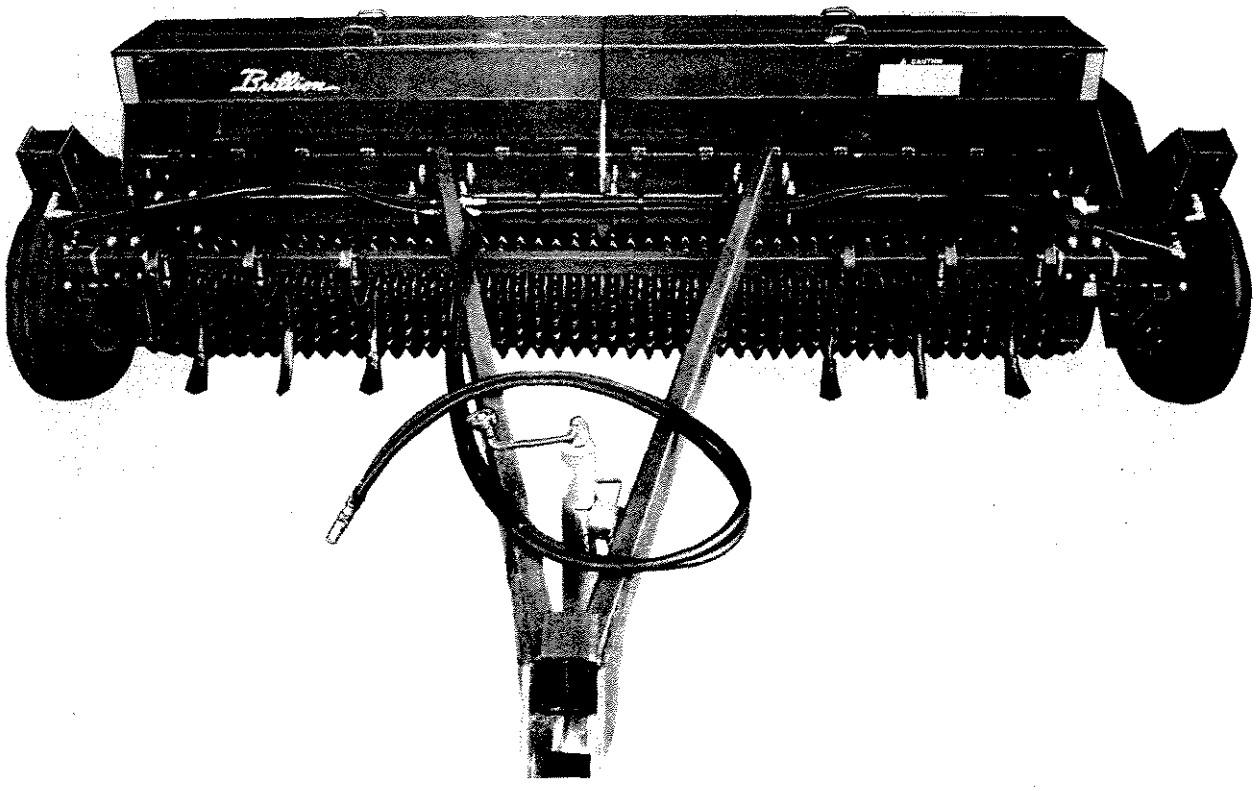
ASSEMBLY INSTRUCTIONS

OPERATOR'S MANUAL

Brillion

SURE STAND GRASS SEEDER

MODEL SS-10



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FEMA

BRILLION IRON WORKS, INC.
BRILLION, WISCONSIN 54110

9J467

CONTENTS

To obtain maximum benefits from the Brillion Grass Seeder, please study this manual carefully before starting assembly or operation. A special section, "Assembly Instructions", is included. If items covered in this manual are not understood, contact your local Brillion dealer or call Brillion Iron Works, Inc. at 414/756-2121.

This safety alert symbol is used to call your attention to instructions concerning personal safety. This symbol is found throughout this manual and will be found on your machine. It points out important safety precautions. It means "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" Read the message that follows and be alert to the possibility of personal injury or death.

Location Reference

Right hand, left hand and forward designations are those related to the operator when sitting in the operating position.

Parts Ordering

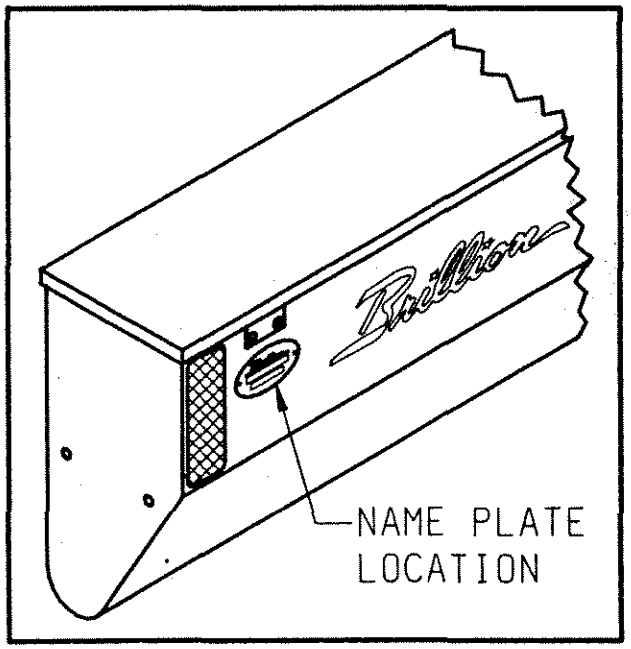
When ordering parts for this machine, include the complete model number and serial number. Refer to the name plate on the right end, front surface, of the seed box. Please record these numbers upon taking delivery of the unit.

Seeder Model _____

Serial Number _____

Date Purchased _____

Be sure to read the warranty card which is shipped with the machine. Return the proper portion of the card for recording at the factory.



SAFETY SUGGESTIONS

Federal law requires you to explain the safety and operating instructions furnished with this machine to all employees before they are allowed to operate the machine. These must be repeated to the employees at the beginning of each season. Be sure to observe and follow the instructions for the safety of anyone operating or near the machine.

Investigation has shown that nearly one-third of all farm accidents are caused by careless use of machinery. You can do your part in improving safety by observing the following suggestions. Insist that all people working with you or for you abide by them.

1. Do not stand between the tractor and implement when attaching or detaching implement unless both are not moving.

2. Do not make adjustments or lubricate machine while it is in motion.

3. Do not allow anyone to ride on tractor or machine.

4. Always use transport lock when transporting machine.

5. Do not transport at speeds over 20 mph.

6. Avoid sudden stops or turns when transporting because weight of machine may cause operator to lose control of tractor. Use a tractor heavier than machine. Do not allow tractor drawbar to swing when transporting.

7. Use caution when towing behind articulated steering tractors; fast or sharp turns may cause the machine to slip sideways.

8. When transporting the machine on a road or highway, use adequate warning symbols, reflectors, lights, and slow moving vehicle signs as required.

9. Lower machine to ground when not in use.

10. Block machine so it will not roll when unhitched from tractor.

11. Relieve pressure in hydraulic lines before uncoupling hydraulic hoses from tractor. On most tractors this can be done by operating valves after engine is stopped.

12. Securely block machine when working on or under it to prevent injury in case of hydraulic failure or inadvertent lowering by another person.

13. Be sure to engage parking pin on left side of pick-up models before disconnecting tractor. Otherwise machine may tip backward on frame.

14. Install safety chain between the pull type seeder and the tractor. See page 24 of this manual, and/or see tractor manual.

15. Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before applying pressure to the system, be sure all connections are tight and that lines and hoses are not damaged.

16. Hydraulic fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or a piece of wood, rather than hands, to search for suspected leaks.

Safety Decals

There are three levels of hazard intensity that appear with the safety alert symbol on safety decals: DANGER, WARNING, and CAUTION. The level of hazard intensity is determined by the following definitions:

DANGER - Immediate hazards which WILL result in severe personal injury or death.

WARNING - Hazards or unsafe practices which COULD result in severe personal injury or death.

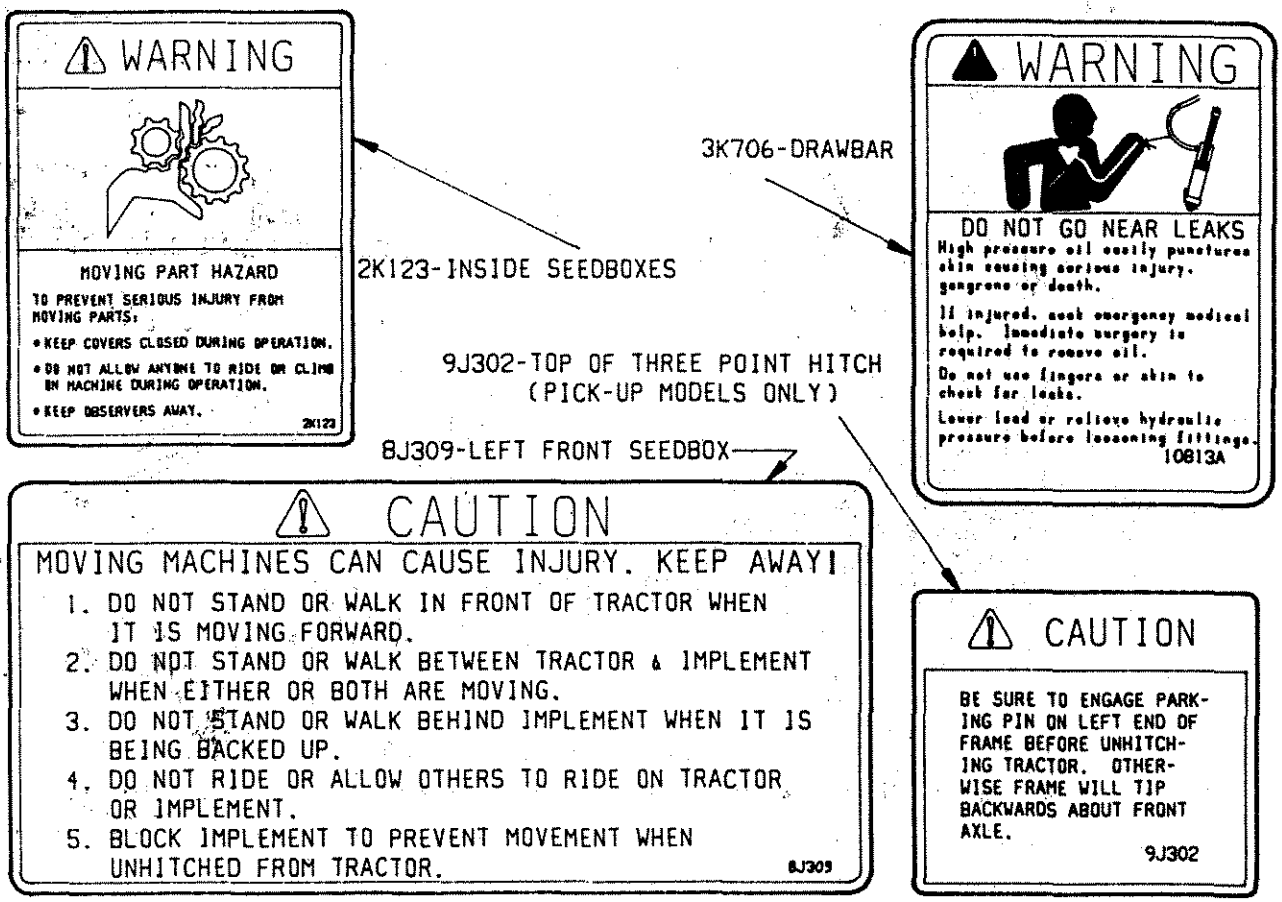
CAUTION - A reminder of safety practices, or directs attention to unsafe practices which could result in personal injury.

