



## **Fires Involving road vehicles (01/04/2020 – 31/01/2024)**

Data, Intelligence and Safety

Date: February 2024

<b>Data and Information Audit</b>	
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<b>Approved for Publication</b>	
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## **1 Request**

- The number of road vehicle fires that have been tackled by TWFRS from June 2020 to present inclusive of electrical vehicles. If possible with the data available to you, please indicate in the response which fuel type was involved for each incident (i.e. internal combustion engine vehicle or electric vehicle).
- The number of road vehicle fires for which measures have been deployed to protect the water environment during fire-fighting operations (e.g. clay mats, poly booms etc.).
- The number of electric road vehicle fires that have been tackled by TWFRS from June 2020 to present.
- The volume of water applied to either internal combustion engine road vehicle fires or electric road vehicle fires by TWFRS.

## **2 Response**

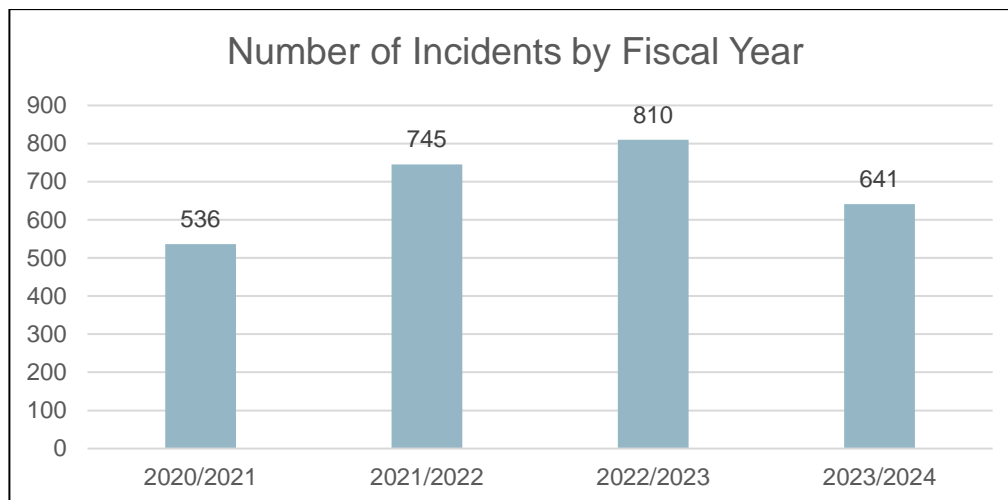
The following information is taken from the Tyne and Wear Fire and Rescue Service (TWFRS) Incident Recording System (IRS). An IRS incident record is completed by the officer in charge for every incident attended.

This report represents the number of fires, involving road vehicles, which the Tyne and Wear Fire and Rescue Service attended in Tyne and Wear from the first of June 2020 to the end of January 2023.

As our incident reports do not request information on the volume of water applied to a vehicle fire, this data is unavailable. Similarly, we do not inquire about the fuel type of the vehicle in our incident reports; however, we have identified a small number of incidents involving electric or hybrid vehicles based on a summary submitted by crews in section 10.4 of our reports.

### 3 Results and Data

2732 road vehicle fires were attended by the Tyne and Wear Fire and Rescue Service between June 1 2020 and January 31 2024. The graph below illustrates a growth of 39% between 2020/2021 and 2021/2022 and an 8.7% increase from 2021/2022 to 2022/2023. Because this fiscal year does not conclude until the end of March 2024, we are unsure of the final percentage increase or decrease.



A breakdown of the number of fires by type of vehicle is also provided in the table below. According to the data, cars, motorcycles, and vans account for slightly over 90% of all incidents, meaning that these three vehicle categories are involved in the vast majority of incidents.

Vehicle Type	Number of Incidents
Car	1740
Motorcycle	395
Van	336
Other	53
Multiple Vehicles	51
Lorry/HGV	40
Bus/coach	33
Towing caravan elsewhere (not on tow)	20
Bicycle	17
Caravan unspecified	14
Motor Home	9
Trailers - Trailer unit (not attached to tractor)	9
Agricultural	7
Minibus	7
Caravan on tow	1
<b>Total</b>	<b>2732</b>

Based on the data, we can also draw the following conclusion: The table below shows that most incidents main cause is a heat source and combustibles being brought together deliberately. We can also see that 62 of the incidents were cause by a faulty fuel supply involving electricity.

Incident Main Cause	Number of Incidents
Heat source and combustibles brought together deliberately	1893
Overheating, unknown cause	216
Other	214
Fault in equipment or appliance	165
Faulty fuel supply - electricity	62
Accumulation of flammable material	48
Combustible articles too close to heat source (or fire)	35
Faulty fuel supply - petrol product	28
Faulty leads to equipment or appliance	19
Vehicle crash or collision	19
Bomb/incendiary device	9
Careless handling - due to careless disposal	9
Negligent use of equipment or appliance (heat source)	8
Other intentional burning, going out of control	4
Suicide/attempted: setting fire to self	2
Playing with fire (or heat source)	1
<b>Total</b>	<b>2732</b>

Environment Agency equipment was utilised to put out vehicle fires on seven distinct instances, none of which included electric or hybrid cars.

We can confirm that 10 of the 2732 road vehicle fires that the Tyne and Wear Fire and Rescue Service attended between June 1 2020, and January 31 2024 were hybrid vehicles, and 2 were electric vehicles. In all ten instances involving hybrid and electric vehicles, the vehicle type was a car.

Fiscal Year	Electric Vehicle	Hybrid Vehicle	Total
2020/2021	0	0	0
2021/2022	1	2	3
2022/2023	0	4	4
2023/2024	1	2	3
<b>Total</b>	<b>2</b>	<b>8</b>	<b>10</b>

Below is a table showing a summary of the main causes for the incidents involving electric and hybrid cars.

Incident Main Cause	Electric Car	Hybrid Car	Total
Heat source and combustibles brought together deliberately	1	3	4
Fault in equipment or appliance	1	2	3
Faulty fuel supply - electricity	0	1	1
Overheating, unknown cause	0	1	1
Suicide/attempted: setting fire to self	0	1	1
<b>Total</b>	<b>2</b>	<b>8</b>	<b>10</b>