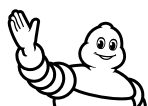


# ***MICHELIN RETREAD, JUST LIKE NEW***



**MICHELIN**



**RETREAD**

trucks.michelin.com.au



 **MICHELIN**  **RETREAD**

## ***CONTENTS***

***04 WHY CHOOSE MICHELIN?***

***06 CHOOSE MICHELIN & RIDE AGAIN ON MICHELIN***

***08 CHOOSE MICHELIN MULTI LIFE***

***10 MICHELIN RETREAD, A PREMIUM PACKAGE INSIDE!***

***12 MICHELIN INDUSTRIAL PROCESS***

***14 MICHELIN QUALITY SYSTEM***

***16 RESPECT FOR THE ENVIRONMENT***

***17 BENEFITS OF MICHELIN RETREAD***

***18 KNOW YOUR MICHELIN RETREAD***

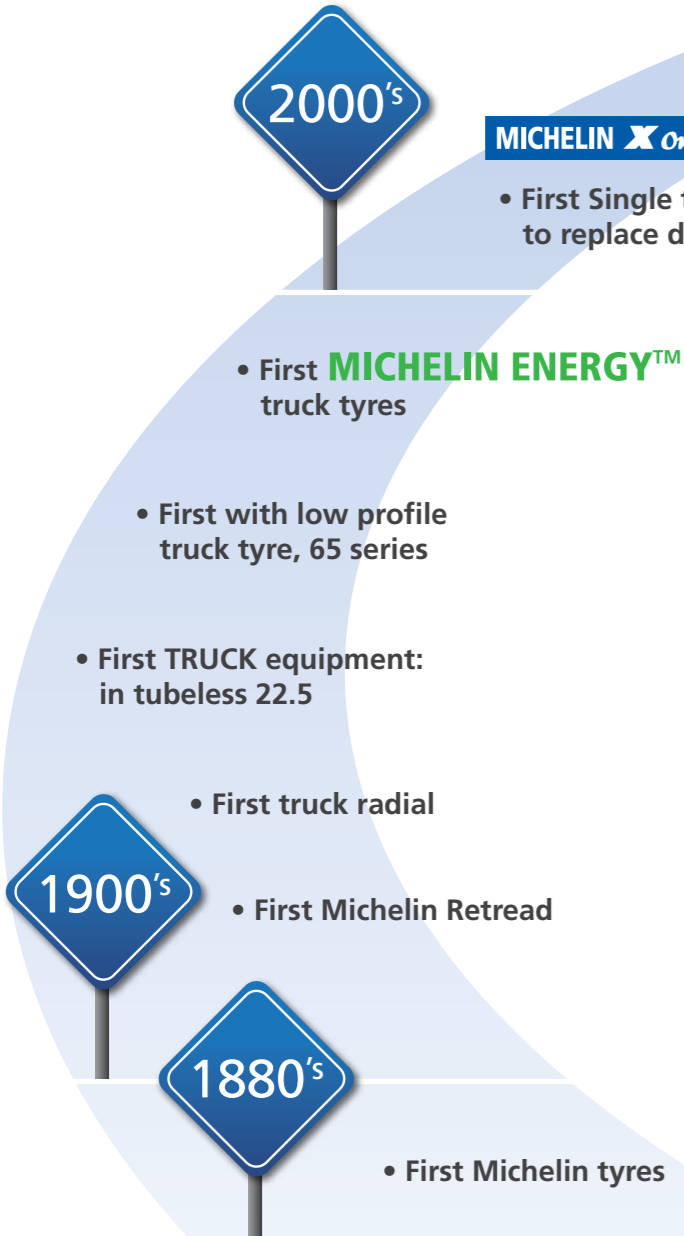
***20 WHY WOULDN'T YOU RUN MICHELIN RETREADS?***

***22 MICHELIN RETREAD WARRANTY***

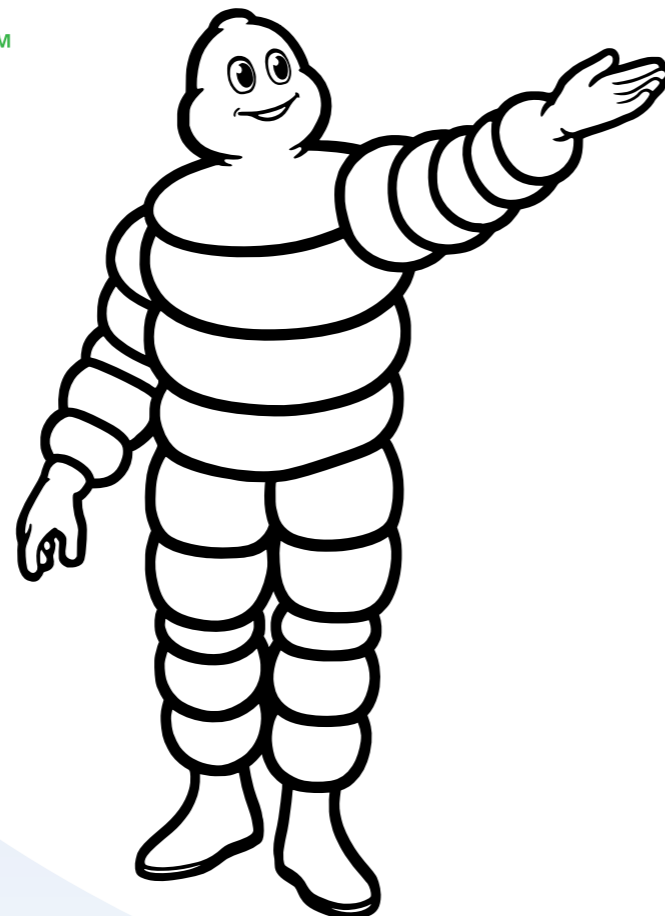
***23 RECAMIC FACTORIES***

## OVER 120 YEARS OF TRUCK TYRE INNOVATION TO IMPROVE YOUR BOTTOM LINE!

**MICHELIN**  
Durable Technologies



**MICHELIN X One**



**REGENION**  
Self-regenerating tread blocks, supported by our mold 3D metal printing techniques, providing solid grip throughout tyre's lifetime and conditions.

**POWERCOIL**  
A new generation of more robust steel casing cables that makes them lighter with a better endurance and better rolling resistance.

**INFINICOIL**  
A continuous steel wire – which can be as long as 400 meters – wrapped around the tyre to provide it with greater stability throughout its lifetime. On top of benchmark endurance, tyres designed with INFINICOIL get you more mileage or enhanced fuel savings.



