

Onan

Genset *Parts Catalog*

HDKAG



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981-0252B
10-98 (Spec A-C)
Replaces 4-96 (Spec A-C)

MODEL IDENTIFICATION

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

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

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION
AND DATE (IF APPLICABLE)

SAFETY PRECAUTIONS

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



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



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



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

PRODUCT SAFETY PRECAUTIONS



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



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



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



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

Introduction

This manual applies to the HDKAG Generator Set as listed in the Generator Set Data Table. Parts are arranged in groups of related items. Using the model and specification number from your generator set nameplate, select parts that apply to your set. Right and left sides are determined by facing the engine end (front) of the set.

Generator Set Data Table

MODEL AND SPECIFICATION	WIRING DIAGRAM NO.		ELECTRICAL DATA				
	AC	DC	VOLTS	HZ	WIRE	PHASE	FAN
8HDKAG/11378	612-6732-02	612-6635-01	Reconnectable	50	12	3	Pusher
8HDKAG/11379	612-6732-02	612-6635-01	Reconnectable	50	12	3	Suction
8HDKAG/11473	612-6637-06	612-6635-01	110/220	50	4	1	Pusher
10HDKAG/11322	612-6732-01	612-6635-01	120/240	60	4	3	Pusher
10HDKAG/11323	612-6732-01	612-6635-01	120/240	60	4	3	Suction
10HDKAG/11435	612-6637-01	612-6635-01	120/240	60	4	1	Suction
10HDKAG/11509	612-6637-07	612-6635-01	100/200	60	4	1	Pusher
10HDKAG/61730	612-6637	612-6635-01	120/240	60	4	1	Suction
10HDKAG/61731	612-6637	612-6635-01	120/240	60	4	1	Pusher
10HDKAG/61732	612-6732-01	612-6635-01	120/208	60	4	3	Suction
10HDKAG/61733	612-6732-01	612-6635-01	120/208	60	4	3	Pusher
10HDKAG/61996	612-6657	612-6635-01	120/240	60	4	1	Suction
10HDKAG/66046	612-6637-01	612-6635-01	120/240	60	4	1	Suction

* – 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 a standard model. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes.

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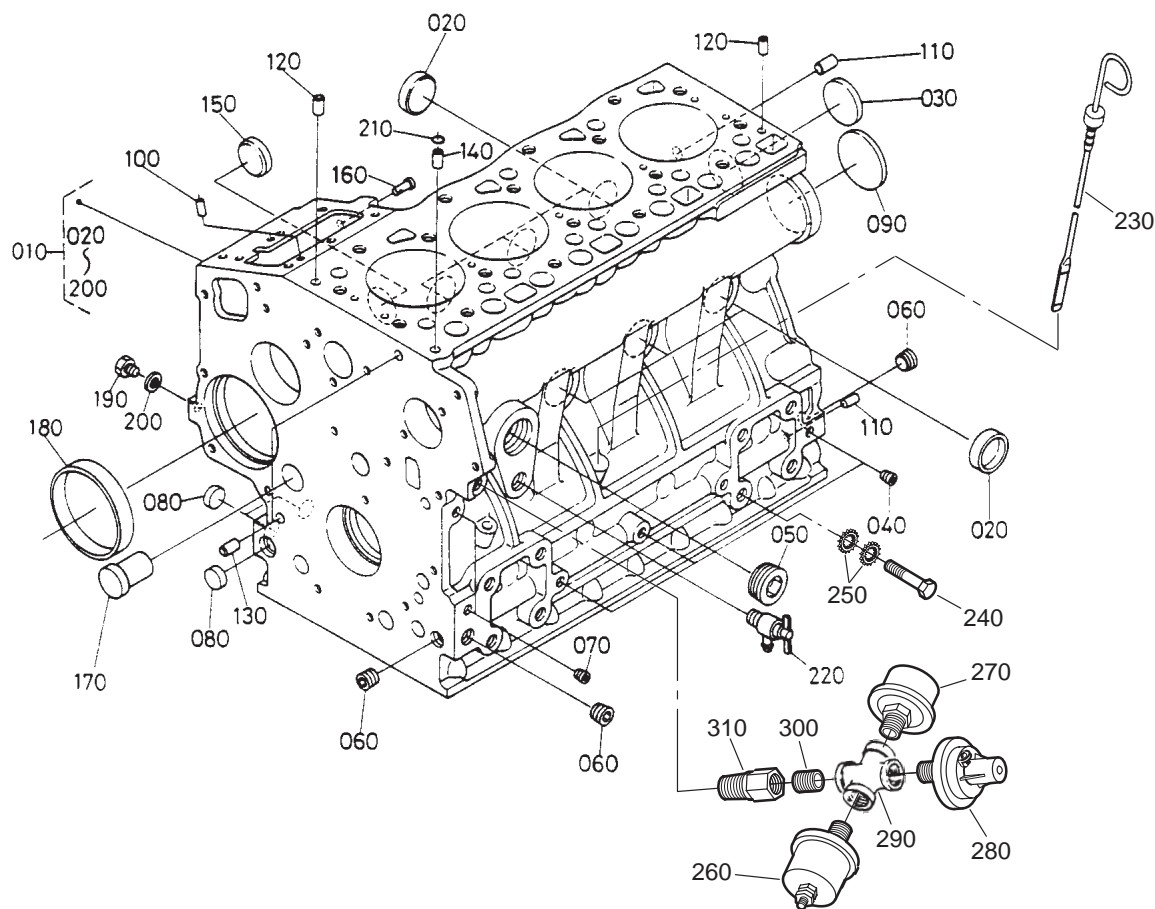
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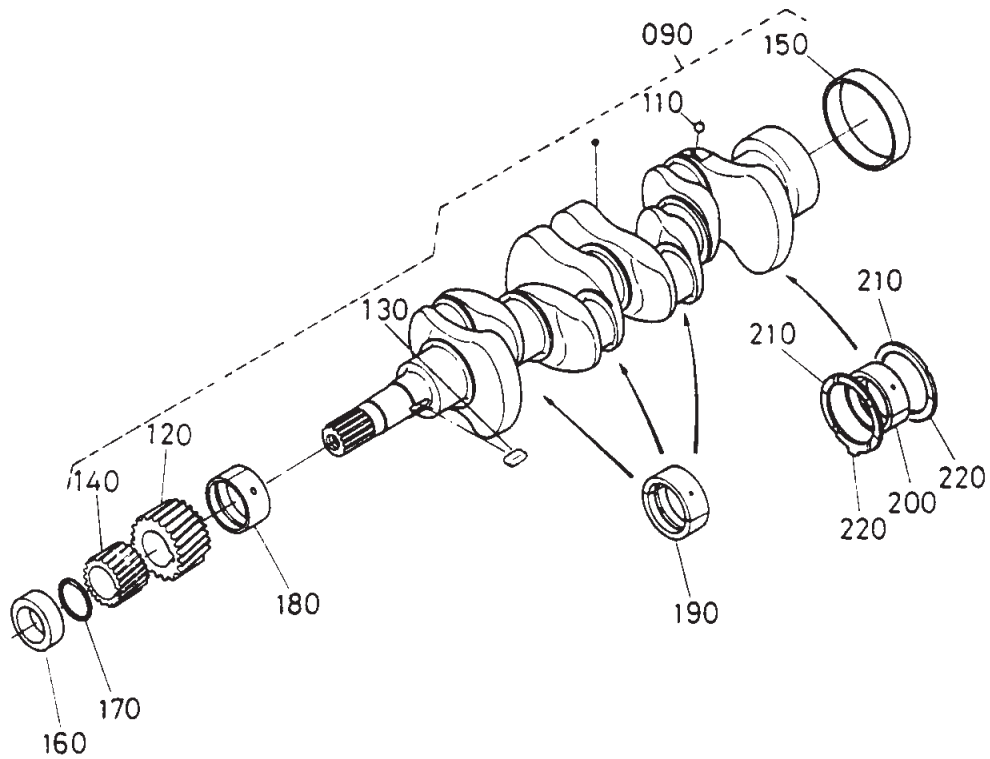
Cylinder Block



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Engine, Replacement	150	185-6470	1	* Plug
	100-3217	1	Spec A, B	160	185-2102	1	* Pin, Start Spring
	100-3384	1	Begin Spec C	170	185-6471	1	* Plug
010			Block, Cylinder (Includes Parts Marked *)	180	185-6472	1	* Bushing, Governor Gear
	185-6466	1	Spec A, B	190	185-5845	1	* Plug
	185-7245	1	Begin Spec C	200	185-2338	1	* Gasket
020	185-5484	6	* Cap, Sealing	210	185-2095	1	O'Ring
030	185-2412	1	* Cap, Sealing	220	185-5490	1	Cock, Drain
040	185-2188	4	* Plug	230	123-2019-01	1	Indicator, Oil Lever
050			* Plug	240	815-0586	1	Screw, Hex Head Cap (M10 x 1.25 x 18mm)
	185-6467	1	Spec A, B	250	856-0010	2	Washer, EIT Lock (3/8")
	185-6856	1	Begin Spec C	260	193-0244-99	1	Sender, Oil Pressure (E1)
060	185-6468	3	* Plug	270	309-0561-05	1	Switch, Pressure (S1)
070	185-2233	2	* Plug	280	309-0641-18	1	Switch, Pressure (S6)
080	185-6121	3	* Plug	290	505-0763	1	Pipe, Cross
090	185-6040	1	* Plug	300	505-0098	1	Nipple, Close
100	185-5486	2	* Pin, Straight	310	502-0917	1	Adapter, Pipe
110	185-5487	2	* Pin, Straight				
120	185-5843	2	* Pin, Straight				
130	185-2115	2	* Pin, Pipe				
140	185-6469	1	* Pin, Pipe				

* - Parts Included in Cylinder Block.

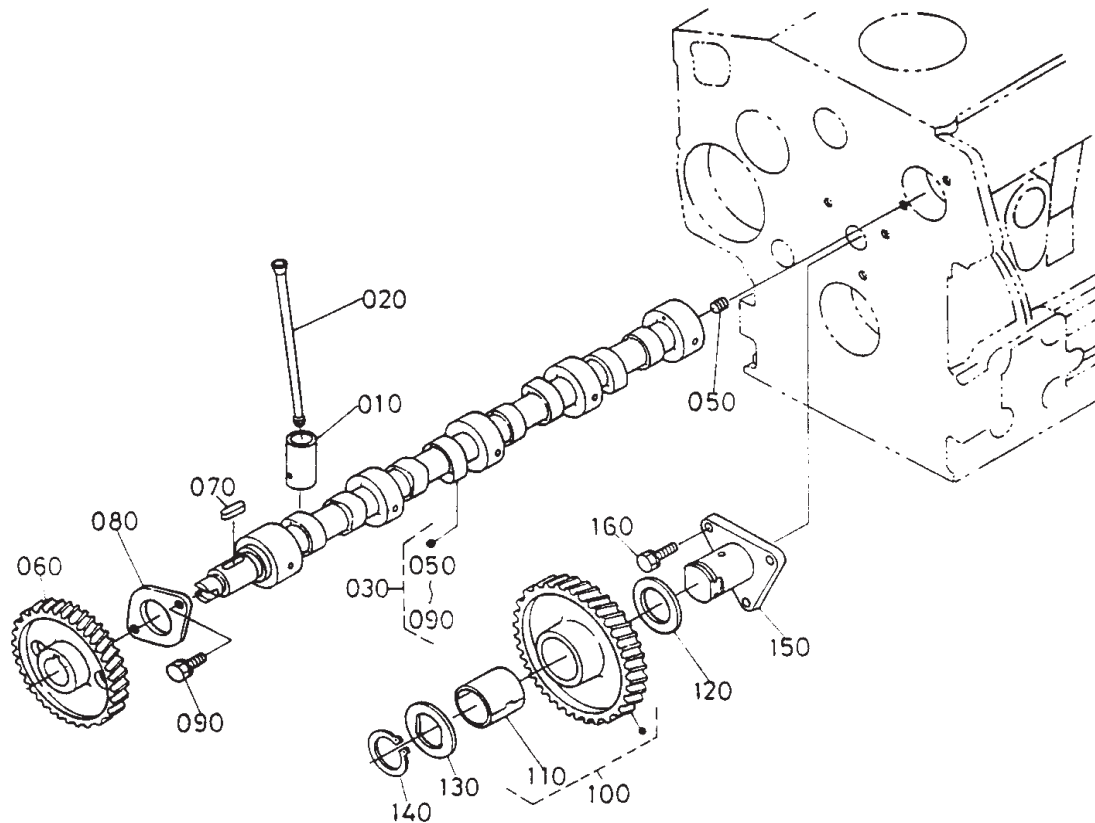
Crankshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
090	185-7249	1	Crankshaft (Includes Parts Marked *)	200			Bearing, Crankshaft
110	185-5924	4	*Ball	185-6552	1		Standard
120	185-6540	1	*Gear, Crankshaft	185-6553	1		.2mm, Undersize
130	185-6541	1	*Key	185-6554	1		.4mm, Undersize
140	185-6542	1	*Gear, Oil Pump Drive	210			Washer, Thrust
150	185-6543	1	*Sleeve, Crankshaft	185-5938	2		Standard
160	185-6544	1	Collar, Crankshaft	185-6555	2		.2mm, Oversize
170	185-6545	1	O'Ring	185-6556	2		.4mm, Oversize
180			Bearing, Crankshaft	220			Washer, Thrust
	185-6546	1	Standard	185-5941	2		Standard
	185-6547	1	.2mm, Undersize	185-5942	2		.2mm, Oversize
	185-6548	1	.4mm, Undersize	185-5943	2		.4mm, Oversize
190			Bearing, Crankshaft				
	185-6549	3	Standard				
	185-6550	3	.2mm, Undersize				
	185-6551	3	.4mm, Undersize				

* - Parts Included in Crankshaft.

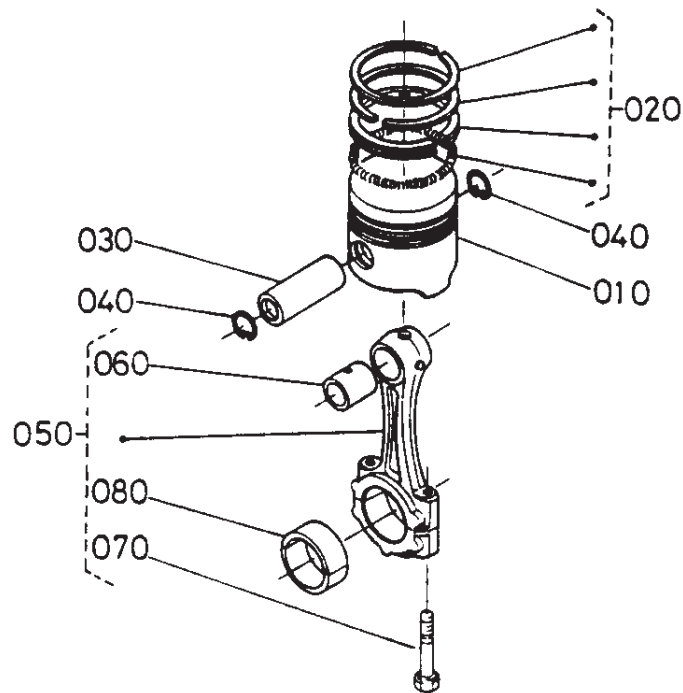
Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6516	8	Tappet	110	185-6522	1	Bushing, Idle Gear
020	185-6517	8	Rod, Push	120	185-6523	1	Collar, Idle Gear
030	185-6518	1	Camshaft Assy (Includes Parts Marked)	130	185-6524	1	Collar, Idle Gear
050	185-5558	1	*Screw, Set	140	185-6525	1	Circlip, Idle Gear
060	185-6519	1	*Gear, Cam	150	185-6526	1	Shaft, Idle Gear
070	185-5560	1	*Key, Feather	160	185-2388	3	Bolt
080	185-6520	1	*Stopper, Camshaft				
090	185-2387	2	*Bolt				
100	185-6521	1	Gear Assy, Idle (Includes Bushing)				

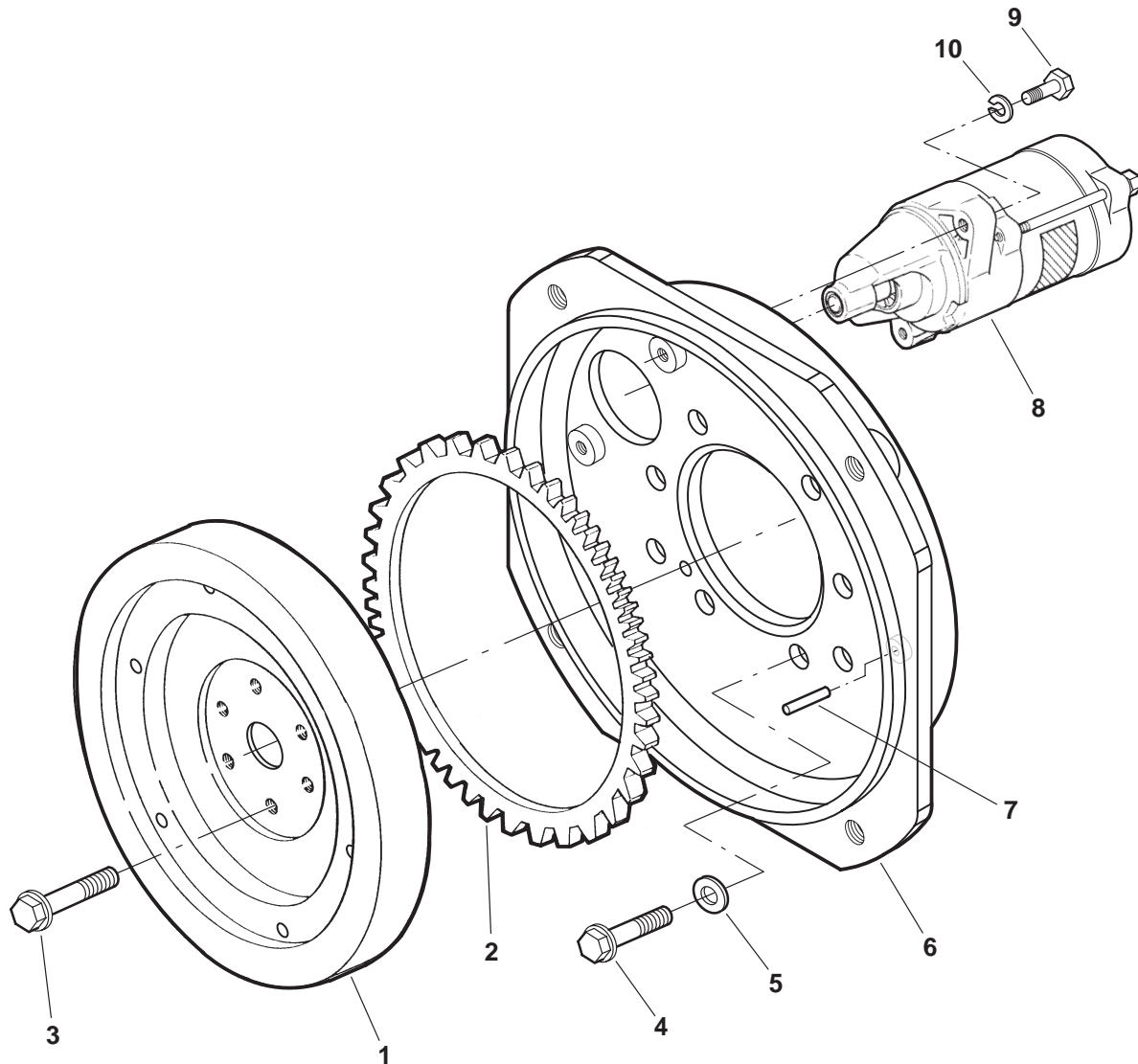
* – Parts Included in Camshaft Assy.

