NOTE
MODEL 4012
LEVELER
INFORMATION
ATTACHED

Assembly and Operation Manual (Including parts list)

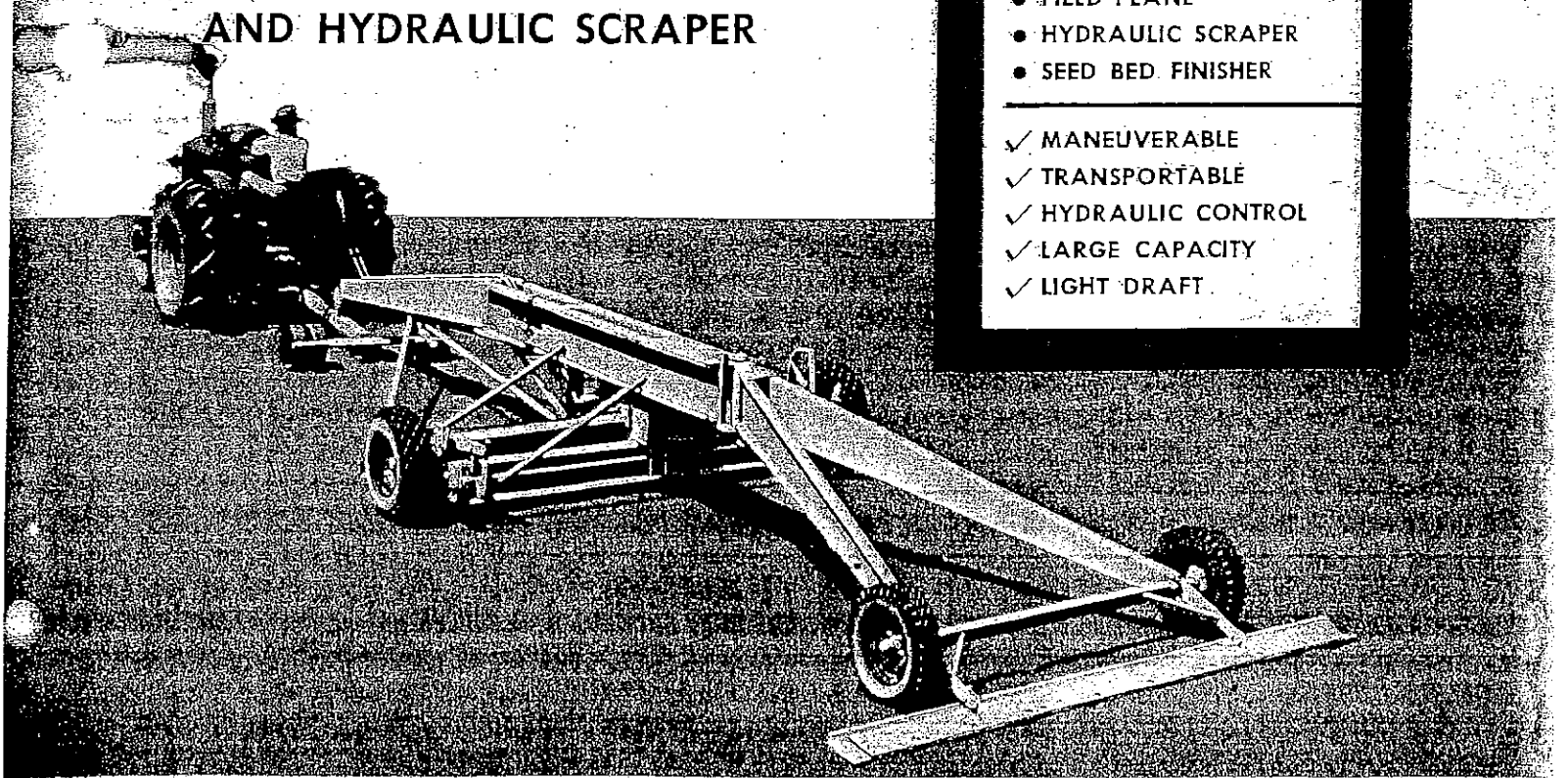
Eversman Model 410

AUTOMATIC LAND LEVELER AND HYDRAULIC SCRAPER

Combining in
ONE Machine

- AUTOMATIC LEVELER
- FIELD PLANE
- HYDRAULIC SCRAPER
- SEED BED FINISHER

✓ MANEUVERABLE
✓ TRANSPORTABLE
✓ HYDRAULIC CONTROL
✓ LARGE CAPACITY
✓ LIGHT DRAFT



EVERSMAN MFG. COMPANY

CURTIS AND FIFTH • DENVER, COLORADO 80204

410 ASSEMBLY INSTRUCTIONS

(Note: Use ⅝ x 1½ bolts unless otherwise specified)

Figure No. 1

1. Assemble lift pipe No. 4044 onto moldboard No. 4056 by bolting end bearings No. 4044-22 into place, (with nuts on back side) use ⅝ x 2 bolts in holes near top edge (leave loose).

Figure No. 2

2. Set up moldboard and attach sideboards No. 4020 and No. 4021 in place, using end bolt in moldboard bit and bolt (with flat & lock washer under nut) through short slot in top of side board and screw into lift pipe end bearing.

3. Attach draw bar No. 4046 to moldboard with four ⅝ x 2 bolts, which also hold lift pipe center bearing.

4. Insert draw bar brace No. 4046-20 through center hole in bit, leaving nut loose on rear side of moldboard. Attach forward end of brace to drawbar with 9/16 pin and cotter.

5. Attach blade braces No. 4042 to drawbar with a ⅝ x 2½ bolt and attach outer ends to moldboard, using upper bolts which hold lift pipe end bearings. **Important** when bolts are tightened be certain top of end bearing angle is *exactly flush* with top of moldboard.

Figure No. 3

6. Attach right and left side members of main frame No. 4032-34 and-35 to sideboards, using ¾ x 2½ bolt and hardened bushing (1⅜ O.D. x ⅝ long) and ¾ flat washer on inside of sideboards.

7. Install front No. 4032-30 and rear No. 4032-32 main frame cross members, using ⅝ x 2 bolts and *beveled washers* inside of channel flanges.

Note: The top bolts at ends of rear cross frame member also hold bumpers No. 4076 and No. 4077 which are to prevent the tail section from pivoting too far. (Refer to Fig. No. 5).

Figures No. 4 and 5

8. Secure main axle No. 4030 in place with axle clips No. 4022, using ⅝ x 2½ bolts.

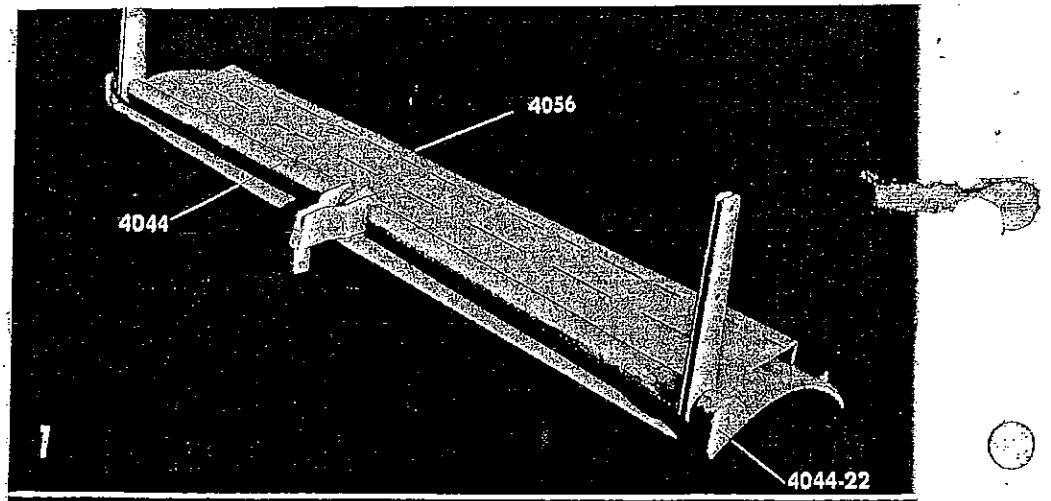
9. Connect axle stubs to lift pipe arms with fixed link No. 4026 and adjustable link No. 4027 using hardened bushings (1⅜ O.D. x ⅝ long) and ¾ x 2½ bolts. (See Fig. 4.)

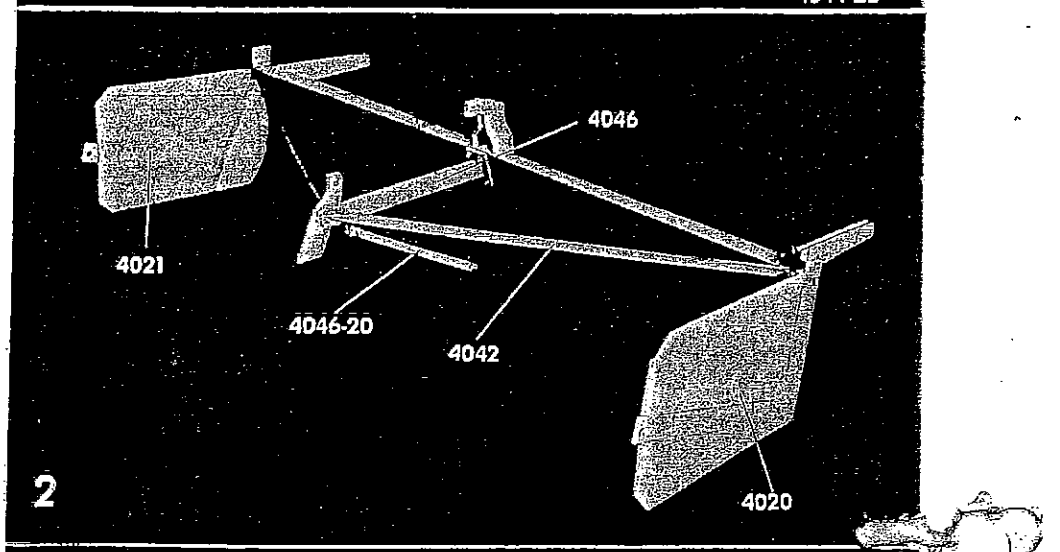
CAUTION: *Do not change setting of adjustable link at this time.* (*See paragraph 4, page 9.*)

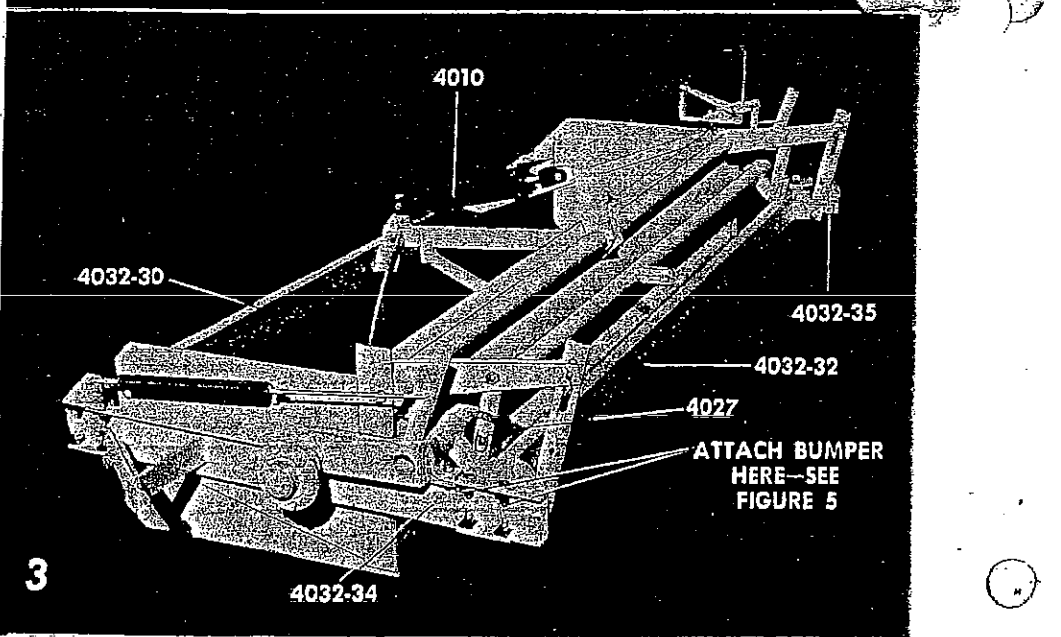
10. Install slotted arms No. 4014 with ¾" pins and cotters.

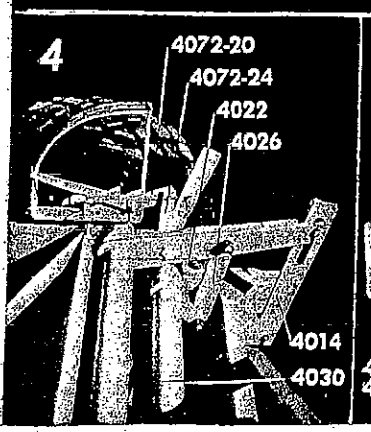
11. Install main wheels and 9 x 16 tires onto main axle with ½" lug bolts with valve outside.

12. Fasten gauge body No. 4072 to sideboard with two ½ x 1¼ bolts and connect gauge hand No. 7072-22 to lift pipe arm, using link No. 4072-20 and connect No. 4072-24 with 9/16 x 2 pin.









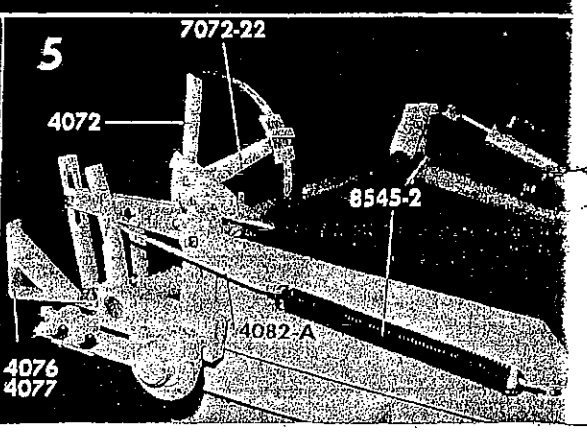


Figure No. 6

(See page 3-S, Fig. 30, for new type center truss effective Serial No. 12774)

13. Lay center truss No. 4004 flat across frame and moldboard. Install front leg No. 4034 in center truss and attach rear leg No. 4048 to truss with eight bolts (four being ½ x 1¼).

14. Straighten center truss up into position and bolt legs to main frame, using ⅝ x 2" bolts and leave bolts slightly loose until the four angle braces No. 4018A are tightened in place.

Note: Refer to Item 10, page 9 for possible adjustment of center section during field operation.

Figure No. 7

15. Connect rocker link No. 4062A-10 to center axle stubs, using hardened bushing 4062-A16 (⅞ O.D. x 1½ long) and ⅝ x 3 bolt. (See Fig. 26 on supplement page 1-S.)

Figures No. 8 and 9

16. Attach front truss No. 4002 to center truss. *Note:* For lower rear two bolts, use 2 x ⅝ which also hold short pipe brace No. 4092. All these bolts should be left loose until pull pipes are in place. The rear end of the short pipe brace connects to the upper hole at the center of the front cross frame member.

Note: Two braces are tack welded to the top and bottom plates of the front truss to prevent shipping damage. Knock off these braces with a hammer before assembling front truss to center truss.

17. Inset center pull pipe, 4098-A through the slot in bracket under front truss and attach outer pull pipes, 4094-A under bracket using ¾ x 1¾ bolts.

18. Bolt rear of center pull pipe under and short pipe brace, 4092-A, on top of the center frame pull bracket with ¾ x 2 bolts.

19. Attach outer pull pipes, 4094-A, under the outer pull brackets with ¾ x 1¾ bolts.

20. Pin drawbar No. 4046 (Fig. 2) to stubs on front leg of center truss with ¾ x 1¾ pin. Then screw tapered nut on drawbar brace against front side of cutting bit and tighten the ¾ nut and lock washer on back side of bit.

