

# ROKON®

## Illustrated Owner's Manual



Made In  
The USA



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# ROKON®



Welcome to the growing nation of ROKON owners. All operators must read and familiarize themselves with this owner's manual and all safety information.

The ROKON Warranty Statement is enclosed with this manual. For it to be validated, the complete ROKON Utility Vehicle Registration Card must be signed and returned to ROKON within 10 days of the date of purchase.

We congratulate you on your decision to purchase a ROKON Utility Vehicle. By following the procedures outlined in this manual, you will be rewarded with many hours of reliable, gratifying performance that others have come to expect from ROKON Utility Vehicles.

## **BEFORE YOU OPERATE YOUR NEW ROKON, THE FOLLOWING IMPORTANT POINTS MUST BE OBSERVED.**

- 1.** Children under 18 should not operate a ROKON.
- 2.** Carefully read and follow the instructions in the Safety Information section of this manual.
- 3.** Carefully read and follow the setup procedure on the yellow card labeled IMPORTANT attached to your ROKON.
- 4.** Follow the Pre-Operation Checklist.

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## Section 1

# Safety Information

Always wear an approved motorcycle helmet that fits properly, eye protection (goggles or face shield), gloves, sturdy boots, long sleeve shirt, jacket and pants while operating a ROKON.

Never consume alcohol or drugs before or while operating a ROKON.

The ROKON is a go slow vehicle. Never operate at speeds too fast for your skills or the conditions. Always operate at a speed that is appropriate for the terrain, visibility and operating conditions and your experience.

**DANGER-SERIOUS INJURY MAY RESULT!** Never attempt wheelies, jumps or other stunts of any kind while operating a ROKON.

Always keep both hands on the handlebars during operation.

Always go slow and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating a ROKON.

Never operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control a ROKON on such terrain.

Never operate on hills too steep for a ROKON or for your abilities. Never exceed a 60% grade (or 31 degrees). Practice on smaller hills before attempting larger hills. Shift down early to ride in control and prevent slipping the torque converter belt.

Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before you start up any hill. Never climb hills with excessively slippery or loose surfaces. Shift your weight forward when on an incline.

Always follow proper procedures for going down hills and for braking on hills as described in this manual on pages 9 and 10. Check the terrain carefully before you start down any hill. Shift your weight rearward. Never go down a hill at high speed. Shift into 1st range and keep the torque converter engaged for engine braking as described on page 9 in this manual. Use the rear brake only in down hill corners. Apply the rear brake before the front brake when going straight down.

Always maintain proper tire pressure of 5 PSI.

Never modify your ROKON. Use only ROKON parts. Follow instructions, and properly install ROKON parts.



## Section 1

# Safety Information



### WARNING:

Potential bodily injury.

Never operate a ROKON without the chain guards and side covers in place and securely attached with all fasteners properly tightened.



Never exceed the stated load capacity of 600 lbs. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer. Be careful to allow greater distances for braking when carrying cargo or operating with a trailer.

Read your engine manual completely and follow all safety instructions.



### WARNING:

Potential Hazard- Improper Handling of Gasoline can catch fire and you could be burned.

Always turn off the engine when refueling. Do not refuel right after the engine has been running and is still very hot. Do not spill gasoline on the engine or exhaust pipe/muffler when refueling. Never refuel while smoking, or while in the vicinity of sparks, open flames or other sources of ignition such as the pilot lights of water heaters and clothes dryers. When transporting the machine in another vehicle be sure that it is kept upright and that the Fuel Tank Shut-Off Valve and Engine Fuel Valve are in the "OFF" position (see page 6 of manual). Otherwise, fuel may leak out of the carburetor and flood the engine.

Gasoline is poisonous and can cause injuries. If you swallow gasoline, inhale an excessive amount of gasoline vapor, or get gasoline in your eyes, seek medical attention immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothes, change your clothes.



### WARNING

Potential Hazard- Starting or running the engine in a closed area.

Exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your machine in an area with adequate ventilation. Do not operate indoors.

## Section 2

# Description and Machine identification

Record the Vehicle Identification Number and Engine Number in the spaces below to facilitate ordering spare parts or for reference if the vehicle is stolen. Please locate both the VIN and Engine Numbers on your bike as shown in the diagram below and verify that they match the numbers listed on your Manufacturer's Statement of Origin.

VIN \_\_\_\_\_

Engine Number \_\_\_\_\_



The Vehicle Identification Number is on the center frame tube beneath the driver seat.



The Engine Number is on the front of the engine facing the front wheel. (It is the Serial Number on the label shown in the picture to the right.)



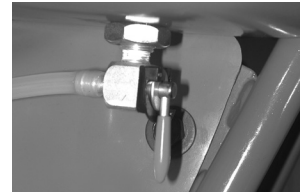
## Section 3

# Control Functions

Shut-Off Switch: Located on the left hand side of the handlebar. Pressing the black “kill” button will shut off the engine. This is a safety feature and will allow the operator to immediately shut off the engine in an emergency. There is also a switch on the left side that operates the headlight when the bike is running or the battery is engaged.



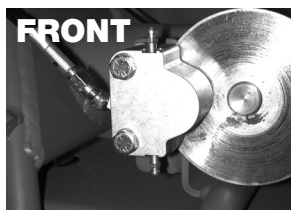
Fuel Tank Shut-Off Valve: Located on the right hand side under the fuel tank shuts off fuel flow to the engine. The down position is for fuel flow. The up position shuts fuel off. Shut the fuel off when storing or transporting your ROKON.



Throttle: The engine is accelerated by twisting the throttle grip on the right hand side of the handlebar counterclockwise. The throttle grip is spring loaded and will automatically close the throttle and slow the engine when released.



Brakes: The ROKON is equipped with separate front and rear disc brakes. The left brake lever is for the rear brake. The right brake lever is for the front brake.



Choke: Choke is used to start a cold engine and should be in the forward position to choke. It is located on the right hand side of the engine. As soon as the engine starts, the choke should gradually be moved rearward as the engine warms up. It should be left fully rearward for regular operation.



Engine Fuel Valve: Located below the choke. Valve should be in rearward position when bike is not being used. Valve should be moved to forward position for use. Close when storing or transporting your ROKON.

## Section 3

# Control Functions

Recoil Starter: Firmly grasp the handle and pull slightly until engagement can be felt. Then pull forcefully, being careful not to pull the rope all the way out. Return the starter rope gently.

Electric Starter: If starting by electric start, insert key and turn clockwise to start position. Once engine is running, release key to rest in run position.

Rider Seat Suspension: The seat suspension spring can be adjusted to suit the rider's weight and riding conditions. Adjust the spring per load as follows: To increase the spring preload, turn the adjuster clockwise. To decrease the spring preload, turn the adjuster counterclockwise.

Transmission: The three range transmission is a ratio selector and when coupled with the automatic torque converter, gives the vehicle extremely broad capabilities, from steep climbing to normal transporting. The torque converter provides a large overlap of speed and torque between gears. This makes frequent gear changes unnecessary. Therefore, the transmission has not been designed to shift in motion. STOP THE VEHICLE BEFORE SHIFTING. Shift only at low idle or when the engine is off. Feel the gears into engagement, rocking the bike, if necessary, to synchronize the gears. The shift pattern is from inside out: 3-N-2-N-1.

Automatic Torque Converter: The torque converter is designed especially for ROKON and provides smooth automatic clutching and ratio changing in response to throttle control and terrain requirements. The front driven pulley tends to shift into high as engine speed is increased. The rear driven pulley follows this speed change. If torque requirements increase, the cam in the torque-sensing rear pulley overrides the front pulley and forces a down shift without a loss of engine revs and power.



### WARNING:

Potential Hazard- Starting the engine in gear could cause the ROKON to move forward unexpectedly. PUT THE TRANSMISSION IN NEUTRAL BEFORE STARTING THE ENGINE. Stand on the left hand side, put the front brake on with two fingers of your left hand, throttle closed, reach over the ROKON and pull the starter handle.

***Before using this machine, check the following points.***

Front and Rear Brake: Check brake action. Check pucks to see that they are not over worn. There should be visible brake material on both sides of the brake disc. See Section 6.

Fuel Tank: Check fuel level. Fill as necessary.

Engine Oil: The engine holds .6 qt. of SAE10W30/40 motor oil. Fill to the dipstick “full” line.

Miter Box and Transmission: Both are filled at the factory and need not be checked at the start. The miter box should have 2.5 oz. of EP 80W-90 gear lube oil. The transmission takes 6 oz. of EP 80W-90 gear lube oil. The transmission has a fill to plug near the bottom of the transmission (shown on page 51). There is no fill level for the miter box so measure before filling. Over filling of either the miter box or transmission will result in leakage.

Throttle: Check for proper throttle cable operation. Look for smooth response to twist action.

Wheels and Tires: Check Tire pressure, wear and damage.

Fittings and Fasteners: Check all fittings and fasteners.

Drive Chains: Check chains for tension and lubrication. Adjust tension for 1/2” - 3/4” deflection at mid point.

Engine Manual: Read your engine manual completely and follow all instructions.

FAILURE TO INSPECT YOUR ROKON BEFORE OPERATION  
INCREASES THE POSSIBILITY OF AN ACCIDENT OR EQUIPMENT  
DAMAGE. ALWAYS INSPECT YOUR ROKON EACH TIME YOU USE IT  
TO MAKE SURE IT IS IN SAFE OPERATING CONDITION.





When starting your ROKON, place the range selector in neutral. Stand on left hand side, insert key and turn to ON position, put the front brake on with two fingers of your left hand, throttle closed, turn the choke on, reach over the ROKON and pull the starter handle. As you pull the starter handle, slightly engage the throttle. Once the engine turns on, set the choke off. Engage the three-range selector in the desired gear range. Put the ball of the foot, rather than the instep on the footrest. Accelerate and ride. Use braking as necessary. Pre-plan your route before attempting to negotiate difficult terrain. Lean into the hill when climbing switch backs. Descend steep slopes at slow speed in low range. Apply rear brake pressure before front brake application.



### WARNING

Potential Hazard - Failure to use extra care when operating a ROKON on unfamiliar terrain. Go slow and be extra careful on unfamiliar terrain. You can come upon hidden rocks, bumps, or holes, without enough time to react. Always be alert to changing terrain conditions when operating a ROKON.

Traversing a sloping surface requires you to properly position your weight to maintain proper balance. As you travel across or up a slope, lean your body in the uphill direction. It may be necessary to correct the steering when riding on loose surfaces by pointing the front wheel slightly uphill. When riding on slopes, be sure not to make sharp turns either up or down hill, which could cause a ROKON to turn over and cause the rider injury.



When riding downhill, shift your weight as far to the rear and uphill side as possible. Use low gear and engage the throttle slightly to allow the engine compression to provide braking. Whenever possible ride straight downhill. Turn into corners with the rear brake only, so as not to slide the front wheel and lose steering control.



## Section 5

# Operating Your ROKON



The ROKON can be used to cross slow moving shallow water of up to a maximum of 24 inches in depth. Before entering the water, choose your path carefully. Enter where there is no sharp drop off, and avoid rocks or other obstacles which may be slippery or upset the ROKON. Drive slowly and carefully. Never change your course in the middle of a stream or you will find that slippery rocks and currents might throw you out of balance.



If the water is over 24" in depth, shut the bike off and always float your machine across (hollow wheels only). Keep the air intake out of the water to avoid flooding the engine compartment by always floating the bike with the right hand side above water (as shown in picture on right).

Riding over rough terrain should be done with caution. Look out for obstacles which could cause damage to the ROKON or lead to an upset or an accident. Avoid jumping the ROKON, as loss of control, damage, and injury may result.



The real secret to riding perfection is throttle control. Remember that gradual acceleration will take you anywhere you desire with the proper gear selection. Your throttle is designed to retract upon release as a safety measure for the rider. Always grasp your throttle with ease, and never with full force.

The ROKON is designed with individual disc brakes on the front and rear gear boxes. The front brake (right hand side) will stop both wheels through the gear train. When braking with the front brake, the machine should be in a "straight away" position. Hard braking, with a turned front wheel, can cause loss of steering which can result in loss of control. The rear brake (left hand side) should be used more often for going down steep slopes.



# Periodic Maintenance and Adjustment

**Routine care of your ROKON vehicle is easily done and is important for rider safety and vehicle longevity.**

1. Inspect all fasteners for tightness.
2. The drive chains require adjustment at intervals, depending on the mileage and the care which the operator has given the chains. Initial wear must be taken up by adjustment after the first few hours of use. Total deflection should be 1/2" to 3/4" when measured midway between the two sprockets of the most loose position. To adjust the chains, loosen the axle bolts and the adjusting bolt lock nuts, and turn the adjusting bolts equally in or out as required to give the chain the proper setting. After adjusting the chain, rotate the wheel and check to make sure the chain is aligned properly. Periodically, the chains should be removed from the machine and cleaned in solvent and re-lubricated. They should be lubricated with one of the chain lubricants on the market which can be applied to the chain in a liquid form and will penetrate to the inner parts of the rollers.
3. Clean the air filter based on use. See Engine Manual.
4. Use normal repair procedures for tires and tubes. Re-seat the tire beads with 40 PSI , then deflate to the 5 PSI operating pressure.
5. The miter box and transmission should not require service other than checking the oil level or replacing oil seals. The space between inner and outer seal lips should be filled with grease, such as #2 Lithium Grease. The miter box should be removed and oil changed yearly. The miter box is assembled with special tooling to determine the correct tooth engagement and backlash. It is not advisable to attempt to dismantle the unit. The transmission should be drained and refilled on the same yearly schedule. There is a drain plug on the bottom of the transmission, a fill level plug partway up, and a fill plug on the top. The miter box takes 2.5 fluid oz. of EP 80W-90 gear lube oil. The transmission takes 6 fluid oz. of EP 80W-90 gear lube oil.
6. Check belt for wear. Belts last at least a year and generally average 4-5 years.
7. Check the throttle for full return and feel.
8. Add grease to grease fitting.
9. Lubricate sprag clutch via inspection holes below driver's seat with EP80W90.

