

ITEM	DESCRIPTION	PART NUMBER	DWG NUMBER
A	GUIDE INLET VALVE	012030	012-030/2.5
B	'O' RING BS018/70	011038	***
C	BALL 1/2" DIA S/S	013037	013-037/3.2
D	SPACER INLET VALVE	012031	012-031/3.8
E	'O' RING BS026/90	013001	***
F	GUIDE DELIVERY VALVE	011062	011-062/2.13
G	SEAT DELIVERY VALVE	011065	011-026/4.8
H	'O' RING BS022/90	033045	***
I	SPACER	011168	011-168/2.5
J	GUIDE	011167	011-167/2.5
K	STOP	011170	011-170/2.4
L	SEAT	011169	011-169/2.4
M	SPRING	037006	***
N	'O' RING BS018	015033	***
O	VALVE	100459	100-459/3.4
P	SEAT	012035	012-035/3.6
R	O RING BS119/70	015079	***

41 & 44 ARE AVAILABLE IN BRASS OR ST/STEEL

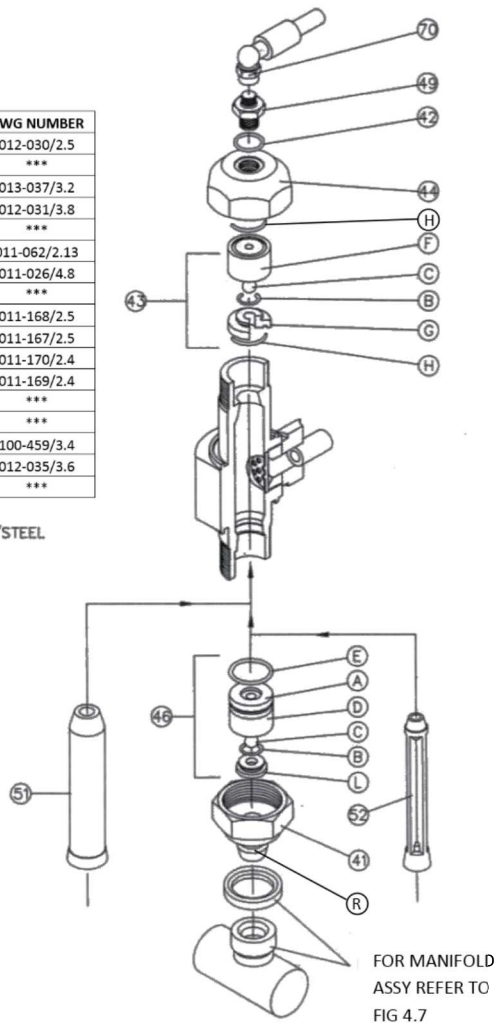
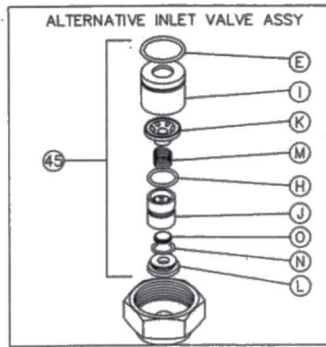


