

MAN 4158494
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73-70585
ROTARY SWEEPER-54" RS350

OP / PARTS MANUAL

**CALIFORNIA
Proposition 65 Warning**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.



WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**Californie Proposition 65
Avertissement**

Les échappements des moteurs diesel et certains de leurs composés sont reconnus par l'Etat de Californie pour être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.



AVERTISSEMENT

L'émission du moteur de ce matériel contient des produits chimiques que l'Etat de Californie considère être cancérigènes, provoquer des défauts congénitaux et d'autres dangers en matière de reproduction.

**California Advertencia
de la Proposicion 65**

El estado de California hace saber que los gases de escape de los motores diesel y algunos de sus componentes producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.



ADVERTENCIA

El estado de California hace saber que los gases de escape de este producto contienen productos químicos que producen cáncer, defectos de nacimiento y otros daños en el proceso de reproducción humana.

**CALIFORNIA
Proposition 65 Warning**

Battery posts, terminals, wiring insulation, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
WASH HANDS AFTER HANDLING.

ROTARY SWEEPER

IMPORTANT MESSAGE

Thank you for purchasing this Schiller Grounds Care, Inc. product. You have purchased a world class product, one of the best designed and built anywhere.

This product comes with an Owner/Operator's Manual. The useful life and good service you receive from this product depends to a large extent on how well you read and understand this manual. Treat this product properly and adjust it as instructed, and it will give you many years of reliable service.

See a Schiller Grounds Care, Inc. dealer for any service or parts needed. Schiller Grounds Care, Inc. service ensures that you continue to receive the best results possible from Schiller Grounds Care, Inc. products. You can trust Schiller Grounds Care, Inc. replacement parts because they are manufactured with the same high precision and quality as the original parts.

Schiller Grounds Care, Inc. designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this product only as directed in the manual, keep it in good repair and follow safety warnings and instructions. You'll always be glad you did.

Schiller Grounds Care, Inc.
One Bob Cat Lane
Johnson Creek, WI 53038-0469

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DESCRIPTION

Clear away leaves and debris on pathways, parking lots, sidewalks, and driveways with this 54 inch wide rotary sweeper. Hardwearing nylon broom, driven by a bevel gearbox from the tractor PTO, has hydraulically controlled angling for left and right hand operation. Flotation springs (on older models) or caster wheels (on newer models) reduce ground pressure on the broom for longer life.

SPECIFICATIONS

Working Width	54"
Overall Height.....	18"
Overall Width	61"
Overall Length	44"
Right and Left Angle	30° Hydraulically Controlled
Speed of Broom at 3200 Engine RPM	300 RPM
Ground Clearance in Raised Position	10" (on Model 420)
Weight	170 lbs

NOTICE !!!

Unauthorized modifications may present **extreme** safety hazards to operators and bystanders and could also result in product damage.

Schiller Grounds Care, Inc. strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Schiller Grounds Care, Inc. Engineering Department. Any Schiller Grounds Care, Inc. product that is altered, modified or changed in any manner not specifically authorized after original manufacture—including the addition of “after-market” accessories or component parts not specifically approved by CGC, Inc.—will result in the Schiller Grounds Care, Inc. Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Schiller Grounds Care, Inc. will be considered the responsibility of the individual(s) or company designing and/or making such changes. Schiller Grounds Care, Inc. will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.



This symbol means:

ATTENTION!
BECOME ALERT!

Your safety and the safety of others is involved.

Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Schiller Grounds Care, Inc. machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage.

Schiller Grounds Care, Inc.

One Bobcat Lane
Johnson Creek, WI 53038 U.S.A.
Phone: 920-699-2000
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MODEL NUMBER

SERIAL NUMBER

MODEL NUMBER: This number appears on sales literature, technical manuals and price lists.

SERIAL NUMBER: This number appears only on your mower. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.

GENERAL SAFETY

1. Read and understand the Owner's Manual before attempting to operate this machine.
2. Operate all controls from the operator's seat. **NO RIDERS.**
3. Keep all shields in place and safety switches adjusted properly.
4. Do not leave equipment unattended. STOP the engine and remove the key.
5. Do not allow minors or the inexperienced to operate this machine.
6. Keep people and pets a safe distance away from machine using power driven attachments. Injury could result from flying debris.

OPERATING SAFETY

1. Stop engine to make repairs or adjustments. Do not attempt to work on unit or attachments with engine running.
2. Before leaving operator's seat:
 - Disengage PTO drive.
 - Set PARK brake.
 - Stop engine.



MODEL RS350 ROTARY SWEEPER

- Remove broom from the shipping crate. Remove shipping bracket.
- Remove the bottom belt shield from the hitch frame. Remove hose clamp from top of hitch frame.
- Loosen 3/8 locking nuts on square head set screws. Turn setscrews in. These setscrews are used to level the broom and must be adjusted after the sweeper is mounted on the power unit. Install hitch frame to sweeper by inserting stud into the swivel ball in the center front of the hitch frame. Attach the rear swivel ball to the hitch frame using the 3/8 X 1 flange bolts & nuts previously removed from the shipping bracket.
- Install belt and idler spring as shown in Photo 3.
- Reinstall bottom belt shield.
- Remove drive pulley shield and install the proper drive belt for the power unit. (See Photo 3) Replace shield.

