

**Parts
Catalog
MDKBD
MDKBE
MDKBF**

MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION
AND DATE (IF APPLICABLE)

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.



This symbol warns of immediate hazards which will result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.

PRODUCT SAFETY PRECAUTIONS



Service and repair of Onan equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.



Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.



Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!



Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!

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.

<u>MODEL</u>	<u>HERTZ</u>
MDKBD/*	50/60
MDKBE/*	50/60
MDKBF/*	50/60

* – 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.

WIRING DIAGRAM

612-6667	DC 24V
612-6665	DC 12V
612-6666	AC 1 Phase
612-6673	AC 3 Phase

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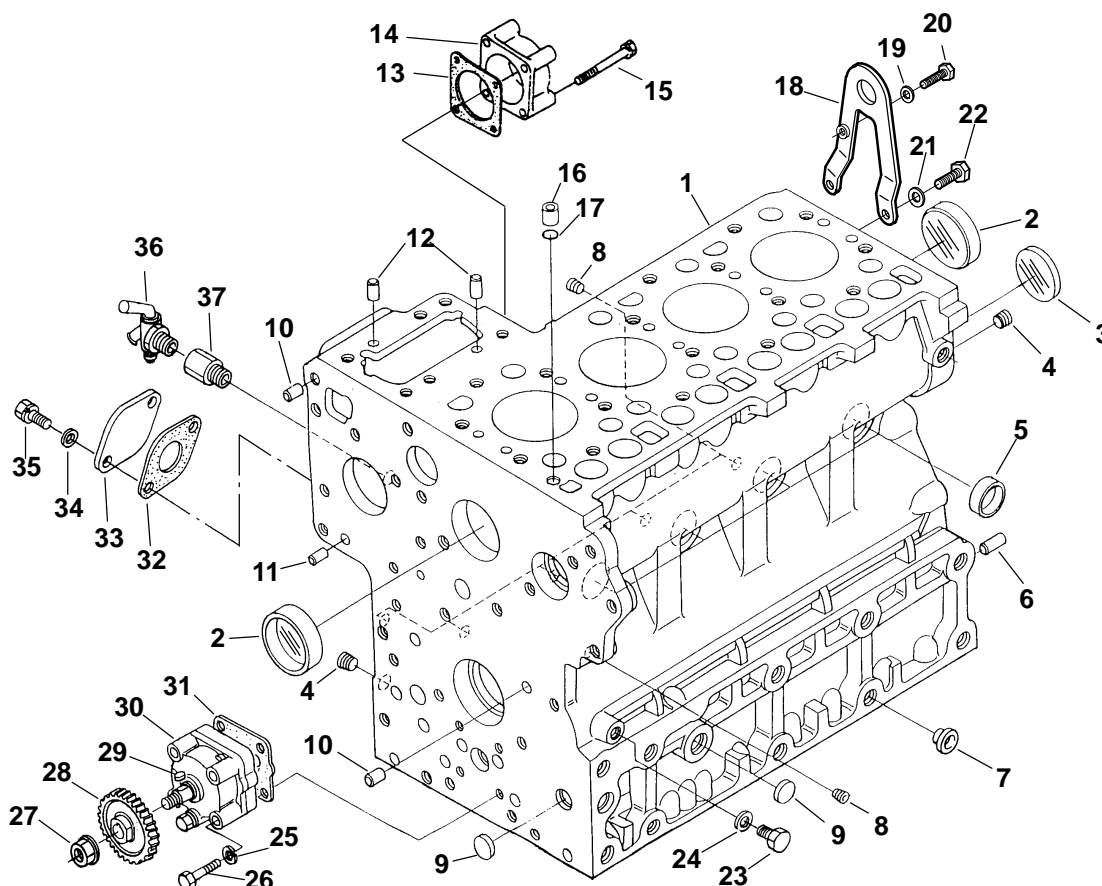
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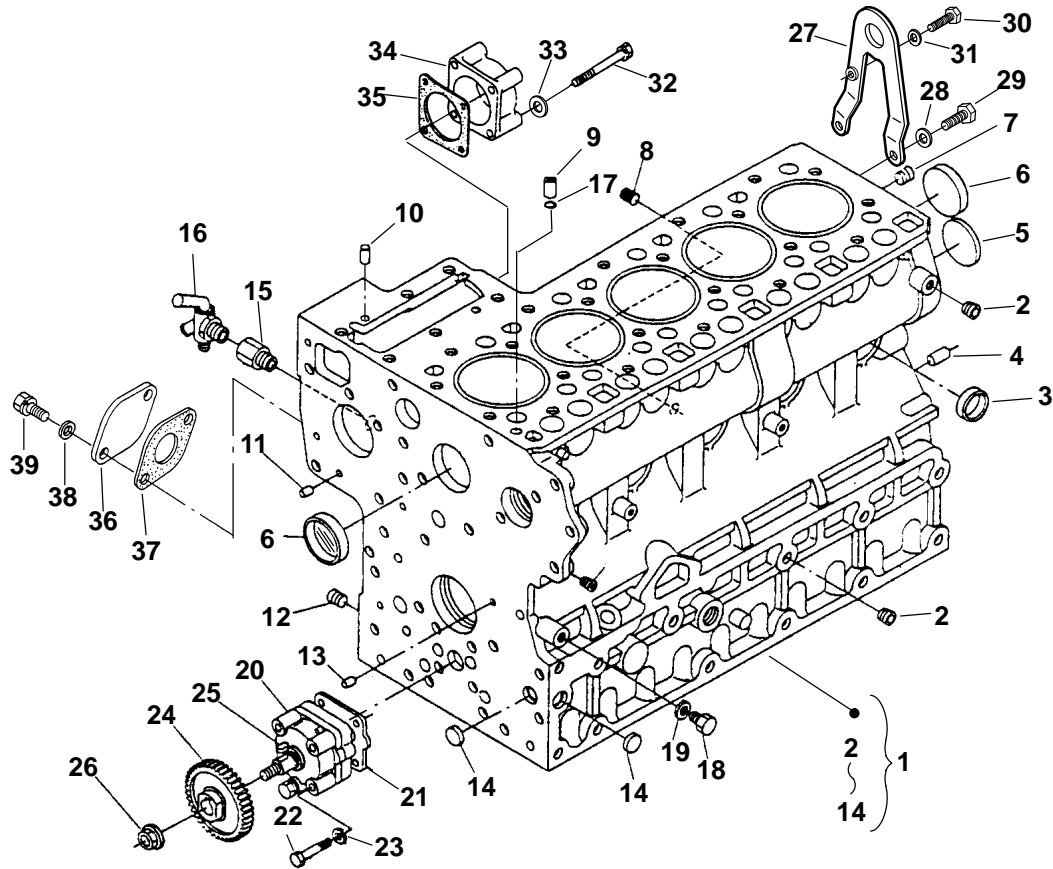
Cylinder Block, MDKBD, MDKBE



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Engine, Replacement MDKBD Spec A	17	185-2095	1	O'Ring
	100-3739-01	1	12V	18	403-3916-02	1	Bracket, Lifting
	100-3739-02	1	24V	19	526-2100	1	Washer (M8)
			MDKBD Begin Spec B	20	718-1036	1	Screw, Hex Head Cap (M8 x 20 x 1.25")
	100-3893-01	1	12V	21	526-0399-64	2	Washer, Flat (M12)
	100-3893-02	1	24V	22	800-3033	2	Screw, Hex Head Cap (M12 x 1.25 x 25mm)
			MDKBE Spec A	23	185-5845	1	Plug
	100-3740-01	1	12V	24	185-2338	1	Gasket
	100-3740-02	1	24V	25	185-6759	4	Washer, Spring
			MDKBE Begin Spec B	26	185-5850	4	Bolt
	100-3894-01	1	12V	27	185-7031	1	Nut, Flange
	100-3894-02	1	24V	28	185-5851	1	Gear, Oil Pump Drive
2	185-5841	2	Cap, Sealing	29	185-2352	1	Key
3	185-5839	1	Plug	30	185-5848	1	Pump, Oil
4	185-2234	2	Plug	31	185-5849	1	Gasket, Oil Pump
5	185-5840	6	Cap, Sealing	32	185-2125	1	Gasket, Hole Cover
6	185-5844	1	Pin, Straight	33	185-6784	1	Cover, Hole
7	185-5837	2	Plug	34	850-2006	2	Washer, Flat
8	185-2233	6	Plug	35	800-2034	2	Bolt
9	185-6121	3	Plug	36	185-5846	1	Cock, Drain
10	185-5843	2	Pin, Straight	37	185-5847	1	Joint, Drain Cock
11	185-5842	2	Pin, Straight				
12	185-2350	2	Pin, Straight				
13	185-6982	1	*Gasket, Cover				
14	185-6772	1	*Cover, Fuel Camshaft				
15	185-5676	4	*Bolt				
16	185-2094	1	Pin, Pipe				

* - Parts Included in Keel Cooling Kit Found on Keel Cooling Dry Exhaust Page).

Cylinder Block, MDKBF

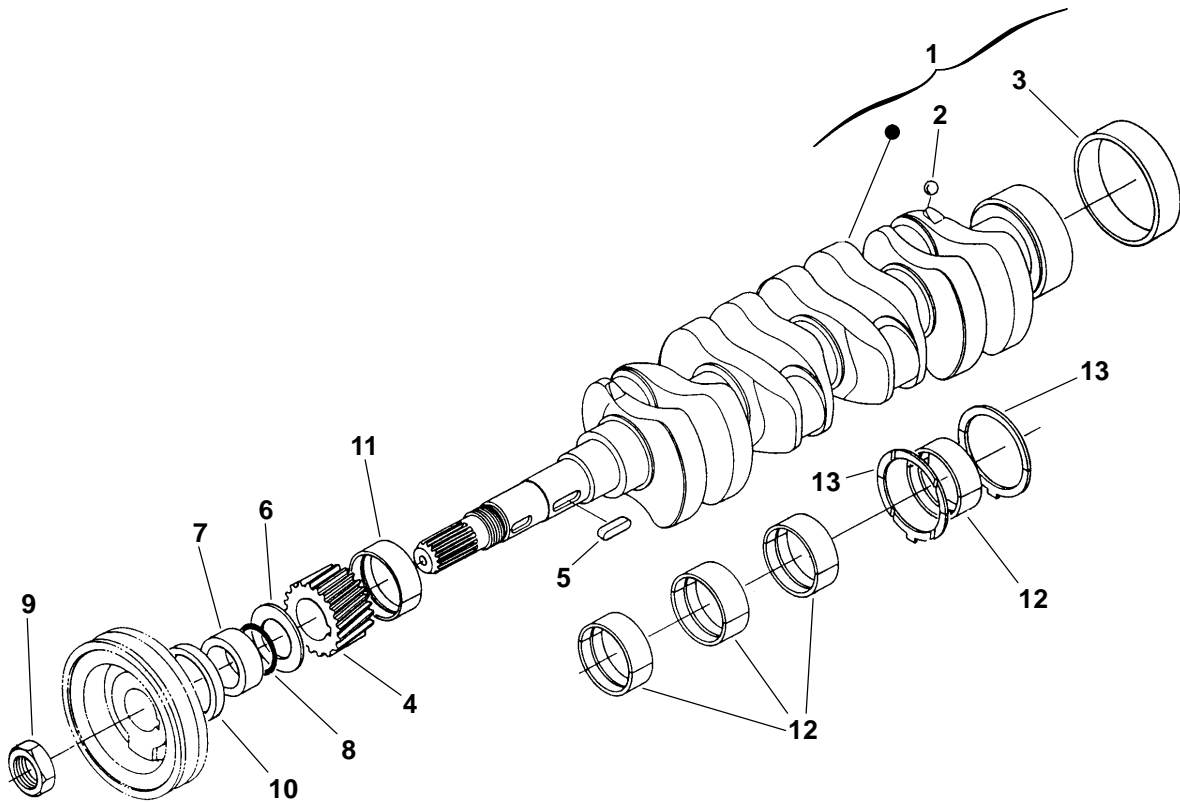


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Engine, Replacement MDKBF	20	185-6041	1	Pump, Oil
	100-3741-01	1	12V Spec A	21	185-5849	1	Gasket, Oil Pump
	100-3741-02	1	24V Spec A	22	185-6042	4	Bolt
			Engine, Replacement MDKBF	23	185-6759	4	Washer, Spring
	100-3895-01	1	12V Begin Spec B	24	185-6043	1	Gear, Oil Pump Drive
	100-3895-02	1	24V Begin Spec B	25	185-2352	1	Key
1	185-6038	1	Block Assy, Cylinder (Includes Parts Marked #)	26	185-7031	1	Nut, Flange
2	185-6039	4	#Plug	27	403-3916-02	1	Bracket, Lifting
3	185-5840	8	#Cap, Sealing	28	526-0399-64	2	Washer, Flat (M12)
4	185-5844	1	#Pin, Straight	29	800-3033	2	Screw, Hex Head Cap (M12 x 1.25 x 25mm)
5	185-6040	1	#Plug	30	718-1036	1	Screw, Hex Head Cap (M8 x 20 x 1.25mm)
6	185-5841	2	#Cap, Sealing	31	526-2100	1	Washer (M8)
7	185-2234	2	#Plug	32	185-5676	4	*Screw, Hex Head Cap (M8 x 70mm)
8	185-2233	7	#Plug	33	526-2100	4	Washer, Flat
9	185-2094	1	#Pin, Pipe	34	185-6772	1	*Cover
10	185-2350	2	#Pin, Straight	35	185-6982	1	*Gasket
11	185-5842	2	#Pin, Straight	36	185-6784	1	Cover, Hole
12	185-5837	2	#Plug	37	185-2125	1	Gasket, Hole Cover
13	185-5843	2	#Pin, Straight	38	850-2006	2	Washer, Flat
14	185-6121	3	#Plug	39	800-2034	2	Bolt
15	185-5847	1	Joint, Drain Cock				
16	185-5846	1	Cock, Drain				
17	185-2095	1	O'Ring				
18	185-5845	1	Plug				
19	185-2338	1	Gasket				

- Parts included in Cylinder Block Assy.

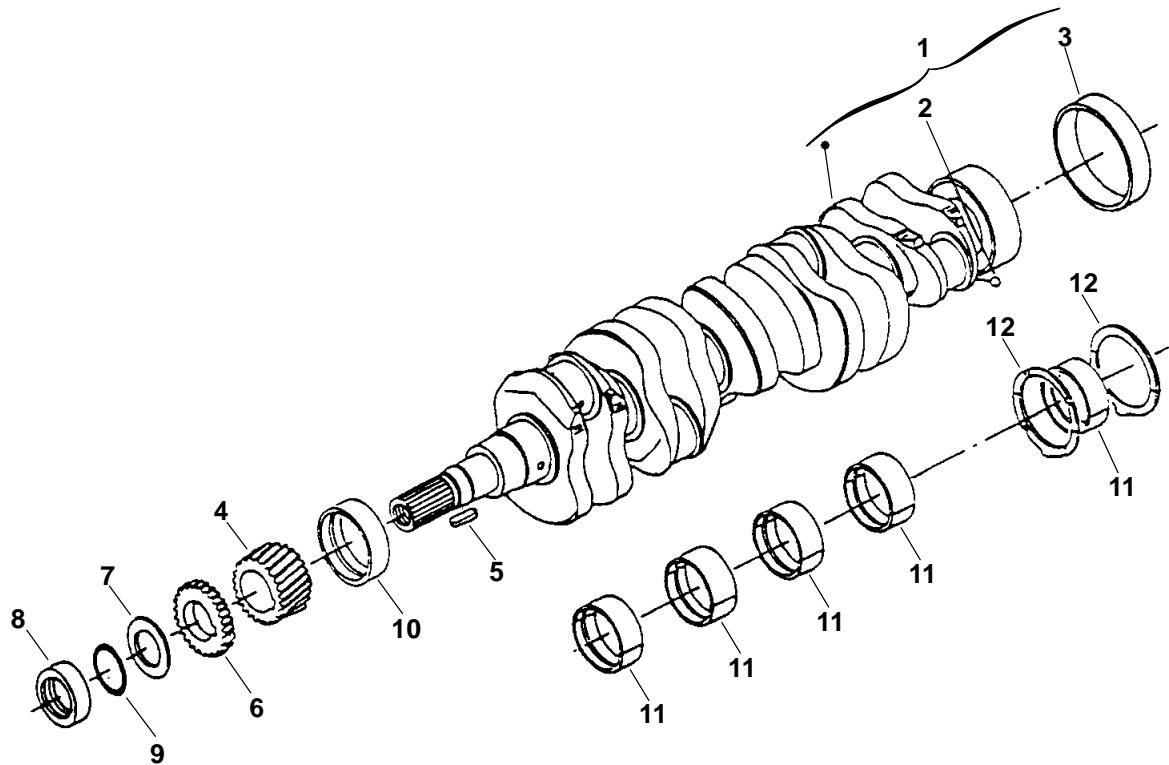
* - Parts Included in Keel Cooling Kit Listed on Keel Cooling-Dry Exhaust Page.

Crankshaft MDKBD, MDKBE



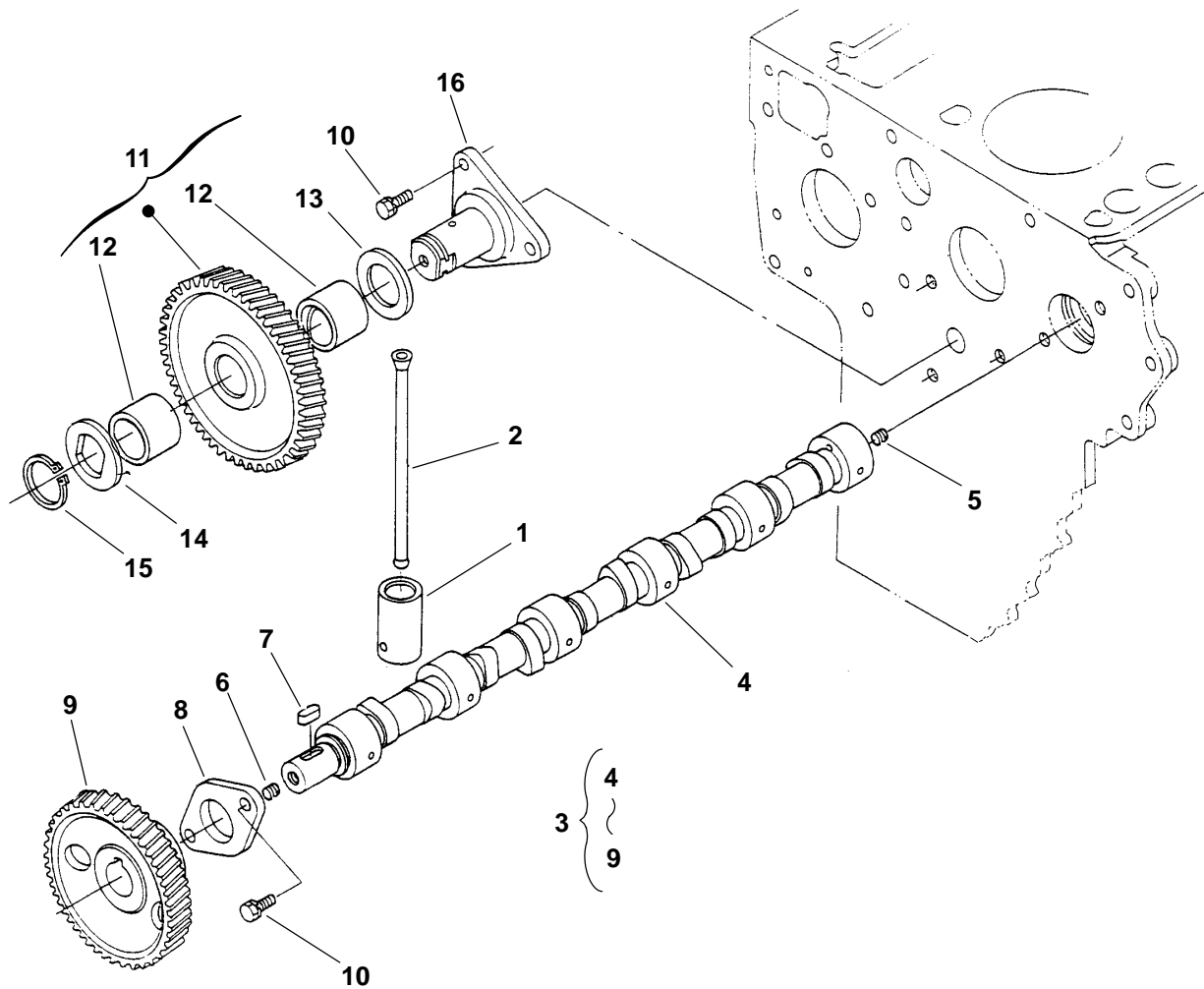
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5923	1	Crankshaft (Includes Balls and Sleeve)	12			Bearing, Main
2	185-5924	4	Ball	185-6086	4		Standard
3	185-5925	1	Sleeve	185-6976	4		0.2 mm Undersize
4	185-5926	1	Gear	185-5937	4		0.4 mm Undersize
5	185-5905	1	Key	13			Bearing, Thrust
6	185-5927	1	Slinger, Oil	185-5938	2		Standard
7	185-5928	1	Collar	185-5939	2		0.2 mm Oversize
8	185-5929	1	O'Ring	185-5940	2		0.4 mm Oversize
9	185-5930	1	Nut	185-5941	2		Standard
10	185-5931	1	Seal, Oil	185-5942	2		0.2 mm Oversize
11			Bearing	185-5943	2		0.4 mm Oversize
	185-6085	1	Standard				
	185-5933	1	0.2 mm Undersize				
	185-5934	1	0.4 mm Undersize				

Crankshaft MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7036	1	Crankshaft (Includes Balls and Sleeve)	11	185-6086	5	Bearing, Main Standard
2	185-5924	5	Ball		185-6976	5	0.2 mm Undersize
3	185-6079	1	Sleeve		185-6977	5	0.4 mm Undersize
4	185-6080	1	Gear	12	185-5938	2	Bearing, Thrust Standard
5	185-6081	1	Key		185-5939	2	0.2 mm Oversize
6	185-6082	1	Gear, Oil Drive		185-5940	2	0.4 mm Oversize
7	185-6083	1	Slinger, Oil		185-5941	2	Standard
8	185-6084	1	Collar		185-6088	2	0.2 mm Oversize
9	185-5929	1	O'Ring		185-6089	2	0.4 mm Oversize
10			Bearing				
	185-6085	1	Standard				
	185-6974	1	0.2 mm Undersize				
	185-5934	1	0.4 mm Undersize				

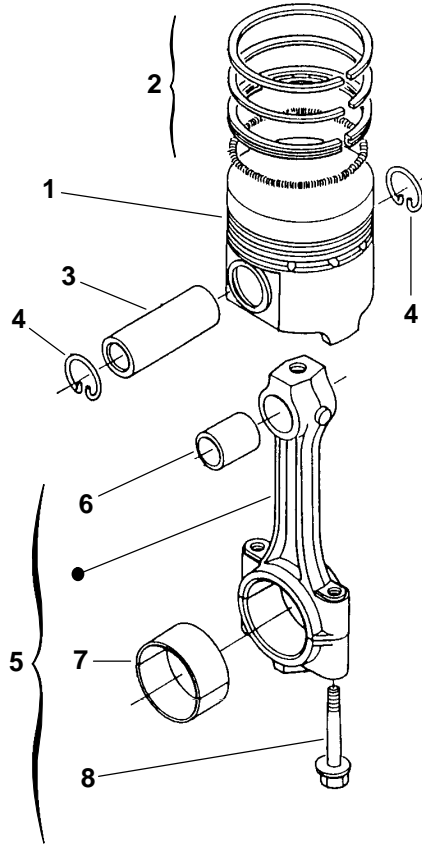
Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Tappet	10	185-2400	5	Bolt
	185-5900	8	MDKBD, MDKBE	11			Gear Assy, Idle (Includes Bushing)
	185-5900	10	MDKBF		185-5907	1	MDKBD, MDKBE
2			Rod, Push		185-6207	1	MDKBF
	185-5901	8	MDKBD, MDKBE	12			Bushing, Idle Gear
	185-5901	10	MDKBF		185-5908	1	MDKBD, MDKBE
3			Camshaft Assy (Includes Parts Marked *)		185-5908	2	MDKBF
	185-5902	1	MDKBD, MDKBE	13	185-5909	1	Collar
	185-6064	1	MDKBF	14	185-5910	1	Collar
4			*Camshaft	15	185-5911	1	Ring, External Retaining
	185-5903	1	MDKBD, MDKBE	16	185-5912	1	Shaft, Idle Gear
	185-6065	1	MDKBF				
5	185-5558	1	*Screw, Set				
6	185-6066	1	*Screw, Set (MDKBF)				
7	185-5905	1	*Key				
8	185-5906	1	*Stopper, Camshaft				
9			*Gear, Camshaft				
	185-5904	1	MDKBD, MDKBE				
	185-6067	1	MDKBF				

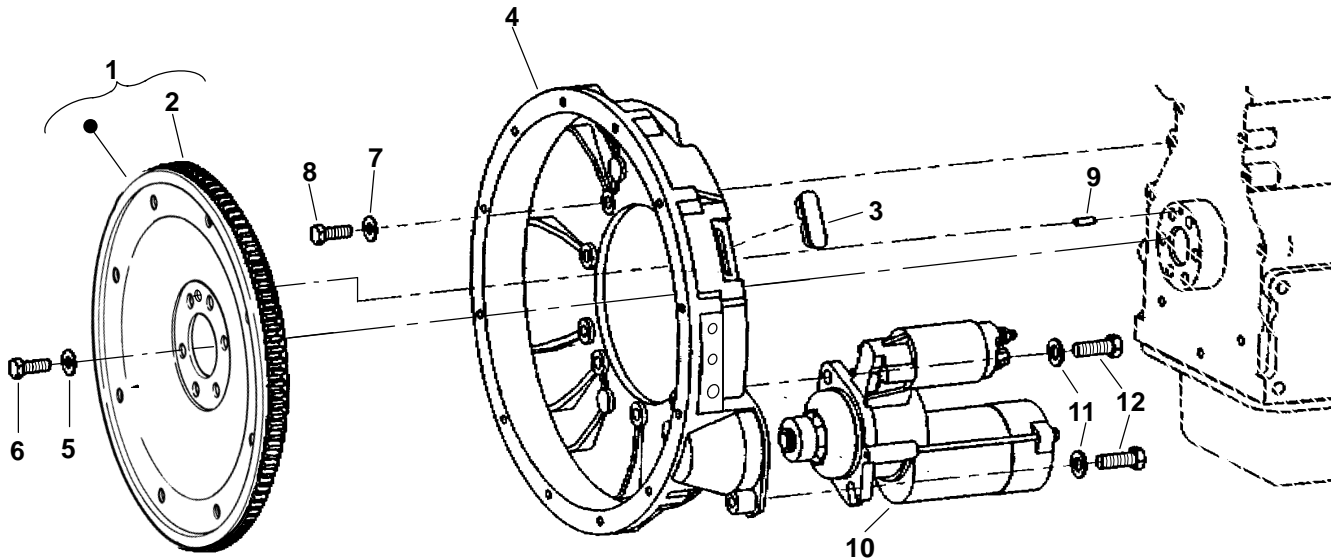
* - Parts Included in Camshaft Assy

Piston



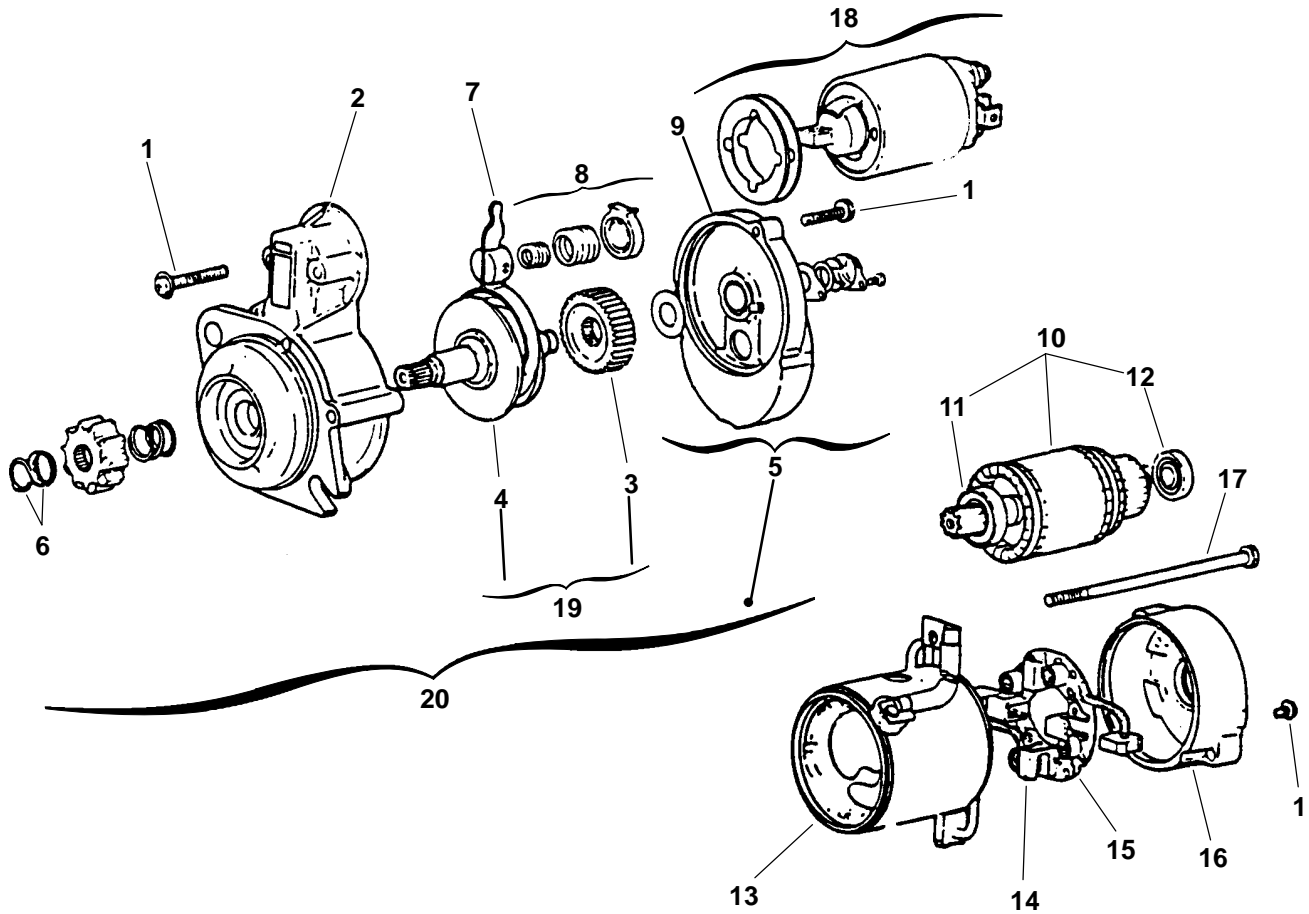
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston	5			Rod Assy, Connecting (Includes Bushing, Bearing and Bolts)
	185-6767	4	Standard		185-5917	4	MDKBD, MDKBE
	185-6768	4	0.5 mm Oversize		185-5917	5	MDKBF
			MDKBE	6			Bushing
	185-5913	4	Standard		185-6209	4	MDKBD, MDKBE
	185-6074	4	0.5 mm Oversize		185-6209	5	MDKBF
			MDKBF	7			Bearing
	185-5913	5	Standard				Standard
	185-6074	5	0.5 mm Oversize		185-6076	4	MDKBD, MDKBE
2			Set, Ring		185-6076	5	MDKBF
			MDKBD				0.2 mm Undersize
	185-6769	4	Standard		185-5921	4	MDKBD, MDKBE
	185-6770	4	0.5 mm Oversize		185-5921	5	MDKBF
			MDKBE				0.4 mm Undersize
	185-5914	4	Standard		185-5922	4	MDKBD, MDKBE
	185-6075	4	0.5 mm Oversize		185-5922	5	MDKBF
			MDKBF	8			Bolt
	185-5914	5	Standard		185-6771	8	MDKBD, MDKBE
	185-6075	5	0.5 mm Oversize		185-6771	10	MDKBF
3			Pin, Piston				
	185-5915	4	MDKBD, MDKBE				
	185-5915	5	MDKBF				
4			Ring, Retaining				
	185-5916	8	MDKBD, MDKBE				
	185-5916	10	MDKBF				

Flywheel



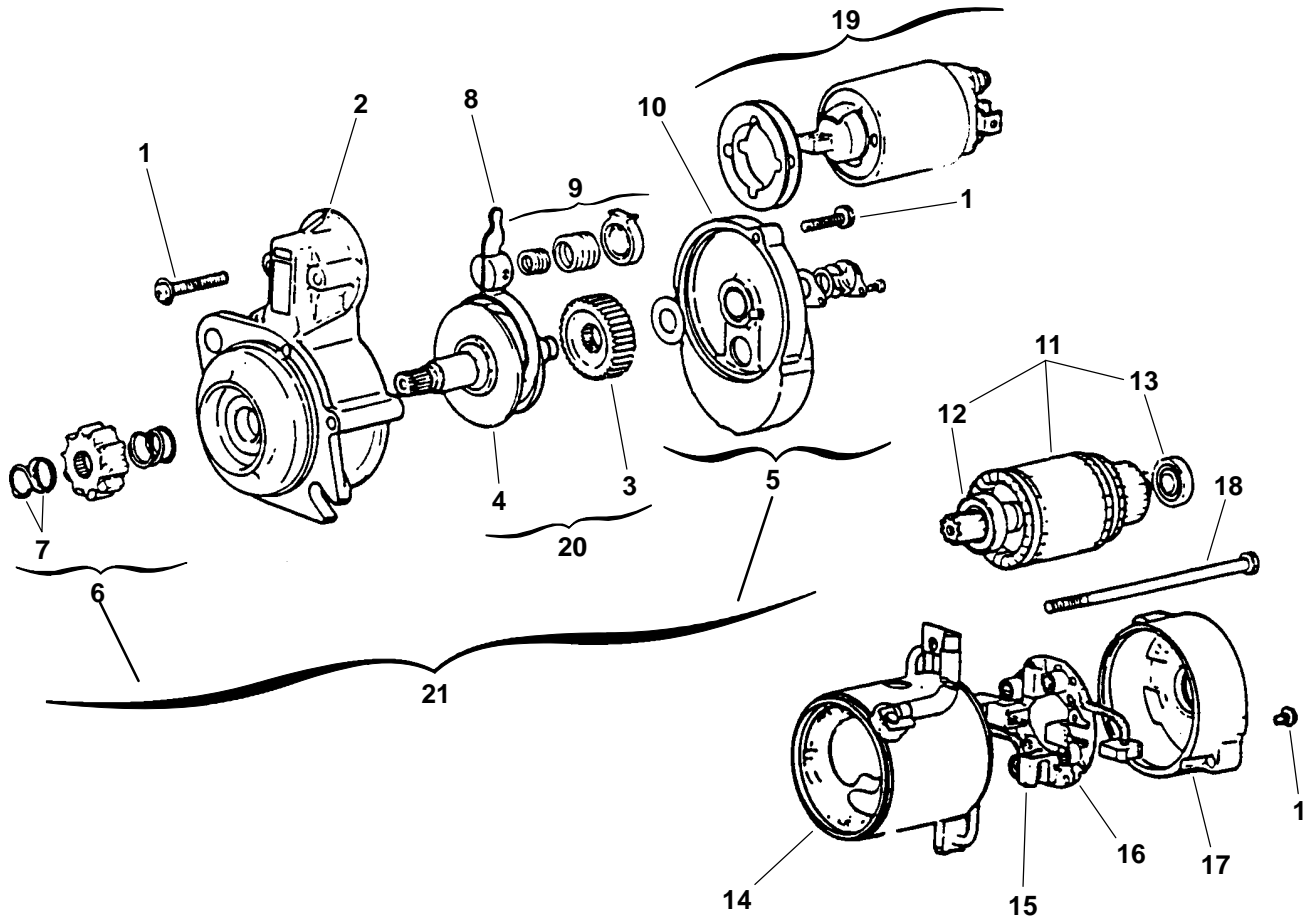
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Flywheel Assy (Includes Ring Gear)	9	775-0061	1	Pin, Parallel Hard (MDKBD, MDKBE)
	104-1929	1	MDKBD, MDKBE	10			Starter (See Separate Page For Components)
	104-1927	1	MDKBF		191-1959	1	12V
2	104-1666	1	Gear, Ring		191-1550	1	24V
3	101-0811	1	Plug, Hole	11	526-2140	2	Washer, Flat (M12)
4	101-0821	1	Adapter, Engine	12	800-2113	2	Screw, Hex Head Cap (M12 x 1.75 x 35mm)
5	526-0145	6	Washer, Flat (M12)				
6	800-3032	6	Screw, Hex Head Cap (M12 x 1.25 x 30mm)				
7	526-0399-62	11	Washer, Flat (M10)				
8	800-3005	11	Screw, Hex Head Cap (M10 x 1.25 x 30mm)				

Starter Components (12V)



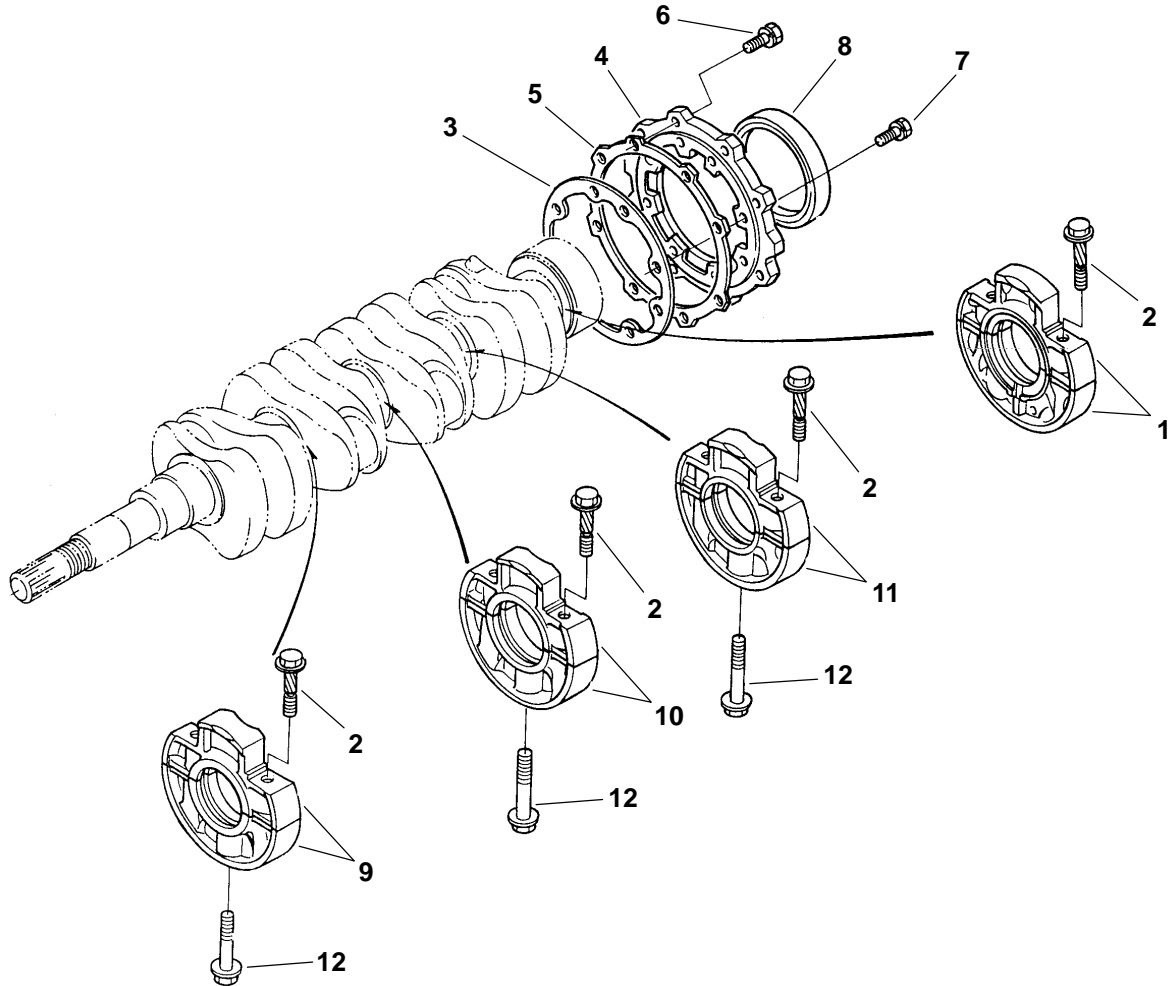
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1959	1	Starter	11	191-1437	1	Bearing, Center
1	191-1450	4	Set, Screw	12	191-1436	1	Bearing, Rear
2	191-1449	1	Bracket Assy, Front	13	191-1992	1	Yoke Assy
3	191-1446	1	Gear	14	191-1993	1	Holder Assy, Brush
4	191-1445	1	Drive Assy	15	191-1433	1	Spring, Brush
5	191-1444	1	Cover Assy	16	191-1432	1	Bracket, Rear
6	191-1442	1	Stopper, Set	17	191-1431	1	Bolt, Set
7	191-1441	1	Lever Assy	18	191-1994	1	Switch, Solenoid
8	191-1991	1	Spring, Set	19	191-1447	1	Gear, Set
9	191-1439	1	Bracket Assy, Center	20	191-1448	1	Drive Assy
10	191-1438	1	Armature (Includes Bearings)				

Starter Components (24V)



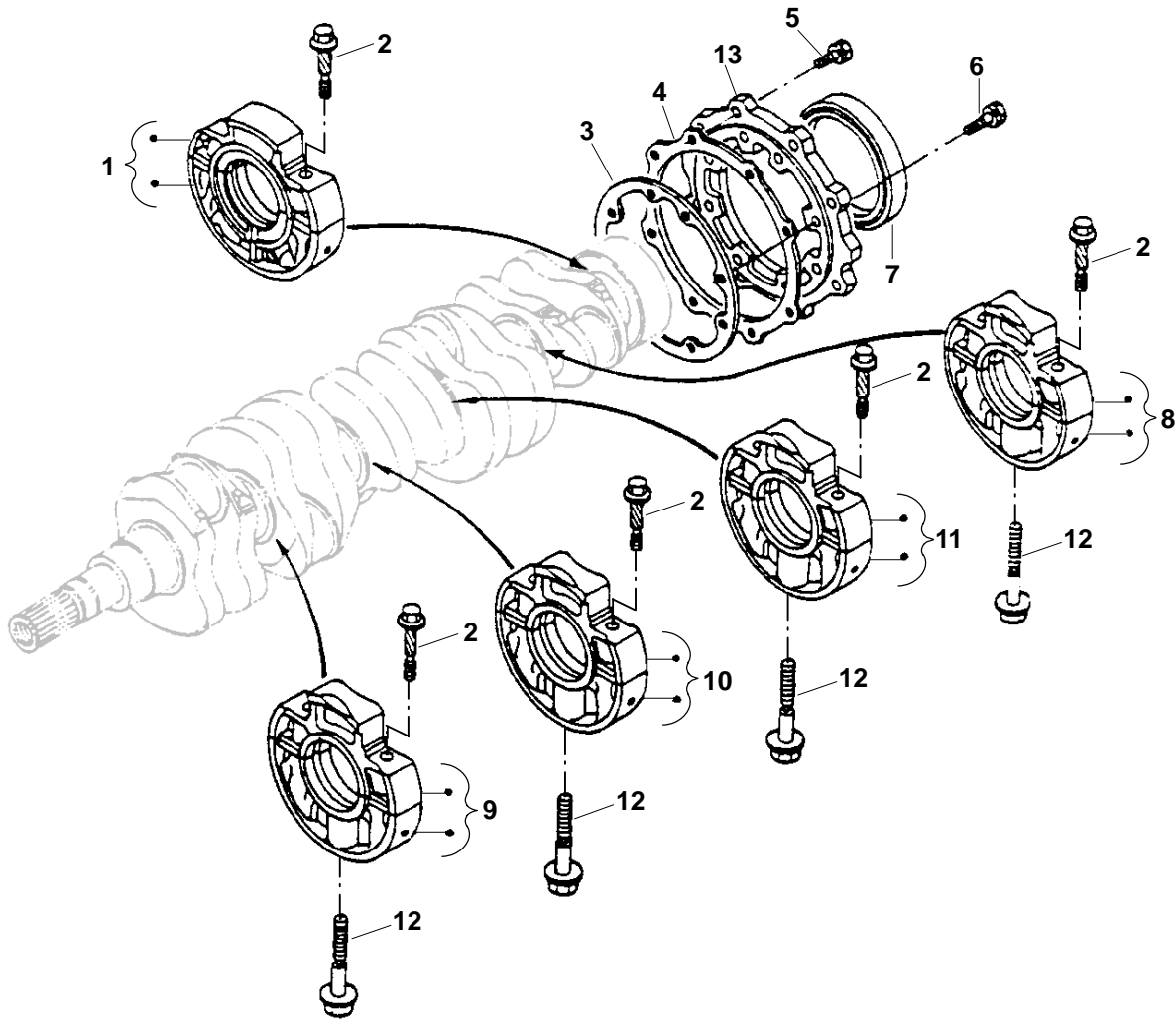
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1550	1	Starter	11	191-1606	1	Armature (Includes Bearings)
1	191-1450	4	Set, Screw	12	191-1437	1	Bearing, Center Sleeve
2	191-1449	1	Bracket Assy, Front (Includes Bearing)	13	191-1436	1	Bearing, Rear Sleeve
3	191-1446	1	Gear	14	191-1607	1	Yoke Assy (Includes Pole Shoes, Field Coil, Positive Brushes)
4	191-1445	1	Drive	15	191-1608	1	Holder, Brush (Includes Negative Brushes)
5	191-1444	1	Cover Assy, Rear (Includes Cover Plate, Washers, Screws, and Snap Ring)	16	191-1433	4	Spring, Brush
6	191-1960	1	Pinion Set (Includes Pinion, Spring & Stopper Set)	17	191-1432	1	Bracket, Rear
7	191-1442	1	Stopper, Set (Includes Ring)	18	191-1431	1	Bolt, Set
8	191-1441	1	Lever Assy	19	191-1609	1	Switch, Solenoid (Includes Shims)
9	191-1440	1	Spring Set	20	191-1447	1	Gear, Set
10	191-1439	1	Bracket, Center	21	191-1448	1	Drive Assy

