

Australian Tyre consumption and recovery – 2023-24

Australia's love of driving

Australia is the sixth largest country and one of the most sparsely populated in the world placing it in the top 20 countries for vehicles per capita with over 21 million registered road vehicles and a further 4.7 million caravans, trailers and plant and equipment.¹ Collectively, this means there are more than 100 million tyres being used on our roads.

Australia's need for tyres is sustained by the need to import new tyres loose since the last tyre manufacturing factory ceased operating in 2010 and by a small local retreading industry (mainly truck and bus tyres) and seconds (reuse) market.

Tyre consumption, waste, and recovery

Consumption refers to the net import and export of new and used tyres to and from Australia, as well as local consumption of retreaded tyres or secondhand tyres sold in Australia.

In 2023-24 Australia consumed an estimated 740,000 tonnes of new and used (secondhand or retread) tyres. The largest portion of this was made up by the import of 705,000 tonnes of new tyres or 74 million equivalent passenger units (EPU), a slight decline on the previous year. It is estimated around 84% of the tyres imported (by weight) were imported loose, with the remaining 16% imported on vehicles.

| Tyre consumption (2023-24) | | | | | | | | | |
|-------------------------------|---|---------------------|---------|---------|---------|---------|---------|---------|---------|
| In 2023-24 Australia consumed | | | | | | | | | |
| around 740,000 tonnes of new | | | | | | | | | |
| and re-used tyres. | - | 100,000 | 200,000 | 300,000 | 400,000 | 500,000 | 600,000 | 700,000 | 800,000 |
| (78 million EPU) | | Passenger Truck OTR | | | | | | | |

In 2023-24 Australia generation of used tyres (waste tyres) dropped from an estimated 545,000 tonnes to around 537,000 tonnes with a recovery rate of 66%, up from an estimated 58% in 2022-23 and an end to a three-year decline in recovery rates. The recovery of passenger and truck (and bus) tyres (automotive tyres) make up most of the recovered used tyres with very limited recovery of off-the-road² (OTR) tyres.



The recovery of waste tyres within Australia is supported by the National Tyre Product Stewardship Scheme, administered by Tyre Stewardship Australia (TSA). The objective of the Scheme is to develop Australia's tyre recycling industry and markets for tyre-derived products increasing recovery and recycling of waste tyres while minimising the environmental, health and safety impacts.

Amount of rubber in waste tyres

Excluding tyres that are re-used as tyres through retread or secondhand sale, approximately 378,000 tonnes of rubber compound could be extracted from the generated waste stock based on average tyre composition.



¹ BITRE (Bureau of Infrastructure and Transport Research Economics, 2024) Road vehicles, Australia January 2024 – data set, online at: https://www.bitre.gov.au/publications/2024/road-vehicles-australia-january-2024

² OTR tyres consist of mining, agriculture, construction (and demolition), Industrial (manufacturing and trade), and aviation tyres





Recovery and disposal of waste tyres

In 2023-24 Australia recovered an estimated 353,000 tonnes of used tyres, an increase of used tyres recovered from the previous year. Australia's tyre recovery industry includes businesses such as those involved in the recovery and sale of waste tyres for reuse (including re-treading or repair), processing into tyre derived products (TDP) and processing into tyre derived fuel for embodied energy (energy recovery).

While recovery has been moderately high in the past, Australia had seen a decrease in recovery rates over the previous three financial years with elevated levels of non-recovery in the 2021-22 and 2022-23 financial years. In 2023-24 the amount of used tyres not recovered decreased to around 184,000 tonnes. Non-recovered used tyres are distinguished as either disposed or in flow. Disposed includes landfill, onsite burial, and burning without energy recovery. In flow refers to tyres where final fate is yet to be determined, which includes tyres retained onsite, dumped but not yet cleaned up, and stockpiled.



When it comes to the recovery by tyre group, Australia recovers most automotive tyres (passenger and truck tyres) with a recovery rate of 87% in 2023-24. In contrast, only 13% of OTR tyres were recovered. Despite having quality rubber, factors currently contributing to the low recovery of OTR tyres include the size and structural features such as large beads and the sectors in they are used such as mining and agriculture which are often located a long way from recycling facilities³. These features make them more difficult to handle and process and lend themselves to being retained onsite or buried where permissible by regulation.



Tyre waste recovered and unrecovered by tyre group (2023-24)

³ Over thirty waste tyre collection and processing businesses are participating in the National Tyre Product Stewardship Scheme https://www.tyrestewardship.org.au/accreditation/find-accredited-recyclers-collectors/



Domestic and international markets for used tyres and tyre-derived products

The markets for tyre derived products can be separated into international (export) and domestic markets with the international market representing majority of the market at around 75% in 2023-24, matching the average over the past five years. Of this export market, around 80% is exported for energy recovery purposes. The remaining is exported for further processing and recycling, or for reuse and re-treading.

Domestic and international markets (2023-24)



Only 16% of used tyre generation is used in Australia for circular applications. Since 2014, TSA has invested in over \$10 million and 70 projects supporting market development with the outcome of this investment paving the way for domestic market growth. <u>https://www.tyrestewardship.org.au/project/</u>

Data sources used in the compilation of this information sheet: Australian Tyre consumption and recovery – 2023-24 include: Road Vehicles, Australia, BITRE 2024, International Trade in Goods and Services, Australian Bureau of Statistics, VFACTs Reports, FCAI, and Tyres material flow analysis, TSA 2024 unpublished.

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