Service Manual

500 Series

From m/c No. 561001

This Service Manual covers the following Machines:-

505-19 - Serial Number 561001 - 579365
505-22 - Serial Number 561001 - 579365
508-40 - Serial Number 562601 - 579365
506-36 - Serial Number 563359 - 579999
510-40 - Serial Number 564542 - 579365
508-40, 508-40 - PlaceAce
505-19, 505-22 - Basic Servo Options
506-36, 508-40 - Servo Options
506B - Serial Number 570000 - 579766

Information covers two stage and three stage boom machines.

JCB INC. 10939 Philadphia Road, White Marsh, MD 21162-0209, USA (410) 335-2800
JCB EXCAVATORS Ltd. 3375, North Service Road, Unit 6, Burlington, Ontario L7N, CANADA (905) 335-3441

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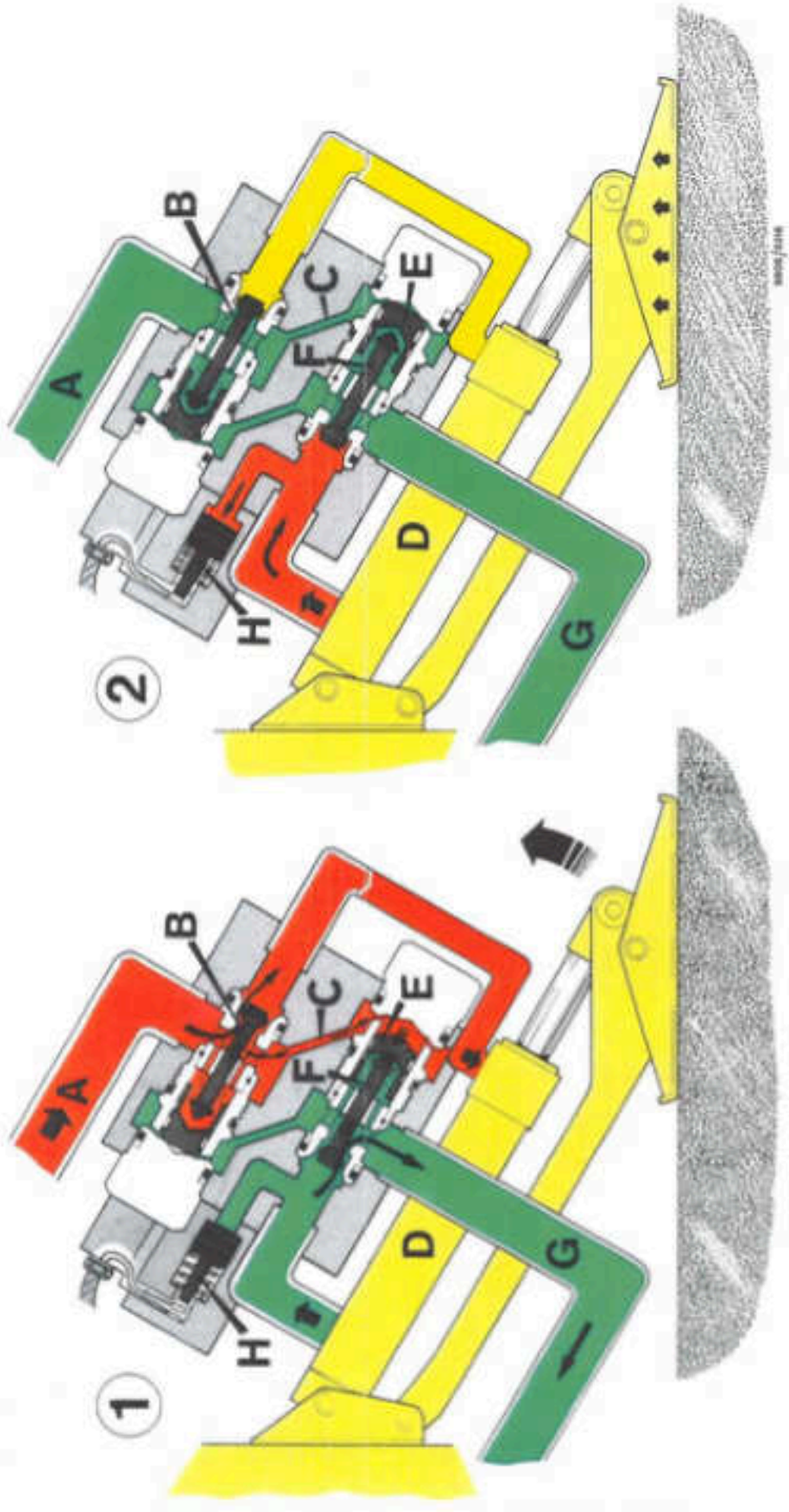
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A.R.V. OPERATION

The Auxiliary Relief Valves (A.R.V.'s) are situated in the control valve to limit potentially damaging pressures within specified services due to external loadings.

