1776 DOWNHOLE TOOLS

Plug assembly learning guide

Companion to the revised 2 minute 24 second Assembly Overview V2

Purpose: Learn the component names, recognize the sequence shown in the demonstration, and identify what must be confirmed before any job-specific use.



For the ball-in configuration shown, place the ball in the receiver.

Video still at approximately 01:15 in the revised film. Ball-in configuration shown.

Scope and training boundary

This educational guide summarizes the published 1776 demonstration. It is not a manufacturer-approved field operating procedure, qualification record, or authorization to assemble, deploy, set, pressure-test or remove a tool. Use the current approved documentation and qualified supervision for the specific tool and job.

1776 offers custom engineering for any casing size, subject to application review. The 5.5-inch, 20 lb/ft P-110 example and Baker 20 arrangement describe a particular configuration. Confirm the exact tool, casing fit and setting-tool interface before use.

Watch, pause, identify

Timestamps match the November 9 revised Assembly Overview V2 and include its 5.25-second opening. These descriptions record the demonstration without adding field settings or acceptance criteria.

00:14–00:35 | Shaft, wedge and jam nut

The sequence begins with the pre-installed jam nut moved toward the top of the shaft threads. The shaft is threaded into the wedge, the jam nut is seated, and the wedge is held with a soft-sided wrench while the nut is snugged. Identify each component and the seating relationship shown.

00:42–00:53 | Crossover and setting tool

The crossover is threaded onto the setting tool identified in the narration as a Baker 20. The demonstration shows the threads covered and the set screw tightened. Pause to identify the crossover and its attachment point.

00:57–01:08 | Plug sleeve

The sleeve is fitted to the lower threads. The narration highlights the shaft set screw remaining visible through the sleeve opening. Point out that opening in the video.

01:12–01:31 | Ball, receiver and wedge

The ball-in configuration shown places the ball in the receiver. The narration separately mentions ball-out and calls for confirmation of the required job configuration. The wedge is inserted into the receiver and the assembled plug is fitted to the setting tool.

01:33–01:45 | Final demonstrated assembly

The final set screw is tightened in the demonstration. The video then explicitly states that this overview does not replace the approved operating procedure for the tool and job.

Component recognition exercise

While paused, identify: shaft, jam nut, wedge, crossover, setting tool, plug sleeve, ball, receiver and set screw. Explain which components you can see directly and which are obscured. Do not infer an unseen connection or dimension.

Check understanding

1. Which setting tool is named in the narration?

2. Which ball configuration is demonstrated, and what remains to be confirmed?

3. What does the sleeve opening allow the viewer to see?

4. Does the 10,000 psi bench result establish a universal operating rating?

5. What documentation takes precedence over this learning guide?

Answer key

1. Baker 20. Confirm the exact interface for the selected equipment.
2. Ball-in. The narration also mentions ball-out. Confirm the required job configuration.
3. The shaft set screw.
4. No. The result applies to the reported November 6 bench test, with its stated conditions.
5. The current approved configuration and procedure for the specific tool and job, with engineering approval and qualified supervision.

Questions for the technical review

Confirm the exact tool configuration and revision; casing dimensions and condition; required differential pressure and temperature; fluid compatibility; setting-tool interface and release requirements; planned deployment and removal; and supporting qualification data. These are review topics listed on the website, not a substitute for the complete approved job program.

Watch the source video

1776downholetools.com/frac-plug/#assembly-overview

Sources and revision: November 9, 2026 website and revised Assembly Overview V2 with English captions. The QR opens the video section. Reported test context: signed November 6, 2026 Plug Test Report. The revised film adds a no-separate-slips opening and a bench-test summary after the original demonstration. This guide has no manufacturer approval.