



# Parts Manual

## **Onan Generator Set for Marine**

MDKBP (Spec A–C)

MDKBR (Spec A–C)

MDKBS (Spec A–B)

**CALIFORNIA  
Proposition 65 Warning**

**Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.**

## 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>
MDKBP/*	50/60
MDKBR/*	50/60
MDKBS/*	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

630–2694      DC

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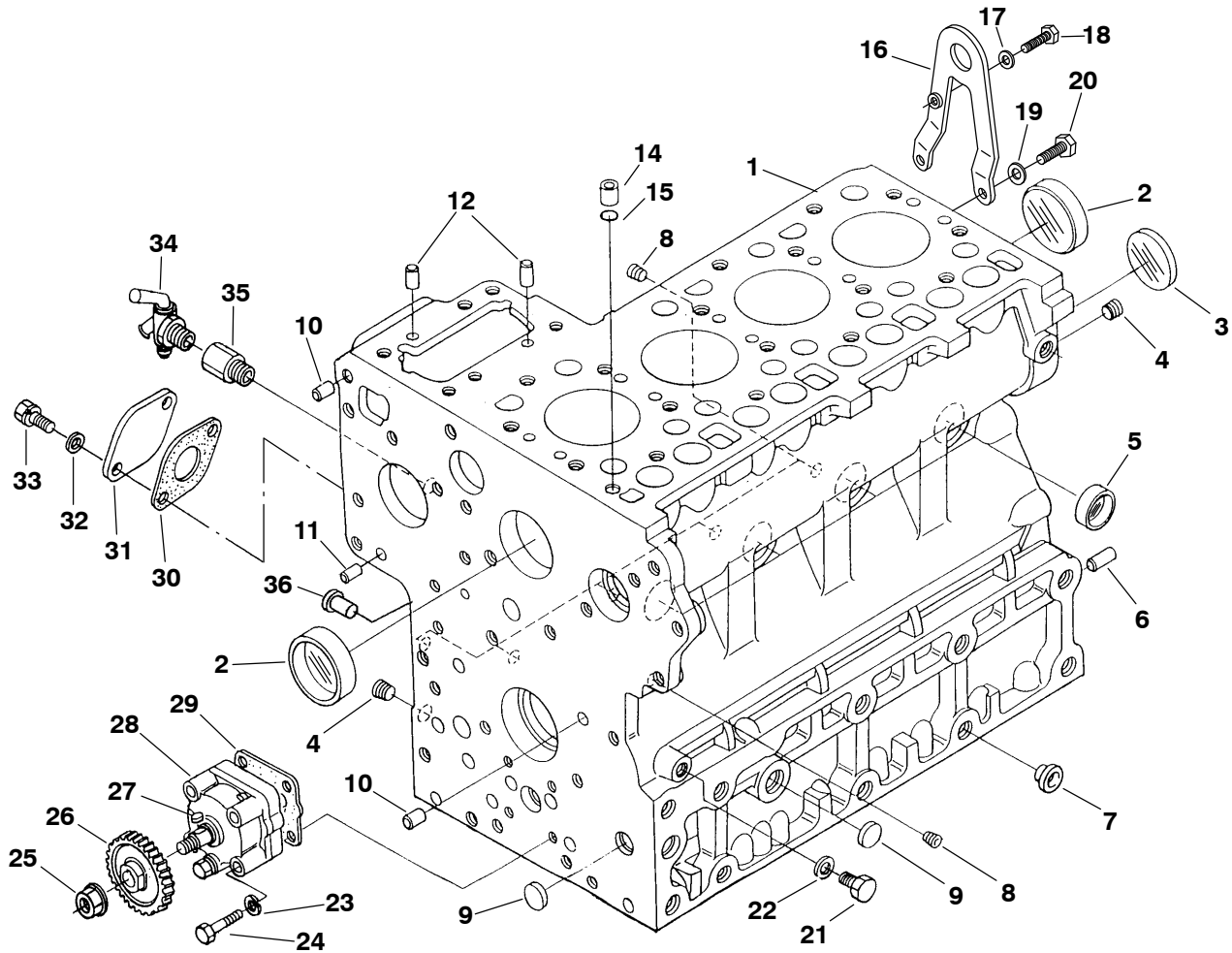
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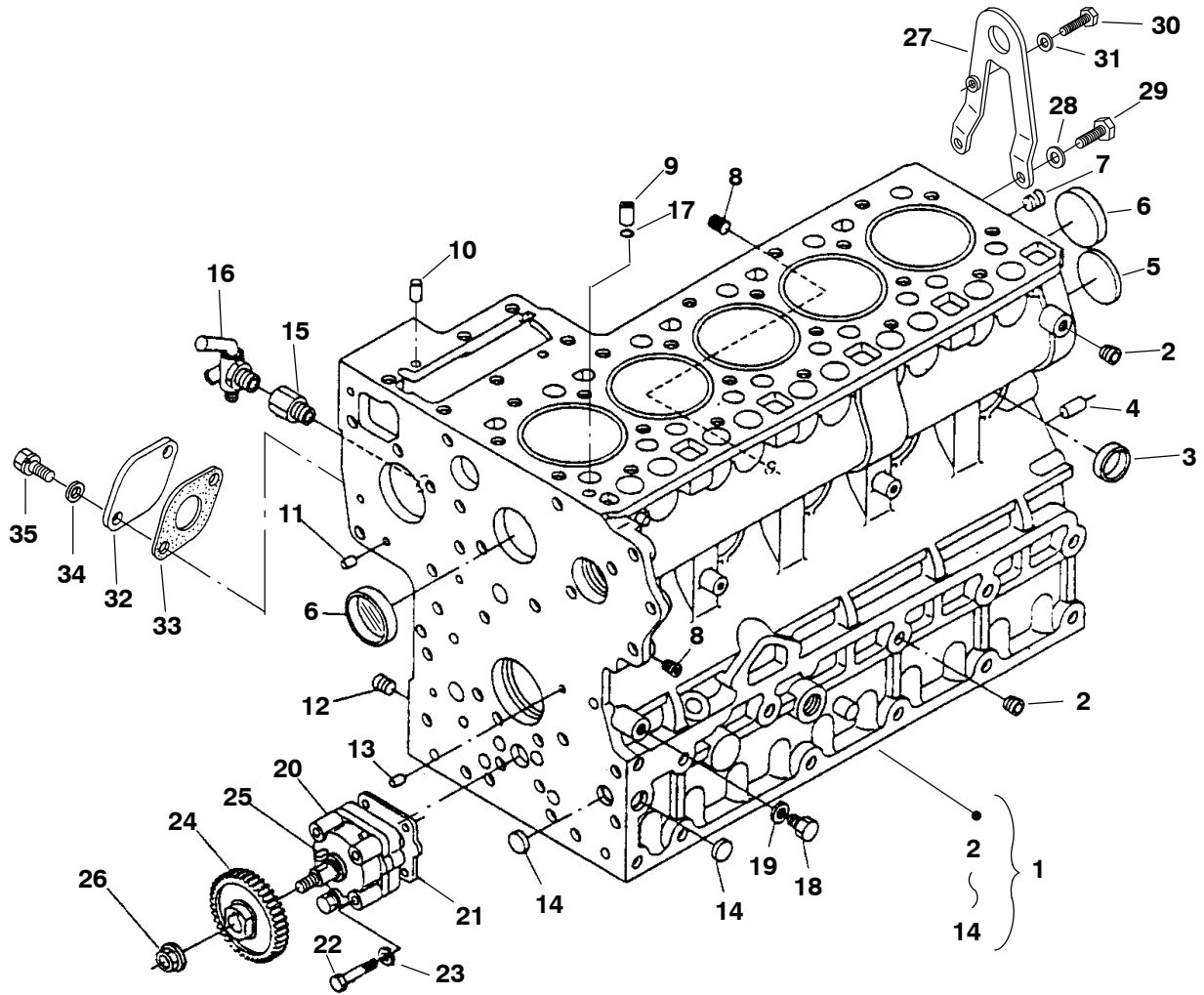
## Cylinder Block, MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Engine, Replacement MDKBP	19	526-2140	2	Washer, Flat (M12)
	100-3893-01	1	12V	20	800-3033	2	Screw, Hex Head Cap (M12 x 1.25 x 25mm)
	100-3893-02	1	24V	21	185-5845	1	Plug
			MDKBR	22	185-2338	1	Gasket
	100-3894-01	1	12V	23	185-6759	4	Washer, Spring
	100-3894-02	1	24V	24	185-5850	4	Bolt
2	185-5841	2	Cap, Sealing	25	185-7031	1	Nut, Flange
3	185-5839	1	Plug	26	185-5851	1	Gear, Oil Pump Drive
4	185-2234	2	Plug	27	185-2352	1	Key
5	185-5840	6	Cap, Sealing	28	185-5848	1	Pump, Oil
6	185-5844	1	Pin, Straight	29	185-5849	1	Gasket, Oil Pump
7	185-5837	2	Plug	30	185-2125	1	Gasket, Hole Cover
8	185-2233	6	Plug	31	185-6784	1	Cover, Hole
9	185-6121	3	Plug	32	740-1004	2	Washer, Flat
10	185-5843	2	Pin, Straight	33	185-2388	2	Bolt
11	185-5842	2	Pin, Straight	34	185-5846	1	Cock, Drain
12	185-2350	2	Pin, Straight	35	185-5847	1	Joint, Drain Cock
13	185-5676	4	*Bolt	36	185-6039	1	Plug (MDKBP)
14	185-2094	1	Pin, Pipe				
15	185-2095	1	O'Ring				
16	403-6789-02	1	Bracket, Lifting				
17	526-2100	2	Washer (M8)				
18	800-2056	1	Screw, Hex Head Cap (M8 x 1.25 x 16mm)				

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

## Cylinder Block, MDKBS

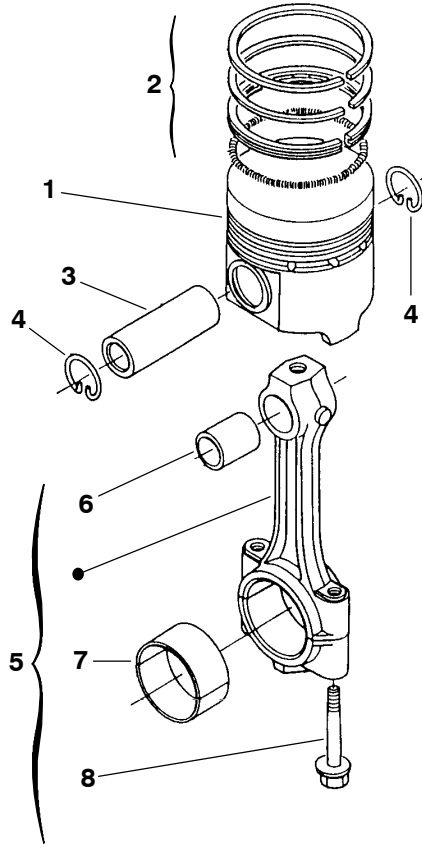


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Engine, Replacement (MDKBS)	20	185-6041	1	Pump, Oil
	100-3895-01	1	12V	21	185-5849	1	Gasket, Oil Pump
	100-3895-02	1	24V	22	185-6042	4	Bolt
1	185-6038	1	Block Assy, Cylinder (Includes Parts Marked #)	23	185-6759	4	Washer, Spring
2	185-6039	4	#Plug	24	185-6043	1	Gear, Oil Pump Drive
3	185-5840	8	#Cap, Sealing	25	185-2352	1	Key
4	185-5844	1	#Pin, Straight	26	185-7031	1	Nut, Flange
5	185-6040	1	#Plug	27	403-3916-02	1	Bracket, Lifting
6	185-5841	2	#Cap, Sealing	28	526-2146	2	Washer, Flat (M12)
7	185-2234	2	#Plug	29	800-3033	2	Screw, Hex Head Cap (M12 x 1.25 x 25mm)
8	185-2233	7	#Plug	30	718-1035	1	Screw, Hex Head Cap (M8 x 1.25 x 16mm)
9	185-2094	1	#Pin, Pipe	31	526-2100	1	Washer (M8)
10	185-2350	2	#Pin, Straight	32	185-6784	1	Cover, Hole
11	185-5842	2	#Pin, Straight	33	185-2125	1	Gasket, Hole Cover
12	185-5837	2	#Plug	34	740-1004	2	Washer, Flat
13	185-5843	2	#Pin, Straight	35	185-2388	2	Bolt
14	185-6121	3	#Plug				
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.

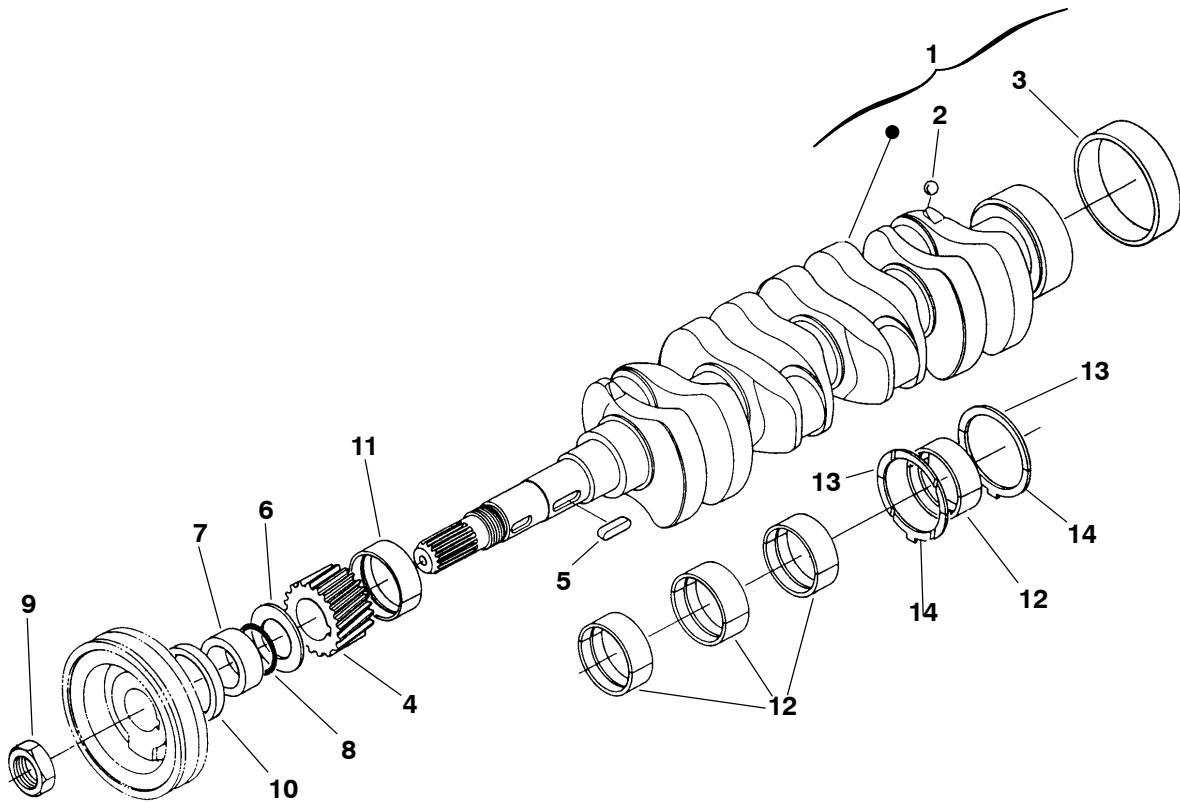
\* - Parts Included in Keel Cooling Kit Listed on Keel Cooling-Dry Exhaust Page.

# Piston



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Piston	4			Ring, Retaining
	185-6767	4	MDKBP		185-5916	8	MDKBP, MDKBR
	185-6768	4	Standard		185-5916	10	MDKBS
			MDKBR	5			Rod Assy, Connecting (Includes
	185-5913	4	Standard		185-5917	4	Bushing, Bearing and Bolts)
	185-6074	4	0.5 mm Oversize		185-5917	5	MDKBP, MDKBR
			MDKBS	6			MDKBS
	185-5913	5	Standard		185-5918	4	Bushing
	185-6074	5	0.5 mm Oversize		185-5918	5	MDKBP, MDKBR
2			Set, Ring	7			MDKBS
			MDKBP				Bearing
	185-6769	4	Standard		185-6076	4	Standard
	185-6770	4	0.5 mm Oversize		185-6076	5	MDKBP, MDKBR
			MDKBR				MDKBS
	185-5914	4	Standard		185-5921	4	0.2 mm Undersize
	185-6075	4	0.5 mm Oversize		185-5921	5	MDKBP, MDKBR
			MDKBS				MDKBS
	185-5914	5	Standard		185-5922	4	0.4 mm Undersize
	185-6075	5	0.5 mm Oversize		185-5922	5	MDKBP, MDKBR
3			Pin, Piston	8			MDKBS
	185-5915	4	MDKBP, MDKBR		185-6771	8	Bolt
	185-5915	5	MDKBS		185-6771	10	MDKBP, MDKBR
							MDKBS

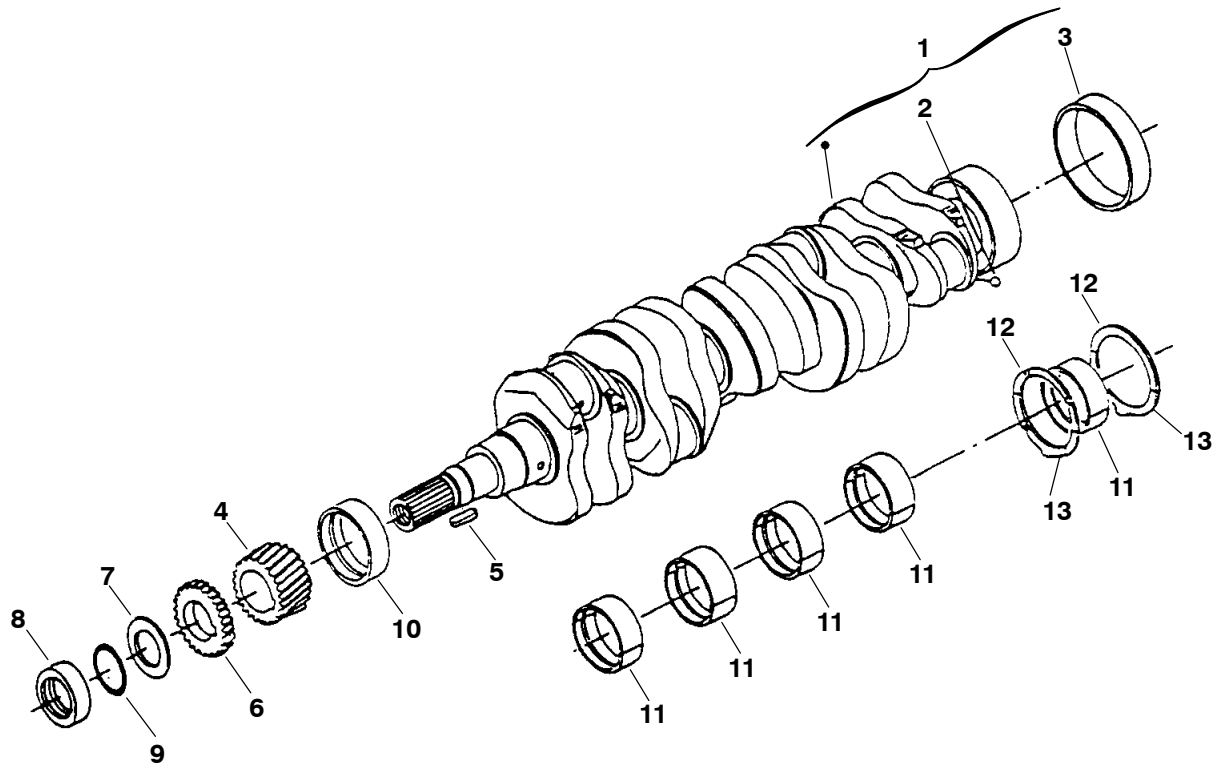
## Crankshaft MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Crankshaft (Includes Balls and Sleeve)	104-2037		1	0.2 mm Undersize
	A054U127	1	For engine serial no # $\leq$ 8M9999	104-2038		1	0.4 mm Undersize
	A054U134	1	For engine serial no # $\geq$ 8N0001	12			Bearing, Main
2	185-5924	4	Ball	104-2035		4	Standard
3	185-5925	1	Sleeve	104-2039		4	0.2 mm Undersize
4	185-5926	1	Gear	104-2040		4	0.4 mm Undersize
5	185-5905	1	Key	13			Bearing, Upper Thrust
6	185-6973	1	Slinger, Oil	104-2034		2	Standard
7	185-5928	1	Collar	104-2041		2	0.2 mm Oversize
8	185-5929	1	O'Ring	104-2042		2	0.4 mm Oversize
9	185-5930	1	Nut	14	A047D093	2	Bearing, Lower Thrust
10	185-6204	1	Seal, Oil	104-2043		2	0.2 mm Oversize
11			Bearing	104-2044		2	0.4 mm Oversize
	A047D068	1	Standard				

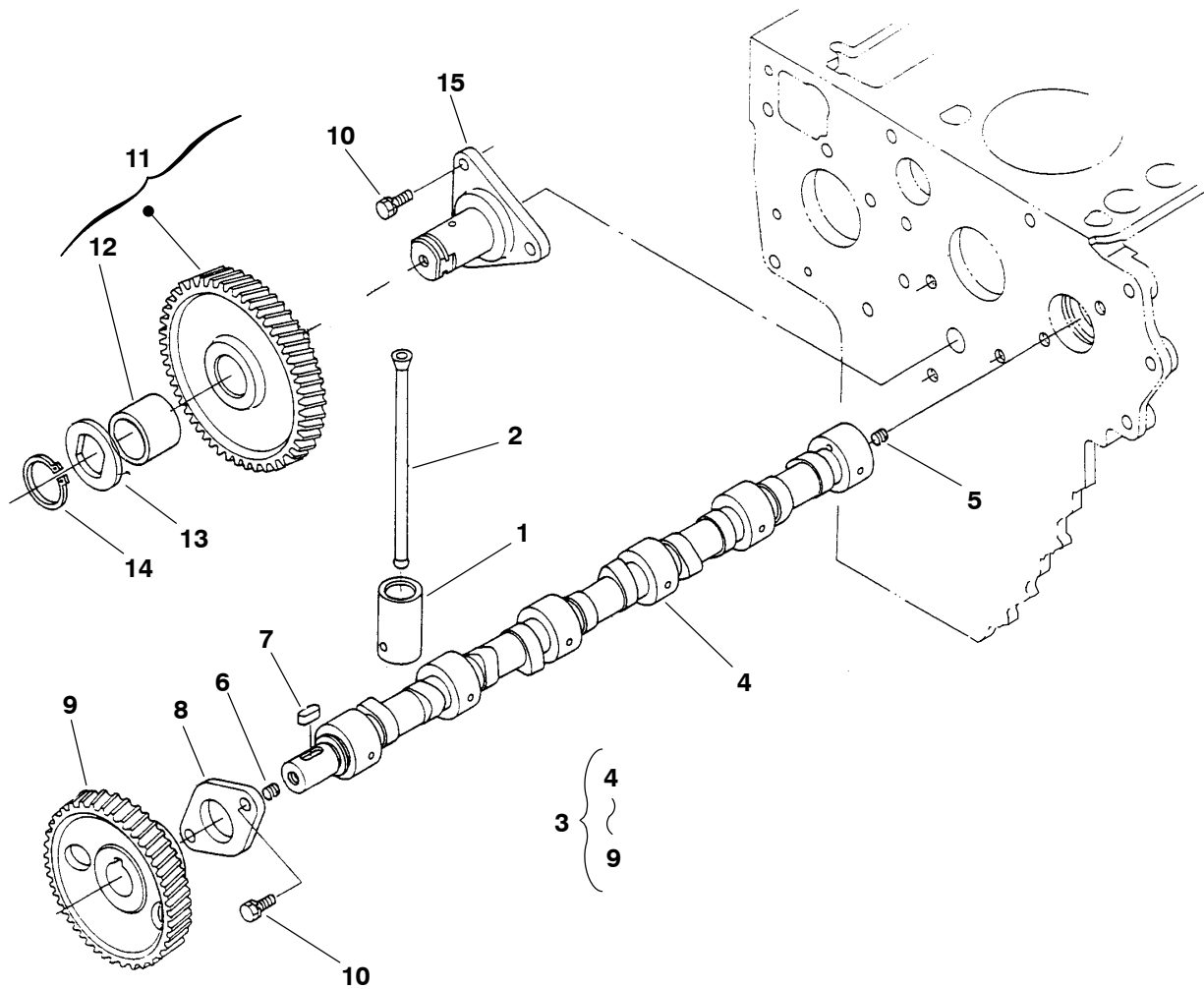


## Crankshaft MDKBS



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			Bearing, Main
2	185-5924	5	Ball	185-6086	5		Standard
3	185-6079	1	Sleeve	185-6976	5		0.2 mm Undersize
4	185-6080	1	Gear	185-5937	5		0.4 mm Undersize
5	185-6081	1	Key	12			Bearing, Upper Thrust
6	185-6082	1	Gear, Oil Drive	185-5938	2		Standard
7	185-6083	1	Slinger, Oil	181-9044	2		0.2 mm Oversize
8	185-6084	1	Collar	185-6556	2		0.4 mm Oversize
9	185-5929	1	O'Ring	13			Bearing, Lower Thrust
10			Bearing	185-5941	2		Standard
	185-6085	1	Standard	185-6088	2		0.2 mm Oversize
	185-5933	1	0.2 mm Undersize	185-6089	2		0.4 mm Oversize
	185-5934	1	0.4 mm Undersize				

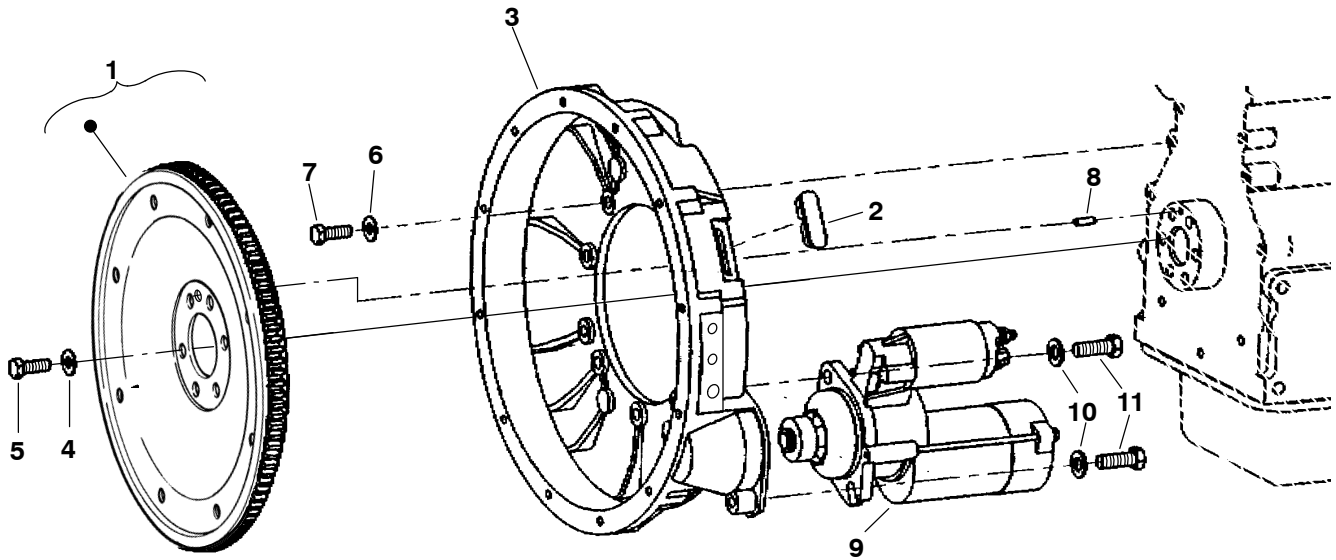
## Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5900	8	Tappet MDKBP, MDKBR	9	507-0012	1	*Gear, Camshaft MDKBP, MDKBR
	185-5900	10	MDKBS		507-0007	1	MDKBS
2	185-5901	8	Rod, Push MDKBP, MDKBR	10	185-2400	5	Bolt
	185-5901	10	MDKBS	11			Gear Assy, Idle (Includes Bushing)
3	185-5902	1	Camshaft Assy (Includes Parts Marked *) MDKBP, MDKBR		185-5907	1	MDKBP, MDKBR
	185-6064	1	MDKBS		507-0008	1	MDKBS
4	185-5903	1	*Camshaft MDKBP, MDKBR	12	185-5908	1	Bushing, Idle Gear MDKBP, MDKBR
	185-6065	1	MDKBS		185-5908	2	MDKBS
5	185-6066	1	*Screw, Set	13	406-1071	1	Collar
6	185-5558	1	*Screw, Set (MDKBS)	14	185-6072	1	Ring, External Retaining
7	185-5905	1	*Key	15	120-1354	1	Shaft, Idle Gear
8	185-5906	1	*Stopper, Camshaft				

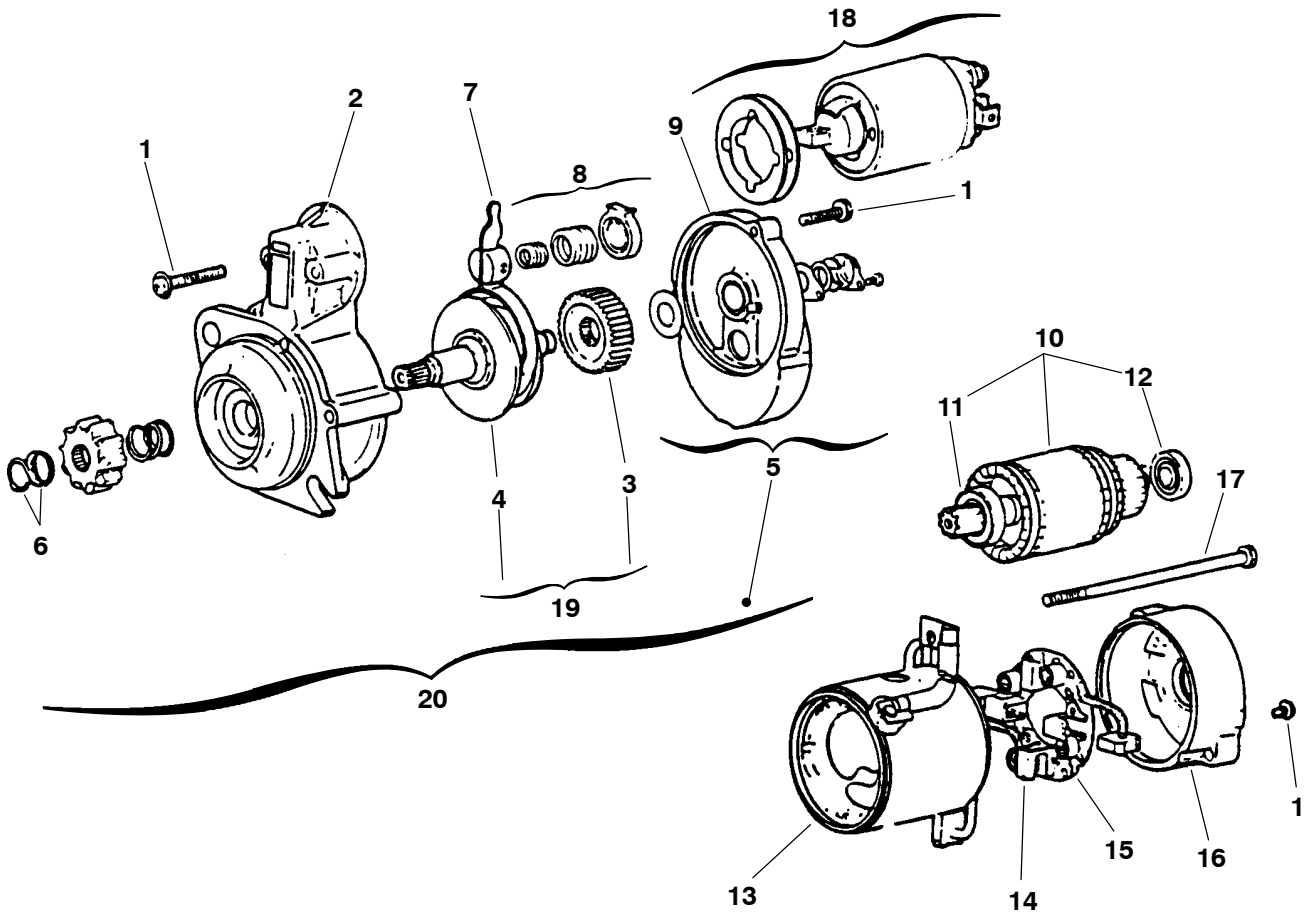
\* - Parts Included in Camshaft Assy

# Flywheel



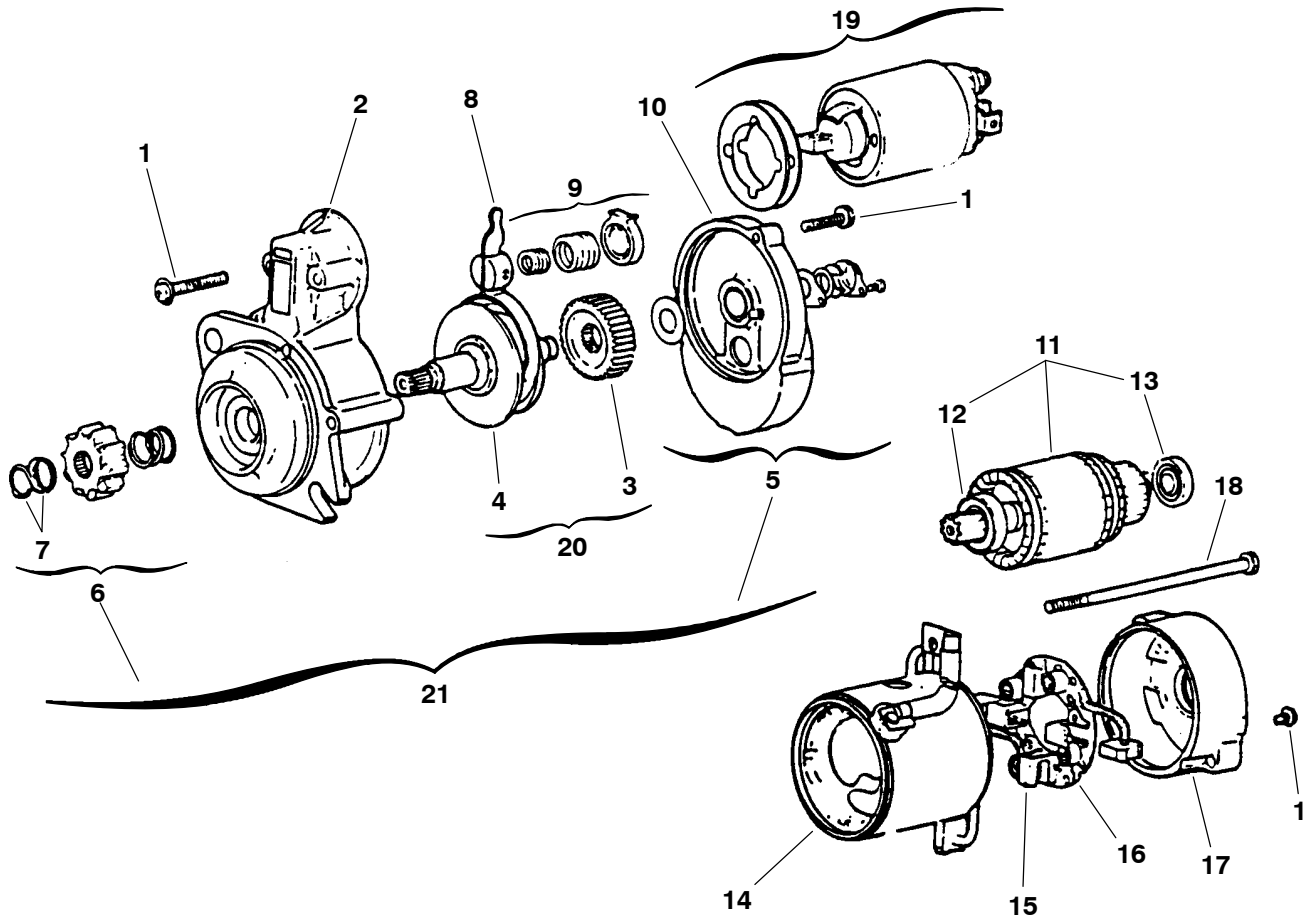
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Flywheel Assy (Includes Ring Gear)	8	775-0061	1	Pin, Parallel Hard (MDKBP, MDKBR)
	104-1929	1	MDKBP, MDKBR	9			Starter (See Separate Page For Components)
	104-1927	1	MDKBS		191-1959	1	12V
2	101-0811	1	Plug, Hole		191-1550	1	24V
3	101-0821	1	Adapter, Engine	10	526-2140	2	Washer, Flat (M12)
4	526-0145	6	Washer, Flat (M12)	11	800-2113	2	Screw, Hex Head Cap (M12 x 1.75 x 35mm)
5	800-3031	6	Screw, Hex Head Cap (M12 x 1.25 x 30mm)				
6	526-0399-42	11	Washer, Flat (M10)				
7	800-3005	11	Screw, Hex Head Cap (M10 x 1.25 x 30mm)				

## Starter Components (12V)



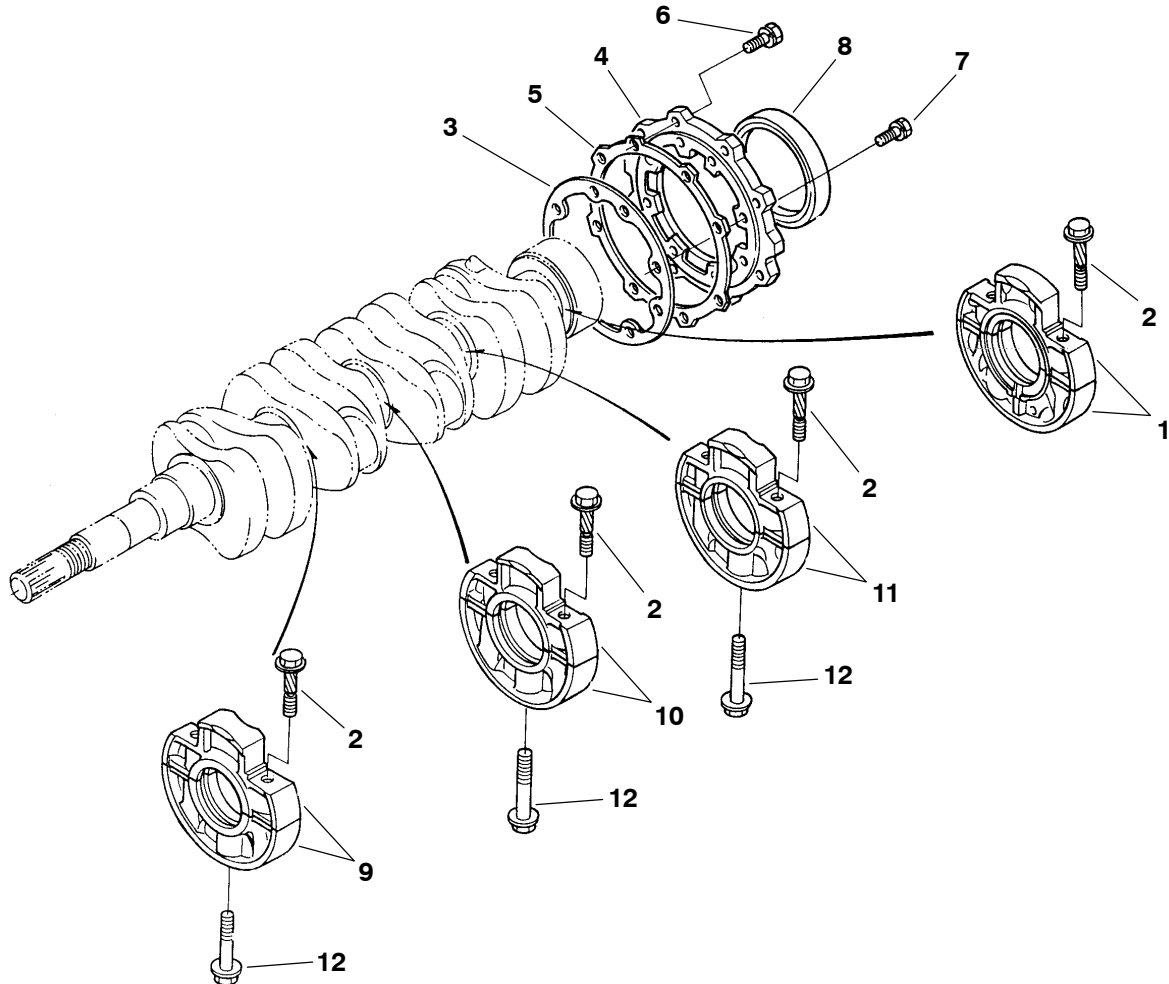
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1959	1	Starter	11	191-1437	1	Bearing, Center
1	191-1450	4	Set, Screw	12	191-1436	1	Bearing, Rear
2	191-1449	1	Bracket Assy, Front	13	191-1992	1	Yoke Assy
3	191-1446	1	Gear	14	191-1993	1	Holder Assy, Brush
4	191-1445	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)



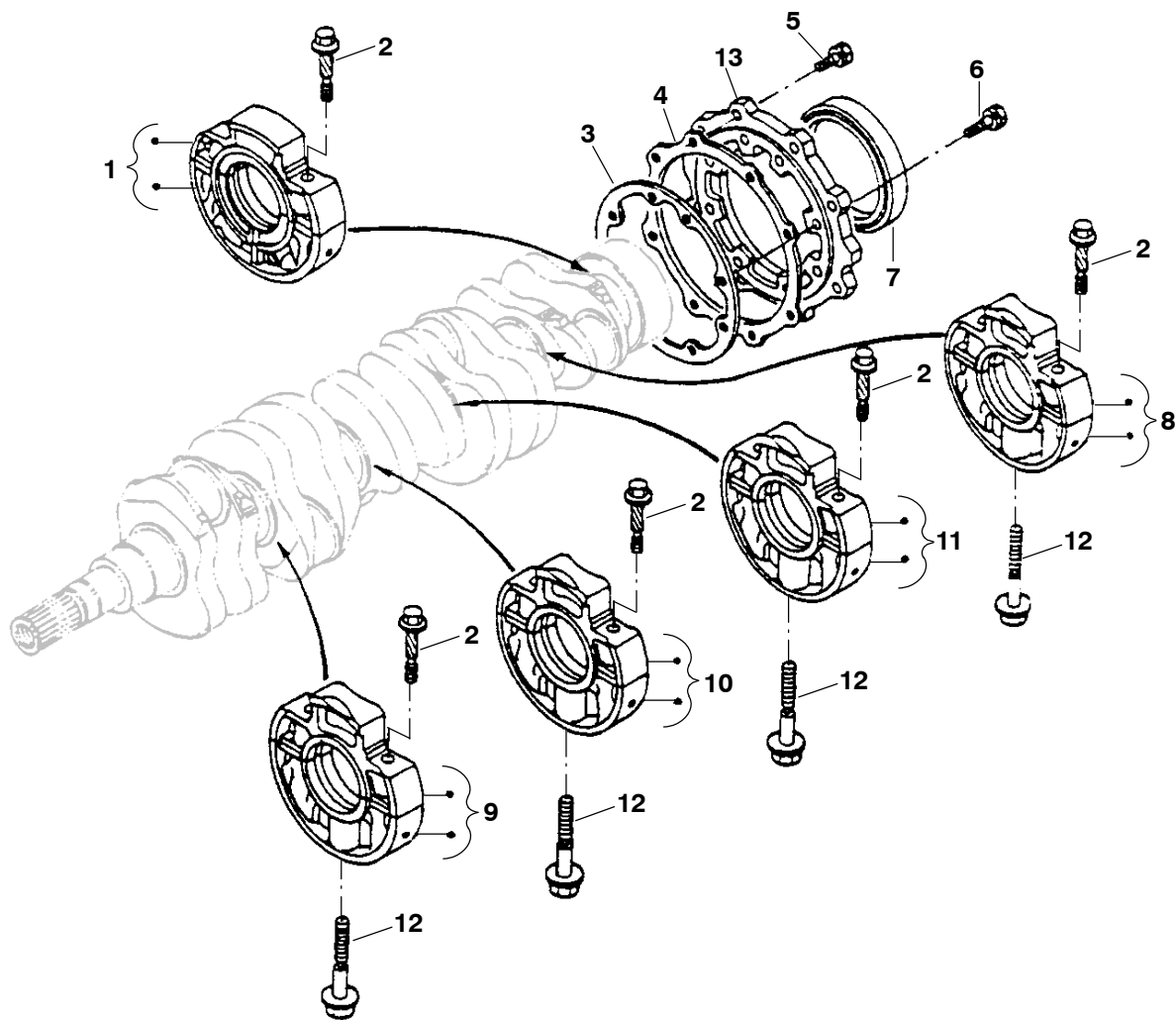
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1550	1	Starter	11	191-1606	1	Armature (Includes Bearings)
1	191-1450	4	Set, Screw	12	191-1437	1	Bearing, Center Sleeve
2	191-1449	1	Bracket Assy, Front (Includes Bearing)	13	191-1436	1	Bearing, Rear Sleeve
3	191-1446	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 MDKBP, MDKBR



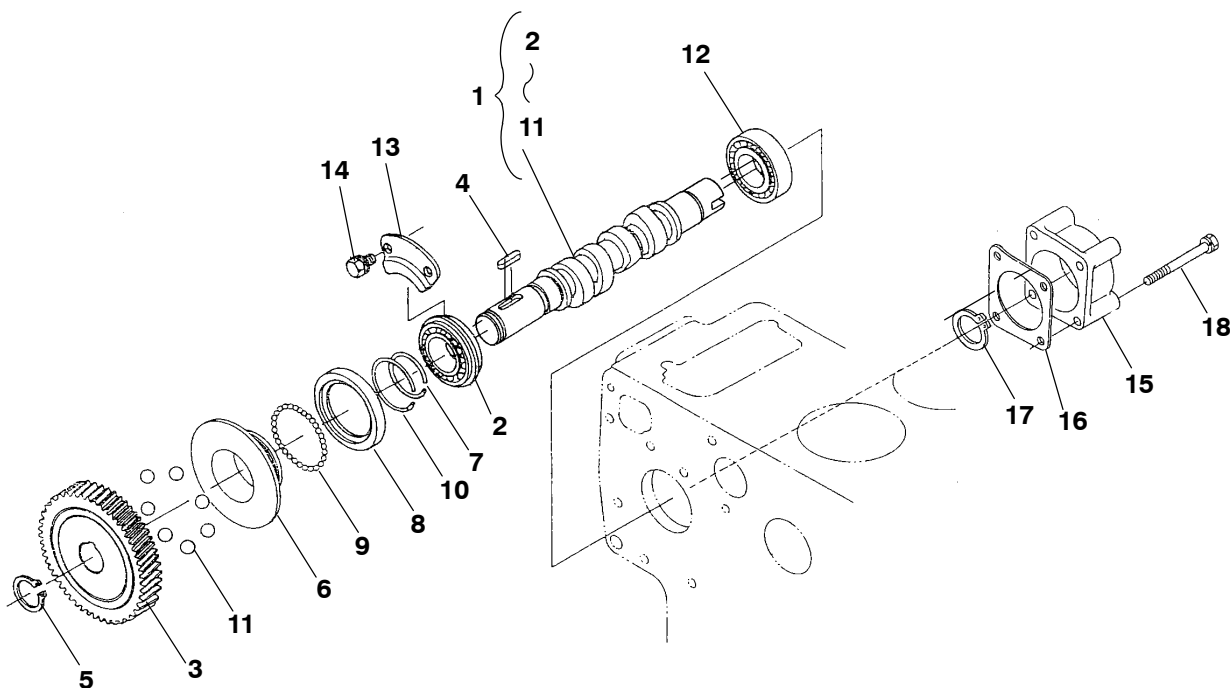
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5889	1	Housing, Main Bearing	7	185-2404	8	Bolt
2	185-5890	8	Bolt, Bearing Housing	8	A047C086	1	Seal, Oil
3	101-0834	1	Gasket, Bearing Housing	9	185-5896	1	Housing, Main Bearing
4	185-5892	1	Cover, Bearing Housing	10	185-2404	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 MDKBS



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5889	1	Housing, Main Bearing	8	232-4189	1	Housing, Main Bearing
2	185-5890	10	Bolt, Bearing Housing	9	185-5896	1	Housing, Main Bearing
3	101-0834	1	Gasket, Bearing Housing	10	185-2404	1	Housing, Main Bearing
4	185-5893	1	Gasket, Bearing Housing Cover	11	185-5898	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 (MDKBP and MDKBR)

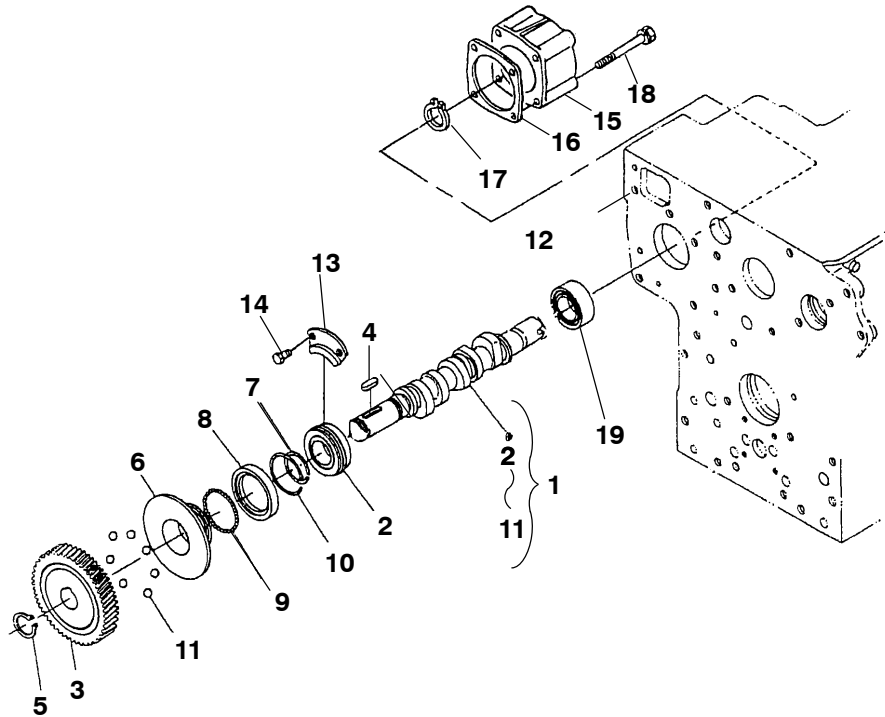


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	105-0737	1	Camshaft Assy, Fuel (Includes Parts Marked *)	11	105-0741	1	*Ball
2	185-5947	1	*Bearing, Ball	12	185-5961	1	Bearing, Ball
3	147-0882	1	*Gear, Injection Pump	13	185-5962	1	Stopper, Fuel Camshaft
4	185-5949	1	*Key, Feather	14	185-6956	2	Bolt
5	185-5950	1	*Clip, External Circular	15	185-6772	1	Cover, Fuel Camshaft
6	150-2798	1	*Sleeve, Governor	16	185-6982	1	Gasket
7	518-0712	1	*Clip, Governor Sleeve	17	185-5963	1	Clip, External Circular
8	150-2880	1	*Case, Governor Ball	18	185-5676	2	Bolt
9	150-0740	7	*Ball				
10	518-0713	1	*Clip, Circular				

