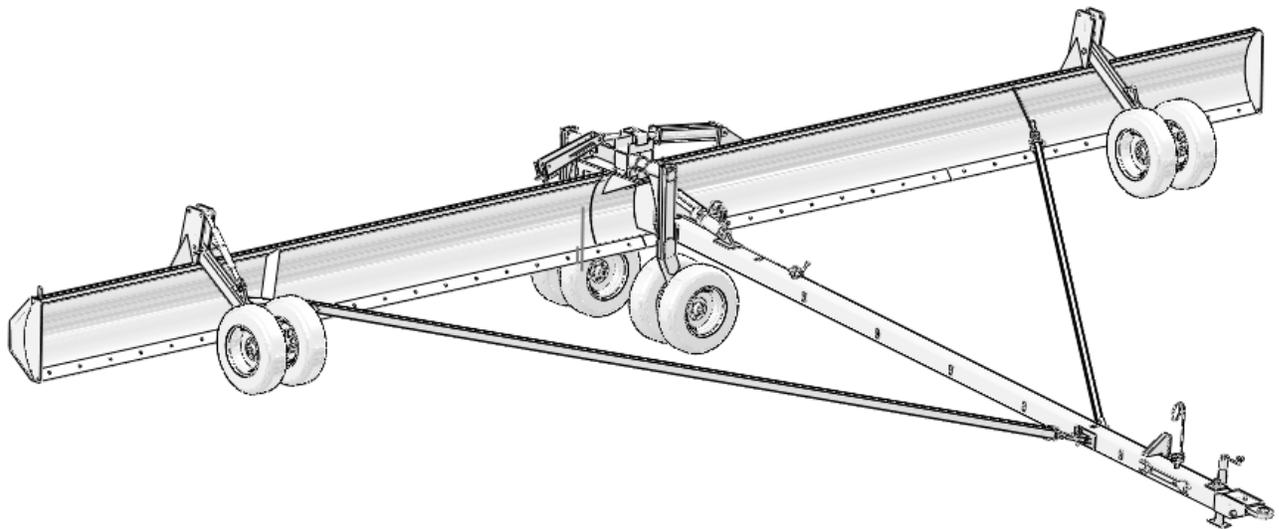


SCHMEISER®

GRADER BLADE

ASSEMBLY & PARTS MANUAL



UP TO 40 FT. WIDE

T. G. SCHMEISER CO., INC.

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VERSION 1.3

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INTRODUCTION

Your Schmeiser Grader Blade is designed to give you many years of dependable service. This manual has been prepared to instruct you in the safe and efficient operation of this machine. Read and study it thoroughly. Follow all instructions carefully.

Should your Grader Blade require replacement parts, go to your Schmeiser dealer. Always order genuine Schmeiser replacement parts.

It is important that you complete and send in your Warranty Card because it is not valid unless it is on file at Schmeiser. If you need information not contained in this manual, contact your Schmeiser dealer.

Space has been provided below for you to record the model number and serial number of your Grader Blade. Be sure to bring this information with you to your dealer when ordering parts or attachments for your Grader Blade.

Thank you for buying a Schmeiser Grader Blade.

SERIAL NUMBER _____

MODEL NUMBER _____

DATE PURCHASED _____

DEALER NAME _____

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SAFETY

The safe operation of any machinery is an important concern to farmers and manufactures. There are obvious and hidden potential hazards involved in the operation of this implement. Carefully read and follow all safety precautions before operation. Serious injury or death may occur unless care is taken to insure the safety of both the operator and any other persons in the area.

1. Be especially careful when transporting on slopes. Never turn uphill in transport except at slow speed and a low rate of turn. Never transport or operate this machine on steep slopes.
2. Never permit anyone to ride on or walk beside the implement when moving.
3. Never permit anyone to ride on tractor when implement is being moved.
4. Never allow anyone to be near the implement when performing operating functions with implement or tractor.
5. Do not enter tractor when tractor is moving. Avoid serious injury or death from contact with rotating tires. Enter and exit the tractor only when it is completely stopped.
6. When in transport, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all Federal, State and local laws when traveling on public roads.
7. Use "Slow Moving Vehicle" emblem for warning vehicles approaching from the rear.
8. When transporting, remember that the implement may be wider than your tractor and extreme care must be taken to allow for safe clearance.
9. Never allow inexperienced or untrained personnel to operate the implement or tractor without supervision.
10. When using compressed air to clean implement, wear safety glasses.
11. Check all fasteners for tightness or damage before and after operation. Repair immediately if required.
12. Store implement in a stable position.



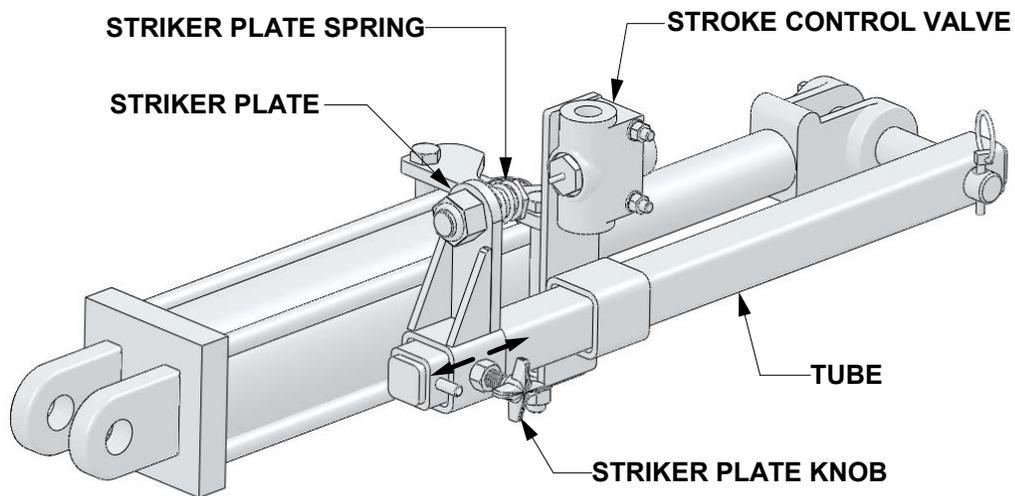
1. Select a smooth, level area approximately 45 feet wide and 26 feet long.
2. Position bucket frame on the ground, centered in the work area, with the left bucket side facing the direction that the machine is to be pulled
3. Hoist and attach tongue to the bucket frame. Refer to drawing on page 11.
4. **IMPORTANT!!!***Attach rod end of 3-1/2" x 10" tie rod hydraulic cylinder to the bucket frame pivot cylinder anchor using 1" hydraulic adjustment pin and hair pin clips. Attach blind end to the tongue cylinder anchor using 1" cylinder pin and hair pin clips. Refer to page 11 for proper installation. **FAILURE TO CONNECT TONGUE HYDRAULIC CYLINDER AS SPECIFIED WILL NOT ALLOW HYDRAULIC ADJUSTMENT SYSTEM TO WORK PROPERLY.**
5. Slide swivel clevis, ears first, through pivot pin. Insert the pivot pin through the bucket frame. See page 13.
6. Position and attach swivel coupler to pivot pin. Install and adjust hex nuts onto the pivot pins behind the bucket frame so that the swivel clevis can rotate freely but not loosely. Repeat on other side.
7. Install tongue braces on each side of the bucket frame. Mount tongue brace clevis to the swivel couplers on the bucket frame. Refer to page 13 drawing for details. Install brace adjustment screws with hex nuts onto other sides of tongue braces. See page 12.
8. Connect tongue turnbuckles to the tongue. Refer to page 12 for details. Use 1" pins with square heads and lynch pins. Adjust turnbuckles as needed and secure with locking hex nuts. Ensure that tongue is at 90 degrees of the bucket frame.
9. Hoist and attach wheel axle to the bucket frame. See drawing on page 14 for proper installation.
10. Attach rod end of 4" x 16" tie rod hydraulic cylinder to the wheel axle cylinder anchor and lockout bar using 1" x 5" NC bolt with nylon lock hex nut. Attach blind end to the bucket frame cylinder anchor using 1" cylinder pin and hair pin clips. See page 14.
11. Mount gauge legs to the bucket frame. Install ratchet jacks. Note that gauge legs can be installed in front or behind bucket. Refer to the drawing on page 16 for details.
12. Install removable spindles in the sleeves on the wheel axle and gauge legs. Secure with 7/16" NC bolts and 1/2" set screws. See page 16 and 17 for proper installation.
13. Mount hubs to the spindles and tires to the hubs. See drawing on page 17 for details.
14. Tighten all fasteners.



