

# PISTON PRODUCT LISTING

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# PISTON PRODUCT LISTING

## A10V(S)O BUILD CODE

		A10VSO	71	DFR	/31	R	P	S	C	62	N00
<b>Code</b>	<b>Description</b>	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
A10V /31	Swashplate design variable, normal pressure 280 bar (4000 psi), peak pressure 350 bar (5100 psi)										
A10VS /31	Swashplate design variable, c/w max flow adj. industrial applications normal pressure 280 bar (4000 psi), peak pressure 350 bar (5100 psi)										
A10V /52	Swashplate design variable, normal pressure 250 bar (3600 psi), peak pressure 315 bar (4600 psi)										
A10VS /52	Swashplate design variable, c/w max flow adj. normal pressure 250 bar (3600 psi), peak pressure 315 bar (4600 psi)										
O	Mode of operation (Pump open circuit)										
18	Flow Vg max=18 cm <sup>3</sup> (cu. in. 1.10)										
28	Flow Vg max=28 cm <sup>3</sup> (cu. in. 1.71)										
45	Flow Vg max=45 cm <sup>3</sup> (cu.in.2.75)										
71	Flow Vg max=71 cm <sup>3</sup> (cu. in. 4.33)										
100	Flow Vg max=100 cm <sup>3</sup> (cu. in. 6.10)										
DFR	Pressure and flow controller										
DFR1	Pressure and flow controller X port plugged										
DR	Pressure controller										
DRG	Remote pressure controller										
DFLR	Pressure flow and power control										
31	Series 31										
52	Series 52 (available in 45 model only)										
R	Right (clockwise rotation)										
L	Left (counter clockwise rotation)										
P	Buna-N (FPM shaft seal)										
V	FPM (fluorocarbon)										
P	71 series Metric keyed shaft (DIN 6885) 32mm										
K	71 series SAE keyed shaft (1.250" dia)										
C	71 series Spline shaft (14 tooth cat. type)										
S	71 series SAE spline shaft (14 tooth - 1.250")										
R	71 series SAE spline shaft reinforced for thru-drive torques										
P	45 series Metric keyed shaft (DIN 6885) 25mm										
S	45 series SAE spline shaft (15 tooth - 1")										
U	45 series SAE spline shaft (13 tooth - .875")										
K	45 series SAE keyed shaft (1" dia)										
R	45 series SAE spline shaft reinforced for thru-drive torques										
P	28 series Metric keyed shaft (DIN 6885) 22mm										
S	28 series SAE spline shaft (13 tooth - .875")										
K	28 series SAE keyed shaft (.875" dia)										
R	28 series SAE spline shaft reinforced for thru-drive torques										
P	18 series Metric keyed shaft (DIN 6885) (18mm)										
K	18 series SAE keyed shaft (.750")										
S	18 series SAE spline shaft (11 tooth - .750")										
U	18 series SAE spline shaft (9 tooth - .625")										
P	100 series Metric keyed shaft (DIN 6885) 40mm										
K	100 series SAE keyed shaft (1.5" dia)										
U	100 series SAE spline shaft (14 tooth - 1.250")										
S	100 series SAE spline shaft (17 tooth - 1.5")										
W	100 series SAE spline shaft reinforced for thru-drive (14 tooth 1.250")										
R	100 series SAE spline shaft thru-drive torques										

**Connection**

- A ISO - 2-hole mounting - Not available on 52
- C SAE 2-hole mounting
- 12 18 series Side port flange metric mounting screws
- 62 18 series Side port flange U.N.C. mounting screws
- 11 28 series Rear port flange metric mounting screws
- 12 28 series Side port flange metric mounting screws
- 61 28 series Rear port flange U.N.C. mounting screws
- 62 28 series Side port flange U.N.C. mounting screws
- 11 45 series Rear port flange metric mounting screws
- 12 45 series Side port flange metric mounting screws
- 61 45 series Rear port flange U.N.C. mounting screws
- 62 45 series Side port flange U.N.C. mounting screws
- 64 45/52 series only Rear ported thread connection
- 11 71 series Rear port flange (1" & 1 1/4" comb. pressure port) m. mt screws
- 12 71 series Side port flange (1" & 1 1/4" comb. pressure port) m. mt screws
- 41 71 series Rear port flange (1" pressure) metric mounting screws
- 42 71 series Side port flange (1" pressure) metric mounting screws
- 43 71 series Rear port flange (1 1/4" pressure port) metric mt screws
- 44 71 series Side port flange (1 1/4" pressure port) metric mt screws
- 61 71 series Rear port flange (1" & 1 1/4" comb. pressure port) U.N.C. mt. screws
- 62 71 series Side port flange (1" & 1 1/4" comb. pressure port) U.N.C. mt. screws
- 91 71 series Rear port flange (1" pressure) U.N.C. mounting screws
- 92 71 series Side port flange (1" pressure) U.N.C. mounting screws
- 93 71 series Rear port flange (1 1/4" pressure port) U.N.C. mounting screws
- 94 71 series Side port flange (1 1/4" pressure port) U.N.C. mounting screws
- 12 100 series Side port flange (1" & 1 1/4" comb. pressure port) m. mt. screws
- 62 100 series Side port flange (1" & 1 1/4" comb. pressure port) U.N.C. mt. screws
- 41 100 series Rear port flange (1" pressure) metric mounting screws
- 42 100 series Side port flange (1" pressure) metric mounting screws
- 91 100 series Rear port flange (1" pressure) U.N.C. mounting screws
- 92 100 series Side port flange (1" pressure) U.N.C. mounting screws

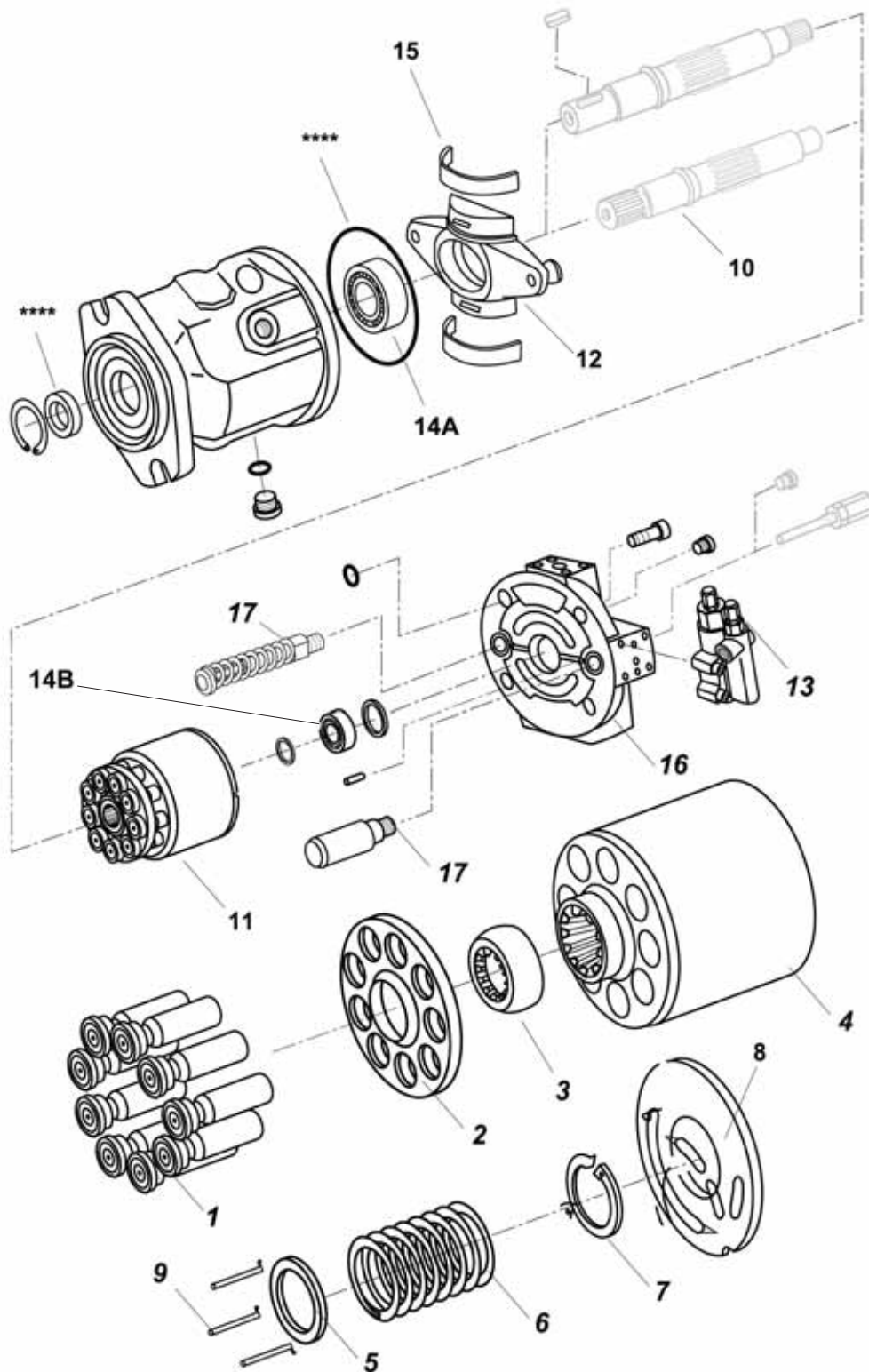
**Thru-drive**

- K01 82-2 SAE A mounting (16-4 SAE "A" coupling required)
- K02 101-2 SAE B pilot mounting (22-4 SAE "B" coupling required)
- K04 101-2 SAE B mounting (25-4 SAE "BB" coupling required)
- K07 127-2 SAE C mounting (32-4 SAE "C" coupling required)
- K24 SAE C mounting - 1 1/2" spline
- K52 82-2 SAE A mounting (19-4 SAE "A-B" coupling required)
- K68 101-2 SAE B mounting (for G4 unit (22-4 SAE "B" coupling required)

Pump Size		18	28	45	71	100
<i>Displacement</i>	cm <sup>3</sup> / rev.	18	28	45	71	100
	in <sup>3</sup> / rev.	1.1	1.71	2.75	4.33	6.1
<i>Nominal pressure</i>	bar	280	280	280	280	280
<i>Peak pressure</i>	bar	350	350	350	350	350
<i>Max speed (rpm)</i>	rpm	3300	3000	2600	2200	2000
<i>Max flow</i>	L/min	59.4	81	113	152	194
	gpm	15.7	21.5	30	40	51

# PISTON PRODUCT LISTING

## A10V(S)O COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## A10V(S)O18

DESCRIPTION			<b>A10V(S)O18 - Series 31</b>	
			PORTING	
PUMP - A10V(S)O18**62N00			SAE - SIDE PORTS	
PUMP - A10V(S)O18**12N00			METRIC - SIDE PORTS	
<b>DFLR CONTROL OPTION</b>				
REF #	DESCRIPTION	QTY.	<b>A10V(S)O18 - Series 31</b>	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B18-72-110	925458
2	RETAINER PLATE	1	B18-75-100	946784
3	BALL GUIDE	1	B18-75-200	944741
4	BARREL	1	B18-73-000	940734
5	SPRING - SEAT	1	B18-78-000	934827
6	SPRING	1	B18-76-100	933409
7	RETAINER	1	X05-02-25120	934832
8a	VALVE PLATE - LEFT	1	B18-74-200	940732
8b	VALVE PLATE - RIGHT	1	B18-74-100	941477
9	PIN (EACH)	3 REQ.	B18-77-500	934826
10a	SHAFT METRIC (CODE P)	1		932605
10b	SHAFT SPLINED (CODE S)	1	B18-50-361	948588
10d	SHAFT KEYED (CODE K)	1		932608
11A	ROTARY GROUP L.H.	1	B18-70-200	944801
11B	ROTARY GROUP R.H.	1	B18-70-100	940435
12A	YOKE L.H.	1	B18-43-210	960983
12B	YOKE R.H.	1	B18-43-110	240-5221
13a	CONTROLLER (DFR/DFR1)***	1	B00-30-100	907094 / 907096
13b	CONTROLLER (DRG)***	1	B00-30-400	916069
13c	CONTROLLER (DR)***	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1		
14B	REAR BEARING - CUP/CONE	1		
15	SADDLE BEARING (EACH)	2 REQ.		
17	CONTROL PISTON ASSY	1		
**	SEAL KIT	1		
**	SEAL KIT - VITON	1		

