

# Lawn Combers/Seeder OWNER'S MANUAL

C18

Lawn Comber

P18

Lawn Comber





Lawn Comber - Bagger

P18







## Index

| Operato  | or's Guide                         | Page |
|----------|------------------------------------|------|
|          | Specification                      |      |
|          | C18/P18 Model Number Format        | 2    |
|          | Assembly - Put into Service        | 3    |
|          | Features And Controls              | 4    |
|          | General Safety Instructions        | 5    |
|          | Using Your New Comber / Seeder     | 9    |
|          | Maintenance and Service            |      |
|          | Inspection Schedule                | 9    |
|          | Blade Versatility                  |      |
|          | Flail Blade                        | 10   |
|          | Delta Blade                        | 11   |
|          | Spring Tine                        | 11   |
|          | Drive Belt Replacement             | 11   |
|          | Lawn Bagger Operating Instructions | 12   |
|          | Lawn Seeder Operating Instructions | 12   |
|          | Comber / Seeder Decals             | 13   |
|          | Decal Placement                    | 14   |
| Replaces | ment Parts Lists                   |      |
|          | C18 Compact Lawn Comber            | 15   |
|          | P18 Lawn Comber                    | 17   |
|          | P18 Lawn Comber With Bagger        | 19   |
|          | P18 Seeder                         | 21   |
|          | Flail Blade Reel                   | 23   |
|          | Delta Blade Reel                   | 24   |
|          | Spring Tine Reel                   | 25   |
| Attachn  | nents                              |      |
|          | 7000-P18 Catcher Bag Attachment    |      |
| General  | Product Information                |      |
|          | Warranty                           | 31   |
|          | Sales And Service Contact          | 31   |



## C18/P18 series Comber/Seeder Specifications

| Specifications                            | C18  | P18  |  |
|---|--|--|--|
| Engine options                            | 3.5HP B&S (2.6kw) (Spring tines only)<br>4HP Honda (3kw) (Spring tines only)<br>5.5HP B&S Intek (4.1kw) (Flail or Delta)<br>5.5HP Honda (4.1kw) (Flail or Delta) | 5.5HP B&S Intek (4.1kw)<br>5.5HP Honda (4.1kw)<br>8HP B&S (6kw)  |  |
| Combing width                             |  | 18″  |  |
| Clutch control                            | Handle mounted with a  | utomatic safety declutching  |  |
| Clutch mechanism                          | Spring loaded belt tig   | ghtener and idler pulley   |  |
| Combing/Seeding width                     | 18" (4   | 45.7cm)  |  |
| Depth adjustment                          | Adjustable depth control w/ uni-   | lever mechanism with lock and stop   |  |
| Flail blades reel                         | 52 case hardened steel with 5/8" (1.6cm) spacing 1/8"x1"x31/2" (0.3x2.5x8.9cm)   | 52 case hardened steel with 5/8" (1.6cm) spacing 1/8"x1"x4" (0.3x2.5x10.2cm)   |  |
| Delta blades reel                         | 20 austempered 12-gauge  | steel with 2" (5cm) spacing  |  |
| Spring tines reel                         | 52 tines with plastic protection sleeve  | N/A  |  |
| Construction                              | Uni-body welded<br>10 gauge  |  |  |
| Drive                                     | V-pulley, belt and belt keeper   |  |  |
| Handle                                    | Folding<br>Ergonomic design w/ padding   | Rigid<br>Ergonomic design w/ padding   |  |
| Catcher bag                               | N/A  | 8 cu.ft (0.23m3) synthetic fabric with rolling tray  |  |
| Seed hopper                               | N/A  | 1,358 cu.inch (22.3 l) or appr. 30 lbs (13.6kg) of seeds Self driven agitation Viewing window  |  |
| Weight<br>(Less 20 lbs<br>without engine) | 127 lbs (57.6kg)   | Seeder 165lbs (74.8kg)<br>Comber 144lbs (65.3kg)<br>Bagger 157lbs (71.2kg)   |  |
| Width                                     | 28" (71cm)   | 26 ½" (67.3cm)   |  |
| Length                                    | 20" (50cm) w/o handle<br>37" (94cm) w/ handle  | 26 <sup>3</sup> / <sub>4</sub> " (68cm) w/o handle<br>50" (127cm) w/ handle  |  |
| Height                                    | 23 <sup>1</sup> / <sub>4</sub> " (59cm) w/o handle<br>41" (107cm) w/ handle  | 24" (61cm) w/o handle<br>40" (102cm) w/ handle   |  |
| Wheel base                                | 12 1/4" (31cm) center to center  | 17 3/4" (45cm) center to center  |  |
| Bearings                                  | ³/₄″ sealed fl   | ange cartridge   |  |
| Wheels                                    | Front: 8"x1 <sup>3</sup> / <sub>4</sub> " (20.3cm x 4.4cm)<br>Rear: 8"x1 <sup>3</sup> / <sub>4</sub> " (20.3cm x 4.4cm)  | Front: 8"x 1 <sup>3</sup> / <sub>4</sub> " (20.3cm x 4.4cm)<br>Rear: 10"x2 <sup>3</sup> / <sub>4</sub> " (25.4cm) (Bagger unit)<br>Rear: 10"x1 <sup>3</sup> / <sub>4</sub> " (Seeder unit) |  |
|   |  |  |  |



## C18/P18 Combers and Seeders

1. Model Name Format: 7 digits format

#### DECK TYPE / WORKING WIDTH / ENGINE/BLADE / PRODUCT

(1) Deck type:

-C: compact

-P: professional

(2) Working width: 18"

(3) Engine:

-00: Less engine

-3B: 3.5HP B&S w/ 6:1 gear reduction -4H: 4HP Honda w/ 6:1 gear reduction

-5B: 5.5HP B&S Intek -5H: 5.5HP Honda -8B: 8HP B&S

(4) Blade

-F: flail

-D: delta

-T: spring tines

(5) Product:

-C: comber

-B: bagger (catcher bag)

-S: seeder

Example: P185BFB is a P18 series unit with a 5.5HP B&S Intek engine, flail blades and a catcher bag.

#### 2. Product Offering:

#### a) C18 Series

|         |       | Engine options |           |           |                    |             |
|---------|-------|----------------|-----------|-----------|--------------------|-------------|
|         |       | Less Engine    | 3.5HP B&S | 4HP Honda | 5.5HP B&S<br>Intek | 5.5HP Honda |
| Blade   | Flail | C1800FC        | N/A       | N/A       | C185BFC            | C185HFC     |
| Options | Delta | C1800DC        | N/A       | N/A       | C185BDC            | C185HDC     |
|         | Tines | C1800TC        | *C183BTC  | *C184HTC  | N/A                | N/A         |

<sup>\*</sup>Requires 6:1 Gear Reduction for tine reel assemblies.

#### b) P18 Series

#### Combers (C)

|         |       |             | Engine          | Options     |         |
|---------|-------|-------------|-----------------|-------------|---------|
|         |       | Less Engine | 5.5HP B&S Intek | 5.5HP Honda | 8HP B&S |
| Blade   | Flail | P1800FC*    | P185BFC         | P185HFC     | P188BFC |
| Options | Delta | P1800DC*    | P185BDC         | P185HDC     | P188BDC |

#### 2. Product Offering:

#### b) P18 Series

#### Combers with Catcher Bags (B). Flail reel only. Delta reel not recommended.

|       | Engine Options |                 |             |         |
|-------|----------------|-----------------|-------------|---------|
|       | Less Engine    | 5.5HP B&S Intek | 5.5HP Honda | 8HP B&S |
| Flail | P1800FB*       | P185BFB         | P185HFB     | P188BFB |

#### · Seeders (S). Delta reel only. Flail reel not recommended.

|       | Engine Options |                 |             |         |  |
|-------|----------------|-----------------|-------------|---------|--|
|       | Less Engine    | 5.5HP B&S Intek | 5.5HP Honda | 8HP B&S |  |
| Delta | P1800DS*       | P185BDS         | P185HDS     | P188BDS |  |

<sup>\*</sup> if ordering "less engine" for a standard 5hp, the pulley and belt are included. If ordering "less engine" for an 8hp, the pulley and V-belt must be ordered separately. (Pulley part number is 54020 and V-belt part number is 54018.)

## Assembly - Put into Service

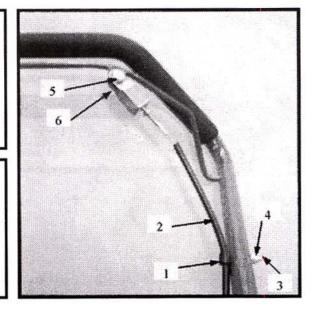
- 1. Attach handle to comber.
- 2. Attach cable to bail using 5/16" bolt and nut. **Do not overtighten**, clevis must swing freely. Adjustment nut on clevis should be at midpoint of thread.
- 3. Slide clip over cable. Clip must be 4-1/2" from top edge of clip to end of cable sheathing.
- Attach clip to handle through hole in handle using 1/4" bolt and nut. Note: Hole through P18 handle is oriented 90 degrees from hole shown in picture. The clip is still mounted through this hole.
- 5. Test clutch handle to insure clutch spring stretches 2" maximum and releases freely.
- 6. Add engine manufacturer's recommended oil to engine. (Refer to enclosed engine manufacturer's manual and follow starting instructions before proceeding further.)
- 7. The engine speed is pre-set by manufacturer. The correct speed is 3200 to 3400 RPM. Consult the engine manufacturer's manual for directions to adjust the governor and carburetor if speed is not within this range.

