

Cummins **Onan**



Parts Manual

Marine Generator Set

MDKDL (Spec A)

MDKDM (Spec A)

MDKDN (Spec A)

Introduction

This manual applies to the standard marine generator sets listed below. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Parts illustrations are typical. Unless otherwise mentioned in the description or page heading, parts are interchangeable between models. Throughout this catalog left and right sides are determined by facing the engine end (front) of the set.

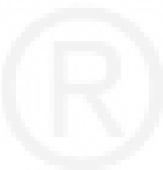
Generator Set Data Table

Model and Specification	Electrical Data					Battery Voltage
	Watts	Volts	Hertz	Wire	Phase	
7MDKDL*	7,000	#	50	2,3	1	#
9MDKDL*	9,000	#	60	2,3	1	#
9.5MDKDM*	9,500	#	50	2,3	1	#
11.5MDKDM*	11,500	#	60	2,3	1	#
11MDKDN*	11,000	#	60	2,3	1	#
13.5MDKDN*	13,500	#	50	2,3	1	#

* – The diagonal line (/) in the model and specification number separates generator set characteristics from the specification number and letter. The specification number denotes customer requested options or deviations from the standard model. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes.



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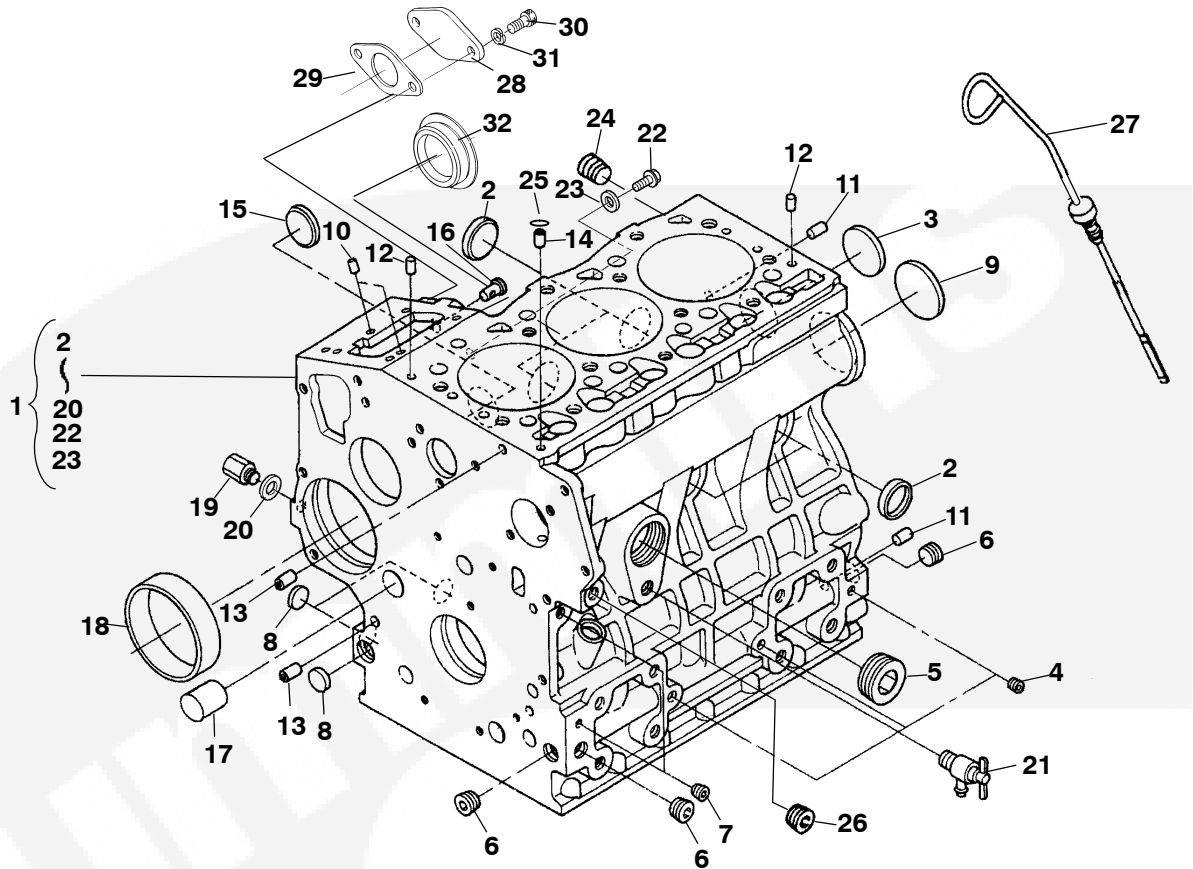
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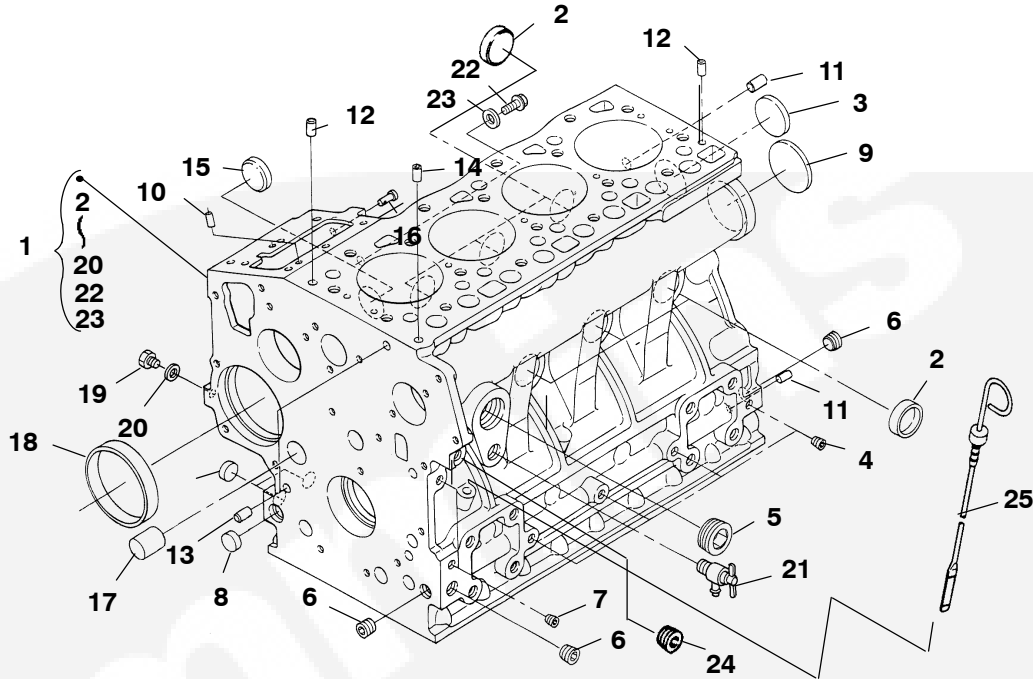
Cylinder Block (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Assy, Engine Replacement	16	185-6857	1	*Pin, Start Spring
			7MDKDL	17	185-6471	1	*Plug
	A052S476	1	12V	18	185-6472	1	*Bush, Governor Gear
	A052S479	1	24V	19	185-5845	1	*Plug
			9MDKDL	20	185-2338	1	*Gasket
	A044B662	1	12V	21	185-5490	1	Cock Assy, Drain
	A044B664	1	24V	22	185-2572	1	*Bolt, Flange
1	185-7372	1	Block, Cylinder (Includes Parts Marked *)	23	185-2284	1	*Gasket
2	185-5484	4	*Cap, Sealing	24	185-6039	1	Plug
3	185-2412	1	*Cap, Sealing	25	185-2095	1	O'Ring
4	185-2188	3	*Plug	26	185-5502	1	Plug
5	185-6856	1	*Plug	27	185-6866	1	Indicator, Oil Lever
6	185-6468	3	*Plug	28	184-0071	2	Cover, Solenoid
7	185-2233	2	*Plug	29	185-6579	1	Gasket
8	185-6121	3	*Plug, Expansion	30	800-6548	2	Bolt, Hex Socket Head
9	185-6040	1	*Plug, Expansion		185-2403	2	Spec A
10	185-5486	2	*Pin, Straight	31	185-6759	2	Washer, Spring
11	185-5487	2	*Pin, Straight	32	120-1386	1	Cover, Hydraulic Pump
12	185-7420	2	*Pin, Straight				
13	185-2115	2	*Pin, Pipe				
14	185-6469	1	*Pin, Pipe				
15	185-7212	1	*Plug				

* - Parts Included in Cylinder Block.

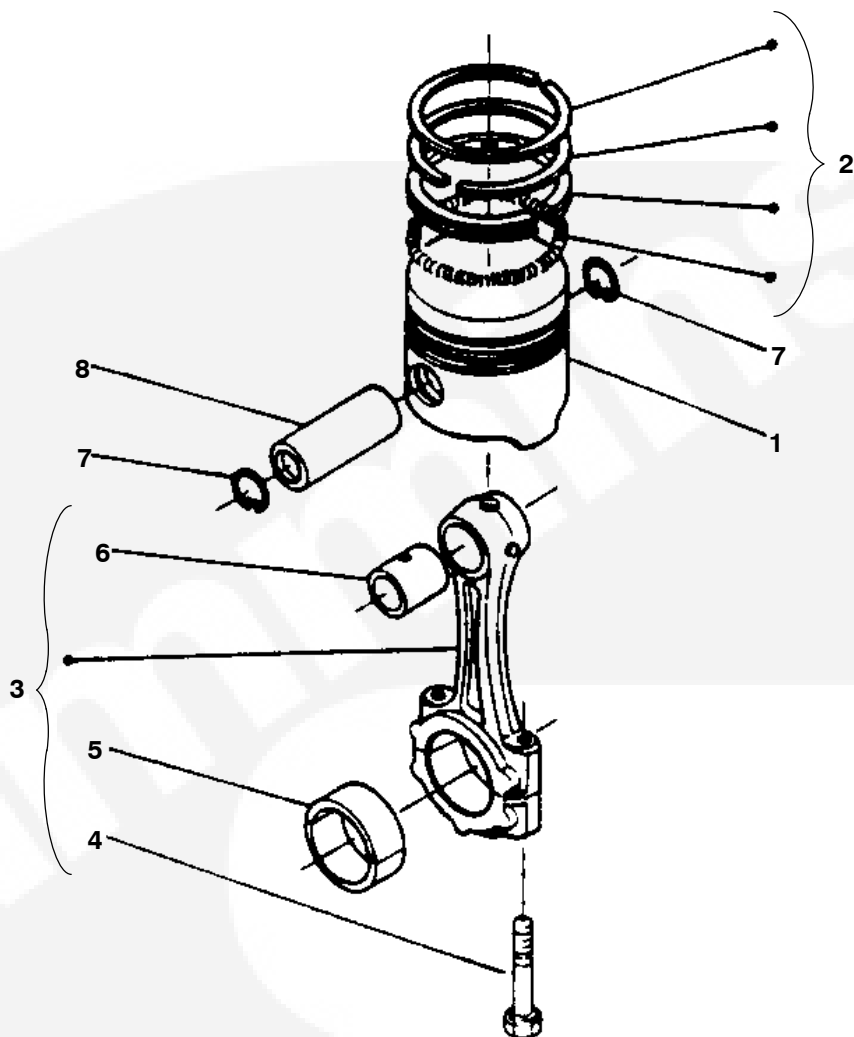
Cylinder Block (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Engine, Replacement	11	185-5487	2	*Pin, Straight
			9.5MDKDM, 11MDKDN	12	185-5843		*Pin, Straight
	A052S481	1	12V	13	185-2115	2	*Pin, Pipe
	A052S483	1	24V	14	185-6469	1	*Pin, Pipe
			11.5MDKDM, 13.5MDKDN	15	185-7212	1	*Plug
	A044B666	1	12V	16	181-9093	1	*Pin, Start Spring
	A044B669	1	24V	17	185-6471	1	*Plug
1	110-4093	1	Block, Cylinder (Includes Parts Marked *)	18	185-6472	1	*Bush, Governor Gear
2	185-5484	6	*Cap, Sealing	19	185-5845	1	*Plug
3	185-2412	1	*Cap, Sealing	20	185-2338	1	*Gasket
4	185-2188	4	*Plug	21	185-5490	1	Cock Assy, Drain
5	185-6856	1	*Plug	22	185-2572	1	*Bolt, Flange
6	185-6468	3	*Plug	23	185-2284	1	*Gasket
7	185-2233	2	*Plug	24	184-0072	1	Plug Square Head
8	185-6121	3	*Plug, Expansion	25	185-6866	1	Indicator, Oil Level
9	185-6040	1	*Plug, Expansion				
10	185-5486	2	*Pin, Straight				

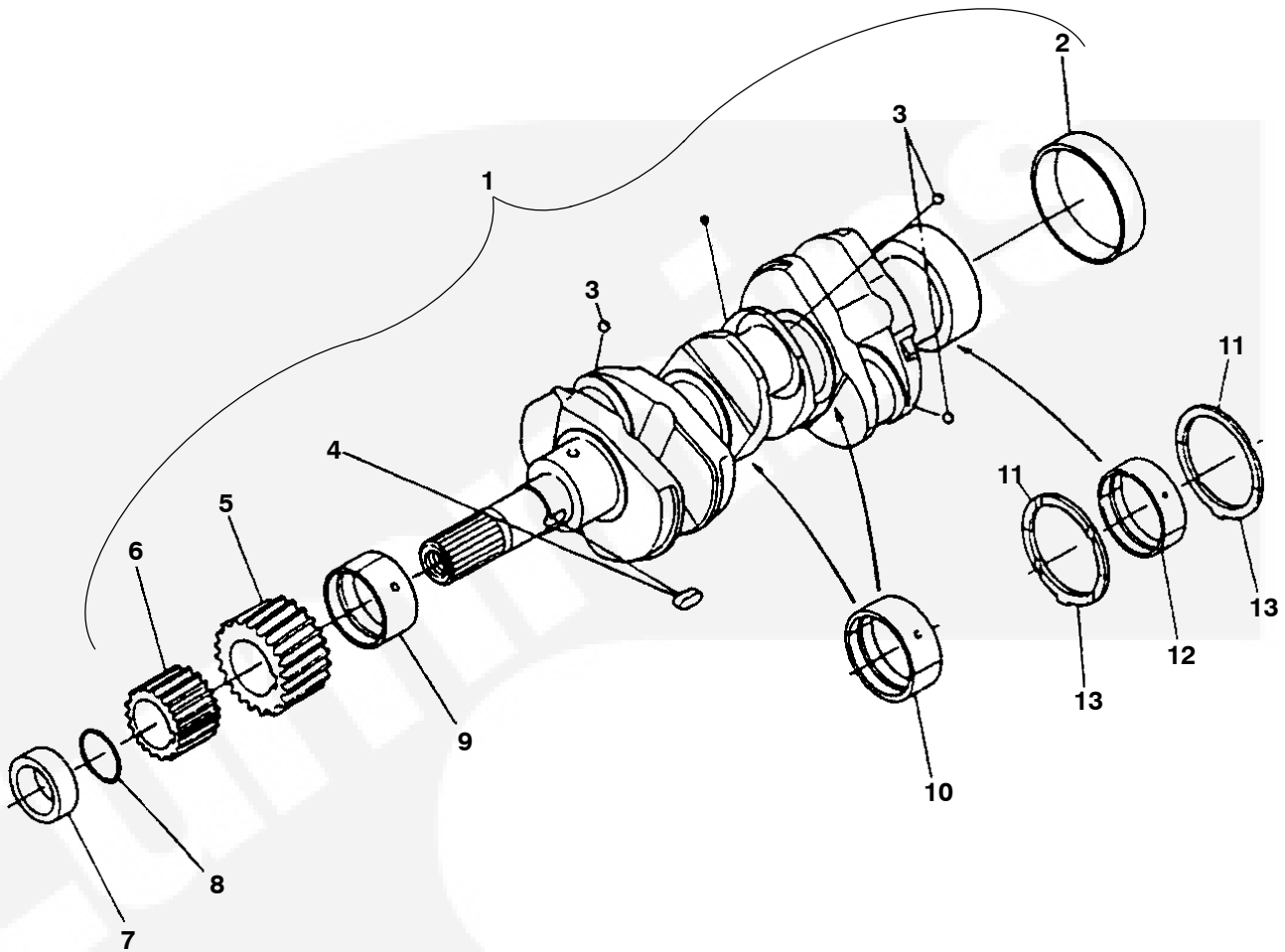
* - Parts Included in Cylinder Block.

Piston (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston	185-6536		3	Standard
	112-0319	3	Standard	185-6537		3	.2mm Undersize
	112-0320	3	.5mm Oversize	185-6538		3	.4mm Undersize
2			Ring Set, Piston	6	114-0450	3	Bushing, Connecting Rod
	185-7310	3	Standard	7	185-6532	6	Circlip, Piston Pin
	185-7311	3	.5mm Oversize	8	185-6531	3	Pin, Piston
3	114-0430	3	Rod Assy, Connecting (Includes Bolt, Bearing and Bushing)				
4	181-9102	6	Bolt, Connecting Rod				
5			Bearing, Connecting Rod				

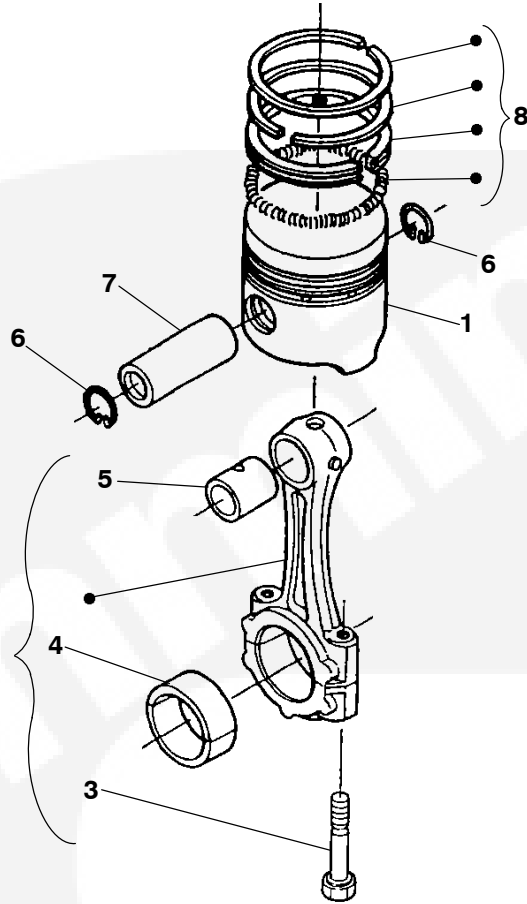
Crankshaft (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7376	1	Crankshaft (Includes Parts Marked *)	185-5938	2	Standard	
2	185-6543	1	*Sleeve, Crankshaft	185-6555	2	.2mm, Oversize	
3	185-5924	3	*Ball Spec	185-6556	2	.4mm, Oversize	
4	185-6541	1	*Key	12			Bearing, Crankshaft
5	185-6540	1	*Gear, Crankshaft	185-7430	1	Standard	
6	185-6542	1	*Gear, Oil Pump Drive	185-6553	1	.2mm, Undersize	
7	185-6544	1	Collar, Crankshaft	185-6554	1	.4mm, Undersize	
8	185-7429	1	O'Ring	13			Washer, Thrust
9			Bearing, Crankshaft	185-5941	2	Standard	
	185-6546	1	Standard	185-5942	2	.2mm, Oversize	
	185-6547	1	.2mm, Undersize	185-5943	2	.4mm, Oversize	
	185-6548	1	.4mm, Undersize				
10			Bearing, Crankshaft				
	185-6549	2	Standard				
	185-6550	2	.2mm, Undersize				
	185-6551	2	.4mm, Undersize				
11			Washer, Thrust				

* - Parts Included in Crankshaft.

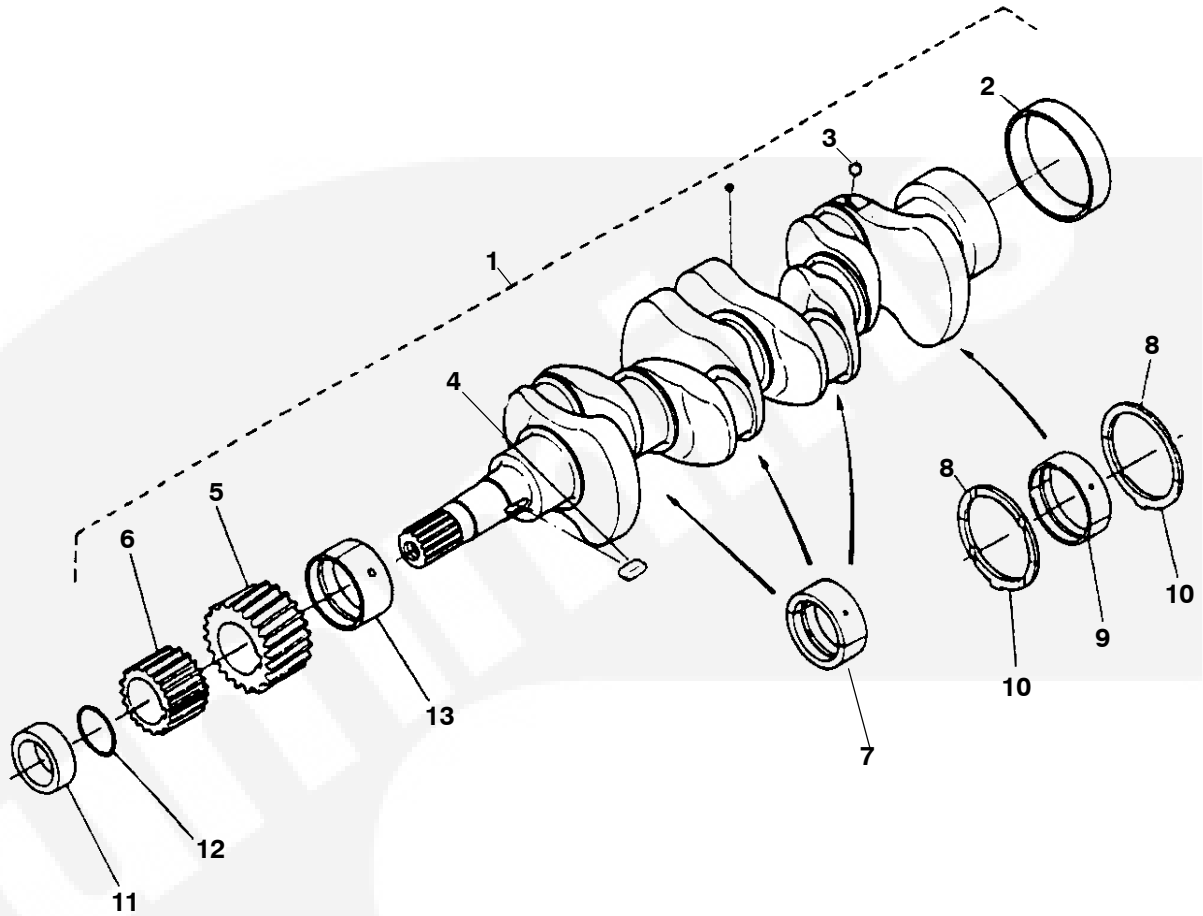
Piston (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Piston	185-6537		4	.2mm Undersize
	112-0319	4	Standard	185-6538		4	.4mm Undersize
	112-0320	4	.5mm Oversize	5	114-0450	8	Bushing, Connecting Rod
2	114-0430	4	Rod Assy, Connecting (Includes Bolt, Bearing and Bushing)	6	185-6532	8	Circlip, Piston Pin
3	181-9102	8	Bolt, Connecting Rod	7	185-6531	4	Pin, Piston
4			Bearing, Connecting Rod	8			Ring Set, Piston
	185-6536	4	Standard	181-9134		4	Standard
				181-9135		4	.5mm Oversize



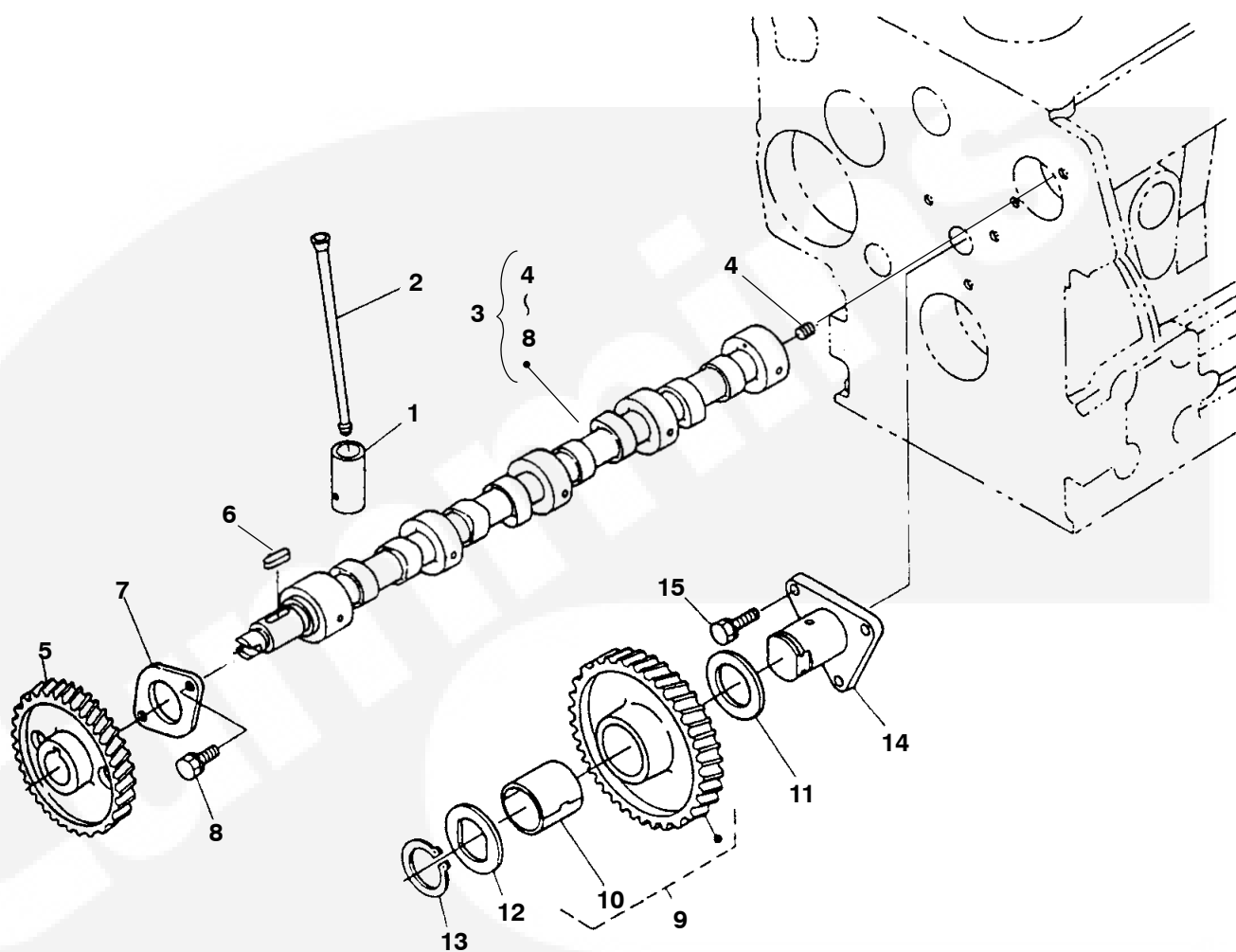
Crankshaft (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7312	1	Crankshaft (Includes Parts	10			Washer, Thrust
2	185-6543	1	*Sleeve, Crankshaft	185-5941	2		Standard
3	185-5924	4	*Ball	185-5942	2		.2mm, Oversize
4	185-6541	1	*Key	185-5943	2		.4mm, Oversize
5	185-6540	1	*Gear, Crankshaft	11	185-6544	1	Collar, Crankshaft
6	185-6542	1	*Gear, Oil Pump Drive	12			O'Ring
7			Bearing, Crankshaft	185-6545	1		Standard
	185-6549	3	Standard	185-7429	1		.2mm, Undersize
	185-6550	3	.2mm, Undersize	13			Bearing, Crankshaft
	185-6551	3	.4mm, Undersize	185-6546	1		Standard
8			Washer, Thrust	185-6547	1		.2mm, Undersize
	185-5938	2	Standard	185-6548	1		.4mm, Undersize
	185-6555	2	.2mm, Oversize				
	185-6556	2	.4mm, Oversize				
9			Bearing, Crankshaft				
	510-0264	1	.2mm, Undersize				
	104-2158	1	.4mm, Undersize				

* - Parts Included With Crankshaft.

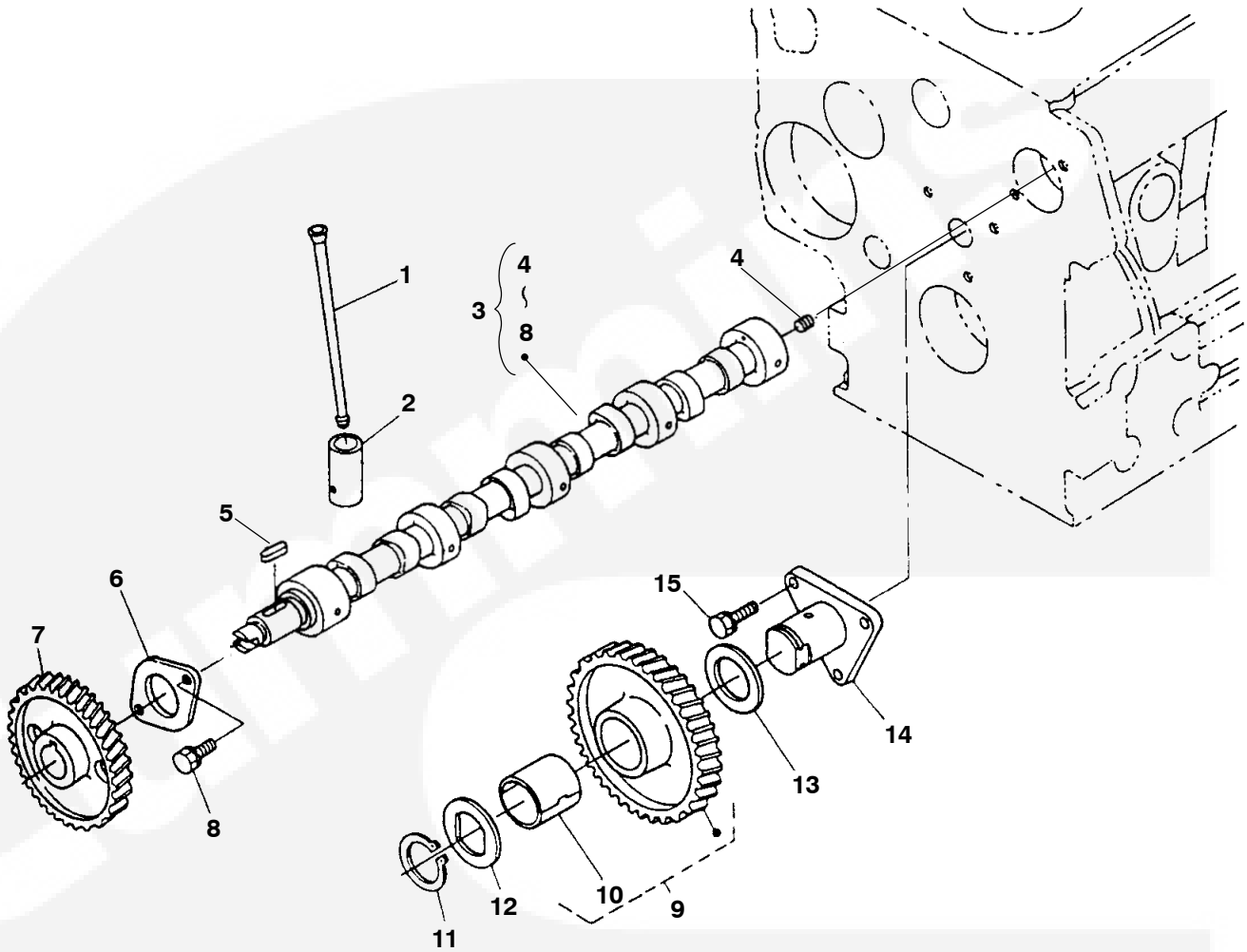
Camshaft (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	115-0541	6	Tappet	9	185-6521	1	Gear Assy, Idle (Includes Bushing)
2	185-6517	6	Rod, Push	10	185-6522	1	Bushing, Idle Gear
3	181-9120	1	Camshaft Assy (Includes Parts Marked *)	11	185-6523	1	Collar, Idle Gear
4	185-5558	1	*Screw, Set	12	185-6524	1	Collar, Idle Gear
5	185-6519	1	*Gear, Cam	13	185-6525	1	Circlip, Idle Gear
6	185-5560	1	*Key, Feather	14	185-6526	1	Shaft, Idle Gear
7	185-6520	1	*Stopper, Camshaft	15	185-2388	3	Bolt
8	185-2388	2	*Bolt				

* - Parts Included in Camshaft Assy.

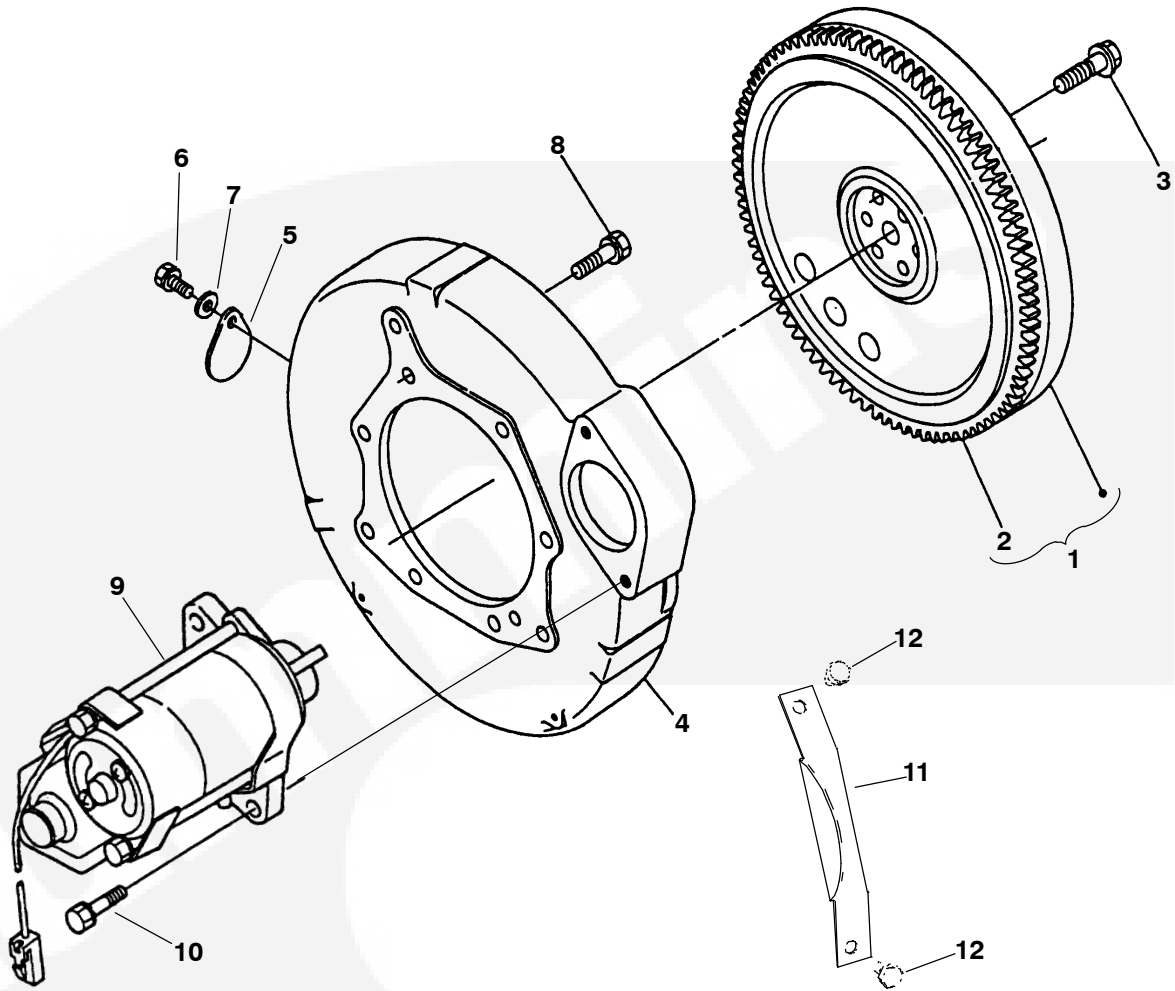
Camshaft (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6517	8	Rod, Push	9	185-6521	1	Gear Assy, Idle (Includes Bushing)
2	115-0541	8	Tappet	10	185-6522	1	Bushing, Idle Gear
3	181-9126	1	Camshaft Assy (Includes Parts Marked *)	11	185-6525	1	Circlip, Idle Gear
4	185-5558	1	*Screw, Set	12	185-6524	1	Collar, Idle Gear
5	185-5560	1	*Key, Feather	13	185-6523	1	Collar, Idle Gear
6	185-6520	1	*Stopper, Camshaft	14	185-6526	1	Shaft, Idle Gear
7	185-6519	1	*Gear, Cam	15	185-2388	3	Bolt
8	185-2388	2	*Bolt				

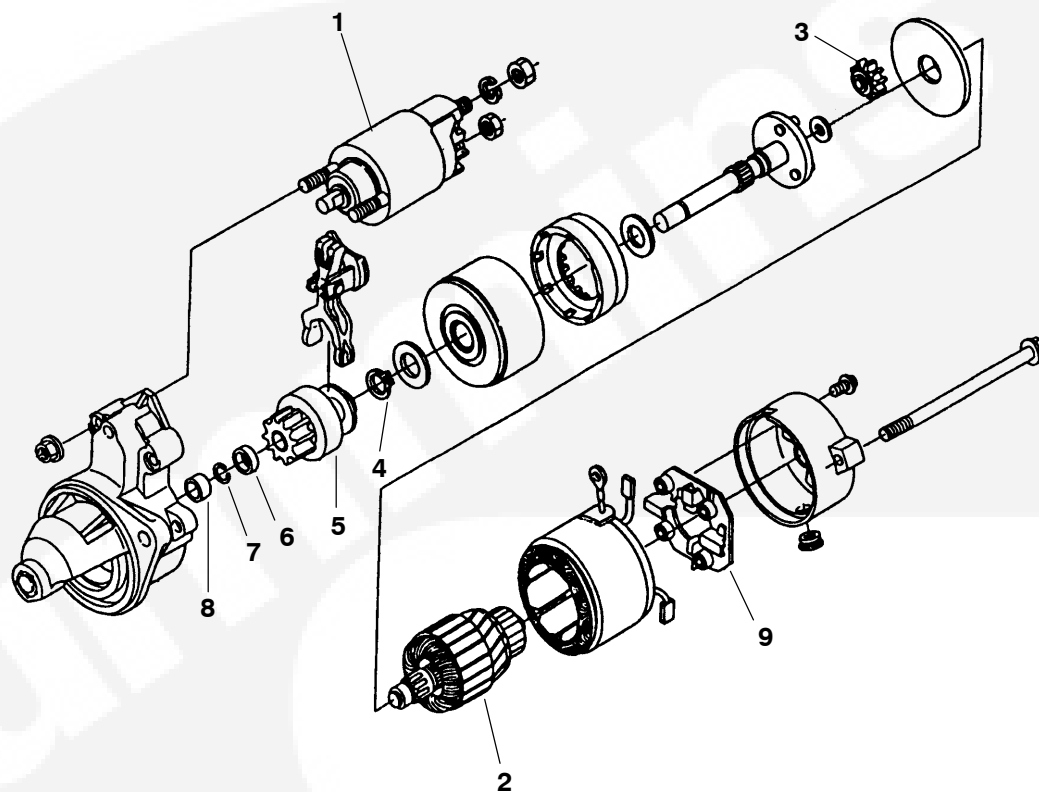
* - Parts Included in Camshaft Assy.

Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Flywheel (Includes Ring Gear)	9			Starter (See Separate Page for Components)
	104-2156	1	MDKDL		185-7104	1	12V
	104-2159	1	MDKDM and MDKDN		185-7105	1	24V
2	185-2170	1	Gear, Ring	10	185-2564	2	Screw
3	185-6409	6	Bolt, Flywheel	11	191-2275-02	1	Guard, Starter
4	185-7218	1	Housing, Flywheel	12	815-0194	2	Screw, Hex Head (#10-32 x .38")
5	185-7219	1	Cover				
6			Bolt				
	185-6956	1	MDKDL				
	185-7222	1	MDKDM and MDKDN				
7	185-7221	1	Washer, Plain				
8	185-2178	8	Bolt				

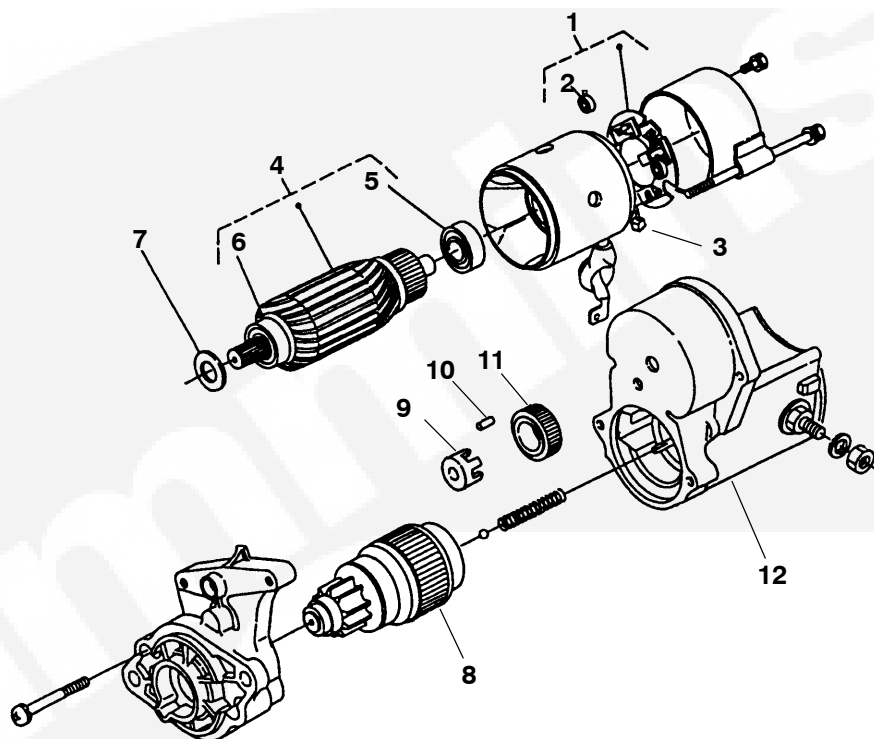
Starter Components (12V)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	185-7104	1	Starter	6	185-7236	1	Collar
1	185-2658	1	Switch, Magnetic	7	185-6386	1	Ring, Snap
2	185-7231	1	Armature	8	185-7233	1	Bearing, Oilless
3	185-7234	3	Gear	9	185-7230	1	Holder, Brush
4	185-7235	1	Ring, Snap				
5	185-7232	1	Clutch, Starter				

Note: Parts not Identified are Not For Sale.

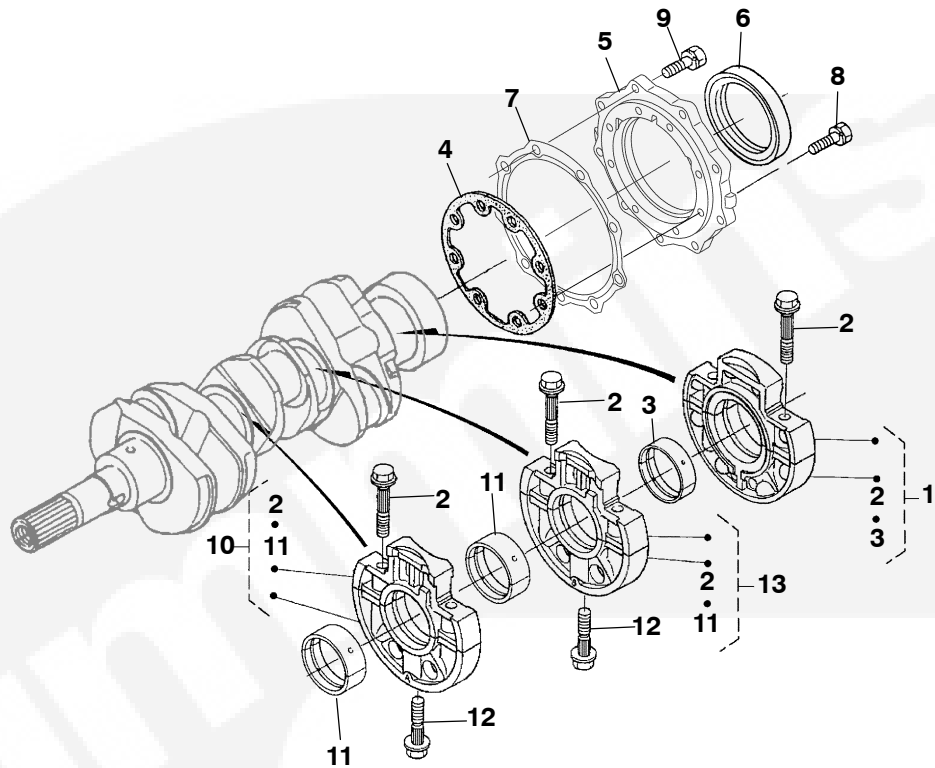
Starter Components (24V)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	185-7105	1	Starter	8	185-6354	1	Clutch
1	185-7240	1	Holder Assy, Brush	9	185-6362	1	Retainer
2	185-6358	4	Spring, Brush	10	191-2252	5	Roller
3	185-7237	2	Brush, Yoke	11	185-7296	5	Gear, Pinion
4	185-7238	1	Armature	12	185-7239	1	Switch, Magnetic
5	185-6442	1	Bearing, Ball				
6	185-6441	1	Bearing, Ball				
7	185-6365	1	Washer, Felt				

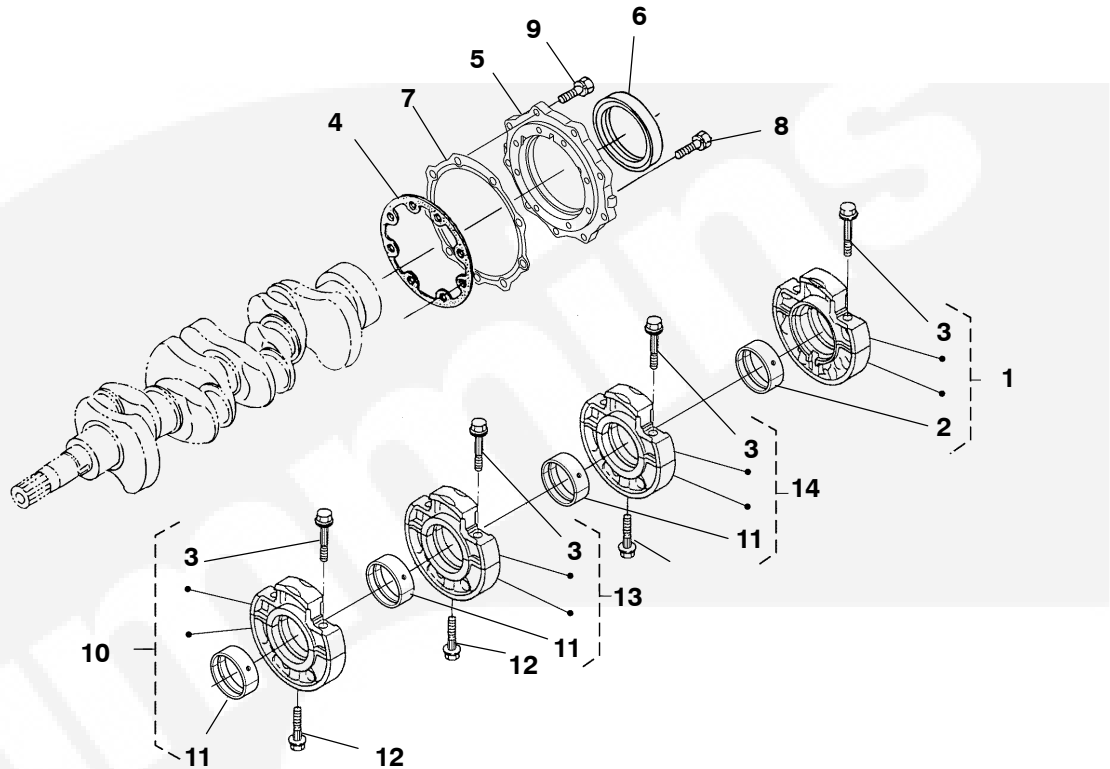
Note: Parts Not Identified are Not Sold Separately.

Main Bearing Case (MDKDL)



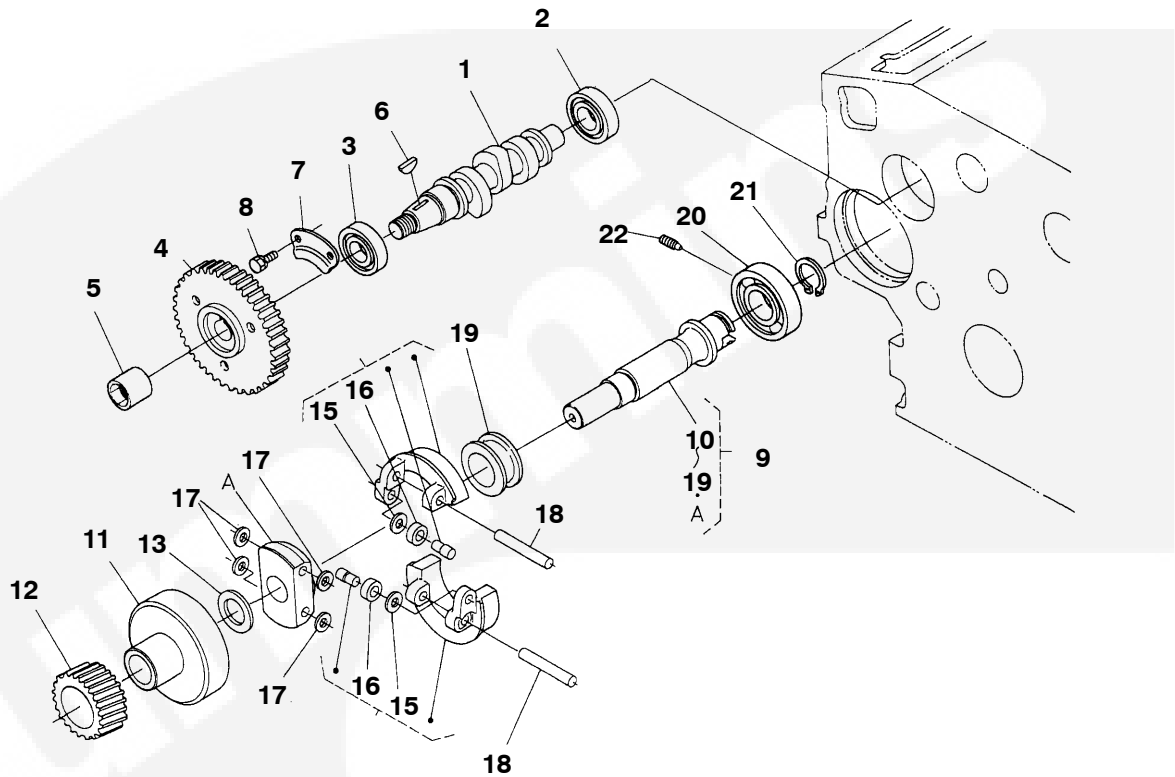
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	104-2120	1	Case Assy, Main Bearing	8	185-2391	8	Bolt
2	185-6507	3	Bolt, Bearing Case	9	185-2390	9	Bolt
3			Bearing	10	104-2118	1	Assy, Bearing Case Main Metal, Crankshaft
	104-2121	1	Standard Set	11			
	104-2157	1	0.20mm Set		185-6549	2	Standard Set
	181-9137	1	0.40mm Set		185-6550	2	0.20mm Set
4	181-9124	1	Gasket, Bearing Case		185-6551	2	0.40mm Set
5	232-4204	1	Cover, Bearing Case	12	185-6513	2	Bolt, Bearing Case
6	509-0547	1	Seal, Oil	13	104-2119	1	Assy, Bearing Case Main
7	185-6511	1	Gasket, Bearing Case Cover				

Main Bearing Case (MDKDM and MDKDN)



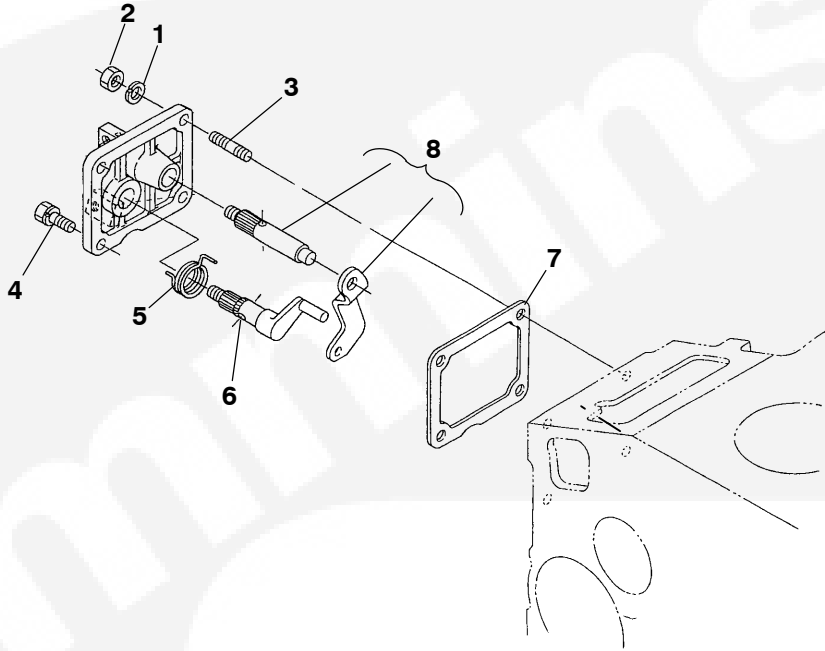
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-2120	1	Case, Main Bearing	8	185-2391	8	Bolt
2	104-2121	1	Metal, Crankshaft	9	185-2390	9	Bolt
3	185-6507	8	Bolt, Bearing Case	10	104-2118	1	Assy Bearing Case, Main
4	181-9124	1	Gasket, Bearing Case	11	185-6549	3	Metal, Crankshaft
5	232-4204	1	Cover, Bearing Case	12	185-6513	3	Bolt, Bearing Case
6	509-0547	1	Seal, Oil	13	104-2119	1	Assy Bearing Case, Main
7	101-0868	1	Gasket, Case Cover	14	232-4226	1	Assy Bearing Case, Main

Fuel Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Camshaft, Fuel	11	185-6880	1	Holder, Governor Gear
	185-6875	1	MDKDL	12	185-6565	1	Gear, Governor
	185-6741	1	MDKDM and MDKDN	13	185-6566	1	Collar, Governor Weight
2	181-9122	1	Bearing, Ball	14	185-6567	2	Comp Weight, Governor
3	181-9123	1	Bearing, Ball	15	185-5960	2	Washer
4	181-9223	1	Gear, Injection Pump	16	185-5959	2	Bearing
5	185-6560	1	Nut	17	185-6568	4	Washer, Governor Weight
6	185-6561	1	Key, Woodruff	18	185-6569	2	Shaft, Governor Weight
7	185-6562	1	Stopper, Fuel Camshaft	19	185-6570	1	Sleeve, Governor
8	185-2388	2	Bolt	20	185-6571	1	Bearing, Ball
9			Assy. Shaft, Governor	21	185-6572	1	Circlip, Governor Shaft
	185-6877	1	MDKDL	22	185-6573	1	Screw, Set
	185-6563	1	MDKDM and MDKDN				
10			Shaft, Governor				
	185-6878	1	MDKDL				
	185-6564	1	MDKDM and MDKDN				

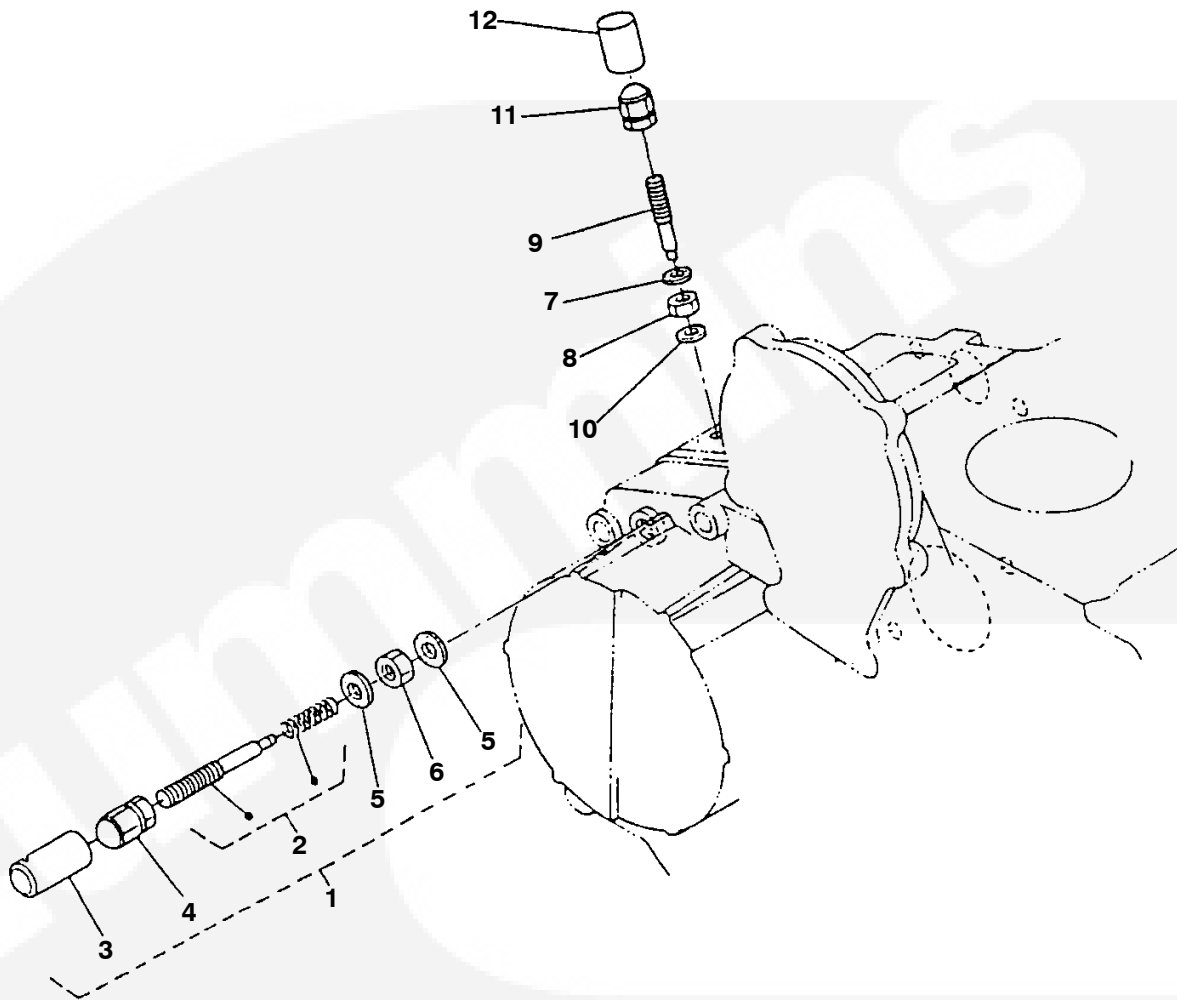
Speed Control Plate



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6759	2	Washer, Spring	6	185-6615	1	*Shaft, Stop Lever
2	185-4255	2	Nut	7	185-6894	1	Gasket
3	185-7425	2	Stud	8	185-6612	1	Comp. Lever, Gov
4	185-2388	1	Bolt				
5	185-6614	1	*Spring, Return				

* - Parts Included in Control Plate Assy.

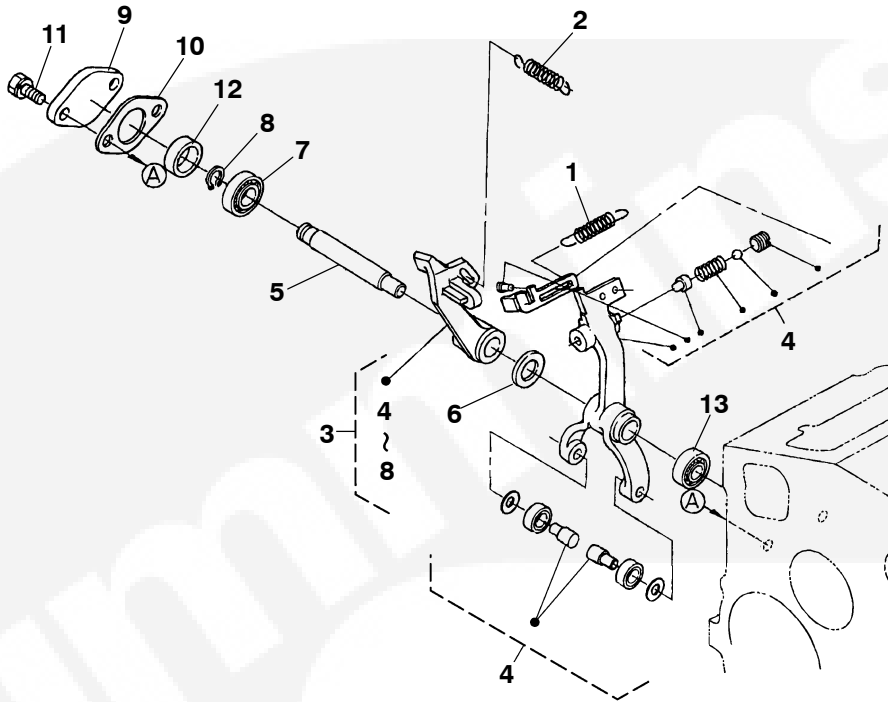
Governor Lever



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	181-9113	1	Assy, Governor Lever (Includes Parts Marked *)	8	185-6931	1	Nut, Lock
2	181-9114	1	*Bolt Assy, Adjusting	9	181-9104	1	Bolt, Adjusting
3	185-6930	1	*Cap	10	185-7313	1	Gasket
4	181-9067	1	*Nut, Cap	11	181-9067	1	Nut, Cap
5	185-2284	2	*Gasket	12	185-6932	1	Cap
6	185-5684	1	*Nut				
7	185-2284	1	Gasket				

* - Parts Included in Governor Lever Assy.

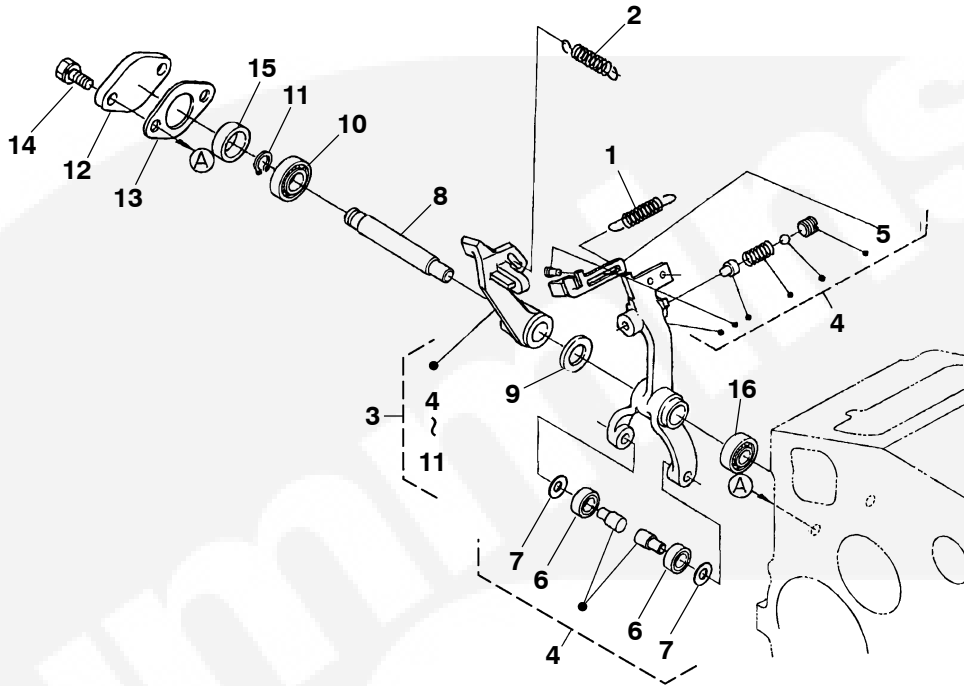
Governor (MDKDL)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6891		Spring, Start	7	185-6600	1	Bearing, Miniature
2			Spring, Governor	8	185-6601	1	*Circlip, External
	A054B790	1	7MDKDL	9	150-2927	1	Cover, Fork Lever Shaft
	181-9152	1	9MDKDL	10	185-6603	1	Gasket
3	181-9149	1	Lever Assy, Fork (Includes Parts Marked *)	11	185-2386	2	Bolt
4	185-7432	1	*Lever, Fork (Includes Washer and Bearing)	12	185-6604	1	Collar
5	185-6599		*Shaft, Fork Lever	13	185-6605	1	*Bearing, Miniature
6	185-6163	1	*Washer, Plain				

* - Parts Included in Fork Lever Assy.

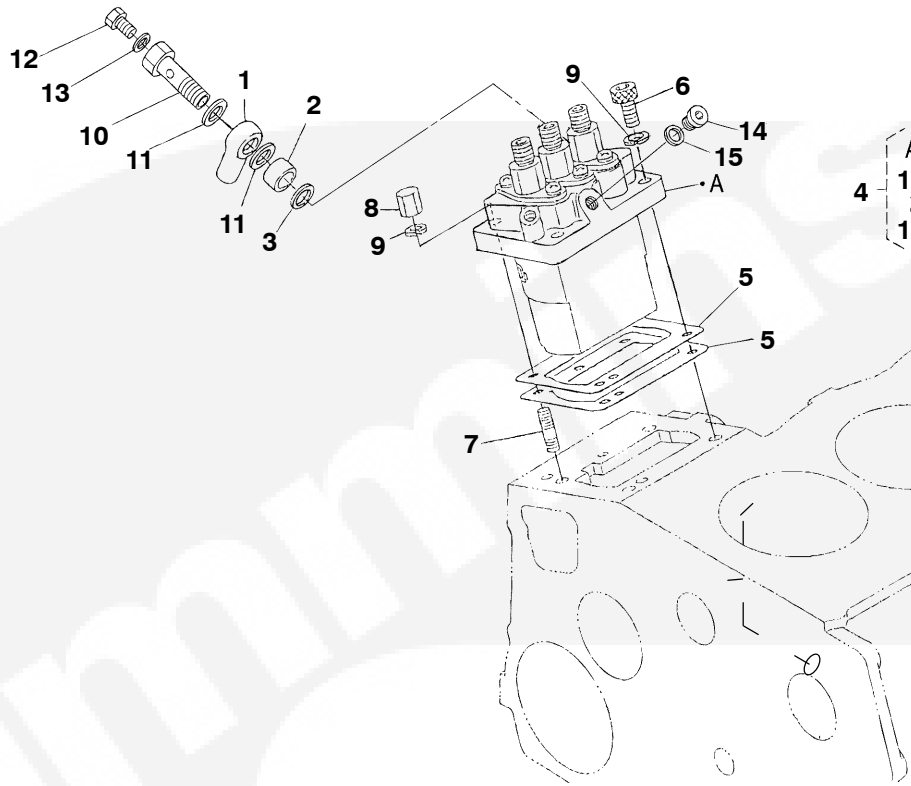
Governor (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6593	1	Spring, Start	8	181-9105	1	*Shaft, Fork Lever
2	A054B790	1	Spring, Governor	9	185-6163	1	*Washer, Plain
	181-9150	1	9.5MDKDM, 11MDKDN	10	185-6600	1	*Bearing, Miniature
3	181-9149	1	Lever Assy, Fork (Includes Parts Marked *)	11	185-6601	1	*Circlip, External
4	185-7432	1	*Lever, Fork (Includes Washer and Bearing)	12	150-2927	1	Cover, Fork Lever Shaft
5	185-6597	1	Lever, Thrust	13	185-6603	1	Gasket
6	185-5959	2	Bearing	14	185-2386	2	Bolt
7	185-5960	2	Washer	15	185-6604	1	Collar
				16	185-6605	1	Bearing, Miniature

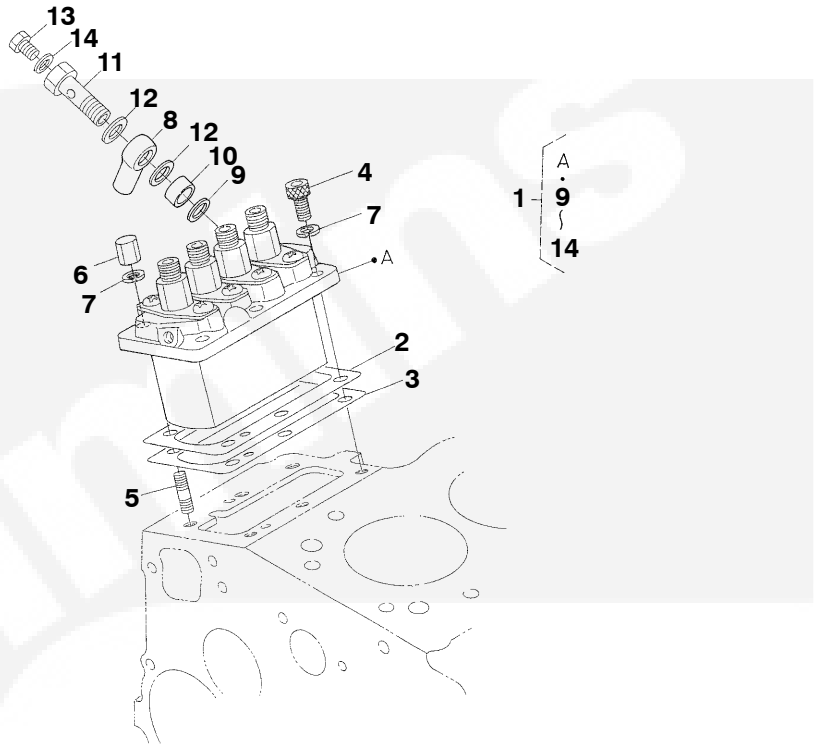
* - Parts Included in Fork Lever Assy.

