Countries:	CANADA, UNITED STATES	**Document ID**:	IK1200516
Availability:	ISIS, Bus ISIS, FleetISIS	**Revision**:	5
Major System:	ENGINES	**Created**:	8/22/2010
Current Language:	English	**Last Modified**:	2/11/2013
Other Languages:	Français, Español,	**Author**:	Eric George
Viewed:	97545		

Less Info

Hide Details Coding Information

Copy Link	Copy Relative Link	Bookmark	Add to Favorites	Print	Provide Feedback	Helpful	Not Helpful
		View My Bookmarks				7578	14939

Title: 2010 MaxxForce DT 9 and 10 Diagnostic Trouble Codes DTC

Applies To: 2010 MaxxForce DT 9 and 10

DESCRIPTION

2010 model year vehicles no longer utilize DTC identification by number. DTCs are now identified using the SPN and FMI identifiers only. These two identifiers, known as the Suspect Parameter Number (SPN) and the Failure Mode Indicator (FMI) are displayed in the DTC Window.

Suspect Parameter Number (SPN) - The SPN identifies the individual component causing the DTC.

Failure Mode Indicator (FMI) - The FMI identifies the type of failure of the individual component.

Pending Faults - Pending faults are possible faults that were detected on the first drive cycle and do not turn on the Malfunction Indicator Lamp (MIL). Only a Heavy Duty Onboard Diagnostic (HD-OBD) fault can be set as pending.

Active Faults - Active faults or HD-OBD faults that were detected in the second drive cycle are currently active right now.

Previous Active Faults - Previous active faults are historical faults that were detected in a previous drive cycle, but are not currently present.

Permanent Faults - Permanent faults are historic faults and should not be treated as a current problem with the control system. When an active HD-OBD fault is set, a permanent fault is also set. (Up to four permanent fault codes can be stored at one time.) A permanent fault code cannot be cleared with the Electronic Service Tool (EST) alone. There are only three ways to clear permanent fault codes:

The monitor that set the code must execute and pass on three consecutive drive cycles.
The active codes are cleared with an Electronic Service Tool (EST). The monitor that set the code must execute the minimum number of times that are needed to set the fault and pass each time.
Engine Control Module (ECM) calibration update.

Freeze Frame data provides a snapshot or record of the conditions of the engine control system at the time the fault code was set. This can be helpful information when trying to duplicate the conditions that the code was set at. Freeze Frame Data is cleared as soon as the DTC is cleared.

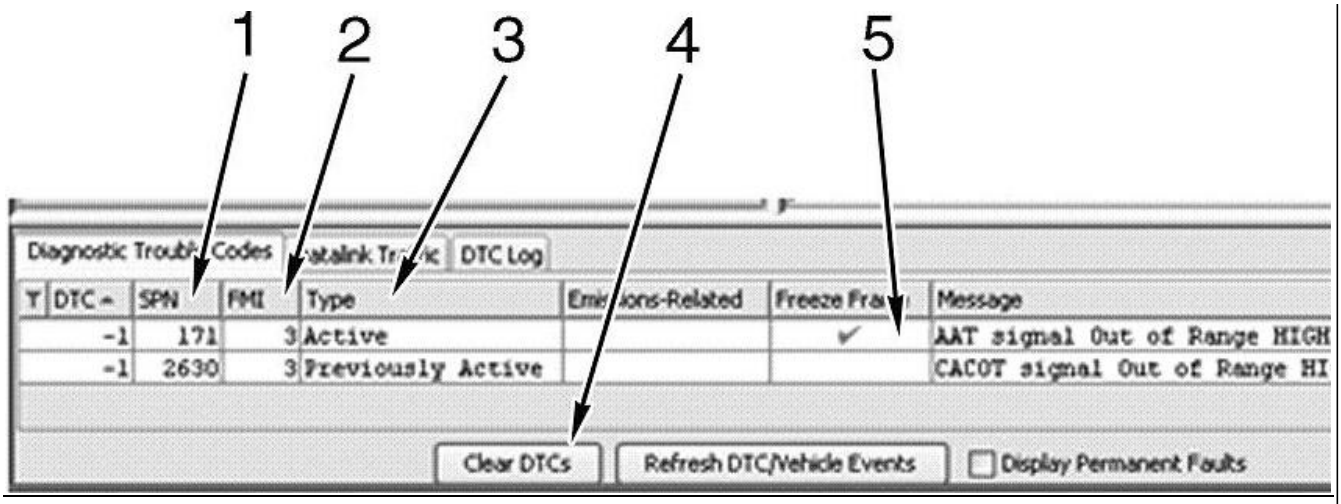

Figure 1: 2010 MaxxForce DTC list in ServiceMaxx
1. Suspect Parameter Number (SPN)
2. Failure Mode Indicator (FMI)
3. Fault Code Type
4. Clear DTCs
5. Freeze Frame Data Available

