

Suspect Parameter Numbers (SPN) Codes on J1939 data link

The Suspect Parameter Number (SPN) is diagnostic fault code terminology found on some of our equipment using a J1939 CAN data link.

The Society of Automotive Engineers (SAE) developed the J1939 standards and SPN code terms have been assigned for specific parameters (component or system circuits) that diagnostic trouble codes (DTC) are associated with.

SPN Code	Description
16	Engine Fuel Filter (suction side) Differential Pressure
18	Engine Extended Range Fuel Pressure
19	Engine Extended Range Engine Oil Pressure
20	Engine Extended Range Engine Coolant Pressure
21	Engine ECU Temperature
22	Engine Extended Crankcase Blow-by Pressure
23	Generator Oil Pressure
24	Generator Coolant Temperature
27	EGR #1 Valve Position
28	Accelerator Pedal Position #3
29	Accelerator Pedal Position #2
30	Engine Crankcase Blowby Pressure
31	Transmission Range Position
32	Transmission Splitter Position
33	Clutch Cylinder Position
36	Clutch Plates
37	Transmission Air Tank Pressure
38	Second Fuel Level

39	Tire Pressure Check Interval
46	Pneumatic Supply Pressure
48	Extended Range Barometric Pressure
51	Engine Throttle Position
52	Engine Intercooler Temperature
53	Transmission Synchronizer Clutch Value
54	Transmission Synchronizer Brake Value
59	Transmission Shift Finger Gear Position
60	Transmission Shift Finger Rail Position
64	Transmission #2 Oil Temperature
69	Two Speed Axle Switch
70	Parking Brake Switch
72	Engine Blower Bypass Valve Position
73	Auxiliary Pump Pressure
74	Maximum Vehicle Speed Limit
75	Steering Axle Temperature
76	Axle Lift Air Pressure
77	Forward Rear Drive Axle Temperature
78	Rear Rear Drive Axle Temperature
79	Road Surface Temperature
80	Washer Fluid Level
81	Engine Particulate Trap Inlet Pressure
82	Engine Air Start Pressure
84	Wheel-Based Vehicle Speed

86	Cruise Control Set Speed
87	Cruise Control High Set Limit Speed
88	Cruise Control Low Set Limit Speed
90	Power Takeoff Oil Temperature
91	Accelerator Pedal Position #1
92	Engine Percent Load At Current Speed
93	Engine Net Brake Torque
94	Engine Fuel Delivery Pressure
95	Engine Fuel Filter Differential Pressure
96	Fuel Level
97	Water In Fuel Indicator
98	Engine Oil Level
99	Engine Oil Filter Differential Pressure
100	Engine Oil Pressure
101	Engine Crankcase Pressure
102	Engine Intake Manifold #1 Pressure
103	Engine Turbocharger 1 Speed
104	Engine Turbocharger Lube Oil Pressure 1
105	Engine Intake Manifold #1 Temperature
106	Engine Air Inlet Pressure
107	Engine Air Filter 1 Differential Pressure
108	Barometric Pressure
109	Engine Coolant Pressure
110	Engine Coolant Temperature

111	Engine Coolant Level
112	Engine Coolant Filter Differential Pressure
113	Engine Governor Droop
114	Net Battery Current
115	Alternator Current
116	Brake Application Pressure
117	Brake Primary Pressure
118	Brake Secondary Pressure
119	Hydraulic Retarder Pressure
120	Hydraulic Retarder Oil Temperature
122	Engine Retarder Percent
123	Clutch Pressure
124	Transmission Oil Level
126	Transmission Filter Differential Pressure
127	Transmission Oil Pressure
129	Engine Injector Metering Rail #2 Pressure
130	Engine Power Specific Fuel Economy
131	Engine Exhaust Back Pressure
132	Engine Inlet Air Mass Flow Rate
133	Engine Average Fuel Rate
135	Engine Fuel Delivery Pressure
136	Auxiliary Vacuum Pressure Reading
137	Auxiliary Gage Pressure Reading 1
138	Auxiliary Absolute Pressure Reading
141	Trailer, Tag Or Push Channel Tire Pressure Target

142	Drive Channel Tire Pressure Target
143	Steer Channel Tire Pressure Target
144	Trailer, Tag Or Push Channel Tire Pressure
145	Drive Channel Tire Pressure
146	Steer Channel Tire Pressure
147	Engine Average Fuel Economy
148	Engine Instantaneous Fuel Economy
149	Engine Mass Flow Rate
152	Number Of ECU Resets
153	Engine High Resolution Crankcase Pressure
156	Engine Injector Timing Rail 1 Pressure
157	Engine Injector Metering Rail #1 Pressure
158	Keyswitch Battery Potential
159	Engine Gas Supply Pressure
160	Main Shaft Speed
161	Transmission Input Shaft Speed
162	Transmission Requested Range
163	Transmission Current Range
164	Engine Injection Control Pressure
165	Compass Bearing
166	Engine Rated Power
167	Charging System Potential
168	Battery Potential / Power Input #1
169	Cargo Ambient Temperature

170	Cab Interior Temperature
171	Ambient Air Temperature
172	Engine Air Inlet Temperature
173	Engine Exhaust Gas Temperature
174	Engine Fuel Temperature 1
175	Engine Oil Temperature 1
176	Engine Turbocharger Oil Temperature
177	Transmission Oil Temperature
178	Front Axle Weight
179	Rear Axle Weight
180	Trailer Weight
181	Cargo Weight
182	Engine Trip Fuel
183	Engine Fuel Rate
184	Engine Instantaneous Fuel Economy
185	Engine Average Fuel Economy
186	Power Takeoff Speed
187	Power Takeoff Set Speed
188	Engine Speed At Idle, Point 1
189	Engine Rated Speed
190	Engine Speed
191	Transmission Output Shaft Speed
228	Speed Sensor Calibration
229	Total Fuel Used (Gaseous)
230	Total Idle Fuel Used (Gaseous)

231	Trip Fuel (Gaseous)
232	DGPS Differential Correction
233	Unit Number
234	Software Identification
235	Engine Total Idle Hours
236	Engine Total Idle Fuel Used
237	Vehicle Identification Number
238	Velocity Vector
241	Tire Pressure
242	Tire Temperature
244	Trip Distance
245	Total Vehicle Distance
246	Total Vehicle Hours
247	Engine Total Hours of Operation
248	Total Power Takeoff Hours
249	Engine Total Revolutions
250	Engine Total Fuel Used
251	Time
252	Date
257	Cold Restart Of Specific Component
258	Warm Restart Of Specific Component
259	Acknowledgement Of Warm Or Cold Restart
354	Relative Humidity
355	Engine Oil Life
378	Fare Collection Unit Status

380	Articulation Angle
383	Vehicle Acceleration
411	Engine Exhaust Gas Recirculation Differential Pressure
412	Engine Exhaust Gas Recirculation Temperature
430	Engine Starter Solenoid Voltage
441	Auxiliary Temperature #1
442	Auxiliary Temperature #2
443	Auxiliary Gage Pressure Reading 2
444	Battery Potential / Power Input #2
445	Engine Cylinder Head Temperature Bank B
446	Engine Cylinder Head Temperature Bank A
447	Passenger Counter
501	Signage Message
502	Fare Collection Unit – Point Of Sale
503	Fare Collection Unit – Service Detail
504	Annunciator Voice Message
505	Vehicle Control Head Keyboard Message
506	Vehicle Control Head Display Message
507	Driver Identification
508	Transit Route Identification
509	Milepost Identification
512	Driver's Demand Engine – Percent Torque
513	Actual Engine – Percent Torque
514	Nominal Friction – Percent Torque

515	Engine's Desired Operating Speed
516	Ground-Based Vehicle Speed
517	Navigation-Based Vehicle Speed
518	Engine Requested Torque/Torque Limit
519	Engine's Desired Operating Speed Asymmetry Adjustment
520	Actual Retarder – Percent Torque
521	Brake Pedal Position
522	Percent Clutch Slip
523	Transmission Current Gear
524	Transmission Selected Gear
525	Transmission Requested Gear
526	Transmission Actual Gear Ratio
527	Cruise Control States
528	Engine Speed at Point 2
529	Engine Speed at Point 3
530	Engine Speed at Point 4
531	Engine Speed at Point 5
532	Engine Speed At High Idle, Point 6
533	Engine Maximum Momentary Override Speed, Point 7
534	Engine Maximum Momentary Override Time Limit
535	Engine Requested Speed Control Range Lower Limit
536	Engine Requested Speed Control Range Upper Limit
537	'Engine Requested Torque Control Range Lower Limit
538	Engine Requested Torque Control Range Upper Limit

539	Engine Percent Torque At Idle, Point 1
540	Engine Percent Torque at Point 2
541	Engine Percent Torque at Point 3
542	Engine Percent Torque at Point 4
543	Engine Percent Torque at Point 5
544	Engine Reference Torque
545	Engine Gain (Kp) Of The Endspeed Governor
546	Retarder Speed At Idle, Point 1
547	Retarder Speed At Peak Torque, Point 5
548	Maximum Retarder Speed, Point 2
549	Retarder Speed at Point 3
550	Retarder Speed at Point 4
551	Percent Torque At Idle, Point 1
552	Percent Torque At Maximum Speed, Point 2
553	Percent Torque at Point 3
554	Percent Torque at Point 4
555	Percent Torque At Peak Torque, Point 5
556	Reference Retarder Torque
557	Retarder Control Method
558	Accelerator Pedal #1 Low Idle Switch
559	Accelerator Pedal Kickdown Switch
560	Transmission Driveline Engaged
561	TCS/ASR Engine Control Active
562	TCS/ASR Brake Control Active
563	Anti-Lock Braking (ABS) Active

564	Differential Lock State – Central
565	Differential Lock State – Central Front
566	Differential Lock State – Central Rear
567	Differential Lock State – Front Axle 1
568	Differential Lock State – Front Axle 2
569	Differential Lock State – Rear Axle 1
570	Differential Lock State – Rear Axle 2
571	Retarder Enable – Brake Assist Switch
572	Retarder Enable – Shift Assist Switch
573	Torque Converter Lockup Engaged
574	Transmission Shift In Process
575	ABS Off-road Switch
576	ASR Off-road Switch
577	ASR “Hill Holder” Switch
578	Drive Axle Temperature
579	Drive Axle Lift Air Pressure
580	Altitude
581	Transmission Gear Ratio
582	Axle Weight
583	Pitch
584	Latitude
585	Longitude
586	Make
587	Model
588	Serial Number

589	Alternator Speed
590	Engine Idle Shutdown Timer State
591	Engine Idle Shutdown Timer Function
592	Engine Idle Shutdown Timer Override
593	Engine Idle Shutdown has Shutdown Engine
594	Engine Idle Shutdown Driver Alert Mode
595	Cruise Control Active
596	Cruise Control Enable Switch
597	Brake Switch
598	Clutch Switch
599	Cruise Control Set Switch
600	Cruise Control Coast (Decelerate) Switch
601	Cruise Control Resume Switch
602	Cruise Control Accelerate Switch
603	Brake Pedal Switch #2
604	Transmission Neutral Switch
605	Refrigerant High Pressure Switch
606	Engine Momentary Overspeed Enable
607	Progressive Shift Disable
608	J1587 (previously SAE J1708)
609	Controller #2
610	Power Connect Device
611	System Diagnostic Code #1
612	System Diagnostic Code #2

613	System Diagnostic Code #3
614	System Diagnostic Code #4
615	System Diagnostic Code #5
616	Auxiliary Analog Input #1
617	Parking Brake On Actuator
618	Parking Brake Off Actuator
619	Parking Brake Actuator
620	5 Volts DC Supply
621	Antenna Electronics
622	J1922
623	Red Stop Lamp
624	Amber Warning Lamp
625	Proprietary Data Link
626	Engine Start Enable Device 1
627	Power Supply
628	Program Memory
629	Controller #1
630	Calibration Memory
631	Calibration Module
632	Engine Fuel Shutoff Valve #1
633	Engine Fuel Actuator 1 Control Command
634	Engine Throttle Bypass Valve
635	Engine Timing Actuator #1
636	Engine Position Sensor
637	Engine Timing Sensor

638	Engine Fuel Rack Actuator
639	J1939 Network #1
640	Engine External Protection Input
641	Engine Turbocharger Variable Geometry Actuator #1
642	Engine Turbocharger Variable Geometry Actuator #2
643	Engine External Fuel Command Input
644	Engine External Speed Command Input
645	Engine Tachometer Signal Output
646	Engine Turbocharger 1 Wastegate Drive
647	Engine Fan Clutch Output Device Driver
648	Engine Exhaust Back Pressure Sensor
649	Engine Exhaust Back Pressure Regulator Control Command
650	Electronic Drive Unit Power Relay
651	Engine Injector Cylinder #01
652	Engine Injector Cylinder #02
653	Engine Injector Cylinder #03
654	Engine Injector Cylinder #04
655	Engine Injector Cylinder #05
656	Engine Injector Cylinder #06
657	Engine Injector Cylinder #07
658	Engine Injector Cylinder #08
659	Engine Injector Cylinder #09
660	Engine Injector Cylinder #10
661	Engine Injector Cylinder #11
662	Engine Injector Cylinder #12

663	Engine Injector Cylinder #13
664	Engine Injector Cylinder #14
665	Engine Injector Cylinder #15
666	Engine Injector Cylinder #16
667	Engine Injector Cylinder #17
668	Engine Injector Cylinder #18
669	Engine Injector Cylinder #19
670	Engine Injector Cylinder #20
671	Engine Injector Cylinder #21
672	Engine Injector Cylinder #22
673	Engine Injector Cylinder #23
674	Engine Injector Cylinder #24
675	Engine Glow Plug Lamp
676	Engine Glow Plug Relay
677	Engine Starter Motor Relay
678	ECU 8 Volts DC Supply
679	Engine Injection Control Pressure Regulator
680	Engine Valve Variable Swirl System
681	Transmission Gear Shift Inhibit Request
682	Torque Converter Lockup Disable Request
683	Disengage Driveline Request
684	Requested Percent Clutch Slip
685	Disengage Differential Lock Request – Front Axle 1
686	Disengage Differential Lock Request – Front Axle 2

687	Disengage Differential Lock Request – Rear Axle 1
688	Disengage Differential Lock Request – Rear Axle 2
689	Disengage Differential Lock Request – Central
690	Disengage Differential Lock Request – Central Front
691	Disengage Differential Lock Request – Central Rear
692	ABS Offroad Switch Request
693	ASR Offroad Switch Request
694	ASR “Hill Holder” Switch Request
695	Engine Override Control Mode
696	Engine Requested Speed Control Conditions
697	Auxiliary PWM Driver #1
698	Auxiliary PWM Driver #2
699	Auxiliary PWM Driver #3
700	Auxiliary PWM Driver #4
701	Auxiliary I/O #01
702	Auxiliary I/O #02
703	Auxiliary I/O #03
704	Auxiliary I/O #04
705	Auxiliary I/O #05
706	Auxiliary I/O #06
707	Auxiliary I/O #07
708	Auxiliary I/O #08
709	Auxiliary I/O #09
710	Auxiliary I/O #10
711	Auxiliary I/O #11

712	Auxiliary I/O #12
713	Auxiliary I/O #13
714	Auxiliary I/O #14
715	Auxiliary I/O #15
716	Auxiliary I/O #16
717	Autoshift High Gear Actuator
718	Autoshift Low Gear Actuator
719	Autoshift Neutral Actuator
720	Autoshift Common Low Side
721	Prestroke Sensor
722	Prestroke Actuator
723	Engine Speed Sensor #2
724	Engine Oxygen Sensor Heated
725	Engine Ignition Control Mode Signal
726	Engine Ignition Control Timing Signal
727	Engine Turbocharger Secondary Inlet Pressure
728	Engine After Cooler-Oil Cooler Coolant Temperature
729	Engine Inlet Air Heater Driver #1
730	Engine Inlet Air Heater Driver #2
731	Engine Knock Sensor
732	Engine Gas Metering Valve
733	Engine Rack Position Sensor
734	Transmission Range Clutch C1 Solenoid
735	Transmission Range Clutch C2 Solenoid
736	Transmission Range Clutch C3 Solenoid

737	Transmission Range Clutch C4 Solenoid
738	Transmission Range Clutch C5 Solenoid
739	Transmission Range Clutch C6 Solenoid
740	Transmission Lockup Clutch Actuator
741	Transmission Forward Solenoid Valve
742	Transmission Low Signal Solenoid Valve
743	Retarder Enable Solenoid Valve
744	Retarder Modulation Solenoid Valve
745	Retarder Response Solenoid Valve
746	Differential Lock Solenoid Valve #1
747	Engine/Transmission Match
748	Transmission Output Retarder
749	Transmission Neutral Start Output
750	Transmission Turbine Speed Sensor
751	Transmission Primary Shift Selector
752	Transmission Secondary Shift Selector
753	Transmission Special Function Inputs
754	Transmission Range C1 Clutch Pressure Indicator
755	Transmission Range C2 Clutch Pressure Indicator
756	Transmission Range C3 Clutch Pressure Indicator
757	Transmission Range C4 Clutch Pressure Indicator
758	Transmission Range C5 Clutch Pressure Indicator
759	Transmission Range C6 Clutch Pressure Indicator
760	Transmission Lockup Clutch Pressure Indicator

761	Transmission Forward Range Pressure Indicator
762	Transmission Neutral Range Pressure Indicator
763	Transmission Reverse Range Pressure Indicator
764	Retarder Response System Pressure Indicator
765	Differential Lock Clutch Pressure Indicator
766	Transmission Multiple Pressure Indicators
767	Transmission Reverse Direction Switch
768	Transmission Range High Actuator
769	Transmission Range Low Actuator
770	Transmission Splitter Direct Actuator
771	Transmission Splitter Indirect Actuator
772	Transmission Shift Finger Rail Actuator 1
773	Transmission Shift Finger Gear Actuator 1
774	Transmission Upshift Request Switch
775	Transmission Downshift Request Switch
776	Torque Converter Interrupt Actuator
777	Torque Converter Lockup Actuator
778	Transmission High Range Sense Switch
779	Transmission Low Range Sense Switch
780	Transmission Shift Finger Neutral Indicator
781	Transmission Shift Finger Engagement Indicator
782	Transmission Shift Finger Center Rail Indicator
783	Transmission Shift Finger Rail Actuator 2
784	Transmission Shift Finger Gear Actuator 2
785	Transmission Hydraulic System

786	Transmission Defuel Actuator
787	Transmission Inertia Brake Actuator
788	Transmission Clutch Actuator
789	Wheel Sensor ABS Axle 1 Left
790	Wheel Sensor ABS Axle 1 Right
791	Wheel Sensor ABS Axle 2 Left
792	Wheel Sensor ABS Axle 2 Right
793	Wheel Sensor ABS Axle 3 Left
794	Wheel Sensor ABS Axle 3 Right
795	Pressure Modulation Valve ABS Axle 1 Left
796	Pressure Modulation Valve ABS Axle 1 Right
797	Pressure Modulation Valve ABS Axle 2 Left
798	Pressure Modulation Valve ABS Axle 2 Right
799	Pressure Modulation Valve ABS Axle 3 Left
800	Pressure Modulation Valve ABS Axle 3 Right
801	Retarder Control Relay
802	Relay Diagonal 1
803	Relay Diagonal 2
804	Mode Switch ABS
805	Mode Switch ASR
806	Dif 1 – ASR Valve
807	Dif 2 – ASR Valve
808	Pneumatic Engine Control
809	Electronic Engine Control
810	Speed Signal Input

811	Warning Light Bulb
812	ASR Light Bulb
813	Wheel Sensor ABS Axle 1 Average
814	Wheel Sensor ABS Axle 2 Average
815	Wheel Sensor ABS Axle 3 Average
816	Pressure Modulator, Drive Axle Relay Valve
817	Pressure Transducer, Drive Axle Relay Valve
818	Master Control Relay
819	Trailer Brake Slack Out Of Adjustment Forward Axle Left
820	Trailer Brake Slack Out Of Adjustment Forward Axle Left
821	Trailer Brake Slack Out Of Adjustment Rear Axle Left
822	Trailer Brake Slack Out Of Adjustment Rear Axle Right
823	Tractor Brake Slack Out Of Adjustment Axle 1 Left
824	Tractor Brake Slack Out Of Adjustment Axle 1 Right
825	Tractor Brake Slack Out Of Adjustment Axle 2 Left
826	Tractor Brake Slack Out Of Adjustment Axle 2 Right
827	Tractor Brake Slack Out Of Adjustment Axle 3 Left
828	Tractor Brake Slack Out Of Adjustment Axle 3 Right
829	Left Fuel Level Sensor
830	Right Fuel Level Sensor
831	Engine Fuel Feed Rate Sensor
832	Engine Fuel Return Rate Sensor
833	Fuel Rack Position Sensor
834	Fuel Rack Actuator

835	Oil Level Indicator Output
836	Tachometer Drive Output
837	Speedometer Drive Output
838	PWM Input
839	Dead Reckoning Unit
840	Loran Receiver
841	Global Positioning System
842	Integrated Navigation Unit
843	Operator Control Panel
844	Pneumatic Control Unit
845	PCU Steer Solenoid
846	PCU Drive Solenoid
847	PCU Trailer, Tag, Or Push Solenoid
848	PCU Supply Solenoid
849	PCU Control Solenoid
850	PCU Deflate Solenoid
851	Pneumatic – Steer Channel
852	Pneumatic – Drive Channel
853	Pneumatic – Trailer, Tag Or Push Channel
854	Heater Circuit #01
855	Heater Circuit #02
856	Heater Circuit #03
857	Heater Circuit #04
858	Heater Circuit #05
859	Heater Circuit #06

