

SNOW - WHEEL SYSTEM



Installation - Maintenance

manual for 6,000 Series

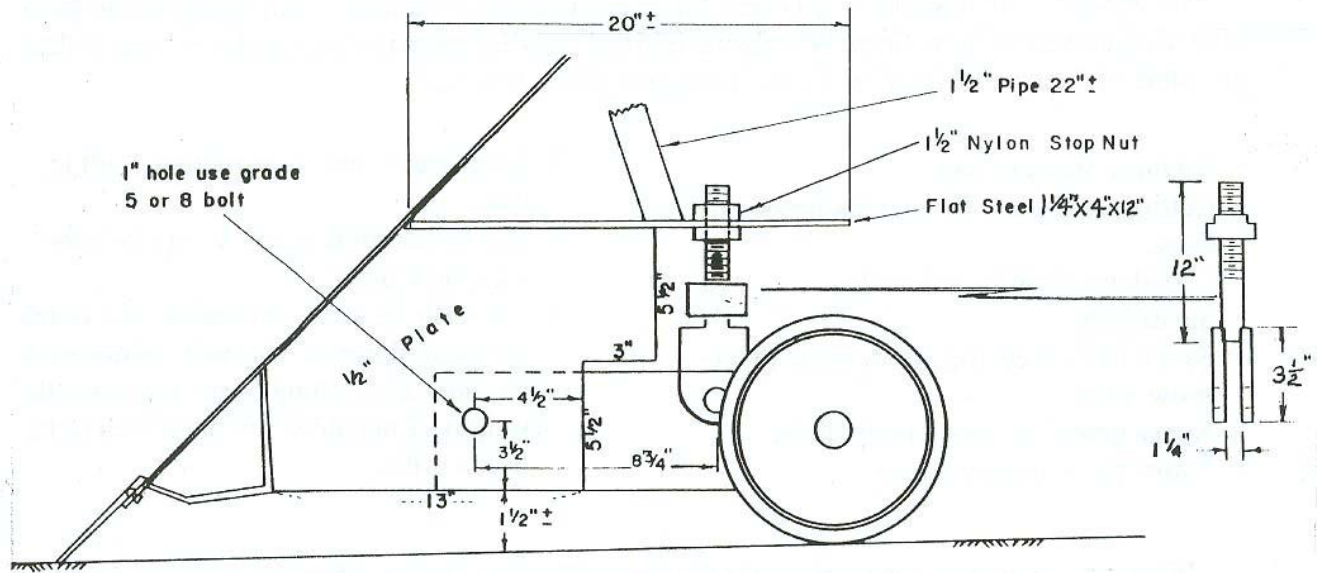
Single, Dual and Swivel Wheels

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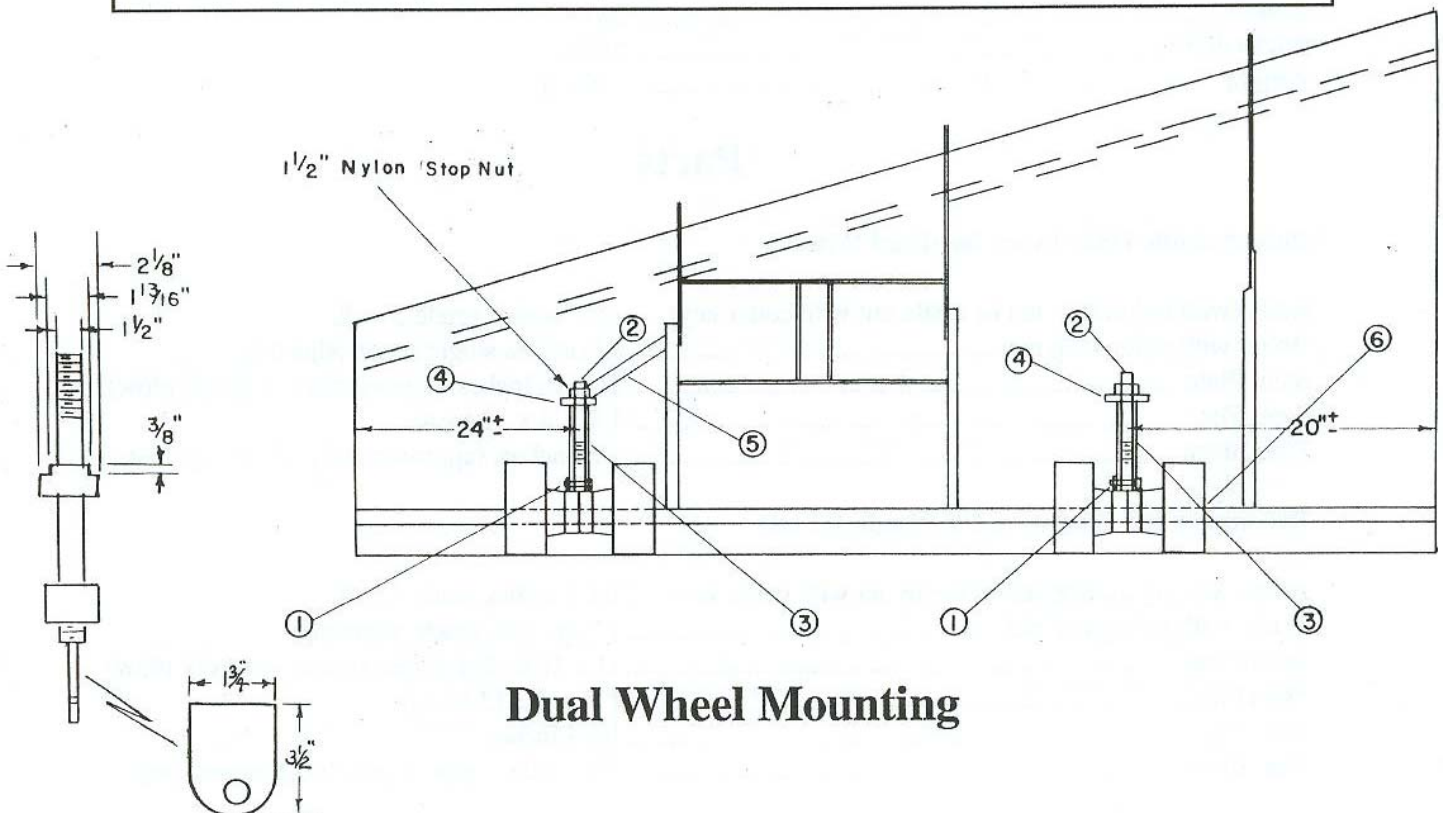
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CAUTION: This manual contains vital information for the effective installation and operation of Snow Wheels. **CAREFULLY** read this operator's manual before installing and operating.

Single Wheel Mounting



1. 1" bolt grade 5 or 8. Use stop nut or castle nut with cotter key. **"KEEP NUT TIGHT"**.
2. 1 1/2" single or dual adjustment bolts with springs shocks and nylon stop nuts.
3. 1/2" steel plate cut to fit plow. Approximately 11" x 16".
4. 1 1/4" x 4" x 12" welded to 1/2" plates.
5. 1 1/2" pipe brace approximately 22" long.
6. Trim with torch for wheel clearance.



Dual Wheel Mounting

Description

Snow Wheels are designed to go where the original shoe carriers were. They will give you years of service and satisfaction. Snow Wheels are rigid and will slide when the truck and plow turn. Below are some of the benefits you can expect from your Snow Wheels.

- No more shoes to buy.
- Cutting **edges** last for months instead of days.
- Cuts down **time** significantly.
- Saves **fuel**.
- Saves from **wearing** the bottom of the snow plow.
- Keeps **gravel** on road, not in ditch.
- Snow plow **pushes** easier.
- Extra heavy duty construction, built to **last**.
- Can be **adapted** to any V-type or one-way snow plow.
- Can also be used on **loader and truck** mounted blowers. This will **reduce** wear on shoes and cutting edges and carry the **weight** of the blower while traveling between drifts.

