

# **COST TABLES 2023**

Prepared for the Road Haulage Association by: Apprise Consulting Ltd



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# Introduction to the Cost Tables

The 2023 RHA Goods Vehicle Operating Cost Tables are the thirty-first in this series and have been compiled for the Road Haulage Association by Apprise Consulting Ltd.

These Cost Tables are designed to assist members with the task of relating rates charged to costs incurred. They have two main features:

- They are the result of a survey of real costs from a large range of road freight transport companies within the RHA membership. These have been used either directly or as the basis for discussion with manufacturers and suppliers to establish actual costs.
- They make no claim to be your own costs or the increases or decreases you may have
  witnessed over the past year. Space is provided to build up a parallel picture of your
  own vehicle costs and overheads. Guidance is given as to how to do this. There is also
  an interactive cost table available for RHA members at <a href="https://howtologistics.com/rha-members/">https://howtologistics.com/rha-members/</a> where different types of vehicle costs can be calculated.

Annual cost changes are based on the results of the Annual Survey on Movement of Costs, based on the periods 1<sup>st</sup> October to 30<sup>th</sup> September for each year. Thank you to all those companies who contributed to the survey.

This year, 77.3% of the survey responses related to 44 tonne gross articulated units, so we have restricted the cost tables to this vehicle type only. The principles are the same for all other types of vehicles which is why you need to include your own true costs in the calculations. Our figures are a guide only. An example 18 tonne rigid is displayed in the interactive cost table already mentioned.

Results from the 2023 survey are shown on pages 13 and 14

A summary of costs and their percentages at a typical annual mileage is provided on page 17. It is important to note that these cost percentages will vary significantly between different types of operation e.g. long / short distance journeys, tipper work / car transport / general haulage and also by geographic location.



You need to establish your own ratios in the following way:

- Substitute your own figures which you can identify as being different from those in the tables:
- Determine the total time-related cost per year;
- Apply the distance-related costs to your own estimated annual mileage to determine the total of those costs;
- Determine total time and distance costs;
- Calculate each item of cost as a percentage of the total.

Using these percentages will enable you to convince your customers how much your own costs have increased during the year and help you in obtaining those sorely needed increases in rates.

You should have a separate fuel escalator to cover the increases and decreases in fuel thus enabling you to separately negotiate increases in all other costs associated with your operations. In our tables for 2023 we show that all costs have increased year on year with a significant increase in a number of areas.

Both the RHA and Apprise Consulting welcome your comments and suggestions for improvements and how we can make these tables even more useful to members. We are also interested in what other kinds of data you want included in this report.

Users of these tables are welcome to raise any queries with Gwynne Richards on 01446 500231 or e-mail Gwynne at gr@appriseconsulting.co.uk

Interactive cost tables can be found at the following web site which are available to RHA members <a href="https://howtologistics.com/rha-members/">https://howtologistics.com/rha-members/</a>



# The 2022 Survey – RHA commentary

The overall percentage increase for 2023 based on our own member survey is 11.6 percent, **excluding fuel**.

Increases in the individual aspects involved in operating a truck are detailed with the adjusted cost percentages for our 2023 model in the right-hand column. There is a large variation when fuel and additive is included because of the steep fuel cost increases throughout most of 2022.

The 44-tonne cost model demonstrates annual costs of £138,796 excluding fuel and additive. This is an increase of £14,401 on the previous year.

Including fuel and additive gives the total annual costs for the 44-tonne are £198,581 with fuel at average price of 139.95ppl to the end of September

**Vehicle and depreciation:** 20 percent (trailer 15 percent)

Commercial vehicles and trailers continued the heavy price increase scenario of last year and once again the time taken to fulfil an order is long. Some members reported as early as April that manufacturers had closed their order books for the year and delivery was 18 months.

Some manufacturers had plants in Ukraine either for total build or parts supply so this was a disruptor, but Russia was a good market for vehicles and with orders there being released it should have meant more build space for the rest of Europe. The price of steel has greatly affected vehicle and trailer builds especially for example where car transporters are concerned. Young second hand values are strong due to the new build time lag from order to delivery.

One help is that the Chancellor recently announced that the Annual Investment Allowance would now be at £1 million on a permanent basis.

## VED + LEVY: 0 percent

The HGV Levy remains suspended until 31 July 2023 at which point it will be re-introduced after originally going into suspension during and because of COVID hardship from 1 August 2020. The levy will apply to heavy goods vehicles of 12 tonnes gross vehicle weight or more. It is specific to an HGV and a typical EURO VI VED & Levy combination would be approximately £1,200 per annum.

**Insurance:** 5 percent

Insurance costs have increased by 5% compared to last year. Our model suggests this was £4,776 up to £5,015 for general haulage rather than any specific sector. There was little mention from members regarding insurance this year apart from the individual percentage movements.



**Driver employment costs:** 10.1 percent

Many firms report the shortage of 'trampers', with day shifts appearing to be the preference for the majority as workers want a more balanced work/life situation. If this continues, then how haulage operates will need to change.

Typically, members either caught up with pay increases last year and have offered small increases this year or they did not increase significantly last year and have had to do so this year. Not all the 10.1% increase is down to pay awards, it also covers National Insurance increases, training and in some cases agency costs. The recent hike in the National living wage increasing next year by 9.7% to £10.42 will add tremendous pressure to van and rigid HGV rates at the lower end of the pay scale.

Members who did use agencies reported average increases between 10 - 12.5% with some reporting 30% plus. The driver shortage issue itself is discussed under 'skills shortage'.

We publish an annual survey regarding employee remuneration within the haulage industry and this is due to be published early January where we will look further into the driver role and related pay.

Repairs and maintenance: 10 percent

Members have complained to us long and hard this year about poor quality work and delays with servicing and this includes main dealer scenarios.

We have R&M costs at £12,271 following the 10% increase from £11,155.

Tyres: 10.5 percent

Some members had sent examples of increases applied this year and in many cases increases came at several times in the year indicating cost increases way above what we finally took as the average position.

