HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email: info@hydraulicelevatorsllc.com

HYDRAULIC ELEVATORS, LLC

PLUNGER SETTING FORM

GENERAL JOB INFORMATION

Job Name	Sample Building 1		
Serial #	17141		
Job #	0	Record #	12289
Job Type	Replacement		
Elevator Type	In-Ground		
Jack Assembly Type	Complete Assembly		
Cylinder Material Type	Standard		
Cylinder Joint Type	NPT Tapered Thread		
Cylinder Size (O.D.)	6.625	In.	
Plunger Material Type	Standard		
Plunger Size (O.D.)	4.000"	In.	
Plunger Wall Thickness	0.485	In.	
Number of Pieces	3		
Maximum Section Length	0	Ft. 0	In.
Priority?	1.EMERGENCY REPAIR 2.URGENT REPAIR 3.STANDARD REPLACEMENT	3	
JOB NOTES	0		

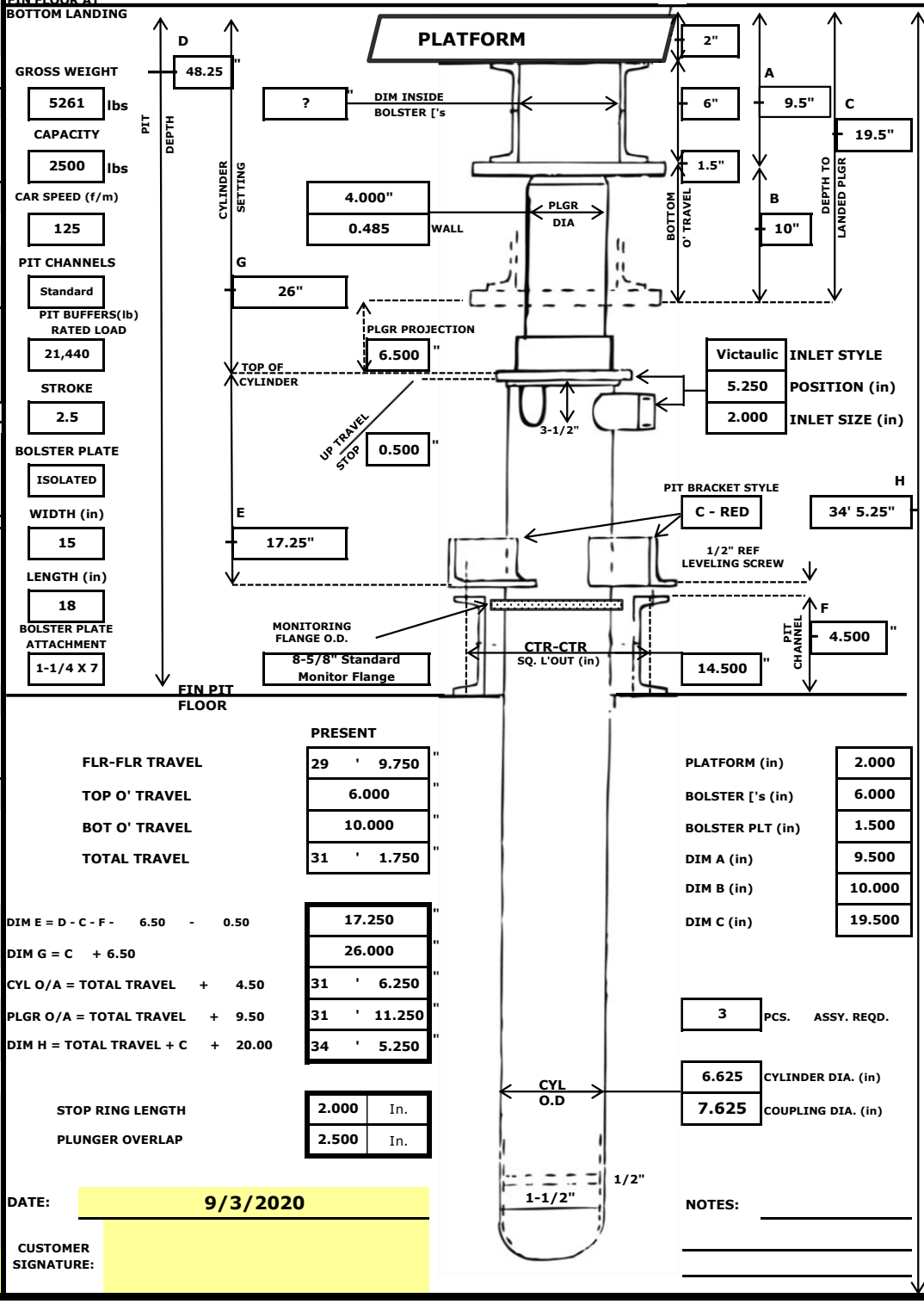
JOB SPECIFICATIONS

Car Weight in LBS	2761			
Capacity in LBS	2500			
Car Speed (feet/minute)	125			
Floor to Floor Travel	**29**	**Ft.**	**9.750**	**In.**
Top Over-Travel	**6.000**			**In.**
Bottom Over-Travel	**10.000**			**In.**
Total Travel	**31**	**Ft.**	**1.750**	**In.**
Pit Depth	48.250			In.
Center to Center of Pit Channels	14.500			In.
Platform Thickness	2.000			In.
Bolster Channel Height	6.000			In.
Dimension Inside Bolster Channels	0.000			In.
Inlet Type	Victaulic			
Inlet Position (distance to center of inlet from pit floor)	17.000			In.
Inlet Size	2.000			In.

