

Customer Service Information

General Information – All Models

Mower to Tractor Set-Up

-Progressive mowers are designed to employ an **Equal Angles Set –Up** to the tractor. To achieve this set-up, the draw bar on the tractor has to be adjusted to be 14” to 15” from the center of the draw pin hole to the end of the PTO stub of the tractor. Since the distance from the draw pin hole of the mower hitch to the end of the intermediate shaft stub is 15”, the draw pin will be at a point in the middle of both the tractor and mower PTO stubs. When the input PTO shaft is installed, and the mower is operated, the front and rear u-joints will bend equally (while doing a turn) thus producing a minimum of driveline vibration. Every mower has a schematic diagram of this set-up on the hose support shield.

Note: The foregoing does not apply to mowers equipped with C.V. input systems such as the model TDR-15C and D, Pro-Flex 120C and D, or TD65C and D.

-It is also important that the total driveline be as level as possible when viewed from the side of the mower/tractor combination. This is important on all Progressive mowers as it will also help to minimize driveline vibration.

-The mower main frame should also be as level to the ground as possible. This can be achieved by rotating the hitch (on all models). A level frame will ensure that the decks on the tri-deck models cut evenly.

Blade Spindles

All Progressive mowers have a blade spindle that is similar in design. They require daily (every eight hours) maintenance, or bearing failure will result. The correct type of grease is discussed in the owner’s manual. Contamination of grease through the use of non-compatible grease will result in bearing failure. Contaminated grease is characterized by a black, very thick and solid residue in a spindle hub when it is disassembled.

Drive Belts

All Progressive mowers have a mechanical drive system using pulleys and drive belts. Proper tensioning is critical to long life. Poor tensioning will burn belt and impair mower quality of cut.

-Tri-Deck Models: have two belts per deck. They are tensioned equally by moving the gear box in or out on a slide plate through a tensioning bolt. Both belts on a single deck should be replaced if one breaks since the remaining belt will be stretched and will not tension properly. A poor quality of cut will result (especially in heavy cutting conditions).

-Pro-Flex 120: Has 10 drive belts. They are all tensioned through the use of spring loaded idlers. Customers should be sure the belts are routed properly and that all idlers are in good order and lubricated per the manual.

-Roller Mowers: The 22 foot models have 4 belts per deck. The inboard belts are tensioned by moving the gear box as per the Tri-deck models. The outer most belts are tensioned manually by adjusting an idler and setting the tension by adjusting a bolt on a slide plate. 15' roller mowers are similar in design to the Tri-Deck models as outlined above.

Blades

Quality of cut is directly related to the blades being sharp. Additionally, the blades must be balanced to eliminate damaging vibration to the spindle assembly and deck where the spindle mounts.

Pro-Flex 120 – Common Complaints

- 1) **Excessive Vibration in mower driveline when turning:** - Draw bar length wrong see mower /tractor set-up (equal angles set-up) –level mower frame or- make driveline as straight as possible.
- 2) **Drive shaft does not collapse easily or hanger bearing and hanger bearing mount is damaged:**-pull input shaft apart and inspect for wear on splines. If splines are showing wear, the shaft has not been lubricated. This will cause the shaft to bind (under load) and push back on the hanger bearing and its mount thus breaking the bearing and bending the mount.
- 3) **Wing belt on main drive line keeps coming off:**-the belt is not routed properly, or the belt is stretched. Check the stopper bolt for the wing to ensure that it is not missing and is installed correctly. This bolt ensures that the wing assembly will not sag thus creating belt stretch. The customer should be advised to make sure the hydraulic valve supplied on the mower is closed off when the mower is in use. This will lock the wing down and not allow backflow through the tractor hydraulics. Backflow would allow the wing to float up thus causing the wing belt to go slack and come off the pulley, or slip. This will also impair the quality of cut of the out side decks. The same situation will occur when the wing decks are lifted with the PTO engaged.
- 4) **Left deck not cutting or cutting poorly:** Wrong blade installed on this deck and is running backwards. The blade set has one blade painted red. This blade must be installed on the left front deck. All other blades are painted black and will run backwards on the left front deck.
- 5) **Front or rear deck belts lose tension:** This is generally caused by excessive vibration –see set-up. Replace belts with OEM belts only. The OEM belt is specially constructed for the Pro-Flex and it is recommended that only OEM belts are used as standard belts that may fit will stretch and will deliver short life. Be sure that the belts are routed correctly. They are twisted ¼ turn to ride in the idler pulley properly.