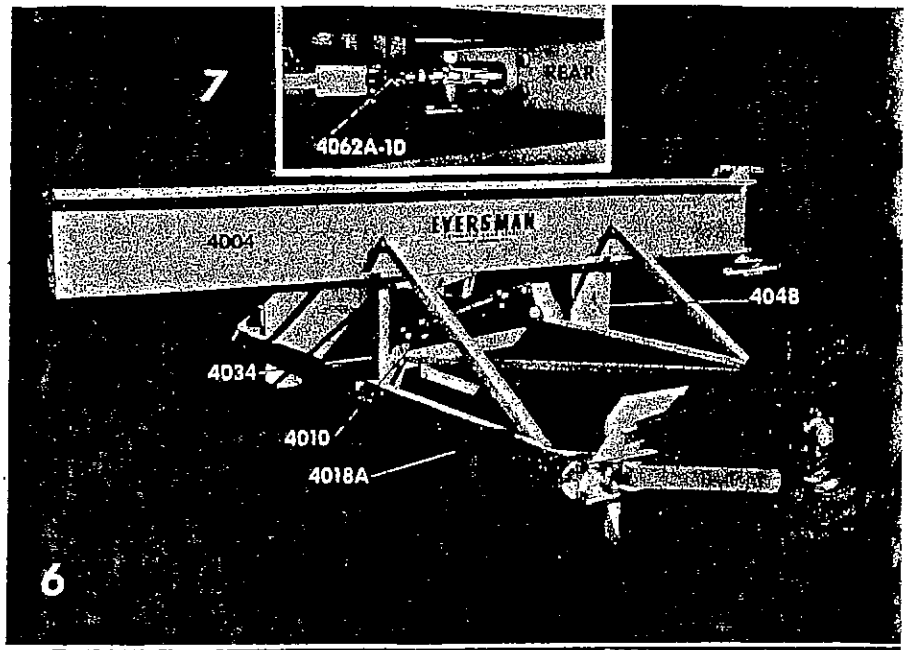
21. Tighten bolts which fasten front truss to center truss.

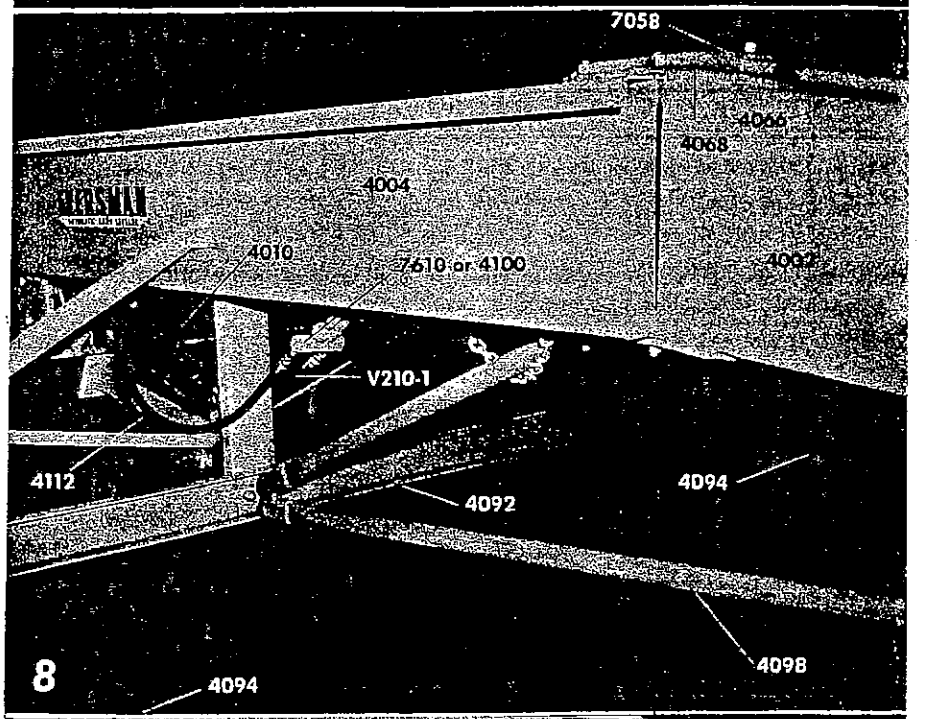
22. Attach the hydraulic pipes No. 4066 and No. 4068 (Fig. 8 and 9) to the front truss with ½ x 1¼ bolts to the welded on nuts and three pipe clips No. 7058. Secure rear end of these pipes to the center truss with a clip and a ½ x 2 bolt.

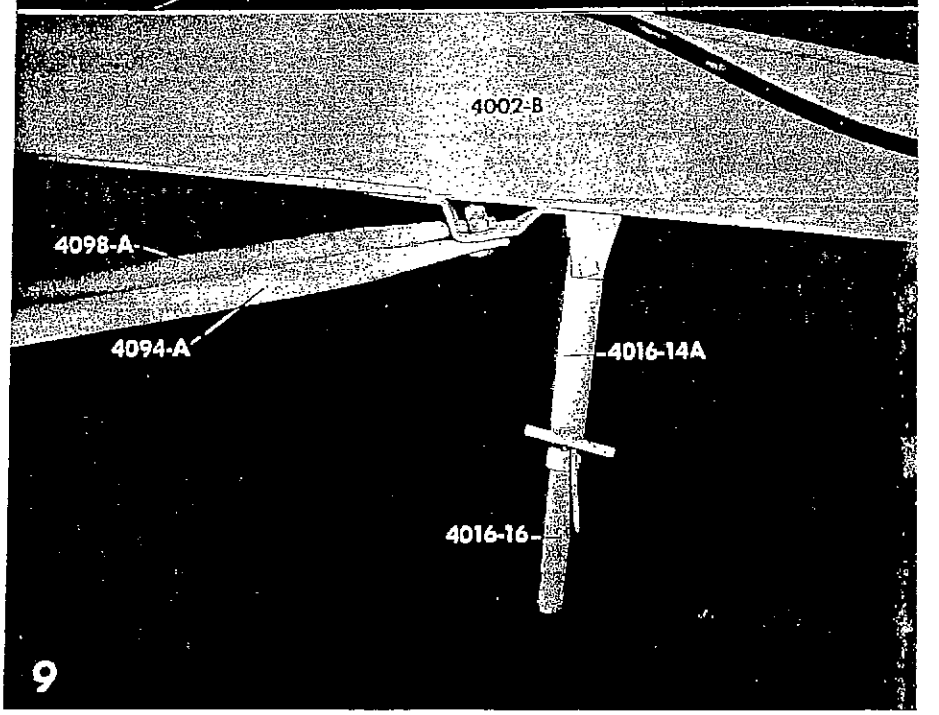
23. Install Hydraulic cylinder No. 4010 (also see Fig. No. 3 and 6) with rod clevis to the rear. Be sure rear port is on top.

24. Install dual check valve No. 7610 or No. 4100 on the end of the hydraulic pipes under the center truss. (Note: It may be necessary to loosen the pipe clips until the union is connected) Connect No. V 210-1 26" and No. 4112 42" high pressure hoses to the cylinder, as shown, using the swivel connectors to connect the hoses to the check valve.

25. Install No. 4058 high pressure hoses on front end of hydraulic pipes, as shown in Fig. 15).







Figures No. 10, 11 and 12

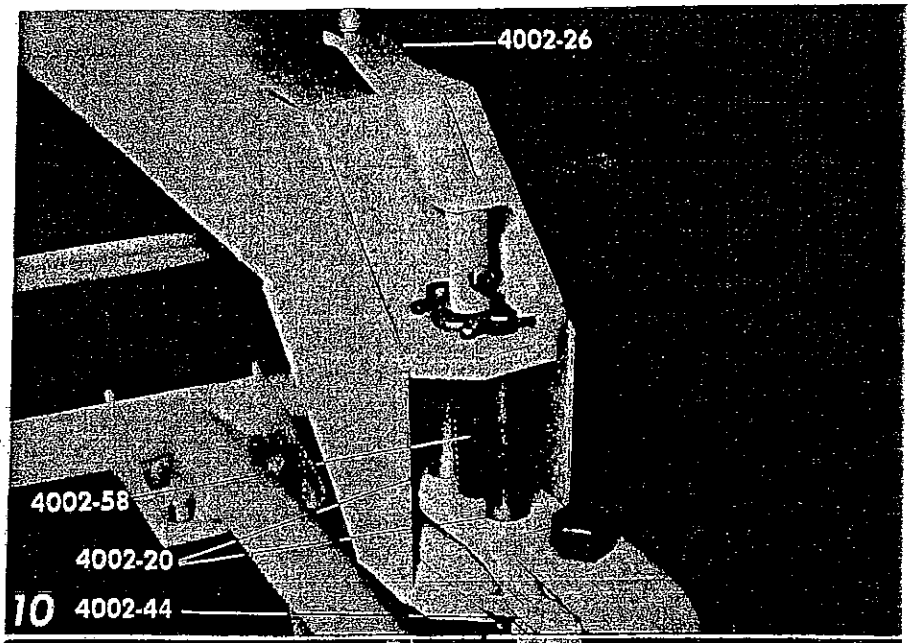
26. Install hitch block No. 4002-44, slide pins No. 4002-20, screw No. 4002-58 and crank No. 4002-26 as shown, with ⅜ x 1½ bolt and 5/16 cotters. Also note the ⅛ flat washer on the screw above the top lip.

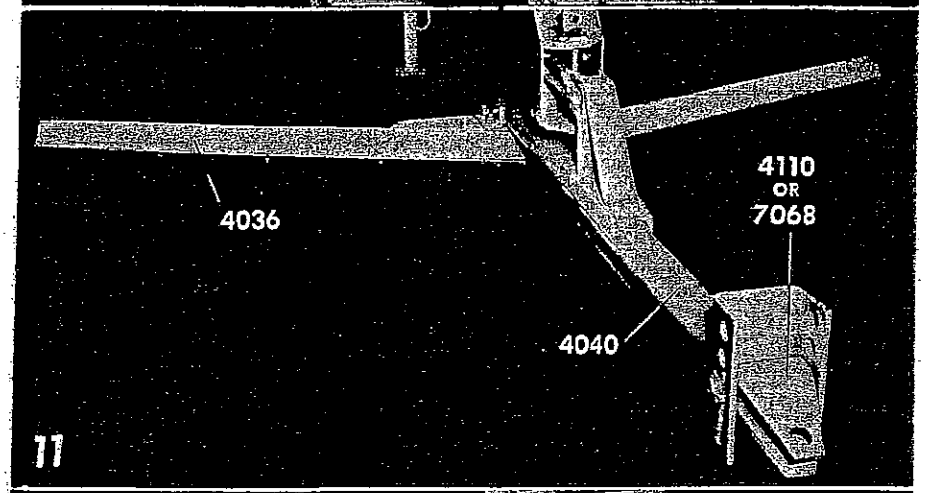
27. Mount smoother "V" No. 4036 or dolly wheel assembly No. 4220 to rear end of tongue No. 4040.

28. Attach tongue to ball of hitch block No. 4002-44 with ⅜ x 4 bolt. Make certain that the 1¼ O.D. x 1⅝ long hardened bushing, 4002-28 is in the ball.

28-A. Attach either wheel clevis, 4110, or crawler tractor clevis, 7068, to front of tongue with 7084 pin and 7086 hair pin.

28-B. When using leveler in short form as a dirt mover (See page 8), connect ball hitch 4002-44 directly to tractor crawler. If used with wheel tractor standard swinging crawler use hitch adaptor, part No. 4096.





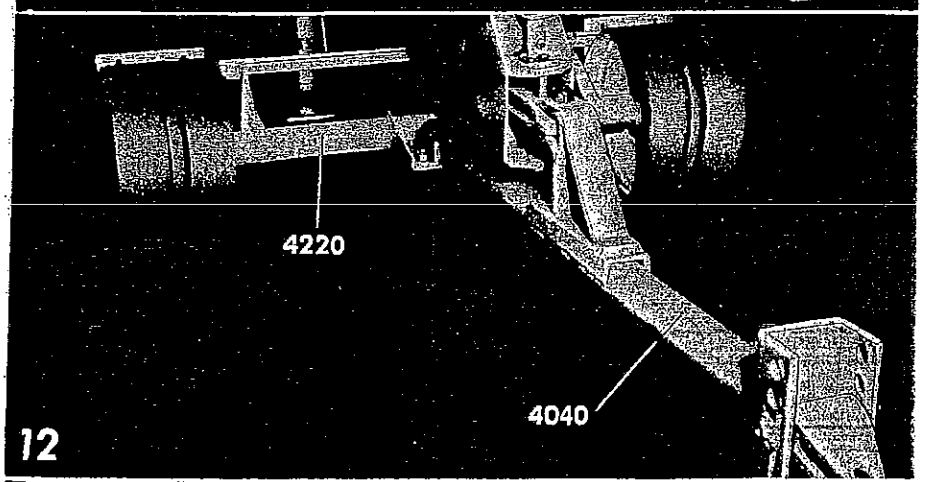


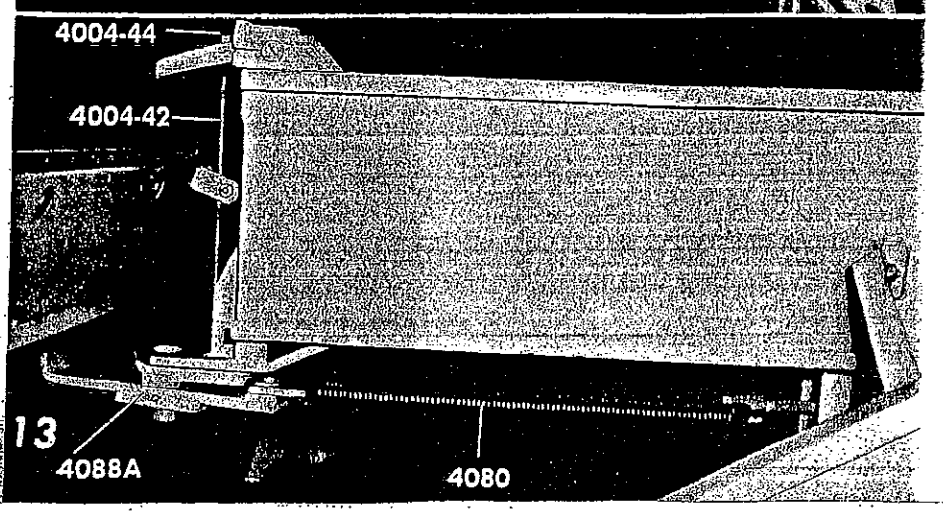
Figure No. 13

29. Insert ⅜ x 22 hinge clamp bolt No. 4004-42 up from the bottom and place ⅜ tapered nut No. 4004-44 on top. Mount pivot arm No. 4088A under rear end of center truss with ⅜ x 3 hex head bolt down through hole in hinge support plate. Use the 1½" O. D. x 1⅝" long hardened bushing 4088-A12 in pivot arm and ⅜ flat washer and nut on bottom.

30. Connect hydraulic system to tractor and raise blade to the full "up" position.

Connect the two heavy 28" long springs No. 4080A to the pivot arm, using the trapezoidal shaped plate, as shown. Then connect the forward end of the springs to the roller chain eye bolt bracket. Tighten nut on eye bolt to stop.

31. Connect up the side lift springs 8545-2 using rods No. 4082.



Figures No. 14, 15 and 16

32. Bolt rear trusses No. 4006 and 4007 to hinge No. 4008 with ¾ x 1¾ bolts, except the rear two at the bottom are ¾ x 2 which also hold the pivot arm actuator bar No. 4090. **Do Not** tighten these twelve bolts until rear axle is in place.

33. Mount rear axle No. 4050, using right and left rear smoother support arms No. 4070 and 4071 and ¾ x 2½ bolts.

34. Lift leveler with hydraulic cylinder and place 4 x 4 boards under each rear wheel. Then let leveler down so weight is carried on rear wheels. Then tighten 12 bolts attaching rear trusser to hinge.

35. Attach rear smoother No. 4012 to arms of rear axle with the carriage bolts provided.

36. Fig. No. 16 shows the 410 leveler in the transport position. Note: To facilitate telescoping, put the center truss in the lowest position, with the hydraulic cylinder until tail section is chained, as shown in Fig. No. 14, and the rear smoother bolted to the center section, as shown in Fig. No. 13.

37. It is extremely important that the rear axle be parallel to the main frame. If leveler is assembled on a level surface it will probably be parallel. In any event, stand in back of the leveler and sight over rear axle, 4050, and rear main frame channel, 4032-32A, to check parallelism before tightening bolts. Adjust height on one side or the other, if necessary, by blocking under the tires.

38. The rear tires should be 6:70 x 15 and must be inflated equally on both sides. Check to see that they are the same size.

BE SURE TO READ SECTION ON ADJUSTMENTS (PAGE 7) BEFORE TRYING TO OPERATE YOUR EVERSMAN LEVELER.