JOB ACCESSORIES

Bolster Plate?	ISOLATED	
Bolster Width	15	In.
Bolster Length	18	In.
Bolster Plate Thickness	1.500	In.
Pit Channels?	Standard Pit Channels	
Channel Configuration		
Pit Channel Hieght	4.500	In.
Pit Buffers?	Standard Load Pit Buffers	
Spring Configuration		
Buffer Height off of Pit Floor	35.750	In.
Tapecoat?	No	
PVC Liner?	Yes	
With Cylinder Flange?	Yes	
With Monitor Recovery System?	Yes	
Extra Packing for Jobsite?	Yes	
Lead Time Notes		
Special Req's		

CUSTOMER INFORMATION		SURVEY DATE:	8/10/2020
COMPANY NAME:	123 ELEVATOR COMPANY	ADDRESS:	221B BAKER STREET, UNIT #1 ATLANTA, GA 30360
CONTACT NAME:	John D	FAX NUMBER:	555-678-8913
PHONE NUMBER:	555-678-8912	EMAIL	johnd@email.com



	PRESENT
FLR-FLR TRAVEL	29 ' 9.750 "
TOP O' TRAVEL	6.000 "
BOT O' TRAVEL	10.000 "
TOTAL TRAVEL	31 ' 1.750 "
DIM E = D - C - F - 6.50 - 0.50	17.250 "
DIM G = C + 6.50	26.000 "
CYL O/A = TOTAL TRAVEL + 4.50	31 ' 6.250 "
PLGR O/A = TOTAL TRAVEL + 9.50	31 ' 11.250 "
DIM H = TOTAL TRAVEL + C + 20.00	34 ' 5.250 "

STOP RING LENGTH	2.000	In.
PLUNGER OVERLAP	2.500	In.

PLATFORM (in)	2.000
BOLSTER ['s (in)	6.000
BOLSTER PLT (in)	1.500
DIM A (in)	9.500
DIM B (in)	10.000
DIM C (in)	19.500

3 PCS. ASSY. REQD.

6.625	CYLINDER DIA. (in)
7.625	COUPLING DIA. (in)

DATE: 9/3/2020

CUSTOMER SIGNATURE:

NOTES:

HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email:
info@hydraulicelevatorsllc.com

