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## **MISSED IN ACTION**

**5 VEHICLES THAT SHOULD COME BACK**

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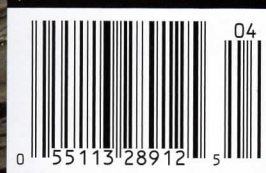
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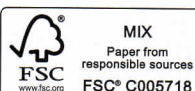
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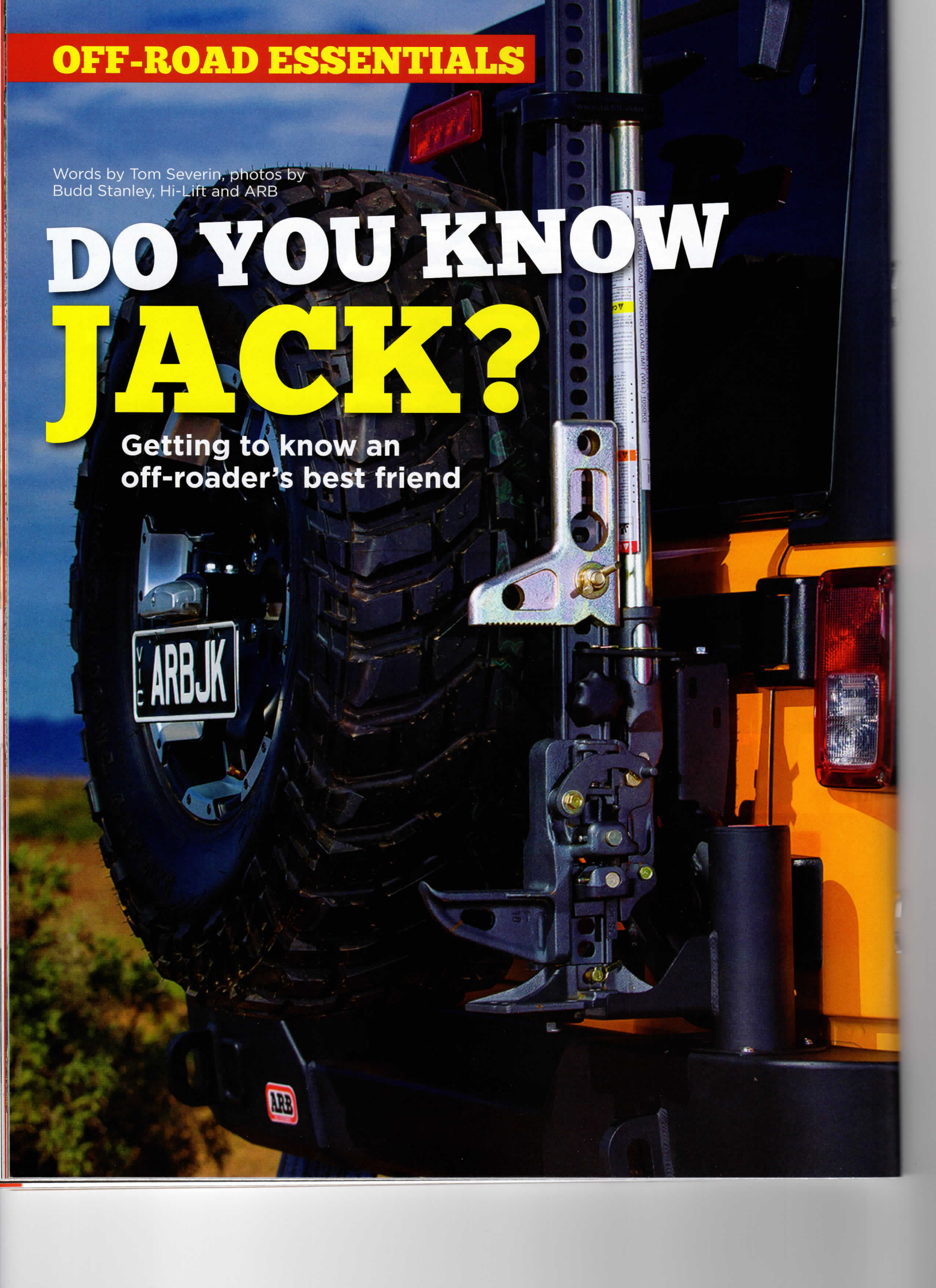


## OFF-ROAD ESSENTIALS

Words by Tom Severin, photos by  
Budd Stanley, Hi-Lift and ARB

# DO YOU KNOW JACK?

Getting to know an  
off-roader's best friend





A jack is one of those pieces of equipment that is just plain essential for four-wheeling. The stock jack supplied by the manufacturer isn't going to help off-road: terrain is rarely level and never smooth. You have three styles to choose from: Hi-Lift, X-Jack and bottle jack.



The Hi-Lift jack is the most popular due to its versatility and ability to lift heavy high ride height vehicles well off the ground.

