# SPYKER

THE SPREADER PEOPLE

*spread with confidence*

**For Model: 179**

**Spreading Chart**
**Operation Guide**
**Service Manual**
**Parts List**

**Model 179 pictured**

*It's the spread that counts*


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# Assembly Instructions

**For Quick and Easy Assembly - First Read Entire Procedure Then Follow Carefully The Step by Step Instructions**

## Tools you will need:

Medium Sized Screwdriver
7/16" & 3/8" wrenches
Hammer
Pliers

## Parts you will use:

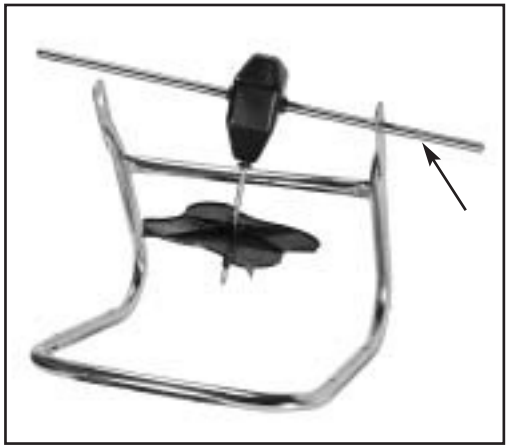
- (2) Hitch Plates
- (1) 1/4 - 20 x 1 1/2" Bolt
- (10) 1/4 - 20 x 1 3/4" Bolt
- (11) 1/4 - 20 Lock Nut
- (1) 1/2 - 1 Clevis Pin
- (1) #8 Cotter Pin
- (1) Agitator Wire
- (3) 10 - 24 Lock Nut
- (1) End Cap
- (2) 10 - 24 x 1 3/8" Bolt
- (1) Felt Washer
- (1) Cable Clamp
- (1) .125 x 1 Cotter Pin
- (4) Nylon Washer
- (1) 10 - 24 x 1 3/4" Bolt
- (2) Nylon Axle Bushing
- (2) Tow Bar Brace
- (1) Manual



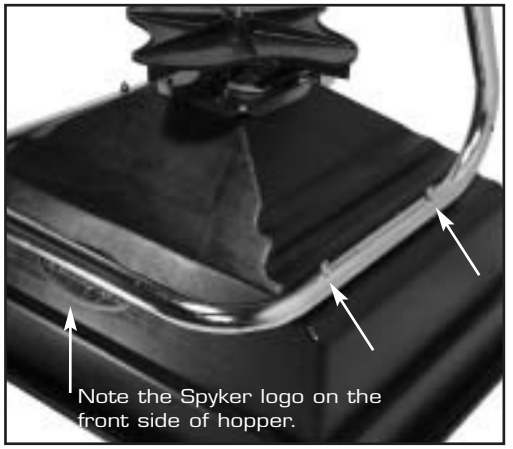
# Frame Assembly

1. Place hopper [1] on floor upside down as shown

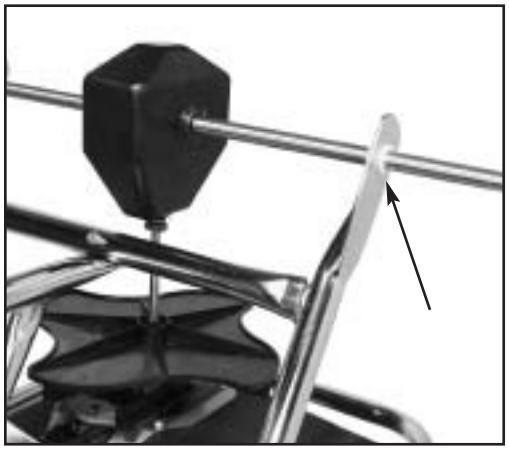
2. Install axle assembly [52] into frame.
Note: Drive hole on right side of axle.



3. Set frame onto hopper as shown, inserting spinner shaft into hopper bottom bushing at the same time. Attach frame to hopper using 4 bolts (34), nylon washers (44) which go on inside of hopper and nuts (35).



**4.** Insert 2 bushings (46) onto axle and slide into hole on frame leg.



**5** Insert drive wheel (50) onto axle and insert drive pin (45) and secure with cotter pin (53).

**6.** Insert idle wheel (49) onto axle and secure with cotter pin (43) .





**7.** Position spreader as shown. Attach towbar (17) loosely to cross-bar of frame (16) using 1 bolt [34] & nut [35]. Attach 2 braces (47) as shown using 3 bolts (34) and 3 nuts (35).