Model 220/230 = 81-A042 Belt

Model 220/230 with electric clutch = 81-A040 Belt

Model 410 = 81—A040 Belt

Model 420/430 = 81-A040 Belt

Model 425 = 81—B041 Belt

Model 425/525 with electric clutch = 81-B040 Belt

- Attach sweeper to power unit. See page 6 for Installation Instructions, pages 3 and 4 for Safety Instructions and page 7 for Operation Instructions.
- Extend the cylinder completely. Fasten hoses to hitch frame with clamp as shown in Photo 4. Be certain that hoses are not stretched tight with the cylinder fully extended. Keep hoses away from drive pulley.

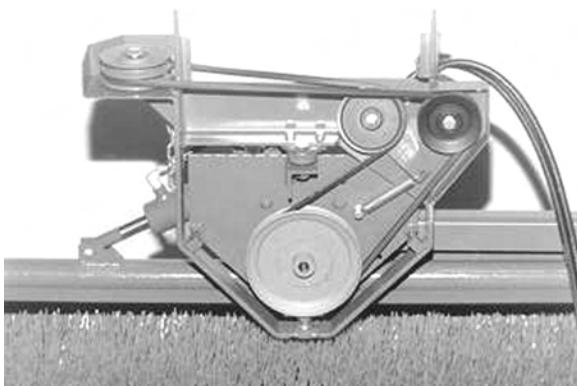


Photo 3 - Drive Belt Installation

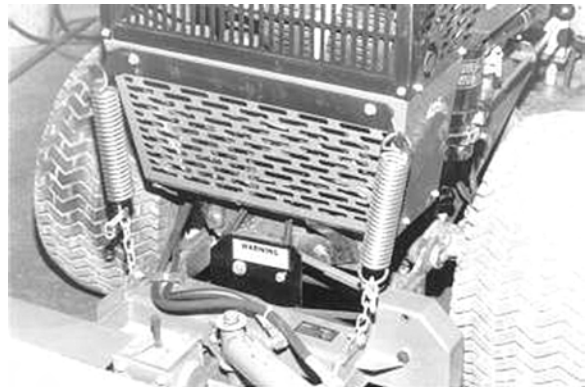


Photo 4 - Hose Clamp and Routing

MOUNTING INSTRUCTIONS

On Models Serial No. 1001 - 2246:

- This sweeper is designed to fit MODEL 220, 230, 410, 420, 430, 425 and 525 Steiner power units. The MODEL 410 unit requires optional gauge wheels.
- On 420 and 430 models, mount the float spring bracket to the tractor grille (See Photo 1).
- On 425 models mount the float spring bracket to the tractor grille (See Photo 2). It is necessary to provide additional support with the grille reinforcement brackets inside the grille of the 425 models equipped with electric clutch. Fasten brackets to the grille panel with (6) 5/16 flange bolts and nuts.

NOTE: On Model 425 power units without electric clutch prior to Serial No. 1642 the reinforcement brackets will not fit and are not required.

- To mount on the 220, 230 and 525 power units, no float spring kit is necessary. The traction booster must be adjusted to provide the float.

On all models:

- Install drive belt over left hitch arm and move tractor into position until the quick hitch can be latched.
- Stop engine and install drive belt.
- Connect cylinder hoses to the auxiliary outlets.
- Adjust pivot stops to limit "tilt" of broom. **EXTREME CARE MUST BE TAKEN TO LEVEL THE BROOM AFTER IT IS ATTACHED TO THE POWER UNIT! FAILURE TO LEVEL THE BROOM WILL RESULT IN UNEVEN BROOM WEAR.** (See page 8 Adjustments.)
- Choose power angle for right, left, or straight ahead position.

On Models Serial No. 2247 & Up:

- With the sweeper mounted on the tractor, set the height adjustment by moving the 1/4" spacers on the caster wheel frame.



Photo 1 - 420 Float Spring Mounting



Photo 2 - 425 Float Spring Mounting

CAUTION

Observe all Safety Decals.

Keep all Shields in Place.

Before leaving tractor, move Forward - Reverse control to neutral position, disengage PTO, set parking brake and stop engine.

OPERATING INSTRUCTIONS

1. Mount rotary sweeper according to instructions on page 6.
2. Raise sweeper to clear ground surface.
3. Adjust sweeper angle to the right, left or straight ahead position using the auxiliary hydraulic control lever.
4. Engage PTO and set engine speed.
5. Lower sweeper by placing lift in FLOAT position. Check "FLOAT" pattern as described on page 6.
6. Move forward slowly.
7. Do not allow broom to bounce. This causes excessive broom wear. Adjustment of the float can avoid bounce.
8. Check the leveling of the broom each time the broom is used. The broom should contact the surface equally the entire length of the broom. (See page 8 for leveling adjustment.)

