

# Thrust Augmentation

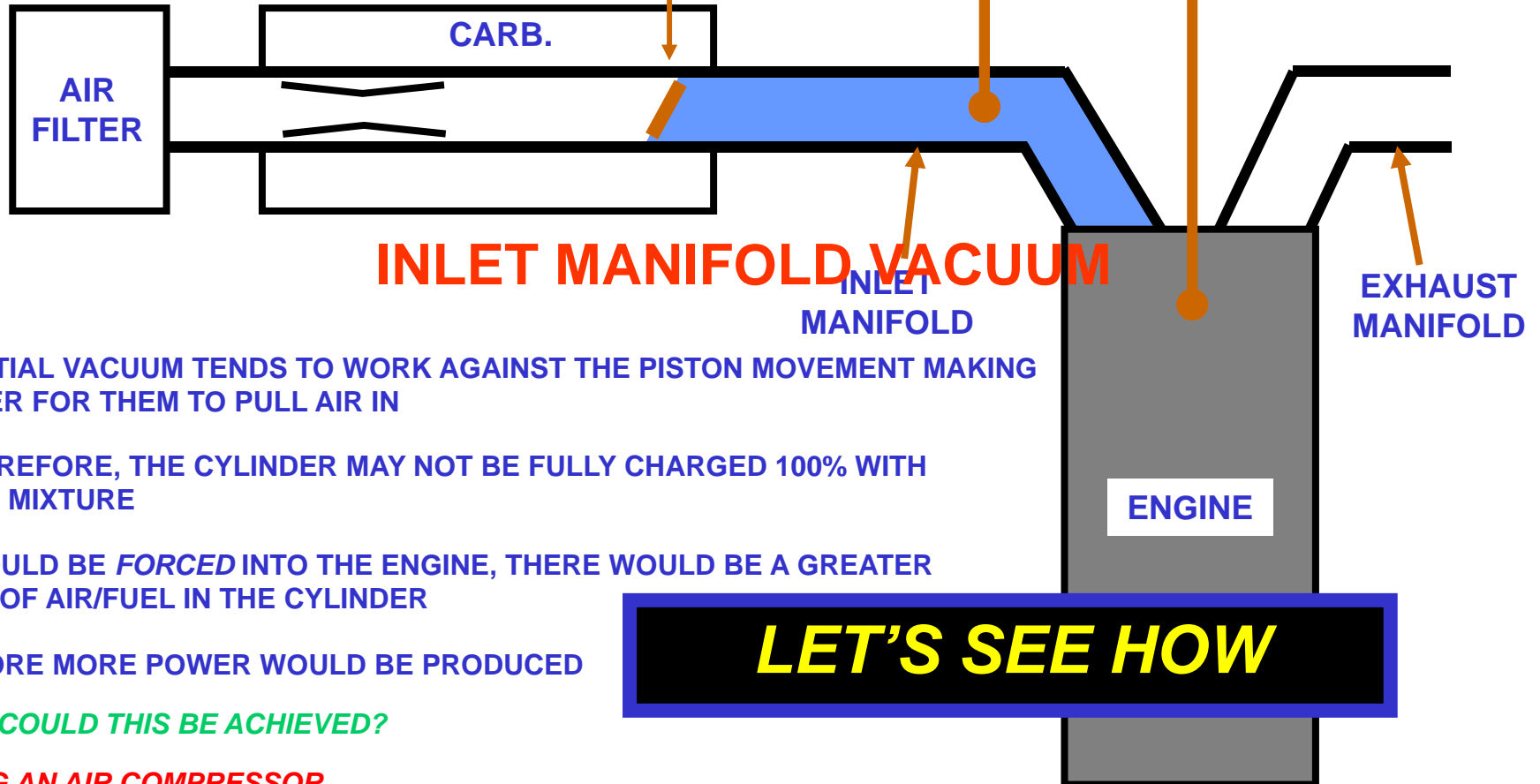
**BASIC OPERATION**

**Power Boosting**

BETWEEN THROTTLE VALVE AND ENGINE IS A PARTIAL VACUUM

AND FLOW RESTRICTION THROUGH THROTTLE VALVE

CAUSED BY SUCTION FROM ENGINE