NOTE:

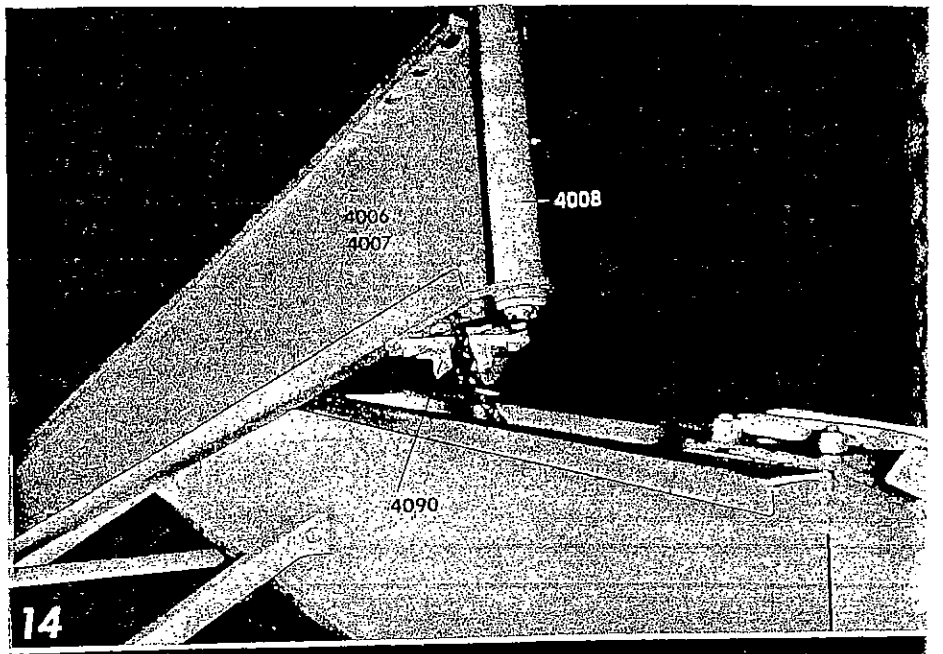
Check all cotter pins and tighten all nuts after assembly.

Retighten all nuts again after several days use.

Run cylinder through its complete travel both ways several times to expel air.

Check oil level in pump reservoir and fill if low.

*It is extremely important to keep the nut on the rear hinge bolt, Part No. **4004-42**, tight at all times. Check at least once each day.*



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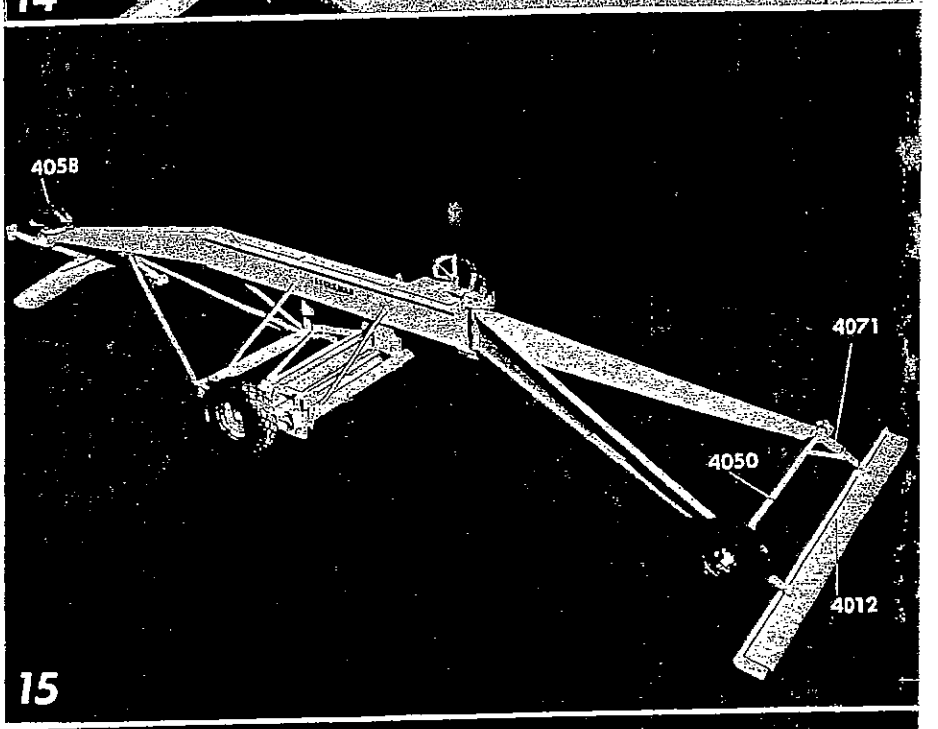

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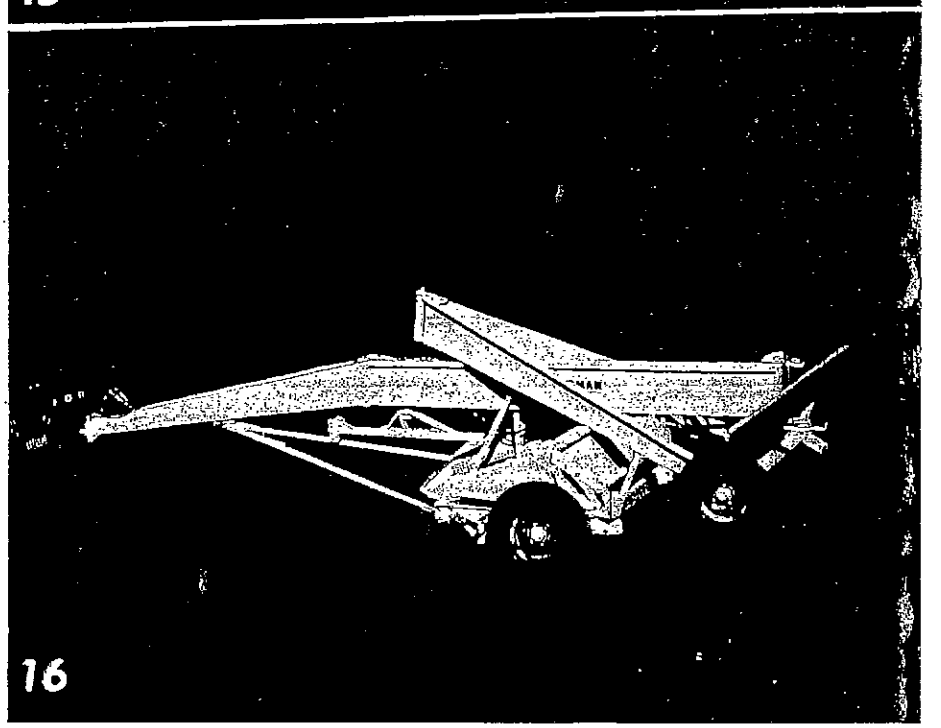

16

Operating Instructions

Your EVERSMAN LEVELER will operate under a wide variety of soil and moisture conditions. However, best performance is obtained when soil is fairly dry and relatively free of trash. Your EVERSMAN will do the maximum amount of work with a minimum of power. Built into it is a flexibility of operation found in no other type of field leveling tool.

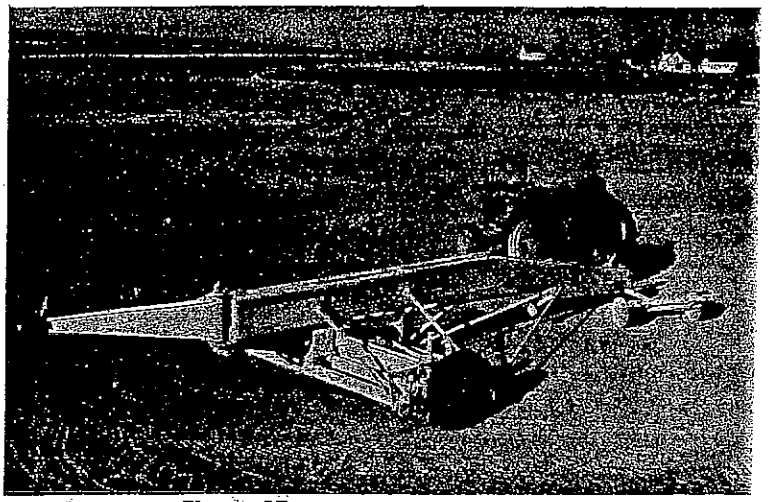


Figure 17

Its exclusive hinged tail section reduces power required for turning, increases maneuverability, makes it possible to work most any size or shape plot of ground, gets into corners and field edges where other bulkier and harder to handle levelers can't go. Figure 17 illustrates the maneuverability and shows how the hinged tail section and pivoting of the tongue shortens turning radius. A spring tooth attachment can be used which roughs up the surface and leaves it in excellent condition to prevent blowing. This attachment is available for 410 Levelers. (See page 15)

Automatic control of the cutting blade actually feels out high and low places in your fields. The cutting blade is automatically lowered to take a cut from high places, automatically raised to fill in low places. Each time over a field gets more leveling done. Three times over with your Eversman does more and better leveling than four or five times with longer, heavier fixed blade machines requiring much more power for operation.

The carefully curved shape of the cutting blade gives the load a rolling motion so that a live load is carried reducing power required and helping to keep the cutting blade scoured clean.

Two-way hydraulic power from your tractor is required. This hydraulic control at your finger tips allows easy cutting blade adjustment while in motion; spreads out accumulated trash or lightens the load on your tractor in crossing soft or sandy spots. Quick disconnects or automatic breakaway couplings are available at slight extra costs.

BE SURE THAT HYDRAULIC CONNECTIONS ARE WIPED CLEAN OF DIRT BEFORE HOOKING UP.

Work your control valve several times allowing full travel both ways on the cylinder to expel air in the system.

Note: It is not necessary for the operator to continually reset the blade with the tractor hydraulic control lever. If the machine is properly adjusted as outlined in "adjustments," the crank axle will do the leveling and the hydraulic control will only need to be used on occasions as described below. (Be sure to read section on adjustments before trying to operate your Eversman Leveler.)

ALWAYS USE THE SWINGING DRAW BAR on your tractor for easier turning. A fixed draw bar requires heavier braking on turns and increases drag on the tractor engine. Never try to operate the machine as an automatic leveler without using either the front "V" or the tongue dolly wheels. (Except for roughing operations).

ALWAYS LEAVE MACHINE FULLY LIFTED on its wheels when unhooking from tractor. Left this way it can be moved or readied for transport without reconnecting the hydraulic system.

FIRM, DRY, CLODDY GROUND. Operate on this type of ground with the front "V" assembly, the rear smoother in its lowest position, and at low spring tension (see adjustments below). This puts the greater part of the weight of the leveler on the front and rear end and on the cutting blade so that it can break up the clods and accomplish the maximum toward producing a fine, firm seed-bed. (Generally it is not necessary to disc or harrow plowed ground before leveling. Clods brought to the surface dry out and are harder to work down.)

LOOSE, DRY, SANDY GROUND. Operate with higher spring tension (see adjustments) so as to carry the greater part of the leveler weight on its main wheels. If the rear smoother blade tends to push an excessive amount of dirt, allow it to float free by removing the bolts holding it in each of its support arms.

DAMP, STICKY SOIL. When soil moisture is high the front "V" and the rear smoother may not scour properly. Use dolly wheels in place of front "V" and swing the rear smoother blade up and over the rear wheels and use maximum spring tension. Set the cutting blade to carry a light load of dirt for the first time over a field. Second time over the surface will be drier and a larger load may be carried.

NOTE: See Supplement Page 1-5 for information concerning high pressure hydraulic systems.

TRASHY GROUND. If trash is dry not much trouble will be encountered. If damp operate with rear smoother up and use dolly wheels instead of "V" same as for sticky soil. Hydraulic control at your fingertip allows occasional lifting of the cutting blade to remove accumulated trash.

BEST OPERATING SPEED. Too fast an operating speed will not give the dirt enough time to fall out of the cutting blade and fill low places. About 2½ to 3½ miles per hour usually gives best results. If soil is damp lower speeds are advisable to allow time for dirt to fall.

BEST DIRT LOAD. Setting the cutting blade too deep wastes power and prevents your leveler from doing its best job. Too deep a setting carries the blade so low that it cannot raise high enough to unload in low spots. It should run full only on high places. It should run empty part of the time when crossing low areas. (This is especially true on the first time over.) Adjust the depth in the field by raising or lowering with hitch screw (Figure 21) on front truss so that the blade will average about half full and note setting on the gauge. Watch its operation for a round or two and lower the hitch setting only if it runs empty half of the time or better. The second and third times over will finish filling the low places and a more even load will be carried.

MOST IMPORTANT—READ CAREFULLY

Adjustments

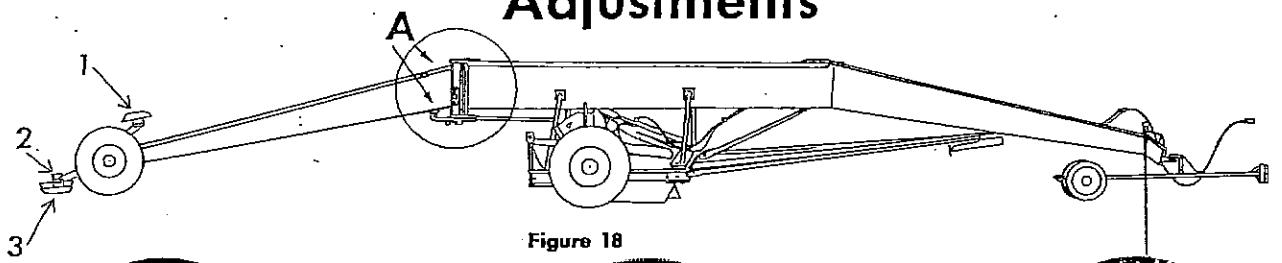


Figure 18

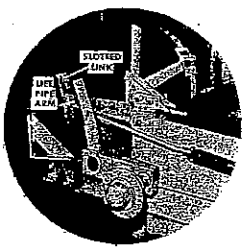


Figure 19

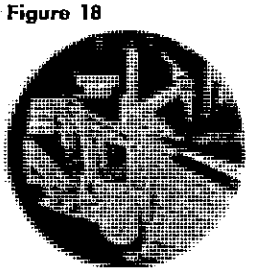


Figure 20

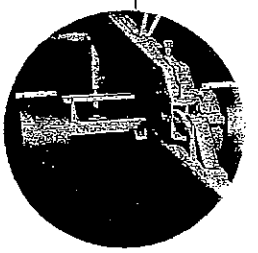


Figure 21

HITCH. Correct hitch adjustment is most important in satisfactory operation. It must be adjusted in the field so that a normal dirt load is carried with the pointer on the gauge indicating in the Automatic range and with the lift pipe arms approximately horizontal—near the center of the slotted links. (see Figure 19)

Note: Regulate the dirt load carried by adjusting the screw at the end of the front truss and NOT by your hydraulic control.

Hitch to the tractor draw bar with the tongue almost level or slightly high at its front end. Connect the front truss to the tongue and set the ball hitch in the center of the screw to start.

Pull the machine far enough in the field to get the blade set for best dirt load. (See paragraph above on best dirt load). Note position of pointer on the gauge.

Note: Gauge pointer moves only when blade setting is changed with cylinder. It does not move with the axle control of the cutting blade or hitch adjustment.

Figures 19 and 20 show the proper operating condition (gauge pointer within automatic range). The lift pipe arm is about level and is free to work up and down in the slotted links.

Note: If the lower front corners of the sideboards cut on the average over 1 inch deep this will cause an unnecessary increase in draft load. To correct this raise the front truss with hitch screw and lower blade slightly with the hydraulic cylinder.

Tension Spring Adjustment

Figure 19 shows spring in position of lowest tension. Figure 20 shows highest spring tension. Three different holes are provided for varying spring tension adjustment. Use lower spring tension setting (Figure 19) for heavy, cloddy ground. Use higher settings (Figure 20) for light, loose or damp ground. Average conditions will have the spring in the center hole. *Be sure that both springs are set in same hole on each side.*

Rear Smoother Blade Adjustment

The rear smoother blade may be used in one of three positions. Position 1 is clear of the ground and is recommended when soil is damp and sticky. Position 2 carries part of the weight on the rear wheels. Position 3 places the smoother blade below the rear wheels and carries all weight on it. Position 3 wipes out all wheel tracks, packs and smooths the surface to an ideal condition for seeding. The rear smoother can also be tilted for best scouring position.

NOTE: Be certain the ¾" hinge bolts, Point "A," Figure 18, are kept tight.

