



# RL20H Handle Extension Kit

## INSTALLATION INSTRUCTIONS

### **KIT CONTENTS**

- Extension brackets (2)
- Mounting bolts (4)
- Washers & nuts (4 each)
- Clutch cable (1)
- Throttle cable (1)
- Roller lift chain (40 links)



### **RECOMMENDED HAND TOOLS**

- 1/2" combination wrench (2)
- Medium adjustable wrench
- 7/16" & 1/2" sockets
- 3/8" Ratchet & short extension
- Flat head screwdriver
- Phillips head screwdriver
- Channel lock style pliers

### **RECOMMENDED UNIT PREPARATION & POSITIONING**

NOTE: The steps of removing / installing the clutch cable includes the end that connects to the idler arm. Access to this location is on the underside of the frame, so it is recommended that the unit be tipped forward and secured in place.



A common **jack stand** (10-11" minimum height / available at auto parts stores,

Home Depot, Lowes, Walmart, etc.) is an effective way to lift and hold the unit in place. While blocking the front caster, use the handles to lift/tip the unit forward and slide the jack stand under the drive roller sufficiently, then lower the unit

down on to it (the roller will move upward and press against the frame).

**CAUTION: FUEL MAY LEAK IF TIPPED TOO FAR WHEN THE TANK IS COMPLETELY FULL.**





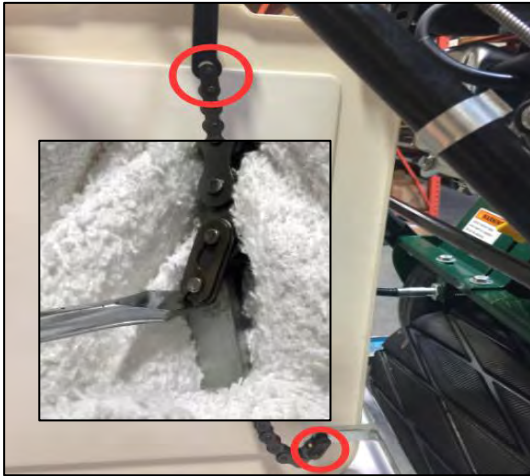
# RL20H Handle Extension Kit

## INSTALLATION INSTRUCTIONS

### **DISASSEMBLY**

#### **Step 1 – Remove Drive Roller Lift Chain**

Disconnect each end of the chain by removing master links at the handle and roller frame. **Tip:** Use a rag to hold chain and surround the area to catch clip.



#### **Step 2 – Remove Throttle Lever & Wire**

Remove the lever from upper handle.

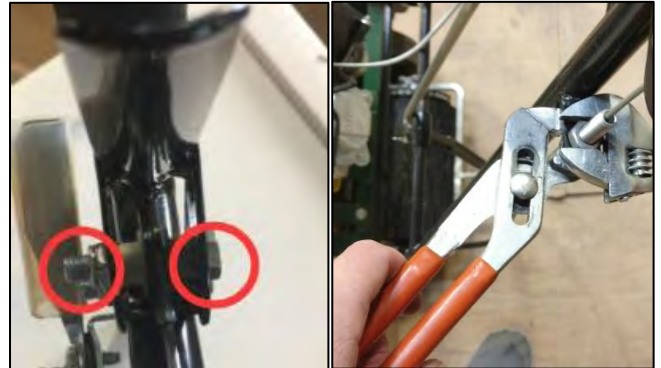


Remove air filter cover to access mounting clamp, loosen the screw far enough to remove outer wire, then remove inner wire from throttle arm. **NOTE: The end is a "Z" shape**



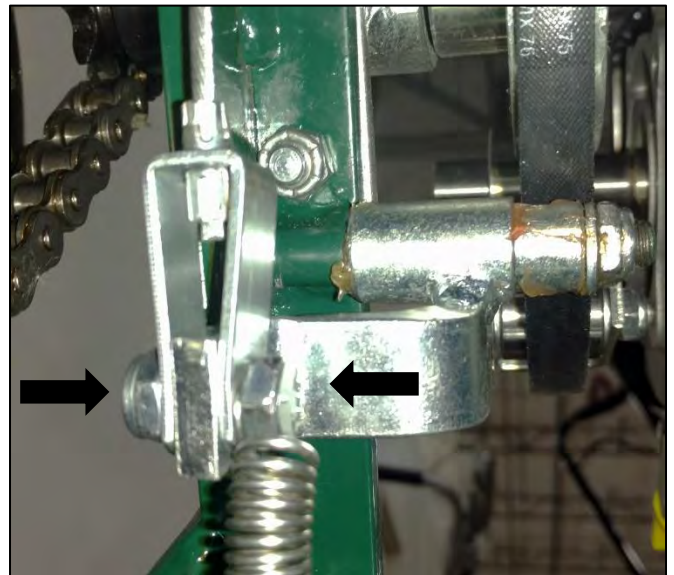
#### **Step 3 – Remove Clutch Cable – Handle Side**