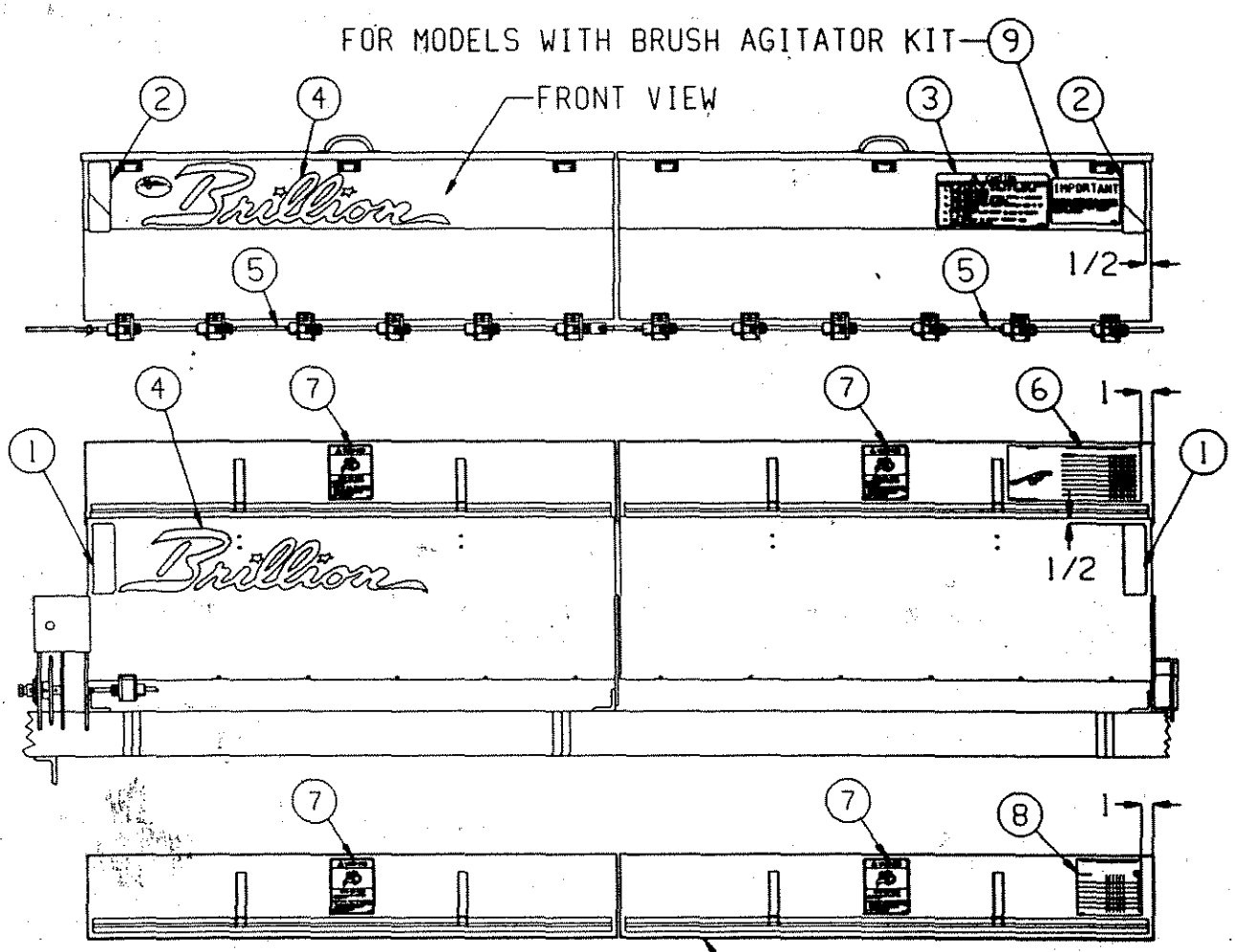
Examine safety decals and be sure you have the correct safety decals for the machine. Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned more frequently than the machine. Wash with soap and water or cleaning solution as required.
Replace decals that become damaged or lost.

Order decals through your BRILLION dealer.

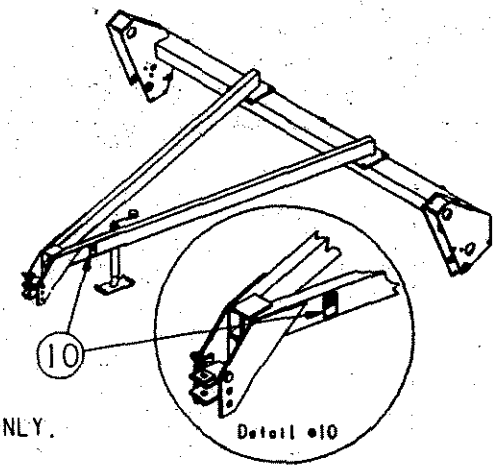
When applying decals to the machine, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirty oil, etc.

These are the safety decals provided for the seeder. (Refer to repair parts catalog for more information on the location of each safety sign on the equipment).





REF. NO.	ASSEM. NO.	PART NO.	PART NAME	QTY.
1		2J430	DECAL, RED	4
2		2J431	DECAL, AMBER	2
3		8J309	DECAL, CAUTION	1
4		1K174	DECAL, BRILLION	3
5		9J429	DECAL, AMBER (SHAFTS)	2
6		9J432	DECAL, SEED CHART	1
7		2K123	DECAL, WARNING	4
8		9J424	DECAL, SEED CHART	1
9		5D505	DECAL, "IMPORTANT"	1
10		3K706	DECAL, HYDRAULIC LEAKS	1



NOTE:
ITEMS 1 & 4 (IN REAR VIEW) ARE USED ONLY ON REAR BOX WHEN MACHINE IS ASSEMBLED AT FACTORY. EXTRA DECALS ARE PROVIDED IN DECAL PACKAGE FOR ALL FOUR BOXES (REAR VIEW). IF NEEDED, ITEMS 8 & 9 ARE INCLUDED ON MODELS WITH BRUSH AGITATOR KITS ONLY.

Transport Lock (Pull Type Seeders Only)

To prepare machine for transport, raise it fully and pin transport lock in place on each lift cylinder. For field operation, disengage each transport lock and replace pin. (If pin is not installed, transport lock may bounce up and break hydraulic fittings).

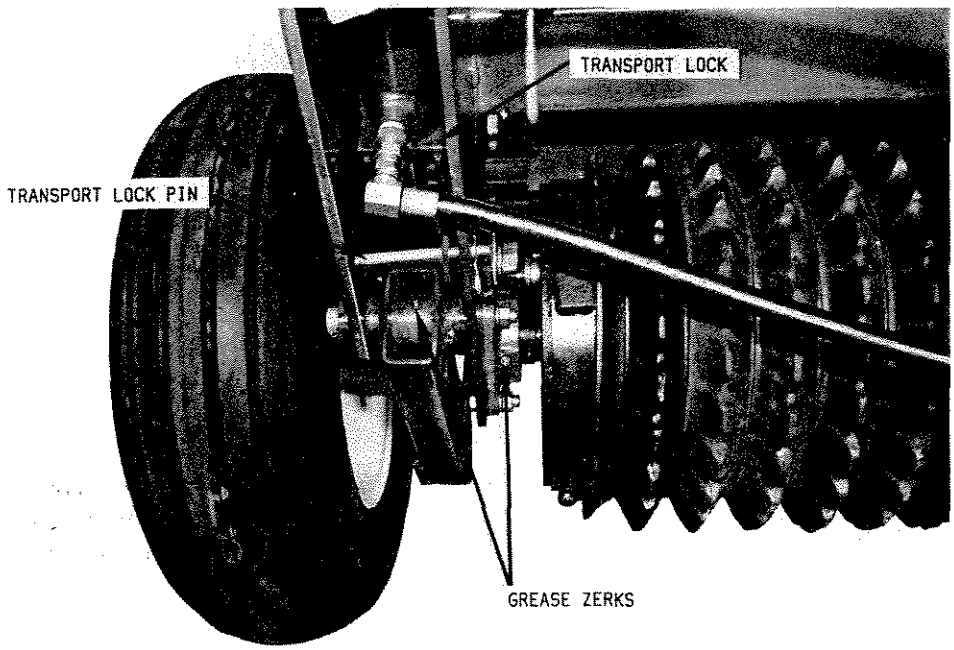


Figure 1

Parking Pin (Pick-Up Seeders Only)

⚠ To prevent machine from tipping backward on frame, disengage parking pin only when seeder is fully attached to tractor. Be sure to observe the following sequence:

When hooking up seeders:

1. Attach tractor.
2. Remove klik pin, pull parking pin in outer position, replace klik pin.

When unhooking seeder:

1. Remove klik pin, push in parking pin, replace klik pin.
2. Disconnect tractor.

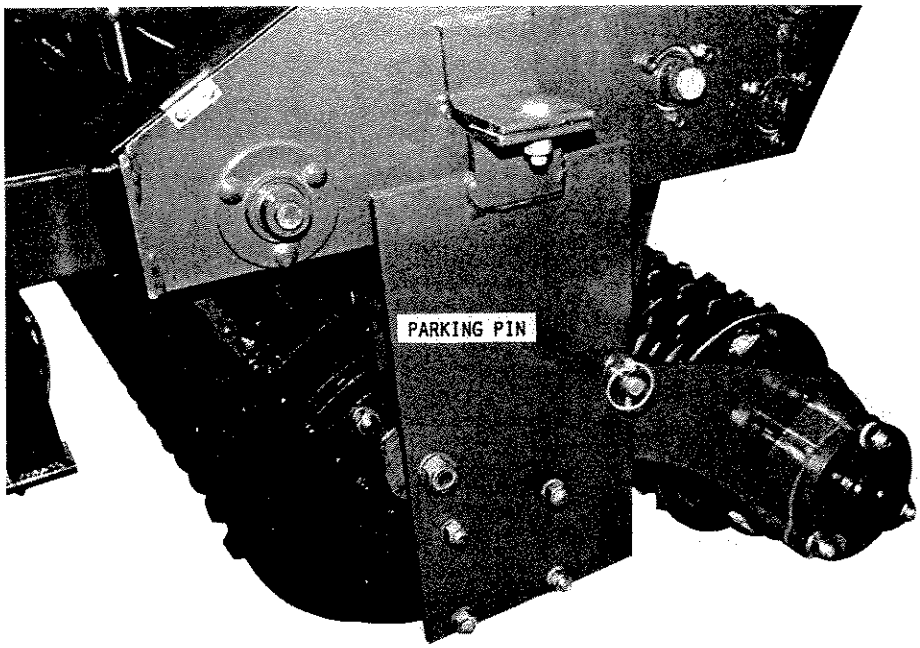


Figure 2

Meter Box Seed Rate

Seed rate for the front or meter box is set by adjusting the micro-meter on the right side. To increase the rate of seeding, loosen the large locknut on inside of the bearing and turn the seed rate adjusting nut to the desired setting. To decrease the rate of seeding, loosen the seed rate adjusting nut and set it to the new desired position; then tighten the large locknut.

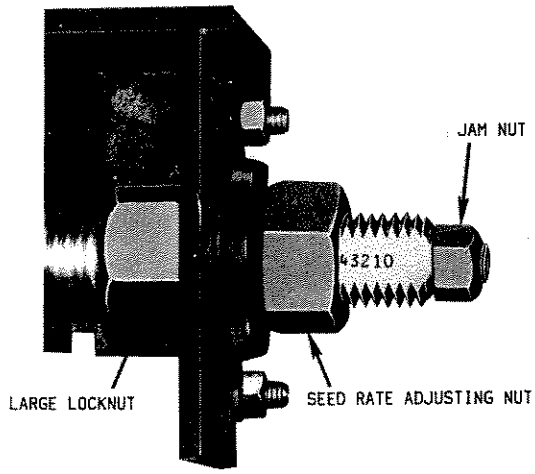


Figure 3

A seed rate chart is located inside the seed box cover. It should be used as a general guide only. Because of seed variation, a more accurate rate can be found by calibrating the seeder as shown on the chart and in later pages of this manual.

Seed cups discharge to the front of the machine to aid the tractor driver in determining proper operation. In addition, reflective amber decals are placed on the seed shaft to indicate rotation.

Agitator Box Brushes

IMPORTANT !
Always raise seeder fully before backing up if agitator brush kit has been installed. Brushes will be seriously damaged if they are rotated backwards.

Agitator Box Seed Rate

The agitator boxes (optional) are set by means of the control handles on the rear of each box. Loosen the wing nuts to move handles to desired setting and re-tighten nuts.

A seed rate chart is located inside the seed box cover. As with the front box, calibration as shown in the next section will provide the most accurate rate.

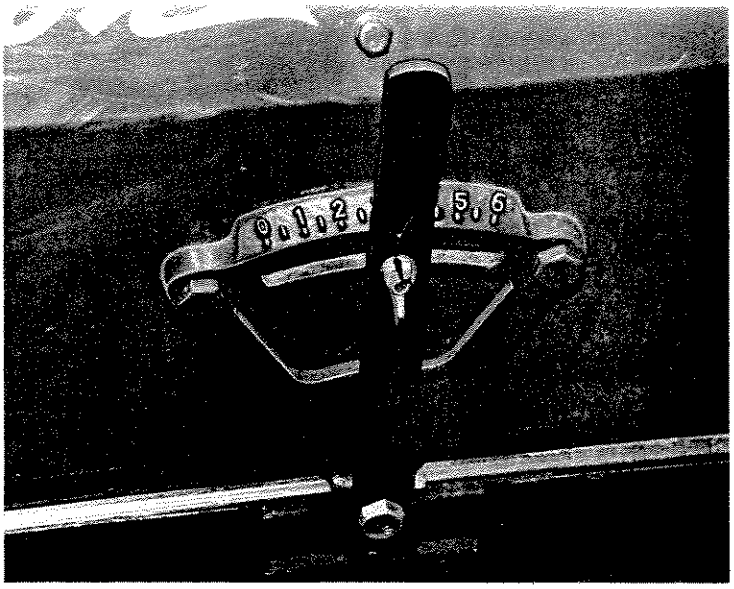


Figure 4

Seed Rate Calibration

The provided charts were determined by laboratory tests on various samples. To find rates for specific seed lots or to calibrate for unlisted seeds, proceed as shown on the seed chart which is reproduced on the next pages.

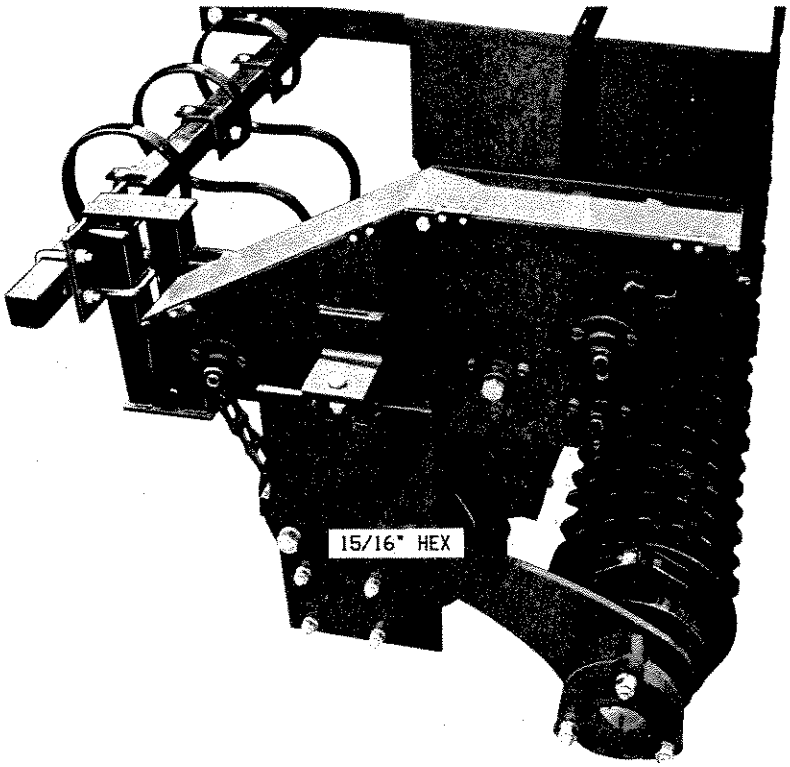


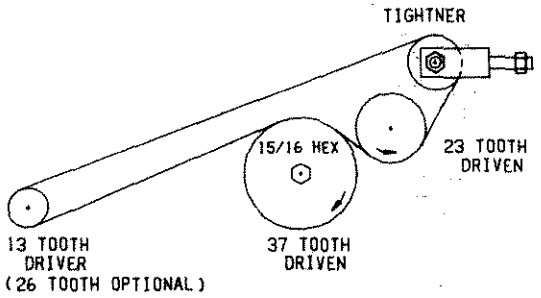
Figure 5

Using the standard 13 tooth driver sprocket, the seed shaft on the feed cups makes 200 revolutions per acre. This is also the speed of the 15/16" hex on the outside of the transmission. (A 26 tooth driver sprocket will double the speed). If you do not want to turn the shaft 200 times for calibration, divide 200 by some convenient number and then multiply the weighed seed by that same number. For example, if you make 20 turns, multiply weight by 10.

CALIBRATION

MACHINE MAY BE CALIBRATED FOR UNLISTED SEED AS FOLLOWS:

1. REMOVE DRIVE BOLT NEAR 13 TOOTH (OR OPTIONAL 26 TOOTH) DRIVER SPROCKET.
2. RAISE MACHINE AND LOCK IN TRANSPORT POSITION.
3. PLACE A CANVAS OR TARP TO CATCH SEED.
4. TURN 15/16 HEX ON TRANSMISSION SHAFT 200 REVOLUTIONS CLOCKWISE (400 IF 26 TOOTH DRIVER IS USED). FORTY TURNS MAY BE USED IF RESULTS ARE ADJUSTED AS SHOWN IN STEP 5.
5. WEIGH SEED FOR APPROXIMATE PLANTING RATE; MULTIPLY WEIGHT BY 5 (10 FOR 26 TOOTH DRIVER) IF ONLY 40 TURNS WERE USED.



* WILL CRACK SOME SEEDS AT THESE SETTINGS
NOT RECOMMENDED: LENTILS, SORGUM, SUDAN GRASS

9J432B FOR 10 FOOT SURE STAND SEEDER

PLANTING RATES FOR SEED METER (FRONT BOX) IN POUNDS PER ACRE

1. RATES ARE FOR 13 TOOTH DRIVER. DOUBLE THESE VALUES FOR 26 TOOTH DRIVER.
2. RATES ARE INTENDED AS A GUIDE ONLY. VARIATIONS IN SIZE AND CLEANLINESS WILL AFFECT RATES. CHECK ACREAGE AND POUNDS OF SEED USED FOR BEST RESULTS.