Piston



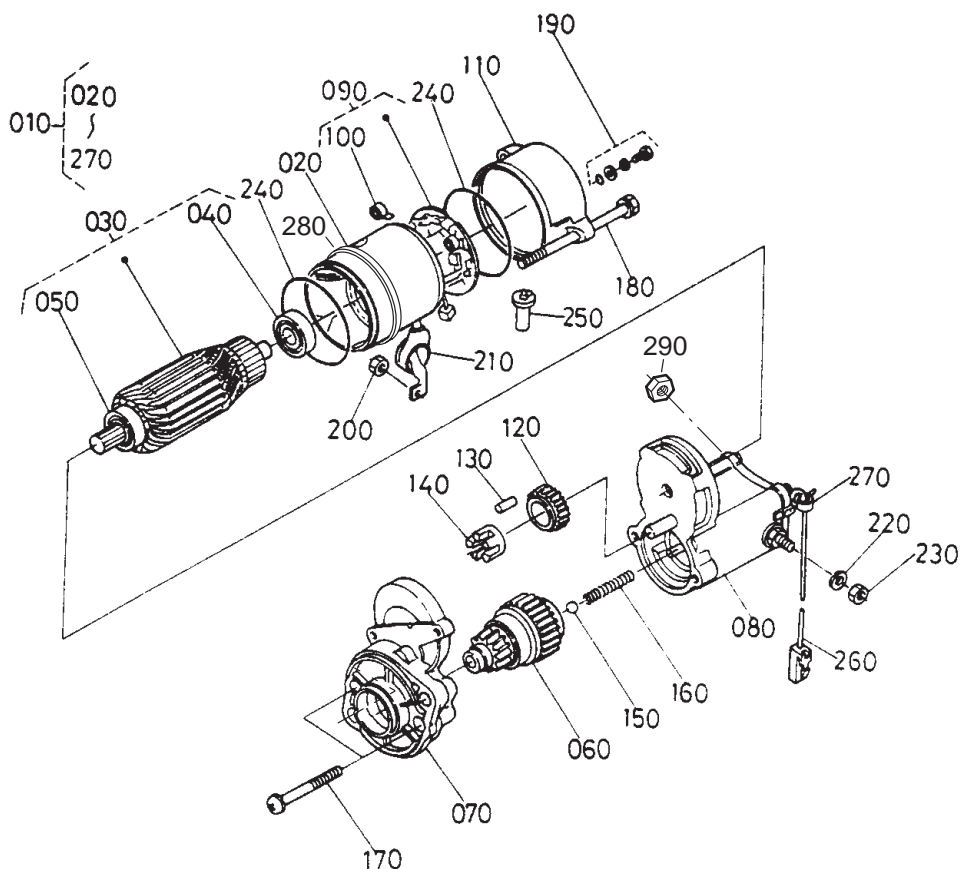
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010			Piston	050	185-6533	4	Rod Assy, Connecting (Includes Bushing, Bolt and Bearing)
	185-6745	4	Standard	060	185-6534	4	Bushing, Connecting Rod
	185-6746	4	.5mm, Oversize	070	185-6535	8	Bolt, Connecting Rod
020			Ring Set, Piston	080			Bearing, Connecting Rod
	185-6529	4	Standard		185-6536	4	Standard
	185-6530	4	.5mm, Oversize		185-6537	4	.2mm Undersize
030	185-6531	4	Pin, Piston		185-6538	4	.4mm Undersize
040	185-6532	8	Circlip, Piston Pin				

Flywheel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	104-1862	1	Flywheel Assy (Includes Ring Gear)	6	231-0353	1	Adapter Assy, Generator (Includes Dowell Pin)
2	104-1861	1	Gear, Ring	7	516-0247	1	Pin, Dowell
3	185-5477	6	Bolt, Flywheel (M10 x 1.25 x 30mm)	8	185-5479	1	Starter (See Separate Page for Components)
4	815-0600	10	Bolt, Flywheel Housing (M10 x 1.25 x 25mm)	9	800-2515	2	Screw, Hex Head Cap (M8 x 1.25 x 30mm)
5	740-1008	10	Washer, Flat (M10)	10	850-2008	2	Washer, Lock (M8)

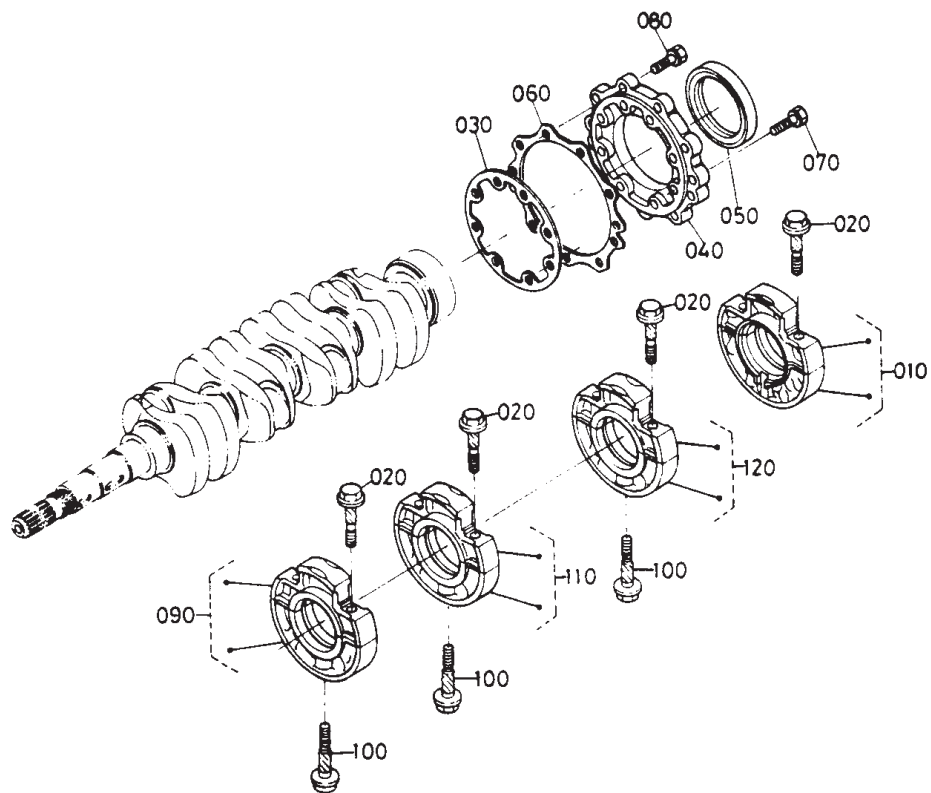
Starter Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-5479	1	Starter (Includes Parts Marked *)	160	185-6652	1	* Spring
020	185-6640	1	* Yoke	170	185-6653	2	* Bolt
030	185-6641	1	* Armature (Includes Bearings)	180	185-6654	2	* Bolt, Thru
040	185-6642	1	* Bearing	190	185-6655	2	* Bolt Assy
050	185-6643	1	* Bearing	200	185-6656	1	* Nut, Hex
060	185-6644	1	* Clutch	210	185-6657	1	* Cover
070	185-6645	1	* Housing Assy	220	185-7291	1	* Washer, Spring
080	185-6646	1	* Switch, Magnetic	230	185-6658	1	* Nut, Hex
090	185-6647	1	* Holder Assy, Brush (Includes Brush Spring)	240	185-6659	2	* O'Ring
100	185-6648	4	* Spring, Brush	250	185-6660	1	* Pipe, Drain
110	185-6649	1	* Frame Assy, End	260	185-6661	1	* Cord, Stop Solenoid
120	185-6650	1	* Gear	270	185-6662	1	* Band, Cover
130	185-6361	5	* Roller	280	332-0942	1	Tie, Cable
140	185-6651	1	* Retainer	290	750-1006	1	Nut, Hex (M8 x 1.25)
150	185-6363	1	* Ball				

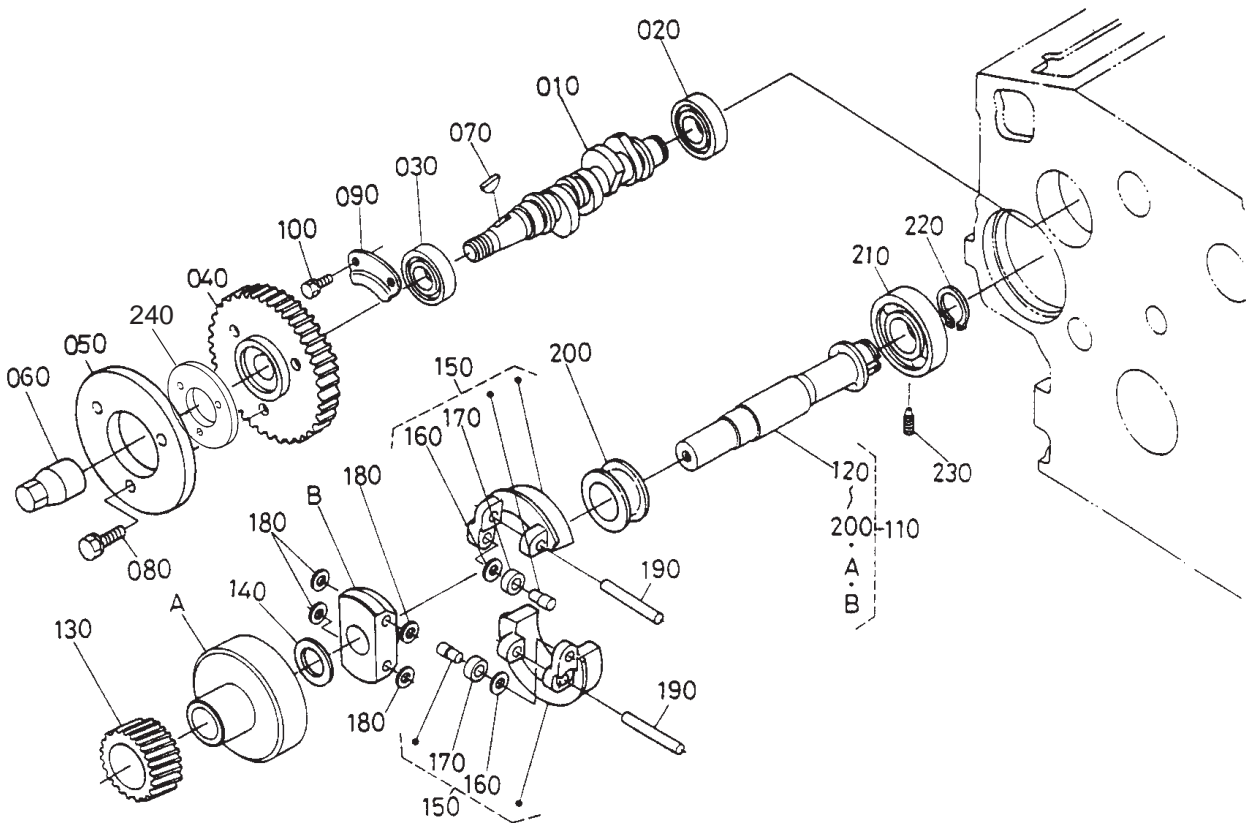
* - Parts Included in Starter.

Main Bearing Case



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6506	1	Case Assy, Main Bearing	060	185-6511	1	Gasket, Bearing Case Cover
020	185-6507	8	Bolt, Bearing Case	070	185-2391	8	Bolt
030			Gasket, Bearing Case	080	185-2390	9	Bolt
	185-6508	1	Spec A,B	090	185-6512	1	Case Assy, Main Bearing
	185-6869	1	Begin Spec C	100	185-6513	3	Bolt, Bearing Case
040	185-6509	1	Cover, Bearing Case	110	185-6514	1	Case Assy, Main Bearing
050	185-6510	1	Seal, Oil	120	185-6515	1	Case Assy, Main Bearing

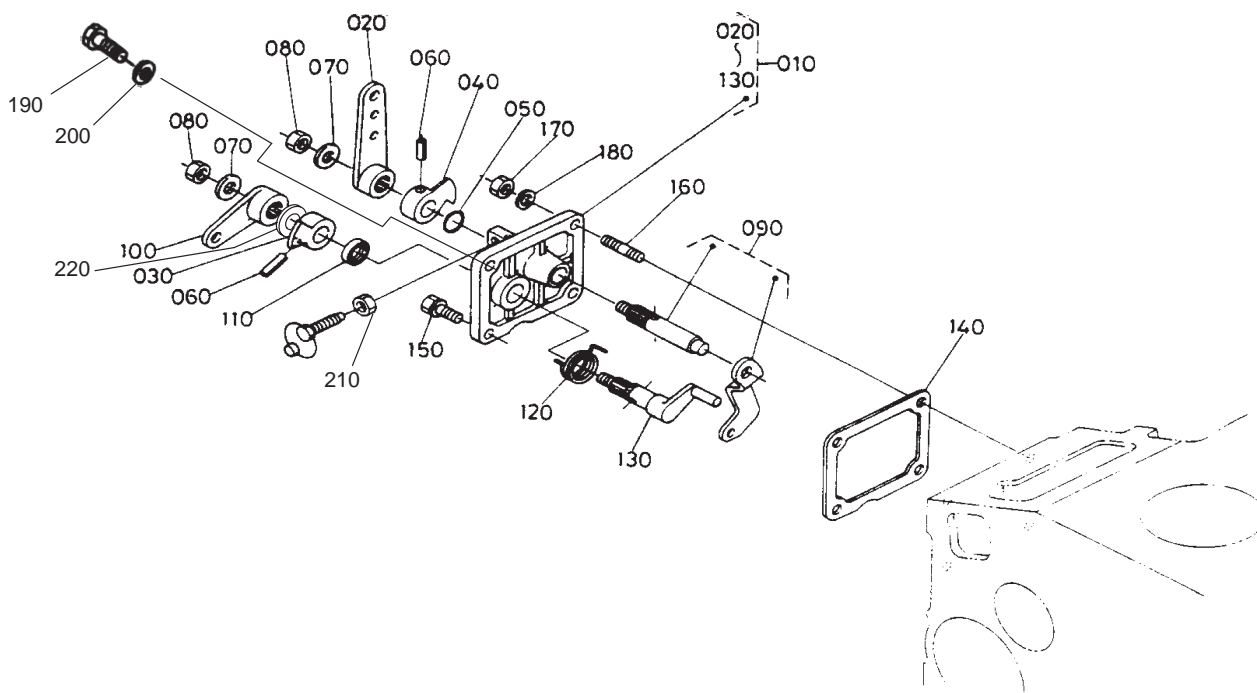
Fuel Camshaft



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010			Camshaft, Fuel	130	185-6565	1	*Gear, Governor
	185-6557	1	Prior to S/N 489916	140	185-6566	1	*Collar, Governor Shaft
	185-6741	1	Begin S/N 489916	150	185-6567	2	*Weight, Governor (Includes Washer and Bearing)
020	510-0163	1	Bearing, Ball	160	185-5960	2	Washer
030	185-3093	1	Bearing, Ball	170	185-5959	2	Bearing
040	185-6558	1	Gear, Injection Pump	180	185-6568	4	*Washer, Governor Weight
050			Cam, Fuel	190	185-6569	2	*Shaft, Governor Weight
	185-6559	1	Prior to S/N 489916	200	185-6570	1	*Sleeve, Governor
	185-6876	1	Begin S/N 489916	210	185-6571	1	Bearing, Ball
060	185-6560	1	Nut, Cap	220	185-6572	1	Circlip, Governor Shaft
070	185-6561	1	Key, Woodruff	230	185-6573	1	Screw, Set
080	185-2389	3	Bolt	240	185-6879	1	Washer
090	185-6562	1	Stopper, Fuel Camshaft				
100	185-2386	2	Bolt				
110	185-6563	1	Shaft Assy, Governor (Includes Parts Marked *)				
120	185-6564	1	*Shaft, Governor				

* - Parts Included in Governor Shaft Assy.

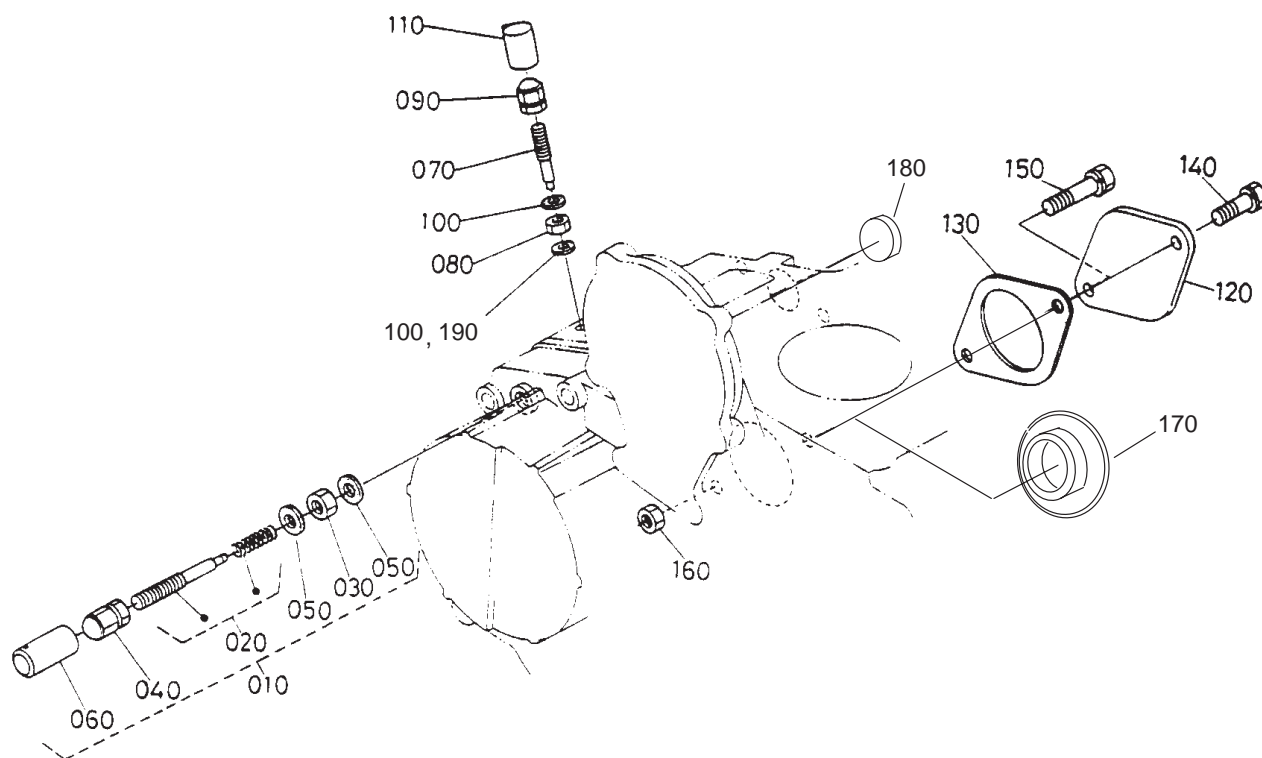
Speed Control Plate



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010			Plate Assy, Control (Includes Parts Marked *)	120	185-6614	1	*Spring, Return
	185-6606	1	Spec A, B	130	185-6615	1	*Shaft, Stop Lever
	185-7401	1	Begin Spec C	140			Gasket
020	185-6607	1	*Lever, Speed Control		185-6616	1	Spec A, B
030	185-6608	1	*Lever, Speed Control		185-6894	1	Begin Spec C
040			*Lever, Speed Control	150	185-2388	2	Bolt
	185-6609	1	Spec A, B	160	185-2359	2	Stud
	185-7402	1	Begin Spec C	170	185-4255	2	Nut
050	185-5673	1	*O'Ring	180	185-6759	2	Washer, Spring
060	185-2351	2	*Pin, Spring	190	185-5688	1	Bolt
070	185-6610	2	*Washer, Plain	200	185-2284	1	Gasket
080	185-6611	2	*Nut	210	185-6931	1	Nut
090	185-6612	1	*Lever Assy, Governor	220	526-0174	1	Washer, Flat
100	185-6613	1	*Lever, Engine Stop				
110	185-2461	1	*Seal, Oil				

* - Parts Included in Control Plate Assy.

