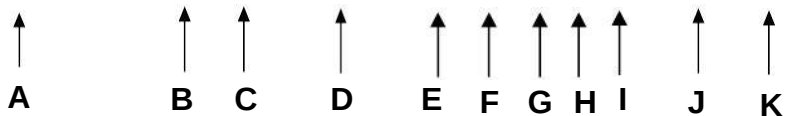


SA10V(S)O18-DFR-31R-PKC-62N00



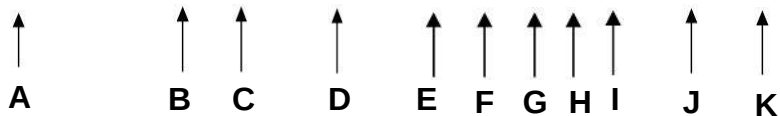
Code	Description
A. TYPE	
SA10V/31	Swashplate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/31	Swashplate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)
B. MODE OF OPERATION	
O	Mode of operation (Pump Open Circuit)
C. SIZE	
18	Flow Vg max - 18cm (cu.in. 1.10)
D. CONTROLLER TYPE	
DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DRG	Remote pressure control
DG	2 Point direct control
E. SERIES	
31	Series 31
F. ROTATION	
R	Right (clockwise rotation)
L	Left (counter-clockwise rotation)
G. SEALS	
P	Buna seals
V	Viton seals (fluorocarbon)
H. SHAFT TYPE	
P	18 series metric keyed shaft (18mm)
K	18 series SAE keyed shaft (.750 dia)
U	18 series SAE splined shaft (9 tooth-.625)
S	18 series SAE splined shaft (11 tooth - .750)
R	18 series SAE splined reinforced for thru-drive (11 Tooth)
I. MOUNT	
A	ISO 2-Bolt mount (31 design only)
C	SAE 2-Bolt mount
J. PORTING	
62	Side port flange (U.N.C mounting screws)
12	Side port flange (metric mounting screws)
K. COVER TYPE	
N00	Standard cover w/o thru-drive
K01	82-2 SAE A mount (16-4 SAE "A" coupling)

PUMP SA10VO18 - Series 31

DESCRIPTION	PORTING
PUMP - SA10V(S)O18**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O18**12N00	METRIC - SIDE PORTS
THRU DRIVE OPTION	
K01 - SAE A Mount (9 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	925458
2	RETAINER PLATE	1	946784
3	BALL GUIDE	1	944741
4	BARREL	1	940734
5	SPRING - SEAT	1	934827
6	SPRING	1	933409
7	RETAINER	1	934832
8	LENS PLATE - LEFT	1	940732
9	LENS PLATE - RIGHT	1	941477
10	PIN (EACH)	3 REQ.	934826
11	SHAFT (METRIC) - CODE P	1	948585
12	SHAFT (SPLINED) - CODE S	1	948588
13	SHAFT (KEYED) - CODE K	1	948587
14	SHAFT (SPLINED) - CODE U	1	932607
15	SHAFT SPLINED (THRU DRV-CODE S)	1	413740
16	SHAFT KEYED (THRU DRV-CODE K)	1	937405
17	SHAFT METRIC (THRU DRV-CODE P)	1	413734
18	SHAFT METRIC (THRU DRV-CODE R)	1	962289
19	ROTARY GROUP L.H.	1	944801
20	ROTARY GROUP R.H.	1	940435
21	YOKE L.H.	1	960983
22	YOKE R.H.	1	948592
23	CONTROLLER (DFR)***	1	907094/942581
24	CONTROLLER (DFR1)***	1	907096
25	CONTROLLER (DRG)***	1	916069
26	CONTROLLER (DR)***	1	907095
27	CONTROLLER (DG)***	1	910921874
28	SHAFT BEARING - CUP/CONE	1	70109005
29	REAR BEARING - CUP/CONE	1	772968
30	SADDLE BEARING (EACH)	2 REQ.	925255
31	THRU DRIVE COVER K01 (RH)	1	945500
32	THRU DRIVE COVER K01 (LH)	1	937407
33	THRU DRIVE COVER K01 (RH) metric ported	1	
34	THRU DRIVE COVER K01 (LH) metric ported	1	
35	CONTROL PISTON ASSY	1	940417
36	COUPLING K01	1	937150
37	KEY FOR SHAFT (CODE K) SAE	1	
38	KEY FOR SHAFT (CODE P) METRIC	1	
39	SHIM KIT	1	
40	SEAL KIT	1	937565
41	SEAL KIT - VITON	1	941171