Main Bearing Housing MDKBD, MDKBE



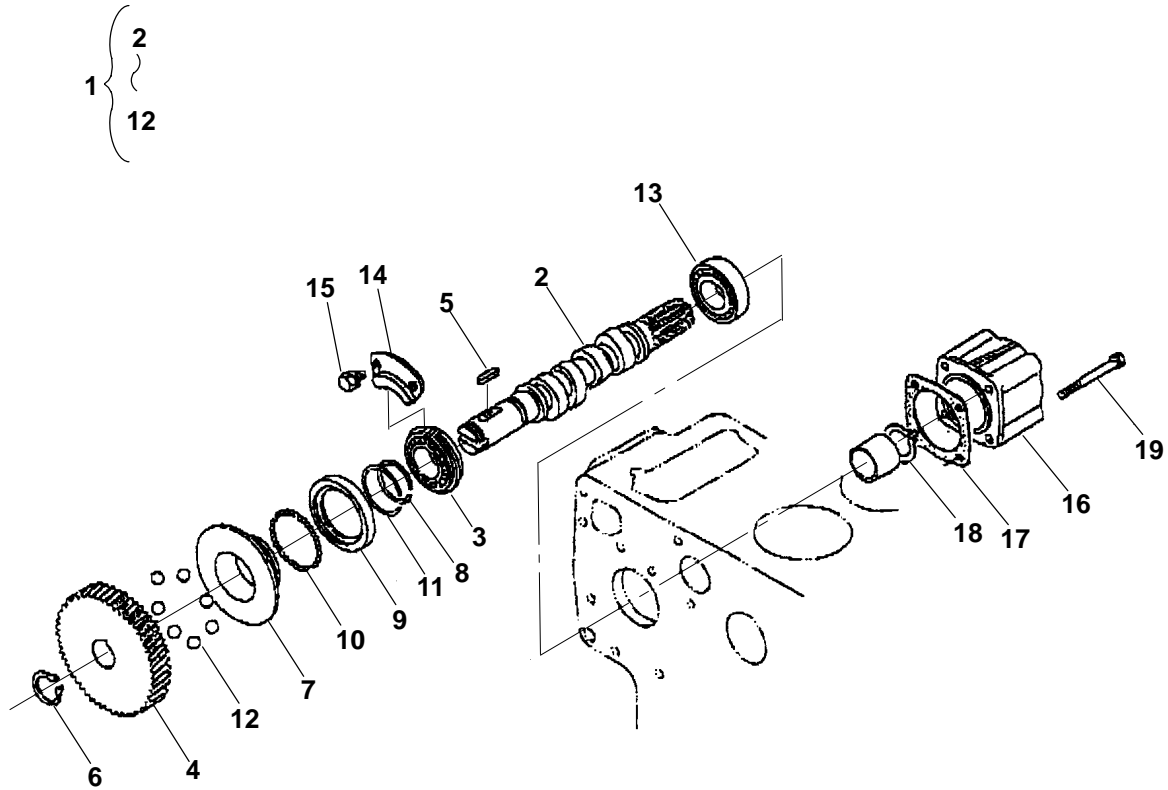
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5889	1	Housing, Main Bearing	7	185-2404	8	Bolt
2	185-5890	8	Bolt, Bearing Housing	8	185-5895	1	Seal, Oil
3	185-6766	1	Gasket, Bearing Housing	9	185-5896	1	Housing, Main Bearing
4	185-5892	1	Cover, Bearing Housing	10	185-5897	1	Housing, Main Bearing
5	185-5893	1	Gasket, Bearing Housing Cover	11	185-5898	1	Housing, Main Bearing
6	185-2403	8	Bolt	12	185-5899	3	Bolt, Bearing Housing

Main Bearing Housing MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5889	1	Housing, Main Bearing	8	185-5896	1	Housing, Main Bearing
2	185-5890	10	Bolt, Bearing Housing	9	185-5897	1	Housing, Main Bearing
3	185-6766	1	Gasket, Bearing Housing	10	185-5898	1	Housing, Main Bearing
4	185-5893	1	Gasket, Bearing Housing Cover	11	185-6063	1	Housing, Main Bearing
5	185-2403	8	Bolt	12	185-5899	4	Bolt, Bearing Housing
6	185-2404	8	Bolt	13	185-5892	1	Cover, Bearing Housing
7	185-6062	1	Seal, Oil				

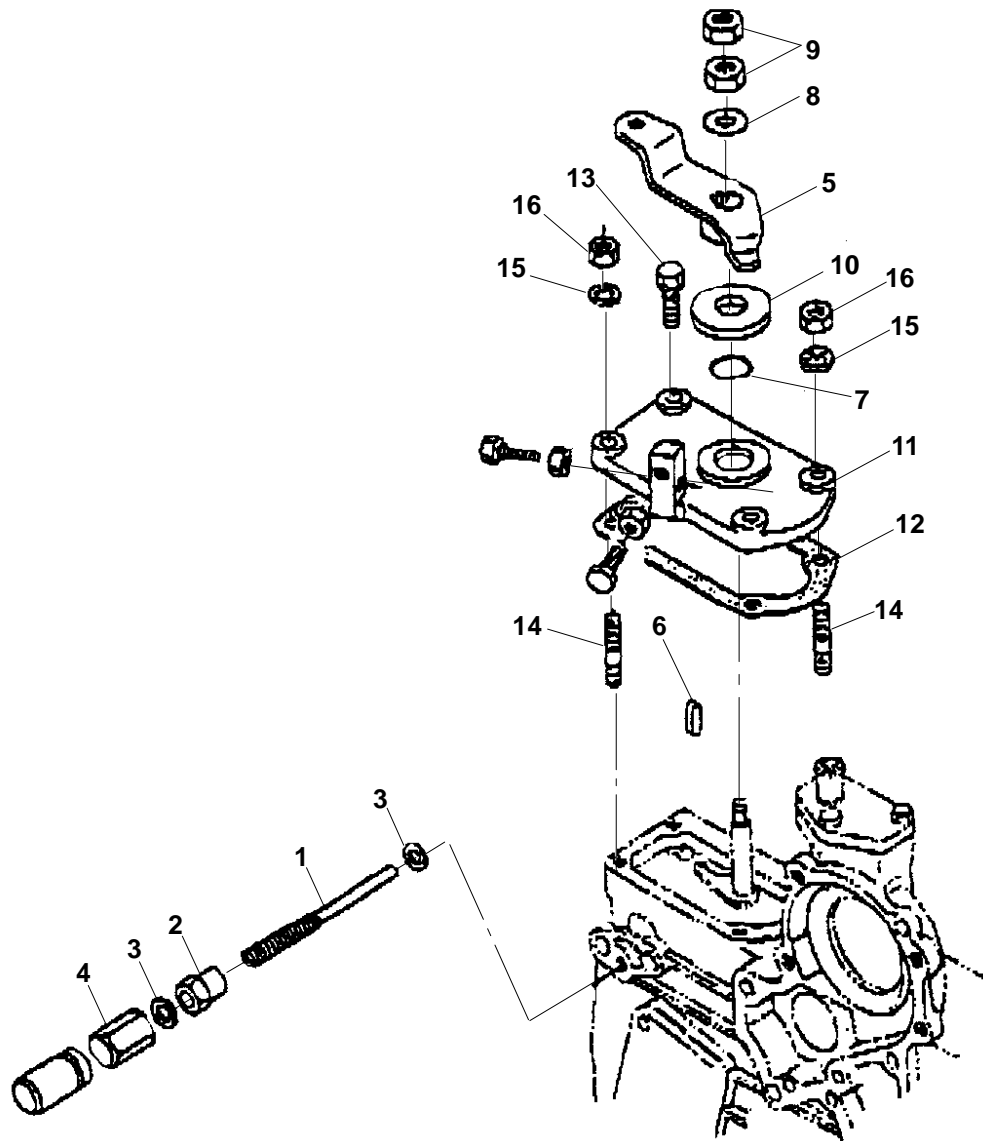
Fuel Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	105-0737	1	Camshaft Assy, Fuel (Includes Parts Marked *)	12	105-0741	1	*Ball
2	105-0738	1	*Camshaft, Fuel	13	185-5961	1	Bearing, Ball
3	185-5947	1	*Bearing, Ball	14	105-0739	1	Stopper, Fuel Camshaft
4	147-0882	1	*Gear, Injection Pump	15	185-3009	2	Bolt
5	185-5949	1	*Key, Feather	16	185-6772	1	Cover, Fuel Camshaft
6	185-5950	1	*Clip, External Circular	17	185-6982	1	Gasket
7	150-2798	1	*Sleeve, Governor	18	185-5963	1	Clip, External Circular
8	518-0712	1	*Clip, Governor Sleeve	19	800-6304	2	Bolt
9	150-2880	1	*Case, Governor Ball				
10	150-0740	7	*Ball				
11	518-0713	1	*Clip, Circular				

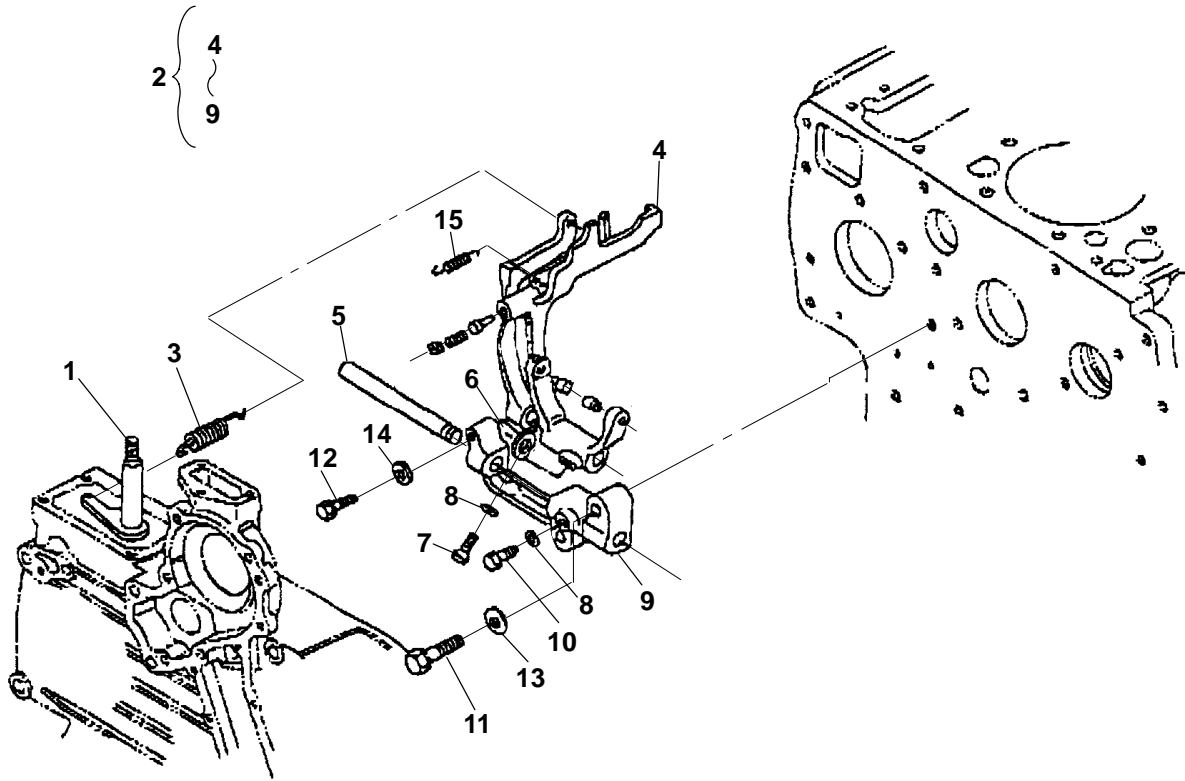
* - Parts Included in Fuel Camshaft Assy

Speed Control



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-6307	1	Bolt, Adjusting – Maximum Fuel	9	185-3033	2	Nut
2	860-2032	1	Nut	10	508-1191	1	Collar
3	185-2284	2	Gasket	11	152-0371	1	Plate, Speed Control
4	185-5529	1	Nut	12	185-6180	1	Gasket
5	152-0370	1	Lever, Speed Control	13	185-2390	2	Bolt
6	185-5415	1	Key, Feather	14	185-2105	2	Stud
7	509-0375	1	O'Ring	15	850-2083	2	Washer, Spring
8	526-2301	1	Washer, Plain	16	185-4255	2	Nut

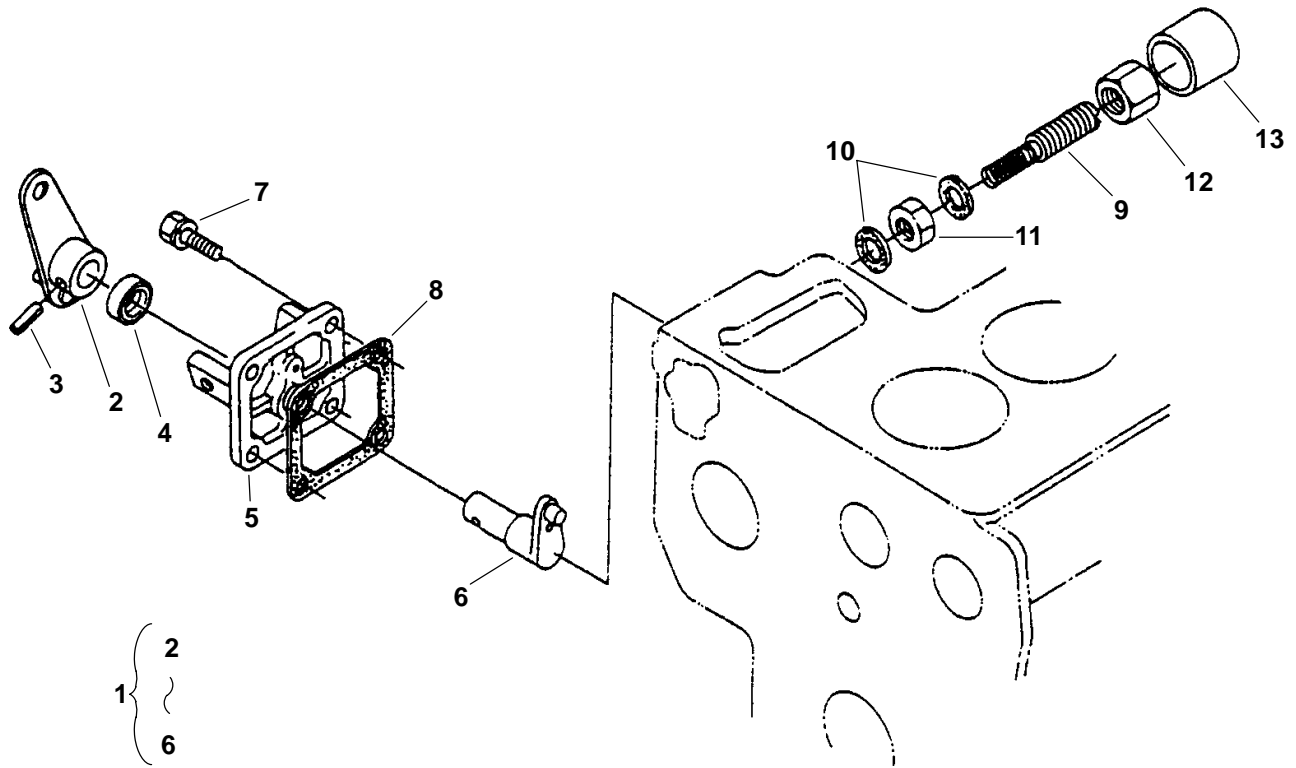
Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2801	1	Lever, Governor	10	800-6306	1	*Bolt
2	150-2804	1	Lever Assy, Fork (Includes Parts Marked *)	11	185-6781	2	Bolt
3	506-0006	1	Spring, Governor	12	185-2392	1	Bolt
4	150-2802	1	*Lever Assy, Fork (Includes Pin)	13	740-1006	2	Washer, Plain
5	150-2805	1	*Shaft, Fork Level	14	185-6786	1	Washer, Plain
6	185-6163	1	*Bolt	15	506-0005	1	Spring, Start
7	800-6305	1	*Bolt, Flange				
8	850-2083	2	*Washer, Spring				
9	150-2803	1	*Holder, Fork Lever				

* - Parts Included in Fork Lever Assy.

Engine Stop Lever MDKBD, MDKBE

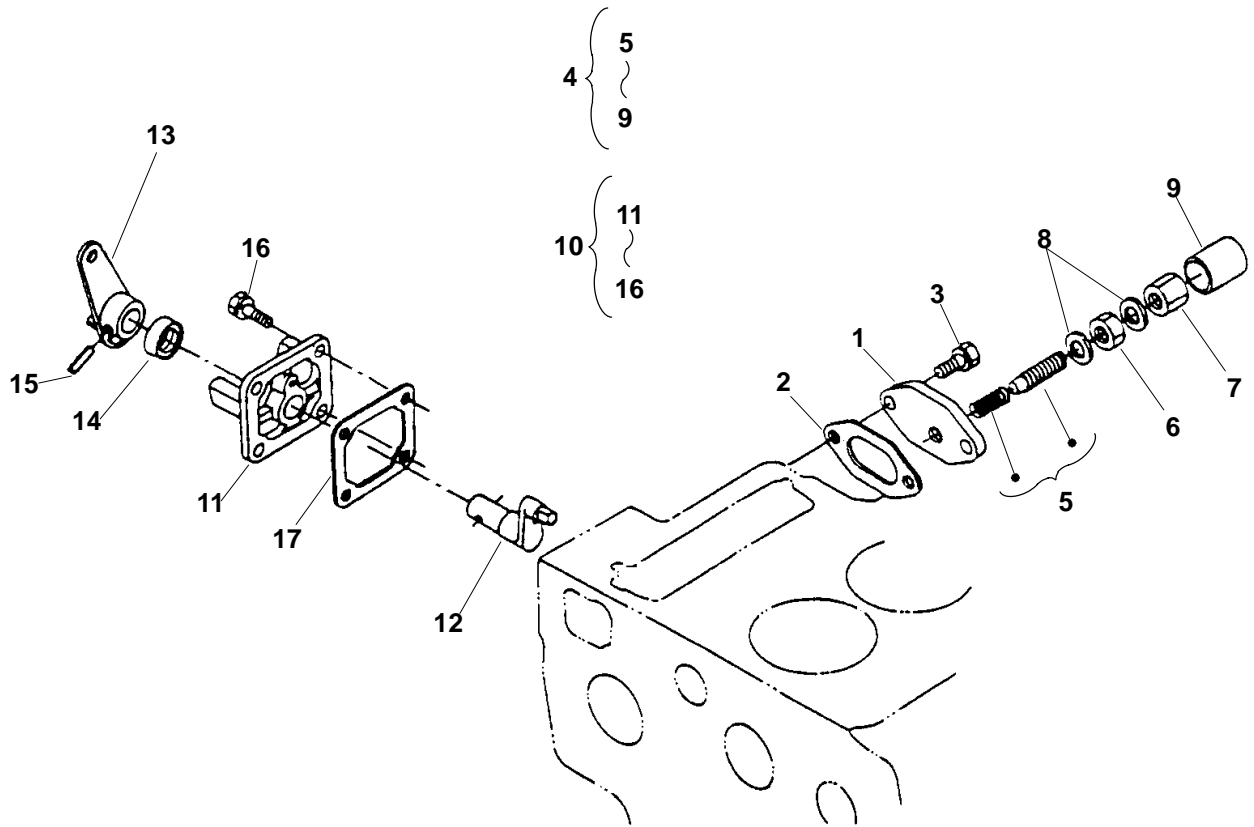


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6726	1	Lever Assy, Engine Stop (Includes Parts Marked #)
2	185-6775	1	#Lever, Engine Stop
3	185-2351	1	#Pin, Spring
4	185-2461	1	#Seal, Oil
5	185-6134	1	#Cover, Injection Pump
6	185-6135	1	#Shaft, Lever
7	185-2389	4	Bolt
8	185-5974	1	Gasket, Injection Pump Cover

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	185-6774	1	Bolt, Adjusting
10	185-2338	2	Gasket
11	185-5969	1	Nut
12	185-5970	1	Nut, Cap
13	185-5971	1	Cap

- Parts Included in Engine Stop Lever Assy

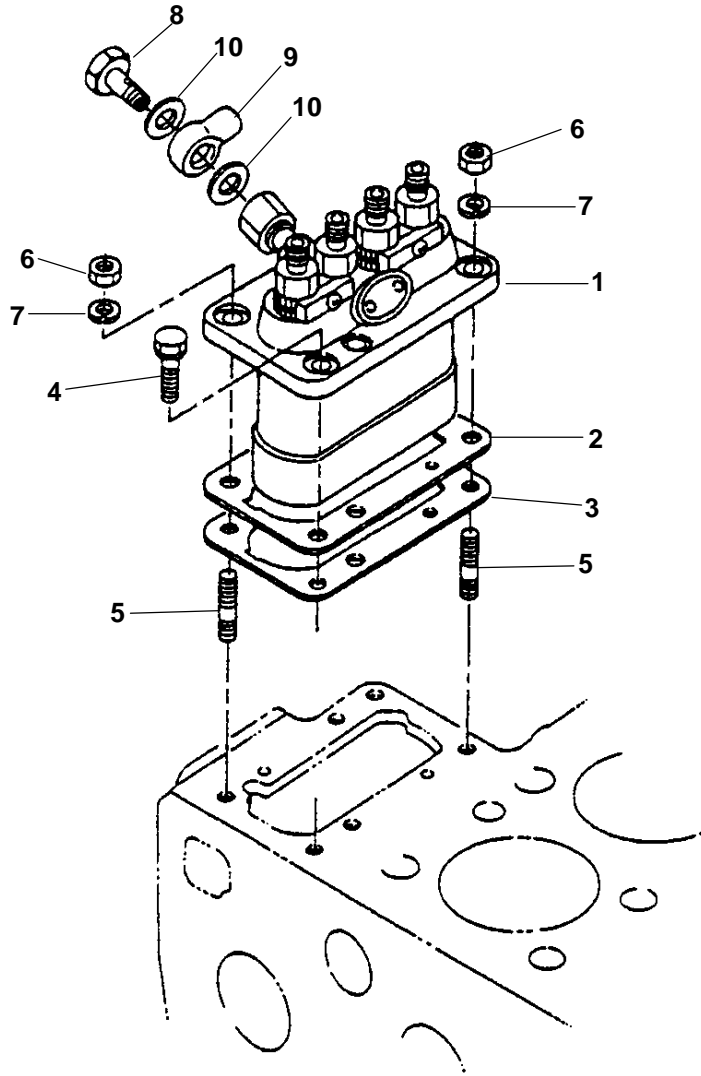
Engine Stop Lever MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6213	1	Cover	11	185-6134	1	#Cover, Injection Pump
2	185-7041	1	Gasket	12	185-6135	1	#Shaft, Lever
3	185-2388	2	Bolt	13	185-6775	1	#Lever, Engine Stop
4	185-7042	1	Bolt Assy, Adjusting – Governor Adjust (Includes Parts Marked *)	14	185-2461	1	#Seal, Oil
5	185-6774	1	*Bolt, Adjusting	15	185-2351	1	#Pin, Spring
6	185-5969	1	*Nut	16	185-2389	4	#Bolt
7	185-5970	1	*Nut, Cap	17	185-6985	1	Gasket
8	185-2338	2	*Gasket				
9	185-5971	1	*Cap				
10	185-6726	1	Lever Assy, Engine Stop (Includes Parts Marked #)				

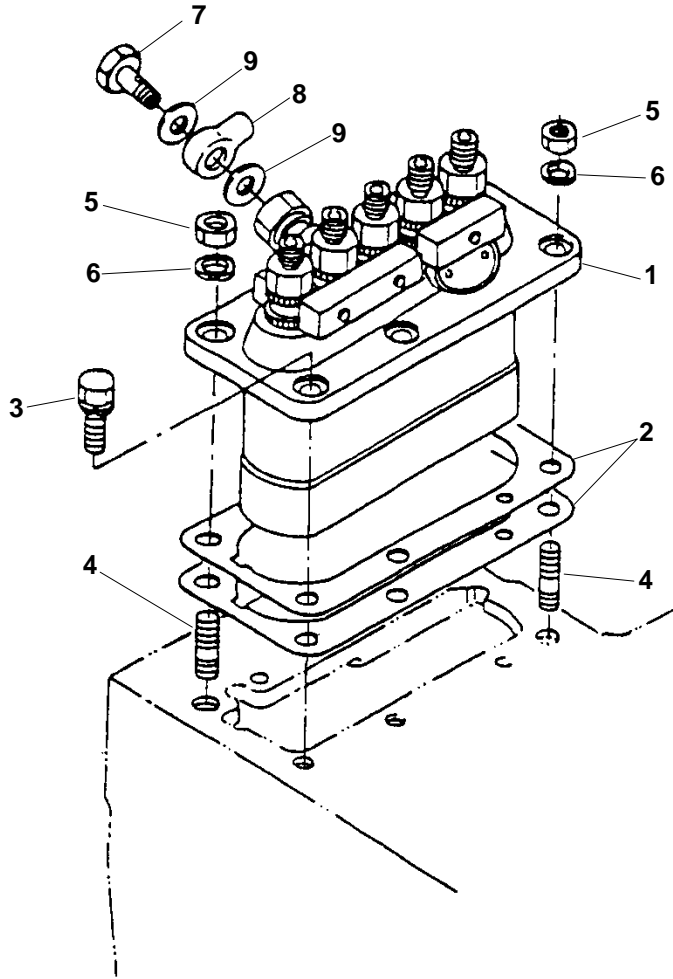
* – Parts Included in Adjusting Bolt Assy.
– Parts Included in Engine Stop Lever Assy.

Injection Pump MDKBD, MDKBE



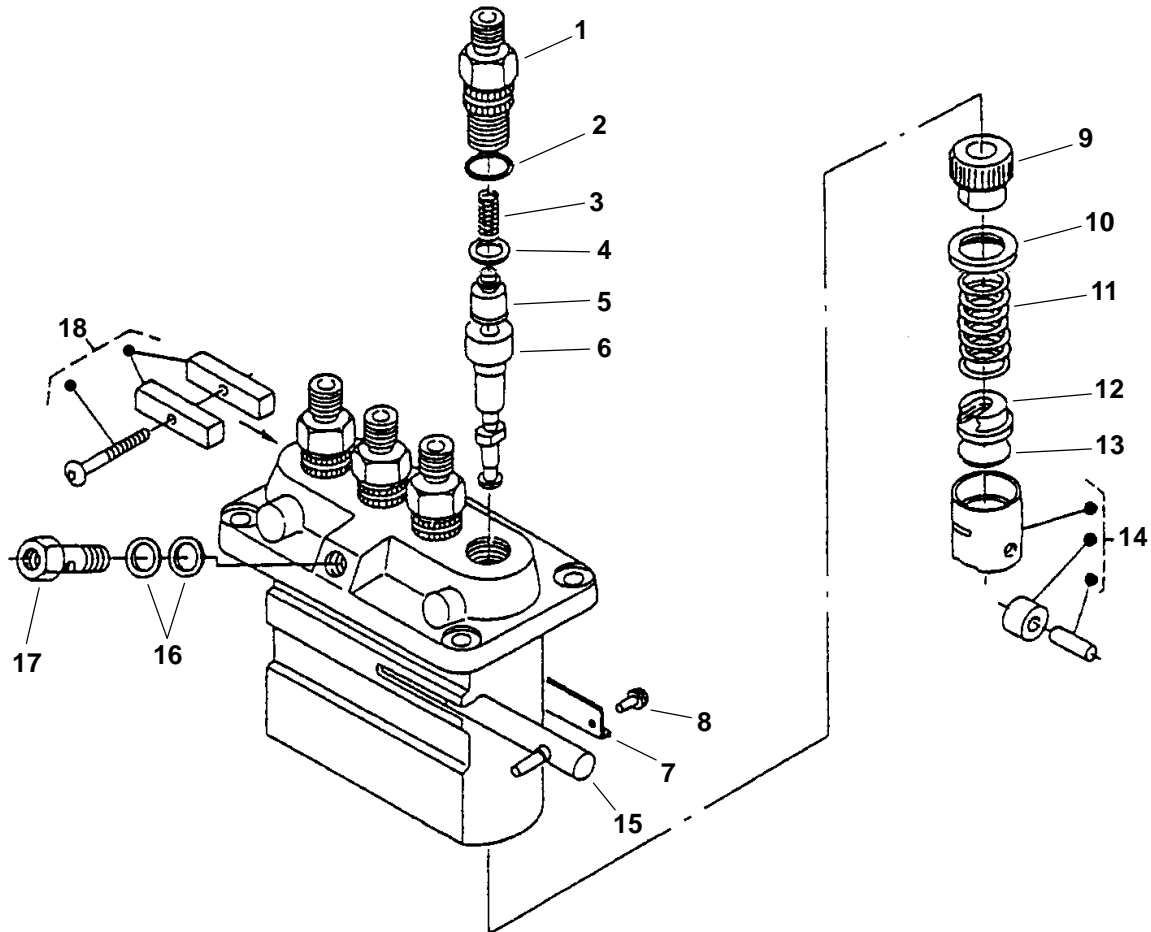
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7442	1	Pump Assy, Injection (See Separate Page for Components)	4	185-2402	4	Bolt
2	185-5976	2	Standard Shim	5	185-2106	2	Stud
	185-6756	2	.20mm	6	185-2367	2	Nut
	185-6757	2	.25mm	7	185-6957	2	Washer, Spring
3	185-5977	1	.45mm Shim	8	185-7045	1	Screw, Follow
	185-6758	1	.30mm	9	185-6418	1	Joint, Eye
				10	185-2578	2	Gasket

Injection Pump MDKBF



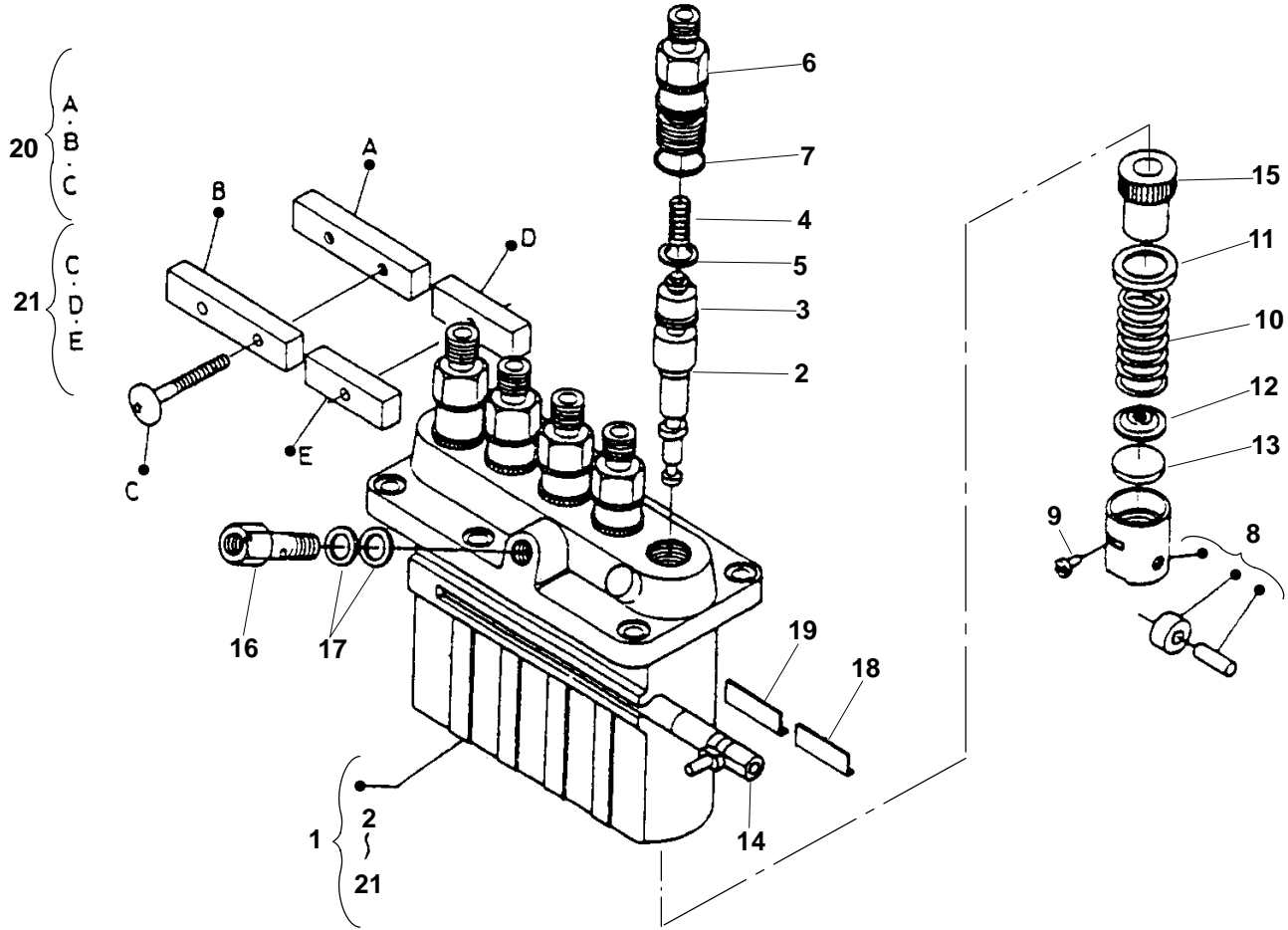
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7443	1	Pump Assy, Injection (See Separate Page for Components)	3	185-2402	4	Bolt
2			Shim	4	185-2362	2	Stud
	185-6796	1	.20mm	5	185-2367	2	Nut
	185-6091	1	.25mm	6	185-6957	2	Washer, Spring
	185-6795	1	.30mm	7	185-7045	1	Screw, Follow
				8	185-6418	1	Joint
				9	185-2578	2	Gasket

Injection Pump Components MDKBD, MDKBE



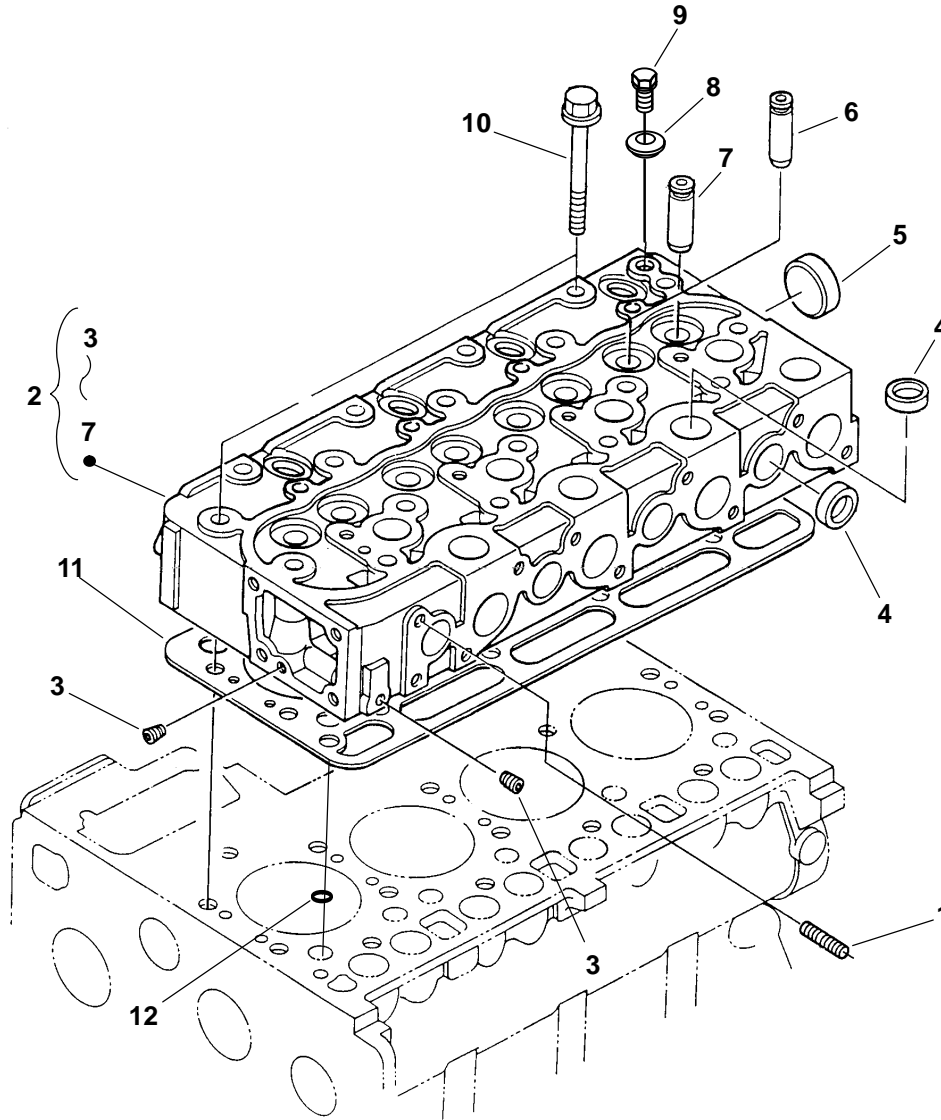
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	185-7442	1	Pump Assy, Injection	10	185-6148	4	Seat, Upper Spring
1	185-6142	4	Holder, Delivery Valve	11	185-6147	4	Spring, Plunger
2	185-6155	4	O'Ring	12	185-6778	4	Seat, Lower Spring
3	185-6140	4	Spring, Delivery Valve	13	185-6151	4	Shim
4	185-6141	4	Gasket, Delivery Valve	14	185-6144	4	Tappet Assy
5	185-6139	4	Valve, Delivery	15	185-6150	1	Rack, Control
6	185-6138	4	Plunger, Pump	16	185-6154	2	Gasket
7	185-6146	2	Plate	17	185-6153	1	Screw, Hollow
8	185-6145	4	Pin, Tappet Guide	18	185-6143	2	Lock Assy, Plate
9	185-6152	4	Sleeve, Control				

Injection Pump Components MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7443	1	Pump Assy, Injection	12	185-6778	5	Seat, Lower Spring
2	185-6216	5	Plunger, Pump	13	185-6151	5	Shim
3	185-6217	5	Valve, Delivery	14	185-6219	1	Rack, Control
4	185-6218	5	Spring, Delivery Valve	15	185-6152	5	Sleeve, Control
5	185-6993	5	Gasket, Delivery Valve	16	185-6153	1	Screw, Hollow
6	185-6142	5	Holder, Delivery Valve	17	185-6154	2	Gasket
7	185-6155	5	O'Ring	18	185-6146	1	Plate
8	185-6144	5	Tappet Assy	19	185-6994	1	Plate
9	185-6145	5	Pin, Tappet Guide	20	185-6143	1	Plate Assy, Lock
10	185-6147	5	Spring, Plunger	21	185-6220	1	Plate Assy, Lock
11	185-6148	5	Seat, Upper Spring				

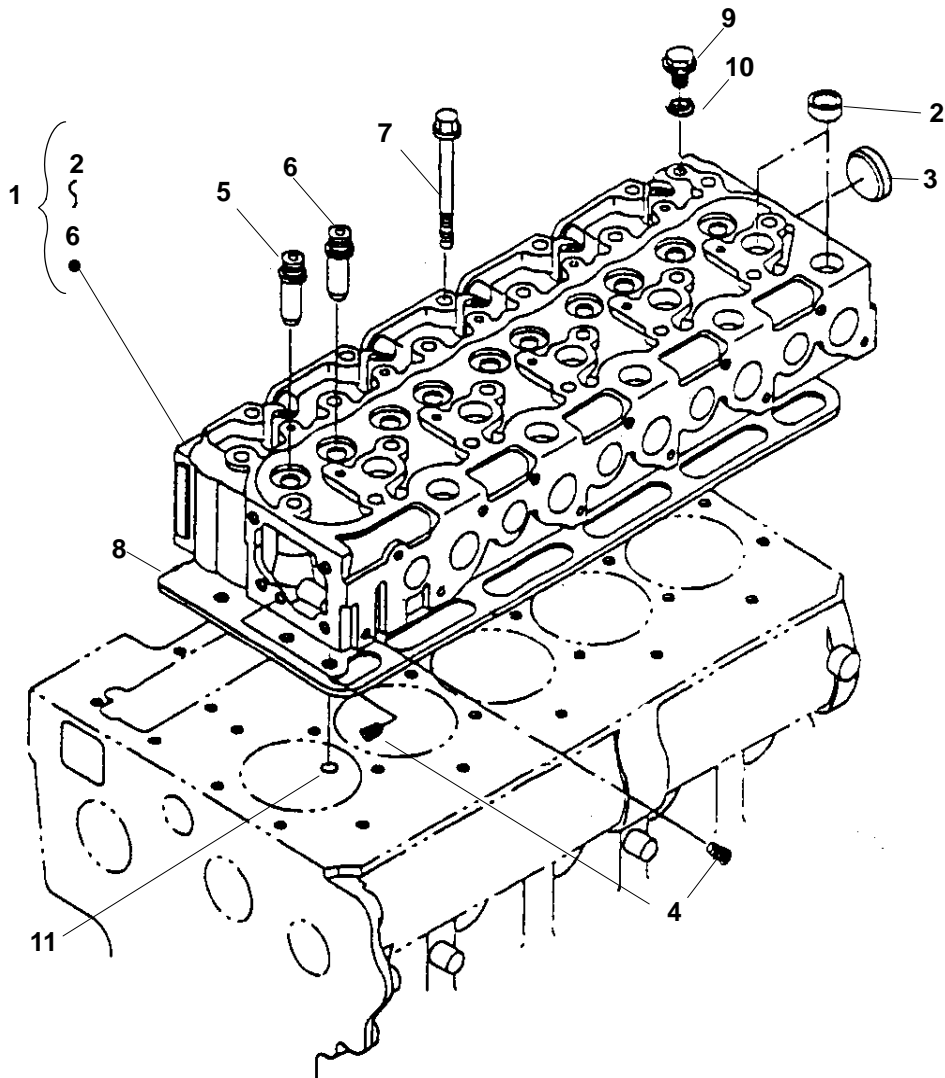
Cylinder Head MDKBD, MDKBE



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stud	7	185-5863	4	*Guide, Exhaust Valve
	185-2106	1	MDKBD	8	185-5868	1	Washer (With Rubber)
	185-6048	1	MDKBE	9	185-5867	1	Plug
2			Head Assy, Cylinder (Includes Parts Marked *)	10	185-5865	18	Bolt, Cylinder Head
	185-6763	1	MDKBD	11			Gasket, Cylinder Head
	185-5860	1	MDKBE		185-6764	1	MDKBD
3	185-2188	2	*Plug		185-5866	1	MDKBE
4	185-5861	12	*Cap, Sealing	12	185-2095	1	O'Ring
5	185-2412	1	*Cap, Sealing				
6	185-5862	4	*Guide, Inlet Valve				

* - Parts Included in Cylinder Head Assy.