What may be even more significant is the **four to five** times longer **life** you can expect from the cutting edges. The Snow Wheel System will last for years. It keeps the cutting edge at the correct height at all times.

Specifications

Height	10.5 in.
Length	22 in.
Width of Tire	5.5 in.
Weight	125 lbs.

Parts

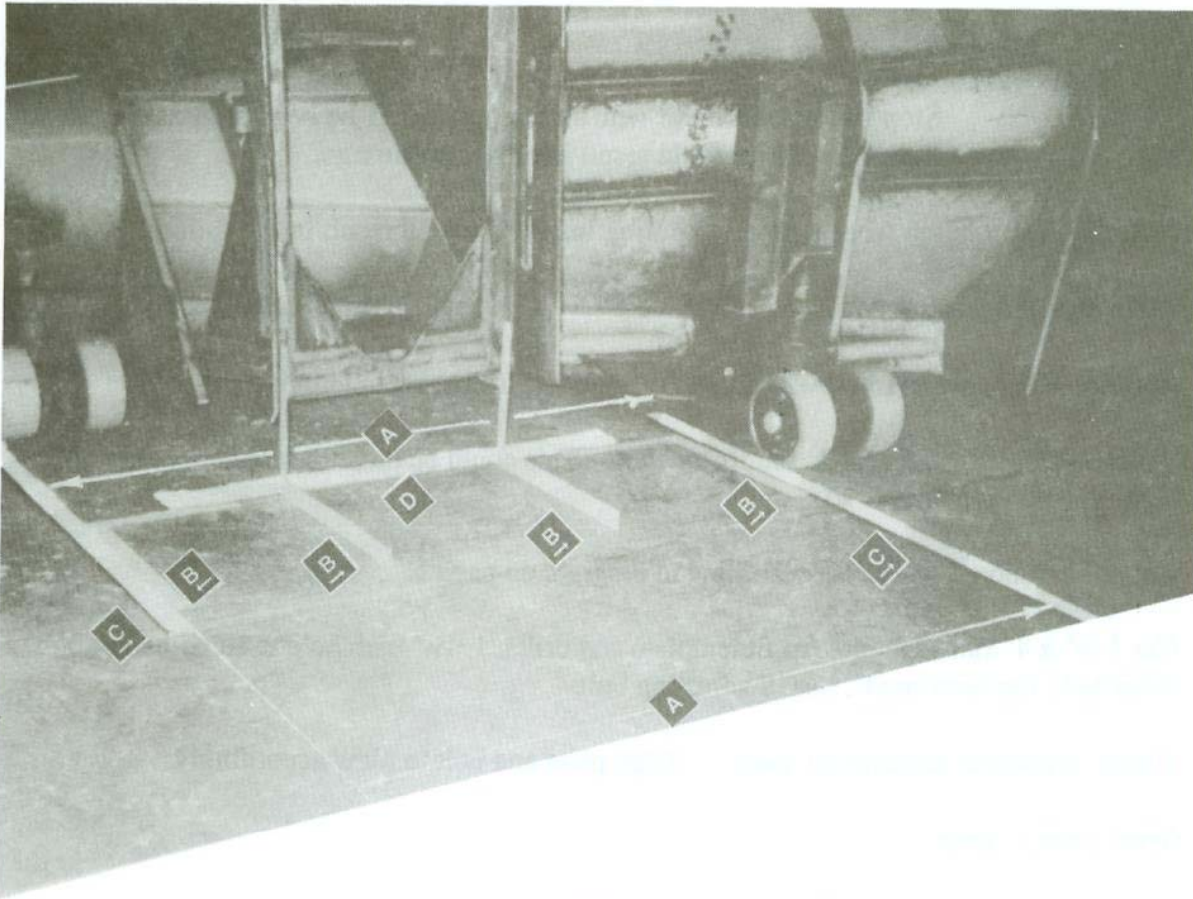
Recommended Hardware for (Dual Wheels)

Bolts (with nylon stop nut or castle nut with cotter key)	1 x 5 inches grade 5 or 8.
Bolts (with nylon stop nut)	1 ½ inches single spade adjusting.
Steel Plate	11 x 16 inches (approximate, cut to fit plow).
Steel Flat	1 ¼ x 4 x 12 inches.
Pipe Brace	1 ½ inches. (approximately) 22 inches long).

Recommended Hardware for (Single Wheel)

Bolts (with nylon stop nut or castle nut with cotter key)	1 x 5 inches grade 5 or 8.
Bolts (with nylon stop nut)	1 ½ in. dual spade adjusting.
Steel Plate	11 x 16 inches (approximate, cut to fit plow).
Steel Flat	1 ¼ x 4 x 12 inches.
Steel Pin	1 x 4 inches.
Pipe Brace	1 ½ inches (approximately) 22 inches long).

Wheel Alignment



Note: Failure to align wheels properly during installation will result in tire failure.

Dual Wheels Alignment Procedures

- Point A) should measure the same distance so Snow Wheels run parallel to each other.
- Point B) squared with straight edge D, or squared with push beams or push pins of plow.
- Point C) straight edges should be in line with wheels.
- Point D) straight edge should be squared with push beams or push pins.
- Point E) carpenter's framing square should be squared with straight edges D and C. This will line your wheels with push beams or push pins.

Single Wheel Alignment Procedure

Same procedures as above except you must shim wheel $\frac{1}{4}$ inch up before mounting to bracket. This will insure, when load is applied after mounting, that wheel sits flat.

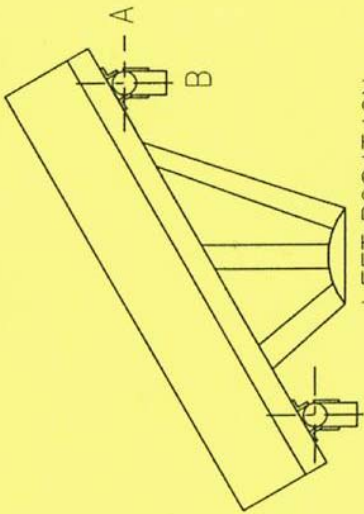
Wheel Mounting

CAUTION: Stop nut or castle nut with cotter key **MUST** be kept **tight** at all times. **Failure** to do so could result in property **damage**.

Note: Failure to align wheels properly during installation will result in tire failure.

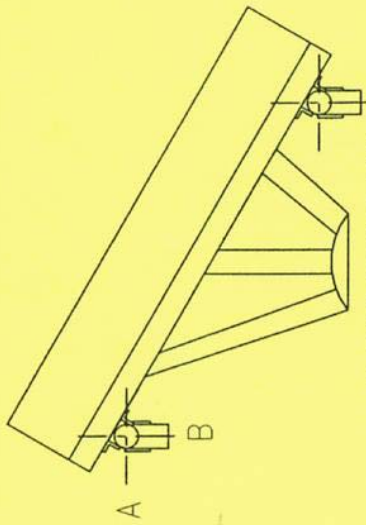
1. Make sure plow is flat on floor.
2. Roll Snow Wheels up to plow and position against plow to make templates.
3. Shim-up front tang of wheels four (4) inches. (This could be more or less depending on condition and type of plow).
4. Cut out cardboard templates according to diagram on page 1.
5. Cut 1 ¼" x 4" flat steel plate to fit template and drill a 1 13/16" inch hole to fit adjusting bolt. After hole has been made, install adjusting bolt.
6. Check alignment diagram on page 3. Align plate and bolt to plow accordingly.
7. Weld plate to plow.

Note: Install extra gussets to brackets for reinforcement.