Fig 4.4 'P' Type and High Lift Pump – Barrel Assembly

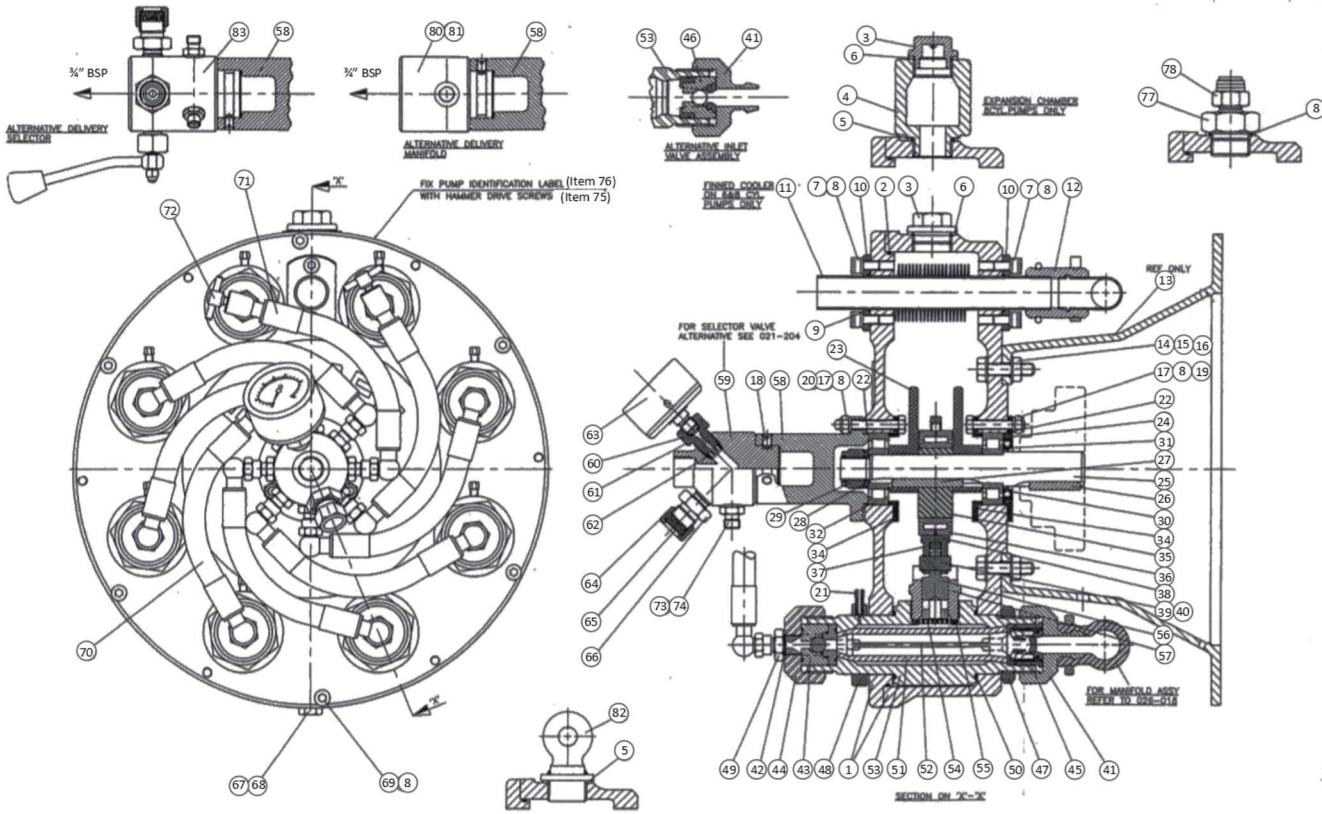


Fig 4.5 'P' Type and High Lift Pump – Pump Cross-Section

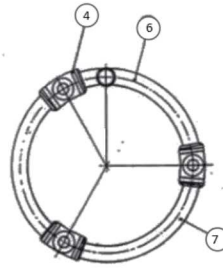
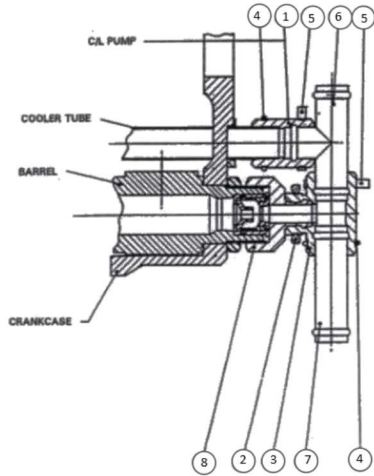
ITEM	PART NO	DWG NO	3 CYL	4 CYL	6 CYL	8 CYL	DESCRIPTION
1	011-101	011-176	1				CRANKCASE ASSEMBLY
	011-102	011-176	1				CRANKCASE ASSEMBLY
	011-103	011-176		1			CRANKCASE ASSEMBLY
	011-104	011-176			1		CRANKCASE ASSEMBLY
2	011-050	NONE	1	1	1	1	'O'RING D.103" SECTION 70 SHORE
3	013-027	013-027	1	1	1	1	FILLER PLUG
4	013-041	013-041				1	EXPANSION CHAMBER
5	033-015	NONE	1	1	1	1	BONDED SEAL 1"BSP
6	013-139	NONE	1	1	1	1	WASHER 1"BSP SELON
7	013-084	NONE	4	4	4	4	SCREW CAP SOC.HD M8 x 16
8	013-090	NONE	16	16	16	16	WASHER SPRING M8
9	013-008	NONE	2	2	2	2	'O'RING BS122/70
10	012-059	012-059	2	2	2	2	COVER PLATE
11	012-079	011-172	1	1			OIL COOLER STRAIGHT
	012-200	012-200			1	1	OIL COOLER FINNED
