

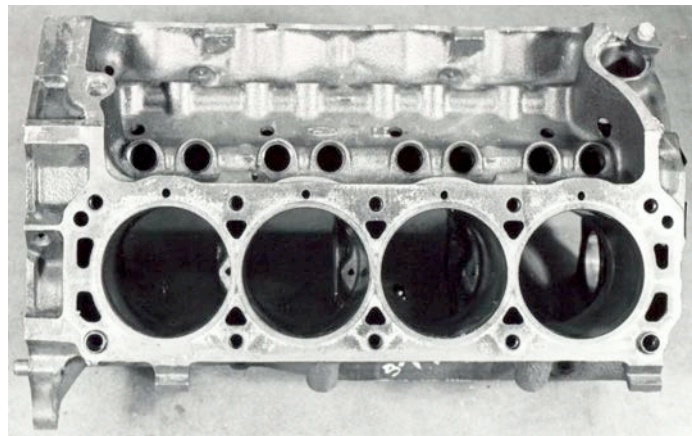
# Gasoline Engine Identification

**Meets NATEF Task:** (A1-A-4) Locate and interpret vehicle and major component identification numbers. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

- \_\_\_\_\_ 1. Number of cylinders = \_\_\_\_\_ Arrangement of cylinders = \_\_\_\_\_
- \_\_\_\_\_ 2. Number and arrangement of camshafts = \_\_\_\_\_
- \_\_\_\_\_ 3. Bore = \_\_\_\_\_ Stroke = \_\_\_\_\_ Cu. in. = \_\_\_\_\_ cc = \_\_\_\_\_ Liters = \_\_\_\_\_
- \_\_\_\_\_ 4. Rated HP = \_\_\_\_\_ @ RPM \_\_\_\_\_
- \_\_\_\_\_ 5. Rated torque = \_\_\_\_\_ @ RPM \_\_\_\_\_
- \_\_\_\_\_ 6. Compression ratio = \_\_\_\_\_
- \_\_\_\_\_ 7. Recommended octane of gasoline required = \_\_\_\_\_
- \_\_\_\_\_ 8. The block is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum



- \_\_\_\_\_ 9. Cylinder head(s) is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum
- \_\_\_\_\_ 10. Intake manifold is: \_\_\_\_\_ one piece \_\_\_\_\_ two pieces (upper and lower) and is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum \_\_\_\_\_ composite

# General Engine Specification

Meets NATEF Task: (A1-A-4) Locate and interpret vehicle and major component identification numbers. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_

Make/Model \_\_\_\_\_ Year \_\_\_\_\_ Instructor's OK

\_\_\_\_\_ 1. Engine type (V-6, V-8, etc.) = \_\_\_\_\_

\_\_\_\_\_ 2. Bore = \_\_\_\_\_

\_\_\_\_\_ 3. Stroke = \_\_\_\_\_

\_\_\_\_\_ 4. Compression ratio = \_\_\_\_\_

\_\_\_\_\_ 5. Displacement: cubic inches = \_\_\_\_\_

cc = \_\_\_\_\_ liter = \_\_\_\_\_

\_\_\_\_\_ 6. Horsepower = \_\_\_\_\_ @ \_\_\_\_\_ RPM

\_\_\_\_\_ 7. Torque = \_\_\_\_\_ @ \_\_\_\_\_ RPM

\_\_\_\_\_ 8. Firing order = \_\_\_\_\_

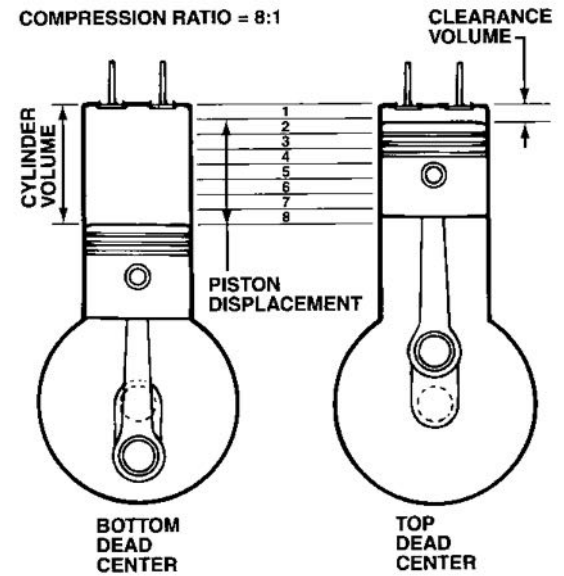
\_\_\_\_\_ 9. Engine oil capacity = \_\_\_\_\_

\_\_\_\_\_ 10. Cylinder block material = \_\_\_\_\_

\_\_\_\_\_ 11. Crankshaft material (forged steel, cast iron) = \_\_\_\_\_

\_\_\_\_\_ 12. Cylinder head material = \_\_\_\_\_

\_\_\_\_\_ 13. Connecting rod material (forged steel, powdered metal, etc.) = \_\_\_\_\_



# Flexible Fuel Vehicle Identification

Meets NATEF Task: (A8-A-3)

Research applicable vehicle and service information. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_

Make/Model \_\_\_\_\_ Year \_\_\_\_\_ Instructor's OK

Many vehicles are manufactured that are capable of operating on fuels other than, or in addition to, regular gasoline. Check service information and determine where it is stated on the vehicle if it is capable of using a fuel other than gasoline and what fuel(s) it is capable of using. Select one vehicle model from each major manufacturer.