**8.** Tighten tow bar and bracing supports

# Hitch Assembly

**9.** Attach hitch plates (32) to tow bar using 2 bolts (34) and 2 nuts (35) and tighten securely.

**10.** Insert hitch pin (36) into hitch assembly and secure with cotter pin (37).



# Cable Assembly

**11.** Attach on/off control cable [48] to control bar with 2 bolts [41] & 2 nuts [39]. Put end cap (40) on lever control bar.

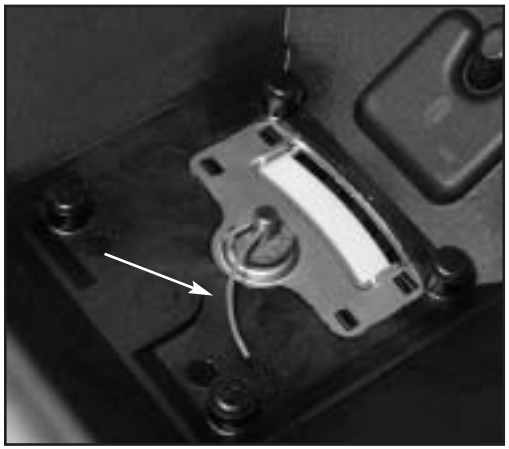
**12.** Secure on/off control cable to tow bar with cable clamp (42), using 1 bolt (33) and 1 nut (35).

Note goto page 8 for complete adjustment instructions.

**13.** Place felt washer (27) over spinner shaft.

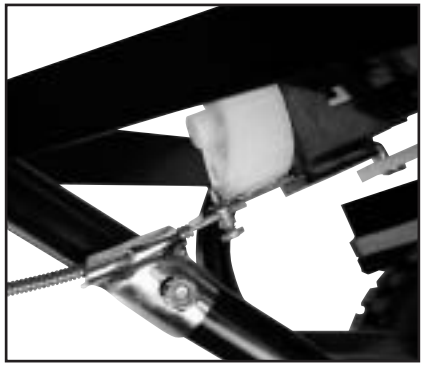
**14.** Insert agitator wire (38) into spinner shaft.

Note direction of agitator wire.



**15.** Tighten all bolts and you are ready to spread.

## New Linkage Adjustment Procedure



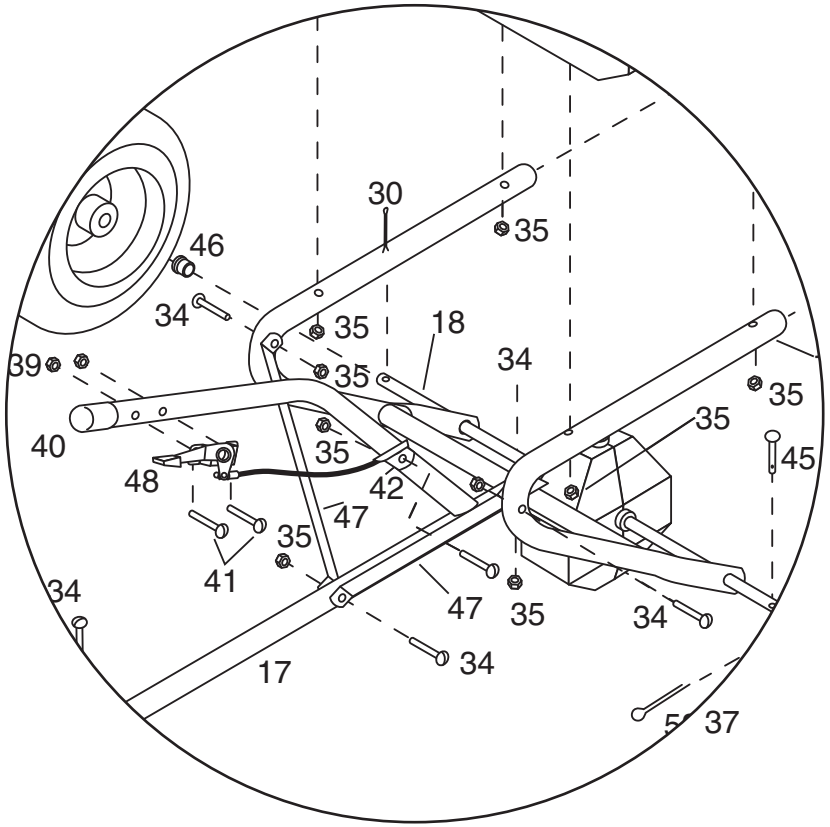
1. Set regulator dial to 1.
2. Set lever completely to <u>off</u> position.
3. Attach cable clamp (59) to ground prop with 1 1/4" bolt and nut and finger tighten.
4. Route cable through clamp, then through swivel and then tighten the cable clamp bolt just enough to allow the cable to slide back and forth easily.
5. Adjust sheath on cable so there is a 1/8" inch of control wire that is visible between the sheath and the edge of the rate gate linkage.
6. Tighten the cable clamp bolt to secure the sheath.
7. Tighten the screw on the cable fastener to anchor the wire, making sure that the rate gate linkage is pushed up against the dial.
8. Trim excess wire behind cable fastener connector when finished (if necessary).