SA10V(S)O28-DFR-31R-PKC-62N00



Code	Description
A. TYPE	
SA10V/31	Swashplate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/31	Swashplate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)
B. MODE OF OPERATION	
O	Mode of operation (Pump Open Circuit)
C. SIZE	
28	Flow Vg max - 28cm (cu.in. 1.71)
D. CONTROLLER TYPE	
DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DFLR	Pressure, flow and torque control
DRG	Remote pressure control
DG	2 Point Direct Control
E. SERIES	
31	Series 31
F. ROTATION	
R	Right (clockwise rotation)
L	Left (counter-clockwise rotation)
G. SEALS	
P	Buna seals
V	Viton seals (fluorocarbon)
H. SHAFT TYPE	
P	28 series metric keyed shaft (DIN 6885) 22mm
K	28 series SAE keyed shaft (.875 dia)
C	28 series tapered w/ woodruff key
R	28 Series SAE splined reinforced for thru-drive (13 Tooth)
S	28 series SAE splined shaft (13 tooth - .875)
I. MOUNT	
A	ISO 2-Bolt mount (31 design only)
C	SAE 2-Bolt mount
J. PORTING	
62	Side port flange (U.N.C mounting screws)
61	Rear port flange (U.N.C mounting screws)
11	Rear port flange (metric mounting screws)
12	Side port flange (metric mounting screws)
K. COVER TYPE	
N00	Standard cover w/o thru-drive
K01	82-2 SAE A mount (16-4 SAE "A" coupling)
K02	101-2 SAE B mount (22-4 SAE "B" coupling)
K03	SAE B mount - SAE B keyed

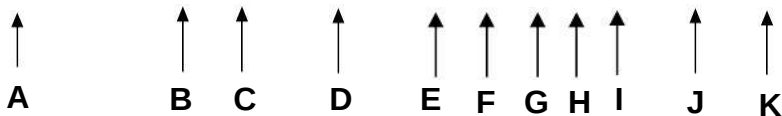
PUMP SA10VO28 - Series 31

DESCRIPTION	PORTING
PUMP - SA10V(S)O28**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O28**12N00	METRIC - SIDE PORTS
PUMP - SA10V(S)O28**61N00	SAE - REAR PORTS
PUMP - SA10V(S)O28**11N00	METRIC - REAR PORTS
DFLR CONTROL OPTION	
THRU DRIVE OPTION - K**	
K01 - SAE A Mount (9 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE
K02 - SAE B Mount (13 Tooth)	
K03 - SAE B Mount SAE B Keyed	

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	925459/967658
2	RETAINER PLATE	1	942514
3	BALL GUIDE	1	944743
4	BARREL	1	907125/2407325
5	SPRING - SEAT	1	2400717/918933
6	SPRING	1	924891
7	RETAINER	1	939048/2400716
8	LENS PLATE - LEFT	1	936647
9	LENS PLATE - RIGHT	1	936648
10	PIN (EACH)	3 REQ.	785407
11	SHAFT METRIC (CODE P)	1	923797/2415569
12	SHAFT SPLINED (CODE S)	1	947780/923789
13	SHAFT KEYED (CODE K)	1	926330
14	SHAFT KEYED (CODE T)	1	989033
15	SHAFT SPLINED (THRU DRIVE CODE S)	1	926327/2417371
16	SHAFT METRIC (THRU DRIVE CODE P)	1	925275/2415913
17	SHAFT KEYED (THRU DRIVE CODE K)	1	926328
18	SHAFT SPLINED (THRU DRIVE CODE R)	1	962290
19	ROTARY GROUP L.H.	1	947782/958654
20	ROTARY GROUP R.H.	1	947781
21	YOKE L.H.	1	960999
22	YOKE R.H.	1	960813
23	YOKE LH DFLR	1	947785
24	YOKE RH DFLR	1	947783
25	CONTROLLER (DFR)***	1	907094/942581
26	CONTROLLER (DFR1)***	1	907096
27	CONTROLLER (DRG)***	1	916069
28	CONTROLLER (DR)***	1	907095
29	CONTROLLER (DG)***	1	910921874
30	SHAFT BEARING - CUP/CONE	1	70109-001
31	REAR BEARING - CUP/CONE	1	70109-002
32	SADDLE BEARING (EACH)	2 REQ	902778/942158
33	THRU DRIVE COVER K01 (RH)	1	5120-542-005
34	THRU DRIVE COVER K02 / K03 (RH)	1	5120-542-006
35	THRU DRIVE COVER K01 (LH)*	1	5120-542-002
36	THRU DRIVE COVER K02 / K03 (LH)	1	5120-542-003
37	CONTROL PISTON ASSY	1	BH00911164
38	FEEDBACK CONTROL PISTON	1	
39	COUPLING K01	1	BH00943539
40	COUPLING K02	1	BH00943542
41	COUPLING K03	1	764981