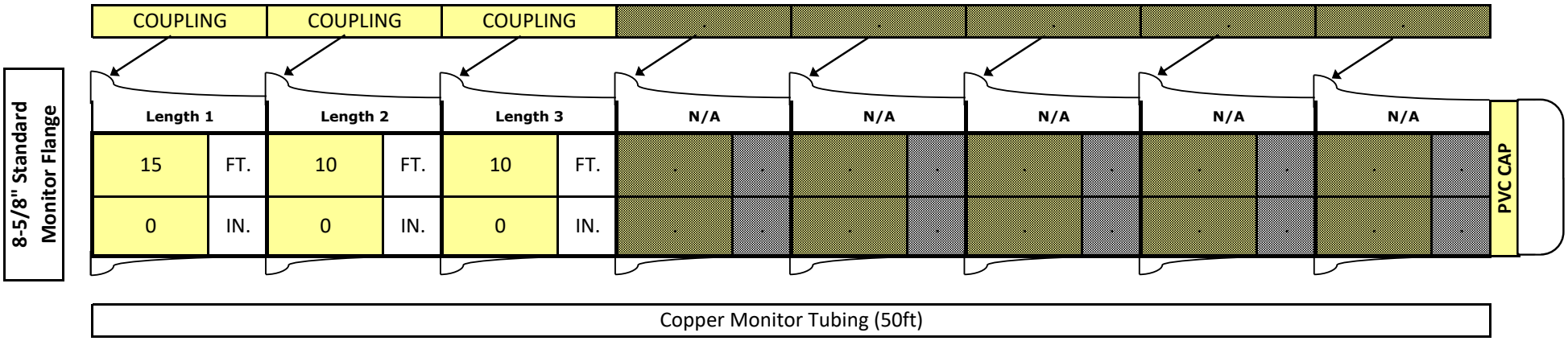
HYDRAULIC ELEVATORS, LLC

PVC LINER CUT DIAGRAM

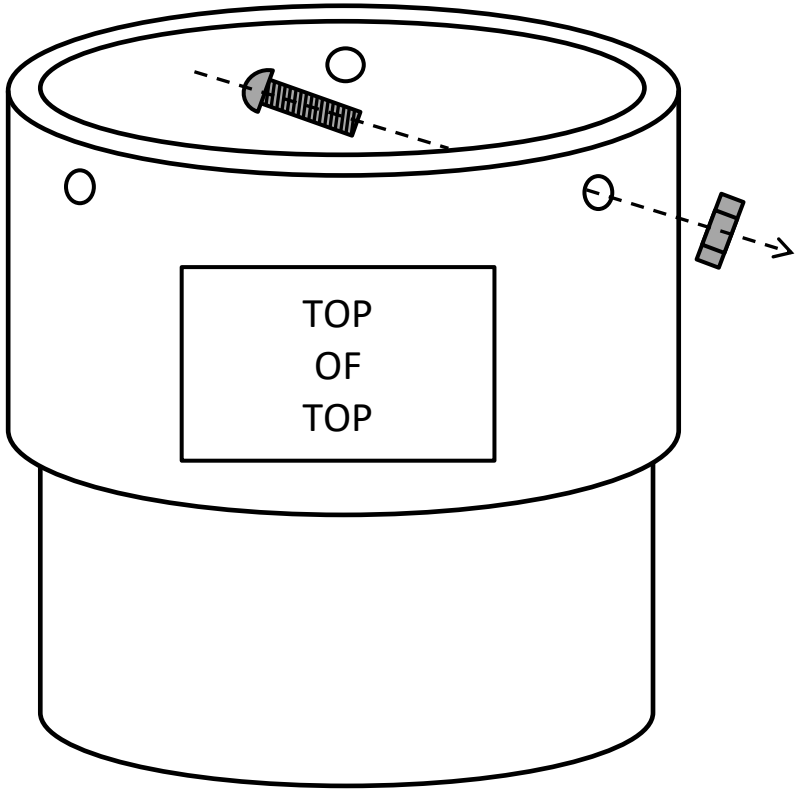
JOB INFORMATION

Quote #	**QHE-002775**	**Serial #**		**17141**					
Company Name	**123 ELEVATOR COMPANY**	PVC SIZE		8" PVC		Total # of PVC Joint Types	BELL ENDS	0	PVC COUPLING 3
Job Name	**Sample Building 1**	PVC Liner Total Net Length	34	FT	4.000 IN	PVC Cap Included		8" PVC Cap	
Job #	**0**	# of Sections	3	PCS.	PVC THICKNESS SCH 40	Total # of PVC Glue Included		3 cans	

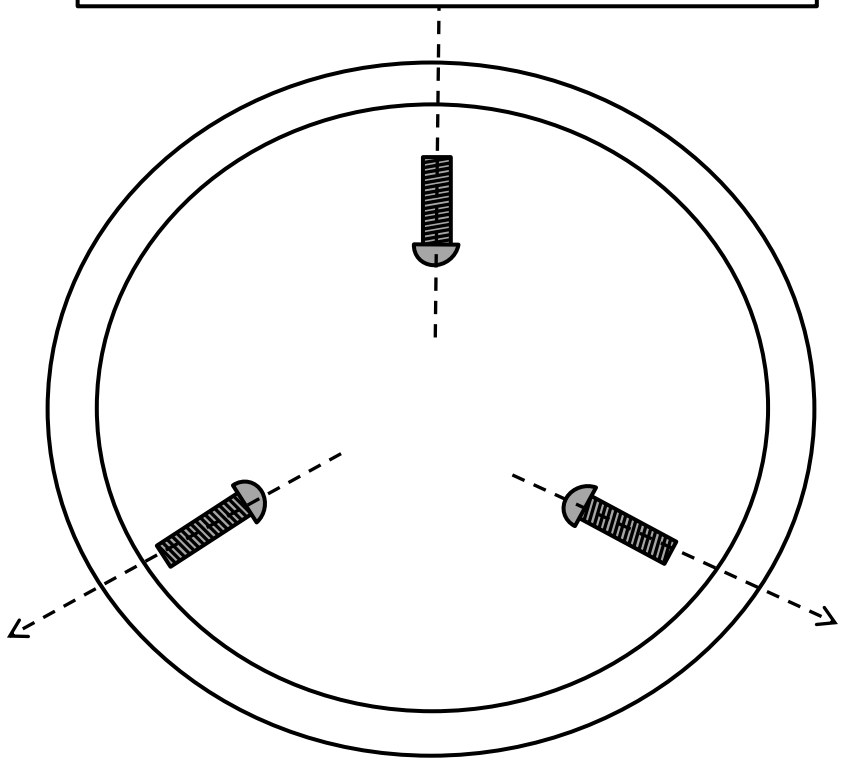
PVC CUT DIAGRAM



PVC SIDE VIEW



PVC TOP VIEW



3 BOLTS SUPPLIED IN BOX ARE
FOR TOP OF PVC ASSEMBLY. SECURE AS SHOWN.

HYDRAULIC ELEVATORS, LLC

PIT CHANNEL / PIT BUFFER LAYOUT

Quote #	QHE-002775		
Company Name	123 ELEVATOR COMPANY		
Job Name	Sample Building 1		
Serial #	17141	Job #	0
Gross Load	5261	Car Speed	125

HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email: info@hydraulicelevatorsllc.com