Injection Pump (MDKDL)



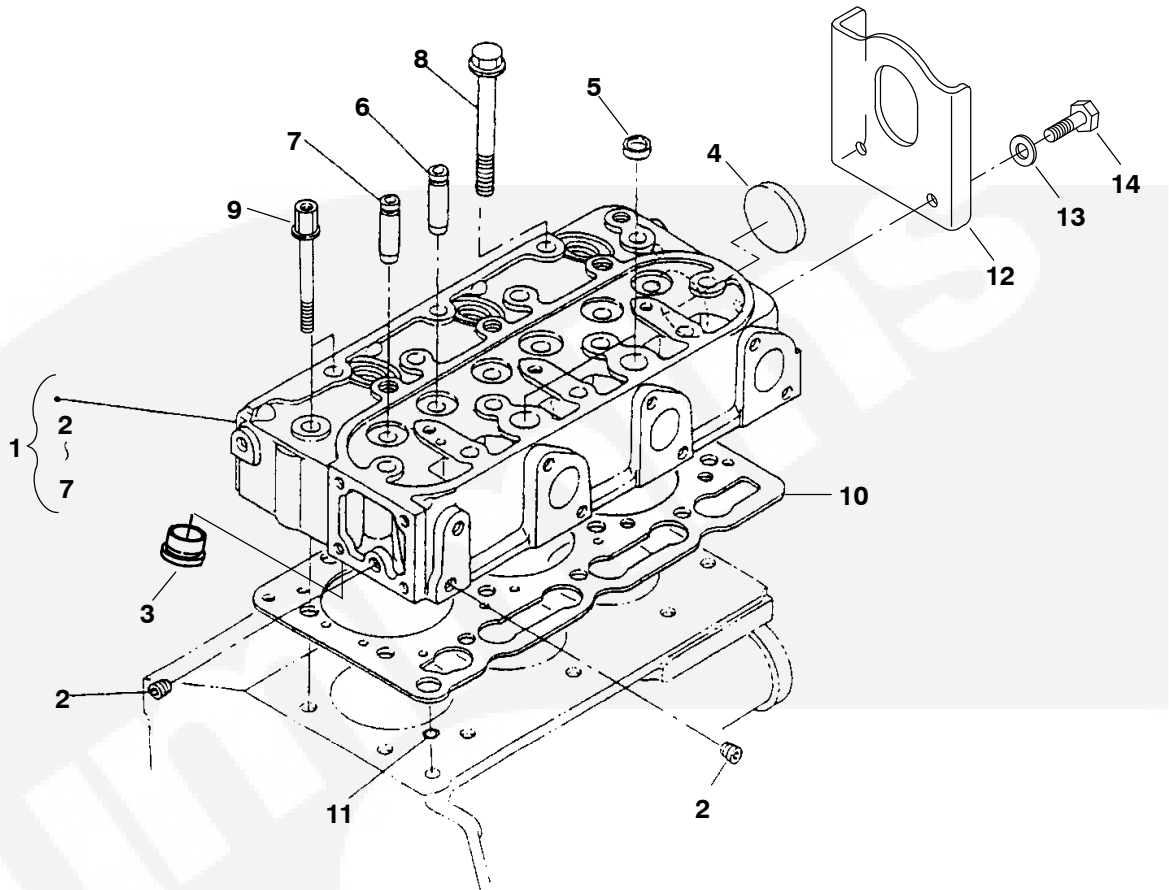
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6584	1	Joint	7	185-5624	2	Stud
2	185-6585	1	Collar, Joint	8	185-5625	2	Nut
3	185-2578	1	Gasket	9	185-6759	4	Washer, Spring
4	185-6882	1	Assy., Pump Injection	10	185-6887	1	Bolt, Joint
5			Shim, Injection Pump	11	185-5661	2	Gasket
	185-6749	1	.20mm	12	185-5662	1	Screw
	185-6739	1	.25mm	13	185-5663	1	Gasket
	185-6845	1	.30mm	14	185-6888	1	Plug
6	185-5623	2	Bolt, Hex Socket Head	15	185-5823	1	Gasket

Injection Pump (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6748	1	Assy, Pump Injection	7	185-6759	6	Washer, Spring
2	147-0976	1	Shim, Injection Pump	8	185-6584	1	Joint
	147-0977	1	.20mm	9	185-2578	1	Gasket
		1	.25mm	10	185-6585	1	Collar, Joint
3	185-6744	1	Shim, Injection Pump (.30mm)	11	185-6887	1	Bolt, Joint
4	185-5623	3	Bolt, Hex Head Socket	12	185-5661	2	Gasket
5	185-5624	3	Stud	13	185-5662	1	Screw
6	185-5625	3	Nut	14	185-5663	1	Gasket

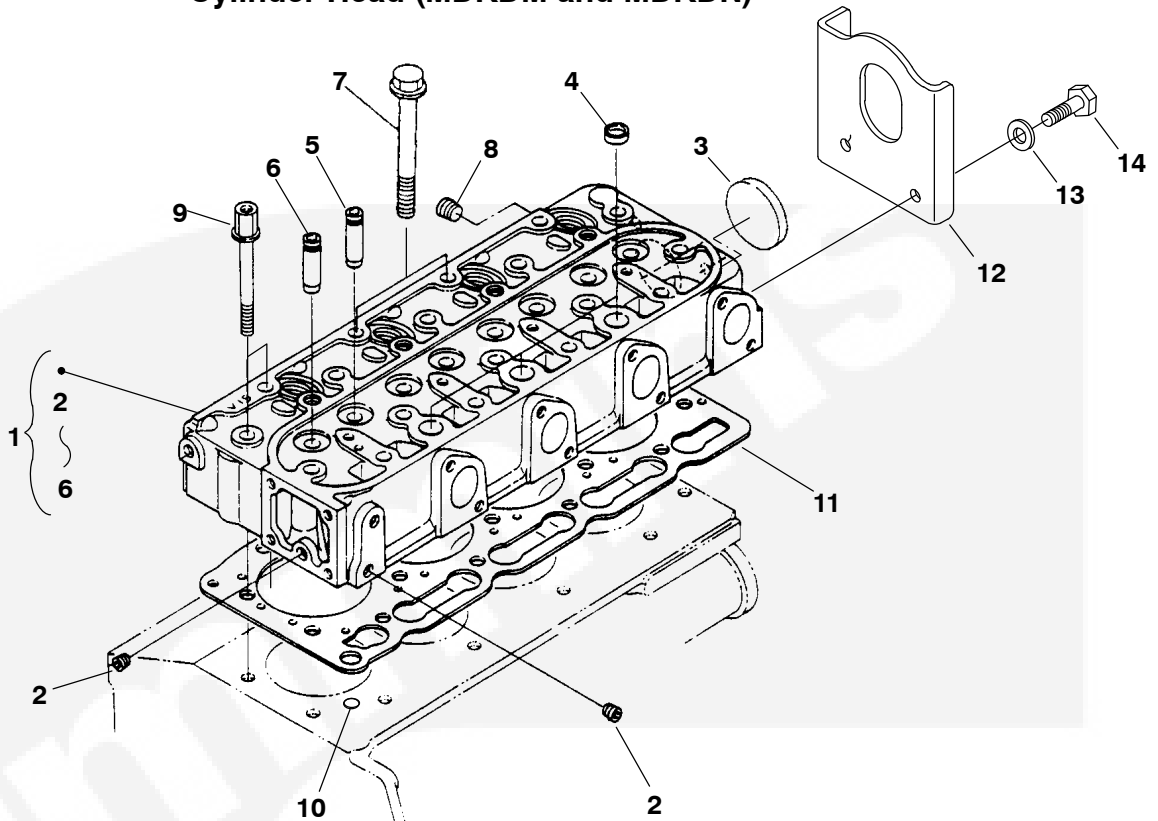
Cylinder Head (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	110-4092	1	Head Assy, Cylinder (Includes Parts Marked *)	9	185-6479	2	Bolt, Cylinder Head
2	185-2188	2	*Plug	10	181-9222	1	Gasket, Cylinder Head
3	185-7375	3	*Chamber, Combustion	11	185-2095	1	O'Ring
4	185-2411	1	*Cap, Sealing	12	403-4284-04	1	Bracket, Lifting
5	185-2413	2	*Cap, Sealing	13	526-0399-60	2	Washer, Flat (M8)
6	181-9119	3	*Guide, Exhaust Valve	14	800-3017-18	2	Screw, Hex Head Cap (M8 x 1.25 x 16mm)
7	110-3960	3	*Guide, Inlet Valve				
8	185-6477	12	Bolt, Cylinder Head				

* - Parts Included in Cylinder Head Assy.

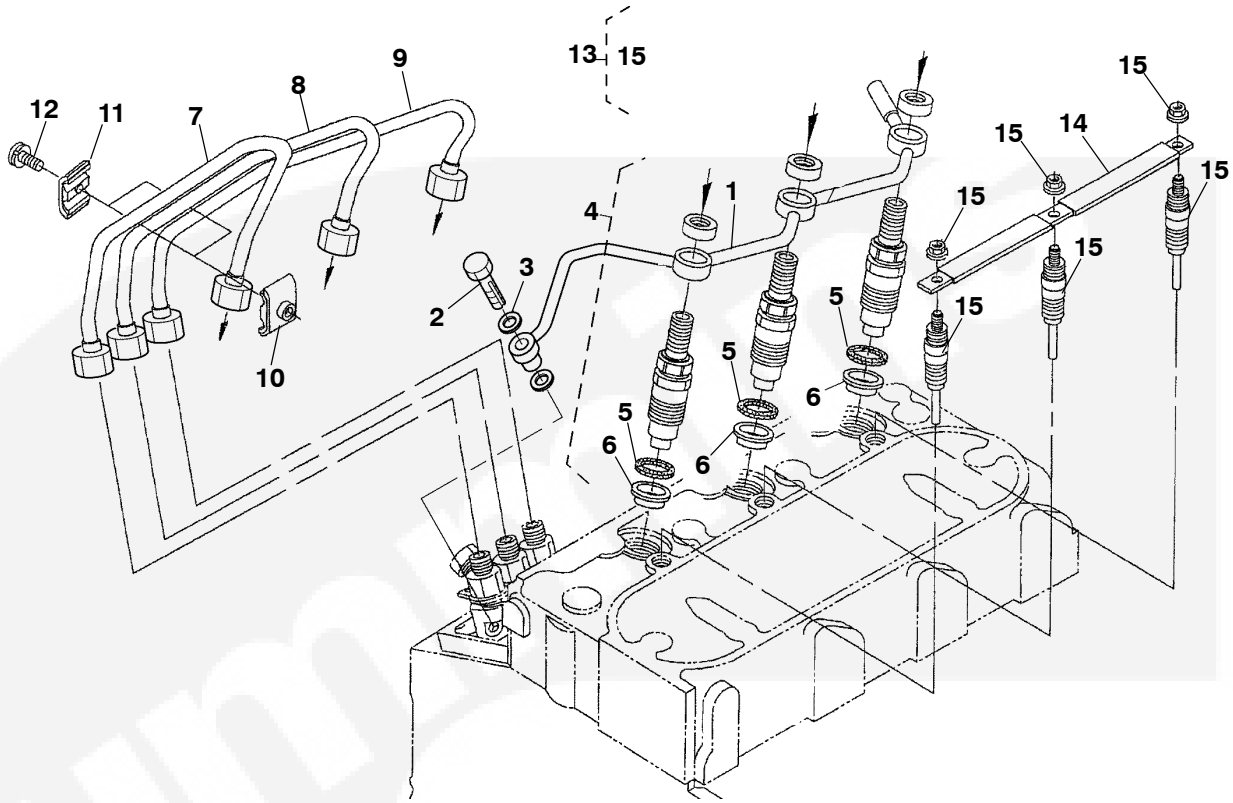
Cylinder Head (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-4094	1	Head Assy, Cylinder (Includes Parts Marked *)E	10	185-2095	1	O'Ring
2	185-2188	2	*Plug	11	110-3965	1	Gasket, Cylinder Head
3	185-2411	1	*Cap, Sealing	12	403-4284-04	1	Bracket, Lifting
4	185-2413	3	*Cap, Sealing	13	526-0399-60	2	Washer, Flat (M8)
5	181-9119	4	*Guide, Exhaust Valve	14	800-3017-18	2	Screw, Hex Head Cap (M8 x 1.25 x 16mm)
6	110-3960	4	*Guide, Inlet Valve				
7	185-6477	16	Bolt, Cylinder Head				
8	185-5502	1	Plug				
9	185-6479	2	Bolt, Cylinder Head				

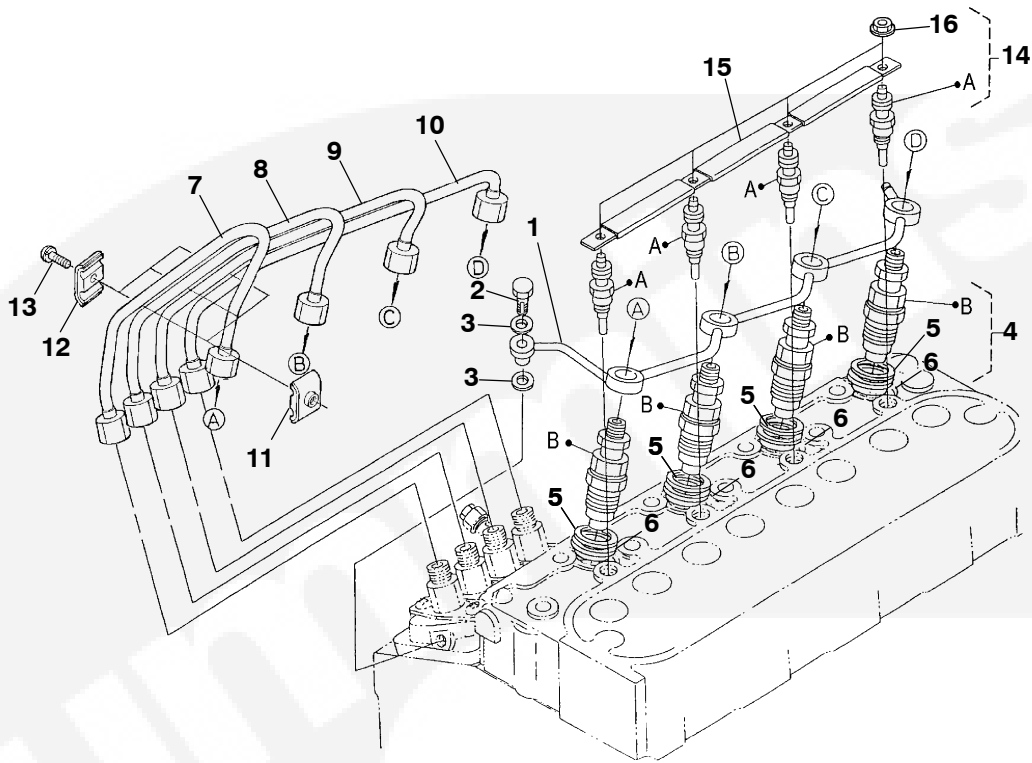
* - Parts Included in Cylinder Head Assy.

Nozzle Holder and Glow Plug (MDKDL)



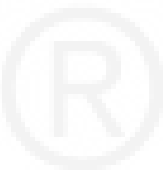
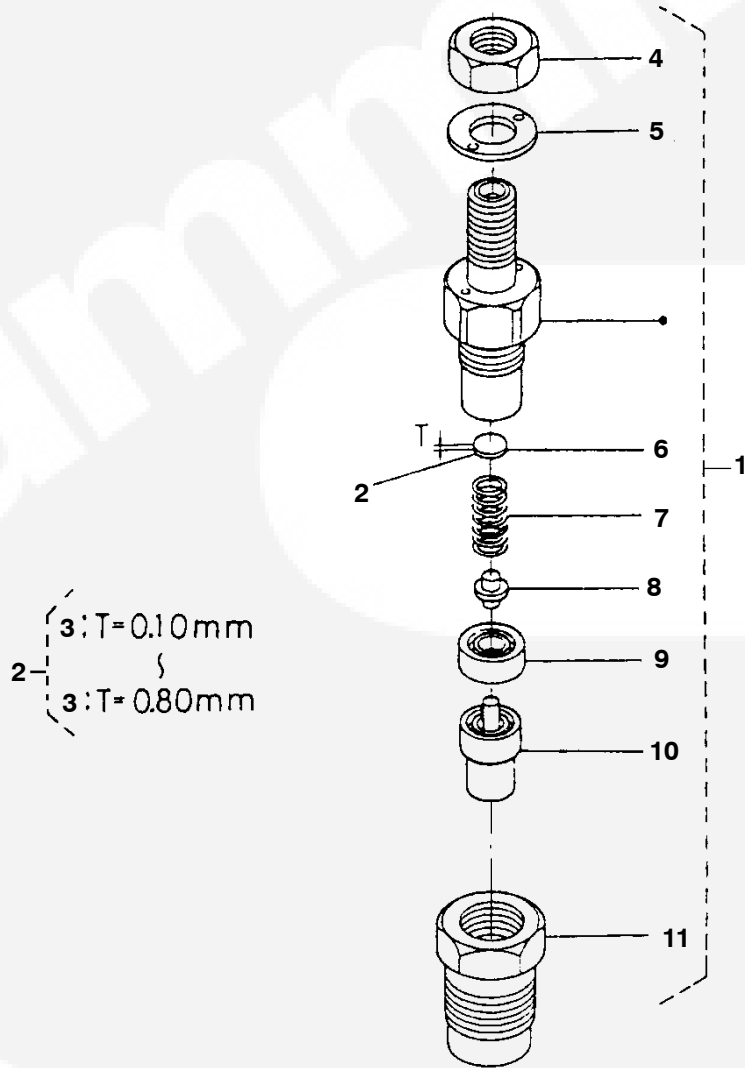
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7106	1	Assy. Pipe, Overflow	9	185-6897	1	Pipe, Injection
2	185-7082	1	Screw, Air Bleeder	10	185-5612	2	Clamp, Pipe
3	185-2284	2	Gasket	11	185-2345	2	Clamp, Pipe
4	147-0978	3	Assy. Holder, Nozzle (See Separate Page for Components)	12	185-2385	2	Screw, with Washer
5	185-5337	3	Gasket	13	333-0802	3	Glow Plug 12V
6	185-5985	3	Seal, Heat		185-7268	3	Glow Plug 24V
7	185-6750	1	Pipe, Injection	14	185-6899	1	Cord, Glow Plug
8	185-6751	1	Pipe, Injection	15	185-5615	3	Nut, Flange

Nozzle Holder and Glow Plug (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7265	1	Assy Pipe, Overflow	10	185-7266	1	Pipe, Injection
2	185-7082	1	Screw, Air Bleeder	11	185-5612	3	Clamp, Pipe
3	185-2284	2	Gasket	12	185-2345	3	Clamp, Pipe
4	147-0978	4	Kit Holder, Nozzle	13	185-2385	3	Screw, with Washer
5	185-5337	4	Gasket	14			Plug, Glow
6	185-5985	4	Seal, Heat		333-0802	4	12V
7	185-6750	1	Pipe, Injection		185-7268	4	24V
8	185-6751	1	Pipe, Injection	15	185-6624	1	Cord, Glow Plug
9	185-6897	1	Pipe, Injection	16	185-5615	4	Nut, Flange

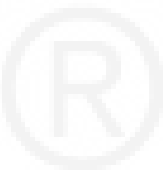
Nozzle Holder Components



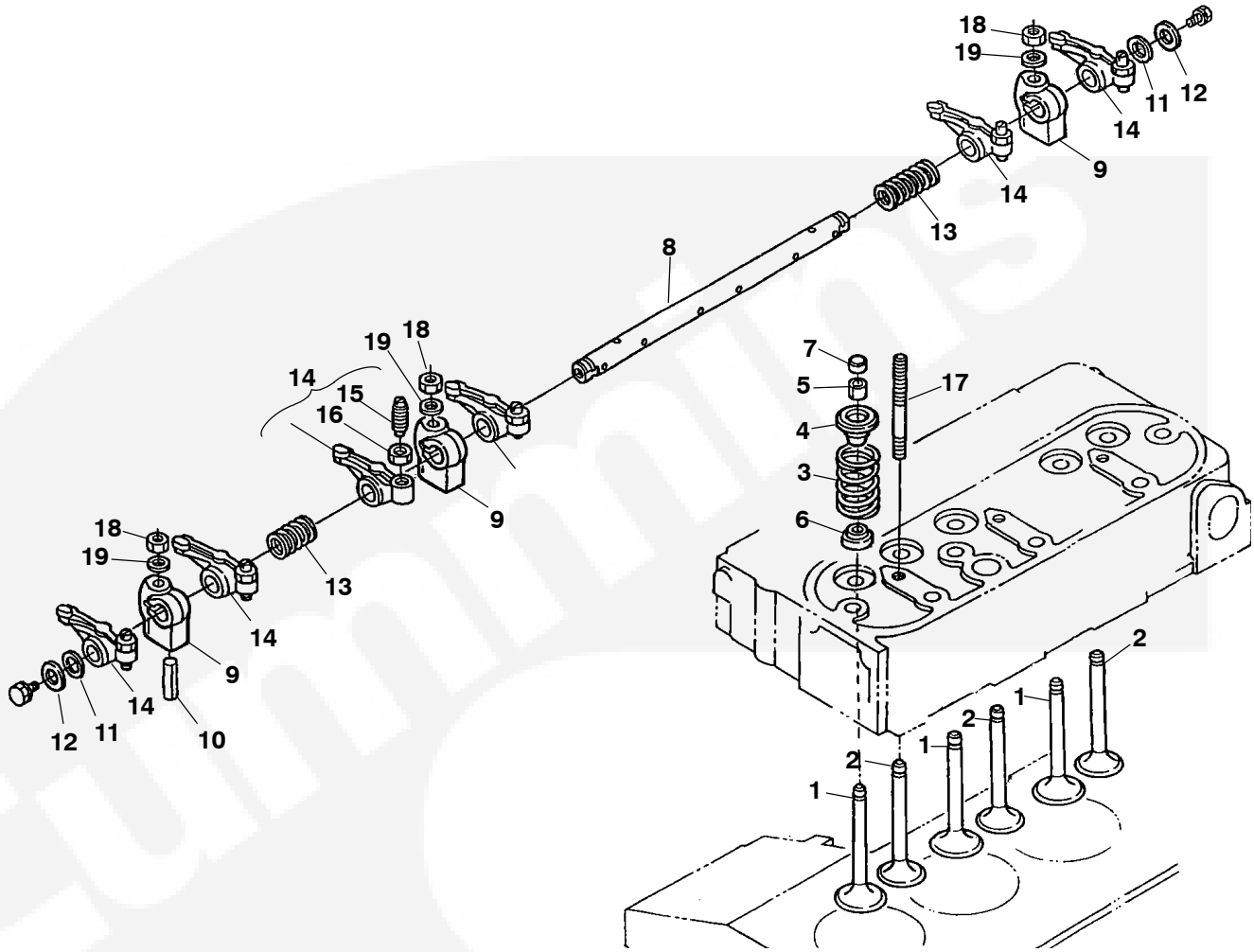
Nozzle Holder Components

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	147-0978	4	Holder Assy, Nozzle (Includes Parts Marked *)	5	185-6900	4	MDKDM, MDKDN
2			*Washer Assy, Adjust (Includes Adjusting Washers)	3	185-6906	3	MDKDL
	185-6908	3	MDKDL	4	185-6906	4	MDKDM, MDKDN
3	185-6908	4	MDKDM, MDKDN	6	185-6901	3	*Washer, Adjusting
			Washer, Adjusting	4	185-6901	4	MDKDL
			MDKDL	7	185-6902	3	MDKDM, MDKDN
	185-6909	3	.10mm	4	185-6902	4	*Spring, Nozzle
	185-6910	3	.20mm	8	185-6904	3	MDKDL
	185-6911	3	.30mm	4	185-6904	4	MDKDM, MDKDN
	185-6912	3	.40mm	9	185-6904	3	*Rod, Push
	185-6913	3	.50mm	4	185-6904	4	MDKDL
	185-6914	3	.52mm	3	185-6903	3	MDKDM, MDKDN
	185-6915	3	.54mm	4	185-6903	4	*Piece, Distance
	185-6916	3	.56mm	4	185-6903	3	MDKDL
	185-6917	3	.58mm	10	185-6903	4	MDKDM, MDKDN
	185-6918	3	.80mm	3	185-6907	3	*Piece, Nozzle
			MDKDM, MDKDN	3	147-0974	3	MDKDL
	185-6909	4	.10mm	4	185-6907	4	MDKDM, MDKDN
	185-6910	4	.20mm	4	147-0974	4	MDKDM, MDKDN
	185-6911	4	.30mm	11	185-6905	3	*Nut, Nozzle*
	185-6912	4	.40mm	4	185-6905	4	MDKDL
	185-6913	4	.50mm	4	185-6905	4	MDKDM, MDKDN
	185-6914	4	.52mm				
	185-6915	4	.54mm				
	185-6916	4	.56mm				
	185-6917	4	.58mm				
	185-6918	4	.80mm				
4			*Nut				
	185-6900	3	MDKDL				

* - Parts Included in Nozzle Holder Assy.



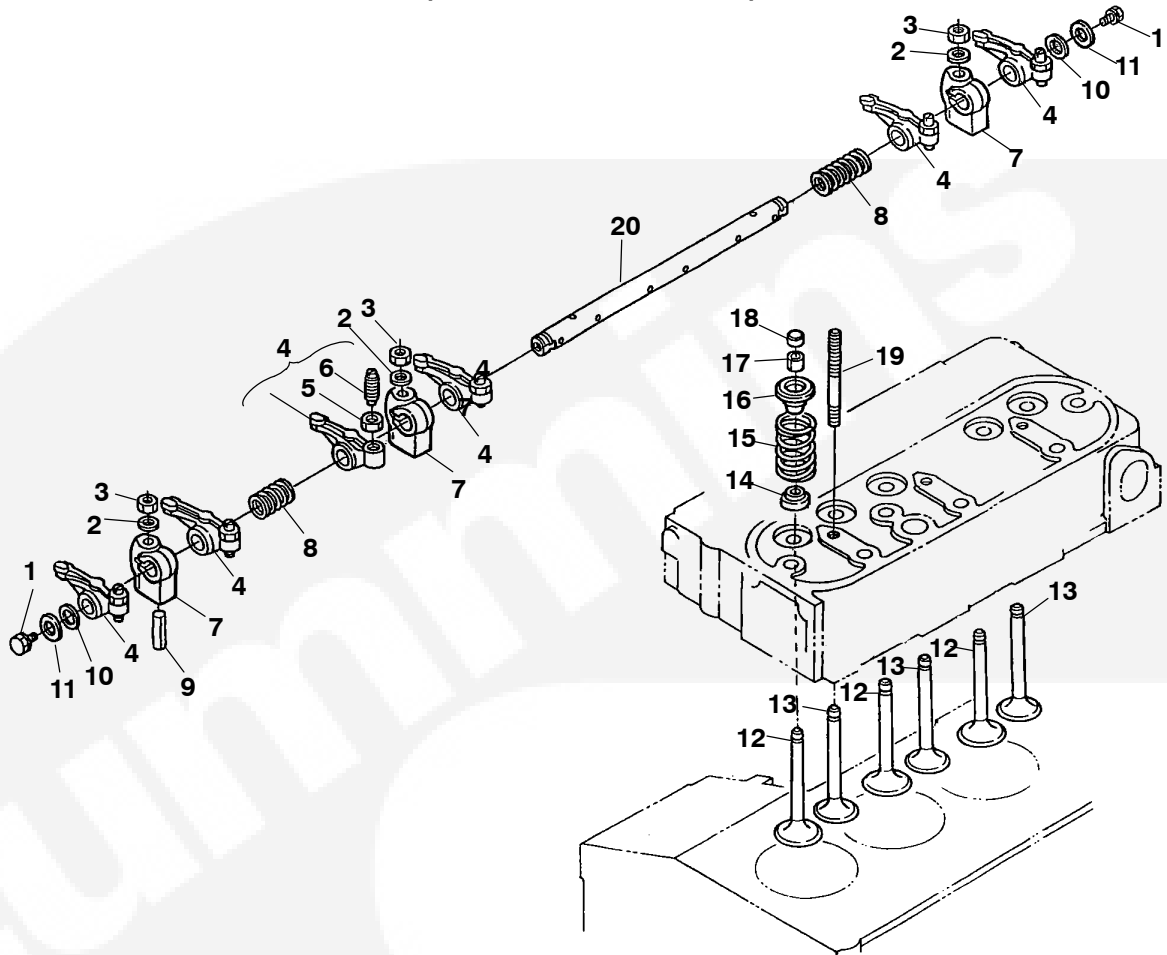
Valve and Rocker Arm (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	110-4021	3	Valve, Inlet
2	110-4022	3	Valve, Exhaust
3	185-6683	6	Spring, Valve
4	110-3959	6	Retainer, Spring
5	181-9036	6	Collet, Valve Spring
6	185-7300	6	Seal, Valve Stem
7	185-6459	6	Cap, Valve
8	185-7439	1	Shaft, Rocker Arm
9	185-6697	3	Bracket, Rocker Arm
10	185-7441	1	Pin, Spring

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	185-6689	2	Washer, Rocker Arm Shaft
12	185-7395	2	Washer, Plain
13	185-6691	2	Spring, Rocker Arm
14	185-6693	6	Assy, Rocker Arm
15	185-6694	6	Screw, Adjusting
16	185-6695	6	Nut
17	185-6688	3	Stud
18	185-2179	3	Nut
19	185-2184	3	Washer, Plain

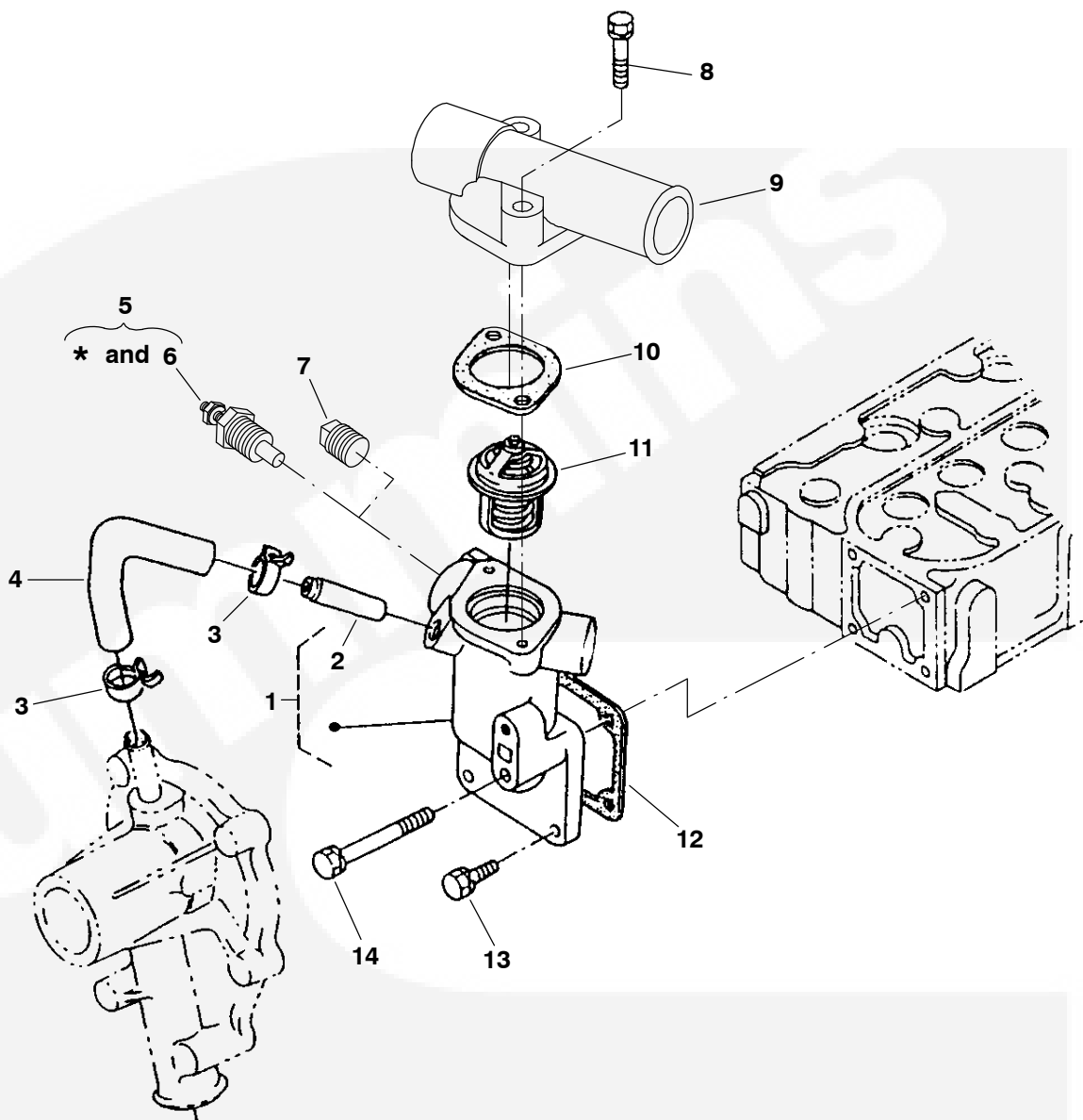
Valve and Rocker Arm (MDKDM and MDKDN)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7440	2	Bolt
2	185-2184	4	Washer, Plain
3	185-2179	4	Nut
4	185-6693	8	Arm Assy, Rocker (Includes Screw and Nut)
5	185-6695	8	Nut
6	185-6694	8	Screw, Adjusting
7	185-6687	4	Bracket, Rocker Arm
8	185-6691	3	Spring, Rocker Arm
9	185-7441	1	Pin, Spring
10	185-6689	2	Washer, Rocker Arm Shaft
11	185-7395	2	Washer, Plain

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
12	110-4021	4	Valve, Inlet
13	110-4022	4	Valve, Exhaust
14	110-3974	8	Seal, Valve Stem
15	185-6683	8	Spring, Valve
16	181-9117	8	Retainer, Spring
17	181-9036	8	Collet, Valve Spring
18	185-6459	8	Cap, Valve
19	185-6688	4	Stud
20	181-9100	1	Shaft, Rocker Arm

Water Flange

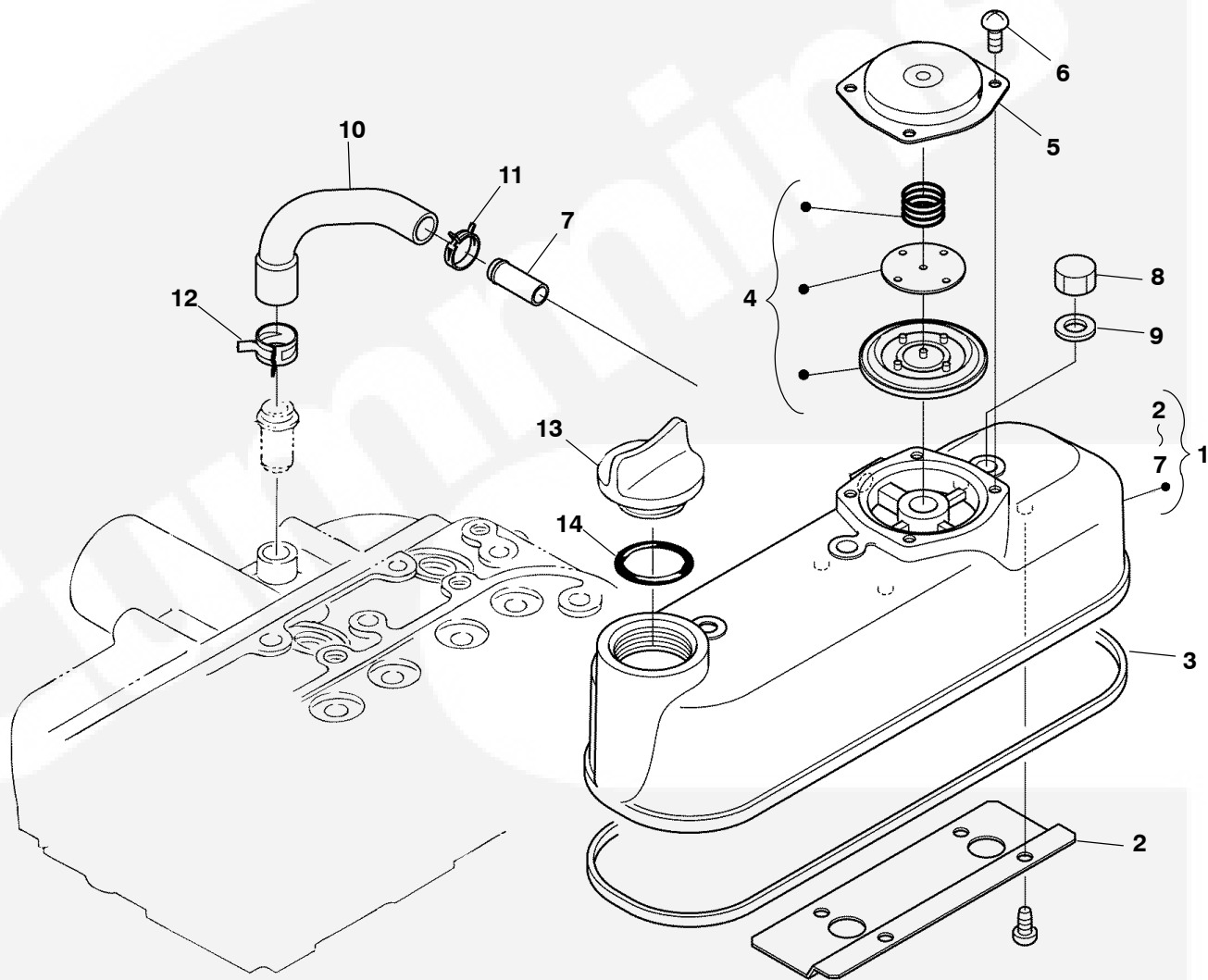


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7297	1	Flange, Water (Includes Water Return Pipe)	7	185-5826	1	Plug
2	185-6445	1	Pipe, Water Return	8	185-6781	2	Bolt
3	185-6667	2	Band, Pipe	9	185-7298	1	Cover, Thermostat
4	185-6666	1	Pipe, Water Return	10	185-6004	1	Gasket, Thermostat
5			*Kit, Sender (Includes Water Temperature Sender)	11	185-6005	1	Thermostat
	300-5040	1	Negative Ground	12	185-6922	1	Gasket, Water Flange
	300-5041	1	Isolated Ground	13	185-2388	3	Bolt
6			Sender, Water Temperature (E2)	14	185-6665	1	Bolt
	193-0318	1	Negative Ground (B200, B201)				
	193-0457-01	1	+ Isolated Ground (B380)				

* - Kit Also Includes Oil Pressure Sender Listed on Oil System Page.

+ - Sender Included in Isolated Ground Kit Listed on Isolated Ground Page.

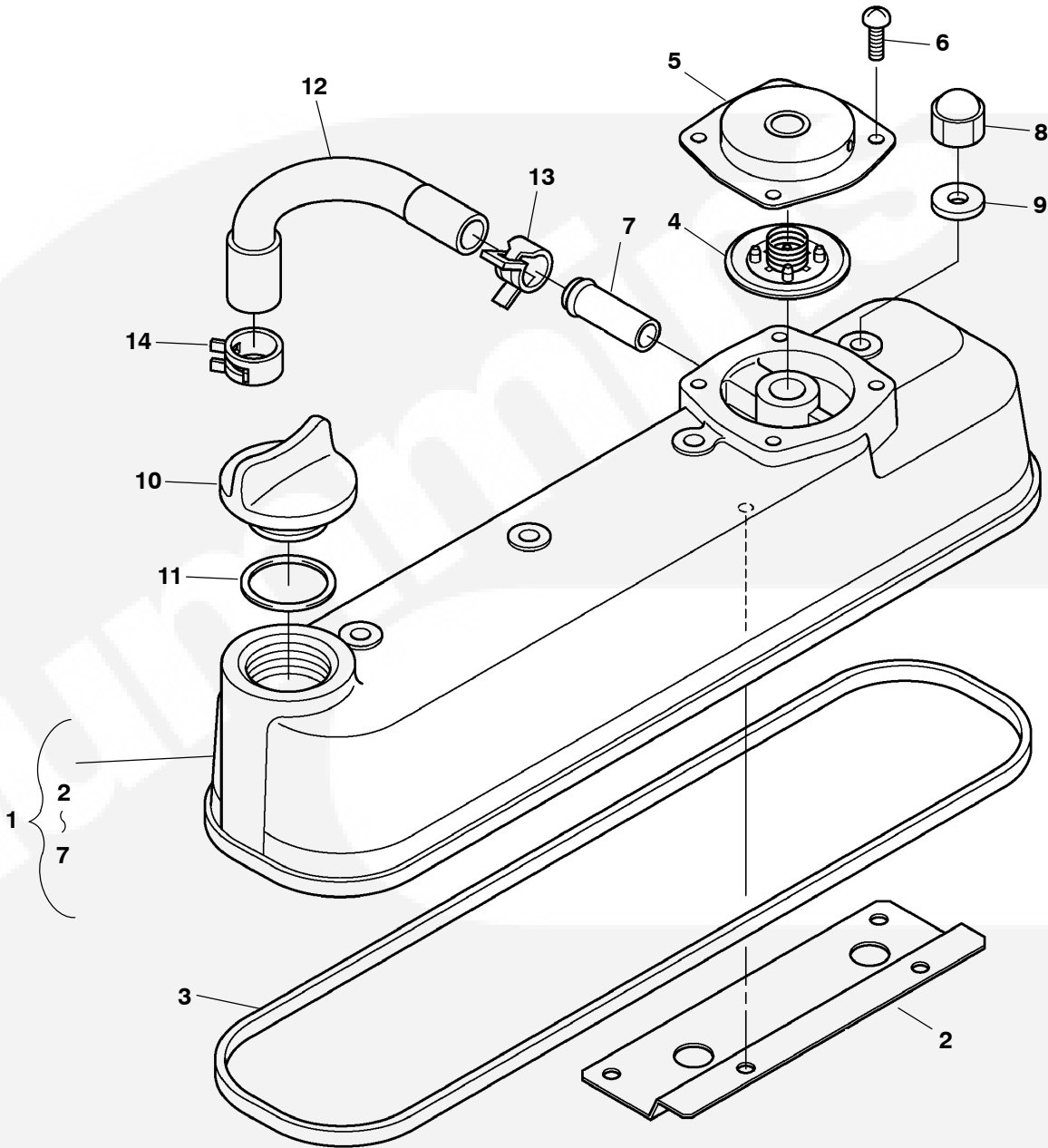
Cylinder Head Cover (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	134-5384	1	Cover Assy, Cylinder Head (Includes Parts Marked *)	9	185-2291	3	Gasket
2	123-2298	1	Shield, Breather	10	181-9220	1	Tub, Breather
3	185-6868	1	*Gasket, Cylinder Head Cover	11	181-9109	1	Clamp, Hose
4	181-9240	1	*Comp. Valve, Breather	12	181-9025	1	Clamp, Hose
5	181-9238	1	*Cover, Breather	13	181-9000	1	Plug, Oil Filler
6	185-2384	4	*Screw, Pan Head	14	185-7426	1	O' Ring
7	185-6103	1	*Pipe, Water Return				
8	185-6394	3	*Nut				

* - Parts Included in Cylinder Head Cover Assy.