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- 6) **Uneven cut between decks: (leaves a ridge):** Deck tires on one side of a deck are worn (probably from running on a cart path). Replace tire or tire/wheel assembly.

Tri-Deck 12' and 15.5'

- 1) **Excessive Vibration in mower driveline:** Draw bar length on tractor is wrong and must be adjusted – see mower to tractor set –up. See equal angles set-up. Level mower frame and/or make driveline in a straight line from side view.
- 2) **Drive shaft does not collapse easily or hanger bearing and/or hanger bearing mount is damaged:** pull input shaft apart and inspect for wear on splines. If splines are showing wear, the shaft has not been lubricated. This will cause the shaft to bind (under load) and push back on the hanger bearing and its mount thus breaking the bearing and bending the mount.
- 3) **Premature damage to inboard yoke of both wing deck drive shafts:** The operator is raising the decks without turning off PTO, or the drive line is still rotating (PTO off) and decks are raised. The deck inboard yokes must be in phase and on the same plane with each other. If they are not in phase, the yoke will be stressed when the deck is raised (and they are trying to be in phase). See page 15 of the manual.
- 4) **Uneven cut between decks:** Be sure all height spacers are equal in all locations (at each wheel and corner pin locations). Be sure mower main frame is level to the ground as much as possible as this will make the wing deck level and cut level. Adjust tension on spring from lift arm to deck swivel. The deck pin should rest on its frame pad and not float up easily.
- 5) **Older or remaining deck belt burns/slips after new belt installed:** Both deck belts must be replaced when one belt breaks to ensure that equal tension is achieved in both belts. See general information paragraph 3.
- 6) **Difficult to release deck transport lock:** The wing cylinder is not pulling the wing all of the way up. The clevis on the end of the cylinder must be adjusted to increase the length of stroke. This will allow the deck release to operate properly.
- 7) **Deck will not lower:** There is dirt in the flow restrictor located on the outlet end of the cylinder. Remove and clean restrictor. Check the transport lock to see that it is operating properly and not causing the deck to hang up. (see section 6 above).

TDR-15 Roller Mower

- 1) **Excessive Vibration in mower driveline when turning:**- Draw bar length wrong see mower /tractor set-up (equal angles set-up) –level mower frame or- make driveline as straight as possible
- 2) **Drive shaft does not collapse easily or hanger bearing and hanger bearing mount is damaged:**-pull input shaft apart and inspect for wear on splines. If splines are showing wear, the shaft has not been lubricated. This will cause the shaft to bind (under load) and push back on the hanger bearing and its mount thus breaking the bearing and bending the mount.
- 3) **Premature damage to inboard yoke of both wing deck drive shafts:** The operator is raising the decks without turning off PTO, or the drive line is still rotating (PTO off) and decks are raised. The deck inboard yokes must be in phase and on the same plane with each other. If they are not in phase, the yoke will be stressed when the deck is raised (and they are trying to be in phase). See page 15 of the manual.
- 4) **Left Deck does not cut well-poor quality of cut.** The left deck blades rotate in the opposite direction to the other two decks. This aides in the discharge of the left deck and reduces the build up of clippings on the rear deck and frame. Be sure that the red painted blades are mounted on this deck. Also be advised that the deck gear box rotates in the opposite direction to the other two gear boxes. If purchasing parts for this deck, be sure to indicate that parts are for the left deck gear box.
- 5) **Older or remaining deck belt burns/slips after new belt installed:** Both deck belts must be replaced when one belt breaks to ensure that equal tension is achieved in both belts. See general information paragraph 3.
- 6) **Deck will not lower:** There is dirt in the flow restrictor located on the outlet end of the cylinder. Remove and clean restrictor. Check the transport lock to see that it is operating properly and not causing the deck to hang up. (see section 6 above).