SPRING CONFIGURATION

RATED LOAD - 21,440 LBS ☒

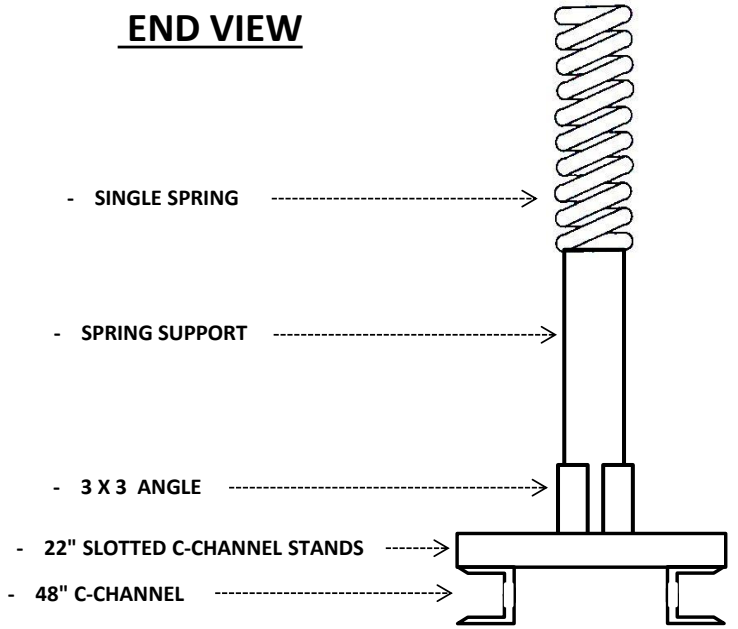
(2-SPRINGS, STAND WITH SUPPORT ANGLES, 2- 22" SLOTTED C-CHANNEL STANDS)

PIT CHANNEL CONFIGURATION

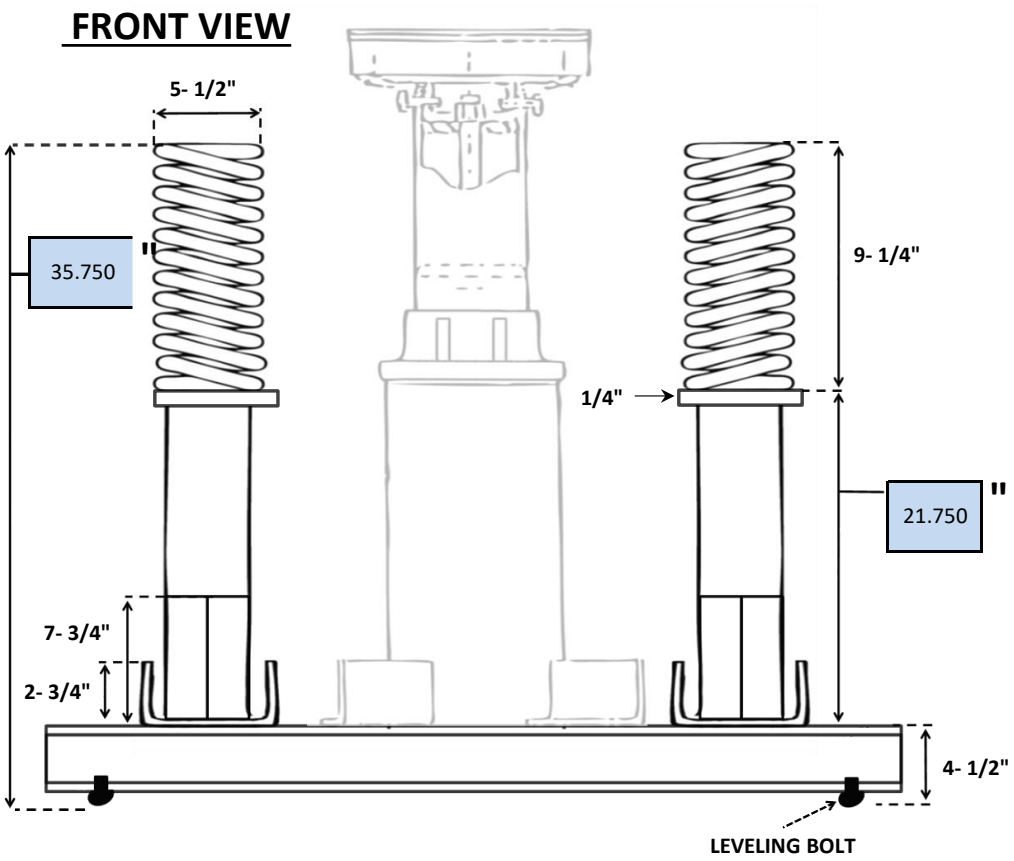
STANDARD ☒

(2- 48" C-CHANNEL, 4-LEVELING BOLTS, 4- CONNECTING BOLTS WITH WASHERS AND NUTS)

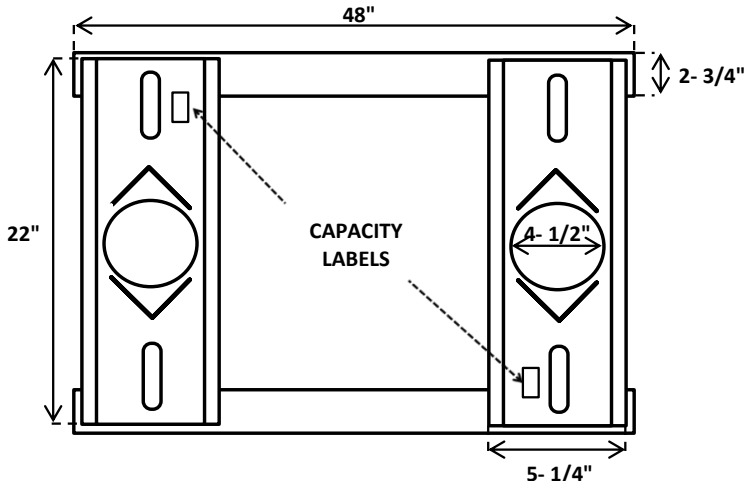
END VIEW



FRONT VIEW



TOP VIEW



HYDRAULIC ELEVATORS, LLC
94 VALLEY HILL ROAD
RIVERDALE, GEORGIA 30274
TEL: (770) 478-8344 FAX: (770)-473-0296
Email: info@hydraulicelevatorsllc.com

INSTALLATION INSTRUCTIONS FOR MONITOR AND RECOVERY SYSTEM WHEN UTILIZING PVC LINER

Installation Instructions

1) Attach 1/4" tubing to cylinder as it is assembled and lowered into the PVC liner.

