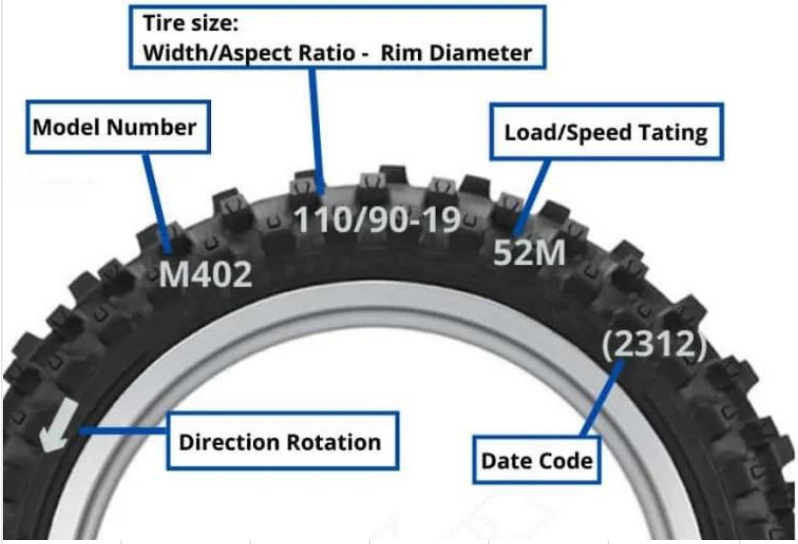
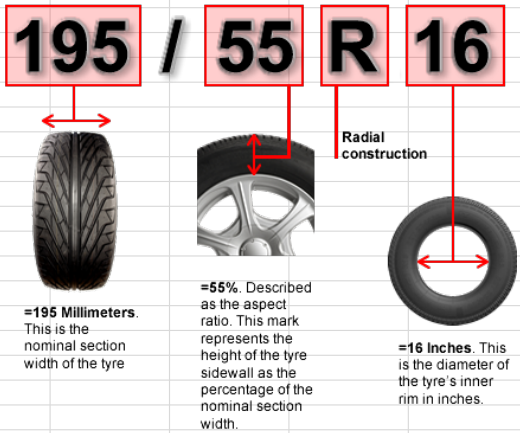
Templar X 250 Tire and Rim Compatibility Study

Front Rim	21" x 1.60" alloy rim	Tire sizes: 2.25, 2.50, 2.75, 3.0, 3.10, 3.60, 80/90, 80/100, 90/90, 90/100
Rear Rim	18" x 2.15" alloy rim	Tire sizes: 3.00, 3.10, 3.25 (STD), 3.50 (STD), 3.60 (STD), 4.0, 80/90, 90/90 (STD), 100/90, 100/100 through 120/100
OEM Front Tire	80/100-21	
OEM Rear Tire	110/100-18	



The current industry standard rates dirt bike tires by their width, aspect ratio, and rim diameter which must be easily readable along the side edge.
As a result, you will find them listed consecutively, separated by a slash {/} and a dash {-}, on every tire you buy.
Some examples include “120/80-19” and “110/90-19”.

80/100-21 vs 90/90-21 vs 90/100-21 discussion on dirtbikeworld.net: Click this link



Tire Width
The first number represents the width or the widest distance between the sidewalls, and it is usually expressed in millimeters (mm).
For example, the widths for the examples above at 120mm and 1100 respectively. This value is a direct measure of the width.
So, you can simply measure your old tires to get a good estimate for your new ones.

Tire Aspect Ratio
Separated from the Width by a slash, the second number, or tire aspect ratio, details the height of the sidewall.
However, it is not a direct measurement. Instead, it is rated as a percentage of the width.
For instance, the heights of the examples above are 80 percent of 120mm (or 96mm) and 90 percent 110 (or 99mm).
As a result, larger aspect ratios usually represent taller tires.

Tire Rim Diameter
The third size number is the rim diameter in inches. Most dirt bike tire rims range from 18 to 21 inches with the numbers inversely proportional to the aspect ratio. For instance, high aspect ratio tires often have 18-inch rims.

Manually Measure the Tire Size
If you cannot read the size code for any reason, you can manually measure the size of your bike tires.
You also only need a ruler and a calculator. Once you have them, you can start measuring your tire’s size by:

1. Measure the edge width of the tire in millimeters. This is your tire's width.
2. Measure the length of a sidewall in millimeters.
3. Divide the edge width by the sidewall length.
4. Multiply the result by 100 and round to the nearest whole number. This is the tire's aspect ratio.
5. Measure the inner diameter of the tire in inches. This is the rim diameter.