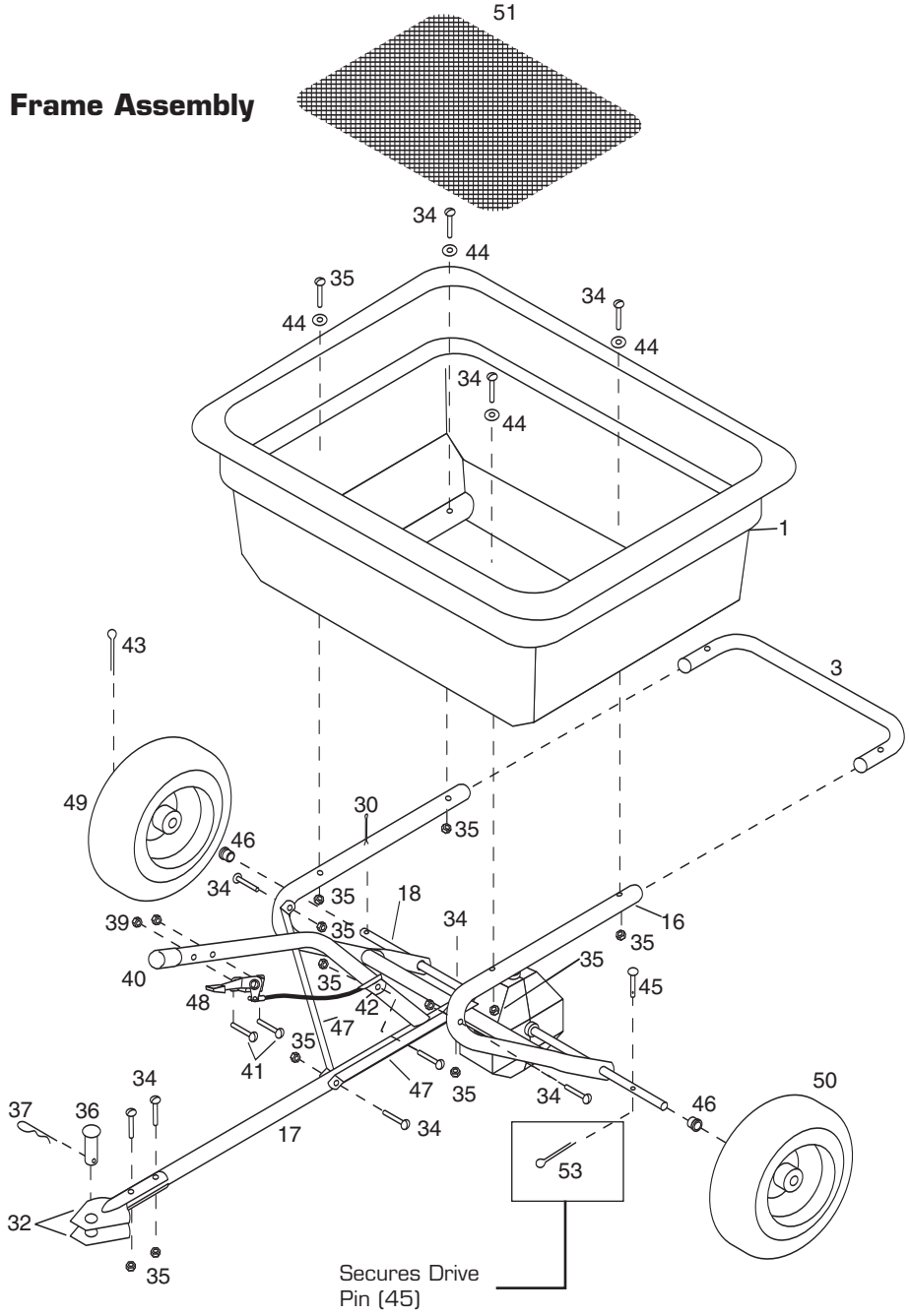
## Dial Setting Information

The RATE DIAL has 9 numbers with 10 stops between each number, for accurate control of the spreading rate.

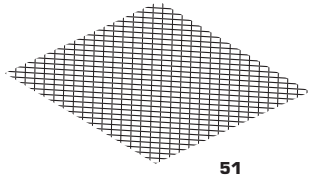
The dial is set with only a turn. It will automatically lock into the set position. LINE UP THE DIAL NUMBER WITH THE DIAL INDICATOR.

