

Hose & Coupling Reference Guide

- High Pressure Hose & Couplings
- Low & Medium Pressure Hose & Couplings
- Special Application Hose & Couplings



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Introduction

As system pressures and other demands on today's equipment increase, so does the need for reliable hose and couplings. Why tolerate premature hose and coupling failures when we can help you avoid them with superior hose products and service?

Caterpillar stands alone as the only equipment manufacturer who makes its own hose and coupling products. This catalog includes information on Caterpillar low, medium and high pressure hose and coupling product lines. We have a full stock of replacement products for earthmoving and other applications. That means no more running from one source to another to find the parts you need.

Caterpillar Hose Products Exceed Industry Standards

Cat hose and couplings are designed to work together as a system for problem-free performance, no matter what brand of machine you operate. Testing performance for most products exceeds SAE requirements. Most hoses meet the MSHA flame resistance requirements as well.

XT Hose and Couplings ... Differentiation

Caterpillar's superior hose construction and testing differentiates it from other manufacturers. Caterpillar was the first to design and manufacture high pressure hydraulic hose known throughout the industry as XT hose. XT hose standards far exceed industry standards still today. XT hose is impulse tested to one million cycles - twice the industry requirement - at 133% of working pressure using both new and aged hose.

The differentiation does not stop at the hose. Caterpillar offers reusable couplings for XT hose to help keep your own maintenance and operating costs at a minimum. Caterpillar reusable couplings for XT hose are the last coupling you should ever need.

XT-3 ES Hose

Caterpillar's XT-3 ES hose provides up to 20 times more abrasion resistance than the industry's best rubber-covered hose, due to an exclusive cover formulated and manufactured by Caterpillar. Cat XT-3 ES hose works at half of the SAE bend radius without sacrificing cold flex capability.

Caterpillar® 1956 Hose and Couplings Meet Your Mixed Fleet Needs

(1956 hose (DIN 20023 4SP) and coupling) The product line joins the extensive line of high pressure XT hose components that have set the industry standard for reliability and durability for nearly 30 years.

Caterpillar® Low and Medium Hose and Couplings

Caterpillar manufactures one wire braid (716), two wire braid (294) and hydraulic suction (844) hose and couplings. These too exceed SAE requirements for the best in reliable hose and coupling performance. These hoses are impulse tested in both the unaged and aged condition, up to two and a half times the number of cycles required by SAE, to assure reliable performance.

Caterpillar 716 and 294 hose and couplings also meet DIN 20022 1SN and 20022 2SN standards.

Caterpillar Special Application Hose and Couplings

Caterpillar offers a complete line of thermoplastic, engine / air brake and air conditioning hose and couplings, including a line of reduced outside diameter (O.D.) thermoplastic hose and couplings (2760), used extensively in earthmoving equipment hydraulic pilot lines.

More of Your Equipment Can Be Converted to Cat Hose

With the Cat hose and coupling product line, more systems can be converted to high quality Cat hose and couplings. This is only a short rundown of industries which have found success in their conversions to Cat Hose:

Mining	Pulp and Paper Mills
Logging	Manufacturing Plants
Petroleum	Agriculture
Railroads	Waste/Refuse
Construction	

Hydraulic System Services

When you need hose repairs, we can provide fast, over-the-counter service by making hose assemblies to your specifications while you wait. Better yet, call ahead and we can have them waiting for you.

If you prefer to make your own assemblies, we can help there, too. We will set you up with the proper tooling and training and even assist with stocking requirements.

Whatever your hydraulic system needs, we have the resources to get your machines up and running quickly with the work done right the first time.

When you need quality hose and couplings, it makes sense to use the best available. You can trust Cat Hose and Couplings for all your needs!

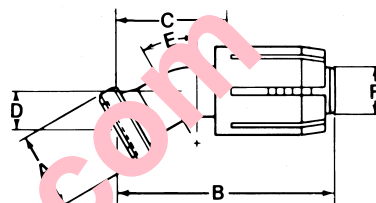
Introduction

Before You Measure Hose and Stem Assemblies, Review This Information

1. Determine what type of hose assembly is to be replaced.
2. Measure the inside diameter of the hose.
3. Measure the angle, actual head size, and length of the stem assemblies.
4. Select the proper stem assembly from the part numbers pages.
 - a. Locate inside diameters for your hose.
 - b. Check the list of actual head sizes and lengths of stem assemblies.
 - c. Locate the desired angle for your stem assembly.
 - d. When all the dimensions agree, locate the part number.
5. Add the cut-off factors for your stem assemblies.
6. Subtract this total length from the overall length of the hose assembly.
7. Cut bulk hose to length needed for hose assembly.
8. Assemble the new hose assembly using sleeves, stems, and armor if needed.

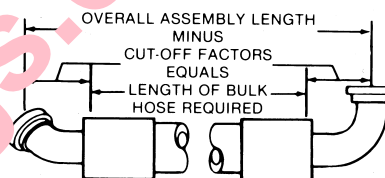
Coupling Dimensions

- A. Actual Head Size
- B. Stem Assembly Length
- C. Cut-Off Factor
- D. Drop Length
- E. Degree of Angle
- F. Hose Inside Diameter

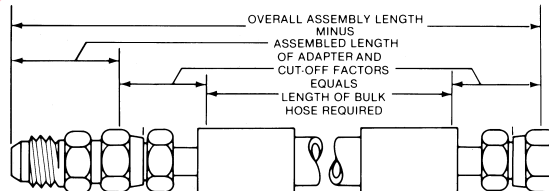


Hose Assembly Measurements

Flange-type Assembly—Subtract the cut-off factors from the overall assembly length to determine the length of bulk hose required.



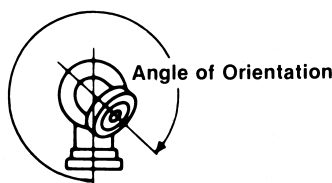
Thread-type Assembly—Subtract the cut-off factors and the assembled length of the adapter from the overall assembly length to determine the bulk hose required.



Assemblies are measured to the centerline of the sealing surface.

Coupling Angle of Orientation

The angle of orientation between the stem assemblies is measured with the far stem assembly vertically downward and viewing the assembly from the near stem assembly end.



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