

# Inner Tie Rod Replacement

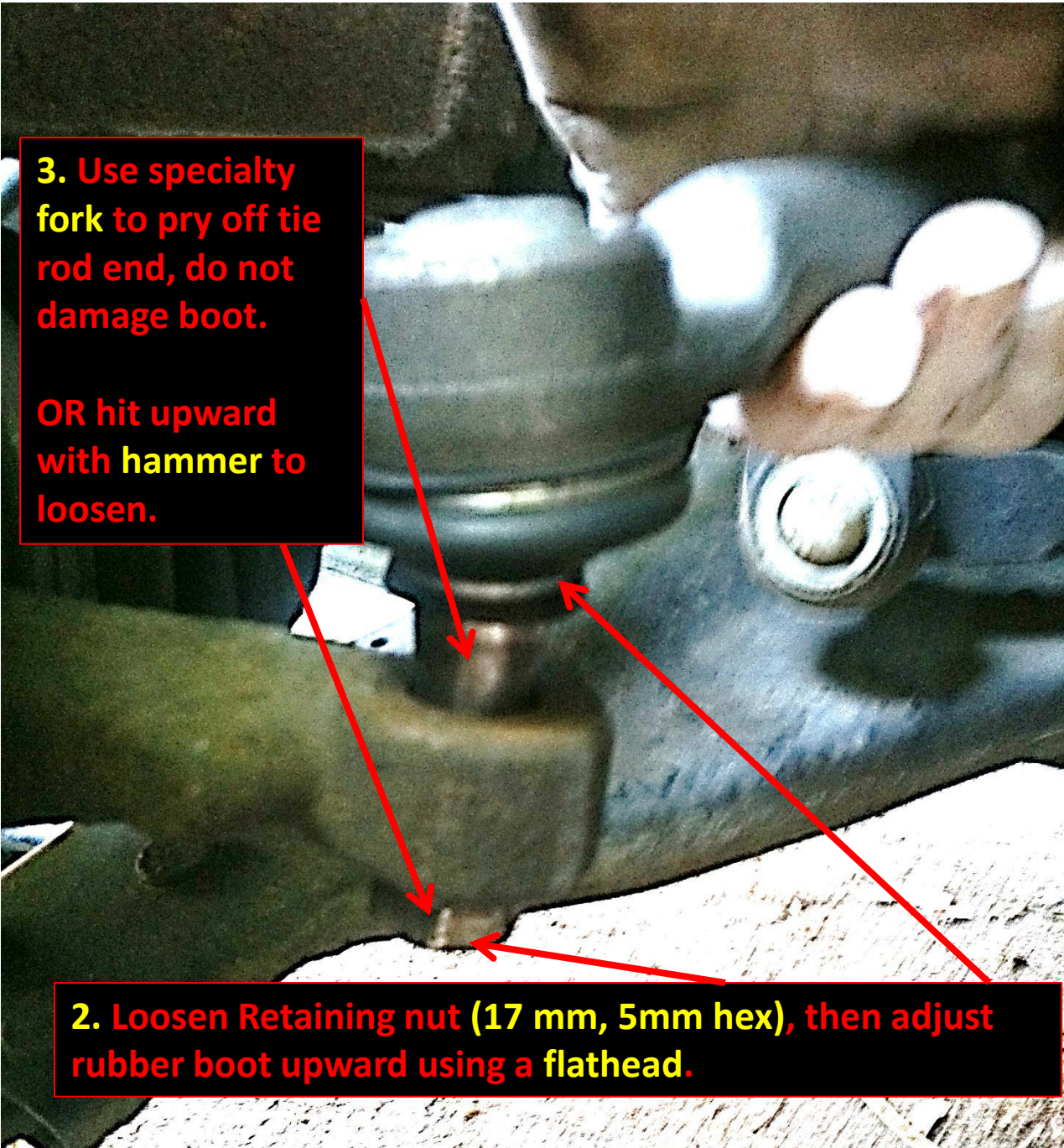
2004 Jaguar X – Type 3.0

115,000 miles

<b>Inner tie rod writeup</b>	
<b>1</b>	Jack car and remove front wheel
<b>2</b>	Mark location of inner tie rod retaining nut
<b>3</b>	Loosen inner tie rod retaining nut (24mm)
<b>4</b>	Loosen tie rod end retaining nut (17mm)
<b>5</b>	Detach tie rod end from wheel knuckle (fork/hammer)
<b>6</b>	Unscrew Tie rod end, while counting full rotations (24mm)
<b>7</b>	Unscrew and discard inner tie rod retaining nut
<b>8</b>	Remove and discard inner and outer boot retaining clips (pliers, long flathead)
<b>9</b>	Remove tie rod boot
<b>10</b>	Install special socket (1-5/16") and tool
<b>11</b>	Unscrew and discard inner tie rod
<b>12</b>	Check length of new and old rods, then mark location of rod nut
