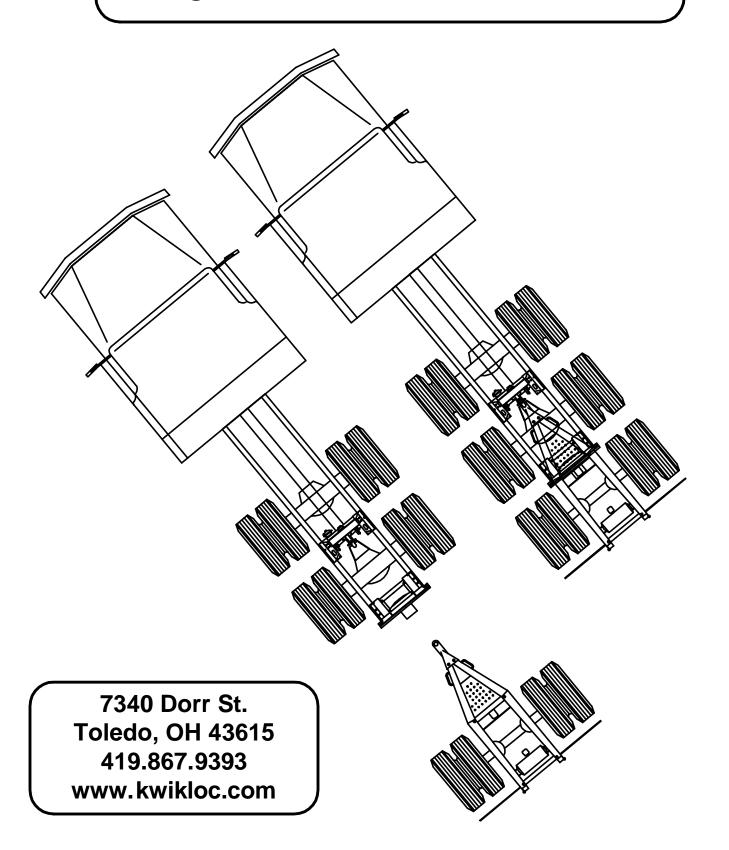
# Kwik-Loc Corp

Tag Axle Installation Manual



### I. Requirements

Most two axle tractors that have a steel frame a minimum of nine inches deep (A). All leaf spring and most air ride tractors can be modified for use with a Kwik-Loc Tag Axle, if it complies with the dimensional specifications shown in Fig. 1 below

<u>Item "B" in Fig.1</u> Refers to the top of the tractor frame unladen. If there are existing Kwik-Loc equipped tractors in a given fleet, all new tractors should be approximately the same frame height, so as to insure complete interchangeability with the Kwik-Loc dolly. The frame should also be as close to level as possible. With a maximum frame height of 42 inches. <u>Item "C" in Fig.1</u> Refers to the minimum "inside" frame width of 32.875.

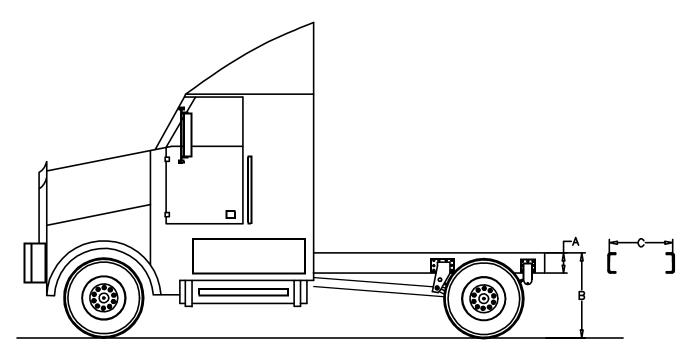


Fig.1

# I. <u>Installation</u>

# A. Frame Preparation

Installation is made much easier by first removing any obstructions within the tractor rail frames, from a point 36 inches forward of the drive axle centerline, to the rear of the frame. This includes existing 5th wheel, valves, junction boxes and all bolts and nuts. See Fig. 2 below.

Next, raise the truck frame with a hoist or forklift and insert a 4 x 4 as shown in <u>Fit. 3</u>. You can now remove the rear Crossmember.

