



World Series

SPARES MANUAL **World Series - WS Single Pressure Pump**



GP/158/00 Issue 9. June 2013

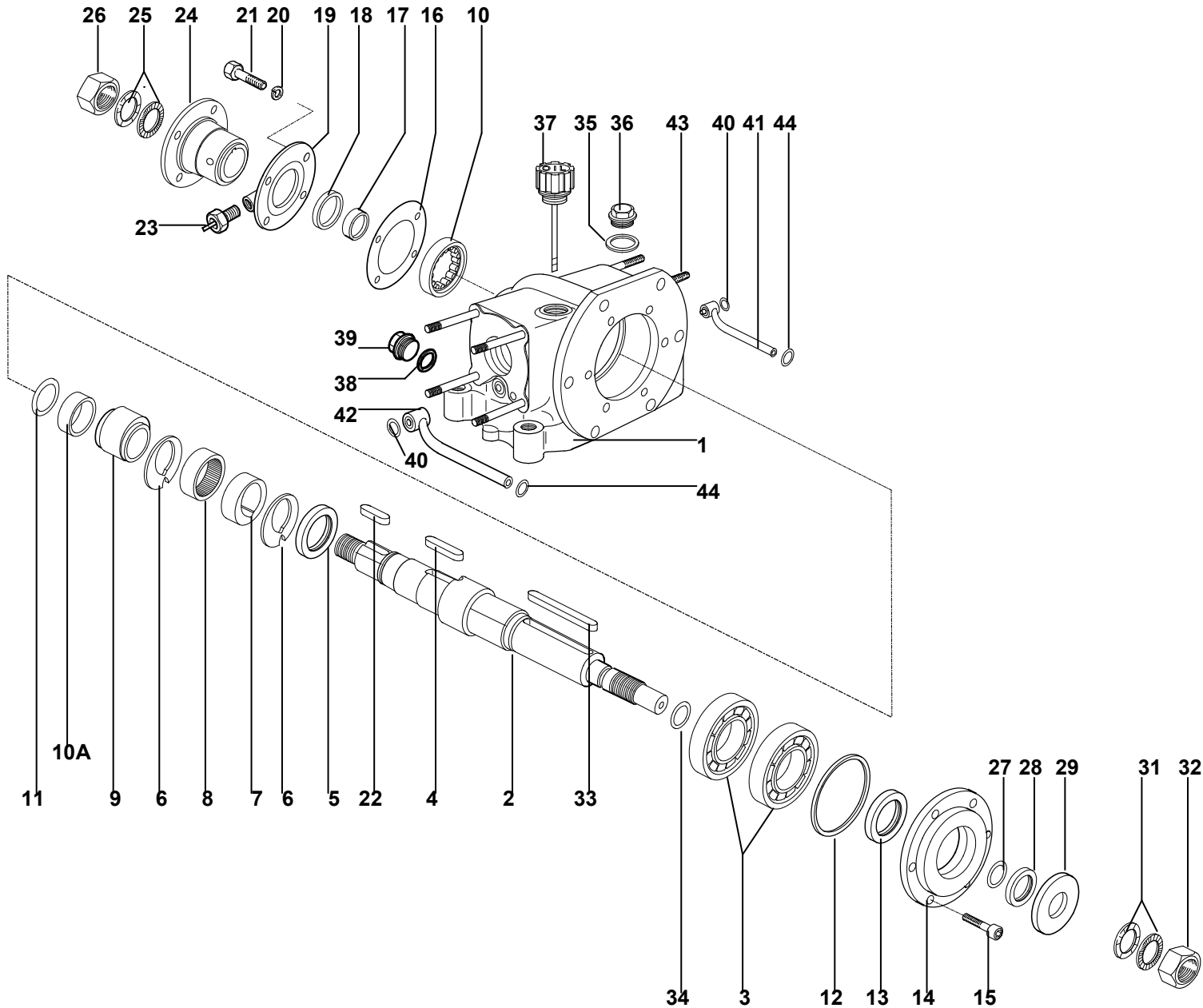
For revisions and new sections see
Amendment Record on page 2-3

AMENDMENT RECORD for WS Single-Pressure Pump Spares Manual					
Number	Date	Page/s	Amendment	Instruction	Publication issue
1	March 2002	38-41	Addition of section on Water Ring Primer	4 pages added to end of Parts List	Issue 1, March 2002
2	August 2002	16-21	Modified Piston Primer components introduced, Two piece piston assembly fitted up to serial number 8999 listed on pages 16-17 New One piece piston assembly fitted from serial number 9000 listed on pages 20-21	New pages inserted into Parts List to cover both versions of Piston Primer	Issue 1, August 2002
3	April 2003	17 21	P17 Item 17. Cover and priming valve housing P21 Item 17. Cover and priming valve housing	55551/12 is now use 55551/14 55551/12 is now use 55551/14	Issue 1, April 2003
4	July 2003	23	Item 32 Twin elbow	50847 is now use 60861 52322 is now use 60860 UFP2303/13 is now use 60862	Issue 2, October 2003
5	July 2003	8-9	Priming Pipe Filter added	Illustration amended and part numbers added	Issue 2, October 2003
6	August 2003	2-3	Inclusion of Amendment Record page at front of manual		Issue 2, October 2003
7	November 2003	12-13	Items 8, 9, Manifold fasteners change Item 15, new thermal relief valve	Part numbers changed and added	Issue 3 November 2003
8	February 2004	5	Item 1 Bearing Housing, Item 14 Seal Housing	Part numbers changed from S/n 8163	Issue 4 February 2004
9	May 2004	14-15	Item 9, 10 now upgraded to stainless steel bolt and bonded seal. Spring washer deleted.	Illustration amended and part numbers changed	Issue 5 May 2004
10	November 2004	8-9	Suction Pressure Relief Valve Removed – NOT FITTED to WS. Priming pipe upgrade included.	Illustration amended and part numbers changed	Issue 6. November 2004
11	November 2004	8-9	Items 19, 20 added. Shoulder plug and washer on suction tube.	Illustration amended and part numbers changed	Issue 6. November 2004
12	February 2006	Various	Addition of WS6010 part numbers	Various part numbers added	Issue 7. February 2006
13	February 2006	26-27	Revised RTP filter assembly	2 pages added to manual	Issue 7. February 2006
14	February 2006	32-37	Addition of ball valve, continental type valve, dual flow valve	6 pages added to manual	Issue 7. February 2006

AMENDMENT RECORD for WS Single-Pressure Pump Spares Manual					
Number	Date	Page/s	Amendment	Instruction	Publication issue
15	February 2006	42-47	Addition of gearbox	6 pages added to manual	Issue 7. February 2006
16	February 2011	13	Item 35 – re-inserted, shim 60300 now used	Part number added	Issue 8. February 2011
17	June 2013	9	Item 5 – Suction strainer 52125/01 and 52125/02 clarify where used.	52125/01 for 4"RT, 52125/02 for 5½"RT. No BSP suction tubes	Issue 9. June 2013

World Series – WS Single Pressure Pump

Bearing Housing Group



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Bearing Housing Group

Item Number	Description	No./ Unit	Light Alloy All models	Gunmetal All models
1	Bearing Housing	1	60000	60000
2	Pump Shaft	1	60001/01	60001/01
3	Bearing Angular Contact	2	60002	60002
4	Key Rect. Par'l	1	MS80/16	MS80/16
5	Spacer Washer	1	60010	60010
6	Bearing Location Plate	2	60003/01	60003/01
7	Eccentric	1	60004	60004
8	Bearing – Needle	1	60005	60005
9	Balance Weight	1	60006	60006
10 & 10A	Bearing – Roller	1	60007	60007
11	'O' Ring	1	53384/01	53384/01
12	'O' Ring	1	55831	55831
13	Oil Seal	1	60012	60012
14	Seal Housing	1	60011	60011
15	Screw	6	MS164/20	MS164/20
16	Gasket Seal Housing	1	60182	60182
17	Wear Ring – Oil Seal	1	60008	60008
18	Oil Seal	1	50682/02	50682/02
19	Seal Housing	1	60009	60009
20	Washer, Spring	4	MS29/7	MS29/7
21	Screw,	4	MS06/25	MS06/25
22	Key Rect.	1	MS80/15	MS80/15
23	Tacho Sender Unit	1	60015	60015
24	Drive Flange	1	See Options	See Options
25	Lock Washer Pair	1	60072/06	60072/06
26	Nut	1	MS35/16	MS35/16
27	'O' Ring	1	51355	51355
28	Seal Wear Ring	1	60141	60141
29	Flinger	1	60014	60014
31	Lock Washer Pair	1	60072/06	60072/06
32	Nut	1	60210	60210
33	Key, Rect.	1	MS180/28	MS180/28
34	'O' Ring	1	57044	57044
35	Washer, Sealing	1	UFP2303/10	UFP2303/10
36	Plug Shoulder	1	S64/6	S64/6
37	Oil Filler/Level Unit	1	60016	60016
38	Washer, Sealing	1	UFP2303/7	UFP2303/7
39	Plug Shoulder	1	S64/3	S64/3
40	'O' Ring	2	53384	53384
41	Feed Tube R.H.	1	60053	60053
42	Feed Tube L.H.	1	60053/01	60053/01
43	Stud	8	56944	56944
44	'O' Ring	2	FWP8217	FWP8217

From S/n 8163 use 60000/02

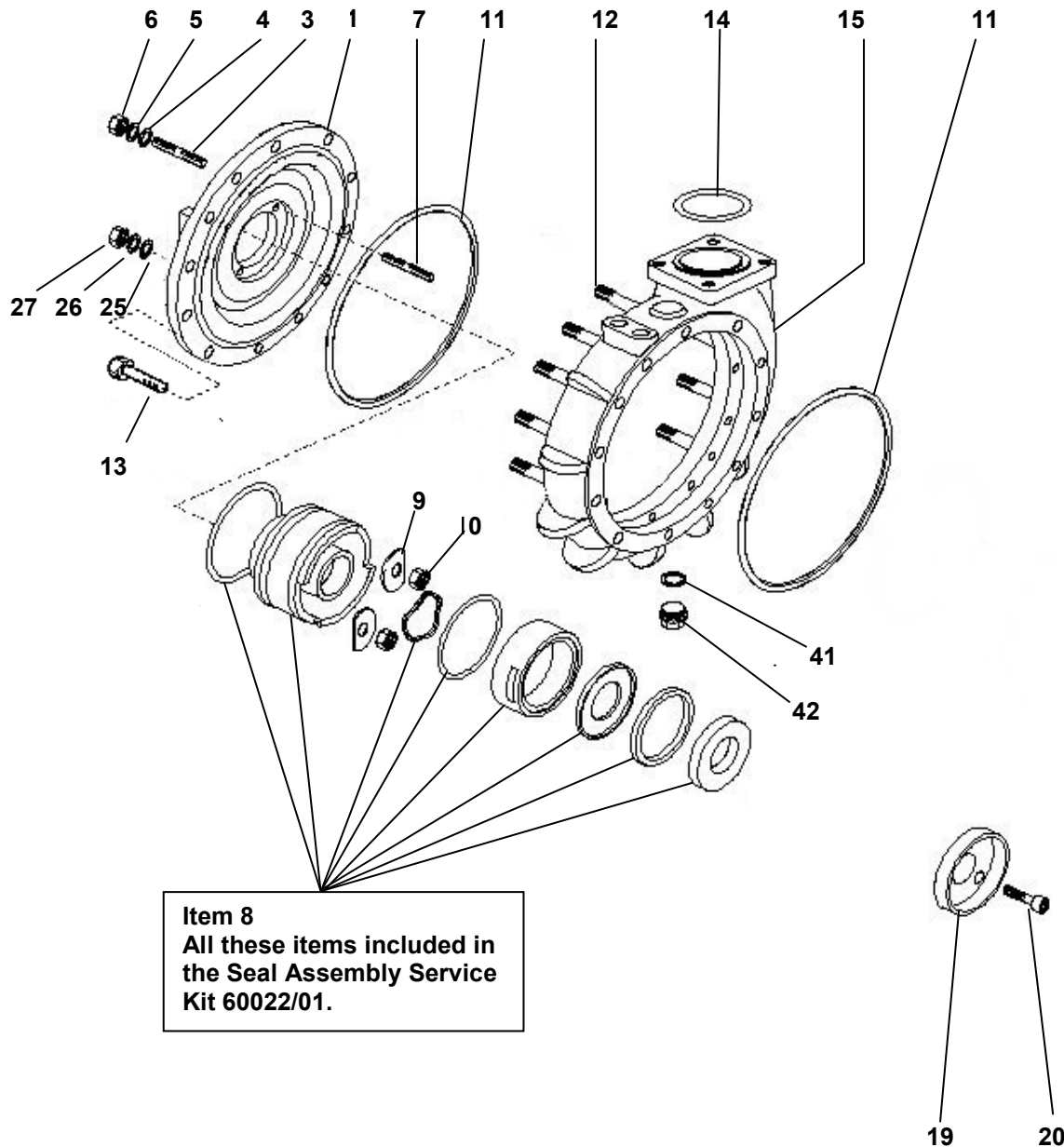
From S/n 8163 use 60011/01

Drive Flange Options

a	Drive Flange SAE 1410	1	60073
b	Drive Flange SAE 1510	1	60073/01
c	Drive Flange DIN 100	1	60073/02
d	Drive Flange DIN 120/8	1	60073/03