\* - Parts Included in Fuel Camshaft Assy

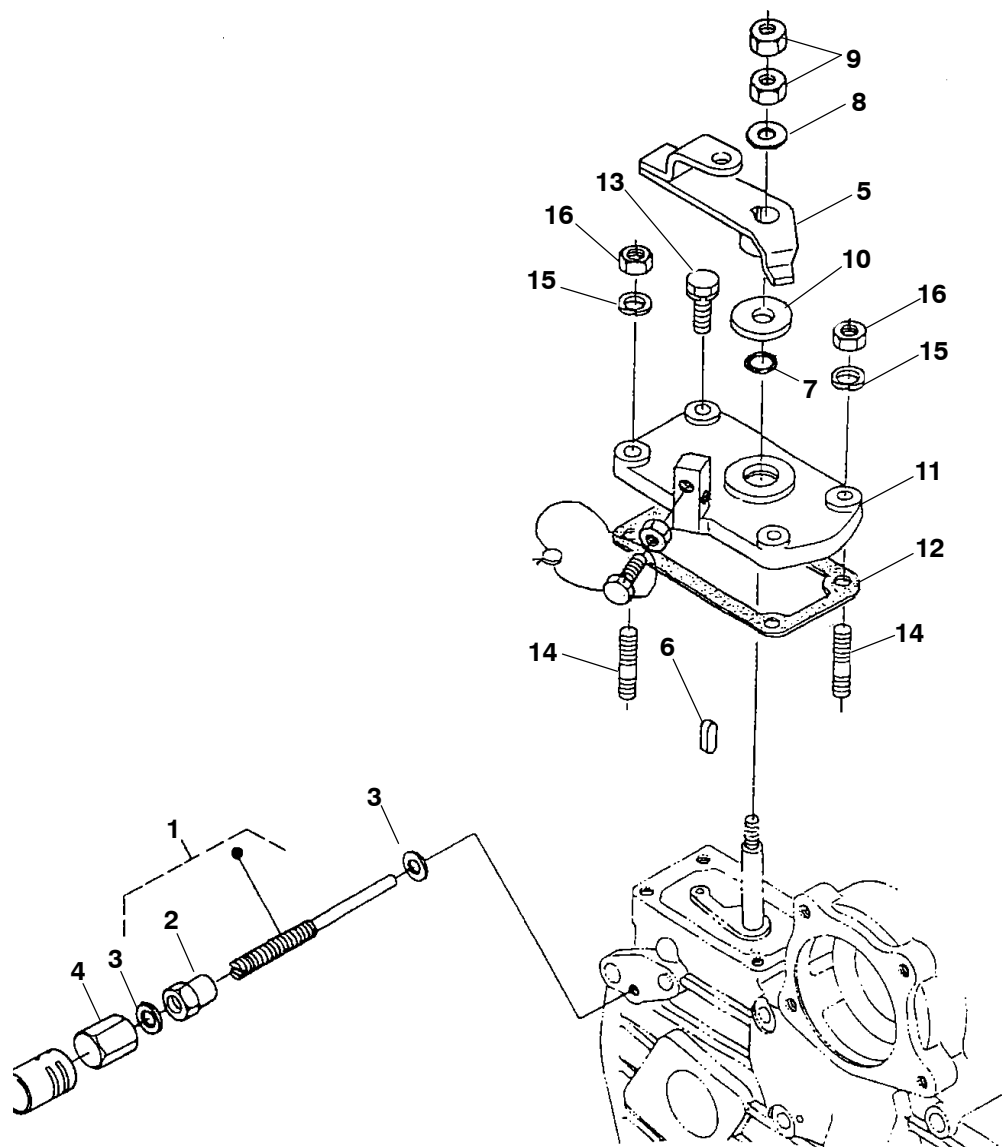


## Fuel Camshaft (MDKBS)



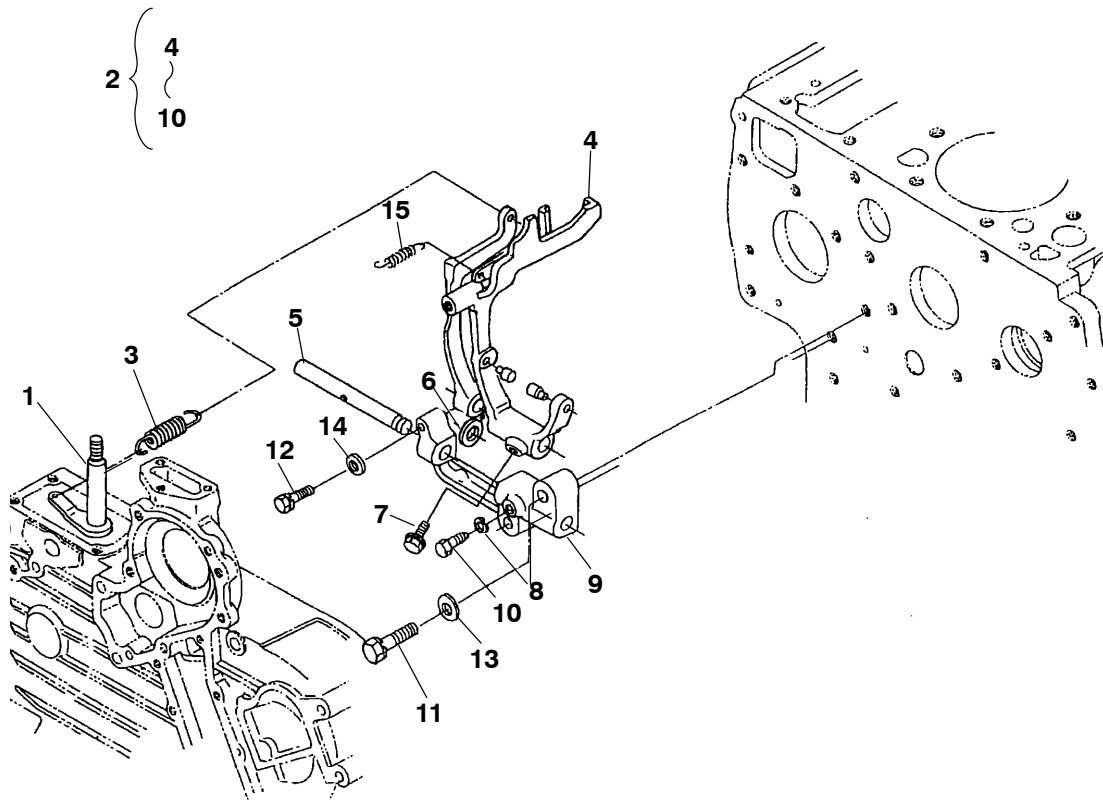
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	A034T397	1	Camshaft Assy, Fuel (Includes Parts Marked *)	10	518-0713	1	*Holder, Governor Weight
2	185-5947	1	*Bearing, Ball	11	105-0741	1	*Comp, Governor Weight
3	147-0882	1	*Gear, Injection Pump	12	185-7039	1	Weight, Governor
4	185-5949	1	*Key, Feather	13	185-5962	1	Pin, Governor
5	185-5950	1	*Clip, External Circular	14	185-6956	2	Bush, Governor
6	150-2798	1	*Sleeve, Governor	15	185-6772	1	Washer, Plain
7	518-0712	1	*Washer, Thrust	16	185-6982	1	Gasket
8	150-2800	1	*Collar, Governor Weight	17	185-5963	1	Washer, Plain
9	105-0740	7	*Shaft, Governor Weight	18	185-5676	2	Bolt
				19	A034T399	1	Bearing, Ball

## Speed Control



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2840	1	Bolt, Adjusting - Maximum Fuel	8	185-7221	1	Washer, Plain
	185-6168	1	MDKBP, MDKBR	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	185-6759	2	Washer, Spring
				16	185-4255	2	Nut

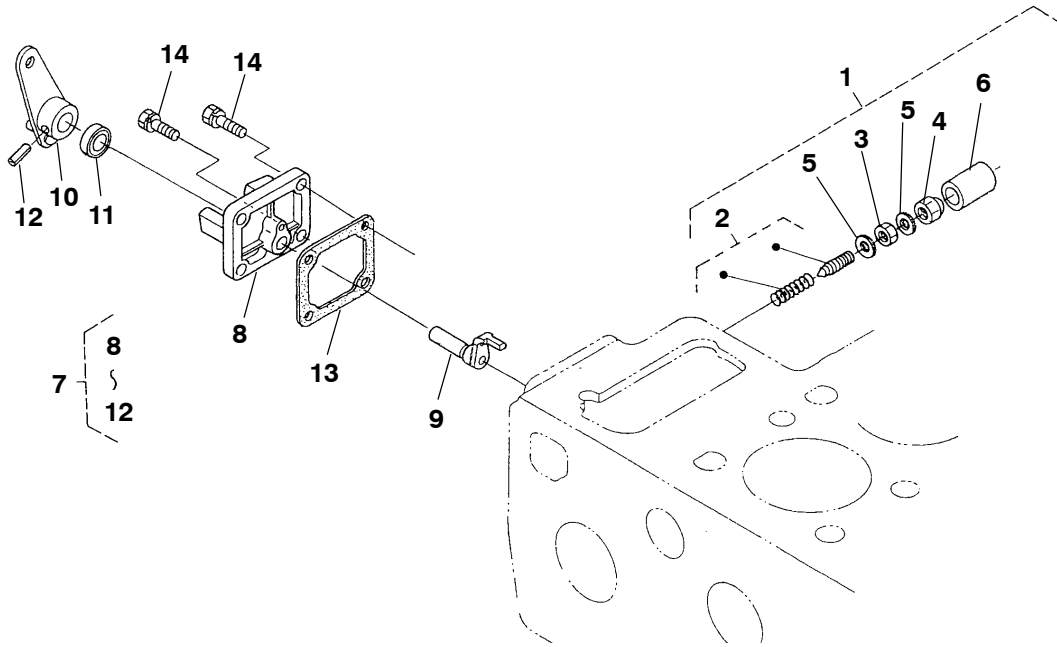
# Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2801	1	Lever, Governor	8	185-6759	1	*Washer, Spring
	185-6156	1	MDKBP and MDKBR	9	150-2803	1	*Holder, Fork Lever
2	150-2889	1	Lever Assy, Fork (Includes Parts Marked *)	10	800-6306	1	*Bolt
3	506-0006	1	Spring, Governor	11	185-6781	2	Bolt
	506-0040	1	MDKBP and MDKBR	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	740-1004	1	Washer, Plain
6	185-6163	1	*Bolt	15	506-0005	1	Spring, Start
7	800-6305	1	*Bolt, Flange				

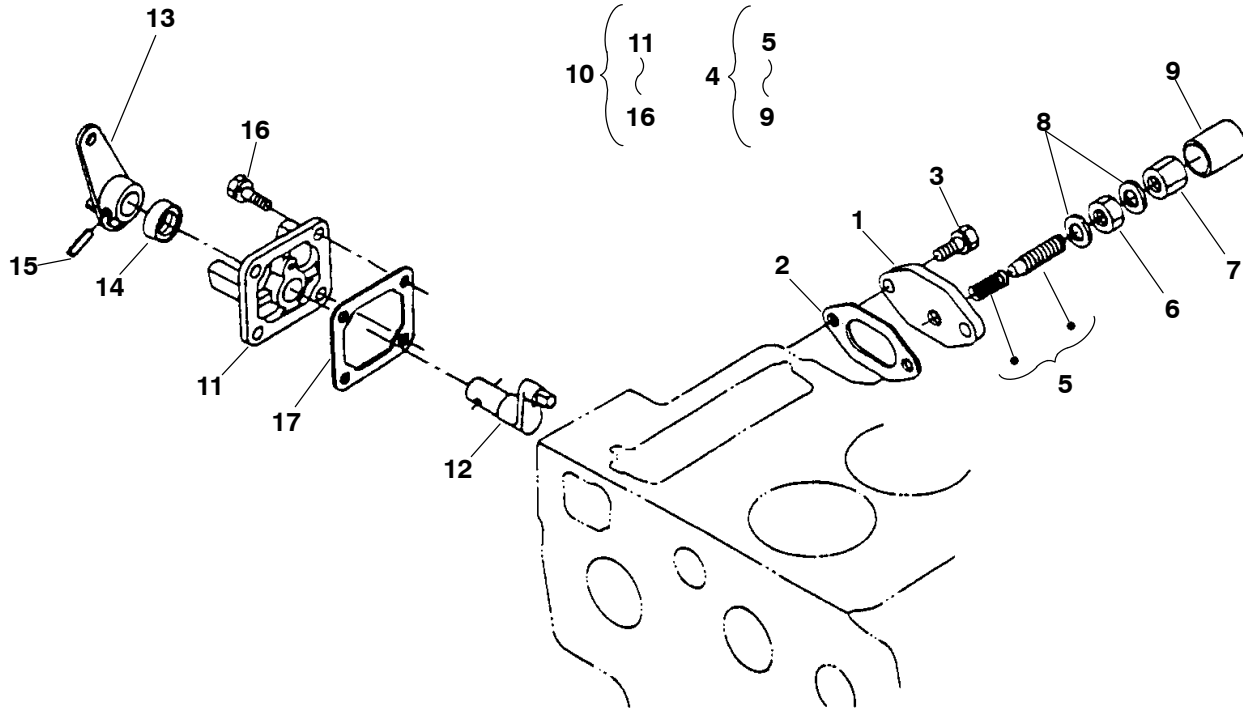
\* - Parts Included in Fork Lever Assy.

## Engine Stop Lever MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	179-4996	1	Apparatus, Idling	10	185-6775	1	Lever, Engine Stop
2	150-2888	1	Assy. Bolt Adjustment	11	185-2461	1	Seal, Oil
3	185-5969	1	Nut	12	185-2351	1	Pin, Spring
4	185-5970	1	Nut	13	101-0837	1	Gasket , Pump Cover
5	185-2338	2	Gasket	14	185-2389	4	Bolt
6	185-5971	1	Cap				
7	185-6726	1	Assy. Lever, Engine Stop				
8	185-5972	1	Gasket, Injection Pump Cover				
9	185-6135	1	Shaft, Lever				

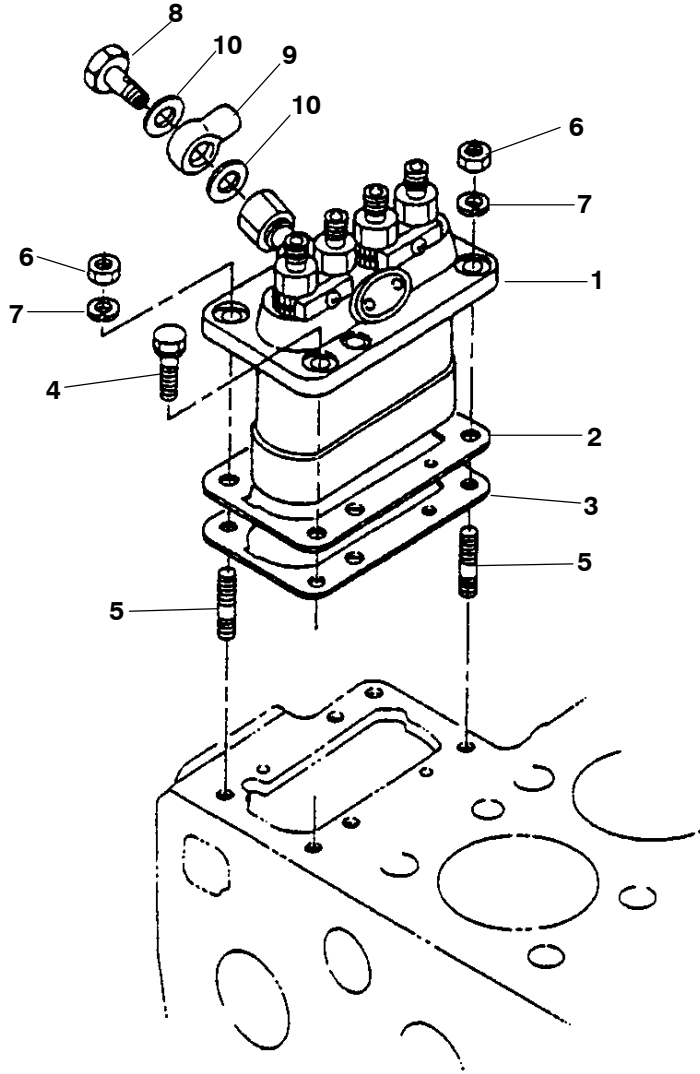
## Engine Stop Lever MDKBS



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6213	1	Cover	11	185-5972	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	179-4996	1	Bolt Assy, Adjusting – Governor Adjust (Includes Parts Marked *)	14	185-2461	1	#Seal, Oil
5	150-2888	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	101-0837	1	Gasket
8	185-2338	2	*Gasket				
9	185-5971	1	*Cap				
10	185-6726	1	Lever Assy, Engine Stop (Includes Parts Marked #)				

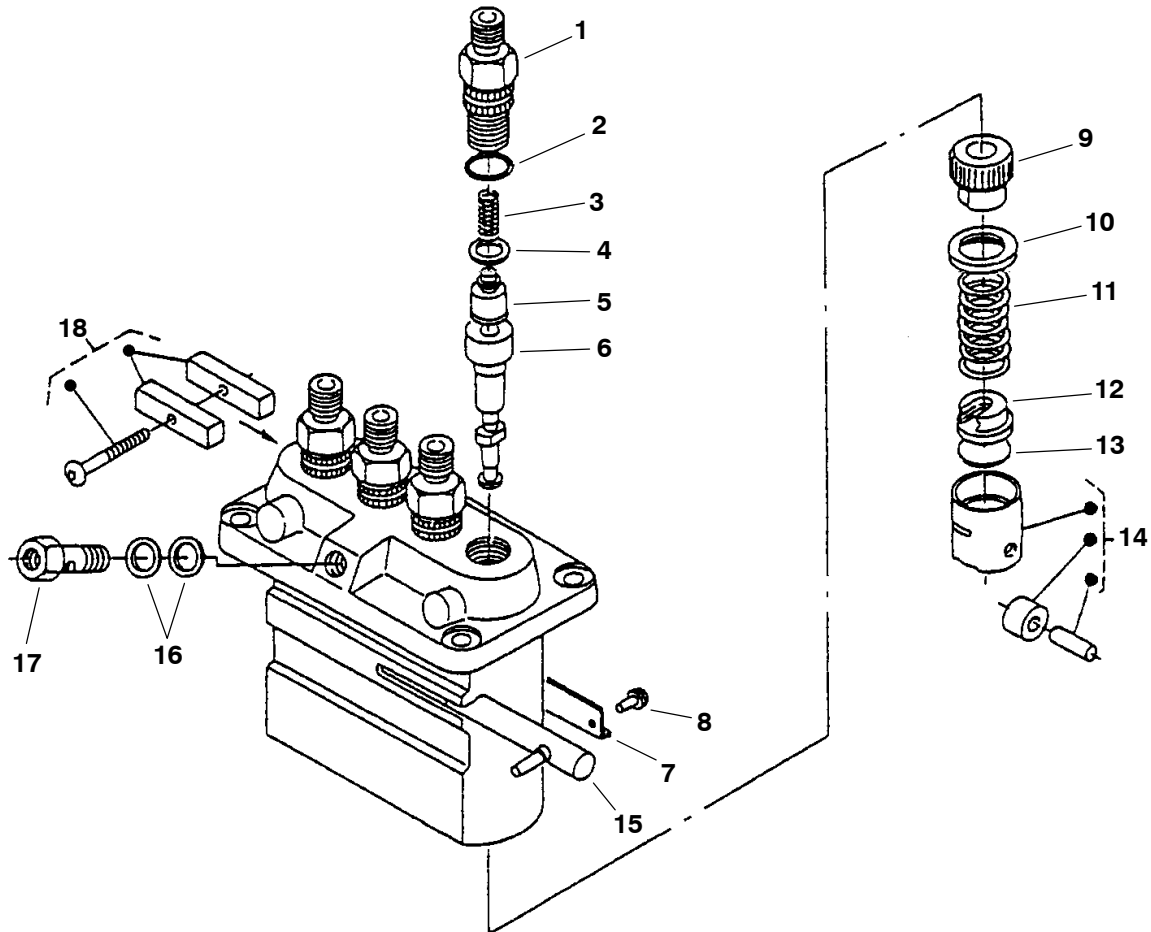
\* – Parts Included in Adjusting Bolt Assy.  
# – Parts Included in Engine Stop Lever Assy.

## Injection Pump MDKBP, MDKBR



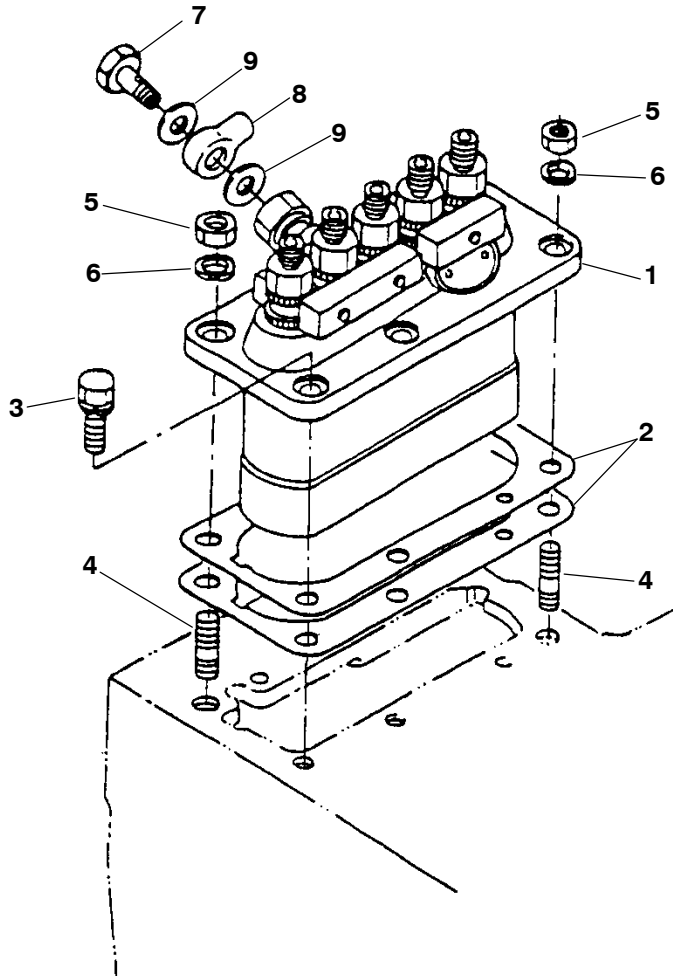
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	147-0902	1	Pump Assy, Injection (See Separate Page for Components)	4	185-2402	4	Bolt
2			Shim	5	185-2106	2	Stud
	185-6756	2	.20mm	6	185-2367	2	Nut
	185-6757	2	.25mm	7	185-6957	2	Washer, Spring
3	185-6758	1	Shim,30mm	8	185-6777	1	Screw, Follow
				9	185-6418	1	Joint, Eye
				10	185-2578	2	Gasket

## Injection Pump Components MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	147-0902	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	185-6218	4	Spring, Delivery Valve	13	185-6151	4	Shim
4	185-6141	4	Gasket, Delivery Valve	14	185-6144	4	Tappet Assy
5	185-6217	4	Valve, Delivery	15	185-6150	1	Rack, Control
6	147-0904	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				

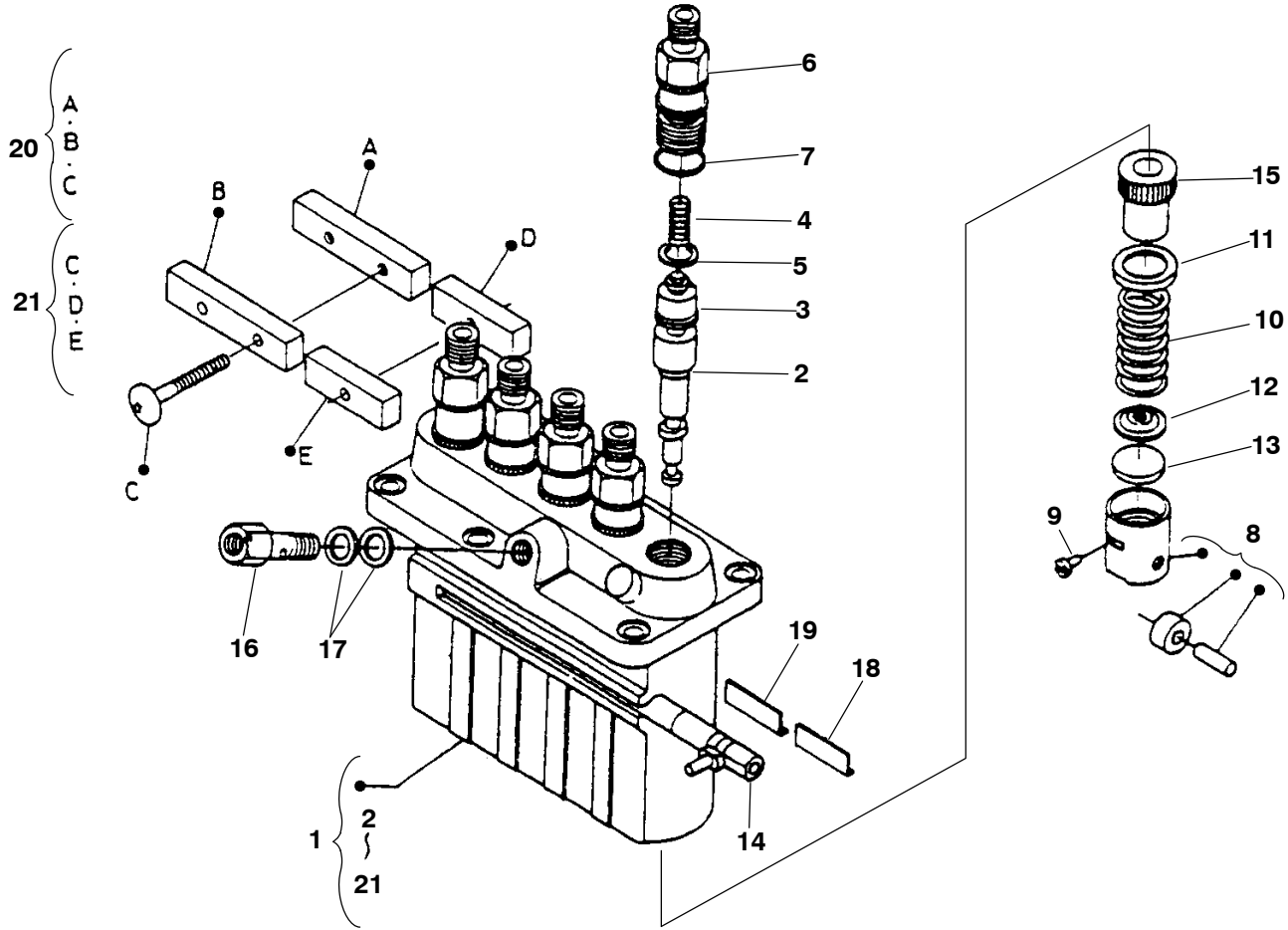
## Injection Pump MDKBS



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	147-0903	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

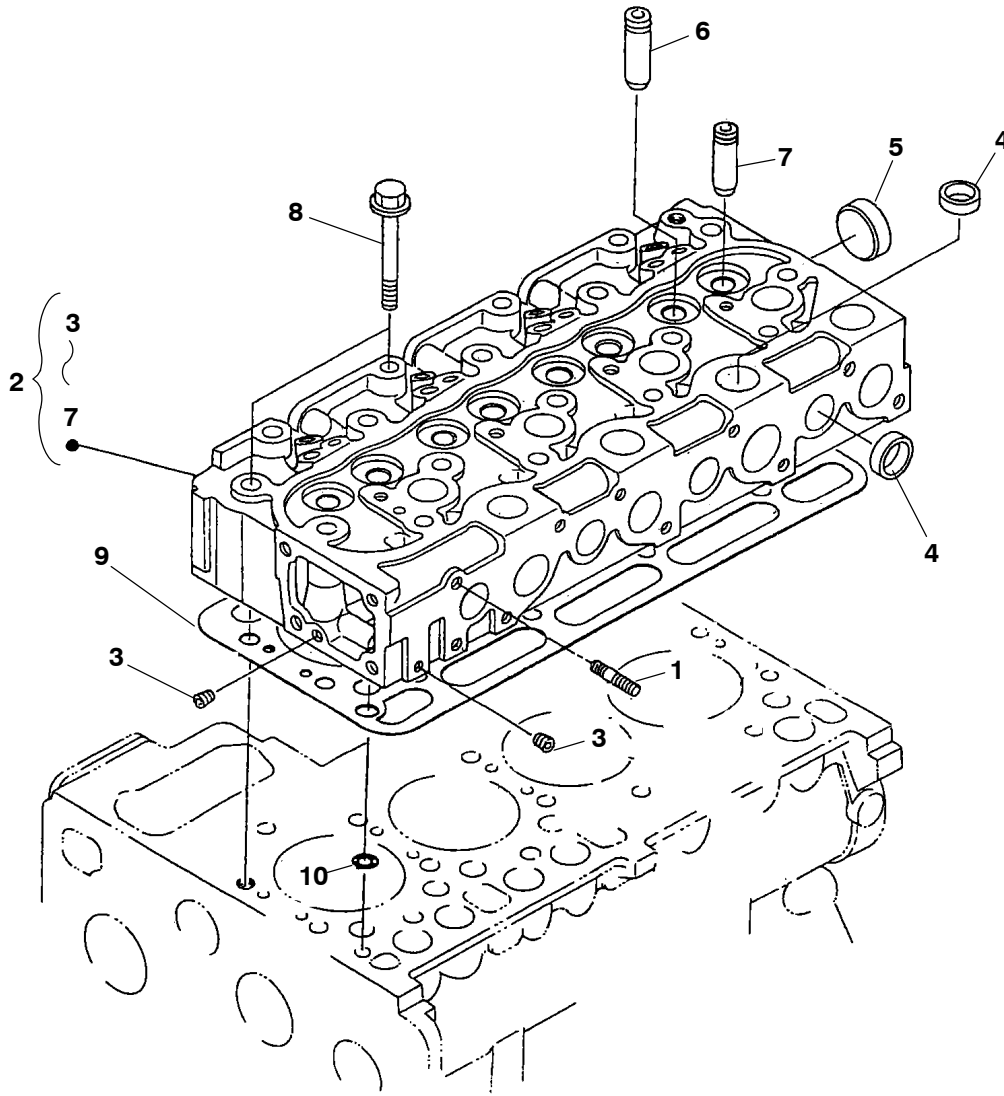


## Injection Pump Components MDKBS



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	185-6141	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				

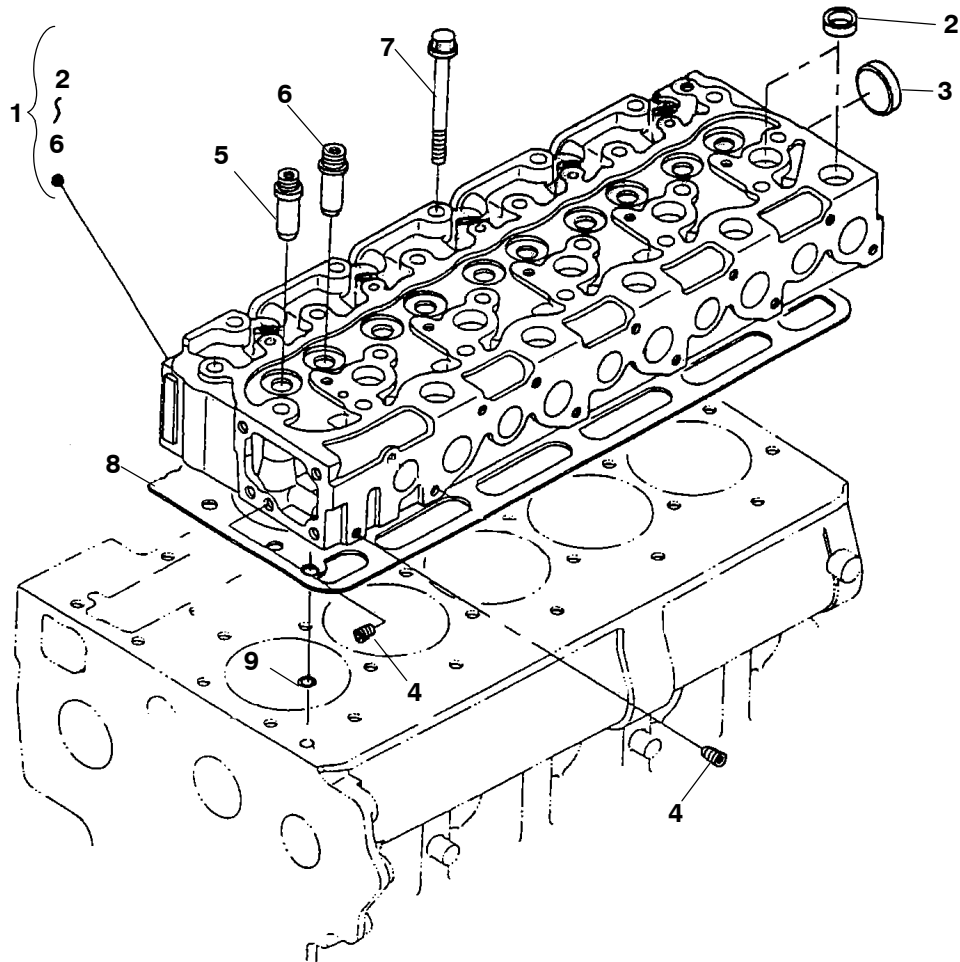
## Cylinder Head MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Stud	6	185-5862	4	*Guide, Inlet Valve
	185-2106	1	MDKBP	7	110-3987	4	*Guide, Exhaust Valve
	185-6048	1	MDKBR	8	185-5865	18	Bolt, Cylinder Head
2			Head Assy, Cylinder (Includes Parts Marked *)	9			Gasket, Cylinder Head
	185-6763	1	MDKBP		185-6764	1	MDKBP
	185-5860	1	MDKBR		185-5866	1	MDKBR
3	185-2188	2	*Plug	10	185-2095	1	O'Ring
4	185-5861	12	*Cap, Sealing				
5	185-2412	1	*Cap, Sealing				

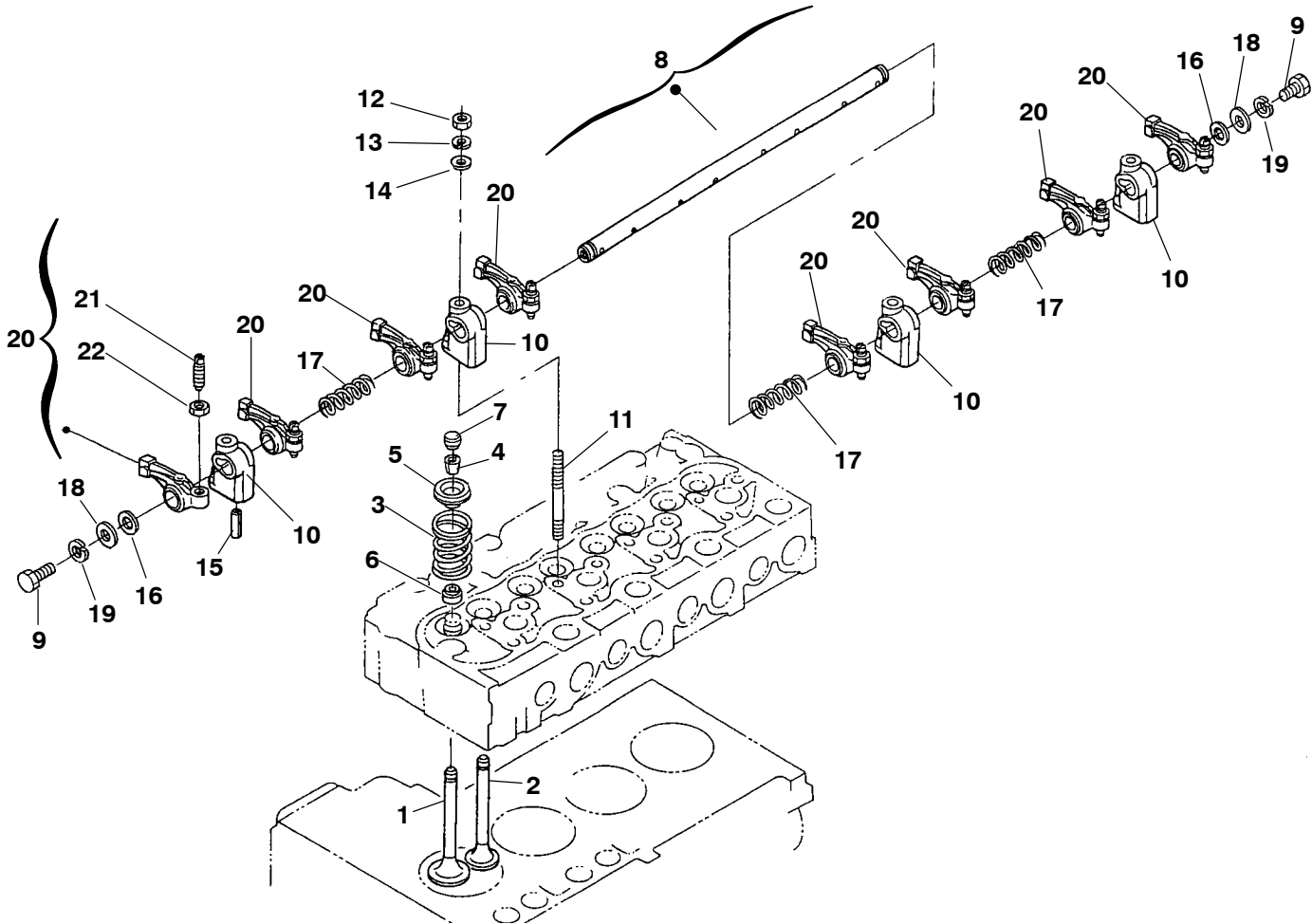
\* - Parts Included in Cylinder Head Assy.

## Cylinder Head MDKBS



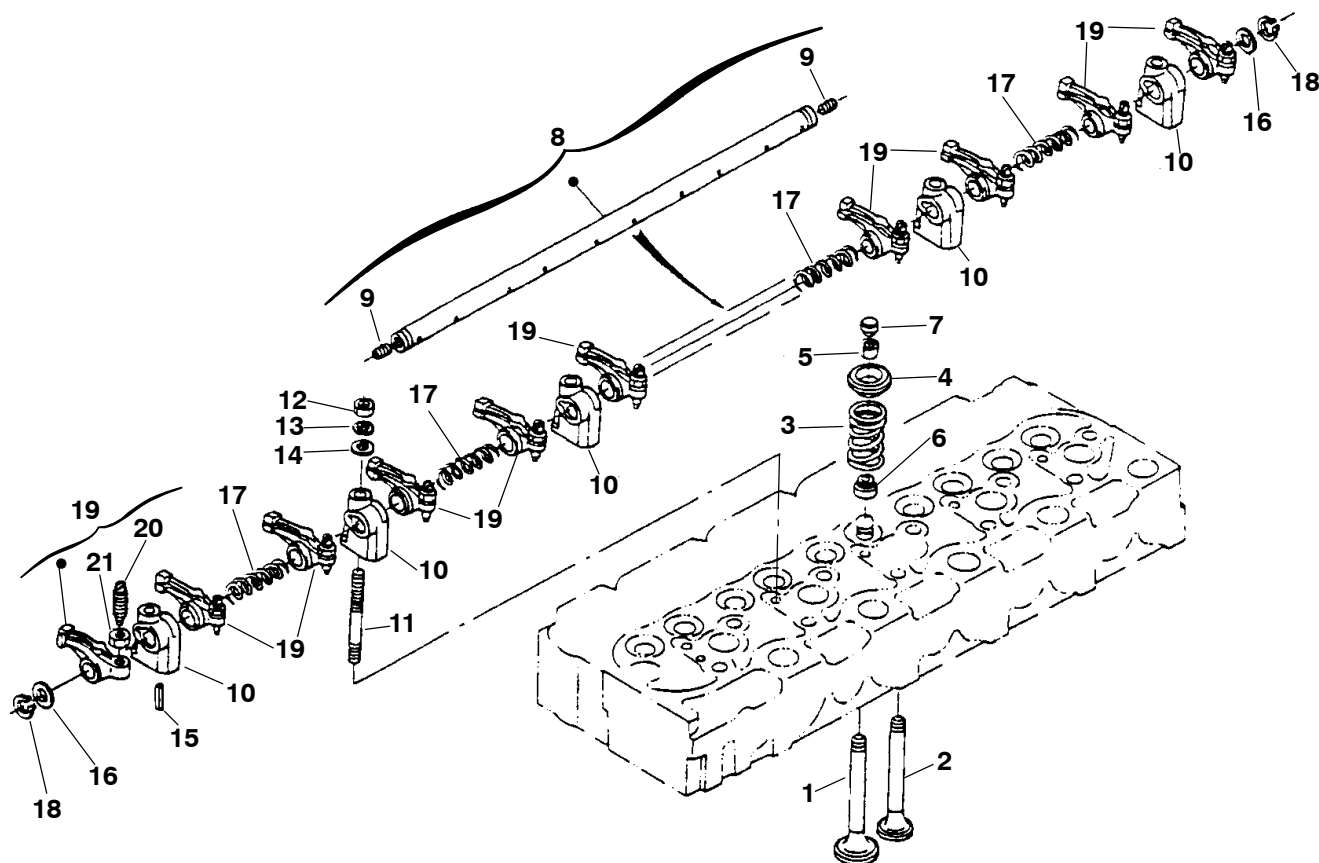
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6049	1	Head Assy, Cylinder (Includes Parts Marked #)	7	185-5865	22	Bolt, Cylinder Head
2	185-5861	15	#Cap, Sealing	8	185-6050	1	Gasket, Cylinder Head
3	185-2412	1	#Cap, Sealing	9	185-2095	1	O'Ring
4	185-2188	2	#Plug				# - Parts Included in Cylinder Head Assy.
5	185-5862	5	#Guide, Inlet Valve				
6	110-3987	5	#Guide, Exhaust Valve				

## Rocker Arm MDKBP, MDKBR



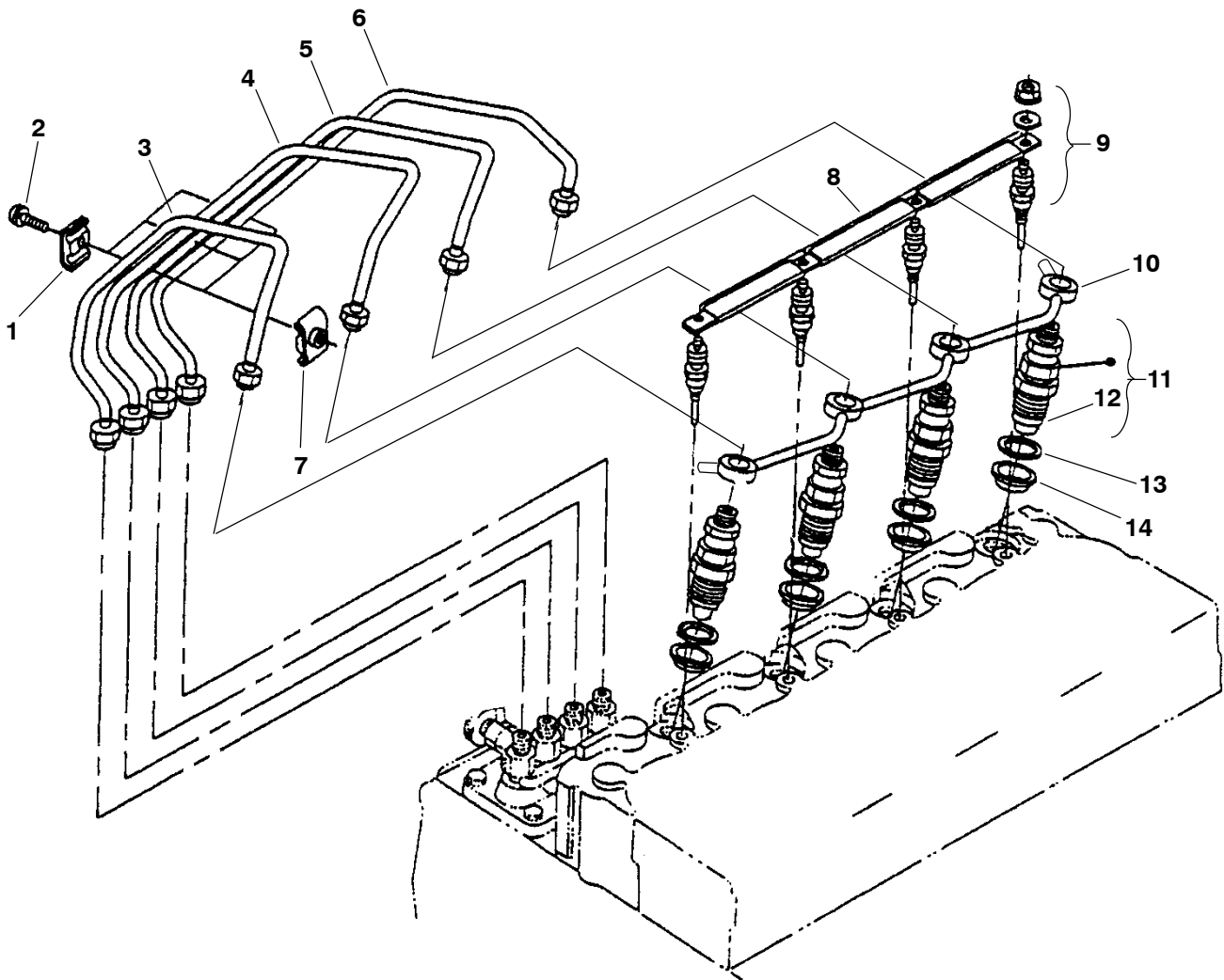
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6107	4	Valve, Inlet	13	185-6957	4	Washer, Spring
2	185-6108	4	Valve, Exhaust	14	181-9016	4	Washer, Flat
3	185-6016	8	Spring, Valve	15	185-6789	1	Pin, Spring
4	185-6017	8	Retainer, Valve Spring	16	185-6025	2	Washer, Rocker Arm Shaft
5	110-3948	8	Collet, Valve Spring	17	185-6026	3	Spring, Rocker Arm
6	185-6018	8	Seal, Valve Stem	18	185-7221	2	Ring, External Retaining
7	185-6019	8	Cap, Valve	19	185-6957	2	Washer, Spring
8	185-6020	1	Assy, Rocker Arm Shaft (Includes Set Screws)	20	185-6028	8	Assy, Rocker Arm (Includes Screw and Nut)
9	800-6327	2	Screw, Set	21	185-6029	8	Screw, Adjusting
10	185-6022	4	Bracket, Rocker Arm	22	185-6030	8	Nut
11	185-6023	4	Stud				
12	185-2367	4	Nut				

## Rocker Arm MDKBS



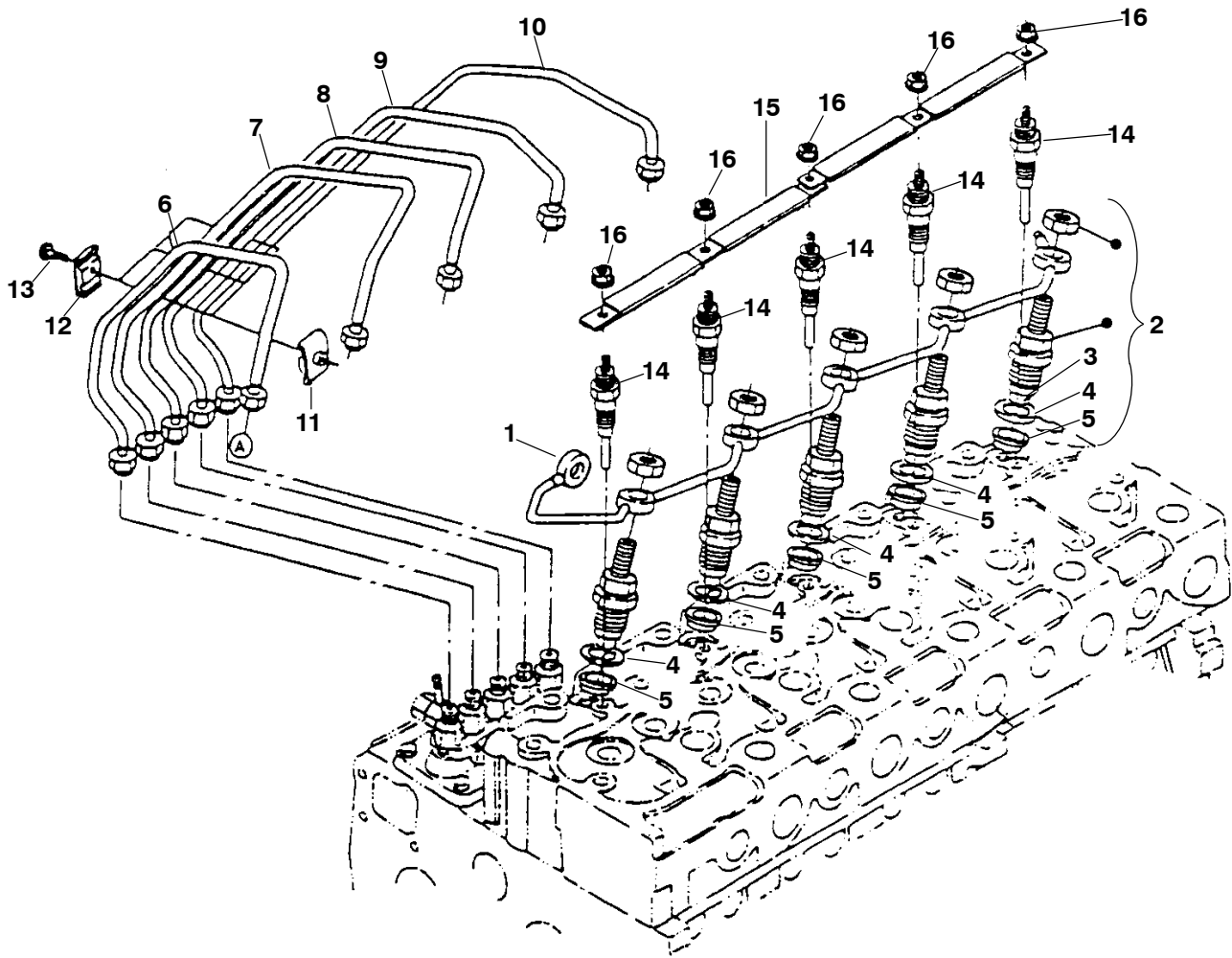
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6107	5	Valve, Inlet	12	185-2367	5	Nut
2	185-6108	5	Valve, Exhaust	13	185-6957	5	Washer, Spring
3	185-6016	10	Spring, Valve	14	740-1006	5	Washer, Flat
4	185-6017	10	Retainer, Valve Spring	15	185-6789	1	Pin, Spring
5	110-3948	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	Assy, Rocker Arm Shaft (Includes Set Screws)	19	185-6028	10	Assy, Rocker Arm (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 MDKBP, MDKBR



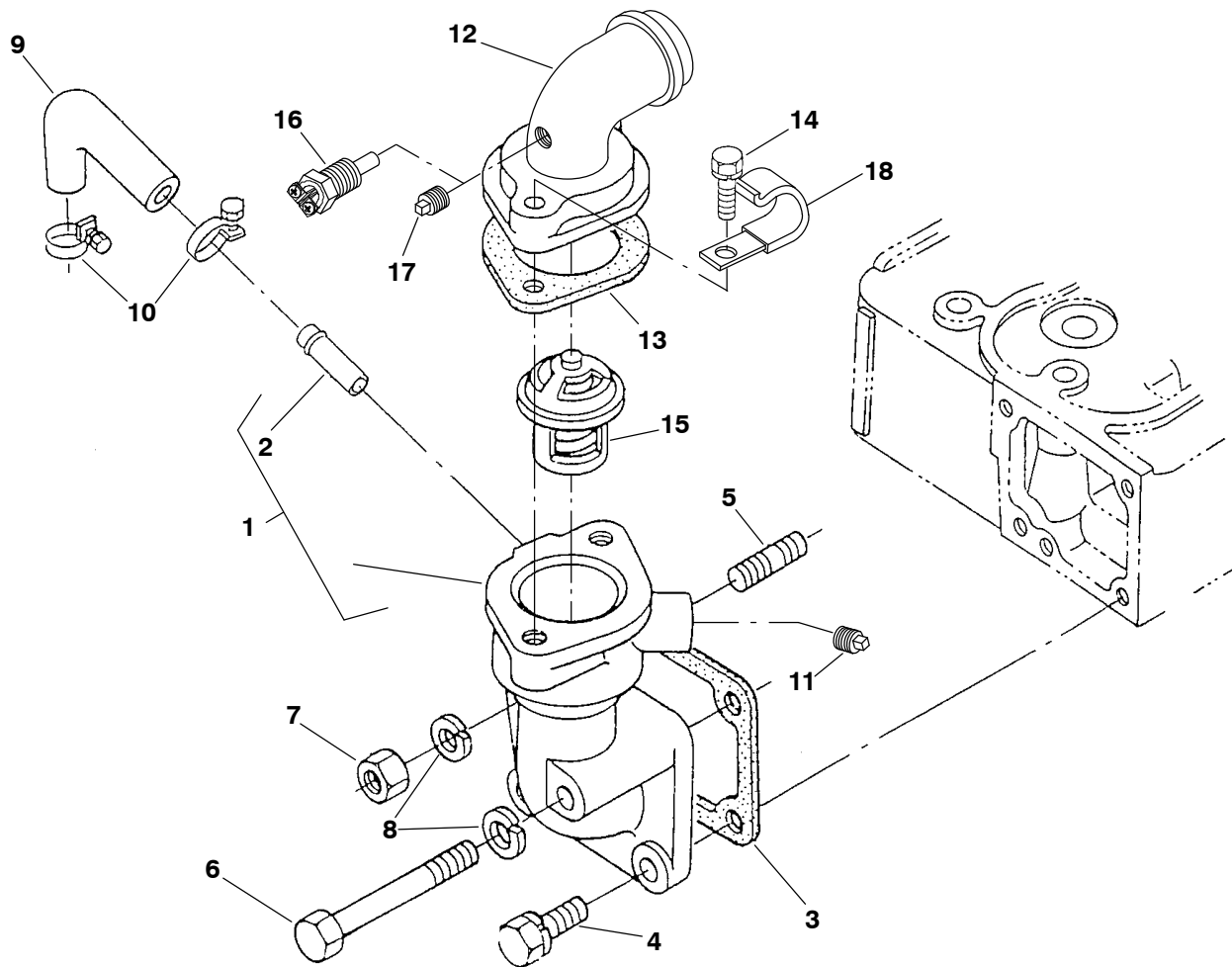
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-2345	3	Clamp, Pipe	10	185-6731	1	Pipe, Overflow
2	185-2385	3	Screw (With Washer)	11	185-6094	4	Holder Assy, Nozzle (Includes Nozzle)
3	185-5986	1	Pipe, Injection	12	185-6095	4	Nozzle
4	185-5987	1	Pipe, Injection	13	185-5337	4	Gasket, Nozzle
5	501-0886	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 MDKBS