CAUTION

BE ALERT FOR OBJECTS IN THE PATH OF THE SWEEPER. POWER DRIVEN BROOM MAY THROW OBJECTS CAUSING DAMAGE TO PROPERTY OR INJURY TO BYSTANDERS.

MAINTENANCE

DAILY (10 HOUR) MAINTENANCE:

1. Check for signs of loose bolts etc.
 - Replace or tighten.
2. Check oil level in gearbox.
 - Use #90 oil - 1/2 full
3. Remove cap plug and check chain. Chain should not run dry.
 - Lube with roller chain lube or #30 oil.

ANNUAL (100 HOUR) MAINTENANCE:

1. In addition to daily maintenance:
 - Grease all bearings.
2. Remove chain shield and inspect.
 - Lube and adjust chain.
3. Storage
 - Clean entire machine and support on blocks to keep broom off the floor. Weight on the broom bristles will distort the shape of the broom

ADJUSTMENTS

Leveling adjustment:

Leveling the broom is accomplished by tilting the mounting plate in relation to the hitch frame. There are two square head set screws with locking nuts which need to be adjusted to level the broom. Loosen the locking nuts and adjust the set screws so that the broom touches the surface equally the entire length of the broom. Depending on the power unit, this adjustment may vary from side to side, so adjust it for the position which is most used. Example: If you use the broom angled to the right most of the time, adjust the leveling with the broom angled in that position. NOTE: For best results and longer broom life...level the broom in the straight ahead position and then alternate broom use in both angle positions.

Drive chain adjustment:

The broom bearing is mounted in slotted holes in the main frame and can be adjusted forward to tighten the chain. Remove the chain shield. Loosen the bearing mounting bolts and tighten the adjuster nut until the chain is tight. Retighten bearing bolts and replace the chain shield.

Float adjustment:

Adjust float setting in the following steps:

- A. Take unit to an area of loose stones or dirt.
- B. Engage PTO to rotate broom and drop to "FLOAT" position.
- C. Raise the broom and note the test pattern on the ground. The test pattern should be 1-1/2" to 2" wide. A wider pattern will result in excessive broom wear and power consumption.
- D. Adjust spring tension by choosing the proper chain link on Models 420, 430 and 425. Adjust traction booster on Model 220, 230 and 525 to provide the proper flotation.

The gauge wheels allow the sweeper to follow the contour of the surface. The height is adjustable in 1/4" increments by moving the spacers on the caster wheel frame. The correct height adjustment is when the broom just touches the surface and provides a "clean sweep". Excessive broom wear and power requirements may result from settings which are too low.

BROOM DRIVE BELT REPLACEMENT

1. Remove the drive pulley shield and the bottom belt shield from the hitch frame.
2. Install the new belt and idler spring as shown in Photo 3.
3. Reinstall the bottom belt shield and the drive pulley shield.