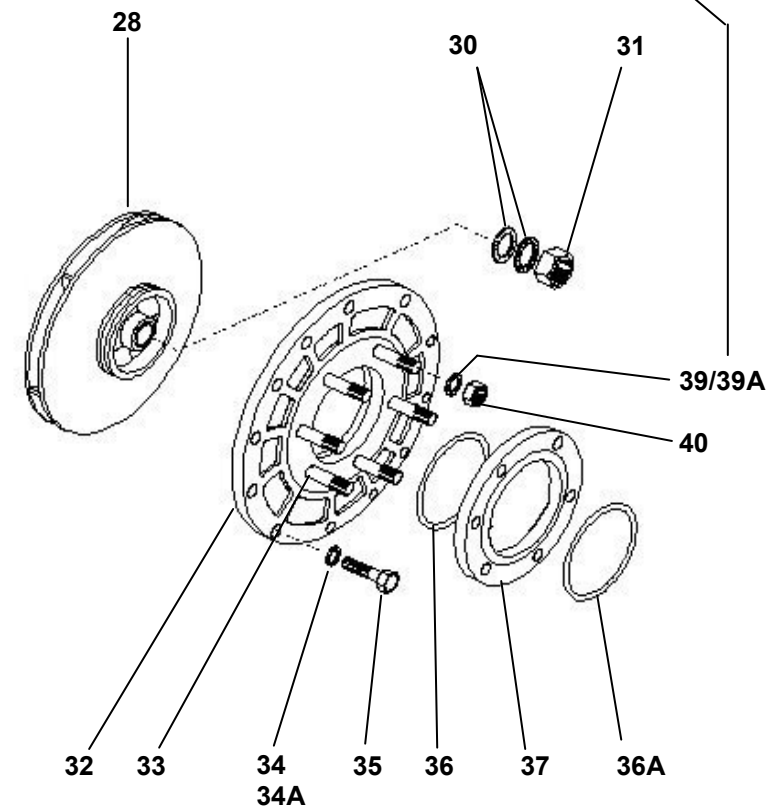
World Series – WS Single Pressure Pump

Pump Group



Items 33, 39, 39A, 40 -

- 2010/3010 pump requires 6 off
- 4010 requires 8 off



World Series – WS Single Pressure Pump

Pump Group

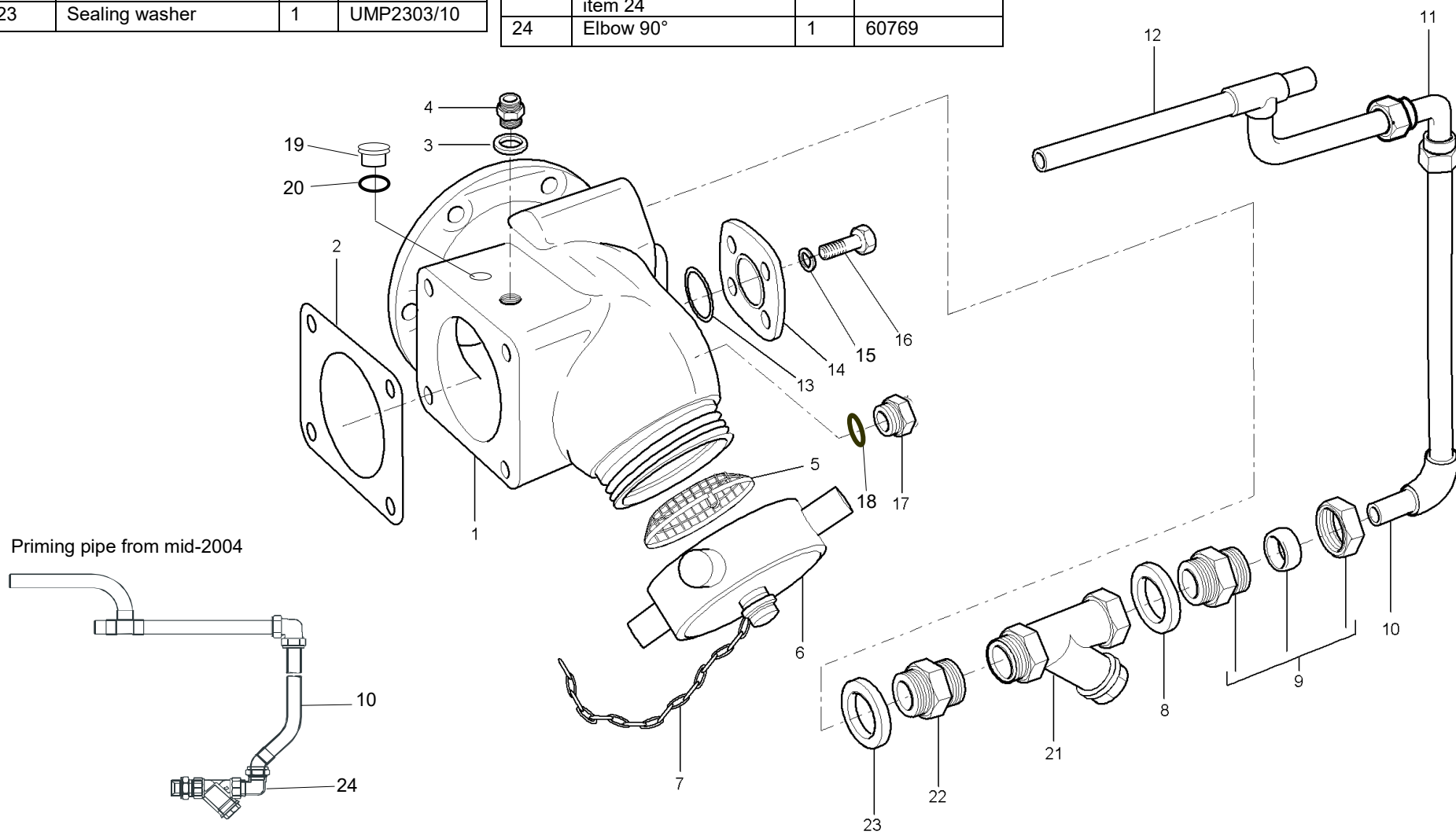
Item Number	Description	No./ Unit	Light Alloy 2010/3010	Gunmetal 2010/3010	Light Alloy 4010	Gunmetal 4010	Light Alloy 6010	Gunmetal 6010
1	Pump Body, Clockwise and anti-clockwise	1	60140	60140/100	4010, 6010 part numbers as per 2010/3010 unless stated below -			
2	'O' Ring	2	UMP9700	UMP9700				
3	Stud	6	MS49/30	MS49/30				
4	Washer	6	MS25/10	MS25/10				
5	Washer, Spring	6	MS29/7	MS29/7	Item 28 Impeller – Anti-clockwise Rotation 2010/3010 Alum 60306 2010/3010 Gunmetal 60306/100 4010 Alum 60371 4010 Gunmetal 60371/100 6010 Alum 60848 6010 Gunmetal 69848/100			
6	Nut	6	MS35/9	MS35/9				
7	Stud	2	MS147/12	MS147/12				
8	Mechanical Seal Assembly Service Kit	1	60022/01	60022/01				
9	Washer, Seal Retaining	2	60211	60211				
10	Nut	2	MS141/4	MS141/4				
11	'O' Ring	2	60298	60298				
12	Stud	9	MS50/35	MS50/35				
13	Screw	3	MS66/25	MS66/25				
14	'O' Ring	1	THM11034	THM11034	55831	55831	55831	55831
15	Volute	1	60024	60024/100	60193	60193/100	60193	60193/100
19	Wear Ring – L.P. Rear	1	60142	60142	60142/01	60142/01	60836/01	60839/01
20	Screw	6	MS163/25	MS163/25				
25	Washer	12	MS25/11	MS25/11				
26	Washer	12	MS29/8	MS29/8				
27	Nut	12	MS35/10	MS35/10				
28	Impeller	1	60230	60230/100	60342	60342/100	60842	60842/100
30	Lock Washer Pair	1	60072/06	60072/06				
31	Nut	1	60210	60210				
32	Cover Plate – Suction	1	60026	60026/100	60194	60194/100	60838	60838/100
33	Stud (2010/3010 – 6 off, 4010 – 8 off)	6 or 8	MS49/40	MS49/40				
34	Washer	12	MS25/11	MS25/11				
34A	Spring Washer	12	MS29/8	MS29/8				
35	Bolt	12	MS19/45	MS19/45				
36	'O' Ring	1	52068/01	52068/01	51177	51177	52068/07	52068/07
36A	'O' Ring	1	52068/01	52068/01	51177	51177	60840	60840
37	Wear Ring, Low Pressure, Front	1	60206/100	60206/100	60344/100	60344/100	60839/01	60839/01
39	Washer (2010/3010 – 6 off, 4010 – 8 off)	6 or 8	MS25/10	MS25/10				
39A	Spring Washer (2010/3010 – 6 off, 4010 – 8 off)	6 or 8	MS29/7	MS29/7				
40	Nut (2010/3010 – 6 off, 4010 – 8 off)	6 or 8	MS35/9	MS35/9				
41	Washer, Sealing	1	UFP2303/7	UFP2303/7				
42	Plug Shoulder	1	S64/3	S64/3				

World Series – WS Single Pressure Pump

Suction Tube Group

Priming pipe filter fitted as standard from Mid-2003			
Item	Description	No.	Part number
21	Strainer	1	60524
22	Connector	1	59182/04
23	Sealing washer	1	UMP2303/10

From mid-2004 priming pipe item 10 changed			
Item	Description	No.	Part number
10	Priming pipe - now use	1	60773/01
8, 9	Not used, replaced by item 24		
24	Elbow 90°	1	60769



World Series – WS Single Pressure Pump

Suction Tube Group

Item Number	Description	No./ Unit	2010 4" RT Light Alloy	2010 4" RT Gunmetal	2010 4" BSP Light Alloy	2010 4" BSP Gunmetal	2010 Twin 4" BSP Gunmetal	3010 5 ½" RT Light Alloy	3010 5 ½" RT Gunmetal
1	Suction Tube	1	60188	60188/100	60188/01	60188/101	60440	60174	60174/100
2	Gasket	1	12284	12284	12284	12284	12284	12284	12284
3	Washer, Sealing	1	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5
4	Union	1	56403	56403	56403	56403	56403	56403	56403
5	Suction Strainer	1	52125/01	52125/01	N/A	N/A	N/A	52125/02	52125/02
6	Cap, Suction Tube	1	FWP2004	UFP7362	N/A	N/A	N/A	2112	2112/1
7	Chain, Suction Tube Cap	1	FWP1062/1	FWP1062/1	N/A	N/A	N/A	FWP1062/1	FWP1062/1
8	Sealing Washer ¾" BSP	2	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
9	Stud Coupling	1	55308	55308	55308	55308	55308	55308	55308
10	Priming Pipe, Suct. Connect.	1	60523/03	60523/03	60523/03	60523/03	60523/03	60523/03	60523/03
11	90° Elbow	1	55309	55309	55309	55309	55309	55309	55309
12	Priming Pipe – Transverse	1	60170	60170	60170	60170	60170	60170	60170
13	'O' Ring	1	60166	60166	60166	60166	60166	60166	60166
14	Seal Plate	1	60168	60168	60168	60168	60168	60168	60168
15	Screw	4	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
16	Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
17	Shoulder Plug ¾"BSP	1	S64/6	S64/6	S64/6	S64/6	S64/6	S64/6	S64/6
18	Sealing washer ¾"BSP	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
19	Shoulder plug ½"BSP	1	S64/4	S64/4	S64/4	S64/4	S64/4	S64/4	S64/4
20	Sealing washer ½"BSP	1	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8

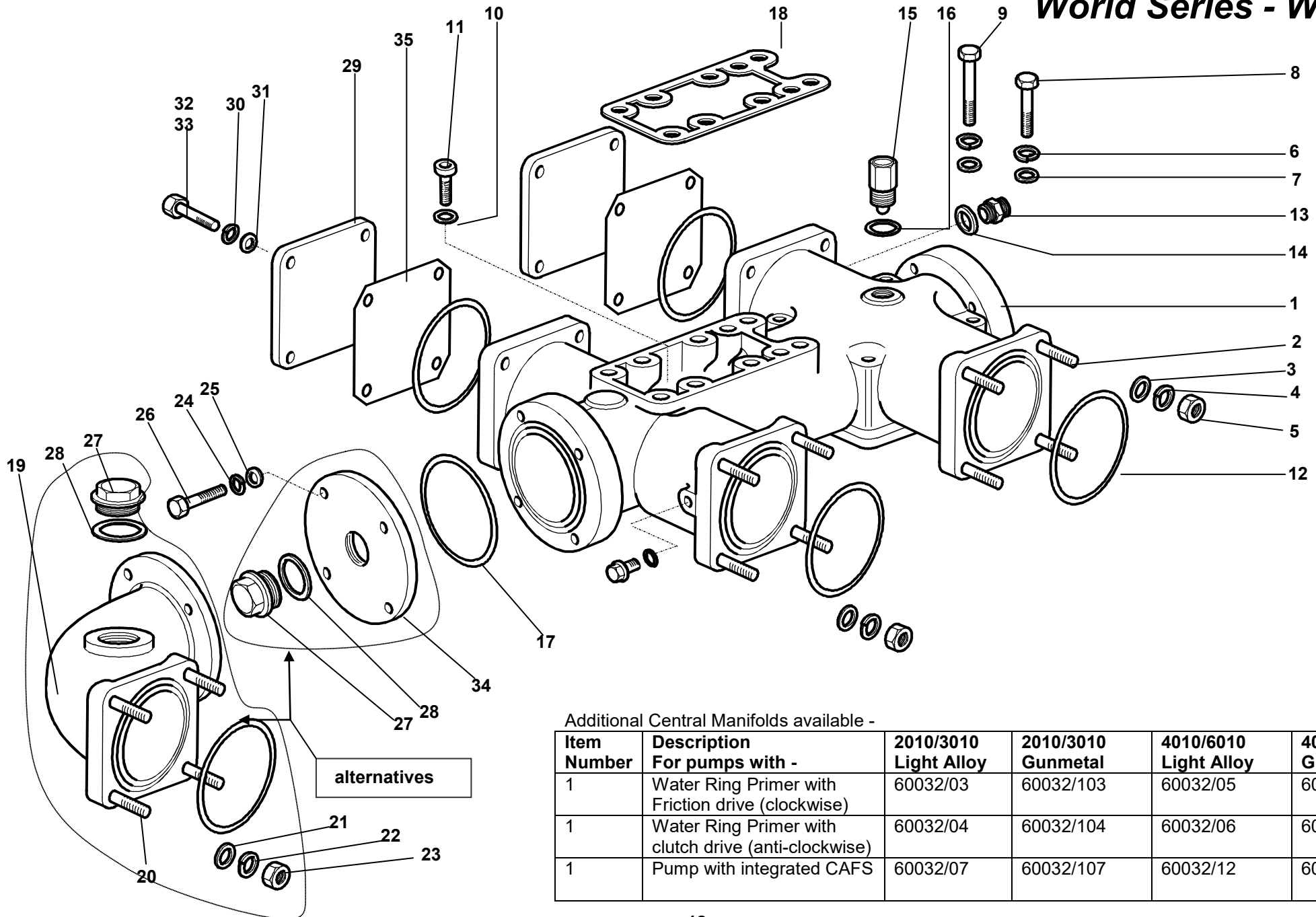
Item Number	Description	No./ Unit	3010 5½" BSP Alloy	3010 5½" BSP Gunmetal	4010 5½" RT Alloy	4010 5½" RT Gunmetal	4010 5½" BSP Alloy	4010 5½" BSP Gunmetal
1	Suction Tube	1	60174/01	60174/101	60205	60205/100	60205/01	60205/101
2	Gasket	1	12284	12284	12284	12284	12284	12284
3	Washer, Sealing	1	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5
4	Union	1	56403	56403	56403	56403	56403	56403
5	Suction Strainer	1	N/A	N/A	52125/02	52125/02	N/A	N/A
6	Cap, Suction Tube	1	No Cap	No Cap	2112	2112/1	No Cap	No Cap
7	Chain, Suction Tube Cap	1	FWP1062/1	FWP1062/1	N/A	N/A	FWP1062/1	FWP1062/1
8	Sealing Washer ¾"BSP	2	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
9	Stud Coupling	1	55308	55308	55308	55308	55308	55308
10	Priming Pipe, Suct. Connect	1	60172	60172	60172	60172	60172	60172
11	90° Elbow	1	55309	55309	55309	55309	55309	55309
12	Priming Pipe - Transverse	1	60523/03	60523/03	60523/03	60523/03	60523/03	60523/03
13	'O' Ring	1	60166	60166	60166	60166	60166	60166
14	Seal Plate	1	60168	60168	60168	60168	60168	60168
15	Screw	4	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
16	Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
17	Shoulder Plug ¾"BSP	1	S64/6	S64/6	S64/6	S64/6	S64/6	S64/6
18	Sealing washer ¾"BSP	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
19	Shoulder plug ½"BSP	1	S64/4	S64/4	S64/4	S64/4	S64/4	S64/4
20	Sealing washer ½"BSP	1	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8	UFP2302/8

Item Number	Description	No./ Unit	6010 8inch flange, 12 hole Light Alloy	6010 8inch flange, 12 hole Gunmetal	
1	Suction Tube	1	51348/06	51348/01	For other suction tube specifications, please quote pump model and serial number when ordering
2	-		Not used on 6010	Not used on 6010	
3	Washer, Sealing, ¼ in	1	UFP2303/5	UFP2303/5	
4	Union, ¼ in	1	56403	56403	
5	-	1	Not used on 6010	Not used on 6010	
6	-	1	Not used on 6010	Not used on 6010	
7	-	1	Not used on 6010	Not used on 6010	
8	Washer, Sealing	1	<i>Items 8 -12 and 21-24 See illustration on previous page for further details on the primer pipe and filter parts fitted to different specifications</i>		
9	Stud Coupling	1			
10	Priming Pipe, Suct. Connect	1			
11	90° Elbow	1			
12	Priming Pipe - Transverse	1			
13	'O' Ring	1	60166	60166	
14	Seal Plate	1	60168	60168	
15	Screw	4	MS05/25	MS05/25	
16	Washer, spring	4	MS29/6	MS29/6	
-	Washer	4	MS25/9	MS25/9	
-	Joint, suction tube to volute	1	51370	51370	
-	Plug, ¼ in	1	S64/2	S64/2	
-	Washer, sealing, ¼ in	1	UFP2303/5	UFP2303/5	
-	Plug, ½ in	1	S64/4	S64/4	
-	Washer, sealing, ½ in	1	UFP2303/8	UFP2303/8	

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World Series - WS

Manifold Group



Additional Central Manifolds available -

Item Number	Description For pumps with -	2010/3010 Light Alloy	2010/3010 Gunmetal	4010/6010 Light Alloy	4010/6010 Gunmetal
1	Water Ring Primer with Friction drive (clockwise)	60032/03	60032/103	60032/05	60032/105
1	Water Ring Primer with clutch drive (anti-clockwise)	60032/04	60032/104	60032/06	60032/106
1	Pump with integrated CAFS	60032/07	60032/107	60032/12	60032/112

