

Cycle Times - Pressures - Adjustments

For: L100F-336

L U M B E R J A C K

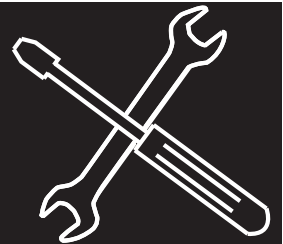


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Cycle Times - Pressures- Adjustments Section 10

CYCLE TIMES

CYCLE TIMES					
Oil temperature should be above 100° F prior to recording cycle times.					
FACTORY CALCULATED TIME (Approximate)				RECORDED VALUES	
FUNCTION	TOP ENGINE LIMIT, 2100 RPM				
	EXTEND (sec)	RETRACT (sec)	TOLERANCE +/- (sec)	EXTEND (sec)	RETRACT (sec)
Hoist	20	14	2		
Tilt	13	9	2		
Holddown, RH	4	3	1		
Holddown, LH	4	3	1		
Kickoff, RH	2	2	1		
Kickoff, LH	2	2	1		
		Right-Left (sec)	Left-Right (sec)	Right-Left (sec)	Left-Right (sec)
Steering (stop to stop)	2100 RPM	3	3		
	ENGINE IDLE	7	7		
	2100 RPM	Right-Left (turn)	Left-Right (turn)	Right-Left (turn)	Left-Right (turn)
		5	5		
			TOLERANCE +/-		
Calculated Converter Stall, Engine RPM		1950 RPM	25 RPM		
Calculated Vehicle Speeds & Maximum Drawbar Pull (for reference only)			Gear	MPH	Max Pull (lbs.)
			1st	3	85,000
			2nd	6	45,000
			3rd	10	25,000
			4th	17	10,000

PRESSURE

L100F-336 Factory Pressure Settings	MAIN	CIRCUIT	TOLERANCE +/-
Steering	*2500		50 psi
Hoist (Cylinder Base/Stem RH/LH)	2450	2700	50 psi
Tilt (Cylinder Base RH/LH)	2450	900	
Tilt (Cylinder Stem RH/LH)	2450	2700	50 psi
Holddown (Cylinder Base/Stem RH/LH)	2500	2700	50 psi
Kickoff (Cylinder Base RH/LH)	2500	2700	50 psi
Kickoff (Cylinder Stem RH/LH)	2500	1100	50 psi
**Transmission Forward Pressure	180 to 220 psi		
**Transmission Reverse Pressure			
**Transmission Clutch Pressure			
Transmission Lube Pressure	25 to 30 psi		
Cooler To Transmission			
Torque Converter To Cooler	55 to 70 psi		

** Individual gear range (1st - 4th) clutch pressures should never vary more than 5 psi from one another.

* Factory set.

⚠ CAUTION

CAUTION: To help prevent injury to personnel or damage to the Lumberjack, read the Safety information Section 2 of your service manual before performing any maintenance.

Transmission Fluid Cooler

Tools Used: Oil pressure gauge.

Location: Under chassis at rear of machine.

Procedure: Attach gauge to each pressure test port.

TRANSMISSION CIRCUIT PRESSURE CHECKS

See Figure 1 & 2

Transmission

Tools Used: Oil pressure gauge.

Location: Under boom below removable access plate.

Procedure: Attach gauge to each pressure test port.

NOTE: Oil Temperature should be between 180° F and 200° F before reading pressures on transmission circuit.

