SSBC
PERFORMANCE BRAKE SYSTEMS

INSTALLATION INSTRUCTIONS

PERFORMANCE AT THE WHEELS KITS W156-6 & W156-7

1965 - 74 MOPAR B & E BODY

Thank you for choosing STAINLESS STEEL BRAKES CORPORATION for your braking needs. Pleases take the time to read and carefully follow these instructions to insure the ease of your installation as well as the proper performance of the complete system.

Before beginning your installation, please verify you have received all the parts indicated on the packing slip.

To assure your installation will go safely and smoothly, have the following items on hand to assist you:

JACK & JACK STANDS	***WRENCH SET***
LUG WRENCH	***TUBE WRENCHES***
TORQUE WRENCH	***MALLET***
SOCKET SET	***BRAKE FLUID***
BRAKE CLEANER	***WHEEL BEARING GREASE***

These kits use the following pads:

SSBC#: 10129

FMSI#: D-43

TIP: BEFORE BEGINNING INSTALLATION, SPRAY ALL FITTINGS AND FASTENERS WITH PENETRATING OIL.

1) Front Drum Brake Removal

a) Raise the car until the wheels and tires clear the floor and support the car on jack stands. Remove the tire and wheel assemblies from the drums.

b) Remove the grease cap from the hub. Then remove the cotter pin, nut lock, adjusting nut and flat washer from the spindle.

c) Pull the drum and hub assembly from the spindle. If the brake drum will not come off easily, retract the shoes by inserting a narrow screwdriver through the brake adjusting slot and disengage the adjusting lever from the adjusting screw. While holding the lever away from the adjusting screw, back off the adjuster.

2) Drain the system of all brake fluid.

a) Remove the master cylinder cover. Using a syringe, remove as much fluid as possible from the master cylinder reservoirs.

b) Attach hose to front bleeder screws and place other end of hose in a container. Open bleeder screw and allow the fluid to drain.

BE CAREFUL NOT TO GET BRAKE FLUID ON THE PAINT. IT CAN CAUSE SEVERE DAMAGE!

c) When fluid stops draining, disconnect the flexible hose from the rigid brake line at the frame and remove the horse shoe clips. Use plenty of penetrating oil between the tube nut and the tube. We strongly recommend the use of a tube wrench (available from any tool supply store including Sears).

3) Drum Brake Plate Removal

a) Remove the two upper bolts that secure the backing plate to the spindle (7/16"-20 bolts).

b) Remove the lower two bolts that secure both the backing plate and the lower ball joint casting to the spindle. (5/8"-18 bolts).

c) Remove the entire drum brake backing plate assembly as a unit and discard the bolts.

d) Thoroughly clean up the face of the spindle but NOT the bearing surfaces using a wire brush. Brake cleaner can them be used to clean the machined surfaces of the spindle.

4) Installation of Caliper Mounting Brackets

a) Attach the caliper mounting bracket to the spindle by passing the two 7/16"-20 x 1-1/4" bolts and lock washers supplied in the kit through the back side of the spindle and threading them into the holes of the caliper mounting bracket. The two upper holes in the caliper bracket will be used to mount the caliper. These two holes must face toward the front of the vehicle.

NOTE: THE MOUNTING BOLTS SHOULD BE LEFT FINGER TIGHT AT THIS TIME TO AID IN THE ALIGNMENT OF THE LOWER BOLT HOLES.

b) Align the lower mounting bracket holes with the lower spindle holes and the holes in the lower ball joint. To aid in the alignment, it may be necessary to use a floor jack to carefully jack up the lower control arm until the holes line up. When the holes line up, inset the 5/8" - 18 x 3" bolts supplied in the kit from the front side. Secure the bolts using the 5/8" lock washers and nuts supplied with the kit. The lower 5/8" bolts should be torqued to 150 ft / lbs and the upper 7/16" bolts should be torqued to 55 ft / lbs.

