APS Small Seeds Box Assembly Instructions

For APS15 Series All Purpose Seeder Manual No. 313-473M

Before You Start

When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

IMPORTANT: Before you begin, read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

These optional assembly instructions contain only information on assembling the attachment to the main unit. Please read these installation instructions and your All Purpose Seeder Operator’s Manual thoroughly before beginning. Especially read information relating to safety concerns. Also included in the Operator’s Manual is important information on operation, adjustment, troubleshooting, and maintenance for this attachment (some manual sections do not apply to all accessories).

A separate Parts Manual for replacement parts can be purchased from your dealer or available free of charge at www.landpride.com. Have model and serial numbers handy when placing an order.

Manual Part Numbers:

- Operator’s Manual . . . . . . . . . . . . . . . . . . 313-354M
- Parts Manual . . . . . . . . . . . . . . . . . . . . . . 313-354P

General Information

These assembly instructions apply to the optional Small Seeds Attachments listed below. Compare the list below with your kit to make sure you have purchased the correct kit for your All Purpose Seeder.

Small Seeds Attachments:

313-465A       APS1548 SMALL SEEDS ATTACHMENT
313-466A       APS1560 SMALL SEEDS ATTACHMENT
313-467A       APS1572 SMALL SEEDS ATTACHMENT
313-468A       APS1586 SMALL SEEDS ATTACHMENT

Starting on page 9 is a detailed listing of parts included in these kits. Use this list as a checklist to inventory parts received.

Further Assistance

Your dealer wants you to be satisfied with your new Small Seeds Box. The following actions are suggested if for any reason you do not understand any part of this manual or are not satisfied with the service received:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lpservicedept@landpride.com
Assembly Instructions

Disassembly of Back & RH Side

Refer to Figure 2:
1. Remove slow moving vehicle (SMV) sign (#13) from back of main seed box. Save SMV sign for reattachment later.
2. Plug sign mounting holes in main seed box with removed 1/4"-20 x 5/8" round head screws (#3), flat washers (#9) and nuts (#8). Tighten nuts to the correct torque.
3. Remove sling bracket (#2) from the right hand side of the seed box.
4. Plug sling bracket mounting holes by reinstalling existing 1/2"-13 x 1" GR5 hex head cap screws (#5), lock washers (#10) and nuts (#7). Tighten nuts to the correct torque.
5. Loosen hand knobs (#12) and remove chain guard (#11). Save existing chain guard for reuse.
6. Remove roller chain (not shown) from agitator sprocket (#1). Do not remove chain from any of the other sprockets.
7. Remove bolt (#4) and sprocket (#1) from end of agitator shaft. Save bolt and nut for installation of new double sprocket later.

Rework Existing Drive Chain Cover

Refer to Figure 3:
1. Measure up from the rear slot 7 1/4" as shown and make a horizontal line 2" long at this location.
2. Measure up from the front slot 5 3/32" as shown and make a second horizontal line 2" long at this location.
3. Scribe a line 2" in from the guard edge starting at the first horizontal line and continuing up around the top and back down to the second horizontal line.
4. Cut relief notch in chain cover as shown to remove 2" of material from the first horizontal line to the second horizontal line.
Main Seed Box Rework, Rear Panel
Drill 11/32" diameter small seeds box mounting holes in the back panel of the main seed box as follows.

48", 60" & 72" Small Seeds Box Mounting Holes
Refer to Figure 4:
Using dimensions provided for your particular APS15 Series model, locate and drill 11/32" diameter holes through the eight pre-dimpled areas in the back panel of the main seed box.

86" Small Seeds Box Mounting Holes
Refer to Figure 5:
Using dimensions provided, locate and drill 11/32" diameter holes through the ten pre-dimpled areas in the back panel of the main seed box.
Seed Box Rework, Right Hand Side

Refer to Figure 6:
1. Locate, mark and drill two 21/32" diameter holes in the upper left corner of the right hand end panel.
2. Locate, mark and drill two 13/32" and two 9/32" diameter holes in the upper right hand end panel.
3. If not present, drill two 13/32" diameter holes in the lower right corner of the right hand end panel.