Governor Lever

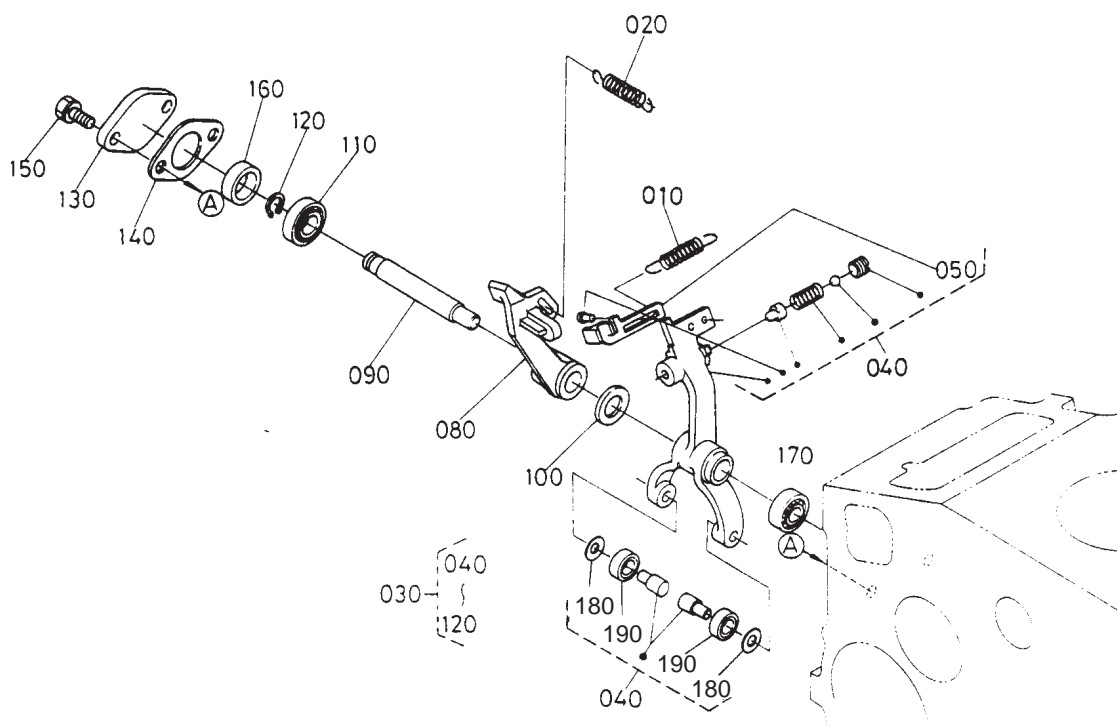


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6574	1	Apparatus Assy, Idle (Includes Parts Marked *)
020	185-6575	1	*Bolt Assy, Adjusting
030	185-5684	1	*Nut
040	185-5685	1	*Nut, Cap
050	185-2284	2	*Gasket
060			*Cap
	185-2283	1	Spec A, B
	185-6930	1	Begin Spec C
070	185-6577	1	Bolt, Adjusting
080			Nut
	185-5684	1	Spec A, B
	185-6931	1	Begin Spec C
090	185-5685	1	Nut, Cap
100			Gasket
	185-2284	2	Spec A, B
	185-7313	1	Begin Spec C

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
110	185-6576	1	Cap (Spec A, B)
120	185-6578	1	Cover, Pump (Spec A, B)
130	185-6579	1	Gasket (Spec A, B)
140	185-2401	1	Bolt (Spec A, B)
150	185-2564	1	Bolt (Spec A, B)
160	185-2367	1	Nut
170	185-6890	1	Cover, Pump (Begin Spec C)
180	185-6889	1	Cap, Sealing
190	185-7313	1	Gasket (Begin Spec C)

* - Parts Included in Idle Apparatus Assy.

Governor

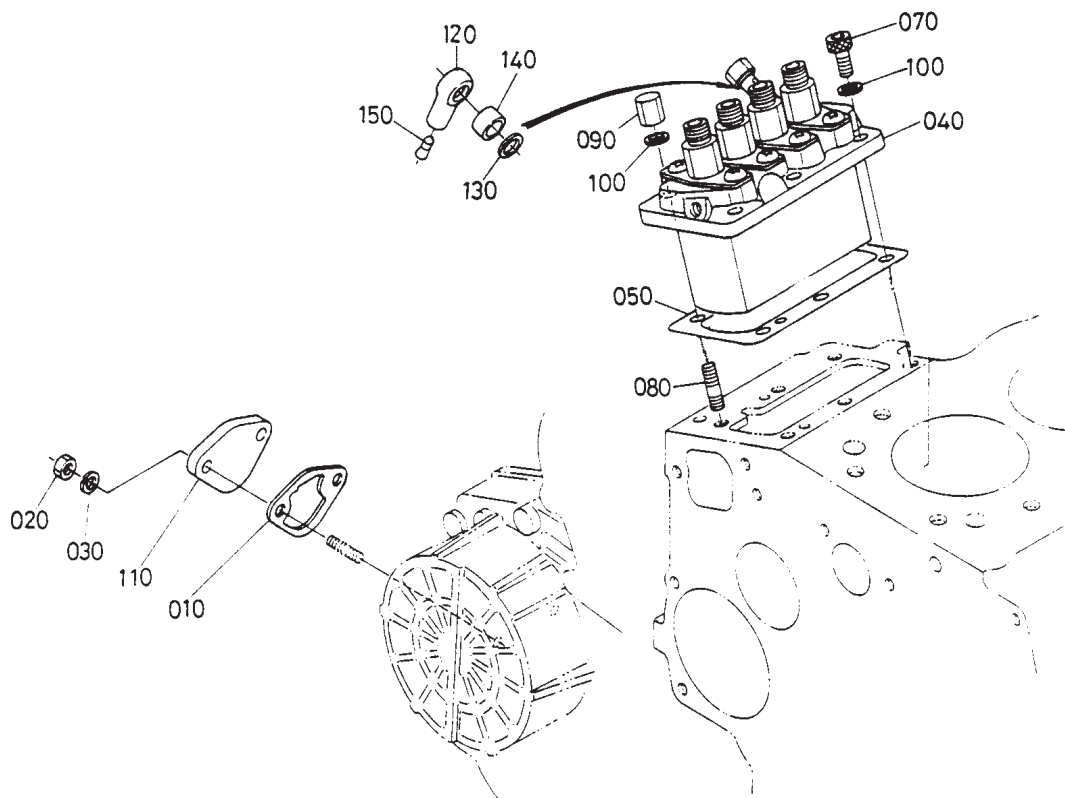


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6593	1	Spring, Start	130	185-6602	1	Cover, Fork Lever Shaft
020	185-6594	1	Spring, Governor	140	185-6603	1	Gasket
030	185-6595	1	Lever Assy, Fork (Includes Parts Marked *)	150	185-2387	2	Bolt
040	185-6596	1	*Lever, Fork (Includes Parts Marked +)	160	185-6604	1	Collar
050	185-6597	1	+*Lever, Thrust	170	185-6605	1	Bearing, Miniature
080	185-6598	1	*Lever, Fork	180	185-5960	1	+*Washer
090	185-6599	1	*Shaft, Fork Lever	190	185-5959	2	+*Bearing
100	185-6163	1	*Washer, Plain				
110	185-6600	1	*Bearing, Miniature				
120	185-6601	1	*Circlip, External				

* - Parts Included in Fork Lever Assy.

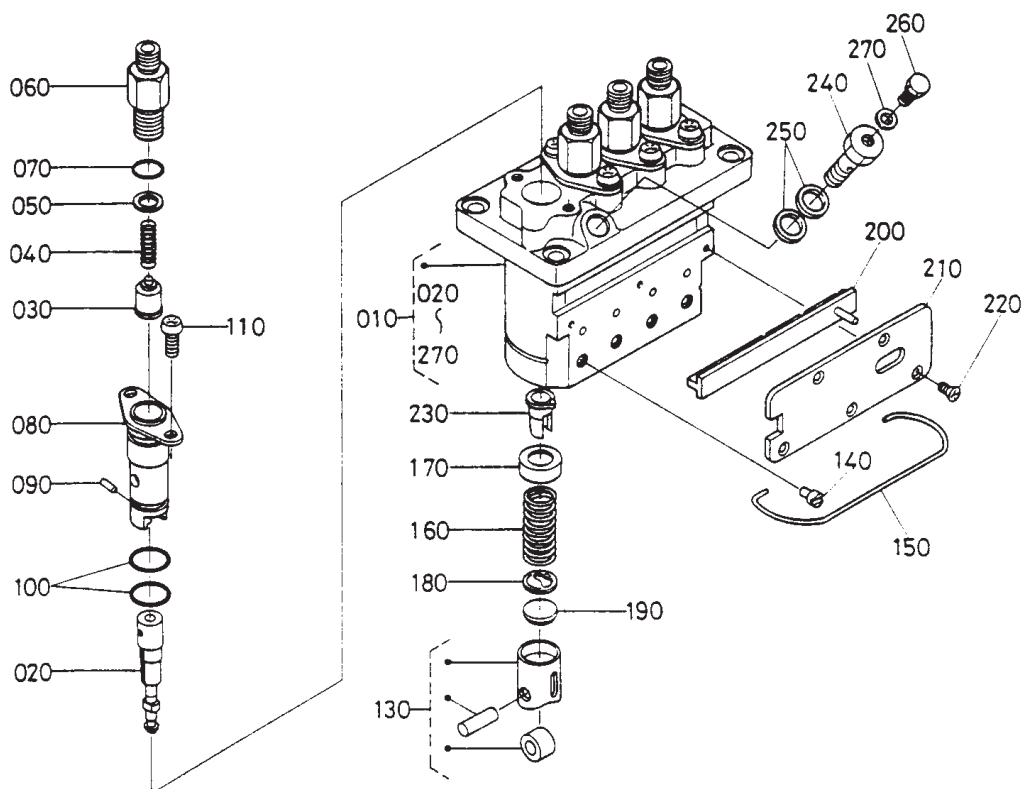
+ - Parts Included in Fork Lever.

Injection Pump



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6580	1	Gasket, Fuel Pump	070	185-5623	3	Bolt, Hex Socket Head
020	185-4255	2	Nut	080	185-5624	3	Stud
030	185-6759	2	Washer, Spring	090	185-5625	3	Nut, Cap
040			Pump Assy, Injection	100	185-6759	6	Washer, Spring
	185-6581	1	Prior to S/N 489916	110	185-5798	1	Cover
	185-6748	1	Begin S/N 489916	120	185-6584	1	Joint, Eye
050			Shim, Injection Pump	130	185-2578	1	Gasket
	185-6742	1	0.20mm	140	185-6585	1	Collar, Eye Joint
	185-6743	1	0.25mm	150	185-6586	1	Cap
	185-6744	1	0.30mm				

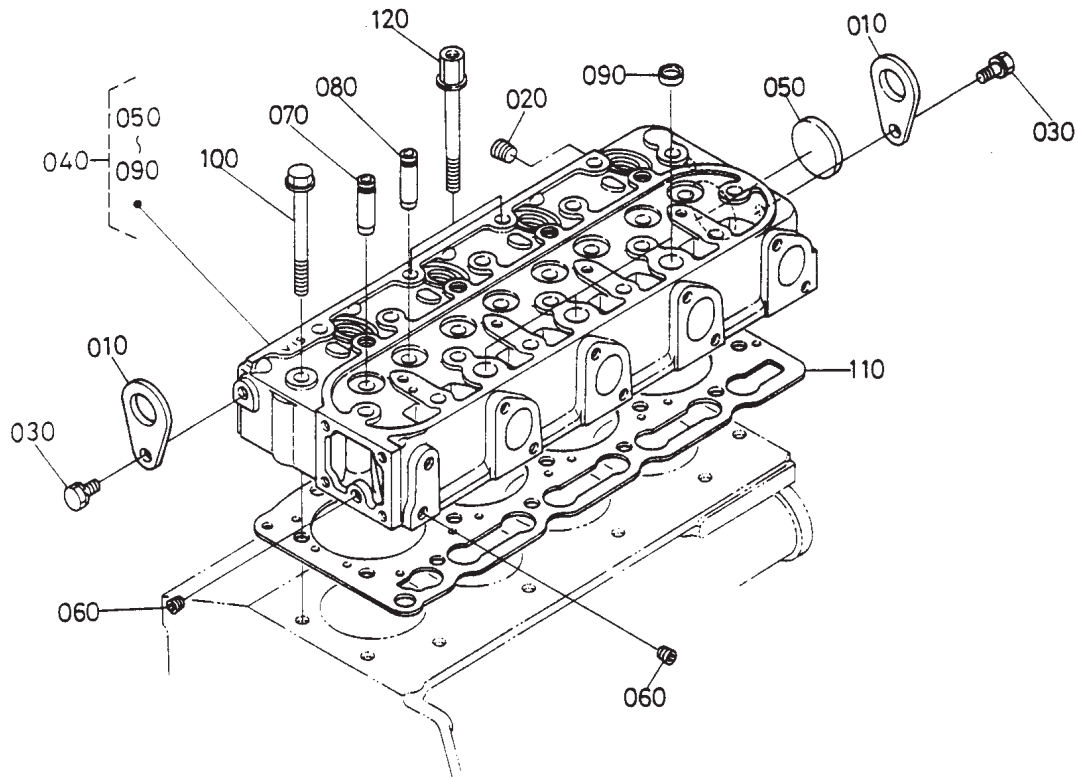
Injection Pump Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010			Pump Assy, Injection (Includes Parts Marked *)	170	185-5653	4	* Seat, Spring Upper
	185-6581	1	Prior to S/N 489916	180	185-5654	4	* Seat, Spring Lower
	185-6748	1	Begin S/N 489916	190	185-5655	4	* Shim
020			* Plunger, Pump	200			* Rack, Control
	185-6587	4	Spec A, B		185-6590	1	Spec A, B
	185-6884	4	Begin Spec C		185-7403	1	Begin Spec C
030	185-5639	4	* Valve, Delivery	210			* Plate
040	185-5640	4	* Spring, Delivery Valve		185-6591	1	Spec A, B
050	185-5641	4	* Gasket, Delivery Valve		185-7251	1	Begin Spec C
060	185-6588	4	* Holder, Delivery Valve	220	185-5658	5	* Screw, Countersunk Head
070	185-5643	4	* O'Ring	230	185-5659	4	* Sleeve, Control
080	185-5644	4	* Flange, Sleeve	240			* Screw, Follow
090	185-5645	4	* Pin, Joint		185-6592	1	Spec A, B
100	185-5646	8	* O'Ring		185-6887	1	Begin Spec C
110	185-5647	8	* Screw	250	185-5661	2	* Gasket
130	185-5649	4	* Tappet	260	185-5662	1	* Screw
140	185-5650	4	* Pin, Tappet Guide	270	185-5663	1	* Gasket
150	185-6589	1	* Clamp, Wire				
160	185-5652	4	* Spring, Plunger				

* - Parts Included in Injection Pump Assy.

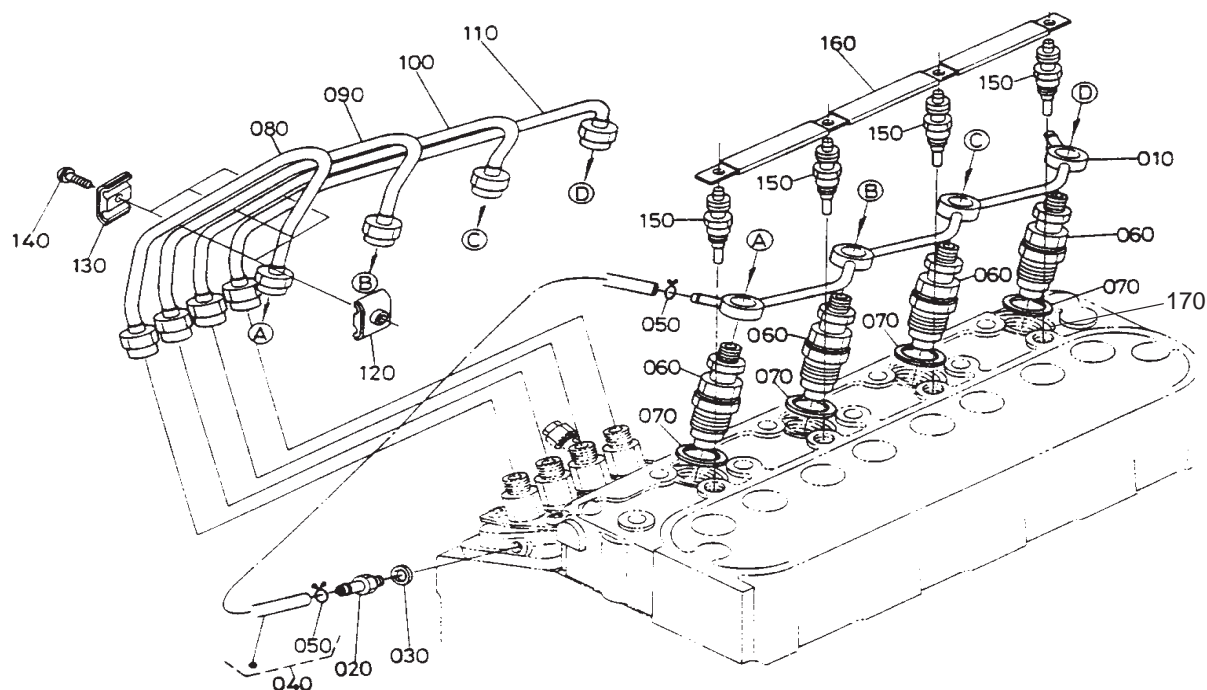
Cylinder Head



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-2414	2	Hook, Engine	070	185-6475	4	*Guide, Inlet Valve
020	185-5502	1	Plug	080	185-6476	4	*Guide, Exhaust Valve
030	185-6956	2	Bolt	090	185-2413	3	*Cap, Sealing
040			Head, Cylinder (Includes Parts Marked *)	100	185-6477	16	Bolt, Cylinder Head
	185-6474	1	Prior to S/N 489916	110	185-6478	1	Gasket, Cylinder Head
	185-6747	1	Begin S/N 489916	120	185-6479	2	Bolt, Cylinder Head
050	185-2411	1	*Cap, Sealing				
060	185-2188	2	*Plug				

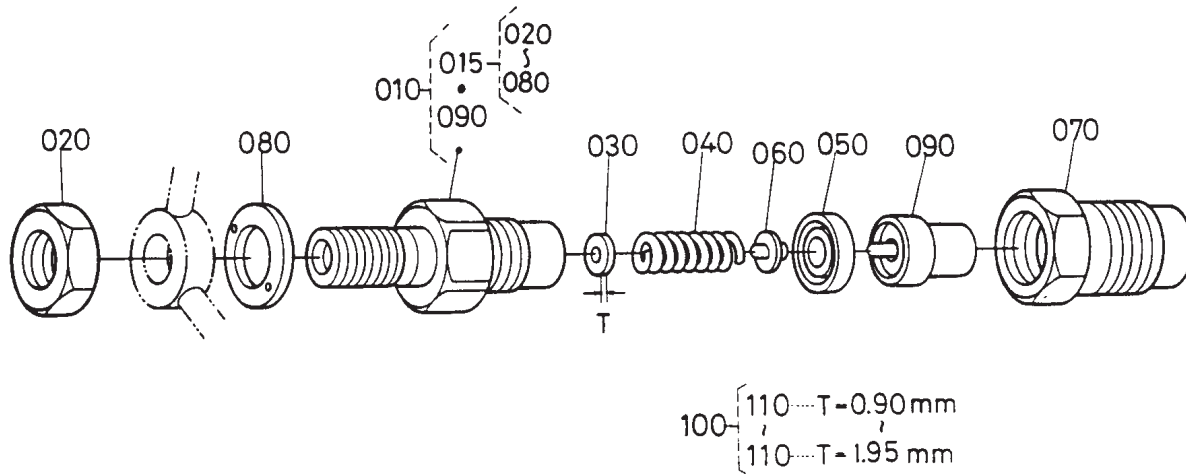
* - Parts Included in Cylinder Head.

