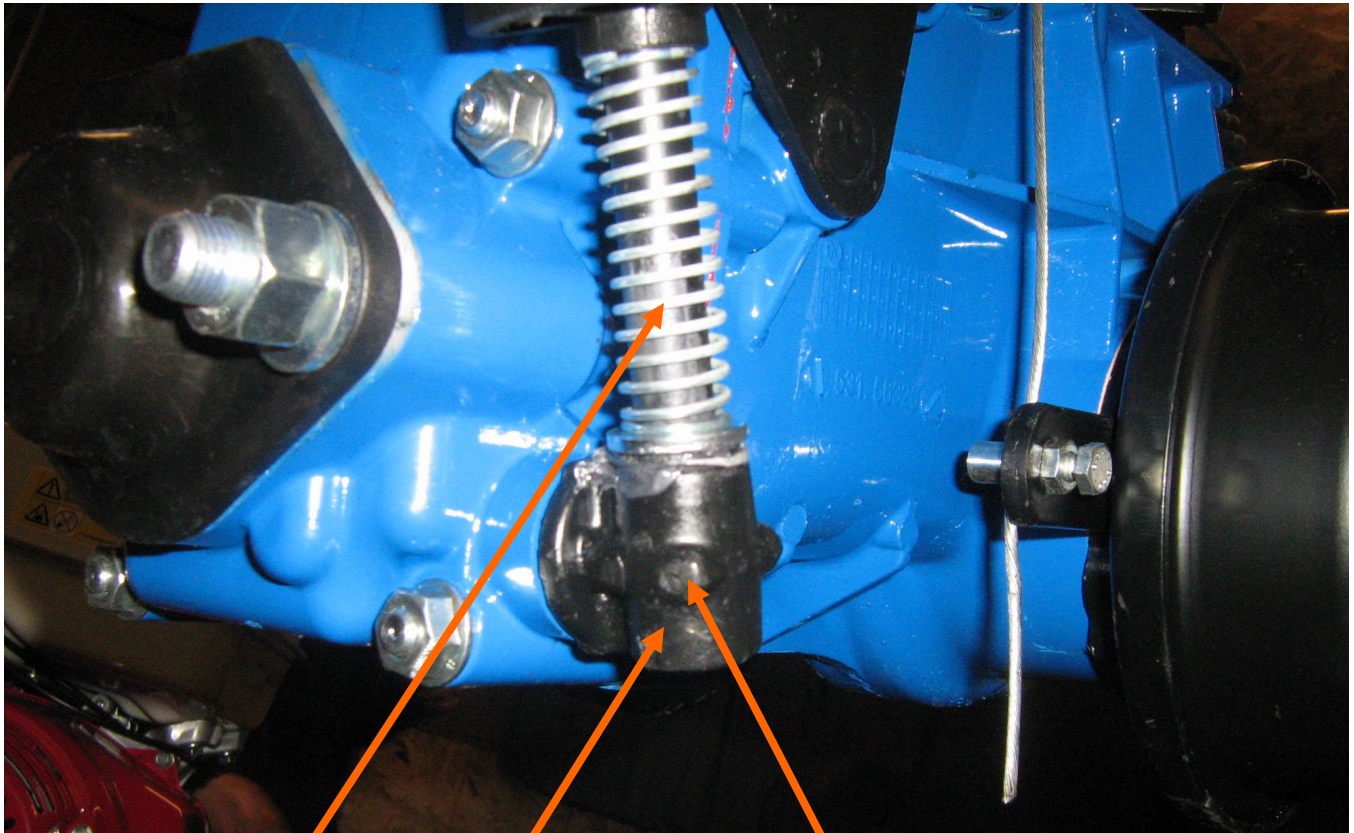


## FREEING STUCK PTO ROD ON BCS TRACTORS



PTO Control Rod (has spring installed over it...some have this, some don't. The spring is actually useless, and can be discarded.

PTO lever "socket" at gearbox

Roll Pin (this goes through the socket slightly off-center...the pin actually goes through a SLOT cut toward the bottom of the vertical rod, allowing the rod to rotate, but preventing it from coming out of the socket.

A common problem on post-1990 BCS tractors is that the PTO control rod, which is supposed to swivel 180 degrees in its "socket" at the base, becomes frozen/corroded/rusted in the socket and will not rotate. Start to loosen by applying penetrating oil. Let soak for 10-15 minutes, reapplying to keep moist, if necessary, in that time period. You can also remove the roll pin by pounding out with a 1/8" pin punch (it is recommended to start the pin moving with an 1/8" "starter" punch, and once it breaks free, use a pin punch). Once the pin is out, you can spray penetrating oil in the pin-hole too. When putting pressure on the rod to try to rotate it, do NOT use the long rod going up to the handlebars...you may damage the plastic joint linking the two rods together, as it is not designed for this kind of high torque. Instead, clamp a vise-grips or channel-locks onto the upright rod, and twist with this. If the rod isn't freed by the penetrating oil alone, a little heat may be applied to the socket with a propane torch, while putting rotation pressure on the rod. You can also drive upwards on the bottom of the rod (the socket is hollow top-to-bottom, so what seems like the "bottom" of the socket is actually the bottom of the rod). Use a large pin punch (3/8" diameter or so). Be careful so as to not flare out the end of the rod, or it won't go through the socket. Once the rod is removed, clean the rust off with sandpaper, and clean the rust out of the socket with rolled-up sandpaper or a round file. Coat the bottom end of the rod liberally with anti-seize lubricant or heavy grease (filling up the "groove" at bottom) and reinstall. We also have a video which mentions this: [http://www.youtube.com/watch?v=BG8yP41e\\_CA&feature=youtu.be](http://www.youtube.com/watch?v=BG8yP41e_CA&feature=youtu.be)