860	Heater Circuit #07
861	Heater Circuit #08
862	Heater Circuit #09
863	Heater Circuit #10
864	Heater Circuit #11
865	Heater Circuit #12
866	Heater Circuit #13
867	Heater Circuit #14
868	Heater Circuit #15
869	Heater Circuit #16
870	Heater Regeneration System
871	Refrigerant Charge
872	Refrigerant Moisture Level
873	Non-Condensable Gas In Refrigerant
874	Refrigerant Flow Control Solenoid
875	Refrigerant Low Pressure Switch
876	Compressor Clutch Circuit
877	Evaporator Thermostat Circuit
878	Clearance, Side Marker, Identification Lamp Circuit
879	Left Turn Lamp Circuit
880	Stop Lamp Circuit
881	Right Turn Lamp Circuit
882	Tail Lamp/License Plate Lamp Circuit
883	Auxiliary Lamp Circuit
884	Tractor Mounted Rear Axle Slider Control Unit

885	Trailer Mounted Rear Axle Slider Control Unit
886	Headway Controller Forward Antenna
887	Headway Controller Brake Input Monitor
888	Headway Controller Speaker Monitor
889	Headway Controller Steering Sensor Monitor
890	Headway Controller Speedometer Monitor
891	Headway Controller Right Turn Signal Monitor
892	Headway Controller Left Turn Signal Monitor
893	Headway Controller Control Display Unit
894	Headway Controller Right Side Sensor
895	Headway Controller Left Side Sensor
896	Headway Controller Rear Sensor
897	Override Control Mode Priority
898	Engine Requested Speed/Speed Limit
899	Engine Torque Mode
900	Retarder Torque Mode
901	Retarder Type
902	Retarder Location
903	Transmission Forward Direction Switch
904	Front Axle Speed
905	Relative Speed; Front Axle, Left Wheel
906	Relative Speed; Front Axle, Right Wheel
907	Relative Speed; Rear Axle #1, Left Wheel
908	Relative Speed; Rear Axle #1, Right Wheel

909	Relative Speed; Rear Axle #2, Left Wheel
910	Relative Speed; Rear Axle #2, Right Wheel
911	Service Component Identification
912	Service Component Identification
913	Service Component Identification
914	Service Distance
915	Service Delay/Calendar Time Based
916	Service Delay/Operational Time Based
917	High Resolution Total Vehicle Distance
918	High Resolution Trip Distance
919	Ambient Light Sensor
920	Audible Alarm
921	Green Lamp
922	Ride Height Relay
923	PWM Output
924	Auxiliary Output #1
925	Auxiliary Output #2
926	Auxiliary Output #3
927	Location
928	Axle Location
929	Tire Location
930	Drive Axle Location
931	Engine Fuel Supply Pump Actuator
932	Brake System Hold Modulator Valve Solenoid Axle #1 Left
933	Brake System Hold Modulator Valve Solenoid Axle #1 Right

934	Brake System Hold Modulator Valve Solenoid Axle #2 Left
935	Brake System Hold Modulator Valve Solenoid Axle #2 Right
936	Brake System Hold Modulator Valve Solenoid Axle #3 Left
937	Brake System Hold Modulator Valve Solenoid Axle #3 Right
938	Brake System Dump Modulator Valve Solenoid Axle #1 Left
939	Brake System Dump Modulator Valve Solenoid Axle #1 Right
940	Brake System Dump Modulator Valve Solenoid Axle #2 Left
941	Brake System Dump Modulator Valve Solenoid Axle #2 Right
942	Brake System Dump Modulator Valve Solenoid Axle #3 Left
943	Brake System Dump Modulator Valve Solenoid Axle #3 Right
944	Driver Air Bag Ignitor Loop
945	Passenger Air Bag Ignitor Loop
946	Left Belt Tensioner Ignitor Loop
947	Right Belt Tensioner Ignitor Loop
948	Safety Restraint System Lamp
949	Automotive Seat Occupancy Sensor – passenger side
950	Side Collision Detector – Left
951	Side Bag Ignitor Loop 1 – Left
952	Side Bag Ignitor Loop 2 – Left
953	Side Collision Detector – Right
954	Side Bag Ignitor Loop 1 – Right
955	Side Bag Ignitor Loop 2 – Right
956	Rollover Sensor
957	Number of Forward Gear Ratios
958	Number of Reverse Gear Ratios

959	Seconds
960	Minutes
961	Hours
962	Day
963	Month
964	Year
965	Number of Software Identification Fields
966	Engine Test Mode Switch
967	Engine Idle Decrement Switch
968	Engine Idle Increment Switch
969	Remote Accelerator Enable Switch
970	Engine Auxiliary Engine Shutdown Switch
971	Engine Derate Switch
972	Accelerator Interlock Switch
973	Engine Retarder Selection
974	Remote Accelerator Pedal Position
975	Estimated Percent Fan Speed
976	PTO State
977	Fan Drive State
978	Engine Remote PTO Variable Speed Control Switch
979	Engine Remote PTO Preprogrammed Speed Control Switch
980	Engine PTO Enable Switch
981	Engine PTO Accelerate Switch
982	Engine PTO Resume Switch

983	Engine PTO Coast/Decelerate Switch
984	Engine PTO Set Switch
985	A/C High Pressure Fan Switch
986	Requested Percent Fan Speed
987	Protect Lamp
988	Trip Group 1
989	Trip Group 2 – Proprietary
990	Total Compression Brake Distance
991	Trip Compression Brake Distance
992	Trip Service Brake Distance
993	Trip Service Brake Applications
994	Trip Fan On Time
995	Trip Fan On Time Due to the Engine System
996	Trip Fan On Time Due to a Manual Switch
997	Trip Fan On Time Due to the A/C System
998	Trip Distance on VSL
999	Trip Gear Down Distance
1000	Trip Distance in Top Gear
1001	Trip Drive Fuel Used
1002	Trip PTO Moving Fuel Used
1003	Trip PTO Non-moving Fuel Used
1004	Trip Vehicle Idle Fuel Used
1005	Trip Cruise Fuel Used
1006	Trip Drive Fuel Economy

1007	Trip Drive Fuel Used
1008	Trip PTO Moving Fuel Used
1009	Trip PTO Non-moving Fuel Used
1010	Trip Vehicle Idle Fuel Used
1011	Trip Cruise Fuel Used
1012	Trip Drive Fuel Economy
1013	Trip Maximum Engine Speed
1014	Trip Average Engine Speed
1015	Trip Drive Average Load Factor
1016	Total Drive Average Load Factor
1017	Total Engine Cruise Time
1018	Trip Maximum Vehicle Speed
1019	Trip Cruise Distance
1020	Trip Number of Hot Shutdowns
1021	Trip Number of Idle Shutdowns
1022	Trip Number of Idle Shutdown Overrides
1023	Trip Sudden Decelerations
1024	Trip Time in VSL
1025	Trip Time in Top Gear
1026	Trip Time in Gear Down
1027	Trip Time in Derate by Engine
1028	Total Engine PTO Fuel Used
1029	Trip Average Fuel Rate
1030	Total Engine PTO Fuel Used
1031	Trip Average Fuel Rate

1032	Total ECU Distance
1033	Total ECU Run Time
1034	Trip Cruise Time
1035	Trip PTO Time
1036	Trip Engine Running Time
1037	Trip Idle Time
1038	Trip Air Compressor On Time
1039	Trip Fuel
1040	Total Fuel Used
1041	Start Signal Indicator
1042	Electronic Tractor/Trailer Interface
1043	Internal Sensor Voltage Supply
1044	Hydraulic Pump Motor
1045	Brake Light Switch #1
1046	Brake Light Switch #2
1047	Electronic Pressure Control Axle 1
1048	Pneumatic Back-up Pressure Control Axle 1
1049	Brake Pressure Sensing Axle #1
1050	Electronic Pressure Control Axle 2
1051	Pneumatic Back-up Pressure Control Axle 2
1052	Brake Pressure Sensing Axle #2
1053	Electronic Pressure Control Axle 3
1054	Pneumatic Back-up Pressure Control Axle 3
1055	Brake Pressure Sensing Axle #3

1056	Electronic Pressure Control, Trailer Control
1057	Pneumatic Back-up Pressure Control, Trailer Control
1058	Brake Pressure Sensing, Trailer Control
1059	Axle Load Sensor
1060	Lining Wear Sensor Axle 1 Left
1061	Lining Wear Sensor Axle 1 Right
1062	Lining Wear Sensor Axle 2 Left
1063	Lining Wear Sensor Axle 2 Right
1064	Lining Wear Sensor Axle 3 Left
1065	Lining Wear Sensor Axle 3 Right
1066	Brake Signal Transmitter
1067	Brake Signal Sensor #1
1068	Brake Signal Sensor #2
1069	Tire Dimension Supervision
1070	Vehicle Deceleration Control
1071	Cooling Fan Drive Output
1072	Engine (Compression) Brake Output #1
1073	Engine (Compression) Brake Output #2
1074	Engine (Exhaust) Brake Output
1075	Engine Electric Lift Pump for Engine Fuel Supply
1076	Engine Fuel Injection Pump Fuel Control Valve
1077	Engine Fuel Injection Pump Controller
1078	Engine Fuel Injection Pump Speed/Position Sensor
1079	Sensor Supply Voltage 1

1080	Sensor Supply Voltage 2
1081	Engine Wait to Start Lamp
1082	Engine Coolant Load Increase
1083	Auxiliary I/O Channel #1
1084	Auxiliary I/O Channel #2
1085	Intended Retarder Percent Torque
1086	Parking and/or Trailer Air Pressure
1087	Service Brake Air Pressure Circuit #1
1088	Service Brake Air Pressure Circuit #2
1089	Auxiliary Equipment Supply Pressure
1090	Air Suspension Supply Pressure
1091	Brake Application Pressure High Range, Front Axle, Left Wheel
1092	Brake Application Pressure High Range, Front Axle, Right Wheel
1093	Brake Application Pressure High Range, Rear Axle #1, Left Wheel
1094	Brake Application Pressure High Range, Rear Axle #1, Right Wheel
1095	Brake Application Pressure High Range, Rear Axle #2, Left Wheel
1096	Brake Application Pressure High Range, Rear Axle #2, Right Wheel
1097	Brake Application Pressure High Range, Rear Axle #3, Left Wheel
1098	Brake Application Pressure High Range, Rear Axle #3, Right Wheel
1099	Brake Lining Remaining, Front Axle, Left Wheel
1100	Brake Lining Remaining, Front Axle, Right Wheel
1101	Brake Lining Remaining, Rear Axle #1, Left Wheel
1102	Brake Lining Remaining, Rear Axle #1, Right Wheel
1103	Brake Lining Remaining, Rear Axle #2, Left Wheel
1104	Brake Lining Remaining, Rear Axle #2, Right Wheel

1105	Brake Lining Remaining, Rear Axle #3, Left Wheel
1106	Brake Lining Remaining, Rear Axle #3, Right Wheel
1107	Engine Protection System Timer State
1108	Engine Protection System Timer Override
1109	Engine Protection System Approaching Shutdown
1110	Engine Protection System has Shutdown Engine
1111	Engine Protection System Configuration
1112	Engine (Compression) Brake Output #3
1113	Recommended Gear
1114	Lowest Possible Gear
1115	Highest Possible Gear
1116	Engine Gaseous Fuel Correction Factor
1117	Engine Desired Rated Exhaust Oxygen
1118	Engine Desired Exhaust Oxygen
1119	Engine Actual Exhaust Oxygen
1120	Articulation Angle
1121	EBS Brake Switch
1122	Engine Alternator Bearing 1 Temperature
1123	Engine Alternator Bearing 2 Temperature
1124	Engine Alternator Winding 1 Temperature
1125	Engine Alternator Winding 2 Temperature
1126	Engine Alternator Winding 3 Temperature
1127	Engine Turbocharger 1 Boost Pressure
1128	Engine Turbocharger 2 Boost Pressure

1129	Engine Turbocharger 3 Boost Pressure
1130	Engine Turbocharger 4 Boost Pressure
1131	Engine Intake Manifold #2 Temperature
1132	Engine Intake Manifold #3 Temperature
1133	Engine Intake Manifold #4 Temperature
1134	Engine Intercooler Thermostat Opening
1135	Engine Oil Temperature 2
1136	Engine ECU Temperature
1137	Engine Exhaust Gas Port 1 Temperature
1138	Engine Exhaust Gas Port 2 Temperature
1139	Engine Exhaust Gas Port 3 Temperature
1140	Engine Exhaust Gas Port 4 Temperature
1141	Engine Exhaust Gas Port 5 Temperature
1142	Engine Exhaust Gas Port 6 Temperature
1143	Engine Exhaust Gas Port 7 Temperature
1144	Engine Exhaust Gas Port 8 Temperature
1145	Engine Exhaust Gas Port 9 Temperature
1146	Engine Exhaust Gas Port 10 Temperature
1147	Engine Exhaust Gas Port 11 Temperature
1148	Engine Exhaust Gas Port 12 Temperature
1149	Engine Exhaust Gas Port 13 Temperature
1150	Engine Exhaust Gas Port 14 Temperature
1151	Engine Exhaust Gas Port 15 Temperature
1152	Engine Exhaust Gas Port 16 Temperature

1153	Engine Exhaust Gas Port 17 Temperature
1154	Engine Exhaust Gas Port 18 Temperature
1155	Engine Exhaust Gas Port 19 Temperature
1156	Engine Exhaust Gas Port 20 Temperature
1157	Engine Main Bearing #1 Temperature
1158	Engine Main Bearing #2 Temperature
1159	Engine Main Bearing #3 Temperature
1160	Engine Main Bearing #4 Temperature
1161	Engine Main Bearing #5 Temperature
1162	Engine Main Bearing #6 Temperature
1163	Engine Main Bearing #7 Temperature
1164	Engine Main Bearing #8 Temperature
1165	Engine Main Bearing #9 Temperature
1166	Engine Main Bearing #10 Temperature
1167	Engine Main Bearing #11 Temperature
1168	Engine Turbocharger Lube Oil Pressure 2
1169	Engine Turbocharger 2 Speed
1170	Engine Turbocharger 3 Speed
1171	Engine Turbocharger 4 Speed
1172	Engine Turbocharger 1 Compressor Inlet Temperature
1173	Engine Turbocharger 2 Compressor Inlet Temperature
1174	Engine Turbocharger 3 Compressor Inlet Temperature
1175	Engine Turbocharger 4 Compressor Inlet Temperature
1176	Engine Turbocharger 1 Compressor Inlet Pressure
1177	Engine Turbocharger 2 Compressor Inlet Pressure

1178	Engine Turbocharger 3 Compressor Inlet Pressure
1179	Engine Turbocharger 4 Compressor Inlet Pressure
1180	Engine Turbocharger 1 Turbine Inlet Temperature
1181	Engine Turbocharger 2 Turbine Inlet Temperature
1182	Engine Turbocharger 3 Turbine Inlet Temperature
1183	Engine Turbocharger 4 Turbine Inlet Temperature
1184	Engine Turbocharger 1 Turbine Outlet Temperature
1185	Engine Turbocharger 2 Turbine Outlet Temperature
1186	Engine Turbocharger 3 Turbine Outlet Temperature
1187	Engine Turbocharger 4 Turbine Outlet Temperature
1188	Engine Turbocharger 1 Wastegate Drive
1189	Engine Turbocharger 2 Wastegate Drive
1190	Engine Turbocharger 3 Wastegate Drive
1191	Engine Turbocharger 4 Wastegate Drive
1192	Engine Turbocharger Wastegate Actuator Control Air Pressure
1193	Engine Operation Time Since Rebuild
1194	Anti-theft Encryption Seed Present Indicator
1195	Anti-theft Password Valid Indicator
1196	Anti-theft Component Status States
1197	Anti-theft Modify Password States
1198	Anti-theft Random Number
1199	Anti-theft Encryption Indicator States
1200	Anti-theft Desired Exit Mode States
1201	Anti-theft Command States

1202	Anti-theft Password Representation
1203	Engine Auxiliary Coolant Pressure
1204	Electrical Load
1205	Safety Wire Status
1207	Engine ECU Temperature
1208	Engine Pre-filter Oil Pressure
1209	Engine Exhaust Gas Pressure
1210	Engine Fuel Rack Position
1211	Engine Build Hours Reset
1212	Engine Auxiliary Coolant Temperature
1213	Malfunction Indicator Lamp
1214	Suspect Parameter Number
1215	Failure Mode Identifier
1216	Occurrence Count
1217	Freeze Frame Length
1218	Active Trouble Codes
1219	Previously Active Trouble Codes
1220	OBD Compliance
1221	Continuously Monitored Systems Support/Status
1222	Non-continuously Monitored Systems Support
1223	Non-continuously Monitored Systems Status
1224	Test Identifier
1225	Test Type/Component Identifier
1226	Test Value
1227	Test Limit Maximum

1228	Test Limit Minimum
1229	Test Identifiers Supported
1230	Current Data Link
1231	J1939 Network #2
1232	ISO 9141
1233	J1850
1234	Other, Manufacturer Specified Port
1235	J1939 Network #3
1236	Hold Signal
1237	Engine Shutdown Override Switch
1238	Traction Control Override Switch
1239	Engine Fuel Leakage 1
1240	Engine Fuel Leakage 2
1241	Engine Gas Mass Flow Rate #1
1242	Instantaneous Estimated Brake Power
1243	ABS Fully Operational
1244	Engine Fuel Actuator 2 Control Command
1245	Engine Timing Actuator #2
1246	Number of Engine Torque History Records
1247	Engine Power
1248	Engine Peak Torque 1
1249	Engine Peak Torque 2
1250	Calibration Record Start Month
1251	Calibration Record Start Day
1252	Calibration Record Start Year

1253	Calibration Record Duration Time
1254	Torque Limiting Feature Status
1255	Transmission Gear Ratio 1
1256	Engine Torque Limit 1, Transmission
1257	Transmission Gear Ratio 2
1258	Engine Torque Limit 2, Transmission
1259	Transmission Gear Ratio 3
1260	Engine Torque Limit 3, Transmission
1261	Engine Torque Limit 4, Transmission
1262	Engine Torque Limit 5, Switch
1263	Engine Torque Limit 6, Axle Input
1264	Engine Extended Crankcase Blow-by Pressure
1265	Engine Oil Burn Valve
1266	Engine Oil Replacement Valve
1267	Idle Shutdown Vehicle Accessories Relay Driver Circuit
1268	Engine Ignition Coil #1
1269	Engine Ignition Coil #2
1270	Engine Ignition Coil #3
1271	Engine Ignition Coil #4
1272	Engine Ignition Coil #5
1273	Engine Ignition Coil #6
1274	Engine Ignition Coil #7
1275	Engine Ignition Coil #8
1276	Engine Ignition Coil #9

1277	Engine Ignition Coil #10
1278	Engine Ignition Coil #11
1279	Engine Ignition Coil #12
1280	Engine Ignition Coil #13
1281	Engine Ignition Coil #14
1282	Engine Ignition Coil #15
1283	Engine Ignition Coil #16
1284	Engine Ignition Coil #17
1285	Engine Ignition Coil #18
1286	Engine Ignition Coil #19
1287	Engine Ignition Coil #20
1288	Engine Ignition Coil #21
1289	Engine Ignition Coil #22
1290	Engine Ignition Coil #23
1291	Engine Ignition Coil #24
1292	Engine Ignition Control Module #1
1293	Engine Ignition Control Module #2
1294	Engine Spark Plug #1
1295	Engine Spark Plug #2
1296	Engine Spark Plug #3
1297	Engine Spark Plug #4
1298	Engine Spark Plug #5
1299	Engine Spark Plug #6
1300	Engine Spark Plug #7

1301	Engine Spark Plug #8
1302	Engine Spark Plug #9
1303	Engine Spark Plug #10
1304	Engine Spark Plug #11
1305	Engine Spark Plug #12
1306	Engine Spark Plug #13
1307	Engine Spark Plug #14
1308	Engine Spark Plug #15
1309	Engine Spark Plug #16
1310	Engine Spark Plug #17
1311	Engine Spark Plug #18
1312	Engine Spark Plug #19
1313	Engine Spark Plug #20
1314	Engine Spark Plug #21
1315	Engine Spark Plug #22
1316	Engine Spark Plug #23
1317	Engine Spark Plug #24
1318	Engine Exhaust Temperature Bank Imbalance
1319	Engine Intake Manifold Pressure Bank Imbalance
1320	Engine External Shutdown Air Supply Pressure
1321	Engine Starter Solenoid Lockout Relay Driver Circuit
1322	Engine Misfire for Multiple Cylinders
1323	Engine Misfire Cylinder #1
1324	Engine Misfire Cylinder #2
1325	Engine Misfire Cylinder #3

