



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: HP-80, HP-84

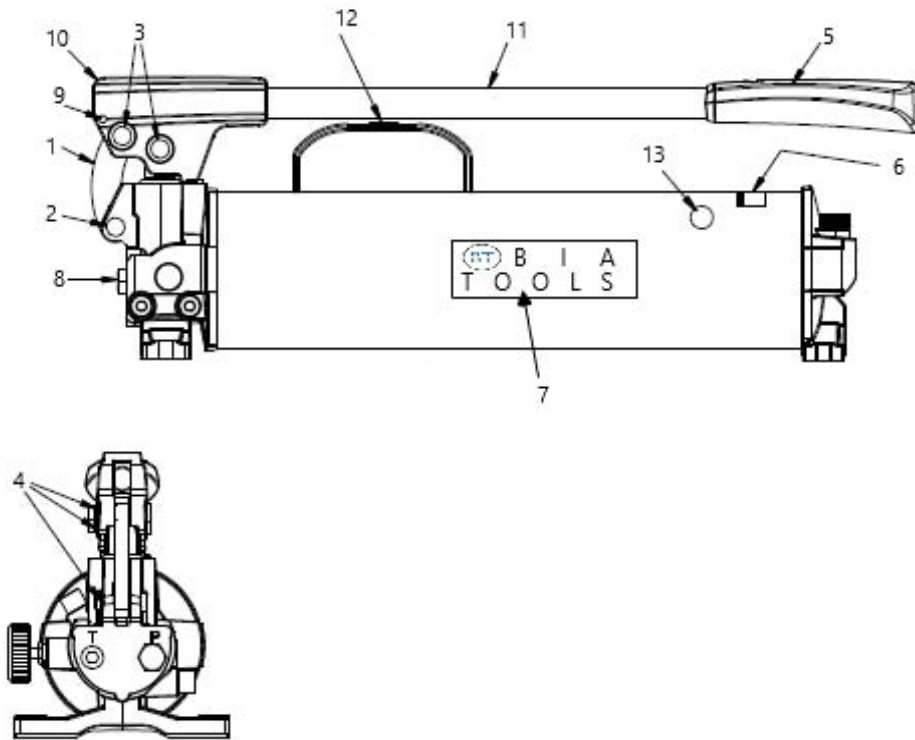
Form. #

FIG 1

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Not all components of cylinder are replacement items, but are illustrated as a convenient reference of location and position in the assembly sequence.

### PARTS ILLUSTRATION





**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: HP-80, HP-84

Form. #

FIG 1

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PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
1	Linkage	1	BT-HP80-01	BT-HP84-01
2	Pin	1	BT-HP80-02	BT-HP84-02
3	Pin	2	BT-HP80-03	BT-HP84-03
4	Retaining Ring	3	BT-HP80-04	BT-HP84-04
5	Grip, Handle	1	BT-HP80-05	BT-HP84-05
6	Decal, Product Spec	1	BT-HP80-06	BT-HP84-06
7	Decal	2	BT-HP80-07	BT-HP84-07
8	Plug, Shipping	1	BT-HP80-08	BT-HP84-08
9	Spring Pin	1	BT-HP80-09	BT-HP84-09
10	Beam Subassembly	1	BT-HP80-10	BT-HP84-10
11	Tubing, Handle	1	BT-HP84-11	BT-HP84-11
12	Decal, Warning	1	BT-HP80-12	BT-HP84-12
13	Decal, Read Instruction	1	BT-HP80-13	BT-HP84-13



