

Transport Statistics Bulletin

Low Carbon Van Survey 2009: Results

Introduction

1. During November and December 2008, the Department for Transport conducted a Van Activity Baseline Survey to better understand the composition and activity of the national van fleet and factors affecting growth in this area. **For the purposes of the Van Activity Baseline Survey, vans were considered to be those vehicles that can carry goods and have a gross vehicle weight of 3.5 tonnes or less.** The final results from the survey were published in Road Freight Statistics 2008 (www.dft.gov.uk/pgr/statistics/datatablespublications/freight/goodsbyroad/oadfreightstatistics2008) on October 1st 2009.
2. During the summer of 2009 the owners of 400 *non low carbon vans*¹ were sent follow up questionnaires asking about their reasons for not purchasing a low carbon vehicle, and about what incentives may persuade them to do so in the future.
3. At the same time, the Department approached the owners of 450 *low carbon vans* (400 with a gross vehicle weight of 3.5 tonnes and less and 50 that weighed over 3.5 tonnes up to 7.5 tonnes) and asked about the reasons why they purchased this type of vehicle, what they used the vehicle for and the incentives to purchase low carbon vans in the future. Both versions of the questionnaire are in **Annex A** of this report.
4. The results in this report are based on 139 responses (35% response rate²) from owners of *non low carbon vans* and 140 responses (31% response rate²) to the low carbon van questionnaire. Unlike the results of the Van Activity Baseline Survey, these have not been grossed to estimate the national picture because of the relatively small sample size.
5. There were 18,262 low carbon vans in the DVLA database when the sample was drawn in April 2009 (**Table 1**). Since 2004 the population of low carbon vans has remained fairly static and they make up approximately 0.5 per cent of the national van fleet.

Table 1: Population of low carbon vans with a gross vehicle weight of 7.5 tonnes and below

Year	Low carbon vans	All vans
2004	17,422	3,028,999
2005	18,476	3,150,854
2006	18,787	3,270,463
2007	18,478	3,397,133
2008	18,262	3,440,448

Source: DVLA Vehicle Licensing Database

¹ For the purposes of this survey, low carbon vehicles were those with the following propulsion types: Gas Bi-Fuel, Electricity, Petrol/Gas, Gas, Gas Diesel, New Fuel Technology, Hybrid Electric, Electric Diesel and Fuel Cells.

² Response rate here is the percentage of useable responses of all questionnaires sent out. Some additional forms were returned but not useable, for instance, due to the vehicle being sold or stolen.

6. Not all of the body types were in scope for the survey and those with the following body types were considered to be outside the scope: 'Airport Support Unit', 'Float', 'Motor Home / Caravan' and also 'Tractor'.
7. This reduced the in-scope population for low carbon vans to 13,763 vehicles. Of these, 72 per cent of these vehicles had 'Gas Bi-Fuel' as their propulsion method and 72 per cent of the population were either a 'Panel Van' or 'Car Derived Van'. The population totals can be found in **Annex B**.
8. **As with the Van Activity Baseline Survey, the Low Carbon Van Survey is outside the scope of National Statistics so the results, although indicative, should be treated with some caution.**

Survey Results

Reasons for and against purchasing a low carbon van

9. The owners of *low carbon vans* were asked to state the reasons why they purchased this vehicle. They could state as many reasons as necessary and therefore the totals in **Table 2** exceed 100 per cent. The main two reasons given were environmental concerns (71 per cent) and operating costs (70 per cent).

Table 2: Reasons for purchasing a low carbon van

Reason	Per cent
Environmental concerns	71
Operating costs	70
Conforming with local schemes, e.g. congestion charging, low emission zones, noise reduction	40
Purchase costs	26
Performance, e.g. carrying capacity, reliability – including battery life	20
Driver benefits, e.g. quieter to operate, easier to handle	15
Other	6
Safety considerations	4
No reason stated	2

Note: Data relates to owners of low carbon vans. Sample Size = 140.