Remove the bolt, nut and spacers from the lever, then loosen the cable adjustment nuts so it can be removed from the bracket



#### **Step 4 – Remove Clutch Cable – Frame Side**

With the unit tipped forward and secured in place (as described on Page 1), access the connection bolt & nut and use 2 x 1/2" wrenches to loosen. **NOTE: The return spring is also held in place at this connection.**



After the end is disconnected, un-screw the inner nut entirely to remove the entire cable from the frame.







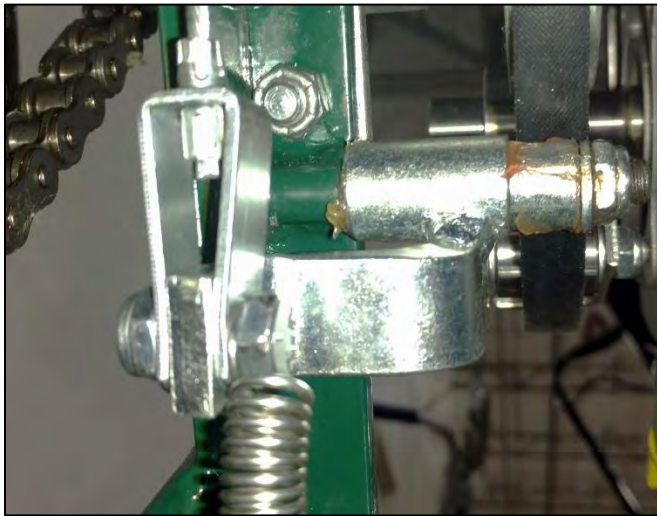
# RL20H Handle Extension Kit

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### **DISASSEMBLY (CONTINUED)**

#### **STEP 5 – Install (New) Clutch Cable – Frame Side**

It's best to immediately install the new cable here at this time, so insert the cable back into the frame in the same position (equal threads on both sides), then place the cable end in position and insert the bolt (with the spring still connected) through the idler arm and install the nut. **NOTE: do not tighten the bolt/nut completely as the end needs to move freely on the idler arm.**



#### **Step 6 – Remove Lower Handle From Frame**

Remove 2 x hex head bolts, nuts & washers from the left side. Remove the hex head bolt, Phillips head bolt and nuts from the right side.

**Note: there are no washers on this side.**



### **ASSEMBLY**

#### **Step 1 – Install Handle Extension Brackets**

Install the brackets in the same position as the handle just removed, using the same bolts, washers and nuts on the LH side, the new supplied ones on the RH side. Tighten securely on both sides.



#### **Step 2 – Install Handle**

Install the handle onto the extension brackets using the new bolts, washers and nuts provided in the kit. Tighten securely on both sides.





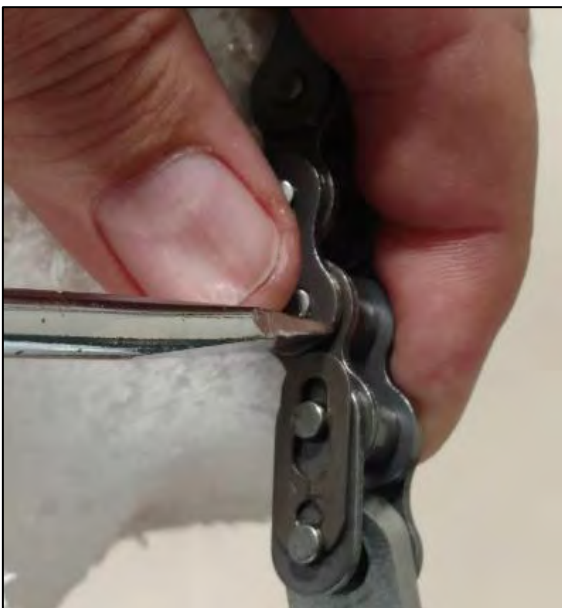
# RL20H Handle Extension Kit INSTALLATION INSTRUCTIONS



## ASSEMBLY (CONTINUED)

### **Step 3 – Install (New) Drive Roller Lift Chain**

Connect the chain to the roller frame and the handle lift using the master links. **TIP: Hold / pull the chain to keep tight, then place your thumb against the flat edge of screwdriver to push clip into place.**



### **Step 4 – Install (New) Throttle Wire**

Insert the "Z" end of the inner wire into the throttle arm on the carburetor, then place the outer cover under the clamp – do not tighten completely. Route the wire underneath the cross-bar back and up to the lever mounting point of the upper handle and install. Move the lever to the slow position (turtle icon), then push the wire at the carburetor until the throttle arm is in the corresponding slow position. Tighten clamp.