12	011-220	026-018	1				INLET MANIFOLD ASSEMBLY
	011-221	026-018	1				INLET MANIFOLD ASSEMBLY
	011-222	026-018		1			INLET MANIFOLD ASSEMBLY
	011-223	011-223				1	INLET MANIFOLD ASSEMBLY
13		NONE	1	1	1	1	BELL HOUSING (REF ONLY)
14	013-093	NONE	7	6	6	6	SCREW SET HEX.HD. M10 x 45
15	013-029	NONE	6	6	6	6	WASHER PLAIN M10
16	013-030	NONE	6	6	6	6	NUT NYLOC M10
17	013-035	NONE	6	6	6	6	NUT NYLOC M8
18	013-067	NONE	11	11	11	11	SCREW SET SOC. M8 x 10
19	013-033	NONE	3	3	3	3	SCREW SET HEX.HD. M8 x 45
20	013-452	NONE	3	3	3	3	SCREW SET HEX.HD. M8 x 55
21	100-345	100-345	3	4	6	8	BLEED SCREW
22	013-049	NONE	2	2	2	2	'O'RING D.070" SECTION
23	012-041	012-041	2	2	2	2	COUNTER BALANCE
24	012-066	012-066	1	1	1	1	OIL SEAL CARRIER
25	011-009	011-009	1	1	1	1	SHAFT
26	011-053	011-053	1	1	1	1	KEY 8 x 7 x 43
27	011-058	011-053	1	1	1	1	KEY 8 x 7 x 60
28	013-003	013-003	1	1	1	1	WASHER
29	013-004	013-004	1	1	1	1	NUT NYLOC M20 x 1.5

