

(AND WE'RE NOT TALKING ABOUT THE UTENSIL!!!)



BUT SERIOUSLY.... WHAT IS IT?!

The Fork:

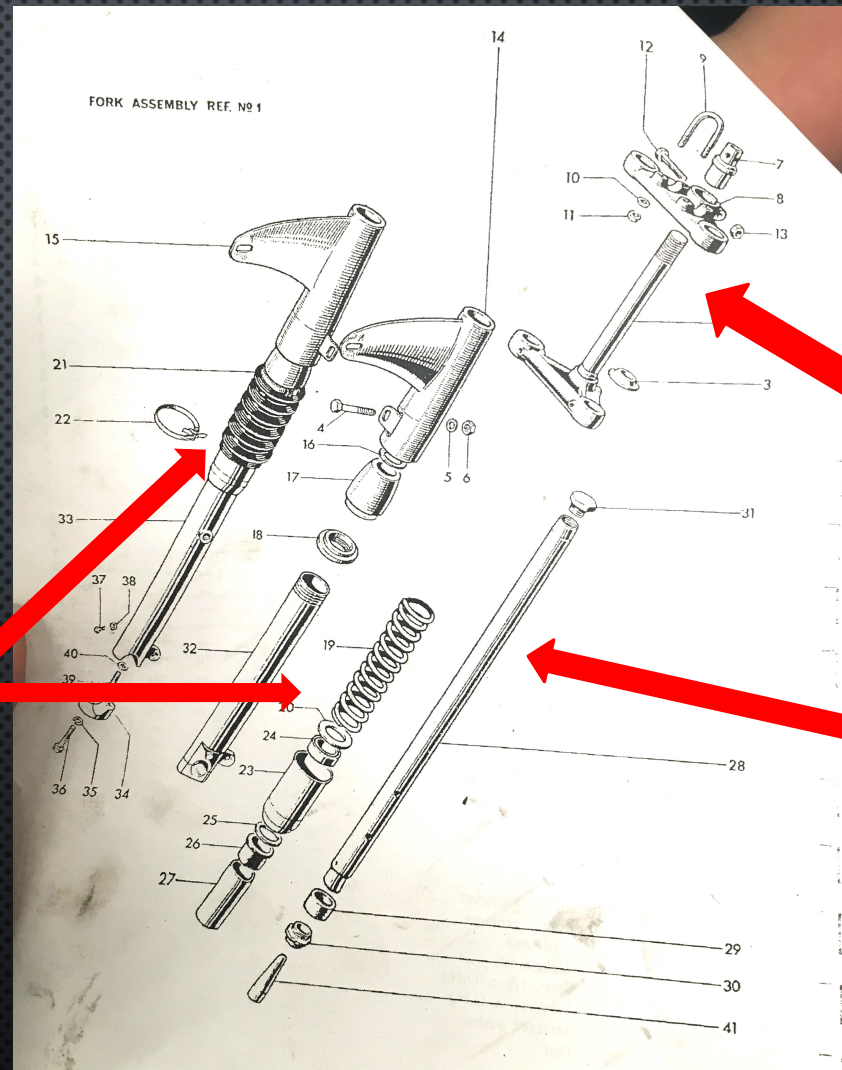
- holds the front wheel
- Enables steering
- Allows for a more comfortable ride
- Handlebars are attached to fork



DISASSEMBLY



ASSEMBLY



Triple Tree Assembly

Fork tube

External Springs With gators

TRIPLE TREE

Fork stem sleeve nut



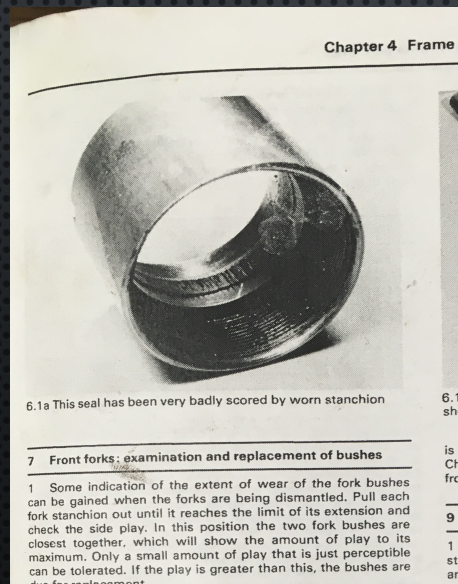
- The foundation of the fork, that holds the fork tubes in place
- Contains upper and lower race with 15 ball bearings each (held in place by grease), that enables for smoother **steering**
- Important not to tighten the fork stem sleeve nut too tightly, because it must be loose to allow for smooth steering

REPLACING THE FORK BUSHES

New bushes

One of the important aspects of our reassembly was replacing the fork tube bushes.