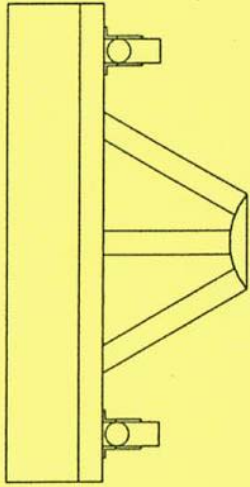
LEFT POSITION

(WHEELS MUST BE PLUMB IN BOTH DIRECTIONS) REFER TO "A" AND "B"



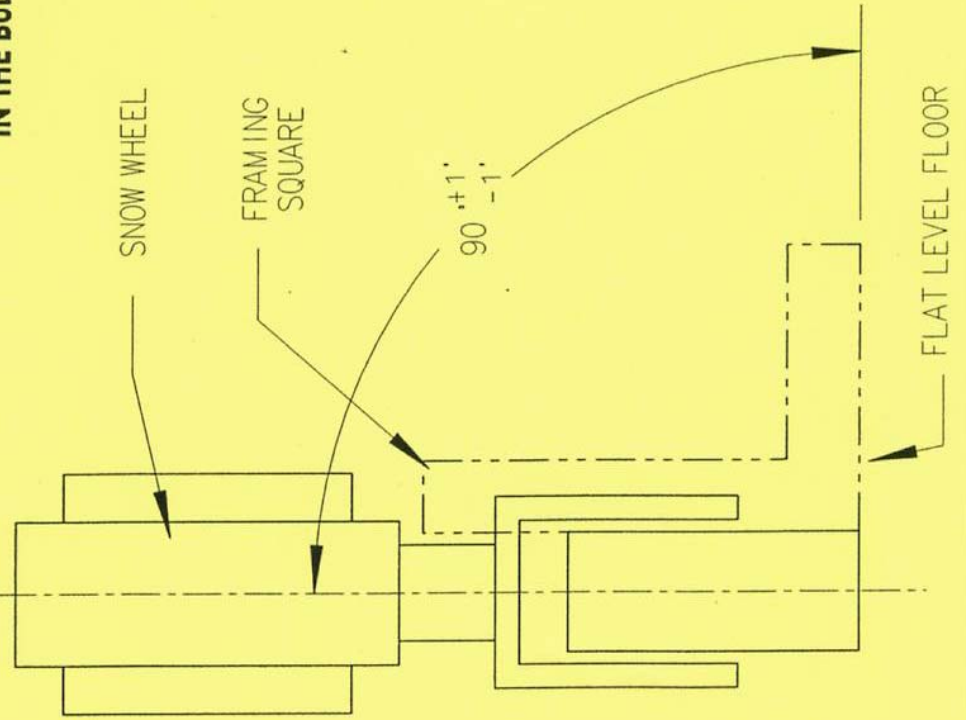
RIGHT POSITION

(WHEELS MUST BE PLUMB IN BOTH DIRECTIONS) REFER TO "A" AND "B"



BULL DOZER POSITION

CAUTION:
DO NOT ALIGN SNOW WHEEL IN THE BULL DOZER POSITION.



NOTE:

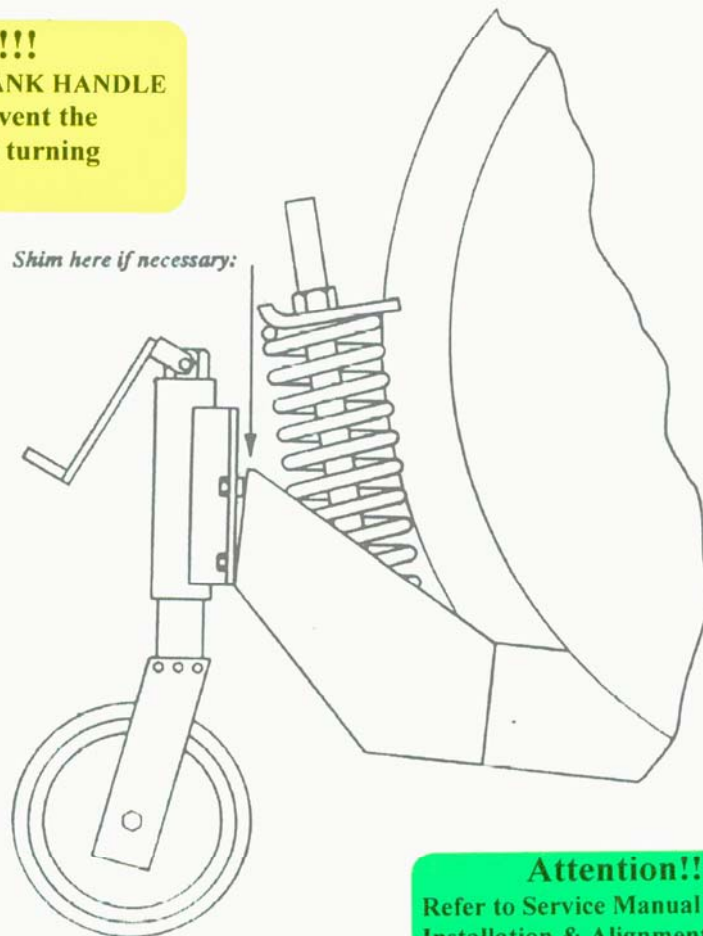
1. PLOW MUST BE MOUNTED TO TRUCK TO ALIGN OR CHECK ALIGNMENT OF SWIVEL WHEELS.
2. WHEELS MUST BE ABLE TO SWIVEL 360 DEGREES WITHOUT ANY INTERFERENCE.

SNOW WHEEL SYSTEM	
6509 SWIVEL WHEEL APP'L	
DWG BY: TJB	DATE: 04/07/02 REV: 12/27/02
SCALE: NONE	

Swivel Wheel Alignment

Caution!!!!

DO NOT REMOVE CRANK HANDLE
This is a stop to prevent the
adjusting screw from turning



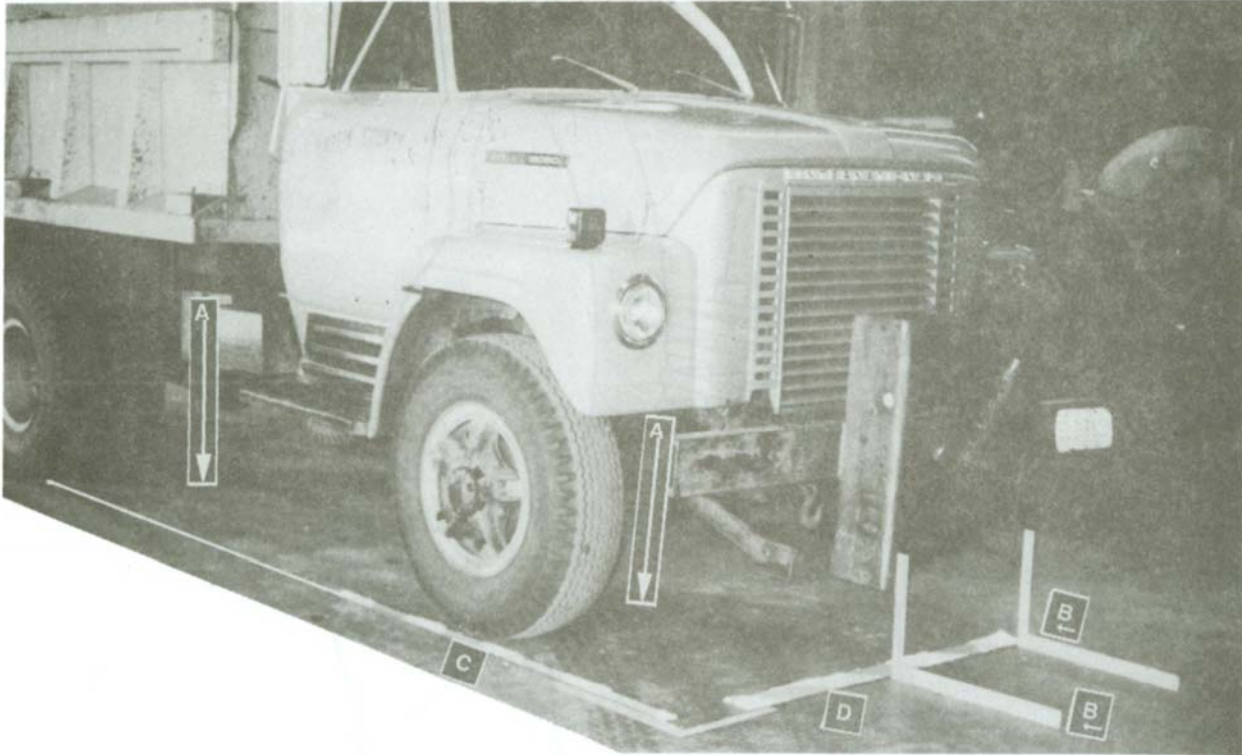
Attention!!!!