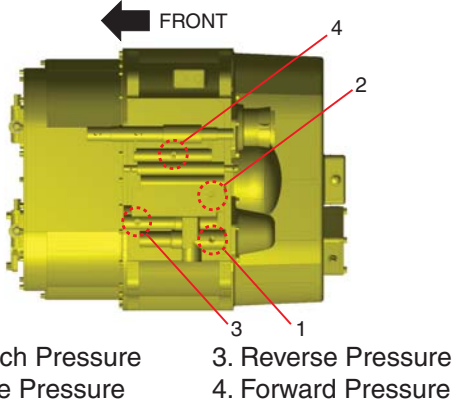


Figure 1 - Top View of Transmission

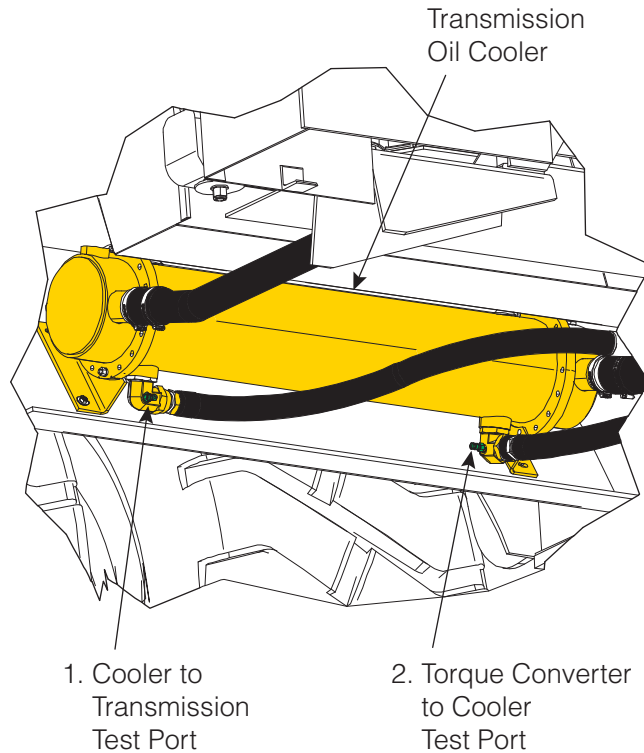


Figure 2 - Transmission Cooler

Cycle Times - Pressures- Adjustments Section 10

BRAKE COMPENSATOR ADJUSTMENT

See Figure 3

CAUTION

CAUTION: To help prevent injury to personnel or damage to the Lumberjack, read the Safety information Section 2 of your service manual before performing any maintenance.

Tools Used: Oil pressure gauge. Adjustable wrench and 5/32 allen wrench.

Location: RH side of machine under chassis.

Procedure: Check brake and pilot pressure. Adjust brake compensator to factory specification.

WARNING

WARNING: Always stand away from Lumberjack and all moving parts when using a pressure gauge. Hose connected to pressure gauge should be long enough so the gauge can be read from at least three feet away from Lumberjack.

1. Park on firm level surface and lower carriage to ground.
2. Engage parking brake, turn engine off and remove key from key switch.
3. Attach oil pressure gauge to (4) brake pressure test port.
4. Loosen (5) nut on brake compensator by turning CCW with wrench. Turn (5) allen screw CW with 5/32 allen wrench until it stops.
5. Adjust (3) brake circuit to 1800 psi. Check pressure with engine on.
6. Turn engine off and remove key.
7. Adjust brake compensator by turning (5) allen screw CCW until pressure reads 1500 psi. Turn brake compensator nut CW until tight. Check pressure with engine on.
8. Turn engine off and remove key.
9. Attach oil pressure gauge to (1) pilot pressure test port.
10. Adjust (2) pilot pressure to 450 psi. Check pressure with engine on.

