Self Suppport Run-flat Tire

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Introduction :-

- ✔ Only contact with ground Act as the primary suspension, cushioning the vehicle from effects of rough surface.
- ✔ Provide frictional contact with the road surface which allows the driving wheels to move the vehicle
- ✔ Front tires allows the wheels to steer Tires allow braking to slow or stop the vehicle.

Type Of tires :-

- ✔ Today we has a mainly three types of tires.

(1) Tube Tires(1st Generation Tires)

(2) Tubeless Tires(2nd Generation Tires)

(3) RFT(Run flat Tires) (3rd Generation Tires)

- ✔ In past we use different tires in different session like

(1) Winter Tires

(2) Summer Tires

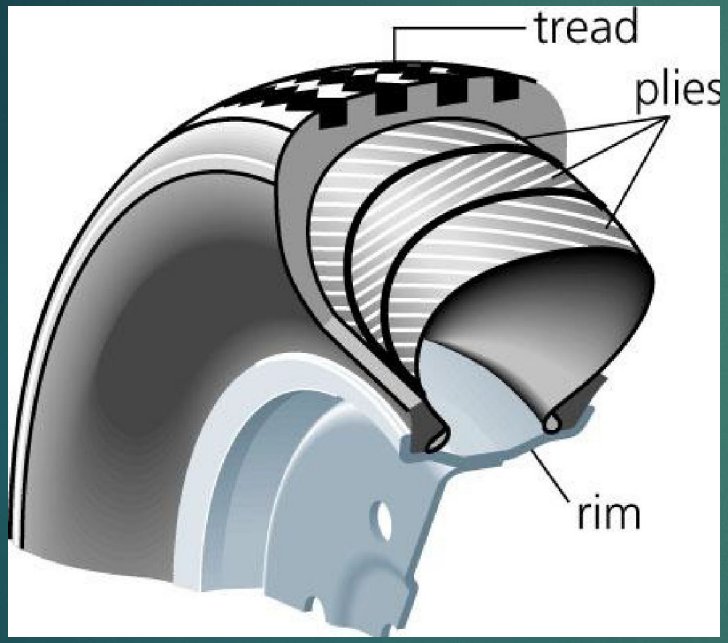
(3) Monson Tires

- ✔ This Tires is change in different session.

(1) Tube Tires :-

- ✔ Tube tires are mostly use in bike and normal cars.
- ✔ It is very less expensive.
- ✔ In this tires, inside the tires having tube.
- ✔ It's working is very easy.
- ✔ Tube tires are very maintain tires.it is light Wight and low material caused puncture.
- ✔ so tube tires are upgrade to tubeless tires.