Refer to Service Manual for proper
Installation & Alignment of wheels.
Improper alignment will cause early
tire failure.

Note: Adjust Snow Wheels on clean flat floor.

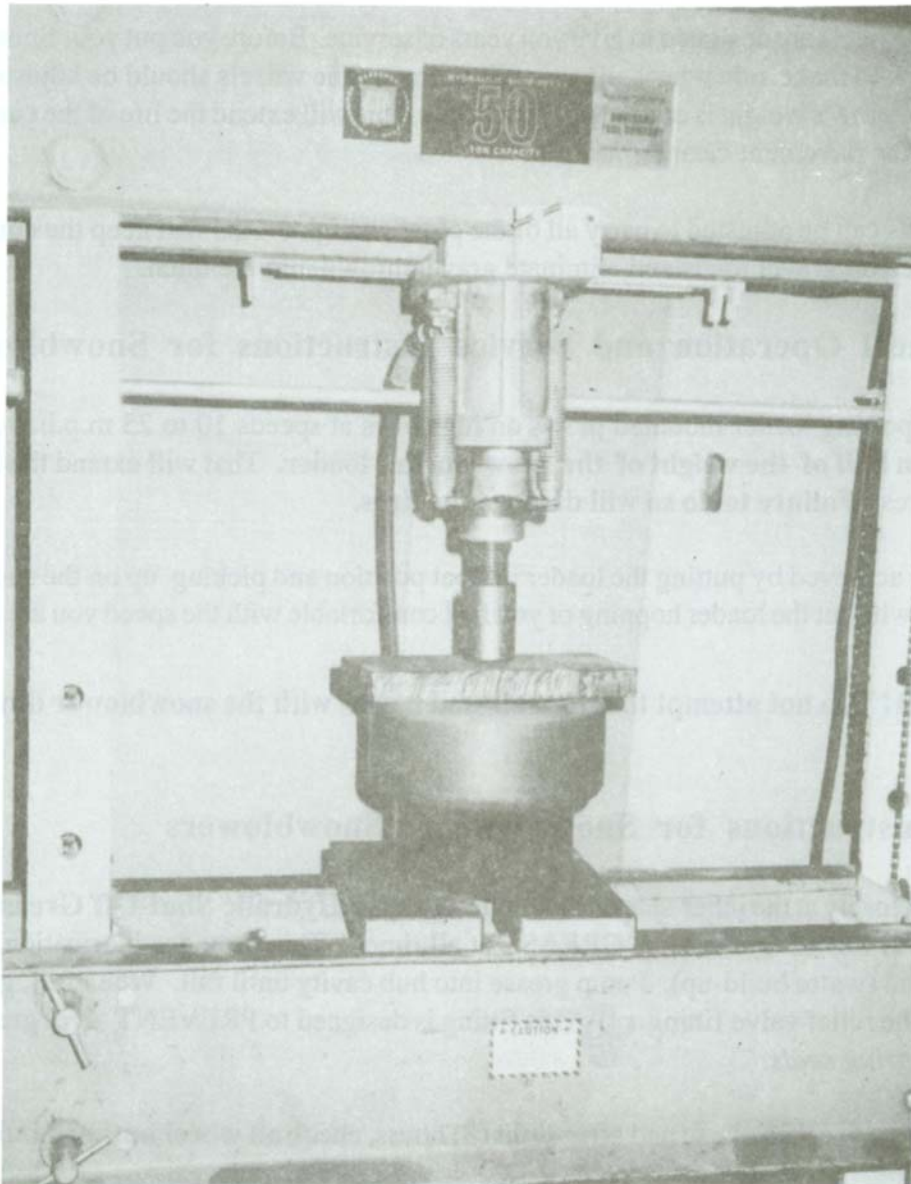
1. Reverse plow 90° to the right and shim wheel so tire sits flat on the floor.
2. Raise plow slightly to make sure wheel rotates 360°. If not, trim for clearance.
3. Reverse plow clear to the left and shim wheels so tire sits flat on the floor.
4. Repeat step no. 2.
5. Be sure to **add gusset's** to reinforce plow if you have to trim plow.

Truck Alignment



- A. Plumb down from truck frame at two points. Mark floor and measure out 34 inches from each mark. Snap a string line from front of truck to rear of truck. Lay straight edge along line.
- B.
& Straight edge should be squared with push beams or push pins.
- D.
- C. Straight edge C and straight edge D should be squared. Then push beams or push pins are squared with truck frame and wheels. If not square, push beams and push pins must be altered to be square.

New Tire Replacement



1. Cut old tire from rim with torch or hack saw.
2. Remove old ring. Clean burrs and rust from old rim.
3. Wipe a light coat of oil on rim and inside of new tire.
4. Place rim on a solid piece of steel that's somewhat larger than the rim itself, and place under your shop press.
5. Place the new tire on top of rim.
6. Place a piece of steel plate, approximately 1 x 6 x 10 inches on top of tire. Start pressing tire making sure the tire is going on straight.
7. If tire should start going crooked, move tire to the high side of press and ram until the tire is straight. Move back to center and continue pressing tire on rim.
8. Tires usually go on at about 8 to 10 tons of pressure.
9. If you should have any problems, please call Snow Wheel System, Inc. at (507) 238-1980. Ask for Ethan or Bob and we will be glad to help you.

Operations

• Snow Wheel Operation for Snowplows

Your Snow Wheels are designed to give you years of service. Before you put your Snow Wheels on the road check to make sure wheel alignment is correct. The wheels should be adjusted so that about 85% of the plow's weight is carried on the wheels. This will extend the life of the cutting edge and still scrape the pavement clean.

Snow Wheels can be adjusted to carry all of the plow's weight. This will keep the cutting edge above the surface on gravel roads and eliminate gravel thrown into the ditch.


• Snow Wheel Operation and Service Instructions for Snowblowers

When transporting loader mounted plows on highways at speeds 10 to 25 m.p.h. you should carry **more than half of the weight of the plow on the loader**. That will extend the life of the Snow Wheel tires. **Failure to do so will damage the tires.**

This can be achieved by putting the loader in float position and picking up on the snowblower until you travel without the loader hopping or you feel comfortable with the speed you are traveling.

Caution: Do not attempt to cross railroad tracks with the snowblower down on the Snow Wheels.

• Service Instructions for Snowplows & Snowblowers

If you look closely at the inner side of each hub, there is a **Hydraulic Shut-Off Grease Fitting**. Make sure hub is full of **QUALITY GREASE** at all times. This provides lubrication, prevents condensation and (water build-up). Pump grease into hub cavity until full. When full, grease will discharge from the relief valve fitting.  This fitting is designed to **PREVENT** over greasing and blowing out *bearing seals*.