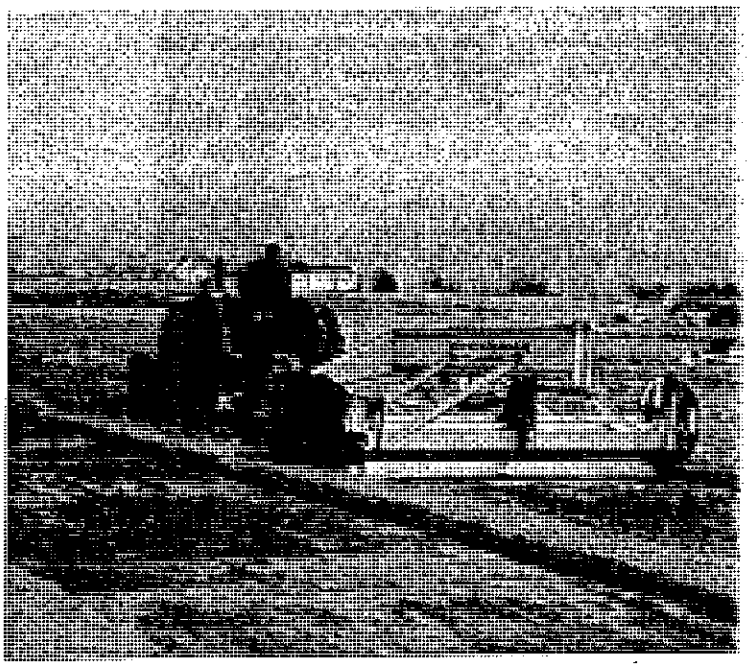


Figure 22

Hydraulic Scraper

Figure 22 shows an Eversman Leveler in action as a large capacity hydraulic scraper. A wheel tractor of 40 draw bar H.P. or larger is required. Hydraulic hoses should be elastically supported to the tractor seat or other convenient point so as to clear the draw bar. Always remove front tongue and rear section for dirt moving.

Note: An adaptor (No. 4096 see parts list) for standard swinging draw bars is available to connect ball hitch to wheel tractors.

The picture shows a favored method of working over the area to be cut. For cuts up to five or six inches deep work in strips leaving about three to five feet between cuts. This permits even cutting all the way across and leaves strips of the original surface in place so that the amount cut off can be more easily seen. Clean out strips to finish the job. See figure 23.

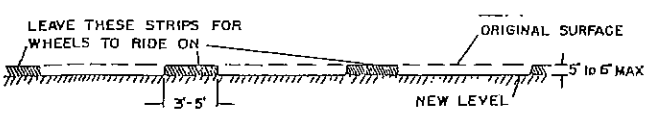


Figure 23

Where cuts must be greater than five or six inches in depth, repeat the process described above as many times as necessary and add the depth between levels to determine the total removed.

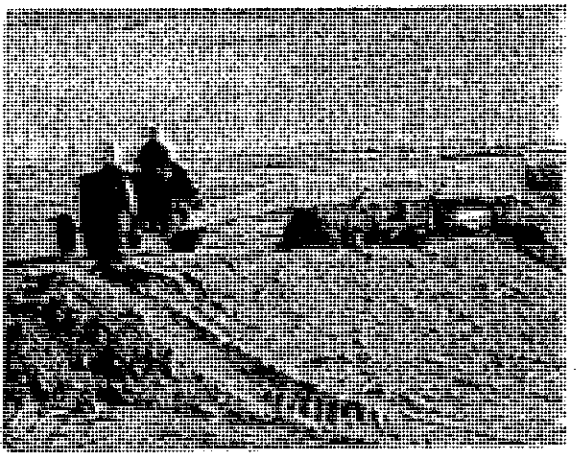


Figure 24

Levee Building

Figure 24 shows how the model 410 leveler in the short form can be used in stock piling or windrowing dirt for building levees or dikes for border irrigation, ponds, etc.

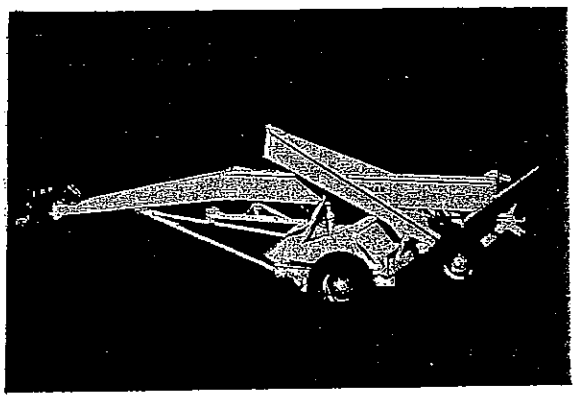


Figure 25

Transporting

To transport machine on highway, remove rear section and load forward on center truss section; remove front "V" and tongue. Anchor tail section to the center section with the chain provided and bolt rear smoother to hinge clamp bolt see figure 13.

Troubleshooting

1. HYDRAULIC SYSTEM "DRIFTS." This is indicated by movement in the guage pointer and a lowering of the cutting blade without a corresponding movement in the control valve. It may be caused by:

A. Air in system—Run cylinder through its complete travel both ways several times to expel air.

B. Low oil level in pump reservoir—Low oil may permit your pump to draw air. Check oil level and fill if low.

C. No check valve—A dual check valve (or cylinder lock valve) is furnished with every model 410 leveler (see page 4 for installation).

D. Faulty check valve—To test, disconnect leveler at quick couplers. If drifting stops, leakage in check valve is indicated.

E. Internal leakage in cylinder—Oil may be passing by piston packings from one side of piston to the other. Check as for leaky check valve. If drifting continues a leaking piston packing is indicated.

2. LEAKAGE AROUND QUICK DISCONNECTS. Clean disconnects carefully. Be sure that all dirt is flushed out of "O" ring groove. If leakage continues replace "O" ring.

3. MACHINE WILL NOT LIFT FULLY.

A. Check travel on cylinder. It should travel a full 13 inches. Shorter travel indicates low oil pressure. Check oil level in pump and fill if low. Change oil it it is "thinned out" and watery.

B. If cylinder has full travel, check bolts at center of blade holding the lift pipe and draw bar to the moldboard. Loose bolts here will prevent full lifting.

4. MOLDBOARD CARRIES MORE DIRT AT ONE END THAN THE OTHER. Consistently heavier load at one end of moldboard is probably due to uneven pressure in main wheel tires—Check pressure and inflate to 25 pounds each. Operating with same side of Leveler always on soft ground causes dirt build up. See paragraph 5, page 2 (note also—slack in bolt holes of lift pipe end bearings provide some adjustment for leveling blade.) Put adjustable link (4027) on the side carrying excess load and lengthen it to level the cutting blade.

5. REAR TRUSS SECTION RUNS TO ONE SIDE. This will occur only when rear smoother is in full down position.

A. Check pressure in main wheel tires. One low tire will permit main frame to ride low on one side and throw the rear smoother out of line.

B. With the leveler lifted on its wheels and the rear section trailing straight behind, sight over the rear axle forward to the main frame. Rear axle should be parallel to the main frame. If not, loosen all bolts in forward part of rear truss assembly and retighten with a jack or blocking under the low side.

6. AUTOMATIC ACTION SEEMS "STIFF."

A. Be sure that all joints and pin points in the cutting blade assembly are lubricated and free. Check especially the axle clips and half bearings at center of axle to be sure they are greased. Also grease rocker bearing under the roller chain.

B. Hitch may be improperly set so that life pipe arms are working too close to the top or bottom of slot in slotted links. See section on proper hitch adjustment.

C. Too low a spring tension. In damp soil with some tendency to stick to blade, spring tension should be increased to lift blade faster in low spots.

7. FRONT "V" AND REAR SMOOTHER DO NOT SCOUR. This condition may be recognized when the front and rear members drag an excessive load of dirt.

A. Try a higher spring tension adjustment (See paragraphs on operation under different soil conditions.)

B. Replace front "V" with dolly. Place rear smoother in its elevated position or tilt it to obtain best scouring position.

8. FIELD SURFACE LEFT "WAVY."

A. Too low a blade setting. If cutting blade is carried too far below the level of the main wheels they cannot raise it far enough to dump its load. If the cutting blade carries a constant full load of dirt, it is set too deep and poor results will follow. Adjust hitch screw to raise front truss. This will raise cutting blade so as to carry smaller and fluctuating load.

B. "Stiff" automatic action (See correction on this above).

C. Too low a tension spring setting—Low tension spring setting on damp ground may cause Automatic Action to be stiff. Increase spring tension.

D. Wrong direction of travel. Short, corrugations should not be crossed at right angles. Change direction to cross them first time at about 45° angle.

E. The bolt No. 4004-42 may not be tight—permitting "play" between the center and rear sections. Tighten bolt to obtain satisfactory automatic action.

9. HARD TO TURN AT FIELD ENDS.

A. Allow tractor draw bar to swing. Use of a stiff draw bar requires excessive braking in turns and increases power required by a large percentage.

B. To prevent the blade from loading in turns, the center stubs on the axle must be connected through the roller chain over the rocker and the heavy springs to the pivot arm under the hinge joint. See Figure No. 7.

10. BLADE DIGS WHEN TURNING

A. If blade digs approximately same whether turning to the right or left:

1. Check to see if the rear springs are being stretched during a turn, see 9B above.

2. See if front spring yoke 4064T is tightened up against its stop on eye bolt 4064-A-16.

3. Move side springs to middle or top hole position and be sure axle bearings, rocker, pivot arm etc. are lubricated.

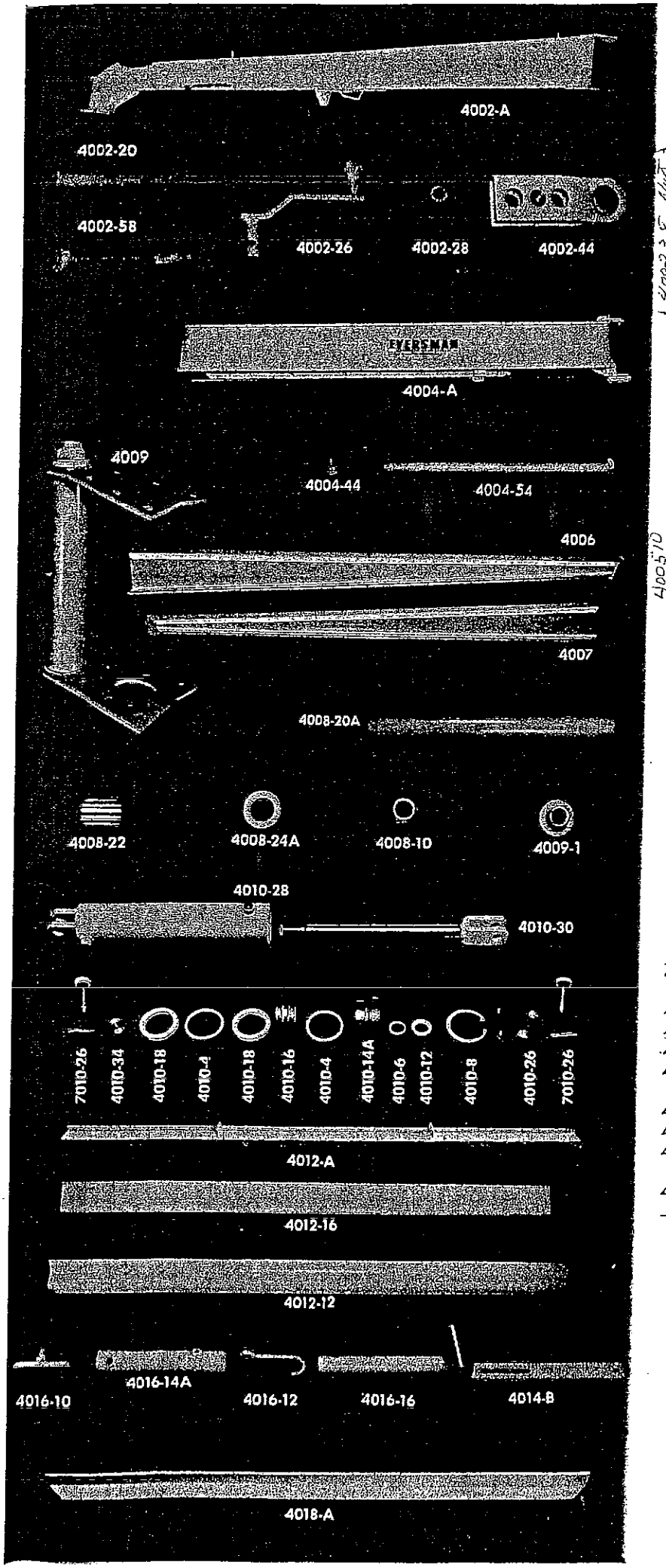
4. With the hydraulics raise the rear wheels off the ground, loosen the 12 bolts holding rear trusses to the hinge allowing rear end to drop to its lowest position, (be sure rear axle is level or parallel to the cutting edge) and retighten the 12 bolts securely. See 5-B above.

B. If blade only digs when turning one direction:

1. Check if rear tires are actually the same diameter and see if the rear axle is level as per 5-B above.

2. Due to the tolerance in the bolt holes the machine may be assembled with the hinge shaft 4008 not vertically plumb when the main frame 4032 is level. To correct this: raise the rear wheels off the ground with the hydraulics and swing the rear section to the side on which the blade has been digging. Then loosen the 8 bolts which hold the rear upright channel leg 4048-A to the center truss, and allow the rear wheels to drop (approx. 1"), and retighten the bolts. Relevel the rear axle as per 5-B above.

Note: It is easy to over correct. One inch may be too much or it may not be enough, so a field performance check will be necessary to tell. If it has been over corrected repeat the above procedure with the rear section swing around on the opposite side.



PARTS LIST

All Parts Orders Must List Your Machine Serial Number and Complete Part Numbers

Part No.	Part Name	No. Per Machine	Will Fit Serial No.
4002-A	Front Truss	1	10200&up[1]
4002-20	Slide Pin	2	All
4002-26	Crank	1	All
4002-28	Ball Bushing	1	All
4002-44	Ball Hitch	1	10200&up[1]
4002-58	Adjusting Screw	1	All[2]
4002-66	Stand Pin	1	10535&up
4004-A	Center Truss	1	10122&up[2]
4004-54	Hing Clamp Bolt (⅞x22")	1	All
4004-44	Hinge Bolt (tapered) Nut	1	All
4006-A	Rear Truss L.H.	1	10495&up[5]
4007-A	Rear Truss R.H.	1	10495&up[5]
4009	Hinge Assm. Complete	1	All[3 5]
4008-20A	Hinge Shaft (2⅛-Dia.)	1	10306&up[3 6]
4008-10	Hexagon Cone Upper	1	All
4009-1	"Round" Cone Lower	1	All
4008-22	Brass Bearing	2	10306&up[3 6]
4008-24A	Washers 1⅞ x 3	2	10495&up
4009-2	Hinge Housing	1	10495&up[4 5]
4010	Hydraulic Cylinder (complete)	1	All[9]
4010-4	O-Ring	2	All
4010-6	O-Ring (small)	1	All
4010-8	Snap Ring	1	All
4010-12	Dirt Wiper	1	All
4010-14A	Head (Cyl.)	1	All
4010-16	Piston	1	All
4010-18	U-Cup	2	All
4010-26	Washer	1	up to 10460[7]
4010-28	Cyl. Welded Assembly	1	All
4010-30	Piston Rod and Clevis	1	All
4010-34	Piston Rod Nut	1	All
	Note: For Hoses See End of Parts List.		
7010-26	Cylinder Pin	2	All
4012-A	Rear Smoother	1	All
4012-12	Reversible Wear Plate	1	10530&up[8]
4012-16	Top Section of Rear Smoother	1	10530&up
4014-B	Slotted Link	2	10535&up
4016-10	Stand Lock (T bolt)	1	All
4016-12	Stand Hook	1	All
4016-14A	Stand Upper Part	1	10535&up
4018-A	Angle Brace	4	10122&up[2]

FOOT NOTES:

[1] Serial numbers up to 10200 used one slide pin No. 4002-20, screw No. 4002-22 and ball hitch block No. 4002-24.

[2] Center trusses up to Serial No. 10122 used angle braces No. 401B which had 53½" hole centers.

[3] If hinge assembly needs repairing return to factory. Furnish serial number if you replace parts.

[4] Part not shown in illustrations.

