

Module Identifiers (MID)		
MID No.	Module	Module
1E	Monitor Panel	
24	Engine Controller	
69	Engine/Pump Controller	
6A	Attachment Controller	

Component Identifiers (CID) For Engine/Pump Control (MID ² No. 69)		
CID	Component	Component
91	Throttle Position Signal	
96	Fuel Level Sensor	
110	Engine Coolant Temperature Sensor	
167	Alternator	
168	Voltage Of The Power Supply (keyswitch)	
190	Speed Sensor	
286	Signal For Engine Oil Pressure Decrease	
291	Fan Motor Proportional Reducing Valve	
374	Swing Brake Solenoid Valve	
376	Travel Alarm	
581	Proportional Reducing Valve For The Power Shift Pressure	
586	Engine Speed Dial	
587	Feedback Sensor For The Governor Accelerator	
590	Engine Control	
598	Travel Speed Solenoid	
600	Hydraulic Oil Temperature Sensor	
1161	Pump Delivery Pressure Sensor (Drive)	
1162	Pump Delivery Pressure Sensor 2 (Idle)	
1178	Boom Hold Pressure Sensor	

¹ The CID is a diagnostic code that indicates which component is faulty.

² The MID is a diagnostic code that indicates which electronic control module diagnosed the fault.

Component Identifiers (CID) For Engine Control (MID ² No.24)		
CID	Component	Component
1	Injector Solenoid 1st Cylinder	
2	Injector Solenoid 2nd Cylinder	
3	Injector Solenoid 3rd Cylinder	
4	Injector Solenoid 4th Cylinder	
5	Injector Solenoid 5th Cylinder	
6	Injector Solenoid 6th Cylinder	
42	Injector Actuation Control Valve	
91	Backup Throttle Position Switch	
94	Fuel Pressure Sensor	
100	Engine Oil Pressure Sensor	
110	Engine Coolant Sensor	
164	Injector Pressure Sensor	
168	System Voltage	
172	Inlet Air Temperature Sensor	
175	Engine Oil Temperature Sensor	
247	J1939 Data Link	
253	Personality Module	
254	ECM Error	
261	Timing Sensor Calibration	
262	Analog Sensor Power Supply Voltage	
263	Digital Supply Sensor	
268	Check Programmable Parameters	
273	Turbocharger Compressor Outlet Press. Sens.	
274	Atmospheric Pressure Sensor	
320	Speed Timing Sensor	
342	Secondary Speed Timing Sensor	
617	Air Heater Relay	
1627	Fuel Pump Relay	

Component Identifiers (CID) For Valve Control (MID ² No. 06A)		
CID	Component	Component
145	12 V Power Supply	
1522	Variable Relief #2 Check Solenoid Valve	
1523	Variable Relief #1 Check Solenoid Valve	
1593	ATT Valve #1 Extension	
1594	ATT Valve #2 Extension	
1595	ATT Valve #3 Extension	
1596	ATT Valve #1 Retraction	
1597	ATT Valve #1 Retraction	
1598	ATT Valve #1 Retraction	
1609	Squeeze Load Pressure Sensor	
1615	1 Way / 2Way Changeover Solenoid Valve	
1657	Left Joystick Thumb Wheel	
1658	Right Joystick Thumb Wheel	
1665	Proportional Reducing Valve For Variable Relief Valve #2	
1666	Proportional Reducing Valve For Variable Relief Valve #1	