Some of the motorcycle tires have a lettering designation.
The millimeter(mm) equivalent for it:
MH - 80mm, MJ - 90mm, MM - 100mm, MN - 110mm, MP - 110mm,
MR - 120mm, MT - 130mm, MU - 140mm, MV - 150mm
For example MU90-16 - 140mm wide, 90% profile, 16" rim To convert from millimeters to inches divide by 25.4 (1"=25.4mm)
Correct rim width may be critical to handling and stability.
A tire which is installed on a wider than recommended rim will have a "flattened" profile, and a rider may easily reach
the edge of the tread during cornering.
A narrow rim will alter the tire profile, with a smaller contact patch during braking.
Fitment to these rims may result in slippage or air loss.
And roughly each additional 0.5" of rim width will be approximately 0.25" more in each tire width

[FRONT TIRE 90/90-21] Upsizing or Downsizing Tire Calculator

Original	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	80	100%	21	80	27.30	693.40
Size	millimeters	percent	inches	mm	inches	mm
New	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	90	90%	21	81	27.38	695.40
Size	millimeters	percent	inches	mm	inches	mm
Difference in Diameter:		Percentage: *	0.29%	Actual:	2.00	mm
Orignal Tire Speedometer Reading:		65	New Speedometer Reading:		65.19	

* Generally, you don't want to go with tires that have a diameter that is more than 3% different from the factory tires.

**[REAR TIRE 4.10-18] Upsizing or Downsizing Tire Calculator

Original	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	110	100.00%	18	110	26.66	677.20
Size	millimeters	percent	inches	mm	inches	mm
New	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	103.886	82.00%	18	85.18652	24.71	627.57
Size	millimeters	percent	inches	mm	inches	mm
Difference in Diameter:		Percentage: *	-7.91%	Actual:	-49.63	mm
Orignal Tire Speedometer Reading:		65	New Speedometer Reading:		59.86	

* Generally, you don't want to go with tires that have a diameter that is more than 3% different from the factory tires.

[REAR TIRE 120/80-18] Upsizing or Downsizing Tire Calculator

Original	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	110	100.00%	18	110	26.66	677.20
Size	millimeters	percent	inches	mm	inches	mm
New	Tread Width	Profile Height	Wheel Diameter	Sidewall height	Overall Tire Diameter	
Tire	120	80.00%	18	96	25.56	649.20
Size	millimeters	percent	inches	mm	inches	mm
Difference in Diameter:		Percentage: *	-4.31%	Actual:	-28.00	mm
Orignal Tire Speedometer Reading:		65	New Speedometer Reading:		62.20	

* Generally, you don't want to go with tires that have a diameter that is more than 3% different from the factory tires.

NOTE ** : A 4.00 and a 4.10 are the same width. The .1 is how they designated low profile back in the day. So let's do a little example:
Metric is a 110/100/18 - this means the tire is 110mm wide, 110mm tall (100%) and 18 inch rim.
Standard is a 4.00/18 - this tire is 4.00 wide, 4.00 tall (standard 100% aspect), and 18" rim.
Low Pro Std is a 4.10/18 - this tire is 4.00 wide, 3.28 tall (82% aspect) and 18" rim. (4.09" or 103.886mm for Shinko 705)
This is the same for 4.10, 4.60, 5.10, 5.60 and 6.10.
So your 4.10 will fit width wise, but it will be noticaby shorter (making is look narrower).

Permissible Rim Widths	Metric	Alpha	Standard Inch	Low Profile Inch	
1.60, 1.85	70	MG	2.75	–	Templar X 250
1.60, 1.85	80	MH	3	3.6	Front
1.85, 2.15	90	MJ	3.25	3.6	Templar X 250
1.85, 2.15	90	ML	3.5	4.1	Rear
2.15, 2.50	100	MM	3.75	4.1	
2.15, 2.50, 2.75	110	MN	4	4.6	
2.15, 2.50, 2.75	110	MP	4.25	4.25/85	
2.15, 2.50, 2.75	120	MR	4.5	4.25/85	
2.15, 2.50, 2.75	120	MS	4.75	5.1	
2.50, 2.75, 3.00	130	MT	5	5.1	
2.75, 3.00, 3.50	140	MU	5.5	–	
3.50, 4.00	150	MV	6	–	
4.00, 4.50	160	–	6.25	–	

Front Wheel

16"		17"		18"	
Tire Size	Rim (inch)	Tire Size	Rim (inch)	Tire Size	Rim (inch)
110/90-16	2.15 - 3.00	110/70-17	3.00 - 3.50	100/90-18	2.15 - 2.75
120/80-16	2.50 - 3.00	110/80-17	2.15 - 3.00	110/80-18	2.15 - 3.00
130/70-16	3.50 - 4.00	120/60-17	3.50 - 3.75	110/90-18	2.15 - 3.00
130/90-16	2.50 - 3.50	120/70-17	2.75 - 3.75	120/70-18	3.00 - 3.75
150/80-16	3.00 - 4.00	120/80-17	2.50 - 3.00	120/90-18	2.50 - 3.00
		120/90-17	2.50 - 3.00	130/60-18	3.50 - 4.00
		140/80-17	3.00-4.00	130/70-18	3.00 - 4.00
		150/80-17	3.00 - 4.25	140/70-18	3.00 - 4.50

