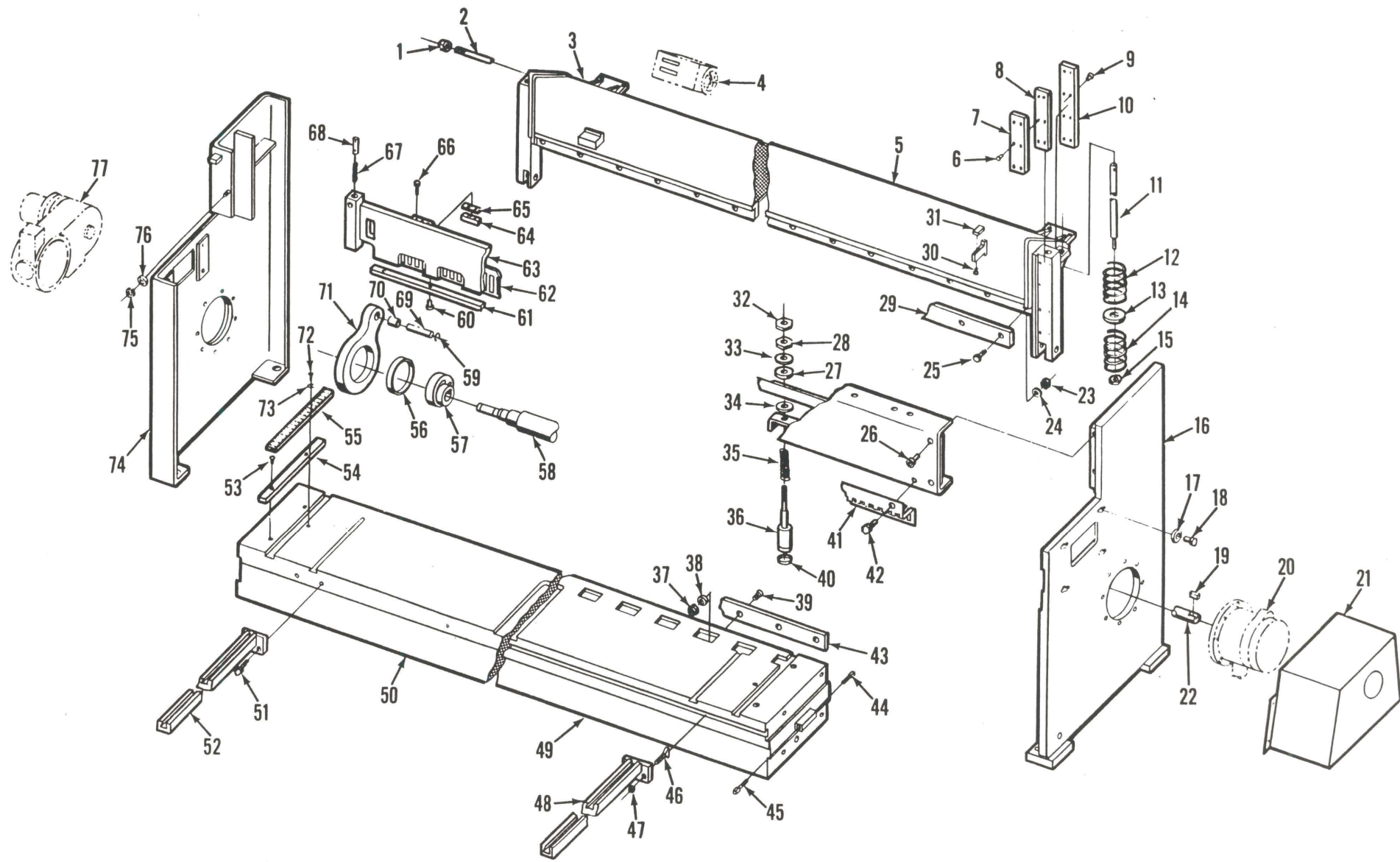


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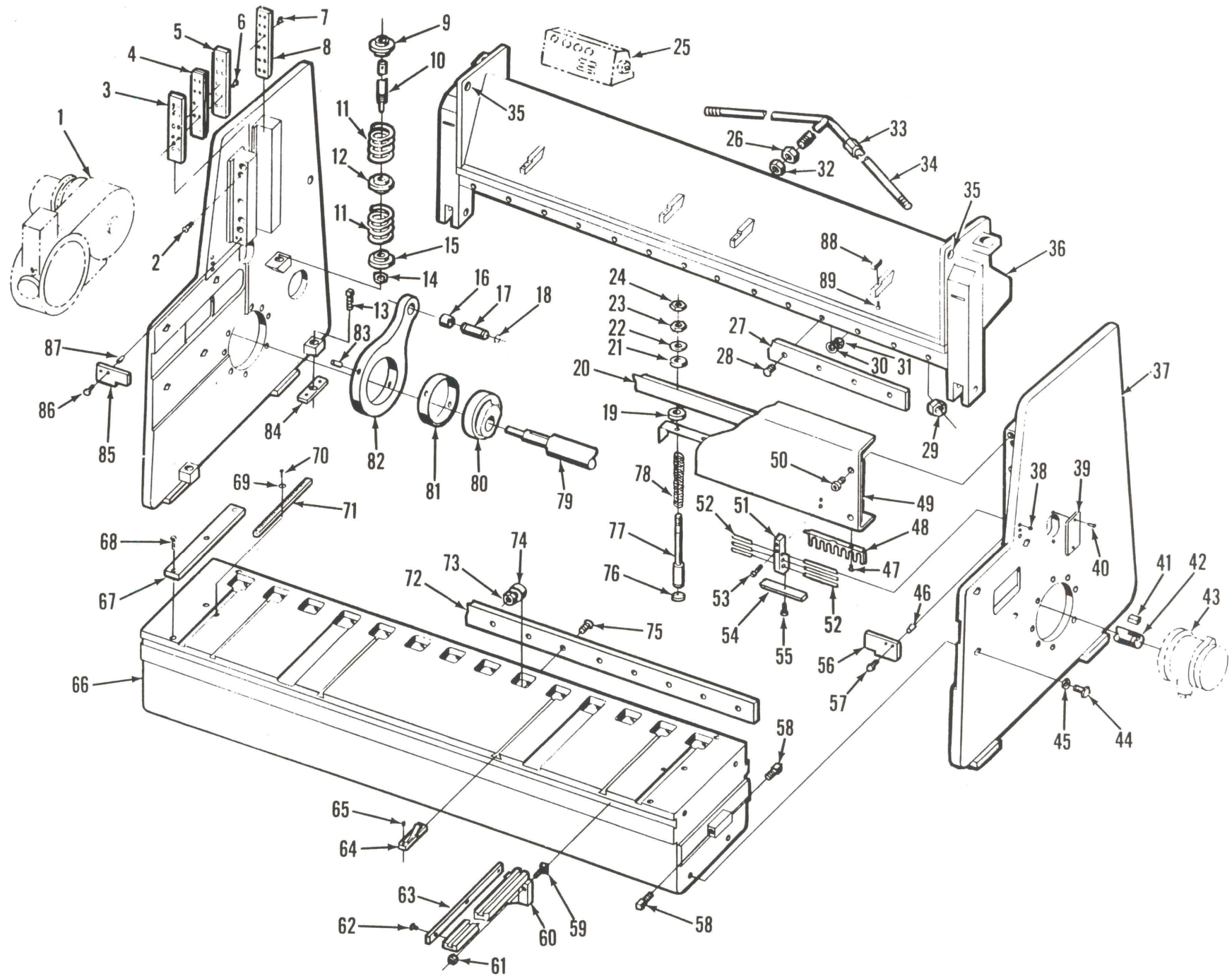


## PARTS LIST

SINCE THE REFERENCE OR CALL OUT NUMBERS ON THE FOLLOWING PARTS LIST ARE DUPLICATED ON OTHER PARTS LISTS, SPECIFY PART REQUIRED BY GIVING REFERENCE NUMBER AND FULL NAME FOLLOWED BY FORM AND PAGE NUMBER.

### HOUSING, BED, RAM (Models 12 thru 112 & 1N)

1. Brace Rod Nut
2. Brace Rod
3. Ram (12 thru 16)
4. Back Gage Control (see Separate Parts List)
5. Ram (18-110-112-1N)
6. Pan Head Screw
7. Front Gib
8. Gib Shims
9. Pan Head Screw
10. Rear Gib
11. Counterbalance Spring Rod
12. Counterbalance Spring
13. Counterbalance Spring Spacer
14. Counterbalance Spring
15. Jam Nut
16. Housing (18-110-112-1N)
17. Washer
18. Bed Mounting Screw
19. Key
20. Detent Brake (See Separate Parts List)
21. Brake Guard (18-110-112-1N)
22. Eccentric Shaft
23. Nut
24. Washer
25. Reverse Key Plow Bolt
26. Socket Head Capscrew
27. Upper Holddown Foot Washer
28. Hex Nut
29. Upper Knife
30. Socket Head Screw