THE PARTIAL VACUUM TENDS TO WORK AGAINST THE PISTON MOVEMENT MAKING IT HARDER FOR THEM TO PULL AIR IN

AND THEREFORE, THE CYLINDER MAY NOT BE FULLY CHARGED 100% WITH AIR/FUEL MIXTURE

IF AIR COULD BE *FORCED* INTO THE ENGINE, THERE WOULD BE A GREATER VOLUME OF AIR/FUEL IN THE CYLINDER

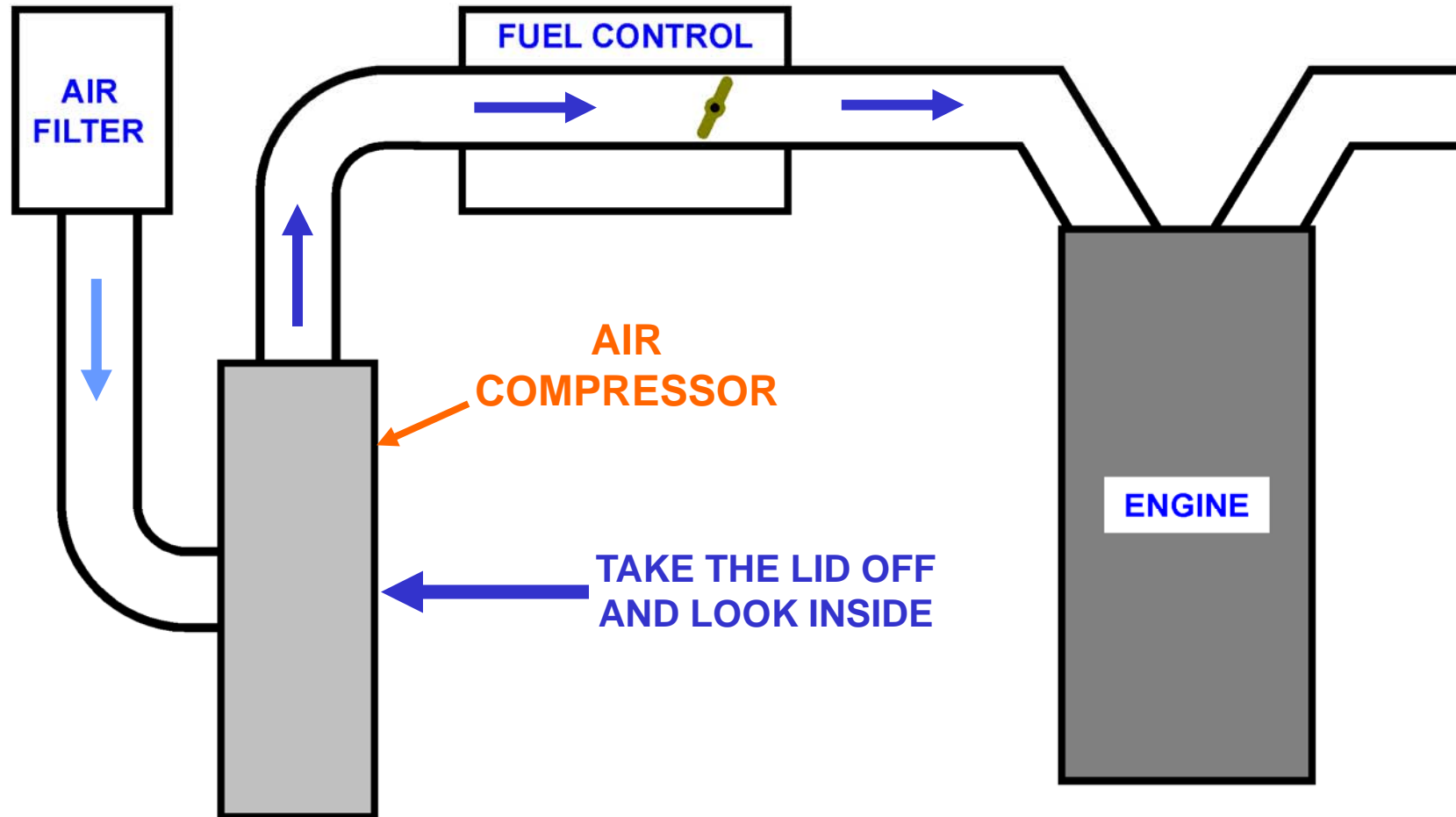
THEREFORE MORE POWER WOULD BE PRODUCED

*SO HOW COULD THIS BE ACHIEVED?*

*BY USING AN AIR COMPRESSOR*