Manufacturer	Model	Year	Location of Information	Fuel(s)
General Motors				
DaimlerChrysler				
Honda				
Toyota				
Nissan				
Hyundai				
Kia				
Other				
Other				



# Alternative Fuel Power and Economy Specifications

Meets NATEF Task: (A8-A-3)

Research applicable vehicle and service information. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_

Make/Model \_\_\_\_\_ Year \_\_\_\_\_ Instructor's OK

With vehicles that are designed to use gasoline and alternative fuel, such as E-85, manufacturers usually rate the horsepower, torque, and EPA fuel economy ratings separately. Select four flex-fuel vehicles and using service information locate the values for both gasoline and the alternative fuel.



Vehicle #1 Make \_\_\_\_\_ Model \_\_\_\_\_ Year \_\_\_\_ Engine \_\_\_\_\_

	HP	Torque	City MPG	Highway MPG
Gasoline				
Alternative Fuel				

Vehicle #2 Make \_\_\_\_\_ Model \_\_\_\_\_ Year \_\_\_\_ Engine \_\_\_\_\_

	HP	Torque	City MPG	Highway MPG
Gasoline				
Alternative Fuel				

Vehicle #3 Make \_\_\_\_\_ Model \_\_\_\_\_ Year \_\_\_\_ Engine \_\_\_\_\_

	HP	Torque	City MPG	Highway MPG
Gasoline				
Alternative Fuel				

Vehicle #4 Make \_\_\_\_\_ Model \_\_\_\_\_ Year \_\_\_\_ Engine \_\_\_\_\_

	HP	Torque	City MPG	Highway MPG
Gasoline				
Alternative Fuel				

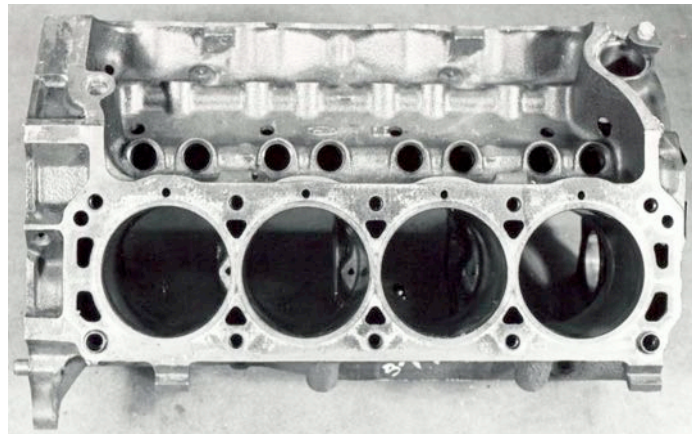
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Name \_\_\_\_\_ Date \_\_\_\_\_

Make/Model \_\_\_\_\_ Year \_\_\_\_\_ Instructor's OK

- \_\_\_\_\_ 1. Number of cylinders = \_\_\_\_\_ Arrangement of cylinders = \_\_\_\_\_
- \_\_\_\_\_ 2. Number and arrangement of camshafts = \_\_\_\_\_
- \_\_\_\_\_ 3. Bore = \_\_\_\_\_ Stroke = \_\_\_\_\_ Cu. in. = \_\_\_\_\_ cc = \_\_\_\_\_ Liters = \_\_\_\_\_
- \_\_\_\_\_ 4. Rated HP = \_\_\_\_\_ @ RPM \_\_\_\_\_
- \_\_\_\_\_ 5. Rated torque = \_\_\_\_\_ @ RPM \_\_\_\_\_
- \_\_\_\_\_ 6. Compression ratio = \_\_\_\_\_
- \_\_\_\_\_ 7. Recommended octane of gasoline required = \_\_\_\_\_
- \_\_\_\_\_ 8. The block is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum



- \_\_\_\_\_ 9. Cylinder head(s) is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum
- \_\_\_\_\_ 10. Intake manifold is: \_\_\_\_\_ one piece \_\_\_\_\_ two pieces (upper and lower) and is constructed of: \_\_\_\_\_ cast iron \_\_\_\_\_ aluminum \_\_\_\_\_ composite
- \_\_\_\_\_ 11. Casting numbers on the block \_\_\_\_\_ Cylinder head(s) \_\_\_\_\_ Crankshaft \_\_\_\_\_