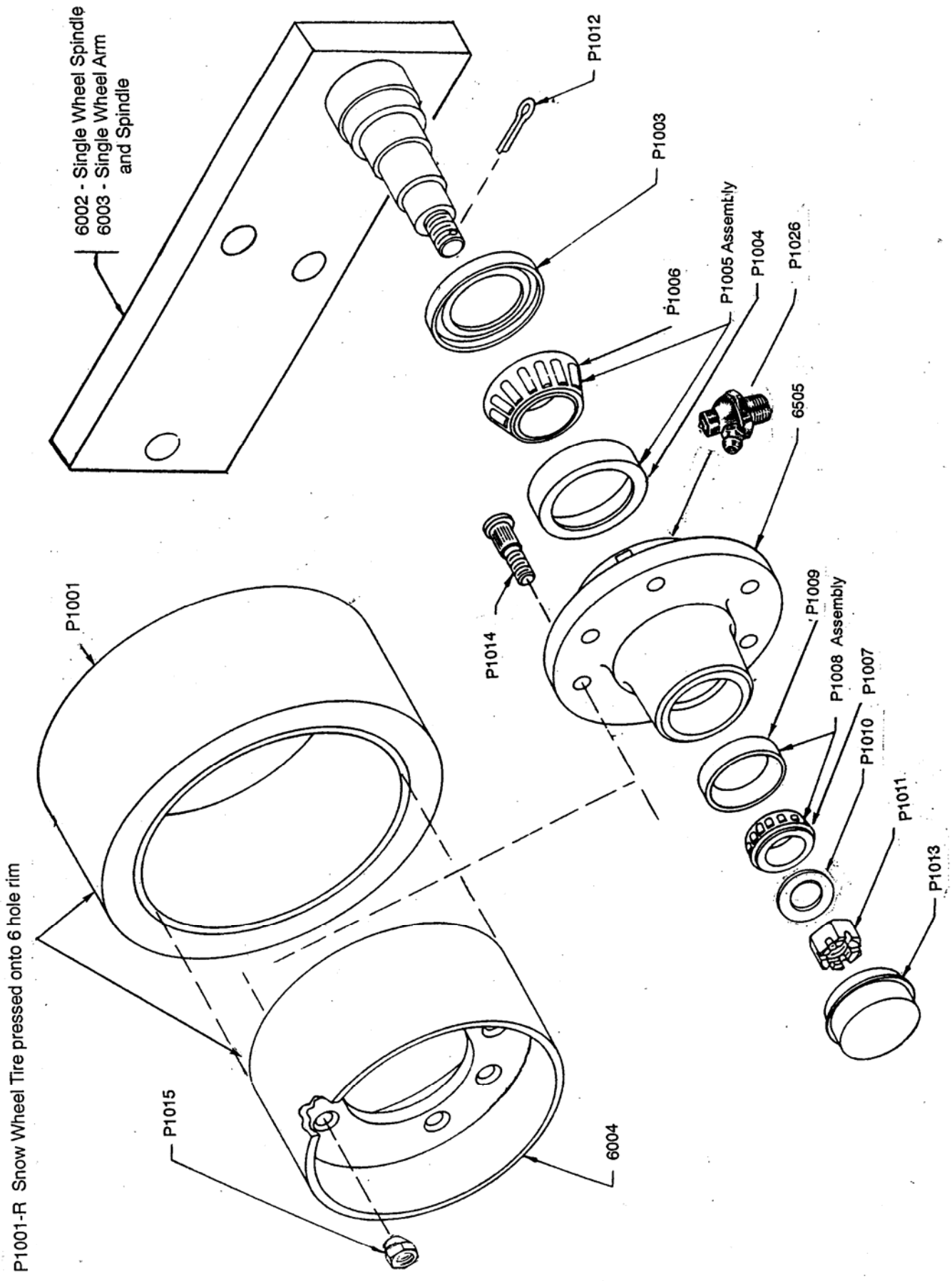
The first **four (4)** hours of use and after **eight (8)** hours, check **all wheel nuts and hub caps** for tightness.

Re-pack wheel bearing every 5,000 plow miles OR ONCE A YEAR at the end of the snow season. **Make sure hubs are full of QUALITY grease to prevent condensation and water build up.**

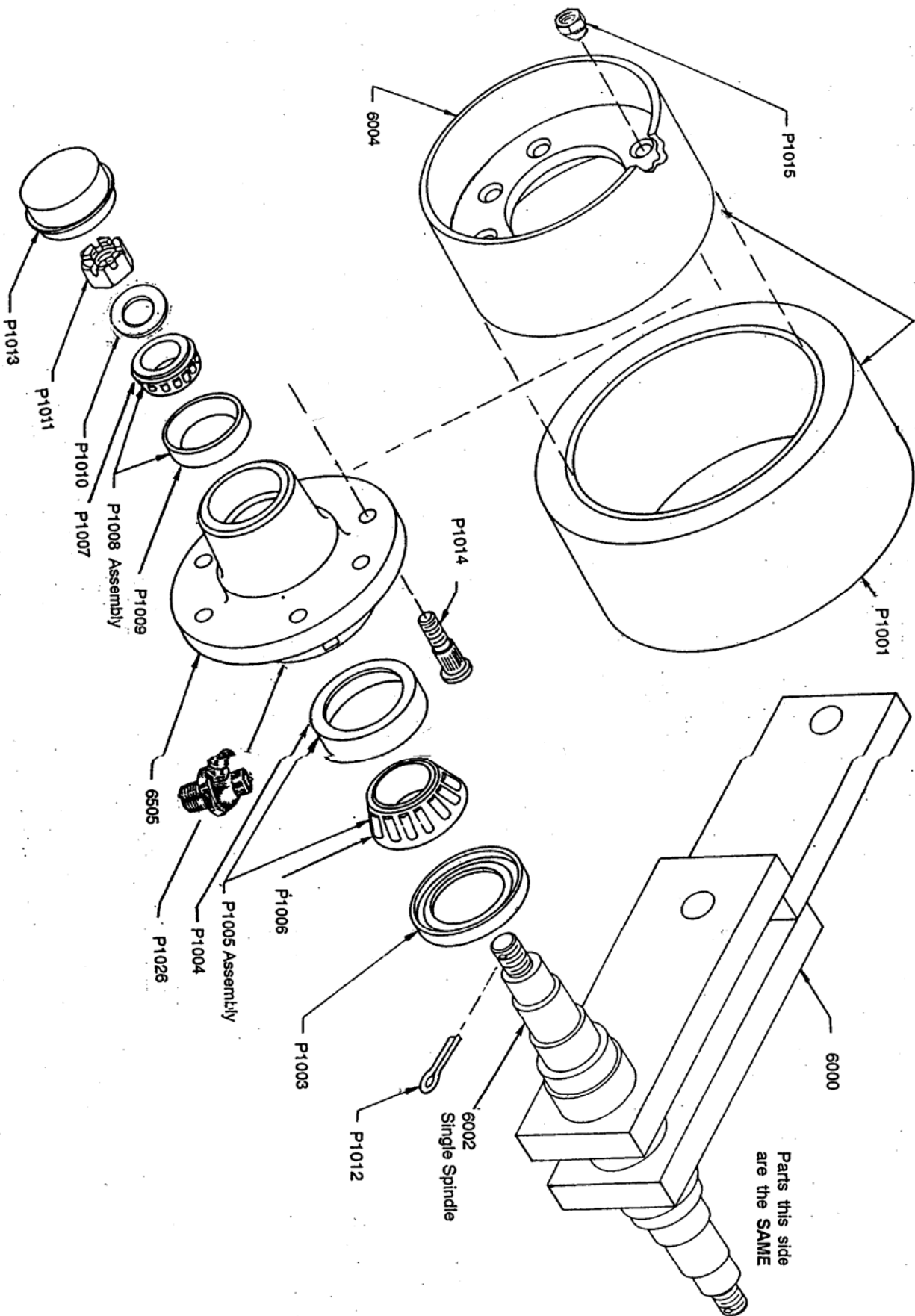
Use a good grade of medium to light wheel bearing grease. Retaining nut should be **tightened to 15 ft. lbs.** Make sure bearing surfaces are properly seated. Then back off one (1) notch and insert cotter key. Make sure wheel rolls freely before reassembling.