2) Insert 1/4" tubing through the open hole of the Cylinder Flange before landing the Cylinder Flange into the top coupling of the PVC Liner.

3) Slide the provided compression fitting over the 1/4" tubing and screw the compression fitting into the open hole of the Cylinder Flange.

Monitoring Instructions

1) To monitor any possible collection of fluid in the PVC Liner, remove the pipe plug in the Cylinder Flange.

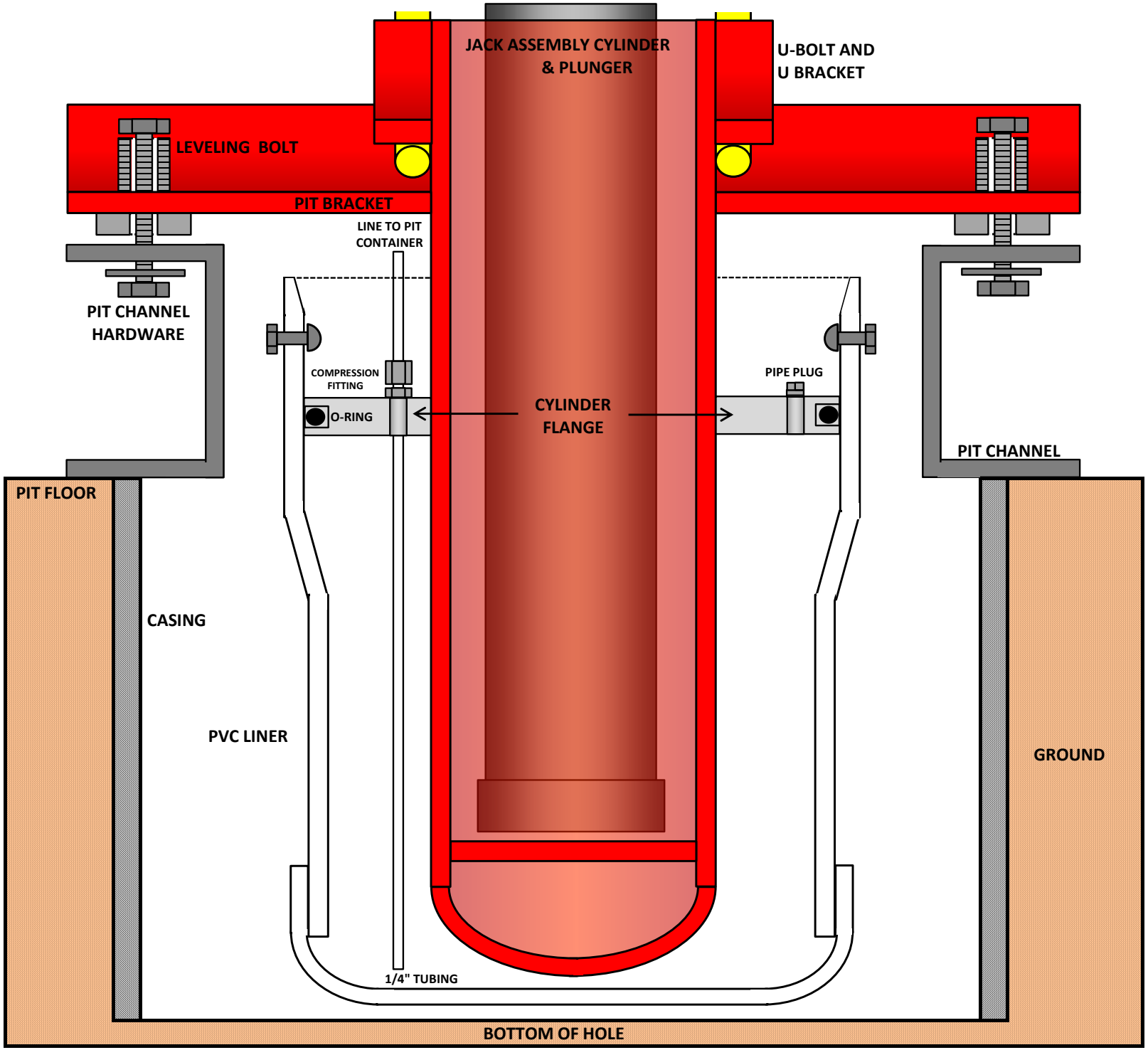
2) Insert a dipstick into pipe plug hole to the bottom of the PVC Liner to determine if fluids are collecting inside the PVC Liner.