19"		20"		21"	
Tire Size	Rim (inch)	Tire Size	Rim (inch)	Tire Size	Rim (inch)
90/90-19	1.85 - 2.50	120/70-20	3.5	80/90-21	1.60 - 2.15
100/90-19	2.15 - 2.75	140/60-20	3.75	90/90-21	1.85 - 2.50
110/90-19	2.15 - 3.00	150/55-20	4.5	120/70-21	3.00 - 3.75
120/70-19	3.00 - 3.75			130/60-21	3.00 - 4.00
130/60-19	3.00 - 3.75			140/70-21	3.00 - 3.75

23"		26"		24"	
Tire Size	Rim (inch)	Tire Size	Rim (inch)	Tire Size	Rim (inch)
120/70-23	3.50 - 4.00	120/50-26	3.50-3.75	130/70-24	4
130/50-23	3.50 - 4.00	120/55-26	3.50-3.75		
130/60-23	3.00 - 3.75				

30"	
Tire Size	Rim (inch)
140/40-30	4

Rear Wheel

15"		16"		17"	
Tire Size	Rim (inch)	Tire Size	Rim (inch)	Tire Size	Rim (inch)
130/90-15	2.50 - 3.50	130/90-16	2.50 - 3.50	120/90-17	2.50 - 3.00
140/80-15	2.75 - 3.75	140/90-16	2.75 - 3.75	130/90-17	2.50 - 3.50
140/90-15	2.75 - 3.75	150/80-16	3.00 - 4.00	140/70-17	3.50 - 4.50
150/80-15	3.00 - 4.25	160/80-16	3.50 - 4.50	140/80-17	2.75 - 4.00
150/90-15	3.00 - 4.00	170/70-16	4.25 -5.50	150/60-17	4.00 - 4.75
170/80-15	3.50 - 5.00	180/60-16	4.50 - 5.50	150/70-17	4.25 -4.50
180/70-15	4.25 - 5.50	180/65-16	4.50 - 5.50	160/60-17*	4.25 - 5.50
200/70-15	5.50 - 6.50	180/70-16	5.00 - 6.00	160/70-17	3.75 - 5.00
230/60-15	5.50 - 7.00	200/60-16	5.50 - 6.25	170/60-17	4.25 - 5.50
		240/50-16	7.00 - 8.00	180/55-17	5.50 - 6.00
				180/60-17**	4.50 - 5.5
				190/50-17	6.00 - 6.50
				190/55-17	6.00 - 6.50
				190/60-17	5.00 - 6.00
				200/50-17	6.00 - 6.50
				200/55-17	6.00 - 6.50
				210/50-17	6.00 - 7.00
				300/35-17	10.0 - 11.0
				330/30-17	11.0 - 12.5

18"		20"		21"	
Tire Size	Rim (inch)	Tire Size	Rim (inch)	Tire Size	Rim (inch)
110/90-18	2.15 -3.00	140/60-20	3.75	200/70-21	6.25
120/90-18	2.50 - 3.00	150/55-20	4.5	260/35-21	9
130/80-18	2.50 - 3.50	200/40-20	6.00 - 7.00		
140/70-18	3.00 - 4.50	220/50-20	6.50 - 7.50		
150/70-18	3.50 - 4.50	280/40-20	9.50 - 10.5		
160/60-18	4.25 - 5.00				
170/60-18	4.00 - 5.00				
180/55-18	5.50 - 6.00				
200/50-18	5.50 - 6.50				
200/55-18	5.50 - 6.50				
210/40-18	7.00 - 8.00				
240/40-18	8.00 - 9.00				
250/40-18	8.50 - 9.50				
260/35-18	8.50 - 9.50				
260/40-18	8.50 - 9.50				
280/35-18	9.50 - 10.5				

300/35-18	10.0 - 11.0
310/35-18	10.0 - 11.0
360/30-18	13

Tire Construction

After the aspect ratio is the tire construction. This has two options: Radial (R) or Belted (B). “Belted” means fiberglass, Kevlar or aramid fiber belts. These all have added strength and weight volume. But if a tire does not have (R), then it is bias-ply, which means that it has several, meeting rubber plies. These overlying layers form a dense layer that is delicate to hotness and is less elastic.

Speed Rating

A downgrade is usually a poor idea. There is a reason why manufacturer specified the maximum load and speed ratings of their motorcycles. They believe these are what the bike needs.

On the other hand, an upgrade in load or speed may appear harmless, but it can adversely affect the overall riding experience due to the stiffeners added to the tire’s sidewalls.

Factory-spec tires are capable to handle the maximum weight approved for the respective bikes to carry. If you want to exceed that, the tires and the other parts of the motorcycle might break, too!

Generally, a higher speed rating is not always damaging to the tires. However, you can choose to give up the fuel mileage or tire life span. It is highly recommended to stick to the OE speed rate. Upgrading is allowed, provided that you are knowledgeable of the other riding features that might be adversely affected.

When you consider the weight, also consider the following factors:

1. Weight of the rider/driver
2. Weight of the passenger
3. Weight of all luggage

The downside of Japanese bike brands and Asian bike brands in general is that they assume that their customers — the rider and the passengers, are all lightweight.

As of now, majority of the tire manufacturers are in agreement that once repaired, the tire loses its speed rating.