5) Installation of Rotors

a) Begin by installing the spindle spacer supplied onto the spindle shaft with the rounded portion facing inwards.
b) Prepare rotor for installation by cleaning the protective coating using brake cleaner.
c) Pack the inner (larger) wheel bearing with hi-temp disc brake bearing grease and place them in the inner rotor cup (which is already in the rotor assembly). Pack grease lightly between the lips of the grease seal before installation. Use a soft mallet or a piece of wood so as not to distort seal while tapping it into place.
d) Install the rotor assembly on the spindle.
e) Pack and install the outer wheel bearing over the spindle and into the outer cup of the rotor. Install the washer and adjusting nut onto the spindle.
f) Wheel bearing adjustment as follows is especially important with disc brakes: Rotate rotor while torquing spindle nut to 17-25 ft / lbs. Back off the adjusting nut 1/2 turn and retighten to 10-15 ft / lbs. Lock the adjusting nut with the cotter pin supplied. If the cotter pin hole does not line up, turn the nut until the cotter pin can be installed. Install the grease cap and make sure the rotor spins freely.

6) Caliper Installation

BE CAREFUL THAT ALL HYDRAULIC COMPONENTS ARE KEPT CLEAN AND FREE OF DEBRIS INSIDE AND OUT.

a) Slide brake pads into calipers from the top. The linings on the pads will face each other.
b) Install the two pad retaining pins into each caliper from the front to retain the pads. Secure the pins with the provided clips.
c) Apply 3-4 layers of Teflon tape to the pipe thread end of the supplied elbow fitting. Do not tape the 3AN (pointed) end of the fitting.Install the taped end into the caliper and hand tighten. Do not fully tighten at this time.
d) Slide caliper into position over the rotor. In order to properly center the caliper over the rotor, the 5/16" thick tube spacers provided in the kit must be installed between the caliper and the caliper mounting bracket. With the holes in the caliper, spacers and mounting brackets lined up, the 7/16" - 20 caliper mounting bolts and lock washers can be installed. These bolts should be torqued to 55 ft / lbs.
e) Attach the flex lines to the rigid brake lines at the frame rail and secure them in the brackets using the horseshoe clips supplied with the kit. Route the flex line between the shock absorber and spindle upright. Tighten the elbow fittings on the calipers at this time. Position the elbow in a way that ensures a smooth transition with the flex line. Attach the 3AN ends of the flex line to the elbow fittings and tighten.

f) Run the steering through a full left to right turn to make sure the hoses do not become kinked or take a double bend. If the hoses do bend incorrectly, reorient them in the brackets until the problem is solved.

7) To insure the proper function of your SSBC brake system several other parts will be required to complete the installation. If you did not purchase these parts at the same time as your brake kit they can be ordered from SSBC or your distributor. If you choose to source your own parts please keep the following points in mind.

a) Master Cylinder
A master cylinder designed for disc brake applications must be used. Be sure the depth of the piston is correct for the pushrod length you are using. For manual brake applications a bore size of 15/16"-1" is needed. For power applications a 1" bore size will work correctly.

b) Power Booster
The vehicle must have a minimum of 16" of vacuum at idle for the booster to work properly. If you do not have at least 16"Hg you will need a vacuum pump or you will have to run a non power system. Be sure to select a booster for your specific year, make, and model with the proper brackets and pushrod. For some vehicles you will have a choice of the outside diameter of the booster. Generally speaking a larger outside diameter will provide more boost than a smaller one. The only exceptions are double diaphragm boosters. Keep in mind that your space for a booster will be limited by things like big block engines and tall valve covers. SSBC generally recommends a 7"-9" diameter booster for your vehicle.

c) Proportioning Valve
Installation of a proportioning valve will be necessary to insure the rear brakes do not lock up prematurely causing a loss of control. This is necessary due to the increased pressure generated by the disc brake master cylinder. SSBC recommends an adjustable proportioning valve to allow fine tuning of the proper rear brake pressure for your specific vehicle.