**Storing your ROKON**

1. Close the Fuel Tank Shut-Off Valve and Engine Fuel Valve. This will prevent fuel leakage when transporting or storing your ROKON. These are key items when transporting your ROKON.
2. Start the engine and allow it to run until it stops from lack of fuel. This will use up all the fuel in the carburetor and prevent the formation of deposits due to evaporation of fuel.
3. Disconnect fuel line and permit all fuel to drain from the gasoline tank. Replace the fuel line.
4. When removing from storage, fill with fresh fuel. It is always recommended to use fresh fuel.

**Trouble Shooting**

SYMPTOM	PROBABLE CAUSE
1. <b>Twist grip sticks.</b>	Twist grip end rubbing on handlebar. Deposit buildup under twist grip. Worn or broken twist grip or throttle cable. Throttle linkage improperly adjusted. Moisture under grip freezing in cold temp.
2. <b>Chains loosen frequently.</b>	Improperly seated chain adjustment bolts. Loose axle bolts. Improper chain alignment. Chains need lubrication. Twisted or distorted chains.
3. <b>Excessive end play in wheel.</b>	Loose axle bolts. Improper axle or wheel spacer thickness. Defective wheel bearings. Distorted bearing retainer housing in wheel.
4. <b>Chain scoring tire sidewall.</b>	Improper chain alignment. Improper axle spacer thickness. Defective wheel bearings.

## Trouble Shooting

SYMPTOM	PROBABLE CAUSE
<b>5. Noisy driveline.</b>	Driveline improperly seated. Worn or broken overrunning clutch spring. Worn, broken or loose carrier bearing or bearing retainer. Worn bosses leading into overrunning clutch spring. Worn universal joint.
<b>6. Noisy front miter box.</b>	Low oil level. Loose gearbox mounting bolts. Worn or broken bevel gears. Worn shaft bearings. Improper gear mesh.
<b>7. Rear wheel won't drive.</b>	Wheel chain off sprocket. Sheared roll pin on drive sprocket.
<b>8. Front wheel won't drive.</b>	Wheel chain off sprockets. Sheared roll pin in sprocket. Broken overrunning clutch spring on driveline. Worn bosses leading to overrunning clutch spring. Defective transmission.
<b>9. Engine stalls when machine stops.</b>	Debris in carburetor. Improperly adjusted throttle linkage. Ice in system. Idle set too low.
<b>10. Valve core disappears within wheel. (only tubed tires)</b>	Tire pressure too low. Tube not secured by stem kit.



## Trouble Shooting Engine

SYMPTOM	PROBABLE CAUSE
<b>1. Engine will not start.</b>	No fuel in tank or Fuel Tank Shut-Off Valve closed. Spark plug not firing. Fuel not being delivered to combustion chamber. Engine flooded. Too much fuel in combustion chamber. Improper spark plug gap. Plugged fuel filter.
<b>2. Engine hard to start.</b>	Water or dirt in fuel or stale fuel mixture. Weak ignition spark. Plugged air filter. Engine over or under choked. Gasket or seal leaks. Spark plug fouled.
<b>3. Engine starts but will not continue to run.</b>	Insufficient fuel supply. Fuel line clogged. Vent on filler cap plugged. Dirty carburetor. Air leak in fuel system. Defective or fouled spark plug. Idle screw not adjusted properly.
<b>4. Engine misses.</b>	Dirt in fuel system. Spark plug fouled or defective. Faulty magneto or improper ignition coil air gap setting. Idle screw not adjusted properly.
<b>5. Engine lacks power.</b>	Air cleaner clogged. Incorrect spark plug – gap too wide or too narrow. Incorrect air gap on ignition coil. Worn or stuck piston rings or leaky head gasket. Ice in system. Hi altitude running. (use hi altitude jet)

## Trouble Shooting Engine

SYMPTOM	PROBABLE CAUSE
<b>6. Engine overheats.</b>	Engine overloaded. Oil too low in crankcase. Incorrect spark plug. Ignition timing over-advanced. Scored piston or cylinder wall. Lean Mixture. Dirty air filter / blocked air intake. Dirty cylinder cooling fins.
<b>7. Engine noisy or knocking.</b>	Loose flywheel. Worn bearings. Broken or loose parts inside engine. Lack of oil in crankcase.
<b>8. Engine stalls under load.</b>	Fuel line restricted or tank vent closed. Engine overloaded.
<b>9. Poor acceleration.</b>	Air cleaner clogged. Ignition timing over-advanced or retarded. Leaking gaskets. Air gap too wide. Exhaust restriction. Low compression.
<b>10. Poor high speed performance.</b>	Low compression. Pre-ignition. Improper spark plug or air gap. Belt worn. Brakes dragging.

## Section 6

# Periodic Maintenance and Adjustment

## Care and Adjustment of ROKON Brakes

### General:

ROKON all wheel drive vehicles have individual front and rear disc brakes. They are hydraulically operated by hand levers on the handlebars. The left lever controls the rear brakes and, in the forward direction, stops the rear wheel. The overrunning clutch in the driveline allows the front wheel to continue rotating. The right lever operates the front brake and stops both wheels. The discs are high mounted to keep them out of water and mud. Though small, they are powerful due to the torque multiplication of the sprocket ratio.

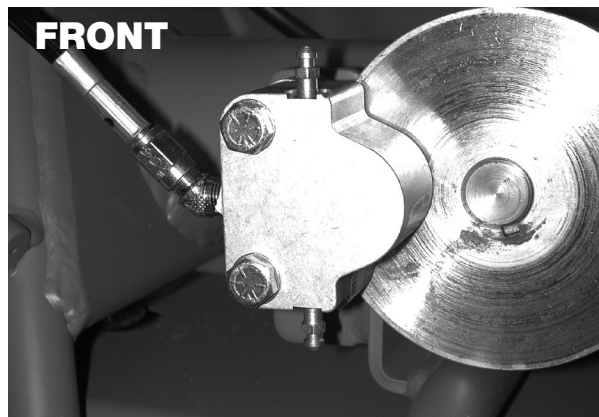
**Refer to the ROKON Parts Manual for help with part names and assembly sequence.**

### Maintenance:

The brakes operate with little or no maintenance, but work more smoothly and last longer if kept clean and lubricated.

The floating brake disc must be free to move axially so that the moveable puck will push against the fixed puck. Otherwise, unequal wear or bending of the disc will result. Proper clearance between the puck and the disc is .010" minimum per side to a maximum of .031" per side when new.

Discs must be free of dirt and grease for maximum life and braking action.



## Section 6

# Periodic Maintenance and Adjustment

### Maintenance:

Hydraulically operated brakes may be operated at pressures up to 1000 PSI using a petroleum hydraulic fluid compatible with Buna-N Seals. **Use automotive DOT 3 or 4 Brake Fluid only.**

**Do not pressure bleed with more than 5 PSI.**

If hydraulic brakes are not working properly, try “bleeding” them.

1. Orient handlebars to ensure brake reservoirs are level. Remove cover of malfunctioning brake reservoir and fill with hydraulic fluid to maximum line. (Throughout bleeding process, do not allow fluid to drop below minimum line.) Replace cover but leave loose to allow reservoir to vent during bleeding.
2. Find the corresponding brake caliper to the reservoir you have filled. Loosen upper bleeder screw on caliper.
3. Grasp brake lever and slowly engage brake to bleed. Air bubbles and hydraulic fluid will flow out of the loosened bleeder screw.
4. Before brake lever is fully seated, re-tighten bleeder screw on caliper. Allow brake lever to reset to resting position.
5. Refill brake reservoir as necessary.
6. Repeat steps 1-5 until bleeder screw is releasing a constant flow of hydraulic fluid with no air bubbles.
7. Tighten reservoir cover until it is sealed.
8. Repeat for other brake if also not working properly.

### Maintenance Puck Replacement (See page 28 for diagram):

1. Be sure no pressure is applied to the caliper during puck replacement.
2. Hydraulic lines do not need to be removed.
3. Remove the two SAE grade 8 hex bolts (#18). This will dismount and disassemble the caliper, exposing the Pucks for replacement.
4. Remove the pan head screws (#9) that hold the Pucks (#10 & 22) in place on each side of the caliper. Remove Pucks from Housing (#13) and Dead Side Housing (#11).
5. Place new Pucks (#10 & 22) into Housings. Replace Pan Head Screws (#9), tighten to hold Pucks in place. (Note: Screw head will fit into recessed area of Puck. Be sure only friction material will contact disc when reassembled.)
6. Reassemble caliper and mount as before.

			WHICHEVER COMES FIRST	MO KM (MI) HOURS	INITIAL 1 320 200 20	INITIAL 3 1300 800 80	INITIAL 6 2500 1600 160	EVERY 6 2500 1600 160	EVERY 12 5000 3200 320
NO	ITEM	CHECK OR MAINTENANCE JOB	Every 20-40 hours, (more often in wet or dusty areas)						
1	Air Filter Element	Check or replace if necessary			X		X	X	X
2	Torque Converter, Front and Rear	Check operation and adjust if necessary			X	X	X	X	X
3	Front and Rear Brake	Check operation and adjust if necessary			X	X	X	X	X
		Check fluid level and inspect for leaks							
		Replace Brake Pads		whenever worn to the limit					
4	Brake Hoses	Check for cracks and other damage				X	X	X	X
		and repair as necessary							
		Replace		every four years					
5	Parking Brake	Check operation and adjust if necessary			X	X	X	X	X
6	Wheels	Check runout and for damage and replace if necessary			X		X	X	X
7	Tires	Check tread depth and for damage, and replace if necessary			X		X	X	X
		Check air pressure and balance, and correct if necessary			X		X	X	X
8	Wheel Bearings	Check for looseness and damage, and replace if necessary			X		X	X	X
9	Drive Chain	Lubricate			X	X	X	X	X
		Check Chain Slack and adjust if necessary							
10	Chassis Fasteners	Make sure that all nuts, bolts, and screws are properly tightened			X	X	X	X	X
11	Universal Joint	Inspect and replace bearings as necessary			X				X
12	Over running Clutch on Drive Shaft	Lubricate with EP 90 Transmission Fluid			X				X
13	Front Fork To Frame Bearings&Bolts	Inspect and replace bearings as necessary			X	X	X	X	X
		Check Bolts for correct tightness			X	X	X	X	X
14	Engine Oil	Change			X	X	X	X	X
		Check for leaks and correct as necessary							
15	Miter Box and Transmission Oil	Change							X
16	Throttle and Cable	Check operation and correct if necessary			X	X	X	X	X
		Lubricate throttle lever and housing			X	X	X	X	X
17	Front and Rear Brake Switches	Check operation and correct if necessary			X	X	X	X	X
18	Lights and Switches	Check operation and correct if necessary			X	X	X	X	X
19	Moving Parts	Lubricate				X	X	X	X
20	Drive Belt	Check for wear and tension							X



## I. TRANSMISSION AND DRIVELINE REMOVAL PROCEDURE

### Section 1, Procedure for Transmission Removal:

1. Elevate and secure the bike firmly to a non-moving stand. Bike should be elevated so that the rear wheel is not touching the ground.
2. Remove all side covers from the bike.
3. Close Fuel Tank Shut-Off Valve and Engine Fuel Valve. Disconnect fuel line and plug, if necessary. Remove fuel tank.
4. Remove front seat. This is accomplished by removing the two attaching bolts on each side of the front seat bracket and the bottom shock absorber attaching bolt. The whole assembly can be removed and put aside.
5. If transmission and driveline need to be removed, the rear wheel and rear fender will need to be taken off the bike. If only the transmission needs to be removed, the rear wheel may stay intact. *See Section 7 Part II (page 21) for Drive Line Removal.*
6. Remove the rear drive chain by locating the master link and separating it from the chain.
7. Remove the rear driveline roll pin. (If transmission and driveline are to be taken out as one unit, leave roll pin attached for ease of disassembly.) This is done by inserting a pin punch into the roll pin access hole (located under the front seat, which was removed), and driving the pin straight downward. Note: Rotate rear wheel until hole lines up.
8. Remove drive belt.
9. Remove driven clutch. Loosen the three Allen screws behind the clutch. Note: Driven clutch may be frozen on to the shaft. A small piece of wood and a mallet from behind the clutch should ease removal. Care must be taken not to damage clutch. Use pry bars if necessary.
10. Remove exhaust pipe. (Loosen two 12mm nuts. Pull muffler off engine seat. Pull muffler out of sleeve).
11. Remove rear brake caliper assembly. Take caution not to undo the brake line from the spring assembly. Disconnect cotter pin and back off brake tension. Remove brake caliper assembly and brake bracket as a complete unit. (Remove the two 1/2" transmission attaching bolts under the brake disc.). Slide brake disc off shaft. Take note the way the caliper and brake disc came off for reassembly.

12. Remove all four transmission attaching bolts, three on the frame mount, and one next to the upper cross shaft. (Two should already be removed from the brake bracket as described in step 11).

**At this point:** Transmission can be removed, by moving left to right to loosen it from the driveline clutch, sliding back into fender well, and carefully turning sideways and pulling upward. Note: If the transmission can be shifted into 3rd gear, it will ease removal, by having the shift ball closer to the transmission.

Reverse disassembly procedure for assembling.

**Note:** Replace worn parts as needed. (ie. roll pins, worn nuts or bolts, drive belt, etc.) Use thread lock compound on transmission attaching bolts upon reassembly.

### Section 2, Procedure for Transmission and Driveline Removal:

1. Follow steps 1-5 in Section 1.
2. Remove in order: rear wheel, tail section of muffler, and rear fender.
3. Remove the two carrier bearing bolts, which are located under the fuel tank.
4. Remove front chain guard cover, front drive chain, and headlight. Note: Ground wire for the headlight must be routed behind front miter box assembly.
5. Remove front brake caliper assembly. Remove two bolts that secure the assembly to the bracket. Swing out of the way. Remove brake disc.
6. Remove front miter box assembly. (This is done by removing the two 5/16-18 bolts from behind the miter box assembly.) Pull miter box assembly straight out of bore, with universal joint attached. Set aside.
7. Remove transmission assembly and drive line as one unit (Ease disassembly by making sure the transmission is shifted into the highest gear. Shift ball closest to the transmission.) Pull the assembly straight out of the bore.
8. Reverse procedure for reassembly.