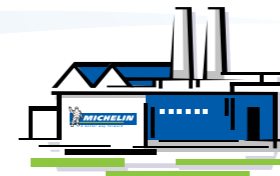
Michelin continues to be a leader in:

- SAFETY
- INNOVATION
- COST SAVING
- FUEL SAVING
- RELIABILITY





**MICHELIN RETREAD REFLECTS THE SAME QUALITY AS YOU EXPECT IN NEW MICHELIN TYRES.**



Michelin Retread

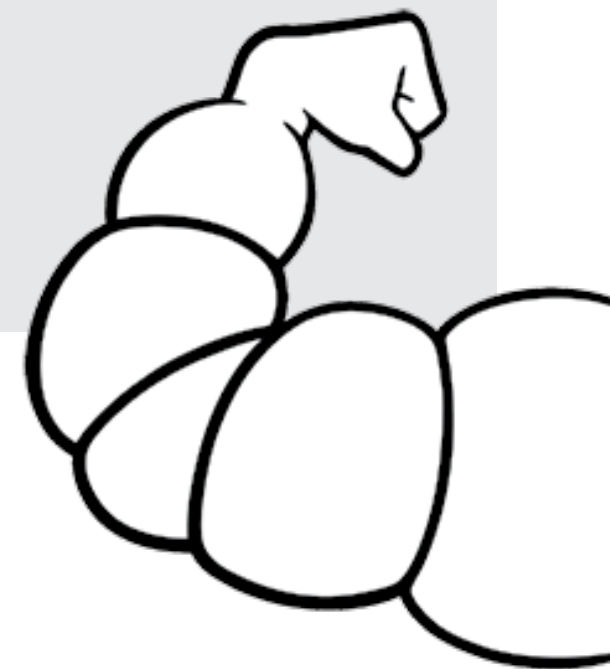


just Like New

In Michelin Accredited Retread Factories, we re-manufacture your used Michelin tyre to new Michelin tyre standards.

- By utilizing Michelin's new tyre technology, the latest tread designs, the same compounds as new tyres and manufacturing processes, we can produce a Michelin Retread that measures up to your original performance.
- The attributes that made you choose Michelin new tyres are available in a Michelin Retread:
  - Safety
  - Innovation
  - Quality
  - Reliability
  - Performance
  - Lowest cost of ownership
  - Technical support