Nozzle Holder and Glow Plug



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010			Pipe, Overflow	080	185-6750	1	Pipe, Injection
	185-6617	1	Spec A, B	090	185-6751	1	Pipe, Injection
	185-7404	1	Begin Spec C	100	185-6621	1	Pipe, Injection
020	185-5609	1	Screw, Air Bleeder	110			Pipe, Injection
030	185-2284	1	Gasket		185-6622	1	Spec A, B
040	185-5607	1	Pipe Assy, Overflow (Includes Clip)		185-7266	1	Begin Spec C
050	185-5608	2	Clip, Pipe	120	185-5612	3	Clamp, Pipe
060			Holder Assy, Nozzle (See Separate Page for Components)	130	185-2345	3	Clamp, Pipe
	185-6618	4	Prior to S/N 489916	140	185-2385	3	Screw, Washer Head
	185-6740	4	Begin S/N 489916	150			Plug, Glow
070	185-5337	4	Gasket		185-6623	4	Spec A, B
					185-5421	4	Begin Spec C
				160	185-6624	1	Cord, Glow Plug
				170	185-5985	4	Seal, Heat (Begin Spec C)

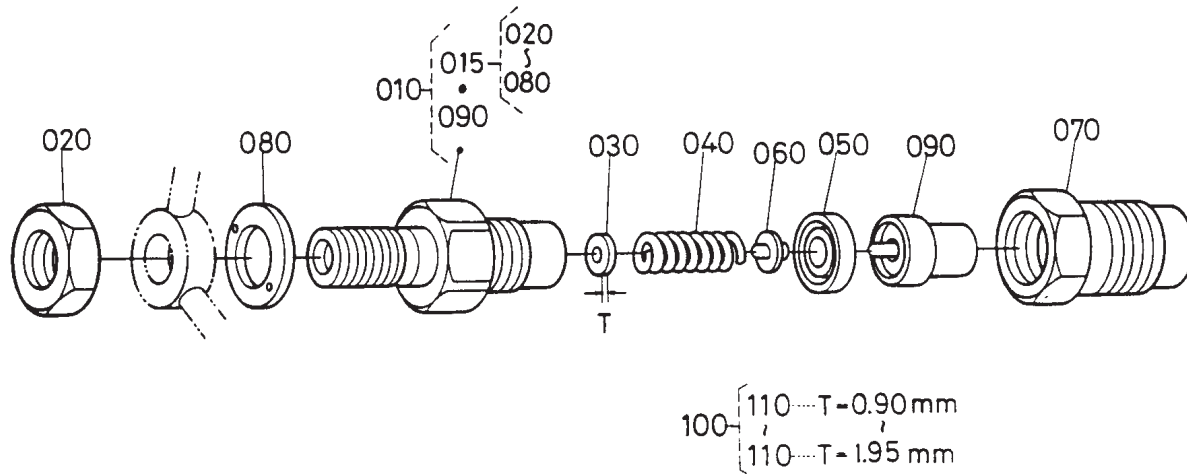
Nozzle Holder Components (Spec A, B)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6618	4	Holder Assy, Nozzle (Includes Nozzle Holder Subassy)	185-5380	4	1.300mm	
015	185-6625	4	Holder Subassy, Nozzle (Includes Parts Marked *)	185-5381	4	1.325mm	
020	185-5616	4	*Nut	185-5382	4	1.350mm	
030	185-5364	4	*Washer, Adjusting	185-5383	4	1.375mm	
040	185-5617	4	*Spring, Nozzle	185-5384	4	1.400mm	
050	185-5618	4	*Piece, Distance	185-5385	4	1.425mm	
060	185-5619	4	*Rod, Push	185-5386	4	1.450mm	
070	185-5620	4	*Nut, Nozzle	185-5387	4	1.475mm	
080	185-5621	4	*Washer	185-5388	4	1.500mm	
090	185-6626	4	*Piece, Nozzle	185-5389	4	1.525mm	
100	185-5363	4	Washer Assy, Adjust	185-5390	4	1.550mm	
110			Washer, Adjusting	185-5391	4	1.575mm	
	185-5364	4	.900mm	185-5392	4	1.600mm	
	185-5365	4	.925mm	185-5393	4	1.625mm	
	185-5366	4	.950mm	185-5394	4	1.650mm	
	185-5367	4	.975mm	185-5395	4	1.675mm	
	185-5368	4	1.000mm	185-5396	4	1.700mm	
	185-5369	4	1.025mm	185-5397	4	1.725mm	
	185-5370	4	1.050mm	185-5398	4	1.750mm	
	185-5371	4	1.075mm	185-5399	4	1.775mm	
	185-5372	4	1.100mm	185-5400	4	1.800mm	
	185-5373	4	1.125mm	185-5401	4	1.825mm	
	185-5374	4	1.150mm	185-5402	4	1.850mm	
	185-5375	4	1.175mm	185-5403	4	1.875mm	
	185-5376	4	1.200mm	185-5404	4	1.900mm	
	185-5377	4	1.225mm	185-5405	4	1.925mm	
	185-5378	4	1.250mm	185-5406	4	1.950mm	
	185-5379	4	1.275mm				

* - Parts Included in Nozzle Holder Subassy.

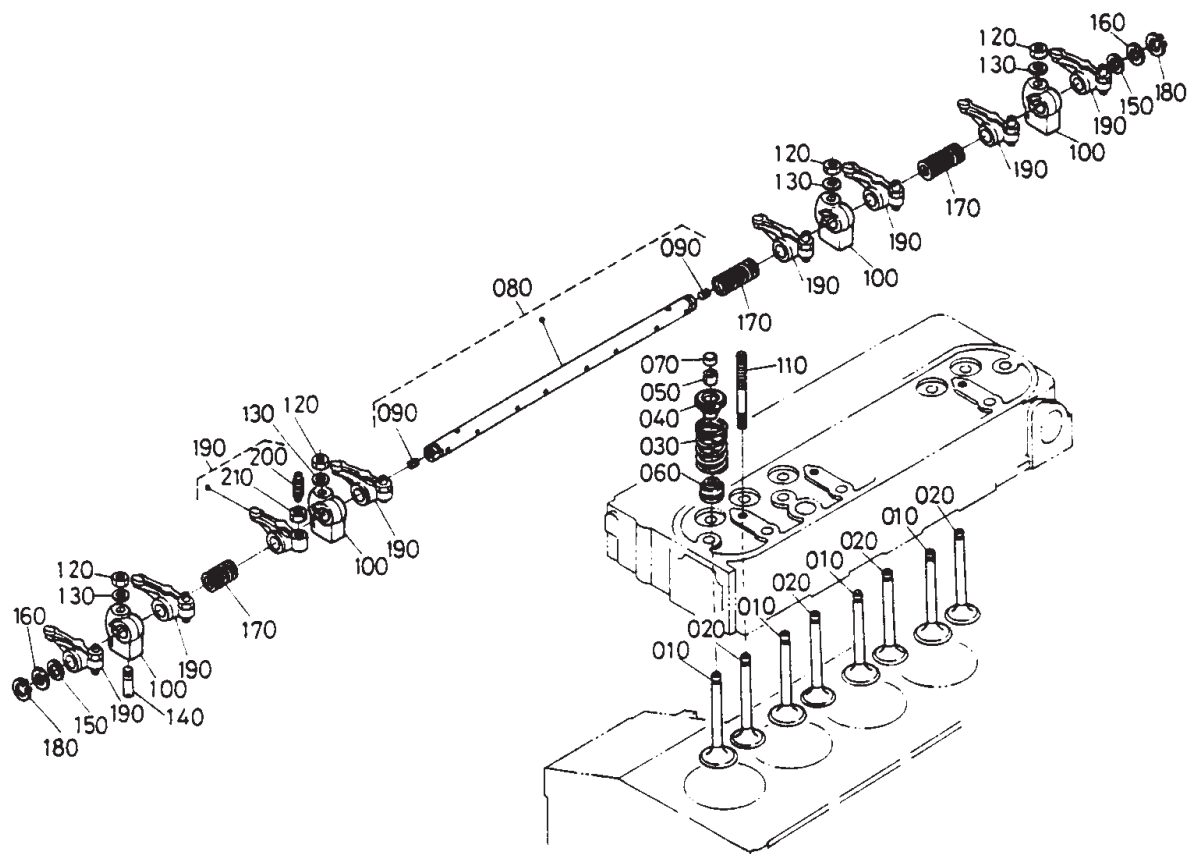
Nozzle Holder Components (Begin Spec C)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6740	4	Holder Assy, Nozzle (Includes Nozzle Holder Subassy)	110			Washer, Adjusting
020	185-6900	4	* Nut	185-6909	4		0.10mm
030	185-6901	4	* Washer, Adjusting	185-6910	4		0.20mm
040	185-6902	4	* Spring, Nozzle	185-6911	4		0.30mm
050	185-6903	4	* Piece, Distance	185-6912	4		0.40mm
060	185-6904	4	* Rod, Push	185-6913	4		0.50mm
070	185-6905	4	* Nut, Nozzle	185-6914	4		0.52mm
080	185-6906	4	* Washer	185-6915	4		0.54mm
090	185-6907	4	* Piece, Nozzle	185-6916	4		0.56mm
100	185-6908	4	Washer Assy, Adjust	185-6917	4		0.58mm
				185-6918	4		0.80mm

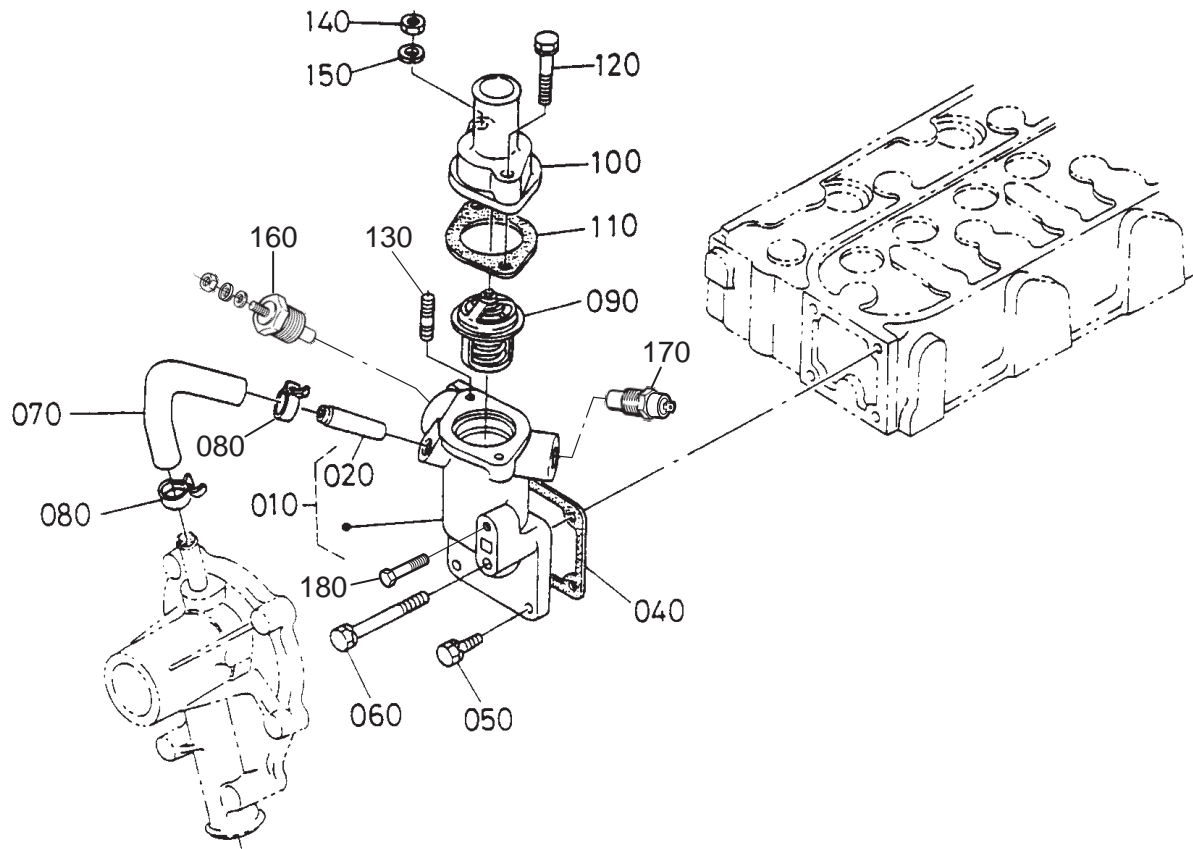
* – Parts Included in Nozzle Holder Assy.

Valve and Rocker Arm



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6681	4	Valve, Inlet	120	185-2179	4	Nut
020	185-6682	4	Valve, Exhaust	130	185-2184	4	Washer, Plain
030	185-6683	8	Spring, Valve	140	185-2072	1	Screw, Rocker Arm Set
040	185-6458	8	Retainer, Valve Spring	150	185-6689	2	Washer, Rocker Arm Shaft
050	110-3827	8	Collet, Valve Spring	160	185-6690	2	Washer, Rocker Arm Shaft
060	185-6684	8	Seal, Valve Stem	170	185-6691	3	Spring, Rocker Arm
070	185-6459	8	Cap, Valve	180	185-6692	2	Circlip, External
080	185-6685	1	Shaft Assy, Rocker Arm (Includes Set Screws)	190	185-6693	8	Arm Assy, Rocker (Includes Screw and Nut)
090	185-6686	2	Screw, Set	200	185-6694	8	Screw, Adjusting
100	185-6687	4	Bracket, Rocker Arm	210	185-6695	8	Nut
110	185-6688	4	Stud				

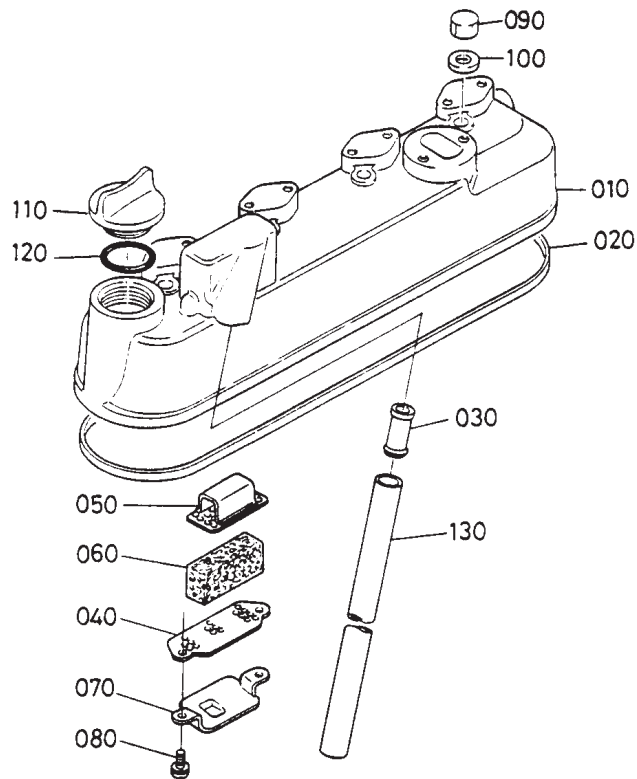
Water Flange



XS

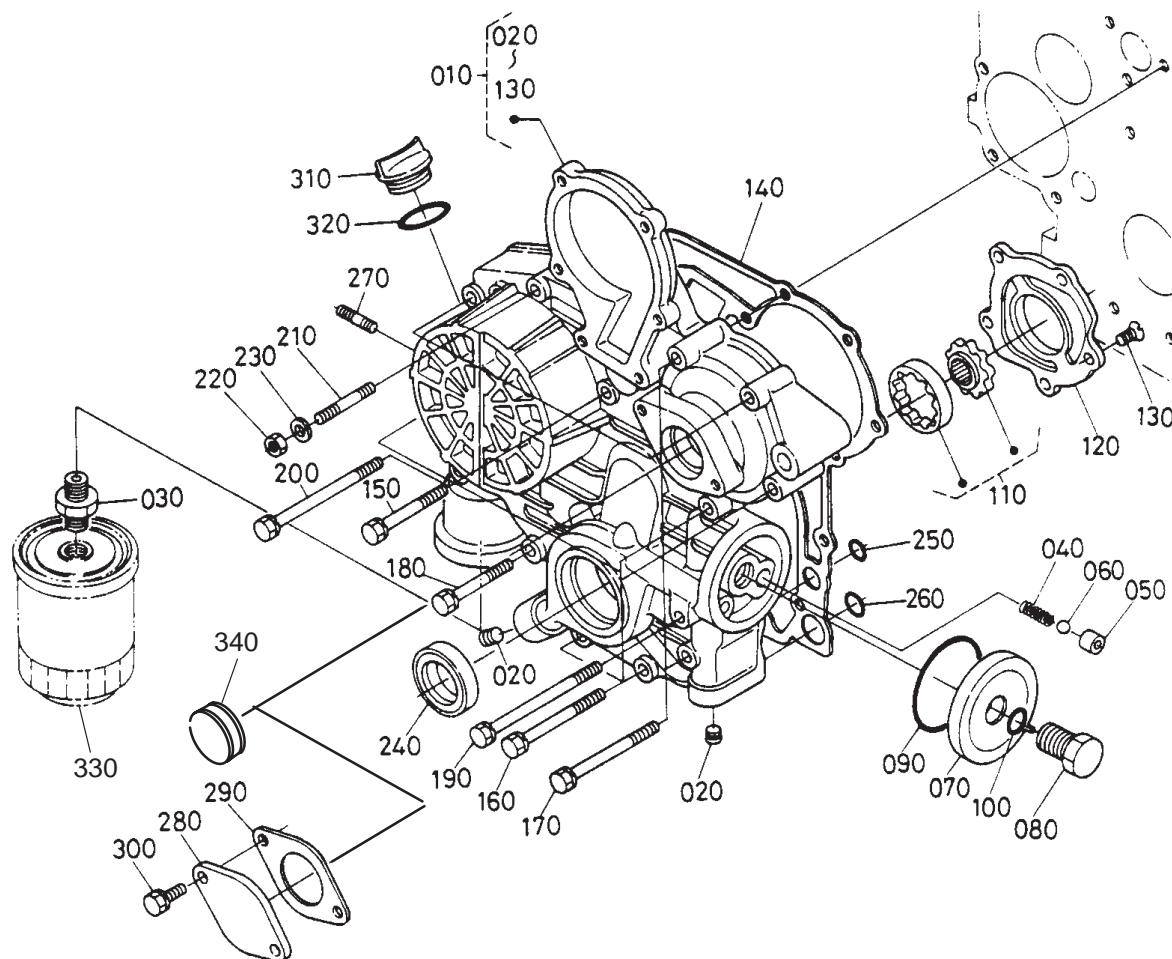
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6663	1	Flange, Water (Includes Water Return Pipe)	100	185-6668	1	Cover, Thermostat
020	185-6445	1	Pipe, Water Return	110	185-6447	1	Gasket, Thermostat
040	185-6664	1	Gasket, Water Flange Spec A, B	120	185-6677	1	Bolt
	185-6922	1	Begin Spec C	130	185-6670	1	Stud
050	185-2388	3	Bolt	140	185-4255	1	Nut
060	185-6665	1	Bolt	150	185-6759	1	Washer, Spring
070	185-6666	1	Pipe, Water Return	160	193-0318	1	Sender, Water Temperature(E2)
080	185-6667	2	Band, Pipe	170	309-0552	1	Thermostat (S2)
090	185-5458	1	Thermostat	180	718-1037	1	Screw, Hex Head Cap (M8 x 1.25 x 25mm)

Cylinder Head Cover



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6497	1	Cover, Cylinder Head	080	185-2384	2	Screw, Washer Head
020	185-6498	1	Gasket, Head Cover	090	185-6394	4	Nut, Cap
030	185-6499	1	Joint, Breather Pipe	100	185-2291	4	Gasket
040	185-6500	1	Plate, Breather Element	110	185-5407	1	Cover, Oil Fill
050	185-6501	1	Plate, Breather Element	120	185-2349	1	O'Ring
060	185-6502	1	Element, Breather	130	185-6504	1	Pipe, Breather
070	185-6503	1	Shield, Breather Oil				

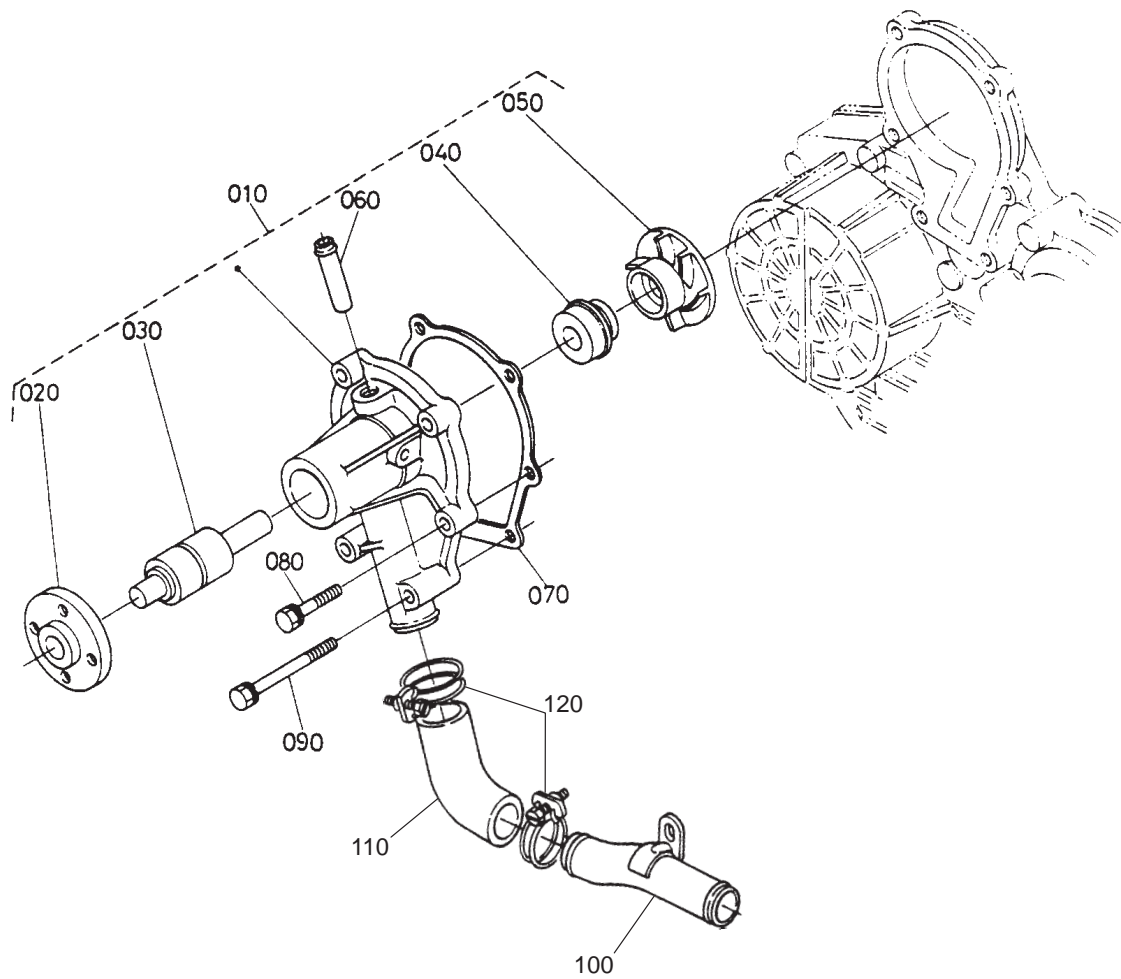
Gearcase



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6480	1	Gearcase (Includes Parts Marked *)	170	185-6489	2	Bolt
020	185-6481	4	* Plug	180	185-6490	1	Bolt
030	185-2124	1	* Joint, Pipe	190	185-6491	2	Bolt
040	185-6482	1	* Spring	200	185-6492	1	Bolt
050	185-6483	1	* Seat, Valve	210	185-6493	1	Stud
060	185-6484	1	* Ball	220	185-4255	1	Nut
070	185-5741	1	* Cover	230	185-6759	1	Washer, Spring
080	185-5742	1	* Bolt	240	185-6494	1	Seal, Oil
090	185-5743	1	* O'Ring	250	185-3080	2	O'Ring
100	185-5869	1	* O'Ring	260	185-5869	2	O'Ring
110	185-6485	1	* Rotor Assy, Oil Pump	270	185-2359	2	Stud
120	185-6486	1	* Cover, Oil Pump	280	185-6495	1	Cover (Spec A, B)
130	185-6487	5	* Screw, Countersunk Head	290	185-6496	1	Gasket (Spec A, B)
140			Gasket, Gearcase	300	185-2388	2	Bolt (Spec A, B)
	185-6488	1	Spec A, B	310	185-5407	1	Cover, Oil Fil
	185-6863	1	Begin Spec C	320	185-2349	1	O'Ring
150	185-5833	3	Bolt	330	185-5835	1	Filter, Oil
160			Bolt	340	185-7405	1	Plug (Begin Spec C)
	185-2394	4	Spec A, B				
	185-7069	4	Begin Spec C				

* - Parts Included in Gearcase.