Like most goods, tyres can require global shipping where there have been inevitable increases in costs in this area. Tyres for many markets have been scarce too this year, affected by the price of oil, rubber, carbon black and steel.

Overhead costs: 10 percent

Once again overhead increases were large and members were also clearly concerned about the prospect of massive extra energy costs, but this was alleviated to some extent when business was given a 6-month stay during the period that Kwasi Kwarteng was briefly Chancellor. Increases include administration staff wage and NI increases, cleaners, IT systems, telephone systems etc. The cost of building repairs and maintenance too and quite often with delays due to demand for such work.



#### Diesel exhaust fluid (DEF) 86 percent

Better known by the trade name AdBlue, there have been tremendous difficulties this year procuring this liquid additive that is essential to the operation of the modern EURO VI diesel engine.

AdBlue is based on ammonia mixed with carbon dioxide to produce urea. Ammonia though is generally used for several purposes, not only for AdBlue production. The main use of ammonium is for fertilisers in agriculture and so it competes for use although the automotive grade is superior and must be used to create a product to ISO22242. If a lesser grade is used there are potential serious issues with vehicle warranties.

The production of AdBlue uses a lot of energy and with gas prices so dramatically steep some production was simply shut down. Principle areas of urea production are both Ukraine and Russia (something like 40%) so this has put added strain onto other areas globally. Supplies are coming in from China but that is suffering from slow container movements. Various EU plants temporarily ceased production or reduced volumes earlier this year including Yara plants in Ferrara (Italy) and Le Havre (France) reducing their European capacity to 45%. Along with this, in Germany (SKW Piesteritz) the biggest urea/ammonia plant stopped production in August with reports it was selling off the last of its AdBlue stocks.

The net result was enormous increases and many suppliers only selling to established customers. AdBlue can be purchased as a distress purchase at the forecourt, but the price will have a serious mark up. The 1000 litre IBC will probably be typical for most members and larger users will have bulk AdBlue pumped into their tanks. The price range is wide, and in our report, we have increased the annual cost from £1234 to £2295 as 6% of fuel use. Our AdBlue inflationary position is an 86% increase to 92ppl (IBC). The percentage of overall operating cost for the DEF element was 0.74% in our December 2021 report, now this has increased to 1.16%. Unfortunately, it remains a key requirement for the modern diesel engine.

#### Fuel: 39.2 percent

Fuel increased beyond all reasonable expectation this year because of the invasion by Russia of Ukraine. This had a profound and instant effect from 24 February as countries scrambled to pull out of or reduce their reliance on Russian oil and diesel (plus other distillates). In normal times the UK imported between 18-25% of its diesel supply direct from Russia. Losing this in the space of a few weeks caused massive supply strain and globally prices shot up. Our fuel survey showed peak price was mid-June at 160.81ppl ex-vat for bulk diesel. The average until the end of September in a 60/40 mix of bulk and card prices was 139.95ppl.

Around 5% of global refining capacity was lost. Mothballing during the pandemic, maintenance issues along with the Russian/Ukraine situation have all stretched the ability for global production. This is an ongoing concern and security of supply is both a national strategic issue and something companies themselves need to consider.

As last year, we expect but do not yet know the exact biodiesel percentage increase in the calculation mix for a litre of diesel. Last year this added around 1.9ppl to cost and no doubt it will be similar at the start of 2023.



# **Explanatory notes**

The following brief notes are provided to assist members fully understand these cost tables.

The costs assembled in the accompanying pages result from a combination of the annual survey undertaken by the Road Haulage Association and research by Apprise Consulting on vehicle costs. The figures are averages based on the responses received from the survey and validation thereafter. These are averages across a number of different companies and types of operations.

Accordingly, it is misleading for you to assume that the costs and increases shown in the accompanying tables relate exactly to your fleet.

As part of our research, we have compared our results with several of the published cost tables. The variations across these tables, for every cost except VED, lend weight to our contention that depending on averages is simply untenable and is no substitute for utilising your own specific costs.

It is for this reason that, alongside the average costs for the 44-tonne articulated unit as determined in the survey, there is a column in which you can insert the relevant comparable figures for the vehicles in your own fleet. This is not restricted to 44 tonne vehicles however care needs to be taken when applying these increases to other types of vehicles. The format will however work for any type of vehicle. The interactive cost tables at <a href="https://howtologistics.com/rha-members/">https://howtologistics.com/rha-members/</a> allows you to enter any type of vehicle or trailer into the cost model.

#### Time-related and distance-related costs

Although a number of companies convert their fixed and variable costs into a total cost per mile this can be wholly inaccurate when quoting for certain types of haulage work. Separation of these costs is encouraged by these tables which bring costs together but do not produce an all-encompassing cost per mile. Costs are an infinitely variable mixture of time-related and distance-related costs. Time-related costs are accruing even when the vehicle is not being used while the distances we may cover in any given period of time can vary enormously according to the type of work we are undertaking.

These tables are designed to arrive at a cost per average day (see below), which can be reduced to a cost per hour depending on the number of hours worked in a day, and then, quite separately, an average cost per mile or kilometre actually run. This is dealt with in greater detail in the section **Calculating Charges and Rates** on page 19 and in the Supplementary Paper on page 25 onwards.



# **Cost categories**

#### i) Vehicle and trailer costs

These are given on a representative basis because of the enormous variations encountered. These variations arise from:

- Costs from different vehicle and trailer manufacturers
- Different Euro-specifications
- Truck specification required for a particular operation
- Discounts available to large fleet purchasers
- List price differences by dealership and geographic location

#### ii) Average days per annum

One of the most vital keys to profitability is the number of days per annum you effectively use your vehicles. This governs the rate at which you can recover time-related costs since these will mostly be accruing against you, whether you use the vehicle or not. You must determine, either from available records or from an informed view of your work, the number of days likely to be worked by each vehicle during the year.

