KIS Nose-Wheel Assembly

Taken from KIS4 – N819PR (4/30/2013)

Complete Nose Wheel Assembly

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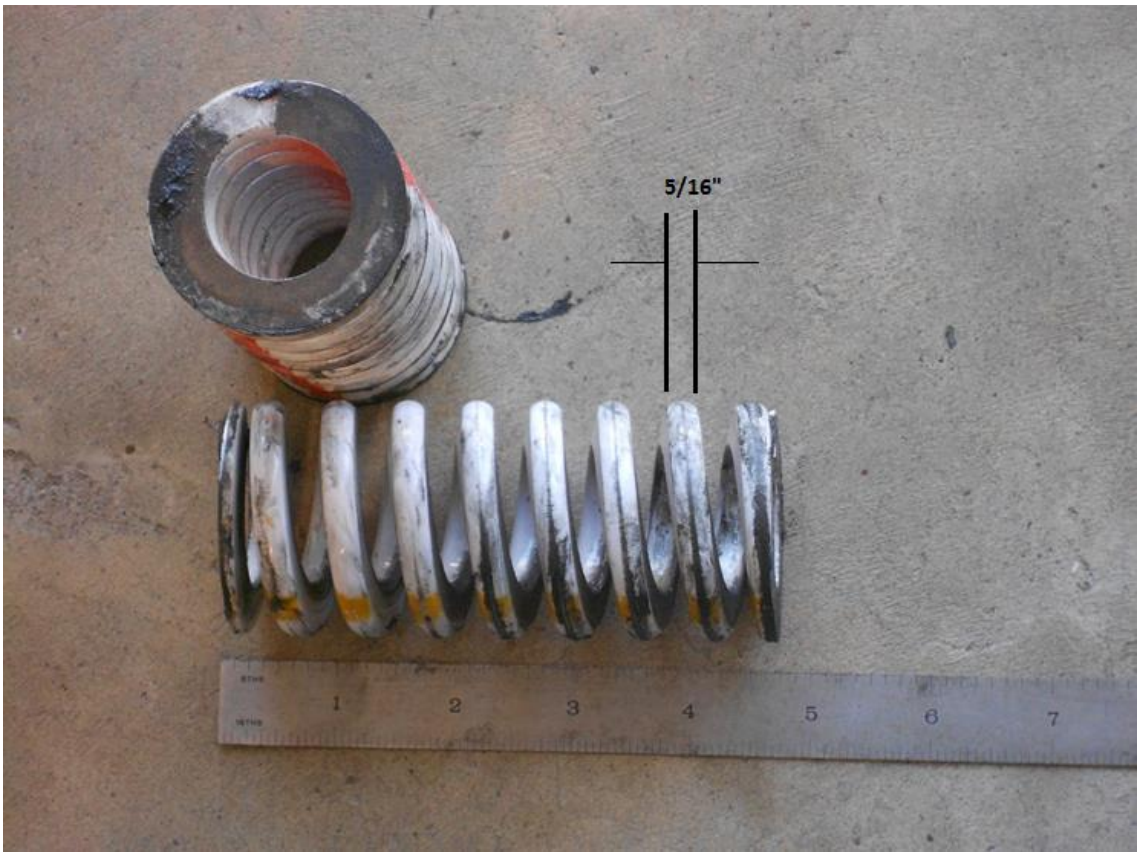
For reference only.

Disassembled Nose Wheel Assembly

How the parts go together inside the nose-wheel assembly. The bright “chrome” part is the top of the assembly.

