

REMOVING THE P-511 REV A GEAR BOX, COMPLETE, ASSEMBLY

Follow these instructions for removing the gear box. The gear box is composed of the (3) gear assemblies. If you are experiencing feed function difficulties a part may need to be replaced.

1. Disconnect power source. Remove the chip extractor and raise head approximately 4".
2. Turn the knife arbor so the 54-42 set screw located in the infeed P-111 sprocket is facing down. From the underside of the P-202 chain guard loosen the set screw located in the hub of the sprocket.
3. Remove the (2) P-240 hex head bolts and (1) P-239 hex head bolt from the P-202 chain guard.
4. To remove the gear box assembly; remove the infeed P-111 sprocket and the P-155 short chain simultaneously. Remove the P-156 long chain once the gear box is partially free.
5. Check the following:
 - The P-117 fiber drive will be in the end of the arbor, unless the fiber drive broke.
 - The P-111 (Outfeed) roller sprocket will be attached to the P-224 axle.
 - The P-111 (Infeed) roller sprocket will be attached to the P-124 axle.

REMOVE THE GEAR BOX

1. Loosen set screws on the (2) P-150 drive sprockets located in the gear box assembly. Remove the sprockets from the P-210 drive shaft.
2. Remove the P-213 nylon bushing and P-214 nylon washer.
3. Drain the oil.
4. Remove (4) P-220 socket head cap screws holding gear box onto the chain guard.
5. Tap on the P-502 shaft and the P-504 shaft with a soft mallet to separate the two housings.
6. Carefully drive out the P-504 large bronze gear assembly from the outside of the gear box with a 1/4" pin punch. Watch for small P-127 spacer and the P-120 spacer.
7. From the outside of the gear box drive out the P-143 1/8" dowel pin with a punch. From the inside of the gear box, using a screw driver gently tap out the P-115 plug bushing.
8. Remove the P-503 secondary shaft assembly (small bronze gear) from the open side of the gear box.
9. Remove the P-502 primary shaft assembly (small worm and slotted end shaft).
10. Replace damaged part (s). We recommend replacing the P-128 gasket.

11. Reassemble gear box.

- P-502 assembly
- P-503 assembly
- Align the slot in the P-115 plug bushing by looking through the hole of where the P-143 1/8" dowel pin goes. Tap in dowel pin until the pin is flush with the outside of the gear box housing.
- P-504 assembly (the P-127 washer will need to be attached to the hub of the P-108 Rev A; large bronze gear) Slide the P-120 spacer onto the shaft.
- Replace the P-128 Gasket

INSTALLING THE GEAR BOX TO CHAIN GUARD

1. Attach the gear box to the chain guard using the (4) P-220 socket head cap screws. (do not forget to attach the P-128 gasket in between the gear box and the chain guard)
2. Attach the P-213 nylon bushing to the P-203 shaft (slotted)
3. Attach the P-214 nylon washer to the P-203 shaft (slotted)
4. Attach the (2) P-150 sprockets to the P-210 drive shaft (P-504 assembly) Sprocket hubs need to face toward the chain guard leaving a 1/32" gap between the inner sprocket and the chain guard. The second sprocket should be tight to the first sprocket.
5. Tighten the 54-42 set screws in each of the P-150 sprockets on the flat of the P-210 drive.
6. Droop the chain over and under the P-213 nylon bushing and against the P-214 nylon washer.
7. Line up the P-156 long chain onto the outfeed P-111 sprocket with the inner P-150 sprocket closest to the chain guard.
8. Attach the P-155 short chain over the second P-150 sprocket. Engage the P-111 infeed sprocket, hub facing toward roller, set screw facing downward (do not install on shaft yet).
9. With the (2) P-240 hex head bolts and (1) P-239 hex head bolt handy pick up the gear box assembly and engage the P-156 long chain on the outfeed P-111 sprocket. Engage the infeed P-111 sprocket simultaneously lining up the P-203 primary shaft and P-117 fiber drive that should be in knife arbor slot.
10. Attach the (3) bolts to the head casting, **tighten only the P-239 bolt.** Will tighten the (2) P-240 bolts in Step 15.
11. Line up the P-155 short chain onto the infeed P-111 sprocket with the outer P-150 sprocket. Tighten the infeed P-111 sprocket set screw on the axle flat.
12. Fill the gear box with approximately 2 oz of oil. The oil level resting should only be at the top of the opening hole of the gear box. If you overfill the gear box will leak. Some minor oil leaking is normal.
13. Check for knife clearance.
14. Attach the chip extractor with 54-14 axis pin.
15. With an adjustable wrench handy start the molder. Adjust the chain guard (if needed) until you achieve a smooth running sound. Loosen the P-239 bolt if needed. This position will be when the primary shaft is most centrally located in the end of the arbor. When the position is achieved tighten the (1) P-239 first and then tighten the (2) P-240 bolts.