

# KP806/KP810 HOIST MOUNTING INSTRUCTIONS

STUDY NAMES AND LOCATIONS OF THE PARTS AND FAMILIARIZE YOURSELF WITH THE HOOK HOIST BEFORE STARTING THE INSTALLATION. READING THE STEP-BY-STEP INSTRUCTIONS THAT FOLLOW WILL BE HELPFUL.

## SAFETY



**Read all of the Safety Notations in the following instructions for your own protection. Accidents can be prevented by recognizing the cause of an accident before it can happen.**

## INSTALLATION

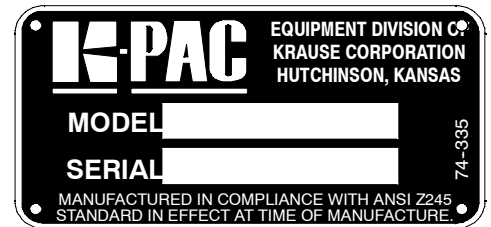
Select an area for installation that will be large enough to accommodate the completed unit. The surface of the work area should be as level as possible. Use the proper hand tools to insure proper bolt tightness. Refer to the bolt chart on the previous page for the recommended torque values for different sizes of bolts.

If a forklift is to be used to lift the KP806/KP810 from the transport vehicle to the installation area, care should be taken not to engage chains or hooks to areas of the Hook Hoist which may cause damage to hydraulic hoses or any parts of the structure.

Before starting installation procedures, check the shipping list to ensure that all parts and accessories have been supplied. Any missing items should be reported to K-PAC equipment immediately.

## MODEL NUMBER

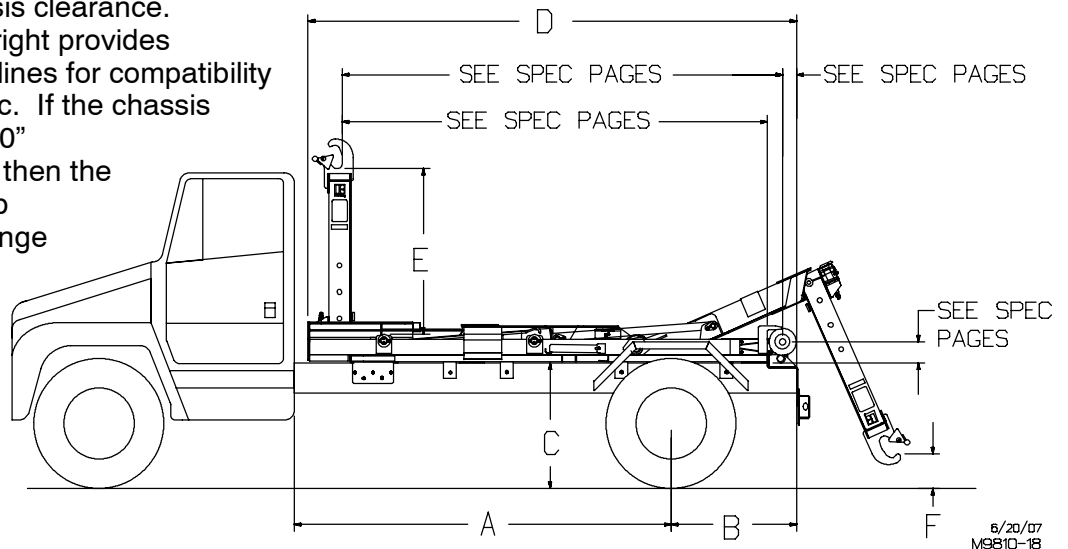
Know the model number of the KP806/KP810 being mounted. Use this model number whenever referring to the assembly or parts listing pages. The number is stamped on the Name Plate which is located on the front frame member.



## TRUCK CHASSIS

The **KP806/KP810 Hook Hoist** is designed for a minimum of 26,000 lbs. G.V.W.R (KP806) / 33,000 lbs. G.V.W.R. (KP810) chassis with a minimum of 108"-156" unobstructed behind cab-to-axle chassis clearance.

The illustration at right provides dimensional guidelines for compatibility with containers, etc. If the chassis is lower than the 40" dimension shown, then the lowest hook pickup dimension will change accordingly.



A	B	C	D	E					
				36"boom	54"boom	62"boom	36"boom	54"boom	62"boom
108"	40"	40"	143-3/4"	35-5/8"	53"	na	33"	15"	na
108"	40"	32"	143-3/4"	35-5/8"	53"	na	25"	7"	na
120"	40"	40"	155-3/4"	35-5/8"	53"	na	30"	11"	na
120"	40"	32"	155-3/4"	35-5/8"	53"	na	22"	3"	na
138"	42-1/2"	40"	179-3/4"	na	53"	60-1/2"	na	19-1/4"	12-1/4"
156"	42-1/2"	40"	197-3/4"	na	53"	60-1/2"	na	19-1/4"	12-1/4"

Dimension A goes from rearmost point of cab/exhaust to axle

# CLUTCH PUMP INSTALLATION INSTRUCTIONS



**Danger:** This clutch pump is for a 12 Volt D.C. circuit.

Immediately upon unpacking the clutch pump, check for shipping damage by spinning the clutch by hand. If any metallic rubbing is heard, do not attempt to repair the clutch. **Return the clutch to Muncie for replacement.**

This package should contain the following:	
1 - Clutch Pump	3 - Sta-Kon Terminals
1 - 12 Foot Length of Wire	2 - Butt Splice
1 - Rocker Switch & Light	1 - Switch Mounting Bracket
2 - Ring Terminals	2 - Screws, Lockwashers & Nuts
2 - Star Washers	1 - In-Line Fuse

## Fanbelt Clutch Pump Installation

### **Mounting Bracket For Clutch Pump**

K-PAC has clutch pump engine mounting kits for selected engines. Contact K-PAC for further information.

For complete pump installation follow pump manufacturer's instructions.

## POWER TAKE-OFF INSTALLATION



**Caution:** The power take-off selection should be done with care. For diesel engines, the P.T.O. should be 85% to 100% of engine R.P.M. For gas engines, the P.T.O. should be 65% to 80% of engine R.P.M. The direct mounted pump requires a SAE B 2-bolt mounting flange and must accept a 7/8" 13 tooth splined shaft.



**Warning:** Do not attempt to install or service any power take-off with your truck engine running. Put the ignition keys in your pocket before getting under the truck.

**Do not allow truck engine to be started while workmen are under the truck.**

**Block truck wheels with suitable chocks before working under the truck.**



**Warning:** Be sure to block any raised body or mechanism before working on or under the equipment.

**Installed power take-offs must never be shifted in or out of gear by any means except by the controls in the cab of the truck.**

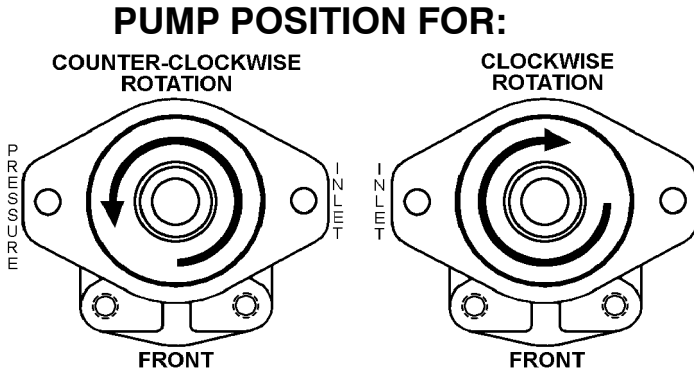
**Stay clear of spinning driveshafts to avoid becoming entangled and injured.**

For P.T.O. installation, follow the P.T.O. manufacturer's installation instructions.

When installation is completed, refill the transmission with fluid and run engine for 5 to 10 minutes to check for leaks.

