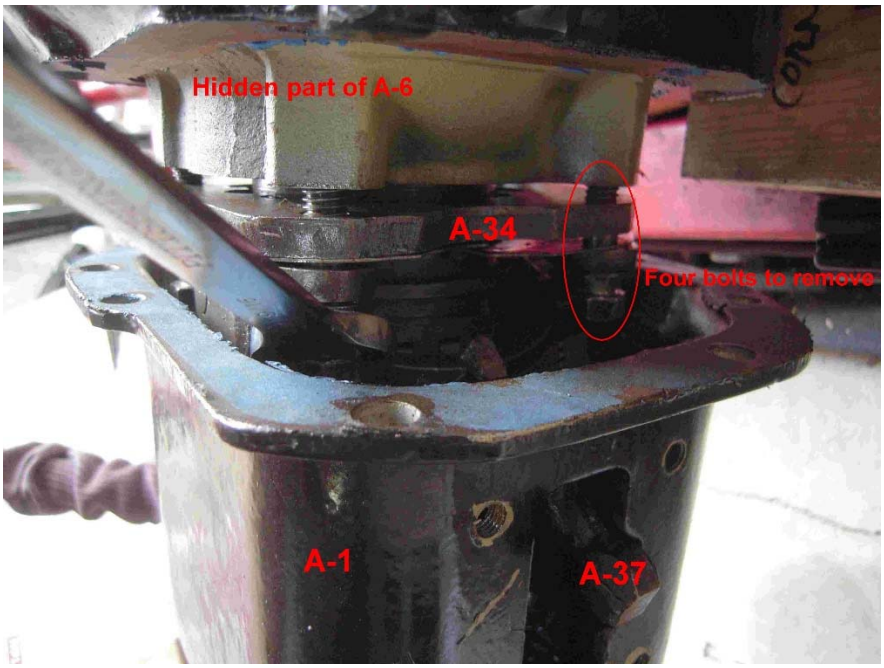
Columbia Synchro Clutch Repair

I decided to change my Columbia clutch pack, getting rid of the cork and using John Connolly's kit with better material http://www.columbiatwospeedparts.com/columbia-2-speed-product.cfm. I wasn't sure what condition the cork was in since I rebuilt the unit many years ago with some parts and machining from John Deats.