10. Some 65 per cent of the *non low carbon van owners* were aware of the availability of low carbon vans and this group of respondents were asked why they did not purchase one.
11. Purchasing costs (68 per cent), worries about vehicle performance (38 per cent) and a lack of knowledge about low carbon vehicles (38 per cent) were the main reasons for *non low carbon van owners* to not purchase a low carbon vehicle (**Table 3**).
12. The data for **Table 2** and **Table 3** are shown in **Chart 1** to show the differences in motivation for purchasing, or not purchasing, a low carbon

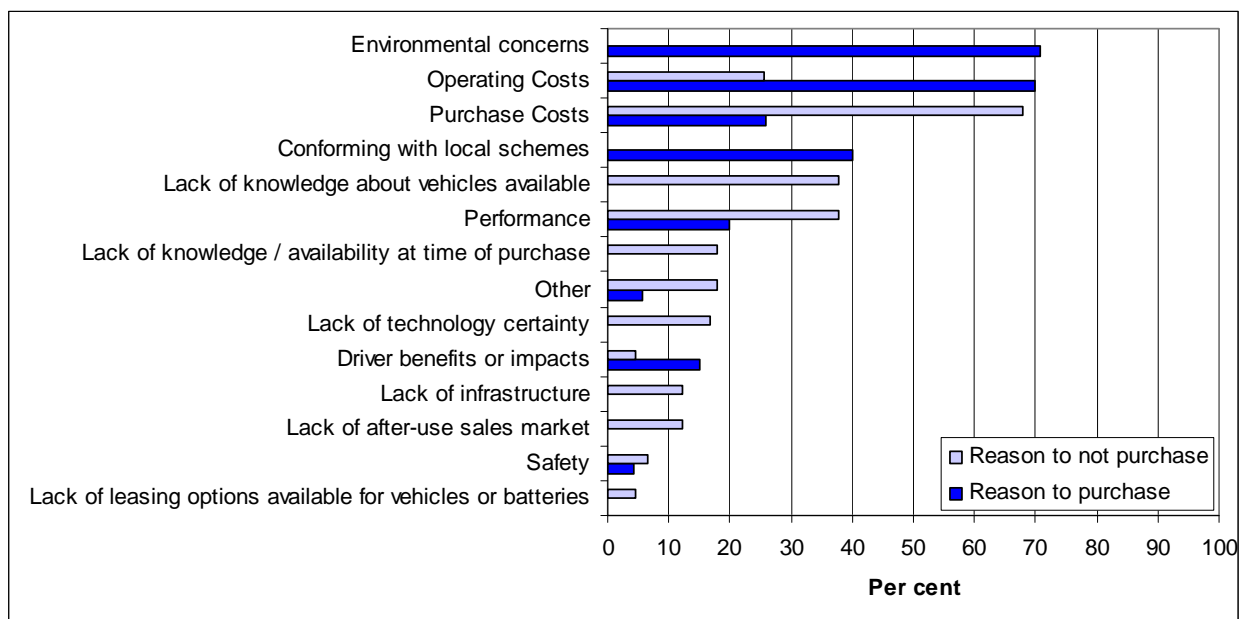
van. Some of the reasons were common to both questionnaires, but not all. The chart shows that purchase costs, performance and lack of knowledge about vehicles available are key reasons to not purchase a low carbon van and this is strengthened by the fact that the owners of *low carbon vans* did not think they were strong reasons to purchase one either. Operating costs show the opposite as it was a key reason to buy a low carbon van and it was not a key reason that discouraged people purchasing one.

Table 3: Reasons for not purchasing a low carbon van

Reason	Per cent
Purchase costs	68
Performance, e.g. carrying capacity, reliability – including battery life	38
Lack of knowledge about vehicles available	38
Operating costs	26
Lack of knowledge / availability at time of purchase	18
Other	18
Lack of technology certainty, i.e. when are these technologies going to be readily available?	17
Lack of after-use sales market	12
Lack of infrastructure	12
Safety considerations	7
Concern over driver benefits or impacts, e.g. how to handle	4
Lack of leasing options available for vehicles or batteries	4
No reason stated	1

Note: Data relates to owners of non low carbon vans. Sample = 90.