Cylinder Head Cover (MDKDM and MDKDN)



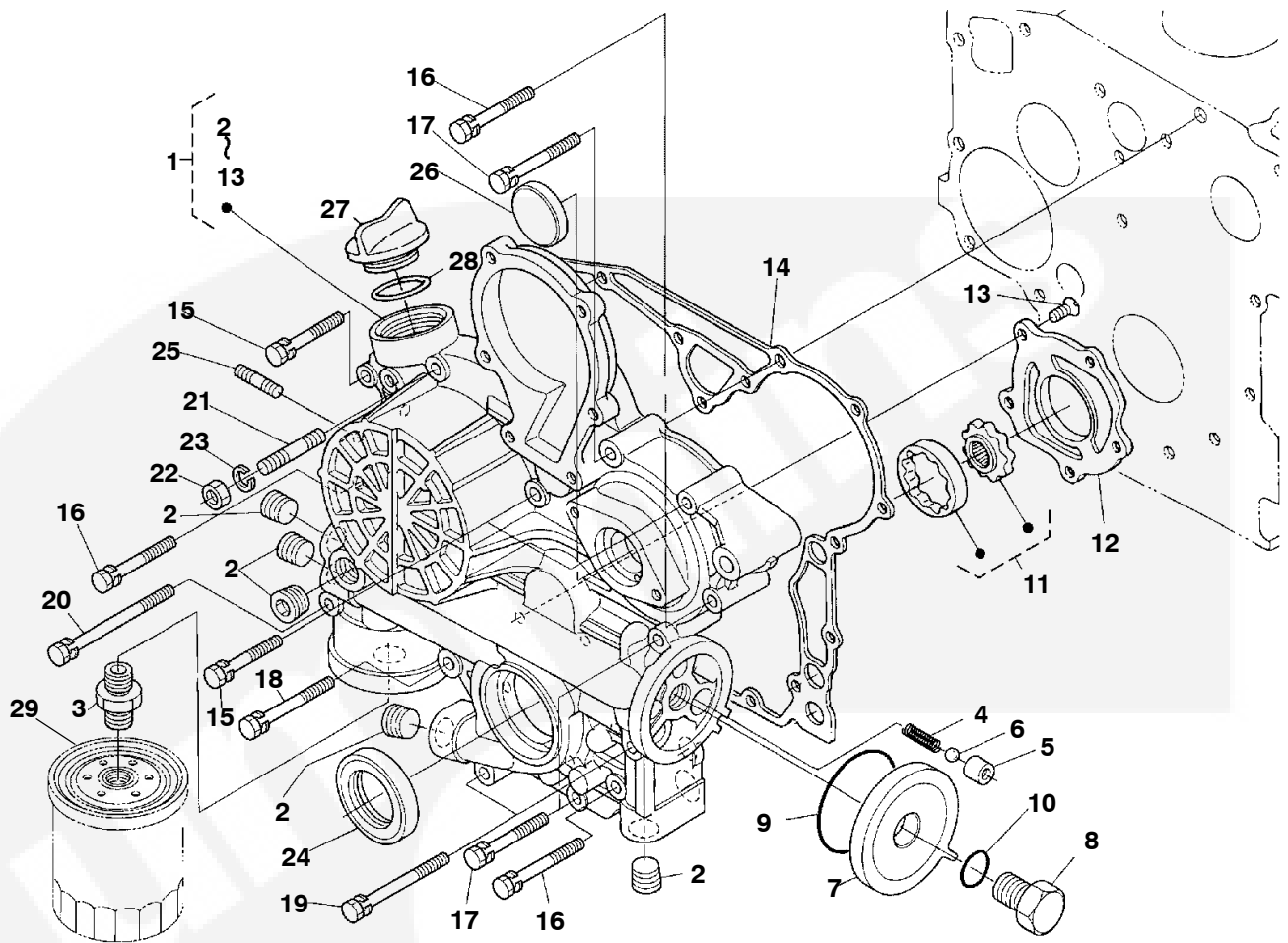
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	134-5386	1	Cover Assy, Cylinder Head (Includes Parts Marked *)	12	181-9220	1	Tub, Breather
2	123-2298	1	Shield, Breather	13	181-9109	1	Clamp, Hose
3	185-6498	1	*Gasket, Cylinder Head Cover	14	181-9025	1	Clamp, Hose
4	181-9240	1	*Comp. Valve, Breather				
5	181-9238	1	*Cover, Breather				
6	185-2384	4	*Screw, Pan Head				
7	181-9188	1	*Pipe, Water Return				
8	181-9079	3	*Nut				
9	185-2291	3	Gasket				
10	181-9000	1	Plug, Oil Filler				
11	185-7426	1	O' Ring				

* - Parts Included in Cylinder Head Cover Assy.

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Gearcase

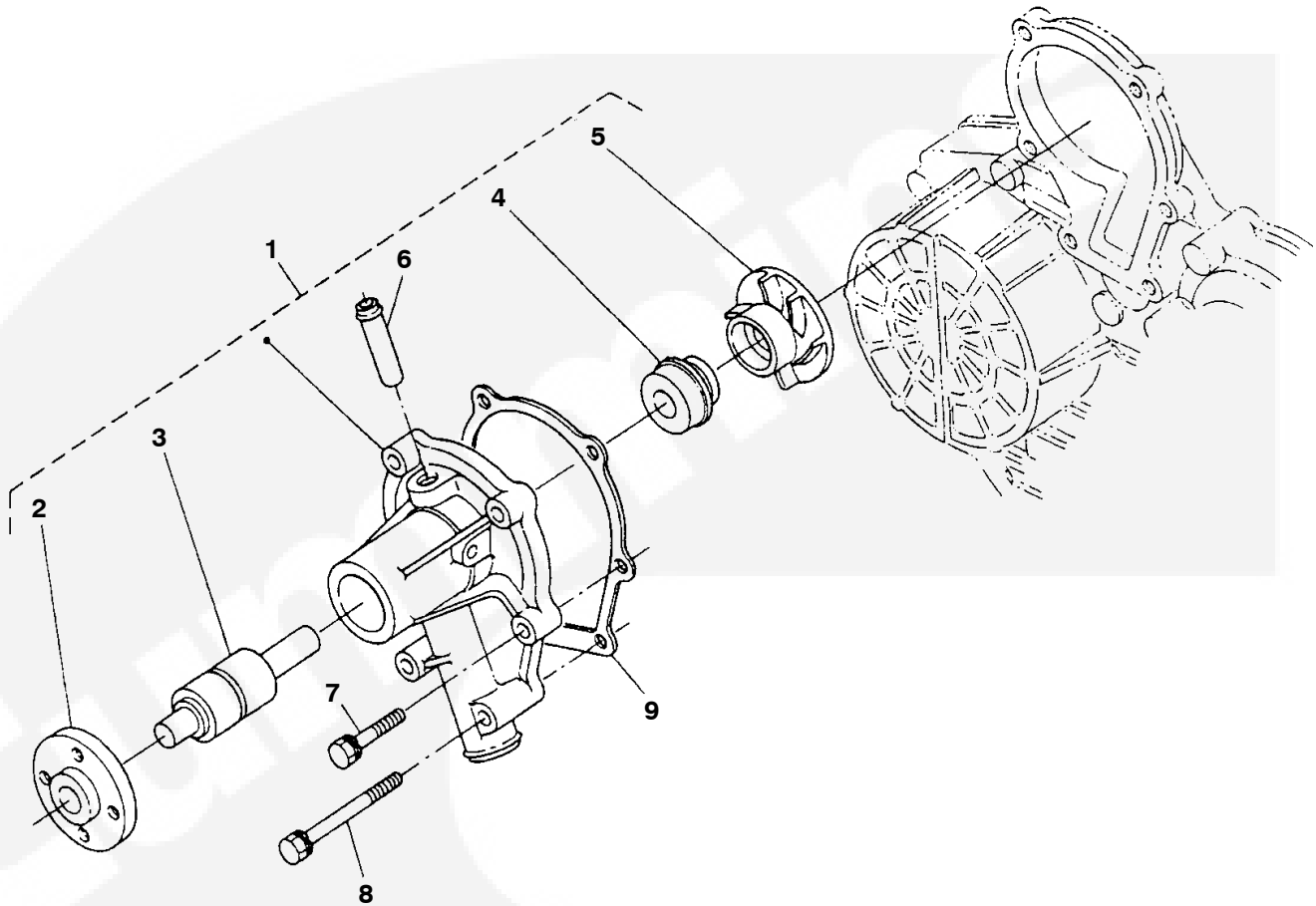


Gearcase

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	103-0861	1	Gearcase Assy (Includes Parts Marked *)	16	185-7069	4	Bolt
2	185-6481	4	*Plug	17	185-6489	2	Bolt
3	185-2124	1	*Joint, Pipe	18	184-0038	1	Bolt
4	185-6482	1	*Spring	19	185-6491	2	Bolt
5	185-6483	1	*Seat, Valve	20	185-6492	1	Bolt
6	185-6484	1	*Ball	21	185-7423	1	Stud
7	185-5741	1	*Cover	22	181-9013	1	Nut
8	185-5742	1	*Bolt	23	185-6759	1	Washer, Spring
9	181-9021	1	*O'Ring	24	185-6864	1	Seal, Oil
10	181-9019	1	*O'Ring	25	185-7425	2	Stud
11	185-6485	1	*Assy Rotor, Oil Pump	26	185-7216	1	Cover, Gear Case
12	185-6486	1	*Cover, Oil Pump	27	181-9000	1	Cover, Oil Fill
13	185-6487	5	*Screw, Counter Sunk Head	28	185-7426	1	O'Ring
14	185-6863	1	Gasket, Gear Case	29	185-5835	1	Filter, Oil
15	185-5833	3	Bolt				

* - Parts Included in Gearcase Assy.

Captive Water Pump Components

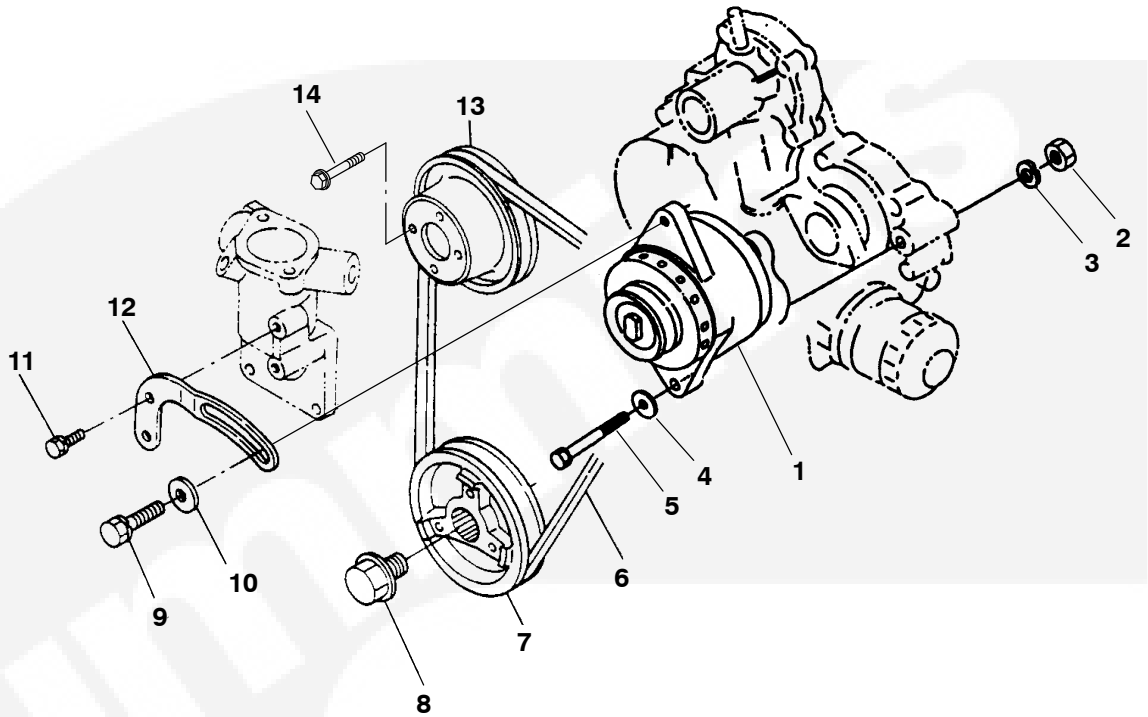


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	181-9108	1	Pump Assy, Water (Includes Parts Marked *)	6	185-5716	1	*Pipe, Water Return
2	185-6672	1	*Flange, Pump Water	7	185-6677	4	Bolt
3	181-9116	1	*Bearing	8	181-9007	2	Bolt
4	181-9233	1	*Seal Assy, Mechanical	9	185-7299	1	Gasket, Water Pump
5	181-9115	1	*Impeller, Captive Water Pump				

* - Parts Included in Water Pump Assy.

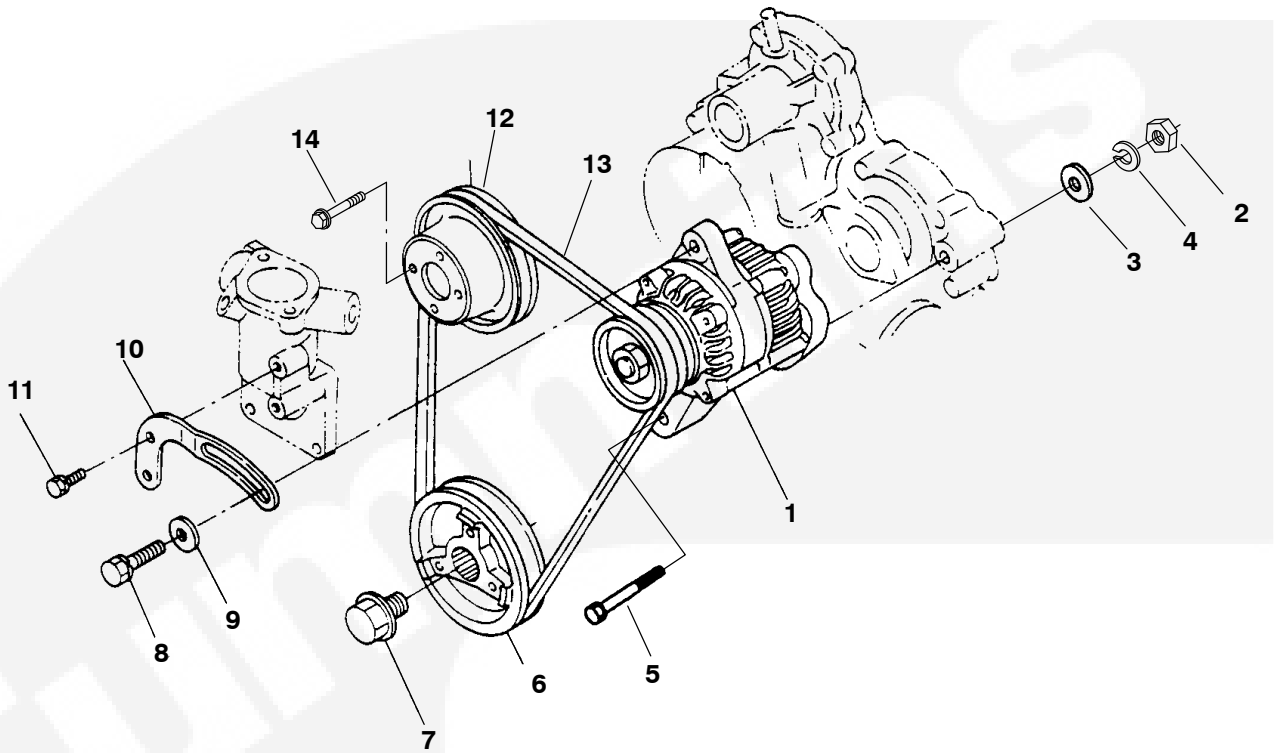


Alternator (12V)



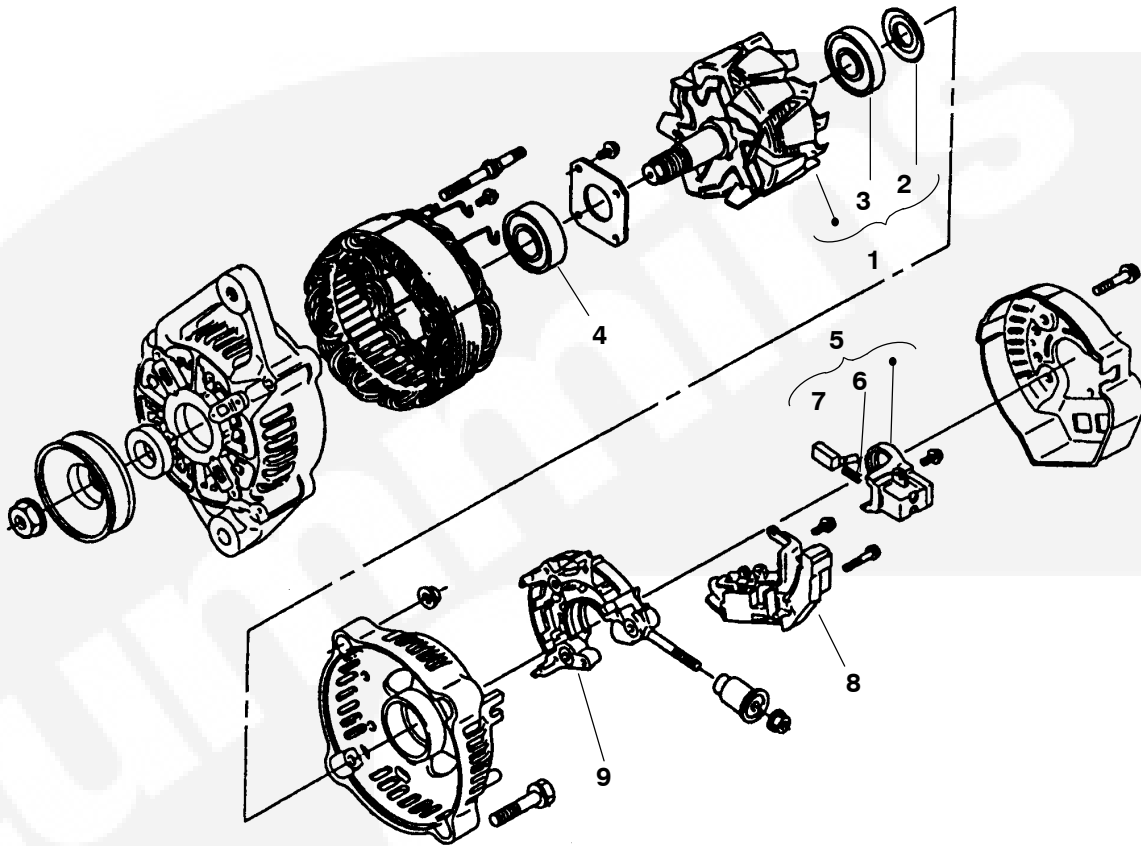
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7269	1	Alternator (12V) (No Components Available)	8	185-6633	1	Bolt
2	185-5445	1	Nut	9	185-2564	1	Bolt
3	185-6785	1	Washer, Spring	10	185-6786	2	Washer, Plain
4	185-7272	1	Washer, Plain	11	185-2388	1	Bolt
5	185-7271	1	Bolt	12	185-7270	1	Stay, Alternator
6	185-6934	1	Belt, Fan (37.5")	13	185-6631	1	Pulley, Fan
7			Pulley, Fan Drive	14	185-2572	4	Bolt
	185-6933	1	MDKDL				
	185-7273	1	MDKDM, MDKDN				

Alternator (24V)



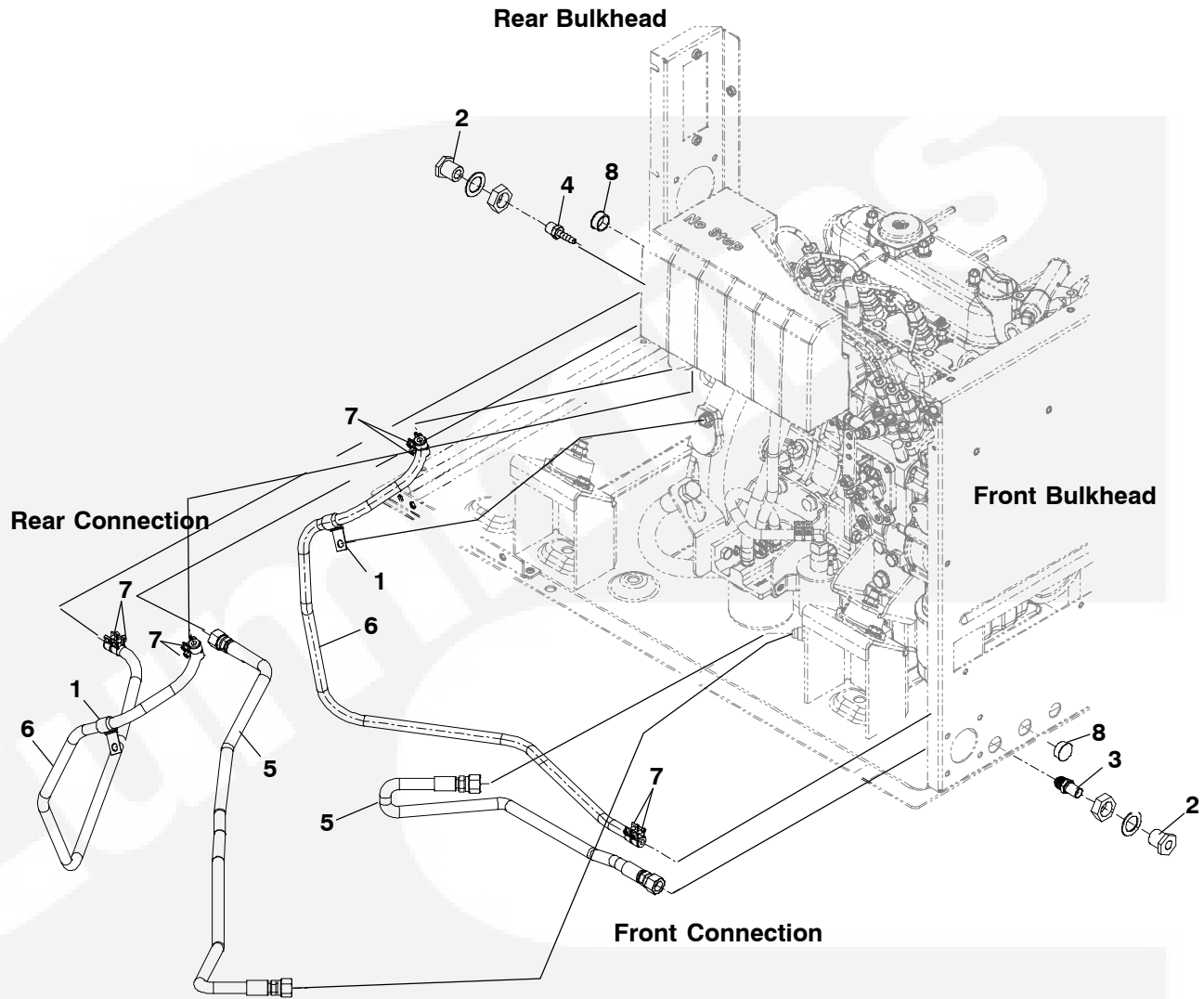
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7225	1	Alternator (24V)(See Separate Page for Components)	7	185-6633	1	Bolt
2	185-5445	1	Nut	8	185-2564	1	Bolt
3	185-6630	1	Washer, Plain	9	185-6786	1	Washer, Plain
4	185-6785	1	Washer, Spring	10	185-7226	1	Stay, Alternator
5	185-7227	1	Bolt	11	185-2388	1	Bolt
6	185-6933	1	Pulley, Fan Drive	12	185-6631	1	Pulley, Fan
	185-7273	1	MDKDL, MDKDN	13	185-6934	1	Belt, Fan (37.5")
				14	185-2572	4	Bolt

Alternator Components (24V)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	185-7225	1	Alternator	6	185-5784	2	Spring, Brush
1	185-7228	1	Rotor (Includes Cover and Bearing)	7	185-5783	2	Brush
2	185-5771	1	Cover, Bearing	8	185-6820	1	Regulator
3	185-7229	1	Bearing, Ball	9	185-6816	1	Rectifier Assy
4	185-5777	1	Bearing, Ball				
5	185-5782	1	Holder, Brush (Includes Brush and Spring)				Note: Parts not Identified are Not For Sale.

Fuel Transfer

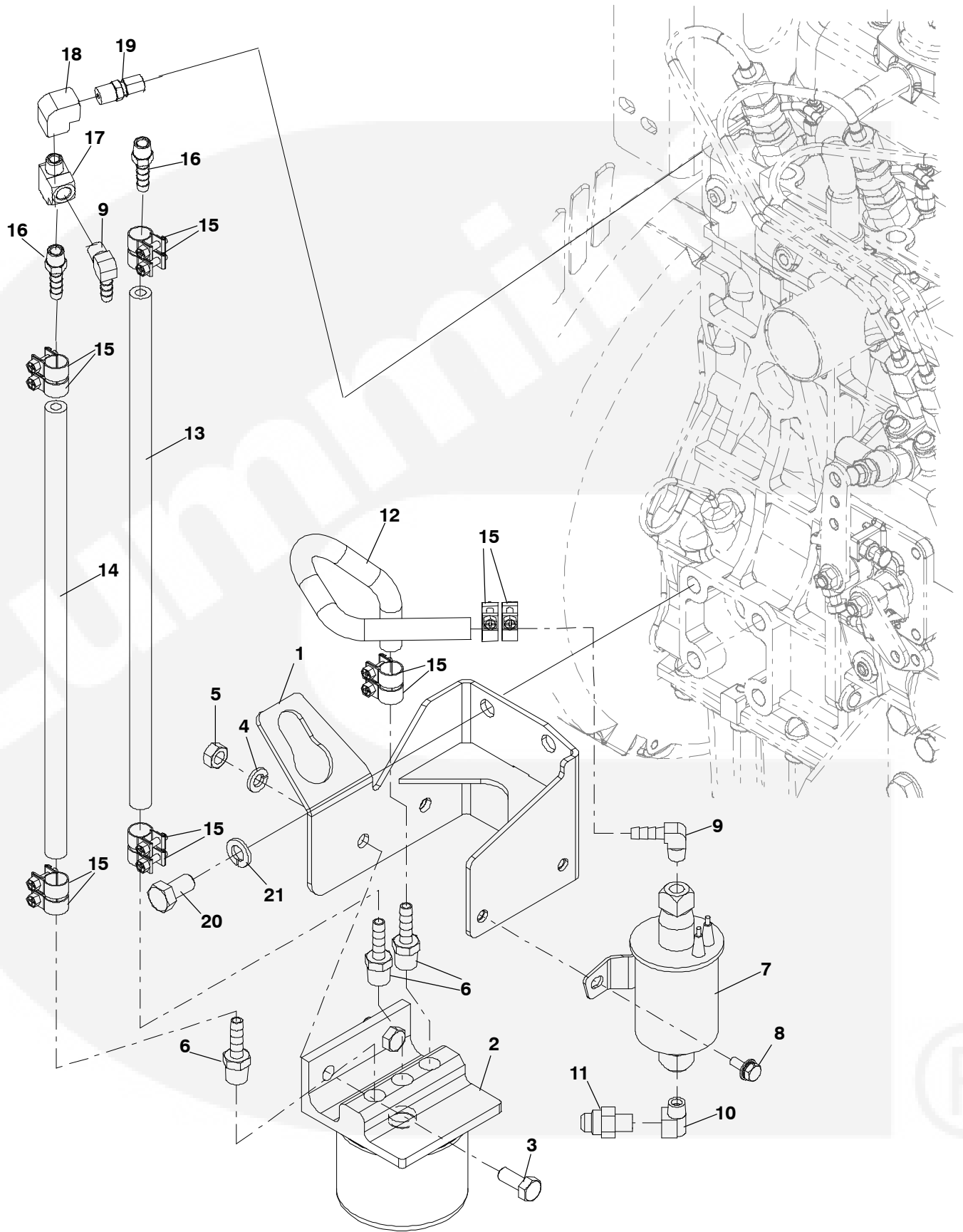


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	518-0515	1	Clamp, Hose	6	503-2935-02	1	Hose, Fuel
2	502-1133	2	Coupling, Hose	7	503-2808	4	Clamp, Hose
3	502-1615	1	Coupling, Hose	8	517-0136-01	2	Plug, Hose (Front and Rear Housed)
4	502-1367-02	1	Connector, Hose				
5	503-2588-03	1	Hose, Fuel				

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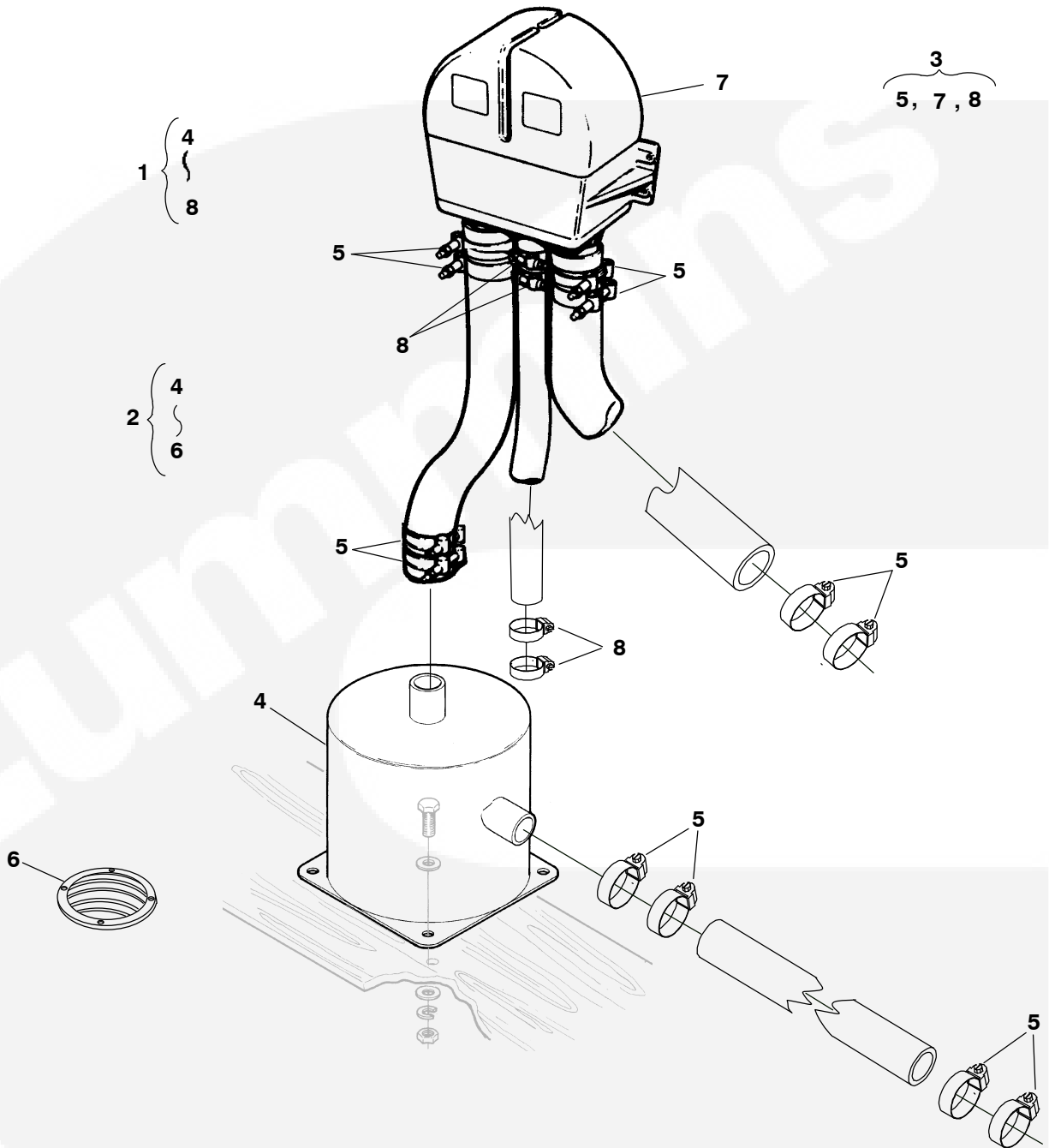
Fuel Pump



Fuel Pump

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2830-03	1	Bracket, Fuel Pump	10	502-0020-01	1	Elbow, Pipe
2	149-2634-01	1	Filter, Full	11	505-1490	1	Connector, Male
3	800-3017-19	2	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	12	503-2883-01	1	Hose, Fuel
4	850-0114-54	2	Washer, Split Locking (M8)	13	503-2883-08	1	Hose, Fuel
5	862-0026-55	2	Nut, Hex (M8 x 1.25)	14	503-2883-07	1	Hose, Fuel
6	502-1367-02	3	Connector, Hose (1/4 NPT x 1/4 Hose)	15	503-2808	12	Clamp, Hose
7			Pump, Fuel	16	502-1367-01	2	Connector, Hose (1/8 NPT x 1/4 Hose)
	149-2646	1	12V	17	502-1368	1	Tee, Street (1/8 NPT)
	149-2795	1	24V	18	502-0055	1	Elbow, Pipe
8	821-6002-02	2	Screw, Hex Head Sems (M6 x 1.0 x 12mm)	19	502-1245	1	Adapter, Pipe
9	502-1353-02	2	Elbow, 90° Pipe	20	800-3030	1	Screw, Hex Head Cap (M10 x 1.25 x 20mm)
				21	850-0114-55	3	Washer, Split Locking (M10)

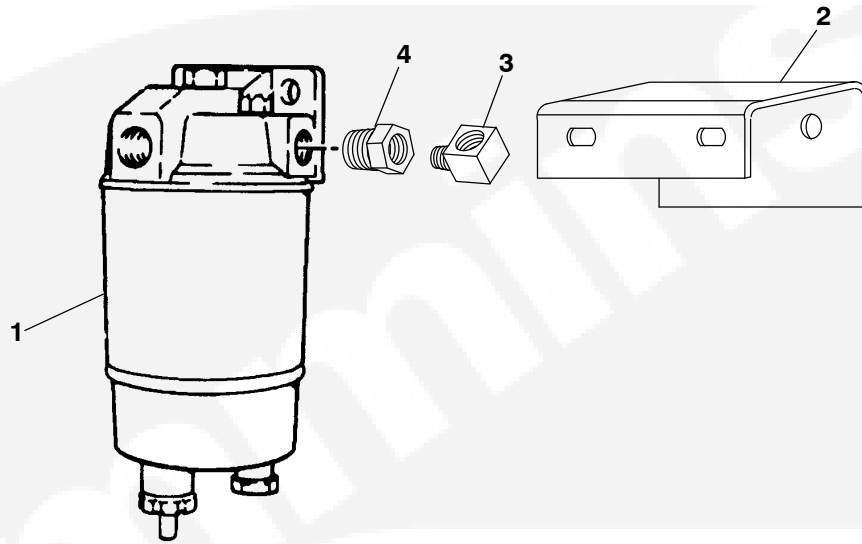
Water Separator/Muffler



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-3217	1	Kit, Muffler/Separator (Includes Parts Marked *)	6	155-1002	1	*+ Strainer, Slotted
2	155-2030	1	Kit, Muffler Marine (Includes Parts Marked +)	7	155-3218	1	*# Separator, Water (2")
3	155-3216	1	Kit, Water Separator (Includes Parts Marked #)	8	503-1139	4	*# Clamp, Hose (1-1/2")
4	155-2029	1	*+ Muffler, Marine				
5			Clamp, Hose (2")				
	503-1142	8	+ Muffler Kit				
	503-1142	4	# Separator Kit				
	503-1142	10	* Muffler/Separator Kit				

* - Parts Included in Muffler/Separator Kit.
 + - Parts Included in Muffler Kit.
 # - Parts Included in Water Separator Kit.

