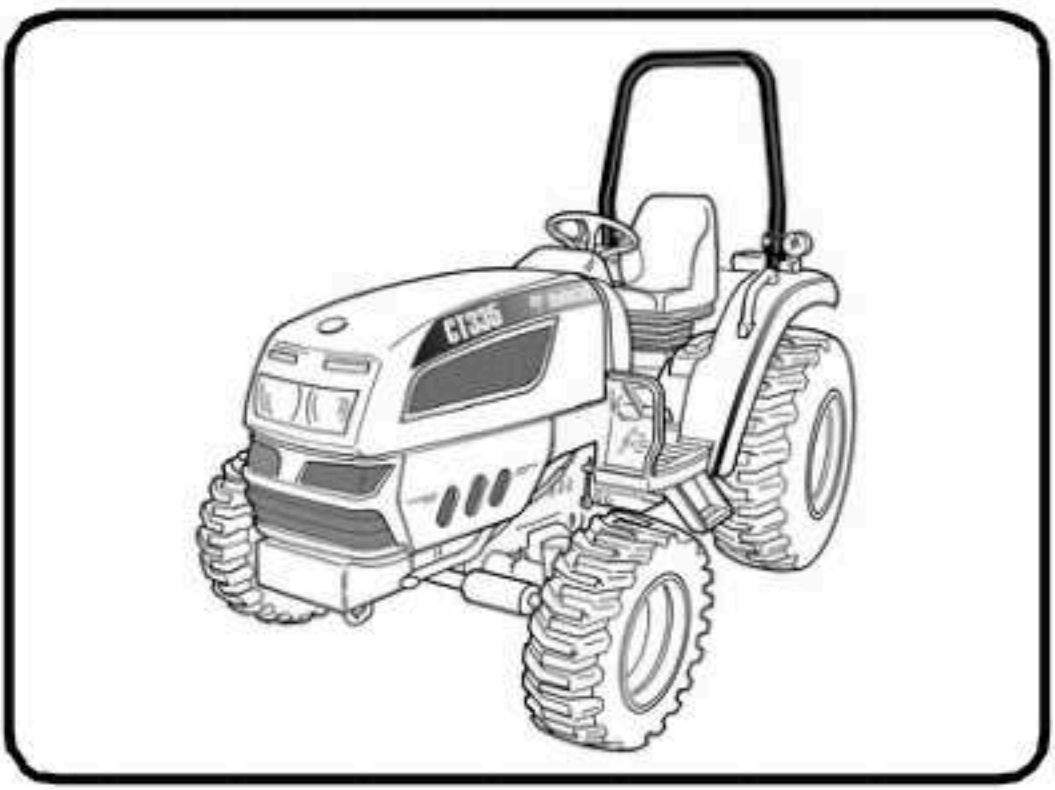
Bobcat®

# Service Manual

# CT335 Compact Tractor

## HST - S/N ABH811001 & Above
## SST - S/N AK9G11001 & Above



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### Troubleshooting The Hydraulic Circuit

| PROBLEM | CAUSE | CORRECTION |
|---|---|---|
| No hydraulic operation at one or more circuits | Hydraulic oil level low | Refill with correct oil |
| | Hydraulic pump drive coupling damaged | Replace |
| | Hydraulic pump defective | Repair or replace |
| | Main relief valve defective | Readjust or replace |
| Hydraulic power insufficient to one or more circuits | Main relief valve pressure setting incorrect | Readjust or replace |
| All hydraulic speed too slow | Hydraulic oil level or viscosity incorrect | Fill to correct level and use correct viscosity oil |
| | Engine RPM reduced | Readjust or replace |
| | Control valve linkage defective<br>Hydraulic pump volume low | Check, repair or replace<br>Check, repair or replace |
| Oil temperature too high | Oil cooler or radiator fins plugged | Clean oil cooler external surface |
| | Hydraulic oil level low | Fill to correct level |
| | Non recommended hydraulic oil | Replace |
| | Relief valve excessively activated | Use proper operating procedures |
| | One or more relief valves not set correctly | Readjust or replace |
| | Extreme operating conditions. High ambient temperature (i.e.: Enclosed structure) | |
| | Engine accessory drive belt loose | Tighten belt |