42	KEY FOR SHAFT (CODE K) SAE	1	
43	KEY FOR SHAFT (CODE P) METRIC	1	
44	SHIM KIT	1	
45	SEAL KIT	1	915845
46	SEAL KIT - VITON	1	915845V

SA10V(S)O45-DFR-**R-PKC-62N00



Code

Description

A. TYPE

SA10V/31/52 Swashplate design variable, normal pressure
280 bar (4000psi), peak pressure 350bar (5100psi)

SA10VS/31/52 Swashplate design variable, c/w max flow adj.
280 bar (4000psi), peak pressure 350bar (5100psi)

B. MODE OF OPERATION

O Mode of operation (Pump Open Circuit)

C. SIZE

45 Flow Vg max - 45cm (cu.in. 2.75)

D. CONTROLLER TYPE

DFR Pressure and flow control

DFR1 Pressure and flow control - bleed down orifice plugged

DR Pressure control

DFLR Pressure, flow and torque control (31 design only)

DRG Remote pressure control

DG 2 Point direct control

E. SERIES

52 Series 52

31 Series 31

F. ROTATION

R Right (clockwise rotation)

L Left (counter-clockwise rotation)

G. SEALS

P Buna seals

V Viton seals (fluorocarbon)

H. SHAFT TYPE

P 45 series metric keyed shaft (DIN 6885) 25mm

K 45 series SAE keyed shaft (1" die)

U 45 series splined shaft (13 tooth - .875)

R 45 series splined shaft reinforced for thru-drive (15 Tooth - 1")

W 45 series SAE splined shaft for thru-drive (13 tooth 7/8")

S 45 series splined shaft (15 tooth - 1")

I. MOUNT

A ISO 2-Bolt mount (31 design only)

C SAE 2-Bolt mount

J. PORTING

62 Side port flange (U.N.C mounting screws)

61 Rear port flange (U.N.C mounting screws)

11 Rear port flange (metric mounting screws)

12 Side port flange (metric mounting screws)

64 Rear port ORB (52 design only)

K. COVER TYPE - Thru-Drive on 31-Design only

N00 Standard cover w/o thru-drive

K01 82-2 SAE A mount (16-4 SAE "A" coupling)

K02 101-2 SAE B mount (22-4 SAE "B" coupling)

K03 SAE B mount - SAE B Keyed

K04 101-2 SAE B mount (25-4 SAE "BB" coupling)

K05 SAE B mount - SAE BB Keyed

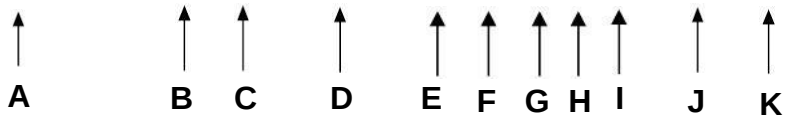
PUMP SA10VO45 - Series 31/52

DESCRIPTION	PORTING
PUMP - SA10V(S)O45**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O45**12N00	METRIC - SIDE PORTS
PUMP - SA10V(S)O45**64N00 (52 Only)	SAE THREADED PORTS(O-RING) REAR PORTS
PUMP - SA10V(S)O45**61N00	SAE - REAR PORTS
PUMP - SA10V(S)O45**11N00	METRIC - REAR PORTS
DFLR CONTROL OPTION - 31 DESIGN ONLY	
THRU DRIVE OPTION - K** -- Available on 52 and 31 design units	
K01 - SAE A Mount (9 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE
K02 - SAE B Mount (13 Tooth)	
K03 - SAE B Mount (SAE B Keyed)	
K04 - SAE B Mount (15 Tooth)	
K05 - SAE B Mount (SAE BB Keyed)	