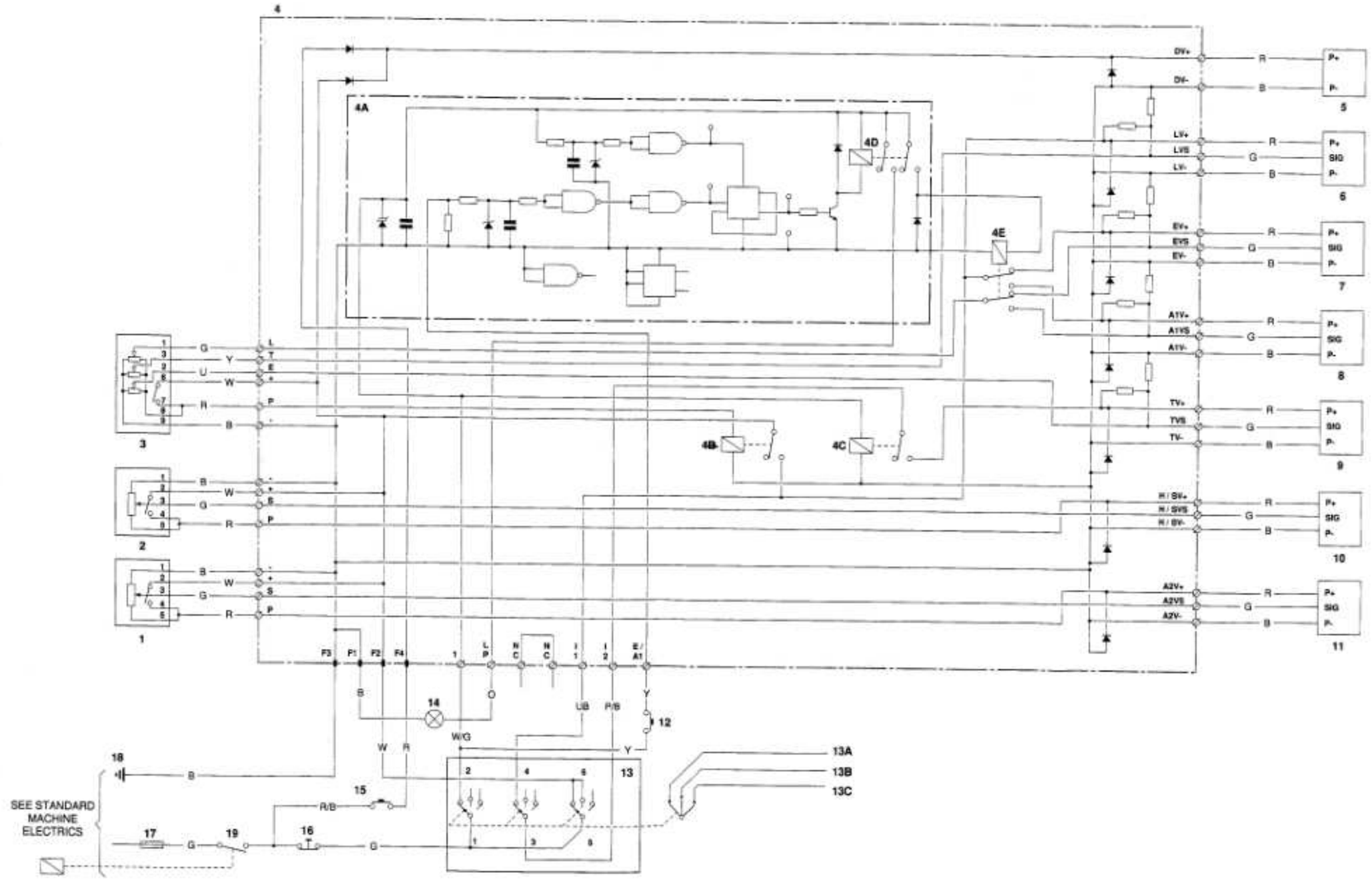
A.R.V.'s may also be used to limit the maximum pressure in a specified service to less than the M.R.V. setting.

In fig. 1 a service is selected but pressure in the service gallery (Yellow) has not reached the setting of the A.R.V. which is held closed by its spring.

In fig. 2 the setting of the A.R.V. is exceeded by the service pressure which causes the poppet to rise against spring force allowing the pressure to be vented into the exhaust gallery (green).

Fig. 3 shows the A.R.V. in anti-cavitation mode. When a service is operated in such a way that low pressure, or cavitation, exists in the service line (light green), the relatively high pressure oil in the exhaust gallery (darker green) acts on the lower poppet and flows into the service gallery to make up the deficiency.

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