<b>13</b>	Inspect. Clean the surface that will be covered by boot
<b>14</b>	Install new inner tie rod, tighten to 40 Nm
<b>15</b>	Install new boot fitted with zip tie, or metal clamp
<b>16</b>	Twist boot into place and tighten zip ties/clamps
<b>17</b>	Install inner tie rod nut to marked position
<b>18</b>	Install tie rod ends to previously determined position
<b>19</b>	Tighten tie rod end nut to 35 Nm
<b>20</b>	Tighten inner tie rod retaining nut to 40 Nm
<b>21</b>	Install wheel, tighten to 103 Nm
<b>22</b>	Check/adjust toe alignment, ensure the boot is also adjusted as needed prior to

**1. Loosen Retaining nut (24 mm), while preventing rod from turning (15 mm).**





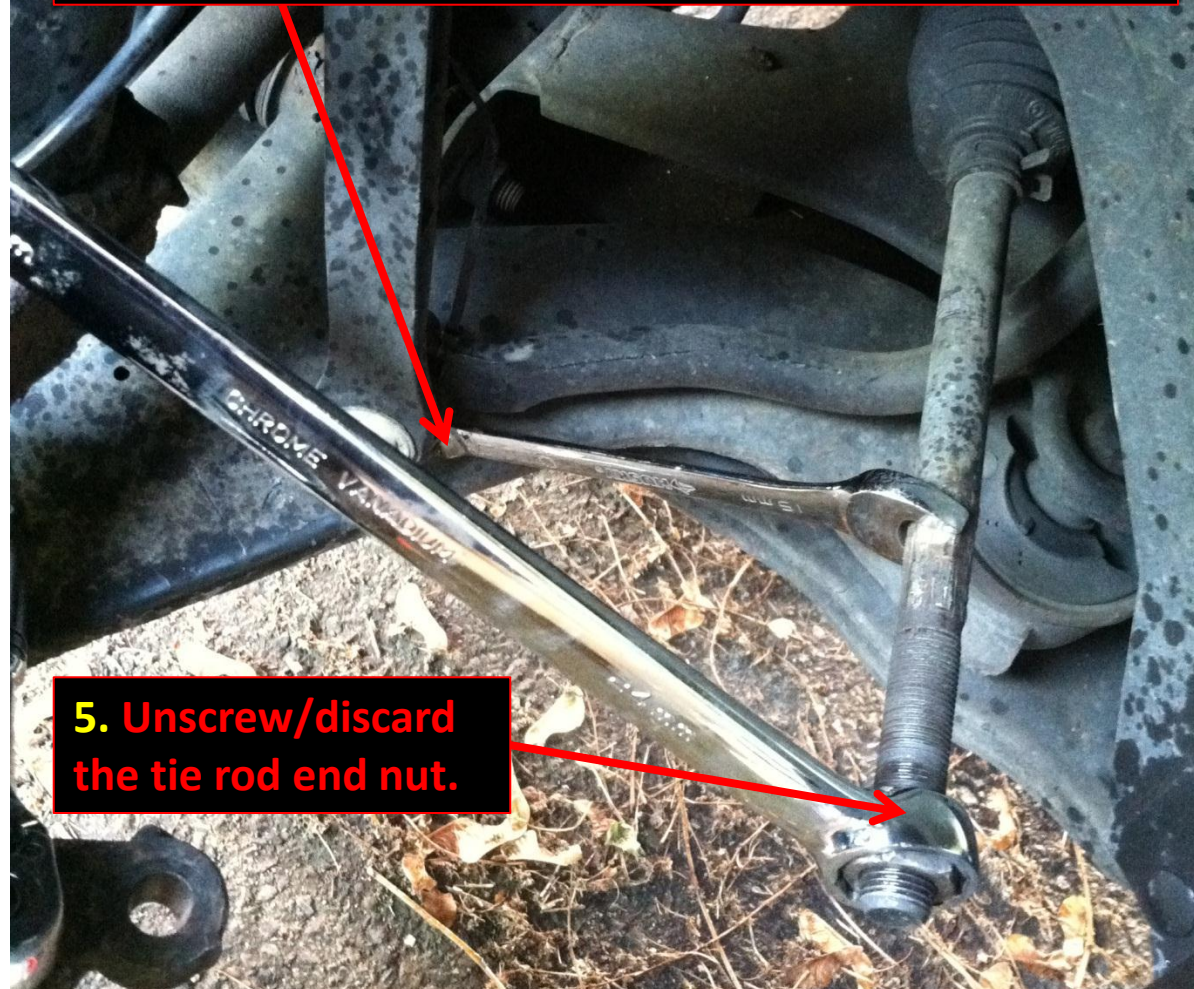
**3. Use specialty fork to pry off tie rod end, do not damage boot.**