\*\*\* Controller Included with Pump

# PISTON PRODUCT LISTING

## A10V(S)O28

DESCRIPTION	<b>A10VO28 - Series 31</b>
	<b>PORTING</b>
<b>PUMP - A10V(S)O28**62N00</b>	SAE - SIDE PORTS
<b>PUMP - A10V(S)O28**12N00</b>	METRIC - SIDE PORTS
<b>PUMP - A10V(S)O28**61N00</b>	SAE - REAR PORTS
<b>PUMP - A10V(S)O28**11N00</b>	METRIC - REAR PORTS
<b>DFLR CONTROL OPTION</b>	
<b>THRU DRIVE OPTION - K**</b>	
<b>K01</b> -- SAE A Mount	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND
<b>K02</b> -- SAE B Mount - MA10VO28	HARDWARE
<b>FOR TANDEM PUMP, ADD PRICE OF TWO PUMPS PLUS THRU DRIVE OPTION.</b>	
<b>FOR EXAMPLE: A10VO28/31***K02-A10VO28** (\$1088.87 + \$209.40 + \$1088.87)</b>	

REF #	DESCRIPTION	QTY.	<b>A10VO28 - Series 31</b>	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B28-72-110	925459 / 967658
2	RETAINER PLATE	1	B28-75-100	942514
3	BALL GUIDE	1	B28-75-200	944743
4	BARREL	1	B28-73-000	907125 / 2407325
5	SPRING - SEAT	1	X05-04-33150	2400717 / 918933
6	SPRING	1	B28-76-100	924891
7	RETAINER	1	B28-78-000	939048 / 2400716
8a	VALVE PLATE - LEFT	1	B28-74-200	936647
8b	VALVE PLATE - RIGHT	1	B28-74-100	936648
9	PIN (EACH)	3 REQ.	B28-77-500	785407
10a	SHAFT METRIC (CODE P)	1	B28-50-291	923797 / 2415569
10b	SHAFT SPLINED (CODE S)	1	B28-50-321	947780 / 923789
10c	SHAFT SPLINED (THRU DRIVE CODE S)	1	B28-50-322	926327 / 2417371
10d	SHAFT KEYED (CODE K)	1	B28-50-121	926330
10e	SHAFT METRIC (THRU DRIVE CODE P)	1	B28-50-292	925275 / 2415913
10f	SHAFT KEYED (THRU DRIVE CODE K)	1	B28-50-122	926328
10g	SHAFT SPLINED (THRU DRIVE CODE R)	1	B28-50-822	962290
11A	ROTARY GROUP L.H.	1	B28-70-200	947782 / 958654
11B	ROTARY GROUP R.H.	1	B28-70-100	947781
12A	YOKE L.H.	1	B28-43-220	960999 / 947785
12B	YOKE R.H.	1	B28-43-120	960813 / 947783
13a	CONTROLLER (DFR/DFR1)***	1	B00-30-100	907094 / 907096
13b	CONTROLLER (DRG)***	1	B00-30-400	916069
13c	CONTROLLER (DR)***	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1	X03-33-12556	70109-001
14B	REAR BEARING - CUP/CONE	1	X03-33-11740	70109-002
15	SADDLE BEARING (EACH)	2 REQ.	B28-03-602	902778 / 942158
16	THRU DRIVE COVER K01 (RH)*	1	B28-23-124	5120-542-005
16	THRU DRIVE COVER K02 / K03 (RH)*	1	B28-24-124	5120-542-006
16	THRU DRIVE COVER K01 (LH)*	1	B28-23-224	5120-542-002
16	THRU DRIVE COVER K02 / K03 (LH)*	1	B28-24-224	5120-542-003
17	CONTROL PISTON ASSY	1	B28-40-502	BH00911164
**	COUPLING K01	1	B28-50-512	BH00943539
**	COUPLING K02	1	B28-50-522	BH00943542
**	COUPLING K03	1	B28-50-622	764981
**	SEAL KIT	1	B28-80-100	915845 / 5120-635-005
**	SEAL KIT - VITON	1	B28-80-200	915845V / 5120-635-012

\*\*\* Controller Included with Pump

\* Does not include Coupling/Hardware

# PISTON PRODUCT LISTING

## A10V(S)O45

DESCRIPTION	<b>A10VO45 - Series 52 / 31</b>
	<b>PORTING</b>
PUMP - A10V(S)O45**62N00	SAE - SIDE PORTS
PUMP - A10V(S)O45**12N00	METRIC - SIDE PORTS
PUMP - A10V(S)O45**64N00	SAE - THREADED PORTS (O-RING)
PUMP - A10V(S)O45**61N00	SAE - REAR PORTS
PUMP - A10V(S)O45**11N00	METRIC - REAR PORTS
<b>DFLR CONTROL OPTION - 31 DESIGN ONLY</b>	
<b>THRU DRIVE OPTION - K** -- AVAILABLE ON 31 DESIGN PUMP ONLY</b>	
<b>K01</b> -- SAE A Mount	<b>THE THRU DRIVE (K** OPTION) INCLUDES</b>
<b>K02/K04</b> -- SAE B Mount - A10VO28 OR A10VO45	<b>COUPLING AND HARDWARE</b>
<b>PUMPS INCLUDE STANDARD SPLINED OR KEYPED SHAFTS -- MULTI-PUMPS AVAILABLE IN SERIES 31 ONLY.</b>	

REF #	DESCRIPTION	QTY.	<b>A10VO45 - Series 52 / 31</b>	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B45-72-110	925460 / M963893
2	RETAINER PLATE	1	B45-75-100	943627 / M978872
3	BALL GUIDE	1	B45-75-200	941318
4	BARREL	1	B45-73-000	907001
5	SPRING - SEAT	1	B45-78-000	2400727 / 939056
6	SPRING	1	B45-76-100	2400724 / 071072
7	RETAINER	1	X05-04-38150	2400726 / 912520
8a	VALVE PLATE - LEFT	1	B45-74-200	936644
8b	VALVE PLATE - RIGHT	1	B45-74-100	936645
9	PIN (EACH)	3 REQ.	B45-77-500	941277
10a	SHAFT SPLINED (CODE U)	1	B45-50-321	987649 / 926325
10b	SHAFT SPLINED (CODE S)	1	B45-50-331	923309 / 947729 / 992268
10c	SHAFT KEYPED (CODE K)	1	B45-50-131	923308 / 947788 / 2417380
10d	SHAFT METRIC (CODE P)	1	B45-50-291	923742 / 947820 / 2417378
10e	SHAFT SPLINED (THRU DRIVE CODE R)	1	B45-50-832	962291 / 2417400
10f	SHAFT SPLINED (THRU DRIVE CODE U)	1	B45-50-322	926326 / 2417398
10g	SHAFT KEYPED (THRU DRIVE CODE K)	1	B45-50-132	926335
10h	SHAFT SPLINED (THRU DRIVE CODE S)	1	B45-50-332	923743
10i	SHAFT KEYPED (THRU DRIVE METRIC CODE P)	1	B45-50-292	923310
11a	ROTARY GROUP L.H.	1	B45-70-200	947789 / 914154
11b	ROTARY GROUP R.H.	1	B45-70-100	947730 / 900510
12a	YOKE L.H. (52 Design)	1	B46-43-210	929316
12b	YOKE R.H. (52 Design)	1	B46-43-110	928665
12c	YOKE L.H. (31 Design)	1	B45-43-220	961026 / 947791
12d	YOKE R.H. (31 Design)	1	B45-43-120	961024 / 947790
13b	CONTROLLER (DFR/DFR1)***	1	B00-30-100	907094 / 907096
13c	CONTROLLER (DRG)***	1	B00-30-400	916069
13d	CONTROLLER (DR)***	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1	X03-33-12957	70109-004
14B	REAR BEARING - CUP/CONE	1	X03-33-12245	70109-005
15	SADDLE BEARING - 52 design (EACH)	2 REQ	B46-03-602	933793
15	SADDLE BEARING - 31 design (EACH)	2 REQ	B45-03-602	900198
16	THRU DRIVE COVER K01 (RH)*	1	B45-23-135	5130-542-006
16	THRU DRIVE COVER K02 / K04 (RH)*	1	B45-24-135	5130-542-007
16	THRU DRIVE COVER K01 (LH)*	1	B45-23-235	5130-542-002
16	THRU DRIVE COVER K02 / K04 (LH)*	1	B45-24-235	5130-542-003
17	CONTROL PISTON ASSY - 31 design	1	B45-40-501	BH00910852
**	COUPLING K01	1	B45-50-512	BH00943529
**	COUPLING K02	1	B45-50-522	BH00943531
**	COUPLING K03	1	B45-50-622	763764
**	COUPLING K04	1	B45-50-532	BH00738476
**	COUPLING K05	1	B45-50-632	766933
**	SEAL KIT - 31 Design	1	B45-80-100	925885 / 5130-635-011
**	SEAL KIT - VITON - 31 Design	1	B45-80-200	925885V / 5130-635-013
**	SEAL KIT - 52 Design	1	B46-80-100	963478
**	SEAL KIT - VITON - 52 Design	1	B46-80-200	963478V

\*\*\* Controller Included with Pump

\*\* Part Available (not shown)

\* Does not include Coupling/Hardware



# PISTON PRODUCT LISTING

## A10V(S)O60

DESCRIPTION			A10V(S)O60 - Series 52 & 53	
			PORTING	
PUMP - A10V(S)O60**62N00			SAE - SIDE PORTS	
PUMP - A10V(S)O60**12N00			METRIC - SIDE PORTS	
DFLR CONTROL OPTION				
REF #	DESCRIPTION	QTY.	A10V(S)O60 - Series 52 & 53	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.		2418043
2	RETAINER PLATE	1		2413087
3	BALL GUIDE	1		973533
4	BARREL	1		973540
5	SPRING - SEAT	1		2400742
6	SPRING	1		975251
7	RETAINER	1		9156218
8a	VALVE PLATE - LEFT	1		
8b	VALVE PLATE - RIGHT	1		978570
9	PIN (EACH)	3 REQ.		2400741
10a	SHAFT METRIC (CODE P)	1		
10b	SHAFT SPLINED (CODE S) 15T	1		2413417
	SHAFT SPLINED (CODE S) 13TR			
10d	SHAFT KEYED (CODE K)	1		
11A	ROTARY GROUP L.H.	1		
11B	ROTARY GROUP R.H.	1		973744
12A	YOKE (Bi-Rotational)	1		973545
13a	CONTROLLER (DFR/DFR1)***	1	B00-30-100	907094 / 907096
13b	CONTROLLER (DRG)***	1	B00-30-400	916069
13c	CONTROLLER (DR)***	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1		
14B	REAR BEARING - CUP/CONE	1		
15A	SADDLE BEARING -R	1		2413837
15B	SADDLE BEARING - L	1		2413836
17	CONTROL PISTON ASSY	1		993694
**	SEAL KIT	1		
**	SEAL KIT - VITON	1		

\*\*\* Controller Included with Pump

**\*PUMPS CURRENTLY AVAILABLE; PARTS AVAILABLE SPRING 2008**

# PISTON PRODUCT LISTING

## A10V(S)O71

DESCRIPTION	<b>A10VO71 - Series 31</b>
	<b>PORTING</b>
<b>PUMP - A10V(S)O71**62/92N00</b>	SAE - SIDE PORTS
<b>PUMP - A10V(S)O71**12/42N00</b>	METRIC - SIDE PORTS
<b>PUMP - A10V(S)O71**61/91N00</b>	SAE - REAR PORTS
<b>PUMP - A10V(S)O71**11/41N00</b>	METRIC - REAR PORTS
<b>PUMP - A10V(S)O74**62/92/12/42/11/41N00</b>	ALL TYPES AVAILABLE
<b>DFLR CONTROL OPTION</b>	
<b>THRU DRIVE OPTION - K**</b>	
<b>K01</b> -- SAE A Mount	<i>THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE</i>
<b>K02</b> -- SAE B Mount - A10VO28	
<b>K04</b> -- SAE B Mount - A10VO45	
<b>K07</b> -- SAE C Mount - A10VO71	
<b>FOR TANDEM PUMP, ADD PRICE OF TWO PUMPS PLUS THRU DRIVE OPTION.</b>	
<b>FOR EXAMPLE: A10VO71/31***K02-A10VO28** (\$1763.36 + \$242.46.000 + \$1763.36)</b>	