World Series – WS Single Pressure Pump

Manifold Group

Item Number	Description	No. per Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Manifold – Central	1	60032	60032/100	60032	60032/100	60032/01	60032/101
2	Stud	8	MS49/25	MS49/25	MS49/25	MS49/25	MS49/25	MS49/25
3	Washer	8	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
4	Washer, Spring	8	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
5	Nut	8	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9
6	Washer	4	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
7	Spring Washer	4	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
8	Bolt	2	MS18/110	MS18/110	MS18/110	MS18/110	MS18/110	MS18/110
9	Bolt	2	MS18/100	MS18/100	MS18/100	MS18/100	MS18/100	MS18/100
10	Sealing Washer	2	MS133/10	MS133/10	MS133/10	MS133/10	MS133/10	MS133/10
11	Screw	2	MS165/35	MS165/35	MS165/35	MS165/35	MS165/35	MS165/35
12	'O' Ring	4	10701	10701	10701	10701	10701	10701
13	Union	1	56403	56403	56403	56403	56403	56403
14	Washer, Sealing	1	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5	UFP2303/5
15*	Thermal Relief Valve Assembly - 42°C Setting	1	60809	60809	60809	60809	60809	60809
	Thermal Relief Valve Assembly - 74°C Setting	1	60809/01	60809/01	60809/01	60809/01	60809/01	60809/01
16	Washer, Sealing – <i>now supplied with item 15</i>	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
17	'O' Ring	2	50092	50092	50092	50092	50092	50092
18	Gasket – Filter Body	1	60035	60035	60035	60035	60035	60035
19*	Manifold –Outtrigger	2	60033	60033/100	60033	60033/100	60033	60033/100
20	Stud	8	MS49/25	MS49/25	MS49/25	MS49/25	MS49/25	MS49/25
21	Washer	8	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
22	Spring Washer	1	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
23	Nut, Domed	8	MS42/5	MS42/5	MS42/5	MS42/5	MS42/5	MS42/5
24	Washer	8	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
25	Spring Washer	8	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
26	Screw	8	MS65/30	MS65/30	MS65/30	MS65/30	MS65/30	MS65/30
27	Plug Shoulder	1	S64/6	S64/6	S64/6	S64/6	S64/6	S64/6
28	Washer, Sealing	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
29	Blanking Plate	2	51281/09	51281/09	51281/09	51281/09	51281/09	51281/09
30	Washer	8	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
31	Spring Washer	8	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
32	Screw	6	MS06/25	MS06/25	MS06/25	MS06/25	MS06/25	MS06/25
33	Screw	2	MS06/30	MS06/30	MS06/30	MS06/30	MS06/30	MS06/30
34	Blank Plate	2	60023	60023/100	60023	60023/100	60023	60023/100
35	Shim Plate	2	60300	60300	60300	60300	60300	60300

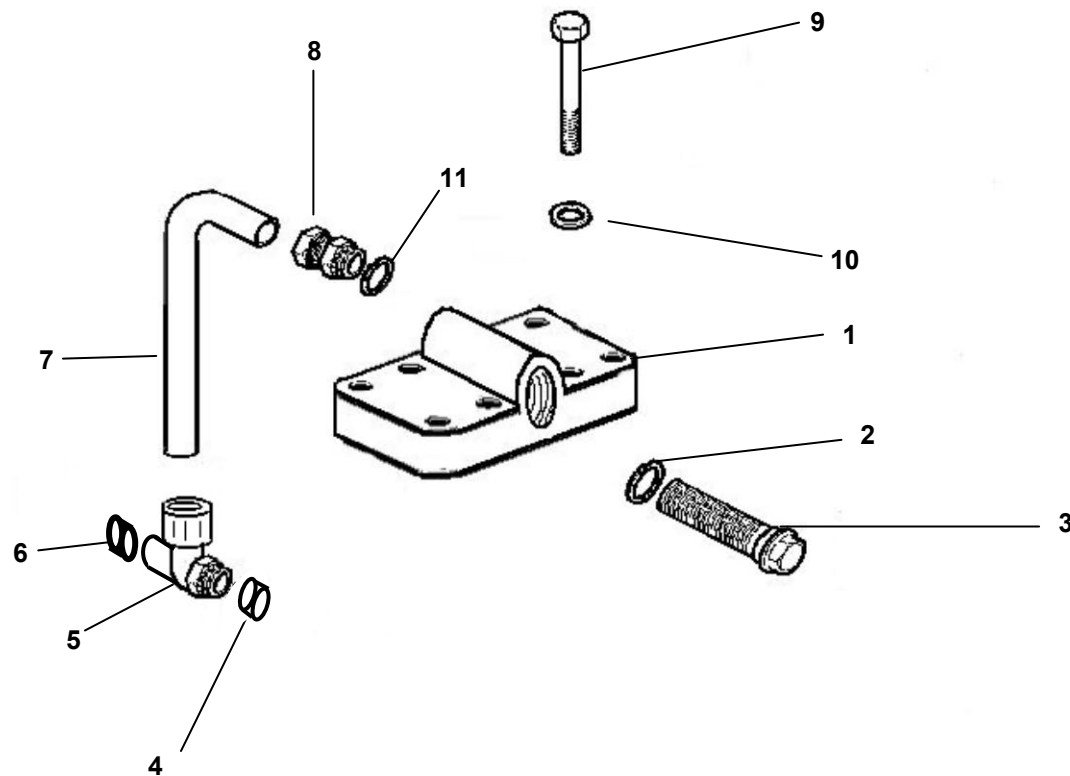
Item 1 – Please quote pump serial number and specification when ordering to obtain correct manifold

Item 8, 9 – Manifolds to mid-2003 use 2 off item 8, 2 off item 9. Manifolds from mid-2003 use 4 off item 8 only.

Item 15 – Please quote pump serial number and specification when ordering to obtain correct thermal relief valve

World Series – WS Single Pressure Pump

Filter Housing

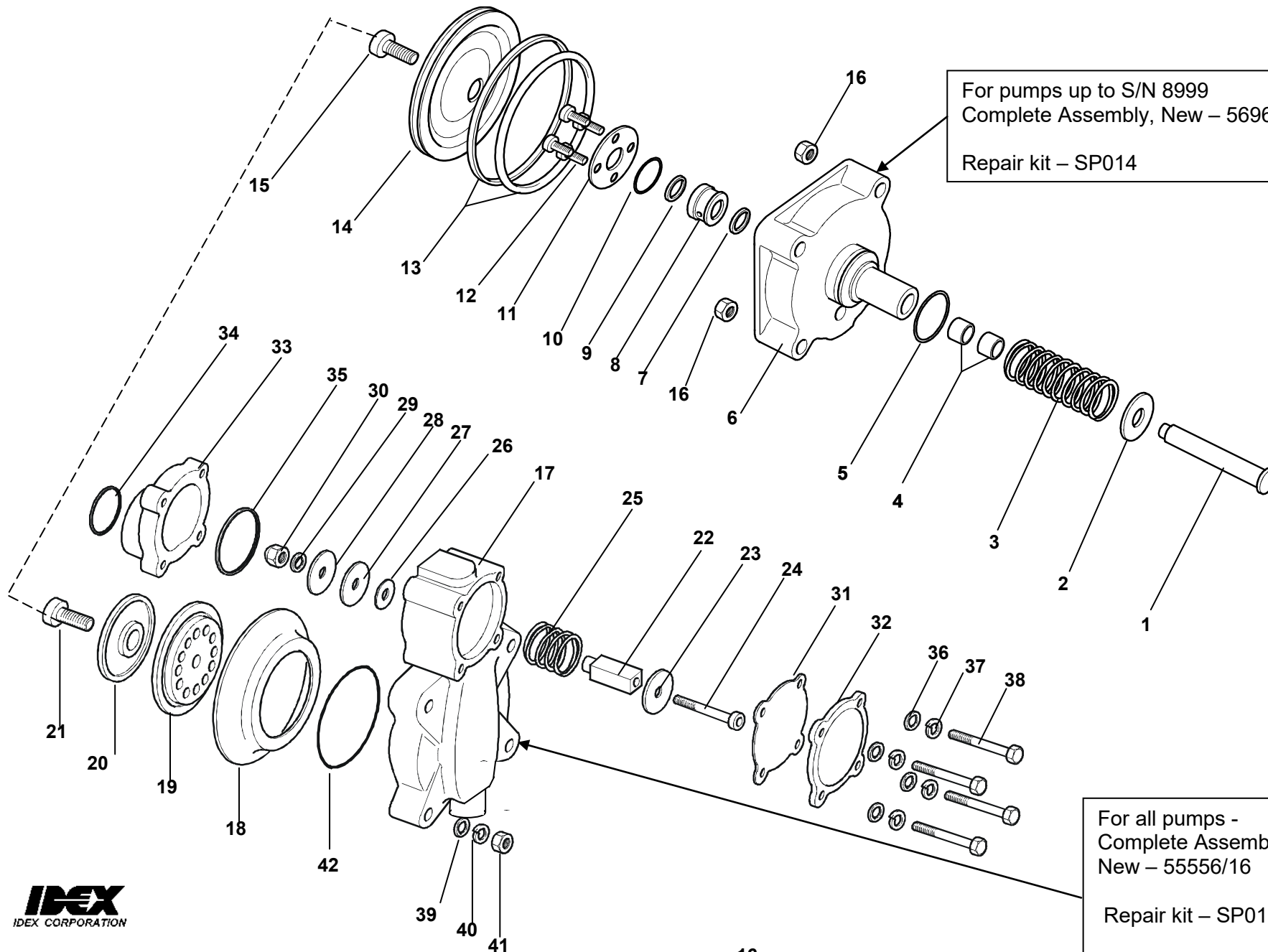


World Series – WS Single Pressure Pump

Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Primer Filter Housing	1	60292	60292/100	60292	60292/100	60292	60292/100
2	Sealing Washer	2	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
3	Strainer Assembly	1	57456	57456	57456	57456	57456	57456
4	Barrel nipple, ½ in BSPT	1	60528	60528	60528	60528	60528	60528
5	T Piece	1	60527	60527	60527	60527	60527	60527
6	Blank plug, in item 4	1	60531	60531	60531	60531	60531	60531
7	Primer Disengage Pipe	1	60283	60283	60283	60283	60283/01	60283/01
8	Straight Coupler	1	55873	55873	55873	55873	55873	55873
9	Screw, M8	8	MS117/40	MS117/40	MS117/40	MS117/40	MS117/40	MS117/40
10	Seal, bonded M8	8	MS33/8	MS33/8	MS33/8	MS33/8	MS33/8	MS9
11	Sealing Washer	1	UFP2303/8	UFP2303/8	UFP2303/8	UFP2303/8	UFP2303/8	UFP2303/8

Filter Housing

World Series – WS Single Pressure Pump



Piston Primer – fitted to pumps up to serial number 8999

World Series – WS Single Pressure Pump

Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Piston Rod Assy	2	57532/01	57532/01	57532/01	57532/01	57532/01	57532/01
2	Spring Seat	2	PDP12382/1	PDP12382/1	PDP12382/1	PDP12382/1	PDP12382/1	PDP12382/1
3	Spring	2	57117/02	57117/02	57117/02	57117/02	57117/02	57117/02
4	DU Bearing	4	56949	56949	56949	56949	56949	56949
5	'O' Ring	2	52634	52634	52634	52634	52634	52634
6	Cylinder – Bronze	2	56957/02	56957/02	56957/02	56957/02	56957/02	56957/02
7	Variseal	2	56954	56954	56954	56954	56954	56954
8	Sleeve	2	56958	56958	56958	56958	56958	56958
9	Glydring	2	56955	56955	56955	56955	56955	56955
10	'O' Ring	2	52816	52816	52816	52816	52816	52816
11	Clamp Washer	2	56959	56959	56959	56959	56959	56959
12	Screw	8	MS161/10	MS161/10	MS161/10	MS161/10	MS161/10	MS161/10
13	Piston Ring	2	52650/01	52650/01	52650/01	52650/01	52650/01	52650/01
14	Piston	2	57435/02	57435/02	57435/02	57435/02	57435/02	57435/02
15	Screw	2	MS164L/20	MS164L/20	MS164L/20	MS164L/20	MS164L/20	MS164L/20
16	Special Nut	4	57414	57414	57414	57414	57414	57414
17	Cover & Priming Valve Housing	2	55551/14	55551/14	55551/14	55551/14	55551/14	55551/14
18	Seal – Discharge	2	56961	56961	56961	56961	56961	56961
19	Orifice Plate	2	56963	56963	56963	56963	56963	56963
20	Seal – Inlet	2	56962	56962	56962	56962	56962	56962
21	Screw	2	MS164/16	MS164/16	MS164/16	MS164/16	MS164/16	MS164/16
22	Spacer – Priming Valve	2	55665	55665	55665	55665	55665	55665
23	Thrust Pad – Priming Valve	2	55666	55666	55666	55666	55666	55666
24	Screw	2	MS163/50	MS163/50	MS163/50	MS163/50	MS163/50	MS163/50
25	Spring – Priming Valve	2	UFP6488	UFP6488	UFP6488	UFP6488	UFP6488	UFP6488
26	Seal Retaining Washer – Priming Valve	2	55668	55668	55668	55668	55668	55668
27	Seal Washer – Priming Valve	2	55669	55669	55669	55669	55669	55669
28	Seal Support Washer – Priming Valve	2	55670	55670	55670	55670	55670	55670
29	Washer	2	MS125/7	MS125/7	MS125/7	MS125/7	MS125/7	MS125/7
30	Nut	2	MS141/4	MS141/4	MS141/4	MS141/4	MS141/4	MS141/4
31	Diaphragm – Priming Valve	2	56123	56123	56123	56123	56123	56123
32	Cover – Priming Valve	2	56120	56120	56120	56120	56120	56120
33	Inlet – Priming Valve	2	57229/04	57229/05	57229/04	57229/05	57229/04	57229/05
34	'O' Ring	2	55562	55562	55562	55562	55562	55562
35	'O' Ring	2	57204	57204	57204	57204	57204	57204
36	Washer	8	MS25/7	MS25/7	MS25/7	MS25/7	MS25/7	MS25/7
37	Washer, Spring	8	MS29/5	MS29/5	MS29/5	MS29/5	MS29/5	MS29/5
38	Bolt	8	MS16/60	MS16/60	MS16/60	MS16/60	MS16/60	MS16/60
39	Washer	8	MS125/10	MS125/10	MS125/10	MS125/10	MS125/10	MS125/10
40	Washer, Spring	8	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
41	Nut	8	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9
42	'O' Ring	2	60351	60351	60351	60351	60351	60351

Piston Primer - fitted to pumps up to serial number 8999

World Series – WS Single Pressure Pump

Piston Primer - fitted to pumps up to serial number 8999

Item Number on P12	Description	No./ Unit	Part number for all models
	Piston Primer Cover Kit – for all WS Pumps, all Serial Numbers, comprises of -		SP013
18	Seal, discharge	1	56961
20	Seal, inlet	1	56962
21	Screw, stainless steel	1	MS164/16
27	Seal washer, priming	1	55669
31	Diaphragm, priming	1	56123
34	O ring	1	55562
35	O ring	1	57204
42	O ring	1	60351
	Piston Primer Cylinder Kit – for all WS Pumps, up to S/N 8999, comprises of -		SP014
4	DU Bearing	2	56949
5	O ring I/D 34.5	1	52634
7	Variseal	1	56954
9	Glydring	1	56955/01
10	O ring I/D 25.1	1	52816
13	Piston ring	1	52650/01
15	Screw, Stainless steel	1	MS164L/20

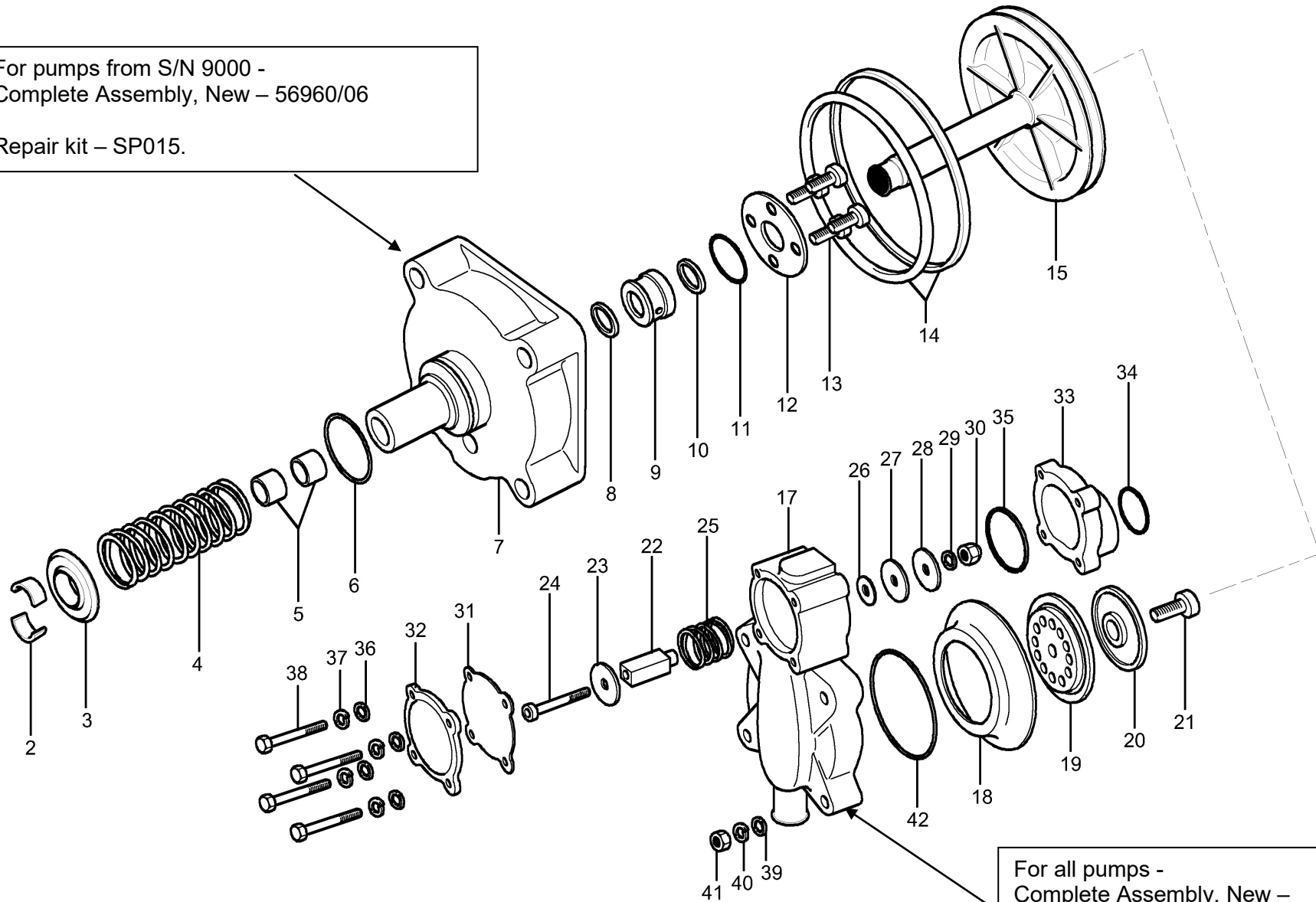
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World Series – WS Single Pressure Pump

Piston Primer - fitted to pumps from serial number 9000

For pumps from S/N 9000 -
Complete Assembly, New – 56960/06

Repair kit – SP015.