31. Holddown Lift Block
32. Hex Jam Nut
33. Holddown Foot Nut Washer
34. Backing Washer
35. Spring
36. Holddown Foot (18-110-112-1N)
37. Lower Knife Nut
38. Lower Knife Washer
39. Lower Knife Plow Bolt
40. Holddown Foot Cap
41. Knifeguard
42. Bolt
43. Lower Knife
44. Bed Adjusting Bolt
45. Bed Adjusting Bolt
46. V-Head Bolt (15-16-18-110-112-1N)
47. Nut (15-16-18-110-112-1N)
48. Front Bracket (15-16-18-110-112-1N)
49. Bed (15-16-18-110-112-1N)
50. Bed (12-13-14)
51. Bolt (12-13-14)
52. Front Bracket (12-13-14)
53. Screw
54. Side Gage
55. Scale
56. Eccentric Connection Bushing (18-110-112-1N)
57. Eccentric
58. Eccentric Shaft
59. Retaining Ring
60. Screw
61. Holddown Bar (12 thru 16)
62. Guard
63. Holddown (12 thru 16)
64. Holddown Lift Block (12 thru 16)
65. Shims
66. Socket Head Screw
67. Spring
68. Holddown Spring Pin
69. Ram Wrist Pin
70. Bushing (18-110-112-1N)
71. Ram Eccentric Connection
72. Screw
73. Clamp Washer
74. Housing (12 thru 16)
75. Holddown Clamping Nut
76. Holddown Clamping Washer
77. Gearbox Assembly (See Separate Parts List)