**II. FRONT MITER BOX AND UNIVERSAL JOINT REMOVAL PROCEDURE**

1. Remove front chain guard and front chain. Use a ½" wrench or socket to remove chain guard. Then find master link and loosen chain. Remove master link. Take chain off.
2. Remove headlight. Using ½" wrench loosen and remove nut that attaches light to fender. Unplug headlight electrical connectors.
3. Remove brake caliper and disc. Using ½" wrench and socket remove both bolts that hold caliper in place. Remove caliper and replace bolt and nuts to keep pucks in place and let caliper hang off the side of the bike and remove brake disc.
4. Remove two 5/16-18 bolts connecting miter box to front fork. Pull miter box straight out (universal joint will also come out).
5. Replace broken or worn parts as needed including universal joint, gears or seals.
6. After repairs are made and with the universal joint in place, slide miter box (gently) into place. You will feel it hit the drive shaft. Slide your index and middle fingers of your right hand between the fork and where the universal joint is located. Pinch the universal joint with these two fingers. Slide the brake disc into place and use this to spin miter box. As you are spinning miter box, you should feel it locate itself on the woodruff key as it catches back into place. To make sure the universal joint is located properly, lock the rear brake and spin disc counter clockwise. If the disc doesn't spin, it has been installed properly. If the miter box does spin, remove and check to see if woodruff key is in place. If it has slipped out, you can retrieve the key by tilting the bike up on its nose and it will fall out. Replace the key by means of long needle nose pliers and repeat the procedure.
7. When you have the miter box installed properly, reverse procedure 1-5.

**III. FRONT DRIVE LINE SYSTEMS CHECK**

1. Elevate bike so wheels are not touching the ground.
2. Apply front brake.
3. Rotate rear tire in forward direction.
4. While rotating rear tire, check universal joint for rotation. If the universal joint is spinning, check roll pin that attaches front drive sprocket. If roll pin is not damaged, then the internal miter box roll pin is sheared. If the universal joint is not spinning, look into rear inspection holes (under the driver's seat) to see if overrunning clutch is turning.
5. If overrunning clutch turns, then the roll pin attaching the drive shaft to the overrunning clutch is sheared. If overrunning clutch is not spinning, check to see if roll pin attaching overrunning clutch to the transmission is sheared. If roll pin is not sheared, then an internal transmission roll pin is sheared.
6. If miter box is damaged, it must be removed. Miter box must be disassembled and repaired as needed.
7. If the roll pin connecting the drive shaft to the overrunning clutch is sheared, it is recommended that the drive shaft be replaced. Line up pin hole and replace.
8. If internal transmission damage is suspected, transmission must be removed and repaired as necessary. Contact ROKON for transmission repair.

**ROKON**  
**SPECIAL INSTRUCTIONS FOR ELECTRIC START**

1. Locate keys, fuse and battery vent hose next to manuals on the front cargo rack.
2. Remove rear/lower right hand side fairing and the left side fairing cover with 1/2" socket wrench.
3. Locate fuse box on right side of engine below keyhole. Insert fuse found with manuals in the fuse box. Close cover.
4. Locate battery on right hand side of bike. Connect battery wires. Battery is a sealed unit.
5. Remount fairing covers and tighten bolts as necessary.
6. Start bike first time using pull start procedure in manual. Follow other instructions in manual, including the addition of oil to crankcase, etc.
7. For electric starting, choke and turn key. As soon as engine starts, release key, turn choke off.

**INSTRUCTIONS TO ADJUST VERTICAL CHAIN  
ON AUTOGRAB FRONT SUSPENSION**

1. On the chain side, loosen black collar above swing arm by loosening both Allen head bolts holding it in place.
2. Using an adjustable wrench, turn the nut below the collar to achieve desired chain tension. While making this adjustment, be sure the gold threaded rod end below the nut stays centered.
3. Tighten the black collar via the Allen head bolts that were loosened in Step 1.
4. Repeat steps 1-3 on the non-chain side, making a similar adjustment to the nut in Step 2, in order to keep level.



## Section 8

# Torque and other Specification Charts

Torque and Threadlocking Specifications For Fasteners On Rokon 2WD Vehicles

Fastener Size	Location	Thread Locking	Torque	
			In. lbs.	Ft. lbs.
10-32	Foot Rest Tube	Lock Washer	25	2
1/4			84	7
5/16	Transmission	Loctite 242 + Lock Washer	180	15
	Brake Mounting	Self Locking Nuts		
	Wheel Bearings	Loctite 242		
	Foot Rest	Self Locking Nuts		
3/8	Engine Mounting/Axle Bolts		360	30
1/2			720	60
3/4	Steering	Loctite 242	2400	200
M5			25	2
M6			84	7
M8			180	15
M10			360	30

### Miscellaneous Specs

Tire Pressure 5 PSI

*See Engine Manual for engine details.*

## ROKON WARRANTY SYSTEM

ROKON International Inc. warrants to the original purchaser, new ROKON Utility Vehicles to be free of defects that are the result of faulty workmanship or material, for a period of one year from the date of purchase for new year model ROKONs only. In the case of competition machines, no warranty is expressed or implied. The entire risk to the quality and performance of competition machines is with the buyer.

Warranty will be honored through any authorized ROKON dealer or the factory. To validate warranty, Purchaser must: Complete and return Warranty Registration Card to ROKON International Inc. within ten (10) days of purchase.

Notify ROKON of any and all defects made within ten (10) days of malfunction and make machine immediately available for inspection at a place to be determined by ROKON.

Have warranty service performed by an authorized ROKON agent as directed by ROKON.

Warranty will not cover:

- Parts replaced as a result of normal wear. (ie. spark plugs, tires, tubes, and so forth)
- Parts subject to misuse, neglect, or modification.
- Parts damaged as a result of accident or collision.
- Machines used for rental and/or lease.
- Machines used in competitive events.
- Machine abuse.

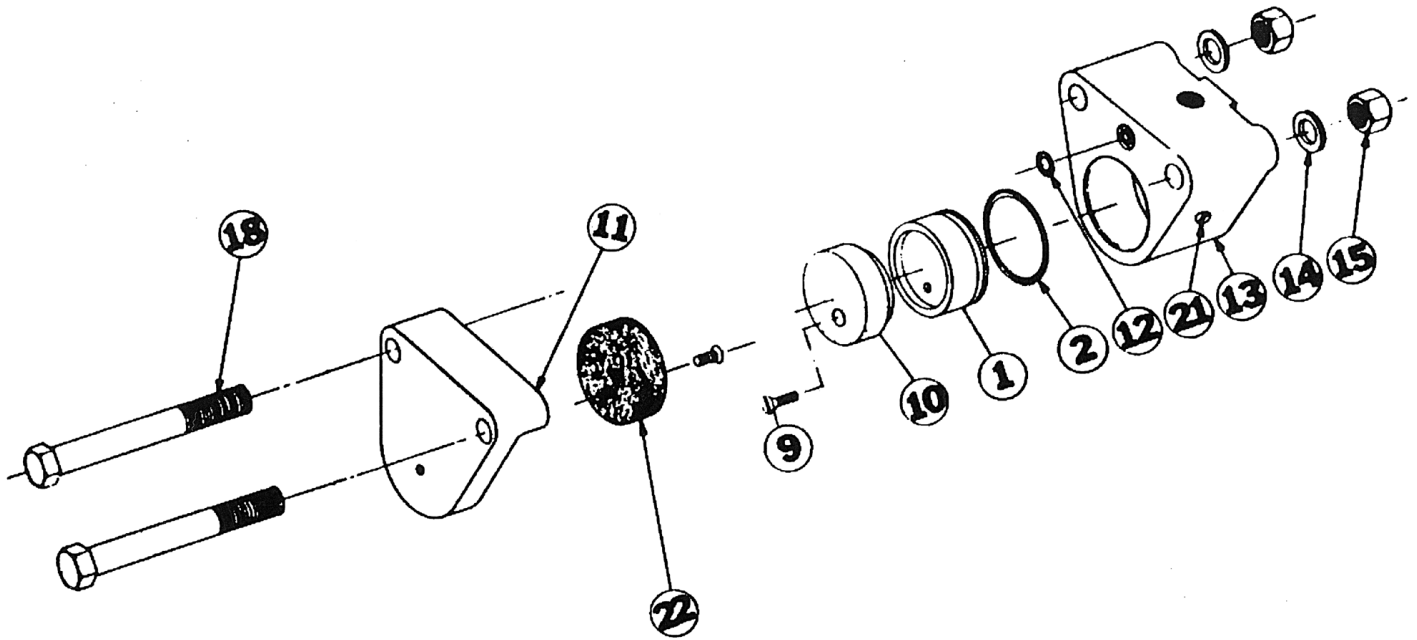
ROKON International Inc.'s liability shall be limited to that set forth herein, and no other claims for consequential damage or injury to person or property will be admissible. All other conditions and warranties, statutory or otherwise, and whether expressed or implied, including, but not limited to, implied warranties of merchantability or fitness for a particular use, are hereby excluded. This implied warranty exclusion is not applicable in states having laws to the contrary.



