

Cummins **Onan**



Parts Manual

Marine Generator Set

MDKBL (Spec A–G)

MDKBM (Spec A–G)

MDKBN (Spec A–G)

Introduction

This catalog 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	
7MDKBL*	7,000	#	50	2,3	1	#
9MDKBL*	9,000	#	60	2,3	1	#
9.5MDKBM*	9,500	#	50	2,3	1	#
11.5MDKBM*	11,500	#	60	2,3	1	#
11MDKBN*	11,000	#	60	2,3	1	#
13.5MDKBN*	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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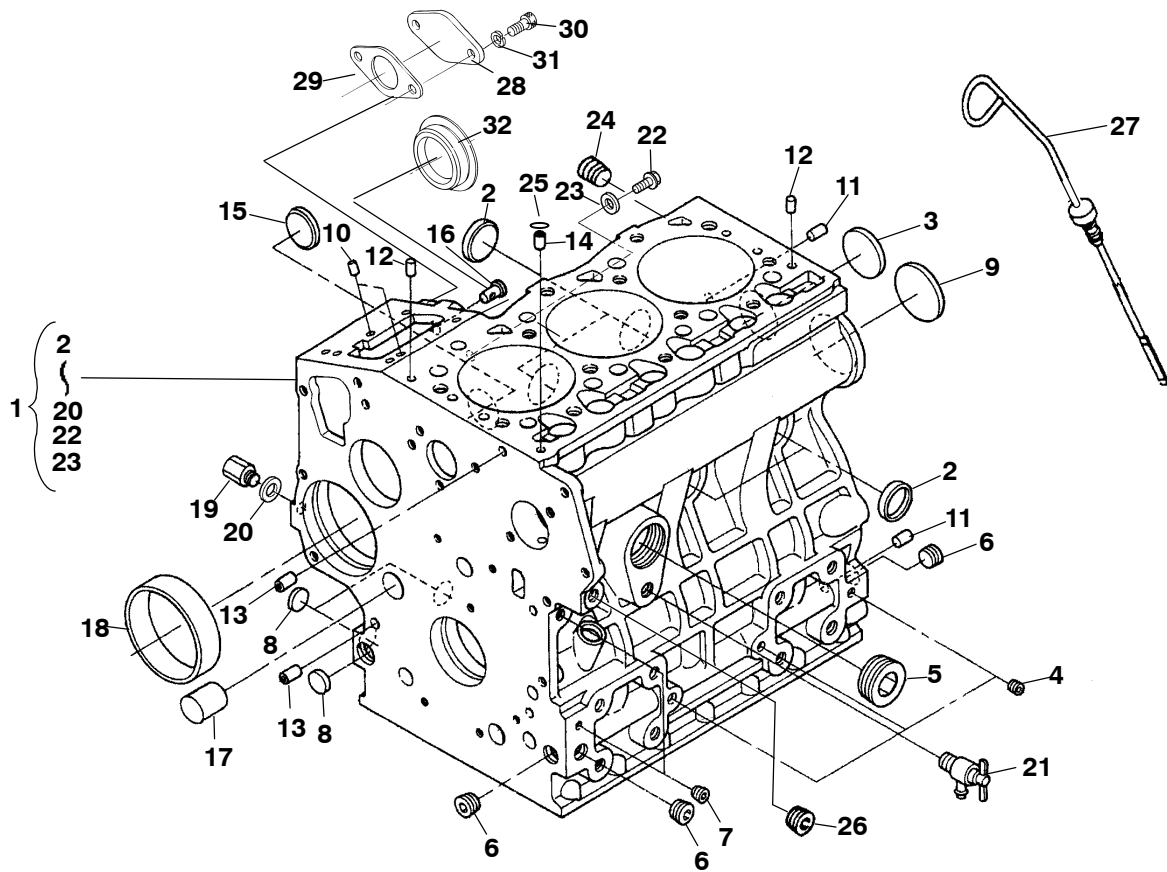
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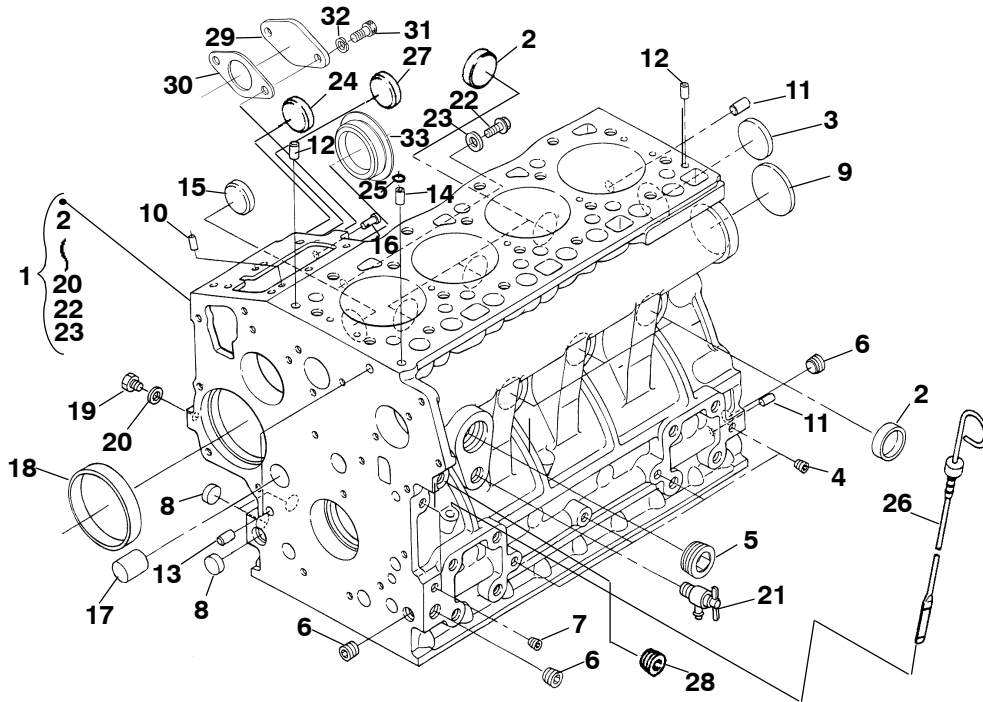
Cylinder Block MDKBL



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Assy, Engine Replacement MDKBL (Spec A)	15			*Plug
	100-3616-01	1	12V		185-6470	1	Spec A
	100-3616-02	1	24V		185-7212	1	Begin Spec B
			MDKBL (Spec B-D)	16	185-6857	1	*Pin, Start Spring
	100-3944-01	1	12V	17	185-6471	1	*Plug
	100-3944-02	1	24V	18	185-6472	1	*Bush, Governor Gear
			MDKBL (Spec E-F)	19	185-5845	1	*Plug
	100-4101-01	1	12V	20	185-2338	1	*Gasket
	100-4101-02	1	24V	21	185-5490	1	Cock Assy, Drain
			MDKBL (Begin Spec G)	22	185-2572	1	*Bolt, Flange
	A044B662	1	12V	23	185-2284	1	*Gasket
	A044B664	1	24V	24	185-6039	1	Plug (Spec A)
1			Block, Cylinder (Includes Parts Marked *)	25	185-2095	1	O'Ring (Spec A)
	185-7372	1	Spec A	26	185-5502	1	Plug (Spec A)
2	185-5484	4	*Cap, Sealing	27	185-6866	1	Indicator, Oil Lever
3	185-2412	1	*Cap, Sealing	28		1	Cover, Solenoid
4	185-2188	3	*Plug		185-6578	2	Spec A
5	185-6856	1	*Plug		184-0071	2	Begin Spec B
6	185-6468	3	*Plug	29		1	Gasket
7	185-2233	2	*Plug		185-6579	1	Spec A
8	185-6121	3	*Plug, Expansion	30		1	Bolt, Hex Socket Head
9	185-6040	1	*Plug, Expansion		185-2403	2	Spec A
10	185-5486	2	*Pin, Straight		800-6548	2	Begin Spec B
11	185-5487	2	*Pin, Straight	31	185-6759	2	Washer, Spring (Begin Spec B)
12	185-7420	2	*Pin, Straight	32		1	Cover, Hydraulic Pump
13	185-2115	2	*Pin, Pipe		185-7223	1	Spec B-D
14	185-6469	1	*Pin, Pipe		120-1386	1	Begin Spec E

* - Parts Included in Cylinder Block.

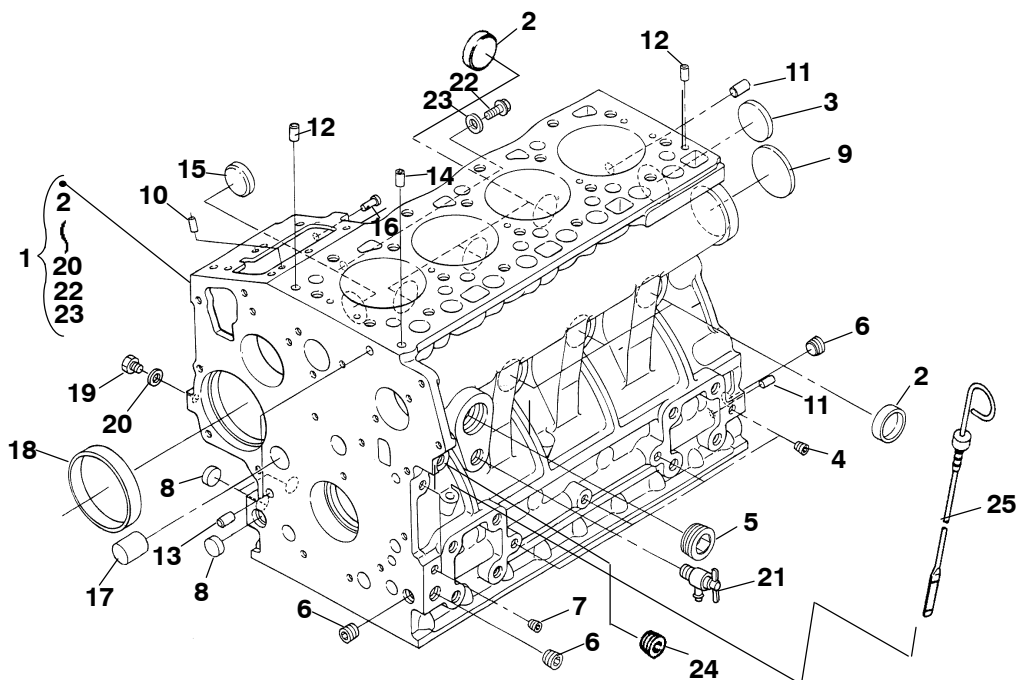
Cylinder Block MDKBM and MDKBN (Spec A-D)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Engine, Replacement MDKBM (Spec A)	11	185-5487	2	*Pin, Straight
			12V	12	185-5843	2	*Pin, Straight Spec A
			24V		185-7420	2	Begin Spec B
			MDKBM (Spec B-D)	13	185-2115	2	*Pin, Pipe
			12V	14	185-6469	1	*Pin, Pipe
			24V	15	185-7212	1	*Plug
			MDKBN (Spec A)	16	185-2102	1	*Pin, Start Spring
			12V	17	185-6471	1	*Plug
			24V	18	185-6472	1	*Bush, Governor Gear
			MDKBN (Spec B-D)	19	185-5845	1	*Plug
			12V	20	185-2338	1	*Gasket
			24V	21	185-5490	1	Cock Assy, Drain
1			Block, Cylinder (Includes Parts Marked *)	22	185-2572	1	*Bolt, Flange
			MDKBM	23	185-2284	1	*Gasket
			Spec A	24	185-6889	1	Cap, Sealing
			MDKBN	25	185-2095	1	O'Ring (Spec A)
			Spec A	26	185-6866	1	Indicator, Oil Level
				27	185-7212	1	Plug
2	185-5484	6	*Cap, Sealing	28	184-0072	1	Plug Square Head
3	185-2412	1	*Cap, Sealing	29	184-0071	1	Cover, Solenoid
4	185-2188	4	*Plug	30			
5	185-6856	1	*Plug	31	800-6548	2	Bolt, Hex Socket Head
6	185-6468	3	*Plug	32	185-2380	2	Washer Spring
7	185-2233	2	*Plug	33	185-7223	1	Cover, Hydraulic Pump
8	185-6121	3	*Plug, Expansion				
9	185-6040	1	*Plug, Expansion				
10	185-5486	2	*Pin, Straight				

* - Parts Included in Cylinder Block.

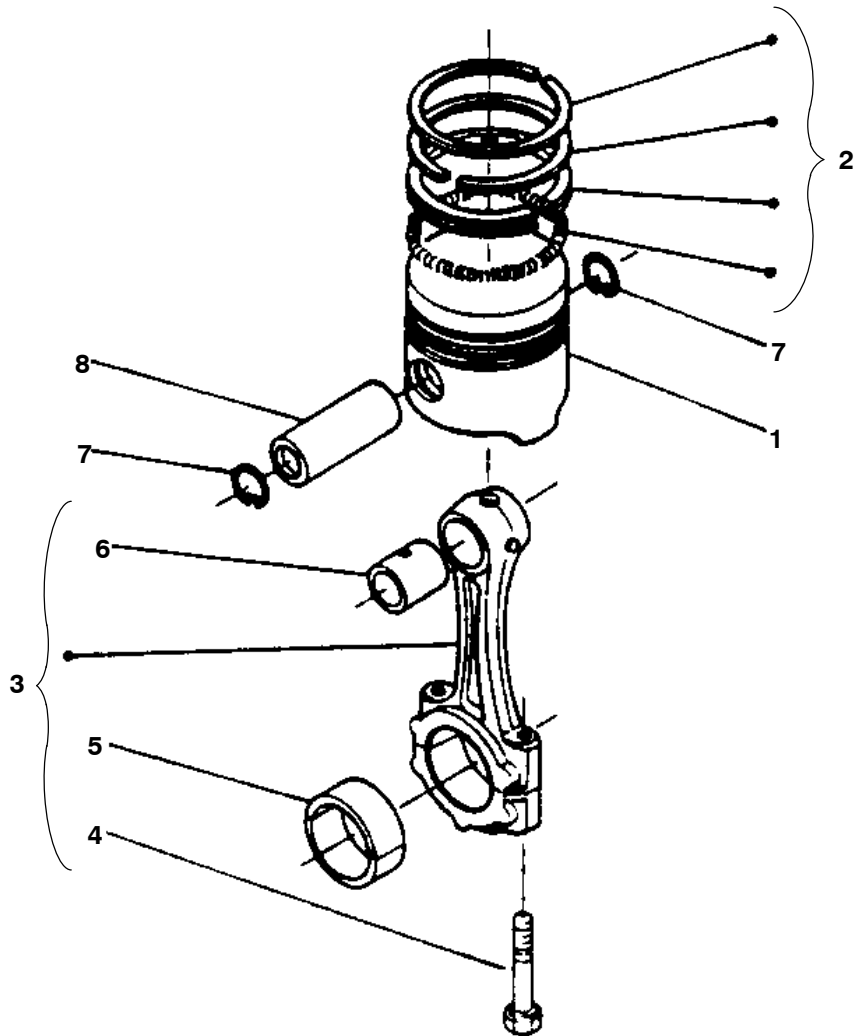
Cylinder Block MDKBM and MDKBN (Begin Spec E)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Engine, Replacement (Spec E-F)	11	185-5487	2	*Pin, Straight
	100-4102-01	1	12V	12	185-5843		*Pin, Straight
	100-4102-02	1	24V	13	185-2115	2	*Pin, Pipe
			(Begin Spec G)	14	185-6469	1	*Pin, Pipe
	A044B666	1	12V	15	185-7212	1	*Plug
	A044B669	1	24V	16	181-9093	1	*Pin, Start Spring
1	110-4093	1	Block, Cylinder (Includes Parts Marked *)	17	185-6471	1	*Plug
2	185-5484	6	*Cap, Sealing	18	185-6472	1	*Bush, Governor Gear
3	185-2412	1	*Cap, Sealing	19	185-5845	1	*Plug
4	185-2188	4	*Plug	20	185-2338	1	*Gasket
5	185-6856	1	*Plug	21	185-5490	1	Cock Assy, Drain
6	185-6468	3	*Plug	22	185-2572	1	*Bolt, Flange
7	185-2233	2	*Plug	23	185-2284	1	*Gasket
8	185-6121	3	*Plug, Expansion	24	184-0072	1	Plug Square Head
9	185-6040	1	*Plug, Expansion	25	185-6866	1	Indicator, Oil Level
10	185-5486	2	*Pin, Straight				

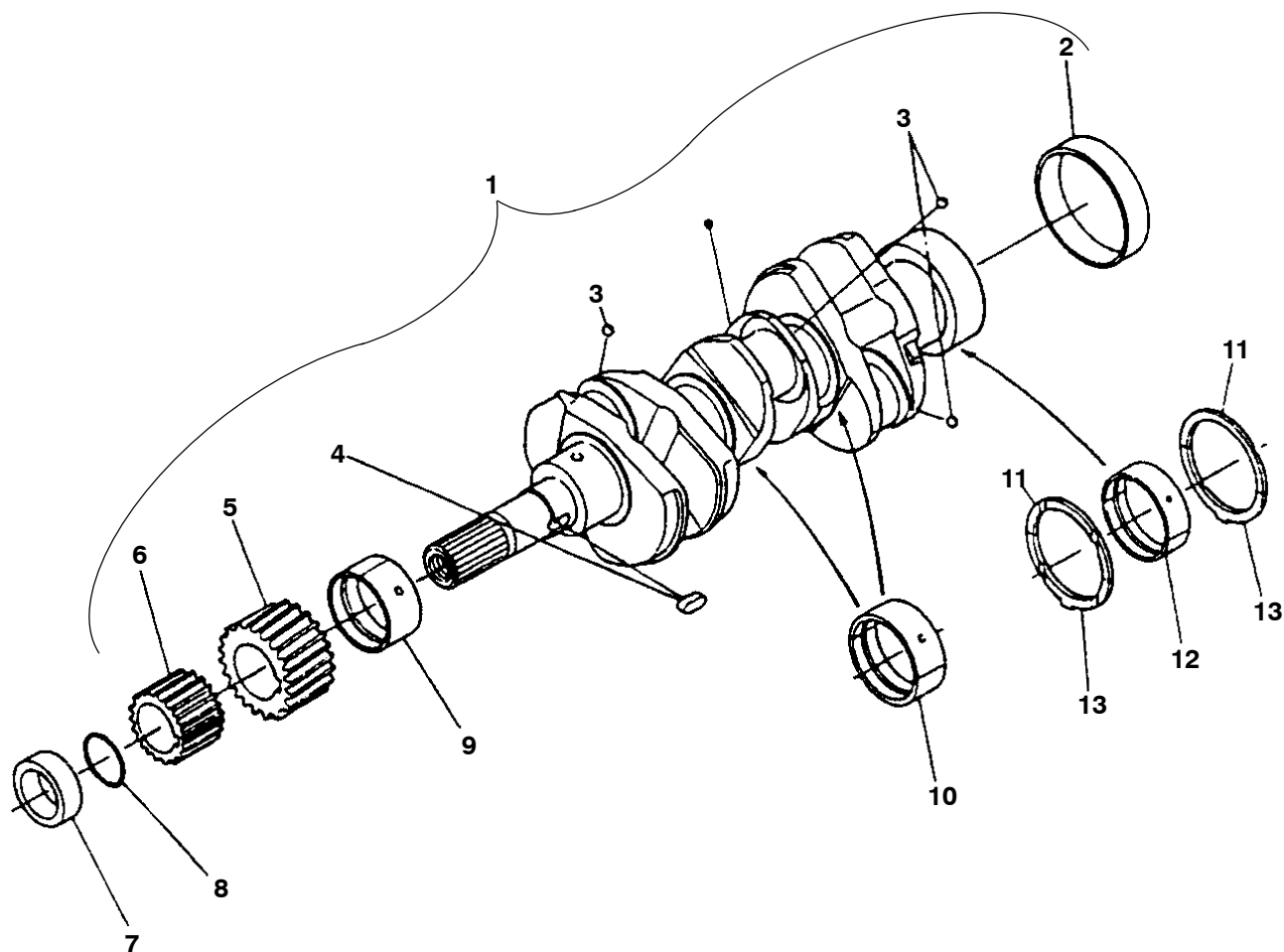
* - Parts Included in Cylinder Block.

Piston MDKBL



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston	4			Bolt, Connecting Rod
			Spec A	185-6535	6		Spec A
	185-7308	3	Standard	181-9102	6		Begin Spec B
	185-7309	3	.5mm Oversize	5			Bearing, Connecting Rod
			Spec B-D	185-6536	3		Standard
	112-0319	3	Standard	185-6537	3		.2mm Undersize
	112-0328	3	.5mm Oversize	185-6538	3		.4mm Undersize
			Begin Spec E	6			Bushing, Connecting Rod
	112-0319	3	Standard	185-6534	3		Spec A
	112-0320	3	.5mm Oversize	114-0450	3		Begin Spec B
2			Ring Set, Piston	7	185-6532	6	Circlip, Piston Pin
	185-7310	3	Standard	8	185-6531	3	Pin, Piston
	185-7311	3	.5mm Oversize				
3			Rod Assy, Connecting (Includes Bolt, Bearing and Bushing)				
	185-6533	3	Spec A				
	114-0430	3	Begin Spec B				

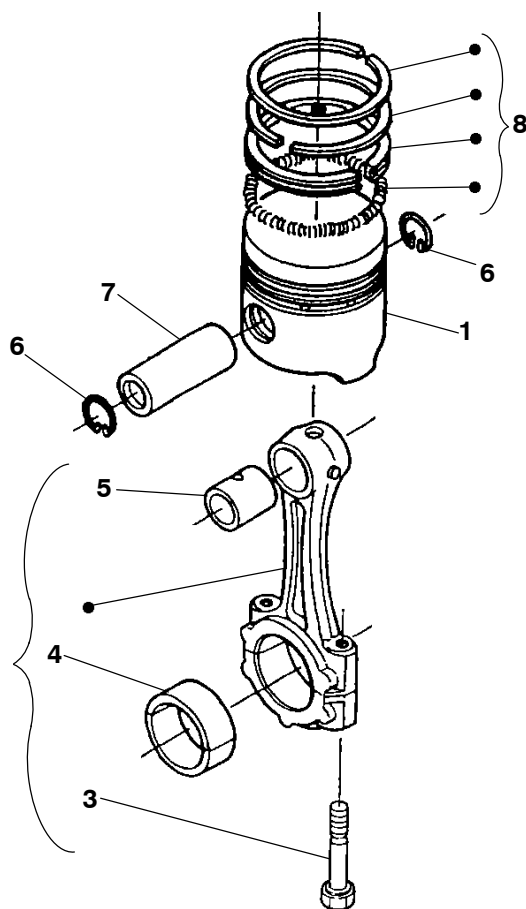
Crankshaft MDKBL



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7376	1	Crankshaft (Includes Parts Marked *)	11			Washer, Thrust
2	185-6543	1	*Sleeve, Crankshaft	185-5938	2		Standard
3	185-5924	3	*Ball Spec	185-6555	2		.2mm, Oversize
4	185-6541	1	*Key	185-6556	2		.4mm, Oversize
5	185-6540	1	*Gear, Crankshaft	12			Bearing, Crankshaft
6	185-6542	1	*Gear, Oil Pump Drive	185-7430	1		Standard
7	185-6544	1	Collar, Crankshaft	185-6553	1		.2mm, Undersize
8			O'Ring	185-6554	1		.4mm, Undersize
	185-6545	1	Spec A	13			Washer, Thrust
	185-7429	1	Begin Spec B	185-5941	2		Standard
9			Bearing, Crankshaft	185-5942	2		.2mm, Oversize
	185-6546	1	Standard	185-5943	2		.4mm, Oversize
	185-6547	1	.2mm, Undersize				
	185-6548	1	.4mm, Undersize				
10			Bearing, Crankshaft				
	185-6549	2	Standard				
	185-6550	2	.2mm, Undersize				
	185-6551	2	.4mm, Undersize				

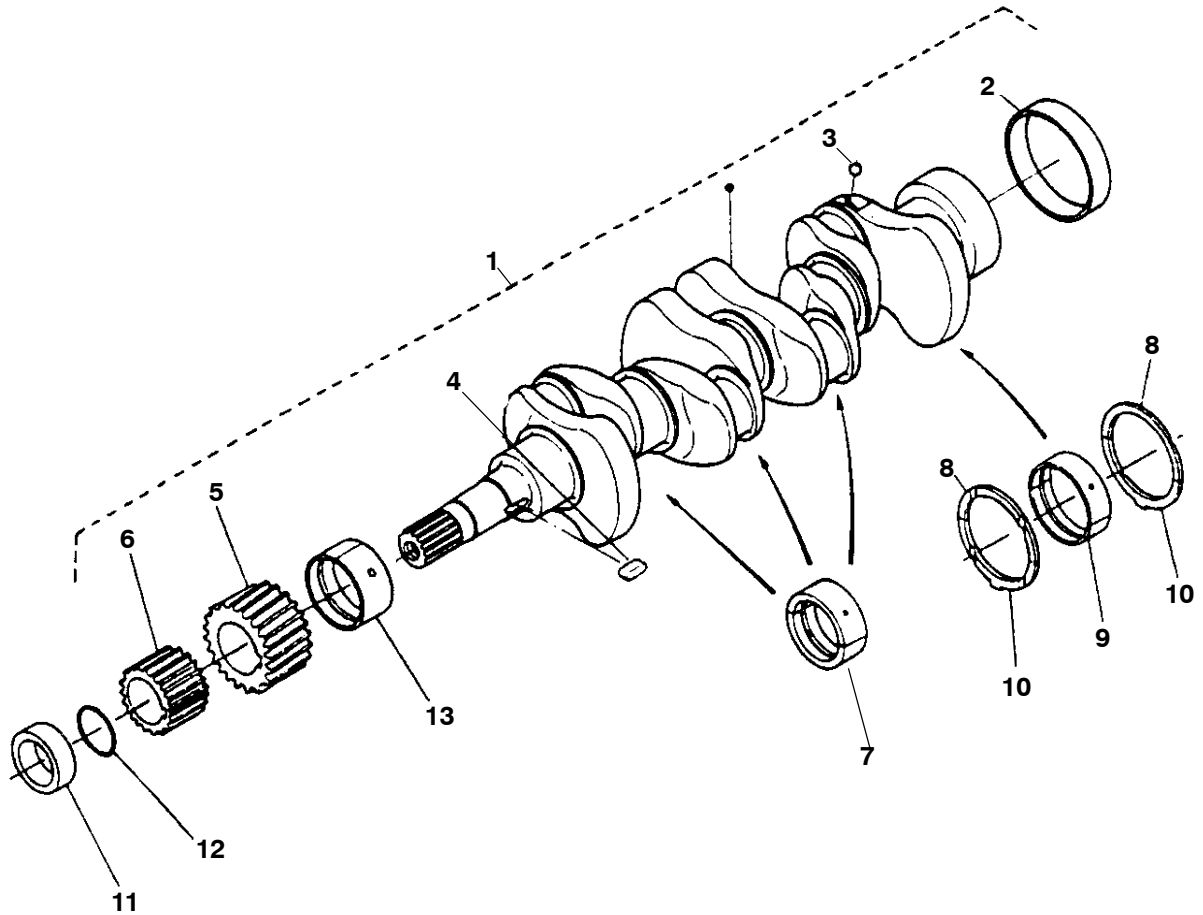
* - Parts Included in Crankshaft.

Piston MDKBM and MDKBN



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Piston	3			Bolt, Connecting Rod
			MDKBM	185-6535		8	Spec A
			Spec A-D	181-9102		8	Begin Spec B
	185-6745	4	Standard (Spec A)	4			Bearing, Connecting Rod
	185-6746	4	.5mm, Oversize	185-6536		4	Standard
			MDKBN	185-6537		4	.2mm Undersize
			Spec A	185-6538		4	.4mm Undersize
	185-7308	4	Standard	5			Bushing, Connecting Rod
	185-7309	4	.5mm Oversize	185-6534		8	Spec A
			Spec B-D	114-0450		8	Begin Spec B
	112-0319	4	Standard	6			Circlip, Piston Pin
	112-0328	4	.5mm Oversize	7			Pin, Piston
			MDKBM and MDKBN	8			Ring Set, Piston
			Begin Spec E				MDKBM (Spec A-D)
	112-0319	4	Standard	185-6529		4	Standard
	112-0320	4	.5mm Oversize	185-6530		4	.5mm Oversize
2			Rod Assy, Connecting (Includes Bolt, Bearing and Bushing)				MDKBN (Spec A-D)
	185-6533	4	Spec A	185-7310		4	Standard
	114-0430	4	Begin Spec B	185-7311		4	.5mm Oversize
							MDKBM and MDKBN (Begin Spec E)
				181-9134		4	Standard
				181-9135		4	.5mm Oversize

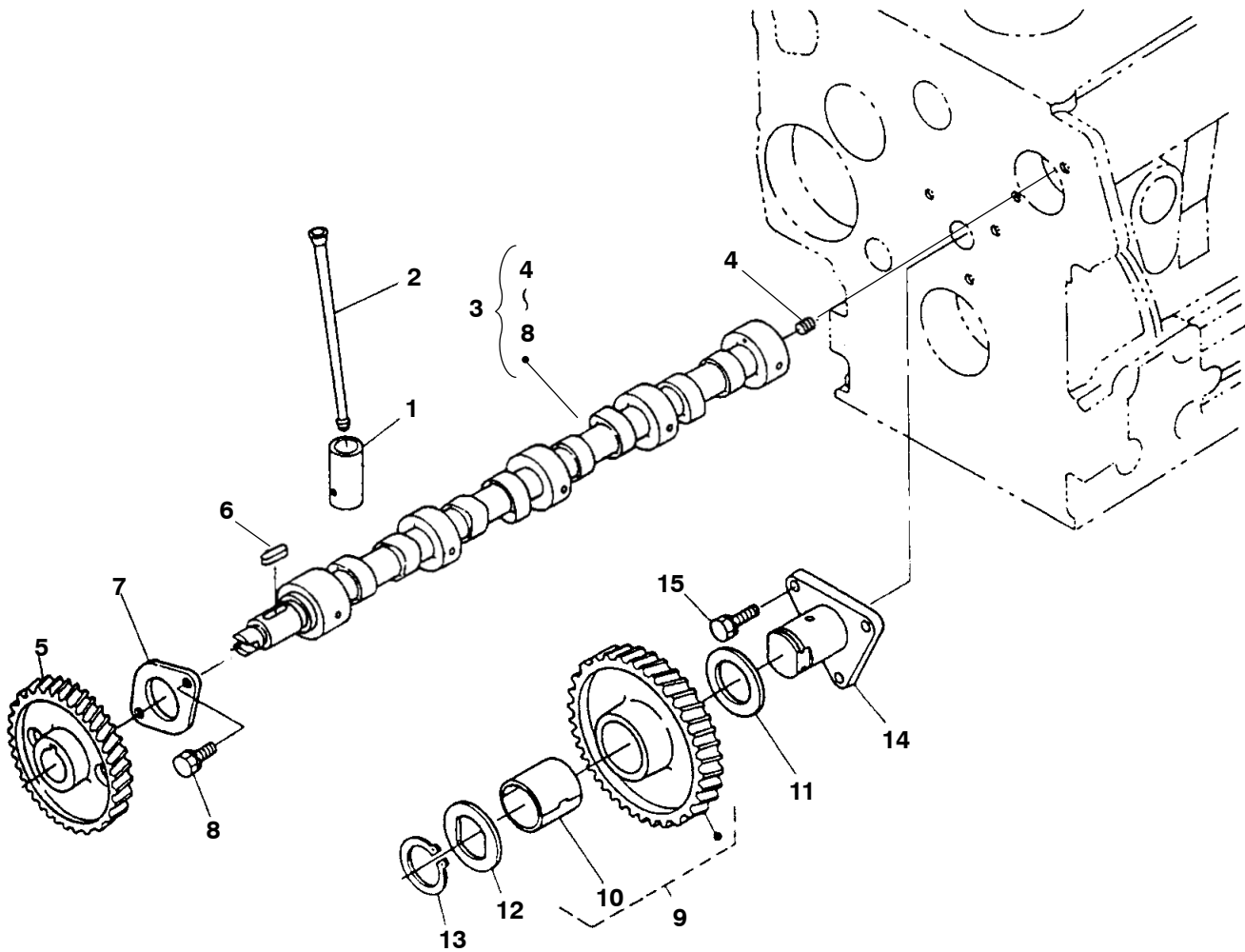
Crankshaft MDKBM and MDKBN



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Crankshaft (Includes Parts Marked *)	9			Bearing, Crankshaft Spec A-D
	185-7249	1	MDKBM (Spec A-D)		185-6552	1	Standard
	185-7312	1	MDKBN (Spec A-D)		185-6553	1	.2mm, Undersize
	185-7312	1	MDKBM and MDKBN (Begin Spec E)		185-6554	1	.4mm, Undersize
2	185-6543	1	*Sleeve, Crankshaft		104-2121	1	Standard
3	185-5924	4	*Ball MDKBM, MDKBN		510-0264	1	.2mm, Undersize
4	185-6541	1	*Key		104-2158	1	.4mm, Undersize
5	185-6540	1	*Gear, Crankshaft	10			Washer, Thrust
6	185-6542	1	*Gear, Oil Pump Drive		185-5941	2	Standard
7			Bearing, Crankshaft MDKBM, MDKBN		185-5942	2	.2mm, Oversize
	185-6549	3	Standard		185-5943	2	.4mm, Oversize
	185-6550	3	.2mm, Undersize	11	185-6544	1	Collar, Crankshaft
	185-6551	3	.4mm, Undersize	12			O'Ring
8			Washer, Thrust		185-6545	1	Standard
	185-5938	2	Standard		185-7429	1	.2mm, Undersize
	185-6555	2	.2mm, Oversize	13			Bearing, Crankshaft
	185-6556	2	.4mm, Oversize		185-6546	1	Standard
					185-6547	1	.2mm, Undersize
					185-6548	1	.4mm, Undersize

* - Parts Included With Crankshaft.

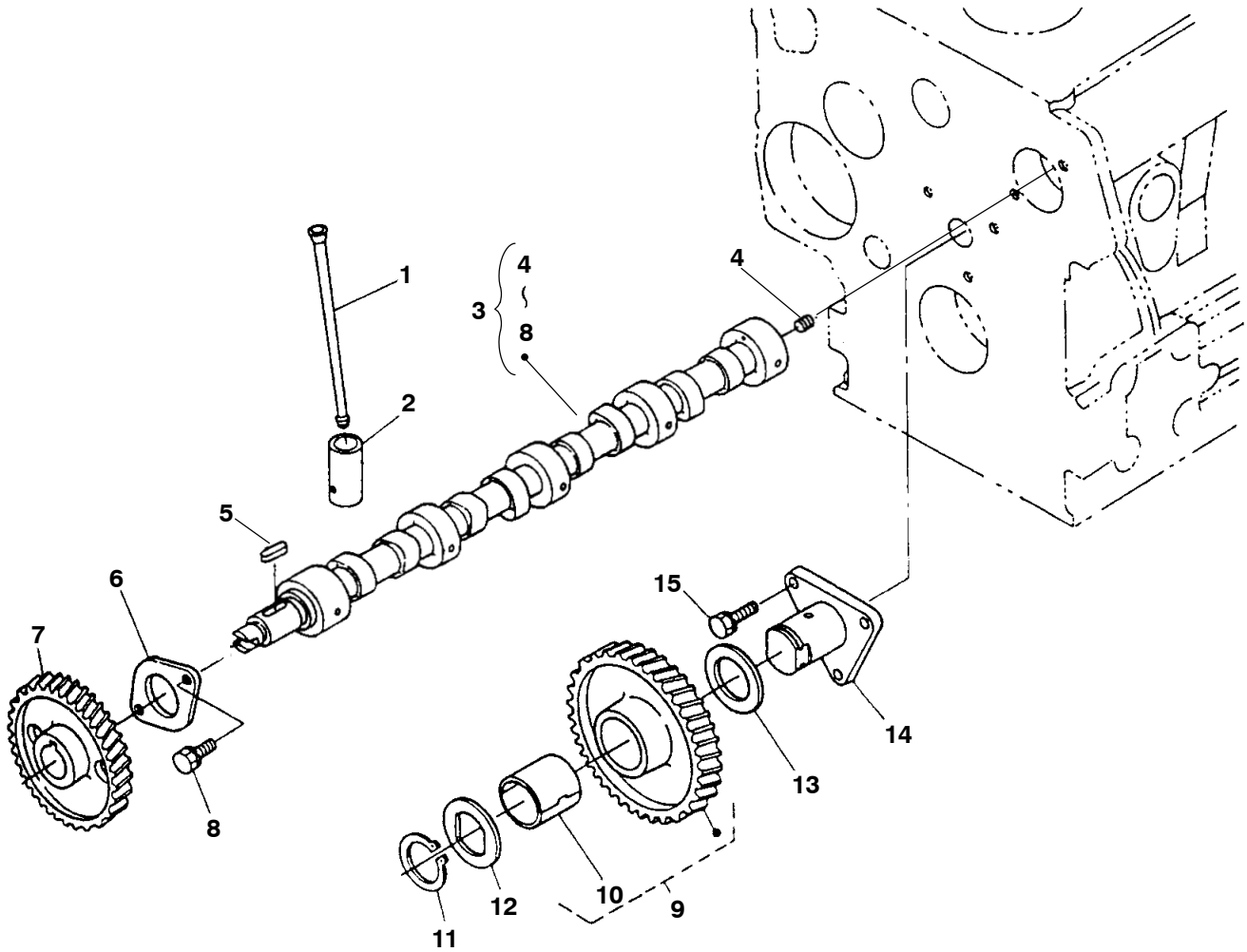
Camshaft MDKBL



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Tappet	8			*Bolt
	185-6516	6	Spec A-D		185-2387	2	Spec A-D
	115-0541	6	Begin Spec E		185-2388	2	Begin Spec E
2	185-6517	6	Rod, Push	9	185-6521	1	Gear Assy, Idle (Includes Bushing)
3			Camshaft Assy (Includes Parts Marked *)	10	185-6522	1	Bushing, Idle Gear
	185-6873	1	Spec A-D	11	185-6523	1	Collar, Idle Gear
	181-9120	1	Begin Spec E	12	185-6524	1	Collar, Idle Gear
4	185-5558	1	*Screw, Set	13	185-6525	1	Circlip, Idle Gear
5	185-6519	1	*Gear, Cam	14	185-6526	1	Shaft, Idle Gear
6	185-5560	1	*Key, Feather	15	185-2388	3	Bolt
7	185-6520	1	*Stopper, Camshaft				

* - Parts Included in Camshaft Assy.

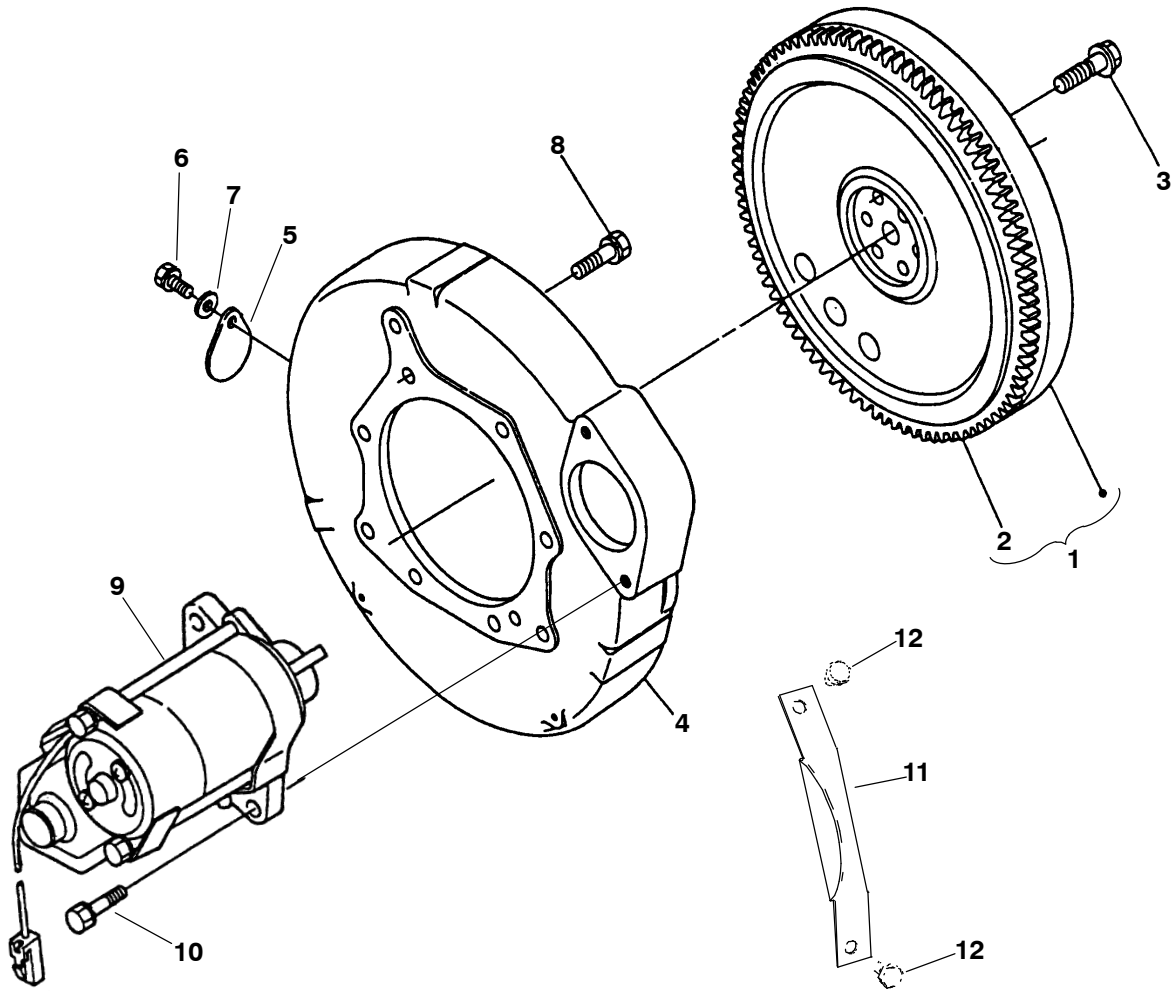
Camshaft MDKBM and MDKBN



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6517	8	Rod, Push	185-2387	2	2	Spec A-D
2			Tappet	185-2388	2	2	Begin Spec E
	185-6516	8	Spec A-D	9	185-6521	1	Gear Assy, Idle (Includes Bushing)
	115-0541	8	Begin Spec E	10	185-6522	1	Bushing, Idle Gear
3			Camshaft Assy (Includes Parts Marked *)	11	185-6525	1	Circlip, Idle Gear
	185-6518	1	Spec A	12	185-6524	1	Collar, Idle Gear
	181-9126	1	Begin Spec B	13	185-6523	1	Collar, Idle Gear
4	185-5558	1	*Screw, Set	14	185-6526	1	Shaft, Idle Gear
5	185-5560	1	*Key, Feather	15	185-2388	3	Bolt
6	185-6520	1	*Stopper, Camshaft				
7	185-6519	1	*Gear, Cam				
8			*Bolt				

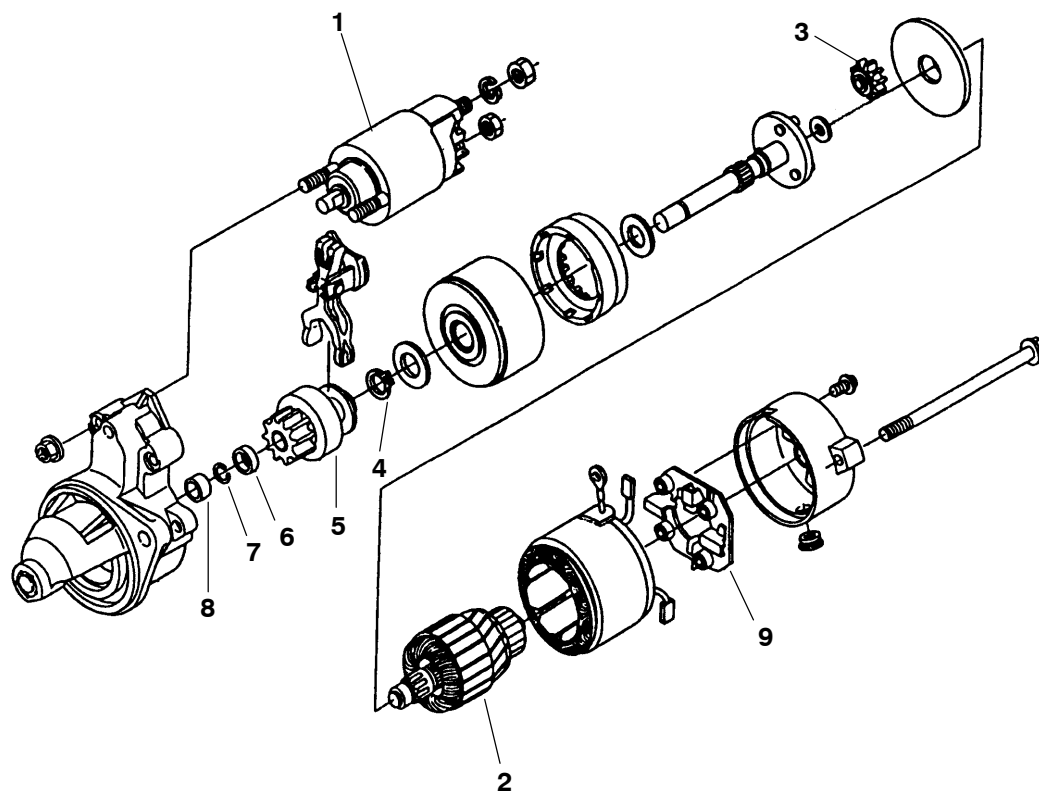
* - Parts Included in Camshaft Assy.

Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Flywheel (Includes Ring Gear) Spec A-D	7	185-7221	1	Washer, Plain
	185-7217	1	MDKBL	8	185-2178	8	Bolt
	185-7250	1	MDKBM and MDKBN Begin Spec E	9			Starter (See Separate Page for Components)
	104-2156	1	MDKBL		185-7104	1	12V
	104-2159	1	MDKBM and MDKBN		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	MDKBL				
	185-7222	1	MDKBM and MDKBN				

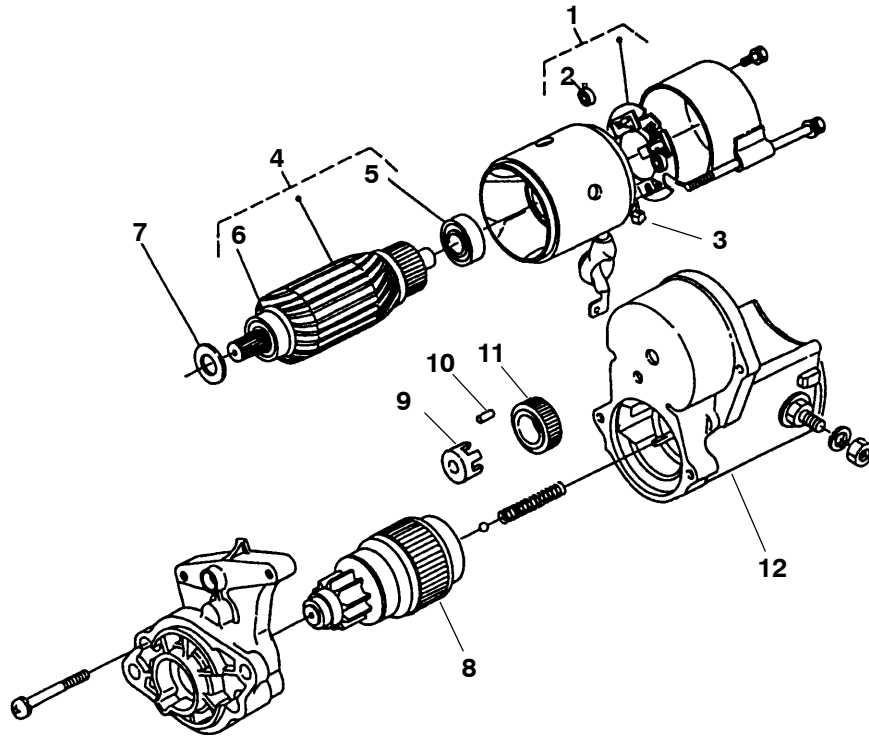
Starter Components (12V)



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.

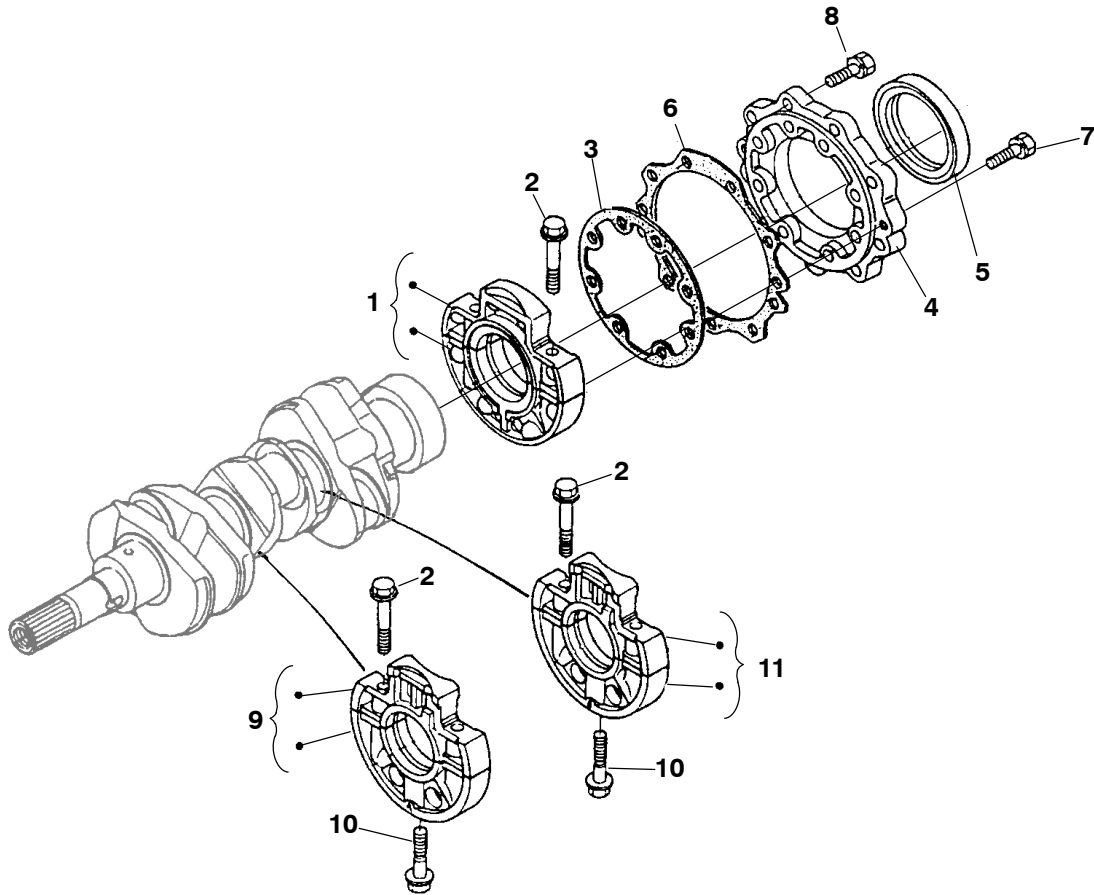
Starter Components (24V)



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				

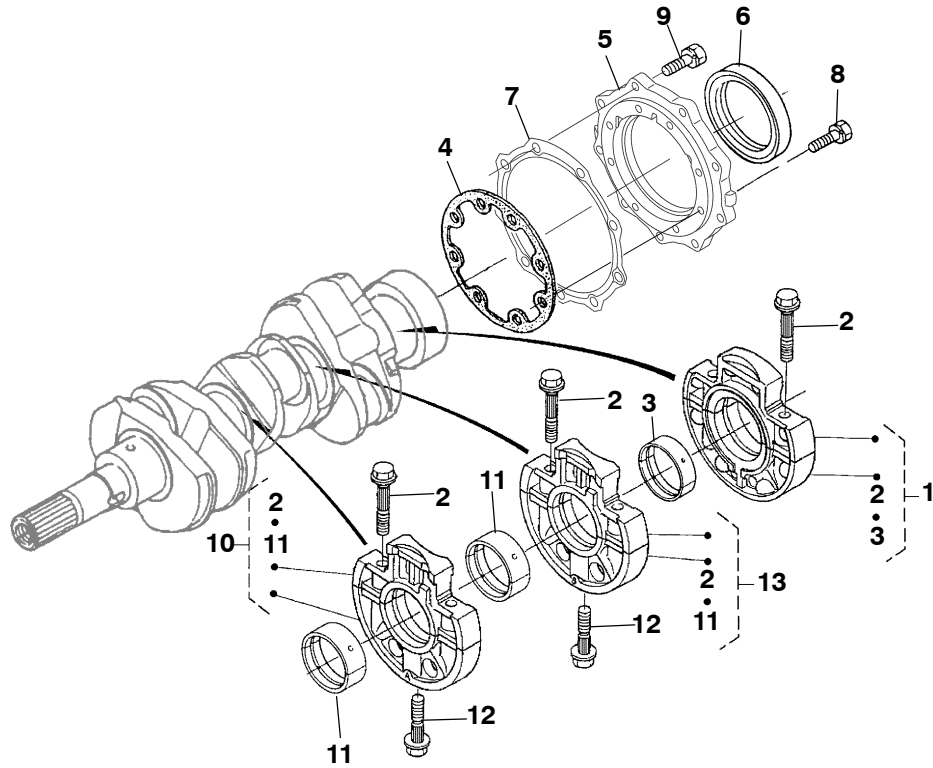
Note: Parts Not Identified are Not Sold Separately.