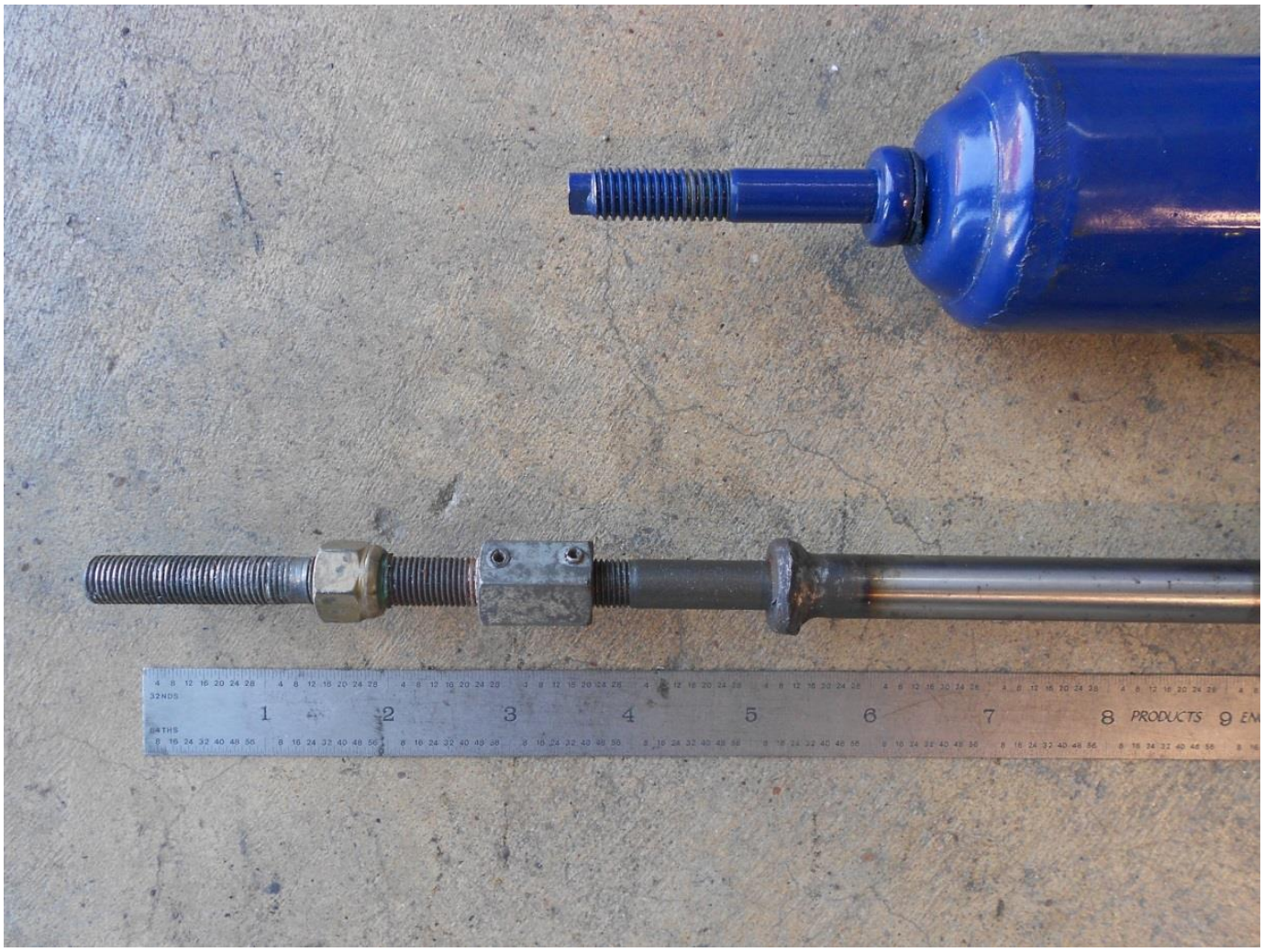
The top of the old shock absorber has the “dust cover” cut off and a 3/8” dia. lengthening adaptor threaded rod is affixed to it. The shock absorber measures a total of 25” long from the top of the lengthening adaptor threaded rod to the bottom of the shock absorber threaded rod. Two 4-1/2” steel springs are inserted as spacers where the dust cover would have been. NOTE: The blue new replacement shock absorber (Monroe-Matic Plus 31069) does NOT have its dust cover removed in the picture.

Steel Springs Measurements



Each steel spring is 4-½” long and 1-15/16” in diameter made of 5/16” thick steel.

Top of the Shock Absorber (Monroe-Matic Plus 31069)



The 3/8”dia. lengthening adaptor threaded rod is shown in detail in the above photo. It is drilled and pinned to prevent it from moving. An upside down elastic stop nut provides a stop adjustment to prevent the assembly from being over tightened during mounting on to the firewall. A rubber grommet is placed above it (next picture) to prevent metal to metal contact. The nut can be adjusted to compensate for different rubber grommets sizes. All of this winds up inside the assembly and is impossible to access without a complete tear down.