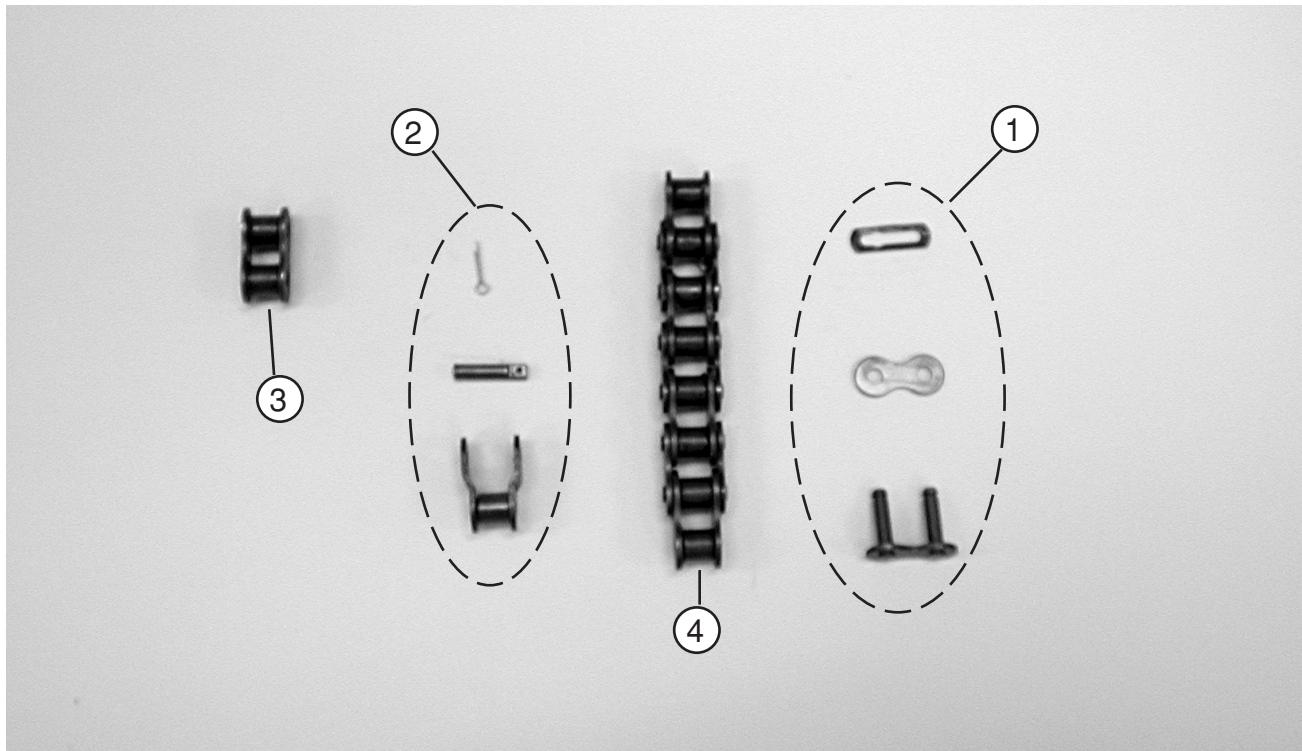
# Illustrated Parts Manual

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28	Chain
29	Decals
30	Electrical
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34	Kohler Airbox
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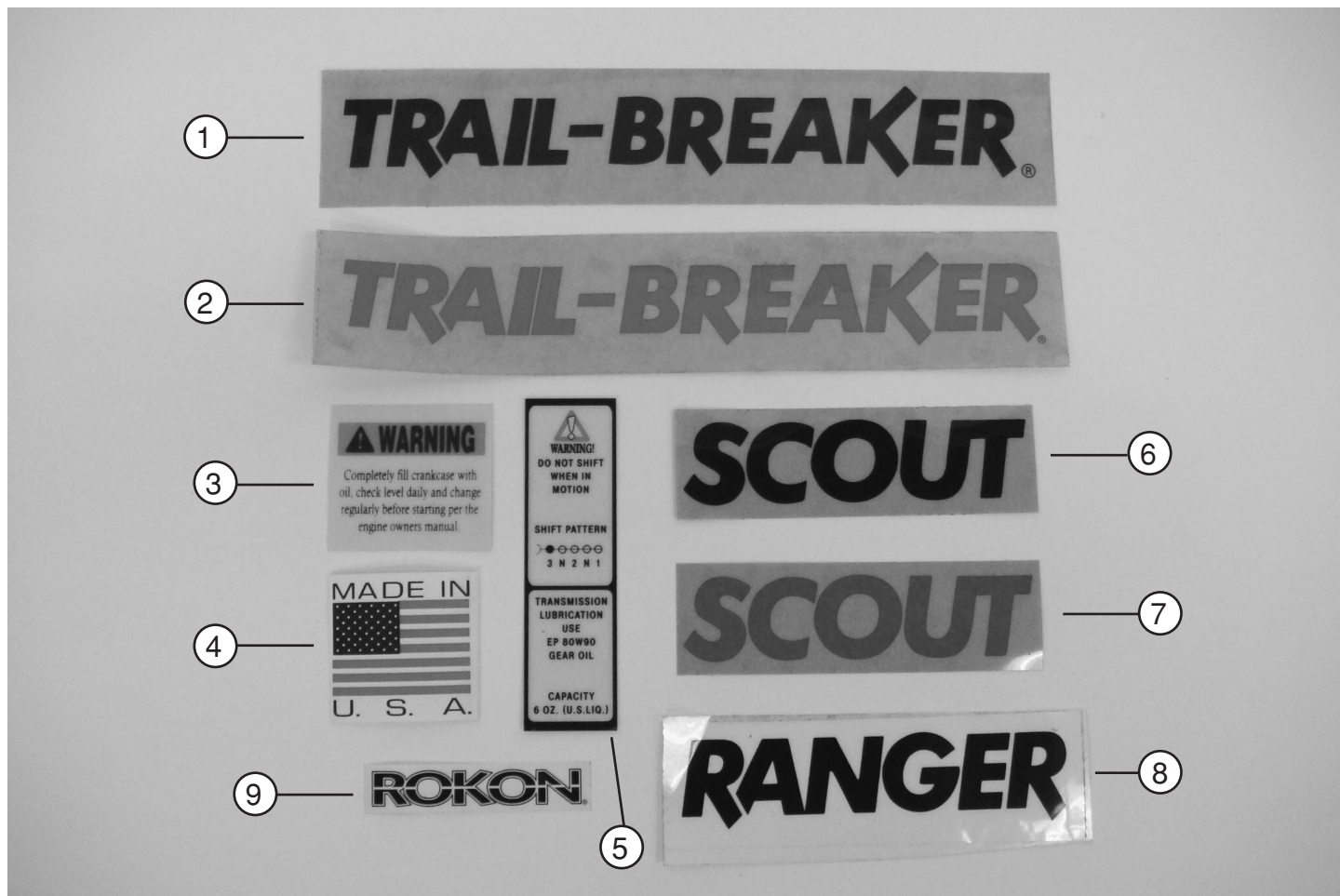


Item	Part Number	Name	Description	Qty
1	0701-1062	Piston		1
2	0701-1004	O-Ring, Buna-N		1
9	0701-1006	Screw, Flat Head Slotted		2
10	0701-1005	Puck		1
12	0701-1003	O-Ring, Buna-N		1
13	0708-1001	Housing, Pneumatic, Retractable		1
14	0701-1007	Washer		4
15	0701-1008	Nut, Flexloc		2
18	3030-1007	Hex Bolt		2
22	0701-1032	Puck, Dead Side		1



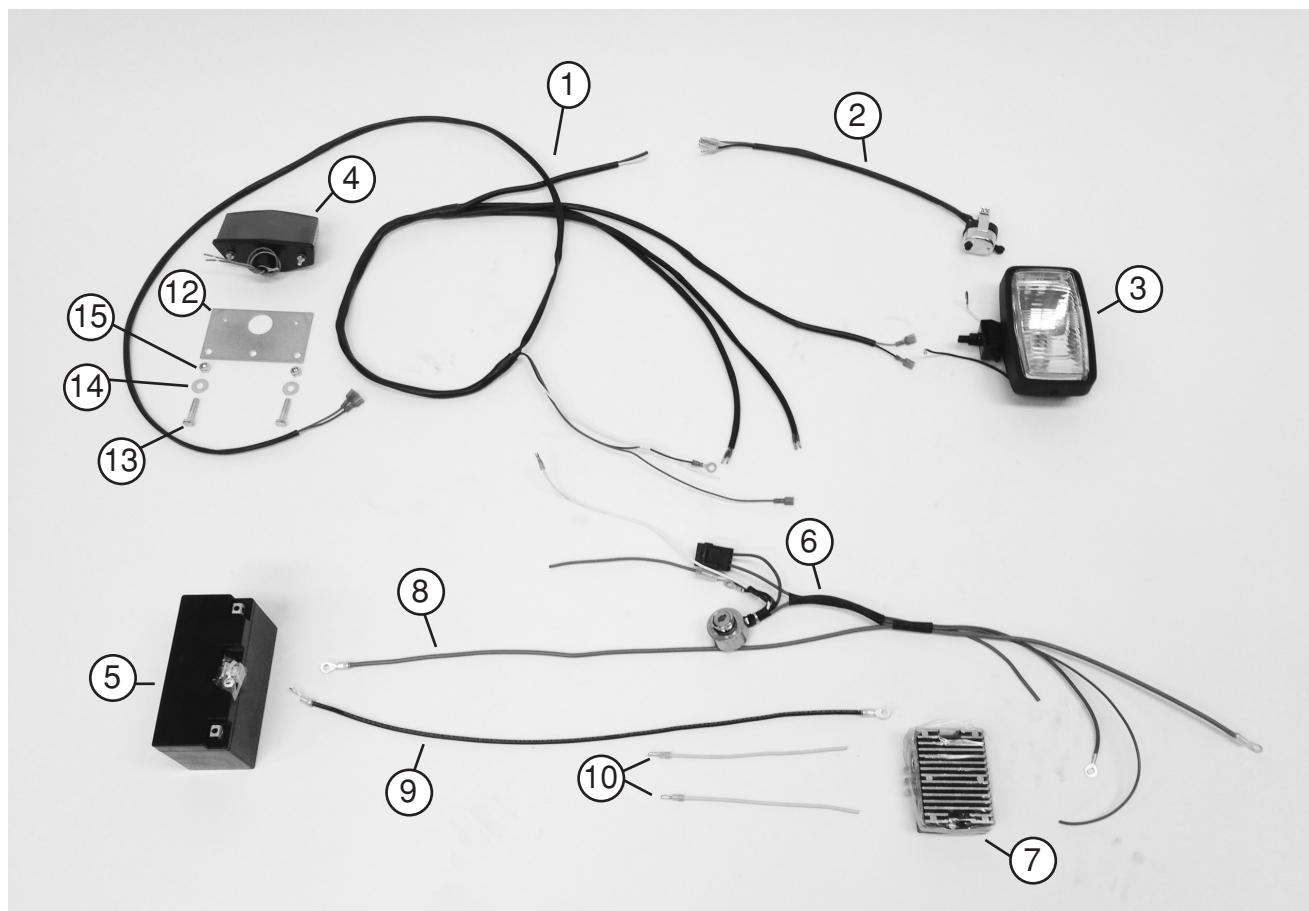
Item	Part Number	Name	Description	Qty
1	100356	Master Link		2
2	100355	Offset Link	as needed	
3	100354	Full Link	as needed	
4	108984	Chain Length	as needed	
5	101568A	Front Chain 107P	not shown	1
6	101570A	Rear Chain 117P	not shown	1
7		<i>For AutoGrab chains, please see page 59</i>		

## Decals



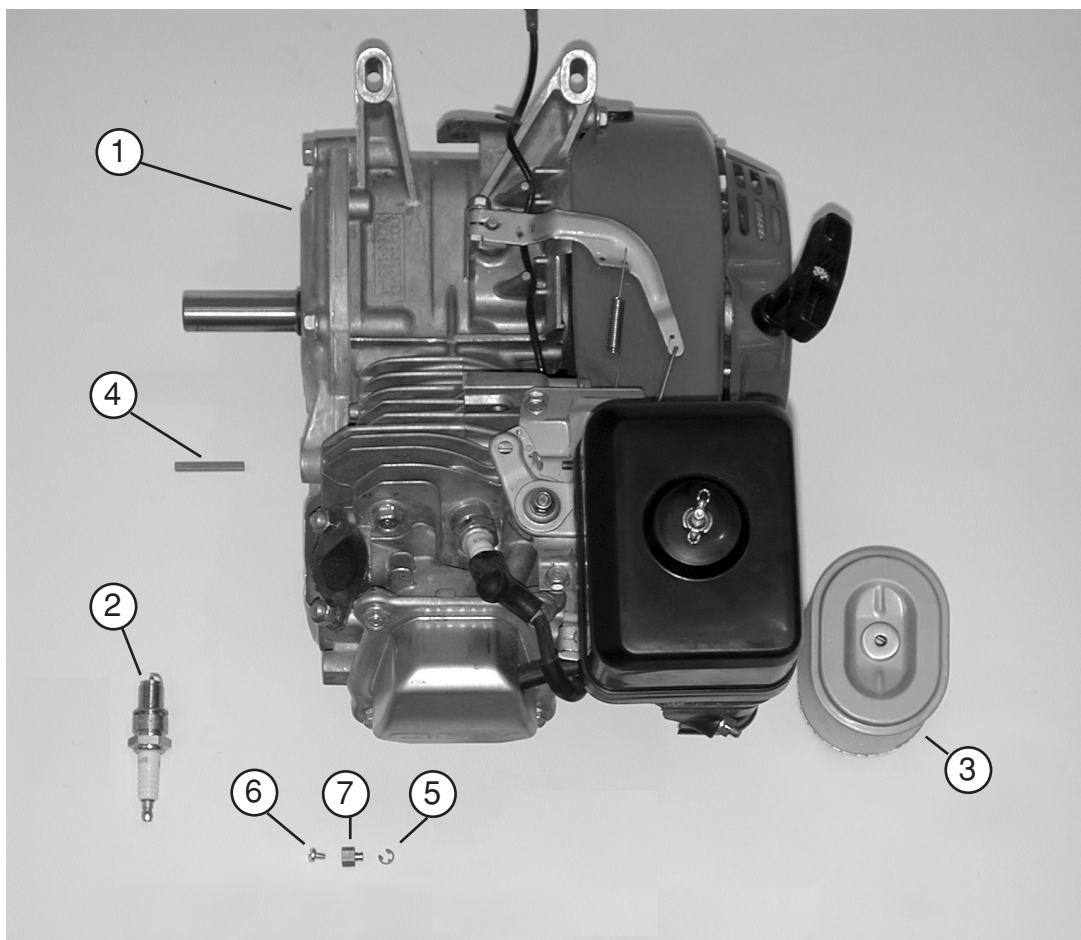
Item	Part Number	Name	Qty
1	108039	Decal "TRAIL-BREAKER" in Black	2
2	108040	Decal "TRAIL-BREAKER" in Red	2
3	108988	Decal Oil Warning	2
4	108057	Decal Made in USA	1
5	101626	Decal "Shift Instructions"	1
6	101595	Decal "SCOUT" in Black	2
7	108043	Decal "SCOUT" in Red	2
8	108041	Decal "RANGER" in Black	2
9	108972	Decal "ROKON" for Handlebar	1





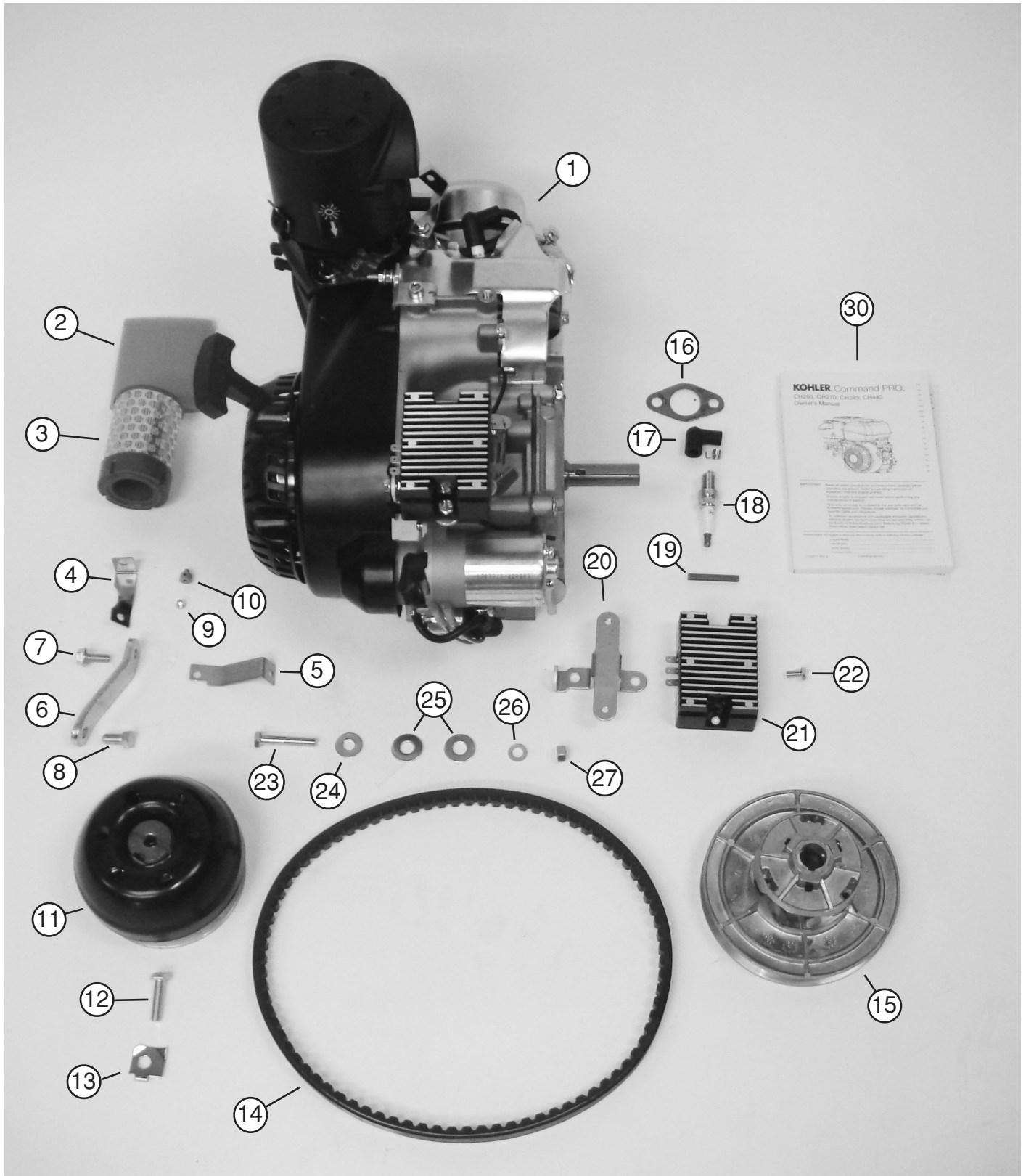
Item	Part Number	Name	Qty
1	108179	Wiring Harness 7hp	1
2	120020	Kill/Headlight Switch Harness 7hp	1
3	104313	Head Light	1
4	104315	Tail Light	1
5	MK7BBS	Battery AGM	1
6	120021	Key Switch Harness 7hp	1
7	108126	Voltage Regulator	1
8	120022	Battery Lead Positive	1
9	120023	Battery Lead Negative	1
10	120024	Lead to Voltage Regulator	2
11	KOH 33-034	Fuse 25 Amp (NOT SHOWN)	1
12	101135	Tail Light Bracket	1
13	100170A	Bolt	HH Bolt 1/4-28 x 1 1/2
14	100255	Washer	Flat Washer
15	100169	Lock Nut	1/4-28