## Pull Behind Hopper & Frame Assembly

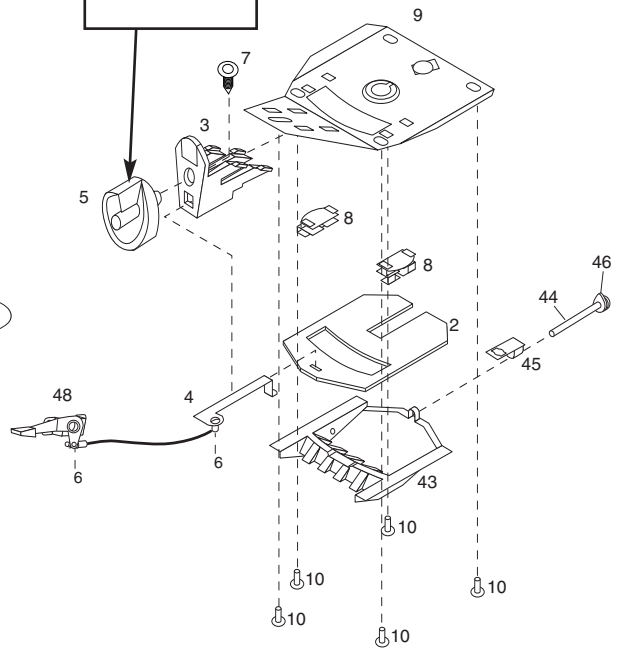


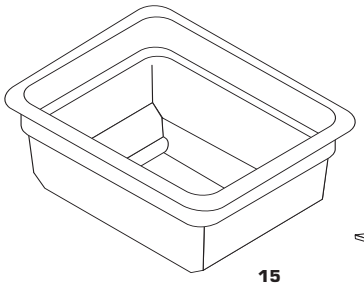
# Exploded View

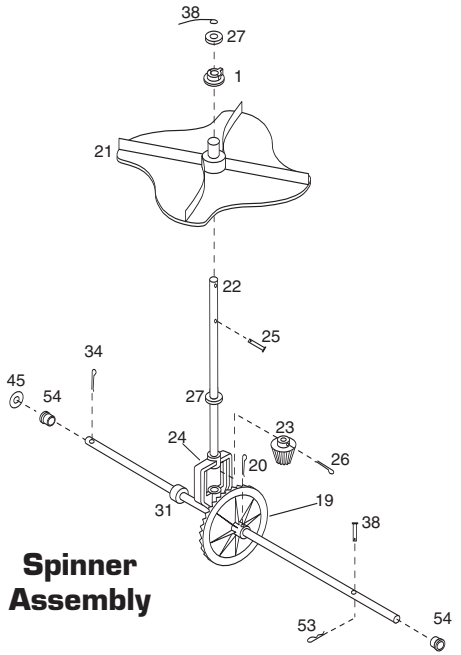



**Rate Gate Assembly**



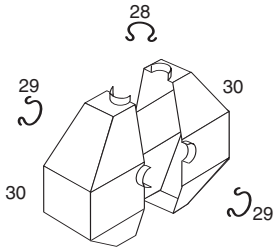

**Plastic Hopper**




**Spinner Assembly**

**Gear Box**






# Parts List

| Item # | Part # | Quantity | Description |
|---|---|---|---|
| 1 | SS-94-0007 | 1 | HOPPER BOTTOM BEARING (NYLON) |
| 2 | 05-94-0068 | 1 | RATE GATE |
| 3 | 05-94-0069 | 1 | DIAL MOUNT |
| 4 | 05-24-1101 | 1 | RATE GATE LINKAGE-POLISHED |
| 5 | SS-94-0006 | 1 | DIAL PLASTIC |
| 6 | 05-90-0044 | 1 | CABLE FASTENER/FITTING |
| 7 | 05-94-0078 | 1 | PINE TREE CLIP |
| 8 | 05-94-0042 | 2 | RATE GATE DIFFUSER GUIDE |
| 9 | 05-94-0043 | 1 | DIFFUSER |
| 10 | 05-94-0045 | 1 | ACCUWAY ADJUSTMENT SCREW |
| 11 | 05-94-0046 | 1 | ACCUWAY ADJUSTMENT NUT |
| 12 | 05-94-0047 | 1 | JAM NUT FOR DIFFUSER |
| 13 | 05-71-2205 | 1 | HOPPER BOTTOM PLATE |
| 14 | 99-10-0205 | 5 | 1/4-20 X 1/2 HH CAP SCREW S.S./ HOPPER BOTTOM PLATE |
| 15 | 05-125-0030 | 1 | HOPPER |
| 16 | 05-179-0020 | 1 | FRAME STAINLESS STEEL |
| 17 | 05-179-0010 | 1 | TOW BAR STAINLESS STEEL |
| 18 | 05-179-0050 | 1 | AXEL |
| 19 | 05-94-0033 | 1 | BEVEL GEAR- METAL |
| 20 | 05-90-0014 | 1 | COTTER PIN 3/16" X 1 3/4" ZP |
| 21 | SS-94-0012-1 | 1 | SPINNER |
| 22 | 05-179-0060 | 1 | SPINNER SHAFT |
| 23 | 05-94-0034 | 1 | PINION GEAR-METAL |
| 24 | 05-94-0035 | 1 | GEAR SUPPORT/PLASTIC YOKE |
| 25 | SS-90-0002 | 1 | .125 X 7/8" ROLL PIN PLAIN |
| 26 | 99-50-1081 | 1 | COTTER PIN S.S. .125 X 1" |
| 27 | SS-92-0002 | 2 | FELT WASHER |
| 28 | 05-98-0094 | 1 | GEAR BOX RETAINER CLIP SS SMALL |
| 29 | 05-98-0095 | 2 | GEAR BOX RETAINER CLIP SS LARGE |
| 30 | 05-94-0036 | 2 | GEAR BOX HOUSING |
| 31 | 05-90-0013-R | 1 | COLLAR 5/8" BORE 1 1/8" |
| 32 | 05-97-3013 | 2 | HITCH PLATE S.S. |
| 33 | SS-90-0012 | 1 | 1/4 X 20 X 1/1/2 S.S. BOLT / CABLE CLAMP |
| 34 | 05-90-0016 | 10 | BOLT 1/4 20X1-3/4" / FRAME / HITCH PLATES / BRACES / TOW BAR |
| 35 | SS-91-0004 | 11 | 1/4-20 HEX NYLON INSERT, LOCK / FRAME / HITCH PLATES / BRACES / TOW BAR / CABLE CLAMP |