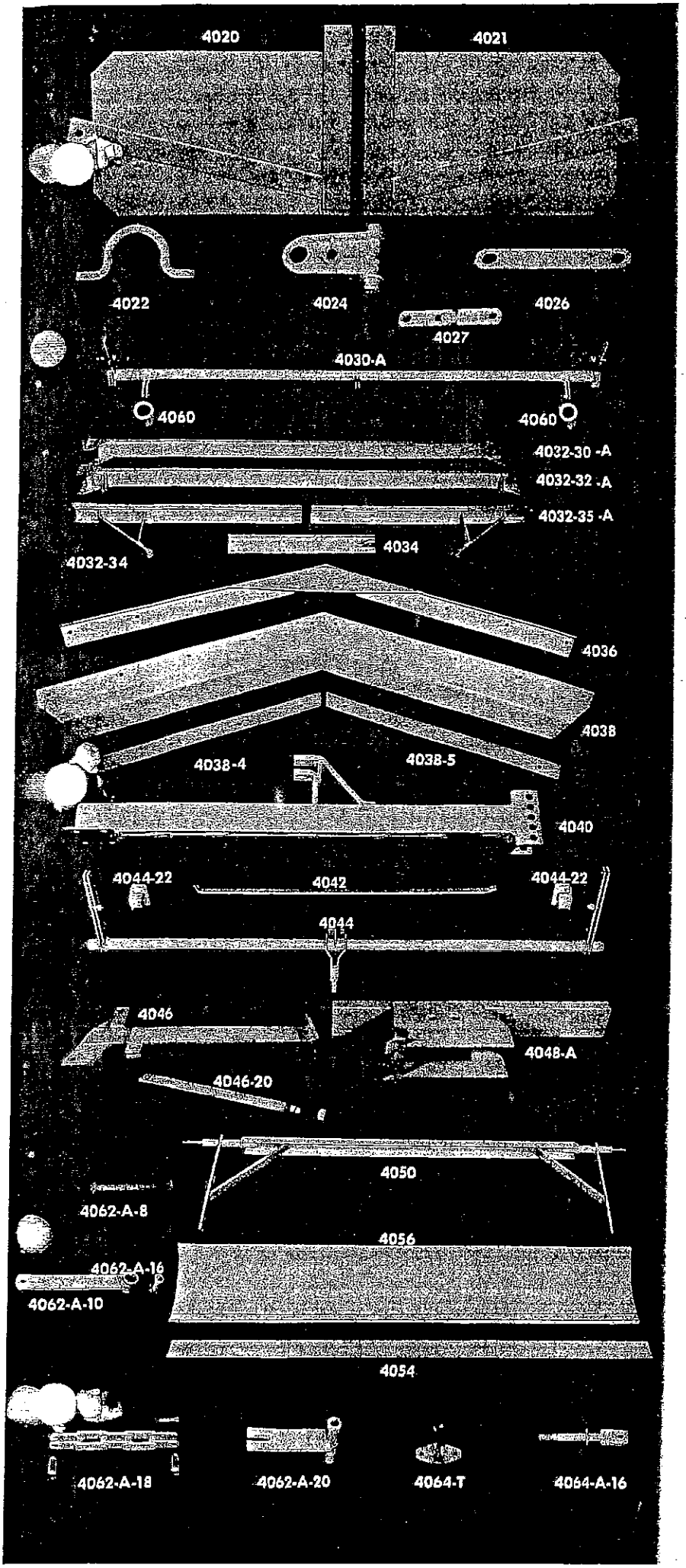
[5] Rear trusses and hinge connected with ⅝" bolts up to Serial No. 10494, thereafter ¾" bolts. Additional changes were made at Serial No. 11358.

[6] Up to Serial No. 10306 hinge shaft was 1⅞ dia.

[7] Washer not required on cylinder head 4010-14A used after Serial No. 10460.

[8] Rear smoothers up to Serial No. 10530 require 3 wear bars No. 4012-B.

[9] See Supplement Page 1-S for parts and seal kits on the current hydraulic cylinder, part No. 4010-C.

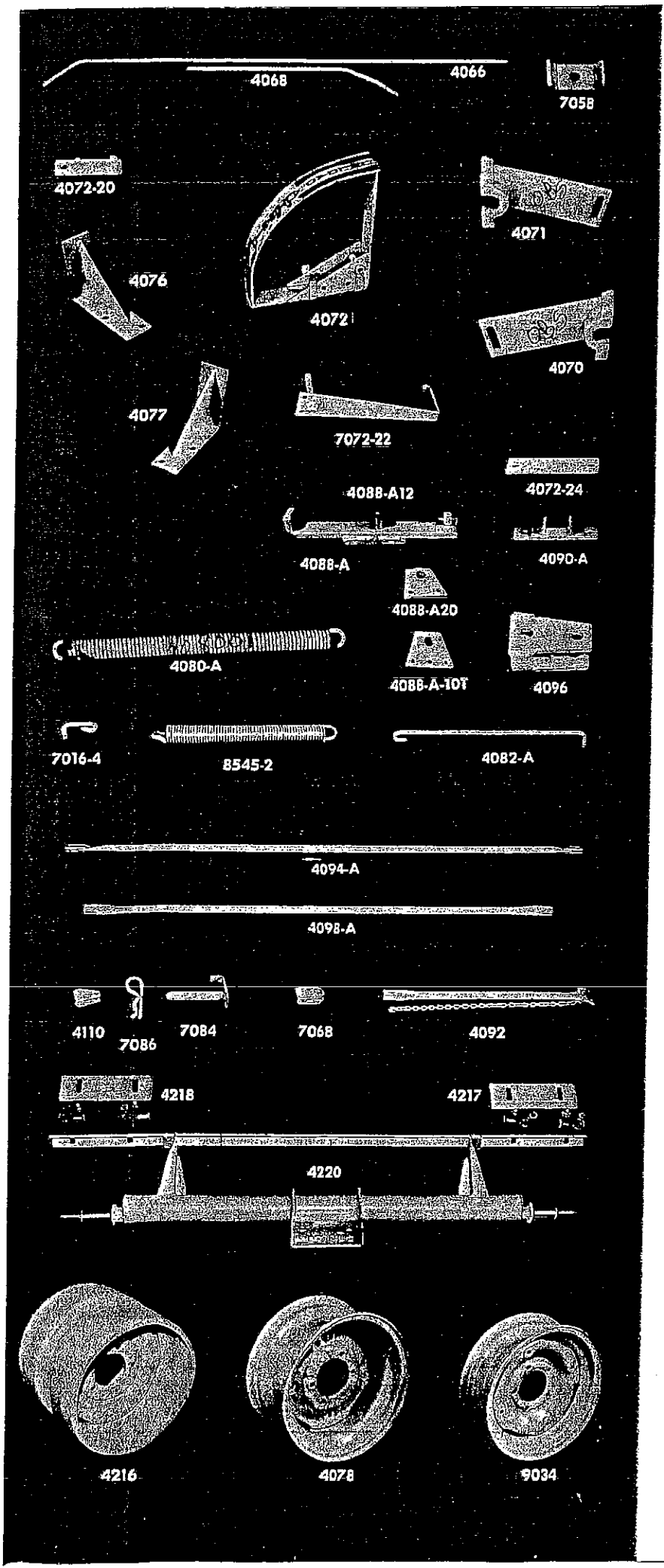


(PARTS LIST—Continued)

Part No.	Part Name	No. Per Machine	Will Fit Serial No.
4020	Side Board L.H.	1	All
4021	Side Board R.H.	1	All
4022	Axle Clip	2	All
4024	Hinge Casting	1	All
4026	Link (Fixed)	1	All
4027	Link (Adjustable)	1	All
4030-A	Axle	1	10122&up[1]
4032-30A	Frame Front Channel	1	10535&up
4032-32A	Frame Rear Channel	1	10535&up
4032-34A	Frame Channel (L.H.)	1	10535&up
4032-35A	Frame Channel (R.H.)	1	10535&up
4032-36	Beveled Washer	16	All
4034	Truss Leg Front	1	All
4036	Front V Frame	1	All
4038	Front V Smoother Plate	1	All
4038-4	Wear Bar (L.H.)	1	All
4038-5	Wear Bar (R.H.)	1	All
4040	Tongue	1	All
4042	Blade Braces	2	All
4044	Lift Pipe	1	All
4044-22	Lift Pipe End Bearing	2	All
4046	Draw Bar	1	All
4046-20	Draw Bar Brace	1	All
4048-A	Rear Center Truss Leg (complete)	1	10122&up[1]
4050	Rear Axle	1	All
4054	Reversible Cutting Blade Bit	1	All
4056	Mold Board	1	All
4060-A	Bushing (1⅛ O.D. x ⅝ long)	6	All
4062-A8	Carriage Bolt ¾ x 6½	1	10122&up
4062-A10	Lower Chain Link	1	10122&up[1]
4062-A16	Bushing Lower Link (⅞ O.D. x 1½ long)	1	10122&up[1]
4062-A18	Chain-Roller (with pins)	1	10122&up
4062-A20	Rocker	1	10122&up[1]
4064-T	Front Spring Yoke	1	All
4064-A16	Spring Eye Bolt	1	10122&up[1]

FOOT NOTES:

[1] Up to Serial 10122 used axle No. 4030, rear center truss leg 4048, Rocker 4062, lower rocker link 4028, lower link bushing 4060 (1⅛ O.D. x ⅝ long) upper link bushing 4062-6 (1⅛ O.D. x 1¾ long) and ball joint link 4064-8.



(PARTS LIST—Continued)

Part No.	Part Name	No. Per Machine	Will Fit Serial No.
7058	Pipe Clip	4	All
4066	Hydraulic Pipe Long	2	All
4068	Hydraulic Pipe Short	2	All
4070	Rear Smoother Support (Arm) L.H.	1	All
4071	Rear Smoother Support (Arm) R.H.	1	All
4072	Gage (body)	1	All
4072-20	Gage Hand Arm	1	All
4072-24	Gage Hand Link	1	All
7072-22	Gage Hand	1	All
4076	Bumper (L.H.)	1	All
4077	Bumper (R.H.)	1	All
4080	Rear Spring (1⅞ O.D.)	3	10122 to 10423[1]
4080-A	Rear Spring (2⅛ O.D.)	2	10424&up
4082-A	Side Spring Rod	2	All[3]
7016-4	Hook	2	up to 10523[3]
8545-2	Side Spring	2	All
4088-A	Pivot Arm	1	10122&up[2,6]
4088-A10T	Spring Yoke Rear	1	10122 to 10423[2]
4088-A20	Spring Yoke Rear	1	10424&up[2]
4088-A12	Pivot Arm Bushing (1½ O.D. x 1⅝ long)	1	All
4090-A	Pivot Arm Actuator	1	All
4092-A	Brace Pipe	1	10535&up[4]
4094-A	Outer Pull Pipe	2	10535&up[4]
4096	Std. Draw Bar Ball Adapter	(Optional Equipt.)	
4098-A	Center Pull Pipe	1	10535&up[4]
4110	Wheel Tractor Clevis	1	All
7068	Crawler Tractor Clevis	1	All
7084	Clevis Pin	1	All
7086	Hairpin	1	All
4216	Dolly Wheel	2	All
4217	Scraper L.H.	1	All
4218	Scraper R.H.	1	All
4220	Dolly Axle	1	All
4078	Main Wheel (for 9 x 16 tire)	2	All
4078-12	9 x 16 4 Ply Tire	(Optional Equipt.)	
4078-14	9 x 16 Tube	(Optional Equipt.)	
9034	Rear Wheel (for 6.70 x 15)	2	All

FOOT NOTES:

[1] Up to Serial No. 10122 used two 4080 springs. From Serial No. 10122 to 10423 used three 4080 springs, thereafter two 4080-A springs.

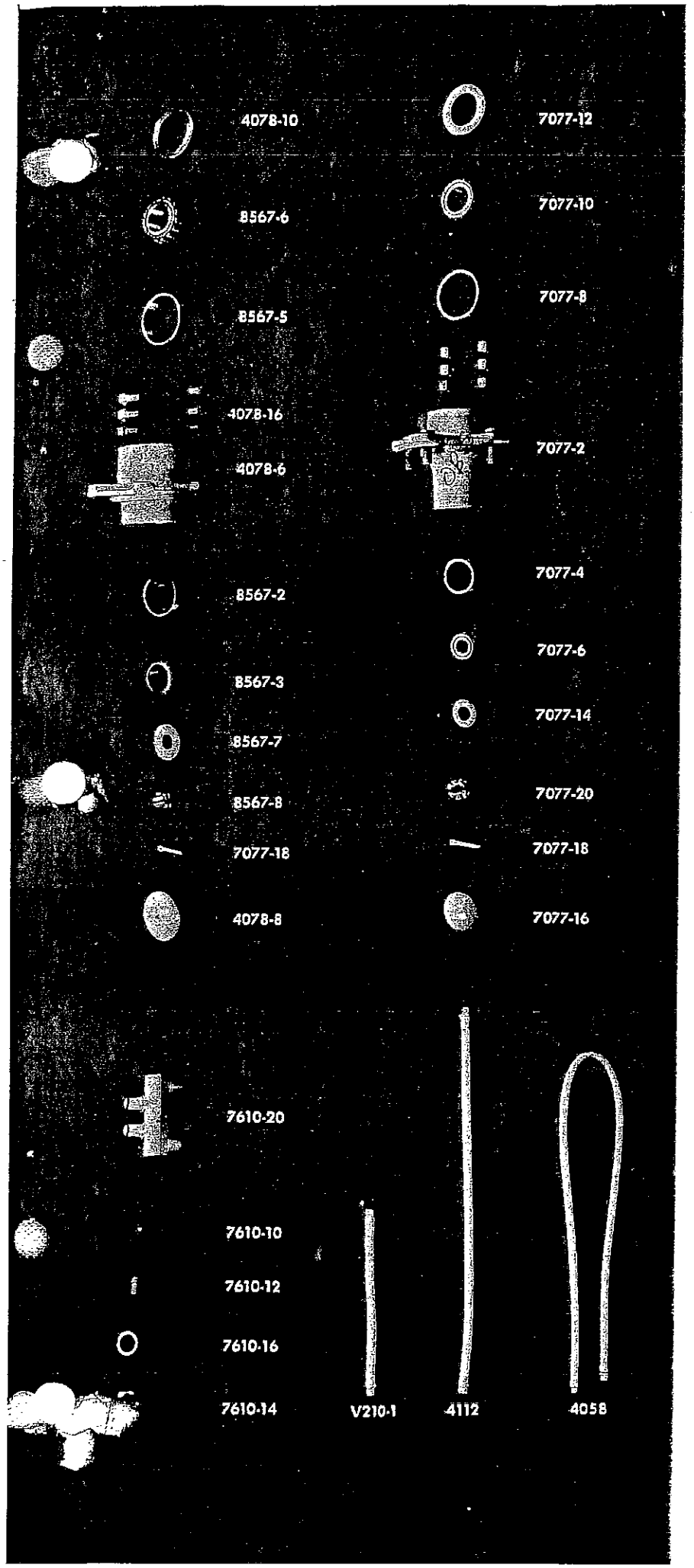
[2] Up to Serial No. 10122 used pivot arm 4088 and rear spring yoke 4088-10

[3] Hooks not required (with Rod 4082-A) after Serial No. 1052[illegible]

[4] Brace and pull pipes (4092, 4094, 4096) used up to Serial No. 1[illegible] had two stubs on ends.

[5] Part not shown in illustrations.

[6] See Supplement Page 1-S for new pivot arm design.



(PARTS LIST—Continued)

Part No.	Part Name	No. Per Machine	Will Fit Serial No.
4078-4	Main Wheel Hub (complete)	2	All [4]
4078-6	Hub Casting	2	All
4078-8	Hub Cap	2	All
4078-10	Dirt Seal	2	All
8567-2	Outer Bearing Cup	2	All
8567-3	Outer Bearing		
8567-5	Inner Bearing Cup	2	All
8567-6	Inner Bearing	2	All
8567-7	Washer (⅞ Flat)	2	All
8567-8	Castle Nut (⅞ NF)	2	All
7077	Rear Wheel Hub (complete)	2	All[2]
7077-2	Hub Casting	2	All
7077-4	Outer Bearing Cup	2	All
7077-6	Outer Bearing	2	All
7077-8	Inner Bearing Cup	2	All
7077-10	Inner Bearing	2	All
7077-12	Inner Bearing Seal	2	All
7077-14	Washer (¾ S.A.E.)	2	All
7077-16	Hub Cap	2	All
7077-18	Cotter	2	All
7077-20	Axle Nut (¾ NF)	2	All

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Hydraulic Accessories

7610	½" Check Valve (complete)	1	All[3]
7610-10	Check Valve Ball	2	All
7610-12	Check Valve Spring	2	All
7610-14	Check Valve End Plug	2	All
7610-16	Check Valve End Plug Gasket	2	All
7610-20	Check Valve Body Assembly	2	All
4058	88" (½") Hydraulic Hose	2	All
4112	(½") Cylinder Hose 42" Long	1	All
V210-1	(½") Cylinder Hose 26" Long	1	All
7104	Swivel Adaptor, ½", Female x Female	2	All
7106	Pioneer Disconnect	(Optional	Equipt.)
7106-2	Pioneer Body only	(Optional	Equipt.)
7106-4	Pioneer Male Tip	(Optional	Equipt.)
7106-4	Pioneer Male Screw Tip	(Optional	Equipt.)
7106-8	Pioneer 'O' Ring	(Optional	Equipt.)
7106-10	Pioneer Dust Plug	(Optional	Equipt.)
7106-12	Pioneer Dust Cap	(Optional	Equipt.)
7106-14	Pioneer Double Breakaway Clamp	(Optional	Equipt.)
7106-16	Pioneer Single Breakaway Clamp	(Optional	Equipt.)

[1] Part not shown in illustrations.