1326	Engine Misfire Cylinder #4
1327	Engine Misfire Cylinder #5
1328	Engine Misfire Cylinder #6
1329	Engine Misfire Cylinder #7
1330	Engine Misfire Cylinder #8
1331	Engine Misfire Cylinder #9
1332	Engine Misfire Cylinder #10
1333	Engine Misfire Cylinder #11
1334	Engine Misfire Cylinder #12
1335	Engine Misfire Cylinder #13
1336	Engine Misfire Cylinder #14
1337	Engine Misfire Cylinder #15
1338	Engine Misfire Cylinder #16
1339	Engine Misfire Cylinder #17
1340	Engine Misfire Cylinder #18
1341	Engine Misfire Cylinder #19
1342	Engine Misfire Cylinder #20
1343	Engine Misfire Cylinder #21
1344	Engine Misfire Cylinder #22
1345	Engine Misfire Cylinder #23
1346	Engine Misfire Cylinder #24
1347	Engine Fuel Pump Pressurizing Assembly #1
1348	Engine Fuel Pump Pressurizing Assembly #2
1349	Engine Injector Metering Rail #2 Pressure

1350	Time Since Last Service
1351	Air Compressor Status
1352	Engine Cylinder #1 Knock Level
1353	Engine Cylinder #2 Knock Level
1354	Engine Cylinder #3 Knock Level
1355	Engine Cylinder #4 Knock Level
1356	Engine Cylinder #5 Knock Level
1357	Engine Cylinder #6 Knock Level
1358	Engine Cylinder #7 Knock Level
1359	Engine Cylinder #8 Knock Level
1360	Engine Cylinder #9 Knock Level
1361	Engine Cylinder #10 Knock Level
1362	Engine Cylinder #11 Knock Level
1363	Engine Cylinder #12 Knock Level
1364	Engine Cylinder #13 Knock Level
1365	Engine Cylinder #14 Knock Level
1366	Engine Cylinder #15 Knock Level
1367	Engine Cylinder #16 Knock Level
1368	Engine Cylinder #17 Knock Level
1369	Engine Cylinder #18 Knock Level
1370	Engine Cylinder #19 Knock Level
1371	Engine Cylinder #20 Knock Level
1372	Engine Cylinder #21 Knock Level
1373	Engine Cylinder #22 Knock Level

1374	Engine Cylinder #23 Knock Level
1375	Engine Cylinder #24 Knock Level
1376	Battery #2 Potential (Voltage)
1377	Engine Synchronization Switch
1378	Engine Oil Change Interval
1379	Service Component Identification
1380	Engine Oil Level Remote Reservoir
1381	Engine Fuel Supply Pump Inlet Pressure
1382	Engine Fuel Filter (suction side) Differential Pressure
1383	Engine was Shut Down Hot
1384	Engine has Been Shut Down from Data Link Information
1385	Auxiliary Temperature #1
1386	Auxiliary Temperature #2
1387	Auxiliary Pressure #1
1388	Auxiliary Pressure #2
1389	Engine Fuel Specific Gravity
1390	Engine Fuel Valve #1 Inlet Absolute Pressure
1391	Engine Fuel Valve Differential Pressure
1392	Engine Air to Fuel Differential Pressure
1393	Engine Cylinder #1 Ignition Transformer Secondary Output
1394	Engine Cylinder #2 Ignition Transformer Secondary Output
1395	Engine Cylinder #3 Ignition Transformer Secondary Output
1396	Engine Cylinder #4 Ignition Transformer Secondary Output
1397	Engine Cylinder #5 Ignition Transformer Secondary Output
1398	Engine Cylinder #6 Ignition Transformer Secondary Output

1399	Engine Cylinder #7 Ignition Transformer Secondary Output
1400	Engine Cylinder #8 Ignition Transformer Secondary Output
1401	Engine Cylinder #9 Ignition Transformer Secondary Output
1402	Engine Cylinder #10 Ignition Transformer Secondary Output
1403	Engine Cylinder #11 Ignition Transformer Secondary Output
1404	Engine Cylinder #12 Ignition Transformer Secondary Output
1405	Engine Cylinder #13 Ignition Transformer Secondary Output
1406	Engine Cylinder #14 Ignition Transformer Secondary Output
1407	Engine Cylinder #15 Ignition Transformer Secondary Output
1408	Engine Cylinder #16 Ignition Transformer Secondary Output
1409	Engine Cylinder #17 Ignition Transformer Secondary Output
1410	Engine Cylinder #18 Ignition Transformer Secondary Output
1411	Engine Cylinder #19 Ignition Transformer Secondary Output
1412	Engine Cylinder #20 Ignition Transformer Secondary Output
1413	Engine Cylinder #1 Ignition Timing
1414	Engine Cylinder #2 Ignition Timing
1415	Engine Cylinder #3 Ignition Timing
1416	Engine Cylinder #4 Ignition Timing
1417	Engine Cylinder #5 Ignition Timing
1418	Engine Cylinder #6 Ignition Timing
1419	Engine Cylinder #7 Ignition Timing
1420	Engine Cylinder #8 Ignition Timing
1421	Engine Cylinder #9 Ignition Timing
1422	Engine Cylinder #10 Ignition Timing

1423	Engine Cylinder #11 Ignition Timing
1424	Engine Cylinder #12 Ignition Timing
1425	Engine Cylinder #13 Ignition Timing
1426	Engine Cylinder #14 Ignition Timing
1427	Engine Cylinder #15 Ignition Timing
1428	Engine Cylinder #16 Ignition Timing
1429	Engine Cylinder #17 Ignition Timing
1430	Engine Cylinder #18 Ignition Timing
1431	Engine Cylinder #19 Ignition Timing
1432	Engine Cylinder #20 Ignition Timing
1433	Engine Desired Ignition Timing #1
1434	Engine Desired Ignition Timing #2
1435	Engine Desired Ignition Timing #3
1436	Engine Actual Ignition Timing
1437	Road Speed Limit Status
1438	ABS/EBS Amber Warning Signal
1439	EBS Red Warning Signal
1440	Engine Fuel Flow Rate #1
1441	Engine Fuel Flow Rate #2
1442	Engine Fuel Valve #1 Position
1443	Engine Fuel Valve #2 Position
1444	Engine Cylinder #1 Combustion Time
1445	Engine Cylinder #2 Combustion Time
1446	Engine Cylinder #3 Combustion Time

1447	Engine Cylinder #4 Combustion Time
1448	Engine Cylinder #5 Combustion Time
1449	Engine Cylinder #6 Combustion Time
1450	Engine Cylinder #7 Combustion Time
1451	Engine Cylinder #8 Combustion Time
1452	Engine Cylinder #9 Combustion Time
1453	Engine Cylinder #10 Combustion Time
1454	Engine Cylinder #11 Combustion Time
1455	Engine Cylinder #12 Combustion Time
1456	Engine Cylinder #13 Combustion Time
1457	Engine Cylinder #14 Combustion Time
1458	Engine Cylinder #15 Combustion Time
1459	Engine Cylinder #16 Combustion Time
1460	Engine Cylinder #17 Combustion Time
1461	Engine Cylinder #18 Combustion Time
1462	Engine Cylinder #19 Combustion Time
1463	Engine Cylinder #20 Combustion Time
1464	Engine Desired Combustion Time
1465	Engine Average Combustion Time
1466	Steer Channel Mode
1467	Trailer/tag Channel Mode
1468	Drive Channel Mode
1469	PCU Drive Solenoid Status
1470	PCU Steer Solenoid Status
1471	Tire Pressure Supply Switch Status

1472	PCU Deflate Solenoid Status
1473	PCU Control Solenoid Status
1474	PCU Supply Solenoid Status
1475	PCU Trailer, Tag or Push Solenoid Status
1476	Engine Oil Specific Resistance
1477	Engine Oil Kinematic Viscosity
1478	Engine Oil Relative Dielectricity
1479	Security Entity Type
1480	Source Address of Controlling Device for Retarder Control
1481	Source Address of Controlling Device for Brake Control
1482	Source Address of Controlling Device for Transmission Control
1483	Source Address of Controlling Device for Engine Control
1484	Other ECUs Have Reported Fault Codes Affecting Operation
1485	ECM Main Relay
1486	Concave Position
1487	Illumination Brightness Percent
1488	Thresher Speed
1489	Cleaning Fan Speed
1490	Header Backshaft Speed
1491	Instrument Panel #1 Backlighting Driver
1492	Instrument Panel #2 Backlighting Driver
1493	Tailings System
1494	Tailings Sensor #1
1495	Tailings Sensor #2

1496	Tailings Elevator Paddles
1497	Unloading Auger Drive
1498	Header Drive
1499	Separator Drive
1500	Tachometer Module Switch Matrix
1501	Grain Loss Module Switch Matrix
1502	Automatic Header Control Switch Matrix
1503	Arm Rest Switch Matrix
1504	Operator Seat Switch
1505	Automatic Header Sensitivity Adjustment
1506	Automatic Header Rate Adjustment Input
1507	Discharge Beater Speed Disable Adjustment
1508	Hydraulic Reservoir Temperature
1509	Thresher Separator Hydraulic Drive 1 Temperature
1510	Chopper Vane Adjustment
1511	Right side Cleaning Shoe Relative Grain Loss
1512	Left side Cleaning Shoe Relative Grain Loss
1513	Right side Separator Relative Grain Loss
1514	Left side Separator Relative Grain Loss
1515	Header Height System
1516	Header
1517	Header Lift Cylinder Pressure
1518	Header Sensor Identification
1519	Header Raise Valve Drive

1520	Header Lower Valve Drive
1521	Header Tilt Left Valve Drive
1522	Header Tilt Right Valve Drive
1523	Header Lift Cylinder Pressure Diverted Valve Drive
1524	Reel Position Forward Actuator
1525	Reel Position Aft Actuator
1526	Reel Position Raise Actuator
1527	Reel Position Lower Actuator
1528	Header Drop Rate Control Valve Drive
1529	Header Lift Cylinder Accumulator Shutoff Valve Drive
1530	Unloading auger flow bypass valve drive
1531	Reel Drive Motor Speed Increase Valve Drive
1532	Reel Drive Motor Speed Decrease Valve Drive
1533	Feederhouse Angle
1534	Header Leftmost Height
1535	Header Rightmost Height
1536	Header Center Height
1537	Reel Fore-Aft Position
1538	Reel Up-Down Position
1539	Header Lateral Tilt Angle
1540	Reel Speed Actuator Position
1541	Reel Speed
1542	ECU Power Supply Voltage #2
1543	ECU Power Supply Voltage #3
1544	Hydro Handle Matrix Switch

1545	Not used – reserved
1546	HVAC Coolant Valve Position Sensor
1547	A/C Evaporator Temperature
1548	HVAC Duct Temperature
1549	HVAC Water Valve Drive
1550	Not used – reserved
1551	A/C Pressurizer Drive Circuit
1552	Operator Input device for Cab Climate Control
1553	HVAC Blower Motor Speed Adjustment
1554	Clean Grain Elevator Speed
1555	Moisture Sensor Cell Frequency
1556	Datalog Memory card
1557	Not used – reserved
1558	Programming Error, Device Refused to Enter Programming Mode
1559	Programming Error, Device Timed Out While Entering the Programming Mode
1560	Programming Error, Device Timed Out While Erasing
1561	Programming Error, Device Timed Out While Programming
1562	Programming Error, Device did not Accept Program Line
1563	Incompatible Monitor/Controller
1564	CCD Data Link
1565	Armrest Status
1566	Armrest Rotary Inputs
1567	Header Height Control Mode Selector Switches
1568	Engine Torque Curve Selection
1569	Engine Protection Torque Derate

1570	Implement Disconnected
1571	Display Conflict
1572	Display Overload
1573	LED Display Data #1
1574	Laser Strike Vertical Deviation
1575	Modify Set Point
1576	Mast Position
1577	Blade Duration and Direction
1578	Blade Control Mode
1579	Laser Tracer Target Deviation
1580	Laser Tracer Vertical Distance
1581	Laser Tracer Horizontal Deviation
1582	LED Display Data #2
1583	Laser Tracer Information
1584	Service Component Identification
1585	Powered Vehicle Weight
1586	Speed of forward vehicle
1587	Distance to forward vehicle
1588	Adaptive Cruise Control Set Speed
1589	Adaptive Cruise Control Set Distance Mode
1590	Adaptive Cruise Control Mode
1591	Road curvature
1592	Front Axle, Left Wheel Speed
1593	Front axle, right wheel speed

1594	Rear axle, left wheel speed
1595	Rear axle, right wheel speed
1596	Security Entity Length
1597	Data Security Parameter
1598	PGN of message to be authenticated
1599	Seed
1600	Authentication message data parameter
1601	Local minute offset
1602	Local hour offset
1603	Adjust seconds
1604	Adjust minutes
1605	Adjust hours
1606	Adjust month
1607	Adjust day
1608	Adjust year
1609	Adjust local minute offset
1610	Adjust local hour offset
1611	Drive recognize
1612	Driver 1 working state
1613	Driver 2 working state
1614	Overspeed
1615	Driver card, driver 1
1616	Driver card, driver 2
1617	Driver 1 Time Related States
1618	Driver 2 Time Related States

1619	Direction indicator
1620	Tachograph performance
1621	Handling information
1622	System event
1623	Tachograph output shaft speed
1624	Tachograph vehicle speed
1625	Driver 1 identification
1626	Driver 2 identification
1627	Reserved for Certification agency ID
1628	Reserved for Certification seed/key length
1629	Reserved for Certification signature
1630	Reserved for Certification public key
1631	Reserved for Certification vehicle identification number
1632	Engine Torque Limit Feature
1633	Cruise Control Pause Switch
1634	Calibration Verification Number
1635	Calibration Identification
1636	Engine Intake Manifold #1 Air Temperature
1637	Engine Coolant Temperature
1638	Hydraulic Temperature
1639	Fan Speed
1640	Length/Number Requested
1641	Pointer Type
1642	Command
1643	Pointer Extension

1644	Pointer
1645	Key/User_Level
1646	Status
1647	EDCP Extension
1648	Error Indicator/EDC Parameter 1
1649	Length/Number Allowed
1650	Number of Occurrences of Raw Binary Data
1651	Raw Binary Data
1652	Boot Load Data
1653	Vehicle Limiting Speed Governor Enable Switch
1654	Vehicle Limiting Speed Governor Increment Switch
1655	Vehicle Limiting Speed Governor Decrement Switch
1656	Engine Automatic Start Enable Switch
1657	Engine Injector Needle Lift Sensor #1
1658	Engine Injector Needle Lift Sensor #2
1659	Engine Coolant System Thermostat
1660	Engine Automatic Start Alarm
1661	Engine Automatic Start Lamp
1662	Cab Interior Temperature Thermostat
1663	Engine Automatic Start Safety Interlock Circuit
1664	Engine Automatic Start Failed
1665	Engine Turbocharger Oil Level Switch
1666	Automatic Gear Shifting Enable Switch
1667	Retarder Requesting Brake Light

1668	J1939 Network #4
1669	J1939 Network #5
1670	J1939 Network #6
1671	J1939 Network #7
1672	J1939 Network #8
1673	J1939 Network #9
1674	J1939 Network #10
1675	Engine Starter Mode
1676	Auxiliary Heater Water Pump Status
1677	Auxiliary Heater Mode
1678	Cab Ventilation
1679	Engine Heating Zone
1680	Cab Heating Zone
1681	Battery Main Switch Hold State
1682	Battery Main Switch Hold Request
1683	Auxiliary Heater Mode Request
1684	Auxiliary Heater Coolant Pump Request
1685	Request Engine Zone Heating
1686	Request Cab Zone Heating
1687	Auxiliary Heater Output Coolant Temperature
1688	Auxiliary Heater Input Air Temperature
1689	Auxiliary Heater Output Power Percent
1690	Auxiliary Heater Maximum Output Power
1691	Cab Interior Temperature Command

1692	Engine Desired Absolute Intake Manifold Pressure
1693	Engine Turbocharger Wastegate Valve Position
1694	Engine Gas Mass Flow Sensor Fueling Correction
1695	Engine Exhaust Gas Oxygen Sensor Fueling Correction
1696	Engine Exhaust Gas Oxygen Sensor Closed Loop Operation
1697	CTI Wheel End Electrical Fault
1698	CTI Tire Status
1699	CTI Wheel Sensor Status
1700	Lane Departure Imminent, Left Side
1701	Lane Departure Imminent, Right Side
1702	Lane Departure Indication Enable Status
1703	Lane Tracking Speaker – Right Side
1704	Lane Tracking Speaker
1705	Forward View Imager System
1706	SPN Conversion Method
1709	Transmission Controller Power Relay
1710	Lane Tracking Status Left Side
1711	Lane Tracking Status Right Side
1712	Engine Extended Range Requested Speed Control Range Upper Limit
1713	Hydraulic Oil Filter Restriction Switch
1714	Operator Seat Direction Switch
1715	Drivers Demand Retarder – Percent Torque
1716	Retarder Selection, non-engine
1717	Actual Maximum Available Retarder – Percent Torque
1718	Damper Stiffness Request Front Axle

1719	Damper Stiffness Request Rear Axle
1720	Damper Stiffness Request Lift / Tag Axle
1721	Relative Level Front Axle Left
1722	Relative Level Front Axle Right
1723	Relative Level Rear Axle Right
1724	Relative Level Rear Axle Left
1725	Bellow Pressure Front Axle Left
1726	Bellow Pressure Front Axle Right
1727	Bellow Pressure Rear Axle Left
1728	Bellow Pressure Rear Axle Right
1729	Damper Stiffness Front Axle
1730	Damper Stiffness Rear Axle
1731	Damper Stiffness Lift / Tag Axle
1732	Level Preset Front Axle Left
1733	Nominal Level Rear Axle
1734	Nominal Level Front Axle
1735	Level Preset Rear Axle Right
1736	Above Nominal Level Rear Axle
1737	Above Nominal Level Front Axle
1738	Below Nominal Level Front Axle
1739	Lifting Control Mode Front Axle
1740	Lowering Control Mode Front Axle
1741	Level Control Mode
1742	Kneeling Information

1743	Lift Axle 1 Position
1744	Door Release
1745	Vehicle Motion Inhibit
1746	Security Device
1747	Kneeling Control Mode Request
1748	Kneeling Request Right Side
1749	Kneeling Request Left Side
1750	Nominal Level Request Rear Axle
1751	Nominal Level Request Front Axle
1752	Lift Axle 1 Position Command
1753	Level Control Mode Request
1754	Below Nominal Level Rear Axle
1755	Lowering Control Mode Rear Axle
1756	Lifting Control Mode Rear Axle
1757	Level Preset Front Axle Right
1758	Level Preset Rear Axle Left
1759	Blade Height Set Point – High Resolution
1760	Gross Combination Vehicle Weight
1761	Aftertreatment 1 Diesel Exhaust Fluid Tank Level
1762	Hydraulic Pressure
1763	Engine Hydraulic Pressure Governor Mode Indicator
1764	Engine Hydraulic Pressure Governor Switch
1765	Engine Requested Fuel Valve 1 Position
1766	Engine Requested Fuel Valve 2 Position

1767	Specific Heat Ratio
1768	Engine Low Limit Threshold for Maximum RPM from Engine
1769	Engine High Limit Threshold for Minimum Continuous Engine RPM
1770	Engine Low Limit Threshold for Maximum Torque from Engine
1771	Engine High Limit Threshold for Minimum Continuous Torque from Engine
1772	Engine Maximum Continuous RPM
1773	Engine Minimum Continuous RPM
1774	Engine Maximum Continuous Torque
1775	Engine Minimum Continuous Torque
1776	Low Limit Threshold for Maximum RPM from Retarder
1777	High Limit Threshold for Minimum Continuous RPM from Retarder
1778	Low Limit Threshold for Maximum Torque from Retarder
1779	High Limit Threshold for Minimum Continuous Torque from Retarder
1780	Maximum Continuous Retarder Speed
1781	Minimum Continuous Retarder Speed
1782	Maximum Continuous Retarder Torque
1783	Minimum Continuous Retarder Torque
1784	Engine Speed Limit Request – Minimum Continuous
1785	Engine Speed Limit Request – Maximum Continuous
1786	Engine Torque Limit Request – Minimum Continuous
1787	Engine Torque Limit Request – Maximum Continuous
1788	Minimum Continuous Retarder Speed Limit Request
1789	Maximum Continuous Retarder Speed Limit Request
1790	Minimum Continuous Retarder Torque Limit Request
1791	Maximum Continuous Retarder Torque Limit Request

1792	Tractor-Mounted Trailer ABS Warning Signal
1793	ATC/ASR Information Signal
1794	Engine Moment of Inertia
1795	Alternator Current
1796	ACC Distance Alert Signal
1797	ACC System Shutoff Warning
1798	ACC Target Detected
1799	Requested ACC Distance Mode
1800	Battery #1 Temperature
1801	Battery #2 Temperature
1802	Engine Intake Manifold #5 Temperature
1803	Engine Intake Manifold #6 Temperature
1804	Engine Start Enable Device 2
1805	LED Display Mode Control
1806	LED Display Deadband Control
1807	Steering Wheel Angle
1808	Yaw Rate
1809	Lateral Acceleration
1810	Longitudinal Acceleration
1811	Steering Wheel Turn Counter
1812	Steering Wheel Angle Sensor Type
1813	VDC Information Signal
1814	VDC Fully Operational
1815	VDC brake light request