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	925460/963893
2	RETAINER PLATE	1	943627/978872
3	BALL GUIDE	1	941318
4	BARREL	1	907001
5	SPRING - SEAT	1	2400727/939056
6	SPRING	1	2400724/071072
7	RETAINER	1	2400726/912520
8	LENS PLATE - LEFT	1	936644
9	LENS PLATE - RIGHT	1	936645
10	PIN (EACH)	3 REQ.	941277
11	SHAFT SPLINED (CODE U)	1	987649/926325
12	SHAFT SPLINED (CODE S)	1	923309/947729
13	SHAFT KEYED (CODE K)	1	923308/947788
14	SHAFT METRIC (CODE P)	1	923742/947820
15	SHAFT KEYED (CODE T)	1	2417384
16	SHAFT SPLINED (THRU DRIVE CODE R)	1	962291/2417400
17	SHAFT SPLINED (THRU DRIVE CODE U)	1	926326/2417398
18	SHAFT KEYED (THRU DRIVE CODE K)	1	926335
19	SHAFT SPLINED (THRU DRIVE CODE S)	1	923743
20	SHAFT SPLINED (THRU DRV-CODE W)	1	902417398
21	SHAFT KEYED (THRU DRIVE METRIC COD	1	923310
22	ROTARY GROUP L.H.	1	947789/914154
23	ROTARY GROUP R.H.	1	947730/900510
24	YOKE L.H. (52 Design)	1	929316
25	YOKE R.H. (52 Design)	1	928665
26	YOKE L.H. (31 Design)	1	947791
27	YOKE R.H. (31 Design)	1	947790
28	YOKE L.H. (31 Design) -DFLR	1	961026
29	YOKE R.H. (31 Design) - DFLR	1	947793
30	CONTROLLER (DFR)***	1	907094/942581
31	CONTROLLER (DFR1)***	1	907096
32	CONTROLLER (DRG)***	1	916069
33	CONTROLLER (DR)***	1	907095
34	CONTROLLER (DG)***	1	910921874
35	SHAFT BEARING - CUP/CONE	1	70109-004
36	REAR BEARING - CUP/CONE	1	70109-005
37	SADDLE BEARING - 31 design (EACH)	2 REQ	900198

38	SADDLE BEARING - 52 design (EACH)	2 REQ	933793
39	THRU DRIVE COVER K01 (RH)	1	5130-542-006
40	THRU DRIVE COVER K02 / K03 / K04 (RH)	1	5130-542-007
41	THRU DRIVE COVER K01 (LH)	1	5130-542-002
42	THRU DRIVE COVER K02 / K03 / K04 (LH)	1	5130-542-003
43	THRU DRIVE COVER (45/52) KP1 ISO (RH)	1	
44	THRU DRIVE COVER (45/52) KP1 ISO (LH)	1	
45	THRU DRIVE COVER (45/52) K02 (LH)	1	
46	THRU DRIVE COVER (45/52) K02 (BI)	1	
47	CONTROL PISTON ASSY - 31 design	1	BH00910852
48	FEEDBACK CONTROL PISTON	1	B00-30-520
49	COUPLING K01	1	BH00943529
50	COUPLING K02	1	BH00943531
51	COUPLING K03	1	763764
52	COUPLING K04	1	BH00738476
53	COUPLING K05	1	766933
54	KEY FOR SHAFT (CODE K) SAE	1	
55	KEY FOR SHAFT (CODE P) METRIC	1	
56	SHIM KIT	1	
57	SEAL KIT - 31 Design	1	925885
58	SEAL KIT - VITON - 31 Design	1	925885V
59	SEAL KIT - 52 Design	1	963478
60	SEAL KIT - VITON - 52 Design	1	963478V

SA10V(S)O60-DFR-52R-PKC-62N00



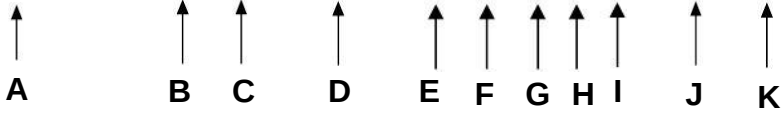
Code	Description
A. TYPE	
SA10V/52	Swash plate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/52	Swash plate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)
B. MODE OF OPERATION	
O	Mode of operation (Pump Open Circuit)
C. SIZE	
60	Flow Vg max - 60cm (cu.in. 3.66)
D. CONTROLLER TYPE	
DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DRG	Remote pressure control
DG	2 Point Direct Control
E. SERIES	
52	Series 52
F. ROTATION	
R	Right (clockwise rotation)
L	Left (counter-clockwise rotation)
G. SEALS	
P	Buna Seals
V	Viton Seals (fluorocarbon)
H. SHAFT TYPE	
K	60 series keyed shaft (1.250 dia)
U	60 series SAE splined shaft (15 tooth - 1")
S	60 series SAE splined shaft (14 tooth 1.250")
W	60 series SAE splined shaft for thru-drive (15 tooth 1.")
I. MOUNT	
D	SAE 4-bolt mount (5" pilot)
C	SAE 2-bolt mount 4" pilot
J. PORTING	
62	Side port flange (U.N.C mounting screws)
61	Rear port flange (U.N.C mounting screws)
12	Side port flange (metric mounting screws)
K. COVER TYPE	
N00	Standard cover w/o thru-drive
K02	101-2 SAE B mount (22-4 SAE "B" coupling)
K04	101-2 SAE B mount (25-4 SAE "BB" coupling)

PUMP SA10VO60 - Series 52

DESCRIPTION	PORTING
PUMP - SA10V(S)O60**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O60**12N00	METRIC - SIDE PORTS
PUMP - SA10V(S)O60**61N00	SAE - REAR PORTS
PUMP - SA10V(S)O60**11N00	METRIC - REAR PORTS
PUMP - SA10V(S)O63**12/62/11/61N00	REPLACEMENT FOR A10V(S)O63
THRU DRIVE OPTION - K**	
K02 - SAE B Mount (13 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE
K04 - SAE B Mount (15 Tooth)	

