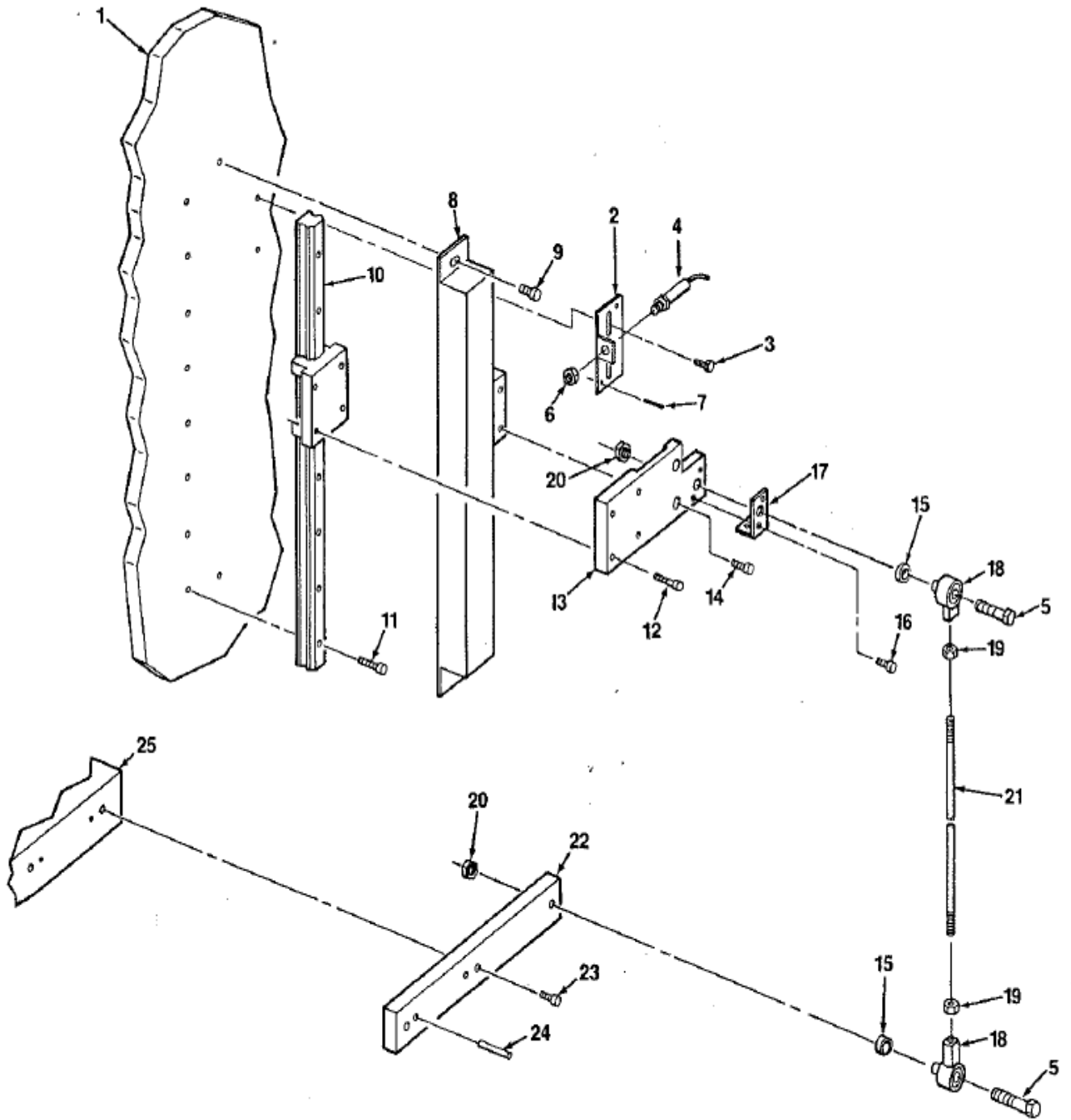


FRAME ASSEMBLY

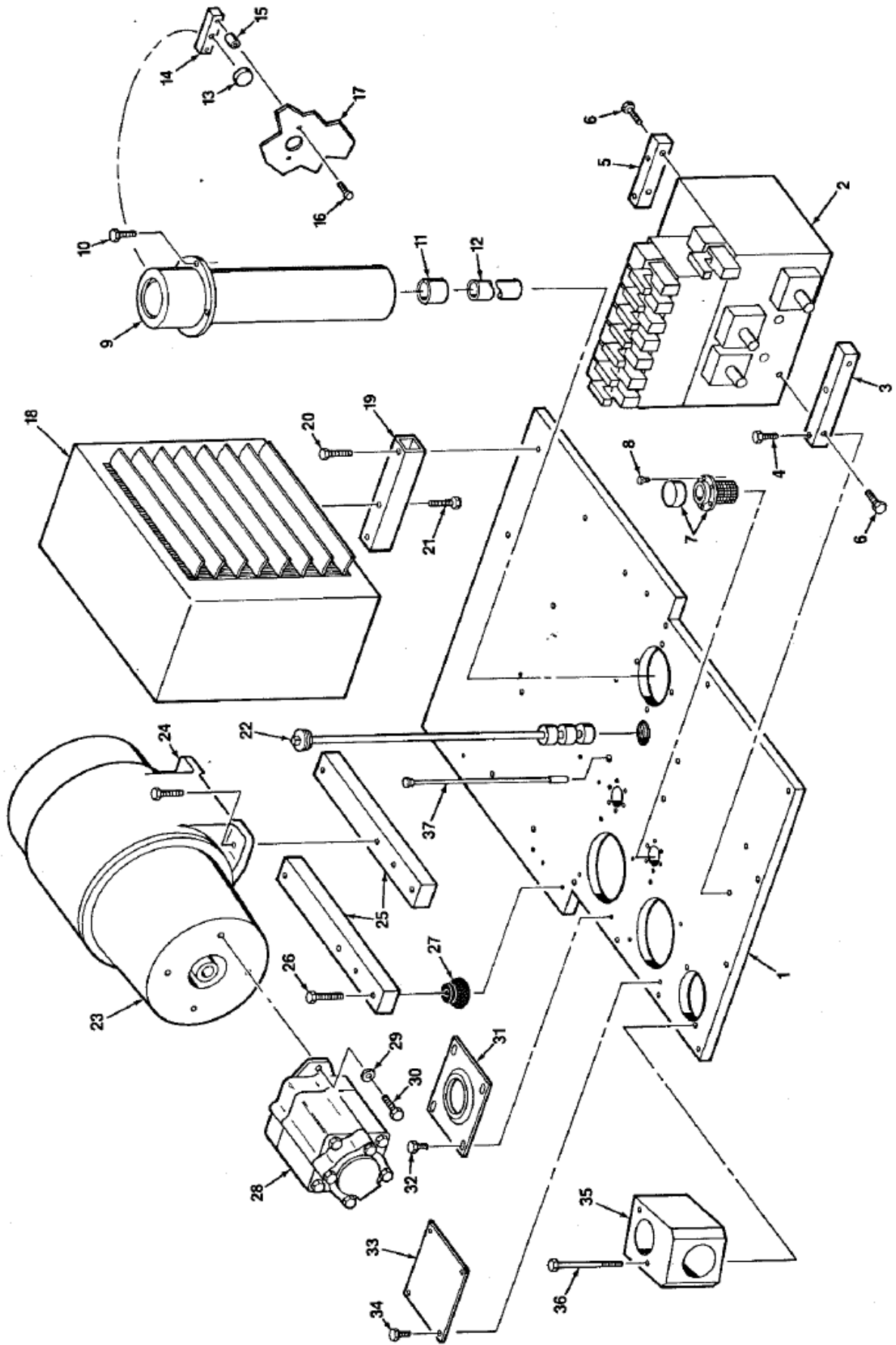
1. Frame
2. Slide *(Not shown - see separate part list)*
3. Pendent Arm *(Not shown - see separate part list)*
4. Linear Encoder Assembly *(see separate part list)*
5. Reservoir Cover Assembly *(see separate part list)*
6. Die Block
7. Bolster
8. Palm Button Bracket
9. Bracket Mounting Screw
10. Front Tie Bar
11. Tie Bar Mounting Screw
12. Dowel Pin
13. Front Frame Cover
14. Cover Screw
15. Frame Cover Bracket
16. Screw
17. Screw
18. L.H. Front Gib
19. R.H. Front Gib *(not shown)*
20. Gib Mounting Screw
21. Set Screw
22. Hex Nut
23. Gib Screw
24. Washer
25. Rear Gib
26. Rear Gib Mounting Screw
27. Side Gib
28. Gib Adjusting Plug
29. Spacer
30. Screw
31. Screw
32. L.H. Side Cover
33. Cover Screw
34. Upper L.H. Rear Frame Cover
35. Cover Screw
36. Reservoir Cover Mounting Screw
37. Reservoir
38. Reservoir Mounting Screw
39. Oil Sight Gage
40. Gage Mounting Screw
41. Rear Tie Bar
42. Tie Bar Mounting Screw
43. Dowel Pin
44. Lubrication Pump Bracket
45. Hex Nut
46. Vibration Isolator
47. Standard Oil Lubrication Pump
48. Pump Mounting Screw
49. Lubrication Filter Bracket
50. Bracket Screw
51. Lubrication Filter
52. Screw
53. R.H. Upper Conduct Cover
54. Cover Screw
55. Upper R.H. Rear Frame Cover
56. Cover Screw
57. Upper Rear Frame Cover
58. Cover Screw
59. Control Box
60. Vibration Isolator
61. Linear Encoder Guard
62. Guard Mounting Screw
63. R.H. Side Cover
64. Cover Screw
65. Oil Return Collector
66. Screw
67. Pump for Die Clamps*
68. Screw*
69. Pump Bracket*
70. Bracket Screw*
71. Oil Circulating Pump*
72. Pump Mounting Screw*
73. R.H. Lower Frame Cover*
74. Cover Screw*
75. Lubrication Pump Cover*
76. Cover Screw*