Chart 1: Reasons for and against purchasing a low carbon van



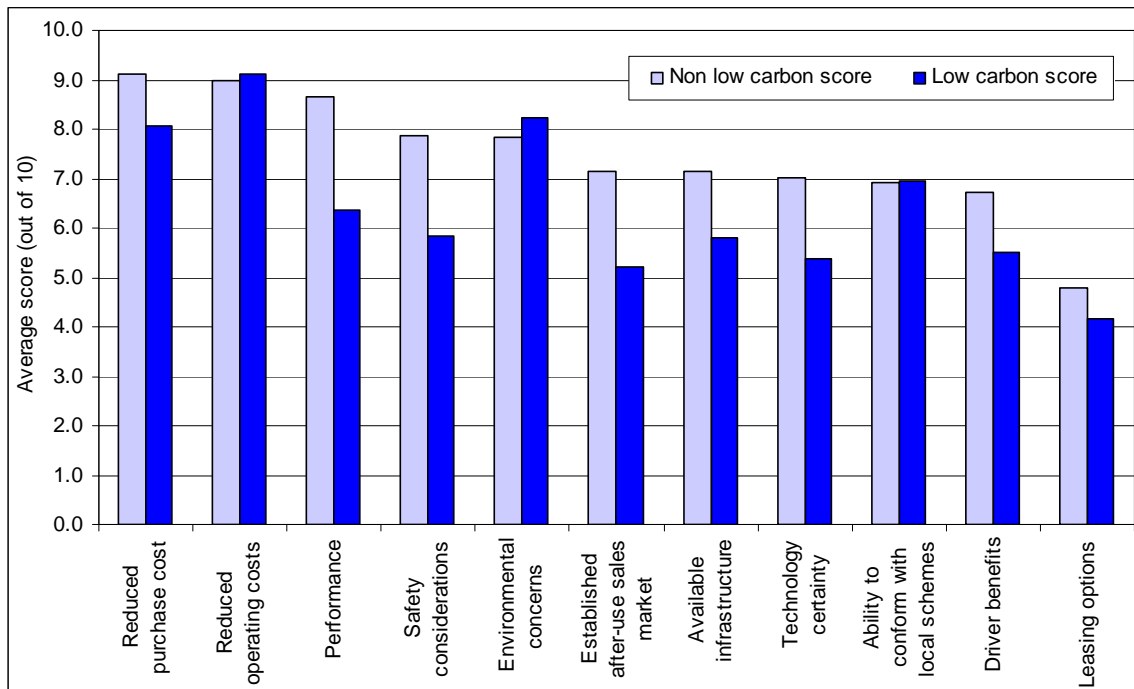
Incentives to purchase a low carbon van

13. Owners of both types of vehicle were asked 'What might incentivise you to purchase low carbon vans?' Respondents were asked to score the incentives on a scale of 0 to 10, with 0 representing 'no importance at all' to 10 indicating that it is 'vital'.
14. **Table 4** and **Chart 2** show the results, indicating that reduced purchase costs, reduced operating costs and improved performance were the three most important factors that owners of *non low carbon vans* scored as being high incentives for purchasing low carbon vans. Reduced operating costs and environmental concerns were the main incentives for *low carbon van owners* to purchase another vehicle of this type.
15. **Table 4** also shows the difference in scoring between the two survey groups. Where the differences are most pronounced, this suggests that these are factors which, on average, are more important to one group compared to the other factors. In most cases, there is a positive difference, which indicates a degree of incentivisation required to persuade owners of *non low carbon vans* to purchase low carbon vehicles. Performance, safety considerations and the after-use sales market show the biggest differences between groups.