In these tables, to be consistent, we have continued to assume 240 'Earning Days' throughout, but it is essential that you determine your own utilisation and hence your potential competitive edge. There is evidence to suggest that many companies are, in fact, achieving higher utilisation factors, particularly where multi-shifting is possible and where there is an increase in weekend working. If multi-shifting, ensure that you include the costs of a second and if applicable, a third driver.

# iii) Typical miles per annum

These figures are used to calculate the typical cost percentages per annum on page 17. In these cost tables we have taken an average of 75,000 miles for a 44-tonne articulated unit and trailer. This average mileage is again likely to be different for your own fleet.

# iv) Average depreciation/residuals

This is calculated on a straight-line basis over periods appropriate to the type of vehicle. In the 44 tonne gvw category we use a 6 year depreciation period for the tractor unit and 10 years for the trailer.

There is no allowance for residual values to compensate for the escalating price of replacing existing vehicles with new or even second-hand equipment. Within your own calculations you may wish to include a residual value and either use straight line or declining balance methods of depreciation. Many companies are now turning to declining balance methods using a 25% depreciation figure. Other companies are also looking at "double-lifeing" - re-using key cost



components such as bodies and chiller units on new base vehicles - with these companies realising significant step-change reduction in total cost of ownership.

# v) Driver employment costs

Employment costs must cover actual weekly wages, bonuses, holiday entitlements, relief drivers, sick leave, NHI and pension costs together with training, uniforms and PPE. In other words, the total cost of ensuring that you have a driver in the cab for every available working hour.

#### vi) Insurances

These are average premiums for the vehicle only. There are, in practice, wide variations in premiums paid, related to fleet size, use of technology such as telematics and cameras and claims record. Goods in transit insurance is included in the overheads section.

# vii) VED licences

Rates shown are for a new, standard 44 tonne gross combination incorporating a tri-axle curtain-sider. There can, however, be some variations based on age, engine size and carbon emissions. In these cost tables we have taken into account the suspension of the HGV levy.

#### viii) Interest on capital

This has been estimated at a notional 6.0% on mid-life value, i.e. effectively half the original cost. Companies will be able to borrow money at different rates. Companies need to ensure they enter their own figures here. Interest rates are reasonably low at present however in order to be consistent over the years we have used the same percentage rate.

#### ix) Overheads per vehicle

This again is the average increase obtained from the survey. You must assess the total overheads in your own business and allocate them to vehicles. The simplest way of doing this is in proportion to vehicle carrying capacity. Remember also that if you run a business with other activities besides vehicle operations such as warehousing or vehicle recovery, only overheads specifically attributable to the haulage operation should be allocated directly to them.

Overheads are all business costs not specifically identified in the cost sheets.



# Typically, they will include:

- a) Management (including working directors), Supervisory and Clerical Salaries and Wages, including NHI, holiday, sickness pay and pension costs for those staff directly involved in the transport operation excluding drivers. Also include replacement staff. Where a manager is in charge of both transport and warehousing the costs need to be apportioned accordingly;
- b) Administration Overheads: These include total property costs incurred by the transport operation, not including the warehouse i.e. rents and rates paid, gas, water and electricity, property repairs and maintenance, general insurance, general office expenses, postage, telephone charges, legal fees, bank charges (not interest), hire or depreciation of furniture and equipment, IT systems, depreciation or rental of staff cars, subsistence payments to managers, audit fees, management consultancy fees and sales promotion, provision for bad debts, security services, welfare and ancillary wages;
- c) Operational Overheads: Include Operator's licence, goods in transit insurance, price of equipment such as sheets, ropes, straps, dunnage, running costs of breakdown vehicles, service vans and staff cars including fuel, maintenance and cleaning of tanker/refrigerated/garage equipment, tachograph charts (if still using), tachograph analysis, tools and consumable materials.

# x) Other costs

Additional costs such as bonuses, low emission zone charges, overtime hours and subsistence, tolls and ferry costs do not accrue on any consistent time or distance-related basis. They are specific to individual jobs. They must, therefore, be charged direct to those transport jobs as incurred and have therefore not been included in these Tables.

#### **Distance-related costs**

These are based on a best view of industry averages, adjusted annually by reference to the survey results shown on pages 5 - 7. These costs have been calculated as follows:

#### xi) Fuel

In the past the RHA cost tables have been based on the bulk fuel price as at 30<sup>th</sup> September each year. This year we have used a blended average to the end of September 2022. This is based on 60% bulk fuel purchases and 40% fuel card purchases.

For this year's figure the cost of fuel is calculated as 139.95 pence per litre (ppl) and Ad Blue at 92 ppl. Companies will purchase their fuel in different ways and therefore you need to use your own actual fuel costs to determine year on year increases/decreases.



# xii) Lubricants & additives

These are included in the repairs and maintenance figures below.

# xiii) Tyres

These are based on average costs per mile taken from the survey. We have used a tyre life of 65,000 miles per annum based on an annual truck mileage of 75,000.

# xiv) Repairs & maintenance

All service and repair related costs have been included under this heading, however, routine servicing costs and contract repairs (which are often charged on a monthly basis, under contract) are frequently recovered as a separate, time-related item. Lubricants and certain additives are included in these figures.

#### **NOTE**

All of the costs we have outlined above will vary from operation to operation. This is why you **must** incorporate your own fleet figures when using these Tables.



# Costs for a 44 tonne gross (6x2 + tri-axle c/s) combination

Data	Average Figures	Your Figures
Vehicle price (representative) tractor only	£121,822	
Average depreciation period (years)	6	
Typical miles per annum	75,000	
Average days worked per annum	240	
Average miles per gallon	8.3	
Costs Time-related per annum	£	
Driver employment costs	55,059	
Depreciation	20,304	
Licences	560	
Vehicle insurance	5,015	
Interest on capital (6.0%)	3,655	
Overhead per vehicle	33,195	
Ownership of 1 trailer (page 14)	4,358	
Total time costs	122,145	
Time cost per day ÷ 240	£508.94	

**Note** Bonuses, excess hours, subsistence and similar are not included. These should be added to costings for rates as incurred, by job. Figures are rounded to nearest pence.

