

Morgan City Rentals Hydraulic Hose Reels



Inspection and Maintenance
Procedures

Hydraulic Hose Reels



600 ft. Twin Line Hose Reel

Gates HD Jumper Whips

**Parker/ DynaFlex Twin Line
Hydraulic Hose**

- **$\frac{3}{4}$ " Supply Line**
- **1" Return Line**
- **Galvanized Hose Reel**
- **Certified Lifting**

Hydraulic Hose Reel Specifications

- Hydraulic Unit delivery MAX psi pressure of 2000 psi and is monitored with a set pressure relief valve
- Hydraulic tools require 7-10 gpm of flow and it varies during use
- Morgan City Rentals minimum allowed pressure standard is set at 10 gpm at 1000 psi.

Our Effort Makes a Difference, Experience It

Hydraulic Hose Reel Specifications

Jumper Whip - Gates – Global Wire Braid Hydraulic Hose

- Tube - Black, oil resistant synthetic rubber (Nitrile –Type C)
- Reinforcement – Two braids of high tensile steel wire
- Cover – Black, oil and abrasion resistant thin synthetic rubber

Twin Line Pressure Hose – Parker ParFlex 588N -12 DynaFlex

- 3/4" / pressure side rated at 3100 MAX WP psi
- 1" / return side rated at 2400 MAX WP psi
- Minimum burst Pressure – 4:1

Our Effort Makes a Difference, Experience it

Hydraulic Hose Reel Maintenance Criteria

Without an ongoing maintenance program, on site as well as off site, hose life may be significantly reduced. Hoses can and do fail, in many cases without warning. Manufacturers estimate 80% of hose failures are attributed to external physical damage to the hose.

Inspection and replacement of hoses and components is usually determined by the severity of the application. Identify risk potential from previous hose failures and review history of hose performances in similar situations to determine the degree of exposure to wear, deterioration, or malfunction within respected intervals. For example:

- » Normal Service – monthly
- » Heavy Service – weekly to monthly
- » Severe Service – daily to weekly .

Our Effort Makes a Difference, Experience It

Hydraulic Hose Reel Inspection

A typical preventive maintenance program should include a visual inspection of hoses before each use, inspection of fittings and assemblies, periodic functional test, and most importantly; scheduled component replacement intervals, don't wait until a hose failure.

Extreme heat, frequent and extreme pressure fluctuations accelerate hose fatigue. Dragging along rough or sharp edges damages hose protective coatings will also reduce the life of the hose. For-seeing potential hazards and preparing for them will prevent failures.



Our Effort Makes a Difference, Experience It

Hydraulic Hose Precautions

Hydraulic hoses have a finite service life, which can be reduced by a number of factors. From a maintenance perspective, little or no attention is usually paid to the hoses of a hydraulic system until a failure occurs. BE PROACTIVE.

Bending a hydraulic hose in more than one plane results in twisting of its wire reinforcement. A twist of 5 degrees can reduce the service life as much as 70% and a 7 degree twist can result in a 90% reduction in service life. PREVENT OVER BENDING.

Operating conditions will also ultimately determine its service life. Conditions of abrasion caused by the hoses rubbing against surfaces that can destroy or change the outer coating will also limit its service life. Be aware of these conditions and make the appropriate effort to limit the exposure to the hydraulic hose. REDUCE HAZARDS.

Our Effort Makes a Difference, Experience It

Hydraulic Hose Reel

Pre-Job Inspection

- Visually inspect hose and reel operations. Look for cuts, kinks, damaged hydraulic connectors
- Verify that ¾" hydraulic fittings is on the supply side and 1" hydraulic fitting is on the return side
- Inspect swivels on the reels
- Check all connections for leaks
- Watch for sharp objects while moving hoses along the deck or work area
- Avoid areas where a kink could develop
- When job is completed, roll hose up without having any kinks and tie off ends to prevent unwinding or un-warranted un-reeling

Hose Reel inspection should be done before each and every use

Hydraulic Hose Inspection

Red Flags

- Fitting slippage on the hose
- Damaged, cracked, cut or abraded cover (any reinforcement is exposed)
- Hard, stiff, heat cracked, or charred hose
- Cracked, damaged, or badly corroded fittings
- Any leaks at fitting or in hose
- Kinks, crushed sections, flattened or twisted sections
- Blistered, bubbling or softening, degraded, or loose protective cover

Our Effort Makes a Difference, Experience It

Hydraulic Hose Inspection Red Flags



Outer Coating – Sliced / Cut



Outer Coating chaffing

Our Effort Makes a Difference, Experience It

Hydraulic Hose Inspection Red Flags



Hose Kinked



Hydraulic Hose - restricted flow
from tie-off

Our Effort Makes a Difference, Experience It

Hydraulic Hose Inspection Red Flags



Hose connector whip corroded



Hydraulic Hose Reel - damaged

Our Effort Makes a Difference, Experience It

Hydraulic Hose Quality Control

Point to Remember

Hydraulic hose failures cost more than the replacement hose and any leaks or other problems that may occur. Additional cost can include;

- Clean up time and any disposal of lost hydraulic oil
- Collateral damaged to any other component
- Transportation cost to swap out
- Down time on project
- Possible damage caused by the ingression of contaminants
- Oil spill –offshore

Focus on ways to extend the life of hydraulic hose reels. Be proactive with prevention of possible damages by addressing potential hazards and address them before putting the hoses in the direct path of these hazards. Be responsible and make good decisions when inspecting hydraulic hose reels.

Our Effort Makes a Difference, Experience It