Table 4: Incentives to purchase low carbon vans

Incentive	Average non low carbon van owners score (out of 10)	Average low carbon van owners score (out of 10)	Difference
Reduced purchase cost	9.1	8.0	+1.1
Reduced operating costs	9.0	9.1	-0.1
Performance, e.g. improved carrying capacity, improved reliability – including battery life	8.6	6.4	+2.3
Safety considerations	7.9	5.8	+2.0
Environmental concerns	7.8	8.2	+0.4
Established after-use sales market	7.2	5.2	+2.0
Available infrastructure	7.1	5.8	+1.3
Technology certainty, i.e. when are these technologies going to be readily available?	7.0	5.4	+1.6
Ability to conform with local schemes, e.g. congestion charging, low emissions zones, noise reduction	6.9	7.0	-0.0
Driver benefits	6.7	5.5	+1.2
Leasing options available for vehicles or batteries	4.8	4.2	+0.6

Chart 2: Incentives to purchase low carbon vans



16. **Table 5** highlights the percentage of respondents that rated the various incentives to purchase a low carbon van as either a 9 or a 10 in importance. This shows that performance was where the difference between the two groups was the largest, with 61 per cent of *non low carbon van* respondents rating this as a 9 or a 10 in importance compared to 26 per cent of *low carbon van owners*. There were two areas, environmental concerns and the ability to conform with local schemes, where *low carbon van owners* reported higher percentages of 9 and 10 ratings compared to owners of *non low carbon vans*.

Table 5: Percentage of respondents marking each incentive as a 9 or 10

Incentive	Non low carbon van owners per cent	Low carbon van owners per cent	Percentage point difference
Reduced purchase cost	81	55	+25
Reduced operating costs	74	72	+2
Performance, e.g. improved carrying capacity, improved reliability – including battery life	61	26	+35
Safety considerations	49	21	+28
Environmental concerns	47	56	-8
Available infrastructure	40	19	+21
Ability to conform with local schemes, e.g. congestion charging, low emissions zones, noise reduction	39	43	-4
Technology certainty, i.e. when are these technologies going to be readily available?	37	18	+20
Established after-use sales market	37	15	+22
Driver benefits	33	12	+21
Leasing options available for vehicles or batteries	18	13	+5

The activity of low carbon vans

17. **Table 6** compares the primary activity of *low carbon vans* with the primary activity of all vans as recorded in the 2009 Van Activity Baseline Survey. 45 per cent of the *low carbon vans* were used for the primary activity of the carriage of equipment, which compared to 52 per cent for all vans. However the percentage used for delivery and collection of goods is higher than for all vans, 34 per cent compared to 21 per cent for all vans.

Table 6: Primary activity of low carbon vans

Activity	All vans ¹ (per cent)	Low carbon vans (per cent)
Carriage of equipment	52	45
Delivery / collection of goods	21	34
Private and domestic	18	13
Providing transport to others	2	1
Not Stated	7	8

¹ Primary activity figures for all vans taken from Van Activity Baseline Survey, DfT 2009

18. **Table 7** shows that urban journeys account for on average 125 miles per week for *low carbon vans*. 82 miles per week are a result of inter-urban

journeys and rural journeys are 78 miles on average. Overall, the average weekly mileage for *low carbon vans* in the survey is virtually identical to the mileage previously recorded for all vans in the baseline van survey.

Table 7: Average weekly mileage by journey type

Journey type	All vans ¹ average weekly distance travelled (miles)	Low carbon vans average weekly distance travelled (miles)
Urban journeys	n/a	125
Inter urban journeys	n/a	82
Rural journeys	n/a	78
Total	286	285

¹ All vans average weekly mileage figure taken from Van Activity Baseline Survey, DfT 2009

Sources of information used by van owners

19. **Table 8** highlights the sources that the owners of vans use when researching information about replacement vans. The internet and manufacturers / dealers are the most used resources for the owners of both *low carbon vans* and *non low carbon vans*. The biggest difference for sources of information was the use of local newspapers for 26 per cent of *non low carbon van owners*, compared to just 12 per cent for *low carbon van owners*.