HYDRAULIC ADJUSTMENT

For high precision leveling, your Grader Blade is equipped with hydraulic depth control. The depth adjustment serves as a cylinder extension restrictor allowing the bucket come down to the same exact level after dumping dirt. Striker plate is secured with a knob. When the cylinder extends, the striker plate hits the stroke control valve at the desired depth and shuts off hydraulic fluid flow.

To reduce or increase bucket height, loosen the knob on the striker plate sleeve and slide the striker plate along the tube to the desired location. Moving the striker plate closer to the valve will reduce cylinder extension and decrease dumping height. Moving it away from the valve will increase dumping height. Tighten the knob when unit lowers to desired depth.



If you intend to use full extension of the cylinder, simply unscrew the striker plate knob and move the striker plate away from the valve to the very end of the adjustment tube, then retighten the knob.

NOTE: Spring on the striker plate works as a shock absorber. DO NOT REMOVE STRIKER PLATE SPRING! Striker plate without spring might bend and/or break.



Place unit on firm and level ground. With the unit in the transport position release the bucket safety chain and unpin the bucket frame from the transport bracket. Secure safety chain and transport pin in storage position.

With one person on each end of the bucket frame, walk the bucket frame into field position and stop when the bucket frame is as close to 90 degrees to the tongue as possible. **CAUTION: one end of the bucket will be lighter than the other so the bucket frame will tilt to one side and come to rest on the ground.**

After the bucket is in the 90 degree position, remove brace saddle cover (item # 9 on page 9). Remove the braces (items # 3 on page 9) from the storage saddle and position each brace toward the front of the tongue (item # 14 on page 9). Replace brace saddle cover. Remove brace pins and attach braces to the tongue. Loosen the lock nut on the turnbuckle. Adjust turnbuckle to allow proper alignment of brace pins. Install pins. At this time hand tighten the lock nuts on the turnbuckle. See page 12 for details.

Flip open transport lockout bar from transport cylinder assembly (item # 11 on page 9). Secure the lockout bar on the cylinder anchor. Slowly activate the hydraulics of the tractor to lower the bucket frame from the transport position to the field position. **WARNING! TO AVOID INJURY, STAY CLEAR OF UNIT WHEN ACTIVATING HYDRAULICS!** Continue to retract cylinder until transport wheel axle is fully raised. Install transport assembly safety lock on the rear of the bucket. Secure it with safety pin (see page 15).

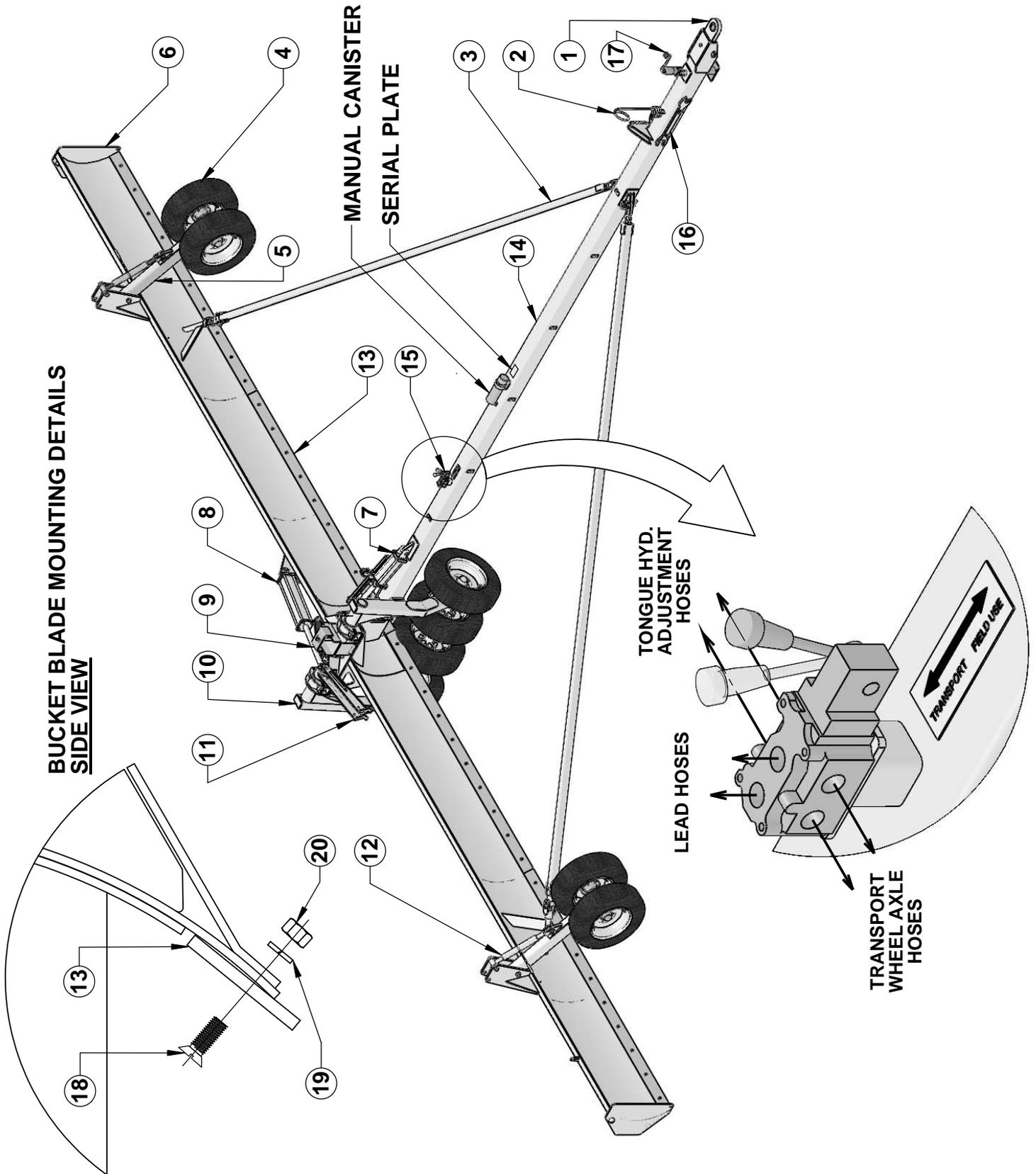
Locate the hydraulic assembly with the depth control. Rotate hydraulic valve handle, located near the hydraulic height adjustment assembly, from "Transport" to the "Field Use" position. See page 9 for details. Loosen the striker plate knob to set the desired operating depth. Refer to page 6 for instructions for hydraulic adjustment. It is recommended that the unit be set shallow at the beginning of the operation so as to make sure all proper adjustments have been made. Activate the tractor hydraulics to raise and lower the bucket frame.