1816	ROP Engine Control active
1817	YC Engine Control active
1818	ROP Brake Control active
1819	YC Brake Control active
1820	Ramp / Wheel Chair Lift Position
1821	Position of doors
1822	Lift Axle 2 Position
1823	Rear Axle in Bumper Range
1824	Front Axle in Bumper Range
1825	Suspension Remote control 2
1826	Suspension Remote Control 1
1827	Suspension Control Refusal Information
1828	Lift Axle 2 Position Command
1829	Kneeling Command – Rear Axle
1830	Kneeling Command – Front Axle
1831	Electronic Shock Absorber Control Mode – Lift/Tag Axle
1832	Electronic Shock Absorber Control Mode – Rear Axle
1833	Electronic Shock Absorber Control Mode – Front Axle
1834	Engine Total Average Fuel Rate
1835	Engine Total Average Fuel Economy
1836	Trailer ABS Status
1837	Convoy Driving Lamp Select
1838	Convoy Lamp Select
1839	Front Black Out Marker Lamp Select
1840	Rear Black Out Marker Select

1841	Black Out Brake/Stop Lamp Select
1842	Black Out Work Lamp Select
1843	Night Vision Illuminator Select
1844	Operators Black Out Intensity Selection
1845	Transmission Torque Limit
1846	Engine Default Torque Limit
1849	Transmission Requested Range Display Flash State
1850	Transmission Requested Range Display Blank State
1851	Transmission Shift Inhibit Indicator
1852	Transmission Mode 1
1853	Transmission Mode 2
1854	Transmission Mode 3
1855	Transmission Mode 4
1856	Seat Belt Switch
1857	Winch Oil Pressure Switch
1858	Intermittent Wiper Control
1859	Ground Based Implement Speed
1860	Ground Based Implement Distance
1861	Ground Based Direction
1862	Wheel Based Speed
1863	Wheel Based Distance
1864	Wheel Based Direction
1865	Key Switch NOT OFF
1866	Maximum Time of Tractor Power
1867	Maintain ECU Power

1868	Maintain Actuator Power
1869	Implement Transport State
1870	Implement Park State
1871	Implement Work State
1872	Front Hitch Position
1873	Rear Hitch Position
1874	Front Hitch Position Command
1875	Rear Hitch Position Command
1876	Front Hitch In-work Indication
1877	Rear Hitch In-work Indication
1878	Front Draft
1879	Rear Draft
1880	Front Nominal Lower Link Force
1881	Rear Nominal Lower Link Force
1882	Front PTO output shaft speed
1883	Rear PTO output shaft speed
1884	Front PTO Output Shaft Speed Set Point
1885	Rear PTO Output Shaft Speed Set Point
1886	Front PTO Output Shaft Speed Set Point Command
1887	Rear PTO Output Shaft Speed Set Point Command 1
1888	Front Power Takeoff Engagement
1889	Front Power Takeoff Mode
1890	Rear Power Takeoff Mode
1891	Front Power Takeoff Economy Mode

1892	Rear Power Takeoff Economy Mode
1893	Front Power Takeoff Engagement Command
1894	Rear Power Takeoff Engagement Command
1895	Front Power Takeoff Mode Command
1896	Rear Power Takeoff Mode Command
1897	Front Power Takeoff Economy Mode Command
1898	Rear Power Takeoff Economy Mode Command
1899	Aux Valve 0 Extend Port Measured Flow
1900	Aux Valve 0 Retract Port Measured Flow
1901	Aux Valve 0 Extend Port Estimated Flow
1902	Aux Valve 0 Retract Port Estimated Flow
1903	Aux Valve 0 State
1904	Aux Valve 0 Extend Port Pressure
1905	Aux Valve 0 Retract Port Pressure
1906	Aux Valve 0 Return Port Pressure
1907	Aux Valve 0 Port Flow Command
1908	Aux Valve 0 State command
1909	Aux Valve 0 Fail Safe Mode Command
1910	Aux Valve 0 Fail Safe Mode
1911	Aux Valve 1 Extend Port Measured Flow
1912	Aux Valve 1 Retract Port Measured Flow
1913	Aux Valve 1 Extend Port Estimated Flow
1914	Aux Valve 1 Retract Port Estimated Flow
1915	Aux Valve 1 State

1916	Aux Valve 1 Extend Port Pressure
1917	Aux Valve 1 Retract Port Pressure
1918	Aux Valve 1 Return Port Pressure
1919	Aux Valve 1 Port Flow Command
1920	Aux Valve 1 State Command
1921	Aux Valve 1 Fail Safe Mode Command
1922	Aux Valve 1 Fail Safe Mode
1923	Aux Valve 2 Extend Port Measured Flow
1924	Aux Valve 2 Retract Port Measured Flow
1925	Aux Valve 2 Extend Port Estimated Flow
1926	Aux Valve 2 Retract Port Estimated Flow
1927	Aux Valve 2 State
1928	Aux Valve 2 Extend Port Pressure
1929	Aux Valve 2 Retract Port Pressure
1930	Aux Valve 2 Return Port Pressure
1931	Aux Valve 2 Port Flow Command
1932	Aux Valve 2 State Command
1933	Aux Valve 2 Fail Safe Mode Command
1934	Aux Valve 2 Fail Safe Mode
1935	Aux Valve 3 Extend Port Measured Flow
1936	Aux Valve 3 Retract Port Measured Flow
1937	Aux Valve 3 Extend Port Estimated Flow
1938	Aux Valve 3 Retract Port Estimated Flow
1939	Aux Valve 3 State

1940	Aux Valve 3 Extend Port Pressure
1941	Aux Valve 3 Retract Port Pressure 1
1942	Aux Valve 3 Return Port Pressure
1943	Aux Valve 3 Port Flow Command
1944	Aux Valve 3 State Command
1945	Aux Valve 3 Fail Safe Mode Command
1946	Aux Valve 3 Fail Safe Mode
1947	Aux Valve 4 Extend Port Measured Flow
1948	Aux Valve 4 Retract Port Measured Flow
1949	Aux Valve 4 Extend Port Estimated Flow
1950	Aux Valve 4 Retract Port Estimated Flow
1951	Aux Valve 4 State
1952	Aux Valve 4 Extend Port Pressure
1953	Aux Valve 4 Retract Port Pressure
1954	Aux Valve 4 Return Port Pressure
1955	Aux Valve 4 Port Flow Command
1956	Aux Valve 4 State Command
1957	Aux Valve 4 Fail Safe Mode Command
1958	Aux Valve 4 Fail Safe Mode
1959	Aux Valve 5 Extend Port Measured Flow
1960	Aux Valve 5 Retract Port Measured Flow
1961	Aux Valve 5 Extend Port Estimated Flow
1962	Aux Valve 5 Retract Port Estimated Flow
1963	Aux Valve 5 State
1964	Aux Valve 5 Extend Port Pressure

1965	Aux Valve 5 Retract Port Pressure
1966	Aux Valve 5 Return Port Pressure
1967	Aux Valve 5 Port Flow Command
1968	Aux Valve 5 State Command
1969	Aux Valve 5 Fail Safe Mode Command
1970	Aux Valve 5 Fail Safe Mode
1971	Aux Valve 6 Extend Port Measured Flow
1972	Aux Valve 6 Retract Port Measured Flow
1973	Aux Valve 6 Extend Port Estimated Flow
1974	Aux Valve 6 Retract Port Estimated Flow
1975	Aux Valve 6 State
1976	Aux Valve 6 Extend Port Pressure
1977	Aux Valve 6 Retract Port Pressure
1978	Aux Valve 6 Return Port Pressure
1979	Aux Valve 6 Port Flow Command
1980	Aux Valve 6 State Command
1981	Aux Valve 6 Fail Safe Mode Command
1982	Aux Valve 6 Fail Safe Mode
1983	Aux Valve 7 Extend Port Measured Flow
1984	Aux Valve 7 Retract Port Measured Flow
1985	Aux Valve 7 Extend Port Estimated Flow
1986	Aux Valve 7 Retract Port Estimated Flow
1987	Aux Valve 7 State
1988	Aux Valve 7 Extend Port Pressure

1989	Aux Valve 7 Retract Port Pressure
1990	Aux Valve 7 Return Port Pressure
1991	Aux Valve 7 Port Flow Command
1992	Aux Valve 7 State command
1993	Aux Valve 7 Fail Safe Mode Command
1994	Aux Valve 7 Fail Safe Mode
1995	Aux Valve 8 Extend Port Measured Flow
1996	Aux Valve 8 Retract Port Measured Flow
1997	Aux Valve 8 Extend Port Estimated Flow
1998	Aux Valve 8 Retract Port Estimated Flow
1999	Aux Valve 8 State
2000	Source Address 0
2001	Source Address 1
2002	Source Address 2
2003	Source Address 3
2004	Source Address 4
2005	Source Address 5
2006	Source Address 6
2007	Source Address 7
2008	Source Address 8
2009	Source Address 9
2010	Source Address 10
2011	Source Address 11
2012	Source Address 12
2013	Source Address 13

2014	Source Address 14
2015	Source Address 15
2016	Source Address 16
2017	Source Address 17
2018	Source Address 18
2019	Source Address 19
2020	Source Address 20
2021	Source Address 21
2022	Source Address 22
2023	Source Address 23
2024	Source Address 24
2025	Source Address 25
2026	Source Address 26
2027	Source Address 27
2028	Source Address 28
2029	Source Address 29
2030	Source Address 30
2031	Source Address 31
2032	Source Address 32
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2048	Source Address 48
2049	Source Address 49
2050	Source Address 50
2051	Source Address 51
2052	Source Address 52
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2097	Source Address 97
2098	Source Address 98
2099	Source Address 99
2100	Source Address 100
2101	Source Address 101
2102	Source Address 102
2103	Source Address 103
2104	Source Address 104
2105	Source Address 105
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2109	Source Address 109
2110	Source Address 110
2111	Source Address 111
2112	Source Address 112

2113	Source Address 113
2114	Source Address 114
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2116	Source Address 116
2117	Source Address 117
2118	Source Address 118
2119	Source Address 119
2120	Source Address 120
2121	Source Address 121
2122	Source Address 122
2123	Source Address 123
2124	Source Address 124
2125	Source Address 125
2126	Source Address 126
2127	Source Address 127
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2160	Source Address 160
2161	Source Address 161

2162	Source Address 162
2163	Source Address 163
2164	Source Address 164
2165	Source Address 165
2166	Source Address 166
2167	Source Address 167
2168	Source Address 168
2169	Source Address 169
2170	Source Address 170
2171	Source Address 171
2172	Source Address 172
2173	Source Address 173
2174	Source Address 174
2175	Source Address 175
2176	Source Address 176
2177	Source Address 177
2178	Source Address 178
2179	Source Address 179
2180	Source Address 180
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2196	Source Address 196
2197	Source Address 197
2198	Source Address 198
2199	Source Address 199
2200	Source Address 200
2201	Source Address 201
2202	Source Address 202
2203	Source Address 203
2204	Source Address 204
2205	Source Address 205
2206	Source Address 206
2207	Source Address 207
2208	Source Address 208
2209	Source Address 209
2210	Source Address 210

2211	Source Address 211
2212	Source Address 212
2213	Source Address 213
2214	Source Address 214
2215	Source Address 215
2216	Source Address 216
2217	Source Address 217
2218	Source Address 218
2219	Source Address 219
2220	Source Address 220
2221	Source Address 221
2222	Source Address 222
2223	Source Address 223
2224	Source Address 224
2225	Source Address 225
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2227	Source Address 227
2228	Source Address 228
2229	Source Address 229
2230	Source Address 230
2231	Source Address 231
2232	Source Address 232
2233	Source Address 233
2234	Source Address 234

2235	Source Address 235
2236	Source Address 236
2237	Source Address 237
2238	Source Address 238
2239	Source Address 239
2240	Source Address 240
2241	Source Address 241
2242	Source Address 242
2243	Source Address 243
2244	Source Address 244
2245	Source Address 245
2246	Source Address 246
2247	Source Address 247
2248	Source Address 248
2249	Source Address 249
2250	Source Address 250
2251	Source Address 251
2252	Source Address 252
2253	Source Address 253
2254	Source Address 254
2255	Source Address 255
2256	Aux Valve 8 Extend Port Pressure
2257	Aux Valve 8 Retract Port Pressure
2258	Aux Valve 8 Return Port Pressure
2259	Aux Valve 8 Port Flow Command

2260	Aux Valve 8 State Command
2261	Aux Valve 8 Fail Safe Mode Command
2262	Aux Valve 8 Fail Safe Mode
2263	Aux Valve 9 Extend Port Measured Flow
2264	Aux Valve 9 Retract Port Measured Flow
2265	Aux Valve 9 Extend Port Estimated Flow
2266	Aux Valve 9 Retract Port Estimated Flow
2267	Aux Valve 9 State
2268	Aux Valve 9 Extend Port Pressure
2269	Aux Valve 9 Retract Port Pressure
2270	Aux Valve 9 Return Port Pressure
2271	Aux Valve 9 Port Flow Command
2272	Aux Valve 9 State Command
2273	Aux Valve 9 Fail Safe Mode Command
2274	Aux Valve 9 Fail Safe Mode
2275	Aux Valve 10 Extend Port Measured Flow
2276	Aux Valve 10 Retract Port Measured Flow
2277	Aux Valve 10 Extend Port Estimated Flow
2278	Aux Valve 10 Retract Port Estimated Flow
2279	Aux Valve 10 State
2280	Aux Valve 10 Extend Port Pressure
2281	Aux Valve 10 Retract Port Pressure
2282	Aux Valve 10 Return Port Pressure
2283	Aux Valve 10 Port Flow Command

2284	Aux Valve 10 State Command
2285	Aux Valve 10 Fail Safe Mode Command
2286	Aux Valve 10 Fail Safe Mode
2287	Aux Valve 11 Extend Port Measured Flow
2288	Aux Valve 11 Retract Port Measured Flow
2289	Aux Valve 11 Extend Port Estimated Flow
2290	Aux Valve 11 Retract Port Estimated Flow
2291	Aux Valve 11 State
2292	Aux Valve 11 Extend Port Pressure
2293	Aux Valve 11 Retract Port Pressure
2294	Aux Valve 11 Return Port Pressure
2295	Aux Valve 11 Port Flow Command
2296	Aux Valve 11 State Command
2297	Aux Valve 11 Fail Safe Mode Command
2298	Aux Valve 11 Fail Safe Mode
2299	Aux Valve 12 Extend Port Measured Flow
2300	Aux Valve 12 Retract Port Measured Flow
2301	Aux Valve 12 Extend Port Estimated Flow
2302	Aux Valve 12 Retract Port Estimated Flow
2303	Aux Valve 12 State
2304	Aux Valve 12 Extend Port Pressure
2305	Aux Valve 12 Retract Port Pressure
2306	Aux Valve 12 Return Port Pressure
2307	Aux Valve 12 Port Flow Command
2308	Aux Valve 12 State Command

2309	Aux Valve 12 Fail Safe Mode Command
2310	Aux Valve 12 Fail Safe Mode
2311	Aux Valve 13 Extend Port Measured Flow
2312	Aux Valve 13 Retract Port Measured Flow
2313	Aux Valve 13 Extend Port Estimated Flow
2314	Aux Valve 13 Retract Port Estimated Flow
2315	Aux Valve 13 State
2316	Aux Valve 13 Extend Port Pressure
2317	Aux Valve 13 Retract Port Pressure
2318	Aux Valve 13 Return Port Pressure
2319	Aux Valve 13 Port Flow Command
2320	Aux Valve 13 State Command
2321	Aux Valve 13 Fail Safe Mode Command
2322	Aux Valve 13 Fail Safe Mode
2323	Aux Valve 14 Extend Port Measured Flow
2324	Aux Valve 14 Retract Port Measured Flow
2325	Aux Valve 14 Extend Port Estimated Flow
2326	Aux Valve 14 Retract Port Estimated Flow
2327	Aux Valve 14 State
2328	Aux Valve 14 Extend Port Pressure
2329	Aux Valve 14 Retract Port Pressure
2330	Aux Valve 14 Return Port Pressure
2331	Aux Valve 14 Port Flow Command
2332	Aux Valve 14 State Command

2333	Aux Valve 14 Fail Safe Mode Command
2334	Aux Valve 14 Fail Safe Mode
2335	Aux Valve 15 Extend Port Measured Flow
2336	Aux Valve 15 Retract Port Measured Flow
2337	Aux Valve 15 Extend Port Estimated Flow
2338	Aux Valve 15 Retract Port Estimated Flow
2339	Aux Valve 15 State
2340	Aux Valve 15 Extend Port Pressure
2341	Aux Valve 15 Retract Port Pressure
2342	Aux Valve 15 Return Port Pressure
2343	Aux Valve 15 Port Flow Command
2344	Aux Valve 15 State Command
2345	Aux Valve 15 Fail Safe Mode Command
2346	Aux Valve 15 Fail Safe Mode
2347	High Beam Head Light Command
2348	High Beam Head Light Data
2349	Low Beam Head Light Command
2350	Low Beam Head Light Data
2351	Alternate Beam Head Light Command
2352	Alternate Beam Head Light Data
2353	Tractor Front Low Mounted Work Lights Command
2354	Tractor Front Low Mounted Work Lights
2355	Tractor Front High Mounted Work Lights Command
2356	Tractor Front High Mounted Work Lights
2357	Tractor Underside Mounted Work Lights Command

2358	Tractor Underside Mounted Work Lights
2359	Tractor Rear Low Mounted Work Lights Command
2360	Tractor Rear Low Mounted Work Lights
2361	Tractor Rear High Mounted Work Lights Command
2362	Tractor Rear High Mounted Work Lights
2363	Tractor Side Low Mounted Work Lights Command
2364	Tractor Side Low Mounted Work Lights
2365	Tractor Side High Mounted Work Lights Command
2366	Tractor Side High Mounted Work Lights
2367	Left Turn Signal Lights Command
2368	Left Turn Signal Lights
2369	Right Turn Signal Lights Command
2370	Right Turn Signal Lights
2371	Left Stop Light Command
2372	Left Stop Light
2373	Right Stop Light Command
2374	Right Stop Light
2375	Center Stop Light Command
2376	Center Stop Light
2377	Tractor Marker Light Command
2378	Tractor Marker Light
2379	Implement Marker Light Command
2380	Implement Marker Light
2381	Tractor Clearance Light Command
2382	Tractor Clearance Light

2383	Implement Clearance Light Command
2384	Implement Clearance Light
2385	Rotating Beacon Light Command
2386	Rotating Beacon Light
2387	Tractor Front Fog Lights Command
2388	Tractor Front Fog Lights
2389	Rear Fog Light Command
2390	Rear Fog Lights
2391	Back Up Light and Alarm Horn Command
2392	Back Up Light and Alarm Horn
2393	Lighting Data Request Command
2394	Implement Rear Work Light
2395	Implement OEM Option 1 Light Command
2396	Implement OEM Option 1 Light
2397	Implement OEM Option 2 Light Command
2398	Implement OEM Option 2 Light
2399	Implement Left Forward Work Light Command
2400	Implement Left Forward Work Light
2401	Implement Right Forward Work Light Command
2402	Implement Right Forward Work Light
2403	Running Light Command
2404	Running Light
2405	Implement Rear Work Light Command
2406	Implement Right Facing Work Light Command

2407	Implement Right Facing Work Light
2408	Rear Power Takeoff Engagement
2409	Number of Members in Working Set 1
2410	Language Code Command
2411	Decimal Symbol Command
2412	Date Command
2413	Time Command
2414	Distance Unit Command
2415	Area Unit Command
2416	Volume Unit Command
2417	Mass Unit Command 1
2418	Repetition Rate Parameter 1
2419	Data Format/Error Condition 1
2420	Process Data Type 1
2421	Process Data Modifier 1
2422	Count Number
2423	Group Number
2424	Element Number
2425	Implement Type 1
2426	Implement Position 1
2427	Data Dictionary Row 1
2428	Data Dictionary Column 1
2429	Process Variable Value
2430	Engine Coolant Level – Main Radiator
2431	Engine Oil Rail High Pressure Leakage

2432	Engine Demand Percent Torque
2433	Engine Exhaust Exhaust Gas Temperature – Right Manifold
2434	Engine Exhaust Exhaust Gas Temperature -Left Manifold
2435	Seawater Pump Outlet Pressure
2436	Generator Average AC Frequency
2437	Generator Phase A AC Frequency
2438	Generator Phase B AC Frequency
2439	Generator Phase C AC Frequency
2440	Generator Average Line-Line AC RMS Voltage
2441	Generator Phase AB Line-Line AC RMS Voltage
2442	Generator Phase BC Line-Line AC RMS Voltage
2443	Generator Phase CA Line-Line AC RMS Voltage
2444	Generator Average Line-Neutral AC RMS Voltage
2445	Generator Phase A Line-Neutral AC RMS Voltage
2446	Generator Phase B Line-Neutral AC RMS Voltage
2447	Generator Phase C Line-Neutral AC RMS Voltage
2448	Generator Average AC RMS Current
2449	Generator Phase A AC RMS Current
2450	Generator Phase B AC RMS Current
2451	Generator Phase C AC RMS Current
2452	Generator Total Real Power
2453	Generator Phase A Real Power
2454	Generator Phase B Real Power
2455	Generator Phase C Real Power
2456	Generator Total Reactive Power