For all pumps -
Complete Assembly, New –
55556/16

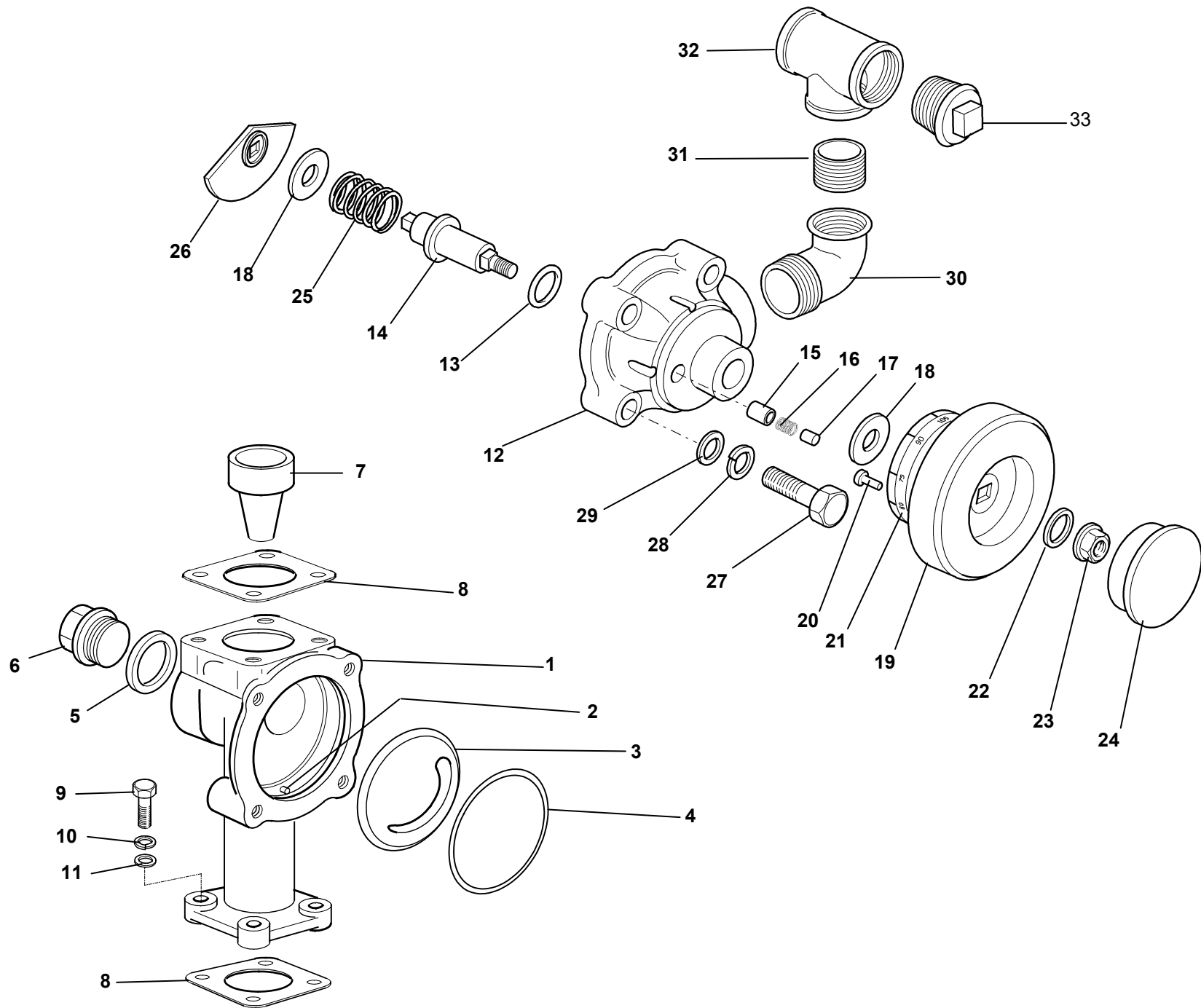
Repair kit – SP013

World Series – WS Single Pressure Pump

Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Supplied as part of item 15	2	-	-	-	-	-	-
2	Split Collet	2	60650	60650	60650	60650	60650	60650
3	Spring Retainer	2	60649	60649	60649	60649	60649	60649
4	Spring	2	57117/02	57117/02	57117/02	57117/02	57117/02	57117/02
5	DU Bearing	4	56949	56949	56949	56949	56949	56949
6	'O' Ring	2	52634	52634	52634	52634	52634	52634
7	Cylinder - Bronze	2	56957/02	56957/02	56957/02	56957/02	56957/02	56957/02
8	Variseal	2	56954	56954	56954	56954	56954	56954
9	Sleeve	2	56958	56958	56958	56958	56958	56958
10	Glydring	2	56955	56955	56955	56955	56955	56955
11	'O' Ring	2	52816	52816	52816	52816	52816	52816
12	Clamp Washer	2	56959	56959	56959	56959	56959	56959
13	Screw	8	MS161/10	MS161/10	MS161/10	MS161/10	MS161/10	MS161/10
14	Piston Ring	2	60652	60652	60652	60652	60652	60652
15	Piston Rod Assy	2	60835	60835	60835	60835	60835	60835
17	Cover & Priming Valve Housing	2	55551/14	55551/14	55551/14	55551/14	55551/14	55551/14
18	Seal - Discharge	2	56961	56961	56961	56961	56961	56961
19	Orifice Plate	2	56963	56963	56963	56963	56963	56963
20	Seal - Inlet	2	56962	56962	56962	56962	56962	56962
21	Screw	2	MS164/16	MS164/16	MS164/16	MS164/16	MS164/16	MS164/16
22	Spacer - Priming Valve	2	55665	55665	55665	55665	55665	55665
23	Thrust Pad - Priming Valve	2	55666	55666	55666	55666	55666	55666
24	Screw	2	MS163/50	MS163/50	MS163/50	MS163/50	MS163/50	MS163/50
25	Spring - Priming Valve	2	57555	57555	57555	57555	57555	57555
26	Seal Retaining Washer - Priming Valve	2	55668	55668	55668	55668	55668	55668
27	Seal Washer - Priming Valve	2	55669	55669	55669	55669	55669	55669
28	Seal Support Washer - Priming Valve	2	55670	55670	55670	55670	55670	55670
29	Washer	2	MS125/7	MS125/7	MS125/7	MS125/7	MS125/7	MS125/7
30	Nut	2	MS141/4	MS141/4	MS141/4	MS141/4	MS141/4	MS141/4
30	Diaphragm - Priming Valve	2	56123	56123	56123	56123	56123	56123
32	Cover - Priming Valve	2	56120	56120	56120	56120	56120	56120
33	Inlet - Priming Valve	2	57229/05	57229/05	57229/05	57229/05	57229/05	57229/05
34	'O' Ring	2	55562	55562	55562	55562	55562	55562
35	'O' Ring	2	57204	57204	57204	57204	57204	57204
36	Washer	8	MS25/7	MS25/7	MS25/7	MS25/7	MS25/7	MS25/7
37	Washer, Spring	8	MS29/5	MS29/5	MS29/5	MS29/5	MS29/5	MS29/5
38	Bolt	8	MS16/60	MS16/60	MS16/60	MS16/60	MS16/60	MS16/60
39	Washer	8	MS125/10	MS125/10	MS125/10	MS125/10	MS125/10	MS125/10
40	Washer, Spring	8	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
41	Nut	8	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9	MS35/9
42	'O' Ring	2	60351	60351	60351	60351	60351	60351

Piston Primer - fitted to pumps from serial number 9000

RTP Foam Inductor Assembly



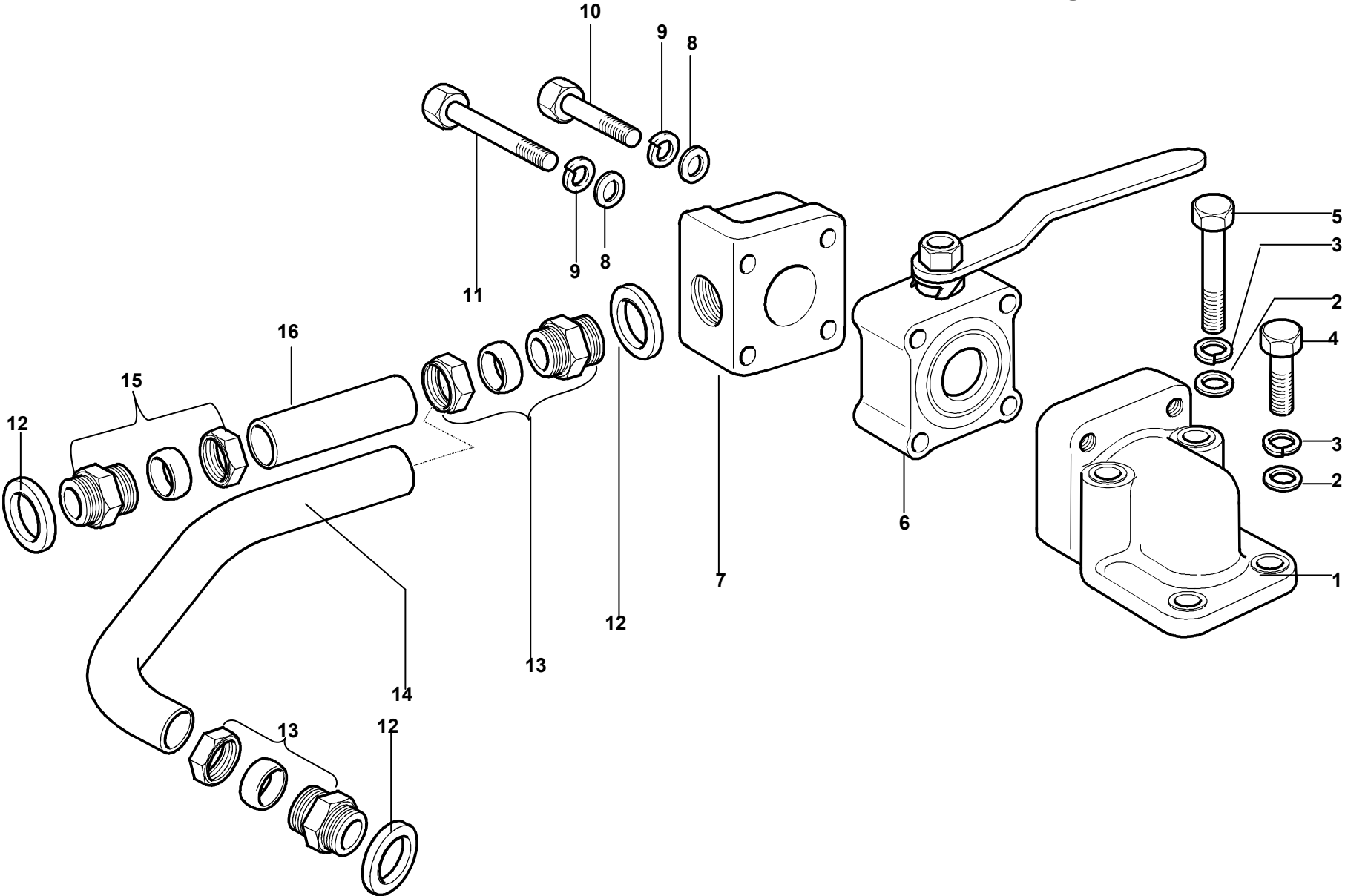
World Series – WS Single Pressure Pump

Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Body – Inductor	1	51890/06	51890/07	51890/06	51890/07	51890/06	51890/07
2	Spirol Pin	1	MS177/54	MS177/54	MS177/54	MS177/54	MS177/54	MS177/54
3	Orifice Plate	1	51902/03	51902/03	51902/03	51902/03	51902/03	51902/03
4	'O' Ring	1	GPL10556	GPL10556	GPL10556	GPL10556	GPL10556	GPL10556
5	Washer, Sealing	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
6	Plug Shoulder	1	S64/6	S64/6	S64/6	S64/6	S64/6	S64/6
7	Nozzle	1	50733/01	50733/01	50733/01	50733/01	50733/01	50733/01
8	Gasket	2	60234	60234	60234	60234	60234	60234
9	Screw	4	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
10	Spring Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
11	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
12	Housing – Valve	1	51892	51892	51892	51892	51892	51892
13	'O' Ring	1	51894	51894	51894	51894	51894	51894
14	Spindle – Valve	1	51893	51893	51893	51893	51893	51893
15	Detent Tube	1	51896	51896	51896	51896	51896	51896
16	Compression Spring	1	51949	51949	51949	51949	51949	51949
17	Friction Plug	1	51950	51950	51950	51950	51950	51950
18	Special Washer	2	60274	60274	60274	60274	60274	60274
19	Knob	1	51978/01	51978/01	51978/01	51978/01	51978/01	51978/01
20	Stop	2	51905	51905	51905	51905	51905	51905
21	Calibration Label	1	52324/01	52324/01	52324/01	52324/01	52324/01	52324/01
22	Washer	1	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
23	Nut	1	MS41/5	MS41/5	MS41/5	MS41/5	MS41/5	MS41/5
24	Insert	1	50747/01	50747/01	50747/01	50747/01	50747/01	50747/01
25	Compression Spring	1	51900	51900	51900	51900	51900	51900
26	Control Plate – Valve	1	51901	51901	51901	51901	51901	51901
27	Bolt	4	MS17/50	MS17/50	MS17/50	MS17/50	MS17/50	MS17/50
28	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
29	Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
30	Male/female equal elbow	1	60860	60860	60860	60860	60860	60860
31	1" BSP parallel nipple	1	60862	60862	60862	60862	60862	60862
32	Female equal tee	1	60861	60861	60861	60861	60861	60861
33	Socket Pipe Plug	1	GPD8292/1	GPD8292/1	GPD8292/1	GPD8292/1	GPD8292/1	GPD8292/1