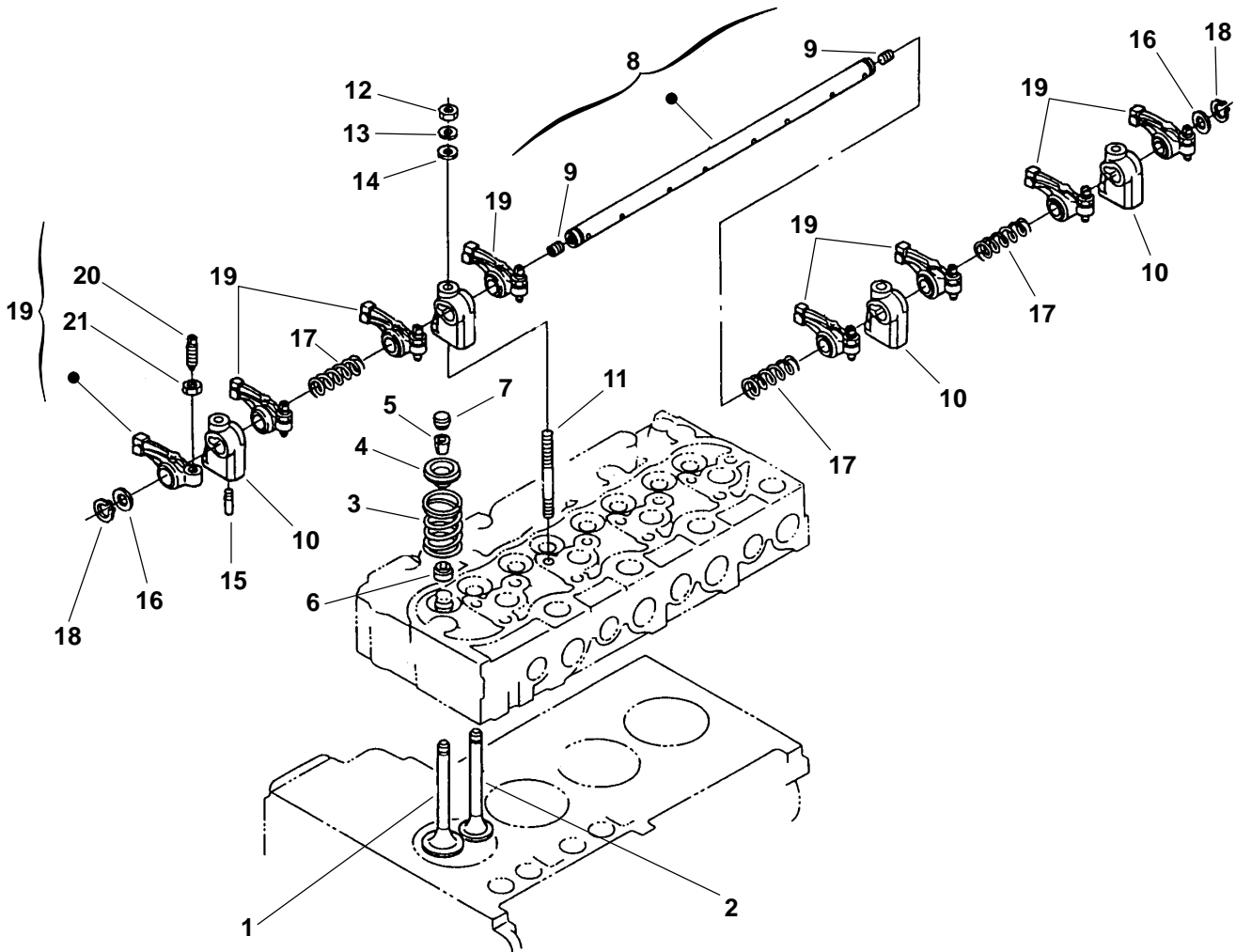
Cylinder Head MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6049	1	Head Assy, Cylinder (Includes Parts Marked #)	8	185-6050	1	Gasket, Cylinder Head
2	185-5861	15	#Cap, Sealing	9	185-5867	1	Plug
3	185-2412	1	#Cap, Sealing	10	185-5868	1	Washer (with Rubber)
4	185-2188	2	#Plug	11	185-2095	1	O'Ring
5	185-5862	5	#Guide, Inlet Valve				
6	185-5863	5	#Guide, Exhaust Valve				
7	185-5865	22	Bolt, Cylinder Head				

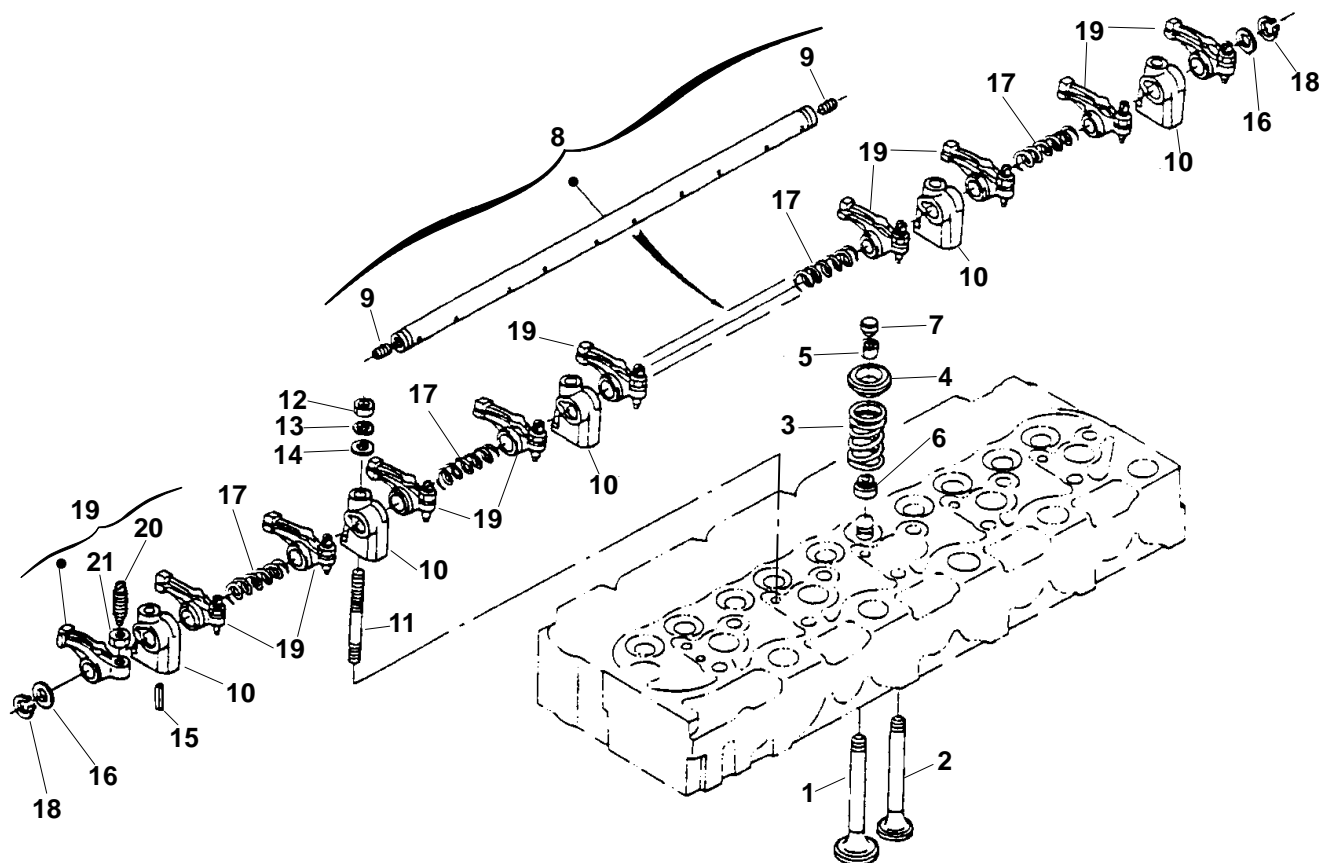
- Parts Included in Cylinder Head Assy.

Rocker Arm MDKBD, MDKBE



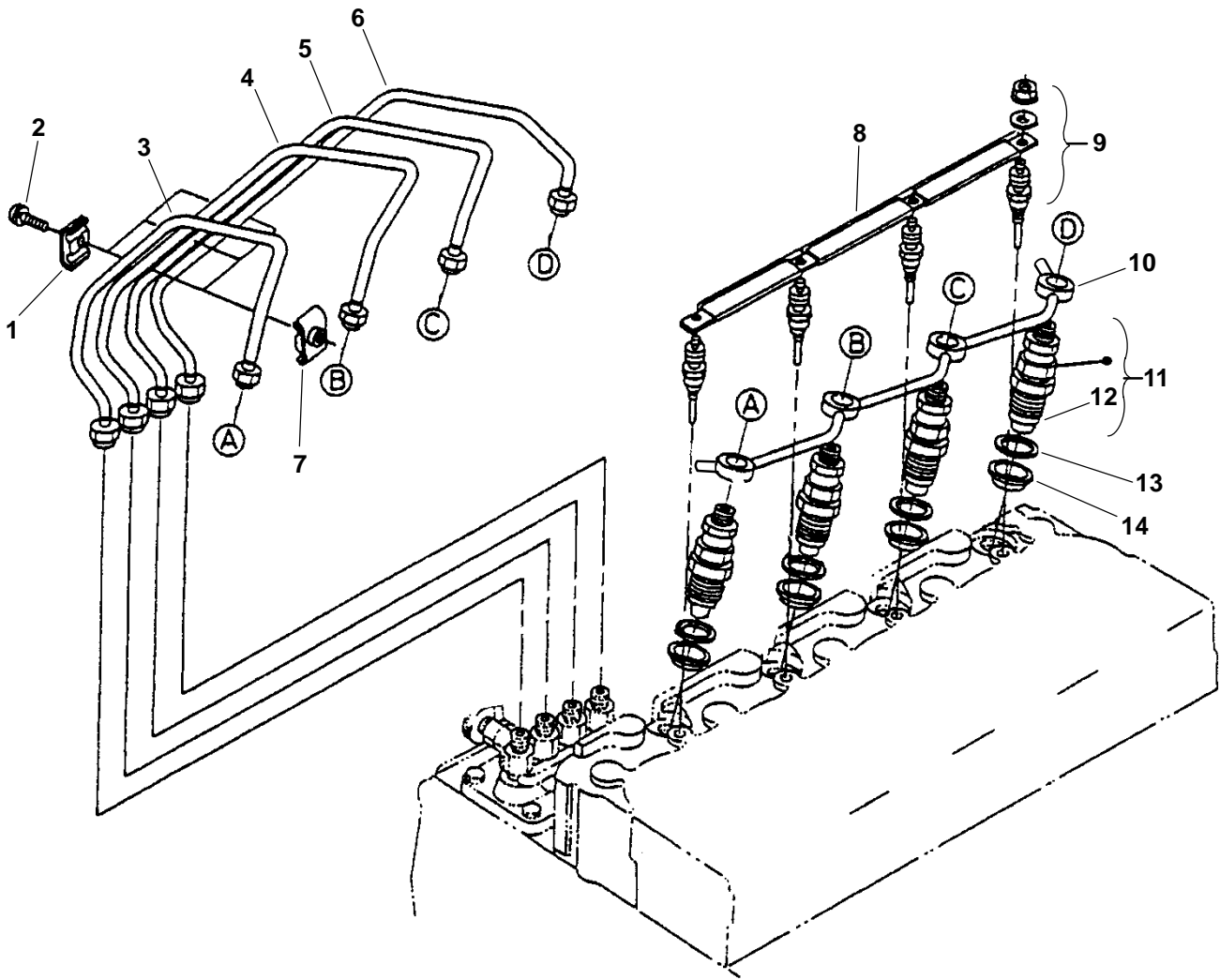
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6107	4	Valve, Inlet	12	185-2367	4	Nut
2	185-6108	4	Valve, Exhaust	13	185-6957	4	Washer, Spring
3	185-6016	8	Spring, Valve	14	740-1006	4	Washer, Flat
4	185-6017	8	Retainer, Valve Spring	15	185-6789	1	Pin, Spring
5	110-3584	8	Collet, Valve Spring	16	185-6025	2	Washer, Rocker Arm Shaft
6	185-6018	8	Seal, Valve Stem	17	185-6026	3	Spring, Rocker Arm
7	185-6019	8	Cap, Valve	18	185-6027	2	Ring, External Retaining
8	185-6020	1	Shaft Assy, Rocker Arm (Includes Set Screws)	19	185-6028	8	Arm Assy, Rocker (Includes Screw and Nut)
9	185-6242	2	Screw, Set	20	185-6029	8	Screw, Adjusting
10	185-6022	4	Bracket, Rocker Arm	21	185-6030	8	Nut
11	185-6023	4	Stud				

Rocker Arm MDKBF



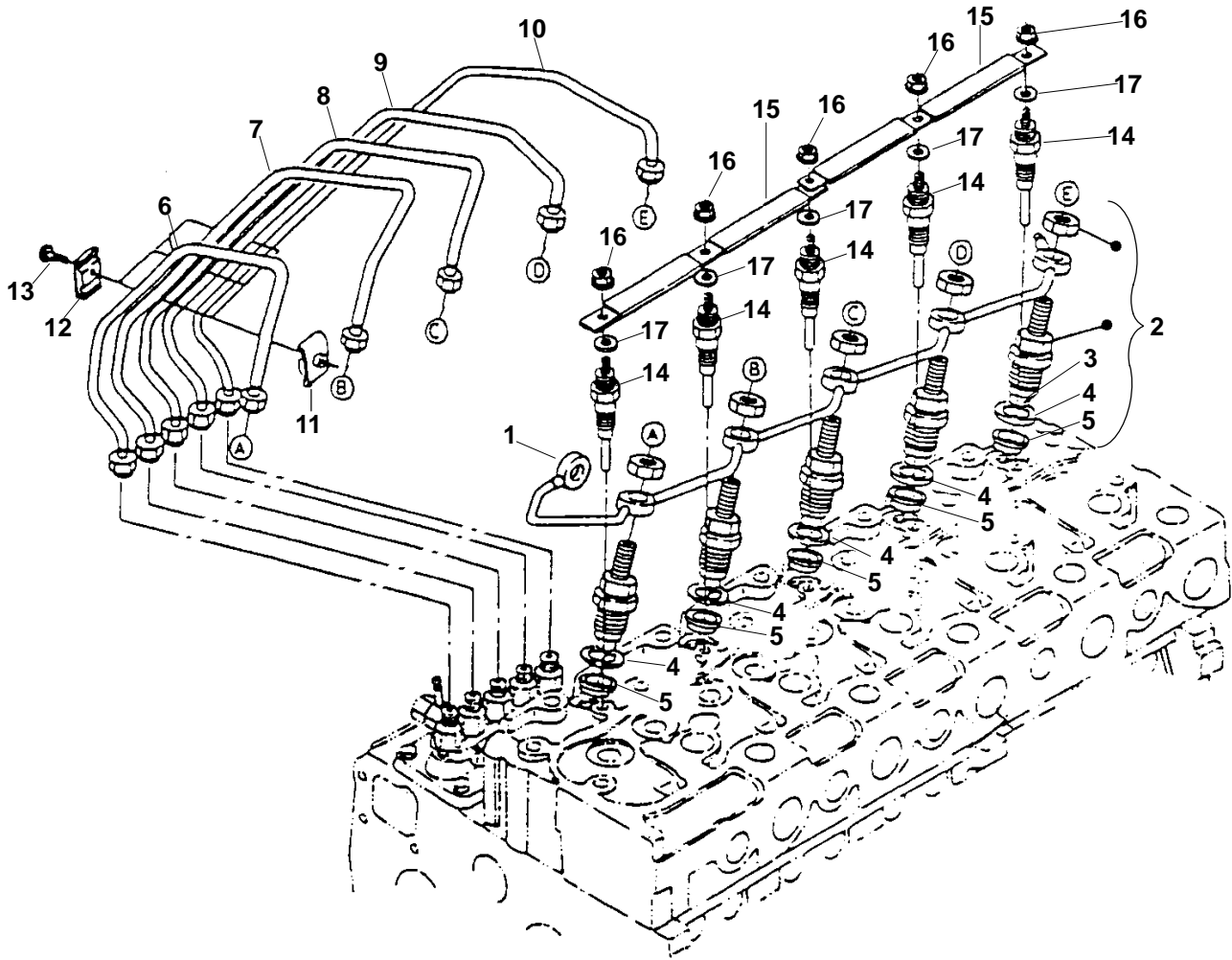
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6107	5	Valve, Inlet	12	185-2367	5	Nut
2	185-6108	5	Valve, Exhaust	13	185-6957	5	Washer, Spring
3	185-6016	10	Spring, Valve	14	740-1006	5	Washer, Flat
4	185-6017	10	Retainer, Valve Spring	15	185-6789	1	Pin, Spring
5	110-2752	10	Collet, Valve Spring	16	185-6025	2	Washer
6	185-6018	10	Seal, Valve Stem	17	185-6026	4	Spring, Rocker Arm
7	185-6019	10	Cap, Valve	18	185-6027	2	Ring, External Retaining
8	185-7063	1	Shaft Assy, Rocker Arm (Includes Set Screws)	19	185-6028	10	Arm Assy, Rocker (Includes Screw and Nut)
9	185-6242	2	Screw, Set	20	185-6029	10	Screw, Adjusting
10	185-6022	5	Bracket, Rocker Arm	21	185-6030	10	Nut
11	185-6023	5	Stud				

Nozzle Holder MDKBD, MDKBE



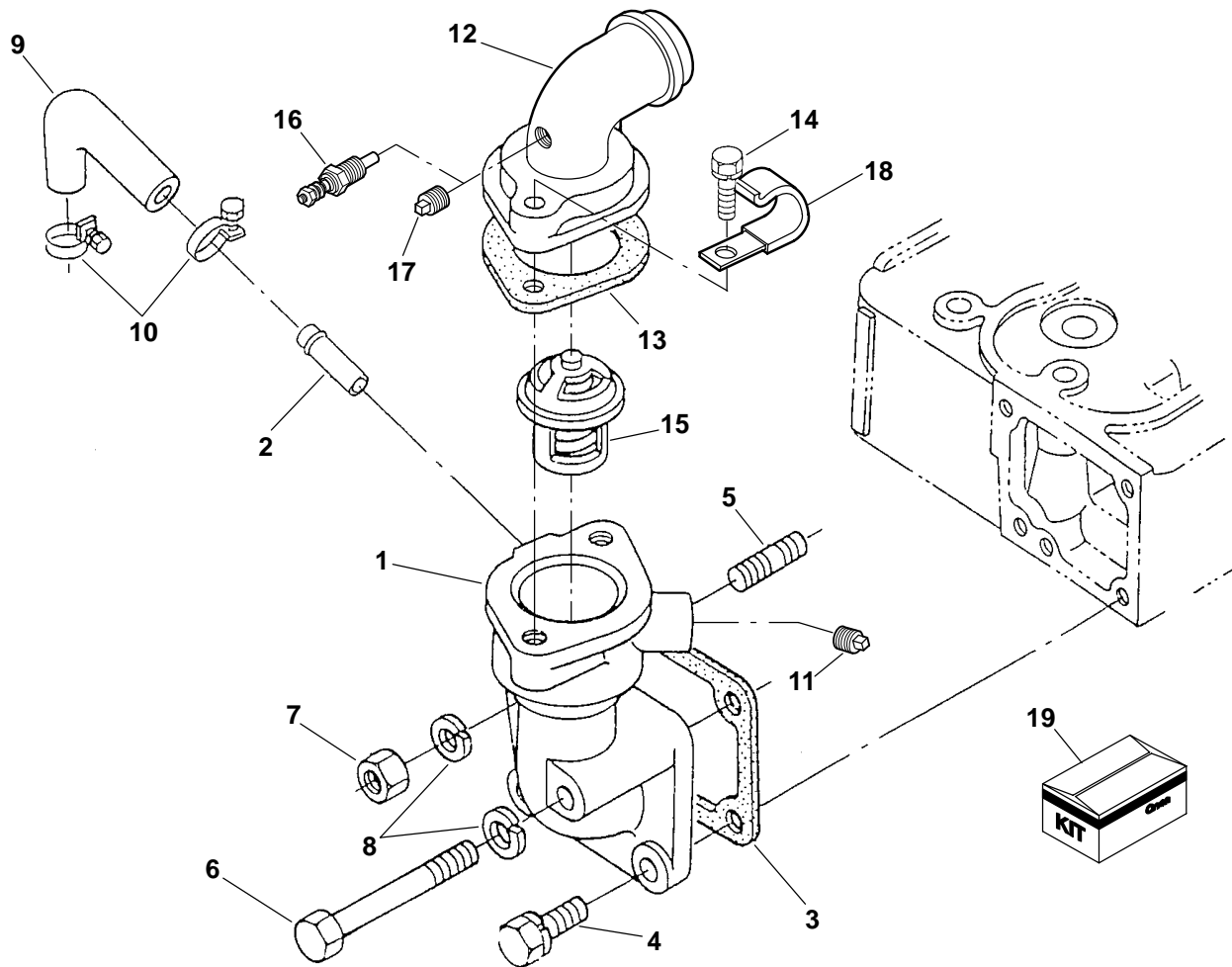
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2345	3	Clamp, Pipe	10	185-6731	1	Pipe, Overflow
2	185-2385	3	Screw (With Washer)	11	185-6094	4	Holder Assy, Nozzle (Includes Nozzle)
3	185-5986	1	Pipe, Injection	12	185-6095	4	Nozzle
4	185-5987	1	Pipe, Injection	13	185-5337	4	Gasket, Nozzle
5	185-5988	1	Pipe, Injection	14	185-5985	4	Seal, Heat
6	185-5989	1	Pipe, Injection				
7	185-5612	3	Clamp, Pipe				
8	185-5991	1	Cord, Glow Plug				
9			Assy, Glow Plug (Includes Nut and Washer)				
	185-5990	4	12V				
	185-6725	4	24V				

Nozzle Holder and Glow Plug MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-7050	1	Pipe, Overflow	11	185-5612	5	Clamp, Pipe
2	185-6094	5	Holder Assy, Nozzle (Includes Nozzle, Gasket and Heat Seal	12	185-2345	5	Clamp, Pipe
3	185-6095	5	Nozzle	13	185-2385	5	Screw (With Washer)
4	185-5337	5	Gasket	14	185-5990	5	Plug, Glow 12V
5	185-5985	5	Seal, Heat		185-6725	5	24V
6	185-6096	1	Pipe, Injection	15	185-6225	2	Cord, Glow Plug
7	185-6097	1	Pipe, Injection	16	185-5615	5	Nut, Flange
8	185-6098	1	Pipe, Injection	17	185-7004	5	Washer, Flat
9	185-6099	1	Pipe, Injection				
10	185-6100	1	Pipe, Injection				

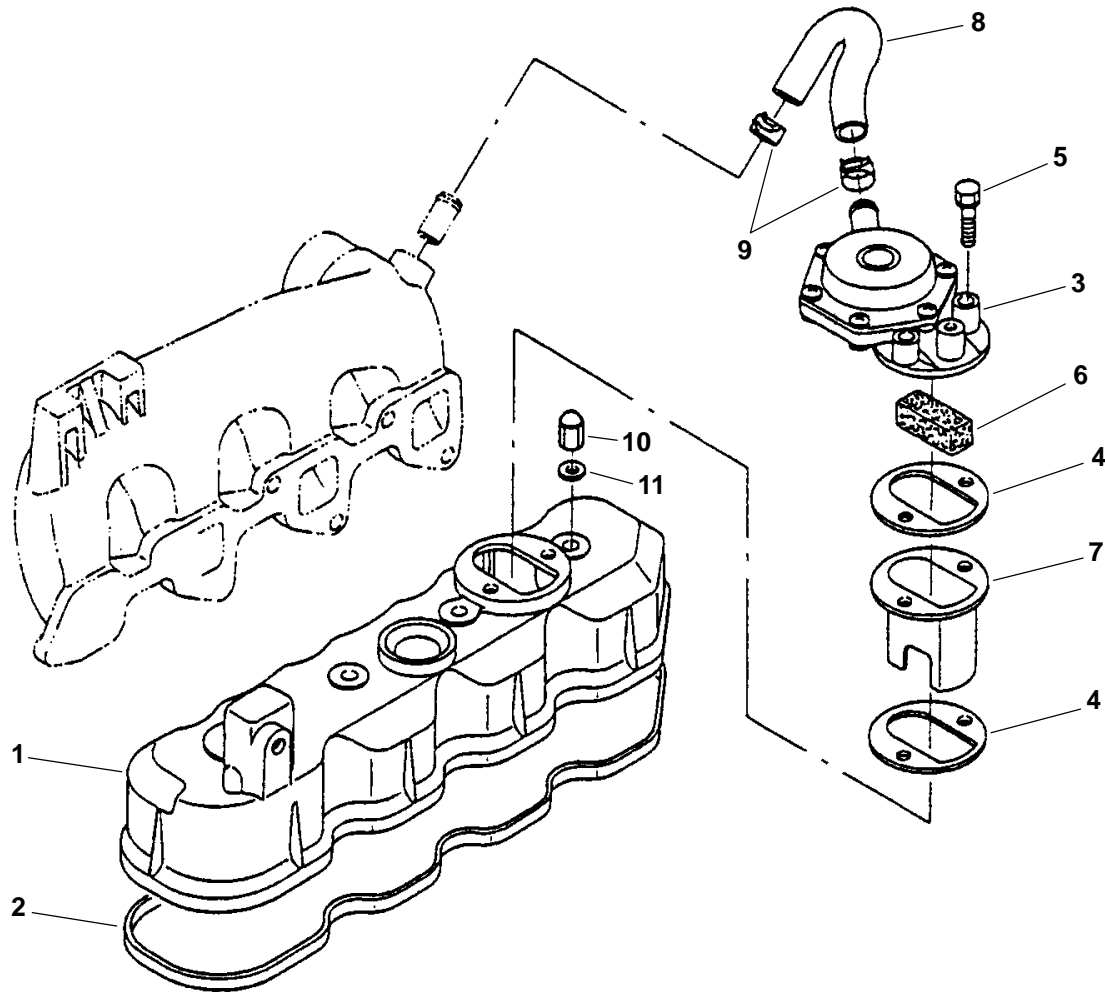
Water Outlet Flange



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6788	1	Flange, Water Outlet (Includes Pipe)	15	185-6005	1	Thermostat + Sender, Water Temperature (E2)
2	185-6103	1	Pipe, Water Return	16	193-0318	1	Negative Ground
3	185-5999	1	Gasket		193-0457-01	1	Isolated Ground
4	185-2402	2	Bolt	17	505-0110	1	Plug, Square Head Pipe (3/8") MDKBD, MDKBE
5	185-2362	1	Stud	18	518-0515	1	Clip, Wire (MDKBF)
6	185-5443	1	Bolt MDKBD, MDKBE	19		1	*Kit, Sender (Includes Water Temperature Sender)
	185-7060	1	MDKBF		300-5040	1	Negative Ground
7	185-2367	1	Nut		300-5041	1	Isolated Ground
8	185-6957	2	Washer, Spring				
9	185-6000	1	Pipe, Water Return				
10	185-6001	2	Band, Pipe				
11	185-5826	1	Plug				
12	185-6003	1	Cover, Thermostat				
13	185-6004	1	Gasket, Thermostat Cover				
14			Bolt				
	185-2365	2	MDKBD, MDKBE				
	185-2565	2	MDKBF				

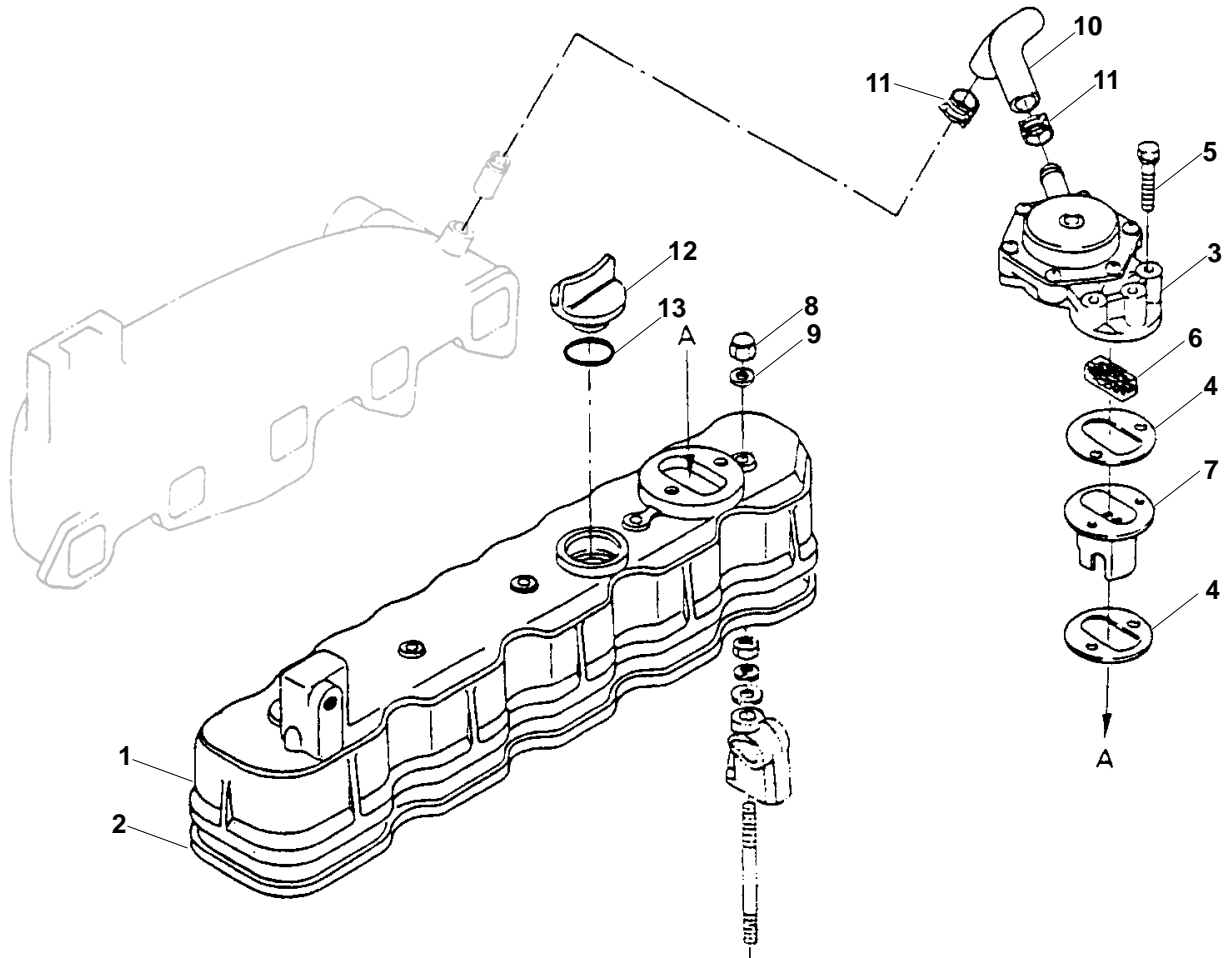
* - Kit Also Includes Oil Pressure Sender Listed on Oil Pan Page.
+ - Water Temperature Sender ties to E2-2 Iso Harness (See Isolated Ground 338-4200-01)

Cylinder Head Cover MDKBD, MDKBE



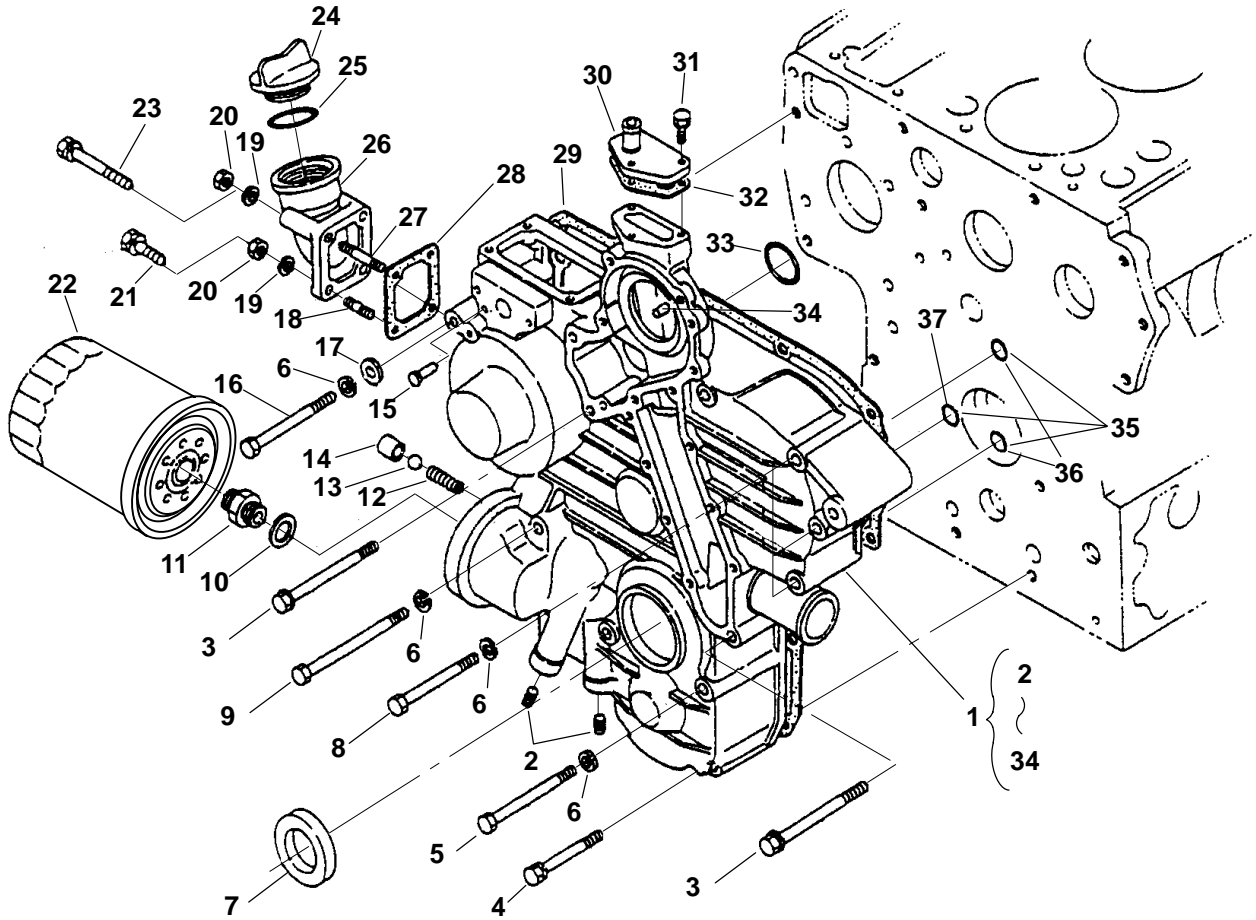
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6716	1	Cover, Cylinder Head	7	185-6718	1	Plate
2	185-5887	1	Gasket, Cover	8	185-6719	1	Tube, Breather
3	185-6720	1	Breather	9	185-6722	2	Clamp, Hose
4	185-6717	2	Gasket, Breather	10	185-5888	4	Nut, Cap
5	718-1040	2	Bolt	11	185-2338	4	Gasket
6	185-6721	1	Element, Breather				

Cylinder Head Cover MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6804	1	Cover, Cylinder Head	8	185-5888	5	Nut, Cap
2	185-6054	1	Gasket, Cover	9	185-2338	5	Gasket
3	185-6720	1	Breather	10	185-6719	1	Tube, Breather
4	185-6967	2	Gasket	11	185-6722	2	Clamp
5	718-1040	2	Bolt	12	185-5407	1	Cover, Oil Fill
6	185-6721	1	Element, Breather	13	185-2349	1	O'Ring
7	185-6718	1	Plate				

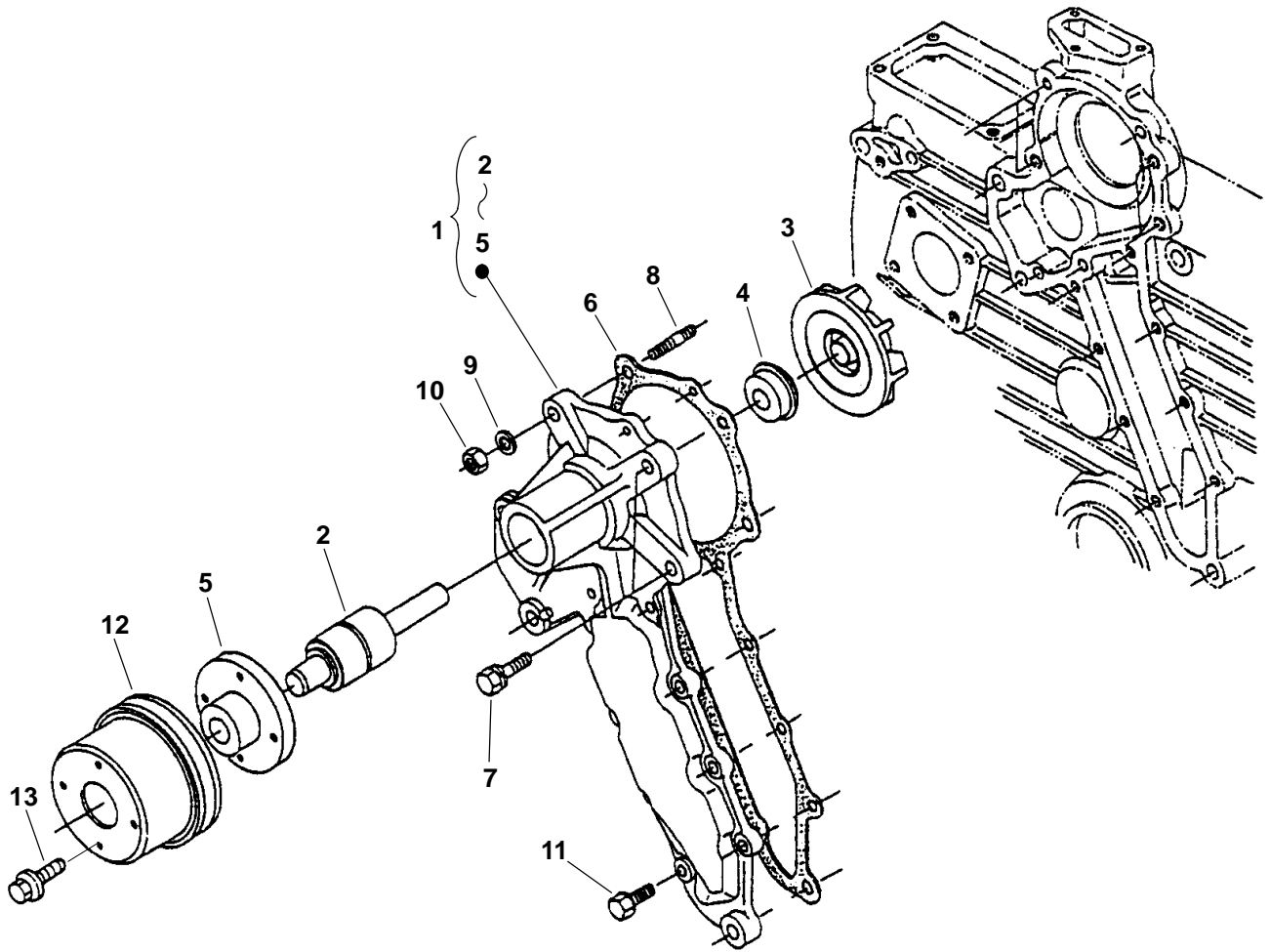
Gearcase



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Gearcase Assy (Includes Parts Marked *)	20	185-4255	4	Nut (MDKBD, MDKBE)
	185-6765	1	MDKBD, MDKBE	21	185-2389	2	Bolt (Bottom)(MDKBF)
	185-6712	1	MDKBF	22	122-0810	1	Filter, Oil
2	185-5505	2	*Plug	23	185-5833	2	Bolt (Top)(MDKBF)
3	185-5874	3	Bolt	24	185-5407	1	Plug, Oil Fill
4	185-2405	2	Bolt	25	185-2349	1	O'Ring
5	185-5873	2	Bolt	26	185-6124	1	Flange, Oil Fill
6	185-6957	10	Washer, Spring	27	185-6126	2	Stud (Top)(MDKBD, MDKBE)
7	185-6204	1	Seal, Oil (MDKBF)	28	185-6125	1	Gasket
8	185-5443	5	Bolt	29	185-6960	1	Gasket
9	185-6078	2	Bolt	30	185-5879	1	Flange, Water Return
10	185-5876	1	Washer, Flat	31	185-2390	3	Bolt
11	185-5875	1	Joint, Pipe	32	185-5880	1	Gasket
12	185-5877	1	Spring	33	185-5870	1	*O'Ring
13	185-6711	1	Ball	34	185-5843	2	*Pin, Straight
14	185-5878	1	Seat, Valve	35	185-5869	3	*O'Ring (MDKBD, MDKBE)
15	185-6197	1	*Pin, Start Spring	36	185-5869	2	*O'Ring (MDKBF)
16	185-5872	1	Bolt	37	185-5126	1	*O'Ring (MDKBF)
17	740-1006	1	Washer, Flat				
18	185-6127	2	Stud (Bottom)(MDKBD, MDKBE)				
19	185-6759	4	Washer, Spring(MDKBD, MDKBE)				

* - Parts Included in Gearcase Assy

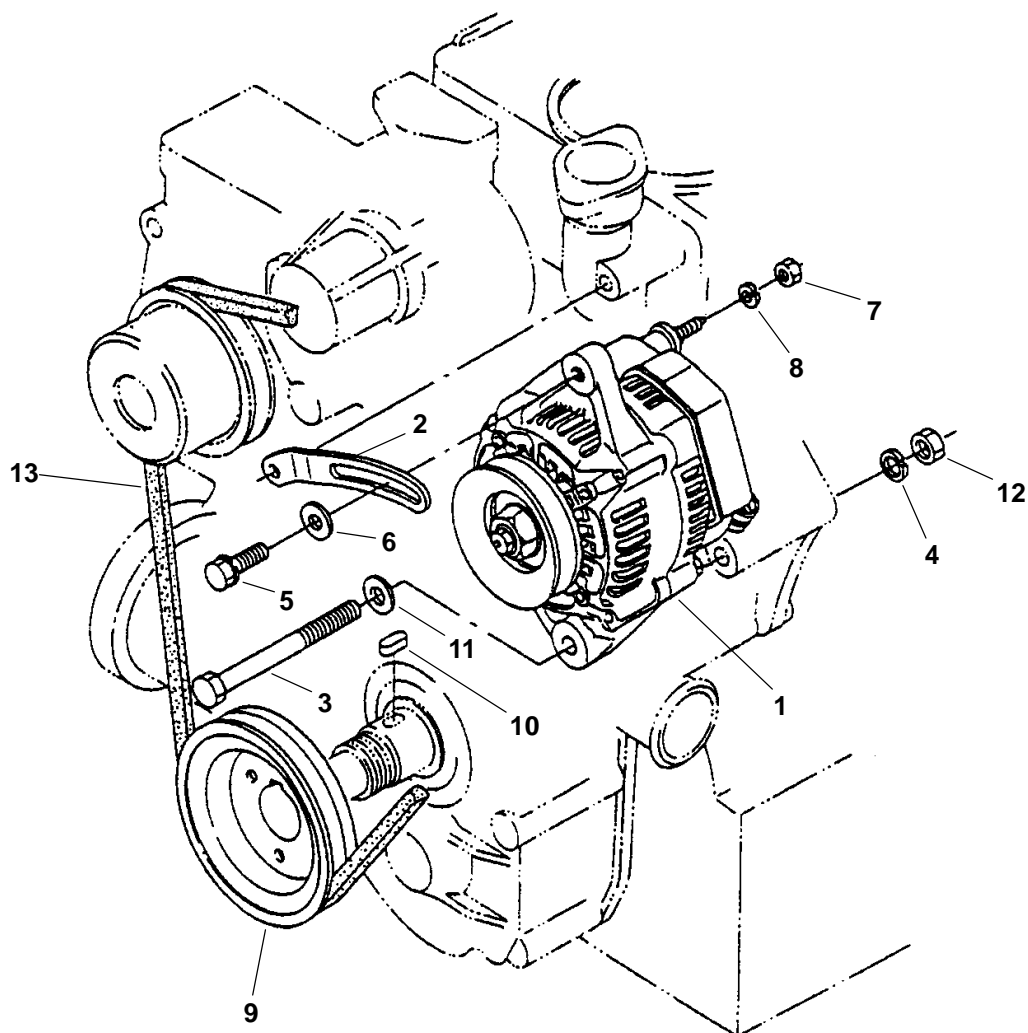
Water Pump



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Pump Assy, Water (Includes Parts Marked *)	9	185-6957	2	Washer, Spring
	185-6006	1	MDKBD, MDKBE	10	185-2367	2	Nut
	185-7061	1	MDKBF	11	185-2389	8	Bolt
2	185-6007	1	*Bearing, Ball	12			Pulley
3	185-7020	1	*Impeller		185-6013	1	MDKBD, MDKBE
4	185-7021	1	*Seal		185-6710	1	MDKBF
5			*Flange	13	185-7062	4	Bolt, Flange
	185-6010	1	MDKBD, MDKBE				
	185-6821	1	MDKBF				
6	185-6011	1	Gasket				
7	185-2404	2	Bolt				
8			Stud				
	185-6012	2	MDKBD, MDKBE				
	185-6012	2	MDKBF				