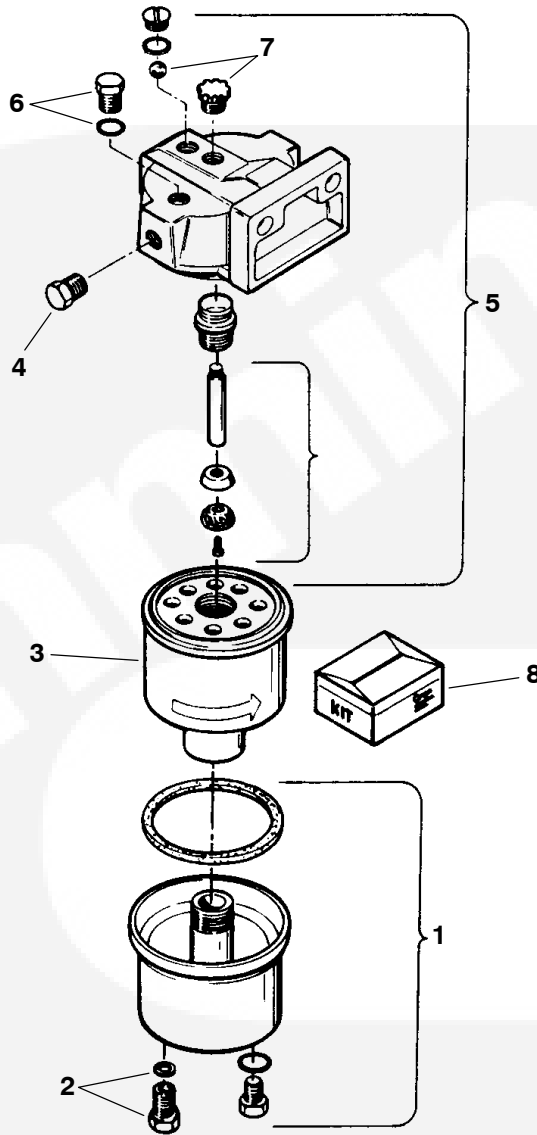
Remote Water Separator



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-2073	1	Kit, Remote Fuel/Water Separator	2	149-2041-03	1	Bracket, Separator Mounting
1	149-1908-05	1	Separator, Fuel/Water (See Separate Page for Components)	3	502-0020	1	Elbow, Street 90°
				4	502-0029	2	Bushing, Pipe

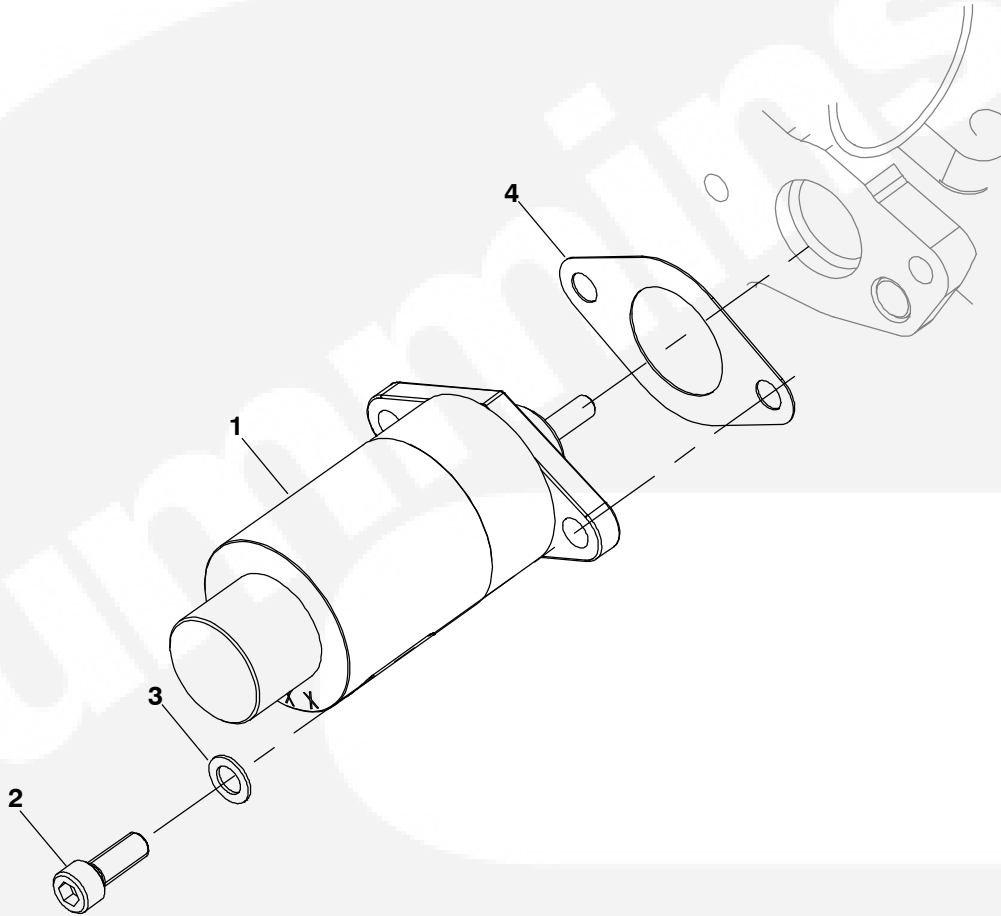


Remote Water Separator Components



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-1908-05	1	Separator, Water	6	149-1952	1	Plug, Vent (Includes O'Ring)
1	149-2046	1	Kit, Metal Bowl Replacement (Includes Plug, O'Rings and Drain Assy)	7	149-2047	1	Assy, Pump (Includes Plunger, Retainer, Shaft, Check Ball, Knob and Screw)
2	149-1953	1	Assy, Drain (Includes Knob and Seal)	8	149-2045	1	Kit O'Ring (Includes Seal and Plunger)
3	149-1914-01	1	Element (Includes Seals)				
4	502-0153	1	Plug, Hex (1/4")				
5	149-1949	1	Assy, Replacement Head (Includes Vent Plug, O'Rings, Seal, Cap, Tube and Pump Assy)				

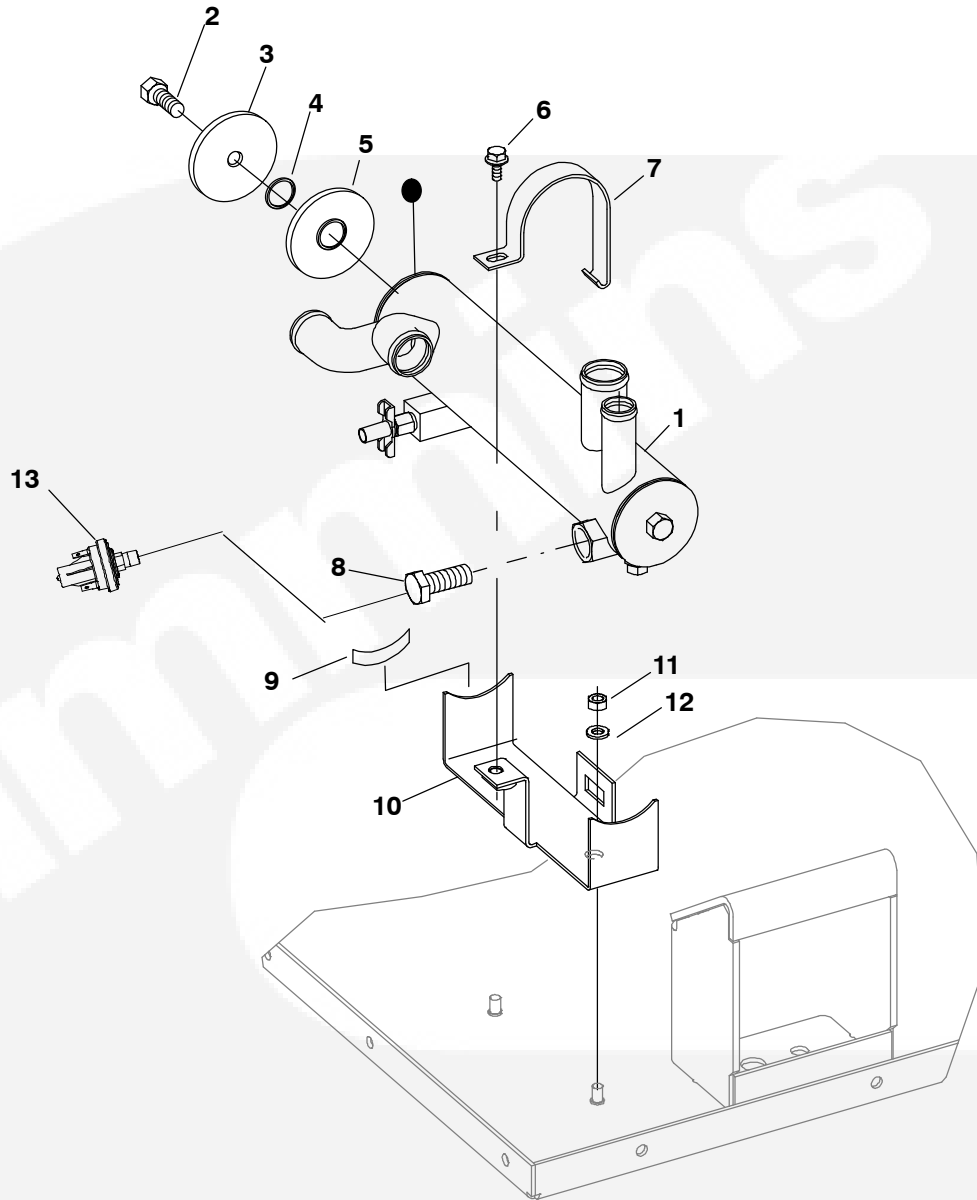
Governor Actuator



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	306-5006-01	1	Actuator, Governor (12V)
	306-5006-02	1	(24V)
2	725-1027	2	Screw, Slotted Head Cap (M6 x 1 x 16mm)(1/32")
3	526-0063	2	Washer, Copper
4	184-0071	1	Gasket, Solenoid Cover



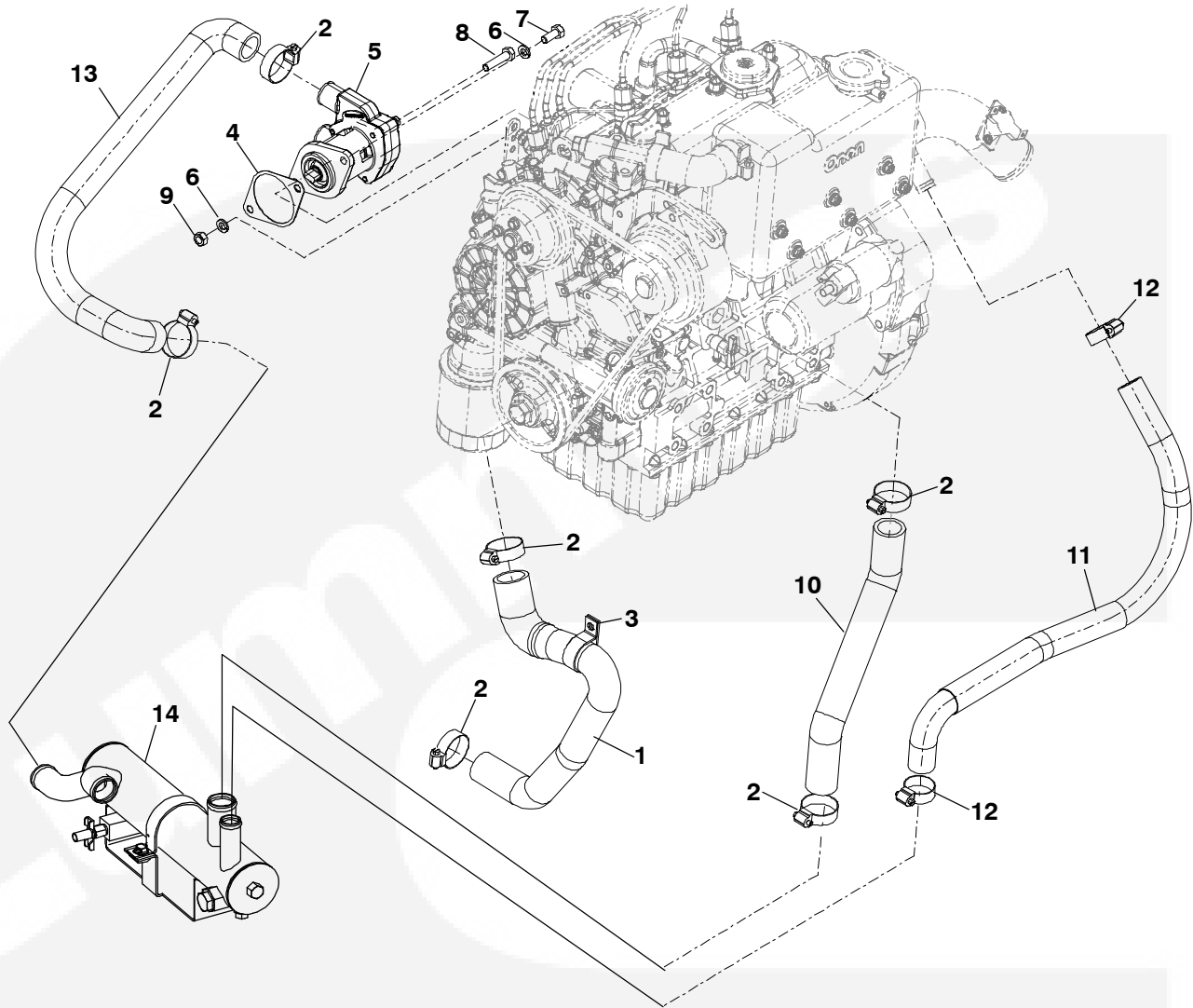
Heat Exchanger



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	130-5176	1	Kit,End Cover (Includes Parts Marked *)	8	130-4434	1	Pencil, Zinc
1	130-7489-02	1	Exchanger, Heat	9	508-0210	2	Edging, Heat Exchanger Bracket (90mm)
2	800-0317	1	*Screw, Hex Head (5/16-18)	10	130-4739-03	1	Bracket, Heat Exchanger
3	130-5169	1	*Cover, End	11	862-0026-54	2	Nut, Hex (M6 x 1mm)
4	509-0351	1	*O'Ring	12	850-0114-53	2	Washer, Lock (M6)
5	130-5170	1	*Gasket, End Cover	13	309-0717	1	Switch, Pressure
6	821-6002-02	1	Screw, Hex Head Sems (M6 x 1 x 12mm)				
7	130-4740-03	1	Strap, Mounting				

* - Parts Included in End Cover Kit

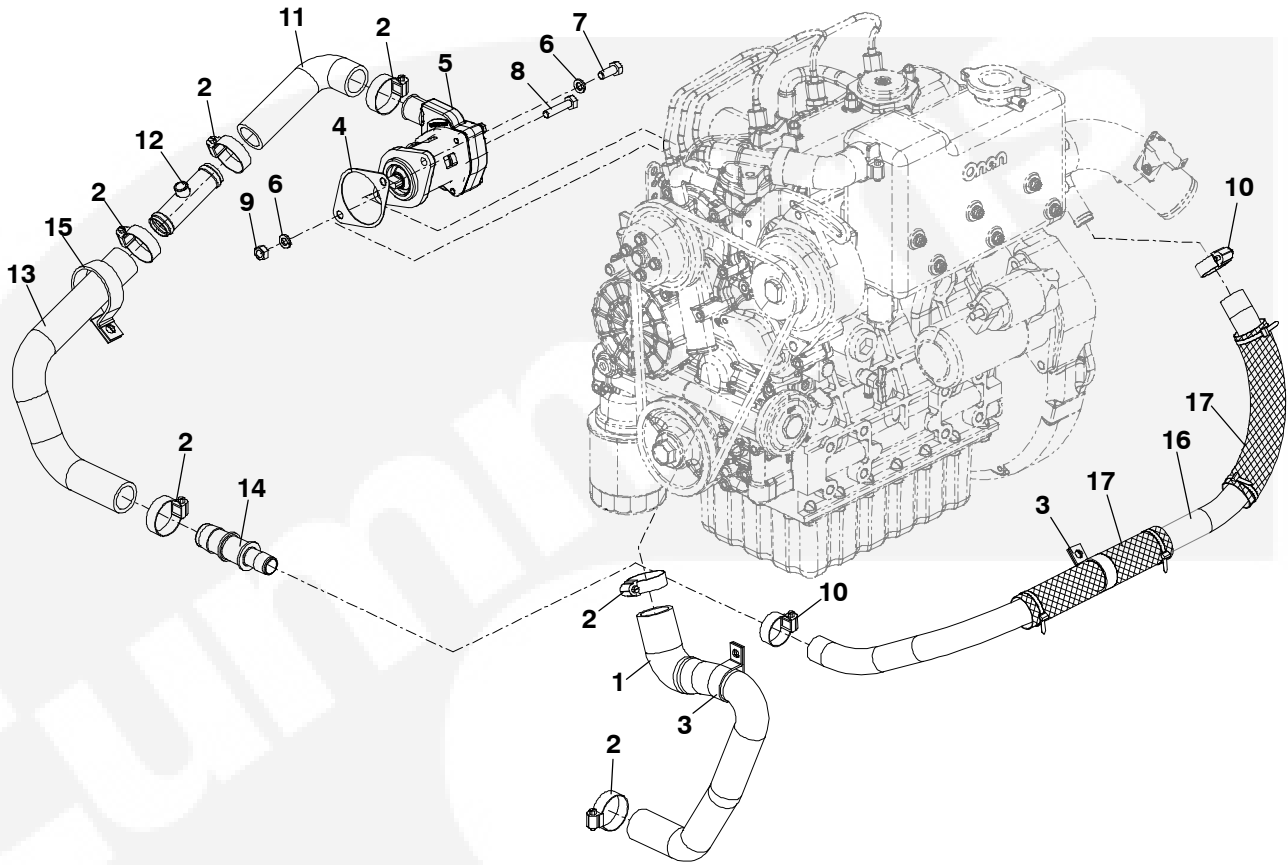
Cooling System Wet and Dry Exhaust



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	503-2195	1	Hose, Coolant	10	503-2196	1	Hose, Coolant
2	503-1137	6	Clamp, Hose	11			Hose
3	518-0548-05	1	Clamp, Hose (Insulated)		501-0712-01	1	MDKDL
4	185-6579	1	Gasket, Water Pump		501-0712-02	1	MDKDM and MDKDN
5	132-0459	1	Pump, Water	12	503-1136	1	Clamp, Hose (Wet)
6	850-0114-54	2	Washer, Split Locking (M8)	13	503-2908	1	Hose
7	800-3017-19	1	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	14	-	1	Exchanger, Heat (See Heat Exchanger Page for Details)
8	800-3017-22	1	Screw, Hex Head Cap (M8 x 1.25 x 35mm)				
9	862-0026-55	1	Nut, Hex (M8 1.25mm)				

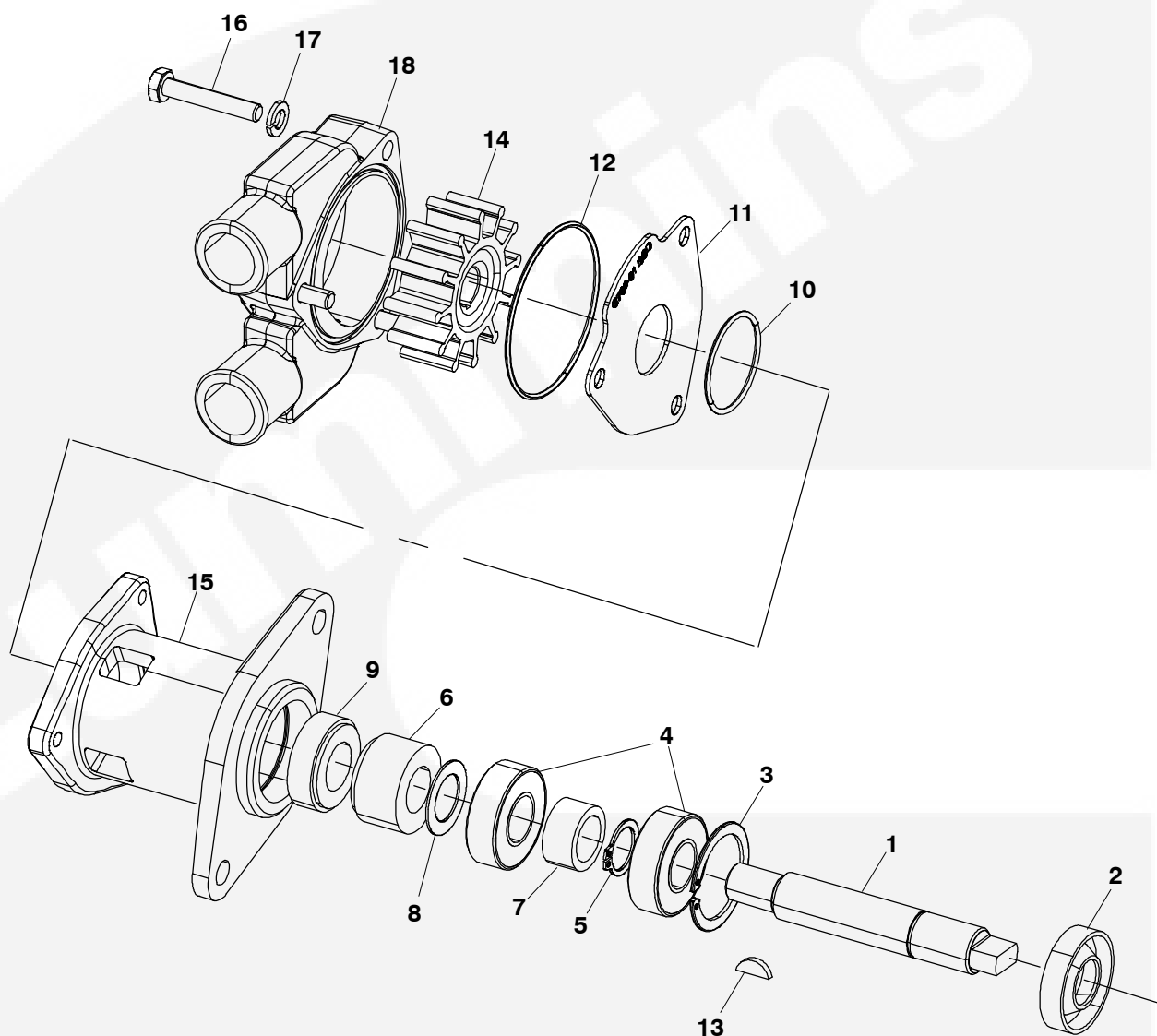
* - For Heat Exchanger Service Parts See Heat Exchanger Previous Page

Keel Cooling



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	503-2195	1	Hose, Coolant	9	862-0026-55	1	Nut, Hex (M8 x 1.25mm)
2	503-1137	2	Hose, Clamp	10	503-1136	2	Clamp, Hose (Wet Exhaust)
	503-1137	2	Dry Exhaust	11	503-2207	1	Hose, Coolant (Raw Water)
	503-1137	6	Wet Exhaust	12	130-5387-01	1	Tube, Low Pressure Switch (Wet Exhaust)
3			Clamp, Hose (Insulated)	13	503-2197	1	Hose, Coolant (Raw Water)
	518-0548-05	1	Dry Exhaust	14	502-1354	1	Reducer, Hose Connector
	518-0548-05	2	Wet Exhaust	15	130-4830	1	Clamp, Hose (2 OD)
4	185-6579	1	Gasket, Water Pump	16			Hose, Water (Wet Exhaust)
5	132-0459	1	Pump, Water		503-2916-01	1	MDKDL
6	850-0114-54	2	Washer, Split Locking (M8)		503-2916-02	1	MDKDM and MDKDN
7	800-3017-19	1	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	17	898-1311-02	2	Sleeving, Nylon Mesh
8	800-3017-22	1	Screw, Hex Head Cap (M8 x 1.25 x 35mm)				

Raw Water Pump Components

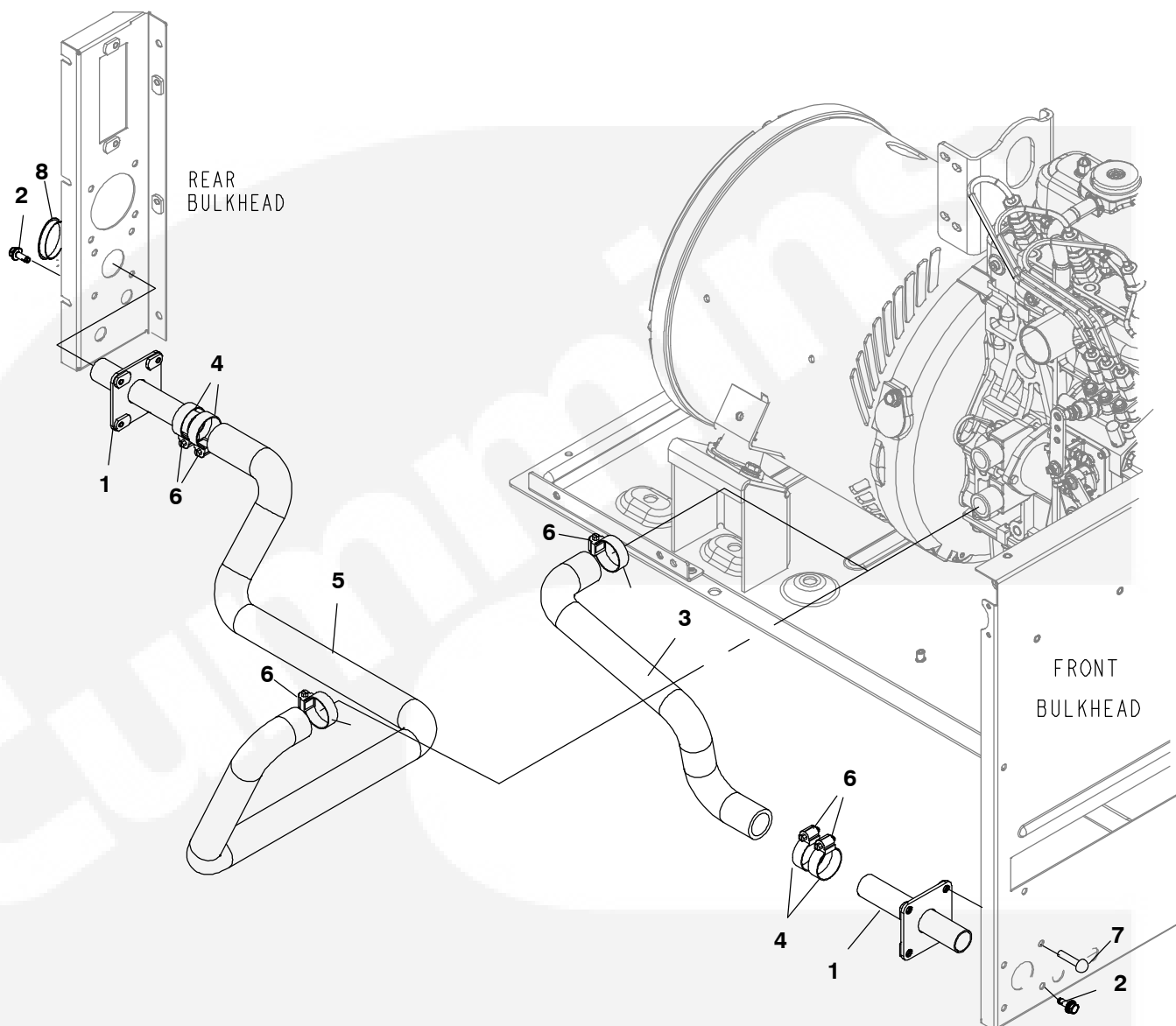


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-1519	1	Kit, Minor Service (Includes Parts Marked *)	9	132-0369	1	+ Seat, Seal
	541-1520	1	Kit, Major Service (Includes Parts Marked +)	10	132-0370	1	+ O'Ring
	132-0459	1	Pump, Water	11	130-6526	1	+ Plate, Wear
1	132-0360	1	Shaft	12	132-0372	2	*+ O'Ring
2	132-0361	1	+ Seal, Lip	13	132-0374	1	+ Key
3	132-0363	1	+ Ring, Internal Retaining	14	132-0498	1	*+ Impeller
4	132-0364	2	+ Bearing, Ball	15	132-0460	1	Body, Water Pump
5	132-0365	1	+ Ring, External Retaining	16	800-6362	2	Screw
6	132-0366	1	+ Seal, Mechanical	17	850-2088	2	Washer, Lock
7	132-0367	1	Spacer	18	132-0461	1	Body, Water Pump
8	132-0368	1	+ Washer,				

* - Parts Included in Minor Service Kit.

+ - Parts Included in Major Service Kit.

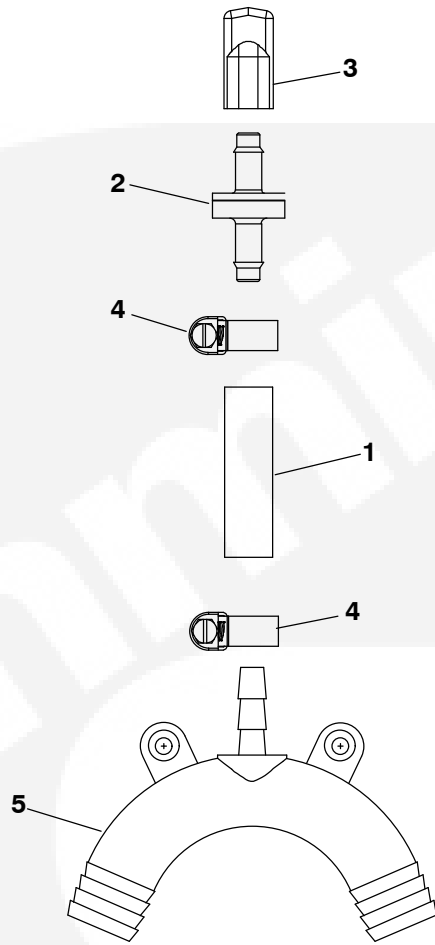
Raw Water Inlet



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0058	1	Assy, Bulkhead
2	800-6395-01	4	Screw, Hex Head Sems (M6 x 1.0 x 16mm)
3	503-2580	1	Hose, Front Water
4	503-1137	3	Clamp, Hose
5			Hose, Rear Water

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	503-2578	1	MDKDL
	503-2579	1	MDKDM and MDKDN
6	503-2823	3	Cover, Hose Clamp
7	517-0131-02	4	Plug, Hole
8	517-0138-07	1	Plug, Hole

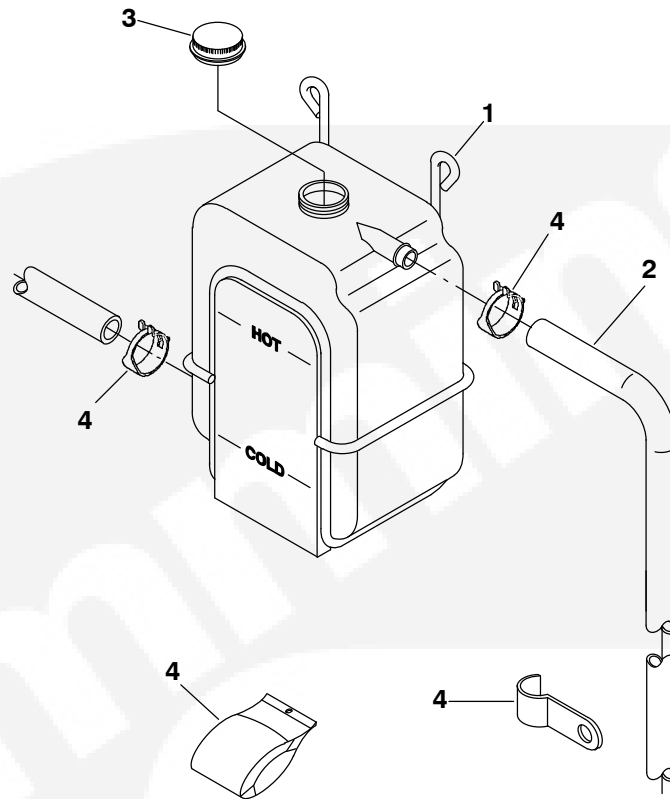
Vacuum Relief Valve



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0876-01	1	Kit, Siphon Break	5	502-1463	1	Connector, Hose
1	503-2728-01	1	Hose, Coolant	6	503-0977	2	*Clamp, Hose
2	504-0223	1	Valve, Check	7	508-1102	2	*Grommet, Rubber
3	502-1425-02	1	Cap, Tube				
4	503-2309	2	Clamp, Hose				

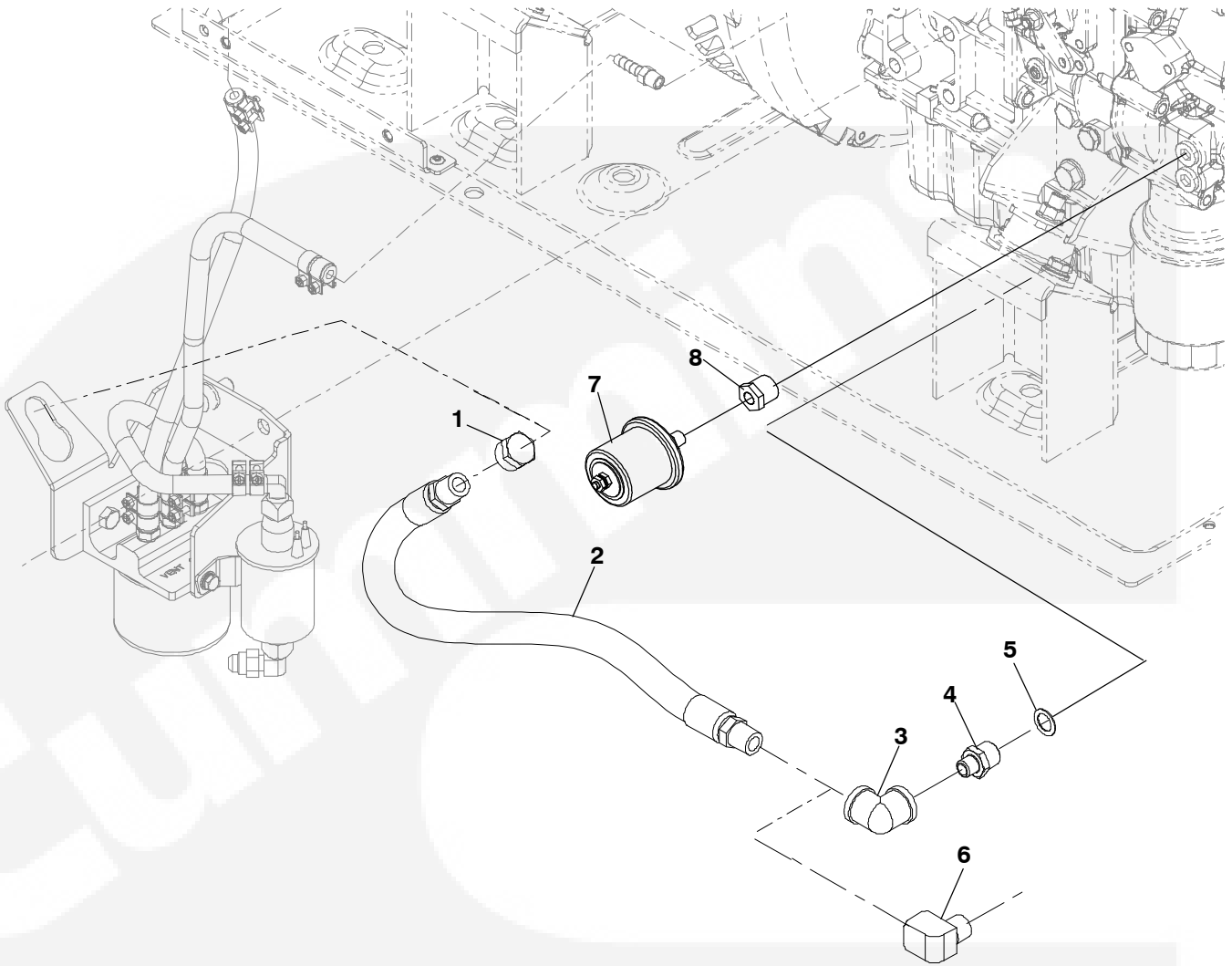
* - Parts not shown, loose in kit.