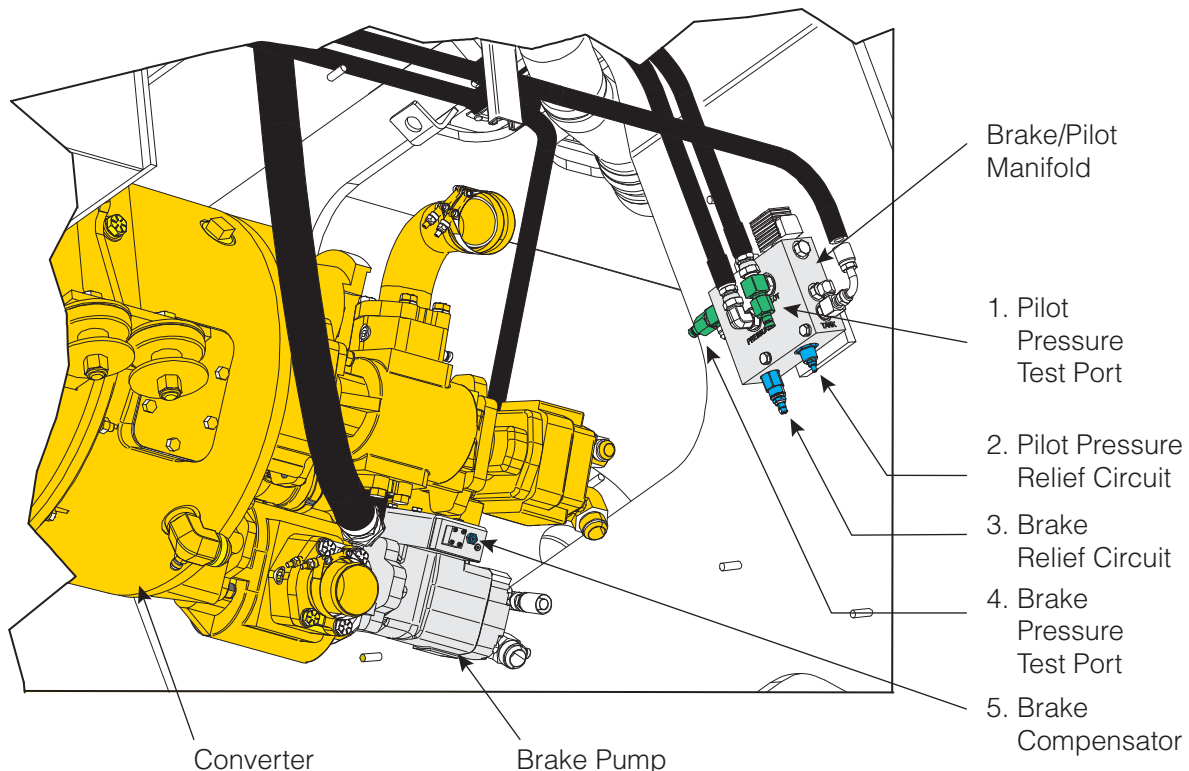


Figure 3 - Brake Compensator Adjustment

VALVE ADJUSTMENTS

See page 7

CAUTION

CAUTION: To help prevent injury to personnel or damage to the machine, read the Safety information in section 2 of your service manual before performing any maintenance.

WARNING

WARNING: Never rely on the hydraulic system to support any part of the machine during maintenance. NEVER stand under a component that is supported only by the hydraulic system. Make sure it is resting on its mechanical stops or safety stands. If necessary, support components with appropriate safety stands.

WARNING

WARNING: Never Make adjustments to the Lumberjack while the engine is powered ON.

WARNING

WARNING: Always stand away from Lumberjack and all moving parts when using a pressure gauge. Hose connected to pressure gauge should be long enough so the gauge can be read from at least three feet away from Lumberjack.

Hoist/Tilt Valve Adjustments

Tools Used: Adjustable wrench, 5/32 allen wrench, two oil pressure gauges.

Location: Under boom on Valve Plate.

Procedure:

Adjust hoist/tilt pressure in the following order:

1. Park on firm level surface and lower carriage to ground.
2. Engage parking brake, turn engine off and remove key.
3. Attach an oil pressure gauge to hoist up test port (see page 7).
4. Adjust (1) main hoist/tilt relief to 2800 psi. Check pressure with engine on.
5. Turn engine off and remove key.
6. Adjust (2) hoist cylinder base circuit relief to 2700 psi. Check pressure with engine on.
7. Turn engine off and remove key.
8. Attach oil pressure gauge to hoist down test port.
9. Adjust (3) hoist cylinder stem circuit relief to 2700 psi. Check pressure with engine on.
10. Turn engine off and remove key.
11. Attach oil gauge to tilt cylinder base test port (see page 7)
12. Adjust (4) tilt cylinder stem circuit relief to 2700 psi. Check pressure with engine on.
13. Turn engine off and remove key.
14. Attach oil pressure gauge to tilt cylinder stem test port.
15. Adjust (5) tilt cylinder base circuit relief between 900 psi. Check pressure with engine on.
16. Turn engine off and remove key.
17. Attach oil pressure gauge to hoist up test port (see page 7).
18. Adjust (1) main tilt/hoist relief 2450 psi. Check pressure with engine on.



WARNING

WARNING: Never Make adjustments to the Lumberjack while the engine is powered ON.



WARNING

WARNING: Always stand away from Lumberjack and all moving parts when using a pressure gauge. Hose connected to pressure gauge should be long enough so the gauge can be read from at least three feet away from Lumberjack.

LH Holddown/ Kickoff Adjustments

Tools Used: Adjustable wrench, 5/32 allen wrench, one oil pressure gauge.

Location: Under boom on Valve Plate.

Procedure: Adjust LH holddown/kickoff pressure in the following order:

1. Park on firm level surface and lower carriage to ground.
2. Engage parking brake, turn engine off and remove key from key switch.
3. Attach an oil gauge to LH holddown/kickoff test port (see page 7).
4. Adjust (6) main LH main holddown/kickoff relief to 2800 psi. Check pressure with engine on.
5. Turn engine off and remove key.
6. Adjust (7) stem end kickoff circuit relief to 1100 psi. Check pressure with engine on.
7. Turn engine off and remove key.
8. Adjust (10) base end kickoff circuit relief to 2700 psi. Check pressure with engine on.
9. Turn engine off and remove key.
10. Adjust (8) stem end holddown circuit relief to 2700 psi. Check pressure with engine on.
11. Turn engine off and remove key.
12. Adjust (9) base end holddown circuit relief to 2700 psi. Check pressure with engine on.
13. Turn engine off and remove key.
14. Adjust (6) main LH main holddown/kickoff relief to 2500 psi. Check pressure with engine on.