# Honda Engine



Item	Part Number	Name	Description	Qty
1	HONGX160 PS	Honda Engine	GX160	1
2	100369H	Spark Plug		1
3	HON5247408	Air Filter		1
4	101548	Crank Key		1
5	108253	E Clip		1
6	108254	Screw	M4 Size, 6 mm length, .7mm pitch	1
7	110058	Cable Holder 7hp		1

# Kohler Engine



**Section 10**

# Kohler Engine

Item	Part Number	Name	Description	Qty
1	KOHCH270	Kohler 7hp Engine		1
2	KOH1708312-S	Pre Cleaner		1
3	KOH1708307-S	Air Filter		1
4	110054	Throttle Cable Bracket		1
5	110053	Fuse Holder Bracket		1
6	109000	Head Steady		1
7	108943	Bolt for Head Steady(Engine)		1
8	100572	Bolt for Head Steady(Frame)	HH Bolt 3/8-24 x 3/4 Z5	1
9	108254	Screw	M4, 6mm, .7mm pitch	1
10	110058	Cable Holder 7hp		1
11	100885	Driven Torque Converter(Clutch)		1
12	108123	Clutch Bolt		1
13	108983	Locking Clip		1
14	108137	Belt		1
15	100884	Rear Driven Clutch		1
16	KOH1704103-S	Exhaust Gasket		1
17	K-705-2	Sparky		1
18	100369K7	Spark Plug 7hp		1
19	KOH1434001-S	Crank Key		1
20	108304	Bracket for Regulator		1
21	108126	Regulator		1
22	100167	Screw	1/4-28 x 1/2 HH Bolt	2
23	108967	Screw	HHCS 8mm-1.25 x 45	4
24	100202	Washer	5/16	4
25	100208	Washer	Flat 3/8	8
26	108965	Washer	8mm Flat Washer Z	4
27	108966	Nut	980TOPLK 8-1.25ZCL10	4
28	KOH1785322-S	Carburetor 7hp	Not Shown	1
29	KOH1475701-S	Carburetor Repair Kit	Not Shown	1
30	KOH7HPMAN	Kohler 7hp Engine Manual		1



# Kohler Air Box



Item	Part Number	Name	Description	Qty
1	KOH1709404-S	Air Filter Base		1
2	KOH1704103-S	Gasket		1
3	KOH1709641-S	Air Filter Cover		1
4	KOH1708312-S	Precleaner		1
5	KOH1708307-S	Air Filter		1
6	KOH1475514-S	Jet for 4-8000 Feet		1
7	KOH1475523-S	Jet for 8000 Feet and Above		1

# Frame





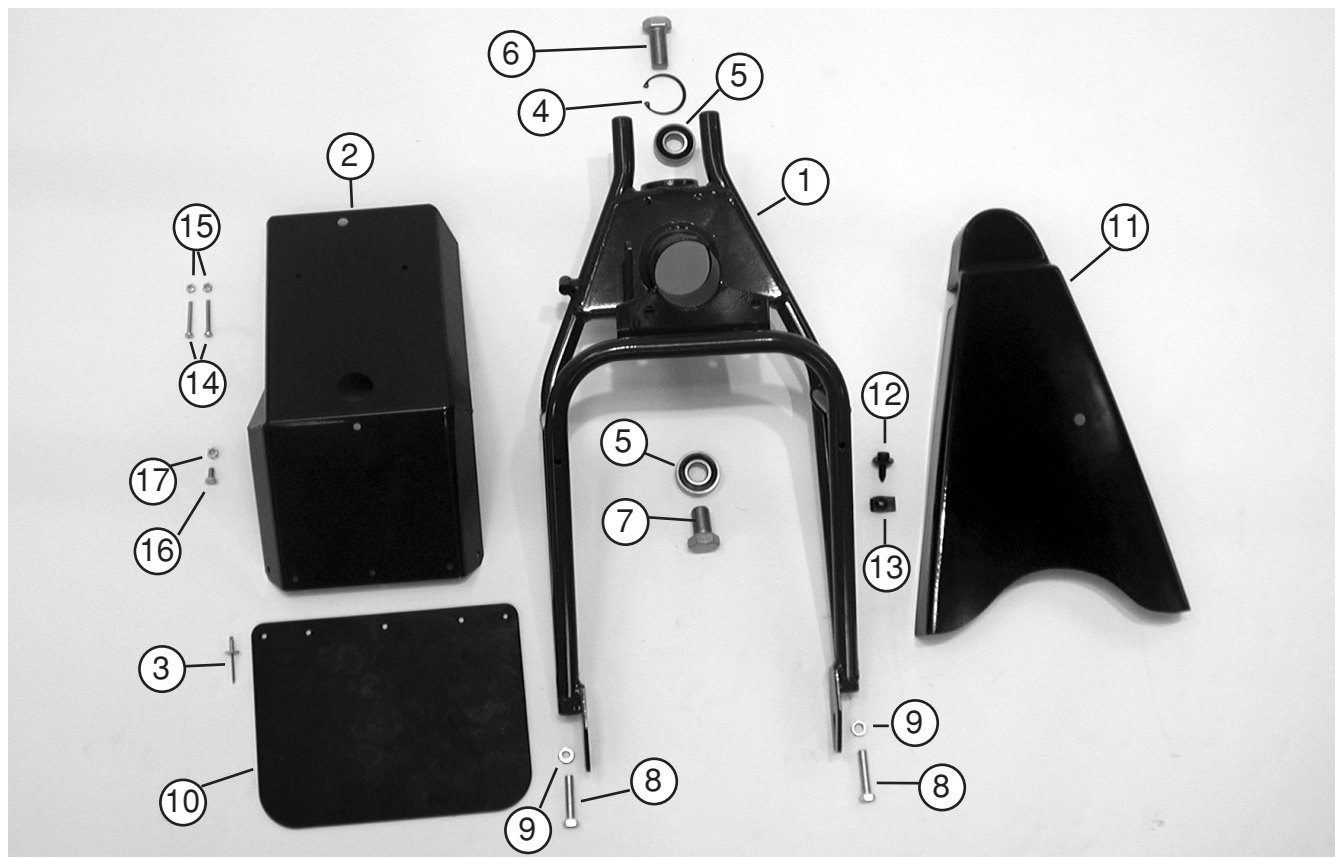
**Section 10**

# Frame

Item	Part Number	Name	Description	Qty
1	107001A	Frame		1
2	108243	Rear Fender Kohler		1
3	108994	Fairing LHS		1
4	108995	Fairing RHS Front		1
5	108996T	Fairing RHS Top		1
6	108996B	Fairing RHS Bottom		1
7	100386	Kickstand		1
8	100223	Kickstand Spring		1
9	100285	Clevis Pin	5/16" x 1 3/8"	1
10	100290	Cotter Pin	1/8" x 3/4"	1
11	108144A	Foot Rest RHS Cleated		1
12	108146A	Foot Rest LHS Cleated		1
13	100343	Passenger Foot Rest (Set of 2)		1
14	101572	Rubber Chain Guard		1
15	101629	Stud for Fairing		6
16	101630	Receptacle for Fairing		6
17	100126	Bolt	1/4-20 x 5/8 HH Bolt	2
18	100255	Washer		2
19	100573	Wheel Adjuster Bolt	HH Bolt 3/8-24 x 1 3/4	2
20	100036	Nut	3/8-24 Jam	2
21	108087	Rear Fender Honda	NOT SHOWN	1
22	100273	Bolt	Pan Head Screw 10-32 x 1/4	6
23	100275	Lock Washer	Lock Washer #10	6
24	100034	Screw	Pan Head Screw 10-32 x 1/2	2
25	100037	Nut	Hex Nut Self Lock 10-32 (NOT SHOWN)	2
26	108123	Bolt	HHCS gr 5 5/16-24X 1 1/2 ZN	2
27	100551	Nut	Locknut 5/16-24 Hex	2

## Section 10

# Front Fork



Item	Part Number	Name	Description	Qty
1	105064	Front Fork Weldment		1
2	100453	Front Fender		1
3	100935	Pop Rivet		5
4	103136	Snap Ring		1
5	100772	Bearing	Sealed	2
6	107026	Upper Fork Bolt	Use Loctite 242	1
7	107025	Lower Fork Bolt	Use Loctite 242	1
8	100573	Wheel Adjuster Bolt	HH Bolt 3/8-24 x 1 3/4 Fully Threaded	2
9	100036	Nut	Hex Nut Jam 3/8-24	2
10	100427	Front Mud Flap		1
11	108106	Front Chain Guard		1
12	101629	Stud		1
13	101630	Receptacle		1
14	100035	Screw	Pan Head Screw 10-32 x 1 1/2	2
15	100037	Nut	Hex Nut Self Lock 10-32	2
16	100167	Bolt	1/4-28 x 1/2 HH Bolt	1
17	100169	Lock Nut	Nut 1/4-28	1

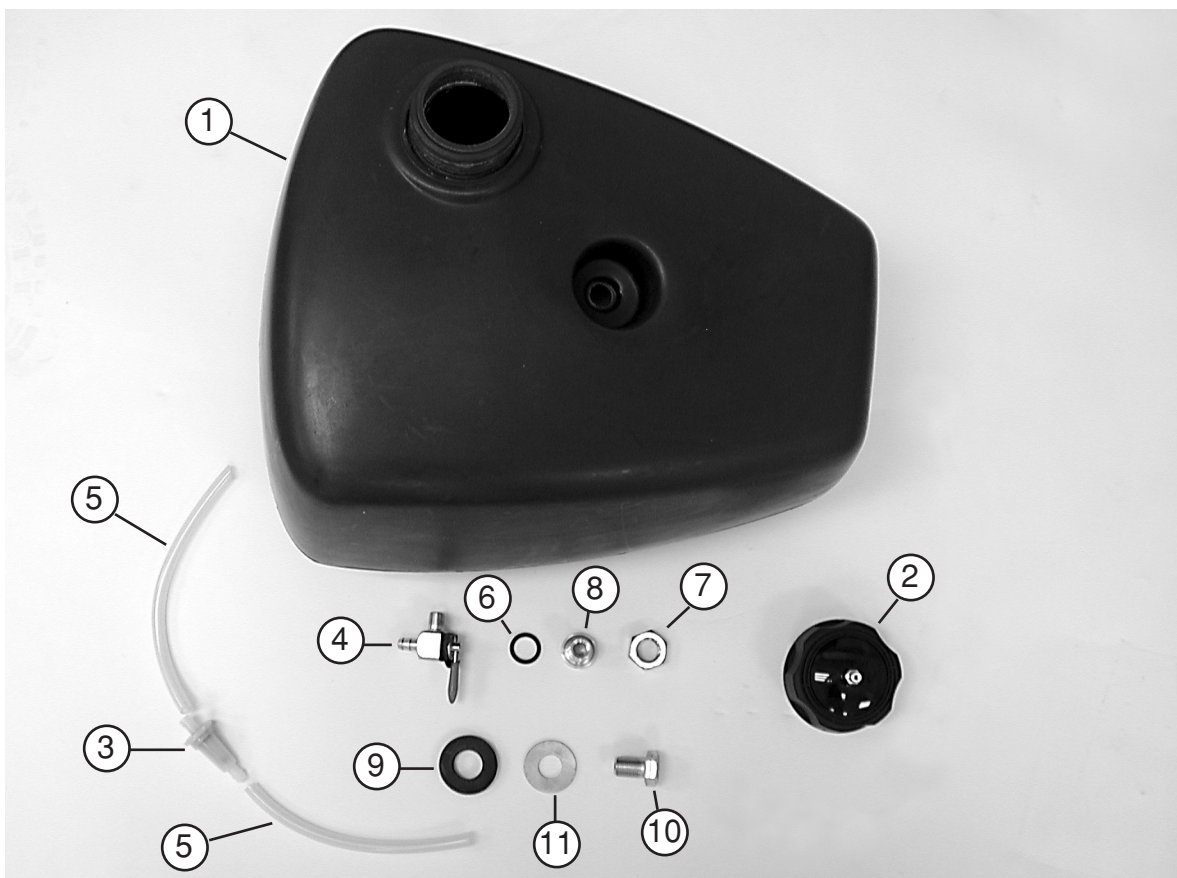
# Front Cargo Rack



Item	Part Number	Name	Description	Qty
1	100423	Front Cargo Rack		1
2	100167	Screw	HH 1/4-20 x 1/2	2
3	100281	Washer	1/4" Lock Washer	2
4	100170	Screw	HH 1/4-28 x 1 1/2	2
5	100255	Washer		2
6	100169	Nut	1/4 x 28 Locking	2
7	100892	Front Cargo Rack Kit	Includes all items above	
8	110015	Cargo Rack for Front Suspension	NOT SHOWN (see on page 58)	