**OR hit upward with hammer to loosen.**

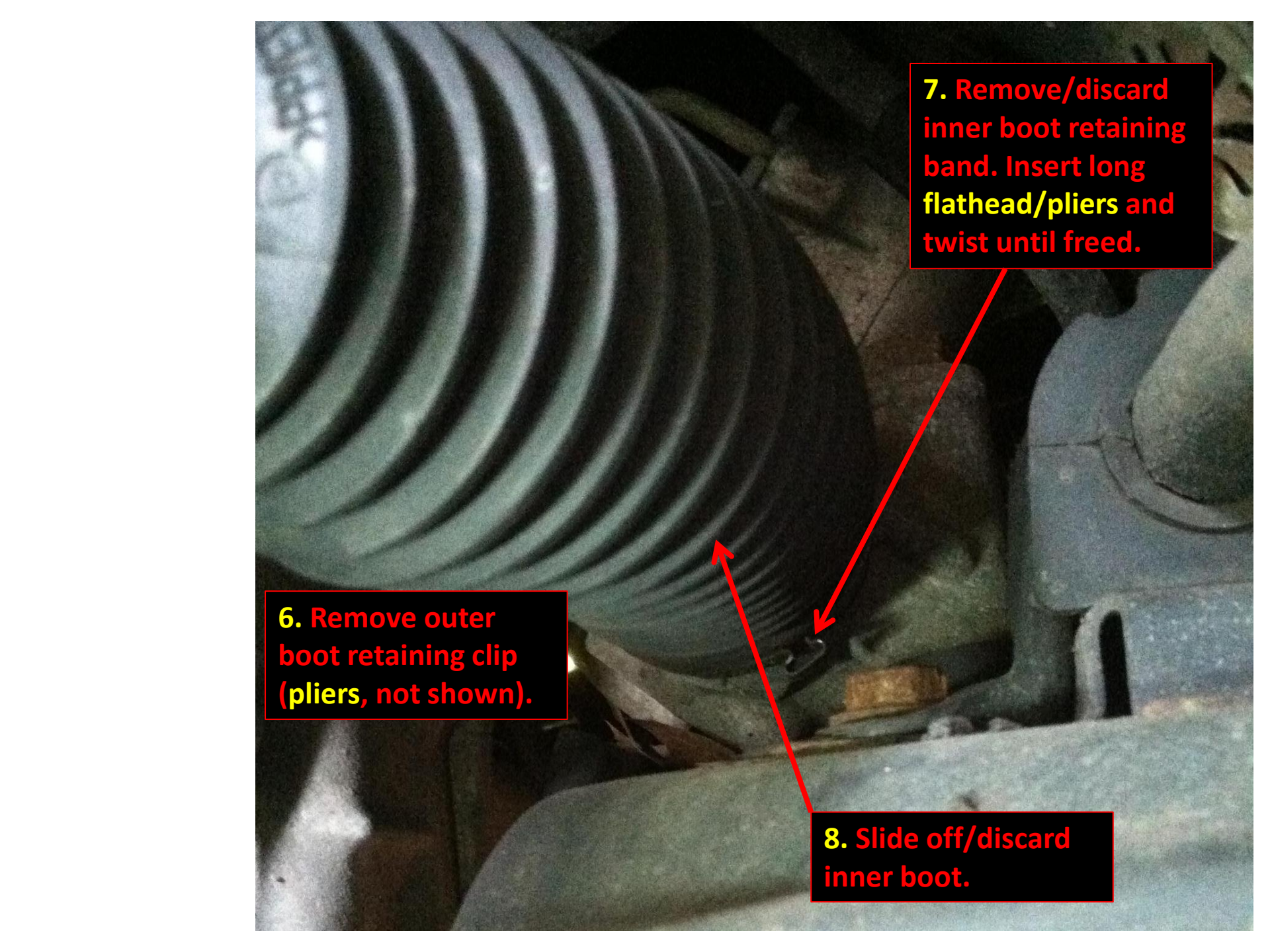
**2. Loosen Retaining nut (17 mm, 5mm hex), then adjust rubber boot upward using a flathead.**

**4. Unscrew tie rod end, counting the number of turns it takes. Ensure the rod is not rotating along with the tie rod end.**