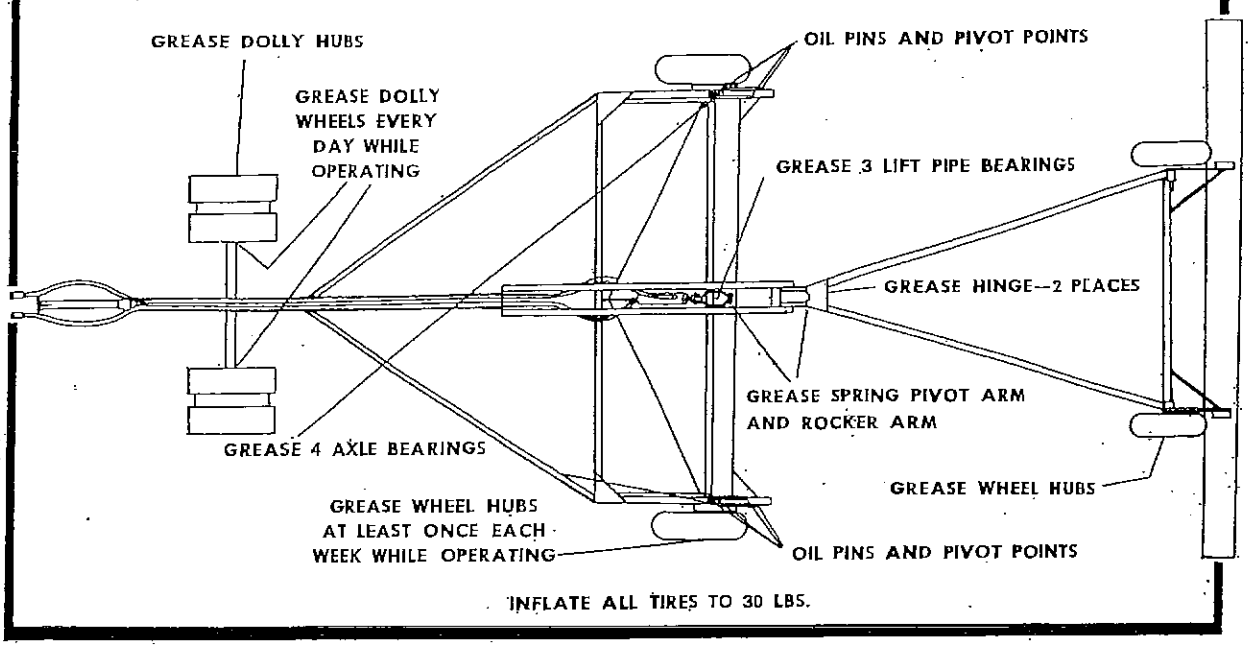
[2] See Supplement Page 1-S for information concerning replacement of 7077 Hub with the SA-2347A Hub Assembly.

[3] Effective Serial No. 13901 the ½" check valve #7610 was replaced by Part No. 4100, ¾" valve. To replace ½" valve assemblies on older Levelers, order kit no. 4104.

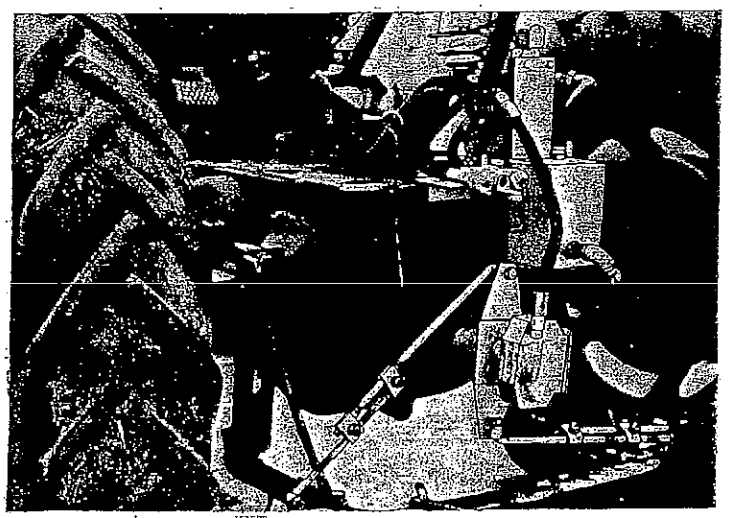
[4] Replaced by 025010 Hub Assembly on Serial No. 12664.

Eversman Manufacturing Company reserves the right to make any design changes it deems necessary without obligation to change any machines previously manufactured.

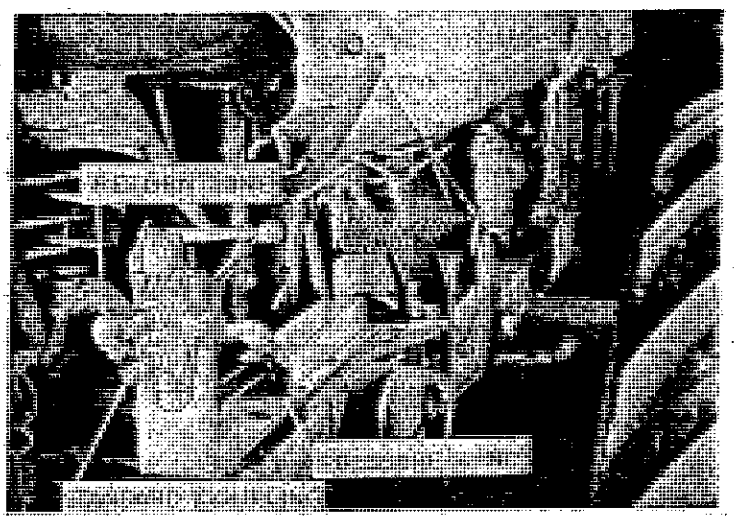
LUBRICATION CHART



Eversman Hydraulic Accessories



For tractors that are not equipped with Hydraulic Systems, a power take-off pump is available for either wheel tractors or crawlers. A power take-off installation is necessary on the tractor. This kit includes pump, reservoir, control valve, and all necessary fittings, brackets and hoses. Any implement requiring double acting hydraulic control can be operated with this installation.



This control valve kit is mounted on IHC 'H' or 'M' tractors to convert the "lift-all" system to a 2-way hydraulic system. Any implement requiring double acting hydraulic control can be operated with this installation.

Similar control valve kits are also available for older John Deere "power lift" tractors and for the Allis-Chalmers wheel tractors.

SUPPLEMENT TO EVERSMAN MODEL 410 LAND LEVELER
Assembly and Operation Manual

PAGE 3, FIGURE No. 7 and PAGE 4, FIGURE No. 13

NOTE: As per Figure 26, the *third* pin of the 4062-A18 chain-roller is inserted in the slot of 4062-A20 rocker, and that the nut must be run up *tight* to attach 4064-T spring yoke on the 4064-A16 eye bolt. These instructions *must be followed* to permit *satisfactory* field operation.

Figure 27 shows a new pivot arm design effective serial No. 11218. Pivot arm replacement kit No. 4088-25 may be installed on earlier models by welding 4004-68 bracket to the lower plate of the center truss, part No. 4004-A.

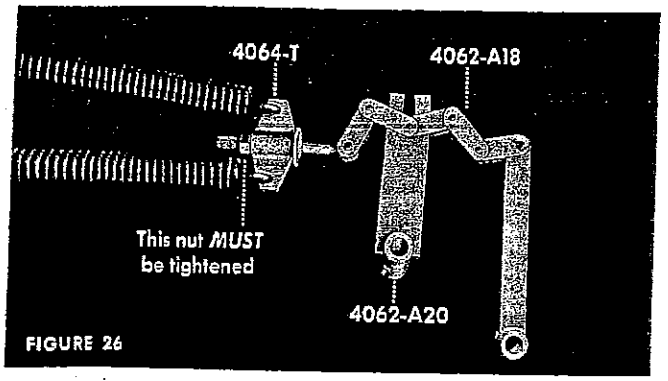


FIGURE 26

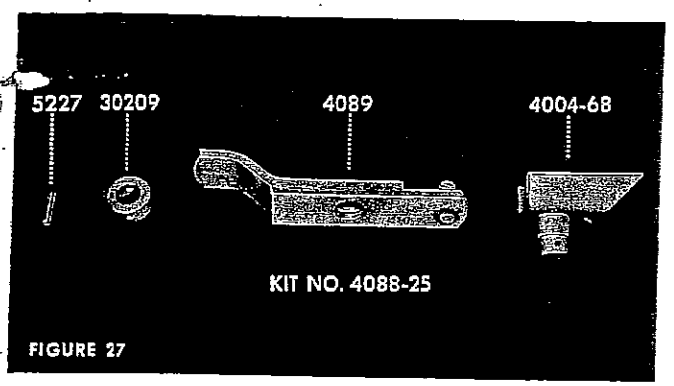
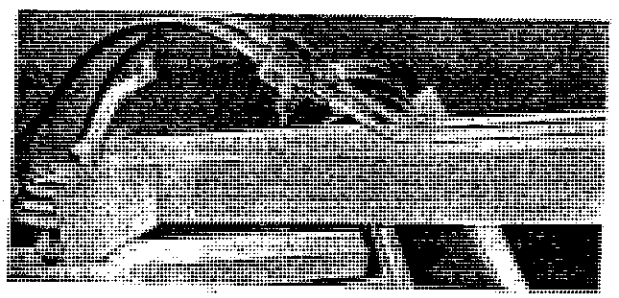


FIGURE 27



HIGH PRESSURE HYDRAULIC SYSTEMS:

If your tractor hydraulic system develops pressure in excess of 1500 psi, install a cushion valve, Kit No. SA-2485. This valve will protect the rest of the hydraulic system component parts and is far less expensive than installing a special high-pressure cylinder.

PAGE 13, PARTS FOR REAR WHEEL AND DOLLY WHEEL HUBS

On serial No. 11462, the hub assembly (7077) on the dolly axle was replaced by hub No. SA-2347A which uses a triple-lip seal. The new hub was also installed as standard equipment on the rear axle at serial No. 11499. The 4216, 9034 and 9140 wheels fit both hubs.

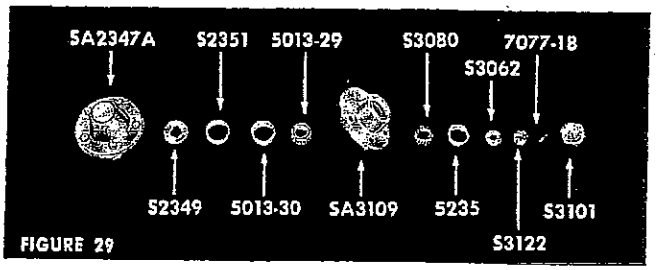


FIGURE 29

Part No.	Description	No. Req.	Serial No.
SA2347A	Hub Assembly	2	See above
SA3109	Hub Casting	1	
S2349	Triple Lip Seal	1	
S2351	Wear Sleeve	1	
5013-30	Inner Cup (LM-48510)	1	
5013-29	Inner Bearing (LM-48548)	1	
S3080	Outer Bearing (LM-67048)	1	
5235	Outer Cup (LM-67010)	1	
S3062	⅞" Flat Washer	1	
S3122	Spindle Nut	1	
S3101	Hub Cap	1	
S3038	Grease Fitting	1	
7077-18	5/32x1½" Cotter Pin	2	
S3127	Lug Bolt	5	
4220-28	Dolly Axle (7077 Hub)	1	Up to 11461
4220-16	Spindle Only	1	Up to 11461
4220-29	Dolly Axle (SA-2347A Hub)	1	11462 and up
4220-30	Spindle Only	1	11462 and up
4050	Rear Axle (7077 Hub)	1	Up to 11498
4050-22	Rear Axle (SA-2347A Hub)	1	11499 and up

NOTE: When *replacing triple lip seal* (S2349) on axle spindle proceed as follows:

(a) Grease must be thoroughly packed between seal lips before assembly.

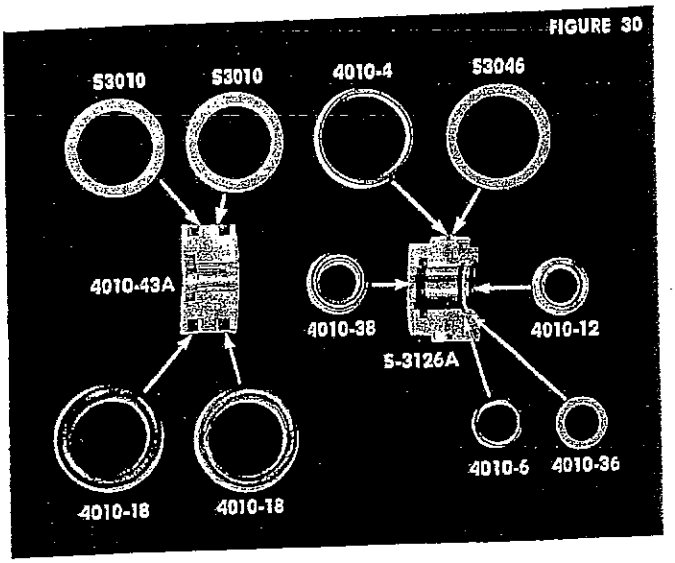
(b) Install on spindle with small metal ridge on *inside* and against spindle shoulder. The larger diameter metal ring will then be *outside*, and against the 5013-29 bearing. To install seal squarely on spindle it is good procedure to drive seal on with inner bearing 5013-29.

(c) Then install hub casting SA3109 and outer cone and cup and washer.

(d) Tighten S3122 slotted nut with 50 pounds torque to insure that bearings are fully seated. Then back off nut until hub will turn freely without any looseness in the bearings and lock with 7077-18, 5/32 x 1½" cotter pin. Lubricate hub thoroughly before operating.

PAGE 10, PARTS FOR 4010-C HYDRAULIC CYLINDER ASSEMBLY Following are current parts for the 410 leveler cylinder assembly, and the seal and "O" ring repair kit.

FIGURE 30



Part No.	Description	No. Req.	Serial No.
4010C	Hydraulic Cylinder Assembly	1	ALL
4010-28	Barrel	1	ALL
4010-41	Piston Rod	1	11150 and up
S3126A	Rod Guide	1	11150 and up
4010-43A	Piston	1	11150 and up
4010-40	Piston Nut	1	11150 and up
4010-8	Snap Ring	1	ALL
S2226	Street Elbow	2	ALL
7010-26	Clevis Pin	2	ALL
¼"x2"	Cotter Pin	2	ALL
4010-52RK	Kit-Consisting of:	1	ALL
S3010	Back-up Washer (Piston-outer)	2	ALL
S3046	Back-up Washer (Guide-outer)	1	ALL
4010-4	O-Ring (Guide-outer)	1	ALL
4010-6	O-Ring (Guide-inner)	1	ALL
4010-12	Seal (Piston Rod Wiper)	1	ALL
4010-18	U-Cup (Piston-outer)	2	ALL
4010-36	Back-up Washer (Guide-inner)	1	ALL
4010-38	U-Cup (Guide-inner)	1	ALL

NOTE: These are only parts available for 329 cylinders. All older parts and seal kits 4010-50 and 4010-51 are obsolete and replaced by parts lists above.

IMPORTANT — CYLINDER REPAIR INSTRUCTIONS

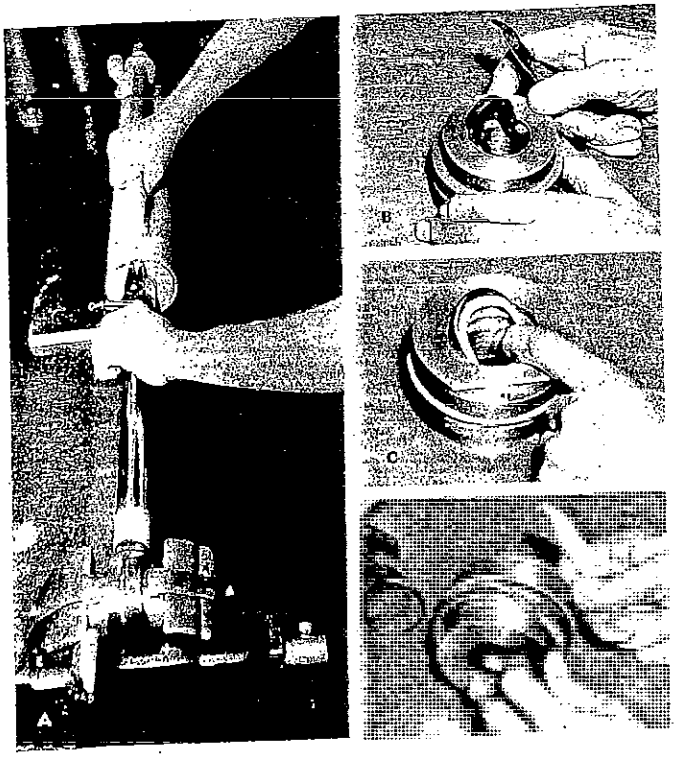
PHOTO A

Disassembly of the cylinder is a simple operation if done correctly, however, considerable damage to parts is possible if caution is not exercised.

