WARNING! This circuit shows the use of a specially modified fast-adjusting 3000 PSI relief valve available ONLY from TowMeUp.com. DONOT substitute a standard 0-3000 PSI relief valve for this component, or the winch will be dangerously unsafe!

OilReservoir

Port Side

WinchDrum (attached to motor)

Bi-Directional Motor

Pilot Operated Vented Pressure Relief Valve

30 PSI Cracking Pressure Check Valve

3000 PSI Rated

High Flow Very Low Cracking Pressure < 0.5 PSI Check Valve

Electrically Operated Diverter Valve Activated to Rewind Line (Wired in parallel with clutch on engine driven pump)

Pressure Compensating Variable Flow Control

Oil Cooler (All oil returned to tank must go through cooler)

Port Side

Stbd Side

Winch Drum (attached to motor)

Bi-Directional Motor

Pilot Operated Vented Pressure Relief Valve

30 PSI Cracking Pressure Check Valve

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High Flow Very Low Cracking Pressure < 0.5 PSI Check Valve

Electrically Operated Diverter Valve Activated to Rewind Line (Wired in parallel with clutch on engine driven pump)

Pressure Compensating Variable Flow Control

Oil Cooler (All oil returned to tank must go through cooler)

Stbd Side

50/50 Flow Divider

Engine Driven Rewind Pump
**WINCH OPERATING IN REWIND MODE**

Fluid is supplied under pressure from rewind pump to rotate drum and rewind the line.

- **Winch Drum** (attached to motor)
- **Drum Rotates Counter-Clockwise**
- **Fluid returns to tank from here**
- **Pressurized Fluid from rewind motor enters here**

**WINCH OPERATING IN PAYOUT MODE**

Drag from Pilot causes drum to rotate clockwise.

- **Winch Drum** (attached to motor)
- **Drum Rotates Clockwise**
- **Fluid is sucked up from tank and enters here**
- **Fluid is pumped out here (Motor is operating as a hydraulic pump)**

**Bi-Directional Motor**