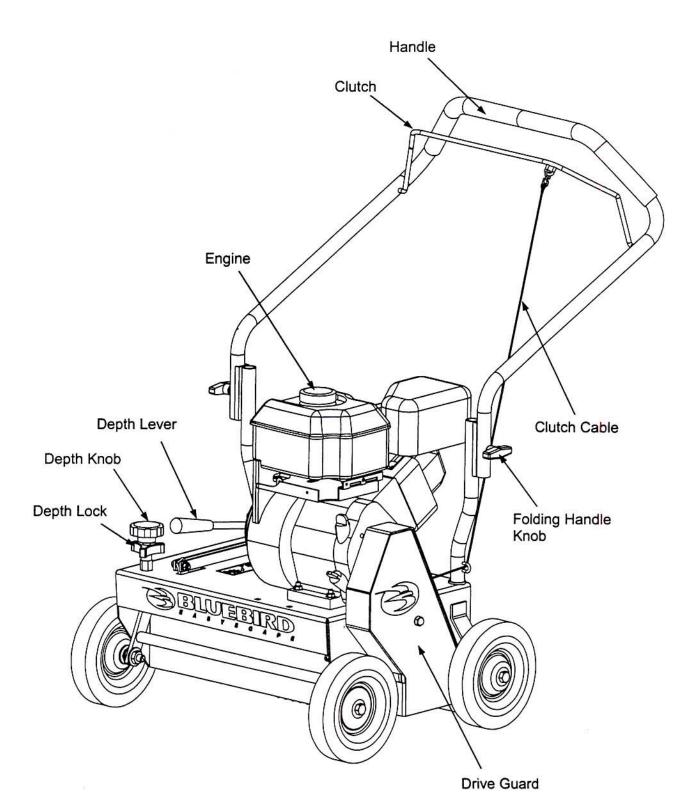
#### CABLE ATTACHMENT

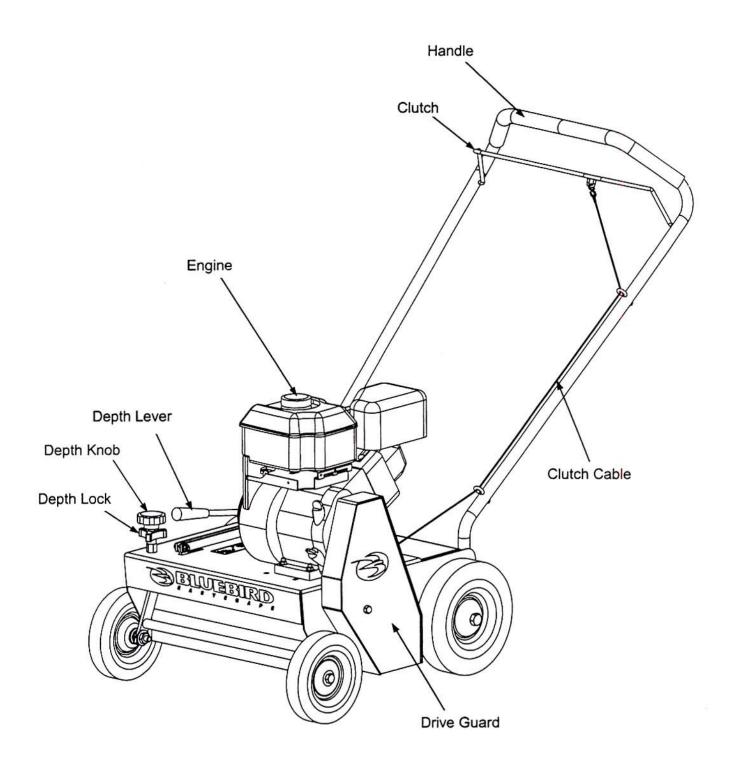
| Item | Description               | Qty |
|------|---------------------------|-----|
| 1    | Clip, Tube                | 1   |
| 2    | Clutch Cable              | 1   |
| 3    | Bolt, Hex, 1/4-20 x 1-1/2 | 1   |
| 4    | Nut, Nylon, 1/4-20        | 1   |
| 5    | Bolt, Hex, 5/16-18 x 1    | 1   |
| 6    | Nut, Nylon, 5/16-18       | 1   |

#### Tools Required:

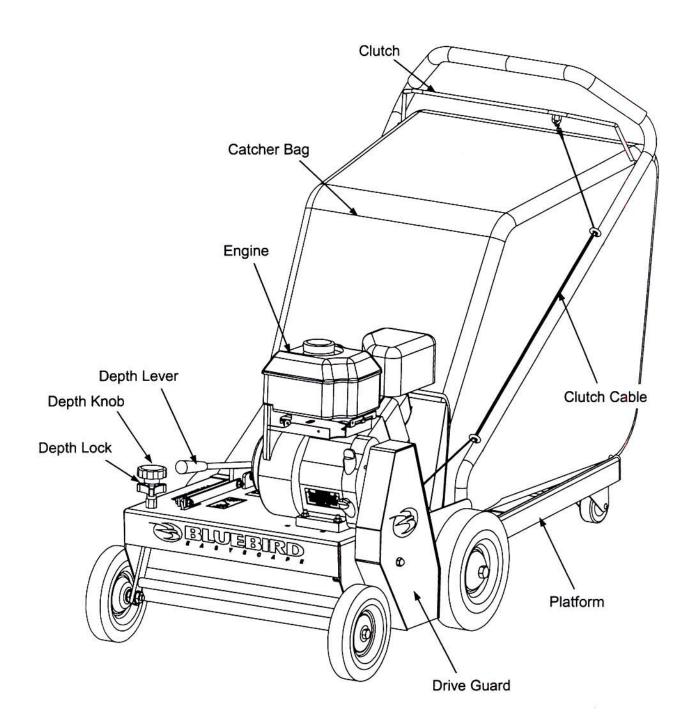
- 1. Ratchet
- 1/2" Socket
- 3. 1/2" Wrench
- 4. 7/16" Socket
- 7/16" Wrench

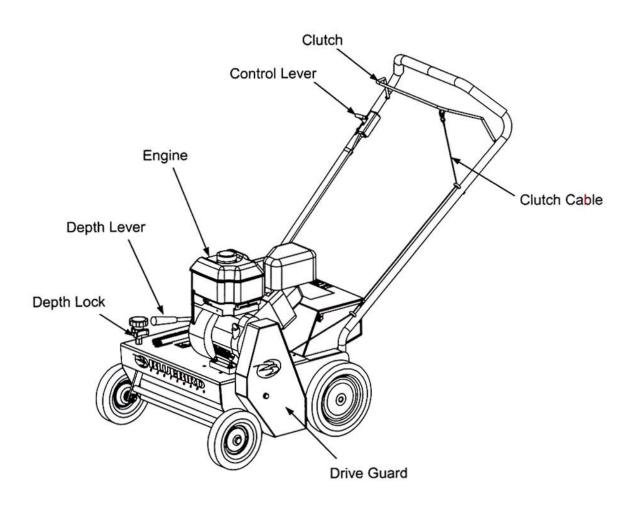


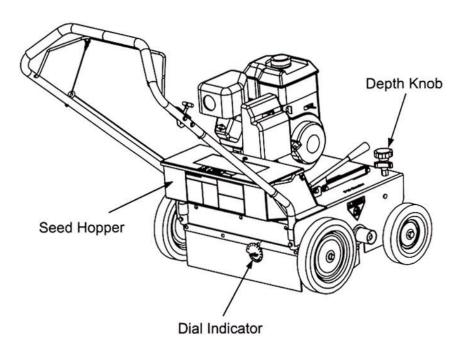




## P18 Lawn Comber w/Catcher







## **General Safety Instructions**

This manual will assist you in the safe operation and proper maintenance of your BlueBird equipment. Read it thoroughly before attempting to operate the machine. Call your dealer or BlueBird if additional information is required.

This equipment should not be modified without the manufacturer's prior written authorization. Doing so may not only affect the equipment's performance and durability, but also create safety hazards for the operator and the surroundings. Warranty will be voided if changes are made to the equipment without the manufacturer's prior written authorization.

- · DO NOT operate or perform maintenance on this machine without first reading the entire owner's manual.
- DO NOT operate on hills exceeding 35% grade. It is recommended for best uniformity that hills be power
  raked across the slope, not up and down the slope. DO NOT leave the unit sitting on a slope unattended. It
  has no parking brake.
- DO NOT tear down the engine, as this may void the Engine Manufacturer's Warranty. Contact your nearest
  engine manufacturer's authorized servicing dealer for engine service and warranty questions. Follow all engine
  manufacturer's maintenance instructions. Should any malfunction occur with the engine during the warranty
  period, take to an Authorized Service Dealer.
- DO NOT run engine while servicing.
- DO NOT use on any surface other than grass.
- · DO NOT place hands or feet near moving or rotating parts.
- DO NOT run engine in an unventilated space.
- DO NOT smoke or allow open flame or sparks near unit and always stop the engine when fueling.
- · DO NOT remove guards while operating.
- · DO NOT modify this equipment.
- DO NOT use this equipment for purposes other than lawn dethatching/seeding/verticutting.
- CAUTION! Inspect lawn and remove any rocks, wire, string and other objects that might present a hazard before starting.
- CAUTION! Identify and mark all ground objects to be avoided, such as sprinkler heads, stakes, water valves, clothesline anchors, etc.
- CAUTION! Use machine for grass lawns only.
- CAUTION! Keep children away from equipment.
- CAUTION! Adopt safe lifting and moving techniques when loading/unloading equipment.
- CAUTION! Make sure all safety decals are in place.
- CAUTION! BlueBird parts have been designed and specified to meet commercial operating standards for strength and durability. For reliability and preservation of design safety standards, replacements should only be made with genuine BlueBird parts or material of equivalent type and strength.
- CAUTION! Any modifications or additions to this equipment without written authorization from the manufacturer will void all manufacturer's warranties.
- · CAUTION! To turn and maneuver your machine, bear down on the handle and pivot on the rear wheels.
- CAUTION! To transport your Comber/Seeder:
  - Shut off engine and allow engine to cool for 2 minutes.
  - Close folding handle if unit is furnished with one.
  - It is recommended that two people lift machine.
  - · Secure in place during transport.

## Using Your New Comber/Seeder

#### Before You Start

- · Mow the lawn to its normal cut height.
- · Allow lawn to dry. Wet conditions may cause increased damage to healthy grass.
- Set rake depth so that blades just touch on a flat surface like a sidewalk or driveway.
- Lawns with deep thatch exceeding 3/4" may be best dethatched in two treatments (spring and fall) to avoid major shock to an older lawn.

#### Starting

- To engage clutch in heavy thatch, bear down on the handle to slightly raise the front wheels. Engage the clutch and slowly lower
  the unit into the turf.
- Do a small test area at a slow walking pace.
- · If the engine RPM drops excessively, the depth setting is too low.
- · If the unit pulls forward and bounces roughly, the depth setting is too low.

#### Finishing

- · Remove all extracted thatch from the grass and compost/dispose of properly.
- Other procedures to improve your lawn may include aeration and fertilization.

#### Storage

- · Refer to engine manufacturer's instructions for engine storage information.
- · Clean machine.
- · Cover all scratches with touch up paint.
- · Lubricate accordingly.
- Covered or indoor storage is recommended.