REF #	DESCRIPTION	QTY.	<b>A10VO71 - Series 31</b>	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B71-72-110	720011 / 924554
2	RETAINER PLATE	1	B71-75-100	919813
3	BALL GUIDE	1	B71-75-200	749745
4	BARREL	1	B71-73-000	907126
5	SPRING - SEAT	1	B71-78-000	720186
6	SPRING	1	B71-76-100	720178
7	RETAINER	1	X05-04-45180	919038
8a	VALVE PLATE - LEFT	1	B71-74-200	936640
8b	VALVE PLATE - RIGHT	1	B71-74-100	936641
9	PIN (EACH)	3 REQ.	B71-77-500	785423
10a	SHAFT METRIC (CODE P)	1	B71-50-291	923751 / 947821 / 995064
10b	SHAFT SPLINED (CODE S)	1	B71-50-341	923553 / 947796 / 987676
10c	SHAFT SPLINED CAT	1	B71-50-343	6E6163
10d	SHAFT KEYED (CODE K)	1	B71-50-141	926333 / 2412021
10e	SHAFT SPLINED (THRU DRIVE CODE S)	1	B71-50-342	923471
10f	SHAFT KEYED (THRU DRIVE CODE K)	1	B71-50-142	926344 / 2412030
10g	SHAFT METRIC (THRU DRIVE CODE P)	1	B71-50-292	925556 / 987680
10h	SHAFT SPLINED CAT (SPECIAL X-LONG)	1	B71-50-344	1970674
11A	ROTARY GROUP L.H.	1	B71-70-200	947802 / 911929
11B	ROTARY GROUP R.H.	1	B71-70-100	947801 / 956007
12A	YOKE L.H.	1	B71-43-220	904689 / 947805
12B	YOKE R.H.	1	B71-43-120	903881 / 947803
13a	CONTROLLER (DFR/DFR1)***	1	B00-30-100	907094 / 907096
13b	CONTROLLER (DRG)***	1	B00-30-400	916069
13c	CONTROLLER (DR)***	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1	X03-33-13573	70109-007
14B	REAR BEARING - CUP/CONE	1	X03-33-12557	70109-008
15	SADDLE BEARING (EACH)	2 REQ	B71-03-602	902777
**	BEARING KIT	1	B71-03-800	5140-635-014
16	THRU DRIVE COVER K01 (RH)*	1	B71-23-196	5140-542-017
16	THRU DRIVE COVER K02 / K04 (RH)*	1	B71-24-196	5140-542-019
16	THRU DRIVE COVER K07 / K08 (RH)*	1	B71-25-196	5140-542-021
16	THRU DRIVE COVER K01 (LH)*	1	B71-23-296	5140-542-018
16	THRU DRIVE COVER K02 / K04 (LH)*	1	B71-24-296	5140-542-020
16	THRU DRIVE COVER K07 / K08 (LH)*	1	B71-25-296	5140-542-022
17	CONTROL PISTON ASSY	1	B71-40-501	910873 / 910870
**	COUPLING K01	1	B71-50-512	BH00943545
**	COUPLING K02	1	B71-50-522	BH00943547
**	COUPLING K03	1	B71-50-622	795682
**	COUPLING K04	1	B71-50-532	BH00943548
**	COUPLING K05	1	B71-50-632	764906
**	COUPLING K07	1	B71-50-542	BH00943549
**	COUPLING K08	1	B71-50-642	766895
**	SEAL KIT	1	B71-80-100	915846 / 5140-635-005
**	SEAL KIT - VITON	1	B71-80-200	915846V / 5140-635-007

\*\*\* Controller Included with Pump

\*\* Part Available (not shown)

\* Does not include Coupling/Hardware



# PISTON PRODUCT LISTING

## A10V(S)O100

DESCRIPTION	<b>A10VO100 - Series 31</b>
	PORTING
PUMP - A10V(S)O100**62N00	SAE - SIDE PORTS
PUMP - A10V(S)O100**12N00	METRIC - SIDE PORTS
PUMP - A10V(S)O100**61N00	SAE - REAR PORTS
PUMP - A10V(S)O100**11N00	METRIC - REAR PORTS

**DFLR CONTROL OPTION**

**THRU DRIVE OPTION - K\*\***

**K52** -- SAE A Mount

**K02** -- SAE B Mount - A10VO28

**K04** -- SAE B Mount - A10VO45

**K07 / K08** -- SAE C Mount - A10VO71

**K24** -- SAE C Mount - A10VO100

*THE THRU DRIVE (K\*\* OPTION) INCLUDES  
COUPLING AND HARDWARE*

**FOR TANDEM PUMP, ADD PRICE OF TWO PUMPS PLUS THRU DRIVE OPTION.**

**FOR EXAMPLE: A10VO100/31\*\*\*K02-A10VO28\*\* (\$2810.36 + \$308.59 + \$2810.36)**

REF #	DESCRIPTION	QTY.	<b>A10VO100 - Series 31</b>	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B10-72-110	925463 / 2418003
2	RETAINER PLATE	1	B10-75-100	967136 / 996526
3	BALL GUIDE	1	B10-75-200	906813 / 944744
4	BARREL	1	B10-73-000	906882 / 2407207
5	SPRING - SEAT	1	B10-78-000	906880
6	SPRING	1	MPN400031	906894
7	RETAINER	1	X05-02-62200	791555
8a	VALVE PLATE - LEFT	1	B10-74-200	936639
8b	VALVE PLATE - RIGHT	1	B10-74-100	936661
9	PIN (EACH)	3 REQ.	B10-77-500	906879
10a	SHAFT SPLINED (CODE U)	1	B10-50-341	2410600 / 923312
10b	SHAFT SPLINED (CODE S)	1	B10-50-381	924553 / 987698
10c	SHAFT KEYED (CODE K)	1	B10-50-181	923317 / 2410595
10d	SHAFT METRIC (CODE P)	1	B10-50-291	925162 / 987699
10e	SHAFT SPLINED (THRU DRIVE CODE R)	1	B10-50-882	993523
10f	SHAFT SPLINED (THRU DRIVE CODE W)	1	B10-50-842	987686
10g	SHAFT METRIC (THRU DRIVE CODE P)	1	B10-50-292	923709 / 987697
10h	SHAFT KEYED (THRU DRIVE CODE K)	1	B10-50-182	924552 / 2410605
10i	SHAFT SPLINED (THRU DRIVE CODE S)	1	B10-50-382	923316
11A	ROTARY GROUP L.H.	1	B10-70-200	907681 / 948604
11B	ROTARY GROUP R.H.	1	B10-70-100	948603 / 906871
12A	YOKE L.H.	1	B10-43-220	948606 / 906886
12B	YOKE R.H.	1	B10-43-120	961050 / 948605
13a	CONTROLLER (DFR/DFR1)*	1	B00-30-100	907094
13b	CONTROLLER (DRG)*	1	B00-30-400	916069
13c	CONTROLLER (DR)*	1	B00-30-100	942581 / 907370
14A	SHAFT BEARING - CUP/CONE	1	X03-33-14587	906908
14B	REAR BEARING - CUP/CONE	1	X03-333-13062	906909
15	SADDLE BEARING (EACH)	2 REQ	B10-03-602	906881
17	CONTROL PISTON ASSY	1	B10-40-501	913784
**	SEAL KIT	1	B10-80-100	915847
**	SEAL KIT - VITON	1	B10-80-200	915847V

\* Included w/Pump

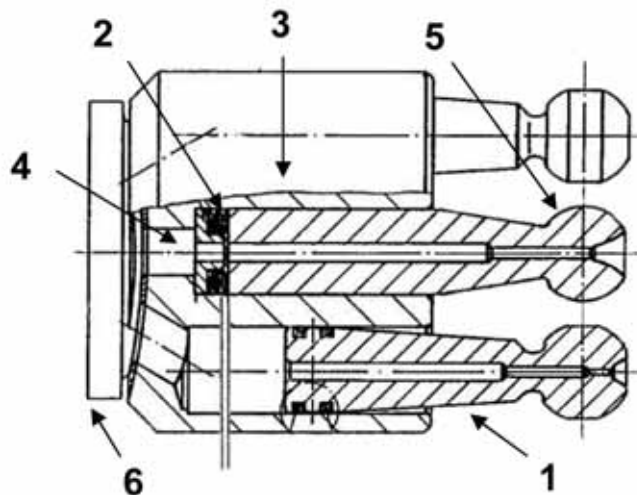
\*\* Part Available (not shown)

# PISTON PRODUCT LISTING

## A10V(S)O140

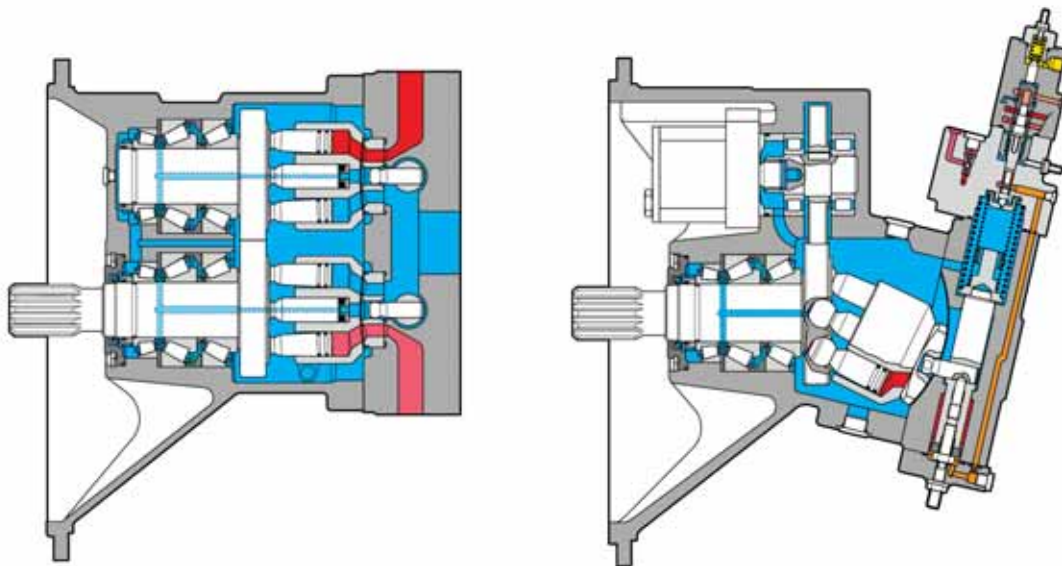
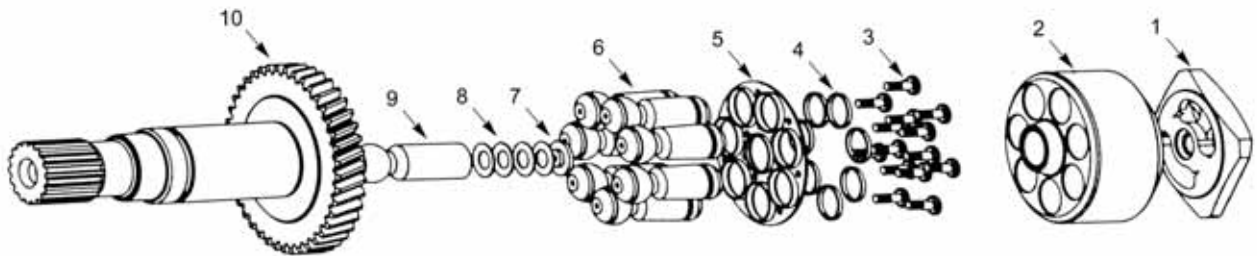
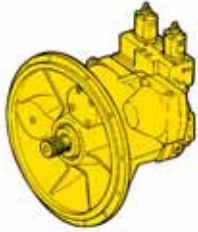
REF #	DESCRIPTION	QTY.	A10VO140 - Series 31	
			#	ALTERNATIVE #
1	PISTON (EACH)	9 REQ.	B14-72-110	925464
2	RETAINER PLATE	1	B14-75-100	996527
3	BALL GUIDE	1	B14-75-200	944745
4	BARREL	1	B14-73-000	945341
5	SPRING - SEAT	1	B14-78-000	917727
6	SPRING	1	B14-76-100	918171
7	RETAINER	1	*****	*****
8a	VALVE PLATE - LEFT	1	B14-74-200	975126
8b	VALVE PLATE - RIGHT	1	B14-74-100	973907 / 975125
9	PIN (EACH)	3 REQ.	B14-77-500	917728
11A	ROTARY GROUP L.H.	1	B14-70-200	948618
11B	ROTARY GROUP R.H.	1	B14-70-100	948617
12A	YOKE L.H.	1	B14-43-210	948620
12B	YOKE R.H.	1	B14-43-110	948619
14A	SHAFT BEARING - CUP/CONE	1	*****	*****
14B	REAR BEARING - CUP/CONE	1	*****	*****
**	SEAL KIT	1	B14-80-100	941169