Coolant Recovery Tank



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	130-3574	1	Kit, Coolant Recovery	4	130-3573	1	Hardware Package (Includes Mounting Hardware)
1	130-3571	1	Hanger, Tank	5	130-3570	1	Tank, Coolant
2	503-1692	1	Hose (5/16 I.D. x 120" Lg.)				
3	130-3572	1	Cap, Tank				

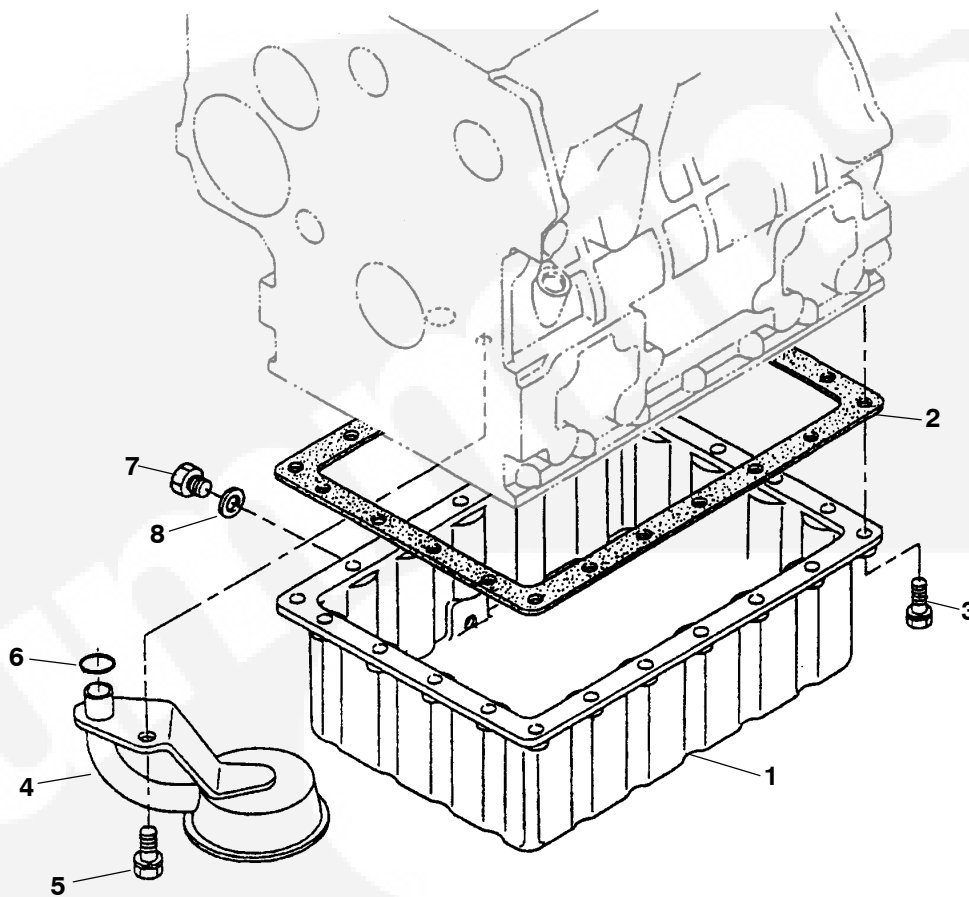
Oil System



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	502-1123	1	Cap, Pipe	7			*Sender, Oil Pressure
2	501-0910	1	Hose, Oil Drain	193-0244	1		Negative Ground (B200 B201)
3	502-0263	1	Elbow, Pipe(MDKDL)	193-0430-01	1		+ Isolated Ground (B380)
4	102-1485	1	Adapter, Oil Drain (MDKDL)	8	505-0395	1	Reducer, Bushing (1/8" NPSF)
5	185-5495	1	Gasket, Oil Drain (MDKDL)				
6	502-0075	1	Elbow, Pipe (MDKDM and MDKDN)				

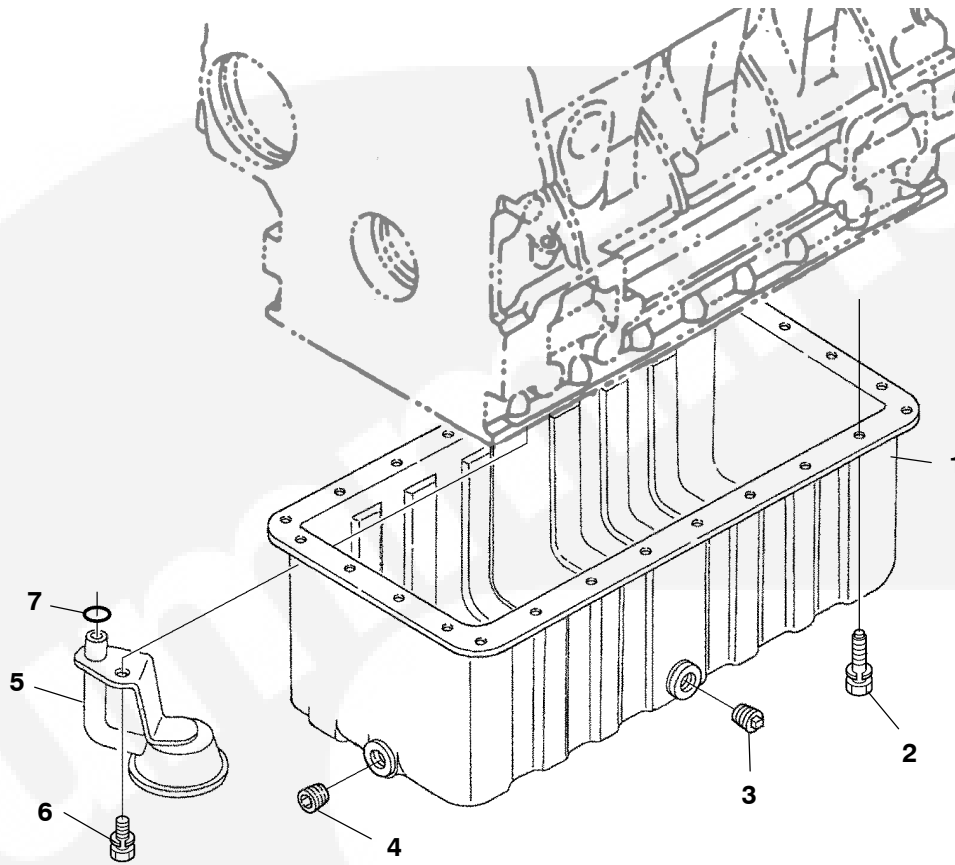
* - Sender Included in Sender Kit Listed on Water Flange Page.
 + - Sender Included in Isolated Ground Kit Listed on Isolated Ground Page.

Oil Pan (MDKDL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7213	1	Pan, Oil	6	185-7421	1	O'Ring
2	185-7214	1	Gasket, Oil Pan	7	517-0418	1	Plug
3	185-2389	22	Screw, Hex Head	8	509-0428	1	Gasket
4	122-0932	1	Tube, Oil Pickup				
5	185-6762	1	Bolt				

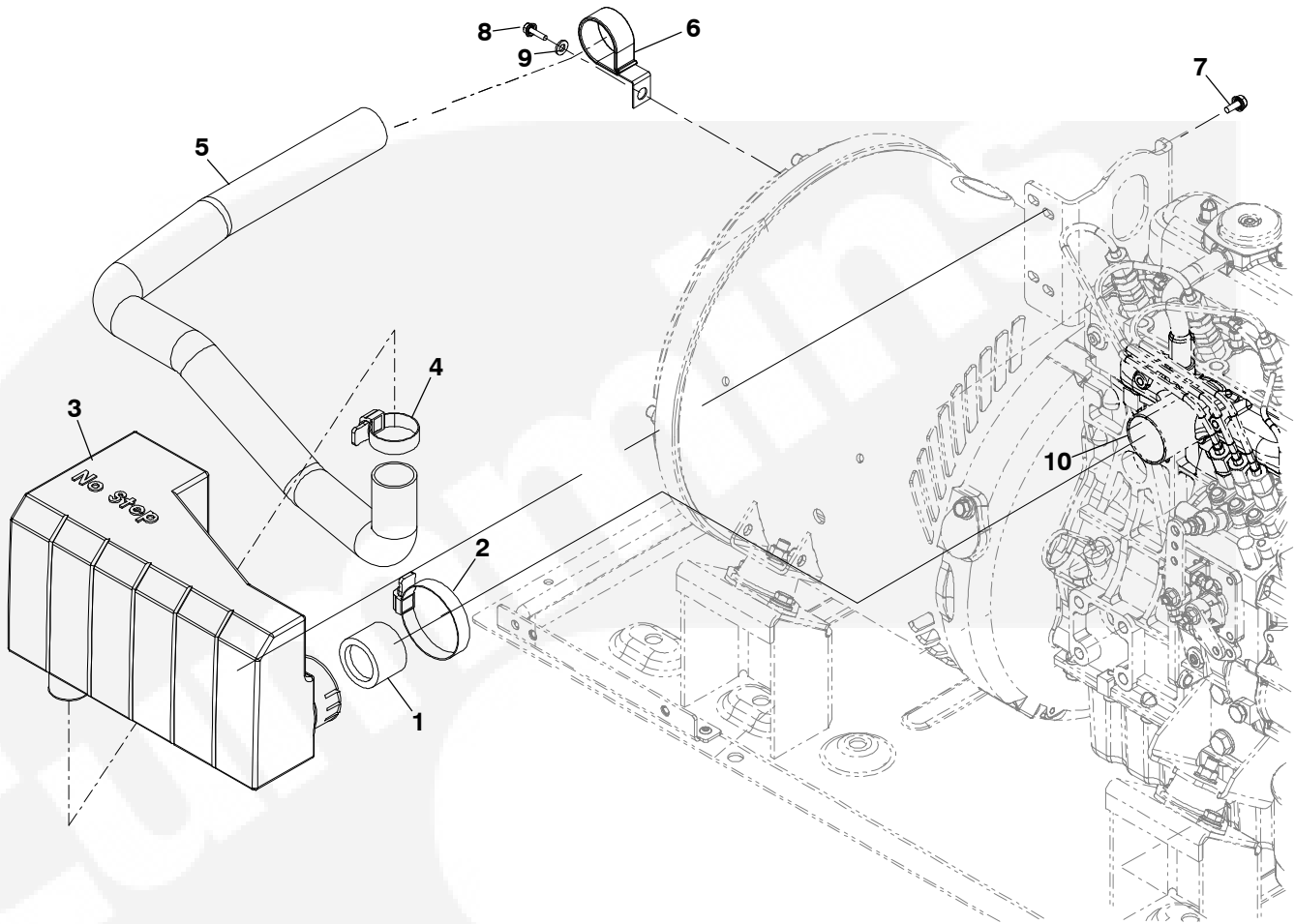
Oil Pan (MDKDM and MDKDN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7246	1	Pan, Oil	5	123-2414	1	Tube, Oil Pickup
2	181-9094	26	Bolt	6	185-2563	1	Bolt
3	817-0441	1	Plug	7	185-7421	1	O'Ring, Seal
4	181-9230	1	Plug				



Resonator

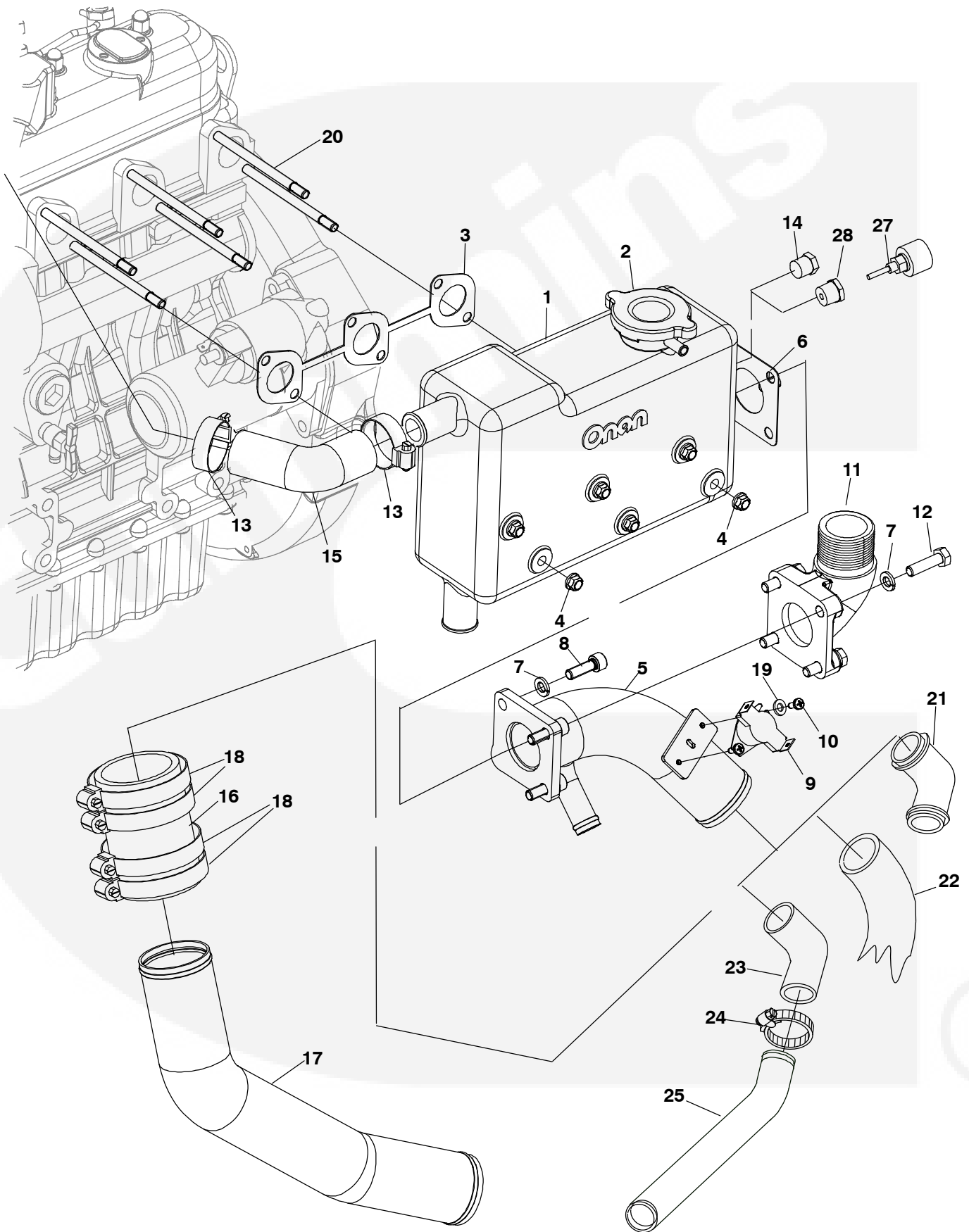


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-2898	1	Sleeve, Air Intake	8	821-6001-03	1	Screw, Hex Head (M5 x 0.8 x 16mm)
2	503-1141	1	Clamp, Hose	9	526-2291	1	Washer, Flat
3	140-3078-01	1	Resonator, Intake	10	-	1	See Intake Manifold for Manifold Screws Gasket and Manifold
4	503-1137	1	Clamp, Hose				
5	503-2202-01	1	Hose, Air Intake (1.25" ID)				
6	503-2790	1	Clamp				
7	821-6002-02	2	Screw, Hex Head Sems (M6 x 12)				

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Exhaust Manifold

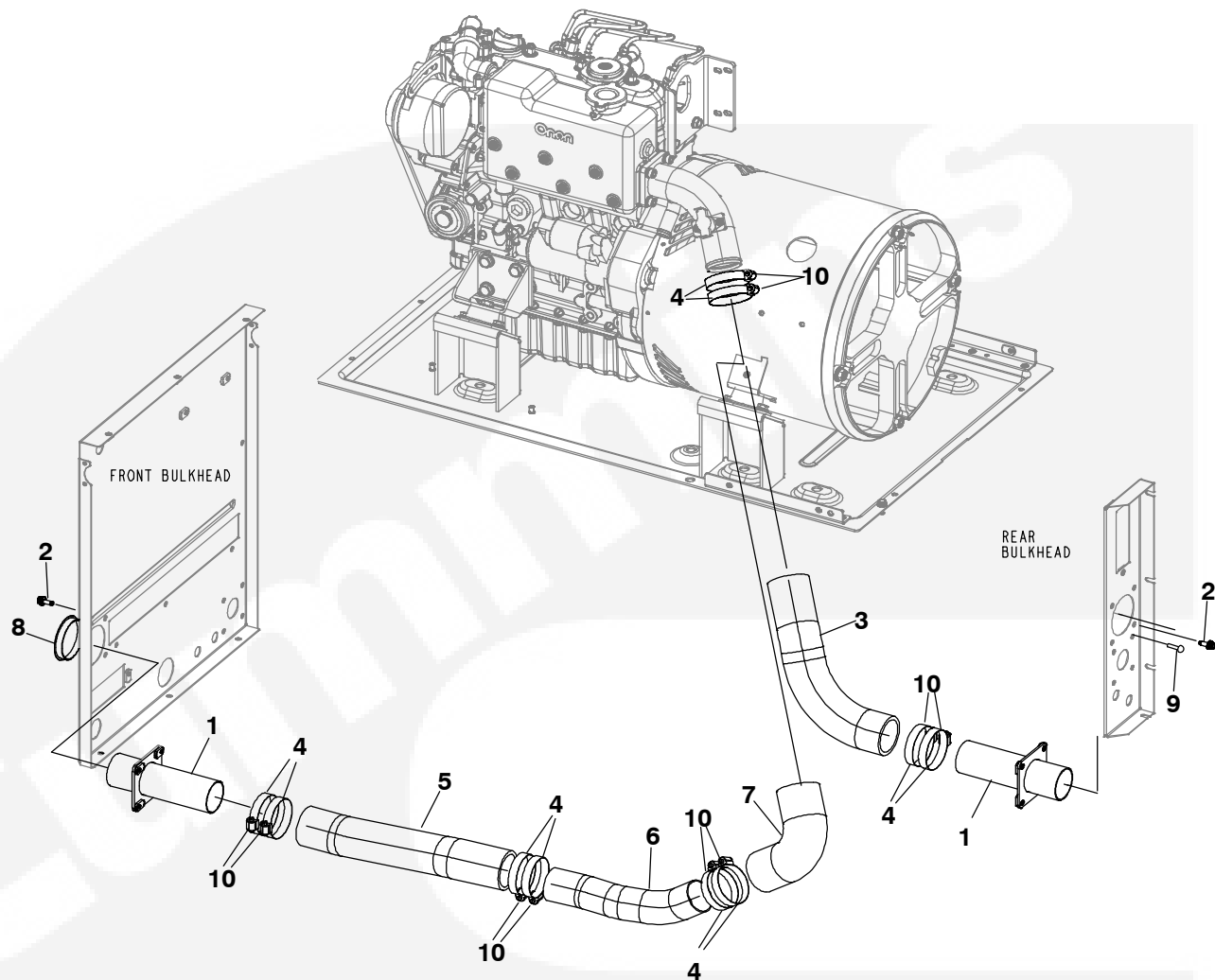


Exhaust Manifold

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0599	1	Kit, Marine Muffler	14			Plug, Pipe
	155-3147	1	Kit, Marine Muffler		502-0153	1	MDKDL
	155-2355-02	1	Kit, Exhaust Tube		502-0820	1	MDKDM, MDKDN
	155-3146	1	Kit, Dry Exhaust (Includes Parts Marked +)	15	503-2046	1	Hose, Coolant
	155-3240	1	Kit, Front Exhaust (Includes Parts Marked*)	16	503-2249	1	Hose, Exhaust (Wet)
	300-4686-01	1	Kit, Low Coolant Sender (Includes Sender Harness)	17			Tube, Exhaust (Wet)
1			Manifold Assy (Includes Filler Neck)		155-3522	1	MDKDL
	154-3020-01	1	MDKDL		155-3523	1	MDKDM, MDKDN
	154-3060	1	MDKDM, MDKDN	18	503-1142	4	Clamp, Hose (Wet)
2	130-3721	1	Cap, Radiator	19	526-0003	2	Washer, Flat (Wet)
3			Gasket, Exhaust Manifold	20			Stud
	154-2369	1	MDKDL		185-7110	6	MDKDL
	154-3270	1	MDKDM, MDKDN		185-7110	8	MDKDM, MDKDN
4			Nut, Hex Flange (M7 x 1mm)	21	155-2033	1	Elbow, Exhaust (2")
	185-6699	6	MDKDL	22			Hose, Exhaust
	185-6699	8	MDKDM, MDKDN		503-1963-04	1	2" x 3'
5	155-3261-02	1	Mixer, Elbow (Wet)		503-1963-05	1	2" x 5'
6	185-6853	1	+ Gasket, Exhaust		503-1353	1	2" x 10'
7	850-0114-54	4	Washer, Lock (M8)		503-1320	1	2" (Bulk)
8	815-0916	4	Screw, Socket Head Cap (M8 x 1.25 x 25mm) (Wet)	23	503-1527	1	**Elbow, Molded Exhaust
9	309-0295-01	1	Switch, Temperature (Wet)	24	503-1142	4	**Clamp, Hose
10	815-0862	2	Screw, Pan Head XREC (M4 x 10mm) (Wet)	25			*Tube, Exhaust
11	155-2666-01	1	+ Elbow, Exhaust (Dry Exhaust)		155-3233	1	MDKDL (27")
12	800-3017-21	4	Screw, Hex Head Cap (Dry Exhaust) (M8 x 30mm)		155-3256	1	MDKDM, MDKDN (30.5")
13	503-1137	2	Clamp Hose	26	508-0115	1	*Grommet
				27	193-0468	1	Sender, Low Coolant
				28	502-0029-06	1	Bushing, Reducer 3/4 to 1/4" (MDKDM and MDKDBN)

* - Not noted if covers all three models.

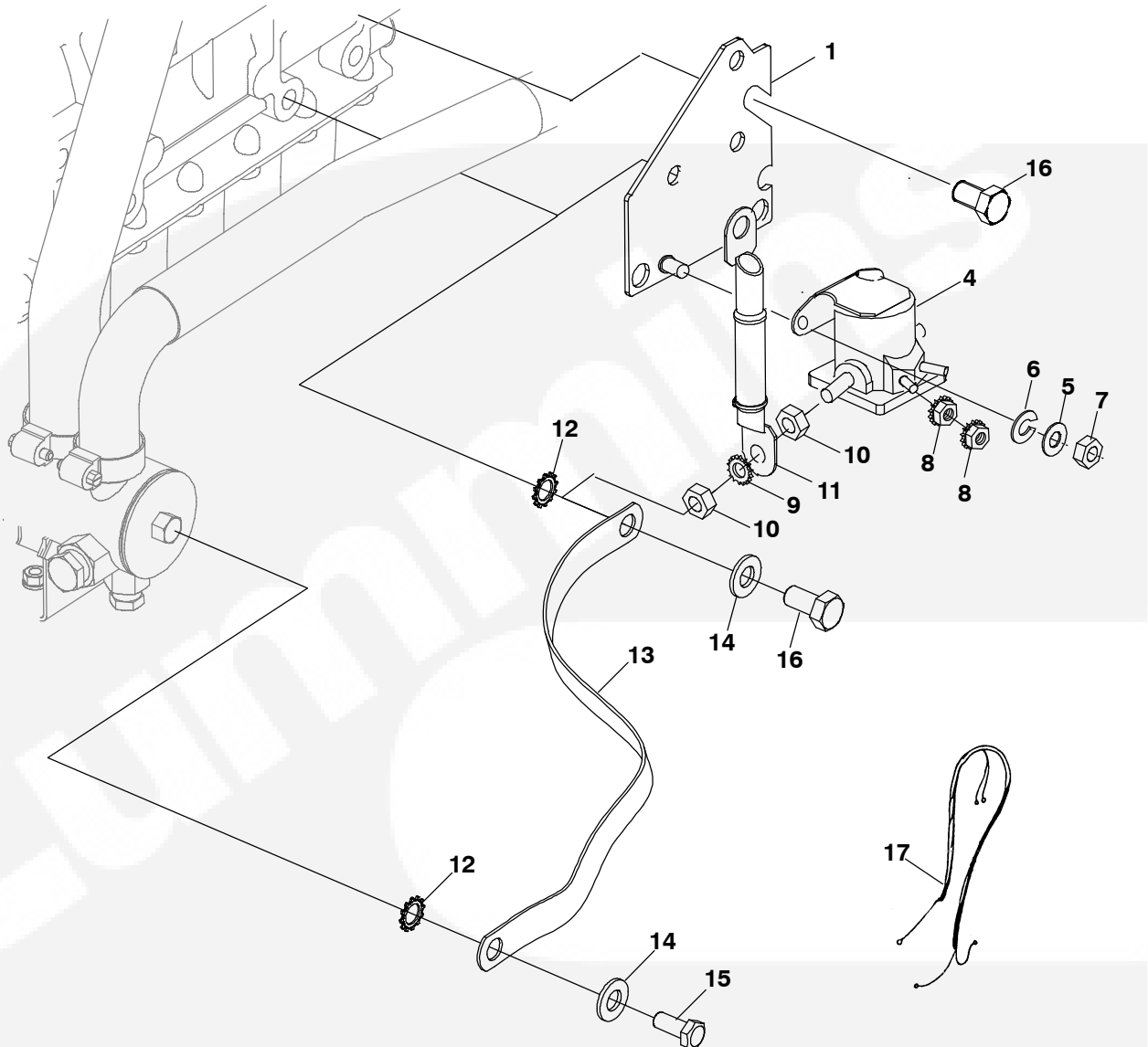
Bulkhead Exhaust



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	155-2030	1	Muffler, Exhaust (Not Shown)	6	155-4417	1	Tube, Front Housed Exhaust
1	404-0057	1	Connection, Bulkhead	7	503-2573	1	Hose, Front Exhaust
2	800-6395-01	4	Screw, Hex Head Sems (M6 x 1.0 x 16mm)	8	517-0138-09	1	Plug, Rear Housed Hole
3			Hose, Rear Exhaust	9	517-0131-02	4	Plug, Hole
	503-2581	1	MDKDL	10			Cover, Hose Clamp
	503-2572	1	MDKDM and MDKDN		503-2823	8	Front, Housed
4			Clamp, Hose		503-2823	4	Rear, Housed and Unhoused
	503-1142	8	Front, Housed				
	503-1142	4	Rear, Housed and Unhoused				
5			Hose, Front Housed Exhaust				
	503-2575-01	1	MDKDL				
	503-2575-02	1	MDKDM and MDKDN				

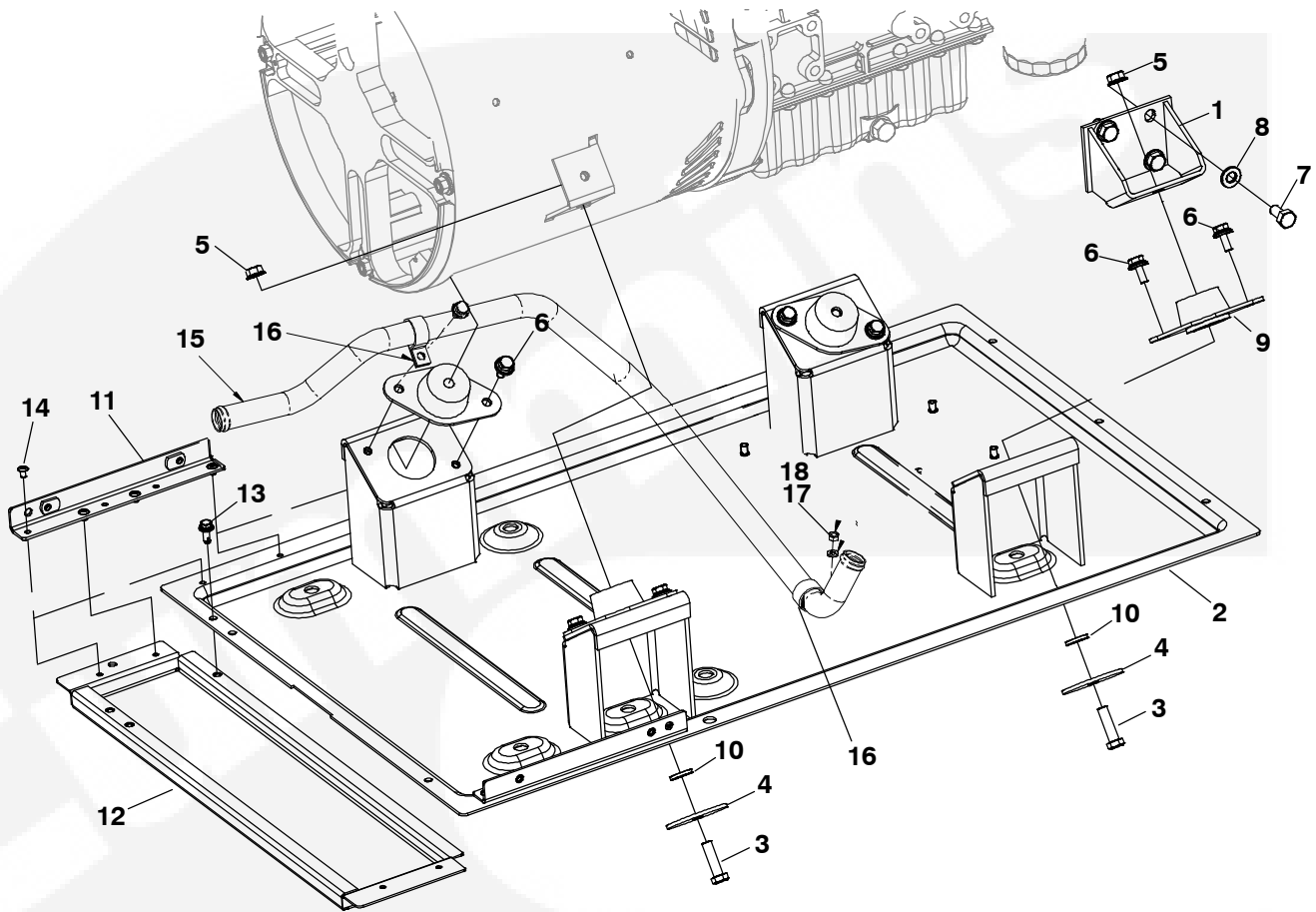
* - Not noted if covers all three models.

Isolation Ground



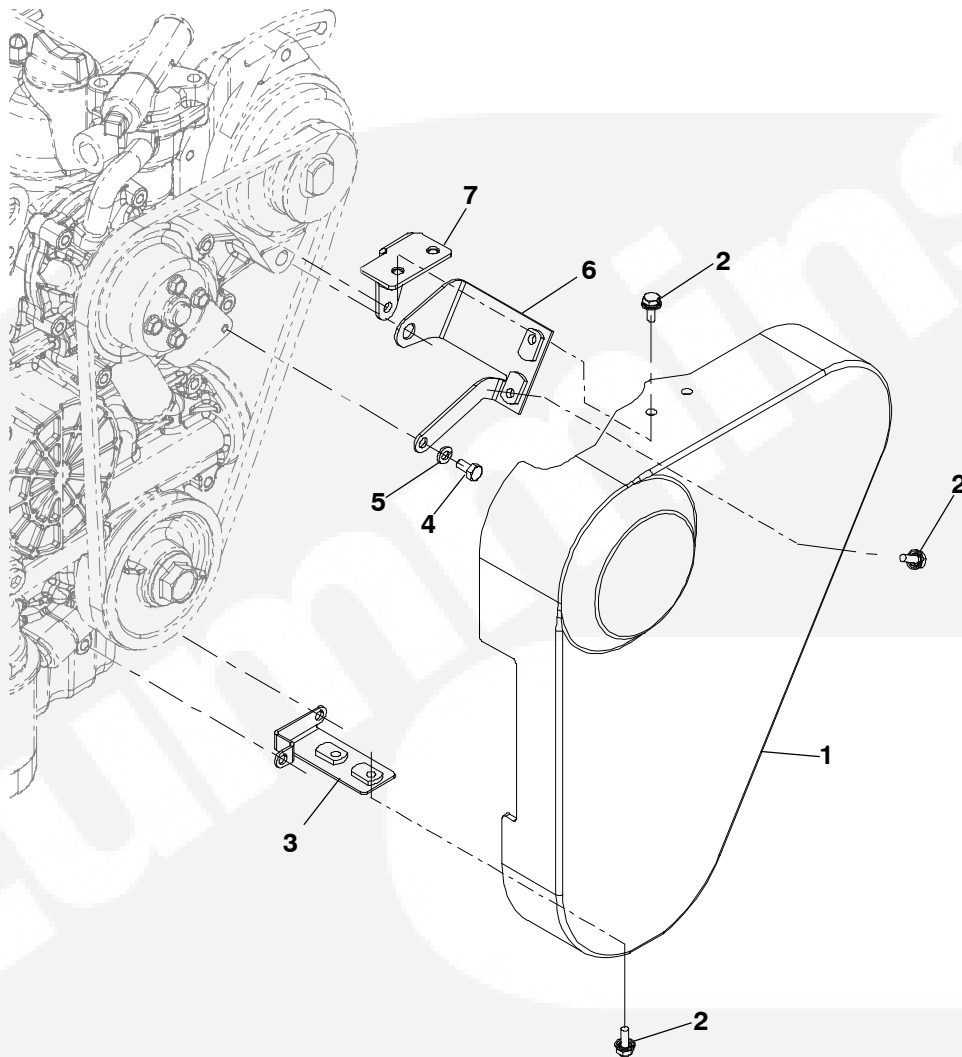
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0822	1	Kit, Isolated Ground 12V (Includes Parts Marked+ and Instructions) (12V Isolated Gnd Only Parts Included Marked *)	10	862-0026-30	4	*Nut, Hex (5/16-24)
1	333-0732-02	1	*Bracket, Solenoid	11	338-4200-02	1	*Harness, Ground
2	-	1	+Sender, Water Temp (See Water Flange Page)	12			Washer, ET Lock (5/16")
3	-	1	+Sender, Oil Pressure (See Oil System Page)		853-2010	1	12 and 24 Volt Ground
4	307-1617	1	*Relay, Solenoid (12V)		853-2010	2	12Volt Isolated Ground
5	526-0399-58	2	*Washer, Flat (M6)	13	337-3466-01	1	Strap, Bond
6	850-0114-53	2	*Washer, Split Lock (M6)	14			Washer, ET Lock (5/16")
7	862-0026-54	2	*Nut, Hex (M6)		526-2120	2	12 and 24 Volt Ground
8	870-0131-01	4	*Nut, ET Hex (#10-32) (12V)		526-2120	1	12Volt Isolated Ground
9	853-0016	2	*Washer, ET Lock (5/16")	15	800-0026	1	Screw, Hex Head Cap (5/16-18 x 3/4")
				16			Screw, Hex Head Cap (M10 x 1.25 x 20mm)
					800-3030	1	12 and 24 Volt Ground
					800-3030	3	+ 12 Volt Isolated Ground
				17	338-4159	1	+Harness, Isolated Ground

Mounting Base



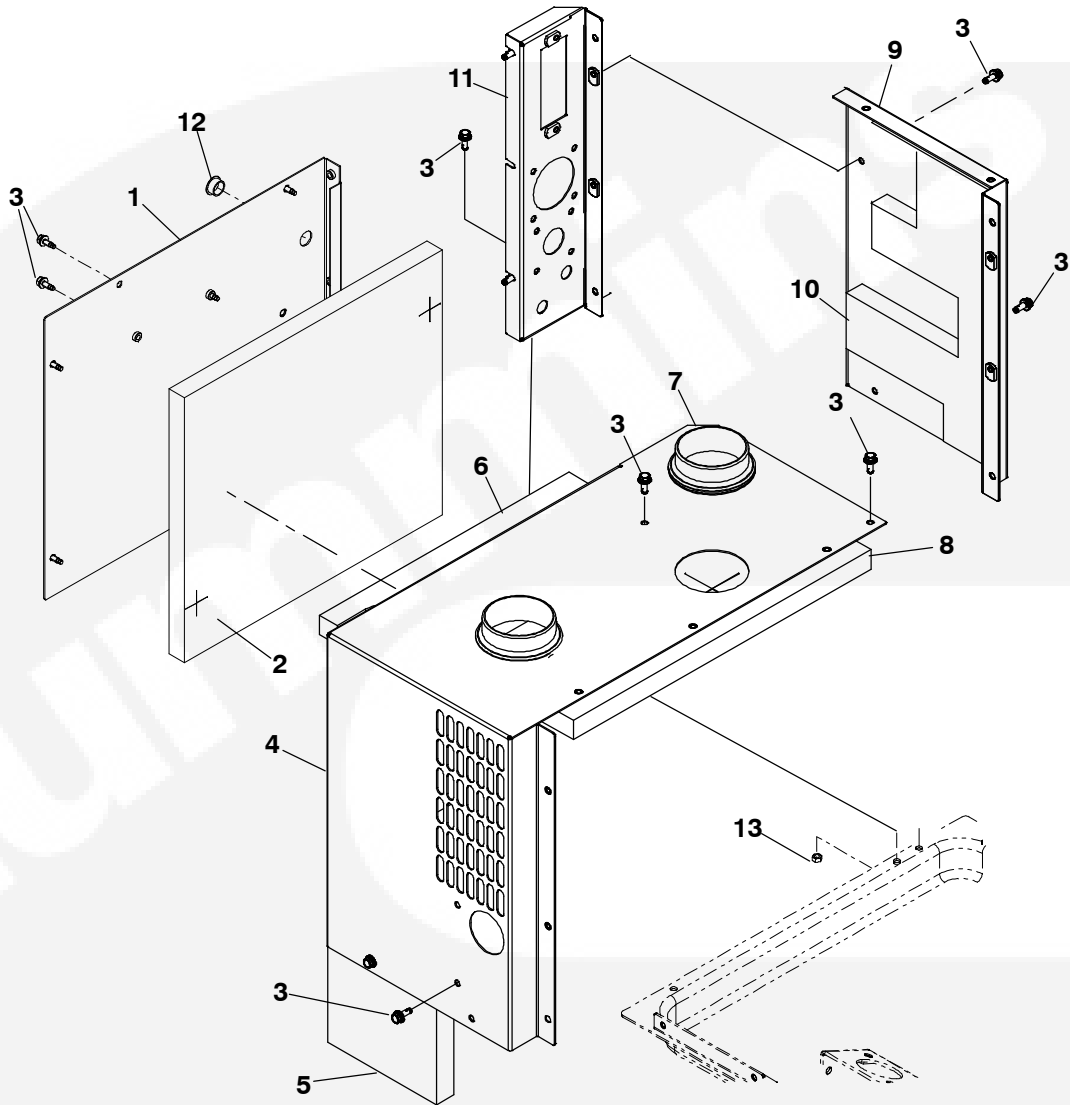
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-6785-02	2	Mount, Engine				Dot, 215lbs)
2			Base, Mounting	10	526-0030	4	Washer, Flat
	403-6402-03	1	MDKDL	11	404-0044-02	2	Housing, Bracket
	403-6402-04	1	MDKDM and MDKDN	12	405-6518-02	1	Extension, Mounting Base (MDKDM, MDKDN)
3	800-0573	4	Screw, Hex Head Cap (3/8-16 x 2.25")	13	800-6395-01	2	Screw, Hex Head Sems Stainless (M6 1.0 x 16mm) (MDKDM, MDKDN)
4	526-2340	4	Washer, Flat	14			Rivet, Pop
5	870-0550-09	4	Nut, Hex (3/8-16)		818-0231-01	6	MDKDL
6	821-6003-02	8	Screw, Hex Head Sems (M8 x 1.25 x 16mm)		818-0231-01	8	MDKDM, MDKDN
7	800-3030	8	Screw, Hex Head Cap (M10 x 1.25 x 20mm)	15	130-5448-02	1	Tube, Coolant
8	526-0399-62	8	Washer, Flat (M10)	16	518-0546-42	2	Clamp, Hose
9			Isolator, Vibration	17	860-0114-63	1	Washer (m6)
	402-0728	4	MDKDL (Blue Dot, 150lbs)	18	862-0026-54	1	Bolt (M6)
	402-0728-02	4	MDKDM, MDKDN (Purple)				