RTP Foam Inductor Assembly

World Series – WS Single Pressure Pump

RTP Shut-Off Assembly

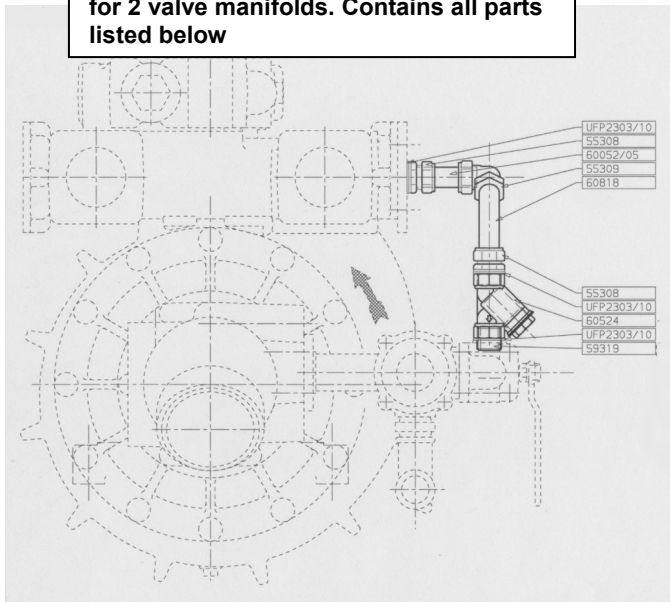


World Series – WS Single Pressure Pump

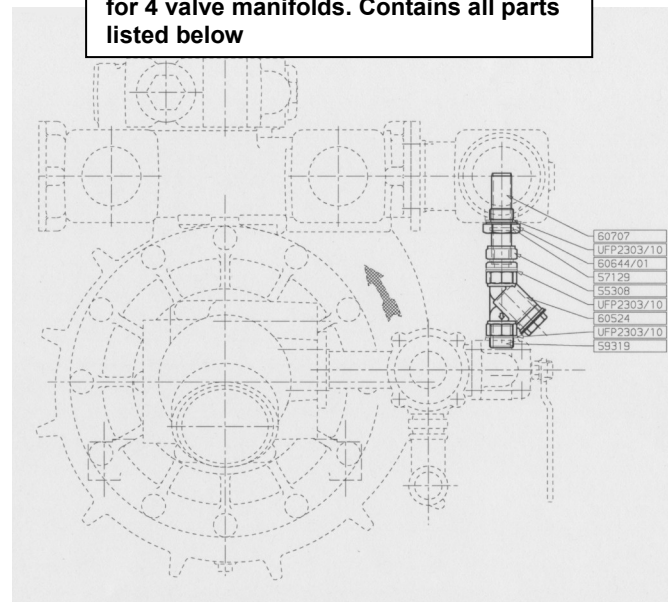
Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Elbow	1	60055	60055/100	60055	60055/100	60055	60055/100
2	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
3	Spring Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
4	Screw	2	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
5	Bolt	2	MS17/60	MS17/60	MS17/60	MS17/60	MS17/60	MS17/60
6	Ball Valve	1	60038/01	60038/01	60038/01	60038/01	60038/01	60038/01
7	Elbow	1	60056	60056/100	60056	60056/100	60056	60056/100
8	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
9	Spring Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
10	Screw	2	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
11	Bolt	2	MS17/50	MS17/50	MS17/50	MS17/50	MS17/50	MS17/50
12	Washer, Sealing	2	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
13	Stud Coupling	1	55308	55308	55308	55308	55308	55308
13	Stud Coupling	1	55308	55308	55308	55308	55308	55308
14	Connecting Pipe RTP	1	60279	60279	60279	60279	60279/01	60279/01
15	Stud Coupling	1	55308/02	55308/02	55308/02	55308/02	55308/02	55308/02
16	Connecting Pipe	1	60052	60052	60052	60052	60052/01	60052/01

RTP Shut-Off Assembly

**RTP Filter Retro fit kit p/n 60817/01
for 2 valve manifolds. Contains all parts
listed below**

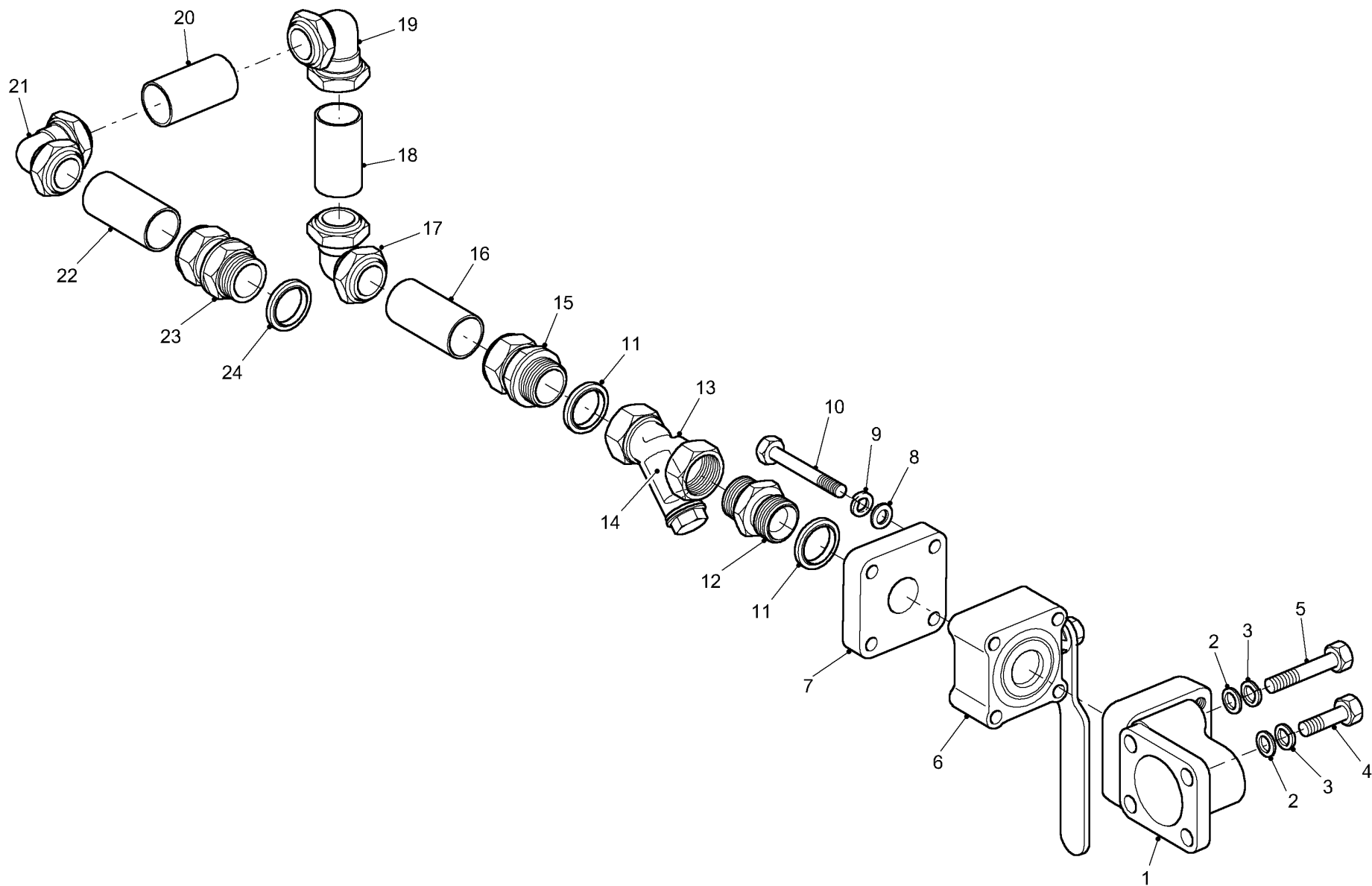


**RTP Filter Retro fit kit p/n 60817
for 4 valve manifolds. Contains all parts
listed below**



World Series – WS Single Pressure Pump

RTP Shut-Off Assembly



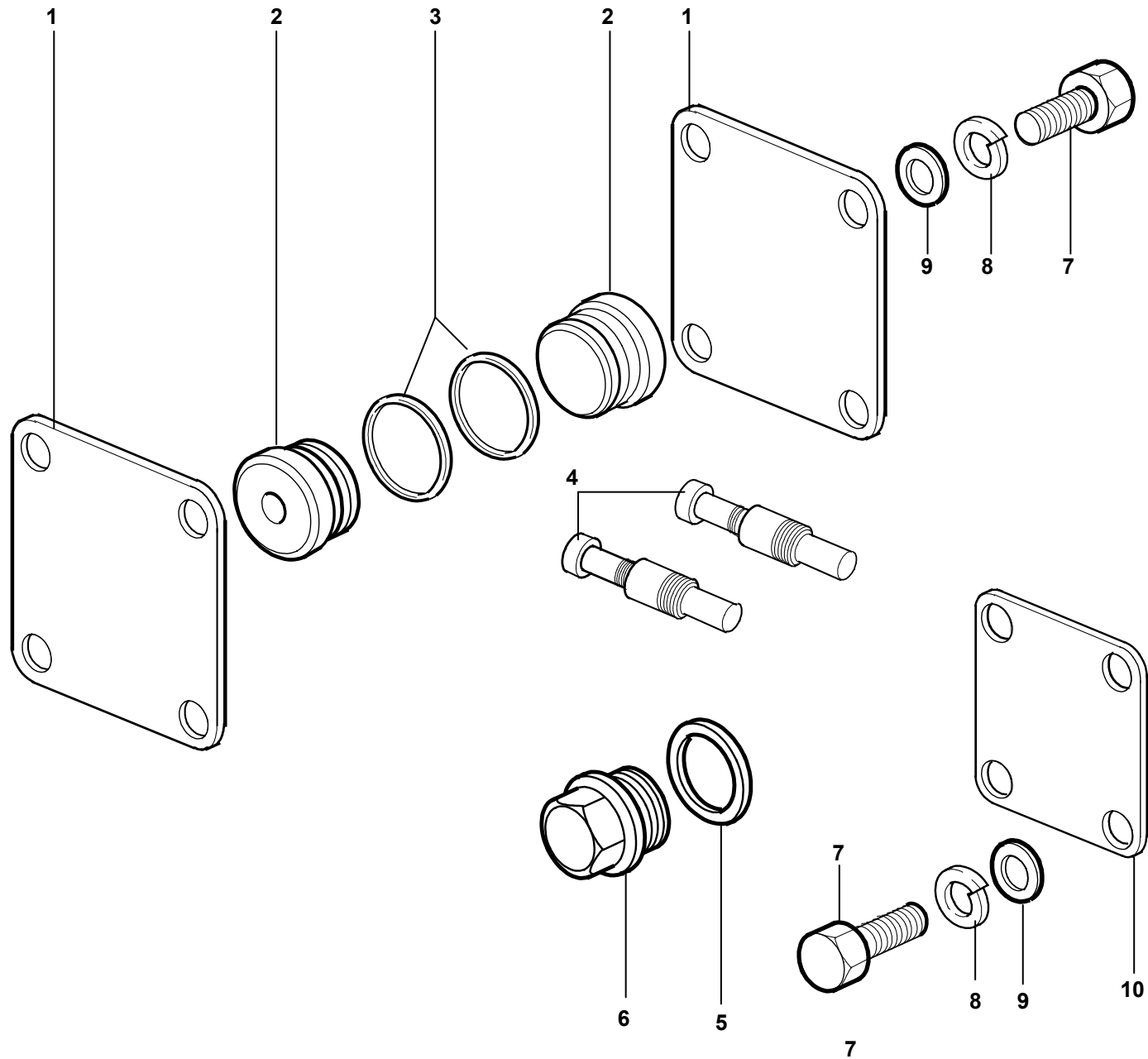
World Series – WS Single Pressure Pump

Item Number	Description	No./ Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Elbow	1	60055	60055/100	60055	60055/100	60055	60055/100
2	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
3	Spring Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
4	Screw	2	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25	MS05/25
5	Bolt	2	MS17/60	MS17/60	MS17/60	MS17/60	MS17/60	MS17/60
6	Ball Valve	1	60038/01	60038/01	60038/01	60038/01	60038/01	60038/01
7	Clamp plate	1	60756	60756	60756	60756	60756	60756
8	Washer	4	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9	MS25/9
9	Spring Washer	4	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6	MS29/6
10	Bolt	4	MS17/65	MS17/65	MS17/65	MS17/65	MS17/65	MS17/65
11	Washer, Sealing	2	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10
12	Adaptor, male	1	59182/04	59182/04	59182/04	59182/04	59182/04	59182/04
13	Y Strainer	1	60524	60524	60524	60524	60524	60524
14	Filter tube	1	60711	60711	60711	60711	60711	60711
15	Stud coupling	1	55308	55308	55308	55308	55308	55308
16	Copper tube	1	60741/02	60741/02	60741/02	60741/02	60741/02	60741/02
17	Elbow	1	55309	55309	55309	55309	55309	55309
18	Copper tube	1	60741/03	60741/03	60741/03	60741/03	60741/03	60741/03
19	Elbow	1	55309	55309	55309	55309	55309	55309
20*	Copper tube	1	60741/05	60741/05	60741/05	60741/05	60741/05	60741/05
21*	Elbow	1	55309	55309	55309	55309	55309	55309
22*	Copper tube	1	60741/01	60741/01	60741/01	60741/01	60741/01	60741/01
23	Stud coupling	1	55308	55308	55308	55308	55308	55308
24	Washer, sealing	1	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10	UFP2303/10

*Note: Items 20, 21, 22 now replaced by pipe 60523/04, one off

World Series – WS Single Pressure Pump

Priming System Blank Assembly



World Series – WS Single Pressure Pump

Item Number	Description	No. per Unit	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
1	Cover Plate	2	60204	60204	60204	60204	60204	60204
2	Closing Bung	2	60091	60091	60091	60091	60091	60091
3	'O' Ring	2	52634	52634	52634	52634	52634	52634
4	Seal Screw Assembly	2	60184	60184	60184	60184	60184	60184
5	Washer – Sealing	1	UFP2303/7	UFP2303/7	UFP2303/7	UFP2303/7	UFP2303/7	UFP2303/7
6	Plug	1	S64/3	S64/3	S64/3	S64/3	S64/3	S64/3
7	Screw Hex Head	12	MS06/12	MS06/12	MS06/12	MS06/12	MS06/12	MS06/12
8	Washer – Spring	12	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7	MS29/7
9	Washer – Plain	12	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10	MS25/10
10	Cover Plate	1	60299	60299	60299	60299	60299	60299

Priming System Blank Assembly

Delivery Valve 2.5" I/C BS



World Series – WS Multi-Pressure Pump

Delivery Valve 2.5" I/C BS

Item Number	Description	No. per Valve	Light Alloy 2010	Gunmetal 2010	Light Alloy 3010	Gunmetal 3010	Light Alloy 4010/6010	Gunmetal 4010/6010
N/A	Assembly	TBA	56544/01	56545/01	56544/01	56545/01	56544/01	56545/01
1	Main Body	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	2.5" I/C Body	1	56979/28	56979/23	56979/28	56979/23	56979/28	56979/23
3	Pivot Pin	1	56979/03	56979/03	56979/03	56979/03	56979/03	56979/03
4	'O' Ring	2	56979/02	56979/02	56979/02	56979/02	56979/02	56979/02
5	Circlip	2	56979/01	56979/01	56979/01	56979/01	56979/01	56979/01
6	Screw Down Handle	1	56979/22	56979/22	56979/22	56979/22	56979/22	56979/22
7	Domed Nut	1	56979/09	56979/09	56979/09	56979/09	56979/09	56979/09
8	Spring Washer	1	56979/08	56979/08	56979/08	56979/08	56979/08	56979/08
9	'O' Ring	1	56979/10	56979/10	56979/10	56979/10	56979/10	56979/10
10	Screw Down Spindle – See item 27 below	1	-	-	-	-	-	-
11	Roll pin – see item 28 below		-	-	-	-	-	-
12	Non Return Flap	1	56979/18	56979/19	56979/18	56979/19	56979/18	56979/19
13	Non Return Flap Washer	1	56979/07	56979/07	56979/07	56979/07	56979/07	56979/07
14	Retaining Washer	1	56979/06	56979/20	56979/06	56979/20	56979/06	56979/20
15	Washer Insert	2	56979/05	56979/05	56979/05	56979/05	56979/05	56979/05
16	Instantaneous Seal	1	FWP1003/A	FWP1003/A	FWP1003/A	FWP1003/A	FWP1003/A	FWP1003/A
17	Twist Release Knob	1	56979/26	56979/27	56979/26	56979/27	56979/26	56979/27
18	Release Spring	1	56979/14	56979/14	56979/14	56979/14	56979/14	56979/14
19	Release Plunger	1	56979/13	56979/21	56979/13	56979/21	56979/13	56979/21
20	Knob Closure bung, also see info. below	1	56979/31	56979/25	56979/31	56979/25	56979/31	56979/25
21	Nyloc Nut	1	56979/32	MS141/5	56979/32	MS141/5	56979/32	MS141/5
22	'O' Ring	1	56979/15	56979/15	56979/15	56979/15	56979/15	56979/15
23	C'sunk Screw	2	56979/04	56979/04	56979/04	56979/04	56979/04	56979/04
24	Plain Washer	1	MS125/9	MS125/9	MS125/9	MS125/9	MS125/9	MS125/9
25	Blank Cap	1	2415	2415	2415	2415	2415	2415
26	Chain	1	TH4749	TH4749	TH4749	TH4749	TH4749	TH4749

From 2005 - Modified Valve Spindle Arrangement, now use these parts, interchangeable with existing valves

