

ADJUSTMENT INSTRUCTIONS

DRAG SPECIALTIES PREMIUM ADJUSTABLE RIDE-HEIGHT SHOCK ABSORBERS

ATTENTION INSTALLER (if other than owner): Please forward this Instruction Sheet to the purchaser of this product. These instructions contain valuable information necessary to the end user.

INTRODUCTION: These instructions describe the procedure for properly adjusting Drag Specialties Adjustable Ride-Height Shock Absorbers.

Review instructions carefully before beginning, as they contain important information. Please retain for future reference.

Particularly important information is distinguished in these instructions by the following notations:

NOTE: A **NOTE** provides key information to make procedures easier or clearer.

CAUTION: A **CAUTION** indicates special procedures that must be followed to avoid damage to the motorcycle and/or accessories.

WARNING!: A **WARNING** indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.



TOOLS REQUIRED:

Ruler

Shock spanner wrench (2, included with shocks) (We suggest using the Moose brand of adjustable spanner wrench, Drag Specialties part number 3805-0121. Testing has determined that this wrench works best of all available wrenches.)

PROCEDURE:

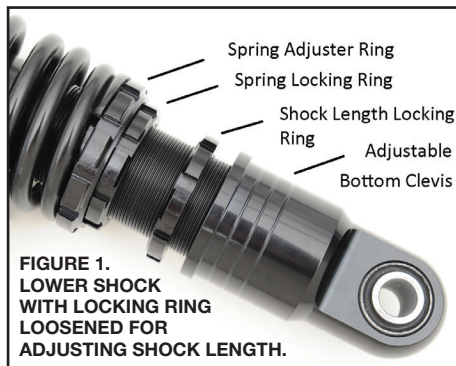
Setting Shock Length:

1. Loosen the locking ring on the bottom of the shock absorber body. **SEE FIGURE 1.**

NOTE: Use the correct spanner wrench on the locking rings. Using the wrong tool will cause damage to the soft aluminum locking rings.

2. Adjust the shock body length by screwing the bottom mounting clevis up or down. Do not exceed the adjustment as listed in the chart on last page.

WARNING!: Adjusting the shock to a longer or shorter length than what is listed in the adjusting range could cause shock failure, leading to possible injury.



PROCEDURE (CONTINUED):

3. Use the ruler to measure from the center of the mounting eyelet on the top of the shock to the center of the mounting eyelet on the shock bottom. Make sure that after adjustment, both shocks remain the same length within the measurement on the chart.
4. Tighten the lock ring against the bottom of the adjustable shock body. Rotate the shock body so that both mounting eyelets are parallel. Make sure the lock rings do not come loose when turning the shock body.
5. Place the bike on a jack and raise until all weight is off the rear wheel; do not raise the wheel off the ground.
6. Remove the original rear shocks and set aside.
7. Install the shock absorbers with the upper mounting bolts. You will probably find that the stock shock covers will not clear with the new shocks; if so, install without covers.
8. Carefully raise or lower the bike with the jack until the lower mounting bolt will slide through the lower mount and shock absorber.
9. Tighten both upper bolt and lower bolt to the following torque specifications:

MOUNTING BOLT TORQUE:

Touring: Upper & Lower = 35-40 ft-lbs

Dyna: Upper & Lower = 30-40 ft-lbs

XL Sportster: Upper & Lower = 45-50 ft-lbs

NOTE: Make sure that there is sufficient bolt or stud length available after shocks are installed.



ADJUSTMENT INSTRUCTIONS

DRAG SPECIALTIES PREMIUM ADJUSTABLE RIDE-HEIGHT SHOCK ABSORBERS

CAUTION: Check to make sure there is sufficient clearance between the swingarm, fender, and belt guard. Put two people on the bike and compress the suspension as much as possible and check carefully in the front swingarm area around the belt guard and fender. Clearance as necessary to prevent the swingarm or belt guard from hitting on the rear fender.

Setting Shock Spring Preload:

NOTE: This initial setting for shock spring preload is intended for average load and riding comfort. Further fine tuning may be required.

1. With the shock fully extended, loosen the two lock rings on the bottom of the shock spring.
2. With the lock ring loosened the initial preload can be increased or decreased within the ranges shown in the chart below.
3. For solo riding less preload is needed and will give a more compliant ride. For 2-up riding more preload (shorter initial spring length) is needed to keep the shocks from bottoming out. This may provide a bit harsher ride.
4. Lock the two adjuster rings together with the shock spanner wrenches.

5. Check all mounting bolts for correct torque.
6. Test ride the motorcycle with the amount of weight on it that you would be likely to carry most often.
7. Adjust both of the shocks one turn at a time to fine tune the shocks for best ride. It is best to do this fine tuning with the weight relieved from the shocks so the initial spring length can be measured to assure it is still within the recommended range.

NOTE: Tighten the adjuster to shorten the spring if you feel the shocks bottoming out too often. If the ride is too stiff, loosen the adjusters by lengthening the spring.

WARNING!: Never adjust the shock springs to a length shorter than the minimum spring length stated for the shock length. Doing so may cause spring coil bind, shock failure, and injury or death. Adjusting the shocks to a spring length longer than listed on the chart may cause excessive shock bottoming and damage the shock absorbers.

8. Make sure to tighten the adjuster lock rings before the next test ride.

WARNING!: Before operating motorcycle, be sure all hardware is tight.



FIGURE 2.
LOWER SHOCK
WITH SHOCK
SHORTENED TO
MINIMUM LENGTH.



FIGURE 3.
LOWER SHOCK
EXTENDED TO
MAXIMUM LENGTH.

ADJUSTABLE SHOCK DIMENSIONS

NOTE: LENGTH MUST REMAIN WITHIN THE LENGTHS LISTED BELOW FOR EACH SHOCK PART NUMBER. SPRING LENGTH MUST ALSO REMAIN BETWEEN THE MAXIMUM AND MINIMUM LENGTHS. THE MINIMUM LENGTH WILL GIVE YOU A STIFFER RIDE AND THE MAXIMUM LENGTH WILL GIVE YOU A SOFTER RIDE.

DRAG #	LENGTH ADJUSTMENT RANGE	MAX. SPRING LENGTH	MIN. SPRING LENGTH
1310-1189	10.5" ⁽¹⁾	5.67"	5.07"
1310-1190	10.5" ⁽¹⁾	5.67"	5.07"
1310-1191	10.5"-11.5"	5.67"	5.07"
1310-1192	10.5"-11.5"	5.67"	5.07"
1310-1193	11.5"-12.5"	6.69"	6.09"
1310-1194	11.5"-12.5"	6.69"	6.09"
1310-1195	12.5"-13.5"	7.48"	6.88"
1310-1196	12.5"-13.5"	7.48"	6.88"
1310-1197	10.5"-11.5"	5.55"	4.95"
1310-1198	10.5"-11.5"	5.55"	4.95"
1310-1199	11.5"-12.5"	6.69"	6.09"
1310-1200	11.5"-12.5"	6.69"	6.09"
1310-1201	12.5"-13.5"	7.44"	6.84"
1310-1202	12.5"-13.5"	7.44"	6.84"
1310-1203	10.5"-11.5"	5.67"	5.07"
1310-1204	10.5"-11.5"	5.67"	5.07"
1310-1205	11.5"-12.5"	6.69"	6.09"
1310-1206	11.5"-12.5"	6.69"	6.09"
1310-1207	12.5"-13.5"	7.48"	6.88"
1310-1208	12.5"-13.5"	7.48"	6.88"

(1) These shocks are not adjustable for length.