### Troubleshooting The Joystick Valve Circuit

| PROBLEM | CAUSE | CORRECTION |
|---|---|---|
| External leakage control kit or opposite side | Worn spool seal due to mechanical actuation or high back pressure | Locate the leakage and replace the seal.<br>Check back pressure level. |
| Excessive internal leakage on A and B ports | Increase clearance between spools and body due to high wear | Replace the direction control valve and check the oil contamination level |
| Dropping load during transition while raising | High leakage of the load check valve | Remove the load check valve and clean the seat |
| Inability to build pressure on A and B ports | Main pressure relief valve blocked open | Remove and clean or replace the main relief valve |
| | Low pump pressure and flow | Check the pump and circuit |



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## Cylinder Head

| Item | Factory Specification | Allowable Limit |
|---|---|---|
| Cylinder Head Surface Flatness | | 0.002 in. / 3.94 in.<br>(0,05 mm / 100 mm) |
| Top Clearance | 0.0294 - 0.0354 in.<br>(0,7 - 0,9 mm) | - |
| Thickness of gasket | When tightened<br>0.0465 - 0.0504 in.<br>(1,18 - 1,28 mm) | - |
| Compression Pressure<br>(When cranking with starting motor) | 3.24 - 3.73 MPa<br>33 - 38 kgf/cm$^2$<br>469 - 540 PSI | 2.55 MPa<br>26 kgf/cm$^2$<br>370 PSI |

* Variance of compression pressure among cylinders should be 10% or less.

## Valves

| Item | | Factory Specification | Allowable Limit |
|---|---|---|---|
| Valve Clearance (Cold) | IN.<br>EX. | 0.0059 in (0,15 mm)<br>0.0059 in. (0,15 mm) | ±0.002 (0,05 mm)<br>±0.002 (0,05 mm) |
| Valve Seat Angle | IN.<br>EX. | 0.785 rad. 45°<br>0.785 rad. 45° | - |
| Valve Face Angle | IN.<br>EX. | 0.785 rad. 45°<br>0.785 rad. 45° | - |
| Valve Recessing | | 0.0079 - 0.0197 in.<br>(0,2 - 0,5 mm) | 0.0315 in.<br>(0,8 mm) |
| Clearance Between Valve Stem and Valve Guide | | 0.0016 - 0.0028 in.<br>(0,040 - 0,070 mm) | 0.039 in.<br>(0,10 mm) |
| Valve Stem O.D. | | 0.31339 - 0.31398 in.<br>(7,960 - 7,975 mm) | - |
| Valve Stem I.D. | | 0.3156 - 0.3161 in.<br>(8,015 - 8,030 mm) | - |

## Valve Timing

| Item | | Factory Specification | Allowable Limit |
|---|---|---|---|
| Inlet Valve | Open<br>Close | 0.36 rad 21° before T.D.C<br>0.75 rad 43° after B.D.C | - |
| Exhaust valve | Open<br>Close | 0.959 rad 55° before B.D.C<br>0.19 rad 11° after T.D.C | - |



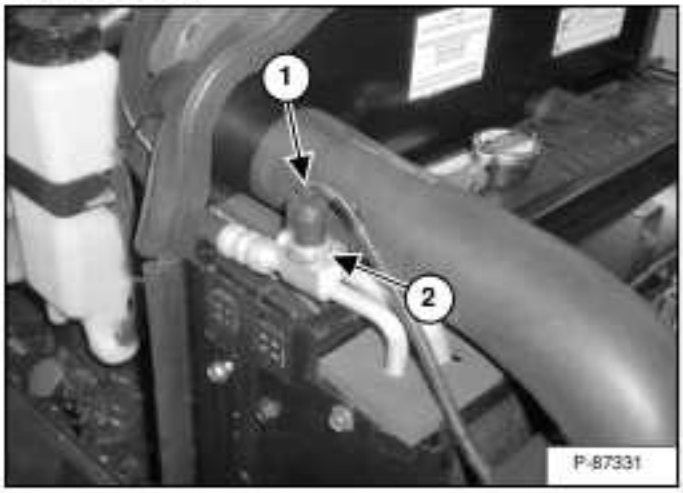
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## PRESSURE SWITCH

### Removal And Installation

Open the tailgate.

**Figure 80-180-1**




Disconnect the wire harness (Item 1) **[Figure 80-180-1]** from the pressure switch.