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

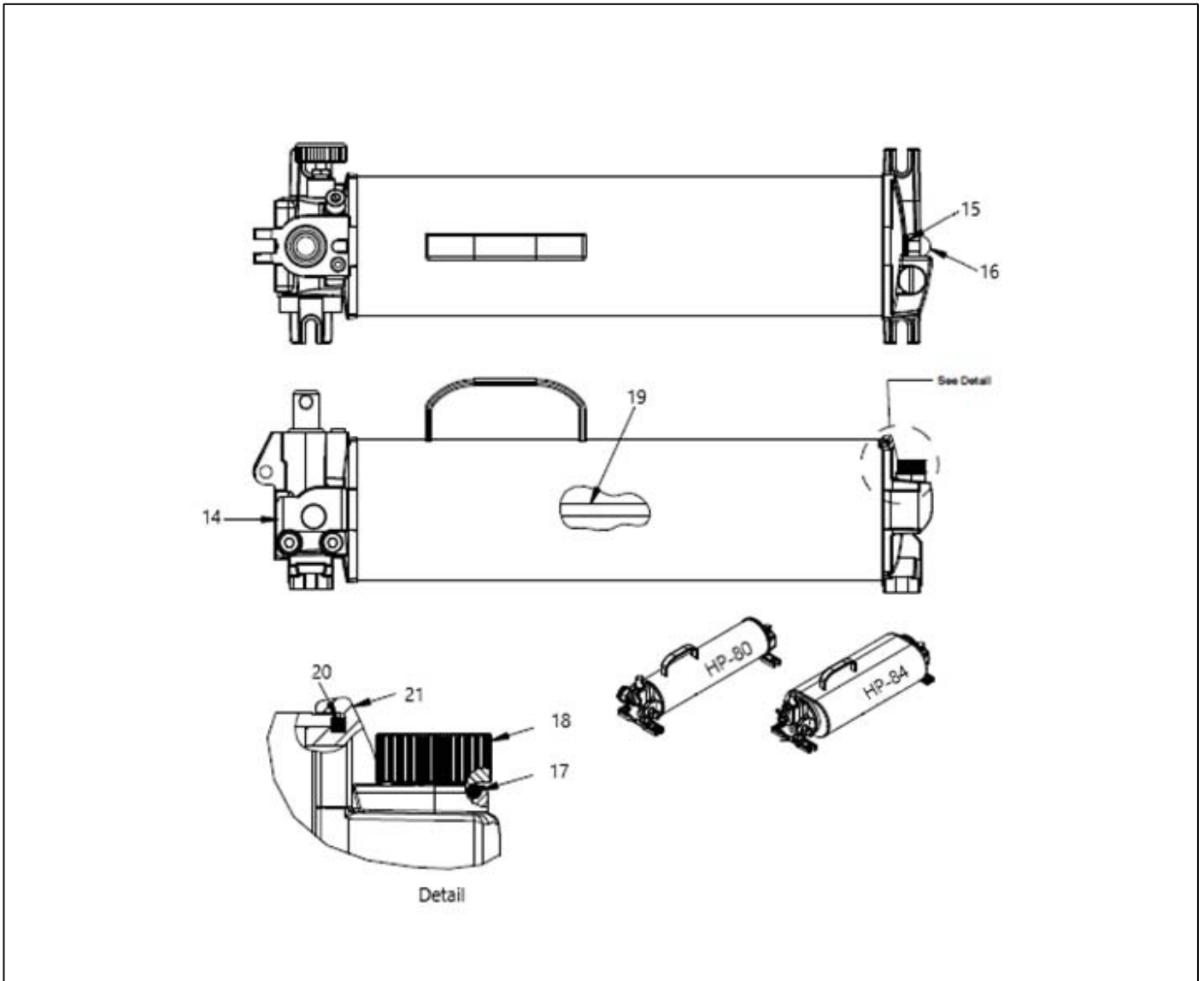
MODEL: PUMP RESERVOIR

Form. #

FIG 2

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PARTS ILLUSTRATION





**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: PUMP RESERVOIR

Form. #

FIG 2

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### PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
14	Pump Head	1	BT-HP80-14	BT-HP84-14
15	Cooper Gasket	1	BT-HP80-15	BT-HP84-15
16	Acom Nut	1	BT-HP80-16	BT-HP84-16
17	O-Ring	2	BT-HP80-17	BT-HP84-17
18	Plug, Oil Fill	1	BT-HP80-18	BT-HP84-18
19	Tie Rod	1	BT-HP80-19	BT-HP84-19
20	Square Ring	2	BT-HP80-20	BT-HP84-20
21	End Cap	1	BT-HP80-21	BT-HP84-21



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

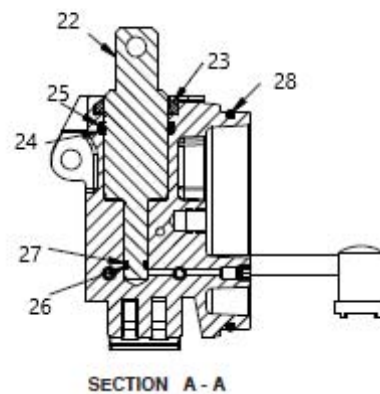
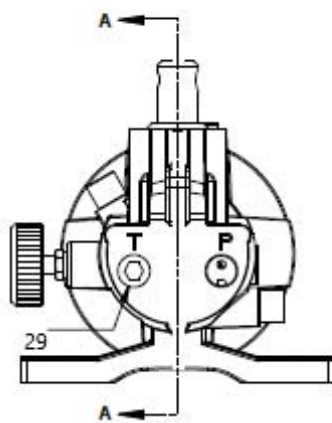
MODEL: PLUNGER ASSEMBLY