Main Bearing Case (MDKBL Spec A-D)



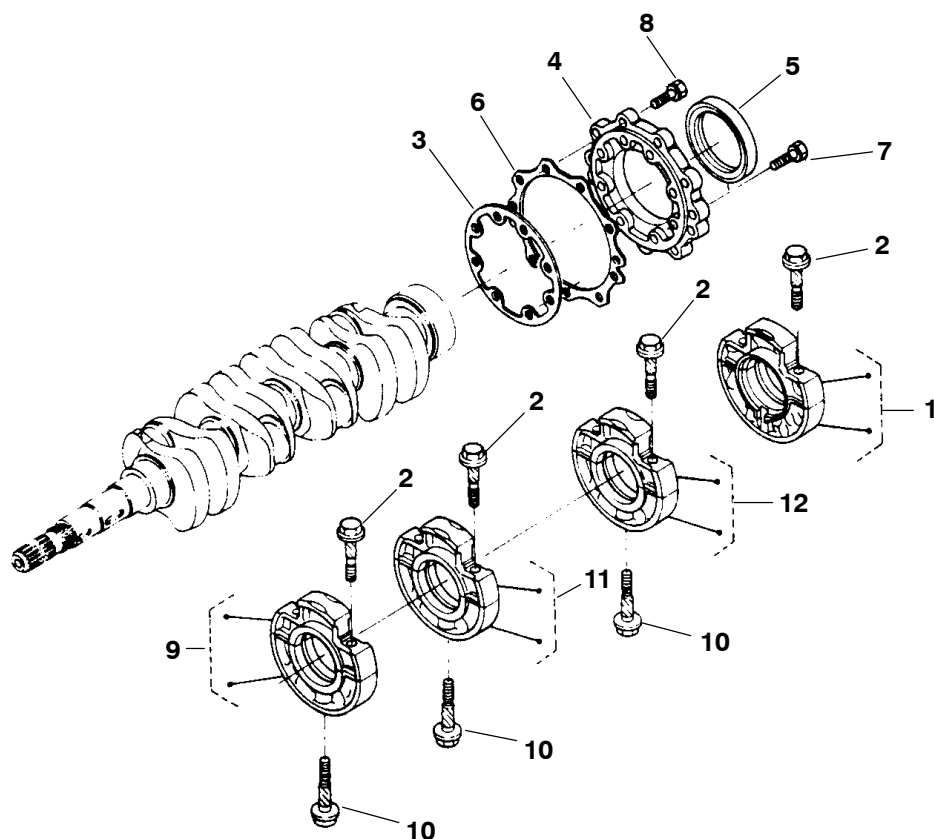
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6506	1	Case Assy, Main Bearing	9			Case Assy, Main Bearing
2	185-6507	6	Bolt, Bearing Case		185-7305	1	Spec A
3			Gasket, Bearing Case		185-3505	1	Begin Spec B
	185-6869	1	Spec A	10			Bolt, Bearing Case
	185-6865	1	Begin Spec B		185-6513	2	Spec A
4	185-6509	1	Cover, Bearing Case		185-6507	2	Begin Spec B
5	185-6510	1	Seal, Oil	11			Case Assy, Main Bearing
6	185-6871	1	Gasket, Bearing Case Cover		185-7306	1	Spec A
7	185-2391	8	Bolt		185-7306	1	Begin Spec B
8	185-2390	9	Bolt				

Main Bearing Case (MDKBL Begin Spec E)



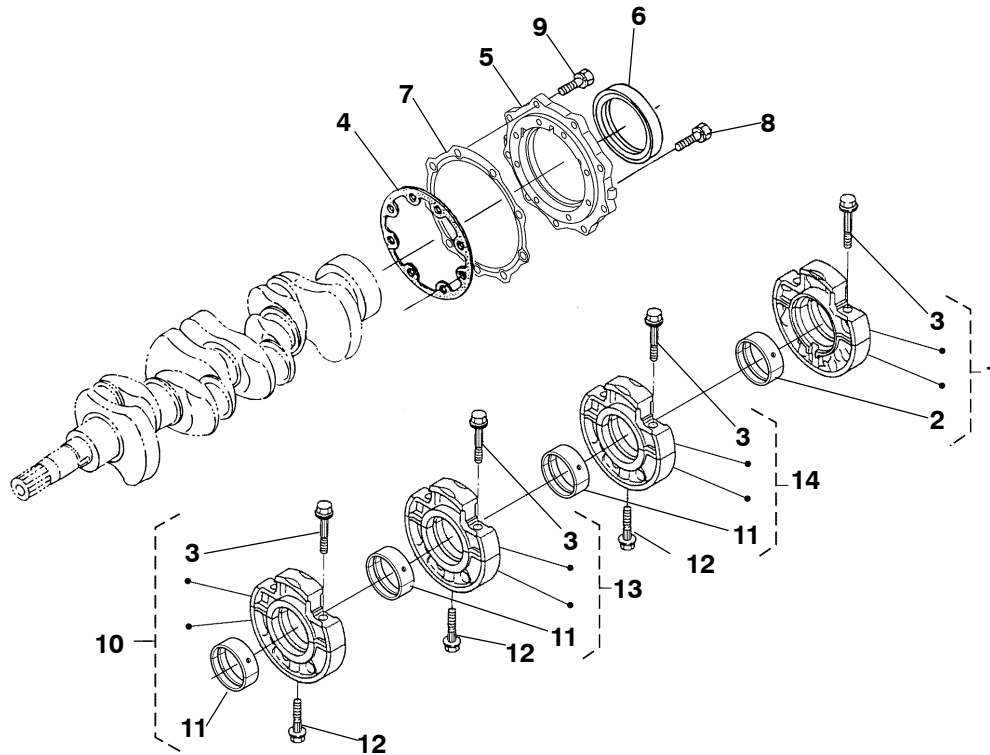
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	104-2120	1	Case Assy, Main Bearing	8	185-2391	8	Bolt
2	185-6507	3	Bolt, Bearing Case	9	185-2390	9	Bolt
3			Bearing	10	104-2118	1	Assy, Bearing Case Main
	104-2121	1	Standard Set	11			Metal, Crankshaft
	104-2157	1	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 (MDKBM and MDKBN Spec A-D)



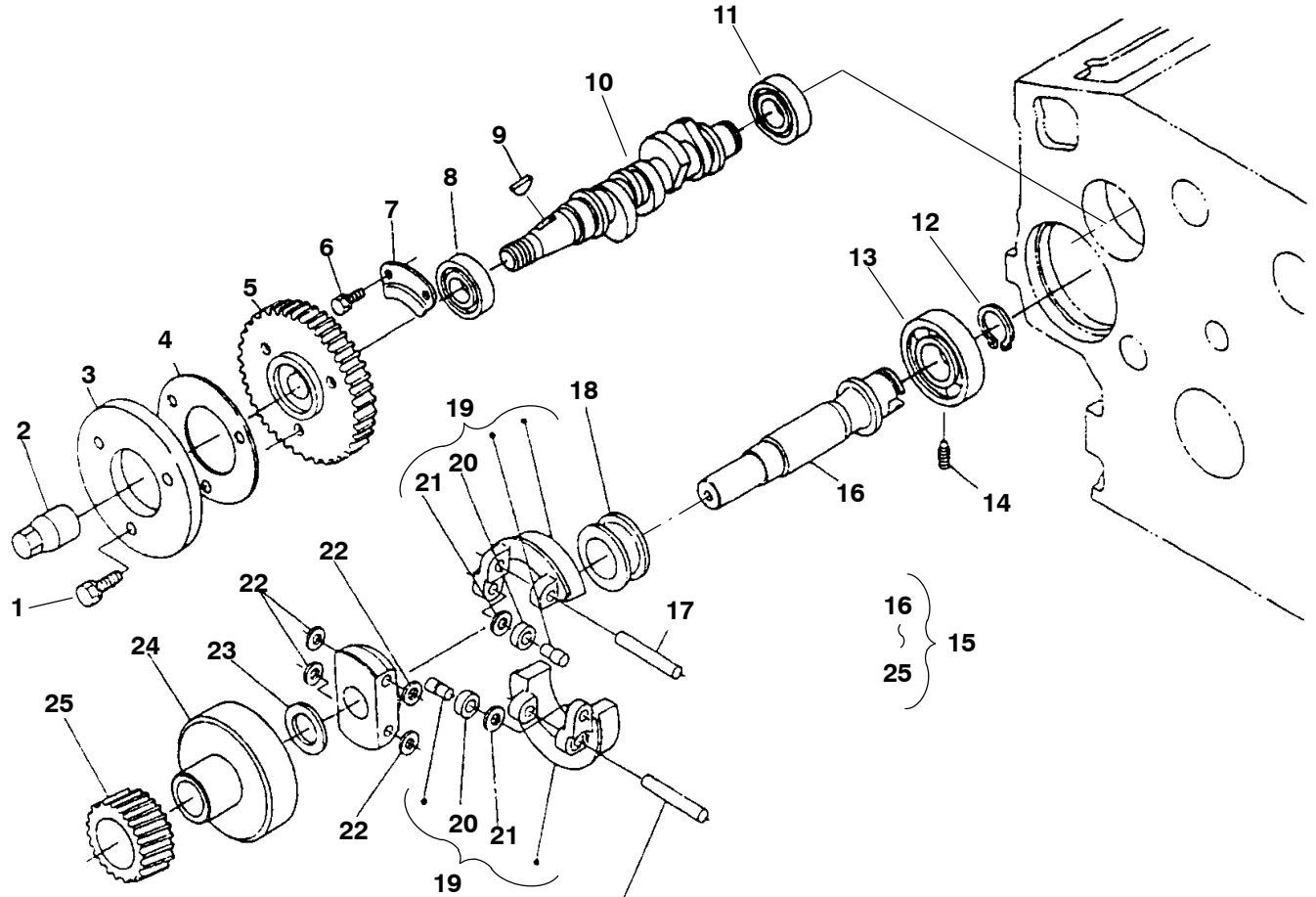
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6506	1	Case, Main Bearing	10	185-6513	3	Bolt, Bearing Case
2	185-6507	8	Bolt, Bearing Case	11	185-7306	1	Case, Main Bearing MDKBN
3	185-6869	1	Gasket, Bearing Case		185-6514	1	MDKBM
4	185-6870	1	Cover, Bearing Case	12	185-6515	1	Case, Main Bearing MDKBM (Spec A)
5	185-6510	1	Seal, Oil		185-7305	1	MDKBN (Spec A)
6	185-6871	1	Gasket, Bearing Case Cover		185-7307	1	MDKBM, MDKBN Begin Spec B
7	185-2391	8	Bolt				
8	185-2390	9	Bolt				
9			Case, Main Bearing				
	185-7305	1	MDKBN (Spec A)				
	185-6512	1	MDKBM (Spec A)				
	185-7305	1	MDKBM, MDKBN Begin Spec B				

Main Bearing Case (MDKBM and MDKBN Begin Spec E)



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

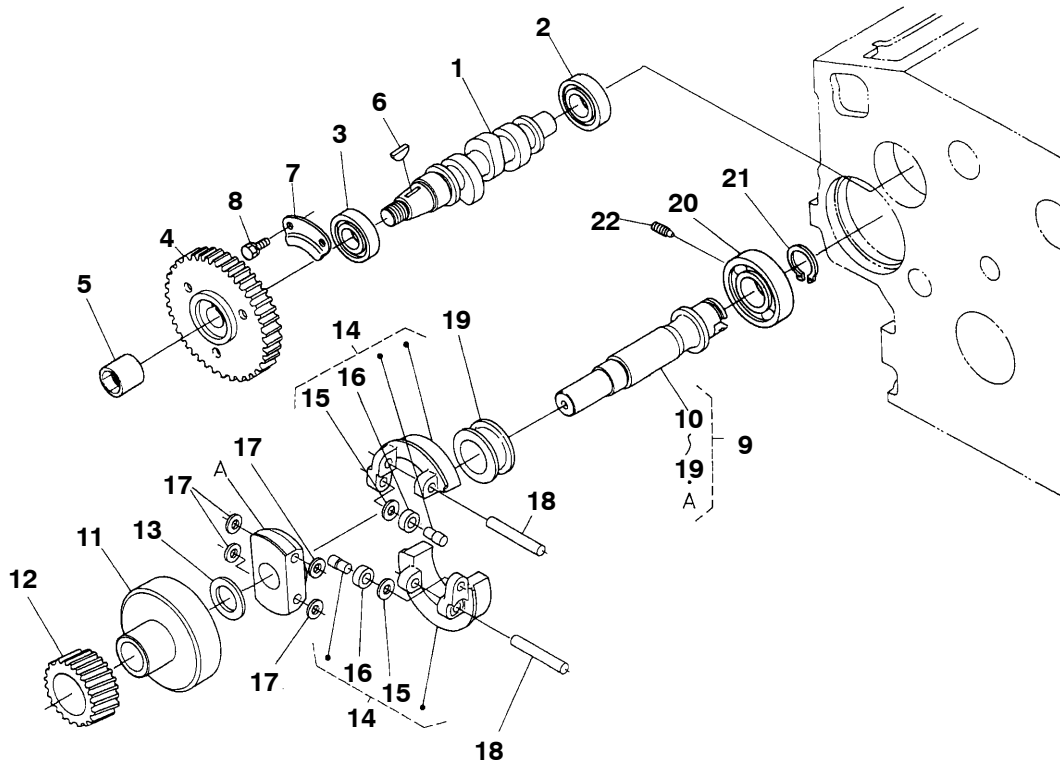
Fuel Camshaft (Spec A)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2389	3	Bolt	16			*Shaft, Governor
2	185-6560	1	Nut, Cap	185-6878	1		MDKBL
3	185-6876	1	Cam, Fuel	185-6564	1		MDKBM, MDKBN
4	185-6879	1	Washer	17	185-6569	2	*Shaft, Governor Weight
5	185-6558	1	Gear, Injection Pump	18	185-6570	1	*Sleeve, Governor
6	185-2386	2	Bolt	19	185-6567	2	*Weight, Governor (Includes Bearing and Washer)
7	185-6562	1	Stopper, Fuel Camshaft	20	185-5959	2	Bearing
8	185-3093	1	Bearing, Ball	21	185-5960	2	Washer
9	185-6561	1	Key, Woodruff	22	185-6568	4	*Washer, Governor Weight
10			Camshaft, Fuel	23	185-6566	1	*Collar, Governor Shaft
	185-6875	1	MDKBL	24	185-6880	1	*Holder, Governor Gear
	185-6741	1	MDKBM, MDKBN	25	185-6565	1	*Gear, Governor
11	510-0163	1	Bearing, Ball				
12	185-6572	1	Circlip, Governor Shaft				
13	185-6571	1	Bearing, Ball				
14	185-6573	1	Screw, Set				
15			Shaft Assy, Governor (Includes Parts Marked *)				
	185-6877	1	MDKBL				
	185-6563	1	MDKBM, MDKBN				

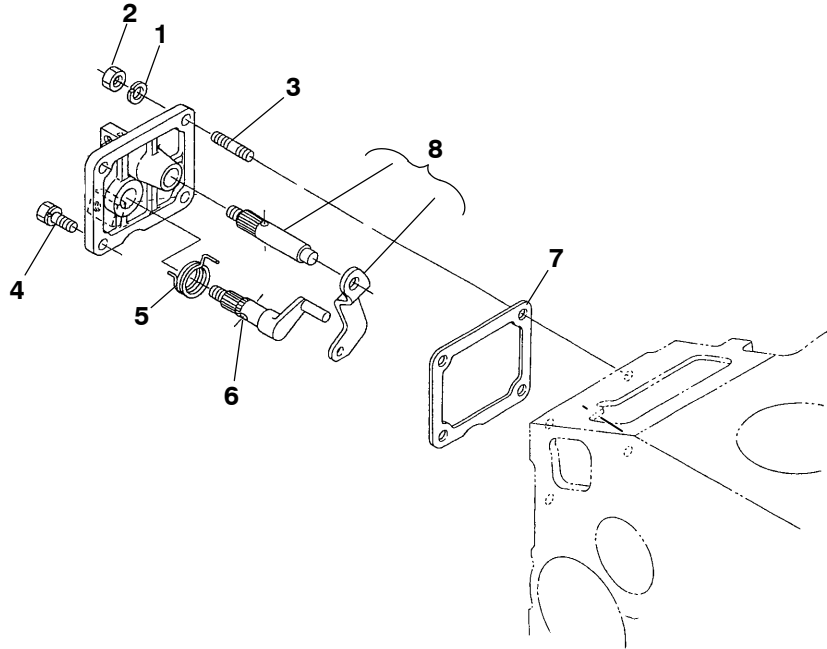
* - Parts Included in Governor Shaft Assy.

Fuel Camshaft (Begin Spec B)



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	MDKBL	12	185-6565	1	Gear, Governor
	185-6741	1	MDKBM and MDKBN	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	MDKBL	22	185-6573	1	Screw, Set
	185-6563	1	MDKBM and MDKBN				
10			Shaft, Governor				
	185-6878	1	MDKBL				
	185-6564	1	MDKBM and MDKBN				

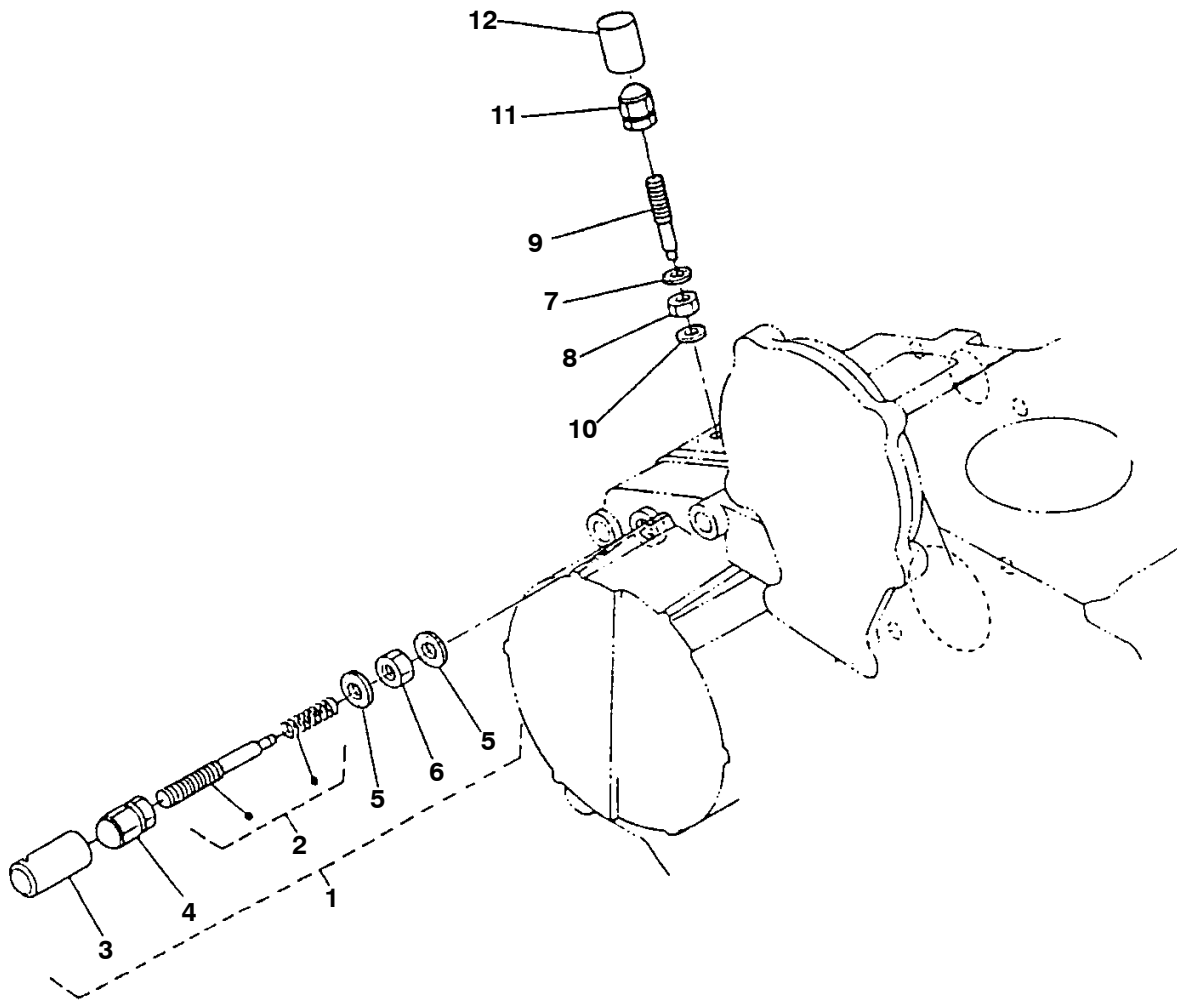
Speed Control Plate



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.

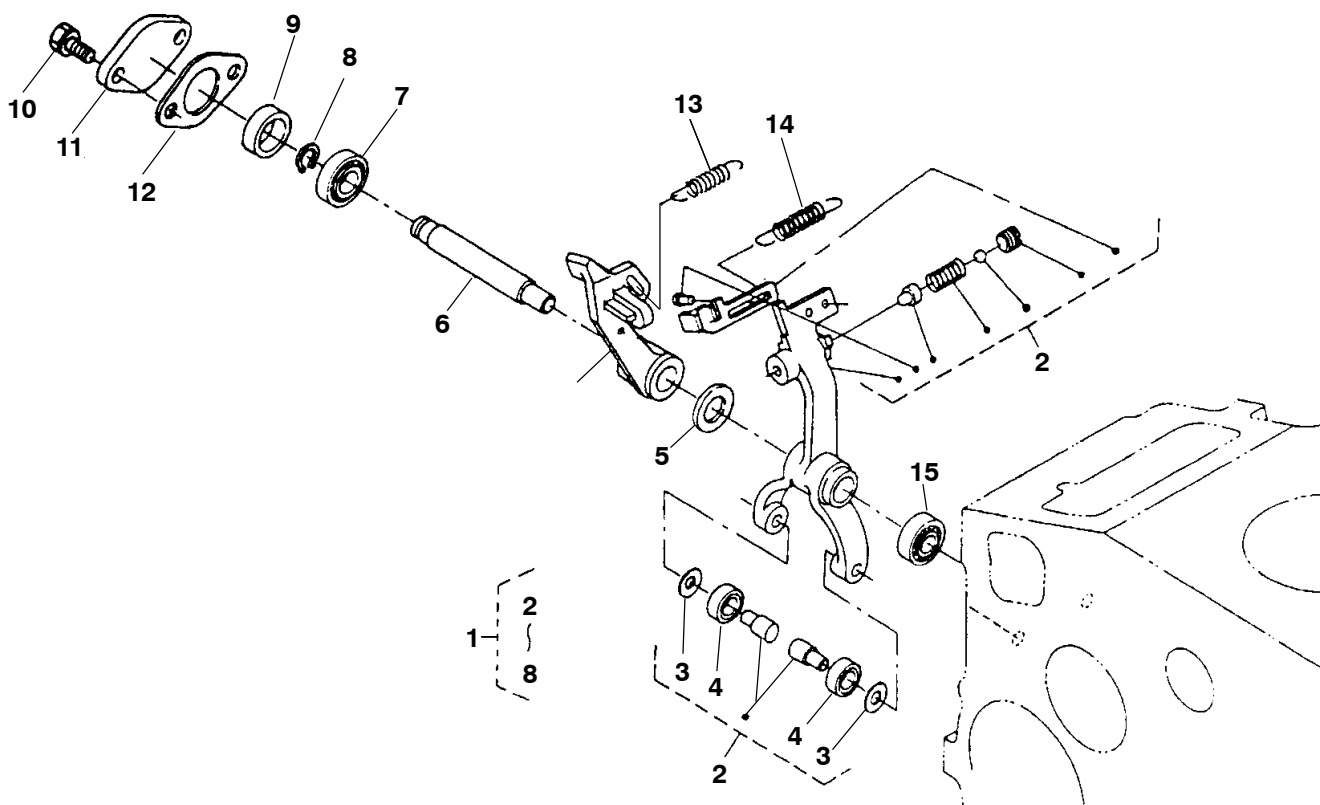
Governor Lever



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.

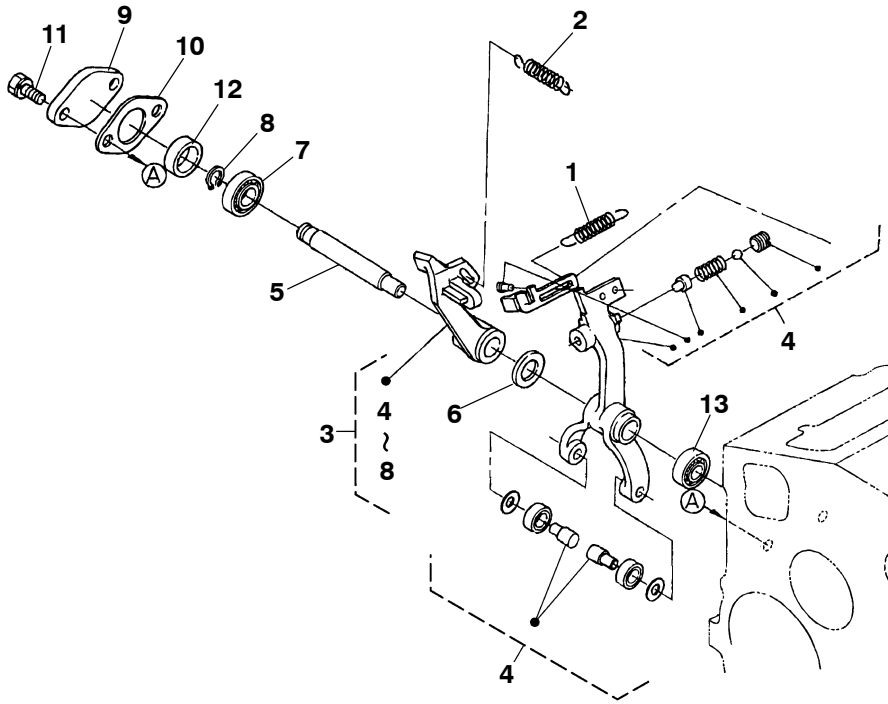
Governor (MDKBL, MDKBM and MDKBN Spec A-D)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	181-9149	1	Lever Assy, Fork (Includes Parts Marked *)	12	185-6603	1	Gasket
2	185-7432	1	*Lever, Fork (Includes Washer and Bearing)	13			Spring, Governor
3	185-5960	2	Washer		185-7377	1	60 Hz Spec A
4	185-5959	2	Bearing		185-7378	1	50 Hz Spec A
5	185-6163	1	*Washer, Plain		181-9152	1	Begin Spec B
6			*Shaft, Fork Lever				MDKBM, MDKBN
	185-6519	1	MDKBL		185-7253	1	50 Hz Spec A
	181-9105	1	MDKBM, MDKBN		181-9150	1	Begin Spec B
7	185-6600	1	*Bearing, Miniature	14			Spring, Start
8	185-6601	1	*Circlip, External		185-6891	1	MDKBL
9	185-6604	1	Collar		185-6593	1	MDKBM, MDKBN
10	185-2386	2	Bolt	15	185-6605	1	Bearing, Miniature
11	185-6602	1	Cover, Fork Lever Shaft				

* - Parts Included in Fork Lever Assy.

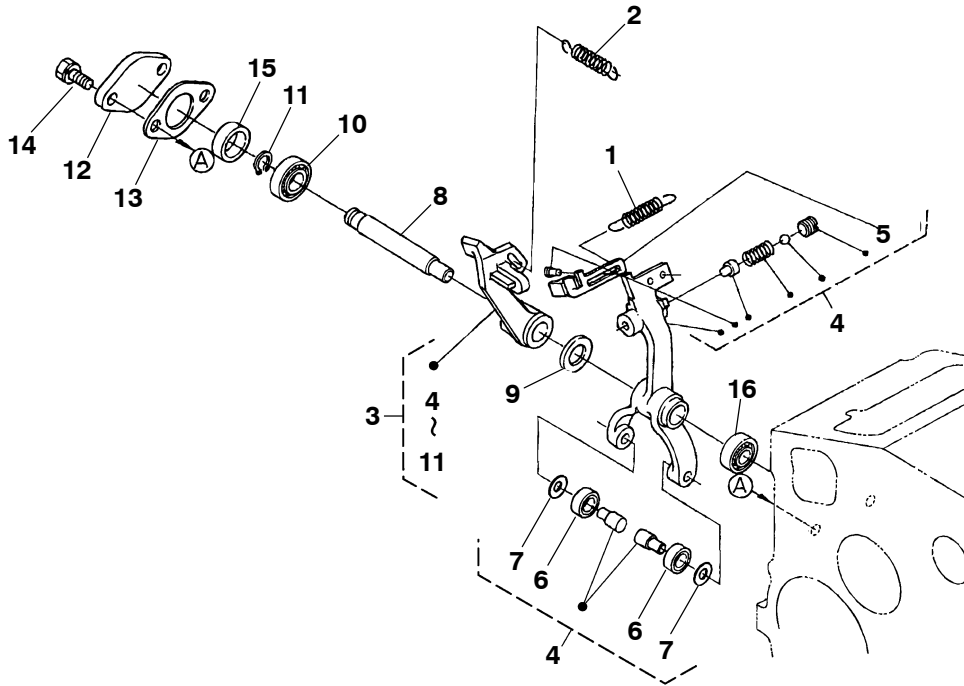
Governor (MDKBL Begin Spec E)



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

* - Parts Included in Fork Lever Assy.

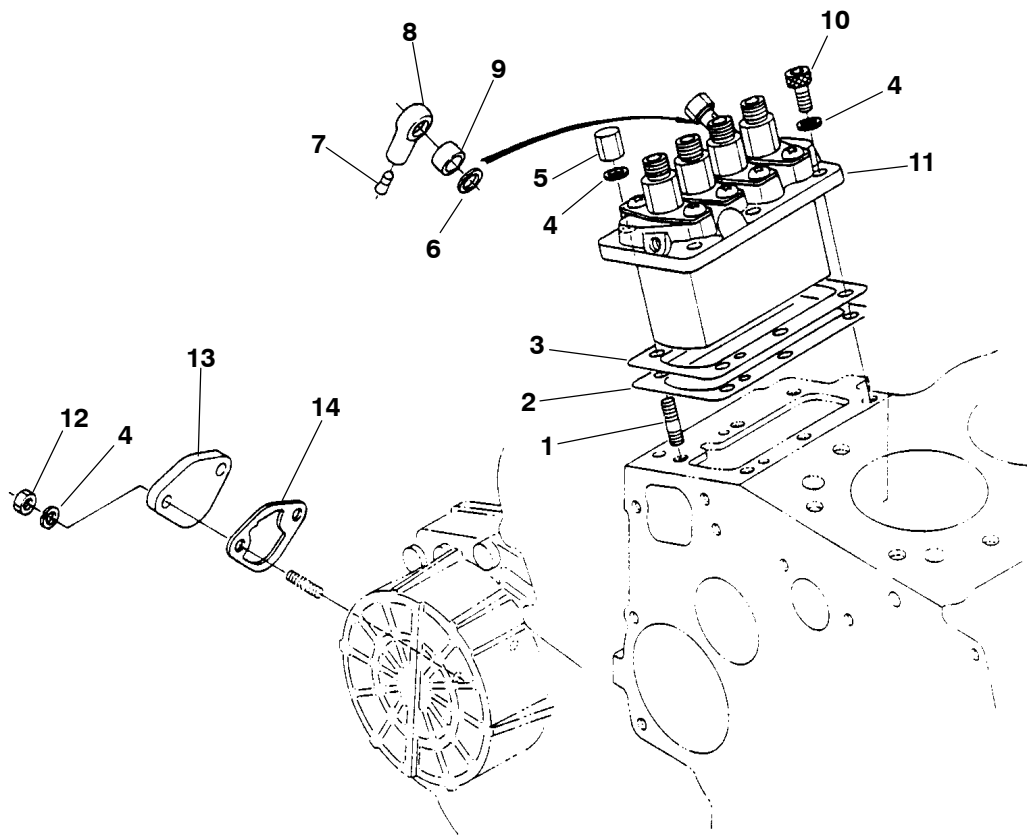
Governor (MDKBM and MDKBN Begin Spec E)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6593	1	Spring, Start	9	185-6163	1	*Washer, Plain
2	181-9150	1	Spring, Governor	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
8	181-9105	1	*Shaft, Fork Lever	16	185-6605	1	Bearing, Miniature

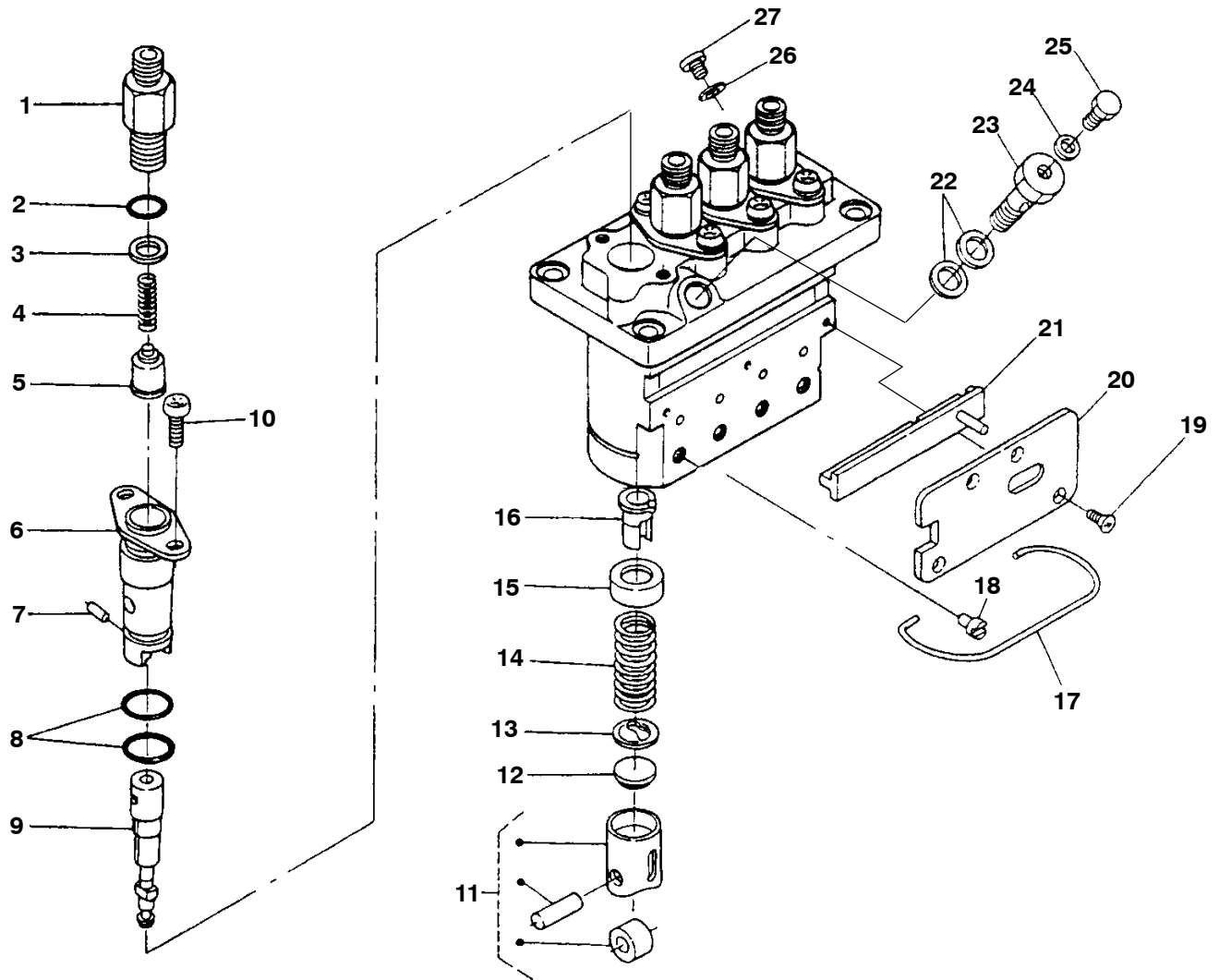
* - Parts Included in Fork Lever Assy.

Injection Pump (Spec A)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-5624	3	Stud	7	185-6586	1	Cap
2	185-6845	1	Shim, Injection Pump (.30mm)	8	185-6584	1	Joint, Eye
3			Shim, Injection Pump MDKBL	9	185-6585	1	Collar, Eye Joint
	185-6749	AR	.20mm	10	185-5623	32	Bolt, Hex Socket Head
	185-6739	AR	.25mm	11			Pump Assy, Injection (See Separate Page for Components)
	185-6742	AR	.20mm		185-6882	1	MDKBL
	185-6743	AR	.25mm		185-6748	1	MDKBM, MDKBN
4	185-6759	86	Washer, Spring	12	185-4255	2	Nut
5	185-5625	32	Nut, Cap	13	185-5798	1	Cover
6	185-2578	1	Gasket	14	185-6580	1	Gasket

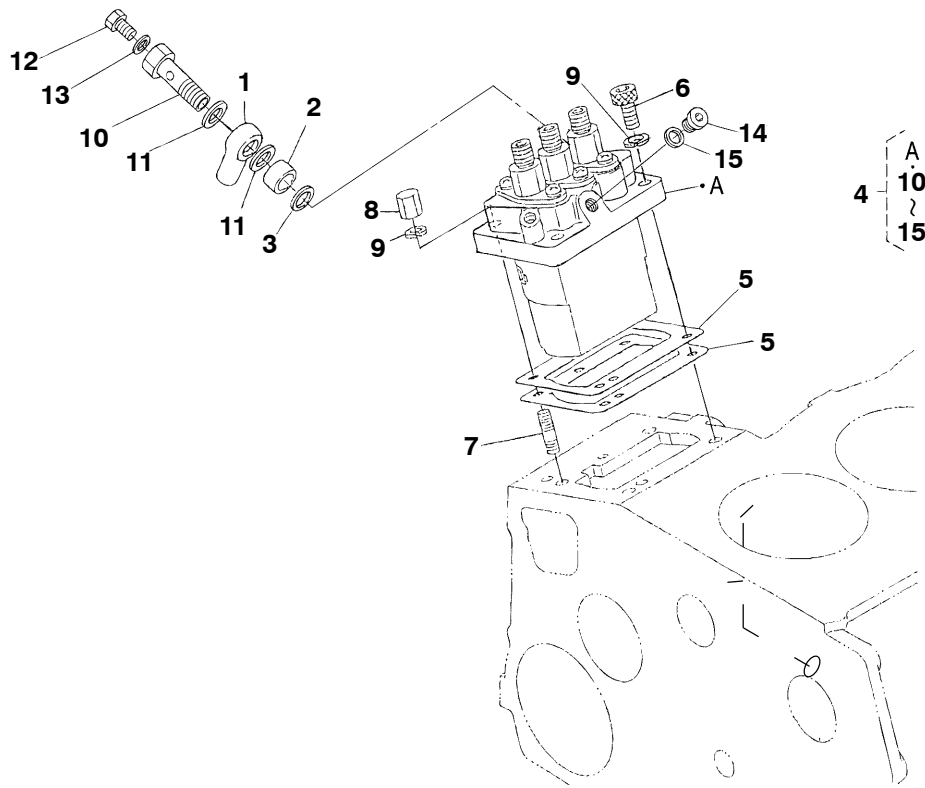
Injection Pump Components (Spec A)



Injection Pump Components (Spec A)

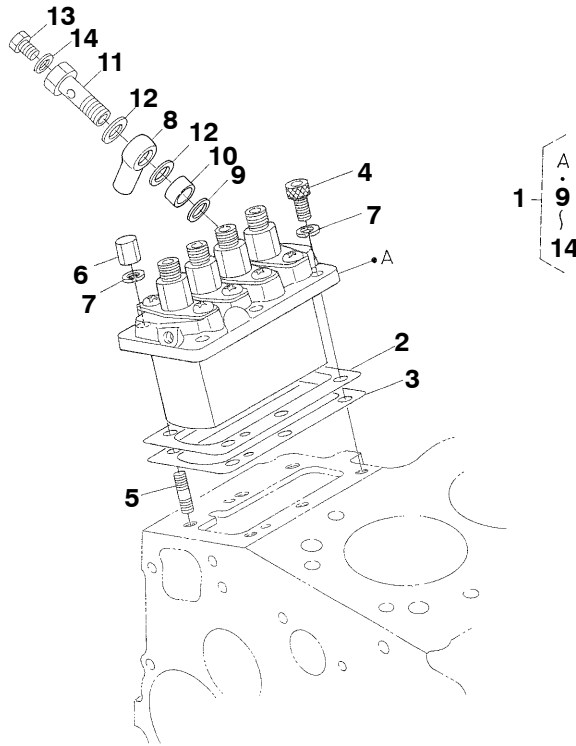
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Pump Assy, Injection	12			Shim
	185-6882	1	MDKBL		185-5655	3	MDKBL
	185-6748	1	MDKBM, MDKBN		185-5655	4	MDKBM, MDKBN
1			Holder, Delivery Valve	13			Seat, Spring Lower
	185-6588	3	MDKBL		185-5654	3	MDKBL
	185-6588	4	MDKBM, MDKBN		185-5654	4	MDKBM, MDKBN
2			O'Ring	14			Spring, Plunger
	185-5643	3	MDKBL		185-5652	3	MDKBL
	185-5643	4	MDKBM, MDKBN		185-5652	4	MDKBM, MDKBN
3			Gasket, Delivery Valve	15			Seat, Spring Upper
	185-5641	3	MDKBL		185-5653	3	MDKBL
	185-5641	4	MDKBM, MDKBN		185-5653	4	MDKBM, MDKBN
4			Spring, Delivery Valve	16			Sleeve, Control
	185-5640	3	MDKBL		185-5659	3	MDKBL
	185-5640	4	MDKBM, MDKBN		185-5659	4	MDKBM, MDKBN
5			Valve, Delivery	17			Pin, Clamp
	185-5639	3	MDKBL		185-6707	1	MDKBL
	185-5639	4	MDKBM, MDKBN		185-6589	1	MDKBM, MDKBN
6			Flange, Sleeve	18			Pin, Tappet Guide
	185-5644	3	MDKBL		185-5650	3	MDKBL
	185-5644	4	MDKBM, MDKBN		185-5650	4	MDKBM, MDKBN
7			Pin, Joint	19			Screw, Countersunk Head
	185-5645	3	MDKBL		185-5658	4	MDKBL
	185-5645	4	MDKBM, MDKBN		185-5658	5	MDKBM, MDKBN
8			O'Ring	20			Plate
	185-5646	6	MDKBL		185-6886	1	MDKBL
	185-5646	8	MDKBM, MDKBN		185-7251	1	MDKBM, MDKBN
9			Plunger, Pump	21	185-6885	1	Rack, Control
	185-6884	3	MDKBL	22	185-5661	2	Gasket
	185-6884	4	MDKBM, MDKBN	23	185-6887	1	Bolt, Joint
10			Screw	24	185-5663	1	Gasket
	185-5647	6	MDKBL	25	185-5662	1	Screw, Air Bleed
	185-5647	8	MDKBM, MDKBN	26	185-5820	1	Gasket (MDKBL)
11			Tappet	27	185-6888	1	Plug (MDKBL)
	185-5649	3	MDKBL				
	185-5649	4	MDKBM, MDKBN				

Injection Pump (MDKBL Begin Spec B)



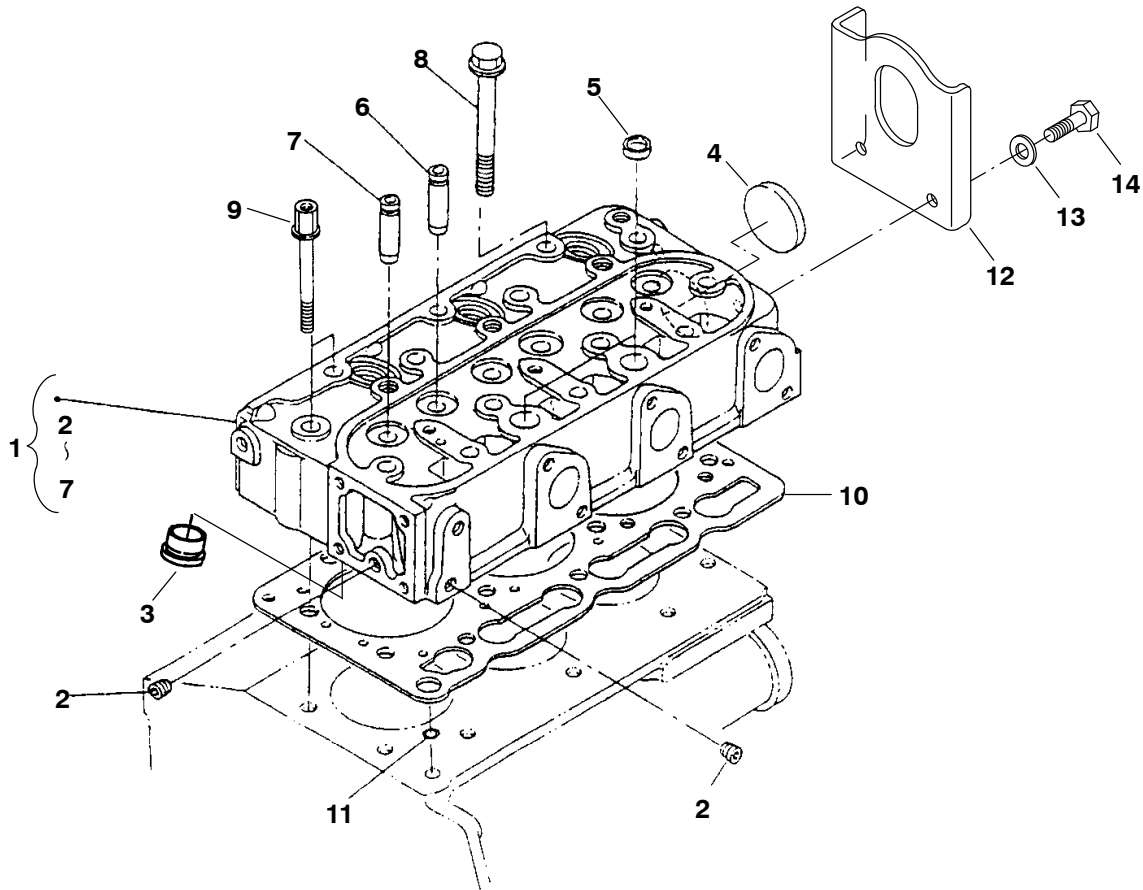
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6584	1	Joint	7	185-5624	2	Stud
2	185-6585	1	Collar, Joint	8	185-5625	2	Nut
3	185-2578	1	Gasket	9	185-6759	4	Washer, Spring
4	185-6882	1	Assy., Pump Injection	10	185-6887	1	Bolt, Joint
5			Shim, Injection Pump	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 (MDKBM and MDKBN Begin Spec B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6748	1	Assy, Pump Injection	5	185-5624	3	Stud
2			Shim, Injection Pump	6	185-5625	3	Nut
			Spec B-D	7	185-6759	6	Washer, Spring
	185-6742	1	.20mm	8	185-6584	1	Joint
	185-6743	1	.25mm	9	185-2578	1	Gasket
			Begin Spec E	10	185-6585	1	Collar, Joint
	147-0976	1	.20mm	11	185-6887	1	Bolt, Joint
	147-0977	1	.25mm	12	185-5661	2	Gasket
3	185-6744	1	Shim, Injection Pump (.30mm)	13	185-5662	1	Screw
4	185-5623	3	Bolt, Hex Head Socket	14	185-5663	1	Gasket

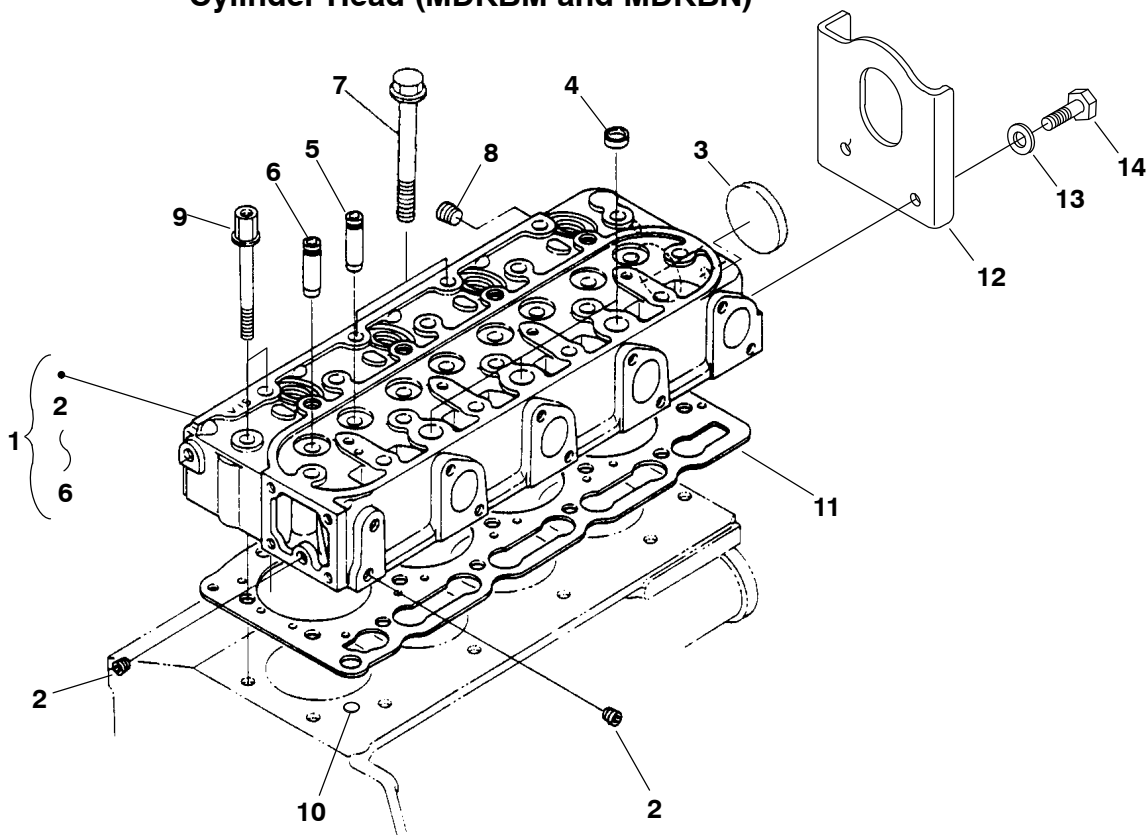
Cylinder Head (MDKBL)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Head Assy, Cylinder (Includes Parts Marked *)	7			*Guide, Inlet Valve
	185-7374	1	Spec A-D		185-6475	3	Spec A
	110-4092	1	Begin Spec E		110-3960	3	Begin Spec B
2	185-2188	2	*Plug	8	185-6477	12	Bolt, Cylinder Head
3	185-7375	3	*Chamber, Combustion (Spec A)	9	185-6479	2	Bolt, Cylinder Head
4	185-2411	1	*Cap, Sealing	10			Gasket, Cylinder Head
5	185-2413	2	*Cap, Sealing		185-7373	1	Spec A
6			*Guide, Exhaust Valve		181-9222	1	Begin Spec B
	185-6476	3	Spec A	11	185-2095	1	O'Ring (Spec A)
	181-9119	3	Begin Spec B	12	403-4284-04	1	Bracket, Lifting
				13	526-0399-60	2	Washer, Flat (M8)
				14	800-3017-18	2	Screw, Hex Head Cap (M8 x 1.25 x 16mm)

* - Parts Included in Cylinder Head Assy.