**Why...**  
trust anyone else than Michelin for your retread?



# CHOOSE MICHELIN MULTI LIFE

TO GET THE LOWEST COST OF OWNERSHIP

## New Tyre Only (One Life)



New Tyre

Scenario 1

## One Regroove and One Michelin Retread



New Tyre  
One Regroove  
One Retread

Scenario 2

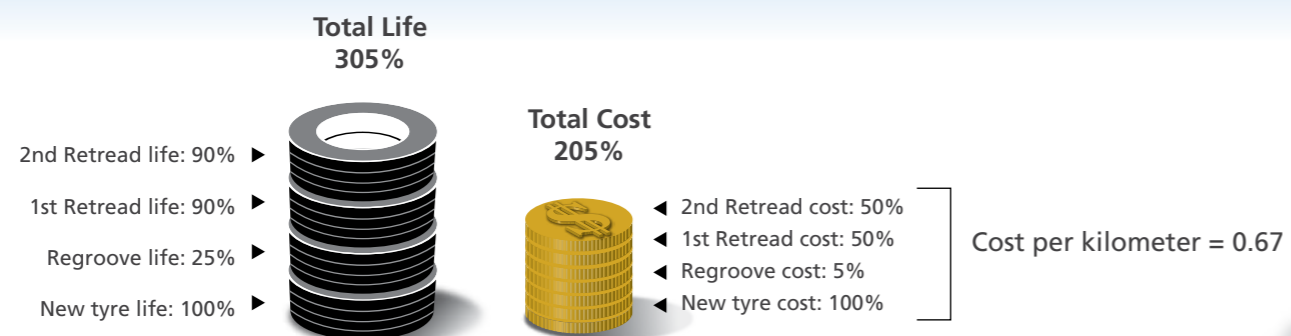
## Two Michelin Retreads



New Tyre  
1st Retread  
2nd Retread

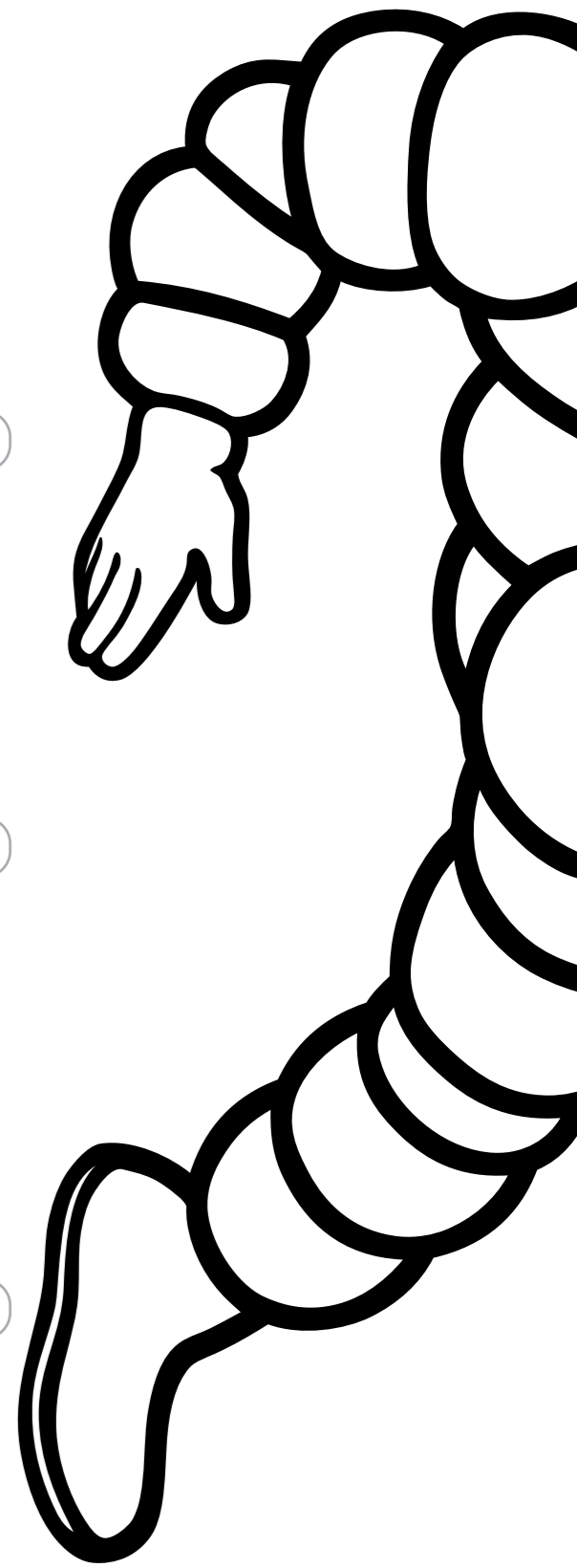
Scenario 3

## One Regroove and Two Michelin Retreads

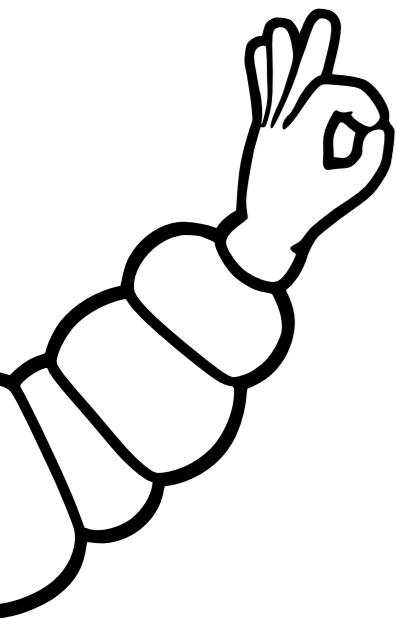


New Tyre  
One Regroove  
1st Retread  
2nd Retread

Scenario 4



\*The possibility of each scenario depends on your casing conditions. Consult your Michelin representative for more details.



Michelin tread\*



Michelin casing



Michelin label



\*When available.

## The Michelin casing, engineered for life...

- Bead protection plies.
- Robust casing ply.
- Airtight inner liner.
- Working plies constructed of high tensile steel cables.
- Fully elastic protector ply.
- Thick undertread.



## Fitted with a Michelin premium tread

- **Michelin new tyre compounds**
  - Innovative compound technology provides cool running, long lasting performance and lower rolling resistance.
  - Michelin tread, cushion and filling rubber compounds reduce temperature by more than 20% over competitor retread.
  - High percentage of natural rubber lowers rolling resistance and improves fuel economy.
- **Innovative Michelin tread designs**
  - Perfectly matched to your original Michelin casing.
  - Based on advanced Michelin new tyre patterns to deliver equivalent performance and increase driver acceptance.
- **MICHELIN Durable Technologies\***
  - Michelin pre-cured tread sipes with double wave to reduce uneven wear, extend life and increase grip.

\*depending on tread design.

## Combined with advanced technological resources

- Intensive casing inspection.
  - Full control of the continuity of the tread.
  - Thorough final inspection including Electronic Nail Hole Detector.
- See how it all comes together on [page 12 & 13](#) →

## Under Michelin Quality System control

- High level of consistency.
  - Unparalleled reliability.
  - Rigorous procedures.
  - Regular audit.
- Track the Michelin Quality System for yourself on [page 14 & 15](#) →

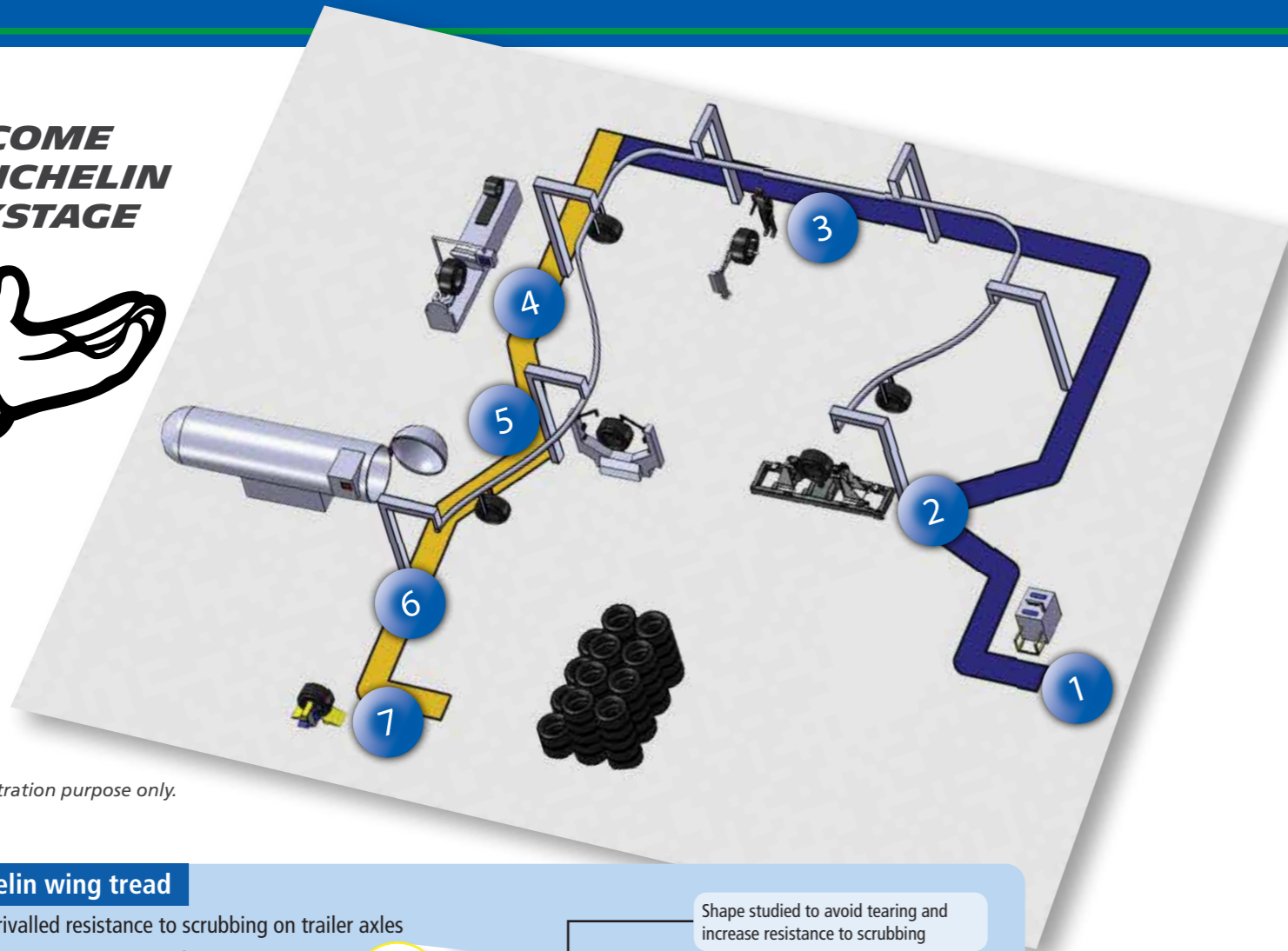
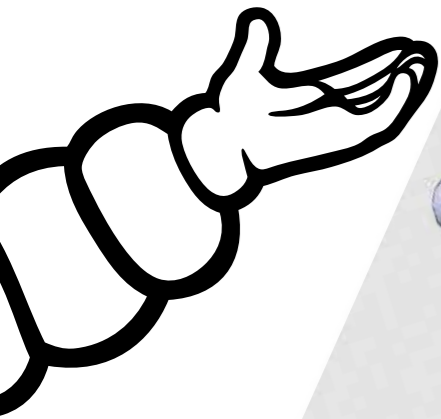
## Covered by the Michelin warranty\*