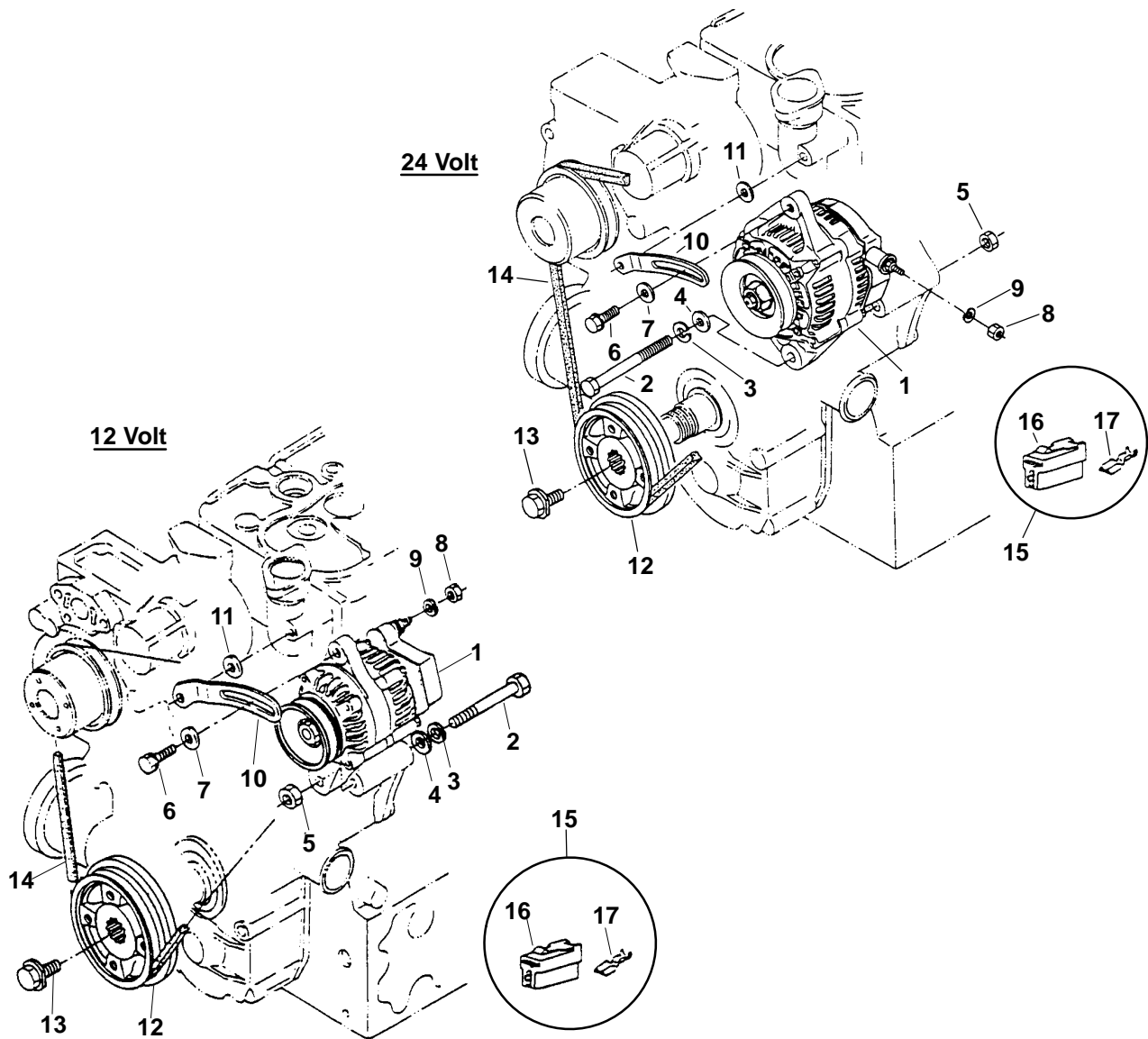
* - Parts Included in Water Pump Assy

**Alternator
MDKBD, MDKBE
(Negative Ground)**



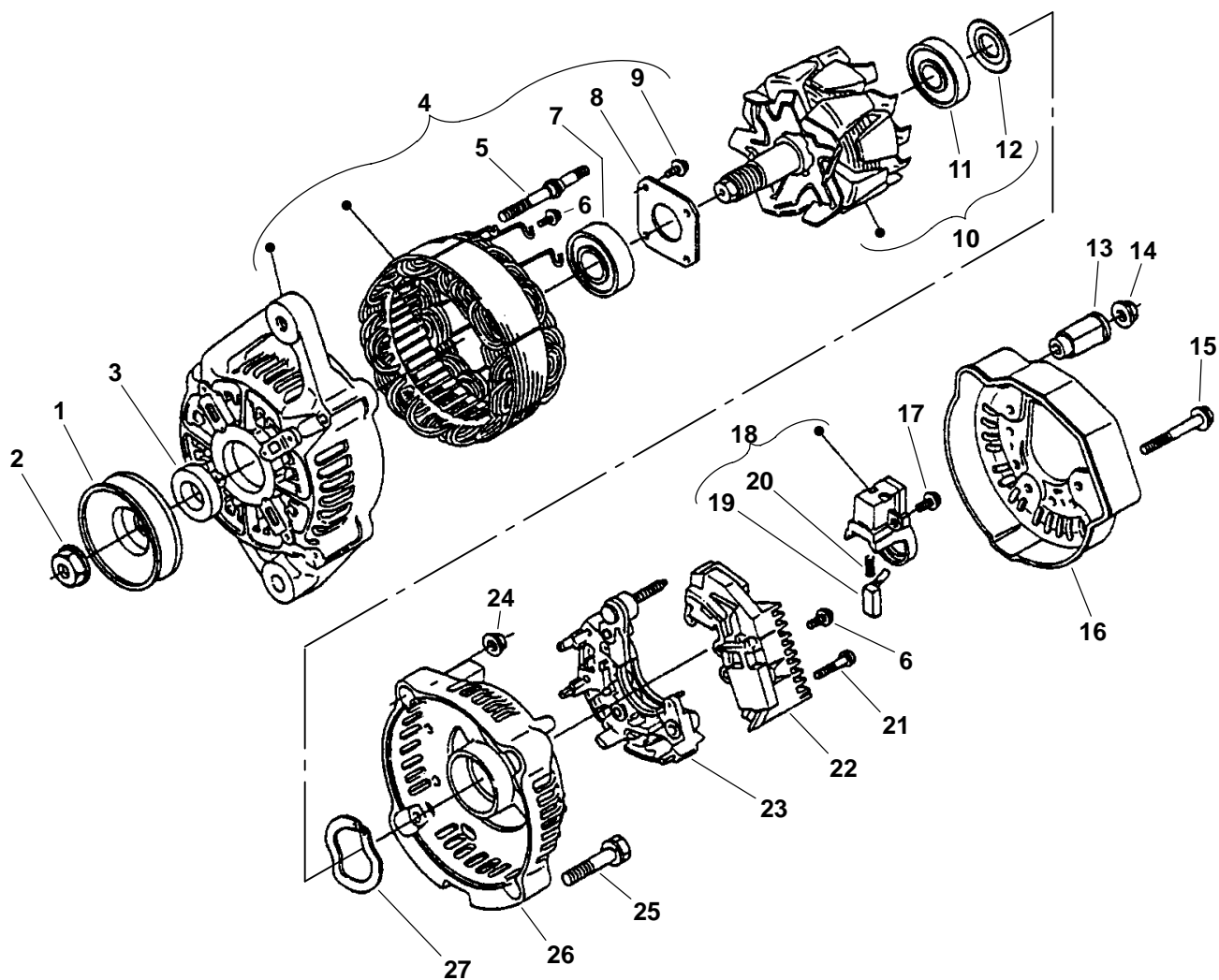
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Alternator, Complete (See Separate Page for Components)	5	185-2564	1	Bolt
	185-5994	1	12V	6	185-6786	1	Washer, Flat
	185-6724	1	24V	7	185-4255	1	Nut
2			Bracket, Adjusting	8	185-2380	1	Washer, Spring
	185-7012	1	12V	9	185-6730	1	Pulley, Fan Drive
	185-6733	1	24V	10	185-5905	1	Key
3			Bolt	11	185-6630	1	Washer, Flat
	185-6734	1	MDKBD	12	185-5445	1	Nut
	185-6183	1	MDKBE	13			Belts
4	185-6785	1	Washer, Spring		185-6184	1	(12V)
					511-0201	1	(24V)

Alternator MDKBF (Negative Ground)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Alternator (See Separate Page for Components)	9	185-6759	1	Washer, Spring
	185-5994	1	12V	10	185-7012	1	Bracket, Adjusting 12V
	185-6724	1	24V		185-6733	1	24V
2	185-7052	1	Bolt	11	185-6228	1	Collar
3	185-6785	1	Washer, Spring	12	185-7053	1	Pulley
4	185-6630	1	Washer, Flat	13	185-7054	1	Bolt
5	185-5445	1	Nut	14	185-7055	1	Belt
6	185-2564	1	Bolt	15	185-5447	1	Coupler Assy
7	185-6786	1	Washer, Flat	16	185-6440	1	Connector
8	185-4255	1	Nut	17	185-6347	1	Terminal

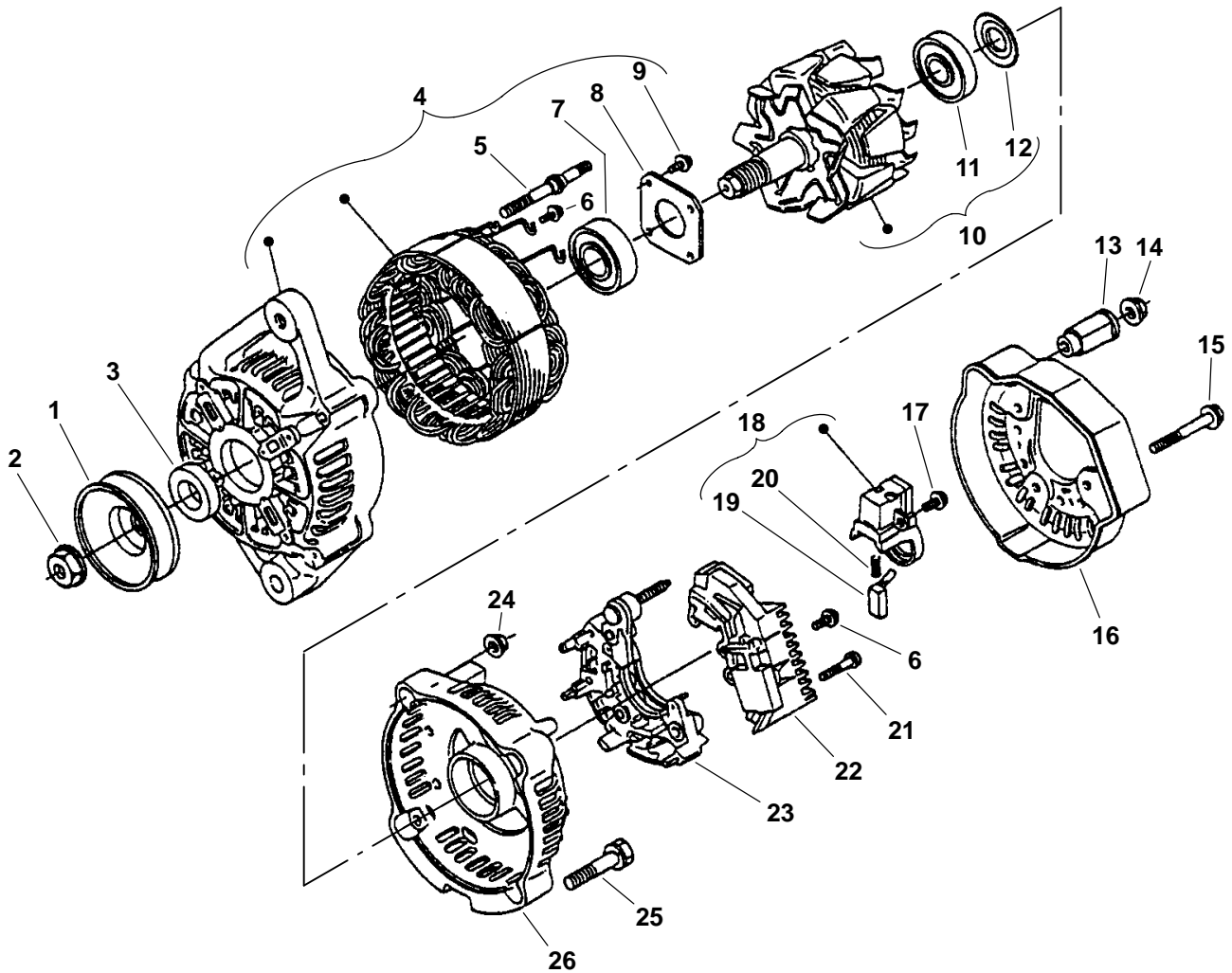
Alternator Components (Negative Ground) (12V)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	185-5994	1	Alternator (12V)	16	185-6189	1	Cover, End
1	185-6186	1	Pulley	17	185-5787	1	Screw, Round Head
2	185-5768	1	Nut	18	185-5782	1	Holder Assy, Brush (Includes Brushes and Springs)
3	185-5769	1	Collar	19	185-5783	2	Brush
4	185-5773	1	Frame, Drive End (Includes Parts Marked *)	20	185-5784	2	Spring, Brush
5	185-7056	2	*Bolt, Through	21	185-5785	2	Screw, Round Head
6	185-5786	6	Screw, Round Head	22	185-5791	1	Regulator
7	185-5777	1	*Bearing	23	185-6190	1	Rectifier
8	185-5774	1	*Plate, Retainer	24	185-5789	2	Nut
9	185-5775	4	*Screw, Round Head	25	185-5790	2	Bolt
10	185-5770	1	Rotor (Includes Bearing and Cover)	26	185-6188	1	Frame, End
11	185-5772	1	Bearing	27	185-6187	1	Washer, Thrust
12	185-5771	1	Cover, Bearing				
13	185-6191	1	Insulation, Brush				
14	185-2961	1	Nut				
15	185-5788	3	Bolt				

* - Parts Included in Drive End Frame

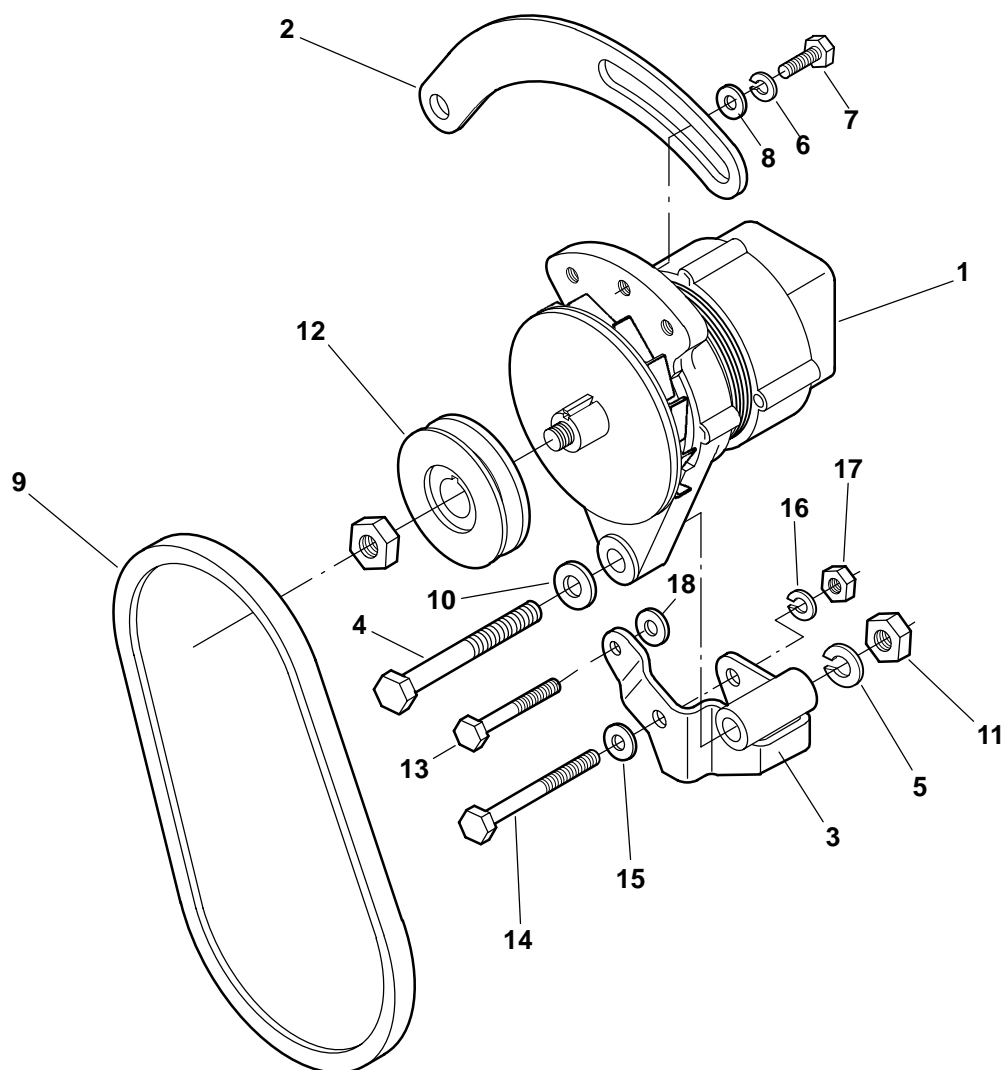
Alternator Components (Negative Ground) (24V)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	185-6724	1	Alternator (24V)	15	185-5788	3	Bolt
1	185-6809	1	Pulley	16	185-6815	1	Cover, End
2	185-5768	1	Nut	17	185-5787	1	Screw, Round Head
3	185-5769	1	Collar	18	185-6819	1	Holder Assy, Brush (Includes Brushes and Springs)
4	185-6812	1	Frame, Drive End (Includes Parts Marked *)	19	185-5783	2	Brush
5	185-7056	2	*Bolt, Through	20	185-5784	2	Spring, Brush
6	185-5786	6	Screw, Round Head	21	185-5785	2	Screw, Round Head
7	185-6813	1	*Bearing	22	185-6820	1	Regulator
8	185-5774	1	*Plate, Retainer	23	185-6816	1	Rectifier
9	185-5775	4	*Screw, Round Head	24	185-5789	2	Nut
10	185-6810	1	Rotor (Includes Bearing and Cover)	25	185-5790	2	Bolt
11	185-6811	1	Bearing	26	185-6814	1	Frame, End
12	185-5771	1	Cover, Bearing				
13	185-5781	1	Insulation, Brush				
14	185-2961	1	Nut				

* - Parts Included in Drive End Frame

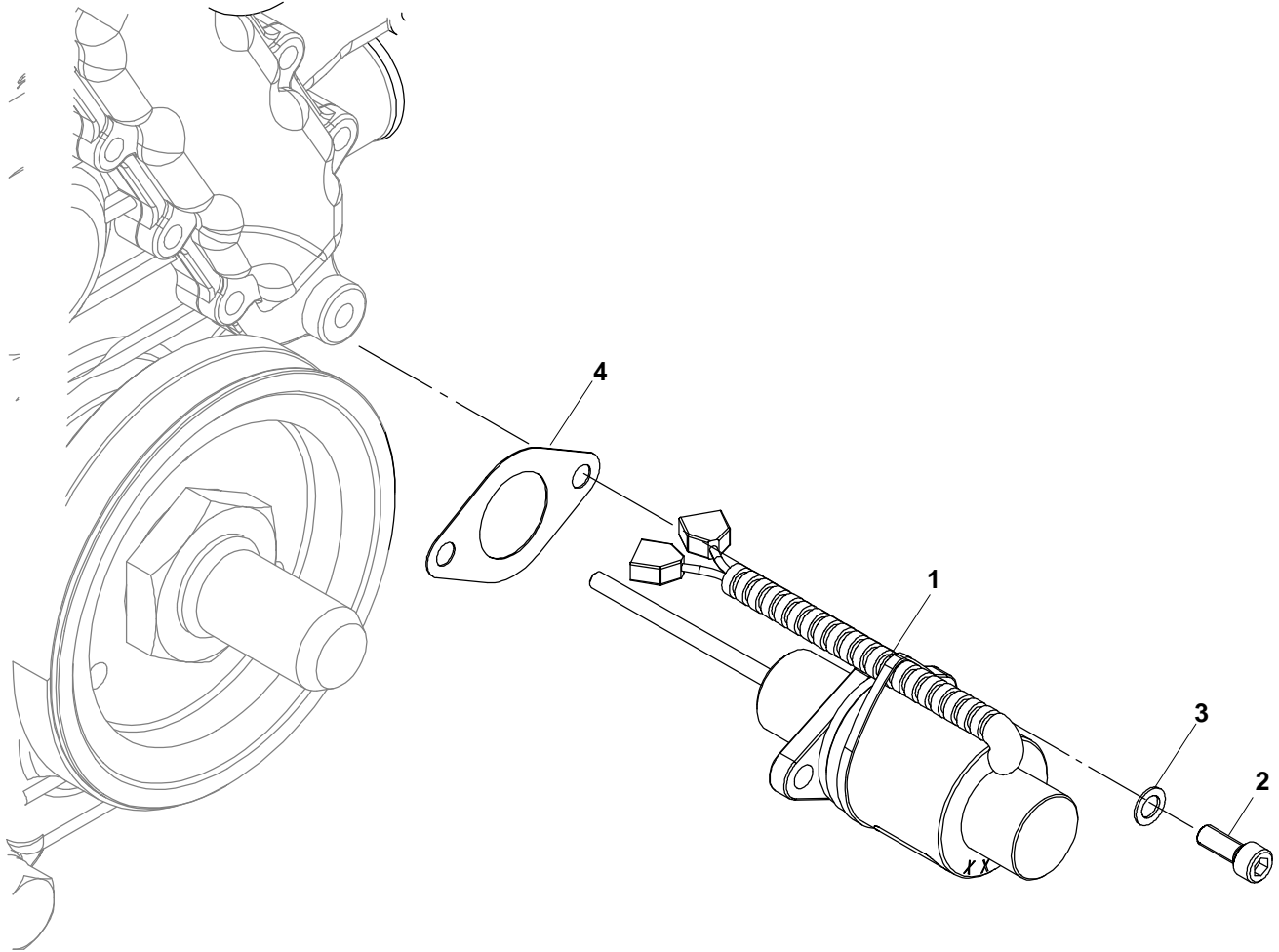
Alternator (Isolated Ground) (12V/24V)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Alternator, Complete (No Components Available)	12	191-2170	1	Pulley, Alternator
	191-2169-02	1	12V	13	800-2069	1	Screw, Hex Head Cap (M8 x 80mm) (MDKBD, MDKBE)
	191-2169-01	1	24V		800-2071		(M8 x 90mm)(MDKBF)
2	191-2168-03	1	Strap, Alternator	14	800-2100	1	Screw, Hex Head Cap (M10 x 100)
3	191-2167-03	1	Bracket, Alternator	15	526-2120	1	Washer, (M10)
4	800-0104	1	Screw, Hex Head Cap (1/2-13 x 4-1/2")	16	850-2010	1	Washer, Lock (M10)
5	850-0060	1	Washer, Lock (1/2")	17	850-2009	1	Nut, Hex (M10)
6	526-0045	1	Washer, Flat (5/16")	18	526-0313	1	Washer (MDKBF)
7	800-0027	1	Screw, Hex Head Cap (5/16-18 x 7/8")				
8	850-0045	1	Washer, Lock (5/16")				
9	511-0211	1	Belt				
10	526-0219	1	Washer, Flat (1/2")				
11	862-0016	1	Nut (1/2-13)				

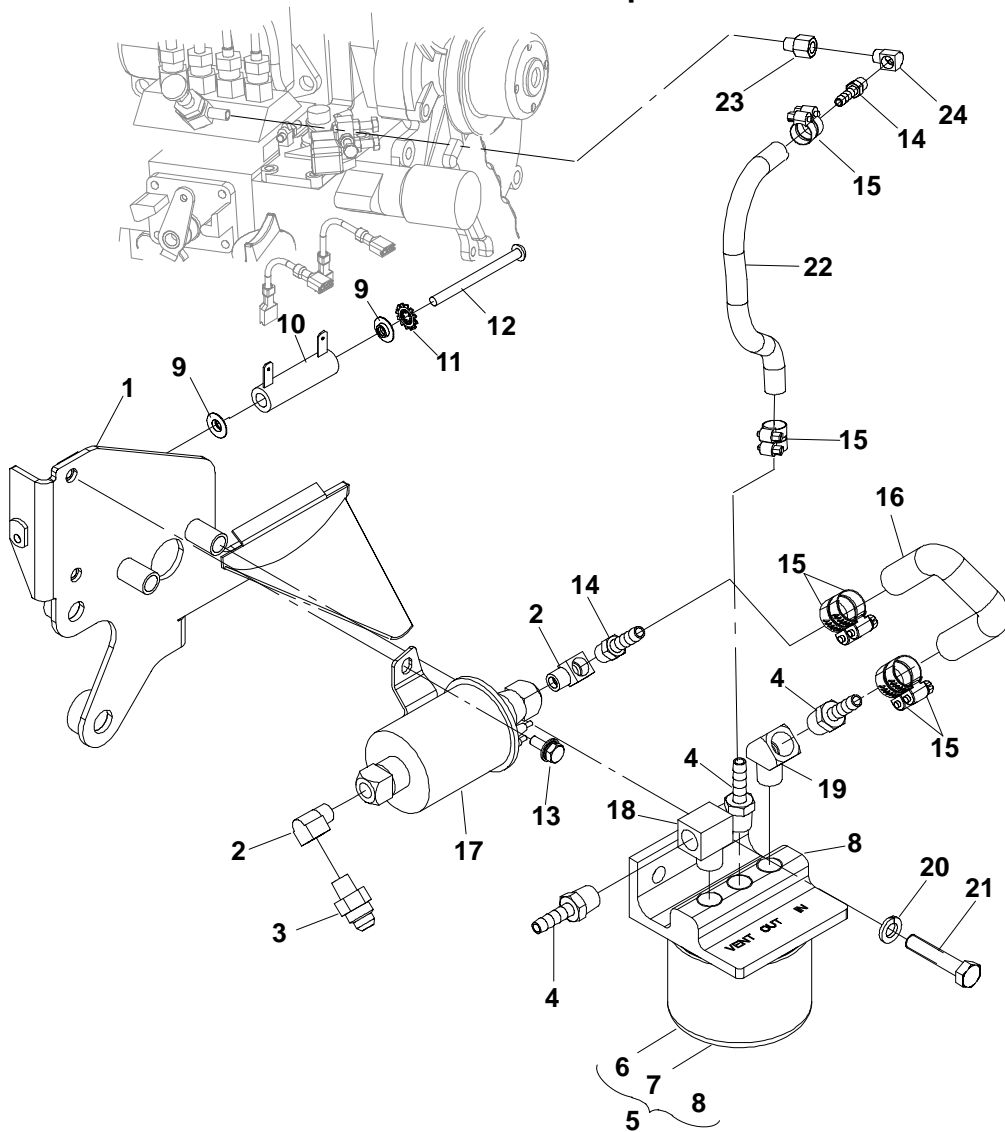
* - Alternator ties to G2-GND, Iso Ground Harness (See Isolated Ground 338-4200-01)

Governor Actuator



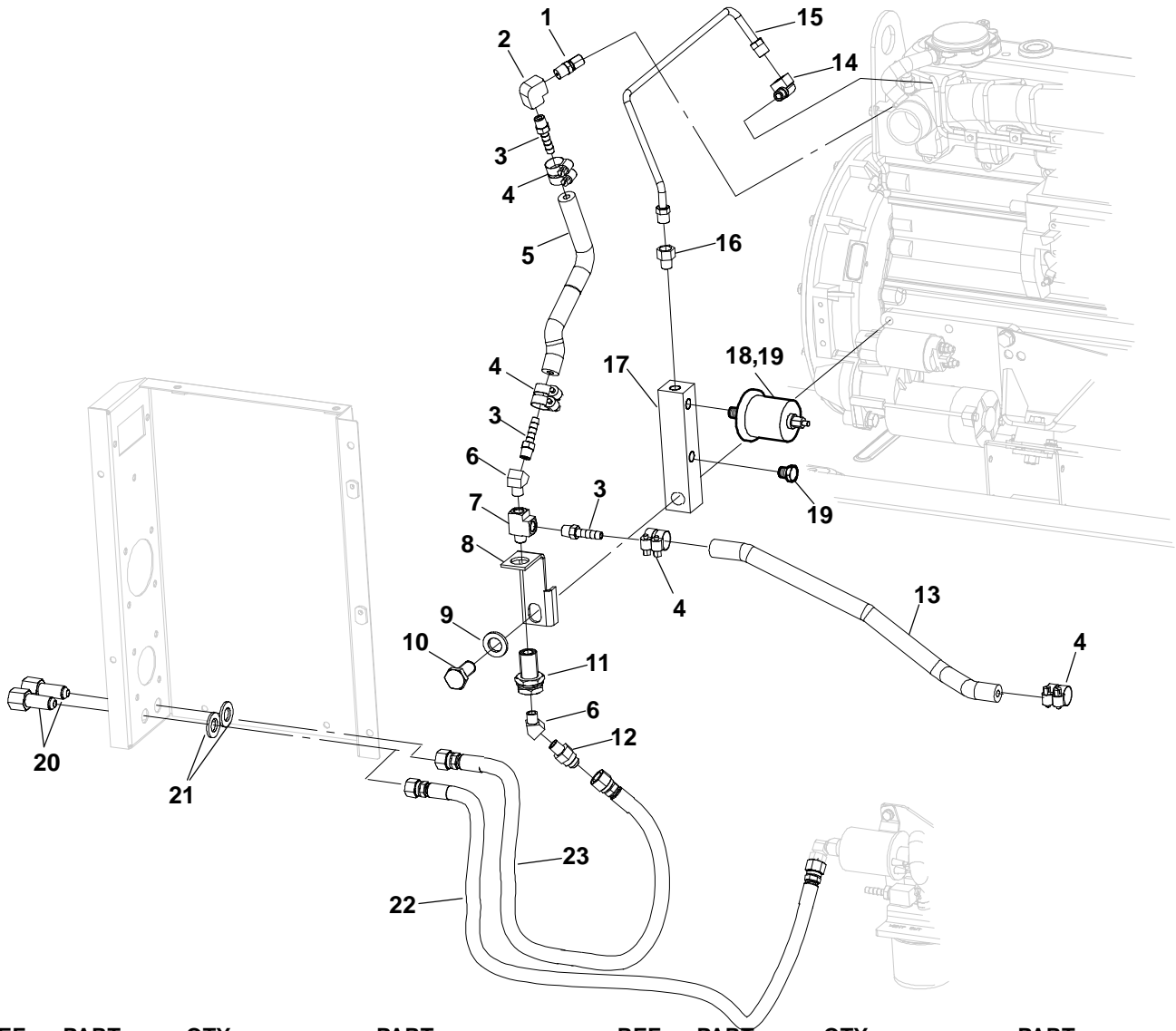
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	306-5005-01	1	Actuator, Governor (12V)
	306-5005-02	1	(24V)
2	725-1027	2	Screw, Socket Head Cap (M6 x16mm)
3	526-0063	2	Washer, Copper (1/32")
4	184-0071	1	Gasket, Solenoid Cover

Fuel Pump



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	149-2703-03	1	Bracket, Fuel Pump	13	821-6002-02	2	Screw, Hex Flange (M6 x 1 x 14)
2	502-0020	3	Elbow, Pipe	14	502-1367-01	3	Connector, Hose
3	505-1490	1	Connector, Male	15	503-2309	4	Clamp, Hose
4	502-1367-02	3	Connector, Hose	16	503-2200-01	1	Hose, Fuel
5	149-2634-01	1	Filter, Fuel (Includes Element, Plug and Filter Base)	17	149-2646	1	Pump, Fuel
6	149-2106	1	Element	18	502-0054	1	Elbow, Street Pipe
7	502-0028	1	Plug, Drain	19	502-0156	1	Elbow, 45° Street
8	149-2635	1	Base, Filter	20	850-2008	2	Washer, Lock Split (M8)
9	304-0796	2	Washer, Centering (24V)	21	800-2061	2	Screw, Hex Head (M8 x 1.25 x 40)
10	350-1238	1	Resistor (3.8 ohms) (24V) (R6)	22	503-2200-02	1	Hose, Fuel (1/4" x 13.26)
11	856-0003	1	Washer, EIT (#10) (24V)	23	502-0175	1	Adapter, Pipe (1/8"NPT)
12	813-0112	1	Screw, Round Head Machine (#10-32 x 2.5") (24V)	24	502-0020-01	1	Elbow, Pipe

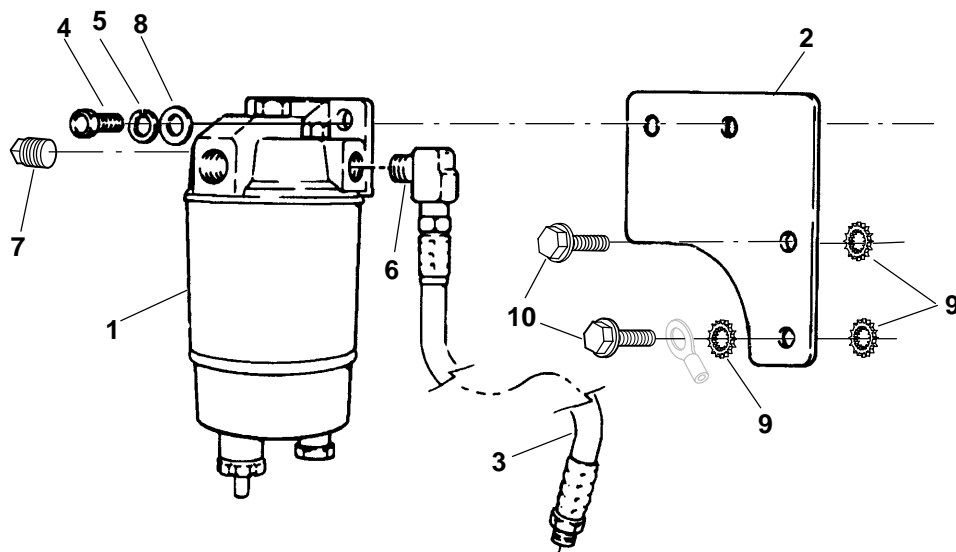
Fuel Return, Oil Sender



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	149-2654	1	Kit, Fuel Adapter (5/16" Hose)	17	120-1319	1	Manifold, Oil Pressure
	149-2655	1	Kit, Fuel Adapter (3/8" Hose)	18			Sender, Oil Pressure
1	502-1245	1	Adapter, Pipe	193-0244	1		Neg Ground with Gauges
2	502-0055	1	Elbow, Inverted Female	193-0430-01	1		Iso Ground with Gauges
3	502-1367-01	3	Connector, Hose	19			Plug, Hex Head Pipe
4	503-2309	4	Clamp, Hose	502-0028	2		without Gauges
5	503-2200-01	1	Hose, Fuel (1/4" x 7.54")	502-0028	1		with Gauges
6	502-0053	2	Elbow, 45° Street	20	505-1489	2	Connector, Female Bulkhead
7	502-1368	1	Tee, Street (1/8 NPT)	21	526-0406	2	Washer, Flat (M14)
8	149-2489-02	1	Support, Fuel Return	22			Line, Fuel
9	526-0399-64	1	Washer, FI (M12)	501-0672-05	1		MDKBD, MDKBE
10	800-3029	1	Screw, Hex Head Cap (M12 x 1.25 x 45mm)	501-0672-06	1		MDKBF
11	502-1244	1	Coupling, Anchor	23			Line, Fuel
12	505-1490	1	Connector, Male	501-0672-02	1		MDKBD, MDKBE
13	503-2200-05	1	Hose, Fuel (1/4" x 20")	501-0672-04	1		MDKBF
14	503-1309	1	Elbow, Inverted Male				
15	122-0813	1	Line, Oil				
16	503-0003	1	Connector, Male IN				

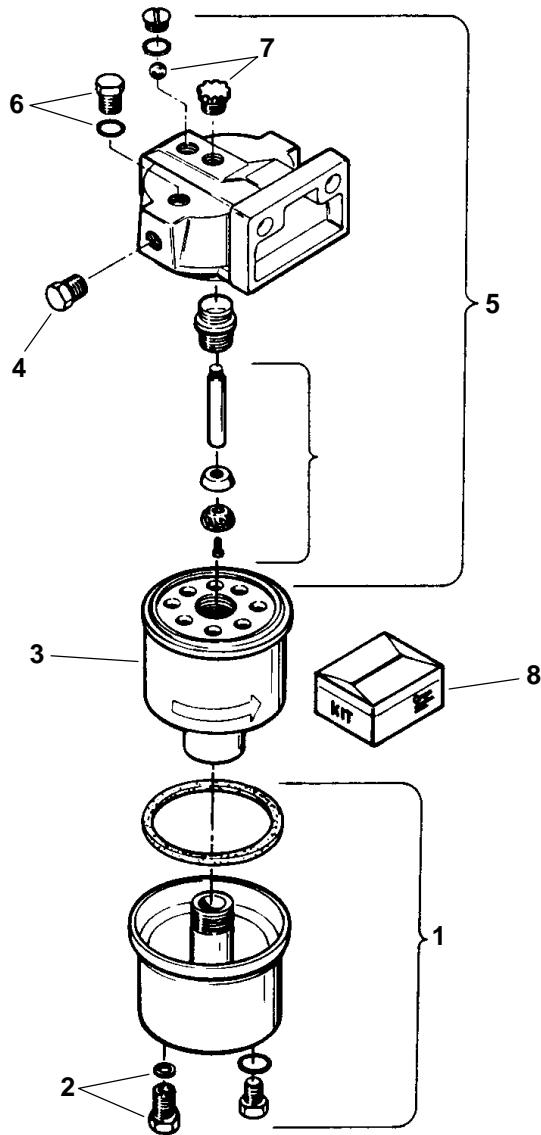
* - Oil Sender ties to E1-2, Iso Ground Harness
(See Isolated Ground 338-4200-01)

Remote Water Separator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	149-2313	1	Kit, Remote Fuel/Water Separator	5	850-2008	2	Washer, Lock (M8)
1	149-1908-05	1	Separator, Fuel/Water (See Separate Page for Components)	6	502-0054	1	Elbow, Street 90° (1/4 NPT)
2	149-2312	1	Bracket, Separator Mounting	7	502-0153	1	Plug, Hex Pipe (1/4 NPT)
3	501-0578	1	Line, Flex Fuel	8	526-2100	2	Washer, Flat (M8)
4	718-1040	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	9	856-0012	3	Washer, EIT (7/16")
				10	718-1055	2	Screw, Hex Head Cap (M10 x 1.5 x 30mm)

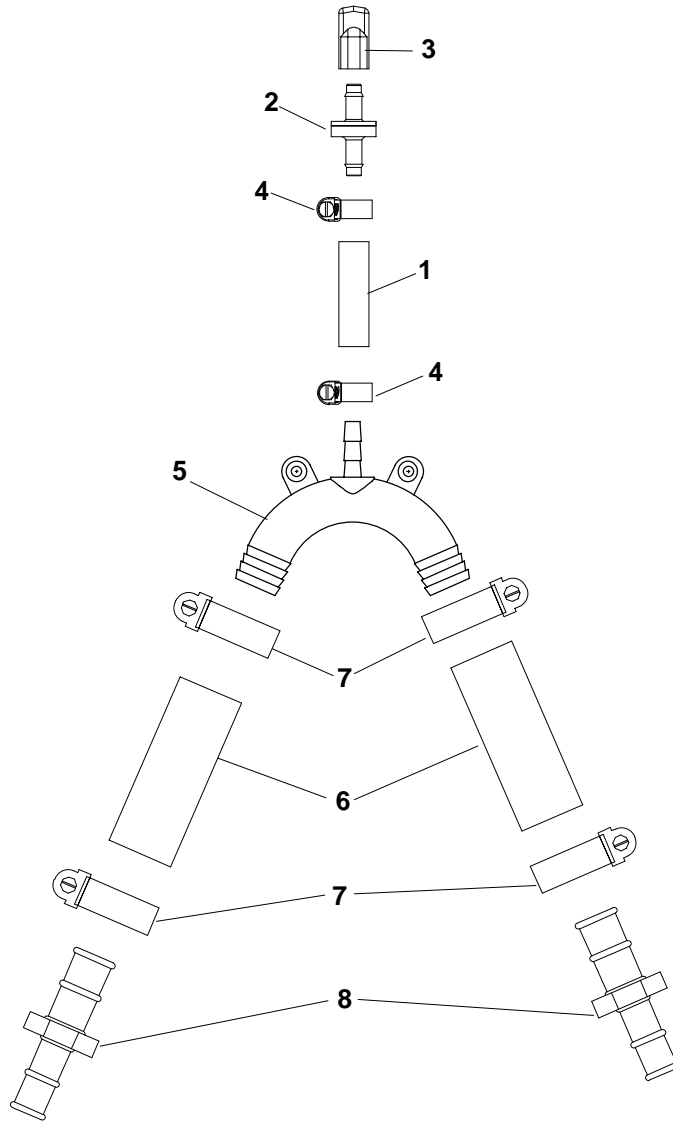
Water Separator Components



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	Pump Assy (Includes Plunger, Retainer, Shaft, Check Ball, Knob and Screw)
2	149-1953	1	Drain Assy (Includes Knob and Seal)	8	149-2045	1	O'Ring Kit (Includes Seal and Plunger)
3	149-1914-05	1	Element (Includes Seals)				
4	502-0153	1	Plug, Hex (1/4")				
5	149-1949	1	Head Assy, Replacement (Includes Vent Plug, O-Rings, Seal, Cap, Tube and Pump Assy)				

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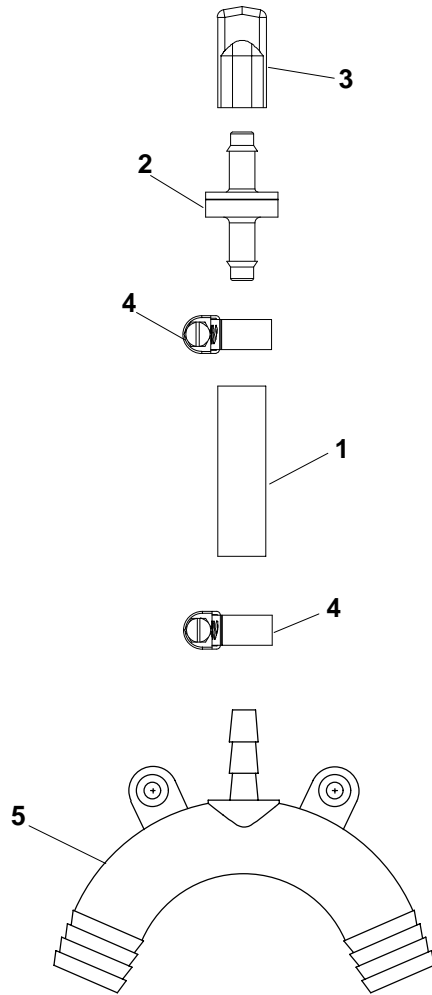
Break Siphon MDKBD, MDKBE



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0863-01	1	Kit, Siphon Break	7	503-0977	10	Clamp, Hose
1	503-2352	1	Hose, Coolant	8	502-1450	2	Adapter, Hose
2	504-0223	1	Valve, Check	9	508-1102	2	*Grommet, Rubber
3	502-1425-02	1	Cap, Tube				
4	503-2309	2	Clamp, Hose				
5	502-1463	1	Connector, Hose				
6	503-2394	2	Hose, Water				

* - Parts not shown but included in kit.

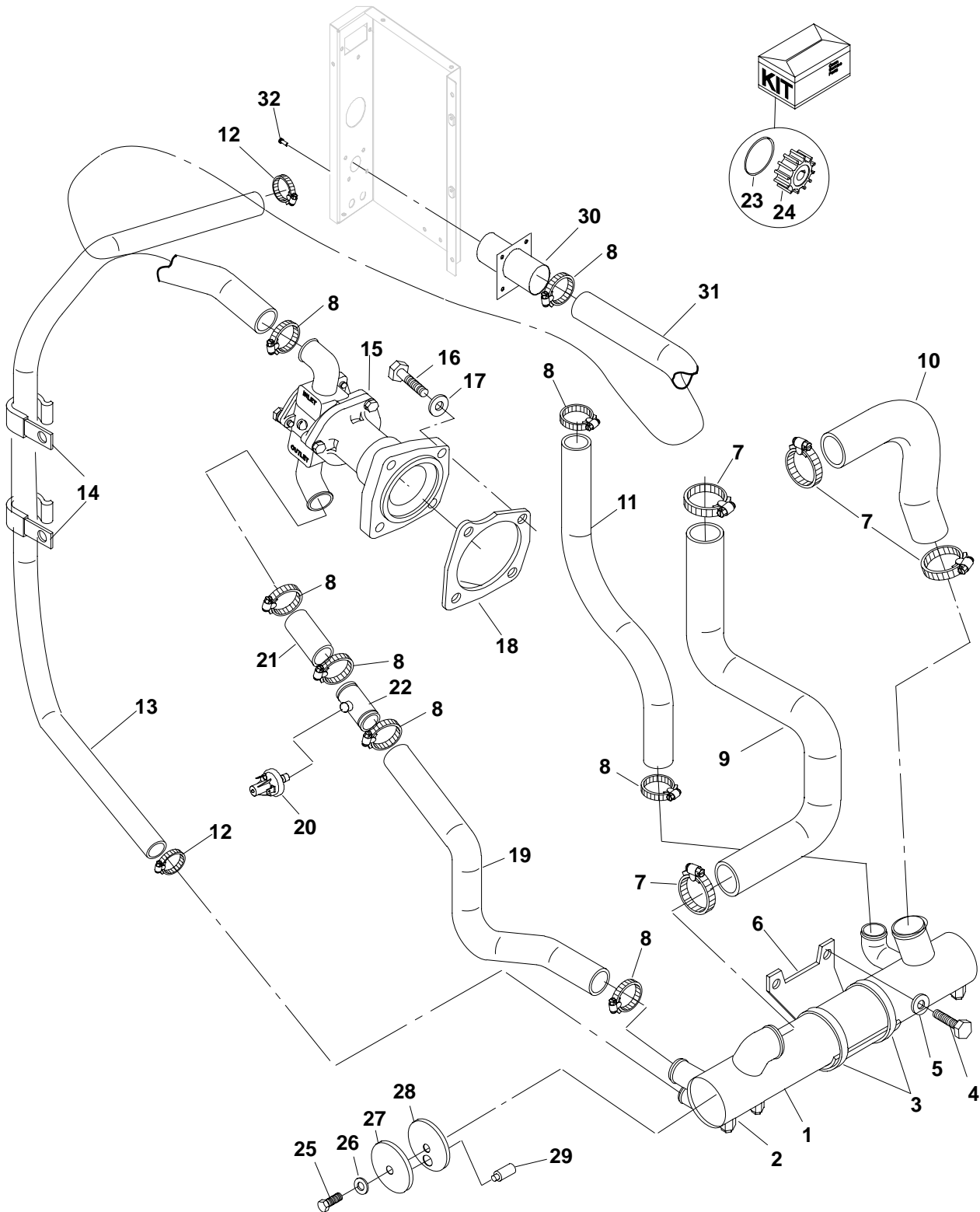
Break Siphon MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0876	1	Kit, Siphon Break	6	503-0977	2	*Clamp, Hose
1	503-2352	1	Hose, Coolant	7	508-1102	2	*Grommet, Rubber
2	504-0223	1	Valve, Check				
3	502-1425-02	1	Cap, Tube				
4	503-2309	2	Clamp, Hose				
5	502-1463	1	Connector, Hose				

* - Parts not shown but included in kit.

