How to Handle a Hydraulic Hose Failure in the Field

When a hydraulic hose bursts or starts leaking in the field, the first step is to shut down the system immediately. Release any stored pressure by cycling the controls, then locate the failed section. If you have a spare hose assembly of the correct length and fitting type, you can swap it out on the spot. Otherwise, a temporary field repair using a hose repair coupling can get the machine moving again, but only as a short-term fix. Once the machine is safe, call a qualified hydraulic hose service to inspect and replace the assembly properly.

Safety First: Stop and Depressurize

A hydraulic hose under pressure stores a lot of energy. A pinhole leak can spray fluid at high velocity, which can cut skin or inject fluid into the body. That is a serious injury known as fluid injection, and it requires emergency medical care. Always treat a pressurized line with respect. Shut off the pump or engine, move the control lever to release trapped pressure, and wait a moment before approaching the leak. Wear heavy gloves and safety glasses. If the burst is large, the hose may whip; stay clear until the system is dead.

Identify the Problem

Not every hose failure looks the same. A common sign is a wet streak along the cover, often caused by abrasion against another component or a worn spot in the reinforcement. A sudden burst usually happens near a fitting or where the hose rubs against a sharp edge. Sometimes the failure is internal: the tube collapses or the reinforcement corrodes, and the hose just stops passing flow. In that case there is no external leak, but the machine acts sluggish or fails to move. Check the hose routing for kinks, pinches, or contact with hot surfaces. If the hose feels soft or has a bulge, the reinforcement has failed and the assembly needs replacement.



Temporary Field Repair Options

If you carry a hose repair kit with couplings and a few feet of spare hose, you can cut out the damaged section and splice in a new piece. This is a field fix, not a permanent solution. The splice must be straight, free of twists, and secured with two clamps per end if using reusable fittings. For crimp-connection hoses, a field splice is more difficult because you need a crimping tool that matches the manufacturer's specs. Some mobile service trucks carry a portable crimper, but most field repairs rely on reusable fittings or push-lock couplings. Keep in mind that a repair coupling reduces the hose's working pressure rating, so do not use it in a high-pressure circuit for long. Get the machine back to the shop or call a specialist for a proper hose assembly.

When to Call a Professional

A temporary splice is fine for moving a machine a short distance, but it is not a permanent fix. The hose assembly should be replaced with a new one that matches the original working pressure, temperature range, and fitting type. A qualified hydraulic hose service can measure the old hose, select the correct hose construction (wire braid, textile braid, or spiral), and crimp on new fittings with the right die set. They can also check the hose routing and recommend guards or clamps to prevent future abrasion. If the failure happened because the hose was too

short or too long, they can make a custom length that fits the machine's geometry without stress.

In East Tennessee, equipment owners often rely on shops that understand the local mix of agricultural, industrial, and commercial machinery. A good resource is hydraulicseasttn.com, where you can find details on hose assembly, repair, and maintenance services tailored to these environments. That site covers everything from hose fitting selection to fabrication of custom assemblies, which matters when you need a replacement that fits the first time.

Preventing Future Failures

Most hose failures come from predictable causes. Abrasion is the top culprit: a hose that rubs against a frame member, another hose, or a moving part will eventually wear through the cover and expose the reinforcement. Install abrasion sleeves or spiral wrap at points of contact. Another common cause is improper routing that puts the hose in tension or torsion. A hose should be long enough to allow full movement of the attached component without pulling tight. If the hose is too short, it stresses the fittings and causes leaks at the crimp. Too long, and it can loop and get snagged.



Temperature also plays a role. Hydraulic fluid that gets too hot breaks down the hose's inner tube and reduces service life. Make sure the system has adequate cooling and that the hose is

not routed near exhaust pipes or hot manifolds. If the hose is exposed to extreme cold, the cover may stiffen and crack; use a low-temperature hose specification for winter applications.

What to Check During a Field Inspection

- Look for cuts, chafing, or soft spots along the entire length of the hose.
- Check fittings for corrosion, cracks, or signs of fluid weepage around the crimp.
- Verify that the hose is not twisted or kinked when the machine moves through its full range.
- Ensure clamps or guards are tight and not rubbing the hose.
- Confirm the hose matches the original working pressure rating stamped on the old assembly.