- Michelin Retread tyres are made to rigorous quality standards.
  - Every retread tyre manufactured by a Michelin Accredited Retread Factory is warranted.
- For further details, please contact your Michelin representative.

\*Conditions apply.



**WELCOME TO MICHELIN BACKSTAGE**



\*Factory illustration purpose only.



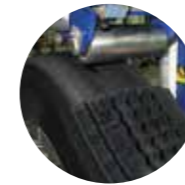
**1 Grazing Light Inspection**  
This technique conducted by Michelin trained technician detects subtle irregularities that may indicate internal damage.



**2 Undertread Control and Buffing**  
To build on the best foundation with computer controlled buffing system that delivers precise crown contours and consistent undertread thickness.



**3 Skiving And Repairs**  
Performed on Michelin designed station equipped with vacuum exhaust system, further reducing chances for contamination.

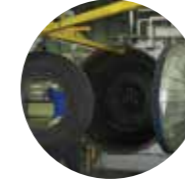


**4 Michelin Retread Pre-cured Building**

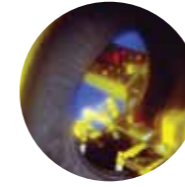
- Computer controlled machine allows for uniform application of the tread.
- Lasers are used to guide the tread ensuring true fitting to casing.
- Michelin manufactured and approved bonding materials.



**5 Enveloping**  
Factories use an inner and outer envelope system. These are vacuum sealed and tested prior to curing. This greatly reduces the chances of any air migration.



**6 Curing**  
Curing process utilising Michelin technology and specifications for concise control of time, temperature, vacuum and pressure.

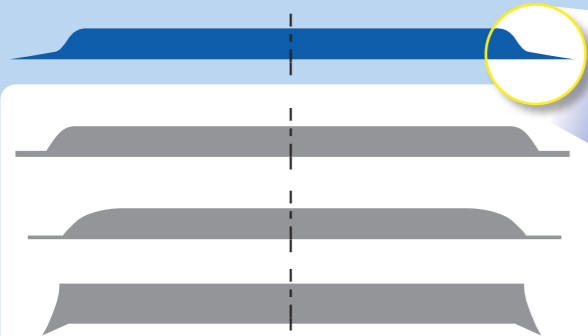


**7 Final Inspection**  
For each final product

- Visual inspection.
- Electronic Nail Hole detector: the sensitive electronic inspection system used at final inspection to ensure quality delivered.

## Michelin wing tread

An unrivalled resistance to scrubbing on trailer axles



Other wing tread profiles of our competitors

Shape studied to avoid tearing and increase resistance to scrubbing

Tapered thickness for optimal flexibility:

- perfectly matches the shape of the casing
- eliminates the risk of trapping air in the shoulder area

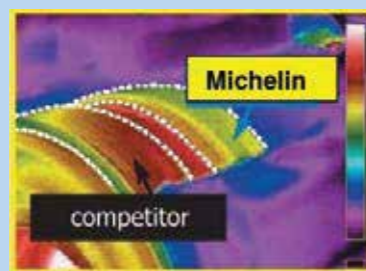
Greater wing tread length:

- resistance to scrubbing
- distribution of effort
- perfect final appearance

## Quality of compounds

Treads, cushion and filling rubber reduces overheating

View of a drive axle of a truck driving on the motorway, taken with an infrared heat sensitive camera



■ Michelin Retread ■ Competitor

Comparative overheating test carried out on Michelin casings and under crossed fitting conditions

The Michelin retread tyre, although mounted on the inside (and therefore less ventilated), heats up 20% less than the competitor's retread tyre.