## Section 10

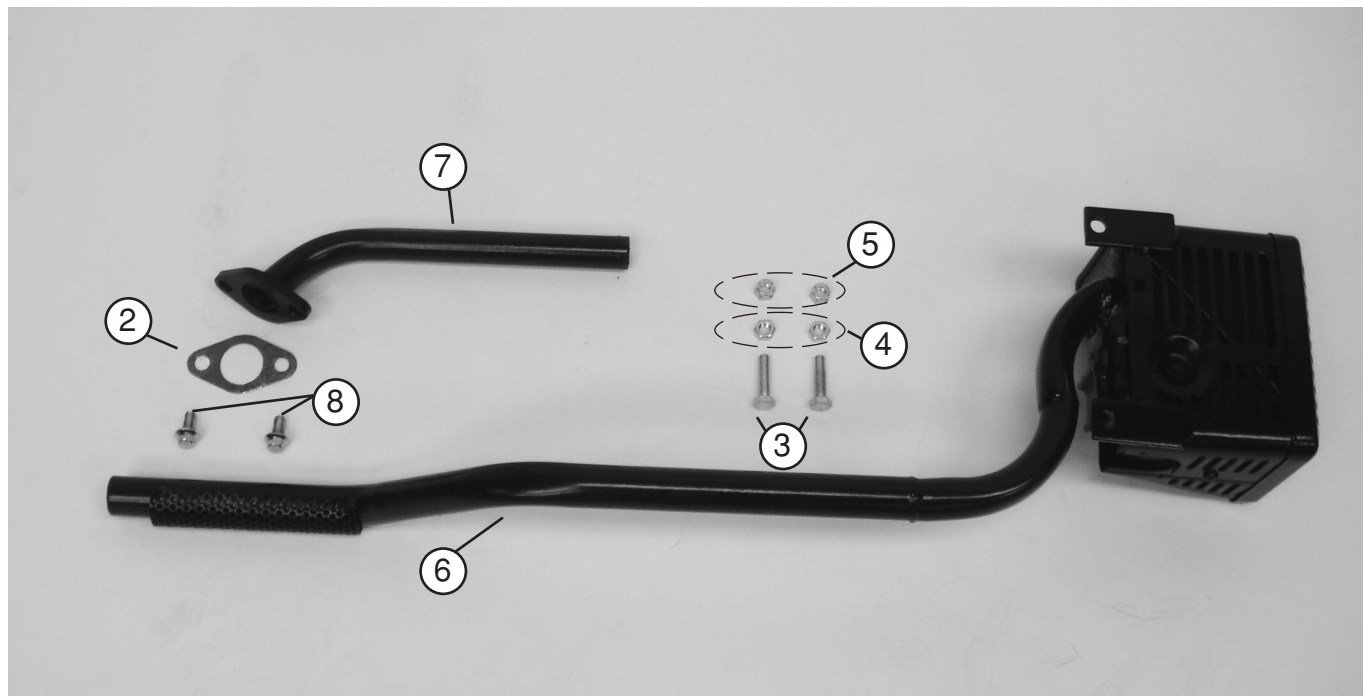
# Fuel Tank



Item	Part Number	Name	Description	Qty
1	103120GRN	Fuel Tank Forest Green		1
2	102844	Fuel Cap		1
3	102766	Fuel Filter		1
4	101295	Fuel Tank Shut-Off Valve		1
5	100122	Fuel Line (set of 2)		2
6	102594	O Ring		1
7	102593	Nut	9/16"-18	1
8	102590	Fuel Tank Fitting		1
9	101969	Rubber Fuel Tank Washer		1
10	101970	Bolt	HH 1/2-20 x 3/4	1
11	102589	Flat Washer		1
12	103120-RED	Fuel Tank Red	not shown	
13	103120-OD	Fuel Tank Olive Drab	not shown	
14	103120-BLK	Fuel Tank Black	not shown	

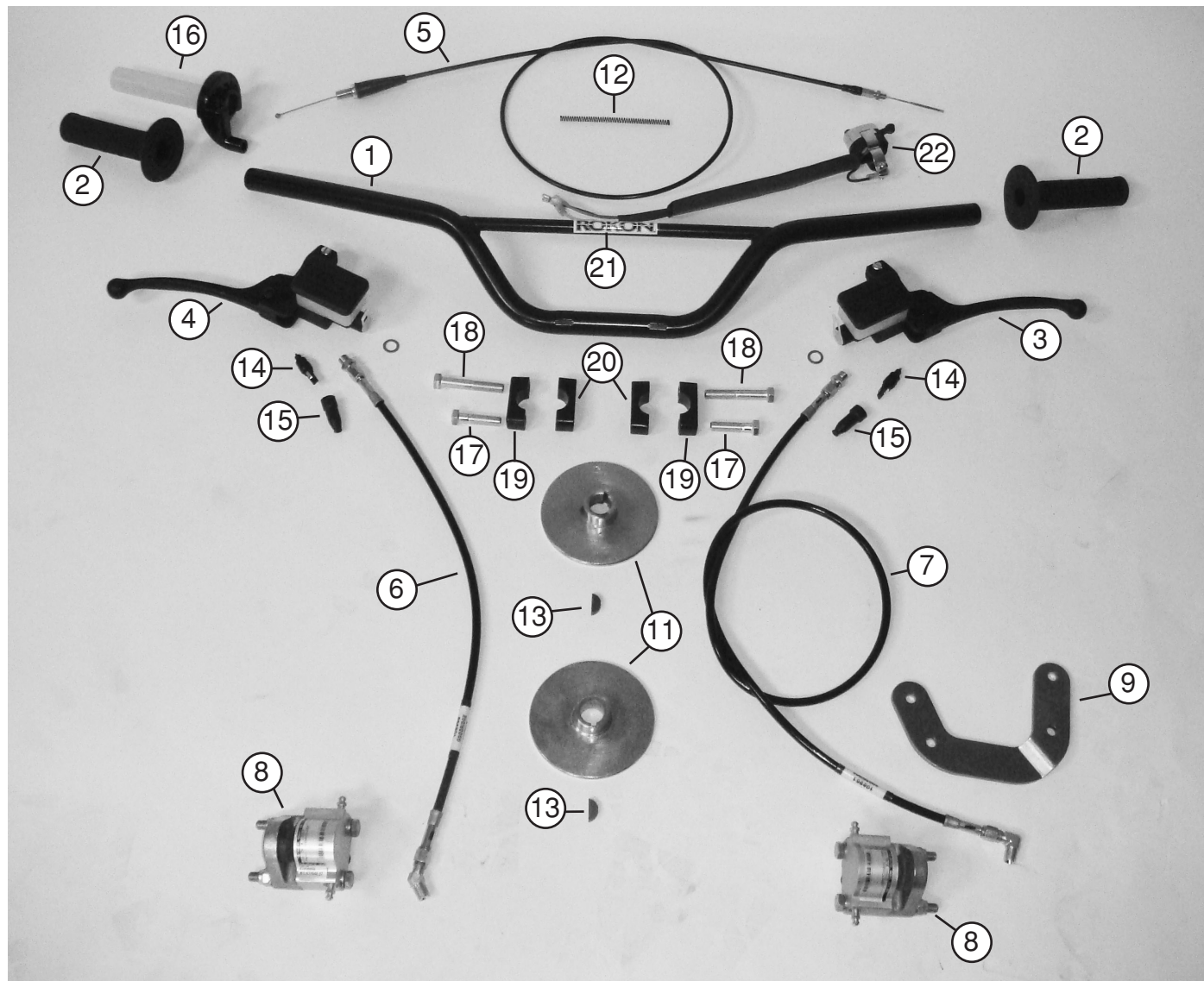


## Muffler



Item	Part Number	Name	Description	Qty
1	108237	Muffler Kohler 7HP Assembly	Includes Everything Listed	1
2	KOH1704109-S	Gasket Muffler 7hp		1
3	108123	Bolt	5/16-24x1 1/4 GR5Z	2
4	100211	Nut	5/16-24	2
5	100551	Locknut	5/16-24	2
6	108239A	Muffler Section Long with Exhaust		1
7	108239B	Muffler Section Short		1
8	KOH25086224-S	Bolt to Engine Block 7hp		2