Heat Exchanger



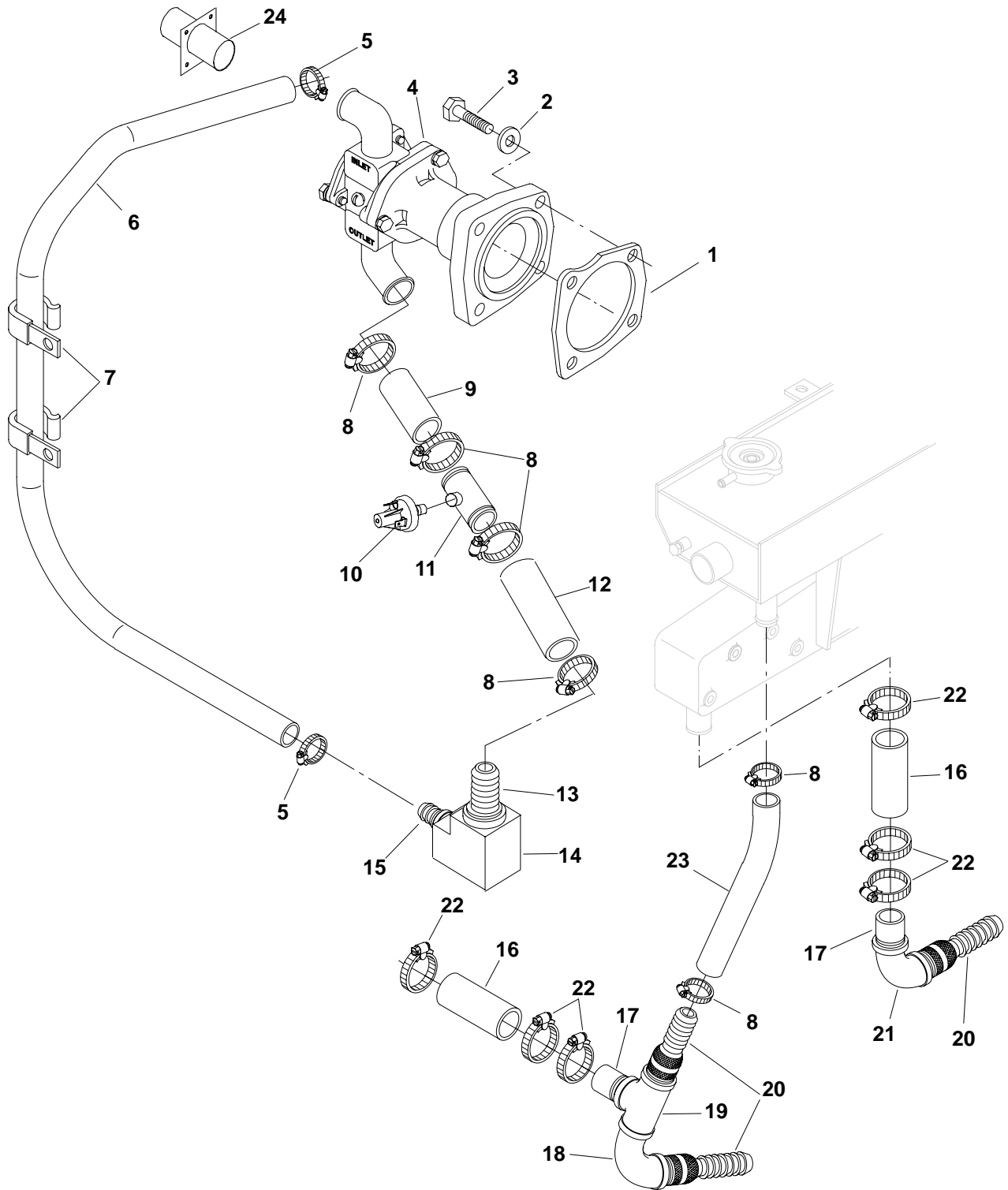
Heat Exchanger

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	132-0349	1	Kit, Minor Service (Includes O'Rings and Impeller)	16	800-2057	4	Screw, Hex Head Cap (M8 x 1.25 x 20)
	130-5012	1	+Kit, End Cover (Includes Parts Marked *)	17	526-2100	4	Washer, Flat (M8)
	130-4979	1	Kit, Heat Exchanger Zinc Pencil (Includes Parts Marked +)	18	132-0346	1	Gasket, Water Pump
			(MDKBD, MDKBE)	19			Hose, Water Pump (1")
1			Exchanger, Heat		503-2347	1	MDKBD, MDKBE
	130-5006-02	1	MDKBD, MDKBE		503-2349	1	MDKBF
	130-5007-02	1	MDKBF	20	309-0667	1	Switch, Pressure
2	130-4434	1	Pencil, Zinc (w/Screw)	21	503-2350-01	1	Hose, Coolant
3			Clamp, Hose	22	130-5387-01	1	Tube, Low Pressure Switch
	503-1143	2	(3")MDKBD, MDKBE	23	132-0293	1	O'Ring
	503-1144	2	(3.25")MDKBF	24	132-0348	1	Impeller
4	800-2057	2	Screw, Hex Head Cap (M10 x 1.25 x 20mm)	25	800-0317	1	+Screw, Hex Head (5/16-18 x 3/4")
5	526-2120	2	Washer, Flat (M10)	26	850-0165	1	+Washer, Lock (5/16")
6			Bracket, Heat Exchanger	27			*Cover, Heat Exchanger W/O Zinc Pencil Boss)
	130-4234-03	1	MDKBD, MDKBE		130-4567	1	W/O Zinc Pencil Boss)
	130-4628-03	1	MDKBF		130-4962-01	1	W/Zinc Pencil Boss)
7	503-1138	4	Clamp, Hose (1-3/8")	28			*Gasket, Cover
8	503-1137	8	Clamp, Hose (1")		130-4566	1	W/O Zinc Pencil Hole
9	503-1977	1	Hose, Exhaust Manifold (1-3/8") (Includes Sleeving)		130-4960	1	W/Zinc Pencil Hole
10			Hose, Engine Coolant (1-3/8")	29	130-4961	1	*Pencil, Zinc (w/o Screw)
	503-1896	1	MDKBD, MDKBE	30	405-7211	1	Connector, Bulkhead
	503-1998	1	MDKBF	31			Hose, Coolant
11	503-0501	1	Hose, Coolant Tank Lower (1" x 22")		503-2350-02	1	1333.5mm Length MDKBD, MDKBE
12	503-0977	2	Clamp, Hose		503-2350-04	1	1765.3mm Length MDKBF
13			Hose, Mixer	32	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
	503-2122	1	(3/4 x 43") MDKBD, MDKBE				
	503-2027	1	(5/8 x 43") MDKBF				
14	332-2634	2	Clamp, "J"				
15	132-0413	1	Pump, Raw Water (See Separate Page for Components)				

+ - Parts Included in Heat Exchanger Zinc Pencil Kit.

* - Parts Included in End Cover Kit

Keel Cooling (Wet Exhaust)

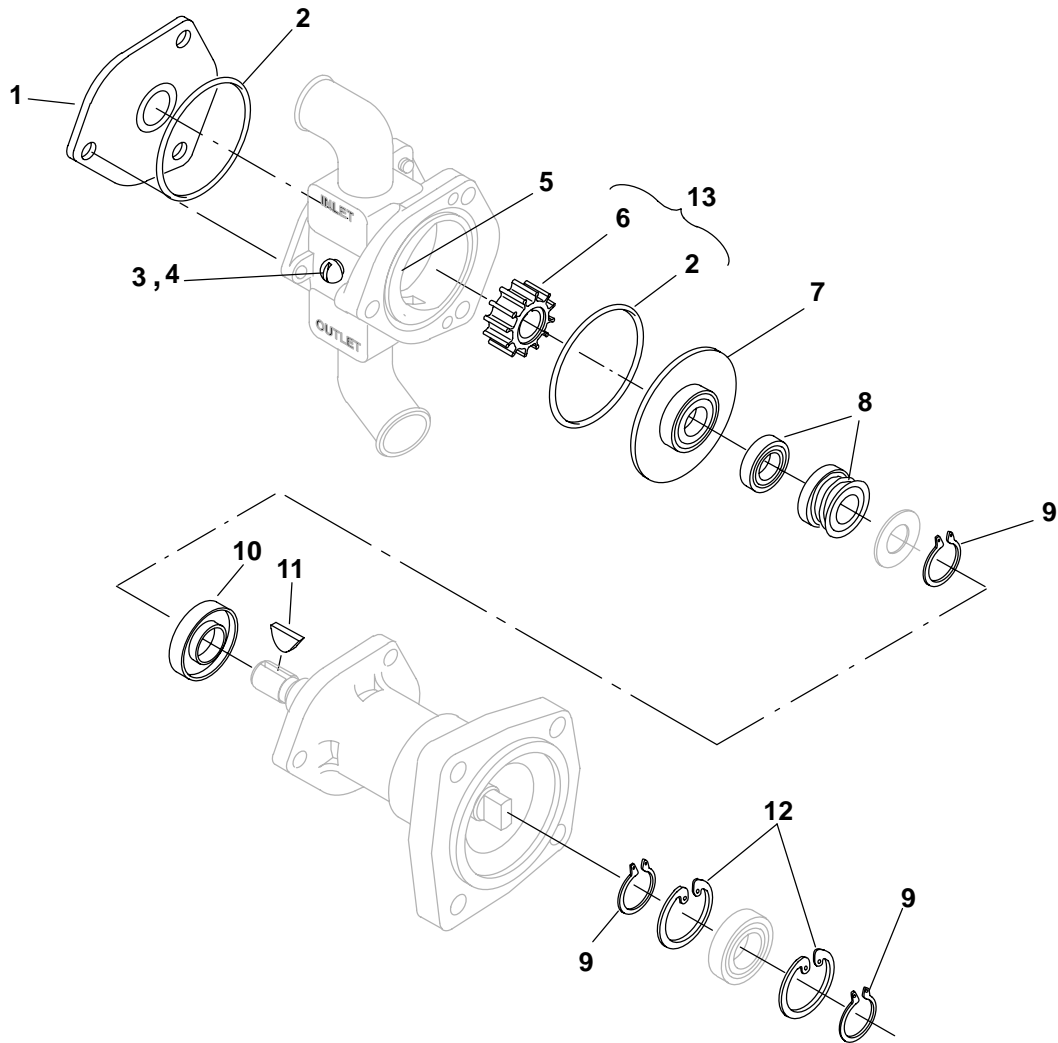


Keel Cooling (Wet Exhaust)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-3148-02	1	Kit, Keel Cooling (Includes Parts Marked *)	11	130-5387-01	1	Tube, Low Pressure Switch
	132-0350	1	Kit, Water Pump Service (Includes Impeller and O'Ring, Wear Plate, Cover, Lip Seal, Cam, Seal Washer, Cam Screw, and Key) (MDKBF)	12	503-2025-02	1	Hose , Lower Coolant (Cut to Fit)
1	132-0346	1	Gasket, Water Pump	13	502-1295-02	1	*Adapter (3/4" NPT x 1" Barb)
2	526-2100	4	Washer, Flat (M8)	14	502-1298-02	1	*Elbow, 90°
3	800-2057	4	Screw, Hex Head Cap (M8 x 20mm)	15			*Adapter (3/4"NPT)
4	132-0413	1	Pump, Raw Water		502-1295-01	1	5/8" Barb (MDKBD, MDKBE)
5	503-0977	2	Clamp, Hose		502-1295-03	1	3/4" Barb (MDKBF)
6	503-2122	1	Hose MDKBD, MDKBE (3/4" x 36")	16	503-2023	2	*Hose, Coolant (1-3/8" x 4")
	503-1013	1	MDKBF	17	505-0446-01	2	*Nipple, Half
7	332-2634	2	Clamp, "J"	18	505-0003	1	*Elbow
8	503-1137	4	*Clamp, Hose (1")	19	505-0304	1	*Tee
9	503-2350-01	1	*Hose, Outlet (1" x 3")	20	505-1509	3	*Barb, Hose
10	309-0667	1	Switch, Pressure	21	505-0041	1	*Elbow
				22	503-1138	6	*Clamp, Hose (1-3/8")
				23	503-2025-01	1	Hose, Coolant (1" x 10")
				24	405-7211	1	Connector, Bulkhead

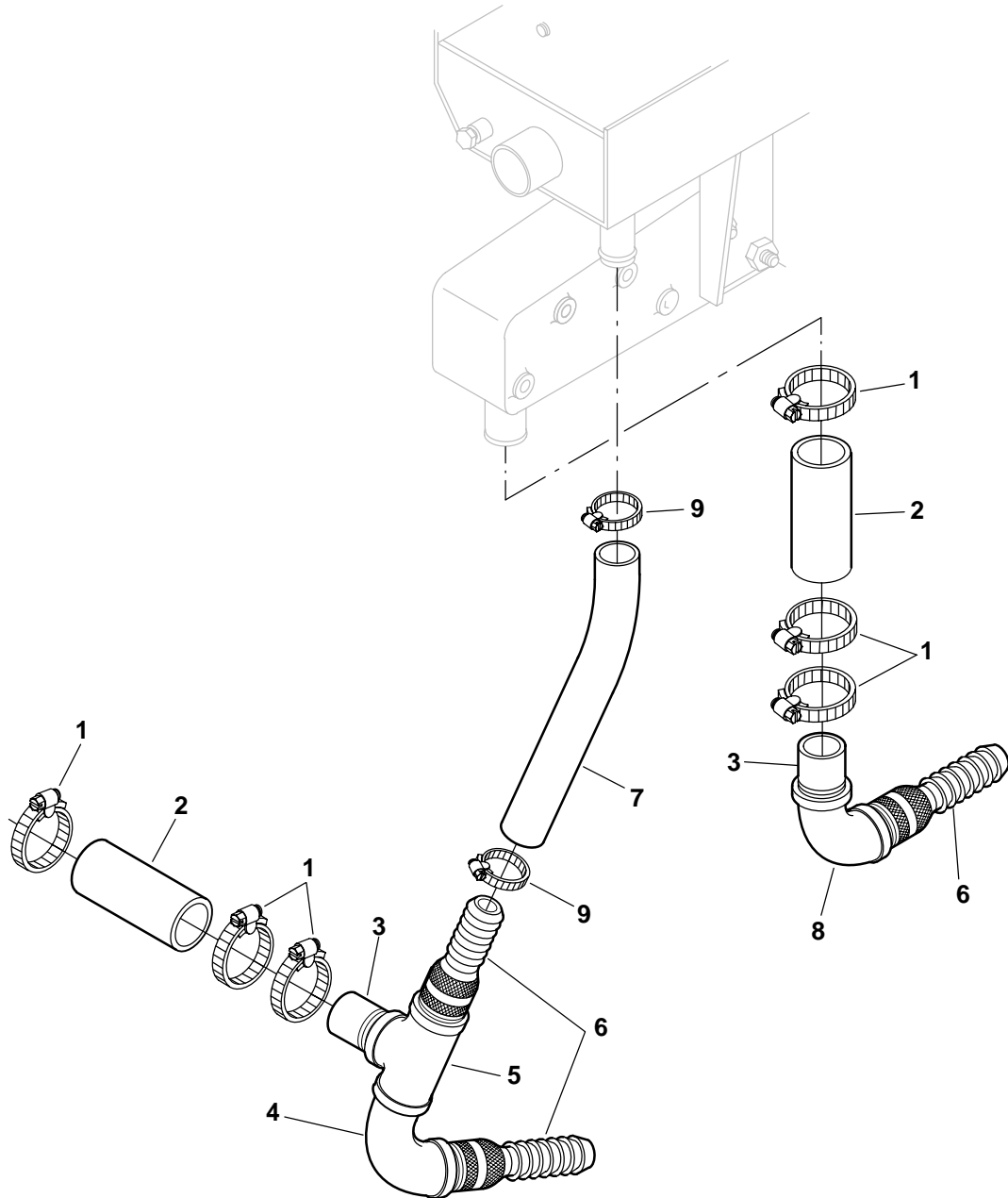
* - Parts Included in Keel Cooling Kit.

Water Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	132-0414	1	Kit, Major Service	8	132-0387	1	Seal, Seat Assy
1	132-0386	1	Cover	9	132-0393	3	Ring, Retaining
2	132-0293	2	O'Ring	10	132-0394	1	Seal, Lip
3	132-0390	1	Screw, Cam	11	132-0391	1	Key
4	132-0389	1	Washer, Seal	12	132-0392	2	Ring, Retaining
5	132-0388	1	Cam	13	132-0349	1	Kit, Minor Water Pump Service (Includes Impeller and O'Ring)
6	132-0348	1	Impeller				
7	132-0385	1	Plate, Wear				

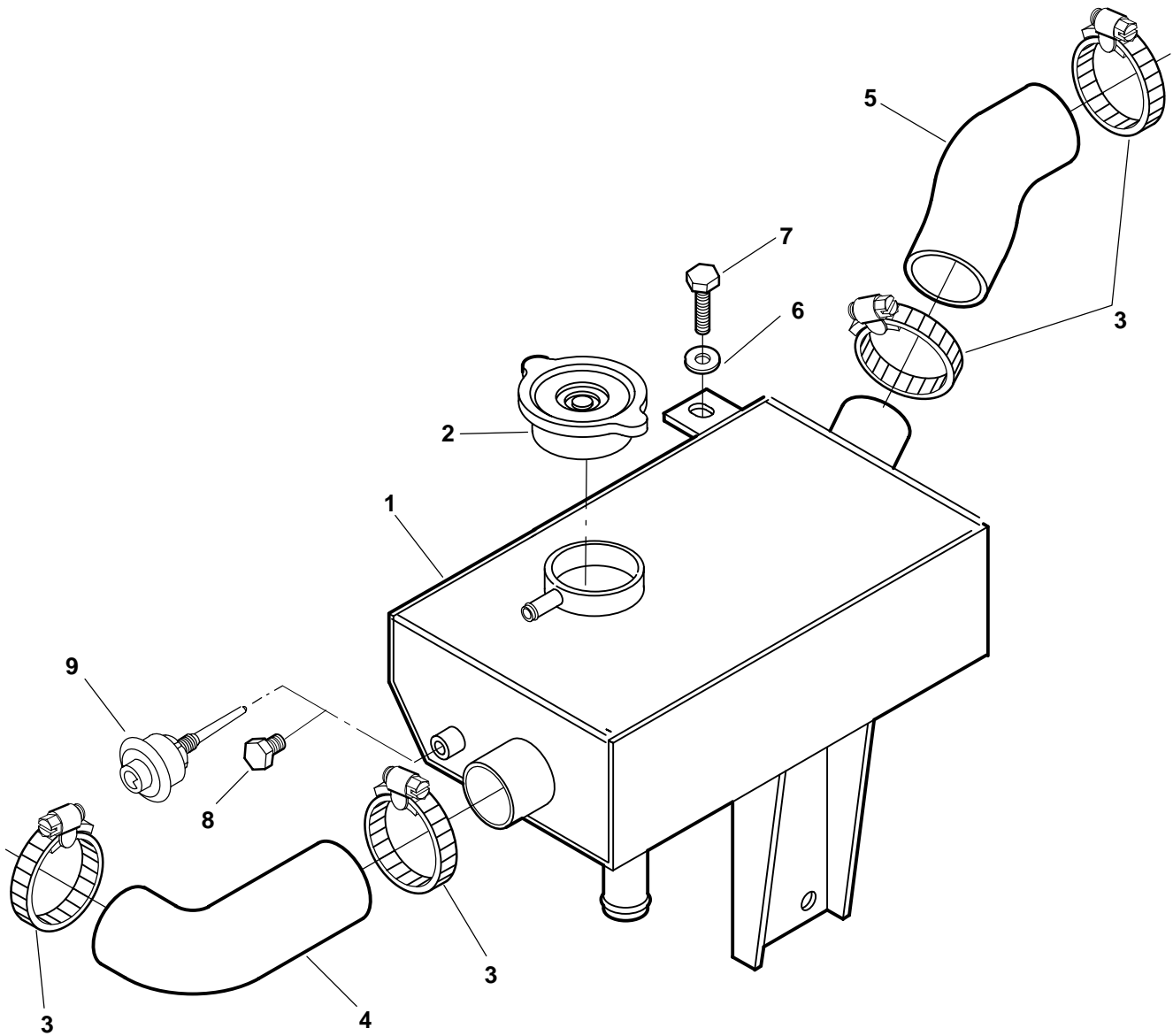
Keel Cooling System (Dry Exhaust)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-3284	1	Kit, Exhaust	7	503-2025-01	1	*Hose, Coolant (1" x 10")
	155-3087	1	Kit, Keel Cooling (Includes Parts Marked *)	8	505-0041	1	*Elbow
1	503-1138	6	Clamp, Hose (1-3/8")	9	503-1137	2	Clamp, Hose (1")
2	503-2023	2	*Hose, Coolant (1-3/8" x 4")				
3	505-0446-01	2	*Nipple, Half				
4	505-0003	1	*Elbow				
5	505-0304	1	Tee				
6	505-1509	3	*Barb, Hose				

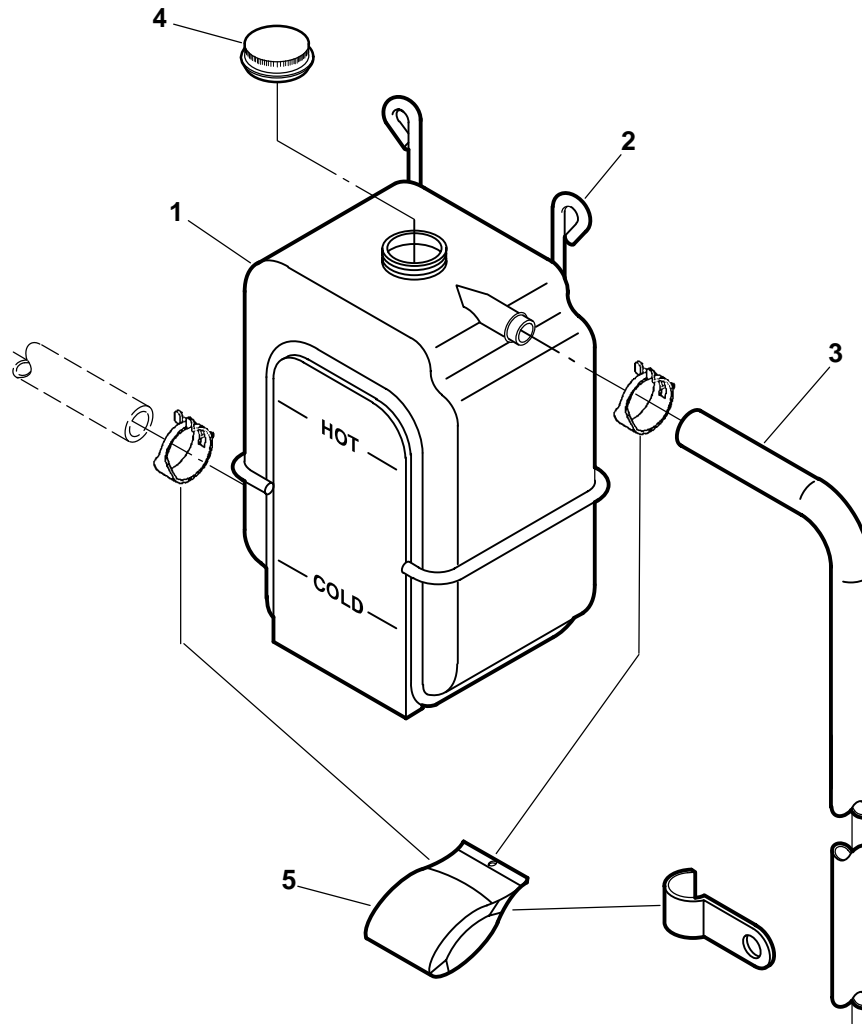
* - Parts Included in Keel Cooling Kit. (Also Includes Cover, Gasket and Hardware Found on Cylinder Block Page.)

Coolant Tank



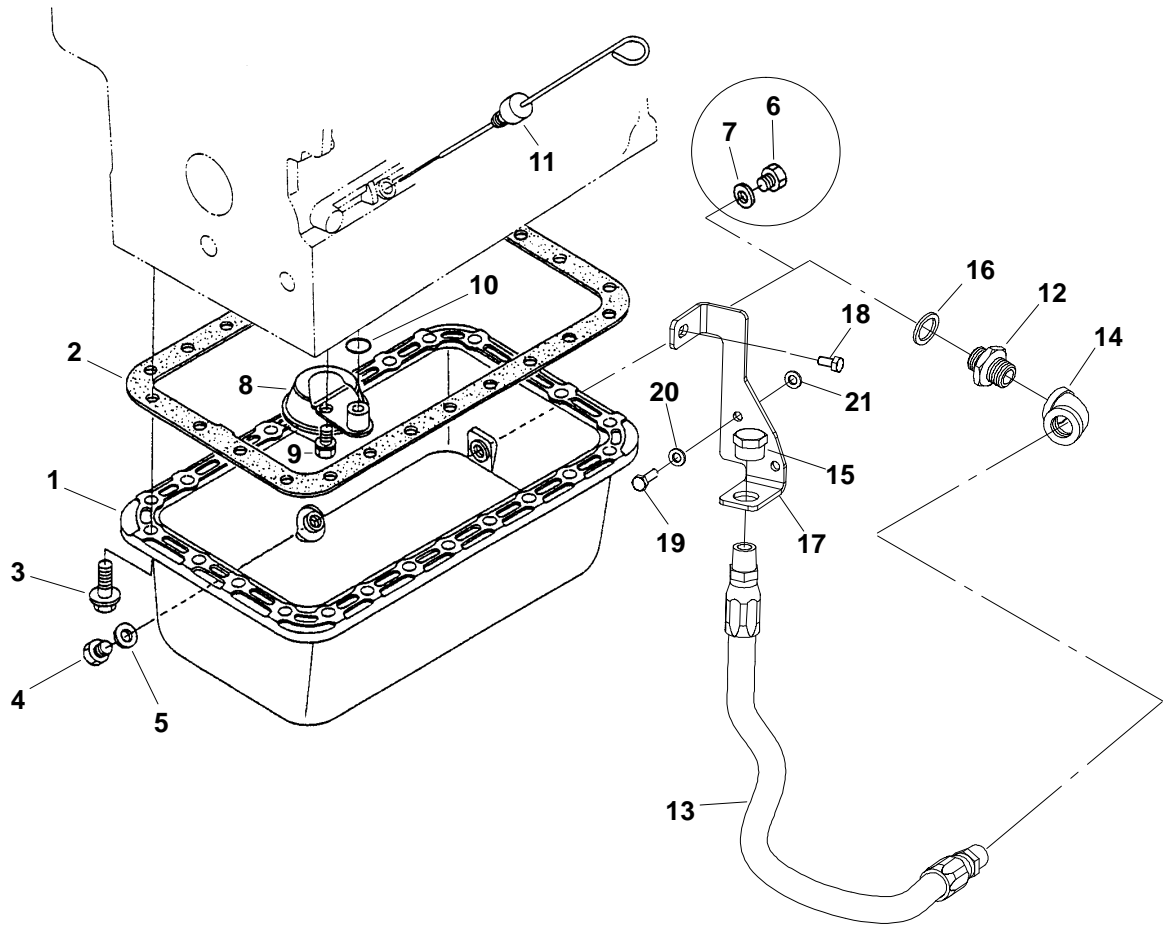
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4881-02	1	Tank, Coolant	7	800-2054	1	Screw, Hex Head Cap (M8 x 1.25 x 14mm)
2	130-3721	1	Cap, Tank	8	502-0153	1	Plug, Hex Pipe (1/4)
3	503-1138	4	Clamp, Hose (1-3/8")	9	193-0468	1	Sender, Low Coolant
4	503-1898	1	Hose, Upper Elbow MDKBD, MDKBE				
	503-1999	1	MDKBF				
5	503-1899	1	Hose, Upper "S" (1-3/8")				
6	526-2100	1	Washer, Flat (M8)				

Coolant Recovery



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

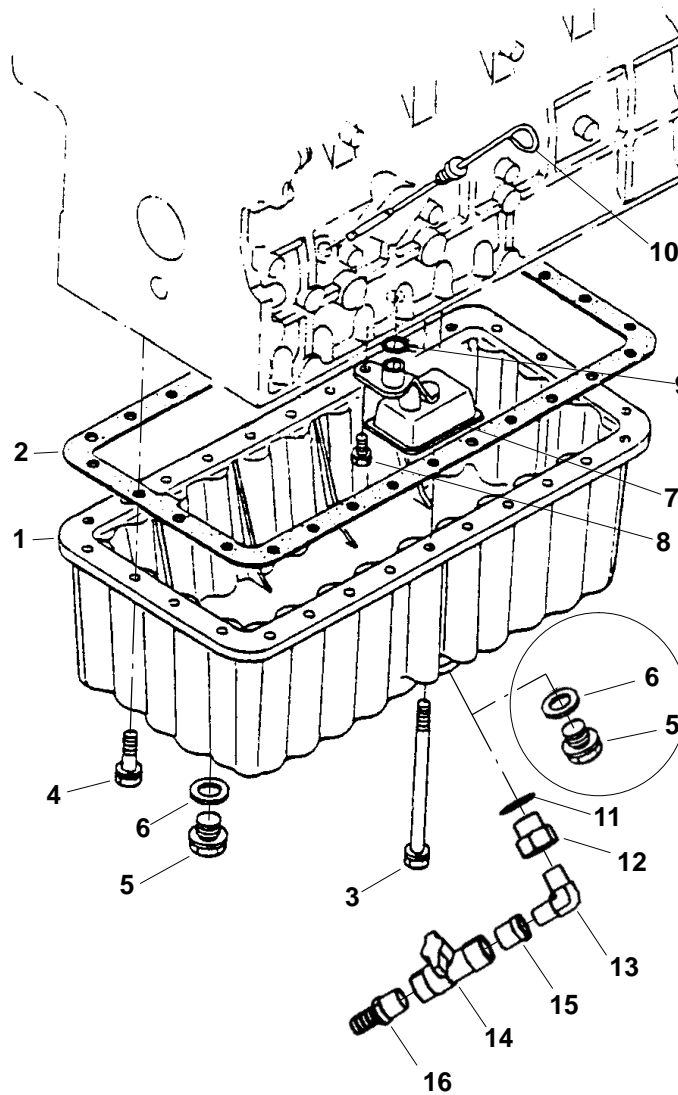
Oil Pan MDKBD, MDKBE



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6727	1	Pan, Oil	15	502-1123	1	Cap, Pipe
2	185-5854	1	Gasket	16	526-0413	1	Washer, Oil Drain (.625ID x .875OD x .075Thk)
3	185-5855	24	Bolt, Flange	17	120-1337-02	1	Bracket, Oil Drain
4	185-2096	1	Plug	18	821-6002-02	1	Screw, Hex Flanged (M6 x 1 x 12mm)
5	185-2343	1	Gasket	19	800-2034	2	Screw, Hex Head (M6 x 1 x 20mm)
6	185-6760	1	*Bolt	20	850-2006	2	Washer, Lock Split (M6)
7	185-6761	1	*Gasket	21	526-2081	2	Washer, Flat (M6)
8	185-6728	1	Tube, Oil Pickup				
9	185-2563	1	Bolt				
10	185-3078	1	O'Ring				
11	185-6122	1	Indicator, Oil Level				
12	102-1449-01	1	Adapter, Oil Drain				
13	501-0624	1	Line, Flex Oil (24")				
14	502-0263	1	Elbow, Pipe 90°				

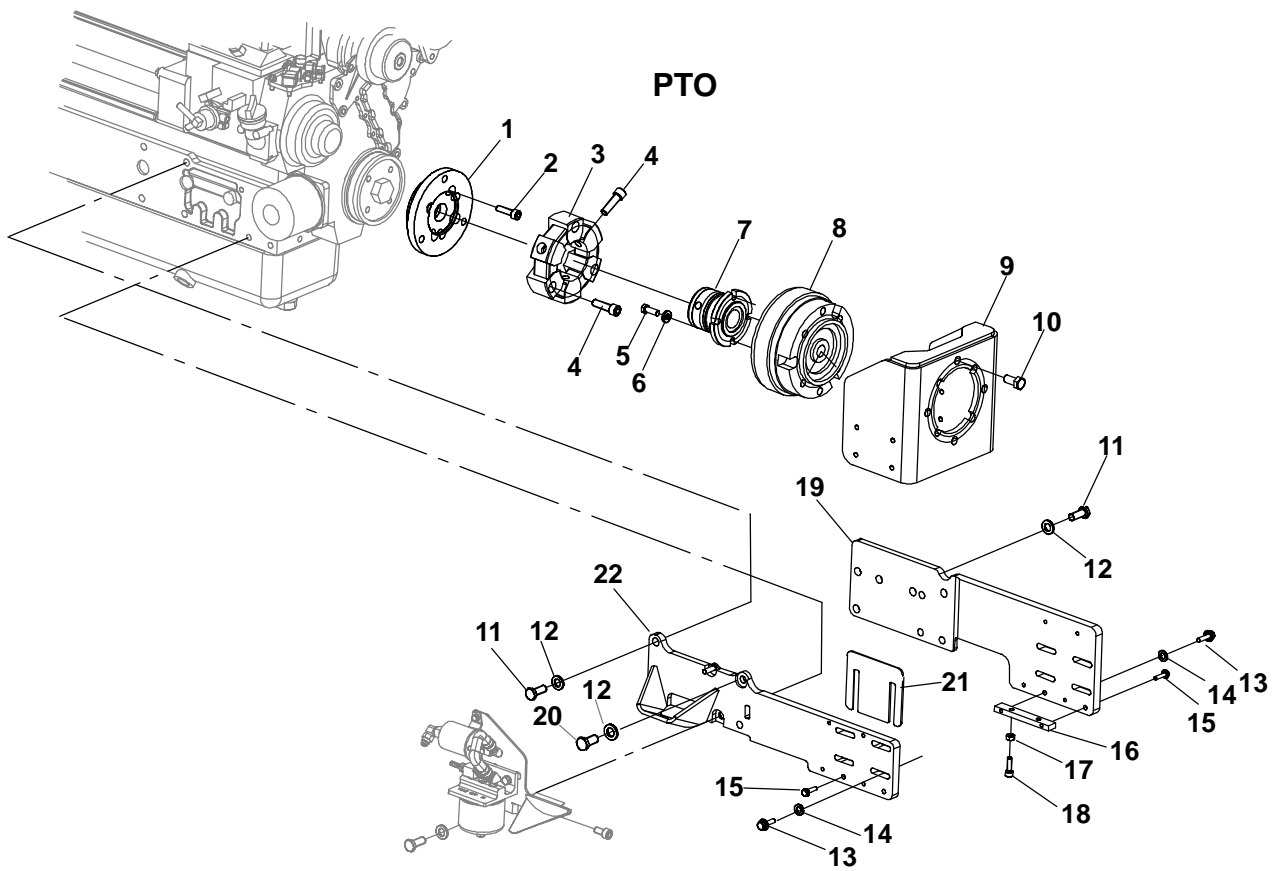
* Bolt and Gasket Removed with Installation of Oil Drain.

Oil Pan MDKBF



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6195	1	Pan, Oil	10	185-6061	1	Indicator, Oil Level
2	185-6044	1	Gasket	11	526-0329	1	Washer, Oil Drain (7/8")
3	185-6045	2	Bolt	12	102-1448-02	1	Adapter, Oil Drain
4	185-5476	26	Bolt	13	502-1273	1	Elbow, Pipe 90°
5	185-6929	3	*Plug (Removed with Installation of Oil Drain)	14	504-0011	1	Valve, Shutoff
6	185-5495	3	*Gasket (Removed with Installation of Oil Drain)	15	502-0819	1	Bushing, Reducer
7	185-6047	1	Tube, Oil Pickup	16	502-1006	1	Fitting, Hose Barb
8	185-6956	1	Bolt				
9	509-0254	1	O'Ring				

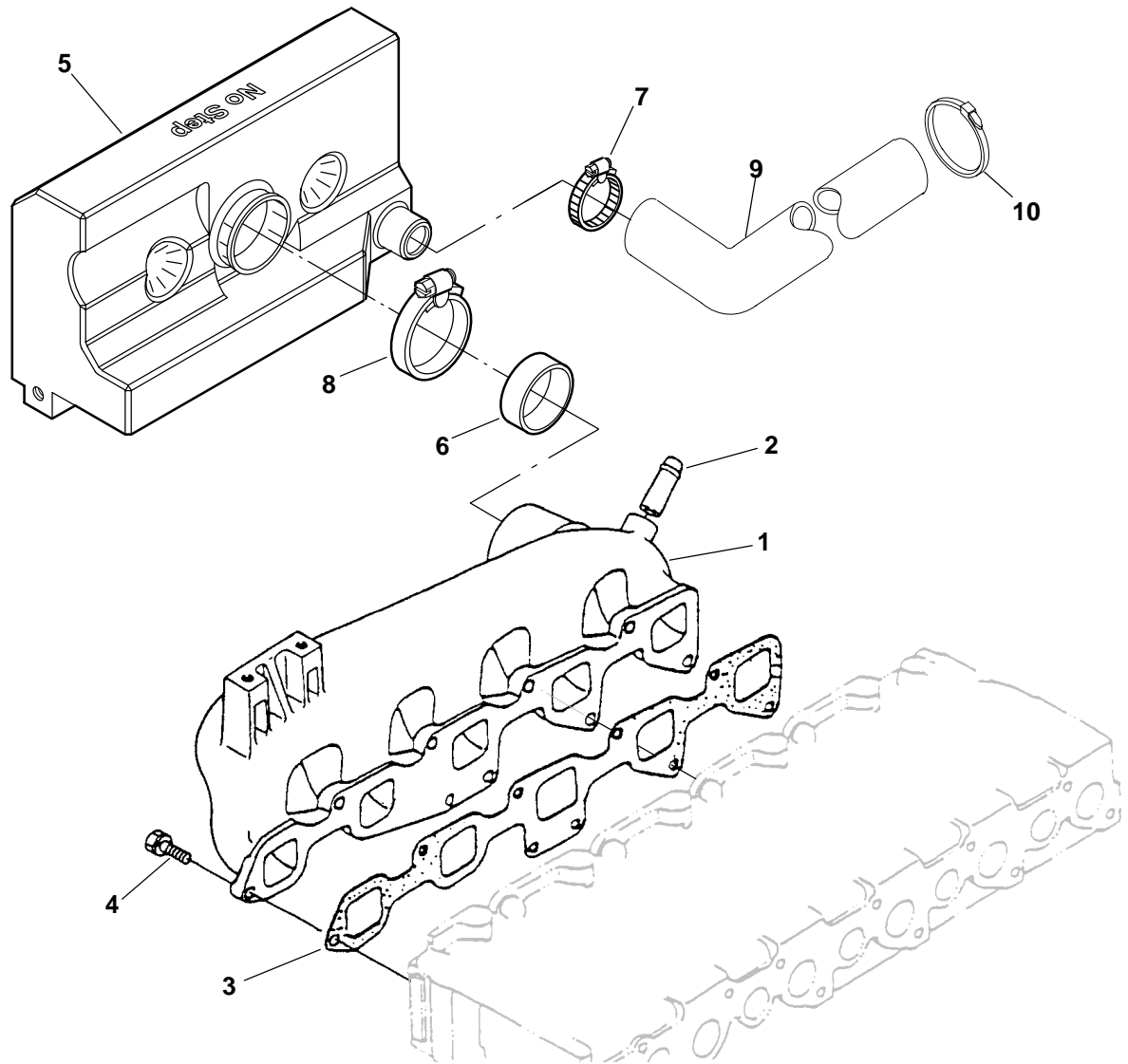
* Circled Bolt and Gasket Removed with Installation of Oil Drain.