d) Brake Line Connection
All brake lines should be steel or stainless steel tubing. All flares should be SAE Inverted double flares. For some applications little or no plumbing changes will be necessary while others will require all new lines from the frame rail up to the master cylinder. Be sure all lines take smooth bends avoiding kinks or restrictions in the lines. Be sure to connect the brakes to the proper reservoir of the master cylinder. For GM cars the reservoir closest to the firewall usually feeds the rear brakes, while on most Ford and Mopar vehicles that reservoir feeds the front brakes. If you are using an aftermarket master cylinder check with the manufacturer for proper connections.

8) Filling and Bleeding System

a) It is advisable to replace the brake fluid if the color is brown or muddy. This is due to water that has been absorbed by the fluid which will eventually corrode the brake lines and master cylinder. This absorbed moisture can also cause vapor lock situation under extreme braking conditions. Flush system with clean brake fluid and replace with a good grade of disc brake fluid DOT 3 or DOT 4.

b) The simplest and most effective way to bleed your brakes is to use the gravity bleeding approach as follows:

1) With calipers installed, make sure all fittings are tight and master cylinder is

topped off.

2) Starting at the wheel farthest from the master cylinder and working your way around the car to the wheel closest to the master cylinder, open one bleeder screw and observe for several minutes. At first the fluid will begin to escape with intermittent air bubbles. When the air bubbles stop and a steady flow of fluid is observed, close the bleeder and repeat process on other side of vehicle.

MAKE SURE TO KEEP A CLOSE WATCH OVER THE FLUID LEVEL INSIDE THE MASTER CYLINDER DURING THE BLEEDING PROCESS. NEVER LET THE RESERVOIR RUN DRY. ALWAYS KEEP IT AT LEAST ⅓ FULL.

3) After bleeding all four wheels and topping of the master cylinder make several applications of the brake pedal. If a hard petal is experienced, no further bleeding is required. If pedal is spongy, repeat bleeding process until a hard pedal is achieved.

9) FINAL INSPECTION

a) Once a hard pedal is achieved, all fittings and connections must be inspected to make sure there are no leaks. Also check the level in both reservoirs of the master cylinder and top off if needed.

b) Put wheels back on the car and turn wheel by hand to insure that the wheel spins freely and does not interfere with any brake components.

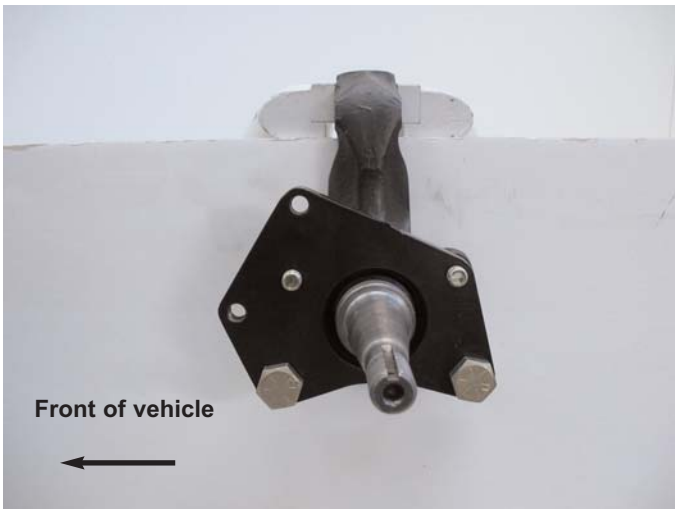
NOTE: BOTH FRONT ROTORS WILL BE RIGHT HAND THREAD.

DO NOT DRIVE IN TRAFFIC UNTIL THE BRAKES SAFELY STOP THE CAR IN A SAFE DISTANCE WITHOUT A SPONGY PEDAL FEEL!