Water Pump

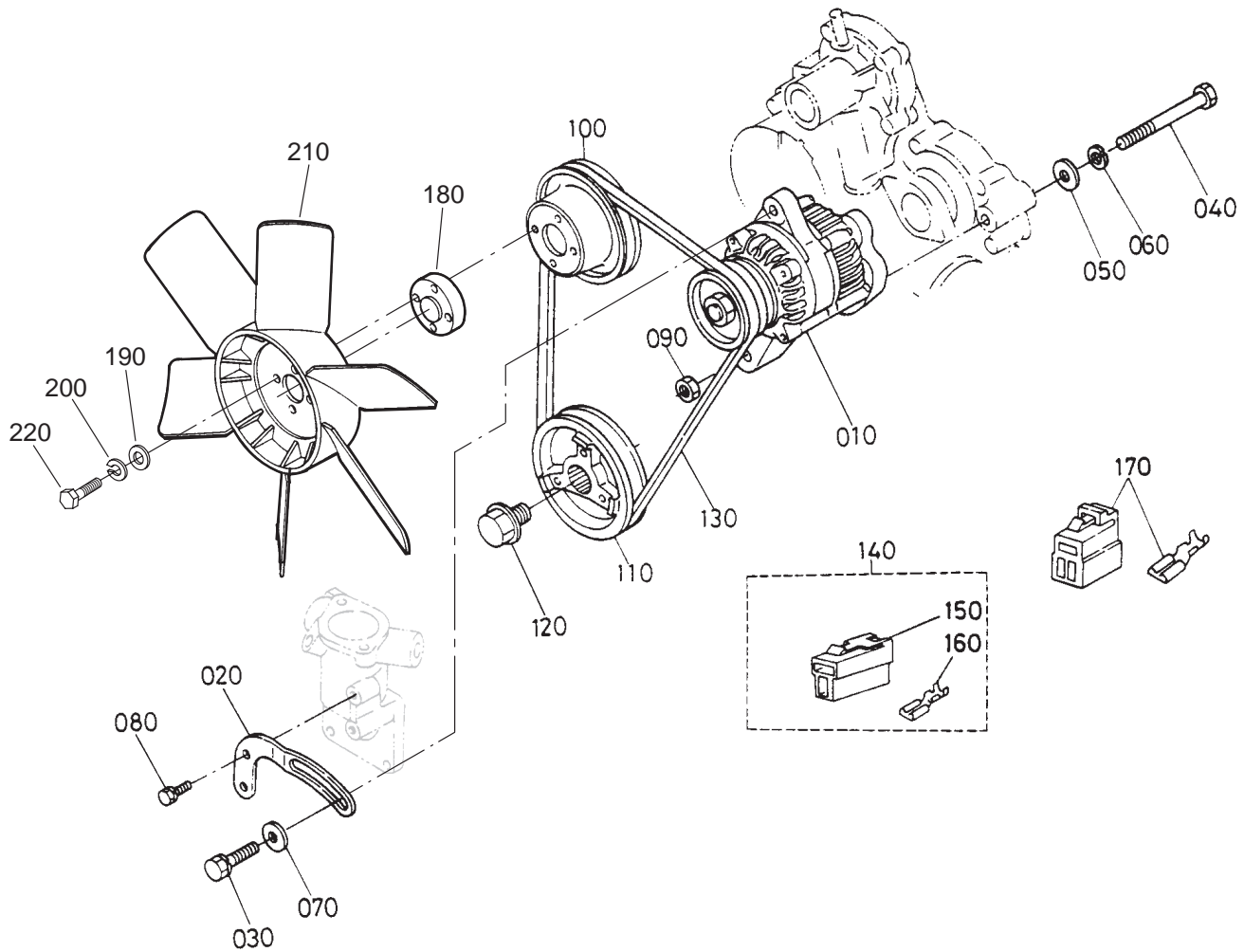


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6671	1	Pump Assy, Water (Includes Parts Marked *)
020	185-6672	1	* Flange, Water Pump
030	185-6673	1	* Bearing
040	185-5714	1	* Seal Assy, Mechanical
050	185-6674	1	* Impeller, Water Pump
060	185-5719	1	* Pipe, Water Return
070	185-6676	1	Gasket, Water Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
080	185-6677	4	Bolt
090	185-5745	2	Bolt
100	185-6457	1	Pipe, Water
110	185-6678	1	Pipe, Water
120	185-6679	2	Clamp

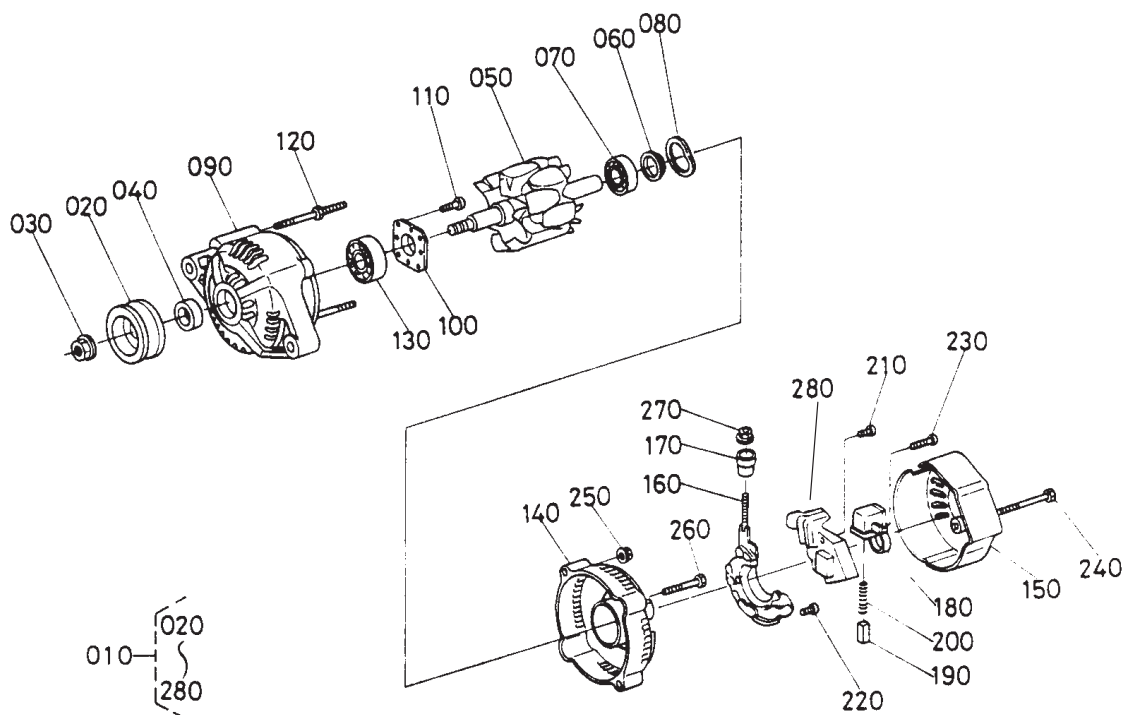
* – Parts Included in Water Pump Assy.

Alternator



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6627	1	Alternator (12V, 30A) (See Separate Page for Components)	160	185-6347	7	Terminal
020	185-6628	1	Stay, Alternator	170	185-6634	1	Coupler Assy, Lock
030	185-2403	1	Bolt	180	185-6680	1	Collar, Fan
040	185-6629	1	Bolt	190	526-0018	4	Washer, Flat (1/4")
050	185-6630	1	Washer, Plain	200	850-2006	4	Washer, Lock (M6)
060	185-6785	1	Washer, Spring	210			Fan
070	185-6786	1	Washer, Plain	130-4121	1		Specs 11323, 11379, 11435, 61730, 61732 61996, 66046 (Suction)
080	185-2388	1	Bolt	130-4122	1		Specs 11322, 61731, 61733 (Pusher)
090	185-5445	1	Nut	130-4556			Specs 11322, 11378, 11473, 11509, 61731, 61733 (Pusher)
100	185-6631	1	Pulley, Fan	220	718-1018	4	Screw, Hex Head Cap (M6 x 1 x 12mm)
110	185-6632	1	Pulley, Fan Drive				
120	185-6633	1	Bolt				
130	185-5446	1	Belt, Fan				
140	185-5447	1	Coupler Assy (Includes Connector and Terminal)				
150	185-6440	1	Connector				

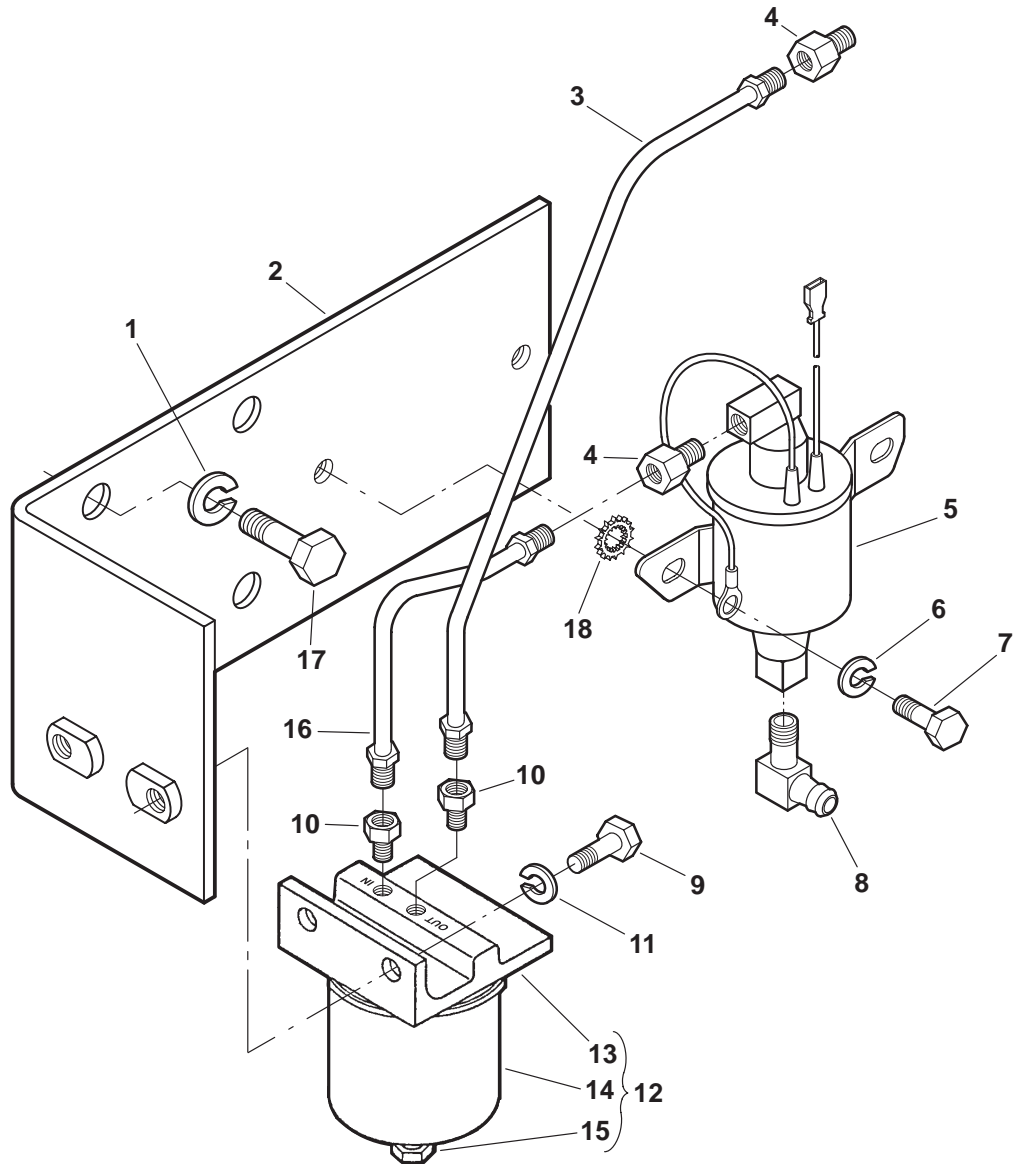
Alternator Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6627	1	Alternator Assy (Includes Parts Marked *)	160	185-6190	1	*Rectifier Assy
020	185-5767	1	*Pulley, Alternator	170	185-6191	1	*Bushing, Insulation
030	185-5768	1	*Nut	180	185-5782	1	*Holder, Brush
040	185-5769	1	*Collar	190	185-5783	2	*Brush
050	185-5770	1	*Rotor	200	185-5784	2	*Spring, Brush
060	185-5771	1	*Cover, Bearing	210	185-5785	2	*Screw, Round Head
070	185-5772	1	*Bearing, Ball	220	185-5786	6	*Screw, Round Head
080	185-6187	1	*Washer, Thrust	230	185-5787	1	*Screw Round, Head
090	185-5773	1	*Frame, Drive End	240	185-5788	3	*Bolt
100	185-5774	1	*Plate, Retainer	250	185-5789	2	*Nut
110	185-5775	4	*Screw, Round Head	260	185-5790	2	*Bolt
120	185-5776	2	*Bolt, Thru	270	185-2961	1	*Nut
130	185-5777	1	*Bearing, Ball	280	185-5791	1	*Regulator
140	185-6188	1	*Frame, End				
150	185-6189	1	*Cover, End				

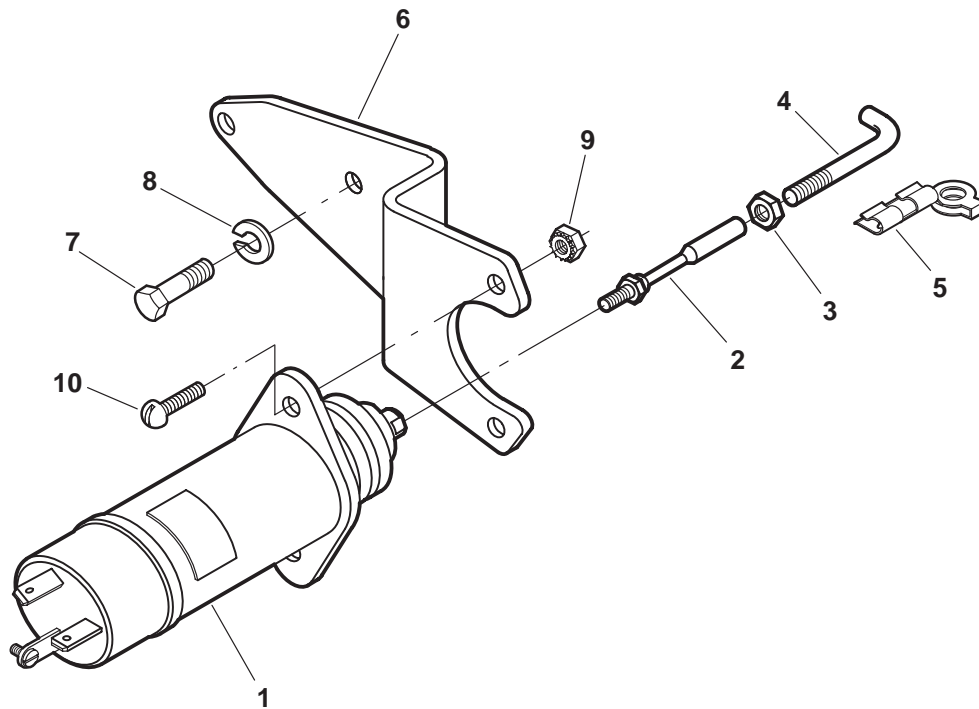
* - Parts Included in Alternator Assy.

