



# THE ABC OF HI-LIFT JACKING

In this edition, we consider the safe and effective handling of a hi-lift jacking device, as the last two articles in the series will cover the more advanced techniques of winching and deep water obstacles.

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There are still many off-road drivers who attach these devices to their vehicles and haven't the foggiest idea of how to use them. It does look cool, but could be dangerous if not handled properly. As your confidence increases with the regular use of your 4x4 vehicle and you consider tackling more challenging terrain, it does become necessary to purchase a good quality hi-lift jack to add to your recovery kit. A hi-lift jack can extricate a

vehicle in almost as many situations as a proper winch for a fraction of the price.

There are numerous cheaper clones available, but it pays to rather stick to the original, American-manufactured Hi-Lift Jack, which is available from most reputable 4x4 accessory shops. The few rand saved by buying a cheaper version will cost you dearly when it fails during a challenging recovery. Ensure that you purchase a jacking

plate at the same time or get an engineering firm to weld you a 30cm x 30cm steel platform with a uniform thickness of at least 4mm. This will be used as a platform for your hi-lift jack when the ground is either unstable or too soft.

A hi-lift jack will provide you with better articulation than the standard bottle jack that comes with your vehicle and is rated for a much higher load capability as well. In

addition, your hi-lift jack can also be used as a manual winch with the addition of some chains and a couple of D-shackles, but more about that later.

Unlike a Land Rover Defender, most 4x4s today do not have proper jacking points on the vehicle body. These are specially strengthened points on the vehicle that can carry the full load when lifted. It is worthwhile to have these fitted to your 4x4 to protect your existing plastic trim, bumpers and running boards. Alternatively, Hi-Lift – the manufacturer – has several accessories that may be attached to the underside of a curved bumper or even the actual bull bar, should your vehicle not have proper jacking points available.

## Dry

So when do you decide to use your new piece of recovery equipment? Some of the situations that come to mind include getting the vehicle 'hung-up' on its belly, which normally occurs on top of a large rock or middelmannetje if the breakover angle of the 4x4 is exceeded.

Before jacking starts, ensure the vehicle's gearbox is placed in neutral, the handbrake is on and the wheels are properly chocked. Now lift the vehicle and place supporting material under the wheels to clear the obstacle. Make certain that you have read and understood the safety manual clearly before using your hi-lift jack. Incorrectly handled, a hi-lift jack can have fatal consequences for either the user or bystanders.

## Sticky

Another good example would be when your 4x4 gets stuck in really deep mud. In this case, the hi-lift jack would be used to break the hold of the suction and to allow the owner to fill in the holes underneath the wheels with suitable traction, such as branches, rocks or even leaves.

## Horizontally

As mentioned earlier, a hi-lift jack can also be used in an emergency as a manual winch. Attach the top of the jack to a length of chain using a standard 3.5-tonne



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D-shackle and the other end of the chain to the vehicle using another 3.5-tonne D-shackle. The moving leg of the hi-lift jack is attached to another length of chain (with a D-shackle) which is securely anchored to a suitable point such as another vehicle or to a tree (with the help of a tree trunk protector).

Ensure that the moving leg of the jack is in the utmost down position. Also, see that both chains are under a light load and proceed to horizontally jack the hi-lift slowly. The recovered vehicle will move for about one metre before the moving leg has reached the top of the hi-lift jack. Reset the moving leg to the low position and then repeat the procedure, until the vehicle is clear of the obstacle. This procedure should be practised at home before setting out on a trail. Remember to add the extra lengths of chain (about five metres each) and properly rated D-shackles to your recovery kit.

## Soft

Another nifty technique can be used if your vehicle gets stuck in soft mud or a rut. Lift the entire front end (or back end) of the vehicle into the air and then push the vehicle sideways to allow the front (or back) wheels to clear the obstacle. There are a number of serious safety rules to observe when attempting this, as your 4x4 is highly unstable with two wheels in the air.

- Ensure your vehicle's handbrake is on, the wheels are chocked and the gearbox is in neutral. Engage manual diff-lock if fitted.
- Bystanders and passengers are to keep

clear of a vehicle recovery at all times.

- The hi-lift jack could potentially (and fatally) jump out – with great force – from under the vehicle and extreme care should be taken.
- Never jack the vehicle more than about 30-40cm higher than the surrounding ground level.
- Once achieved, see that the vehicle is between yourself and the hi-lift jack and proceed to push the jacked-up end of the vehicle until it physically falls off the jack. By repeating this procedure, the vehicle will 'walk' sideways out of the muddy rut or obstacle encountered.
- When the vehicle topples off the jack, make doubly sure that there is no physical contact between the jack and the vehicle body or the repair bills might stack up when you get home.

It is best to have the jack's mechanism covered with a pouch to keep out the dust. Make sure that all moving parts work properly before leaving on your trip. Outdoor shops do sell replacement spring and plunger kits for these units. It is a good idea to always have some penetrating oil in your toolkit to loosen up the mechanics.

Until next time, have a safe recovery and remember, under no circumstances get underneath a jacked vehicle. 🚫