#### Maintenance and Service

### Inspection Schedule:

| Each Use | 20 hrs     |   |
|----------|------------|---|
| •        |            | Seeder holes - remove dirt/plug               |
| •        |            | Engine oil (Refer to engine mfg. manual)      |
| •        |            | Clutch cable                                  |
| •        |            | Decals and warning                            |
| •        |            | Fasteners and fittings                        |
|          | •          | Belt wear (cracks, fraying, corners rounding) |
| •        |            | Folding handle latch                          |
|          |            | Blade wear                                    |
|          | lacksquare | Frame condition (rust, cracks, etc.)          |
| •        |            | Blade shaft spring clips                      |
|          | 一          | Engine air cleaner (see engine manual)        |

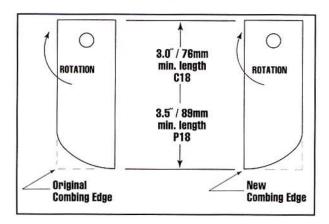
#### Blade Versatility

Flail Blade (For any replacement parts for the Flail reels, please see page 23)

Thatch is the dense layer of clippings, roots and stems that form between the soil and the base of the grass. As thatch builds up it prevents water, air and fertilizer from being absorbed into the soil, which causes shallow root development leading to drought susceptibility and winter kill. Excessive thatch also creates an ideal environment for insects and lawn diseases. Power raking with flail blades removes this thatch layer and restores your lawn to good health. Flail blades offer the most aggressive dethatching of all the blades offered.

Adjusting Flail Blade Height – the blades are raised and lowered by means of a height adjustment lever on the right side of the deck. The knob at the front of this lever controls the depth. Turning the knob counter-clockwise allows the blades to go deeper.

Flail Blade Wear/Rotation/Replacement – After your BlueBird unit has been used for some time, the blades will wear on the striking edge as shown. When this happens, their dethatching performance will diminish. A new combing edge may be obtained by simply rotating the entire rotor shaft assembly end for end, which will result in a new edge shown. This process may be repeated until the blades reach their wear limits. To turn the rotor shaft end for end instructions follow:



#### Rotating Rotor Shaft-

- 1. Allow engine to cool
- Disconnect spark plug
- Remove belt guard
- 4. Remove belt and pulley from rotor shaft
- 5. Remove plastic cap from opposite end of shaft and install where pulley was located
- 6. Remove the 4 bearing bolts and drop out rotor shaft
- 7. Inspect shaft, bearings, blade length, blade safety clips and spacers
- 8. Rotate shaft end for end
- 9. Reinstall bearing bolts
- 10. Reinstall pulley, ensuring pulley is flush against the bearing collar
- 11. Check pulley alignment to engine shaft pulley and adjust if necessary
- 12. Reinstall belt and belt guard
- 13. Reattach spark plug wire

#### Replacing Worn Flail Blades-

- 1. Allow engine to cool
- Disconnect spark plug
- 3. Remove belt guard, belt and shaft pulley
- 4. Take out and dispose of spring clips that hold the shaft in position.
- 5. Inspect the blade shafts and replace if bent or worn.
- 6. Drive blade shafts out toward the center. The blades and spacers will fall off.
- Install new blades, replacing rubber spacers if necessary. Refer to parts drawing for blade/spacer placement. (see page 23)
- Install new spring clips.
- 9. Repeat for remaining three shafts.
- 10. Reinstall pulley and align to engine pulley.
- 11. Reinstall belt and belt guard.
- 12. Reattach spark plug wire.
- Delta Blade (For any replacement parts for the Delta reel, please see page 24)

Delta blades were created primarily for overseeding existing lawn, which effectively incorporates grass seed into the soil. This is an easy, reliable method for rejuvenating poor lawns. The Delta blade is also useful as a vertical mower for cutting running stem grasses and for opening the soil to oxygen, water, nutrients and other chemicals. Also Delta blades are beneficial on slopes, terraces and in high clay content soils where water runoff is a problem.

Adjusting Delta Blade Height – the blades are raised and lowered by means of a height adjustment lever on the right side of the deck. The knob at the front of this lever controls the depth. Turning the knob counter-clockwise allows the blades to go deeper.

**Delta Blade Wear/Replacement** – Over time, due to wear, the blades will diminish in length. When blades have worn down by \(\frac{1}{2}\)" (the overall length at the longest point of the blade will be 2 \(\frac{1}{2}\)"), it will be necessary to replace the blades.

• Spring Tine (For any replacement parts for the Spring Tine reel, please see page 25)

Ideal for the established lawn that is not in need of complete renovation but requiring dethatching (dry-spots, fungus, etc.)

Spring tines are designed to pluck dead grass and thatch out of the lawn without tearing or damaging existing root structure.

With its flexible tines, lawn is combed only 1/4" into the soil so it cannot penetrate into the root structure. Spring tines provide less aggressive dethatching than flail blades.

Adjusting Spring Tines Height – the tines are raised and lowered by means of a height adjustment lever on the right side of the deck. The knob at the front of this lever controls the depth. Turning the knob counter-clockwise allows the tines to go deeper.

Spring Tine Wear/Replacement - Over time, due to wear, the tines will diminish in length. When the tines can no longer be adjusted to comb 1/4" into the soil, the tines must be replaced. Spring tines can be replaced without removing the reel assembly by using a 1/2" socket.

## Drive Belt Replacement

The following procedure should be followed to replace the drive belt:

- Allow engine to cool
- 2. Remove spark plug wire
- Remove belt guard
- Remove old belt
- 5. Inspect pulley for wear and replace if necessary
- 6. Check engine pulley to rotor pulley alignment and adjust if necessary
- Inspect belt idler. Idler roller bearing should rotate smooth and free. Idler pivot arm should be free with no more than 0.25" side play. Replace if necessary.
- Install new belt by looping over bottom pulley first, then over engine pulley. Be sure belt idler and belt keepers are outside the loop of the belt.
- 9. Adjust the belt keeper as necessary and reinstall the belt guard.
- Reattach the spark plug wire.

(See page 26 for additional instruction for Catcher Bag Assembly)

#### Attaching the Bagger Platform

Place the hooks on platform into the slots at the rear of the machine. Push platform into the slots. Raise up end of platform about 45 degrees. The hooks on the front of the platform will slip down into "keyhole slots".

#### Catcher Bag

Bag damage most commonly occurs due to improper assembly of bag to frame. Be sure to follow assembly instructions included with your bag.

#### Proper Height Setting

Thatch is thrown into the catcher by the impact of the flail blades swinging through the grass. The blades should not hit the ground. If the blades hit the ground, they will bounce causing ineffective dethatching.

#### Lawn Conditions for Bagging

Best performance will be achieved in lawns that are cut short and free of moisture. Wet lawns will hamper the bagging effectiveness. Long grass may result in tearing or ripping of the lawn. If the lawn has a heavy build up of thatch, it is recommended to go over it in one direction and do it again at a right angle. A heavy buildup of thatch may have taken years to accumulate – it may take 2 or 3 sessions of combing to remove it. Do not try to correct a severe problem with one pass over the lawn.

## Lawn Seeder Operating Instructions

(See page 28 for additional instruction for Lawn Seeder Assembly)

#### General Information

The seed hopper is located at the back of the machine. Seed deposit is spaced in 2" increments and seeds are dropped after the blades have sliced the soil. As the lawn seeder moves forward, the heavy neoprene deflector at the rear of the seeder smoothes the soil so the seed is covered.

To avoid the unattractive effect of "rows" of new grass, it is recommended to overseed in one direction, then "cross-cut" at approximately 45 degrees from the first run. When you use this procedure, set the seed drop setting at 1/2 of the recommended application rate per 1,000 square feet.

The lawn seeder is not a "thatcher". Excess thatch (if present) should be removed with a thatcher before overseeding. Seed must have contact with soil (including soil cover) to germinate.

#### Setting the Seed Hopper

There is a seed application chart on the back of the seed hopper. The seed adjustment dial is on the rear of the seed hopper. To set the seed adjustment, loosen the wing nut, rotate the adjusting dial to the correct setting, then tighten the wing nut. The seed control lever is located on the handle of the seeder unit.

When the seed control lever is in the open position, the adjusting dial controls how far the seed gate can open. The seed control lever allows you to turn off the flow of seed when making turns and when filling the seed hopper.

## **Comber/Seeder Decals**

BLUEBIRD E A S Y S C A P E



2

C18 Lawn Comber

DANGER

3

P18 Lawn Comber

9

P18 Seeder

SEED APPLICATION CHAFT:
THOSE SETTINGS ASS APPLICATION CHAFT:
THOSE SETTINGS ASS APPLICATION THROUGH CHAPTER SETTINGS ON THE
THOSE SETTINGS ASS APPLICATION THROUGH CHAPTER SETTINGS ON THE
SET SET SET SETS

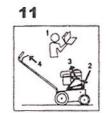
SETTINGS ASS APPLICATION THROUGH CHAPTER SETTINGS ON THE
SET SET SET SETS

SETTINGS ASS APPLICATION CHAPTER SETTINGS ON THROUGH CHAPTER SETTINGS ON THROUGH CHAPTER SETTINGS ON THROUGH CHAPTER SETTINGS AND SERVICE CHAPTER SETTINGS AND SERVICE CHAPTER SETTINGS AND SERVICE CHAPTER SETTINGS AND SERVICE CHAPTER SETTINGS AND SETTINGS AND SETTINGS AND SETTINGS AND SETTINGS AND SETTINGS AND SERVICE CHAPTER SETTINGS AND SETTI