| 36 | SS-90-0006 | 1 | CLEVIS PIN |
| 37 | 99-50-1042 | 1 | HAIRPIN COTTER PIN |
| 38 | SS-96-0003 | 1 | AGITATOR WIRE |
| 39 | 05-91-0008 | 2 | LOCK NUT |
| 40 | 05-94-0021 | 1 | END CAPS |
| 41 | 05-90-0015 | 2 | SCREW 10-24 X 1 3/8 |
| 42 | 05-24-1105 | 1 | CONTROL CABLE CLAMP |
| 43 | 99-50-1081 | 2 | HAIR PIN .125 X 1" / IDLE WHEEL / PINION GEAR |
| 44 | 05-94-0064 | 4 | WASHER, NYLON |
| 45 | 05-90-0065 | 1 | CLEVIS PIN / DRIVE WHEEL |
| 46 | 05-94-0028 | 2 | AXLE FLANGE BUSHING |
| 47 | 05-179-0040 | 2 | TOW BAR BRACE |
| 48 | 05-98-0017-1 | 1 | ON/OFF CONTROL CABLE |
| 49 | 05-95-0017 | 1 | 12" IDLE WHEEL |
| 50 | 05-95-0016 | 1 | 12" DRIVE WHEEL |
| 51 | 05-96-0021 | 1 | SCREEN 14" |
| 52 | 05.179.0032 | 1 | AXLE / SPINNER ASSY. |
| 53 | 05.90.0039 | 1 | HAIR PIN / DRIVE WHEEL |
| 54 | 05.94.0028 | 2 | AXLE FLANGE BUSHING - NYLON |

**SPEED - ACCURACY - FREEDOM FROM STRIPES AND STREAKS are yours - when you use this Spreader.**

The spread width ranges from 4 ft. to 12 ft. wide, depending on the volume/density, particle size of the material and the rate of travel.

The spread thins or feathers at the outer edges, eliminating sharp, "Edge of spread" lines which cause stripes and streaks. Extra coverage can be given under trees and other heavy feeding areas without showing "edge of spread" lines.

Gaps and double overlaps are less likely. Small errors in travel are forgiven and do not show.

**WARNING: When spreading products containing herbicides, exercise extreme caution with respect to careless spreading and to wind-drift.**
**CONTACT OF SOME PRODUCTS ON SOME PLANTS CAN BE FATAL.**

If a dial setting is not found, use the size and weight comparison table found on page 17.

Determine a dial setting on the low side. If the setting proves to be too low, cover the area more than one time. A higher setting can be used when a proven dial setting is established.

REMEMBER - Published dial settings can be approximate only. The operation of the spreader, the condition of the material (damp or dry or over-pulverized) and weather conditions, are all contributing factors.