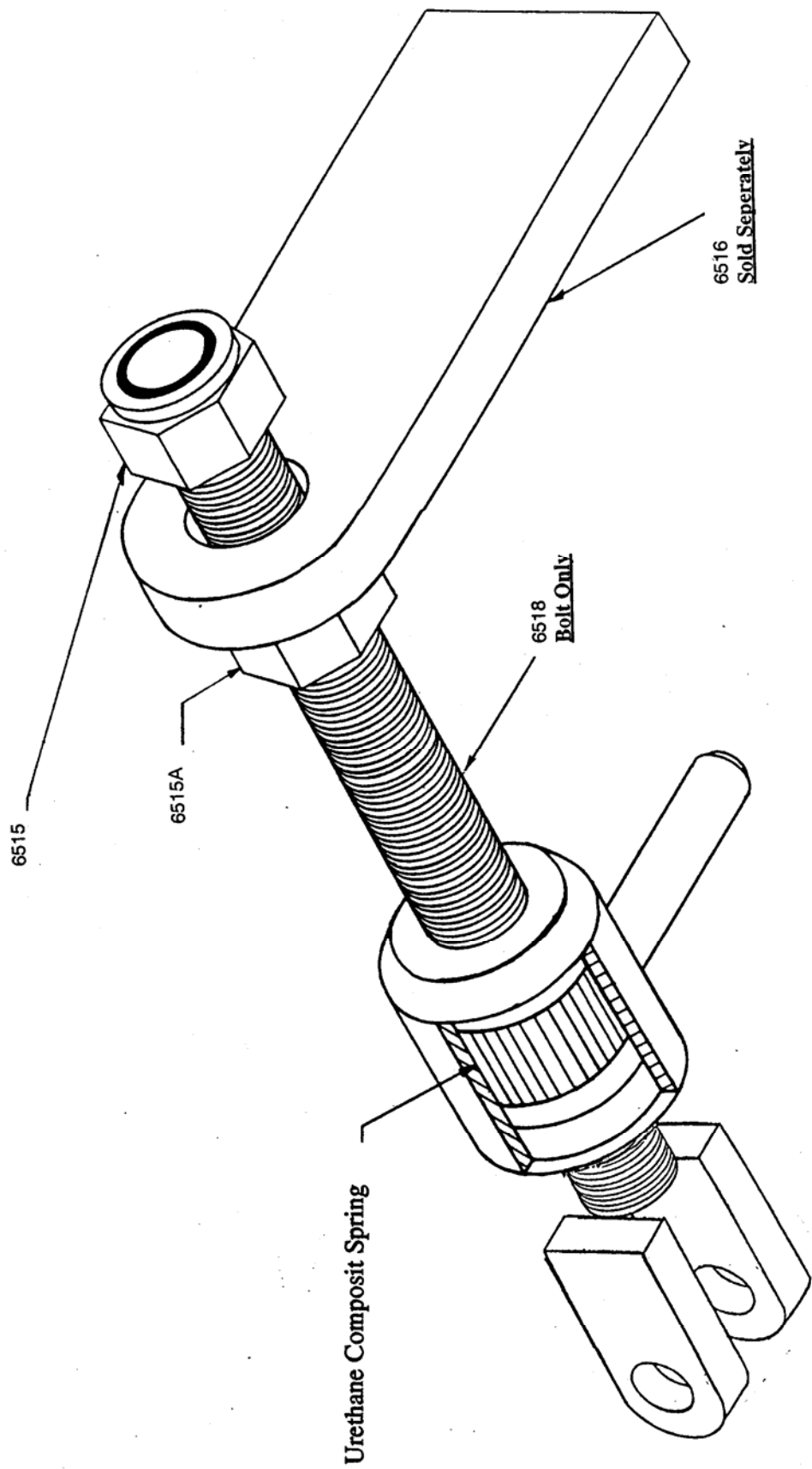
NOTE: Once per year be sure to check **alignment** of wheels on snowplow and snowblower.

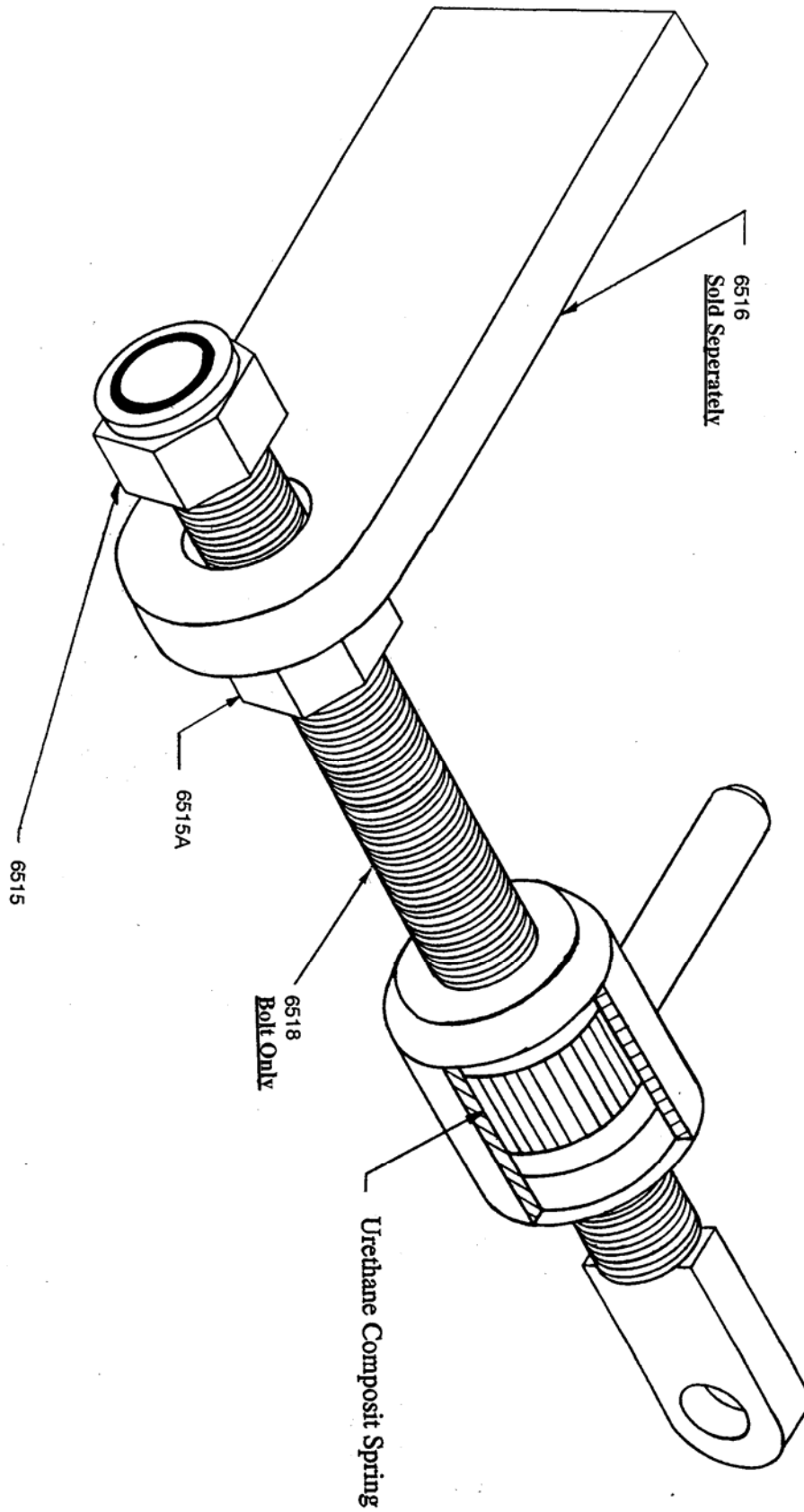
DO NOT over grease swivel bearing (pg 13) on 6509 models. Over greasing will prevent wheel from **SWIVELING 360°**. Grease can be relieved by pushing in on the **Grease Zerk ball**.