## DIRECT MOUNTED PUMP INSTALLATION

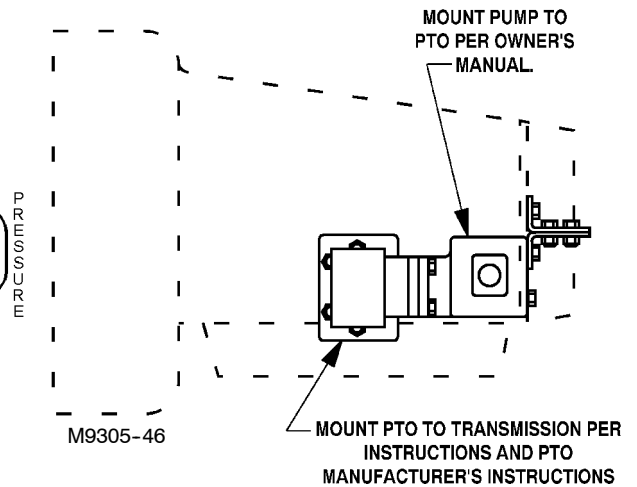
1. To install a direct mounted pump, first of all determine the direction of rotation of the PTO from the illustration below.
2. Align the splined shaft on the pump with the splines in the PTO.
3. Install the four (2) 1/2NC x 2" GD.5 Cap Screws and Lock Washers. Be sure the pump flange is fully seated onto the PTO housing.
4. Tighten all hardware.



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**Warning:** Direct mounted hydraulic pumps weighing more than 50 Lbs. should be supported at the rear by a strap attached to the transmission.



## FUEL TANK SAFETY

If needed remove the fuel straps holding fuel tank and lower the fuel tank to a safe shielded position during hoist installation.

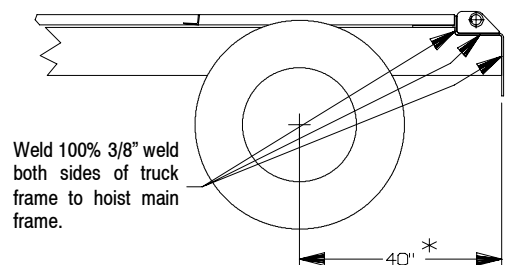
## HOOK HOIST MOUNTING INSTRUCTIONS

**NOTE:** RIGHT and LEFT sides can be established by standing behind the truck frame and looking towards the front or the direction of travel.

The KP806/KP810 Hook Hoist is designed to mount on a standard truck frame. If there are unmovable obstructions on top of the truck frame, you must add spacers to raise the hoist frame to clear, or move the obstructions.

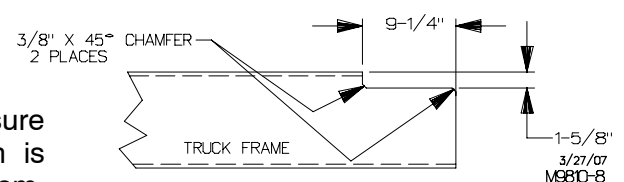
1. Compare the Truck Chassis with the Hook Hoist ordered (108CA, 120CA, 138CA, 156CA Hoist). Compare the specification dimensions (pages 4-6, and A1 in this manual) to determine how far forward on the chassis the Hoist can be mounted. It is best to mount as far forward as possible for optimum weight distribution.
2. Recommended frame cutoff from axle Center-Line to rear of frame per specification pages 4-6, A1, and the information following.
3. If chassis is longer than the above CA's the chassis can be cut off shorter per difference. Cut end of frame per illustrations shown. Measure and mark truck frame per axle location and type (i.e. single, tandem). Measure assembled hoist to be sure adequate room is available behind truck cab, exhaust system, between bumper and tires and between fender and tires.

### KP806 / KP810 108/120 CA ONLY



Weld 100% 3/8" weld both sides of truck frame to hoist main frame.

\* DETERMINED BY SUSPENSION TYPE AND TIRE SIZE



Measure assembled hoist to be sure adequate room is available behind truck cab, exhaust system, between bumper and tires and between fender and tires. After double-checking your measurements, step-cut the frame to dimension. Grind the top of each cut to a 3/8" x 45° chamfer to clear radius on top of hoist main frame rear apron. Install hoist mainframe and weld to truck frame as shown. **The minimum would be 1" behind the rear suspension components.**

**NOTICE: Frame cut-off will vary based on C.A. of truck and/or suspension clearance. Be sure hoist will fit before cutting truck frame!**

**KP810 138/156 CA**

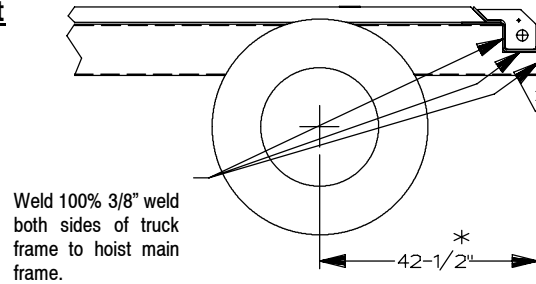
**NOTICE: Emission laws for 2007 and newer trucks do not allow exhaust modifications:**

**NOTE:** If bolts, pipe, pipe fittings, hydraulic fittings, hoses, etc., are substituted for the hardware supplied with the hoist, the installer must use parts of equal quality and service strength.

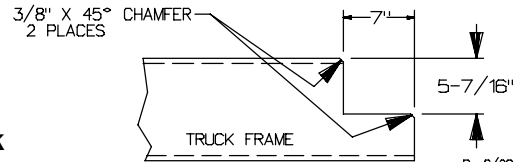
**NOTE:** It may be necessary to relocate air tanks, fuel tank, battery cases or any other accessories mounted in this area.



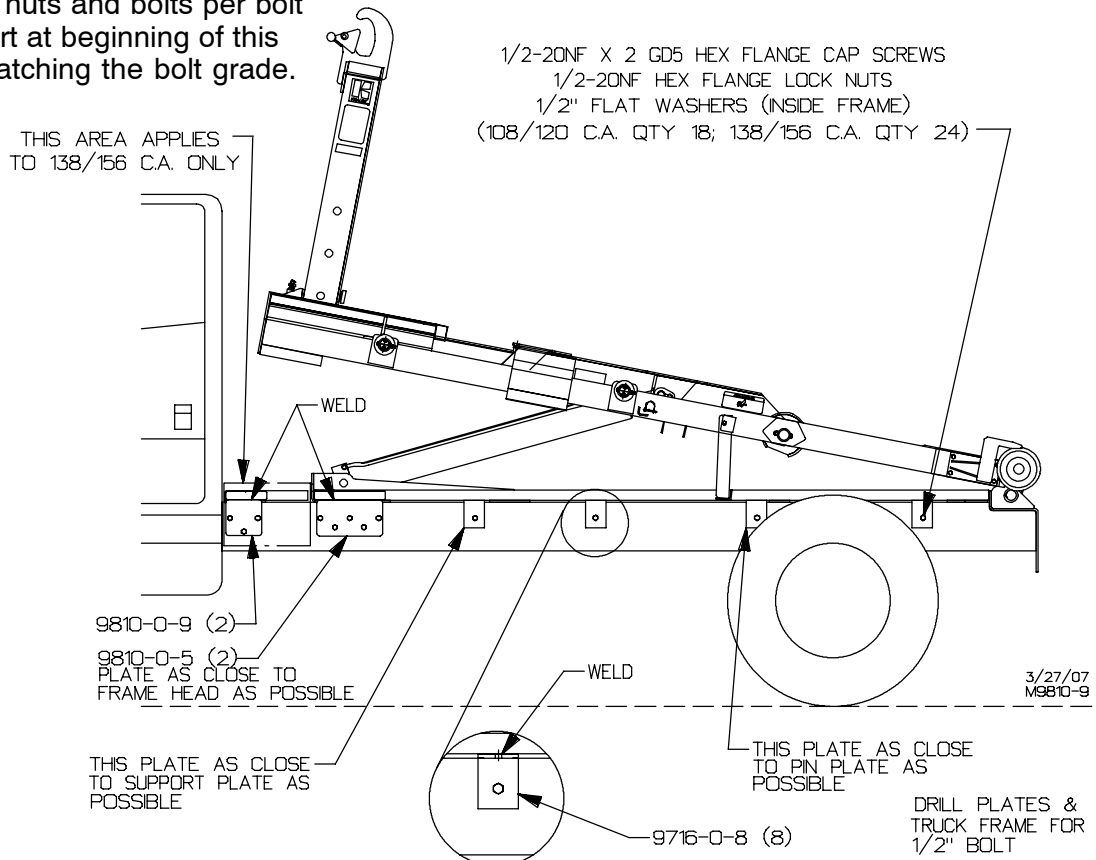
**Caution:** Before drilling through the truck chassis, be sure that all hoses, wiring and lines are moved out of the path of the drill.