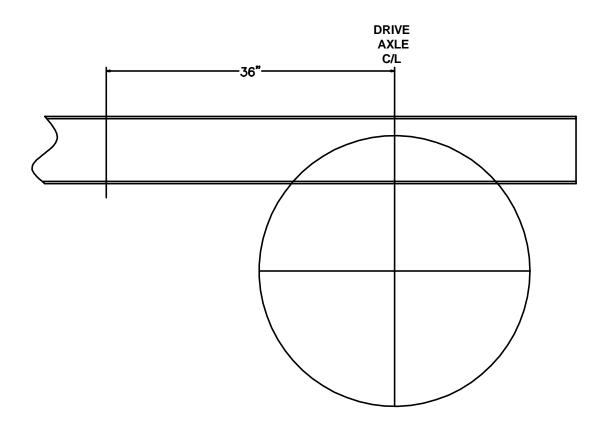
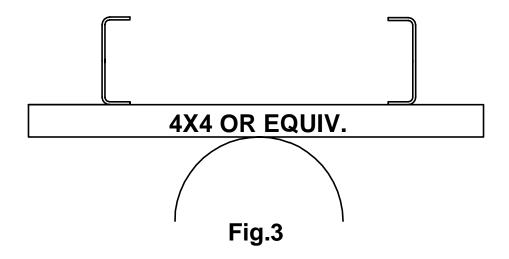
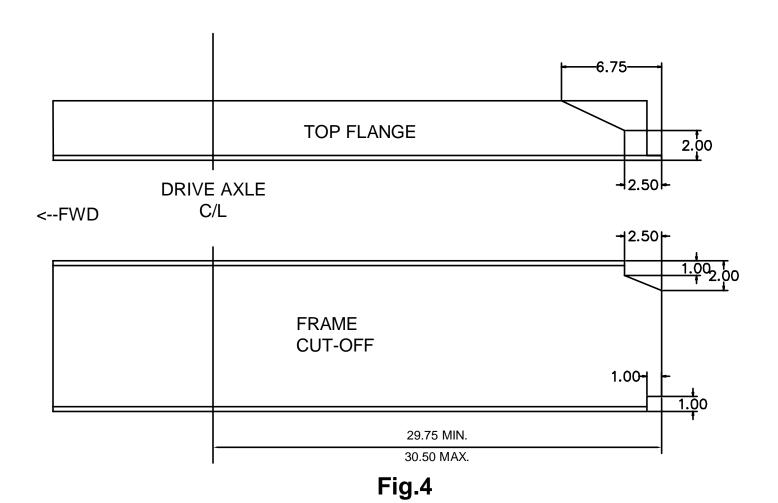


Fig.2



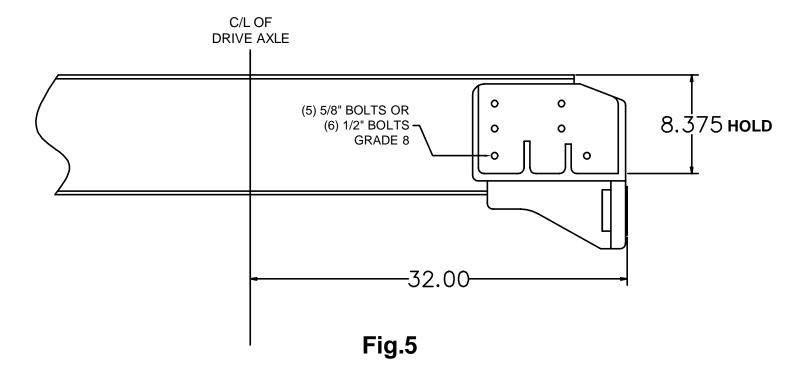
Layout & cut the frame rail as shown in Fig. 4 below.



3

#### Rear Crossmember

Position the rear Crossmember as shown below and bolt the crossmember to the frame. If the Crossmember has not been pre-drilled. Then locate as shown in <u>Fig. 5</u>, and drill. If spacers are supplied, be sure to insert between frame and crossmember before bolting.



#### Forward Crossmember

Position the forward crossmember and align the drilling to the spring hanger, then bolt. If spacers are supplied, be sure to insert before bolting. If the crossmember is not pre-drilled, locate and drill as shown in <u>Fig. 6</u>. Be sure to install reinforcement plates inside crossmember box sections. **These are not spacers** 