**Optional Equipment*



LINEAR ENCODER ASSEMBLY

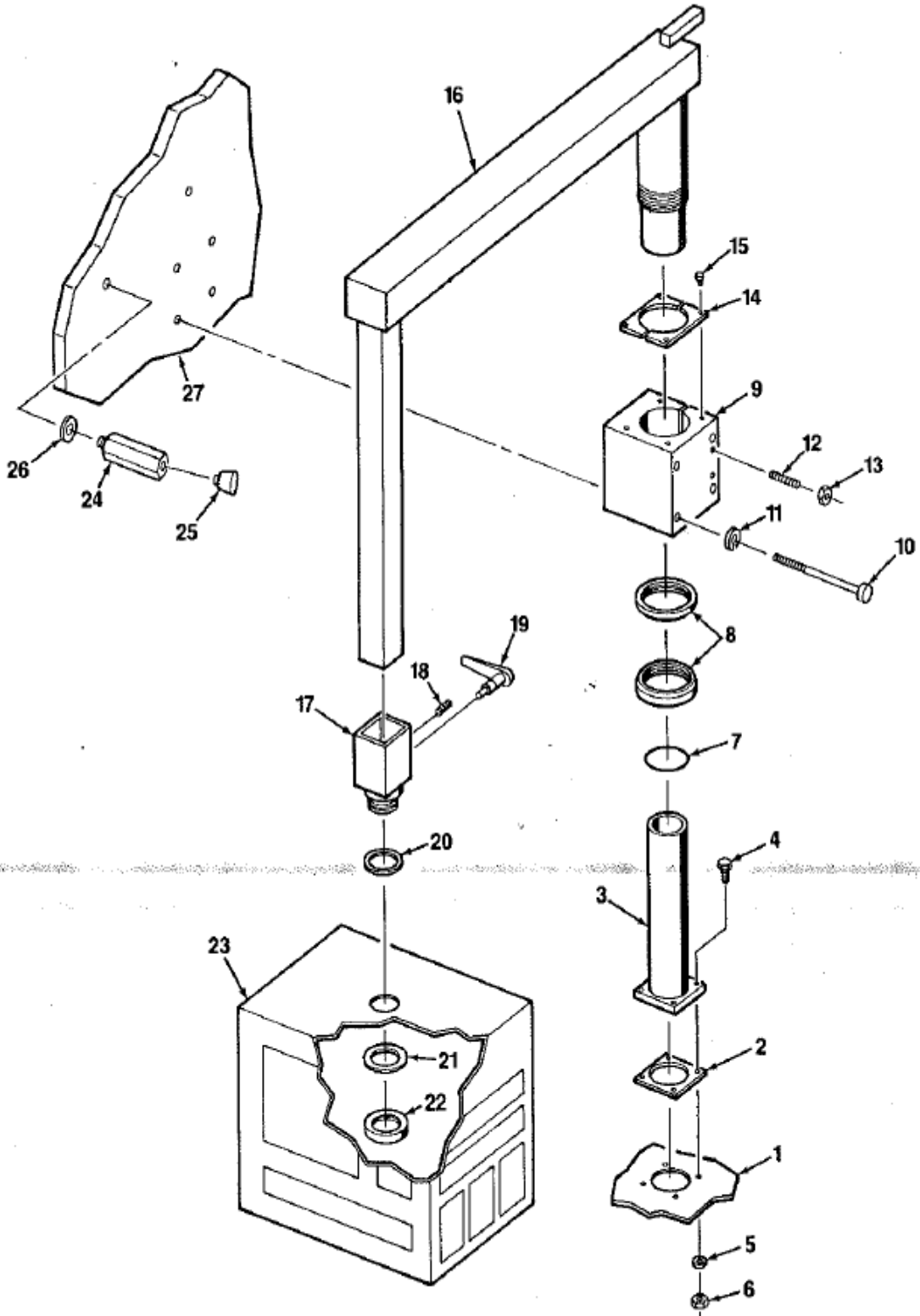
1. Frame (*ref.*)
2. Over-Travel Switch Bracket
3. Screw
4. Proximity Sensor
5. Rod End Bolt
6. Hex Nut
7. Roll Pin
8. Linear Encoder
9. Transducer Mounting Screw
10. Rail Guide
11. Rail Guide Mounting Screw
12. Screw
13. Scanning Head Support Guide
14. Screw
15. Spacer
16. Screw
17. Cable Support
18. Rod End with Grease Fitting
19. Hex Nut
20. Jam Nut
21. Threaded Rod
22. Encoder Bracket
23. Bracket Mounting Screw
24. Dowel Pin
25. Slide (*ref.*)