Wire Description					
Wire Number	Wire Color	Description	Wire Number	Wire Color	Description
Power Circuits					
101	RD	Battery +	607	PK	Chassis Lamp
103	RD	Monitor	615	YL	Cab Lamp
105	RD	Key Switch	616	BU	Boom Lamp
109	RD	Alternator B+	638	WH	ATCH Beacon Relay
110	RD	Timer Relay B+	645	RD	Switch Panel to Boom Lamp Relay
112	PU	Main Power Relay Output	646	RD	Switch Panel to Cab Lamp Relay
113	OR	Switch Panel/Radio	AG23	BU	Switch Panel to Chassis Lamp Relay
114	RD	Forward Horn	Control Circuits		
115	RD	Cab Lamp	763	BU	Travel Speed Solenoid
118	GY	Wiper/Washer	779	WH	Low Pressure ATCH Quick Coupler Solenoid
119	PK	Aux Oil	780	PU	Quick Coupler SW to Solenoid
120	YL	12V 10A Converter 1	788	YL	Engine Speed -
123	WH	Aux Circuit	A701	GY	Injector #1
124	GN	A/C	A702	PU	Injector #2
129	BU	Cigar Lighter	A703	BR	Injector #3
130	RD	Coolant Temp Sensor	A704	GN	Injector #4
135	BU	Switched Converter Output	A705	BU	Injector #5
139	OR	12V Mem Out	A706	GY	Injector #6
143	BR	Boom Float	A755	PK	Throttle Switch #1
147	PU	Aux Oil	A756	BU	Throttle Switch #2
149	RD	Boom Lamp	A757	GY	Throttle Switch #3
150	OR	Quick Coupler	A758	BR	Throttle Switch #4
151	GN	Neutral Start Limit Switch	A762	PU	Engine Speed +
152	BU	Lower Wiper/Washer	A768	BU	Backup EPS SW Valve to Power Switch Sol
154	RD	Neutral Start Limit Switch	A769	GY	Backup EPS SW Valve to Power Switch Sol
160	PU	Chassis Lamp	A770	PK	Electronic Pump Control Bypass Switch to Resistor
168	RD	Aux Circuit	M773	OR	Governor Accelerator
169	PK	Backup/Monitor Control	M774	WH	Governor Deceleration
175	RD	A/C Blower	M705	BR	Fuel Pump Relay
179	BU	12V 10A Converter 2	M792	BR	ATCH Boom Start Boom Up/Down Relay 1
180	GN	Aux Circuit	M734	BR	Travel Mode Switch
184	RD	EIP Control	M736	BU	Governor Command
188	WH	Fuel Pump	M737	WH	Flow Limit Press Valve Solenoid
189	RD	Engine Governor Actuator	M738	OR	Prm N/C Press PRV
191	WH	Aux Fine Swing Cont SW	M739	YL	Solenoid Return 2
196	BU	NSP Lamp	M740	PK	Travel Straggl Solenoid
199	OR	Beacon Lamp	M741	GY	Travel Alarm Cancel
Ground Circuits					
200	BK	Main Chassis	M742	PU	AEC Mode Switch
201	BK	Op. Mon. Return	M743	GN	Travel Mode Switch
210	BK	Converter Ground	M744	PK	ATCH Boom Float Display Relay
211	BK	Converter Ground	M745	BU	ATCH Smart Boom Up/Down Relay 2
229	BK	Battery -	M746	YL	ATCH Smart Boom Up/Down Relay 1
235	BK	EIP Control Ground	M747	PU	ATCH Boom Float Exchange
304	WH	Start Relay Output	M748	OR	ATCH Boom Down Pressure Sw
306	GN	Starter Relay Coil to Neutral Start Switch	M749	WH	ATCH Boom Check Solenoid 2
307	OR	Key Start to Neutral Start Switch	M746	PK	Turbo Outlet Pressure
308	YL	Main Power Relay Coil	M747	GY	Atmospheric Pressure
310	PU	Start Aid Switch To Start Aid Solenoid	803	GN	CAT Data Link +
320	RD	Horn Relay To Horn Switch	883	OR	Fuel Pump
321	BR	Backup Alarm Lamp Travel Alarm	F889	WH	Throttle
322	GY	Forward Horn	M806	BR	Oil Pressure Sensor +SV
323	WH	ATCH Refueling Power Relay	GA27	BU	Oil Pressure Sensor Return
325	PK	ATCH Refueling Power Sw	GA28	WH	Eng Pressure Sensor +SV
326	RD	Engine Shutdown Solenoid To Key Switch	GA29	GN	Eng Pressure Sensor Return
329	YL	ATCH Refueling Stop Relay	GA33	PK	Eng Temp Sensor Rtn
305	YL	ATCH Refueling Start Relay	GA39	BR	Hy Injection Pressure
403	GN	Alternator +C36 Term	GA40	BU	Inlet Air Filter Relay