Table 8: Sources of information for new or replacement vans

Source of information	Non low carbon per cent	Low carbon per cent	Percentage point difference
Manufacturers / dealers	57	46	+11
Internet	50	59	-9
Word of mouth	42	35	+7
Specialist magazines / trade press	31	41	-10
Local newspapers	26	12	+14
National newspapers	12	4	+7
Television	9	2	+6
Mailshots	7	6	+1
Local radio	1	2	-1
National radio	1	1	0
Didn't state any of the above	7	6	+1

20. Respondents were asked about which government and other transport industry resources they had accessed. **Table 9** shows that a higher percentage of *low carbon van owners* had accessed all but one of the stated resources.

Table 9: Resources used / accessed

Resource	Non low carbon per cent	Low carbon per cent	Percentage point difference
Business Link	16	14	+2
Energy Savings Trust	8	23	-15
Society of Motor Manufacturers (SMMT) and Traders website	8	9	-1
Freight Best Practice	7	14	-6
Act on CO2	7	11	-4
SAFED for Vans ¹	1	9	-7
Didn't state any of the above	73	59	+14

¹ SAFED - Safe and Fuel Efficient Driving (www.safed.org.uk/SAFEDVans/home.htm)

Further information

21. The results of the Department's previous van surveys can be found at the following links.

- Van Activity Baseline Survey 2008:
www.dft.gov.uk/adobepdf/162469/221412/221522/222944/509368/rfs2008section3.pdf
- Survey of Company Owned Vans 2003-2005:
www.dft.gov.uk/pgr/statistics/datatablespublications/freight/surveyvan/
- Survey of Privately Owned Vans 2002-2003:
www.dft.gov.uk/pgr/statistics/datatablespublications/freight/privatevans/

22. For further information please email roadfreight.stats@dft.gsi.gov.uk or telephone 020 7944 3180.

Department for Transport Survey on use of Low Carbon Vans up to 3.5 Tonnes Gross Vehicle Weight

This survey relates to a van with registration number . You kindly took part in a previous survey on van activity at the end of 2008. We would like to ask you some more questions about your use and knowledge of low carbon vans.

Q1. Do you still own the vehicle? **Please tick.**

Yes **No**

(If YES please go to Question 2, if NO please return questionnaire in the envelope provided).

Q2. Are you aware of the availability of low carbon vans? **Please tick.**

Yes **No**

(If YES please go to Question 3, if NO please go to Question 4).

Q3: We understand that the above registered vehicle is not a 'low carbon vehicle'. What were your reasons for not purchasing a low carbon vehicle? **Please tick all that apply.**

	✓
Purchase costs	
Operating costs	
Concern over driver benefits or impacts e.g. how to handle	
Safety considerations	
Performance e.g. carrying capacity, reliability – including battery life	
Lack of leasing options available for vehicles or batteries	
Lack of after-use sales market	
Lack of technology certainty i.e. when are these technologies going to be readily available?	
Lack of infrastructure	
Lack of knowledge about vehicles available	
Other (please state)	

Q4: What might incentivise you to purchase low carbon vans?

Please give a score out of 10 for each, with 0 representing ‘no importance at all’ and 10 indicating that it is ‘vital’.

	Score
Reduced purchase cost	
Reduced operating costs	
Environmental concerns	
Driver benefits	
Safety considerations	
Performance e.g. improved carrying capacity, improved reliability – including battery life	
Leasing options available for vehicles or batteries	
Established after-use sales market	
Technology certainty i.e. when are these technologies going to be readily available?	
Available infrastructure	
Ability to conform with local schemes e.g. congestion charging, low emissions zones, noise reduction	
Other (please state)	

Q5: Have you used/accessed any of the following resources? **Please tick all that apply.**

	✓
Freight Best Practice	
SAFED for Vans	
Energy Savings Trust	
Act on CO2	
Society of Motor Manufacturers and Traders website	
Business Link	

Q6: Where do you currently source your information about new or replacement vehicles?