2457	Generator Phase A Reactive Power
2458	Generator Phase B Reactive Power
2459	Generator Phase C Reactive Power
2460	Generator Total Apparent Power
2461	Generator Phase A Apparent Power
2462	Generator Phase B Apparent Power
2463	Generator Phase C Apparent Power
2464	Generator Overall Power Factor
2465	Generator Phase A Power Factor
2466	Generator Phase B Power Factor
2467	Generator Phase C Power Factor
2468	Generator Total kW Hours Export
2469	Generator Total kW Hours Import
2470	Utility Average AC Frequency
2471	Utility Phase A AC Frequency
2472	Utility Phase B AC Frequency
2473	Utility Phase C AC Frequency
2474	Utility Average Line-Line AC RMS Voltage
2475	Utility Phase AB Line-Line AC RMS Voltage
2476	Utility Phase BC Line-Line AC RMS Voltage
2477	Utility Phase CA Line-Line AC RMS Voltage
2478	Utility Average Line-Neutral AC RMS Voltage
2479	Utility Phase A Line-Neutral AC RMS Voltage
2480	Utility Phase B Line-Neutral AC RMS Voltage

2481	Utility Phase C Line-Neutral AC RMS Voltage
2482	Utility Average AC RMS Current
2483	Utility Phase A AC RMS Current
2484	Utility Phase B AC RMS Current
2485	Utility Phase C AC RMS Current
2486	Utility Total Real Power
2487	Utility Phase A Real Power
2488	Utility Phase B Real Power
2489	Utility Phase C Real Power
2490	Utility Total Reactive Power
2491	Utility Phase A Reactive Power
2492	Utility Phase B Reactive Power
2493	Utility Phase C Reactive Power
2494	Utility Total Apparent Power
2495	Utility Phase A Apparent Power
2496	Utility Phase B Apparent Power
2497	Utility Phase C Apparent Power
2498	Utility Overall Power Factor
2499	Utility Phase A Power Factor
2500	Utility Phase B Power Factor
2501	Utility Phase C Power Factor
2502	Utility Total kW Hours Export
2503	Utility Total kW Hours Import
2504	Bus #1 Average AC Frequency

2505	Bus #1 Phase A AC Frequency
2506	Bus #1 Phase B AC Frequency
2507	Bus #1 Phase C AC Frequency
2508	Bus #1 Average Line-Line AC RMS Voltage
2509	Bus #1 Phase AB Line-Line AC RMS Voltage
2510	Bus #1 Phase BC Line-Line AC RMS Voltage
2511	Bus #1 Phase CA Line-Line AC RMS Voltage
2512	Bus #1 Average Line-Neutral AC RMS Voltage
2513	Bus #1 Phase A Line-Neutral AC RMS Voltage
2514	Bus #1 Phase B Line-Neutral AC RMS Voltage
2515	Bus #1 Phase C Line-Neutral AC RMS Voltage
2516	Bus #1/Generator AC Phase Difference
2517	Bus #1/Utility AC Phase Difference
2518	Generator Overall Power Factor Lagging
2519	Generator Phase A Power Factor Lagging
2520	Generator Phase B Power Factor Lagging
2521	Generator Phase C Power Factor Lagging
2522	Utility Overall Power Factor Lagging
2523	Utility Phase A Power Factor Lagging
2524	Utility Phase B Power Factor Lagging
2525	Utility Phase C Power Factor Lagging
2526	Bus #1/Generator Phase Match
2527	Bus #1/Generator Voltage Match
2528	Bus #1/Generator Frequency Match

2529	Bus #1/Generator In Sync
2530	Bus #1/Generator Dead Bus
2531	Bus #1/Utility Phase Match
2532	Bus #1/Utility Voltage Match
2533	Bus #1/Utility Frequency Match
2534	Bus #1/Utility In Sync
2535	Bus #1/Utility Dead Bus
2536	Transmission Mode 1 Indicator
2537	Transmission Mode 2 Indicator
2538	Transmission Mode 3 Indicator
2539	Transmission Mode 4 Indicator
2540	Parameter Group Number
2541	Control Byte
2542	Group Function Value
2543	Parameter Group Number
2544	Group Function Value
2545	Parameter Group Number
2546	Group Function Value
2547	Parameter Group Number
2548	Group Function Value
2549	Parameter Group Number
2550	Manufacturer Specific Information
2551	Manufacturer Defined Usage (PropB_PDU2) 1
2552	Parameter Group Number of Requested Information

2553	Length of data for the reported PGN
2554	Short Name of Actual Reporting Device
2555	Transfer Data
2556	Control Byte
2557	Total Message Size (TP.CM_RTS) 1
2558	Total Number of Packets
2559	Maximum Number of Packets
2560	Parameter Group Number of the packeted message
2561	Number of Packets that can be sent
2562	Next Packet Number to be sent
2563	Parameter Group Number of the packeted message
2564	Total Message Size
2565	Total Number of Packets
2566	Parameter Group Number of the packeted message
2567	Total Message Size
2568	Total Number of Packets
2569	Parameter Group Number of the packeted message
2570	Connection Abort Reason
2571	Parameter Group Number of packeted message
2572	Sequence Number
2573	Packetized Data
2574	Parameter Group Number
2575	Use Transfer Mode
2576	Laser Receiver Type
2577	Display Deadbands

2578	LED Pattern Control
2579	Net Battery Current
2580	Hydraulic Brake Pressure Circuit 1
2581	Hydraulic Brake Pressure Circuit 2
2582	Hydraulic Brake Pressure Supply State Circuit 1
2583	Hydraulic Brake Pressure Supply State Circuit 2
2584	Hydraulic Brake Pressure Warning State Circuit 1
2585	Hydraulic Brake Pressure Warning State Circuit 2
2586	Tire Air Leakage Rate
2587	Tire Pressure Threshold Detection
2588	Maximum Vehicle Speed Limit 1
2589	Maximum Vehicle Speed Limit 2
2590	Maximum Vehicle Speed Limit 3
2591	Maximum Vehicle Speed Limit 4
2592	Maximum Vehicle Speed Limit 5
2593	Maximum Vehicle Speed Limit 6
2594	Maximum Vehicle Speed Limit 7
2595	Applied Vehicle Speed Limit
2596	Selected Maximum Vehicle Speed Limit
2597	Implement Left Facing Work Light Command
2598	Implement Left Facing Work Light
2599	Fire Apparatus Pump Engagement
2600	Payload Percentage
2601	Travel Velocity Control Position

2602	Hydraulic Oil Level
2603	Pneumatic Supply Pressure Request
2604	Parking and/or Trailer Air Pressure Request
2605	Service Brake Air Pressure Request, Circuit #1
2606	Service Brake Air Pressure Request, Circuit #2
2607	Auxiliary Equipment Supply Pressure Request
2608	Air Suspension Supply Pressure Request
2609	Cab A/C Refrigerant Compressor Outlet Pressure
2610	Solar Intensity Percent
2611	Solar Sensor Maximum
2612	Front Wheel Drive Actuator Status
2613	Drive Axle Lube Pressure
2614	Steering Axle Lube Pressure
2615	Engine Throttle Synchronization Mode Status
2616	Trolling Mode Status
2617	Slow Vessel Mode Status
2618	Suspend Signal
2619	Suspend Duration
2620	Brake Lining Display
2621	Pneumatic Brake Pressure Limitation Valve Front Axle
2622	Hillholder system
2623	Accelerator Pedal #1 Channel #2
2624	Accelerator Pedal #1 Channel #3
2625	Accelerator Pedal #2 Channel #2
2626	Accelerator Pedal #2 Channel #3

2627	Engine Gaseous Fuel Shutoff Valve – High Pressure
2628	Engine Gaseous Fuel Shutoff Valve – Low Pressure
2629	Engine Turbocharger 1 Compressor Outlet Temperature
2630	Engine Charge Air Cooler Outlet Temperature
2631	Engine Charge Air Cooler Outlet Pressure
2632	Engine Charge Air Cooler Bypass
2633	Engine Variable Geometry Turbocharger (VGT) 1 Nozzle Position
2634	Power Relay
2635	Neutral Only Power Relay
2636	Windshield Wiper Motor ON/OFF
2637	Windshield Wiper Motor Speed
2638	Differential Lock Control Valve #2
2639	Cab Door “Lock” Control
2640	Cab Door “Unlock” Control
2641	Horn
2642	Mirror Heater
2643	Battery Monitor Load #1
2644	Battery Monitor Load #2
2645	ECU “Wake Up” Control
2646	Auxiliary Output #4
2647	Auxiliary Output #5
2648	Maintenance Lamp
2649	Low Air Pressure
2650	Fan Override Indicator

2651	Interior Lamps
2652	Switch Diagnostic Enable
2653	Headlamp Low Beam Left #1
2654	Headlamp Low Beam Left #2
2655	Headlamp Low Beam Right #1
2656	Headlamp Low Beam Right #2
2657	Engine Auxiliary Cooling System
2658	Engine Inlet Air Precleaner
2659	Engine Exhaust Gas Recirculation (EGR) Mass Flow Rate
2660	Joystick 1 X-Axis Position
2661	Joystick 1 Y-Axis Position
2662	Joystick 1 Grip X-Axis Position
2663	Joystick 1 Grip Y-Axis Position
2664	Joystick 1 Theta-Axis Position
2665	Joystick 1 X-Axis Lever Right Positive Position Status
2666	Joystick 1 Y-Axis Lever Forward Positive Position Status
2667	Joystick 1 Grip X-Axis Lever Right Positive Position Status
2668	Joystick 1 Grip Y-Axis Lever Forward Positive Position Status
2669	Joystick 1 Theta-Axis Clockwise Positive Position Status
2670	Joystick 1 X-Axis Lever Left Negative Position Status
2671	Joystick 1 Y-Axis Lever Back Negative Position Status
2672	Joystick 1 Grip X-Axis Lever Left Negative Position Status
2673	Joystick 1 Grip Y-Axis Lever Back Negative Position Status
2674	Joystick 1 Theta-Axis Counterclockwise Negative Position Status
2675	Joystick 1 X-Axis Neutral Position Status

2676	Joystick 1 Y-Axis Neutral Position Status
2677	Joystick 1 Grip X-Axis Neutral Position Status
2678	Joystick 1 Grip Y-Axis Neutral Position Status
2679	Joystick 1 Theta-Axis Neutral Position Status
2680	Joystick 1 X-Axis Detent Position Status
2681	Joystick 1 Y-Axis Detent Position Status
2682	Joystick 1 Grip X-Axis Detent Position Status
2683	Joystick 1 Grip Y-Axis Detent Position Status
2684	Joystick 1 Theta-Axis Detent Position Status
2685	Joystick 1 Button 1 Pressed Status
2686	Joystick 1 Button 2 Pressed Status
2688	Joystick 1 Button 4 Pressed Status
2689	Joystick 1 Button 5 Pressed Status
2690	Joystick 1 Button 6 Pressed Status
2691	Joystick 1 Button 7 Pressed Status
2692	Joystick 1 Button 8 Pressed Status
2693	Joystick 1 Button 9 Pressed Status
2694	Joystick 1 Button 10 Pressed Status
2695	Joystick 1 Button 11 Pressed Status
2696	Joystick 1 Button 12 Pressed Status
2697	Joystick 2 X-Axis Position
2698	Joystick 2 Y-Axis Position
2699	Joystick 2 Grip X-Axis Position
2700	Joystick 2 Grip Y-Axis Position

2701	Joystick 2 Theta-Axis Position
2702	Joystick 2 X-Axis Lever Right Positive Position Status
2703	Joystick 2 Y-Axis Lever Forward Positive Position Status
2704	Joystick 2 Grip X-Axis Lever Right Positive Position Status
2705	Joystick 2 Grip Y-Axis Lever Forward Positive Position Status
2706	Joystick 2 Theta-Axis Clockwise Positive Position Status
2707	Joystick 2 X-Axis Lever Left Negative Position Status
2708	Joystick 2 Y-Axis Lever Back Negative Position Status
2709	Joystick 2 Grip X-Axis Lever Left Negative Position Status
2710	Joystick 2 Grip Y-Axis Lever Back Negative Position Status
2711	Joystick 2 Theta-Axis Counterclockwise Negative Position Status
2712	Joystick 2 X-Axis Neutral Position Status
2713	Joystick 2 Y-Axis Neutral Position Status
2714	Joystick 2 Grip X-Axis Neutral Position Status
2715	Joystick 2 Grip Y-Axis Neutral Position Status
2716	Joystick 2 Theta-Axis Neutral Position Status
2717	Joystick 2 X-Axis Detent Position Status
2718	Joystick 2 Y-Axis Detent Position Status
2719	Joystick 2 Grip X-Axis Detent Position Status
2720	Joystick 2 Grip Y-Axis Detent Position Status
2721	Joystick 2 Theta-Axis Detent Position Status
2722	Joystick 2 Button 1 Pressed Status
2723	Joystick 2 Button 2 Pressed Status
2724	Joystick 2 Button 3 Pressed Status
2725	Joystick 2 Button 4 Pressed Status

2726	Joystick 2 Button 5 Pressed Status
2727	Joystick 2 Button 6 Pressed Status
2728	Joystick 2 Button 7 Pressed Status
2729	Joystick 2 Button 8 Pressed Status
2730	Joystick 2 Button 9 Pressed Status
2731	Joystick 2 Button 10 Pressed Status
2732	Joystick 2 Button 11 Pressed Status
2733	Joystick 2 Button 12 Pressed Status
2734	Joystick 3 X-Axis Position
2735	Joystick 3 Y-Axis Position
2736	Joystick 3 Grip X-Axis Position
2737	Joystick 3 Grip Y-Axis Position
2738	Joystick 3 Theta-Axis Position
2739	Joystick 3 X-Axis Lever Right Positive Position Status
2740	Joystick 3 Y-Axis Lever Forward Positive Position Status
2741	Joystick 3 Grip X-Axis Lever Right Positive Position Status
2742	Joystick 3 Grip Y-Axis Lever Forward Positive Position Status
2743	Joystick 3 Theta-Axis Clockwise Positive Position Status
2744	Joystick 3 X-Axis Lever Left Negative Position Status
2745	Joystick 3 Y-Axis Lever Back Negative Position Status
2746	Joystick 3 Grip X-Axis Lever Left Negative Position Status
2747	Joystick 3 Grip Y-Axis Lever Back Negative Position Status
2748	Joystick 3 Theta-Axis Counterclockwise Negative Position Status
2749	Joystick 3 X-Axis Neutral Position Status

2750	Joystick 3 Y-Axis Neutral Position Status
2751	Joystick 3 Grip X-Axis Neutral Position Status
2752	Joystick 3 Grip Y-Axis Neutral Position Status
2753	Joystick 3 Theta-Axis Neutral Position Status
2754	Joystick 3 X-Axis Detent Position Status
2755	Joystick 3 Y-Axis Detent Position Status
2756	Joystick 3 Grip X-Axis Detent Position Status
2757	Joystick 3 Grip Y-Axis Detent Position Status
2758	Joystick 3 Theta-Axis Detent Position Status
2759	Joystick 3 Button 1 Pressed Status
2760	Joystick 3 Button 2 Pressed Status
2761	Joystick 3 Button 3 Pressed Status
2762	Joystick 3 Button 4 Pressed Status
2763	Joystick 3 Button 5 Pressed Status
2764	Joystick 3 Button 6 Pressed Status
2765	Joystick 3 Button 7 Pressed Status
2766	Joystick 3 Button 8 Pressed Status
2767	Joystick 3 Button 9 Pressed Status
2768	Joystick 3 Button 10 Pressed Status
2769	Joystick 3 Button 11 Pressed Status
2770	Joystick 3 Button 12 Pressed Status
2771	Reserved for assignment
2772	Reserved for assignment
2773	Reserved for assignment
2774	Reserved for assignment

2775	Reserved for assignment
2776	Reserved for assignment
2777	Reserved for assignment
2778	Reserved for assignment
2779	Reserved for assignment
2780	Reserved for assignment
2781	Reserved for assignment
2782	Reserved for assignment
2783	Reserved for assignment
2784	Reserved for assignment
2785	Reserved for assignment
2786	Reserved for assignment
2787	Reserved for assignment
2788	Reserved for assignment
2789	Engine Turbocharger 1 Calculated Turbine Inlet Temperature
2790	Engine Turbocharger 1 Calculated Turbine Outlet Temperature
2791	Engine Exhaust Gas Recirculation (EGR) Valve Control
2792	Engine Variable Geometry Turbocharger (VGT) Air Control Shutoff Valve
2793	Laser Strike Data Latency
2794	Absolute Laser Strike Position
2795	Engine Variable Geometry Turbocharger (VGT) 1 Actuator Position
2796	Transfer Case Selector Switch
2797	Engine Injector Group 1
2798	Engine Injector Group 2

2799	Engine Turbocharger 2 Compressor Outlet Temperature
2800	Engine Turbocharger 3 Compressor Outlet Temperature
2801	Engine Turbocharger 4 Compressor Outlet Temperature
2802	Data Memory Usage
2803	Keep-Alive Battery Consumption
2804	FMS-standard Diagnostics Supported
2805	FMS-standard Requests Supported
2806	FMS-standard SW-version supported
2807	Engine Fuel Shutoff Valve #2
2808	Keypad
2809	Engine Air Filter 2 Differential Pressure
2810	Engine Air Filter 3 Differential Pressure
2811	Engine Air Filter 4 Differential Pressure
2812	Engine Overspeed Test
2813	Engine Air Shutoff Command Status
2814	Engine Alarm Output Command Status
2815	Engine Alarm Acknowledge
2816	Simultaneous Upshift and Downshift
2817	Operator Using Clutch Pedal During Non- Recoverable Clutch Fault
2818	Operators Rear PTO Switch On with Operator Not Present
2819	Park Interlock Error
2820	Operator Not Present During Reverser Command
2821	Reverser Lever Neutral and Power Signals Conflict
2822	Reverser Lever Neither Forward or Reverse

2823	Reverser Lever Simultaneous Forward and Reverse
2824	Reverser Lever Motion Interlock Conflict
2825	Reverser Lever
2826	Reverser Lever Multiple Switch Conflicts
2827	Power Up Without Neutral
2828	Reverser Lever In Power Zero/Direction Transition Too Long
2829	Reverser Lever in Neutral/Park Transition Too Long
2830	Reversing Ratio Rationality Fault
2831	No Carrier Speed at Start-up
2832	Operator Not in Operating Station
2833	Motion with Park Brake Engaged
2834	No Hydrostatic Unit Speed at Start-up
2835	Neutral to Gear Command Conflict
2836	Battery #1 Potential 2 (Voltage), Switched
2837	Identity Number
2838	Manufacturer Code
2839	Function Instance
2840	ECU Instance
2841	Function
2842	Vehicle System
2843	Vehicle System Instance
2844	Arbitrary Address Capable
2845	NAME of Working Set Member
2846	Industry Group
2847	Address Assignment

2848	NAME of Controller Application
2849	NAME of Commanded Address Target
2850	Communications Antenna
2851	Communications Service Personal Identification Number
2852	Communications Service Subscriber Identification Module
2853	Communications Connection
2854	Communications Carrier
2855	Communications Bit Error Rate
2856	Communications Data Upload
2857	Communications Data Download
2858	Machine Data Configuration 1
2859	Machine Data Configuration 2
2860	Machine Data Configuration 3
2861	Machine Data Configuration 4
2862	Machine Data Configuration 5
2863	Front Operator Wiper Switch
2864	Front Non-operator Wiper Switch
2865	Rear Wiper Switch
2866	Front Operator Washer Switch
2867	Front Non-operator Washer Switch
2868	Rear Washer Function
2869	Front Operator Wiper Delay Control
2870	Front Non-operator Wiper Delay Control
2871	Rear Wiper Delay Control
2872	Main Light Switch

2873	Work Light Switch
2874	High-Low Beam Switch
2875	Hazard Light Switch
2876	Turn Signal Switch
2877	Operators Desired – Delayed Lamp Off Time
2878	Operators Desired Back-light
2879	Engine Alternate Droop Accelerator 2 Select
2880	Engine Operator Primary Intermediate Speed Select
2881	Engine Alternate Droop Accelerator 1 Select
2882	Engine Alternate Rating Select
2883	Engine Alternate Low Idle Switch
2884	Engine Auxiliary Governor Switch
2885	Engine Alternate Droop Auxiliary Input Select
2886	Engine Alternate Droop Remote Accelerator Select
2887	Total Count of Configuration Changes Made
2888	Engine Alternate Rating Select State
2889	Engine Alternate Droop Accelerator 1 Select State
2890	Engine Multi-Unit Sync State
2891	Engine Alternate Low Idle Select State
2892	Engine Operator Primary Intermediate Speed Select State
2893	Engine Alternate Droop Accelerator 2 Select State
2894	Engine Alternate Droop Remote Accelerator Select State
2895	Engine Alternate Droop Auxiliary Input Select State
2896	Engine Auxiliary Governor State

