

SUPER DUTY

CHASSIS CERTIFICATION VS. DYNO CERTIFICATION



Truck certification can be complicated. This can lead to customer questions relating to engine power ratings and the difference between the same powertrains in Super Duty® Pickup and Chassis Cab. This Q&A will help provide a better understanding of the ratings differences and the process behind the ratings.

Q What are the different EPA certification methods that affect engine power rating?

A The EPA uses two methods to test and rate the engines for all manufacturers. The tests are completely different.

The EPA emission certification processes are:

- **Chassis Certification** – Conducted on **complete trucks** with a Gross Vehicle Weight (GVW) of under 14,000 lbs. This process tests and rates emission output of the powertrain (such as in a Pickup)
- **Dyno Certification** – Conducted on **powertrain components** (the engine, aftertreatment components, etc.). This process rates emission output of the engine combined with aftertreatment components that will go into trucks (such as Chassis Cabs) with a 14,000-lb. GVW or greater.
- The load cases and emission output restrictions between **Chassis** and **Dyno Certifications** are quite different. That, in turn, requires calibration revisions to meet emission output standards set by the EPA. The certification process results in different horsepower and torque ratings between Pickups and Chassis Cabs. **This is true for all Chassis Cab manufacturers.**

Q What 2019 Super Duty engines are rated using the EPA Chassis Certification?

A Both Super Duty Pickup engines, the 6.2L FFV gasoline V8 and the 6.7L Power Stroke® V8 Turbo Diesel, are rated using the Chassis Certification. In addition, the 6.2L FFV V8 gasoline engine in the Super Duty Chassis Cab is rated using the Chassis Certification.

Q What 2019 Super Duty Chassis Cab engines are rated using the EPA Dyno Certification?

A The 6.8L SEFI V10 and 6.7L Power Stroke Turbo Diesel V8 engines have a Dyno Certification for power ratings. This is the third year for the 6.8L SEFI V10 to have a Dyno Certification power rating, due to the emissions testing standards. Note: The 6.2L FFV gasoline engine is not Dyno Certified.



Q Why do Pickups and Chassis Cabs have different horsepower and torque ratings when they have the same 6.7L Power Stroke® V8 Turbo Diesel engine?

A While the Super Duty® Pickups and Chassis Cabs share the same “base architecture” 6.7L Power Stroke diesel engine, there are different turbochargers and other components between the Chassis Cab and complete Pickup applications. In addition to the different turbochargers, the Pickup engine is rated for using the Chassis Certification methods, while the Chassis Cab engine is rated for using the Dyno Certification methods.

Q When is Chassis Certification required vs. Dyno Certification? Does Ford have any control over that, or is it dictated by federal regulation?

A Certification is dictated by EPA and California legislation regulation as follows:

- A 8,500-lb. – 10,000-lb. GVW must be Chassis Certified
- A 10,000-lb. – 14,000-lb. GVW may be either Chassis or Dyno Certified. Ford and its competitors use Chassis Certification for this GVW range, thus allowing them to show a 20% – 25% higher rating
- A 14,000-lb. GVW and over are required to use Dyno Certification

Q What’s preventing Ford from equalizing horsepower and torque so they are the same?

A The differences in certification protocols required by the EPA.

Q What are the certification differences between Pickups and Chassis Cabs in terms of regulatory and emissions testing?

A All Super Duty Pickups are Chassis Certified, which **does not** require exhaust gas recirculation (EGR) at full power to pass the emissions test.

Chassis Cabs and Medium Duty trucks are Dyno Certified, which **does** require EGR in order to pass the emissions test.

GVW, and whether a vehicle is complete or not, largely defines whether or not a vehicle is Chassis Certified. Complete vehicles under 14,000 lbs. GVWR use Chassis Certification. Generally, incomplete vehicles and vehicles over 14,000-lb. GVWR use Engine Dyno Certification. In general, regulatory agencies expect most trucks over 14,000 lbs. to have incomplete ratings, due to the variety of buildable combinations.

Q If desired, can I replace my Chassis Cab turbocharger with the Pickup turbocharger to get the higher horsepower and torque ratings?

A The turbochargers are not directly interchangeable. In addition, the expense to change the turbocharger would be excessive and likely not worth the effort, as the vehicle still requires a Dyno Certification, which will produce lower ratings.

Q Does a Dyno-Certified engine out perform a Chassis- Certified engine or vice versa?

A Not really. Both certification family engines are designed to meet EPA emission standards and deliver the work performance our customer’s demand.

Vehicle	Engine	Certification	
		Dyno	Chassis
Pickup	6.2L FFV V8		X
	6.7L Power Stroke V8 Turbo Diesel		X
Chassis Cab	6.2L FFV V8		X
	6.7L Power Stroke V8 Turbo Diesel	X	
	6.8L SEFI V10	X	