REF #	DESCRIPTION	QTY.	A2F107	
			#	ALTERNATIVE #
1	PISTON (EACH)	7 REQ.	B27-72-110	426823 / 410321
2	RETAINER PLATE	1	B87-75-100	444764
3	BARREL	1	B27-73-010	421288 / 421309
4	SPRING	1	B27-76-200	400105
5	CENTER PIN	1	B27-77-400	409486
6	VALVE CONTROL PLATE -RH	1	B27-74-100	650851



# PISTON PRODUCT LISTING

## A8VO COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## A8VO - (107/160)

REF #	DESCRIPTION	QTY.	A8VO107	
			#	ALTERNATIVE #
**	ROTATING GROUP (DRIVE)	1	B87-70-112	428522 / 441183
**	ROTATING GROUP (IDLER)	1	B87-70-211	428185 /441184
**	ROTATING GROUP (w/o SHAFT)	1	B87-70-000	434586
1a	VALVE PLATE - LEFT	1	B87-74-200	650454
1b	VALVE PLATE - RIGHT	1	B87-74-100	650453
2	CYLINDER BARREL	1	B87-73-000	430886
3	SCREW (EACH)	14 REQ.	X41-21-05016	449235
4	PISTON RING (EACH)	7 REQ.	B87-72-300	156248
5	RETAINER PLATE	1	B87-75-100	444764
6	PISTON (EACH)	7 REQ.	B87-72-110	443469
6a	PISTON WITH RING (EACH)	7 REQ.	B87-72-120	2021910
7	SPACER	1	AS REQUIRED	AS REQUIRED
8	DISC SPRING (EACH)	4 REQ.	B87-76-200	409134
9	CENTER PIN	1	B87-77-400	410289
10	DRIVE SHAFT (Main)	1	B87-50-399	430673
*	DRIVE SHAFT (Hub)	1	B87-50-999	411723 / 425724
*	SHAFT BEARING (ASSEMBLY)	1	MPN098921	154486
*	SEAL KIT	1	B87-80-200	270941
*	CUP COLLAR	1	B87-92-051	412570

\* Parts Available (not shown)

\*\* Rotating Group Includes: Drive Shaft, Barrel, Pistons, Bearings

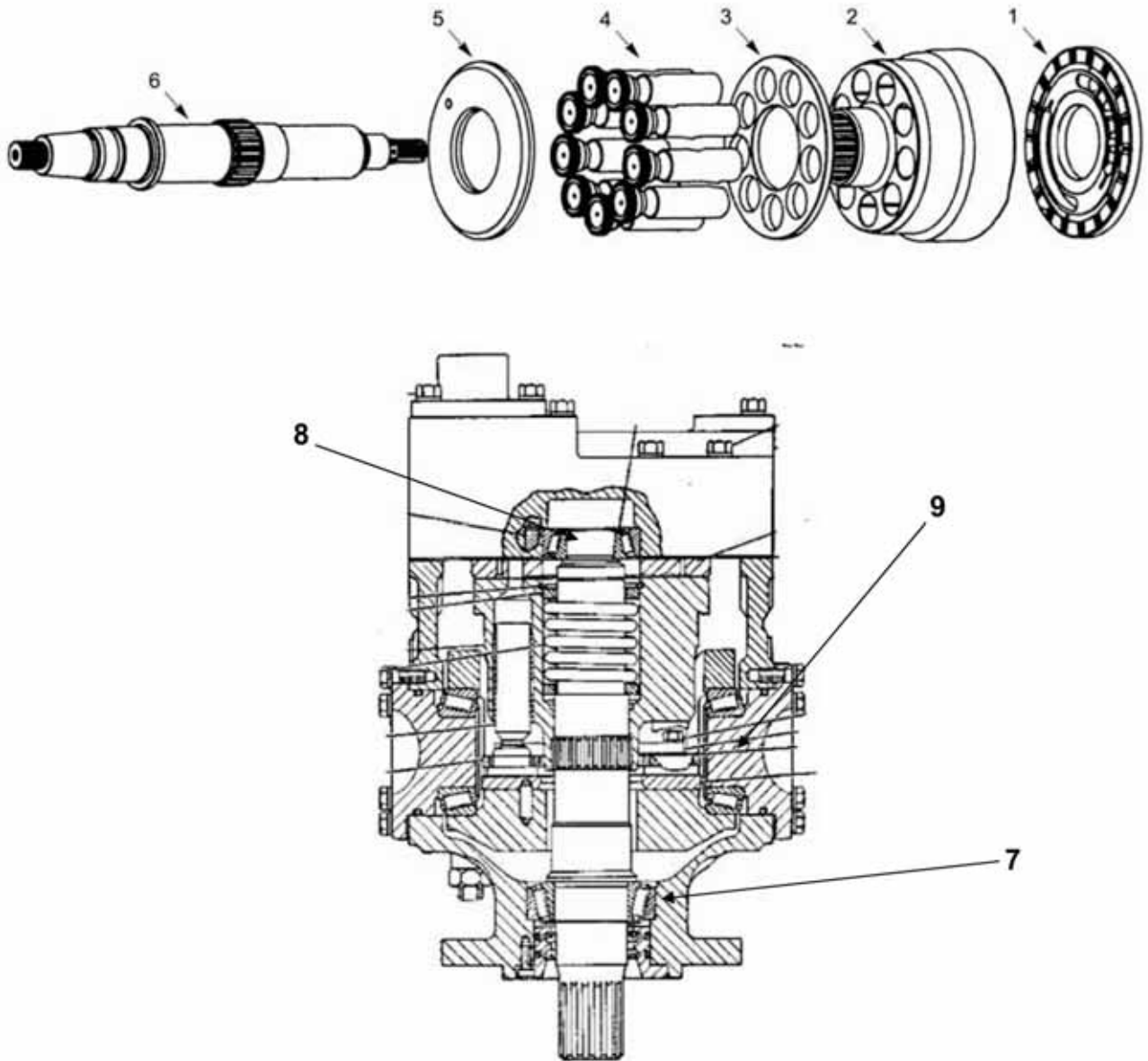
REF #	DESCRIPTION	QTY.	A8VO160	
			#	ALTERNATIVE #
1a	VALVE PLATE - LEFT	1	B86-74-200	650456
1b	VALVE PLATE - RIGHT	1	B86-74-100	650455
2	CYLINDER BARREL	1	B86-73-000	430794
3	SCREW (EACH)	14 REQ.	X41-21-06020	831108
4	PISTON RING (EACH)	7 REQ.	B86-72-300	9831897
5	RETAINER PLATE	1	B86-75-100	6269
6	PISTON (EACH)	7 REQ.	B86-72-110	440274
6a	PISTON WITH RING (EACH)	7 REQ.	B86-72-120	2021911
7	SPACER	1	AS REQUIRED	AS REQUIRED
8	DISC SPRING (EACH)	4 REQ.	MPN025016	410551
9	CENTER PIN	1	B86-77-400	410552
**	BEARING (Main)*	1	MPN400057	156512
**	BEARING - SHAFT	1	MPN400058	23232
**	CUP COLLAR	1	MPN025018	414031

\*\* Parts Available (not shown)

\* Includes Spacer Assembly

# PISTON PRODUCT LISTING

## CATERPILLAR® COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## CATERPILLAR®

<b>CATERPILLAR® 215 EXCAVATORS</b>			
Used in Pump #'s : 8J6853, 4T7025, 9T1062, 1U4748			
REF #	CATERPILLAR #	REPLACES #	DESCRIPTION
3	4T7022	9J7858, 8J6328	RETAINER PLATE
5	1U0406	9J7857, 8J6346	THRUST PLATE
6	3G2331		SHAFT
	1U3444		VALVE PLATE
	8J2037		PISTON (EACH)
**	3G1707		SEAL KIT

<b>CATERPILLAR® 225 EXCAVATORS</b>			
Used in Pump #'s : 3G3287, 9J9362, 4T7028, 8J7823, 4T7426, 8J2344, 8J4379			
REF #	CATERPILLAR #	REPLACES #	DESCRIPTION
1	3G2859	9J2484, 8J2024, 9J1283	VALVE PLATE
2	9J2417	9J8266, 8J5038, 9J3969	CYLINDER BARREL
3	4T7024	8J9966	RETAINER PLATE
4	1U2738	9J4936, 9J4935, 8J1913, 8J1912	PISTON (EACH)
5	3G9671	8J0488, 9J0560	THRUST PLATE
7a	7K8877	<b>BEARING PRICES AVAILABLE UPON REQUEST</b>	FRONT - CONE
7b	7K8876		FRONT - CUP
8 & 9	8J0423		REAR - CONE
8 & 9	8J0422		REAR - CUP
6	8J8654		SHAFT
**	3G1688		SEAL KIT

<b>CATERPILLAR® 235 EXCAVATORS</b>			
Used in Pump #'s : 8J1905, 1U4722, 4T2507, 7J8240, 4T4026			
REF #	ALTERNATIVE #	REPLACES #	DESCRIPTION
1	6E1332	9J3526, 8J6900	VALVE PLATE
2	9J8667	8J7332, 3G2736, 9T7356	CYLINDER BARREL
3	4T7023	6C0415, 3G150, 8J0179	RETAINER PLATE
4	4T3122	8J6897, 4T3154	PISTON (EACH)
5	3G4779	8J0171	THRUST PLATE
7a	7J8893	<b>BEARING PRICES AVAILABLE UPON REQUEST</b>	FRONT - CONE
7b	7J8894		FRONT - CUP
8a	3P1210		REAR - CONE
8b	8J0412		REAR - CUP
9a	2D9190		SIDE - CUP
9b	2D9191	SIDE - CONE	
6	8J6802		SHAFT -245 only
**	8J8652		SEAL KIT

<b>CATERPILLAR® 320 SWING MOTOR</b>		
Used in Motor #'s : 087-4715, 087-4824, 115-3737, 116-3550, 123-1998, 123-1999, 147-5789		
REF #	CATERPILLAR #	DESCRIPTION
1	5I8628	VALVE PLATE
2	5I8631	BARREL ASSEMBLY
3	5I8636	RETAINER PLATE
4	5I8632	PISTON (EACH)
5	5I8637	THRUST PLATE
**	5I8634	BALL GUIDE
**	5I8420	PIN
**	5I8629	SEPARATION PLATE
**	5I8630	FRICTION PLATE
7a	5I8419	BEARING - FRONT
8	5I8625	BEARING - REAR