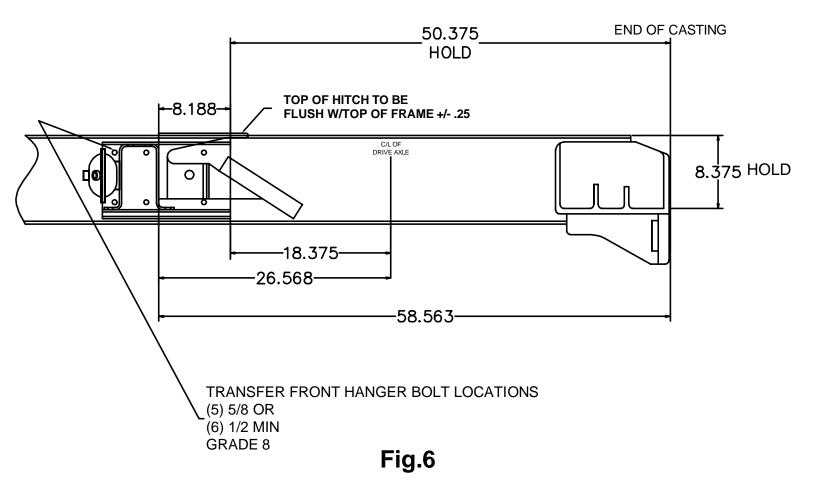


Figure 7 below shows the rear crossmember installed.

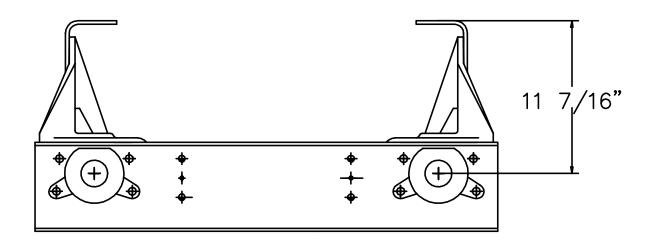


Fig.7

Fig. 8 below shows both crossmembers installed.