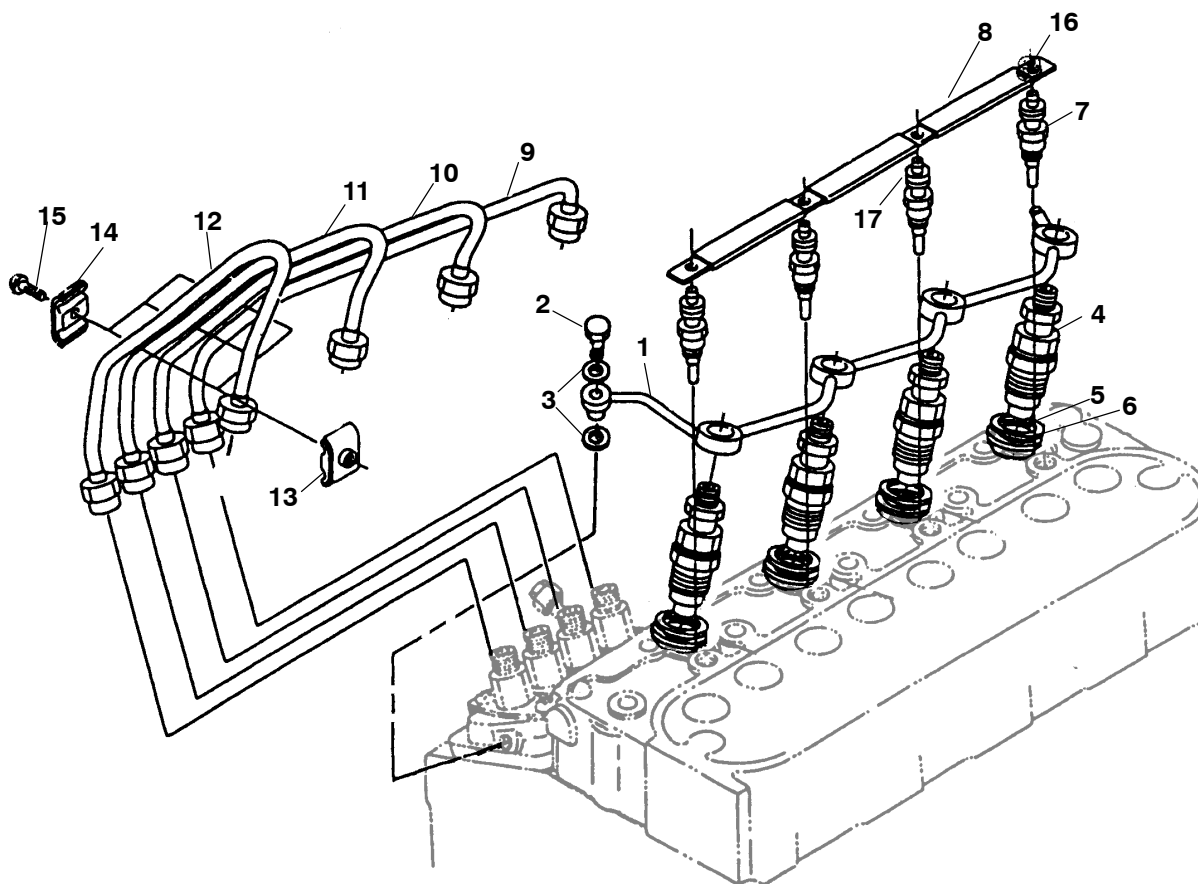
Cylinder Head (MDKBM and MDKBN)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Head Assy, Cylinder (Includes Parts Marked *)	8	185-5502	1	Plug (Spec A)
	185-6747	1	MDKBM	9	185-6479	2	Bolt, Cylinder Head
	185-7303	1	MDKBN	10	185-2095	1	O'Ring (Spec A)
			Begin Spec E	11			Gasket, Cylinder Head MDKBM
	110-4094	1	MDKBM and MDKBN		185-6478	1	Spec A
2	185-2188	2	*Plug		110-3967	1	Begin Spec B MDKBN
3	185-2411	1	*Cap, Sealing		185-7304	1	Spec A
4			*Cap, Sealing		110-3965	1	Begin Spec B
	185-2413	3	MDKBM (Spec A-D)		110-3965	1	MDKBM and MDKBN
	185-2413	4	MDKBN (Spec A-D)				Begin Spec E
	185-2413	3	MDKBM and MDKBN (Begin Spec E)	12	403-4284-04	1	Bracket, Lifting
5			*Guide, Exhaust Valve	13	526-0399-60	2	Washer, Flat (M8)
	185-6476	4	Spec A	14	800-3017-18	2	Screw, Hex Head Cap (M8 x 1.25 x 16mm)
	181-9119	4	Begin Spec B				
6			*Guide, Inlet Valve				
	185-6475	4	Spec A				
	110-3960	4	Begin Spec B				
7	185-6477	16	Bolt, Cylinder Head				

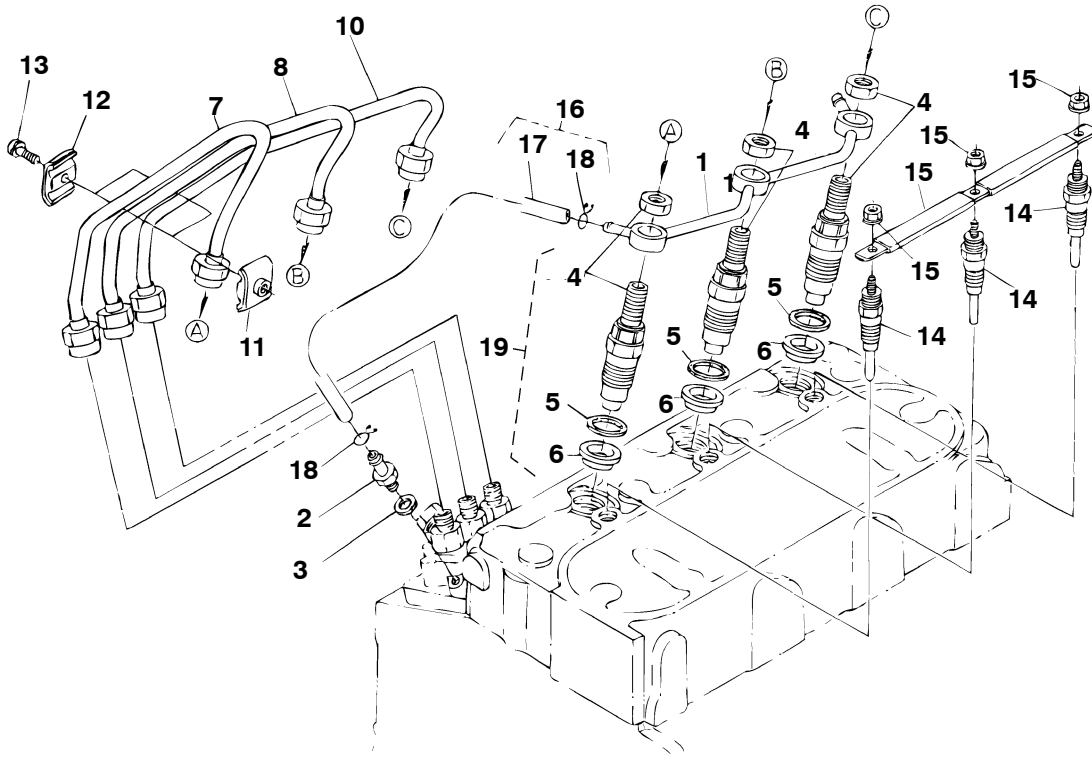
* - Parts Included in Cylinder Head Assy.

Nozzle Holder and Glow Plug (Spec A)



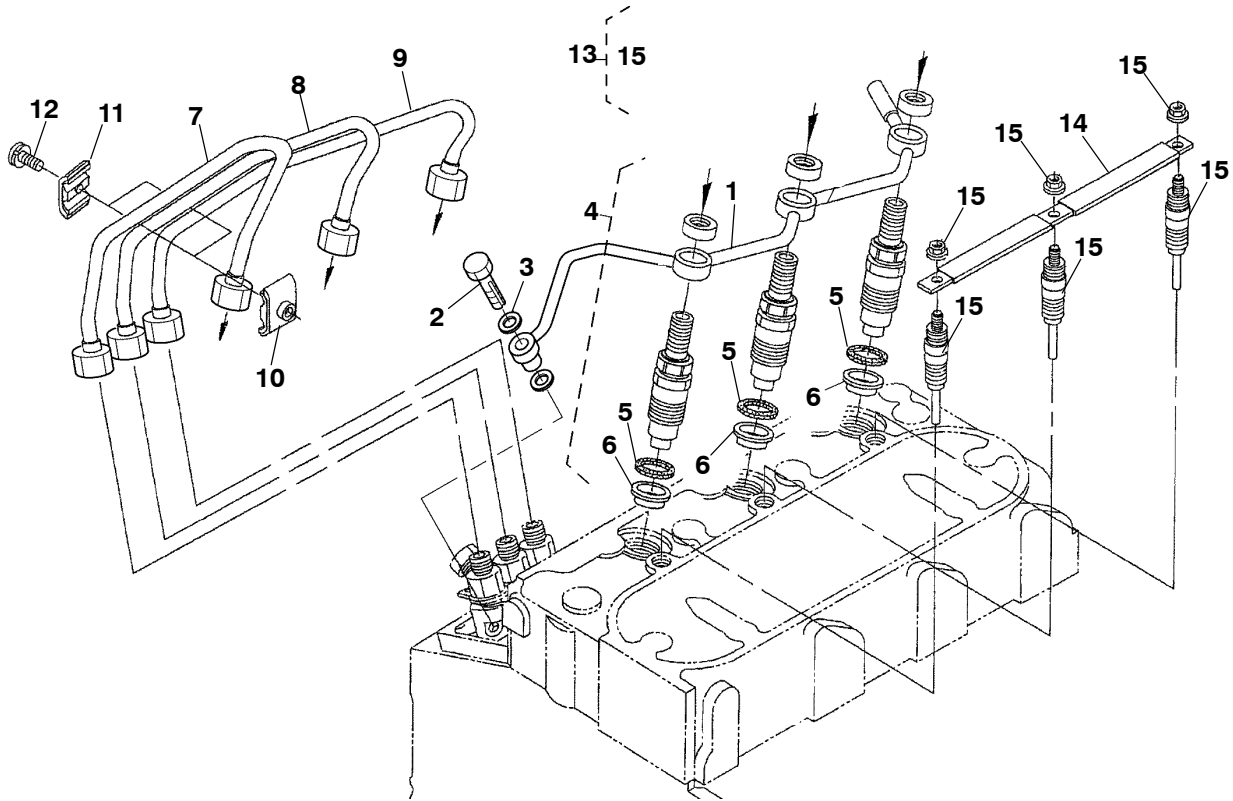
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7106	1	Pipe, Overflow	8	185-6899	1	Cord, Glow Plug
	185-7265	1	MDKBL		185-6624	1	MDKBL
2	185-7082	1	MDKBM, MDKBN	9	185-7266	1	MDKBM, MDKBN
3	185-2284	2	Screw, Air Bleeder	10	185-6621	1	Pipe, Injection
4			Gasket	11	185-6751	1	Pipe, Injection
			Holder Assy, Nozzle (See Separate Page for Components)	12	185-6750	1	Pipe, Injection
	185-6740	3		13			Clamp, Pipe
	185-6740	4			185-5612	2	MDKBL
5			Gasket		185-5612	3	MDKBM, MDKBN
	185-5337	3		14			Clamp, Pipe
	185-5337	4			185-2345	2	MDKBL
6			Seal, Heat		185-2345	3	MDKBM, MDKBN
	185-5985	3		15			Screw, Washer Head
	185-5985	4			185-2385	2	MDKBL
7			Plug, Glow		185-2385	3	MDKBM, MDKBN
			MDKBL	16			Nut, Flange
	185-5421	3	12V		185-5615	3	MDKBL
	185-7268	3	24V		185-5615	4	MDKBM, MDKBN
			MDKBM, MDKBN	17			Washer, Plain
	185-5421	4	12V		185-7004	3	MDKBL
	185-7268	4	24V		185-7004	4	MDKBM, MDKBN

Nozzle Holder and Glow Plug (MDKBL Spec B-D)



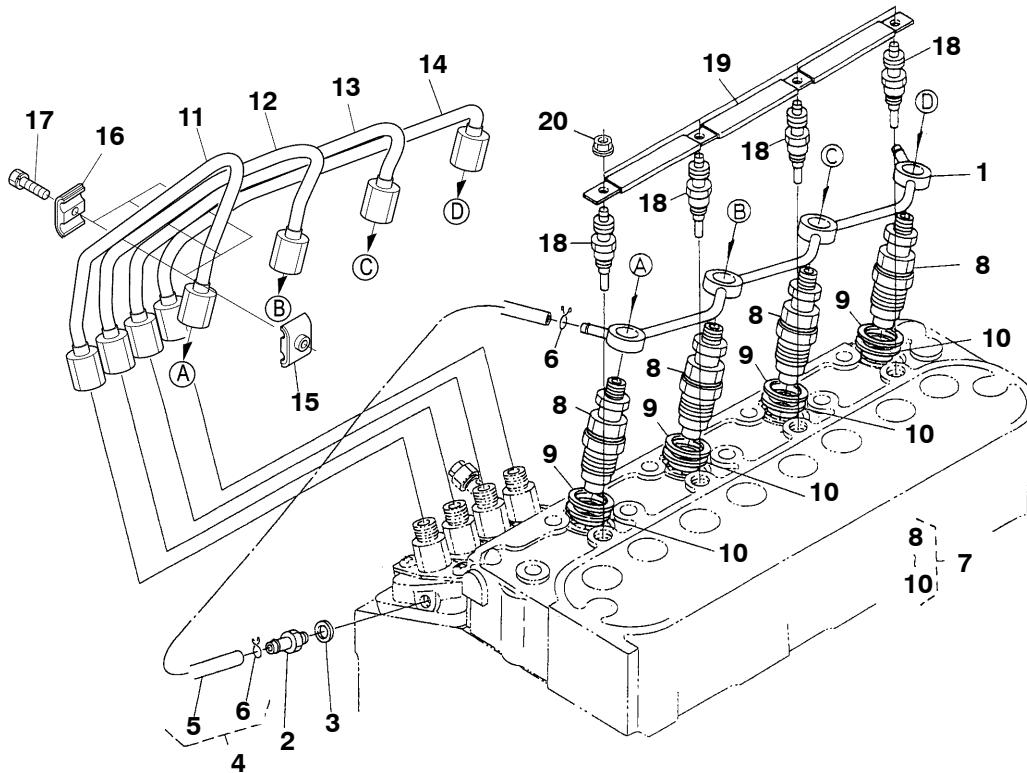
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6896	1	Assy. Pipe, Overflow	11	185-2345	2	Clamp, Pipe
2	185-5609	1	Screw, Air Bleeder	12	185-2385	2	Screw, with Washer
3	185-2284	1	Gasket	13			Glow Plug
4	185-6740	3	Assy. Holder, Nozzle (See Separate Page for Components)		333-0802	3	12V
5	185-5337	3	Gasket		185-7268	3	24V
6	185-5985	3	Seal, Heat	14	185-6899	1	Cord, Glow Plug
7	185-6750	1	Pipe, Injection	15	185-5615	3	Nut, Flange
8	185-6751	1	Pipe, Injection	16	185-5607	1	Assy. Pipe Overflow
9	185-6897	1	Pipe, Injection	17	181-9055	1	Pipe, Fuel Overflow
10	185-5612	2	Clamp, Pipe	18	185-5608	2	Clip, Pipe
				19	147-0924	1	Kit, Holder Nozzle

Nozzle Holder and Glow Plug (MDKBL Begin Spec E)



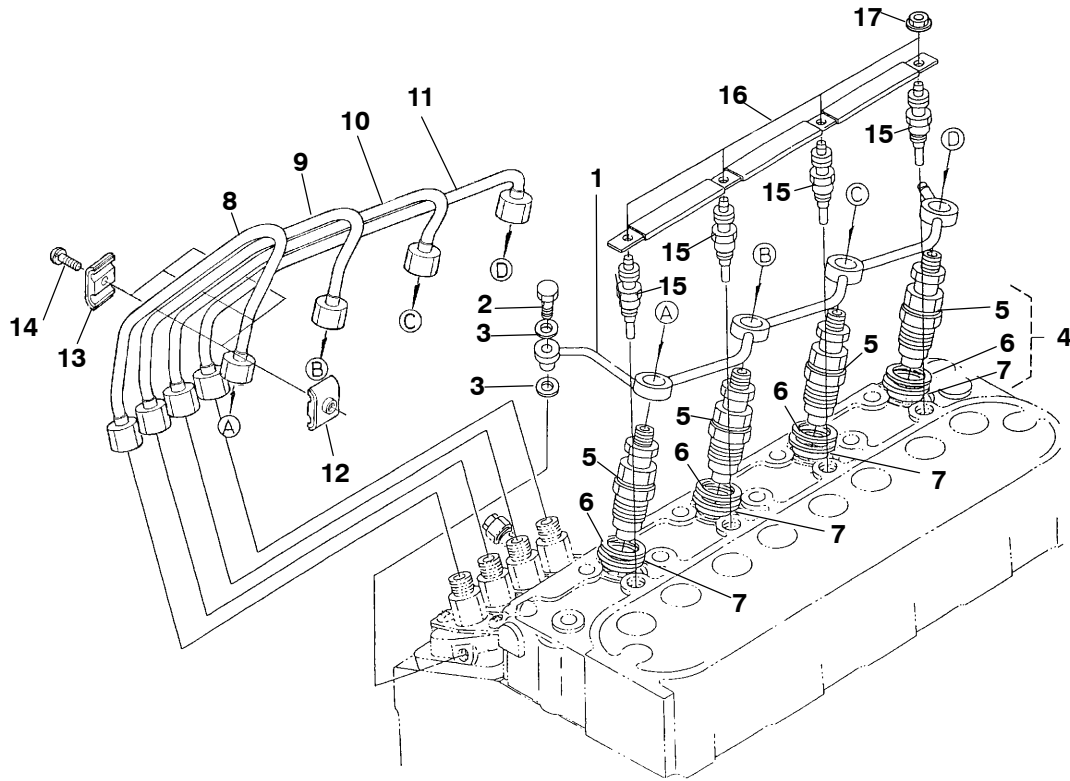
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7106	1	Assy. Pipe, Overflow	9	185-6897	1	Pipe, Injection
2	185-7082	1	Screw, Air Bleeder	10	185-5612	2	Clamp, Pipe
3	185-2284	2	Gasket	11	185-2345	2	Clamp, Pipe
4	147-0978	3	Assy. Holder, Nozzle (See Separate 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 (MDKBM Spec B-D)



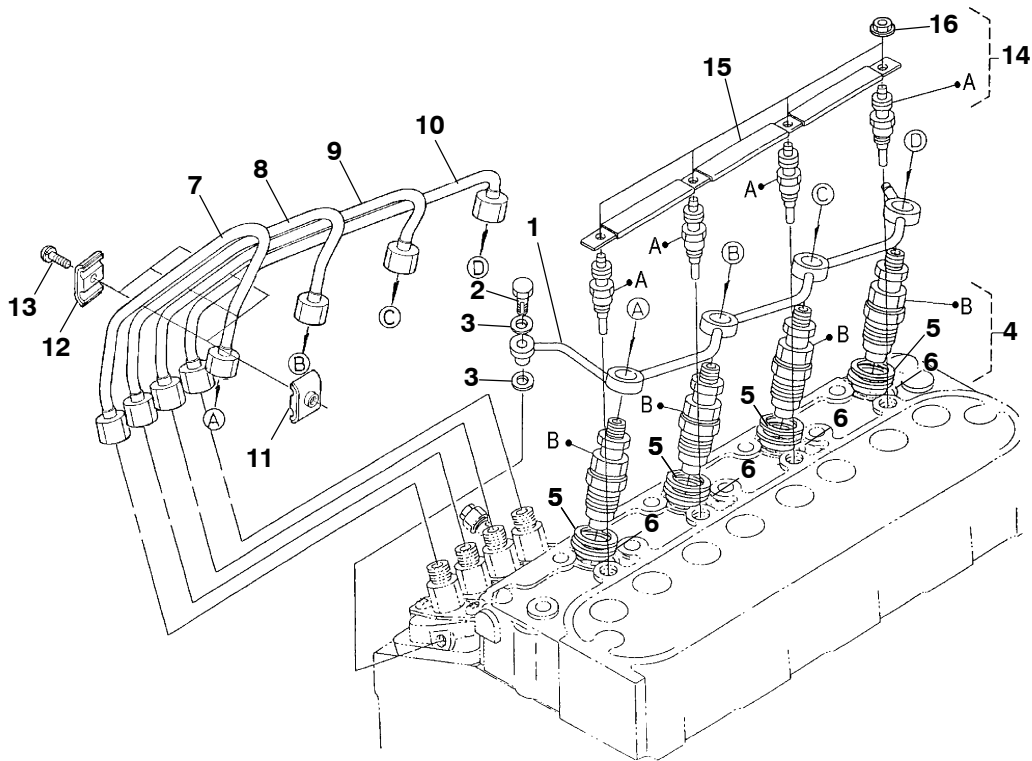
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7404	1	Assy., Pipe Overflow	12	185-6751	1	Pipe, Injection
2	185-5609	1	Screw, Air Bleeder	13	185-6897	1	Pipe, Injection
3	185-2284	1	Gasket	14	185-7266	1	Pipe, Injection
4	185-5607	1	Pipe Assy, Overflow (Includes Clip)	15	185-5612	3	Clamp, Pipe
5	181-9055	1	Pipe, Overflow	16	185-2345	3	Clamp, Pipe
6	185-5608	2	Clip, Pipe	17	185-2385	3	Screw, W/Washer
7	147-0924	4	Kit, Holder Nozzle	18			Plug, Glow
8	185-6740	4	Holder, Nozzle		333-0802	4	12V
9	185-5337	4	Gasket		185-7268	4	24V
10	185-5985	4	Seal, Heat	19	185-6624	1	Cord, Glow Plug
11	185-6750	1	Pipe, Injection	20	185-5616	4	Nut, Flange

Nozzle Holder and Glow Plug (MDKBN Spec B-D)



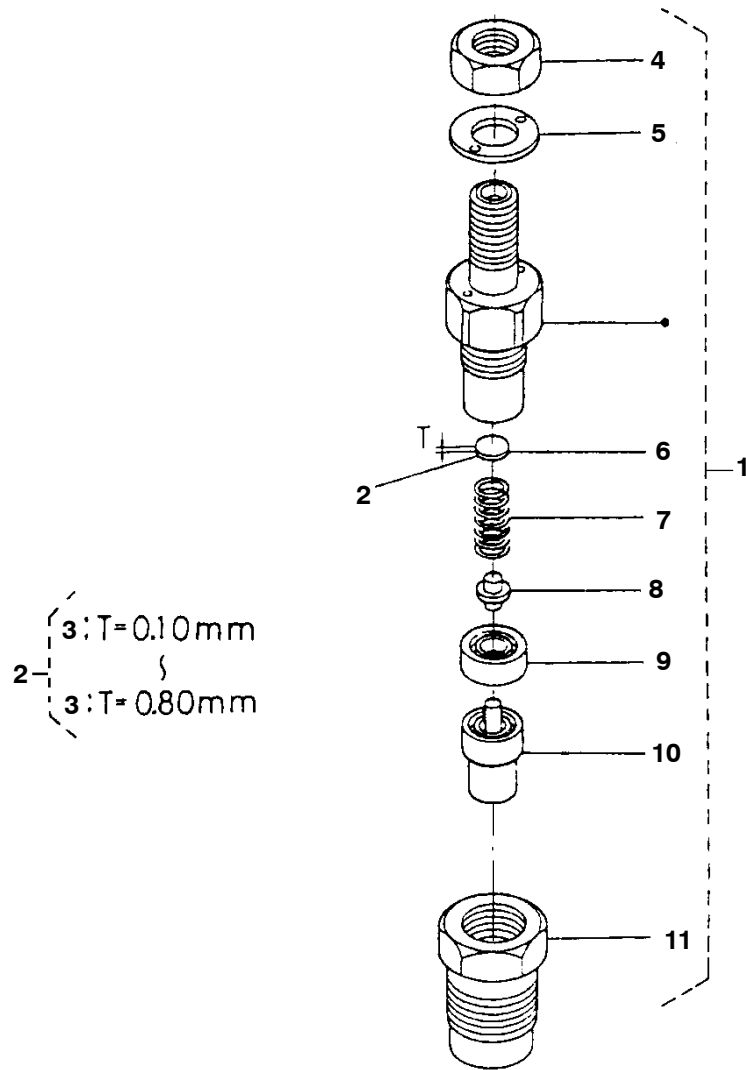
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7265	1	Assy Pipe, Overflow	11	185-7266	1	Pipe, Injection
2	185-7082	1	Screw, Air Bleeder	12	185-5612	3	Clamp, Pipe
3	185-2284	2	Gasket	13	185-2345	3	Clamp, Pipe
4	181-9090	4	Kit Holder Nozzle	14	185-2385	3	Screw, Washer Head
5	185-6740	4	Assy. Holder, Nozzle	15			Glow, Plug
6	185-5337	4	Gasket		333-0802	4	12V
7	185-5985	4	Seal, Heat		185-7268	4	24V
8	185-6750	1	Pipe, Injection	16	185-6624	1	Cord Glow, Plug
9	185-6751	1	Pipe, Injection	17	185-5615	4	Nut, Flange
10	185-6897	1	Pipe, Injection				

Nozzle Holder and Glow Plug (MDKBM and MDKBN Begin Spec E)



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

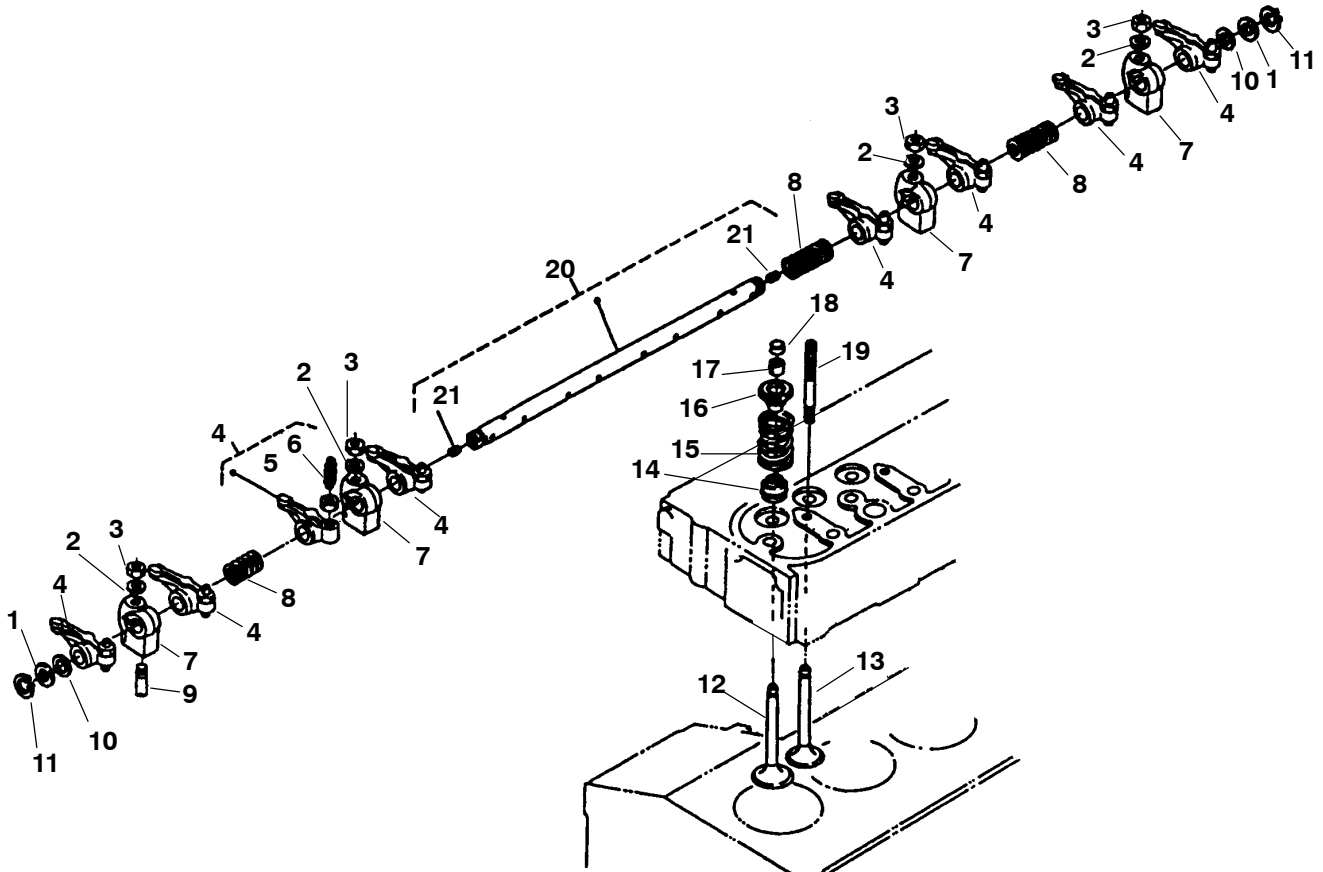


Nozzle Holder Components

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Holder Assy, Nozzle (Includes Parts Marked *)	4			*Nut
	185-6740	3	MDKBL Spec A-D		185-6900	3	MDKBL
	185-6740	4	MDKBM, MDKBN Spec A-D		185-6900	4	MDKBM, MDKBN
	147-0978	4	MDKBL, MDKBM, MDKBN Begin Spec E	5			*Washer, Plain
					185-6906	3	MDKBL
					185-6906	4	MDKBM, MDKBN
2			*Washer Assy, Adjust (Includes Adjusting Washers)	6			*Washer, Adjusting
	185-6908	3	MDKBL		185-6901	3	MDKBL
	185-6908	4	MDKBM, MDKBN		185-6901	4	MDKBM, MDKBN
3			Washer, Adjusting	7			*Spring, Nozzle
			MDKBL		185-6902	3	MDKBL
	185-6909	3	.10mm		185-6902	4	MDKBM, MDKBN
	185-6910	3	.20mm	8			*Rod, Push
	185-6911	3	.30mm		185-6904	3	MDKBL
	185-6912	3	.40mm		185-6904	4	MDKBM, MDKBN
	185-6913	3	.50mm	9			*Piece, Distance
	185-6914	3	.52mm		185-6903	3	MDKBL
	185-6915	3	.54mm		185-6903	4	MDKBM, MDKBN
	185-6916	3	.56mm	10			*Piece, Nozzle
	185-6917	3	.58mm		185-6907	3	MDKBL Spec A-D
	185-6918	3	.80mm		147-0974	3	MDKBL Begin Spec E
			MDKBM, MDKBN		185-6907	4	MDKBM, MDKBN Spec A-D
	185-6909	4	.10mm		147-0974	4	MDKBM, MDKBN Begin Spec E
	185-6910	4	.20mm	11			*Nut, Nozzle*
	185-6911	4	.30mm		185-6905	3	MDKBL
	185-6912	4	.40mm		185-6905	4	MDKBM, MDKBN
	185-6913	4	.50mm				
	185-6914	4	.52mm				
	185-6915	4	.54mm				
	185-6916	4	.56mm				
	185-6917	4	.58mm				
	185-6918	4	.80mm				

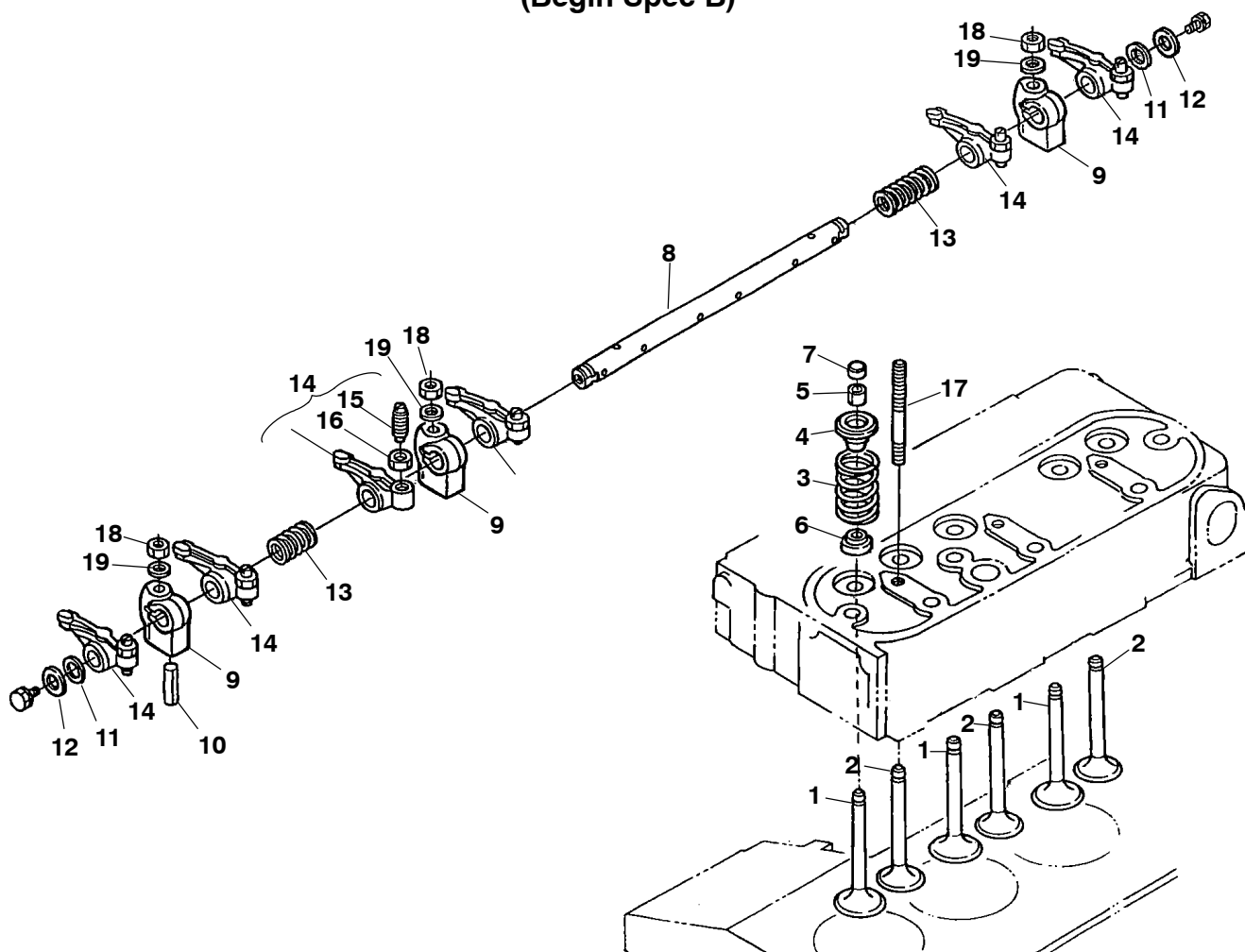
* - Parts Included in Nozzle Holder Assy.

Valve and Rocker Arm (Spec A)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-6690	2	Washer, Rocker Arm Shaft	13			Valve, Exhaust
2	185-2184	3	Washer, Plain	13	185-6682	3	MDKBL
	185-2184	4	MDKBL	13	185-6682	4	MDKBM, MDKBN
	185-2184	4	MDKBM, MDKBN	14			Seal, Valve Stem
3			Nut	14	185-7300	6	MDKBL
	185-2179	3	MDKBL	14	185-7300	8	MDKBM, MDKBN
	185-2179	4	MDKBM, MDKBN	15			Spring, Valve
4			Arm Assy, Rocker (Includes Screw and Nut)	15	185-6683	6	MDKBL
	185-6693	6	MDKBL	15	185-6683	8	MDKBM, MDKBN
	185-6693	8	MDKBM, MDKBN	16			Retainer, Valve Spring
5			Nut	16	185-2076	6	MDKBL
	185-6695	6	MDKBL	16	185-2076	8	MDKBM, MDKBN
	185-6695	8	MDKBM, MDKBN	17			Collet, Valve Spring
6			Screw, Adjusting	17	110-3827	6	MDKBL
	185-6694	6	MDKBL	17	110-3827	8	MDKBM, MDKBN
	185-6694	8	MDKBM, MDKBN	18			Cap, Valve
7			Bracket, Rocker Arm	18	185-2080	6	MDKBL
	185-6687	3	MDKBL	18	185-2080	8	MDKBM, MDKBN
	185-6687	4	MDKBM, MDKBN	19			Stud
8			Spring, Rocker Arm	19	185-6688	3	MDKBL
	185-6691	2	MDKBL	19	185-6688	4	MDKBM, MDKBN
	185-6691	3	MDKBM, MDKBN	20			Shaft Assy, Rocker Arm (Includes Screws)
9	185-2072	1	Screw, Rocker Arm Set	20	185-6923	1	MDKBL
10	185-6689	2	Washer, Rocker Arm Shaft	20	185-6685	1	MDKBM, MDKBN
11	185-6692	2	Circlip, External	21	185-6686	2	Screw, Set
12			Valve, Inlet				
	185-6681	3	MDKBL				
	185-6681	4	MDKBM, MDKBN				

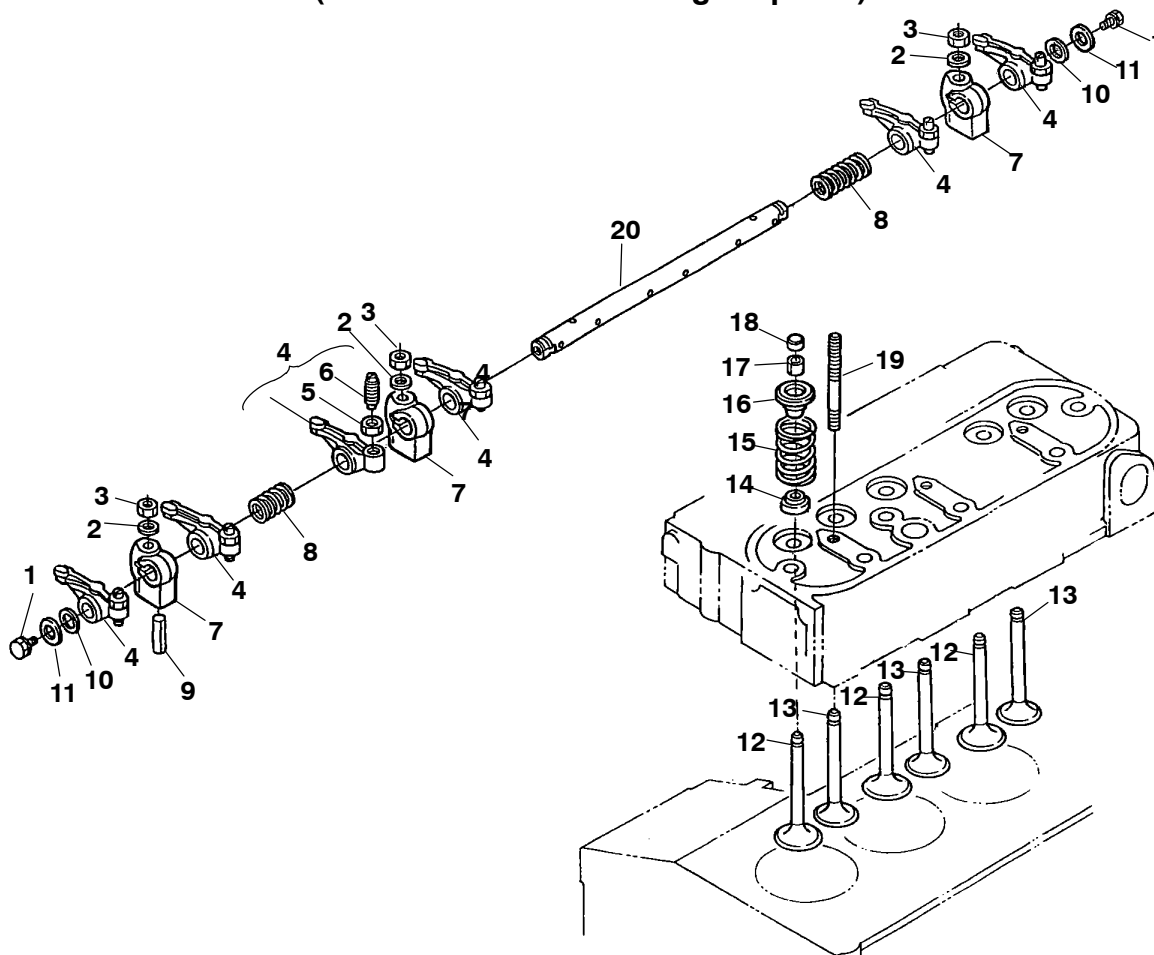
Valve and Rocker Arm MDKBL (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6681	3	Valve, Inlet Spec B-D
	110-4021	3	Begin Spec E
2	185-6682	3	Valve, Exhaust Spec B-D
	110-4022	3	Begin Spec E
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

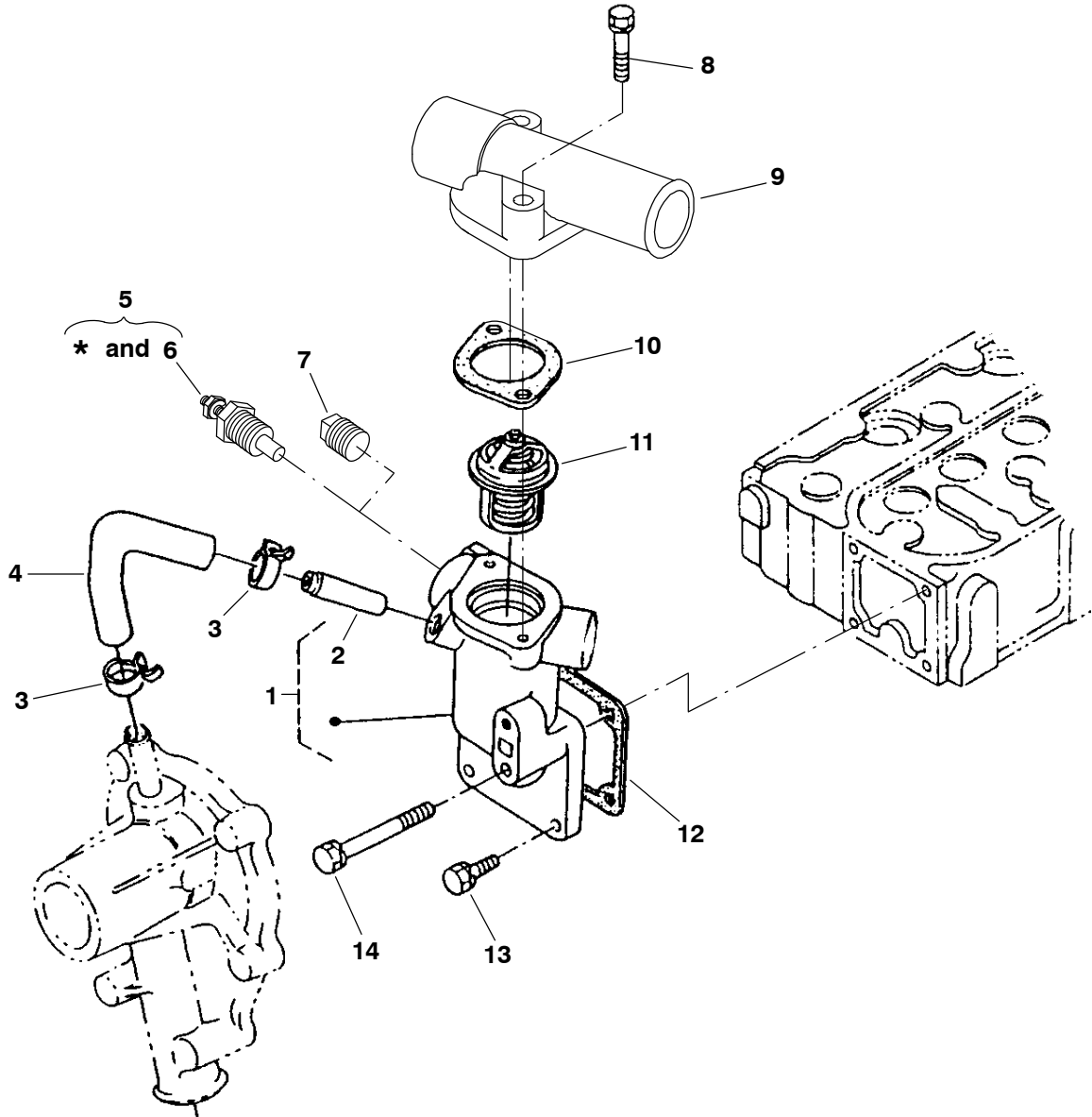
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	185-6697	3	Bracket, Rocker Arm
10	185-7441	1	Pin, Spring
11	185-6689	2	Washer, Rocker Arm Shaft
12	185-7395	2	Washer, Plain
13	185-6691	2	Spring, Rocker Arm
14	185-6693	6	Assy, Rocker Arm
15	185-6694	6	Screw, Adjusting
16	185-6695	6	Nut
17	185-6688	3	Stud
18	185-2179	3	Nut
19	185-2184	3	Washer, Plain

Valve and Rocker Arm (MDKBM and MDKBN Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7440	2	Bolt	13			Valve, Exhaust
2	185-2184	4	Washer, Plain	185-6682	4		Spec B-D
3	185-2179	4	Nut	110-4022	4		Begin Spec E
4	185-6693	8	Arm Assy, Rocker (Includes Screw and Nut)	14			Seal, Valve Stem
5	185-6695	8	Nut	185-7300	8		Spec B-D
6	185-6694	8	Screw, Adjusting	110-3974	8		Begin Spec E
7	185-6687	4	Bracket, Rocker Arm	15	185-6683	8	Spring, Valve
8	185-6691	3	Spring, Rocker Arm	16	181-9117	8	Retainer, Spring
9	185-7441	1	Pin, Spring	17	181-9036	8	Collet, Valve Spring
10	185-6689	2	Washer, Rocker Arm Shaft	18	185-6459	8	Cap, Valve
11	185-7395	2	Washer, Plain	19	185-6688	4	Stud
12			Valve, Inlet	20	181-9100	1	Shaft, Rocker Arm
	185-6681	4	Spec B-D				
	110-4021	4	Begin Spec E				

Water Flange

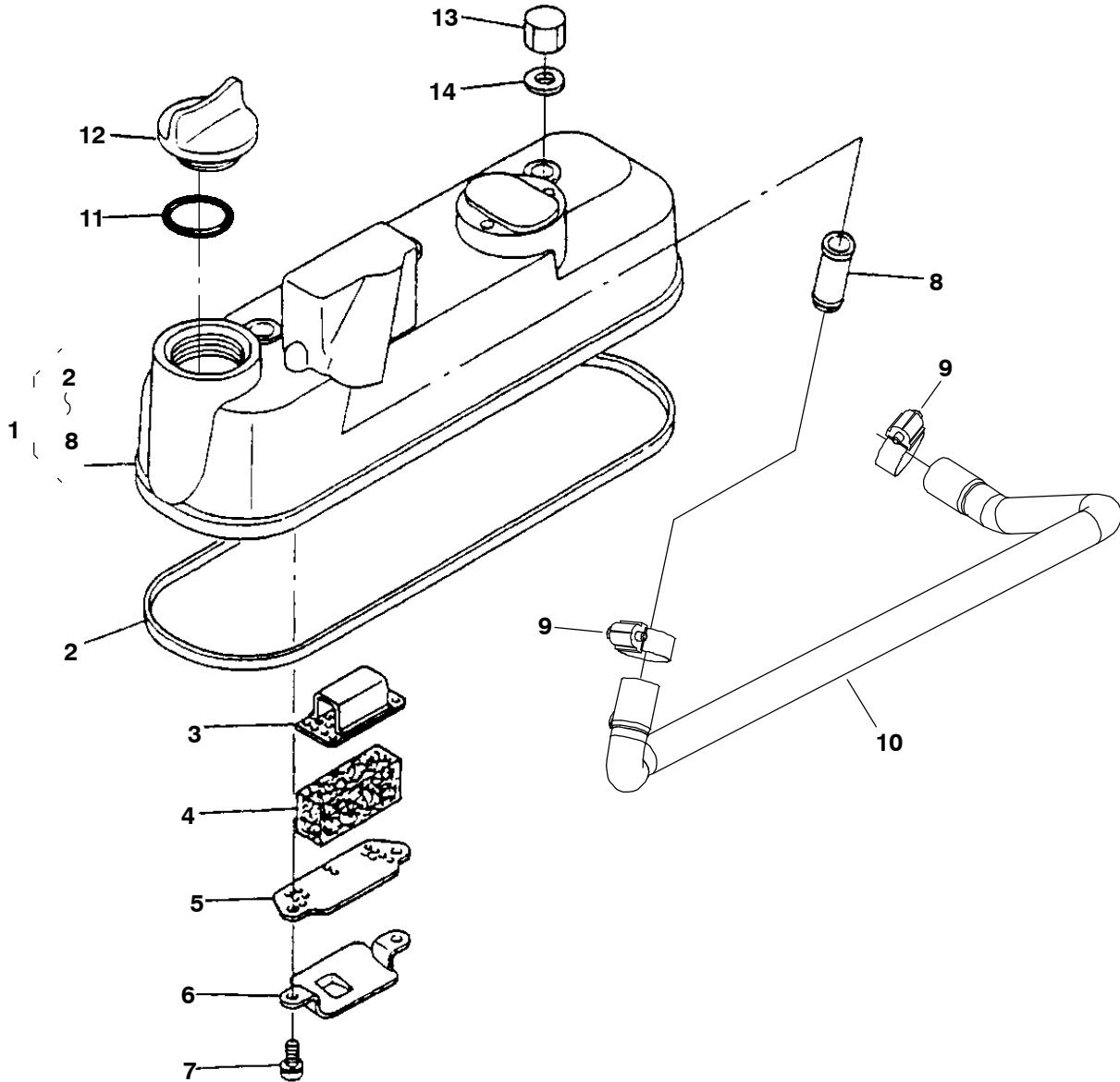


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7297	1	Flange, Water (Includes Water Return Pipe)	7	185-5826	1	Plug
2	185-6445	1	Pipe, Water Return	8	185-6781	2	Bolt
3	185-6667	2	Band, Pipe	9	185-7298	1	Cover, Thermostat
4	185-6666	1	Pipe, Water Return	10	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.

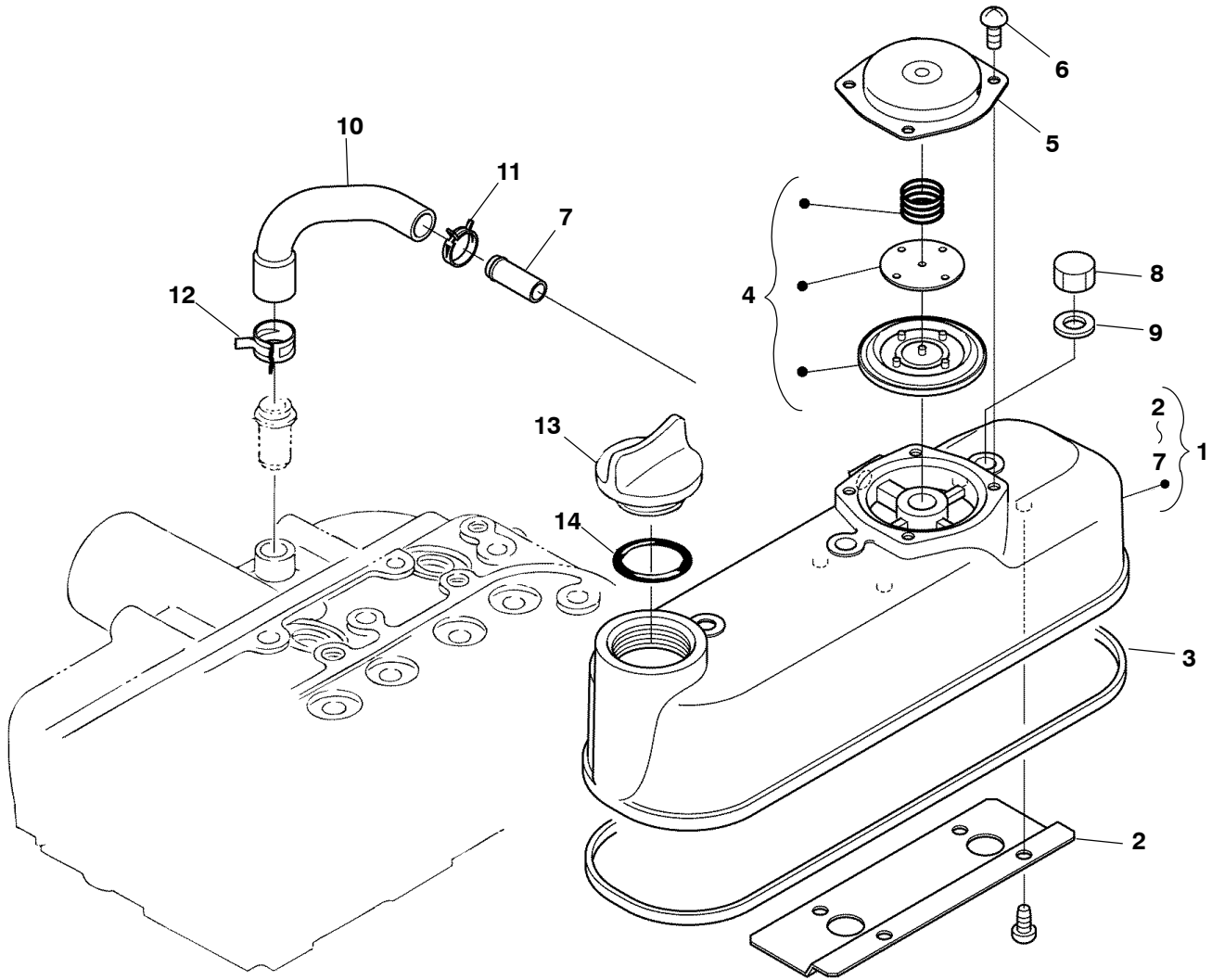
Cylinder Head Cover (Spec A)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Cover Assy, Cylinder Head (Includes Parts Marked *)	11			O'Ring
	185-6867	1	MDKBL		185-2349	1	MDKBL
	185-6497	1	MDKBM, MDKBN		185-2349	2	MDKBM, MDKBN
2			*Gasket, Cylinder Head Cover	12			Cover, Oil Fill
	185-6868	1	MDKBL		185-5407	1	MDKBL
	185-6498	1	MDKBM, MDKBN		185-5407	2	MDKBM, MDKBN
3	185-6501	1	*Plate, Upper Breather Element	13			Nut, Cap
4	185-6721	1	*Element, Breather		185-6394	3	MDKBL
5	185-6500	1	*Plate, Lower Breather Element		185-6394	4	MDKBM, MDKBN
6	185-6503	1	*Shield, Breather Oil	14			Gasket
7	185-2384	2	*Screw, Washer Head		185-2291	3	MDKBL
8	185-6499	1	*Joint, Breather Pipe		185-2291	4	MDKBM, MDKBN
9	503-0976	2	Clamp, Hose				
10			Hose, Breather				
	503-2070	1	MDKBL				
	503-2087	1	MDKBM, MDKBN				

* - Parts Included in Cylinder Head Cover Assy.

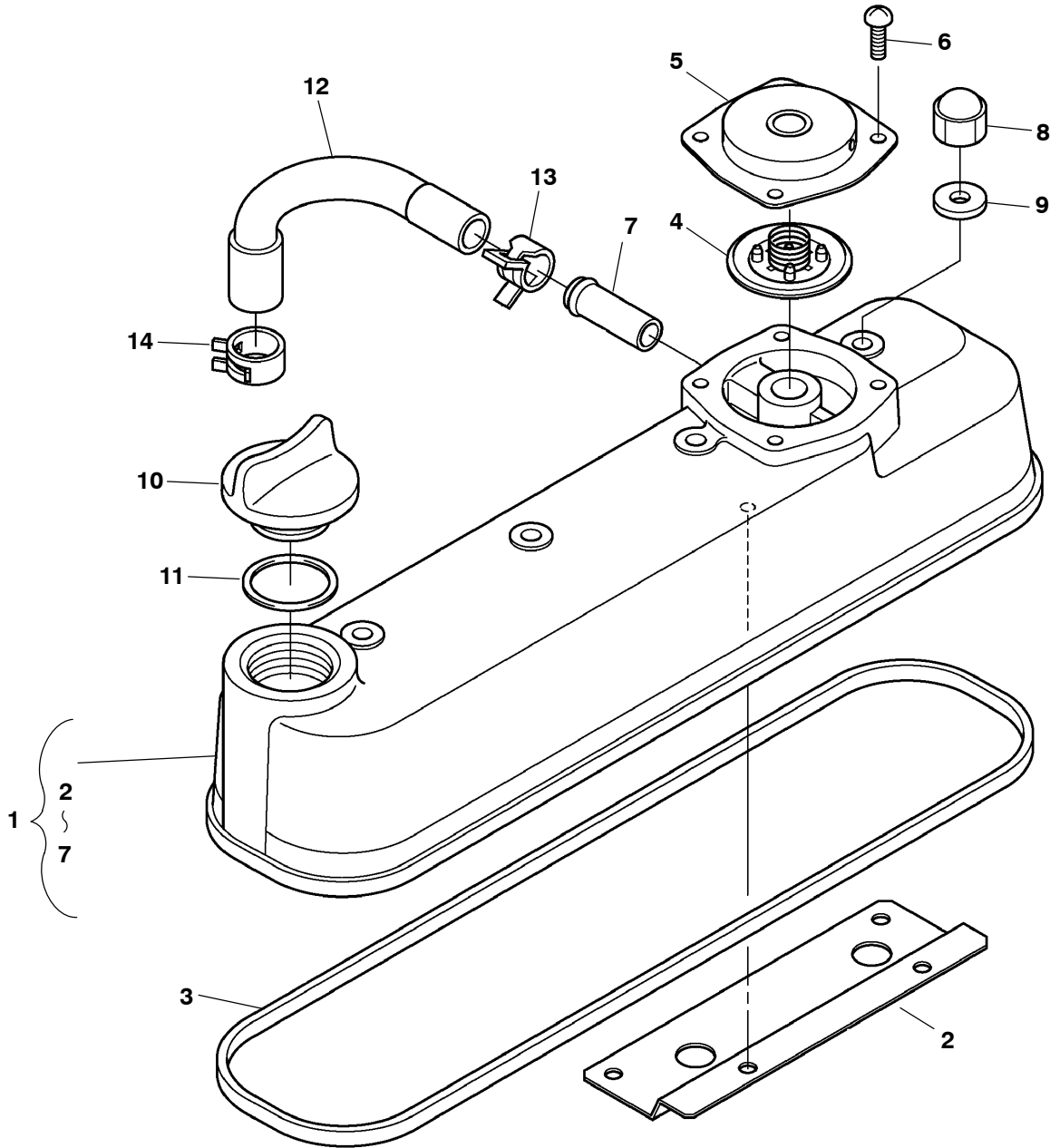
Cylinder Head Cover MDKBL (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cover Assy, Cylinder Head (Includes Parts Marked *)	8	185-6394	3	*Nut
	134-5384	1	Begin Spec B	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				

* - Parts Included in Cylinder Head Cover Assy.