# Handle Bar



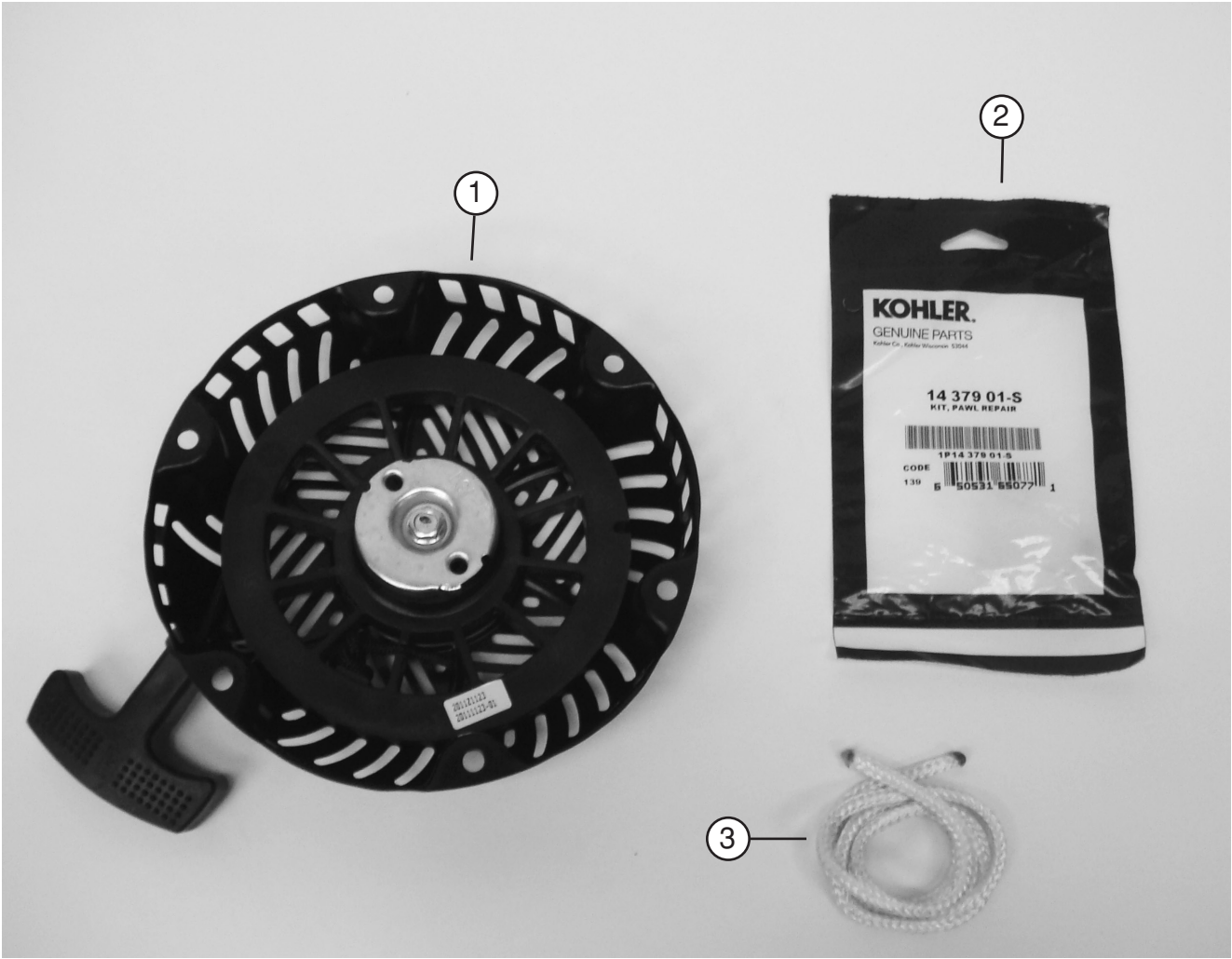


**Section 10**

# Handle Bar

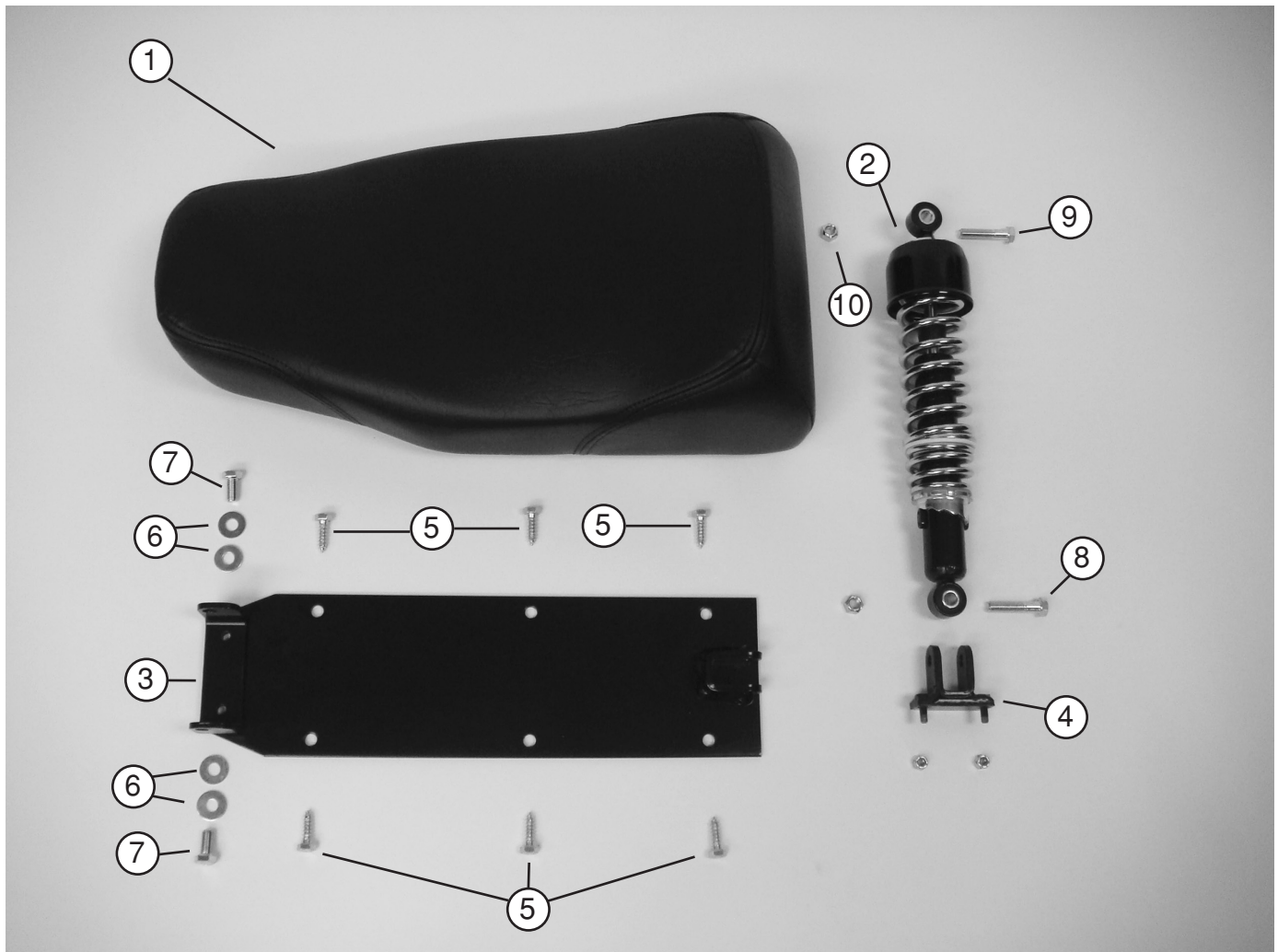
Item	Part Number	Name	Description	Qty
1	100466	Handlebar		1
2	100071	Grip Set		1
3	108957	Brake Lever LH		1
4	108958	Brake Lever RH		1
5	107037	Throttle Cable 7hp		1
6	108960	Front Brake Hose		1
7	108961	Rear Brake Hose		1
8	108013	Brake Caliper Hydraulic		2
9	110032	Rear Brake Bracket 7hp		1
10	108001	Rear Brake Bracket (Honda Only)	not shown	1
11	100610	Brake Disc		2
12	100599	Throttle Spring		1
13	100043	Woodruff Key	#9	2
14	104309	Brake Switch		2
15	107033	Boot		2
16	103113	Twist Grip		1
17	108985	Handlebar Clamp Bolt Short	3/8-16 x 1 1/2	2
18	108986	Handlebar Clamp Bolt Long	3/8-24 x 2 1/4	2
19	108115	Handlebar Clamp Upper		2
20	108116	Handlebar Clamp Lower		2
21	108972	ROKON Decal		1
22	100191	Shut Off Switch		1

# Pullstarter



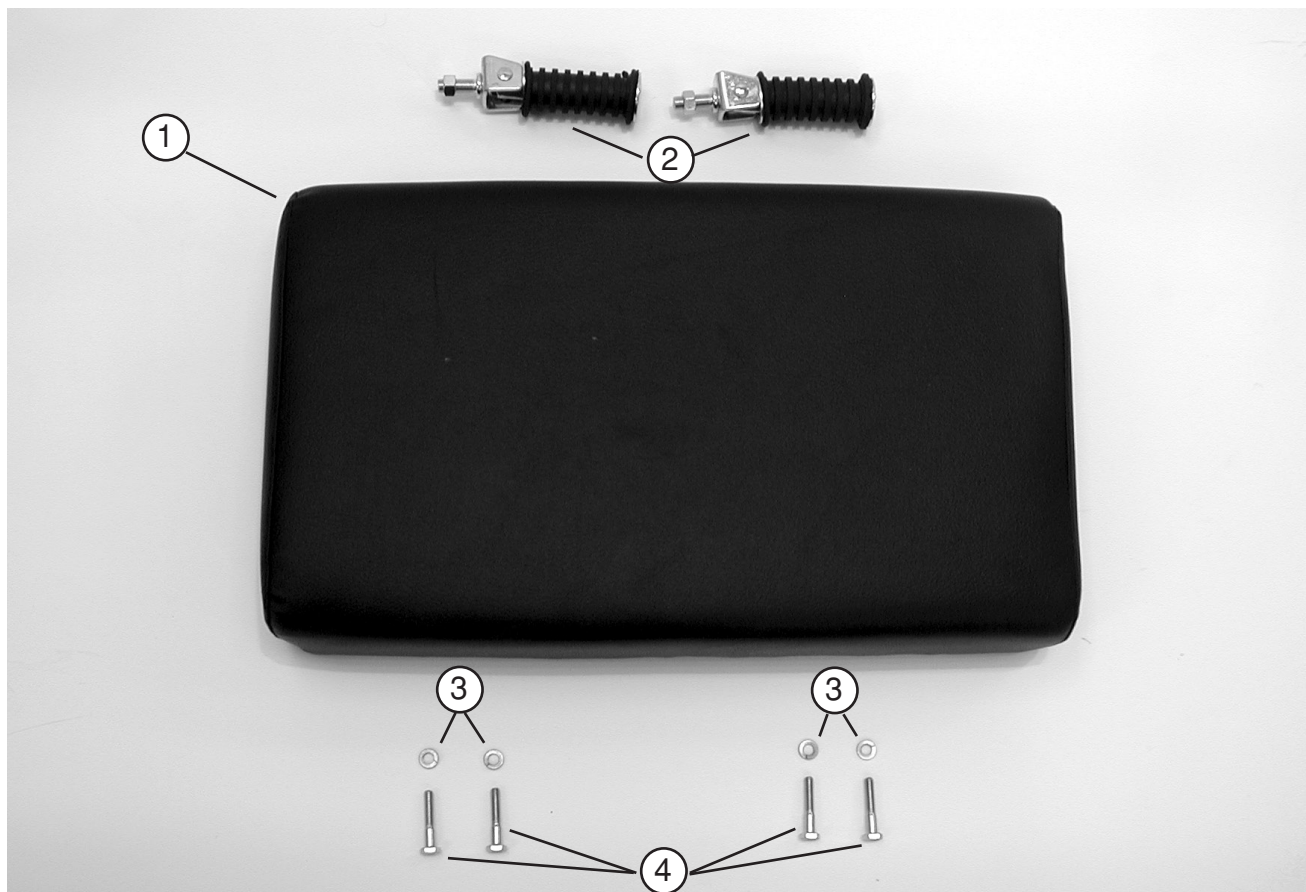
Item	Part Number	Name	Description	Qty
1	KOH1716502-S	Kohler 7hp Recoil Assembly		1
2	KOH1437901-S	Pawl Repair Kit		1
3	15585	Pull Rope		1

## Front Seat



Item	Part Number	Name	Description	Qty
1	100452	Front Seat Saddle Style		1
2	109002-S2	Shock I2I		1
3	108063	Seat Base Plate		1
4	108062	Lower Shock Mount		1
5	101629S	Bolt	Lag	5
6	100208	Washer 1/2 Flat		2
7	100572	Bolt	HH Bolt 3/8-24 x 5/8	2
8	108999	Bolt		1
9	101181	Bolt	HH Bolt 3/8-24 x 1 3/4	1
10	100212	Nut	Lock Nut 3/8-24	1
11	100168	Bolt	Not Pictured for Lower Shock Mount	2
11	100169	Nut	Not Pictured for Lower Shock Mount	2

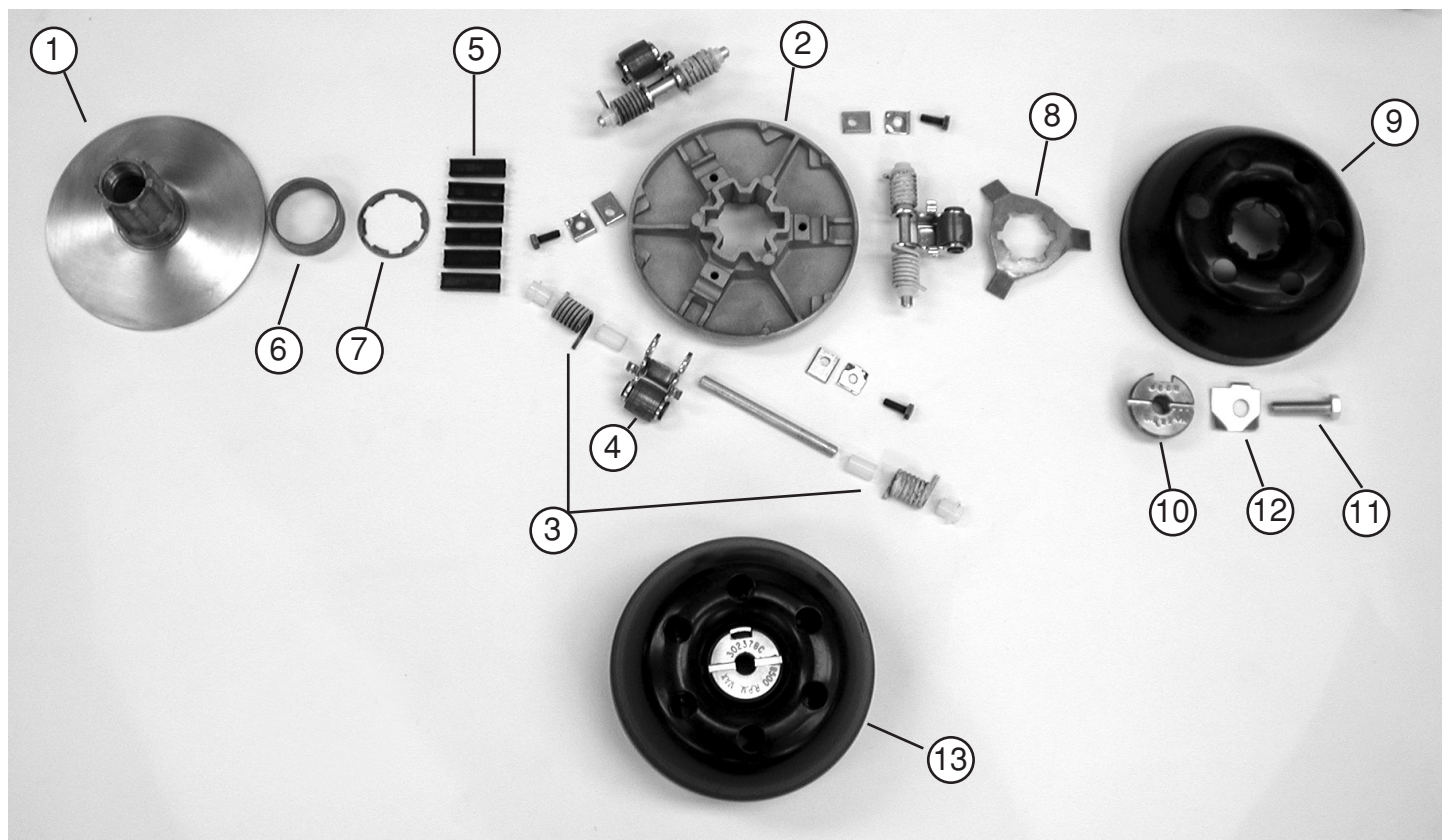
# Rear Seat



Item	Part Number	Name	Description	Qty
1	100340	Rear Seat		1
2	100343	Passenger Foot Peg Set		1
3	100281	Locking Washer	Lock Washer 1/4 Spring	4
4	105037	Hex Head Bolt	HH Bolt 1/4-20 x 1 3/8	4

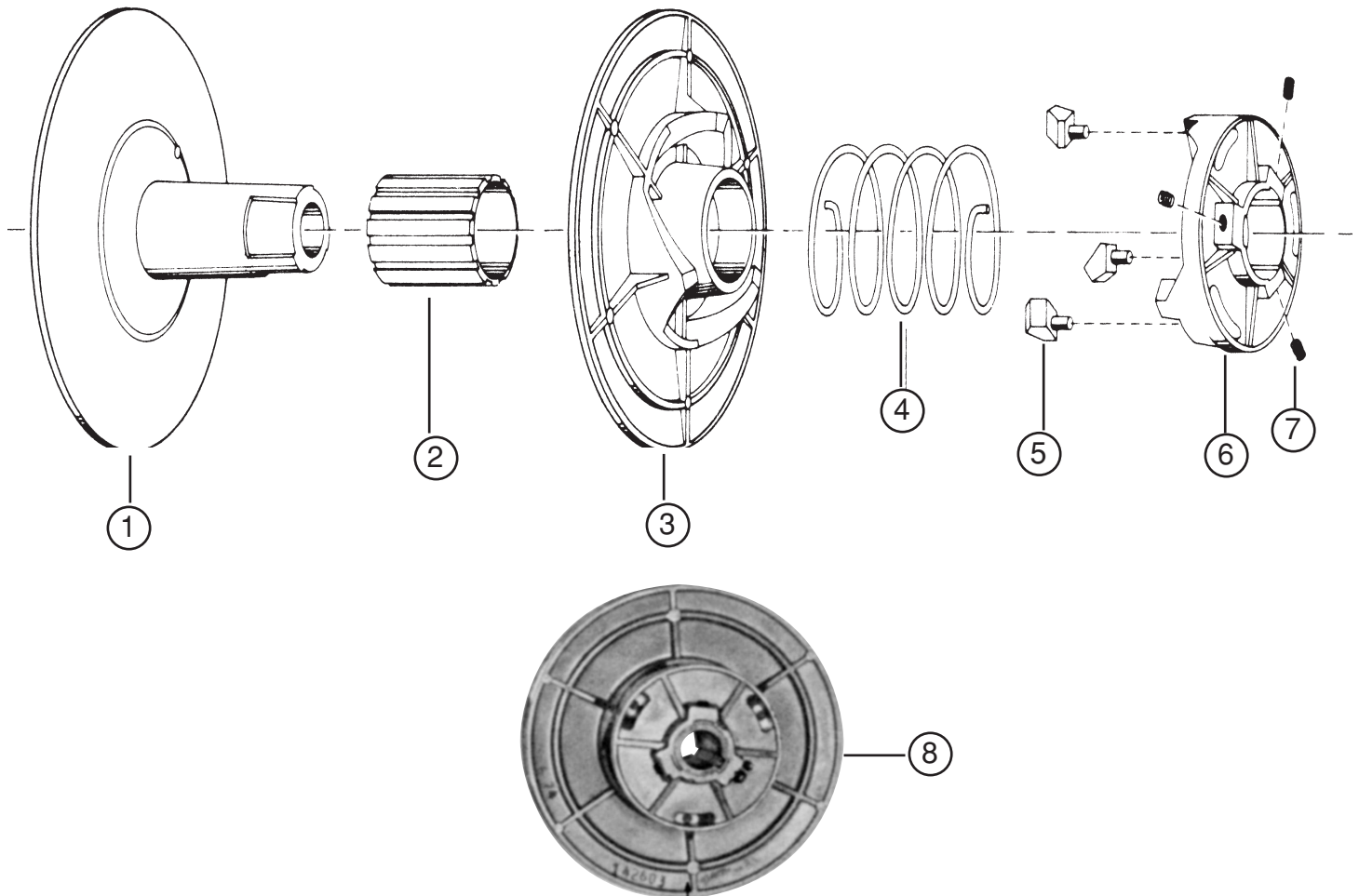


# Torque Converter Drive Pulley



Item	Part Number	Name	Description	Qty
1	703209	Fixed Face Drive Pulley		1
2	601319	Moveable Face Assy		1
3	690144K	Pivot Pin Kit 4-Stroke	(springs not included)	1
4	690146K	Roller Kit 4-Stroke		1
5	703128	Spline Liner		6
6	703116	Bearing	Idler Bearing	1
7	703127	Washer		1
8	703129	Retractor		1
9	703151	Plate		1
10	703211	Washer	Ramp Plate Retaining	1
11	108123	Clutch Bolt		1
12	108983	Locking Clip 4-Stroke		1
13	100885	Torque Converter Drive Complete	Includes 1-10	1