RH Holddown/Kickoff Adjustments

Tools Used: Adjustable wrench, 5/32 allen wrench, tone oil pressure gauge.

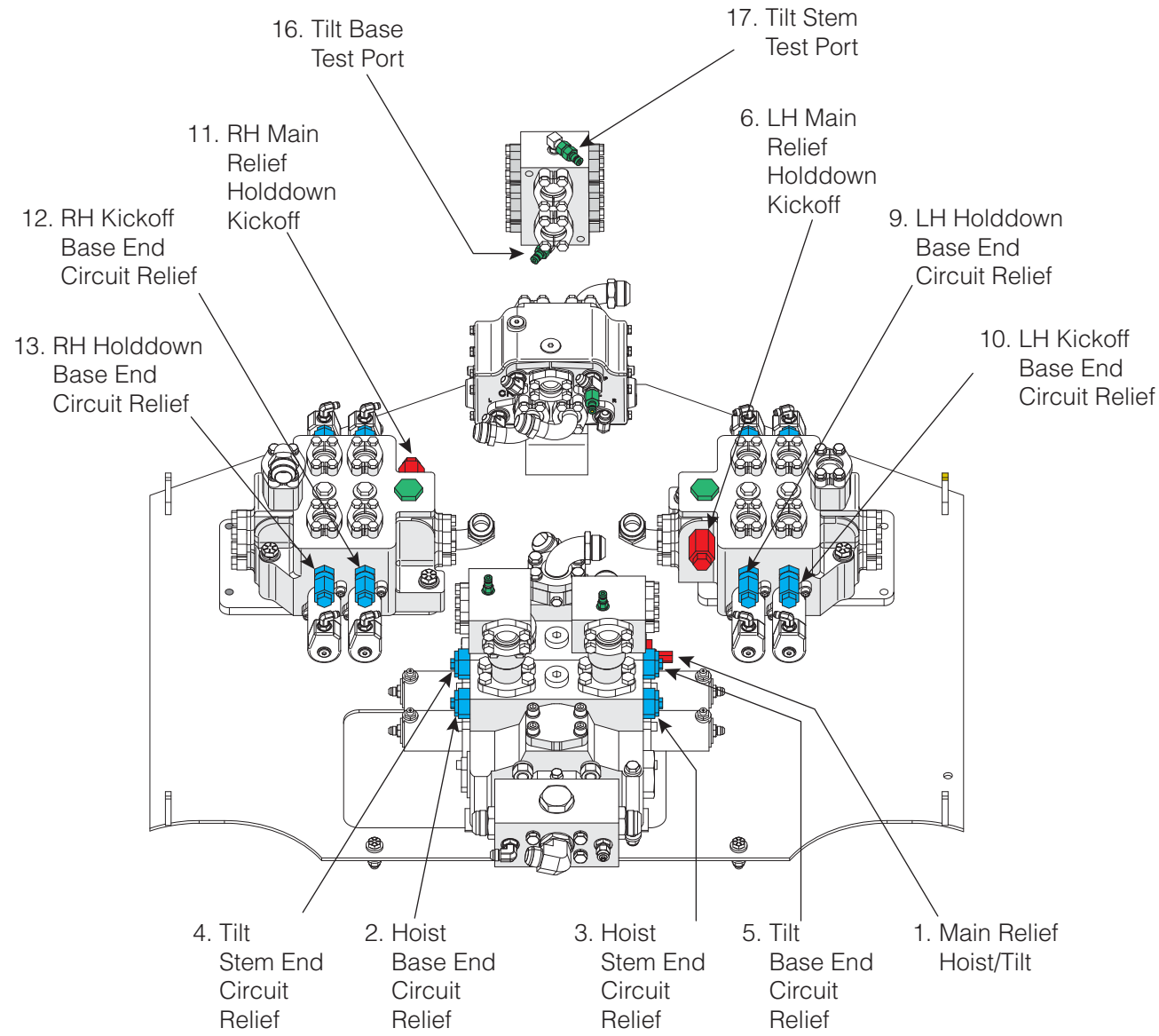
Location: Under boom on Valve Plate.