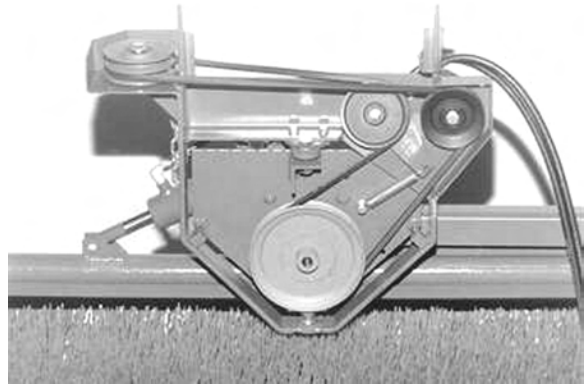
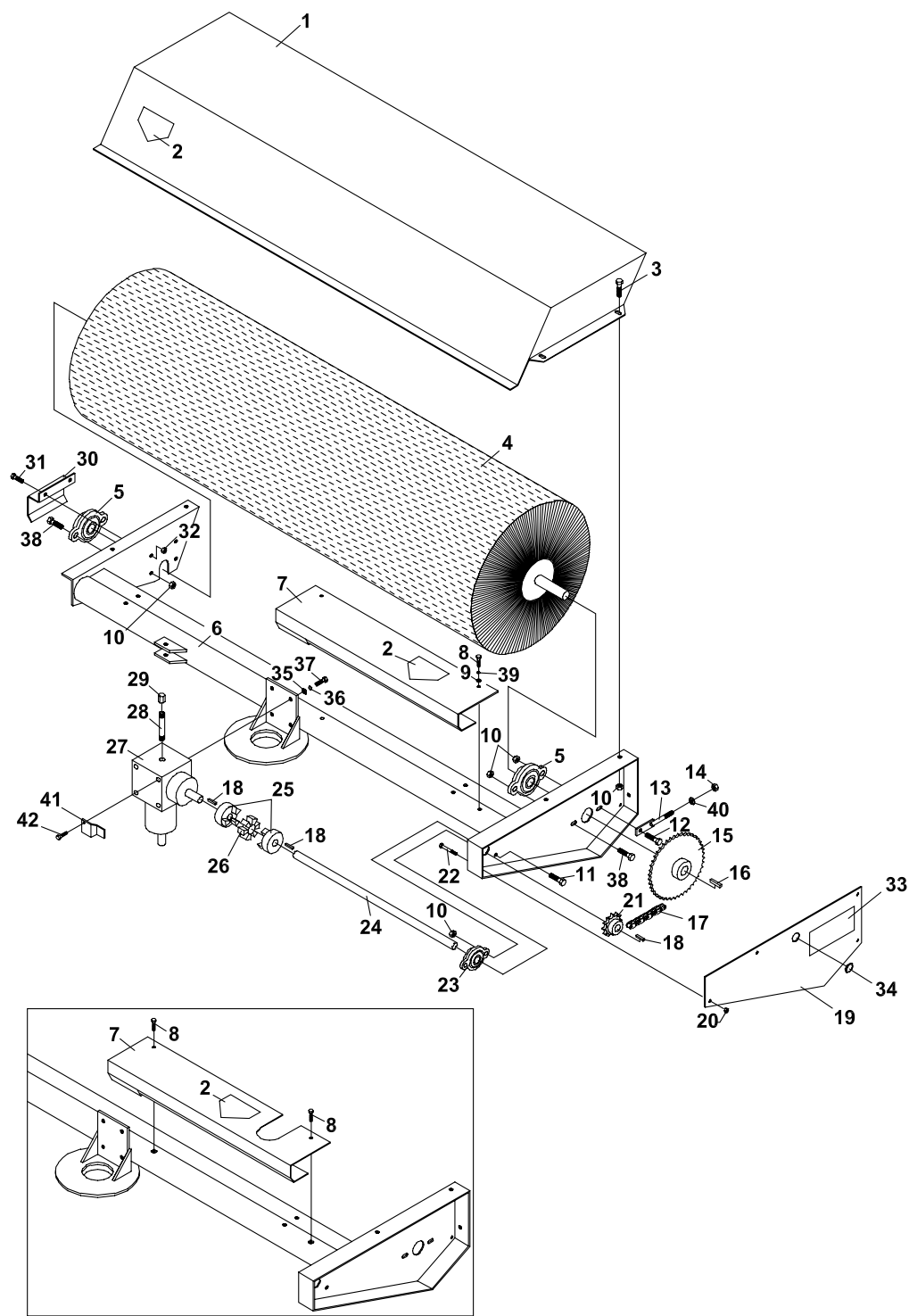