**Quality of Commitment of Michelin Retread**  
**The "Quality" Spirit**

*Quality is not a standard,  
 Quality is a spirit, a philosophy.*

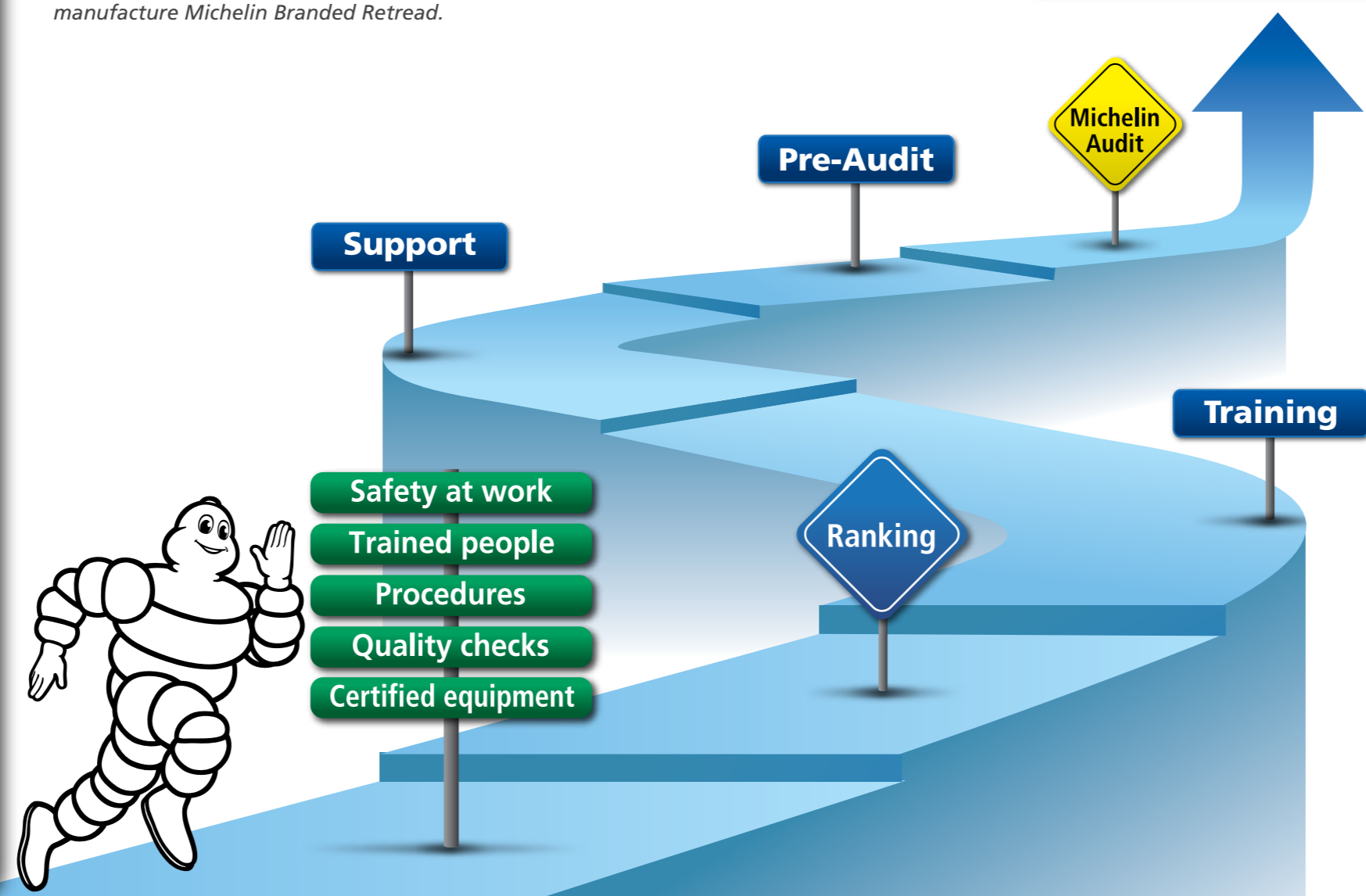
*Product or service quality does not exist in its own right, i.e. solely through its specifications, but is relative to the expectations of the customers.*

*Quality concerns firstly the essential features of the product or service: its nature and its price. It then extends to its environment such as logistics, training, ability to listen, etc.*

**The sole judge of quality is customer satisfaction**

**Michelin accreditation:**  
 Only Michelin Accredited Retread Factories are approved to manufacture Michelin Branded Retread.

**Factory accreditation by Michelin**



**Audit by Michelin**

- Review of quality manual & process applications.
- Check achievement of corrective action plan.
- Ensure control plans are observed.

**Pre-audit**

- Evaluation of the Quality System.
- Deploy corrective action if necessary.

**Support**

- Set up of Quality System on factory floor.
- Ensure understanding of Michelin Quality System with employees.

**Training**

- Supported by Michelin quality training.
- Training of factory management and staff.

**Safety at work**

- Immediate corrective action plans.
- Daily safety checks.
- OH & S compliance.

**Trained personnel**

- Validation of training by Michelin.
- Continuous training and personal development.

**Full compliance to Michelin process & procedures**

- All procedures documented & accessible at all posts.
- Full tracking of process per tyre from start to finish.

**Quality checks**

- Standardised questionnaire check each stage of the process.
- Global ranking of the factory and associated corrective action plan where identified.
- Monthly check by factory management and validated by Michelin.

**Equipment specified by Michelin**

- Standardised high technology equipment (PLC controlled machines) for more reliability.



# RESPECT FOR THE ENVIRONMENT

From the choice of raw materials to the recovery and re-use of end-of life tyres, every Michelin product and service is designed to leave as small as environmental footprint as possible at every stage in its lifecycle.

## Natural resources & environment

As part of this process, the Group is steadily reducing the rolling resistance of its tyres, in order to improve fuel efficiency and lower CO<sub>2</sub> emissions. At the same time, it is working to make the tyre lighter and longer-lasting, so as to optimize raw materials use, reduce driving noise and further improve grip to make driving safer.