		+ Trailer	
Mileage-related	ppm	ppm	
Fuel at 139.95 p. p. litre	76.65		
Additive at 49.5 ppl	3.06		
Tyres	2.60	3.24	
Repairs and maintenance	11.59	4.77	
Total mileage costs	93.90	+8.01	

N.B. Chargeable rate = time cost + mileage cost + job specific costs + profit There is an element of roundup in these figures.



# Costs for a tri-axle trailer (curtainsider)

Data	Average Figures	Your Figures	
Vehicle price (representative)	£33,526		
Average depreciation period (years)	10		
Costs Time-related per annum			
Driver employment costs			
Depreciation	3,353		
Licences			
Vehicle insurance			
Goods in transit insurance			
Interest on capital (6.0%)	1,006		
Overhead per vehicle			
Total time costs (rounded up)	4,359		
Total daily cost	18.16		

Note Operators using more than one trailer per tractor should adjust this cost as appropriate.

Mileage-related	ppm	
Fuel		
Tyres	3.24	
Repairs and maintenance	4.77	
-		
Total mileage costs	8.01	
-		

N.B. Utilise the adjacent column to enter your own figures for this vehicle and trailer type.



# Alternative methods of vehicle and trailer acquisition

Although 70.3% of members purchase or part purchase their vehicles there are a number of alternative vehicle acquisition methods available. Meanwhile a growing 44% of the members surveyed use a combination of leasing arrangements, purchase and contract hire to acquire their trucks. Very few of our members use leasing or hiring arrangements without purchased options.

According to the BVRLA more and more companies are choosing to acquire vehicles through some form of funding agreement rather than buying them upfront. They have a choice of purchase - based funding, contract hire or leasing. These forms of funding involve paying a regular monthly amount over a specified contracted period.

Purchase-based funding methods include hire purchase and contract purchase. Lease-based methods include contract hire, finance lease and operating leases.

Before opting for a funding method, an organisation needs to consider the overall cost of each approach, the flexibility it provides, how it will affect the balance sheet and what the potential tax implications are.

The length of contract with your customer can also have an impact on the method of vehicle acquisition.



# RHA Survey on movement of costs

PERIOD: 1st OCTOBER 2021 – 30th SEPTEMBER 2022

(a) (b) (c) (d)

% Total Cost 30.9.21	Cost Category	%Price Movement in period	% Total Cost 30.09.22
14.23	Vehicle, Trailer & Depreciation	18.88	14.25%
0.34	Road Tax	0	0.28%
2.86	Insurance	5	2.53%
29.96	Driver Employment Costs	10.10	27.73%
6.68	Repairs & Maintenance	10.0	6.18%
2.37	Tyres: Replacement tyres, tubes etc.	10.5	2.21%
18.08	Overhead Costs	10.0	16.72%
74.52	74.52 TOTAL		69.89%
24.74	Fuel	39.2	28.95%
0.74	Additive	86	1.16%
100.00	Total = Fuel + Other Costs	18.96	100

*2018 Fuel ppl (30/09/18)	101.88
*2019 Fuel ppl (30/09/19)	102.71
*2020 Fuel ppl (30/09/20)	90.61
*2021 Fuel ppl (30/09/21)	100.53
2022 Fuel ppl (30/09/22)	139.95

The above figures relate to a 44-tonne artic plus tri-axle trailer. The trailer costs are included under Vehicle and depreciation. Running costs are based on 75,000 miles per annum and 8.3 mpg. \* Note the fuel costs for 2018 to 2022 are based on the blended year average of 60% bulk fuel price and 40% card rate up to the end of September 2022.



# Cost Movement Report

# September 2022

# 44 tonne gross 6 x 2 articulated unit plus a 13.6 metre tri-axle curtainsider

Mileage	75,000	75,000	
	September 2022	September 2021	Change in % points
	%	%	2022 - 2021
Wages	27.73	29.96	-2.23
Depreciation	10.22	10.14	0.08
Licence	0.28	0.34	0.06
Insurance	2.53	2.86	0.33
Interest	1.84	1.82	0.02
Overheads	16.72	18.08	-1.36
Trailer	2.19	2.27	-0.08
	61.51	65.47	-3.96
Fuel	28.95	24.74	4.21
Additive	1.16	0.74	0.42
Tyres	2.21	2.37	-0.16
R & M	6.18	6.68	-0.5
	38.5	34.53	3.97
		100.0	0

# **NOTES**

- 1. Average miles per year is as per the RHA Cost Tables 2023, page 13. Figures are only valid at these mileages.
- 2. Differences relate to "roundup / rounddown" calculations



# Index of operating costs

30<sup>th</sup> September 2000 = 100 (excluding AdBlue – September 2018)

V	1	1		1			1	1				1	1	
	09.09	09.10	09.11	09.12	09.13	09.14	09.15	09.16	09.17	09.18	09.19	09.20	09.21	09.22
COST CATEGORY														
Vehicle Depreciation	132	136	147	156	162	170	176	180	185.4	189.1	194.3	199.2	215.1	255.7
Road Tax	42	42	42	42	42	42	42	42	42	42	42	42	19.6	19.6
Vehicle Insurance	109	112	119	127	134	137	140	143.5	151.2	160.3	166.7	175	177.7	186.6
Drivers: Employment Costs	156	158	161	169	172	177	182	188	193.2	201.9	212	217.5	256.7	282.6
Repairs and Maintenance	149	155	164	171	179	182	186	190	195.7	199.6	204.1	210.4	223.1	245.4
Replacement Tyres	134	138	159	174	183	187	187	189	194.4	196	200.3	204.3	214.5	237.0
Overheads	152	155	161	167	172	176	180	185	190.6	196.3	204.2	210.3	235.6	259.2
Fuel (Diesel)	140	154	177	179	175	164	137	140.5	150.4	168.2	163.5	143.2	158.9	221.2
AdBlue Additive										100	100	103.2	139.9	260.2
Index of total operating costs	148	155	168	173	175.2	174.9	168.8	173.4	180.5	191.9	195.5	193	215.6	256.5

Note in the above table the fuel index has been changed for the years 2018 to 2022. Fuel costs are now based on 60% Bulk fuel purchases and 40% card purchases. Prior to 2018 the fuel cost was based on the fuel price as at 30/09/2022



# Calculating rates and charges

It is a frequent mistake to approach the calculation of charges and costs on the basis of a requirement for a revenue per day or revenue per mile figure. The difference in mileage for haulage jobs undertaken necessitates having a separate cost per day/hour and cost per mile.

