

## 5 Tyre positioning and handling

When replacing car tyres the ideal situation would be to replace all four tyres together. However as vehicles wear their front and rear tyres at different rates, this may not always be done. In this case, Michelin's recommendation is to fit new tyres to the rear and move the worn rear tyres to the front.

### WHY FIT NEW TYRES TO THE REAR?

Primarily to ensure that vehicle stability is maintained in difficult driving conditions such as hard braking or cornering. This is especially critical on wet or slippery roads. This could provide additional protection against sudden deflation in the rear tyres which could cause a loss of vehicle control. Most modern vehicles being front wheel drive, the front tyres wear faster than the rears. The driver is therefore used to having less grip at the front as the tyres wear towards replacement. By fitting new tyres to the rear and repositioning the more worn tyres on the front axle, the condition the driver has become used to is retained after the tyre change.

### 4 WHEEL DRIVE VEHICLES

Michelin strongly recommends that tyres are used in identical sets of four (same size, make, pattern, load index/speed symbol) on 4x4 vehicles. An exception is where the vehicle was originally fitted with different tyre sizes front to rear. The vehicle manufacturer's recommendations should also be followed.

#### DO NOT FORGET:

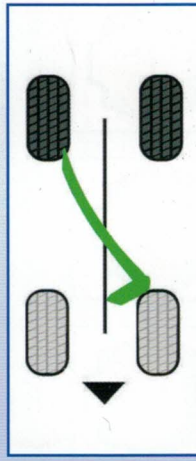
- If all four tyres are quite worn, consider replacing the full set.
- When moving tyres from one axle to another, pressures should be adjusted to suit the new positions.
- This advice applies to both front and rear wheel drive cars.
- In the case of different front and rear tyre sizes the advice about moving tyres from one axle to another cannot be applied. However having the least worn tyres on the rear will still produce more stable handling characteristics in slippery conditions.

#### New tyres fitted to the front



The vehicle's handling characteristics will change and the driver could be taken by surprise. Where previously there could have been a tendency to understeer\*, the initial loss of grip could be on the rear axle leading to oversteer\*\* which may be more difficult to control especially on slippery roads.

#### New tyres fitted to the rear



The handling characteristics will be similar to those to which the driver is accustomed. There will be maximum grip on the rear axle meaning that if the car does slide it will have a tendency to understeer\* – a safer and more stable condition than oversteer\*\*.

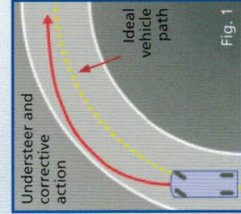


Fig. 1

#### \*UNDERSTEER

The front tyres lose grip before the rears, which is relatively easy to correct.

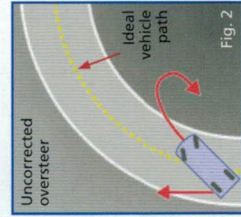


Fig. 2

#### \*\*OVERSTEER

The rear tyres lose grip before the fronts, leading to a possible spin.