Photo 3

FIGURE 1



ROTARY SWEEPER

BROOM PARTS

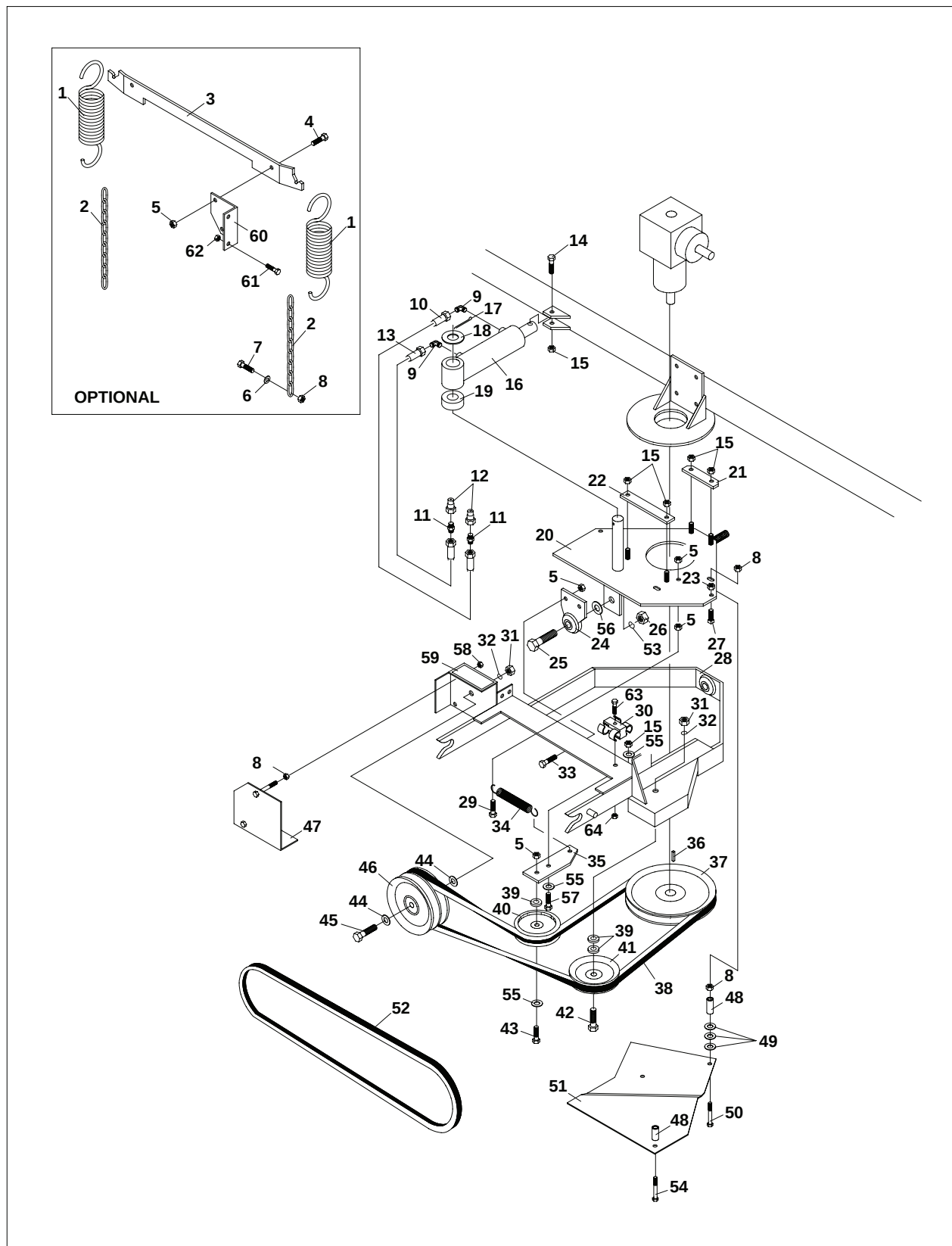
FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1-1	60-039.7	SHIELD-TOP	1	1-31	64139-08	BOLT-5/16-18X3/4 WLF	2
1-2	00-092	DECAL-KEEP HNDS & FT	2	1-32	64141-6	NUT, 5/16-18	2
1-3	64139-08	BOLT-5/16-18X3/4 WLF	4	1-33	00-093	DECAL-READ MANUAL	1
1-4	80-039	BROOM (15" X 54")	1	1-34	06-010	PLUG	1
1-5	4138878	2-BOLT FLANGE BRG	2	1-35	64163-04	25/64X5/8X16GA WASHER	4
1-6	62-097.7	FRAME, ROTARY SWEEPER	1	1-36	64006-02	LCKWSHR-HEL 5/16	4
1-7	60-612.7	SHIELD-DRIVE SHAFT	1	1-37	64123-68	BOLT-HEX 5/16-18X1	4
1-8	64139-04	BOLT-WLF 1/4-20X3/4	2	1-38	64139-24	BLT-WLF 3/8-16 X 1	3
1-9	453023	FLATWASHER, 1/4 (USED WITH SN 1001 - 2246 ONLY)	2	1-39	64006-01	LOCKWASHER-1/4 HEL (USED WITH SN 1001 - 2246 ONLY)	2
1-10	64141-4	NUT-WLF 3/8-16 (USED WITH SN 1001 - 2226 ONLY)	10	1-40	64163-61	WSHR .81X.406X16GA	1
1-11	64123-50	BOLT-HEX 3/8-16X1	2	1-41	64-775	GEARBOX SHIELD BRKT	1
1-12	64123-16	BLT-HEX 3/8-16X1-1/4	1	1-42	64139-13	BLT-WLF 5/16-18X1/2	1
1-13	42-037	CHAIN TIGHTENER	1				
1-14	64229-03	LOCKNUT-NYLON 3/8-16	1				
1-15	82-078	SPROCKET	1				
1-16	64164-10	1/4X1/4X1-1/4 MACH KEY	1				
1-17	56-RC40-40	#40 ROLLER CHAIN 40"	1				
	81-056	CONNECTOR LINK, #40	1				
	81-076	#40 HALF LINK	1				
1-18	64164-11	KEY-3/16X3/16X1-1/4 SQ	3				
1-19	60-040.7	SHIELD, CHAIN	1				
1-20	64141-2	NUT-WLF 1/4-20	4				
1-21	83-H401012	SPROCKET, H4010 X 3/4	1				
1-22	64123-98	BLT-HEX 1/4-20X2-1/2	4				
1-23	55-FB23012	FLANGE BEARING 2 BOLT	1				
1-24	80-040	SHAFT, 3/4 X 24-3/4	1				
1-25	87-020	COUPLER, CHJP4 X 3/4	2				
1-26	87-021	INSERT, COUPLING	1				
1-27	87-209	GEARBOX	1				
1-28	29-038	PIPE NIPPLE, 1/8 NPT X 2	1				
1-29	24-031	PIPE CAP, 1/8	1				
1-30	60-464.7	COVER, BEARING	1				