For these reasons, it's often a good idea to spread the area 2 times - at one-half rate - in cross directions (SEE INFORMATION ON ONE-HALF RATE DIAL SETTINGS ON REFERENCE CHART ON PAGE 17. SPREADING AT ONE-HALF RATE DIAL SETTINGS IS HIGHLY RECOMMENDED UNDER DAMP & HUMID CONDITIONS.

**BECOME FAMILIAR WITH THE OPERATION OF THE SPREADER BEFORE YOU PUT MATERIAL IN THE HOPPER.**

Practice walking with the spreader, opening and closing the rate gate at the appropriate times.

Travel at a constant speed and operate the spreader lever position.

**Remember:** Open the rate gate **after the spreader is in motion** at operating speed (about 3 mph., or at a brisk walking pace).

Close the rate gate while spreader is **still at operational speed.**



Read Before Using

## Rotary Agitator

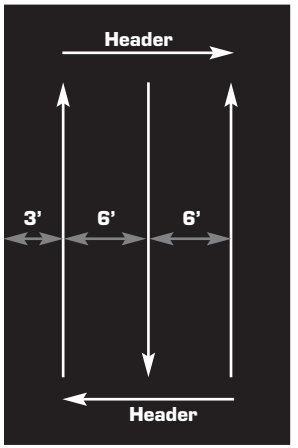
Use the rotary agitator only if needed. Free-flowing, lump-free materials will not require the agitator. The rotary agitator is easily installed or removed. Note the clockwise rotation & sweep. Place felt washer around spinner shaft before inserting agitator.

**OIL BEARINGS AND ALL MOVING PARTS**
Make certain the spreader is running freely!

## Now You are Ready to Put Material in the Hopper

- Make certain the *rate gate is in closed position.*
- As insurance against spill damage and spill loss, put material in the hopper with the spreader on a walk, driveway, paper, plastic, etc.
- The spreader will be easier to use if you only half-fill the hopper. Later on you can fill the hopper if you so choose.

## Now You are Ready to Spread




- Spread header strips at the ends of the area OPPOSITE the direction of spreading. This will provide a "turn-around" area, an area to re-align the spreader for the return spread.
- Example is for 6 ft. wide spread: Make the first spreading pass at one-half the spread width from the edge of the spreading area or in this case approximately 3 feet or one big step.
- Additional spreading passes will be at the full spread width or approximately 6 feet apart.
- TAKE A SIGHTING AT THE FAR END. Keep your eye on the sighting as you spread. You will not need to wonder where you are or where you have been. Continue until spreading is completed.
- Left over fertilizer can be spread under trees and other high feeding areas without showing "edge of spread" lines.

NOTE: With the rotary agitator installed, the rate gate closed (not spreading) and with material in the hopper, the spreader will push harder than normal. (This is because the agitator is stirring the material and it has no place to go.)

RECOMMENDATION: When not spreading and the spreader is being pushed some distance, tip the spreader so only the idle wheel is on the ground.

## Cleaning the Spreader is Part of the Spreading Job.

IMMEDIATELY AFTER USE - CLEAN AND OIL THE SPREADER

- **Method #1** - Wipe spreader thoroughly with an oily cloth. Oil all bearings and bearing areas.
- **Method #2** - Wash, rinse, and dry the spreader. Note: Drying takes time. (Moisture trapped in bearing areas is slow to go.) Immediately after drying - oil all bearings and moving parts. Make certain all operations are thorough.

  Note: Good "Dry Cleaning" is preferable to poor "Wet Cleaning".

- It is virtually impossible to have rust and corrosion on a clean, dry, oiled surface.
- Again - just before using - oil all bearings and moving parts.
- In storage, ideally the spreader should be hung by the handle. In any case, do not pile weight on the spreader, as excess weight over a period of time can distort the tires.

## "Accuway" Use Instructions.

BALANCING THE SPREAD - A COMPLICATED PROBLEM WITH A SIMPLE SOLUTION

HERE'S THE PROBLEM - IT'S THE VARIABLES

It's the **VARIABLES**. Each variable has it's own spread pattern characteristics.

It's the **VARIABLES**. They're transposed and mirrored in the Spread pattern.

TRAVEL SPEED, HUMIDITY AND CONDITION OF PRODUCT ARE MAJOR FACTORS IN **BALANCING THE SPREAD**

"To Every Action There Is Always An Opposed and Equal Reaction"
(Newton's law of motion - Sir Isaac Newton, 1642-1727.)





## Accuway - What It Does

Accuway Spread Pattern Equalizer Balances the spread pattern - Bulls Eye - Dead to the Center of the Spreader. All products. All spreading conditions. Skewing is eliminated. Does not change the spread width.