# PISTON PRODUCT LISTING

**CATERPILLAR®**

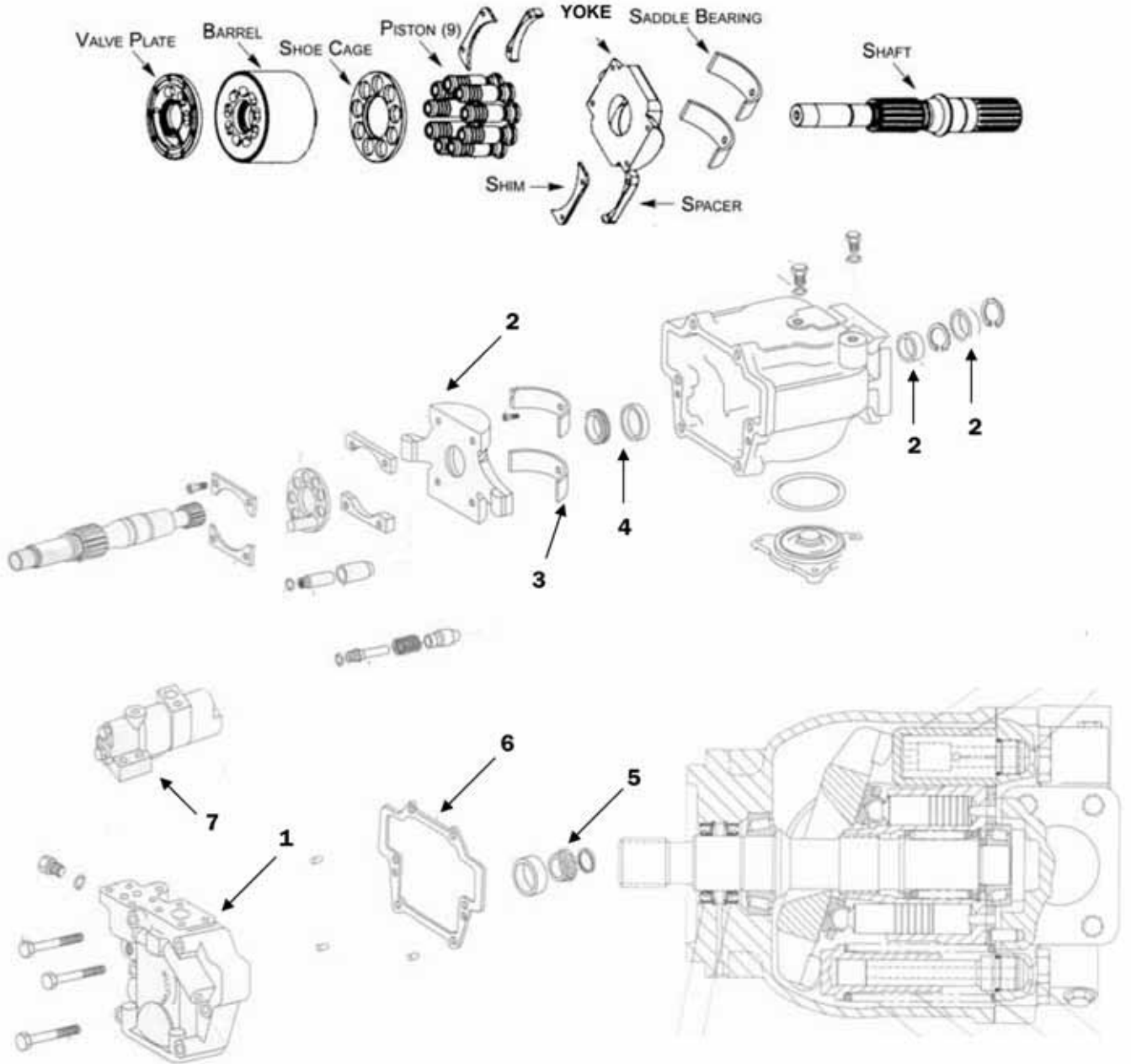
<b>CATERPILLAR® 245 EXCAVATORS &amp; 992C WHEEL LOADERS</b>			
Used in Pump #'s : 4T2506, 8J4380, 4T7027, 3G7230, 1U3840, 3G2848, 1U477, 9J4834			
REF #	ALTERNATIVE #	REPLACES #	DESCRIPTION
1	6E1332	9J3526, 8J6900	VALVE PLATE - 245 Only
	6E1875	3G1717	VALVE PLATE - 992 Only
2	9J8667	8J7332, 3G2736, 9T7356	BARREL ASSEMBLY
3	4T7023	6C0415, 3G150, 8J0179	RETAINER PLATE
4	4T3122	8J6897, 4T3154	PISTON (EACH)
5	3G4779	8J0171	THRUST PLATE
7a	7J8893	<b>BEARING PRICES AVAILABLE UPON REQUEST</b>	FRONT - CONE
7b	7J8894		FRONT - CUP
8a	3P1210		REAR - CONE
8b	8J0412		REAR - CUP
9a	2D9190		SIDE - CUP
9b	2D9191		SIDE - CONE
6	3G4604		SHAFT
**	8J8652		SEAL KIT

<b>CATERPILLAR® 14G / 16G MOTOR GRADERS</b>			
Used in Pump #'s : 4T2768, 4T2767, 8J6168, 8J6855, 9T3547			
REF #	ALTERNATIVE #	REPLACES #	DESCRIPTION
1	3G2859	9J2484, 8J2024, 9J1283	VALVE PLATE
2	9J2417	9J8266, 8J5038, 9J3969	BARREL ASSEMBLY
3	4T7024	8J9966	RETAINER PLATE
4	1U2738	9J4936, 9J4935, 8J1913, 8J1912	PISTON (EACH)
5	3G9671	8J0488, 9J0560	THRUST PLATE
7a	7K8877	<b>BEARING PRICES AVAILABLE UPON REQUEST</b>	FRONT - CONE
7b	7K8876		FRONT - CUP
8 & 9	8J0423		REAR - CONE
8 & 9	8J0422		REAR - CUP
6	8J5592		SHAFT
**	3G1689	SEAL KIT	

<b>CATERPILLAR® 12G / 120G / 130G / 140G MOTOR GRADERS</b>			
Used in Pump #'s : 8J0498, 8J6730, 8J6155, 8J6188, 8J6731, 8J6855, 4T2768, 9T3547			
REF #	ALTERNATIVE #	REPLACES #	DESCRIPTION
1	9J5758	9J2516	VALVE PLATE
2	9J8660	8J6348	BARREL ASSEMBLY
3	4T7022	9J7858, 8J6328	RETAINER PLATE
4	8J2022		PISTON (EACH)
5	1U0406	9J7584, 8J6346	THRUST PLATE
7a	8J6315	<b>BEARING PRICES AVAILABLE UPON REQUEST</b>	FRONT - CONE
7b	8J6314		FRONT - CUP
8	1B3953		REAR - CONE
8	8J6322		REAR - CUP
9	3G3156		SIDE
6	8J6296		SHAFT
**	3G1708	SEAL KIT	

# PISTON PRODUCT LISTING

## VICKERS® PVH / PVE COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## VICKERS® PVH98 BUILD CODE

*Ordering Code (example)*

**PVH98 \*\* C R F 2S 11 C23 V 31 \*\*\***

### APPLICATION

QI - QUIET INDUSTRIAL VERSION  
BLANK - OMIT FOR MOBILE VERSION

### MOUNTING

C - SAE "C" 4-BOLT

### ROTATION

R - RIGHT HAND  
L - LEFT HAND

### MAIN PORTS

F - SAE 4-BOLT FLANGE PORTS

### SHAFT

2 - SAE 14-TOOTH SPLINE  
1 - SAE C STRAIGHT KEYED  
3 - SAE CC 17-TOOTH SPLINE

### SEAL TYPE

S - SINGLE SHAFT SEAL  
D - DOUBLE SHAFT SEAL

### PUMP DESIGN #

11 - DESIGN  
10 - DESIGN

### CONTROL TYPE

C - COMPENSATOR 2000-4000 PSI  
CM - COMPENSATOR 500-2000 PSI 23-230 BAR (3335 PSI)

### COMPENSATOR PRESSURE SETTING

\*\*--MULTIPLE CONFIGURATIONS

### OPTIONAL PRESSURE CONTROL

V - LOAD SENSING 20 BAR (230 PSI)  
BLANK - STANDARD MODEL

### COMPENSATOR DESIGN #

31 - DESIGN

\*\*\*SPECIAL SUFFIX CODE - INCLUDE WITH PUMP CODE FOR SPECIAL FEATURES

# PISTON PRODUCT LISTING

## VICKERS® PVH / PVE

REF #	DESCRIPTION	QTY	PVE 19 / PVQ 40	
			#	ALTERNATIVE #
**	Rotating Group Assembly	1	PN093160	923948
**	Barrel	1	PN093151	426454
**	Piston (EACH)	9 REQ.	PN093627	923939
**	Shoe Cage {Retainer Plate}	1	PN093628	402650
**	Ball Guide (Spherical Washer)	1	PN093629	402580
**	Valve Plate - LH	1	PN093152	425415
**	Valve Plate - RH	1	PN093153	425412
**	Pin Retainer	1	PN093165	410050
**	Pin (EACH)	3 REQ.	PN093155	248810
**	Spring	1	PN093157	402579
**	Spring Washer a	1	PN093156	404932
**	Spring Washer b	1	PN093158	423368
**	Snap Ring	1	PN093159	99907
**	Swash Plate	1	PN105133	9T2231

REF #	DESCRIPTION	QTY	PVE 21 / PVQ 45	
			#	ALTERNATIVE #
**	Rotating Group Assembly	1	PN093171	923947
**	Barrel	1	PN093161	418215
**	Piston (EACH)	9 REQ.	PN093162	923946
**	Shoe Cage {Retainer Plate}	1	PN093628	402650
**	Ball Guide (Spherical Washer)	1	PN093629	402580
**	Valve Plate - LH	1	PN093164	425416
**	Valve Plate - RH	1	PN093630	425413
**	Pin Retainer	1	PN093165	410050
**	Pin (EACH)	3 REQ.	PN093155	248810
**	Spring	1	PN093157	402579
**	Spring Washer a	1	PN093156	404932
**	Spring Washer b	1	PN093158	423368
**	Snap Ring	1	PN093159	99907

REF #	DESCRIPTION	QTY	PVH 57 / PVE 27	
			#	ALTERNATIVE #
**	Rotating Group Assembly PVE27	1	PN098556	938102
**	Rotating Group Assembly PVH57	1	PN098418	877420
**	Barrel	1	PN093108	937023 / 680625
**	Piston (EACH)	9 REQ.	PN093109	306362
**	Piston Kit (SET)	1	PN098552	926257
**	Shoe Cage {Retainer Plate}	1	PN093110	584512
**	Valve Plate - LH	1	PN093115	680631
**	Valve Plate - RH	1	PN093116	680630
**	Yoke	1	PN093118	690832
**	Saddle Bearing (W) PVH57 (each)	1	PN092338	513885
**	Saddle Bearing (N) PVH57 (each)	1	PN092339	513886
**	Spacer Pair (2pc Included)	2 REQ.	PN093119	690801
**	Spring Guide	1	PN093111	680624
**	Spring	1	PN093112	627524
**	Spring Guide	1	PN093113	584524
**	Retaining Ring	1	PN093114	85560
**	Spacer Pair (2pc Included)	2 REQ.	PN098072	632587
**	Swash Plate PVE27	1	PN098075	584515
**	Limiter Pair (2pc Included)	2 REQ.	PN093120	690218
**	Gasket	2 REQ.	PN093624	513846
**	Seal Kit	1	PN400125	102244

