

TECH TIP

Group:	O-GENERAL
Bulletin No:	TT-15-024
Issue Date:	7-28-2015

CONVENTIONAL EXPECTED VALUES

SUBJECT VEHICLES: 05MY-07MY Conventional Light Duty Truck (LDT) with a J05E engine.

Note: This tech tip is provided as technical information and is not authorization for a warrantable repair.

OVERVIEW:

During engine performance diagnostics, comparative readings from a like engine can be useful. Below are data points from a known good engine to use for comparisons.

Parameter	Ave Value @ Idle	Ave Value @ 980	Ave Value @ 1500
Engine coolant temperature	59°C / 138°F	79°C / 174°F	79°C / 174°F
Engine revolution	750rpms	976rpms	1467 RPMs
Speed	0 mph	0 mph	0 mph
Intake air temperature	30°C / 86°F	31°C / 88°F	32°C / 90°F
Intake air flow rate	31 g/s	45 g/s	54 g/s
Common rail pressure	35MPa / 5076 PSI	47MPa / 6817PSI	67MPa / 9718PSI
Atmospheric pressure	97KPa / 14PSI	97KPa / 14PSI	98KPa / 14PSI
Accelerator pedal position sensor #1	0%	0% -Used Idle Up	28% - Used Accelerator
Accelerator pedal position sensor #2	0%	0% -Used Idle Up	28% - Used Accelerator
Intercylinder injection quantity correction value (1 cylinder)	0.14mm3/st	-0.02mm3/st	0.59mm3/st
Intercylinder injection quantity correction value (2 cylinders)	1.13mm3/st	0.9mm3/st	0.82mm3/st
Intercylinder injection quantity correction value (3 cylinders)	-1.55mm3/st	-1.84mm3/st	-2.08mm3/st
Intercylinder injection quantity correction value (4 cylinders)	1.51mm3/st	1.14mm3/st	0.67mm3/st
Injection quantity	18.2mm3/st	16mm3/st	15.2mm3/st
Target EGR opening	0%	0%	21%
Target VNT opening	85%	83%	73%
Target engine speed	750rpms	980rpms	1300rpms
Target common rail pressure	35MPa / 5076 PSI	47MPa / 6817PSI	67MPa / 9718PSI
Final accelerator opening	0%	0%	28%
G Active flag	1	1	1
NE Active flag	1	1	1
Regeneration switch ON flag	0	0	0
Pump control mode	2	2	2
Completion flag for pump difference learning	2	2	2
Speed upper limit of speed limiter	180 mph	180 mph	180 mph
Speed limiter speed rewritten by the user	161 mph	161	161
VNT actual opening (DC motor)	85 %	83 %	73 %
PWM accelerator opening	0 %	0 %	0 %
Exhaust brake light	0	0	0
Preheater light	0	0	0
Cruise light	0	0	0
Constant speed lights	0	0	0
MIL(Check engine light)	0	0	0
FS limiter operation light	0	0	0
Speed limiter light	0	0	0
Boost alarm light	0	0	0
Cruise retarder relay	0	0	0
Exhaust brake solenoid valve	0	0	0
Transmission retarder relay	0	0	0
Idle stop enabling signal	1	1	1
PTO accelerator sensor opening	0 %	0 %	0 %
IMC volume opening	14 %	50 %	90 %



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PTO accelerator sensor voltage	0.02 volts	0.02 volts	0.02 volts
IMC volume voltage	0.69 volts	2.41 volts	4.29 volts
Idling stop suspension request	0	0	0
Number of freeze frames	10	10	10
Constant speed main switch raw value	0	0	0
Constant speed main switch identification value	0	0	0
Cruise control switch CANCEL	0	0	0
Cruise control switch SET/COAST	0	0	0
Cruise control switch RES/ACC	0	0	0
Brake switch 1	0	0	0
Main switch in vehicles raw value	0	0	0
Main switch in vehicles identification value	0	0	0
Fuel temperature	32°C / 90°F	37°C / 99°F	41°C / 106°F
Pump current target final value	1780mA	1737mA	1659mA
Accelerator sensor voltage No. 1	0.8 volts	0.8 volts	1.66 volts
Accelerator sensor voltage No. 2	1.59 volts	1.59 volts	2.45 volts
All DTCs	1	1	1
Start switch	0	0	0
Air conditioner switch	0	0	0
Neutral switch	1	1	1
Stop light switch	0	0	0
Diesel particulate active reduction switch	0	0	0
Engine oil pressure switch	0	0	0
Idling stop switch	0	0	0
Exhaust brake switch	0	0	0
Engine stop switch	0	0	0
Start control switch	0	0	0
PTO switch	0	0	0
AT identification signal	1	1	1
Clutch stroke switch	0	0	0
Clutch switch	0	0	0
Back light switch	0	0	0
Key switch	1	1	1
Idle switch	0	0	0
Diagnosis switch	0	0	0
Bus warm-up switch	0	0	0
Warm-up switch	0	0	0
Glow relay	0	0	0
EGR lift sensor opening #1	0	0	22
DPR regeneration system indicator	0	0	0
Differential pressure	0 psi	0 psi	0 psi
Intake air pressure	15 psi	15.6 psi	15.6 psi
Exhaust gas temperature (IN)	34°C / 93°F	34°C / 93°F	34°C / 93°F
Exhaust gas temperature (OUT)	34°C / 93°F	34°C / 93°F	34°C / 93°F



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