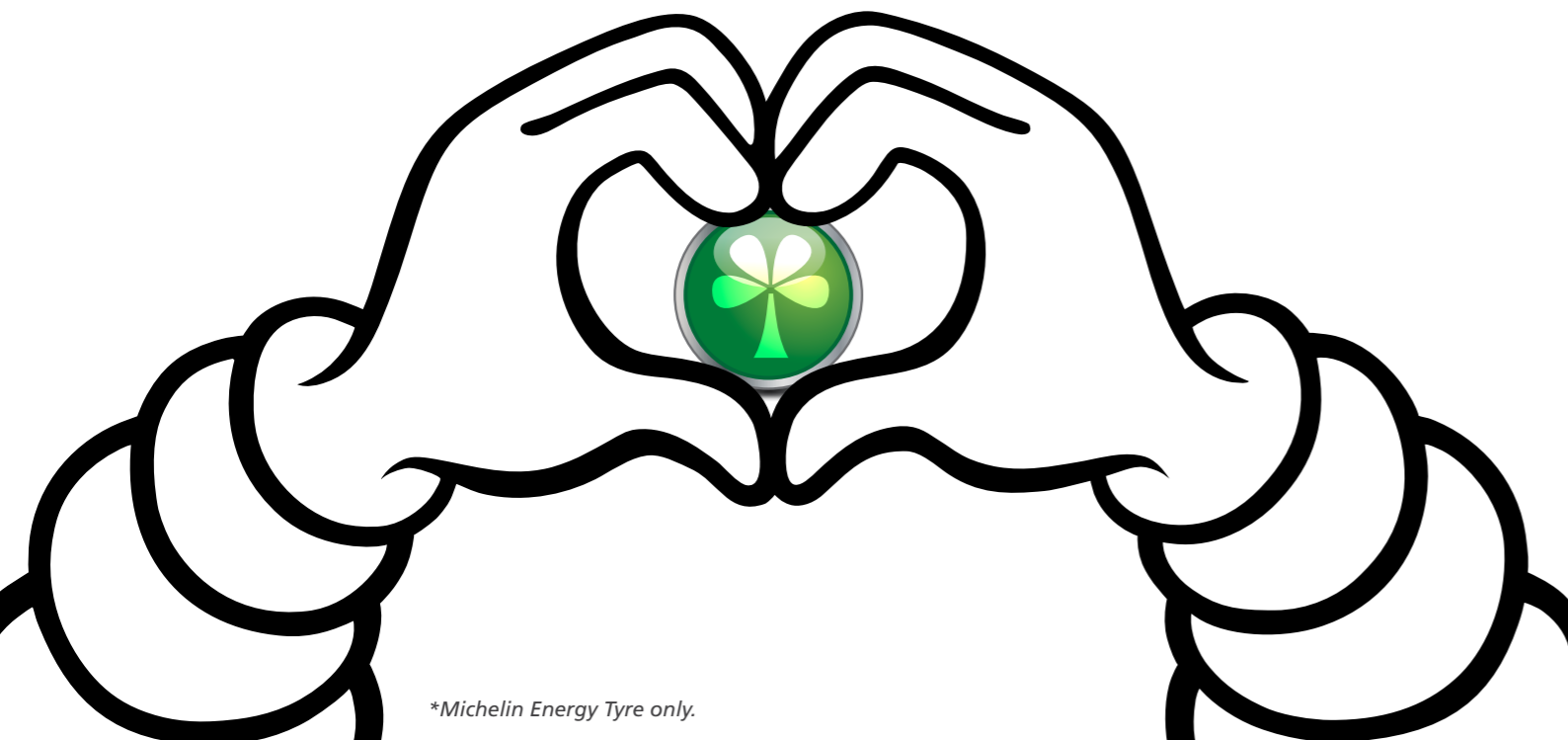
## Improving the tyre design process

From architecture and tread design to the choice of materials and production processes, Michelin designs environmental outcomes into every aspect of a tyre's development and is investing heavily in research programs, to find solutions to the challenges of tomorrow.



## How a Michelin Retread helps you to create a green planet?

- Up to 75% fewer raw materials used when comparing to that of producing a new tyre.
- Reduced CO<sub>2</sub> emissions released into the environment thanks to the lower rolling resistance of Michelin Treads.\*
- Fewer casings to dispose by re-using the casing for multiple lives less raw materials used.



\*Michelin Energy Tyre only.

# BENEFITS OF MICHELIN RETREAD

## BENEFIT OF MICHELIN RETREADS

Who choose Michelin Retreads? The choice is clear. With Michelin's advanced technology and quality control, they are simply the right choice. Our retreads are smart for your budget and you get the most from your tyre assets. They are environmentally friendly. After all, reusing tyre casings is good for your sustainability/green initiatives. And the Michelin Retread technologies process produces high-quality retreads that are consistent, audited and of course backed by Michelin.

Our Michelin Retread is Just Like New.

SMART FOR BUDGETS		
Maximise Your Assets		Retreading extends the life cycle of your tyre assets which reduces costs
Premium Quality Casing		Our casings are retreadable multiple times
Low Cost Per Kilometre / Cost Per Hour		Michelin tread quality helps provide more Cost Per Kilometre / Cost Per Hour
Local Manufacturing		Locally owned and operated facilities provide local jobs
ENVIRONMENTALLY FRIENDLY		
Conserves Oil*		Retreading saves 61 liters* of oil per tyre*
Conserves Raw Material		Saves 15kg of steel per tyre*
Supports Sustainability/Green Initiatives		Recycling good for the planet and eco-friendly
HIGH QUALITY		
Consistent Nationwide Retread Warranty Comparable to a New Tyre Backed by Michelin		Robust warranty for the life of the usable tread, backed by a known, reputable brand.
Michelin Proprietary Technology in Both New Tyres and Retreads		Dual-compound treads, matrix siping technology and fuel-efficient compounds are just few examples of features used in both Michelin new and retread tyres
Michelin Manufacturing Excellence		Our Recamic retread facilities follow a consistent, audited, manufacturing process to deliver uniform results

\*Estimated

## SIDE ONE

## SIDE TWO

Letter buffed off as per AS/NZ standards. Indicates number of times case has been retreaded

Michelin Retread Label\*



Michelin case Engineered for Life after Life after Life



Recamic Retread Label#



Replacement Tread Pattern X Multi D same as new tyre



Production week number 0419 RETREAD  
Individual serial number AAA-017809



Word Regroovable buffed off



TWI – Tread Wear Indicator



Tread Manufactured by Michelin



\*Covered by Michelin Retread Warranty

# Non Michelin Casings



# WHY WOULDN'T YOU RUN MICHELIN RETREADS?

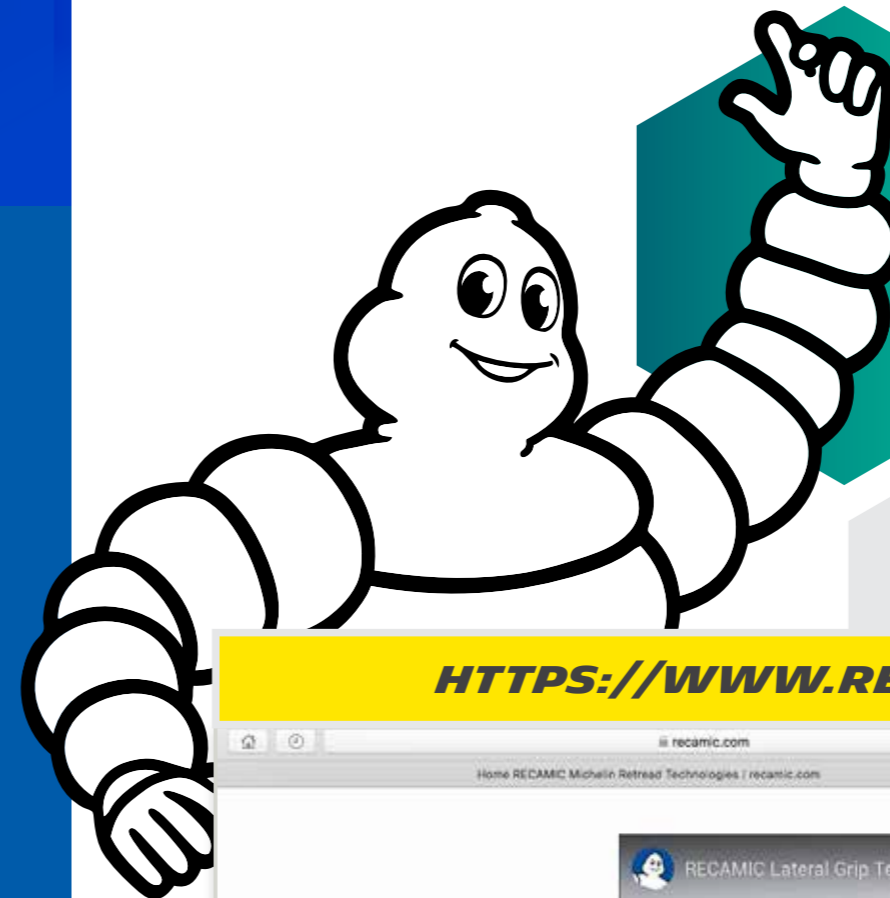
## MICHELIN RETREAD DID YOU KNOW?