INDICATOR SETTING	1A	2A	3A	4A	5A	6A	7A	8A
ALFALFA (UNCOATED)	2	5	9	13	16	20	24	27
BAHIA	1	4	7	10	13	16	19	21
BERMUDA (HULLED)	2	5	9	14	17	21	24	28
BIRDSFOOT TREFOIL (BROADLEAF)	2	6	10	14	21	25	31	36
BLUE GRASS (KENTUCKY)	1	2	3	5	6	8	9	10
BLUE GRASS (PARK KENTUCKY)	1	3	5	8	10	13	15	17
BLUE GRASS (SHERMAN BIG)	-	1	3	4	5	6	7	8
CANOLA	1*	5*	8	12	15	18	21	25
CENTIPEDE	2	5	6	9	12	14	16	18
CLOVER (ALSIKE, LADINO, SWEET, RED)	2	6	9	13	17	21	24	28
CLOVER (ALYCE, CALIF. BUR., CRIMSON, HUBAM)	2	5	8	12	17	20	24	30
CRESTED WHEAT	-	1	2	3	4	5	6	7
CROWN VETCH	2	7	11	15	20	24	29	34
FLAX	2	5	8	10	13	16	19	21
HARDING GRASS	1	4	6	9	11	14	16	18
KLEIN GRASS	2	5	10	13	18	23	28	31
LESPEDEZA (KOREAN UNHULLED)	1	4	7	10	14	17	21	24
LESPEDEZA (KOREAN HULLED)	2	5	9	13	16	21	25	28
LESPEDEZA (SERICEA UNHULLED)	1	3	5	8	11	13	15	17
LESPEDEZA (SERICEA HULLED)	2	6	10	15	19	24	29	32
LOVE GRASS (WEEPING)	1	6	10	13	17	22	26	31
LOVE GRASS (SAND)	2	5	8	11	15	19	23	27
MILLET	2	6	10	14	18	22	26	31
RED TOP	1	2	4	5	6	7	8	9
REED CANARY GRASS	1	2	4	6	7	9	10	13
SWITCH GRASS (CLEANED AND HULLED)	-	2	4	5	7	9	11	13
TIMOTHY	2	4	7	11	14	18	22	25

FIGURE 6

PLANTING RATES FOR AGITATOR (REAR) BOX IN POUNDS PER ACRE

1. RATES ARE FOR 13 TOOTH DRIVER. DOUBLE THESE VALUES FOR 26 TOOTH DRIVER.
2. RATES ARE INTENDED AS A GUIDE ONLY. VARIATIONS IN SEED SIZE AND CLEANLINESS WILL AFFECT RATES. CHECK ACREAGE AND POUNDS OF SEED USED FOR BEST RESULTS.
3. CALIBRATION PROCEDURE IS THE SAME AS FOR METER BOX.

INDICATOR SETTING	1	2	3	4	5	6	REQUIRES BRUSH AGITATOR
BENT (HIGHLAND)	68	118					YES
BLUE GRASS (SHERMAN BIG)	2	13	38				NO
BLUESTEM (PAWNEE BIG X W/BEARDS)	1	2	4	5	9	11	YES
BLUESTEM (BONILLA BIG X W/O BEARDS)	-	1	4	9	18	27	YES
BROME (ERECT MEADOW)		2	6	14	25	36	NO
BROME (NORTHERN)		2	4	8	14	18	NO
BROME (SOUTHERN)		1	2	7	11	13	NO
BUFFALO GRASS	2	19	50	128			NO
DALIA GRASS	2	10	30				NO
DALLIS GRASS	2	11	29	61			NO
FESCUE	2	8	27	82	142		NO
GRAMA (SIDE OATS)	-	2	5	7	12	17	NO
INDIAN GRASS	-	1	2	3	4	6	YES
JOHNSON GRASS			1	2	4	8	NO
ORCHARD GRASS (UNHULLED)	1	6	18	43			NO
RESCUE GRASS		2	4	9	16	21	NO
RYE GRASS	1	8	28	69			NO
TRITICALE			113				NO
TRITICALE		77	143			350	YES

9J424A NOT RECOMMENDED: BLUESTEMS OTHER THAN SHOWN. ZORO FESCUE

Figure 7

Transmission Drive Bolt

A 3/8" x 1-1/4" grade 5 bolt connects the front transmission sprocket and drive flange. This bolt must be removed for calibration and can also be removed if it is desired to use the seeder as a roller only.

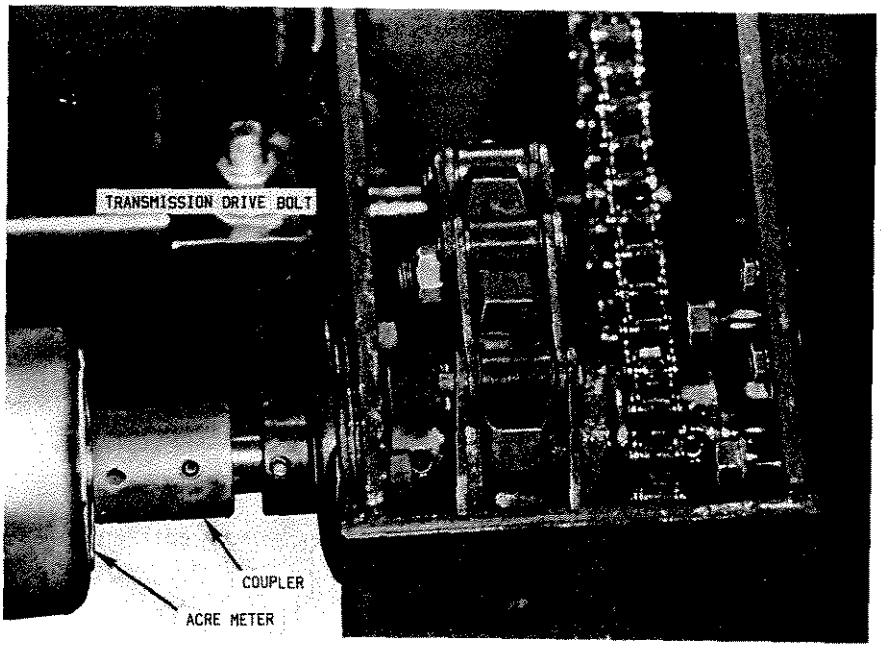


Figure 8

S-Tine Tire Track Remover (Optional)

This kit must be used with standard 9J442 long three point hitch on pick-up machines.

Wheel track remover is furnished with 6 s-tines. More or less tines may be used as required.

S-tines should not be operated any deeper than necessary to remove tractor tire tracks. Otherwise, wet soil is brought up which will stick to rollers, draft load is increased, and under some situations, tines may deflect back to rollers and break.

Suggested placement of tines is one on center and one in line with each edge of tractor tire.

Coil Tine Track Remover (Optional)

Vertical position can be changed by removing the clevis pins and lock screws and moving the adjusting angles up or down.

To inactivate the tines, remove the 1/2" clevis pins and loosen the lock screws. Then swing the bar and tine assemblies upward and sideways. To hold in place, wrap the chain under the bar and place the chain into the slot in the adjusting angle. Re-tighten the lock screws. (See assembly instructions on page 22 for illustrations).

Acre Meter

If seeder is equipped with an acre meter, precautions must be taken to protect meter bearings from damage due to shock loads. If blows from a hammer or heavy object will be applied to transmission or transmission area, first remove acre meter.

Fasteners

After a few hours' use, check entire machine and tighten any loose nuts or bolts. Daily or periodic checks should be made thereafter.

Tires

Recommended inflation pressure is as follows:

7.00/7.60-15	6 ply rating . . . . . 28 psi
9.5 L - 15	6 ply rating . . . . . 24 psi

Lubrication

Grease zerks daily. All machines have two fittings on the front roller bearings, one on each end.

Pull type machines also have a zerk on each wheel arm pivot.

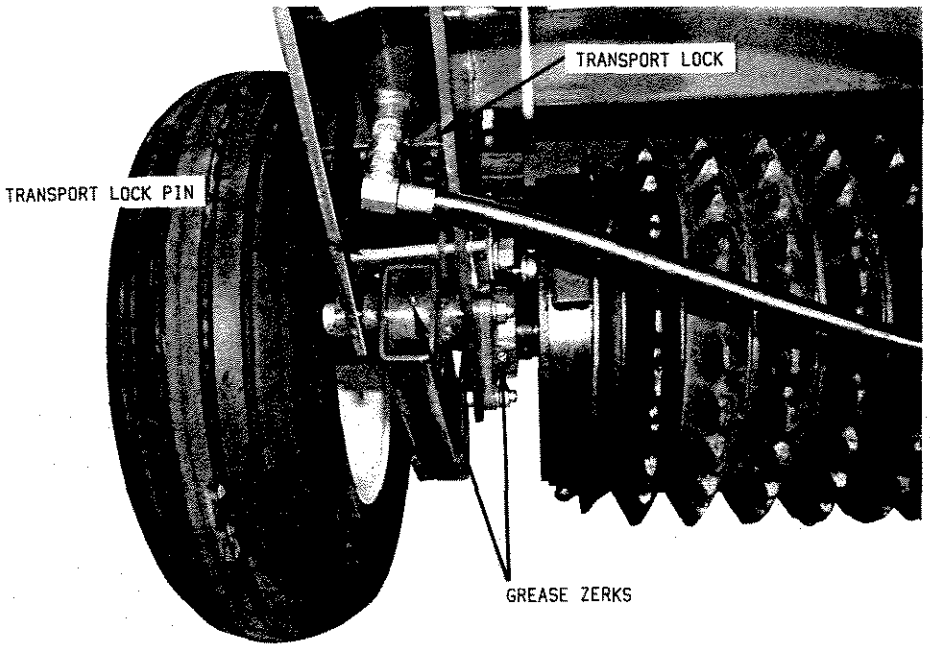


Figure 9

Oil roller chains periodically.

Repack wheel bearings annually.

When machine is not used for some time, exposed portions of hydraulic cylinder rods should be cleaned and covered with a thick coat of grease. This will prevent corrosion which will damage seals.

Chain Tension

Adjust the chain between the front roller and transmission to have approximately 2" of total deflection.

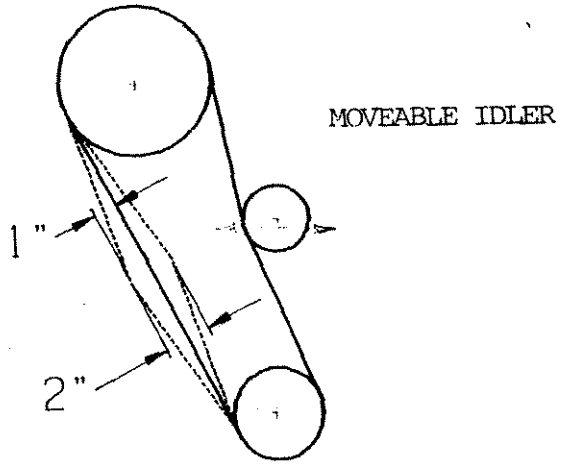


Figure 10

To adjust the transmission chain, first loosen the 5/8" idler axle bolt and then use the clevis draw bolt to obtain about 3/8" - 1/2" of sag. Re-tighten axle bolt. Be careful not to over tighten this chain.