Motorcycle Tire Speed, Load Rating And Tire Size

Front Tire Size Conversions			Rear Tire Size Conversions		
Metric	**Alpha**	**Inch**	**Metric**	**Alpha**	**Inch**
80/90	MH90	2.50/2.75	110/90	MP85	4.00/4.75
90/90	MJ90	2.75/3.00	120/90	MR90	4.50/4.75
100/90	MM90	3.25/3.50	130/80		5.00/5.10
120/80		4.25/4.50	140/80		5.50/6.00
120/90	MR90	4.25/4.50	140/90	MU90	5.50/6.00
130/90	MT90	5.00/5.10	150/80	MV85	6.00/6.25
			150/90	MV85	6.00/6.25

NOTE: It is very important to always use the tire size, speed, load rating, and type recommended by your motorcycle manufacturer. The information herein provided is only for general reference and should not be made as the main basis for choosing the appropriate motorcycle tires.

The letter and number combo

The letters and numbers you see after the size of the tire is called collectively as the tire “service description.” The said service descriptions have a speed and load index.

There are additional and optional information you may see but these vary from one manufacturer to another. These are the information the tire manufacturer gives to clarify further what belongs to the tire, or what job was the tire designed to do.

It may specify a little different version of a tire that is made precisely for a certain new model of motorbike, at the motorbike builder’s demand. Michelin Pilot Road 3 Tires are a decent sample of this. The “B” service description means a tire with additional sidewall stiffeners provided.

If you are uncertain what a service description, refer to this guide for clarification.

Tire Speed Rating Chart

(New Style Speed And Load Index)

Speed Rating	Max. Design Speed (MPH)
J	62
K	68
L	75
M	81
P	93
Q	99
R	106
S	112
T	118

	U	124
	H	130
	V	149
	W	168
	Y	186

It is important to note that modern tires are rated with load index and speed rating. In a guide released by Michelin, they particularly highlighted that this code appears after the size. The code is composed of 3 characters: 1 letter and 2 numbers. Let's say the code is 67H. 67 stands for the maximum weight capacity of the tire. H stands for the maximum speed rating.

What thickness of inner tube do I need?

Motorcycle inner tubes come in a variety of thicknesses but the common sizes are: 1.5mm, 2mm, 3mm and 4mm. These are – annoyingly – almost never listed on the inner tube's packaging but some might just say 'Heavy Duty' or 'Ultra Heavy Duty'.

Thickness is about puncture resistance but don't just go for the thickest inner tube you can find. If you are riding on the road, you want the inverse of what you'd need off-road. You shouldn't run a heavy duty or ultra-heavy-duty inner tube on a road bike or if you're riding an off-road bike at high speeds. A thick inner tube will overheat on a road bike due to the temperature of the tire's carcass and the inner tube's rubber being overworked and not being able to shed this kinetic energy.

Unlike with off-road riding, road riders won't pick up a pinch-flat on the road, so it doesn't make sense to use a thicker inner tube. You want as little heat build up as possible. An inner tube will deteriorate and ultimately fail if subjected to too much heat which will happen pretty quickly if you run a heavy-duty one on the road.

On the flip side, if you're riding off-road, it makes sense to use a thicker inner tube, which will be more resistant to snake bites and pinch flats. Off-road riders will know to run their tires at lower pressures and this can sometimes cause punctures but a thicker inner tube will reduce the chances of picking up a self-inflicted puncture. However, if you're consistently riding at over 40mph, go for a thinner tube.

What inner tube material should I use -- Butyl Rubber vs Natural Rubber

There are two types of rubber used to create inner tubes. There's Butyl rubber and Natural rubber. Our honest opinion is that they're both very similar but some riders will only go for one type, so we thought it best to explain to you their different properties.

Butyl rubber is a synthetic rubber. Generally speak these inner tubes us a mix of natural and synthetic rubber. They are more flexible than natural rubber and they tend to age better (with less perishing due to their age) and they are also slightly more puncture resistant.

There's also Natural rubber which tends to have a good wear resistance, more elasticity and a higher tensile strength. However natural rubber will perish quicker than synthetic rubber and it's not as good as synthetic at coping with high temperatures.

So which one is best? It really is a preference thing. Some riders swear by natural rubber and reckon they form to your tire's profile better than synthetic and get fewer punctures. However other riders will go for synthetic because they think they last longer and work better at wider temperature ranges. The truth is they're both very similar ways of keeping your tubed tires doing what they're designed to do. Unless you're an expert, you probably couldn't tell what tube you are running.

How to determine your inner tube size

The correctly sized inner tube will be the size stated on your motorcycle's tire. So check out the sidewall of your tire, note the size (120/70/19 for example) and then find an inner tube of that size. It's that simple.

Which valve do you need?

The next area you need to consider is the valve stem. Valves come in various different sizes and some are rubber while others are metal. They're one of the weaker parts of the inner tube as the valve (obviously) has to be vulcanized to the tube which creates a potential weak spot. However the valve is also the only part of the inner tube that's 'connected' to the rim and therefore it can be torn off if the tire spins.

