

VOLVO TOWING



VOLVO

A GUIDE TO TOWING



When we say that the Volvo has a superb reputation as a towing vehicle, the sceptical might well ask, amongst whom?

The answer is amongst those people who really know about the subject: the towing enthusiasts.

In 1986 the readers of Practical Caravan voted the Volvo 240 Top Towcar.

Asked which car they would realistically hope to replace the Volvo 240 with, they then answered, the Volvo 740.

The previous year The Caravan Club had their say, voting the Volvo 360 GLE Towcar of the Year.

So what is it that makes the Volvo range so exceptional?

The simple answer is that precisely those factors which make them such safe, reliable cars to begin with,

become even more important when a trailer is added.

On the following pages you will see why.

You will also discover plenty of advice on how to prepare your car before you leave home and what to look out for once you're on your way.

Furthermore, many of Volvo's tried and tested towing accessories are illustrated.

If you want advice about which one to choose, talk to your Volvo dealer. His staff have tremendous experience of all Volvo parts and accessories and have been trained to fit them correctly.

He will also be able to show you the range of new and used Volvo cars which have made such an impression on those who enjoy towing.

SIX THINGS TO LOOK FOR IN THE IDEAL TOWING VEHICLE

All cars are not created equal. Indeed, they were never designed that way. In the interests of a low purchase price, some have far too little power to be towing vehicles.

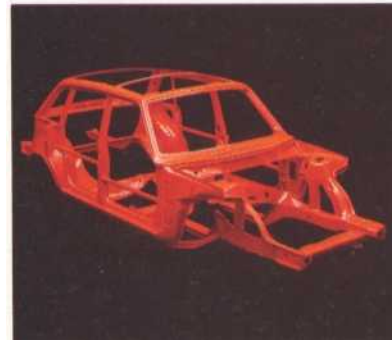
Others have the power, but use it for fast initial acceleration, which may impress the racing fraternity, but not those who are experienced at pulling heavy trailers behind them over all types of terrain.

To be a safe and reliable towing vehicle, a car must have many different characteristics. Volvo has them all.

The important features

1 Engine power

The more torque a towcar produces at lower engine speeds, the easier it will pull away, especially on hills. Every Volvo's extremely even torque curve gives it power to spare precisely where you need it. And, when you wish to overtake you'll find your car can go smoothly and without straining - a sure sign that the car is also operating very economically.

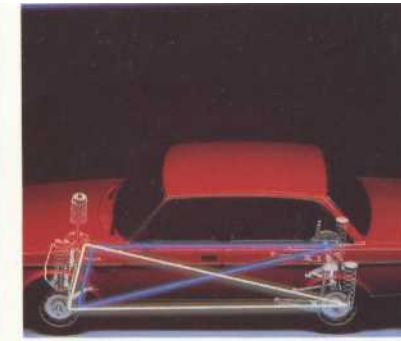


2 Rugged construction

The heavier the vehicle in relation to the trailer the better. Volvo's rugged construction gives it another big advantage here. In the table on the back cover you will find both maximum and recommended towing weights. The recommended weight is 85% of the car's kerb weight. Therefore Volvo give you a greater margin right from the outset. Only very experienced towers should attempt to pull the maximum weight and then only for short distances.

3 Safe braking

Downhill, the trailer creates a pushing effect, so brakes must be absolutely reliable. All Volvos have dual circuit braking. The 300 series has an axle split system which always provides you with front or rear braking. The 200 and 700 series* have a triangular split system - in the event that one system should fail, both front wheels can still be braked, along with one of the rear wheels. The car comes to a halt under complete control in a straight line. Antilock braking (ABS) is available as an option on the 740 range or standard on all 760s.



4 Proven gearboxes

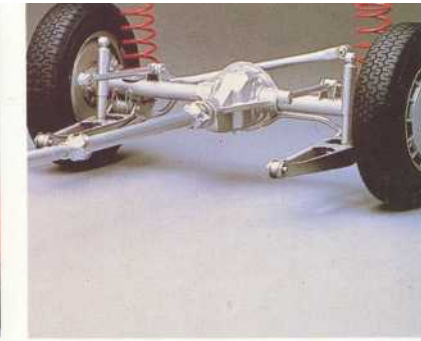
Towing always puts more strain on the gearbox, especially as the gears are often used to reduce speed. So they have to be tough. They also have to be reliable. All Volvo gearboxes have an enviable reputation for longevity. And, when it comes to towing, Volvo's automatic gearboxes are every bit as robust as the manual ones. However we would recommend the fitting of an additional oil cooler. Ask your dealer for further advice.