You must approach the task of quoting customers by assessing both the time likely to be required to complete a job and the number of miles that will be covered. You must then apply to the time element, the cost per day as determined; add any specific bonuses, extra hours, subsistence, tolls, emission zone charges, sundries and miles at the appropriate cost.

This will give you a fair cost for the job for which you are quoting. To this you must add a percentage for profit. In today's market this is extremely difficult because, on many occasions, you will find the costs, as properly determined by your calculations, are greater than the revenue likely to be derived from the rates being charged by your competitors.

Notwithstanding this, you must aim for a profit margin and a practical exercise is to add (say) 5% (but get more if you can!) to your total costs, when comparing yourself with what you know about competitive market rates. Each year though, we look at the recently released Motor Transport Top 100 report as it gives an outline of what is being achieved in the market by the top UK logistics firms. In 2020, pre-tax profits were reported at a dismal 1.51% (hardly surprising), last year was better (3.4%) and the 2022 figure recently reported has improved to 5.2%. Turnover to appears to have doubled, up from 4.16% to 8.9%.

In the case of fuel, you should always attempt to negotiate a clause into all rate schedules and contracts allowing fuel price increases to be passed on to the customer as they occur. Note that over the last year, fuel costs have increased significantly, and you should be looking for a cost increase, not only for fuel but all other costs as these costs overall have increased above inflation.

You need to decide whether you can accept a job at less than the rate calculated and, even more crucially, whether you can accept it at less than the true cost of undertaking it. In anything but the shortest run you cannot afford to do the latter; except perhaps for casual or special jobs which fit into the pattern of your overall work.

You should never accept work at rates which, overall, you know will not cover the costs you have identified from following the rules suggested in these notes. On page 21 we present a Template showing the steps you should take when calculating a rate.

Further guidance on rates is given in the Supplementary Paper on page 25 onwards. If you have any queries or require advice concerning these tables please contact Gwynne Richards at: gr@appriseconsulting.co.uk. 01446 500231, 07968 874890

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# Estimate of working capital requirements

Start-up Position – 44 Tonne Artic and tri-axle trailer

**Wages** : 8 weeks 8,471

**Licence** : 6 months in advance 280

**Insurance** : 6 months in advance 2,507

Acquisition, unit & trailer : 3 month's lease in advance 11,588

Overheads : 50% for 8 weeks 2,553

Fuel : 1442 miles per week

for 8 weeks at 79.71 ppm 9,196

Vehicle and trailer Services : 992

TOTAL (say) £35,587

This calculation provides an indication of the money you may have to pay out before you start to receive money from your customers. Note that many customers can take up to 90 days to pay invoices.

The above figure should be viewed against the new requirements for financial standing (available cashflow) levels for standard national and international licence holders. The Government stipulates that as from 1<sup>st</sup> January 2021 the new levels are £8,200 for the first vehicle and £4,550 for each additional vehicle you request to be authorised.

Existing operators making variation applications will be required to demonstrate financial standing for the existing and additional fleet authority against the new levels. Applications received after 1<sup>st</sup> January 2021 are processed against the new rates.

Any applicant or licence holder appearing at a public inquiry before a traffic commissioner after 1<sup>st</sup> January 2021, where additional evidence of financial standing is requested, will be required to satisfy the new levels.

The rates for restricted licence holders and applicants remain the same; £3,100 for the first vehicle and £1,700 for each additional authorised vehicle.

Further information can be found at: <a href="https://bit.ly/2GH8IYK">https://bit.ly/2GH8IYK</a>

Also note that the above figures do not take into account the initial outlay for an Operator's Licence and any specific CPC training.



# Template for rate quotation

1	Customer name	
2	Job details	
3	Size of Truck Required	
4	Estimated Days/Hours for Job	
5	Estimated Trip Miles	
6	Details of Market Competitor	
7	Rates if Known	
8	Anticipated Time Costs of Job	
9	Anticipated Distance Cost of Job	
	Job Specific Costs:	
10	Subsistence	
11	Bonus	
12	Tolls	
13	Ferry	
14	Other e.g. Emission zone charges	
15	Total Cost of Job	
16	Target Margin	
17	Target Revenue	
18	Target Rate	
19	Agreed rate	
20	Shortfall/Excess	
21	Return Load Time Cost	
22	Return Load Distance Cost	
23	Return Load Specific Costs	
24	Total Return Load Costs	
25	Total Round Trip Cost (15 + 24)	
26	Return Load Revenue	
27	Minimum Required Outward Revenue (25 – 26)	
	Profitability	
28	Actual Total Revenue	
29	Actual Time Costs	
30	Actual Mileage Costs	
31	Actual Specific Costs	
32	Actual Profit/Loss	
		-



# Notes:

(a) You will often find that a job will be completed with some hours in the day remaining. These hours will be costing you money if you haven't taken account of them in your rate to the customer.

You will need to decide whether you can use these hours for something else or, if not, can they be charged to the job without making you uncompetitive?