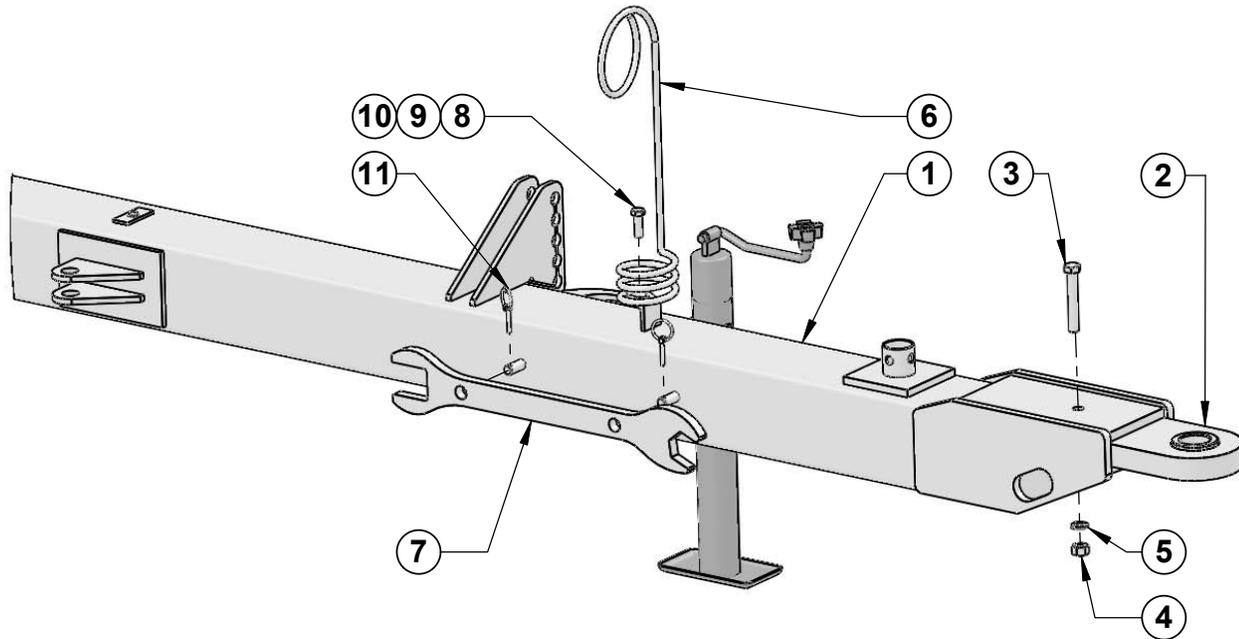
A good starting point is to have the bucket frame positioned straight up and down. Adjust gauge leg assemblies to allow the bottom of the gauge tires to be about the same depth as the bucket blade. As mentioned, a shallow setting is recommended making minor adjustments at a time. If the unit is trailing and the bucket frame remains in a 90 degree position behind the tractor, tighten the lock nuts on the brace turnbuckles. If the bucket frame is pulling to the left or right, make the proper adjustments to the tongue brace turnbuckles to align the bucket frame. After the bucket frame is aligned properly, tighten and secure locknuts on turnbuckles.

These recommendations are general in nature and will not be the same for every machine in every condition. Remember, small adjustments make a big difference. When preparing the unit for transport, reverse these procedures remembering to always install all safety locks and chains. In order to fold the tongue, raise left gauge tire to allow the tongue to travel underneath the gauge tires.



<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-00C200	CA III Hitch	1
	SGB-00C300	CA IV Hitch (Optional)	1
2.	91798A	Hose Holder	1
3.	SGB-00B100	Tongue Brace	2
4.	GWT-75D15	Trailer Tire w/ Wheel Assembly	8
5.	SGB-00G100	Gauge Leg	2
6.	SGB-40A100	Bucket Frame	1
7.	GHC-35100T	3-1/2" X 10" Tie Rod Hyd. Cylinder	1
8.	GHC-40200T	4" X 20" Tie Rod Hyd. Cylinder	1
9.	SGB-00B305	Brace Saddle Cover	1
10.	SGB-00F100	Transport Wheel Axle	1
11.	GWD-420LB1	4" X 20" Cylinder Lockout Bar	1
12.	SGB-00G200	Gauge Leg Ratchet	2
13.	SGB-10A200	10 Ft. Bucket Blade	4
14.	SGB-00C100	Tongue	1
15.	V06WAYDIV	Diverter Valve	1
16.	SGB-00B400	Double Sided Wrench	1
17.	GJK-5KTW15	Jack Stand 5000# cap.	1
18.	PBNC-10036	5/8" X 2-1/4" NC Plow Bolt	30 or 40
19.	LWASHER-10	5/8" Lock Washer	30 or 40
20.	HXNUT-10NC	5/8" NC Hex Nut	30 or 40