(a) Support cylinder in vise by clamping the ball fitting at end of piston rod.

(b) Remove the allen set screw which holds the 4010-8 snap ring in place. (Not on earlier model cylinders.)

(c) Use a pair of number 5 snap-ring pliers to remove the snap ring from groove in cylinder barrel and pull barrel away from rod guide and piston. This normally requires a jerky motion since the piston "O" ring expands into the barrel groove and adds considerable friction.



NEVER (1) Use a hammer to beat on rod guide or barrel. This has been unsuccessfully tried many times; or (2) clamp the piston rod in vise while disassembling cylinder. If the chrome plating on the piston rod is nicked or scratched the rod is ruined and must be scrapped.

To reassemble cylinder follow same procedure of clamping ball fitting end of piston rod in vise. Slip rod guide to forward end of rod (against ball fitting end). Push barrel over piston, and completely collapse barrel. Then collapse snap ring with snap ring pliers and force barrel over guide rod until ring is in position to expand into barrel groove, and lock rod guide in place.

Whenever the cylinder is disassembled, it is recommended that *all* seals, washers, and "O" rings be replaced. It is very easy to cut or nick one of the parts so exercise extreme caution. For complete seal kit, order part No. 4010-52RK.

PHOTO B

To install inner U-cup seal (4010-38) in rod guide groove, start seal into groove and then use blunt tool such as pictured to force it into place around circumference. Note detail cutaway of rod guide and piston showing correct position and direction of seals and other parts.

PHOTO C

To install inner "O" ring (4010-6) and back-up washer (4010-36) in rod guide, start as shown in photo. These parts can normally be pushed into the groove with finger and the blunt tool is not required.

PHOTO D

To install outer "O" ring (4010-4) and back-up washer (S3046) on rod guide, first push washer in place, and then force "O" ring into groove. The same blunt tool is helpful for this installation, and oiling washer and "O" ring will also assist. Follow this same procedure to install "O" rings (4010-18) and back-up washers (S3010) on 4010-43A piston.

To install the piston rod wiper seal (4010-12) in rod guide note that metal backing rests against shoulder of rod guide. This seal may be forced into place by laying a small flat piece of bar stock over seal and tapping with hammer.

Model 4012 Land Leveler – Assembly and Parts Information

The new Model 4012 Eversman Land Leveler is similar to the Model 410 with the only basic difference being the width members. By following the pictures and instructions carried on page 2 through 5 of the Model 410 Assembly and Operation Manual, and then carefully noting the exceptions pictured below, no difficulty should be experienced in assembly of the Model 4012. Also see pages 6 and 7 of the 410 Manual for operating and adjustment instructions.

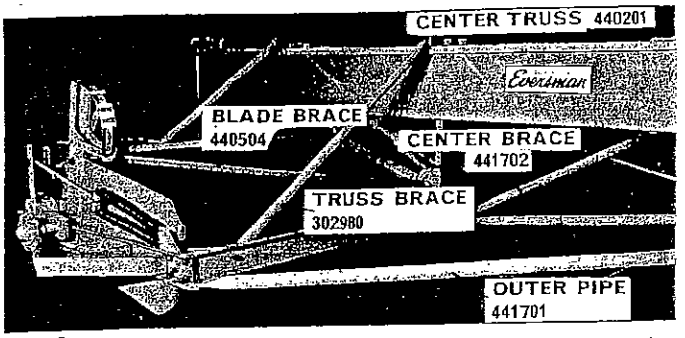


Fig. 30

Refer to Figure 6 page 3 of the 410 Assembly Manual: The 4004 center truss and 4018A braces are replaced by the new 440201 center truss and 302980 braces on the 4012. Otherwise assembly of both 410 and 4012 levelers to this point are the same except for the side spring details shown in Fig. 31 below.

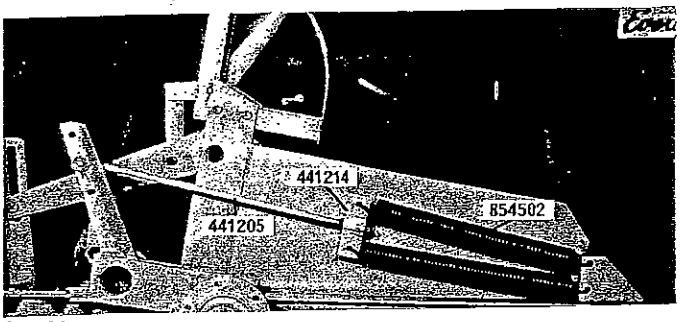


Fig. 31

From Fig. 3 in the 410 manual, note there is only one side spring. The 4012 uses a double spring assembly as shown in Figure 31. Install rod in center hole of axle arm for average soil conditions and see page 7, "Adjustment" Section for further field adjustments.

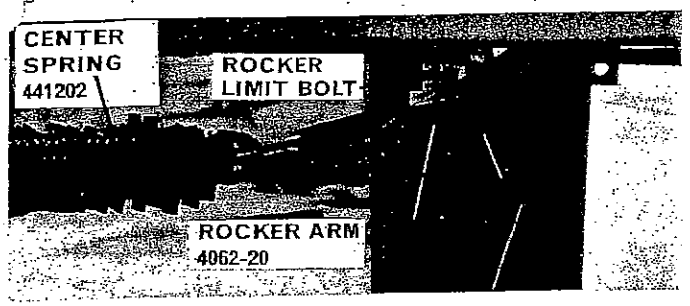


Fig. 32

As per Figure 13 in the 410 manual only 2-springs are used on the 410. The 4012 has 3-springs as shown in Figure 32. Check to be certain that the rocker (4062-20) is on the correct pin of the chain.

The **rocker limit bolt** is set at the factory to stick out about 1¾" from the backup plate which is welded to the vertical channel. The purpose of this bolt is to limit the travel of the rocker arm, and the spring stretch, so that the cutting blade will not dump when turning. Slight adjustment of this bolt will maintain the blade at the correct level on turns so it will neither dump nor cut, dependant on soil conditions and surface hardness at field ends.

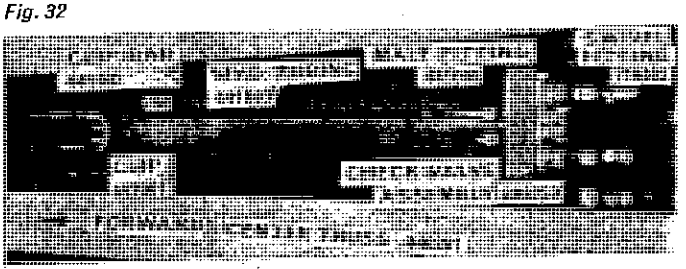


Fig. 33

Fig. 33—Shows the Assembly of the Check Valve to the Cylinder Hoses and Hydraulic Tubing on the 4012 center truss. The tubes go inside the front truss rather than on top.

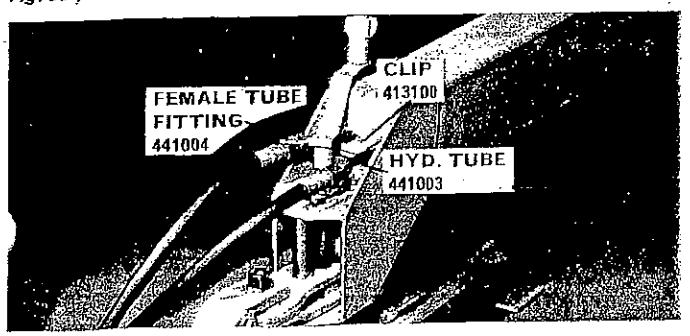
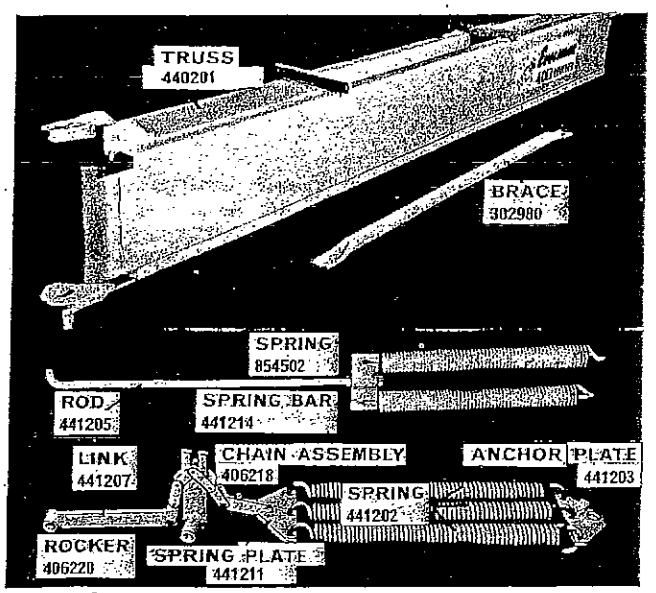


Fig. 34

Note that the hydraulic tubing is *inside* the 4012 front truss rather than on top of the truss as on the 410. To assemble the 441004 and 441005 fittings to the hydraulic tubing, *be certain* that the tube is installed *past* the *"0" ring* in the fitting, before tightening nuts. Oil the "0" ring and smooth the tube ends, if rough, to eliminate leaking around these connections.

Parts Information: Model 4012 Leveler



The following parts are used only on the Model 4012 and look different than similar 410 parts.

Part No.	Part Name	No. Per Machine
441206	Rocker Arm Assembly	1
441211	Center Spring Plate	1
441214	Side Spring Bar	2
441203	Center Spring Anchor Plate	1
302980	Center Truss Brace (1)	4
440201	Center Truss (1)	1
441003	Hydraulic Tubing (1)	2
441002	Rear Tube Anchor (1)	1
413100	Front Tube Clip (1)	1
441001	Rear Tube Clip (1)	1
441004	Tube Fitting—Female (1)	2
441005	Tube Fitting—Male (1)	2

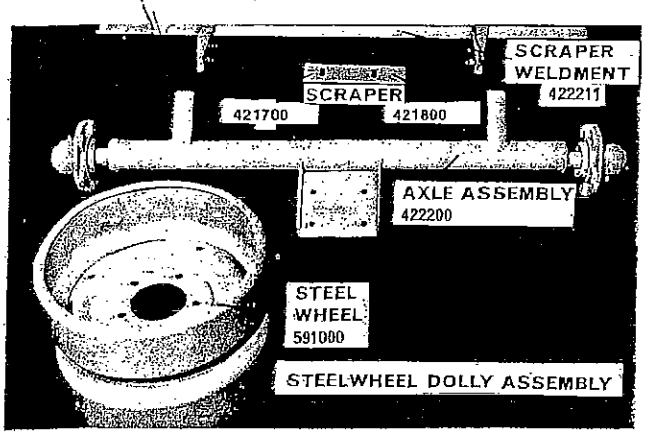
Notes: (1) These items will eventually be incorporated into the 410 Leveler also.

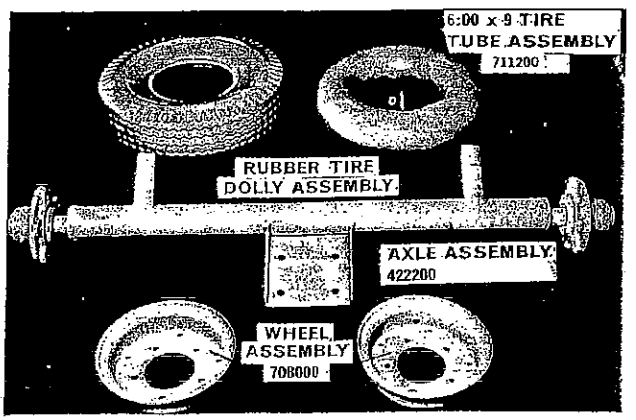
The following parts are used only on the Model 4012, however, look exactly the same as 410 parts, except for the width.

4012 Part No.	Part Name	410 Part No. (See Parts Pictures on Pages 10-13)	No. REQ. 4012
441201	Axle Link	4026	2
441207	Center Spring Link	4062-10	1
441301	Rear Smoother Assembly	4012-A	1
303910	Reversible Wear Plate	4012-12	1
441305	Top Section of Rear Smoother	4012-18	1
440831	Main Axle	4030-A	1
440401	Main Frame—Front Channel	4032-30A	1
440403	Main Frame—Rear Channel	4032-32A	1
440504	Blade Braces	4042	2

4012 Part No.	Part Name	410 Part No. (See Parts Pictures on Pages 10-13)	No. REQ. 4012
440904	Lift Pipe	4044	1
306210	Reversible Cutting Bit	4054	1
440513	Mold Board	4056	1
441701	Outer Pull Pipe	4094-A	2
443101	Spring Tooth Pipe	4330-20	1
441205	Side Spring Rod	4082	2
441202	Center Spring	4080	3
441702	Center Brace	4092	1

All Other Parts Besides Those Listed Above Are Exactly The Same On Both Model 410 and 4012 Leveler



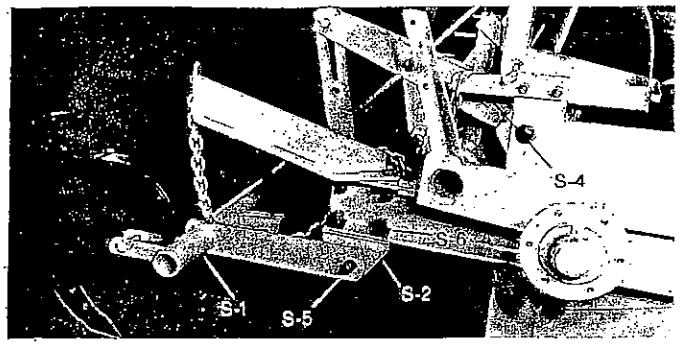


These two dolly assemblies are now optional and are identical on Leveler Models 329, 3212, 410 and 4012.

wheel & tire assy. V440847 005

Model 4012 Land Leveler – Assembly and Parts Information

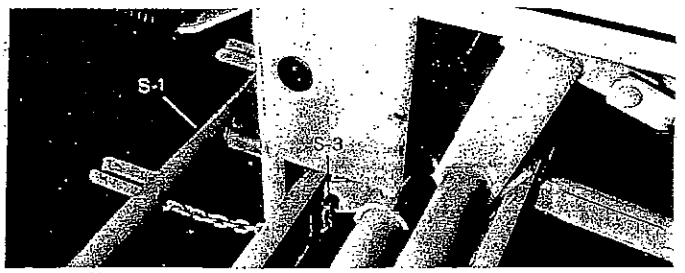
Assembly Instructions: Models 4012 and 410 Leveler – Spring Tooth Attachment



(Figure STA-1);

Assemble, S-2, end brackets to rear corners of main frame side channels with ⅝ x 1¼ bolts. Note use of, S-6, beveled washers against channel flange.

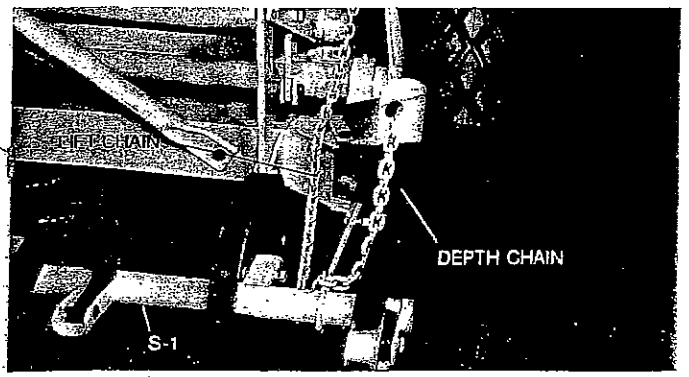
Mount, S-3, center bracket on forward, inside, of main frame rear cross channel with ½ x 1¼ bolts, and with bracket resting on lower leg of channel. (Figure STA-2) Be sure that main axle fitting clears, S-3, bracket.



(Figure STA-2);

Attach, S-4, lift hooks to side boards with same bolts which hold gauge assembly. The longer chain (35 links) is welded to the, S-1, pipe and is also secured to the, S-4, lift hook. There must be considerable slack in this chain, since its sole purpose is to lift the spring tooth attachment clear of the ground when the leveler is fully raised on the wheels. (Figure STA-5) It *cannot* be used as a depth control chain without bending the lift hook.