SPN	FMI	Circuit	Condition Description
27	0	EGR	EGRP fault: over temperature
27	3	EGR	EGRP signal Out of Range HIGH
27	4	EGR	EGRP signal Out of Range LOW
27	7	EGR	EGRP does not agree with commanded position
27	14	EGR	EGR internal circuit failure
51	2	ETV	ETP feedback signal error
51	7	ETV	ETP does not agree with commanded position
51	11	ETV	ETP operation fault- underVolt, overAmp, overTemp/ ETP H-bridge Electrical Check
91	2	APP	APP1 and APP2 signal conflict
91	3	APP	APP1 signal Out of Range HIGH
91	4	APP	APP1 signal Out of Range LOW
94	0	EFP	Fuel Delivery Pressure above maximum
94	1	EFP	Fuel Delivery Pressure below minimum
94	3	FDP	FDP signal Out of Range HIGH
94	4	FDP	FDP signal Out of Range LOW
100	1	EWPS	Engine Oil System below Critical Pressure
100	3	EOP	EOP signal Out of Range HIGH
100	4	EOP	EOP signal Out of Range LOW
100	18	EWPS	Engine Oil System below Warning Pressure

102	2	IMP	IMP signal does not agree with BARO
102	3	IMP	IMP signal Out of Range HIGH
102	4	IMP	IMP signal Out of Range LOW
102	7	IMP	IMP signal not responding as expected
105	2	IMT	IMT signal does not agree with other sensors
105	3	IMT	IMT signal Out of Range HIGH
105	4	IMT	IMT signal Out of Range LOW
108	2	ECM Self	Pressure BARO Low/High at KOEO
108	3	ECM Self	BARO signal Out of Range HIGH
108	4	ECM Self	BARO signal Out of Range LOW
110	0	EWPS	Engine Coolant System above Critical Temperature
110	2	ECT1	ECT1 above/below sensor compare at KOEO Cold
110	3	ECT1	ECT1 signal Out of Range HIGH
110	4	ECT1	ECT1 signal Out of Range LOW
110	15	EWPS	Engine Coolant System above Warning Temperature
111	1	EWPS	Low Engine Coolant Level
111	2	ECL	ECL In-Range circuit Fault
132	3	MAF	MAF signal Out of Range HIGH
132	4	MAF	MAF signal Out of Range LOW
132	11	MAF	MAF Sensor Calibration – Insufficient number of data points
132	13	MAF	MAF Sensor Calibration Needed
132	14	MAF	MAF Sensor Calibration Failed
158	15	ECM PWR	ECM Switched voltage too HIGH
158	17	ECM PWR	ECM Switched voltage too LOW
164	0	ICP	ICP above KOEO Spec
164	1	ICP SYS	ICP Unable to Build During Engine Cranking
164	3	ICP	ICP signal Out of Range HIGH
164	4	ICP	ICP signal Out of Range LOW
164	10	ICP SYS	ICP Abnormal Rate of Change
164	13	ICP SYS	ICP adaptation In-Range fault
164	15	ICP SYS	ICP too high during test
164	16	ICP SYS	ICP above desired level
164	17	ICP SYS	ICP unable to build during test
164	18	ICP SYS	ICP below desired level

172	3	MAF, AIT	AIT signal Out of Range HIGH
172	4	MAF, AIT	AIT signal Out of Range LOW
173	3	EGT	EGT signal Out of Range HIGH
173	4	EGT	EGT signal Out of Range LOW
175	2	EOT	EOT In Range fault
175	3	EOT	EOT signal Out of Range HIGH
175	4	EOT	EOT signal Out of Range LOW
175	15	EWPS	Engine Oil System above Warning Temperature
190	0	EWPS	Engine Overspeed - Most Severe Level
191	3	TOSS	TOSS signal Out of Range HIGH
191	4	TOSS	TOSS signal Out of Range LOW
521	2	APP	Brake applied while APP applied
521	19	APP	Brake switch circuit fault
593	31	IST	Engine stopped by IST
596	19	CCS	Cruise Control Enable Switch not detected on J1939
597	2	Brake SW	Brake switch circuit fault
609	3	ACM	ACM Switched voltage too HIGH
609	4	ACM	ACM Switched voltage too LOW
609	12	ACM	ACM Internal chip Error
609	19	ACM	ACM not detected on J1939
628	12	ECM Self	ECM Memory Error
629	12	ECM Self	ECM Internal chip Error
636	2	CMP	CMP and CKP Synchronization Error
636	7	CMP	CMP to CKP incorrect reference
637	8	CKP	CKP incorrect signal signature
637	10	CKP	CKP signal Inactive
639	14	J1939	J1939 Data Link Error (ECM unable to transmit)
651	4	INJ	Injector 1 open coil - short circuit
651	5	INJ	Injector 1 open coil - open circuit
652	4	INJ	Injector 2 open coil - short circuit
652	5	INJ	Injector 2 open coil - open circuit
653	4	INJ	Injector 3 open coil - short circuit
653	5	INJ	Injector 3 open coil - open circuit
654	4	INJ	Injector 4 open coil - short circuit