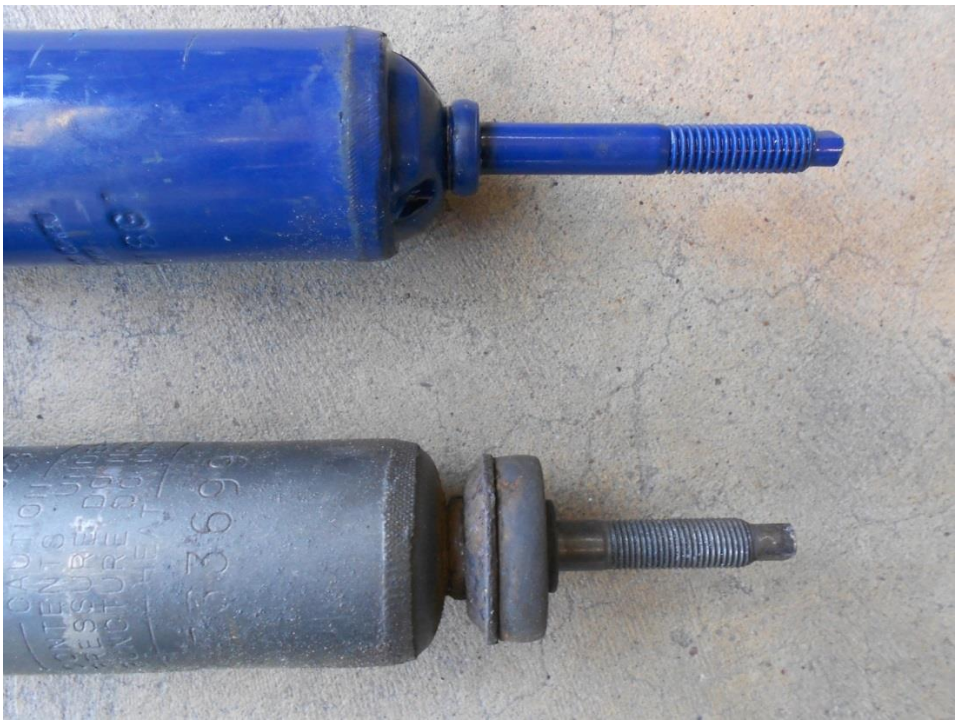
NOTE: The blue replacement shock absorber does NOT have the dust cover removed in the above picture but it has been removed in the next picture.

NOTE 2: The top of the elastic stop nut should be approximately 1-1/2" from the top of the second steel spring.

Shown with only one of the two steel springs installed. The 2nd steel spring just goes on top of the 1st one.
NOTE: The top of the elastic stop nut should be approximately 1-1/2" from the top of the second steel spring.

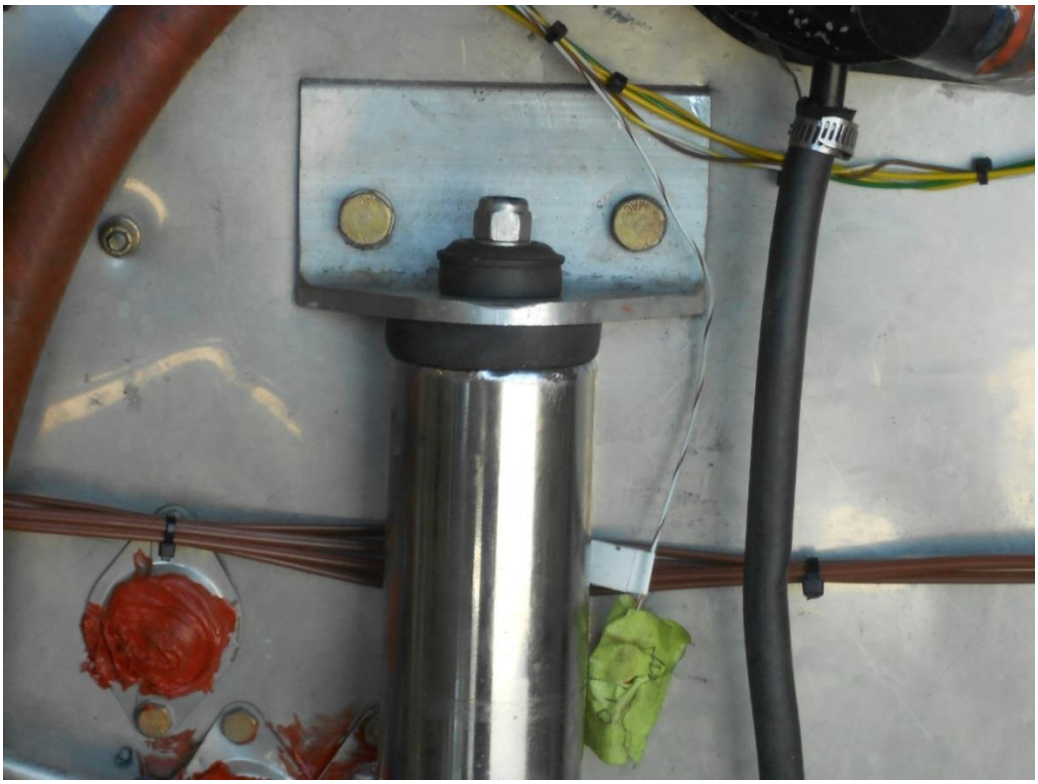
The top of the threaded rod extender needs to have a screwdriver slot cut in to it so you can adjust it during installation.