Belt Guard



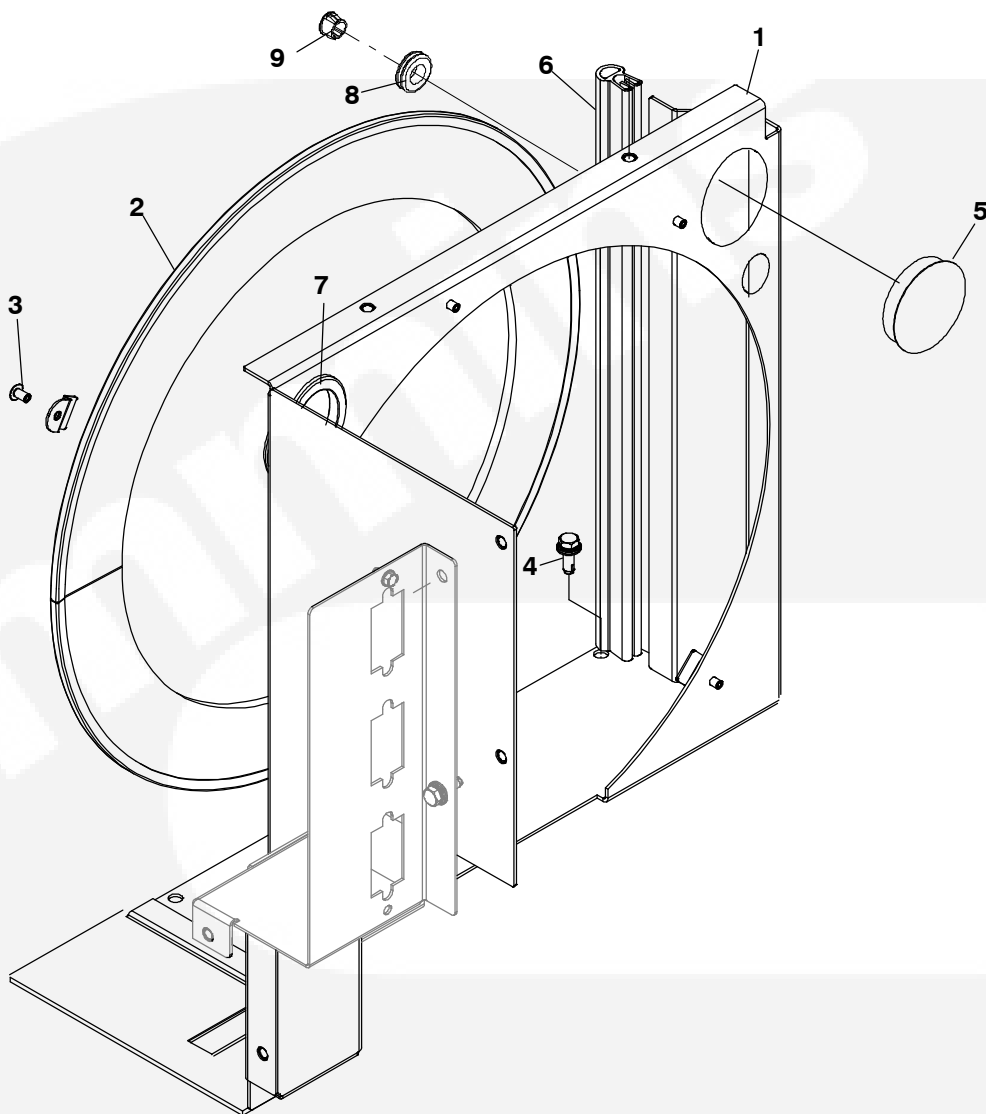
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0590	1	Kit, Belt Guard	5	850-0114-53	1	Washer, Lock (M6)
1	130-4870	1	Guard, Belt	6	130-4945-03	1	Bracket, Belt Guard Side
2	821-6002-02	6	Screw, Hex Head Sems (M6 x 1 x.12mm)	7	130-4847-03	1	Bracket, Belt Guard Top
3	130-4869-03	1	Bracket, Belt Guard Bottom	* - Unhoused Set Only.			
4	800-3017-02	1	Screw, Hex Head Cap (M6 x 1 x 12mm)				

Generator Sound Shield Housing



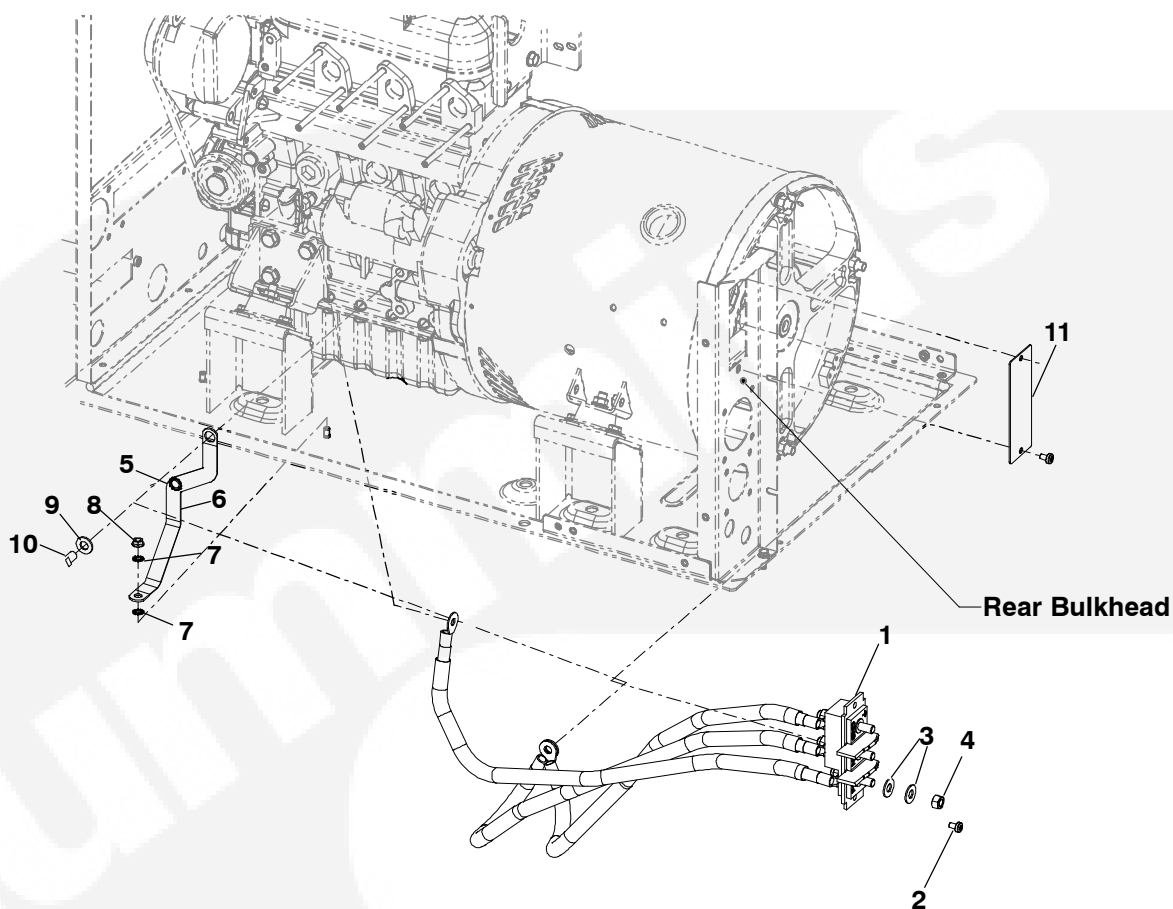
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0021-03	1	Cover, Enclosure (Rear)	7	508-1152	2	Grommet, Rubber
2	404-0045	1	Insulation, Housing	8	405-9129	1	Insulation, Housing
3	800-6395-01	16	Screw, Hex Head Sems Stainless Steel (M6 x 1.0 x 16mm)	9	404-0024-03	1	Panel, Housing
4	404-0018-03	1	Panel, Housing	10	405-9631	1	Insulation, Panel
5	405-6684	1	Insulation, Housing	11	404-0019-03	1	Panel, Enclosure
6	405-9079	1	Insulation, Housing	12	517-0136	1	Plug, Hole
				13	860-2057	2	Nut, Hex (M6 x 1mm)

Generator Baffle



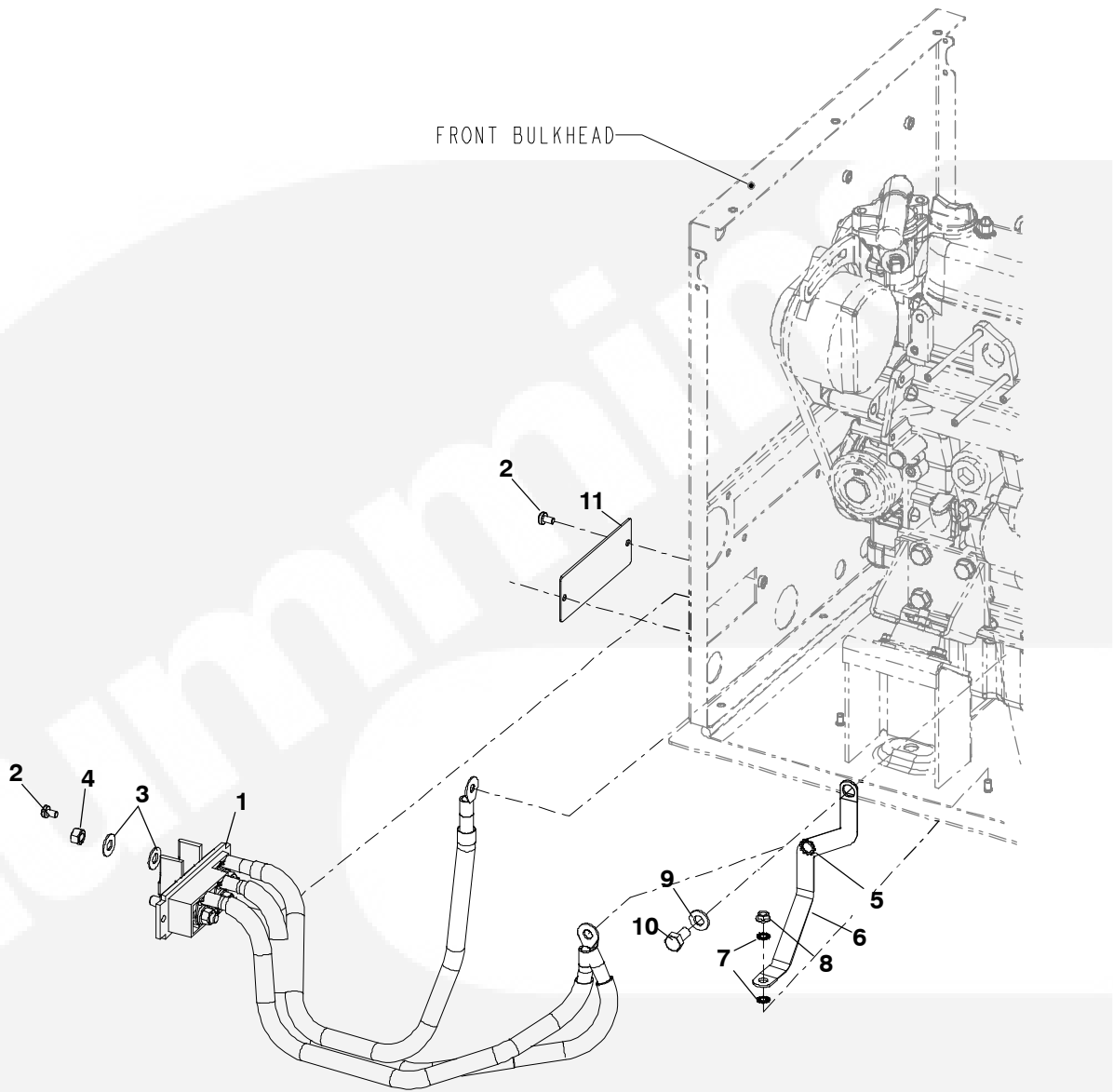
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0020-03	1	Panel, Air Baffle	6	895-0402	1	Seal, Weather (1.23')
2	509-0368	1	Seal, Bush	7	508-1126	1	Grommet, Rubber
3	818-0231-02	6	Rivet, Pop	8	508-0021	1	Grommet
4	800-6395-01	5	Screw, Hex Head Sems (M6 x 1.0 x 16mm)	9	517-0133	1	Plug, Hole
5	517-0138-08	1	Plug, Hose				

Rear Bulkhead Battery Connection



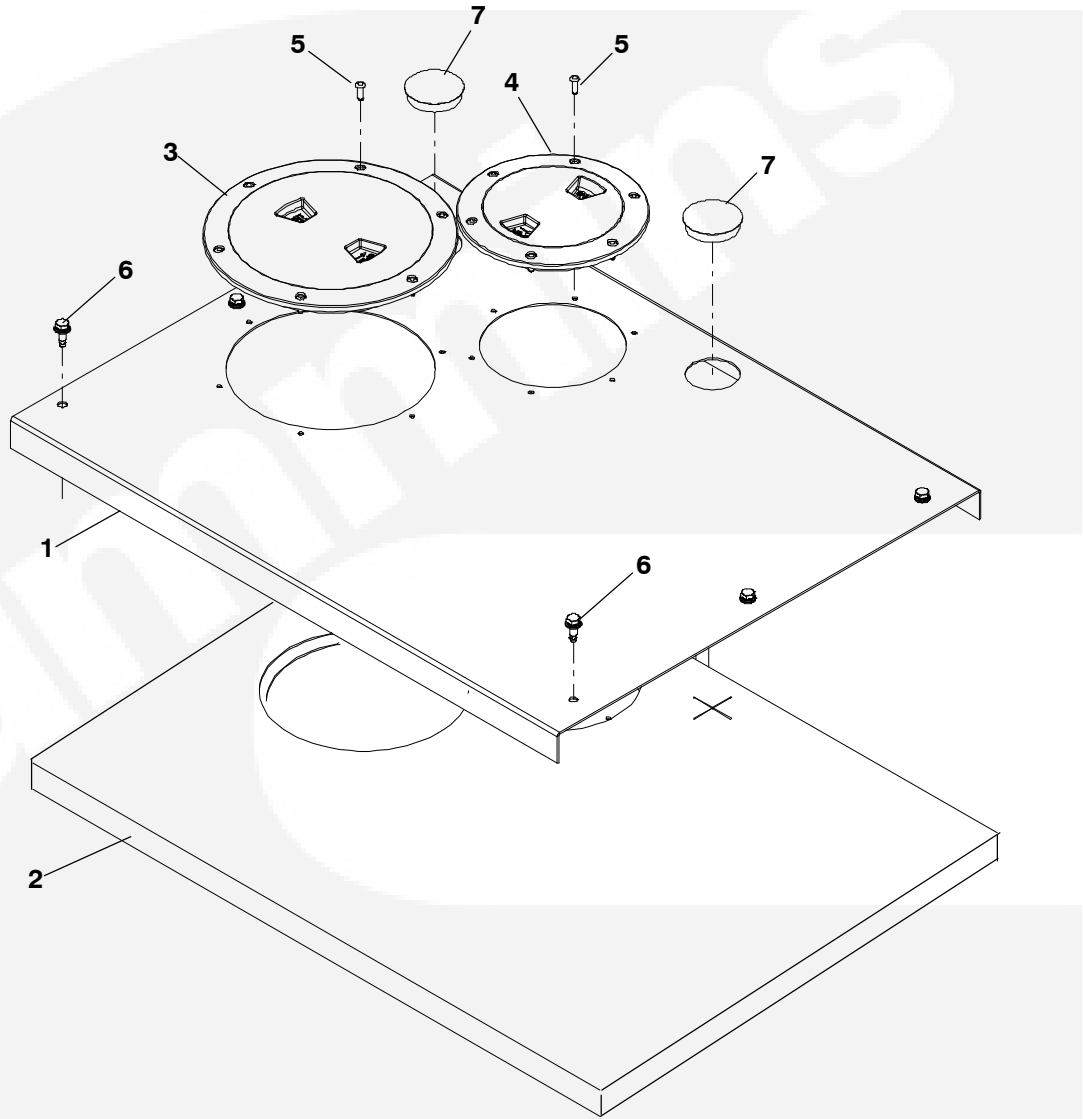
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4622	1	Harness, Battery	5	853-2010	1	Washer, Lock EIT (M10)
2			Screw, Pan Head Torx (M6 x 1 x 10mm)	6	337-2785	1	Strap, Bond
	823-1002-03	4	Housed	7	853-2006	2	Washer Lock (M6)
	823-1002-03	2	Unhoused	8	185-6699-02	1	Nut, Hex Flange
3	526-0029	6	Washer, Flat (1/2")	9	526-2120	1	Washer, Flat (M10)
4	862-0003	3	Nut, Hex Heavy (3/8-16 UNC)	10	800-3030	1	Screw, Hex Head
				11	405-9764-02	1	Cover, Access Housed

Front Bulkhead Battery Connection



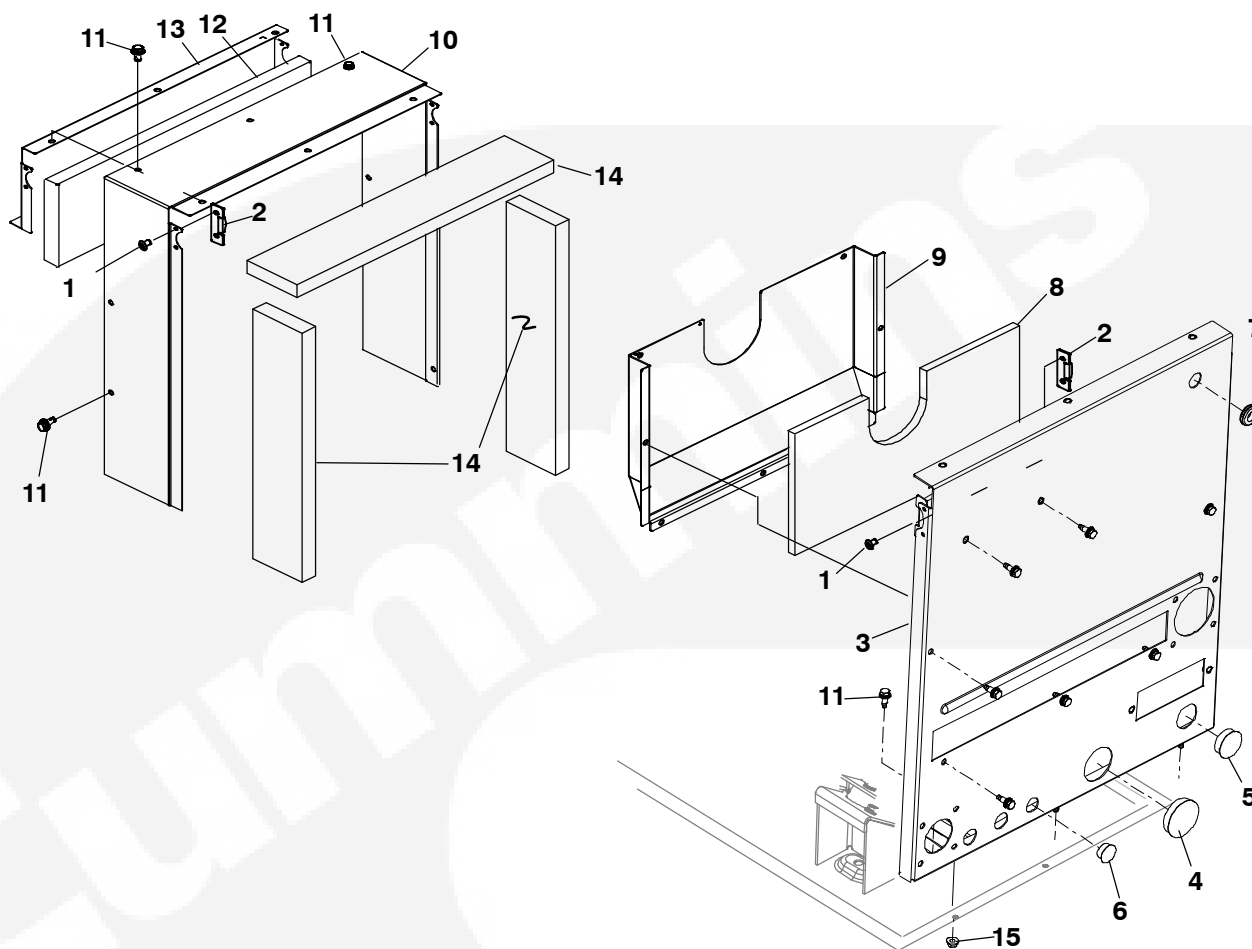
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4622	1	Harness, Battery	7	853-2006	2	Washer Lock (M6)
2			Screw, Pan Head Torx (M6 x 1 x 10mm)	8	185-6699-02	1	Nut, Hex Flange
	823-1002-03	4	Housed	9	526-2120	1	Washer, Flat (M10)
	823-1002-03	2	Unhoused	10	800-3030	1	Screw, Hex Head
3	526-0029	6	Washer, Flat (1/2")	11	405-9764-02	1	Cover, Access Housed
4	862-0003	3	Nut, Hex Heavy (3/8-16 UNC)				
5	853-2010	1	Washer, Lock EIT (M10)				
6	337-2785	1	Strap, Bond				

Engine Sound Shield



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0016-03	1	Panel, Roof	6	A030B088	6	Screw, Hex Head Sems
2	405-6688	1	Insulation, Roof	7	517-0392-19	2	Plug, Hole
3	405-6340	1	Cover, Access				
4	405-6709	1	Cover, Access				
5	A030F177	12	Rivet, Pop				

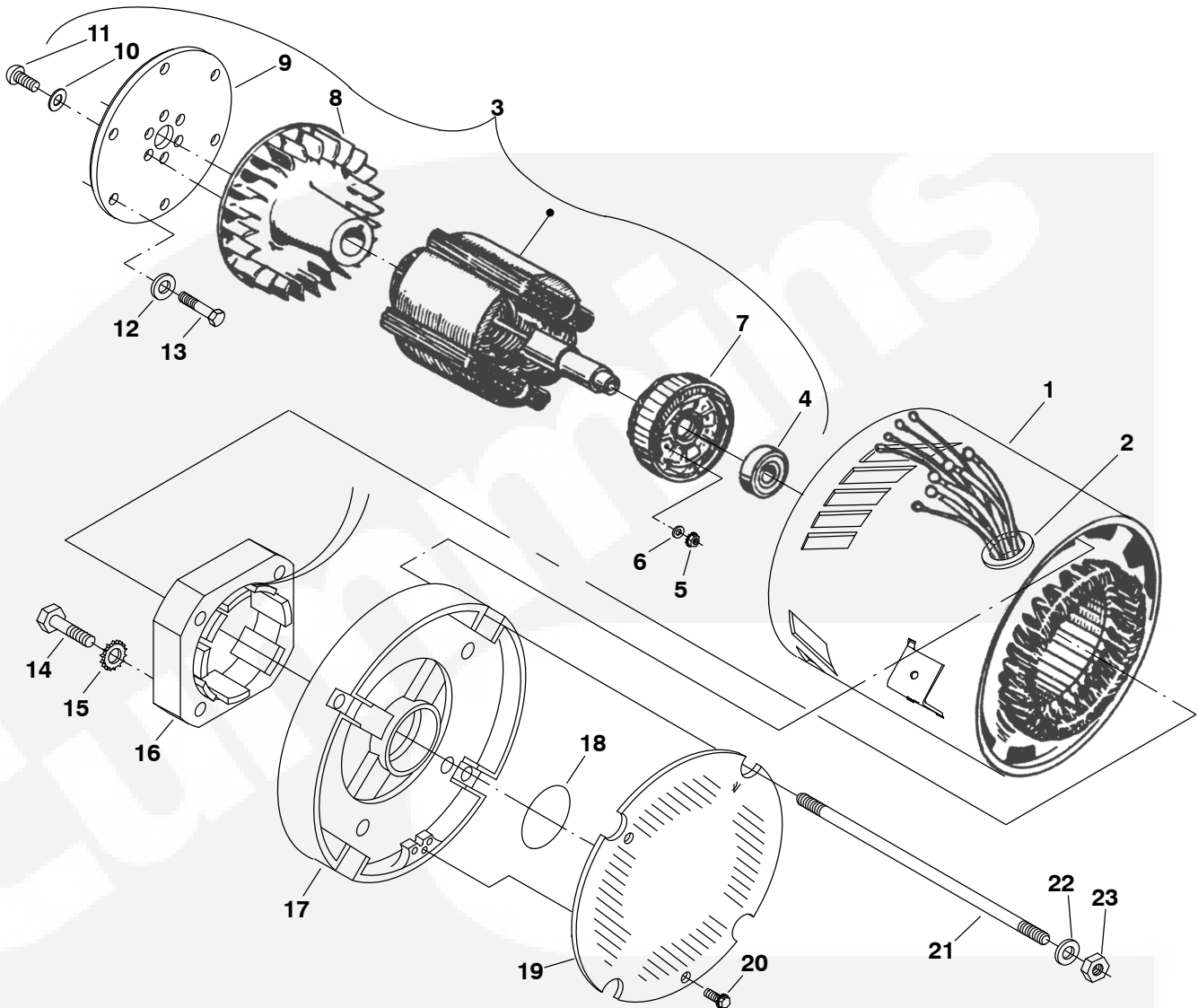
Engine Panel Sound Shield



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	A030F179	8	Rivet, Pop
2	406-1032	4	Catch, Door
3	404-0012-03	1	Panel, Front
4	517-0138-07	1	Plug, Hole
5	517-0138-04	1	Plug, Hole
6	517-0136	1	Plug, Hole
7	508-0021	1	Grommet, Rubber
8	405-9616	1	Insulation, Duct
9	404-0017-03	1	Panel, Duct
10	404-0015-03	1	Panel, Roof Extension (MDKDM and MDKDN)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
11			Screw, Hex Sems Stainless (M6 x 1 x 16mm)
	A030B088	19	MDKDL
	A030B088	26	MDKDM, MDKDN
12	405-4445-03	1	Panel, Roof End Insulation
13	404-0014-03	1	Panel, Roof End
14	405-6811	3	Insulation, Panel Roof Extension (MDKDM, MDKDN)
15	185-6699-02	3	Nut, Hex (M6)

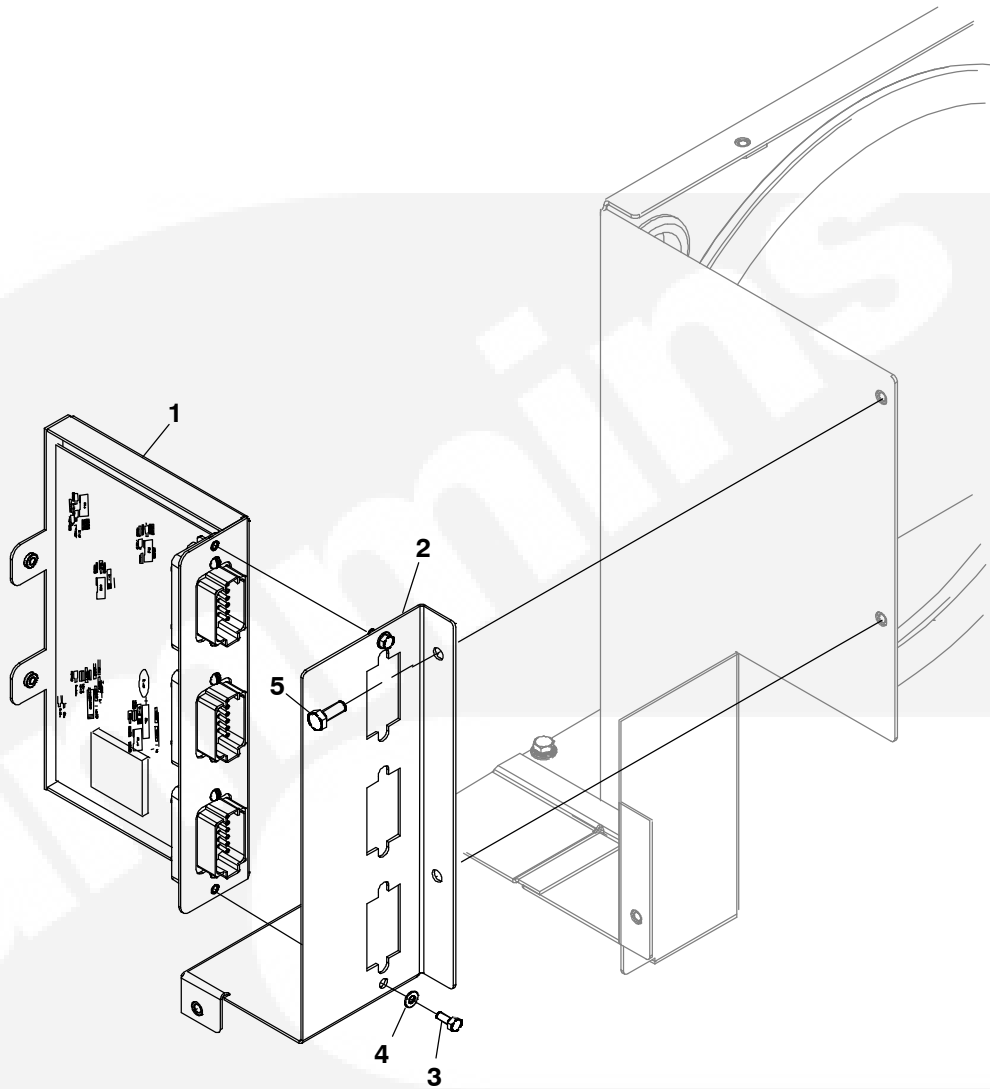
Generator



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Stator, Generator (Includes Grommet)	12	526-0399-41	6	Washer, Flat (.312)
	220-4600-01	1	MDKDL	13	800-2054	6	Screw, Hex Head Cap (M8 x 1.25 x 14mm)
	220-4600-03	1	MDKDM, MDKDN	14	815-0843	4	Screw, Hex Head Thread Form (1/4")
2	508-0183	1	Grommet	15	853-0013	4	Washer, Lock ET (1/4")
3			Rotor Assy, Generator (Includes Parts Marked *)	16	220-4413-02	1	Stator, Exciter
	201-3565-01	1	MDKDL	17	211-0465-02	1	Endbell
	201-3565-03	1	MDKDM, MDKDN	18	509-0094	1	Seal, O'Ring
4	510-0112	1	*Bearing, Ball	19	234-1068-03	1	Cover, Endbell
5	870-0131-01	2	*Nut, ET Hex (#10-32)	20	815-0181	3	Screw, ET Hex Head Thread Cutting (#10-32 x 1/2")
6	526-0399-11	2	*Washer, Flat (#10)	21			Stud
7	201-3515-02	1	*Rotor, Exciter		520-1002-06	4	MDKDL
	358-0069	1	Diode		520-1004-02	4	MDKDM, MDKDN
	358-0070	1	Rectifier	22	526-0399-42	4	Washer, Flat (.375")
8	205-0255	1	*Fan, Generator	23	862-0026-07	4	Nut, Hex (3/8-16")
9	232-2826	1	*Disk, Rotor Drive				
10	526-0399-42	6	*Washer, Flat (3/8")				
11	815-0917-04	6	*Screw, Button Head Torx (3/8-16 x 1")				

* - Parts Included in Rotor Assy.