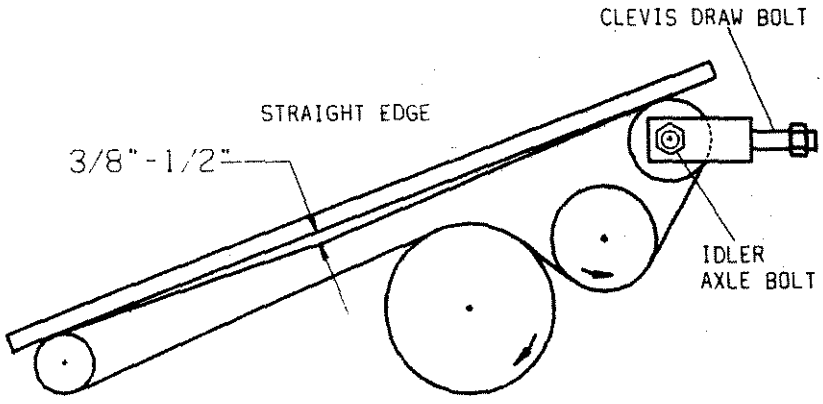


Figure 11

Roller Wheels

Occasionally it is necessary to loosen clamp bands and tighten roller wheel assemblies. As nearly as possible, peaks on rear wheels should line up with valleys on front wheels. This requires adjusting both end clamps on the rear axle drum.

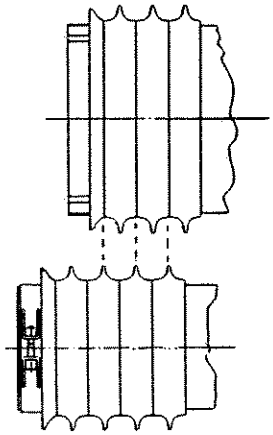


Figure 12

Feed Cup Adjustment

All cups must be set the same to seed uniformly. To check, set the adjusting nut to 0-A. All cups should be closed. If not, there are three adjustments to make as needed:

1. Jam nuts on both ends of the micro-meter are used to adjust all cups the same amount.
2. Feed roll coupling which connects left and right shafts changes cups on left box compared to cups on right box.
3. Individual cups can be adjusted by loosening their mounting bolts, moving cups, and then re-tightening.

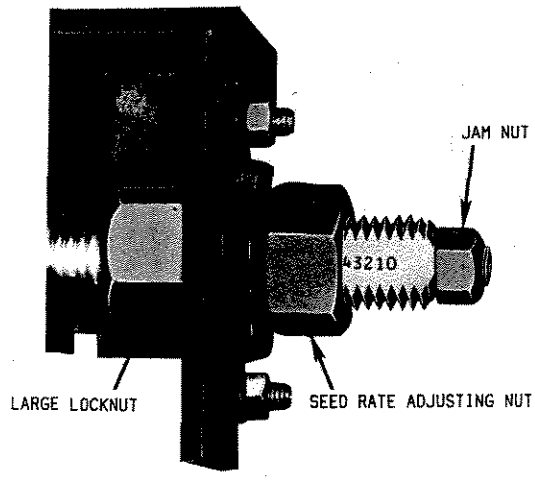


Figure 13

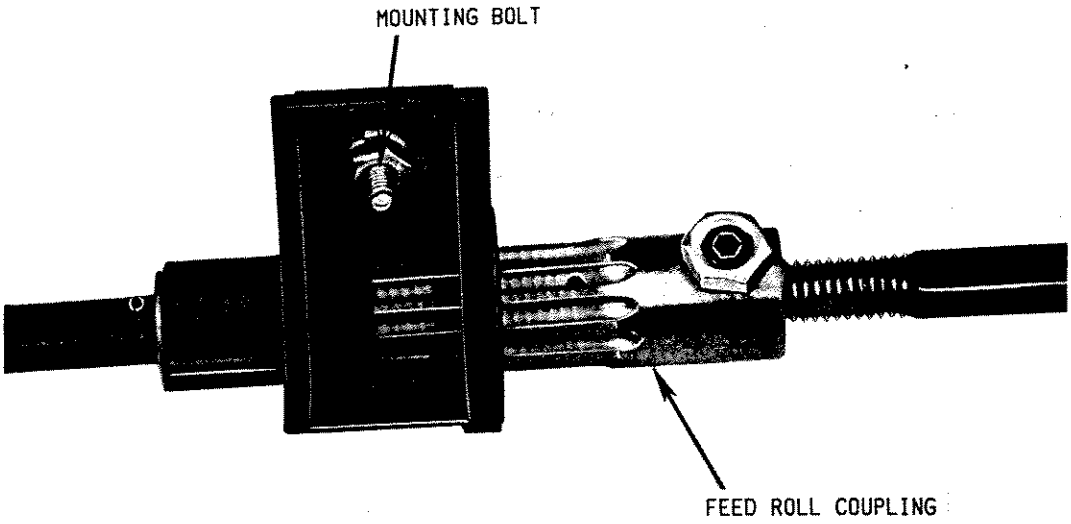


Figure 14

Agitator Box Slide

When properly adjusted, the holes in the slide should line up with the holes in the box with the control handle set at "6". To make an adjustment:

1. Loosen the control handle wing nut and move the slide until the holes line up.
2. Move the handle to "0". Holes in the box should be completely covered. If not, continue.
3. Loosen the three bolts holding the shift plate casting and move it slightly so that the "0" mark is farther from the control handle.
4. Re-tighten bolts.
5. Check that holes in box are fully covered at "0" position.

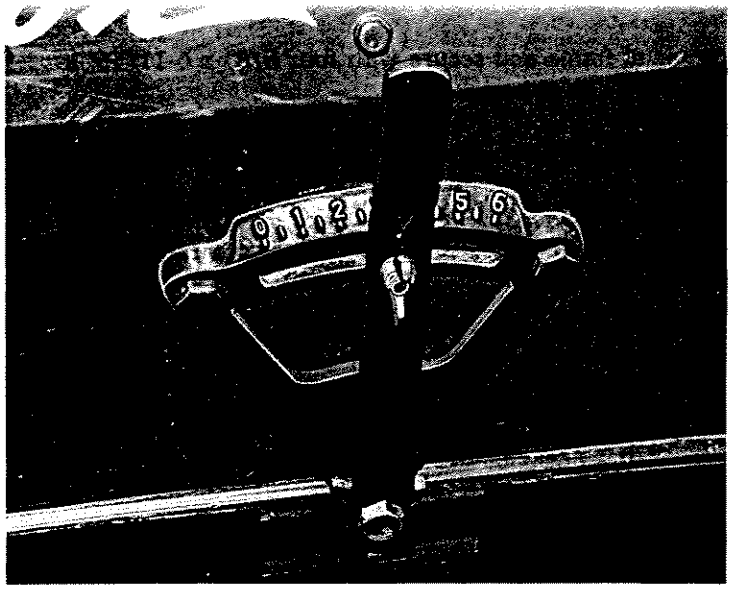


Figure 15

Pull Type Seeder

1. Loosen hydraulic hoses from frame in area where drawbar is to be attached.

2. Position drawbar on center of frame and secure with four 5/8" x 6-11/16" x 5-1/2" u-bolts, lock washers, and nuts from bag in seed box.

3. Fasten hoses to drawbar with straps provided.

4. Remove 5/8" shipping bolts which lock rear roller arms down. One bolt is used on each side of machine. Bolt location is similar to parking pin of Figure 2

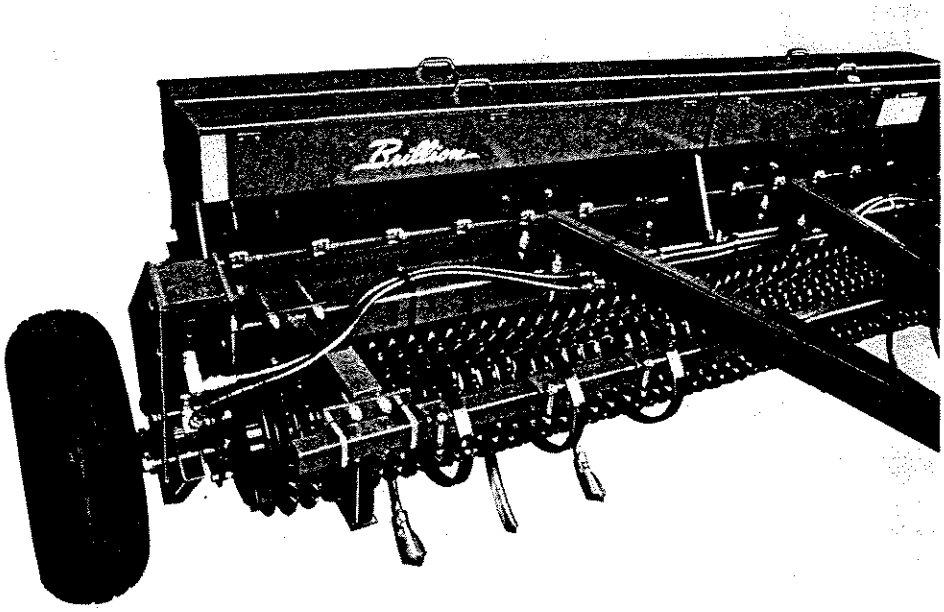


Figure 16

Pick-Up Seeder

1. Position three-point hitch weldment on center of frame and secure with four 5/8" x 6-11/16" x 5-1/2" u-bolts, lock washers, and nuts from bag in seed box.

2. Remove 5/8" shipping bolt from right side of frame which locks rear roller down. Bolt is located in a position similar to parking pin of Figure 2

⚠ **CAUTION !** Do not disengage pin unless seeder is fully attached to a tractor. Seeder may be rear-heavy and tip backward on frame.

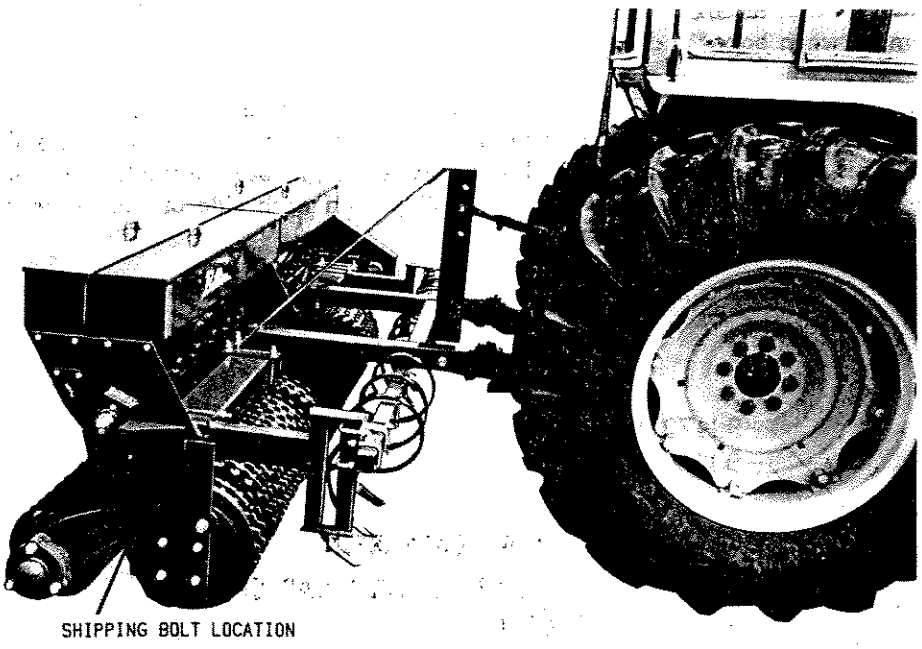


Figure 17

Agitator Box (Optional)

Loose parts are shipped in a bag assembly placed in the left seed box.