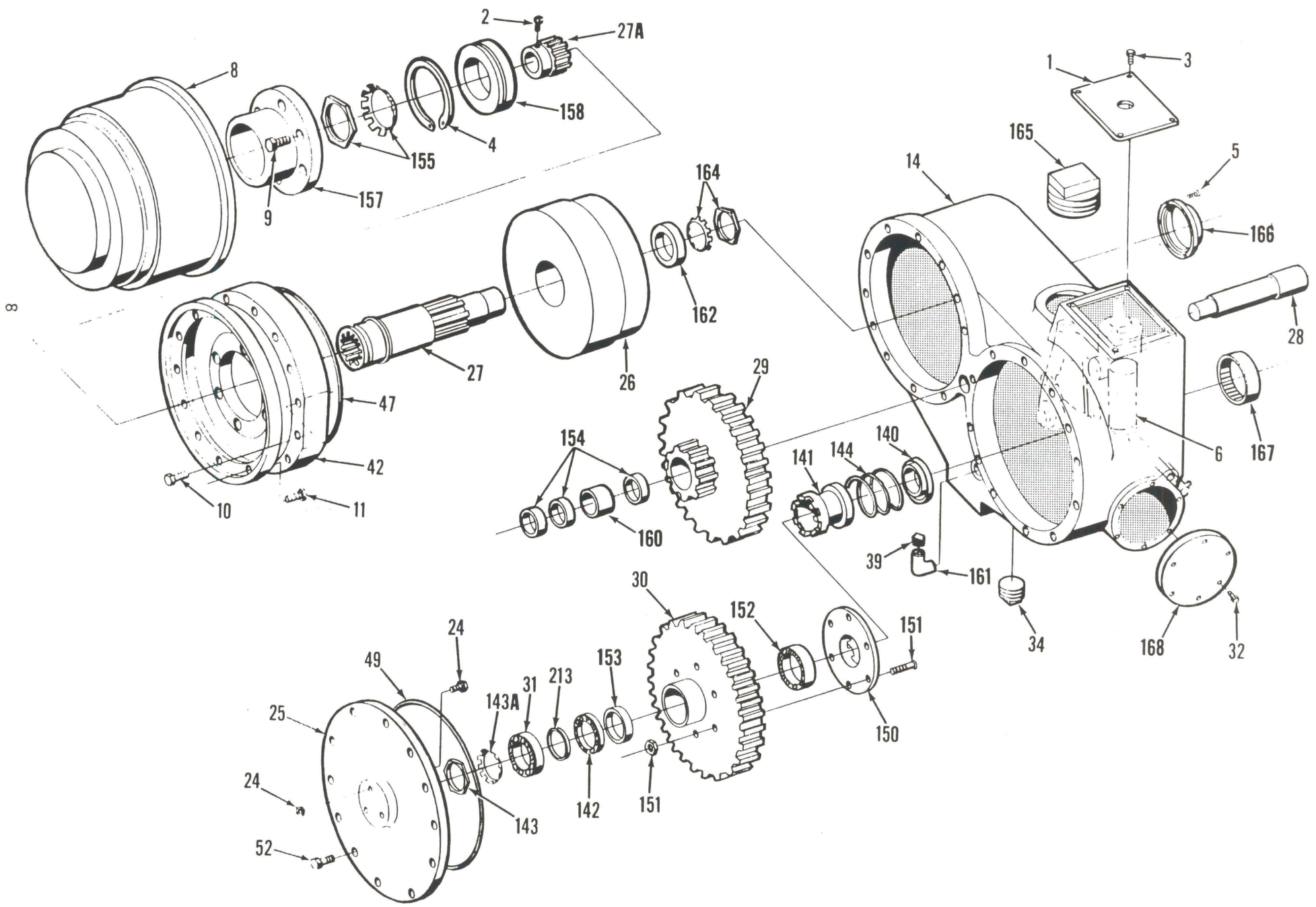




1. Gearbox Assembly (See Separate Parts List)
2. Socket Head Capscrew
3. Front Gib Backing
4. Gib Shims
5. Front Gib
6. Pan Head Screw
7. Pan Head Screw
8. Rear Gib
9. Upper Counterbalance Spring Washer
19. Counterbalance Spring Rod
11. Counterbalance Spring
12. Center Counter balance Spring Washer
13. Screw
14. Jam Nut
15. Lower Counterbalance Washer
16. Bushing
17. Ram Wrist Pin
18. Retaining Ring
19. Backing Washer
20. Foot Lift Angle
21. Upper Holddown Foot Washer
22. Holddown Foot Nut Washer
23. Hex Nut
24. Hex Jam Nut
25. Back Gage Control (See Separate Parts List)
26. Jam Nut
27. 4 Cutting Edge Knife
28. Reverse Key Plow Bolt
29. Brace Rod Nut
30. Washer
31. Nut
32. Adjusting Nut
33. Turnbuckle
34. Brace Rod
35. Lifting Hole
36. Ram
37. R.H. Housing
38. Socket Head Set Screw
39. Hole Cover
40. Screw
41. Key
42. Eccentric Shaft
43. Detent and Brake Assembly (See Separate Parts List)
44. Bolt