- **(b)** Where a return load is involved, it is important that you cost the whole round trip, allowing for the revenue you are likely to earn for the return trip and deciding how much to allow against the outward job for which you are quoting.
- (c) Ensure you are using all of your own costs.
- (d) Rate = time cost + mileage cost + job specific costs + profit



# Fuel adjustment Specimen agreement and calculations

This Agreement dated [Enter date] is between [Enter name of haulier] and [Enter name of company]. It is agreed that:

- (a) the base price of diesel for the purpose of this Agreement is [Enter amount] pence per litre, exclusive of VAT (Based on previous month or year or start of contract)
- (b) the haulier may adjust the price(s) for work undertaken for the customer by reference to the following formula:
  - (i) a change in the price of fuel in the period (Line 7)
  - (ii) the cost of fuel to the haulier shall be determined as a percentage of the haulier's total cost, as recorded (Line 10)
  - (iii) the adjustment to be applied (by way of either increase or decrease in price) shall be the product of (i) x (ii)
  - (iv) an adjustment will be triggered when the change in cost is + / % (to be agreed) (Note this is discretionary)

Such adjustments shall be calculated at [Enter frequency, eg weekly, monthly, annually] intervals.

	EXAMPLE	NOTES			
1	Vehicle type		44 tonne artic		
2	kms in period			120,675	
3	Mpg / kms per litre		8.3 m <sub>l</sub>	pg / 2.94 kms per litre	
4	Litres in period		41,070		
			£	%	
5	Fuel at base price	Date			
5	100.53	25/09/2021	41,288		
6	Fuel at base price	Date			
0	139.95	30/09/2022	57,477		
7	Increase/ (decrease)		16,190		
8	% fuel increase		i	39.21%	
10	Fuel % at base price	see page 17	ii	24.74%	
11	% increase/(decrease) during period	ixii		9.70%	

**1 mile =** 1.609344 kilometres **1 gallon =** 4.54609 litres

**1 mile per gallon =** 0.354 kilometres per litre

Members must use their own actual figures throughout. The appropriate adjustment is shown in line 11.

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# Calculating carbon footprint

Supply chain managers are becoming increasingly concerned with minimising the carbon footprint of their operation. This includes all transport: vehicle operators are therefore being required to measure their own footprint profile. Some invitations to tender may well ask for this information to be included in the tender response.

To assist you in this we have produced the following calculation:

- To convert mpg to kms per litre multiply by 0.354
- To obtain litres per km divide 1 by the km/litre figure above
- To obtain CO2 in kg per km multiply by 2.63
- To obtain CO2 in g per km (the accepted measure) multiply by 1000

# Example:

# Carbon footprint calculation

Assume a 44-tonne returning 8.3mpg:

8.3 multiplied by 0.354 gives 2.94 km/litre;

1 divided by 2.938 gives 0.34 litre/km;

0.34 multiplied by 2.63 gives 0.8942 kg of CO2 / km;

Finally, that figure multiplied by 1,000 gives 894.20g of CO2 / km.



# How to determine your own costs.

#### THE RHA/AC COST TABLES

- 1. The objective of this paper is to visit the Cost tables and to view them in the context of how RHA members should use them to identify and manage their own actual costs.
- **2.** These Tables are unique in several respects:
  - i) They are based on actual member survey costs
  - ii) They emphatically reject the idea of a single cost (and hence the rate) per mile or per day. They separate time-related and distance-related costs and keep them so. This is because both cost per mile and cost per day vary infinitely according to the number of miles travelled in the day.
  - **iii)** They contain numerous indices and guides to costing and rate calculation. These are all yardsticks against which you should measure your own figures.

In addition, in a comparison with other published Cost tables, they score very highly as being on or closest to the average of all costs at similar annual mileages.

They are therefore an extremely valuable tool for helping members.

This is fine but it does of course mean that members must be able to determine their own specific costs before they can take advantage of this facility. The rest of this paper is devoted to seeing how members can do this and make use of the Explanatory notes on pages 8-12.

3. Brian Fish, the previous author of these cost tables was often asked "what is the point of calculating costs when customers tell me the rate they want to pay?"

All too often, in this highly competitive industry, the method of rate setting consists merely of finding out what is currently being paid and undercutting it! This approach has always been prevalent in our industry, accounting for a generally unacceptably low



level of rates and a high level of company failures as can be seen in the recent MT report.

So why are accurate costs essential, even when they apparently do not, by themselves, gain profitable traffic?

#### All hauliers MUST be able:

- a) to know the rate at which they can earn a profit.
- b) To react quickly, to reflect increased costs in their charges and demonstrate to customers the validity of increases.
- c) to analyse costs, update budgets and monitor current performance regularly and frequently.
- d) to forecast operating results and cash flow.
- e) to know by just how much rates can be reduced under market pressure and still yield a contribution and to judge how long a business can survive on that basis.
- f) to compare profit forecasts with achieved results, overall or by individual contract/job.
- g) to understand which contracts are profitable and which require a rate increase or even be terminated
- **4.** The aim of this paper is to see how the cost sheets on pages 13 18 relate to the actual financial performance of the operator.
- 5. It is vital to realise that current rates are NOT a function of historical costs. They must be related to the actual current operating costs of the fleet concerned.

In the RHA/AC Tables, as a result of surveys, an average utilisation factor of 240 days has been assumed. Not only are there considerable variations around this average, there are also other factors to be measured and taken into account e.g.:

- The number of hours used in each day, for the purposes of reducing cost per day to a cost per hour;
- The extent to which vehicles are multi-shifted, in which case additional costs will be incurred in sustaining the additional shifts. However, the overall cost per hour should reduce.
- The extent to which weight and volume capacities are filled.



6. At the outset we noted that we reject the concept of a single cost, and hence a rate per mile or rate per day. A cost per job of work is preferable.

We noted that there are two elements of cost - time and distance. Total cost is a continuously varying function of these two; thus, it is totally wrong to reduce total costs to a figure per mile, or per day, a mistake made by many operators. There is only ONE period/distance at which the supposed average cost per mile is correct; below that figure it will be too low and above, too high.

Herein lies the problem of so many operators who still rely on these figures or are forced by clients to charge on that basis!

