

Project 2 Proposal - CAD II

For our second project in CAD II, I wanted to choose an object that would represent my ability in Solidworks, but also relate to my major. As a student in Mechanical Engineering Technology, I am heavily interested in all things with an engine. Choosing an object that related to large engines in cars seemed very complex and would likely be turned down! I opted instead to pursue a smaller engine style, specifically lawnmowers/older weedwhackers/snowblowers that used simple float-style carburetors. These carburetors use a variety of different parts, including pins, fasteners, valves, and a hollow bucket (a fuel “bowl”). I realized that in our CAD II assignments that we have already created taper pins and used the shell command, which would both be needed to create an accurate carburetor model. I have planned to already build a very large Holley Double Pumper 750cfm V8 carb in Solidworks over the summer as a personal project, and I am very excited to explore that geometry on a smaller scale.

For the object in question, I have chosen a Briggs and Stratton 725Ex carburetor that is meant for a modest 190cc lawnmower. It is relatively small, has under 20 parts, and there are service manuals all over the Internet that include an exploded view. There does not seem to be any tutorials on YouTube either. The manufacturer’s website also includes various views of the part itself. Due to my background in hunting for obscure car parts, I have also found a third-party manufacturer that sells the exact same carburetor for \$11 on Amazon. **I plan to purchase this part**, borrow a friend’s pair of digital calipers, and disassemble the carb on my desk so that I can be as thorough as possible. If this is acceptable and appropriate, I would love to model this part for our second project.

Please see details, diagrams, and pictures below that I have gotten from the Internet:

PART: Briggs and Stratton 725Ex Lawnmower Carburetor

- <https://www.briggsstrattonstore.com/Briggs-and-Stratton-725EX-Carburetor-799866-OEM/>

PROPOSED PURCHASED PART FOR PHYSICAL EXAMINATION:

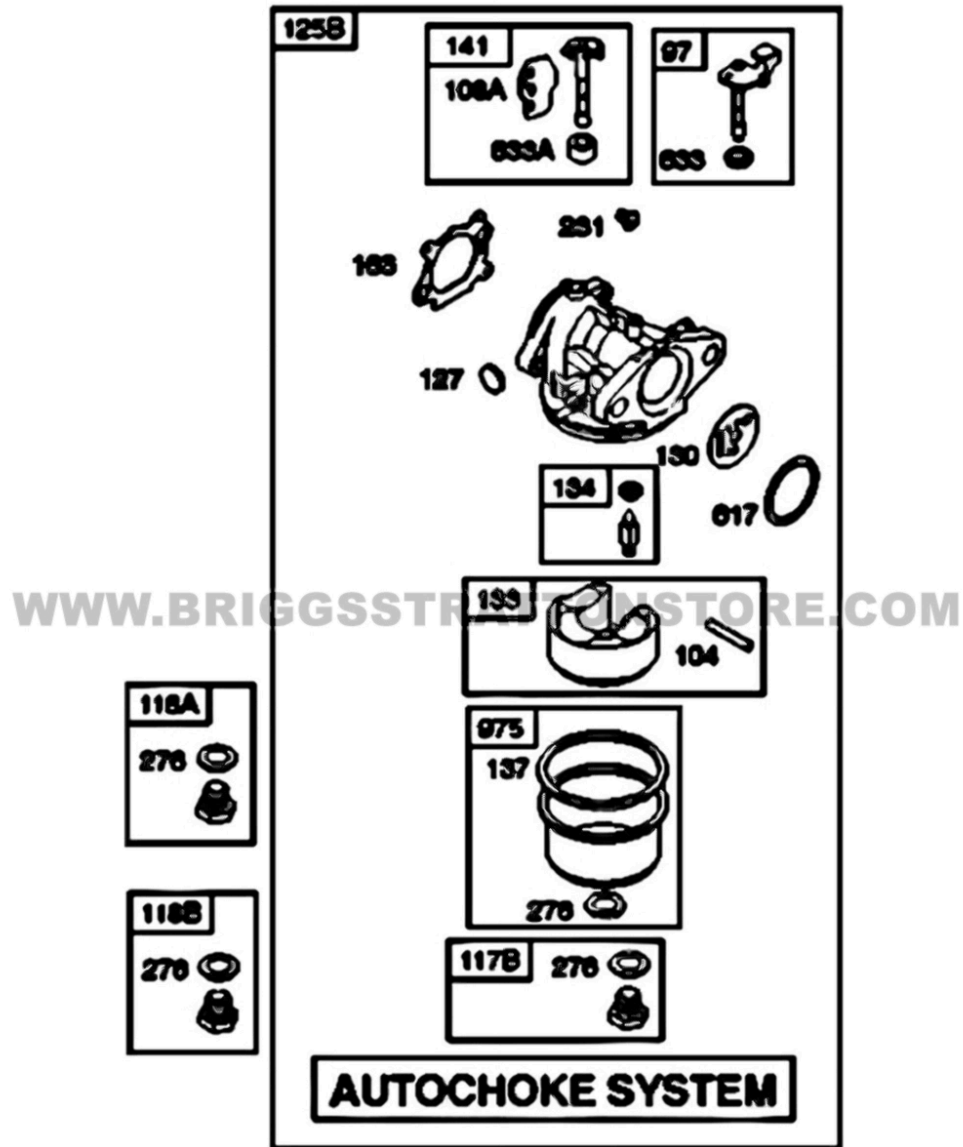
- https://www.amazon.com/LotFancy-Carburetor-Briggs-Stratton-Craftsman/dp/B01M8JURCS/ref=asc_df_B01M8JURCS/?tag=hyprod-20&linkCode=df0&hvadid=198073355985&hvpos=&hvnetw=g&hvrnd=2392326667844604784&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9009934&hvtargid=pla-392190023011&psc=1



View of Amazon Purchase Part w/ Gaskets



Opposing View of Amazon Purchase Part



Only part **799866** included. Other parts in the diagram are shown as reference.

Official Briggs and Stratton Carburetor Diagram (part number verified)



Official Manufacturer's Picture of Carb, Found on Company Website

Note the gaskets are the exact same as the Amazon part



This has a challenging tapered cone to it, with a check ball at the base



This may be the view that gets this proposal denied. Looks cool though!