ITEM	PART NO	DWG NO	3 CYL	4 CYL	6 CYL	8 CYL	DESCRIPTION
30	013-155	NONE	1	1	1	1	OIL SEAL
31	013-006	NONE	1	1	1	1	BEARING LOCATION
32	013-005	NONE	1	1	1	1	BEARING FLOATING
33	023-093	NONE	1	1	1	1	COUPLING (REF ONLY)
34	012-009	012-009	2	2	2	2	BEARING RETAINER
35	012-005	012-005	1	1	1	1	ECCENTRIC
36	012-007	NONE	1	1	1	1	MAIN BEARING
37	012-004	012-004	1	1	1	1	RETAINING RING
38	011-071	011-015	3	4	6	8	CONNECTING ROD #18/#20 PISTONS
	011-015	011-015	3	4	6	8	CONNECTING ROD #22 PISTON
39	011-014	011-014	3	4	6	8	GLIDEON PIN
40	013-002	NONE	6	8	12	16	CIRCLIP 1400 x 12
41	011-216	011-217	3	4	6	8	VALVE NUT BRASS ONE PIECE
	011-217	011-217	3	4	6	8	VALVE NUT ST/ST ONE PIECE
42	033-013	NONE	3	4	6	8	SEAL BONDED 3/8"BSP
43	011-060	011-060	3	4	6	8	VALVE DELIVERY ASSEMBLY
44	011-116	011-116	3	4	6	8	VALVE NUT BRASS
	011-117	011-116	3	4	6	8	VALVE NUT ST/ST
45	011-166	011-166	3	4	6	8	VALVE INLET HIGH LIFT
46	011-048	011-048	3	4	6	8	VALVE INLET
47	012-011	012-011	3	4	6	8	LOCKNUT 1 1/2"BSP BRASS
48	012-014	012-014	3	4	6	8	BLEED RING
49	013-145	013-145	3	4	6	8	ADAPTOR 3/8"BSP x 1/4"BSP
50	013-011	NONE	6	8	12	16	'O'RING BS135/60
51	012-032	012-032	3	4	6	8	DIAPHRAGM
52	012-033	012-033	3	4	6	8	MANDREL
53	011-163	011-066	3	4	6	8	BARREL EN1A SLABBED
	011-229	011-066	3	4	6	8	BARREL EN57 SLABBED
54	012-001	012-001	3	4	6	8	BAFFLE
55	011-011	011-011	3	4	6	8	SEAL INNER CYLINDER
56	012-090	012-090	3	4	6	8	PISTON #18
	012-091	012-091	3	4	6	8	PISTON #20
	012-092	012-092	3	4	6	8	PISTON #22
57	011-067	011-069	3	4	6	8	CYLINDER #18
	011-068	011-069	3	4	6	8	CYLINDER #20
	011-069	011-069	3	4	6	8	CYLINDER #22

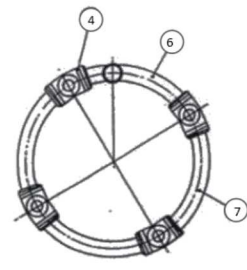
ITEM	PART NO	DWG NO	3 CYL	4 CYL	6 CYL	8 CYL	DESCRIPTION
58	012-026	011-149	1	1	1	1	SELECTOR SUPPORT
59	011-123	011-127	1				MANIFOLD BODY ST/ST
	011-124	011-127		1			MANIFOLD BODY ST/ST
	011-125	011-127			1		MANIFOLD BODY ST/ST
	011-126	011-127				1	MANIFOLD BODY ST/ST
60	061-087	061-067	1	1	1	1	SEATING WASHER
61	011-219	NONE	1	1	1	1	ADAPTOR FOR GAUGE
62	032-168	032-167	1	1	1	1	SEAL 3/8"BSP NYLON
63	012-096	NONE	1	1	1	1	PRESSURE GAUGE 0-6000 PSI
	013-290	NONE	1	1	1	1	PRESSURE GAUGE 0-10000 PSI
64	013-043	013-043	1	1	1	1	HOLDER FOR PRESSURE DISC
65		011-019	1	1	1	1	PRESSURE DISC (TO SUIT)
66	023-335	023-335	1	1	1	1	ADAPTOR PRESSURE DISC
67	013-490	NONE	1	1	1	1	DRAIN PLUG 3/8"BSP
68	013-026	NONE	1	1	1	1	SEAL DRAIN PLUG 3/8"BSP
69	013-430	NONE	6	6	6	6	SCREW SET SOC.HD. M8 x 25
70	012-137	012-137	2	2	4	6	TOP HOSE
71	012-138	012-137	1	2	2	2	TOP HOSE AIR BLEED
72	011-165	011-165	1	2	2	2	BLEED SCREW WATER
73	033-012	NONE	3	4	6	8	BONDED SEAL 1/4"BSP
74	013-144	013-144	3	4	6	8	
75	013-232	NONE	6	6	6	6	SCREW HAMMER DRIVE
76	043-110	043-110	1	1	1	1	LABEL PUMP IDENTIFICATION
77	023-360	NONE	1	1	1	1	ADAPTOR 1"BSP x 1/2"BSP
78	023-013	NONE	1	1	1	1	CAP BLANKING 1/2"BSP
80	011-226	011-226	1				DELIVERY MANIFOLD
81	011-227	011-226				1	DELIVERY MANIFOLD
82	061-077	061-077	1	1	1	1	LIFTING EYE
83	021-204	021-204	1				SELECTOR ASSEMBLY (ST/ST)
	021-205	021-204				1	SELECTOR ASSEMBLY (ST/ST)
	021-206	021-204				1	SELECTOR ASSEMBLY (ST/ST)
	021-113	021-204				1	SELECTOR ASSEMBLY (ST/ST)
	021-095	021-204				1	SELECTOR ASSEMBLY (BRASS)
	021-096	021-204				1	SELECTOR ASSEMBLY (BRASS)
	021-097	021-204				1	SELECTOR ASSEMBLY (BRASS)
	021-098	021-204				1	SELECTOR ASSEMBLY (BRASS)