- ✓ Michelin case is engineered for life after life after life
- ✓ Michelin Retread performance is just like new #
- ✓ Recamic Retread factories are Michelin accredited
- ✓ Recamic stands for RE Capp MIChelin
- ✓ Michelin Retreads use less raw materials compared to new tyre
- ✓ Michelin Retreads reduce your cost per kilometre
- ✓ Michelin Retreads are made with the same tread compound and patterns as new Michelin Tyres
- ✓ Michelin Retreads are used in the aviation industry ^
- ✓ Michelin Retreads are covered by warranty\*
- ✓ You can visit your local Recamic Retread factories to see how our retreads are made.

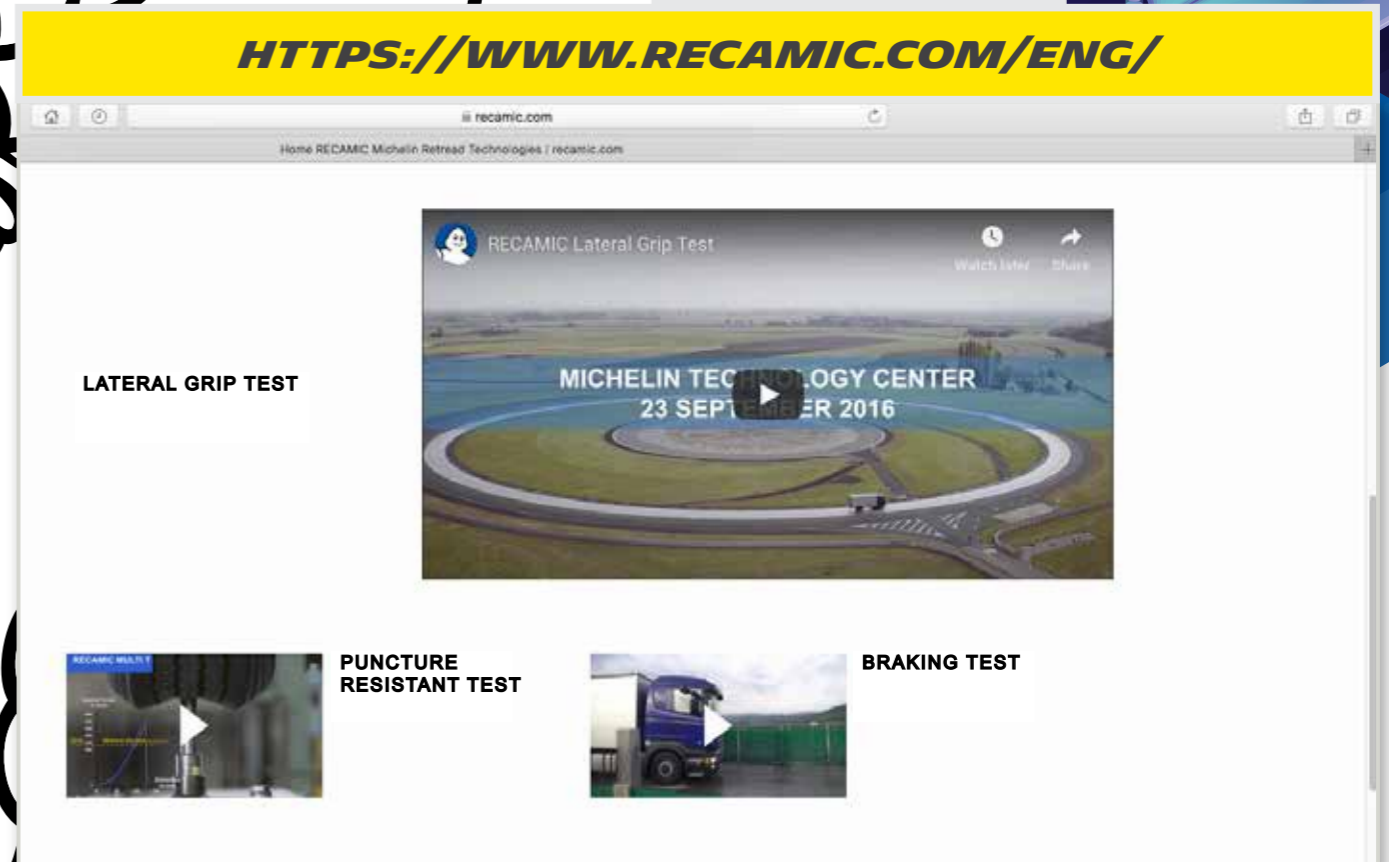
\* Terms and Conditions apply ^ Not manufactured in Australia / New Zealand # When Michelin case used

~ Other Brand Cases Also Accepted at RECAMIC Factories

## CHECK OUT THE FACTS FOR YOURSELF



[HTTPS://WWW.RECAMIC.COM/ENG/](https://www.recamic.com/eng/)



RECAMIC Lateral Grip Test

LATERAL GRIP TEST

MICHELIN TECHNOLOGY CENTER  
23 SEPTEMBER 2016

PUNCTURE RESISTANT TEST

BRAKING TEST



## TERMS OF WARRANTY

### WHAT IS NOT COVERED RETREAD SERVICES

Tyres which become unserviceable due to:

- Road hazard injury (e.g. a cut, snag, bruise, impact damage or puncture);
- Incorrect fitting of the tyre, tyre/wheel imbalance, or improper repair;
- Misapplication, improper maintenance, racing, under inflation, over inflation or other abuse resulting in casing damage or fatigue;
- Accident, fire, chemical corrosion, contamination, tyre alteration or vandalism;
- Flat spotting caused by improper storage;
- The addition of liquid, solid or gaseous materials other than air, nitrogen or carbon dioxide;
- Load or speed greater than the ISO load/speed value recommended;
- Uneven or rapid wear caused by mechanical irregularity in the vehicle such as axle misalignment, resulting in damage to the under-tread, carcass or steel belts;
- Ozone or weather cracking.