Bottom of the Shock Absorber (Monroe-Matic Plus 31069)

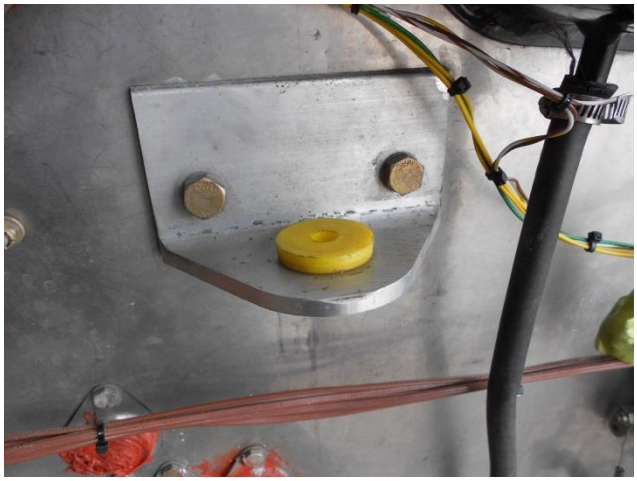


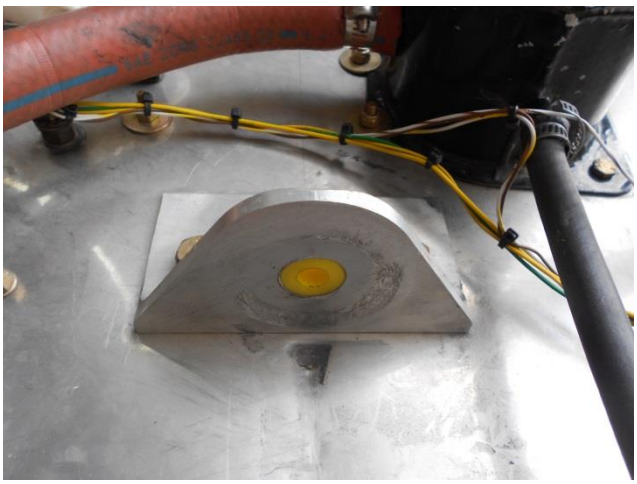
There is a rubber grommet on the bottom of the shock absorber inside the assembly. A rubber grommet is also installed on the outside bottom of the entire assembly as seen in the above photos. Both are to prevent metal to metal contact.

Shock Absorber inside the assembly.



There is a thick piece of rubber between the outside top of the assembly and the firewall mounting bracket, as seen in the above photo, to help diminish forward/rear torque forces during landings. There is a ¾" aluminum bushing inside the firewall mounting bracket to prevent the 3/8" dia. lengthening adaptor threaded rod from cutting in to the firewall mounting bracket during landings. I replaced mine with a bushing made from a hard polyurethane material (See photos below) specifically designed to absorb these kinds of loads which is used in deep sea drilling operations.





There is a rubber grommet on top of the firewall mounting bracket that came as part of the shock absorber installation kit. The rubber grommets provided in the kit were too thick for my particular installation. I would up using a thinner ones (90948-01003 GR4) as seen in the above photos.