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

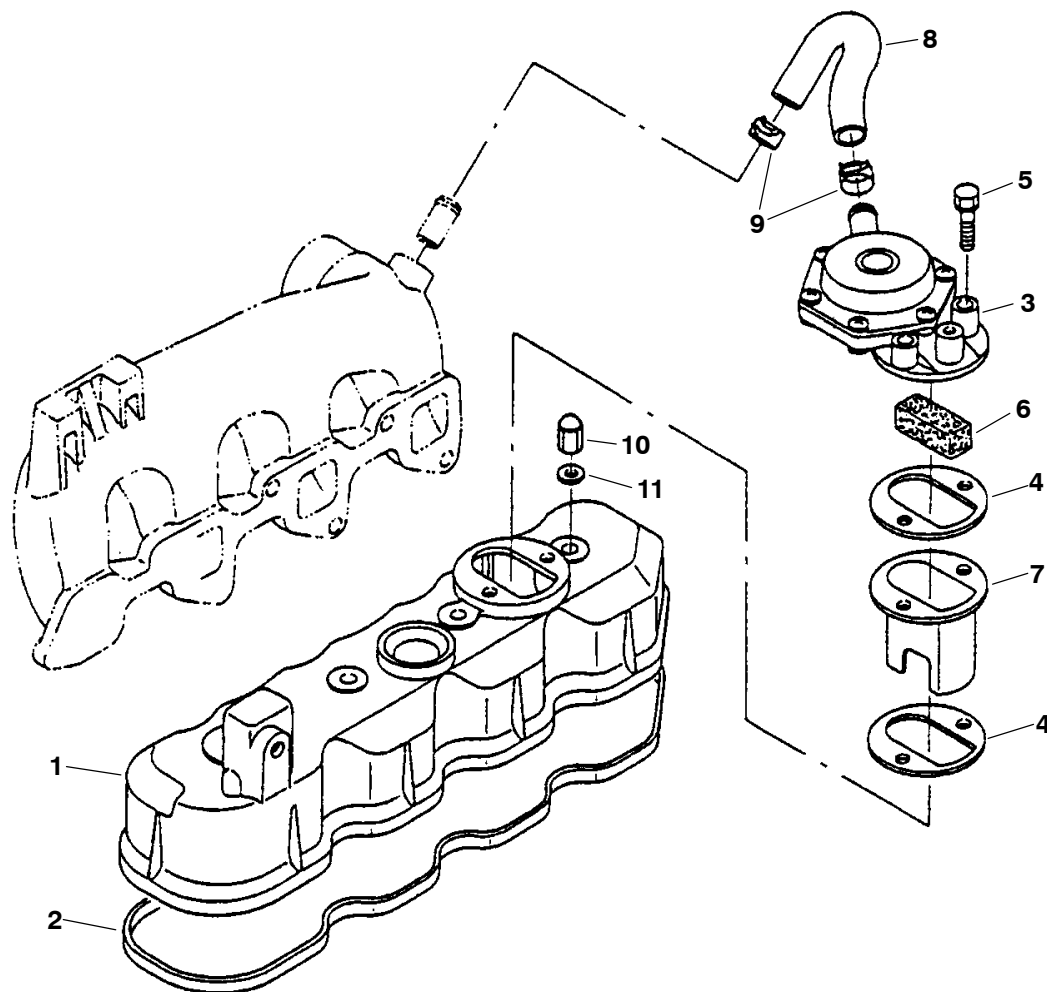
## Water Outlet Flange



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			*Kit, Sender (Includes Water Temperature Sender)	12	185-6003	1	Cover, Thermostat
	300-5040	1	Negative Ground	13	185-6004	1	Gasket, Thermostat Cover
	300-5041	1	Isolated Ground	14	185-2565	2	Bolt
1	185-6788	1	Flange, Water Outlet (Includes Pipe)	15	185-6005	1	Thermostat
2	185-6103	1	Pipe, Water Return	16			+ Sender, Water Temperature (E2)
3	185-5999	1	Gasket		193-0318	1	Negative Ground
4	185-2401	2	Bolt		193-0457-01	1	Isolated Ground
5	185-6033	1	Stud	17	505-0110	1	Plug, Square Head Pipe (3/8")
6			Bolt				MDKBP, MDKBR
	185-5443	1	MDKBP, MDKBR	18	518-0515	1	Clip, Wire (MDKBS)
	185-7060	1	MDKBS				
7	185-2367	1	Nut	* - Kit Also Includes Oil Pressure Sender Listed on Oil Pan Page.			
8	185-6957	2	Washer, Spring	+ - Water Temperature Sender ties to E2-2 Iso Harness (See Isolated Ground 338-4200-01)			
9	185-6000	1	Pipe, Water Return				
10	185-6001	2	Band, Pipe				
11	185-5826	1	Plug				

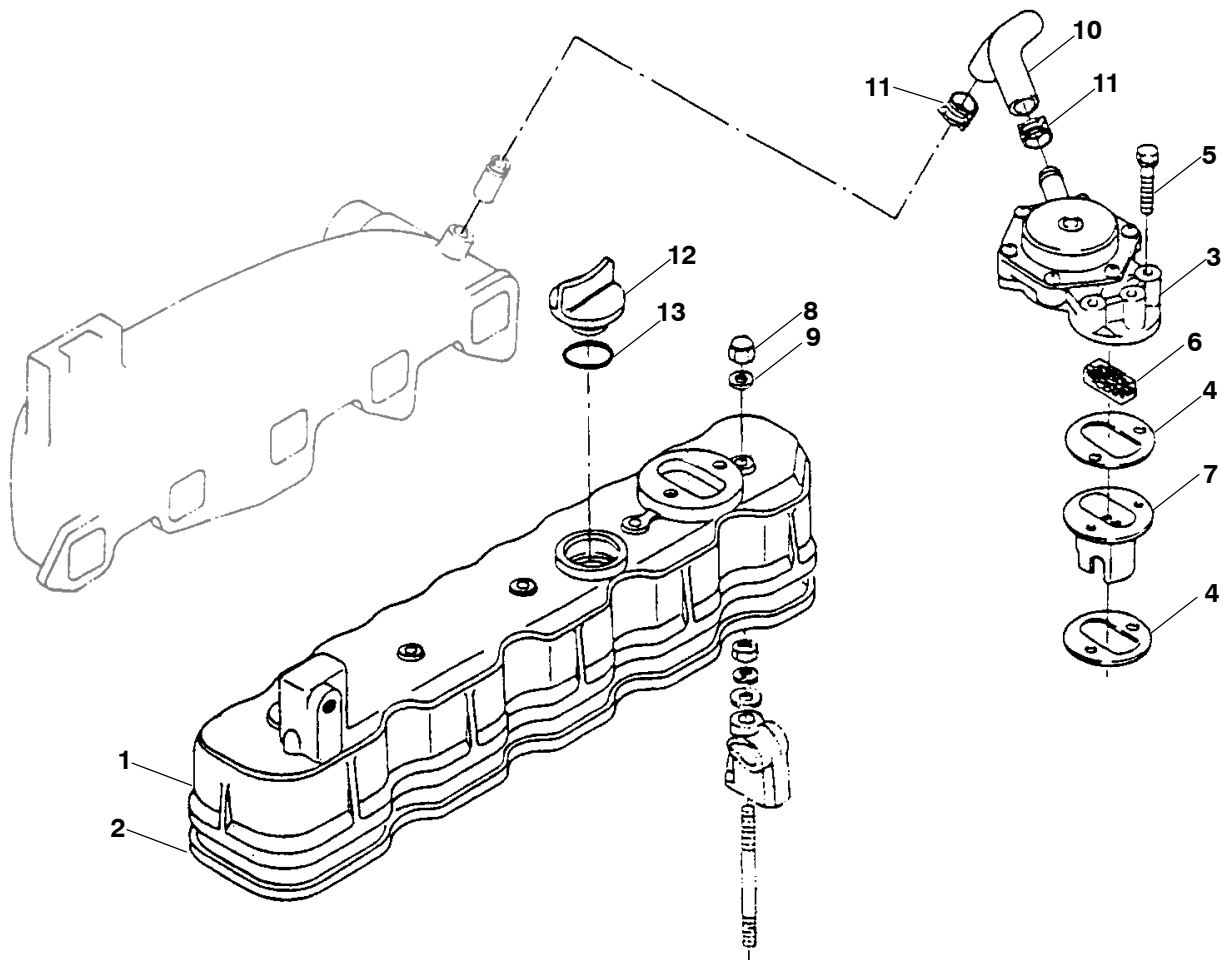


## Cylinder Head Cover MDKBP, MDKBR



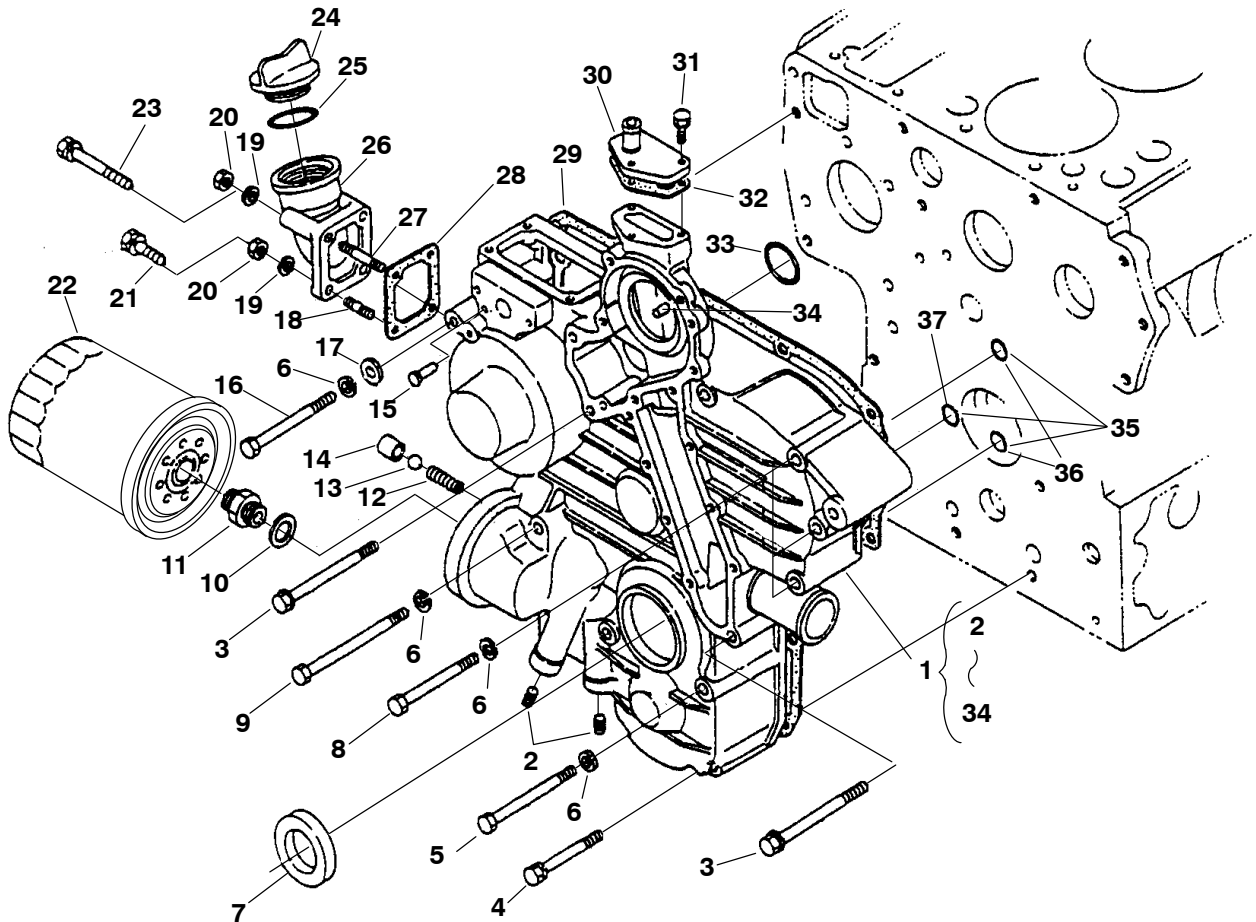
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6716	1	Cover, Cylinder Head	7	185-6718	1	Plate
2	185-5887	1	Gasket, Cover	8	185-6719	1	Tube, Breather
3	185-6720	1	Breather	9	185-6722	2	Clamp, Hose
4	185-6717	2	Gasket, Breather	10	185-5888	4	Nut, Cap
5	718-1040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

## Cylinder Head Cover MDKBS



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	185-6717	2	Gasket	11	185-6722	2	Clamp
5	718-1040	2	Bolt	12	181-9000	1	Cover, Oil Fill
6	185-6721	1	Element, Breather	13	509-0414	1	O'Ring
7	185-6718	1	Plate				

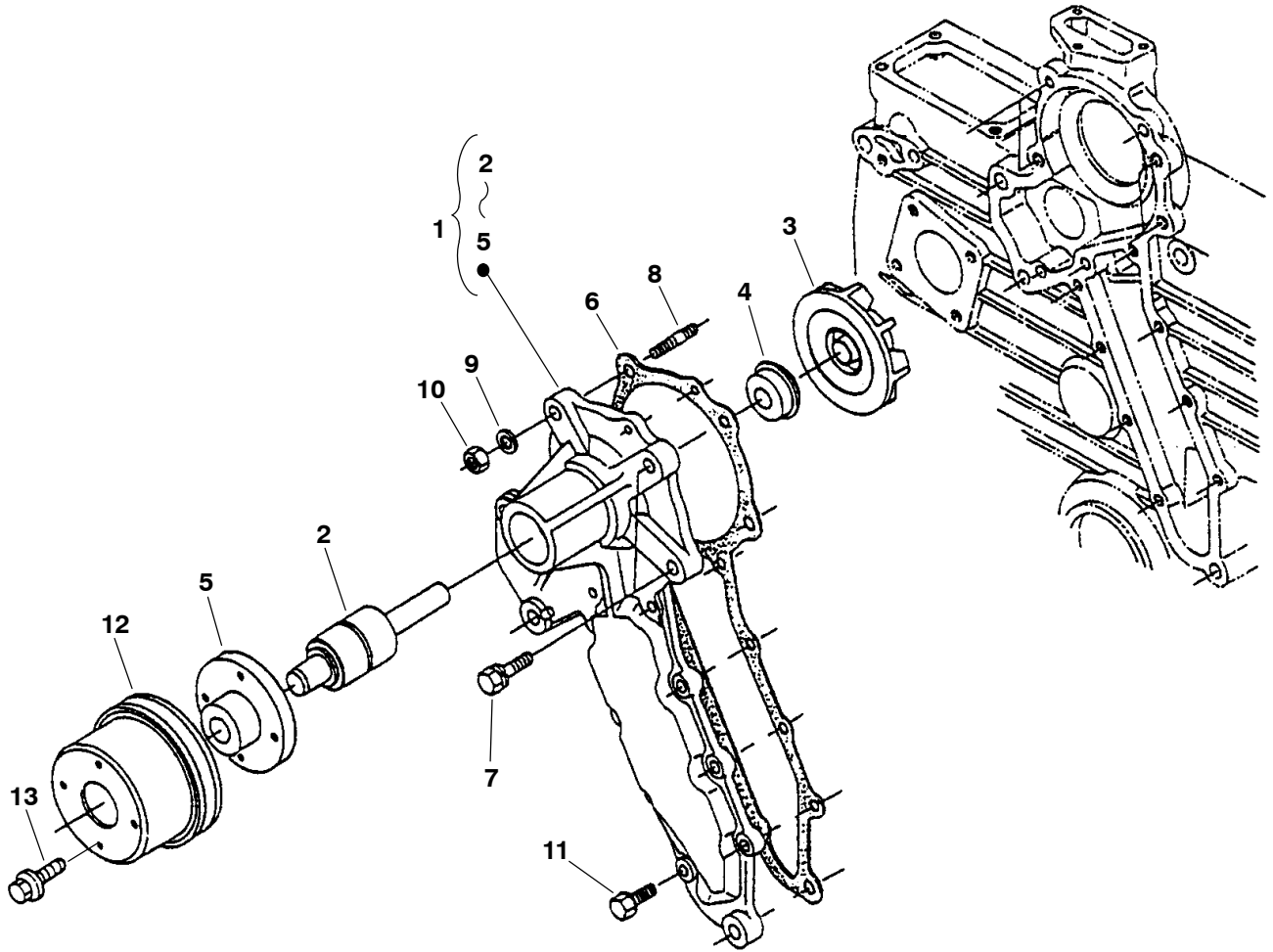
## Gearcase



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 (MDKBP, MDKBR)
	185-6765	1	MDKBP, MDKBR	21	185-2389	2	Bolt (Bottom)(MDKBS)
	185-6765	1	MDKBS	22	122-0810	1	Filter, Oil
2	185-5505	2	*Plug	23	185-5833	2	Bolt (Top)(MDKBS)
3	185-5874	3	Bolt	24	185-5407	1	Plug, Oil Fill
4	185-2405	2	Bolt	25	509-0414	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)(MDKBP, MDKBR)
7	185-6204	1	Seal, Oil (MDKB S)	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	509-0415	1	Washer, Flat	31	185-2390	3	Bolt
11	505-2256	1	Joint, Pipe	32	132-0449	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 (MDKBP, MDKBR)
15	185-2102	1	*Pin, Start Spring	36	185-5869	2	*O'Ring (MDKBS)
16	185-6961	1	Bolt	37	185-5126	1	*O'Ring (MDKBS)
17	740-1006	1	Washer, Flat				
18	185-6127	2	Stud (Bottom)(MDKBP, MDKBR)				
19	185-6759	4	Washer, Spring(MDKBP, MDKBR)				

\* - Parts Included in Gearcase Assy

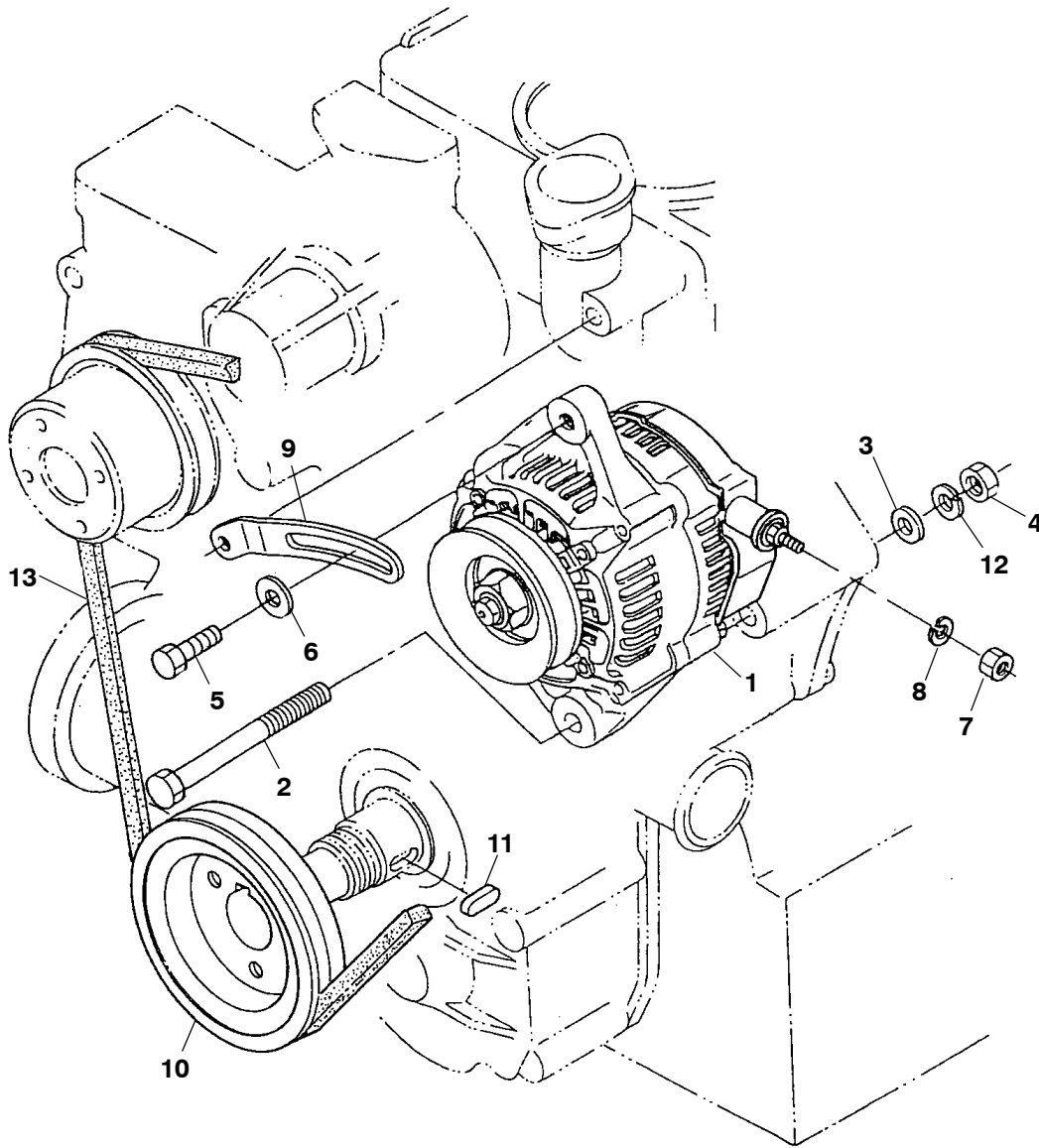
# Water Pump



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Pump Assy, Water (Includes Parts Marked *)	7	185-2404	2	Bolt
	185-6006	1	MDKBP, MDKBR	8	185-6012	2	Stud
	132-0484	1	MDKBS	9	185-6957	2	Washer, Spring
2	185-6007	1	*Bearing, Ball	10	185-2367	2	Nut
3	132-0444	1	*Impeller	11	185-2389	8	Bolt
4	185-7021	1	*Seal	12	185-6013	1	Pulley
5			*Flange	13	800-6393	4	Bolt, Flange
	185-6010	1	MDKBP, MDKBR				
	185-6821	1	MDKBS				
6	185-6011	1	Gasket				

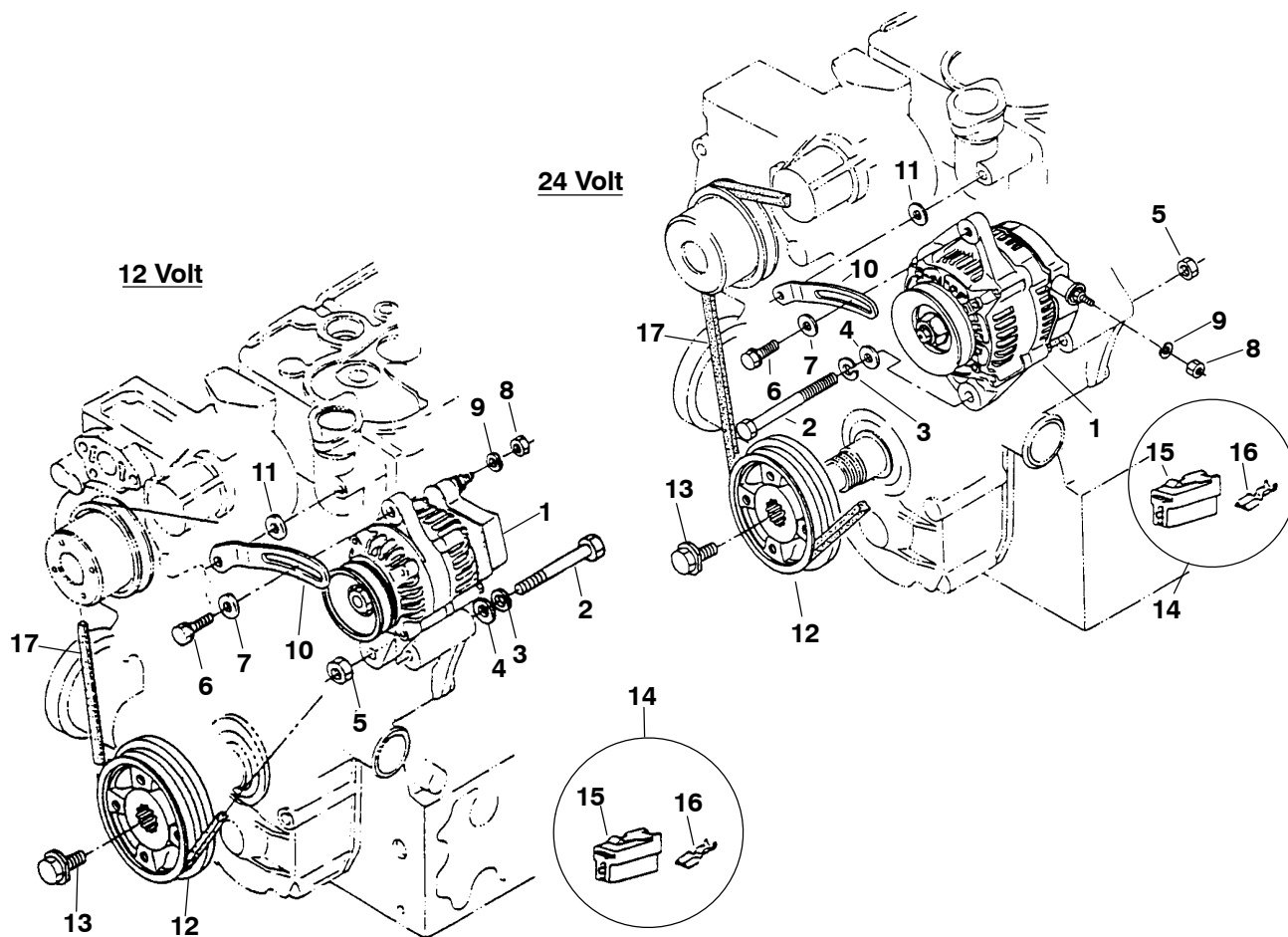
\* - Parts Included in Water Pump Assy

## Alternator MDKBP, MDKBR (Negative Ground)



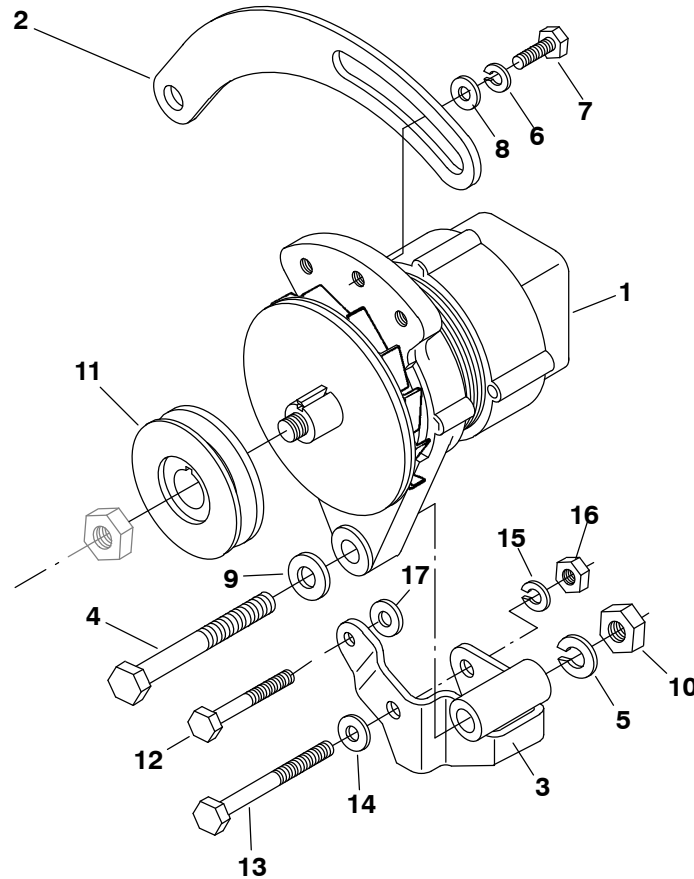
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6724	1	Alternator, Complete (See Separate Page for Components)	7	185-4255	1	Nut
2			Bolt	8	185-6759	1	Washer, Spring
	185-6734	1	MDKBP	9			Bracket, Adjusting
	185-6183	1	MDKBR		185-7012	1	12V
3	185-6630	1	Washer, Flat		185-6733	1	24V
4	185-5445	1	Nut	10	185-6730	1	Pulley, Fan Drive
5	185-2564	1	Bolt	11	185-5905	1	Key
6	185-6786	1	Washer, Flat	12	185-6785	1	Washer, Spring
				13	185-7055	1	Belt

## Alternator MDKBS (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	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	185-5447	1	Coupler Assy
6	185-2564	1	Bolt	15	185-6440	1	Connector
7	185-6786	1	Washer, Flat	16	185-6347	1	Terminal
8	185-4255	1	Nut	17	185-7055	1	Belt

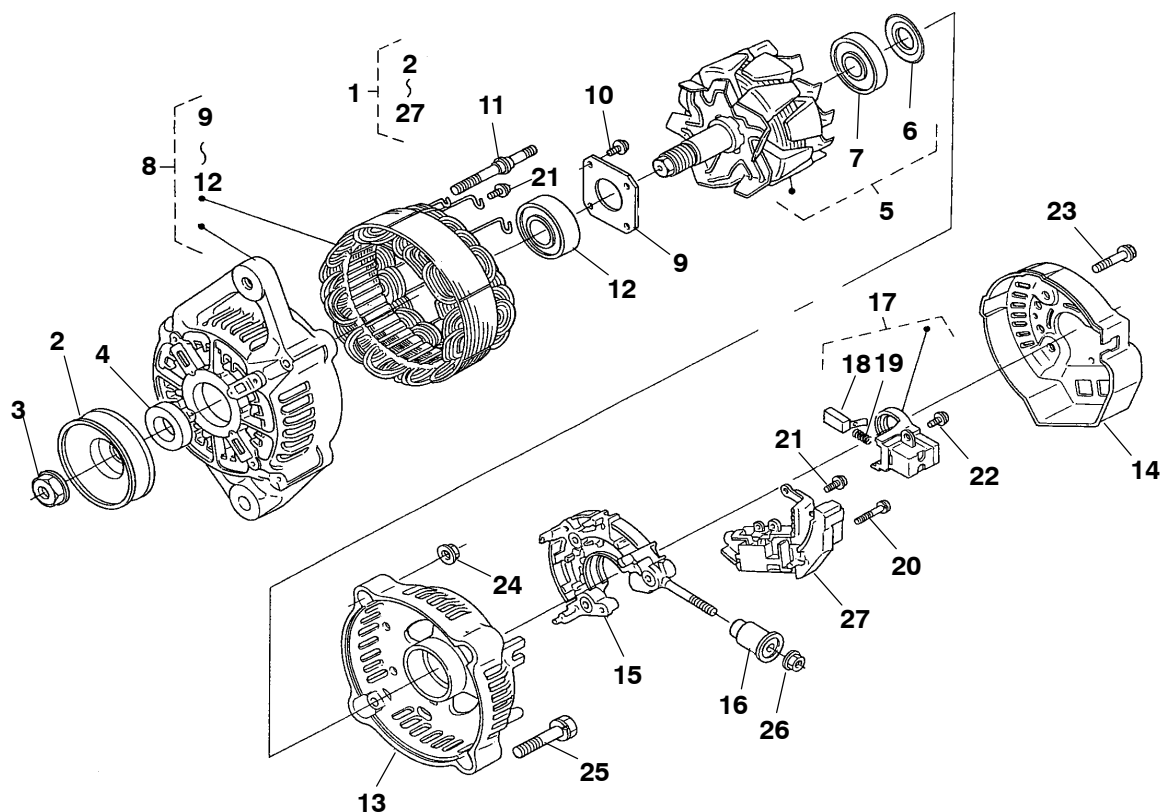
**Alternator  
(Isolated Ground)  
(12V/24V)**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Alternator, Complete (No Components Available)	11	191-2170	1	Pulley, Alternator
	191-2169-02	1	12V	12	718-1048	1	Screw, Hex Head Cap (M8 x 80mm) (MDKBP, MDKBR)
	191-2169-01	1	24V				
2	191-2168-03	1	Strap, Alternator		800-2071	1	(M8 x 90mm) (MDKBS)
3	191-2167-03	1	Bracket, Alternator	13	800-2100	1	Screw, Hex Head Cap (M10 x 100)
4	800-0104	1	Screw, Hex Head Cap (1/2-13 x 4-1/2")	14	526-2120	1	Washer, (M10)
5	850-0060	1	Washer, Lock (1/2")	15	850-2010	1	Washer, Lock (M10)
6	526-0045	1	Washer, Flat (5/16")	16	850-2009	1	Nut, Hex (M10)
7	800-0027	1	Screw, Hex Head Cap (5/16-18 x 7/8")	17	526-0313	1	Washer (MDKBS)
8	850-0045	1	Washer, Lock (5/16")				
9	526-0219	1	Washer, Flat (1/2")				
10	862-0016	1	Nut (1/2-13)				

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

## Alternator Components (Negative Ground) (24V)

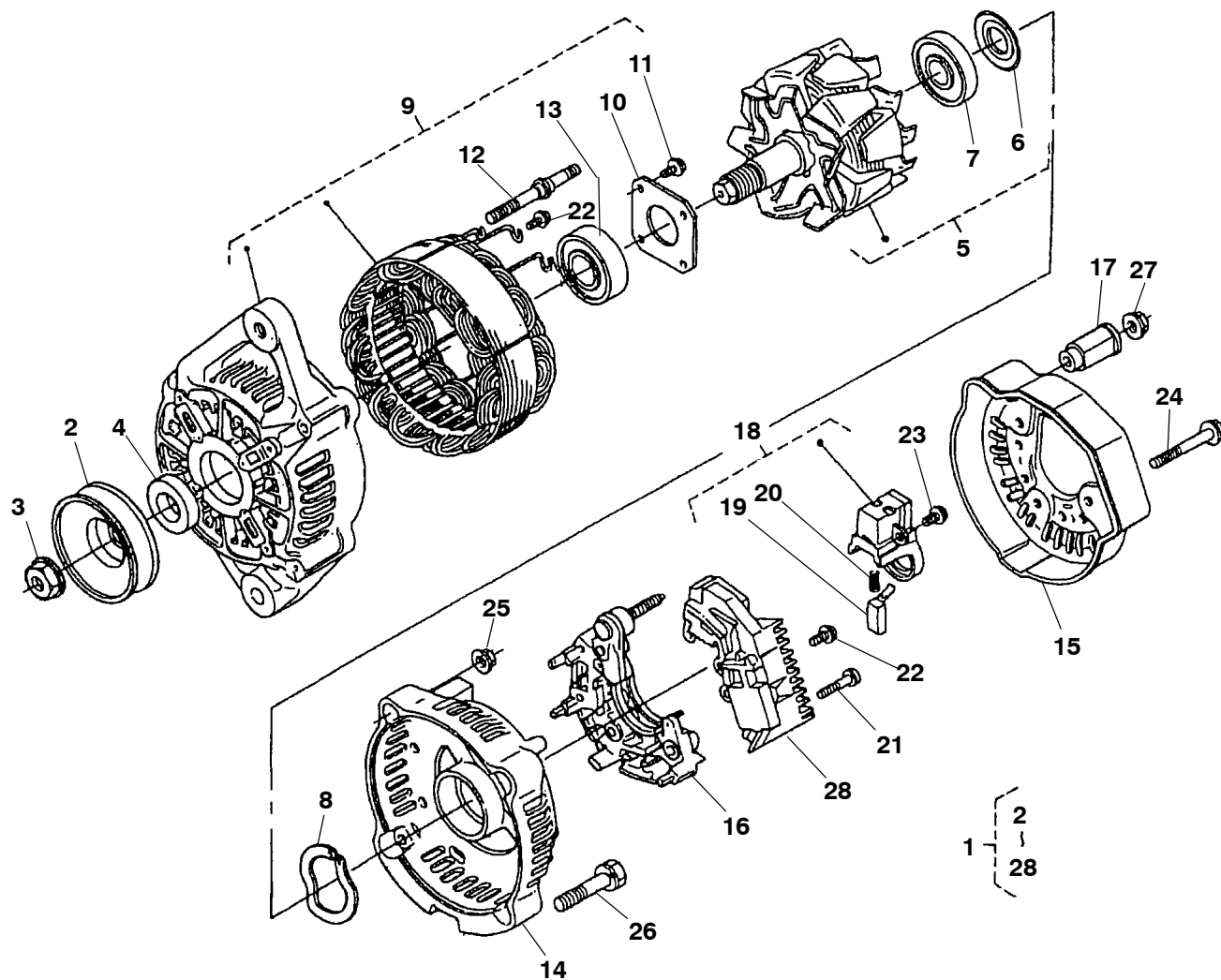


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6724	1	Alternator (12V)	16	185-5781	1	Insulation, Brush
2	185-6809	1	Pulley	17	185-6819	1	Holder Assy, Brush (Includes Brushes and Springs)
3	185-5768	1	Nut	18	185-5783	2	Brush
4	185-5769	1	Collar	19	185-5784	2	Spring, Brush
5	185-9263	1	Rotor (Includes Bearing and Cover)	20	185-5785	2	Screw, Round Head
6	185-5771	1	Cover, Bearing	21	185-5786	6	Screw, Round Head
7	185-6811	1	*Bearing	22	185-5787	1	Screw, Round Head
8	185-6812	1	Frame, Drive End (Includes Parts Marked *)	23	185-5788	3	Bolt
9	185-5774	1	*Plate, Retainer	24	185-5789	2	Nut
10	185-5775	4	*Screw, Round Head	25	185-5790	2	Bolt
11	185-7056	2	*Bolt, Through	26	185-2961	1	Nut
12	185-6813	1	Bearing	27	185-6820	1	Regulator
13	181-9096	1	Frame, End				
14	185-6815	1	Cover, End				
15	185-6816	1	Rectifier				

\* - Parts Included in Drive End Frame



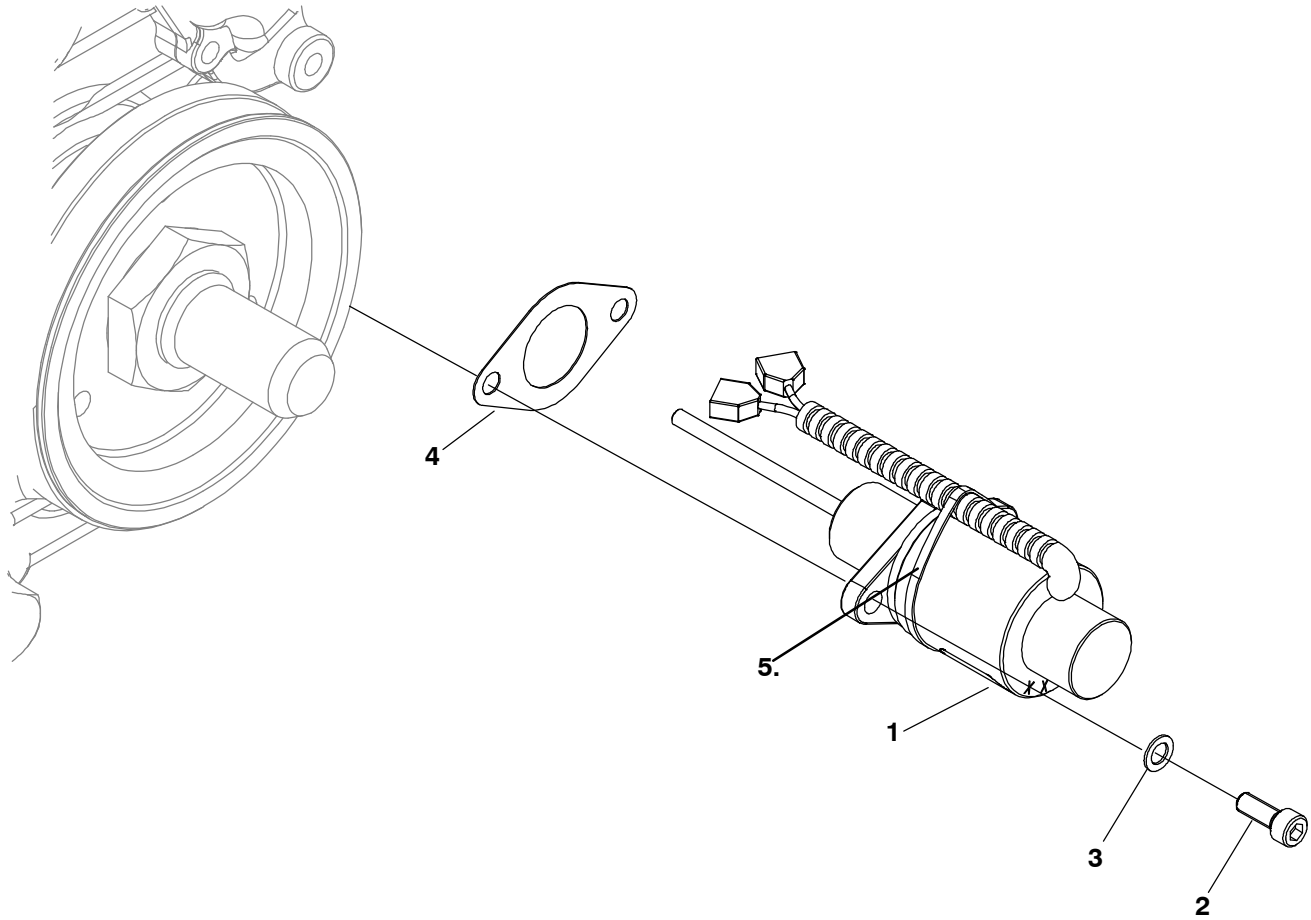
## Alternator Components (Negative Ground) (12V)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-5994	1	Assy., Alternator (12V)	17	185-6191	1	Insulation, Brush
2	185-6186	1	Pulley	18	185-6819	1	Holder Assy, Brush (Includes Brushes and Springs)
3	185-5768	1	Nut	19	185-5783	2	Brush
4	185-5769	1	Collar	20	185-5784	2	Spring, Brush
5	185-9263	1	Rotor (Includes Bearing and Cover)	21	185-5785	2	Screw, Round Head
6	185-5771	1	Cover, Bearing	22	185-5786	6	Screw, Round Head
7	185-5777	1	Bearing	23	185-5787	1	Screw, Round Head
8	185-6787	1	Washer, Thrust	24	185-5788	3	Bolt
9	185-5773	1	Frame, Drive End (Includes Parts Marked *)	25	185-5789	2	Nut
10	185-5774	1	*Plate, Retainer	26	185-5790	2	Bolt
11	185-5775	4	*Screw, Round Head	27	185-2961	1	Nut
12	185-7056	2	*Bolt, Through	28	185-5791	1	Regulator
13	185-6813	1	*Bearing				
14	185-6188	1	Frame, End				
15	185-6189	1	Cover, End				
16	185-6638	1	Rectifier				

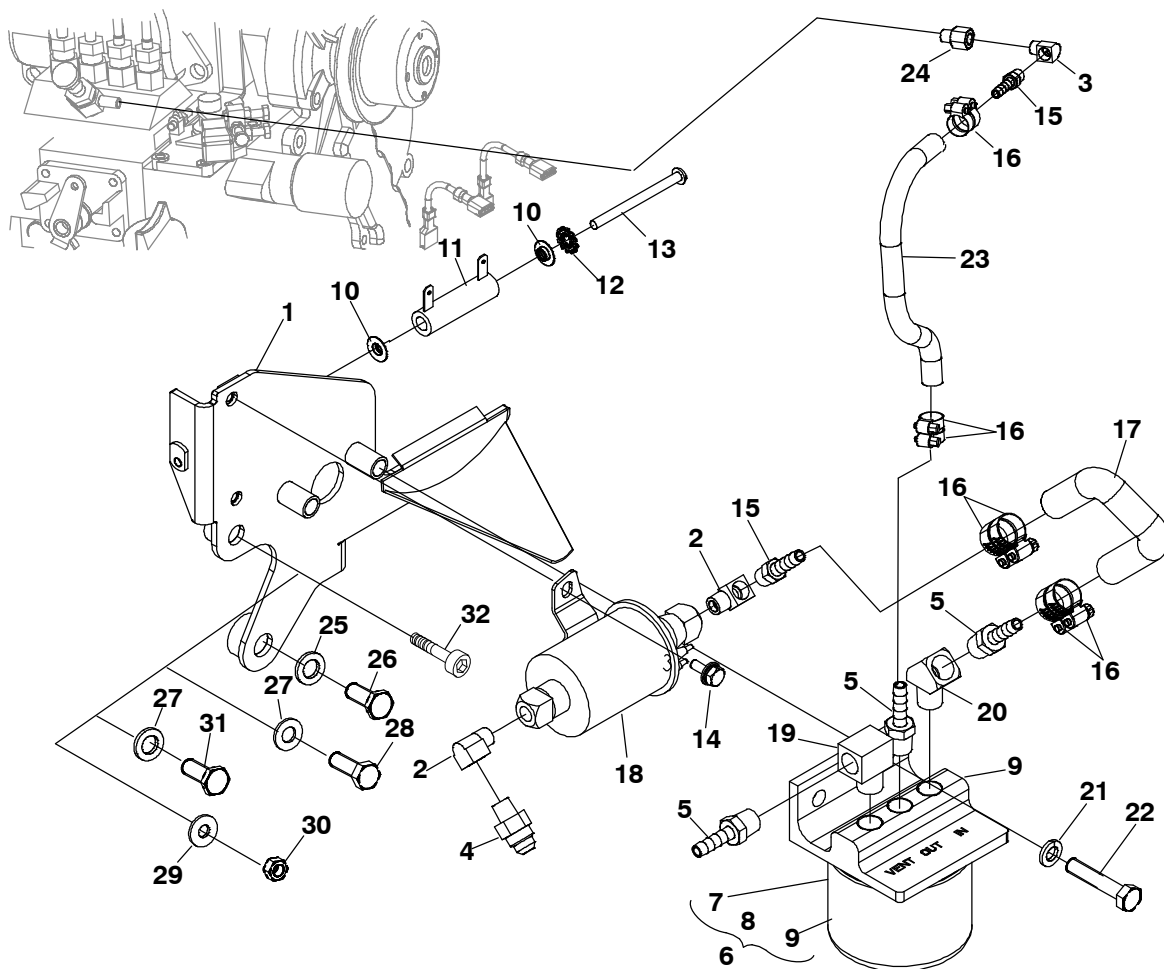
\* - Parts Included in Drive End Frame

## Governor Actuator



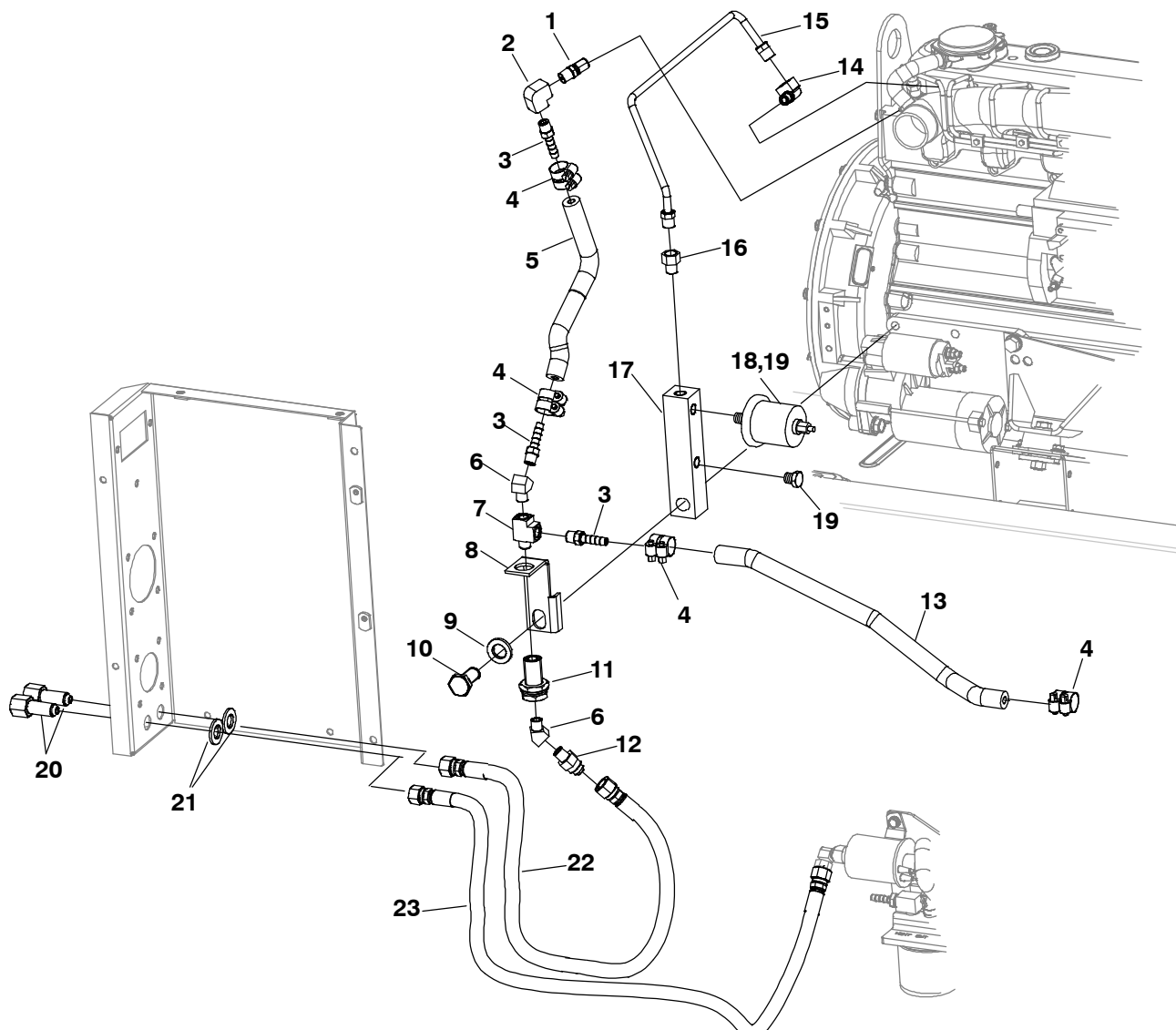
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	306-5005-01	1	Actuator, Governor 12V
	306-5005-02	1	24V
2	725-1027	2	Screw, Socket Head Cap (M6 x 16mm)
3	526-0063	2	Washer, Copper (1/32")
4	184-0071	1	Gasket, Solenoid Cover
5	332-0942	1	Cable, Tie

## Fuel Pump (Spec A-B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Assy, Fuel Pump (Includes Parts Marked *)	20	502-0156	1	*Elbow, 45°Street
	146-0827-01	1	12V	21	850-2008	2	*Washer, Lock Split (M8)
	146-0827-02	1	24V	22	718-1040	2	*Screw, Hex Head (M8 x 1.25 x 40)
1	149-2703-03	1	*Bracket, Fuel Pump	23	503-2200-02	1	*Hose, Fuel (1/4" x 13.26)
2	502-0020-01	2	*Elbow, Pipe	24	502-0175	1	*Adapter, Pipe (1/8"NPT)
3	502-0020-01	1	*Elbow, Pipe	25	526-0399-64	2	Washer, Flat (M12)
4	505-1490	1	*Connector, Male	26	800-3032	1	Screw, Hex Head Cap (M12 x 1.25 x 30mm)
5	502-1367-02	3	*Connector, Hose	27			Washer Flat (M10) Non PTO
6	149-2634-01	1	*Filter, Fuel (Includes Element, Plug and Filter Base)	526-2120		1	MDKBP and MDKBR
7	A026K278	1	*Element	526-2120		2	MDKBS
8	502-0028	1	*Plug, Drain	28	800-3005	1	Screw, Hex Head Cap (M10 x 1.25 x 30mm) (Non PTO MDKBP and MDKBR)
9	149-2635	1	*Base, Filter	29	526-2106	1	Washer, Flat (MDKBS)
10	304-0796	2	*Washer, Centering (24V)	30	750-1006	1	Nut, Hex (M8 x 1.25mm) (MDKBS)
11	350-1238	1	*Resistor (3.8 ohms) (24V)	31	815-0585	1	Screw, Hex Head Cap (M10 x 1.25 x 20mm) (Non PTO)
12	856-0003	1	*Washer, EIT (#10) (24V)	32	815-0904	1	Screw, Socket Head Cap (M10 x 1.25 x 20mm)
13	813-0112	1	*Screw, Round Head Machine (#10-32 x 2.5") (24V)				
14	821-6002-02	2	*Screw, Hex Flange (M6 x 1 x 14)				
15	502-1367-01	2	*Connector, Hose				
16	503-2309	8	*Clamp, Hose				
17	503-2200-01	1	*Hose, Fuel				
18	149-2646	1	*Pump, Fuel				
19	502-0054	1	*Elbow, Street Pipe				

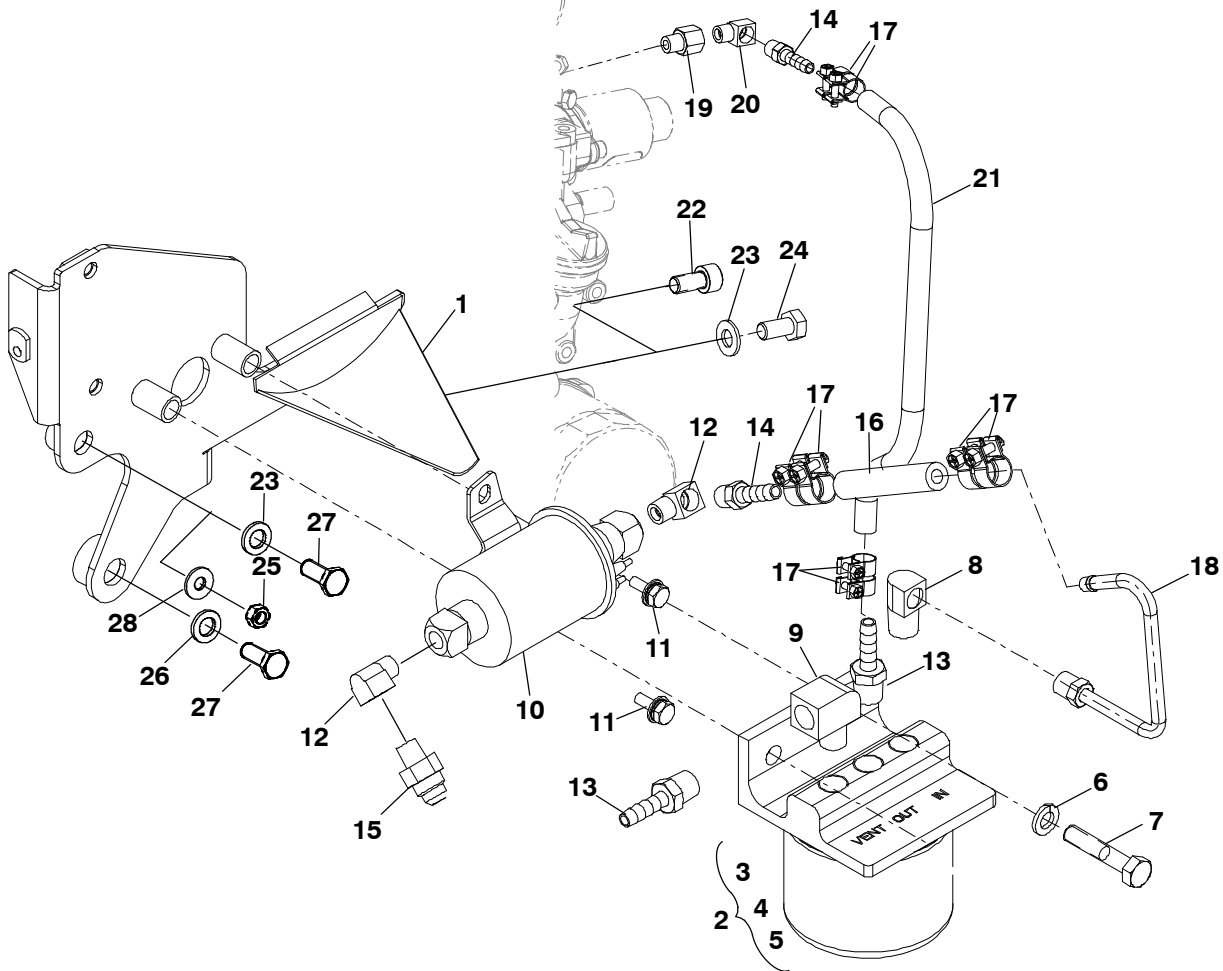
## Fuel Return, Oil Sender (Spec A-B)