NO.	DESCRIPTION	QTY.	REFERENCE NO.
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
8	LENS PLATE - LEFT	1	2451807
9	LENS PLATE - RIGHT	1	978570
10	PIN (EACH)	3 REQ.	2400741
11	SHAFT SPLINED (CODE S)	1	2413417
12	SHAFT SPLINED (CODE U)	1	987666
13	SHAFT KEYED (CODE K)	1	2413414
14	SHAFT SPLINED (THRU DRIVE CODE S)	1	994407
15	SHAFT SPLINED (THRU DRIVE CODE W)	1	987665
16	ROTARY GROUP L.H.	1	926276
17	ROTARY GROUP R.H.	1	973744
18	YOKE L.H (52 Design)	1	975095
19	YOKE R.H (52 Design)	1	973545
20	CONTROLLER (DFR)***	1	907094/942581
21	CONTROLLER (DFR1)***	1	907096
22	CONTROLLER (DRG)***	1	916069
23	CONTROLLER (DR)***	1	907095
24	CONTROLLER (DG)***	1	910921874
25	SHAFT BEARING - CUP/CONE	1	70109-007
26	REAR BEARING - CUP/CONE	1	33205
27	SADDLE BEARING -R	1	2413837
28	SADDLE BEARING - L	1	2413836
29	CONTROL PISTON ASSY	1	993694
30	SEAL KIT	1	408523
31	SEAL KIT - VITON	1	408523V

SA10V(S)O71-DFR-31R-PKC-62N00



Code

Description

A. TYPE

SA10V/31	Swashplate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/31	Swashplate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)

B. MODE OF OPERATION

O	Mode of operation (Pump Open Circuit)
---	---------------------------------------

C. SIZE

71	Flow Vg max - 71cm (cu.in. 4.33)
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D. CONTROLLER TYPE

DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DFLR	Pressure, flow and torque Control
DRG	Remote Pressure Control
DG	2 Point direct control

K. COVER TYPE

E. SERIES		N00	Standard Cover w/o Thru-Drive
31	Series 31	K01	82-2 SAE A mount (16-4 SAE "A" coupling)
F. ROTATION		K02	101-2 SAE B mount (22-4 SAE "B" coupling)
R	Right (clockwise rotation)	K03	SAE B mount - SAE B Keyed
L	Left (counter-clockwise rotation)	K04	101-2 SAE B mount (25-4 SAE "BB" coupling)
G. SEALS		K05	SAE B mount - SAE BB Keyed
P	Buna Seals	K07	127-2 SAE C mount (32-4 SAE "C" coupling)
V	Viton Seals (fluorocarbon)	K08	SAE C mount (SAE C Keyed)

H. SHAFT TYPE

P	71 series metric Keyed shaft (DIN 6885) 32mm
K	71 series SAE keyed shaft (1.250 dia)
S	71 series splined shaft (14 tooth - 1.250)
R	71 series SAE splined shaft reinforced for thru-drive

I. MOUNT

A	ISO 2-bolt mount
C	SAE 2-bolt mount

J. PORTING

11	Rear port flange (1" & 1 1/4" comb. Pressure port) metric mounting screws
12	Side port flange (1" & 1 1/4" comb. Pressure port) metric mounting screws
41	Rear port flange (1" pressure) metric mounting screws
42	Side port flange (1" pressure) metric mounting screws
43	Rear port flange (1 1/4" pressure port) metric mounting screws
44	Side port flange (1 1/4" pressure port) metric mounting screws
61	Rear port flange (1" & 1 1/4" comb. Pressure port) U.N.C mounting screws
62	Side port flange (1" & 1 1/4" comb. Pressure port) U.N.C mounting screws
91	Rear port flange (1" pressure) U.N.C mounting screws
92	Side port flange (1" pressure) U.N.C mounting screws
93	Rear port flange (1 1/4" pressure port) U.N.C mounting screws
94	Side port flange (1 1/4" pressure port) U.N.C mounting screws