654	5	INJ	Injector 4 open coil - open circuit
655	4	INJ	Injector 5 open coil - short circuit
655	5	INJ	Injector 5 open coil - open circuit
656	4	INJ	Injector 6 open coil - short circuit
656	5	INJ	Injector 6 open coil - open circuit
679	3	IPR	IPR short to PWR
679	4	IPR	IPR open or short to GND
931	3	EFP	EFP short to PWR
931	4	EFP	EFP open load/circuit or short to GND
931	19	EFP	EFP not detected on J1939
974	3	RAPP	Remote APP signal Out of Range HIGH
974	4	RAPP	Remote APP signal Out of Range LOW
1136	0	ECM Self	ECM Error – over temperature
1189	3	TC2WC	TC2WC short to PWR
1189	4	TC2WC	TC2WC open or short to GND
1189	5	TC2WC	TC2WC open load/circuit
1209	0	AMS	EBP above desired level
1209	1	EBP	EBP below desired level
1209	2	EBP	EBP signal does not agree with other sensors at KOEO
1209	3	EBP	EBP signal Out of Range HIGH
1209	4	EBP	EBP signal Out of Range LOW
1209	7	AMS	EBP in-range fault
1231	19	ACM	ACM Error - J1939 communication fault
1378	31	Service	Change Engine Oil Service Interval
2623	3	APP	APP2 signal Out of Range HIGH
2623	4	APP	APP2 signal Out of Range LOW
2659	14	AMS	KOER AMT - EGR test failure
2659	20	AMS	EGR High Flow Rate detected
2659	21	AMS	EGR Low Flow Rate detected
2791	2	EGR	EGR valve communication fault
2791	8	EGR	EGR valve not receiving ECM PWM signal
2797	3	INJ	Injector Control Group 1 open coil short
2797	4	INJ	Injector Control Group 1 close coil short
2798	3	INJ	Injector Control Group 2 open coil short

2798	4	INJ	Injector Control Group 2 close coil short
3242	2	DPFIT	DPFIT signal does not agree with other exhaust sensors
3242	3	DPFIT	DPFIT signal Out of Range HIGH
3242	4	DPFIT	DPFIT signal Out of Range LOW
3242	7	DPFIT	DPFIT not increasing with engine temp
3246	2	DPFOT	DPFOT signal does not agree with other exhaust sensors
3246	3	DPFOT	DPFOT signal Out of Range HIGH
3246	4	DPFOT	DPFOT signal Out of Range LOW
3246	7	DPFOT	DPFOT not warming along with engine
3246	20	AFT SYS	DPF over temperature - possible filter damage
3251	2	AFT SYS	DPFDP above or below desired level
3251	3	DPFDP	DPFDP signal Out of Range HIGH
3251	4	DPFDP	DPFDP signal Out of Range LOW
3251	10	DPFDP	DPFDP signal abnormal rate of change
3251	21	AFT SYS	DPFDP excessively LOW (Sensor/circuit fault or missing DPF)
3387	20	Cyl Bal	Cyl 1 Balance maximum limit exceeded
3387	21	Cyl Bal	Cyl 1 Balance below minimum limit
3388	20	Cyl Bal	Cyl 2 Balance maximum limit exceeded
3388	21	Cyl Bal	Cyl 2 Balance below minimum limit
3389	20	Cyl Bal	Cyl 3 Balance maximum limit exceeded
3389	21	Cyl Bal	Cyl 3 Balance below minimum limit
3390	20	Cyl Bal	Cyl 4 Balance maximum limit exceeded
3390	21	Cyl Bal	Cyl 4 Balance below minimum limit
3391	20	Cyl Bal	Cyl 5 Balance maximum limit exceeded
3391	21	Cyl Bal	Cyl 5 Cyl Balance below minimum limit
3392	20	Cyl Bal	Cyl 6 Balance maximum limit exceeded
3392	21	Cyl Bal	Cyl 6 Balance below minimum limit
3464	3	ETV	ETC short to PWR
3464	4	ETV	ETC short to GND
3471	1	AFTFD	Fuel Pressure 1 below desired (Low system pressure)
3471	7	AFTFD	AFT Fuel Doser Valve not responding as expected
3471	10	AFTFD	AFT Fuel Doser Valve abnormal rate of change
3479	3	AFTFD	AFT Fuel Doser Valve short to PWR
3479	4	AFTFD	AFT Fuel Doser Valve short to GND

