

Vintage Sports Car Club
Vehicle and Parts Carbon Footprint Calculator

Version: Ver 1 : 22/1/2023 MD
 Version: Ver 2 : 23/1/2023 JB

Constants	Unit	Tonnes CO2 per unit	Offset cost per unit
Metal	1 tonne	4.02	£82.41
Metal (kg)	1 kg	0.0040	£0.08
CO2 offset costs (Tree-V)	1 tonne		£20.50

Assumptions	
Avg. swarf /waste lost in manufacturing (%)	25%

Notes

* This is an ongoing project and there are some notable omissions at present; the calculator will be subject to regular update. Members who have car information to add/ correct, please email library@vssc.co.uk with the subject header Car Calculator Suggestion

- For handbuilt cars only. No account is made for robotised mass production or even significant use of machine tools; the calculator cannot be used for most postwar cars.
- Constants as stated publicly available from clear.eco and provided by Tree-V.
- Average swarf/waste is raw material discarded during manufacture of vehicle or part. We are grateful to Dongni Pan, R&D Engineer at Vintage Bentley, for reminding us that swarf loss increases proportionate to the complexity and weight of the item machined. The figure chosen by MD & JB is intended as a sensibly representative average.
- Note clear.eco CO2 immediate international carbon market offset costs are £18.98/tCO2; Tree-V long-term 'UK carbon capture and international offset' cost is £20.50/tCO2. The difference is explained in e.g. UK labour inflation re tree planting and peatland restoration.

Units of Measurement: Global emissions are calculated in metric tonnes so the calculator uses kgs as its base weight measure. For weights in lbs (1cwt = 112lbs), enter in Column C. For weights in kgs, enter in Column D. The calculator will do the conversion from Column C to D automatically [1lb = 0.453592kgs]. Otherwise, entering a kg value [1g = 0.001kg] in column D directly will also give a result.