DANGER DANGER

14





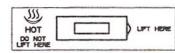


13 ⊲ OPEN CLOSE ▷

16

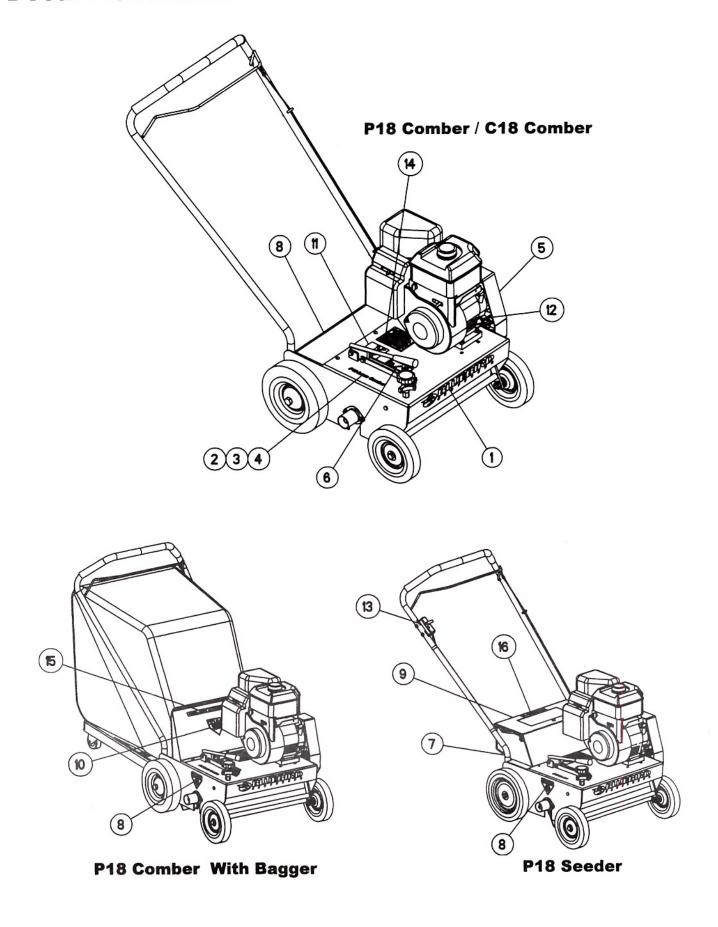
15

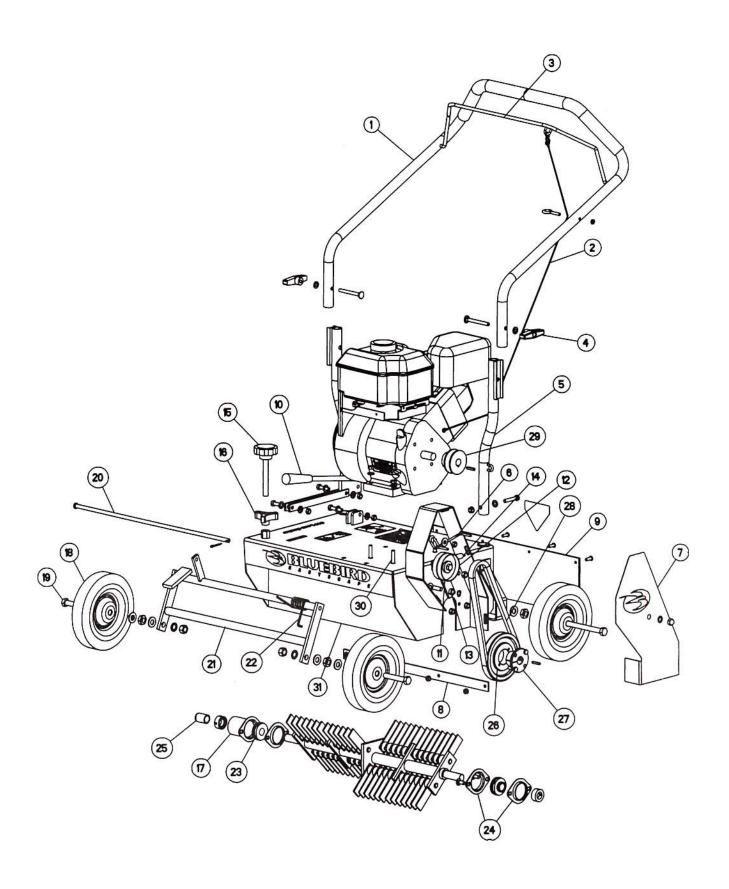
CAUTION - DO NOT USE WITHOUT CATCHER



| Item | Description                        | C18 Comber<br>Kit No. 54052 | P18 Comber<br>Kit No. 54053 | P18 Bagger<br>Kit No. 54054 | P18 Seeder<br>Kit No. 54055 |
|------|------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 1    | Decal, BlueBird Logo W/Bird, Large | X                           | X                           | X                           | X                           |
| 2    | Decal, C18 Lawn Comber             | X                           |                             |                             |                             |
| 3    | Decal, P18 Lawn Comber             |                             | X                           | X                           |                             |
| 4    | Decal, P18 Seeder                  |                             |                             |                             | X                           |
| 5    | Decal, BlueBird Bird, 4"           | X                           | X                           | X                           | X                           |
| 6    | Decal, Height Adjustment           | X                           | X                           | X                           | X                           |
| 7    | Decal, Gage Dial                   |                             |                             |                             | X                           |
| 8    | Decal, Danger Foot                 | X                           | X                           | X                           | X                           |
| 9    | Decal, Seed Application Chart      |                             |                             |                             | X                           |
| 10   | Decal, Danger Chute                |                             |                             | X                           |                             |
| 11   | Decal, Controls, P18/C18           | X                           | X                           | X                           | X                           |
| 12   | Decal, Warning Carbon Monoxide     | X                           | X                           | X                           | X                           |
| 13   | Decal, Open/Close, Written         |                             |                             |                             | X                           |
| 14   | Decal, Caution List                | X                           | X                           | X                           | X                           |
| 15   | Decal, Caution Catcher             |                             |                             | X                           |                             |
| 16   | Decal, "HOT" Seeder Lid            |                             |                             |                             | X                           |

## **Decal Placement**

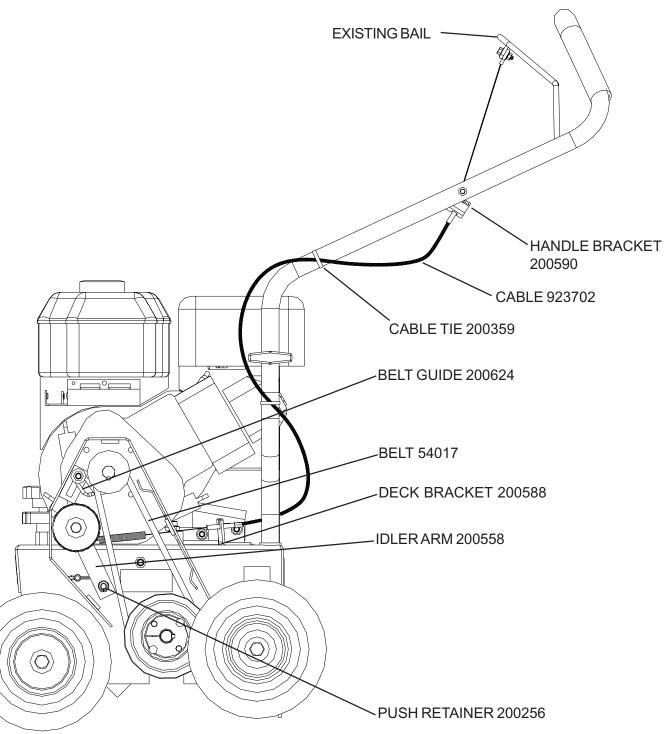




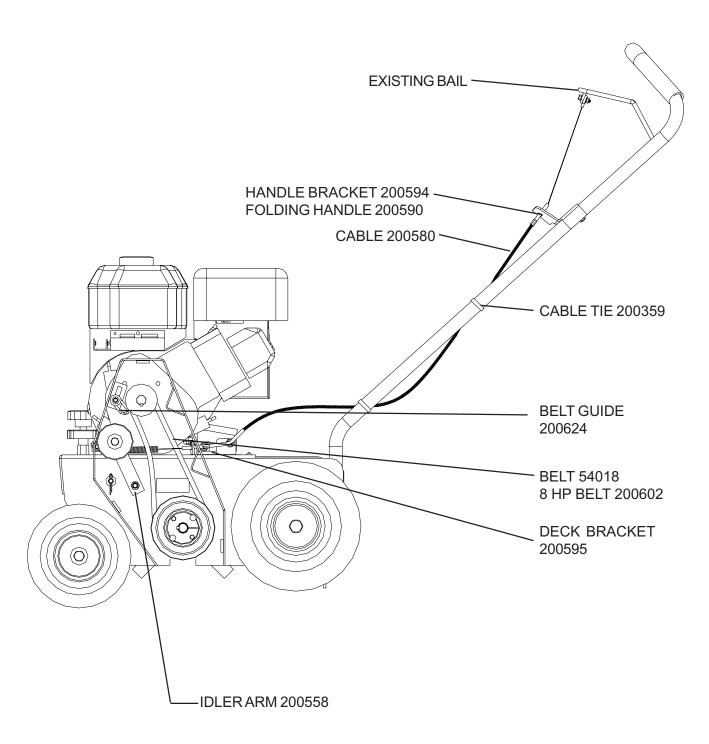


Manual insert for cable and belt upgrade on models C 18 and P 18 basic model and with seeder and bagger options.

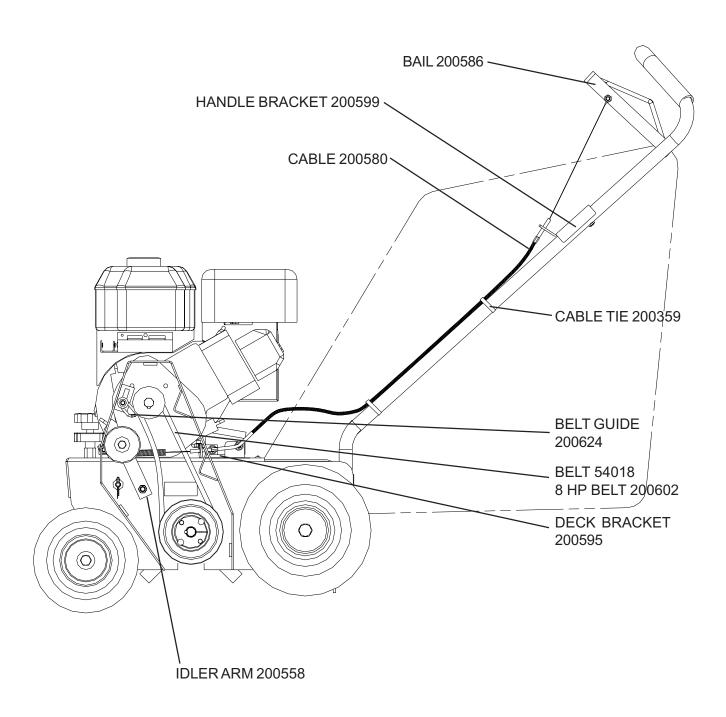
#### C 18 BASIC MODEL



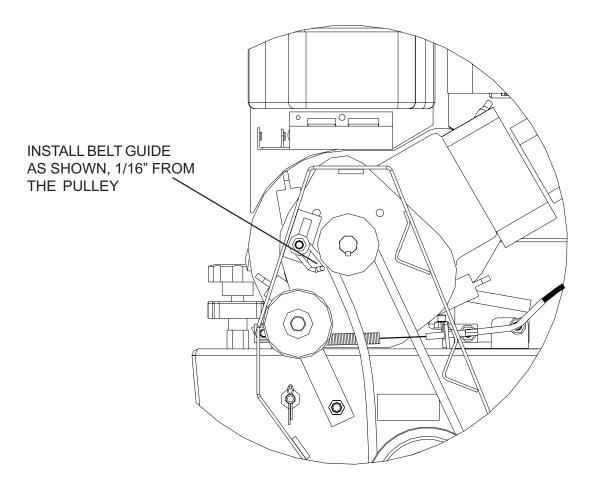
#### P 18 BASIC MODEL



#### P 18 WITH BAGGER OPTION



Adjust belt guide as shown below. Gap between the belt guide and the pulley needs to be 1/16"



When you stand and pull the bail tight against the handle, the spring on the lower end of the cable must begin to stretch, and lengthen about an 1/8" to 1/4". This ensures that the spring pressure is being applied to the belt to make it run without slipping. If you need to adjust the cable, loosen the tightening nuts on the handle bracket and lengthen or shorten the cable until the proper adjustment is obtained, then retighten the nuts. Reinstall the belt shield.

