

## **AGRICULTURAL TIRE LOW SIDEWALL TECHNOLOGY ADVANTAGES**

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Modern agricultural tractors are faster and heavier than ever before, but to take full advantage of their capabilities, you need the right rim and tire assembly. Conventional tires with a 70 percent aspect ratio have a tendency to bounce during road transport operations and power hop in the field in high drawbar applications.

To prevent this negative occurs Titan/Goodyear designed agricultural tires with Low Sidewall Technology (LSW). The main LSW tires feature is a lower aspect ratio and smaller sidewall than a comparable conventional tire. With the LSW tire design, the rim diameter is increased without increasing the outside diameter of the tire. That is why LSW tires providing more stability in the field and on the road.

The LSW tire marks with prefix LSW before the tire width marking. Goodyear tires data are showing that when replacing conventional tire size with LSW size the tire aspect ratio decreased on 5-20 ones. That is why the LSW tires aspect ratio varies in the range of 35-75 while replacing conventional tires aspect ratio varies in the range of 50-90. LSW tires are designed with R-1, R-1W and R-2 thread patterns.

Low tire sidewall height makes the LSW tires advantage over conventional tires. It is reduced tractor's bounce during road transport operations and power hop in the field in high drawbar applications.

The larger the sidewall, the more potential there is for bouncing. The smaller sidewall of the LSW tire design dampens the swaying motion that results in road lope when traveling at high speeds, keeping the operator productive and comfortable between fields moving.

A smaller sidewall also helps eliminate the power hop experienced when the tire bites into the ground, and the tractor bounces forward in high drawbar applications. Reducing power hop keeps the operator comfortable and productive during field operations.

Goodyear LSW tire's sizes have tire width of 380...1400 mm and replace the same width conventional tires. The nominal LSW tire's inflation pressure varies from 120 to 320 kPa (17...46 psi).

LSW tires producer notes that implementation of LSW technology also reduces soil compaction with the ability up to 40% more tire load at the same inflation pressure. On the other hand, the soil compaction really can be reduced by decreasing the inflation pressure at the same tire load thanks to up to 40% more tire load capacity.

Therefore, this fact makes the LSW tires the equivalent to VF tires (Very Increased Flexion tires). All the VF tire's advantages over conventional tires are known in the world due to the technologies like Michelin Ultraflex.

For a few last years, VF and LSW technologies received word wide well-known and practice applications on different MFWD (Mechanical Front Wheel Drive) and 4WD (Four Wheel Drive) tractors.