Fig 4.6 'P' Type and High Lift Pump-Pump Parts List

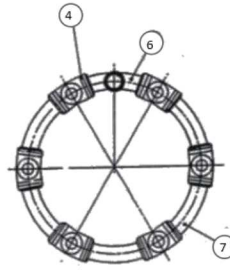
ITEM	PART NO	3	4	6	8	DESCRIPTION
		CYL	CYL	CYL	CYL	
1	011-215	1	1	1	1	Connector Tee Tube - Cooler
2	011-203	3	4	6	8	Retaining Ring
3	011-204	3	4	6	8	Tee Moulding
4	014-033	2	2	2	2	Spring Clip
5	014-051	6	8	12	16	Hose Clamp Double Bonded
6	011-209	1	-	-	-	Tee Tube 3 Cyl
	011-213	-	1	-	-	Tee Tube 4 Cyl
	011-214	-	-	1	-	Tee Tube 6 Cyl
	011-207	-	-	-	1	Tee Tube 8 Cyl
7	011-212	2	-	-	-	Tube 3 Cyl
	011-210	-	3	-	-	Tube 4 Cyl
	011-211	-	-	5	-	Tube 6 Cyl
	011-208	-	-	-	7	Tube 8 Cyl
8	011-216	3	4	6	8	Valve Nut Brass
	011-217	3	4	6	8	Valve Nut ST/ST



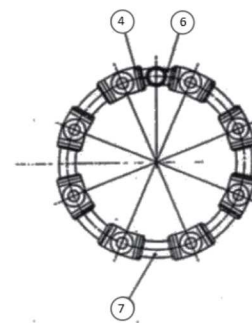
3-CYL. ASS. PART NO. 011-220



4-CYL. ASS. PART NO. 011-221



6-CYL. ASS. PART NO. 011-222



8-CYL. ASS. PART NO. 011-223

Fig 4.7 'P' Type and High Lift Pump- Inlet Manifold Assembly

ITEM	PART NO	3CYL	4CYL	6CYL	8CYL	DESCRIPTION
1	022-001	1	-	-	-	Body Selector Brass
1	022-002	-	1	-	-	Body Selector Brass
1	022-003	-	-	1	-	Body Selector Brass
1	022-004	-	-	-	1	Body Selector Brass
1	022-051	1	-	-	-	Body Selector
1	022-050	-	1	-	-	Stainless Steel
1	022-049	-	-	1	-	Body Selector
1	022-048	-	-	-	1	Body Selector
2	022-017	1	1	1	1	Shaft Eccentric
3	021-003	1	1	1	1	Nut Gland Brass
4	023-001	1	1	1	1	Back up ring BS111
5	013-021	2	2	2	2	'O' Ring BS111/90
6	012-095	1	1	1	1	Seal
7	021-001	1	1	1	1	Support
8	022-016	1	1	1	1	Plug
9	022-008	3	3	3	3	Fitting Brass
10	021-016	3	3	3	3	Seat
11	022-009	2	2	2	2	Guide
12	033-012	3	4	6	8	Seal Bonded 1/4" BSP
13	023-002	1	1	1	1	Knob
14	022-007	1	1	1	1	Lever
15	023-004	1	1	1	1	Nut Nylloc M6
16	023-003	1	1	1	1	Washer Plain M6
17	013-043	1	1	1	1	Holder Pressure Disc
18		1	1	1	1	Pressure Disc (To Suit
19	013-144	3	4	6	8	Adaptor 1/4" BSP X
20	061-067	1	1	1	1	Washer Seating
21	011-023	1	1	1	1	Fitting pressure gauge
22	033-066	1	1	1	1	Locknut 1/2" BSP
23	012-121	1	1	1	1	Nut gland ST/ST
24	012-120	3	3	3	3	Fitting ST/ST
25	012-096	1	1	1	1	Pressure gauge 0-6000
26	013-290	1	1	1	1	Pressure gauge 0-10000