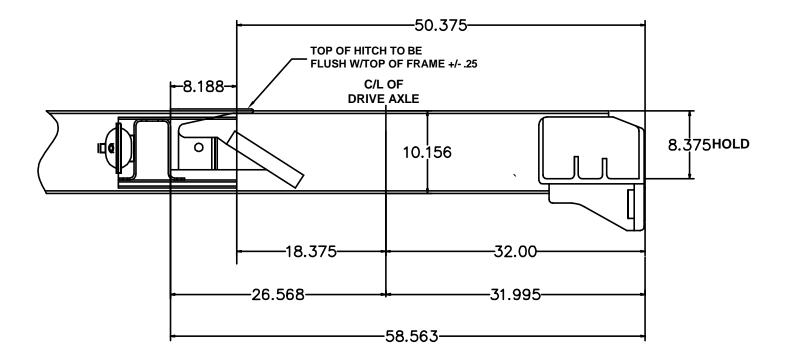


Fig.8

#### Plumbing the Tractor

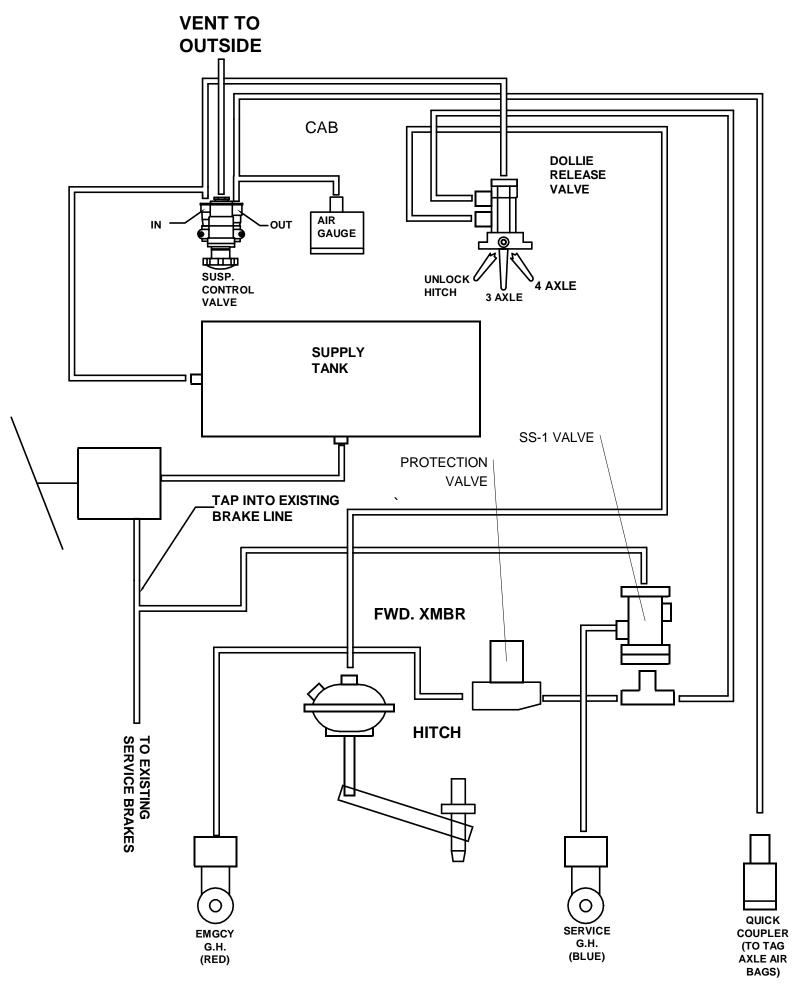
#### A. Air Suspension

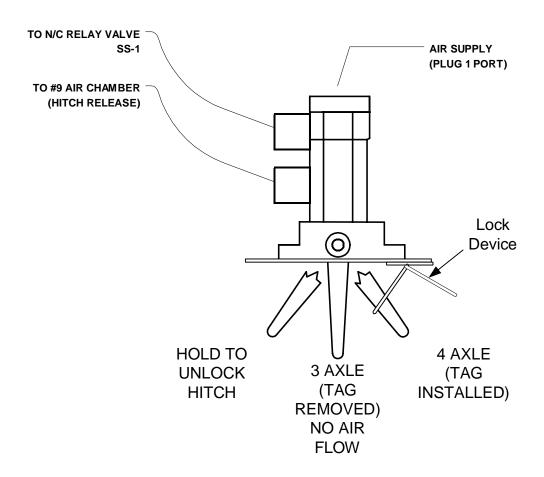
The schematic on page (7) shows the plumbing needed for a tractor that incorporates a Kwik-Loc Dolly with "air suspension".

There are two valves, items 1 and 2, one gauge, item 3, and a manual locking device with nameplate, items 4, 5, and 6 to be installed. The valves "must be installed" in the sequence they appear in the schematic, from the air source or hot line.

The airbag control valve, item 1, and the dolly release valve, item 2, should be mounted within reach of the driver for ease of operation. The gauge, item 3, should be mounted for optimum vision by the driver.

The forward crossmember is supplied with the relay valve, gladhands, hitch assembly, protection valve, and an air chamber for releasing the hitch. A parts identification drawing for the forward and rear crossmembers is shown on pages 11 and 12.





# **Troubleshooting the air system**

When the lever is placed in the <u>Unlock</u> position, air should be applied to the forward crossmember hitch. The plunger should activate and the pintle hook should rotate to the open position.

**NOTE**: Lever must be held in this position until the tag axle is "unlocked". When released the lever must spring back to the 3-axle position

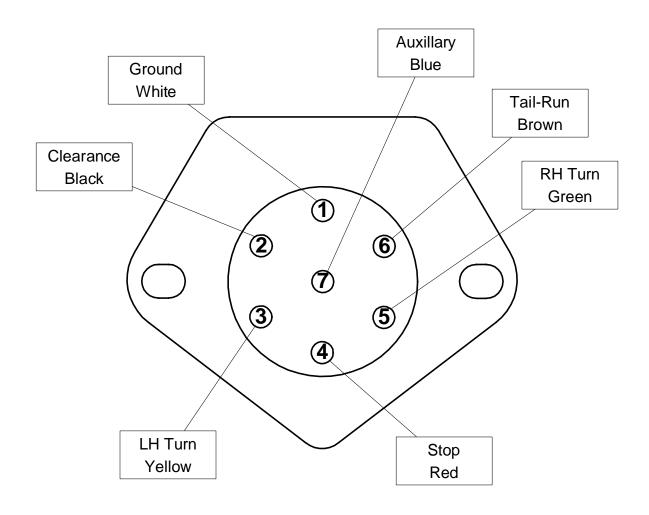
When the lever is placed in the <u>4-axle</u> position, there should be air flowing from the emergency glad-hand on the forward crossmember. When the foot valve is applied, air should flow from the service gladhand on the forward crossmember.