Tube Tire cross section :-



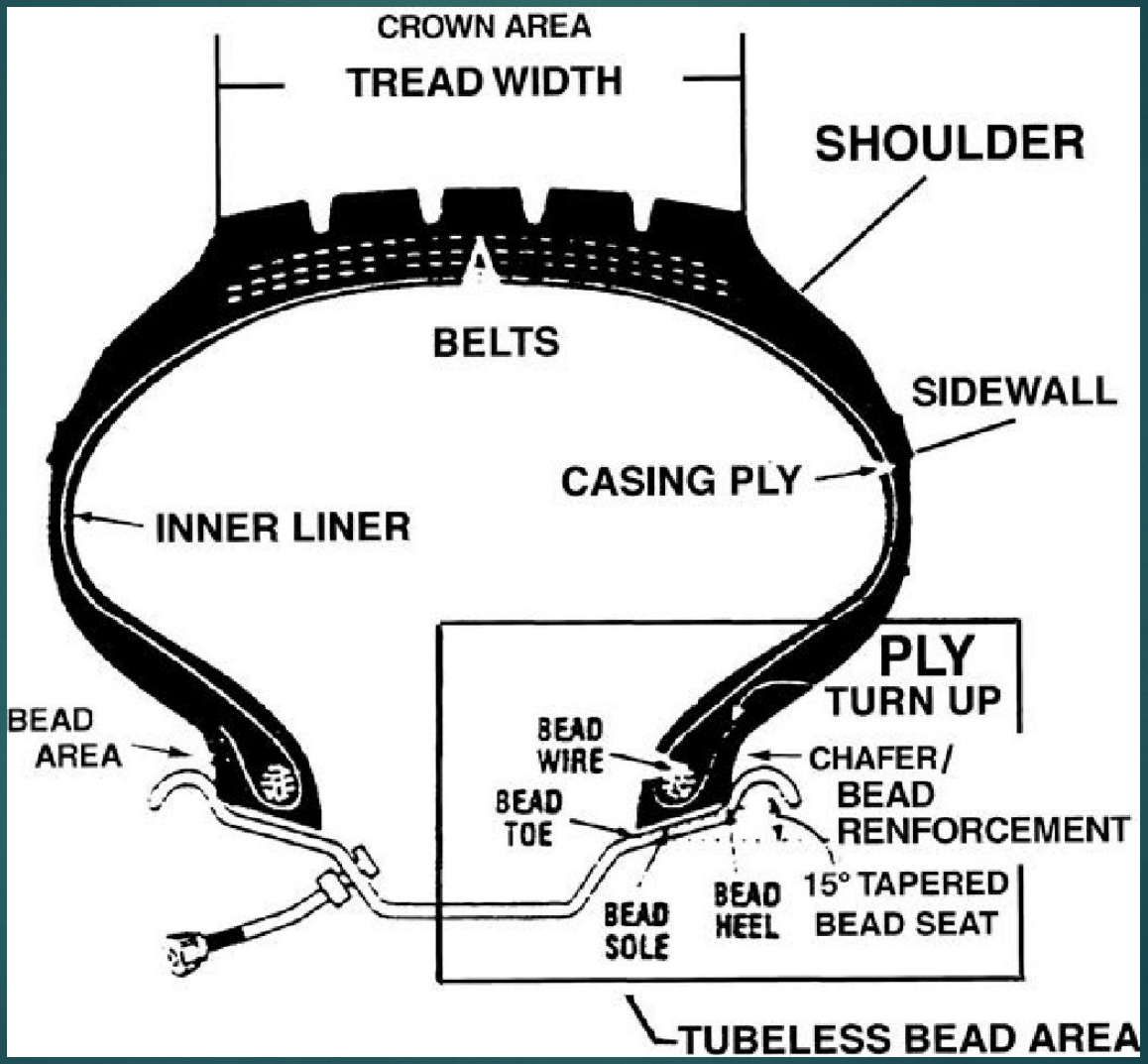
(2) Tubeless Tires :-

- ✔ Tubeless tires is 2nd generation of tires.
- ✔ Tube less tires are more expensive than tube tires.
- ✔ But it tires are more safety thane tube tires
- ✔ In puncture conduction this tires are goes 10 to 20 km.
- ✔ And this tires are more rigid than tube tires.
- ✔ This tiers puncture repair is very easy.in tube tires puncture repair is hard very time consuming in tubeless tires puncture repair is done on car/bike it not necessary to remove tires.