2897	Operator PTO Memory Select Switch
2898	Engine Start Enable Device 2 Configuration
2899	Engine Start Enable Device 1 Configuration
2900	Transmission Engine Crank Enable
2901	ECU Part Number
2902	ECU Serial Number
2903	ECU Location
2904	ECU Type
2905	Transmission Range Clutch C7 Solenoid
2906	Transmission Range Clutch C8 Solenoid
2907	Transmission Axle Disconnect Clutch Valve Actuator
2908	Transmission Boost Pressure Valve Actuator
2909	Torque Converter Modulating Clutch Valve Actuator
2910	Transmission PTO Clutch Valve Actuator
2911	Halt brake switch
2912	Hill holder mode
2913	Halt brake mode
2914	XBR EBI Mode
2915	XBR Priority
2916	XBR Control Mode
2917	XBR System State
2918	XBR Active Control Mode
2919	Foundation Brake Use
2920	External Acceleration Demand
2921	XBR Acceleration Limit

2922	Steerable Lift Axle Lowering Inhibit
2923	Status of Steering Axle
2924	Steering Type
2925	Type of Steering Forces
2926	Type of Steering Transmission
2927	Actual Inner wheel steering angle
2928	Axle Location
2930	Hydraulic Brake System Audible Warning Command
2931	Hydraulic Brake Fluid Level Switch
2932	Valve State
2933	Valve State Command
2934	Valve Fail Safe Mode
2935	Valve Fail Safe Mode Command
2936	General Purpose Valve Number
2937	Extend Port Measured Flow
2938	Retract Port Measured Flow
2939	Extend Port Estimated Flow
2940	Retract Port Estimated Flow
2941	Extend Port Pressure
2942	Retract Port Pressure
2943	Return Port Pressure
2944	Port Flow Command
2945	Active Shift Console Indicator
2946	Engine Mixer Inlet Relative Humidity

2947	Engine Fuel Rack Position #2
2948	Engine Intake Valve Actuation System Oil Pressure
2949	Engine Intake Valve Actuation System Oil Pressure Control Valve
2950	Engine Intake Valve Actuator #1
2951	Engine Intake Valve Actuator #2
2952	Engine Intake Valve Actuator #3
2953	Engine Intake Valve Actuator #4
2954	Engine Intake Valve Actuator #5
2955	Engine Intake Valve Actuator #6
2956	Engine Intake Valve Actuator #7
2957	Engine Intake Valve Actuator #8
2958	Engine Intake Valve Actuator #9
2959	Engine Intake Valve Actuator #10
2960	Engine Intake Valve Actuator #11
2961	Engine Intake Valve Actuator #12
2962	Engine Intake Valve Actuator #13
2963	Engine Intake Valve Actuator #14
2964	Engine Intake Valve Actuator #15
2965	Engine Intake Valve Actuator #16
2966	Engine Intake Valve Actuator #17
2967	Engine Intake Valve Actuator #18
2968	Engine Intake Valve Actuator #19
2969	Engine Intake Valve Actuator #20
2970	Accelerator Pedal #2 Low Idle Switch
2971	Accelerator Pedal #3 Low Idle Switch

2972	Accelerator Pedal Position #1 Output #2
2973	Accelerator Pedal Position #1 Output #3
2974	Accelerator Pedal Position #2 Output #2
2975	Accelerator Pedal Position #2 Output #3
2976	Accelerator Pedal Position #3 Output #2
2977	Accelerator Pedal Position #3 Output #3
2978	Estimated Engine Parasitic Losses – Percent Torque
2979	Vehicle Acceleration Rate Limit Status
2980	Engine Fuel Valve #1 Outlet Absolute Pressure
2981	Engine Coolant Loop 2 Pressure
2982	Engine Coolant Loop 2 Temperature
2983	Clutch Life Remaining
2984	Automatic traction help
2985	Transmission Shift Selector Display Mode Switch
2986	Engine Intake Valve Actuation System Oil Temperature
2987	Engine will not start, pre-lube system issue
2988	Engine Coolant Diverter Valve
2989	Combine separator speed
2990	Reserved by SAE
2991	Tailings volume
2992	Move reel forward
2993	Move reel aft
2994	Reel raise
2995	Reel lower

2996	Header raise slow
2997	Header lower slow
2998	Header raise fast
2999	Header lower fast
3000	Tilt header left
3001	Tilt header right
3002	Header fold
3003	Header unfold
3004	Draper speed increment
3005	Draper speed decrement
3006	Reel speed increment
3007	Reel speed decrement
3008	Threshing clearance increment
3009	Threshing clearance decrement
3010	Threshing speed increment
3011	Threshing speed decrement
3012	Product fan speed increment
3013	Product fan speed decrement
3015	Implement fold down
3016	Implement fold up
3017	RH header raise
3018	LH header raise
3019	Product fan engage mode
3020	Augers engage mode

3021	Product basket fill state
3022	Augers enable mode
3023	Header height control mode
3024	Header remote tether control mode
3025	Lubrication control mode
3026	Transmission Oil Level Measurement Status
3027	Transmission Oil Level High / Low
3028	Transmission Oil Level Countdown Timer
3029	Engine start inhibited, pre-lube system issue
3030	Transmission Torque Converter Ratio
3031	Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature
3032	Right Brake Pedal Position
3033	Left Brake Pedal Position
3034	DM22 Control Byte – Individual DTC Clear/Reset Control Byte
3035	DM22 – Negative Acknowledge Indicator For Individual DTC Clear
3036	DM22 – DTC SPN Clear
3037	DM22 – DTC FMI to Clear
3038	Flash Malfunction Indicator Lamp
3039	Flash Red Stop Lamp
3040	Flash Amber Warning Lamp
3041	Flash Protect Lamp
3042	Requested Wheel Speed
3043	Type of Passenger Count
3044	Silent Alarm Status
3045	Vehicle Use Status

3046	Transit Run Status
3047	Patron Count
3048	Ignition Cycle Counter
3049	OBD Monitoring Conditions Encountered Counts
3050	Catalyst 1 System Monitor
3051	Catalyst 2 System Monitor
3052	Engine Misfire Monitor
3053	Engine Evaporative System Monitor
3054	Engine Secondary Air System Monitor
3055	Engine Fuel System Monitor
3056	Engine Oxygen Sensor 1 Monitor
3057	Engine Oxygen Sensor 2 Monitor
3058	Engine Exhaust Gas Recirculation (EGR) System Monitor
3059	Engine Positive Crankcase Ventilation System Monitor
3060	Engine Cooling System Monitor
3061	Engine Cold Start Emission Reduction Strategy System Monitor
3062	Air Conditioning System Component Monitor
3063	Direct Ozone Reduction Monitor
3064	Particulate Matter Trap Monitor
3065	Comprehensive Component Monitor
3066	SPN of Applicable System Monitor
3067	Applicable System Monitor Numerator
3068	Applicable System Monitor Denominator
3069	Distance Traveled While MIL is Activated

3070	Number of bytes in the Milepost Identification
3071	Number of bytes in the Transit Assigned Route Identity
3072	Number of bytes in the Transit Assigned Run Identity
3073	Number of bytes in the Transit Assigned Block Identity
3074	Transit Assigned Route Identity
3075	Transit Assigned Run Identity
3076	Transit Assigned Block Identity
3078	Agency
3079	Intersection Preemption Request/Response
3080	Transit Route ID Usage
3081	Range Code Enable
3082	Strobe Activation Control Status
3083	Transit Door Enable
3084	Priority of Response Sent by Emitter
3085	Vehicle ID
3086	Transmission Ready for Brake Release
3087	Auxiliary Level
3088	Header height vertical rate control
3089	Header height sensitivity control
3090	Header height setpoint change
3091	Header height setpoint change sequence number
3092	Header platform height
3093	Header platform height maximum
3094	Reserved – available to assign
3095	Reserved – available to assign

3096	Header float pressure
3097	Header float pressure maximum
3098	Header position percent
3099	Header position percent maximum
3100	Reserved – available to assign
3101	Reserved – available to assign
3102	Unloading Auger swing out
3103	Unloading auger swing in
3104	Unloading auger swing out-auto :
3105	Unloading auger swing in-auto
3106	Side hill left tilt
3107	Side hill right tilt
3108	Spreader speed increment
3109	Spreader speed decrement
3110	Precleaner open
3111	Precleaner close
3112	Open chaffer
3113	Close chaffer
3114	Open sieve
3115	Close sieve
3116	Move chopper vane left
3117	Move chopper vane right
3118	Quick stop switch
3119	Unloading auger engage/disengage

3120	Unloading auger fold
3121	Unloading auger unfold
3122	Max allowable cleaning shoe travel
3123	Right hand header height setpoint
3124	Left hand header height setpoint
3125	Left hand header height
3126	Right hand header height
3127	Header control response rate setpoint
3128	Header control response rate maximum setpoint
3129	Header control response rate minimum setpoint
3130	Product system tank water level
3131	Product fan speed
3132	Product system manifold pressure
3133	Product system pump discharge pressure
3134	Product fan hours
3135	Right hand header height max setpoint
3136	Right hand header height min setpoint
3137	Left hand header height min setpoint
3138	Left hand header height max setpoint
3139	Right hand header unit speed
3140	Left hand header unit speed
3141	GPS differential corrections license
3142	Method, GNSS
3143	Differential source
3144	Differential source, Secondary

3145	DGNSS fix
3146	PGN of message being configured
3147	Parameter being included
3148	Position of configured parameter
3149	Message will be used proprietarily
3150	Message will use transport protocol
3151	First parameter only being identified
3152	Number of parameters included
3153	Starting bit for this parameter
3154	Parameter to be located
3155	Parameter locate command
3156	Blade Control Mode Switch
3157	Desired Grade Offset Switch
3158	Blade Auto Mode Command
3159	Trip Number
3160	Assigned Route
3161	Pattern Number
3162	Assigned Run
3163	Assigned Block
3164	Driver's farebox security code
3165	Fare Validity
3166	Pass Category
3167	Initial Fare Agency
3168	Transfer Sold
3169	Route Number

3170	Transaction Type
3171	Passenger Type
3172	Type of Service
3173	Transfer Type
3174	Trip Direction
3175	Fare Presets
3176	Type of Fare
3177	Payment Details
3178	Farebox Service Status
3179	Farebox Emergency Status
3180	Trip Status
3181	Farebox Alarm Identifier
3182	Transmission Retarder Enable Solenoid Valve
3183	Transmission Retarder Modulation Solenoid Valve
3184	Transmission Lockup Clutch Pressure Indicator
3185	Transmission Differential Lock Solenoid Valve
3186	Transmission Differential Lock Clutch Pressure Indicator
3187	Transmission Shift Console Data Link
3188	XBR Message Checksum
3189	XBR Message Counter
3190	Tire Location
3191	Reference Tire Pressure
3192	Tire Location
3193	Reference Tire Pressure Setting

3194	Control Byte
3195	Number of Ports
3196	Uptime since last power-on reset
3197	Average Messages Filtered per Second
3198	Average Messages Forwarded per Second
3199	Average Messages Received per Second
3200	Number of Messages with Excessive Transit Delay Time
3201	Number of Messages lost due to Buffer Overflow
3202	Average Transit Delay Time
3203	Maximum Transit Delay Time
3204	Maximum Messages Filtered per Second
3205	Maximum Messages Forwarded per Second
3206	Maximum Messages Received per Second
3207	Number of Filter Database Entries
3208	Maximum Filter Database Size
3209	Buffer Size
3210	Parameter Number :
3211	SA_List
3212	PGN_List
3213	Filter_Mode
3214	Port_Pair
3215	Prohibit air suspension control
3216	Aftertreatment #1 Intake NOx
3217	Aftertreatment #1 Intake O2
3218	Aftertreatment #1 Intake Gas Sensor Power In Range

3219	Aftertreatment #1 Intake Gas Sensor at Temperature
3220	Aftertreatment #1 Intake NOx Reading Stable
3221	Aftertreatment #1 Intake Wide-Range O2 Reading Stable
3222	Aftertreatment #1 Intake Gas Sensor Heater
3223	Aftertreatment #1 Intake Gas Sensor Heater Control
3224	Aftertreatment #1 Intake NOx Sensor
3225	Aftertreatment #1 Intake Oxygen Sensor
3226	Aftertreatment #1 Outlet NOx
3227	Aftertreatment #1 Outlet O2
3228	Aftertreatment #1 Outlet Gas Sensor Power In Range
3229	Aftertreatment #1 Outlet Gas Sensor at Temperature
3230	Aftertreatment #1 Outlet NOx Reading Stable
3231	Aftertreatment #1 Outlet Wide-Range O2 Reading Stable
3232	Aftertreatment #1 Outlet Gas Sensor Heater
3233	Aftertreatment #1 Outlet Gas Sensor Heater Control
3234	Aftertreatment #1 Outlet NOx Sensor
3235	Aftertreatment #1 Outlet Oxygen Sensor
3236	Exhaust Gas Mass
3237	Aftertreatment Intake Dew Point Message
3238	Aftertreatment Exhaust Dew Point Message
3239	Aftertreatment Intake Dew Point Message
3240	Aftertreatment Exhaust Dew Point Message
3241	Exhaust Gas Temperature 1
3242	Aftertreatment #1 DPF Intake Gas Temperature

3245	Exhaust Gas Temperature 3
3246	Aftertreatment #1 DPF Outlet Gas Temperature
3249	Exhaust Gas Temperature 2
3250	Particulate Trap Intermediate Gas Temperature
3251	Aftertreatment #1 DPF Trap Differential Pressure
3255	Aftertreatment #2 Intake NOx
3256	Aftertreatment #2 Intake %O2
3257	Aftertreatment #2 Intake Gas Sensor Power In Range
3258	Aftertreatment #2 Intake Gas Sensor at Temperature
3259	Aftertreatment #2 Intake NOx Reading Stable
3260	Aftertreatment #2 Intake Wide-Range %O2 Reading Stable
3262	Aftertreatment #2 Intake Gas Sensor Heater Control
3265	Aftertreatment #2 Outlet NOx
3266	Aftertreatment #2 Outlet %O2
3267	Aftertreatment #2 Outlet Gas Sensor Power In Range
3268	Aftertreatment #2 Outlet Gas Sensor at Temperature
3269	Aftertreatment #2 Outlet NOx Reading Stable
3270	Aftertreatment #2 Outlet Wide-Range %O2 Reading Stable
3272	Aftertreatment #2 Outlet Gas Sensor Heater Control
3275	Aftertreatment #2 Exhaust Gas Temperature 1
3276	Particulate Trap Intake Gas Temperature (bank 2)
3279	Exhaust Gas Temperature 3
3280	Particulate Trap Outlet Gas Temperature (bank 2)
3283	Exhaust Gas Temperature 2
3284	Particulate Trap Intermediate Gas Temperature

3285	Particulate Trap Differential Pressure (bank 2)
3289	Transmission Requested Gear Feedback
3290	Address Acknowledged
3291	Address Negative Acknowledgement
3292	Address Access Denied
3293	Address Busy
3294	Distance Since Diagnostic Trouble Codes Cleared
3295	Minutes Run by Engine While MIL Activated
3296	Time Since Diagnostic Trouble Codes Cleared
3297	SPN Supported
3298	SPN Support Type
3299	SPN Data Length
3300	Expanded Freeze Frame Length
3301	Time Since Engine Start
3302	Number of Warmups Since DTCs Cleared
3303	Continuously Monitored Systems Enabled/Completed Status
3304	Non-Continuously Monitored Systems Enabled Status
3305	Non-Continuously Monitored Systems Complete Status
3306	Variable Valve Timing and/or Control
3307	Fifth Wheel Error Status
3308	Fifth Wheel Vertical Force
3309	Fifth Wheel Drawbar Force
3310	Fifth Wheel Roll Moment
3311	Fifth Wheel Slider Position

3312	Fifth Wheel Lock Ready to Couple Indicator
3313	Fifth Wheel Lock Couple Status Indicator
3314	Fifth Wheel Release Control
3315	Fifth Wheel Release Control Security Lockout
3316	Fifth Wheel Slider Lock Indicator
3317	Fifth Wheel Roll Warning Indicator
3318	Pitch Angle
3319	Roll Angle
3322	Pitch Rate
3323	Pitch Angle Figure of Merit
3324	Roll Angle Figure of Merit
3325	Pitch Rate Figure of Merit
3326	Pitch and Roll Compensated
3327	Roll and Pitch Measurement Latency
3328	Manufacturer Specific Information
3329	Message Selection Control
3330	PGN of Configurable Message Desired
3331	Blade Rotation Angle
3332	Blade Rotation Angle Figure of Merit
3333	Feederhouse Height
3334	Left Blade Control Mode Operator Control
3335	Right Blade Control Mode Operator Control
3336	Left Desired Blade Offset Operator Control
3337	Right Desired Blade Offset Operator Control
3338	Side-shift Blade Control Mode Operator Control

3339	Side-shift Desired Blade Offset Operator Control
3340	Engine Charge Air Cooler 1 Inlet Pressure
3341	Engine Charge Air Cooler 2 Inlet Pressure
3342	Engine Coolant Pump Differential Pressure
3343	Engine Centrifugal Oil Filter speed
3344	Support Variable Rate TSC1 Message
3345	Support TSC1 Control Purpose Group 1 of 4
3346	Support TSC1 Control Purpose Group 2 of 4
3347	Support TSC1 Control Purpose Group 3 of 4
3348	Support TSC1 Control Purpose Group 4 of 4
3349	TSC1 Transmission Rate
3350	TSC1 Control Purpose
3351	Engine Exhaust Pressure Regulator Vent Valve Control
3352	Engine Exhaust Pressure Regulator Vent Valve Position
3353	Alternator 1 Status
3354	Alternator 2 Status
3355	Alternator 3 Status
3356	Alternator 4 Status
3357	Actual Maximum Available Engine – Percent Torque
3358	Engine Exhaust Gas Recirculation Inlet Pressure
3359	Transmission Oil Filter Restriction Switch
3360	Aftertreatment 1 Diesel Exhaust Fluid Controller
3361	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit
3362	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Input Lines

3363	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater
3364	Aftertreatment 1 Diesel Exhaust Fluid Tank Quality
3365	Relative Blade Height
3366	Relative Blade Height and Blade Rotation Angle Measurement Latency
3367	Relative Blade Height Figure of Merit
3368	Network Transceiver Status 1
3369	Network Service Status 1
3370	Network Antenna Status 1
3371	Network Signal Strength 1
3372	Wireless Communication Network Type 1
3374	Generator Excitation Ripple Current
3375	Voltage Regulator Load Compensation Mode
3376	Voltage Regulator VAr/Power Factor operating mode
3377	Voltage Regulator Underfrequency Compensation enabled
3378	Voltage Regulator Soft Start State
3379	Voltage Regulator Enabled
3380	Generator Excitation Field Voltage
3381	Generator Excitation Field Current
3382	Generator Output Voltage Bias Percentage
3383	Requested Generator Total AC Reactive Power
3384	Requested Generator Overall Power Factor
3385	Requested Generator Overall Power Factor Lagging
3386	Requested Generator Average Line-Line AC RMS Voltage
3387	Engine Cylinder 1 Combustion Status
3388	Engine Cylinder 2 Combustion Status

3389	Engine Cylinder 3 Combustion Status
3390	Engine Cylinder 4 Combustion Status
3391	Engine Cylinder 5 Combustion Status
3392	Engine Cylinder 6 Combustion Status
3393	Engine Cylinder 7 Combustion Status
3394	Engine Cylinder 8 Combustion Status
3395	Engine Cylinder 9 Combustion Status
3396	Engine Cylinder 10 Combustion Status
3397	Engine Cylinder 11 Combustion Status
3398	Engine Cylinder 12 Combustion Status
3399	Engine Cylinder 13 Combustion Status
3400	Engine Cylinder 14 Combustion Status
3401	Engine Cylinder 15 Combustion Status
3402	Engine Cylinder 16 Combustion Status
3403	Engine Cylinder 17 Combustion Status
3404	Engine Cylinder 18 Combustion Status
3405	Engine Cylinder 19 Combustion Status
3406	Engine Cylinder 20 Combustion Status
3407	Engine Cylinder 21 Combustion Status
3408	Engine Cylinder 22 Combustion Status
3409	Engine Cylinder 23 Combustion Status
3410	Engine Cylinder 24 Combustion Status
3411	Status 2 of doors
3412	Lock Status of Door 1
3413	Open Status of Door 1

3414	Enable Status of Door 1
3415	Lock Status of Door 2
3416	Open Status of Door 2
3417	Enable Status of Door 2
3418	Lock Status of Door 3
3419	Open Status of Door 3
3420	Enable Status of Door 3
3421	Lock Status of Door 4
3422	Open Status of Door 4
3423	Enable Status of Door 4
3424	Lock Status of Door 5
3425	Open Status of Door 5
3426	Enable Status of Door 5
3427	Lock Status of Door 6
3428	Open Status of Door 6
3429	Enable Status of Door 6
3430	Lock Status of Door 7
3431	Open Status of Door 7
3432	Enable Status of Door 7
3433	Lock Status of Door 8
3434	Open Status of Door 8
3435	Enable Status of Door 8
3436	Lock Status of Door 9
3437	Open Status of Door 9