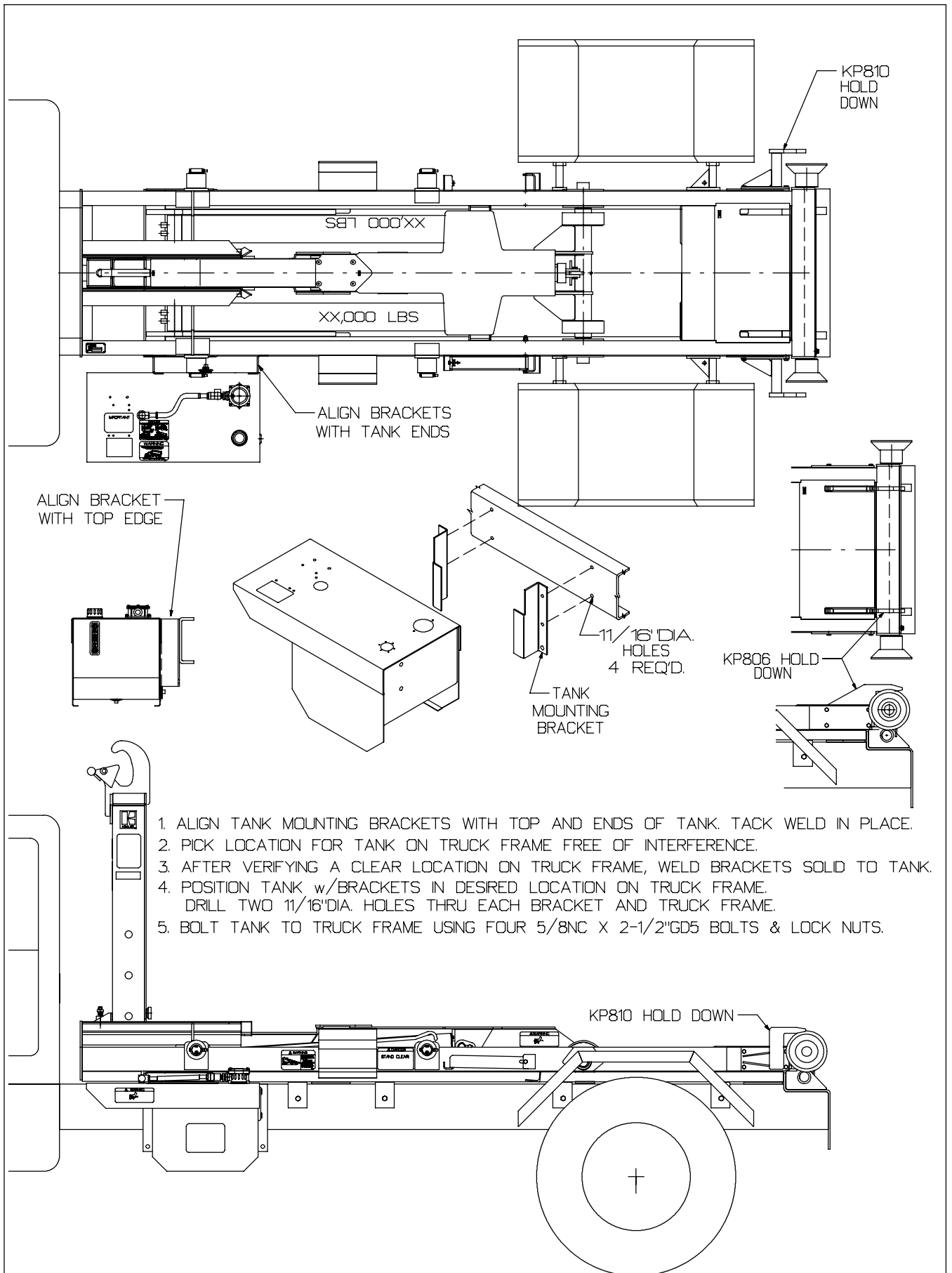


\* DETERMINED BY SUSPENSION TYPE AND TIRE SIZE.



4. Unpackage the KP806/KP810 Hook Hoist Main Frame and prepare to lift it onto the truck chassis.
5. With the Truck Chassis prepared as previously illustrated, safely attach chains and lift the hoist with a heavy duty fork lift or some other suitable lifting device. Move and position the sub-frame over the truck chassis.
6. Lower the frame onto the chassis so that the back plate on the sub-frame aligns with the end of the truck frame. See illustration.
7. Attach (2) 9810-0-5 and (8) 9716-0-8 Mounting Brackets as shown in illustration.  
**For 138/156 C.A. ONLY: Also attach (2) 9810-0-9 Mounting Brackets as shown below.**
8. Using a 17/32" drill bit, drill holes into the chassis rails matching the Mounting Brackets on the frame.
9. Insert the 1/2" bolts through the brackets and truck frame, install flat washers and lock nuts. Tighten all nuts and bolts per bolt torque chart at beginning of this section, matching the bolt grade.





1. ALIGN TANK MOUNTING BRACKETS WITH TOP AND ENDS OF TANK. TACK WELD IN PLACE.
2. PICK LOCATION FOR TANK ON TRUCK FRAME FREE OF INTERFERENCE.
3. AFTER VERIFYING A CLEAR LOCATION ON TRUCK FRAME, WELD BRACKETS SOLD TO TANK.
4. POSITION TANK w/BRACKETS IN DESIRED LOCATION ON TRUCK FRAME. DRILL TWO 11/16"DIA. HOLES THRU EACH BRACKET AND TRUCK FRAME.
5. BOLT TANK TO TRUCK FRAME USING FOUR 5/8NC X 2-1/2"GD5 BOLTS & LOCK NUTS.

# OIL TANK, VALVE AND HOSE INSTALLATION

Refer to drawing on page A5 for steps listed below.

Clean all hydraulic components and keep all hoses, tubes, valves and fittings capped until they are to be installed.

**BE SURE TO READ THE SAFETY INFORMATION THAT FOLLOWS!**



**Warning:** Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

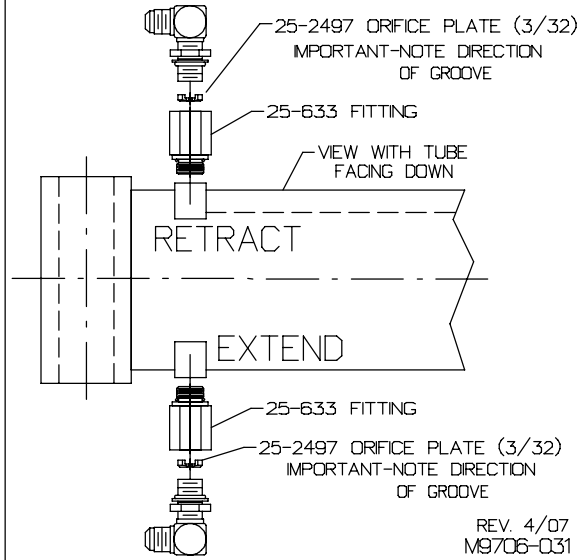
NOTE: Use pipe sealant on pipe thread joints ONLY.

1. Attach the Hydraulic Tank mounting brackets to the side of the tank as shown in the preceding illustration. Align mounting brackets with top edge and ends of tank. Tack weld.
2. Mount Tank Assembly onto truck as shown. Watch clearance on top of hoist. If more clearance is desired, then lower tank accordingly. Check for adequate clearance between bottom of tank assembly and the ground.
3. Clamp Tank Assembly to truck frame in desired position. Check mounting bracket location on frame leaving adequate room for installation of cables and plumbing. If present location does not work, move to suitable location and weld mounting brackets to tank as shown above.
4. With Tank Assembly in position desired, mark and match drill 11/16" Dia. holes into frame. Attach Tank with 5/8" x 2-1/2" Bolts and lock nuts provided.
5. Install valve fittings and hoses as shown (on Parts Section pages P16-P19 "HYDRAULICS") for routing proper valve bank and function to cylinder, etc. Install sleeve over bundle of hoses for protection. Route hoses to clear sharp obstructions to protect from wear.
6. Be sure to install hoses on proper valve bank because the valve sections are different.
7. KP810 ONLY: The routing of the hoses from the Lift Cylinders to bulkhead tees must be done carefully. **MAKE SURE** that hoses are not twisted and will have adequate flexibility during operation.