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, PTO (Includes Parts Marked *)	10	800-0090	2	*Screw, Hex Head Cap (1/2-13 x 1.00")
			MDKBD, MDKBE	11	800-3032	9	*Screw, Hex Head Cap
	190-0776-01	1	12V	12	526-0399-64	10	*Washer, Flat (M12)
	190-0776-02	1	24V	13	800-3017-21	8	*Screw, Hex Head (M8 x 1.25 x 30mm)
			MDKBF	14	526-0451	8	*Washer, Flat Stainless (M8)
	190-0776-03	1	12V	15	821-2035	4	*Screw, Locking Flange (M6 x 1 x 25mm)
	190-0776-04	1	24V	16	190-0766-03	2	*Bracket, Mounting Pad
	190-0777	1	Kit, PTO Belt (Includes Tool Spacer and Belt)	17	862-0026-55	4	*Nut, Hex (M8)
1			*Adapter, Coupling	18	815-0916	4	*Screw, Socket Head (M8 x 1.25 x 25mm)
	190-0763-02	1	MDKBD, MDKBE	19	190-0792-03	1	*Bracket, PTO (Left)
	190-0764-02	1	MDKBF	20	800-3033	1	*Screw, Hex Head Cap (M12 x 1.25 x 25mm)
2	815-0904-03	4	*Screw, Socket Head Cap (M10 x 1.25 x 35mm)	21			*Shim, PTO
3	190-0768	1	*Coupling, Flex		190-0771-02	AR	.12 GA
4	725-1103	6	*Screw, Socket Head Cap (M12 x 1.75 x 40mm)		190-0771-04	AR	.14 GA
5	801-1050	4	*Screw, Hex Head Cap (3/8-24 x 1")		190-0771-06	AR	.20 GA
6	526-0174	4	*Washer, Flat	22	190-0770-03	1	*Bracket, PTO (Right)
7	190-0767-02	1	*Adapter, Coupling				
8			*Clutch				
	190-0729-01	1	12V				
	190-0729-02	1	24V				
9	190-0769-03	1	*Bracket, PTO Clutch				

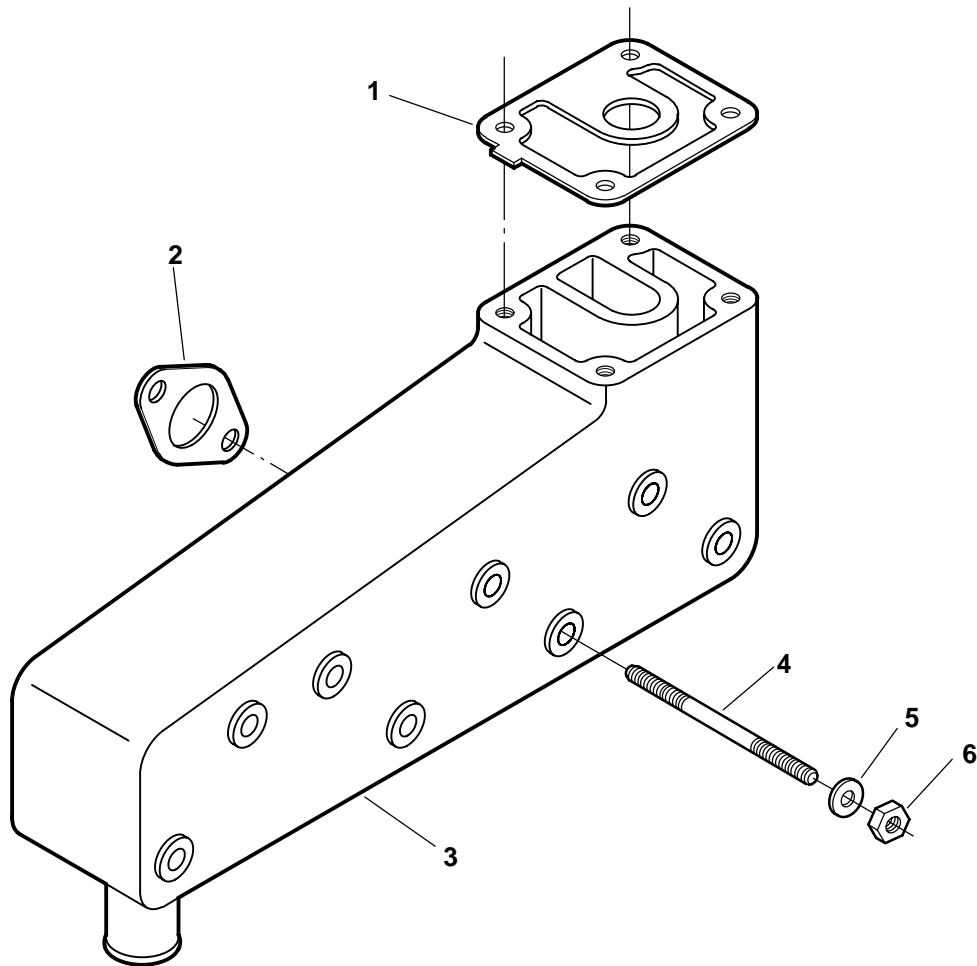
* - Parts Included in PTO Kit. (Also Includes Fuel Pump Mounting Hardware Found on Fuel Pump Page)

Intake Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Manifold Assy, Intake	6	140-3048	1	Sleeve, Air Intake
	185-6715	1	MDKBD, MDKBE	7			*Clamp, Hose
	185-6803	1	MDKBF		503-1138	1	MDKBD, MDKBE (1-3/8")
2	185-6723	1	Joint, Breather		503-1139	1	MDKBF (2")
3			Gasket	8	503-1143	1	Clamp, Hose (3")
	185-6035	1	MDKBD, MDKBE	9			Hose, Intake
	185-7065	1	MDKBF		503-1939	1	MDKBD, MDKBE (1-3/8 x 28")
4			Bolt		503-2009-01	1	MDKBF (1-3/8 x 31")
	185-2402	7	MDKBD, MDKBE	10	332-1389	1	Cable, Tie
	185-2402	9	MDKBF				
5			Resonator, Intake				
	140-2859	1	MDKBD, MDKBE				
	140-3021	1	MDKBF				

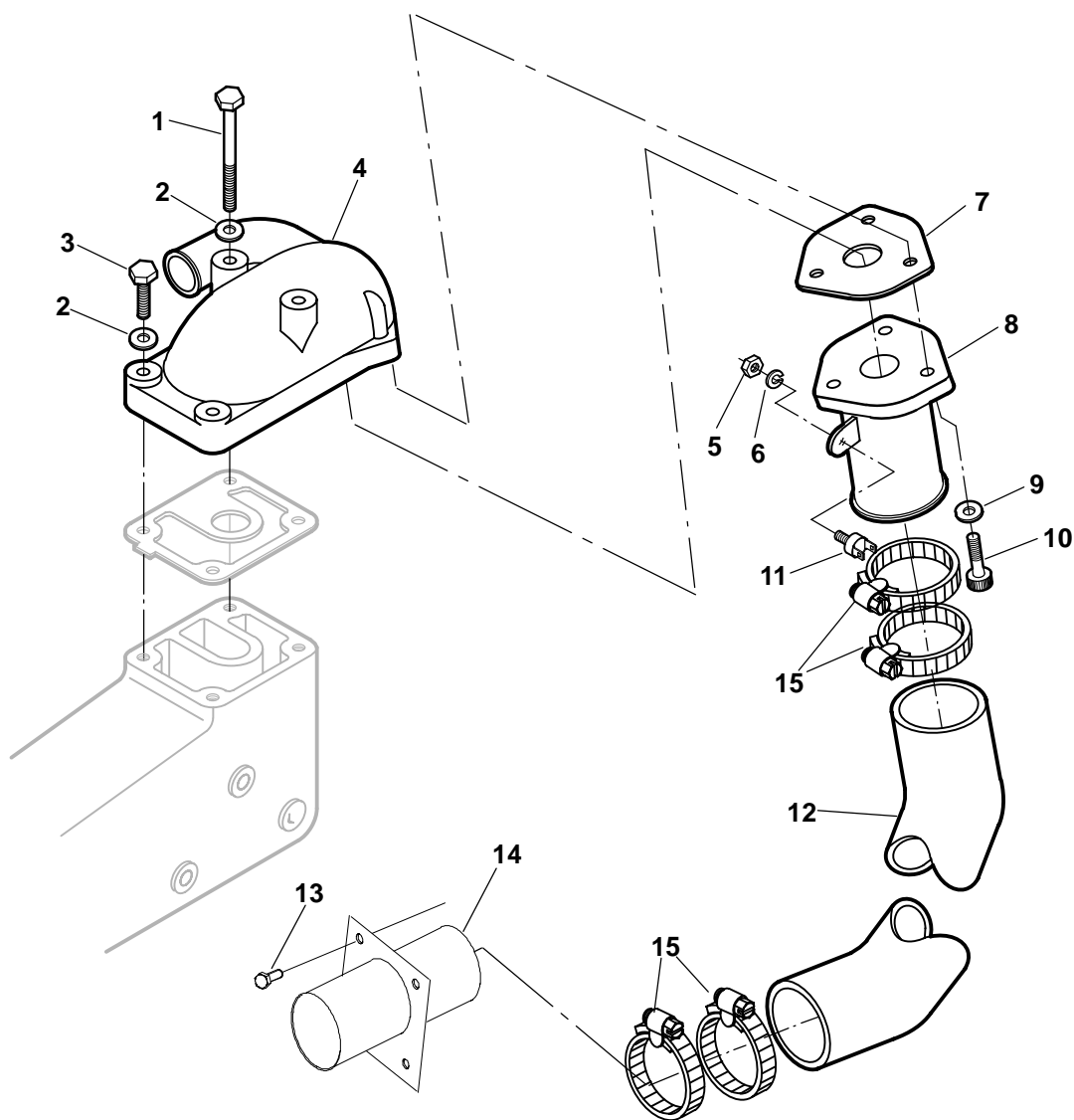
Exhaust Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2975	1	*Gasket, Riser, Adapter	5			Washer, Flat (M8)
2			Gasket, Exhaust Manifold	526-2100	8		MDKBD, MDKBE
	154-2915	4	MDKBD, MDKBE	526-2100	10		MDKBF
	154-2915	5	MDKBF	6			Nut (M8 x 1.25)
3			Manifold, Exhaust	750-1006	8		MDKBD, MDKBE
	154-2887	1	MDKBD, MDKBE	750-1006	10		MDKBF
	154-3002	1	MDKBF				
4			Stud				
	520-2218-01	8	MDKBD, MDKBE				
	185-7064	10	MDKBF				

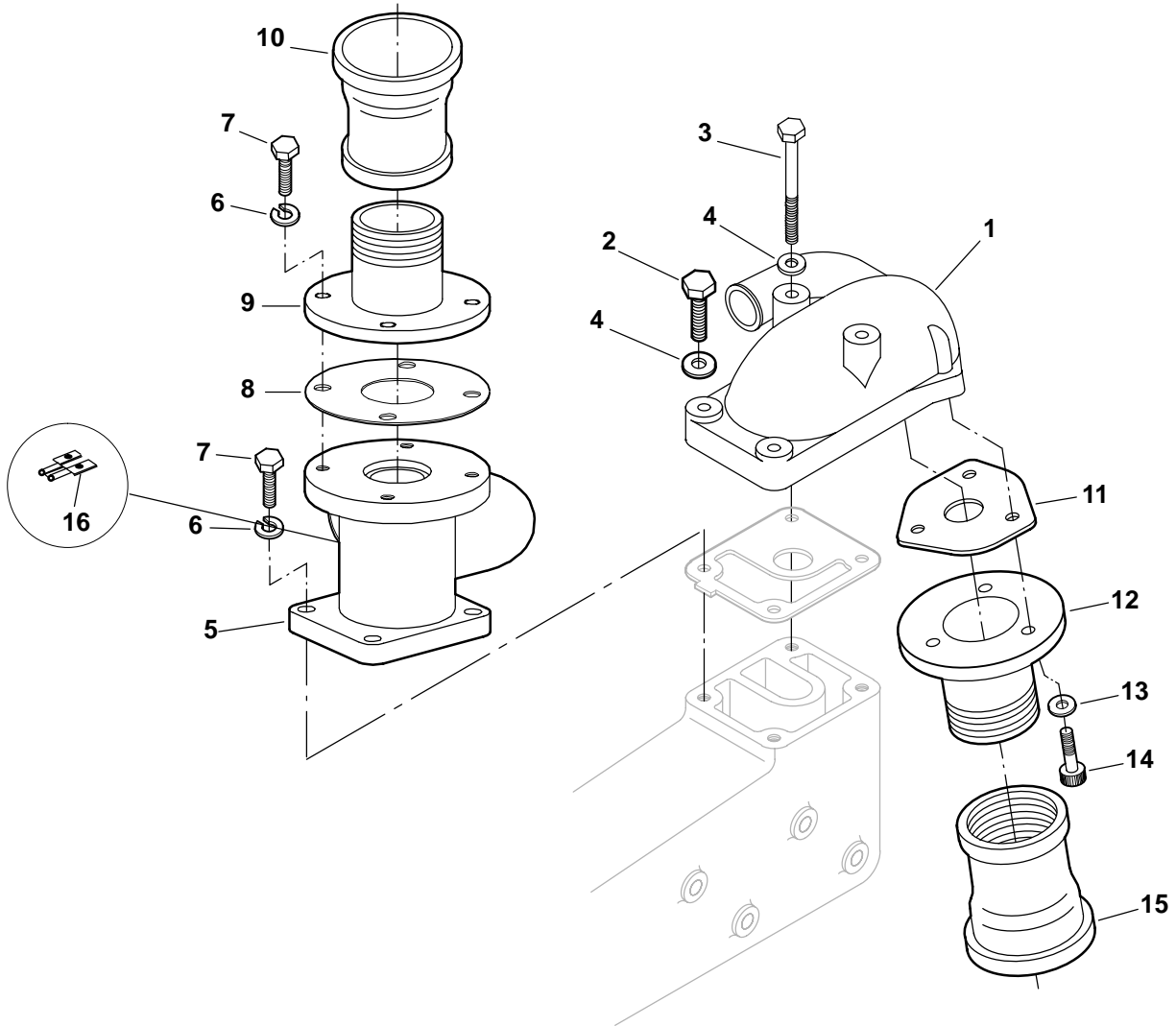
* - Part Included in Exhaust Adapter Kit Found on Dry Exhaust Page.

Wet Exhaust



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Exhaust (Wet)	11	309-0597-01	1	Switch, High Exhaust Temperature (S5)
	541-0852-01	1	MDKBD, MDKBE (Rear Out)	12			Hose, Exhaust Front
	541-0852-02	1	MDKBD, MDKBE (Front Out)		503-2344	1	MDKBD, MDKBE
	541-0852-03	1	MDKBF (Rear Out)		503-2345	1	MDKBF
	541-0852-04	1	MDKBF (Front Out)				Rear
	155-3284	1	Kit, Exhaust (Wet)		501-0797-01	1	MDKBD, MDKBE
1	800-2067	2	Screw, Hex Head Cap (M8 x 1.25 x 70mm)		501-0797-02	1	MDKBF
2	526-2100	4	Washer, Flat (M8)	13	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
3	800-2059	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	14	405-7210	1	Bulkhead, Exhaust Connector
4	154-2891	1	Riser, Exhaust	15	503-1142	4	Clamp, Hose Exhaust
5	750-1006	1	Nut, Hex (8-32)				
6	850-0025	1	Washer, Lock (M8)				
7	155-3061	1	Gasket, Mixer				
8	154-3163	1	Mixer				
9	740-1004	3	Washer, Flat (M6)				
10	802-2068	3	Screw, Socket Cap (M6 x 1 x 20mm)				

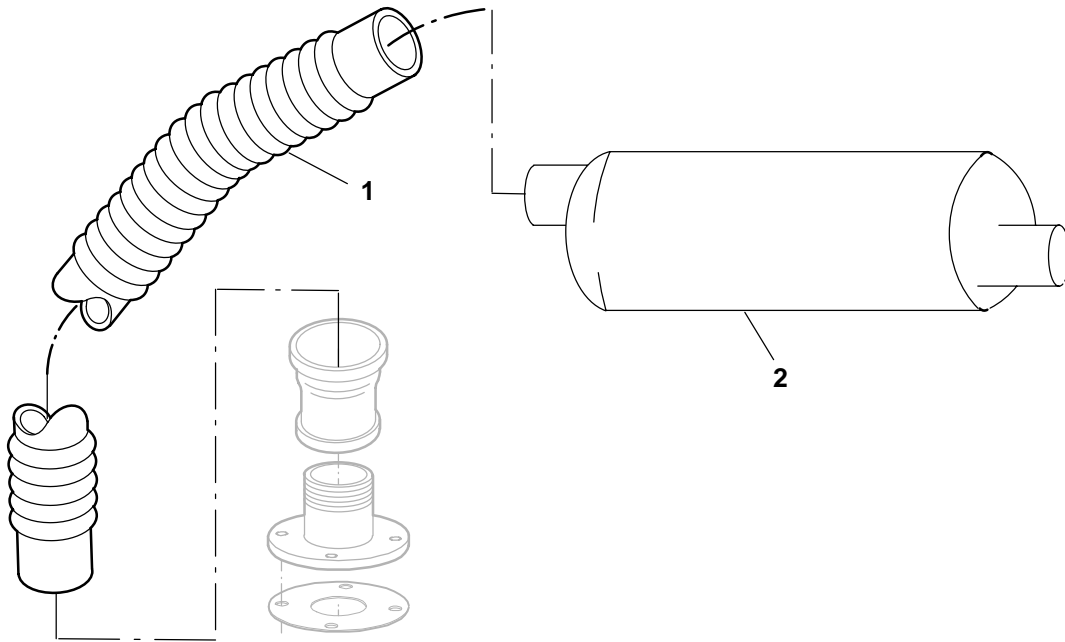
Dry Exhaust (Up or Down)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-3094	1	Kit, Exhaust Flange (Includes Parts Marked +)	9	155-3069-02	1	*Flange, Exhaust
	155-2980	1	Kit, Exhaust Adapter (Includes Parts Marked *)	10	505-0339-02	1	*Coupling, Reducer (2 x 1-1/2")
1	154-2891	1	Riser, Exhaust	11	155-3061	1	+Gasket, Exhaust (Mixer)
2	800-2059	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	12	155-3068-02	1	+Flange, Exhaust
3	800-2067	2	Screw, Hex Head Cap (M8 x 1.25 x 70mm)	13	740-1004	3	+Washer, Flat (M6)
4	526-2100	4	Washer, Flat (M8)	14	802-2068	3	+Screw, Allen Socket Cap (M6 x 1 x 20mm)
5	154-2963-02	1	*Adapter, Exhaust	15	505-0339-02	1	+Bushing, Reducer (1-1/2 x 2")
6	850-2008	8	*Washer, Lock (M8)	16	332-1571	1	Jumper, Temp Switch
7	800-2058	8	*Screw, Hex Head Cap (M8 x 1.25 x 25mm)				
8	155-2981	1	*Gasket, Exhaust Adapter				

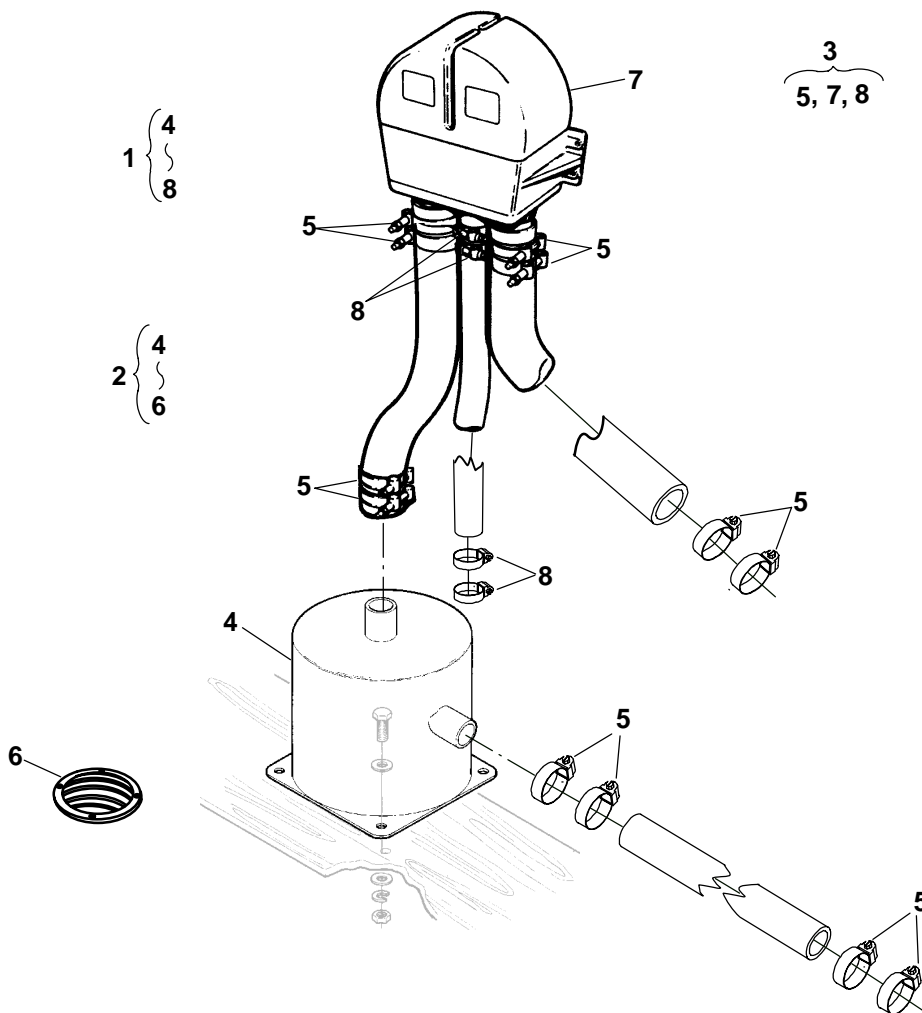
* - Parts Included in Exhaust Adapter Kit. (Also Includes Gasket on Exhaust Manifold Page.)
 + - Parts Included in Exhaust Flange Kit.

Muffler



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-2355-04	1	Tube, Flexible Exhaust (2")
2	155-2063-09	1	Muffler, Dry Exhaust (Up) (2") Industrial
	155-2064-09	1	Critical

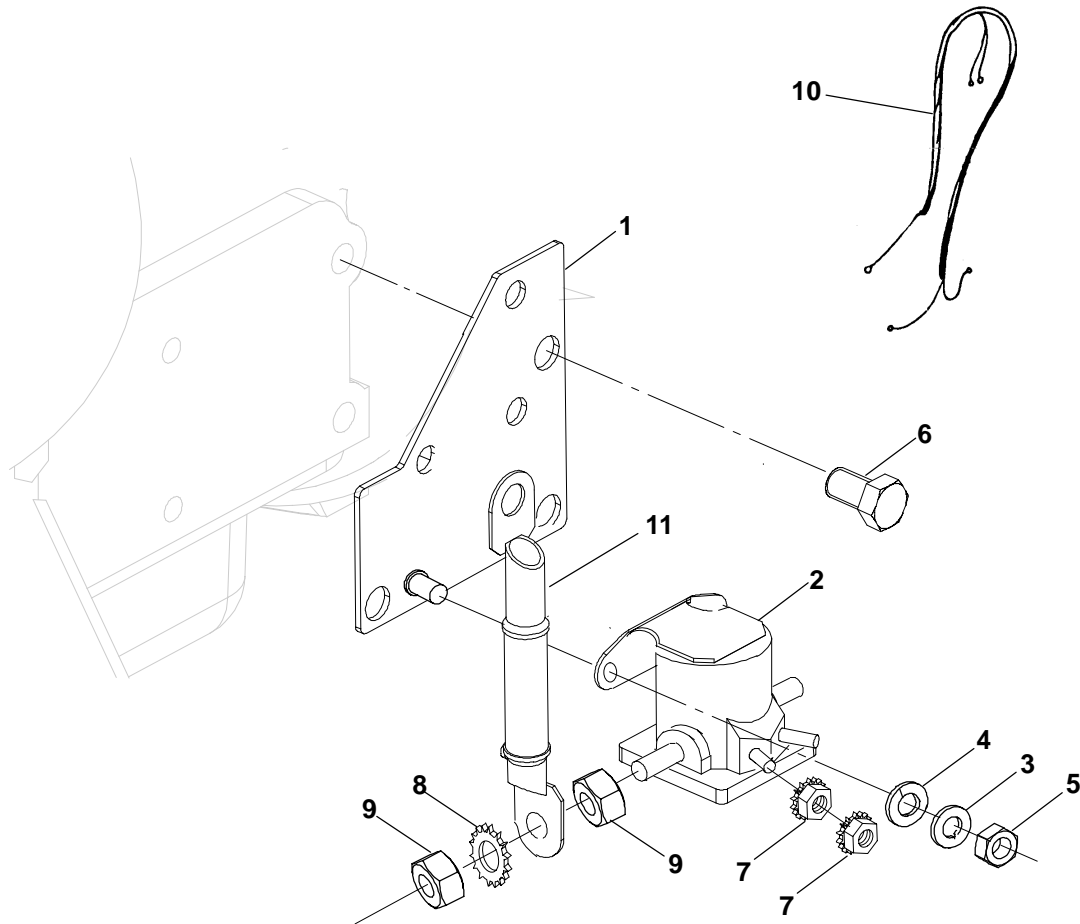
Water Separator, Muffler



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Kit, Muffler, Separator (Includes Parts Marked *)	5			Clamp, Hose (2") MDKBD, MDKBE
	155-3217	1	MDKBD, MDKBE	503-1133	8	+	Muffler Kit (2")
	155-3223	1	MDKBF	503-1133	4	#	Separator Kit (2")
2			Kit, Muffler (Includes Parts Marked +)	503-1133	10	*	Muffler, Separator Kit (2") MDKBF
	155-2030	1	MDKBD, MDKBE	503-1133	8	+	Muffler Kit (2-1/2")
	155-3222	1	MDKBF	503-1133	4	#	Separator Kit (2")
3			Kit, Water Separator (Includes Parts Marked #)	503-1133	10	*	Muffler/Separator Kit (2")
	155-3216	1	MDKBD, MDKBE	6	155-1002	1	*+Strainer, Water Pickup
	155-3224	1	MDKBF	7			*#Separator, Water
4			*+Muffler, Marine	155-3218	1		(2")MDKBD, MDKBE
	155-2029	1	MDKBD, MDKBE	155-3221	1		(2-1/2")MDKBF
	155-3220	1	MDKBF	8	503-1139	4	*#Clamp, Hose (1-1/2")

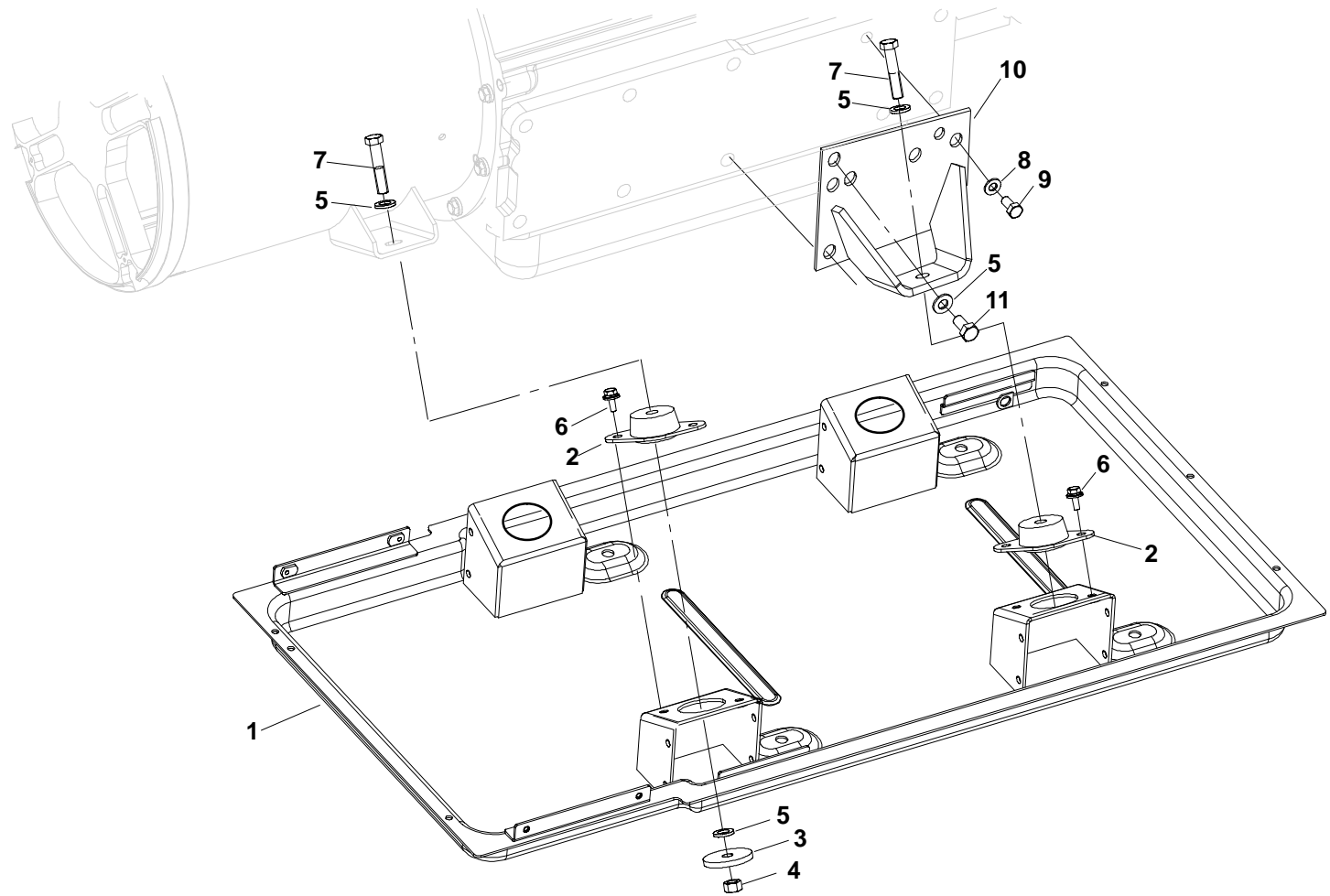
* - Parts Included in Muffler/Separator Kit.
 + - Parts Included in Muffler Kit.
 # - Parts Included in Water Separator Kit.

Isolated Ground



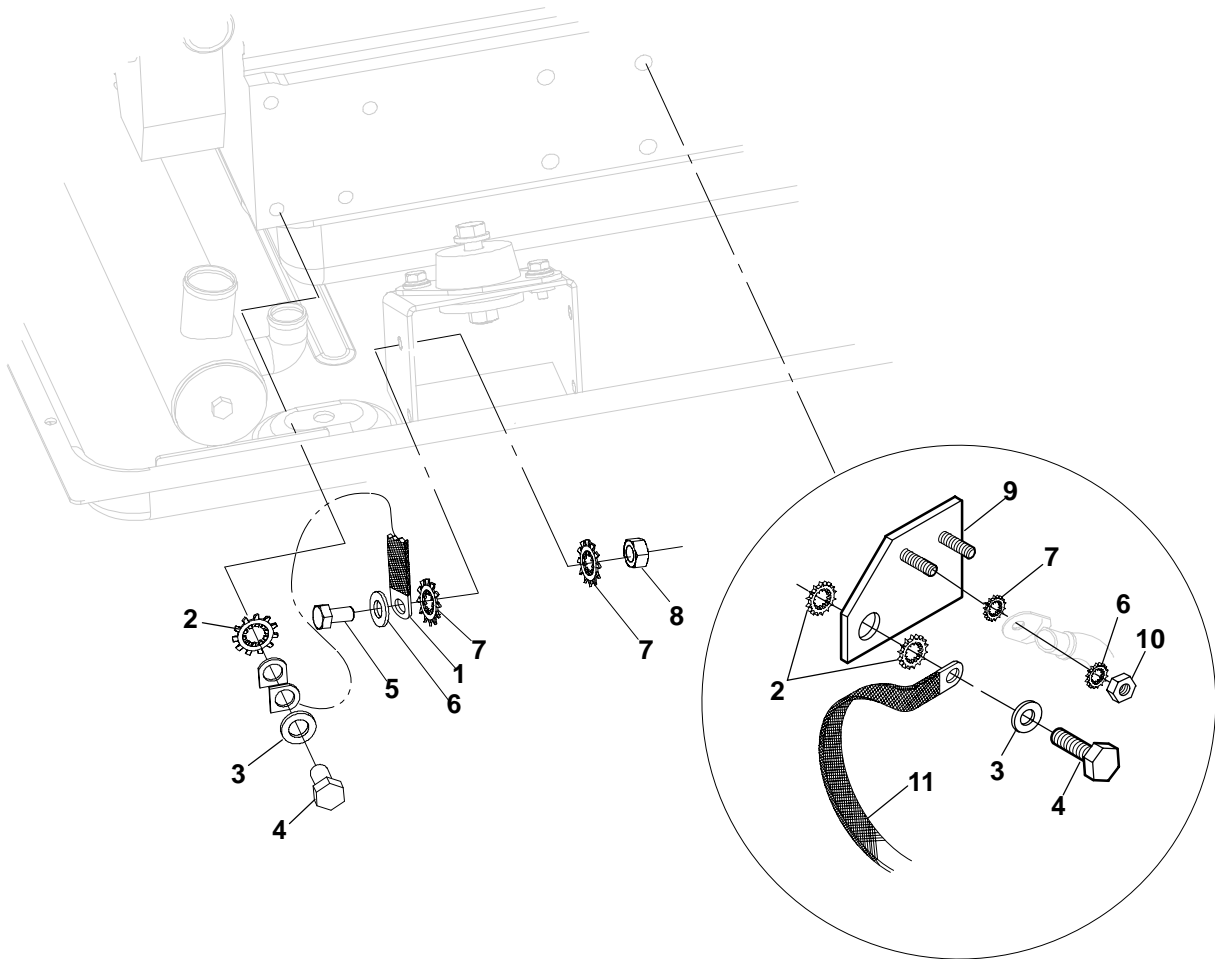
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit Isolated Ground (Includes Screws, Sending Units and Harness)	5	862-0026-54	2	+Nut, Hex (M6)
				6	800-3031	3	Screw, Hex Head Cap (M12 x 1.25 x 20)
	541-0823	1	12V	7	870-0131-01	2	+Nut, ET Hex (#10-32) (12V)
	541-0834	1	24V	8	853-0016	2	+Washer, ET Lock (5/16")
			Bracket Assy, Solenoid (Includes Parts Marked +)	9	862-0026-30	2	+Nut, Hex (5/16-24)
	333-0665-01	1	12V	10	338-4200-01	1	Harness, Isolated Ground
	333-0665-02	1	24V	11	338-4200-02	1	+Harness, Ground
1	333-0662-02	1	Bracket, Solenoid				
2			+*Relay, Solenoid				* - Relay Solenoid ties to B- and K9-1 Isolated Ground Harness (338-4200-01)
	307-1617	1	12V				+ - Solenoid Bracket Assembly Parts
	307-2656	1	24V				
3	526-0399-58	2	+Washer, Flat (M6)				
4	850-0114-53	2	+Washer, Split Lock (M6)				

Mounting Base



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4581-02	1	Base, Generator Mounting MDKBD, MDKBE	6	821-6003-01	8	Screw, Hex Head Cap (M8 x .25 x 16mm)
	403-4624-02	1	MDKBF	7	800-2118	4	Screw, Hex Head Cap (M12 x 1.75 x 60mm)
2	403-3573	4	Isolator, Mounting MDKBD, MDKBE W/O PTO	8	526-2120	1	Washer, Rocker Ball (MDKBF)
	403-3573	2	Generator End W/PTO	9	800-3030	1	Screw, Hex Head Cap (MDKBF) (M10 x 1.25 x 20mm)
	403-3955	2	Engine End MDKBF	10	403-4059-03	1	Mount, Engine MDKBF
	403-3955	4	W/O PTO W/PTO		403-3972-03	1	MDKBF
	403-3955	2	Generator End		403-4059-03	2	MDKBD, MDKBE
	403-4091	2	Engine End	11	800-3031	7	Screw, Hex Head Cap (M12 x 1.25 x 20mm) without PTO
3	526-0172	4	Washer, Flat (M12)		800-3031	1	with PTO
4	860-2010	4	Nut, Hex Machine (M12 x 1.75)				
5	526-2140	19	Washer, Flat (M12) Without PTO				
	526-2140	13	With PTO				

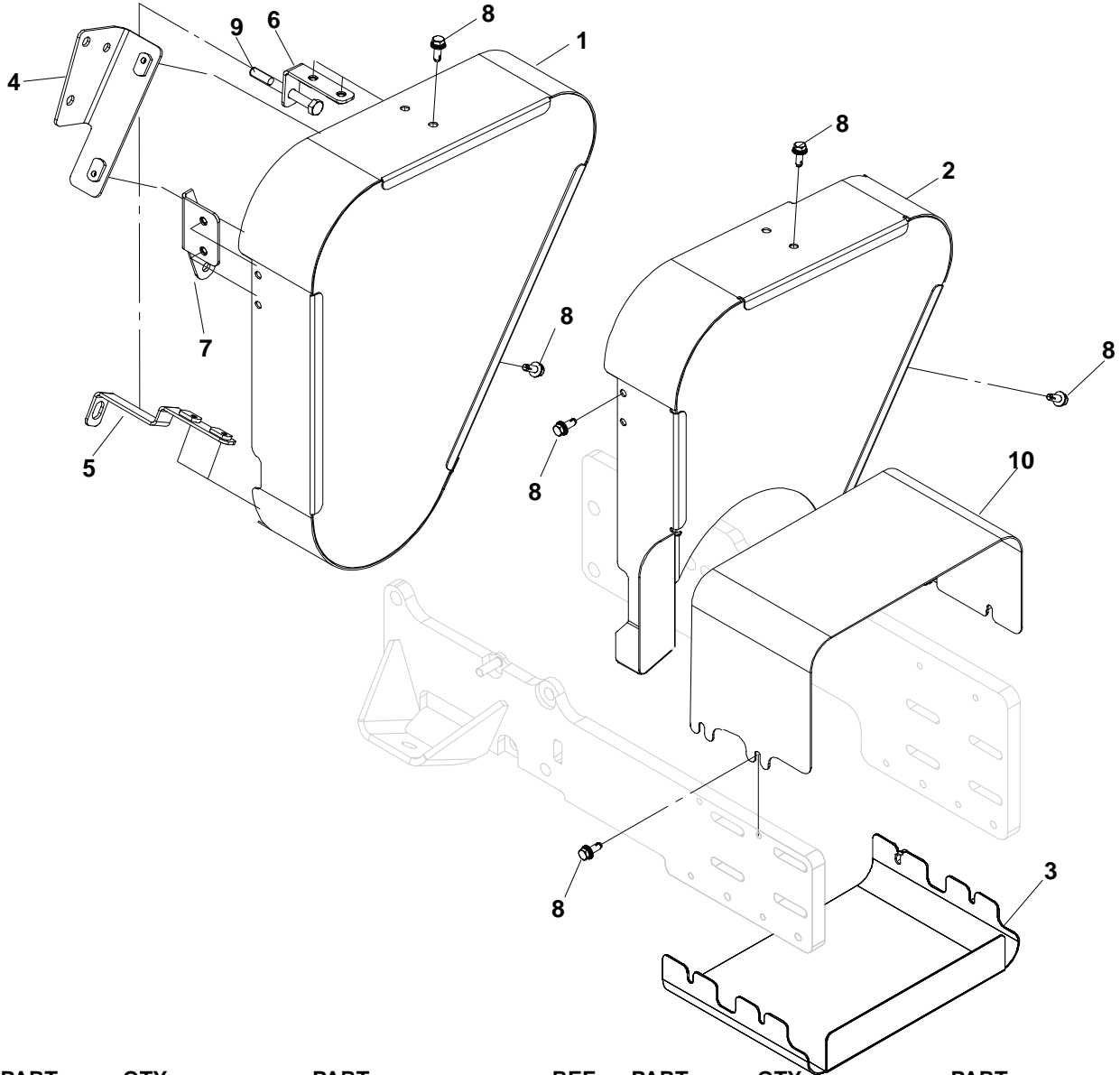
Grounding System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	337-2785	1	Strap, Bond
2	856-0013	3	Washer, EIT Lock (1/2)
3	526-2140	2	Washer, Flat (M12)
4	800-3031	1	Screw, Hex Head Cap (M12 x 1.25 x 20mm)
5	718-1036	2	Screw, Hex Head Cap (M8 x 1.25 x 20mm)
6	526-2100	2	Washer, Flat (M8)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	856-0008	4	Washer, EIT Locking (5/16")
8	750-1006	1	Nut, Hex (M8 x 1.25mm)
9	337-2784-02	1	Bar, Bus
10	871-0025	1	Nut, Hex Brass (5/16-18")
11	337-0090-02	1	Strap, Electrical

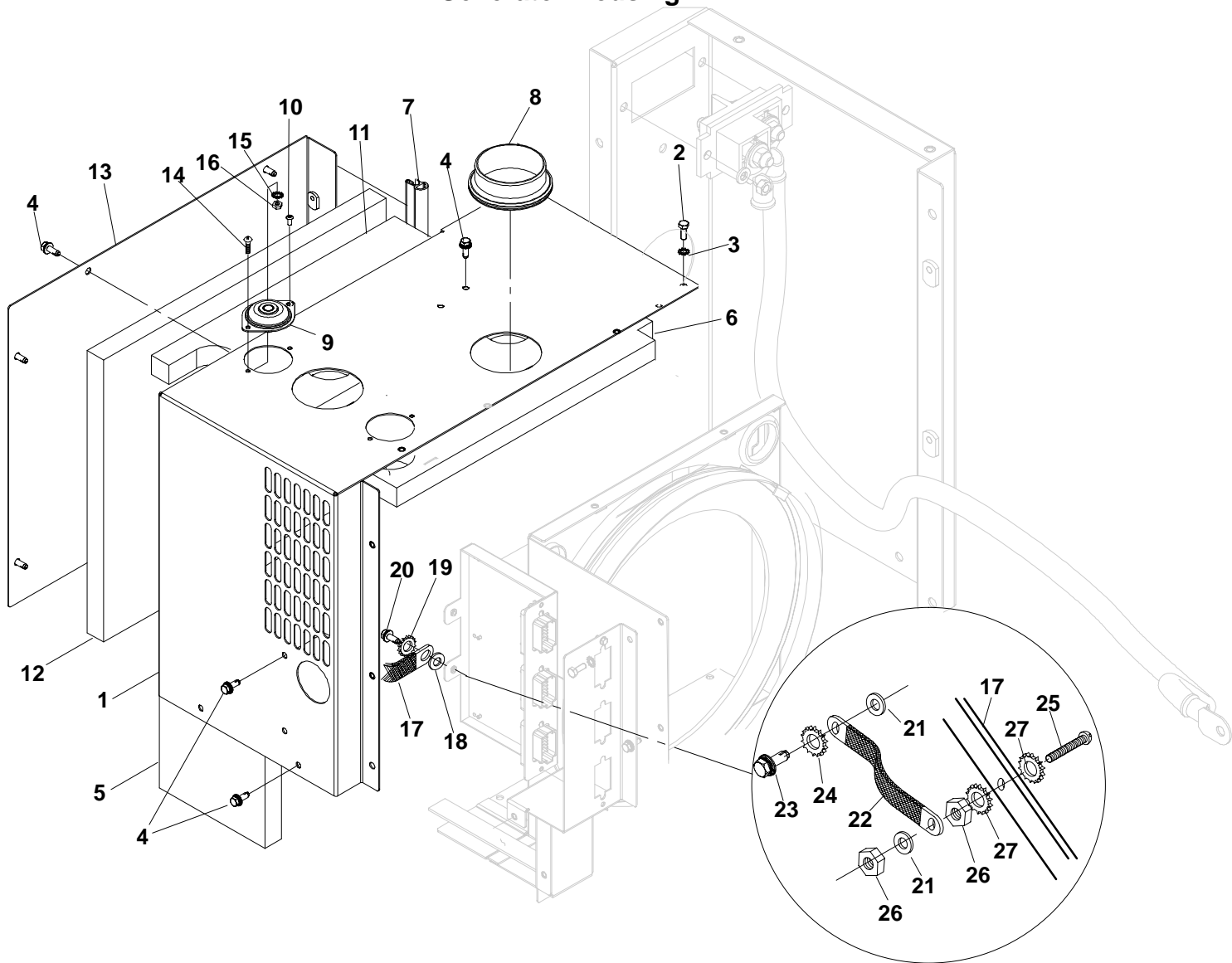
Belt Guard and PTO Belt Guard



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0837-01	1	Kit, Belt Guard (Neg Ground) (Includes Parts Marked*)	7	130-4381-03	1	*+~Bracket, Guard
	541-0837-02	1	Kit, Belt Guard (ISO Ground) (Includes Parts Marked+)	8	821-6006-01	12	*+~Screw, Hex Head Cap (M6 x 12) Negative Ground
	541-0837-03	1	Kit, Belt Guard (PTO) (Includes Parts Marked~)	8	821-6006-01	8	Isolated Ground
1			Guard, Belt W/O PTO	8	821-6006-01	14	PTO
	130-4652-03	1	Negative Ground	9	718-1047	1	*~Screw, Hex Head Cap (M6 x 1.25 x 75mm)
	130-4714-03	1	Isolated Ground	10	130-5469-03	1	~Coupling, Guard
2	130-5471-03	1	~Guard, Belt W/PTO	11	98-4798-01	1	*+~Label, Warning
3	130-5470-03	1	~Coupling Guard W/PTO				
4			Bracket, Guard				
	130-4382-03	1	*~ Negative Ground				
	130-4411-03	1	+ Isolated Ground				
5	130-4491-03	1	*Bracket, Guard (Negative Ground) (W/O PTO)				
6	130-4492-03	1	*~Bracket, Guard (Negative Ground)				

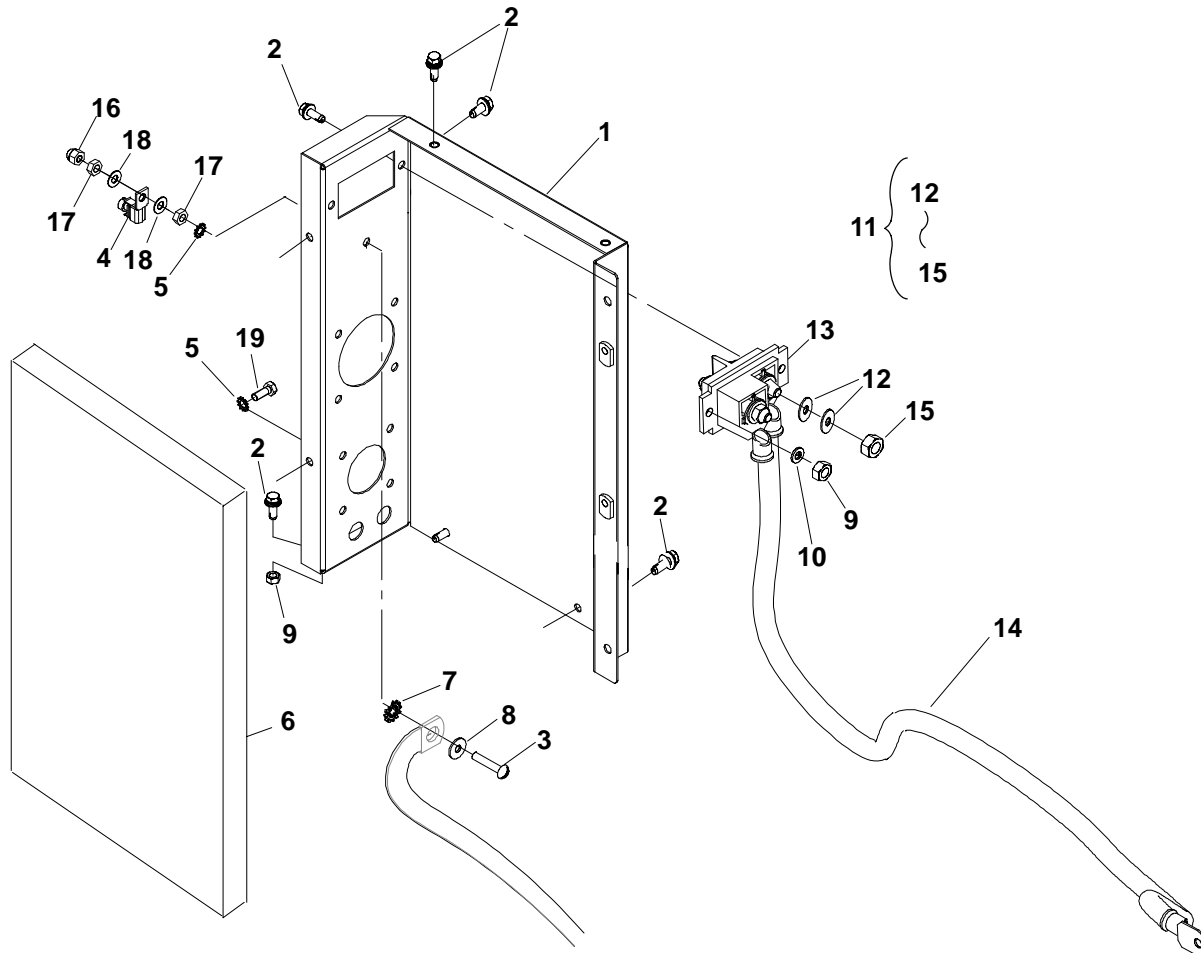
All Parts are for Unhoused Units Only
 * - Parts Included in Negative Gnd Belt Guard Kit
 + - Parts Included in ISO Gnd Belt Guard Kit
 ~ - Parts Included in PTO Belt Guard Kit

Generator Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Panel, Housing	14	813-1000	1	Screw, Slotted Round Head (10-32 x .500")
	405-6491-03	1	Single Phase	15	856-0003	1	Washer, EIT Lock (#10)
	405-7429-03	1	Three Phase	16	870-0131	1	Nut, Sems
2	800-6033	4	Screw, Hex Head Cap (M6 x 1 x 16mm)	17	337-3507	1	Strap, Bond
3	853-2006	4	Washer Lock ET (M6)	18	526-2050	1	Washer, Flat (M4)
4	821-6006-01	10	Screw, Hex Head Stainless (M6 x 1.0 x 16mm)	19	856-0002	1	Washer, EIT (#8)
5			Insulation, Panel (Side)	20	800-3042	1	Screw, Hex Head (M4 x 10mm)
	405-6684	1	Single Phase	21	529-2291	2	Washer, Flat
	405-7430	1	Three Phase	22	337-0081	1	Strap, Bond
6	405-6685	1	Insulation, Panel (Top)	23	821-6001-03	1	Screw, Hex Head Sems (M5 x .8 x 16mm)
7	895-0402	1	Seal, Weather (1.21')	24	856-0003	1	Washer, EIT (#10)
8	508-1152	2	Grommet, Rubber	25	810-0155	1	Screw, Slotted Round Head (1/4-20 x 1.25)
9	402-0681-01	3	Isolation, Vibration	26	871-0016	2	Nut, Hex Brass (1/4-20)
10	818-0231-01	5	Rivet, Pop	27	856-0006	2	Washer, EIT (1/4)
11	405-6686	1	Insulation, Panel (Top)				
12	405-6689	1	Insulation, Panel (Rear)				
13	405-7208-03	1	Cover, Enclosure (Rear)				