Part Description	Source / Part Number	Weight (lbs)	Weight (kg)	Swarf / Waste (kg)	Total Weight of Metal (kg)	Total CO2 to Manufacture (t)	1:1 Offset Cost (£)	Cost for 4:1 Recovery (£)	Qty to Offset	Total Customer Cost (4:1) (£)
Vehicles										
A.J.5 9hp Saloon, 1930: 16cwt	The Autocar, 1930 p236	1792	812.84	270.95	1083.78	4.357	£89.31	£357.26	1	£357.26
A.J.5 9hp Saloon, 1932: 2-up, 21cwt	The Motor, 1932 p278	2352	1066.85	355.62	1422.46	5.718	£117.23	£468.90	1	£468.90
AC 12hp, 2-seater, 1924: 14.5cwt	The Autocar, 1924 p999	1624	736.63	245.54	982.18	3.948	£80.94	£323.77	1	£323.77
Alfa Romeo 22-90 6 cylinder (curb weight)	'Alfa Romeo 1920-40'; Clarke	2350	1066.94	365.31	1421.25	5.713	£117.13	£468.50	1	£468.50
Alfa Romeo 8-C 2900B, 1939 (curb weight)	'Alfa Romeo 1920-40'; Clarke	2400	1088.62	362.87	1451.49	5.835	£119.62	£478.47	1	£478.47
Alfa Romeo Henry Birkin 8cyl, 1931: (approx) 22cwt	'Alfa Romeo 1920-40'; Clarke	2464	1117.65	372.55	1490.20	5.991	£122.81	£491.23	1	£491.23
Alvis 12-60, 1931: 21.25 cwt	The Autocar, 1931 p102	2380	1079.55	359.85	1439.40	5.786	£118.62	£474.48	1	£474.48
Alvis Avista, 1927: 27 cwt	The Motor, 1927 p790	3024	1371.66	457.22	1828.88	7.352	£150.72	£602.87	1	£602.87
Alvis Silver Eagle four seater, 1930: 24.5cwt	Alvis Gold Portfolio, p39	2744	1244.66	414.89	1659.54	6.671	£136.76	£547.05	1	£547.05
Alvis Speed Twenty sports tourer, 1935: [2-up]31.5cwt	Alvis Gold Portfolio, p80	3528	1600.27	533.42	2133.70	8.577	£175.84	£703.35	1	£703.35
Alvis Supercharged front drive, 2-up: 25cwt	The Motor, 1929 p1231	2800	1270.06	423.35	1693.41	6.808	£139.55	£558.22	1	£558.22
Amilcar 8hp, 1921: 8.25cwt	The Autocar, 1921 p1239	924	419.12	139.71	558.83	2.246	£46.05	£184.21	1	£184.21
Armstrong Siddeley short 15hp, 1932: 25 1/4cwt	The Motor, 1932 p320	2830	1283.67	427.89	1711.55	6.880	£141.05	£564.20	1	£564.20
Armstrong Siddeley 20hp, 1934: 34.5cwt	The Motor, 1934 p225	3864	1752.68	584.23	2336.91	9.394	£192.58	£770.34	1	£770.34
Aston Martin Ulster CMC614, 1935: dry weight 18cwt	AM Ulster, 2018 p28; Archer	2016	914.44	304.81	1219.26	4.901	£100.48	£401.92	1	£401.92
Austin 12-4, 1932: 22.5cwt	The Motor, 1932 p208	2520	1143.05	381.02	1524.07	6.127	£125.60	£502.39	1	£502.39
Austin 16-6, 1932, 2-up: 27cwt	The Motor, 1928 p461	3024	1371.66	457.22	1828.88	7.352	£150.72	£602.87	1	£602.87
Austin 16, 1932, 2-up: 29.5cwt	The Motor, 1932 p191	3304	1498.67	499.56	1998.22	8.033	£164.67	£658.69	1	£658.69
Austin 20, 1928, 2-up: 29cwt	The Motor, 1928 p62	3248	1473.27	491.09	1964.36	7.897	£161.88	£647.53	1	£647.53
Austin 7, 1922 unladen 'between 6cwt and 6.5cwt'	The Autocar, 1922 p181	728	330.21	110.07	440.29	1.770	£36.28	£145.14	1	£145.14
Autin 7 Deluxe Saloon, 1932: (1-up) 11cwt	The Motor, 1932 p208	1232	558.83	186.28	745.10	2.995	£61.40	£245.61	1	£245.61
Austin Big 7, 1937: 14.5 cwt	The Autocar, 1937 p899	1624	736.63	245.54	982.18	3.948	£80.94	£323.77	1	£323.77
Avon 16hp close-coupled coupe, 1932: 20cwt (unladen)	The Motor, 1932 p189	2240	1016.05	338.68	1354.73	5.446	£111.64	£446.57	1	£446.57