HITCH PARTS

ROTARY SWEEPER

FIGURE 2



ROTARY SWEEPER

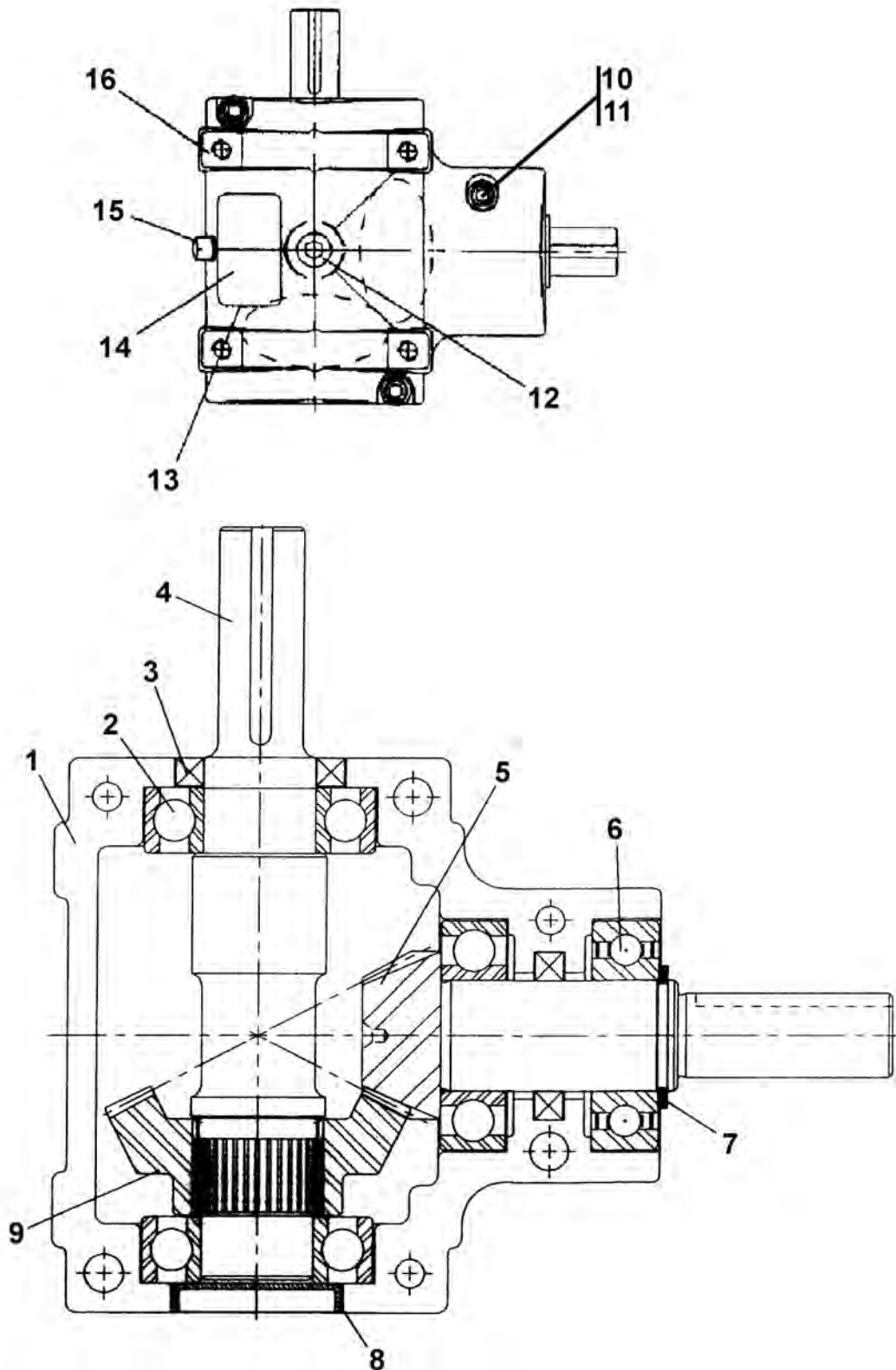
HITCH PARTS

FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
2-1	41-012	SPRING	2	2-41	83-012	PULLEY, IDLER	1
2-2	56-018-07	CHAIN-7 LINKS	2	2-42	90-0814	BOLT, 1/2 UNC x 1.3/4	1
2-3	64-585	FLOAT SPRING BRKT	1	2-43	64123-87	BOLT-HEX 3/8-16X1-3/4	1
2-4	64139-21	BLT-WLF 3/8-16X3/4	2	2-44	64163-67	WASHER-.516X1X12GA	2
2-5	64141-4	NUT-WLF 3/8-16	7	2-45	64123-31	BOLT-1/2-13X3 HEX	1
2-6	64163-02	WSR-.321/.328X.593/.608X11	2	2-46	83-026	PULLEY, 2GR IDLER	1
2-7	99-K02	BOLT, FLANGE 5/16-18 X 1	2	2-47	60-452.7	SHIELD, DRIVE PULLEY	1
2-8	64141-6	NUT, 5/16-18	10	2-48	64-479	SPCR-PIVOT PLATE SHIELD	2
	* 70-026	FLOAT SPRING KIT	1	2-49	64163-29	WASHER	6
	(INCLUDES ITEMS 1-8 & 60 - 62)			2-50	64123-104	BLT-HEX 5/16-18X2-3/4	2
2-9	25-2103-6-6	FITTING-90 DEG.	2	2-51	60-453.7	SHIELD-BELT	1
2-10	20-218	HOSE, 1/4 X 48 100R1	1	2-52	81-A042	DRIVE BELT-220	1
2-11	25-0103-4-6	FITTING	2		(W/O ELECTRIC CLUTCH)		
2-12	23-004	MALE QUICK COUPLER	2	81-A040	DRIVE BELT-420, 220	1	
2-13	20-020	HOSE	1		(W ELECTRIC CLUTCH)		
2-14	64123-67	BLT-HEX 3/8-16X2	1	81-B041	DRIVE BELT-425	1	
2-15	64229-03	LOCKNUT-NYLON 3/8-16	6	81-B040	DRIVE BELT-425	1	
2-16	23-005	CYLINDER	1		(W ELECTRIC CLUTCH)		