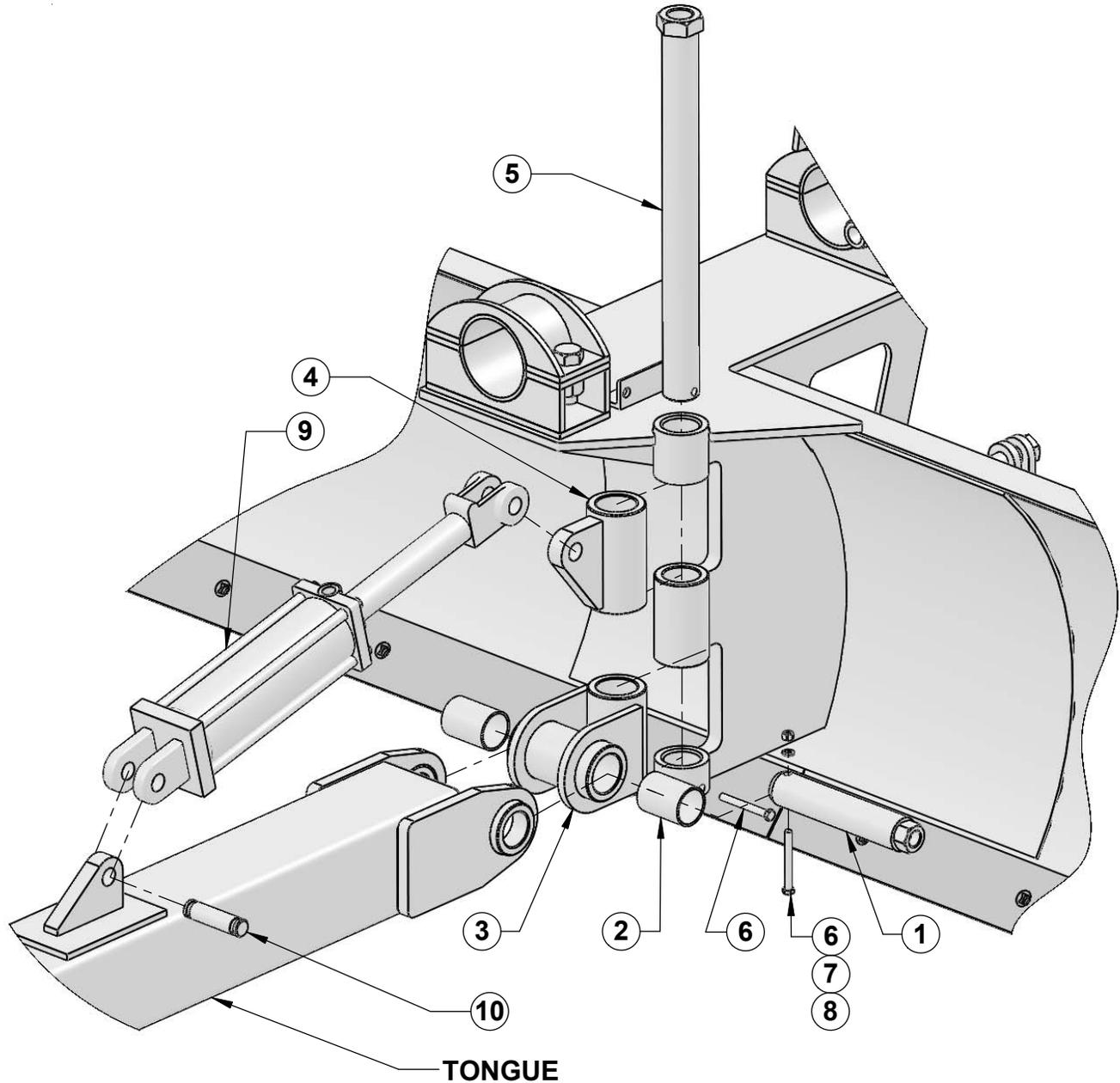




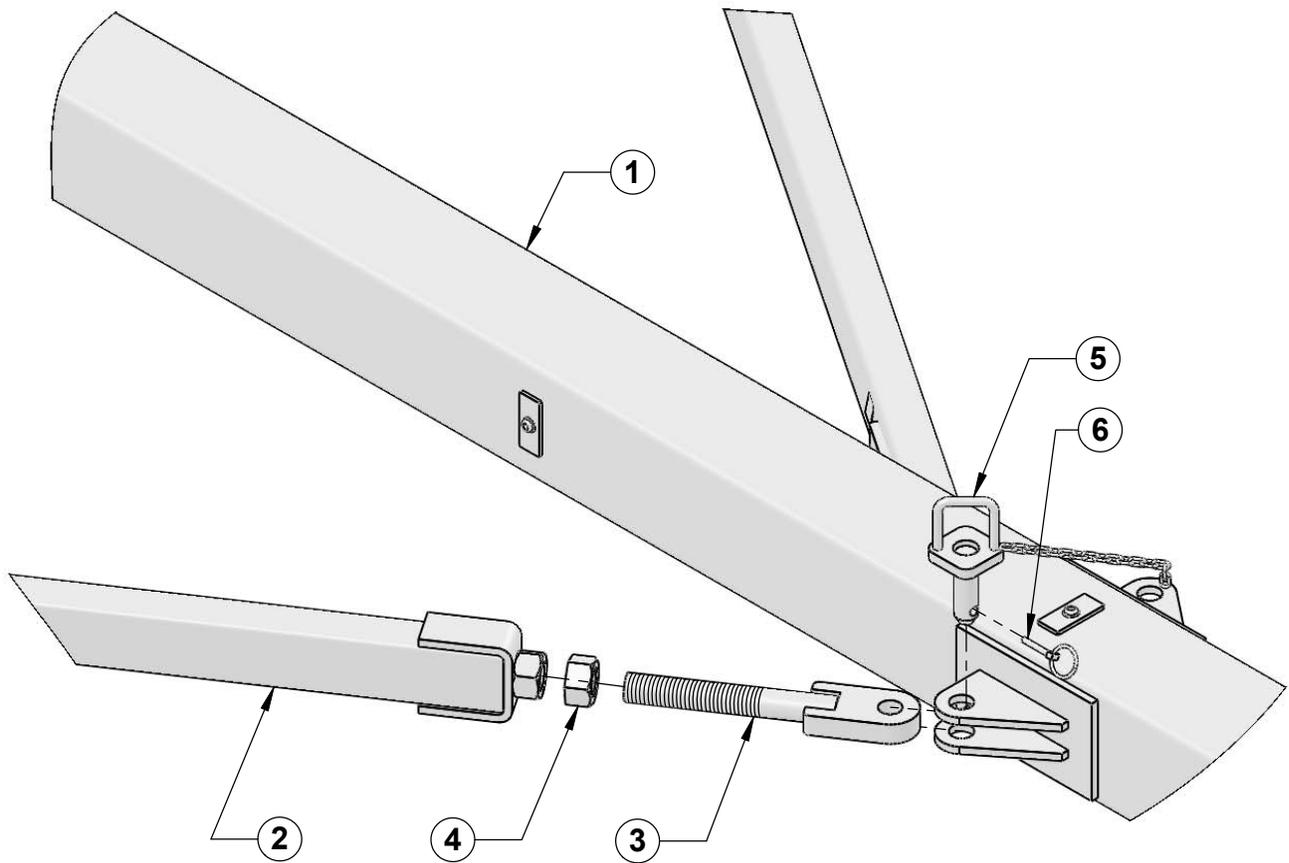
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-00C100	Tongue	1
2.	SGB-00C200	CA III Hitch Plate	1
	SGB-00C300	CA IV Hitch Plate (Optional)	1
3.	CSNC510056	5/8" X 3-1/2" Gr. 5 NC Cap Screw (Shear Bolt)	1
4.	HXNUT-10NC	5/8" NC Hex Nut	1
5.	LWASHER-10	5/8" Lock Washer	1
6.	GHD-HHOLD1	Hose Holder	1
7.	SGB-00B400	Double Sided Wrench	1
8.	CSNC508024	1/2" X 1-1/2" Gr.5 NC Cap Screw	1
9.	LWASHER-08	1/2" Lock Washer	1
10.	HXNUT-08NC	1/2" NC Hex Nut	1
11.	GPN-040LYN	1/4" Lynch Pin	2