Bentley 3 ltr Speed 2-up: 33cwt	The Motor, 1925 p876	3696	1676.48	558.83	2235.30	8.986	£184.21	£736.84	1	£736.84
Bentley 4 1/2 4 Seater Sports, 2-up: 35cwt	The Motor, 1928 p665	3920	1778.08	592.69	2370.77	9.531	£195.38	£781.50	1	£781.50
Bentley 4 1/2 Supercharged VdeP, 2-up: 40.5cwt	The Motor, 1930 p553	4536	2057.49	685.83	2743.32	11.028	£226.08	£904.31	1	£904.31
Bentley 6 chassis only: 32cwt	The Motor, 1931 p653	3584	1625.67	541.89	2167.56	8.714	£178.63	£714.52	1	£714.52
British Salmons 4 seater tourer, 1936: 21.5cwt	The Autocar, 1936	2408	1092.25	364.08	1456.33	5.854	£120.02	£480.07	1	£480.07
Bugatti Type 22 'petit pur sang', 1910-12 (chassis weight)	Bugatti Trust, 2023	900	408.23	136.08	544.31	2.188	£44.86	£179.43	1	£179.43
Bugatti Type 35A, 1926-29 (approx)	Bugatti Trust, 2023	1650	748.43	249.48	997.90	4.012	£82.24	£328.95	1	£328.95
Bugatti Type 37, 1926-30 (approx)	Bugatti Trust, 2023	1600	726.75	241.92	967.66	3.890	£79.75	£318.98	1	£318.98
Bugatti Type 40 Roadster, 1926-30 (approx)	Bugatti Trust, 2023	2200	997.90	332.63	1330.54	5.349	£109.65	£438.60	1	£438.60
Bugatti Type 41 Royale, 1929-33 (approx)	Bugatti Trust, 2023	7000	3175.14	1058.38	4233.53	17.019	£348.88	£1,395.54	1	£1,395.54
Bugatti Type 43, 1927-32 (approx)	Bugatti Trust, 2023	2400	1088.62	362.87	1451.49	5.835	£119.62	£478.47	1	£478.47
Bugatti Type 44 Tourer, 1927-30 (approx)	Bugatti Trust, 2023	2400	1088.62	362.87	1451.49	5.835	£119.62	£478.47	1	£478.47
Bugatti Type 57, 1937-40 (chassis weight approx)	Bugatti Trust, 2023	2100	952.54	317.51	1270.06	5.106	£104.67	£418.66	1	£418.66
Citroen 12-24 [2-up?]: 23cwt	The Motor, 1927 p321	2576	1168.45	389.48	1557.94	6.263	£128.39	£513.56	1	£513.56
Crossley 2ltr Sports Saloon, 1934: 22cwt	The Motor, 1934 p736	2464	1117.65	372.55	1490.20	5.991	£122.81	£491.23	1	£491.23
Daimler 16-20hp, 1932: 37cwt	The Motor, 1932 p612	4144	1879.69	626.56	2506.25	10.075	£206.54	£826.16	1	£826.16
Delage 14hp: (31cwt)	The Autocar, 1924 p1010	3472	1574.87	524.96	2099.83	8.441	£173.05	£692.19	1	£692.19
Fiat 501 4 seater open body with accessories: 18cwt	Owner's Manual, 1920-21	2016	914.44	304.81	1219.26	4.901	£100.48	£401.92	1	£401.92
Fraser Nash T.T. Replica, 1933: 17cwt	'The Chain Drive', 1965 p200	1911	866.81	288.94	1155.75	4.646	£95.25	£380.98	1	£380.98
Hudson Peacemaker 4ltr, 1932: 33cwt	The Motor, 1932 p316	3696	1676.48	558.83	2235.30	8.986	£184.21	£736.84	1	£736.84
Humber 12, 1933: 26cwt	The Motor, 1933 p400	2912	1320.86	440.29	1761.15	7.080	£145.14	£580.54	1	£580.54
Invicta Supercharged Saloon 12hp, 1932: 24.5cwt	The Autocar, 1932 p483	2520	1143.05	381.02	1524.07	6.127	£125.60	£502.39	1	£502.39
Lancia Augusta: 16 1/4 cwt	Owner's Manual, 1934	1820	825.54	275.18	1100.72	4.425	£90.71	£362.84	1	£362.84
Lincoln V12, 1932: 53.75cwt	The Motor, 1932 p972	6020	2730.62	910.21	3640.83	14.636	£300.04	£1,200.16	1	£1,200.16
Little Scotsman Saloon 11.9hp, 1930: 20.75cwt	The Autocar, 1930 p112	2324	1054.15	351.38	1405.53	5.650	£115.83	£463.32	1	£463.32