RESERVOIR COVER ASSEMBLY

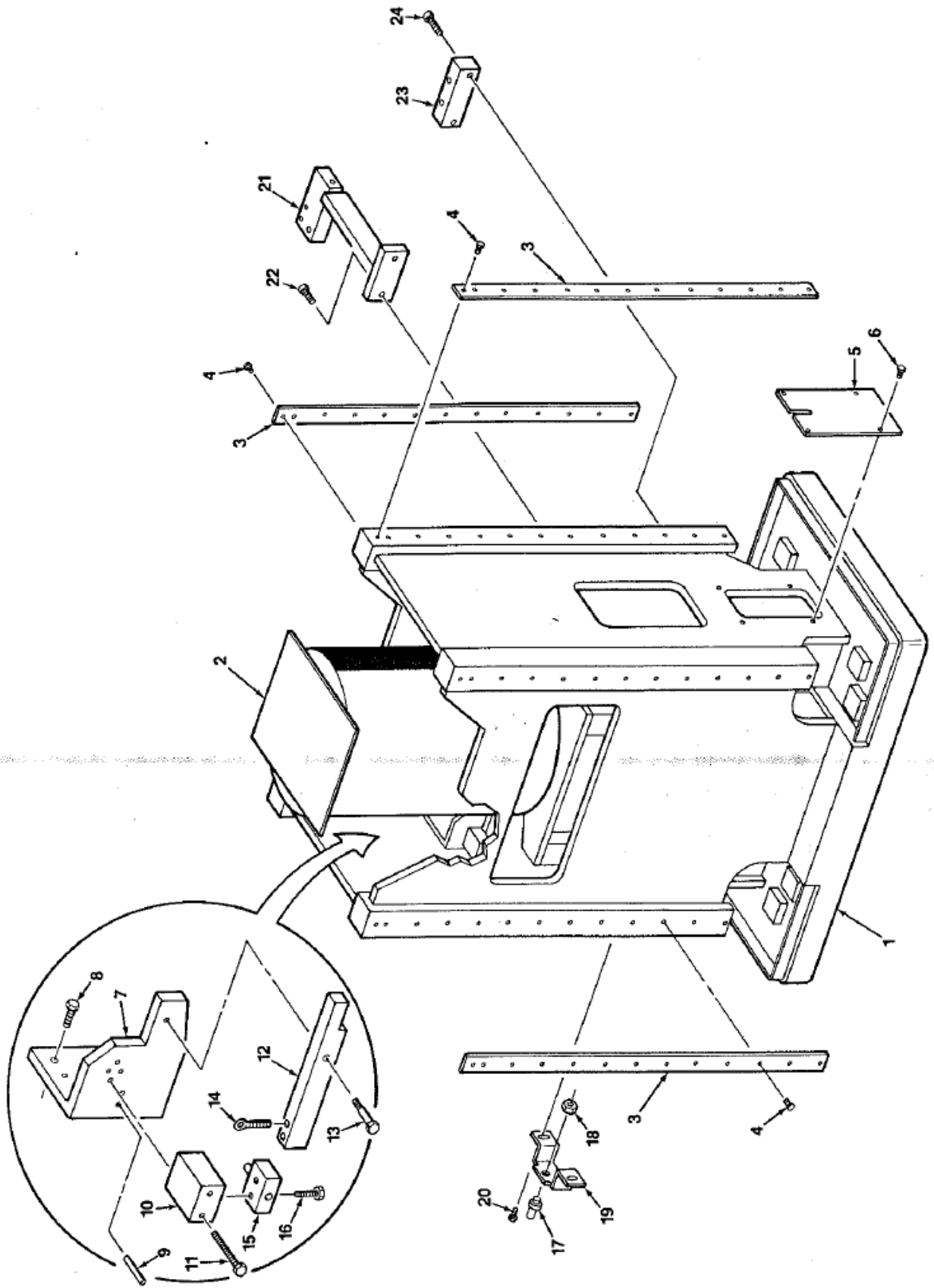
RESERVOIR COVER ASSEMBLY

1. Reservoir Cover
2. Main Manifold Assembly
3. Front Manifold Mounting Block
4. Screw
5. Rear Manifold Mounting Block
6. Screw
7. Filler Strainer Unit
8. Screw
9. Filter
10. Screw
11. Pipe Coupling
12. Pipe
13. Gage
14. Gage Mounting Block
15. Pipe Spacer
16. Screw
17. Frame Cover
18. Oil Cooler
19. Spacer
20. Screw
21. Screw
22. Magnetic Plug
23. Motor
24. Motor Mounting Screw
25. Motor Mounting Bar
26. Bar Screw
27. Vibration Isolator
28. Single Pump (*double pump with optional knockout*)
29. Washer
30. Screw
31. Suction Flange
32. Screw
33. Suction Cover
34. Screw
35. Pipe Flange
36. Screw
37. Temperature Sensor