	* 21-13909X	SEAL KIT	1	2-53	64006-04	LOCKWSHR-HELICAL 5/8	1
2-17	02-CP0612	COTTER PIN, 3/16 X 1-1/2	1	2-54	64123-56	BLT-HEX 5/16-18X2	1
2-18	64163-64	WSHR 1.015X1.500X14	1	2-55	64163-61	WSHR .81X.406X16GA	3
2-19	86-042	SET COLLAR	1	2-56	64163-16	WASHER-41/64X1, 3/8X12	1
2-20	62-620.7	PIVOT PLATE	1	2-57	64123-50	BOLT-HEX 3/8-16X1	1
2-21	42-038.7	CLAMP, HOLD DOWN	1	2-58	64229-02	LOCKNUT-NYLON 5/16-18	2
2-22	42-039.7	CLAMP, HOLD DOWN	1	2-59	00-025	DECAL	1
2-23	64141-4	NUT-WLF 3/8-16	2	2-60	64-685	GRILLE BRKT LFT	1
2-24	62-622.7	REAR PIVOT	1		(425 W/ELECTRIC CLUTCH)		
2-25	90-1018	BOLT,5/8-11 X 2-1/4 NC	1	64-686	GRILLE BRKT RIGHT	1	
2-26	64025-21	NUT-HEX 5/8-11	1		(425 W/ELECTRIC CLUTCH)		
2-27	85-SS10	SET SCREW, 3/8-16 X 1-1/2	2	2-61	64139-08	BOLT-5/16-18X3/4 WLF	6
2-28	62-621.7	HITCH FRAME	1		(425 W/ELECTRIC CLUTCH ONLY)		
2-29	64123-16	BLT-HEX 3/8-16X1-1/4	1	2-62	64141-6	NUT, 5/16-18	6
2-30	4134161	TUBE AND HOSE CLAMP	1		(425 W/ELECTRIC CLUTCH ONLY)		
2-31	64025-09	HEX, NUT 1/2-13	2	2-63	01-014	SCREW-MACHINE	1
2-32	64006-05	LOCKWSHR-HELICAL 1/2	2	2-64	64025-29	NUT	1
2-33	64139-24	BLT-WLF 3/8-16 X 1	2				
2-34	41-020	SPRING	1				
2-35	40-242.7	IDLER ARM	1				
2-36	64164-11	KEY-3/16X3/16X1-1/4 SQ	1				
2-37	83-BS8012	PULLEY	1				
2-38	81-A087	BELT-A87	1				
2-39	99-B12	SPACER	3				
2-40	83-029	IDLER	1				