MG J.1 and J.2, 2-seater, 1934: complete car 13cwt	MG Manual 1952 p469; Blower	1456	660.43	220.14	880.57	3.540	£72.57	£290.27	1	£290.27
Minerva 22-28 Limousine, 1930: 39cwt	The Autocar, 1930 p924	4368	1981.29	660.43	2641.72	10.620	£217.70	£870.82	1	£870.82
Morris Ten Saloon, 1932: 19.75cwt	The Motor, 1932 p199	2212	1003.35	334.45	1337.79	5.378	£110.25	£440.99	1	£440.99
Peugeot 6hp (Bugatti Type 19), 1912	Bugatti Trust, 2023	727.525	330.00	110.00	440.00	1.769	£36.26	£145.04	1	£145.04
Railton 28.8hp Saloon, 1936: 24cwt 11lbs	The Autocar, 1936 p319	2699	1224.24	408.08	1632.33	6.562	£134.52	£538.08	1	£538.08
Railton Sports Model, 1934: 22cwt	The Motor, 1934 p142	2464	1117.65	372.55	1490.20	5.991	£122.81	£491.23	1	£491.23
Riley 1.5ltr Falcon Saloon, 1935: [1-up] 27cwt	The Motor, 1935 p1091	3024	1371.66	457.22	1828.88	7.352	£150.72	£602.87	1	£602.87
Riley 16hp Adelphi, 1938: 30cwt (unladen)	The Motor, 1938 p1152	3360	1524.07	508.02	2032.09	8.169	£167.46	£669.86	1	£669.86
Riley 9 Kestral, 1933 22wt	The Motor, 1934 p241	2464	1117.65	372.55	1490.20	5.991	£122.81	£491.23	1	£491.23
Rolls Royce 20, 1920: chassis weight 22.5 cwt	The RR 20, 1929 p528; Fasal	2520	1143.05	381.02	1524.07	6.127	£125.60	£502.39	1	£502.39
Rover Speed Model Saloon, 1931: 27.25cwt	The Motor, 1931 p870	3052	1384.36	461.45	1845.82	7.420	£152.11	£608.46	1	£608.46
Singer 'Nine' Saloon, 1932: 15.5 cwt (unladen)	The Motor, 1932 p96	1736	787.44	262.48	1049.91	4.221	£86.52	£346.09	1	£346.09
Singer 14-34 Saloon [2-up]: 44cwt	The Motor, 1927 p159	4928	2235.30	745.10	2980.40	11.981	£245.61	£982.46	1	£982.46
Singer Junior 4 seater, 1926: 12.25cwt	The Motor, 1926 p839	1372	622.33	207.44	829.77	3.336	£68.38	£273.53	1	£273.53
Sunbeam 25 limousine, 1930: 46cwt	The Motor, 1930 p739	5152	2336.91	778.97	3115.87	12.526	£256.78	£1,027.12	1	£1,027.12
Sunbeam 3ltr Weymann saloon, 1928: 36.5cwt	The Motor, 1928 p155	4088	1854.28	618.09	2472.38	9.939	£203.75	£814.99	1	£814.99
Trojan Saloon 10hp, 1931: 19.25cwt	The Autocar, 1931 p379	2156	977.94	325.98	1303.93	5.242	£107.46	£429.83	1	£429.83
Vauxhall 14-40, as tested [2-up]: 27cwt	The Motor, 1925 p886	3024	1371.66	457.22	1828.88	7.352	£150.72	£602.87	1	£602.87
Vauxhall Cadet (2048cc), 1932: [2-up] 27cwt	The Motor, 1932 p432	3024	1371.66	457.22	1828.88	7.352	£150.72	£602.87	1	£602.87
Wolsley Hornet Special 6 cyl, 1932: 15.5cwt	The Motor, 1932 p979	1736	787.44	262.48	1049.91	4.221	£86.52	£346.09	1	£346.09
Wolsley Hornet Saloon 6 cyl, 1932: 19cwt	The Motor, 1932 p131	2128	965.24	321.75	1286.99	5.174	£106.06	£424.24	1	£424.24
Wolesely 16, 1932: 28 1/4 cwt	The Motor, 1932 p131	3164	1435.17	478.39	1913.55	7.692	£157.70	£630.78	1	£630.78
Wolsley 21/60 saloon, 2-up: 35cwt	The Motor, 1928 p663	3920	1778.08	592.69	2370.77	9.531	£195.38	£781.50	1	£781.50
Component Example										
Riley radiator mascot (figurine, 17cm) + radiator cap	John Barrot kg figure	[1.873929]	0.85	0.21	1.13	0.005	£0.09	£0.37	1	£0.37