Form. #

FIG 3

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PARTS ILLUSTRATION





**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: PLUNGER ASSEMBLY

Form. #

FIG 3

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### PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
22	Plunger	1	BT-HP80-22	BT-HP84-22
23	Wiper	1	BT-HP80-23	BT-HP84-23
24	O-Ring	2	BT-HP80-24	BT-HP84-24
25	Back-Up Ring	1	BT-HP80-25	BT-HP84-25
26	O-Ring	2	BT-HP80-26	BT-HP84-26
27	Back-Up Ring	1	BT-HP80-27	BT-HP84-27
28	O-Ring	2	BT-HP80-28	BT-HP84-28
29	Plug, Tank Port	1	BT-HP80-29	BT-HP84-29



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

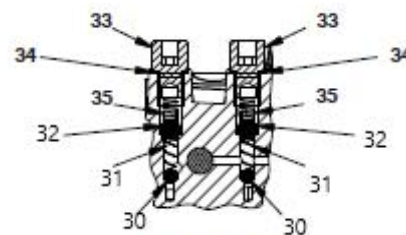
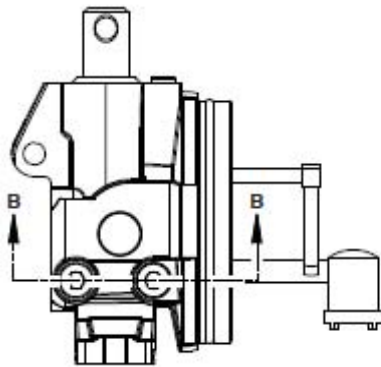
MODEL: CHECK BALL ASSEMBLIES

Form. #

FIG 4

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PARTS ILLUSTRATION



SECTION B - B



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: CHECK BALL ASSEMBLIES

Form. #

FIG 4

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PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
30	Ball	2	BT-HP80-30	BT-HP84-30
31	Spring	2	BT-HP80-31	BT-HP84-31
32	Ball	2	BT-HP80-32	BT-HP84-32
33	Plug	2	BT-HP80-33	BT-HP84-33
34	Gasket	2	BT-HP80-34	BT-HP84-34
35	Spring	2	BT-HP80-35	BT-HP84-35



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

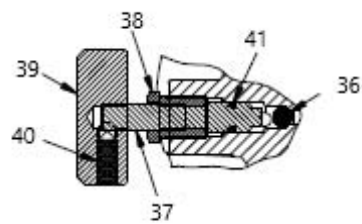
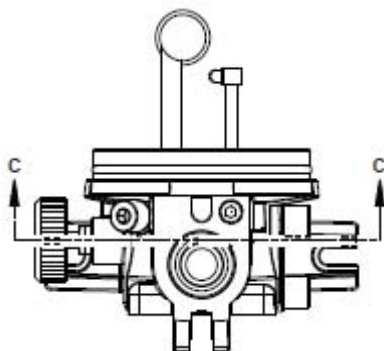
MODEL: RELEASE VALVE ASSEMBLY

Form. #

FIG 5

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PARTS ILLUSTRATION



SECTION C - C



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: RELEASE VALVE ASSEMBLY

Form. #

FIG 5

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### PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
36	Ball	1	BT-HP80-36	BT-HP84-36
37	Spindle	1	BT-HP80-37	BT-HP84-37
38	Cartridge	1	BT-HP80-38	BT-HP84-38
39	Knob, Release Valve	2	BT-HP80-39	BT-HP84-39
40	Set Srew	1	BT-HP80-40	BT-HP84-40
41	O-Ring	2	BT-HP80-41	BT-HP84-41



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

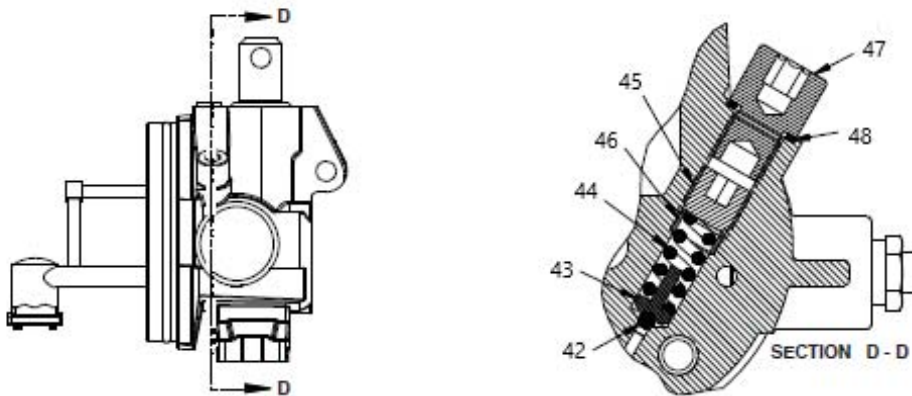
MODEL: RELIEF VALVE ASSEMBLY

Form. #

FIG 6

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PARTS ILLUSTRATION





# **B I A**

# **T O O L S**

## REGULAR SINGLE ACTING

MODEL: RELIEF VALVE ASSEMBLY

Form. #

FIG 6

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### PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
42	Ball	1	BT-HP80-42	BT-HP84-42
43	Ball Cap	1	BT-HP80-43	BT-HP84-43
44	Spring	1	BT-HP80-44	BT-HP84-44
45	Set Srew	1	BT-HP80-45	BT-HP84-45
46	Spacer	1	BT-HP80-46	BT-HP84-46
47	Plug	1	BT-HP80-47	BT-HP84-47
48	Gasket	1	BT-HP80-48	BT-HP84-48