* NOT ILLUSTRATED

FIGURE 3



ROTARY SWEEPER

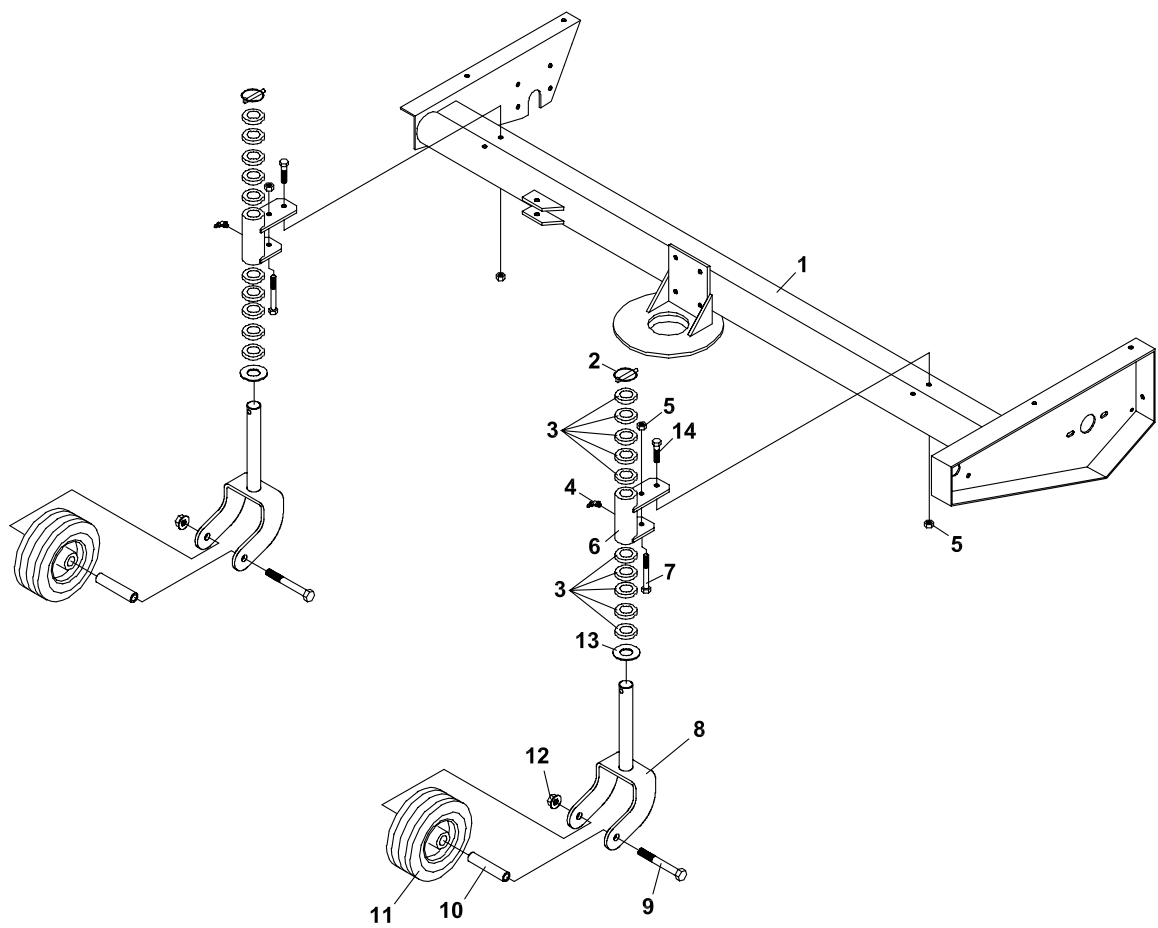
GEARBOX

FIGURE 3

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
3-1	87-CM003582	HOUSING HALF	1				
3-2	87-CM153437	BALL BEARING	3				
3-3	87-CM301374	SEAL	2				
3-4	87-CM226423	THRU SHAFT	1				
3-5	87-CM108068	INTEGRAL SHAFT & PIN (LEFT HAND)	1				
3-6	87-CM153429	BALL BEARING	1				
3-7	87-CM620013	RETAINING RING	1				
3-8	87-CM640110	EXPANSION PLUG	1				
3-9	87-CM108514	GEAR (RIGHT HAND)	1				
3-10	87-CM412320	ALLEN HD CAP SCREW	6				
3-11	87-CM410506	LOCKWASHER	6				
3-12	87-CM410001	PIPE PLUG-SOLID	2				
3-13	87-CM800573	I.D. TAG	1				
3-14	87-CM802876	I.D. TAG COVER	1				
3-15	87-CM410068	PIPE PLUG-SOLID	1				
3-16	87-CM003756	HOUSING HALF	1				
3-17 *	87-CM800326	GEAR LUBE, IN OZ.	5				

* NOT ILLUSTRATED

FIGURE 4



ROTARY SWEEPER

CASTER WHEELS

FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
4-1	62-097.7	FRAME, ROTARY SWEEPER	1				
4-2	03-017	CLIP, 5/16"	2				
4-3	6112057	SPACER ENGINE PULLEY	20				
4-4	29-014	GREASE FITNG-1/4-28 90	2				
4-5	64141-4	NUT-WLF 3/8-16	4				
4-6	62-809.7	FRAME, CASTER SWIVEL	2				
4-7	64123-171	BOLT-HEX 3/8-16X3-1/2	2				
4-8	62-882.7	YOKE, CASTER W/A	2				
4-9	90-0836	BOLT, 1/2 UNC x 4.1/2	2				
4-10	50-104	AXLE, CASTER WHEEL	2				
4-11	53-181	WHEEL, 6.25 X 3.00	2				
4-12	64141-13	NUT WLF 1/2-13	2				
4-13	64163-84	WSHR-1.015 X 1.75 X.125	2				
4-14	64139-24	BLT-WLF 3/8-16 X 1	2				

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