*except cars which are fitted with ABS.

5 Advanced suspension

People who tow tend to travel long distances. Volvo's advanced suspension system keeps you comfortable and maintains excellent roadholding, even under the most adverse conditions. One journalist said of a Volvo "It always felt so very stable and manageable."

On the latest 760 models and on 740 estates, self-levelling is now standard. This feature automatically compensates for heavy loads, keeping passengers comfortable and stopping headlights shining upwards into oncoming drivers' eyes



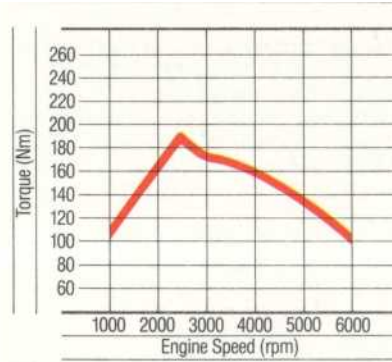
6 Constant stability

The aerodynamic styling of every Volvo has been designed to take into account crosswinds as well as headwinds. This, combined with Volvo's kerb weight produces a low level of side wind sensitivity and therefore better stability at all times.

Model example

The Volvo 240 DL Estate

You'll probably see more Volvo 240 Estates with towbars than without. This sturdy, spacious, reliable car epitomises all that is best about Volvo. Its reputation has made it a firm favourite with many different people, regardless of what they tow. The 240 was voted top Towcar for 1986 by readers of Practical Caravan, who also described it as "unrivalled at its price".



Accessories

Towbars

Volvo towbars are made from the toughest steel and meet all international safety standards and recommendations for height when laden.

Fixed towbars

Apart from the straightforward fixed towbar (see fig A) there are also two other types of Volvo towbars.



Fig A



Fig B

Retractable towbars

The towbar in fig B is retractable. When it's not in use, it simply swings away under the bumper, making parking easier. It is safely and securely fixed in place at all times and is available for 200 and most 700 series cars.

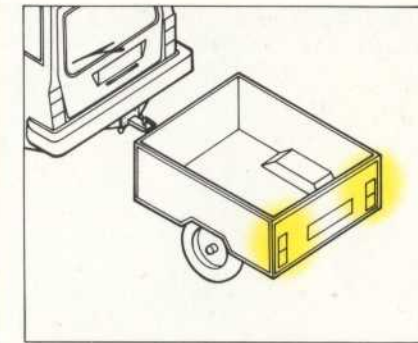
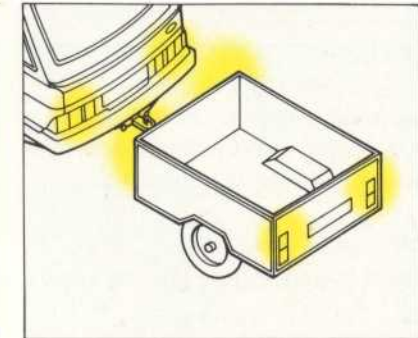
Removable towbar

On the right is the removable version. When the towing season is over you can simply undo 4 bolts and store the towing ball. This model is also adjustable for height and fits all 200 series models.

Towbar wiring kits

Volvo towbar wiring kits reduce the glare back which can be a problem when a car's rear fog lights are in use while a trailer is being towed. The Volvo seven pole socket which transfers electricity to the caravan's lights even allows a caravan's rear fog lights to be on while, at the same time, cuffing out those of the car.

A supplementary kit is available to power items inside the caravan when this seventh pole is needed for rear fog lights and a combined double kit is available which provides both facilities in one.



THE BEST PLACE TO BEGIN IS WELL BEFORE YOU START

Safe towing doesn't just take place on the open road. Good preparation is the best investment you can make. Having the car and trailer properly balanced will make driving far more of a pleasure and your trip much more relaxing.