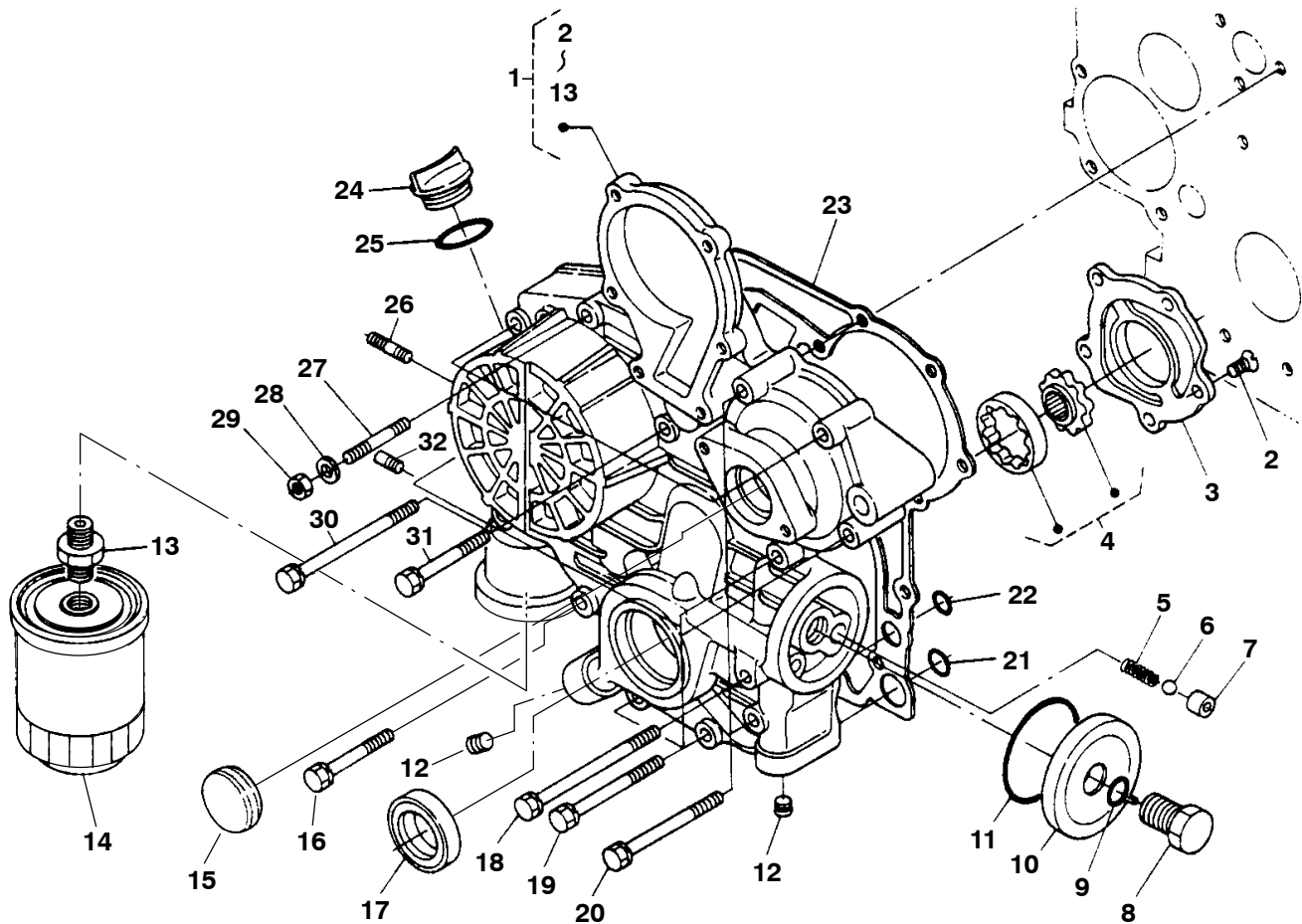
Cylinder Head Cover MDKBM, MDKBN (Begin Spec B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cover Assy, Cylinder Head (Includes Parts Marked *)	11	185-7426	1	O' Ring
	134-5386	1	Begin Spec B	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			*Nut				
	185-6394	3	Spec B-D				
	181-9079	3	Begin Spec E				
9	185-2291	3	Gasket				
10	181-9000	1	Plug, Oil Filler				

* - Parts Included in Cylinder Head Cover Assy.

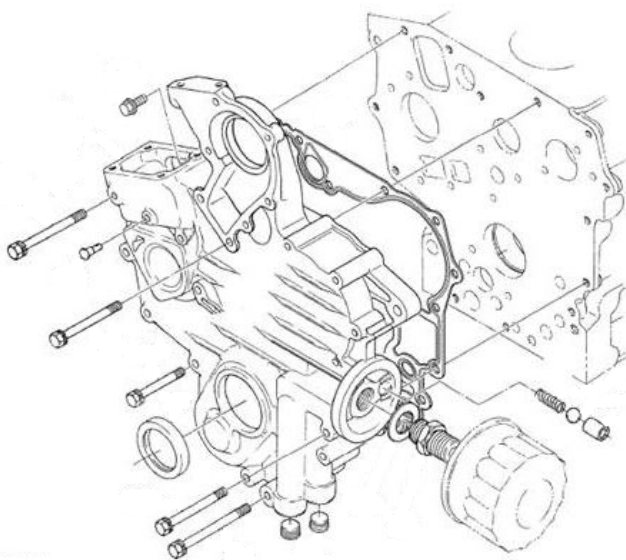
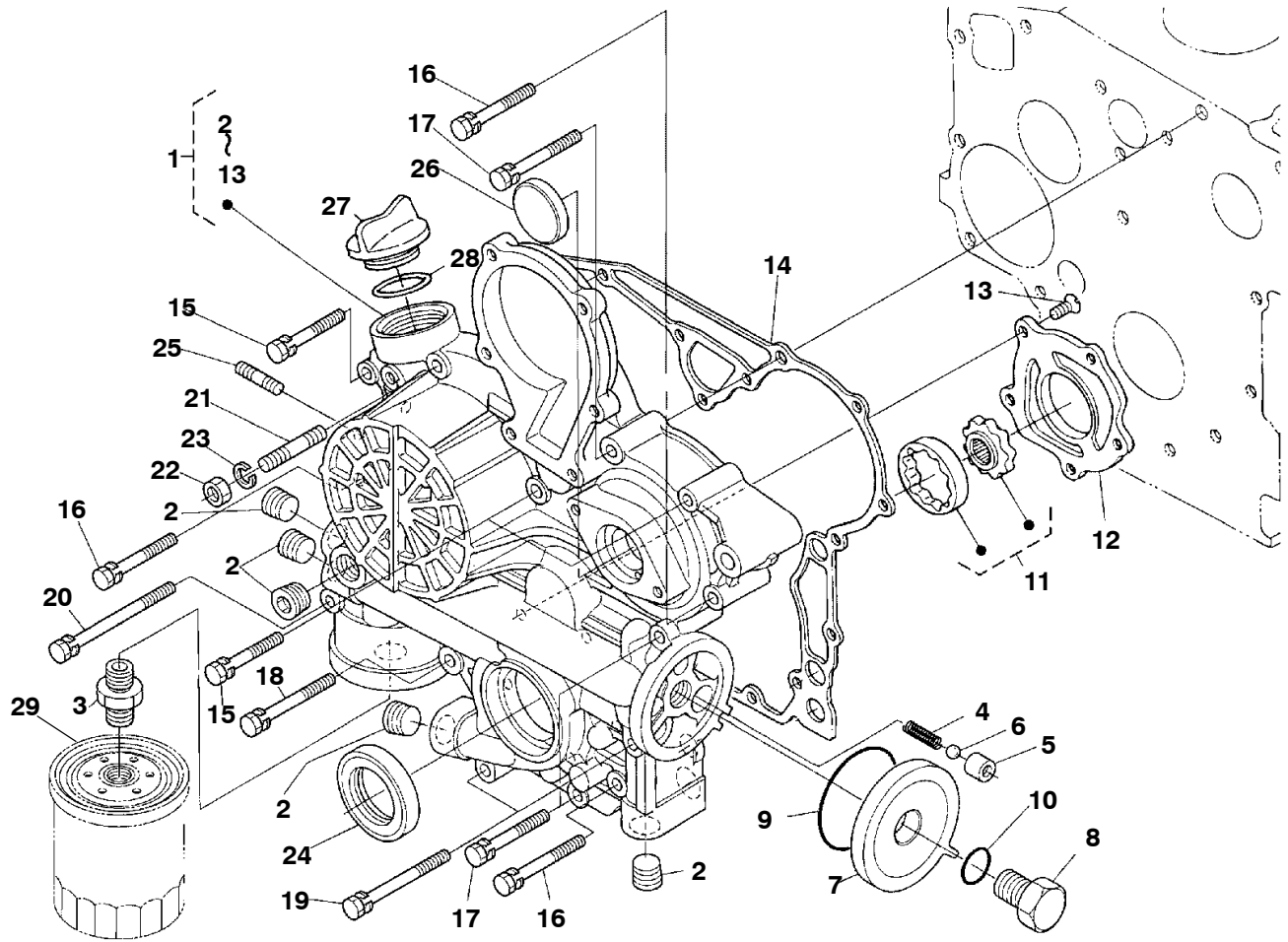
Gearcase (MDKBL, MDKBM and MDKBN Spec A-D)



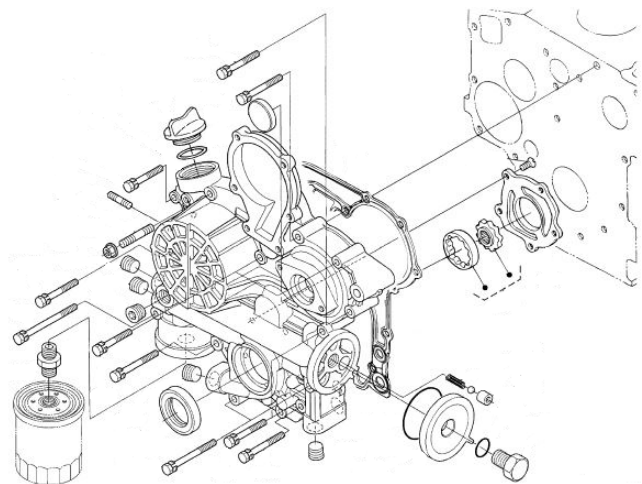
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Gearcase Assy (Includes Parts Marked *)	18	185-6491	2	Bolt
	185-6480	1	Spec A	19	185-7069	4	Bolt
	103-0858	1	Begin Spec B MDKBL	20	185-6665	2	Bolt
	103-0861	1	Begin Spec B MDKBM, MDKBN	21	185-5869	2	O'Ring (Spec B)
2	185-6487	5	*Screw, Countersunk Head	22	185-3080	2	O'Ring (Spec B)
3	185-6486	1	*Cover, Oil Pump	23	185-6863	1	Gasket, Gearcase
4	185-6485	1	*Rotor, Oil Pump	24		1	Cover, Oil Fill
5	185-6482	1	*Spring		185-5407	1	Spec A-B
6	185-6484	1	*Ball		123-2299	1	Spec C MDKBL
7	185-6483	1	*Seat, Valve	25	185-2349	1	O'Ring (MDKBL)
8	185-5742	1	*Bolt	26		1	Stud
9	185-5869	1	*O'Ring		185-2359	1	Spec A
10	185-5741	1	*Cover		185-7425	1	Begin Spec B
11	185-5743	1	*O'Ring	27		1	Stud
12	185-6481	5	*Plug		185-6493	2	Spec A
13	185-2124	1	*Fitting, Connector		185-7423	2	Begin Spec B
14	185-5835	1	Filter, Oil	28	185-6759	1	Washer, Spring
15	185-7216	1	Plug	29	185-4255	1	Nut
16	185-6490	1	Bolt	30	185-6492	1	Bolt
17			Seal, Oil	31	185-5833	3	Bolt
	185-6864	1	MDKBL	32	505-2252	1	Plug (MDKBM, MDKBN)
	185-6494	1	MDKBM, MDKBN				

* - Parts Included in Gearcase Assy.

Gearcase (MDKBL, MDKBM and MDKBN Begin Spec E)



NEW Gearcase



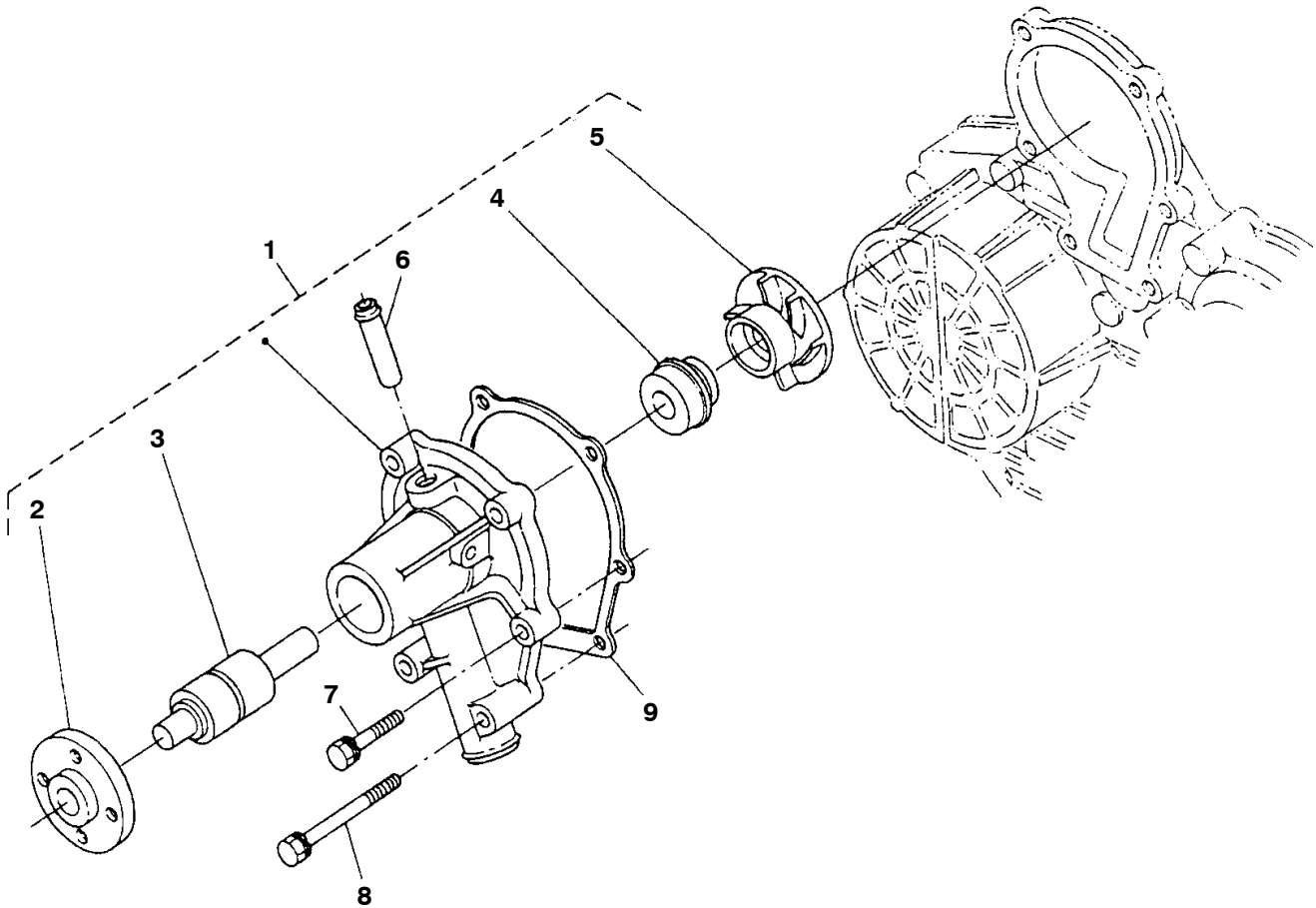
OLD Gearcase

Gearcase (MDKBL, MDKBM and MDKBN Begin Spec E)

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.

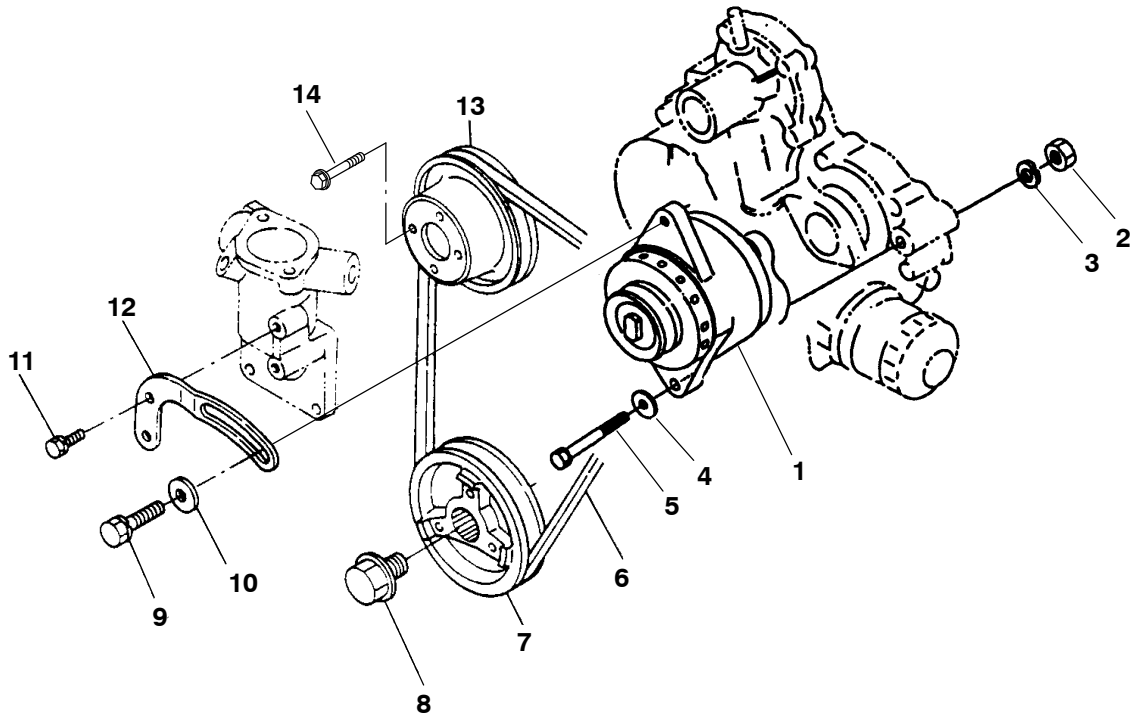
Captive Water Pump Components



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Pump Assy, Water (Includes Parts Marked *)	5			*Impeller, Captive Water Pump
	185-6671	1	Spec A		185-6674	1	Spec A
	181-9108	1	Begin Spec B		181-9115	1	Begin Spec B
2	185-6672	1	*Flange, Pump Water	6	185-5716	1	*Pipe, Water Return
3			*Bearing	7	185-6677	4	Bolt
	185-6673	1	Spec A	8			Bolt
	181-9116	1	Begin Spec B		185-5745	2	Spec A
4			*Seal Assy, Mechanical		181-9007	2	Begin Spec B
	185-5714	1	Spec A	9	185-7299	1	Gasket, Water Pump
	181-9233	1	Begin Spec B				

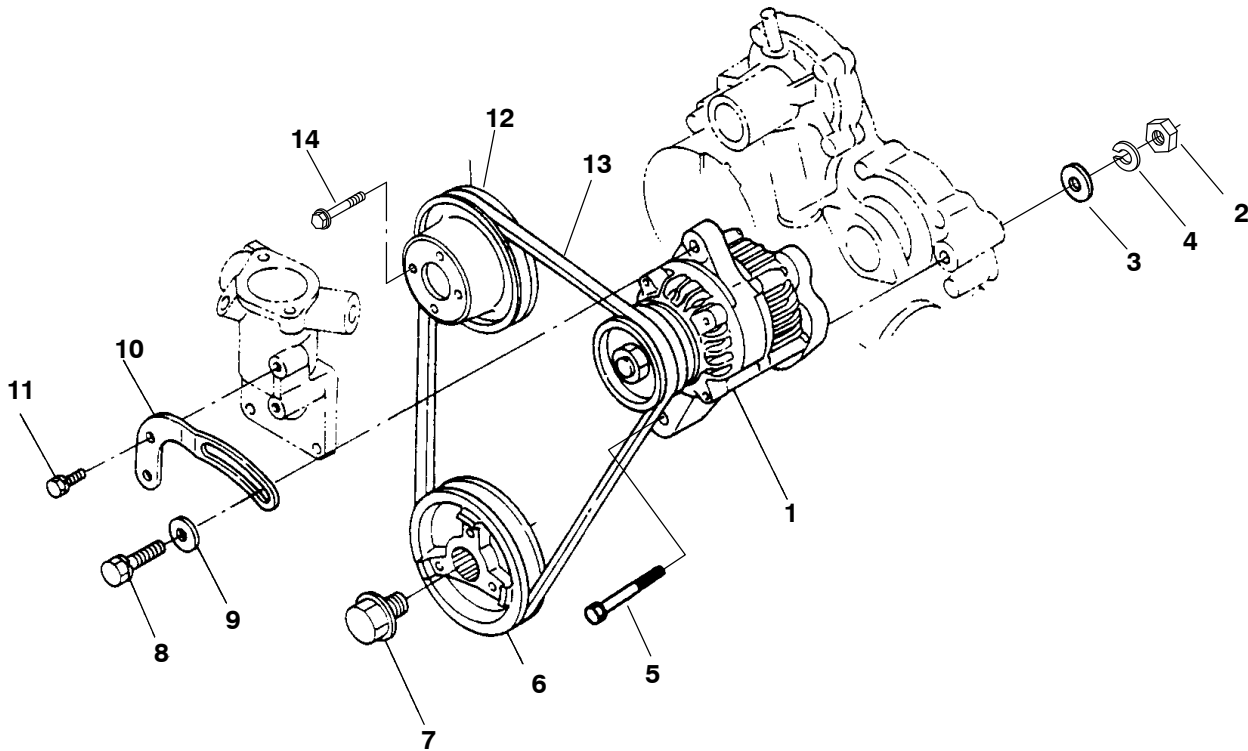
* - Parts Included in Water Pump Assy.

Alternator (12V)



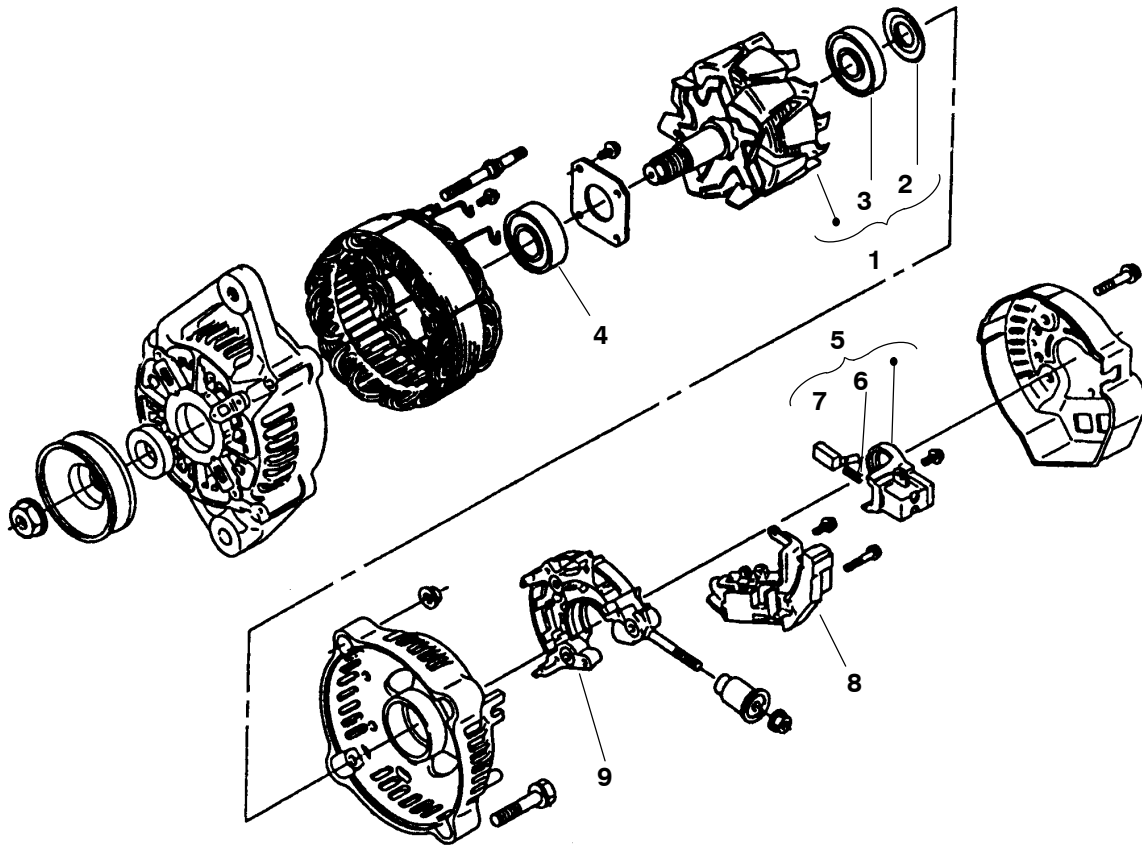
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7269	1	Alternator (12V) (No Components Available)	8	185-6633	1	Bolt
2	185-5445	1	Nut	9	185-2564	1	Bolt
3	185-6785	1	Washer, Spring	10	185-6786	2	Washer, Plain
4	185-7272	1	Washer, Plain	11	185-2388	1	Bolt
5	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	MDKBL				
	185-7273	1	MDKBM, MDKBN				

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	MDKBL, MDKBN	13	185-6934	1	Belt, Fan (37.5")
				14	185-2572	4	Bolt

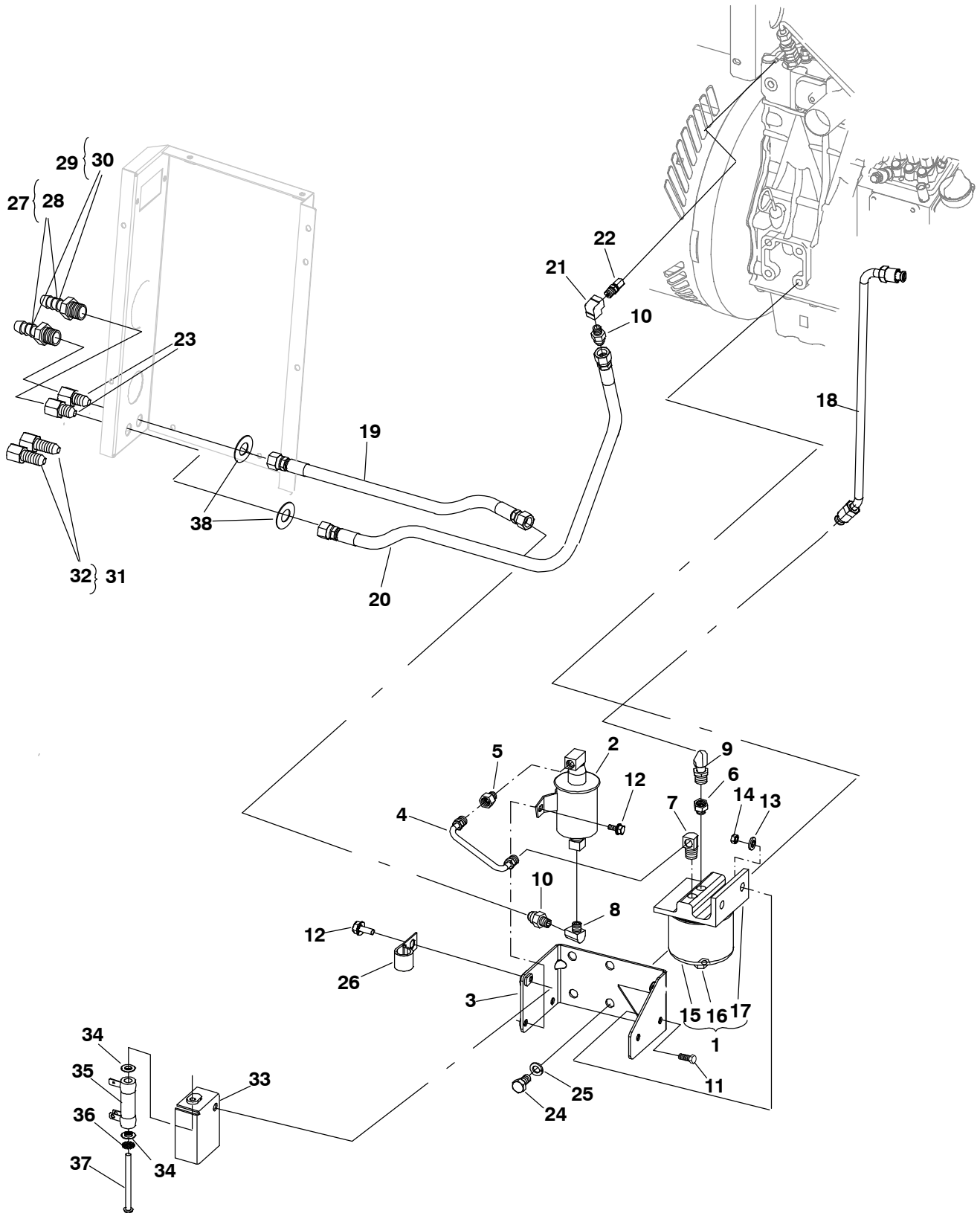
Alternator Components (24V)



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.

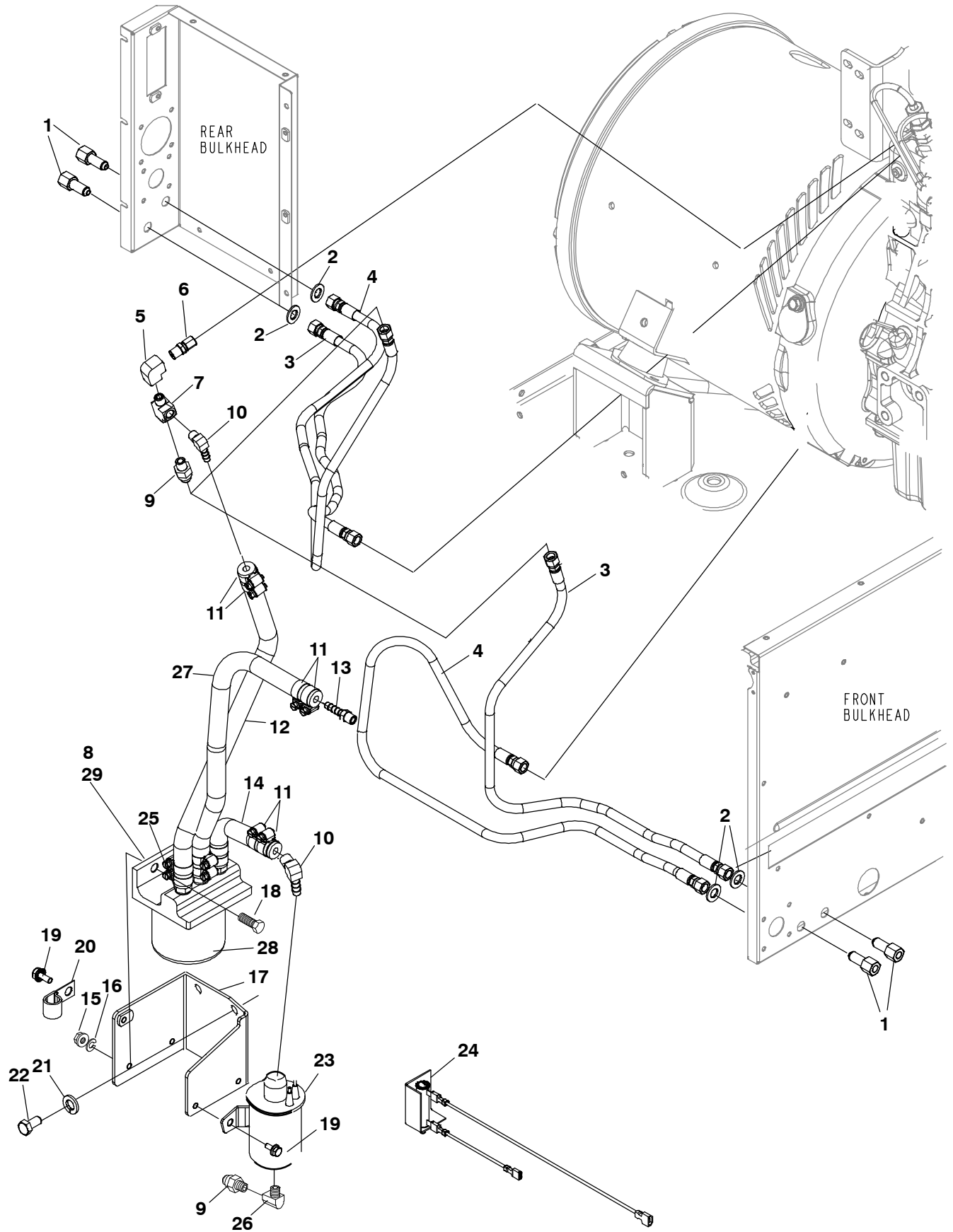
Fuel Pump
(Spec A-B)



Fuel Pump (Spec A-B)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			All parts Marked *)				
1	149-2100	1	*Filter, Base (Includes Element, Plug, and Base)	21	502-0055	1	Elbow, Pipe
2	149-2331-01	1	*Pump, Fuel (E5)	22	502-1245	1	Adapter, Pipe
3	149-2618-04	1	*Bracket, Mounting	23	505-1489	2	Connector, Female Bulkhead
4	149-2601	1	*Line, Fuel (.25")	24	800-3030	3	Screw, Hex Head Cap (M10 x 1.25 x 20mm)
5	502-0003	1	*Connector, Inverted Male	25	850-0114-55	3	Washer, Lock (M10)
6	502-0029	1	*Bushing, Pipe	26	518-0515	1	Clip, Hose
7	502-0041	1	*Elbow, Male	27	149-2655	1	Kit, Fuel Adapter (Includes Barbed Hose Connector)
8	502-0020-01	1	*Elbow, Pipe	28	502-1162	2	Connector, Barbed Hose (1/4-18 x 3/8")
9	502-0065	1	*Elbow, Inverted Male	29	149-2654	1	Kit, Fuel Adapter (Includes Barbed Hose Connector)
10	505-1490	2	*Connector, Male	30	502-1218	2	Connector, Barbed Hose (1/4-18 x 5/16")
11	800-3017-19	2	*Screw, Hex Head Cap (M8 x 1.25 x 20mm)	31	149-2612	1	Kit, Adapter Fitting (Includes Metric Adapters)
12	821-6002-02	2	*Screw, Hex Head Sems (M6 x 1 x 12mm)	32	505-1485	2	Adapter, Metric NPT
13	850-0114-54	2	*Washer, Lock (M8)	33	304-0831-03	1	Bracket, Resistor (24V)
14	862-0026-55	2	*Nut, Hex (M8)	34	304-0796	2	Washer, Centering (24V)
15	149-2106	1	Element	35	304-0797	1	Resistor (24V)
16	502-0028	1	Plug, Drain	36	856-0003	1	Washer, EIT (#10)(24V)
17	149-2635	1	Base, Aluminum	37	813-0112	1	Screw, Round Head Machine (#10-32 x 2.5")(24V)
18			Line, Fuel Assy	38	526-0406	2	Washer, Flat (M14)
	501-0709	1	MDKBL				
	501-0710	1	MDKBM, MDKBN				
19	501-0672-01	1	Line, Fuel (28.5")				
20	501-0672-04	1	Line, Fuel (38.5")				

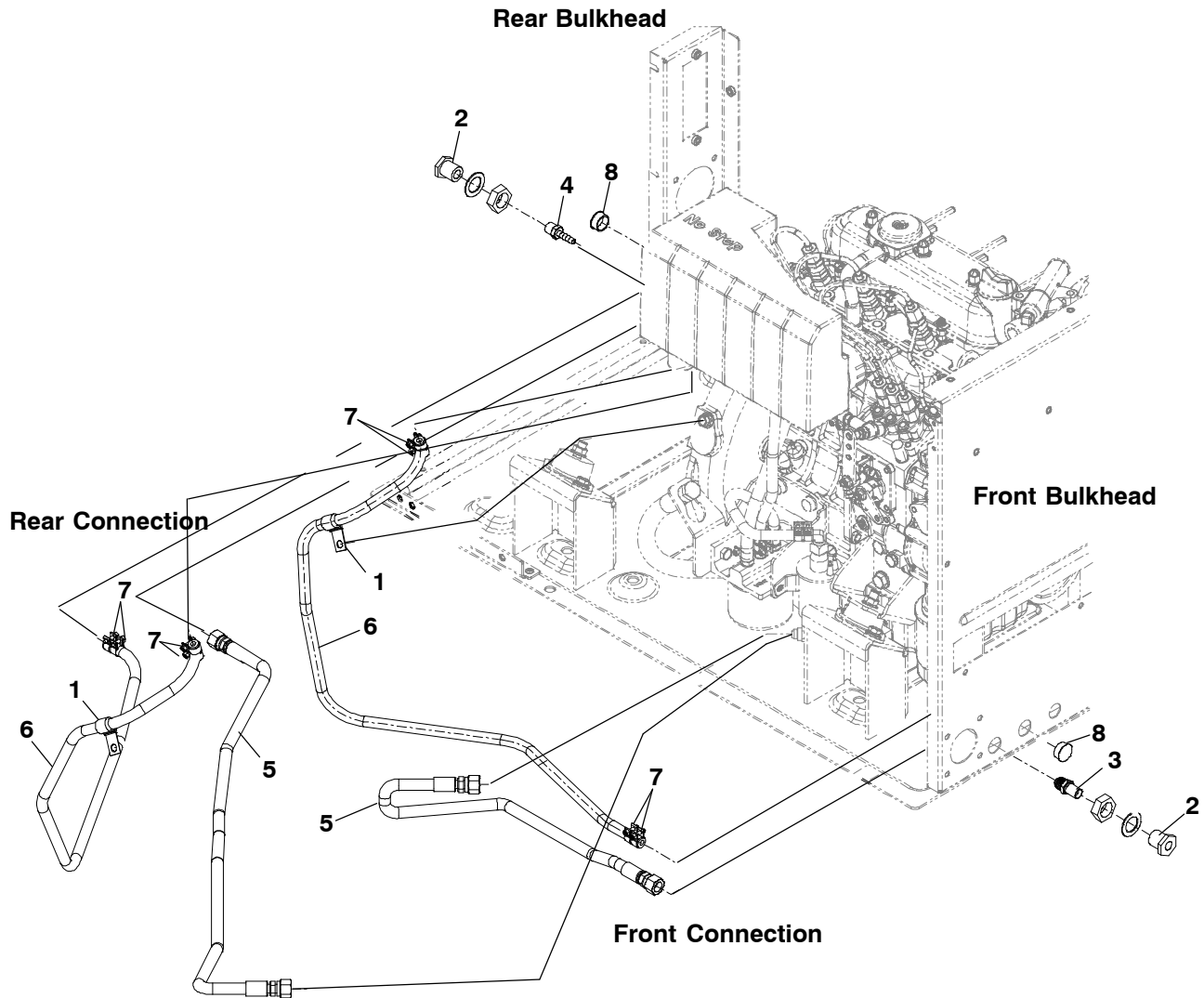
Fuel Pump, Fuel Transfer (Spec C)



Fuel Pump, Fuel Transfer (Spec C)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
Fuel Transfer				15	862-0026-55	2	Nut, Hex (M8)
	541-0853	1	Kit, Label, Bulkhead	16	850-0114-54	2	Washer, Lock (M8)
1	505-1489	2	Connector, Bulkhead	17	149-2761-03	1	Bracket, Fuel Pump
2	526-0406	2	Washer, Flat (M14)	18	800-3017-19	2	Screw, Hex Head Cap (M8 x 1.25 x 20mm)
3	503-2588-04	1	Hose, Fuel (Front or Rear)	19	821-6002-02	5	Screw, Hex Head Sems (M6 x 12mm)
4	503-2588-03	1	Hose, Fuel (Front or Rear)	20	518-0515	1	Clip
5	502-0055	1	Elbow, Pipe	21	850-0114-55	3	Washer, Lock (M10)
6	502-1245	1	Adapter, Pipe	22	800-3030	3	Screw, Hex Head Sems (M10 x 1.25 x 20mm)
7	502-1368	1	Tee, Street	23	149-2646	1	Pump, Fuel
Fuel Pump				24	304-0832	1	Resistor, (24V)
8	149-2634-01	1	Assy Filter, Fuel (Includes Parts Marked *)	25	502-1367-02	3	Connector, Hose (1 per Filter Opening)
9	505-1490	2	Connector, Male	26	502-0020-01	1	Elbow, Street
10	502-1353-02	1	Elbow, 90° Street	27	503-2200-08	1	Hose, Fuel
11	503-2309	12	Clamp, Hose	28	A026K278	1	*Sperator, Fuel Filter
12	503-2200-07	1	Hose, Fuel	29	149-2635	1	*Base, Filter
13	502-1367-01	1	Connector, Hose				
14	503-2200-09	1	Hose, Fuel				

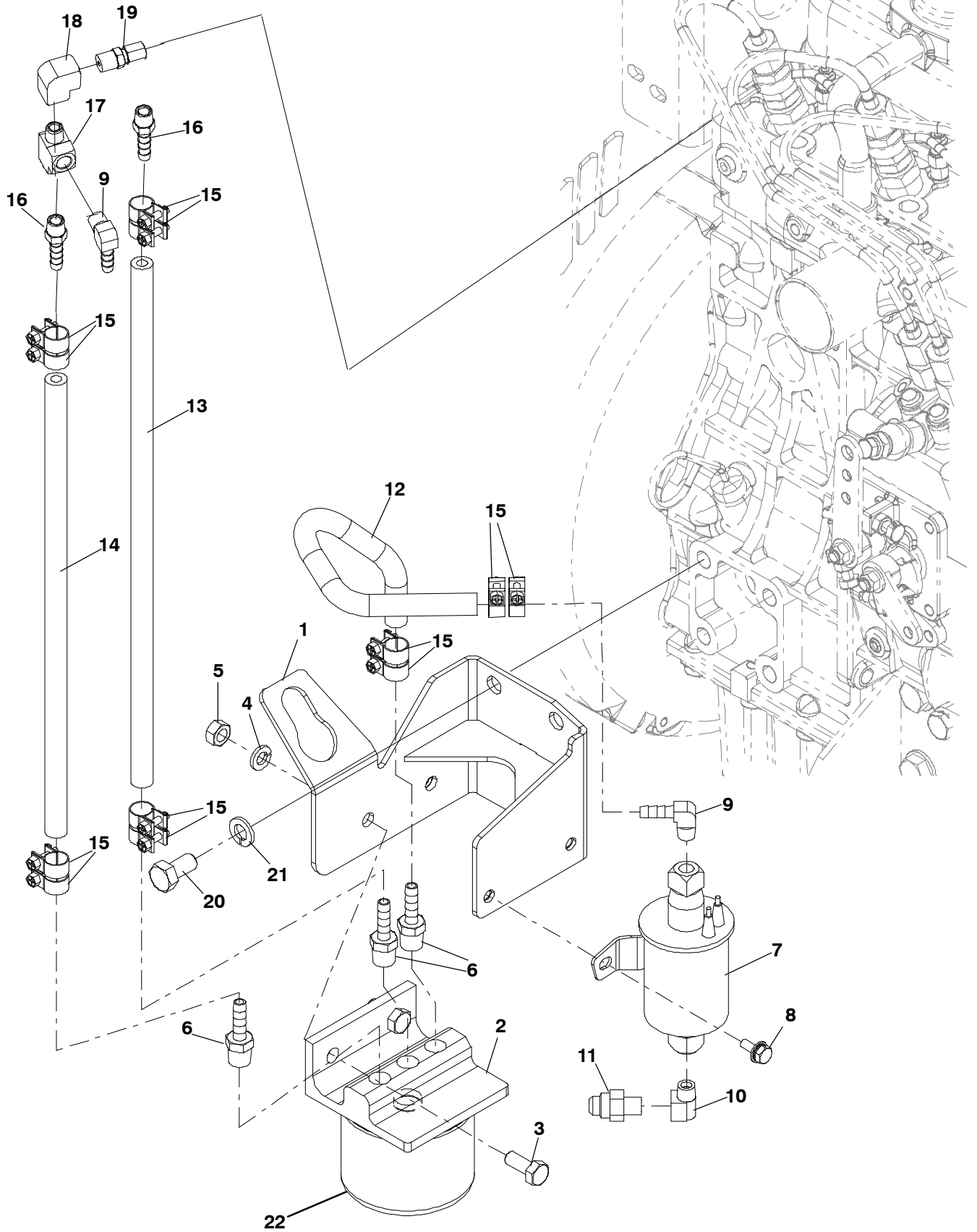
Fuel Transfer (Begin Spec D)



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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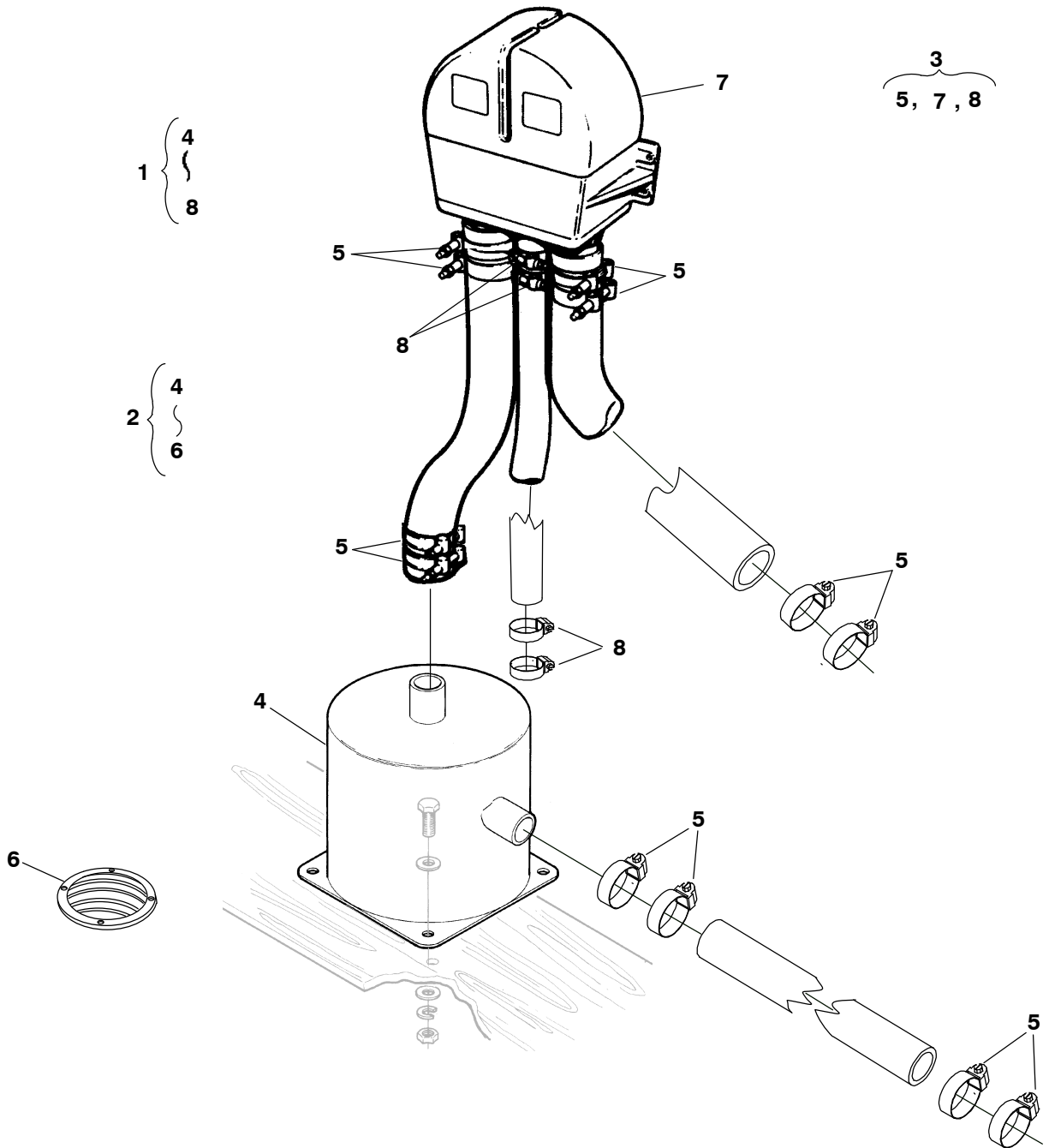
Fuel Pump (Begin Spec D)



Fuel Pump (Begin Spec D)

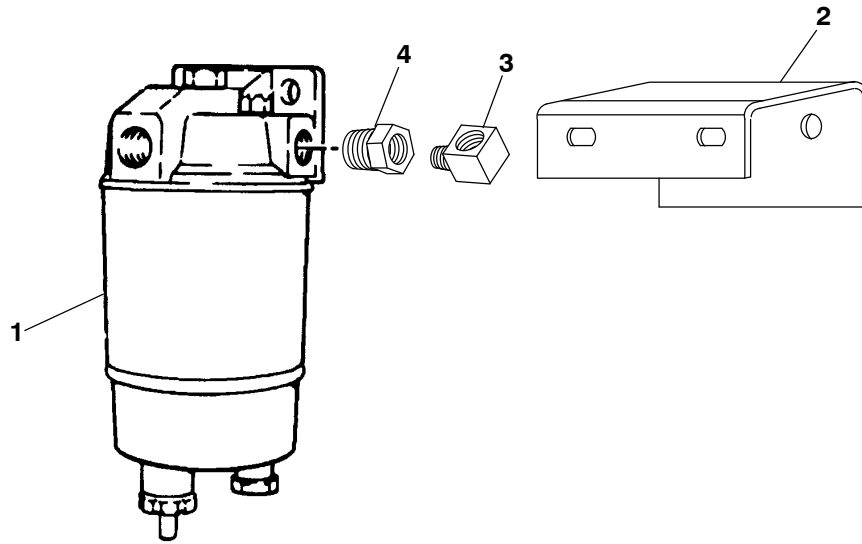
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2830-03	1	Bracket, Fuel Pump	11	505-1490	1	Connector, Male
2	149-2634-01	1	Filter, Full	12	503-2883-01	1	Hose, Fuel
3	800-3017-19	2	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	13	503-2883-08	1	Hose, Fuel
4	850-0114-54	2	Washer, Split Locking (M8)	14	503-2883-07	1	Hose, Fuel
5	862-0026-55	2	Nut, Hex (M8 x 1.25)	15	503-2808	12	Clamp, Hose
6	502-1367-02	3	Connector, Hose (1/4 NPT x 1/4 Hose)	16	502-1367-01	2	Connector, Hose (1/8 NPT x 1/4 Hose)
7			Pump, Fuel	17	502-1368	1	Tee, Street (1/8 NPT)
	149-2646	1	12V	18	502-0055	1	Elbow, Pipe
	149-2795	1	24V	19	502-1245	1	Adapter, Pipe
8	821-6002-02	2	Screw, Hex Head Sems (M6 x 1.0 x 12mm)	20	800-3030	1	Screw, Hex Head Cap (M10 x 1.25 x 20mm)
9	502-1353-02	2	Elbow, 90° Pipe	21	850-0114-55	3	Washer, Split Locking (M10)
10	502-0020-01	1	Elbow, Pipe	22	A026K278	1	Filer, Fuel (Spin on type)

Water Separator/Muffler



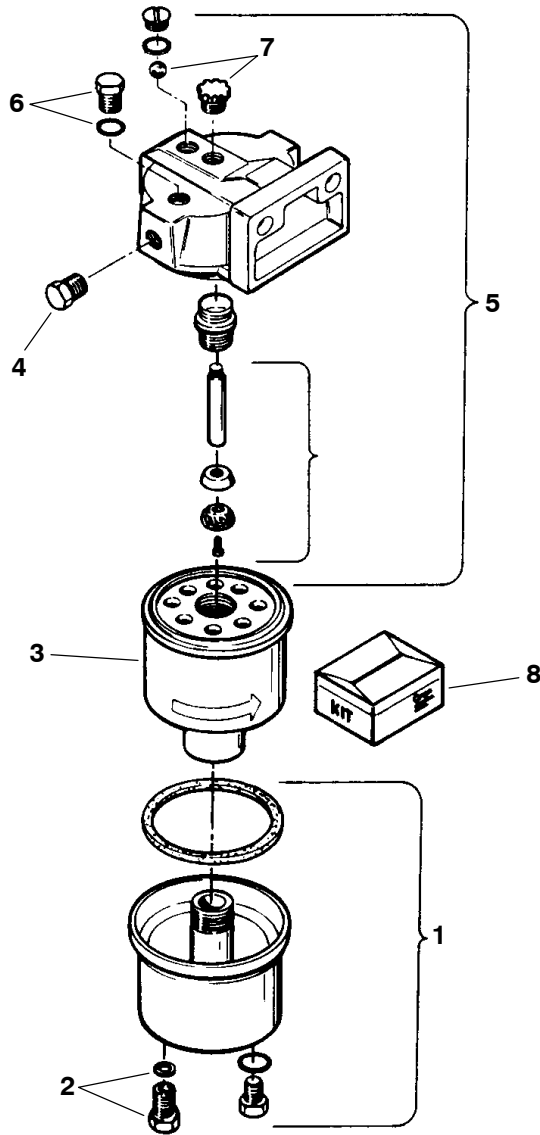
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-3217	1	Kit, Muffler/Separator (Includes Parts Marked *)	6	155-1002	1	*+ Strainer, Slotted
2	155-2030	1	Kit, Muffler Marine (Includes Parts Marked +)	7	155-3218	1	*# Separator, Water (2")
3	155-3216	1	Kit, Water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