**CAUTION: Never, never, never use the Accuway to split the product flow from the hopper to the spreading spinner.**

**VARIABLES** in product, weather, spreading equipment, spreader operator, etc., and combinations of **variable** elements produce **VARIABLES** in the spread pattern.

- **VARIABLES** include product size, weight, shape, surface finish, hygroscopic or non hygroscopic composition, condition of product (exposure to humidity, temperature, etc.)
- **VARIABLES** include spreading rate (light, medium, heavy).
- **VARIABLES** include size, shape, design of spreading spinner.
- **VARIABLES** include product dispensing on spreading spinner.
- **VARIABLES** include condition of the spreader end the spreading spinner (product build up on the casting vanes, etc.)
- **VARIABLES** include operator habits, fast or slow walking, tilting spreader forward or backward or operating spreader in a level attitude.

## Accuway - How It Works

A turn of the spread pattern shifter dial factors the variables.
Shifts the product placement on the spreading spinner.
This in turn balances the spread pattern heavier to right or heavier to left as required.
Adjustment is very sensitive. (Note the very fine threads on the Equalizer adjustment stem.)

Viewed from the operators position
To spread heavier left - move the ramp out.
To spread heavier right - move the ramp in.

**The Accuway has two ramps. A front side and a back side ramp.**

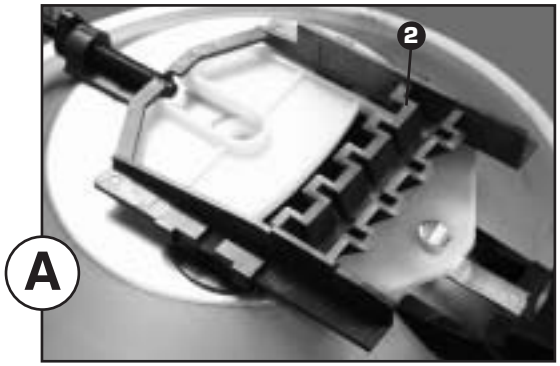
Viewed from operators position.

The front side ramp ❷ is used to shift the spread pattern to the right.

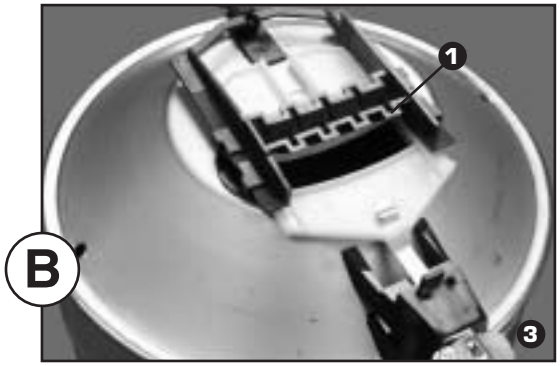
The back side ramp ❶ is used to shift the spread pattern to the left.

NEVER, NEVER, NEVER USE ACCUWAY FRONT AND REAR RAMPS TO SPLIT THE PRODUCT FLOW. Use only the front side or the back side. With proper adjustment you should be able to achieve a balanced spread pattern.

**First - set the spread rate dial ❸.**
**Now you are ready to balance the spread pattern.**




Note the relationship of the rate gate opening to the front side of the ramp.




Note the relationship of the rate gate opening to the back side of the ramp.





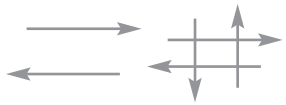
**Dial settings are approximate only. Spreading at one half rate in cross directions is usually recommended.**

| Manufacturer and Product | Manufacturer's Bag Rate | | Micro-Dial Settings | | Spread Width (In feet based on brisk walking) |
|---|---|---|---|---|---|
| | Bag Weight | Sq. Ft. Coverage | Full Rate Once over | Half rate Twice over | |
| Bent Grass or Red Top | 0.5# | 1,000 | 1.25 | | 4 |
| | 1# | 1,000 | 2.0 | | 4 |
| | 2# | 1,000 | 2.5 | | 4 |
| Park, Merion, Delta, or Kentucky Bluegrass | 0.5# | 1,000 | 2.5 | | 4 |
| | 1# | 1,000 | 3.0 | | 4 |
| | 2# | 1,000 | 3.5 | | 4 |
| Hulled Bermuda | 2# | 1,000 | 2.75 | 2.25 | 6 |
| | 3# | 1,000 | 3.0 | 2.5 | 6 |
| | 4# | 1,000 | 3.25 | 2.75 | 6 |
| Mixtures including coarse seeds | 2# | 1,000 | 6.0 | | 6 |
| | 4# | 1,000 | 7.0 | | 6 |
| | 6# | 1,000 | 7.0 | | 6 |
| Rye Grasses or Tall Fescue | 2# | 1,000 | 6.0 | | 6 |
| | 4# | 1,000 | 7.0 | | 6 |
| | 6# | 1,000 | 7.75 | | 6 |
| Dichondra | 4 oz. | 1,000 | 1.9 | | 8 |
| | 8 oz. | 1,000 | 2.1 | | 8 |
| | 12 oz. | 1,000 | 2.5 | | 8 |
| Pensacola Bahia | 4# | 1,000 | 4.5 | 3.75 | 7 |
| | 5# | 1,000 | 4.75 | 4.0 | 7 |
| | 6# | 1,000 | 5.0 | 4.25 | 7 |