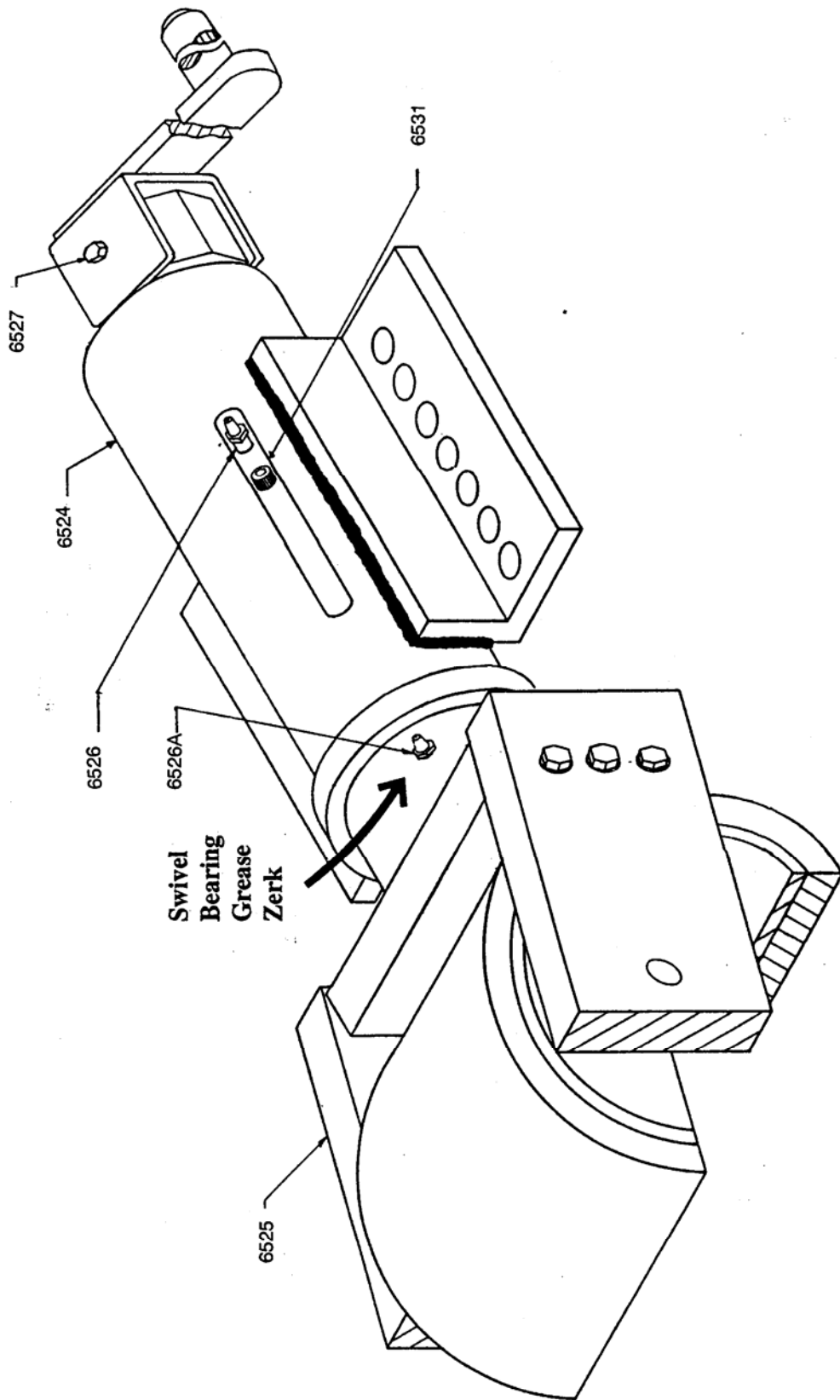


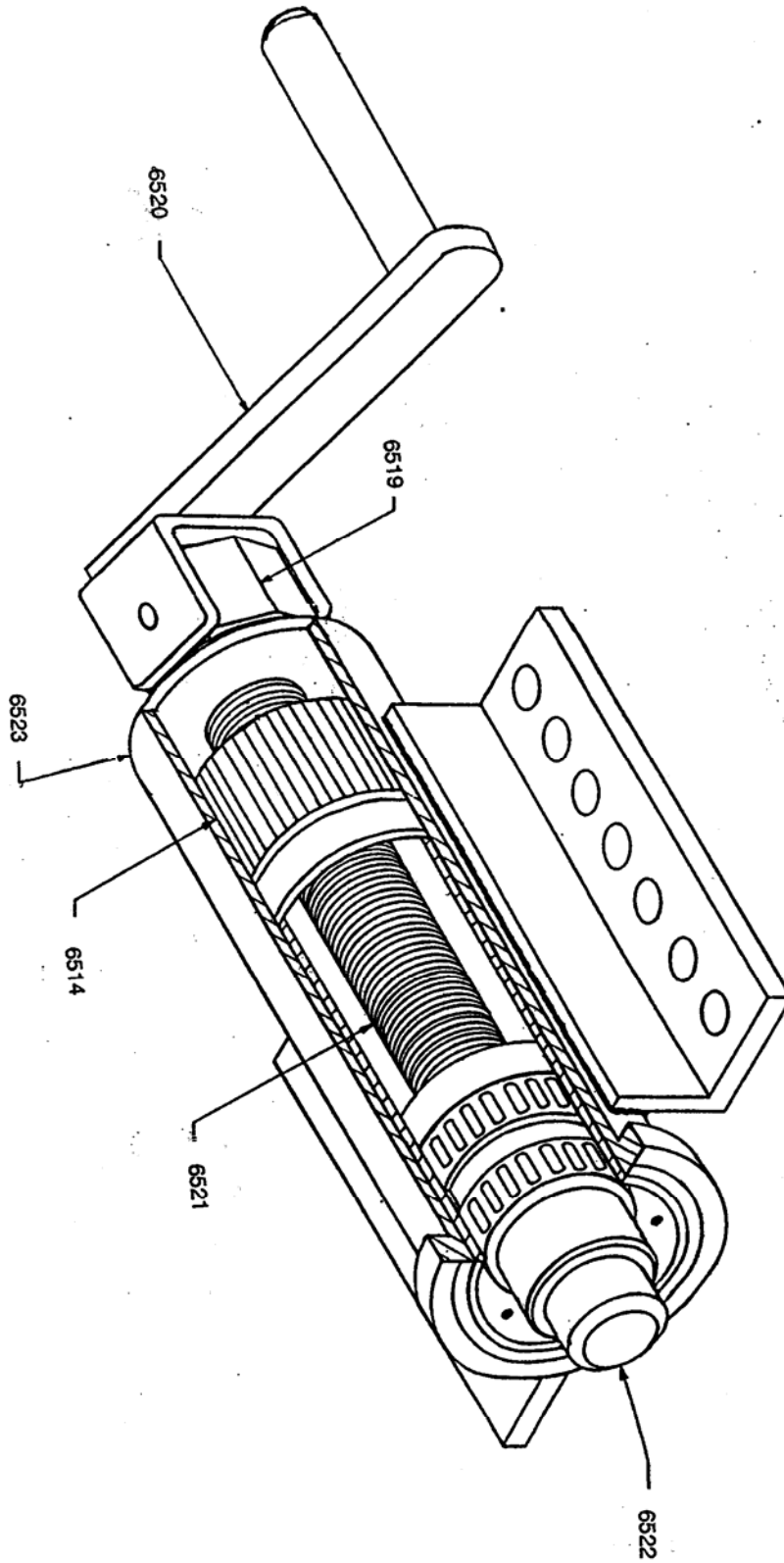
P1001-R Snow Wheel Tire pressed onto 6 hole rim

