Ask The Michelin Man

Regrooving MICHELIN tyres is a very profitable investment

Regrooving is a manual operation which makes it possible to deepen the tread pattern of a tyre with 2 to 4mm of tread remaining, therefore:

- prolonging the life of the tyre by up to 25%
- improving grip and therefore safety with deeper tread pattern and sharp edges
- enjoy driving while consuming less fuel

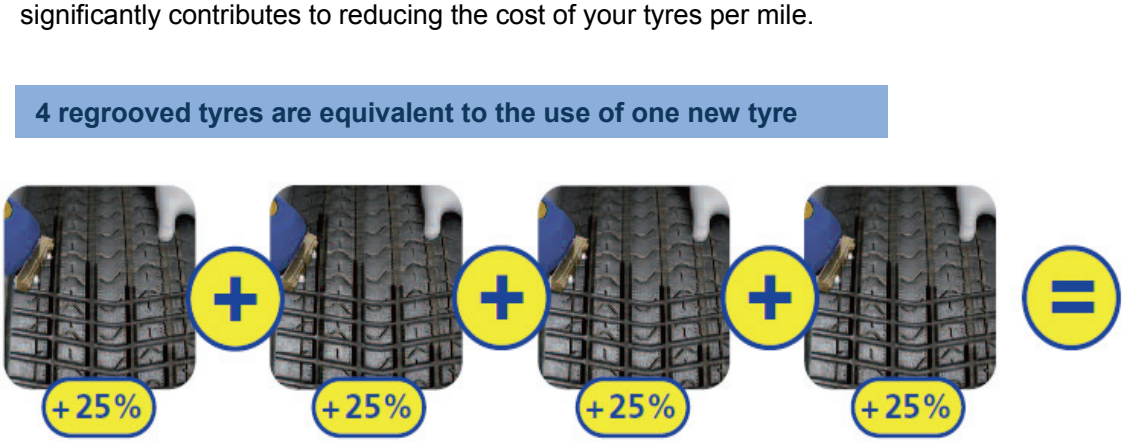
Michelin has designed its tyres with a rubber layer which is thick and even, to allow regrooving, for both new tyres and MICHELIN Remix **without altering the strength or safety of the product.**

Economic advantages

1) Tyre budget

By increasing mileage potential on MICHELIN tyres by up to 25 %, regrooving significantly contributes to reducing the cost of your tyres per mile.

4 regrooved tyres are equivalent to the use of one new tyre



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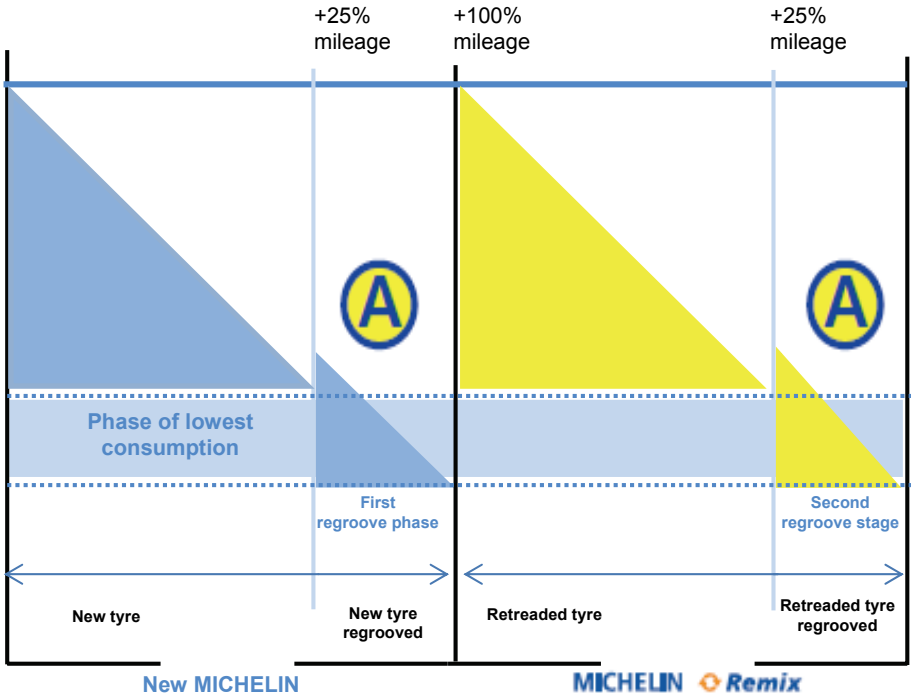
2) Fuel budget



The rolling resistance of the tyre decreases as the rubber wears.

The 25% extra mileage potential gained through regrooving therefore takes place when the tyre is in it's most fuel efficient (A) e.

Significant fuel savings can be achieved

A comparison between two vehicles, one with new tyres, the other with regrooved tyres, reveals a difference in fuel consumption of around 2 litres/100 km*.

So, in practice, based on the entire period of driving on regrooved tyres, savings average out at around 1.5 litre/100 km (for classic 6-axle vehicle combinations)

* 1.94 litre/100 km officially recorded during a comparative test conducted in June 2007.

Example for a 5 axle (tractor/trailer) combination

Annual mileage: 120,000 km
Percentage of regrooved tyres used: 25%
With an average 1.5 litre/100 km reduction in fuel consumption thanks to regrooving

In other words, a saving of approximately 450 litres of diesel per vehicle per year

Enhanced safety

Regrooving increases the depth of the tyre tread and sharpens tread block edges, thereby improving wet grip. On wet road surfaces, regrooved MICHELIN tyres have a transverse grip and mobility which is approximately 10% greater when compared to un-regrooved tyres with the same remaining tread depth*.