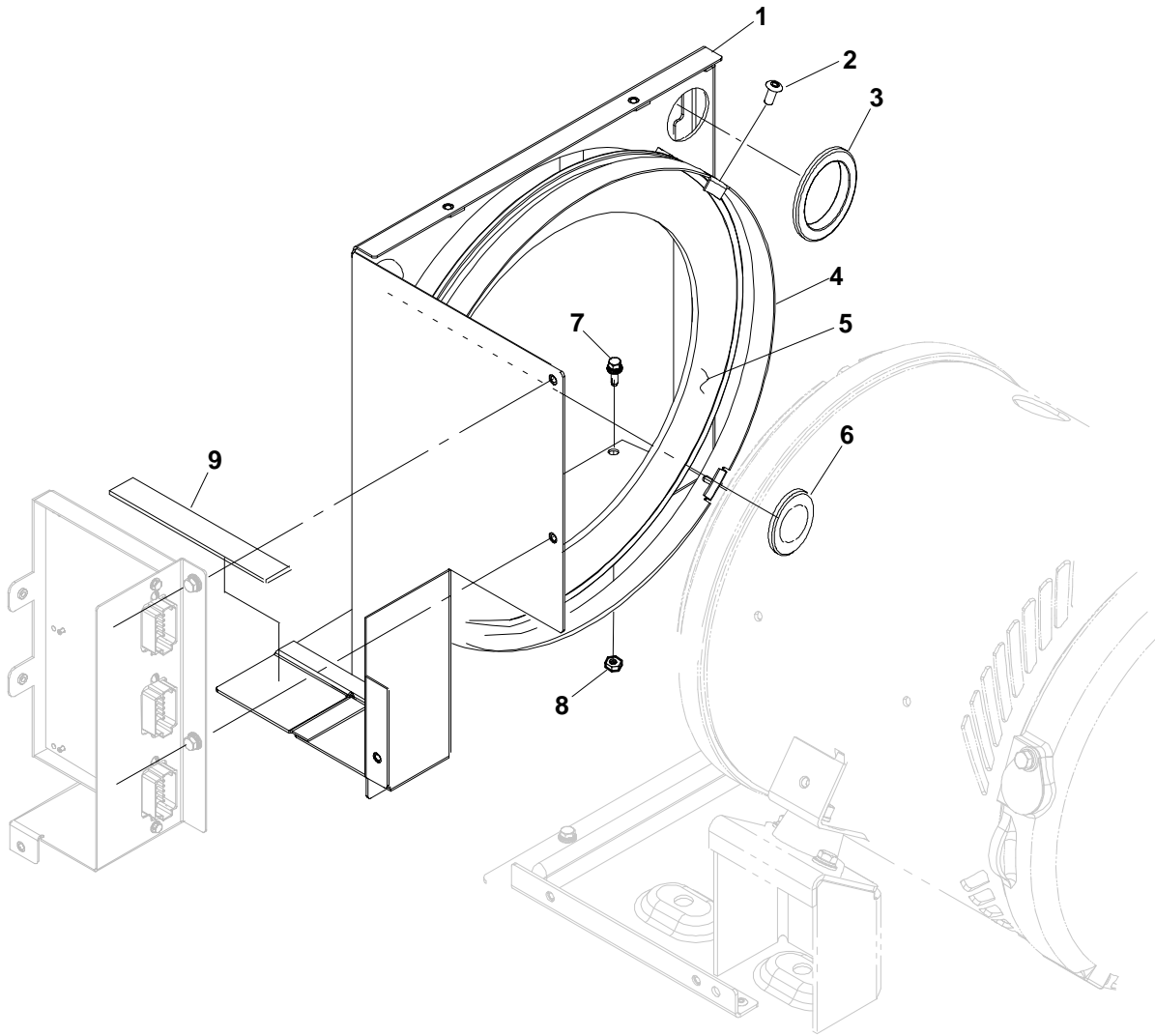
Generator Housing Panel



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
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	332-3408	1	*Block, Terminal
3	810-0155	1	Screw, Round Head Brass (1/4-20 x 1-1/4)	14			*Cable, Welding
4	332-0142	1	Lug, Solderless		334-0935-03	1	6.58' (MDKBD, MDKBE)
5	853-2006	2	Washer, ET (M6)		334-0935-03	1	8' (MDKBF)
6	405-6682	1	Insulation, Sound	15	871-0025	2	*Nut, (.313-18)
7	856-0006	1	Washer, EIT (1/4")	16	860-2036	1	Nut, Hex Acorn (1/4-20 Nylon)
8	526-2083	1	Washer, Flat (M6)	17	871-0016	2	Nut, Hex Brass (1/4-20)
9	860-2021	4	Nut, Hex (M6)	18	526-0052	2	Washer, Flat (1/4")
10	526-2081	2	Washer, Flat	19	800-6033	3	Screw, Hex Head Cap (M6 x 1 x 16mm)
11			Harness, Battery (Includes Parts Marked *)				
	338-4176-03	1	MDKBD, MDKBE				
	338-4176-04	1	MDKBF				

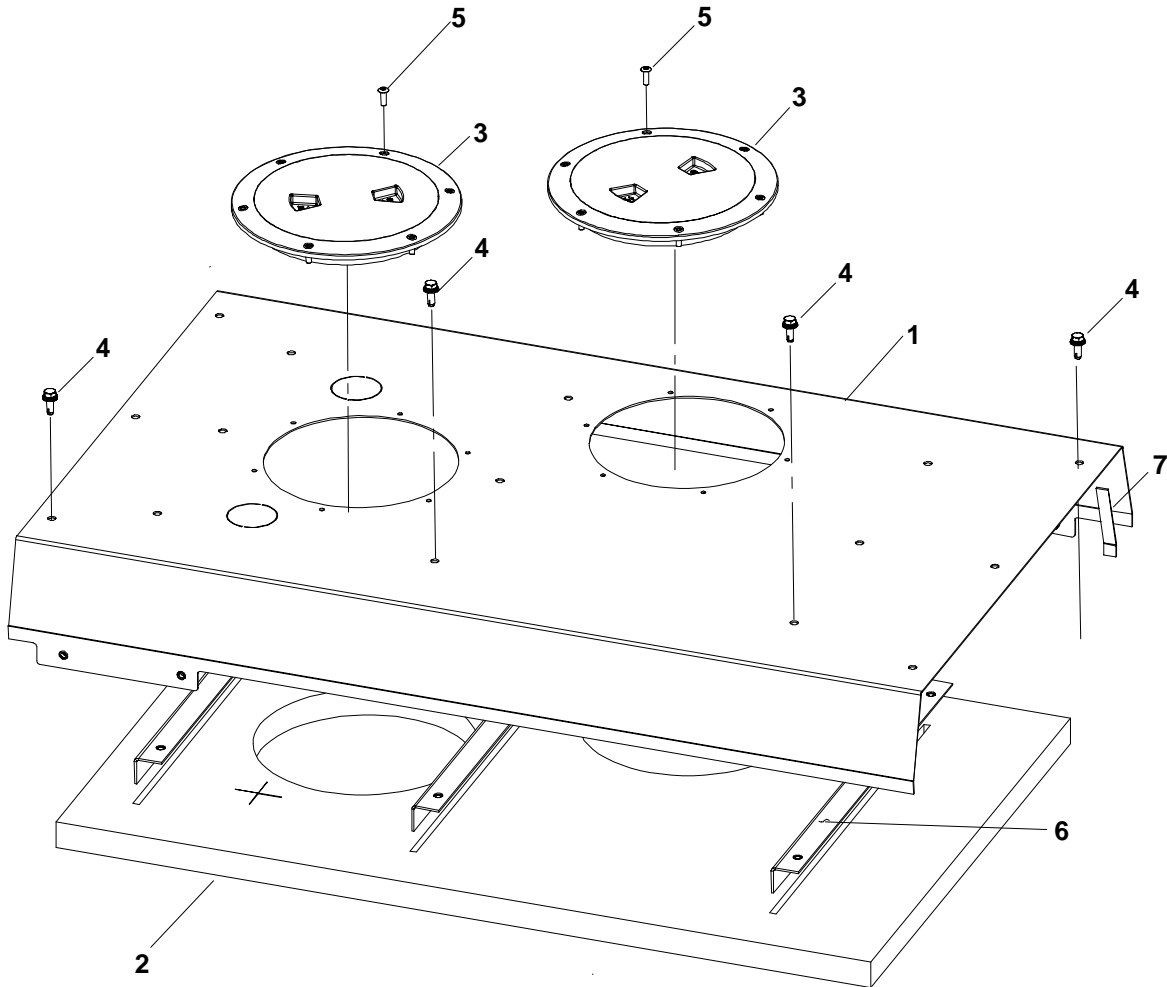
* - Parts Included in Battery Harness

Generator Baffle



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-7038-03	1	Baffle, Generator	6	517-0138-07	1	Plug, Hole
2	823-0002-02	4	Screw, Torx Thread Form (M4 x 0.7 x 8mm)	7	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1.0 x 16mm)
3	508-0051	1	Grommet, Rubber (MDKBD, MDKBE)	8	860-2021	5	Nut, Hex Head (M6 x 1mm)
4	405-7164-02	1	Bracket, Baffle	9	895-0308	7"	Tape, Polyurethane (MDKBF)
5	509-0368	1	Seal, Brush				

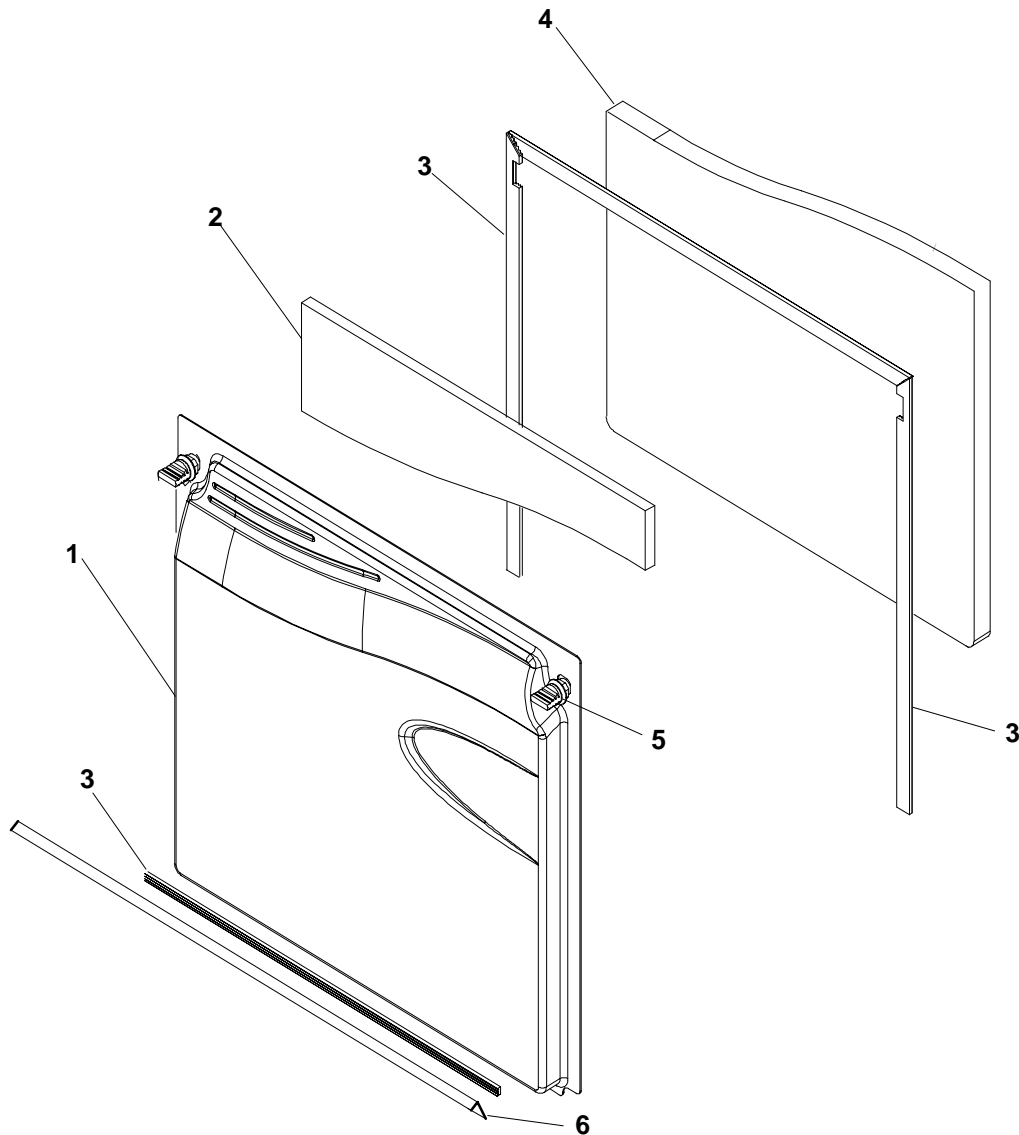
Engine Sound Shield



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Sound Shield (Complete, Includes Roof, Doors, Ends And Insulation, Refer to Pages 77-81)	2			*Insulation, Roof
	541-0830-01	1	MDKBD, MDKBE	405-6990	1		MDKBD, MDKBE
	541-0830-02	1	MDKBF	405-6991	1		MDKBF
			Kit, Roof Panel (Includes Parts Marked *)	3	405-6340	2	*Cover, Access
	405-7359-01	1	MDKBD, MDKBE	4			Screw, Hex Head Sems (M6 x 1 x 16mm) (MDKBD, MDKBE)
	405-7359-02	1	MDKBF				(MDKBF)
	405-7361	1	Kit, Roof Panel (MDKBF) (Includes Parts Marked-)	5	818-0239-03	12	Rivet, Pop
			*Panel, Roof	6	405-7345-02	3	*Stiffener, Enclosure (MDKBD, MDKBE)
1	405-6870-03	1	MDKBD, MDKBE	7	405-5052	4	*Gasket, Baffle
	405-6971-03	1	MDKBF				

* - Parts Included in Roof Panel Kit.

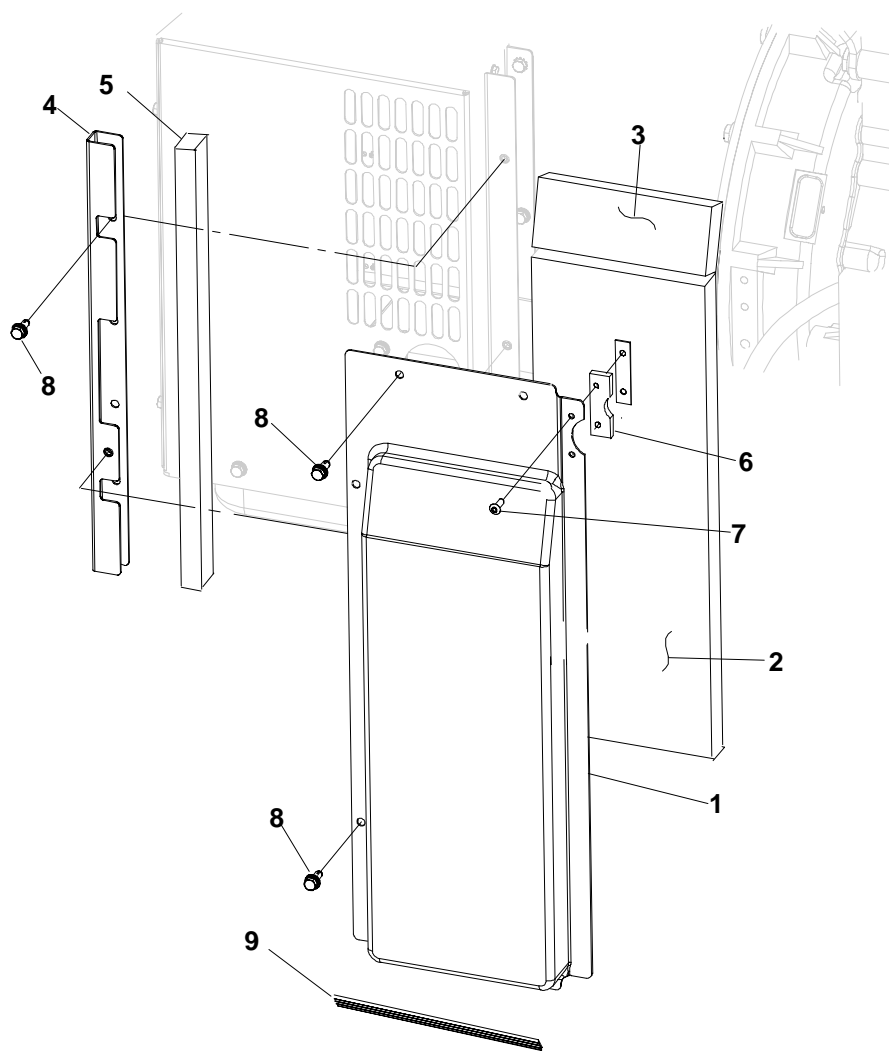
Engine Panel Sound Shield



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-6957-01	1	Kit, Door (Includes Parts Marked *)	5	406-0958	2	*Latch, Door (1/4 Turn Total 4 per Unit)
1	405-6519-03	1	*Door, Sound Shield	6			*Seal, Weather
2	405-6797	1	*Insulation, Door		895-0411	5.6'	MDKBD, MDKBE
3			Seal, Weather (For Single Side)		895-0411	7.1'	MDKBF
	895-0395	12.5'	MDKBD, MDKBE				
	895-0395	13.2'	MDKBF				
4	405-6687	1	*Insulation, Door				

* - Parts Included in Door Kit.
Parts quantity marked for single side only.

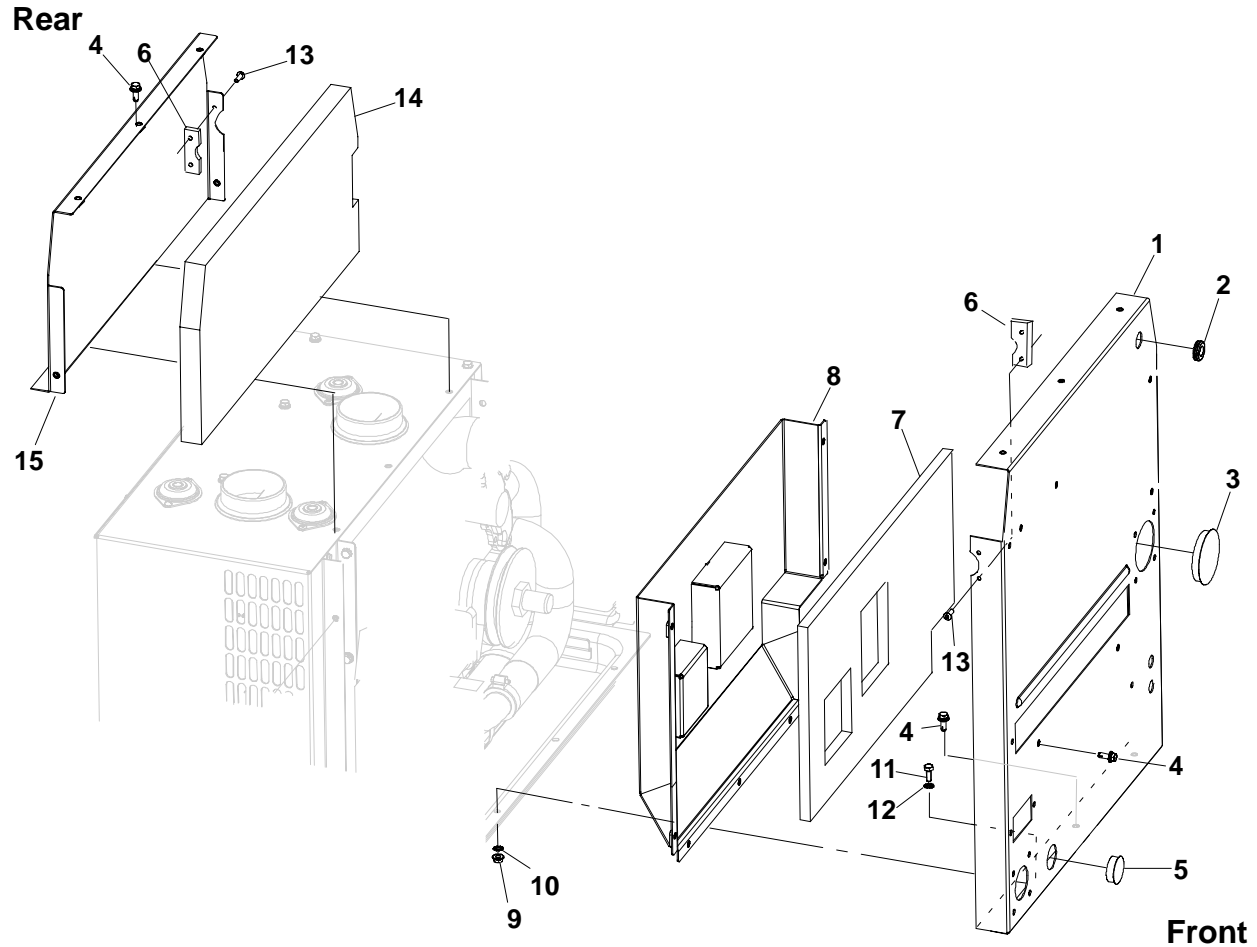
Engine Panel Sound Shield



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Access Panel (Includes Parts Marked *)	4	405-7104-03	1	Spacer, Panel
	405-7357-01	1	MDKBD, MDKBE	5	405-7347	1	*Insulation
	405-7357-02	1	MDKBF	6	406-1032	2	*Catch, Door
1			*Panel, Access	7	818-0217-03	2	*Rivet
	405-6972-03	1	MDKBD, MDKBE	8	821-6006-01	8	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
	405-7102-03	1	MDKBF	9			*Seal, Weather
2			*Insulation, Access Panel Sound Lower	895-0395		AR	MDKBD, MDKBE (0.2')
	405-6995-01	1	MDKBD, MDKBE	895-0395		AR	MDKBF (0.9')
	405-6995-02	1	MDKBF				
3			*Insulation, Access Panel Sound, Upper				
	405-6993-01	1	MDKBD, MDKBE				
	405-6993-02	1	MDKBF				

* - Parts Included in Access Panel Kit.
Parts quantity marked for single side only.

Engine Panel Sound Shield (Front and Rear with out PTO)

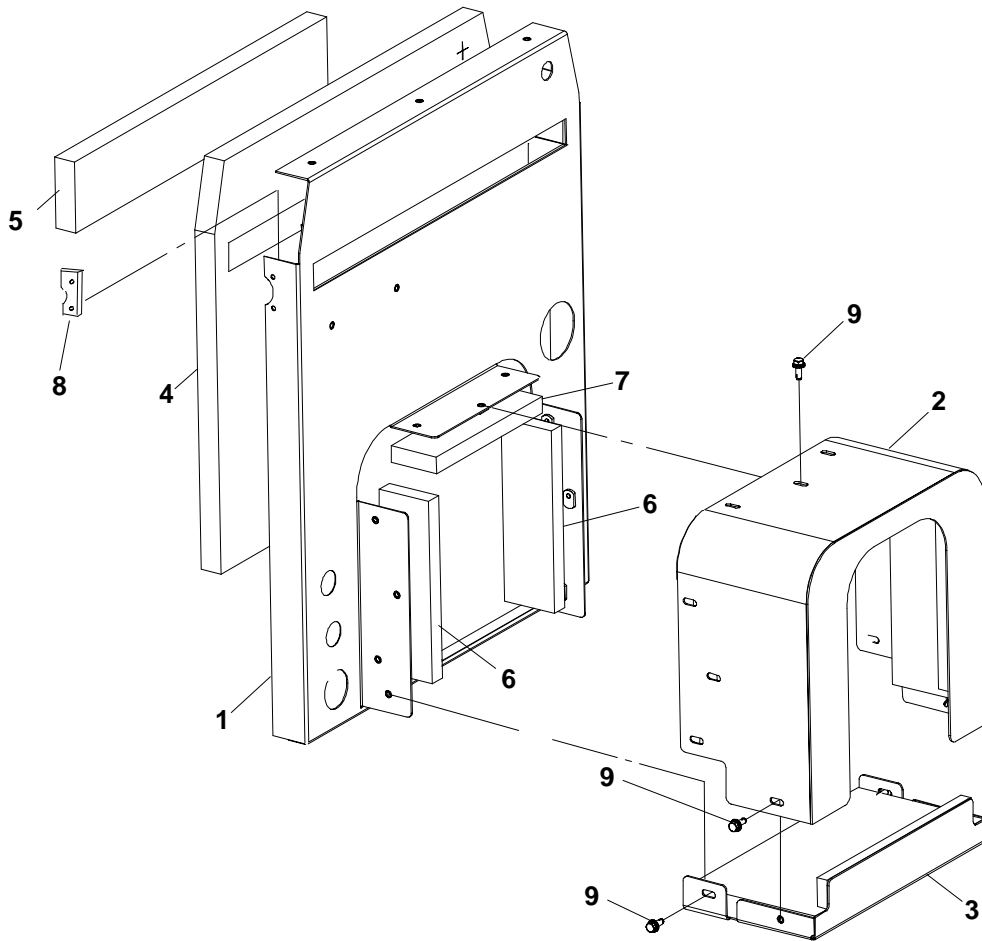


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-7358-01	1	Kit, Enclosure Panel (Includes Parts Marked *)	11	800-6033	1	Screw, Hex Head (M6 x1 x 16mm)
	405-7360	1	Kit, Duct Panel (Includes Parts Marked +)	12	853-2006	1	Washer, Lock ET (M6)
1	405-6868-03	1	*Panel, Enclosure (Front W/O PTO)	13	818-0217-03	4	~*Rivet
2	508-0021	1	Grommet	14	405-7179	1	~Insulation, Roof End
3	517-0138-09	1	*Plug, Hole	15	405-6871-03	1	~Panel, Roof End
4	821-6006-01	6	Screw, Hex Head Sems Stainless (M6 x1 x 16mm)				
5	517-0138-04	1	*Plug, Hole				
6	406-1032	2	*~Catch, Door				
7	405-6992	1	+Insulation, Duct (W/O PTO)				
8	405-7350-03	1	+Panel, Duct (W/O PTO)				
9	860-2021	3	Nut, Lock Flanged (M6 x 1mm)				
10	850-2056	1	Washer, (M6)				

* - Parts Included in Enclosure Panel Kit MDKBD, MDKBE, MDKBF.
+ - Parts Included in Duct Panel Kit MDKBD, MDKBE, MDKBF.
~ - Parts Included in Roof Panel Kit MDKBD, MDKBE, MDKBF.

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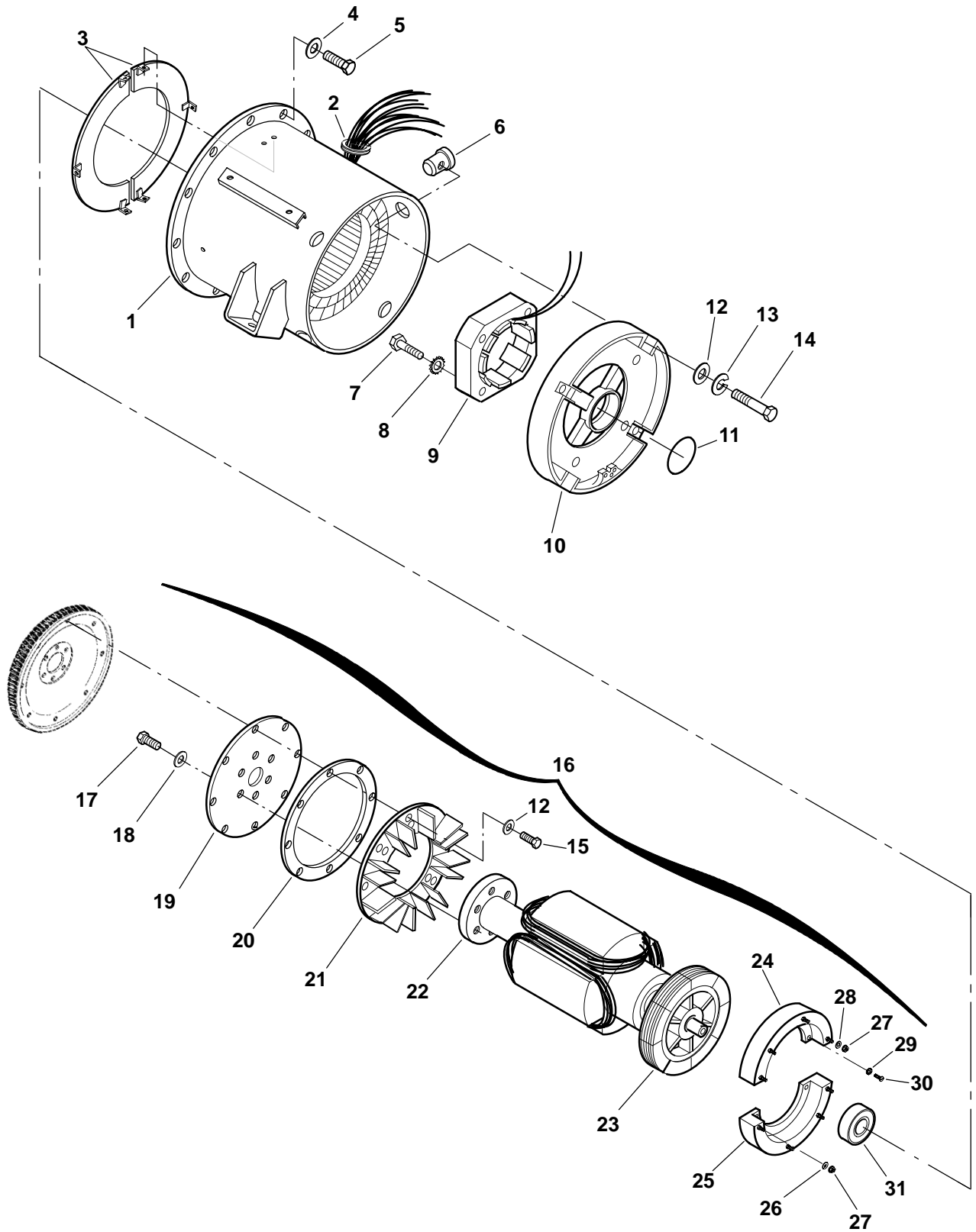
Engine Panel Sound Shield (Front w/PTO)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	405-7358-02	1	Kit, Panel Enclosure (Includes Parts Marked *)	8	406-1032	1	*Catch, Door
	190-0778	1	Kit, Coupling Guard (Includes Parts Marked +)	9	821-6006-01	8	+Screw, Hex Head Sems Stainless (M6 x1 x 16mm)
1	405-7230-03	1	*+Panel, Enclosure				
2	405-6812-02	1	+Guard, Coupling				
3	405-6817	1	+Guard, Coupling (Lower)				
4	405-7231	1	*+Insulation, Sound				
5	405-5010-02	1	*Insulation				
6	405-6866	2	*+Insulation, Sound				
7	405-6867	1	*+Insulation, Sound				

* - Parts Included in Enclosure Panel Kit with PTO.
+ - Parts Included in Coupling Guard Kit with PTO.

Generator



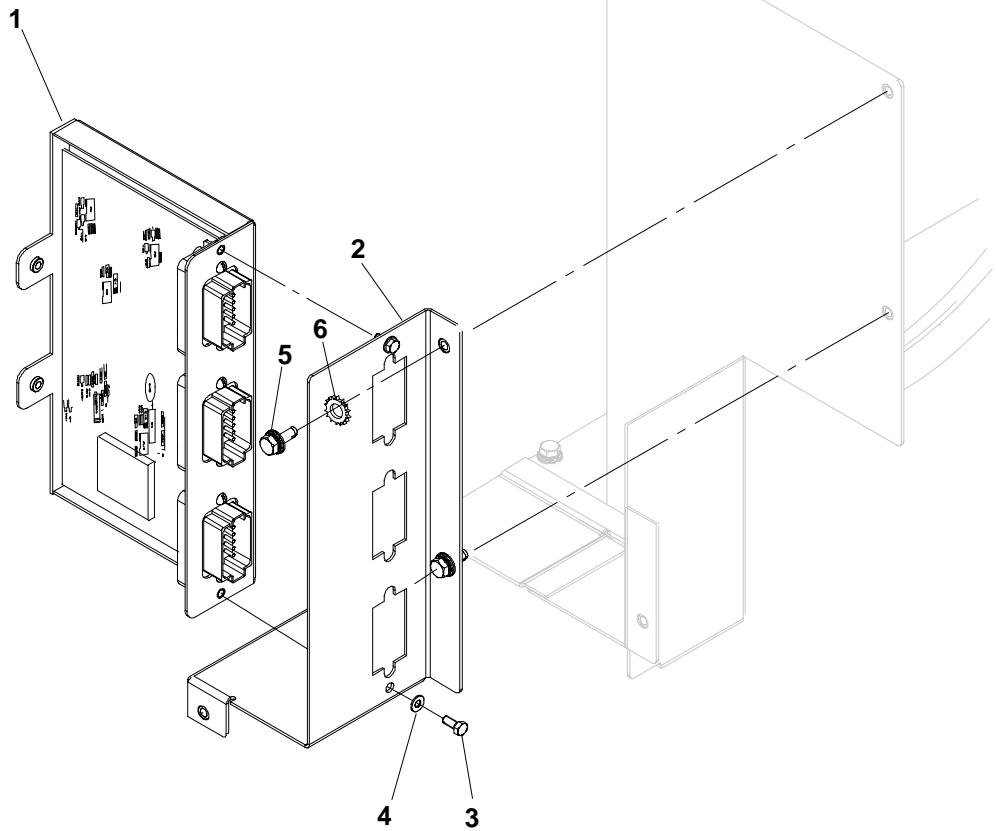
Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stator, Generator (Includes Grommet) Single Phase	17			*Bolt, Hex Head Cap MDKBD, MDKBE (.50-13 UMC x 1.0")
	220-4618-02	1	MDKBD		800-3010-64	6	
	220-4618-04	1	MDKBE		800-3017-52	6	MDKBF (M12 x 1.75 20mm)
	220-4618-06	1	MDKBF	18			*Washer, Flat MDKBD, MDKBE
			Three Phase				(.50")
	220-4619-02	1	MDKBD		526-0399-44	6	MDKBF
	220-4619-04	1	MDKBE		526-0399-73	6	(M12)
	220-4619-06	1	MDKBF	19			*Disc, Drive MDKBD, MDKBE
2	508-1073	1	Grommet		232-3672-03	1	MDKBF
3	234-0935-02	2	Baffle, Air (3 Phase)	20	232-3826-02	1	*Spacer, Fan
4	526-0174	12	Washer, Flat (3/8)	21	205-0229-02	1	*Fan, Generator
5	800-0051	12	Screw, Hex Head Cap (3/8-16 x 1-1/4)	22			*Hub, Drive MDKBD, MDKBE
6	232-3706-02	4	Retainer, Endbell		232-3705-01	1	MDKBF
7	815-0935	4	Screw, Hex Head Thread Forming (1/4-20 x 2")		232-2815-04	1	MDKBF
8	853-0013	4	Washer, ET Lock (1/4")	23	201-3515-02		*Excitor, Rotor, Wound
9	220-4413-02	1	Stator, Wound	24	358-0069	1	*Rectifier (Positive)
10	211-0465-02	1	Endbell	25	358-0070	1	*Rectifier (Negative)
11	509-0094	1	Seal, O'Ring	26	526-0008	10	*Washer, Flat (#10)
12	526-0399-42	12	Washer, Flat (3/8)	27	870-0131	6	*Nut, ET Hex (.190-32)
13	850-0114-06	4	Washer, Lock (5/16")	28	526-0399	8	*Washer, Flat (#10)
14	800-0310-27	4	Screw, Hex Head Cap (5/16"-18 x 2-1/2")	29	853-0008	4	*Washer, ET Lock (.190")
15	800-0310-36	8	Screw, Hex Head Cap (3/8-16 x 1)	30	813-0100	4	*Screw, Pan Head Machine (.190-32 x .50")
16			Rotor Assy, Generator (Includes Parts Marked *)	31	510-0112	1	*Bearing, Ball
	201-3517-02	1	MDKBD				
	201-3517-04	1	MKDDBE				
	201-3517-06	1	MDKBF				

* - Parts Included in Generator Rotor Assy.

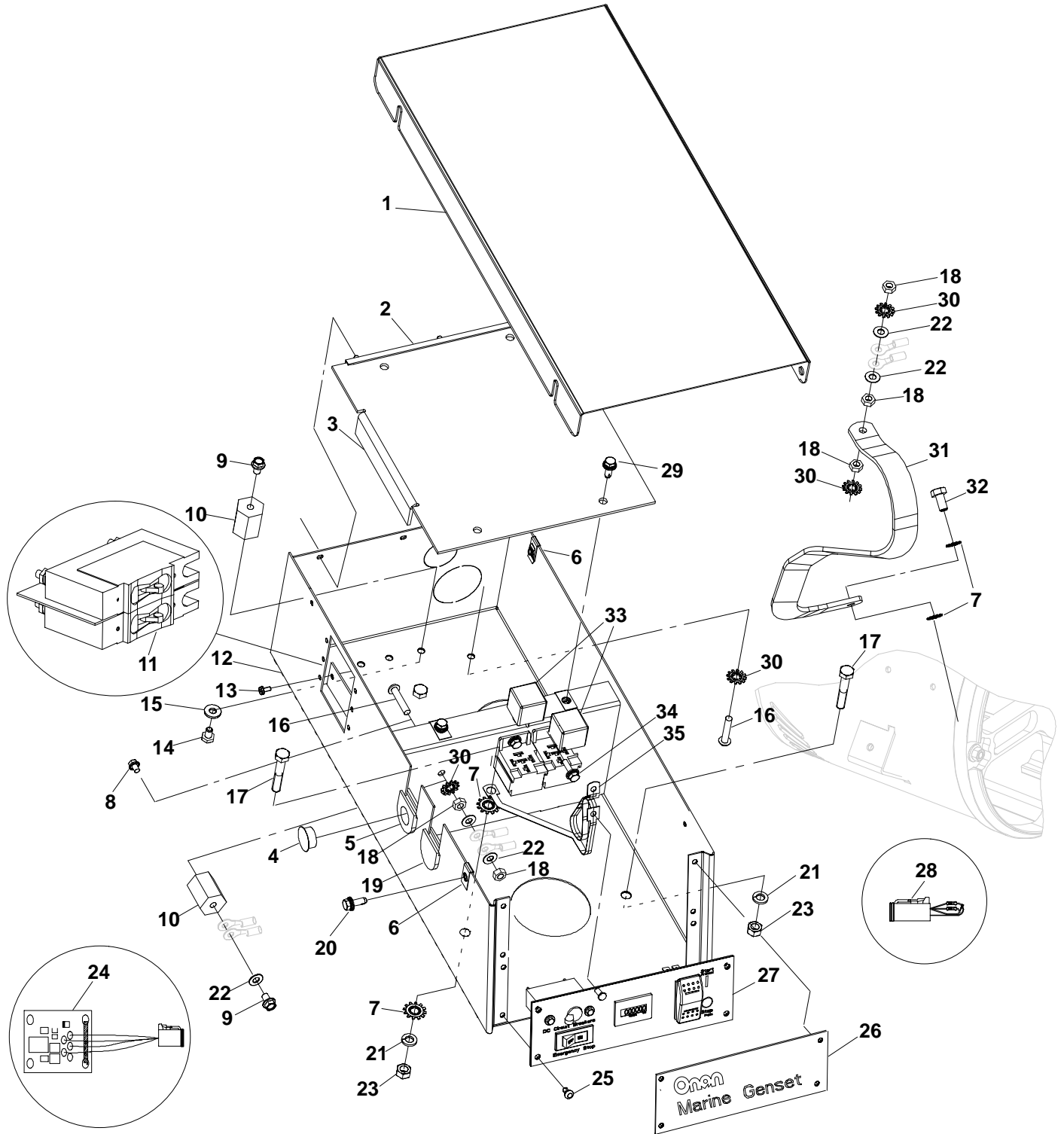
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PCB Mounting



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			PCB, Control	2	405-6522-03	1	Panel, UMC Mounting
	327-1386	1	Single Phase Spec A	3	800-3042	2	Screw, Hex (M4 x 10)
	327-1412	1	Signal and Three Phase Spec A	4	526-2050	2	Washer, Flat (M4)
	327-1533	1	Single Phase Begin Spec B	5	800-6033	2	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
	327-1534	1	Signal and Three Phase Begin Spec B	6	853-2006	2	Washer, ET (M6)

Control Box



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0583	1	Kit, Blank Panel 12V (Includes Parts Mark *)	2	332-3750	1	Guide, Card
	541-0584	1	Kit, Blank Panel 24V (includes Parts Marked +)	3	319-4404	1	Cover, Small Control
1	319-4370-03	1	Cover, Large Control	4	517-0136	1	Plug, Hole
				5	508-1105	1	Grommet, Remote

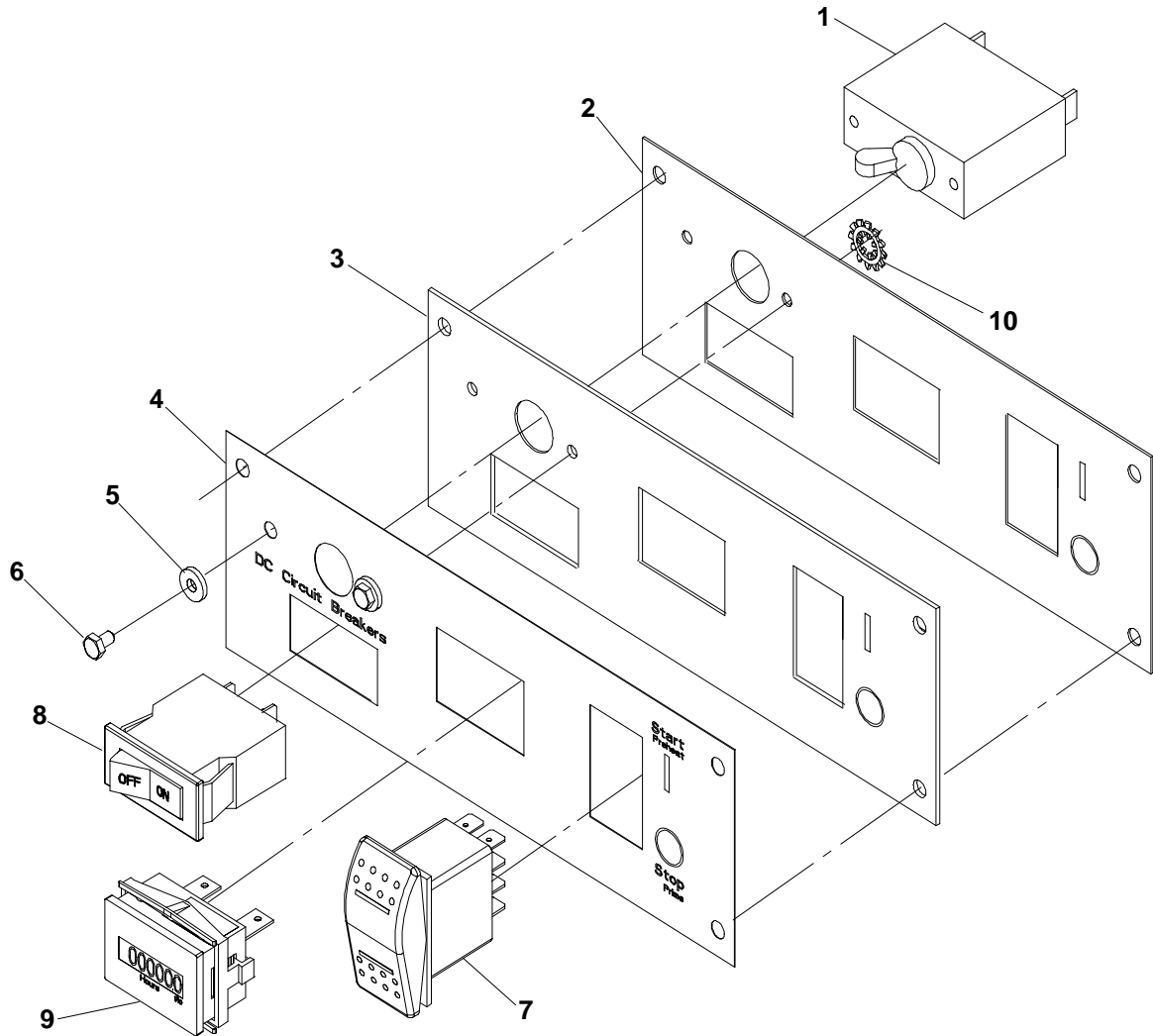
Control Box

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	870-2228	6	Nut, Clip	13			Screw, Phillips Head (6-32 x .31")
7	856-0008	2	Washer, EIT (5/16")				Single Phase
8	821-0008	1	Screw, Locking Head (Isolated Gnd Only)		815-0550-01	4	Three Phase
9			Screw, Hex Head Flanged (1/4-20 x .375")	14			Screw, Hex Cap (1/4-20 x .375")
	821-0009	2	Single Phase Negative Gnd		800-0310-01	2	Single Phase
	821-0009	3	Three Phase Negative Gnd	15	800-0310-01	3	Three Phase
	821-0009	3	Single Phase Isolated Gnd		526-0399-13	2	Washer, Flat (1/4-20)
	821-0009	4	Three Phase Isolated Gnd		526-0399-13	3	Single Phase
10			Standoff, Insulation	16			Three Phase
	332-2370	2	Single Phase Negative Gnd		810-0155	2	Screw, Brass (14-20 x 1.25")
	332-2370	3	Three Phase Negative Gnd		810-0155	1	Neg, Ground
	332-2370	3	Single Phase Isolated Gnd	17	800-6062	3	Iso, Ground
	332-2370	4	Three Phase Isolated Gnd				Bolt, Hex Stainless (M8 x 1.25 x 45mm)
11			Breaker, Circuit MDKBD	18			Nut, Brass (1/4-20)
			2 Pole.(120/240V)		871-0016	5	Negative Ground
	1689-09	1	55 Amp		871-0016	3	Isolated Ground
	320-1689-10	1	60 Amp	19	508-1105-01	1	Grommet, Remote
	320-1689-12	1	70 Amp	20	821-6006-01	6	Screw, Sims Stainless (M6 x 1 x 16mm)
			3 Pole.(240V)	21	850-2058	3	Washer, Split Lock Stainless (M8)
	320-1836-07	1	45 Amp				Washer, Flat Brass (1/4")
	320-1836-09	1	55 Amp	22			Negative Ground
			3 Pole.(277/480V)		526-0052	4	Isolated Ground
	320-1891-01	1	25 Amp		526-0052	3	Nut, Hex Stainless (M8 x 1.25)
	320-1891-02	1	30 Amp	23	860-2058	3	+PCB, Regulator (Single Phase 24V PCB 327-1386 only)
			MDKBE	24	327-1268	1	Rivet, Drive (Plastic) (1/4-20 x .31) Iso Ground
			1 Pole.(120/240V)	25	818-1150-03	8	*+Panel Assy, Blank (Includes Label Washer and Nuts)
	320-1690-12	1	75 Amp				Panel, Control (See Separate Page For Components)
			2 Pole.(120/240V)	26	300-5474	1	12VDC
	320-1689-10	1	60 Amp				24VDC
	320-1689-12	1	70 Amp	27			*Plug, Resistor
	320-1689-13	1	75 Amp				12VDC
	320-1689-15	1	85 Amp				24VDC
	320-1689-17	1	95 Amp		300-5476-03	1	Screw, Hex Sems Stainless (M6 x 1 x 16mm)
			3 Pole.(240V)		300-5476-04	1	Washer, Lock (1/4")
	320-1836-09	1	55 Amp	28			Negative Ground
	320-1836-11	1	65 Amp		323-1933	1	Isolated Ground
	320-1836-12	1	70 Amp		323-2072	1	Strap, Bond
			3 Pole.(277/480V)	29	821-6006-01	6	Screw, Hex Cap (M8 x 1.25 x 16mm)
	320-1891-02	1	25 Amp				Relay (SPDT)
	320-1891-04	1	35 Amp	30			12 VDC (K3, K4)
			MDKBF				24 VDC (K3)
			1 Pole.(120/240V)				24 VDC (K4)
	320-1690-14	1	95 Amp				Screw, Hex Head Sems (M5 x 0.8 x 30mm)
			2 Pole.(120/240V)	31			Strap, Bond
	320-1689-15	1	85 Amp	32	800-3017-18	1	
	320-1689-16	1	90 Amp				
	320-1689-17	1	95 Amp	33			
	320-1689-18	1	100 Amp		307-2767	2	
			3 Pole.(240V)		307-2767	1	
	320-1836-12	1	70 Amp		307-2819	1	
	320-1836-13	1	75 Amp	34	821-6001-03	2	
	320-1836-14	1	80 Amp				
	320-1836-15	1	85 Amp	35	337-3508	1	
	320-1836-16	1	90 Amp				
			3 Pole.(277/480V)				
	320-1891-07	1	45 Amp				
	320-1891-08	1	40 Amp				
12	319-4367-03	1	Box, Control				

* - Parts Included in Panel Kit 12V.