BRAKING TESTS SHOULD ALWAYS BE DONE IN A SAFE OPEN AREA!

NOW ENJOY ULTIMATE STOPPING POWER!!!

Front view of spindle,.



Install caliper bracket over the spindle with the caliper mounting holes positioned toward the front of the car. Install the 5/8” bolts lock washers and nuts in the bottom holes and the 7/16” bolts in the top. Torque the 5/8” bolts to 100 ft-lbs. and the 7/16” bolts to 55 ft-lbs.

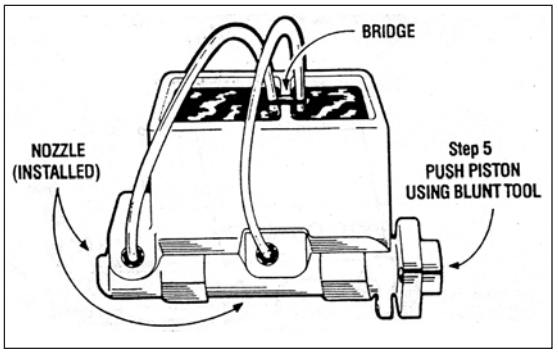
Install the supplied spacer on the spindle with the radius edge facing in.

Install the rotor, packed bearings, flat washer and spindle nut. Torque the spindle nut as stated in line 5f of the instructions. Install the cotter pin.

Install the grease cap with a mallet. Slide the caliper over the rotor and secure using the 7/16” bolts and lock washers provided. Torque to 55 ft-lbs.

Rear view of completed assembly.

How and why do I bench bleed a master cylinder?



When installing or replacing a master cylinder, it is critical that all air is removed from the master cylinder. This can easily be done by bench bleeding the master cylinder prior to installation. Using the SSBC master cylinder bleeder kit (#0460):

1) Place your master cylinder in a vise by the ears (not body). Make sure it is level.
2) Attach a piece of clear plastic hose to the short end of one of the plastic nozzles. Do the same to the other hose and nozzle.
3) Clip the plastic bridge to the wall and push the ends of the hose through the holes so they are SUBMERGED in the reservoir on either side of the wall.
4) Press the tapered end of the nozzle FIRMLY into the cylinder port hole with a twisting motion. Repeat this procedure on the other port hole.
5) Fill the reservoir with CLEAN brake fluid recommended by the manufacturer.
6) Using full strokes, push the piston in, then release. Do this until ALL the air bubbles have disappeared from the clear plastic hose. **(CAUTION-MASTER CYLINDER WILL NOT BLEED PROPERLY UNLESS HOSES ARE SUBMERGED IN BRAKE FLUID UNTIL THE BLEEDING PROCESS IS COMPLETED.)**

