# Hydraulic Coil Spring Rater

## ALWAYS:

- **Use a sturdy table or bench**
- **Wear safety goggles**
- **Recheck spring rate frequently**
- **Take weight off springs when car is not in use**
- **Let vehicle weight set on springs for 2 – 24 hours before setting chassis for racing.**

## NEVER:

- **"Peg" the gauge—overloading decreases accuracy**
- **Use as a bearing press**
- **Test a cracked spring—check each spring before testing**

## OPERATING TIPS

1. **Select the proper plates for the top and bottom of the spring to be checked.**
2. **Place the spring into the spring rater, flat end down. If spring doesn't have a flat end it must fit the ramped top plate evenly or it cannot be checked using this equipment.**
3. **Center the spring in lower and upper plates.**
4. **Install pins securely in top plate at the lowest free position above the spring.**
5. **Jack the spring up until it touches the top plate.**
6. **Record lower plate height from the scale. Pressure gauge should read zero.**
7. **Jack the lower plate up 1 inch from the free height location.**
8. **Record pressure reading from the gauge.**
9. **Jack lower plate 1 inch higher (2 inches total compression from free height).**
10. **Record pressure reading.**
11. **Gradually release pressure from the jack and remove the spring.**
12. **Record free length and rate of spring.**
13. **Subtract pressure reading obtained in step #8 (1 inch compression) from the reading obtained in step #10 (2 inch compression).**
14. **The end result is the spring rate.**

**NOTE: For the precise accuracy that professionals depend on accurate readings are required. A sixteenth of an inch can change spring rate significantly.**