Remote Water Separator



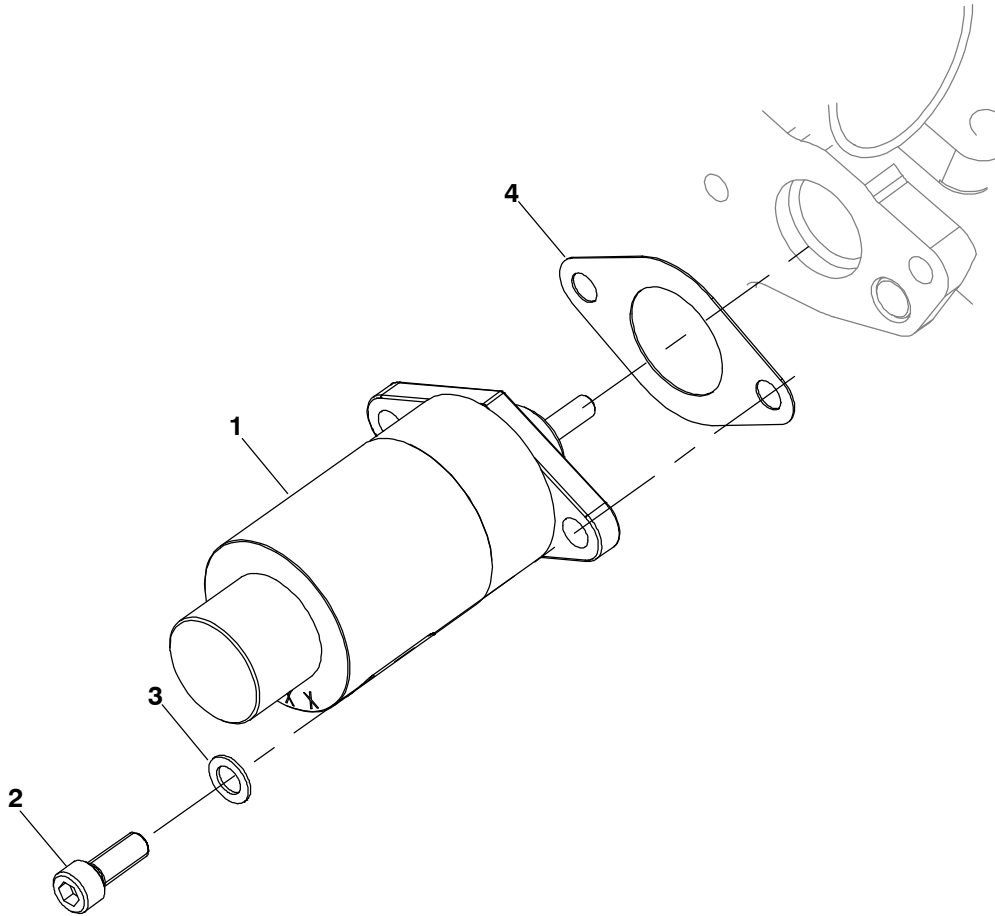
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-2073	1	Kit, Remote Fuel/Water Separator	2	149-2041-03	1	Bracket, Separator Mounting
1	149-1908-05	1	Separator, Fuel/Water (See Separate Page for Components)	3	502-0020	1	Elbow, Street 90°
				4	502-0029	2	Bushing,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

Remote Water Separator Components



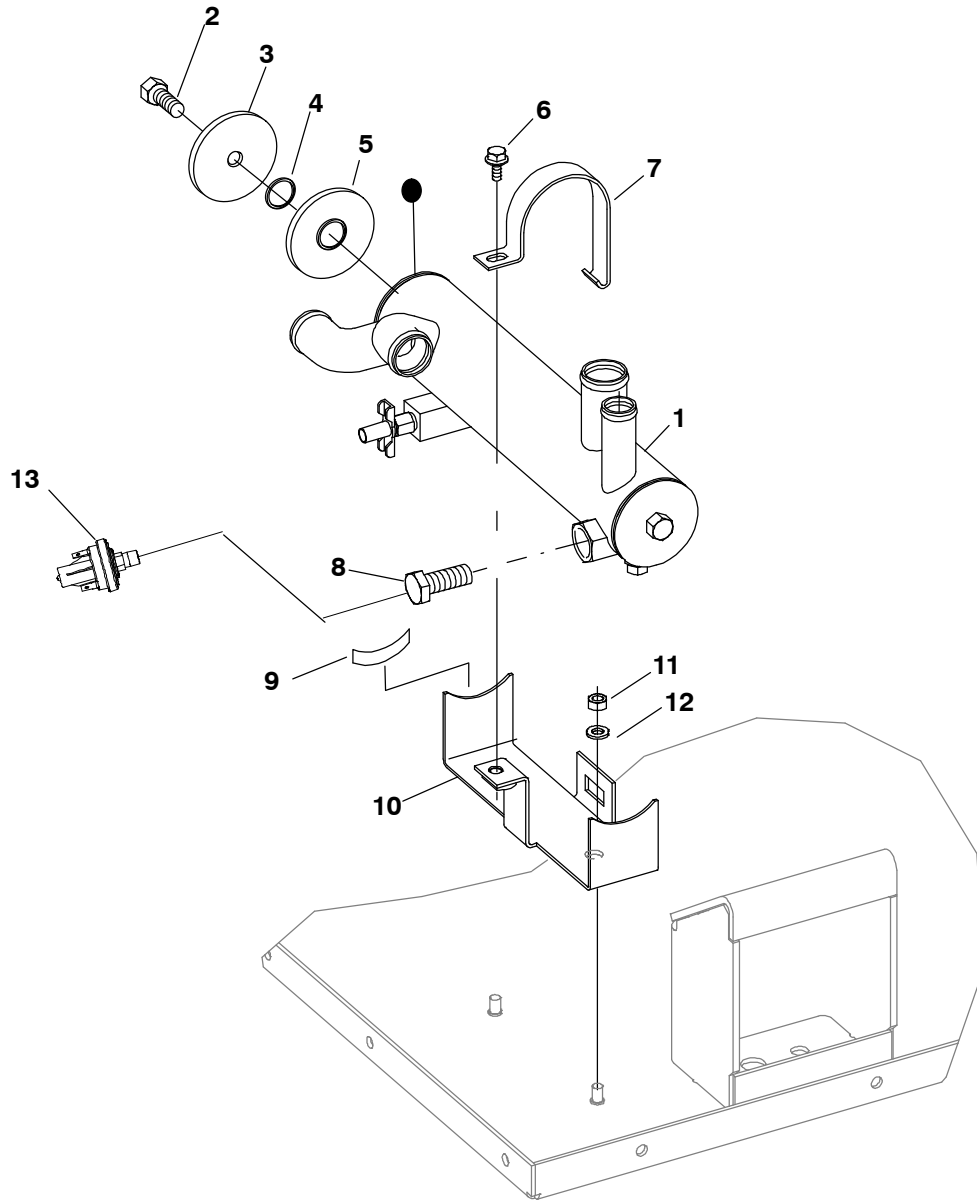
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-1908-05	1	Separator, Water	6	149-1952	1	Plug, Vent (Includes O'Ring)
1	149-2046	1	Kit, Metal Bowl Replacement (Includes Plug, O'Rings and Drain Assy)	7	149-2047	1	Assy, Pump (Includes Plunger, Retainer, Shaft, 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

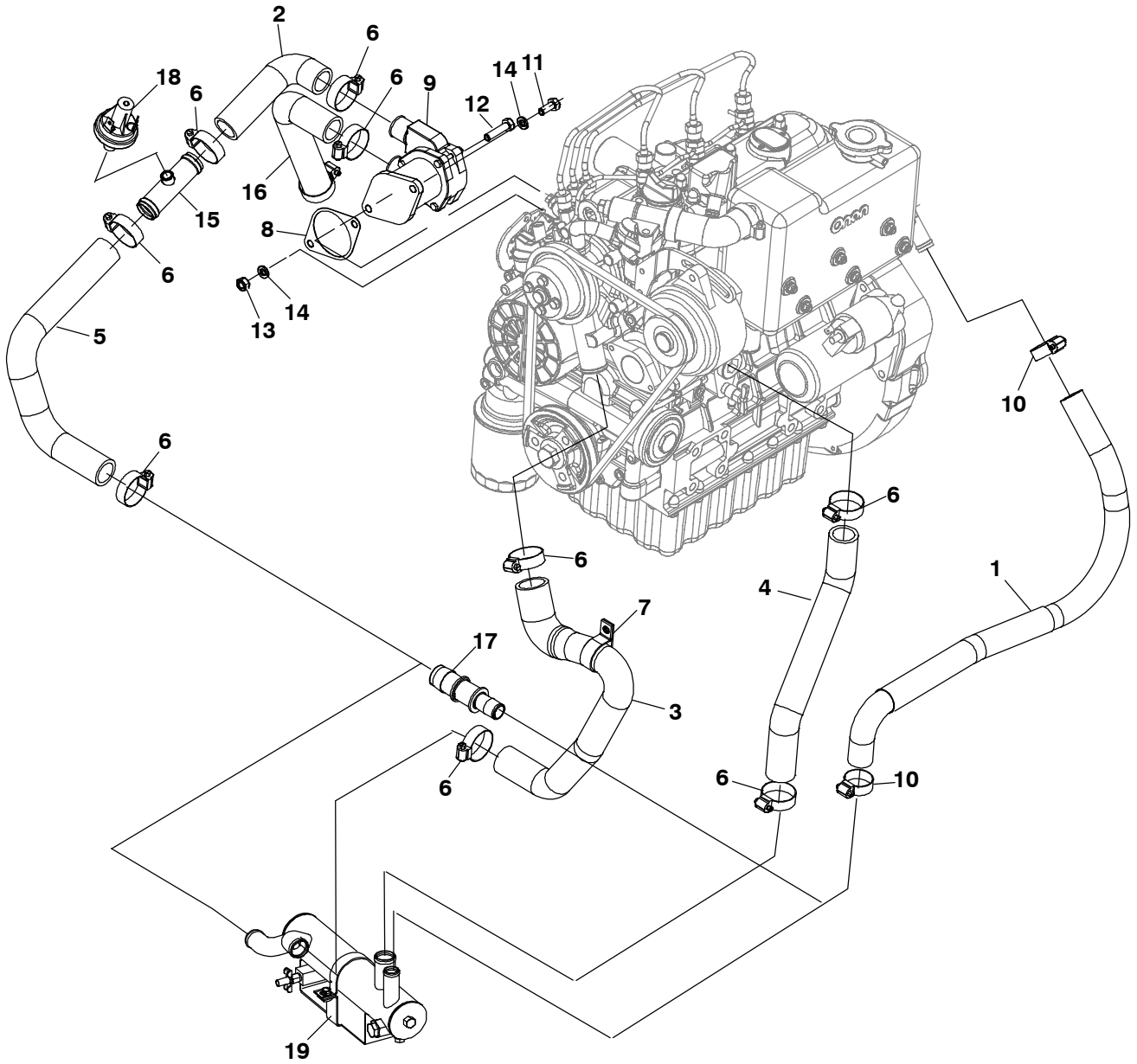


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	130-5176	1	Kit,End Cover (Includes Parts Marked *)	7	130-4740-03	1	Strap, Mounting
1			Exchanger, Heat	8	130-4434	1	Pencil, Zinc
	130-4985-03	1	Spec A-D	9	508-0210	2	Edging, Heat Exchanger Bracket (90mm)
	130-7489-02	2	Begin Spec E	10	130-4739-03	1	Bracket, Heat Exchanger
2	800-0317	1	*Screw, Hex Head (5/16-18)	11	862-0026-54	2	Nut, Hex (M6 x 1mm)
3	130-5169	1	*Cover, End	12	850-0114-53	2	Washer, Lock (M6)
4	509-0351	1	*O'Ring	13	309-0717	1	Switch, Pressure
5	130-5170	1	*Gasket, End Cover				
6	821-6002-02	1	Screw, Hex Head Sems (M6 x 1 x 12mm)				

* - Parts Included in End Cover Kit

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Cooling System (Spec A-C)

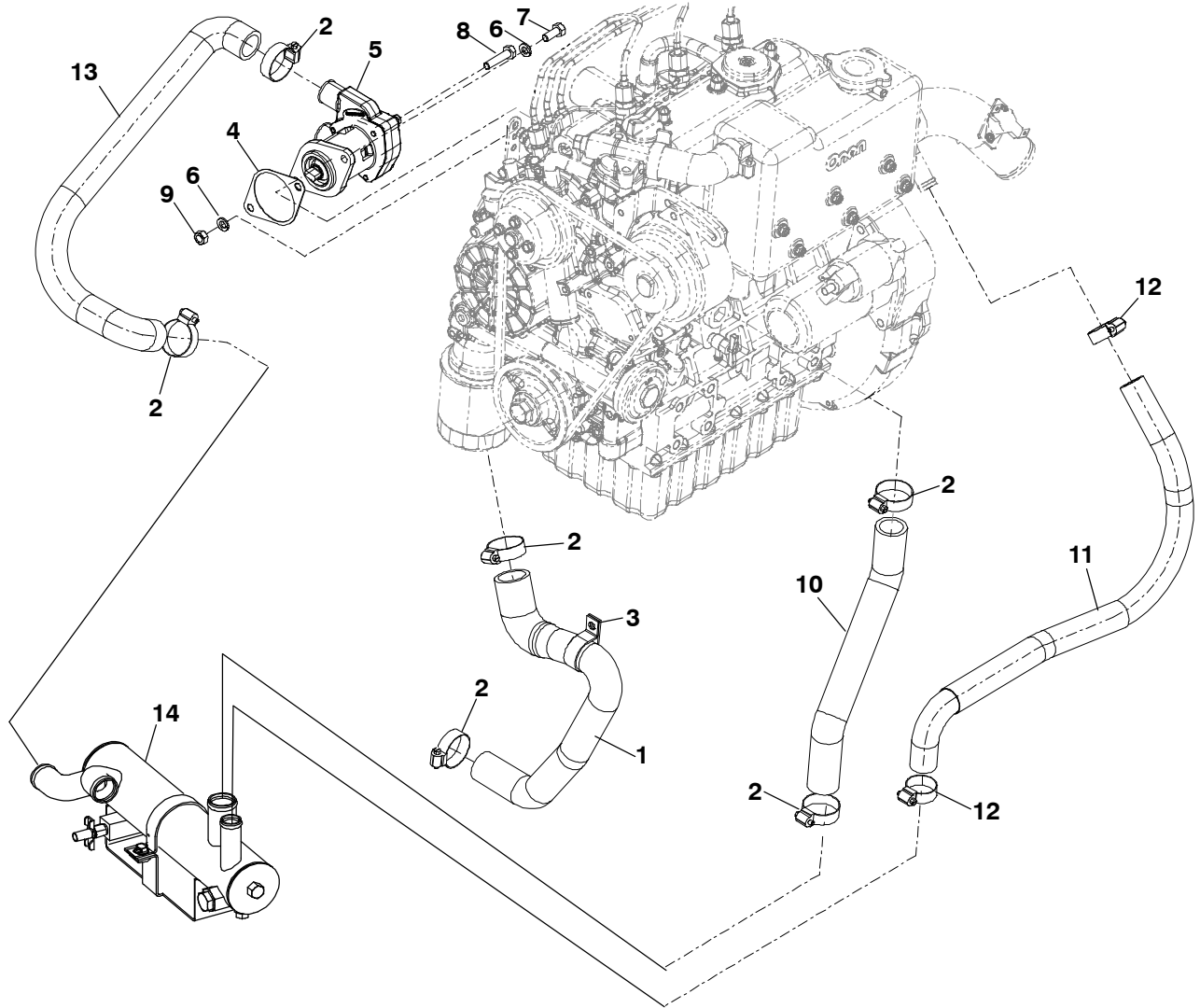


Cooling System (Spec A-C)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	501-0712-01	1	Hose, Coolant (MDKBL Heat Exchange Wet Exhaust)	11	800-3017-19	1	Screw, Hex Head (M8 x 20mm) (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
	501-0712-02	1	(Heat Exchange Wet Exhaust MDKBM and MDKBN)	12	800-3017-22	1	Screw, Hex Head (M8 x 35mm) (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
	503-2089-02	1	(Keel Cooling Wet all models)				
2	503-2207	1	Hose, Coolant (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)	13	862-0026-55	1	Nut, Hex (M8) (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
3	503-2195	1	Hose, Coolant (All Options)				
4	503-2196	1	Hose, Coolant (Heat Exchange Wet and Dry Exhaust)	14	850-0114-54	2	Washer, Lock (M8) (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
5	503-2197	1	Hose, Coolant (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)				
6			Clamp, Hose Spec A-B	15	130-5387-01	1	Tube, Low Pressure Switch (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
	503-1137	10	Heat Exchange Dry and Wet				
	503-1137	8	Keel Cooling Wet	16	503-2230	1	Hose, Coolant (Spec A-B) (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)
	503-1137	2	Keel Cooling Dry				
			Spec C				
	503-1137	8	Heat Exchange Dry and Wet				(See Page 82 for Spec C water inlet hoses)
	503-1137	6	Keel Cooling Wet				
	503-1137	2	Keel Cooling Dry	17	502-1354	1	Reducer, Hose Connector (Keel Cooling Wet Exhaust)
7	518-0548-05	1	Clamp, Hose (All Options)	18	309-0667	1	Switch, Pressure (12 and 24V Gnd 12v Iso)
8	185-6579	1	Gasket, Water Pump (Heat Exchange Wet and Dry Exhaust Keel Cooling Wet Exhaust)	19	-	1	Exchanger, Heat (See Heat Exchanger Page for Details)
9			Water Pump (See Separate Page for Components)				
	132-0358	1	Spec A-B				
	132-0459	1	Spec C				
10	503-1136	2	Clamp, Hose (Keel Cooling Wet Exhaust and Heat Exchange Wet Exhaust)				

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

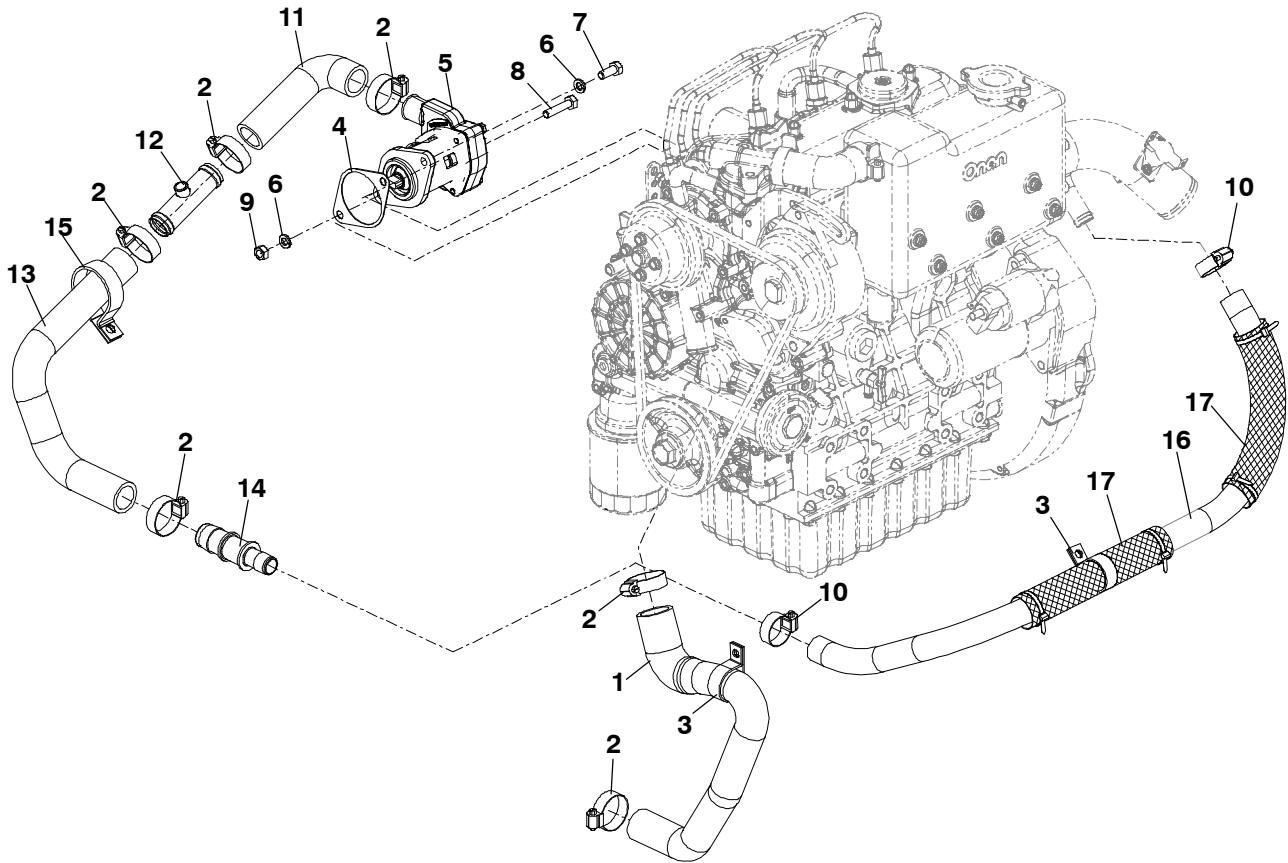
Cooling System Wet and Dry Exhaust (Begin Spec D)



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	MDKBL
4	185-6579	1	Gasket, Water Pump		501-0712-02	1	MDKBM and MDKBN
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

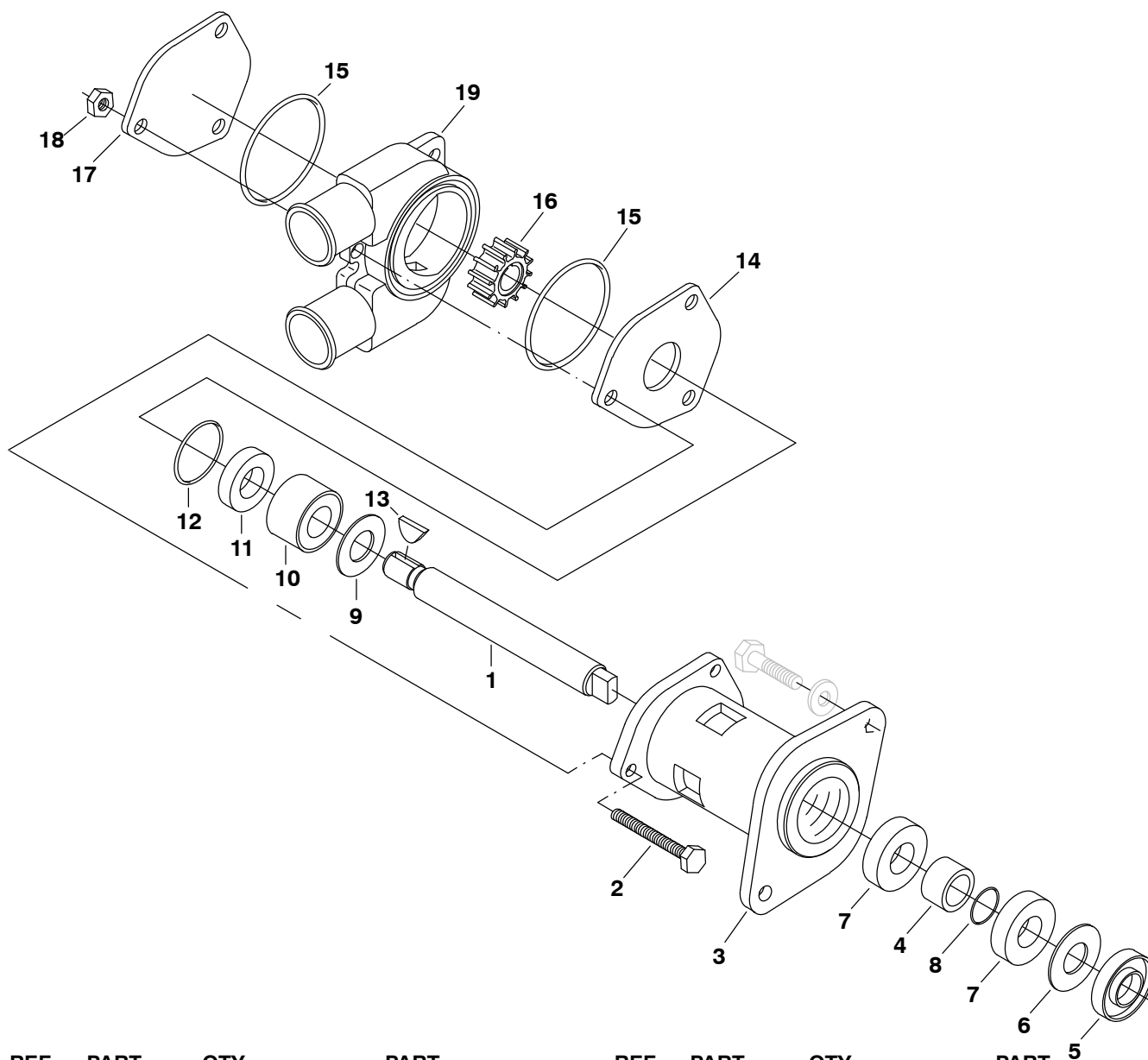
Keel Cooling (Begin Spec D)



29

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	MDKBL
6	850-0114-54	2	Washer, Split Locking (M8)		503-2916-02	1	MDKBM and MDKBN
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)				

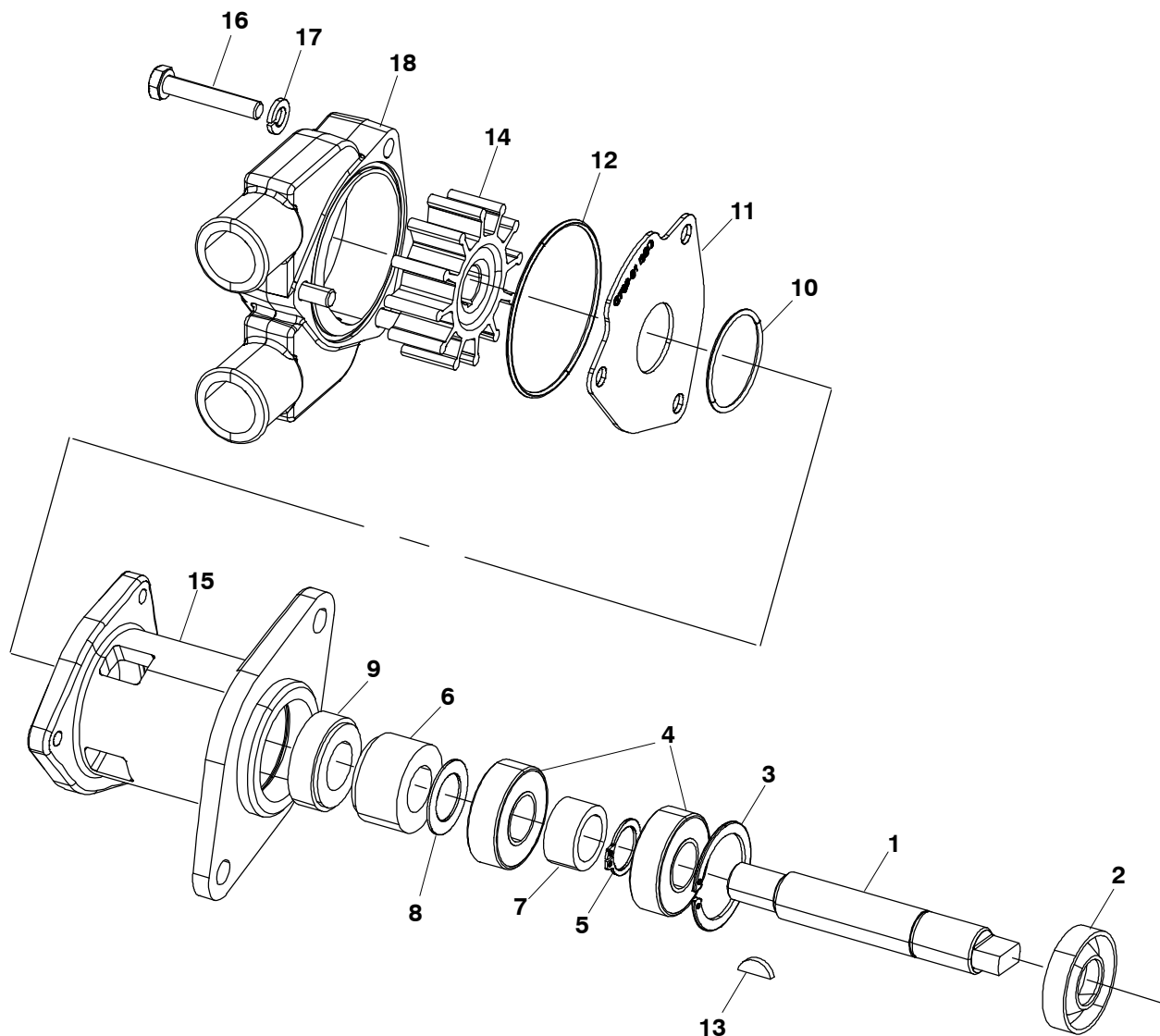
Raw Water Pump Components (Spec A-B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	132-0379	1	Kit, Minor Service (Includes Parts Marked *)	12	132-0370	1	+O'Ring
	132-0380	1	Kit, Major Service (Includes Parts Marked +)	13	132-0374	1	+Key
	132-0358	1	Pump, Water	14	132-0371	1	+Plate, Wear
1	132-0360	1	Shaft	15	132-0372	2	*+O'Ring
2	132-0376	3	Bolt	16	132-0375	1	*+Impeller
3	132-0362	1	Body	17	132-0373	1	+Plate, Cover
4	132-0367	1	Spacer	18	132-0377	3	Nut
5	132-0361	1	+Seal, Lip	19	132-0378	1	Housing
6	132-0363	1	+Ring, Internal Retaining	20	132-0379	1	Kit, Minor Service (Includes Parts Marked *)
7	132-0364	2	+Bearing, Ball	21	132-0380	1	Kit, Major Service (Includes Parts Marked +)
8	132-0365	1	+Ring, External Retaining				
9	132-0368	1	+Washer,				
10	132-0366	1	+Seal, Mechanical				
11	132-0369	1	+Seat, Seal				

* - Parts Included in Minor Service Kit.
+ - Parts Included in Major Service Kit.

Raw Water Pump Components (Begin Spec C)

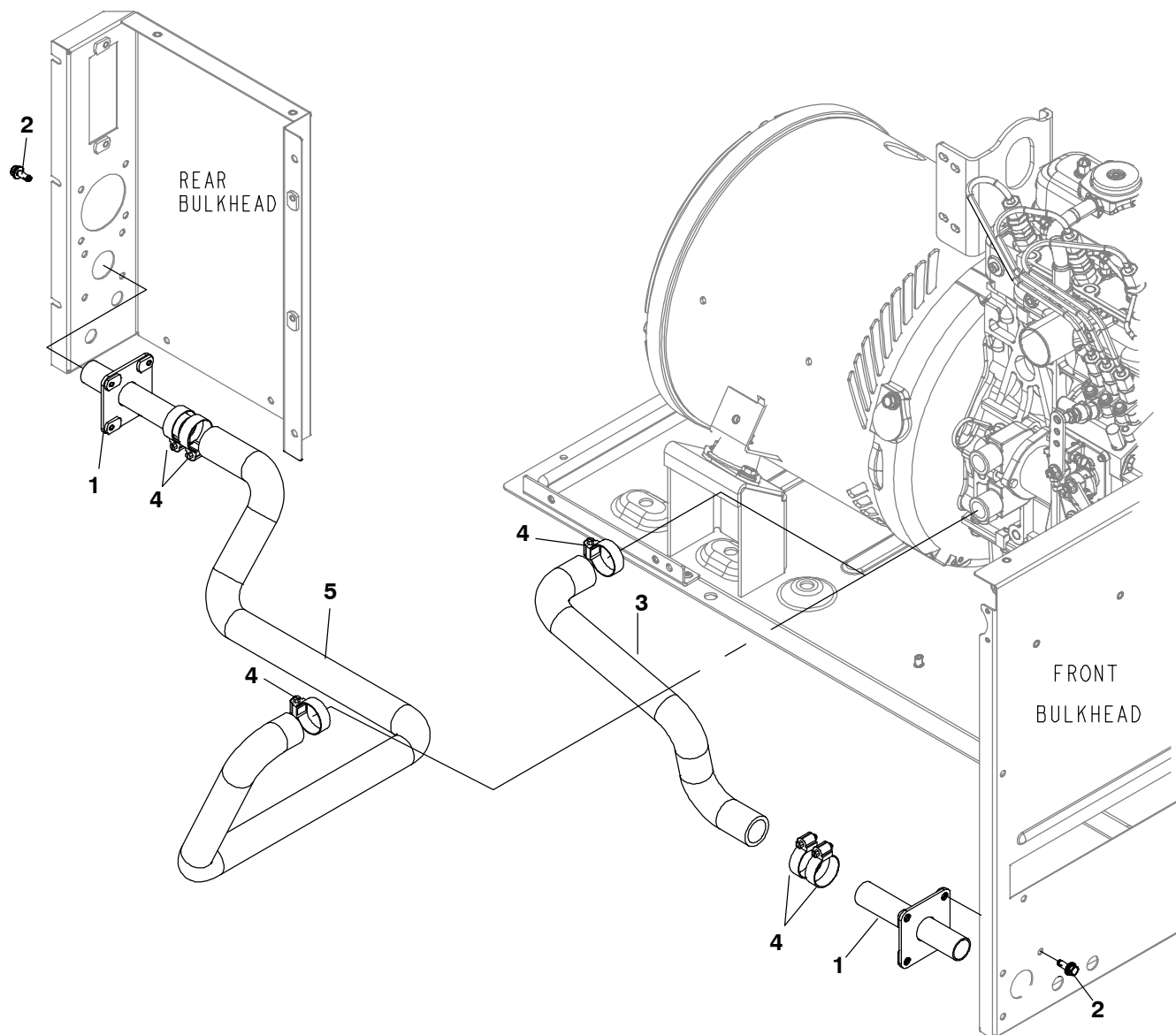


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-1519	1	Kit, Minor Service (Includes Parts Marked *)	9	132-0369	1	+ Seal, Seal
	541-1520	1	Kit, Major Service (Includes Parts Marked +)	10	132-0370	1	+ O'Ring
	132-0459	1	Pump, Water	11	130-6526	1	+ Plate, Wear
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.

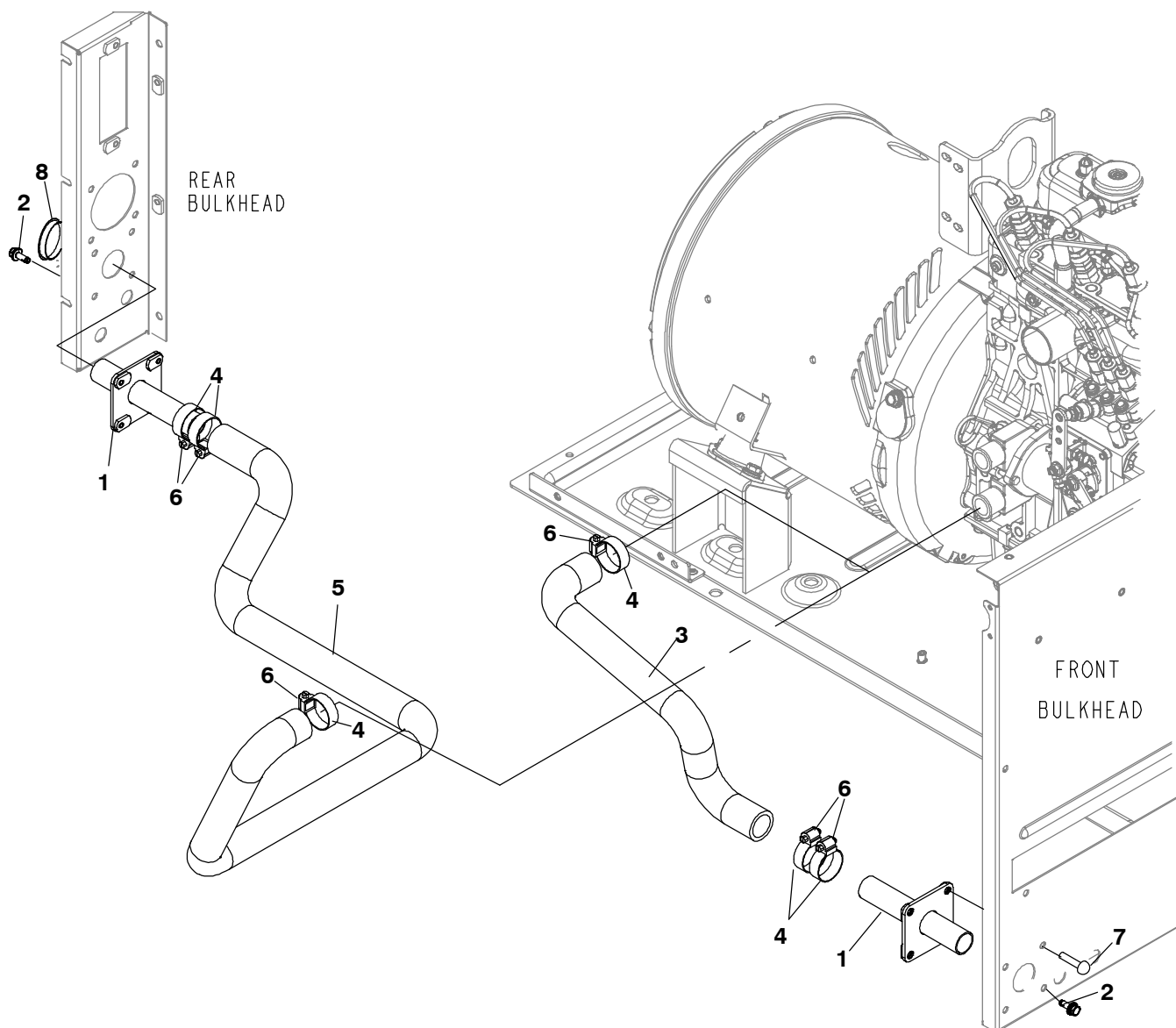
+ - Parts Included in Major Service Kit.

Raw Water Inlet (Spec C)



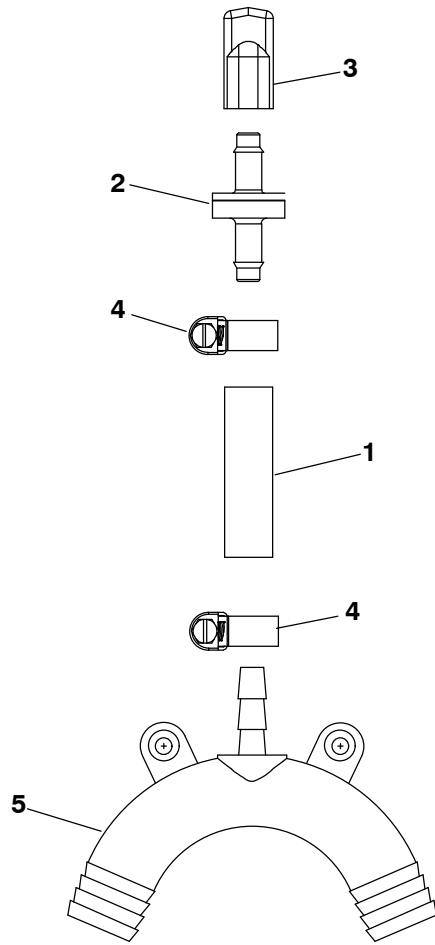
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-7211	1	Assy, Bulkhead	5			Hose, Rear Water
2	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1.0 x 16mm)	503-2578	1		MDKBL
3	503-2580	1	Hose, Front Water	503-2579	1		MDKBM and MDKBN
4	503-1137	3	Screw, Hose Clamp				

Raw Water Inlet (Begin Spec D)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0058	1	Assy, Bulkhead	503-2578		1	MDKBL
2	800-6395-01	4	Screw, Hex Head Sems (M6 x 1.0 x 16mm)	503-2579		1	MDKBM and MDKBN
3	503-2580	1	Hose, Front Water	6	503-2823	3	Cover, Hose Clamp
4	503-1137	3	Clamp, Hose	7	517-0131-02	4	Plug, Hole
5			Hose, Rear Water	8	517-0138-07	1	Plug, Hole

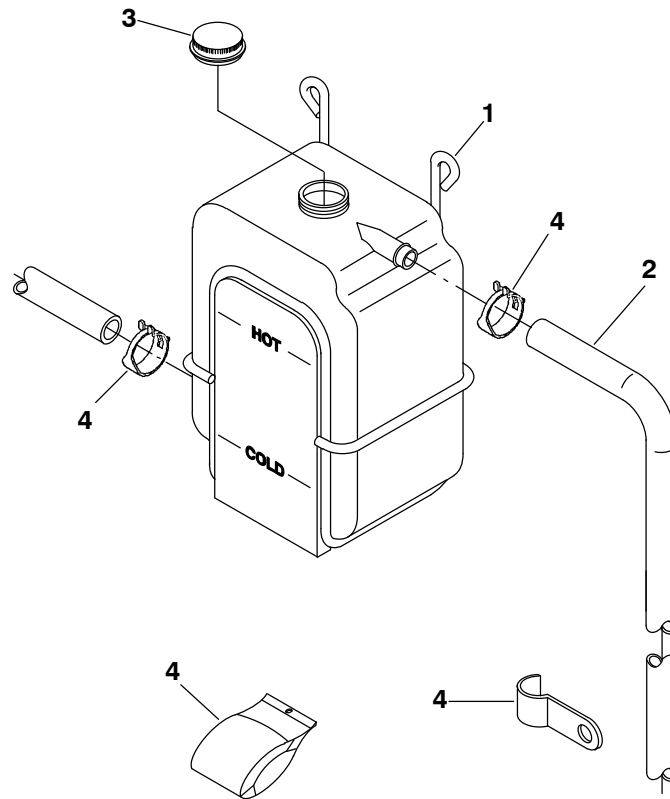
Vacuum Relief Valve



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				

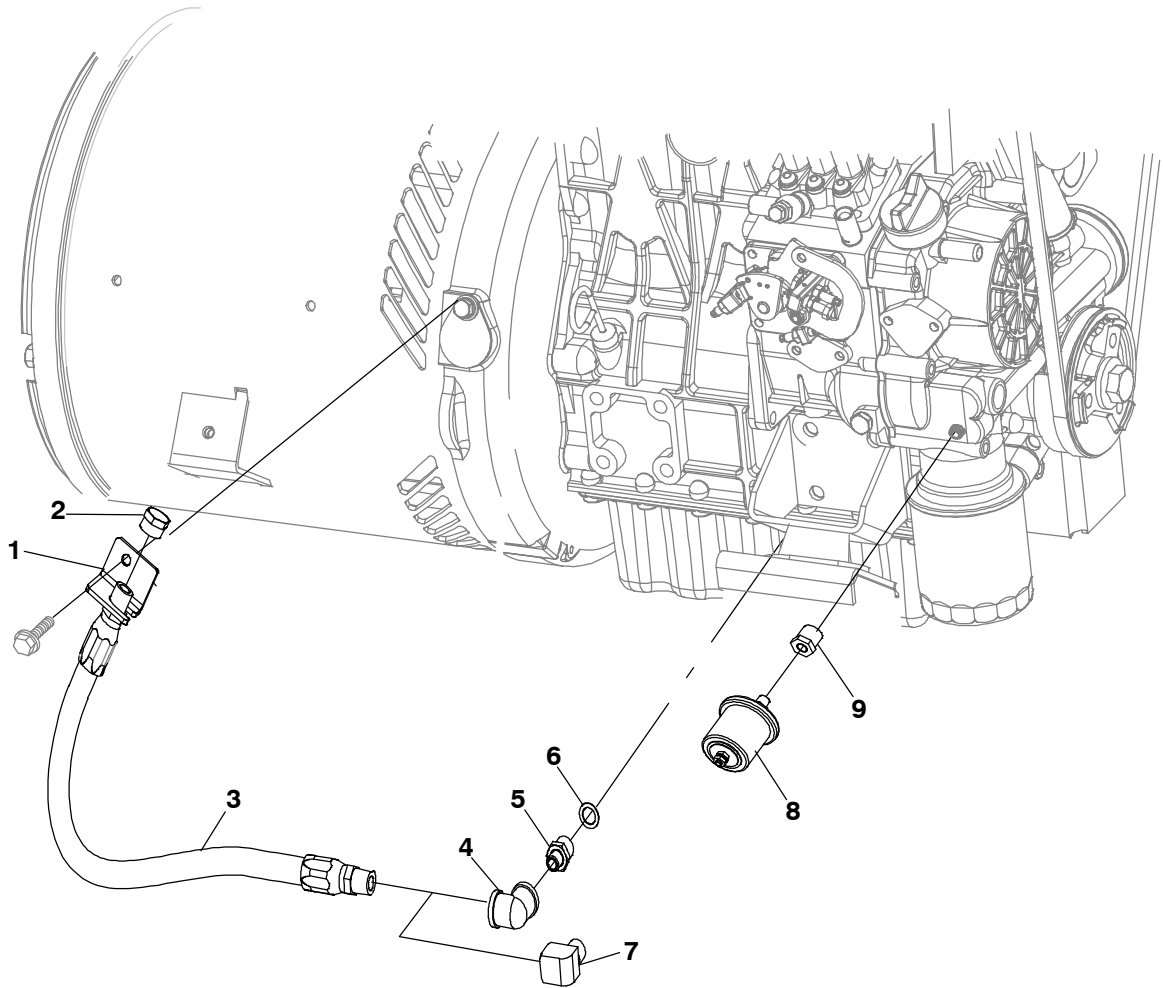
* - Parts not shown, loose in kit.

Coolant Recovery Tank



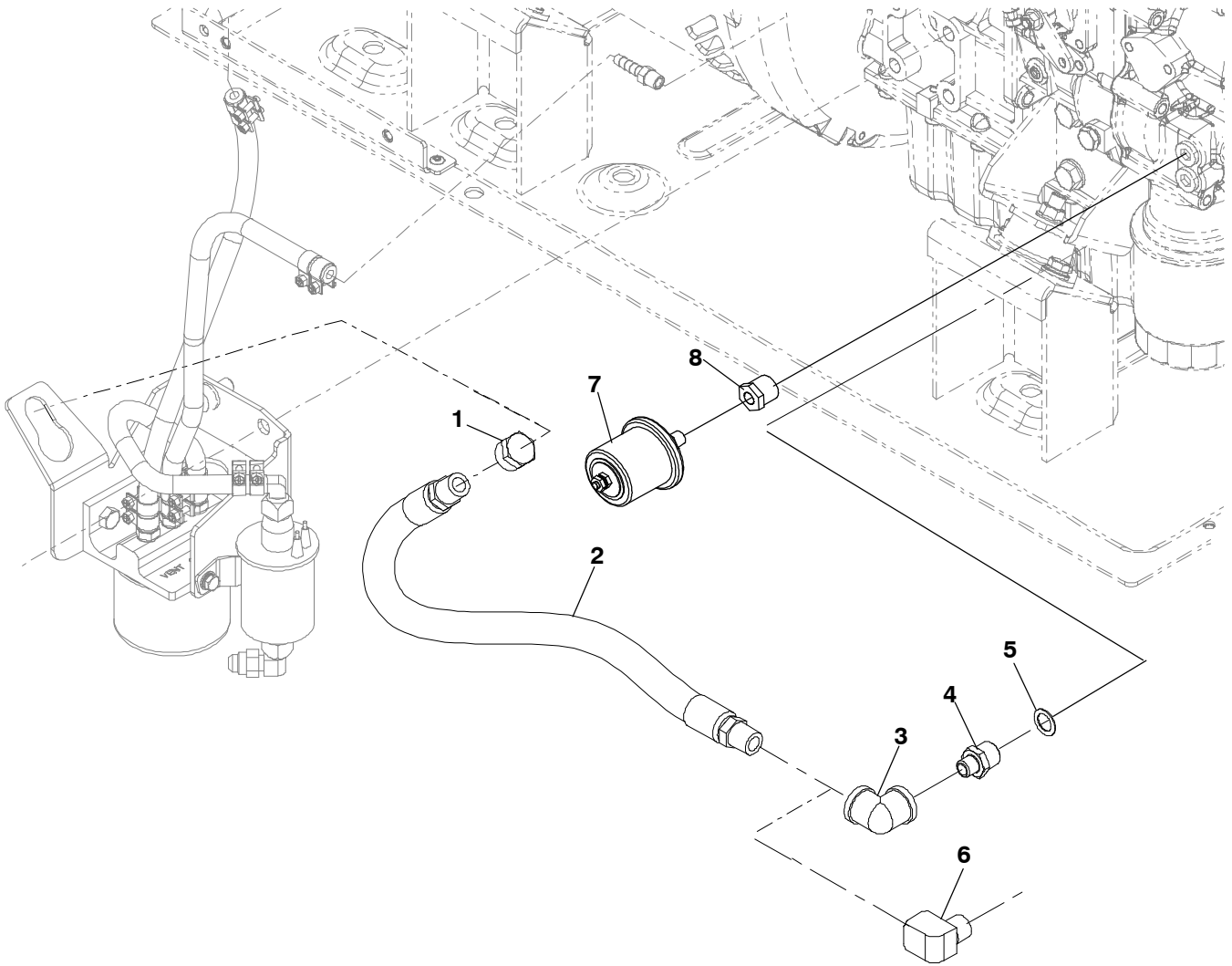
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	130-3574	1	Kit, Coolant Recovery	4	130-3573	1	Hardware Package (Includes Mounting Hardware)
1	130-3571	1	Hanger, Tank	5	130-3570	1	Tank, Coolant
2	503-1692	1	Hose (5/16 I.D. x 120" Lg.)				
3	130-3572	1	Cap, Tank				

Oil System (Spec A-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-1332-02	1	Bracket, Oil Drain	8			*Sender, Oil Pressure
2	502-1123	1	Cap, Pipe	193-0244	1		Negative Ground (B200 B201)
3	501-0910	1	Hose, Oil Drain	193-0430-01	1		+ Isolated Ground (B380)
4	502-0263	1	Elbow, Pipe (MDKBL)	9	505-0395	1	Reducer, Bushing (1/8" NPSF)
5	102-1485	1	Adapter, Oil Drain (MDKBL)				
6	185-5495	1	Gasket, Oil Drain (MDKBL)				
7	502-1180	1	Elbow, Pipe (MDKBM and MDKBN)				
							* - Sender Included in Sender Kit Listed on Water Flange Page.
							+ - Sender Included in Isolated Ground Kit Listed on Isolated Ground Page.

