Asymmetrical vs. Symmetrical Lifts

Approximately 40 years ago, when cars were built in the States and made out of steel……The symmetrical lift was born as an alternate to the expensive hydraulic in ground lift. The lift wasn't known as "symmetrical" right off the bat; it was called a surface lift because it bolted to the concrete floor, rather than being installed through the floor. At the time of its birth, the surface lift was being designed to pick up rear wheel drive vehicles that had a pretty good front to rear balance. The cars were big and heavy and mechanics relatively skinny and strong.

In order to balance these behemoths six feet up in the air, the columns were placed across from each other and the arms were all of equal length. Some lifts were connected from side-to-side with the overhead; a base plate connected others down below. One thing was certain about these lifts; if you were a mechanic with a beer belly trying to get out of the car after it had been driven into place, you were going to have a tough time. Since the lift was balancing the vehicle between front and back, the column needed to be located somewhat close to the center of the vehicle. What else is in the center of the vehicle? We all know the answer to that! The doors! What happens when doors meet columns? Door dings!

It took the lift manufacturers a while to figure it out, but eventually they did. Currently, very few lifts are sold as "symmetrical" lifts. The most popular lifts sold are usually being sold for a particular purpose, such as working on vans or trucks. (Vans and trucks have the door in front of the centerline of the vehicle, so a column really doesn't get in the way.) Some customers will purchase a symmetrical lift because they want a "drive thru" capability, or a lift that can be loaded from either side and sure enough, the symmetrical lift usually gives a few more inches in that regard.

How to Identify a Symmetrical Lift

- The columns face each other.
- All four arms are the same length.
- Columns are facing each other.
- You have a difficult time getting out of a car when you drive in. You don't have a difficult time getting out of a truck when you drive in. You have your local Ding King on speed dial.

Sometimes Europeans are smarter than Americans. I don't like to admit it, but it's true. It turns out, some guy named Günter was using his symmetrical lift, when he realized that those last two lagers had pushed his belly past the point of no return.

That's right, he was stuck in the car and couldn't get out. Since he had some time to sit and think, he did what most mechanics do with their free time; he tried to design a better lift so that he wouldn't have to lose his well invested beer belly.

What Günter came up with seemed to be a pretty good design. By making the rear arms of the lift longer than the front arms, the vehicle would theoretically sit far enough back to allow him to
open the doors. Not only that, since most of the cars being manufactured in Gunter's day were front wheel drive, the balance of the vehicle on the car lift would be better.

(Gunter had never forgotten the time that he had pulled the engine out of a car, only to have the car flip backwards off the lift due to the newly created weight distribution imbalance). It would also help to reduce the number of times he had to have a customer's door fixed after dinging the door on the column.

Gunter's design worked for about two years. He still dinged a door occasionally, but he was able to continue growing his belly and was always able to get out of the vehicle. One day however, Gunter raised a car with his vehicle lift and heard a horrendous squealing noise, metal on metal. He also noticed that the arms of his lift were shaking and rocking and he stopped to make sure that the vehicle didn't bounce off the lifting pads.

After some serious investigative work (and several snaps of his suspenders), he noticed that there were metal shavings on the floor near the columns. It soon became apparent that when he had changed the load center of the lift by extending the rear arms, he had caused excessive wear on the load bearings that ride inside the column. Soon, all of Günter's beer drinking buddies (who had copied Gunter's idea) were shaking their heads and refusing to buy Gunter beer anymore.

Gunter was not a happy man.

Thankfully, those smart engineers in the United States don't drink beer while they are trying to solve a problem. (Most of the time…..) They had seen Gunter's design and saw the problem right away. They also realized that their solution would have an added benefit to the beer belly problem. Rotate the columns to face the new load center and you automatically get extended door-opening clearance. Ever wonder why American automotive lift engineers have big beer bellies? Because they CAN!

Enough about Gunter; A TRUE asymmetric lift has columns that are rotated 30 degrees to point the load center of the lift in the general direction of the load center of the car as it is being lifted AND front arms that are shorter than the rear. A semi-asymmetric lift only has the front arms shorter than the rear, without addressing the load bearing issue and keeping the columns facing each other..

Very few manufacturers take the time to make this distinction on their auto lifts. The good majority of two-post auto lifts that are advertised as "asymmetric" are the exact same as the symmetric auto lift with different arm lengths. Does this concept work? Of course it will for a while. But remember what happened to Gunter and his buddies, you will experience severe wear on the bearings (or slider blocks) over time as well as the long arms as many of you already know.

We highly recommend purchasing a TRUE asymmetric lift when you purchase this design.

**Sure Fire Ways to Tell a True Asymmetric Lift**
- The lift columns are rotated 30 degrees from each other, facing the load center of the vehicle.
- The front arms of the automotive lift are shorter than the rear arms.
- You have a beer belly bigger than Gunter's and don't have a problem getting in and out of the vehicle.
- Reduction in bills from the Ding King allows for a bigger beer belly.

**Sure Fire Ways to Tell a "Semi-Asymmetric" Lift**

- The columns face each other, rather than the load center of the car.
- The front arms of the vehicle lift are shorter than the rear arms.
- The lift squeals, shakes and whines when lifting a load.
- You have metal shavings on the floor near the column.
- You bought the lift so you wouldn't bang the door on the column, but you continue to bang the door on the column.
- You know your local lift service representative by first name and send him a Holiday Greeting every year.

**"Versymmetric" Design Auto Lift**

If you have been really doing your research, you will probably have heard the term "Versymmetric" thrown out there from a few manufacturers. The theory behind this term is that they have designed an automotive lift that is capable of being both symmetrical and asymmetric at the same time. This design mainly benefits the manufacturer, who has the ability to make any lift model with the same column and overhead and only has to change the lift arms. You will also notice these manufacturers use a two-piece Overhead and Column to make different height and width lifts with the same parts.

One opinion is that this design takes the worst aspects of two different types of lifts and combines them to really confuse a technician.

First of all, a symmetrical auto lift can cause door dings and clearance problems with cars, no question. Second, an "asymmetric" lift that doesn't have columns rotated will still cause door dings. Third, if the technician isn't properly trained on how to set up each and every vehicle properly, the lift will be used improperly. The end result will be an unsafe lifting situation with the vehicle, door dings and excessive bearing wear.

Some of these lifts are listed with the ALI and pass 3rd party testing. They can be constructed well, and the sales people selling the concept really have their pitch down. Having seen the products used improperly in the shops and having serviced numerous "Versymmetric" lifts that have had failed bearings (slider blocks), our opinion isn't very positive.