

Hydraulic Spiders

Hydraulic machines are part of our everyday lives. When you step on the brakes in your car, brake fluid, which cannot be compressed, is forced from a cylinder into the braking mechanism attached to your wheels. Hydraulic mechanisms work because fluid cannot expand, but it will easily flow to areas where there is less pressure.

However, humans were not the first to invent uses for this principle. The spider uses it all the time. The spider has his skeleton on the outside of his body and his muscles inside his skeleton. Since our muscles are outside our skeleton, we can use muscles both to bend our legs and stretch them out. However, the spider's arrangement allows his muscles only to bend his leg. When he wants to straighten out his leg to take another spidery step, he pumps fluid into his leg, and the leg joint hinges open.

The North American dwarf mistletoe builds up hydraulic pressure equal to that found in a truck tire. It uses that stored pressure to catapult its seeds up to 50 feet at a speed close to 60 miles per hour. The squirting cucumber, found in the Mediterranean area, uses the same principle to propel its seeds up to 40 feet.

Who would believe that the brake system in an automobile came together by chance and natural forces? Neither does it make sense to believe that spiders, other animals and plants came about without a Designer and Creator.

Psalm 119:73

"Thy hands have made me and fashioned me: give me understanding, that I may learn thy commandments."

Prayer: Dear Lord Jesus Christ, I thank You that You have enabled us to learn how to use some of the principles You placed into the creation. Help me to understand that knowledge is never complete until I know of, and trust in, Your forgiveness of my sin. Amen.

Ref: Tributsch, Helmut. "How spiders stretch." *Science Digest*.