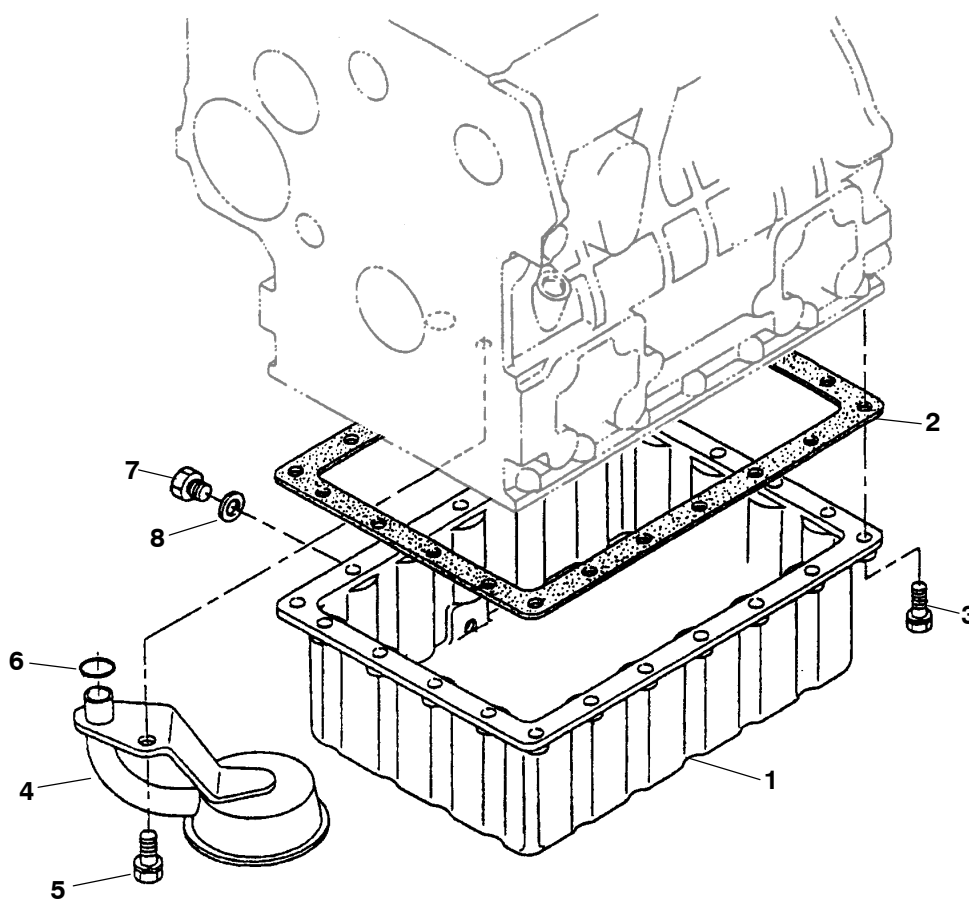
Oil System (Begin Spec D)



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(MDKBL)	193-0430-01	1		+ Isolated Ground (B380)
4	102-1485	1	Adapter, Oil Drain (MDKBL)	8	505-0395	1	Reducer, Bushing (1/8" NPSF)
5	185-5495	1	Gasket, Oil Drain (MDKBL)				
6	502-0075	1	Elbow, Pipe (MDKBM and MDKBN)				

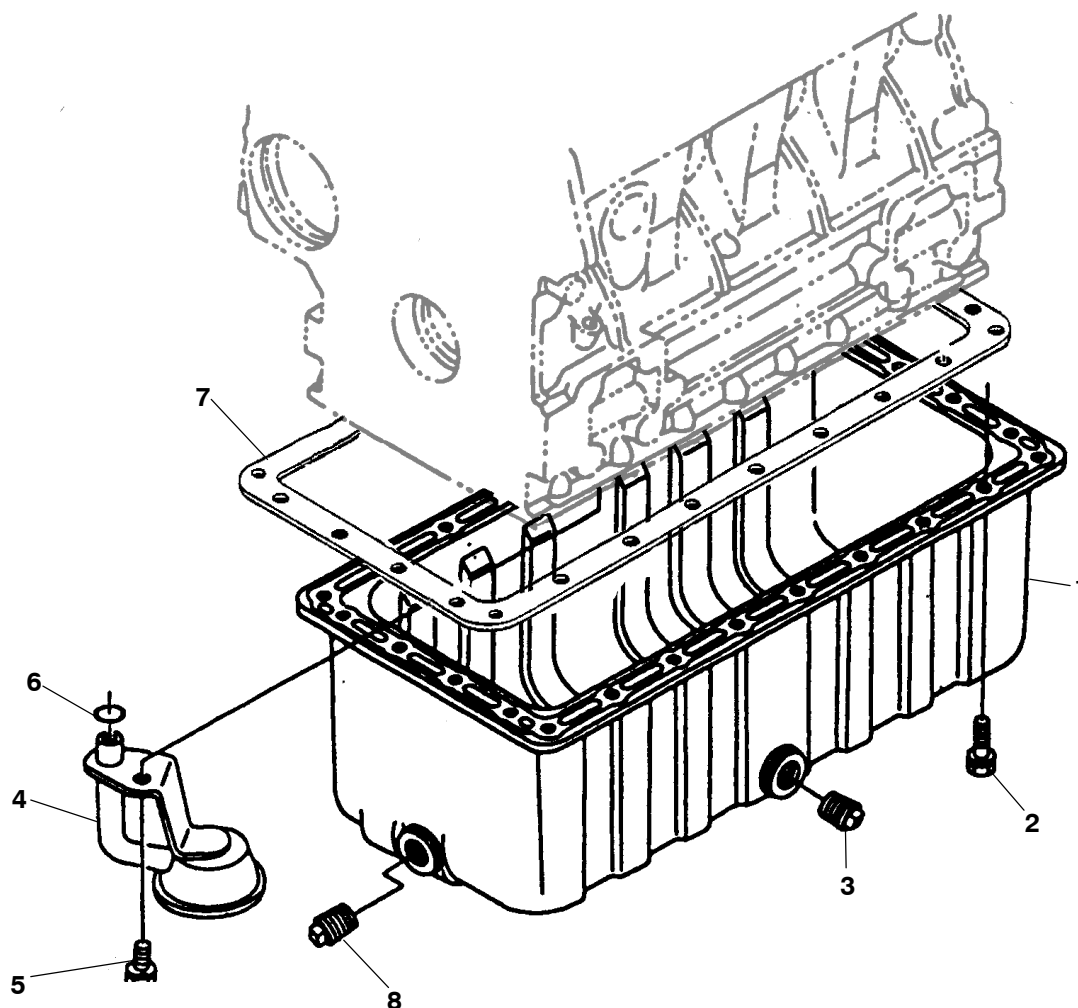
* - Sender Included in Sender Kit Listed on Water Flange Page.
+ - Sender Included in Isolated Ground Kit Listed on Isolated Ground Page.

Oil Pan MDKBL



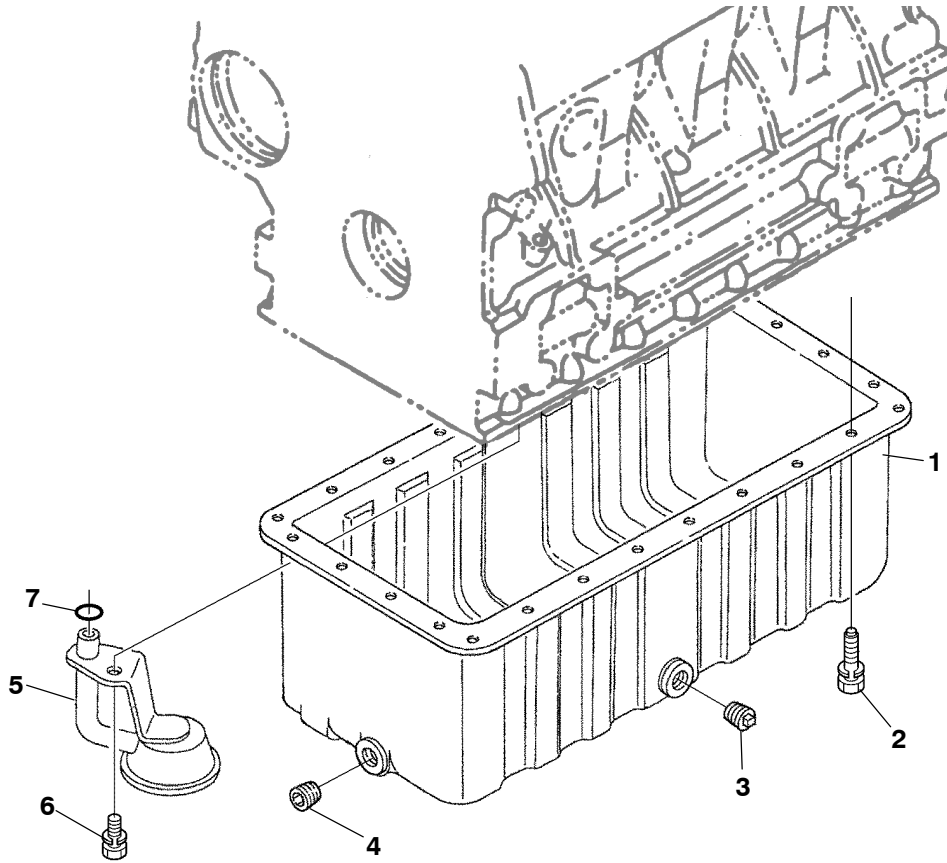
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7213	1	Pan, Oil	6			O'Ring
2	185-7214	1	Gasket, Oil Pan	185-3078	1		Spec A-D
3	185-2389	22	Screw, Hex Head	185-7421	1		Begin Spec E
4			Tube, Oil Pickup	7			Plug
	185-7215	1	Spec A-D	185-2096	1		Spec A-D
	122-0932	1	Begin Spec E	517-0418	1		Begin Spec E
5	185-6762	1	Bolt	8			Gasket
				185-2343	1		Spec A-D
				509-0428	1		Begin Spec E

Oil Pan MDKBM and MDKBN (Spec A-D)



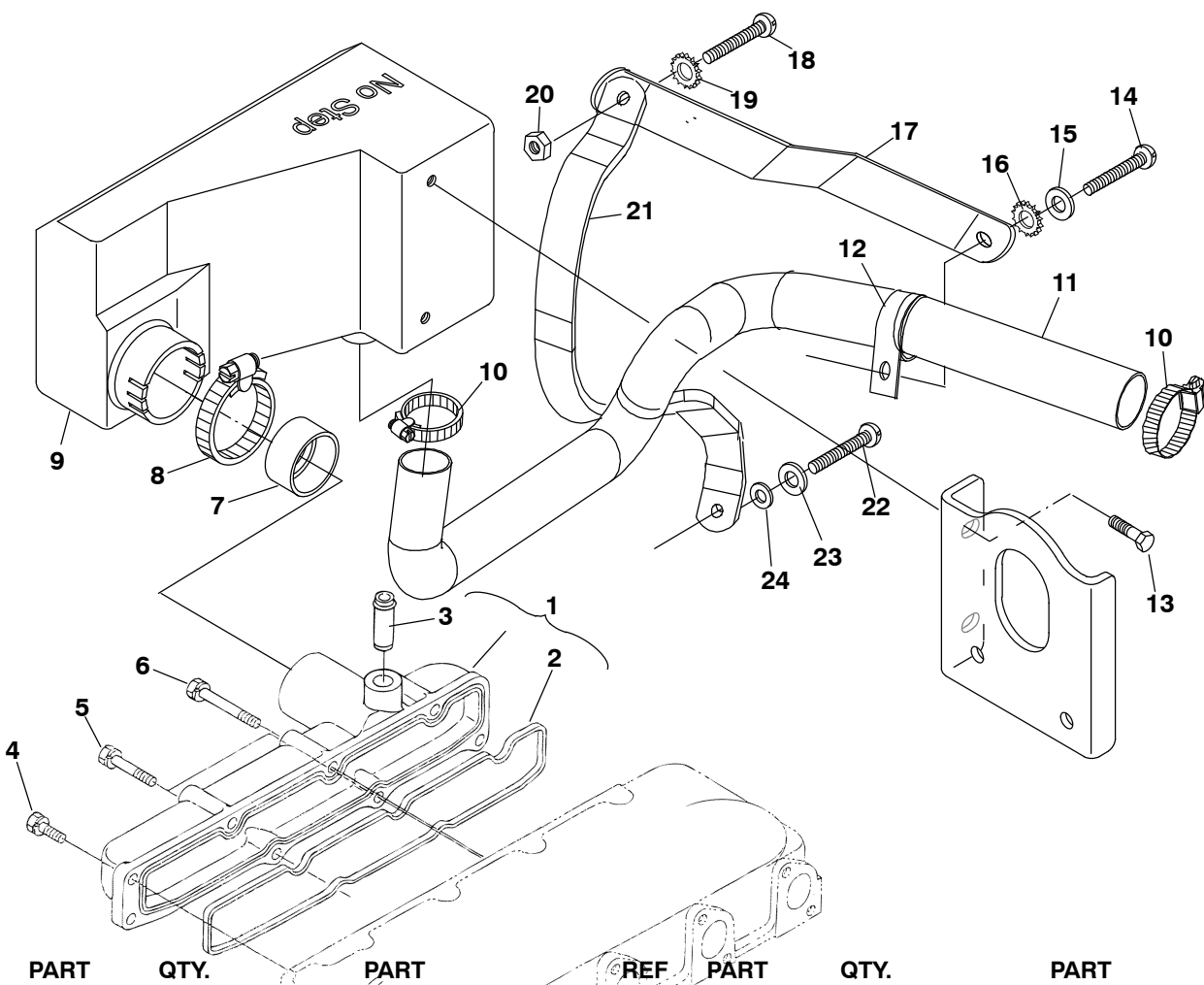
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7246	1	Pan, Oil MDKBM, MDKBN	6	185-3078	1	O'Ring
2			Bolt	7			*Gasket, Oil Pan
	185-2386	26	Spec A		185-5478	1	MDKBM, MDKBN
	800-6505	26	Spec B-D	8			Plug (MDKBM, MDKBN)
3			Plug		185-5826	1	Spec A
	185-5826	2	MDKBM, MDKBN		102-1511	1	Spec B-D
4			Tube, Oil Pickup	* - Or Use Three Bond #1207D or #TB1216.			
	185-7247	1	MDKBM, MDKBN (Spec A)				
	181-9128	1	MDKBM, MDKBN Spec B-D				
5	185-6762	1	Bolt				

Oil Pan MDKBM and MDKBN (Begin Spec E)



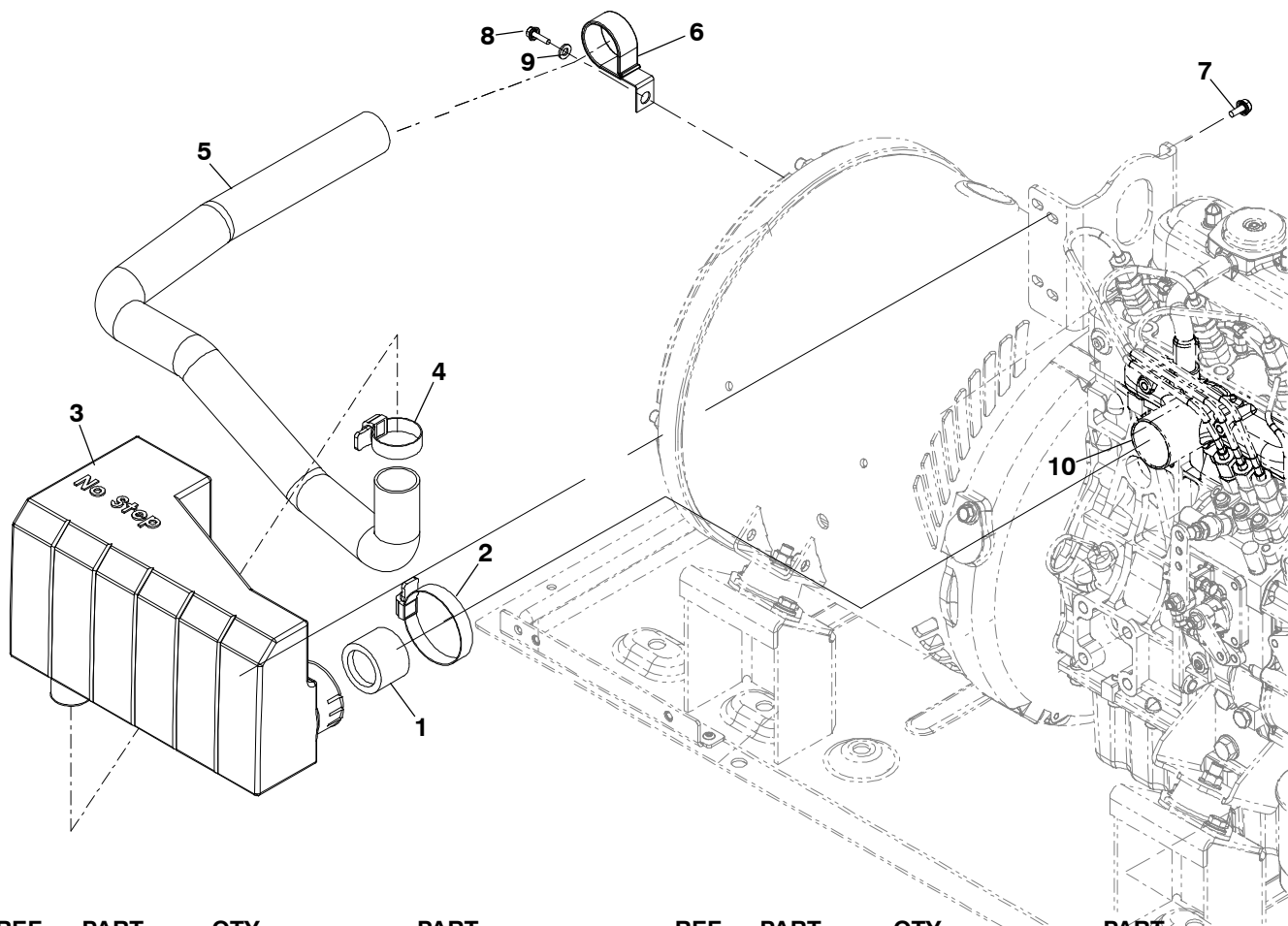
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	185-7246	1	Pan, Oil	5	123-2414	1	Tube, Oil Pickup
2	181-9094	26	Bolt	6	185-2563	1	Bolt
3	817-0441	1	Plug	7	185-7421	1	O'Ring, Seal
4	181-9230	1	Plug				

Resonator (Spec A-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-3239	1	Kit, Resonator (Includes Instructions)	7	140-2898	1	Sleeve, Air Intake
			Manifold, Intake (Includes Gasket)	8	503-1141	1	Clamp, Hose
			MDKBL	9	140-3078-01	1	Resonator, Intake
				10	503-1137	2	Clamp, Hose
2	185-6927	1	Spec A	11	503-2202-01	1	Hose, Air Intake (1.25" ID)
	181-9189	1	Begin Spec B	12	130-4830	1	Clamp
			MDKBM, MDKBN	13	821-6002-02	2	Screw, Hex Head Sems (M6 x 12)
3	185-6700	1	Spec A	14	821-6001-03	1	Screw, Hex Head (M5 x 0.8 x 16mm)
	181-9110	1	Begin Spec B	15	526-2291	2	Washer, Flat
			Gasket	16	856-0003	1	Washer, EIT (M10)
4	185-6926	1	MDKBL	17	337-0081	1	Strap, Bond (.75 x 7.50")
	185-6701	1	MDKBM, MDKBN	18	810-0155	1	Screw, Slotted Round Head Brass (1/4-20 x 1.25")
	185-6499	1	Joint, Breather Pipe	19	856-0006	2	Washer, EIT (1/4")
5			Begin Spec B	20	871-0016	2	Nut, Hex Brass (1/4-20)
	185-2389	3	Screw, Hex Head (M6 x 18mm)	21	337-3507	1	Strap, Bond (12.7 x 412.7mm)
			Screw	22	800-3042	1	Screw, Hex Head Cap (M4 X 10mm)
6	185-6677	1	MDKBL	23	856-0002	1	Washer, EIT (#8)
	185-6677	2	MDKBM, MDKBN	24	526-2050	1	Washer, Flat (M4)
			Screw, Hex Head (M6 x 50mm)				
	185-7069	2	MDKBL				
	185-7069	3	MDKBM, MDKBN				

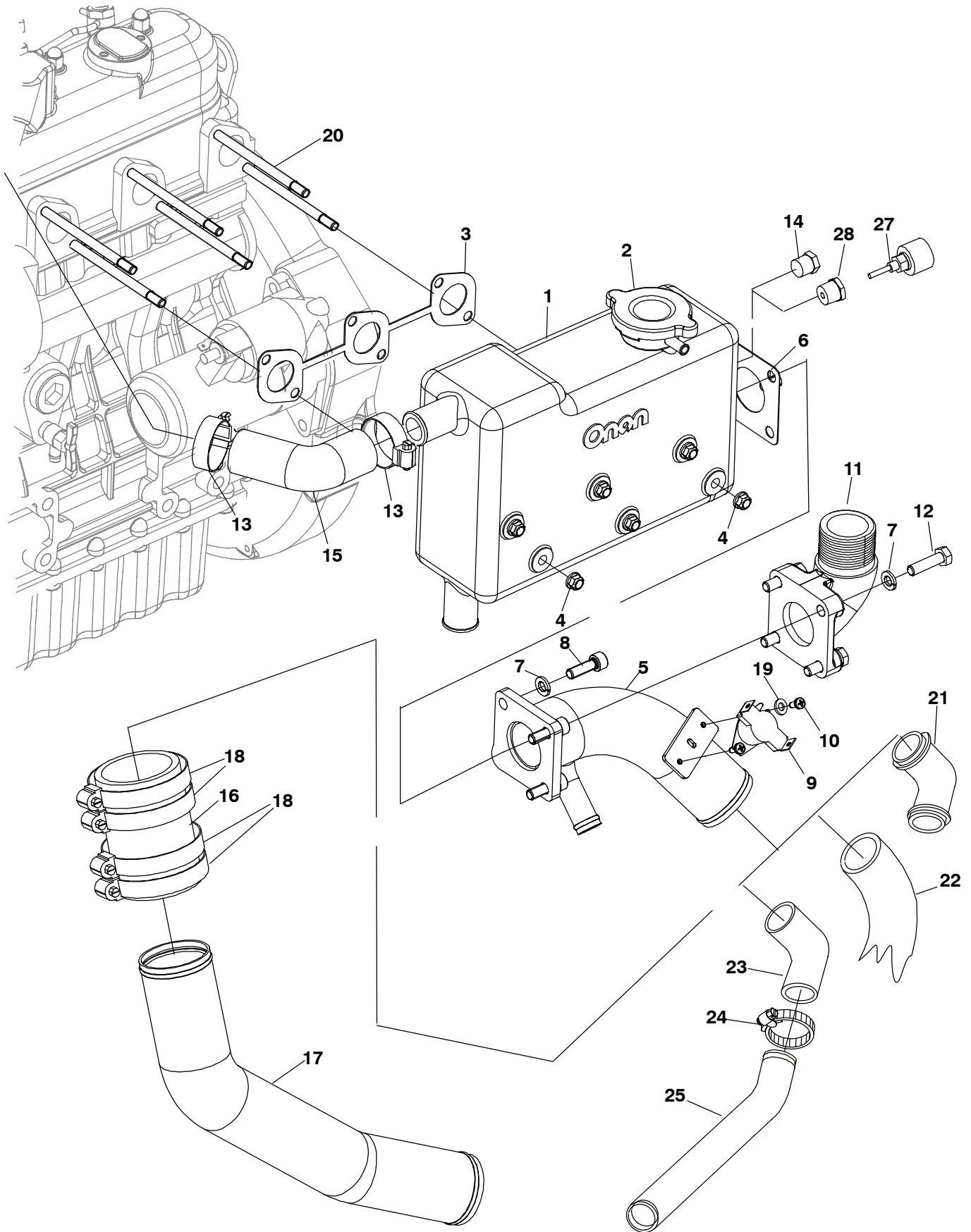
Resonator (Begin Spec D)



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 Spec A-C 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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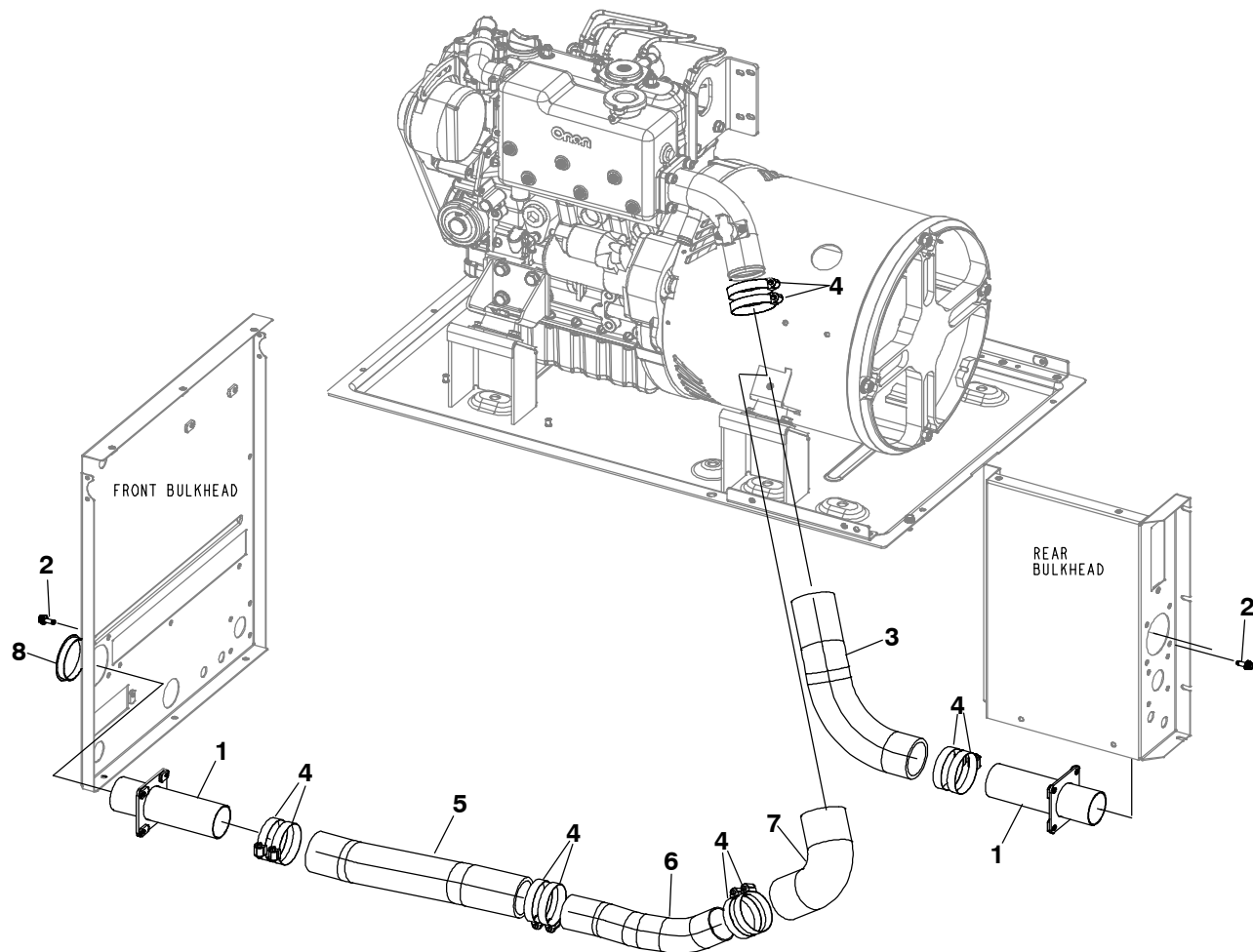
Exhaust Manifold



Exhaust Manifold

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0599	1	Kit, Marine Muffler				(M4 x 10mm)(Wet)
	155-3147	1	Kit, Marine Muffler	11	155-2666-01	1	+ Elbow, Exhaust (Dry Exhaust)
	155-2355-02	1	Kit, Exhaust Tube	12	800-3017-21	4	Screw, Hex Head Cap (Dry Exhaust) (M8 x 30mm)
	155-3146	1	Kit, Dry Exhaust (Includes Parts Marked +)	13	503-1137	2	Clamp Hose
	155-3240	1	Kit, Front Exhaust (Includes Parts Marked*)	14			Plug, Pipe
	300-4686-01	1	Kit, Low Coolant Sender (Includes Sender Harness)		502-0153	1	MDKBL
1			Manifold Assy (Includes Filler Neck)		502-0820	1	MDKBM, MDKBN
	154-3020-01	1	MDKBL	15	503-2046	1	Hose, Coolant
	154-3060	1	MDKBM, MDKBN	16	503-2249	1	Hose, Exhaust (Wet)
2	130-3721	1	Cap, Radiator	17			Tube, Exhaust (Wet)
3			Gasket, Exhaust Manifold Spec A-D		155-3522	1	MDKBL
	185-6925	1	MDKBL		155-3523	1	MDKBM, MDKBN
	185-6854	1	MDKBM, MDKBN Begin Spec E	18	503-1142	4	Clamp, Hose (Wet)
	154-2369	1	MDKBL	19	526-0003	2	Washer, Flat (Wet)
	154-3270	1	MDKBM, MDKBN	20			Stud
4			Nut, Hex Flange (M7 x 1mm) Spec A-D		185-7110	6	MDKBL
	185-6699	6	MDKBL		185-7110	8	MDKBM, MDKBN
	185-6699	8	MDKBM, MDKBN Begin Spec E	21	155-2033	1	Elbow, Exhaust (2")
	185-6699	6	MDKBL	22			Hose, Exhaust
	185-6699	8	MDKBM, MDKBN		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	25			*Tube, Exhaust
					155-3233	1	MDKBL (27")
					155-3256	1	MDKBM, MDKBN (30.5")
				26	508-0115	1	*Grommet
				27	193-0468	1	Sender, Low Coolant
				28	502-0029-06	1	Bushing, Reducer 3/4 to 1/4" (MDKBM and MDKBN)

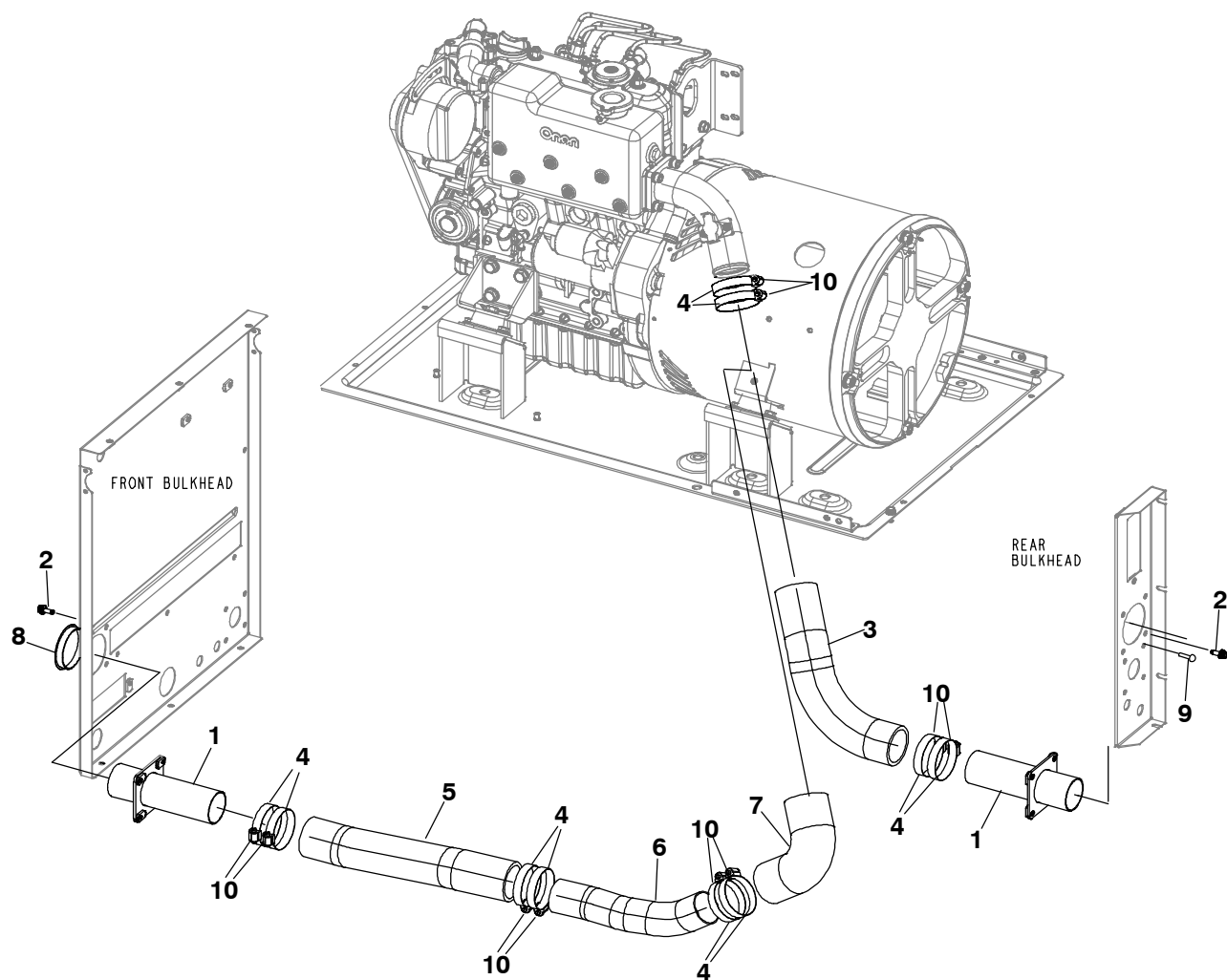
Bulkhead Exhaust (Spec B-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	155-2030	1	Muffler, Exhaust (Not Shown)	5			Hose, Front Housed Exhaust
1	405-7210	1	Connection, Bulkhead	503-2575-01	1		MDKBL
2	821-6006-01	4	Screw, Hex Head Sems (M6 x 1.0 x 16mm)	503-2575-02	1		MDKBM and MDKBN
3			Hose, Rear Exhaust	6	155-4417	1	Tube, Front Housed Exhaust
	503-2581	1	MDKBL	7	503-2573	1	Hose, Front Exhaust
	503-2572	1	MDKBM and MDKBN	8	517-0138-09	1	Plug, Rear Housed Hole
4			Clamp, Hose				
	503-1142	8	Front, Housed				
	503-1142	4	Rear				

* - Not noted if covers all three models.

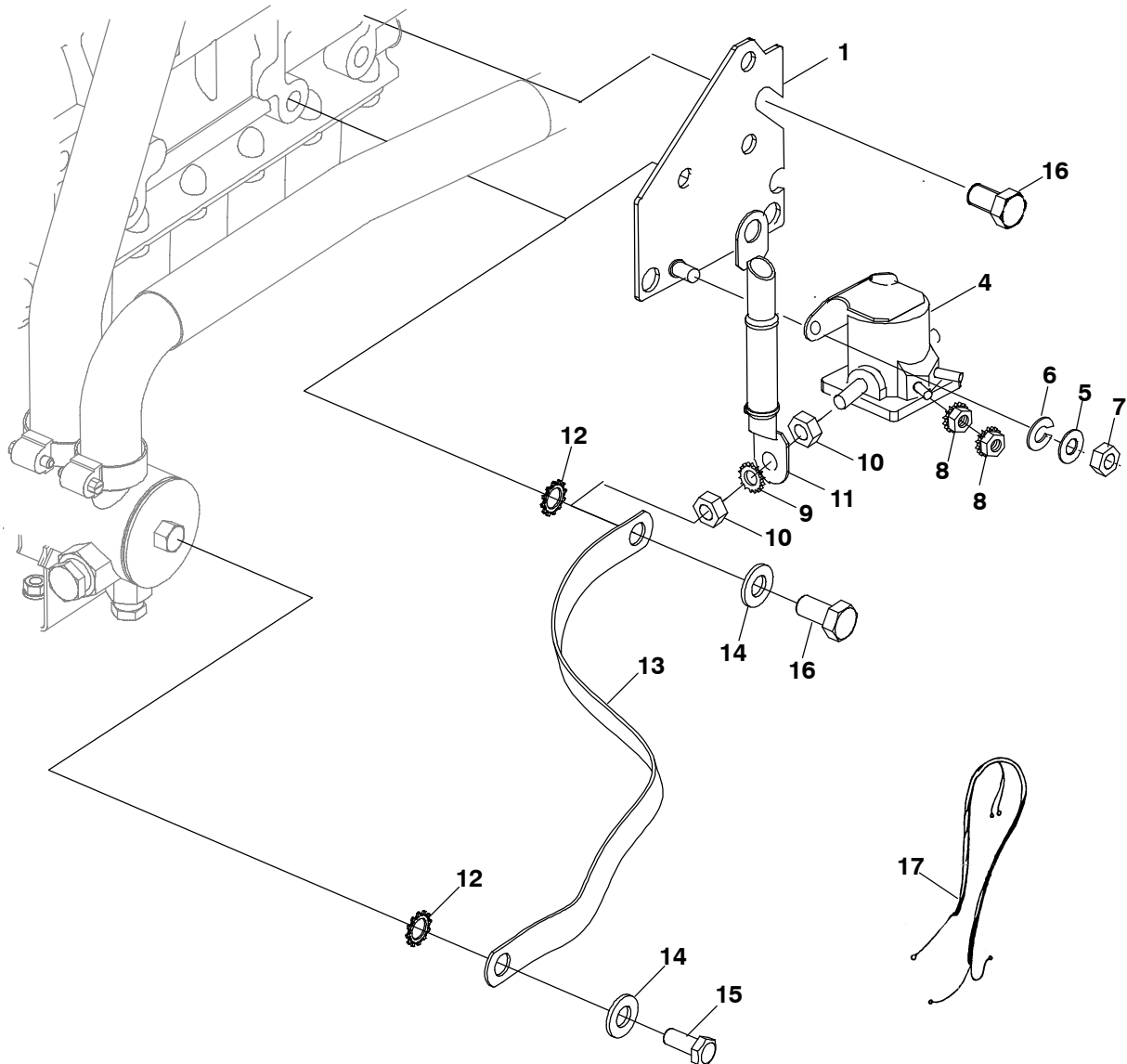
Bulkhead Exhaust (Begin Spec D)



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	MDKBL	10			Cover, Hose Clamp
	503-2572	1	MDKBM and MDKBN		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	MDKBL				
	503-2575-02	1	MDKBM and MDKBN				

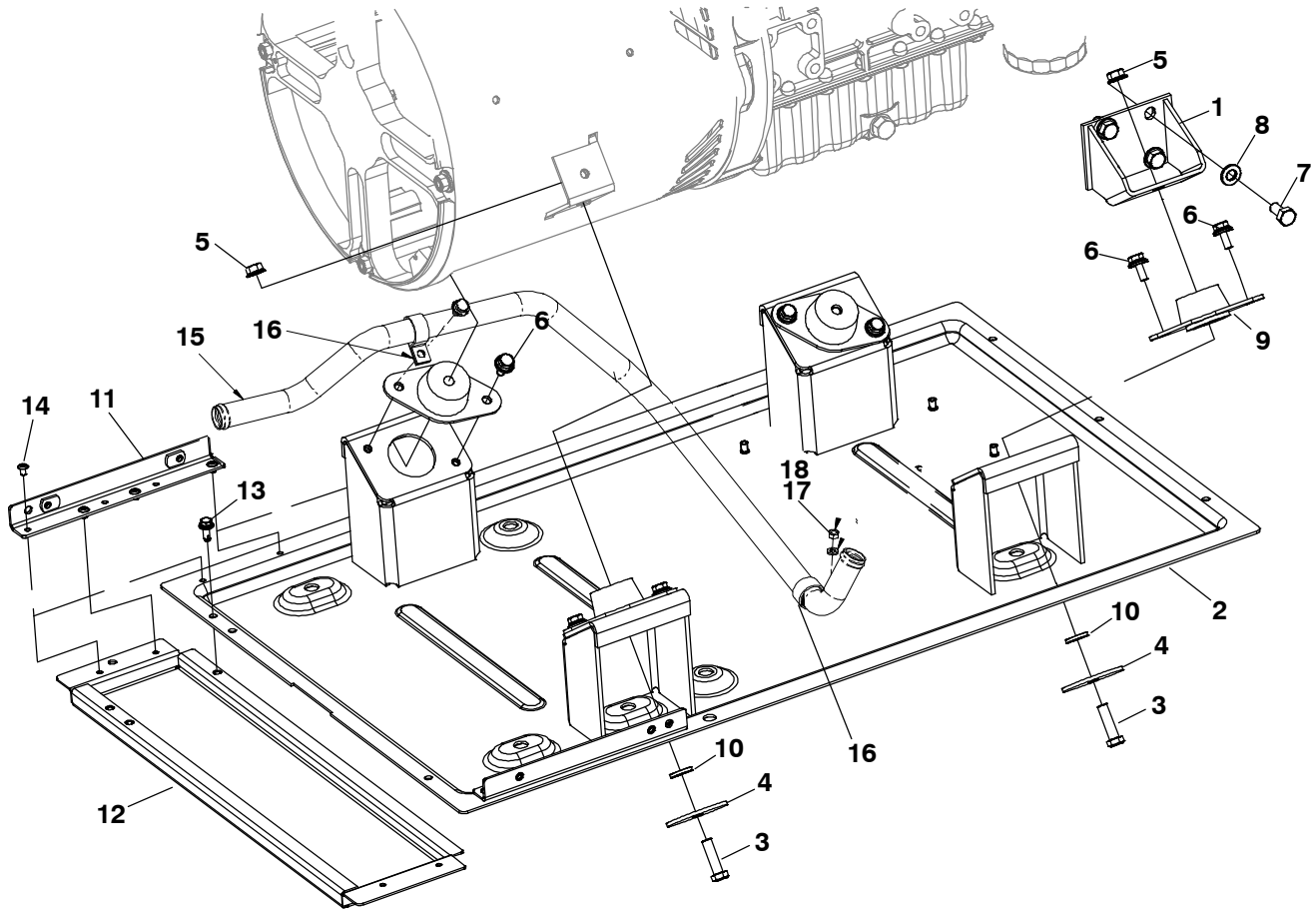
* - Not noted if covers all three models.

Isolation Ground



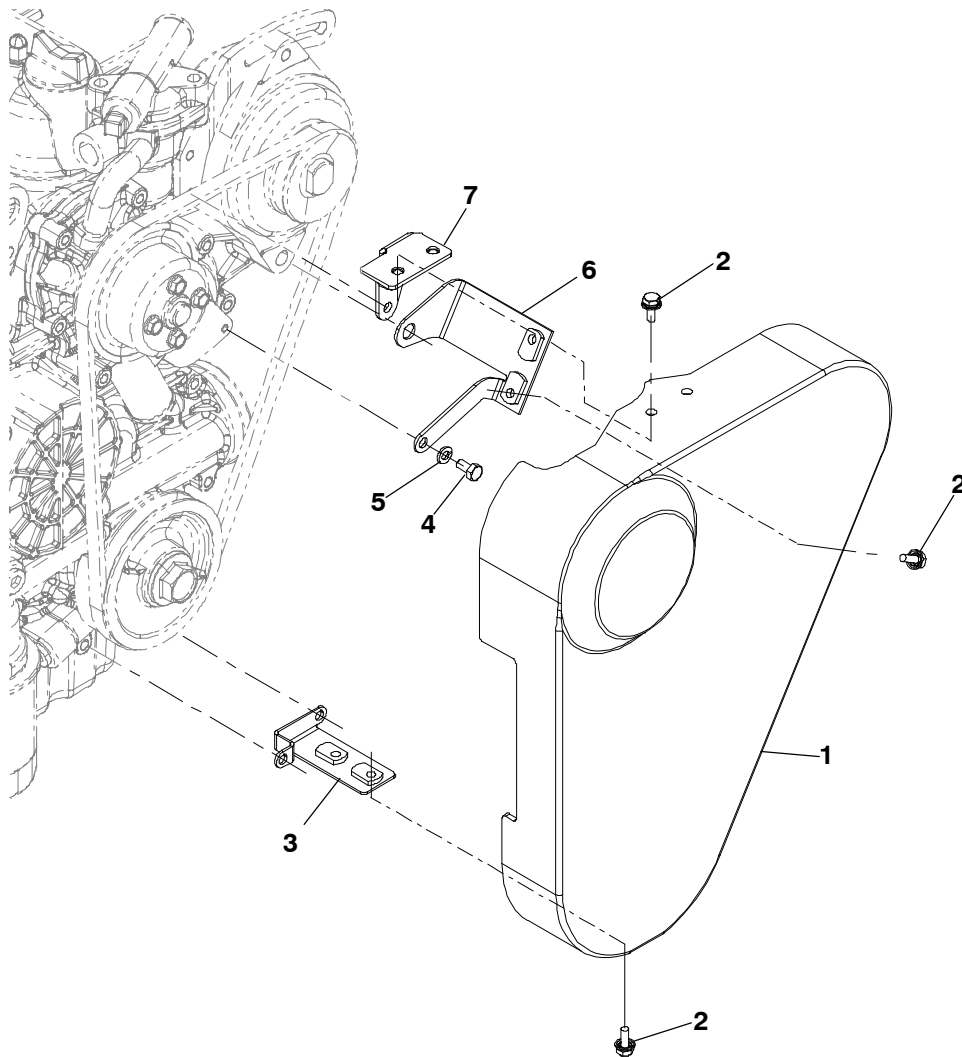
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0822	1	Kit, Isolated Ground 12V (Includes Parts Marked+ and Instructions) (12V Isolated Gnd Only Parts Included Marked *)	10	862-0026-30	4	*Nut, Hex (5/16-24)
1	333-0732-02	1	*Bracket, Solenoid	11	338-4200-02	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



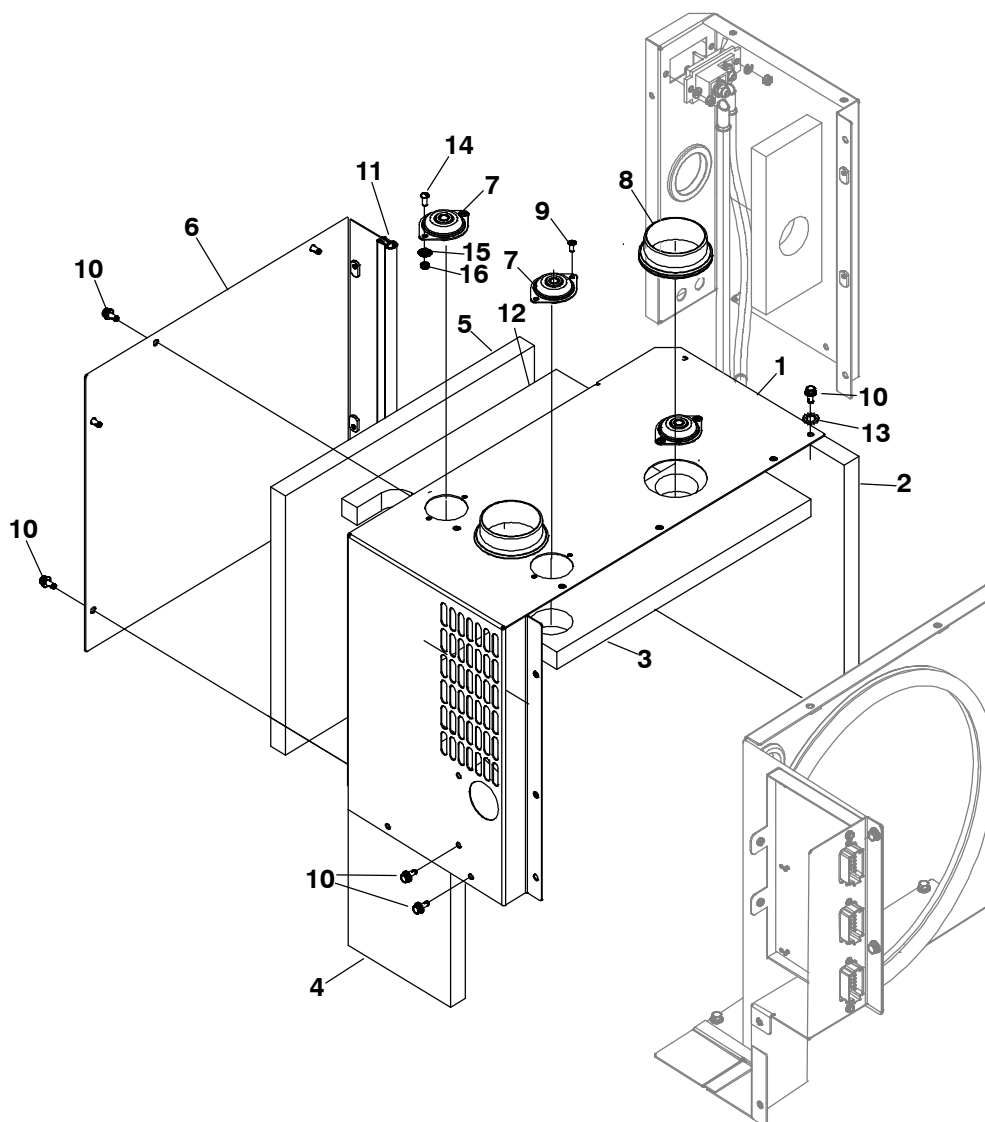
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-6785-02	2	Mount, Engine	10	526-0030	4	Washer, Flat
2	403-6402-03	1	Base, Mounting	11	405-6516-02	2	Housing, Bracket
	403-6402-04	1	MDKBL		404-0044-02	2	Spec A-C
3	800-0573	4	MDKBM and MDKBN	12	405-6518-02	1	Begin Spec D
			Screw, Hex Head Cap	13	800-6395-01	2	Extension, Mounting Base
4	526-2340	4	(3/8-16 x 2.25")				(MDKBM, MDKBN)
5	870-0550-09	4	Washer, Flat	14			Screw, Hex Head Sems
6	821-6003-02	8	Nut, Hex (3/8-16)				Stainless (M6 1.0 x 16mm)
7	800-3030	8	Screw, Hex Head Sems				(MDKBM, MDKBN)
			(M8 x 1.25 x 16mm)	14			Rivet, Pop
8	526-0399-62	8	Screw, Hex Head Cap		818-0231-01	6	MDKBL
			(M10 x 1.25 x 20mm)		818-0231-01	8	MDKBM, MDKBN
9	402-0728	4	Washer, Flat (M10)	15	130-5448-02	1	Tube, Coolant
	402-0728-02	4	Isolator, Vibration	16	518-0546-42	2	Clamp, Hose
			MDKBL (Blue Dot, 150lbs)	17	860-0114-63	1	Washer (m6)
			MDKBM, MDKBN (Purple Dot, 215lbs)	18	862-0026-54	1	Bolt (M6)

Belt Guard



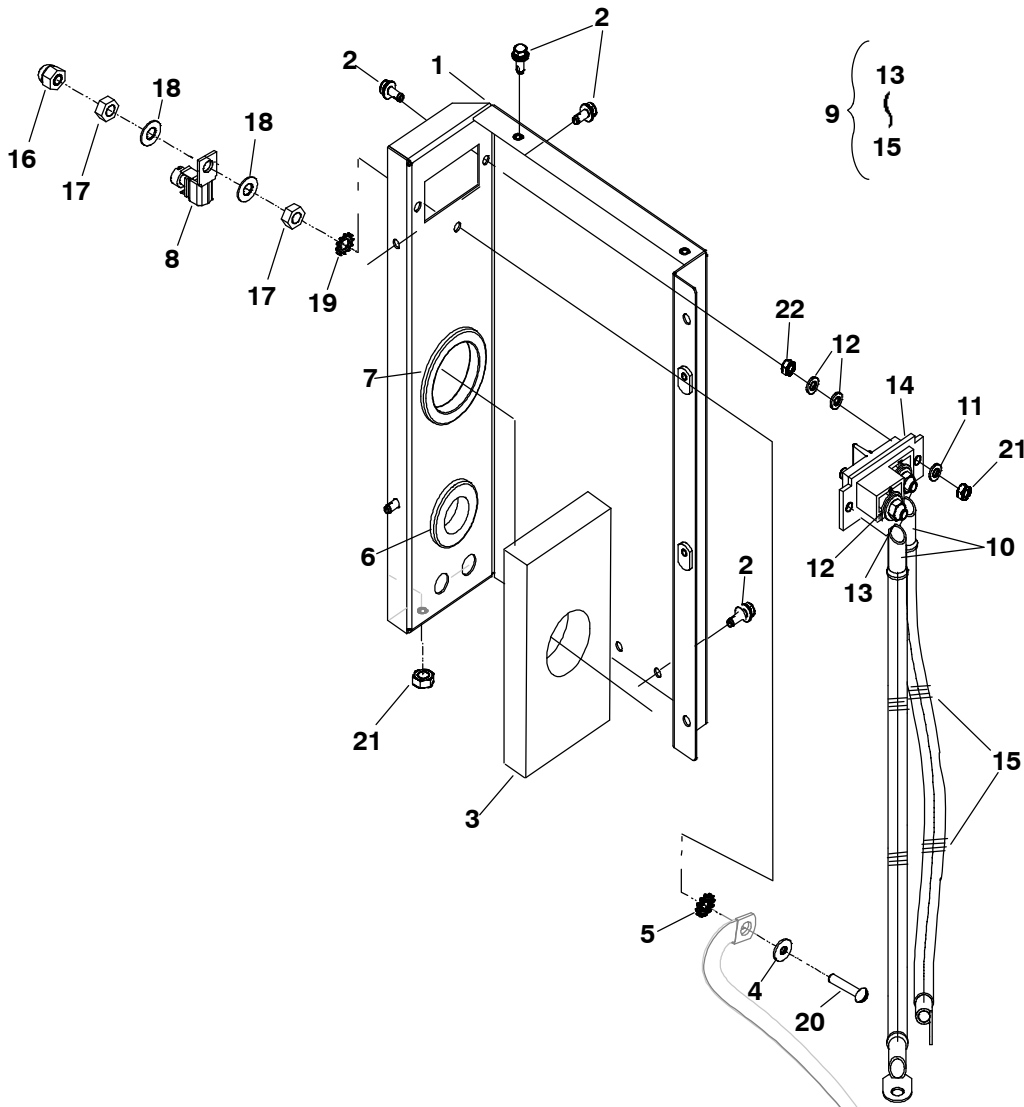
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0590	1	Kit, Belt Guard	5	850-0114-53	1	Washer, Lock (M6)
1	130-4870	1	Guard, Belt	6	130-4945-03	1	Bracket, Belt Guard Side
2	821-6002-02	6	Screw, Hex Head Sems (M6 x 1 x.12mm)	7	130-4847-03	1	Bracket, Belt Guard 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 (Spec A-B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-6491-03	1	Panel, Housing	10	821-6006-01	3	Screw, Hex Head Sems Stainless Steel (M6 x 1.0 x 16mm)
2	405-6682	1	Insulation, Housing	11	895-0402	1	Seal, Weather (1.25')
3	405-6685	1	Insulation, Housing (Top)	12	405-6686	1	Insulation, Housing
4	405-6684	1	Insulation, Housing	13	853-2006	3	Washer, Lock ETIT (M6)
5	405-6689	1	Insulation, Housing Rear Cover	14	813-0100	1	Screw, Hex Head Cap (M6 x 1 16mm)
6	405-6520-03	1	Cover, Rear	15	856-0003	1	Washer Eit (#10)
7	402-0681-01	3	Isolator, Vibration	16	870-0131	1	Nut, Sems Eit (#10-32)
8	508-1152	2	Grommet, Rubber				
9	818-0231-01	5	Rivet, Pop (.315 x 1.77")				

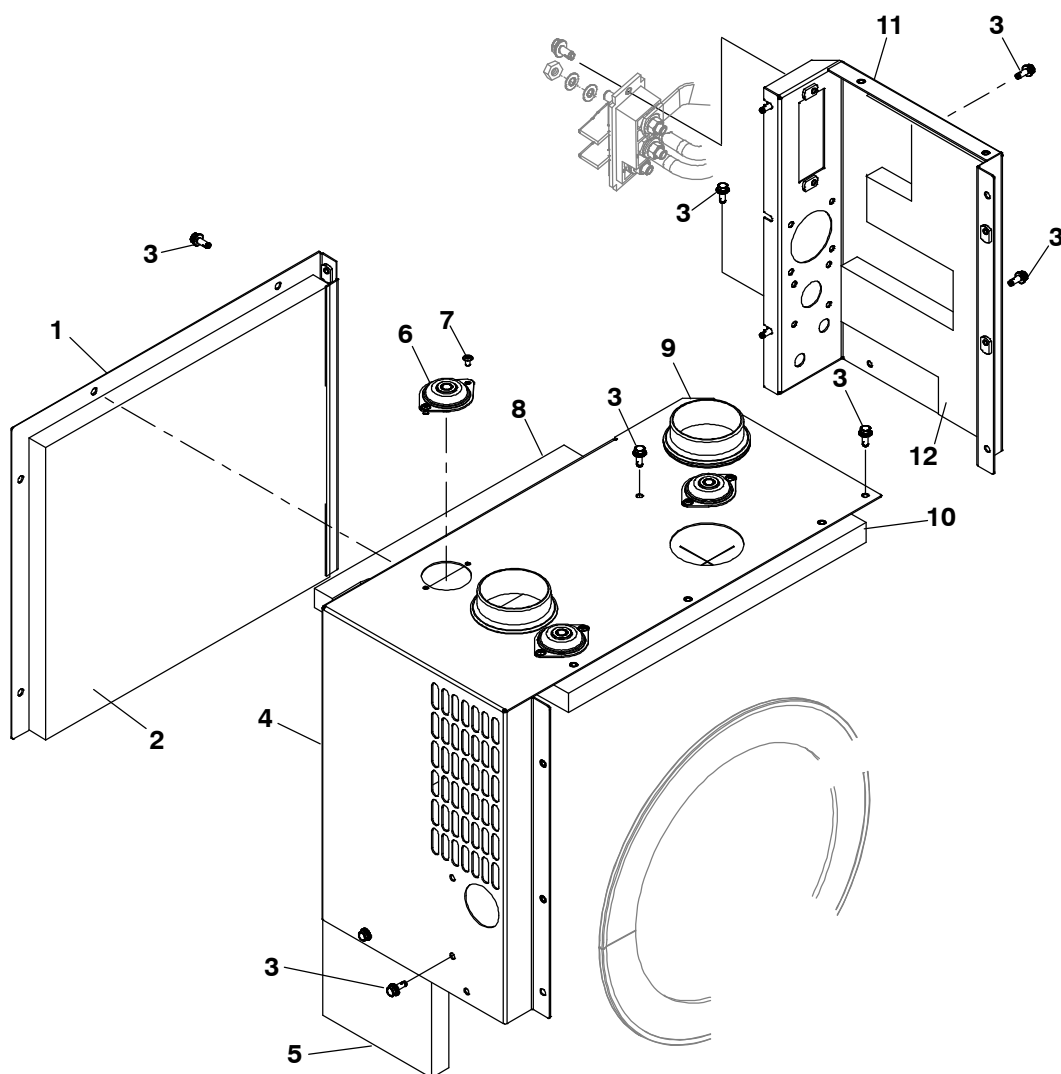
Generator Housing Panel (Spec A-B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	332-3771	1	Kit, Terminal Boot (Includes Parts Marked *)	11	526-2081	2	Washer, Flat
1	405-6492-03	1	Panel, Housing	12	526-0054	4	#Washer, Flat Brass (5/16")
2	821-6006-01	7	Screw, Hex Sems Stainless Steel (M6 x 1 x 16mm)	13	862-0015	2	#Nut, Hex (.313-18)
3	405-6683	1	Insulation	14	332-3408	1	#Block, Terminal
4	526-2083	1	Washer, Flat (M6)	15	332-1554	4	#Clamp, Loop
5	856-0006	1	Washer, EIT (1/4")	16	860-2036	1	Nut, Hex Acorn (1/4-20 Nylon)
6	508-1102	1	Grommet, Rubber	17	871-0016	2	Nut, Hex Brass (1/4-20)
7	508-0115	1	Grommet, Rubber	18	526-0052	2	Washer, Flat (1/4")
8	332-0142	1	Lug, Solderless	19	853-2006	2	Washer, ET (M6)
9	338-3577-01	1	Harness, Battery (Includes Parts Marked#)	20	810-0155	1	Screw, Round Head Brass Mach (1/4-20 x 1-1/4")
10			*Red and Black Insulators	21	860-2057	3	Nut, Hex Mach (M6)
	332-2112	1	Black	22	871-0025	2	Nut, Full (5/16-18)
	332-2112-01	2	Red				

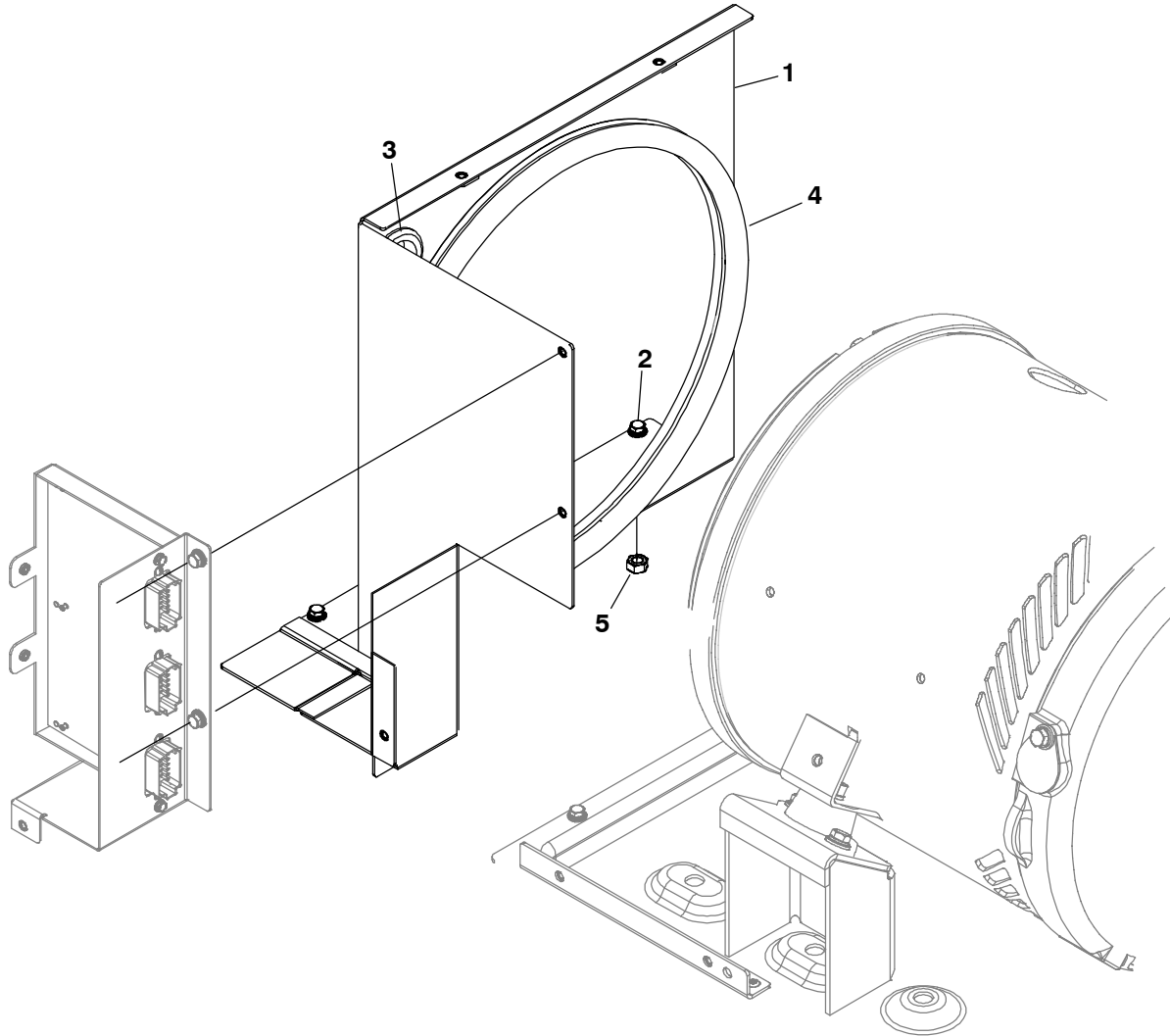
*- Parts Included in Terminal Boot Kit.

