LOWERING INNER TUBE

Step 1. Ensure the topdrive head is secured in an open position
Step 2. Connect the overshot to the inner tube's spear head (bent up at 90 degrees)
Step 3. The helper will lock the overshot head sleeve and insert the safety locking pin, then signal to the driller that it is safe to lift the tube.
Step 4. The driller will begin to raise the tube using the wireline winch while the helper looks up and guides the tube & overshot until it rests against the tube rest on the tower. *This may require a swinging motion by the helper to get the tube lined up properly, so ensure hands are clear of pinch points and footing is good.
Step 5. When the tube is high enough the helper will line it up to the rod secured in the foot clamp.
Step 6. The driller will slowly lower the tube into the open rod and stop when the tip of the overshot is inside the hole. *This positioning prevents the possibility the spearhead can fall over* 
Step 7. Helper will pull the safety pin, hang it up and unlock the locking sleeve before pinching the overshot ears and releasing the tube. (If it is a dry hole the helper will take the safety locking devices off and put the overshot release gently over the overshot ears so the driller can lower it down the hole.)
Step 8. Once the overshot detached from the innertube it will be positioned in the overshot holding device.
Step 9. The driller will close the topdrive head into its drilling position and the helper will lock it in place using the wing nut.
Step 10. A new rod will be added or the driller will screw into the existing rod depending on the situation.
Step 11. Close the rotation guard

Step 12. The driller will begin pumping the tube while the helper starts emptying the full tube.
Hazards:
Contact with swinging wireline and parts
Slips, trips and falls
Losing grip on inner tube
Crushing hand between inner tube and drill tower
Controls:
Guards, Housekeeping, Keeping the innertube and overshot clean, safety devices, PPE, Training, SWP / JHA

DO'S	DON'TS
-Go slow while getting used to new helper and driller	-Ram the controls, be smooth going up and down with the tube.
-Clean the floor before starting this process if needed.	-Only use one safety device for locking the overshot, both must be used every time.

REMOVING INNER TUBE

PPE Required: Hard hat, ear plugs, or muffs, safety glasses, gloves, steel toe boots, reflective clothing.
Step 1. Driller will indicate when ready to remove the inner tube from the hole.
Step 2. Driller will stop the head from moving at the helper's shoulder height or lower.
Step 3. Driller engages rotation lock. Then rod guard is opened.
Step 4. Place the pipe wrench on the sub ensuring it is tight and is not going to slip when pressure is applied.

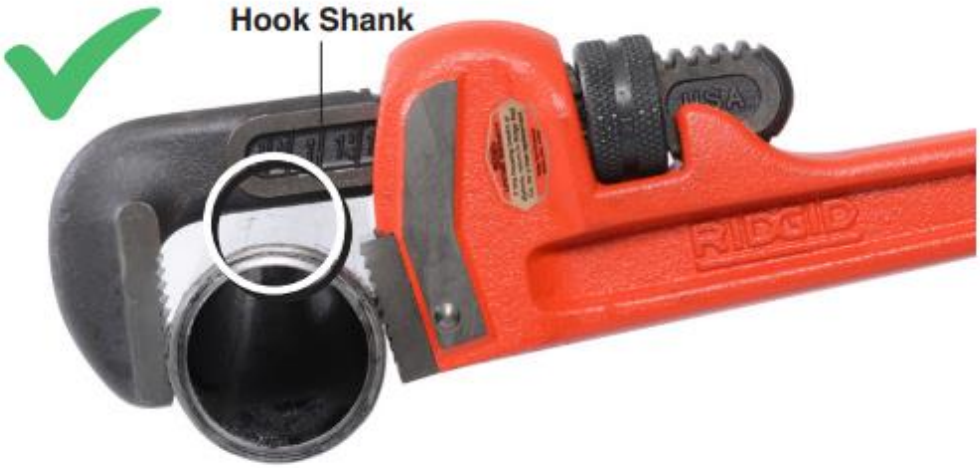

Figure 3 – Maintain Gap Between Hook Shank and Work Piece

Figure 4 – Wrench Too Small For Work Piece, Hook Shank Touching Work Piece.

Step 5. Ensure workplace is free of obstacles or anything that would cause a slip, trip or fall. Grasp the 48 inch pipe wrench securely with both hands closer to the end of the handle to apply required leverage to loosen the rod. Ensure good footing on the platform.
Step 6. **Pull** the pipe wrench using your body weight or use your feet if the wrench is located low to the floor. **Or Push** the pipe wrench at stomach level.
Step 7. Once the sub has been loosed, remove the pipe wrench and step back from the drill.
Step 8. Driller will unscrew the sub from the top of rod using the machine.

Step 9. Top drive head is opened.
Step 10. Lift the overshot out of the overshot holding device and insert it into the open rod string.
Step 11. Driller will carefully latch onto the innertube.
Step 12. Driller will raise the inner tube on the wireline until it is out of the hole.
Step 13. Lock the overshot and insert the safety locking pin.
Step 14. Grasp the inner tube securely with both hands and holding it close to your body while it is stall attached to the wireline, guide the bottom end of the inner tube into the lower hole in the wall of the drill shack and rest the backend on the tube rack keeping hands clear of pinch points.
Step 15. Pull the safety locking pin out and unlock the locking sleeve to unhook the overshot.
Step 16. The helper will take the overshot to the empty tube to lower it into the open rod string.
Hazards:
Not setting the pipe wrench properly, so that it slips off, worker falling, lack of good foot positioning
Stain on muscles when swinging inner tube on and off tower position
Slippery or cluttered floor space
Pinch points when lowering inner tube.
Slipping, tripping or falls while guiding inner tube
People under suspended load
Controls:
SWP/SJP, training, Safety devices & guards, PPE, housekeeping, Proper lighting.

DO'S	DON'TS
-clean drill floor before starting this procedure	-stand under inner tube even when locked on overshot.
-talk to each other about procedure speed	Install pipewrench in inpropper settting

Author	Description of version changes (Control of changes):	Revision Control:	Date:
Operations		REV2	7/1/2025