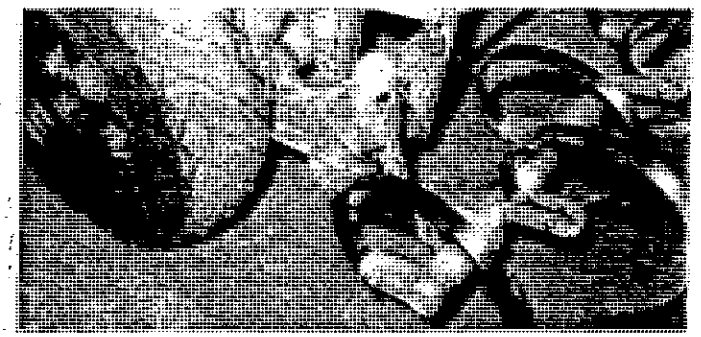
Mount, S-1, pipe to end brackets using, S-5, bushing, ⅝ flat washers and ⅝ x 1¾ bolts. Note: Make initial installation in *center* holes of end brackets and then adjust in field, as needed, to set front and rear sets of teeth to dig equally at various depth settings.



(Figure STA-3);

Hook center pull chain through keyhole in center bracket, leaving approximately one inch of slack. (Figure STA-2).

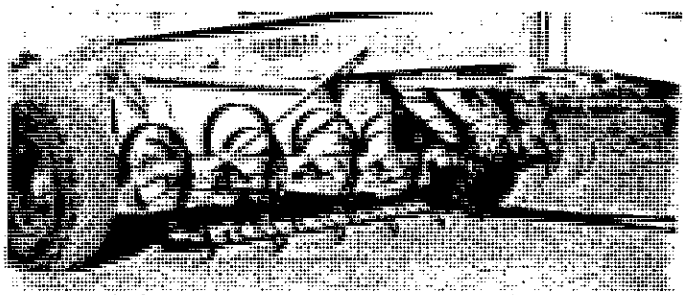
Place the ends of the outer chains (20 links) in the keyholes of bumper arms. (Figure STA-3) This is a *depth control* adjustment and will limit the penetration of the spring teeth wherever it is set. Before changing the setting of these depth control chains, raise the blade so the teeth are out of the ground. Be certain that the chains on both sides are set at the same link. When transporting the leveler, snub the depth control chains up tight and they will serve as a safety device in case a lift chain should break.



(Figure STA-4);

Mount spring teeth assemblies in brackets on pipe with, 051224, ½ x 2¾ carriage bolts. Do not use lock washers, and tighten bolts until saddle brackets are deformed and lock the teeth securely.

The shovels are attached to teeth with, 059726, ⅝ x 1¼ plow bolts.



(Figure STA-5)

Note carefully—(a) On the Model 4012 Leveler the, S-1, pipe is correctly assembled when the outboard teeth are mounted *behind* the pipe with the bracket *open upwards* (Figure STA-3); (b) On the *Model 410 Leveler,* the outboard teeth are mounted forward of the pipe with the bracket *open downwards* (Figure STA-4). It is possible to assemble the pipe upside down unless the above instructions are followed, and this can result in broken or bent parts.

Spring Tooth Attachment Parts

REF. NO.	PART NO.	NAME	NUMBER REQUIRED 410	NUMBER REQUIRED 4012
S-1	433020	Pipe	1	—
S-1	443101	Pipe	—	1
S-2	433012	End Bracket	2	2
S-3	433014	Center Bracket	1	1
S-4	433016	Lift Hook	2	2
S-5	307640	Bushing	2	2
S-6	403236	Beveled Washer	4	4
S-7	732000	Spring Tooth	15	17
S-8	732200	Helper Spring	15	17
S-9	732400	Shovel	15	17

Model 4012 Leveler Parts Changes

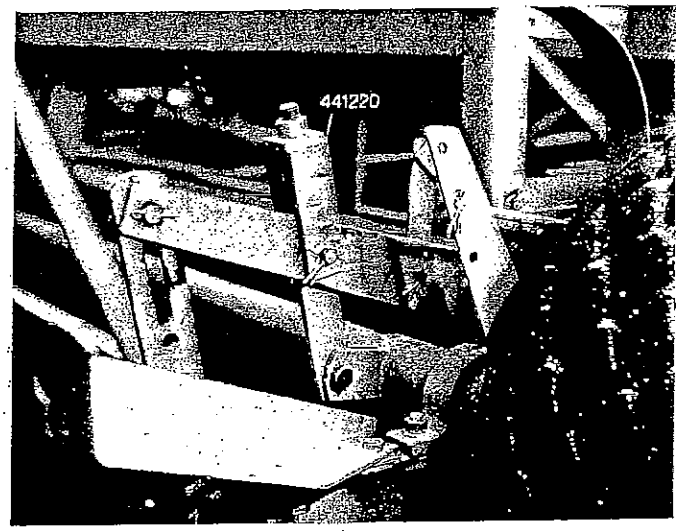


Figure 1—Adjustable Link Assembly

At Serial No. *10489*, a new adjustable link, 441220, replacec one of the fixed links on 4012 Levelers. This permits leveling the moldboard if necessary, and can be installed on al earlier 4012's.

Parts:

Adjustable Link Assembly	—	441220
Clevis	—	4412.
Link Bar	—	441224
Pin	—	065524
¼ x 1¼ Cotter Pin	—	063761
⅞" Jam Nut	—	062142
⅞" Hex Nut	—	061942

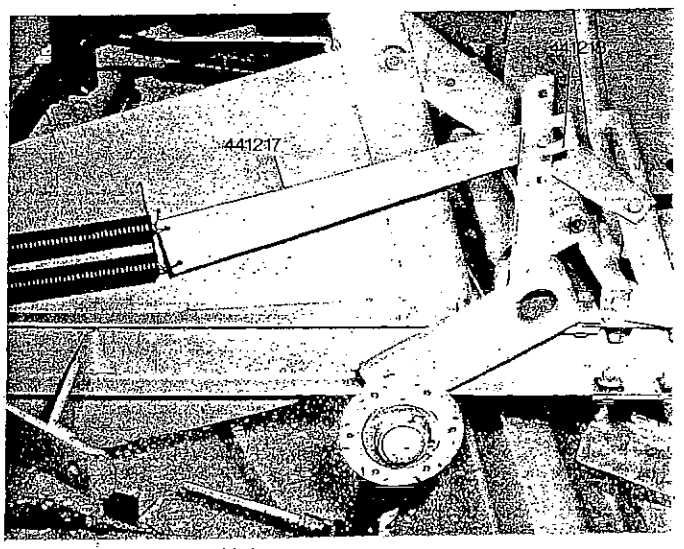


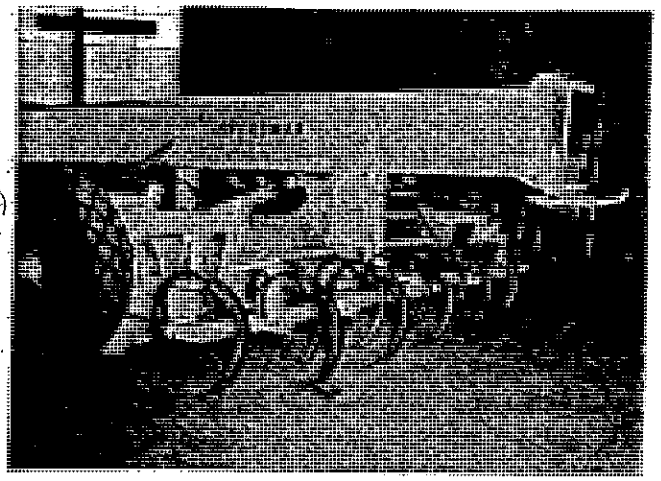
Figure 2—Side Spring Link

At Serial No. *10617*, the side spring rod was replaced by side spring link, 441217, on 4012 Levelers. This link is attached tc the axle arm with, 441218, (5/16 x .84) bushing, a ½" flat washer and a ½ x 1¼ hex bolt and lockwasher. It will fit earlier 4012's

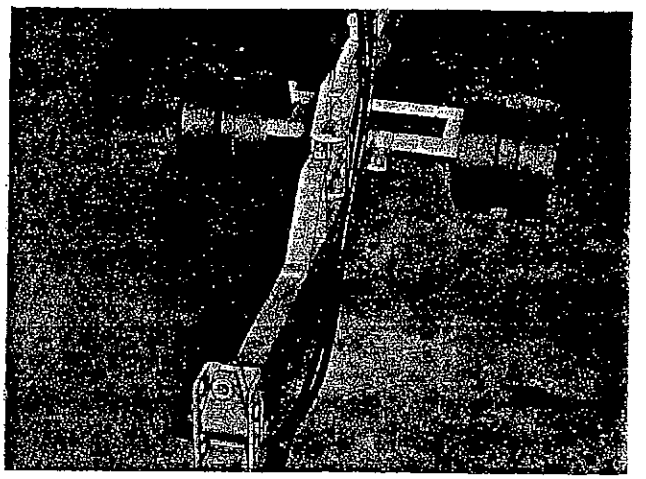
Parts:

Side Spring Link	—	441217
5/16 x .84 Bushing	—	441218
½" Flat Washer	—	063538
½" x 1¼" Hex Bolt	—	0552

OTHER *Eversman* PRODUCTS

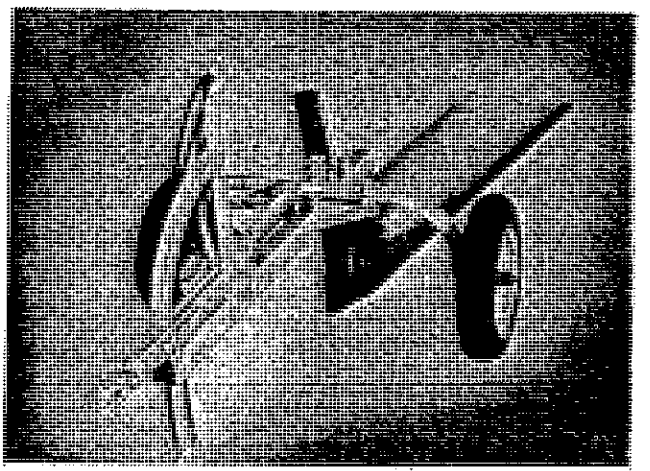


A Spring Tooth Attachment is available, at extra cost, for the 410 Leveler. This accessory serves three primary functions: 1) Ridges field to prevent blowing and traps moisture, 2) keeps the surface dirt loose to permit easier cutting while dirt moving, and 3) eliminates a separate harrowing operation. When the Spring Tooth Attachment is used, the rear smoother blade is rotated up on the rear truss. Springtooth attachments are also available for Models 9, 12, 289 and 329.



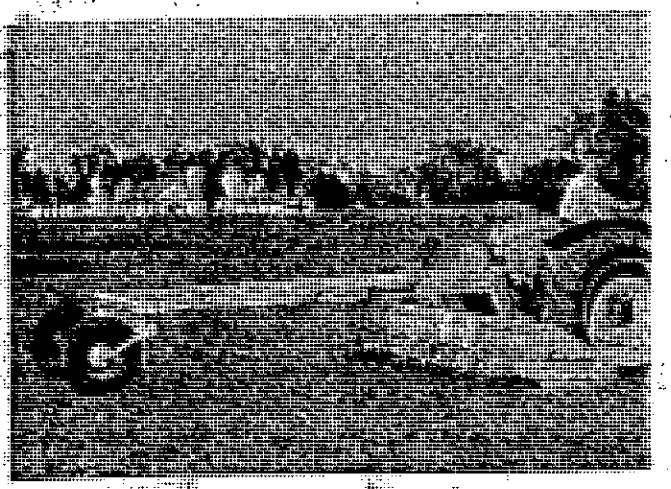
A dolly assembly is available at extra cost and can be used on the Eversman Land Leveler Models 329, 410 and 489 as optional equipment to the Front V for use in loose, moist, trashy soil conditions. A dolly assembly is also available for older Model 289 Eversman Leveler.

EARTH MOVING IS FAST, easy, and economical with the Eversman Scraper. No matter what the problem, whether providing efficient irrigation, improving surface drainage, stopping excessive erosion, retaining rainfall . . . you can easily do the job yourself with the Eversman Scraper, increasing per acre income for the future.

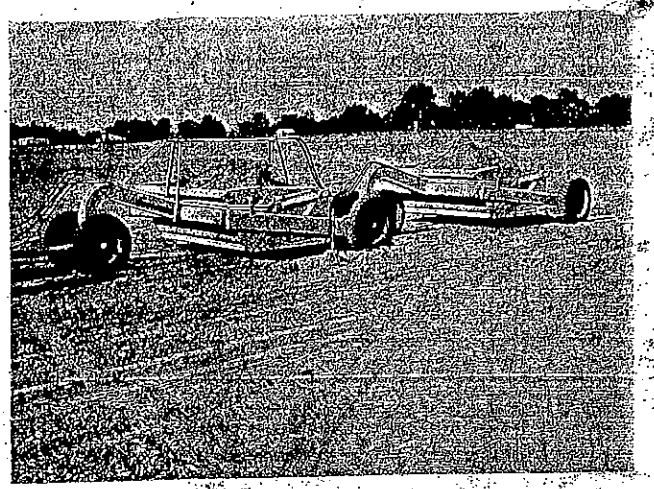


A modern Ditcher for building or cleaning ditches for either irrigation or drainage. Outstanding maneuverability and transportability features make it possible for one man to do his ditching work fast and at low cost. Operated either mechanically or hydraulically with standard farm tractors. A pan-breaker attachment is available, at slight extra cost, which fits the Ditcher tool bar.

OTHER *Eversman* PRODUCTS

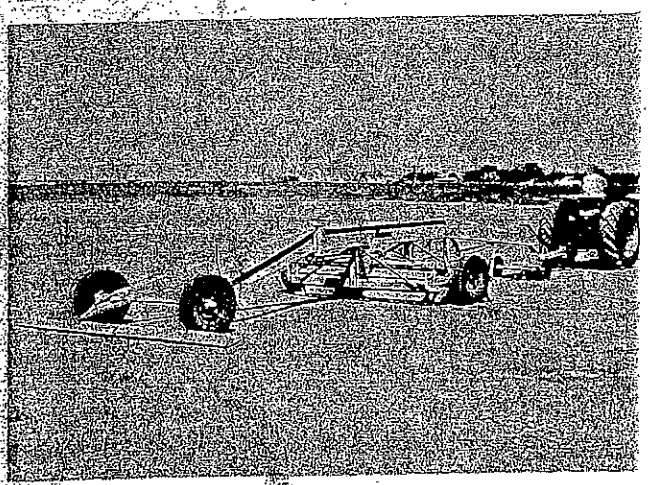


The new Eversman TM Series Land Smoothers. Low cost, large capacity, highly maneuverable features make this the ideal smoother for maintenance and tillage on irrigated farms, and to correct surface drainage and erosion problems in humid areas. TM Models fit all standard 3-point hitch tractors or the IHC "Fast-Hitch" system. Six sizes available. Designed to accomplish more work per unit of horsepower and to utilize tractor as portion of effective leveling length.

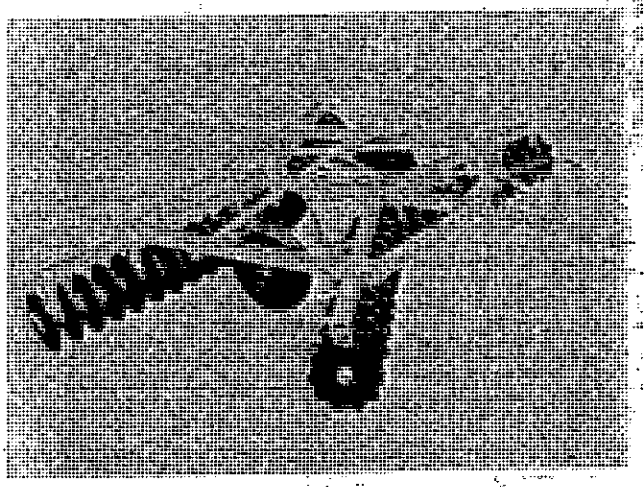


Move 5 yards of dirt per trip with your regular 4 plow tractor and the Eversman Tandem Scraper Combination. Use the Eversman Tandem Scrapers in combination to accomplish long haul, high yardage dirt moving — or use them individually on separate tractors for small construction jobs.

If you already own a 2SD, buy a Model 2SDT and move 5 yards per trip. Two hydraulic control valves required on tractor. Load the front scraper, pick it up — and then load the rear unit.



The 329 Eversman is a combination land leveler and hydraulic scraper used for land smoothing, dirt moving and seedbed preparation. Width, 12 feet; length, 32 feet. Power required, 3-plow tractor. Hinged frame makes it very maneuverable.



A Heavy Duty, Quality Tandem Disk Harrow Welded boxed 4" channel construction, welded gang hangers, heavy duty scrapers, depth gauge, screw adjustment for easier, faster changes of front and rear angles of gangs, center ridge buster, heavy duty swivel clevis, rear hitch plate and many other features. Patented Level Lift keeps the frame level at all depths. Available in 8'8" to 14'6" cutting widths.

MANUFACTURERS OF QUALITY FARM EQUIPMENT SINCE 1928