**T**he first step in any situation is to make sure the vehicle cannot move. Sometimes the emergency brake isn't enough, because you might be lifting that wheel. You might have to chock the opposite side. Seldom is the terrain flat and level. In this case, run the winch out to a tree or stretch a strap tightly from the vehicle to be jacked. Always be careful when jacking.

### Hi-Lift Jack

The Hi-Lift is very versatile but has a lot of safety risks. It is versatile in the sense you can lift (jack) with it, you can "pole vault" (more on this later) with it, and you can use it as a "poor man's" winch in a pinch.

Lift as close as possible to the tire you want to get off the ground. If you lift in the middle of either bumper, the vehicle is likely to tip in one direction. Vehicles today don't have notches in the frame for a jack, so latch onto the bumper close to the affected wheel.

The base on a Hi-Lift jack is pretty small. That makes it challenging to lift on soft or uneven surfaces. You may want to purchase a safety kit. That includes an extra-wide base and support cables.

"Pole vaulting" involves shifting a vehicle sideways while jacked up. Let's say you're stuck and just need to move a foot or two to one side. Set the jack near the middle of the opposite side, at a slight angle. Once both wheels on the near (jack) side are off the ground, the vehicle will fall away. Repeat as needed to move away from the obstruction.

With a chain on one end and a tree strap on the other, the Hi-Lift can be used as a "poor man's" winch by laying it sideways. The chain allows you to adjust the distance from the vehicle to your anchor point. Since you can only move the stuck vehicle about





Let the exhaust do all the work with an exhaust jack.



A bottle jack is more compact and stable than a Hi-Lift.

a metre at a time, the chain makes it easier to reset the jack each time. By looping the chain around the “nose” of the jack, you can shorten it with a grab hook. Besides all the hard work, the difficulty is keeping the vehicle in place every time you reset for a new bite. A Hi-Lift recovery kit has all the gear you need to solve this problem.

That being said, you need to be careful with Hi-Lifts. Use only on solid ground and when the main part is straight up and down. If you must jack on sand or soft soil, place a piece of plywood or other board under the foot.

Make sure the handle is straight up when at rest. When lowering a vehicle, place a hand at the top of the centerpiece and gently coax the lever up and down. Keep your fingers on top and clear; if the lever takes off, you’ll get “hammer thumb.” You should keep your head out of the way for the same reason.

A basic Hi-lift runs about \$70. They’re rated to nearly 2,268 kg (5000 lb) for the first metre. With safety accessories, you’re looking at about \$230. Though there are safety issues, the Hi-Lift jack is an extremely versatile and useful tool. Don’t leave home without one in the group.

### X-Jack

The X-jack is really helpful in sand and snow. You slide it under the vehicle, and use exhaust to inflate the bag and raise the vehicle (see our review in volume 18, issue 3).

Watch for sharp edges on the body or frame, and keep the bag away from the exhaust pipe. It’s a good idea to place padding on top of the bag. The X-Jack comes with a pad, but I suggest grabbing one or two floor mats for additional padding. Make sure there are no kinks in the hose as you’re playing it out.

The X-Jack works best with two people: one to hold the funnel tightly on the exhaust pipe and the other to keep the bag in position. If working alone, use a compressor. The bag also has a valve stem to attach a compressor so you can tap into that while positioning the bag.

Be careful if lifting on sand. We tend to use high RPM in the sand. This causes a hotter exhaust, and it’s easier to melt the hose. If you have a compressor, use that instead. You may find that the bag quits inflating the last foot or so. It is necessary to run the engine at a higher RPM (than idle) to fully inflate the bag. Another reason to have help.

A drawback is that the kit takes up a fair amount of space in the vehicle. Consider tying it on the outside or roof if space is a premium.

### Bottle Jack

Compact and more stable than the Hi-Lift, a bottle jack allows you to lift just an axle as opposed to an entire side of the vehicle. A big disadvantage is that you don’t always have sufficient clearance under the vehicle (use the Hi-lift or X-jack).

The second downside is that it won’t always lift high enough for what you need. The post usually extends only about 12 to 15 cm (5-6 inches). That’s why you may want to buy extensions. If you don’t care to do that, try a block of wood.

Bottle jacks come in a variety of sizes. A 3-ton model is sufficient for most 4WD vehicles. For larger vehicles like a Sportsmobile, a 5-ton jack is better. I’ve seen good results with electric models.

A standard bottle jack runs \$40 to \$60 at auto parts stores. Regardless of the style of jack you have, you must always use it safely. Before jacking, make sure that the vehicle cannot move. Use the jack properly, and in the case of the Hi-Lift, keep your hands and fingers (and even body) out of harm’s way. Be patient. Sometimes you need to think through the lift process to avoid serious injury. Learn the proper way to use the jack, and practice back home to become familiar with it. Finally, if you must work under the vehicle while it’s raised, use your spare tire or other sturdy object as a safety jack. I recommend you carry at least two of the above!

*Tom Severin, 4x4 Coach, teaches 4WD owners how to confidently and safely use their vehicles to the fullest extent in difficult terrain and adverse driving conditions. Visit [www.4x4training.com](http://www.4x4training.com) to develop or improve your driving skill.*