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Service Manual

765

Backhoe

Service Manual

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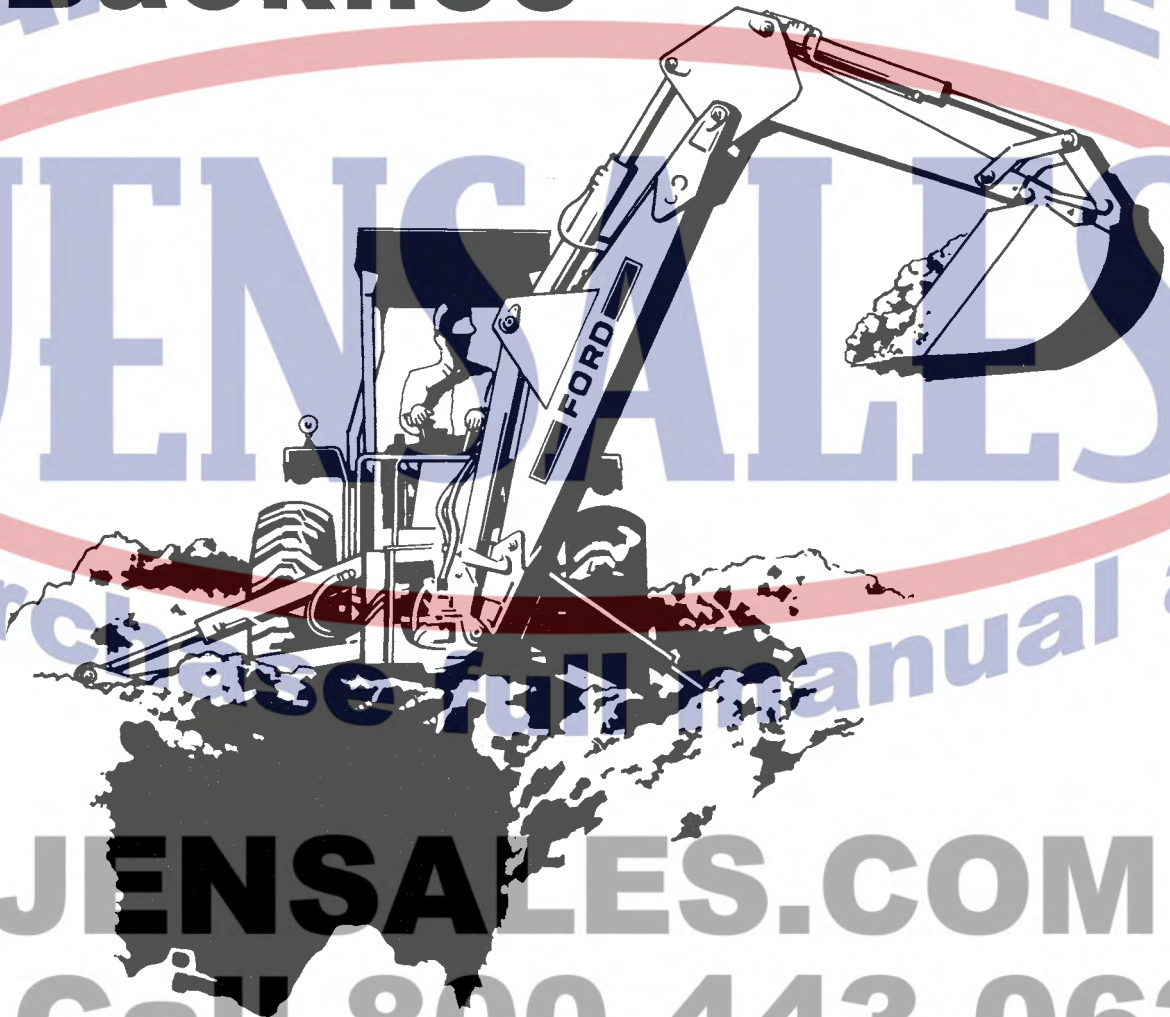
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Series 765 Backhoe



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DESCRIPTION AND OPERATION

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Figure 1
Backhoe Components

- | | | | |
|--------------------------|--------------------|--|-------------------------|
| 1. Crowd Cylinder | 5. Bucket Cylinder | 10. Bucket | 13. Boom Transport Lock |
| 2. Controls — Four Lever | 6. Boom | 11. Stabilizer and Stabilizer Cylinder | |
| 3. Lift Cylinder | 7. Swing Post | 12. Stabilizer Pad — Standard | |
| 4. Dipstick | 8. Swing Cylinder | | |
| | 9. Main Frame | | |