**SIMPLIFIED PISTON ENGINE FUEL SYSTEM**

## AIR COMPRESSOR

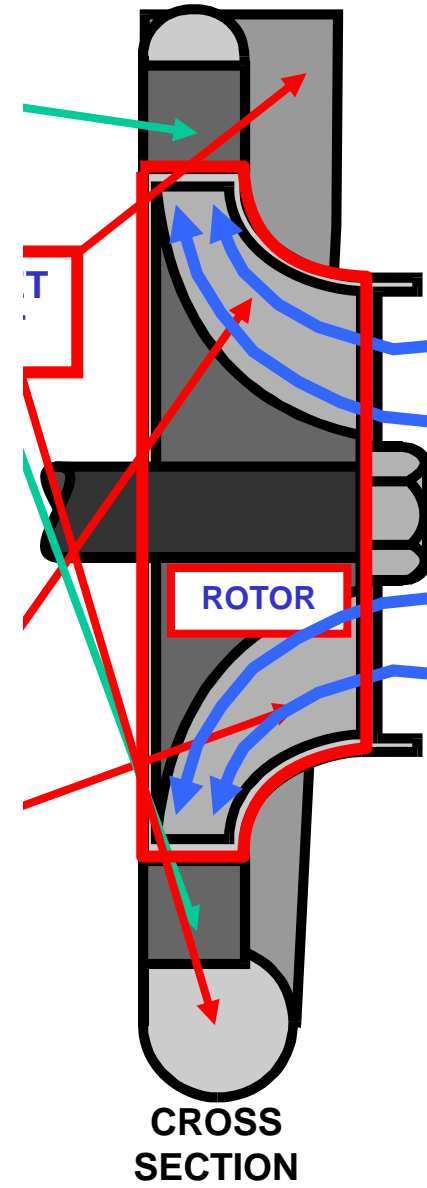


## SIMPLIFIED PISTON ENGINE FUEL SYSTEM

# AIR COMPRESSOR

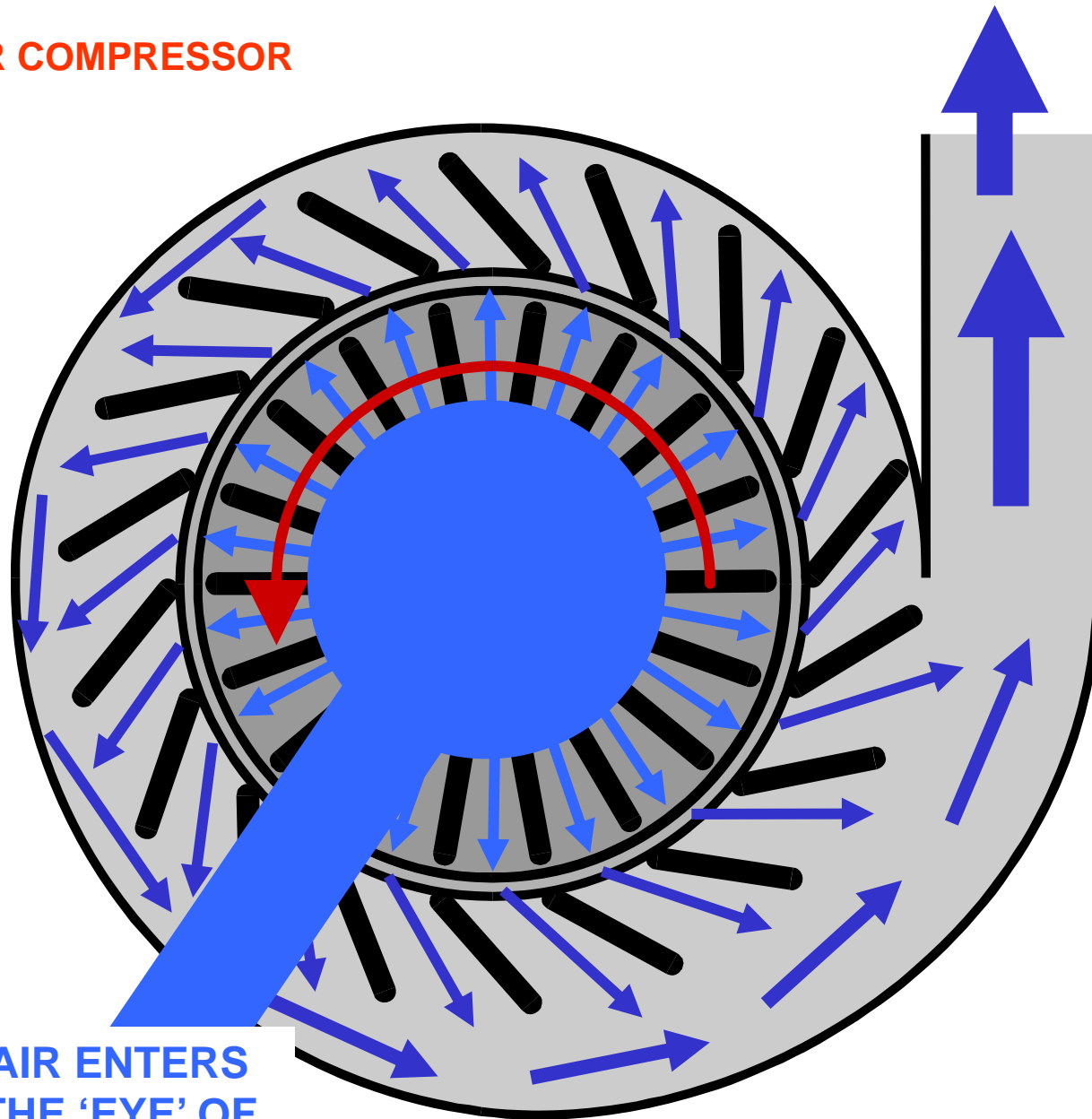


TYPICAL ROTOR