Procedure:

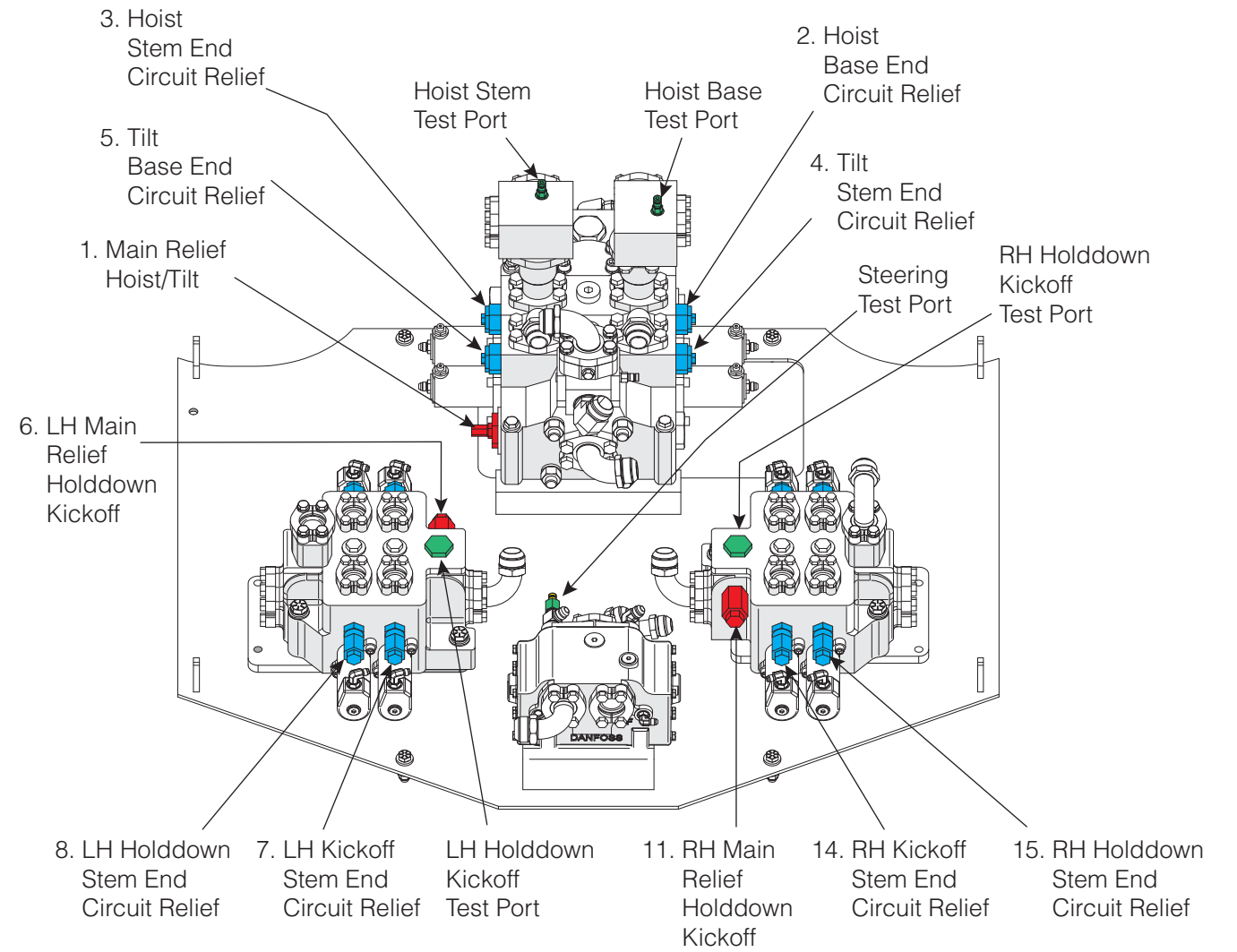
Adjust RH holddown/kickoff pressure in the following order:

1. Park on firm level surface and lower carriage to ground.
2. Engage parking brake, turn engine off and remove key from key switch.
3. Attach an oil pressure gauge to RH holddown/kickoff test port (see page 7).
4. Adjust (11) main RH main holddown/kickoff relief to 2800 psi. Check pressure with engine on.
5. Turn engine off and remove key.
6. Adjust (14) stem end kickoff circuit relief to 1100 psi. Check pressure with engine on.
7. Turn engine off and remove key.
8. Adjust (12) base end kickoff circuit relief to 2700 psi. Check pressure with engine on.
9. Turn engine off and remove key.
10. Adjust (15) stem end holddown circuit relief to 2700 psi. Check pressure with engine on.
11. Turn engine off and remove key.
12. Adjust (13) base end holddown circuit relief to 2700 psi. Check pressure with engine on.
13. Turn engine off and remove key.
14. Adjust (11) main RH main holddown/kickoff relief to 2500 psi. Check pressure with engine on.

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VALVE PLATE FRONT VIEW



VALVE PLATE BACK VIEW

