

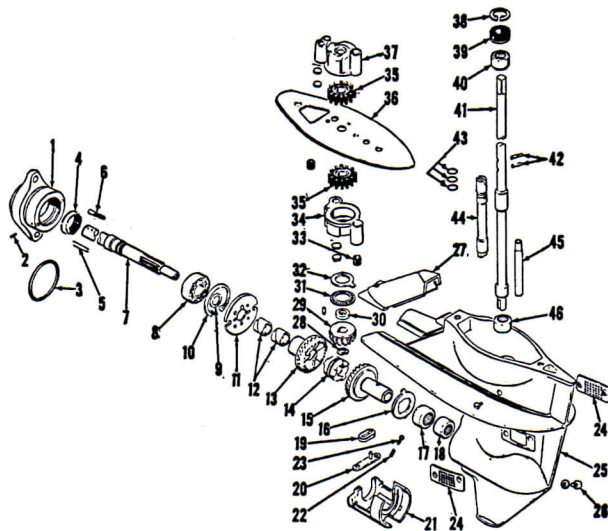
Fig. Mc4-34—Exploded view of gear case and associated parts used on McCulloch 7.5 and McCulloch 9 motors with Standard Drive.

1. Bearing cap
2. Lock pin
3. "O" ring
4. Shaft seal
5. Guide pin
6. Detent pin
7. Propeller shaft
8. Shaft bearing
9. Snap ring
10. Snap ring
11. Thrust bearing
12. Gear bearing
13. Reverse gear
14. Clutch dog
15. Forward gear
16. Thrust bearing
17. Needle bearing
18. Needle bearing
19. Shift cam
20. Shift link
21. Shift fork
22. Detent spring
23. Detent
24. Inlet screen
25. Gear case
26. Drain plug
27. Exhaust cover
28. Snap ring
29. Drive pinion
30. Spacer
31. Thrust bearing

32. Thrust race
33. Inlet seal
34. Housing
35. Impeller
36. Anti-cavitation plate

37. Housing
38. Snap ring
39. Shaft seal
40. Needle bearing
41. Drive shaft

42. Drive pins
43. Seal rings
44. Shift pin
45. Inlet line
46. Needle bearing



cap slightly to break the seal; then withdraw bearing cap, propeller shaft (7), reverse gear (13), clutch dog (14), shift fork (21) and associated parts as a unit from gearcase.

Unseat and remove snap ring (28), then withdraw drive shaft (41), pinion gear (29), bearing (31) and associated parts. Withdraw forward gear (15) and thrust washer (16). Remove snap ring (38) and seal (39). Needle bearings (40 & 46) can be driven downward out of shaft bore if renewal is required; and bearings (17 & 18) removed with an expanding type puller and slide hammer. Use a puller bolt and large flat washer and install bearing (46) from bottom of bore until lower edge is flush with thrust face of housing. Install bearing (40) from top of bore until upper edge is approximately 3/64-inch below seal counterbore. Bearing (18) should be lightly bottomed in housing bore; then bearing (17) installed with

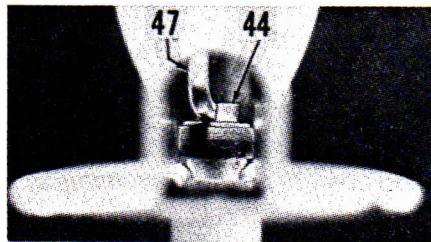
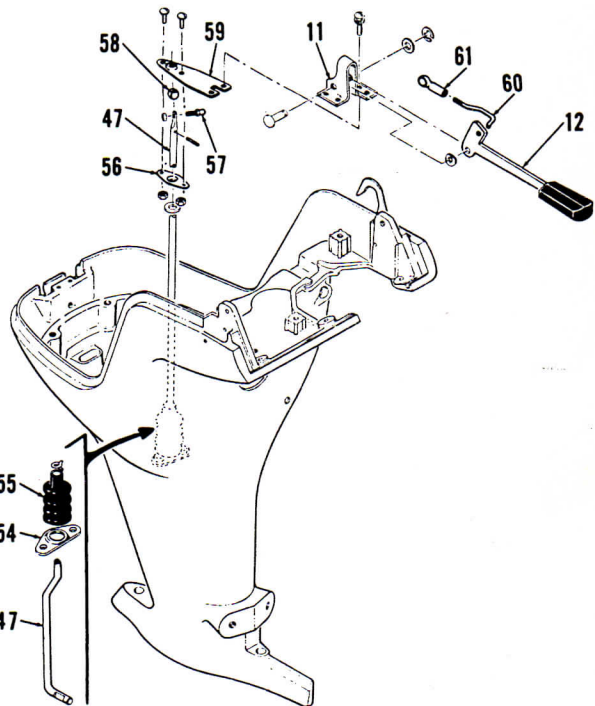


Fig. Mc4-35—When installing gear case, make certain that shift rod (47) engages slot in shift pin (44). Connection can be seen through exhaust outlet in lower unit.

Fig. Mc4-37 - View of shift linkage for McCulloch 9.

11. Bracket
12. Shift lever
47. Shift rod
54. Retainer
55. Boot
56. Retainer
57. Ball stud
58. Ball half
59. Bracket
60. Link rod
61. Ball socket



9. Upper shift rod
10. Shift yoke
11. Bracket
12. Shift lever
47. Lower shift rod
48. Lever
49. Link
50. Bellcrank
51. Spacer
52. Bearing

edge of bearing flush with thrust surface of housing.

To disassemble the propeller shaft and associated parts, first note the installed position of shift cam (19) and shift link (20) and withdraw the parts. Pull shift fork (21) and clutch dog (14) forward off of bearing cap and shaft, being careful not to lose detent (23) and spring (22) as shift fork is withdrawn from detent pin (6). Withdraw reverse gear (13) and thrust washer (11); unseat the large snap ring (10), and press shaft and bearing (8) forward out of housing (1). Remove the small snap ring (9) and press bearing from shaft

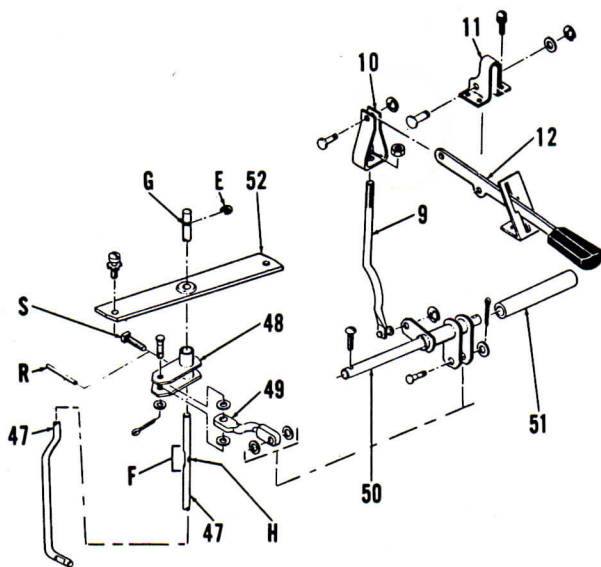


Fig. Mc4-36—View of shift linkage for McCulloch 7.5 with Standard Drive. Early (1963) motors use set screw (S) and flat (F) on side of rod (47). Later (1964) motors use roll pin (R) through hole (H) in shaft and snap ring (E) in groove (G) at top.