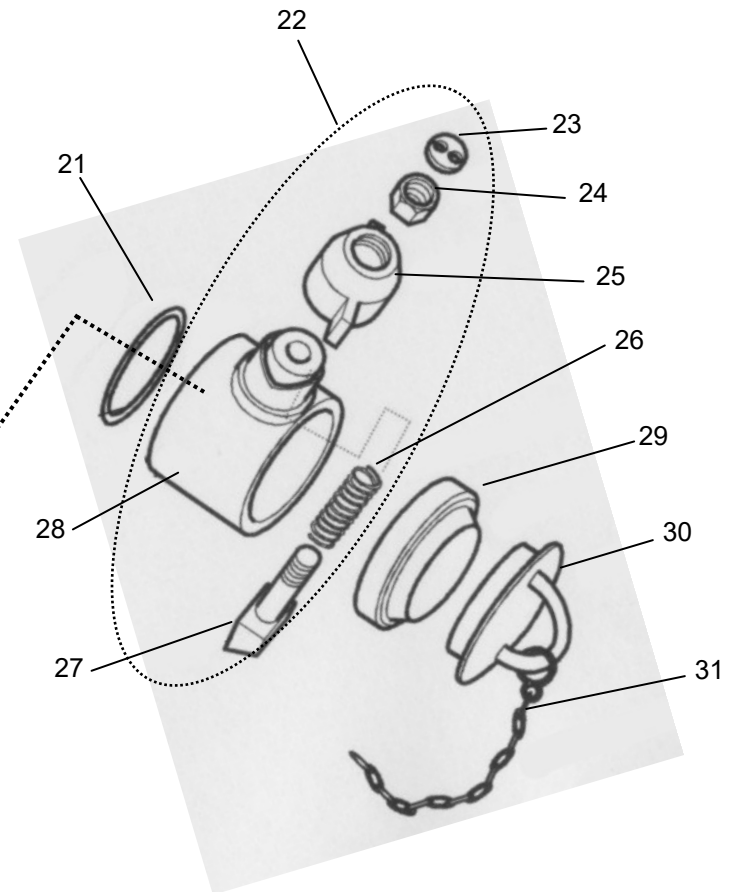
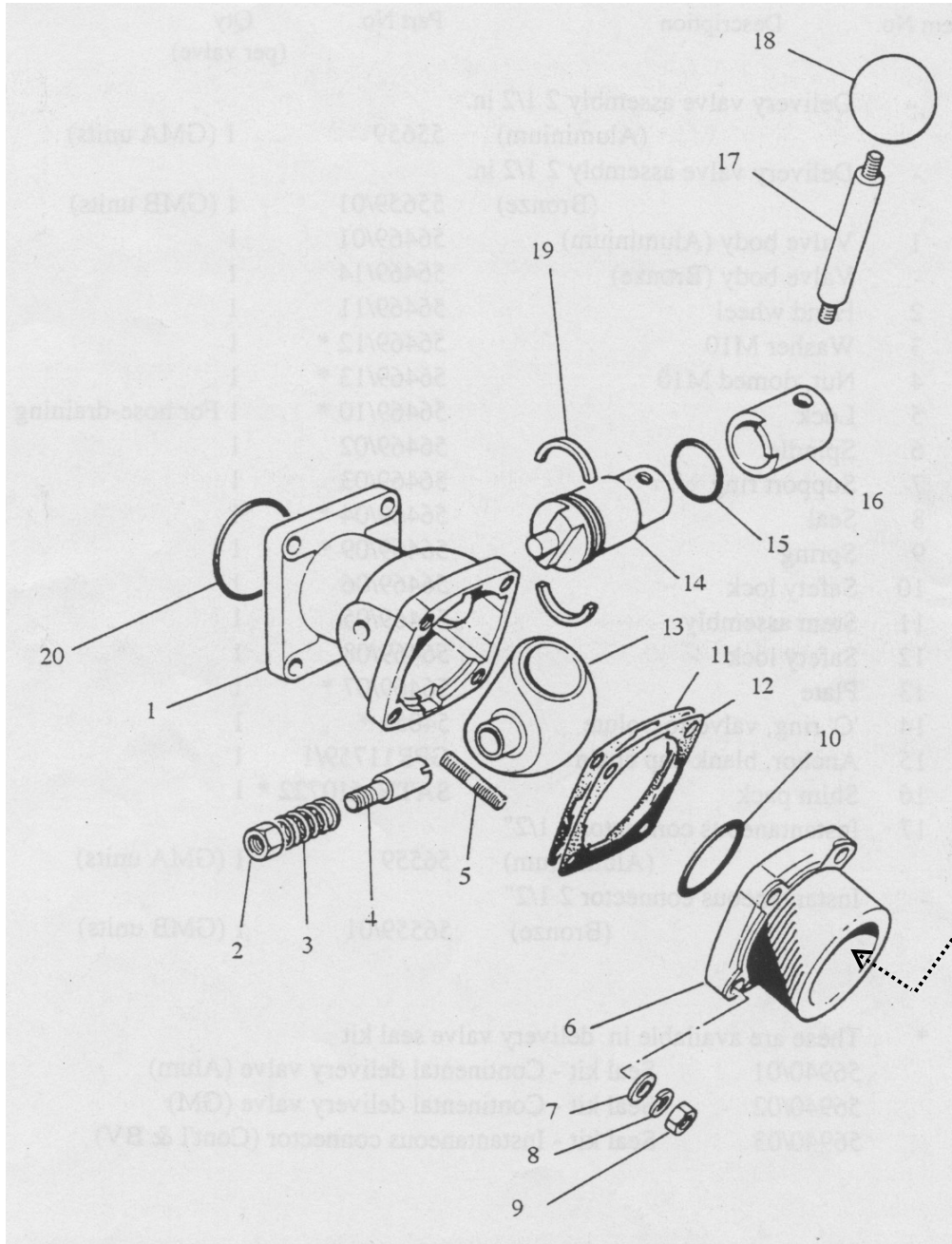
27	Screw down spindle	1	56979/16	56979/17	56979/16	56979/17	56979/16	56979/17
28	Washer	1	56979/30	56979/30	56979/30	56979/30	56979/30	56979/30
29	Nyloc nut	1	56979/29	56979/29	56979/29	56979/29	56979/29	56979/29

For valves made before 2001 use this part

20	Knob Closure, metal disc	1	56979/24	56979/25	56979/24	56979/25	56979/24	56979/25
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World Series – WS Single Pressure Pump

Delivery Valve – Ball Type with Instantaneous connector



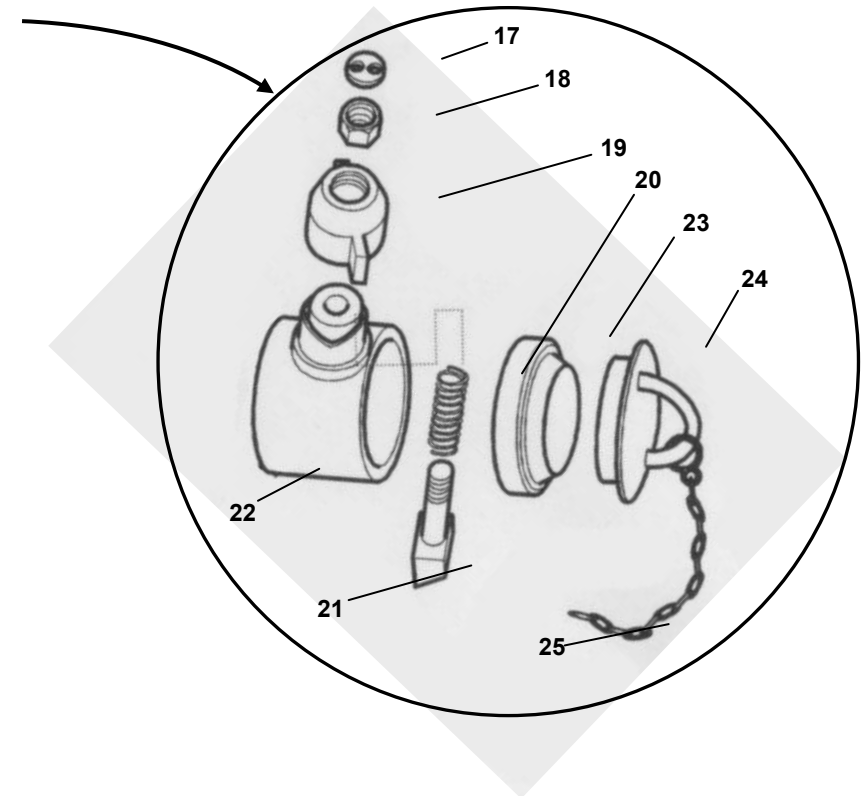
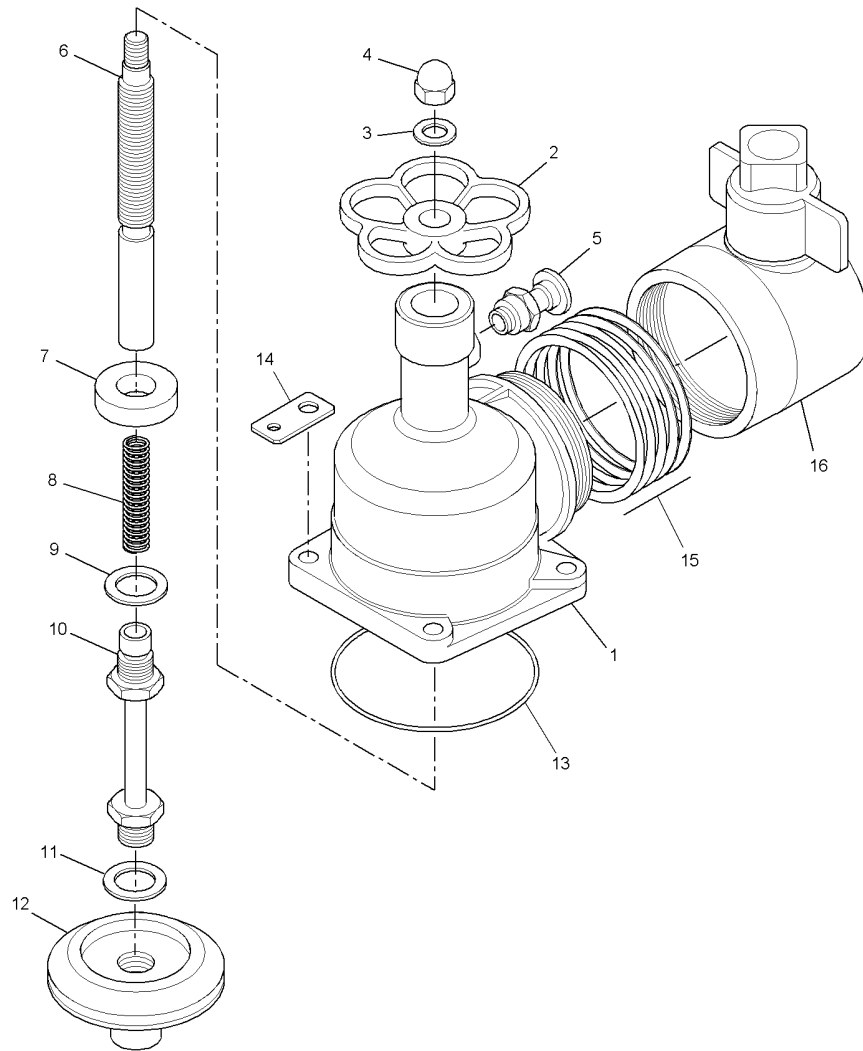
World Series – WS Single Pressure Pump

Delivery Valve – Ball Type with Instantaneous connector

Item Number	Description	No. per Valve	Light Alloy All models	Gunmetal All models
	Ball valve, LH, 2.5" instantaneous connector, complete valve		TH137	TH153/100
	Ball valve, RH, 2.5" instantaneous connector, complete valve		TH138	TH154/100
1	Body, delivery valve, LH	1	TH4200/A	TH4200/B
-	Body, delivery valve, RH	1	TH4201/A	TH4201/B
2	Nut, 5/16in UNF	1	S214/4	S214/4
3	Spring, ball valve Kit part 1	1	TH11205	TH11205
4	Pivot ball	1	TH11194	TH11194
5	Stud, 3/8in., valve cap to body	4	S165/8	S165/8
6	Valve cap	1	TH3331/1A	TH3331/1B
7	Washer 3/8in.	4	S21/5	S21/5
8	Spring washer 3/8in.	4	S20/5	S20/5
9	Nut 3/8in UNF	4	S214/5	S214/5
10	O ring, valve seating Kit part 1	1	THG3419	THG3419
11	Gasket, 0.010in. thick Kit part 1	1	TH11197	TH11197
12	Gasket, 0.003in. thick Kit part 1	1	TH11197/1	TH11197/1
13	Ball valve	1	TH2258	TH2255
14	Valve stem	1	THG3469/1	THG3469/1
15	O ring, valve stem Kit part 1	1	THG4086	THG4086
16	Handle boss, LH	1	TH5372/3A	TH5372/3B
-	Handle boss, RH	1	TH5372/1A	TH5372/1B
17	Handle	1	TH5370/2	TH5370/2
18	Knob, handle	1	TH1835/1A	TH1835/1A
19	Collar, valve to stem (pair of half collars) Kit part 1	1	TH11190	TH11190
20	O ring, body to delivery manifold Kit part 1	1	TH1511/A	TH1511/A
21	Shim pack	1	SATHM10722	SATHM10722
22	Instantaneous connector, complete assembly, includes items 22-29	1	56559	56559/01
23	Knob closure disc	1	56979/24	56979/25
24	Nyloc nut	1	56979/11	MS141/5
25	Twist release knob kit part 2	1	56979/26	56979/27
26	Release spring kit part 2	1	56979/14	56979/14
27	Release plunger	1	56979/13	56979/21
28	2.5in Instantaneous connector body	1	56979/28	56979/23
29	Seal kit part 2	1	FWP1003/A	FWP1003/A
30	Blank cap, rubber	1	2415	2415
31	Chain, 9in long	1	TH4749	TH4749
	Items 30, 31 supplied as Blank cap assembly	1	THL119/6	TH119/6
	Kit part 1 = Part also supplied in Seal kit for valve body	1	56940/05	56940/05
	Kit part 2 = Part also supplied in Seal kit for Instant. connector	1	56940/03	56940/03

World Series – WS Single Pressure Pump

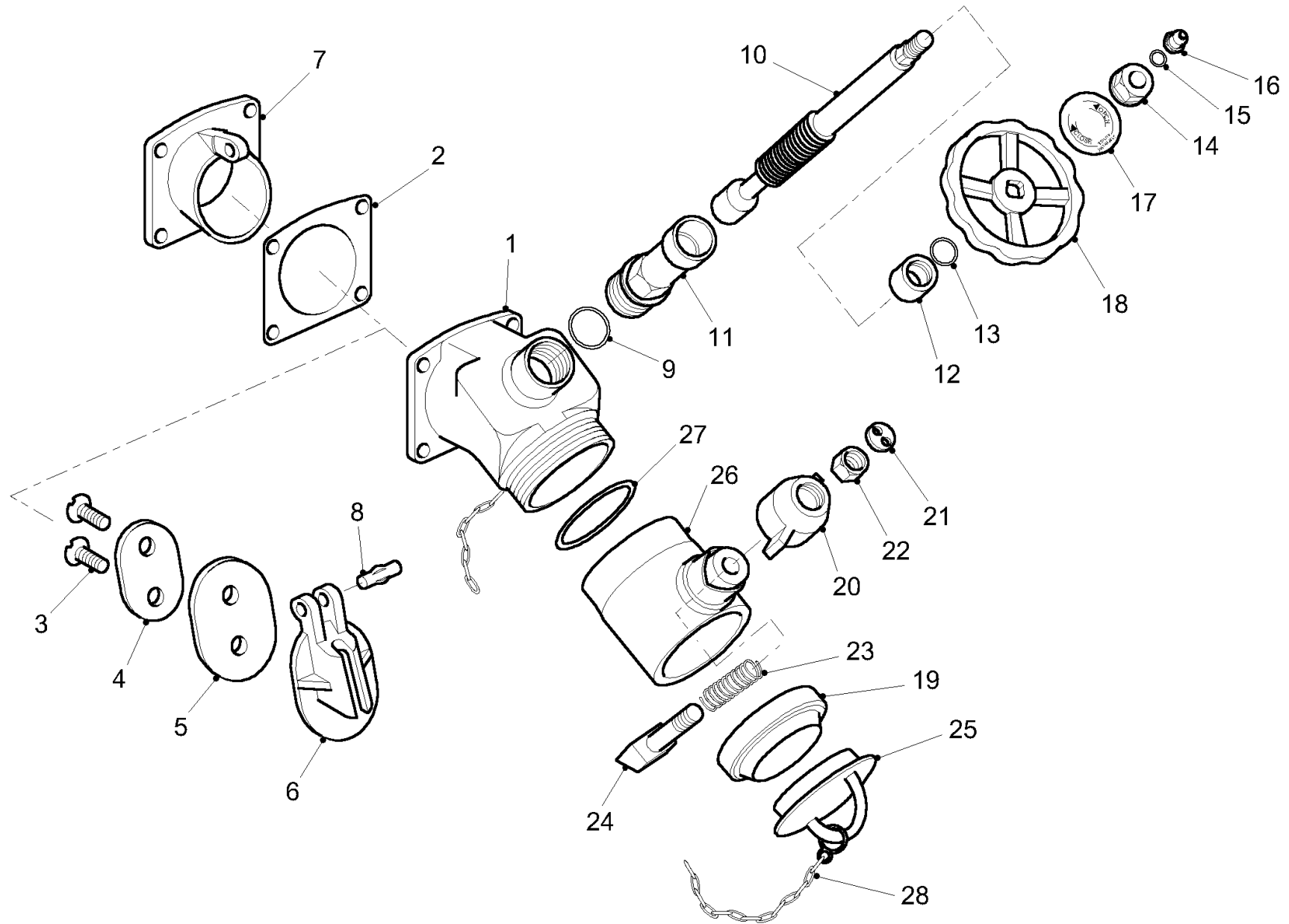
Delivery Valve – Continental Type Instantaneous connector