45. Washer
46. Spacer
47. Screw
48. Knifeguard
49. Holddown
50. Socket Head Capscrew
51. Rod Holder
52. Rods
53. Socket Head Screw
54. Guard Bar
55. Socket Head Screw
56. Right End Guard
57. Hex Head Screw
58. Bed Adjusting Bolt
59. V-Head Bolt
60. Front Bracket
61. Nut
62. Screw
63. Front Bracket Scale
64. Disappearing Stop
65. Screw
66. Bed
67. Side Gage
68. Screw
69. Clamp Washer
70. Screw
71. Scale
72. 4 Cutting Edge Knife
73. Nut
74. Washer
75. Reverse Key Plow Bolt
76. Holddown Foot Cap
77. Holddown Foot
78. Spring
79. Eccentric Shaft
80. Eccentric
81. Eccentric Connection Bushing
82. Ram Eccentric Connection
83. Brass Dowel
84. Holding Plate
85. Left End Guard
86. Hex Head Screw
87. Spacer
88. Holddown Lift Block
89. Socket Head Screw

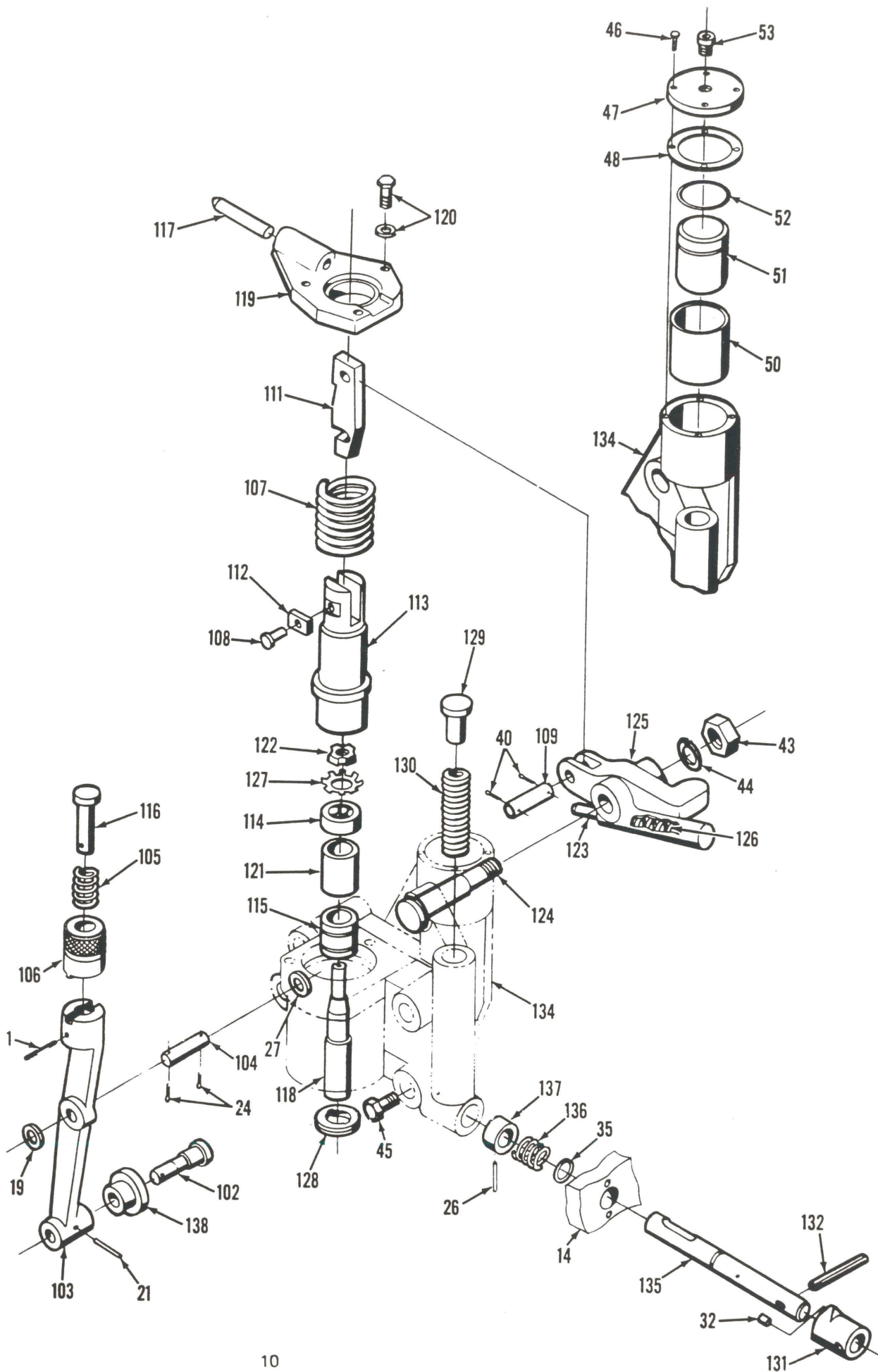
**HOUSING, BED, RAM**  
**(Models 1R)**



1. Cover
2. Set Screw
3. Hex Head Screw
4. Retaining Ring
5. Hex Head Screw
6. Latch Bracket Assembly (See Separate Parts List)
8. Motor
9. Hex Head Screw
10. Hex Head Screw
11. Hex Head Screw
14. Gear Box
24. Cover Bolts & Nuts (only 1 on Series I and IN)
25. Gear Box Cover
26. Flywheel
27. Drive Shaft
- 27A Splined Motor Coupling
28. Intermediate Shaft
29. Intermediate Gear and Pinion Cluster
30. Clutch Gear
31. Cover Bearing
32. Hex Head Screw
34. Pipe Plug
39. Pipe Plug
42. Motor Adapter Flange
47. O Ring
49. O Ring

52. Hex Head Screw
140. Single Stroke Cam
141. Clutch Sleeve
142. Outer Clutch Gear Bearings
143. Locknut
- 143A Lockwasher
144. Clutch Sleeve Spring
150. Clutch Wheel Face
151. Clutch Face Bolt & Nut
152. Inner Clutch Gear Bearing
153. Clutch Gear Bearing Spacer
154. Intermediate Shaft Bearings
155. Locknut & Washer
157. Oil Catcher & Bearing Retainer
158. Pinion Shaft Flywheel Bearing
160. Intermediate Shaft Bearing Spacer
161. Oil Level Elbow
162. Pinion Shaft Bearing
164. Locknut & Washer
165. Single Stroke Cam Cover
166. Pinion Shaft Bearing Cover
167. Eccentric Shaft Bearing
168. Inspection Cover
213. Spacer