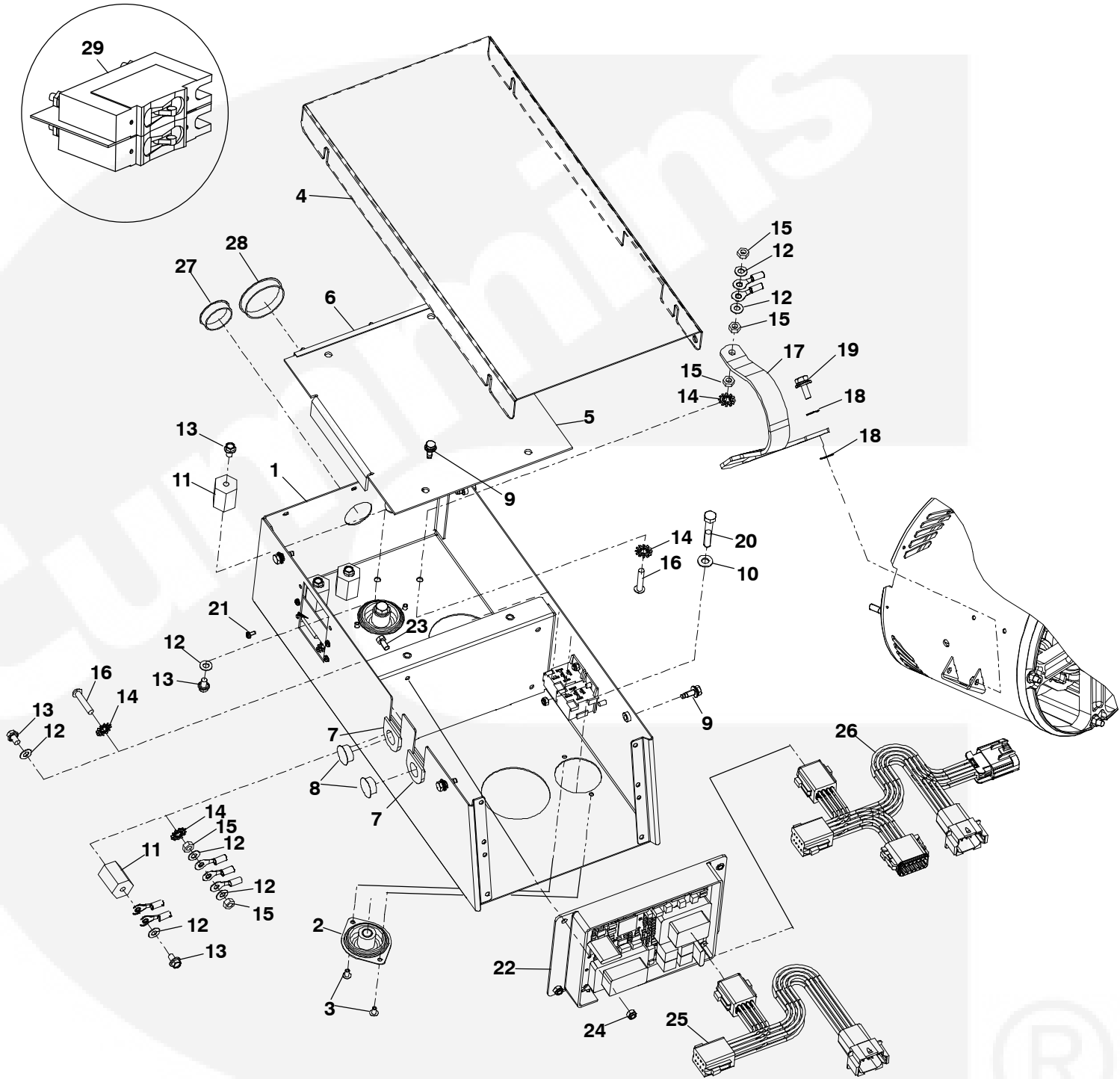
PCB Mounting



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	300-6396	1	PCB, Control	5	800-6033	3	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
2	404-0022-03	1	Panel, UMC Mounting				
3	800-3042	2	Screw, Hex (M4 x 10)				
4	526-2050	2	Washer, Flat (M4)				



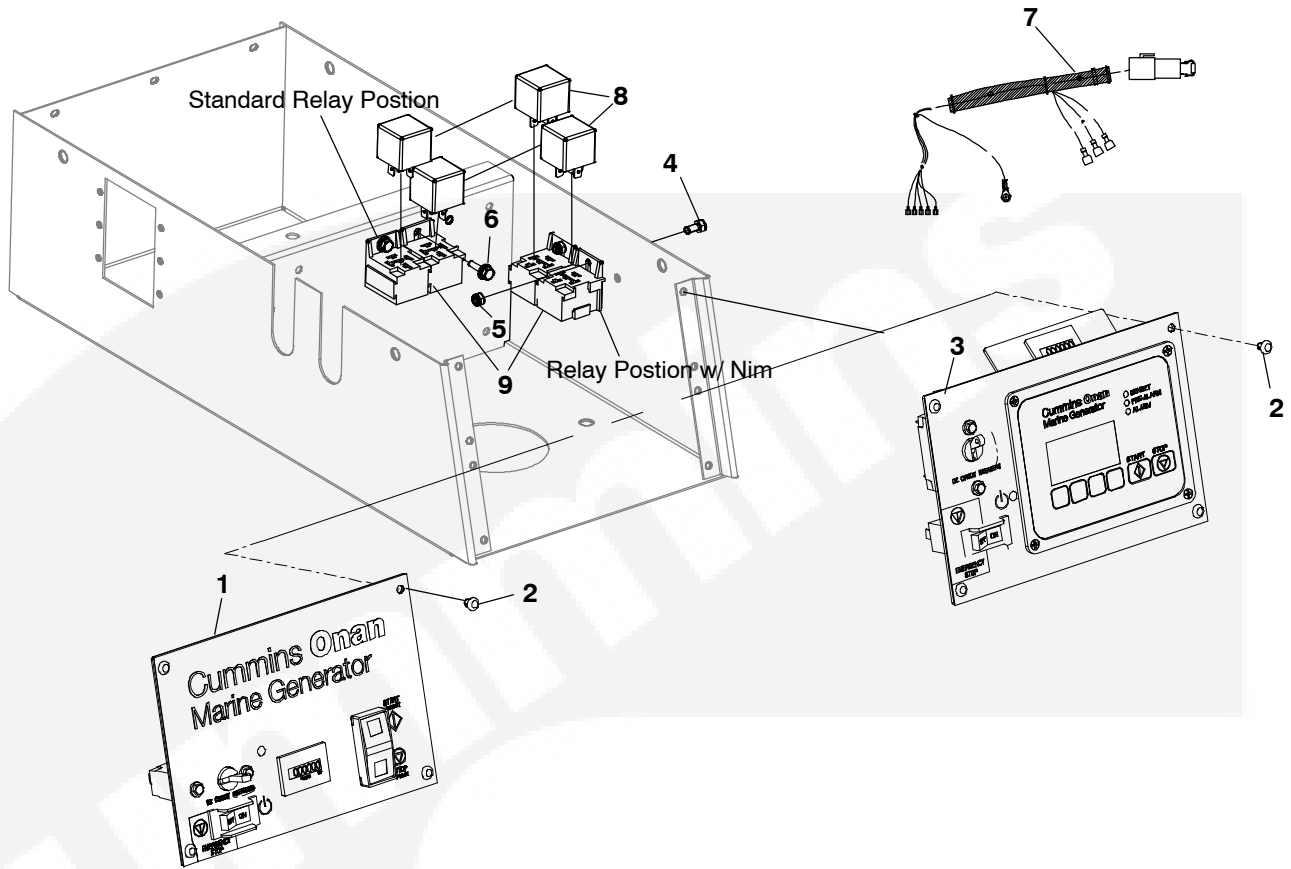
Control Box



Control Box

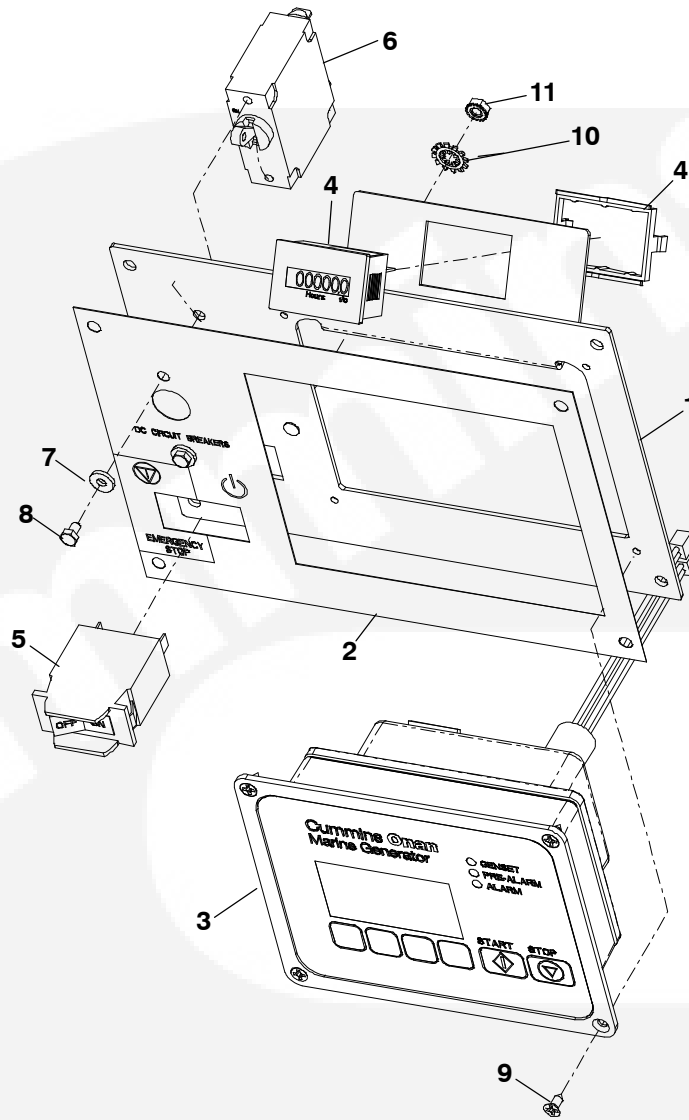
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	319-6227-03	1	Control, Box	20	800-6062	3	Screw, Hex Head Cap (M8 x 1.25 x 45mm)
2	402-0681-01	3	Isolator, Vibration				
3	818-0231-01	6	Rivet, Pop	21			Screw, XREC Phillips (#6-23 x .312")
4	319-6228-03	1	Cover, Box Control				
5	319-4404	1	Cover		815-0550-03	4	Neg GND 1 Phase 12 & 24V
6	332-3750	1	Guide, Card				ISO GND 1 Phase 12 & 24V
7	508-1105	2	Grommet, Remote		815-0550-03	6	Neg GND 3 Phase 12 & 24V
8	517-0136	2	Plug, Hole				ISO GND 3 Phase 12 & 24V
9	800-6395-01	6	Screw, Hex Head Sems (M6 1.0 x 16mm)	22			PCB
10	526-2100	3	Washer, Flat (M8)		327-1659-01	1	NIM/J1939
11			Standoff, Insulator		327-1659-02	1	NIM/SmartCraft
	332-2370	2	Neg GND 1 Phase 12 & 24V		327-1686-03	1	NIM/SmartCraft 2
	332-2370	3	Neg GND 3 Phase 12 & 24V	23	800-6002	4	Screw, Hex Head (M5 x 0.8 x 10mm)
			ISO GND 1 Phase 12 & 24V	24	870-2062	2	Nut, Nylon Locking (M5)
	332-2370	4	ISO GND 3 Phase 12 & 24V	25	338-4491	1	Harness, Accessory (J1939 / SmartCraft)
12			Washer, Flat (6.75ID x 14.30D x .8mm)	26	338-4982	1	Harness, Accessory (SmartCraft 2)
	526-0052	6	Neg GND 1 Phase 12 & 24V	27	517-0138-05	1	Plug, Hole
	526-0052	7	Neg GND 3 Phase 12 & 24V	28	517-0138-08	1	Plug, Hole
	526-0052	8	ISO GND 1 Phase 12 & 24V	29			Breaker, Circuit
	526-0052	9	ISO GND 3 Phase 12 & 24V				MDKDL
13			Screw, Locking Head (1/4-20UNC x 14.30D x .8)		320-1689-04	1	30Amps
	821-0009	4	Neg GND 1 Phase 12 & 24V		320-1689-05	1	35Amps
			ISO GND 1 Phase 12 & 24V		320-1689-12	1	55Amps
	821-0009	6	Neg GND 3 Phase 12 & 24V				MDKDM
			ISO GND 1 Phase 12 & 24V		320-1689-06	1	40Amps
	821-0009	8	ISO GND 3 Phase 12 & 24V		320-1689-07	1	45Amps
			Washer, ETIT Locking (1/4")				MDKDN
14	856-0006	4	Washer, ETIT Locking (1/4")		320-1689-08	1	50Amps
15	871-0016	5	Nut, Hex (1/4-20")		320-1689-09	1	55Amps
16	810-0155	2	Screw, Round Head (1/4-20UNC x 1.25")		320-1689-12	1	70Amps
17	337-2795	1	Strap, Bond				
18	853-0016	2	Washer, ET Locking (5/16")				
19	821-6003-01	1	Screw, Hex Head Sems (M8 x 1.25 x 16mm)				

Control Panel Components



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Assy, Engine Panel See Control Panel for Parts)	6	821-6001-03	2	Screw, Hex Head Sems (M5 x .8 x 16mm) (Non NIM)
	300-6362-01	1	12V	7			Harness, Control
	300-6362-02	1	24V		338-4213	1	N/A
2	818-1150-03	4	Rivet, Drive Plastic (Std)		338-4414	1	Non Nim
3	300-6363-02	1	Assy, Control		338-4414	1	Nim
4	800-6002	2	Screw, Hex Head Cap (M5 x .8 x 10mm) (NIM)	8			Relays
5	870-2062	2	Nut, Nylon Lock (M5) (NIM)		307-2767	2	12V
					307-2819	2	24V
				9	323-1563	2	Contact, Relay

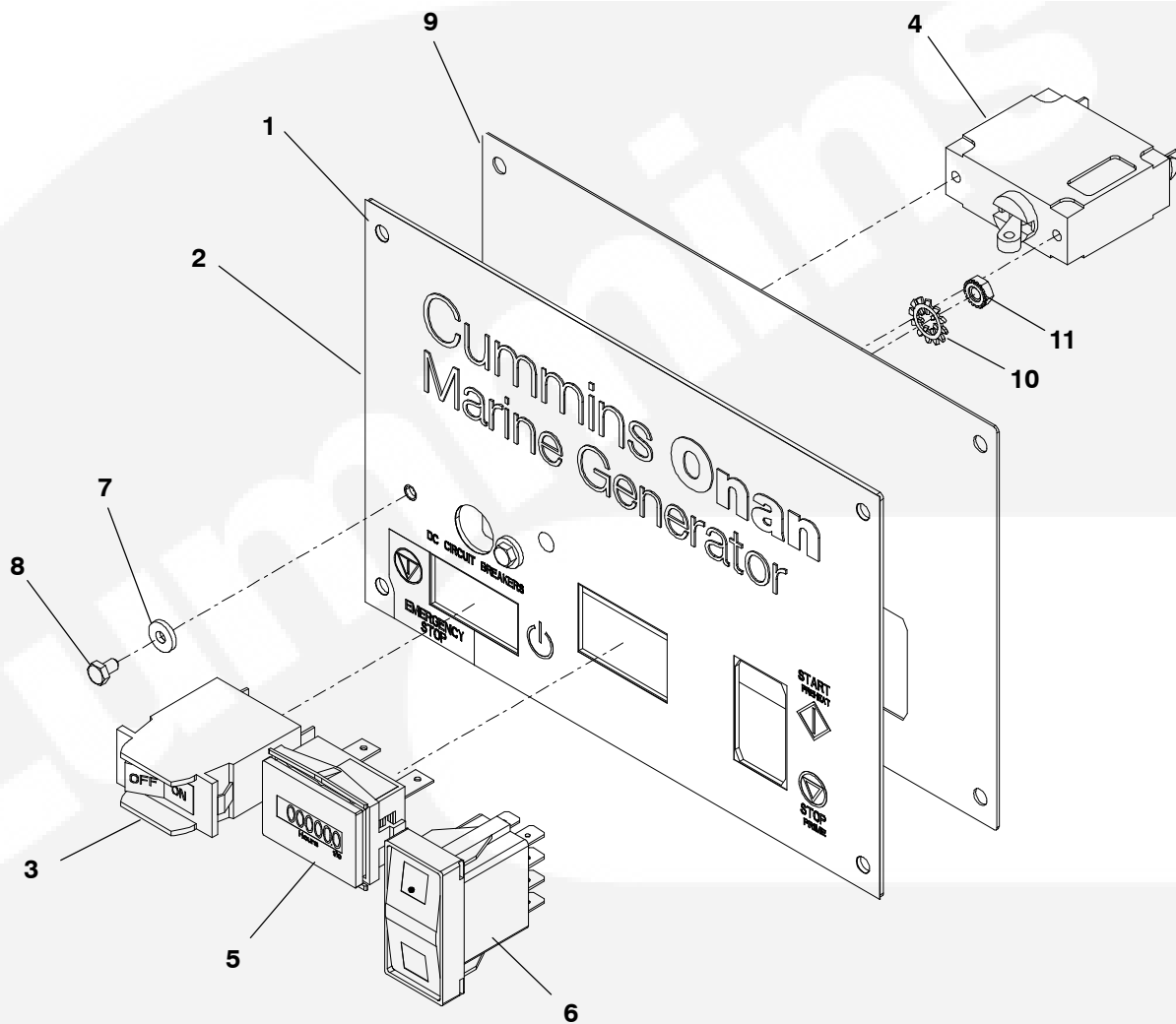
Control Panel Components (eSDD Display)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	300-5944-03	1	Kit, Control (Kit Includes Parts Marked *)				(M3.5 x 9.5mm)
1	319-5544-02	1	*Panel, Display	10	856-0003	1	*Washer, ETIT Lock (#10")
2	98-8323	1	*Label, Information	11	870-0131	1	*Nut, Sems ET (#10-32")
3	300-6393	1	*Controls				
4	302-2048	1	Hourmeter				
5	320-2361	1	Breaker, Circuit				
6	320-2362	1	Breaker, Circuit				
7	526-0399-05	2	*Washer, Flat (#6)				
8	800-0309-10	2	*Screw, Hex Head Mach (#6-32UNC-2A x .250")				
9	814-2155-01	4	*Screw, Flange Head XREC				

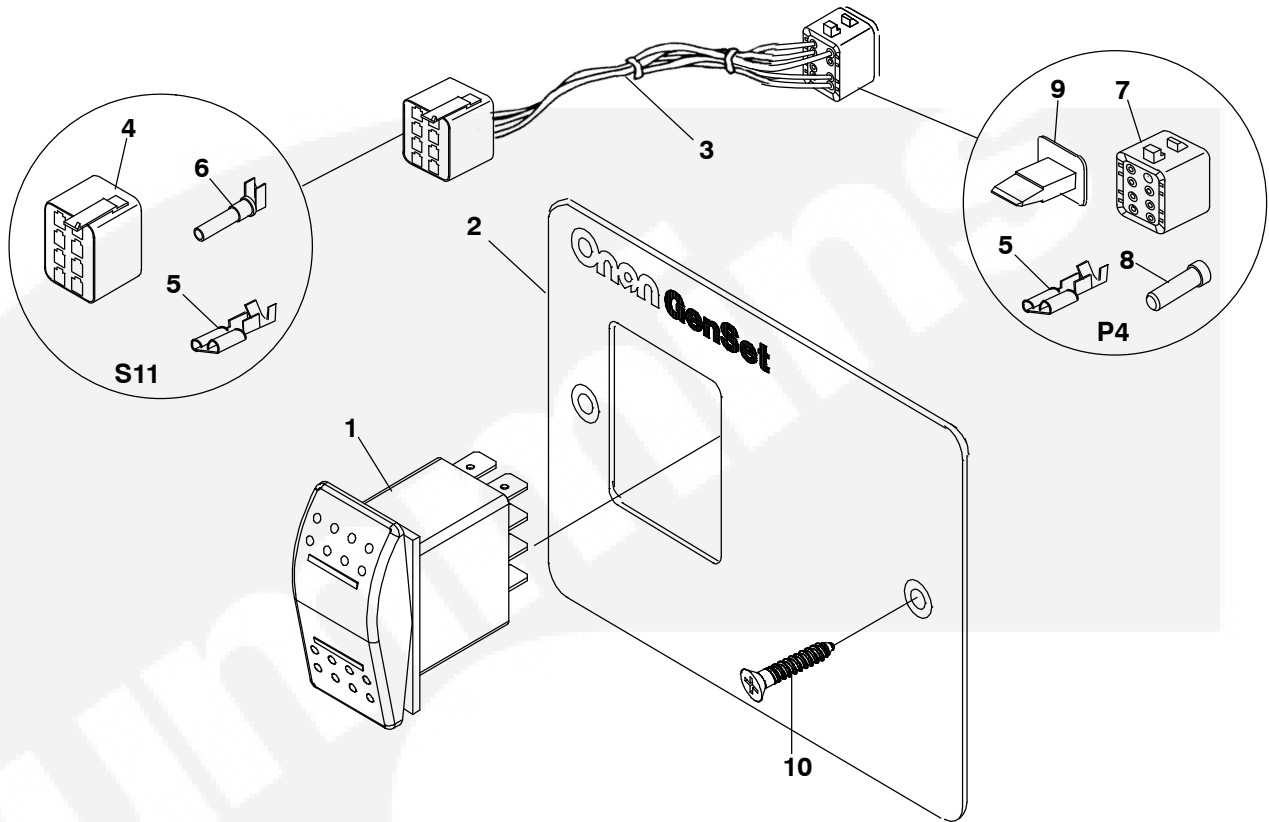
* - All Parts Included in Control Kit and Instruction Sheet.

Control Panel Components (Breaker Switch Option)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Assy, Engine Panel (All Parts Included)	6			Switch, Rocker
	300-6362-01	1	12V	308-1218	1		12VDC
	300-6362-02	1	24V	308-1219	1		24VDC
1	319-6871-02	1	Panel, Control	7	526-0399-05	2	Washer, Flat DAC
2	98-8713	1	Label, Information (Control)	8	800-0309-10	2	Screw, Hex Head Mach (6-32 x 1/4")
3	320-2361	1	Breaker Circuit	9	319-6873	1	Panel, Control Box (Ground)
4	320-2362	1	Breaker Circuit	10	856-0003	1	Washer, EIT Lock (#10)
5	302-2048	1	Meter, Hour	11	870-0131	1	Nut, Sems EIT (#10-32)

Remote Control Panel

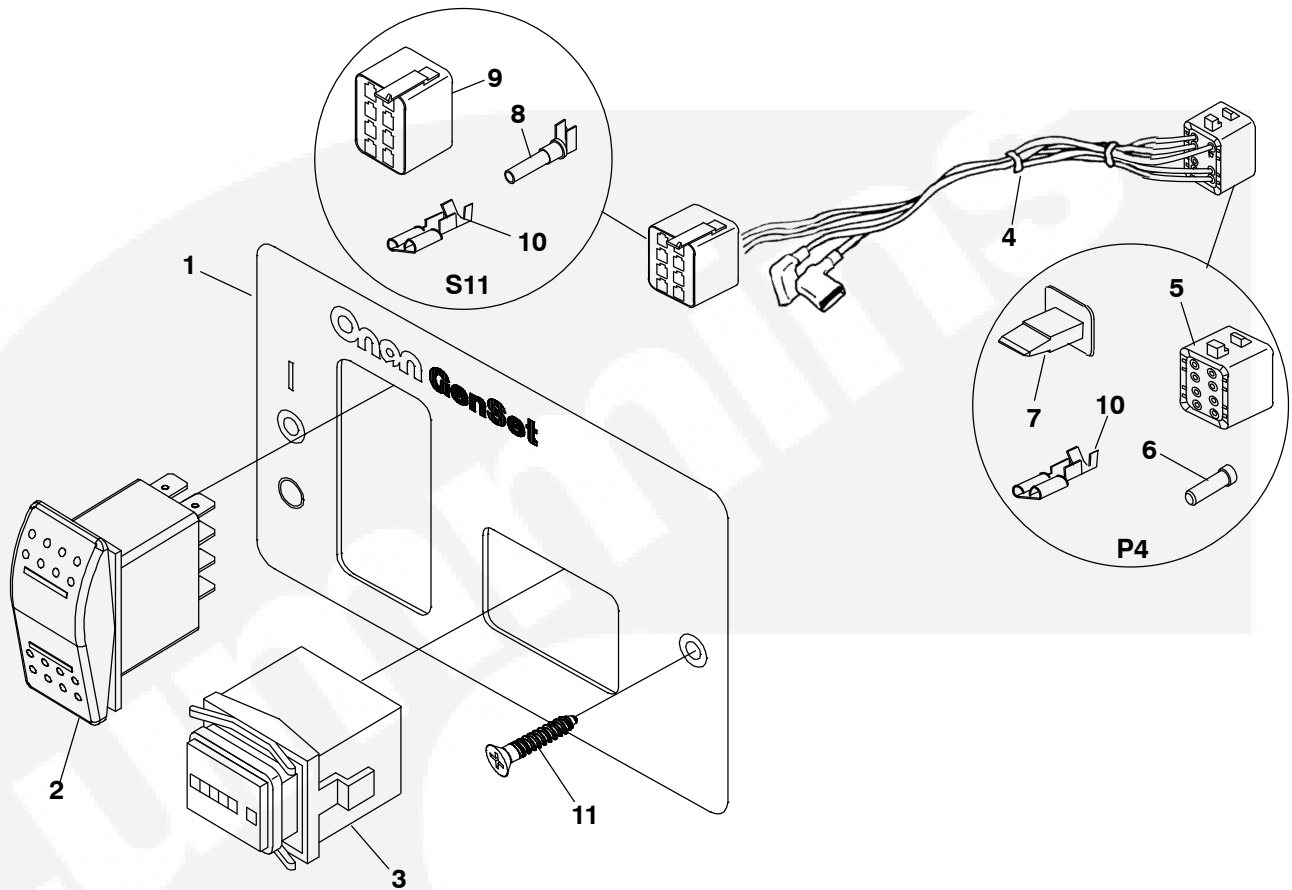


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Remote Switch Harness (Includes Parts Marked +)	6	323-1492	6	*Terminal, Socket
	541-0941-01	1	12V	7	323-1541	1	*Plug, (8 Pin)
	541-0941-02	1	24V	8	323-1491	3	*Plug, Seal
			Kit, Panel Remote (Includes Parts Marked #)	9	323-1543	1	*Wedge, Plug (8 Pin)
	300-5725-01	1	12V	10	815-0910	2	#Screw, Wood (#6 x 1)
	300-5725-02	1	24V	11	98-8092	1	+Label, Instructions
1			#+Switch, Rocker (S11)	12	98-8081	1	#+Label, Warning
	308-1101	1	12V				
	308-1102	1	24V				
2	319-6990	1	#Panel, Remote (Includes Printing)				
3	338-3988	1	#+Harness, Remote Panel (Includes Parts Marked *)				
4	308-1019	1	*Connector, Switch (S11)				
5	332-2890	6	*Terminal, Receptacle (.25")				

- Parts Included in Remote Panel.

+ - Parts Included in Remote Switch Harness. Instructions included in Kits only

Remote Control Panel w / Hour Meter



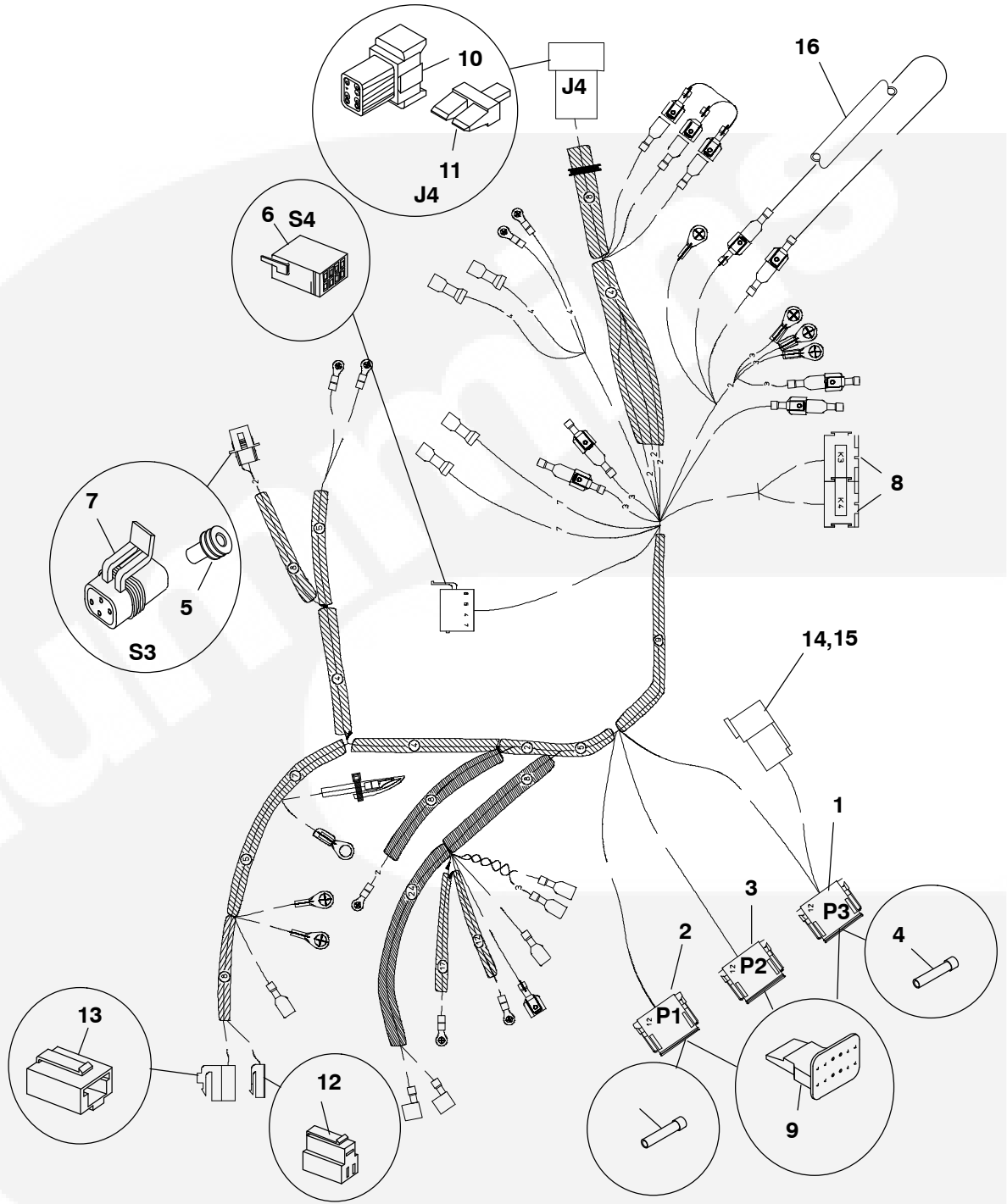
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Remote Panel	6	323-1591	2	*Plug, Seal
	300-5727-01	1	12V	7	323-1543	1	*Wedge, Plug (8 Pin)
	300-5727-02	1	24V	8	323-1492	6	*Pin, Contact
1	319-6992	1	Panel, Remote Printed	9	308-1019	1	*Connector, Switch (S11)
2			Switch, Rocker (S11)	10	332-2890	6	*Terminal, Receptacle (.25")
	308-1101	1	12V	11	815-0910	2	Screw, Wood (#6 x 1)
	308-1102	1	24V	12	98-8081	1	Label, Panel (Remote)
3	302-2002	1	Meter, Hour (M11)				
4	338-3990	1	Harness, Remote Panel (Includes Parts Marked *)				
5	323-1541	1	*Plug (8 Pin) (P4)				

* - Parts Included in Remote Panel Wiring Harness.

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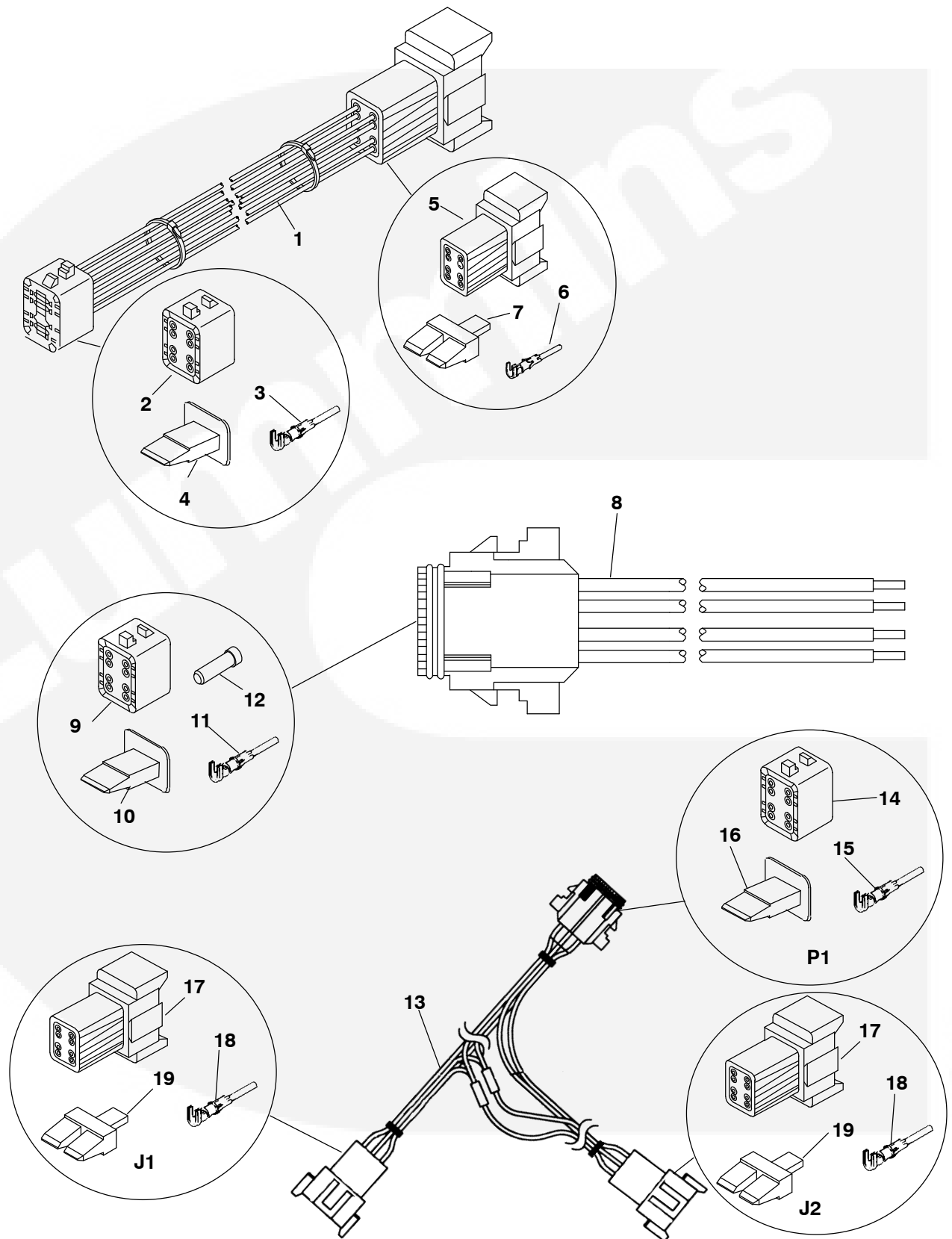
Control Harness



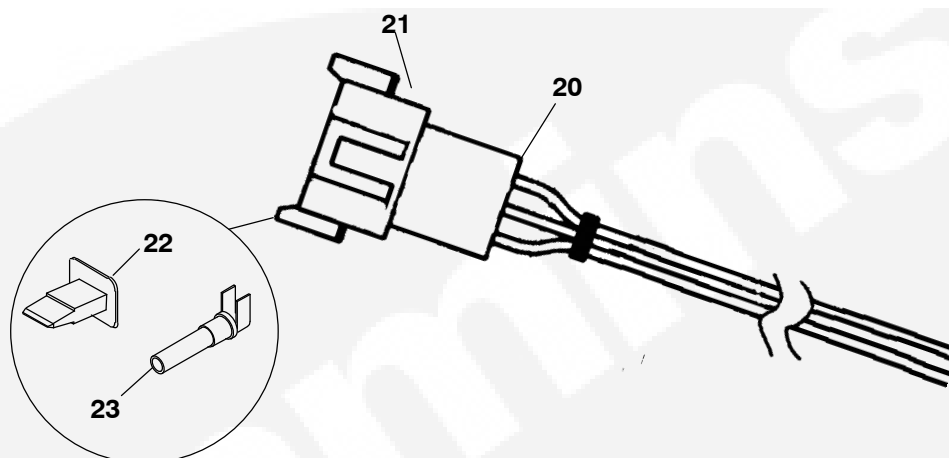
Control Harness

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4953	1	Harness, Control	10	323-1542	1	Connector, Receptacle 8 Pin
1	323-1582-06	1	Plug (12 Pin, Green P3)	11	323-1544	1	Receptacle, Wedge (J4)
2	323-1582-05	1	Plug (12 Pin, Black P1)	12	323-1791	1	Connector, Plus 1 Pos
3	323-1582-07	1	Plug (12 Pin, Gray P2)	13	323-1792	1	Connector, Plus 3 Pos
4	323-1591	AR	Plug (P1, P3)	14	323-1625	1	Connector, Connector Receptacle 6 Pin
5	323-1708	AR	Seal,Cable(S3)				
6	308-1019	1	Switch, Connector (S4)	15	323-1626	1	Wedge, 6 Pin
7	323-1765	1	Connector, Housing 4 Pin (S3)	16	A047S203	1	Sleeve (9MDKDL, 11.5MDKDM, and 13.5MDKDN) (Optional)
8	323-1563	1	Socket, Relay				
9	323-1583	3	Plug, Wedge 12 Pin				

Wiring Harnesses



Wiring Harnesses



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Harness, Remote Extension (Includes Parts Marked #)	14	323-1541	1	±°Plug, Connector (8 Pin)
	338-3167	1	15 feet	15	323-1492	AR	±°Terminal, Socket
	338-3168	1	25 feet	16	323-1543	1	±°Wedge, Plug (8 Pin)
	338-3169	1	45 feet	17	323-1542	2	+Connector, Receptacle (8 Pin)
	338-3169-01	1	75 feet	18	323-1491	AR	@Terminal, Pin
	338-3169-02	1	100 feet	19	323-1544	2	+Wedge, Lock, Receptacle (8 Pin)
	338-3169-03	1	150 feet				
2	323-1541	1	#Plug (8 Pin)	20	338-4017	1	Harness, Pigtail (Includes Parts Marked @)
3	323-1492	8	#Terminal, Socket	21	323-1542	1	@Connector, Receptacle (8 Pin)
4	323-1543	1	#Wedge, Plug (8 Pin)	22	323-1544	2	@Wedge, Lock (8 Pin)
5	323-1542	1	#Receptacle, (8 Pin)	23	323-1491	AR	@Terminal, Pin
6	323-1491	8	#Terminal, Pin				
7	323-1544	1	#Wedge, Receptacle (8 Pin)				
8	338-4223	1	Harness, Remote Panel				# - Parts Included in Remote Extension Harness.
9	323-1541	1	Plug (8 Pin)				* - Parts Included in Custom Pigtail Harness.
10	323-1543	1	Wedge, Plug (8 Pin)				° - Parts Included in Adapter Harness.
11	323-1492	AR	Terminal, Socket				.+- Parts Included in Junction Harness.
12	323-1591	AR	Plug, Seal				.@- Parts Included in Pigtail Harness.
13	338-4016	1	Harness, Junction (Includes Parts Marked +)				

Labels / Kits

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
98-8601		1	Label, Information Sheet (Includes Labels Marked*)	98-8714		2	Label, Logo (Cummins Onan)
		4	*Label, Warning	98-8715		2	Label, (Cummins C)
		1	*Label, Information (No Step)	98-8717		1	Label, Logo (Cummins Onan C)
		1	*Label, Warning (Coolant)	98-8699		1	Label, Information (Rear)
		1	*Label, Information (Coolant)	98-8700		1	Label, Information (Front)
		1	*Label, Information (Oil Fill)				
		1	*Label, Information (Lifting)	100-3478-02		1	Kit, Cruise Includes All of The Following Items:
A052V616		1	Label, Information Sheet (Includes Labels Marked+)	149-2106		2	Filter, Fuel
		1	+Label, Information	185-5835		2	Filter, Oil
		1	+Label, Information (Service)	132-0379		2	Kit Pump, Service
		3	+Label Warning	185-6934		2	Belt
		1	+Label Information (No Step)	130-4434		2	Pencil, Zinc
		1	+Label Danger	417-0233		1	Box, Cruise Kits
		1	+Label, Warning (Coolant)	98-8387		1	Label, Information (Reconnect)
		1	+Label, Information (Ground)				



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