This is why rim lock is used to prevent this from happening or at least minimise the chance of it happening. Another common error some riders (and tire fitters) make is to tighten the valve stem's bottom nut right down onto the rim. Leaving it slightly loose will allow the inner tube to move around as the tire builds heat and it'll mean that if the tire spins on the rim, it won't always tear the valve.

Valve Stem Type Reference

Valve	Description
TR-4	Straight metal stem (8 mm diameter) IRC & Dunlop
TR-6	Straight metal stem (8 mm diameter)
TR-13	Straight rubber stem (11.5 mm diameter)
TR-15	Straight rubber stem (16 mm diameter)
PV 78-Tall	90 degree bent metal stem
TR-87 Short	90 degree bent metal stem (10 mm diameter)
TR-87C Tall	90 degree bent metal stem (10 mm diameter)

The TR4 and TR6 are probably the most common.

Take a look at your rim to see what type of valve you have and also factor in whether your valve is centred or off-set. Bikes like Harley-Davidsons tend to run off-set valves, which locates the valve

TR-6 Offset TR-13 Offset TR-13 Stem TR-6 Stem

away from the centre of the rim. If you buy a straight-valved inner tube it won't work with an offset valve (if you can get the valve to poke through the rim, then it'll be severely stretched and will fail). You'll see an inner tube marked up as TR-15 OC or Offset if it's an offset type.

You can also get valves that has a 90-degree angle in the valve stem. The TR-87 for example is an inner tube with a 90-degree valve. Some riders prefer these as it makes it easier to adjust pressures.

Economy Motorcycle Inner Tubes

If you're looking to save money, you might be after cheap motorcycle inner tubes. There are loads of options available on sites like eBay but just one word of caution. Motorcycle inner tubes aren't that expensive to buy a well known brand. The role of the tube is to keep air in your tire and if your tube fails (especially the front) you are at risk of losing control of the bike.

What valve stem size should I buy for my tubeless tire?

There two types of valve stem: 10 mm and 8 mm. The former actually fits an 11.3 mm hole and is actually the most common one. This kind of valve stem size is used by Harley-Davidson and Japanese tire manufacturers. The latter is smaller and fits an 8.3mm opening is used by Buells, aftermarket wheels, and in some BMWs.

Beware OEM tubes

Manufacturers like to save money where they can and supplying your bike with thin inner tubes not only saves money but they also save weight. There's up to 1kg between the thinnest and thickest tubes and it's unsprung weight so it counts for a lot. So swap out your OEM tubes if you are going off-road, as they are likely to give you more grief than they are worth.

Baby powder

If you're fitting your own inner tubes, sprinkle a bit of baby powder on the inside of the tire before fitting the tube. This will reduce friction between the inner tube and the tire, to help it last longer.

Thickness and weight

It goes without saying that the thicker inner tubes weight more than the thinner ones and this unsprung weight adds to the weight of the wheel. The less weight, the easier a bike is to turn.

Taking a 110/90/19 as an example, a regular inner tube that's 1.5mm thick weighs around 1.2kg, while a heavy duty (3mm thick) tube weighs around 1.7kg and an ultra-heavy-duty tube (5mm thick) weighs around 2.0kg.

Prevent repeat punctures

Your puncture is most likely going to be self-inflicted, either a snake-bite or pinch flat, which are generally caused when you're running the inner tube at low pressures. However an object can also pierce through the tire and the inner tube causing a puncture. If you have to change it out on the road, it can be a stressful experience but don't forget to check the inside of the tire by running your fingers around it and visually inspecting it from both the inside and out to remove any object that might have caused the flat in the first place. The last thing you want to do is fix the issue, get going and then get another puncture. It happens!

Heat and flats

Running your inner tubes at lower pressures when off-road will increase tire traction. However, low pressures lead to increased chances of a pinch flat. You might have found that your tire pressure increases as you get heat into the tire and therefore you start off with even lower pressures to compensate; which again leads to flats. So if you want to avoid this, use nitrogen in your tires as it doesn't have the water content of air and therefore won't expand as much when hot.

What's the thickest motorcycle inner tube?

Ultra heavy-duty motorcycle inner tubes are 3mm thick and upwards, depending on the manufacturer. The thickest motorcycle inner tube your average retail store stocks is the Michelin ultra-heavy duty motorcycle inner tubes which are 4mm thick.

Do you need rim tape?

You need to use rim tape on all spoked rims where an inner tube is being used. The rim tape covers the spoke head on the inside on the rim this is to protect the inner tube from rubbing on the possibly sharp spoke head and puncturing it.

If I only carry one tube as a spare, what should I carry?

If you only have room for one spare, then take a larger diameter tube (i.e. one for the front wheel) as this will also work for the front wheel. When a larger diameter tube is used in a smaller diameter rim, it will bunch up but ultimately still inflate properly – just be careful not to pinch the excess rubber with the tire levers. However if you try and stretch a smaller diameter inner tube (say an 18″ rear to a 21″ front) then you're far more likely to damage the inner tube resulting in a failure.

Can I tell if my tire has spun on the rim?