So before you set off, spend a few minutes checking that everything is as it should be.

It will be time well spent.



Advice on safe towing

If you carry luggage in the caravan, rather than in the boot of the car, you will reduce the leverage effect upon the tow ball. So do this whenever you can. To increase overall stability, stow the luggage as low down as possible, ideally on the floor, and place particularly heavy items over the axle. Make sure that tyres are inflated to the maximum pressure given in the vehicle's handbook.

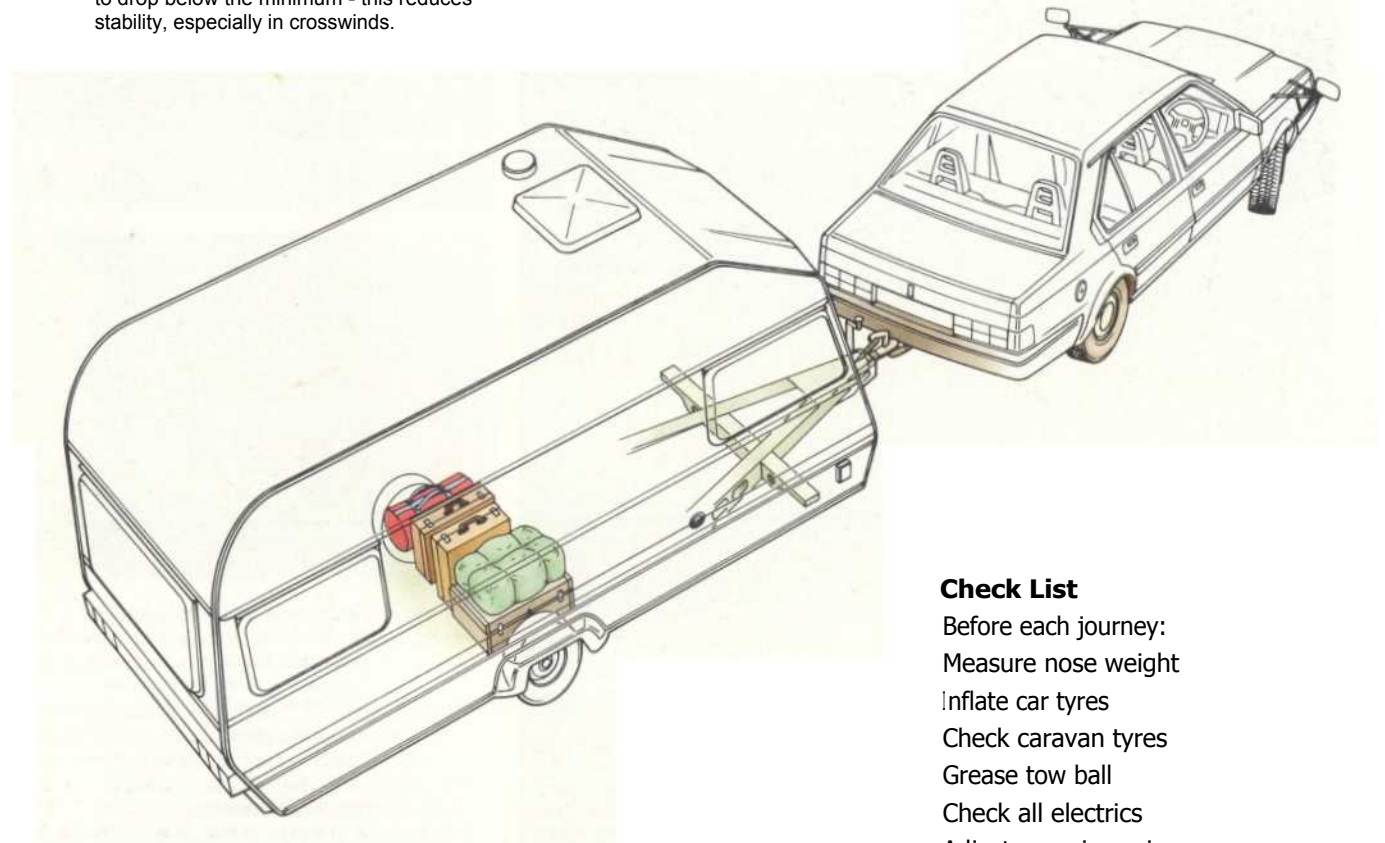
Pay particular attention to the nose weight. This is the pressure exerted by the trailer on the tow ball. The figures for all Volvo models are given in the table on the back cover. It is important that you never exceed the maximum pressure - this forces the front of the car up and makes the steering too light. Nor should you allow the pressure to drop below the minimum - this reduces stability, especially in crosswinds.