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)	16	502-0003	1	Connector, Male IN
	149-2655	1	Kit, Fuel Adapter (3/8" Hose)	17	120-1319	1	Manifold, Oil Pressure
1	502-1245	1	Adapter, Pipe	18	193-0244	1	Sender, Oil Pressure
2	502-0055	1	Elbow, Inverted Female		193-0430-01	1	Neg Ground with Gauges
3	502-1367-01	4	Connector, Hose		193-0430-01	1	Iso Ground with Gauges
4	A034B591	4	Clamp, Hose	19	502-0028	2	Plug, Hex Head Pipe
5	503-2200-01	1	Hose, Fuel (1/4" x 7.54")	20	505-1489	2	Connector, Female Bulkhead
6	502-0053	2	Elbow, 45° Street	21	526-0406	2	Washer, Flat (M14)
7	502-1368	1	Tee, Street (1/8 NPT)	22			Line, Transfer Fuel (Spec A)
8	149-2489-03	1	Support, Fuel Return		501-0672-02	1	MDKBP, MDKBR
9	526-0399-64	1	Washer, FI (M12)		501-0672-04	1	MDKBS
10	800-3029	1	Screw, Hex Head Cap (M12 x 1.25 x 45mm)	23			Line, Transfer Fuel (Spec A)
11	502-1244	1	Coupling, Anchor		501-0672-05	1	MDKBP, MDKBR
12	505-1490	1	Connector, Male		501-0672-06	1	MDKBS
13	503-2200-05	1	Hose, Fuel (1/4" x 20")				
14	503-1309	1	Elbow, Inverted Male				
15	122-0813	1	Line, Oil				

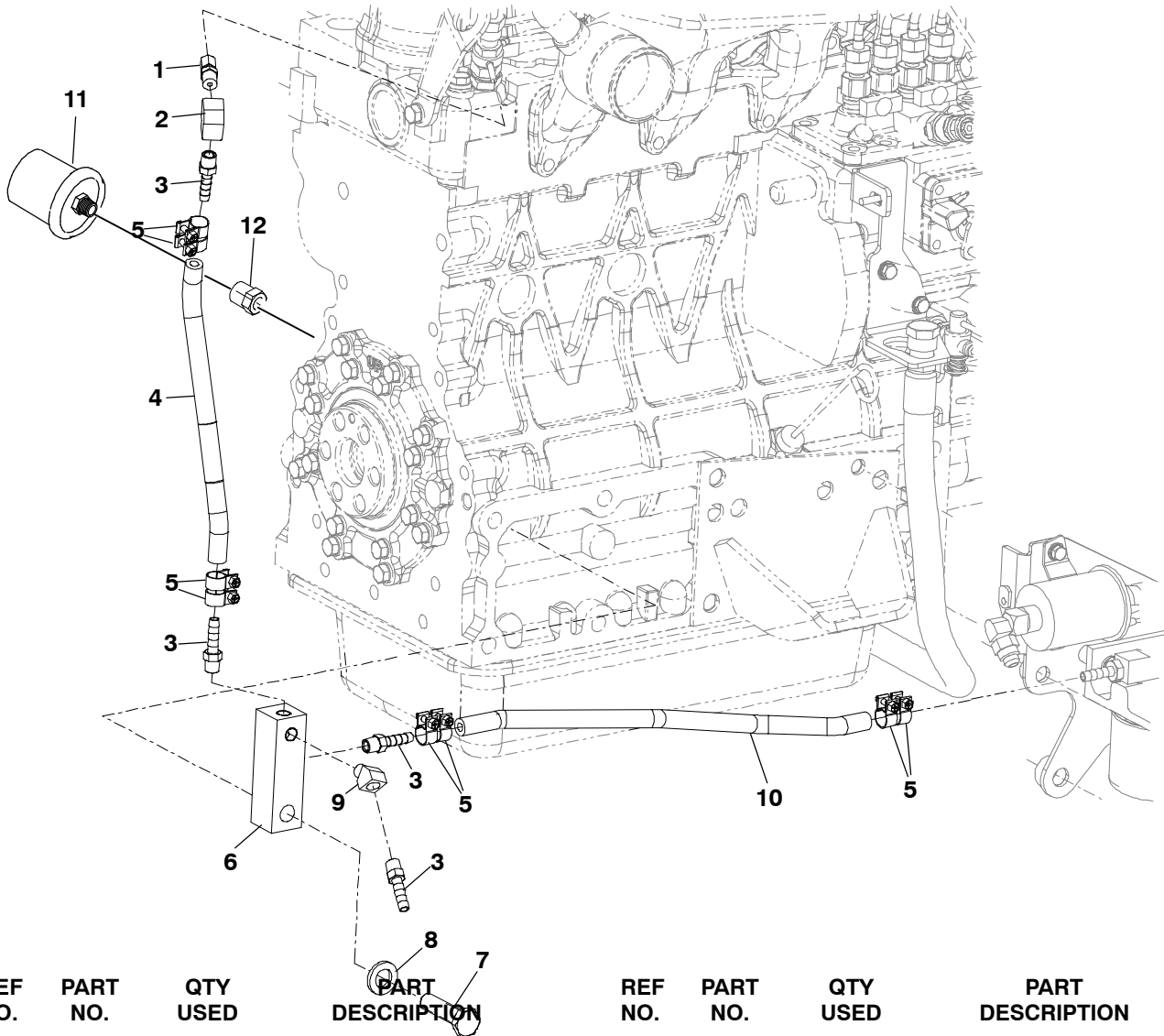
\* - Oil Sender ties to E1-2, Iso Ground Harness (See Isolated Ground 338-4200-01)

## Fuel Pump MDKBP and MDKBR (Spec C)



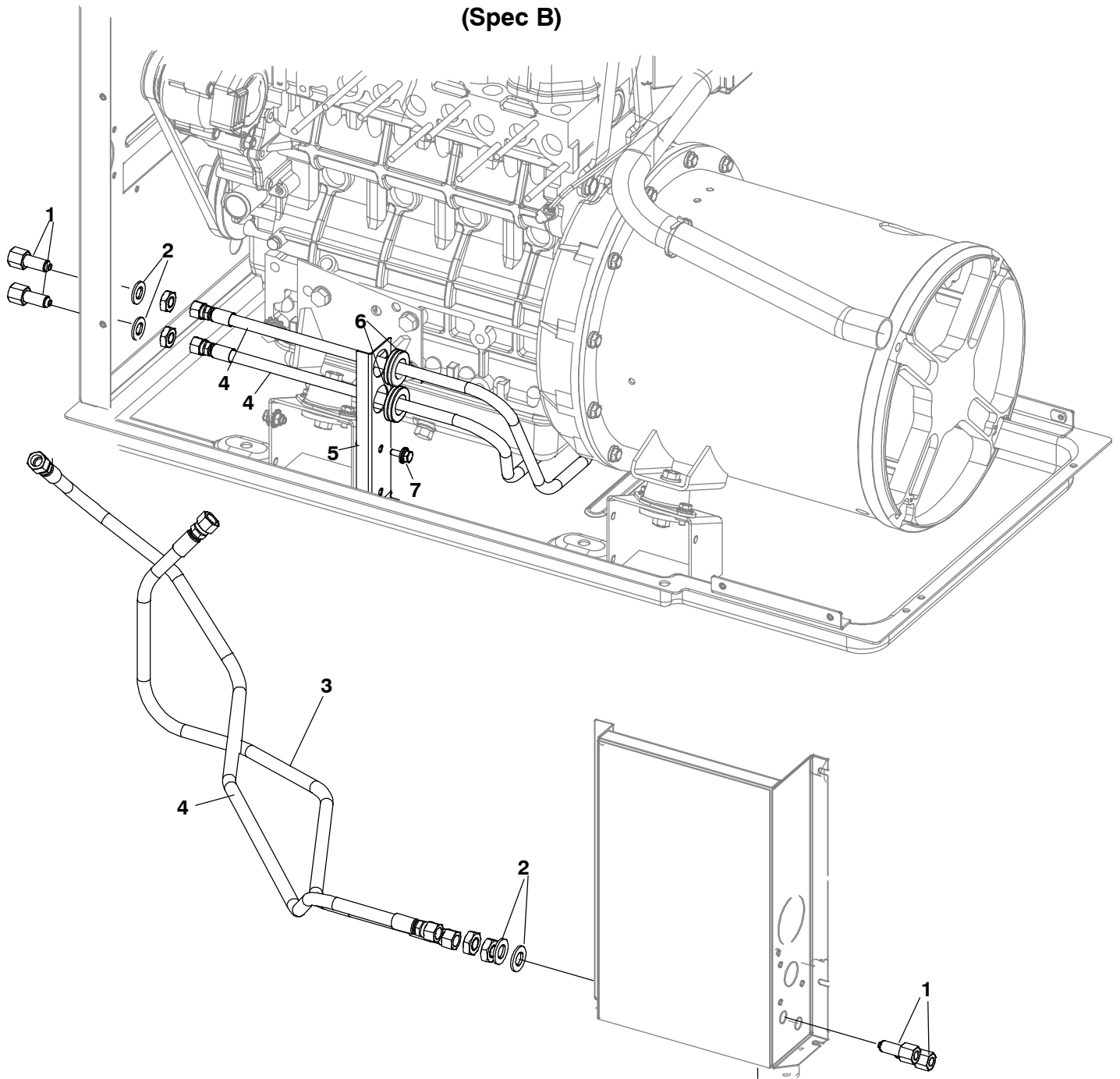
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Assy, Fuel Pump (Includes Parts Marked *)	13	502-1367-02	2	Connector, Hose
	146-0827-01	1	12V	14	502-1367-01	6	Connector, Hose
	146-0827-02	1	24V	15	505-1490	1	Connector, Male
1	149-2814-03	1	Bracket, Fuel Pump	16	503-2806	1	Hose, Fuel
2	149-2634-01	1	Filter, Assy	17	A034B591	8	Clamp, Hose
3	149-2635	1	Base, Filter	18	501-0966	1	Line, Fuel
4	A026K278	1	Filter, Fuel Water Separator	19	502-0175	1	Adapter, Pipe
5	502-0028	1	Plug, Hex Head Pipe	20	502-0020-01	1	Elbow, Pipe
6	850-2008	2	Washer, Locking Split (M8)	21	503-2883-02	1	Hose, Fuel
7	800-2061	2	Screw, Hex Head Cap (M8 x 1.25 x 40mm)	22	815-0904	1	Screw, Socket Head Cap
8	502-0041	1	Elbow, Invt Male	23	526-2120	2	Washer, Flat (M12)
9	502-0054	1	Elbow, Street Pipe	24	815-3030	1	Screw, Hex Head Cap (M10 x 1.25 x 30mm)
10			Pump, Fuel	25	750-1006	1	Nut, Hex (M8x 1.25mm)
	149-2646	1	12V	26	526-0399-64	1	Washer, Flat (M12)
	149-2795	1	24V	27	800-3032	1	Screw, Hex Head
11	821-6002-02	2	Screw, Hex Head Sems (M6 x 1 x 12mm)	28	526-2106	1	Washer, Flat (M8)
12	502-0020	2	Elbow, Pipe				

## Fuel Return, Oil Sender MDKBP and MDKBR (Spec C)



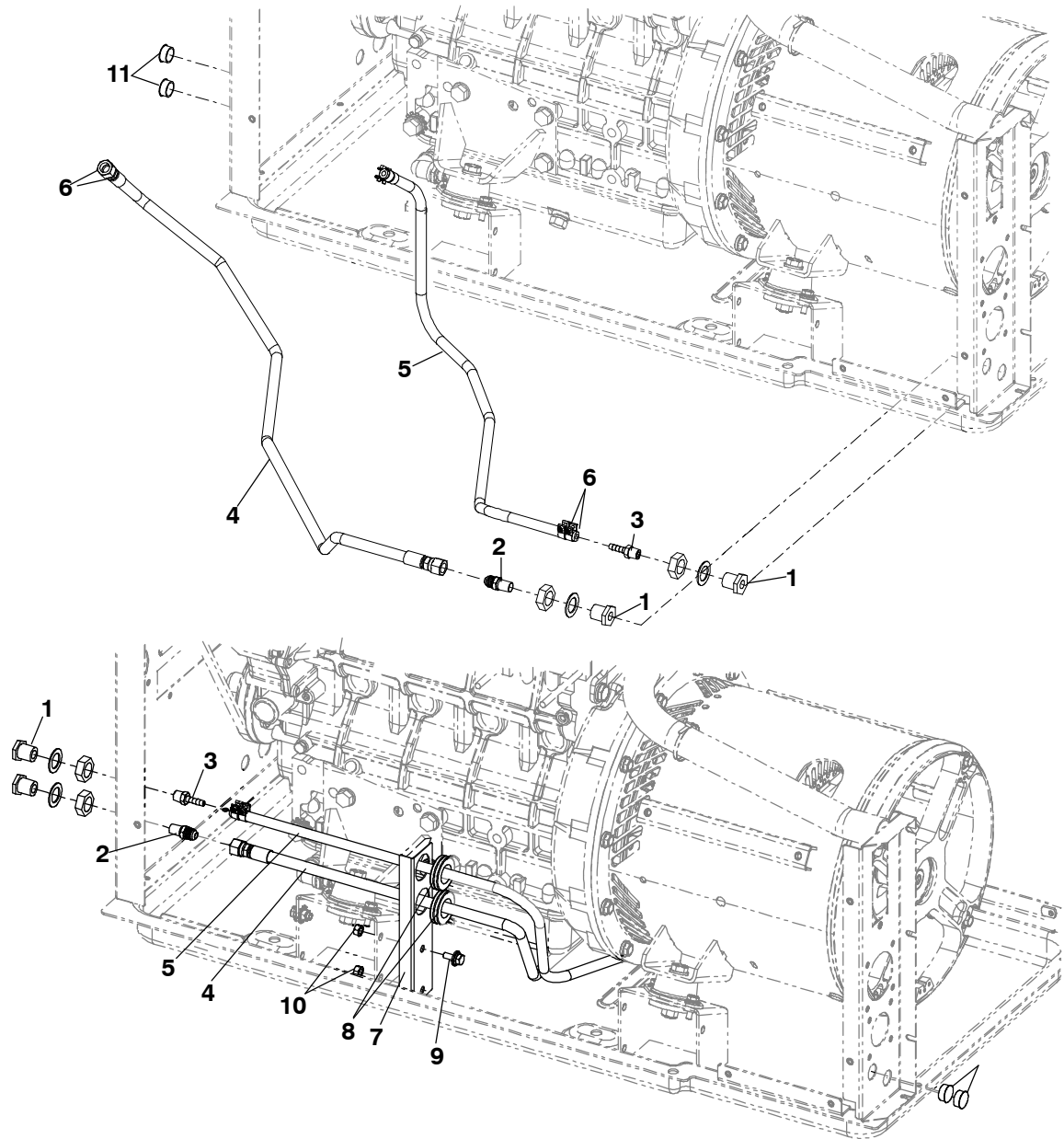
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	502-1245	1	Adapter, Pipe	8	526-0399-64	1	Washer, Flat (M12)
2	502-0055	1	Elbow, Pipe	9	502-0053	1	Elbow, 45° Street (1/8-27 NPT)
3	502-1367-01	4	Connector, Hose (1/8NPT x 1/4 Hose)	10	503-2806	1	Hose, Fuel
4	503-2883-10	1	Hose, Fuel	11	193-0244	1	Sender, Oil Pressure Neg Gnd and Keel Cooling Neg Gnd
5	A034B591	8	Clamp, Hose	193-0430-01	1	ISO Gnd and Keel Cooling ISO Gnd	
6	147-0918	1	Manifold, Fuel	12	502-0917	1	Adapter Pipe
7	800-3029	1	Screw, Hex Head Cap (M12 x 1.25 x 45mm)				

## Fuel Transfer Lines (Spec B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	505-1489	2	Connector, Bulkhead	5	149-2759-03	1	Bracket, Fuel Line (Front)
2	526-0406	2	Washer, Flat (M14)	6	508-0117	2	Grommet (Front)
3	503-2588-04	1	Hose, Fuel (MDKBP, MDKBR Front and Rear)	7	821-6003-02	2	Screw, Hex Head (Front)
4	503-2588-06	1	Hose, Fuel (MDKBP, MDKBR Front and Rear)				

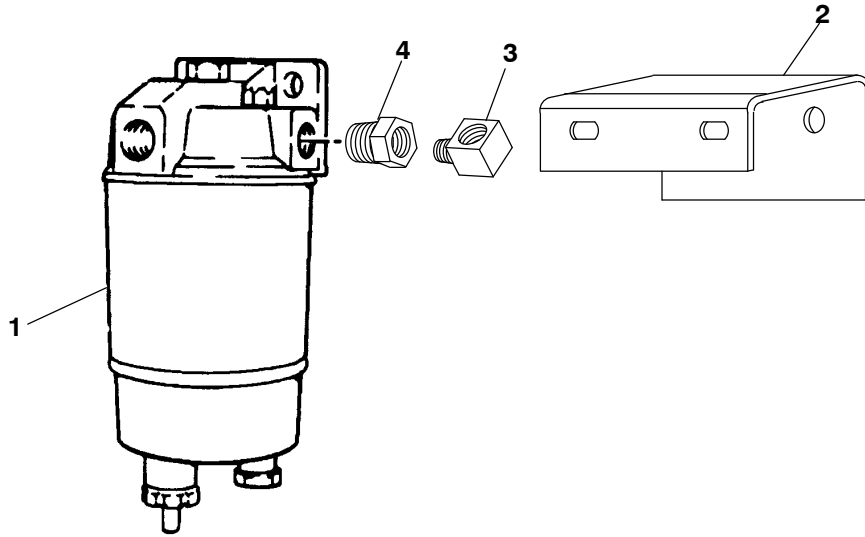
## Fuel Transfer Lines MDKBP and MDKBR (Spec C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	502-1133	2	Coupling, Anchor	8	508-0117	1	Grommet (1") Front Housed
2	502-1615	1	Coupling, Hose	9	821-6003-01	2	Screw, Hex Head Sems (M8 x 1.25 x 16mm)
3	502-1367-02	1	Connector, Hose (1/4NPT x 1/4 Hose)	10	750-1006	2	Nut, Hex (M8 x 1.25mm) Not Shown
4	503-2588-04	1	Hose, Fuel	11	517-0136-01	2	Plug, Hole
5	503-2935-02	1	Hose, Fuel				
6	A034B591	4	Clamp, Hose				
7	149-2759-03	1	Bracket, Fuel Line (Front Housed Not Shown)				

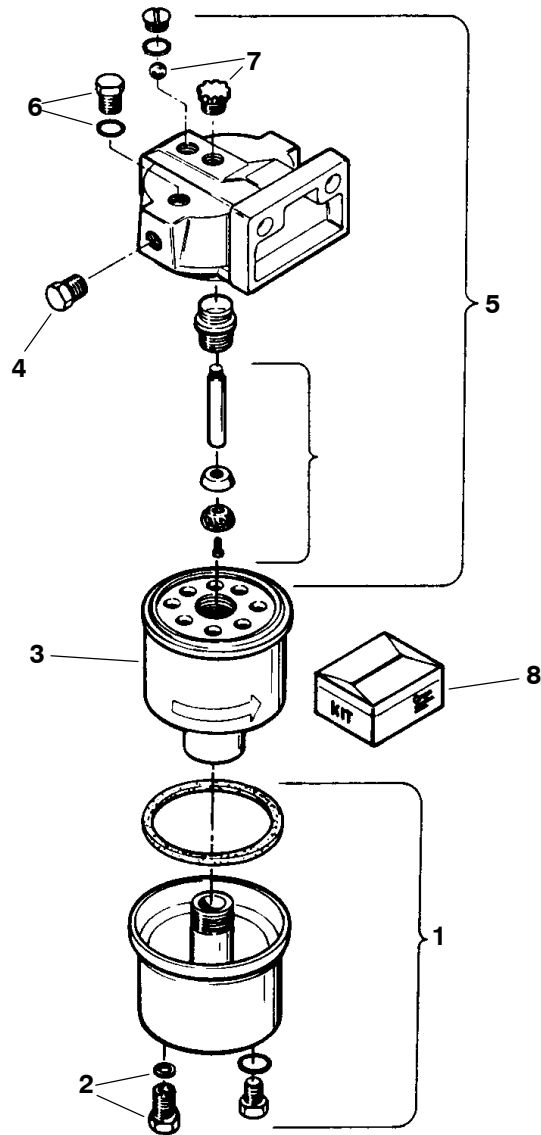


## Remote Water Separator



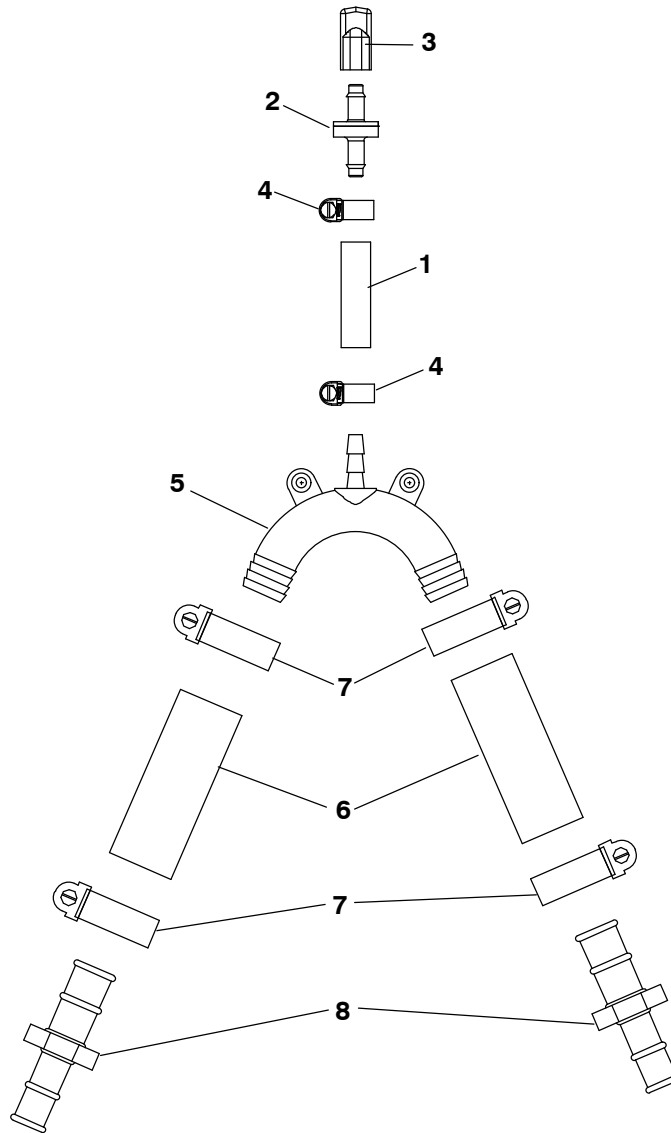
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-2073	1	Kit, Remote Fuel/Water Separator	2	149-2041-03	1	Bracket, Separator Mounting
1	149-1908-05	1	Separator, Fuel/Water (See Separate Page for Components)	3	502-0020-01	1	Elbow, Street 90Degrees
				4	502-0029	2	Bushing, Pipe

## 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)				

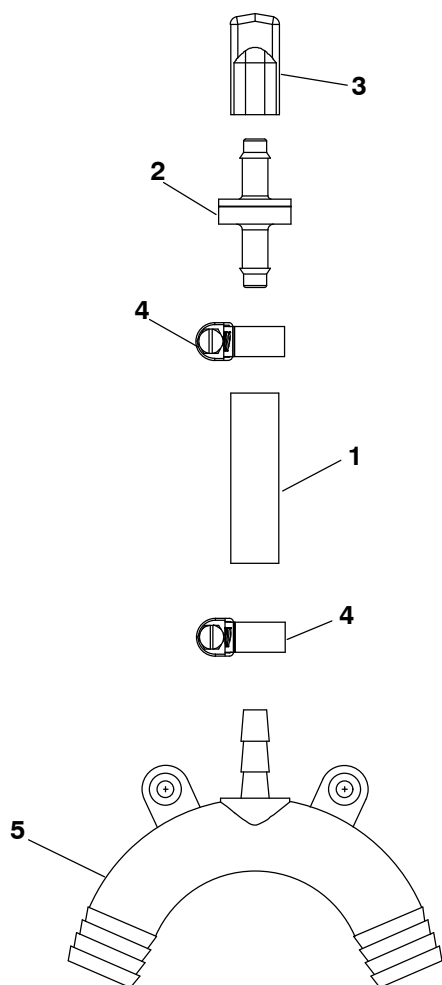
## Break Siphon MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0863	1	Kit, Siphon Break	7	503-0977	10	Clamp, Hose
1	503-2728-01	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 MDKBS

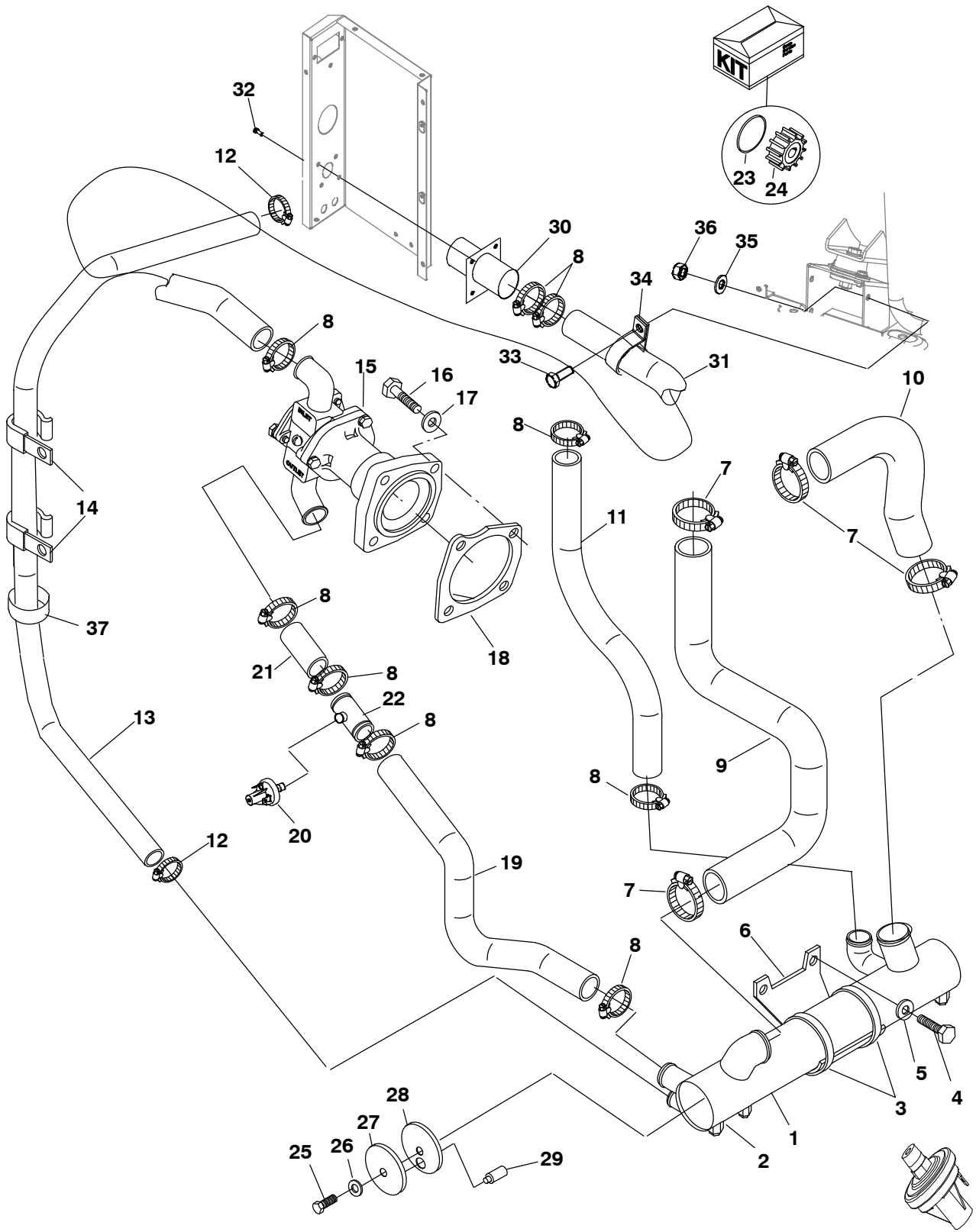


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-0876-01	1	Kit, Siphon Break	6	503-0977	2	*Clamp, Hose
1	503-2728-01	1	Hose, Coolant	7	508-1102	2	*Grommet, Rubber
2	504-0223	1	Valve, Check				
3	502-1425-02	1	Cap, Tube				
4	503-2309	2	Clamp, Hose				
5	502-1463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

\* - Parts not shown but included in kit.

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# Heat Exchanger (Spec A-B)

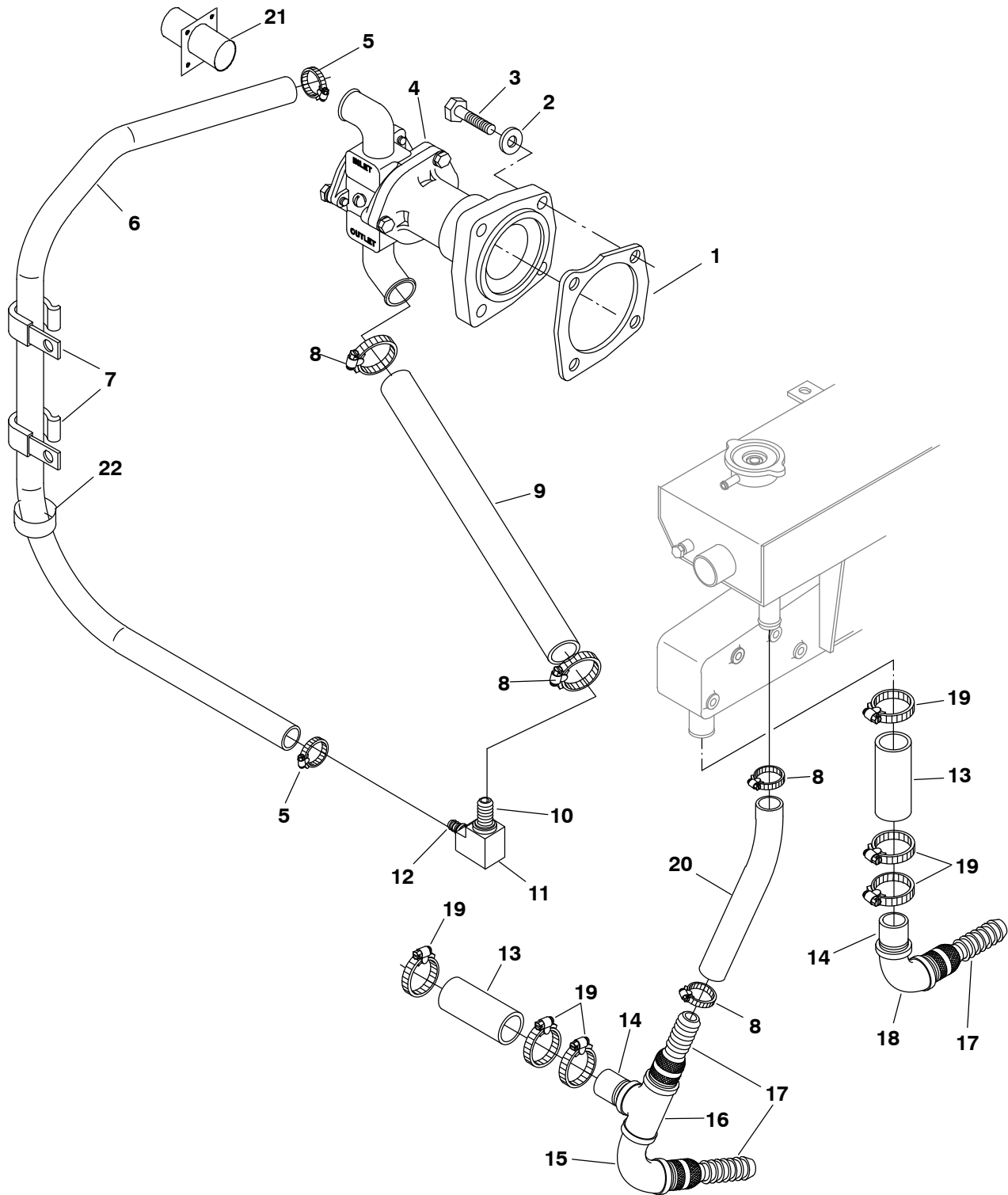


## Heat Exchanger (Spec A-B)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	130-4979	1	Kit, Heat Exchanger Zinc Pencil (Includes Parts Marked +) (MDKBP, MDKBR)	19			Hose, Water Pump (1") MDKBP, MDKBR
	130-5012	1	+Kit, End Cover (Includes Parts Marked *)	20	503-2347-S0	1	MDKBP, MDKBR
	541-1521	1	Kit, Minor Service (Includes O'Rings and Impeller)	21	503-2349	1	MDKBS
1			Exchanger, Heat	22	309-0667	1	Switch, Pressure
	130-6548-02	1	MDKBP, MDKBR	23	503-2350-01	1	Hose, Coolant
	130-6549-02	1	MDKBS	24	130-5387-01	1	Tube, Low Pressure Switch
2	130-4434	1	Pencil, Zinc (w/Screw)	25	132-0293	1	O'Ring
3			Clamp, Hose	26	132-0499	1	Impeller
	503-1143	2	(3")MDKBP, MDKBR	27	800-0317	1	+Screw, Hex Head (5/16-18 x 3/4")
	503-1145	2	(3.25")MDKBS	28	850-0165	1	+Washer, Lock (5/16")
4	815-0585	2	Screw, Hex Head Cap (M10 x 1.25 x 20mm)	29	130-4567	1	*Cover, Heat Exchanger W/O Zinc Pencil Boss)
5	526-2120	2	Washer, Flat (M10)	30	130-4962-01	1	W/Zinc Pencil Boss)
6			Bracket, Heat Exchanger	31			*Gasket, Cover W/O Zinc Pencil Hole W/Zinc Pencil Hole
	130-4234-03	1	MDKBP, MDKBR	32	130-4961	1	*Pencil, Zinc (w/o Screw)
	130-4628-03	1	MDKBS	33	405-7211	1	Connector, Bulkhead
7	503-1138	8	Clamp, Hose (1-3/8")	34	503-2350-07	1	Hose, Coolant (Rear) MDKBP, MDKBR and MDKBS(Front)
8	503-1137	8	Clamp, Hose (1")	35	503-2350-02	1	MDKBP, MDKBR (Front)
9	503-1977	1	Hose, Exhaust Manifold (1-3/8") (Includes Sleeving)	36	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
10			Hose, Engine Coolant (1-3/8")	37	870-2065-02	1	Screw, Hex Head Cap (M8 x 1.25 x 20mm) (Rear Out Begin Spec B)
	503-1896	1	MDKBP, MDKBR	38	503-1950	1	Clamp, Hose (Rear Begin Spec B)
	503-1998	1	MDKBS	39	526-2100	1	Washer, Flat (M8) (Rear Begin Spec B)
11	503-0501	1	Hose, Coolant Tank Lower (1" x 22")	40	750-1006	1	Nut, Hex (M8) x 1.25mm) (Rear Begin Spec B)
12	503-0977	2	Clamp, Hose	41	130-4830	1	Clamp, Hose
13			Hose, Mixer				
	503-2122	1	(3/4 x 43") MDKBP, MDKBR				
	503-1013	1	(5/8 x 43") MDKBS				
14	327-0923	1	Clamp, "J"				
15	132-0413	1	Pump, Raw Water (See Separate Page for Components)				
16	800-2057	4	Screw, Hex Head Cap (M8 x 1.25 x 30mm)				
17	526-2100	4	Washer, Flat (M8)				
18	132-0346	1	Gasket, Water Pump				

+ - Parts Included in Heat Exchanger Zinc Pencil Kit.  
\* - Parts Included in End Cover Kit.

## Keel Cooling (Wet Exhaust Spec A-B)



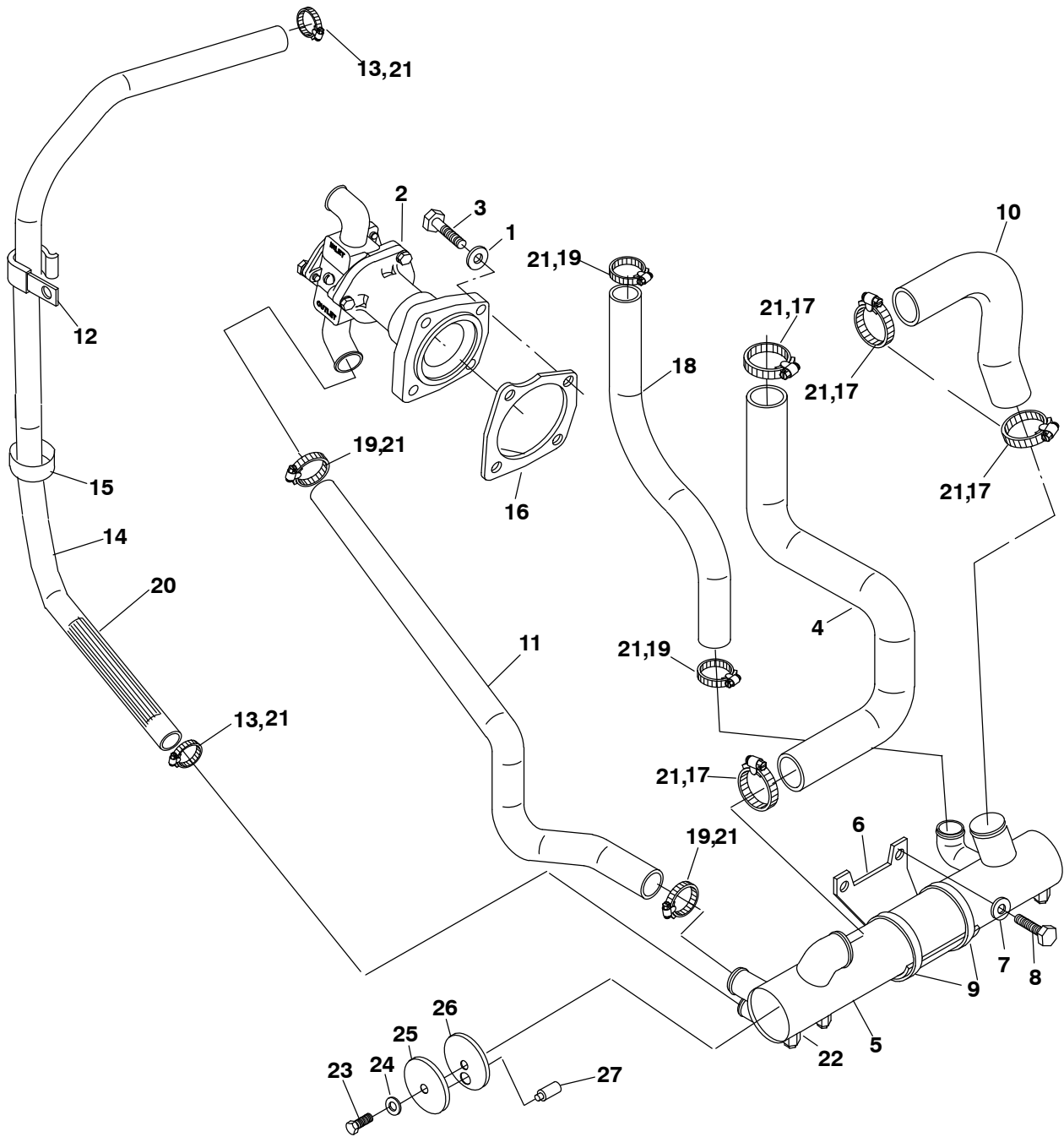


## Keel Cooling (Wet Exhaust Spec A-B)

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	502-1297	1	*Elbow, 90°
	541-1523	1	Kit, Water Pump Service (Includes Impeller and O'Ring, Wear Plate, Cover, Lip Seal, Cam, Seal Washer)	12			*Adapter (3/4"NPT)
					502-1295-01	1	5/8" Barb (MDKBP, MDKBR)
					502-1295-03	1	3/4" Barb (MDKBS)
				13	503-2023	2	*Hose, Coolant (1-3/8" x 4")
				14	505-0446-01	2	*Nipple, Half
1	132-0346	1	Gasket, Water Pump	15	505-0003	1	*Elbow
2	526-2100	4	Washer, Flat (M8)	16	505-0304	1	*Tee
3	718-1038	4	Screw, Hex Head Cap (M8 x 20mm)	17	505-0759	2	*Barb, Hose
4	132-0356	1	Pump, Raw Water	18	505-0041	1	*Elbow
5	503-0977	2	Clamp, Hose	19	503-1138	6	*Clamp, Hose (1-3/8")
6			Hose	20	503-2027	1	Hose, Coolant (1" x 10")
	503-2122	1	MDKBP, MDKBR (3/4" x 36")				Screw, and Key) (MDKBS)
	503-1013	1	MDKBS	21	405-7210	1	Connector, Bulkhead
7	332-2634	1	Clamp, "J"	22	130-4830	1	Clamp, Hose
8	503-1137	4	*Clamp, Hose (1")				
9	503-2079	1	Hose , Lower Coolant (Cut to Fit)				
10	502-1295-02	1	*Adapter (3/4" NPT x 1" Barb)				

\* - Parts Included in Keel Cooling Kit.

# Heat Exchanger (Spec C MDKBP and MDKBR)



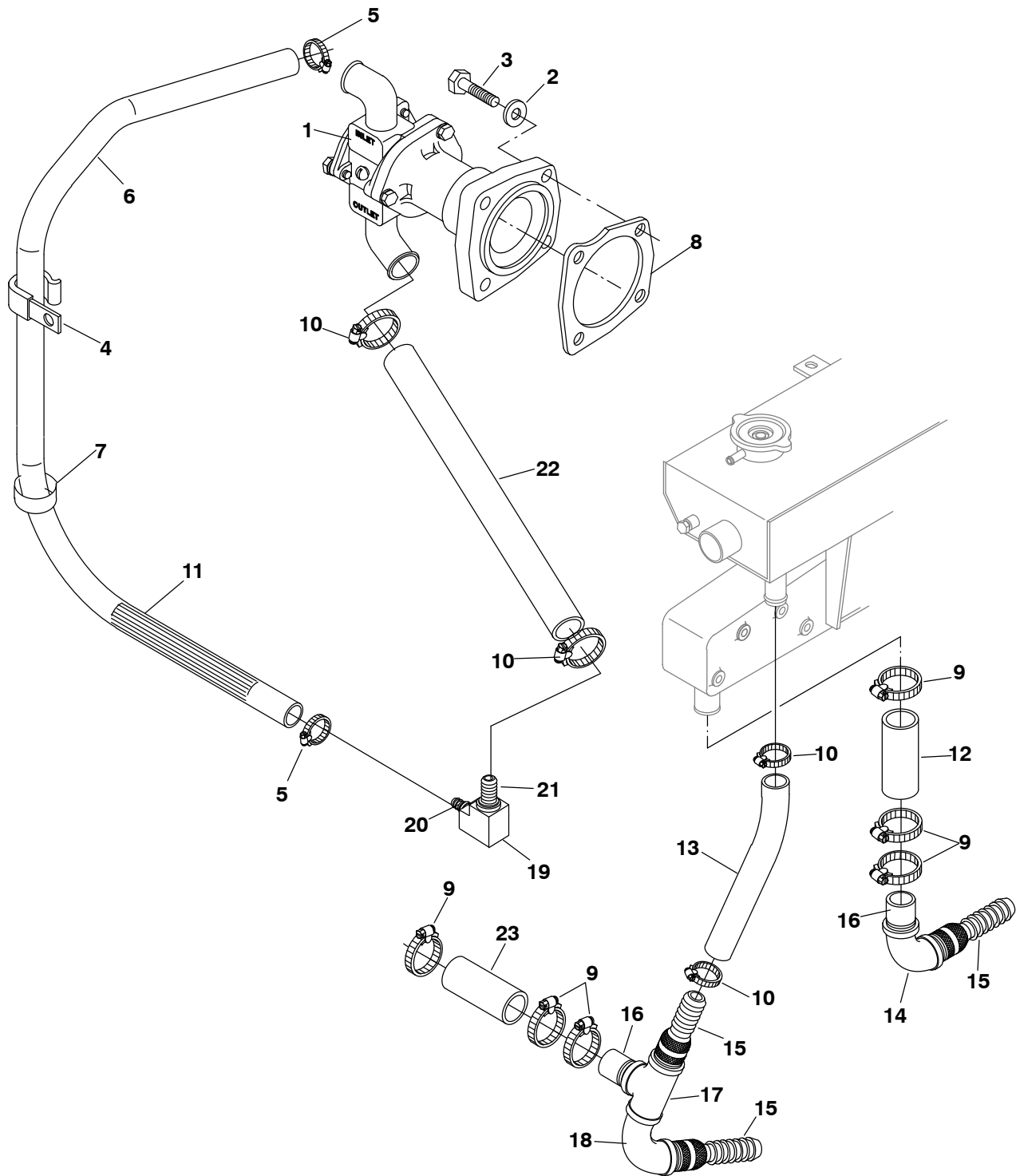
## Heat Exchanger (Spec C MDKBP and MDKBR)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	526-2100	5	Washer, Flat (M8)	19	503-1137	4	Clamp, Hose
2	132-0356	1	Pump, Water	20	898-1311-01	1	Sleeving (Wet Exhaust)
3	800-2057	4	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	21			Clamp, Hose (Cover)
4	503-1977	1	Hose		503-2823	14	Dry Exhaust
5	130-7490-02	1	Exchanger, Heater		503-2823	16	Wet Exhaust
6	130-4234-03	1	Bracket, Heater Exchanger	22	130-4434	1	Pencil, Zinc (W/Screw)
7	526-2120	2	Washer, Flat (M10)	23	800-0317	1	Screw, Hex Head (5/16-18 x 3/4")
8	800-3030	2	Screw, Hex Head Cap ((M10 x 1.25 x 20mm)	24	850-0165	1	Washer Locking (5/16")
9	503-1143	2	Clamp, Hose	25			Cover, Heat Exchanger
10	503-1896	1	Hose, Coolant		130-4567	1	W/O Zinc Pencil Hole
11	503-0501	1	Hose, Coolant		130-4962-01	1	W/ Zinc Pencil Hole
12	332-2634	1	Clamp, "J" (Wet Exhaust)	26			Gasket, Cover
13	503-1136	2	Clamp, Hose (Wet Exhaust)		130-4566	1	W/O Zinc Pencil Hole
14	503-2122	1	Hose, Coolant (Wet Exhaust)		130-4960	1	W/ Zinc Pencil Hole
15	130-4830	1	Clamp, Hose (2 OD Wet Exhaust)	27	130-4961	1	Pencil, Zinc (W/O Screw)
16	132-0346	1	Gasket, Water Pump				
17	503-1138	8	Clamp, Hose				
18	503-2029	1	Hose, Coolant				

+ - Parts Included in Heat Exchanger Zinc Pencil Kit.

\* - Parts Included in End Cover Kit.

## Keel Cooling (Wet Exhaust MDKBP and MDKBR Spec C)

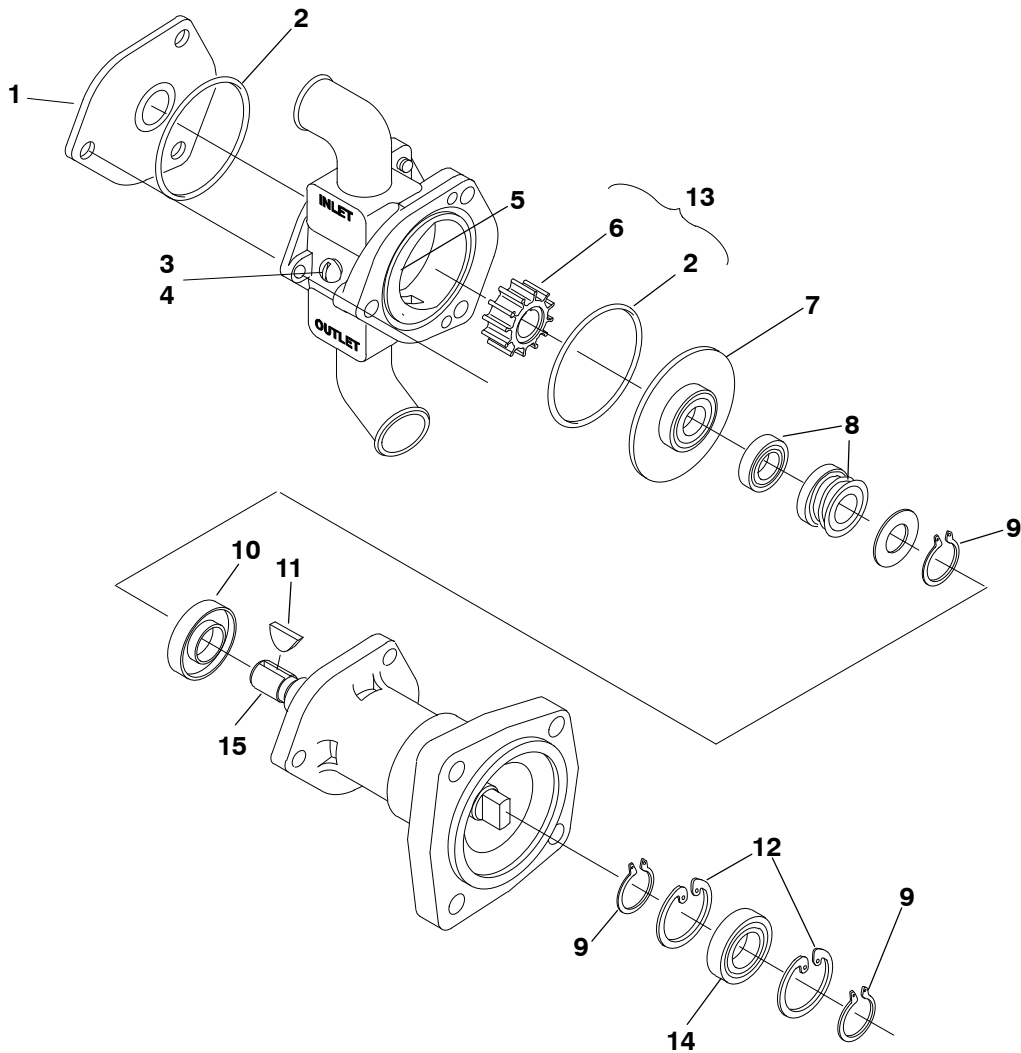


**Keel Cooling**  
**(Wet Exhaust MDKBP and MDKBR Spec C)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	132-0413	1	Pump, Raw Water	14	505-0041	1	Elbow, (1 x 90)
2	526-2100	4	Washer, Flat (M8)	15	505-0759	3	Nipple, Combination
3	800-2057	4	Screw, Hex Head (M8 x 1.25 x 20mm)	16	505-0446-01	2	Nipple, Half
4	327-0923	1	Clamp "J"	17	505-0304	1	Tee (1")
5	503-1136	2	Clamp, Hose	18	505-0003	1	Elbow, (1" x 90)
6	503-2122-01	1	Hose, Coolant	19	502-1297	1	Elbow, 90
7	130-4830	1	Clamp, Hose	20	502-1295-01	1	Adapter, (3/4" x 5/8")
8	132-0346	1	Gasket, Water Pump	21	502-1295-02	1	Adapter, (3/4" x 1")
9	503-1138	10	Clamp, Hose	22	503-2079	1	Outlet, Keel Cooling
10	503-1137	4	Clamp, Hose	23	503-2823	2	Hose, Coolant
11	898-1311-01	2	Sleeving	24	503-2823	16	Cover, Hose Clamp
12	503-2023	2	Hose, Coolant				
13	503-2079	1	Outlet, Keel Cooling				

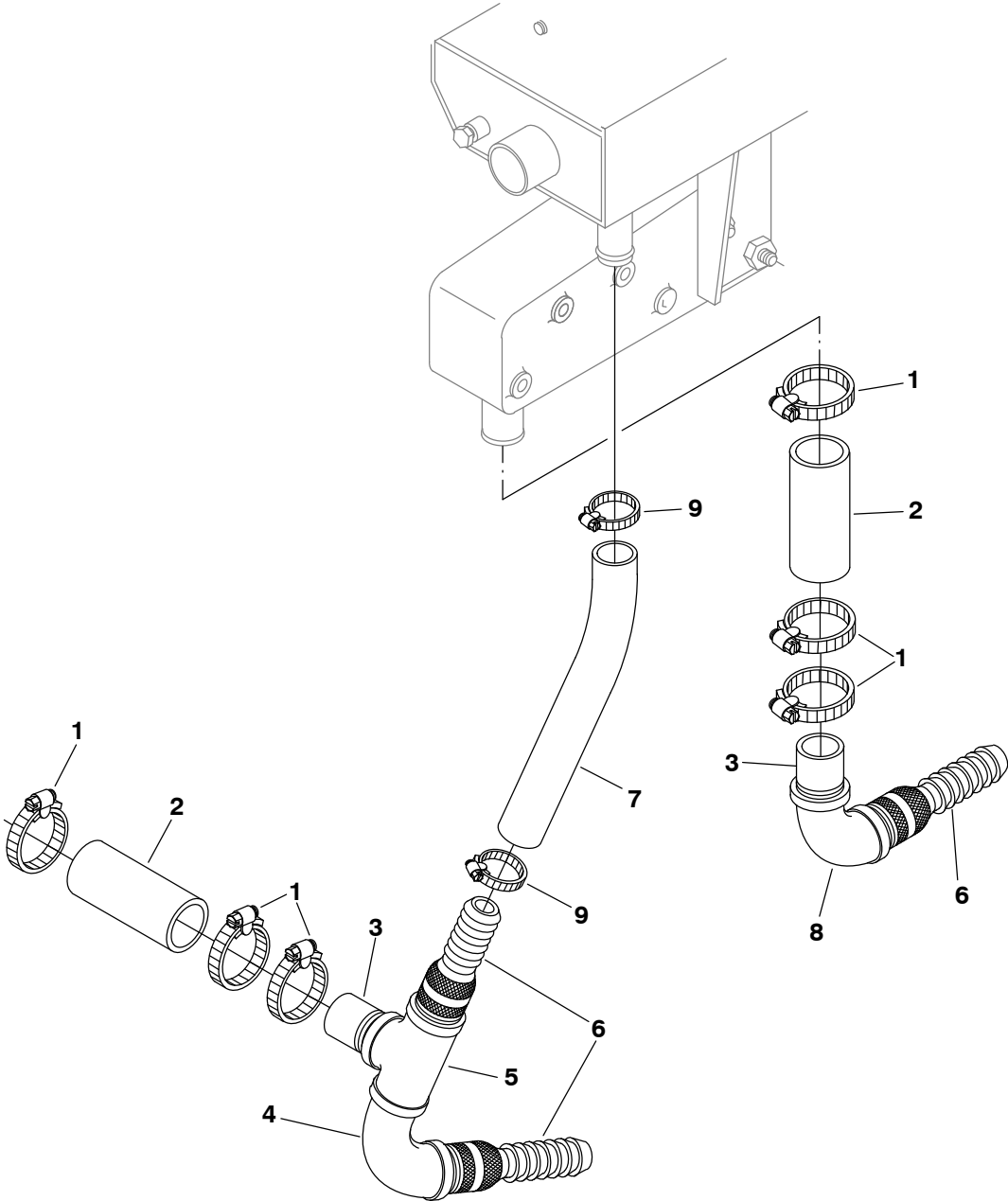
\* - Parts Included in Keel Cooling Kit.

