

## **AUTOMATIC RUBBER DAMPED BELT TENSIONERS**

**Model: Pro-Flex 120B, s/n 13271777 and up**

Beginning at s/n 13271777, all Pro-Flex 120B contour finishing mowers have been equipped with automatic rubber damped belt tensioners. This style of tensioner not only eliminated many grease fittings and moving parts, it also provided more consistent belt tensioning, which has shown to increase belt life in most applications.

Although the original equipment belts that Progressive uses are of a very high quality, they will eventually relax or stretch. After prolonged service, it may appear that the belt stretch is such that the tensioners can no longer provide the required tension for proper power transmission. Continued use under this condition may lead to burned and or failed belts.

### **BUILT-IN INDICATOR**

The rubber damped tensioners used since mid - 2013 are equipped with an indicator that can be used as a quick guide to help judge belt condition.



Prior to the expense of replacing a belt, look at the tensioners and locate an angle scale printed on one corner of the housing and a corresponding stamp mark on the arm.

- With a new belt installed, the stamping should be very close to the 30 triangle mark.
- Older belts may have relaxed, the indicator will not be as close to the 30 mark as when the belt is new.
- Progressive maintains that in most applications, the belt remains serviceable when the tensioner scale has not moved lower than the 15 mark – this is assuming that the belt does not show any other signs of wear or deterioration (cracks, flat spots etc.).
- Note; mowing in long, heavy or wet grass requires more power and may require higher belt tension than noted above. Replace drive belts if cut quality deteriorates, or if the belt tensioner jumps excessively, which generally indicates a flat spot on the belt.

Refer to the Operator’s Manuals for more information on evaluating belt tension prior to removing and replacing a belt.

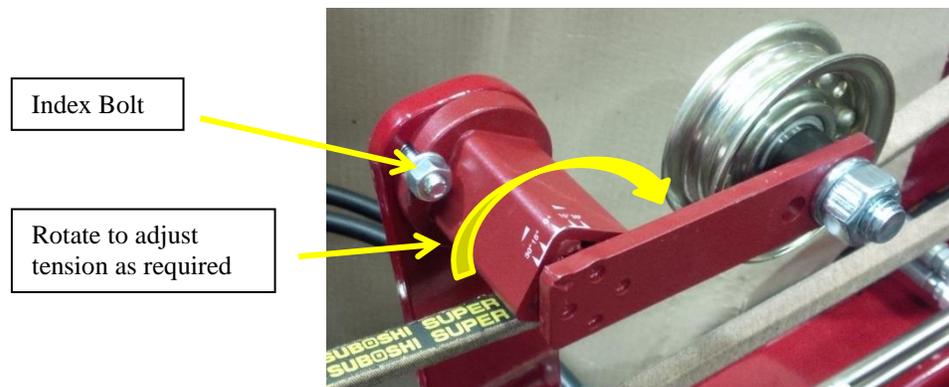
## TENSIONER TESTING

The condition of the tensioner itself can be easily evaluated by using a fish scale to measure the resistance of the tensioner. The belt and pulley must be removed first.

- Place a calibrated fish scale in the bolt hole that held the pulley and pull on the scale at 90 degrees to the arm. Rotate the arm to 15 degree mark without placing any side load on the arm and read the scale.
- If the result is 20 pounds or more, the tensioner remains serviceable.
- If the scale reads below 20 pounds then tensioner adjustment or replacement is suggested. For adjustment see below.
- Repeat for any other tensioner as required.

## TENSION ADJUSTMENT

It is possible to adjust belt tension without replacement of the rubber damped tensioner.



If additional belt tension is required the body of the tensioner can be rotated slightly, which will increase the tension applied to the belt. The **Index Bolt** is used mainly for initial assembly and can be removed and discarded. To adjust the tension, remove the Index Bolt and slightly loosen the mounting bolt securing the tensioner to the support. Using a large adjustable wrench, carefully rotate the body of the tensioner until the proper tension is achieved. Do not over tighten. Prevent the tensioner from turning and securely tighten the mounting bolt. Ensure that the belt does not contact any surface, including the bottom of the tensioner and check that the belt tension is not beyond stated specifications.

## CHECK BELT TENSION - 100h / Monthly

Proper belt tension is a fundamental factor in successful V-belt operation. Lack of tension will cause slippage, and too much tension will cause excessive belt stretch as well as damage to the drive components, such as bearings and shafts.

To proper belt tension, the following procedure is recommended.

- At the mid-point of the span, apply a deflection force with a spring scale in the direction perpendicular to the span until the belt is deflected the 3/8".
- The recommended force to deflect the belt is a minimum of 5 lbs. to a maximum of 7 lbs.
- The first 24 to 48 hours of operation is the belt "run in" period. To ensure satisfactory belt performance, belt tension should be checked during this time period.