There are two common ways you'll be able to tell if your tire has spun on the rim. The first is that you'll have a flat tire and the inner tube will have a hole in it where the valve joins it. The second way you'll be able to tell is that the tire valve is sitting at a different angle on the rim to which it was installed. If your valve is more than 30-degrees off upright, the chances are that your inner tube has spun on the rim and you'll need to sort this out or it'll puncture.

Can you convert a tubed rim to tubeless?

Yes you can but it's not advisable and it requires a lot of work and craftsmanship. If you want to run tubeless tires on your spoked, rim, it can be done but you should know that if you run your tires at pressures under 20psi (for off-roading), a tubeless sidewall will flex to the point that the tire may break its seal with the rim causing instant deflation. It really isn't worth it but if you've got the time and the inclination then check out YouTube videos.

How long do motorcycle inner tubes last?

Dunlop recommend you change your inner tubes every 6 months and while that'll reduce the chances of you getting a flat, due to the inner tube perishing, I think think that's a bit overboard. There is always a risk that you'll puncture your own tube when changing it (it happens!) so changing it this frequently seems counter-productive. To know when to replace your inner tube, look for signs of aging, any areas that have rubbed and worn, any signs of the rubber perishing or becoming tacky.

When you replace your tires, I always recommend you also replace the inner tube. You can keep your old one as a spare but for the sake of a few dollars for a new spare tube, is it worth trying to eke out every last mile from the tube? Probably not.

Can you patch a motorcycle inner tube?

You can but it's more hassle to get a tube out and repair it than it is to replace it with a new tube. Also when repairing a tube, you have another weak spot that could fail. I always recommend to change the tube if you get a puncture and when you change your tires, again it's worth fitting a new tube as a tube that perishes will cause you more grief than the few dollars additional cost of a new inner tube.

What is rim lock?

A rim lock is installed on MX, Trials and Enduro bikes. It is used to lock the tyre to the rim (which is normally run at very low pressure off road) and stop tyre slip. You should use a rim lock with Inner Tubes and Mousses on these sort of bikes. It's is also helps keep the tyre on the rim if you get a puncture. If riding above 40mph on the streets you may want to consider removing rim locks as they add a significant amount of weight offset to a tire and can cause the bike to wobble at higher speeds.

When should I replace my motorcycle tires?

Here's a quick run-down of the instances when motorcycle tires must be changed:

- ☑ Tires which are broken around the circumference, often due to fluorescent or UV contact
- ☑ Tire with scratches or cuts
- ☑ Tire with misplaced tread blocks
- ☑ Tire with a hole bigger than 0.25 inches
- ☑ Tire that is making sound or showing a choppy drive; some front tire cupping is ordinary, but a damaged tire might show severe feathering
- ☑ Tire that is feathered or cupped
- ☑ Tire that is dilapidated (2/32 of an inch or less of tread in any area)
- ☑ Tire that has cross section significantly transformed (due to bumpy wear)
- ☑ Tire that has been run with exceptionally low compression (impairment is typically seen as a circumferential ring that looks "scrubbed")
- ☑ Tire more than 10 years old
- ☑ Tire exhibiting treadwear gauges
- ☑ Sidewall perforation
- ☑ Damage that can't be fixed

Tips to improve Motorcycle Tire Life

To extend the life expectancy of your motorcycle tires, follow these simple yet proven and tested tips to extend the life expectancy of your beloved tires.

1. **Avoid overloading** — Like most vehicles, the motorcycle should only be loaded to the bounds set by its producer. If the motorbike is overloaded, the pointless wear and tear occurs. This greatly reduces the tire life cycle and makes it useless within a short period of usage.

2. **Always remember to load at Correct Positions** — Take note of the ceiling weight discussed above. Make sure that you observe the same to preserve the condition of your motorcycle.

   The additional load should not be placed at either rear or front side as this will cause the unwarranted heating of tire and eventually causes tire catastrophe. The tire life is greatly reduced due to incorrect assignment of additional load.

2. **Avoid over inflation of tires** — There is a fallacy in the minds of the public that extra weight in the tires also permits the adding of extra weight on the bike.

   The truth is that added blow up of the tires do not get additional capacity to bear extra load and neither do they become sturdier. Ultimately, the additional inflation and load makes the tire inoperable.

Shinko 705 vs Kenda 761 vs Shinko 244 Other Rider Notes:

[NOTE: I have seen photographs with some bike owners with Kenda 761 installed backwards with the rotational direction wrong, they disperse water as they spin in the drive direction so when you install them backwards you back up the water flow and stop it which would lead to hydroplaning problems]

I've be through several sets of 761s and one back 705. Both are fine for dirt roads and moderate dry trials. I went back to the Kendas after trying the Shinkos because I get better mileage with them and they're cheaper! I've run the 244s but went back to the 761s because for me i didn't gain off-road performance and they wore out faster. The 244's do feel better than Kenda 270s. The Kendas have a squirmy feel that some people never adjust to. Don't worry about riding fast with more aggressive tires. Even something like Dunlop 606s are fine at speed, noisy but secure. Seriously unless you're scraping pegs you can ride them like a pure street tire, you'll chew through them fast on the street though.

