to be taken while using calcium chloride solution. These are:

- 1. To make calcium chloride, you should add cacl2 to the water.
- 2. After mixing cacl2 with water, the water gets heated up. You should wait a little bit and allow the water to cool down before filling it inside the tube.
- 3. To avoid acidic nature of cacl2, you should add .5 kg of lime to every 45 kg of calcium chloride.
- 4. The solution should be carefully put inside the tube and avoid direct contact with other metal parts.
- 5. This solution should not be used as anti freezing solution for radiators.

If a Nacl2 solution is not available, then common salt can be used as an alternative. The above stated precautions should be followed with common salt too.

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