Small Seeds Box Mounting

Refer to Figure 7:
1. Attach small seeds box to main seed box by inserting 5/16"-18 x 3 1/2" GR5 cap screws (#5) through backing plates (#2A), main seed box back panel, spacer tubes (#1), small seeds box front panel, lock washers (#11) and hex nuts (#7). Draw nuts up snug.
2. Insert 5/16"-18 x 1" GR5 cap screws (#4) through small seeds box front panel, main seed box rear panel, backing plates (#2B), lock washers (#11) and hex nuts (#7).
3. Tighten all installed nuts (#7) to the correct torque.
4. Attach SMV mounting bracket (#13) to small seeds box with 5/16"-18 x 1/2" GR5 cap screws (#6) and locknuts (#9). Tighten nuts to the correct torque.
5. Attach removed SMV sign (#12) to mounting bracket (#13) by inserting 1/4"-20 x 5/8" GR5 round head screws (#3) through flat washers (#10), SMV sign (#12), SMV mounting bracket (#13) and flat washers (#10). Secure SMV sign with locknuts (#8). Tighten nuts to the correct torque.

* The two holes marked with an (*) must be drilled only if your seeder’s serial number is 543361 or lower. Seeders with serial number 543362 and higher are manufactured with the two holes included.
Assembly Instructions

Sprocket Installation
Refer to Figure 8:

1. Install chain guard mount stake (#11) using 1/4”-20 x 5/8” GR5 hex flange serrated screws (#15), lock washers (#22) and hex nuts (#17). Tighten nuts to the correct torque.

2. Install sling bracket (#10) using 5/8”-11 x 1 1/4” GR5 cap screws (#12) and hex flange lock nuts (#21). Tighten nuts to the correct torque.

3. Assembly 14/19T sprocket (#1) on end of agitator shaft with 19T sprocket to the outside. Secure sprocket with existing 1/4”-20 x 1 1/2” GR5 cap screw (#14) and lock nut (#18). Tighten lock nut to the correct torque.

NOTE: Draw all remaining nuts up snug. Do not tighten. Sprockets & idler plates will require readjusting during roller chain installation.

4. Assemble 16/43T double sprocket (#3) to front idler plate (#9) with 5/8”-11 x 3” GR5 carriage bolt (#16), square hole flat washer (#8), 7/8” long spacer (#6), 1/4” long spacer (#5), lock washer (#25) and hex nut (#20) as shown.

5. Assemble 16/29T double sprocket (#2) to upper idler plate (#4) with 5/8”-11 x 3” GR5 carriage bolt (#16), square hole flat washer (#8), 7/8” long spacer (#6), 1/4” long spacer (#5), lock washer (#25) and hex nut (#20) as shown.

6. Attach sprocket assemblies (#2 & #3) to All Purpose Seeder using 3/8”-16 x 1 1/4” GR5 cap screws (#13), flat washers (#23), 3/8” long spacer (#7), lock washer (#24) and hex nut (#19).

Small Seeds Hose Installation
Refer to Figure 13:

1. Attach each small grass seed hose (#2) with clamp (#3) to each of the small seeds cups (#4).

2. Locate small grass seed hoses directly behind main seed box seed cups and attach to seed drop plate (#1) with hose holder clamps (#5).
Assembly Instructions

Sprocket and Chain Arrangement

There is no “range” associated with the Small Seeds drive. If set correctly, the Small Seeds box should turn the same speed regardless of whether the main seed box is set for high or low range. Study the seeds charts in your All Purpose Seeder Operator’s Manual 313-354M and install sprockets and roller chains based on whether you are using high range or low range seeding charts.