1. Remove bolts holding rear panel to deflector shield assembly and reverse rear panels so that upper lips flare rearward instead of forward.

2. Install coupling on transmission output shaft and secure with 1/4" x 1-1/2" roll pin .

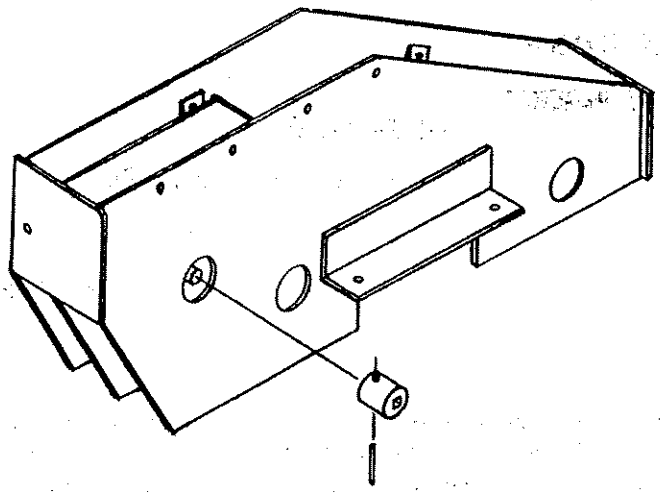


Figure 18

3. Loosen u-bolts which fasten front seed box to frame at center and right end. Remove 1/4" x 1-1/4" x 6-3/4" spacer strap from between boxes and replace with 9J472 bracket.

4. Install left and right boxes as shown in Figure 19. Left box fastens to transmission with two 3/8" x 1" cap screws, lock washers and nuts. Left box assembly is the one with one hole in the left end of the 5/8" square shaft. This hole is used only for a shipping wire. Right box assembly has two roll pin holes in the right end of the 5/8" square shaft. A roll pin on each side of the retainer positions both shafts.

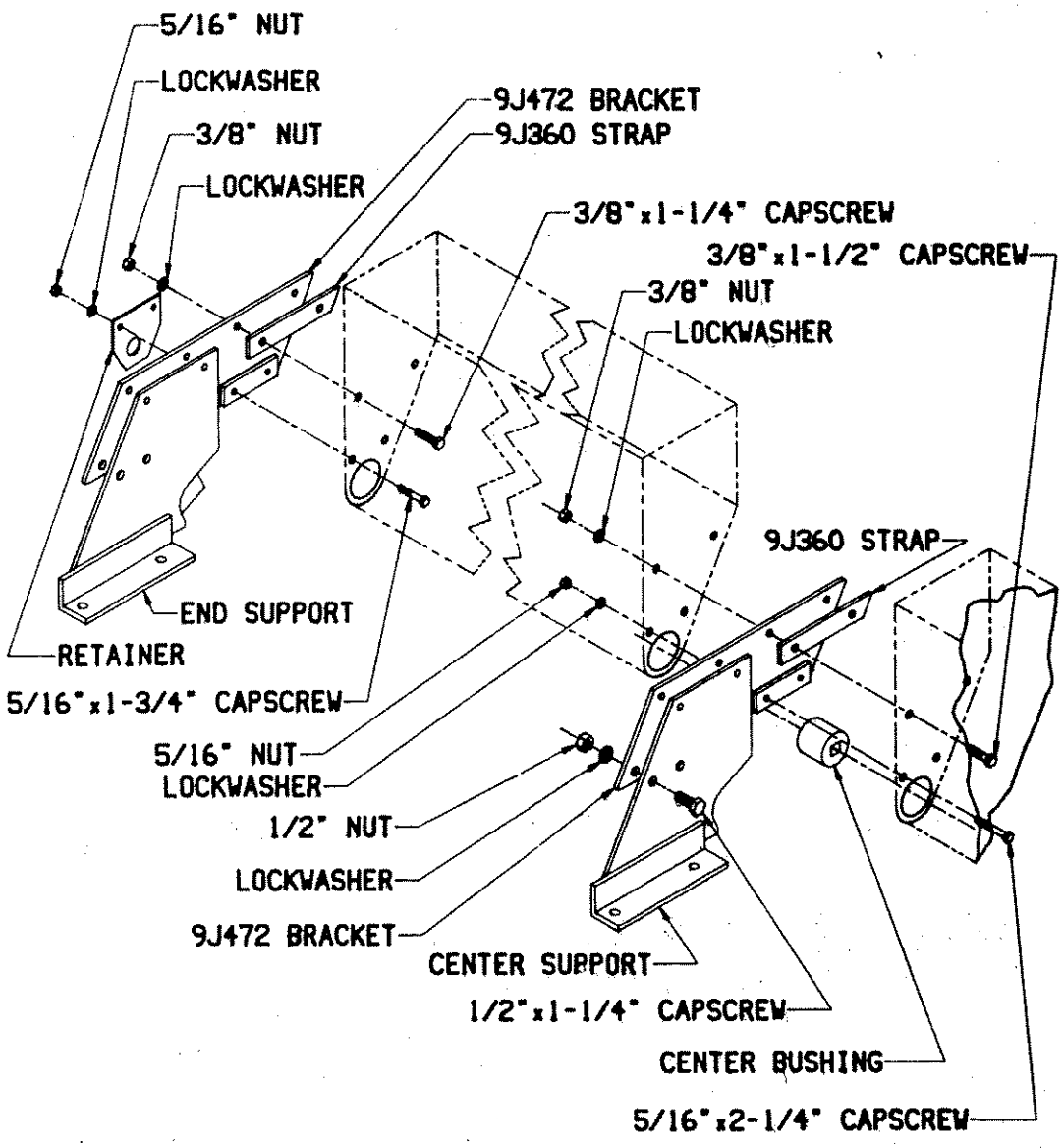


FIGURE 19

5. Position shift handles on rear of boxes so the pin in the bottom of each handle engages the slotted hole in the slide. Attach handles to shift plates using 1/2" x 1" pivot bolts and flat washers. Tighten bolts just so handles can move easily and then lock bolts by installing set screws into tapped holes in cast iron shift plates. See Figure 15 on page 15.

S-Tine Tire Track Remover (Optional)

1. Attach brackets to frame with u-bolts (1/2" x 4-1/2" centers x 7-1/2" deep), lock washers, and nuts. Note that long ends of brackets are downward. Brackets should be about 53" from center of machine. See Figure 20.

2. Attach tube to brackets using straps and bolts (1/2" x 6"), lock washers, and nuts.

3. Locate and install s-tines as needed to cover tractor tire tracks. Suggested pattern is to use 1-3/8" point on center tine and 2-1/2" points on each side. If needed, additional tines may be purchased and installed.

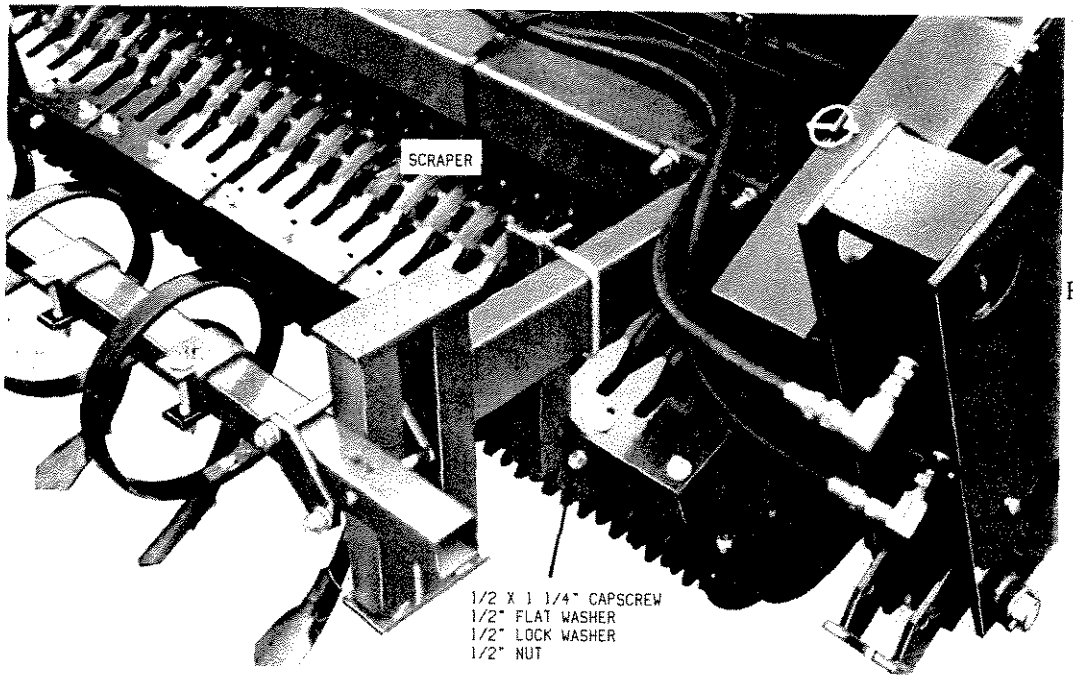


Figure 20

Acre Meter (Optional)

1. Acre meter is mounted on right side of transmission where input shaft extends beyond case.

2. DO NOT STRIKE THE METER OR THE SHAFT ON WHICH IT IS MOUNTED WITH A HAMMER OR OTHER HEAVY OBJECT. OTHERWISE BEARINGS WILL BE DAMAGED.

3. Slide coupler over end of transmission shaft and secure with 3/16" x 1-1/4" roll pin.

4. Screw meter into the coupler and lock in place with the 1/4" x 1/4" set screw.

5. **IMPORTANT !** If it is necessary to work on the machine, and hammer blows or similar shock loads will be applied to the transmission, remove acre meter to prevent damage.