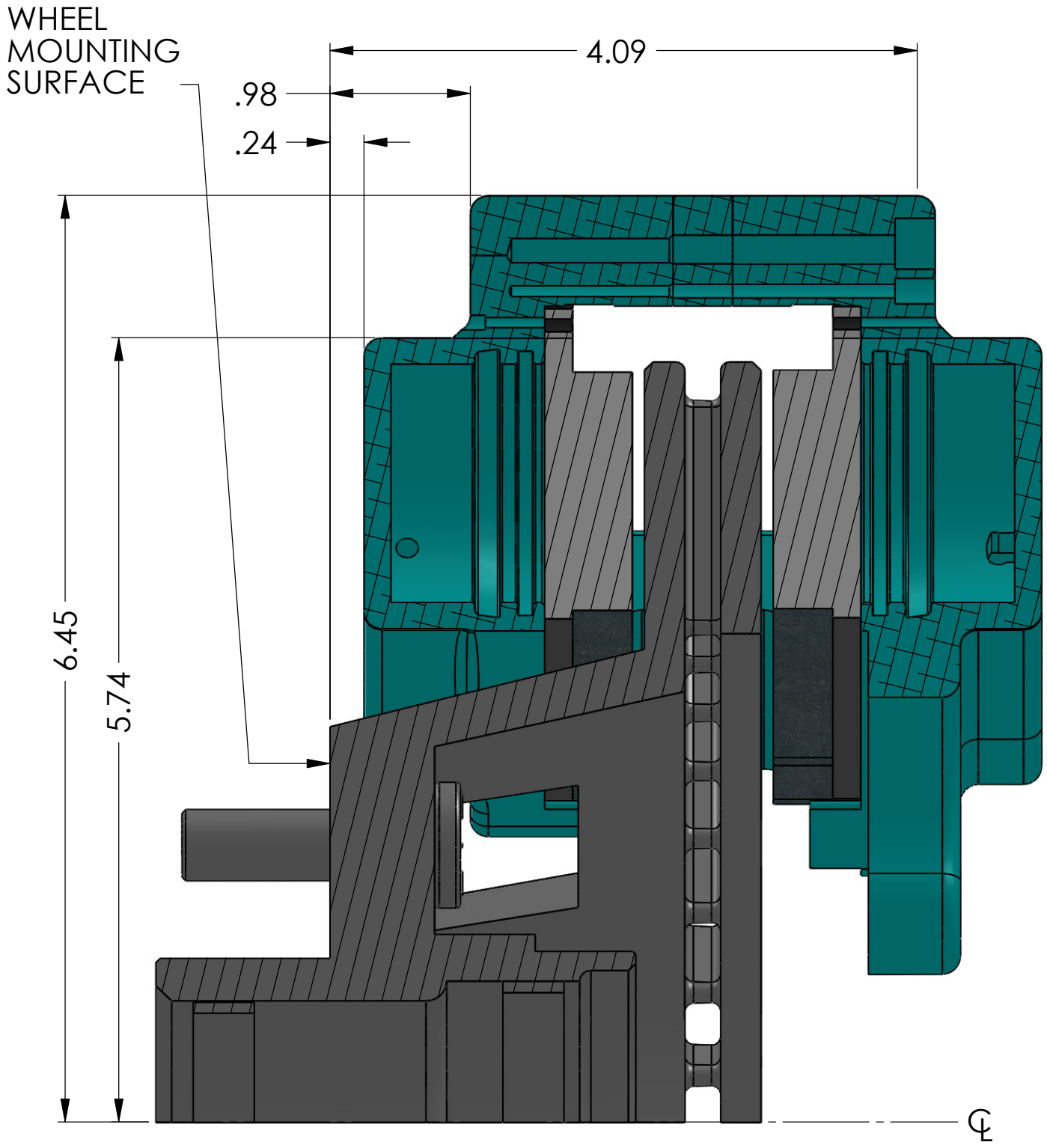
Now mount master cylinder and avoid brake fluid leaking out of front and rear ports during installation.

Bleeding steps for Dual Port Master Cylinder

If you have a master cylinder with dual port holes (4 port holes - 2 on each side), it is necessary to bleed both port sides of the master cylinder. If both sides of the master cylinder are not bled, there will be air trapped in the master cylinder and your brakes will not function properly.

To bleed dual port master cylinders:

1) Follow steps 1 - 6 above on the side you will be hooking the brake lines to. Plug the other side.
2) Once the air bubbles are no longer visible in the plastic hose, open the bleeder screws in the supplied plugs and allow the mater cylinder to gravity bleed. **DO NOT** push the master cylinder piston in while the plugs are gravity bleeding.
3) When clear, steady streams of fluid are coming out of both bleeders, close and tighten the bleeders. Give the master cylinder piston several strokes, making sure there are still no bubbles present in the clear plastic tubes.
4) Remove the tubes and plastic fittings and mount the master cylinder on the vehicle being careful not to spill brake fluid on any painted surfaces.