GEAR BOX ASSEMBLY

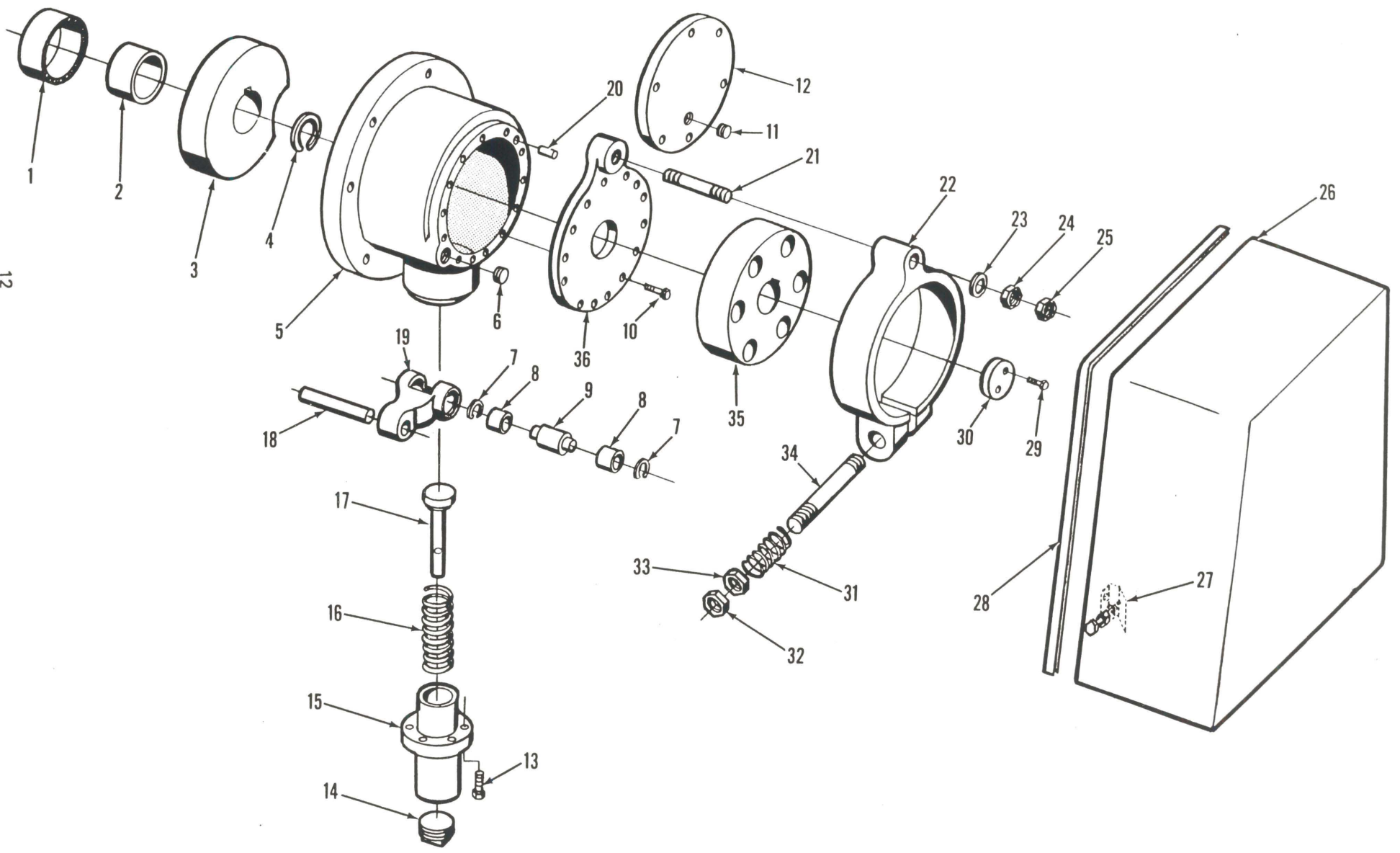




## LATCH BRACKET ASSEMBLY

1. Roll Pin
14. Gear Box Housing
19. Washer
21. Roll Pin
24. Cotter Pins
26. Taper Pin
27. Washer
32. Pin
35. O-ring
40. Cotter Pins
43. Nut
44. Lockwasher
45. Hex Head Capscrew
46. Cover Mounting Screw
47. Cylinder Cover
48. Cylinder Gasket
50. Bushing
51. Piston
52. O-ring
53. Air Fitting
102. Cam Roller Shaft
103. Cam Lever
104. Cam Lever Pin
105. Selector Knob Spring
106. Single Stroke Selector Knob
107. Throwout Spring
108. Throwout Pin
109. Latch Hinge Pin
111. Latch
112. Throwout Key
113. Throwout
114. Throwout Ball Bearing
115. Throwout Needle Bearing
116. Selector Knob Pin
117. Sliding Pin
118. Throwout Shaft
119. Throwout Housing End Cover