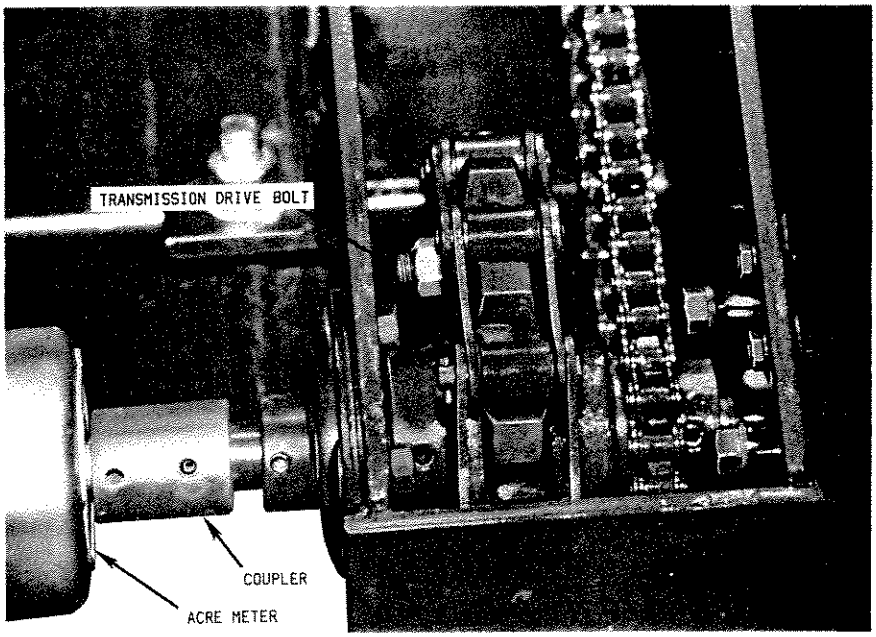


Figure 21

Meter Box Dividers (Optional)

Install dividers as shown in Figure 22. Use upper and lower threaded rods and tighten nuts on each side of original and new dividers.

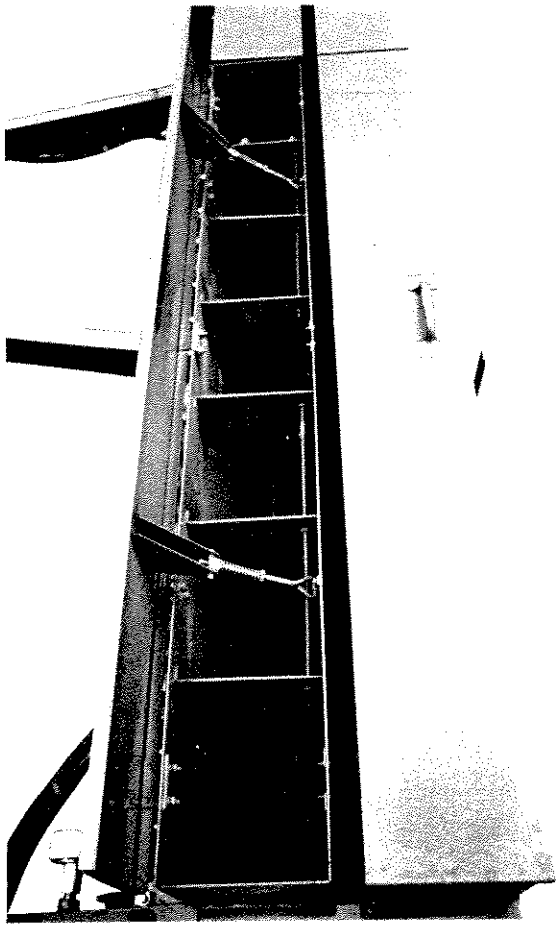


Figure 22

Speed-Up Kit (Optional)

1. Remove acre meter (if installed).
2. Loosen and remove both drive chains.
3. Remove roll pins from both sprocket hubs on front transmission shaft.
4. Remove bearing bolts from right side of front transmission shaft.
5. Remove locking collar from left side of front transmission shaft.
6. Move shaft far enough to right to remove small sprocket.
7. Install new sprocket.
8. Replace all items (except #40 chain) in reverse order.
9. Add extra links to #40 chain and adjust to proper tension.

Brush Agitator Kit (Optional)

1. Remove two bolts which hold retainer plate and bearing on right end of right seed box. See Figure 17 on page 17.
2. Slide both shafts out of right end.
3. Observe Figure 23. Brush agitators must be installed with careful attention to the direction of shaft rotation. The brushes must face backward, away from rotation to wipe over the seed openings. BRUSHES WILL BE DESTROYED IF INSTALLED BACKWARDS. Apply enclosed decal to front seed box as a reminder to tractor driver.
4. With the brush agitators properly seated in the boxes, replace the drive shafts and retainer plate. 8J804 shaft retaining clip is not used on SS10 seeders.

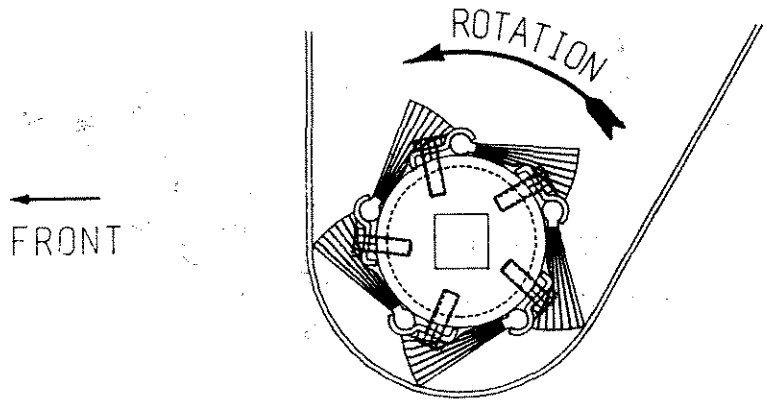


Figure 23

Coil Tine Tire Track Remover (Optional)

Assemble the coil tines and the arm weldments to the 1-1/2" diameter x 29" bar. The arm weldments may be placed anywhere along the bar, but it is suggested that they be mounted in the second hole from the right end, and the third hole from the left end. (Left end and right end designations are those related to the operator when sitting in the operating position). Mount 6 of the coil tines to the bar with 3/8" x 2-1/2" capscrews, flatwashers, lockwashers, and nuts. Then mount the other two coil tines to the bar with the 3/8" x 3" capscrews, lockwashers, and nuts which also attach the arm weldments to the bar.

Clamp the brackets loosely to the seeder frame, with u-bolts, lockwashers, and nuts. Attach the adjusting angles to frame brackets with lockscrews. Secure the adjusting angle from swinging with a 1/2" clevis pin and hair pin cotter. Fasten the bar and tine assemblies to the adjusting angles with 1/2" x 1-3/4" capscrews and locknuts. Tighten the locknuts to allow free side to side swinging. Center the entire wheel track leveler behind the tractor tires. Tighten the u-bolts against the seeder frame.

Attach the chains' end links to the adjusting angles with 3/8" x 1-1/4" capscrews, flatwashers, lockwashers, and nuts. There is one chain for the left side and one chain for the right side.

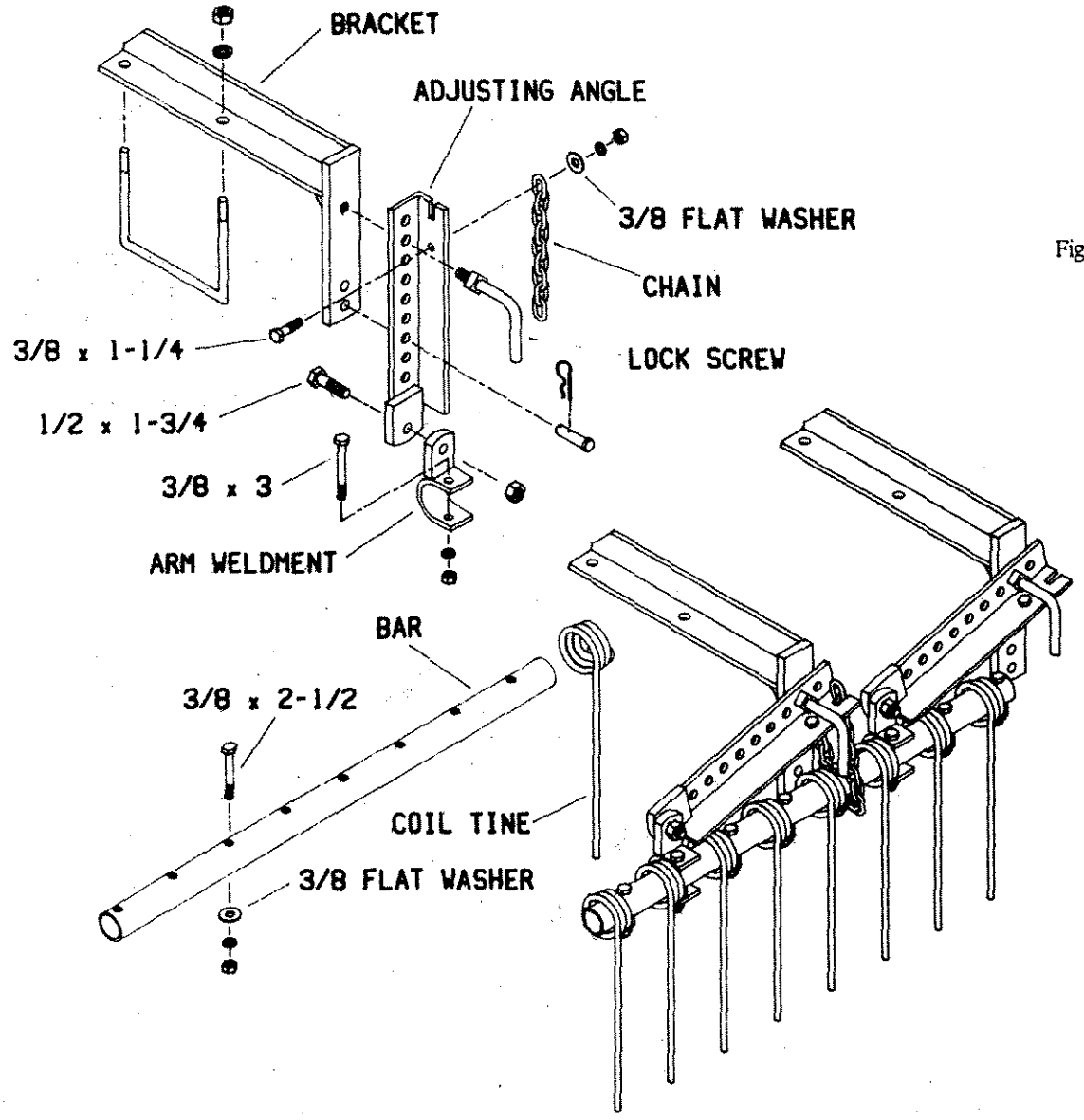


Figure 24

Scraper Kit (Optional) - (Your machine may vary slightly from figures 25 & 26, a 10' seeder)

Assemble 1K212 brackets to front of seeder frame tube. Three brackets are provided. (If you have a wheel track remover kit on your seeder you will not need these brackets on the outer ends. You can mount to the same brackets provided with wheel track remover. See Figure 25.) Do not fasten securely at this time.