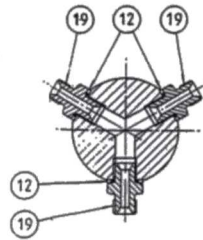
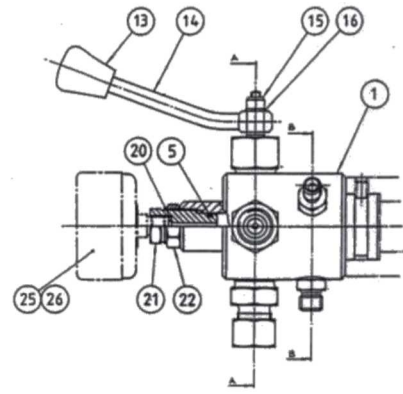
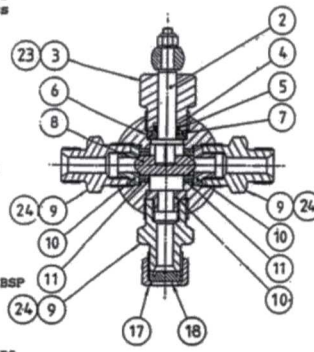


Fig 4.8 Manifold Selector Assembly

ITEM	PART NO	QTY	DESCRIPTION	REMARKS
1	033-027	1	Body	
2	022-017	1	Shaft	
3	021-003	1	Nut Gland	
4	023-001	1	Back Up Ring	
5	013-021	1	'O' Ring	
6	012-095	1	Seal	
7	021-001	1	Support	
8	022-016	1	Plug	
9	022-098	2	Fitting	
10	021-016	2	Seat	
11	022-009	2	Guide	
12	033-012	1	Seal Bonded 1/4" BSP	
13	023-002	1	Knob	
14	022-007	1	Lever	
15	023-004	1	Nut Nyloc M6	
16	023-003	1	Washer M6	
17	013-140	1	Plug Blanking	
18	013-039	1	Connector 1/2" BSP X 1/2" BSP	
19	032-058	2	Fitting JIC	
20	033-010	1	Bonded Seal 1/2" BSP	