## KP810 LIFT CYLINDERS BULKHEAD TEES



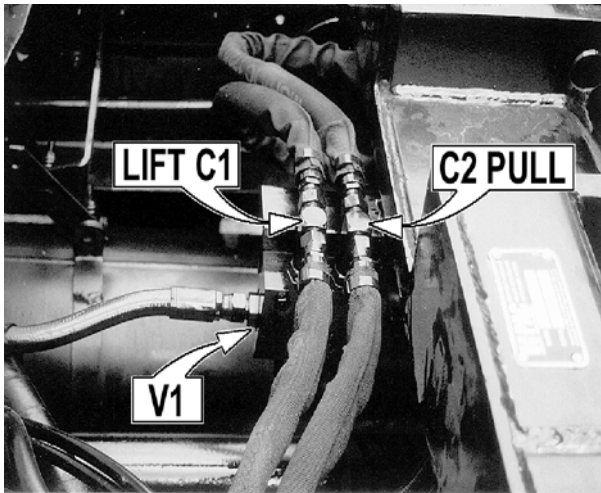
### KP806 ONLY



### MODEL KP806 ONLY:

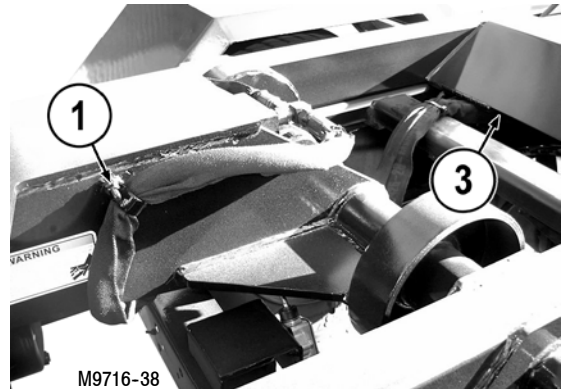
**IMPORTANT:** 25-2497 ORIFICE PLATE **MUST** be installed in 25-633 Fitting in each port of lift cylinders as shown in the illustration at left. (note direction of groove in orifice). This will control free-fall of load if any hydraulic malfunction occurs. See illustration to the left.

## KP806 COUNTERBALANCE VALVE

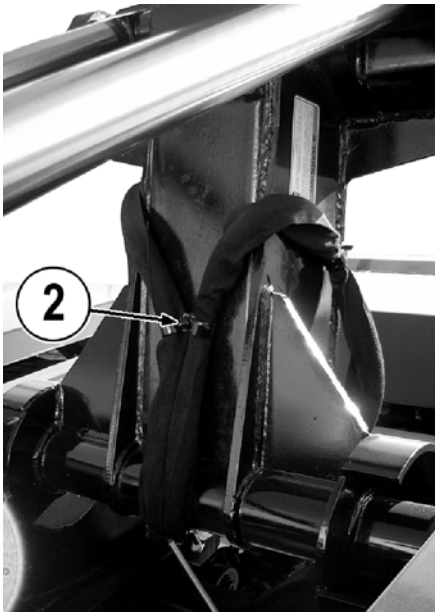


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**KP806 ONLY:** The routing of the hoses from the Lift Cylinders to counterbalance valve must be done carefully. MAKE SURE that hoses are not twisted and will have adequate flexibility during operation. See photo at left.



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### Hydraulic hose routing

1. Weld a 3/8NC x 1" Bolt level on both sides of the outer boom as shown (Item 1) in photo above.
2. Weld a 3/8NC x 1-1/2" bolt in center of the outer boom as shown (Item 2) in photo below.
3. Weld a 3/8NC x 1-1/2" bolt to bottom inside of rear apron on main frame approximately 8" in from frame edge as shown (Item 3) in photo at left.

Attach hoses using ONE hose clamp at location 1 (see photo above); TWO hose clamps at locations 2 and 3 (see photos above and to the right). Secure clamps with 3/8 lock nuts. Using tie straps fasten hoses together to prevent unwanted movement during boom rotation.

Adjust hoses to allow enough travel and return without getting caught in hoist. Operate through full tilt and full separate boom travel.

## VALVE CONTROL INSTALLATION

The optional cable controls supplied with K-PAC equipment are a high-quality assembly which seal out moisture, are corrosion protected and engineered to minimize backlash (lost motion).

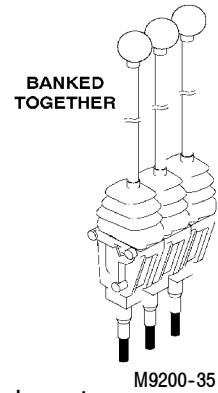
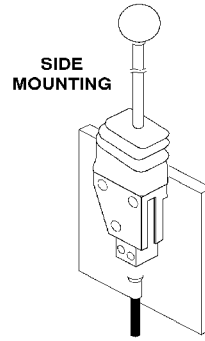
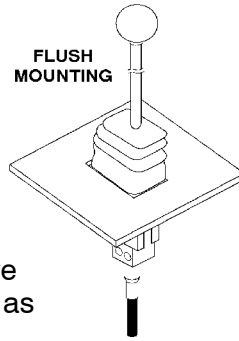
After the hoist and hydraulic tank are mounted to the truck chassis, the remote cable controls may be installed.

### **Cable Control Mounting:**

1. On the hydraulic control valve, remove the screws holding the spool cover plate. Position the handle assembly on the valve face and install the screws provided with the handle kit. Install the clevis pin and cotter pin.
2. Mount the valve to the underside of the mounting plate located on top of the hydraulic tank assembly with the handles sticking up through the rectangular cutout.
3. Position the control cable bulkhead plate on the top of the hydraulic tank assembly. Install the control cable bulkhead plate with 1/2" cap screws and nuts, or weld. If necessary, temporarily assemble the threaded cable end to the bulkhead plate for proper positioning with the valve handles.
4. Mount the cable controllers to the control mount supplied. Other mounting options are shown in the following illustration (parts not supplied).

**IMPORTANT:**

1. A good cable path is essential for a properly operating system. Keep bends in the cable path to a minimum and as generous as possible. Under no circumstances should any bend be tighter than an 8" radius.
- A. Protect the cable from heat above 225°F and avoid hot areas such as the exhaust system, etc.
- B. Protect the cable from physical damage such as pinching or crushing and do not use cable supports which may crush or deform the cable.
- C. Allow room for flexing where the cable is attached to moving parts of the equipment so that the cable is neither kinked nor stretched.

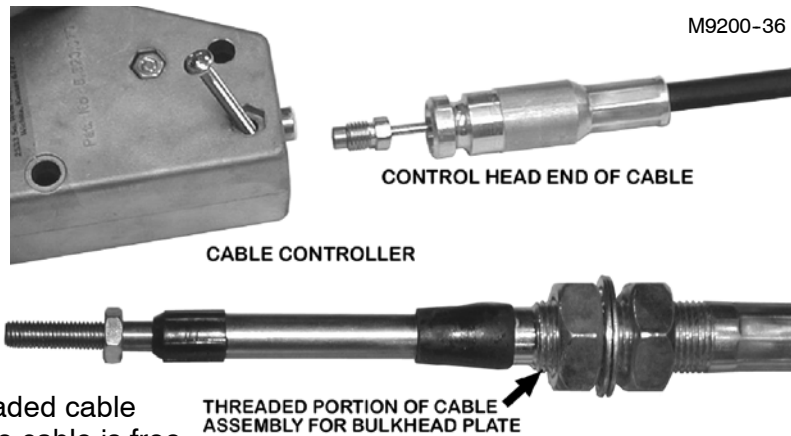


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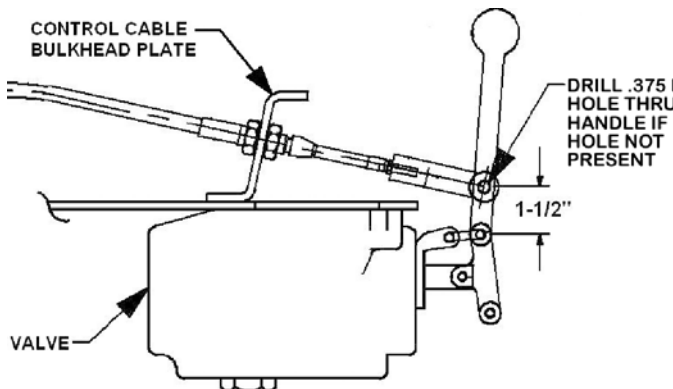
5. Choose a mounting location which is convenient and comfortable for the operator and provides adequate clearance for the control lever movement. Check the underside of the cab for reinforcement members, air lines, wiring harnesses, and linkages before cutting into the floor. Be sure the location chosen allows the cable to be led easily away from the control. Reversing control direction usually is not necessary. In most cases, the direction of the lever movement for a given valve function can be changed by switching the hydraulic lines at the valve. If this is not an option, control operation can be changed simply by turning the cable controller 180°.
6. Cut a hole for the control cables to pass through.
7. If using the control mount provided, mark and drill (4) .343" diameter holes for the 3/8" self-tapping screws provided.