Please tick all that apply.

	✓
Local newspapers	
National newspapers	
Internet	
Specialist magazines / trade press	
Local radio	
National radio	
Television	
Manufacturers / dealers	
Mailshots	
Word of mouth	
Other (please state)	

Q7. Please can you tell us how many vans you own by fuel type used (up to 3.5 tonnes gross vehicle weight only). **Please tick the appropriate boxes in the table below.**

	Number of vehicles owned						
	0	1	2-5	6-10	11-25	26-50	More than 50
Diesel							
Petrol							
Electric							
Dual fuel with gas / LPG systems							
Diesel or petrol / electric hybrid							

Thank you for your assistance. Please now return the questionnaire in the envelope provided.

If you have any questions regarding this questionnaire then please telephone Rob Hartley (020 7944 3180) or Stephen Reynolds (020 7944 3093). Or email roadfreight.stats@dft.gsi.gov.uk

Road Freight Statistics Team, Department for Transport, 2/29 Great Minster House, 76 Marsham Street, London, SW1P 4DR.

Data Protection Act 1998

The information you have provided here will be treated in strict confidence, and we will be used by DfT only for the purpose of generating statistics in relation to our survey on the use of low carbon vans

Department for Transport Survey on use of Low Carbon Vans up to 3.5 Tonnes Gross Vehicle Weight

This survey relates to a van with registration number ,
registered as a powered vehicle.

You have been identified from DVLA records as being the registered keeper of this low carbon vehicle. Please answer the following questions for this vehicle, following the instructions given below. If the vehicle description is incorrect or you do not own then vehicle then please tick here and return the questionnaire in the envelope provided.

Q1. Do you still own the vehicle? **Please tick.**

Yes

No

Q2. Was the vehicle:

	✓
Purchased new	
Purchased secondhand	

Q3. Considering this vehicle only what were your reasons for purchasing a low carbon vehicle?
Please tick all that apply.

	✓
Purchase costs	
Operating costs	
Environmental concerns	
Driver benefits, e.g. quieter to operate, easier to handle	
Safety considerations	
Performance e.g. carrying capacity, reliability – including battery life	
Conforming with local schemes, e.g. congestion charging, low emission zones, noise reduction	
Other (please state)	

Q4. Estimate in the following table the average weekly distance this vehicle covers in a typical week, splitting the mileage by the type of area it operates in.

Area type	Average weekly distance covered (miles)
Urban journeys	
Journeys between urban areas	
Rural journeys	

Q5. Which of these activities is the vehicle used for? **Please tick one primary use and all the other uses that apply.**

Activity	Primary use (✓)	Other use (✓)
The delivery / collection of goods		
The carriage of equipment, tools and/or materials to provide a service		
Providing transport service to others		
Private and domestic non-business related use, including travelling to a place of work		

Q6. What might incentivise you to purchase low carbon vans? **Please give a score out of 10 for each, with 0 representing 'no importance at all' and 10 indicating that it is 'vital'.**

	Score
Reduced purchase cost	
Reduced operating costs	
Environmental concerns	
Driver benefits	
Safety considerations	
Performance e.g. improved carrying capacity, improved reliability – including battery life	
Leasing options available for vehicles or batteries	
Established after-use sales market	
Technology certainty i.e. when are these technologies going to be readily available?	
Available infrastructure	
Ability to conform with local schemes e.g. congestion charging, low emissions zones, noise reduction	
Other (please state)	

Q7. Have you used/accessed any of the following resources? **Please tick all that apply.**

	✓
Freight Best Practice	
SAFED for Vans	
Energy Savings Trust	
Act on CO2	
Society of Motor Manufacturers and Traders website	
Business Link	

Q8. Where do you currently source your information about new or replacement vans?

Please tick all that apply.