Generator Sound Shield Housing (Spec C)



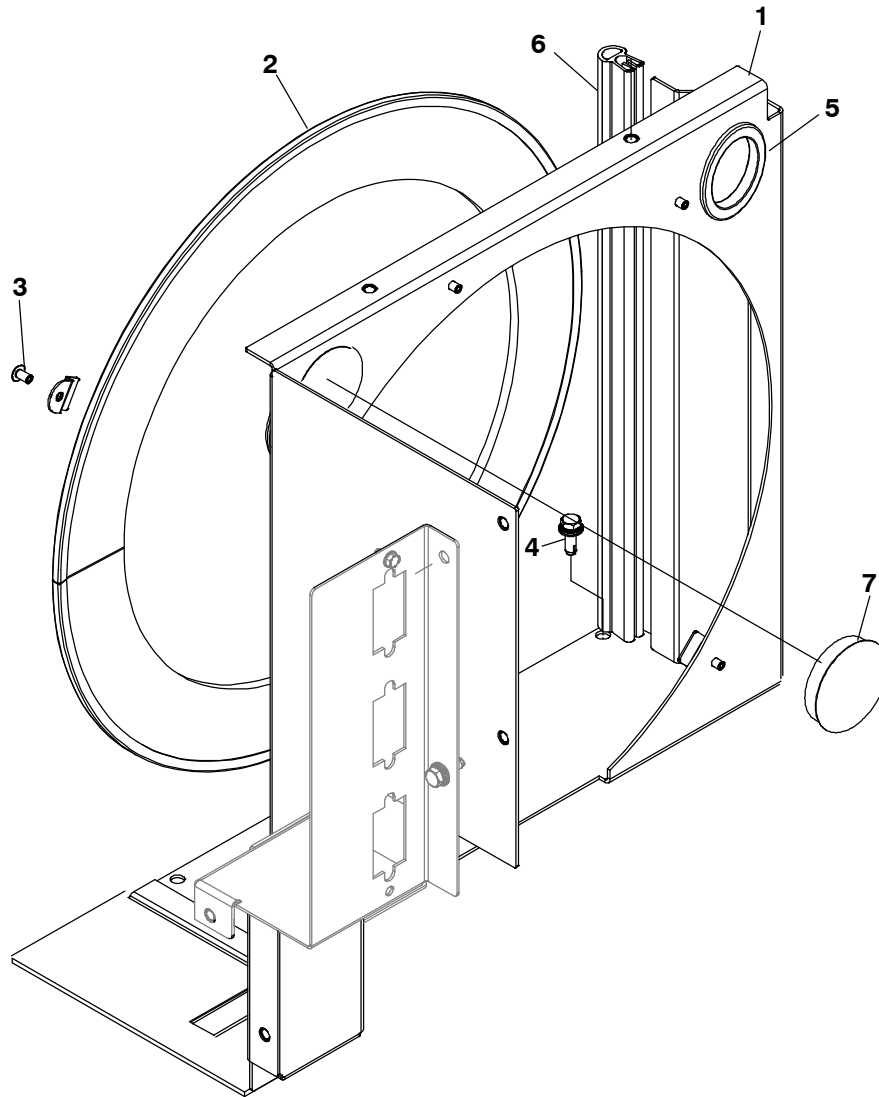
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-9047-03	1	Cover, Enclosure (Rear)	6	402-0681-01	3	Isolator, Vibration
2	405-9078	1	Insulation, Housing	7	818-0231-01	5	Rivet, Pop (.315 x 1.77")
3	821-6006-01	16	Screw, Hex Head Sems Stainless Steel (M6 x 1.0 x 16mm)	8	405-9079	1	Insulation, Housing
4	405-6491-03	1	Panel, Housing	9	508-1152	2	Grommet, Rubber
5	405-6684	1	Insulation, Housing	10	405-9129	1	Insulation, Housing
				11	405-8783-03	1	Panel, Housing
				12	405-9631	1	Insulation, Panel

Generator Baffle (Spec A-B)



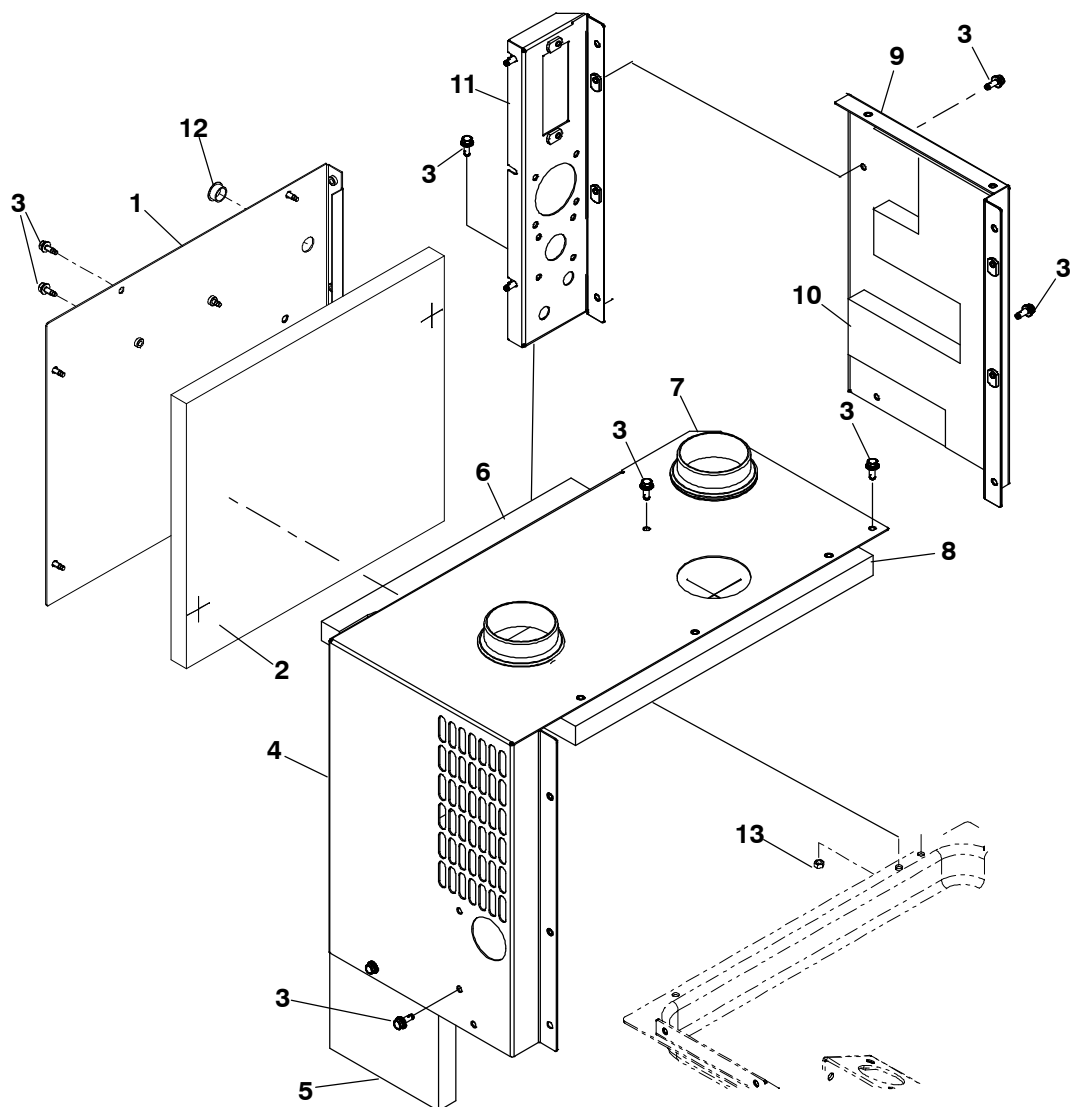
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-6517-03	1	Baffle, Generator	4	895-0381	1	Seal, Weather (3.6')
2	821-6006-01	2	Screw, Hex Sems Stainless (M6 x 1 x 16mm)	5	860-2057	2	Nut, Hex Mach (M6)
3	508-1126	1	Grommet, Rubber				

Generator Baffle (Spec C)



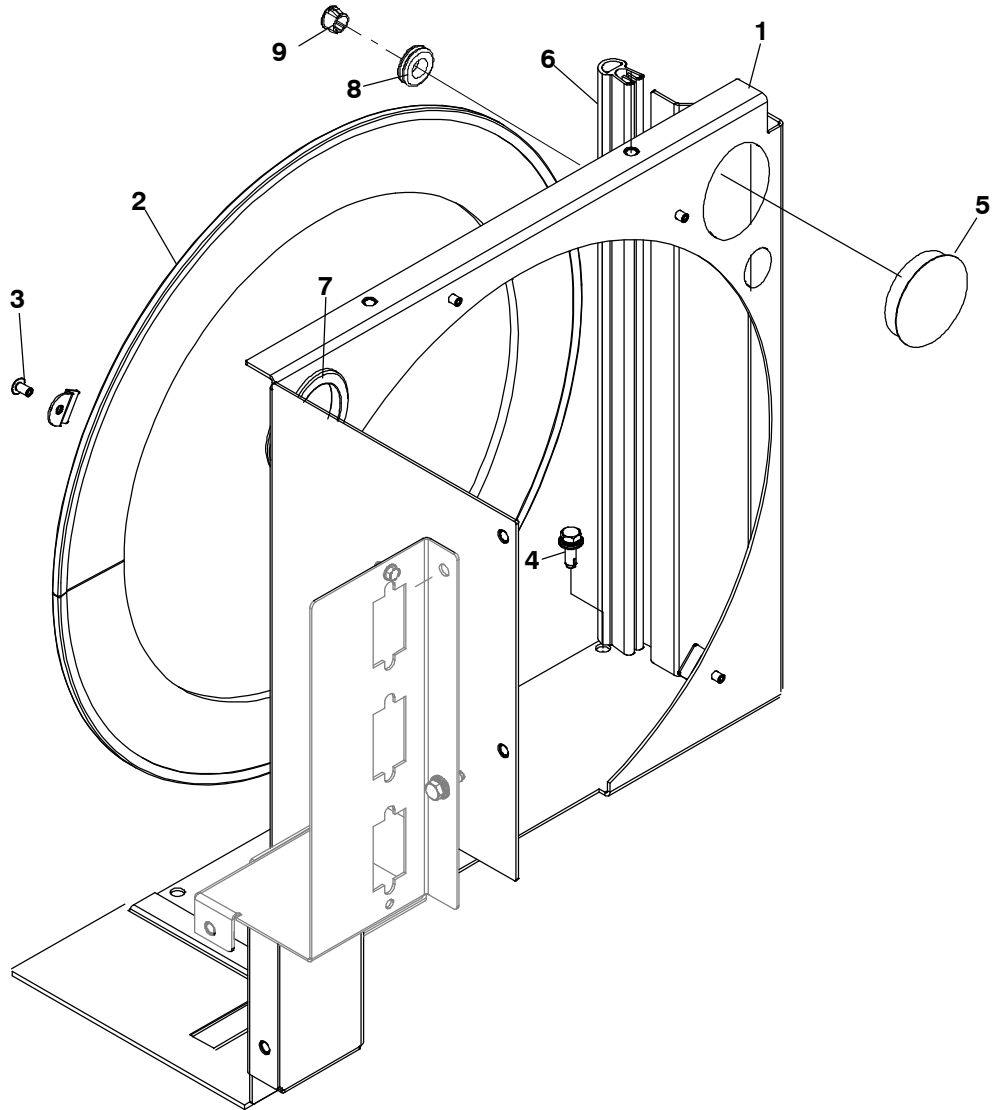
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-9077-03	1	Panel, Air Baffle	5	508-0051	1	Grommet, Rubber
2	509-0368	1	Seal, Bush	6	895-0402	1	Seal, Weather (1.23')
3	818-0231-01	6	Rivet, Pop	7	517-0138-07	1	Plug, Hole
4	821-6006-01	5	Screw, Hex Head Sems (M6 x 1.0 x 16mm)				

Generator Sound Shield Housing (Begin Spec D)



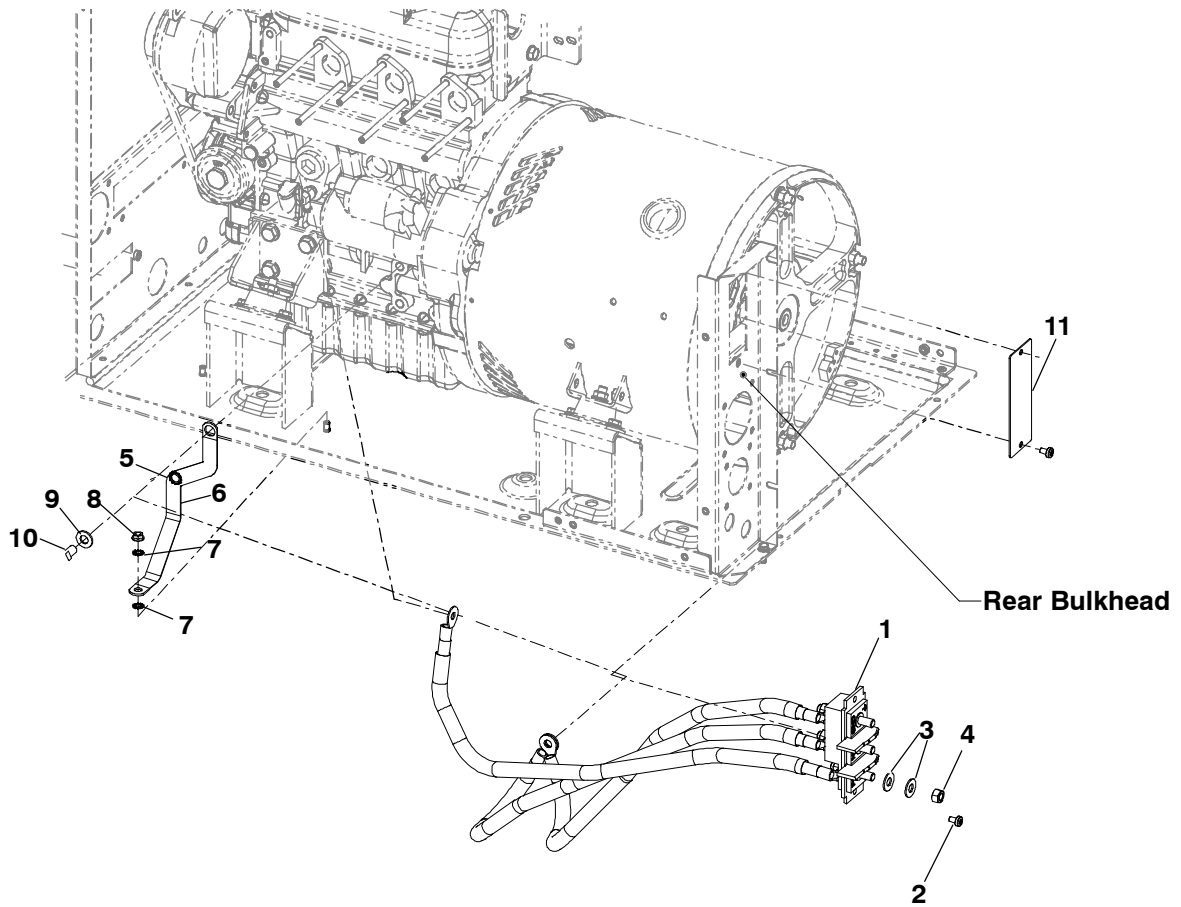
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0021-03	1	Cover, Enclosure (Rear)	7	508-1152	2	Grommet, Rubber
2	404-0045	1	Insulation, Housing	8	405-9129	1	Insulation, Housing
3	800-6395-01	16	Screw, Hex Head Sems Stainless Steel (M6 x 1.0 x 16mm)	9	404-0024-03	1	Panel, Housing
4	404-0023-03	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 (Begin Spec D)



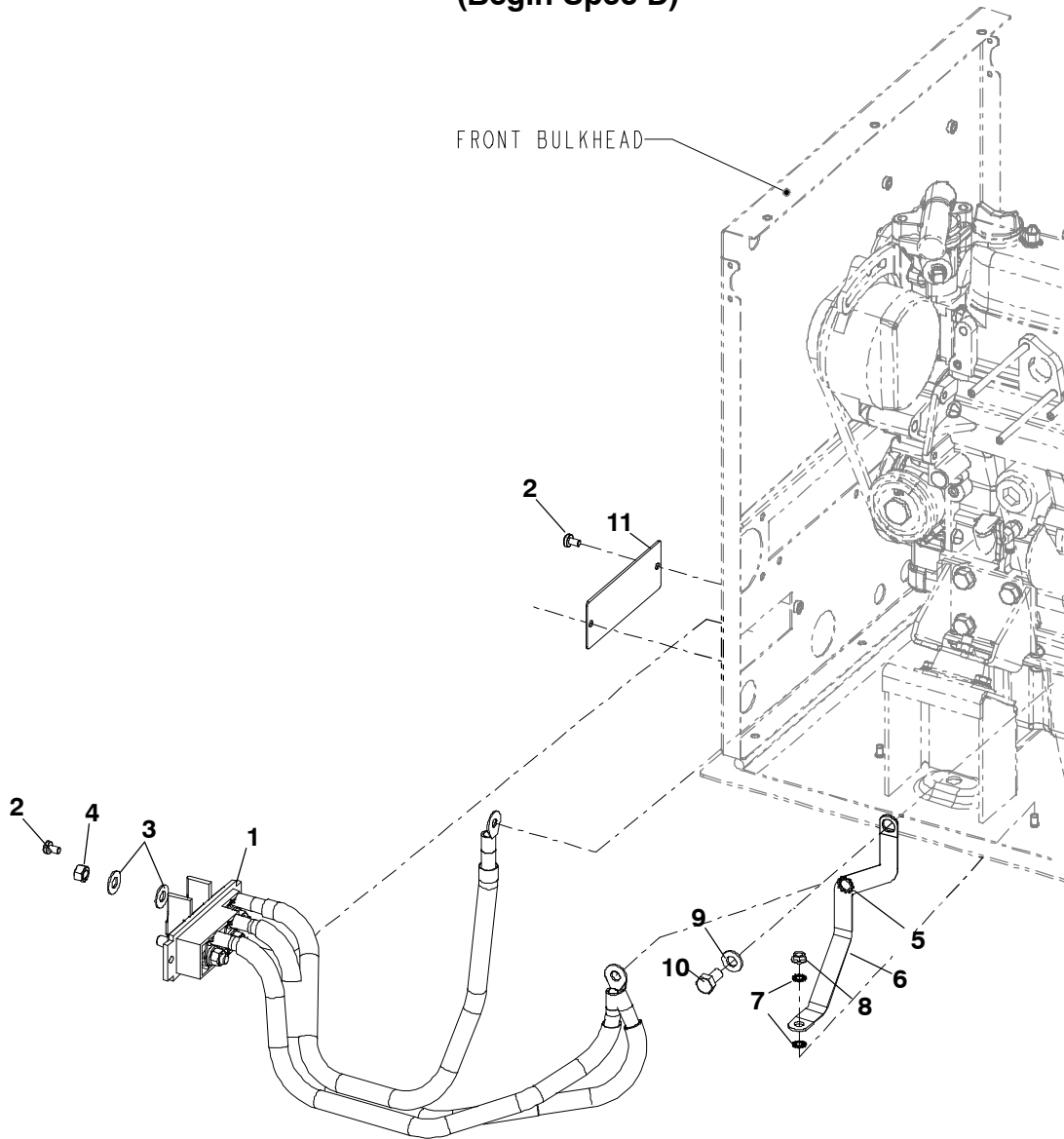
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0020-03	1	Panel, Air Baffle	6	895-0402	1	Seal, Weather (1.23')
2	509-0368	1	Seal, Bush	7	508-1126	1	Grommet, Rubber
3	818-0231-02	6	Rivet, Pop	8	508-0021	1	Grommet
4	800-6395-01	5	Screw, Hex Head Sems (M6 x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

Rear Bulkhead Battery Connection (Begin Spec D)



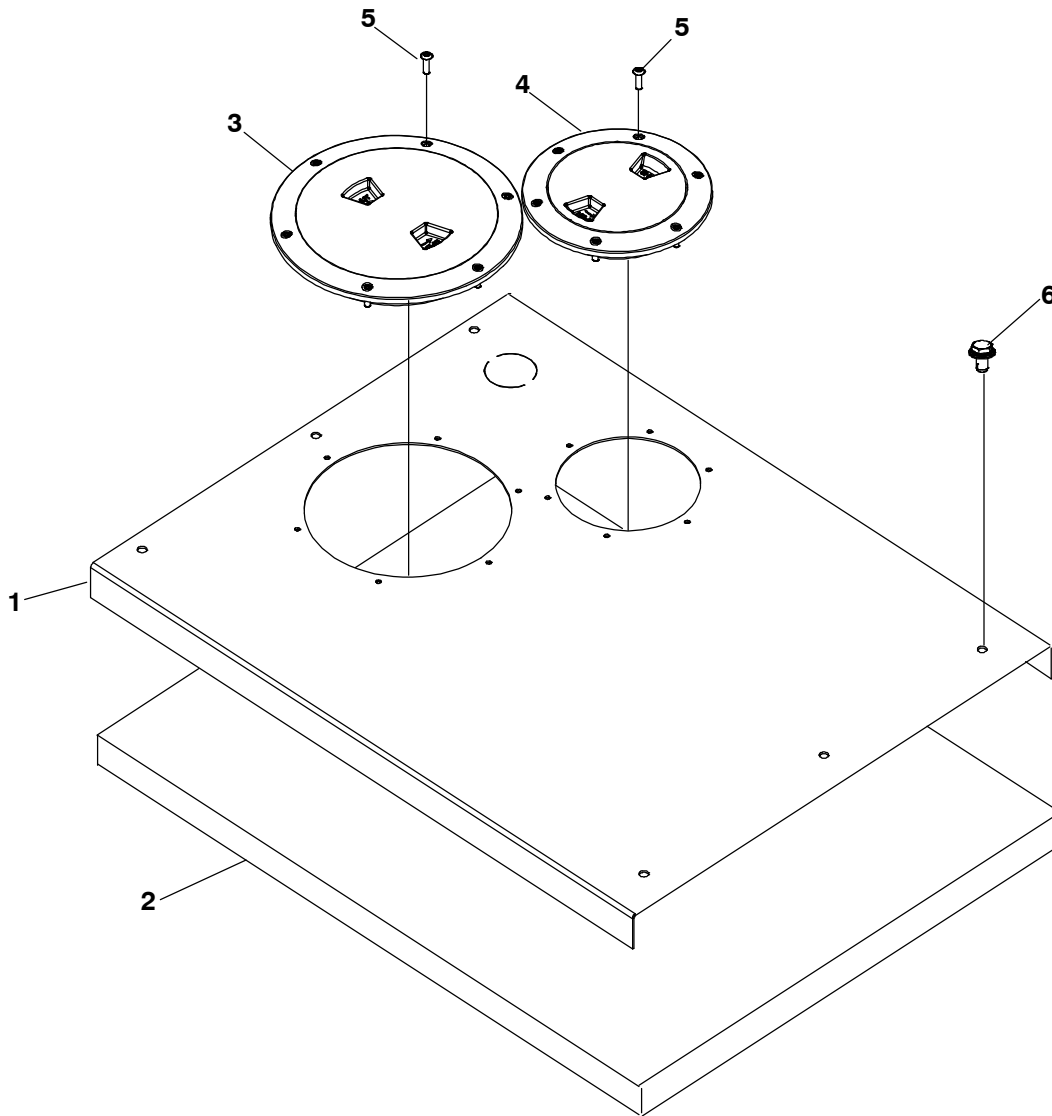
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4622	1	Harness, Battery	5	853-2010	1	Washer, Lock EIT (M10)
2			Screw, Pan Head Torx (M6 x 1 x 10mm)	6	337-2785	1	Strap, Bond
	823-1002-03	4	Housed	7	853-2006	2	Washer Lock (M6)
	823-1002-03	2	Unhoused	8	185-6699-02	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 (Begin Spec D)



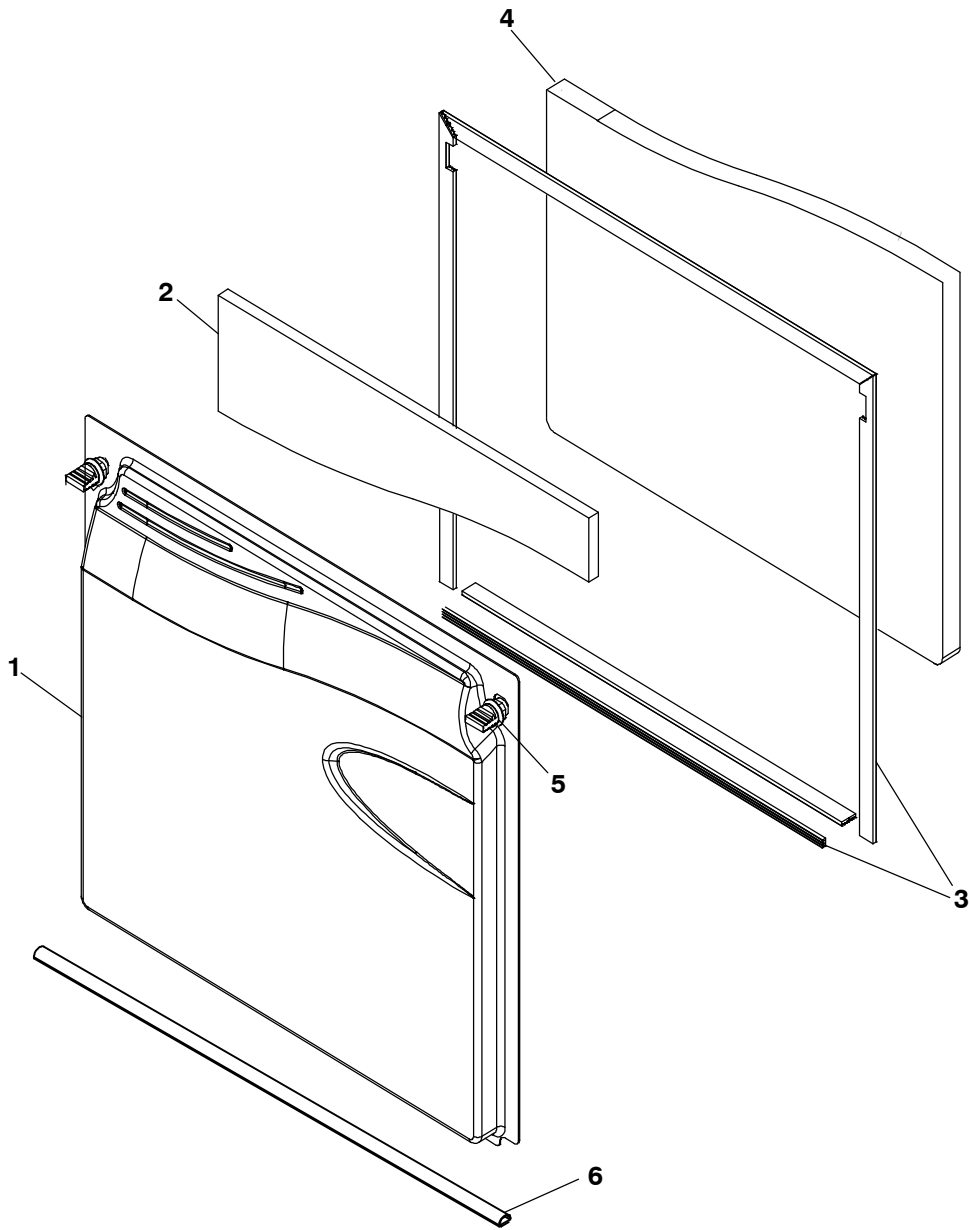
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4622	1	Harness, Battery	6	337-2785	1	Strap, Bond
2			Screw, Pan Head Torx (M6 x 1 x 10mm)	7	853-2006	2	Washer Lock (M6)
	823-1002-03	4	Housed	8	185-6699-02	1	Nut, Hex Flange
	823-1002-03	2	Unhoused	9	526-2120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

Engine Sound Shield (Spec A-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Sound Shield (Includes + for next 3 Pages)	2	405-6688	1	+ Insulation, Roof
	541-0588	1	MDKBL,	3	405-6340	1	+ Cover, Access
	541-0589	1	MDKBM MDKBN	4	405-6709	1	+ Cover, Access
	405-6959	1	Kit, Panel Roof	5	818-0239-03	12	+ Rivet, Pop
1	405-6524-03	1	+ Panel, Roof	6	821-6006-01	6	+ Screw, Hex Head Sems (M6 x 1 x 16mm)

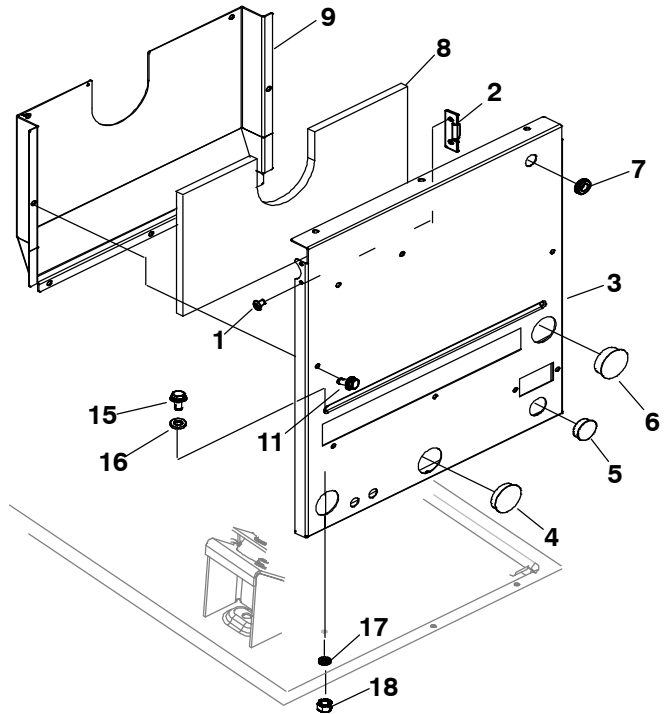
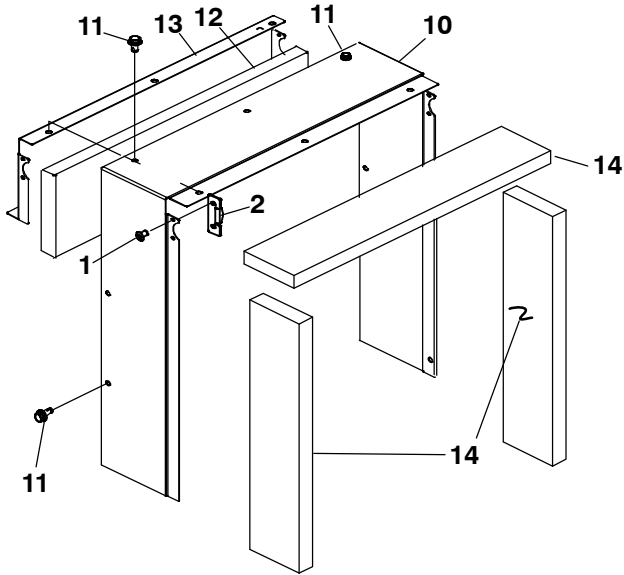
Engine Panel Sound Shield (Spec A-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-6957	1	Kit, Door (Single Door)	6	895-0411	1	+Weather, Seal (Spec C 2.5')
1	405-6519-03	1	+Door, Sound Shield				
2	405-6797	1	+Insulation, Door				
3	895-0395	1	+Seal, Weather (15.6')				
4	405-6687	1	+Insulation, Door				
5	406-0958	2	+Latch, Door (1/4 Turn)				

+ - Parts Included in Sound Shield Kit Listed on Engine Sound Shield Page.

Engine Panel Sound Shield (Spec A-C)

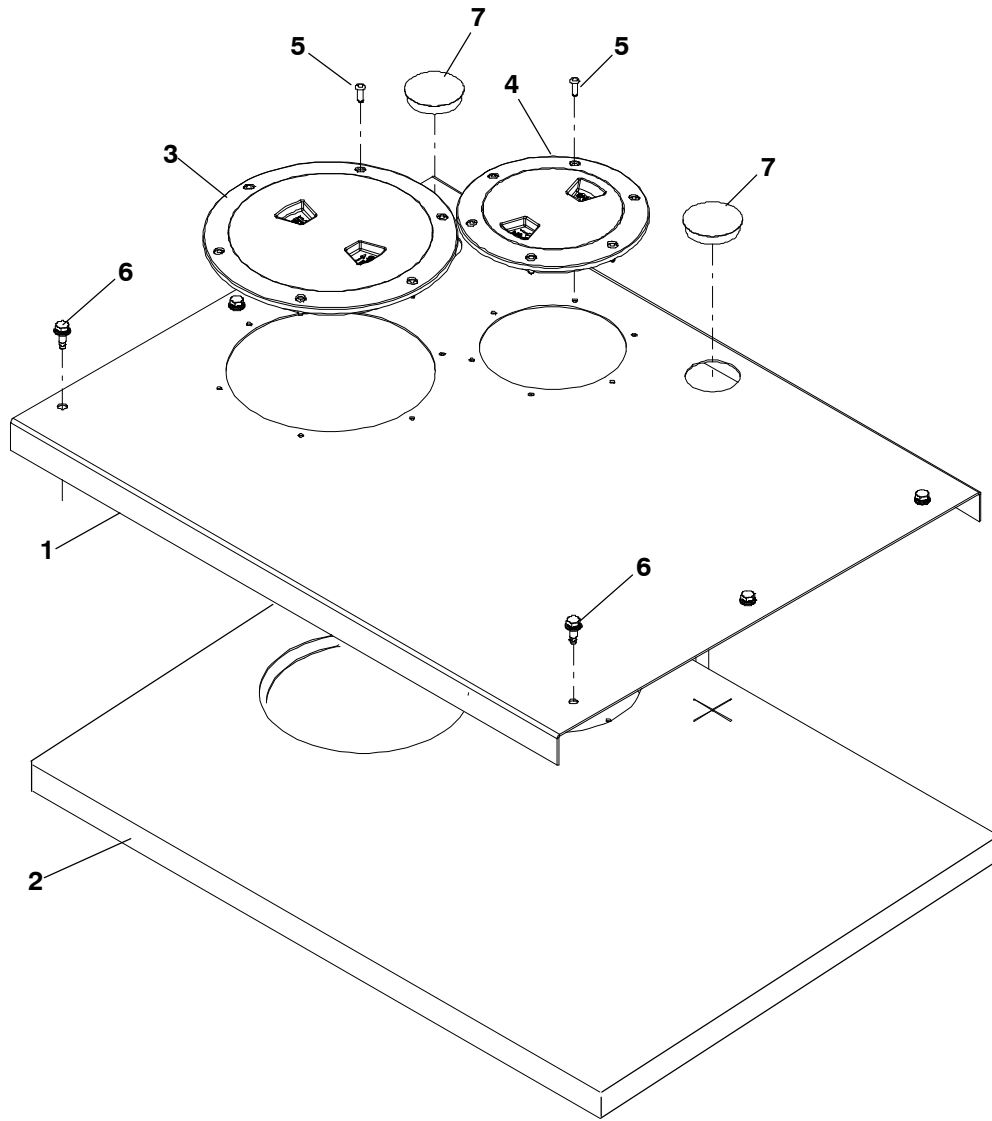


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-6958	1	Kit, Front Panel (Includes Parts Marked *)	10	405-6521-03	1	>Panel, Roof Extension
	405-6960	1	Kit, Panel Duct (Includes Insulation and Panel)	11			Screw, Hex Sems Stainless (M6 x 1 x 16mm)
	405-6961-01	1	Kit, Roof Extension Panel (Included Catch & Rivets +)	821-6006-01	17		MDKBL
	405-6961-02	1	Kit, Roof Extension Panel (Included Catch & Rivets >)	821-6006-01	24		MDKBM, MDKBN
1	818-0231-01	8	>+*Rivet, Pop	12	405-4445-03	1	>+Panel, Roof End Insulation
2	406-1032	4	>+*Catch, Door	13	405-6523-03	1	+Panel, Roof End
3			*Panel, Front	14	405-6811	3	>Insulation, Panel Roof Extension (MDKBM, MDKBN)
	405-6513-03	1	Spec A-B	15	800-6033	1	Screw, Hex Head Cap (M6 x 1x 16mm) (Spec A)
	405-8825-03	1	Spec C	16	853-2006	1	Washer, ET (M6) (Spec A)
4	517-0138-07	1	*Plug, Hole	17	850-2056	3	Washer, Lock (M6)(Spec A)
5	517-0138-04	1	*Plug, Hole	18			Nut, Hex (M6)
6	517-0138-09	1	*Plug, Hole (Spec A)		860-2057	3	Spec A-B
7	508-0021	1	*Grommet, Rubber		185-6699-02	3	Spec C
8			Insulation, Duct				
	405-6700	1	Spec A-B				
	405-9616	1	Spec C				
9			Panel, Duct				
	405-6515-03	1	Spec A-B				
	405-9615-03	1	Spec C				

* - Parts Included in Front Panel Kit.

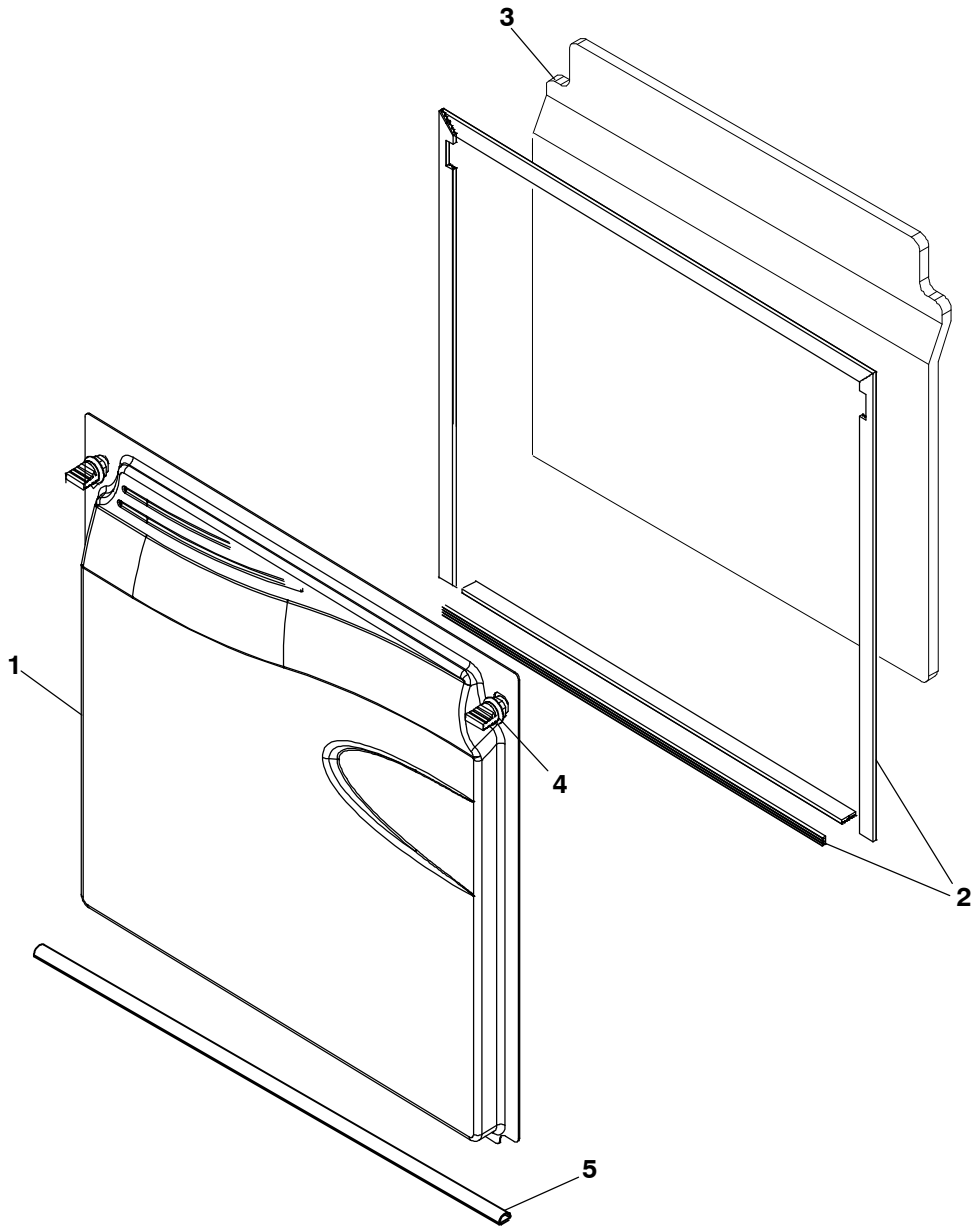
+> - Parts Included in Roof Extension Panel Kit.