PENDENT ARM ASSEMBLY

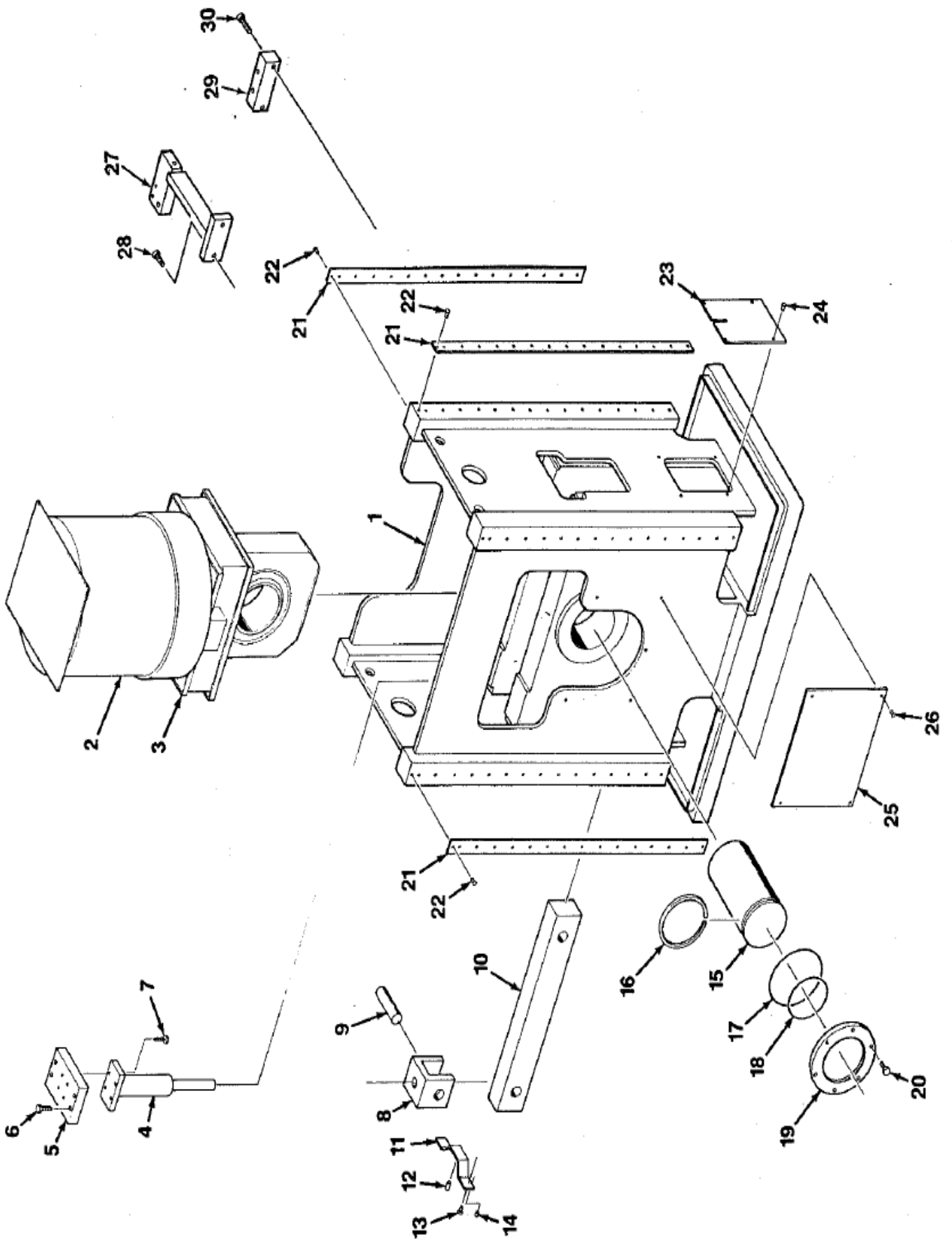
1. Control Box (*ref.*)
2. Gasket
3. Wire Stand Pipe
4. Screw
5. Lock Washer
6. Hex Nut
7. 'V' Ring Seal
8. Lock Nuts
9. Pivot Bracket
10. Screw
11. Lock Washer
12. Set Screw
13. Hex Nut
14. Pendent Thrust Bearing
15. Screw
16. Pendent Arm
17. Coupling
18. Set Screw
19. Clamping Lever
20. Washer
21. Bearing
22. Capstan Nut
23. Operator Terminal
24. Pendent Stop
25. Bumper
26. Shim
27. Frame (*ref.*)



HPS-110 SLIDE ASSEMBLY

1. Slide
2. Cylinder and Ball Enclosure (see separate part list)
3. Slide Liner
4. Screw
5. Slide Cover
6. Screw
7. Detector Switch Bracket
8. Bracket Screw
9. Roll Pin
10. Switch Mounting Plate
11. Plate Screw
12. Detector Switch Lever
13. Shoulder Bolt
14. Spring Plunger
15. Detector Switch
16. Switch Screw
17. Proximity Sensor*
18. Hex Nut*
19. Sensor Mounting Bracket*
20. Bracket Screw*
21. Hose Bracket*
22. Bracket Screw*
23. Junction Block*
24. Screw*