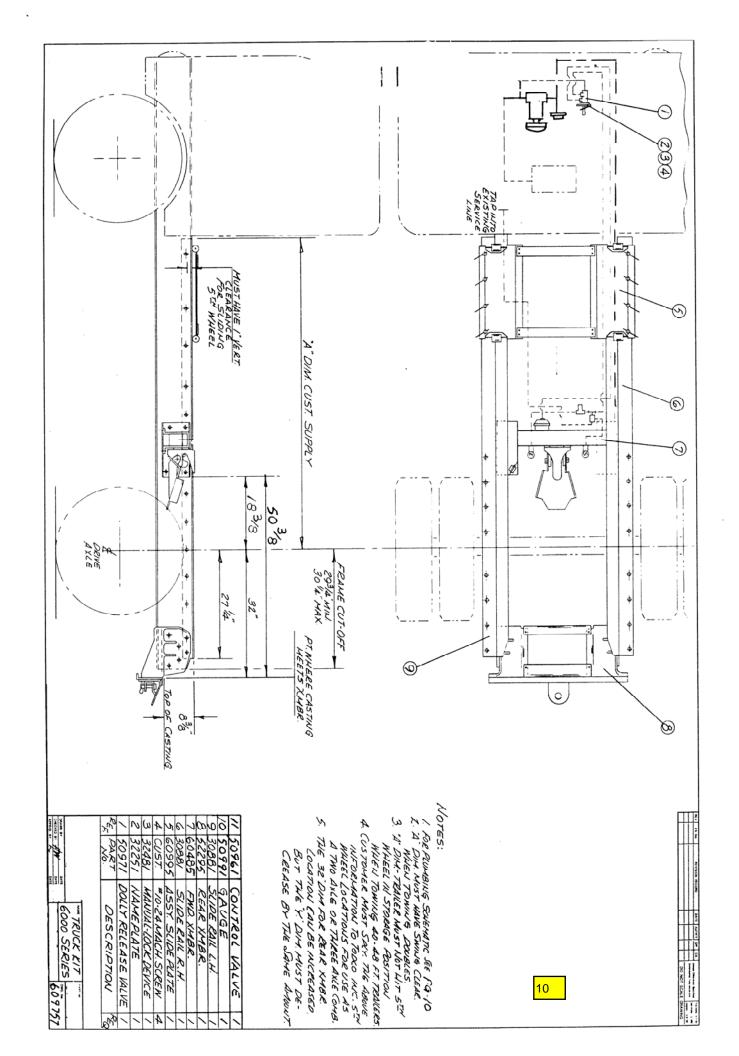
**NOTE**: When unit is locked and ready to be moved, the locking device must be in place over the lever.