# PISTON PRODUCT LISTING

## VICKERS® PVH / PVE

REF #	DESCRIPTION	QTY	PVH 74 / PVE 35	
			#	ALTERNATIVE #
**	Rotating Group Assembly PVH74	1	PN098417	877421
**	Rotating Group Assembly PVE35	1	PN098451	938101
**	Barrel	1	PN092725	937025 / 680626
**	Piston (EACH)	9 REQ.	PN092724	305857
**	Piston Kit (SET)	1	PN093626	941424
**	Shoe Cage {Retainer Plate}	1	PN093631	584774
**	Valve Plate - LH	1	PN093632	627437
**	Valve Plate - RH	1	PN400060	627438
**	Yoke	1	PN093105	526651
**	Spacer (2pc Included)	2 REQ.	PN093106	526639
**	Spring Guide	1	PN400061	631568
**	Spring	1	PN400062	584454
**	Spring Guide	1	PN400063	584483
**	Retaining Ring	1	PN400064	91365
**	Spacer (EACH)	2 REQ.	PN098074	584473
**	Swash Plate PVE35	1	PN098076	631567
**	Limitter (2pc Included)	2 REQ.	PN093107	690796
**	Gasket	1	PN400065	526631
**	Seal Kit	1	PN400066	102262
**	Saddle Bearing (N) PVH74 (each)	1	PN098399	513927
**	Saddle Bearing (W) PVH74 (each)	1	PN098400	513926

# PISTON PRODUCT LISTING

## VICKERS® PVH / PVE

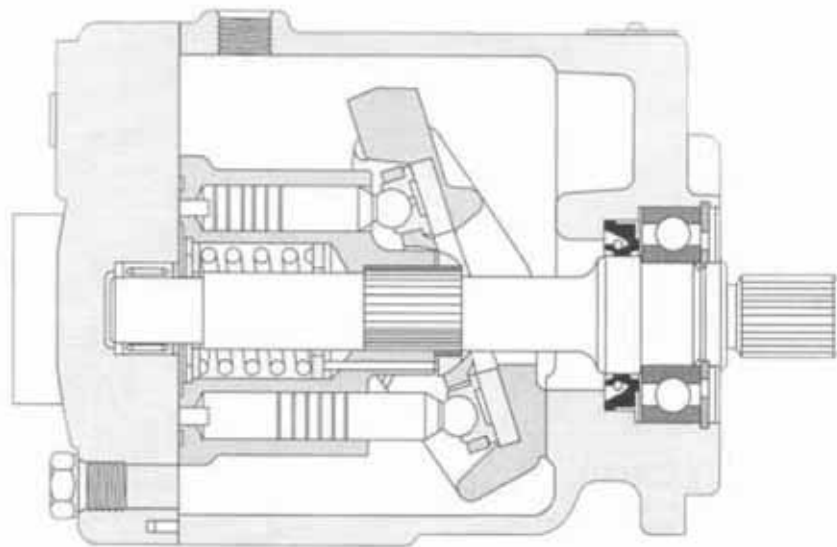
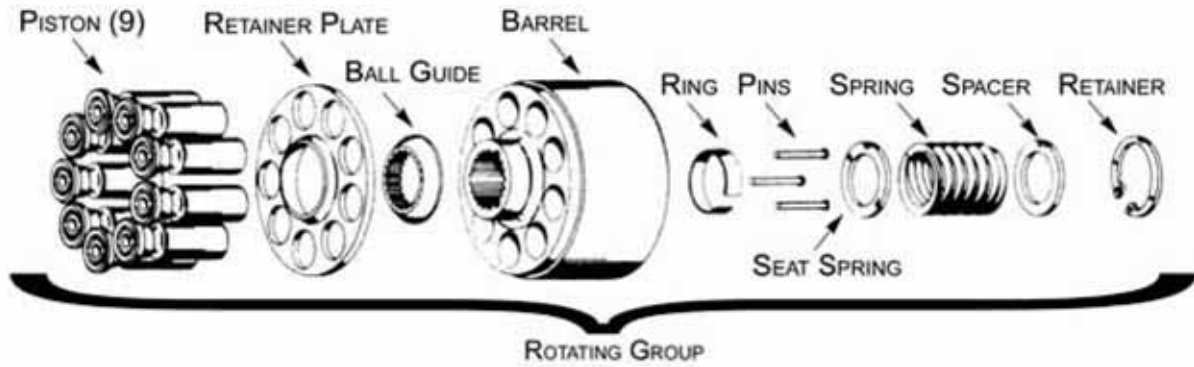
REF #	DESCRIPTION	QTY	PVH 98 / PVE 47	
			#	ALTERNATIVE #
**	<b>PUMP</b>	1	<b>SEE MODEL CODE</b>	
PUMP AVAILABLE WITH EITHER MOBILE OR INDUSTRIAL COMPENSATORS. CATERPILLAR® CONFIGURATIONS AVAILABLE.				
*	Rotating Group Assembly PVH98	1	PN098419	877422
*	Rotating Group Assembly PVE47	1	PN098554	938103
*	Barrel	1	PN091101	680627
*	Piston (EACH)	9 REQ.	PN091100	02-152400
*	Piston Kit (SET)	1	PN098553	926246
*	Shoe Cage {Retainer Plate}	1	PN025013	584539
1a	Valve Block - RH	1	PN098098	928635
1b	Valve Block - LH	1	PN091104	928684
	Valve Block Metric -LH	1	PN091105	928685
*	Mobile Valve Plate - LH	1	PN091106	584540
*	Mobile Valve Plate - RH	1	PN091107	627371
*	Industrial Valve Plate - RH	1	PN090489	514122
*	Industrial Valve Plate - LH	1	PN090503	514120
2	Yoke	1	PN090508	513629
3	Saddle Bearing (W)	1	PN095061	513911
3a	Saddle Bearing (N)	1	PN095062	513912
4	Front Shaft Bearing	1	PN092123	388154
5	Rear Shaft Bearing	1	PN092126	413603
*	#1 Keyed Shaft	1	PN091568	527167
*	#5 Tapered Keyed Shaft	1	PN093431	6E1861
*	14T Splined Shaft	1	PN090488	513627
**	Spacer PVH98 (2pc Included)	2 REQ.	PN092271	513625
**	Spacer PVE47 (EACH)	2 REQ.	PN098073	584545
**	Spring Guide	1	PN091596	584546
**	Spring	1	PN091597	627192
**	Spring Guide	1	PN091594	584547
**	Retaining Ring	1	PN091595	102038
**	Swash Plate PVE27	1	PN098077	584531
**	Limiters (Pair)	2 REQ.	PN091103	513626
6	Gasket	1	PN091593	513631
7a	Load Sensing Control Valve	1	PN090694	02-125161
7b	Standard 'C' Compensator	1	PN090509	02-125160
8	Shaft Seal	1	PN091827	589332
**	Seal Kit	1	PN092717	102264

REF #	DESCRIPTION	QTY	PVH 131 / PVE62	
			#	ALTERNATIVE #
**	Rotating Group Assembly	1	PN098425	877419
**	Barrel	1	PN093699	680628
**	Piston (EACH)	9 REQ	PN025003	159749
**	Shoe Cage {Retainer Plate}	1	PN025011	683791
**	Valve Plate - LH	1	PN095223	527163
**	Valve Plate - RH	1	PN095224	527164
**	Yoke	1	PN095225	692941
**	Spacer Kit (2 pcs included)	2	PN095226	526757
**	Limiters (2 pcs included)	1	PN095227	526758
**	Saddle Bearing (W)	1	PN098401	692949
**	Saddle Bearing (N)	1	PN098402	692948



# PISTON PRODUCT LISTING

## VICKERS® PVB COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## VICKERS® PVB

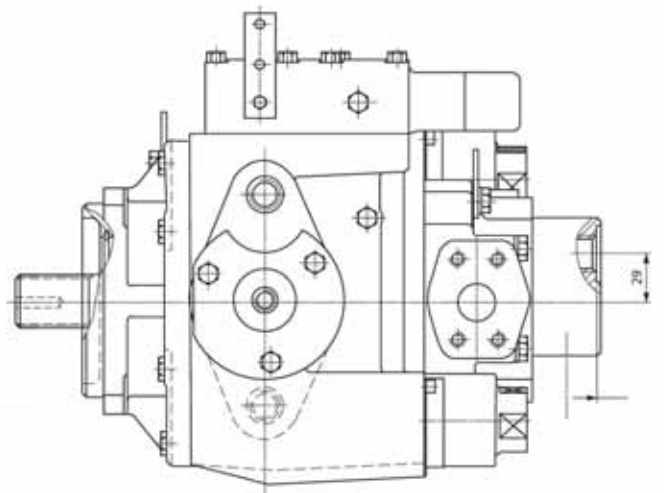
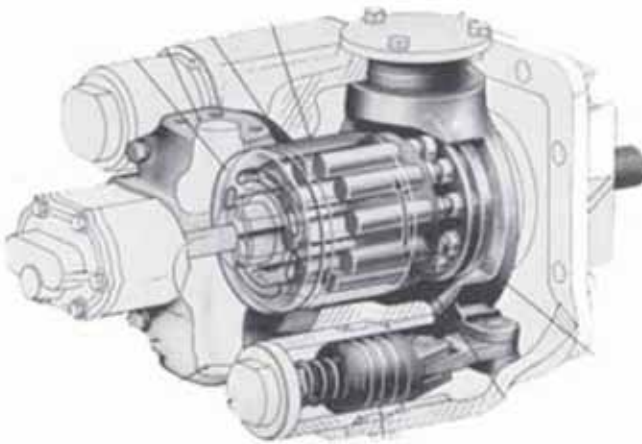
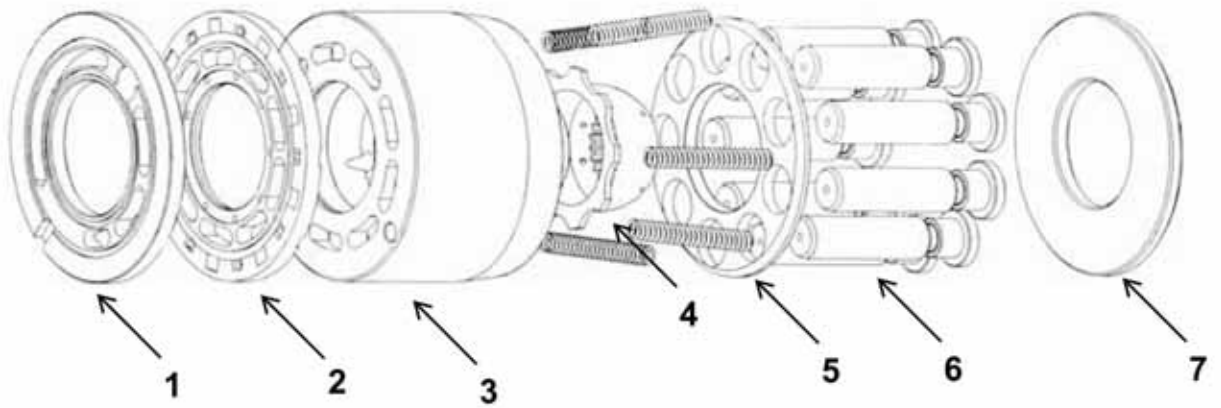
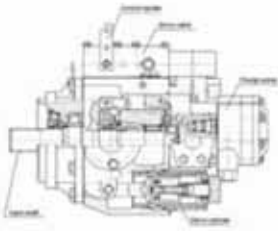
DESCRIPTION	QTY.	PVB 5		PVB 6	
		#	ALTERNATIVE #	#	ALTERNATIVE #
ROTATING GROUP	1	PN090157	875775	PN091092	875773
PISTON KIT (SET OF 9)	1	PN091856	942229	PN091857	942230
VALVE PLATE LH	1	PN091861	942224	PN091861	942224
VALVE PLATE RH	1	PN090158	942223	PN090158	942223
SHAFT - KEYED	1	PN091098	266162	PN091098	266162
SHAFT - SPLINED	1	PN091846	286848	PN091845	286848
SHAFT BEARING	1	PN091647	283233	PN091647	283233
PINTLE BEARING *	1	PN091649	317572	PN091649	317572
SEAL KIT (NITRILE)	1	PN091653	919191	PN091653	919191

DESCRIPTION	QTY.	PVB 10		PVB 15	
		#	ALTERNATIVE #	#	ALTERNATIVE #
ROTATING GROUP	1	PN090160	938276	PN090785	938273
PISTON KIT (SET OF 9)	1	PN091858	942047	PN091859	941887
VALVE PLATE LH	1	PN091864	942161	PN091863	942162
VALVE PLATE RH	1	PN091865	942160	PN091862	942163
SHAFT - KEYED	1	PN091099	261478	PN091099	261478
SHAFT - SPLINED	1	PN091846	292077	PN091846	292077
SHAFT BEARING	1	PN091648	284397	PN091648	284397
PINTLE BEARING *	1	PN091641	012016	PN091641	012016
SEAL KIT (NITRILE)	1	PN091654	919682	PN091654	919682