### **Step 5 – Install (New) Clutch Cable – Handle Side**

With the top nut off and the bottom nut at the lower portion of the threads, insert the cable through handle bracket slot, followed by the adjustment section. Install the top nut and move it against the bracket. **NOTE:** further movement of the nut (lower) may be needed to provide adequate reach to connect the end to the lever.



### **Step 6 – Install (New) Clutch Cable – Hand Lever**

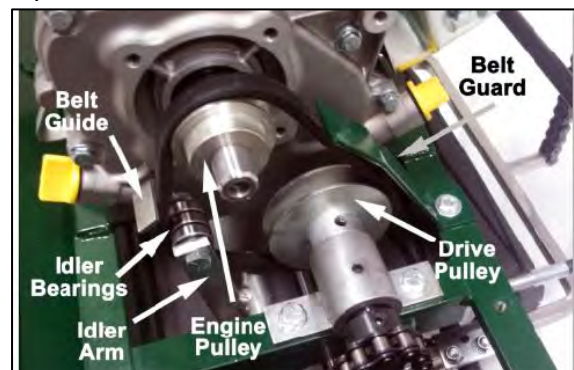
Insert the bolt through the front of the lever, add the first spacer, the cable end, the second spacer then the back side of the lever as shown in the picture.



**NOTE: do not over-tighten the bolt/nut as the end needs to move freely.**

### **Step 7 – Adjust Clutch Engagement**

Remove the clutch cover (7/16" hex head size bolts on each side) to view the clutch components.







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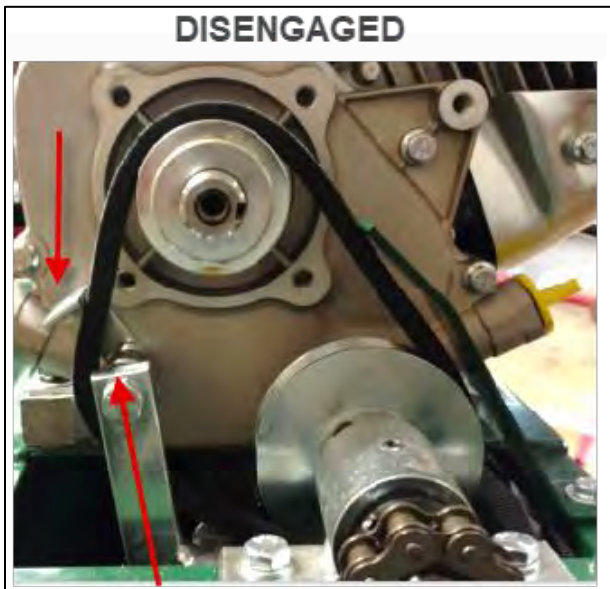
## INSTALLATION INSTRUCTIONS

### Step 7 – Adjust Clutch Engagement (Continued)

The goal of adjusting is to ensure the hand lever properly engages and disengages the drive system. Usually this can be done using the adjustment at the handle where moving it downward (in the bracket) will move the idler arm forward.



The objective of the disengaged position is to ensure the belt is not engaged with the drive pulley. Below is a photo of a typical disengaged position, where the idler arm is slightly forward, while the belt guide and belt guard are contacting the belt to help push it out of the pulley groove.



Squeeze the engagement lever to check the idler movement and belt engagement / tension. The optimum function is to have the lever close to touching the handle while the idler is engaging and tightening the belt, creating sufficient tension.

At this point, there should be visible clearance between the belt, the belt guide (front) and belt guard (back).



The idler position can be changed by adjusting the clutch cable. Use the lock nuts to move the outer cable in the bracket (which will move the idler position) ... downward moves the idler forward to increase the belt tension / upward moves the idler backwards to decrease the belt tension.

To check the clutch action, verify that the drive roller lift lever is in the up and disengaged position, then start the engine. **IF THE BLADE / REAR DRIVE ROLLER ARE TURNING CONTINUEOUSLY WITHOUT ENGAGING (SQUEEZING) THE CLUTCH LEVER, STOP THE ENGINE AND RE-**

**ADJUST.** Once the clutch action is properly adjusted, install the clutch cover and tighten securely.