3480	3	AFTFIS	AFTFP1 signal Out of Range HIGH
3480	4	AFTFIS	AFTFP1 signal Out of Range LOW
3482	3	AFTFSV	AFT Fuel Shutoff Valve short to PWR
3482	4	AFTFSV	AFT Fuel Shutoff Valve short to GND
3482	7	AFTFSV	AFT Fuel Shutoff Valve not responding as expected
3509	3	VREF	VREF Engine voltage above max
3509	4	VREF	VREF Engine voltage below min
3510	3	VREF	VREF Chassis voltage above max
3510	4	VREF	VREF Chassis voltage below min
3511	3	VREF	VREF Body voltage above max
3511	4	VREF	VREF Body voltage below min
3512	14	ACM VREF	ACM Vref 1 and 2 voltage deviation
3556	0	AFT SYS	AFTFP2 excessively high (Restricted injection)
3556	1	AFT SYS	AFT Fuel Pressure 2 below desired (Possible system leak)
3556	7	AFT SYS	AFT Fuel Injector not responding as expected
3659	4	INJ	Injector 1 close coil – short circuit
3659	5	INJ	Injector 1 close coil – open circuit
3660	4	INJ	Injector 2 close coil – short circuit
3660	5	INJ	Injector 2 close coil – open circuit
3661	4	INJ	Injector 3 close coil – short circuit
3661	5	INJ	Injector 3 close coil – open circuit
3662	4	INJ	Injector 4 close coil: short circuit
3662	5	INJ	Injector 4 close coil – open circuit
3663	4	INJ	Injector 5 close coil – short circuit
3663	5	INJ	Injector 5 close coil – open circuit
3664	4	INJ	Injector 6 close coil – short circuit
3664	5	INJ	Injector 6 close coil – open circuit
3719	0	AFT SYS	DPF Soot Load – Highest (level 3/3)
3719	15	AFT SYS	DPF Soot Load – Lowest (level 1/3)
3719	16	AFT SYS	DPF Soot Load – Moderate (level 2/3)
3936	0	AFT SYS	DPF Soot Load – Severe De-Rate
3936	2	AFT SYS	DPF Test – test unsuccessful
3936	14	AFT SYS	DPF– Regen duration above limit

4077	3	AFTFP2	AFTFP2 signal Out of Range HIGH
4077	4	AFTFP2	AFTFP2 signal Out of Range LOW
4077	10	AFTFP2	AFTFP2 signal abnormal rate of change
4192	3	WIF	WIF signal Out of Range HIGH
4192	4	WIF	WIF signal Out of Range LOW
4192	5	WIF	WIF signal Open or Short to PWR
4192	31	WIF	Water in fuel detected
4287	0	ECBP	ECBP above desired level
4287	1	ECBP	ECBP below desired level
4287	3	ECBP	ECBP signal Out of Range HIGH
4287	4	ECBP	ECBP signal Out of Range LOW
4765	2	DOCIT	DOCIT signal does not agree with other exhaust sensors
4765	3	DOCIT	DOCIT signal Out of Range HIGH
4765	4	DOCIT	DOCIT signal Out of Range LOW
4765	7	DOCIT	DOCIT not increasing with engine temp
5456	3	AFTFIS	AFTFT signal Out of Range HIGH
5456	4	AFTFIS	AFTFT signal Out of Range LOW
5541	1	EBPV	TC1TOP pressure below minimum
5541	3	EBPV	TC1TOP signal Out of Range HIGH
5541	4	EBPV	TC1TOP signal Out of Range LOW
5543	3	EBPV	EBPC short to PWR
5543	4	EBPV	EBPC short to GND
5543	5	EBPV	EBPC open load/circuit

Hide Details

Feedback Information

Viewed: 97544
Helpful: 7578
Not Helpful: 14939

No Feedback Found