DESCRIPTION	QTY.	PVB 20		PVB 29	
		#	ALTERNATIVE #	#	ALTERNATIVE #
ROTATING GROUP	1	PN090163	938274	PN091094	938275
PISTON KIT (SET OF 9)	1	PN090819	941883	PN091860	941888
VALVE PLATE LH	1	PN090210	942170	PN091866	942172
VALVE PLATE RH	1	PN090164	942169	PN091867	942171
SHAFT - KEYED	1	PN091096	362135	PN091096	362135
SHAFT - SPLINED	1	PN091847	282880	PN091847	282880
SHAFT BEARING	1	PN091646	283090	PN091646	283090
PINTLE BEARING *	1	PN091651	353230	PN091651	353230
SEAL KIT (NITRILE)	1	PN091655	919683	PN091655	919683

# PISTON PRODUCT LISTING

## SUNDSTRAND® SPV20 COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## SUNDSTRAND® SPV20

REF #	DESCRIPTION	QTY.	SERIES 20 (SPV20)	
			#	ALTERNATIVE #
**	ROTATING GROUP	1	PN091075	510149
1a	VALVE PLATE - RH	1	PN090149	9200428
1b	VALVE PLATE - LH	1	PN090148	9200429
1c	MOTOR PLATE	1	PN090128	9200430
7	THRUST PLATE	1	PN090137	9200159
2	BEARING PLATE	1	PN090136	9200216
4	BALL GUIDE	1	PN090147	9200124
5	SLIPPER RETAINER	1	PN090146	9200158
6	PISTON (EACH)	9 REQ.	PN090145	9200499 / 501528
3	CYLINDER BLOCK	1	PN090144	49155
**	PUMP GASKET KIT (Includes Shim Kit)	1	PN090645	9510224
**	MOTOR GASKET KIT FIXED (Includes Shim Kit)	1	PN090942	9510225
**	MOTOR GASKET KIT VARIABLE (Includes Shim Kit)	1	PN090947	9510226
**	SHAFT SEAL	1	PN080160	9510189

REF #	DESCRIPTION	QTY.	SERIES 21 (SPV21)	
			#	ALTERNATIVE #
**	ROTATING GROUP	1	PN091076	9210696
1a	VALVE PLATE - RH	1	PN090143	9210478
1b	VALVE PLATE - LH	1	PN090142	9210479
1c	MOTOR PLATE	1	PN090127	9210480
7	THRUST PLATE	1	PN090150	9210293
2	BEARING PLATE	1	PN090135	9210658
4	BALL GUIDE	1	PN080163	9210219
5	SLIPPER RETAINER	1	PN080162	9210292
6	PISTON - WELDED (EACH)	9 REQ.	PN093420	9510408-0010
3	CYLINDER BLOCK	1	PN090141	9210576
**	PUMP GASKET KIT (Includes Shim Kit)	1	PN090646	9510227
**	MOTOR GASKET KIT FIXED (Includes Shim Kit)	1	PN090943	9510228
**	MOTOR GASKET KIT VARIABLE (Includes Shim Kit)	1	PN090948	9510229
**	SHAFT SEAL	1	PN080160	9510189

# PISTON PRODUCT LISTING

## SUNDSTRAND® SPV20

REF #	DESCRIPTION	QTY.	SERIES 22 (SPV22)	
			#	ALTERNATIVE #
**	ROTATING GROUP	1	PN091077	9221448
1a	VALVE PLATE - RH	1	PN090140	9220990
1b	VALVE PLATE - LH	1	PN090139	9220991
1c	MOTOR PLATE	1	PN090126	9220992
7	THRUST PLATE	1	PN090138	9220626
2	BEARING PLATE	1	PN090076	9221335
4	BALL GUIDE	1	PN080173	9220500
5	SLIPPER RETAINER	1	PN080172	9220628
6	PISTON - WELDED (EACH)	9 REQ.	PN093421	9510408-0001
3	CYLINDER BLOCK	1	PN090134	9221102
**	PUMP GASKET KIT (Includes Shim Kit)	1	PN090647	9510230
**	MOTOR GASKET KIT FIXED (Includes Shim Kit)	1	PN090944	9510231
**	MOTOR GASKET KIT VARIABLE (Includes Shim Kit)	1	PN090949	9510232
**	SHAFT SEAL	1	PN080160	9510189
**	SHAFT - 21 Tooth	1	PN090660	9220417

REF #	DESCRIPTION	QTY.	SERIES 23 (SPV23)	
			#	ALTERNATIVE #
**	ROTATING GROUP	1	PN091078	9230973
1a	VALVE PLATE - RH	1	PN090133	9230560
1b	VALVE PLATE - LH	1	PN090132	9230561
1c	MOTOR PLATE	1	PN090125	9230562
7	THRUST PLATE	1	PN080404	9230235
2	BEARING PLATE	1	PN090077	9230881
4	BALL GUIDE	1	PN080405	9230158
5	SLIPPER RETAINER	1	PN080403	9230234
6	PISTON - WELDED (EACH)	9 REQ.	PN093422	9510408-0002
3	CYLINDER BLOCK	1	PN080401	9230651
**	PUMP GASKET KIT (Includes Shim Kit)	1	PN090648	9510233
**	MOTOR GASKET KIT FIXED (Includes Shim Kit)	1	PN090945	9510234
**	MOTOR GASKET KIT VARIABLE (Includes Shim Kit)	1	PN090950	9510235
**	SHAFT SEAL	1	PN090075	9510190
**	SHAFT - 14 Tooth	1	PN090661	9230476
**	SHAFT - 21 Tooth	1	PN090659	9230325

# PISTON PRODUCT LISTING

## SUNDSTRAND® SPV20

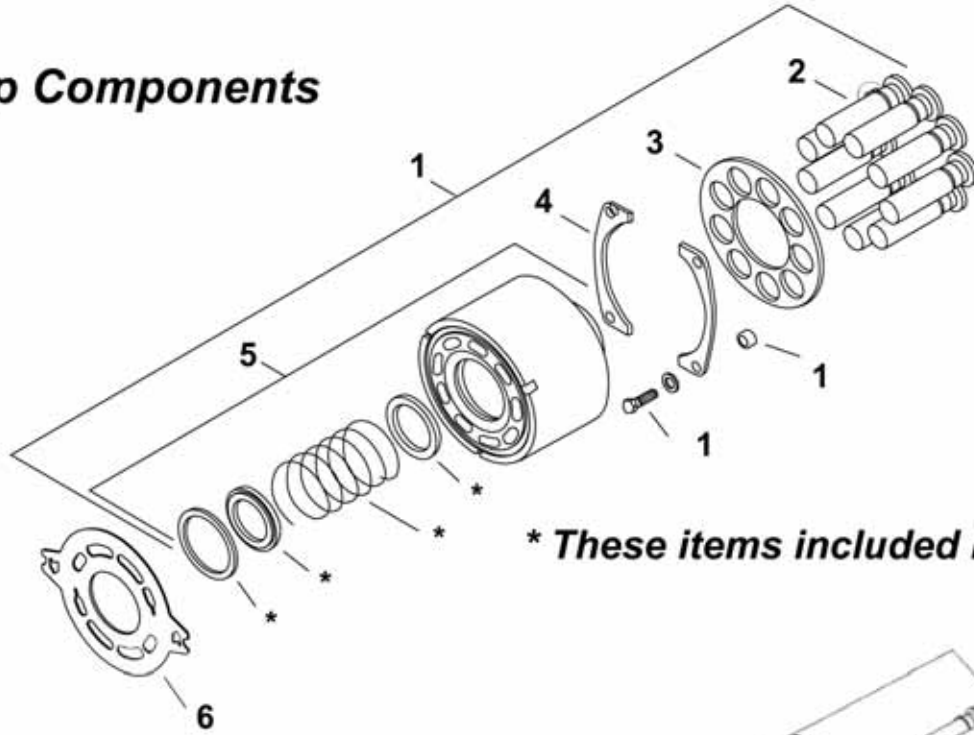
REF #	DESCRIPTION	QTY.	SERIES 24 (SPV24)	
			#	ALTERNATIVE #
**	ROTATING GROUP	1	PN091079	9240641
1a	VALVE PLATE - RH	1	PN090131	9240277
1b	VALVE PLATE - LH	1	PN090130	9240278
1c	MOTOR PLATE	1	PN090124	9240279
7	THRUST PLATE	1	PN080409	9240124
2	BEARING PLATE	1	PN090129	9240560
4	BALL GUIDE	1	PN080410	9240097
5	SLIPPER RETAINER	1	PN080408	9240125
6	PISTON (EACH)	9 REQ.	PN093423	9510408-0004
3	CYLINDER BLOCK	1	PN080406	9240394
**	PUMP GASKET KIT (Includes Shim Kit)	1	PN090649	9510236
**	MOTOR GASKET KIT FIXED (Includes Shim Kit)	1	PN090946	9510237
**	MOTOR GASKET KIT VARIABLE (Includes Shim Kit)	1	PN090951	9510238
**	SHAFT SEAL	1	PN090075	9510190