Recovery Instructions

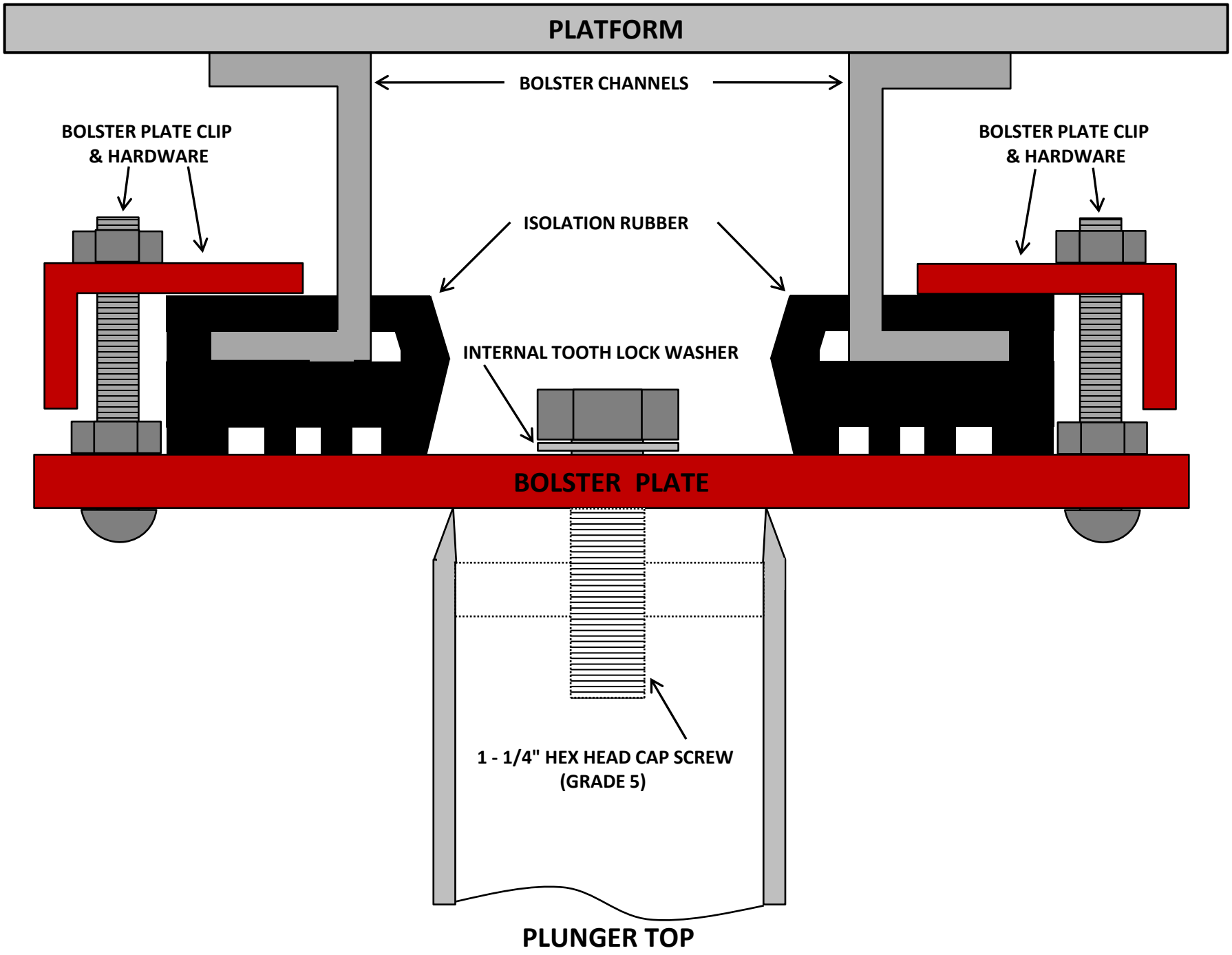
1) To remove any fluids that collect inside the PVC Liner, remove the pipe plug in the Cylinder Flange and insert an air fitting with a 1/8" NPT thread.

2) Lightly pressurize (10 psi - air) the PVC Liner, using the air fitting in Step #1, to force fluids up through the 1/4" tubing into a pit container.

HYDRAULIC ELEVATORS, LLC - SEALED PVC LINER WITH MONITOR AND RECOVERY SYSTEM DIAGRAM



HYDRAULIC ELEVATORS, LLC - HHCS BOLSTER PLATE ATTACHMENT DIAGRAM



HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email: info@hydraulicelevatorsllc.com

SPLIT FLANGE CUSHION HEAD PACKING INSTRUCTIONS

Inspect full length of plunger. Remove all nicks and scratches using 180 or 240 grit aluminum oxide cloth. Deep scratches should be filled using a silver solder or plastic epoxy . Sand solder or epoxy flush to plunger surface. Wrap a nylon stocking or equivalent around the plunger. Hold the stocking stationary while running the plunger through a full stroke. Carefully unwrap the stocking being sure to note of its location around the plunger. A nick or burr will tear the stocking in line with where the stocking was wrapped. Again remove all nicks and scratches with 180 or 240 grit emery cloth.

Land car on temporary blocking to provide a safe working environment. Turn the main power supply off. Disconnect and bottom the plunger into the cylinder using the manual lowering valve. In some instances it may be necessary to force the plunger down due to overhead piping, etc. Close pit shut-off valve.