High Range Set-Up

Refer to Figure 10:

The 19/35T Sprocket (#3) is arranged with the 19T sprocket in front of the 35T sprocket and the 16/29T sprocket (#6) is arranged with the 29T sprocket in front of the 16T sprocket. All other sprockets remain unchanged.

Main Seeds Box Drive Arrangement

1. Loosen 3/8” nut securing drive tension sprocket (#5). Remove drive chain (#4) from sprocket (#3).
2. Pull idler sprocket (#1) away from roller chain (#2) and remove chain from sprocket (#3).
3. Remove 5/8” nut and flat washer from center of sprocket (#3).
4. Rearrange sprocket (#3) so that the 19T sprocket is in front of the 35T sprocket and then replace 5/8” flat washer and lock nut. Torque nut tight.
5. Drive chain (#4) should be 65 pitches long and driven chain (#2) 101 pitches long. If drive chain (#4) has 73 pitches, then remove 8 pitches from it and add those pitches to driven chain (#2).
6. Install drive chain (#2) onto 35T sprocket (#3) and then driven chain (#4) onto 19T sprocket (#3).

Small Seeds Box Drive Arrangement

1. Loosen the 5/8” nuts located at the center of idler sprockets (#6 & #10).
2. Loosen 3/8” cap screws securing idler slide plates (#11 & #12).
3. Remove roller chains (#7 & #8) from sprocket (#6).
4. Remove 5/8” nut, lock washer and 1/4” long spacer tube from center of idler sprocket (#6).
5. Rearrange sprocket (#11) so that the 29T sprocket is in front of the 16T sprocket and then replace 1/4” long spacer tube, lock washer and 5/8” hex nut. Draw nut up snug. Do not tighten.
6. Install roller chain (#8) onto 16T sprocket (#6) and then roller chain (#7) onto 29T sprocket (#6).

NOTE: The remaining steps are easier if completed by 2 people.

7. At the same time, reposition sprockets (#6 & #10) to remove excess slack in roller chains (#7 & #8).
8. Secure lower idler slide plate (#12) by drawing the 3/8” cap screws up snug. Make sure cap screws are loose enough to make final adjustments to the sprockets by tapping on the idler plate with a hammer and punch.
9. Adjust upper idler plate (#11) to remove any remaining slack out of both chains (#7 & #8) and then secure the plate by drawing the 3/8” cap screws up snug. Make sure cap screws are loose enough to make final adjustments to the sprockets by tapping on the idler plate with a hammer and punch.
10. Tap on idler plates (#11 & #12) until chains (#7 & #8) have a small amount of slack. If necessary, slightly loosen 5/8” center sprocket nuts to reposition sprockets (#6 & #10) on their idler plates.
11. Once the chains are properly tensioned, tighten the 3/8” cap screws on the idler plates and 5/8” nuts in the center of the sprockets to the correct torque.

High Range Sprocket & Chain Arrangement

Figure 10
Assembly Instructions

Low Range Set-Up

Refer to Figure 11:
The 19/35T Sprocket (#3) is arranged with the 35T sprocket in front of the 19T sprocket and the 16/29T sprocket (#6) is arranged with the 16T sprocket in front of the 29T sprocket. All other sprockets remain unchanged.

Main Seeds Box Drive Arrangement
1. Loosen 3/8” nut securing drive tension sprocket (#5). Remove drive chain (#4) from sprocket (#3).
2. Pull idler sprocket (#1) away from roller chain (#2) and remove roller chain from sprocket (#3).
3. Remove 5/8” nut and flat washer from center of sprocket (#3).
4. Rearrange sprocket (#3) so that the 35T sprocket is in front of the 19T sprocket and then replace 5/8” flat washer and lock nut. Torque nut tight.
5. Drive chain (#4) should be 73 pitches long and driven chain (#2) 93 pitches long. If driven chain (#2) has 101 pitches, then remove 8 pitches from it and add those pitches to drive chain (#4).
6. Install drive chain (#2) onto 19T sprocket (#3) and then the driven chain (#4) onto 35T sprocket (#3).