*Internal Michelin source – test conducted on polished concretes

Environmental benefits

Regrooving represents a major contribution to the environment.

Lower CO_2 emissions

In the example above, regrooving makes it possible to save 450 litres of fuel which represents a reduction in CO_2 emissions of up to 1.2 tonnes per vehicle combination per year.

Fewer raw materials

Four regrooved tyres represents one less manufactured tyre.

Less waste

Four regrooved tyres represent a reduction of one scrap tyre casing.

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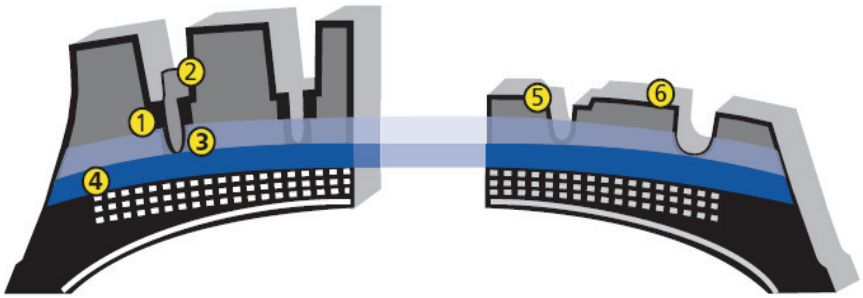
MICHELIN truck tyres are designed to be regrooved



Original profile

1. Base of tread pattern
2. Tread wear indicator
3. **Regrooving depth indicator (RDI)**
   Rubber to be retained
4.
5. **Tread before regrooving**
6. **Profile at the point of regrooving**

Thickness of rubber to be regrooved

Thickness of rubber to be retained: 2 mm

Regroovable MICHELIN tyres are marked REGROOVABLE or have the symbol on the sidewall.

When should I regroove?

Regroove when there is still 2 to 4 mm of remaining tread pattern, as this makes it possible to:
- Easily reproduce the new tread
- maintain an even regrooving depth whilst retaining at least 2 mm of rubber above the crown plies

Be careful though, because if regrooving is too deep and exposes the reinforcing structure of the tyre, it may cause damage:
-oxidization of the casing with premature internal degradation of the tyre.
- to visible plies which render the tyre non-compliant with the local legislation

When carried out in the correct manner, regrooving has no affect on a tyres acceptance for retreading

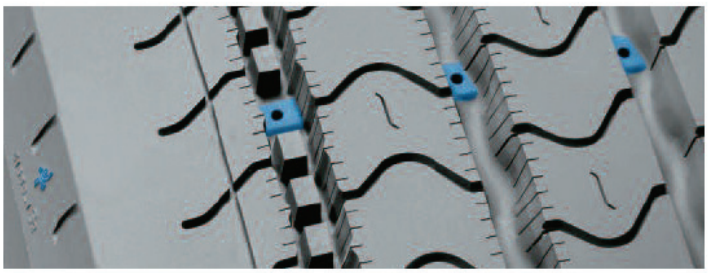
The acceptance rate of regrooved MICHELIN casings submitted for retreading is identical to that of non-regrooved MICHELIN casings***.

*** Michelin study conducted on 1 million tyres returned for MICHELIN Remix retreading in 2008 and 2009. The difference in acceptance rate was less than 0.2%.

Regrooving must not take place when the tread shows excessive damage: holes, scratches, cuts, tears, etc. In this case there is a risk of oxidization of the metallic plies: this kind of damage can lead to accelerated deterioration of the tyre in service. The tyre must be assessed by a competent operative to ensure that it is suitable for further service.

When should I regroove?

A MICHELIN tyre should only be regrooved by following the regrooving instructions supplied by Michelin.



Most MICHELIN tyres have a regroove depth Indicator (RDI) located on the wear indicator to facilitate adjustment of the blade height as accurately as possible.

The blade can also be adjusted for depth using a special gauge. Only use type rounded blades.

The diagram provided shows the new tread design, depth, width of regrooving and the type of blade to use (see example below).

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Regrooving depth	Regrooving width	Blade
3mm	Approx. 6 to 8mm	R3

We recommend assessing the most worn area of the tread to determine the appropriate depth for the regrooving blade. Regrooving diagrams are available in our technical brochures.

For more details, please contact your local Michelin representative or send us a question via: www.michelintransport.com and click on "Your contacts".

Legal requirement

Please refer to the Road Vehicles (Construction and Use) Regulations 1986 with amendments Regulation 24 part 3. For the Republic of Ireland please refer to Road Traffic (Construction and Use of Vehicles) Regulations 2003.

For more information, please consult the Michelin truck tyre Regroove Brochure Edition 11 or contact your local Michelin representative.

In summary

- Regrooving generates significant advantages for hauliers: **increased savings** (up to + 25% increased mileage potential, fuel savings of up to 2 litres/100 km***), **enhanced safety** (improved grip), **all whilst caring for the environment.**
- MICHELIN truck tyres are specifically designed to be regrooved.
- Regrooving must be carried out by a qualified operative.
- Regrooving is supported by the BTMA and legislation in the UK and Republic of Ireland

*** 1.94 litre /100km found in comparative test in June 2007

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