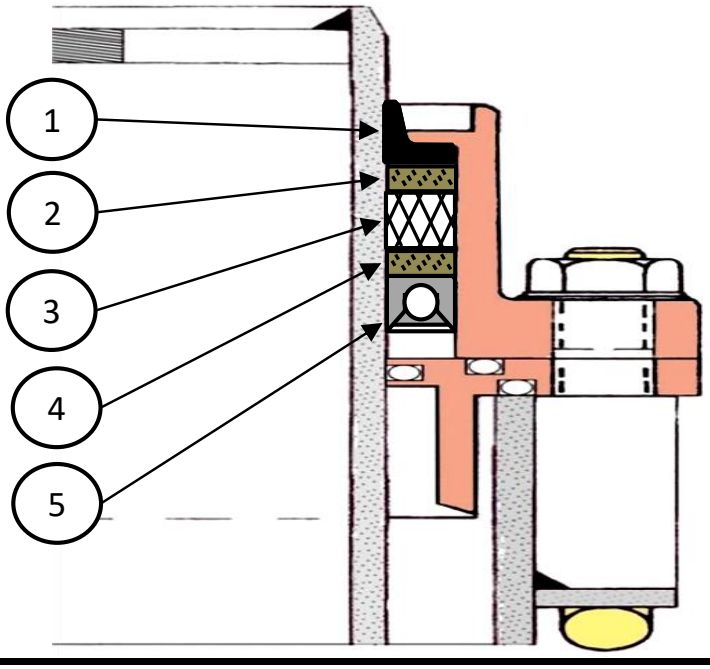
De-burr the plunger top. Disconnect the drip line and return line if used. Remove the U-bolts that hold the Split Head onto the cylinder. Remove the Split Head Packing Ring and replace with new O'ring (supplied).

Turn the Split head Packing Ring over onto a clean working surface. Drive the old wiper, guide bearing(s), and packing(s) out of the ring. Inspect and clean the ring and remove any dirt that may have collected before installing new seal kit. Install the new seal kit in the packed arrangement as received from the manufacturer.

Clean the Split Head Cushion surface. Gently slide the ring over the plunger until the packing starts to engage. Using a mallet, drive the Split Head Packing Ring onto the Split Head Cushion surface. Make sure the Split Head Cusion has bottomed onto the cylinder. Replace the U-bolts.

Open the pit valve. Close the manual lowering valve. Turn on the main power supply. Raise the plunger and reconnect to the car. **It is absolutely critical that the plunger is located onto the bolser plate as before.** Raise the car to remove the temporary blocking. Clean up any excess oil. Run the elevator several times to check for leaks.

HYDRAULIC ELEVATORS, LLC HEAD PACKING CONFIGURATION



1 **WIPER BEARING**

2 **GUIDE BEARING**

3 **TEFLUBE**

4 **GUIDE BEARING**

5 **PACKING SEAL**

HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email: info@hydraulicelevatorsllc.com