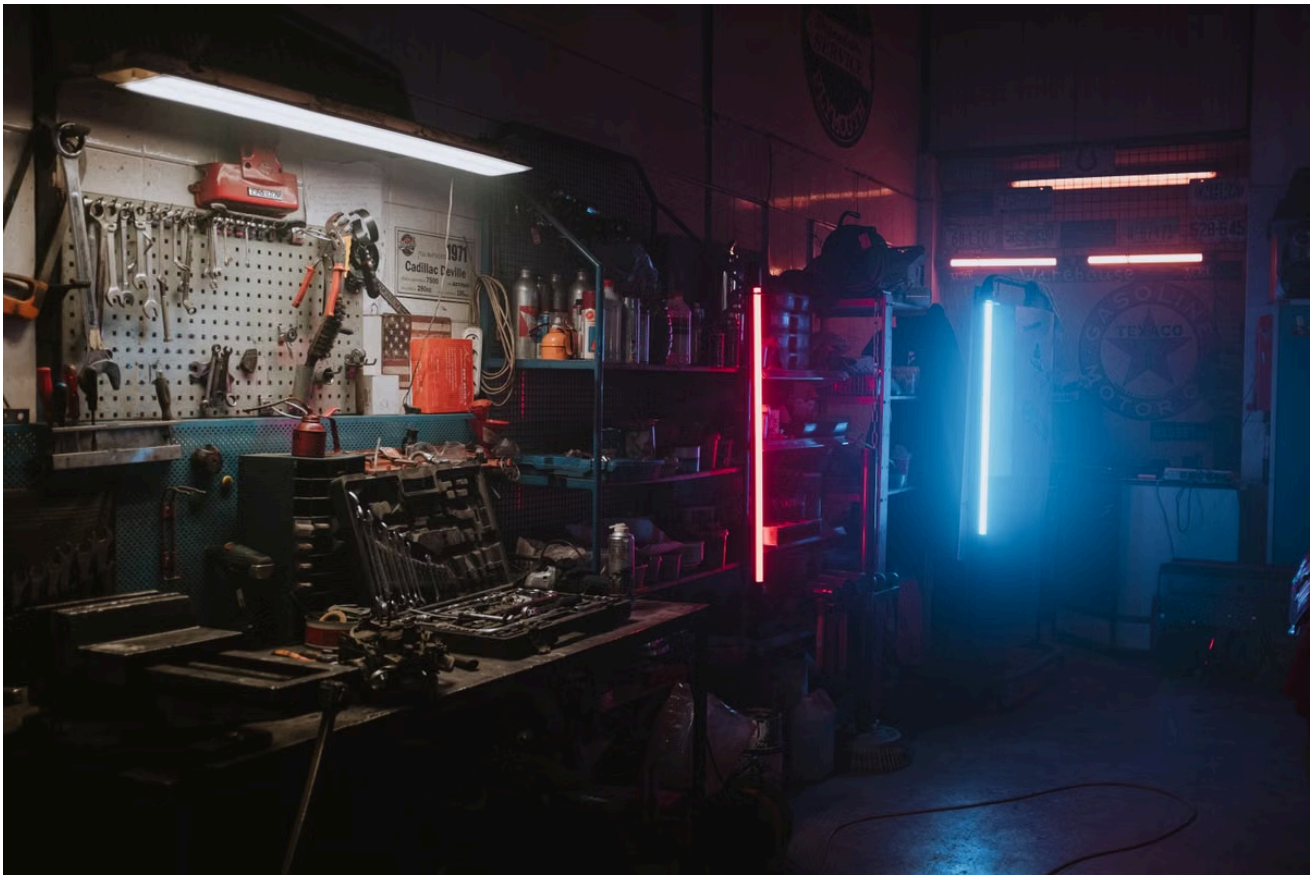
Choosing Between Repair and Replacement

If the hose has a small leak at a fitting, sometimes a technician can re-crimp that end. But if the hose itself is damaged beyond the first inch from the fitting, replacement is the only safe option. Cutting off a damaged section and reusing the fittings is rarely a good idea because the crimp connection relies on precise deformation of the fitting onto the hose. Re-crimping on a different part of the hose may not hold the same pressure. A new hose assembly is relatively inexpensive compared to the cost of a second failure that causes downtime or damage to other components.

Tools and Spares to Keep in the Field

Having a few common hose assemblies on hand can save hours of waiting. For machines that use standard lengths and end fittings, carry one spare of each size. If your equipment uses non-standard lengths, consider buying a bulk roll of hose and a set of reusable fittings. That way you can cut and assemble a custom replacement in the field. A portable hydraulic crimper is expensive and heavy, but for a fleet of machines it can pay for itself. For most operators, a repair coupling kit and a hose cutter are enough to get the machine back to the shop.

A good practice is to label each hose assembly with the machine number and installation date. That makes it easy to track service life and spot a hose that is overdue for replacement. When you order a new assembly, give the old one to the hose service so they can match the fitting orientation and bend radius exactly. A shop that sees many different machines can often suggest a better routing or a more durable hose type. For instance, if a hose keeps failing at the same spot, a fabric guard or a longer hose with a gentle loop might solve the problem.



Final Thoughts

A hydraulic hose failure in the field is never convenient, but it does not have to ruin the whole day. The key is to act quickly and safely: shut down, depressurize, and decide whether a temporary fix will work or whether you need to call for a replacement. A reliable hydraulic hose service can make a custom assembly while you wait, or you can swap in a spare you carry. For more information on hose selection, maintenance, and repair options, visit hydraulicseasttn.com to see what services are available in your area. Planning ahead and keeping a few spares and tools on hand will keep your equipment running longer and reduce the stress of a breakdown.