## Water Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-1523	1	Kit, Major Service (Includes Parts Marked *)	9	132-0393	3	*Ring, Retaining
1	132-0384	1	*Cover	10	541-1523	1	*Seal, Lip
2	132-0293	2	*O'Ring	11	132-0391	1	*Key
3	132-0390	1	*Screw, Cam	12	132-0392	2	*Ring, Retaining
4	132-0389	1	*Washer, Sea	13	541-1521	1	Kit, Minor Water Pump Service (Includes Impeller and O'Ring)
5	132-0384	1	*Cam	14	132-0417	1	Bearing
6	132-0499	1	*Impeller	15	132-0416	1	Shaft
7	541-1523	1	*Plate, Wear		132-0420	1	Ring, Retaining (Not Shown)
8	132-0384	1	*Seal, Seat Assy				

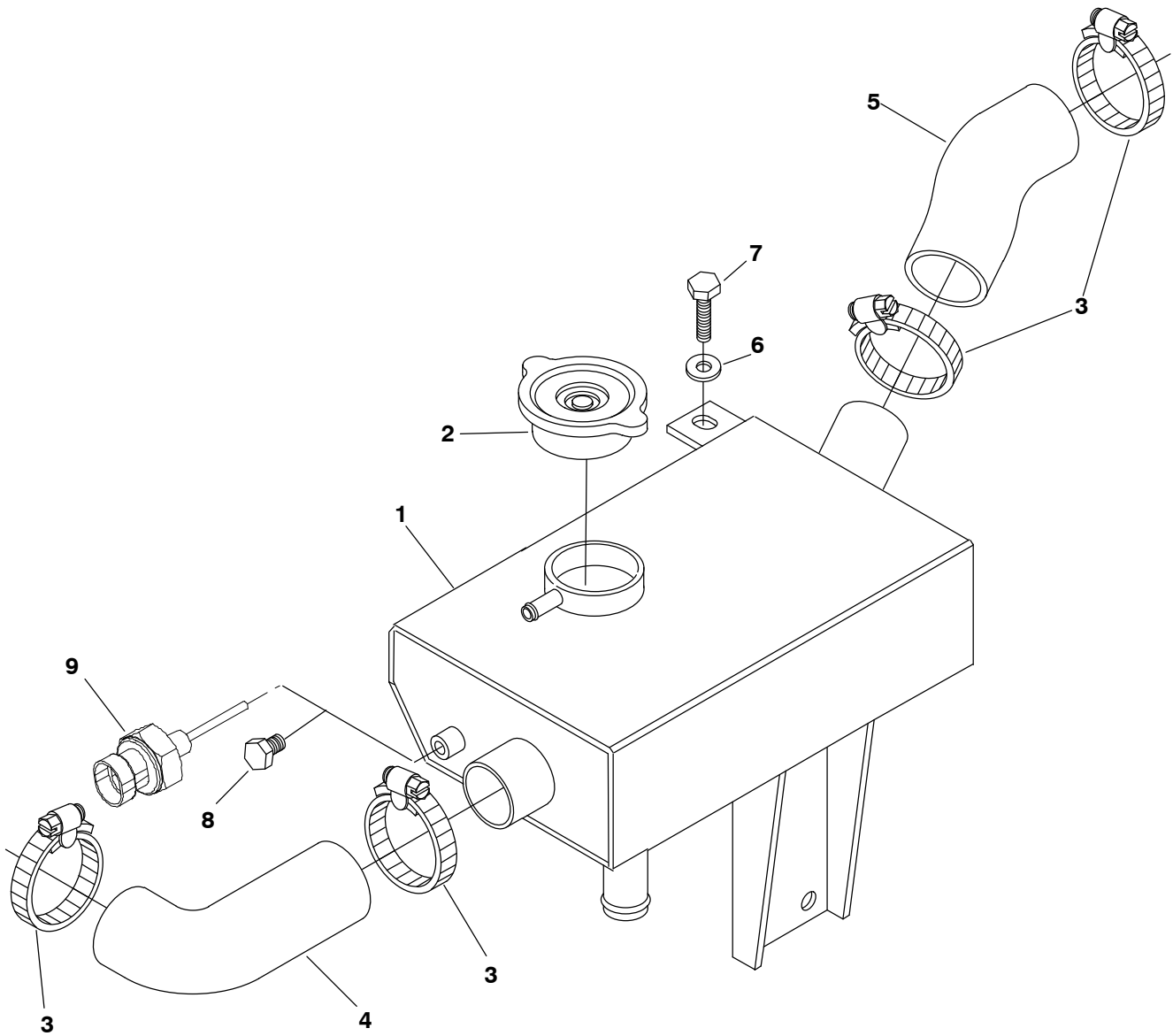
# Keel Cooling System (Dry Exhaust)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-3087	1	Kit, Keel Cooling (Includes Parts Marked *)	7	503-2079	1	*Hose, Coolant (1" x 10")
	155-3284	1	Kit, Exhaust	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	505-0759	2	*Barb, Hose				

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

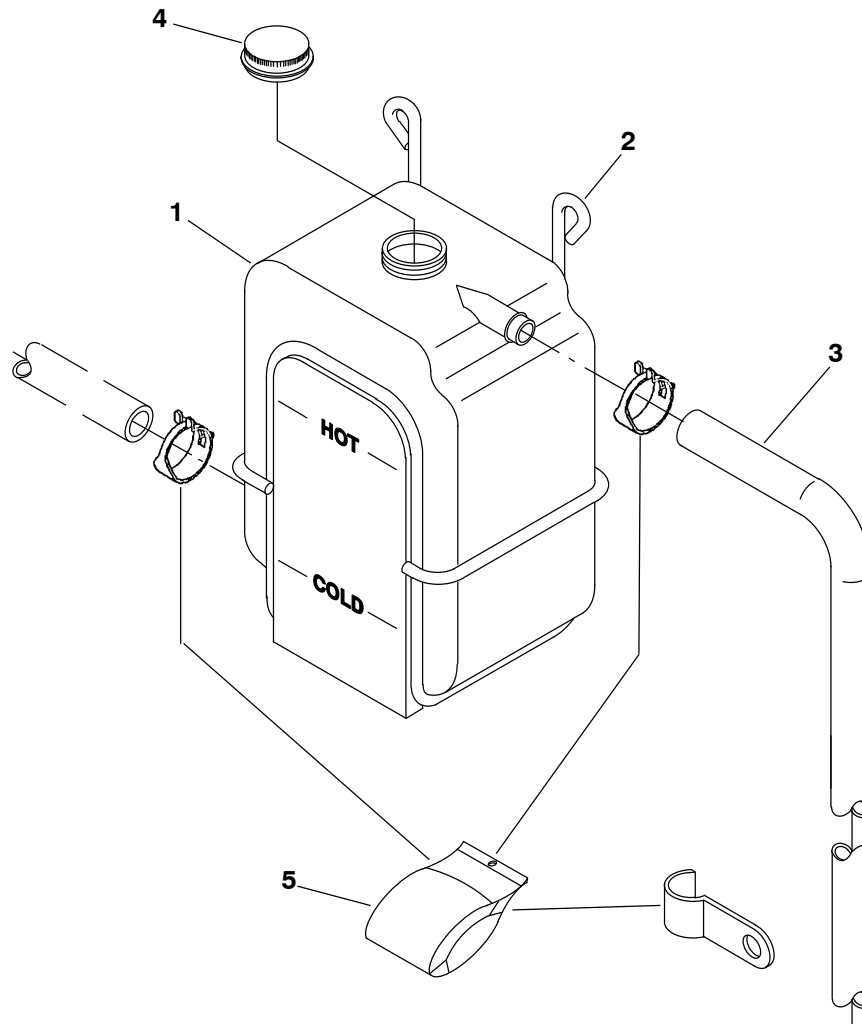
## Coolant Tank



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-4881-02	1	Tank, Coolant	5	503-1899	1	Hose, Upper "S" (1-3/8")
2	130-3721	1	Cap, Tank	6	526-2100	1	Washer, Flat (M8)
3	503-1138	4	Heat Exchance	7	800-2054	1	Screw, Hex Head Cap (M8 x 1.25 x 14mm)
	503-1138	4	Keel Cooling	8	502-0153	1	Plug, Hex Pipe (1/4)
	503-2823	4	Wet	9	193-0468	1	Sender, Low Coolant
	503-2823	4	Dry				
4	503-1898	1	Hose, Upper Elbow				
	503-1999	1	MDKBP, MDKBR				
			MDKBS				

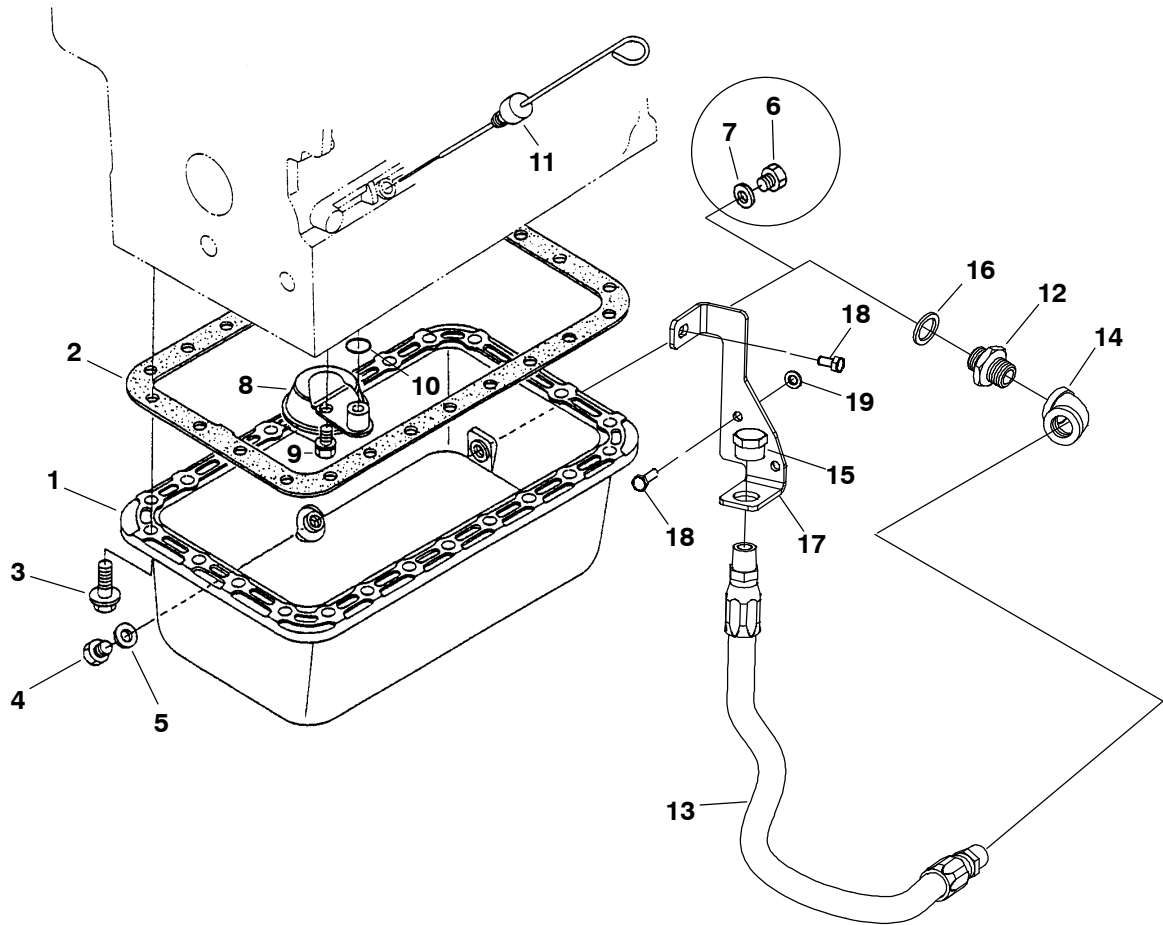


## Coolant Recovery



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

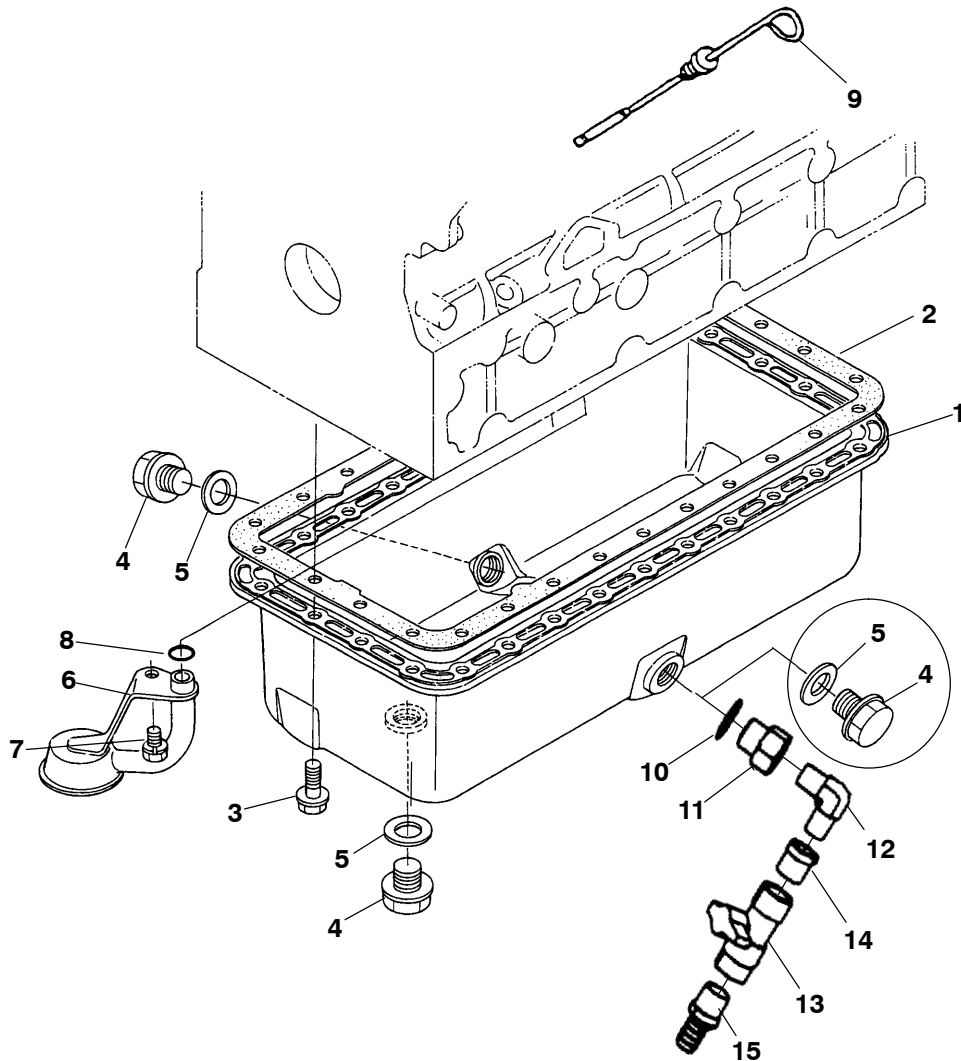
## Oil Pan MDKBP, MDKBR



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6727	1	Pan, Oil	14	502-0263	1	Elbow, Pipe 90°
2	185-5854	1	Gasket	15	502-1123	1	Cap, Pipe
3	185-5855	24	Bolt, Flange	16	526-0413	1	Washer, Oil Drain (.625ID x .875OD x .075Thk)
4	185-2096	1	Plug	17			Bracket, Oil Drain
5	509-0428	1	Gasket		120-1337-02	1	Spec A-B
6	185-6760	1	*Bolt		120-1382-02	1	Begin Spec C
7	185-6761	1	*Gasket	18	821-6002-03	3	Screw, Hex Flanged (M6 x 1 x 16mm)
8	185-6728	1	Tube, Oil Pickup	19	526-2081	2	Washer, Flat (M6)
9	185-2563	1	Bolt				
10	509-0411	1	O'Ring				
11	185-6122	1	Indicator, Oil Level				
12	102-1449-01	1	Adapter, Oil Drain				
13	501-0910	1	Line, Flex Oil				

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

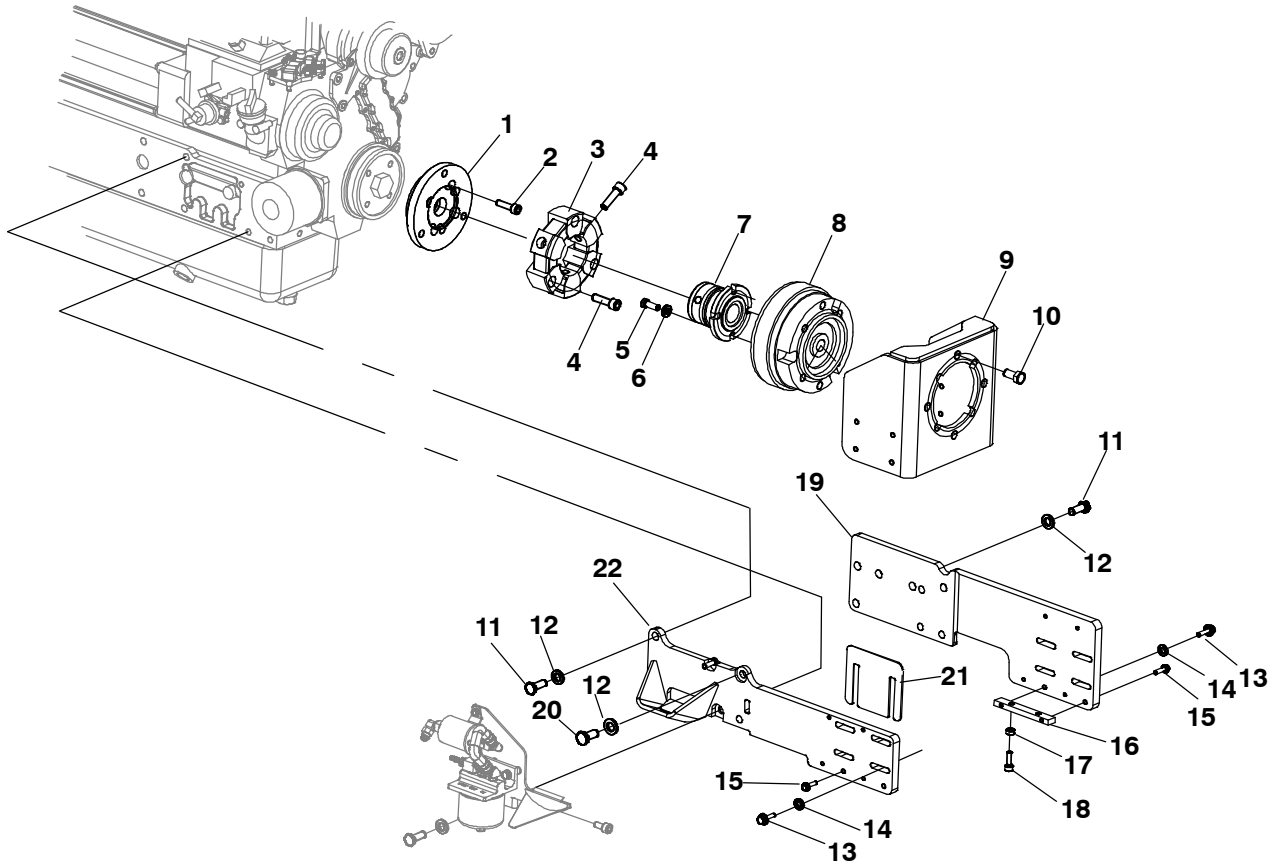
## Oil Pan MDKBS



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6195	1	Pan, Oil	10	526-0329	1	Washer, Oil Drain (7/8")
2	101-0847	1	Gasket	11	102-1448-02	1	Adapter, Oil Drain
3	185-5855	28	Bolt, Flanged	12	502-1273	1	Elbow, Pipe 90°
4	185-6046	3	*Plug (Removed with Installation of Oil Drain)	13	504-0011	1	Valve, Shutoff
5	185-5495	3	*Gasket (Removed with Installation of Oil Drain)	14	502-0819	1	Bushing, Reducer
6	123-2326	1	Tube, Oil Pickup	15	502-1006	1	Fitting, Hose Barb
7	185-6956	1	Bolt				
8	509-0254	1	O'Ring				
9	185-6061	1	Indicator, Oil Level				

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

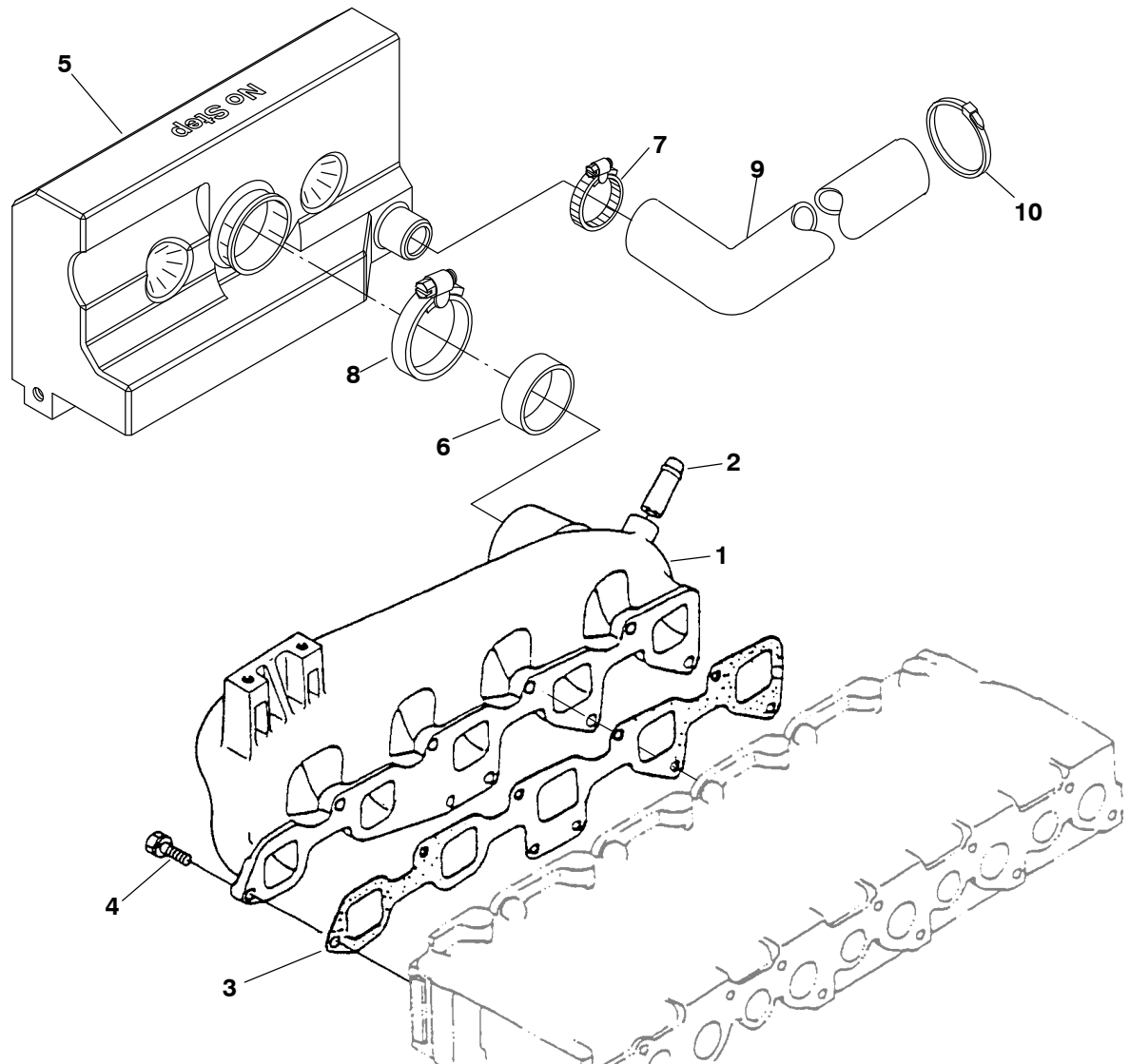
# PTO



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, PTO (Includes Parts Marked *)	9	190-0769-03	1	*Bracket, PTO Clutch
			MDKBP, MDKBR	10	800-0090	2	*Screw, Hex Head Cap (1/2-13 x 1.00")
	190-0776-01	1	12V	11	800-3032	9	*Screw, Hex Head Cap
	190-0776-02	1	24V	12	526-0399-64	10	*Washer, Flat (M12)
			MDKBS	13	800-3017-21	8	*Screw, Hex Head (M8 x 1.25 x 30mm)
	190-0776-03	1	12V	14	526-0451	8	*Washer, Flat Stainless (M8)
	190-0776-04	1	24V	15	821-2035	4	*Screw, Locking Flange (M6 x 1 x 25mm)
	190-0777	1	Kit, PTO Belt (Includes Tool Spacer and Belt)	16	190-0766-03	2	*Bracket, Mounting Pad
1			*Adapter, Coupling	17	862-0026-55	4	*Nut, Hex (M8)
	190-0763-02	1	MDKBP, MDKBR	18	815-0916	4	*Screw, Socket Head (M8 x 1.25 x 25mm)
	190-0764-02	1	MDKBS	19	190-0792-03	1	*Bracket, PTO (Left)
2			*Screw, Socket Head Cap (M8 x 1.25 x 35mm)	20	800-3033	1	*Screw, Hex Head Cap (M12 x 1.25 x 25mm)
	725-1053	3	MDKBP, MDKBR	21			*Shim, PTO
	815-0904-03	4	MDKBS(M10 x 1.25 x 35mm)		190-0771-02 AR		.12 GA
3	190-0768	1	*Coupling, Flex		190-0771-04 AR		.14 GA
4	725-1103	6	*Screw, Socket Head Cap (M12 x 1.75 x 40mm)		190-0771-06 AR		.20 GA
5	801-1050	4	*Screw, Hex Head Cap (3/8-24 x 1")	22	190-0770-03	1	*Bracket, PTO (Right)
6	526-0174	4	*Washer, Flat				
7	190-0767-02	1	*Adapter, Coupling				
8			*Clutch				
	190-0729-01	1	12V				
	190-0729-02	1	24V				

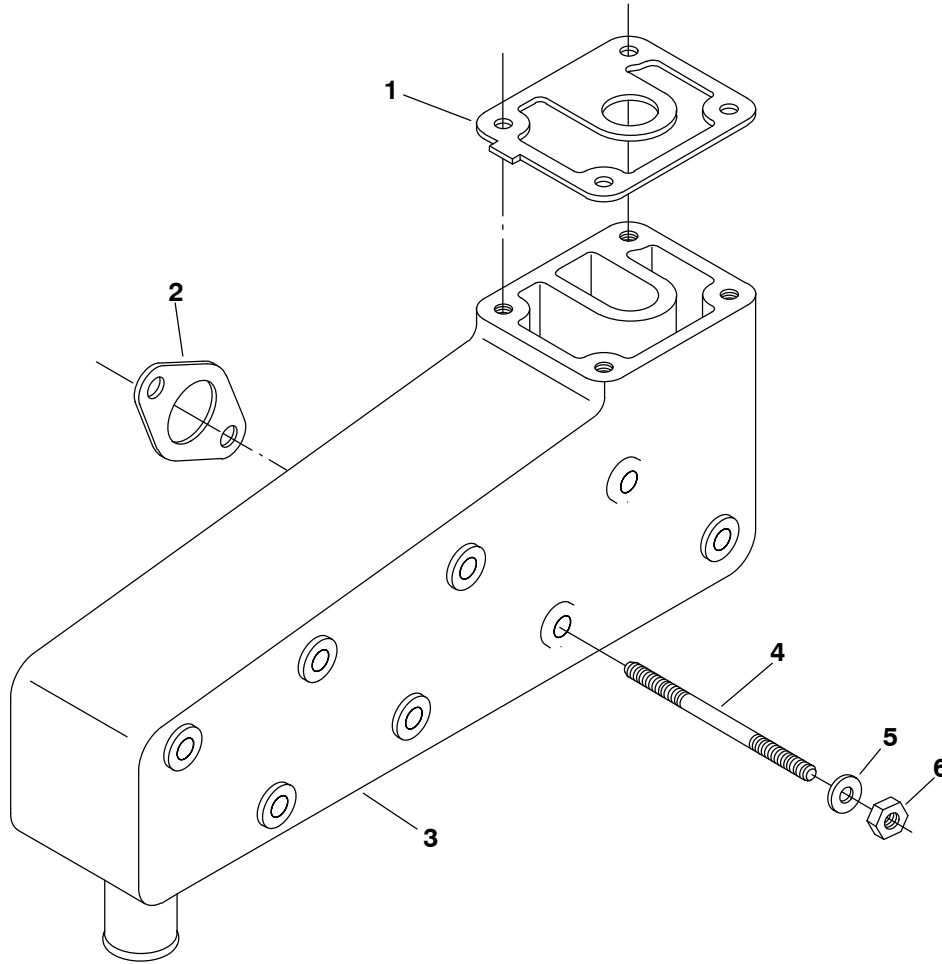
\* - Parts Included in PTO Kit. (Also Includes Fuel Pump Mounting Hardware Found on Fuel Pump Page)

## 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	MDKBP, MDKBR	7			*Clamp, Hose
	185-6803	1	MDKBS		503-1138	1	MDKBP, MDKBR (1-3/8")
2	185-6723	1	Joint, Breather		503-1139	1	MDKBS (2")
3			Gasket	8	503-1143	1	Clamp, Hose (3")
	185-6035	1	MDKBP, MDKBR	9			Hose, Intake
	185-7065	1	MDKBS		503-1939	1	MDKBP, MDKBR (1-3/8 x 28")
4			Bolt		503-2009-01	1	MDKBS (1-3/8 x 31")
	185-2402	7	MDKBP, MDKBR	10	332-1389	1	Cable, Tie
	185-2402	9	MDKBS	11	503-2823	2	Cover, Hose Clamp
5			Resonator, Intake				
	140-2859	1	MDKBP, MDKBR				
	140-3021	1	MDKBS				

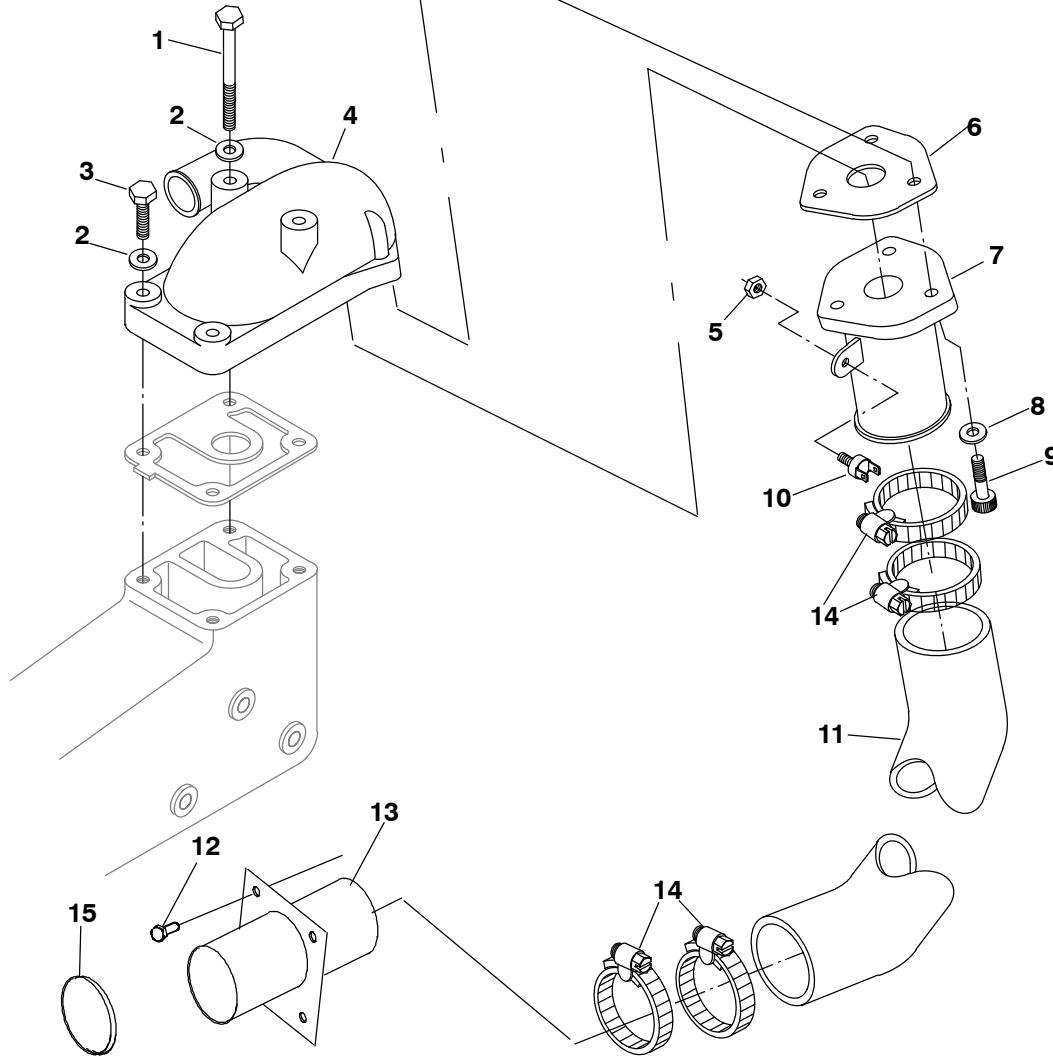
## Exhaust Manifold



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	MDKBP, MDKBR
	154-2915	4	MDKBP, MDKBR	526-2100		10	MDKBS
	154-2915	5	MDKBS	6			Nut (M8 x 1.25)
3			Manifold, Exhaust	750-1006		8	MDKBP, MDKBR
	154-2887	1	MDKBP, MDKBR	750-1006		10	MDKBS
	154-3002	1	MDKBS				
4			Stud				
	520-2218-01	8	MDKBP, MDKBR				
	185-7064	10	MDKBS				

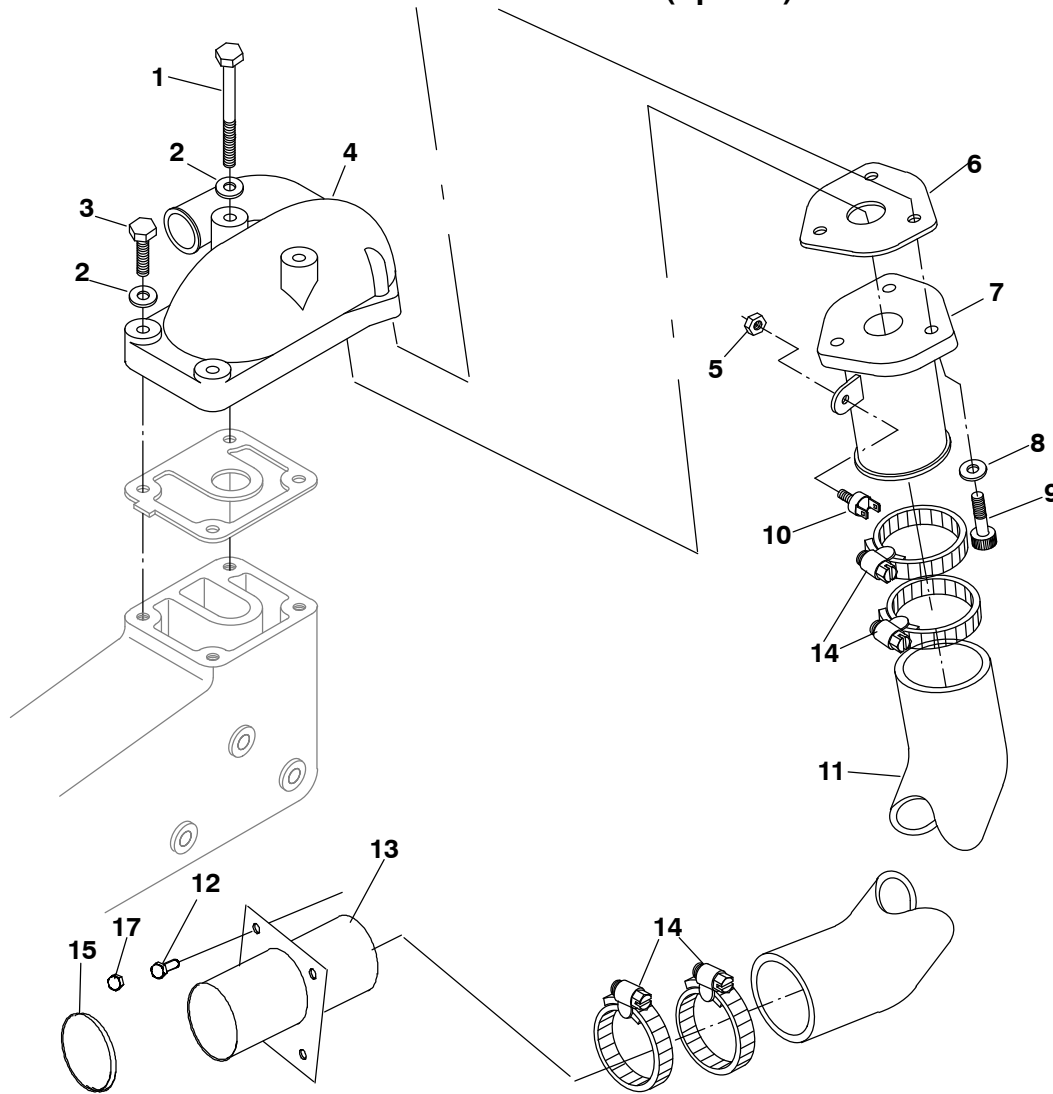
\* - Part Included in Exhaust Adapter Kit Found on Dry Exhaust Page.

## Wet Exhaust (Spec A-B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Exhaust (Wet)	11			Hose, Exhaust
	541-0852-01	1	MDKBP, MDKBR (Rear Out)				Front (Spec A)
	541-0852-02	1	MDKBP, MDKBR (Front Out)	503-2344	1		MDKBP, MDKBR
	541-0852-03	1	MDKBS (Rear Out)	503-2345	1		MDKBS
	541-0852-04	1	MDKBS (Front Out)				Rear (Spec A)
	155-3284	1	Kit, Exhaust (Wet)	501-0797-01	1		MDKBP, MDKBR
1	800-2067	2	Screw, Hex Head Cap (M8 x 1.25 x 70mm)	501-0797-02	1		MDKBS
							Front (Begin Spec B)
2	526-2100	4	Washer, Flat (M8)				Housed
3	718-1038	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	503-2608-01	1		MDKBP, MDKBR
				503-2608-02	1		MDKBS
4	154-2891	1	Riser, Exhaust				Rear (Begin Spec B)
5	870-0221-01	1	Nut, Hex (8-32)	501-0909-01	1		MDKBP, MDKBR
6	155-3061	1	Gasket, Mixer	501-0909-02	1		MDKBS
7	154-3163	1	Mixer	12	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
8	740-1004	3	Washer, Flat (M6)	13	405-7210	1	Bulkhead, Exhaust Connector
9	802-2068	3	Screw, Socket Cap (M6 x 1 x 20mm)	14	503-1142	4	Clamp, Hose Exhaust
10	309-0597-01	1	Switch, High Exhaust Temperature (S5)	15	517-0136-09	1	Plug, Hole (Rear Out Housed)

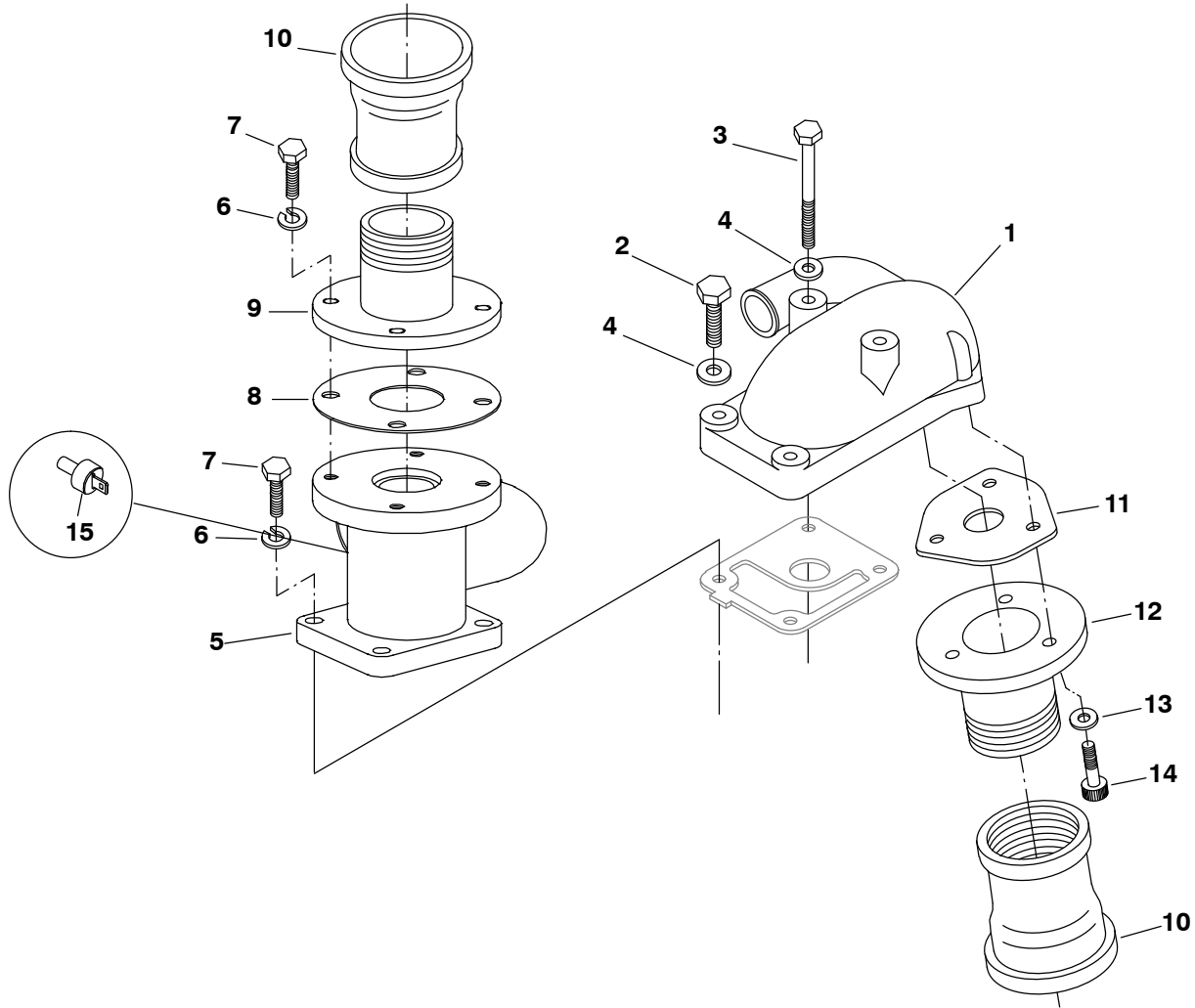
## Wet Exhaust (Spec C)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Kit, Exhaust (Wet)				
	541-1472-01	1	MDKBP, MDKBR (Rear Out)	8	740-1004	3	Washer, Flat (M6)
	541-1472-02	1	MDKBP, MDKBR (Front Out)	9	802-2068	3	Screw, Socket Cap (M6 x 1 x 20mm)
	541-1472-03	1	MDKBS (Rear Out)	10	309-0597-01	1	Switch, High Exhaust Temperature (S5)
	541-1472-04	1	MDKBS (Front Out)	11	501-0909-01		Hose, Exhaust
1	800-2067	2	Screw, Hex Head Cap (M8 x 1.25 x 70mm)	12	800-6395-01	4	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)
2	526-2100	4	Washer, Flat (M8)	13	404-0057	1	Bulkhead, Exhaust Connector
3	800-2059	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	14	503-1142	4	Clamp, Hose Exhaust
4	154-2891	1	Riser, Exhaust	15	517-0138-09	1	Plug, Hole (Rear Out Housed)
5	870-0221-01	1	Nut, Hex (8-32)	16	503-2823	4	Cap, Hose Clamp (Not Shown)
6	155-3061	1	Gasket, Mixer	17	517-0131-02	4	Plug (Rear Out Housing)
7	154-3163	1	Mixer				



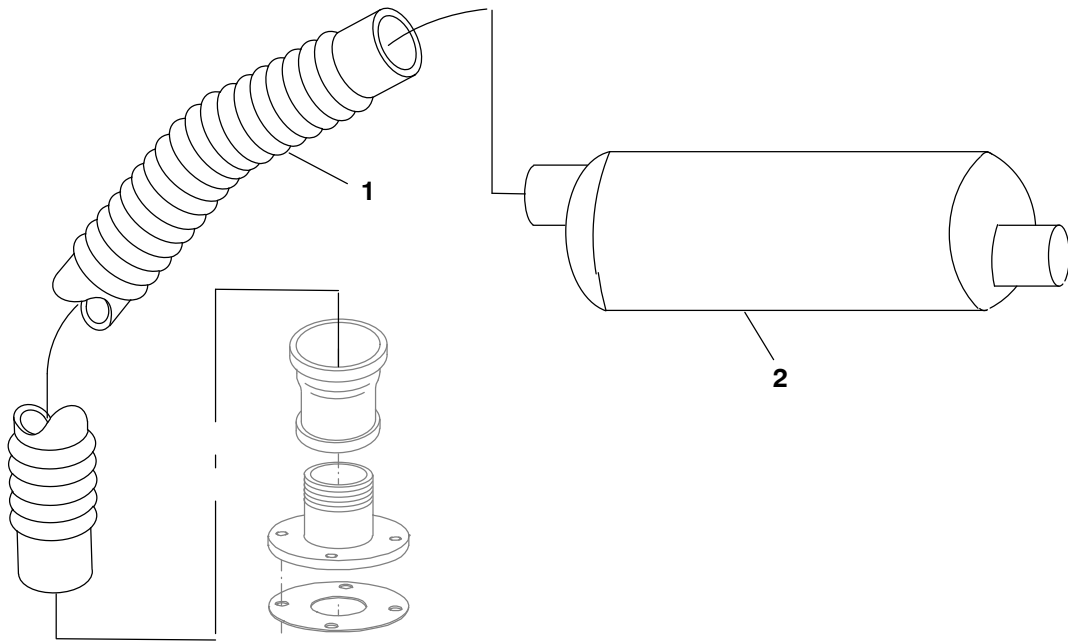
## Dry Exhaust (Up or Down)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	155-4690	1	Kit, Exhaust Adapter (Includes Parts Marked *)	8	155-2981	1	*Gasket, Exhaust Adapter
	155-4691	1	Kit, Exhaust Flange (Includes Parts Marked +)	9	155-3069-02	1	*Flange, Exhaust
1	154-2891	1	Riser, Exhaust	10	505-0339-02	1	*Coupling, Reducer (2 x 1-1/2")
2	718-1040	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)	11	155-3061	1	+Gasket, Exhaust (Mixer)
3	800-2067	2	Screw, Hex Head Cap (M8 x 1.25 x 70mm)	12	155-3068-02	1	+Flange, Exhaust
4	526-2100	4	Washer, Flat (M8)	13	740-1004	3	+Washer, Flat (M6)
5	154-2963-02	1	*Adapter, Exhaust	14	802-2068	3	+Screw, Socket Cap (M6 x 1 x 20mm)
6	850-2008	8	*Washer, Lock (M8)	15	309-0597-01	1	Switch, Hi Exhaust Temperature
7	718-1037	8	*Screw, Hex Head Cap (M8 x 1.25 x 25mm)				

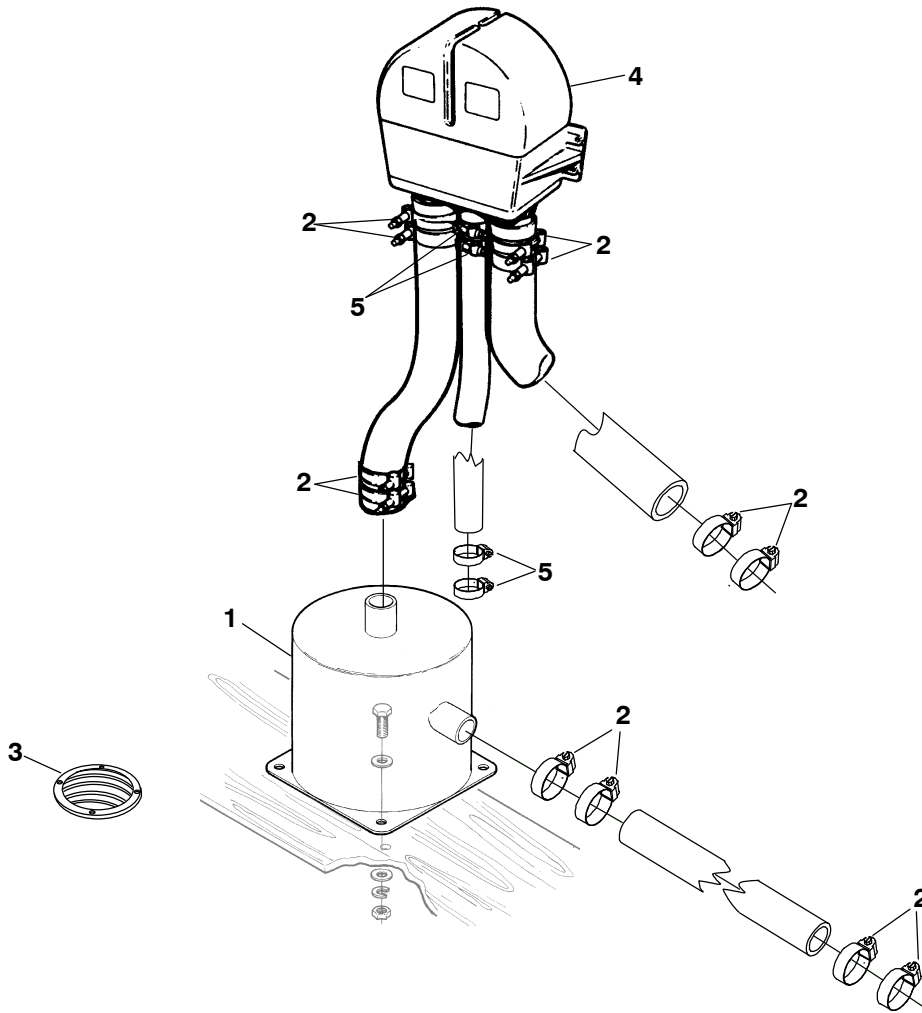
\* - Parts Included in Exhaust Adapter Kit. (Also Includes Gasket on Exhaust Manifold Page.)  
 + - Parts Included in Exhaust Flange Kit.

