

# Diesel Emissions Quantifier Default Values

This document contains default values for usage fields in the Diesel Emissions Quantifier (DEQ). The use of your “real world” data will provide more accurate estimates of emissions and reductions and is strongly encouraged.

## Onroad Default Values

*Source: Moves 2014a Model*

Vehicle Type	VMT (mi/yr)	Fuel Use (gal/yr)	Idling Hours (hrs/yr)	Hoteling Hours (hrs/yr)
Long Haul - Combination	92,380	17,349	115	1,110
Long Haul - Single Unit	21,766	1,984	43	N/A
Refuse Hauler	23,646	3,993	50	N/A
School Bus	14,084	1,360	107	N/A
Short Haul - Combination	31,874	5,415	41	N/A
Short Haul - Single Unit	14,962	1,463	30	N/A
Transit Bus	44,782	6,131	340	N/A

## Vehicle Types and Classes

*Source: Moves 2014a Model*

Vehicle Types used in MOVES and DEQ are classified by Gross Vehicle Weight (GVW) as defined in 40 CFR 565.15. The following table shows the default and optional classes in DEQ for each vehicle type.

Vehicle Type	Default and Optional Classes in DEQ				
	LHD Class 3 10,001-14,000 lbs	LHD Class 4-5* 14,001-19,500 lbs	MHD Class 6-7* 19,501-33,000 lbs	HHD Class 8 > 33,000 lbs	Bus
Long Haul – Combo	-	-	-	X (Default)	-
Long Haul - Single	X	X	X	X	-
Refuse Hauler	-	-	-	X (Default)	-
School Bus	-	-	X (Default)	-	-
Short Haul - Combo	-	-	X	X	-
Short Haul - Single	X	X	X	X	-
Transit Bus	-	-	-	-	X (Default)

\* MOVES combines Classes 4 and 5 and Classes 6 and 7.

## Nonroad Default Values

**Source for Usage: Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling NR-005d ([EPA-420-R-10-016](#), July 2010)**

**Source for Power: Nonroad Engine Population Estimates NR-006e ([EPA-420-R-10-017](#), July 2010).**

The NONROAD model contains a range of horsepower values for each vehicle type. The horsepower that appears most often for each vehicle type has been used in DEQ.

Vehicle Type	Usage rate (hrs/yr)	Power (HP)	Fuel use (gal/yr)
2-wheel tractor	544	11	148
AC Refrigeration	1,341	50	1,491
Aerial Lifts	384	50	277
Agricultural Mowers	363	100	944
Agricultural Tractors	475	175	1,855
Airport Support Equipment	732	175	4,354
Balers	95	75	254
Bore/Drill Rigs	466	175	1,955
Cement & Mixers	275	75	137
Combines	150	175	848
Concrete/Industrial Saws	580	N/A	N/A
Cranes	990	175	4,403
Crawler Tractors	936	175	8,887
Crushing/Proc. Equipment	955	75	3,115
Dumpers/Tenders	566	40	284
Excavators	1092	175	6,063
Forklifts	1,700	75	5,429
Graders	962	300	6,175
Irrigation Sets	749	100	1,716
Light Commercial Air Compressors	815	N/A	N/A
Light Commercial Gas Compressors	8500	N/A	N/A
Light Commercial Generator Sets	338	N/A	N/A
Light Commercial Pressure Washer	145	N/A	N/A
Light Commercial Pumps	403	N/A	N/A
Light Commercial Welders	643	N/A	N/A
Logging Equip. Fell/Bunch/Skidlers	1,276	N/A	N/A
Off-Highway Tractors	855	750	22,584
Off-Highway Trucks	1,641	750	43,422
Other Agricultural Equipment	381	175	1,912
Other Construction Equipment	606	300	6,012
Other General Industrial Equipment	878	100	1,841
Other Material Handling Equipment	421	175	674
Pavers	821	175	2,980
Paving Equipment	622	175	1,473
Plate Compactors	484	6	82
Rollers	760	100	2,216
Rough Terrain Forklifts	662	75	2,042
Rubber Tire Loaders	761	175	5,721
Scrapers	914	600	11,086
Signal Boards	535	25	265
Skid Steer Loaders	818	75	578
Sprayers	90	175	438
Surfacing Equipment	561	N/A	N/A
Swathers	110	100	330
Sweepers/Scrubbers	1,220	N/A	N/A
Tampers/Rammers	460	N/A	N/A
Terminal Tractors	1,257	175	6,780
Tillers > 6HP	172	N/A	N/A
Tractor/Loaders/Backhoes	1,135	100	1,472
Trenchers	593	N/A	N/A