The nose weight can be checked with one of many special noseweight indicators available from caravan dealers.

Alternatively, placing a set of bathroom scales underneath the coupling head and bridging the gap with a piece of wood until the caravan floor is vertical, will serve just as well.

Often you will find there is no need to increase or decrease the total load in the trailer. Simply moving heavy items forward or backward will produce the ideal nose weight.

If you have never reversed the trailer before, try to find somewhere to practice where you're off the road. Don't leave it until you're on your way, with a queue of impatient motorists behind you!



Check List

Before each journey:

Measure nose weight

Inflate car tyres

Check caravan tyres

Grease tow ball

Check all electrics

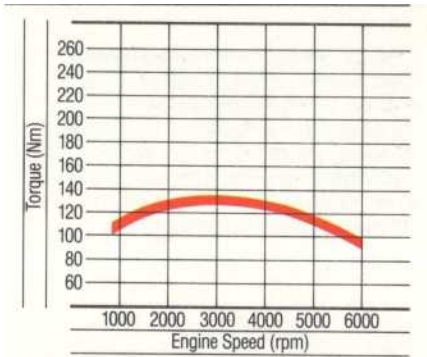
Adjust rear view mirrors

Fix towing mirrors if trailer is wider than your car.

Model example

The Volvo 340 GLE

The Volvo 340 is available both as a saloon and the hatchback version shown below. The 1.7 litre engine provides excellent torque and good economy. With its reassuring stability and the responsive handling you need when you're towing, the Volvo 340 generates confidence whatever the road conditions.



Accessories

Roof rack

People who tow need plenty of space for luggage, too. Below is the huge 80in x 46in all-aluminium roof rack for Volvo Estates. This has a front spoiler to reduce wind resistance and is capable of carrying 220 lbs.

There is also a roof rack made of aluminised steel which fits all Volvos, including the saloons. It is fast to fit, measures 40in x 38.5in and, although it only weighs just over 14 lbs itself, it can carry 110 lbs on the 300 series and 165 lbs on the 200 series.



Towing mirrors

There is no need to drill the body work to fit Volvo towing mirrors. They clamp easily onto either wing and provide an excellent view to the rear with no vibration.

Full load liner

If you have to carry dirty loads, this Full Load Liner protects your estate when the rear seat is folded down. A Half Load Liner is also available for estates or hatchbacks.



There are also Load Carrier Bars which are available individually. With specially ordered fittings, these can hold skis, bicycles or surfboards.

All-round box

For the safe, convenient storage of loose items, there is this ingenious All-Round Box. Fully open it measures approximately 20in x 14in x 9in and can hold everything from shopping to children's toys. It folds almost flat when it's not required and was voted one of Motor Magazine's Top Ten Accessories when it was first launched.



TOWING

INTRODUCES YOU TO A NEW KIND OF FREEDOM

Towing allows you to go where you want, when you want.

Whether you're towing a boat, a glider, a horsebox, a caravan or a trailer tent, you will experience the extra pleasure of being able to get away when whim and weather allow.

With just a little knowledge about what to expect and how to handle conditions which are only slightly different from ordinary driving, there are few roads you can't travel.

In transit

Never tow long distances with a car which has not been fully run in. With any Volvo 1,000 miles is a sufficient run-in period. However, always keep your eye on the fuel gauge when you're towing. Greater weight and increased wind resistance both add to petrol consumption.

Take care when you are alongside large lorries. Their suction effect when you're towing is that much greater.