# Granule Size - Dial Setting Guide

**Dial settings are approximate only.**

| Product | Lbs. per 1000 Sq. Ft. | Full Rate | Half Rate |
|---|---|---|---|
| **Fine Pellets** | 1 | 3.6 | 3.1 |
| | 2 | 4.0 | 3.5 |
| | 3 | 4.2 | 3.7 |
| **Mixed Fine Pellets** | 2 | 3.7 | 3.2 |
| | 4 | 4.7 | 4.1 |
| | 6 | 5.2 | 4.5 |
| **Small Pellets** | 2 | 3 | 2.2 |
| | 4 | 4.2 | 3.7 |
| | 6 | 4.5 | 4 |
| **Nitrogen Pellets Med.** | 1 | 3.5 | 3 |
| | 2 | 4.2 | 3.7 |
| | 3 | 4.7 | 4 |
| **Med. Pellets & Granules** | 2 | 3.5 | 3 |
| | 4 | 4.2 | 3.8 |
| | 6 | 5.2 | 4.5 |
| **Med. Pellets** | 2 | 3.5 | 3 |
| | 4 | 4.2 | 3.8 |
| | 6 | 5.2 | 4.5 |
| **Large Heavy Pellets** | 2 | 3.8 | 3.3 |
| | 4 | 4.9 | 4.1 |
| | 6 | 5.9 | 4.9 |



# Broadcast Spreading

Broadcast spreading is as old as early man. In the early days of agriculture, field seeding was accomplished with hand cast broadcasting. The hand cast method of seeding was a limited factor in growing field crops that were hand seeded.

Mechanized casting came into being in 1868 when Samuel Speicher invented the Hand Crank "Cyclone" Seeder.

The seed sower was a breakthrough in field seeding. It was hailed as a major advancement in agricultural implements.

Paul Speicher put the hand crank seeder on wheels in 1955.

This development ushered in a new era in spreading and spreading products. New products and product forms adapted to broadcast spreading were developed.

In 1988 a new dimension was added to broadcast spreading - SPREAD PATTERN CONTROL - a dead center spread pattern equalizer.

Spyker's Accuway® spread pattern equalizer solves a complicated problem with a fundamental patented solution.



# Did You Know?

## THERE'S MORE TO A SPREADER THAN MEETS THE EYE — LOTS MORE

### Spreadability

Dial-a-matic regulator ensures exact spread rate. Accuway® Spread Pattern Equalizer assures exact placement of the spread pattern - Bull's Eye - dead to the center of the spreader. All products - All spreading conditions. Skewing is eliminated.

### Durability

Series 179 spreaders will survive use and abuse. Welded stainless steel construction is double braced, Generous use of highest quality stainless steel. Guaranteed metal gears.

### Reliability

You can count on.

Accuway® spread control system is so innovative, it's patented. Is so simple. A complicated problem is solved with a fundamental solution.

(Newton's law of motion: To every action there is always an opposed and equal reaction.)

### Serviceability

Replacement parts service available direct from the factory.

# LIMITED WARRANTY

This is warranted to the original purchaser only, other than used commercially, against defects in materials and workmanship, for a period of ninety (90) days from the date of purchase.

Spyker Spreaders LLC, will not be liable for any loss, damage or expense including, but not limited, consequential or incidental damages, arising from the operation, condition or use of the item, the sole and exclusive remedy against Spyker Spreaders LLC, being the replacement of the defective parts. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

THIS EXPRESS WARRANTY, WHICH IS APPLICABLE ONLY TO THE ORIGINAL PURCHASER, IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

**Spyker Spreaders LLC**

140 Mill St.
Urbana, IN 46990.
U.S.A.

120 SERIES

# FEATURES & BENEFITS

**"ACCUWAY" Spread Pattern Equalizer ENSURES spreading dead center of the spreader.** (Indicated with "22" in model number)

20 SERIES

**Gears are unconditionally guaranteed ENSURES trouble free operation.**

90 SERIES

**Dial-A-Matic spread rate control ENSURES spreading at exact spread rates.**

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