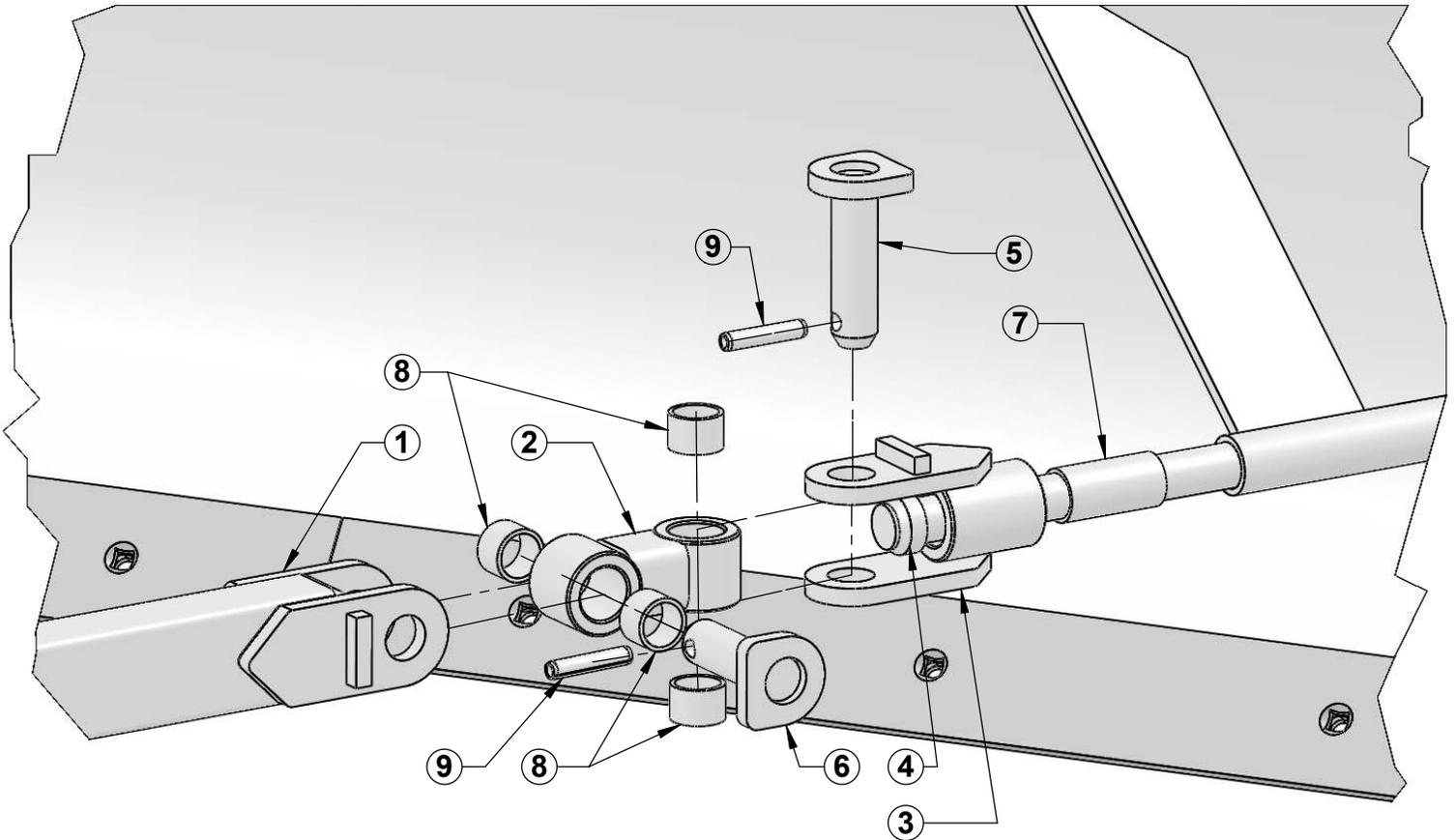
T. G. SCHMEISER CO., INC. TONGUE TO MAIN FRAME MOUNT ASSY



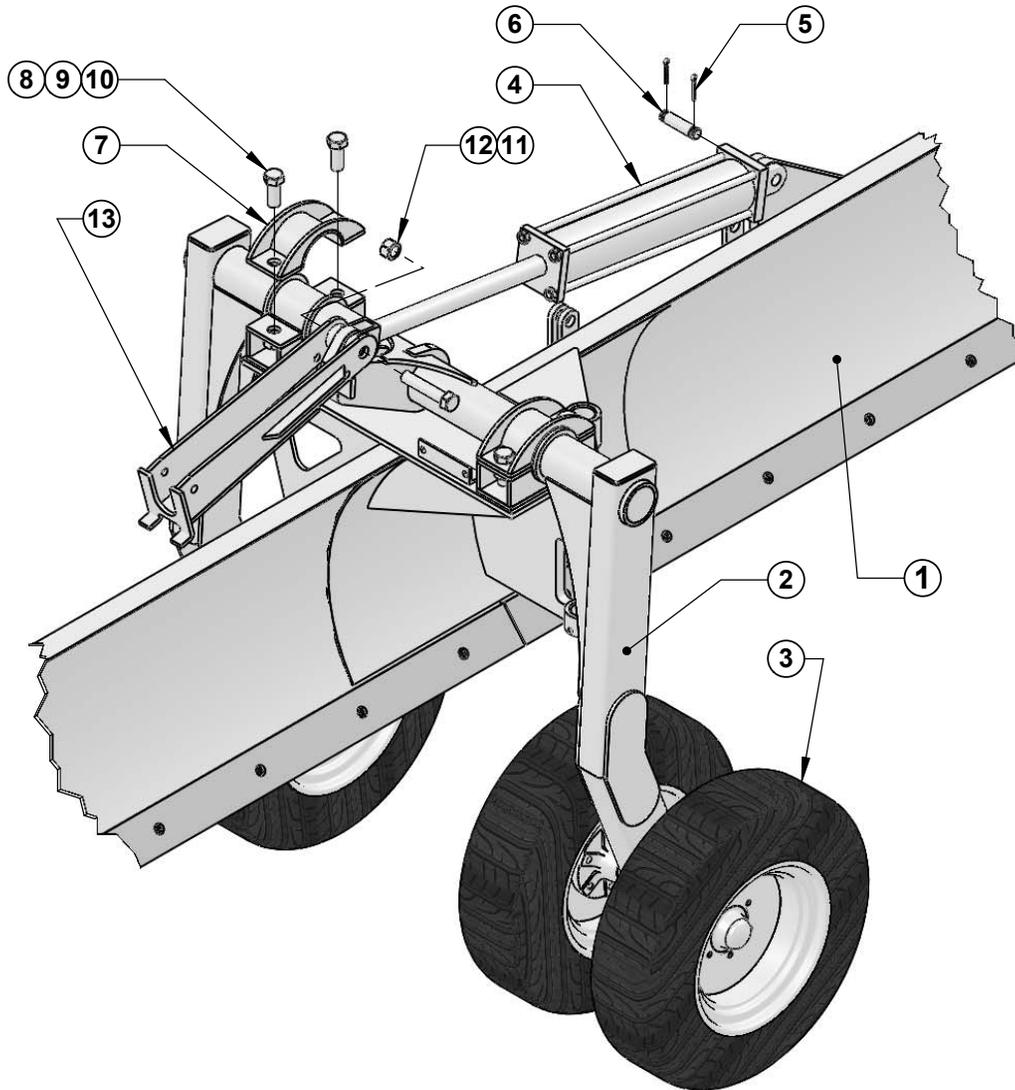
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	FTB4-00M206	Pivot Pin	1
2.	GBR-3236G48	2" X 2-1/4" X 3" Long Bushing	2
3.	SGB-00D100	Tongue Mount Pivot	1
4.	SGB-00D200	Cylinder Mount Pivot	1
5.	SGB-00A300	Hinge Pin	1
6.	CSNC506056	3/8" X 3-1/2" Gr.5 NC Cap Screw	2
7.	LWASHER-06	3/8" Lock Washer	2
8.	HXNUT-06NC	3/8" NC Hex Nut	2
9.	GHC-35100T	3-1/2" X 10" Tie Rod Hydraulic Cylinder	1
10.	GPN-1656HC	1" X 3-1/2" Cylinder Pin	1



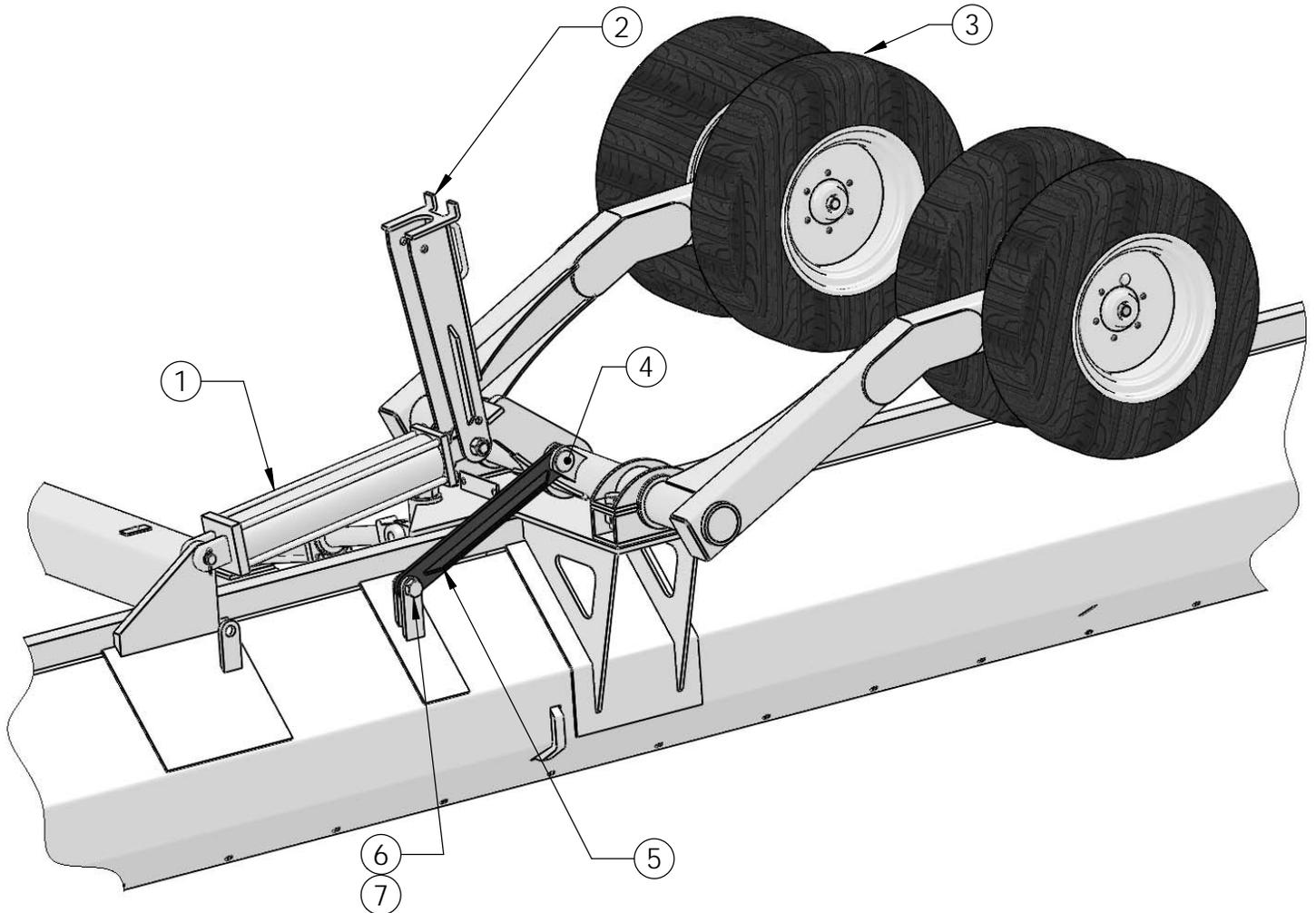
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-00C100	Tongue	1
2.	SGB-00B100	Tongue Brace (R.H. shown)	2
3.	SGB-00B200	Brace Adjustment Screw	2
4.	HXNUT-20NC	1-1/4" NC Hex Nut	2
5.	SGB-00E600	Brace to Tongue Mount Pin	2
6.	GPN-070LYN	7/16" Lynch Pin	2