Item Number	Description	No. per Valve	Light Alloy All models	Gunmetal All models
	Continental type valve, 2.5in instantaneous connector, complete valve		55662	55920
1	Valve body	1	56469/01	56469/14
2	Hand wheel	1	56469/11	56469/11
3	Washer M10	1	56469/12	56469/12
4	Nut, domed M10	1	56469/13	56469/13
5	Lock Kit part 1	1	56469/10	56469/10
6	Spindle	1	56469/02	56469/02
7	Spindle sleeve, c/w seals Kit part 1	1	56469/03	56469/16
8	Spring Kit part 1	1	56469/09	56469/09
9	Safety lock	1	56469/06	56469/06
10	Stem assembly	1	56469/05	56469/05
11	Safety lock Kit part 1	1	56469/08	56469/08
12	Plate Kit part 1	1	56469/07	56469/15
13	O ring Kit part 1	1	61142	61142
14	Anchor, blank cap chain Only fitted for Storz type connectors	1	GPR11759	GPR11759
15	Shim pack Kit part 2	1	SATHM10722	SATHM10722
16	Instantaneous connector, complete assembly	1	56559	56559/01
17	Knob closure disc	1	56979/24	56979/25
18	Nyloc nut	1	56979/11	MS141/5
19	Twist release knob	1	56979/26	56879/27
20	Release spring Kit part 2	1	56979/14	56979/14
21	Release plunger Kit part 2	1	56979/13	56979/21
22	2.5in Instantaneous connector body	1	56979/28	56979/23
23	Seal Kit part 2	1	FWP1003/A	FWP1003/A
24	Blank cap, rubber	1	2415	2415
25	Chain, 9in long	1	TH4749	TH4749
	Items 30, 31 supplied as Blank cap assembly	1	THL119/6	TH119/6
	Kit part 1 = Part also supplied in seal kit for valve body	1	56940/01	56940/02
	Kit part 2 = Part also supplied in seal kit for instant. connector	1	56940/03	56940/03

World Series – WS Single Pressure Pump

Delivery Valve – Dual Flow Type Instantaneous connector



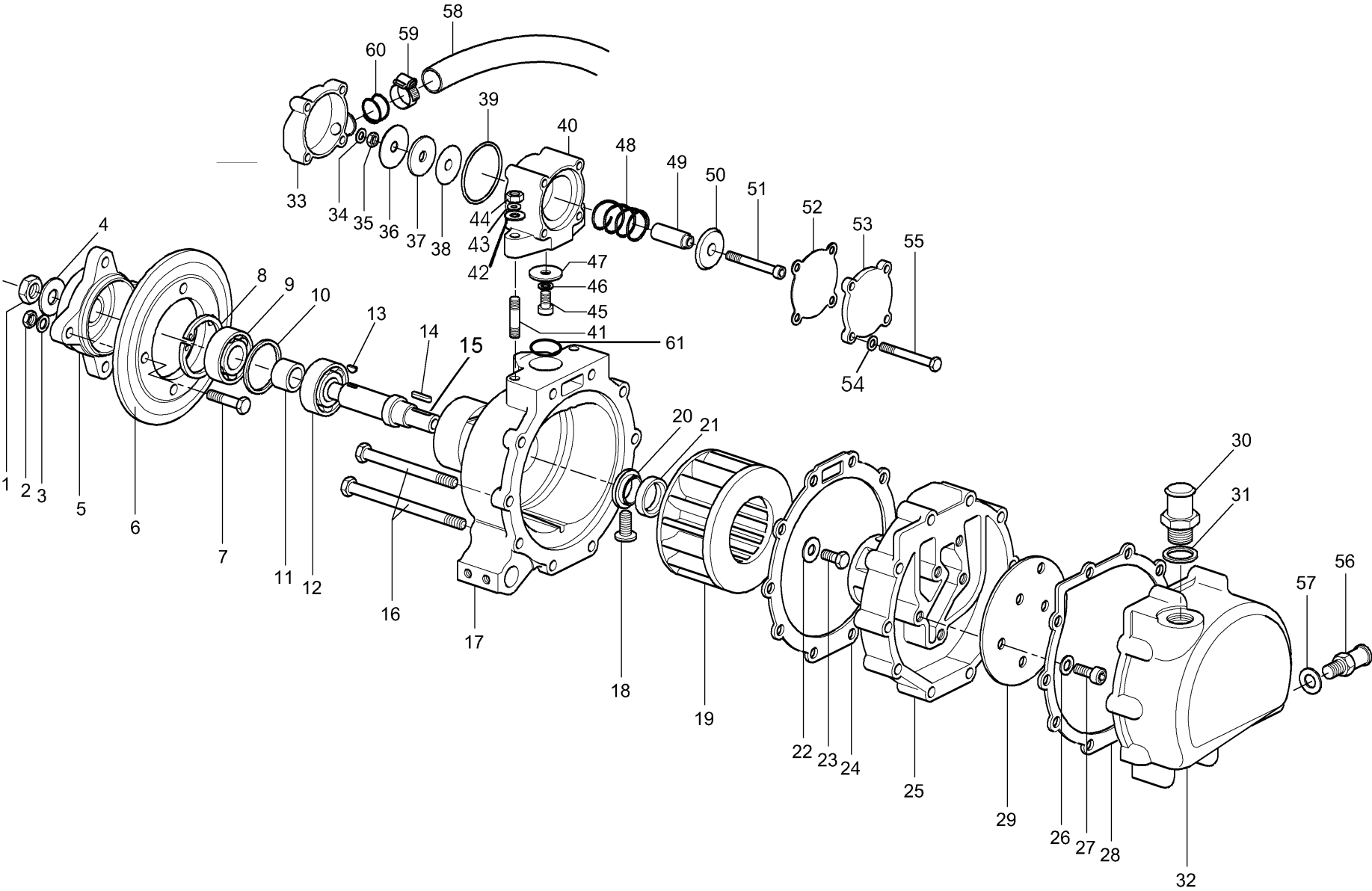
World Series – WS Single Pressure Pump

Delivery Valve – Dual Flow Type Instantaneous connector

Item	Description	Part No. Alloy	Part No. Gunmetal	Qty
1	Valve body	THM10721/A	THM10721/B	1
2	Joint washer	TH2772	TH2772	1
3	Screws, countersunk	MS172/61	MS172/61	2
4	Plate	THM10580	THM10580	1
5	Sealing washer	THM10453	THM10453	1
6	Valve flap	THM10578	THM10578/B	1
7	Valve seat	THM10726/A	THM10726/B	1
8	Hinge pin	TH2748	TH2748	1
9	Dowty seal	UFP2303/11	UFP2303/11	1
10	Valve rod	THM10451/1	THM10451/1	1
11	Valve stem	FWP1000/1	THM10717/B	1
12	Bush	THM10718	THM10718	1
13	O ring	FWP8217	FWP8217	1
14	Lock nut, seal	THM10528/1	THM10528/1	1
15	Sealing washer	THM10597	THM10597	1
16	Grease nipple	THM10596	THM10596	1
17	Instruction plate	THM10600/A	THM10600/A	1
18	Handwheel	FWP2009	FWP2009	1
19	Instantaneous seal	FWP1003/A	FWP1003/A	1
20	Twist release knob	56979/26	56979/26	1
21	Closure disc	56979/24	56979/24	1
22	Nyloc nut	56979/11	56979/11	1
23	Release spring	56979/14	56979/14	1
24	Release plunger	56979/13	56979/13	1
25	Blank cap	2415	2415	1
26	2.5" Instantaneous connector body	56979/28	56979/28	1
27	Shim pack, contains items listed below -	SATHM10722	SATHM10722	1
-	Shim .002" thick polyester	THM10722	THM10722	1
-	Shim .005" thick polyester	THM10722/1	THM10722/1	1
-	Shim .010" thick polyester	THM10722/2	THM10722/2	1
-	Shim .030" thick polyester	THM10722/3	THM10722/3	1
-	Shim .060" thick polyester	THM10722/4	THM10722/4	1
28	Chain, blank cap to valve	TH4749	TH4749	1

World Series – WS Single Pressure Pump

Water Ring Primer



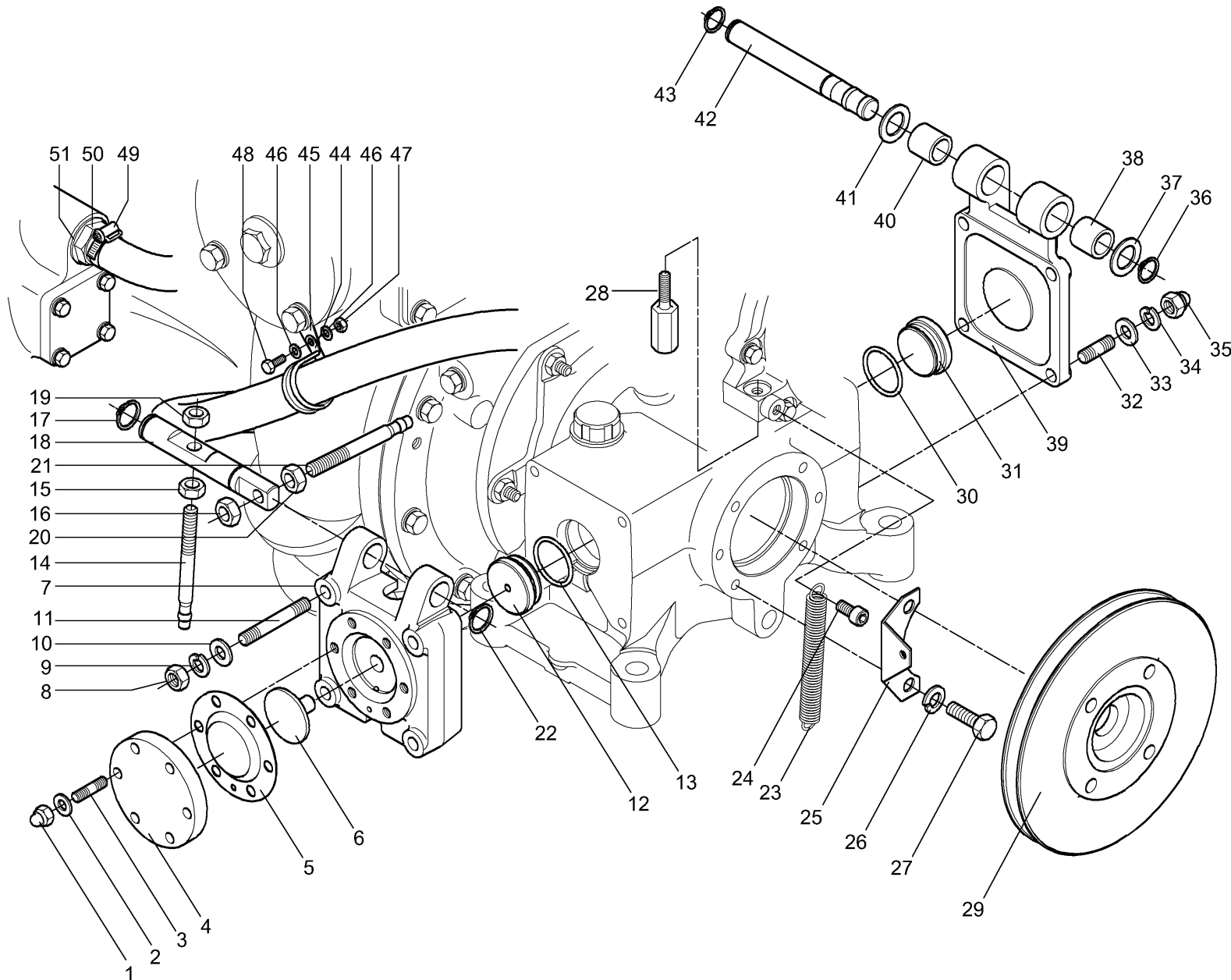
Water Ring Primer

Item No.	Description	No./ Unit	Light Alloy All Models	Gunmetal All Models
	Water Ring Primer, complete assembly		WRP7994/21	WRP7995/16
1	Special nut M10 x 1.5	1	WRP7939/1	WRP7939/1
2	Nut M6 x 1.0	4	MS35/7	MS35/7
3	Spring washer M6	4	MS29/5	MS29/5
4	Tab washer, primer	1	WRP7938/1	WRP7938/1
5	Pulley centre piece	1	WRP7937/1	WRP7937/1
6	Pulley	1	UMP7915	UMP7915
7	Bolt M6 x 30, pulley to centre piece	4	MS16/30	MS16/30
8	Circlip	1	MS79/28	MS79/28
9	Ball bearing 20mm, large	1	WRP7987	WRP7987
10	Bearing locating ring	1	WRP7944	WRP7944
11	Bearing spacer	1	WRP7943	WRP7943
12	Ball bearing 20mm, small	1	WRP7986	WRP7986
13	Woodruff key, impeller shaft	1	WRP9707	WRP9707
14	Key	1	MS179/35	MS179/35
15	Primer shaft	1	WRP7940/1	WRP7940/1
16	Bolt	2	MS17/85	MS1785
	Bolt	1	MS17/80	MS17/80
	Bolt	6	MS17/60	MS17/60
	Bolt	1	MS17/90	MS17/90
17	Primer bearing housing	1	WRP7941/8	WRP7941/9
18	Lift-off pad	1	WRP7978/1	WRP7978/1
19	Impeller	1	WRP7931/2	WRP7931/3
20	Sealing backing washer	1	WRP7982	WRP7982
21	Seal	1	WRP7985	WRP7985
22	Washer	1	WRP7971	WRP7971
23	Self locking bolt	1	10021	10021
24	Gasket	1	WRP7954	WRP7954
25	Suction and delivery cover	1	WRP7952/2	WRP7952/2
26	Washer	5	MS125/7	MS125/7
27	M6 x 1.0 socket head cap screw	5	MS163/16	MS163/16
28	Gasket – primer	1	WRP7953	WRP7953
29	Cover plate	1	WRP7936	WRP7936
30	Water hose connection, 1 inch	1	WRP7977/3	WRP7977/2

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World Series – WS Single Pressure Pump

Water Ring Primer – Lift-off Section



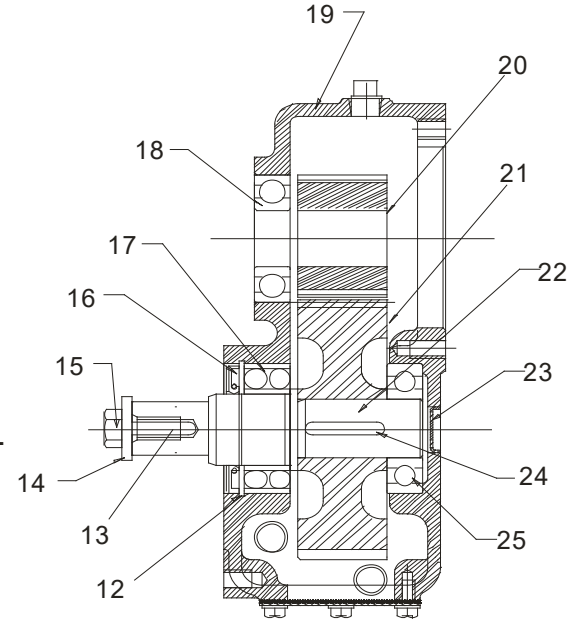
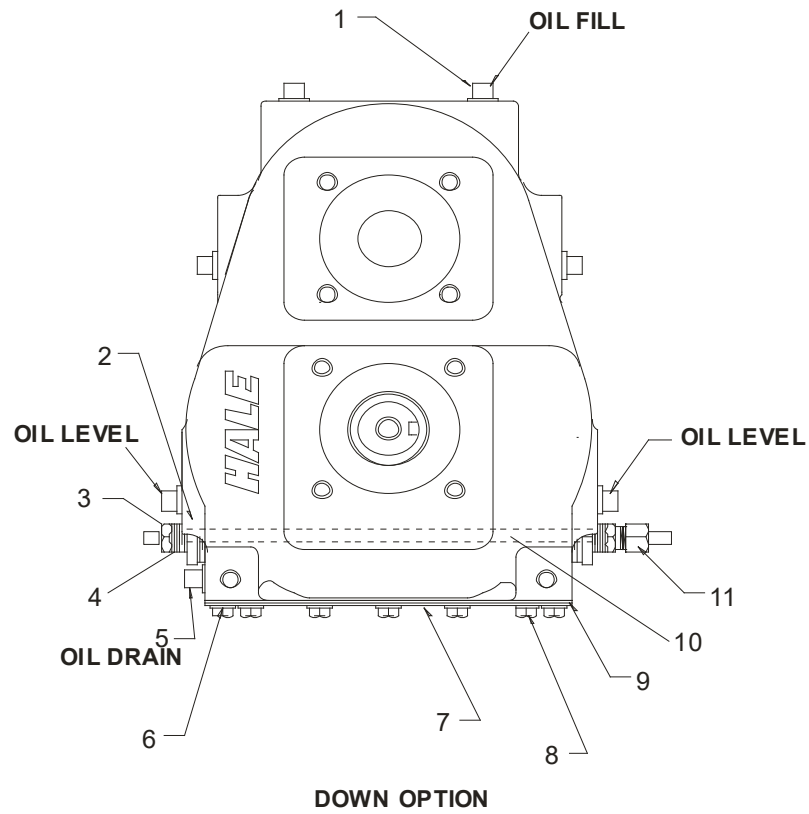
Water Ring Primer – Lift-off Section