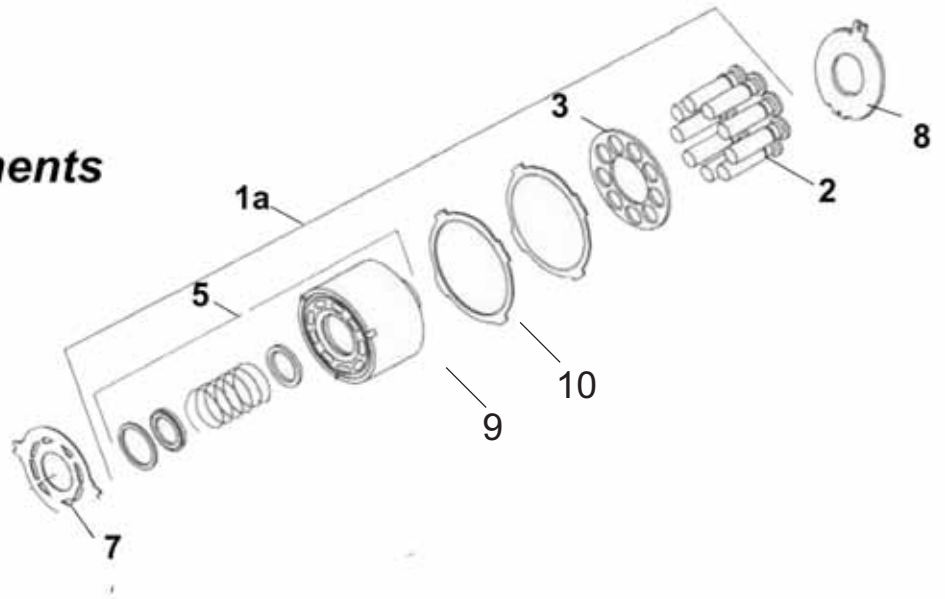
# PISTON PRODUCT LISTING

## SUNDSTRAND® PV90 COMPONENTS BREAKDOWN

### Pump Components



### Motor Components



# PISTON PRODUCT LISTING

## SUNDSTRAND® PV90

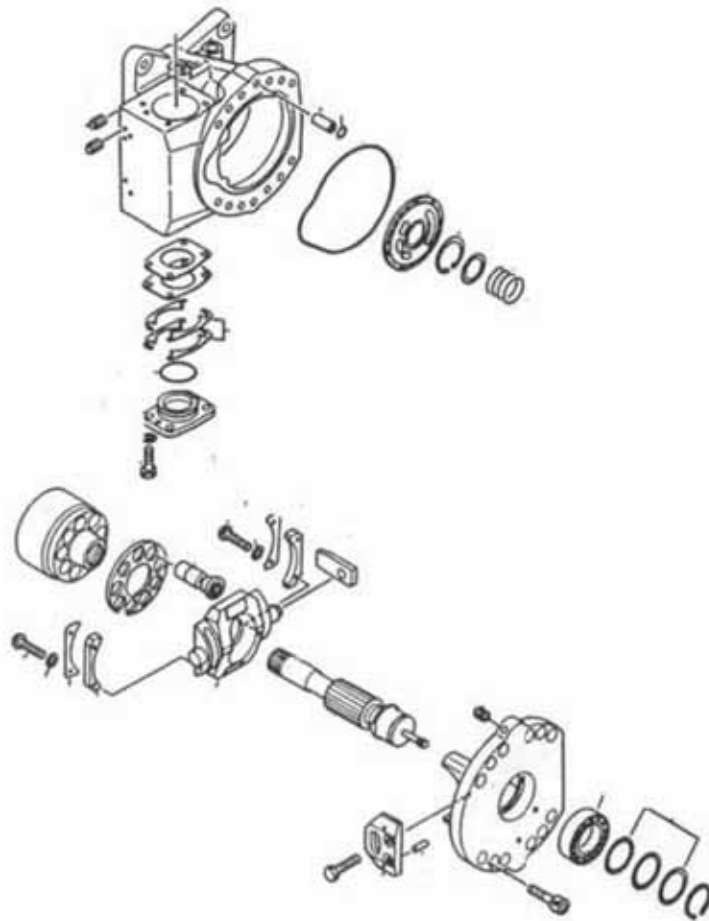
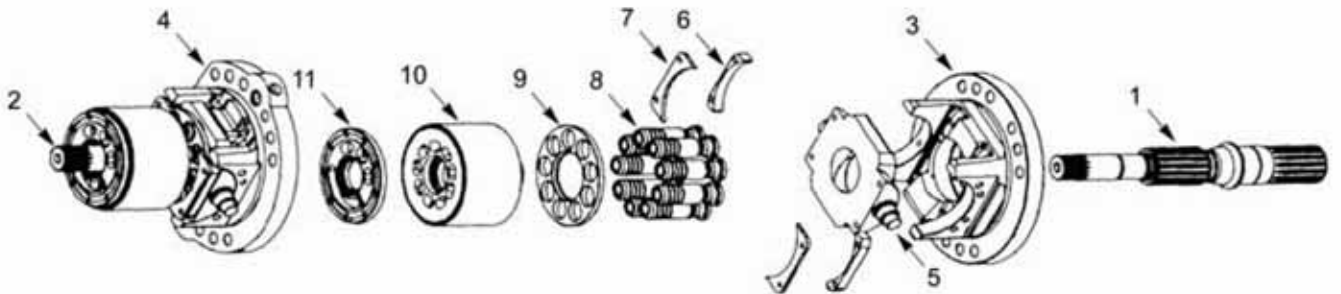
REF #	DESCRIPTION	QTY.	SERIES 90 (55cc)	
			#	ALTERNATIVE #
1	ROTATING GROUP - PUMP	1	PN093054	80020S07
1a	ROTATING GROUP - MOTOR	1	PN093666	80030S07
5	CYLINDER BLOCK Assy - W/O Speed Ring	1	PN093667	8000128
6	CYLINDER BLOCK Assy - W/ Speed Ring	1	PN093668	8000336
2	PISTON (EACH)	9 REQ.	PN093064	367672
6	VALVE PLATE, -2 DEGREE	1	PN093056	8000071
7	MOTOR PLATE	1	PN093060	8000132
8	THRUST PLATE (Motor)	1	PN093669	8000374
9	RETAINER SLIPPER GUIDE	1	PN095313	8000072
10	SHIM-SLIPPER GUIDE RETAINER	1	PN095316	8000073

REF #	DESCRIPTION	QTY.	SERIES 90 (75cc)	
			#	ALTERNATIVE #
1	ROTATING GROUP - PUMP	1	PN093053	81020S07
1a	ROTATING GROUP - MOTOR	1	PN093681	81030S07
5	CYLINDER BLOCK Assy - W/O Speed Ring	1	PN093682	8100267
6	CYLINDER BLOCK Assy - W/ Speed Ring	1	PN093683	8100525
2	PISTON (EACH)	9 REQ.	PN093063	708230
6	VALVE PLATE, +0 DEGREE	1	PN093057	518805
7	MOTOR PLATE	1	PN093059	8100278
8	THRUST PLATE (Motor)	1	PN093685	8100156
9	RETAINER SLIPPER GUIDE	1	PN095314	8100271
10	SHIM-SLIPPER GUIDE RETAINER	1	PN095317	8100272

REF #	DESCRIPTION	QTY.	SERIES 90 (100cc)	
			#	ALTERNATIVE #
1	ROTATING GROUP - PUMP	1	PN093052	82020S07
1a	ROTATING GROUP - MOTOR	1	PN093650	82030S07
5	CYLINDER BLOCK Assy - W/O Speed Ring	1	PN093651	8200124
6	CYLINDER BLOCK Assy - W/ Speed Ring	1	PN093652	8200277
2	PISTON (EACH)	9 REQ.	PN093062	364000
6	VALVE PLATE, - 2 DEGREE	1	PN093055	518994
7	MOTOR PLATE	1	PN093058	8200134
8	THRUST PLATE (Motor)	1	PN093654	8200167
9	RETAINER SLIPPER GUIDE	1	PN095315	8200128
10	SHIM-SLIPPER GUIDE RETAINER	1	PN095318	8200129

# PISTON PRODUCT LISTING

## KOMATSU® PC (SERIES 3/5/6) COMPONENTS BREAKDOWN



# PISTON PRODUCT LISTING

## KOMATSU® PC (SERIES 3/5/6)

REF #	DESCRIPTION	QTY.	150-3 Excavator		150-5 Excavator	
			#	ALTERNATIVE #	#	ALTERNATIVE #
3	CRADLE (FRONT)	1	PN091413	708-25-00051	PN091413	708-25-00051
4	CRADLE (REAR)	1	PN091414	708-25-00061	PN091414	708-25-00061
8	PISTON (EACH)	9 REQ.	PN091736	708-25-13314	PN091736	708-25-13314
9	RETAINER PLATE	1	PN091741	708-25-13422	PN091741	708-25-13422
10	CYLINDER BARREL	1	PN091738	708-25-13151	PN091738	708-25-13151
11	VALVE PLATE - RIGHT	1	PN091423	708-25-13210	PN091427	708-25-13611
11a	VALVE PLATE - LEFT	1	PN091424	708-25-13220	PN091426	708-25-13621
**	SPRING (CYL BLOCK)	1	PN091743	708-25-13130	PN091743	708-25-13130
**	SNAP RING (CYL BLOCK)	1	PN091744	708-25-13140	PN091744	708-25-13140
**	WASHER (CYL BLOCK)	1	PN091742	708-25-13120	PN091742	708-25-13120
**	SERVO PISTON FRONT & REAR	1	PN091407	708-25-14112.25 / 50		
**	SERVO PISTON FRONT	1			PN091407	708-25-14112.25 / 50
**	SERVO PISTON REAR	1			PN091429	708-25-14211.25 / 50
**	RETAINER BRG.	1	PN091790	708-25-13441	PN091790	708-25-13441
**	SHIM KIT, RETAINER BRG.	1	PN091789	708-25-05061	PN091789	708-25-05061

REF #	DESCRIPTION	QTY.	PC200-3 / PC220-3		PC200-5 / PC220-5	
			#	ALTERNATIVE #	#	ALTERNATIVE #
***	CYLINDER BLOCK ASSY RH	1	PN091739	708-25-00230	PN092515	708-25-00401
***	CYLINDER BLOCK ASSY LH	1	PN091740	708-25-00240	PN092514	708-25-00411
2	DRIVE SHAFT (FRONT)	1			PN092348	708-25-12711
3	CRADLE (FRONT)	1	PN091411	708-25-00031	PN091411	708-25-00031
4	CRADLE (REAR)	1	PN091412	708-25-00041	PN091412	708-25-00041
5	CAM ROCKER	1	PN091735	708-25-13411	PN091735	708-25-13411
8	PISTON ASSY. (EACH)	9 REQ.	PN091736	708-25-13314	PN091736	708-25-13314
9	RETAINER PLATE	1	PN091741	708-25-13422	PN091741	708-25-13422
10	CYLINDER BARREL	1	PN091738	708-25-13151	PN091738	708-25-13151
11	VALVE PLATE - RIGHT	1	PN091423	708-25-13210	PN091427	708-25-13611
11a	VALVE PLATE - LEFT	1	PN091424	708-25-13220	PN091426	708-25-13621
**	SPRING (CYL BLOCK)	1	PN091743	708-25-13130	PN091743	708-25-13130
**	SNAP RING(CYL BLOCK)	1	PN091744	708-25-13140	PN091744	708-25-13140
**	WASHER (CYL BLOCK)	1	PN091742	708-25-13120	PN091742	708-25-13120
**	SERVO PISTON	1	PN091429	708-25-14211.25 /50	PN091429	708-25-14211.25 /50
**	SERVO PISTON	1	PN091407	708-25-14112.25 /50	PN091407	708-25-14112.25 /50
**	RETAINER BRG.	1	PN091790	708-25-13441	PN091790	708-25-13441
**	SHIM KIT, RETAINER BRG	1	PN091789	708-25-05061	PN091789	708-25-05061

\*\*\* PRICE ON REQUEST

\*\* Items Available (not shown)

REF #	DESCRIPTION	QTY.	PC300-3 / PC400-3		PC300-5/PC400-5	
			#	ALTERNATIVE #	#	ALTERNATIVE #
3	CRADLE (FRONT)	1	PN091415	708-27-00032	PN091415	708-27-00032
4	CRADLE (REAR)	1	PN091416	708-27-00042	PN091416	708-27-00042
8	PISTON ASSY. (EACH)	9 REQ.	PN091417	708-27-13314	PN091417	708-27-13314
9	RETAINER PLATE	1	PN091418	708-27-13342	PN091418	708-27-13342
10	CYLINDER BARREL	1	PN091425	708-27-13111	PN091428	708-27-13112
11	VALVE PLATE - RIGHT	1	PN091421	708-27-13212	PN091419	708-27-13611
11a	VALVE PLATE - LEFT	1	PN091422	708-27-13222	PN091420	708-27-13621
**	SERVO PISTON	1	PN091730	708-27-14110.25 /50	PN091730	708-27-14110.25 /50
**	RETAINER BRG.	1	PN091791	708-27-13420	PN091791	708-27-13420
**	SHIM KIT, RETAINER BRG	1	PN091788	708-27-05051	PN091788	708-27-05051

# PISTON PRODUCT LISTING

## KOMATSU® PC (SERIES 3/5/6)

REF #	DESCRIPTION	QTY.	PC120-6 / PC200-6	
			#	ALTERNATIVE #
3	CRADLE (FRONT & REAR) PC120-6	1	PN093213	708-2L-04061
4	CRADLE (FRONT & REAR) PC200-6	1	PN093213	708-2L-04061
8	PISTON ASSY. (EACH)	9 REQ.	PN093217	708-2L-33310
9	RETAINER PLATE	1	PN093218	708-2L-33340
10	CYLINDER BARREL	1	PN093220	708-2L-33110
11	VALVE PLATE - RIGHT	1	PN093216	708-2L-33211
11a	VALVE PLATE - LEFT	1	PN093221	708-2L-33221
**	BALL GUIDE	1	PN093214	708-2L-23351
**	PIN	1PN093215	708-2L-23360	

REF #	DESCRIPTION	QTY.	PC300-6 / PC400-6	
			#	ALTERNATIVE #
***	CYLINDER BLOCK ASSY (W/VALVE PLATE RH)	1	PN093206	708-2H-04140
***	CYLINDER BLOCK ASSY (W/VALVE PLATE LH)	1	PN093207	708-2H-04150
3	CRADLE (FRONT & REAR)	1	PN093208	708-2H-04160
8	PISTON ASSY. (EACH)	9 REQ.	PN093209	708-2H-23311
9	RETAINER PLATE	1	PN093210	708-2H-23340
10	PIN	1PN193212	708-2H-23360	
11	BALL GUIDE	1	PN093211	708-2H-23350