Kenda 761 is a harder compound so will get the most mileage wear over the Shinko 705 but at a cost of worse wet road performance.

Very happy with them for long wear and price. There is a bit of vibration in the front from cupping that developed after extended wear, but at 12k miles I'm not complaining. Have another set [K761's] in the garage waiting to go on.

I have not had any trouble keeping these tires in balance as they wear [K761's]. The rear has no weight on it now and the front has a small weight that has not moved much as the tire wore, this tells me that the carcass has stayed stable as the tires wear.

I'm on my 3rd set [K761] on my KLR. The front does tend to cup compared to others however I simply flipped the tire at 5-6K. Wears well till its done at 10-12K miles.

I am on my third set [K761's]. My thoughts are, the front needs at least 32 PSI or it will cup badly witin 7000 miles. On my bike, the cupping got so bad that the tires will howl and vibrate a bit at highway speed if under 32 PSI. Above that the howling is gone, but they still vibrate due to cupping (you can really feel it bumpity bump when walking the bike around in the garage). Lesson learned to check tire pressure every week as I had one front go 10k before it started to cup.

In the dry, roads, dirt, gravel, trails, rocks, etc they do fine. They suck in the mud, period, like riding on ice.

On the road, they handle well and are easy to turn in, hold a line and give a nice ride. In the rain they will give a bit and slide a bit over painted lines, manhole covers etc. Once you know this and adjust your riding style you can ride in the rain with them just fine, carefully but fine.

They will work fine [K761's]. I've done a fair amount of mud with them. So long as you air down, maintain a slow pace and manage the throttle you will get by.

On road and hard pack, if you keep the pressures at 32 psi you will easily get 10 -12k out of a set if not more.

ChatGPT take on longer wearing rubber tire compounds (more silica; I consider AI the least trustworthy):

The Kenda K761 does indeed use a longer-wearing rubber compound compared to some other tires, and it typically contains silica for enhanced wet weather performance. Silica is often added to tire compounds to improve grip on wet surfaces by enhancing traction and reducing stopping distances.

However, the presence of a longer-wearing rubber compound doesn't necessarily mean reduced wet pavement performance. In fact, the addition of silica can enhance wet weather performance despite the tire's longevity. Silica improves the tire's ability to maintain grip on wet surfaces by increasing its flexibility and enhancing traction.

When comparing wet pavement performance between the Kenda K761 and the Shinko 705, both tires are designed to offer decent traction in wet conditions. The Kenda K761's silica-infused compound should provide good grip on wet pavement, while the Shinko 705's tread design and compound also contribute to its wet weather performance.

Overall, the differences in wet pavement performance between these tires are likely to be minimal, and factors such as tread design, tire pressure, and riding style can have a significant impact. Therefore, while the longer-wearing rubber compound in the Kenda K761 may contribute to its durability, it should not significantly compromise its wet pavement performance compared to the Shinko 705.

ChatGPT take on both the Shinko 705 and Kenda K761 (I consider AI the least trustworthy):

Both the Shinko 705 and the Kenda K761 are popular choices for dual sport riders seeking tires with a bias towards road performance while still offering some capability for off-road riding. Let's compare them in various aspects:

1. ***Tread Design:***
   Shinko 705: The Shinko 705 features a more aggressive tread pattern with larger blocks compared to the Kenda K761. It has deeper grooves and a design that leans slightly more towards off-road performance while still maintaining good road manners.
   Kenda K761: The Kenda K761 has a tread pattern that's more optimized for road use, with smaller blocks and shallower grooves. It provides better traction on pavement while still offering some capability for light off-road riding.
2. ***Wet Pavement Performance:***
   Both tires offer decent performance on wet pavement due to their tread designs and rubber compounds. However, the Kenda K761's more road-oriented tread pattern may provide slightly better grip and water dispersion, leading to enhanced wet weather performance.
3. ***Durability and Longevity:***
   Both tires are known for their durability, but the Shinko 705, with its more aggressive tread pattern, might wear out a bit faster compared to the Kenda K761, especially if used predominantly on pavement.
4. ***On-Road Performance:***
   The Kenda K761 generally offers better on-road performance, including cornering stability, braking performance, and overall handling due to its more road-oriented design.
   The Shinko 705, while still providing good on-road performance, may not feel as planted or stable on pavement compared to the Kenda K761, particularly during aggressive cornering.
5. ***Off-Road Capability:***
   While both tires are more suited to on-road riding, the Shinko 705's slightly more aggressive tread pattern and larger blocks give it a slight edge in off-road capability compared to the Kenda K761. However, neither tire is ideal for serious off-road riding.
6. ***Price:***
   Generally, the Shinko 705 tends to be slightly more affordable compared to the Kenda K761, but prices can vary depending on the size and retailer.

In conclusion, both the Shinko 705 and the Kenda K761 are solid options for riders seeking a balance between on-road and off-road performance, with the Kenda K761 leaning more towards road performance and the Shinko 705 offering a slightly more aggressive tread for off-road adventures. Your choice between them would depend on your priorities, budget, and the specific riding conditions you encounter most frequently.

