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Figure 41 - Oil Flow Through Valve - Float Position

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Figure 42 - Oil Flow Through Valve - Main Relief Valve By-Passing



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Figure 43 - Lift Spool and Bucket Secondary Relief Valve Actuated

## 8. HYDRA-LEVELING CIRCUIT



Figure 71 - Hydra-Leveling Circuit - Raising Bucket

As the loader arms are raised, the position of the bucket changes in relation to the ground. It is the purpose of the hydra-leveling circuit to keep the bucket level in relation to the ground at all times during the lift cycle. This is accomplished very simply by oil displacement.

As the loader arms are raised, the piston rod is pulled out of hydra-leveling cylinder. This forces oil out the top of hydra-leveling cylinder into the front of the bucket cylinder causing the bucket to roll forward, see Figure 71.

As the loader arms are lowered, the piston is pushed back into the hydra-leveling cylinder. This forces oil out the bottom of the hydra-leveling cylinder and into the rear of the bucket cylinder rolling the bucket back.

This hydra-leveling action may be overridden at any time by actuating the bucket cylinder spool of the loader control valve.