*Optional

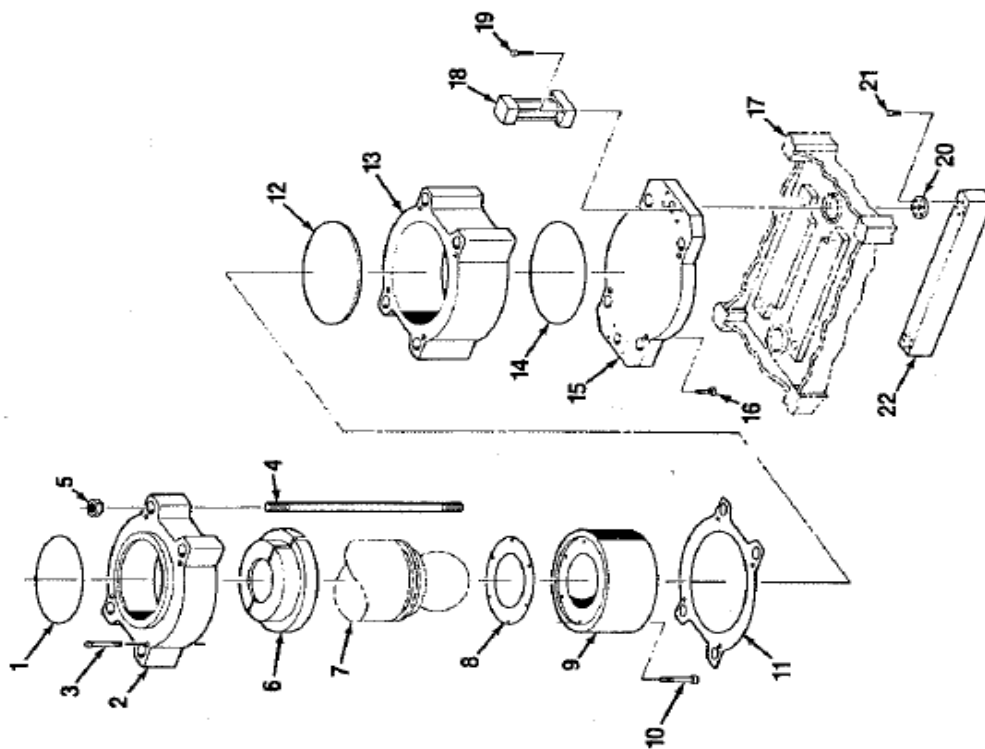
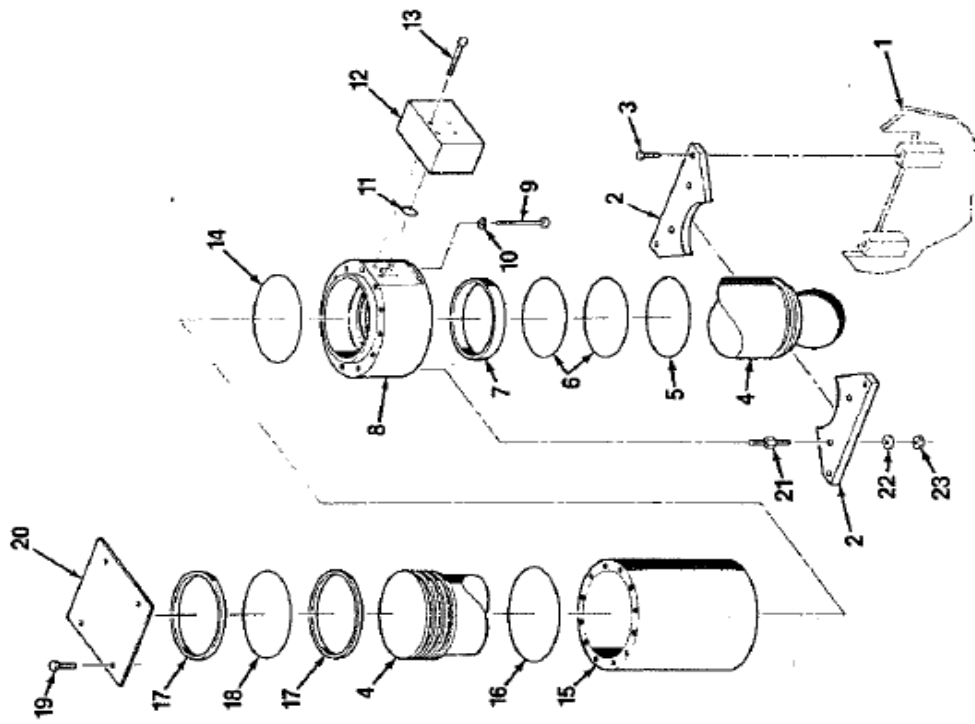