Fuel Pump



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	850-2010	3	Washer, Lock (M10)	10	502-0033	2	Connector, Inverted Male
2	149-2425-02	1	Bracket, Fuel Pump	11	850-2008	2	Washer, Lock (M8)
3	149-2428	1	Line, Fuel Filter	12	149-2100	1	Filter, Fuel (Includes Aluminum Base, Element and Drain Plug)
4	502-0003	2	Adapter, Reducing (1/4 x 1/8)	13	149-2235	1	Base, Aluminum
5	149-2548	1	Pump, Electric Fuel (E5)	14	149-2106	1	Element, Fuel Filter
6	850-2006	2	Washer, Lock (M6)	15	502-0028	1	Plug, Drain
7	800-2029	2	Screw, Hex Head Cap (M6 x 1 x 12mm)	16	149-2429	1	Line, Fuel Pump
8	502-0313	1	Elbow, 90° Hose (1/8 NPT x 1/4 I.D.)	17	815-0586	3	Screw, Hex Head Cap (M10 x 1.25 x 18mm)
9	718-1035	2	Screw, Hex Head Cap (M8 x 1.25 x 16mm)	18	856-0006	1	Washer, EIT (1/4")

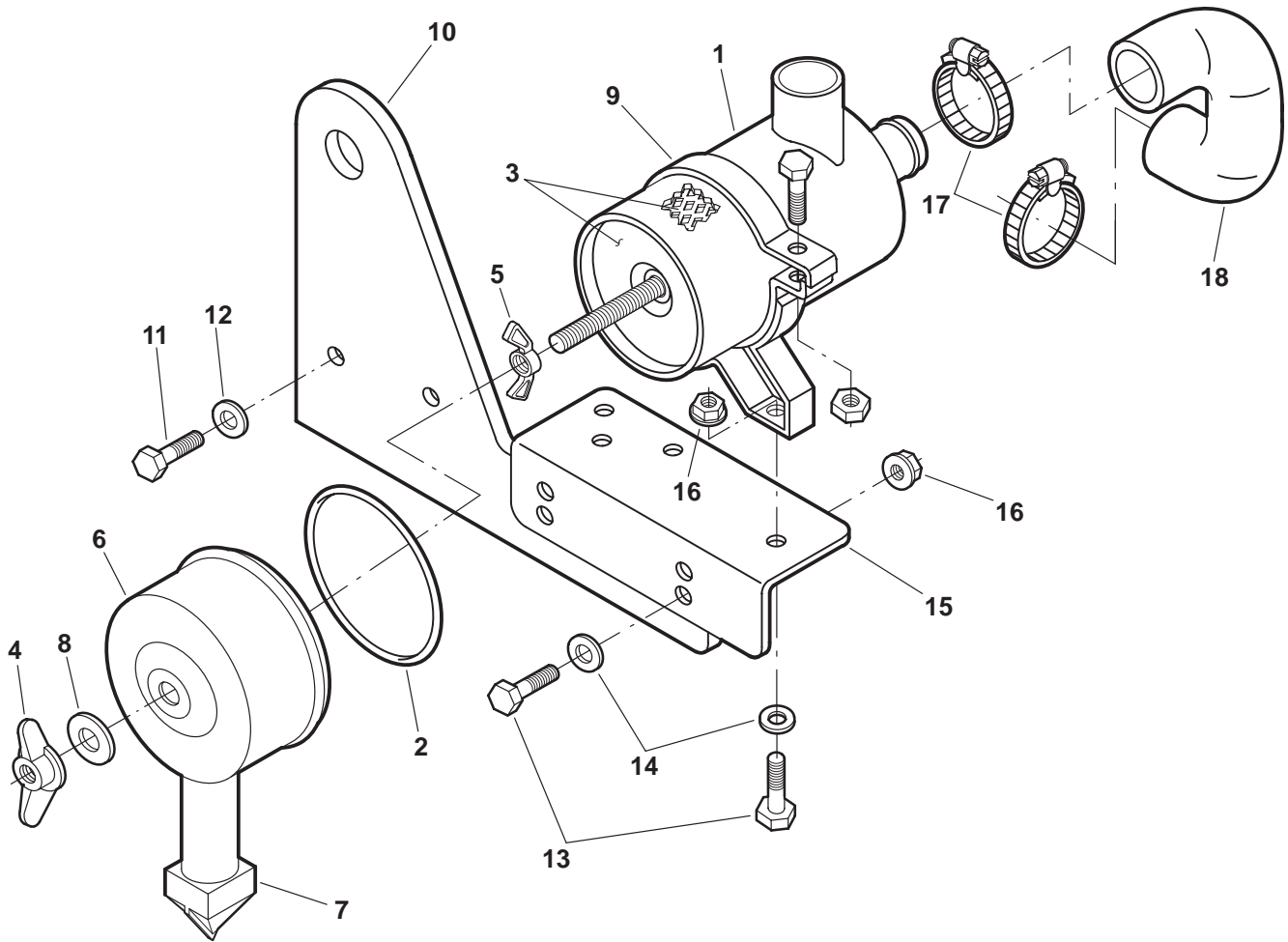
Stop Solenoid



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-2546	1	Solenoid, Stop (K1)
2	150-1733	1	Joint, Ball
3	115-0025	2	Nut, Hex (1/4-28UNF)
4	150-2555	1	Link, Solenoid
5	306-4081	1	Clip, Rod End
6	150-2554-02	1	Bracket, Solenoid

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	718-1018	2	Screw, Hex Head Cap (M6 x 1 x 12mm)
8	850-2006	2	Washer, Lock (M6)
9	870-0131	2	Nut, ET Hex (#10-32)
10	813-0100	2	Screw, Round Head Machine (#10-32 x 1/2")

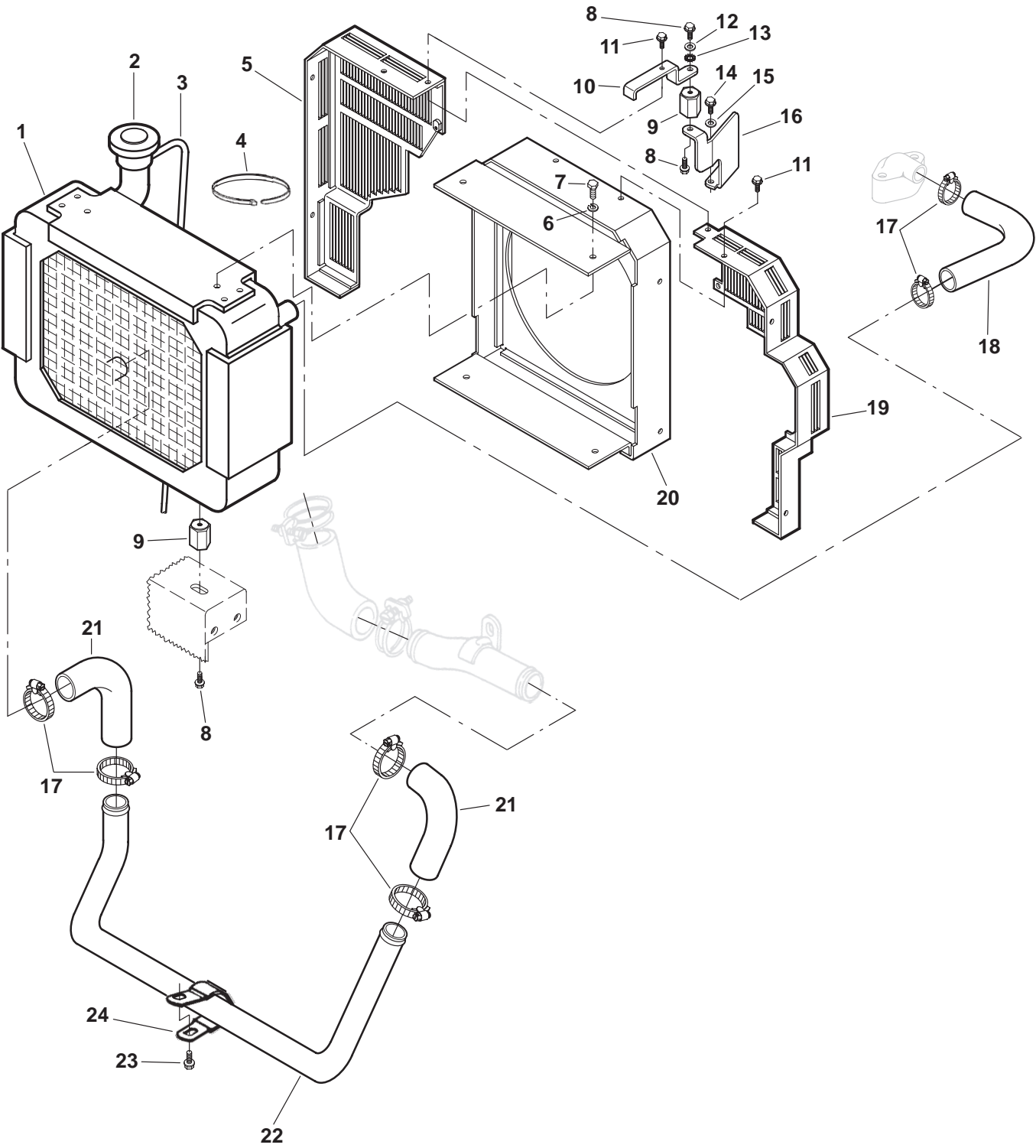
Air Cleaner



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-2841	1	Cleaner Assy, Air (Includes Parts Marked #)	12	740-1006	2	Washer, Flat (M8)
2	140-2848	1	#O'Ring	13	718-1036	4	Screw, Flange Locking (M8 x 1.25 x 16mm)
3	140-2842	1	#Element, Air Cleaner	14	526-2100	4	Washer, Flat (M8)
4	140-2847	1	#Nut, Wing	15	140-2864-02	1	Bracket, Air Cleaner
5	140-2846	1	#Nut, Wing	16	870-2055	4	Nut, Flange Locking (M8 x 1.25)
6	140-2845	1	#Cover, Air Cleaner	17	503-1141	2	Clamp, Hose
7	140-2843	1	#Valve, Dust Ejector	18	503-1450	1	Hose, Air Cleaner
8	140-2844	1	#Washer				
9	140-2850	1	Band, Air Cleaner				
10	140-2863-02	1	Bracket, Lifting				
11	800-2513	2	Screw, Head Hex Cap (M8 x 1.25 x 20mm)				

– Parts Included in Air Cleaner Assy.

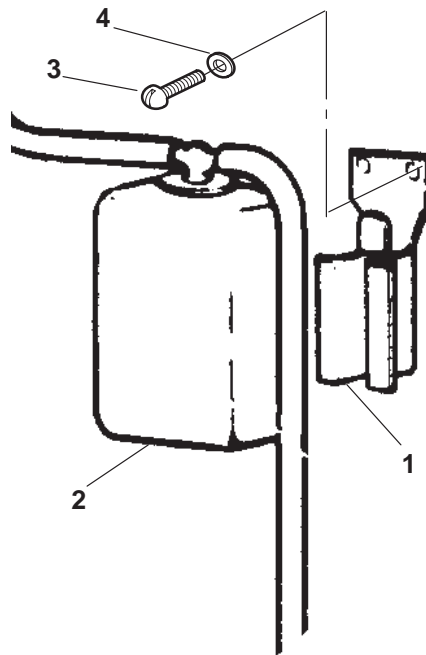
Cooling System



Cooling System

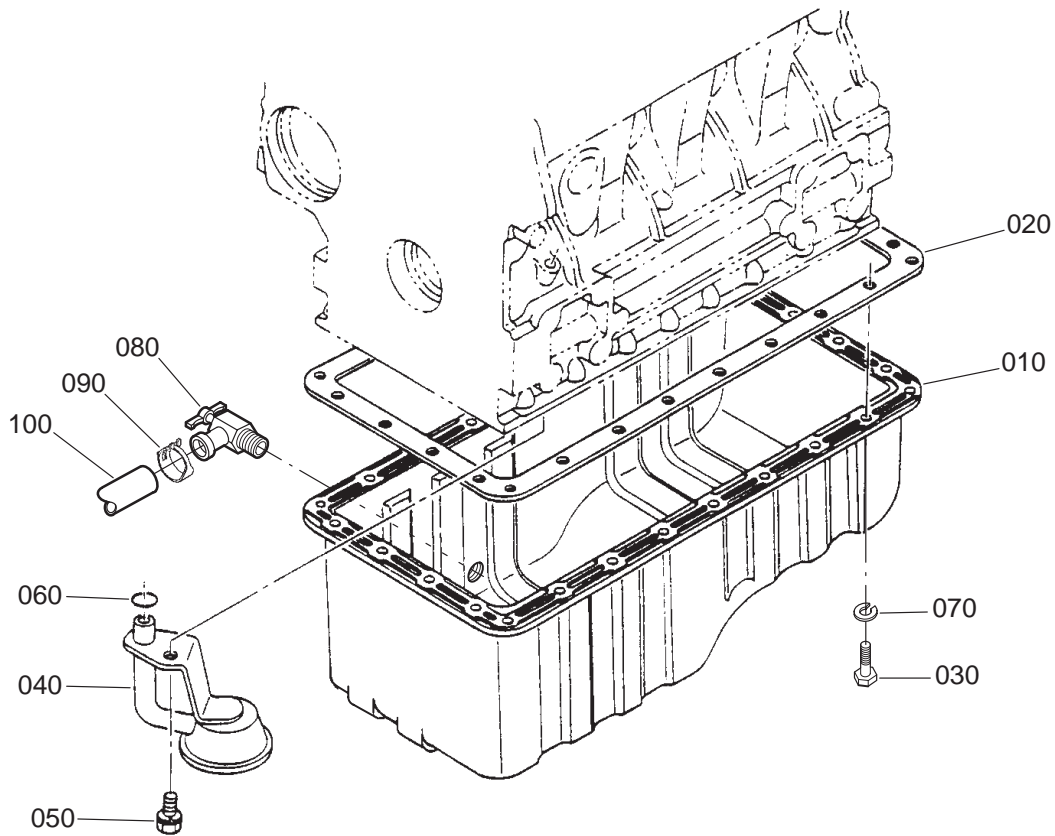
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Radiator	13	856-0008	1	Washer, EIT Lock (5/16")
	130-4213	1	Spec A	14	821-2045	2	Screw, Lock (Flange)
	130-4555	1	Begin Spec B				(M8 x 1.25 x 16mm)
2	130-1788	1	Cap, Radiator	15	526-2100	4	Washer, Flat (M8)
3	503-0276	1	Hose, 30" Overflow	16	130-4185-02	1	Bracket, Radiator Support
4	332-0941	1	Tie, Cable	17	503-1137	6	Clamp, Hose
5	130-4182-02	1	Guard, Right Belt	18	503-1861	1	Hose, Upper Radiator
6	850-0050	2	Washer, Lock (3/8")	19	130-4179-02	1	Guard, Left Belt
7	821-0028	2	Screw, Hex Head Cap (3/8-16 x 1/2")	20	130-4260-02	1	Shroud, Fan
				21			Hose, Radiator Elbow (90°)
8	821-0014	4	Screw, Hex Flange-Locking (5/16-18 x 1/2")		503-1884	2	Spec A
					503-2000	1	Begin Spec B
9	402-0078	3	Isolator, Vibration	22	130-4212-02	1	Tube, Radiator (Spec A)
10	130-4259-02	1	Support, Radiator Mounting	23	821-0016	1	Screw, Lock Head Flange (5/16-18 x 3/4") (Spec A)
11	821-0010	8	Screw, Hex Flange-Locking (1/4-20 x 1/2")				Clamp, Steel Loop (Spec A)
12	526-0032	1	Washer, Flat (7/16")	24	332-1024	1	

Coolant Recovery Tank



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	130-2781	1	Kit, Overflow Recovery Tank (One Quart)	3	808-0054	2	Screw, Round Head Sheet Metal (14 x 7/8")
1	130-2780	1	Bracket, Tank	4	526-0021	2	Washer, Flat
2	130-2779	1	Tank, Radiator Recovery Water				

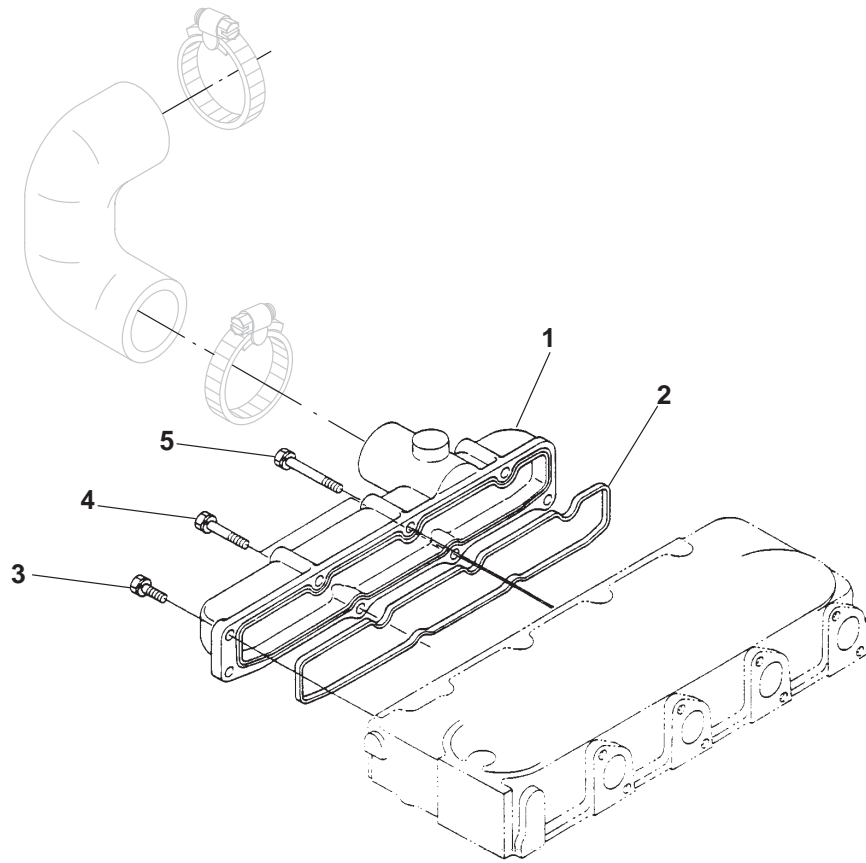
Oil Pan



1

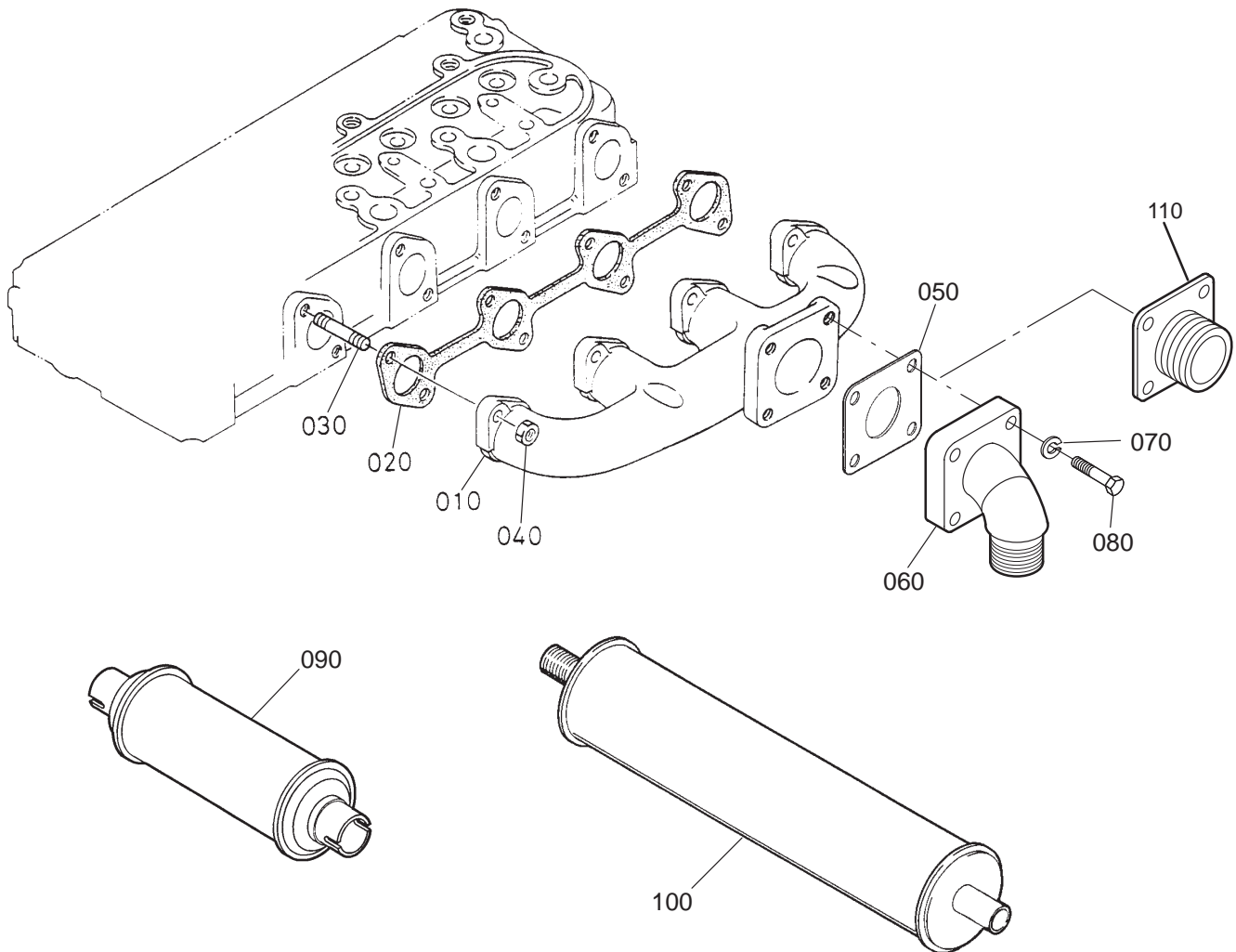
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	102-1443	1	Pan, Oil	060	185-3078	1	O'Ring
020	185-5478	1	Gasket, Oil Pan	070	850-2006	26	Washer, Lock (M6)
030	718-1020	26	Screw, Hex Head Cap (M6 x 1 x 16mm)	080	504-0150	1	Valve, Oil Drain Shutoff
040	185-6473	1	Tube, Oil Pickup	090	503-0183	1	Clamp, Hose
050	185-2563	1	Bolt	100	503-0227	1	Hose, Oil Drain (2')

Intake Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	185-6700	1	Manifold, Inlet	4	185-6677	2	Screw
2	185-6701	1	Gasket, Inlet Manifold	5	185-7069	3	Screw, Hex Head
3	185-2389	3	Screw, Hex Head (M6 x 18mm)				