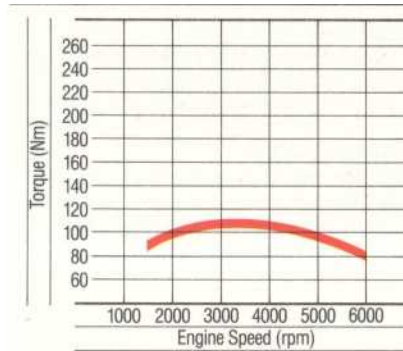
Although the torque of Volvo engines is more suited to towing than that of many engines, you can still reduce the effort necessary by intelligent use of the gears. Selecting a low gear in hilly country is very important. It will provide greater torque when you're ascending and increase engine braking on long descents.



Model example

The Volvo 340 GL

The Volvo 340-this time the saloon. Besides the 1.7 model below, there is also a 1.4 version which represents superb value for money. As the torque graph shows, it has more than enough power for anyone wishing to tow light camping or business trailers.



Accessories

Levelling systems

Because towing changes any car's original handling characteristics, it is advisable to firm up the rear suspension.

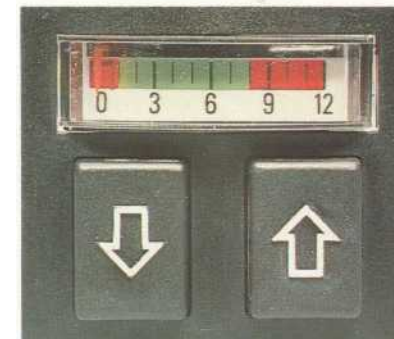
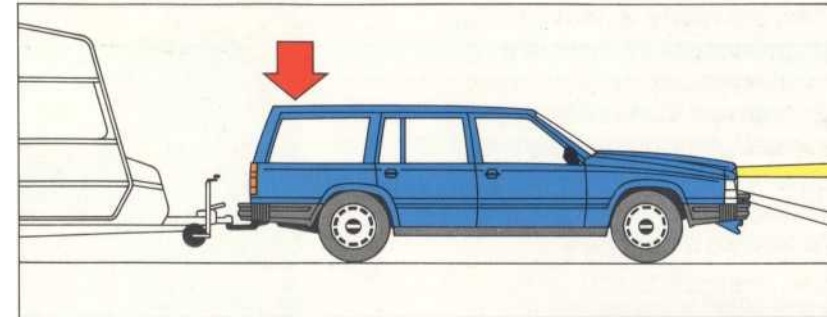
One answer is Volvo's Automatic Levelling System. This keeps vehicles level, stopping a heavily laden car bottoming on rough surfaces. It also helps prevent the headlights from dazzling oncoming drivers.

The system works by activating a small compressor which inflates and deflates special shock absorbers whenever necessary. The result is that the car's

handling characteristics remain the same whether you are towing, or whether you are not.

Automatic levelling is standard on all 760 models and 740 estates. It is available as a factory option or accessory on all other models except the 360 GLT and 480 ES.

There is also a semi-automatic version available without the compressor. Here the level is adjusted by an air-line.



Alternatively, on the 200 series, there are specially sprung shock absorbers, available separately or as a kit.

Roof spoiler

This roof spoiler fits to the Load Carrier Bars mentioned previously and is a worthwhile investment. In Wind Tunnel Tests it cut wind resistance by 28%, improving directional stability noticeably. It fits all models. However, careful positioning is needed and it is best to ask your Volvo dealer.

WHAT THE LAW REQUIRES COMMON SENSE ALSO DEMANDS

Although there are many laws covering the towing of trailers, all of them are based upon common sense.

Providing you always think about the safety of yourself, your passengers and other road users, you should never have any difficulty remembering them. They will all come to mind quite naturally.

On the right are brief summaries of the major legislation which affects the person towing.

Legal requirements for towing

Trailer lights

Generally speaking, the rules on parking, indicator, fog and braking lights for trailers are the same as they are for cars.

Car mirrors

The law states that, if the car's interior mirror doesn't allow a clear view of the road behind, then an additional exterior mirror on the nearside should be fitted. An offside mirror is already compulsory.