HPS-150 & 250 SLIDE ASSEMBLY

HPS-150 & 250 SLIDE ASSEMBLY

1. Slide
2. Cylinder Assembly (see separate part list)
3. Slider Assembly (see separate part list)
4. Hydraulic Cylinder
5. Knockout Cylinder Mounting Bracket
6. Screw
7. Screw
8. Clevis
9. Clevis Pin
10. Knockout Bar
11. Switch Bracket
12. Proximity Switch
13. Screw
14. Roll Pin
15. Wrist Pin
16. Retaining Ring
17. 'O' Ring
18. 'O' Ring
19. Wrist Pin Retainer
20. Screw
21. Slide Liner
22. Screw
23. Side Slide Cover
24. Screw
25. Front Slide Cover
26. Screw
27. Hose Bracket*
28. Bracket Screw*
29. Junction Block*
30. Screw*

*Optional



HPS-110 BALL SEAT ASSEMBLY

NOTE: USE THIS PARTS LIST FOR
HPS-150 SERIAL NOS. P-53364
AND LOWER

1. 'V' Ring Seal
2. Ball Cap Enclosure
3. Screw
4. Stud
5. Hex Nut
6. Ball Cap
7. Piston Rod and Ball (ref.)
8. Ball Seat Shim
9. Ball Seat
10. Screw
11. Enclosure Shim
12. Ball Seat Wear Plate
13. Ball Seat Housing
14. 'O' Ring
15. Ball Seat Base
16. Screw
17. Slide (ref.)
18. Hydraulic Cylinder*
19. Screw*
20. Rod End Coupling*
21. Screw*
22. Knockout Bar*

*Optional

HPS-110 CYLINDER ASSEMBLY

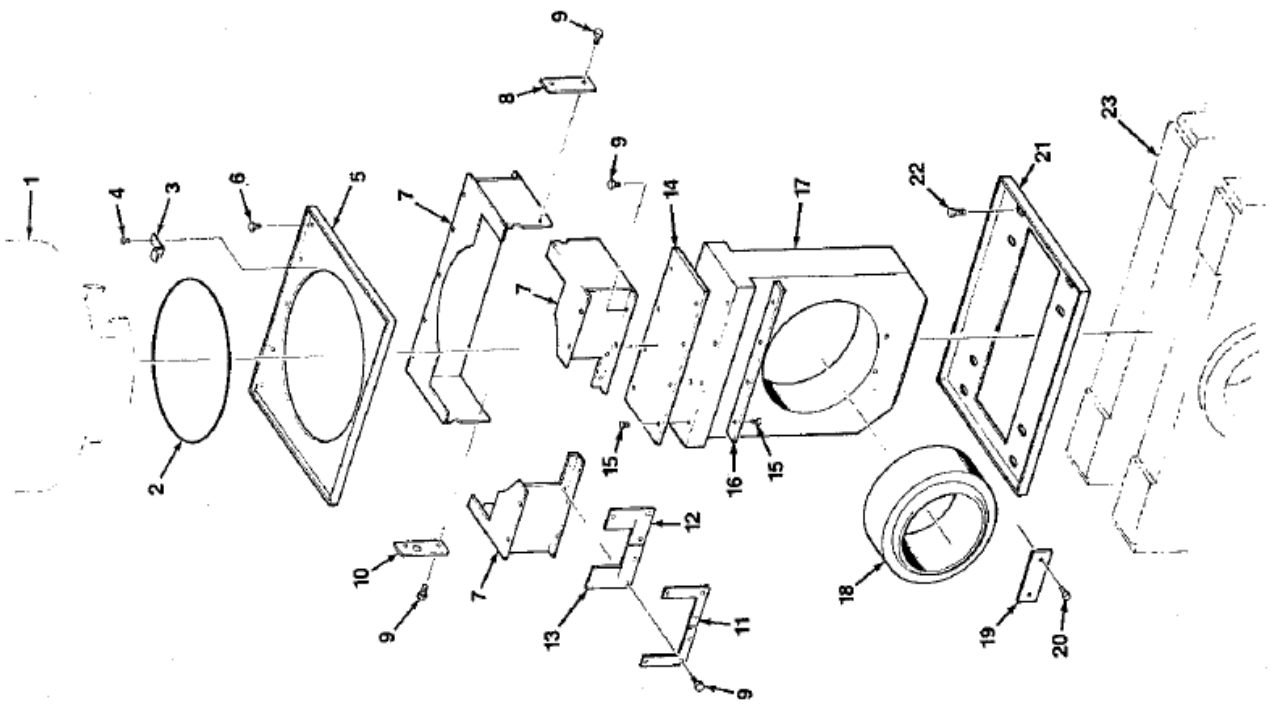
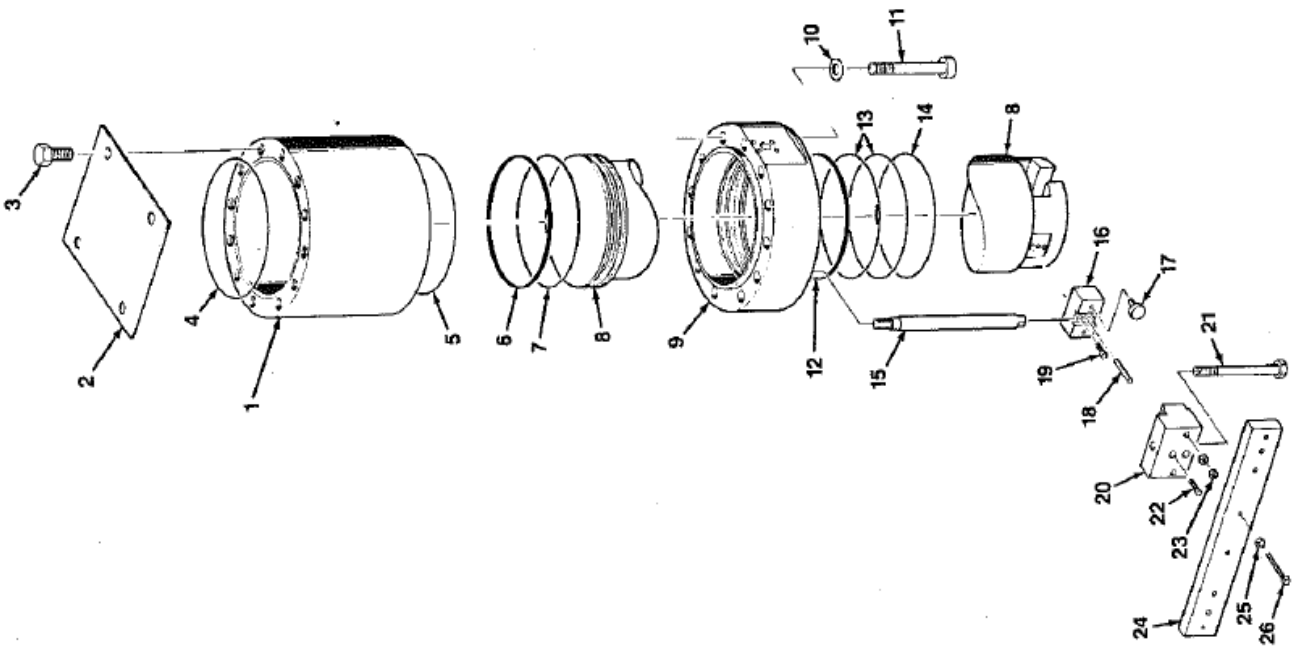
NOTE: USE THIS PARTS LIST FOR
HPS-150 SERIAL NOS. P-53364
AND LOWER