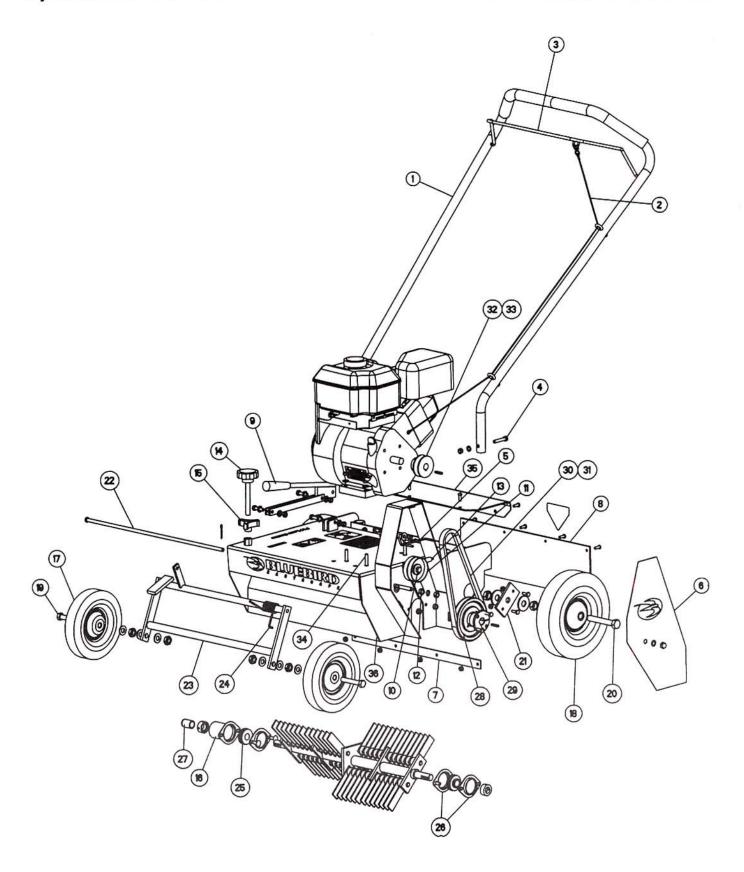
## **C18 COMPACT COMBER**

| Item | Part No. | Description   |
|------|----------|---|
| 1    | 54001    | Handle Assy - includes handle, bail, clutch cable, S-hook and handle grip, eye bolt and nut   |
| 2    | 54002    | Clutch Cable Assy - includes clutch cable and S-Hook  |
| 3    | 54003    | Bail  |
| 4    | 54004    | Knob, Folding Handle Kit - includes knob, washer and bolt   |
| 5    | 54005    | Lower Handle Assy - Includes folding handle mount, 5/16 - 18 x 1 3/4" hex head bolt, 5/16" internal lock washer and 5/16 - 18 hex nut   |
| 6    | 5140     | Belt Keeper Kit - includes belt keeper, 5/16" washer, 5/16 - 18 hex lock nut, 5/16 - 18 x 3/4" carriage bolt  |
| 7    | 54006    | Belt Guard Kit - includes shield, 3/8" internal lock washer and 3/8 - 16 acorn nut  |
| 8    | 54058    | Deflector Kit - includes deflector strap, 1/4 - 20 x 3/4" slotted round screw (4 ea), 1/4 - 20 hex keps nut (4 ea)  |
| 9    | 5161     | Deflector, neoprene   |
| 10   | 54007    | Depth Lever Assy - includes height adjustment link (2 ea), adjustment lever, 5/16 - 18 x 1 1/4" hex head bolt (2 ea), 5/16 - 18 x 1 1/2" hex head bolt, 5/16" flat washer (6 ea), 5/16 - 18 hex lock nut (3 ea) |
| 11   | 5027     | Idler Assy Kit - includes 2 3/4" idler pulley , clutch spring, idler arm, idler tab, 3/8" washer, 3/8 - 16 hex jam nut, 3/8 - 16 hex lock nut, 3/18 - 16 x 4" hex screw   |
| 12   | 0343     | Pulley, idler 2 3/4" OD   |
| 13   | 5121     | Mounting Arm, idler pulley  |
| 14   | 5129     | Spring, Clutch rod  |
| 15   | 54008    | Depth Adjustment Knob   |
| 16   | 54009    | 3-pronged lock depth knob   |
| 17   | 54010    | Rotor guard   |
| 18   | 5051     | Wheel, 8" x 1 3/4", ball bearing  |
| 19   | 54011    | Bolt kit for wheel - includes 1/2 - 13 x 3 1/4" hex bolt, 1/2" washer (2 ea), 1/2 - 13 hex jam nut (2 ea), 1/2" lock washer (1 ea)  |
| 20   | 54012    | Lift Arm Rod Kit - includes 1/4" cotter pin, 3/8" washer, plated rod  |
| 21   | 54013    | Lift Arm Assy Kit - includes lift arm weldment, torsion spring  |
| 22   | 54014    | Torsion spring  |
| 23   | 0315     | Bearing, 3/4" with locking collar   |
| 24   | 5185     | Stamping kit - includes 5/16 - 18 hex nut (2 ea), 5/16 - 18 x 3/4" carriage bolt (2 ea), bearing flanges (2 ea), 5/16" lockwashers (2 ea)   |
| 25   | 5005     | Rotor cap, 3/4" ID  |
| 26   | 54015    | V-Pulley, B-5.0" OD, tapered bore.  |
| 27   | 54016    | Bushing kit - includes bushing 3/4" bore with screws, 3/16" square key  |
| 28   | 54017    | V-Belt, B-33", special  |
| 29   | 54019    | V-Pulley engine kit for 3/4" bore - includes V-pulley 2 1/2" OD x 3/4" bore, 3/16" square key   |
| 30   | 54021    | Engine Bolt Kit - includes 5/16 - 18 x 1 1/2" carriage bolt (4 ea), 5/16" washer (8 ea), 5/16 - 18 hex lock nut (4 ea)  |
| 31   | 54022    | Deck, C18   |
| 32   | 54052    | Kit, Decal C18 comber   |

To order Flail blade assembly or parts, please see page 23 To order Delta blade assembly or parts, please see page 24