Trailer size

The maximum length of a towed vehicle pulled by a normal saloon or estate car is 7 metres. The maximum width is 2.3 metres.

Projecting loads

Anything which projects from the trailer by more than 1.07 metres must be made easy to see. A bright red or orange bag fixed firmly to the object is one answer.

Towing weight

Not only must every trailer over 750kg (14.8 cwt) have its own braking system, but there is another requirement, too. Any trailer with a loaded weight of over 50% of the towing vehicle's kerb weight must also be fitted with brakes. So be careful! An unbraked trailer may be legal with one car, but not with another.



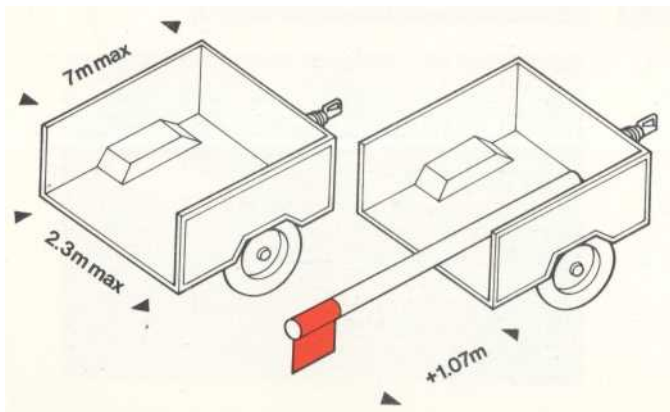
Towing speed

The maximum speed if you are towing a trailer or caravan is 50 mph, or 60 mph on dual carriageways and motorways. Obviously, if there's a lower speed limit you should comply with that.

You are not allowed to use the outside lane of a motorway, when all three lanes are open.

Towing responsibility

You need to hold a full driving licence before you are allowed to tow anything at all. It is then your responsibility to make sure no one rides in or on the towed vehicle while it is moving.



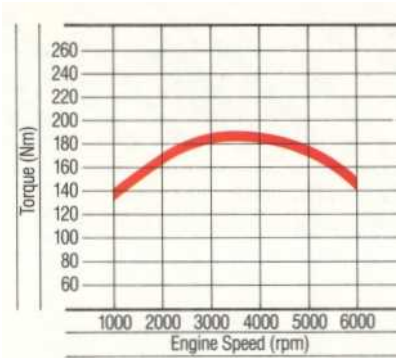
The above is only a brief guideline. For more detailed information, the following 2 books are particularly useful.

*A.A.-Camping and Caravanning in G.B.
The Caravan Club Handbook.

Model example

The Volvo 740 GLE Saloon

Experts have already predicted that the estate version of the Volvo 740 will soon be a winner of the Top Towcar Award. The saloon version has the same impeccable roadholding, the same smooth torque engine, and the same power steering and servo assisted disc brakes. With either a 4 speed plus overdrive gearbox, or a 4 speed automatic gearbox, you have a very refined car indeed.



Volvo towing accessories and model applications

Volvo towing accessories

As you can see every Volvo is superbly well equipped for towing right from the start. However, the selection of specialist equipment has been left to you. These are the towing accessories available for each model.

Accessories	480 ES	340 (1.4)	340 (1.7)	360	240 Saloon	240 Estate	740 Saloon	740 Estate	760 Saloon	760 Estate
Towbars										
Rigid		■	■	■			■	■	■	■
Rigid with removable ball and adjustment height	∅				■	■				
Retractable ball					■	■	■	■	■	■
Towbar wiring kit										
Single or double sockets	∞	■	■	■	■	■	■	■	■	■
Rear suspension systems										
Semi automatic levelling systems		■	■	■						
Automatic levelling systems		■	■	■	■	■				
Fully automatic levelling systems							■	Std	Std	Std
Caravan shock absorbers					■	■				
Luggage carrying systems										
Roof racks										
Universal (40in x 38½in)		■	■	■	■	■	■	■	■	■
Estate (80in x 46in)						■				■
Load carrier	*	■	■	■	■	■	■	■	■	■
Load liner										
300 hatchback version		■	■	■						
Half-size (estate)						■		■		■
Full-size (estate)						■		■		■
All round box		■	■	■	■	■	■	■	■	■
Luggage net		■	■	■	■	■	■	■	■	■
Caravan spoiler		■	■	■	■	■	■	■	■	■
Caravan mirrors		■	■	■	■	■	■	■	■	■
Gauges										
Oil temperature		■	■	■	■	■	■	■		
Oil pressure		■	■	■	■	■	■	■		
Oil cooler (excludes 6 cylinder and diesel engines)					■	■	■	■	■	■