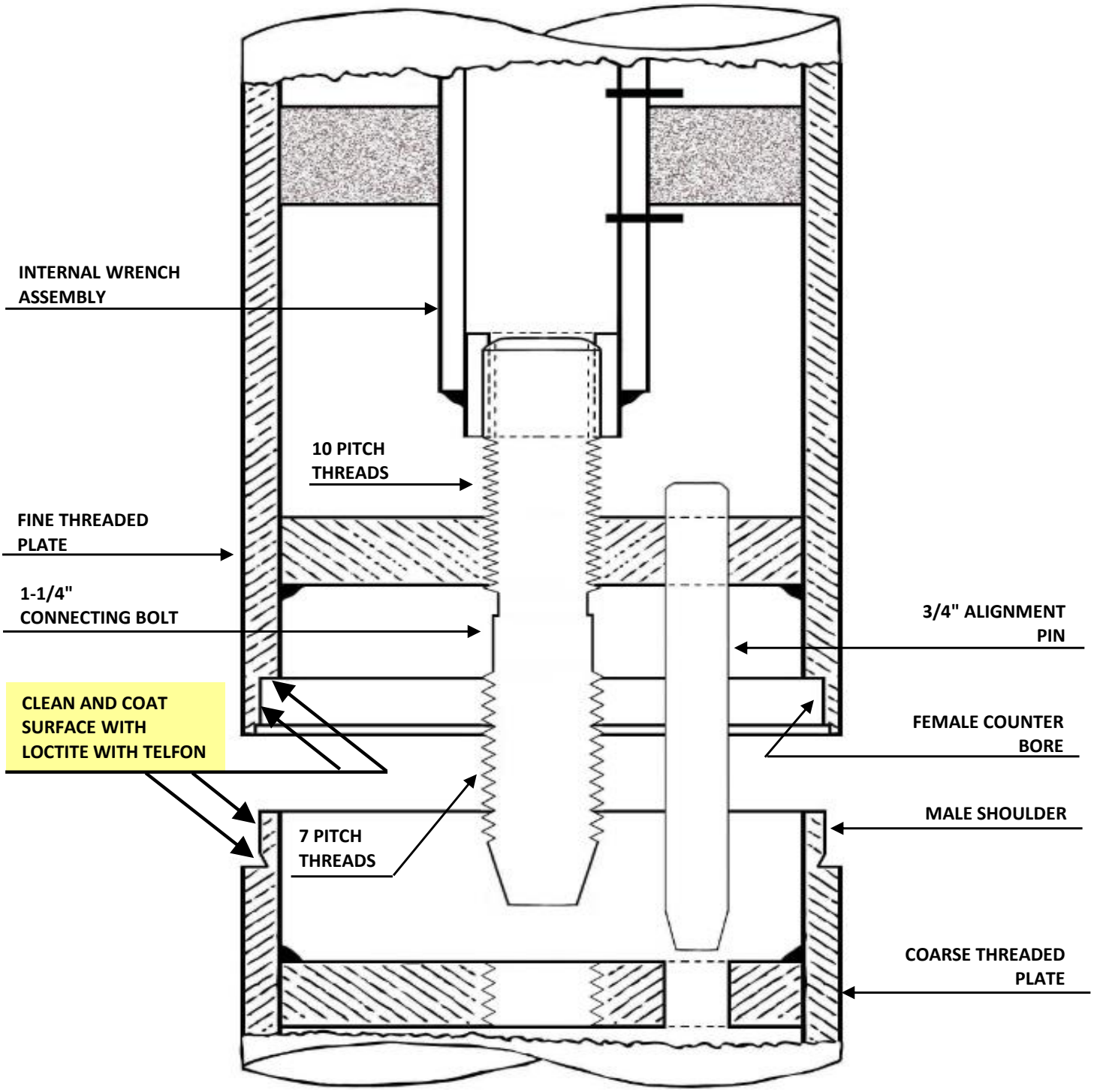
HYDRAULIC ELEVATORS, LLC

PIT CHANNEL CHART

CHART OF NEW "K" DIMENSIONS WHEN USING PVC TUBING & WITHOUT PVC

CYL	PVC	"K"	LGTH PIT BK	PIT ANGLE	BTW CHAN	K-No PVC	COLOR CODE
5"	8"	13-3/4"	7-3/4"	2 x 2 x 3/8"	11-3/4"	10-13/16"	Red
6"	8"	14-1/2"	7-3/4"	2 x 2 x 3/8"	12-1/2"	11-5/8"	Red
6"	10"	16-1/2"	9-1/8"	2 x 3 x 3/8"	14-1/2"	11-5/8"	Yellow
7"	10"	15-1/4"	7-3/4"	2 x 3 x 3/8"	13-1/4"	13"	Red
7"	12"	17-1/4"	9-1/8"	2 x 3 x 3/8"	15-1/4"	13"	Yellow
8"	10"	15-7/8"	7-3/4"	2 x 3 x 3/8"	13-7/8"	13"	Red
8"	12"	18"	9-1/8"	2 x 3 x 3/8"	16"	13"	Yellow
10"	12"	17-3/8"	7-3/4"	2 x 3 x 3/8"	15-3/8"	14-1/2"	Red
10"	14"	19-1/2"	9-1/8"	2 x 3 x 3/8"	17-1/2"	14-1/2"	Yellow
10"	16"	19-1/2"	9-1/8"	2 x 3 x 3/8"	17-1/2"	14-1/2"	Yellow
12"	16"	20-7/8"	9-1/8"	2 x 3 x 3/8"	18-7/8"	15-5/8"	Yellow

HYDRAULIC ELEVATORS LLC, PLUNGER JOINT DRAWING



HYDRAULIC ELEVATORS, LLC
94 Valley Hill Road
Riverdale, Georgia 30274
Tel: 770-478-8344
Fax: 770-473-0296
Email: info@hydraulicelevatorsllc.com

ASSEMBLY INSTRUCTIONS: 3 PIECE PLUNGER ASSEMBLY WITH DIFFERENTIAL CONNECTING BOLT

NOTE: 3/4" Drive Extension (supplied) and two wood clamping blocks (not supplied) required for assembly.

Note that the crates have been marked identifying plunger sections and top ends. When possible, the bottom plunger section may be shippied inside the cylinder. Do not uncrate until plunger sections are standing in the hoistway with tops up. Provide safety sling under crate bottom when hoisting. Plunger sections are covered with plastic film and rust proofing compound. It is recommended that this protective compound not be removed until entire assembled plunger is ready to be cleaned and head installed. This could be very important if for any reason it was necessary to leave the job for any extended period of time such as overnight or weekend.

Plunger sections are joined with a short length of 1-1/4" connecting bolt, and are sealed with Permatex Thread Sealant with PTFE (supplied). Wrenches for Assembly are shipped inside each plunger section.

Lower bottom section into cylinder, suspended by wood clamping blocks located 2" below plunger joint. Make sure that fine threads of connecting bolt are threaded all the way into plate in the top section and backed out two turns. This has been factory set and should not require any change in the field. Thoroughly clean counter bore in mid-plunger section and machined shoulder on bottom section. Apply Loctite with Teflon on all machined surfaces of joint so that all areas are covered. Align the 3/4" alignment pin with offset hole in bottom section and lower mid-section until coarse threads of connecting bolt just touches threaded plate in bottom sections. Using 3/4" drive extension, tighten connecting bolt until joint is pulled together. This requires approximately 18 turns. Torque to aprroximately 300 ft./pounds while holding plunger so that it cannot wobble. Loosen plunger clamps and lower sections into cylinder and reclamp as instructed above. Remove 3/4" drive extension and repeat above process for top to mid assembly. Using 3/4" drive extension in top section, tighten connecting bolt until joint is pulled together. This requires approximately 18 turns and 300 ft./pounds to complete assembly.

Raise assembled plunger and clean thoroughly as plunger is carefully lowered into cylinder. Assemble head and immediately fill assembly with oil.

Assembly and Installation Instructions
2016