Engine Sound Shield (Begin Spec D)



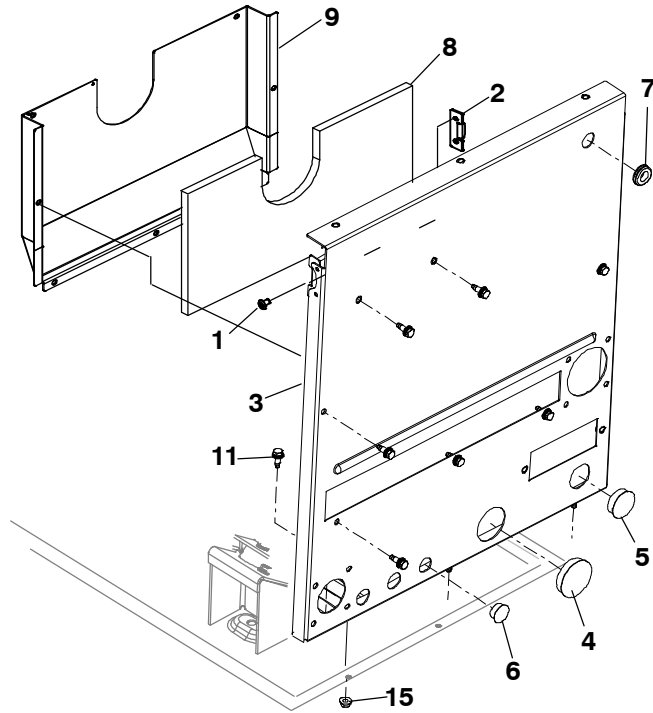
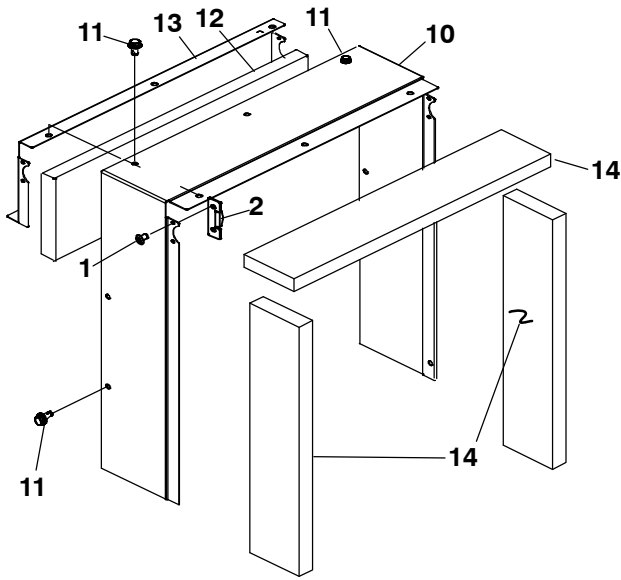
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0016-03	1	Panel, Roof	6			Screw, Hex Head Sems
2	405-6688	1	Insulation, Roof	800-6395-01	6	6	Spec D-E
3	405-6340	1	Cover, Access	A030B088	6	6	Begin Spec F
4	405-6709	1	Cover, Access	7	517-0392-19	2	Plug, Hole
5			Rivet, Pop				
	818-0239-03	12	Spec D-E				
	A030F177	12	Begin Spec F				

Engine Panel Sound Shield (Spec D)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-9751-03	1	Door, Sound Shield				
2	895-0395	1	Seal, Weather (27.5')	406-0958			(Knob)
3	405-9568	1	Insulation, Door	A030B824			(Slotted)
4		2	Latch, Door (1/4 Turn)	5	895-0411	1	Weather, Seal (4.1')

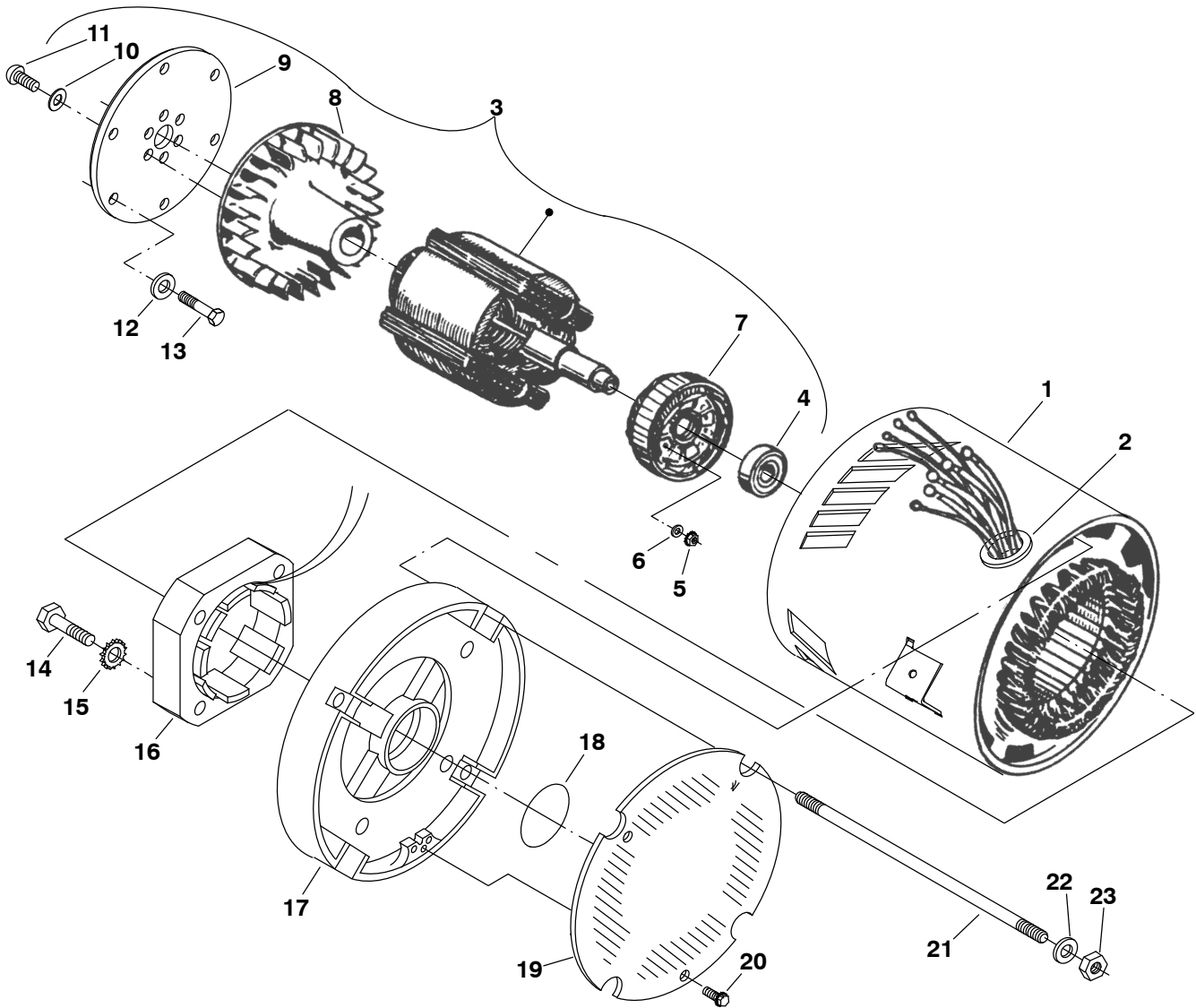
Engine Panel Sound Shield (Begin Spec D)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	818-0231-01	8	Rivet, Pop Spec D-E
	A030F179	8	Begin Spec F
2	406-1032	4	Catch, Door
3	404-0012-03		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 (MDKBM and MDKBN)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
11			Screw, Hex Sems Stainless (M6 x 1 x 16mm)
	800-6395-01	19	MDKBL Spec D-E
	800-6395-01	26	MDKBM, MDKBN Spec D-E
	A030B088	19	MDKBL Begin Spec F
	A030B088	26	MDKBM, MDKBN Begin Spec F
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 (MDKBM, MDKBN)
15	185-6699-02	3	Nut, Hex (M6)

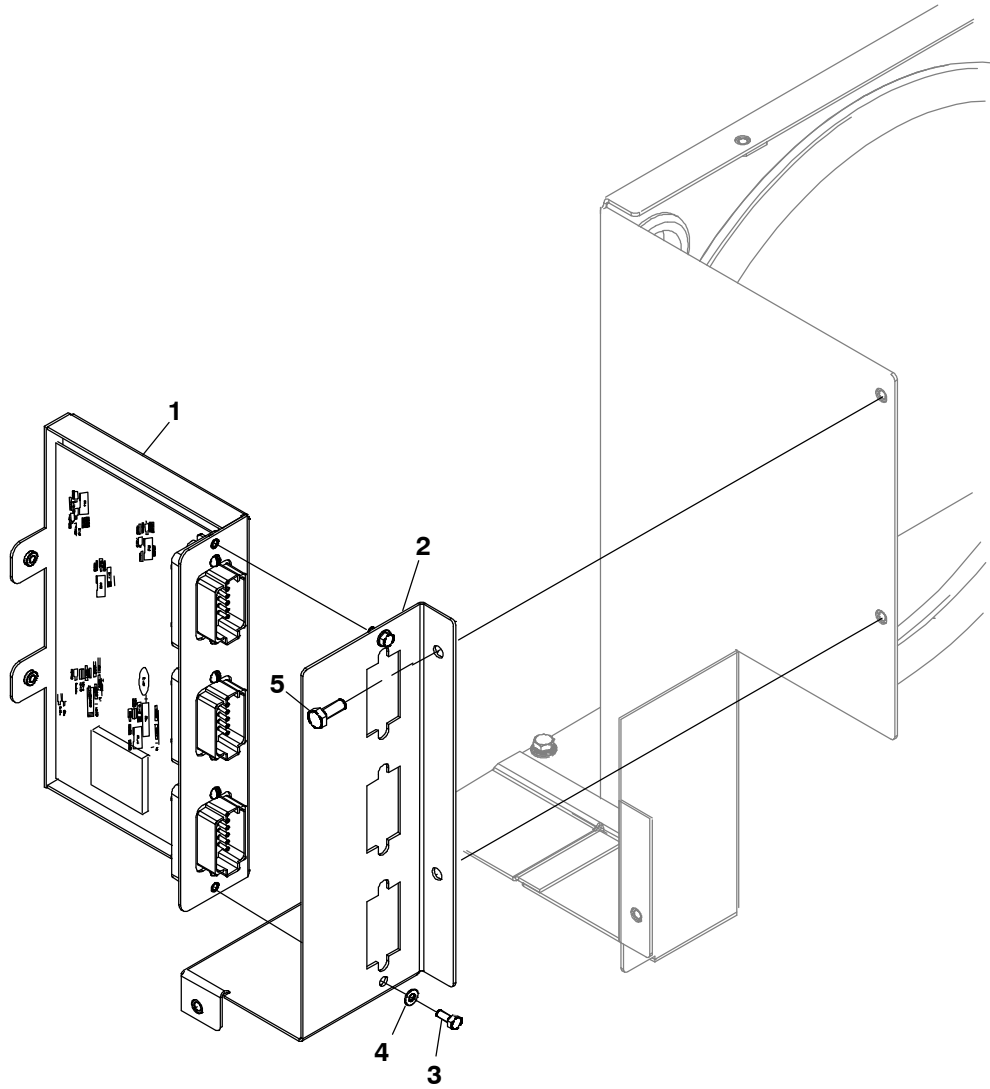
Generator



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	MDKBL	13	800-2054	6	Screw, Hex Head Cap (M8 x 1.25 x 14mm)
	220-4600-03	1	MDKBM, MDKBN	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	MDKBL	17	211-0465-02	1	Endbell
	201-3565-03	1	MDKBM, MDKBN	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	MDKBL
	358-0069	1	Diode		520-1004-02	4	MDKBM, MDKBN
	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")				

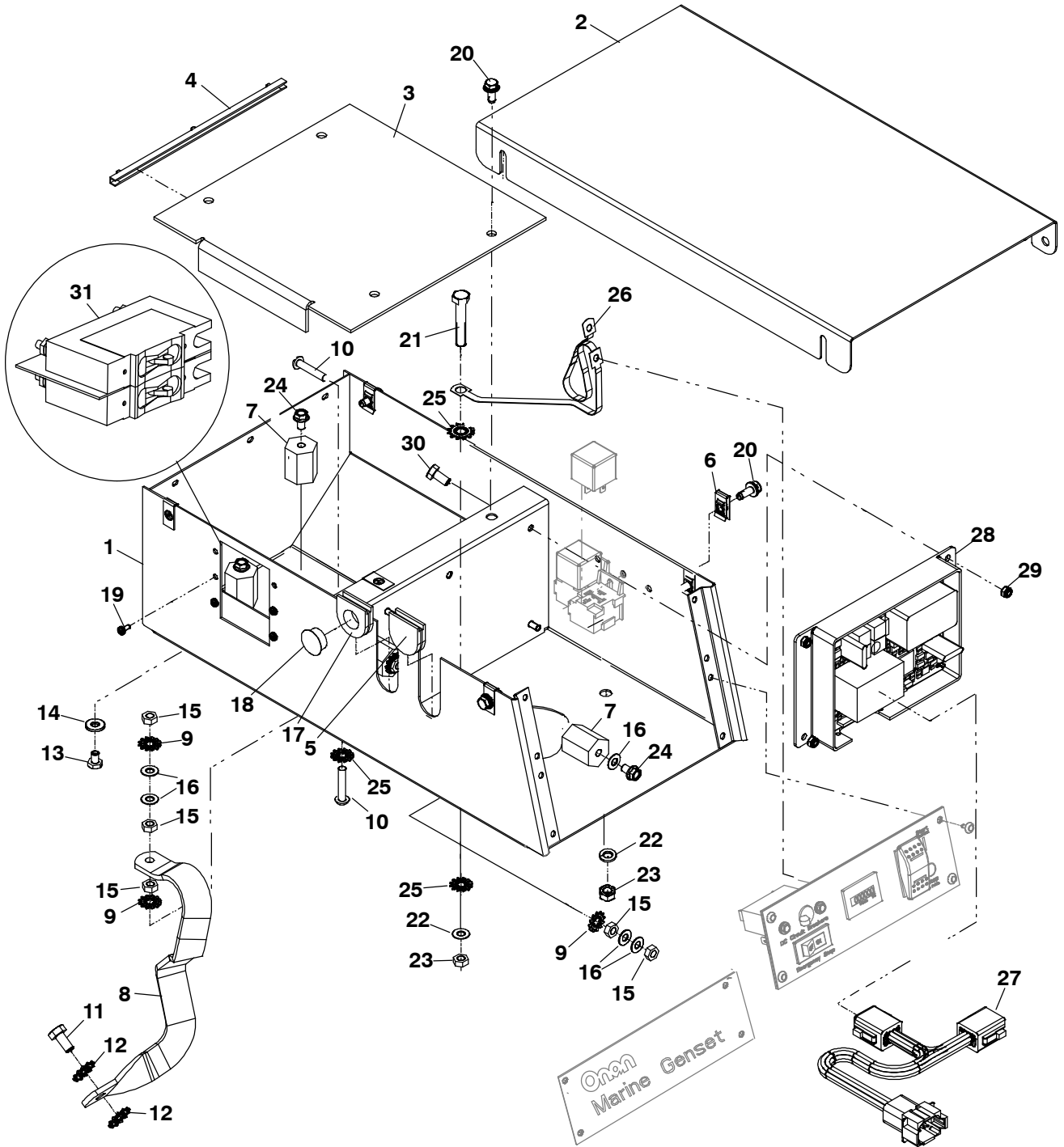
* - Parts Included in Rotor Assy.

PCB Mounting



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

Control Box (Spec A-C)

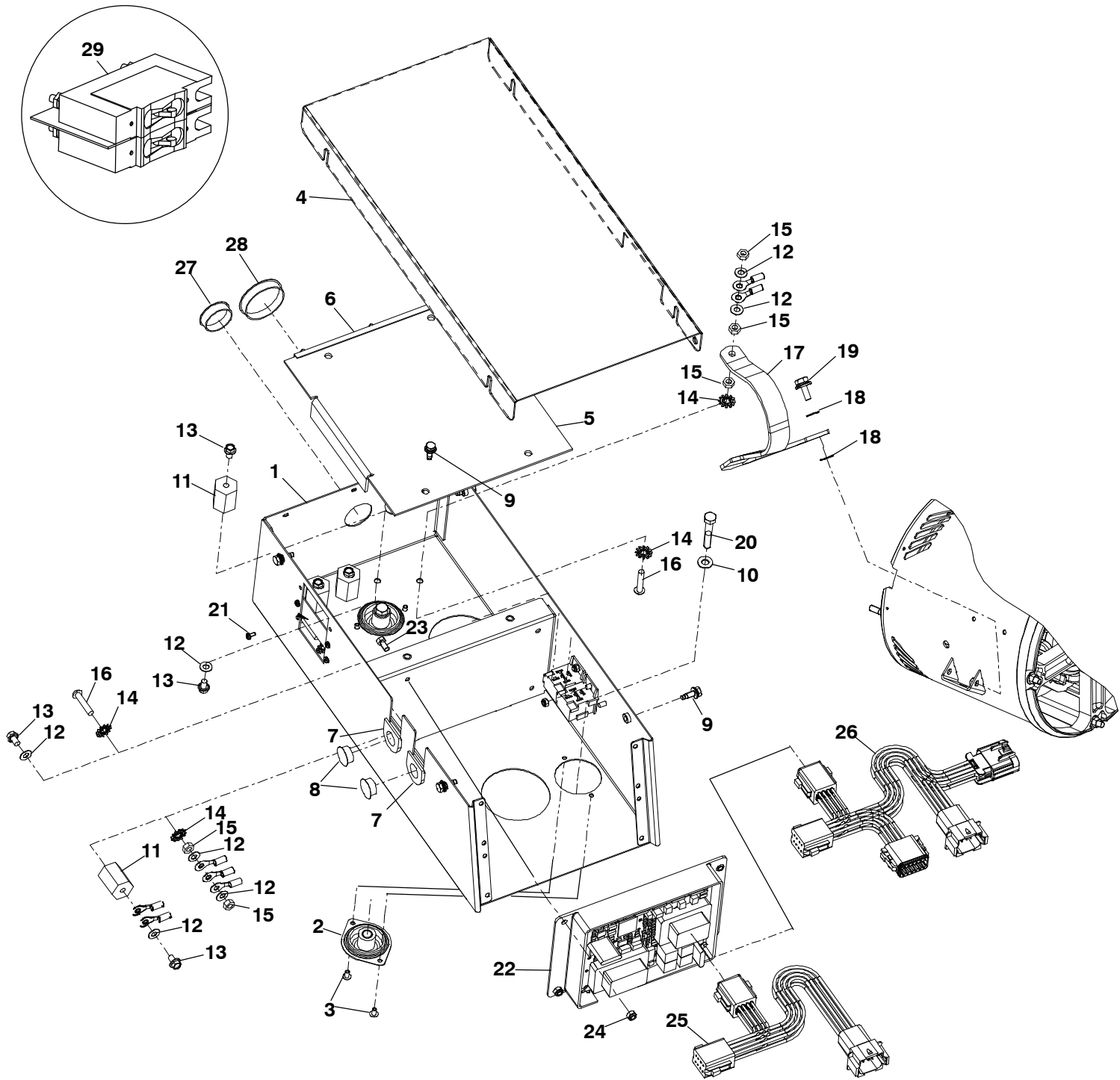


Control Box (Spec A-C)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	319-5503-03	1	Control, Box	20	821-6006-01	6	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
2	319-4370-03	1	Cover, Control	21	800-6062	3	Screw, Hex Head Cap (M8 x 1.25 x 45mm)
3	319-4404	1	Cover, Control	22	850-2058	3	Washer, Split Lock Stainless (M8)
4	332-3750	1	Guide, Card	23	860-2058	3	Nut, Hex Stainless (M8 x 1.25mm)
5	508-1105-01	1	Grommet, Remote	24			Screw, Hex Flange (1/4-20 x 3/8")
6	870-2228	6	Clip, Nut		821-0009	2	Neg Gnd Single Phase
7			Standoff, Insulator		821-0009	3	Neg Gnd Three Phase
	332-2370	2	Neg Gnd Single Phase		821-0009	3	ISO Gnd Single Phase
	332-2370	3	Neg Gnd Three Phase		821-0009	4	ISO Gnd Three Phase
	332-2370	3	ISO Gnd Single Phase	25	856-0008	2	Washer, EIT(5/16")
	332-2370	4	ISO Gnd Three Phase	26	337-3508	1	Strap, Bond
8	337-2795	1	Strap, Bond	27	338-4491	1	Harness, Accessory (NIM)
9			Washer, Lock (1/4")	28			PCB (NIM)
	856-0006	4	Neg Gnd		327-1444-01	1	J1939
	856-0006	3	ISO Gnd		327-1444-02	1	* SmartCraft
10			Screw, Brass (1/4-20 x 1.25")	29	870-2062	4	Nut, Nylon Lock (M5)
	810-0155	2	Neg Gnd	30	800-6002	4	Screw, Hex Head Sems (M5 x .8 x 10mm)
	810-0155	1	ISO Gnd	31			Breaker, Circuit MDKBL
11	800-3017-18	1	Screw, Hex Head Cap (M8 x 1.25 x 16mm)		320-1689-04	1	30Amps
12	853-0016	2	Washer, Lock		320-1689-05	1	35Amps
13			Screw, Hex Head Cap (1/4-20 x .375")		320-1689-12	1	55Amps
	800-0310-01	2	Single Phase				MDKBM
	800-0310-01	3	Three Phase		320-1689-06	1	40Amps
14			Washer, Flat (1/4-20)		320-1689-07	1	45Amps
	526-0399-13	2	Single Phase		320-1689-08	1	50Amps
	526-0399-13	3	Three Phase		320-1689-09	1	55Amps
15			Nut, Hex Brass (1/4-20)		320-1689-12	1	70Amps
	871-0016	5	Neg Gnd				
	871-0016	3	ISO Gnd				
16			Washer, Flat Brass (1/4")				
	526-0052	4	Neg Gnd				
	526-0052	3	ISO Gnd				
17	508-1105	1	Grommet, Remote				
18	517-0136	1	Plug, Hole				
19			Screw, Pan Head XREC (6-32 x .31)				
	815-0550-01	4	Single Phase				
	815-0550-01	6	Three Phase				

SmartCraft is a trademark of the Brunswick Corporation.

Control Box (Begin Spec D)

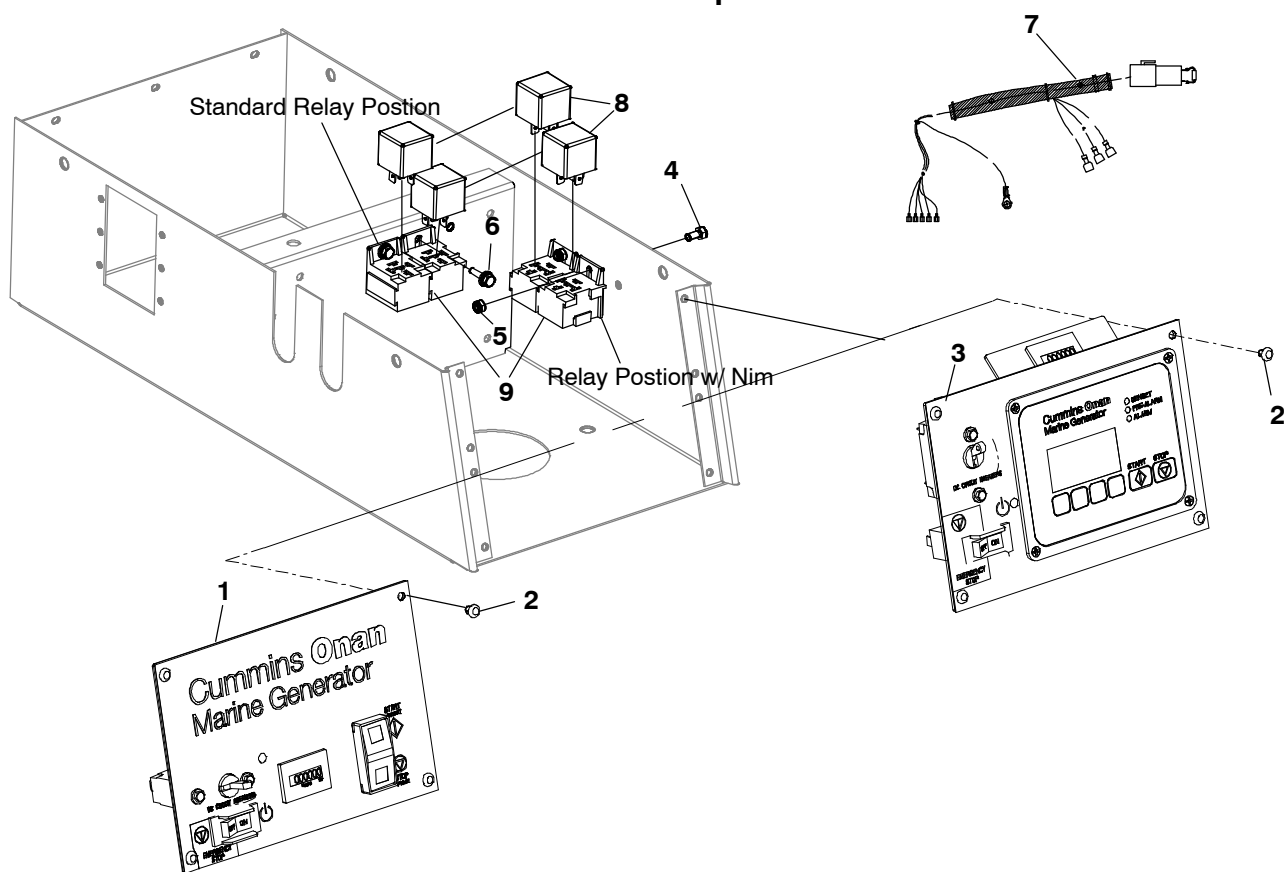


Control Box (Begin Spec D)

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	21			Screw, XREC Phillips (#6-23 x .312")
3	818-0231-01	6	Rivet, Pop		815-0550-03	4	Neg GND 1 Phase 12 &24V ISO GND 1 Phase 12 &24V
4	319-6228-03	1	Cover, Box Control		815-0550-03	6	Neg GND 3 Phase 12 &24V ISO GND 3 Phase 12 &24V
5	319-4404	1	Cover	22			PCB
6	332-3750	1	Guide, Card		327-1659-01	1	NIM/J1939
7	508-1105	2	Grommet, Remote		327-1659-02	1	NIM/SmartCraft
8	517-0136	2	Plug, Hole		327-1686-03	1	NIM/SmartCraft 2
9	800-6395-01	6	Screw, Hex Head Sems (M6 1.0 x 16mm)	23	800-6002	4	Screw, Hex Head (M5 x 0.8 x 10mm)
10	526-2100	3	Washer, Flat (M8)	24	870-2062	2	Nut, Nylon Locking (M5)
11			Standoff, Insulator	25	338-4491	1	Harness, Accessory (J1939 / SmartCraft)
	332-2370	2	Neg GND 1 Phase 12 & 24V	26	338-4982	1	Harness, Accessory (SmartCraft 2)
	332-2370	3	Neg GND 3 Phase 12 & 24V	27	517-0138-05	1	Plug, Hole
			ISO GND 1 Phase 12 & 24V	28	517-0138-08	1	Plug, Hole
	332-2370	4	ISO GND 3 Phase 12 & 24V	29			Breaker, Circuit MDKBL
12			Washer, Flat (6.75ID x 14.30D x .8mm)		320-1689-04	1	30Amps
	526-0052	6	Neg GND 1 Phase 12 & 24V		320-1689-05	1	35Amps
	526-0052	7	Neg GND 3 Phase 12 & 24V		320-1689-12	1	55Amps
	526-0052	8	ISO GND 1 Phase 12 & 24V		320-1689-06	1	MDKBM 40Amps
	526-0052	9	ISO GND 3 Phase 12 & 24V		320-1689-07	1	45Amps
13			Screw, Locking Head (1/4-20UNC x 14.30D x .8)		320-1689-08	1	MDKBN 50Amps
	821-0009	4	Neg GND 1 Phase 12 & 24V		320-1689-09	1	55Amps
	821-0009	6	Neg GND 3 Phase 12 & 24V		320-1689-12	1	70Amps
			ISO GND 1 Phase 12 & 24V				
	821-0009	8	ISO GND 3 Phase 12 & 24V				
14	856-0006	4	Washer, ETIT Locking (1/4")				
15	871-0016	5	Nut, Hex (1/4-20")				
16	810-0155	2	Screw, Round Head (1/4-20UNC x 1.25")				
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)				

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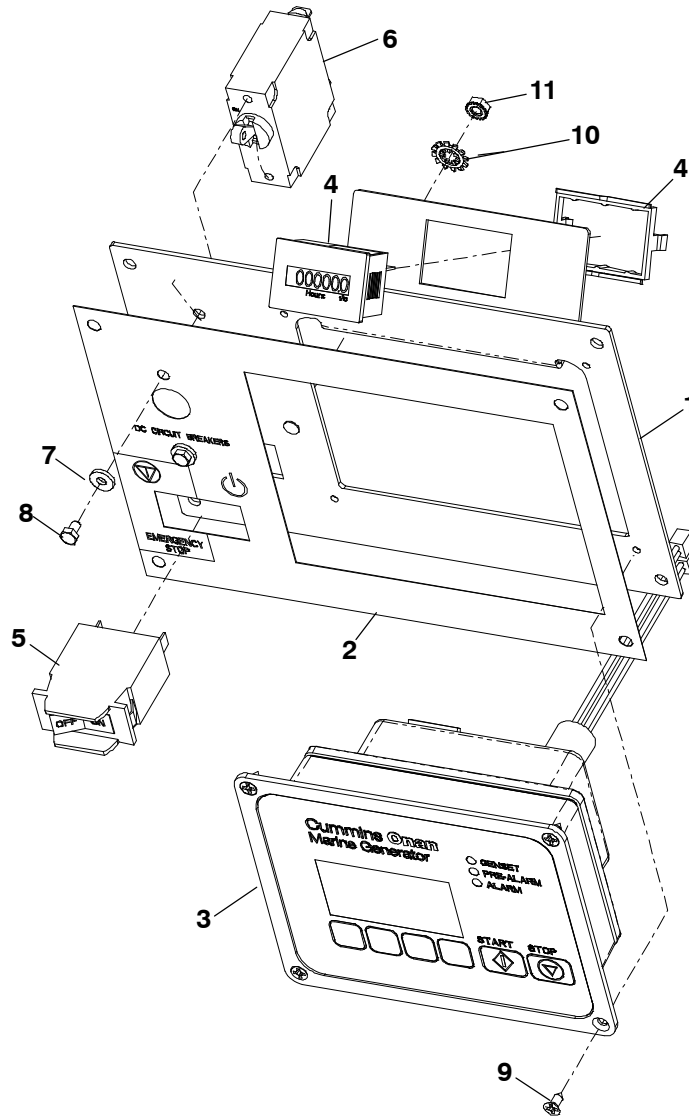
Control Panel Components



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

-
2
-

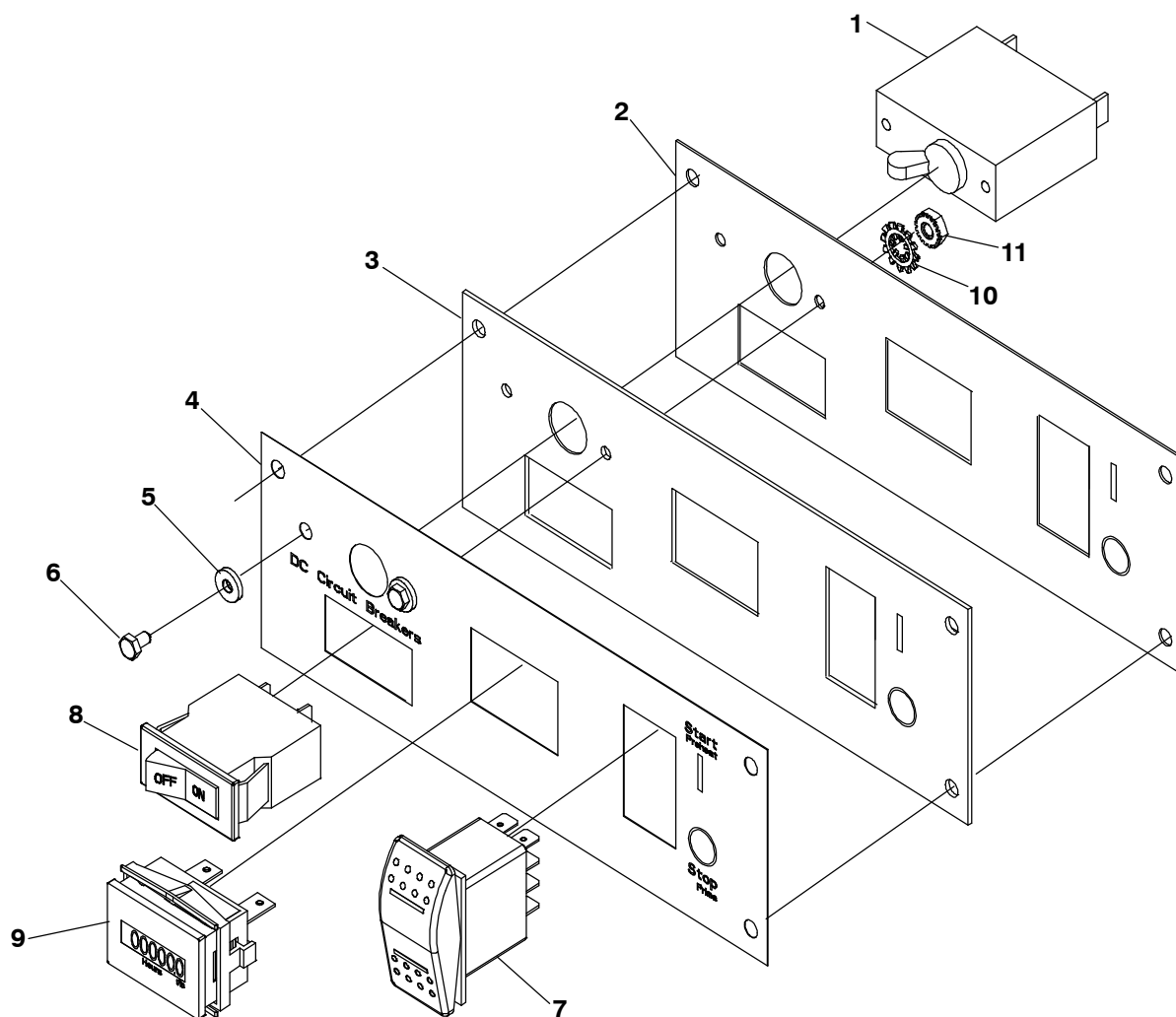
Control Panel Components (eSDD Display)



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 *)	7	526-0399-05	2	*Washer, Flat (#6)
1	319-5544-02	1	*Panel, Display	8	800-0309-10	2	*Screw, Hex Head Mach (#6-32UNC-2A x .250")
2	98-8323	1	*Label, Information	9	814-2155-01	4	*Screw, Flange Head XREC (M3.5 x 9.5mm)
3			*Controls	10	856-0003	1	*Washer, ETIT Lock (#10")
	300-5885	1	Spec A-C	11	870-0131	1	*Nut, Sems ET (#10-32")
	300-6393	1	Begin Spec D				
4	302-2048	1	Hourmeter				
5			Breaker, Circuit				
	320-1140	1	Spec A-C				
	320-2361	1	Begin Spec D				
6			Breaker, Circuit				
	320-1862-01	1	Spec A-C				
	320-2362	1	Begin Spec D				

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

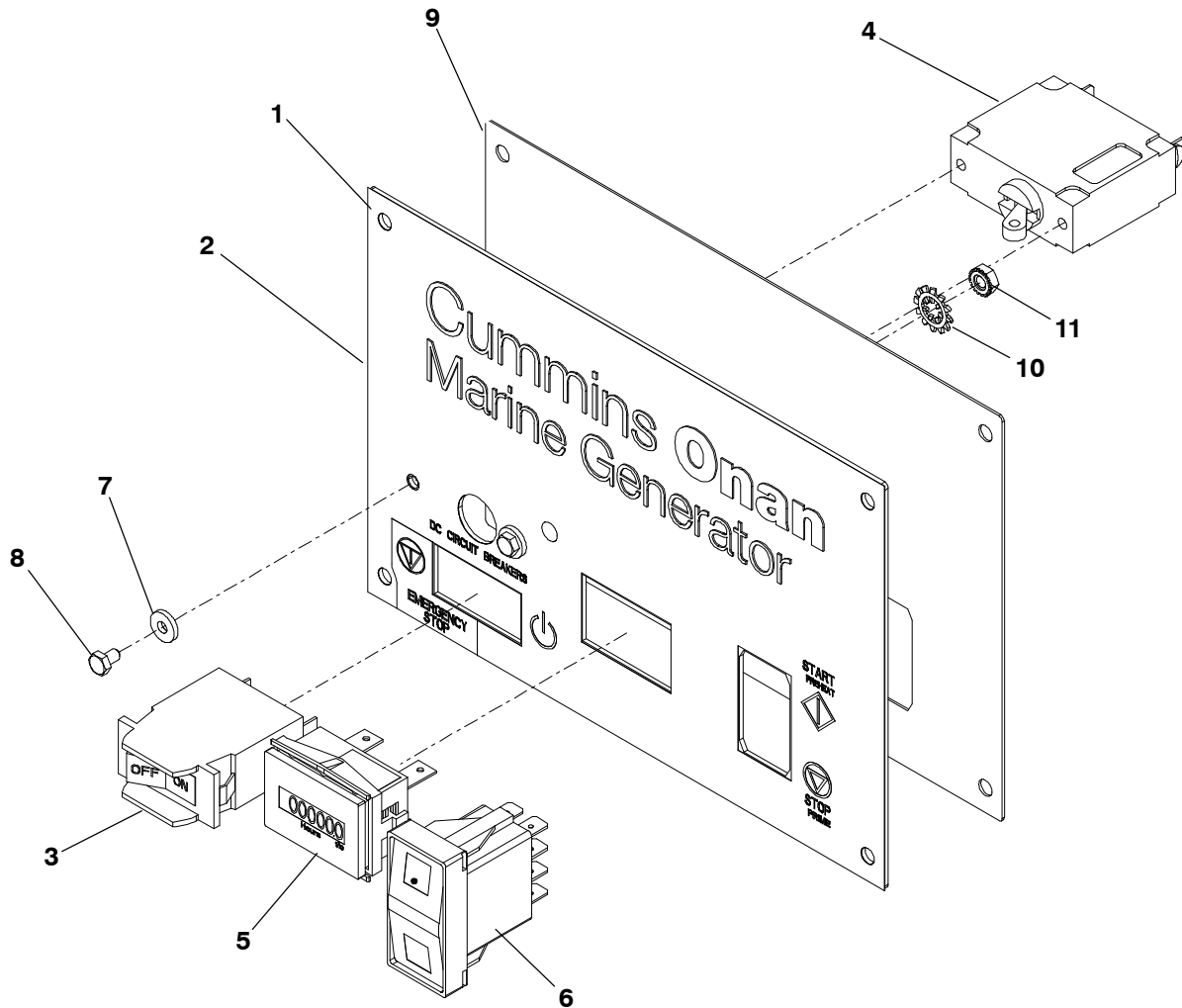
Control Panel Components (Breaker Switch Option Spec A-C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Assy, Engine Panel (All Parts Included)	7			Switch, Rocker SPDT
	300-5476-05	1	12V		308-1102	1	24VDC
	300-5476-06	1	24V		308-1101	1	12VDC
1	320-1862-01	1	Breaker, Circuit (50 Amp)	8	320-1140	1	Breaker, Circuit (15 Amp)
2	319-4467-02	1	Panel, Control (Ground)	9	302-2048	1	Meter, Hour
3	319-4368-06	1	Panel, Control	10	856-0003	1	Washer, EIT Lock (#10)
4	98-7781	1	Label, Control	11	870-0131	1	Nut, Sems EIT
5	526-0399-05	2	Washer, Flat (#6)				
6	800-0309-10	2	Screw, Hex Head (6-32 x 1/4")				

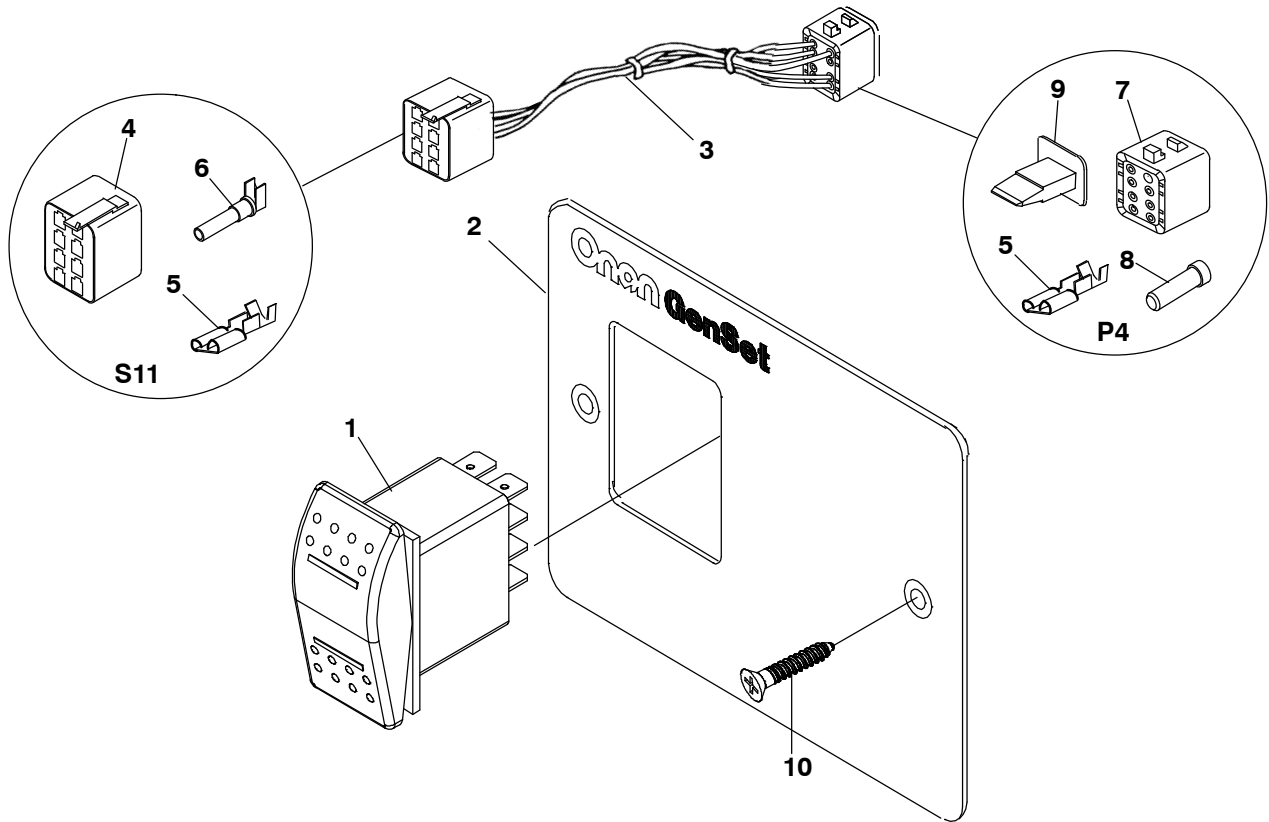
* - See Control Box for Location.

Control Panel Components (Breaker Switch Option Begin Spec D)



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

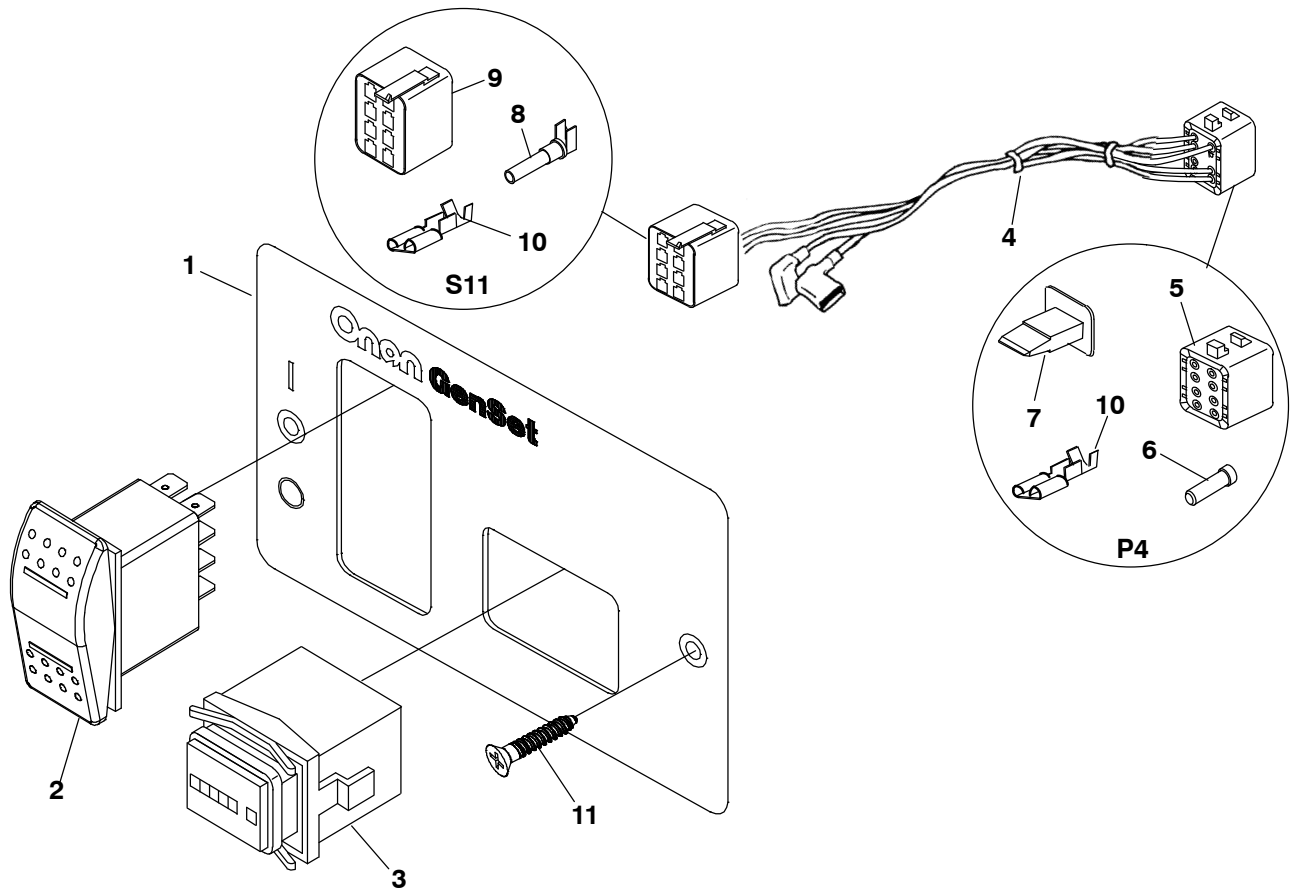


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Remote Switch Harness (Includes Parts Marked +)	6	323-1492	6	*Terminal, Socket
	541-0941-01	1	12V	7	323-1541	1	*Plug, (8 Pin)
	541-0941-02	1	24V	8	323-1491	3	*Plug, Seal
			Kit, Panel Remote (Includes Parts 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

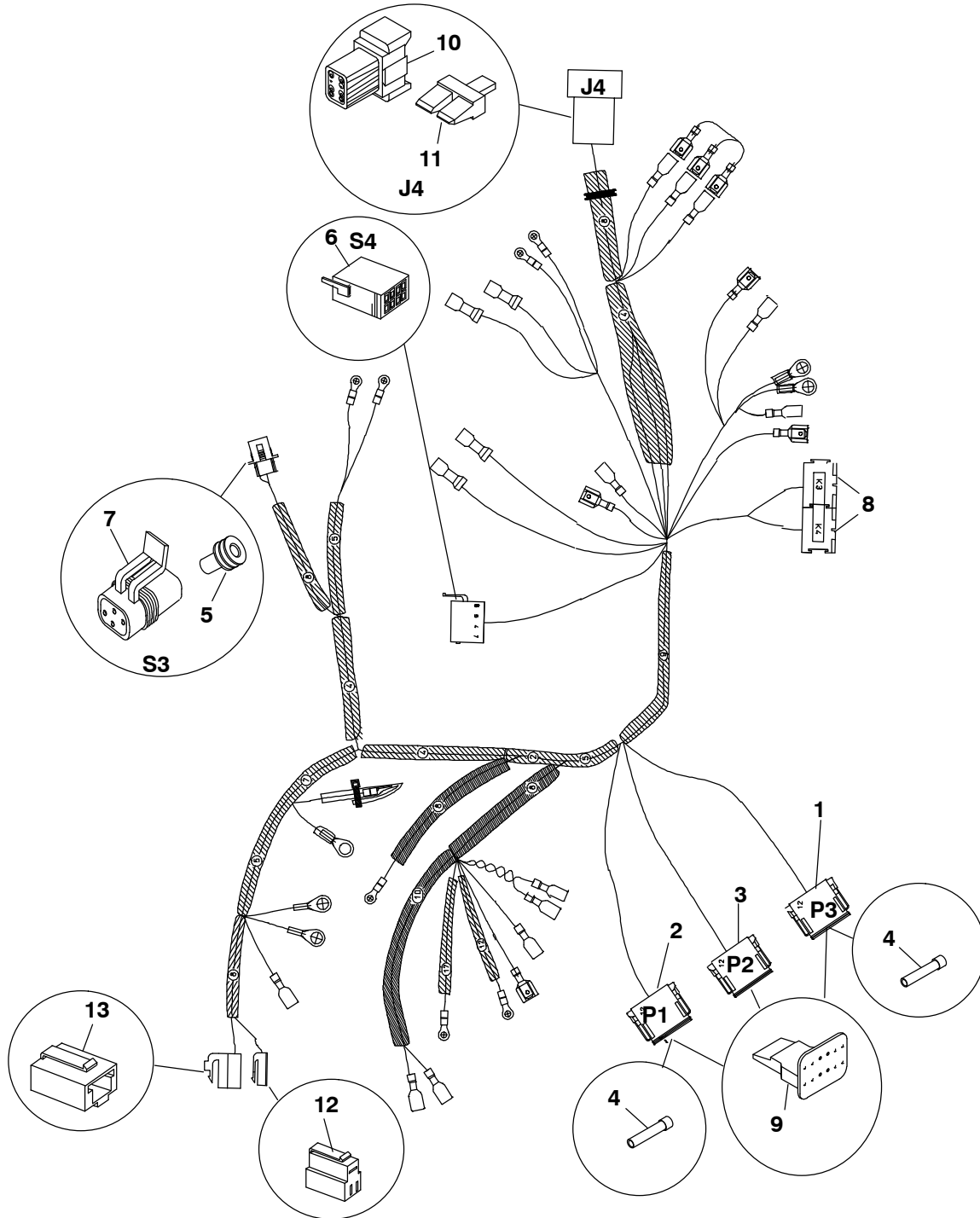
Remote Control Panel w / Hour Meter



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)				

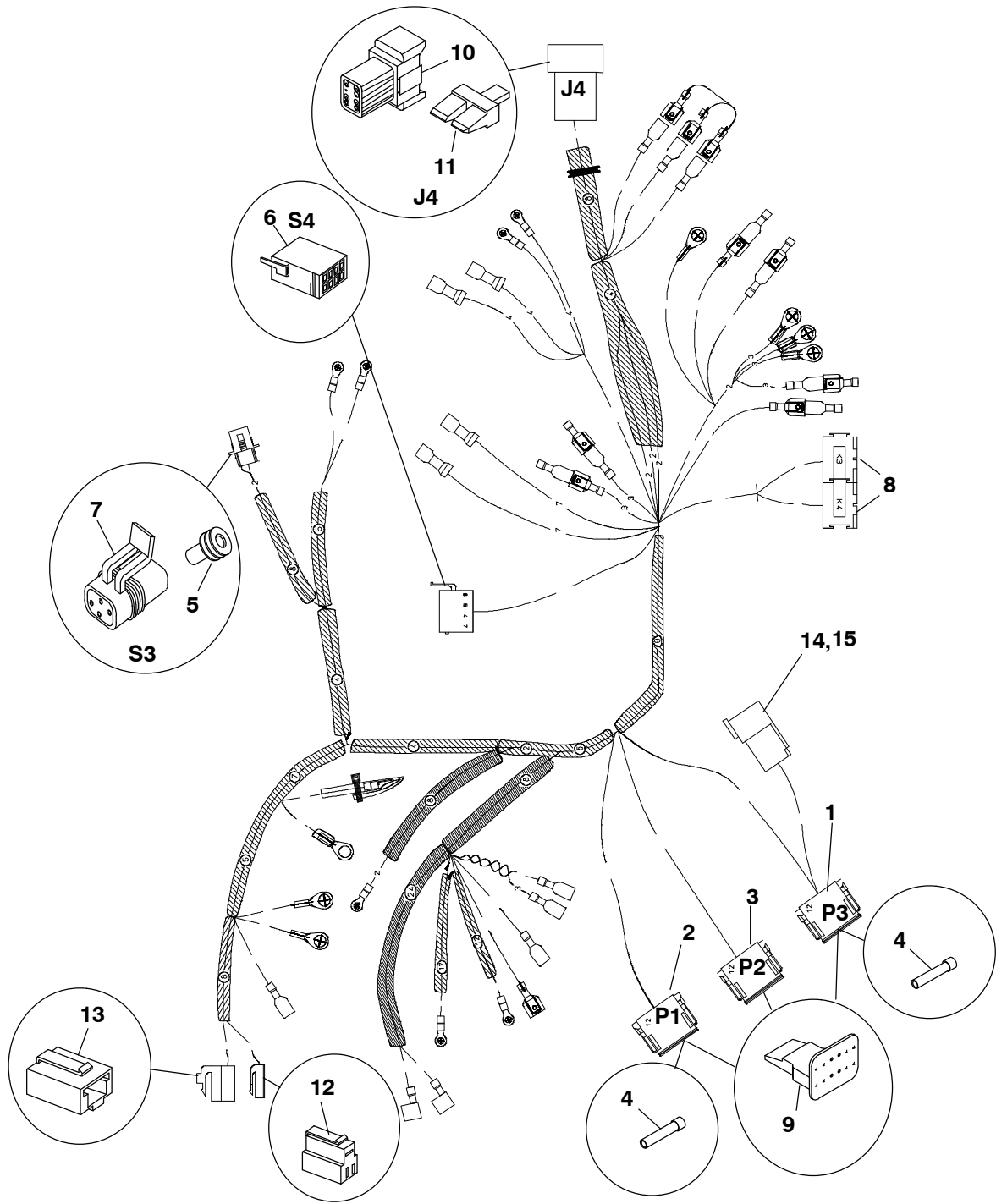
* - Parts Included in Remote Panel Wiring Harness.

Control Harness (Spec A-C)



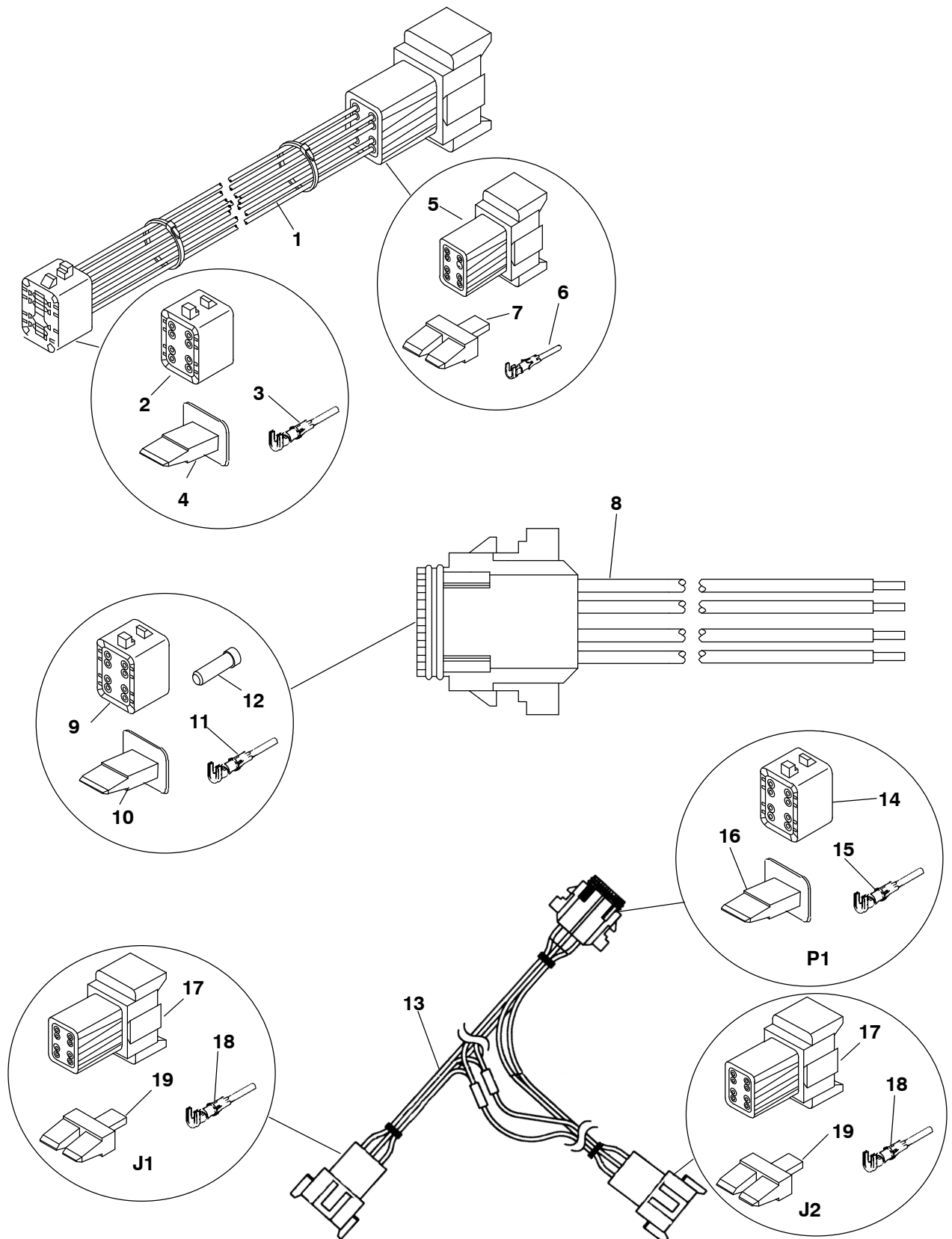
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4396	1	Harness, Control	7	323-1765	1	Connector, Housing 4 Pin (S3)
1	323-1582-06	1	Plug (12 Pin, Green P3)	8	323-1563	1	Socket, Relay
2	323-1582-05	1	Plug (12 Pin, Black P1)	9	323-1583	3	Plug, Wedge 12 Pin
3	323-1582-07	1	Plug (12 Pin, Gray P2)	10	323-1542	1	Connector, Receptacle 8 Pin
4	323-1591	AR	Plug (P1, P3)	11	323-1544	1	Receptacle, Wedge (J4)
5	323-1708	AR	Seal,Cable (S3)	12	323-1791	1	Connector, Plus 1 Pos
6	308-1019	1	Switch, Connector (S4)	13	323-1792	1	Connector, Plus 3 Pos

Control Harness (Begin Spec D)

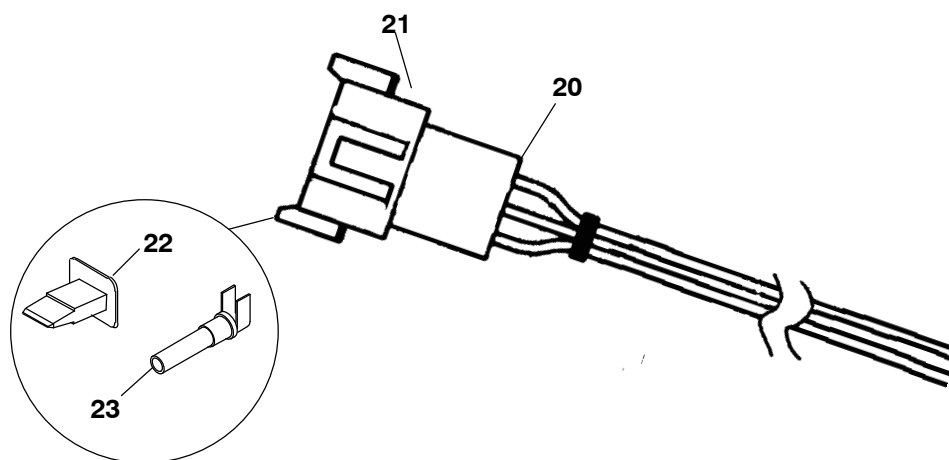


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4953	1	Harness, Control	9	323-1583	3	Plug, Wedge 12 Pin
1	323-1582-06	1	Plug (12 Pin, Green P3)	10	323-1542	1	Connector, Receptacle 8 Pin
2	323-1582-05	1	Plug (12 Pin, Black P1)	11	323-1544	1	Receptacle, Wedge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

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:
98-8687		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)				
		1	+Label, Information (Ground)	98-8387		1	Label, Information (Reconnect)

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