HPS-110 BALL SEAT AND CYLINDER ASSEMBLIES

1. Slide (ref.)
2. Piston Rod Support
3. Screw
4. Piston Rod and Ball
5. Wiper Ring
6. Rod Seal
7. Rod Bearing
8. Lower Cylinder Cap
9. Screw
10. Lockwasher
11. 'O' Ring
12. Lock Valve Manifold
13. Screw
14. 'O' Ring
15. Cylinder Body
16. 'O' Ring
17. Piston Bearing
18. Piston Seal
19. Screw*
20. Cylinder Assembly Cover*
21. Piston Assembly Stud*
22. Washer*
23. Hex Nut*

*WARNING

For use during cylinder Assembly or removal only.
These items must be removed before press start up.



HPS-150 & 250 SLIDER ASSEMBLY

NOTE: HPS-150 SERIAL NOS. P-53364
AND LOWER, USE PARTS LIST
ON PGS. 44 AND 45.

1. Cylinder Assembly (ref.)
2. 'V' Ring
3. Clip
4. Screw
5. Slider Enclosure Top Plate
6. Screw
7. Slider Enclosure
8. R.H. Slider Enclosure End Plate
9. Screw
10. L.H. Slider Enclosure End Plate
11. Enclosure Front Plate
12. R.H. Slider Enclosure Seal
13. L.H. Slider Enclosure Seal
14. Upper Slider Liner
15. Screw
16. Lower Slider Liner
17. Slider
18. Spherical Bearing
19. Bearing Keeper
20. Screw
21. Slider Enclosure Base
22. Screw
23. Slide (ref)

HPS-150 & 250 CYLINDER ASSEMBLY

NOTE: HPS-150 SERIAL NOS. P-53364
AND LOWER, USE PARTS LIST
ON PGS. 44 AND 45.

1. Cylinder Body
2. Cylinder Assembly Cover*
3. Screw*
4. 'O' Ring**
5. 'O' Ring
6. Piston Bearing
7. Piston Seal
8. Piston
9. Lower Cylinder Cap
10. Washer
11. Screw
12. Rod Bearing
13. Rod Seal

*For cylinder assembly only. Parts to be stored on inside
of frame wall after final assembly

**Installed at final assembly (slide into frame).