DO-IT-YOURSELF TOW DOLLY PLANS

Before beginning please keep in mind that affordability was the key goal in building this dolly. Many of the parts I used were attained from friends or purchased as cheaply as I could. You may substitute anything you like with whatever you think would be better. Listed below is everything that I used to complete mine. Have fun, be safe and good luck with your project.

DISCLOSURE:

The seller of these plans, can not be held liable for any damage that is caused during the construction, or by use of this Tow Dolly.

You will need the following items to complete the dolly:

- 1 Axle. See below for location
- 30 Feet of 2 X 2 1/8" inch thick angle plate steel. Local steel supply store.
- 15 Feet of 2 X 3 box steel. Local steel supply store.
- 1 8 Foot piece of 2 X 12 wood plank. This will be your ramps. Lowes or Home Depot
- 1 2" trailer coupler. Available at Wal-Mart or Target for \$16.00
- 2 Aluminum fenders.Available at any trailer or camper supply store for about \$10 a piece.
- 1 Set of trailer lights. Wal-Mart or Target \$19.99.
- 2 Safety chains. Nothing fancy.You can even buy them at Auto Zone already made with hooks.
- 2 2" wide ratcheting straps.
 About \$25.00 a piece or spend a little more and get the kind that cradle over the tires. Wal-Mart or Target.

AXLE ASSEMBLY:

The first item you will need to get is an axle. This can be purchased at any local salvage yard. If you offer to take it out yourself, you should be able to get one for about \$50.00. Here is the secret vehicle to get the axle fromAny late model (1990-up) Dodge Caravan. The rear axle from the Caravan is an excellent choice for this particular project. Just make sure it is a 5 lug not the 4 lug that many came with. Oh yeah, don't forget to take the wheels and tires with it.

The axle is extremely simple to remove, jack up the rear of the vehicle and secure it with jack stands (I believe in safety you know). After the vehicle is on the jack stands put your jack under the axle.

Remove the (8) ³/₄ nuts holding each leaf spring, remove the "U" bolts holding the leaf springs to the axle, remove the lower shock bolts (also ³/₄ size) cut the brake lines and presto.

Measure the axle from one end to the other.

Take your measurement where the axle tube meets both leaf spring mounts. Cut the axle in half at that measurement. You can use a Sawsall with a good blade. The axle tube is hollow so it cuts pretty easily. For the next step you will need to purchase a 3 foot piece of sprinkler pipe or sometimes referred to as "Black Pipe". You can find this at either a plumbing supply house or industrial supply store. Check the diameter of your axle, the inside diameter should be 2 ½. This is the outside diameter size pipe you need. Make sure you slide each end into the axle tube at least 6 inches for best support. Weld completely around each end where you slid the pipe in.

CRADLE ASSEMBLY:

To make the cradle, you can use sturdy angle steel. The dimensions should be 80" wide by 23" deep. (See Diagram 1)

Position one piece of angle steel 18" from the ends of the cradle on both sides. Weld. (See Diagram 2) Put two pieces of angle steel inside of the boxes you just made. Weld. (See Diagram 3)

Position the cradle assembly on the axle so that the center of the tire is at the center of the cradle.

Tack weld the cradle in place and check to make sure it is square. The front of the dolly will be the side with the axle offset forward.

TONGUE ASSEMBLY:

Take your 2x3 box tubing and cut a piece 4 feet long. At the center of the cradle, tack weld this piece underneath. It should fit against the axle and also the bottom of the cradle. Weld at both places. Cut 2 12" pieces of 2x3 steel. Place one piece on top of the other and slide it forward 6 inches. Weld the two pieces together (See diagram 4)

Weld this piece onto the 4 foot piece extending from the dolly with at least 6 inches of overlap.

Cut another 2 foot piece of 2x3 and weld it on top of the previous cut piece with 6 inches of overlap.

Cut two 27" pieces of 2x3and attach under the tongue and cradle as show in Diagram 5.

Attach your trailer coupler either using high quality bolts or weld it to the tongue or both.

RAMPS:

Cut the 2 X 12 plank in half. Cut 2 pieces of angle steel 12" in length. Using 2 high quality bolts (preferably carriage bolts) attach angle steel pieces to one end of each plank. (See diagram 4)

TIE DOWN STRAPS:

Tie downs straps come in many different varieties. Make sure you get ones with at least 3,500 lb. capacity. Depending on what type of ends are on your straps will determine how you make your mounting points. I used 1/8 in.flat stock steel bent in a vise, 4 18" wide pieces. (See Diagram 6)

FENDERS:

Fenders should come with brackets and instructions on how to attach to dolly. I attached mine to the ends of each side of the cradle. Fenders are optional by the way. See local laws.

LIGHTS:

Mount one light to each fender. Wire as per light instructions.

WORD OF CAUTION:

This is a FIXED cradle dolly. It does not tow like other Swivel cradle dollies. You MUST make sure you have enough tongue weight on your truck. Just make sure you can not lift the tongue of the dolly up with a car on it.

This is very VERY important... When the dolly is completed, take a test drive with a car loaded on it and take your turns VERY, VERY SLOW!!

Diagram 1



Diagram 2





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