3438	Enable Status of Door 9
3439	Lock Status of Door 10
3440	Open Status of Door 10
3441	Enable Status of Door 10
3442	Network Transceiver Status 2
3443	Network Service Status 2
3444	Network Antenna Status 2
3445	Network Signal Strength 2
3446	Wireless Communication Network Type 2
3447	Remote PTO preprogrammed speed control switch #2
3448	Auxiliary Input Ignore Switch
3451	Engine Multiple Cylinder Spark Voltage
3452	Enable Switch Transmission input shaft PTO 1
3453	Enable Switch Transmission input shaft PTO 2
3454	Enable Switch Transmission output shaft PTO
3455	Enable Switch Transfer case output shaft PTO
3456	Engagement Consent Transmission input shaft PTO 1
3457	Engagement Consent Transmission input shaft PTO 2
3458	Engagement Consent Transmission output shaft PTO
3459	Engagement Consent Transfer case output shaft PTO
3460	Engagement Status Transmission input shaft PTO 1
3461	Engagement Status Transmission input shaft PTO 2
3462	Engagement Status Transmission output shaft PTO
3463	Engagement Status Transfer case output shaft PTO
3464	Engine Throttle Actuator 1 Control Command

3465	Engine Throttle Actuator 2 Control Command
3466	Engine Fuel Valve #2 Inlet Absolute Pressure
3467	Engine Gas Mass Flow Rate #2
3468	Engine Fuel Temperature 2
3469	Engine Fuel Valve #2 Outlet Absolute Pressure
3470	Engine Turbocharger Compressor Control
3471	Aftertreatment #1 Fuel Pressure Control Actuator
3472	Aftertreatment #1 Air Pressure Control Actuator
3473	Aftertreatment #1 Failed to Ignite
3474	Aftertreatment #1 Loss of Combustion
3475	Aftertreatment #2 Fuel Pressure Control Actuator
3476	Aftertreatment #2 Air Pressure Control Actuator
3477	Aftertreatment #2 Failed to Ignite
3478	Aftertreatment #2 Loss of Ignition
3479	Aftertreatment #1 Fuel Pressure Control
3480	Aftertreatment #1 Fuel Pressure #1
3481	Aftertreatment #1 Fuel Rate
3482	Aftertreatment #1 Fuel Enable Actuator
3483	Aftertreatment #1 Regeneration Status
3484	Aftertreatment #1 Ignition
3485	Aftertreatment #1 Supply Air Pressure
3486	Aftertreatment #1 Purge Air Pressure
3487	Aftertreatment #1 Air Pressure Control
3488	Aftertreatment #1 Air Pressure Actuator Position
3489	Aftertreatment #1 Air Enable Actuator

3490	Aftertreatment #1 Purge Air Actuator
3491	Aftertreatment #1 Atomization Air Actuator
3492	Aftertreatment #1 Air System Relay
3493	Aftertreatment #2 Fuel Pressure Control
3494	Aftertreatment #2 Fuel Pressure
3495	Aftertreatment #2 Fuel Rate
3496	Aftertreatment #2 Fuel Enable Actuator
3497	Aftertreatment #2 Regeneration Status
3498	Aftertreatment #2 Ignition
3499	Aftertreatment #2 Supply Air Pressure
3500	Aftertreatment #2 Purge Air Pressure
3501	Aftertreatment #2 Air Pressure Control
3502	Aftertreatment #2 Air Pressure Actuator Position
3503	Aftertreatment #2 Air Enable Actuator
3504	Aftertreatment #2 Purge Air Actuator
3505	Aftertreatment #2 Atomization Air Actuator
3506	Aftertreatment #2 Air System Relay
3507	TECU ECU_PWR relay
3508	TECU PWR Relay
3509	Sensor Supply Voltage 1
3510	Sensor Supply Voltage 2
3511	Sensor Supply Voltage 3
3512	Sensor Supply Voltage 4
3513	Sensor Supply Voltage 5

3514	Sensor Supply Voltage 6
3515	Aftertreatment 1 Diesel Exhaust Fluid Temperature 2
3516	Aftertreatment 1 Diesel Exhaust Fluid Concentration
3517	Aftertreatment 1 Diesel Exhaust Fluid Tank Level 2
3518	Aftertreatment 1 Diesel Exhaust Fluid Conductivity
3519	Aftertreatment 1 Diesel Exhaust Fluid Temperature 2 Preliminary FMI
3520	Aftertreatment 1 Diesel Exhaust Fluid Properties Preliminary FMI
3521	Aftertreatment 1 Diesel Exhaust Fluid Property
3522	Aftertreatment 1 Diesel Exhaust Fluid Tank Level Preliminary
3522	Aftertreatment #1 Total Fuel Used
3523	Aftertreatment #1 Total Regeneration Time
3524	Aftertreatment #1 Total Disabled Time
3525	Aftertreatment #1 Total Number of Active Regenerations
3526	Aftertreatment #2 Total Fuel Used
3527	Aftertreatment #2 Total Regeneration Time
3528	Aftertreatment #2 Total Disabled Time
3529	Aftertreatment #2 Total Number of Active Regenerations
3530	Aftertreatment #1 Regeneration Manually Disabled
3531	Aftertreatment #2 Regeneration Manually Disabled
3532	Aftertreatment 1 Diesel Exhaust Fluid Tank Level Preliminary FMI
3542	Requested Engine Control Mode
3543	Engine Operating State
3544	Time Remaining in Engine Operating State
3545	Generator Circuit Breaker Status
3546	Utility Circuit Breaker Status

3547	Automatic Transfer Switch Status
3549	Engine Oil Filter Outlet Pressure
3550	Engine Oil Priming Pump Switch
3551	Engine Oil Priming State
3554	Engine Ventilation Status
3556	Aftertreatment Fuel Injector #1
3563	Engine Intake Manifold #1 Absolute Pressure
3567	Generator Control Not in Automatic Start State
3568	Generator Not Ready to Automatically Parallel State
3569	Earth Fault
3570	Earth Leakage
3571	Generator Breaker Failure to Open
3572	Generator Breaker Failure to Close
3573	Utility Breaker Failure to Open
3574	Utility Breaker Failure to Close
3575	Utility to Generator Transfer Failure
3576	Generator to Utility Transfer Failure
3577	Loss of Utility
3578	Generator to Bus Synchronization Failure
3579	Generator-Bus Phase Sequence Mismatch Warning
3580	Generator Soft Unload Failure
3581	SCADA Data Link
3587	Ether Hold Relay
3588	Ether Start Relay

3589	Pre-Lube Relay
3607	Engine Emergency Shutdown Indication
3609	DPF #1 Intake Pressure
3659	Engine Injector Cylinder #1 Actuator #2
3660	Engine Injector Cylinder #2 Actuator #2
3661	Engine Injector Cylinder #3 Actuator #2
3662	Engine Injector Cylinder #4 Actuator #2
3663	Engine Injector Cylinder #5 Actuator #2
3664	Engine Injector Cylinder #6 Actuator #2
3665	Engine Injector Cylinder #7 Actuator #2
3666	Engine Injector Cylinder #8 Actuator #2
3667	Engine Air Shutoff Status
3668	Engine Intercooler Coolant Level
3669	Engine Rotation Direction
3670	Maximum Crank Attempts per Start Attempt
3671	Crank Attempt Count on Present Start Attempt
3675	Engine Turbocharger Compressor Bypass Actuator Position
3676	Engine Aftercooler Coolant Level
3677	Generator Unavailable to Start/Run
3695	Particulate Trap Regeneration Inhibit Switch
3696	Particulate Trap Regeneration Force Switch
3697	Particulate Trap Lamp Command
3698	Exhaust System High Temperature Lamp Command
3700	DPF Active Regeneration Status
3701	DPF Status

3702	Particulate Trap Active Regeneration Inhibited Status
3703	DPF Active Regeneration Inhibited Due to Inhibit Switch
3707	DPF Active Regeneration Inhibited Due to Accelerator Pedal Off Idle
3708	DPF Active Regeneration Inhibited Due to Out of Neutral
3710	DPF Active Regeneration Inhibited Due to Parking Brake Not Set
3711	Particulate Trap Active Regeneration Inhibited Due to Low Exhaust Gas Temperature
3712	DPF Active Regeneration Inhibited Due to System Fault Active
3713	DPF Active Regeneration Inhibited Due to System Timeout
3714	Particulate Trap Active Regeneration Inhibited Due to Temporary System Lockout
3715	Particulate Trap Active Regeneration Inhibited Due to Permanent System Lockout
3716	DPF Active Regeneration Inhibited Due to Engine Not Warmed Up
3719	Particulate Trap #1 Soot Load Percent
3720	Particulate Trap #1 Ash Load Percent
3721	DPF #1 Time Since Last Active Regeneration
3723	Particulate Trap #2 Ash Load Percent
3750	DPF #1 Conditions Not Met for Active Regeneration
3783	Inlet Manifold Charge Combustion
3785	Tractor Brake Stroke Axle 1 Left
3786	Tractor Brake Stroke Axle 1 Right
3787	Tractor Brake Stroke Axle 2 Left
3788	Tractor Brake Stroke Axle 2 Right
3789	Tractor Brake Stroke Axle 3 Left
3790	Tractor Brake Stroke Axle 3 Right
3791	Tractor Brake Stroke Axle 4 Left
3792	Tractor Brake Stroke Axle 4 Right

3793	Tractor Brake Stroke Axle 5 Left
3794	Tractor Brake Stroke Axle 5 Right
3795	Trailer Brake Stroke Axle 1 Left
3796	Trailer Brake Stroke Axle 1 Right
3797	Trailer Brake Stroke Axle 2 Left
3798	Trailer Brake Stroke Axle 2 Right
3799	Trailer Brake Stroke Axle 3 Left
3800	Trailer Brake Stroke Axle 3 Right
3801	Trailer Brake Stroke Axle 4 Left
3802	Trailer Brake Stroke Axle 4 Right
3803	Trailer Brake Stroke Axle 5 Left
3804	Trailer Brake Stroke Axle 5 Right
3805	Tractor Brake Stroke Alert Monitor
3806	Trailer Brake Stroke Alert Monitor
3807	Park Brake Release Inhibit Request
3808	Park Brake Release Inhibit Status
3809	Transmission Oil Level Request
3810	Retract Status of ramp 1
3811	Enable status of ramp 1
3812	Movement status of ramp 1
3813	Retract Status of ramp 2
3814	Enable status of ramp 2
3815	Movement status of ramp 2
3816	Retract Status of ramp 3

3817	Enable status of ramp 3
3818	Movement status of ramp 3
3819	Front axle group engagement status
3820	Rear axle group engagement status
3821	Engine Exhaust Gas Recirculation (EGR) Valve 2 Control
3822	Engine Exhaust Gas Recirculation Valve 2 Position
3823	Transmission Torque Converter Oil Outlet Temperature
3824	Transmission Gear Latch Actuator
3825	Transmission Output Speed 2
3826	Aftertreatment 1 Diesel Exhaust Fluid Average Consumption
3828	Aftertreatment 1 SCR Commanded Diesel Exhaust Fluid Consumption
3829	EPS Supplying Load
3830	Aftertreatment #1 Secondary Air Differential Pressure
3831	Aftertreatment #1 Secondary Air Temperature
3832	Aftertreatment #1 Secondary Air Mass Flow
3833	Aftertreatment #2 Secondary Air Differential Pressure
3834	Aftertreatment #2 Secondary Air Temperature
3835	Aftertreatment #2 Secondary Air Mass Flow
3837	Aftertreatment #1 Secondary Air Pressure
3838	Aftertreatment #2 Secondary Air Pressure
3839	Brake Temperature Warning
3840	Auxiliary I/O #17
3841	Auxiliary I/O #18
3842	Auxiliary I/O #19
3843	Auxiliary I/O #20

3844	Auxiliary I/O #21
3845	Auxiliary I/O #22
3846	Auxiliary I/O #23
3847	Auxiliary I/O #24
3848	Auxiliary I/O #25
3849	Auxiliary I/O #26
3850	Auxiliary I/O #27
3851	Auxiliary I/O #28
3852	Auxiliary I/O #29
3853	Auxiliary I/O #30
3854	Auxiliary I/O #31
3855	Auxiliary I/O #32
3856	Auxiliary I/O #33
3857	Auxiliary I/O #34
3858	Auxiliary I/O #35
3859	Auxiliary I/O #36
3860	Auxiliary I/O #37
3861	Auxiliary I/O #38
3862	Auxiliary I/O #39
3863	Auxiliary I/O #40
3864	Auxiliary I/O #41
3865	Auxiliary I/O #42
3866	Auxiliary I/O #43
3867	Auxiliary I/O #44
3868	Auxiliary I/O #45

3869	Auxiliary I/O #46
3870	Auxiliary I/O #47
3871	Auxiliary I/O #48
3872	Auxiliary I/O #49
3873	Auxiliary I/O #50
3874	Auxiliary I/O #51
3875	Auxiliary I/O #52
3876	Auxiliary I/O #53
3877	Auxiliary I/O #54
3878	Auxiliary I/O #55
3879	Auxiliary I/O #56
3880	Auxiliary I/O #57
3881	Auxiliary I/O #58
3882	Auxiliary I/O #59
3883	Auxiliary I/O #60
3884	Auxiliary I/O #61
3885	Auxiliary I/O #62
3886	Auxiliary I/O #63
3887	Auxiliary I/O #64
3888	Auxiliary I/O #65
3889	Auxiliary I/O #66
3890	Auxiliary I/O #67
3891	Auxiliary I/O #68
3892	Auxiliary I/O #69

3893	Auxiliary I/O #70
3894	Auxiliary I/O #71
3895	Auxiliary I/O #72
3896	Auxiliary I/O #73
3897	Auxiliary I/O #74
3898	Auxiliary I/O #75
3899	Auxiliary I/O #76
3900	Auxiliary I/O #77
3901	Auxiliary I/O #78
3902	Auxiliary I/O #79
3903	Auxiliary I/O #80
3904	Auxiliary I/O #81
3905	Auxiliary I/O #82
3906	Auxiliary I/O #83
3907	Auxiliary I/O #84
3908	Auxiliary I/O #85
3909	Auxiliary I/O #86
3910	Auxiliary I/O #87
3911	Auxiliary I/O #88
3912	Auxiliary I/O #89
3913	Auxiliary I/O #90
3914	Auxiliary I/O #91
3915	Auxiliary I/O #92
3916	Auxiliary I/O #93

3917	Auxiliary I/O #94
3918	Auxiliary I/O #95
3919	Auxiliary I/O #96
3920	Auxiliary I/O #97
3921	Auxiliary I/O #98
3922	Auxiliary I/O #99
3923	Auxiliary I/O #100
3924	Auxiliary I/O #101
3925	Auxiliary I/O #102
3926	Auxiliary I/O #103
3927	Auxiliary I/O #104
3928	Auxiliary I/O #105
3929	Auxiliary I/O #106
3930	Auxiliary I/O #107
3931	Auxiliary I/O #108
3932	Auxiliary I/O #109
3933	Auxiliary I/O #110
3934	Auxiliary I/O #111
3935	Auxiliary I/O #112
3936	Aftertreatment Diesel Particulate Filter System
4000	Engine Exhaust Brake Enable Switch
4043	Transfer Case Front Driveline Actuator
4044	Transfer Case High Range Actuator
4045	Transfer Case Low Range Actuator

4046	Transfer Case Neutral Actuator
4047	Transfer Case Output Shaft PTO Actuator
4049	Transfer Case Rear Driveline Actuator
4077	Aftertreatment #1 Fuel Pressure #2
4082	Fuel Pump Primer Control
4151	Engine Exhaust Gas Temperature Average
4152	Engine Exhaust Gas Temperature Average – Bank #2
4153	Engine Exhaust Gas Temperature Average – Bank #1
4157	Auxiliary I/O Channel #4
4158	Auxiliary I/O Channel #3
4193	Engine Coolant Pump Outlet Temperature
4194	Engine Coolant Thermostat Opening
4195	Engine Coolant Thermostat Mode
4196	Desired Engine Coolant Engine Pump Outlet Temperature
4197	Desired Engine Coolant Thermostat Opening
4198	Aftercooler Coolant Thermostat Mode
4199	Desired Aftercooler Coolant Inlet Temperature
4200	Desired Aftercooler Coolant Thermostat Opening
4201	Engine Speed Sensor #1
4202	Engine Speed Sensor #3
4203	Engine Speed Sensor 1 Timing Pattern Status
4204	Engine Speed Sensor 2 Timing Pattern Status
4205	Engine Speed Sensor 3 Timing Pattern Status
4209	Engine Crank Without Pre-lube
4210	Engine Pre-lube Drive

4211	Hydraulic Fan Motor Pressure
4212	Fan Drive Bypass Command Status
4213	Engine Crank Without Fuel Injection
4214	Engine Fan Reverse Actuator
4215	Ground-Level Shutdown Activated
4216	Transmission Reverse Solenoid Valve
4217	Transmission Shift Modulation Solenoid Valve
4218	Transmission Shift Rail 1 Position
4219	Transmission Shift Rail 2 Position
4220	Transmission Shift Rail 3 Position
4221	High Speed Directional Shift
4240	Engine Exhaust Gas Oxygen Sensor Closed Loop Operation, Bank #1
4241	Engine Exhaust Gas Oxygen Sensor Closed Loop Operation, Bank #2
4244	Engine Run Relay
4245	Fuel Energy Content
4256	Cranking Voltage
4265	Aftertreatment #1 Transformer Secondary Output
4289	Aftertreatment #1 Three Way Catalytic Converter Intake Gas Temperature
4290	Aftertreatment #1 Three Way Catalytic Converter Outlet Gas Temperature
4291	Aftertreatment #1 Three Way Catalytic Converter Differential Pressure
4301	Aftertreatment #1 Fuel Injector #1 Heater Control
4331	Aftertreatment 1 Diesel Exhaust Fluid Actual Dosing Quantity
4332	Aftertreatment #1 SCR System State
4333	Aftertreatment 1 Diesel Exhaust Fluid Actual Quantity of Integrator
4334	Aftertreatment 1 Diesel Exhaust Fluid Doser Absolute Pressure

4335	Aftertreatment #1 SCR Dosing Air Assist Absolute Pressure
4336	Aftertreatment #1 SCR Dosing Air Assist Valve
4337	Aftertreatment 1 Diesel Exhaust Fluid Dosing Temperature
4338	Aftertreatment #1 SCR Dosing Valve Exhaust Temperature Reduction Request
4340	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 1 State
4341	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 1 Preliminary FMI
4342	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 2 State
4343	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 2 Preliminary FMI
4344	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 3 State
4345	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 3 Preliminary FMI
4346	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 4 State
4347	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 4 Preliminary FMI
4348	Aftertreatment 1 Diesel Exhaust Fluid Dosing Requested Quantity
4350	Aftertreatment 1 Diesel Exhaust Fluid Requested Quantity of Integrator
4352	Aftertreatment 1 Diesel Exhaust Fluid Doser Fault Suppression Request
4353	Aftertreatment 1 Diesel Exhaust Fluid Doser Heating Mode Request
4354	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 1
4355	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 2
4356	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 3
4357	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 4
4365	Aftertreatment 1 Diesel Exhaust Fluid Tank 1 Temperature Preliminary FMI
4366	Aftertreatment 1 Diesel Exhaust Fluid Tank 1 Heater Preliminary FMI
4367	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Level
4368	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Temperature

4369	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Level 2
4370	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Level Preliminary FMI
4371	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Temperature Preliminary FMI
4372	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Heater
4373	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Heater Preliminary FMI
4358	Aftertreatment #1 SCR Catalyst Exhaust Gas Differential Pressure
4360	Aftertreatment #1 SCR Catalyst Intake Gas Temperature
4363	Aftertreatment #1 SCR Catalyst Outlet Gas Temperature
4364	Aftertreatment #1 SCR Catalyst Conversion Efficiency
4374	Aftertreatment 1 Diesel Exhaust Fluid Pump Motor Speed
4375	Aftertreatment 1 Diesel Exhaust Fluid Pump Drive Percentage
4376	Aftertreatment 1 Diesel Exhaust Fluid Return Valve
4384	Aftertreatment 2 Diesel Exhaust Fluid Actual Dosing Quantity
4386	Aftertreatment 2 Diesel Exhaust Fluid Actual Quantity of Integrator
4387	Aftertreatment 2 Diesel Exhaust Fluid Dosing Absolute Pressure
4390	Aftertreatment 2 Diesel Exhaust Fluid Dosing Temperature
4393	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 1 State
4394	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 1 Preliminary FMI
4395	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 2 State
4396	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 2 Preliminary FMI
4397	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 3 State
4398	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 3 Preliminary FMI
4399	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 4 State
4400	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 4 Preliminary FMI

4401	Aftertreatment 2 Diesel Exhaust Fluid Dosing Requested Quantity
4403	Aftertreatment 2 Diesel Exhaust Fluid Requested Quantity of Integrator
4405	Aftertreatment 2 Diesel Exhaust Fluid Doser Fault Suppression Request
4406	Aftertreatment 2 Diesel Exhaust Fluid Doser Heating Mode Request
4407	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 1
4408	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 2
4409	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 3
4410	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 4
4417	Aftertreatment 2 Diesel Exhaust Fluid Average Consumption
4418	Aftertreatment 2 SCR Commanded Diesel Exhaust Fluid Consumption
4420	Aftertreatment 2 Diesel Exhaust Fluid Temperature 2
4421	Aftertreatment 2 Diesel Exhaust Fluid Concentration
4422	Aftertreatment 2 Diesel Exhaust Fluid Conductivity
4423	Aftertreatment 2 Diesel Exhaust Fluid Temperature 2 Preliminary FMI
4424	Aftertreatment 2 Diesel Exhaust Fluid Properties Preliminary FMI
4425	Aftertreatment 2 Diesel Exhaust Fluid Type
4426	Aftertreatment 2 Diesel Exhaust Fluid Tank Level
4427	Aftertreatment 2 Diesel Exhaust Fluid Tank Temperature
4428	Aftertreatment 2 Diesel Exhaust Fluid Tank Level 2
4429	Aftertreatment 2 Diesel Exhaust Fluid Tank Level Preliminary FMI
4430	Aftertreatment 2 Diesel Exhaust Fluid Tank 1 Temperature Preliminary FMI
4431	Aftertreatment 2 Diesel Exhaust Fluid Tank Heater
4432	Aftertreatment 2 Diesel Exhaust Fluid Tank 1 Heater Preliminary FMI
4433	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Level
4434	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Temperature