+ - Parts Included in Panel Kit 24V.

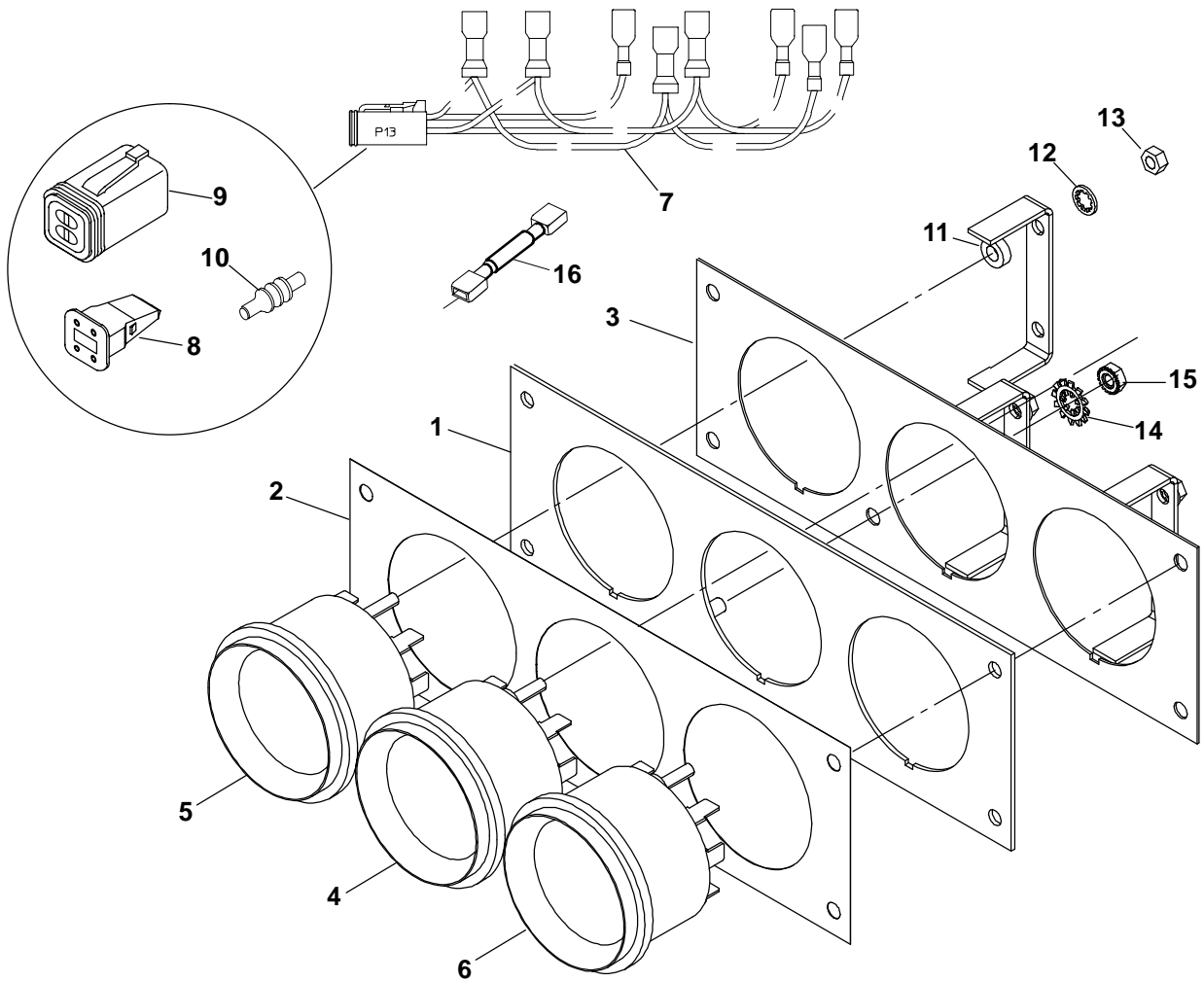
Control Panel



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Assy, Panel (Used on Control Box)	308-1102		1	24VDC
	300-5476-03	1	12V	308-1101		1	12VDC
	300-5476-04	1	24V	8	320-1140	1	Breaker, Circuit (15 Amp)
1	320-1862-01	1	Breaker, Circuit (50 Amp)	9	302-2048	1	Meter, Hour
2	319-4467-02	1	Panel, Control (Ground)	10	856-0003	2	Washer, EIT Lock (#10)
3	319-4368-06	1	Panel, Control				
4	98-7781	1	Label, Control				
5	526-0399-05	2	Washer, Flat (#6)				
6	800-0309-10	2	Screw, Hex Head (6-32 x 1/4")				
7			Switch, Rocker SPDT				

* - See Control Box for Location.

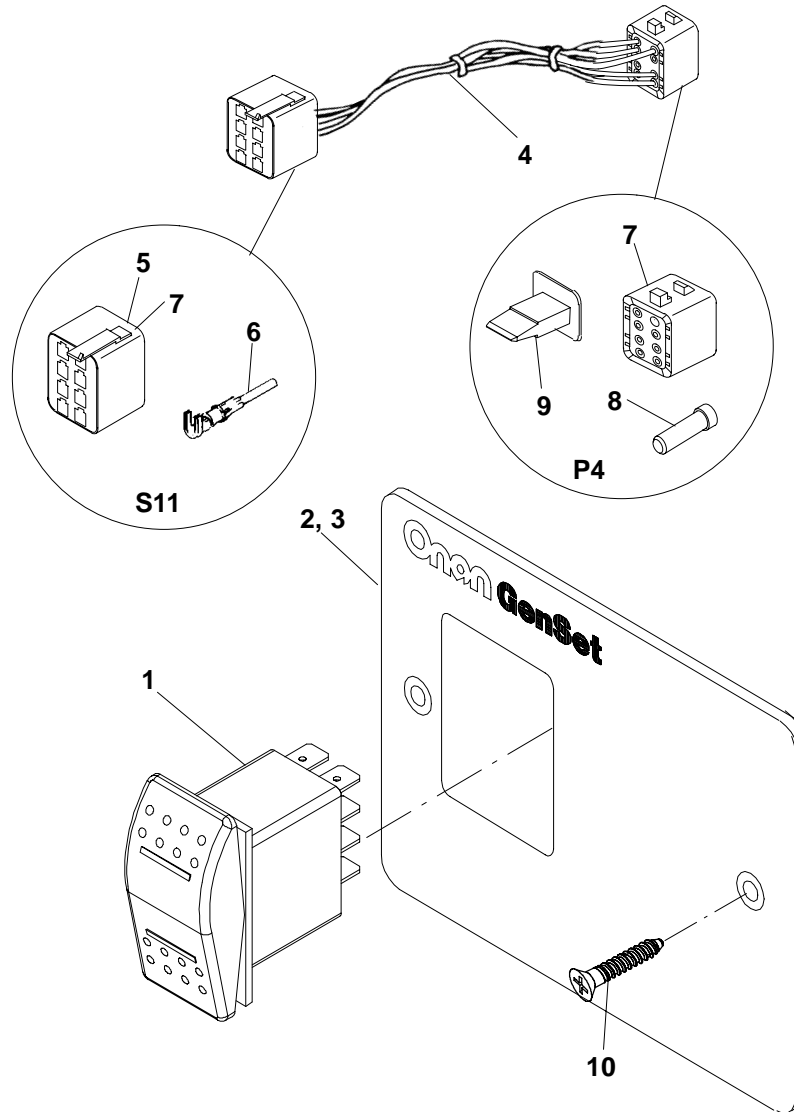
Gauge Panel Components



QTY NO.	PART NO.	REF USED	PART DESCRIPTION	QTY NO.	PART NO.	REF USED	PART DESCRIPTION
			Kit, Gauge Panel (Includes Parts Marked *)	8	323-1548	1	Wedge, Plug
	541-1206-01	1	12V	9	323-1546	1	Connector, Plug
	541-1206-02	1	24V	10	323-1492	4	Terminal, Pin
1	319-4368-05	1	*Panel, Control	11	526-0409	6	*Washer, Nylon (M4)
2	98-7845	1	*Label, Control	12	850-0114-51	6	*Washer, Lock (M4)
3	319-4467-01	1	*Panel, Control (GND)	13	860-2025	6	*Nut, Hex (M4 x 0.7)
4	302-2087	1	*Meter, Water Temp	14	856-0003	1	*Washer, ETIT Lock (#10)
5	302-2088	1	*Meter, Oil Pressure	15	870-0131	1	Nut, Sems ET
6			*Voltmeter	16			Resistor (24V Only)
	302-2051-01	1	12V		304-0835-04	1	620 Ohms
	302-2051-02	1	24V		304-0835-03	1	330 Ohms
7	338-4010	1	*Harness, Gauge Panel (Includes Connector, Wedge and Plug)				

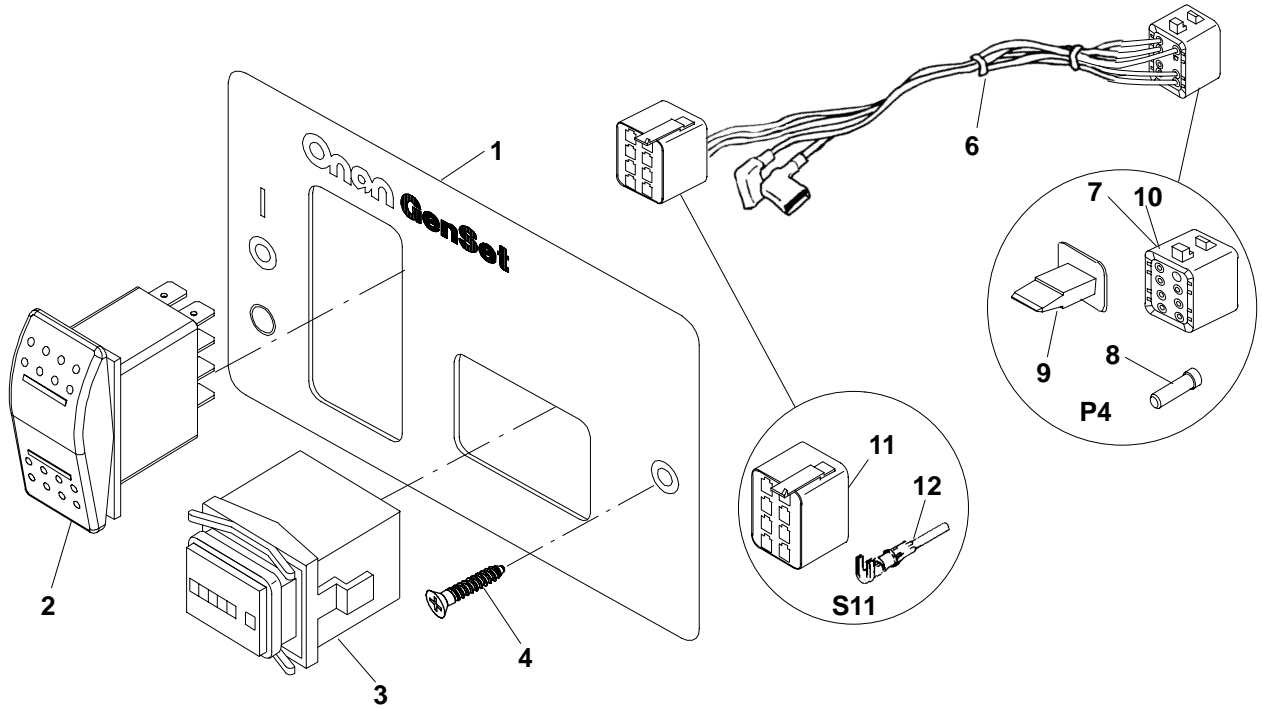
* - Parts Included in Gauge Panel Kit.

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 +)	5	308-1019	1	*Connector, Switch (S11)
	541-0941-01	1	12V	6	332-2890	6	*Terminal, Receptacle (.25")
	541-0941-02	1	24V	7	323-1492	6	*Pin, Contact
			Kit, Panel Remote (Includes Parts Marked #)	8	323-1591	3	*Plug, Seal
	300-5725-01	1	12V	9	323-1543	1	*Wedge, Plug (8 Pin)
	300-5725-02	1	24V	10	815-0910	2	#Screw, Wood (#6 x 1)
1			+#Switch, Rocker (S11)	11	98-8081	1	+#Label, Warning
	308-1101	1	12V	+ - Parts Included in Remote Switch Harness. # - Parts Included in Remote * - Parts Included in Remote Panel Harness.			
	308-1102	1	24V				
2	319-4996	1	#Panel, Remote (Includes Printing)				
3	98-8092	1	+Label, Instruction				
4	338-3988	1	+#Harness, Remote Panel (Includes Parts Marked *)				

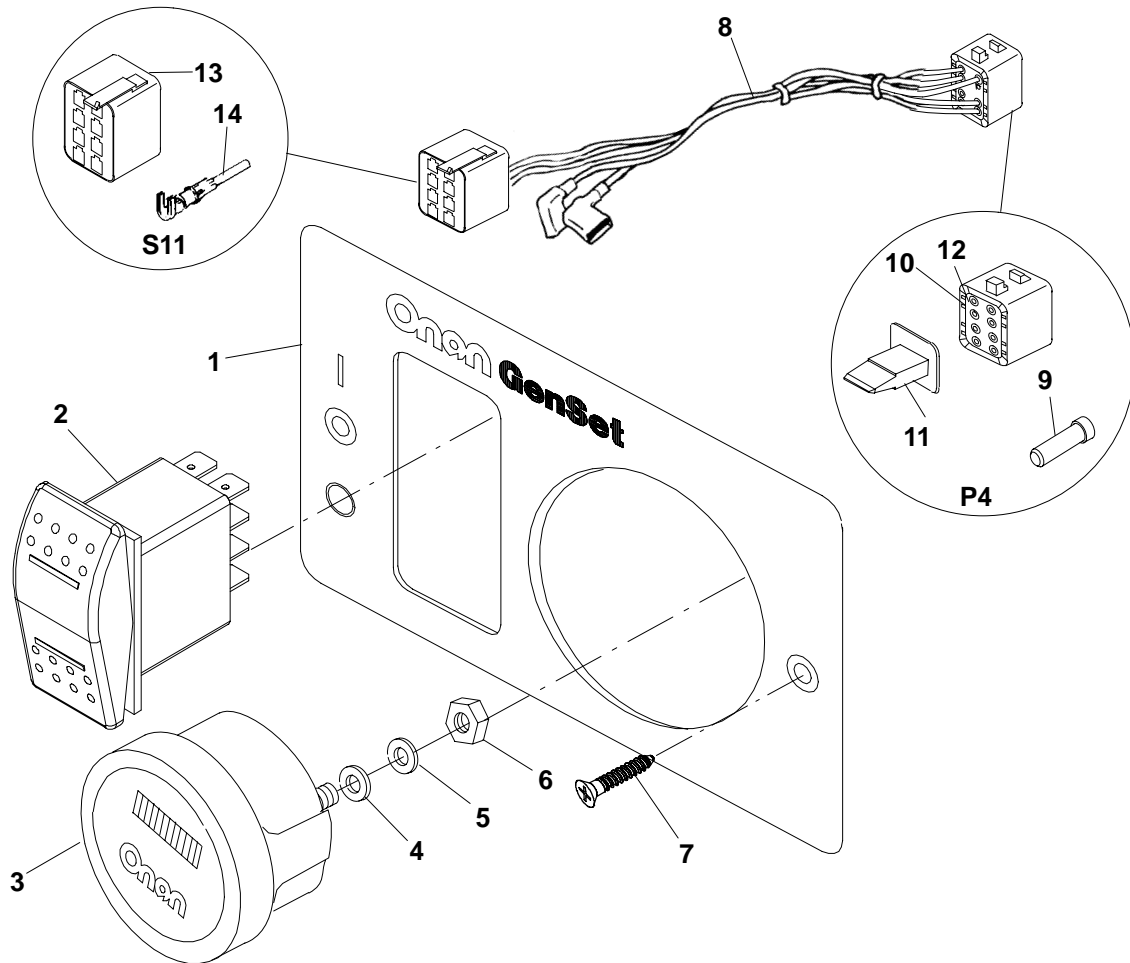
Remote Switch Panel w/Hour Meter



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Panel, Remote				
	300-5727-01	1	12V	7	323-1541	1	*Plug (8 Pin) (P4)
	300-5727-02	1	24V	8	323-1591	2	*Plug, Seal
1	319-4998	1	Panel, Remote Printed	9	323-1543	1	*Wedge, Plug (8 Pin)
2			Switch, Rocker (S11)	10	323-1492	6	*Pin, Contact
	308-1101	1	12V	11	308-1019	1	*Connector, Switch (S11)
	308-1102	1	24V	12	332-2890	6	*Terminal, Receptacle (.25")
3	302-2048	1	Meter, Hour (M11)				
4	815-0910	2	Screw, Wood (#6 x 1)				
5	98-8081	1	Label, Warning				
6	338-3990	1	Harness, Remote Panel (Includes Parts Marked *)				

* - Parts Included in Remote Panel Wiring Harness.

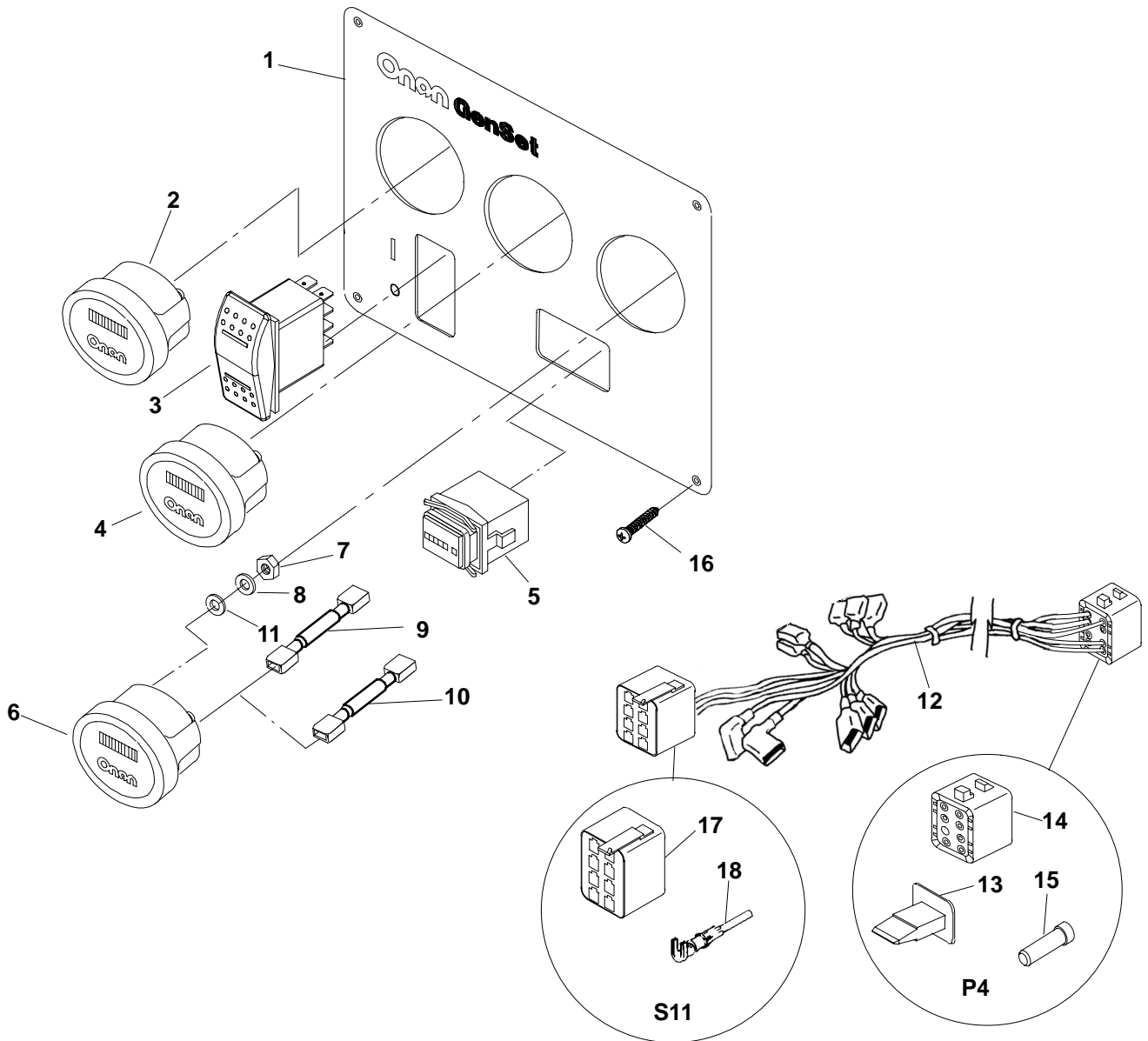
Deluxe Remote Control Panel w/Volt Meter



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Remote Panel	8	338-3990	1	Harness, Remote Panel (Includes Parts Marked *)
	300-5726-01	1	12V	9	323-1541	1	*Plug, (8 Pin) (J4)
	300-5726-02	1	24V	10	323-1591	2	*Plug, Seal
1	319-4997	1	Panel, Remote Printed	11	323-1543	1	*Wedge, Plug (8 Pin)
2			Switch, Rocker (S11)	12	323-1492	6	*Pin, Contact
	308-1101	1	12V	13	308-1019	1	*Connector, Switch (S11)
	308-1102	1	24V	14	332-2890	6	*Terminal, Receptacle (.25")
3			Meter, Volt (M14)	15	98-8092	1	Label, Instruction
	302-2051-01	1	12V (8-18V)	16	98-8081	1	Label, Warning
	302-2051-02	1	24V (16-36V)				
4	526-0409	2	Washer, Nylon				
5	850-0114-51	2	Washer, lock				
6	860-2025	2	Nut, Hex (M4 x .7)				
7	815-0910	2	Screw, Wood (#6 x 1)				

* - Parts Included in Remote Panel Wiring Harness.

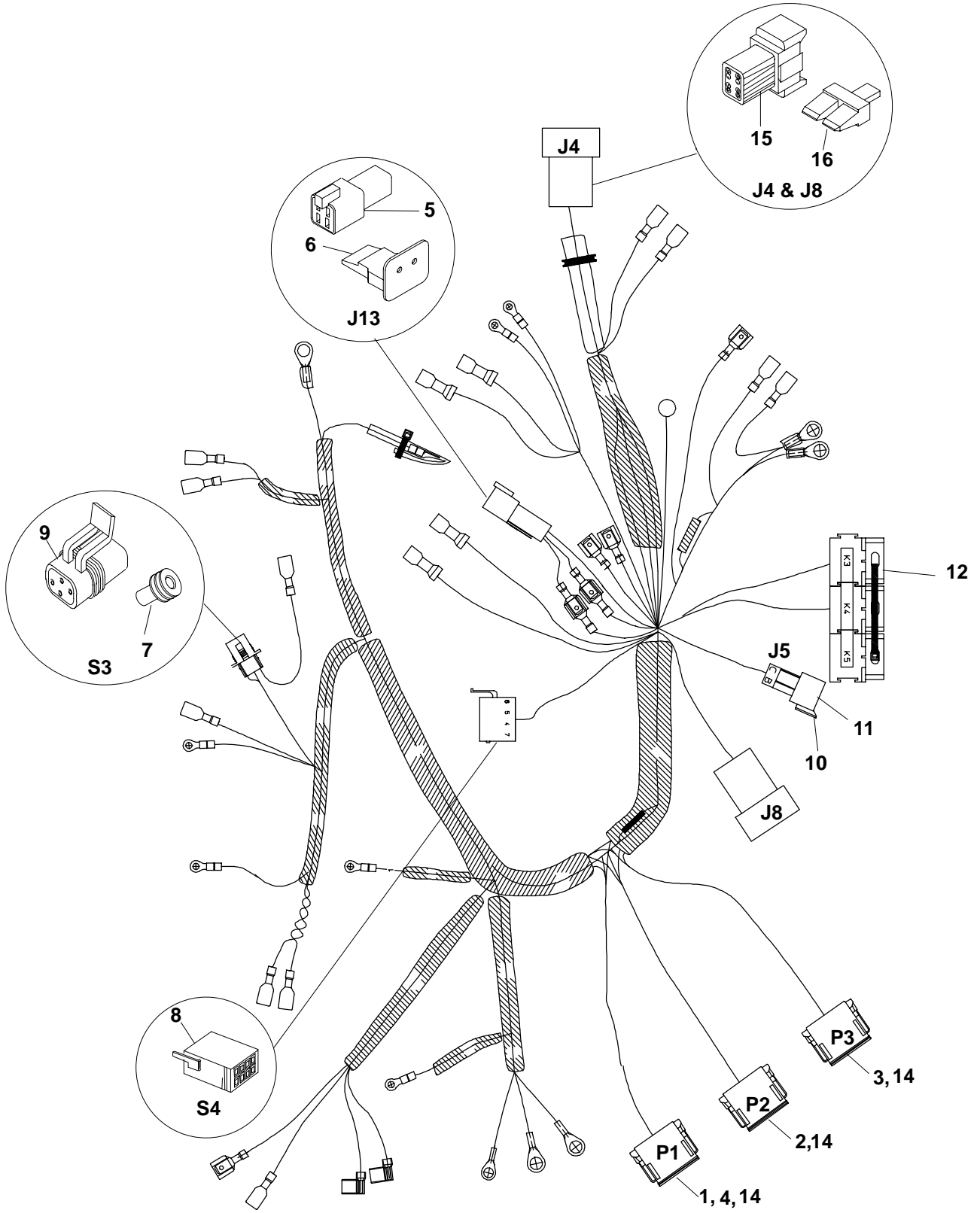
Remote Switch and Gauge Panel



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Panel, Remote Gauge				
	541-1207-01	1	12V	10	304-0835-04	1	Resistor (24V, 620 Ohms)
	541-1207-02	1	24V	11	526-0409	6	Washer, Nylon
1	319-3254-02	1	Panel, Remote	12	338-3989	1	+Harness, Remote Panel (Includes Parts Marked +)
2	302-2088	1	Gauge, Oil Pressure (M12)	13	323-1543	1	+Wedge, Plug (8 Pin)
3			Switch, Rocker (SPDT) (S11)	14	323-1541	1	+Plug (8 Pin) (P4)
	308-1101	1	12V Sets	15	323-1591	8	+Pin, Contact
	308-1102	1	24V Sets	16	819-1156-01	4	Screw, Pan Head Sheet Metal (#8-15 x 1.00")
4	302-2087	1	Gauge, Water Temperature (M13)	17	308-1019	1	+Connector, Switch (S11)
5	302-2048	1	Meter, Running Time (M11)	18	332-2890	6	+Terminal. Connector
6			Meter, Volt (M14)	19	98-7853	1	Label Control (Face)
	302-2051-01	1	12V Sets (8-18V)	20	98-7840	1	Label, Panel
	302-2051-02	1	24V Sets (18-34V)				
7	860-2025	6	Nut, Hex Head (M4 x .7)				
8	850-0114-51	6	Washer, Lock				
9	304-0835-03	1	Resistor (24V, 330 Ohms)				

+ - Parts Included in Remote Panel Harness

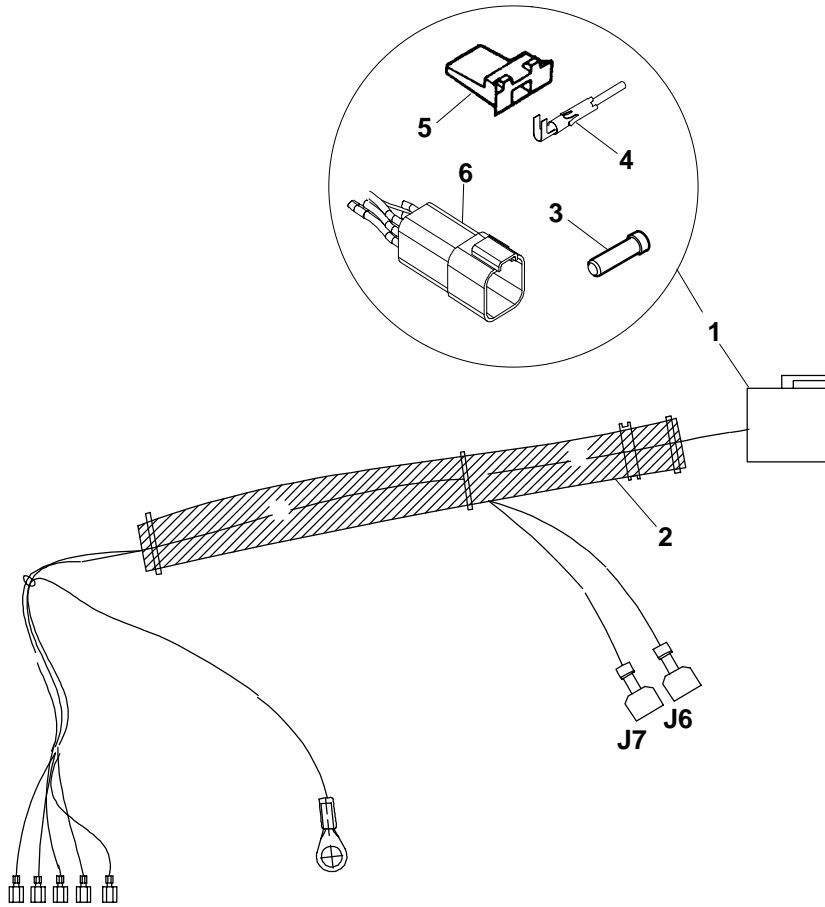
Control Harness



Control Harness

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4091	1	Harness, Control	9	323-1765	1	Connector, Housing 4 Pin (S3)
1	320-1582-06	1	Plug (12 Pin, Black P1)	10	323-1494	1	Connector, Receptacle 3 Pin
2	323-1582-07	1	Plug (12 Pin, Gray P2)	11	323-1502	1	Wedge
3	323-1582-05	1	Plug (12 Pin, Green P3)	12	323-1563	1	Socket, Relay
4	323-1591	AR	Plug (P1)	13	332-3388	3	Relay
5	323-1549	1	Receptacle 4 Pin (J9)	14	323-1583	3	Plug, Wedge 12 Pin, P1, P2, P3
6	323-1547	1	Receptacle, Wedge (J9)	15	323-1542	2	Connector, Receptacle 8 Pin (J4, J8)
7	323-1708	AR	Seal,Cable(S3)				
8	308-1019	1	Switch, Connector (S4)	16	323-1544	2	Receptacle, Wedge(J4, J8)

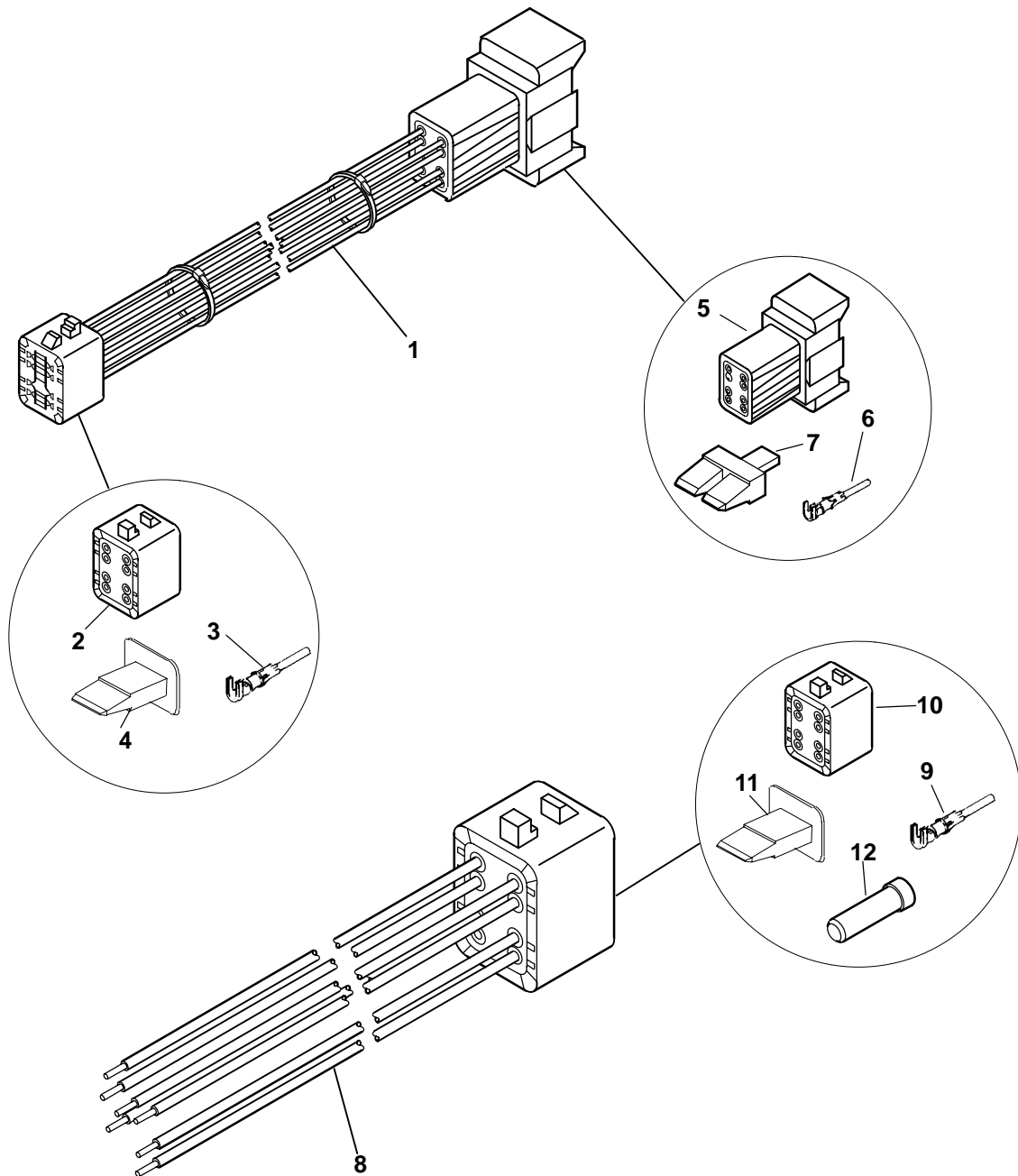
Auxiliary Control Harness



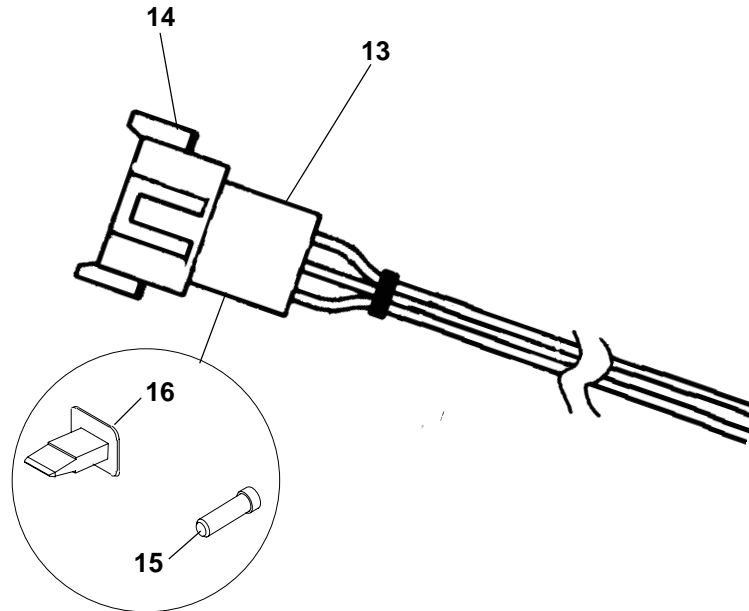
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4213	1	Harness, Auxiliary Control (Includes Parts Marked #)
2	508-1105	1	Grommet
3	323-1591	1	Plug, Connector
4	323-1491	5	Terminal, Pin
5	323-1626	1	Wedge, Receptacle (6 Pin)
6	323-1625	1	Connector, Receptacle (6 Pin)

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Wiring Harnesses



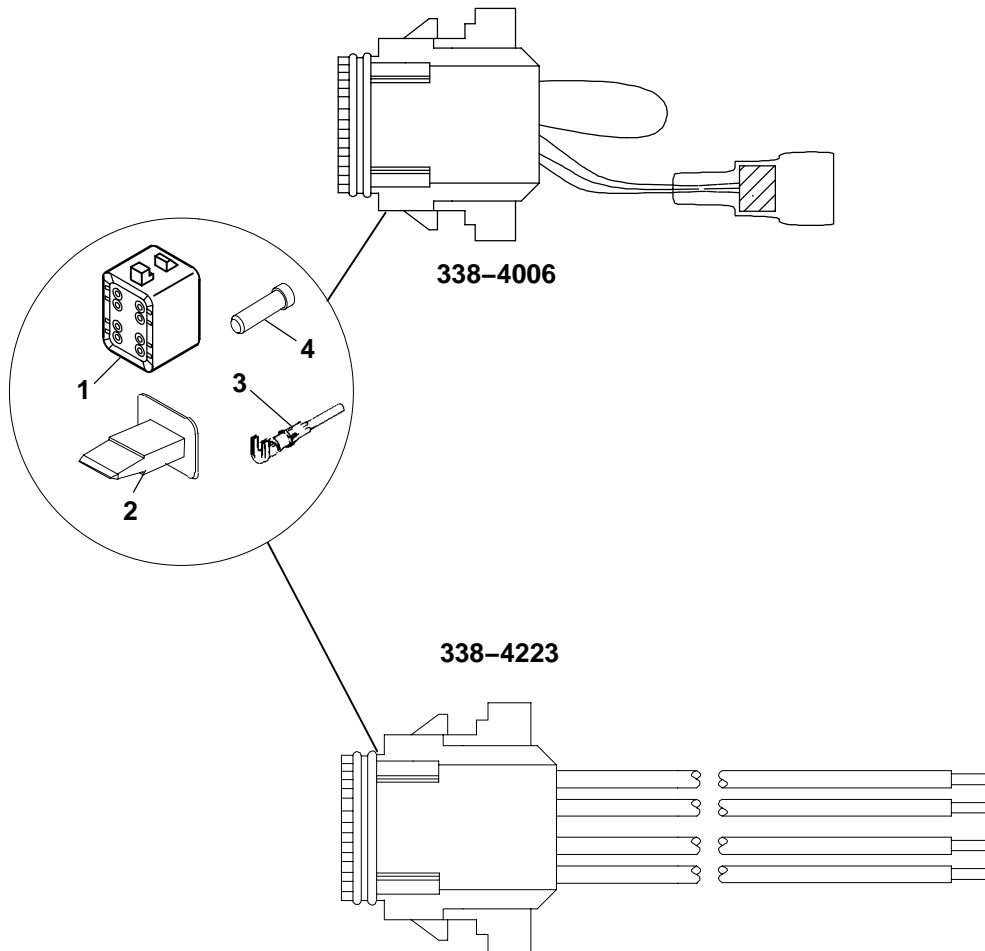
Wiring Harnesses



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Harness, Remote Extension (Includes Parts Marked #)	10	323-1541	1	*Plug (8 Pin)
	338-3167	1	15 feet	11	323-1543	1	*Wedge, Plug (8 Pin)
	338-3168	1	25 feet	12	323-1591	1	*Plug Connector
	338-3169	1	45 feet	13	338-4017	1	Harness, Pigtail (Includes Parts Marked @)
	338-3169-01	1	75 feet	14	323-1542	1	@ Connector, Receptacle (8 Pin)
	338-3169-02	1	100 feet	15	323-1491	AR	+ Terminal, Pin
	338-3169-03	1	150 feet	16	323-1544	2	@ Wedge, Lock (8 Pin)
2	323-1541	1	#Plug (8 Pin)				
3	323-1492	8	#Terminal, Socket				
4	323-1543	1	#Wedge, Plug (8 Pin)				
5	323-1542	1	#Receptacle, (8 Pin)				
6	323-1491	8	#Terminal, Pin				
7	323-1544	1	#Wedge, Receptacle (8 Pin)				
8	338-3098	1	Harness, Pigtail (8") (Includes Parts Marked *)				
9	323-1492	7	*Terminal, Socket				

- Parts Included in Remote Extension Harness.
 * - Parts Included in Custom Pigtail Harness.
 ° - Parts Included in Adapter Harness.
 .+ - Parts Included in Junction Harness.
 .@ - Parts Included in Pigtail Harness.

Plug Harness and Remote Panel Harness



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Harness, Plug				MDKBF
			MDKBD				Single Phase
			Single Phase	338-4006-12	1		12 VDC
338-4006-08	1		12 VDC	338-4006-11	1		24 VDC
338-4006-07	1		24 VDC				Three Phase
			Three Phase	338-4006-17	1		12 VDC
338-4006-13	1		12 VDC	338-4006-18	1		24 VDC
338-4006-14	1		24 VDC	338-4223	1		Harness, Remote Panel
			MDKBE	1	323-1541	1	Plug (8 Pin)
			Single Phase	2	323-1543	1	Wedge, Plug (8Pin)
338-4006-10	1		12 VDC	3	323-1492	AR	Terminal, Socket
338-4006-09	1		24 VDC	4	323-1591	AR	Plug, Seal
			Three Phase	5	323-1591	AR	Plug, Seal
338-4006-15	1		12 VDC				
338-4006-16	1		24 VDC				

Labels, Kits

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
98-2235-02		1	Label, Ground	98-7829		1	Label, Emissions (MDKBE)
98-4798-01		1	Label, Warning (Unhoused)	98-7830		1	Label, Emissions (MDKBF)
98-5161		1	Label, Coolant (Housed)	98-7845		1	Label, Control
98-5338		1	Label, No Step	98-7850		1	Label, E-QD (Housed)
98-5347		1	Label, Danger	98-7858		1	Label, Schematic
98-5667		1	Label, Warning	98-7917		1	Label, Information (K Relays)
98-5755		1	Label, Warning	98-7939-01		1	Label, Blank
98-6074-02		1	Label, Warning				Label, Information
98-6388-01		1	Label, Phone Information	98-7963		1	Rear Bulkhead Connector,
98-6989		1	Label, Barcode	98-7975		1	Rear Bulkhead Connector,
98-6995		1	Label, Warning (Housed)	98-7976		1	Front Bulkhead Connector
98-6996		1	Label, (Housed)	98-7977		1	Front Bulkhead Connector
98-6997		1	Label, Lifting Eye (Housed)	98-7984-01		1	Label, Information (PTO)
98-7185		1	Label, Barcode	98-7984-02		1	Label, Information (PTO)
98-7241		1	Label, CO Warning	98-7985-01		1	Label, Information (PTO)
98-7369		1	Label, Model Identification	98-7985-02		1	Label, Information (PTO)
98-7781		1	Label, Controls	98-8002		1	Label, Information (Service)
98-7782		1	Label, Controls	98-8040		1	Label, Information (Reconnect)
98-7783		1	Label, Warning	541-0853		1	Kit, Label (Bulkhead Connector)
98-7828		1	Label, Emissions (MDKBD)				

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