**NOTE: The pressure switch can be changed without evacuating the A/C system.**

**⚠ WARNING**

**In the event of a leak, wear safety goggles. Escaping refrigerant can cause severe injuries to eyes. In contact with a flame, R134a refrigerant gives a toxic gas.**

W-2371-0500

Remove the pressure switch (Item 2) **[Figure 80-180-1]** from the A/C high pressure hose.



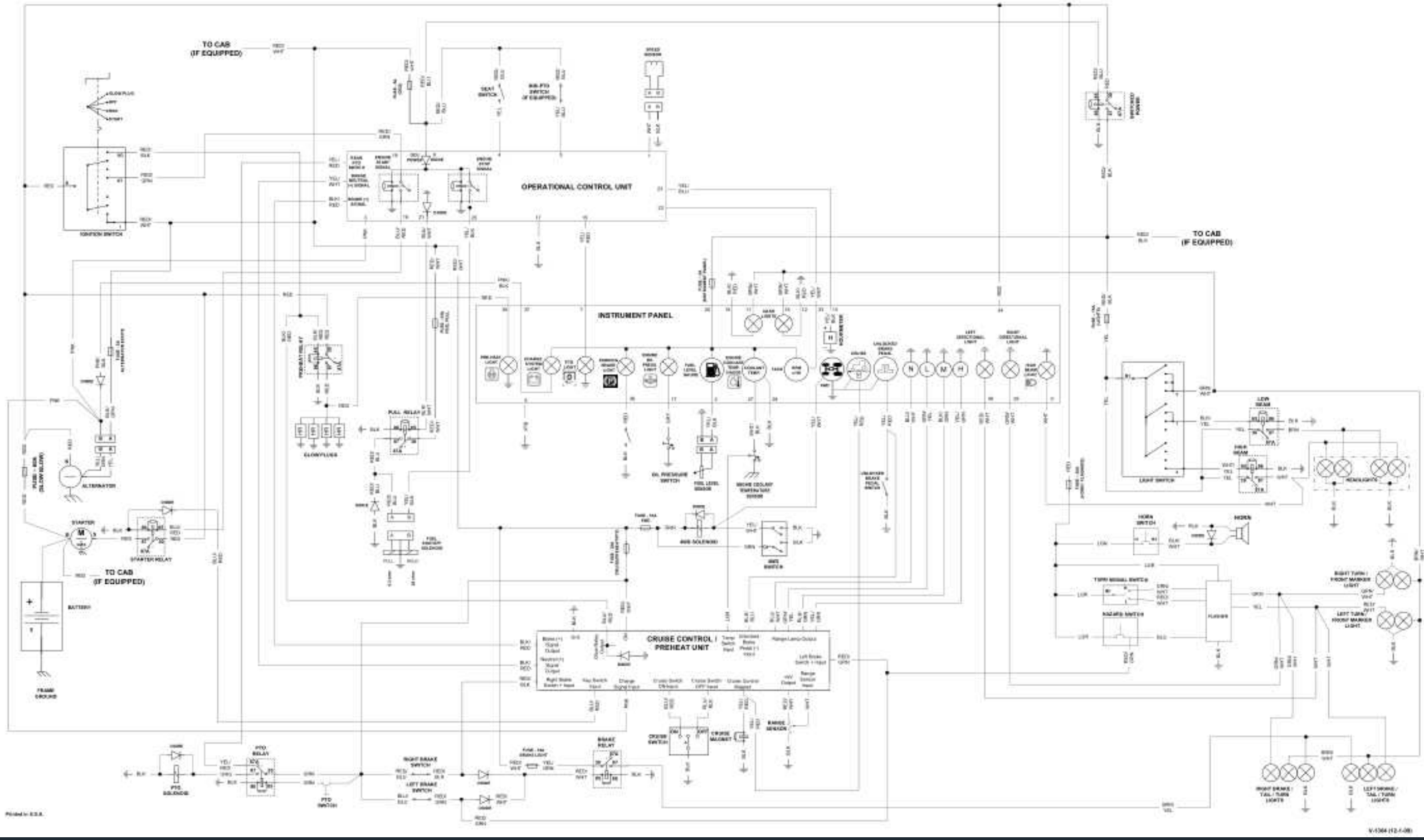
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# WIRING SCHEMATIC

CT335 (S/N ABH811001 AND ABOVE)

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V-1304

RED = RED
BLK = BLACK
BLU = BLUE
GRN = GREEN
YEL = YELLOW
PNK = PINK
WHT = WHITE
BRN = BROWN
GRY = GRAY
ORG = ORANGE






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