∅ No height adjustment
 ∞ Single socket only
 * Complete system unique to 480 ES

■ Accessory available
 Std Fitted as standard

The towing facts and load capacity of every Volvo model

Model	Doors	Transmission	cc	Engine type	Max power bhp at rpm	Max torque Nm at rpm	Max permissible towing weight kg	Kerb weight kg	Turning circle	Levelling system	Manufacturer's rec towing limit kg	Boot/rear seats up	Boot/rear seats down	Optimum/max Nose weight kg	
Hatchback	340 DL	3	M4	1397	C	72/5400	108/3600	1000	960	30ft 2in	■	816	12.4	42.4	50/75
	340 DL	5	M4	1397	C	72/5400	108/3600	1000	985	30ft 2in	■	837	12.4	42.4	50/75
	340 GL	5	M5	1397	C	72/5400	108/3600	1000	985	30ft 2in	■	837	12.4	42.4	50/75
	340 GL	5	CVT	1397	C	72/5400	108/3600	900	1011	30ft 2in	■	859	12.4	42.4	45/75
	340 GL	3	M5	1721	C	80/5400	131/3200	1000	983	30ft 8in	■	836	12.4	42.4	50/75
	340 GL	5	M5	1721	C	80/5400	131/3200	1000	1002	30ft 8in	■	852	12.4	42.4	50/75
	340 GLE	5	M5	1721	C	80/5400	131/3200	1000	1002	30ft 8in	■	852	12.4	42.4	50/75
Saloon	340 GL/GLE	4	M5	1721	C	80/5400	131/3200	1000	1002	30ft 8in	■	852	12.8	-	50/65
Hatchback	360 GLE	5	M5	1986	C	101/5700	160/3000	1200	1093	30ft 8in	■	929	12.4	42.4	60/75
	360 GLT	5	M5	1986	FI	111/5800	159/4200	1200	1113	30ft 8in	-	946	12.4	42.4	60/75
Saloon	360 GLE	4	M5	1986	C	101/5700	160/3000	1200	1093	30ft 8in	■	929	12.8	-	60/65
	360 GLT	4	M5	1986	FI	111/5800	159/4200	1200	1097	30ft 8in	-	932	12.8	-	60/65
	480 ES	3	M5	1721	FI	109/5800	140/4000	900	1008	33ft 2in	-	857	5.6	23.3	-
Saloon	240 GL	4	M5	1986	FI	118/6000	155/3800	1500	1297	32ft 2in	■	1103	13.9	-	50/75
	240 GL	4	A4	1986	FI	118/6000	155/3800	1500	1311	32ft 2in	■	1114	13.9	-	50/75
	240 GLT	4	M5	2316	FI	133/5400	195/3600	1500	1317	32ft 2in	■	1120	13.9	-	50/75
	240 GLT	4	A4	2316	FI	133/5400	195/3600	1500	1331	32ft 2in	■	1131	13.9	-	50/75
Estate	240 DL	5	M4	2316	C	116/5100	192/3000	1500	1336	32ft 2in	■	1136	42.3	75.9	50/75
	240 GL	5	M5	1986	FI	118/6000	155/3800	1500	1351	32ft 2in	■	1148	42.3	75.9	50/75
	240 GL	5	A4	1986	FI	118/6000	155/3800	1500	1365	32ft 2in	■	1160	42.3	75.9	50/75
	240 GLT	5	M5	2316	FI	133/5400	195/3600	1500	1357	32ft 2in	■	1154	42.3	75.9	50/75
	240 GLT	5	A4	2316	FI	133/5400	195/3600	1500	1371	32ft 2in	■	1165	42.3	75.9	50/75
Saloon	740 GL	4	M5	1986	FI	121/5700	158/4800	1500	1302	32ft 6in	■	1107	16.8	-	50/75