120. End Cover Bolt and Washer
121. Spacing Collar
122. Throwout Shaft Locknut
123. Latch Spring Pin
124. Bell Crank Pin
125. Bell Crank
126. Latch Spring
127. Lock Washer
128. Throwout Shaft Collar
129. Treadle Spring Plunger
130. Treadle Spring
131. Locking Bar Indicator
132. Locking Bar Handle
134. Throwout Housing
135. Locking Bar
136. Locking Bar Spring
137. Locking Bar Collar
138. Cam Roller





### Detent Parts

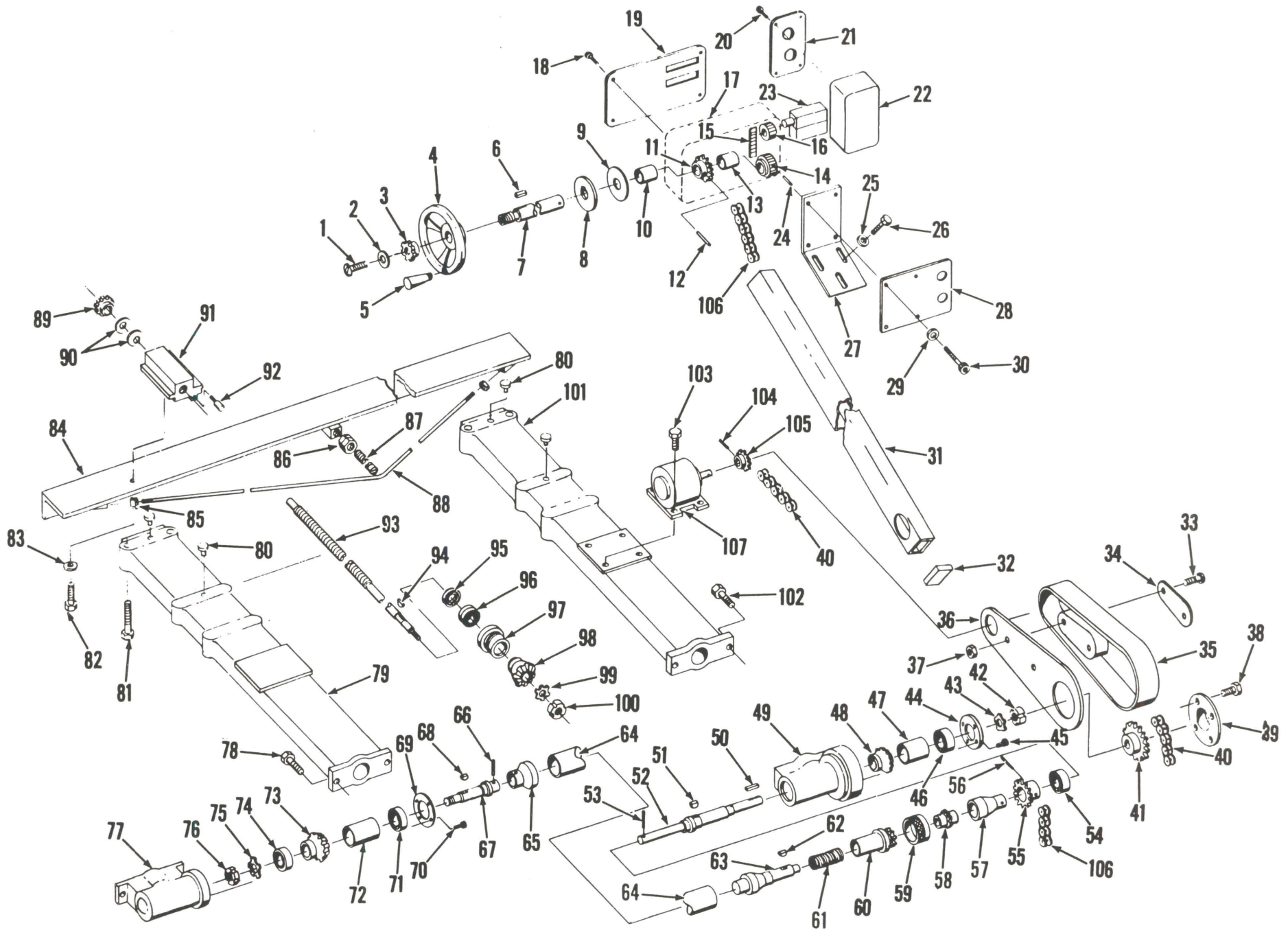
1. Bearing
2. Spacer
3. Detent Cam
4. Retaining Ring
5. Cam Housing
6. Pipe Plug
7. Retaining Ring
8. Bearing
9. Cam Roller
10. Hex Head Screw
11. Pipe Plug
12. Cover Plate
13. Hex Head Screw
14. Plug
15. Spring Pot
16. Spring
17. Spring Plunger
18. Lever Pin
19. Cam Lever