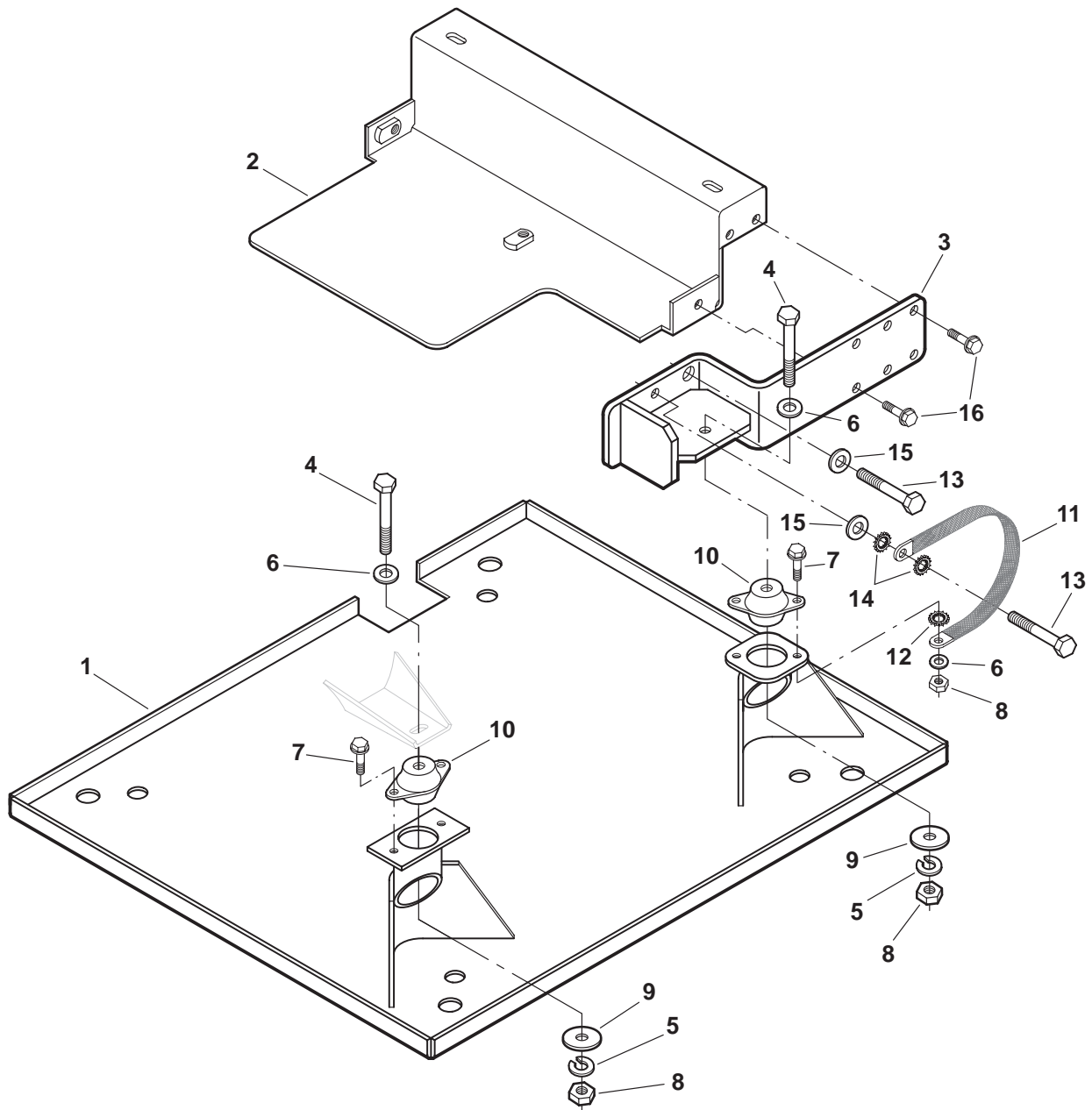
Exhaust Manifold



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
010	185-6696	1	Manifold, Exhaust
020	185-6697	1	Gasket, Exhaust Manifold
030	185-6698	8	Stud
040	185-6699	8	Nut
050	155-2619	1	Gasket, Exhaust
060	155-2666	1	Elbow, Exhaust
070	850-2008	4	Washer, Lock (M8)

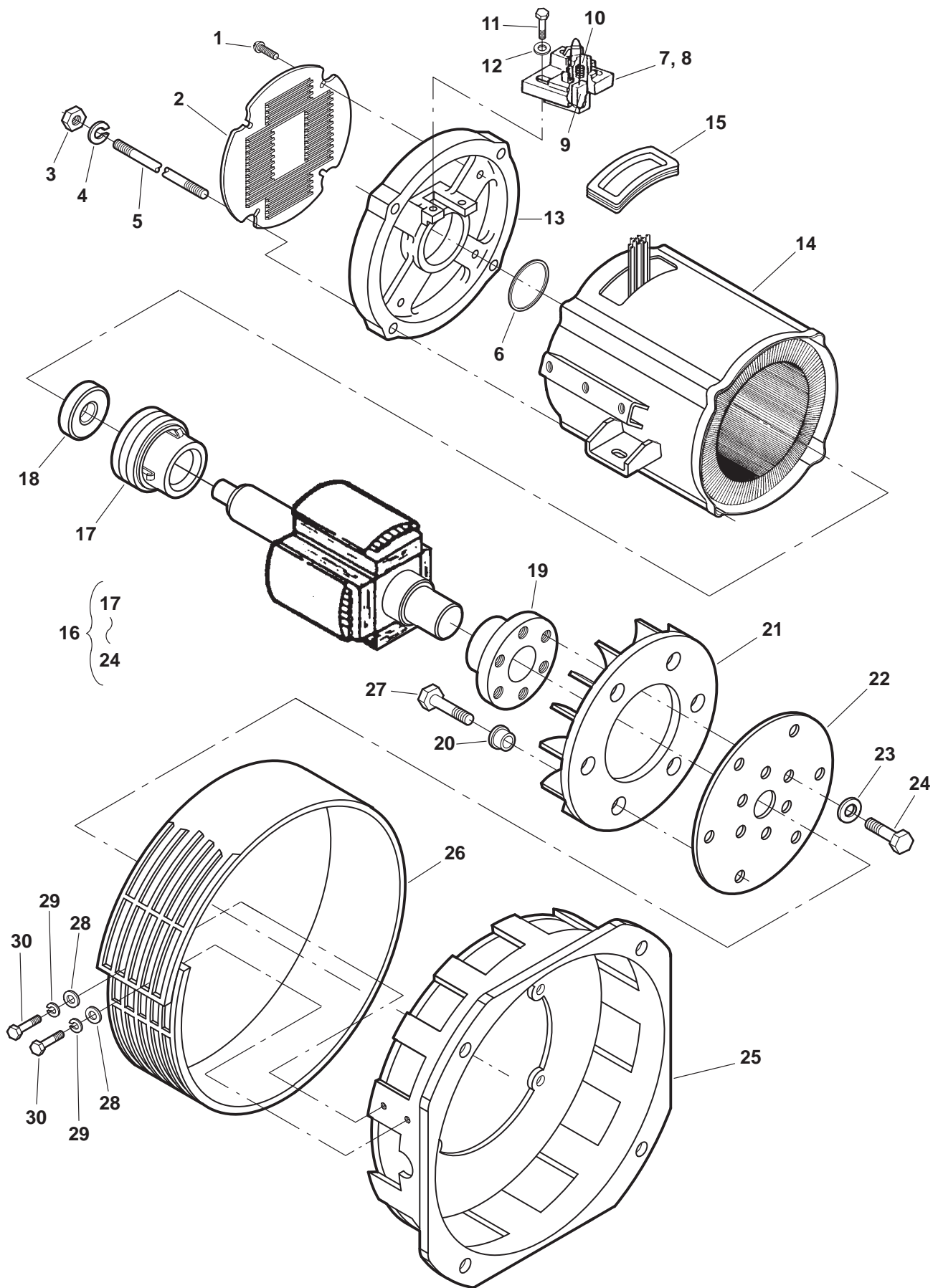
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
080	800-2515	4	Screw, Hex Head Cap (M8 x 1.25 x 30mm)
090	155-2653	1	Resonator, Exhaust
100	155-2262	1	Muffler
110	154-2852	1	Adapter, Exhaust Flange (to 1-1/4 Pipe Thread)

Drip Pan



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	403-3522-02	1	Pan, Drip	9	526-0398	4	Washer, Flat (2"OD x .45ID x .12THK)
2	130-4261-02	1	Bracket, Radiator Mounting	10	402-0653	4	Isolator, Vibration
3	403-3584-02	2	Bracket, Engine/Radiator Mounting	11	337-0081	1	Strap, Bond
4	800-0057	4	Screw, Hex Head Cap (3/8-16 x 2.75")	12	856-0010	1	Washer, EIT Lock (3/8")
5	850-0050	4	Washer, Lock (3/8")	13	800-3004	8	Screw, Hex Head Cap (M10 x 1.25 x 22mm)
6	526-0030	5	Washer, Flat (3/8")	14	856-0012	2	Washer, EIT Lock (7/16")
7	821-0029	8	Screw, Lock Head (3/8-16 x 3/4")	15	740-1008	8	Washer, Lock (M10)
8	862-0003	5	Nut, Hex (3/8-16)	16	821-0014	6	Screw, Lock Head (5/16 - 18 x 1/2")

Generator

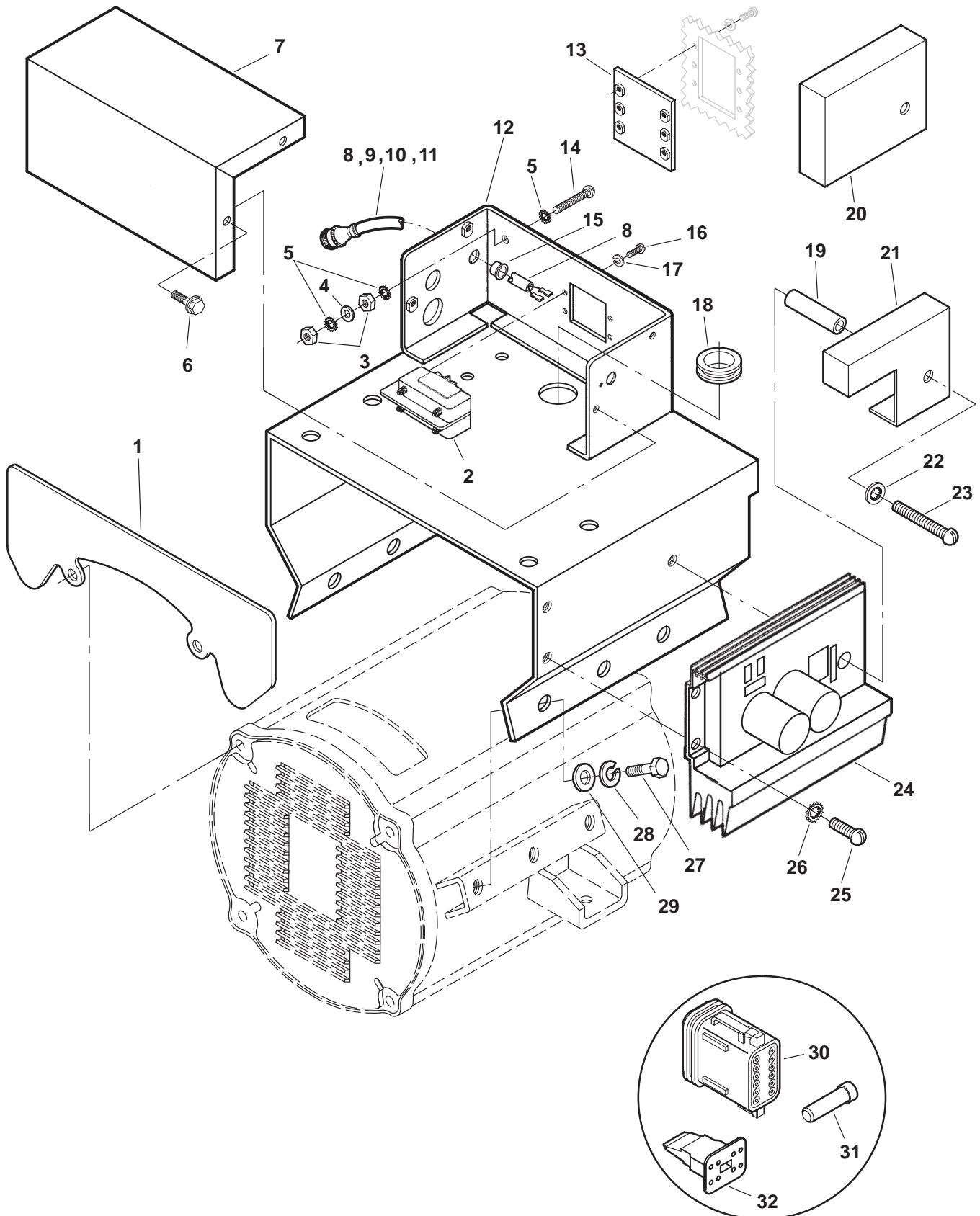


Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0810	4	Screw, Round Head Machine (M4 x .7 x 10mm)	17	204-0134	1	*Ring, Collector
2	211-0448-03	1	Cover, Endbell	18	510-0099	1	*Bearing, Ball
3	862-0026-07	4	Nut, Hex (3/8-16)	19	232-3753	1	*Hub, Drive
4	850-0114-07	4	Washer, Lock (3/8")	20	232-3296	6	*Spacer, Fan
5			Stud	21	205-0220	1	*Fan, Generator
	520-1000-02	4	3/8-16 x 254mm	22			*Disc, Generator Drive
	520-1000-03	4	3/8-16 x 279mm		232-3752	1	32mm Center Hole
6	509-0196	1	O'Ring		232-3915	1	35mm Center Hole
7	212-1285	1	Block Assy, Brush (Includes Block, Brushes, and Spring)	23	526-2103	6	*Washer, Flat (M8)
8	212-1286	1	Block, Brush (With Terminal)	24	718-1035	6	*Screw, Hex Head Cap (M8 x 1.25 x 16mm)
9	214-0103	2	Brush, Generator	25	231-0347	1	Adapter, Generator
10	212-1276-03	2	Spring, Generator Brush	26	232-3755-02	1	Guard, Fan
11	800-0309-89	2	Screw, Hex Head Machine (M5 x .8 x 16mm)	27	800-2515	6	Screw, Hex Head Cap (M8 x 1.25 x 30mm)
12	526-0399-56	2	Washer, Flat (M5)	28	526-2080	2	Washer, Flat (M6)
13	211-0447	1	Endbell	29	850-2005	2	Washer, Lock (M5)
14			Stator, Generator	30	800-2006	2	Screw, Hex Head Cap (M5 x .8 x 14mm)
			1 Phase				
			60Hz				
	220-4434-03	1	120/240V				
	220-4434-04	1	100/200V				
	220-4434-07	1	50Hz				
			3 Phase				
	220-4395-03	1	60 Hz				
	220-4395-04	1	50 Hz				
15	508-1049-02	1	Edging				
16			Rotor Assy, Generator (Includes Parts Marked *)				
			1 Phase				
	201-3506-02	1	All Single Phase Specs Except 11509				
	201-3560-02	1	Spec 11509 Only				
	201-3506-03	1	3 Phase				

* - Parts Included in Generator Rotor Assy.

AC Control

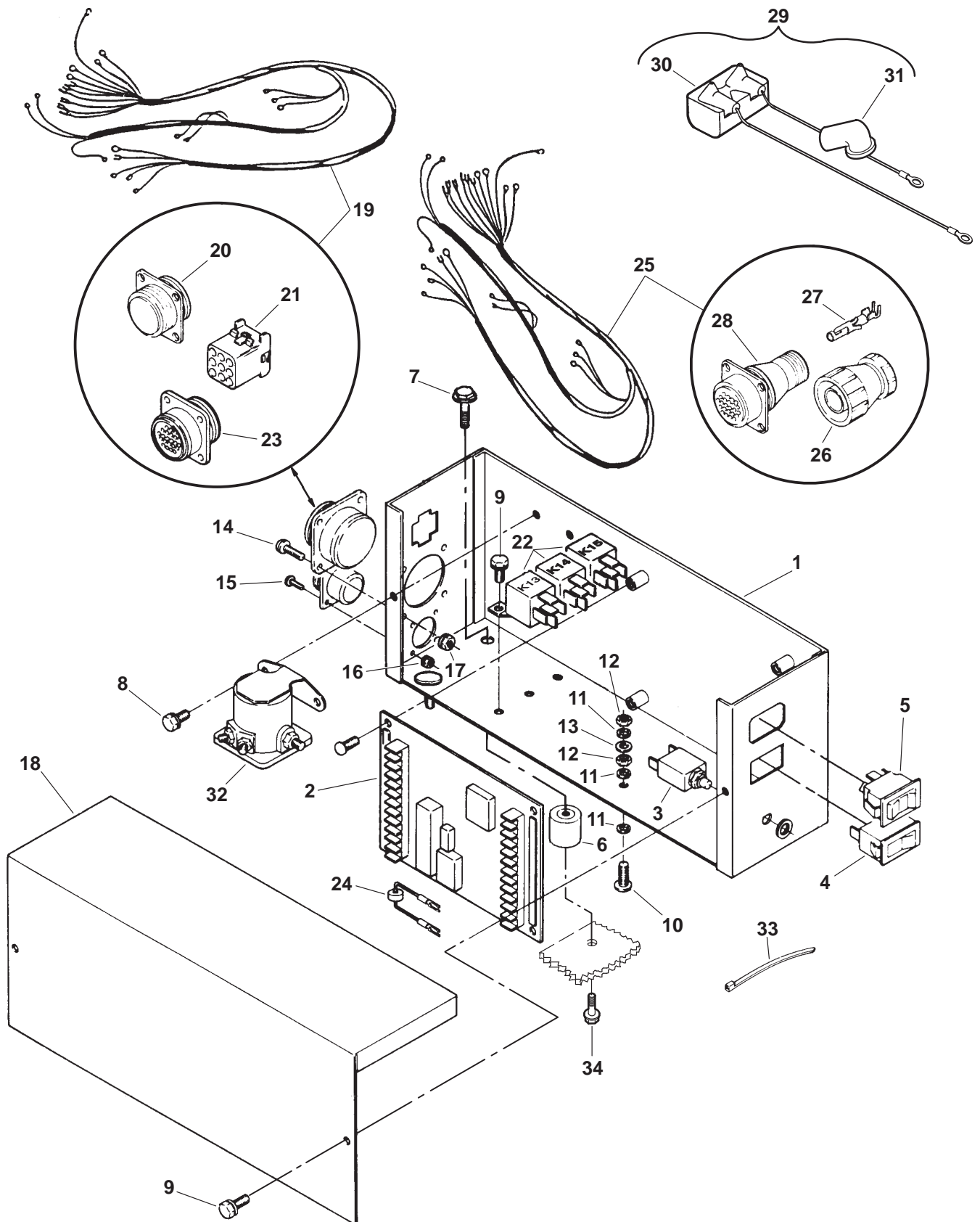


AC Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	234-0952-02	1	Guard				Machine (1/4-20 x 1.25")
2			Breaker, Circuit (CB22)	15	508-0198	1	Bushing, Strain Relief
			2 Pole	16			Screw, Round Head Machine (#6-32 x 3/8')
	320-1689-05	1	35A		812-0061	4	1 Phase
	320-1689-07	1	45A		812-0061	6	3 Phase
	320-1689-08	1	50A	17			Washer, Lock (#6)
			3 Pole		850-0020	4	1 Phase
	320-1836-03	1	25A		850-0020	6	3 Phase
	320-1836-05	1	35A	18	508-0278	1	Grommet
3	871-0016	2	Nut, Hex (1/4-20)	19	370-4083	1	Standoff, Cover
4	526-0052	1	Washer, Flat (1/4")	20	305-0879-02	1	Cover, Regulator
5	856-0006	3	Washer, EIT (1/4")	21	305-0931-02	1	Cover, Regulator
6	821-0004	4	Screw, Lock Head (#10-32 x 5/16")	22	854-0010	1	Washer, IT Lock (#10)
7	319-1404	1	Cover, Control	23	813-0113	1	Screw, Round Head Machine (#10-32 x 2-3/4")
8			Harness, AC (Reaches From AC Control Box to DC Control Box) (Includes Plug, Socket and Clamp)	24	305-0875-04	1	Regulator, Automatic Voltage (VR21)
	338-2093	1	43"	25	813-0100	3	Screw, Round Head Machine (#10-32 x 1/2")
	338-3339	1	30-1/5"	26	856-0003	3	Washer, EIT (#10)
9	323-1383	1	Plug, Circular (J1)	27	718-1018	6	Screw, Hex Head Cap (M6 x 1 x 12mm)
10	323-1229	2	Socket, Female	28	850-0040	6	Washer, Lock (1/4")
11	323-1385	1	Clamp, Cable	29	526-0018	6	Washer, Flat (1/4")
12			Box, Control	30	323-1582	1	*Plug (12 Pin)
	319-1954	1	1 Phase	31	323-1591	2	*Plug, Seal
	319-2134	1	3 Phase	32	323-1583	1	*Wedge, Plug
13			Plate, CB Cover				
	320-1926-02	1	3 Pole CB				
	320-1813-02	1	2 Pole CB				
14	810-0155	1	Screw, Round Head Brass				

* - Parts Shipped Loose in Plastic Bag.