TIRES FOR PRIMARY USE ON STREET
FRONT TIRES 21" [KENDA K761 & SHINKO 705]

Kenda 21" Tire	70% On-Road 30% Off-Road

US PART #	Wheel	Size	TT/TL	Loading Speed Index	O.D. (IN)	S.W. (IN)	Max Loading (LBS)	Max PSI	Tread Depth (mm)	List Price
047612108B1	FRONT	90/90-21	TL	54H	27	3	467	33	7.5	$90.99
Shinko 21" Tire	70% On-Road 30% Off-Road									
Part #	Size	Special Description	Speed Rating	Load Index	Permitted Rim Size	Outside Diameter	Width	Max Load @	Tube Type	List Price
87-4528	90/90-21		H	54	1.85~2.50	26.26 in.	3.54 in.	41 psi	Tubeless	$91.95
TIRES FOR PRIMARY USE ON STREET										
REAR TIRES 18" [KENDA K761 & SHINKO 705]										
Kenda 21" Tire	70% On-Road 30% Off-Road									
US PART #	Wheel	Size	TT/TL	Loading Speed Index	O.D. (IN)	S.W. (IN)	Max Loading (LBS)	Max PSI	Tread Depth (mm)	List Price
047611879B1	REAR	120/80-18	TL	62H	25	4	584	33	9.5	$110.99
Shinko 18" Tire	70% On-Road 30% Off-Road									
Part #	Size	Special Description	Speed Rating	Load Index	Permitted Rim Size	Outside Diameter	Width	Max Load @	Tube Type	List Price
87-4525	4.10-18		P	59	1.85~2.50	25.16 in.	4.09 in.	33 psi	Tube	$103.95
87-4526	120/80-18		H	62	2.50~3.00	25.55 in.	4.69 in.	41 psi	Tube	$112.95

705 SERIES DUAL SPORT

The Shinko 705 has a versatile tread pattern that provides excellent wet and dry weather adhesion and smooth running on the highway.

- All-round rubber compound for a wide spectrum of weather and street/terrain conditions
- Designed as a 70% On-Road 30% Off-Road tire
- Great traction, even Off-Road, thanks to the dirt-oriented tread design
- DOT approved
- 150/70R18 rear tires features state-of-the-art Zero Degree JLSB (Joint-Less Steel Belting) technology for added stability and strength
- M+S = Mud and Snow Rated

Hover over the image to zoom

K761 Dual Sport | K761

Technical Specifications

Leaning more towards street riding than trail riding? The K761 Dual Sport is the tire for you.

- 30% dirt / 70% road
- Chunky, aggressive design for street-oriented dual-sports
- Original equipment tires on models from several major manufacturers
- Gravel and fire road performance while maintaining excellent street manners
- Long tread life for one of the best value motorcycle tires on the market
- Available in 29 popular sizes for fitment on multiple motorcycle categories

Terrain Charts

MOTORCYCLE — DUAL-SPORT

Example Combo Prices in the beginning of year 2024 (Motosport.com used for an example):

Kit

Kenda

Kenda K761 Dual Sport Tire Combo

$131.00 ~~$188.98~~

31% Off - Save $57.98

3 Reviews

4 Questions

Price reflects selected options

4 interest-free payments of $32.75 with **Klarna.** Learn More

Front Tire Usually ships in 2-5 business days.

90/90-21

Rear Tire Usually ships in 2-5 business days.

120/80-18

This will ship when all items are in stock.

Quantity

1

Kit

Shinko

$10 Earn $10 Fast Cash

Shinko Dual Sport 705 Tire Combo

$172.00 ~~$203.98~~

16% Off - Save $31.98

93 Reviews

85 Questions

Price reflects selected options

4 interest-free payments of $43.00 with **Klarna.** Learn More

Front Tire In Stock

90/90-21TL - Add $2.00

Rear Tire In Stock

120/80-18TT - Add $8.00

In Stock

Quantity

1

Rim Strips and Inner Tubes:

Always get new rim strips when changing out to new tires!

For inner tubes rubber does stretch, you can get within 10mm under and it will stretch on inflation if you cannot find an exact size match.
For street use standard inner tubes are recommended. These are about 1.4 to 1.6 milimeters in thickeness. You don't need the HD or UHD
or thicker inner tubes. Keep in mind thicker inner tubes weigh more and takes more energy from the motor to get them spinning up to speed.
If you are primarily riding off road then consider the inner tubes with a thickness above standard inner tubes.

Inner tubes if perfect size:

	90/90-21
	120/80-18

If not perfect size is available look for:

80/100-21 or 90/100-21 90/90-21 for the front tire due to rubber stretching the difference.

and

110-120 for the rear in either 90/100 aspect ratio etc and 18 diameter

For the price of one heavy duty or ultra heavy duty inner tube you can typically buy 2 standard thickness inner tubes. That way you can always have a spare tube for any time you need it if you ever get a flat involving the inner tube. The recommendation is to have two front inner tubes and use the spare 21" front inner tube in an emergency on the 18" rear wheel if needed if you don't wish to purchase a second rear wheel inner tube.