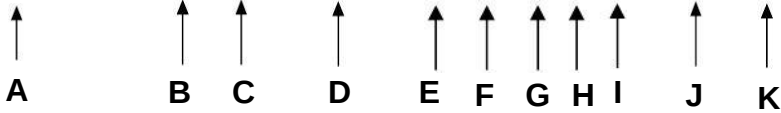
PUMP SA10VO71 - Series 31

DESCRIPTION	PORTING
PUMP - SA10V(S)O71**62/92N00	SAE - SIDE PORTS
PUMP - SA10V(S)O71**12/42N00	METRIC - SIDE PORTS
PUMP - SA10V(S)O71**61/91N00	SAE - REAR PORTS
PUMP - SA10V(S)O71**11/41N00	METRIC - REAR PORTS
PUMP - SA10V(S)O74**62/92/12/42/11/41N00	ALL TYPES AVAILABLE
DFLR CONTROL OPTION	
THRU DRIVE OPTION - K**	
K01 - SAE A Mount (9 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE
K02 - SAE B Mount (13 Tooth)	
K03 - SAE B Mount (SAE B Keyed)	
K04 - SAE B Mount (15 Tooth)	
K05 - SAE B Mount (SAE BB Keyed)	
K07 - SAE C Mount (14 Tooth)	
K08 - SAE C Mount (SAE C Keyed)	

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	720011/924554
2	RETAINER PLATE	1	919813
3	BALL GUIDE	1	749745
4	BARREL	1	907126
5	SPRING - SEAT	1	720186
6	SPRING	1	720178
7	RETAINER	1	919038
8	LENS PLATE - LEFT	1	936640
9	LENS PLATE - RIGHT	1	936641
10	PIN (EACH)	3 REQ.	785423
11	SHAFT METRIC (CODE P)	1	947821/995064
12	SHAFT SPLINED (CODE S)	1	923553/947796
13	SHAFT KEYED (CODE K)	1	926333/2412021
14	SHAFT SPLINED (THRU DRIVE CODE S)	1	923471
15	SHAFT KEYED (THRU DRIVE CODE K)	1	926344/2412030
16	SHAFT METRIC (THRU DRIVE CODE P)	1	925556/987680
17	SHAFT SPLINED (THRU DRV-CODE R)	1	9622292
18	ROTARY GROUP L.H.	1	947802/911929
19	ROTARY GROUP R.H.	1	947801/956007
20	YOKE L.H.	1	904689
21	YOKE R.H.	1	903881
22	YOKE LH DFLR	1	904689
23	YOKE RH DFLR	1	961017
24	CONTROLLER (DFR)***	1	907094/942581
25	CONTROLLER (DFR1)***	1	907096
26	CONTROLLER (DRG)***	1	916069
27	CONTROLLER (DR)***	1	907095
28	CONTROLLER (DG)***	1	910921874
29	SHAFT BEARING - CUP/CONE	1	70109-007
30	REAR BEARING - CUP/CONE	1	70109-008
31	SADDLE BEARING (EACH)	2 REQ	902777
32	BEARING KIT	1	5140-635-014
33	THRU DRIVE COVER K07 / K08 (RH)	1	5140-542-021
34	THRU DRIVE COVER K01 (RH)	1	5140-542-017
35	THRU DRIVE COVER K02 / K04 (RH)	1	5140-542-019
36	THRU DRIVE COVER K01 (LH)*	1	5140-542-018

37	THRU DRIVE COVER K02 / K04 (LH)	1	5140-542-020
38	THRU DRIVE COVER K07 / K08 (LH)	1	5140-542-022
39	CONTROL PISTON ASSY	1	910873/910870
40	FEEDBACK CONTROL PISTON	1	
41	COUPLING K01	1	BH00943545
42	COUPLING K02	1	BH00943547
43	COUPLING K03	1	795682
44	COUPLING K04	1	BH00943548
45	COUPLING K05	1	764906
46	COUPLING K07	1	BH00943549
47	COUPLING K08	1	766895
48	KEY FOR SHAFT (CODE K) SAE	1	
49	KEY FOR SHAFT (CODE P) METRIC	1	
50	SHIM KIT	1	
51	SEAL KIT	1	915846/5140-635-005
52	SEAL KIT - VITON	1	915846V/5140-635-007

SA10V(S)O100-DFR-31R-PKC-62N00



Code	Description
A. TYPE	
SA10V/31	Swashplate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/31	Swashplate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)
B. MODE OF OPERATION	
O	Mode of operation (Pump Open Circuit)
C. SIZE	
100	Flow Vg max - 100 cm (cu.in. 6.1)
D. CONTROLLER TYPE	
DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DFLR	Pressure, flow and torque control
DRG	Remote Pressure Control
DG	2 Point direct control
E. SERIES	
31	Series 31
F. ROTATION	
R	Right (clockwise rotation)
L	Left (counter-clockwise rotation)
G. SEALS	
P	Buna Seals
V	Viton Seals (fluorocarbon)
H. SHAFT TYPE	
P	100 series metric keyed shaft (44mm)
K	100 series SAE keyed shaft (1.50 dia)
U	100 series SAE splined shaft (14 tooth-1.25)
S	100 series SAE splined shaft (17 tooth - 1.50)
W	100 series SAE splined shaft for Thru-Drive (14 tooth - 1.250)
I. MOUNT	
A	ISO 2-bolt mount (31 design only)
C	SAE 2-bolt mount
J. PORTING	
61	Rear Port Flange (1 1/4" Pressure port) U.N.C. mounting screws
11	Rear Port Flange (1 1/4" Pressure port) metric mounting screws
62	Side Port Flange (1 1/4" Pressure port) U.N.C mounting screws
12	Side Port Flange (1 1/4" Pressure port) metric mounting screws