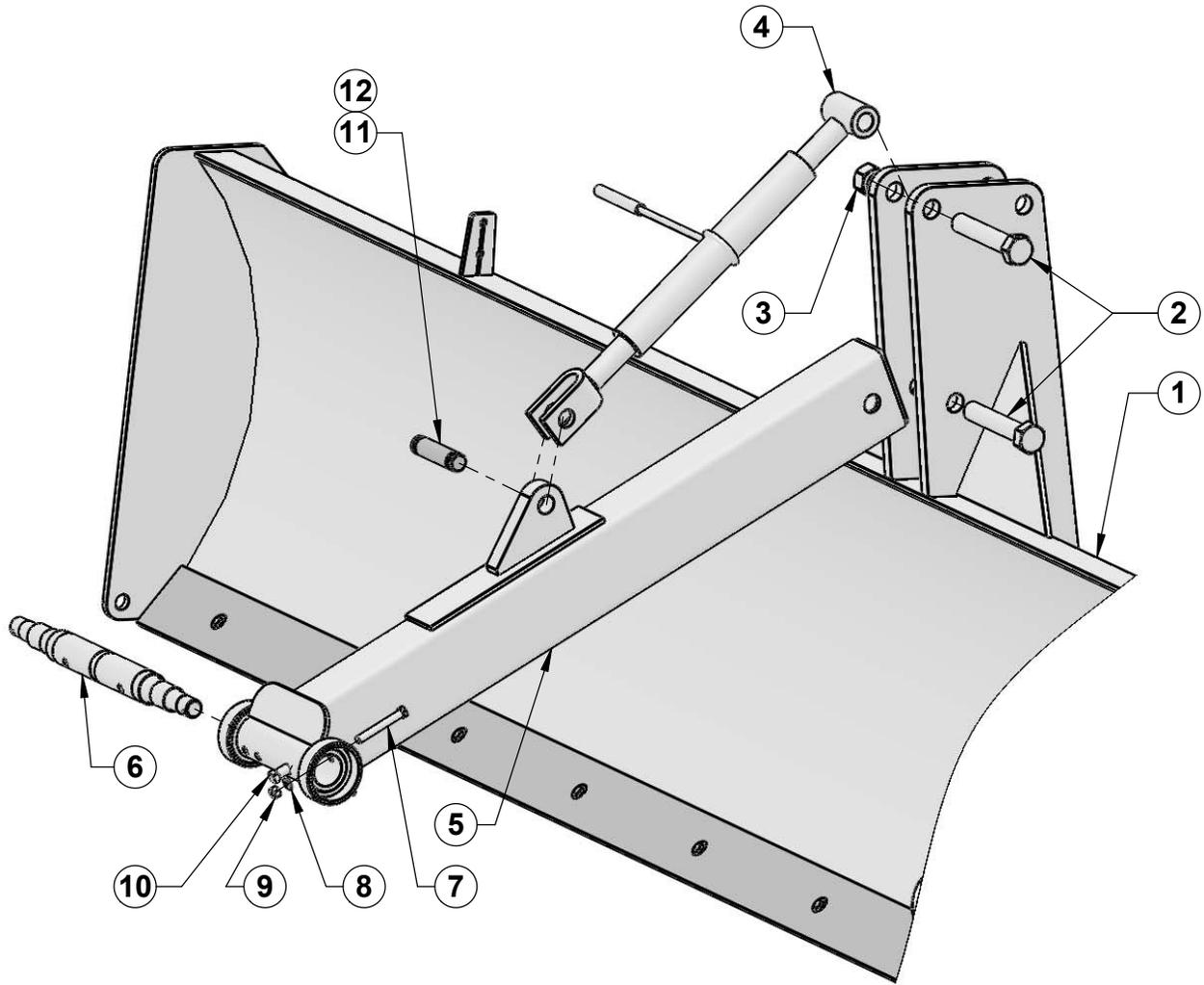
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-00B100	Tongue Brace	2
2.	SGB-00E300	Swivel Coupler	2
3.	SGB-00E200	Brace Swivel Clevis	2
4.	SGB-00E100	Pivot Pin	2
5.	SGB-00E400	Brace Mount Pin Long	2
6.	SGB-00E500	Brace Mount Pin Short	2
7.	GBR-2024G48	Bushing 1-1/4" x 1-1/2" x 3" Long	2
8.	GBR-2024G16	Bushing 1-1/4" x 1-1/2" x 1" Long	8
9.	GPN-08X40R	1/2" x 2-1/2" Roll Pin	4



