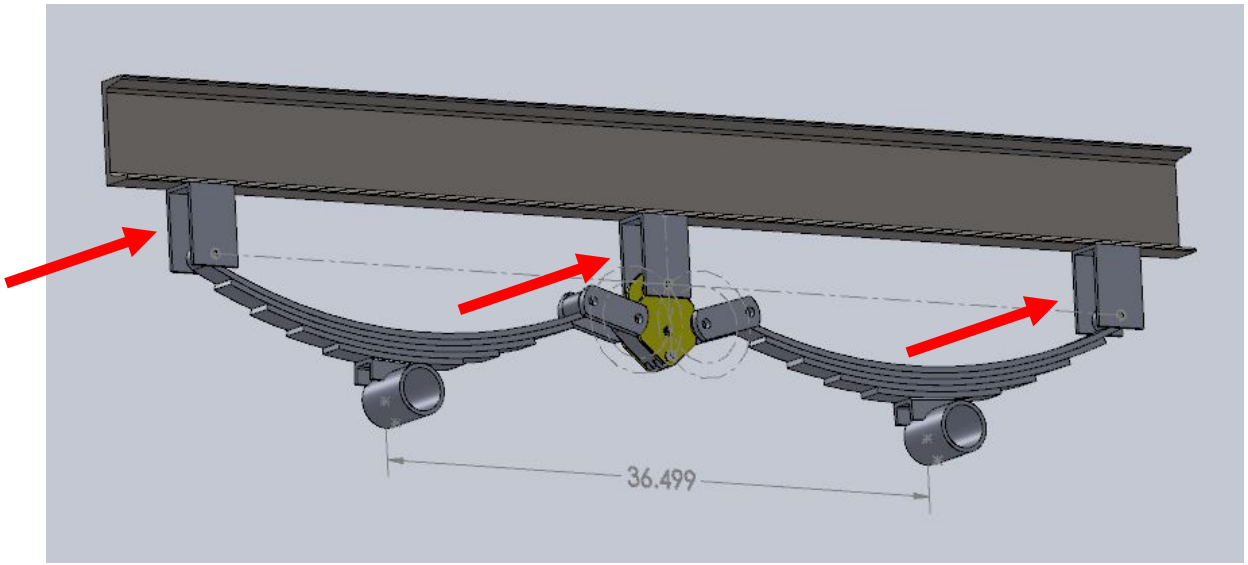
Spring Hanger Reinforcement

Why would we want to do this?

On many applications, tall spring hangers are used to achieve desired ride height and tire to body clearance



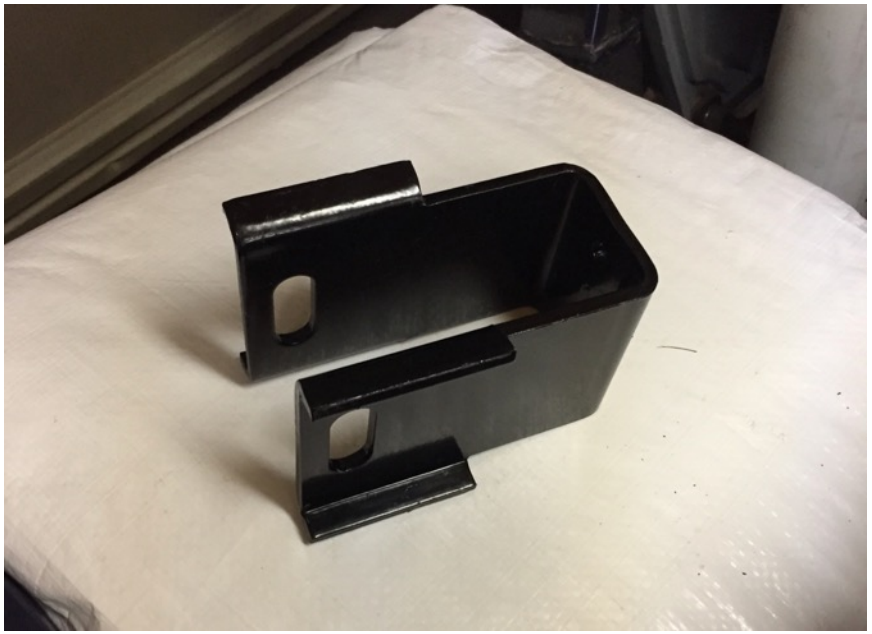
Rob Farrow
November 2019

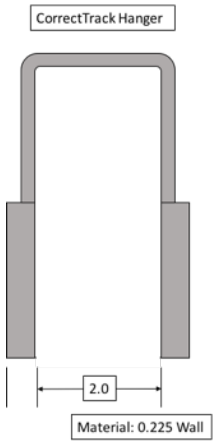
With miles travelled,
the flexing of the tall hanger bracket
can cause fatigue breaks
beside the welds between
hanger and frame

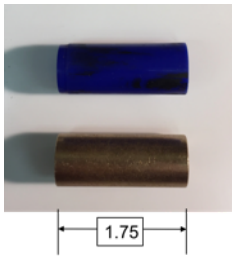
Note that the welds do not break
(the top of the hanger bracket is
still welded to the frame)

The fatigue break happens
by repeated flexing of
the “heat affected zone”
beside the weld

LCI tall spring hanger with provisions for Correct Track







Some things to consider . . .

