

Steering — more to it than meets the eye!

Why do so few people steer using the pull-push method? Properly done it is a simple, quick, accurate way to steer and has the added advantage that the driver always knows where the front wheels are in relation to the turn of the steering wheel.

Learners are taught to use this method, but seem to abandon it after passing their test. Why is this? Perhaps they never mastered it properly in the first place. Advanced drivers should master this skill and their steering will become smooth, relaxed, efficient and controlled. Becoming proficient at pull-push does require practice as it's not a natural action.

A good steering technique is dependant on several factors

- How you sit in relation to the steering wheel.
- Your size and shape.
- The weight of the steering of the vehicle you are driving.
- The diameter of the steering wheel.
- The number of turns of the steering wheel from lock to lock.

A good seating position will allow you to have good control of the steering action. It will also need to be comfortable as an uncomfortable position will lead to fatigue and impair your driving.

A good seating position that will give you the best control will be when you have both hands on the steering wheel at the 10 to 2 position with the arms slightly bent, you should also be able to depress the clutch pedal to its full extent and your knee is still slightly bent. However, the quarter to three position gives a greater degree of turn without having to move the hands.

While people come in all different shapes and sizes modern cars have seats and a steering wheel that can be adjusted to suit. Some cars even have the benefit of adjustable pedals.

Your hands should be positioned with the palms on the rim and your thumbs should be extended out and placed on the rim with your thumb nails towards you and your hands should remain opposite each other.

Your grip on the wheel is also of importance and should be light but ready to take a tighter grip should the need arise and your hands should only be taken off when you need to operate a control or change gear.

This way of holding the wheel allows you to make small changes in direction by turning the wheel in either direction quickly and without altering the hand hold.

Pull-Push steering.

To make greater turns (where if you were to leave your hands on the wheel they would need to go beyond the 12 o'clock point) you will need to use the pull-push method. With this method neither hand passes the 12 o'clock position. For example, if you want to turn to the left you will first need to grip the wheel more firmly with the right hand, the left hand will then slide up the steering wheel to, but not beyond the 12 o'clock position. Now get a firmer grip on the wheel with the left hand and pull the wheel down. As the left hand pulls down take a lighter grip with the right hand and slide it (the right hand) down the wheel. The height on the wheel of the left and right hands should mirror each other (as the left hand moves to the bottom of its stroke the right hand moves to the bottom of its stroke also). If you need to turn the wheel even more in the same direction at this point the right hand is now poised to continue. In that case now take a firmer grip on the wheel with the right hand and a lighter grip with the left and push up with the right. The left hand should now slide up the wheel while keeping it level with the right as it (the right hand) pushes up to the top of its stroke. If you need to turn even further in the same direction the same procedure is repeated. When you need to straighten the vehicle up after a turn then feed the wheel back in the opposite direction using the same method as for turning, do not allow the wheel to run back on its own.

A turn to the right has the same methodology applied to it, but in the opposite direction.

Rotational steering.

In exceptional circumstances or slow speed manoeuvring rotational steering (where either hand will go beyond the 12 o'clock point) can be adopted. This will be about 120° of steering wheel turn. E.G. if your right hand is at about 2 o'clock it will move to about 10 o'clock while still holding the wheel. Having your hands in the quarter to three position using rotational steering will give you the greatest alteration to your direction without changing your grip on the wheel.

Typically when using the rotational method of steering if you wanted to turn left you would turn the steering wheel to the left (anti clock wise) by about 120°, this way the right hand would push the wheel from its normal 2 o'clock position up and over the 12 o'clock position to about the 10 o'clock position. Similarly the left hand would move from its normal position at 10 o'clock to about the 6 o'clock position (anti clock wise). With the right hand in this new 10 o'clock position, move the left hand off the steering wheel and back onto the wheel to about the 2 o'clock position or certainly to the right of the right hand depending on the additional degree of turn required, at this point the arms will now be crossed. To continue the turn, now pull with the left hand up and over the 12 o'clock position (anti clock wise) while the right hand is simultaneously moved back over to about the 2 o'clock position (thus uncrossing the hands). To continue the left turn the process is repeated. To straighten up or change direction the process is reversed.

Using the rotational method of steering will at some stages of the manoeuvre require one hand to be taken off the steering wheel while it is repositioned; it is therefore important that you realise it is possible for the steering wheel to be snatched out of the one hand remaining on the wheel if any of the road wheels come up against some resistance like a pothole. At no time should the steering wheel be allowed to slide through the hands.

Slow speed manoeuvring.

During slow speed or confined space manoeuvring often you will need to make rapid turns of the wheel, the pull push method will in most cases deal with these situations. However, on occasion rotational steering may be adopted, but at no time should you consider using the heel of the hand as you will not be in full control of the steering.

Reversing.

When reversing to get a better view it might be beneficial to remove your seat belt to enable you to turn in your seat or look over your shoulder. This can make the normal ten to two or quarter to tree position difficult. In this case you should position your right hand nearer to the 12 o'clock position and your left hand nearer to the 6 o'clock position and steer in the conventional pull push method. However, if this position for whatever reason is not suitable then it is acceptable to put your left arm over the passenger seat and steer with your right hand only. All reversing should be carried out at a slow speed which will require good control of the accelerator and clutch in a manual car and careful application of the accelerator and brake in an automatic.

Throughout the reversing process it is still necessary to carry out regular observations through your mirrors and to cover any blind spots you may have. Remember you can adjust your mirrors to help you reverse but also remember to put them back to the normal position before you drive off. Additionally, wind down your windows to help your other senses pick up on clues which your eyes could miss.

When reversing remember that your front end will swing out and might hit something, also consider that someone may walk in front or behind you. If you are in a particularly tight spot get someone to help by looking at the front and or back to identify the space available or any obstacles that may be in the way.

It is also important to remember that you should never turn the steering wheel while the road wheels are stationary as this puts additional strain on the steering mechanism and tyres and could cause damage.