**Cable Connections**

1. Remove the screw from the cable controller where the cable end will install. Do NOT remove the other screws passing through the cable control housing.
2. Screw the hex threaded cable end into the cable controller end. Moving the cable controller handle will allow easier access to start the thread. If the hex threaded cable end is not visible, make certain the cable is free to slide back and forth and shake the cable end with the end in the downward position.



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3. Install the control head end of the cable into the cable controller. Reinstall the cable controller screw passing through the groove in the end of the cable housing.
4. Check the control for free movement and correct valve control.
5. To connect the cable to the valve handle, start by removing the mounting nut from the cable assembly. (Large nut in the photo above)
6. Install the threaded portion of the cable assembly through the bulkhead weldment and replace the mounting nut.

7. Install the clevis provided to the cable end. The cable end should be parallel to the bulkhead weldment.

8. Locate the clevis on the control valve handle. If a hole is not provided in the control valve handle for the clevis, drill a .375" diameter hole through the valve handle as illustrated. Install pin and keeper included with clevis.
9. Do a final check of the controls for free movement and correct valve control.

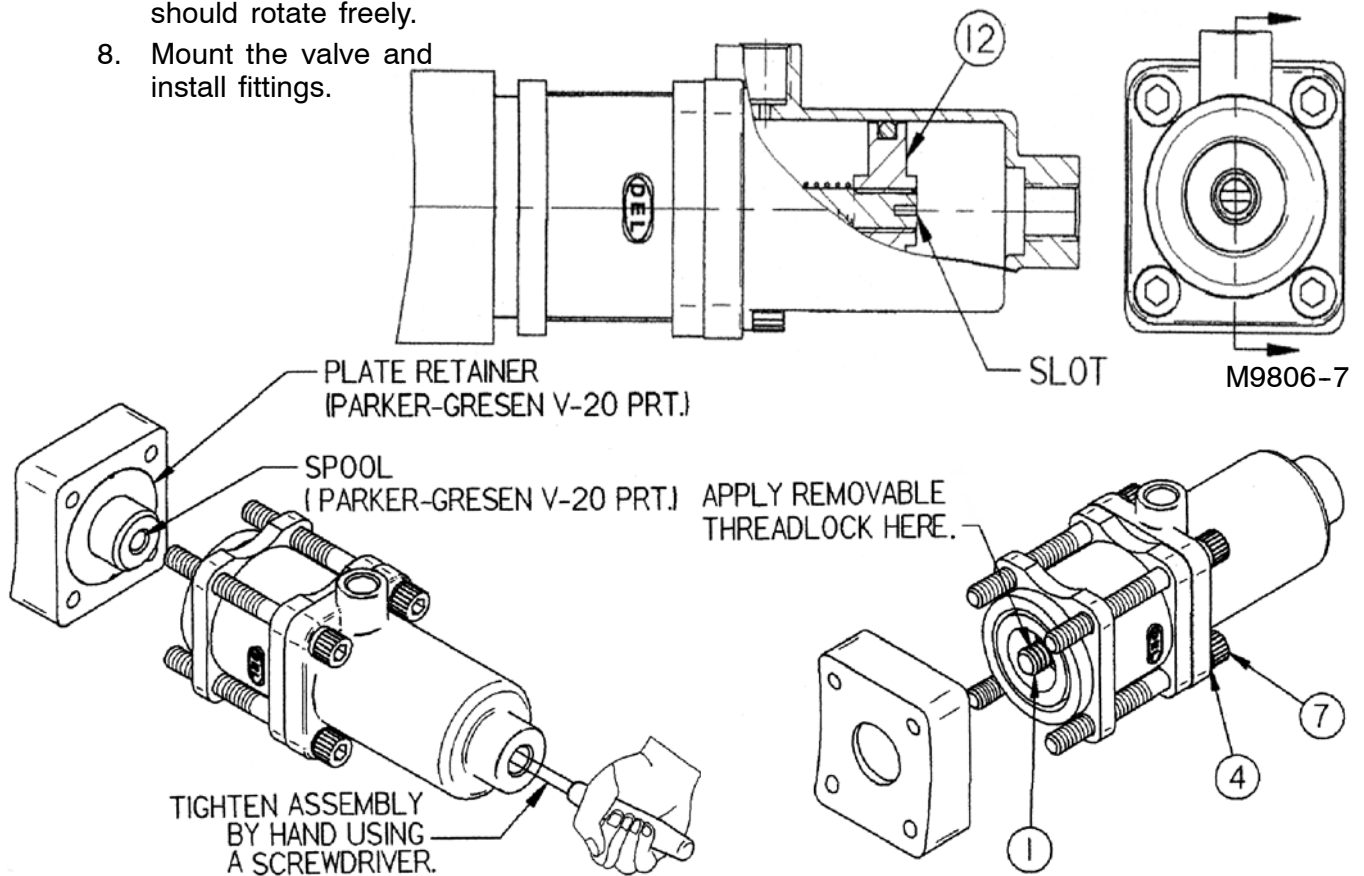
## PNEUMATIC CONTROL INSTALLATION INSTRUCTIONS

The optional pneumatic controllers provided with K-PAC equipment are dual three-way regulating valves. Output of the controllers is proportional to the control lever position and is balanced against the force of an internal spring.

### Pneumatic Actuator Installation

The pneumatic actuator has been partially assembled and pre-lubricated for ease of installation. The actuator does not have to be disassembled for installation.

1. Remove the valve if previously installed.
2. Find a suitable area free of dust and dirt to attach the pneumatic actuators.
3. Set the hydraulic valve on its mounting base.
4. Determine which spools are to be pneumatically controlled.
5. From the valve assembly:
  - a. Remove and discard the original retainer screws and valve spring cover.
  - b. Retain the handle end of the spool. Remove and discard the 5/16" shoulder bolt from the end of the valve spool exposed by the removal of the valve spring cover.
  - c. Remove and discard the original centering spring and two original centering cups.
  - d. Insure the original seal retainer on the valve spool is properly seated.
6. Apply a small bead of removable thread lock to the threads of the spool adapter (item 1). Holding the spool on the opposing end, hand tighten the assembly using a flat screwdriver through the rear fitting port into the end of the piston (item 12). **DO NOT USE AN AIR GUN.**
7. Secure the actuator assembly to the valve body using the four (4) socket head cap screws and lock washers (items 4 & 7). Test for proper alignment by turning valve spool. The spool should rotate freely.
8. Mount the valve and install fittings.



## Pre-Assembled Pneumatic Controller Installation - See parts page P26

1. Determine a suitable location which is in a comfortable location for the driver and not in the way of the transmission lever.
2. Position the lower bolt holes so that the bolts will miss any cable, wires or structural members in or under the cab floor.
3. Mark and drill the four (4) .343”DIA. holes for the self-tapping mounting bolts supplied with the tower.
4. Determine a location in the area between the mounting holes to run the air lines.
5. Drill a 2” to 3” DIA. hole through the floor of the truck. Remove all burrs and sharp edges. Line the hole with the grommet material supplied.

6. Using the washers on the under side of the floor, attach the tower to the floor with 3/8” cap screws and lock nuts.

**After the control tower has been mounted, the air lines can be routed. The air line tubing is color coded as shown at right.**

<b>Blue:</b>	<b>Winch / Cable In</b>
<b>Green:</b>	<b>Winch / Cable Out</b>
<b>Orange:</b>	<b>Hoist Raise / On</b>
<b>Yellow:</b>	<b>Hoist Raise / Off</b>
<b>Red:</b>	<b>PTO</b>
<b>Black:</b>	<b>Exhaust</b>
<b>Silver:</b>	<b>Supply</b>
<b>Silver:</b>	<b>Aux In</b>
<b>White:</b>	<b>Aux Out</b>

To remove an air line from a fitting, push the line in, hold the internal sleeve of the fitting then pull the air line out.

1. Pass the air lines through the hole lined with grommet material in the floor.
2. Route the exhaust air line outside of the truck cab.
3. Determine a suitable route for the air lines to the control valve. Avoid sharp bends, sharp edges, and heat sources.
4. Install supplied elbow fittings into pneumatic actuators.
5. Connect the air lines to the elbow fittings in the pneumatic actuators.
6. Bundle the air lines together and secure out of harm’s way.