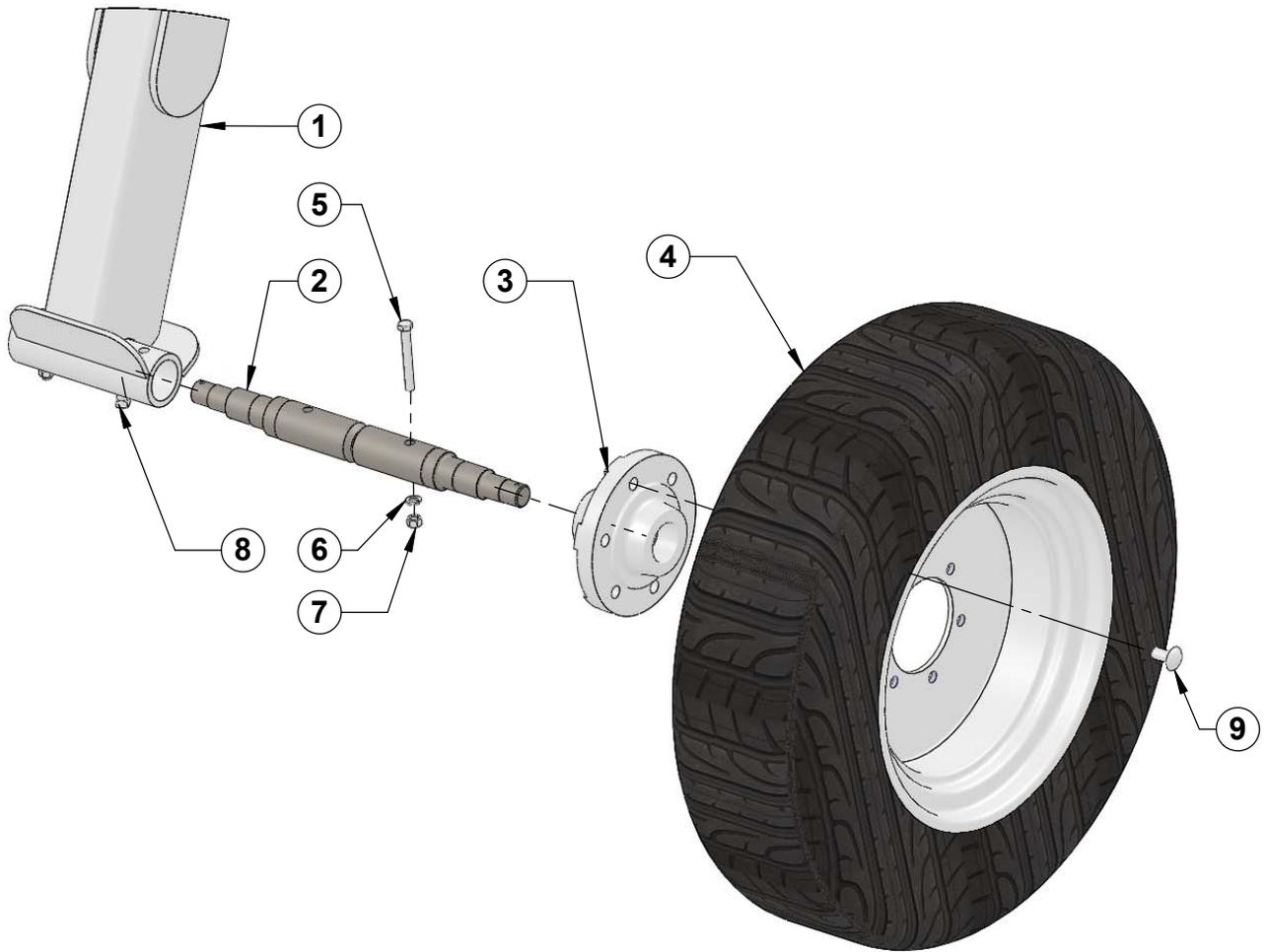
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-40A100	Bucket Frame	1
2.	SGB-00F100	Wheel Axle	1
3.	GWT-75D15	Trailer Tire/Wheel Assembly	4
4.	GHC-40200T	4" X 20" Hydraulic Cylinder	1
5.	GPN-03CLIP	Hair Clip Pin	2
6.	GPN-1664HC	1" x 4" Cylinder Pin	1
7.	PTU-00B200	Bearing Housing Cap	2
8.	CSNC516040	1" x 2-1/2" NC Cap Screw	4
9.	LWASHER-16	1" Lock Washer	4
10.	HXNUT-16NC	1" NC Hex Nut	4
11.	CSNC516080	1" x 5" NC Cap Screw	1
12.	NYNUT-16NC	1" NC Nylon Lock Hex Nut	1
13.	GWD-420LB1	4" x 20" Cylinder Lockout	1



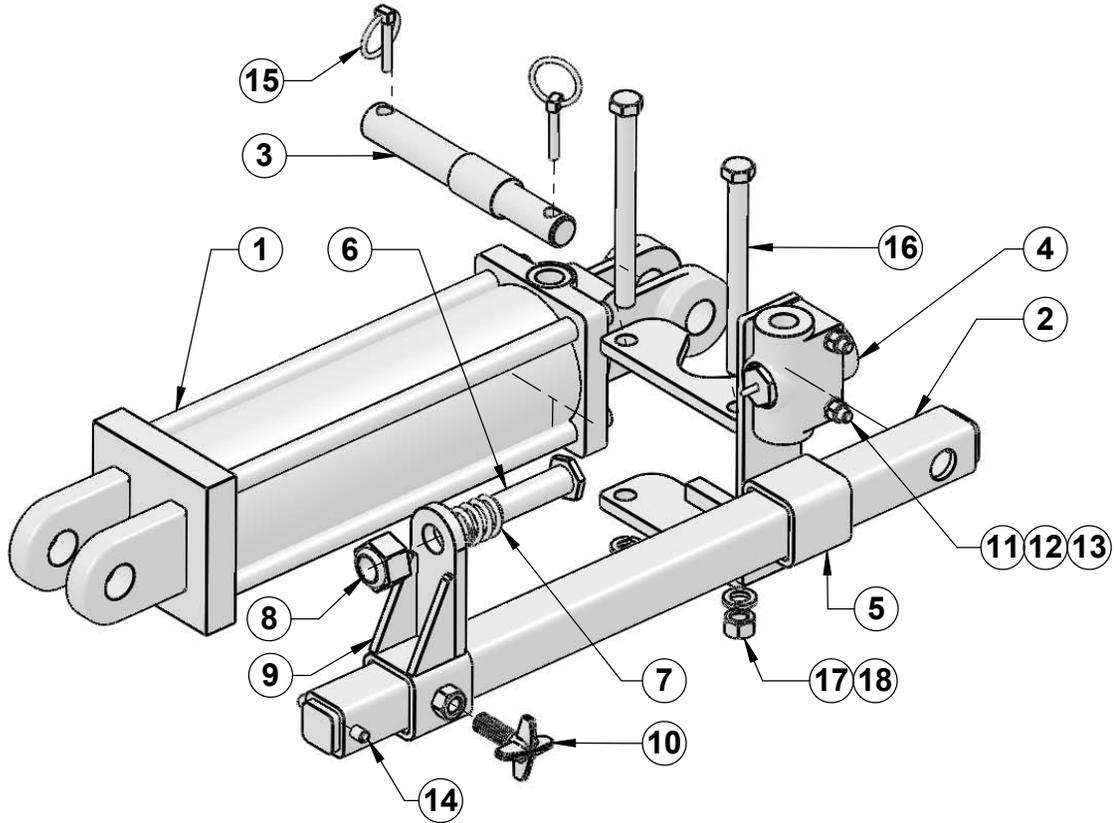
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	GHC-40200T	4" X 20" Hydraulic Cylinder	1
2.	GWD-420LB1	4" X 20" Cylinder Lockout Bar	1
3.	GWT-75D15	Trailer Tire / Wheel Asselbmy	8
4.	GPN-16X040	1" X 2-1/2" Lockout Pin	1
5.	SGB-00F300	Field Use Lockout Bar	1
6.	CSNC516040	1" X 2-1/2" NC Cap Screw Gr.5	1
7.	NYNUT-16NC	1" Nylon Lock Hex Nut	1