To order Spring Tine assembly or parts, please see page 25

## P18 Lawn Comber

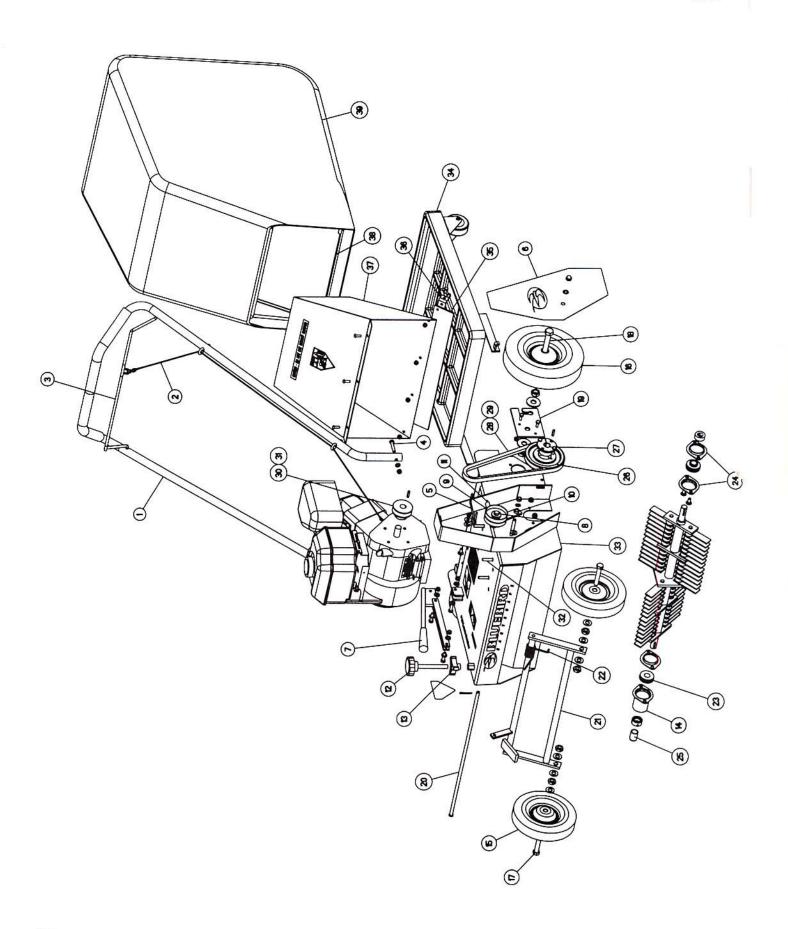


## P18 COMBER

| Item | Part No. | Description   |
|------|----------|---|
| 1    | 54023    | Handle Assy - includes handle, bail, clutch cable, S-hook and handle grip.  |
| 2    | 54024    | Clutch Cable Assy - includes clutch cable and S-hook  |
| 3    | 54003    | Bail  |
| 4    | 5167     | Bolt Kit, handle - includes 5/16-18 x 1 3/4" hex cap screw (2 ea), 5/16-18 hex nut (2 ea)   |
| 5    | 5140     | Belt Keeper Kit - includes belt keeper, 5/16" washer, 5/16 - 18 hex lock nut, 5/16 - 18 x 3/4" carriage bolt  |
| 6    | 54025    | Belt Guard Kit - includes shield, 3/8" internal lock washer and 3/8 - 16 acorn nut  |
| 7    | 54058    | Deflector Kit - includes deflector strap, 1/4 - 20 x 3/4" slotted round screw (4 ea), 1/4 - 20 hex keps nut (4 ea)  |
| 8    | 5161     | Deflector, neoprene   |
| 9    | 54007    | Depth Lever Assy - includes height adjustment link (2 ea), adjustment lever, 5/16 - 18 x 1 1/4" hex head bolt (2 ea), 5/16 - 18 x 1 1/2" hex head bolt, 5/16" flat washer (6 ea), 5/16-18 hex lock nut (3 ea) |
| 10   | 5027     | ldler Assy Kit - includes 2 3/4" idler pulley, clutch spring, idler arm, idler tab, 3/8" washer, 3/8 - 16 hex jam nut, 3/8 - 16 hex lock nut, 3/18 - 16 x 4" hex screw.                                       |
| 11   | 0343     | Pulley, idler 2 3/4" OD   |
| 12   | 5121     | Mounting Arm, idler pulley  |
| 13   | 5129     | Spring, Clutch rod  |
| 14   | 54008    | Depth Adjustment Knob   |
| 15   | 54009    | 3-pronged lock depth knob   |
| 16   | 54010    | Rotor guard   |
| 17   | 5051     | Front wheel, 8" x 1 3/4", ball bearing  |
| 18   | 5053     | Rear wheel, 10" x 2 3/4", ball bearing  |
| 19   | 54011    | Bolt kit for front wheel - includes 1/2 - 13 x 3 1/4" hex bolt, 1/2" washer (2 ea), 1/2 - 13 hex jam nut (2 ea), 1/2" lock washer (1ea)   |
| 20   | 54026    | Bolt kit for rear wheel - includes 5/8 -11 x 4" hex bolts, 5/8 -11 hex jam nut (2 ea), 5/8" flat washer (2 ea)  |
| 21   | 54027    | Wheel plate kit - includes wheel plate. 1/4 - 20 x 3/4 hex bolt (2 ea) and 1/4-20 hex keps nut (2ea)  |
| 22   | 54012    | Lift Arm Rod Kit - includes 1/4" cotter pin, 3/8" washer, plated rod  |
| 23   | 54028    | Lift Arm Assy Kit - includes lift arm weldment, torsion spring  |
| 24   | 54014    | Torsion spring  |
| 25   | 0315     | Bearing, 3/4" with locking collar   |
| 26   | 5185     | Stamping kit - includes 5/16 - 18 hex nut (2 ea), 5/16 - 18 x 3/4" carriage bolt (2 ea), bearing flanges (2 ea). 5/16" lockwashers (2 ea)   |
| 27   | 5005     | Rotor cap, 3/4" ID  |
| 28   | 54015    | V-Pulley, B-5.0" OD, Tapered Bore   |
| 29   | 54016    | Bushing kit - includes bushing 3/4" bore with screws, 3/16" square key  |
| 30   | 54018    | V-Belt, B-34", special  |
| 31   | 0339     | V-Belt, B-36'special (used for 8hp engine only)   |
| 32   | 54019    | V-Pulley engine kit for 3/4" bore - includes V-pulley 2 1/2" OD x 3/4" bore, 3/16" square key   |
| 33   | 54020    | V-Pulley engine kit for 1" bore - includes V-pulley 2 1/2 0D x 1" bore, 1/4" square key (used for 8hp engine only)  |
| 34   | 54021    | Engine Bolt Kit - includes 5/16 - 18 x 1 1/2" carriage bolt (4 ea), 5/16" washer (8 ea). 5/16 - 18 hex lock nut (4 ea)  |
| 35   | 54029    | Deck Cover Kit, P18 - includes cover, 1/4 - 20 x 3/4" slotted round screw (6 ea)  |
| 36   | 54030    | Deck, P18   |
| 37   | 54053    | Kit, Decal P18 comber   |

To order Flail blade assembly or parts, please see page 23 To order Delta blade assembly or parts, please see page 24

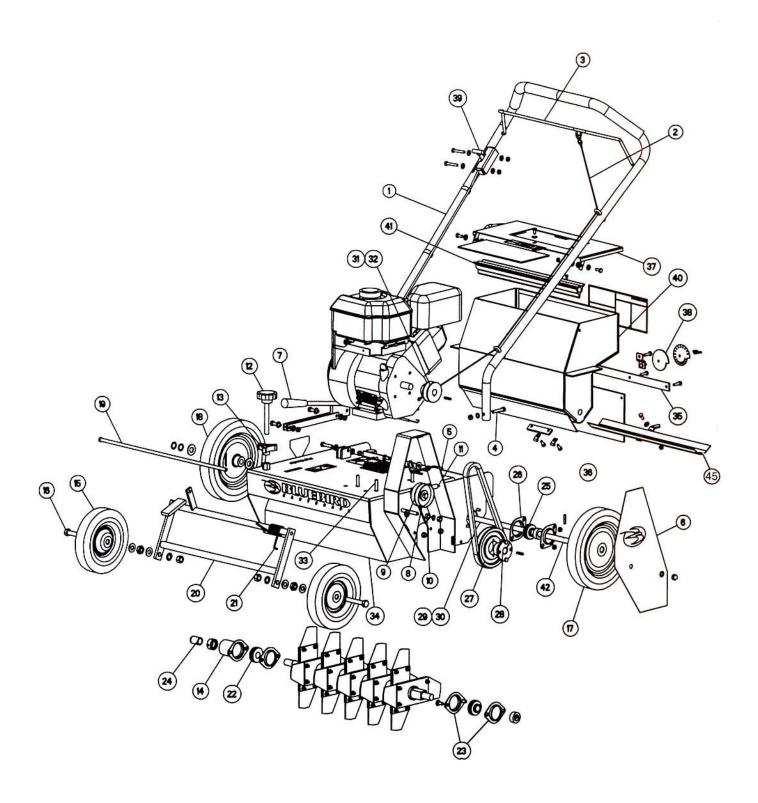
## P18 Lawn Comber with Bagger



## P18 COMBER WITH BAGGER

| Item | Part No. | Description   |
|------|----------|---|
| 1    | 54023    | Handle Assy - includes handle, bail, clutch cable, S-hook and handle grip.  |
| 2    | 54024    | Clutch Cable Assy - includes clutch cable and S-hook  |
| 3    | 54003    | Bail  |
| 4    | 5167     | Bolt Kit, handle - includes 5/16-18 x 1 3/4" hex cap screw (2 ea), 5/16-18 hex nut (2 ea)   |
| 5    | 5140     | Belt Keeper Kit - includes belt keeper, 5/16" washer, 5/16 - 18 hex lock nut, 5/16 - 18 x 3/4" carriage bolt  |
| 6    | 54025    | Belt Guard Kit - includes shield, 3/8" internal lock washer and 3/8 - 16 acorn nut  |
| 7    | 54007    | Depth Lever Assy - includes height adjustment link (2 ea), adjustment lever, 5/16 - 18 x 1 1/4" hex head bolt (2 ea), 5/16 - 18 x 1 1/2" hex head bolt, 5/16" flat washer (6 ea), 5/16 - 18 hex lock nut (3 ea) |
| 8    | 5027     | ldler Assy Kit - includes 2 3/4" idler pulley, clutch spring, idler arm, idler tab, 3/8" washer, 3/8 - 16 hex jam nut, 3/8 - 16 hex lock nut, 3/18 - 16 x 4" hex screw.   |
| 9    | 0343     | Pulley, idler 2 3/4" OD   |
| 10   | 5121     | Mounting Arm, idler pulley  |
| 11   | 5129     | Spring, Clutch rod  |
| 12   | 54008    | Depth Adjustment Knob   |
| 13   | 54009    | 3-pronged lock depth knob   |
| 14   | 54010    | Rotor guard   |
| 15   | 5051     | Front wheel, 8" x 1 3/4", ball bearing  |
| 16   | 5053     | Rear wheel, 10" x 2 3/4", ball bearing  |
| 17   | 54011    | Bolt kit for front wheel - includes 1/2 - 13 x 3 1/4" hex bolt, 1/2" washer (2 ea), 1/2 - 13 hex jam nut (2 ea), 1/2" lock washer (1 ea)  |
| 18   | 54026    | Bolt kit for rear wheel - includes 5/8 -11 x 4" hex bolts, 5/8 -11 hex jam nut (2 ea), 5/8 flat washer (2 ea)   |
| 19   | 54031    | Wheel plate kit - includes wheel plate and 1/4 - 20 x 3/4 hex bolt (2 ea), 1/4 - 20 hex keps nut (2 ea)   |
| 20   | 54012    | Lift Arm Rod Kit - includes 1/4" cotter pin, 3/8" washer, plated rod  |
| 21   | 54028    | Lift Arm Assy Kit - includes lift arm weldment, torsion spring  |
| 22   | 54014    | Torsion spring  |
| 23   | 0315     | Bearing, 3/4" with locking collar   |
| 24   | 5185     | Stamping kit - includes 5/16 - 18 hex nut (2 ea), 5/16 - 18 x 3/4" carriage bolt (2 ea), bearing flanges (2 ea), 5/16" lockwashers (2 ea)   |
| 25   | 5005     | Rotor cap, 3/4" ID  |
| 26   | 54015    | V-Pulley, B-5.0" OD, Tapered Bore   |
| 27   | 54016    | Bushing kit - includes bushing 3/4" bore with screws, 3/16" square key  |
| 28   | 54018    | V-Belt, B- 34"special   |
| 29   | 0339     | V-Belt, B: 36 Special (used for 8hp engine only)  |
| 30   | 54019    | V-Pulley engine kit for 3/4" bore - includes V-pulley 2 1/2" OD x 3/4" bore, 3/16" square key   |
| 31   | 54020    | V-Pulley engine kit for 1" bore - includes V-pulley 2 1/2 OD x 1" bore, 1/4" square key (used for 8hp engine only)  |
| 32   | 54021    | Engine Bolt Kit - includes 5/16 - 18 x 1 1/2" carriage bolt (4 ea), 5/16" washer (8 ea), 5/16 - 18 hex lock nut (4 ea)  |
| 33   | 54030    | Deck, P18   |
| 34   | 54034    | Bagger platform kit - includes platform, casters (2 ea)   |
| 35   | 54035    | Neoprene deflector 3/16" x 20.5"  |
| 36   | 54036    | Chute kit - includes 3/16" x 20.5" neoprene deflector, chute mounting strap, 1/4 -20 x 5/8" hex screw (2 ea), 1/4 - 20 hex keps nut (4 ea)  |
| 37   | 54037    | Chute weldment kit - includes chute weldment, 1/4-20 x 3/4" round slotted screw (3 ea) and 1/4 - 20 hex keps nut (3 ea)   |
| 38   | 54038    | Bagger frame  |
| 39   | 5464     | Catcher Bag   |
| 40   | 7000     | Bagger Conversion Kit - includes bagger frame, catcher bag, chute weldment and hardware, neoprene deflector, mounting tab and hardware, bagger platform, casters  |
| 41   | 54054    | Kit, Decal P18 Bagger   |