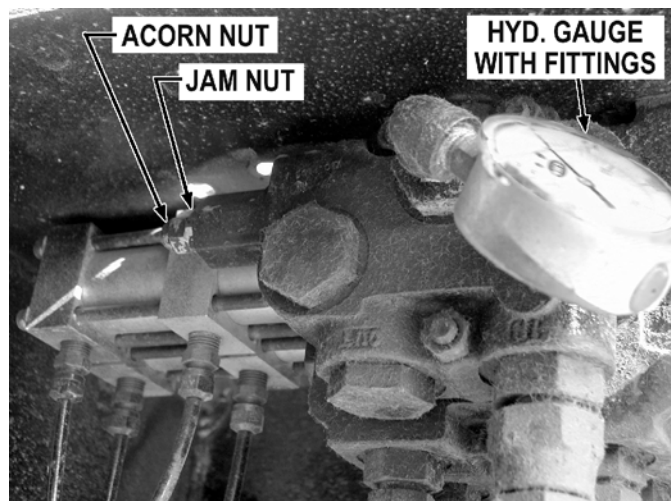
A decal with an assortment of .94 DIA. labels are provided with the owner’s manual. These decal labels can be applied to the underside of the clear plastic caps to identify the function of each pneumatic control handle. After the decals have been applied, snap the clear covers into the handles.

### Start-up Procedure

1. Charge the air system of the truck and check all lines for leakage.
2. Operate the controllers and check for correct hydraulic valve movement.  
**NOTE:** The controllers pressurize the port toward which the handle is moved. If the function is to be reversed, exchange the air lines at the controller or actuator.
3. After the correct connections have been made, and the hoist has been completely installed, engage the P.T.O. to check out the operation of the hoist.

### HYDRAULIC PRESSURE GAUGE

1. Locate and remove plug from port used for pressure gauge.
2. Install Pressure Gauge with fittings or adapters as needed.
3. Remove Acorn Nut from adjusting screw.
4. Loosen Jam Nut.
5. Using allen wrench, adjust to proper pressure. See Specification page 4-6.
6. Tighten Jam Nut, holding adjustment screw in position.

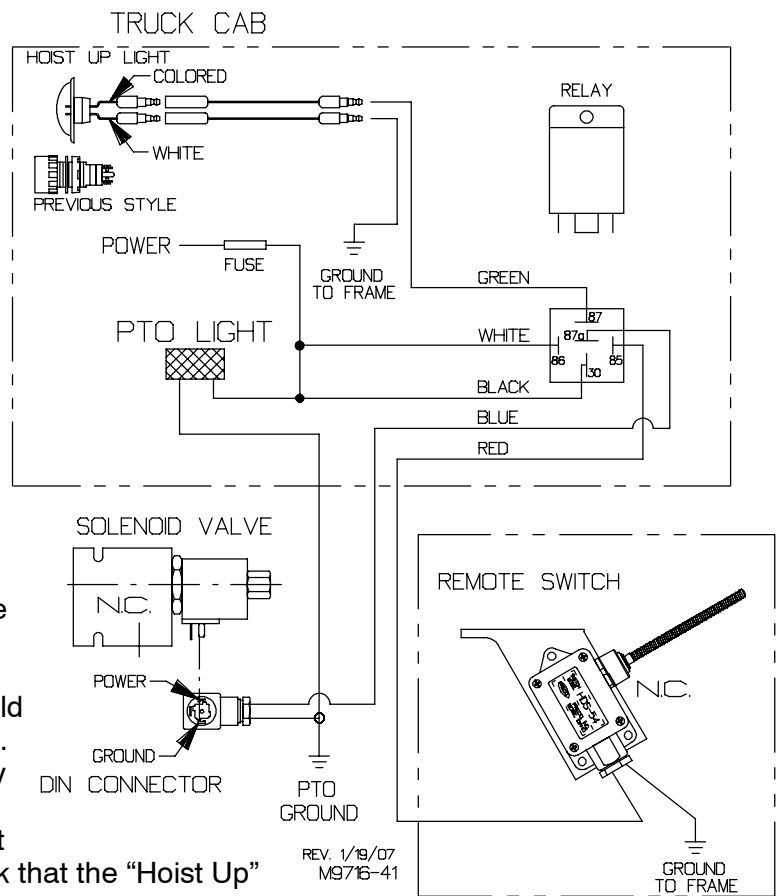


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7. Re-install Acorn Nut.
8. Test unit for proper operation, re-adjust to correct pressure if needed.
9. Remove test Pressure Gauge and re-install plug.
10. Re-test unit checking for leaks and proper operation.

## INNER BOOM HYDRAULIC INTERLOCK INSTALLATION & HOIST-UP LIGHT INSTALLATION

1. Read the hoist prop instructions in the Operating Section of this manual.
2. Position the switch mounting plate (9716-0-30) on main frame as shown.  
**IMPORTANT: The switch MUST BE positioned UNDER the tilt frame. If the switch is positioned under the boom, the boom will not retract when hooking to a container or load.**
3. Weld switch mounting plate with 1/4" welds.
4. Mount the remote switch (79-248) to mounting plate with 1/4NC x 1-1/4" Cap Screws and Hex Flange Lock Nuts.
5. Pick a suitable location the truck dash which is plainly visible to the operator for the "Hoist Up" warning light.
6. Drill a 3/4" diameter hole for the light. The "Hoist Up" decal is to be located under or near the warning light. Do not install at this time.
7. Two 16' long pigtails with bullet terminals are provided. The female bullet terminals will be used at the hoist-up light. The male bullet terminals on the pigtail may be cut off if not used.
8. Wire the warning lights, relay, remote switch, and solenoid valve as shown. NOTE: The optional Air Control Tower also has a hoist-up light. Power wires from both hoist up lights can be "T" connected and ground wires can be "t" connected. Do not wire lights in series. If one light should fail neither light would function.
9. **Caution: The LED warning light is polarity sensitive. Connect the bullet terminals from the white ground wire of the light to the pigtail wire running to ground. Connect the bullet terminals from the colored wire of the light to the pigtail wire running to the power source. Verify the light works before proceeding.**
10. Slide the rubber grommet off of the light base then push and seat the grommet into the drilled hole. The outside edge of the grommet should be flush with the mounting surface. Insert the light into the grommet by gently pressing in the light.
11. Raise the hoist and move the hoist prop to the storage position. Check that the "Hoist Up" warning light is on.
12. Lower the hoist and check that the warning light goes off. Check to be sure the spring on the remote switch is bent over evenly and not binding or rubbing on a rough hole.



## BUMPER INSTALLATION

### Lighted Bumper Installation - Reference Parts pages P9-P11

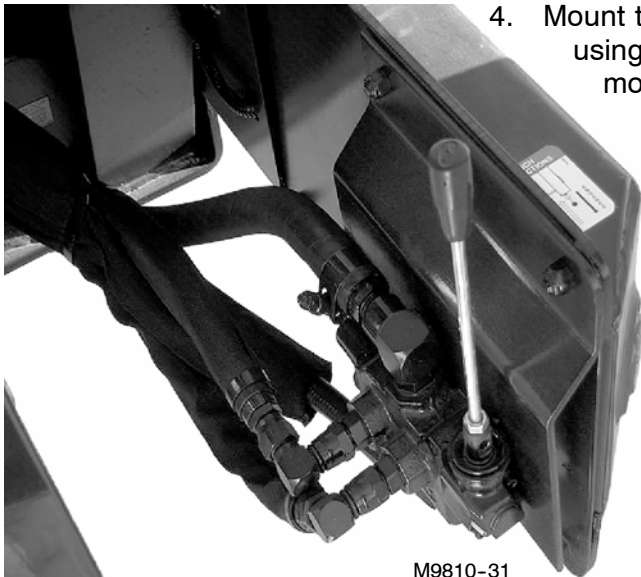
1. Align the lighted bumper with the holes in the apron. KP806 & KP810 108/120 CA: Bumper shall be mounted in lower set of holes. KP810 138/156 CA Bumper shall be mounted in upper set of holes. Install 7/16NC x 1-1/2" GD.5 Cap Screws, Lock Washers and Hex Nuts. Torque to specifications. Weld solid to Sub-Frame top and bottom. Add bracing angled up to truck frame. Do not weld brace to truck frame, add bolt plate or weld to hoist frame.