Item No.	Description	No./ Unit	Light Alloy All Models	Gunmetal All Models
	Water Ring Primer – Lift-off Section			
1	Nut, domed M8	6	MS42/4	MS42/4
2	Washer, M8	6	MS26/9	MS26/9
3	Stud, M8	6	MS48/25	MS48/25
4	Body, lift-off, outer	1	60084	60084/100
5	Diaphragm, lift-off	1	60087	60087
6	Piston	1	60085	60085
7	Body, lift-off, inner	1	60083	60083/100
8	Nut, M10	4	MS35/9	MS35/9
9	Spring washer	4	MS29/7	MS29/7
10	Washer, M10	4	MS25/10	MS25/10
11	Stud, M10	4	MS49/55	MS49/55
12	Closing bung	1	60091	60091
13	O ring	1	52634	52634
14	Lift-off rod	1	60086	60086
15	Nut, M10	1	MS35/9	MS35/9
16	Nut, M10	1	MS35/9	MS35/9
17	Circlip, external	1	S80/9	S80/9
18	Pivot bar	1	60088	60088
19	Nut, M10	1	MS35/9	MS35/9
20	Nut, M10	1	MS35/9	MS35/9
21	Lift-off rod	1	60086	60086
22	Circlip, external	1	S80/9	S80/9
23	Spring	1	UFP5962/1	UFP5962/1
24	Screw, M8	1	MS64/16	MS64/16
25	Spring anchor	1	60350	60350
26	Spring washer	2	MS29/7	MS29/7
27	Screw	2	MS06/25	MS06/25
28	Lift-off pad	1	60094	60094
29	Pump Pulley	1	60092	60092
30	O ring	1	52634	52634
31	Closing bung	1	60091	60091
32	Stud, M10	4	MS49/25	MS49/25
33	Washer, M10	4	MS25/10	MS25/10
34	Spring washer	4	MS29/7	MS29/7
35	Nut, M10	4	MS35/9	MS35/9

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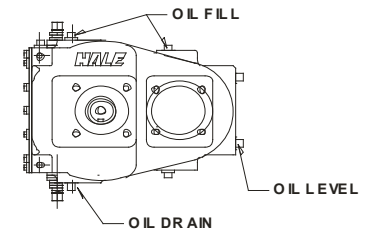
World series

Gearbox for WT/ WS Models

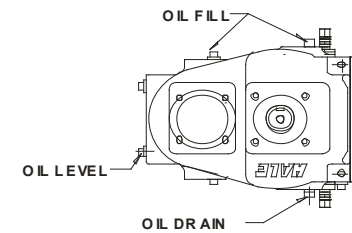


THE GEARBOX MAY BE MOUNTED IN THE THREE POSITIONS SHOWN IN THIS DRAWING

LEFT OPTION



RIGHT OPTION



World Series

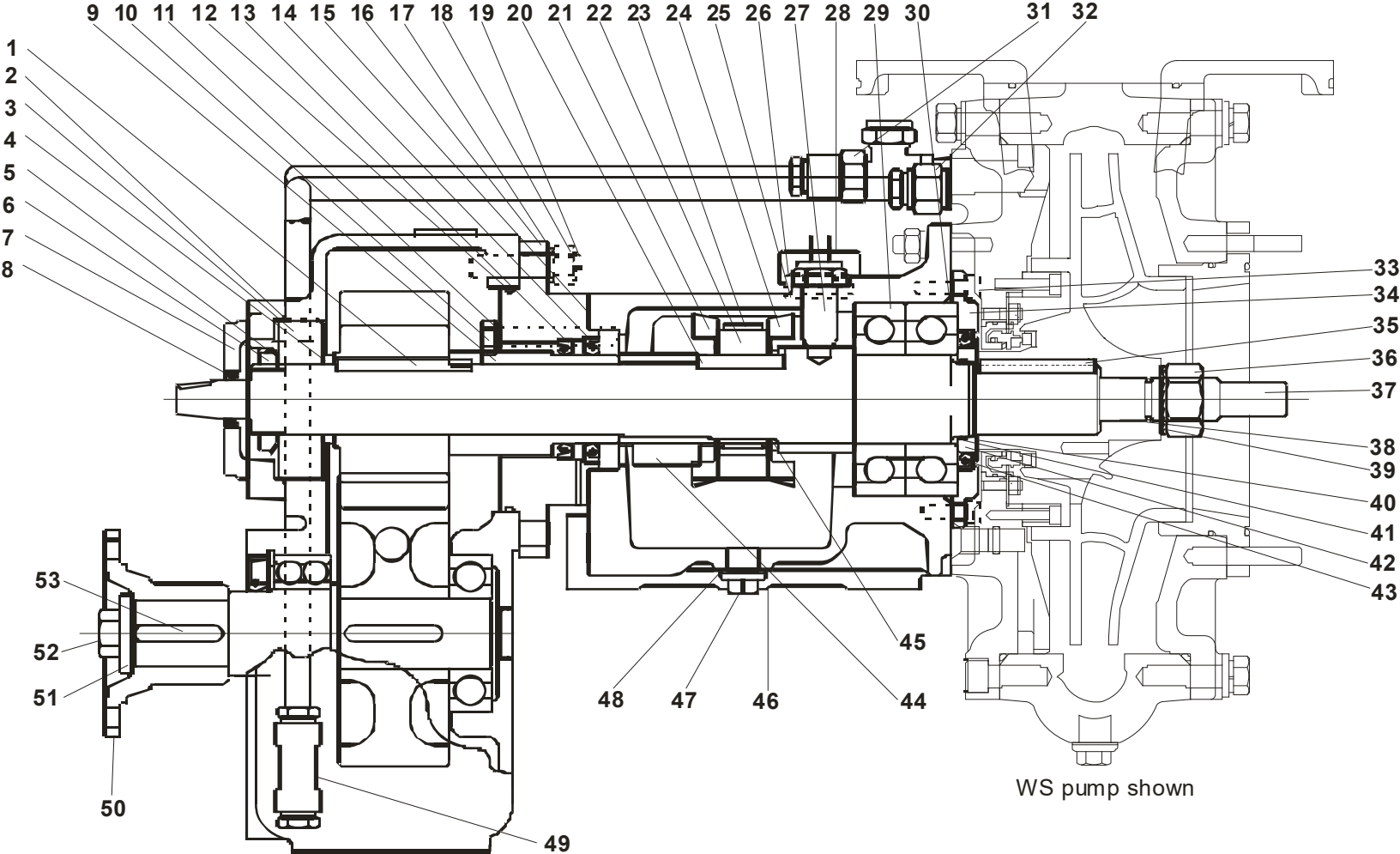
Gearbox for WT and WS models

Item Number	Description	No./ Unit	All models
1	Plug, ½ inch NPT	5	217-0401-00-0
2	Bushing	2	082-0614-00-0
3	Seal plug	1	60644
4	O ring	1	UFP2290
5	Magnetic plug, ½ inch, oil drain	1	217-0401-08-0
6	Washer, 5/16inch	12	097-0810-01-0
7	Cover	1	044-0840-00-0
8	Hex. Head screw, 5/16-18 x ½ inch	12	018-1404-02-0
9	Gasket	1	046-5270-01-0
10	Cooling pipe	1	60474/01
11	Compression tube fitting, 1/2inch	1	082-0453-00-0
12	Retaining ring	1	077-3540-00-0
13	Key	1	017-0300-02-0
14	Washer	1	097-0890-03-0
15	Hex. Head screw, 5/8-18 x 1¼	1	018-2412-07-0
16	Oil seal	1	296-2810-00-0
17	Bearing 5210W	1	250-5210-20-0
18	Bearing 308J	1	250-0308-32-0
19	Gearbox	1	004-0581-00-0
20	Pinion gear - see table on right -	1	-
21	Drive gear - see table on right -	1	-
22	Drive shaft	1	037-2221-00-0
23	Knock out plug	1	217-3360-00-0
24	Key	1	017-0300-00-0
25	Bearing 308J	1	250-0308-32-0

Available drive gear and pinion gear combinations			
Item 16. Pinion Gear	Item 17. Drive Gear	Ratio	Drive unit assembly
031-1520-00-0 (45T)	031-1510-00-0 (56T)	1.24	504-0640-12-0
031-5160-00-0 (42T)	031-1500-00-0 (59T)	1.40	509-0640-14-0
031-5180-00-0 (39T)	031-1490-00-0 (62T)	1.59	504-0640-16-0
031-5200-00-0 (36T)	031-1480-00-0 (65T)	1.80	504-0640-18-0
031-1440-00-0 (34T)	031-1470-00-0 (67T)	1.97	504-0640-20-0
031-5220-00-0 (32T)	031-1610-00-0 (69T)	2.16	504-0640-22-0
031-5240-00-0 (30T)	031-1460-00-0 (71T)	2.37	504-0640-24-0

World series

Bearing Housing Group for WT/WS models with Gearbox



World Series

Bearing Housing Group for WT/WS Models with Gearbox

Item Number	Description	No./ Unit	All models
1	Key	1	MS80/9
2	O ring	1	60357
3	Screw	4	S227/H8
4	Spacer	1	60356
5	Locking washer	1	60048
6	Lock nut	1	60049
7	Cover, end shaft	1	60352
8	Oil seal	1	60332
9	Spacer	1	60354
10	Bolt	4	MS18/60
11	Spring washer	4	MS29/7
12	O ring	1	54052
13	Oil seal	1	50682/06
14	Oil seal	1	50682/02
15	Gasket	1	60182
16	Adaptor ring	1	60353
17	Spring washer	6	S20/7
18	Nut	6	S263/7
19	Stud	6	S167/10
20	Key	1	MS80/16
21	Bearing location plate	1	60003/01
22	Eccentric	1	60004
23	Bearing needle	1	60005
24	Bearing location plate	1	60003/01
25	Washer	1	UFP2302/10
26	Plug	1	S64/6
27	Tachometer sender unit	1	60015
28	Oil filler / level unit	1	60016
29	Bearing, angular contact	2	60002
30	O ring	1	55831
31	Flexible cooling hose (gearbox, left, right and down position)	1	60538/01
31	Elbow connector	1	60481
31	Olive	1	DFP7593/7
31	Tubing nut	1	DFP7594/7
31	Straight adaptor	1	53492/02
31	Restrictor	1	60529
32	Flexible cooling hose (gearbox, down position)	1	60538
32	Olive	1	DFP7593/7
32	Tubing nut	1	DFP7594/7

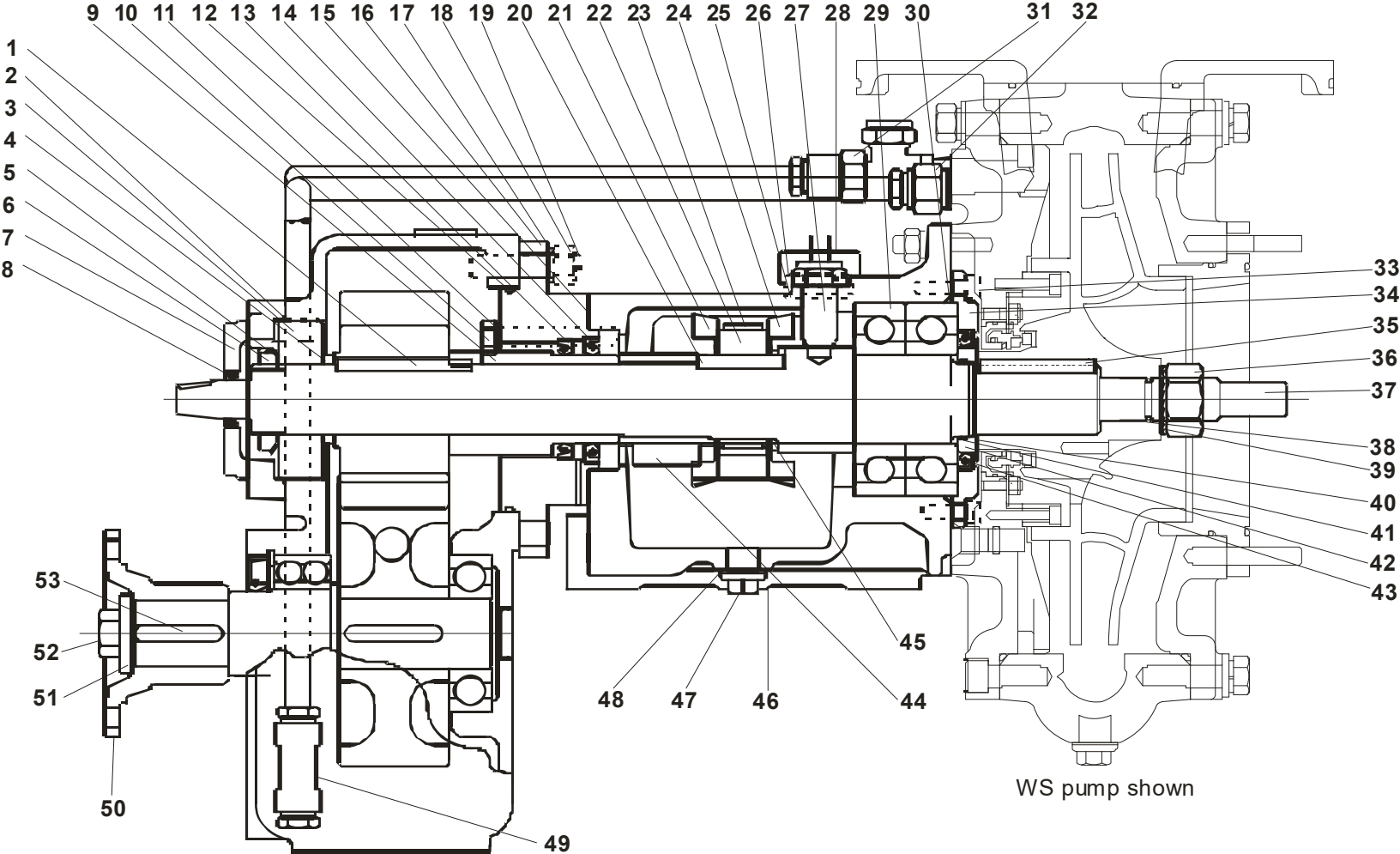
Notes

From 5/11/01, use 60182/01

For Gearbox in Left and Right position use Hose 60538/03

World series

Bearing Housing Group for WT/WS models with Gearbox



World Series

Bearing Housing Group for WT/WS models with Gearbox

Item Number	Description	No./ Unit	All models
32	Sealing washer	1	UFP2303/7
32	Straight male adaptor	1	60484
33	Screw, socket head	6	MS164/20
34	Seal housing	1	60011
35	Key	1	MS180/31
36	Nut	1	60210
37	Pump shaft, gearbox – WT Models	1	60001/02
-	Pump shaft, gearbox – WS models	1	60001/03
38	O ring	1	57044
39	Lock washer pair	1	60072/06
40	Flinger	1	60014
41	O ring	1	51355
42	Seal wear ring	1	60141
43	Oil seal	1	60012
44	Balance weight	1	60006
45	Spacer washer	1	60010
46	Bearing housing	1	60000/01
47	Plug	1	S64/3
48	Washer	1	UFP2303/7
49	Tee connector	1	53882/01
49	Tubing plug	1	60482
49	Olive	1	DFP7593/7
49	Tubing nut	1	DFP7594/7
50	Drive flange	1	See options
51	Washer	1	097-0890-03-0
52	Hex. Head screw, 5/8-18 x 11/4	1	018-2412-07-0
53	Key	1	017-0300-02-0
Not drawn	Studs, to secure piston primer to Brg Housing	8	56944
Not drawn	Feed tube R.H., to piston primer	1	60053
Not drawn	Feed tube L.H., to piston primer	1	60053/01
Not drawn	O ring, feed tube, piston primer end	2	53384
Not drawn	O ring, feed tube, pump head end	2	FWP8217

Notes

From 5/11/01, use 60011/01

From 5/11/01, use 60000/03

Drive Flange Options

a	Drive Flange SAE 1410	1	60438
b	Drive Flange SAE 1510	1	60438/01
c	Drive Flange DIN 100	1	60438/02
d	Drive Flange DIN 120/8	1	60438/03
e	Drive Flange DIN 120/6	1	60438/04