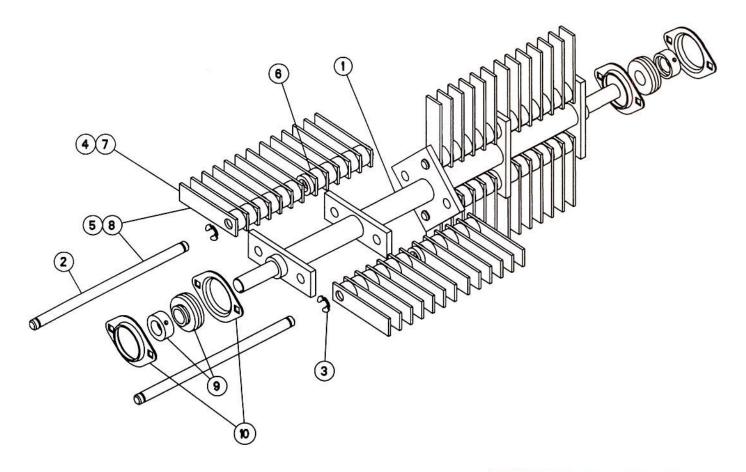
To order Flail blade assembly or parts, please see page 23



## P18 SEEDER

| Item     | Part No. | Description   |  |
|----------|----------|---|--|
| 1        | 54057    | Seeder Handle Assy - includes handle, bail, clutch cable, S-hook and handle grip.   |  |
| 2        | 54024    | Clutch Cable Assy - includes clutch cable and S-hook  |  |
| 3        | 54003    | Bail  |  |
| 4        | 5167     | Bolt Kit, handle - includes 5/16-18 x 1 3/4" hex cap screw (2 ea), 5/16-18 hex nut (2 ea)   |  |
| 5        | 5140     | Belt Keeper Kit - includes belt keeper, 5/16" washer, 5/16 - 18 hex lock nut, 5/16 - 18 x 3/4" carriage bolt  |  |
| 6        | 54025    | Belt Guard Kit - includes shield, 3/8" internal lock washer and 3/8 - 16 acorn nut  |  |
| 7        | 54007    | Depth Lever Assy - includes height adjustment link (2 ea), adjustment lever, 5/16 - 18 x 1 1/4" hex head bolt (2 ea), 5/16- 18 x 1 1/2" hex head bolt, 5/16" flat washer (6 ea), 5/16 -18 hex lock nut (3 ea) |  |
| 8        | 5027     | ldler Assy Kit - includes 2 3/4" idler pulley, clutch spring, idler arm, idler tab, 3/8" washer, 3/8 - 16 hex jam nut, 3/8 - 16 hex lock nut, 3/18 - 16 x 4" hex screw.                                       |  |
| 9        | 0343     | Pulley, idler 2 3/4" OD   |  |
| 10       | 5121     | Mounting Arm, idler pulley  |  |
| 11       | 5129     | Spring, Clutch rod  |  |
| 12       | 54008    | Depth Adjustment Knob   |  |
| 13       | 54009    | 3-pronged lock depth knob   |  |
| 14       | 54010    | Rotor guard   |  |
| 15       | 5051     | Wheel, front, 8" x 1 3/4", ball bearing (2 ea)  |  |
| 16       | 54011    | Bolt kit for front wheel - includes 1/2 - 13 x 3 1/4" hex bolt, 1/2" washer (2 ea), 1/2 - 13 hex jam nut (2 ea), 1/2" lock washer (1ea)   |  |
| 17       | 54041    | Wheel, left rear kit - includes 10" x 1.75" wheel 5/8" bore smooth, 1/4" x 1 1/8" roll pin  |  |
| 18       | 54042    | Wheel, right rear kit - includes 10" x 1.75" wheel 5/8" bore bearing, 5/8" external self-locking retaining ring (2 ea)  |  |
| 19       | 54012    | Lift Arm Rod Kit - includes 1/4" cotter pin, 3/8" washer, plated rod  |  |
| 20       | 54028    | Lift Arm Assy Kit - includes lift arm weldment, torsion spring  |  |
| 21       | 54014    | Torsion spring  |  |
| 22       | 0315     | Bearing, 3/4" with locking collar   |  |
| 23       | 5185     | Stamping kit - includes 5/16 - 18 hex nut (2 ea), 5/16 - 18 x 3/4" carriage bolt (2 ea), bearing flanges (2 ea), 5/16" lockwashers (2 ea)   |  |
| 24       | 5005     | Rotor cap, 3/4" ID  |  |
| 25       | 9127     | Bearing, 5/8" with locking collar   |  |
| 26       | 54049    | Stamping kit - 1/4 -20 hex nut (2 ea), 1/4 -20 x 3/4" carriage bolt (2 ea), bearing flanges (2 ea)  |  |
| 27       | 54015    | V-Pulley, B-5.0" OD, Tapered Bore   |  |
| 28       | 54016    | Bushing kit - includes bushing 3/4" bore with screws, 3/16" square key  |  |
| 29       | 54018    | V-Belt, B-34", special  |  |
| 30       | 0339     | V-Belt, B-36", special (used for 8hp engine only)   |  |
| 31       | 54019    | V-Pulley engine kit for 3/4" bore - includes V-pulley 2 1/2" OD x 3/4" bore, 3/16" square key   |  |
| 32       | 54020    | V-Pulley engine kit for 1" bore - includes V-pulley 2 1/2 OD x 1" bore, 1/4" square key (used for 8hp engine only)  |  |
| 33       | 54021    | Engine Bolt Kit - includes 5/16 - 18 x 1 1/2" carriage bolt (4 ea), 5/16" washer (8 ea), 5/16 - 18 hex lock nut (4 ea)  |  |
| 34       | 54030    | Deck, P18   |  |
| 35       | 54058    | Deflector Kit - includes deflector strap, 1/4 - 20 x 3/4" slotted round screw (4 ea), 1/4 - 20 hex keps nut (4 ea)  |  |
| 36       | 54059    | Deflector, neoprene for seeder  |  |
| 37       | 54043    | Lid, seed hopper kit - includes lid, window and hardware  |  |
| 38       | 54044    | Dial, gage kit - includes dial, bracket and hardware.   |  |
| 39       | 54045    | Control, Push/Pull kit - includes Push/Pull control, control mount plate, bracket (2 ea), and hardware  |  |
| 40       | 54046    | Seed hopper   |  |
| 41       | 54047    | Agitator bar, includes agitator, self-tapping screw   |  |
| 42       | 54048    | Axle, 5/8" shaft, seeder  |  |
| 10 March | 6900     | Seeder Conversion Kit - Includes hopper, agitator, seeder control, and hardware.  |  |
| 43       |          | OCCUPI CONTROLOGICA NEL E HIGIARDE MONDEL MARIOL. SEENEL LUMINI MINIMANIA   |  |
| 43       | 54055    | Kit, Decal P18 Seeder   |  |

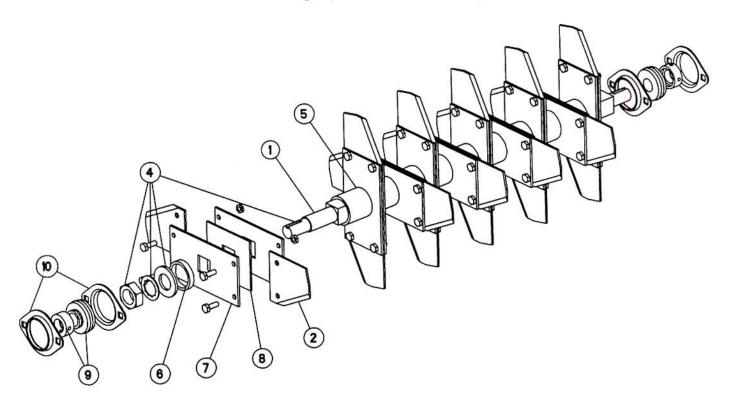
## Flail Blade Reel



|      |   | PART NUMBER |      |
|------|---|-------------|------|
| ITEM | DESCRIPTION   | C-18        | P-18 |
| 1    | Rotor, Flail Assy. (does not include blades, bearings, or shafts) | 5170        | 5170 |
|      | Rotor, Flail Assy, Complete w/o bearings                          | 5275        | 5175 |
|      | Rotor, Flail Assy., Complete w/Blades & Bearings                  | 5280        | 5180 |
| 2    | Shaft set, 4 ea w/ C-clips  | 5002        | 5002 |
| 3    | Retaining Clip  | 0351        | 0351 |
| 4    | Blade set (52 ea), 1/6" x 31/2"                                   | 5201        | -    |
| 5    | Blade and Shaft set (5201 & 5002) 5203 —                          |             |      |
| 6    | Spacer set, rubber (48 ea)  | 5004        | 5004 |
| 7    | Blade Set (52 ea), 1/6" x 4"                                      | _           | 5001 |
| 8    | Blade and Shaft Set (5001 & 5002)                                 | b <u></u>   | 5003 |
| 9    | Bearing, 3/4" with Locking Collar                                 | 0315        | 0315 |
| 10   | Stamping Kit – Includes Flanges & Hardware                        | 5185        | 5185 |

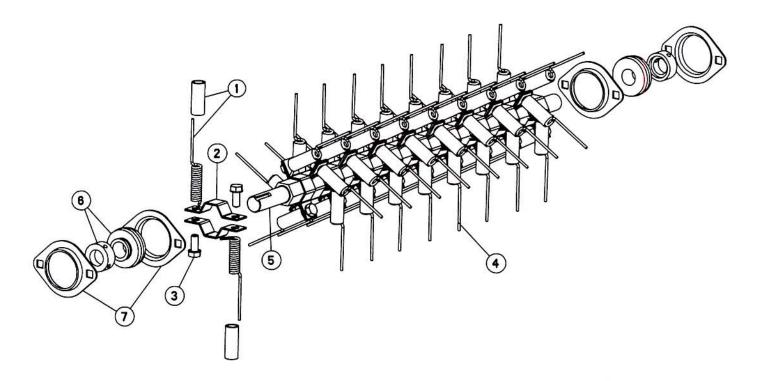
## **Delta Blade Reel**

When blades no longer penetrate surface, replace blades



|      |  | PART NUMBER |      |
|------|--|-------------|------|
| ITEM | DESCRIPTION                                    | C-18        | P-18 |
| 1    | Delta Reel Assy., w/o Blades or Hardware       | 5249        | 5049 |
|      | Delta Reel Assy., Complete w/o Bearings        | 5920        | 5940 |
|      | Delta Reel Assy., Complete w/Blades & Bearings | 5922        | 5242 |
| 2    | Blade set, Delta (20 ea)                       | 5970        | 5970 |
| 3    | Bolt kit, blade (40 ea)                        | 5075        | 5075 |
| 4    | Shaft, Delta Reel w/nut & washers              | 5061        | 5061 |
| 5    | Spacer, carrier, steel tube (1 ea)             | 5064        | 5064 |
| 6    | End ring, steel (1 ea)                         | 5065        | 5065 |
| 7    | Plate, blade carrier (1 ea)                    | 5268        | 5062 |
| 8    | Plate, blade spacer (1 ea)                     | 5269        | 5063 |
| 9    | Bearing, 3/4" with Locking Collar              | 0315        | 0315 |
| 10   | Stamping Kit – Includes Flanges & Hardware     | 5185        | 5185 |