4435	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Level 2
4436	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Level Preliminary FMI
4437	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Temperature Preliminary FMI
4438	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Heater
4439	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Heater Preliminary FMI
4440	Aftertreatment 2 Diesel Exhaust Fluid Pump Motor Speed
4441	Aftertreatment 2 Diesel Exhaust Fluid Pump Drive Percentage
4442	Aftertreatment 2 Diesel Exhaust Fluid Return Valve
4450	Aftertreatment 2 Diesel Exhaust Fluid Controller
4451	Aftertreatment 2 Diesel Exhaust Fluid Dosing Unit
4452	Aftertreatment 2 Diesel Exhaust Fluid Dosing Unit Input Lines
4453	Aftertreatment 2 Diesel Exhaust Fluid Tank Quality
4765	Aftertreatment #1 Diesel Oxidation Catalyst Intake Gas Temperature
4766	Aftertreatment #1 Diesel Oxidation Catalyst Outlet Gas Temperature
4767	Aftertreatment #1 Diesel Oxidation Catalyst Differential Pressure
4779	Aftertreatment #1 Three Way Catalyst Differential Gas Temperature
4781	DPF #1 Soot Mass
4783	DPF #1 Mean Soot Signal
4785	DPF #1 Soot Sensor
4792	Aftertreatment #1 SCR Catalyst System
4817	Engine Intake Manifold #1 Absolute Pressure
4998	Magnet Boost Time
4999	Magnet Rated Power
5000	Generator Overheat Status

5001	Genset System Output Voltage Range Status
5002	Reverse Current Range Setting
5003	Grapple/Magnet Selection Switch
5004	Genset Softstart Active
5005	Genset Enable Active
5006	Voltage Monitor Active
5007	Generator Duty Cycle Exceeded Status
5008	Magnet Forward Current
5009	Magnet Reverse Current
5010	Material Lift Switch
5011	Material Drop Switch
5012	Generator Current Boost Active Status
5013	Material Lift Active Status
5014	Material Drop Active
5019	EGR Outlet Pressure
5055	Engine Oil Viscosity
5057	Cab Noise Control State
5059	Cab Noise Control Status
5060	Cab Noise Control Tuning Status
5061	Noise Controller
5062	Noise Control Microphone 1
5063	Noise Control Microphone 2
5064	Noise Control Microphone 3
5065	Noise Control Microphone 4

5066	Noise Control Microphone 5
5067	Noise Control Microphone 6
5068	Noise Control Output 1
5069	Noise Control Output 2
5070	Noise Control Output 3
5071	Noise Control Output 4
5072	Noise Control Output 5
5073	Noise Control Output 6
5074	Noise Control Feed Forward Sensor 1
5075	Noise Control Feed Forward Sensor 2
5077	Engine Protect Lamp Command
5099	Engine Oil Pressure Low Lamp Data
5137	Aftertreatment 1 Diesel Exhaust Fluid Tank Heater Command
5138	Aftertreatment 2 Diesel Exhaust Fluid Tank Heater Command
5246	Aftertreatment SCR Operator Inducement Severity
5272	Unexpected Engine Shutdown
5273	Crank Terminate Relay
5276	Engine Exhaust Manifold Bank #1 Flow Balance Valve Actuator Control
5357	Engine Fuel Injection Quantity Error for Multiple Cylinders
5370	Engine Desired Turbocharger Wastegate Actuator #1 Position
5374	Engine Desired Throttle Valve #1 Position
5376	Engine Throttle Valve #1 Temperature Status
5381	Engine Fuel Valve #1 Temperature Status
5392	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Loss of Prime
5394	Aftertreatment 1 Diesel Exhaust Fluid Dosing Valve 1

5404	PTO Shutdown has Shutdown Engine
5414	Aftertreatment 1 Diesel Exhaust Fluid Tank 2 Heater Command
5415	Aftertreatment 2 Diesel Exhaust Fluid Tank 2 Heater Command
5417	Fuel Filter (Suction Side) Intake Pressure
5418	Engine Fuel Actuator #1
5419	Engine Throttle Actuator #1
5420	Engine Turbocharger Compressor Bypass Actuator #1
5421	Engine Turbocharger Wastegate Actuator #1
5422	Engine Intake Manifold #2 Absolute Pressure
5423	Aftertreatment #1 Fuel Pump Relay Control
5424	Aftertreatment #1 Fuel Flow Diverter Valve Control
5425	Aftertreatment #1 Fuel Pressure #2 Actuator Control
5430	EGR #1 Intake Pressure (absolute)
5434	Aftertreatment 1 Diesel Exhaust Fluid Tank Fill Valve Command
5435	Aftertreatment 1 Diesel Exhaust Fluid Pump State
5436	Aftertreatment 1 Diesel Exhaust Fluid Tank Drain Valve Command
5437	Aftertreatment 2 Diesel Exhaust Fluid Tank Fill Valve Command
5438	Aftertreatment 2 Diesel Exhaust Fluid Pump State
5439	Aftertreatment 2 Diesel Exhaust Fluid Tank Drain Valve Command
5478	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Loss of Prime (obsolete)
5480	Aftertreatment 1 Diesel Exhaust Fluid Controller Temperature
5485	Aftertreatment 1 Diesel Exhaust Fluid Pump Orifice Flow
5488	Aftertreatment 1 Diesel Exhaust Fluid Line Heater 5 State
5489	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 5 Preliminary FMI
5490	Aftertreatment 2 Diesel Exhaust Fluid Line Heater 5

5491	Aftertreatment 1 Diesel Exhaust Fluid Line Heater Relay
5495	Aftertreatment #1 DPF Soot Mean Calibration Offset
5499	Intake Valve Actuation System Oil Pressure Solenoid Status
5506	Hydrocarbon (HC) Doser Status
5557	Supplemental Fan Direction Status
5559	Supplemental Fan Controller Temperature Status
5562	Supplemental Fan Speed
5569	DPF #1 Soot Sensor ECU Internal Temperature
5571	High Pressure Common Rail Fuel Pressure Relief Valve
5576	Aftertreatment #1 Identification
5577	Aftertreatment #2 Identification
5578	Engine Fuel Delivery Absolute Pressure
5579	Engine Filtered Fuel Delivery Pressure
5580	Engine Filtered Fuel Delivery Absolute Pressure
5584	Engine Fuel Filter Degradation
5585	Engine Injector Metering Rail #1 Cranking Pressure
5587	Engine Intake Manifold Temperatures Inconsistent
5589	Aftertreatment #1 Secondary Air Absolute Pressure
5591	Aftertreatment #1 DPF Air Control Module
5625	Engine Exhaust Back Pressure Regulator Position
5629	DPF Active Regeneration Inhibited Due to Low Exhaust Gas Pressure
5631	Engine Throttle Valve Differential Pressure
5686	Engine Exhaust Gas Port #1 Difference from Average Temperature
5687	Engine Exhaust Gas Port #2 Difference from Average Temperature

5688	Engine Exhaust Gas Port #3 Difference from Average Temperature
5689	Engine Exhaust Gas Port #4 Difference from Average Temperature
5690	Engine Exhaust Gas Port # 5 Difference from Average Temperature
5691	Engine Exhaust Gas Port #6 Difference from Average Temperature
5692	Engine Exhaust Gas Port #7 Difference from Average Temperature
5693	Engine Exhaust Gas Port # 8 Difference from Average Temperature
5694	Engine Exhaust Gas Port # 9 Difference from Average Temperature
5695	Engine Exhaust Gas Port #10 Difference from Average Temperature
5696	Engine Exhaust Gas Port #11 Difference from Average Temperature
5697	Engine Exhaust Gas Port #12 Difference from Average Temperature
5698	Engine Exhaust Gas Port #13 Difference from Average Temperature
5699	Engine Exhaust Gas Port #14 Difference from Average Temperature
5700	Engine Exhaust Gas Port #15 Difference from Average Temperature
5701	Engine Exhaust Gas Port #16 Difference from Average Temperature
5702	Engine Exhaust Gas Port #17 Difference from Average Temperature
5703	Engine Exhaust Gas Port #18 Difference from Average Temperature
5704	Engine Exhaust Gas Port #19 Difference from Average Temperature
5705	Engine Exhaust Gas Port #20 Difference from Average Temperature
5706	Aftertreatment 1 Diesel Exhaust Fluid Pump Heater
5707	Aftertreatment 1 Diesel Exhaust Fluid Pump Heater Command
5708	Engine Coolant Pressure #2
5826	Emission Control System Operator Inducement Severity
5837	Fuel Type
5745	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Heater

5746	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Heater Relay
5748	Aftertreatment 2 Diesel Exhaust Fluid Dosing Unit Loss of Prime
5798	Aftertreatment 1 Diesel Exhaust Fluid Dosing Unit Heater Temperature
5839	Diesel Exhaust Fluid Consumption Malfunction
5840	Diesel Exhaust Fluid Dosing Malfunction
5841	Diesel Exhaust Fluid Quality Malfunction
5925	Engine Oil Temperature #3
5963	Aftertreatment 1 Total Diesel Exhaust Fluid Used
5964	Aftertreatment 2 Total Diesel Exhaust Fluid Used
5965	Aftertreatment 1 Diesel Exhaust Fluid Control Module Relay Control
5966	Aftertreatment 1 Diesel Exhaust Fluid Control Module Power Supply
5967	Aftertreatment 2 Diesel Exhaust Fluid Control Module Relay Control
5968	Aftertreatment 2 Diesel Exhaust Fluid Control Module Power Supply
5969	Engine Exhaust Manifold Bank #2 Temperature #2
5970	Engine Exhaust Manifold Bank #1 Temperature #2
5971	Aftertreatment 2 Diesel Exhaust Fluid Dosing Unit Heater
5972	Aftertreatment 2 Diesel Exhaust Fluid Doser Absolute Pressure
5973	Aftertreatment 2 Diesel Exhaust Fluid Line Heater Relay
5974	Aftertreatment 2 Diesel Exhaust Fluid Dosing Valve 1
5978	Aftertreatment #1 DPF Time to Next Active Regeneration
6161	Engine Cylinder 1 Pressure
6162	Engine Cylinder 2 Pressure
6163	Engine Cylinder 3 Pressure
6164	Engine Cylinder 4 Pressure
6165	Engine Cylinder 5 Pressure

6166	Engine Cylinder 6 Pressure
6167	Engine Cylinder 7 Pressure
6168	Engine Cylinder 8 Pressure
6169	Engine Cylinder 9 Pressure
6170	Engine Cylinder 10 Pressure
6171	Engine Cylinder 11 Pressure
6172	Engine Cylinder 12 Pressure
6173	Engine Cylinder 13 Pressure
6174	Engine Cylinder 14 Pressure
6175	Engine Cylinder 15 Pressure
6176	Engine Cylinder 16 Pressure
6177	Engine Cylinder 17 Pressure
6178	Engine Cylinder 18 Pressure
6179	Engine Cylinder 19 Pressure
6180	Engine Cylinder 20 Pressure
6181	Engine Cylinder #1 Gaseous Fuel Valve
6182	Engine Cylinder #2 Gaseous Fuel Valve
6183	Engine Cylinder #3 Gaseous Fuel Valve
6184	Engine Cylinder #4 Gaseous Fuel Valve
6185	Engine Cylinder #5 Gaseous Fuel Valve
6186	Engine Cylinder #6 Gaseous Fuel Valve
6187	Engine Cylinder #7 Gaseous Fuel Valve
6188	Engine Cylinder #8 Gaseous Fuel Valve
6189	Engine Cylinder #9 Gaseous Fuel Valve

6190	Engine Cylinder #10 Gaseous Fuel Valve
6191	Engine Cylinder #11 Gaseous Fuel Valve
6192	Engine Cylinder #12 Gaseous Fuel Valve
6193	Engine Cylinder #13 Gaseous Fuel Valve
6194	Engine Cylinder #14 Gaseous Fuel Valve
6195	Engine Cylinder #15 Gaseous Fuel Valve
6196	Engine Cylinder #16 Gaseous Fuel Valve
6197	Engine Cylinder #17 Gaseous Fuel Valve
6198	Engine Cylinder #18 Gaseous Fuel Valve
6199	Engine Cylinder #19 Gaseous Fuel Valve
6200	Engine Cylinder #20 Gaseous Fuel Valve
6201	Engine Turbocharger Compressor Blowoff Actuator #1 Command
6205	Engine Control Module #1 Ready for Use Lamp Command
6206	Engine Control Module #2 Ready for Use Lamp Command
6207	Engine Control Module #3 Ready for Use Lamp Command
6309	Aftertreatment 1 Diesel Exhaust Fluid Control Module Power Supply 2
6310	Aftertreatment 2 Diesel Exhaust Fluid Control Module Power Supply 2
6317	Requested Fuel Type
6319	Engine Total Hours of Gaseous Fuel Operation
6320	Engine Total Hours of Diesel Fuel Operation
6321	Engine Extended Range Oil Filter Differential Pressure
6322	Aftertreatment #1 SCR Desulfation Too Frequent
6324	Aftertreatment 1 Diesel Exhaust Fluid Dosing Valve 2
6325	Aftertreatment 2 Diesel Exhaust Fluid Dosing Valve 2
6326	Aftertreatment 1 Diesel Exhaust Fluid Dosing Valve 1 Heater

6327	Aftertreatment 1 Diesel Exhaust Fluid Dosing Valve 2 Heater
6328	Aftertreatment 2 Diesel Exhaust Fluid Dosing Valve 1 Heater
6329	Aftertreatment 2 Diesel Exhaust Fluid Dosing Valve 2 Heater
6334	Engine Timing Actuator #1 Requested Position
6335	Engine Timing Actuator #2 Requested Position
6336	Engine Timing Actuator #1 Position Command
6337	Engine Timing Actuator #2 Position Command
6386	Engine Gas Fuel Percentage Command
6387	Engine Cylinder Gas Mass Flow Rate Command
6388	Engine Cylinder Diesel Mass Flow Rate Command
6389	Engine Cylinder Torque
6390	Engine Cylinder Pressure Monitor #1 Preliminary FMI
6391	Engine Cylinder Pressure Monitor #2 Preliminary FMI
6398	Engine Cylinder #1 Knock Level
6399	Engine Cylinder #1 Pressure Sensor Preliminary FMI
6402	Engine Cylinder #2 Knock Level
6403	Engine Cylinder #2 Pressure Sensor Preliminary FMI
6406	Engine Cylinder #3 Knock Level
6407	Engine Cylinder #3 Pressure Sensor Preliminary FMI
6410	Engine Cylinder #4 Knock Level
6410	Engine Cylinder #4 Knock Level
6414	Engine Cylinder #5 Knock Level
6414	Engine Cylinder #5 Pressure Sensor Preliminary FMI
6418	Engine Cylinder #6 Knock Level
6419	Engine Cylinder #6 Pressure Sensor Preliminary FMI

6422	Engine Cylinder #7 Knock Level
6423	Engine Cylinder #7 Pressure Sensor Preliminary FMI
6426	Engine Cylinder #8 Knock Level
6427	Engine Cylinder #8 Pressure Sensor Preliminary FMI
6430	Engine Cylinder #9 Knock Level
6431	Engine Cylinder #9 Pressure Sensor Preliminary FMI
6434	Engine Cylinder #10 Knock Level
6435	Engine Cylinder #10 Pressure Sensor Preliminary FMI
6438	Engine Cylinder #11 Knock Level
6439	Engine Cylinder #11 Pressure Sensor Preliminary FMI
6442	Engine Cylinder #12 Knock Level
6443	Engine Cylinder #12 Pressure Sensor Preliminary FMI
6446	Engine Cylinder #13 Knock Level
6447	Engine Cylinder #13 Pressure Sensor Preliminary FMI
6450	Engine Cylinder #14 Knock Level
6451	Engine Cylinder #14 Pressure Sensor Preliminary FMI
6454	Engine Cylinder #15 Knock Level
6455	Engine Cylinder #15 Pressure Sensor Preliminary FMI
6458	Engine Cylinder #16 Knock Level
6459	Engine Cylinder #16 Pressure Sensor Preliminary FMI
6462	Engine Cylinder #17 Knock Level
6463	Engine Cylinder #17 Pressure Sensor Preliminary FMI
6466	Engine Cylinder #18 Knock Level
6467	Engine Cylinder #18 Pressure Sensor Preliminary FMI

6470	Engine Cylinder #19 Knock Level
6471	Engine Cylinder #19 Pressure Sensor Preliminary FMI
6474	Engine Cylinder #20 Knock Level
6475	Engine Cylinder #20 Pressure Sensor Preliminary FMI
6476	Aftertreatment Diesel Exhaust Fluid Doser Cooldown Interrupt Count
6477	Aftertreatment Diesel Exhaust Fluid Doser Purge Interrupt Count
6478	Aftertreatment Diesel Exhaust Fluid Doser Cooldown Complete This Cycle
6479	Aftertreatment Diesel Exhaust Fluid Doser Cooldown Complete Last Cycle
6480	Aftertreatment Diesel Exhaust Fluid Doser Purge Complete This Cycle
6481	Aftertreatment Diesel Exhaust Fluid Doser Purge Complete Last Cycle
6564	Engine Cylinder Pressure Monitor 1
6565	Engine Cylinder Pressure Monitor 2
6571	Engine Main Chamber Fuel Absolute Pressure
6572	Engine Main Chamber Fuel Desired Absolute Pressure
6573	Engine Prechamber Fuel Absolute Pressure
6574	Engine Prechamber Fuel Desired Absolute Pressure
6575	Engine Main Chamber Air Fuel Ratio
6576	Engine Main Chamber Desired Air Fuel Ratio
6577	Engine Prechamber Air Fuel Ratio
6578	Engine Prechamber Desired Air Fuel Ratio
6579	Engine Exhaust NOx
6580	Engine Exhaust Desired NOx
6581	Aftertreatment #1 Hydrocarbon Doser #2
6588	Operator Shutdown With High Exhaust Temperature
6593	Aftertreatment 1 Diesel Exhaust Fluid Dosing Requested Quantity (High Range)

6594	Aftertreatment 2 Diesel Exhaust Fluid Dosing Requested Quantity (High Range)
6595	Aftertreatment 1 Diesel Exhaust Fluid Actual Dosing Quantity (High Range)
6596	Aftertreatment 2 Diesel Exhaust Fluid Actual Dosing Quantity (High Range)
520192	CGI Mass Flow
520193	CGI Gas Temperature
520194	CGI Control Valve
520196	CGI Differential Pressure
520197	CGI Absolute Pressure
523523	Engine Injector Cylinder #1 and Cylinder #4
523524	Engine Injector Cylinder #2 and Cylinder #3
523525	Engine Injector Charge Capacitor Supply Voltage
523527	ECU CPU
523535	Engine Injector Charge Voltage
523536	EGR Response
523537	EGR Motor Temperature Sensor
523538	Engine Injector Code
523539	Fuel Pump Pressure
523540	Fuel Pump Pressure
523541	EGR Lift Sensor
523543	Accelerator Pedal Position Sensor
523544	Engine Start Aid
523547	CAN Data Link
523548	CAN Data Link
523572	EGR Position Sensor
523574	EGR Actuator Coil Low Side Driver

523575	EGR Actuator
523576	EGR Actuator Temperature
523577	EGR Actuator Temperature Sensor
523578	EGR Actuator Data Link
523580	Intake Throttle
523582	Intake Throttle Lift Sensor
523589	Engine Coolant Temperature during Stationary Regeneration
523590	Stationary Regeneration Duration
523591	CAN Data Link
523591	CAN Data Link
523591	CAN Data Link
523592	CAN Data Link
523593	CAN Data Link
523594	CAN Data Link
523595	CAN Data Link
523596	CAN Data Link
523598	CAN Data Link
523599	All Exhaust Gas Temperature Sensors Failure
523600	Fuel Pump Calibration Not Completed
523601	Exhaust Gas Temperature
523602	Aftertreatment Regeneration Frequency
523603	Engine Coolant Temperature
523604	CAN Data Link
523700	EEPROM Checksum

FMI	Description
0	High – most severe (3)
1	Low – most severe (3)
2	Erratic, Intermittent, or Incorrect
3	Voltage Above Normal
4	Voltage Below Normal
5	Current Below Normal
6	Current Above Normal
7	Not Responding Properly
8	Abnormal Frequency, Pulse Width, or Period
9	Abnormal Update Rate
10	Abnormal Rate of Change
11	Other Failure Mode
12	Failure
13	Out of Calibration
14	Special Instruction
15	High – least severe (1)
16	High – moderate severity (2)
17	Low – least severe (1)
18	Low – moderate severity (2)
19	Data Error
20	Data Drifted High
21	Data Drifted Low
31	-