### WHAT YOU MUST DO WHEN MAKING A CLAIM

When making a claim under the terms of this limited warranty, the customer must present their retread to the original MICHELIN RETREAD workshop or selling dealer. It is the responsibility of the end user to transport the retread to the dealer with all costs to be met by the end user.

### CONDITIONS AND EXCLUSIONS

This warranty does not provide compensation for loss of time, loss of use of vehicle, inconvenience or incidental or consequential damages. Tyres presented for claim remain the property of the owner/consumer and MICHELIN accepts no responsibility for loss of, or damage to, tyres which are in the custody or control of a MICHELIN truck tyre retailer for the purpose of inspection for warranty adjustment. Tyres accepted for claim become the property of Michelin. The warranty is applicable for 3 years from date of manufacture, after which time the warranty expires. This warranty excludes a MICHELIN Case with a Recamic Label. This warranty only applies to tyres purchased through an Authorized Michelin Dealer.

A tyre presented for warranty claim must have a tread pattern of at least two millimetre's deep in a band that runs continuously, or the claim becomes null and void.

This warranty is limited to replacement of new retread tyre in lieu of financial payment, unless otherwise agreed to. In the event of a disputed claim, the owner/consumer must make the tyre available for further inspection.

No Michelin representative, employee or retailer has the authority to make or imply any representation, promise or agreement, which in any way varies the terms of this limited warranty. This limited warranty applies only in Australia & New-Zealand.

### CONSUMER RIGHTS

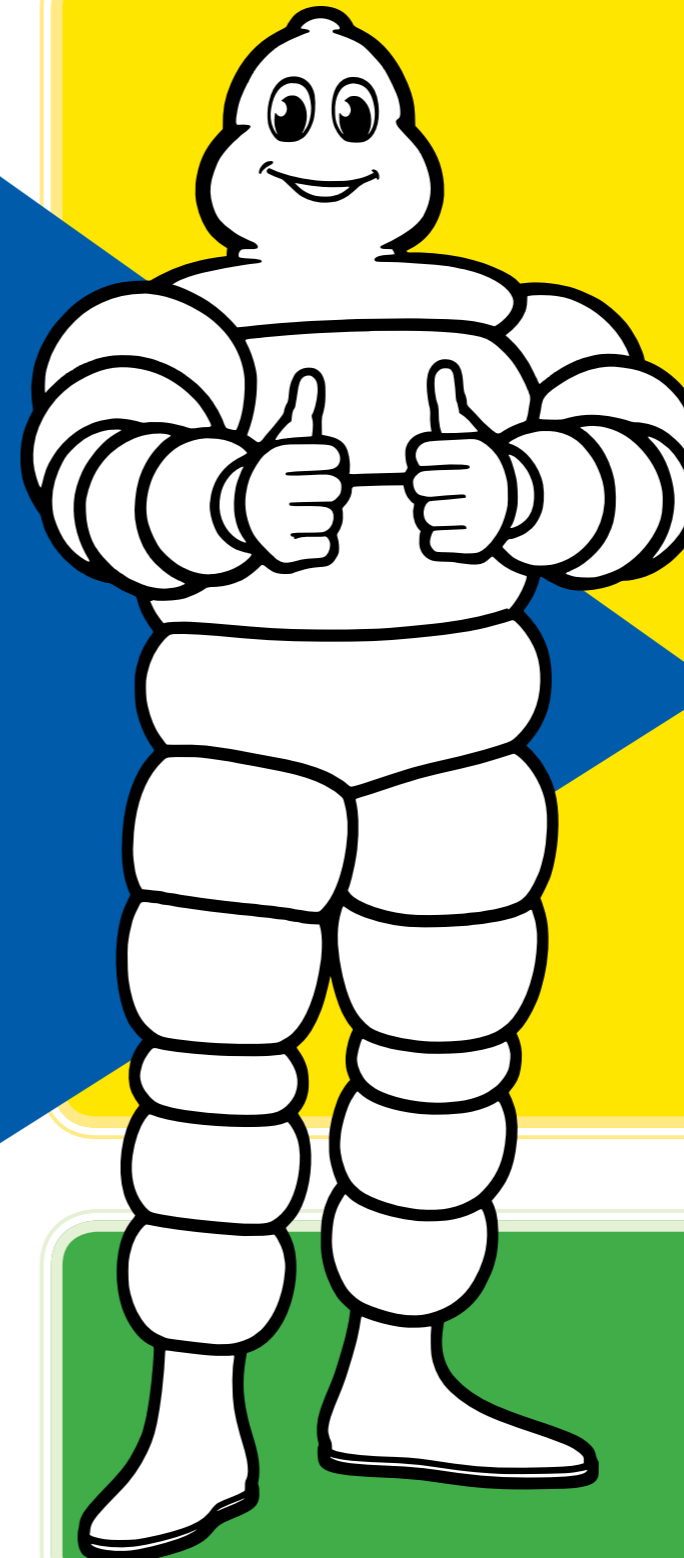
This limited warranty gives you specific legal rights, and you may also have other rights, which vary from country to country.

### SAFETY MAINTENANCE INFORMATION

Read MICHELIN Truck and Bus Service Manual, Edition 2009 Asia-Pacific, the information on the sidewall of your tyres, your vehicle owner's manual and vehicle tyre information placard for essential safety and maintenance information.

### WHEN SERVICE IS REQUIRED

1. Contact a participating MICHELIN truck tyre retailer.
2. If additional assistance is needed in locating a MICHELIN truck tyre retailer,
  - In Australia, please call MICHELIN Hotline 1300 72 78 78
  - In New-Zealand, please call MICHELIN Hotline 0800 73 22 64



### BRISBANE RETREADING SERVICES

07 3373 2800

SalesBrisbane@black-rubber.net.au

90 Colebard Street West, Archerfield

Queensland, 4108, AUSTRALIA

### DEVERICH PTY LTD

03 8360 1500

matt.backhouse@bigpond.com

20 Briggs Drive, Derrimut

Victoria, 3026, AUSTRALIA

### PERTH RETREADING SERVICES

08 9434 4277

SalesPerth@black-rubber.net.au

60 Barberry Way, Bibra Lake

Western Australia, 6163, AUSTRALIA

### SYDNEY RETREADING SERVICES

02 9829 5321

SalesSydney@black-rubber.net.au

Unit 7, 54-56 Stennett Road, Ingleburn

NSW, 2565, AUSTRALIA

### TYRELINE

0800 732 264 (menu option 2)

retread@tyreline.co.nz

160 Collins Road, Hamilton

North Island, NEW ZEALAND

[trucks.michelin.com.au](https://trucks.michelin.com.au)

