



PLUG RUNNING PROCEDURE

Guidelines

It is recommended to not exceed a pump rate of 15 BPM or run speed of 475 FPM.

At approximately 250-300ft from the desired set depth, slow run speed to approximately 100 FPM in order to release slack from the line. Once the setting tool has been fired, wait 15-30 seconds to ensure that the plug is fully set.

Caution

- Never set plugs in casing collars.
- Always set plugs in static well conditions.
- Never perforate any closer than 50 feet to a plug.
- If plug is configured as a Ball Drop Frac Plug, resting the bottom hole assembly or tagging the plug may cause damage to the ball seat at the top of the plug.
- If you experience misfire
 - Do not pull out of hole any faster than 150 feet per minute.
- If the plug becomes stuck either while running in hole or pulling out of hole
 - Highly recommended that the well not be surged. This can cause damage to the plug to the point that it will not function properly and this process also introduces more debris back into the well bore.
 - If the choice is made to surge the well, the operator assumes all liability.



RUNNING PROCEDURE

Before Running Plug

Use bit and scraper in casing to remove any cement and scale from casing wall before running any equipment that grips the casing.

Before running any plugs in hole, a junk basket and gauge ring should be run for the appropriate size casing.

Install the plug on the setting tool correctly. **Do not over tighten.**

- Each Setting Sleeve has drilled and tapped holes that when made up on the Setting Tool, line up with the shear groove on the O.D. of the Shear Adaptor.
- Two provided Brass screws (1,800 lbs shear ea.), can be installed in the holes on the Setting Sleeve until they bottom out in the shear groove on the Shear Adaptor.
- This feature prohibits the Setting Sleeve from moving downward and applying force on the plug, which can result in a plug pre-set, as the two brass shear screws have to be sheared before the Sleeve can begin downward motion.





PLUG RUNNING PROCEDURE

- Use correct setting tool size for the plug that you are running. Baker 10 or Go Compact for the 4-1/2" and Baker #10, Baker #20 or Go Compact for the 5-1/2" or larger.
- All setting tools should be thoroughly redressed before each run.
- Be sure that all oil levels are correct for the setting tool/temperature you are running.
- Use the lock spring on all tools designed for use with a lock spring.
- Snug the tension sleeve correctly. Do not over tighten. Be sure that nut is tightened correctly.

Do not allow the weight of the string to set on the shoe of the plug when setting into well head.

Guide the plug through lubricator in place. If the well has pressure on it, be sure to raise tools to the top of the lubricator before opening well head to pressure.

Running in Hole – Wireline in a Vertical Well

A running speed of 200 FPM or less is recommended until the fluid level is reached to avoid risk of pre-setting the plug when reaching fluid or sand. After the fluid level has been reached, a running speed of 300-475 FPM or less is recommended. Once the setting tool has been fired, wait 15-30 seconds to ensure that the plug is fully set. Note: If plug is a Ball Drop Frac Plug, resting the bottom hole assembly or tagging the plug may cause damage to the ball seat at the top of the plug.

Running in Hole – Wireline in a Horizontal Well

A running speed of 150 FPM or less is recommended until the fluid level is reached to avoid risk of pre-setting the plug when reaching fluid or sand. After the fluid level has been reached, a running speed of 300-475 FPM or less is recommended. If extreme areas of deviation, restrictions, or areas of concern are present, adjust run speed accordingly. While approaching the kick off point, decrease the run speed to approximately 125-150 FPM. Begin pumping fluid at 1-2 barrels per minute. As the deviation becomes greater, gradually increase the fluid pump rate at no more than 2 BPM increments.