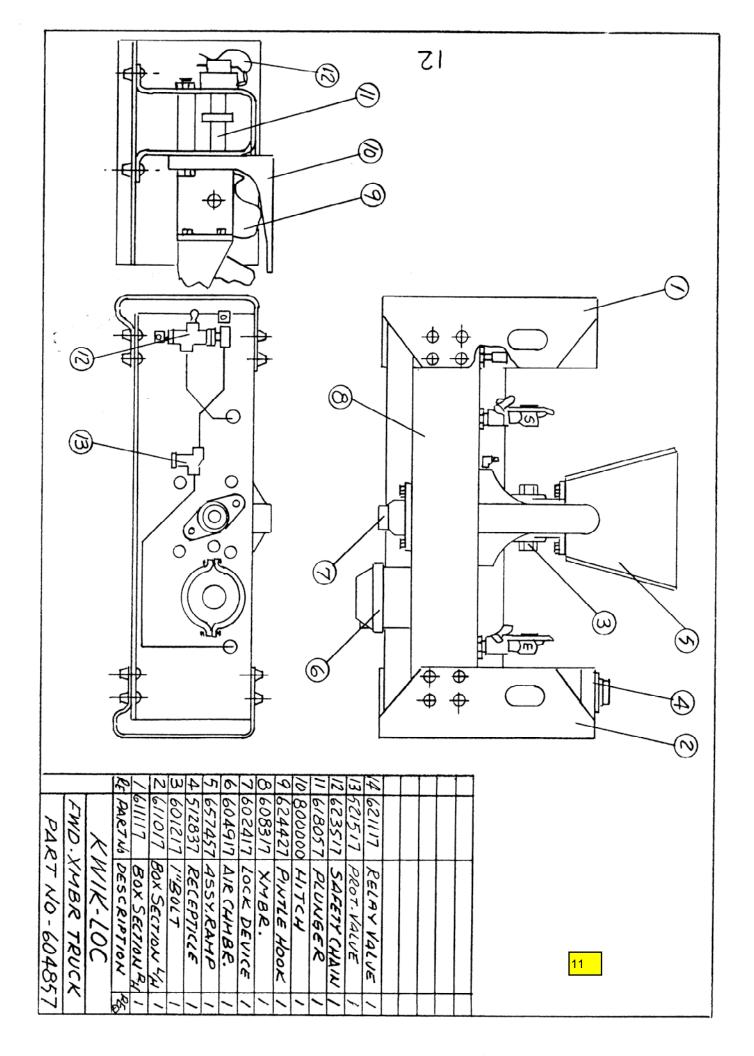
# Electrical

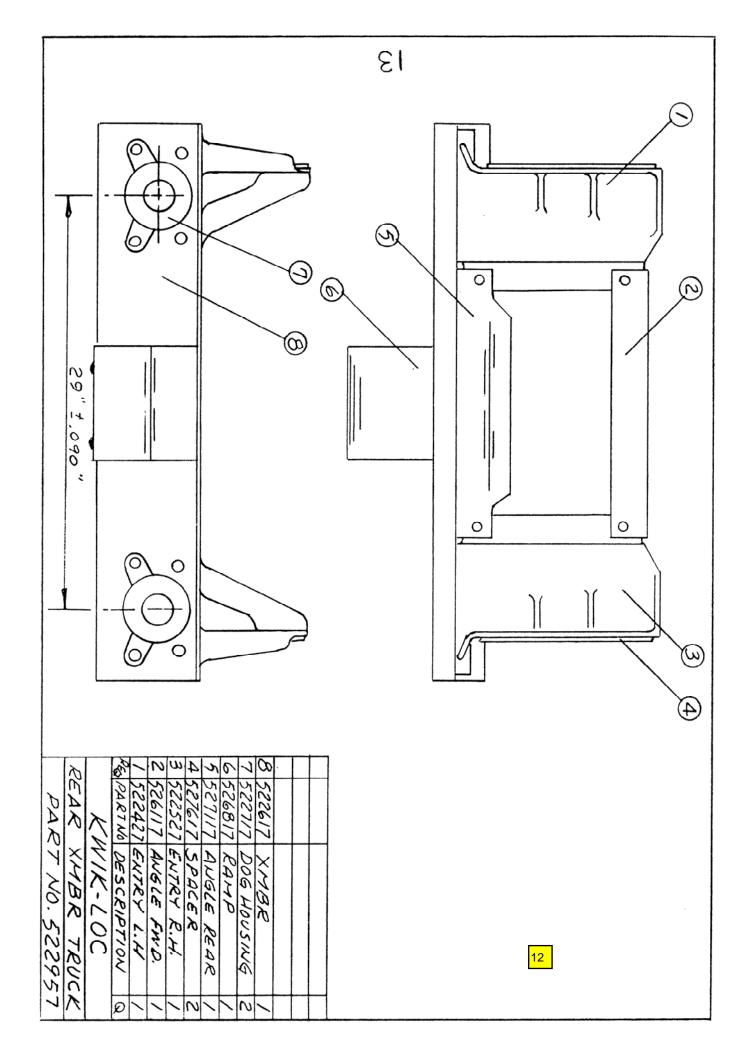
A seven-way electrical receptacle mounting hole has been provided on the forward crossmember. This is used to accept the seven-way electrical cord used on the Kwik-Loc dolly to provide stop, tail and turn lights.

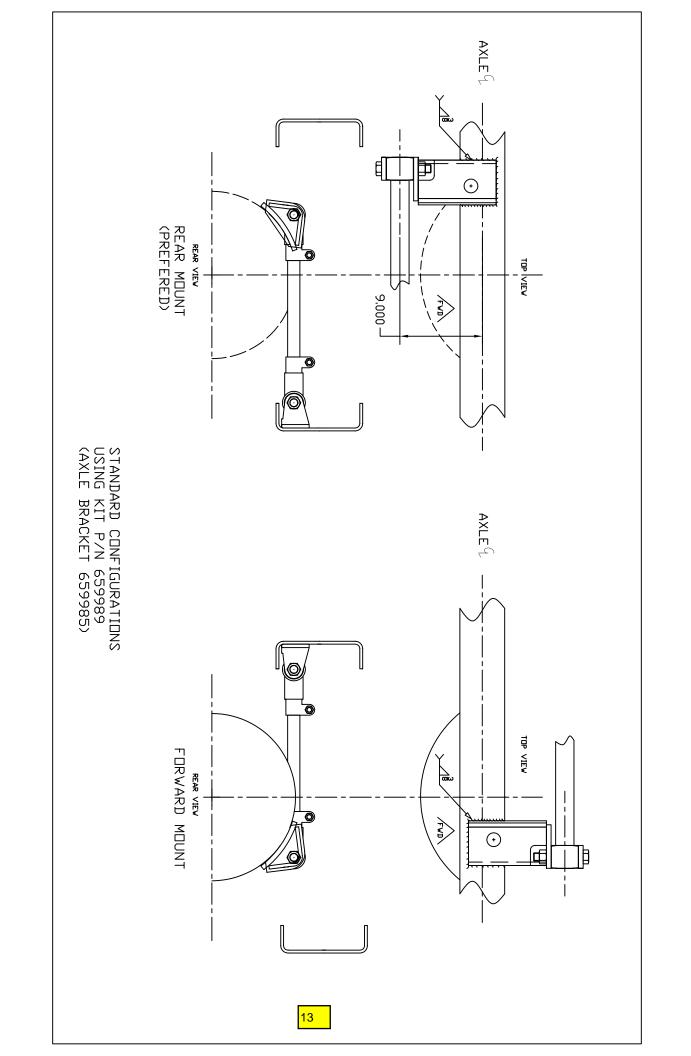
Electrical power for this receptacle must be obtained by splicing into the existing trailer wiring harness on the tractor, or as in some cases by connecting to an existing trailer harness junction box. The sketch shown, illustrated the correct way the receptacle should be wired to conform with the Kwik-Loc dolly