# 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

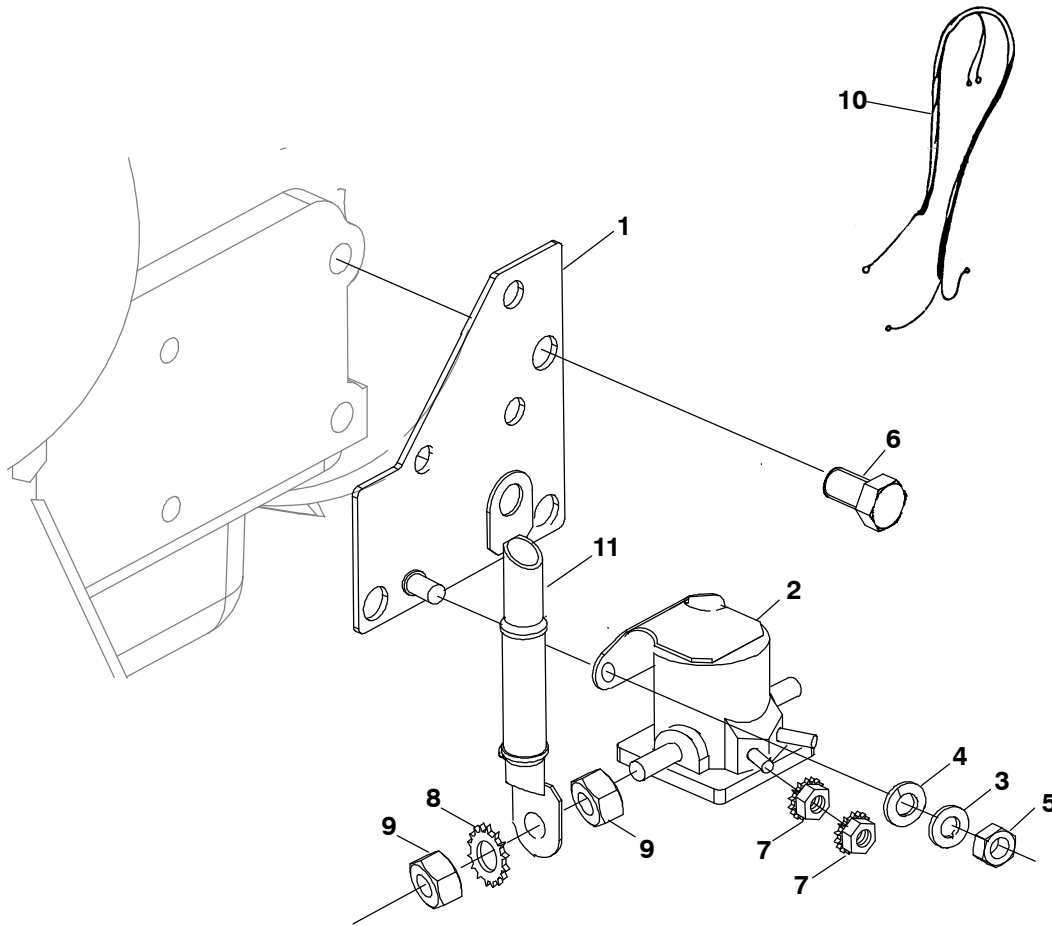
## Water Separator, Muffler



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

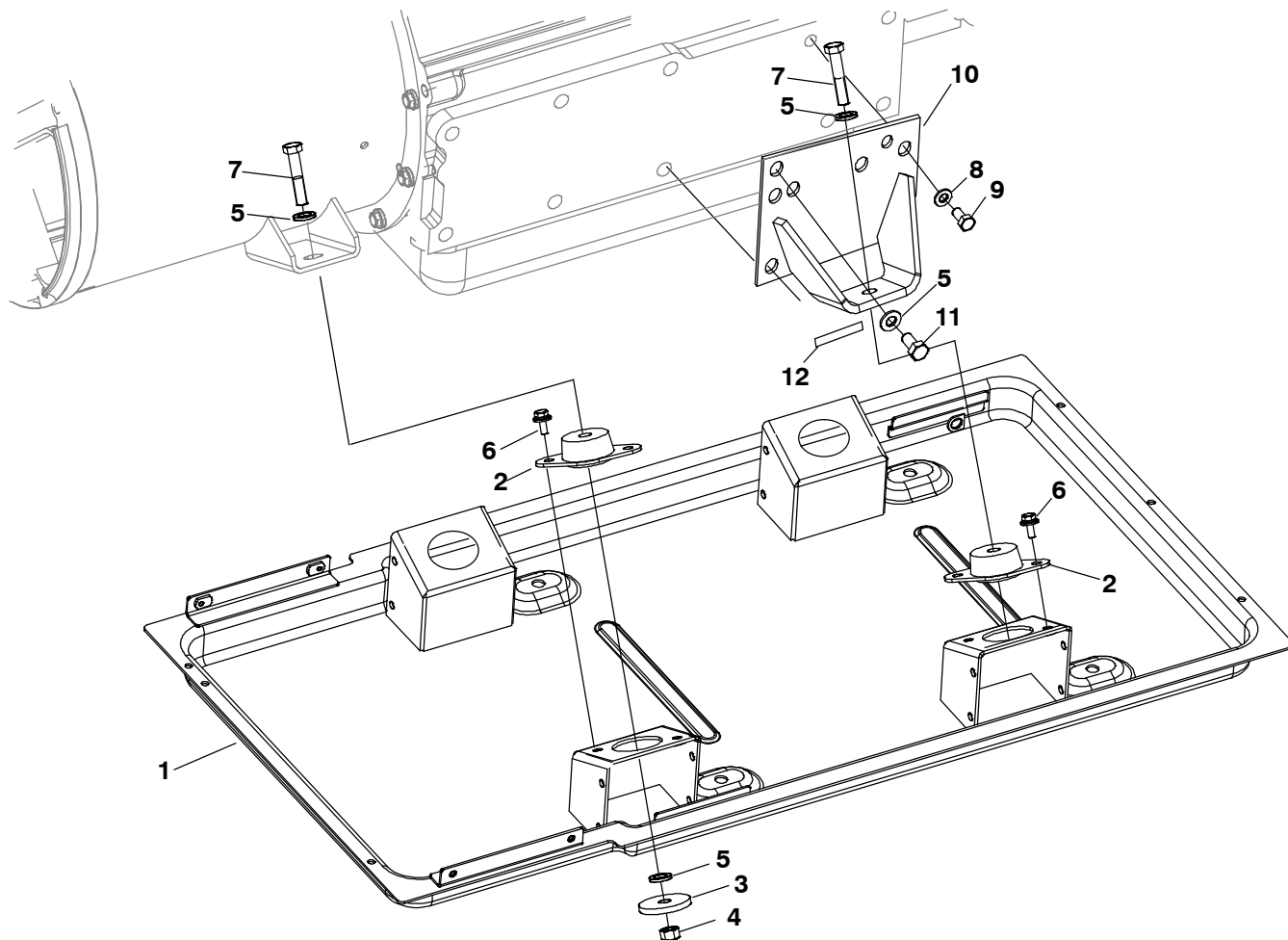
## Isolated Ground



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	2	Nut, ET Hex (#10-32) (12V)
1	541-0824	1	24V	8	853-0016	2	Washer, ET Lock (5/16")
	333-0662-01	1	12V	9	862-0026-30	2	Nut, Hex (5/16-24)
	333-0662-02	1	24V	10	338-4200-01	1	Harness, Isolated Ground
2			*Relay, Solenoid	11	338-4200-02	1	Harness, Ground
	307-1617	1	12V				
	307-2656	1	24V				
3	526-0399-58	2	Washer, Flat (M6)				
4	850-0114-53	2	Washer, Split Lock (M6)				

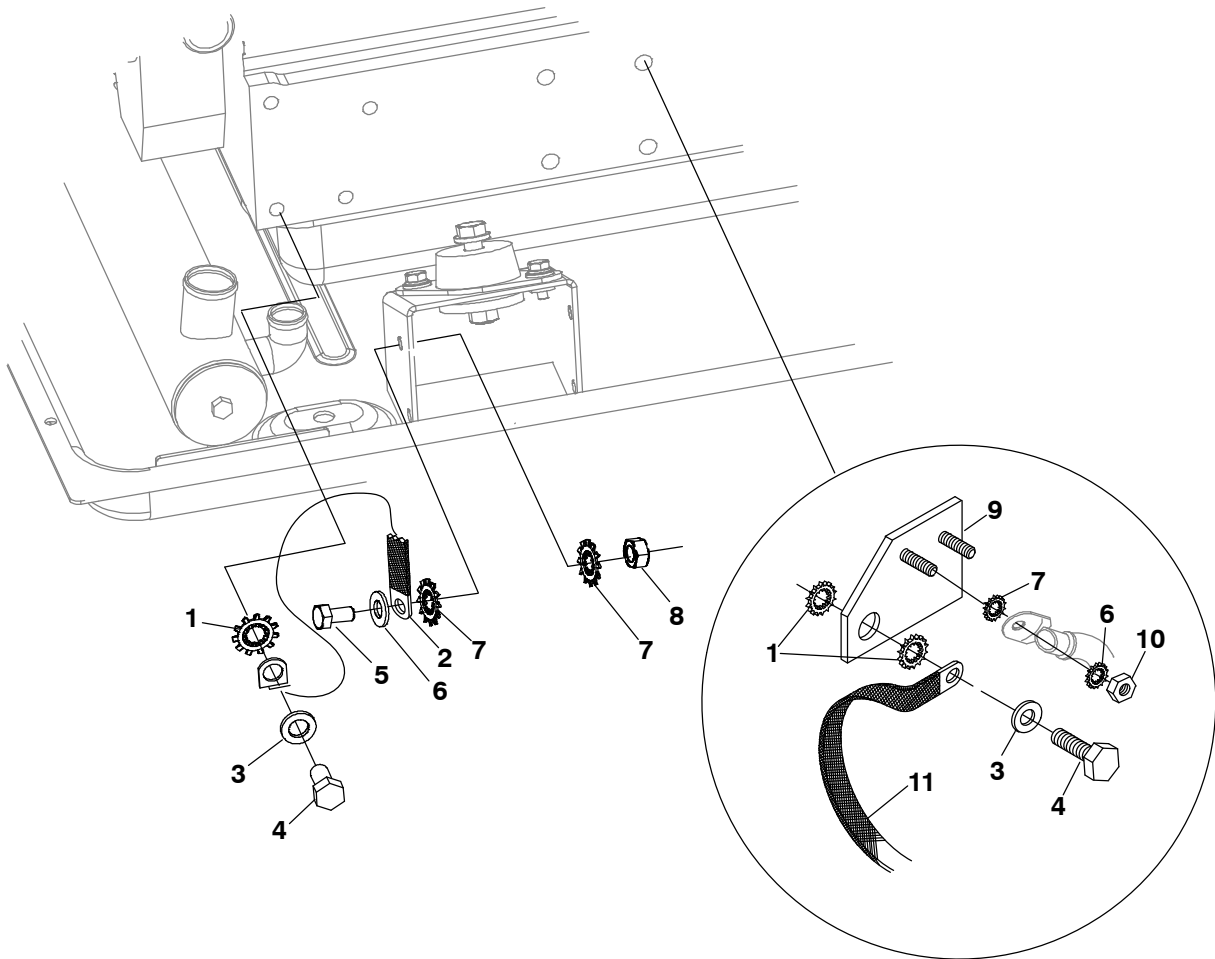
\* - Relay Solenoid ties to B- and K9-1 Isolated Ground  
Harness (338-4200-01)

## Mounting Base



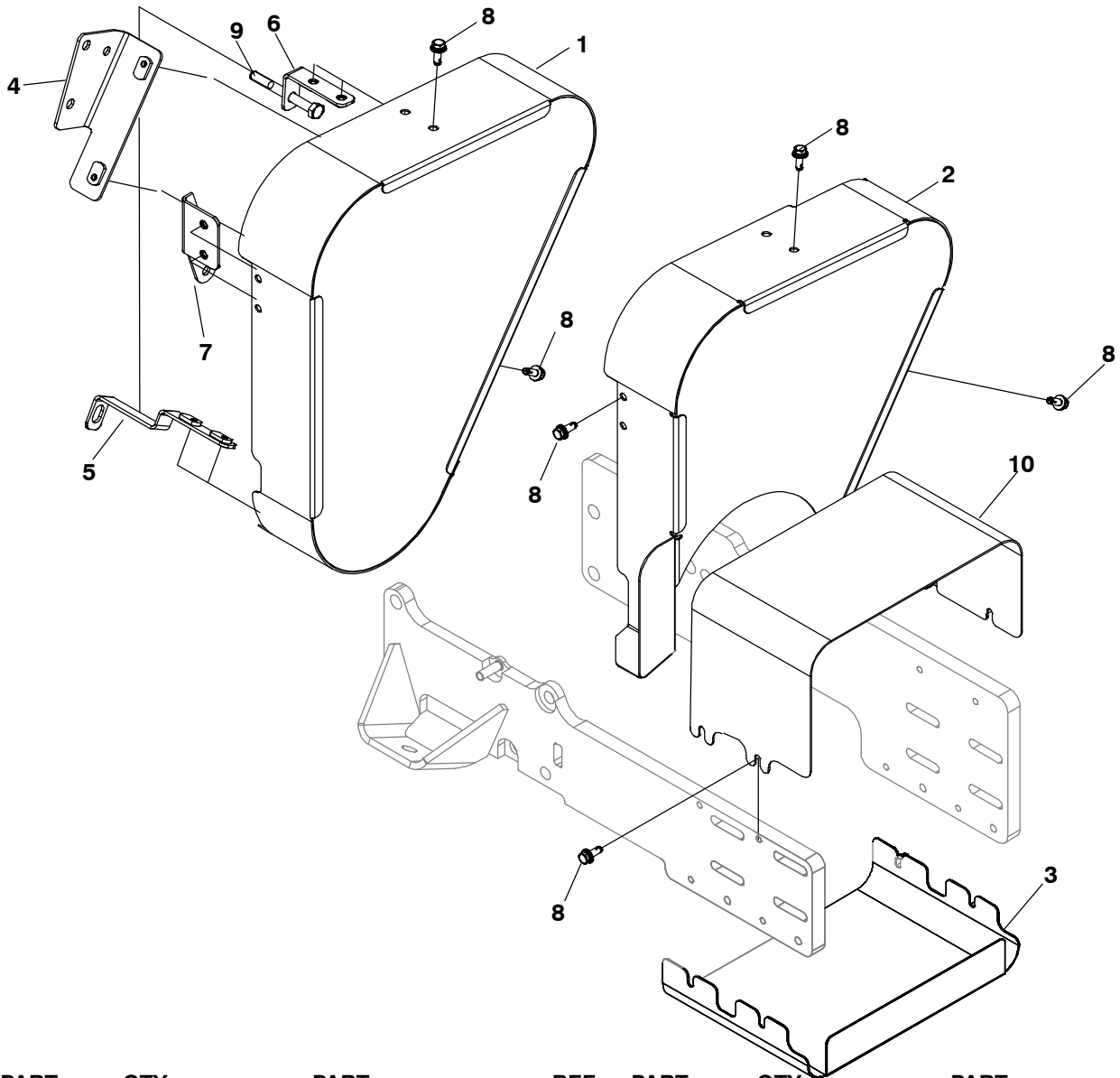
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-4581-02	1	Base, Generator Mounting				(M8 x .25 x 20mm)
	403-4624-02	1	MDKBP, MDKBR	7	800-2118	4	Screw, Hex Head Cap (M12 x 1.75 x 60mm)
2			Isolator, Mounting W/O PTO	8	526-2120	1	Washer, Rocker Ball (MDKBS)
	403-3573	4	MDKBP, MDKBR	9	800-3030	1	Screw, Hex Head Cap (MDKBS) (M10 x 1.25 x 20mm)
	403-3955	4	MDKBS	10			Mount, Engine
			With PTO	403-4059-03	1		MDKBS
	403-3573	2	MDKBP, MDKBR	403-3972-04	1		MDKBS
	403-3955	2	MDKBP, MDKBR	403-4059-S3	2		MDKBP, MDKBR (Spec A-B)
	403-3955	2	MDKBS	403-6788-02	2		MDKBP, MDKBR (Begin Spec C)
	403-4091	2	MDKBS				
3	526-0172	4	Washer, Flat (M12)	11			Screw, Hex Head Cap (M12 x 1.25 x 20mm)
4	860-2010	4	Nut, Hex Machine (M12 x 1.75mm)				without PTO
5			Washer, Flat (M12)	800-3031	7		with PTO
	526-2140	19	Without PTO	800-3031	1		
	526-2140	13	With PTO	12	508-0239	4"	Edging
6	821-6003-02	8	Screw, Hex Head Cap				

## Grounding System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	856-0013	3	Washer, EIT Lock (1/2")	7	856-0008	2	Washer, EIT Locking (5/16")
2	337-2785	1	Strap, Bond	8	860-2008	1	Nut, Hex (M8 x 1.25mm)
3	526-2140	2	Washer, Flat (M12)	9	337-2784-02	1	Bar, Bus
4	800-3032	1	Screw, Hex Head Cap (M12 x 1.25 x 30mm)	10	871-0025	1	Nut, Hex Brass (5/16-18")
5	800-2057	1	Screw, Hex Head Cap (M8 x 1.25 x 20mm)	11	337-0090-02	1	Strap, Electrical
6	526-2100	2	Washer, Flat (M8)				

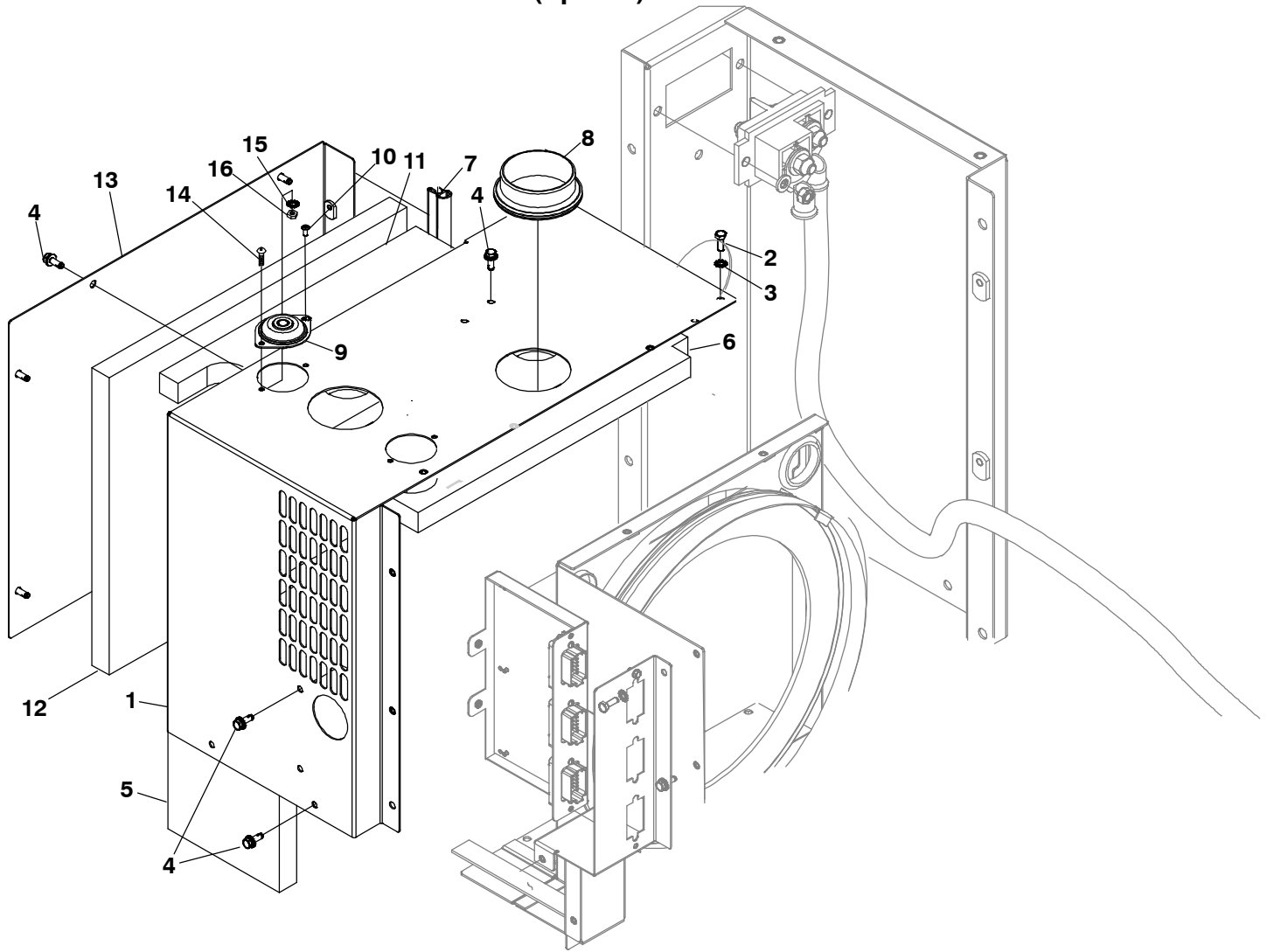
## Belt Guard and PTO Belt Guard



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	541-1474-01	1	Kit, Belt Guard (Neg Ground) (Includes Parts Marked*)	7	130-4381-03	1	*+~Bracket, Guard
	541-1474-02	1	Kit, Belt Guard (ISO Ground) (Includes Parts Marked+)	8	800-6395-01	8	*+~Screw, Hex Head Cap (M6 x 16) Negative Ground
	541-1474-03	1	Kit, Belt Guard (PTO) (Includes Parts Marked~)	8	800-6395-01	4	Isolated Ground
1			Guard, Belt W/O PTO	8	800-6395-01	14	PTO
	130-4652-03	1	Negative Ground	9	718-1047	1	*~Screw, Hex Head Cap (M6 x 1.25 x 75mm) Neg Ground and PTO
	130-4714-03	1	Isolated Ground	10	130-5469-03	1	~Coupling, Guard / PTO
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/PTO				
	130-4411-03	1	+ Isolated Ground				
5	130-4491-03	1	*Bracket, Guard (Negative Ground)				
6	130-4492-03	1	*~Bracket, Guard (Negative Ground/PTO)				

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

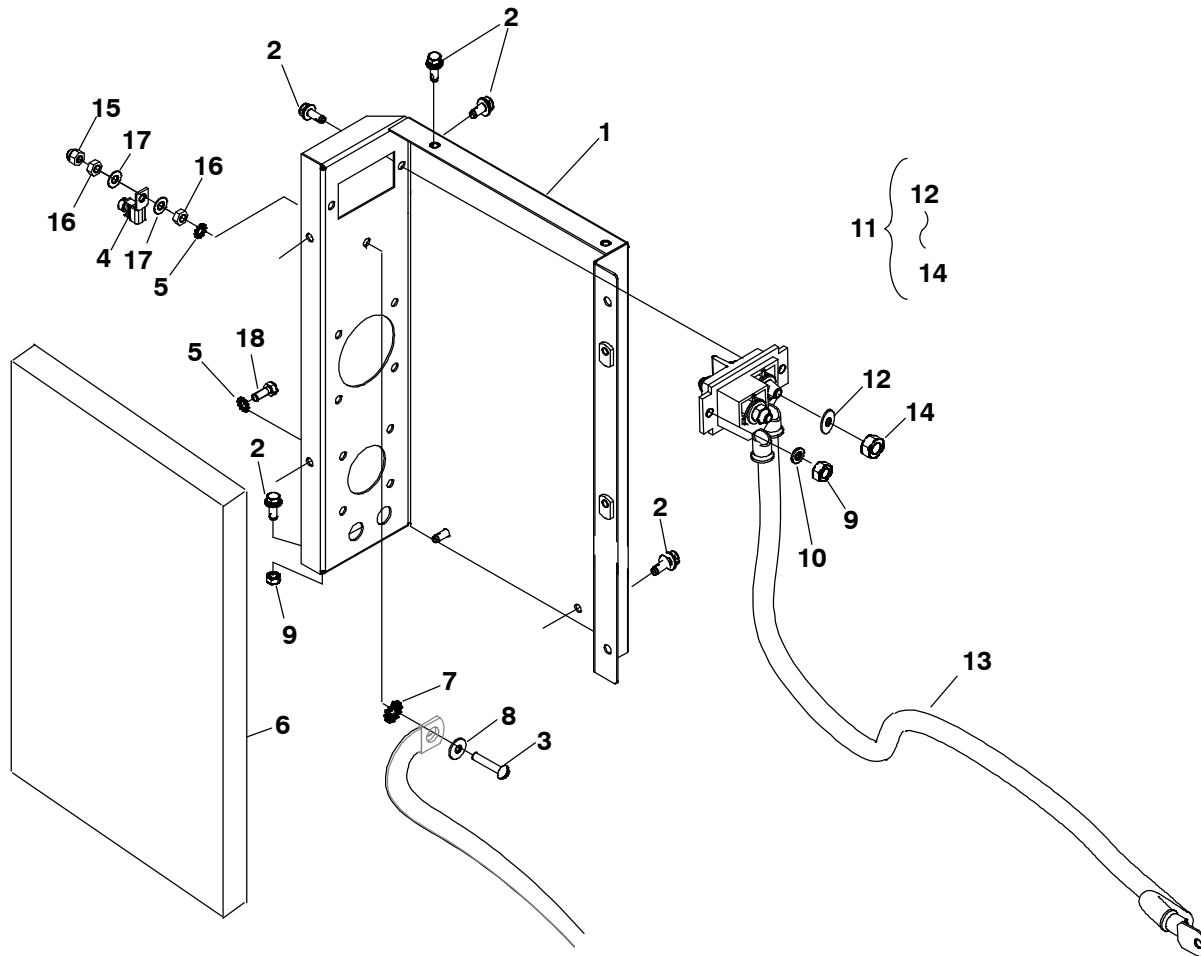
## Generator Housing (Spec A)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Panel, Housing	7	895-0402	1	Seal, Weather (1.21')
	405-6491-03	1	Single Phase	8	508-1152	2	Grommet, Rubber
	405-7429-03	1	Three Phase	9	402-0681-01	3	Isolation, Vibration
2	800-6033	3	Screw, Hex Head Cap (M6 x 1 x 16mm)	10	818-0231-01	5	Rivet, Pop
3	853-2006	3	Washer Lock ET (M6)	11	405-6686	1	Insulation, Panel (Top)
4	821-6006-01	10	Screw, Hex Head Stainless (M6 x 1.0 x 16mm)	12	405-6689	1	Insulation, Panel (Rear)
5			Insulation, Panel (Side)	13	405-7208-03	1	Cover, Enclosure (Rear)
	405-6684	1	Single Phase	14	813-0100	1	Screw, Slotted Round Head (#10-32 x .50)
	405-7430	1	Three Phase	15	856-0003	1	Washer, EIT Lock (#10)
6	405-6685	1	Insulation, Panel (Top)	16	870-0131	1	Nut, Sems



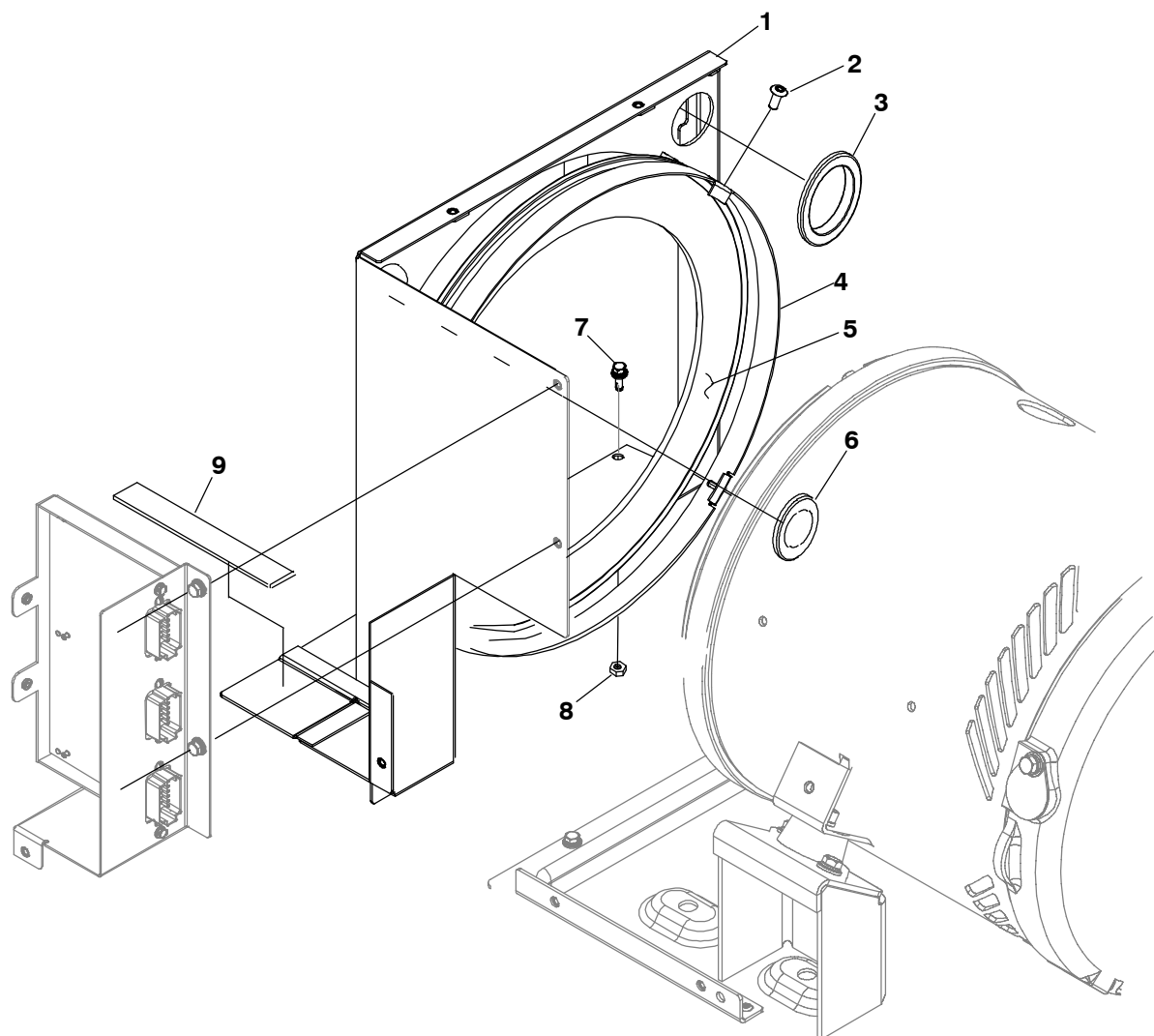
## Generator Housing Panel (Spec A)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-1004	1	Kit, Panel (Gen)	12	526-0054	2	*Washer, Flat Brass (5/16")
1	405-6492-03	1	Panel, Housing	13			*Cable, Welding
2	821-6006-01	7	Screw, Hex Sems Stainless Steel (M6 x 1 x 16mm)		334-0935-03	1	6.58' (MDKBP, MDKBR)
3	810-0155	1	Screw, Round Head Brass (1/4-20 x 1-1/4)		334-0935-04	1	8' (MDKBS)
4	332-0142	1	Lug, Solderless	14	871-0025	2	*Nut, (5/16-18")
5	853-2006	2	Washer, ET (M6)	15	860-2036	1	Nut, Hex Acorn (1/4-20 Nylon)
6	405-6682	1	Insulation, Sound	16	871-0016	2	Nut, Hex Brass (1/4-20)
7	856-0006	1	Washer, EIT (1/4")	17	526-0052	2	Washer, Flat (1/4")
8	526-2083	1	Washer, Flat (M6)	18	800-6033	3	Screw, Hex Head Cap (M6 x 1 x 16mm)
9	860-2057	4	Nut, Hex (M6)				
10	526-2081	2	Washer, Flat				
11	338-4176-03	1	Harness, Battery (Includes Parts Marked *)				

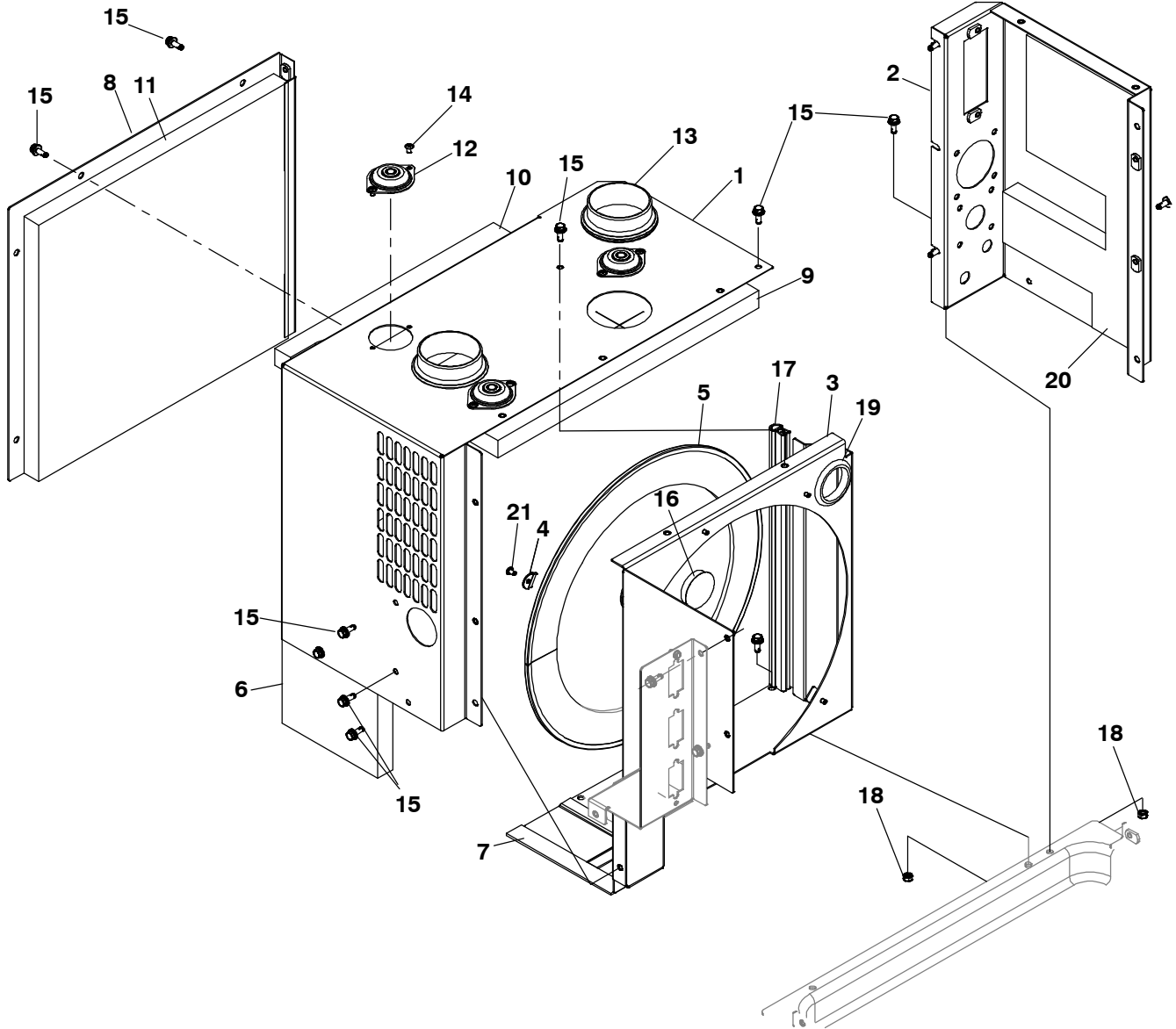
\* - Parts Included in Battery Harness

## Generator Baffle (Spec A)



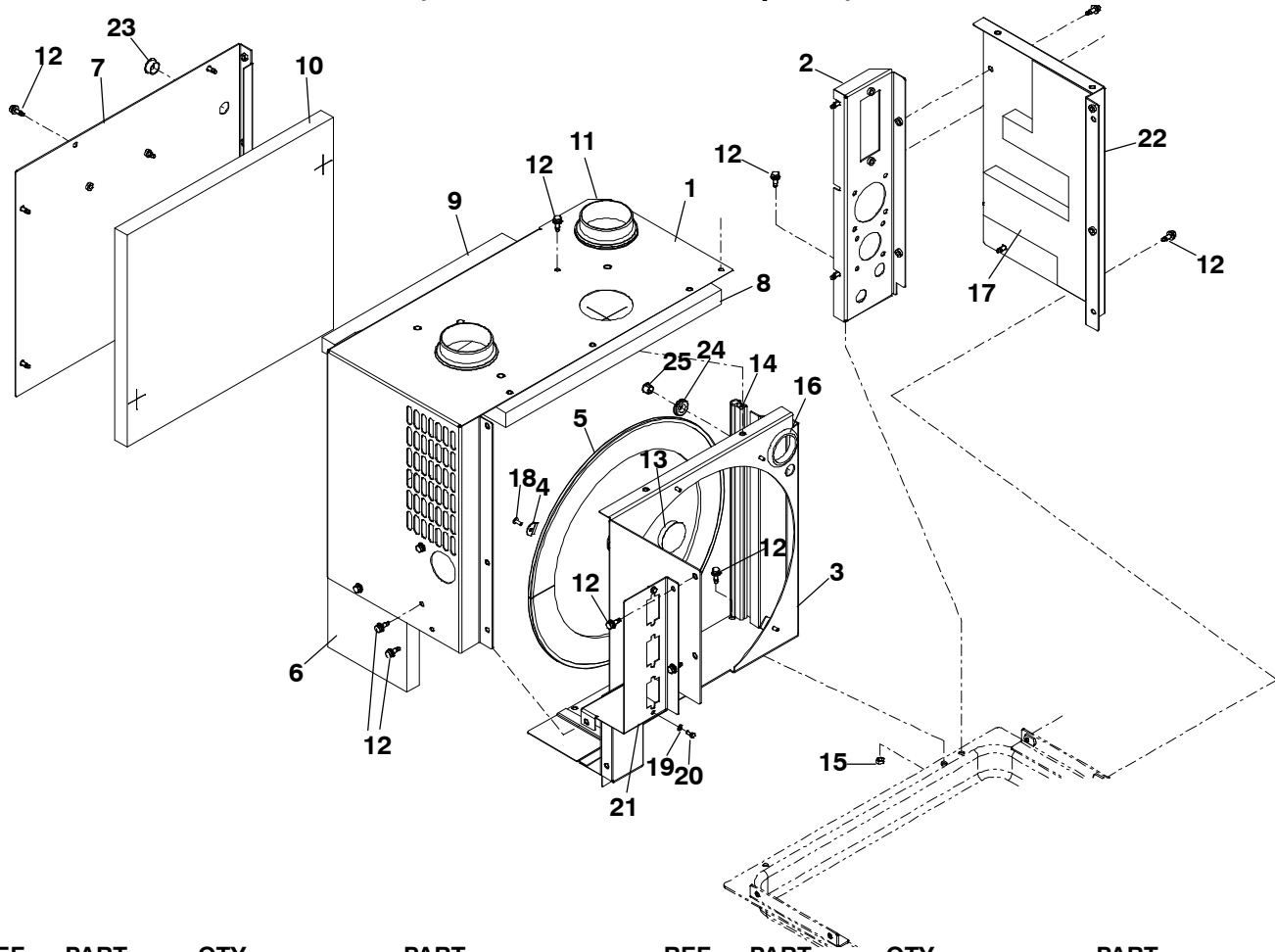
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-7038-03	1	Baffle, Generator	6	517-0138-07	1	Plug, Hole
2	823-0002-02	4	Screw, Torx Thread Form (M4 x 0.7 x 8mm)	7	821-6006-01	4	Screw, Hex Head Sems Stainless (M6 x 1.0 x 16mm)
3	508-0051	1	Grommet, Rubber (MDKBP, MDKBR)	8	860-2057	2	Nut, Hex Head (M6 x 1mm)
4	405-7164-02	1	Bracket, Baffle	9	895-0308	7"	Tape, Polyurethane (MDKBS)
5	509-0368	1	Seal, Brush				

## Generator Housing (Spec B)



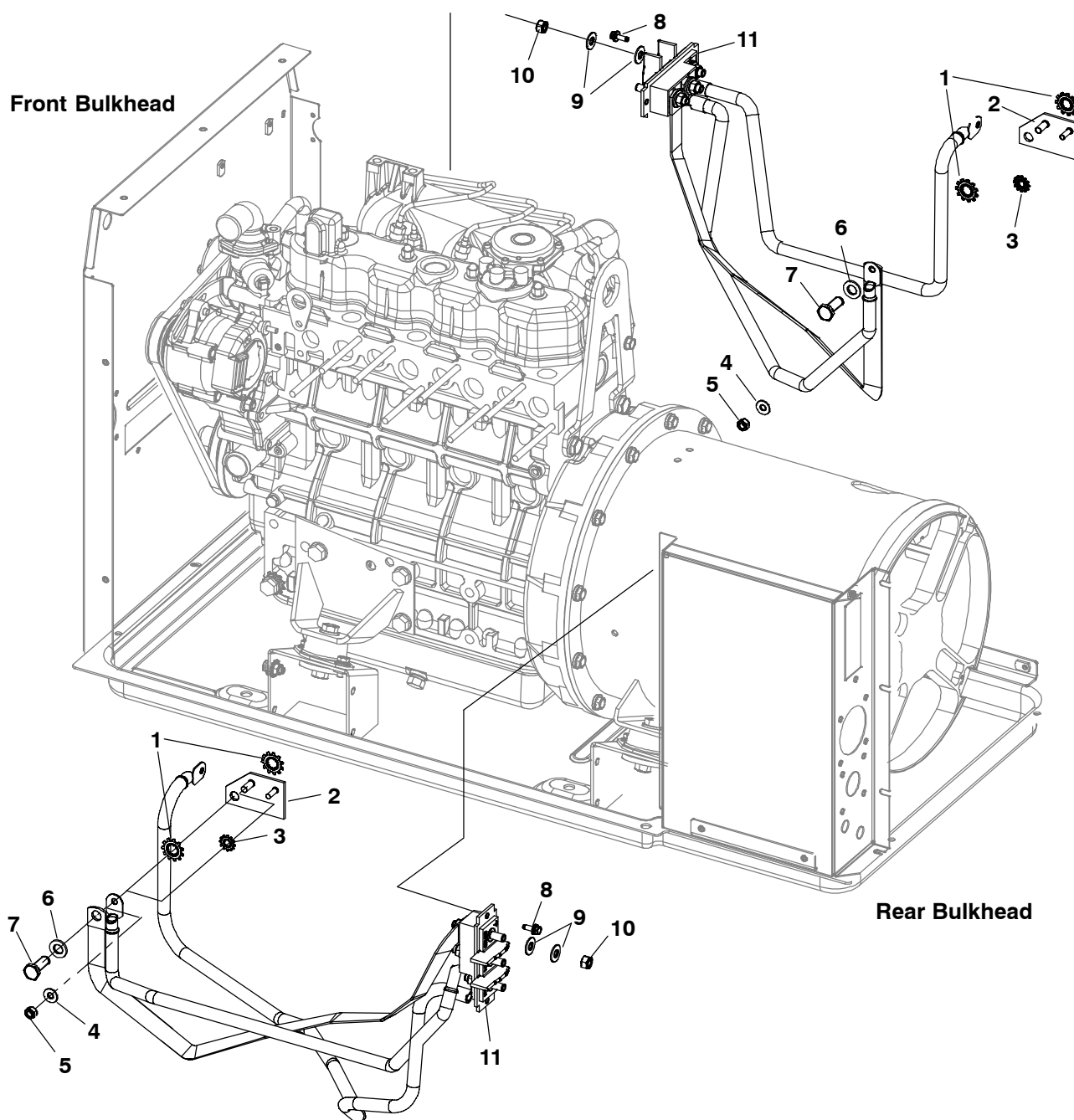
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Panel, Housing	12	402-0681-01	3	Isolator, Vibration
	405-6491-03	1	Single Phase	13	508-1152	2	Grommet, Rubber
	405-7429-03	1	Three Phase	14	818-0231-01	6	Rivet, Pop
2	405-8783-03	1	Panel, Housing	15	821-6006-01	21	Screw, Hex Head Sems Stainless (M6 x 1.0 x 16mm)
3	405-9077-03	1	Panel, Air Baffle	16	517-0138-07	1	Plug, Hole
4	134-5299-02	5	Bracket, Fan	17	895-0402	1	Seal, Weather (1.23')
5	509-0368	1	Seal, Brush	18	860-2057	2	Nut, Hex (M6 x 1.0mm)
6			Insulation, Panel	19	508-0051	1	Grommet (MDKBP and MDKBR)
	405-6684	1	Single Phase	20	405-9631	1	Insulation, Panel
	405-7430	1	Three Phase	21	818-0231-02	5	Rivet, Pop
7	895-0308	1	Tape Poly (7") MDKBS				
8	405-9047-03	1	Cover, Enclosure (Rear)				
9	405-9129	1	Insulation, Panel				
10	405-9079	1	Insulation, Enclosure (Single Phase)				
11	405-9078	1	Insulation, Cover				

## Generator Housing (MDKBP and MDKBR Spec C)



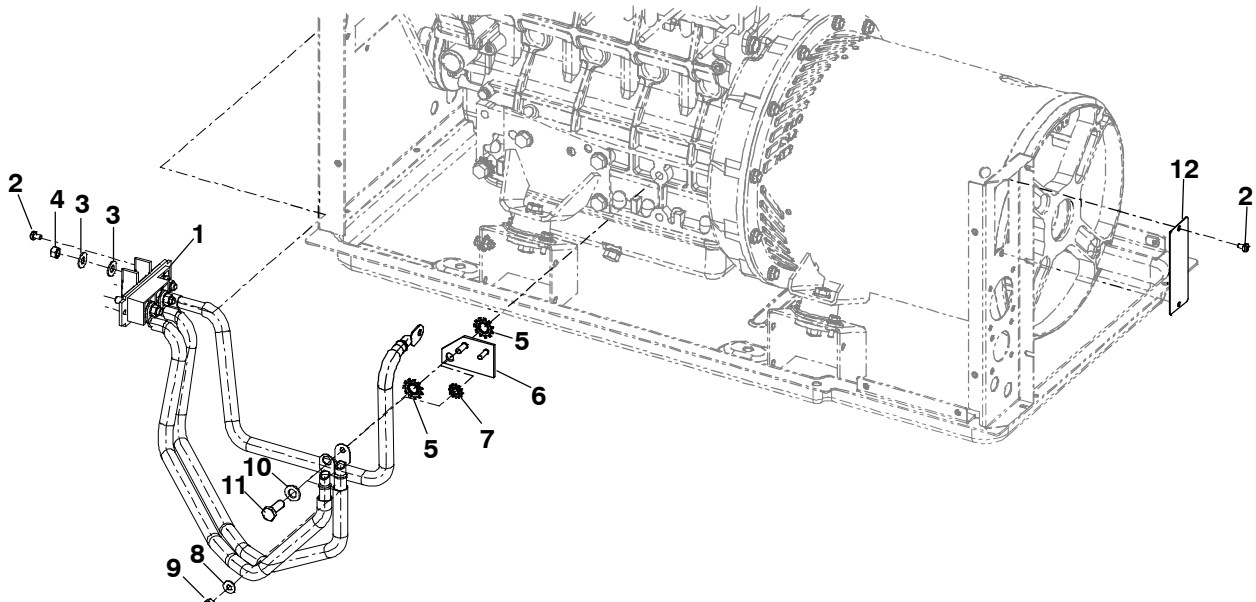
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Panel, Housing	13	517-0138-07	1	Plug, Hole
	404-0018-03	1	Single Phase	14	895-0402	1	Seal, Weather (1.23')
	404-0023-03	1	Three Phase	15	860-2057	2	Nut, Hex (M6 x 1.0mm)
2	404-0019-03	1	Panel, Housing	16	508-0051	1	Grommet
3	404-0020-03	1	Panel, Air Baffle	17	405-9631	1	Insulation, Panel
4	134-5299-02	5	Bracket, Fan	18	818-0231-02	5	Rivet, Pop
5	509-0368	1	Seal, Brush	19	526-2050	2	Washer, Flat (M4)
6			Insulation, Panel	20	800-3042	2	Screw, Hex Head Cap (M4 x 0.7 x 10mm)
	405-6684	1	Single Phase	21	404-0022-03	1	Panel, Enclosure
	405-7430	1	Three Phase	22	404-0024-03	1	Panel, Enclosure
7	404-0021-03	1	Cover, Enclosure (Rear)	23	517-0136	1	Plug, Hole
8	405-9129	1	Insulation, Panel	24	508-0021	1	Grommet
9	405-9079	1	Insulation, Enclosure	25	517-0133	1	Plug, Hole
10	404-0045	1	Insulation, Cover				
11	508-1152	2	Grommet, Rubber				
12	800-6395-01	25	Screw, Hex Head Sems (M6 x 1.0 x 16mm)				

## Battery Harness (Spec B)



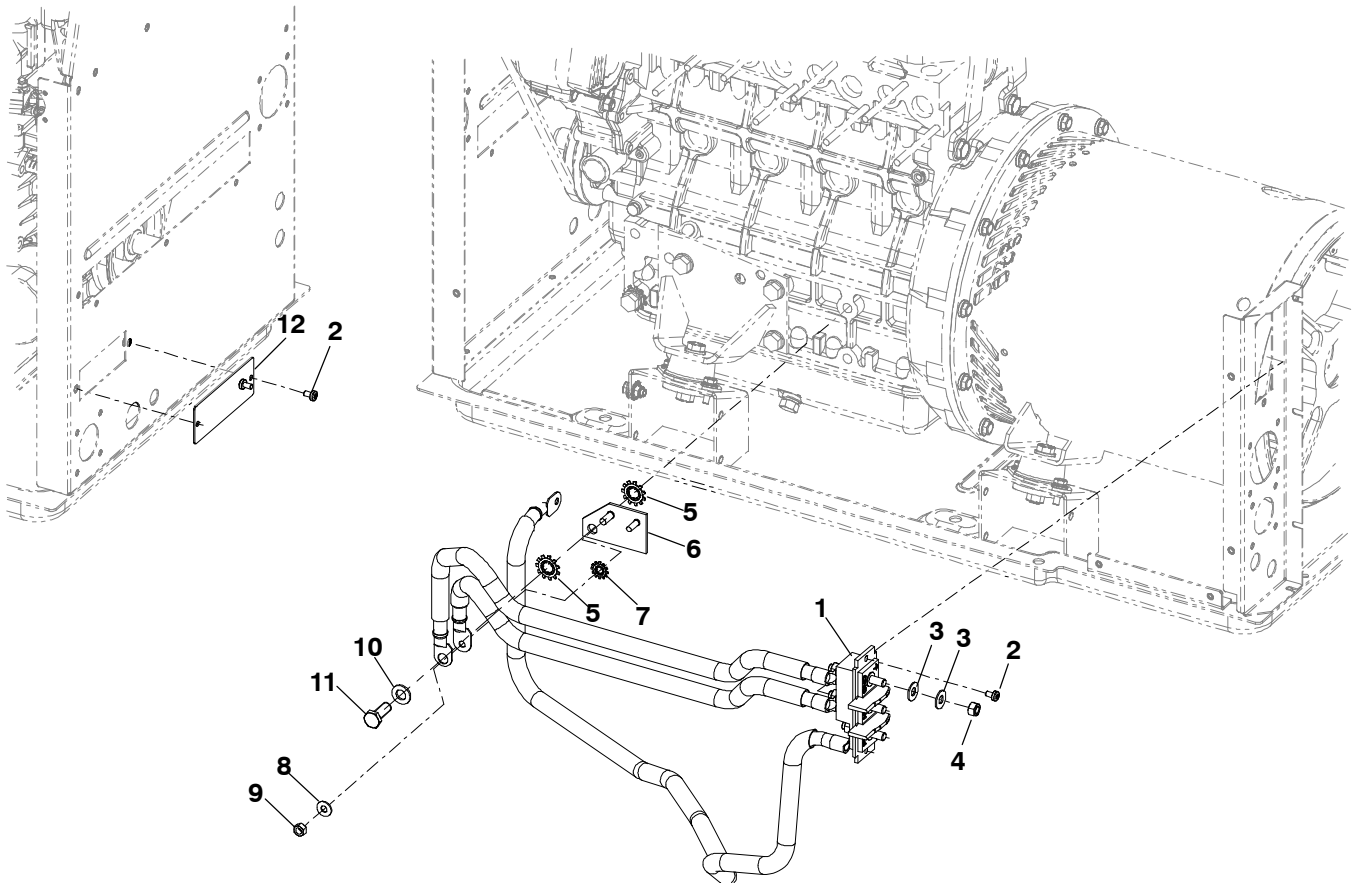
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	856-0013	2	Washer, ET Lock (1/2")	7	800-3032	1	Screw, Hex Head Cap (M12 x 1.25 x 30mm)
2	337-2784-02	1	Assy Bus, Bar (Neg Ground)	8	823-1002-03	2	Screw, Pan Head Torx (M6 x 1.0 x 10mm)
3	856-0008	1	Washer, ET Lock (5/16") (Neg Ground)	9	526-0029	6	Washer, Flat
4	528-0054	1	Washer, Flat (Neg Ground)	10	862-0003	3	Nut, Hex (3/8-16)
5	871-0025	1	Nut, HB Full (5/16-18) (Neg Ground)	11			Harness, Battery
6	526-2140	1	Washer, Flat (M12)		338-4623-02	1	MDKBP and MDKBR
					338-4623-01	1	MDKBS

## Battery Harness Front (MDKBP and MDKBS Spec C)



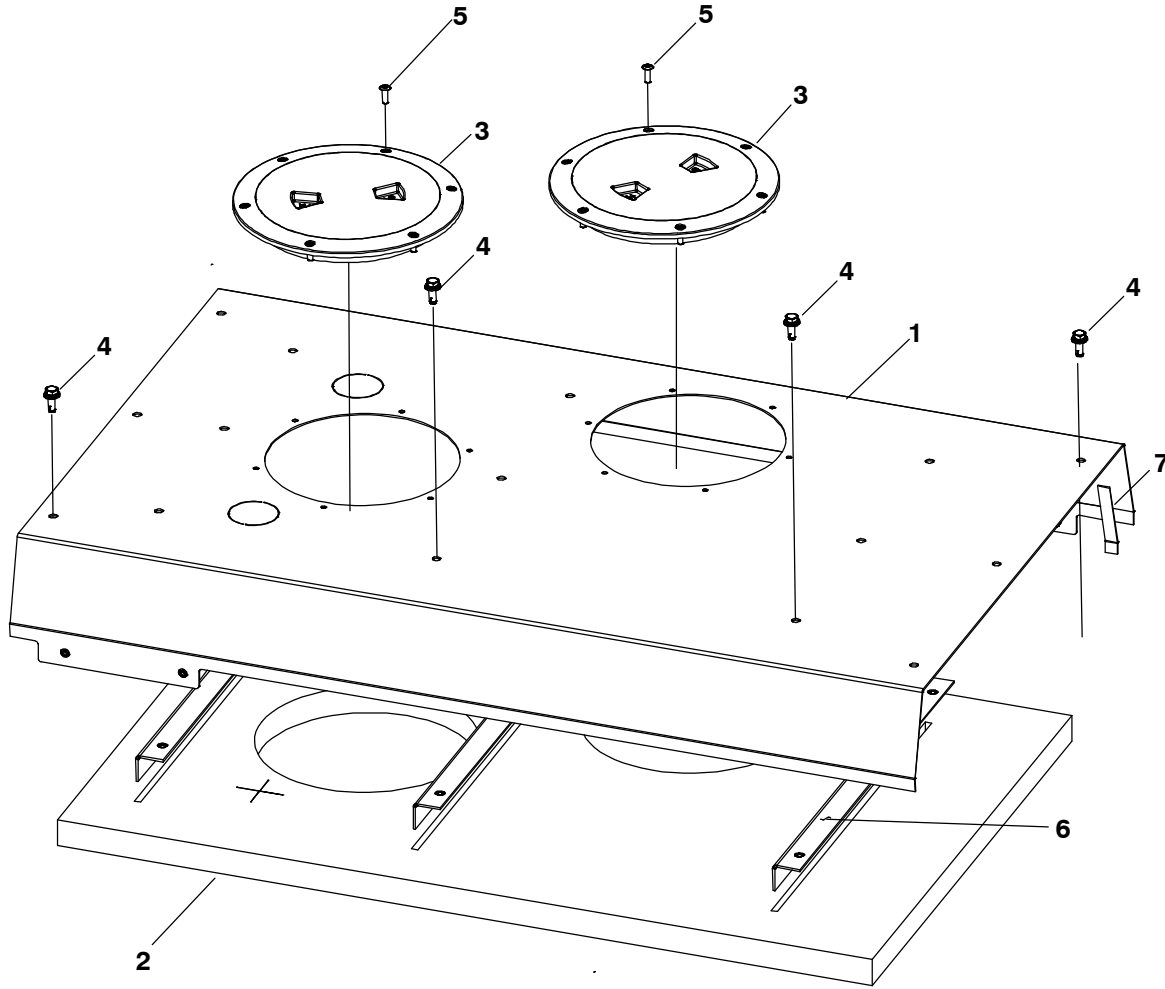
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4623-02	1	Harness, Battery	9	871-0025	1	Nut, HB Full (5/16-18)
2	823-1002-03	4	Screw, Pan Head Torx (M6 x 1.0 x 10mm)	10	526-2140	1	Washer, Flat (M12)
3	526-0029	6	Washer, Flat (1/2")	11	800-3032	1	Screw, Hex Head Cap (M12 x 1.25 x 30mm)
4	862-0003	3	Nut, Hex (3/8-16UNC)	12	450-9764-02	1	Cover, Access
5	856-0013	2	Washer, ETIT Locking (1/2")				
6	337-2748-02	1	Assy Bus, Bar				
7	856-0008	1	Washer, ETIT Locking (Neg GND 5/16")				
8	526-0054	1	Washer, Flat Neg GND(8.33ID x 19.05OD)				

## Battery Harness Rear (MDKBP and MDKBS Spec C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4623-02	1	Harness, Battery	9	871-0025	1	Nut, HB Full (5/16-18)
2	823-1002-03	4	Screw, Pan Head Torx (M6 x 1.0 x 10mm)	10	526-2140	1	Washer, Flat (M12)
3	526-0029	6	Washer, Flat (1/2")	11	800-3032	1	Screw, Hex HEad Cap (M12 x 1.25 x 30mm)
4	862-0003	3	Nut, Hex (3/8-16UNC)	12	405-9764-02	1	Cover, Access
5	856-0013	2	Washer, ETIT Locking (1/2")				
6	337-2748-02	1	Assy Bus, Bar				
7	856-0008	1	Washer, ETIT Locking (Neg GND 5/16")				
8	526-0054	1	Washer, Flat Neg GND(8.33ID x 19.05OD)				

## Engine Sound Shield MDKBP, MDKBR and MDKBS (Spec A-B)

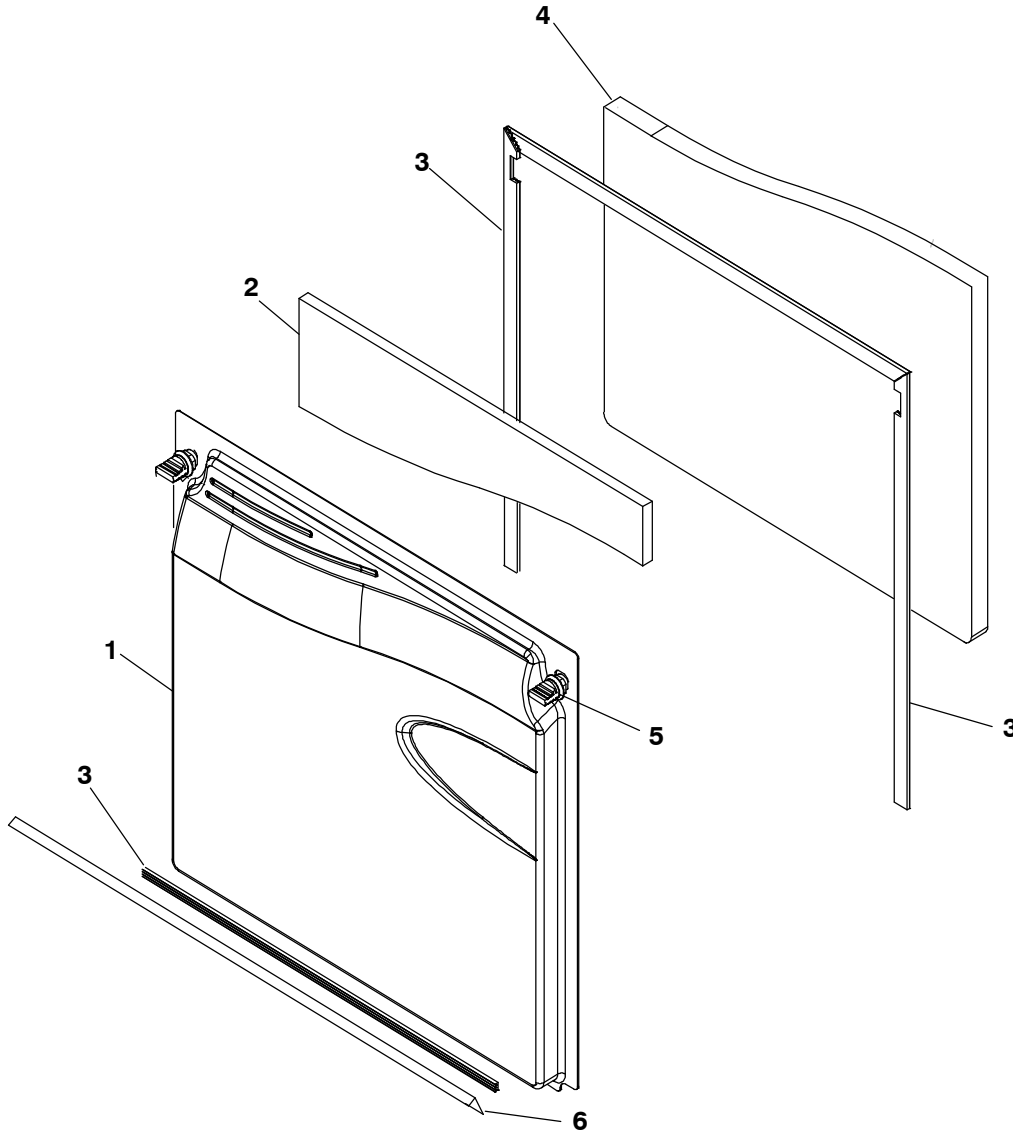


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Sound Shield (Complete, Includes Roof, Doors, Ends And Insulation, Refer to Following Pages)	3	405-6340	2	*Cover, Access
				4	821-6006-01	-	Screw, Hex Head Sems] (See Panel End Page for Totals)
	541-0830-01	1	MDKBP, MDKBR	5	818-0239-03	12	Rivet, Pop
	541-0830-02	1	MDKBS	6	405-7345-02	3	*Stiffener, Enclosure (MDKBP, MDKBR)
			Kit, Roof Panel (Includes Parts Marked *)	7	405-5052	4	*Gasket, Baffle
1			*Panel, Roof				
	405-6870-03	1	MDKBP, MDKBR				
	405-6971-03	1	MDKBS				
2			*Insulation, Roof				
	405-6990	1	MDKBP, MDKBR				
	405-6991	1	MDKBS				

\* - Parts Included in Roof Panel Kit.



