INSTRUCTIONS FOR BREAKING FREE A STUCK BCS CONE CLUTCH…"SHORT-CUT" METHOD (works 80% of the time)

If you have made the mistake of storing your BCS walk-behind tractor WITHOUT squeezing and locking the clutch handle, you have probably experienced a "stuck clutch", which is when humidity causes the clutch cones to develop a bit of surface rust and stick together (which is why you're reading this now!) SOMETIMES, this will even occur when the tractor is in use, if you overload the clutch or operate the tractor a long time with a high-torque implement (i.e. chipper shredder) without squeezing the clutch handle. ***Here's a trick that works most of the time to break it free:***

Step 1. **Squeeze and lock the clutch handle on the tractor handlebars.** Now, this may be very difficult…because the clutch is "stuck", and therefore the handle does not want to move easily! But get it squeezed and locked if at all possible. What this will do is put the clutch cable & linkage "under pressure", TRYING to break the clutch loose.

Step 2. With the transmission and PTO in neutral, **start the engine and let the machine run at about 1/4 throttle for 20 to 30 minutes.** What this will do is transfer heat from the engine into the clutch, warming up the clutch. Leave the clutch handle squeezed and locked the whole time the engine is running.

Step 3. It is possible that just by warming the clutch up with the linkage "under pressure like this will actually break the clutch free. So, when you come back to the tractor after is has run this 20 – 30 minutes, first try the clutch and see if it is working properly. If this has done the trick, great!

Step 4. If this has **NOT** fixed it, then shut the engine off, but leave the clutch handle squeezed and locked (if the only "kill" switch on the machine is the red "safety" handle, then of course you have to un-latch the clutch lever in order to let the red safety handle "up" to kill the engine. That's OK, just re-squeeze and lock the clutch as soon as the engine is fully off).

Step 5. Let the machine sit awhile with the clutch handle squeezed and locked…may take up to 30 minutes. What is happening now is that the clutch is COOLING DOWN. Since the clutch is essentially 2 halves, we are counting on the microscopic expansion & contraction that occurs in all materials when heated or cooled to break the thing loose…the 2 parts have different masses, so they expand and contract at slightly different rates. If you happen to be near the machine when the clutch actually breaks loose, you will probably hear a BANG!, which is normal for it breaking loose.

Step 6. Start the machine up and test the operation of the clutch. If the cool-down worked, great! If not, you can try your luck by repeating the above process again, OR, take the engine off, remove the clutch from the engine, and manually break the clutch free by putting it in a vise or press….we have service documents to walk you through all that on our website: https://earthtoolsbcs.com/use-repair-maintenance/ , and here is a video link: https://www.youtube.com/watch?v=_Yn8mP4Ag1E&feature=youtu.be

Questions? Call us at **502-484-3988**

AND: LOCK YOUR CLUTCH HANDLE EVERY TIME YOU TURN OFF YOUR MACHINE!!!