	✓
Local newspapers	
National newspapers	
Internet	
Specialist magazines / trade press	
Local radio	
National radio	
Television	
Manufacturers / dealers	
Mailshots	
Word of mouth	
Other (please state)	

Q9. Please can you tell us how many vans you own by fuel type used (up to 3.5 tonnes gross vehicle weight only). **Please tick the appropriate boxes in the table below.**

	Number of vehicles owned						
	0	1	2-5	6-10	11-25	26-50	More than 50
Diesel							
Petrol							
Electric							
Dual fuel with gas / LPG systems							
Diesel or petrol / electric hybrid							

Thank you for your assistance. Please now return the questionnaire in the envelope provided.

If you have any questions regarding this questionnaire then please telephone Rob Hartley (020 7944 3180) or Stephen Reynolds (020 7944 3093). Or email roadfreight.stats@dft.gsi.gov.uk

Road Freight Statistics Team, Department for Transport, 2/29 Great Minster House, 76 Marsham Street, London, SW1P 4DR.

Data Protection Act 1998

The information you have provided here will be treated in strict confidence, and we will be used by DfT only for the purpose of generating statistics in relation to our survey on the use of low carbon vans

Annex B: Low carbon goods vehicle population with a gross vehicle weight of 7.5 tonnes and below by body type and propulsion, Great Britain: December 2008

Body Type	Gas Bi-Fuel	Electricity	Petrol/Gas	Gas	Gas Diesel	New Fuel Technology	Hybrid Electric	Electric Diesel	Fuel Cells	Total
Box Van	23	196	9	44	1	4	1	0	0	278
Breakdown Truck	0	8	3	0	0	0	0	0	0	11
Car Derived Van	3,959	90	412	28	0	0	3	0	0	4,492
Car Transporter	0	0	1	0	1	0	0	0	0	2
Concrete Mixer	0	0	1	0	0	0	0	0	0	1
Curtain Sided	1	4	2	0	0	0	0	0	0	7
Dropside Lorry	112	29	23	3	3	3	0	1	0	174
Flat Lorry	2	296	2	3	0	1	0	0	0	304
Front Dumper	8	8	1	8	57	0	0	0	0	82
Goods	4	32	11	21	0	0	0	0	0	68
Insulated Van	16	57	0	2	0	1	0	0	0	76
Light 4 by 4 Utilities	162	68	386	29	4	5	3	2	0	659
Light Goods	9	75	30	1	0	0	0	0	0	115
Light Van	11	38	28	2	1	1	2	0	0	83
Livestock Carrier	0	0	1	0	0	0	0	0	0	1
Low Loader	0	5	5	6	1	0	0	0	0	17
Luton Van	41	1	7	0	0	2	1	0	0	52
Mobile Plant	1	5	2	2	0	0	0	0	0	10
Panel Van	4,665	281	355	80	6	22	8	1	2	5,420
Pantechnicon	0	3	0	0	0	0	0	0	0	3
Pick-Up	427	70	88	50	2	1	7	2	0	647
Refuse Disposal	0	72	2	0	0	0	0	0	0	74
Skeletal Vehicle	0	0	1	0	0	0	0	0	0	1
Skip Loader	0	1	1	1	0	0	0	0	0	3
Solid Bulk Carrier	1	6	0	0	0	0	0	0	0	7
Special Mobile Unit	0	7	1	0	1	0	0	0	0	9
Specially Fitted Van	20	15	0	0	0	0	0	0	0	35
Tanker	0	3	1	0	0	0	0	0	0	4
Tipper	342	80	58	22	44	7	1	0	0	554
Truck	20	243	27	27	1	1	0	0	1	320
Van	68	78	26	17	0	7	2	0	1	199
Van/Side Windows	21	5	25	0	2	2	0	0	0	55
Total	9,913	1,776	1,509	346	124	57	28	6	4	13,763

Source: DVLA Vehicle Licensing Database

☎ 020-7944 3077
✉ vehicles.stats@dft.gsi.gov.uk