TEMPLATE NO.	SCALE: 1:1	REV
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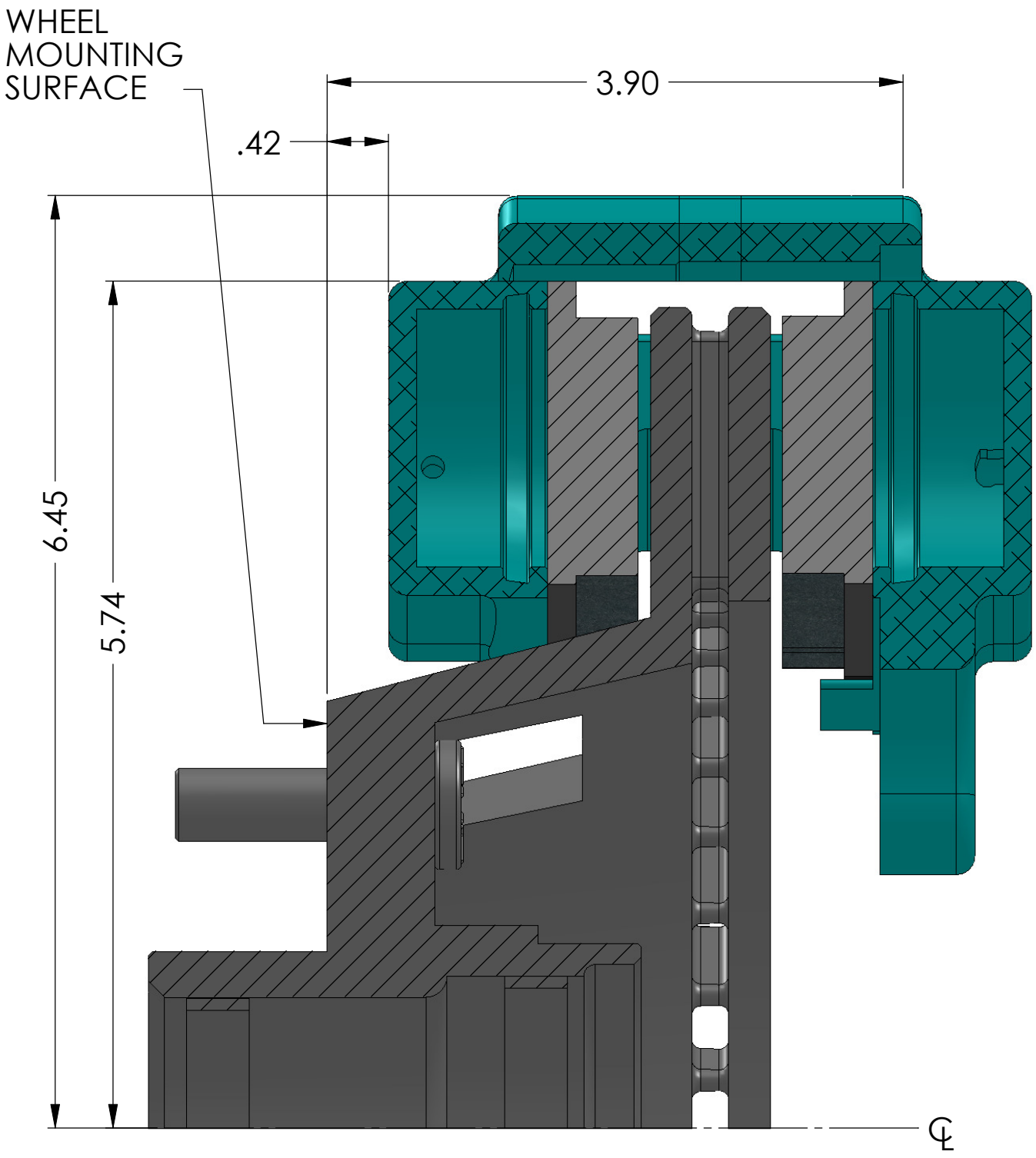

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