2. Remove the cover plate over the right side access hole.
3. Install the wiring harness through the left side access hole.
4. Slip a grommet onto the harness leads and pull through the 5/8" DIA. hole.
5. Attach the ground wire to the bumper with a 3/8" self tapping screw.
6. Install the bumper lights as shown on parts page P9.
7. The KP806/KP810 should be wired in the manner recommended by the truck manufacturer and should adhere to the laws governing vehicles of the same classification. Connect the leads from the wiring harness to the truck wiring as shown on parts page P11.  
**For 4-Wire systems:** If truck has 5-Wire system, do not tie the Stop Light and Turn Light together. Instead, tie both the Left Hand and Right Hand Stop Light wires together.
8. Back-Up Alarm.
  - A. Connect the white wire to the (-) terminal on the alarm, and the blue wire to the (+) terminal.
  - B. Install the "Alarm Must Sound" decal included with the Back-Up Alarm in the cab in FULL VIEW of the operator.

**IMPORTANT:** THE BACK-UP ALARM SHOULD SOUND WHEN THE BACK-UP LIGHTS ARE ON.

## **OPTIONAL WINCH INSTALLATION**

1. Install hydraulic fittings on winch (leave loose for adjustment). See parts pages P17, P19.
2. Assemble the Tensioner Kit to winch. Bolt on the cable guide to mounting plate.
3. Assemble the Winch to the Lighted Bumper using supplied hardware and winch mounting plate.



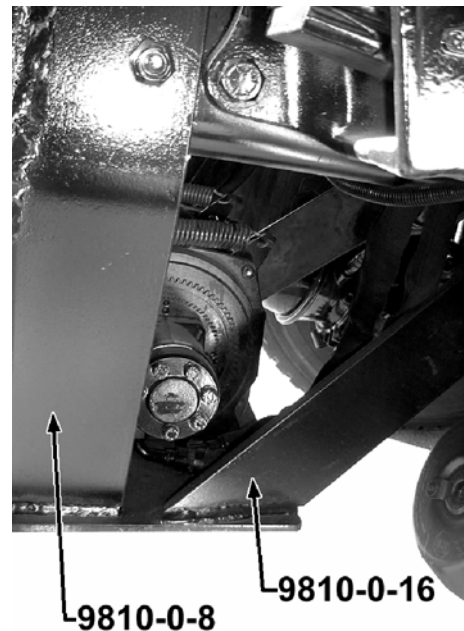
M9810-31

4. Mount the hydraulic control valve to the Lighted Bumper using the hardware securing the cover plate and valve mounting bracket supplied.

5. Route hydraulic lines from hydraulic valve to the winch.

6. Route hydraulic hoses along truck frame to hydraulic tank from hydraulic valve. Connect to the hydraulic system using fittings supplied.

7. Reinforce the winch mounting plate to the truck frame. Install (1) 9810-0-8 support plate on each side of the winch plate up to the truck frame approximately 1/2" from the bumper. Weld the support plate to the winch mounting plate and bolt the upper end to the truck frame.
8. Install a second set of support plates using the (2) 9810-0-16 welded to the winch mounting plate and attached to the hoist sub frame or truck frame. Depending on the usable space it may be necessary to add a cross tube to the subframe to mount these support plates. Consideration to hose routing and clearances is a must.



9810-0-8

9810-0-16

M9810-32

If space does not allow for the installation of the angled 9810-0-16, use the remaining (2) 9810-0-8 supports. Maintain clearance on the left side for accessing the free wheel positioning lever.

9. Operate winch after completing hydraulic system connections. Check for leaks and proper operation. Install winch cable on winch.



M9810-12

## HYDRAULIC SYSTEM START-UP PROCEDURE

**⚠ Caution:** Do not operate the pump until the system is filled with oil. Damage to the pump bearing and shafts can occur.

1. Fill the reservoir up to 2" from the top of the tank with a high quality of SAE 10 hydraulic oil i.e.: Shell (Tellus 22), Texaco (Rando 22) or Mobil DTE 25.

**IMPORTANT:** NEVER USE A FOAMING (DETERGENT) TYPE OIL.

2. Check the hoist for loose parts, tools, clamps or chains.
3. Check the overhead area for obstructions.
4. Clear all equipment from under the rear of the hoist.
5. Slowly extend the cylinders. Check for binding, rubbing of hoses or metal-to-metal interference between hoist and truck parts.
6. Operate all hydraulic functions to the full capacity for approximately 5 minutes in order to bleed off any entrapped air from the hydraulic system.

**⚠ Warning:** Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.



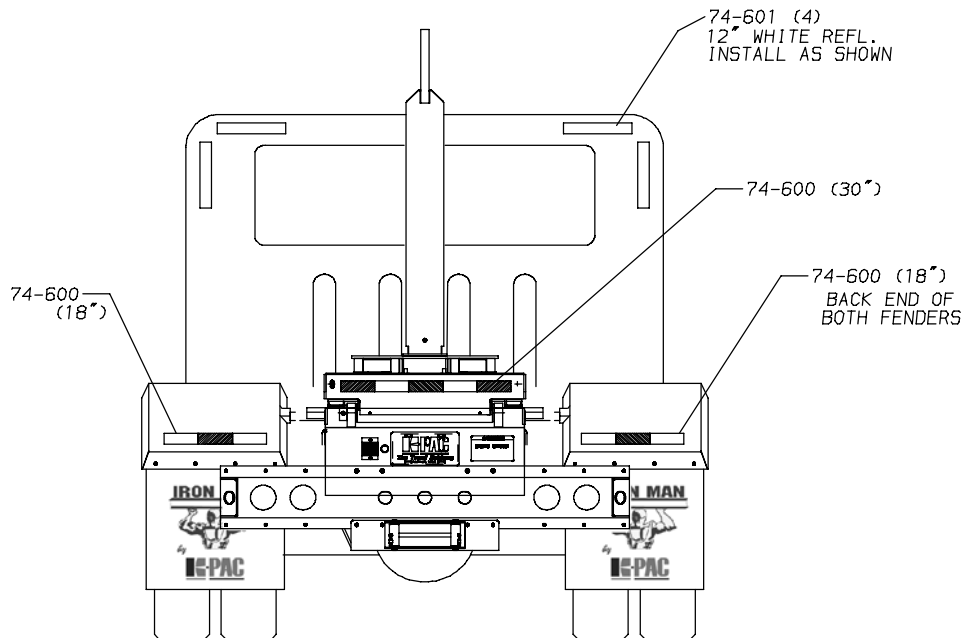
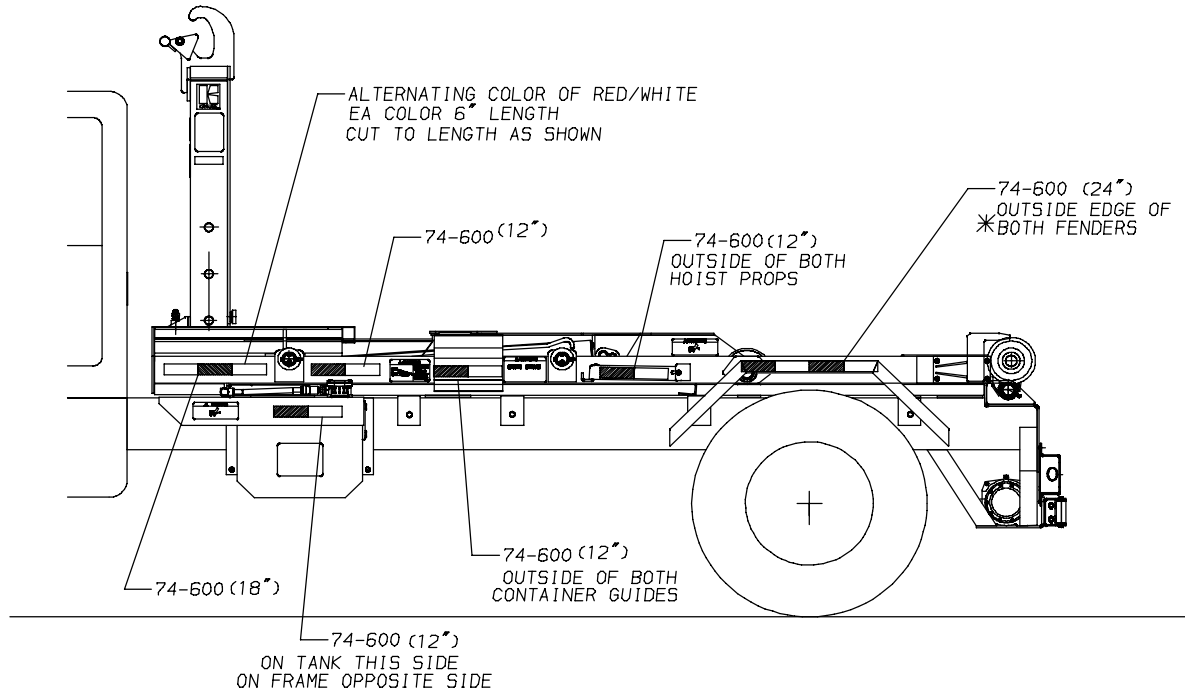
Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

7. Perform a loading procedure with a flat rack or container to put the hydraulic system under load and check all connections and components for leaks.
8. If no leaks are visible, remove and replace the rack or container on the KP806/KP810 4 to 5 times to ensure that all moving parts are functioning freely and properly.
9. Load the flat rack or container with a load comparable to the full capacity of the KP806/KP810 and perform the loading and unloading procedure to ensure that all hydraulic lines and moving parts are functioning properly under load.
10. Operate the winch control and Free-Wheel Control to ensure that they are correctly adjusted and functioning properly.