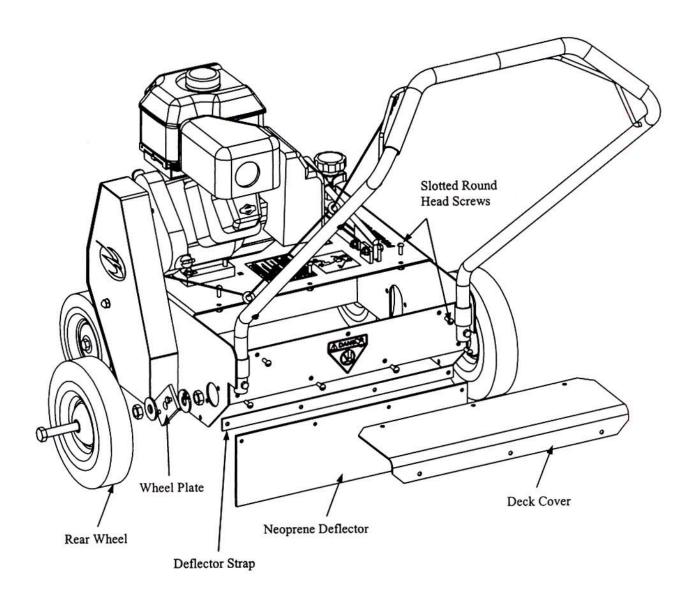
## **Spring Tine Reel**



- Spring tines can be replaced without removing the reel assembly.
- Replacement requires 1/2" socket.
- This reel is <u>only</u> used on the C18 comber.

| ITEM | PART NO. | DESCRIPTION   |
|------|----------|---|
| 1    | ER91010  | Spring Tine w/ Sleeve (orders in increments of 100 are preferred) |
| 2    | ER91011  | Clamp, Tine (orders in increments of 100 are preferred)           |
| 3    | ER91012  | Screw for Tine (orders in increments of 100 are preferred)        |
| 4    | 54050    | Tine Reel Assy, Complete w/o bearings                             |
|      | 54056    | Tine Reel Assy, Complete w/bearings                               |
| 5    | 54051    | Shaft, Tine Reel  |
| 6    | 0315     | Bearing, 3/4" With Locking Collar                                 |
| 7    | 5185     | Stamping Kit – Includes Flanges & Hardware                        |

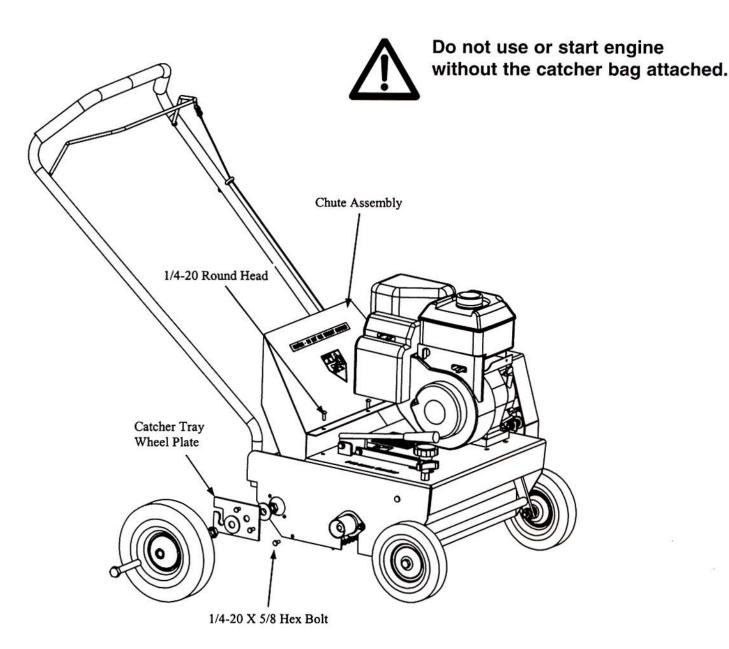
## P18 Catcher Bag Assembly Instructions (P/N 7000)



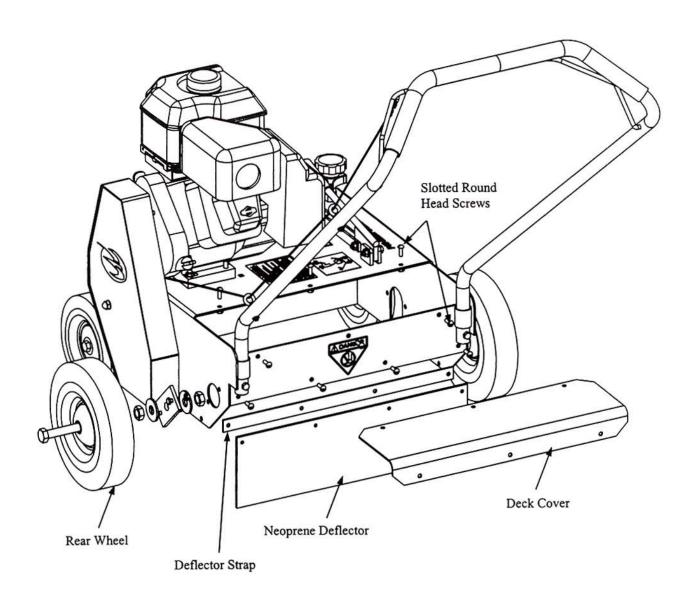
Disassemble both rear wheels, wheel plate and hardware. Remove deck cover, neoprene deflector and deflector strap by removing ten slotted round head screws.

## P18 Catcher Bag Assembly Instructions

- 2
- A) Assemble the chute assembly to the comber deck using three 1/4-20 round head screws on top and two 1/4-20 hex bolts on the side as shown below.
- B) Re-assemble wheels using the provided catcher tray wheel plate.
- C) Attach catcher bag tray to the comber by inserting the hooks on the tray into the catcher bag wheel plate.
- D) Assemble the catcher bag to the bag frame using the instruction provided with the bag.

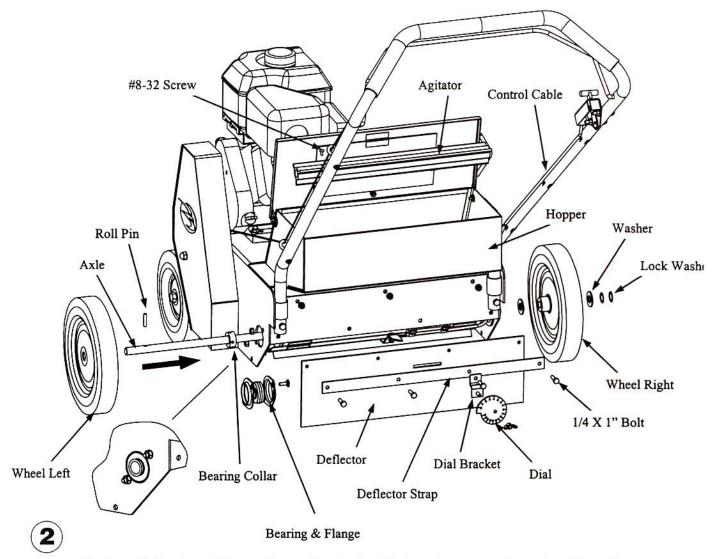


## P18 Seeder Attachment Assembly Instructions (P/N 6900)



Disassemble both rear wheels, wheel plate and hardware. Remove deck cover, neoprene deflector and deflector strap by removing ten slotted round head screws.

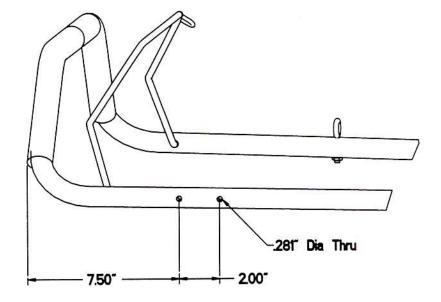
## P18 Seeder Attachment Assembly Instructions

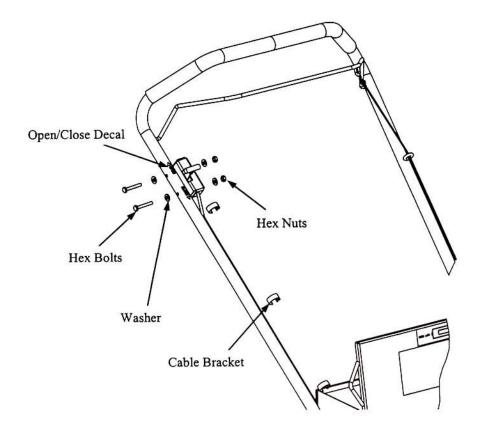


- A) Assemble bearing and bearing flanges from inside of deck as shown using 1/4" carriage bolts and nut as shown in enlarged view. Do not tighten nuts until wheel axle has been assembled.
- B) Assemble hopper, neoprene deflector, deflector strap, dial bracket and dial as shown. Use 4 each 1/4 x 1" long bolts along the deflector strap and 3 each 1/4" x 5/8" long bolts on the hopper mount above the deflector strap. Be sure that the control cable is not trapped between the hopper and the rear deck plate when assembling.
- C) Slide the axle through the bearing hopper agitator and out the other bearing as shown. Tighten the bearing bolts which were kept loose from step B.
- D) Attach the agitator to the axle by aligning the hole in agitator with the hole in the axle and attach using #8-32 screw.
- E) Lock each of the bearings to the shaft by using the provided bearing collar and rotating onto the bearing until it locks into place. Tighten the set screw on the bearing collar.
- F) Assemble the left wheel to the shaft using the roll pin as shown.
- G) Attach the right wheel to the shaft in the following order Washer, Wheel, Washer and two Lock Washers.

## P18 Seeder Attachment Assembly Instructions

Modify the handle to provide the control lever mounting to the handle by drilling two holes as shown in the illustration.





Attach the control lever to the handle using the 1/4" hex bolts, washers and nuts provided. Attach the cable to the handle in three places as shown using the cable brackets. Attach the Open/Close Decal next to the control lever on the handle as shown above.