DESCRIPTION AND OPERATION



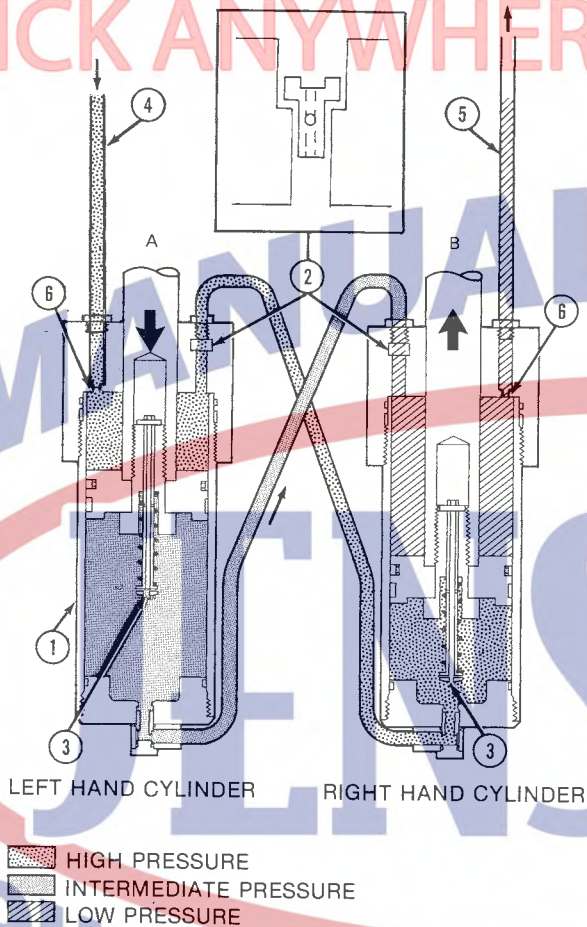
Figure 2

Cylinder Gland and Piston Types

- | | | | |
|--------------------|-----------------------|-----------------------------|---------------------------|
| 1. Wire Type Gland | 7. O-Ring Seal | 13. Inner Soft Back-up Seal | 16. Piston Retaining Bolt |
| 2. Wiper Seal | 8. Screw Type Gland | 14. Outer Stiff Piston Seal | 17. Wear/Bearing Ring |
| 3. Gland Seal | 9. Bearing | 15. Piston | 18. Back-up Ring |
| 4. Locking Wire | 10. Wiper Seal | | 19. Washer |
| 5. O-Ring Seal | 11. Chevron Pack Seal | | |
| 6. Back-up Ring | 12. Snap Ring | | |

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DESCRIPTION AND OPERATION



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Figure 6

Swing Cylinder Oil Flow - Left Swing

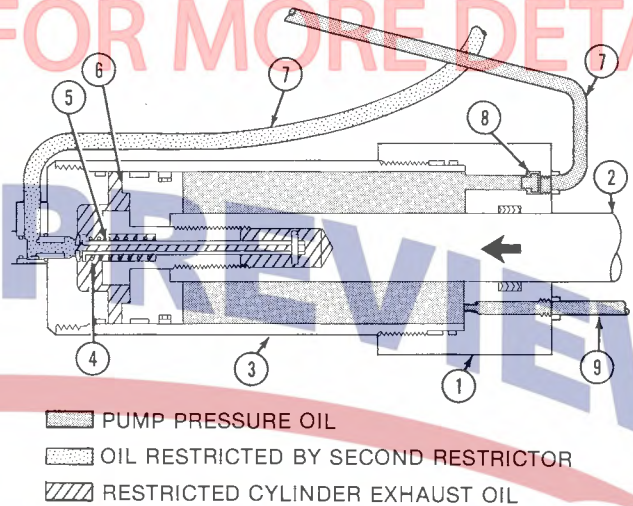
- | | |
|--|---|
| 1. Cylinder Assembly | 5. Exhaust Oil Return Line to Control Valve |
| 2. Line Restrictor | 6. Orifice |
| 3. Sliding Restrictor | |
| 4. High Pressure Line From Control Valve | |

The position of the sliding restrictor in the piston bolt is such that when subjected to oil flow in the reverse direction, as when extending the cylinder, the restrictor is lifted off its seat against the return spring and oil flows into the cylinder unrestricted. The restrictor has sufficient movement for its stem to move into the cylinder rod to fully open the oil passage.

MAIN CONTROL VALVE

GENERAL

The main control valve, Figure 8, is a stack type assembly consisting of six sections when a standard dipstick is used and seven sections when the extendi-

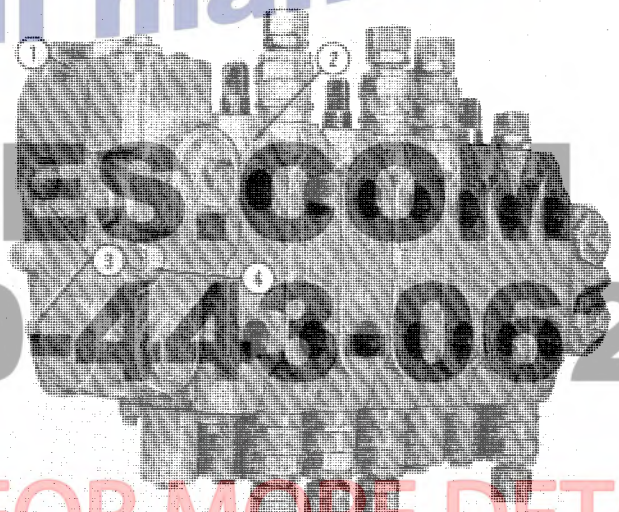


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Figure 7

Swing Cylinder Cushioning Operation

- | | |
|------------------------------|---|
| 1. Headstock Gland Carrier | 6. Piston |
| 2. Cylinder Rod | 7. External Tube to Opposite Swing Cylinder |
| 3. Cylinder Barrel | 8. Line Restrictor |
| 4. Spring - Slide Restrictor | 9. Tube to Main Control Valve |
| 5. Sliding Restrictor | |



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Figure 8

Control Valve Assembly

- | | |
|-----------------------|-----------------------|
| 1. Outlet End Cover | 3. Tie Rod - 7/16-20" |
| 2. Stabilizer Section | 4. Tie Rod - 1/2-20" |