**Extra leverage might be needed if threads/nuts are worn (zip tie secures 15mm wrench to sway bar link).**



**5. Unscrew/discard the tie rod end nut.**

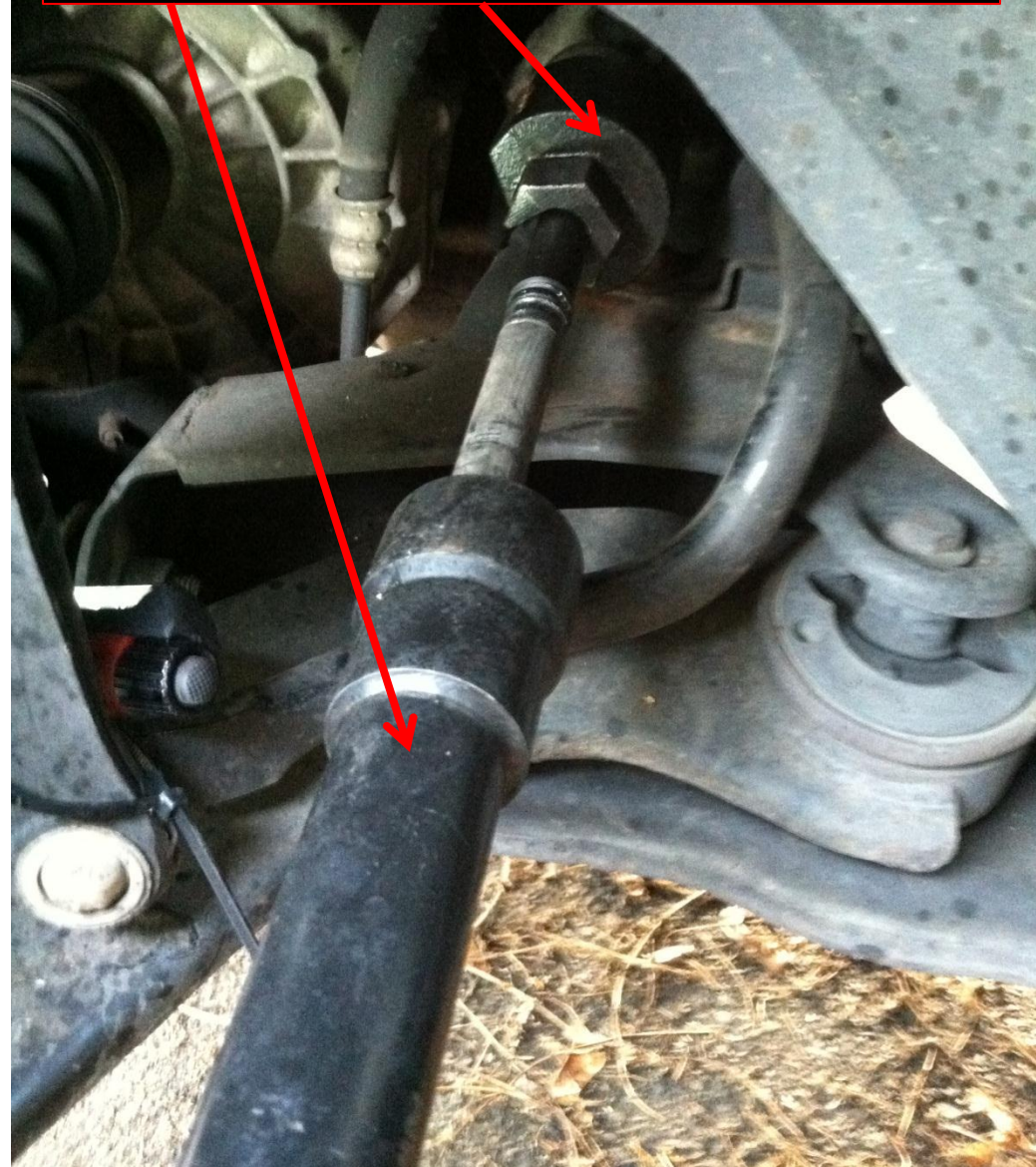


**6. Remove outer boot retaining clip (pliers, not shown).**

**7. Remove/discard inner boot retaining band. Insert long flathead/pliers and twist until freed.**

**8. Slide off/discard inner boot.**

**9. Install specialty socket (1-5/16") and tool.  
Attach a 1/2" drive to the other end of the tool  
and unscrew the inner tie rod.**



**10. Make sure new rods are same length as old ones.**






**11. Inspect/clean as needed. Be sure to clean outer surface where boot will engage.**

**12. Install new inner tie rod. Tighten to 40 Nm.**





**13. Install new tie rod boot. Twist inside of boot into place until it is fully engaged. Tighten with zip tie or metal band. Install outer boot retaining clip.**



**14. Tighten to specs, then carry out toe alignment**

**Tighten to 40 Nm**

**Tighten to 35 Nm**