



Mobile Health
www.adi-mobilehealth.com

Designers and Manufacturers of Mobile Health Clinics

Gas vs. Diesel – Which is Right for You?

ADI Mobile Health has designed and built mobile clinics with both gasoline and diesel engines. During the design process, customers often ask which chassis is better, has the most power, or is the more cost effective for their Mobile Health program.

There are four critical factors to consider when comparing gasoline and diesel engines: (1) purchase price, (2) fuel economy & fuel cost, (3) maintenance and operational costs and (4) environmental impact.

Purchase Price: A Winnebago commercial shell with a diesel chassis will cost approximately \$40,000 more to purchase than a commercial shell with a gasoline chassis. This chart compares Winnebago’s 2018 commercial shell retail prices for the diesel and gasoline chassis.

BASE PURCHASE PRICE						
MODEL	Ford Gasoline Chassis			Freightliner FRED Diesel Chassis		
	Engine	HP	Price	Engine	HP	Price
WFJ33S	6.8 V-10	362	\$ 123,213.00	Cummins 6.7L	340	\$ 166,505.00
WFJ38S	6.8 V-10	362	\$ 138,380.00	Cummins 6.7L	340	\$ 176,544.00

Fuel Economy (Mileage) & Fuel Cost: Diesel engines generally provide greater fuel efficiency than gasoline engines. The Ford V-10 gasoline engine averages between 6-10 mpg, while the Cummins diesel engine averages between 8-14 mpg. This greater efficiency helps offset the higher price of diesel fuel.

Historically, diesel fuel has been more expensive per gallon than gasoline due to higher fuel taxes and compliance with environmental restrictions. This chart compares the average prices for gasoline and diesel fuel throughout the United States as of May 2019.

AVERAGE PRICE PER GALLON			
Location	Gasoline (Regular)		Diesel
East Coast - NJ	\$	2.94	\$ 3.21
North East - Maine	\$	2.83	\$ 3.17
Gulf Coast - FL	\$	2.79	\$ 3.01
Midwest - MN	\$	2.76	\$ 3.01
Southwest - TX	\$	2.61	\$ 2.83
Rocky Mountains - CO	\$	2.80	\$ 3.05
West Coast - CA	\$	4.09	\$ 4.11

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Maintenance Costs: Gas engines and generators are generally less expensive to service and maintain. Service centers for Ford and Freightliner are located in many locations throughout the United States. Since 2010, all diesel engines are required to use Diesel Exhaust Fluid (DEF) which allows the engine to burn cleaner. A standard DEF tank has a capacity of approximately 13 gallons. Driving 10,000 miles annually will require filling the DEF tank about three times a year.

A comparison of standard maintenance costs for gasoline and diesel engines is listed below as a guideline. These figures are based on driving an average of 10,000 miles per year.

TYPICAL MAINTENANCE COSTS				
Maintenance Needed	Gasoline		Diesel	
	How Often	Price	How Often	Price
Oil Change & Filters	5,000 Miles	\$ 135.00	6,000 Miles	\$ 375.00
Transmission Fluid	60,000 Miles	\$ 170.00	Every 2 Years	\$ 315.00
Engine Air Filter	40,000 Miles	\$ 80.00	40,000 Miles	\$ 300.00
Spark Plugs	100,000 Miles	\$ 400.00	N/A	N/A
DEF Replacement	N/A	N/A	3,000 Miles	\$ 110.00
Total Yearly Expense (@ 10,000 Miles/yea		\$ 403.00		\$ 1,312.00

Environmental Impact: According to EPA statistics a gasoline engine running on 10% ethanol gasoline (regular standard unleaded) emits 18.95 pounds of carbon dioxide emissions per gallon. A diesel engine averages 22.38 pounds of carbon dioxide emissions per gallon. However, diesel fuel's higher energy content per gallon results in greater fuel efficiency, meaning that diesel fuel's greenhouse gas emissions are only slightly higher on average than those of a gasoline engine.

Other Factors to Consider:

- Diesel engines are heavier than gasoline engines, and produce more noise and vibration.
- A diesel engine has greater torque at lower engine speeds, allowing the vehicle to climb hills more easily.
- A gasoline engine has more horsepower than a diesel engine, allowing you to speed up faster when merging into traffic.
- Gasoline engines are easier to start and heat up more quickly in colder climates and at higher altitudes than diesel.
- Diesel engines have greater longevity than gasoline engines when properly maintained.

ADI recommends preparing an estimate of your mobile health programs projected annual mileage when evaluating the pros and cons of the respective chassis. The diesel chassis may be a better option for high mileage (over 50,000 miles per year) programs, while the gasoline chassis may be a better option for programs with less than 50,000 miles per year. If you are still not sure which chassis is best for you, our friendly and knowledgeable sales staff are here to help you with this decision.