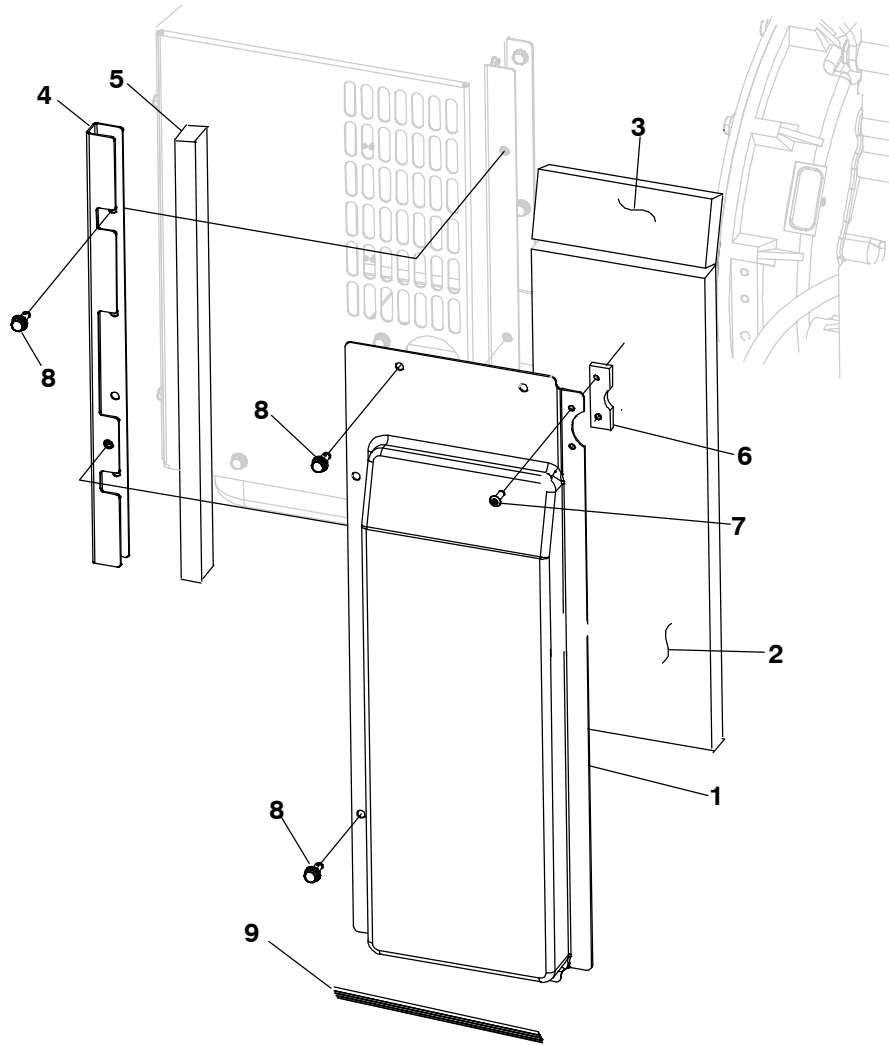
## Engine Sound Shield MDKBP, MDKBR and MDKBS (Spec A-B)



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)
1	405-6519-03	2	*Door, Sound Shield	6			*Seal, Weather
2	405-6797	2	*Insulation, Door		895-0411	5.6'	MDKBP, MDKBR
3			Seal, Weather		895-0411	7.1'	MDKBS
	895-0395	1	MDKBP, MDKBR 12.5'				
	895-0395	1	MDKBS 13.2'				
4	405-6687	2	*Insulation, Door				

\* - Parts Included in Door Kit.

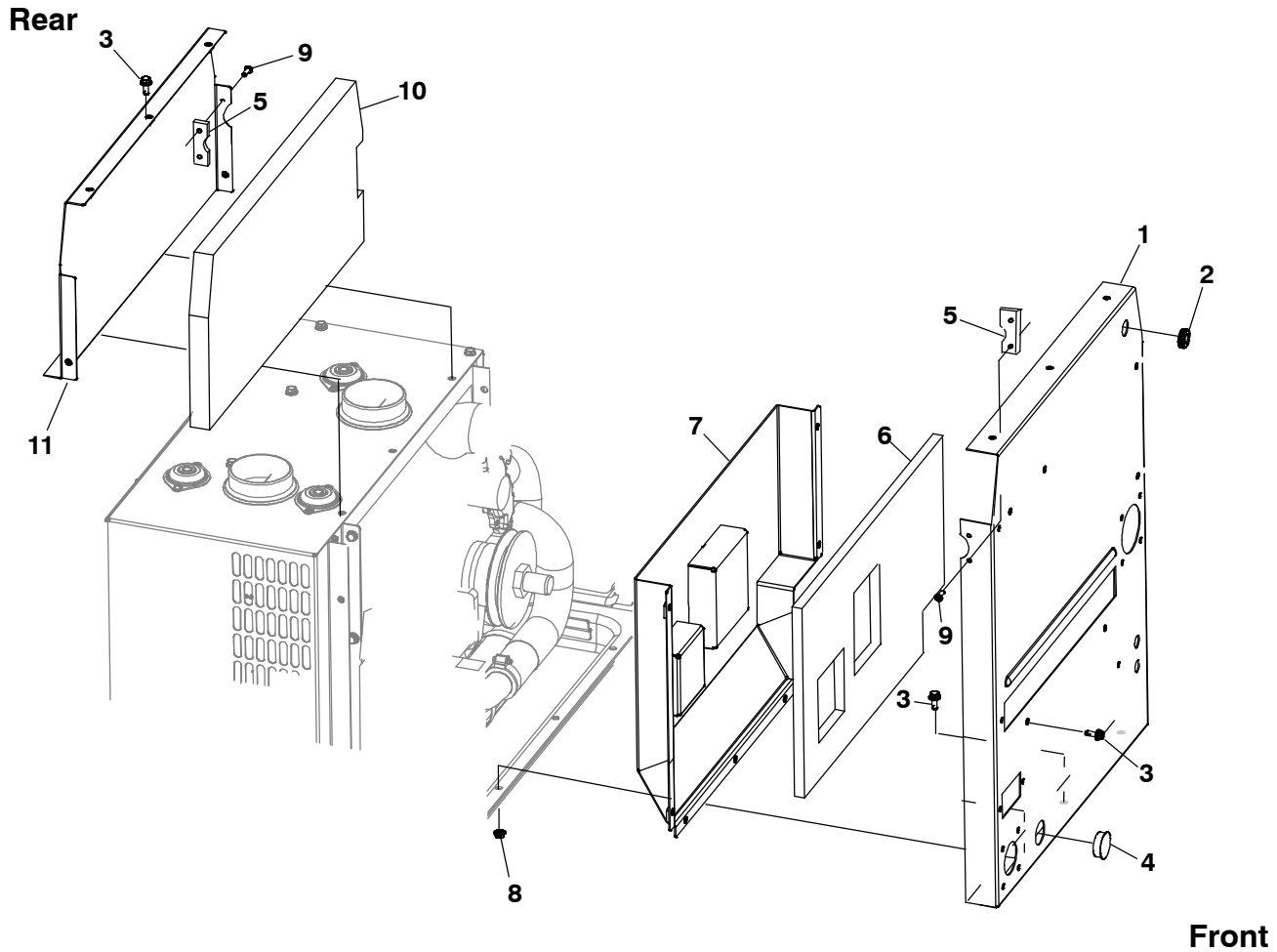
## Engine Sound Shield MDKBP, MDKBR and MDKBS (Spec A-B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Access Panel (Includes Parts Marked *)	5	405-7347	1	*Insulation
	405-7357-01	1	MDKBP, MDKBR	6	406-1032	4	*Catch, Door
	405-7357-02	1	MDKBS	7	818-0217-03	4	*Rivet
1			*Panel, Access	8	821-6006-01	-	Screw, Hex Head Sems (See Panel Ends Page for Totals)
	405-6972-03	2	MDKBP, MDKBR				Stainless (M6 x 1 x 16mm)
	405-7102-03	2	MDKBS				*Seal, Weather
2			*Insulation, Access Panel Sound Lower	9	895-0395	AR	MDKBP, MDKBR (12.5')
	405-6995-01	2	MDKBP, MDKBR		895-0395	AR	MDKBS (13.2')
	405-6995-02	2	MDKBS				
3			*Insulation, Access Panel Sound, Upper				
	405-6993-01	2	MDKBP, MDKBR				
	405-6993-02	2	MDKBS				
4	405-7104-03	2	Spacer, Panel				

\* - Parts Included in Access Panel Kit.

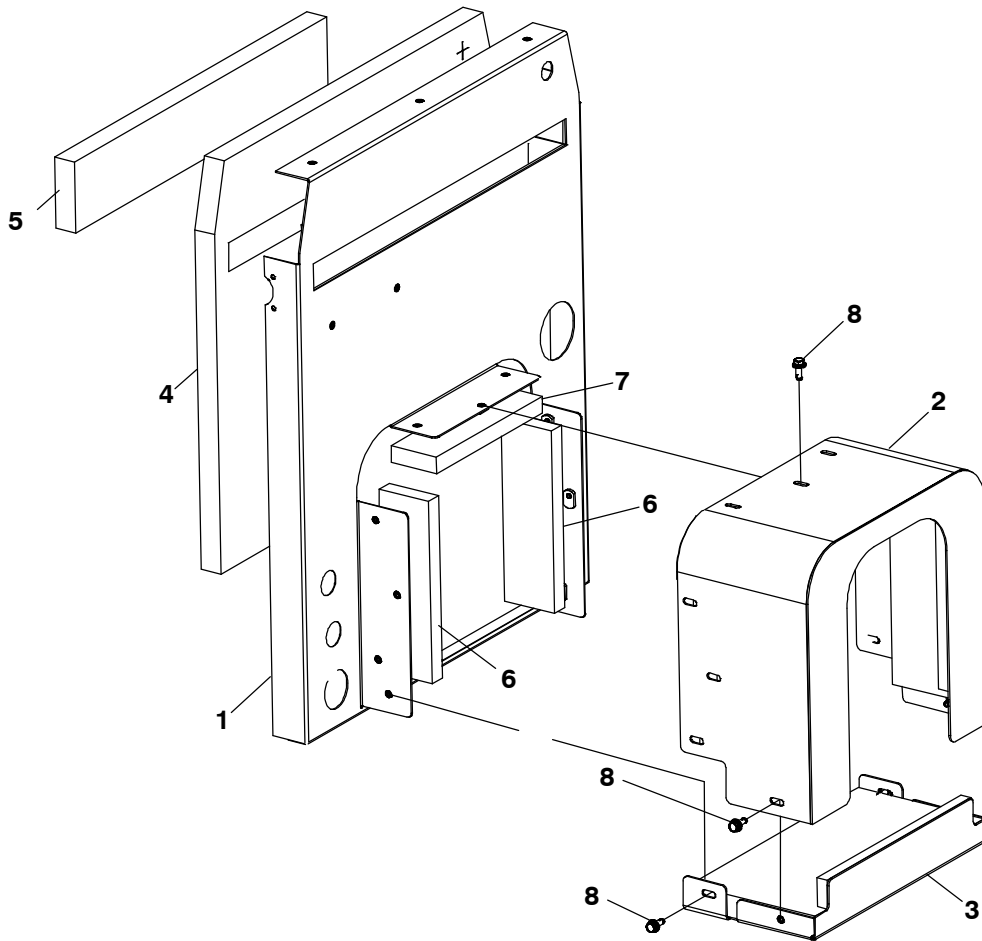
## Engine Sound Shield MDKBP, MDKBR and MDKBS (Spec A-B) (Front and Rear with out PTO)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-1005	1	Kit, Enclosure Panel (Includes Parts Marked #)	4	517-0138-04	1	*Plug, Hole (W/O PTO)
	405-7358-01	1	Kit, Enclosure Panel (Includes Parts Marked *)	5	406-1032	4	*~Catch, Door
	405-7360	1	Kit, Duct Panel (Includes Parts Marked +)	6	405-6992	1	+Insulation, Duct (W/O PTO)
	405-7361	1	Kit, Roof Panel (Includes Parts Marked~)	7	405-7350-03	1	+Panel, Duct (W/O PTO)
1	405-8826-03	1	##*Panel, Enclosure W/O PTO)	8	870-2065-02	3	Nut, Lock Flanged (M6)
2	508-0021	1	#Grommet	9	818-0231-01	4	~*Rivet
3			#Screw, Hex Head Sems Stainless (M6 x1 x 16mm) W/O PTO)	10	405-7179	1	~Insulation, Roof End
	821-6006-01	39	MDKBP and MDKBR	11	405-6871-03	1	~Panel, Roof End
	821-6006-01	30	MDKBS				
			W/ PTO)				
	821-6006-01	45	MDKBP and MDKBR				
	821-6006-01	36	MDKBS				

\* - Parts Included in Enclosure Panel Kit MDKBP, MDKBR, MDKBS.  
+ - Parts Included in Duct Panel Kit MDKBP, MDKBR, MDKBS.  
~ - Parts Included in Roof Panel Kit MDKBP, MDKBR and MDKBS.

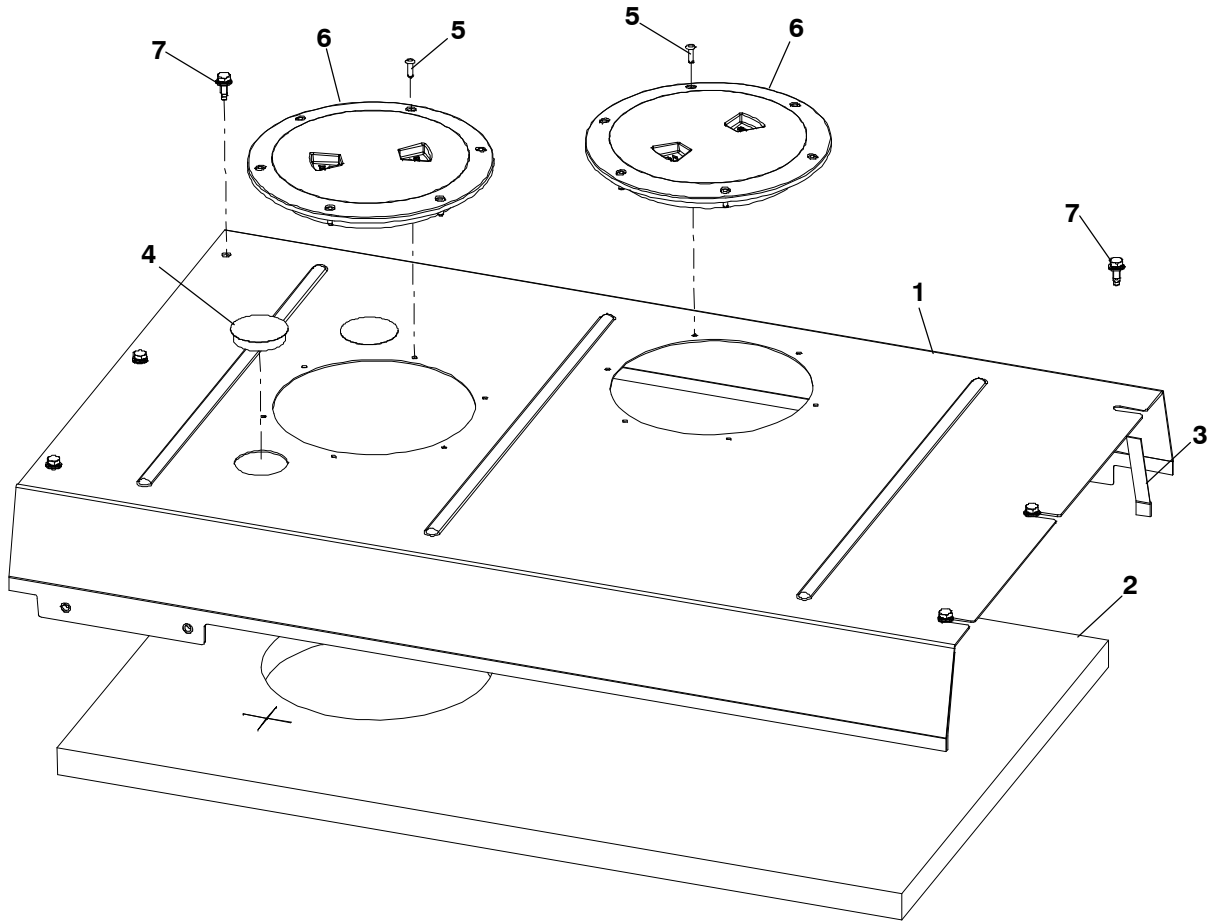
## Engine Sound Shield MDKBP, MDKBR and MDKBS (Spec A-B) (Front w/PTO)



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 *)	5	405-5010-02	1	*Insulation
	190-0778	1	Kit, Coupling Guard (Includes Parts Marked +)	6	405-6866	2	*+Insulation, Sound
1			*+Panel, Enclosure	7	405-6867	1	*+Insulation, Sound
	405-7230-03	1	Spec A	8	821-6006-01	15	+Screw, Hex Head Sems Stainless (M6 x1 x 16mm)
	405-8975-03	1	Begin Spec B				
2	405-6812-02	1	+Guard, Coupling				
3	405-6817	1	+Guard, Coupling (Lower)				
4			*+Insulation, Sound				
	405-7231	1	Spec A				
	405-9060	1	Begin Spec B				

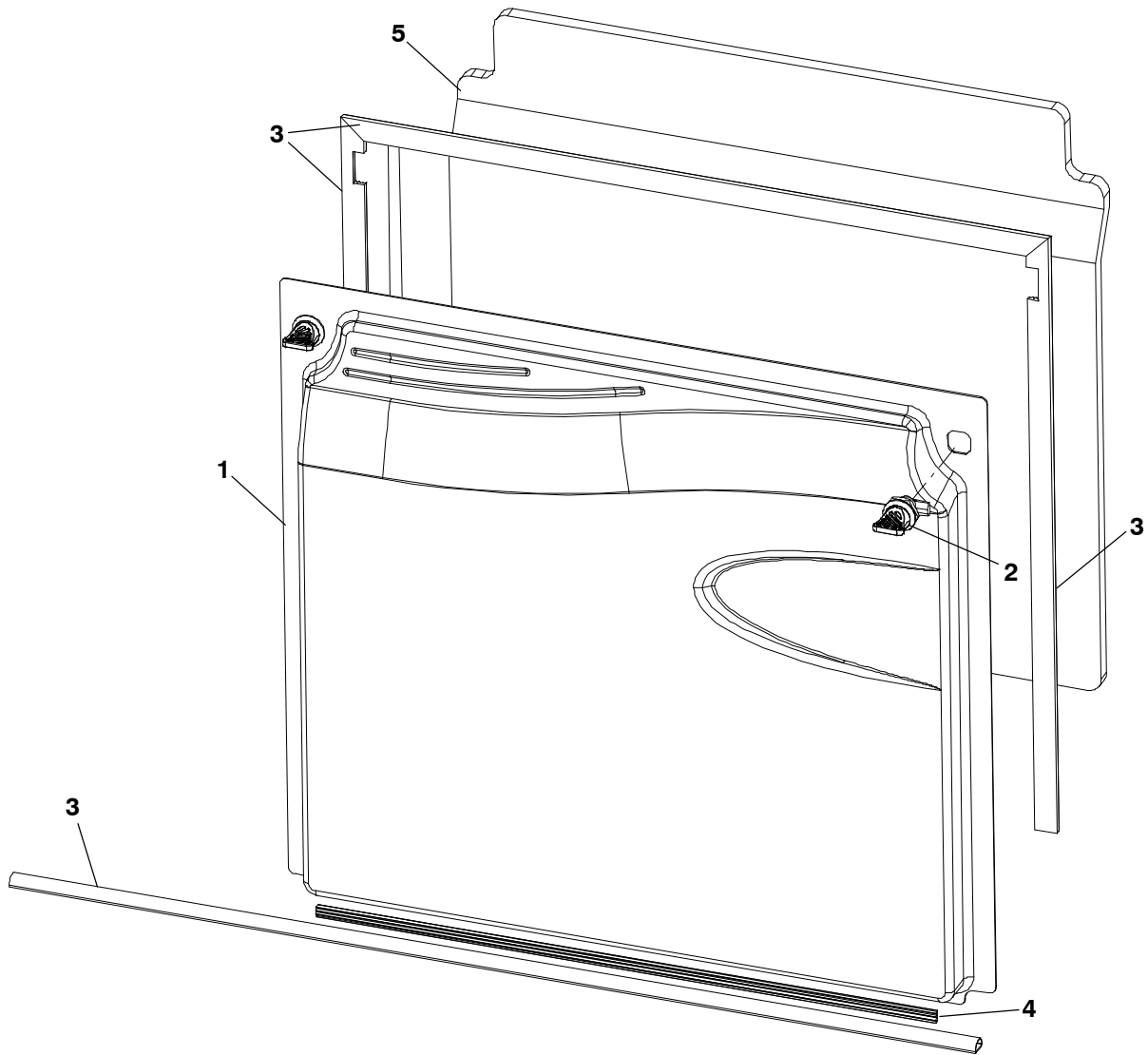
\* - Parts Included in Enclosure Panel Kit with PTO.  
+ - Parts Included in Coupling Guard Kit with PTO.

## Engine Sound Shield MDKBP and MDKBR (Spec C)



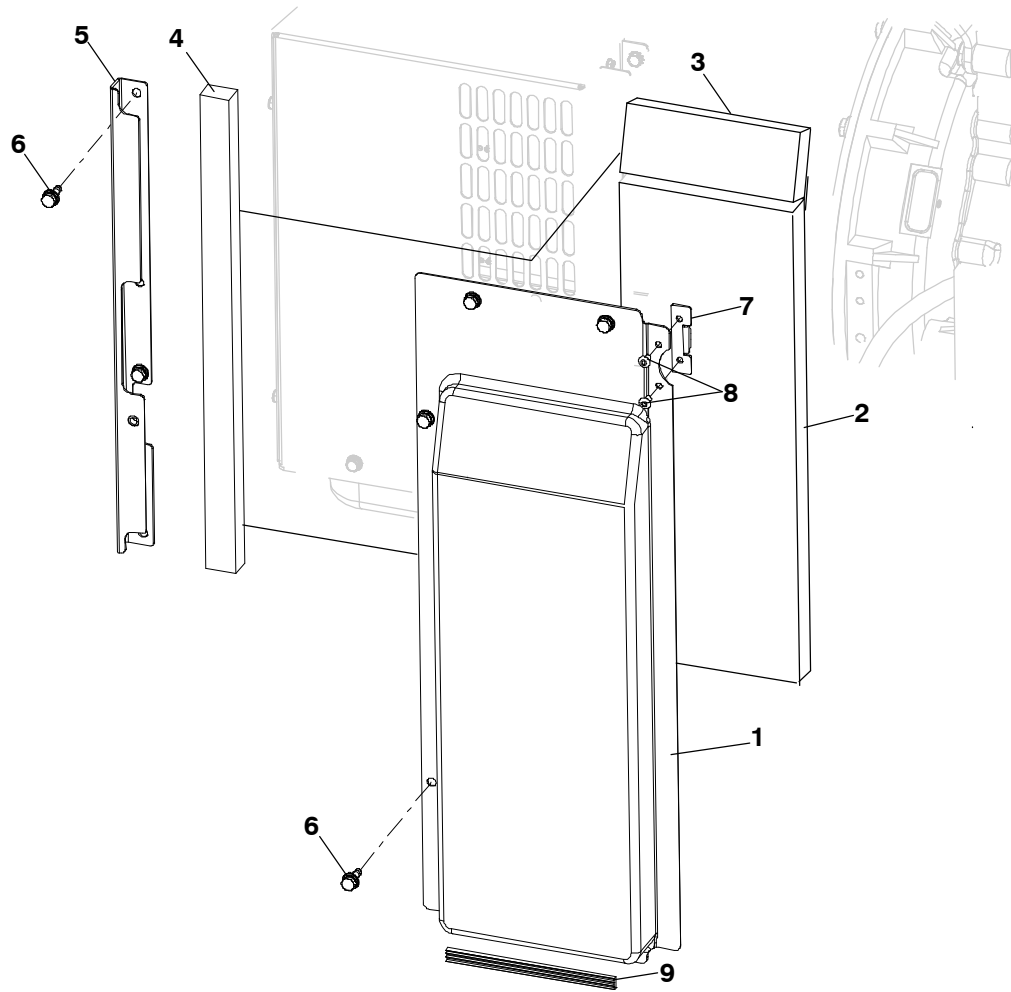
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0090-03	1	Panel, Roof	6	405-6340	2	Cover, Access
2	404-0091	1	Insulation, Roof	7	800-6395-01	6	Screw, Hex Head Sems (M6 x 1 x 16mm)
3	405-5052	4	Gasket, Baffle				
4	517-0392-19	2	Plug, Hole				
5	818-0239-03	12	Rivet, Pop				

## Engine Sound Shield MDKBP and MDKBR (Spec C)



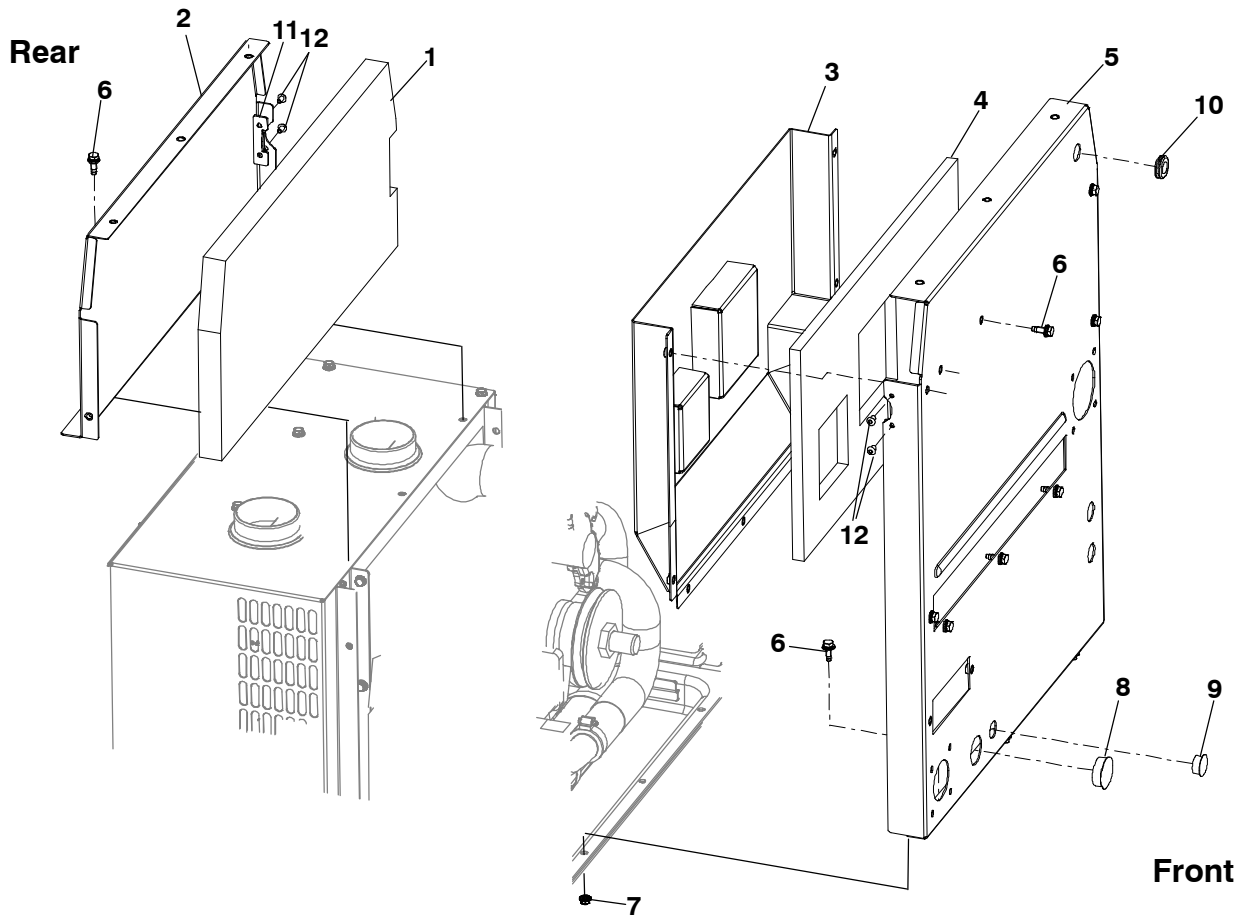
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-9751-03	1	Door, Access	4	895-0411	AR	Seal, Weather
2	406-0958	2	Latch, Door	5	405-9568	1	Insulation, Door
3	859-0395	AR	Seal, Weather (12.5)				

## Engine Sound Shield MDKBP and MDKBR (Spec C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0097-03	1	Panel, Access	6	800-2027	6	Screw, Hex Head Sems (M6 x 1 x 16mm)
2	405-6995-01	1	Insulation, Sound	7	406-1032	2	Catch, Door
3	405-6993-01	1	Insulation, Sound	8	818-0231-01	4	Rivet, Pop
4	405-7347	1	Insulation, Sound	9	895-0395	AR	Seal, Weather
5	404-0098-03	1	Spacer, Panel				

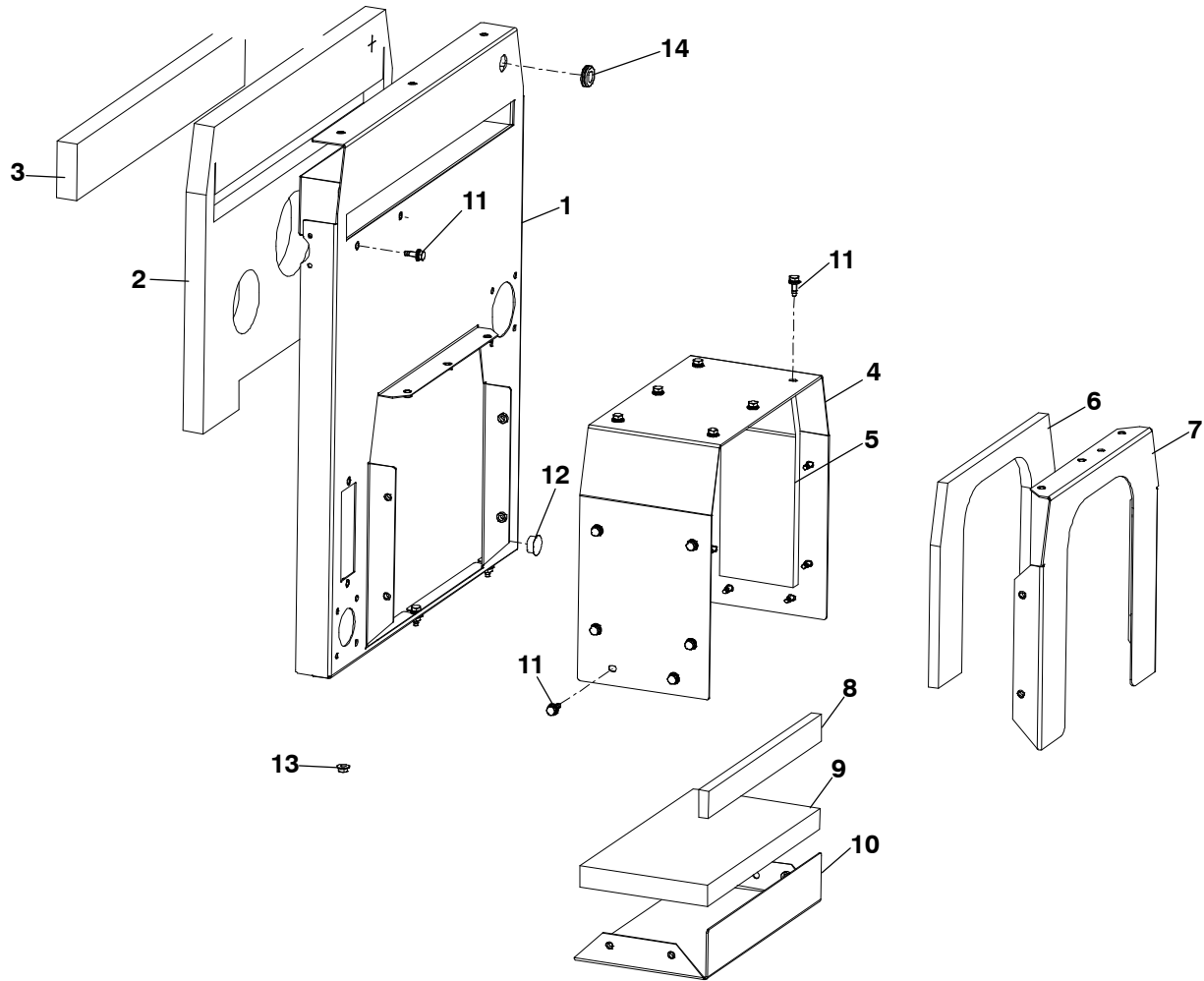
## Engine Sound Shield MDKBP and MDKBR (Spec C) (Front and Rear with out PTO)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	405-7179	1	Insulation, Roof End	8	517-0138-04	1	Plug, Hole (W/O PTO)
2	404-0096-03	1	Panel, Roof End	9	517-0136	1	Plug, Hole
3	404-0092-03	1	Panel, Duct (W/O PTO)	10	508-0021	1	Grommet
4	405-6992	1	Insulation, Duct (W/O PTO)	11	406-1032	2	Catch, Door
5	404-0039-03	1	Panel, Enclosure (Front W/O PTO)	12	818-0231-01	4	Rivet, Pop
6	800-6395-01	16	Screw, Hex Head Sems (M6 x 1 x16mm)				
7	870-2065-02	2	Nut, Lock Flanged (M6)				

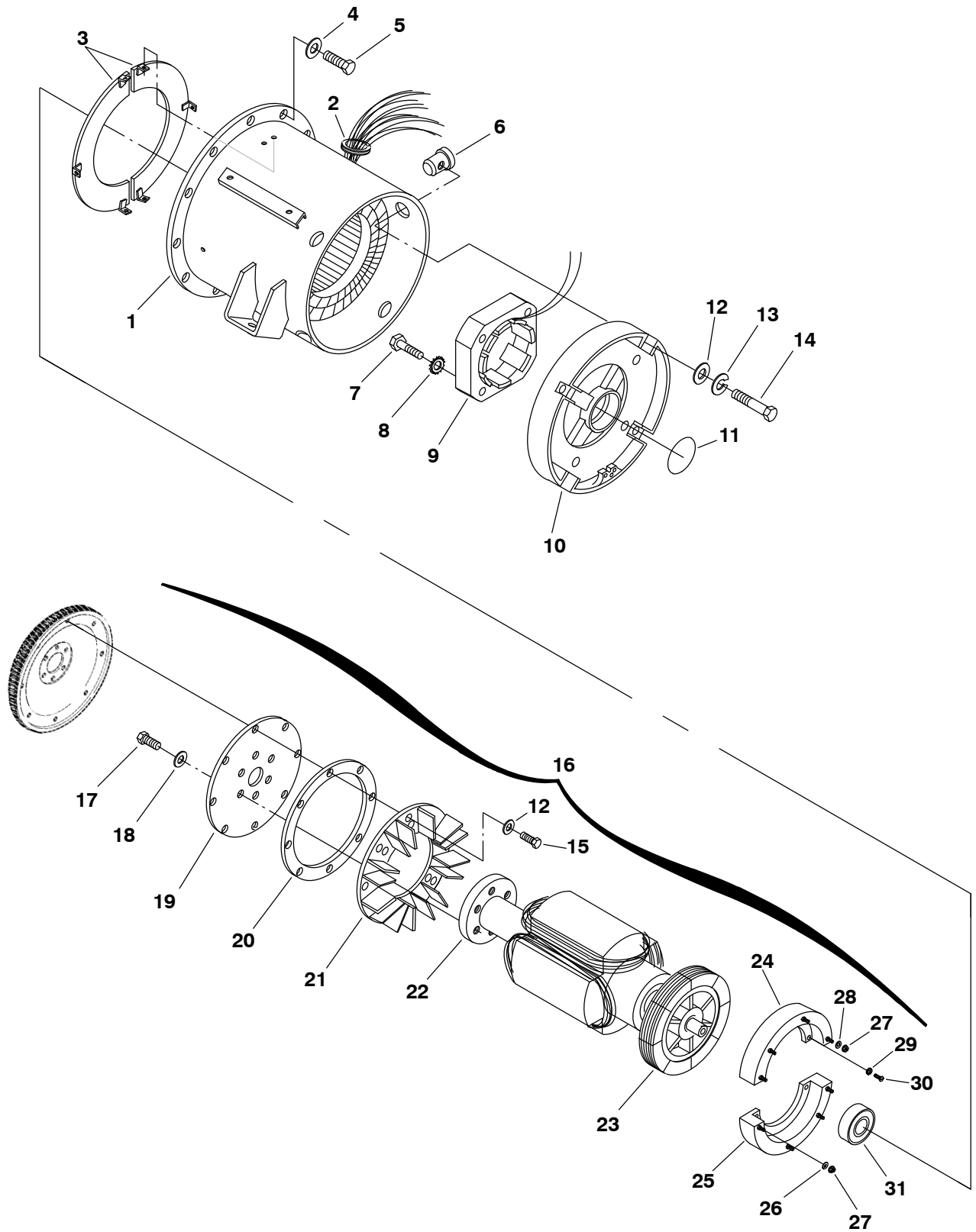


## Engine Sound Shield MDKBP and MDKBR (Spec C) (Front w/PTO)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	404-0040-03	1	Panel, Enclosure (Front PTO)	9	405-6819	1	Insulation, Sound (PTO)
2	404-0099	1	Insulation, Panel (PTO)	10	190-0893-03	1	Guard, PTO
3	404-0100	1	Insulation, Enclosure (PTO)	11	800-6395-01	24	Screw, Hex Head Sems (M6 x 1 x 16mm)
4	190-0890-03	1	Guard, PTO	12	517-0136	1	Plug, Hole
5	404-0160	1	Insulation, Sound (PTO)	13	870-2065-02	3	Nut, Hex Flanged (M6)
6	404-0161	1	Insulation, Sound (PTO)	14	508-0021	1	Grommet
7	190-0891-03	1	Guard, PTO				
8	404-0159	1	Insulation, Sound (PTO)				

# Generator

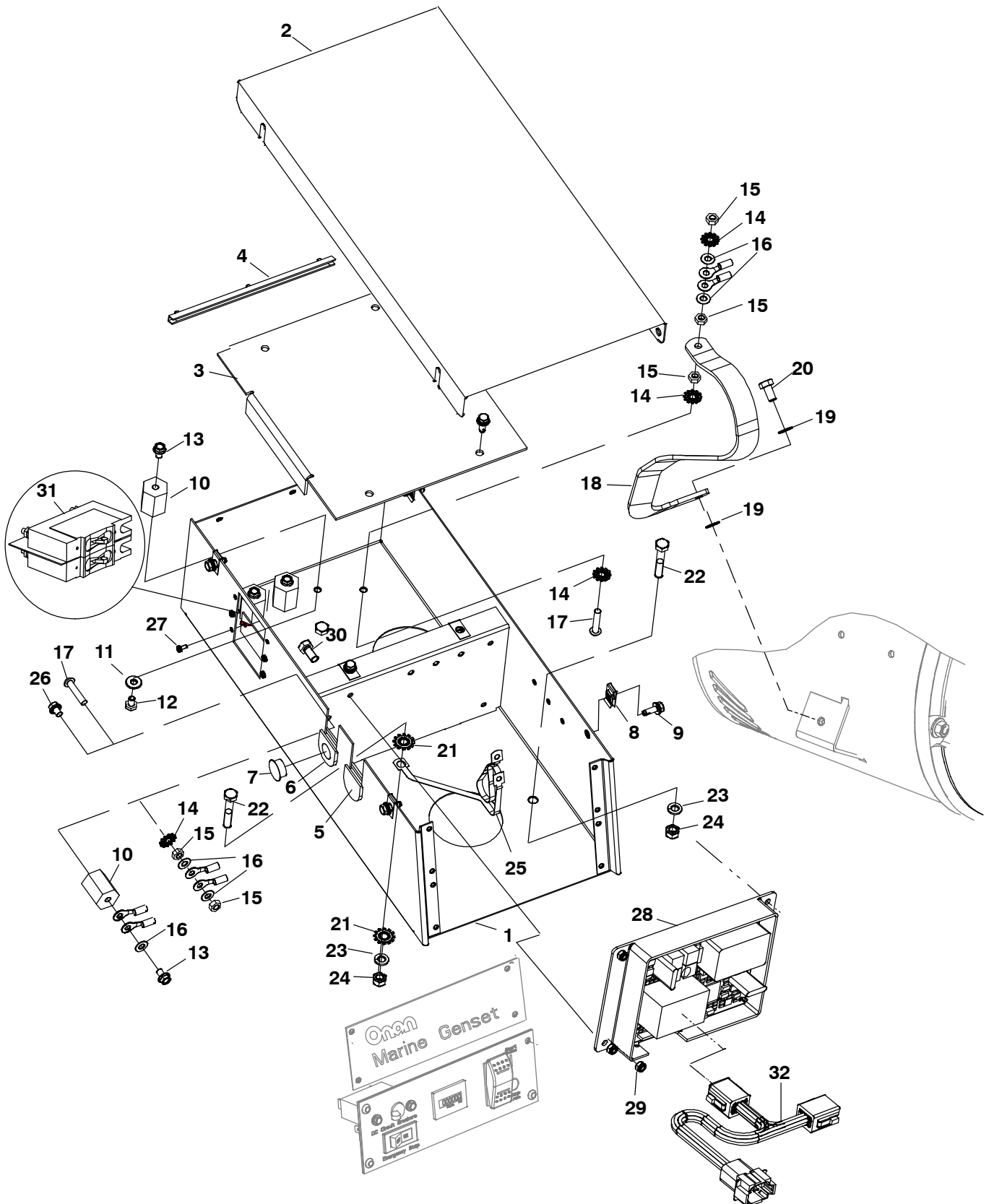


## Generator

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 MDKBP, MDKBR (.50-13 UMC x 1.0")
	220-4618-02	1	MDKBP		800-3010-64	6	
	220-4618-04	1	MDKBR		800-3017-52	6	MDKBS (M12 x 1.75 20mm)
	220-4618-06	1	MDKBS	18			*Washer, Flat MDKBP, MDKBR
			Three Phase				(.50")
	220-4619-02	1	MDKBP		526-0399-44	6	MDKBS
	220-4619-04	1	MDKBR		526-0399-73	6	(M12)
	220-4619-06	1	MDKBS	19			*Disc, Drive MDKBP, MDKBR
2	508-1073	1	Grommet		232-3672-03	1	MDKBS
3	234-0935-02	2	Baffle, Air (3 Phase)		232-3945	1	
4	526-0174	12	Washer, Flat (3/8)	20	232-3826-02	1	*Spacer, Fan
5	800-0051	12	Screw, Hex Head Cap (3/8-16 x 1-1/4)	21	205-0229-02	1	*Fan, Generator
6	232-3706-02	4	Retainer, Endbell	22			*Hub, Drive MDKBP, MDKBR
7	815-0935	4	Screw, Hex Head Thread Forming (1/4-20 x 2")		232-3705-01	1	MDKBS
			Washer, ET Lock (1/4")		232-3815-04	1	
8	853-0013	4	Washer, ET Lock (1/4")	23	201-3515-02	1	*Rotor, Wound (Excitor)
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	870-0131-01	6	*Nut, ET Hex (.190-32)
13	850-0114-06	4	Washer, Lock (5/16")	28	526-0399-11	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	MDKBP				
	201-3517-04	1	MDKBR				
	201-3517-06	1	MDKBS				

\* - Parts Included in Generator Rotor Assy.