	740 GL	4	A4	1986	FI	121/5700	158/4800	1500	1316	32ft 6in	■	1119	16.8	-	50/75
	740 GLE	4	M4&O/D	2316	FI	131/5500	190/3300	1500	1318	32ft 6in	■	1120	16.8	-	50/75
	740 GLE	4	A4	2316	FI	131/5500	190/3300	1500	1328	32ft 6in	■	1129	16.8	-	50/75
	740 TURBO DIESEL	4	M4&O/D	2383	TD	109/4800	205/2400	1500	1392	32ft 6in	■	1183	16.8	-	50/75
	740 TURBO DIESEL	4	A4	2383	TD	109/4800	205/2400	1500	1401	32ft 6in	■	1191	16.8	-	50/75
	740 TURBO	4	M4&O/D	2316	T	182/5800	260/3400	1500	1358	32ft 6in	■	1154	16.8	-	50/75
	740 TURBO	4	A4	2316	T	182/5800	260/3400	1500	1367	32ft 6in	■	1162	16.8	-	50/75
Estate	740 GL	5	M5	1986	FI	121/5700	158/4800	1500	1357	32ft 6in	Std	1154	39.2	74.8	50/75
	740 GL	5	A4	1986	FI	121/5700	158/4800	1500	1372	32ft 6in	Std	1166	39.2	74.8	50/75
	740 GLE	5	M4&O/D	2316	FI	131/5500	190/3300	1500	1374	32ft 6in	Std	1168	39.2	74.8	50/75
	740 GLE	5	A4	2316	FI	131/5500	190/3300	1500	1382	32ft 6in	Std	1175	39.2	74.8	50/75
	740 TURBO DIESEL	5	M4&O/D	2383	TD	109/4800	205/2400	1500	1447	32ft 6in	Std	1230	39.2	74.8	50/75
	740 TURBO DIESEL	5	A4	2383	TD	109/4800	205/2400	1500	1455	32ft 6in	Std	1237	39.2	74.8	50/75
	740 TURBO	5	M4&O/D	2316	T	182/5800	260/3400	1500	1414	32ft 6in	Std	1202	39.2	74.8	50/75
740 TURBO	5	A4	2316	T	182/5800	260/3400	1500	1424	32ft 6in	Std	1210	39.2	74.8	50/75	
Saloon	760 GLE	4	A4	2849	FI	170/5400	240/4500	1500	1486	32ft 6in	Std	1263	16.7	-	50/75
	760 TURBO DIESEL INT.	4	A4	2383	TDi	122/4800	235/2400	1500	1541	32ft 6in	Std	1310	16.7	-	50/75
	760 TURBO	4	M4&O/D	2316	T	182/5800	260/3400	1500	1482	32ft 6in	Std	1260	16.7	-	50/75
	760 TURBO	4	A4	2316	T	182/5800	260/3400	1500	1487	32ft 6in	Std	1264	16.7	-	50/75
Estate	760 GLE	5	A4	2849	FI	170/5400	240/4500	1500	1475	32ft 6in	Std	1254	39.2	74.8	50/75
	760 TURBO DIESEL INT.	5	A4	2383	TDi	122/4800	235/2400	1500	1525	32ft 6in	Std	1296	39.2	74.8	50/75
	760 TURBO	5	M4&O/D	2316	T	182/5800	260/3400	1500	1471	32ft 6in	Std	1250	39.2	74.8	50/75
	760 TURBO	5	A4	2316	T	182/5800	260/3400	1500	1477	32ft 6in	Std	1256	39.2	74.8	50/75

Key
C = Carburettor
Fi = Fuel injected
T = Turbo
TD = Turbo diesel
TDI = Turbo diesel intercooled
■ = Option

Designed and produced by Graham Joll Associates Limited

Volvo Concessionaires Ltd.,
 Raeburn Road South,
 Ipswich,
 Suffolk IP3 0ES.

VOLVO

Conversion of kg (Kilograms) to cwt (hundred weight)=50.80 kg= 1 cwt.