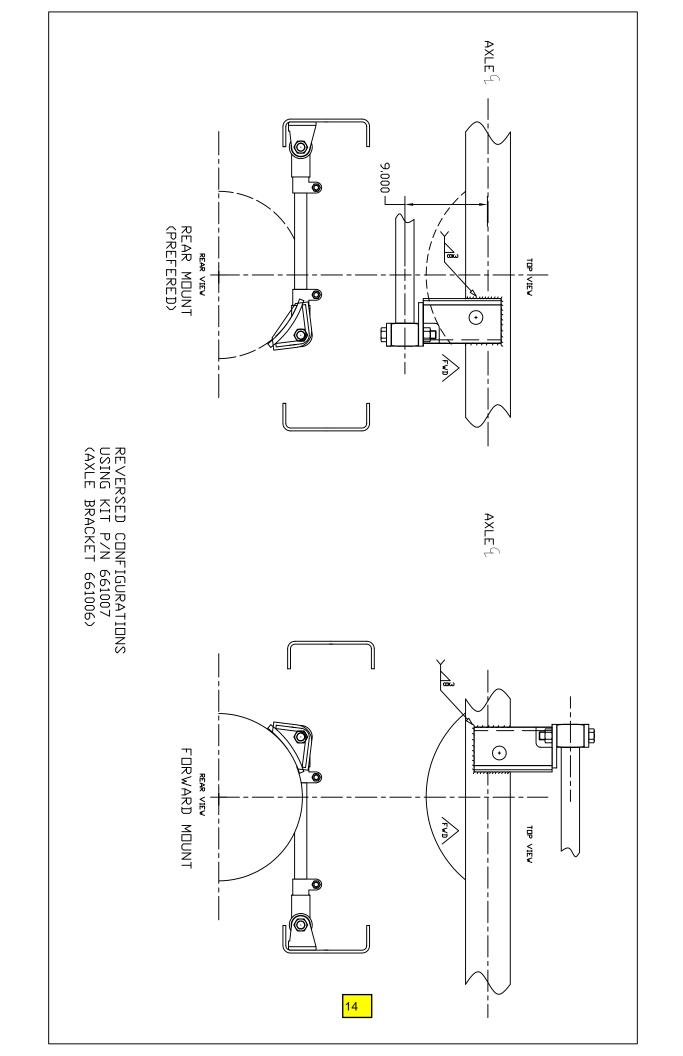


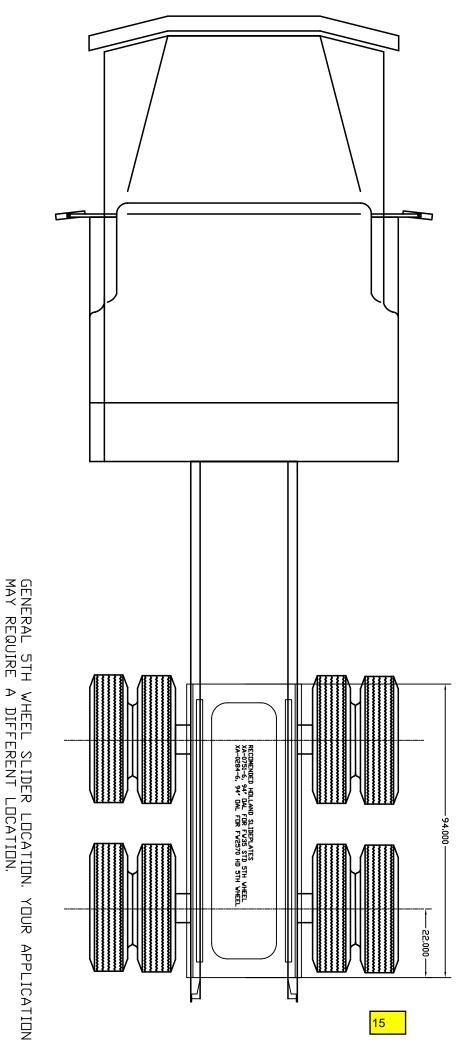




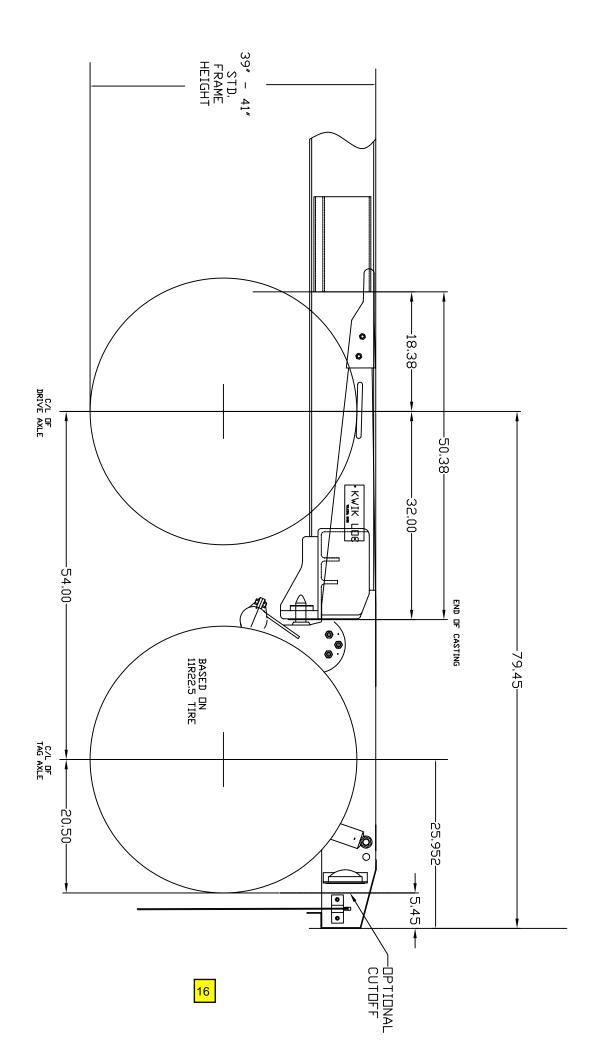








YOU MUST SCALE YOUR TRUCK TO VERIFY PROPER AXLE LOADING PRIOR TO PUTTING TRUCK IN SERVICE



# KWIK-LOC TAG AXLE DOLLIE HOOKING AND UNHOOKING PROCEDURE

#### A. **COUPLING** (3 Axle Tractor)

- 1. Slide 5<sup>th</sup> wheel into proper position for tr axle use.
  - 2. Check tag axle air bags to see they are inflated. If not, recharge Dolly air system. (see plumbing schematic)
  - 3. Place Dolly air hoses and chains in basket.
  - 4. In the truck, make sure the 3-way valve is in the "3-axle" position.
  - 5. Align tractor to Dolly; back tractor into Dolly slowly until hooked.
  - 6. Crank leg up.
  - 7. Insert safety clip behind the pintle hook on forward crossmember. Clip must go through both cross holes.
  - 8. Connect emergency and service lines, cab control / air bag hose and open petcock, safety chains, and light cord to like fittings on forward crossmember.
  - 9. In truck, place 3 way valve in 4 axle position and lock with clip.
  - 10. Set cab control pressure to 10 p.s.i.
  - 11. After checking 5<sup>th</sup> wheel engagement, raise cab control pressure to 15 p.s.i. plus 1 p.s.i. for each 1,000 lbs. of payload (e.g. 40,000 lbs. = 55 p.s.i.). When possible check on scale.
- B. **UNCOUPLING** (3 Axle Tractor plus Dolly)
  - After landing gear has been lowered and before pulling out from under semi trailer, reduce cab control pressure to 10 p.s.i. Pull away from trailer.
  - 2. Place three way valve in 3 axle position.
  - 3. Crank leg down until wheel touches ground.
  - 4. Remove safety clip from behind pintle hook on forward crossmember.
  - 5. Disconnect air hoses, safety chains and light cord. Stow in Dolly basket.
  - 6. Shut off cab control / air bag petcock and remove cab control hose from quick disconnect fitting on truck and insert in quick disconnect fitting on Dolly and place hose in basket.
    - 7Slide tractor 5<sup>th</sup> wheel to proper tandem axle position.
  - 8. Hold 3 way valve in unlock position and drive away form Dolly.
  - 9. Place 3 way valve in 3 axle position for 3 axle operation.

#### **SAFETY FIRST**