# Control Box (Spec A-B)

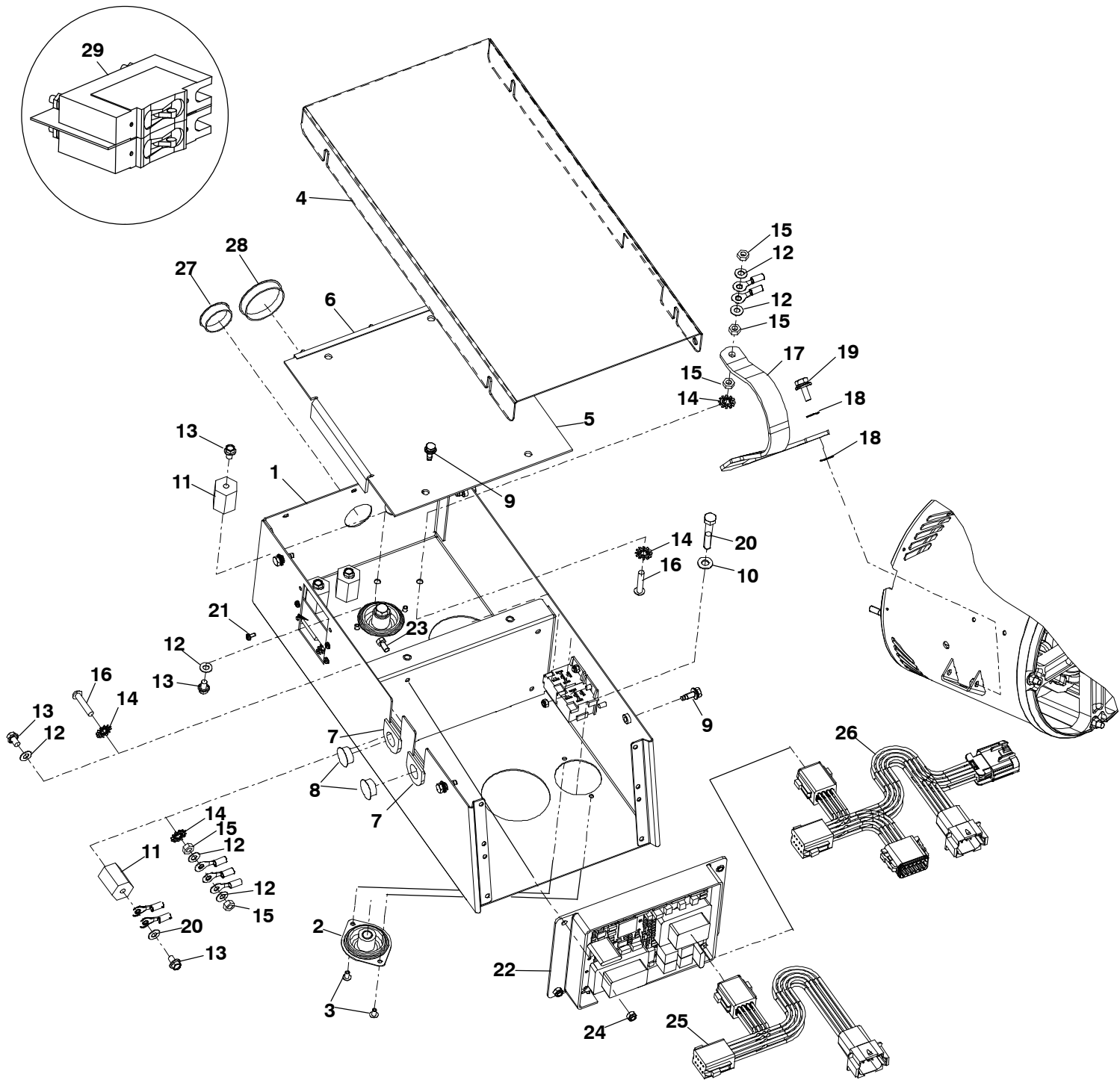


## Control Box (Spec A-B)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	319-5503-03	1	Control, Box	18	337-2795	1	Strap, Bond
2	319-4370-03	1	Cover, Control	19	853-0016	2	Washer, Lock
3	319-4404	1	Cover, Control	20	800-3017-18	1	Screw, Hex Head Cap (M8 x 1.25 x 16mm)
4	332-3750	1	Guide, Card	21	856-0008	2	Washer, EIT(5/16")
5	508-1105-01	1	Grommet, Remote	22	800-6062	3	Screw, Hex Head Cap (M8 x 1.25 x 45mm)
6	508-1105	1	Grommet, Remote	23	850-2058	3	Washer, Split Lock Stainless (M8)
7	517-0136	1	Plug, Hole	24	860-2058	3	Nut, Hex Stainless (M8 x 1.25mm)
8	870-2228	6	Clip, Nut	25	337-3508	1	Strap, Bond
9	821-6006-01	6	Screw, Hex Head Sems Stainless (M6 x 1 x 16mm)	26	821-0008	1	Screw, Locking Head Iso Gnd(1/4-20 x .31")
10			Standoff, Insulator	27			Screw, Pan Head XREC (6-32 x .31)
	332-2370	2	Neg Gnd Single Phase		815-0550-01	4	Single Phase
	332-2370	3	Neg Gnd Three Phase		815-0550-01	6	Three Phase
			Iso Gnd Single Phase	28			Assy, NIM PCB NIM /J1939
	332-2370	4	Iso Gnd Three Phase		327-1659-01	1	NIM /Smartcraft
11			Washer, Flat (1/4-20)	29	870-2062	4	Nut, Nylon Lock (M5) J1939 /Smartcraft
	526-0399-13	2	Single Phase	30	800-6002	4	Screw, Hex Head Sems (M5 x .8 x 10mm)
	526-0399-13	3	Three Phase	31			J1939 /Smartcraft Breaker, Circuit 30Amps MDKBP
12			Screw, Hex Head Cap (1/4-20 x .375")		320-1689-60	1	45Amps MDKBR
	800-0310-01	2	Single Phase		320-1689-07	1	55Amps MDKBS
	800-0310-01	3	Three Phase	32	338-4491	1	Harness, Accessory (NIM)
13			Screw, Hex Flange (1/4-20 x 3/8")				
	821-0009	2	Neg Gnd Single Phase				
	821-0009	3	Neg Gnd Three Phase				
			Iso Gnd Single Phase				
	821-0009	4	Iso Three Phase				
14			Washer, Lock (1/4")				
	856-0006	4	Neg Gnd				
	856-0006	3	Iso Gnd				
15			Nut, Hex Brass (1/4-20)				
	871-0016	5	Neg Gnd				
	871-0016	3	Iso Gnd				
16			Washer, Flat Brass (1/4")				
	526-0052	4	Neg Gnd				
	526-0052	3	Iso Gnd				
17			Screw, Brass (1/4-20 x 1.25")				
	810-0155	2	Neg Gnd				
	810-0155	1	Iso Gnd				

SmartCraft is a trademark of the Brunswick Corporation.

# Control Box (Spec C)

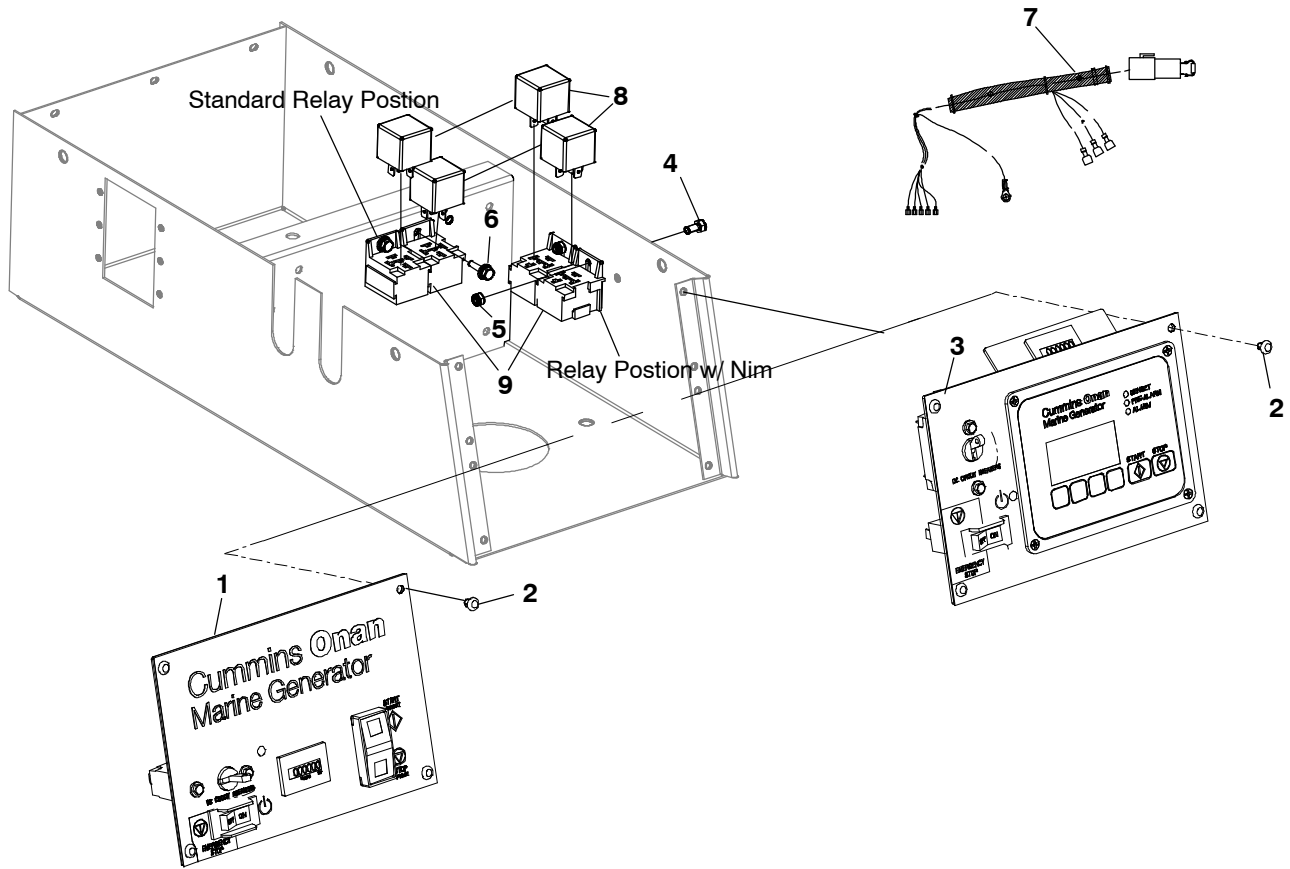


## Control Box (Spec C)

REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	A029A758	1	Control, Box	19	821-6003-01	1	Screw, Hex Head Sems (M8 x 1.25 x 16mm)
2	402-0681-01	3	Isolator, Vibration	20	800-6062	3	Screw, Hex Head Cap (M8 x 1.25 x 45mm)
3	A030F179	6	Rivet, Flathead	21			Screw, XREC Phillips (#6-23 x .312")
4	319-6228-03	1	Cover, Box Control		815-0550-03	4	Neg GND 1 Phase 12 & 24V
5	319-4404	1	Cover				ISO GND 1 Phase 12 & 24V
6	332-3750	1	Guide, Card		815-0550-03	6	Neg GND 3 Phase 12 & 24V
7	508-1105	2	Grommet, Remote				ISO GND 3 Phase 12 & 24V
8	517-0136	2	Plug, Hole	22			PCB
9	A030B088	6	Screw, Hex Head Sems (M6 1.0 x 16mm)		327-1686-01	1	NIM/J1939
10	526-2100	3	Washer, Flat (M8)		327-1686-02	1	NIM/SmartCraft
11			Standoff, Insulator		327-1686-03	1	NIM/SmartCraft 2
	332-2370	2	Neg GND 1 Phase 12 & 24V	23	800-6002	4	Screw, Hex Head (M5 x 0.8 x 10mm)
	332-2370	3	Neg GND 3 Phase 12 & 24V	24	870-2062	2	Nut, Nylon Locking (M5)
			ISO GND 1 Phase 12 & 24V	25	338-4491	1	Harness, Accessory (J1939 / SmartCraft)
			ISO GND 3 Phase 12 & 24V	26	338-4982	1	Harness, Accessory (SmartCraft 2)
12			Washer, Flat (6.75ID x 14.30D x .8mm)	27	517-0138-05	1	Plug, Hole
	526-0052	6	Neg GND 1 Phase 12 & 24V	28	517-0138-08	1	Plug, Hole
	526-0052	7	Neg GND 3 Phase 12 & 24V	29			Breaker, Circuit MDKBP
	526-0052	8	ISO GND 1 Phase 12 & 24V		320-1689-04	1	30Amps
	526-0052	9	ISO GND 3 Phase 12 & 24V		320-1689-05	1	35Amps
13			Screw, Locking Head (1/4-20UNC x 14.30D x .8)		320-1689-12	1	55Amps
	821-0009	4	Neg GND 1 Phase 12 & 24V		320-1689-06	1	MDKBR
			ISO GND 1 Phase 12 & 24V		320-1689-07	1	40Amps
	821-0009	6	Neg GND 3 Phase 12 & 24V				45Amps
			ISO GND 1 Phase 12 & 24V		320-1689-08	1	MDKBS
	821-0009	8	ISO GND 3 Phase 12 & 24V		320-1689-09	1	50Amps
14	856-0006	4	Washer, ETIT Locking (1/4")		320-1689-12	1	55Amps
15	871-0016	5	Nut, Hex (1/4-20")				70Amps
16	810-0155	2	Screw, Round Head (1/4-20UNC x 1.25")				
17	337-2795	1	Strap, Bond				
18	853-0016	2	Washer, ET Locking (5/16")				

SmartCraft is a trademark of the Brunswick Corporation.

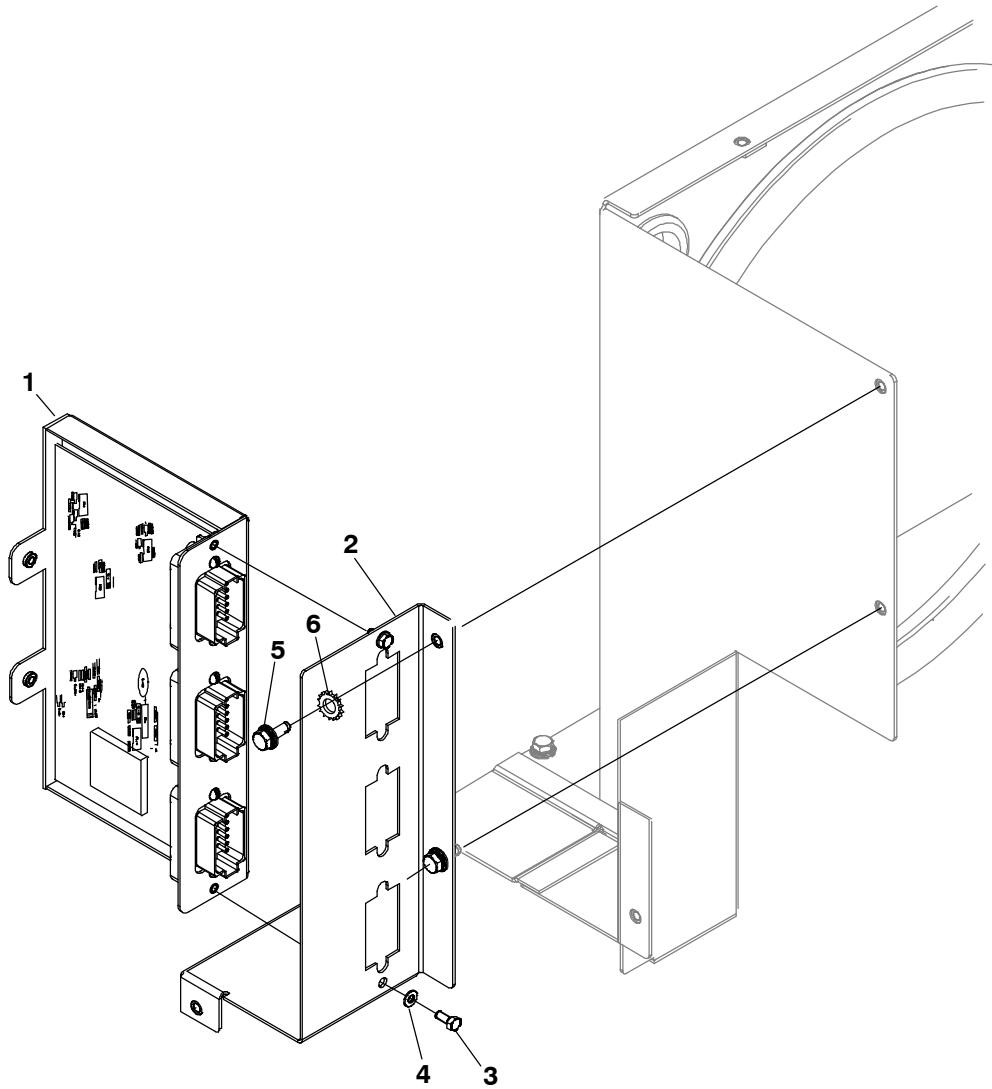
## Control Panel Components



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1			Assy, Engine Panel (Spec C See Control Panel for Parts)	6	821-6001-03	2	Screw, Hex Head Sems (M5 x .8 x 16mm) (Non NIM)
	300-6362-03	1	12V	7			Harness, Control
	300-6362-04	1	24V		338-4213	1	N/A
2	818-1150-03	8	Rivet, Drive Plastic (Std)		338-4414	1	Non Nim
3	300-6363-01	1	Assy, Control (Spec C)		338-4414	1	Nim
4	800-6002	2	Screw, Hex Head Cap (M5 x .8 x 10mm)	8			Relays
			(NIM)		307-2767	2	12V
5	870-2062	2	Nut, Nylon Lock (M5) (NIM)		307-2819	2	24V
				9	323-1563	2	Contact, Relay

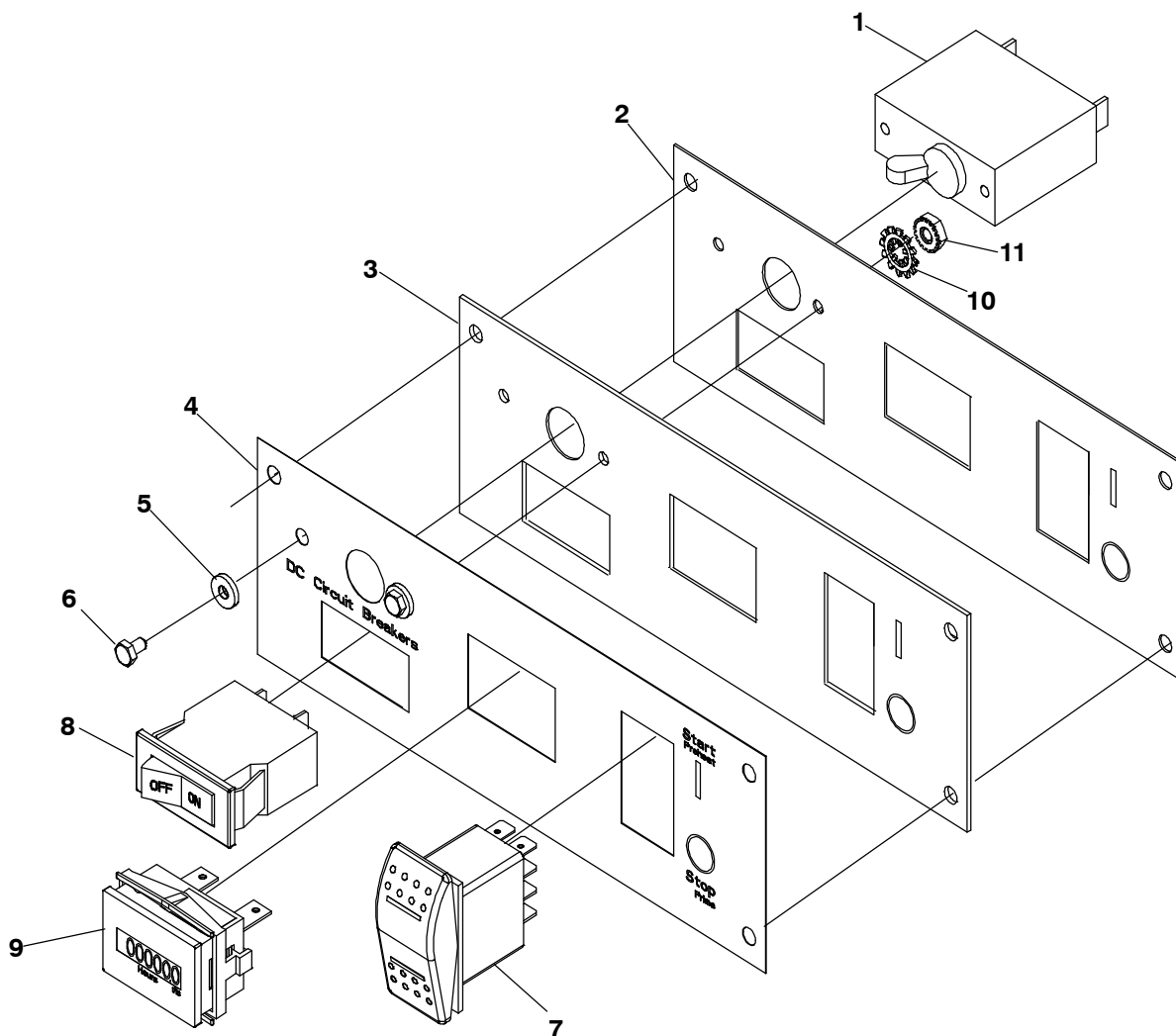


## PCB Mounting



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	327-1691		PCB, Control	5		2	Screw, Hex Head Sems
2			Panel, UMC Mounting				Stainless (M6 x 1 x 16mm)
	405-6522-03	1	Spec A-B	800-6033	2		Spec A-B
	404-0022-03	1	Begin Spec C	800-6395-01	2		Begin Spec C
3	800-3042	2	Screw, Hex (M4)	6	853-2006	2	Washer, ET (M6) (Spec A-B)
	800-3042	2	Spec A-B				
	800-6395-01	2	Begin Spec C				
4	526-2050	2	Washer, Flat (M4)				

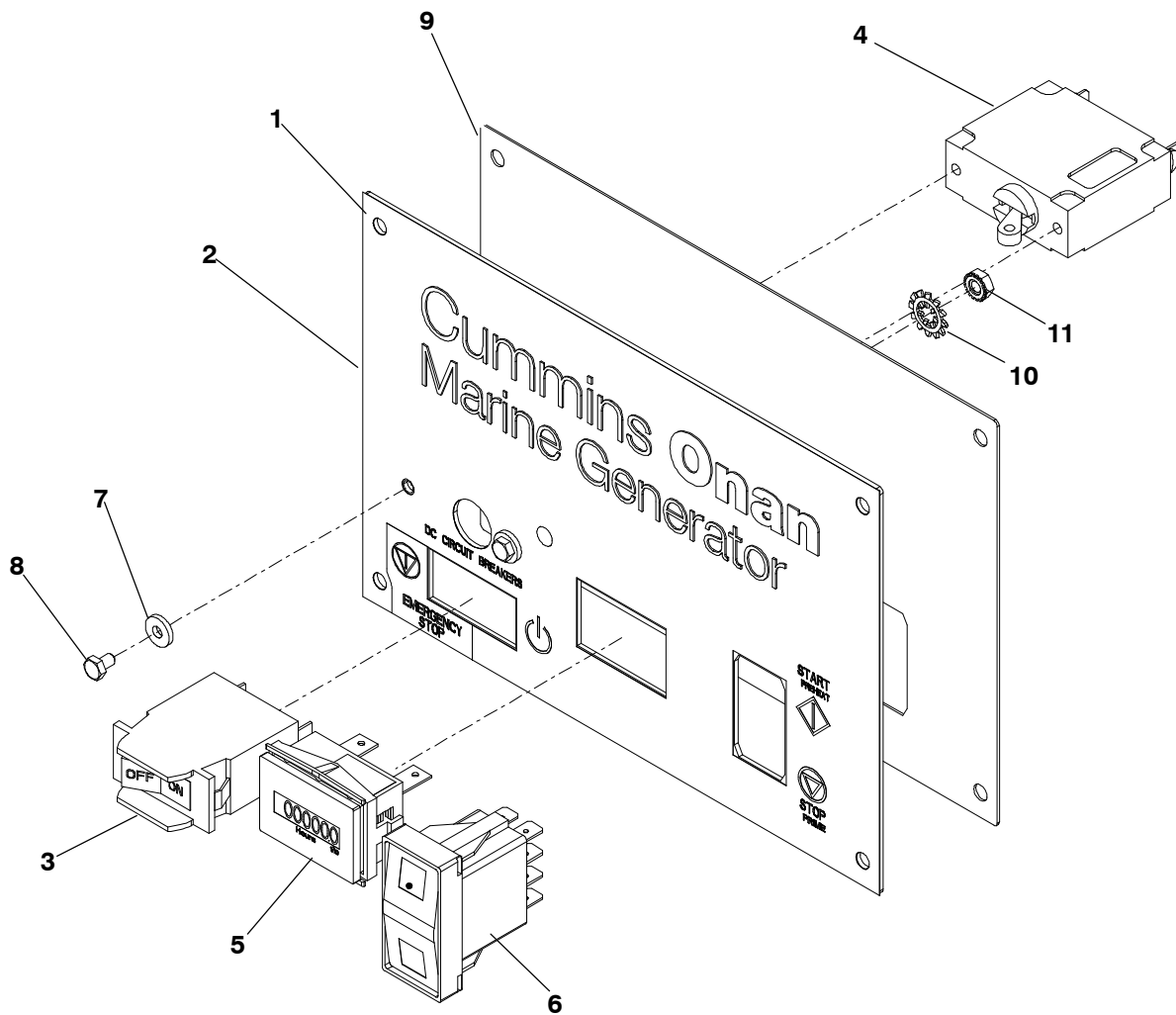
## Control Panel Components (Breaker Switch Option Spec A-B)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Assy, Engine Panel (All Parts Included)	7			Switch, Rocker SPDT
	300-5476-05	1	12V	308-1102	1		24VDC
	300-5476-06	1	24V	308-1101	1		12VDC
1	320-1862-01	1	Breaker, Circuit (50 Amp)	8	320-1140	1	Breaker, Circuit (15 Amp)
2	319-4467-02	1	Panel, Control (Ground)	9	302-2048	1	Meter, Hour
3	319-4368-06	1	Panel, Control	10	856-0003	1	Washer, EIT Lock (#10)
4	98-7781	1	Label, Control	11	870-0131	1	Nut, Sems EIT
5	526-1002	2	Washer, Flat (#6)				
6	800-0309-10	2	Screw, Hex Head (6-32 x 1/4'')				

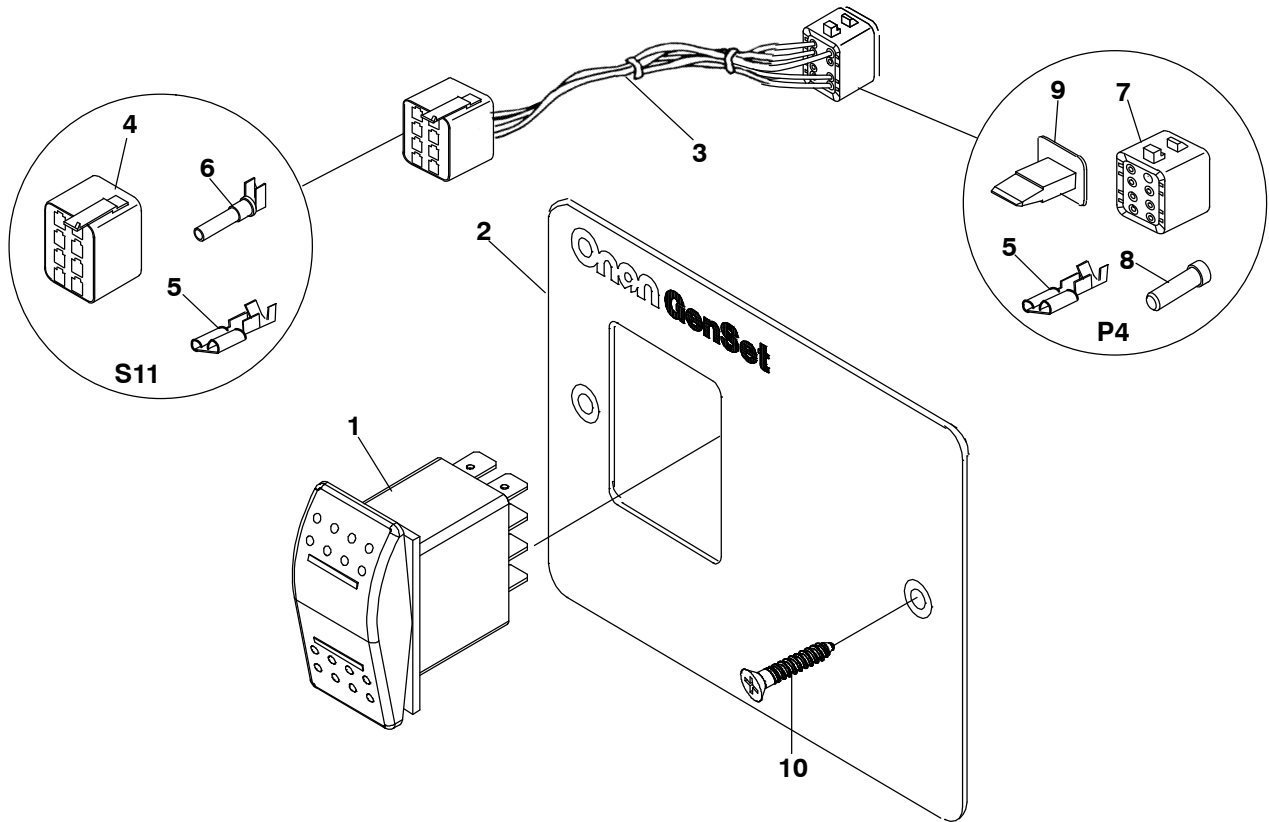
\* - See Control Box for Location.

## Control Panel Components (Breaker Switch Option Spec C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Assy, Engine Panel (All Parts Included)	6			Switch, Rocker
	300-6362-03	1	12V		308-1218	1	12VDC
	300-6362-04	1	24V		308-1219	1	24VDC
1	300-6362-04	1	Panel, Control	7	526-1002	2	Washer, Flat DAC
2	98-8713	1	Label, Information (Control)	8	800-0309-10	2	Screw, Hex Head Mach (6-32 x 1/4")
3	320-2361	1	Breaker Circuit	9	319-6873	1	Panel, Control Box (Ground)
4	320-2362	1	Breaker Circuit	10	656-0003	1	Washer, EIT Lock (#10)
5	302-2048	1	Meter, Hour	11	870-0131	1	Nut, Sems EIT (#10-32)

## Remote Control Panel

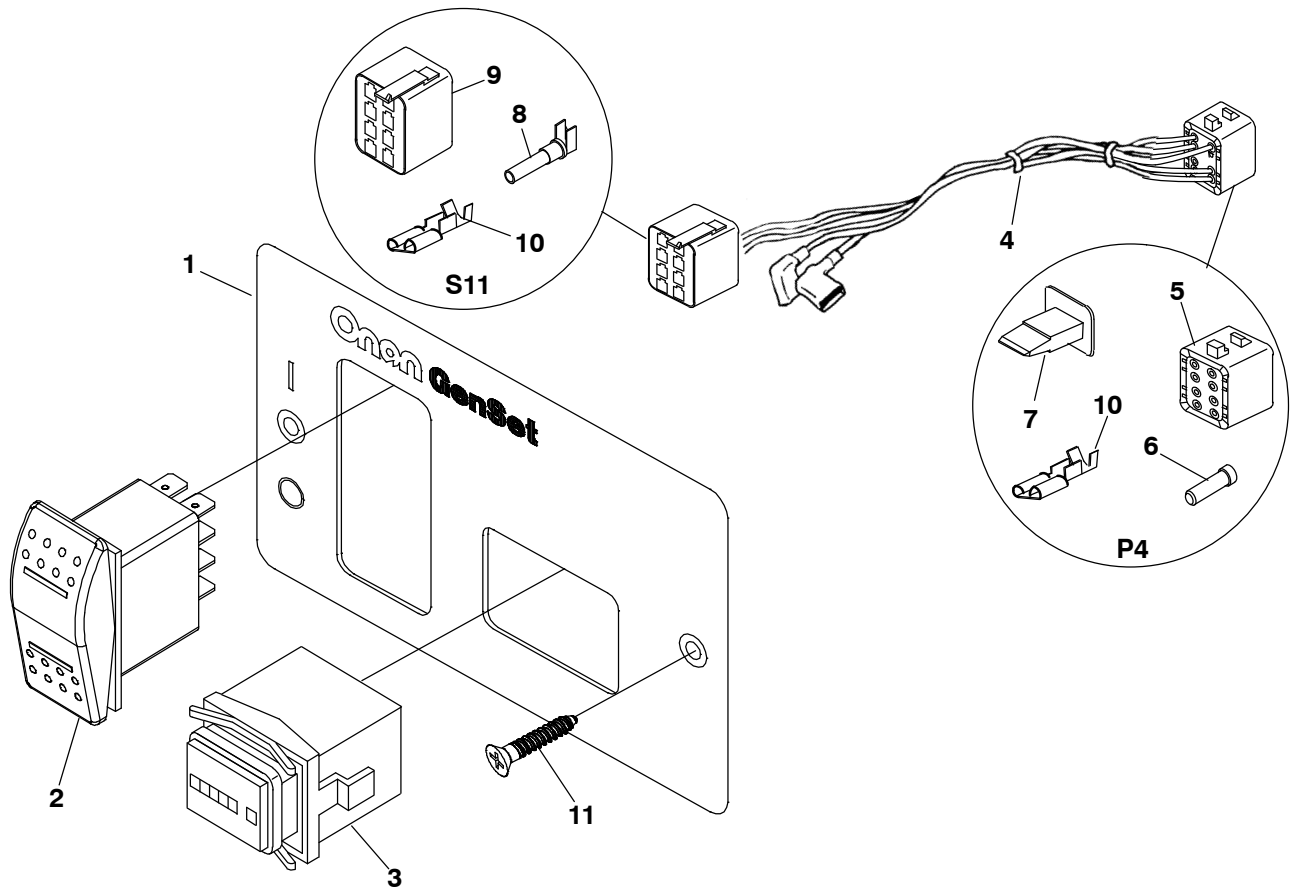


REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
			Kit, Remote Switch Harness (Includes Parts Marked +)	6	323-1492	6	*Terminal, Socket
	541-0941-01	1	12V	7	323-1541	1	*Plug, (8 Pin)
	541-0941-02	1	24V	8	323-1491	3	*Plug, Seal
			Kit, Panel Remote (Includes Parts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

# - Parts Included in Remote Panel.

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

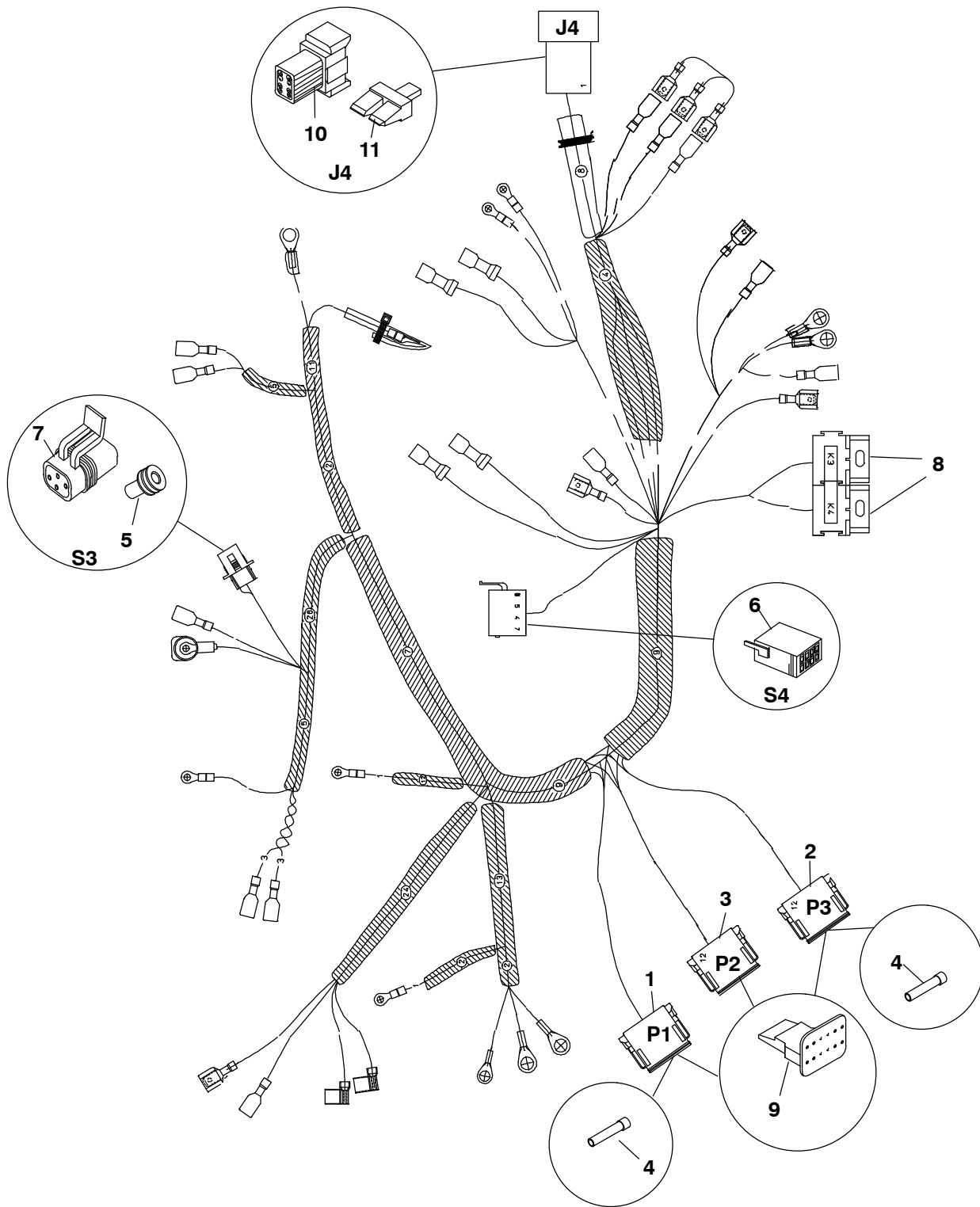
## Remote Control Panel w / Hour Meter



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

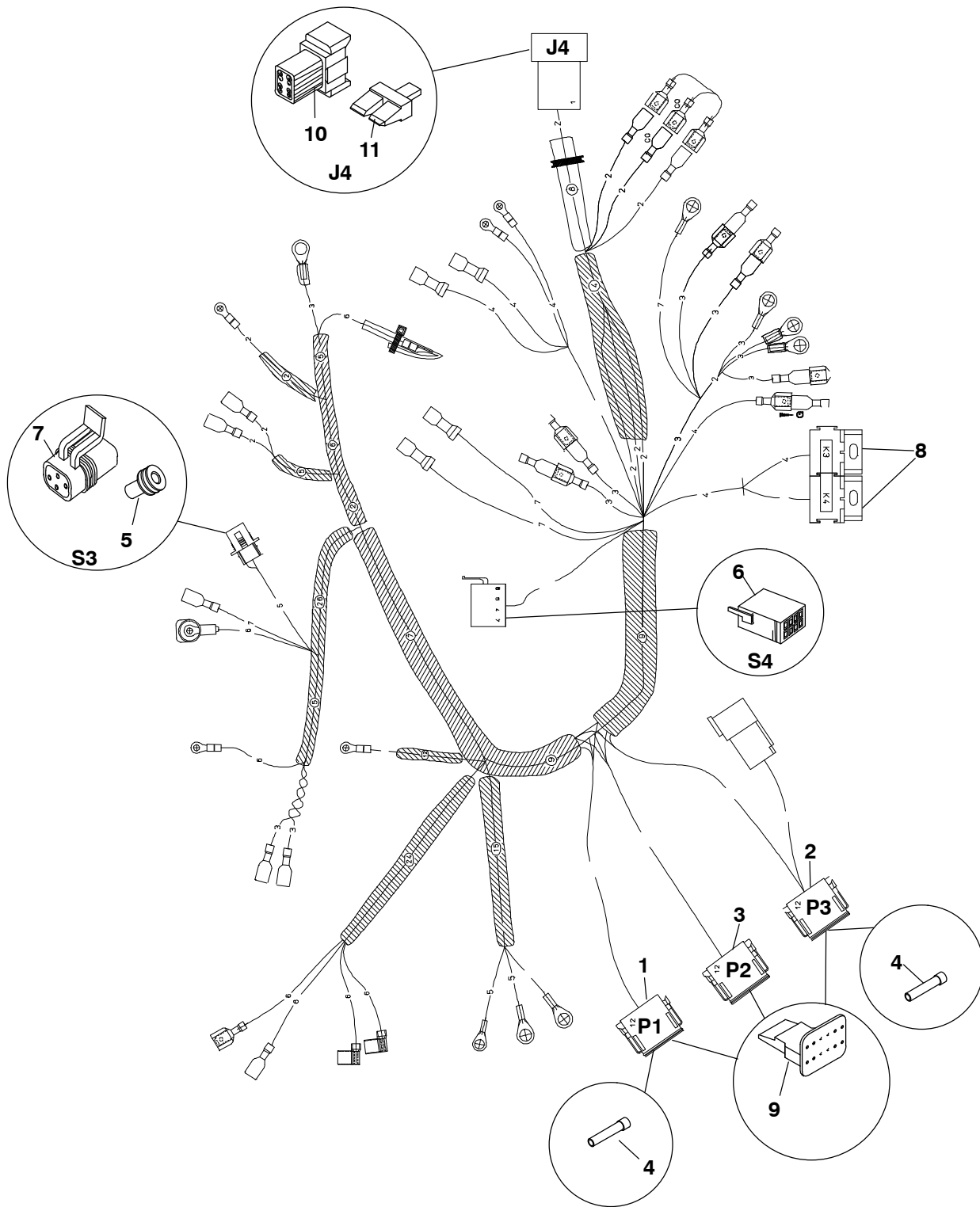
\* - Parts Included in Remote Panel Wiring Harness.

## Control Harness (Spec A-B)



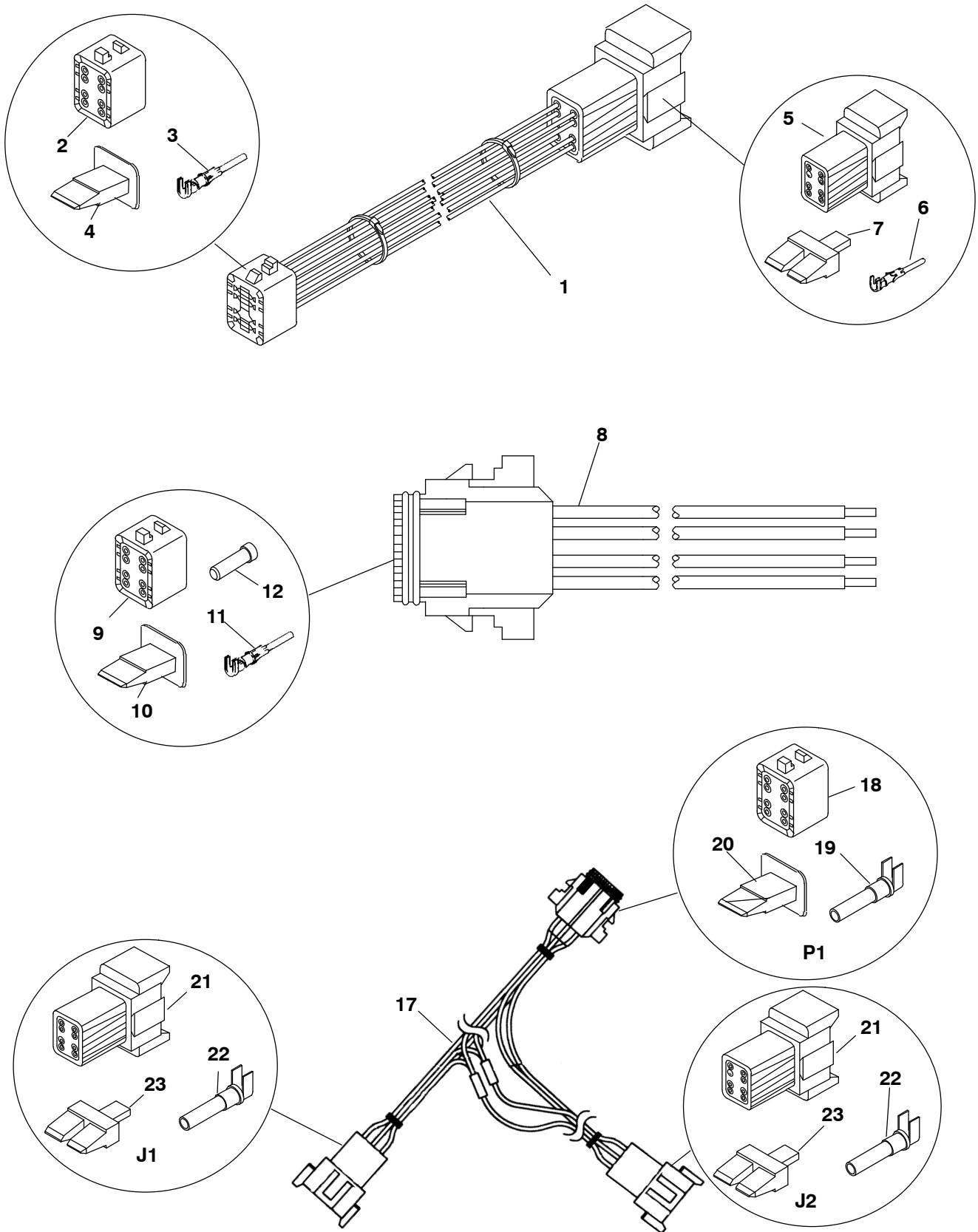
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4412	1	Harness, Control	7	323-1765	1	Connector, Housing 4 Pin (S3)
1	323-1582-06	1	Plug (12 Pin, Black P1)	8	323-1563	1	Socket, Relay
2	323-1582-05	1	Plug (12 Pin, Gray P2)	9	323-1583	3	Plug, Wedge 12 Pin, P1, P2, P3
3	323-1582-07	1	Plug (12 Pin, Green P3)	10	323-1542	2	Connector, Receptacle 8 Pin (J4, J8)
4	323-1591	AR	Plug (P1)	11	323-1544	2	Receptacle, Wedge (J4, J8)
5	323-1708	AR	Seal, Cable (S3)	12	98-7917	1	Label, Information (Relay)
6	308-1019	1	Switch, Connector (S4)				

## Control Harness (Spec C)



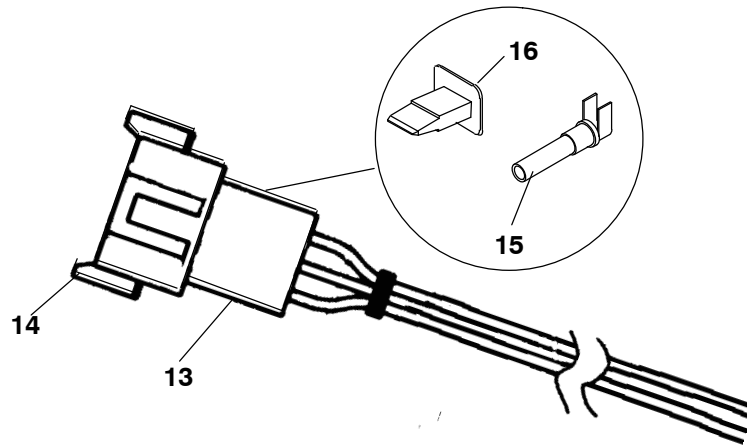
REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
	338-4952	1	Harness, Control	7	323-1765	1	Connector, Housing 4 Pin (S3)
1	323-1582-06	1	Plug (12 Pin, Black P1)	8	323-1563	1	Socket, Relay
2	323-1582-05	1	Plug (12 Pin, Gray P2)	9	323-1583	3	Plug, Wedge 12 Pin, P1, P2, P3
3	323-1582-07	1	Plug (12 Pin, Green P3)	10	323-1542	2	Connector, Receptacle 8 Pin (J4, J8)
4	323-1591	AR	Plug (P1)	11	323-1544	2	Receptacle, Wedge(J4, J8)
5	323-1708	AR	Seal,Cable(S3)	12	98-7917	1	Label, Information (Relay)
6	308-1019	1	Switch, Connector (S4)				

# Wiring Harnesses





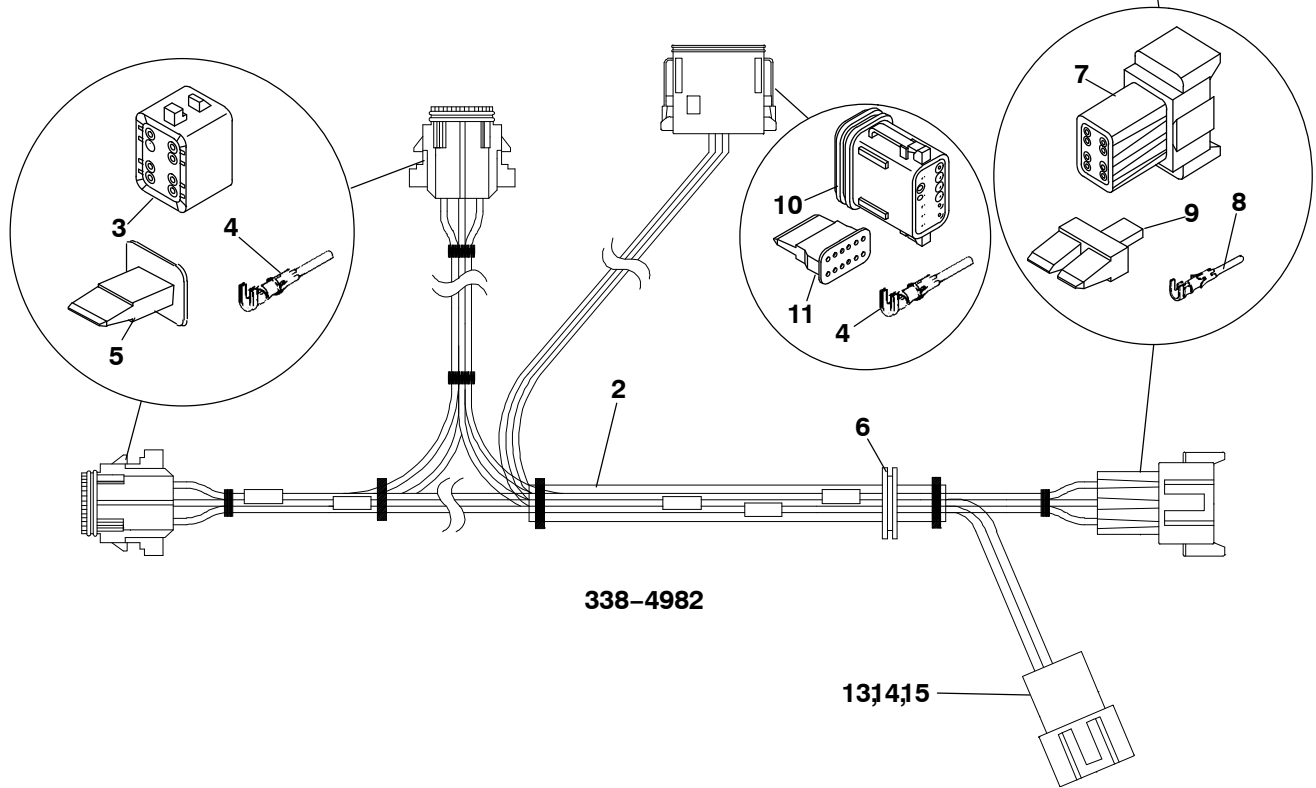
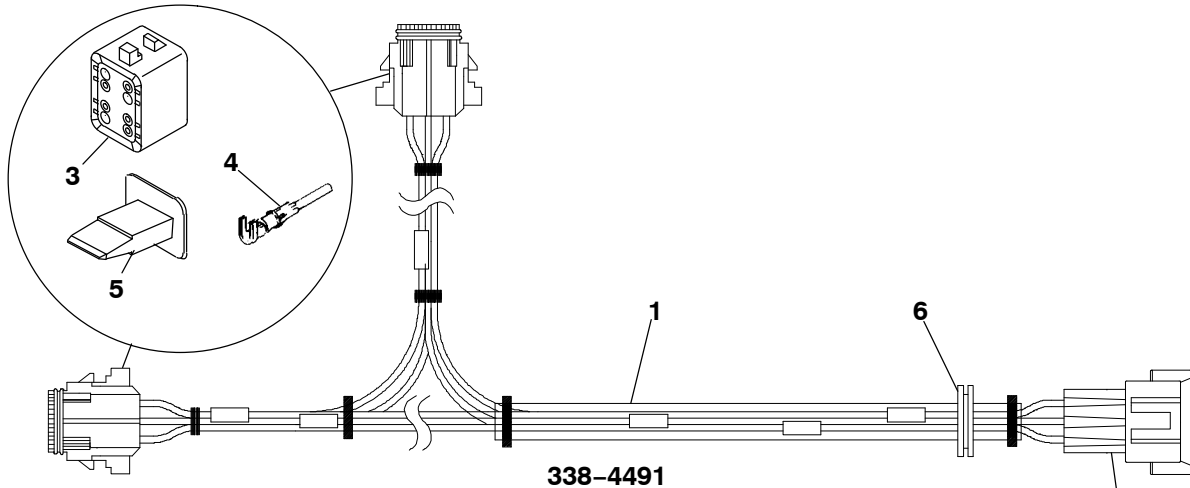
## Wiring Harnesses



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

# - 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.

## Wiring Harnesses (Spec C)



REF NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-4491		Harness, Remote (Includes Parts marked *)	8	323-1491	8	*+Terminal, Pin
2	338-4982		Harness, Remote (Includes Parts marked +)	9	323-1544	1	*+Wedge, Receptacle (8 Pin)
3	323-1541	2	*+Connector, Plug (8Pin)	10	323-1582	1	Connector, Plug (10Pin)
4	323-1492	1	*+Terminal, Socket	11	323-1583	1	Wedge, Plug (10Pin)
5	323-1543	1	*+Wedge, Plug (8 Pin)	12	323-1492	1	Terminal, Socket
6	508-1105	1	*+Grommet	13	323-2524	1	Housing, Receptacle
7	323-1542	1	*+Connector, Receptacle	14	323-2522	1	Seal, Connector
				15	332-4287	1	Terminal, Pin

## Labels, Kits

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
98-2235-02		1	Label, Ground	98-8298		1	Label, Information (No Step)
98-4798-01		1	Label, Warning (Unhoused)	98-8367-01		1	Label, Information (PTO Rear)
98-5161		1	Label, Coolant (Housed)	98-8366-01		1	Label, Information (PTO Rear)
98-8357		1	Label, Information (WD Reconnect)	98-8367-02		1	Label, Information (PTO Front)
98-5347		1	Label, Danger	98-8366-02		1	Label, Information (PTO Front)
98-8354		1	Label, Information (Service)	100-3478-04		1	Kit, Cruise Includes All of The Following Items:
98-5755		1	Label, Warning	A026K278		2	Filter, Fuel
98-6074-02		1	Label, Warning	122-0810		2	Filter, Oil
98-8067		1	Label, Information (No Step) Housed	541-1521		2	Kit Pump, Service
98-7871		2	Label, Warning (Coolant) Unhoused	185-7055		2	Belt
98-7871		1	Label, Warning (Coolant) Housed	130-4434		2	Pencil, Zinc
98-6995		4	Label, Warning (Housed)	417-0223		2	Box, Cruise Kits
98-8298		1	Label, Information (No Step)	100-3478-05		1	Kit, Cruise Includes All of The Following Items:
98-6997		1	Label, Lifting Eye (Housed)	A026K278		2	Filter, Fuel
98-7783		1	Label, Warning	122-0810		2	Filter, Oil
98-7850		2	Label, E-QD (Housed)	541-1521		2	Kit Pump, Service
98-7963		1	Rear Bulkhead Connector,	185-7055		2	Belt
98-7975		1	Rear Bulkhead Connector,	130-4434		2	Pencil, Zinc
98-7984-01		1	Label, Information (PTO, Rear)	417-0223		2	Box, Cruise Kits
98-7984-02		1	Label, Information (PTO, Front)	300-5725-01		1	Kit, Remote Panel
98-7985-01		1	Label, Information (PTO, Rear)	300-5725-02		1	Kit, Remote Panel
98-7985-02		1	Label, Information (PTO, Front)	332-3771		1	Kit, Terminal Boot
98-8362		1	Label, Information (Rear)	541-0853		1	Kit Label, Bulkhead Connectors (Spec A-B Only)
98-8363		1	Label, Information (Rear)	541-0941-01		1	Kit, Remote Switch
98-8364		1	Label, Information (Front)	541-0941-02		1	Kit, Remote Switch
98-8365		1	Label, Information (Rear)				

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