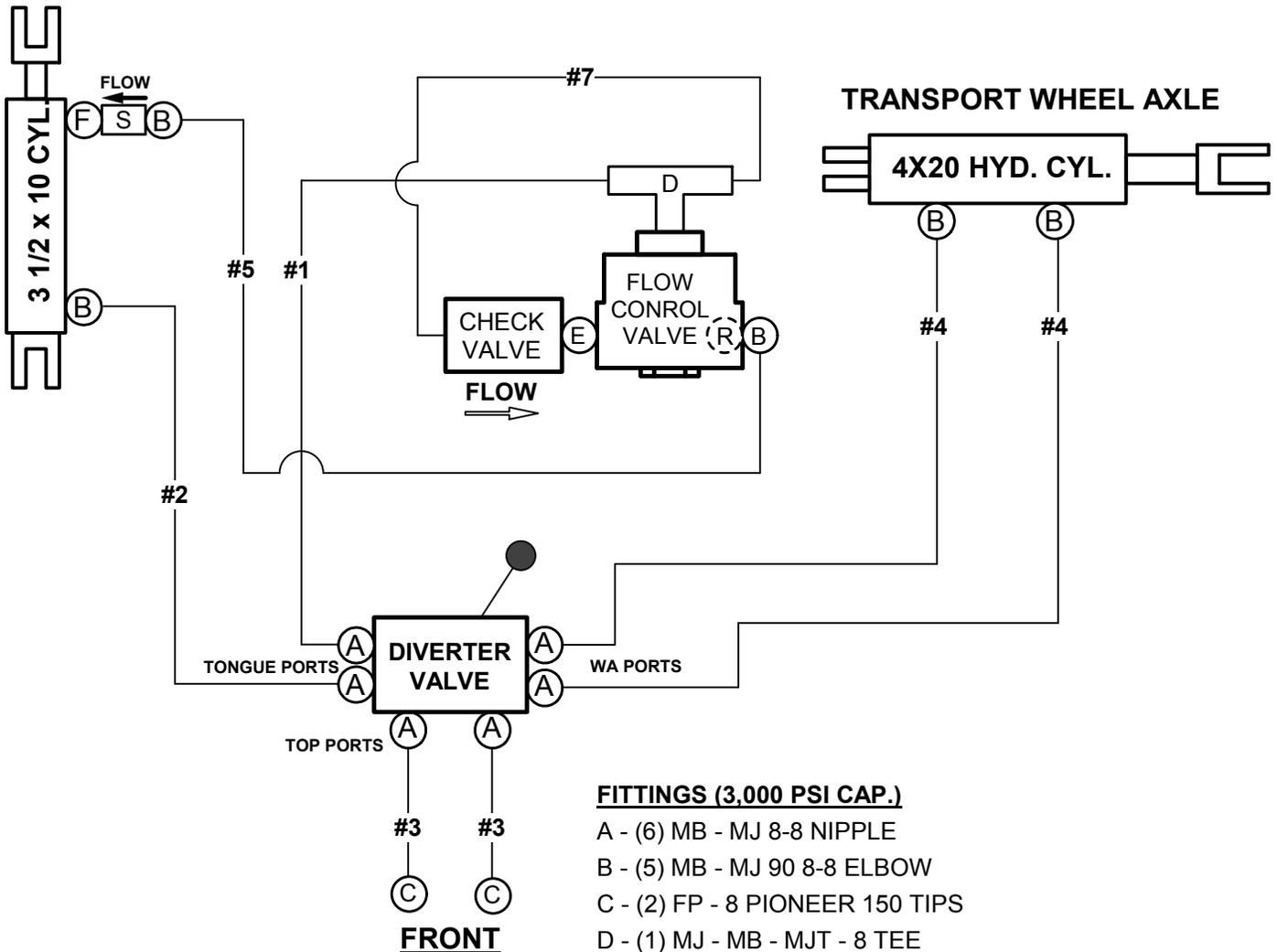
<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-40A100	Bucket Frame	1
2.	CSNC516096	1" X 6" Gr.5 NC Cap Screw	4
3.	NYNUT-16NC	1" NC Nylon Lock Hex Nut	4
4.	SGB-00G200	Ratchet	2
5.	SGB-00G100	Gauge Leg	2
6.	SGB-00F200	1-3/4" Double Ended Removable Spindle	2
7.	CSNC507056	7/16" X 3-1/2" Gr.5 NC Cap Screw	4
8.	LWASHER-07	7/16" Lock Washer	4
9.	HXNUT-07NC	7/16" NC Hex Nut	4
10.	SSNCS08X16	1/2" X 1" NC Set Screw	4
11.	GPN-1656HC	1" Cylinder Pin	2
12.	GPN-03CLIP	Hair Clip Pin	4



<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-00F100	Wheel Axle	1
	SGB-00G100	Gauge Leg	2
2.	SGB-00F200	1-3/4" Double Ended Removable Spindle	4
3.	GHB-6X55HW	6" X 5-1/2" Trailer (Highway) Hub	8
4.	GWT-75D15	Trailer Tire/ Wheel Assembly	8
5.	CSNC507056	7/16" X 3-1/2" Gr.5 NC Cap Screw	8
6.	LWASHER-07	7/16" Lock Washer	8
7.	HXNUT-07NC	7/16" NC Hex Nut	8
8.	SSNCS08X16	1/2" X 1" NC Set Screw	8
9.	WHB-08X016	1/2" X 1" Wheel Bolt	48



<u>Ref No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1.	SGB-35100T	3-1/2" X 10" Tie Rod Hyd. Cylinder	1
2.	SGB-00H300	Hyd. Adjustment Tube	1
3.	SGB-00H400	Hyd. Adjustment Pin	1
4.	V08CHMJMJ88	Check Valve	1
5.	SGB-00H700	Valve Mount	1
6.	SGB-00H601	Adjustment Bolt	1
7.	GSR-CM1816	Compression Spring	1
8.	NYNUT-12NC	3/4" NC Nylon Lock Hex Nut	1
9.	SGB-00H200	Striker Plate	1
10.	GMB-KNOB01	Clamping Knob	1
11.	CSNC505040	5/16" X 2-1/2" NC Cap Screw	2
12.	LWASHER-05	5/16" Lock Washer	2
13.	HXNUT-05NC	5/16" NC Hex Nut	2
14.	GPN-05X40R	5/16" Roll Pin	1
15.	GPN-070LYN	7/16" Lynch Pin	2
16.	CSNC508096	1/2" X 6" NC Cap Screw Gr.5	2
17.	HXNUT-08NC	1/2" NC Hex Nut	2
18.	LWASHER-08	1/2" Lock Washer	2



FITTINGS (3,000 PSI CAP.)

- A - (6) MB - MJ 8-8 NIPPLE
- B - (5) MB - MJ 90 8-8 ELBOW
- C - (2) FP - 8 PIONEER 150 TIPS
- D - (1) MJ - MB - MJT - 8 TEE
- E - (1) MB - FJX - 8-8 COUPLING
- F - (1) MB-MB 8-8 ADAPTER
- R - (1) VORIFICER1 ORIFICE RESTRICTOR
- S - (1) VRESTRICT3 HYD. FLOW RESTRICTOR

VALVES

- (1) REMOTE FLOW CONTROL VALVE 1/2" O - RING PORTS
- (1) CHECK VALVE
- (1) DIVERTER VALVE

HYDRAULIC CYLINDERS

- (1) 3-1/2" X 10" TIE ROD HYD. CYLINDER
- (1) 4" X 20" TIE ROD HYD. CYLINDER

8M3K MTF HOSE (3,000 PSI CAP.)

- #1 - (1) 8FJX 90 - 8FJX 90 53" LONG
90° Stems point in opposite directions
- #2 - (1) 8FJX - 8FJX 90 38" LONG
- #3 - (2) 8MP - 8FJX 90 290" LONG
- #4 - (2) 8FJX - 8FJX 90 100" LONG
- #5 - (1) 8FJX - 8FJX 90 12" LONG

6M3K HOSE (3,000 PSI CAP.)

- #7 - (1) 6G/8FJX90S - 6G/8FJX90S
9-1/2" LONG
90° Stems point in same direction

T.G. SCHMEISER CO., INC.®

Limited Warranty Statement

T. G. Schmeiser Co., Inc. warrants each new Schmeiser® product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed twelve (12) consecutive months from the date of delivery of the new Schmeiser product to the original purchaser.

Genuine T. G. Schmeiser Co., Inc. replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through T. G. Schmeiser Co., Inc.

The Company in no way warrants engines, batteries, cylinders, tires or other trade accessories since these items are warranted separately by their respective manufacturer. Expendable components such as points, shanks, blades, rings, bearings, teeth, and the like are excluded from this warranty.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to T. G. Schmeiser Co., Inc., routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render T. G. Schmeiser Co., Inc. liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, substitute machinery, rental or for any other reason.

Except as set forth above, **T. G. Schmeiser Co., Inc. shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. T. G. Schmeiser Co., Inc. makes no other warranty, expressed or implied, and, specifically, T. G. Schmeiser Co., Inc. disclaims any implied warranty or merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.**

This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

T. G. Schmeiser Co., Inc. reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify or enlarge this warranty nor the exclusion, limitations and reservations.

**WARRANTY VOID IF NOT REGISTERED
WITHIN 30 DAYS OF PURCHASE DATE**