#### **Example**

Among the fleet of RHA Member Ltd today one 44-tonne tractor unit is doing local trailer shunting and will cover 100 miles. Another one is doing a trailer exchange and will cover 250 miles, a third is undertaking a single day journey over 370 miles and a fourth is working over a two-day period, traveling a total of 730 miles. We have assumed an average of 8.3 mpg. Note that it is likely that the lower mileage vehicle might not achieve 8.3 mpg. We have also included the trailer cost here. Here are the costs compared with those of the fleet average of 75,000 miles per year:

Table 11.11 - Comparison of various transport operations based on mileage travelled

	-				
	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	Average per vehicle p.a.
Miles	100	250	370	730	65,100
Time-related costs	£508.94	£508.94	£508.94	£1,017.87	£122,145
Distance related costs	£101.92	£254.79	£377.09	£743.99	£66,347.67
Subsistence				£26.20	£786.00
Total cost	£610.85	£763.73	£886.03	£1,788.07	£189,278.61
Margin	£30.54	£38.19	£44.30	£89.40	£9,463.93
Total revenue	£641.40	£801.92	£930.33	£1,877.47	£198,742.54
Notional mileage charge	£6.41	£3.21	£2.51	£2.57	£3.05

Note the average cost column is based on 240 days worked and 65,100 miles per annum based on the four different trips.

# So, what is our going rate per mile or rate per day?!?!

7. As can be seen above it can be dangerous to quote a single cost per mile or per day on a fleet average. Each job needs to be quoted on a day rate plus mileage rate or a total cost per job.



8. It has now been assumed that you have established accurate costs to compare with those shown in our Cost Tables. When invited to quote for work the first task will be to assess the time needed to complete the job, the distance to be covered, any additional costs not included in the standard costs, a profit contribution and the difficult problem of dealing with return load possibilities and revenues.

It is a dangerous myth that return loads only incur the cost of diesel. You have to take into account additional driver costs, running costs and any potential work lost by taking on a backload.

Of course, it is not always as simple as a round trip with a container. If, for example we are "tramping" and have to organise the return load as well as the outward load, we must then add all the extra time and distance costs associated with the return load to our overall costs; we must then assess total required revenue on a normal basis. This will then be related to the known or anticipated revenue from the return load to help us decide how much we should or can obtain for the outward load.

This means that we are using actual figures for the whole operation instead of rules of thumb (e.g. two thirds of outward rate for return loads). These rules have never been satisfactory.

# A full template for calculating rates is provided on page 21 of the tables.

- **8.** Another use to which these cost figures should be put is in forecasting and monitoring operating results.
  - The actual revenue and costs of a journey can be compared with the quotation to check performance
  - ii) Revenues of every vehicle can be determined for a week, against which standard daily costs, extra costs and distance costs are set to forecast profit for that week. That figure, built up week by week to a monthly total, will then be compared with the actual result produced in the Monthly Management Accounts.



#### Note here that:

- We must charge ourselves for every available working day, to match the Management Accounts;
- b) In using a budgeted standard distance-related cost per mile we are smoothing the impact of fluctuating costs; thus if in one month we have two sets of tyres to replace and a blown engine, actuals in the Accounts will be greater than standard. These variations must be investigated and if actuals begin to run consistently ahead of standard, the latter must be recalculated.

The monitoring process described here should be extended to provide us with data on vehicle and driver utilisation; these factors, it has been stressed, are vital to profitable operations.

#### Conclusion

Many will say that this is all too academic for the haulage industry. Not so!

Companies need to fully understand their costs. This industry has become one of low margins as witnessed over time by the Motor Transport survey of top 100 companies by turnover, where the current average rate of pre-tax profit to sales is 5.2% however in the recent past margins have been under 2% with many operations incurring losses.

Knowing costs and applying them is one of the surest ways to secure decent returns.



# **RATES AND CHARGES**

# **Examples**

- i) We are asked to give a quotation for moving 1,000 tonnes of palletised product from a factory to a customer situated 20 miles distant. We are using 44 tonne gross vehicles.
- ii) We decide from our experience and knowledge of the job that a vehicle should be able to achieve 6 trips in a normal working day, thus covering 240 miles. Each load = 25 tonnes.
- iii) Referring to the Cost Tables, we derive the following standard costs and estimate other items as indicated:

1 standard day at £508.94	£508.94
240 miles at 101.92 ppm	£244.60
Drivers' bonus and additional overtime	£29.00
Weighbridge costs	£30.00
Total Cost	£812.54
Target Margin (say 5%)	£40.63
Desired revenue	£853.16

Desired rate and quotation per tonne £5.69 (assuming 25 tonnes per load)

- iv) You must substitute your own cost figures for those shown above. Note that for a shunt operation 8.3 mpg may not be a realistic figure.
- v) If possible, and before submitting this quotation, try to determine what the "going rate" for this traffic is.
- vi) Decide whether, or to what extent, any gap between £5.69 and the market rate can be bridged.
- vii) Negotiate as strongly as possible, on the basis of identified costs, to educate the customer towards realistic figures.

NOTE: In this illustration we use the figures in the 2023 Cost Tables.

Remember that you must substitute current costs, particularly for fuel.



# Example 2

# **RATES AND CHARGES**

- i) We are asked to give a quotation for loading a container at a shipper's factory, delivering to a nominated port and returning to base with a replacement empty container. We are using a 44-tonne articulated unit. We use the same trailer cost as for a tri-axle curtain sider for this example.
- ii) We decide from our experience that this task will occupy two full working days, and we ascertain that the total distance to be covered will be 480 miles.
- iii) Referring to the Cost Tables, we derive the following standard costs and estimate other items as indicated:

2 standard days at £508.94	£1,017.87
480 miles at 101.92 ppm	£489.20
Drivers bonus and additional overtime	£29.00
Subsistence and Toll costs	£56.00
Total Cost	£1,592.07
Target Margin (say 5%)	£79.60
Desired revenue	£1,671.68

- iv) The haulier will of course have substituted his/her own figures for those shown above.
- v) If possible, and before submitting this quotation try to determine what the "going rate" for this movement is.
- vi) Decide whether or to what extent the gap between £1,672 and the market rate can be bridged.
- vii) Negotiate as strongly as possible to "educate" the customer towards realistic figures.