- The free hanger is about 2” inside wide
- The spring bushing is 1.75” long
- The nut on the hanger bolt must come up against the shoulder to reach and maintain torque

As originally assembled . . .
the nut and bolt bend the hanger in
until the nut reaches the shoulder
(which leaves a gap between bushing and hanger)

The reinforcing plan is going to have to comprehend these things

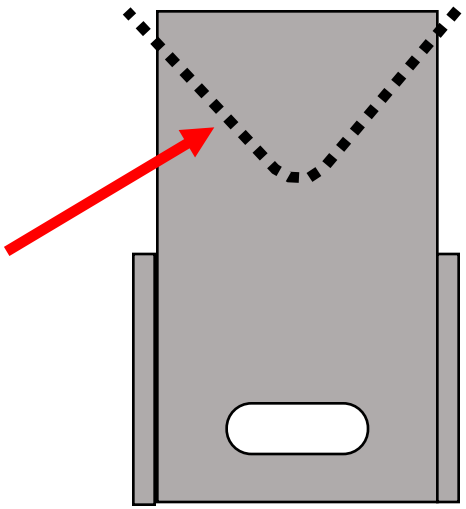
"Boxing" the ends of the hanger would be one alternative

This should be done with the nut and bolt in place

It might be wise to use a washer under the nut during welding (and then remove it) to make sure that the nut can always tighten against the shoulder since all flex has been removed from the bracket

The “V Clip” Alternative
(usually chosen by LCI techs)

1 7/8 “ x 6” x ¼” Flatbar
with smooth bend to 90 0



Note that one leg of the V Clip is
welded to the forward inner hanger side
and the other leg is welded to the aft outer side

Both ends are welded to the frame above

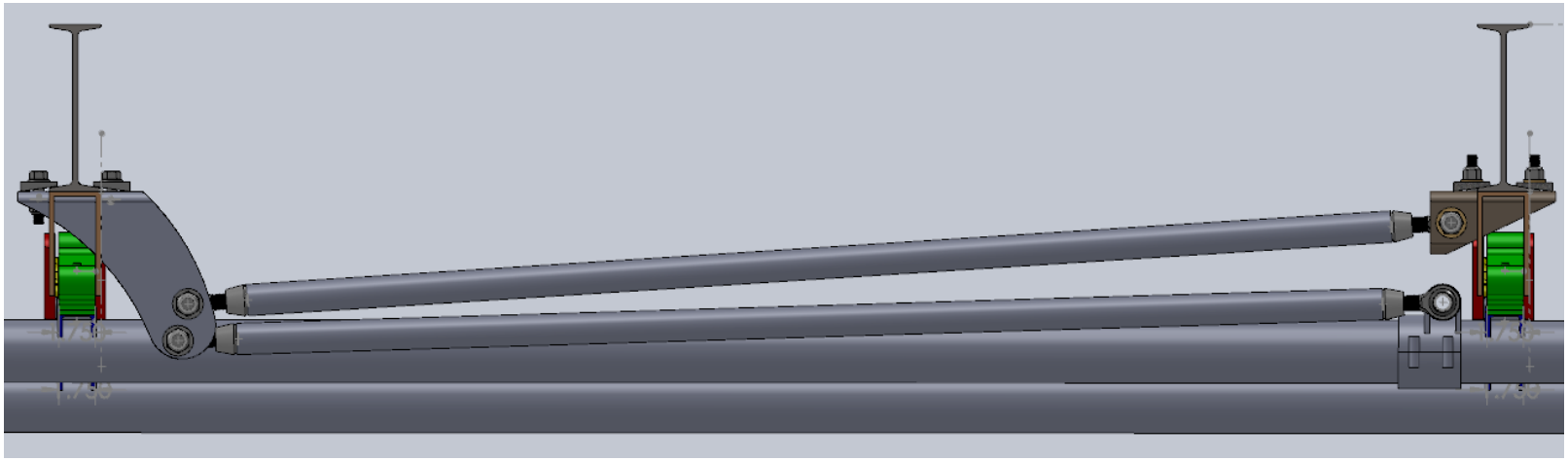
This reinforces both sides of the hanger
while leaving some flex for proper
nut torque against the shoulder of the bolt

Other ideas . . .

A cross vehicle reinforcing bar
could be added between pairs of hangers

This gets a little complicated
if you have the Correct Track adjusters

One Reflection 303 owner
is working on a Panhard Rod setup



One more idea . . .

LCI does make
"Short Hangers"
that could be used with a
square tube spacer between
the hanger and the frame rail
to create the same vertical spacing
with a stronger installation