

TEST REPORT

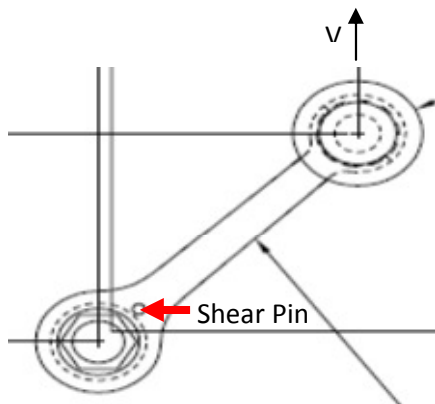
Tested by: Ricky Lo, BASc. – Materials Engineering

Testing Location: Powertech Labs Inc.

Part: S20-1V – Face Mounted Spider

Test Setup:

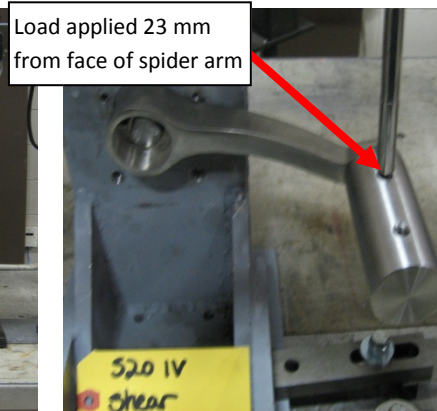
The spider is tested with a vertically load on a single arm, which represents dead load in a wall application. The test load is applied 23 mm from the face of the spider arm to simulate a non-articulating glass bolt.



S20-1V wall application



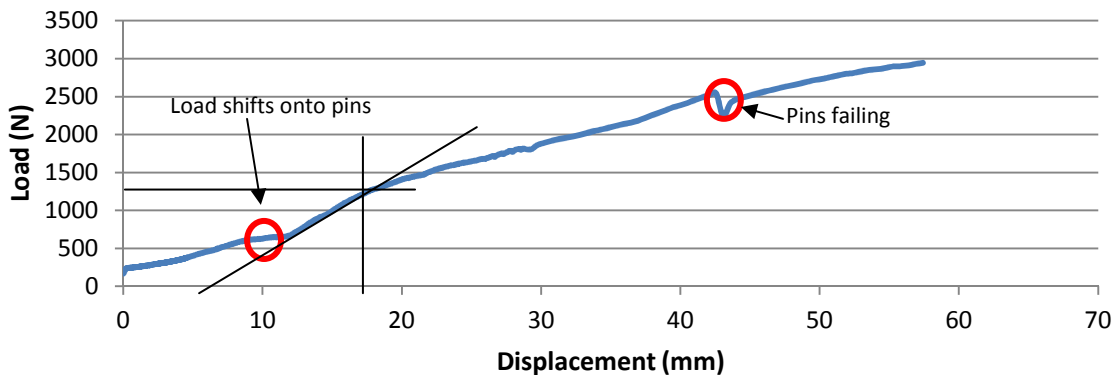
Test setup (front)



Test setup (top view)

Test Results:

Load (N) vs. Displacement (mm)



Conclusion/ Observations:

The spider was tested to a load of 3 kN max.

The ragged curve at the beginning of the curve, up to 10 mm displacement, is due to setting of the assembly caused by clearance in the assembly with the shear pin.

At 1.3 kN the pin starts to yield and at 2.5 kN the load drops significantly indicating that the pin has failed.

Although the pin yields it does not shear apart. No deformation is visible in the spider arm.