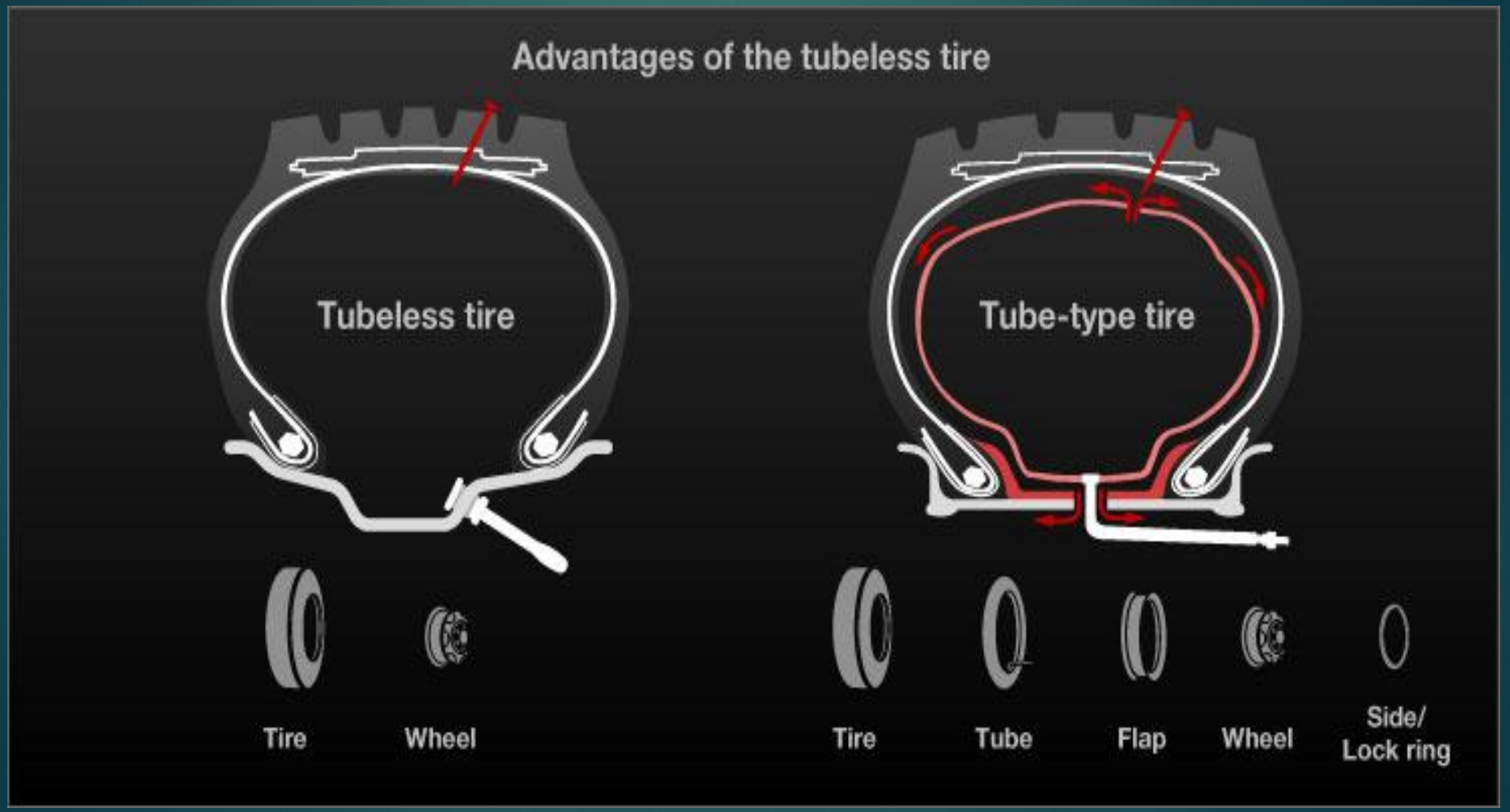
Advantages of tubeless tires :-

- ✔ Lesser unsprang weight.
- ✔ Better cooling
- ✔ Lesser rolling resistance
- ✔ Comfortable ride
- ✔ Slower leakage of air
- ✔ Simpler assembly
- ✔ Improved safety

Cross-section of tubeless tires:-



Different between tube tires & Tubeless tires



(3) RFT (Run Flat tires) :-

Why we need SSR ?

- Run-Flat Technology tires reflect that mission. With Run-Flat Technology tires, you can drive up to 50 miles (80 kilometers) at a speed of 50 mph (80 km/h) after an air loss (ISO technical standards)*, allowing you to get to a convenient stopping place. And, because you don't need a spare tire or wheel, or a jack, Run-Flat Technology tires allow vehicle manufacturers to reduce materials. Now, Run-Flat can also offer a ride that is comparable in comfort to conventional tires. Run - Flat Technology tires: a superior product to serve society.

DEFINATION :-

A run flat tire is a pneumatic vehicle tire that is designed to Resist the effects of deflation when punctured, and to enable the Vehicle to continue to be driven at reduced speeds (under 3 mph (4.8 km/h)), and for limited distances (up to 10 mi (16 km),Depending on the type of tire).

The History of Self-supporting:-

- The origins of the commercial *self-supporting* Run flat tire started in 1935 with a tire that had a fabric Inner tire. The tire was advertised as a protection against blow outs, a common and dangerous occurrence in the 1930s.
- In 1934, Michelin introduced a tire that was based on technology developed for local commuter trains and trolleys. It had a safety rim inside the tire which if punctured would run on a special foam lining.

History of SSR/RFT on BMW:-

- ✔ In the past years, across the entire car industry we have seen an Increase in the number of vehicles equipped with run flat Tires as a safety …

- ✔ In the past years, across the entire car industry we have seen an increase in the number of vehicles equipped with run-flat tires as a safety system. BMW, MINI, Lexus, Audi or Chevrolet have all started to adopt these systems with one goal in mind – vehicle safety. According to BMW, thanks to specially reinforced side walls and additional lateral strengthening, the run-flat tires continue to perform their function even if all air pressure is lost, and you can continue driving for up to 150-250 km (depending on the model) at a speed of up to 80 km/h without any significant loss in vehicle stability.

Cross-section of R F T :-

Working of RFT :-

- ✔ Temporarily supports weight of vehicle even with no air pressure
- ✔ Internal support, thicker and stiffer side walls, stronger beads.
- ✔ Can maintain Mobility for up to 100 km at slow speed (60 km/ph)
- ✔ Run flat tires are built with reinforced sidewalls. Normally, a car is supported by the air in your tires, and once you have a puncture, they collapse. However, run flat tires have tough rubber inserts which temporarily hold up the weight of your vehicle even after a puncture.

Can Run Flat tires be repaired ?

In line with most leading tire retailers, National Tires will not repair a run flat tire following a puncture. Most manufacturers advise against repairing run flat tires. If the deflated tire has been driven on, it could have compromised its strength, and it is impossible for a fitter to know if the tire was driven on for longer/faster than recommended after a puncture. For a brand specific answer you can contact the manufacturers below, but generally it will be hard to find a retailer who will be willing to repair a run flat tire.

Brand's of Run Flat Tire :-

- ✔ Bridgestone RFT (Run flat Tire)
- ✔ Continental SSR (Self Supporting Run Flat)
- ✔ Dunlop DSST (Dunlop Self Supporting Tire)
- ✔ Goodyear EMT (Extended Mobility Tire)
- ✔ Michelin ZP (Zero Pressure)
- ✔ Pirelli Tire identified as a "Run Flat" tire

Benefits of RFT :-

No need Spear wheel

Low wear

RFT in puncture conduction

Our RFT modal :-

We made RFT display modal . We use high strength rubber. And use car rim for support of tire.

Thank you !!