# REFLECTIVE TAPE INSTALLATION

REF. ANSI STANDARD  
Z245.1-1999  
Z.2.16 VEHICLE CONSPICUITY



REFLECTIVE TAPE LOCATIONS AND LENGTHS ARE FOR REFERENCE,  
YOUR REFLECTIVE TAPE LOCATION MAY DIFFER DUE TO EQUIPMENT OPTIONS.  
REFLECTIVE TAPE TO COVER TRUCK CHASSIS OR HOIST FRAME,  
PER ANSI STANDARD Z245-1-1999

# MODIFICATION OF 36" BOOM INTO 33" BOOM

ALIGN LINES WITH CUT-OUT  
ON ORIGINAL 36" HOOK

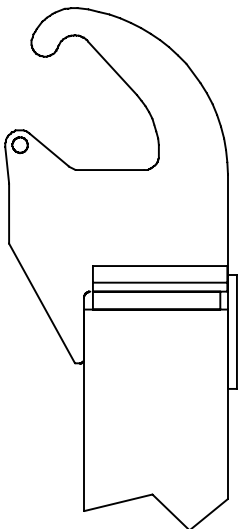
AREA CUTOUT ON STD UNIT

AREA TO CUT-OUT

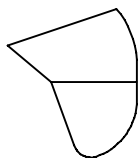
3.15"

MARK PATTERN ON HOOK  
CUT HOOK MATCHING PATTERN LINES  
FOR 33" HOOK

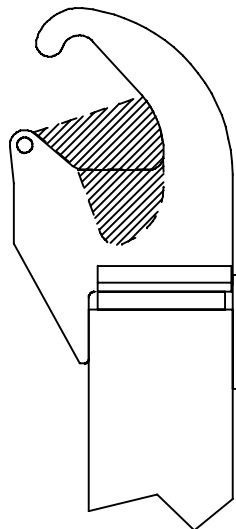
BEFORE CUT-OUT



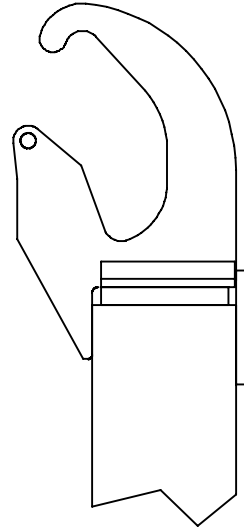
CUT-OUT  
TEMPLATE



SHOWN  
WITH TEMPLATE



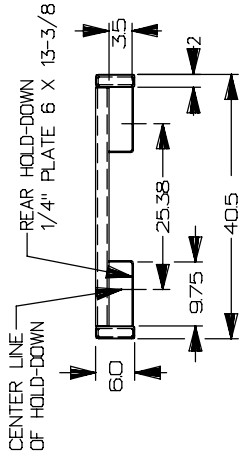
AFTER CUT-OUT



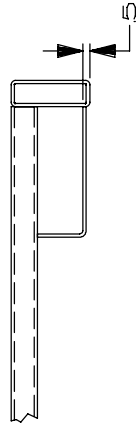
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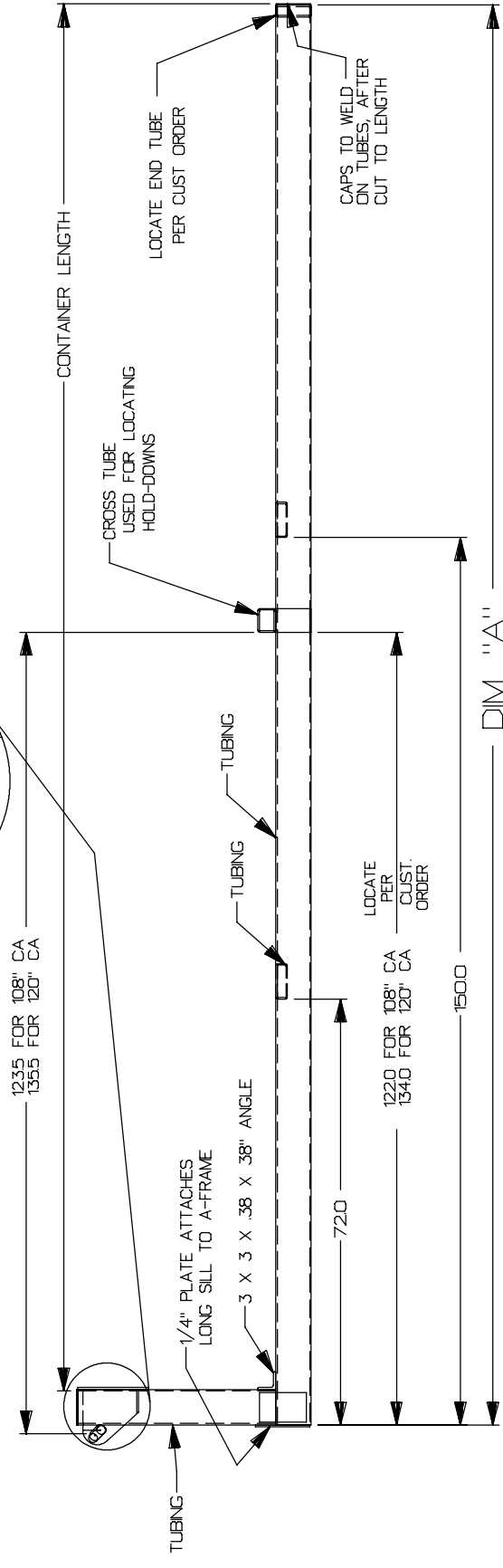
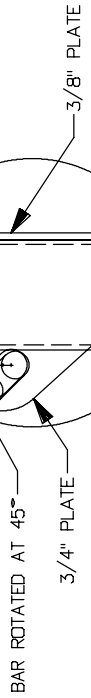
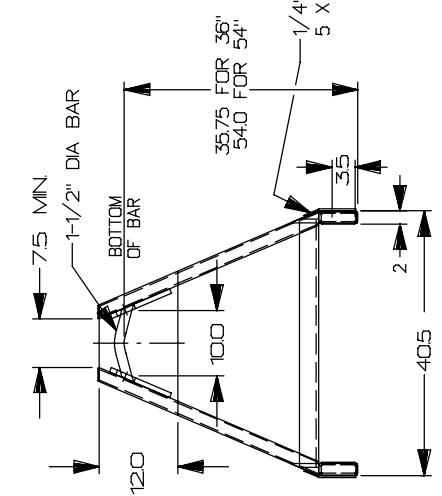
DIM "A"	CONTAINER LENGTH
KP806 108" CA	158=2FT BACK OF BUMPER (12.5FT)
KP806 120" CA	182=4FT BACK OF BUMPER (14.5FT)
KP806 120" CA	170=2FT BACK OF BUMPER (13.5FT)
KP806 120" CA	194=4FT BACK OF BUMPER (15.5FT)



KP806 STANDARD HOLD-DOWN



ALL TUBING 6 X 2 X 1/4 EXCEPT AS NOTED



FAX SHEET # OF	SENT BY:	DATE:	DESCRIPTION	K-PAC DIVISION, KRAUSE CORPORATION	DATE	SCALE
				HUTCHINSON, KANSAS	6/6/06	1/28
KP806				LTR	DATE	PART NUMBER
SUB-FRAME				BY	CHECKED BY	
				CEW		9806-SUB1