NOTE: In this illustration we use the figures in the 2023 Cost Tables. Remember you must substitute current costs, particularly for fuel.

Numbers have been rounded to the nearest full number.



# **Useful Information**

# A Key Performance Indicators

There is an old adage – "if you don't measure you can't manage". The following are examples of key performance and productivity indicators which can assist companies achieve their goals and vision and let them know quickly if things are not going to plan.

# Key performance indicators

Table 1 shows examples of Freight Transport Key Performance and Productivity Indicators.

It is not suggested that all of these measures are introduced. Choose the ones which are important to you as a company and to your customers.

Table 1 Examples of performance indicators for freight transport

Key performance indicator	Description		
Cost indicators			
Average cost per unit delivered (£)	Average cost of delivering a specified unit (e.g. a pallet		
	or tonne of goods).		
Total whole vehicle cost (pence per	Total cost of your fleet per mile/kilometre. Made up of		
mile/kilometre)	running, standing and driver costs.		
Average running cost (pence per	Average cost of running your fleet per mile/kilometre.		
mile/kilometre)	These are the costs incurred for running the vehicles (fuel, tyres, lubricants and maintenance).		
Average standing cost (pence per	Average standing costs for your fleet. Standing costs		
mile/kilometre)	are those incurred whether or not the vehicle is running		
	<ul> <li>depreciation of the vehicle, vehicle excise duty,</li> </ul>		
	operator licence fees and insurance.		
Operational indicators			
Asset efficiency	Average utilisation of fleet in cubic capacity or tonnes		
	carried (outbound and inbound)		
Vehicle fill efficiency	This calculates the percentage of actual load carried		
	against the potential capacity of the vehicle fleet.		
	(tonnes or cube)		
Average miles per gallon/kms per litre	Average fuel consumption rate for your fleet or by individual truck and driver		
Total empty miles/kms run ('000s)	Total number of miles/kms run by your fleet without a		
	payload.		
Total miles/kms run ('000s)	Total number of miles/kms run by your fleet.		
Percentage empty running total	Total distance run by your fleet without a payload as a		
	% of total miles/kms run.		
Average time utilisation	This calculates the percentage of time that the vehicle		
	fleet was actually in use against the potential time		
	available.		



unlo	oaded				
Service indicators					
•	Late deliveries / on time deliveries made by your fleet				
	a % of total deliveries				
9	Damaged items as a % of total items delivered				
	No. of claims received as a % of total deliveries				
	Number of delivery notes/invoices etc completed				
cor	rectly / total number of deliveries				
Na man lianna a					
Compliance	al assert as a factorial and a large that the floor target and a factorial and				
9	Total number of overloads in the fleet as a % of loads				
mo					
_	al number of traffic infringements in the fleet as a %				
	vehicle movements				
•	al number of drivers' hours infringements in the fleet				
asa	a % of trips				
Maintenance					
Failed safety inspections Per	rcentage of failed or overdue safety inspections for				
• .	ur fleet as a % of total safety inspections				
	% time vehicles off road (VOR) due to				
VOR) mai	intenance/accidents /total time available to work				
otal maintenance cost (pence per nile/kilometre)	al cost of maintaining the fleet per mile/kilometre.				
/ehicle downtime Per	rcentage of defects rectified in 24 hours total				
Invironment					
	erage CO <sub>2</sub> produced (kg) per mile/km travelled by				
	ur fleet				
	al CO <sub>2</sub> emissions produced by the fleet over a				
per	riod				
Safety indicators					
-	ne lost through incidents as a % of total working				
day	/S				
	mber of days/miles/kms since last reportable				
inci	ident				



# B Vehicle Utilisation and cost sheets

Individual vehicle	records can	also be	kept as	follows:
--------------------	-------------	---------	---------	----------

Vehicle Reg. No.	
------------------	--

	Week Ended	Month Ended	Year Ended
Days Idle			
Days VOR			
Revenue			
Days at Standard			
Miles at Standard Ppm			
Drivers' Subsistence			
Drivers' Bonus, Overtime			
Relief Driver Costs			
Sundries			
Total Costs			
Contribution			



# **NOTES:**

- 1. Idle and VOR days should desirably be coded according to reason.
- 2. Drivers' employment costs must allow for the fact that most drivers now have at least four weeks of paid holiday; therefore it is probable that relief drivers will be used to keep vehicles at work at peak potential. Similarly, sickness relief and training costs must be taken into account.
- **3.** There will be changes in the standard time costs where vehicles are multishifted and always as costs change.

RHA

# Apprise Consulting Ltd

Apprise Consulting Ltd is a supply chain and logistics consultancy and training company assisting clients to improve all aspects of their supply chain and logistics operations.

The company was established in 2003 and has grown organically year on year.

Alongside our core team we have over 20 Associates who have worked in various market sectors at Director level, mostly in operations. Our client base includes major Utility companies, retailers, FMCG manufacturers, 3PLs and the Public sector.

Our approach is one of getting to know our clients' business and working closely with them to provide solutions. We do not operate with ready-made toolkits as we believe each client is different and may require a different approach.

We have close ties with specialist consultancies in transport routeing, health and safety, change management, procurement and transport planning.

If we are unable to provide a solution internally, we invariably know of a company who can assist us.

As a company we are always looking to introduce new products and services to the market. An addition to our portfolio is a web site providing supply chain and logistics tools including a transport audit (www.howtologistics.com)

We are also involved in providing training courses in transport, warehousing and outsourcing. These are produced in conjunction with Warwick University, Supply Chain Academy and the Chartered Institute of Logistics and Transport.

The Warehouse Management course provided by Apprise Consulting is now fully accredited by the CILT. An online version can be found at <a href="http://appriseconsulting.teachable.com">http://appriseconsulting.teachable.com</a>

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