DC Control



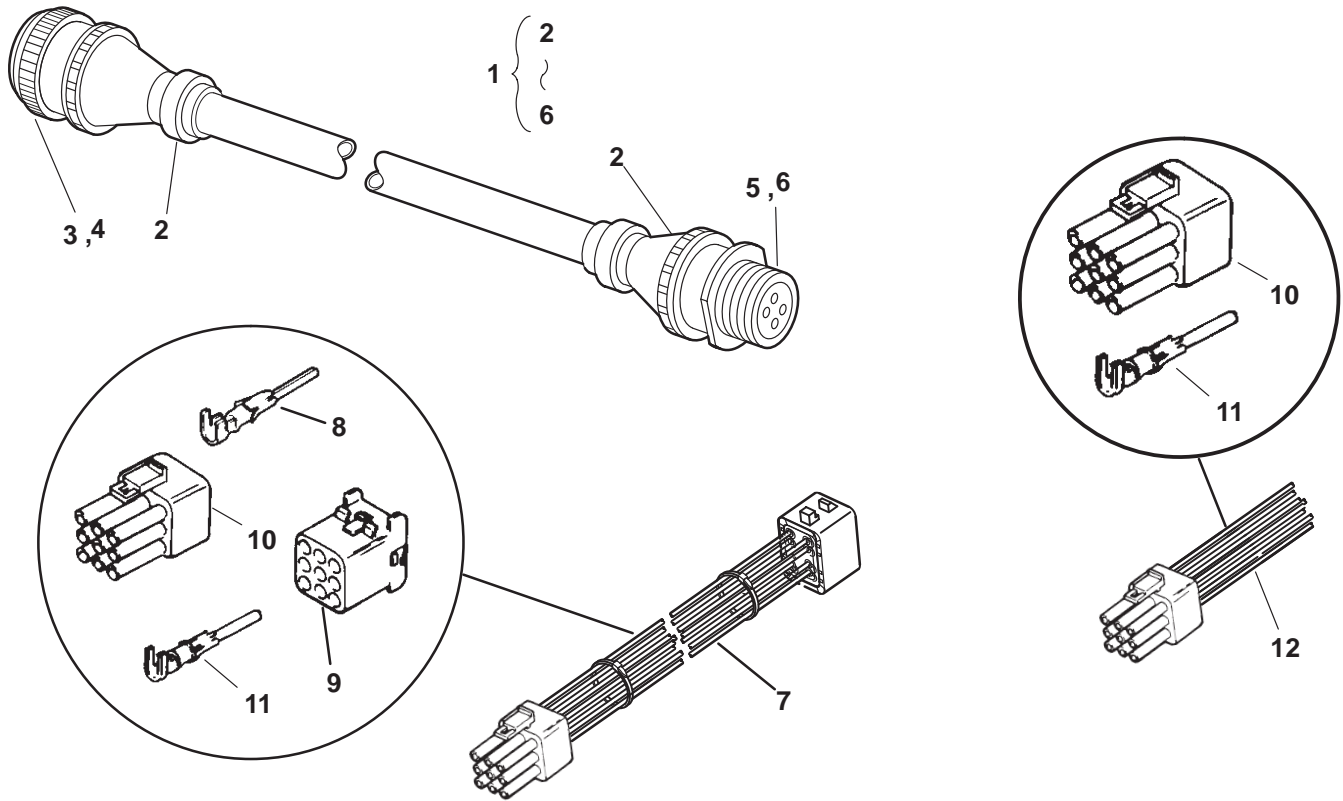
DC Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-1619	1	Box, Control	20	323-1384	1	#Receptacle, Circular (J1)
2	300-2604	1	PCB, Engine Monitor (A11)	21	323-1325	1	#Cap, Connector (J3)
3	320-1141	1	Breaker/Terminal Assy (Fault) (CB12)	22	307-1886	3	#Relay (K13-Heater, K14-Fuel Solenoid, K15-Fuel Flashing)
4	320-1140	1	Breaker, Circuit (CB11)	23	323-1206	1	#Receptacle, Circular (J2)
5	308-0852	1	Switch, Start/Stop (S11)	24	357-0088	1	Rectifier (CR2)
6	402-0078	4	Isolator, Vibration	25	338-2910	1	Harness, Engine (Reaches From Engine to DC Control Box) (Includes Parts Marked ◇)
7	821-0014	2	Screw, Lock Head (5/16-18 x 1/2")				
8	821-0008	2	Screw, Lock Head (1/4-20 x 5/16")	26	332-2304	1	◇Clamp, Cable
9	821-0004	5	Screw, Lock Head (#10-32 x 5/16")	27	323-1195	14	◇Socket, Female
10	810-0155	1	Screw, Round Head Brass Machine (1/4-20 x 1.25")	28	323-1207	1	◇Plug, Circular (J2)
11	856-0006	3	Washer, EIT (1/4")	29	320-1782	1	◇Breaker Assy, Circuit (Includes Circuit Breaker and Insulator)
12	871-0016	2	Nut, Hex (1/4-20)	30	320-1658	1	Breaker, Circuit (CB13)
13	526-0052	1	Washer, Flat (1/4")	31	332-2982	1	Insulator
14	815-0544	8	Screw, Round Head Machine (#6-32 x 1/2")	32	307-1617	1	Relay, Start Solenoid (12V)(K11)
15	812-0029	4	Screw, Round Head Machine (#4-40 x 3/8")	33	332-0941	1	Tie, Cable
16	870-1220	4	Nut, ET Hex (#4-40)	34	821-0014	4	Screw, Lock Flange (5/16-18 x 1/2")
17	870-0183	4	Nut, ET Hex (#6-32)				
18	301-9883	1	Cover, Control				
19	338-2828	1	Harness, DC (Internal to DC Control Box) (Includes Parts Marked #)				

– Parts Included in Control Wiring Harness.

◇ – Parts Included in Engine Wiring Harness

Harnesses



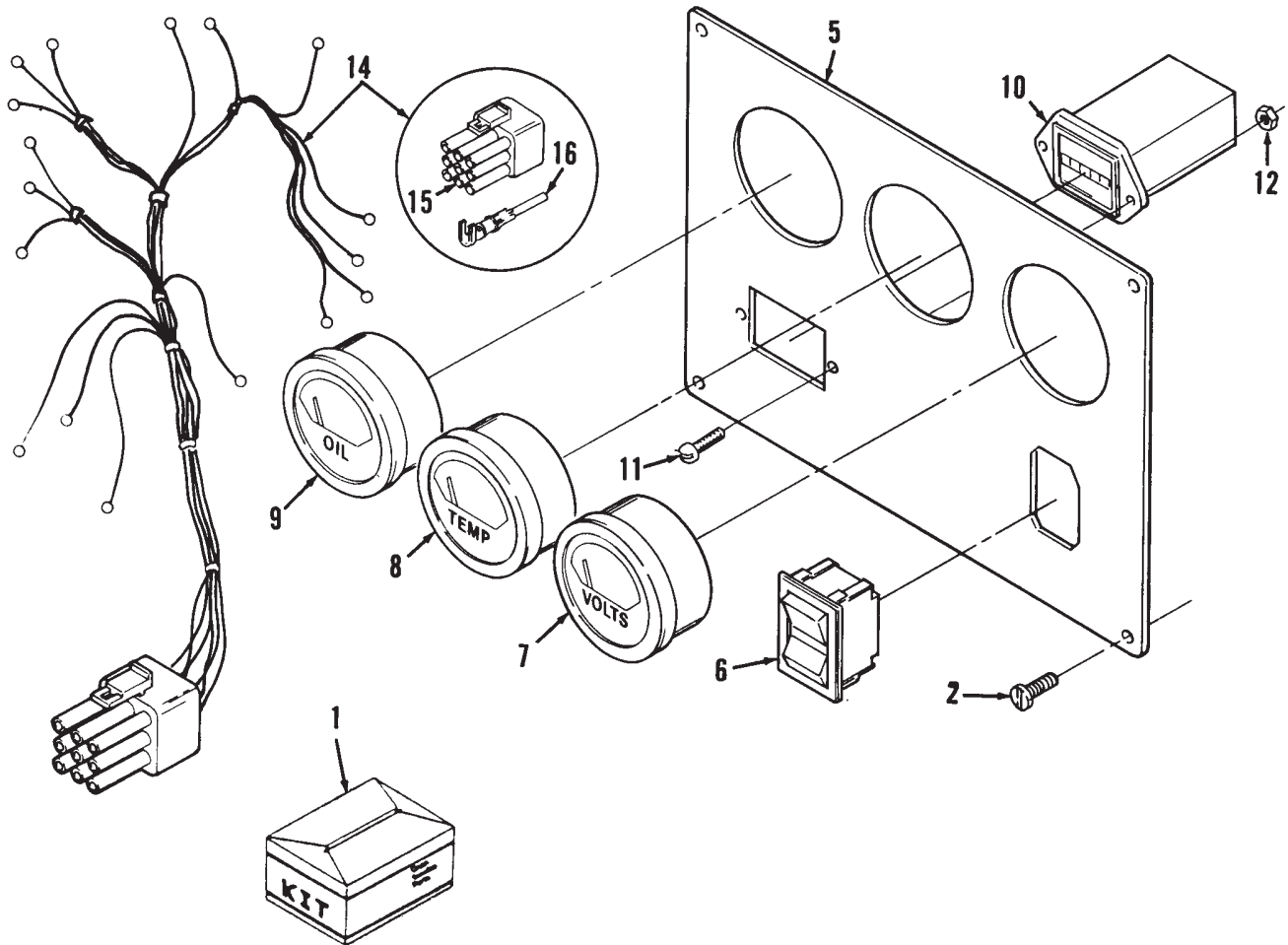
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Control Box Extension (Includes Parts Marked *) DC (Reaches From Remote Mounted DC Control Box to Engine Harness)	6			* Pin, Terminal (J2) (Male)
	338-2912-01	1	18"		323-1228	2	AC Harness (22-18 AWG)
	338-2912-02	1	36"		323-1194	1	DC Harness (18-14 AWG)
	338-2912-03	1	84"				Harness, Remote Panel
	338-2912-04	1	120"				Extension (Reaches From DC Control Box to Remote Panel Harness) (Includes Parts Marked +)
	338-2912-05	1	156"		338-2237	1	15 ft
			AC (Reaches From AC Control Box to Remote Mounted DC Control Box)		338-2238	1	25 ft
	338-2914-01	1	18"	8	323-1200	1	+ Contact, Socket
	338-2914-02	1	36"	9	323-1325	1	+ Cap, Connector
	338-2914-03	1	84"	10	323-1291	1	#+ Plug, 9 Pin (J3)
	338-2914-04	1	120"	11	323-1199	9	#+ Pin, Contact
	338-2914-05	1	156"	12	338-2102	1	Harness, Customer Interface Pigtail (Reaches From DC Control Box to Customer Hookup) (Includes Parts Marked #)
2			* Clamp, Cable				
	323-1385	2	AC Harness				
	332-2304	2	DC Harness				
3			* Plug, Circular (P2)				
	323-1383	1	AC Harness (4 Pin)				
	323-1207	1	DC Harness (24 Pin)				
4			* Socket, Terminal (P2) (Female)				
	323-1229	2	AC Harness (22-18 AWG)				
	323-1195	1	DC Harness (18-14 AWG)				
5			* Plug, Free Hanging Receptacle (J2)				
	323-1620	1	AC Harness (4 Contacts)				
	323-1613	1	DC Harness (24 Contacts)				

* - Parts Included in Extension Control Box Harness.

+ - Parts Included in Extension Remote Panel Harness.

- Parts Included in Remote Harness.

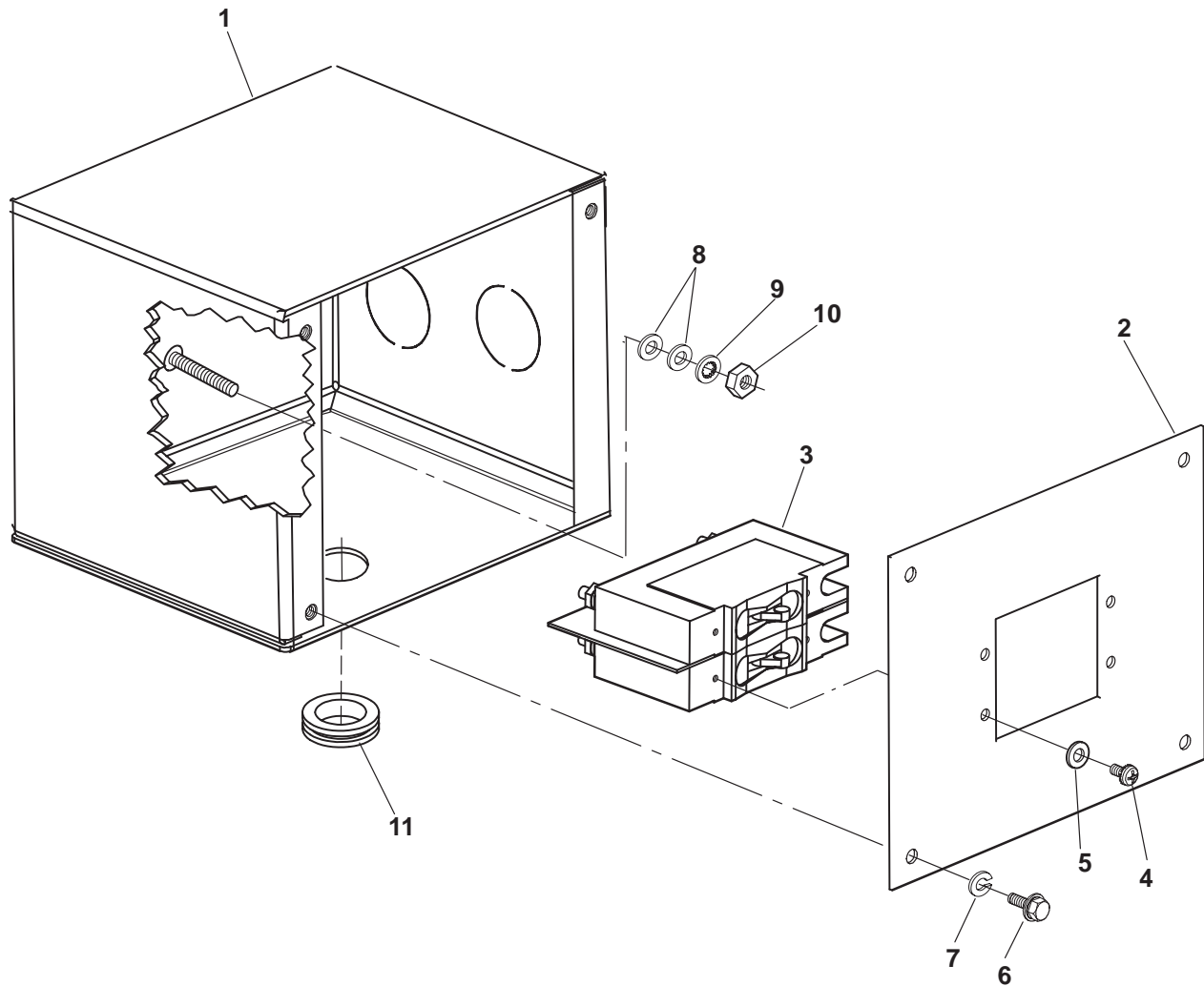
Remote Gauge Panel



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-3248-04	1	Panel Assy, Remote Control (Includes Parts Marked *)	11	815-0385	2	*Screw, Round Head Machine (#6-32 x 1/2')
2	808-0023	4	Screw, Sheet Metal Round Head (#8 x 1/2")	12	870-0183	2	*Nut, ET Hex (#6-32)
5	319-0141	1	*Panel	14	338-2222-02	1	*Harness, Remote Panel (Reaches From Remote Panel to Remote Panel Extension Harness) (Includes Housing and Pins)
6	308-0827	1	*Switch, Rocker (S11)	15	323-1291	1	Housing, Connector (P4)
7	302-1641	1	*Voltmeter (Includes Mounting Hardware) (M14)	16	323-1199	6	Pin, Contact
8	193-0351	1	*Gauge, Coolant Temperature (Includes Mounting Hardware) (M13)				
9	193-0352	1	*Gauge, Oil Pressure (Includes Mounting Hardware) (M12)				
10	302-0885	1	*Meter, Time Totalizing (M11)				

* - Parts Included in Remote Control Panel Assy.

Remote Circuit Breaker Box



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	320-1840		Kit, Remote Mount Circuit Breaker	6	813-0100	4	Screw, Round Head Machine (#10-32 x .50)
1	319-1054	1	Box, Junction	7	850-0030	4	Washer, Lock (#10)
2	319-1055	1	Cover, Junction Box	8	526-0052	2	Washer, Flat (1/4")
3	320-1689-07		Breaker, Circuit (45A)	9	854-0014	1	Washer, Lock IT (1/4")
4	812-0061	4	Screw, Round Head Machine (#6-32 x .38)	10	871-0015	1	Nut, Hex Brass (1/4-20)
5	850-0020	4	Washer, Lock (#6)	11	331-0538	6	Bushing, Reducer (1" to 3/4")

Labels, Gasket Kit

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	185-5795	1	Label		185-6545	1	* Seal, O'Ring
	185-6703	1	Label, BGI		185-5661	2	* Gasket
	98-6303-05	1	Label, Circuit Breaker		185-5663	1	* Gasket
	98-6563	1	Label, Control		185-6603	1	* Gasket, Shaft Cover
	98-5805	1	Label, Control Panel- Front		185-5673	1	* Seal, O'Ring
	98-5761	1	Label, Control Panel – Rear		185-2461	1	* Seal, Oil
	98-5347	1	Label, Danger – High Voltage		185-6616	1	* Gasket, Control Plate
	98-5163-01	1	Label, Fuel Line		185-2284	1	* Gasket
	98-2235	1	Label, Ground		185-5337	4	* Gasket, Nozzle Holder
	185-5796	1	Label, Instruction		185-6511	1	* Gasket, Bearing Case Cover
			Label, Model Ident		185-6508	1	* Gasket, Bearing Case
	98-7139	1	8kW		185-2291	4	* Gasket
	98-7140	1	10kW		509-0196	1	* Seal, O'Ring
	98-5338	1	Label, No Step		185-6580	1	* Gasket, Fuel Pump
	98-6505-02	1	Label, Oil Recommendations		185-6659	2	* Seal, O'Ring
	98-6388-02	1	Label, Phone Info Service/Parts		185-6664	1	* Gasket, Water Flange
			Label, Reconnect		185-2238	1	* Gasket, Thermostat
	98-6671-02	1	1 Phase		185-6676	1	* Gasket, Water Pump
	98-7142	1	3 Phase		185-6697	2	* Gasket, Exhaust Manifold
	98-6573-02	1	Label, Schematic		185-6684	8	* Seal, Valve Stem
	98-5162-01	1	Label, Support Fuel Line		155-2619	1	* Gasket, Exhaust
	98-5755	1	Label, Warning – Hazardous		185-6701	1	* Gasket, Intake Manifold
			Voltage/Backfeed		185-6496	1	* Gasket, Gearcase
	98-6074-02	1	Label, Warning, Toxicity		185-6510	1	* Seal, Oil
			State/Federal		185-5743	2	* Seal, O'Ring
	98-4798-01	2	Label, Warning – Rotating Parts		185-5869	1	* Seal, O'Ring
					185-6494	1	* Seal, Oil
			Kit, Engine Gasket (Includes		185-3078	1	* Seal, O'Ring
			Parts Marked *)		185-2095	1	* Seal, O'Ring
	185-5641	4	* Gasket, Delivery Valve		185-2338	1	* Seal, O'Ring
	185-5643	4	* Seal, O'Ring		185-3080	2	* Seal, O'Ring
	185-5478	1	* Gasket, Oil Pan		185-5869	2	* Seal, O'Ring
	185-2349	2	* Gasket, Oil Fill Plug		185-2284	2	* Seal, O'Ring
	185-6579	1	* Gasket, Pump Cover		140-2848	1	* Seal, O'Ring
	185-6488	1	* Gasket, Gearcae				
	185-6498	2	* Gasket, Valve Cover				
	185-5646	8	* Seal, O'Ring				
	185-6478	1	* Gasket, Cylinder Head				

* – Parts Included in Engine Gasket Kit.

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