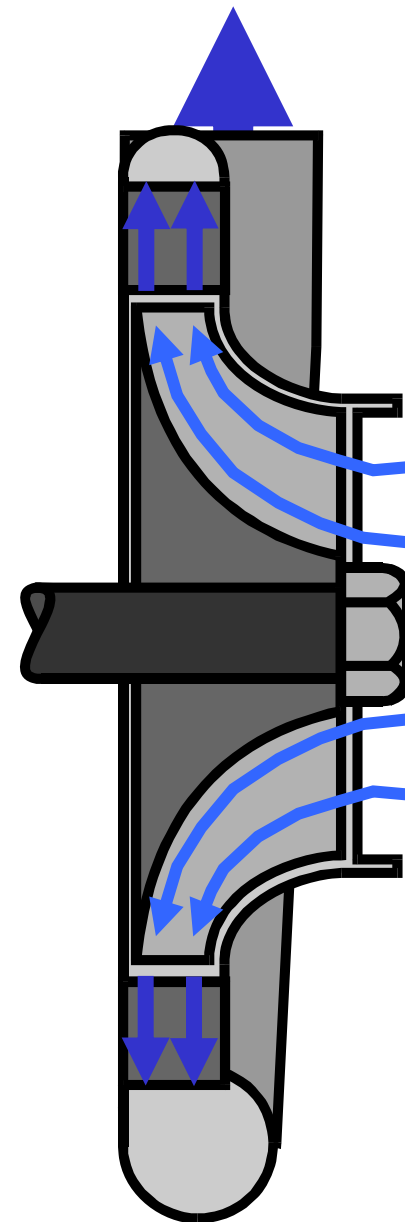


# SIMPLIFIED PISTON ENGINE FUEL SYSTEM

**AIR COMPRESSOR**

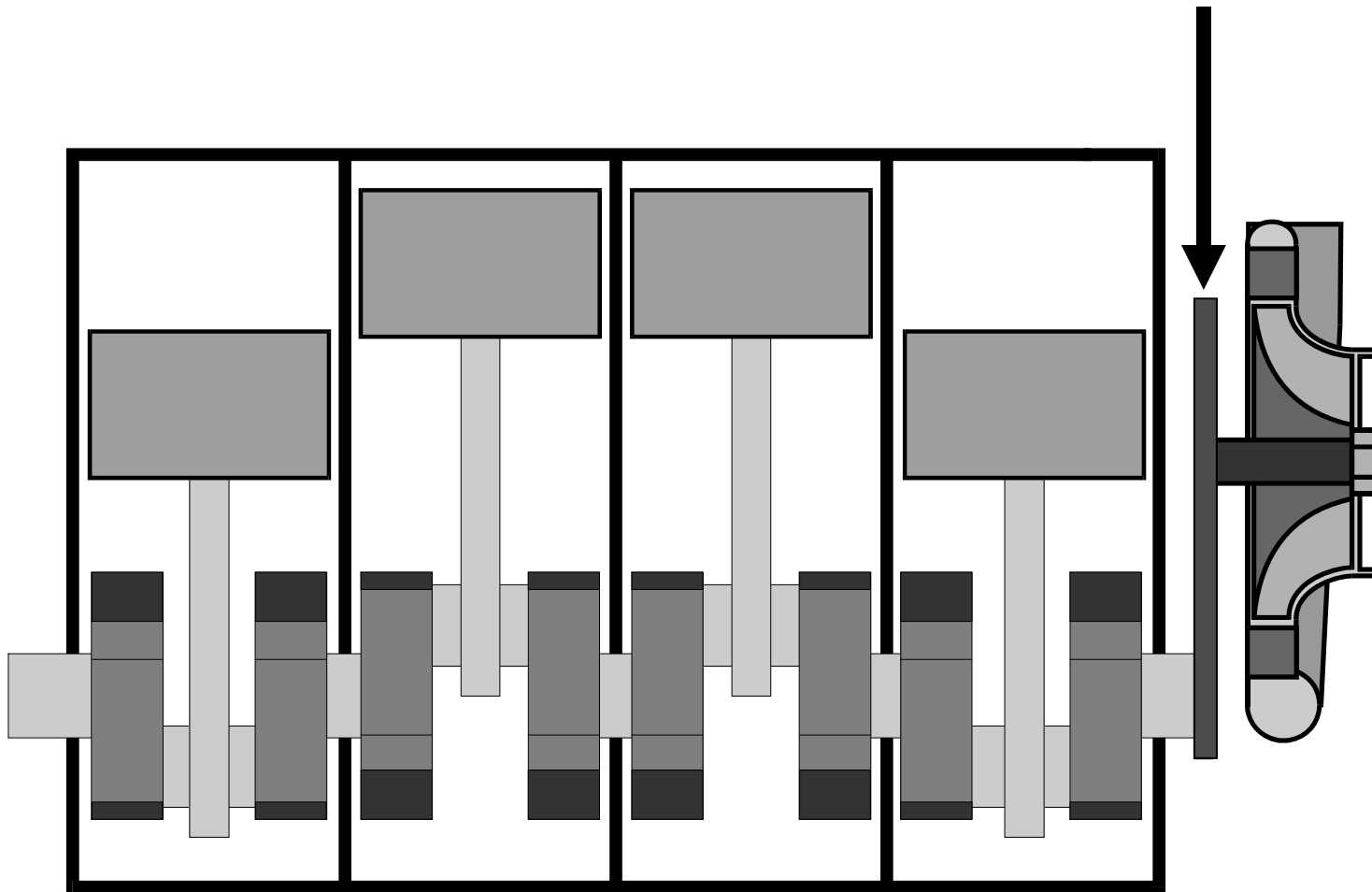


**AIR ENTERS  
THE 'EYE' OF  
THE ROTOR**

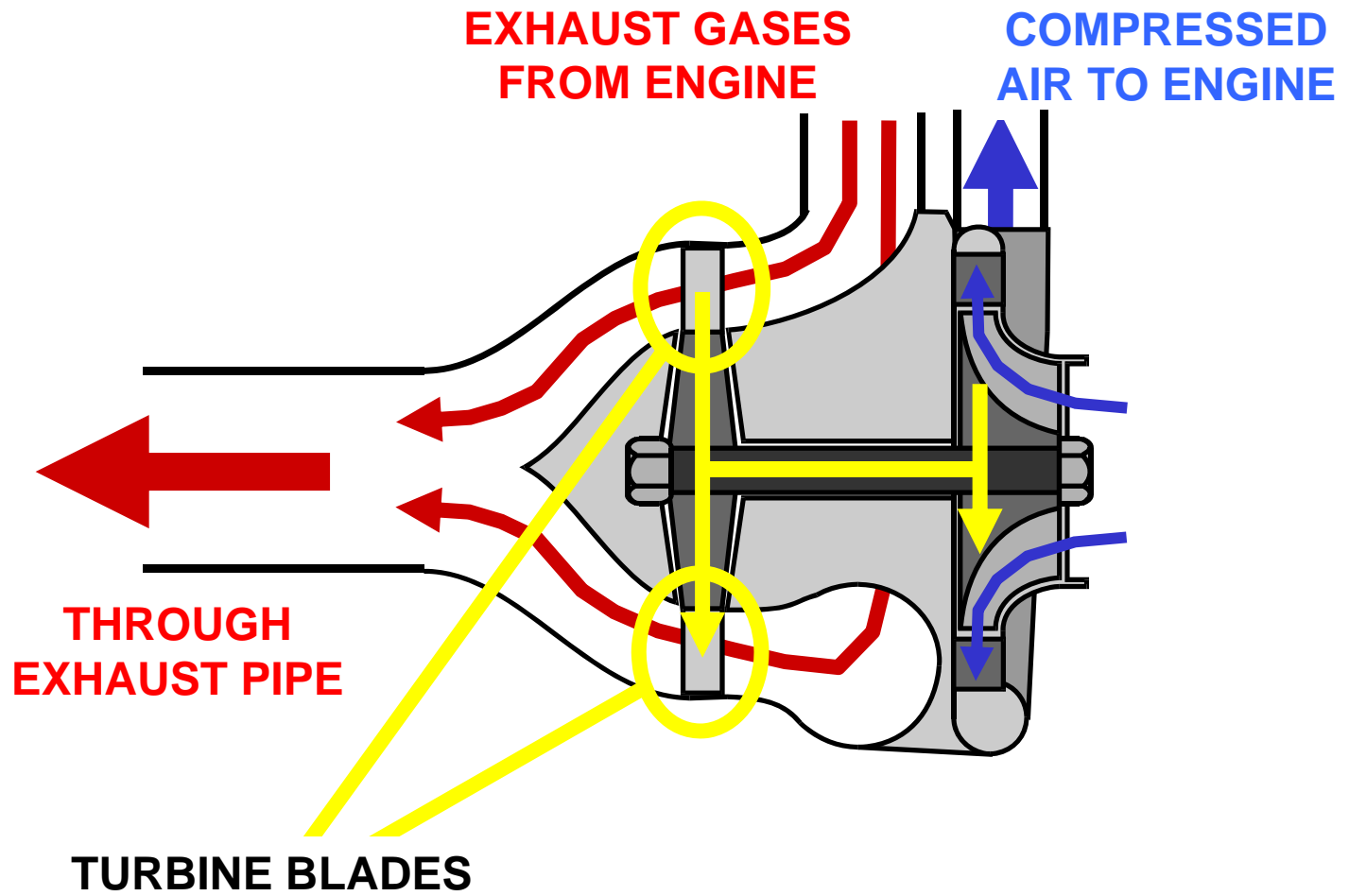


**SIMPLIFIED PISTON ENGINE FUEL SYSTEM**

GEAR OR BELT DRIVE



**SUPERCHARGER – DRIVEN BY THE ENGINE**  
**SIMPLIFIED PISTON ENGINE FUEL SYSTEM**



**TURBOCHARGER SIMPLIFIED PISTON ENGINE FUEL SYSTEM**

**Any questions?**