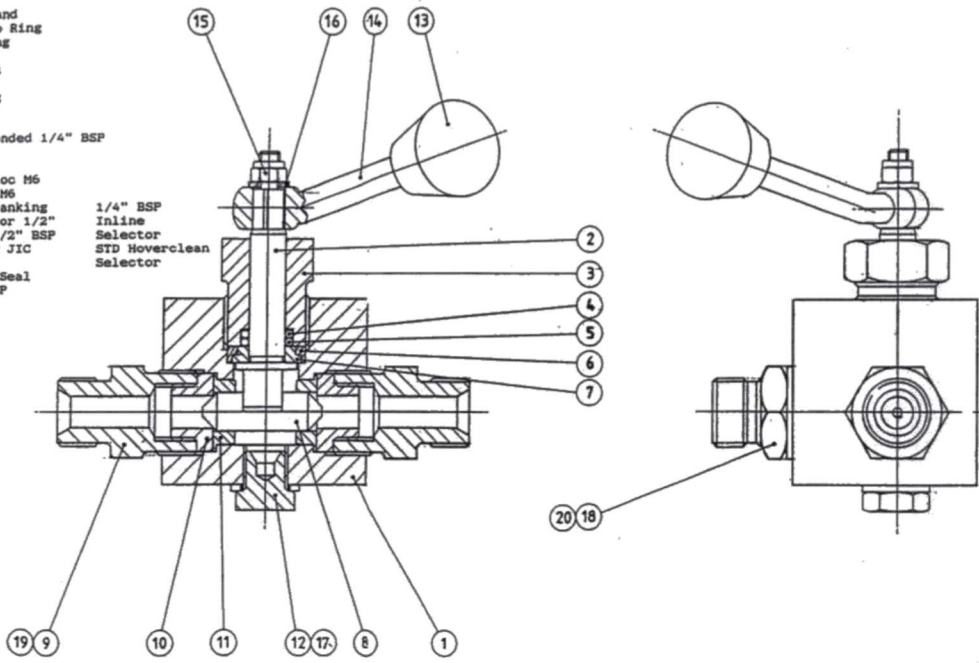


Fig 4.9(a) Inline selector Assembly

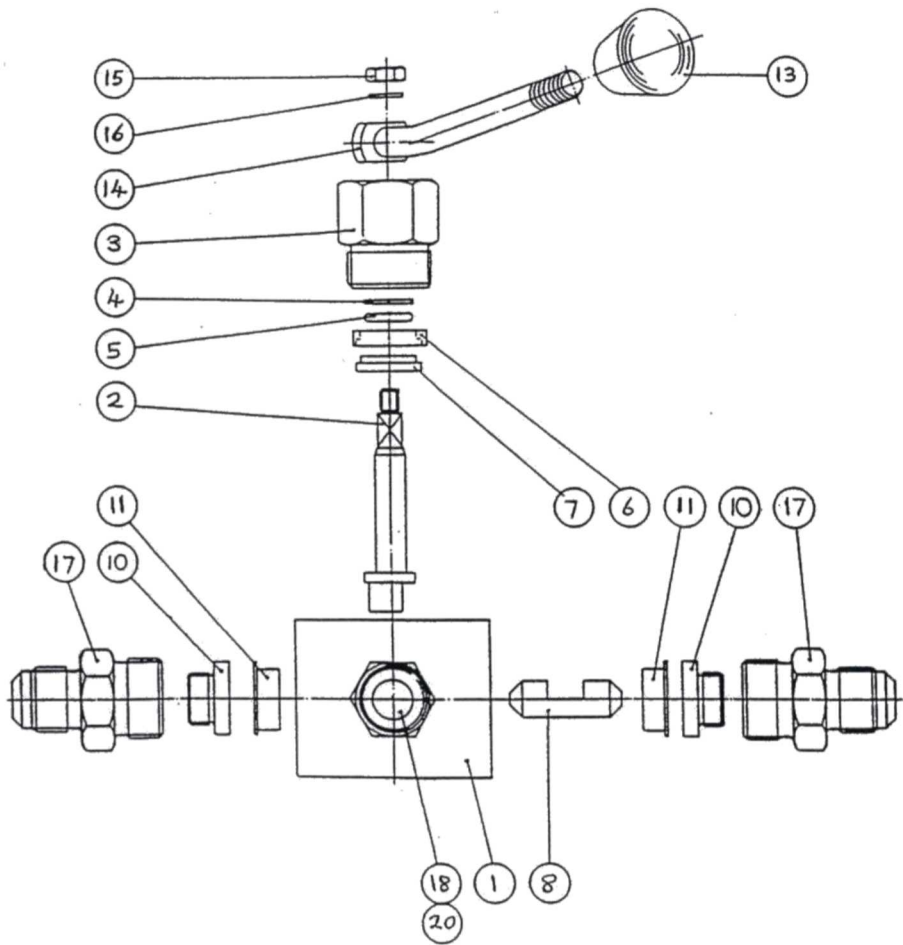


Fig 4.9(b) In-line Selector Assembly