K. COVER TYPE

N00	Standard cover w/o thru-Drive
K01	82-2 SAE A mount (16-4 SAE "A" coupling)
K02	101-2 SAE B mount (22-4 SAE "B" coupling)
K04	101-2 SAE B mount (22-4 SAE "BB" coupling)
K07	127-2 SAE C mount (32-4 SAE "C" coupling)
K08	SAE C mount (SAE C Keyed)
K24	SAE C mount (17 Tooth)
K52	82-2-SAE A mount (19-4 SAE "A-B" coupling)

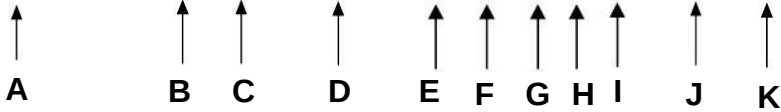
PUMP SA10VO100 - Series 31

DESCRIPTION	PORTING
PUMP - SA10V(S)O100**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O100**12N00	METRIC - SIDE PORTS
PUMP - SA10V(S)O100**61N00	SAE - REAR PORTS
PUMP - SA10V(S)O100**11N00	METRIC - REAR PORTS
DFLR CONTROL OPTION	
THRU DRIVE OPTION - K**	
K01 - SAE A Mount (9 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE
K02 - SAE B Mount (13 Tooth)	
K04 - SAE B Mount (15 Tooth)	
K07 - SAE C Mount (14 Tooth)	
K08 - SAE C Mount (SAE C Keyed)	
K24 - SAE C Mount (17 Tooth)	
K52 - SAE A Mount (11 Tooth)	

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	925463/2418003
2	RETAINER PLATE	1	967136/996526
3	BALL GUIDE	1	906813/944744
4	BARREL	1	906882/2407207
5	SPRING - SEAT	1	906880
6	SPRING	1	906894
7	RETAINER	1	791555
8	LENS PLATE - LEFT	1	936639
9	LENS PLATE - RIGHT	1	936661
10	PIN (EACH)	3 REQ.	906879
11	SHAFT SPLINED (CODE U)	1	2410600/923312
12	SHAFT SPLINED (CODE S)	1	924553/987698
13	SHAFT KEYED (CODE K)	1	923317/2410595
14	SHAFT METRIC (CODE P)	1	925162/987699
15	SHAFT SPLINED (THRU DRIVE CODE R)	1	993523
16	SHAFT SPLINED (THRU DRIVE CODE W)	1	987686
17	SHAFT METRIC (THRU DRIVE CODE P)	1	923709/987697
18	SHAFT KEYED (THRU DRIVE CODE K)	1	924552/2410605
19	SHAFT SPLINED (THRU DRIVE CODE S)	1	923316
20	ROTARY GROUP L.H.	1	907681/948604
21	ROTARY GROUP R.H.	1	948603/906871
22	YOKE L.H.	1	948606
23	YOKE R.H.	1	961050
24	YOKE LH DFLR	1	948606
25	YOKE RH DFLR	1	93881
26	CONTROLLER (DFR)***	1	907094/942581
27	CONTROLLER (DFR1)***	1	907096
28	CONTROLLER (DRG)***	1	916069
29	CONTROLLER (DR)***	1	907095
30	CONTROLLER (DG)***	1	910921874
31	SHAFT BEARING - CUP/CONE	1	906908
32	REAR BEARING - CUP/CONE	1	906909
33	SADDLE BEARING (EACH)	2 REQ	906881
34	CONTROL PISTON ASSY	1	913784
35	FEEDBACK CONTROL PISTON	1	
36	THRU DRIVE COVER K01/K52(RH)	1	910375
37	THRU DRIVE COVER K01/K52(LH)	1	910729

38	THRU DRIVE COVER K02/K04 (RH)	1	910369
39	THRU DRIVE COVER K02/K04 (LH)	1	
40	THRU DRIVE COVER K71/K24/K08(RH)	1	
41	THRU DRIVE COVER K71/K24/K08(LH)	1	
42	COUPLING K01	1	943560
43	COUPLING K02	1	943562
44	COUPLING K04	1	943563
45	COUPLING K07	1	943564
46	COUPLING K08	1	943569
47	COUPLING K24	1	943565
48	COUPLING K52	1	943561
49	KEY FOR SHAFT (CODE K) SAE	1	
50	KEY FOR SHAFT (CODE P) METRIC	1	
51	SHIM KIT	1	
52	SEAL KIT	1	915847
53	SEAL KIT - VITON	1	915847V