Attach vertical brackets loosely and assemble scraper angle to them. Attach two center scrapers at center hole locations and then attach all of the regular scrapers. Center entire assembly on machine, position scrapers for proper fit, and tighten all hardware.

Scrapers should be close enough to the wheels to be functional but without interference. Some final adjustments may be required in the field.

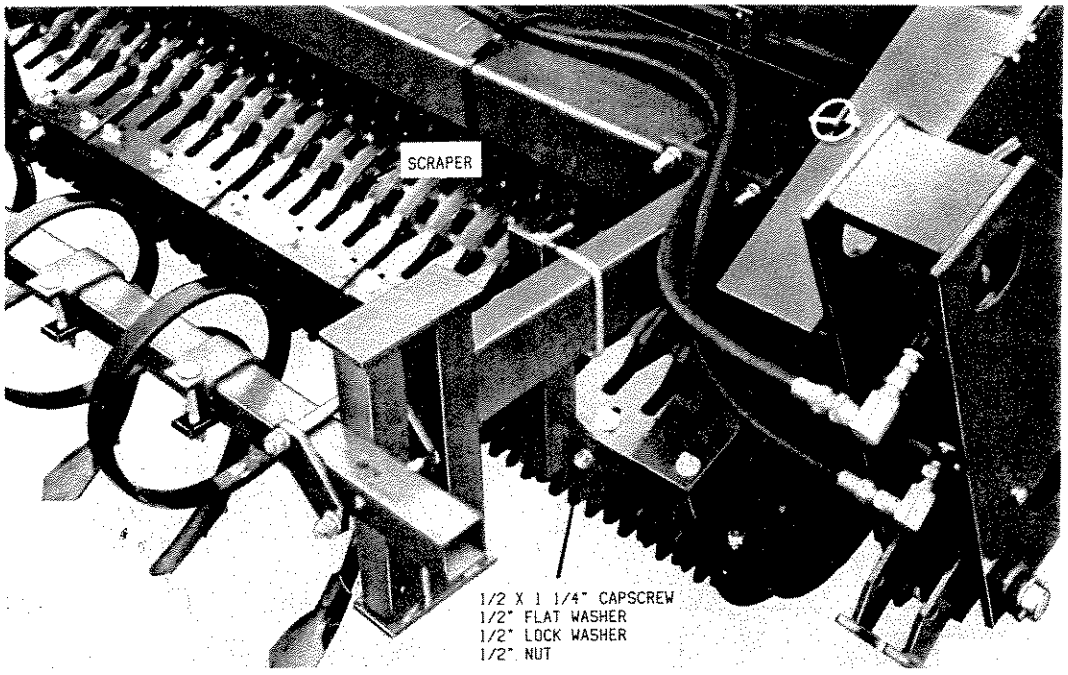


Figure 25

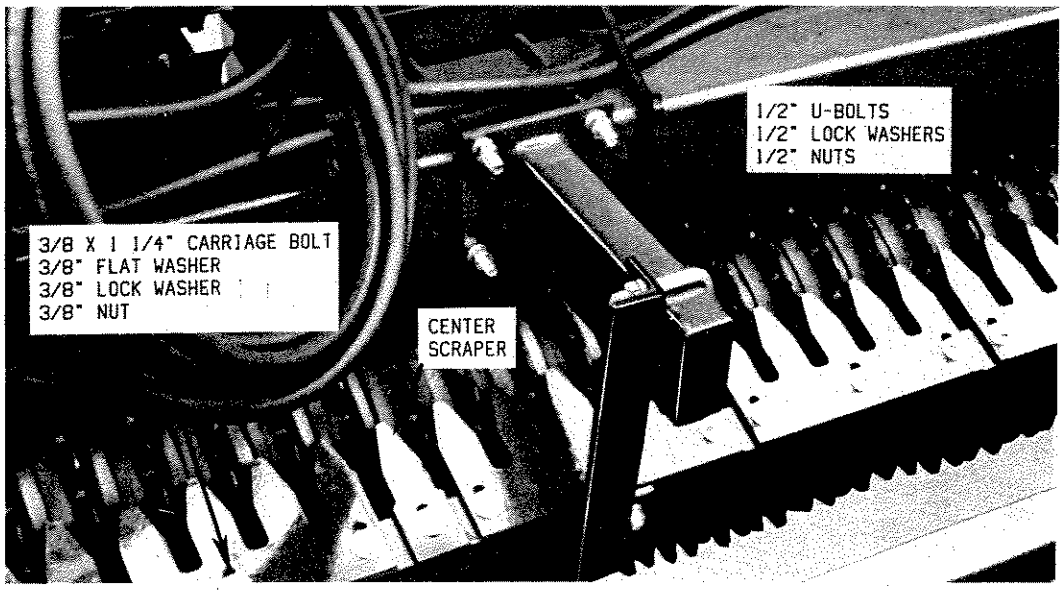


Figure 26

Safety Chain Kit-10,100# (Optional)

Use of a safety chain is recommended if machines are towed on a public road or highway.

Total weight of towed machine must not exceed chain capacity as shown on the chain's identification tag.

Observe Figure 27 and install as shown (not all of the hardware will be used). Slack in the chain should be only enough to permit turning. Distance from hitch pin to attachment point or intermediate support should not exceed 9".

CAUTION - - If two or more machines are pulled in tandem, a larger chain may be required. Chain capacity must be greater than the total weight of towed implements. A second chain should be used between each implement.

CAUTION - - Replace chain if one or more links are broken, stretched, or otherwise damaged or deformed.

Keep attaching hardware fastened securely.

If bolts are replaced, be sure to use grade 5 or higher.

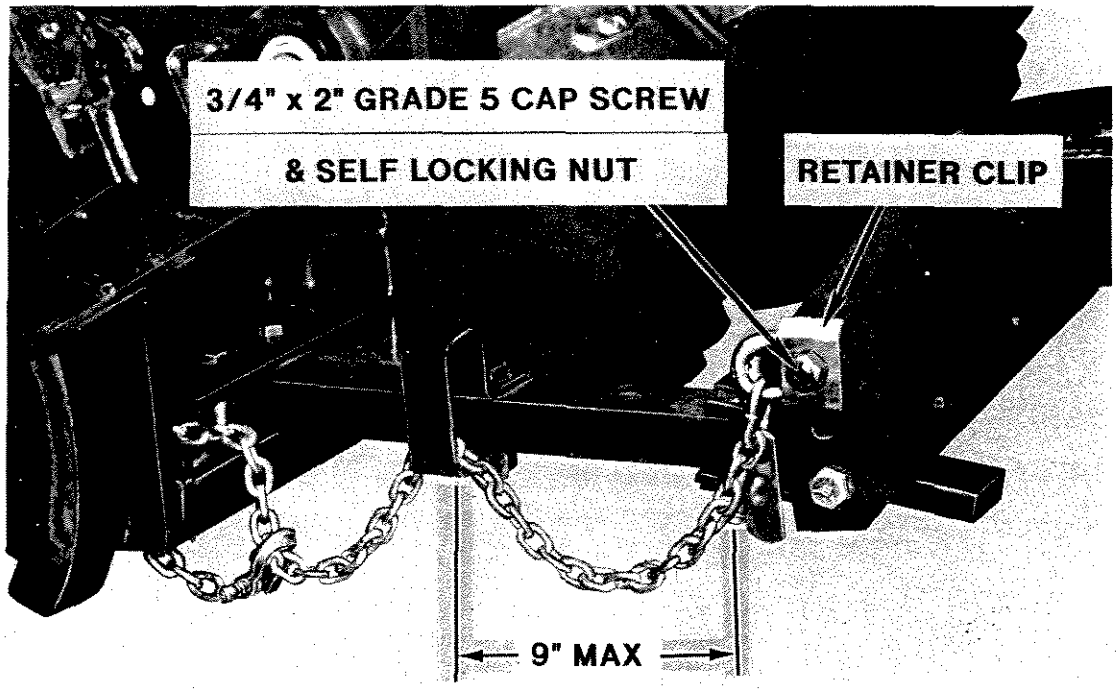


Figure 27

Model Designation

SS10 series grass seeders are available in four models:

SS10	Pull type, standard front wheels
SSP10	Pick-up type, standard front wheels
SSD10	Pull type, deep front wheels
SSPD10	Pick-up type, deep front wheels

Weights and Dimensions (Approximate)

SS10	2284#
SSP10	2018#
SSD10	2484#
SSPD10	2218#

Rolling Width	10'0"
Overall Width	
Pick-up type	11'4"
Pull type, 7:60 x 15 tires	12'11"
Pull type, 9.5 L x 15 tires	13'5"
Overall Length	
Pick-up type	4'0"
Pull type	10'1"
Transport Clearance (pull type)	10"
Fill Height of seed box, field position	3'4"
Meter Box Capacity	4-3/8 bushels total
Agitator Box Capacity	4-3/8 bushels total
Three-Point Hitch	Category 2

7D185	Acre Meter	3#
6J189	15 x 8 lb Wheel for 9.5 L x 15 Tire (two required)	24# ea
9J402	Deep Wheel (places seed deeper than standard wheel, 50 required)	14.5# ea
9J438	Tire Track Remover Kit (includes 6 s-tines with shovels) (Pick-up seeders require standard 9J442 long hitch to use S-tine tire track remover kit)	154#
9J439	Agitator Box Kit (for chaffy seed such as brome grass)	175#
5C884	Brush Agitator Kit for 9J439	39#
9J495	Speed-Up Kit (doubles output of all seed boxes)	3#
9J496	Divider Kit (provides separate compartments above each outlet in meter box)	5.5#
9J932	Coil Tine Track Remover Kit (for use with all hitches)	105#
1K224	Scraper Kit (for front wheels)	115#
1K822	Safety Chain Kit - 10,100# (for pull type seeders only)	9#