Small Seeds Box Drive Arrangement
1. Loosen the 5/8” nuts located at the center of idler sprockets (#6 & #10).
2. Loosen 3/8” cap screws securing idler slide plates (#11 & #12).
3. Remove roller chains (#7 & #8) from sprocket (#6).
4. Remove 5/8” nut, lock washer and 1/4” long spacer tube from center of idler sprocket (#6).
5. Rearrange sprocket (#11) so that the 16T sprocket is in front of the 29T sprocket and then replace 1/4” long spacer tube, lock washer and 5/8” hex nut. Draw nut up snug. Do not tighten.
6. Install roller chain (#8) onto 29T sprocket (#6) and then roller chain (#7) onto 16T sprocket (#6).

NOTE: The remaining steps are easier if completed by 2 people.

7. At the same time, reposition sprockets (#6 & #10) to remove excess slack in roller chains (#7 & #8).
8. Secure lower idler slide plate (#12) by drawing the 3/8” cap screws up snug. Make sure cap screws are loose enough to make final adjustments to the sprockets by tapping on the idler plate with a hammer and punch.
9. Adjust upper idler plate (#11) to remove any remaining slack out of both chains (#7 & #8) and then secure the plate by drawing the 3/8” cap screws up snug. Make sure cap screws are loose enough to make final adjustments to the sprockets by tapping on the idler plate with a hammer and punch.
10. Tap on idler plates (#11 & #12) until chains (#7 & #8) have a small amount of slack. If necessary, slightly loosen 5/8” center sprocket nuts to reposition sprockets (#6 & #10) on their idler plates.
11. Once the chains are properly tensioned, tighten the 3/8” cap screws on the idler plates and 5/8” nuts in the center of the sprockets to the correct torque.

Low Range Sprocket & Chain Arrangement

Figure 11
Assembly Instructions

Chain Guard Installation
Refer to Figure 12:
1. Attach existing modified chain cover (#6) to the lower drive chain assembly with hand knobs (#8). Tighten knobs against the chain cover.
2. Slide guard support (#4) over end of right side channel frame as shown.
3. Hook small seeds chain guard (#2) onto the two guard mount stakes (#1) and secure in place with rubber latches (#5).
4. Also secure chain guard (#2) to guard support (#4) with hand knob (#7). Tighten knob against the guard support.

Illustration of Parts Shipped
Refer to Figure 13:
This illustration identifies shipping packages from the factory by part number. See Land Pride’s Parts Manual 313-473P for part numbers of individual components.
### Assembly Instructions

#### 313-465A APS1548 SMALL SEEDS ATTACHMENT

Your Kit Includes:

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<th>Qty.</th>
<th>Part No.</th>
<th>Part Description</th>
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<td>308-239L</td>
<td>308-360L OS1548 SMALL SEEDS BOX ASSEMBLY (SMV Sign Not Included)</td>
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<tr>
<td>2</td>
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<td>313-163D</td>
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<tr>
<td>4</td>
<td>7</td>
<td>313-469L</td>
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</tr>
<tr>
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<tr>
<td>6</td>
<td>2</td>
<td>802-050C</td>
<td>HHCS 5/8-11X1 1/4 GR5</td>
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<td>7</td>
<td>2</td>
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<td>NUT HEX FLANGE LOCK 5/8-11 PLT</td>
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<tr>
<td>8</td>
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<td>313-473M</td>
<td>APS SMALL SEEDBOX MANUAL IN A PLASTIC BAG</td>
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Refer to Figure 13 on page 8:

#### 313-466A APS1560 SMALL SEEDS ATTACHMENT

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Refer to Figure 13 on page 8:

#### 313-467A APS1572 SMALL SEEDS ATTACHMENT

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Refer to Figure 13 on page 8:

#### 313-468A APS1586 SMALL SEEDS ATTACHMENT

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