SA10V(S)O140-DFR-31R-PKC-62N00



Code	Description
A. TYPE	
SA10V/31	Swashplate design variable, normal pressure 280 bar (4000psi), peak pressure 350bar (5100psi)
SA10VS/31	Swashplate design variable, c/w max flow adj. 280 bar (4000psi), peak pressure 350bar (5100psi)
B. MODE OF OPERATION	
O	Mode of operation (Pump Open Circuit)
C. SIZE	
140	Flow Vg max - 140cm (cu.in. 8.540)
D. CONTROLLER TYPE	
DFR	Pressure and flow control
DFR1	Pressure and flow control - bleed down orifice plugged
DR	Pressure control
DFLR	Pressure, flow and torque control
DRG	Remote pressure control
E. SERIES	
31	Series 31
F. ROTATION	
R	Right (clockwise rotation)
L	Left (counter-clockwise rotation)
G. SEALS	
P	Buna Seals
V	Viton Seals (fluorocarbon)
H. SHAFT TYPE	
P	140 series metric keyed shaft (45mm)
K	140 series SAE keyed shaft (1.750 dia)
S	140 series SAE splined shaft (13 tooth - 1.750)
I. MOUNT	
A	ISO 2-bolt mount (31 design only)
C	SAE 2-bolt mount
J. PORTING	
62	Side Port Flange (U.N.C mounting screws)
12	Side Port Flange (metric mounting screws)
K. COVER TYPE	
N00	Standard cover w/o thru-Drive
K01	82-2 SAE A mount (16-4 SAE "A" coupling)
K07	127-2 SAE C mount (32-4 SAE "C" coupling)
K17	SAE D mount (13 tooth)
KB7	ISO-180 (13 tooth)

PUMP SA10VO140 - Series 31

DESCRIPTION	PORTING
PUMP - SA10V(S)O140**62N00	SAE - SIDE PORTS
PUMP - SA10V(S)O140**12N00	METRIC - SIDE PORTS
DFLR CONTROL OPTION	
THRU DRIVE OPTION - K**	
K02 - SAE B Mount (13 Tooth) K04 - SAE B Mount (15 Tooth) K07 - SAE C Mount (14 Tooth) K17 - SAE D Mount (13 Tooth) KB7 - ISO 180 (13 Tooth)	THE THRU DRIVE (K** OPTION) INCLUDES COUPLING AND HARDWARE

NO.	DESCRIPTION	QTY.	REFERENCE NO.
1	PISTON (EACH)	9 REQ.	925464
2	RETAINER PLATE	1	996527
3	BALL GUIDE	1	944745
4	BARREL	1	945341
5	SPRING - SEAT	1	917727
6	SPRING	1	918171
7	RETAINER	1	918189
8	LENS PLATE - LEFT	1	975126
9	LENS PLATE - RIGHT	1	973907/975125
10	PIN (EACH)	3 REQ.	917728
11	SHAFT SPLINED (CODE S)	1	923593/948614
12	SHAFT KEYED (CODE K)	1	923315/948513
13	SHAFT METRIC (CODE P)	1	923594/948612
14	SHAFT KEYED (THRU-DRIVE CODE K)	1	923314
15	SHAFT SPLINED (THRU-DRIVE CODE S)	1	923595
16	SHAFT METRIC (THRU-DRIVE CODE P)	1	923313
17	ROTARY GROUP L.H.	1	948618
18	ROTARY GROUP R.H.	1	948617
19	YOKE L.H.	1	948620
20	YOKE R.H.	1	948619
21	CONTROLLER (DFR/DFR1)***	1	924993
22	CONTROLLER (DRG)***	1	928528
23	CONTROLLER (DR)***	1	920182
24	CONTROL PISTON ASSY	1	917597
25	FEEDBACK CONTROL PISTON	1	
26	SHAFT BEARING - CUP/CONE	1	918203
27	REAR BEARING - CUP/CONE	1	32207F
28	SADDLE BEARING (EACH)	2	918174
29	COUPLING K02	1	943552
30	COUPLING K04	1	938658
31	COUPLING K07	1	921508
32	COUPLING K17	1	932172
33	KEY FOR SHAFT (CODE K) SAE	1	
34	KEY FOR SHAFT (CODE P) METRIC	1	
35	SHIM KIT	1	
36	SEAL KIT	1	941169
37	SEAL KIT - VITON	1	941169V