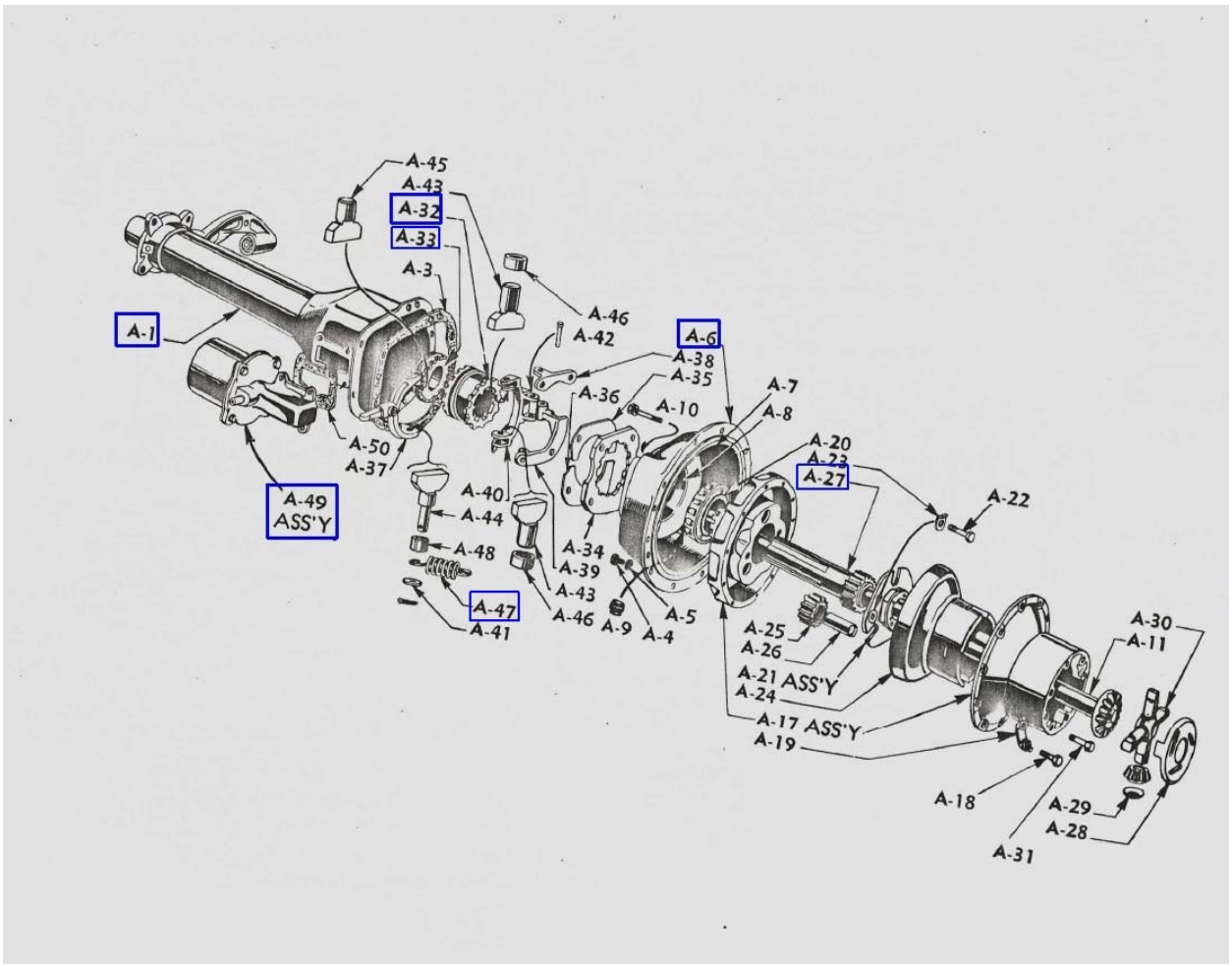
To save work and keeping the weight down I was thinking about this option to avoid dealing with all the weight of an assembled rear. I have no help so need to do this by my old self ;-)

- Put front and rear end on jack stands
- I had other rear end work to do so I made it high enough to remove the entire assembly.
- Spread the spring with Harbor Freight "Porta-Power" and to remove spring from shackles
- Remove Columbia vacuum unit, part A-49 assembly and associated vacuum lines.
- Disconnect right rear brake lines and emergency cable
- Remove right wheel axle nut and brake drum.
- Remove right hand wishbone
- Unbolt the right-side Columbia axle housing, part A-1 from housing A-6
- The control arm, part A-37 can't be worked out of the A-1 control hole without more disassembly and I did not want to remove the righthand axle. I found that by removing the four bolts attaching part A-34, the stationary clutch, from A-6. This can be done by loosening each bolt a few turns, pulling on the A-1 housing from A-6 a little bit and repeating until the two housings are separated.



- Now you can slide housing A-1 off of right side axle. Axle stays in place.

- Now all the parts from A-32 through A-48 can be removed by cocking the assembly so the arm A-37 can be worked out of the hole in A-1
- Next carefully remove the cotter pin, washer and spring A-47 in order to pull the clutch pack, A-32. Take a couple of reference pictures before you remove the spring. Getting the four bolts started after the rebuild is tedious due to restricted access.
- Now you can work on A-32 Synchro Clutch for the rebuild.


A-45
A-43
A-32
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A-3
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A-1
A-6
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ASS'Y
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A-21 ASS'Y
A-24
A-17 ASS'Y
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A-18
A-29
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A-31