### Brake Parts

#### Models 18-110-112-1R Series

20. Dowel Pin
21. Stud
22. Brake Strap
23. Washer
24. Hex Nut
25. Hex Jam Nut
26. Brake Guard
27. Brake Guard Latch
28. Moulding
29. Hex Head Screw
30. Washer
31. Spring
32. Hex Jam Nut
33. Hex Nut
34. Stud
35. Brake Collar
36. Cover and Brake Support

DETENT AND BRAKE ASSEMBLY



1. Round Head Capscrew
2. Washer
3. Locknut
4. Handwheel
6. Key
7. Shaft
8. Friction Plate
9. Rubber Washer
10. Bushing
11. Sprocket
12. Roll Pin
13. Bushing
14. Pulley
15. Timing Belt
16. Pulley
17. Indicator Case
18. Buttonhead Screw
19. Indicator Case Cover
23. Dual Position Indicator
24. Roll Pin
25. Washer
26. Mounting Bolt
27. Indicator Case Mounting Bracket
31. Chain Guard
32. Cap
42. Locknut
43. Lockwasher
44. Ring
45. Capscrew
46. Bearing
47. Spacer
48. Bevel Gear
49. L. H. Gear Case
51. Woodruff Key
52. Shaft
53. Roll Pin
54. Bearing
55. Sprocket
56. Roll Pin
57. Sprocket Sleeve
58. Coupling Gear
59. Indicator Ring
60. Coupling Sleeve

61. Spring
62. Woodruff Key
63. Trunnion\*
64. Connecting Shaft\*
65. Trunnion\*
66. Roll Pin
67. Shaft
68. Woodruff Key
69. Ring
70. Capscrew
71. Bearing
72. Spacer
73. Bevel Gear
74. Bearing
75. Lockwasher
76. Locknut
77. R. H. Gear Case
78. Mounting Bolt
79. R. H. Bracket
80. Dowel
81. Mounting Bolt
82. Gage Mounting Bolt
83. Washer
84. Backgage Bar
85. Brace Rod Nut
86. Jam Nuts
87. Brace Rod Bolt
88. Brace Rod
89. Slide Nut
90. Bellville Washer
91. Slide
92. Stop Pin
93. Adjusting Screw
94. Woodruff Key
95. Nut
96. Bearing
97. Retainer Bushing
98. Bevel Gear
99. Lockwasher
100. Locknut
101. L. H. Bracket
102. Mounting Bolt
106. Chain

#### POWER OPERATED ONLY

20. Button Head Screw
21. Cover
22. Control Case
28. Bracket
29. Washer
30. Capscrew
33. Mounting Screw
34. Plate
35. Motor Chain Guard
36. Mounting Plate
37. Nut
40. Chain
41. Sprocket
50. Key
103. Motor Mounting Bolt
104. Roll Pin
105. Sprocket
107. Motor