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

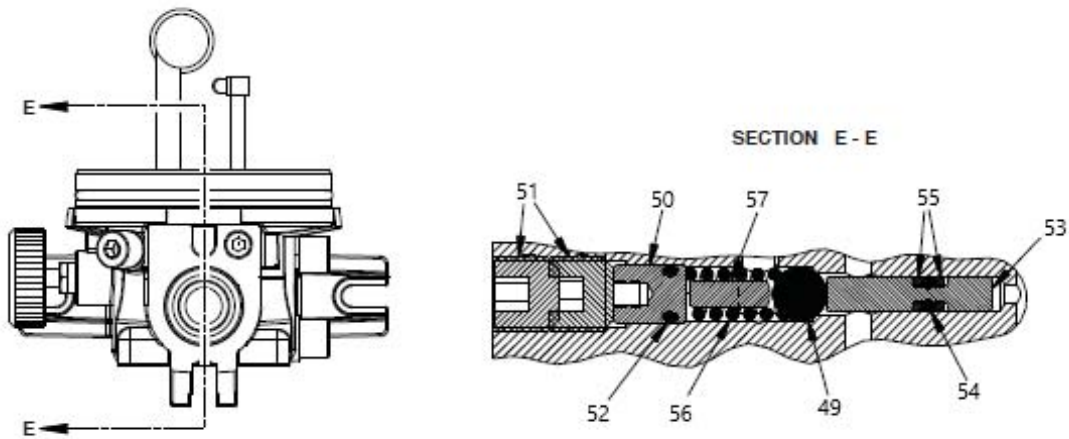
MODEL: BYPASS VALVE ASSEMBLY

Form. #

FIG 7

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PARTS ILLUSTRATION





**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: BYPASS VALVE ASSEMBLY

Form. #

FIG 7

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PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
49	Ball	1	BT-HP80-49	BT-HP84-49
50	Plug	1	BT-HP80-50	BT-HP84-50
51	Set Screw	2	BT-HP80-51	BT-HP84-51
52	O-Ring	2	BT-HP80-52	BT-HP84-52
53	Pin	1	BT-HP80-53	BT-HP84-53
54	O-Ring	2	BT-HP80-54	BT-HP84-54
55	Back Up Ring	2	BT-HP80-55	BT-HP84-55
56	Spring	1	BT-HP80-56	BT-HP84-56
57	Dowel Pin	1	BT-HP80-57	BT-HP84-57



**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

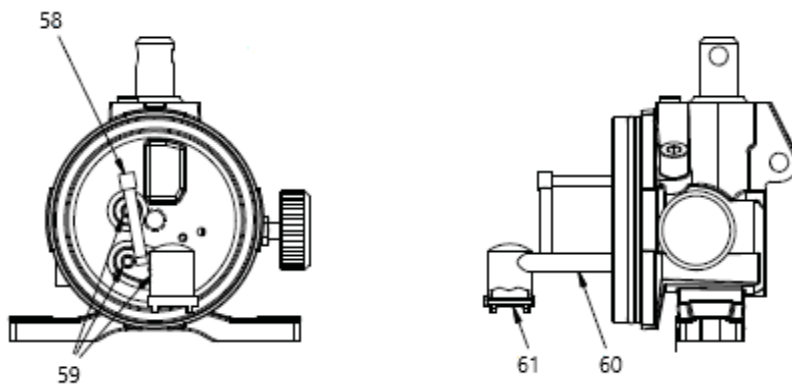
MODEL: OIL PIPING AND FILTER

Form. #

FIG 8

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PARTS ILLUSTRATION





**B I A**  
**T O O L S**

REGULAR SINGLE ACTING

MODEL: OIL PIPING AND FILTER

Form. #

FIG 8

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### PARTS LIST

ITEM	DESCRIPTION	QTY	HP-80	HP-84
58	Fitting, Pick-Up Tube	1	BT-HP80-58	BT-HP84-58
59	Flush Plug	3	BT-HP80-59	BT-HP84-59
60	Oil Filter	1	BT-HP80-60	BT-HP84-60
61	Screen	1	BT-HP80-61	BT-HP84-61