- The previous fork bushes were damaged during disassembly and prior use because the old owner use the wrong bolt
- The bolt was too long, so it dented and damaged the previous bushes as the fork tube slid up and down.
- Glen made new bushes of the same shape and size.

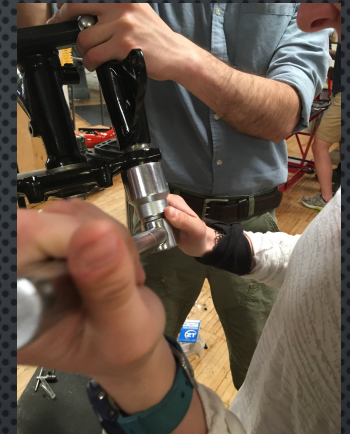


FORK TUBE ASSEMBLY



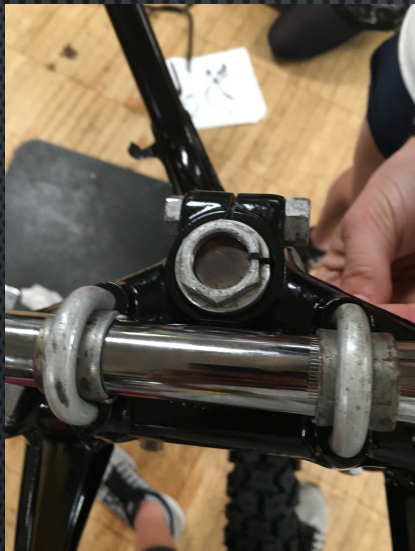
- Put together the fork tubes before attaching them to the triple tree assembly
- Used hot water to loosen the rubber of gaiters, soap to slip the springs inside the gaiters
- Used Tire wrenches to slip the gaiter and springs over the fork tube (hardest part of assembly)

PUTTING IT ALL TOGETHER



- Flipped the frame upside down in order to fit the fork tubes through the triple tree assembly
- Used special tool to slide the tubes all the way inside triple tree assembly:
 - A steel tool with an adapter piece that Glen made
 - Steel tool had a handle attached to it
 - Used property of inertia to pull down the mass
- Poured oil into tubes so they can slide up and down easily

HANDLES BARS/SPEEDOMETER

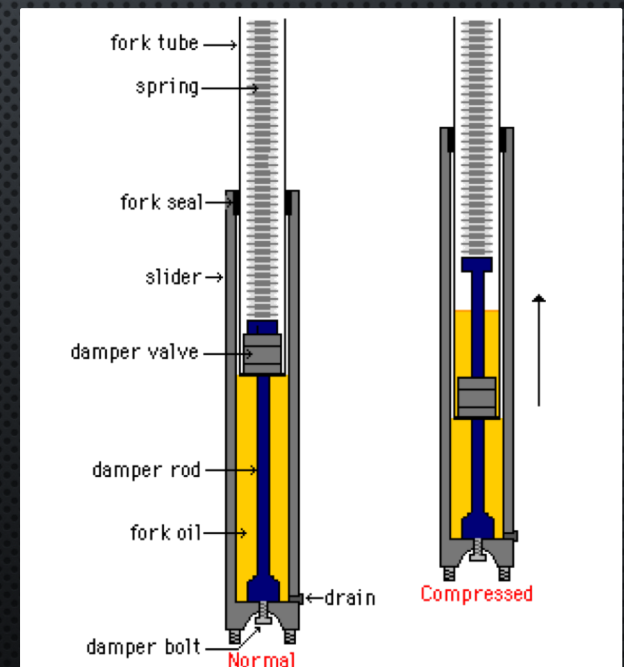


- Handle bars
- Grips
- Throttle /clutch
- Break lever
- Speedometer



FRONT SUSPENSION

- The fork is made up of two hydraulic shock absorbers with internal or external coil springs
- These shock absorbers allow for increased comfort when riding a motorcycle
 - As the motorcycle rides over a bump, the fork tubes slide inside the fork bodies and the springs compress allowing the front wheel to remain on the ground
 - Absorb shock from bump
 - The restoring force then pushes the bike back up



INTERNAL VS. EXTERNAL SPRINGS

External:

- provides for heavier duty, stiffer springs
- Making the fork tubes fatter allows for stiffer springs
- Stiffer springs are more difficult to compress, so a stronger restoring force pushes back when they are pushed down upon
- Larger restoring force is useful on a larger motorcycle ('65)

Internal:

- Smaller space inside the fork tube, so it is difficult to fit heavy duty springs inside
- Better for smaller, lighter motorcycles
- '52, '62 internal springs



THANKS SO MUCH FOR A MEMORABLE SEMESTER!

Special thanks to Professor Littman, Glen, Al, and Noel
for all of your help with the forks!