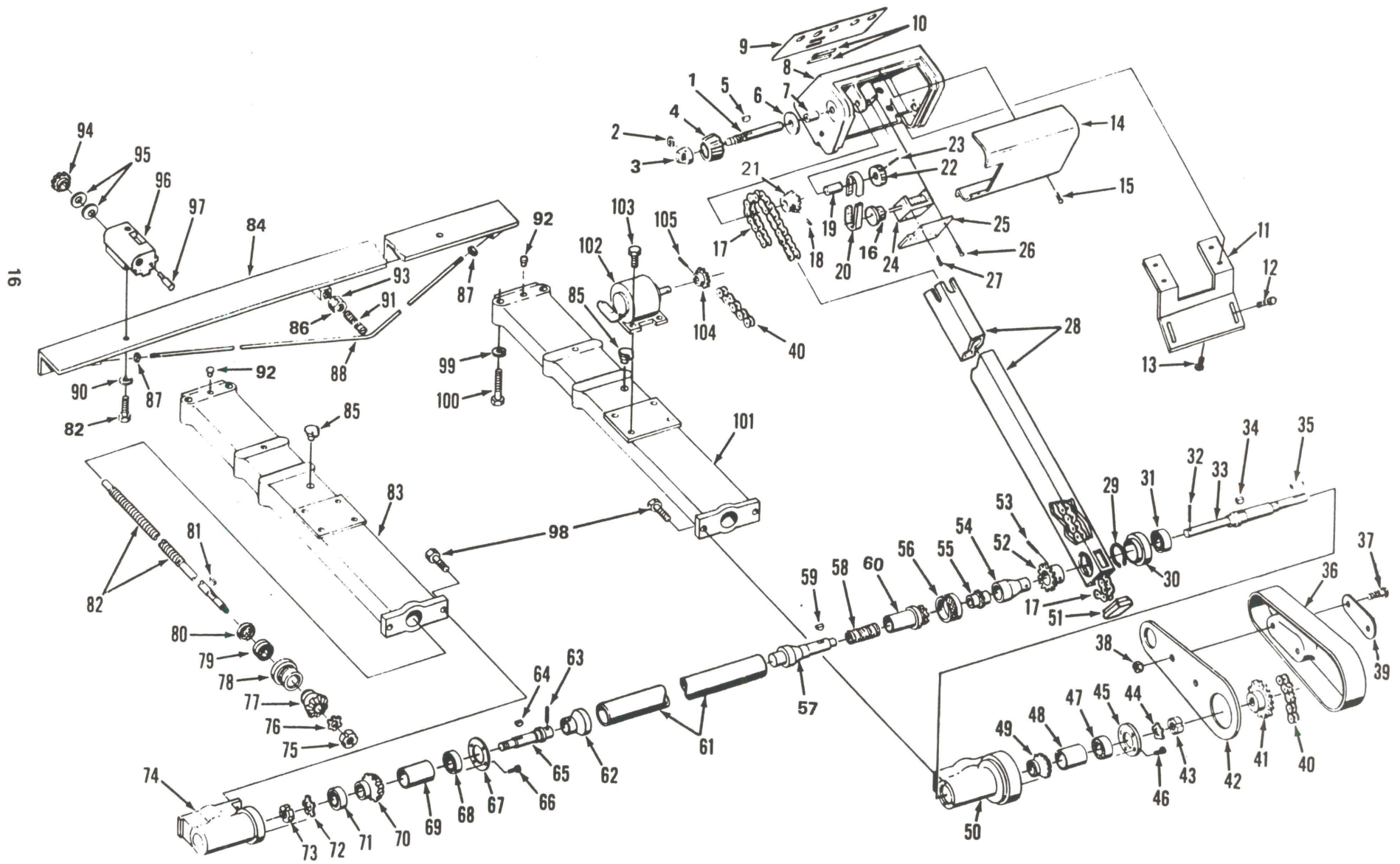
#### MANUALLY OPERATED ONLY

5. Handle
38. Mounting Bolt
39. Gear Case Cover

\*One Unit

BACK GAGE  
(Models 12 thru 112 & 1N)





1. Shaft
2. Retaining Ring
3. Locknut
4. Adjusting Knob (Handwheel)
5. Woodruff Key
6. Rubber Washer
7. Bushing
8. Indicator Housing
9. Housing Front Cover
10. Magnifier
11. Indicator Bracket
12. Indicator Bracket Screw
13. Screw
14. Housing Back Cover
15. Button Head Screw
16. Pulley
17. Chain
18. Roll Pin
19. Bushing
20. Timing Belt
21. Sprocket
22. Pulley
23. Roll Pin
24. Indicator
25. Indicator Mounting Plate
26. Button Head Screw
27. Button Head Screw
28. Chain Guard
29. Retaining Ring
30. Adapter
31. Bearing
32. Roll Pin
33. Shaft
34. Woodruff Key
35. Key
36. Motor Chain Guard

37. Screw
38. Nut
39. Plate
40. Chain
41. Sprocket
42. Guard Mounting Plate
43. Locknut
44. Lockwasher
45. Ring
46. Capscrew
47. Bearing
48. Spacer
49. Bevel Gear
50. L.H. Gear Case
51. Cap
52. Sprocket
53. Roll Pin
54. Sprocket Sleeve
55. Coupling Gear
56. Indicator Ring
57. Trunnion\*
58. Spring
59. Woodruff Key
60. Coupling Sleeve
61. Connecting Shaft\*
62. Trunnion\*
63. Roll Pin
64. Woodruff Key
65. Shaft
66. Screw
67. Ring
68. Bearing
69. Spacer
70. Bevel Gear
71. Bearing
72. Lockwasher

73. Locknut
74. R.H. Gear Case
75. Locknut
76. Lockwasher
77. Bevel Gear
78. Retainer Bushing
79. Bearing
80. Nut
81. Woodruff Key
82. Slide Mounting Bolts
83. R.H. Bracket
84. Backgage Bar
85. Oil Cup
86. Jam Nuts
87. Brace Rod Nut
88. Brace Rod
89. Slide Mounting Bolt
90. Lockwasher
91. Brace Rod Bolt
92. Dowels
93. Adjusting Nut
94. Slide Nut
95. Bellville Washer
96. Slide
97. Stop Pin
98. Mounting Bolts
99. Lockwasher
100. Bracket Mounting Bolt
101. L.H. Bracket
102. Motor
103. Motor Mounting Bolt
104. Sprocket
105. Roll Pin

\*One Unit

BACK GAGE  
 (Models 1R only)