405	GY	Op. Mon. Oil Pressure (Low Setting)	GA43	OR	Intake Air Temp
410	WH	Op. Mon. Fault Alarm	GA44	GY	IAP Control Valve
412	BU	Op. Mon. Coolant Level	GA45	PU	IAPCV Common
430	BU	Op. Mon. Air Filter	GA56	WH	Timing Cal Probe +
487	OR	Hyd. Oil Flow Switch	GA57	YL	Timing Cal Probe -
491	PK	Hyd. Oil Temp Sensor	GA58	GN	Stem 3 Extend Switch
495	GN	Fuel Level Signal	GA59	PK	Stem 4 Extend Switch
498	WH	Op. Mon. Panel Hyd. Oil Level	GA60	WH	Stem 4 Retract Switch
CA68	BU	Engine Oil Level	GA61	YL	Hammer Pressure Switch
E469	YL	Tool Pressure Sensor	GA62	BR	ATT Stem 2
E470	BR	Negative Cont. Pressure Sensor 1	GA63	BU	Medium Line Pressure SW
E471	BU	Negative Cont. Pressure Sensor 2	GA64	GN	Aux Hyd Pressure SW
E472	GN	12V Supply From Valve Control	GA65	GY	Aux Pump 1 Control Valve
E473	GY	Stem 1 Modulation	GA66	PK	Separate Valve
E474	OR	Stem 2 Modulation	GA67	GN	Stem 2 Control Valve A
E475	PK	Stem 3 Modulation	GA68	WH	Stem 3 Control Valve A
E476	PU	Stem 4 Modulation	GA69	YL	Stem 3 Control Valve A
E480	WH	Overload Alarm Cancel Sw	GA70	BR	Stem 4 Control Valve A
F421	GN	Oil Temp	GA71	BU	Stem 1 Control Valve B
H446	PK	O.L.W.D. Pressure Sensor	GA72	GN	Stem 2 Control Valve B
H465	GN	Travel Alarm Cancel Indicator	GA73	OR	Stem 3 Control Valve B
H466	BU	AEC Mode Indicator	GA74	PK	Stem 4 Control Valve B
H467	WH	Travel Mode Indicator 1	GA75	PK	ATT Retel Valve Solenoid 1
H473	BR	Travel Straight Pressure Switch	GA76	PU	ATT Retel Valve Solenoid 2
H474	GN	Travel Right Pressure Switch	GA77	WH	ATT 1Way/2Way Control Valve Solenoid
H475	BU	Travel Left Pressure Switch	GA78	YL	ATT Solenoid Return 1
H476	WH	Joystick Pressure Switch	GA79	BR	ATT Solenoid Return 2
Accessory Circuits					
501	GN	Wiper - Front (Low)	GA80	BU	ATT Solenoid Return 3
506	PU	Washer - Front	GA81	GN	ATT Solenoid Return 4
508	PU	Radio Speaker - Left	GA82	BR	ATT Retel Check Valve Solenoid 1
509	WH	Radio Speaker - Left (Common)	GA83	BU	ATT Retel Check Valve Solenoid 2
511	BR	Radio Speaker - Right	994	GN	ATCH Hammer Solenoid
512	GN	Radio Speaker - Right (Common)	995	BU	Coolant Temp
530	OR	Washer	998	BR	Throttle Return
578	BU	Washer - Aux	C987	RD	Aux Valve Cont +B
586	BR	Not Used	C990	YL	Eng Oil Pressure
590	GY	Wiper Switch To Intermittent Module	C991	PK	Fuel Pressure
A537	PK	Not Used	E963	BK	Top Cam S/T -
A579	OR	Wiper Motor +	E964	WH	Top Cam S/T +
A580	GN	Wiper Motor -	E965	OR	Bottom Cam S/T -
A584	BU	Front Window Limit Switch to Wiper Cont.	E966	YL	Bottom Cam S/T +
A586	OR	Wiper Switch, To Wiper Cont	G976	BU	Water Separator Sensor
A588	GN	Hyd Lock Sol. Relay to Hyd Lock Sol.	X904	GN	Pump Discharge Pressure Sensor 1 - Signal
C537	GN	A/C Photo Sensor + Sig	X906	GN	Swing Brake Sol - Signal
C538	OR	A/C Photo Sensor - Sig	X907	BU	Swing Brake Cancel Sol
C569	YL	Success DDC Converter Power Output	L988	OR	EIP Control PS Valve -
E554	PK	A/C Controller to A/C Compressor Clutch	L989	WH	EIP Control PS Valve +
E562	PU	Buzzer As	L972	BU	Low Idle Switch
E564	PK	Relay	L973	GN	Fine Swing Control Relay to Sol Valve
E565	BU	Rotary Sw	L976	GN	ATCH Refueling Start Sw (NO)
			L983	WH	Injector Common 1&2
			L984	OR	Injector Common 3&4
			L985	YL	Injector Common 5&6
			M906	BU	Squeeze Pressure Sensor
			T967	YL	Pump Discharge Pressure Sensor 2 - Signal

Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm Fault	F-2	G	Sensor Negative Cont Pressure 1	A-12	E
Alternator	F-2	A-4	Sensor Negative Cont Pressure 2	A-12	E
Alternator	E-10	4	Sensor OLVW Pressure	B-3	E
Battery	E-12	5	Sensor Squeeze Pressure	B-6	E
Battery	E-11	5	Sensor Turbo Outlet Pressure	B-10	2
Beacon Alternator	H-8	1	Sensor WTR Separator Level	H-2	16
Clutch A/C	D-10	25	Solenoid 1Way/2Way Cont	B-6	17
Control Engine / Pump	E-6	1	Solenoid Boom Down Line Out Off	C-6	20
Control Wiper	F-2	G	Solenoid Fine Swing	C-3	18
Converter 12V 1A	F-2	13	Solenoid Fine Limit	A-12	19
Diode	I-11	1	Solenoid Hammer	A-8	H
Diode	I-8	1	Solenoid High Pressure Quick Cpl (A2)	B-2	24
Engine Control	F-12	4	Solenoid High Pressure Quick Cpl (A1)	C-2	17
Engine Speed Pickup	D-10	14	Solenoid High Pressure Quick Cpl (A3)	B-2	20
Feeder Line	D-5	1	Solenoid Low Pressure Quick Cpl (A1)	B-2	D
Horn	C-1	6	Solenoid Power Shift Cont	A-10	E
Ind Line	H-1	B	Solenoid Primary N/C	A-12	E
Joystick #1 thru 6	I-3	C	Solenoid Pump Flow Cont	A-12	E
Joystick	H-1	B	Solenoid Retel 1	B-6	E
Lamp Boom	C-1	7	Solenoid Retel Boom 1	B-6	E
Lamp Cab	G-1	8	Solenoid Retel Boom 2	B-6	E
Lamp Chassis	B-1	9	Solenoid Retel Check 1	A-5	17
Lamp Dome	G-1	10	Solenoid Retel Check 2	B-6	24
Lifter	F-2	A	Solenoid Stem 1 Cont (A)	A-9	E
Main Service	F-2	A	Solenoid Stem 1 Cont (B)	A-9	E
Monitor	F-2	11	Solenoid Stem 2 Cont (A)	A-9	E
Motor Fuel Pump	H-7	25	Solenoid Stem 2 Cont (B)	A-9	E
Motor Lower Wiper	H-1	H	Solenoid Stem 3 Cont (A)	B-9	E
Motor Starter	D-10	12	Solenoid Stem 3 Cont (B)	B-9	E
Motor Washer	H-7	15	Solenoid Stem 4 Cont (A)	B-9	E
Pump Refueling	A-3	27	Solenoid Stem 4 Cont (B)	B-9	E
Relay Boom Float Disable	I-12	23	Solenoid Swing Brake	C-9	20
Relay Beacon	D-8	1	Solenoid Travel Speed	C-9	20
Relay Boom	I-8	23	Solenoid Travel Straggl	C-9	20
Relay Cab Lamp	I-8	23	Switch A/C Panel	D-1	G
Relay Chassis Lamp	I-8	23	Switch ACL	F-9	E
Relay Fuel Pump	D-8	1	Switch Backup EPR Valve	G-2	B
Relay Heater	E-11	23	Switch Backup Governor	H-2	B
Relay Horn	I-8	23	Switch Boom Down	C-8	20
Relay Hydraulic Lock	H-8	23	Switch Boom Float Exchange	D-2	G
Relay Man	H-11	23	Switch Coil Level	H-7	21
Relay Neutral Start	H-8	23	Switch Disconnect	C-9	23
Relay QC Safety Lever "ON" Coil	I-11	23			