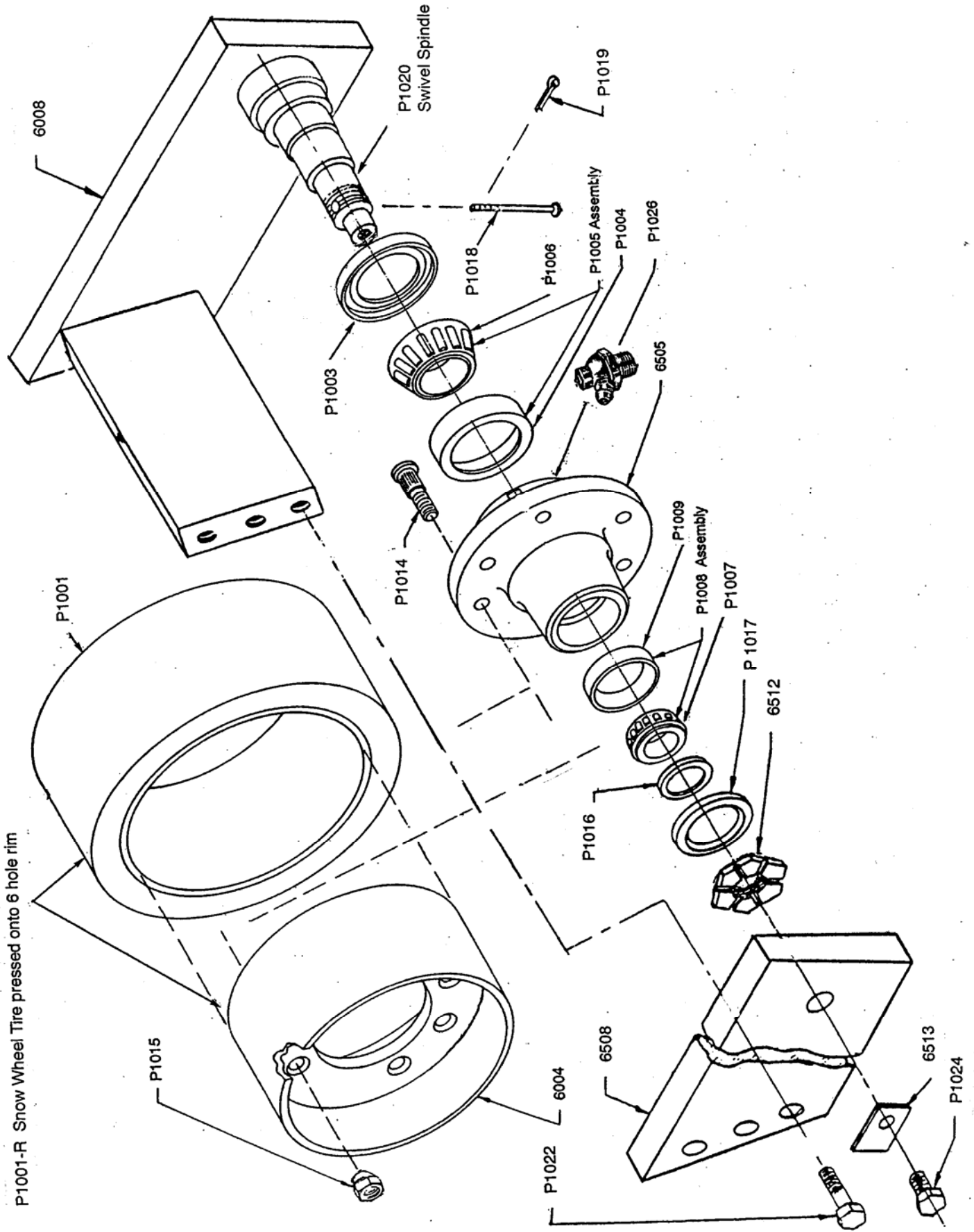












Wheel Assembly Swivel
 Part No. 6009



SNOW-WHEEL SYSTEM

P.O. Box 528 • 212 Home Street • Fairmont, MN 56031-0528 • Fax & Ph (507) 238-1980

Part No.	Description
P1001	Snow Wheel Tire
P1001-R	Snow Wheel Tire pressed onto 6 hole rim (6004)
P1003	Inner Seal C/R 22558
P1004	Inner Bearing Cup 25520
P1005	Inner Bearing Assembly
P1006	Inner Bearing Cone 25580
P1007	Outer Bearing Cone LM 67048
P1008	Outer Bearing Assembly
P1009	Outer Bearing Cup LM 67010
P1010	Retaining Washer
P1011	Retaining Nut
P1012	Cotter Pin
P1013	Hub Cap - Grease Cap
P1014	Stud
P1015	Nut
P1016	Retaining Washer
P1017	Seal Outer C/R 19210
P1018	Retaining Pin
P1019	Cotter Pin
P1020	Swivel Wheel Spindle (only)
P1022	Bolt 1/2" x 2" Grade 5
P1024	Bolt 5/8" x 3/4" Grade 5
P1025	Grease Fitting (Drive in style, hub)
P1026	Hydraulic shut-off grease fitting
6000	Dual Wheel Arm & Spindle
6001	Dual Wheel Spindle (only)
6002	Single Wheel Spindle (only)
6003	Single Wheel Arm & Spindle
6004	6 hole rim
6005	Single Snow Wheel Assembly
6006	Dual Snow Wheel Assembly
6008	Swivel Arm & Spindle
6009	Swivel Snow Wheel without adjuster
6505	Hub
6508	Spindle Support
6509	Swivel Snow Wheel with adjuster
6510	Single Wheel Adjustment bolt with spring shock
6510A	Single Wheel Adjustment bolt with spring shock and nuts
6511	Dual Wheel Adjustment bolt with shock
6511A	Dual Wheel Adjustment bolt with shock and nuts
6512	Retaining Nut
6513	Retaining Clip
6514	Urethane Composite Spring
6515A	1 1/2" Nylon Stop nut with collar
6515	1 1/2" Nylon Stop nut without collar
6516	1 1/4" x 4" x 12" Steel plate w/ 1 13/16" hole
6517	3/4" x 1 1/2" x 3" Spade w/ 1" hole
6518	1 1/2" x 12" adjustment bolt (bolt only, single & dual)
6519	1 1/2" left hand nut
6520	Crank Handle
6521	1 1/2" x 11" left hand screw
6522	3" Swivel Assembly inside Tube
6523	Swivel Outer tube
6524	Swivel Adjuster complete
6525	Swivel Arm & Spindle with adjuster tube
6526	Grease Fitting (1/8" NPT)
6526A	Grease Fitting (Drive in style)
6526B	Grease fitting (Long 1/8" NPT w/ spacer)
6527	3/8" x 3" Bolt Grade 5
6529	Hub complete (for model 6509)
6530	Hub complete (for models 6005 & 6006)
6531	7/16" x 1/2" socket head cap screw

Warranty:

Snow-Wheel Systems, Inc. warrants its products for a period of one year from date of purchase.

The warranty provides that our product must perform satisfactorily or we will repair, replace or refund the purchase price at the option of the purchaser.

Any parts returned to **Snow-System, Inc.** shall be shipped prepaid.

The warranty is void if the product has been obviously abused or subjected to other than normal usage.

We reserve the right to make improvements without notice or obligation regarding models previously sold.



Snow-Wheel System, Inc.

212 Home Street

P.O. Box 528

Fairmont, MN 56031 • Fax & Ph. (507) 238-1980