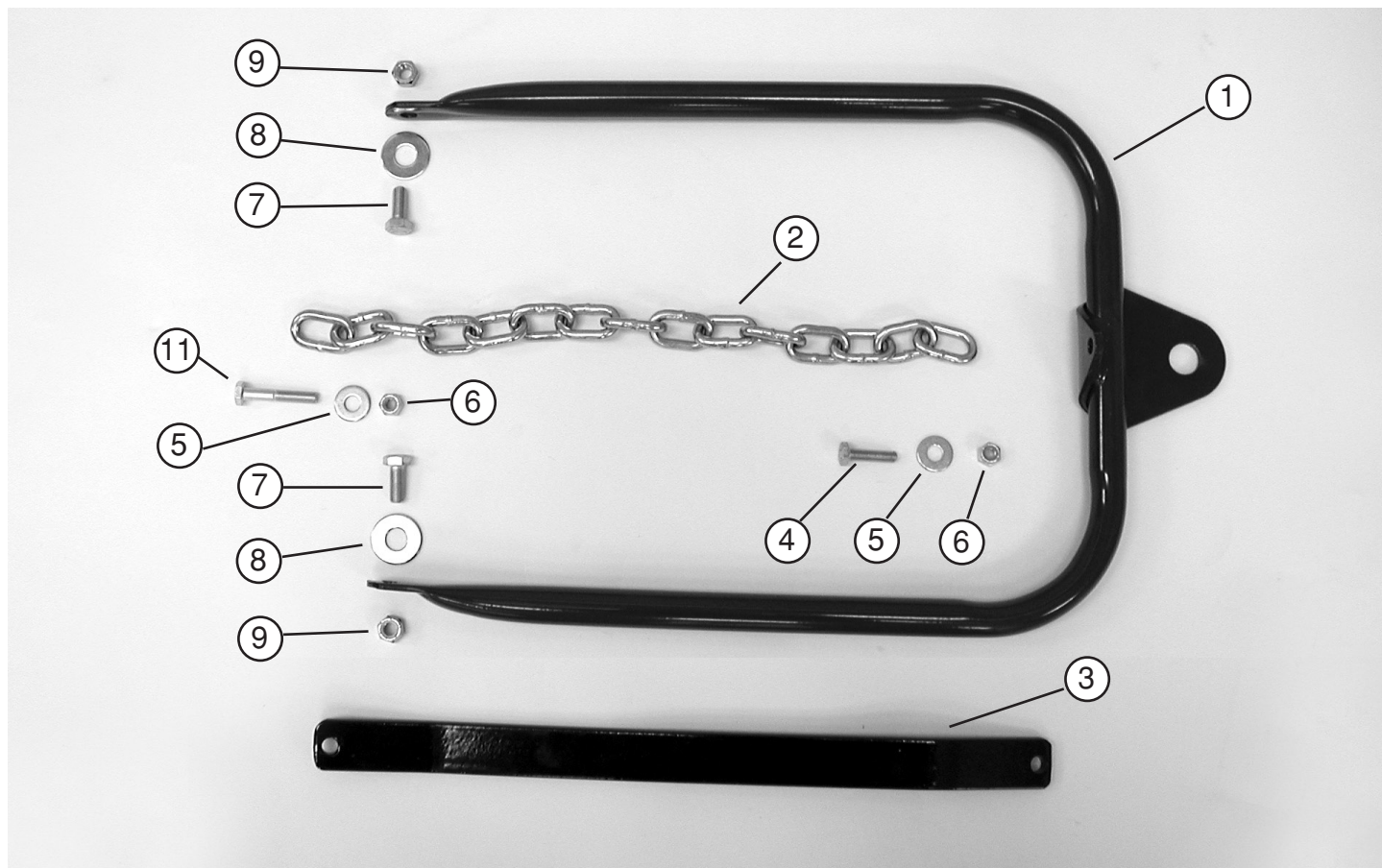
# Torque Converter Driven Pulley



Item	Part Number	Name	Description	Qty
1	601311	Hub Fixed Face Driven Pulley		1
2	703110	Bearing		1
3	703109	Movable Face		1
4	703111	Spring		1
5	703305	Button Shoe Ramp		3
6	601406	Torque Bracket	Includes Items 5 & 7	1
7	901709	Set Screw		3
8	100884	Driven Pulley	Rear Includes 1-7	1

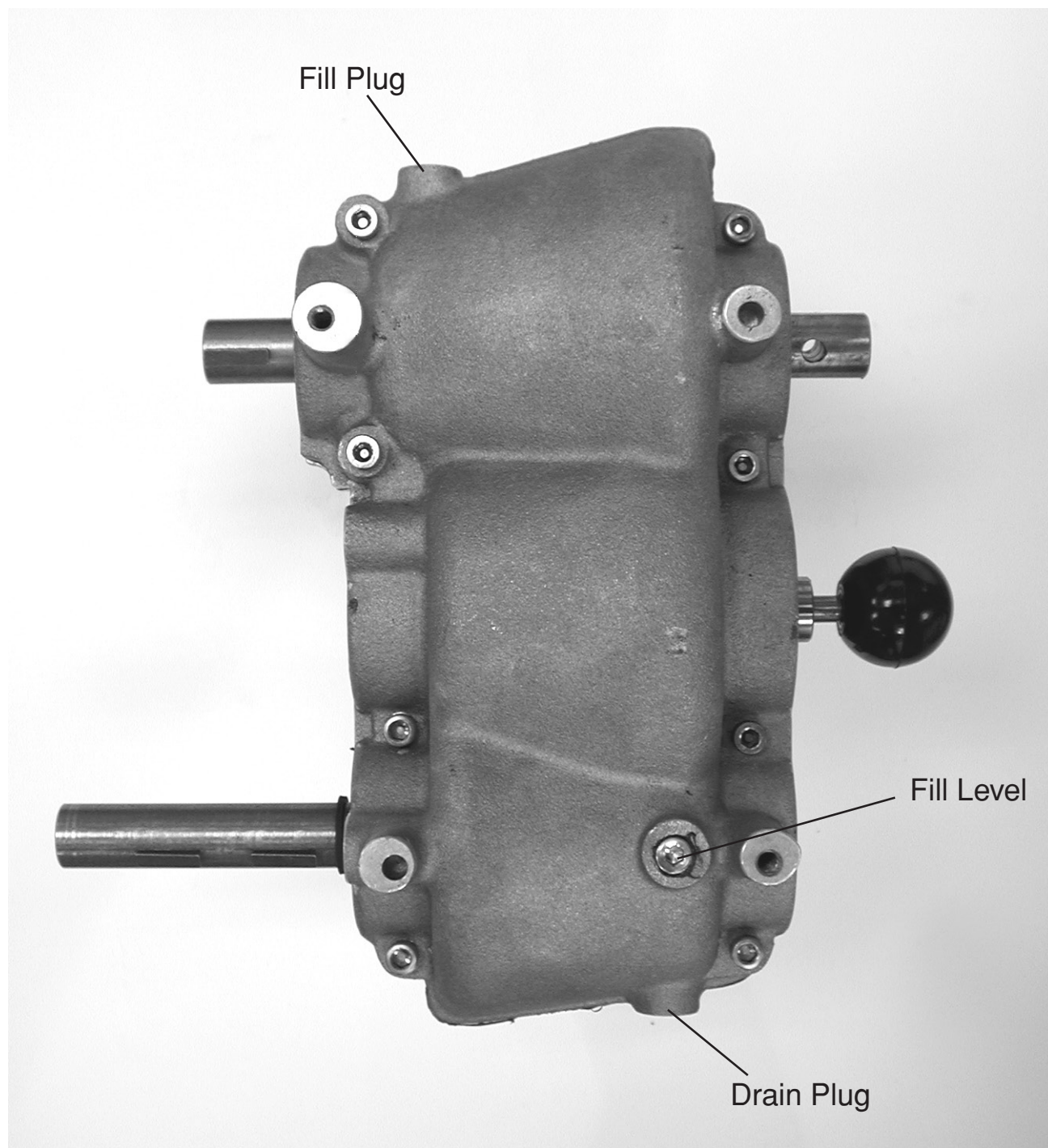


## Tow Bar

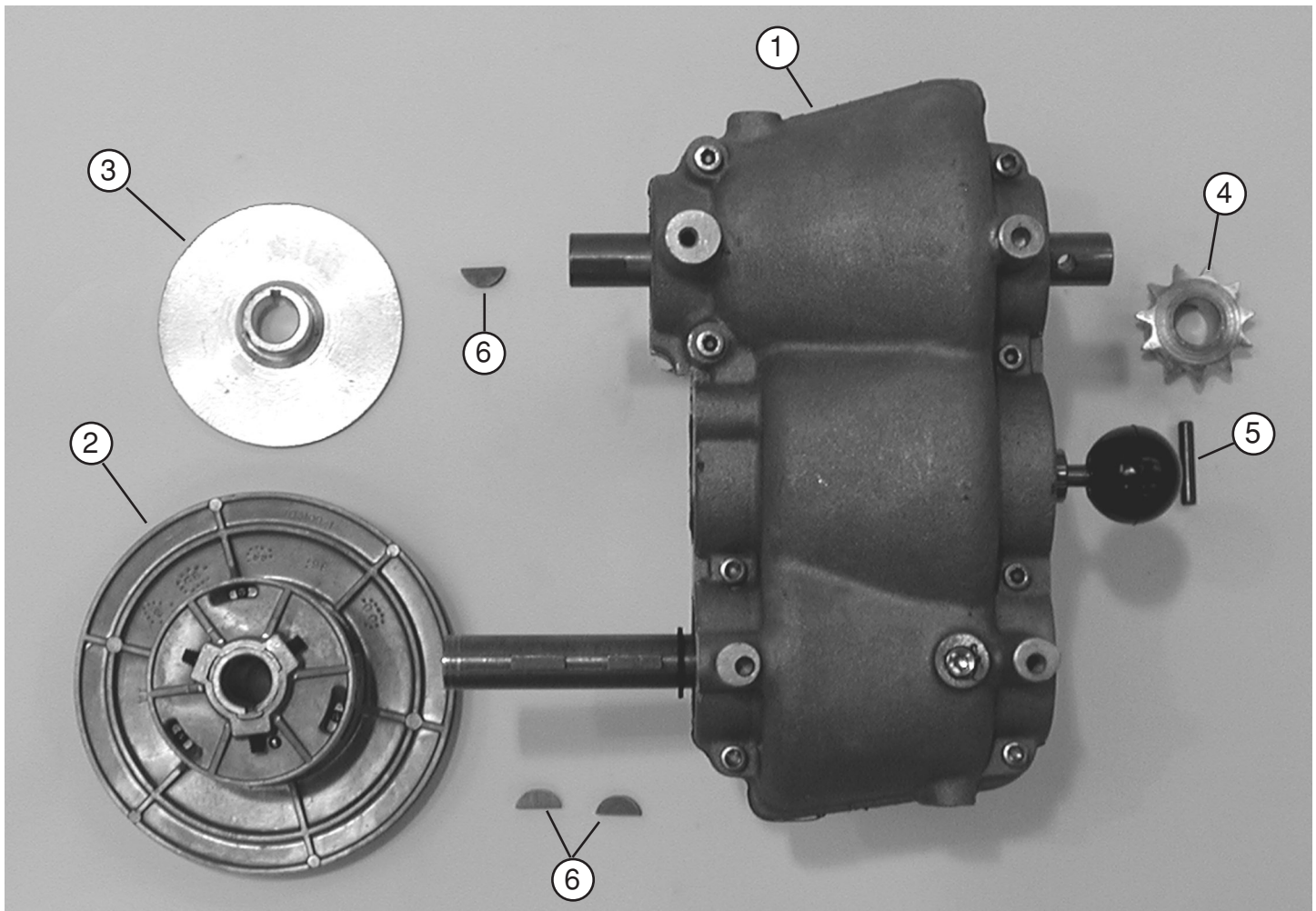


Item	Part Number	Name	Description	Qty
1	100349	Tow Bar		1
2	100007	Chain		1
3	103181	Rigid Tow Bar	Accessory	1
4	100166	Bolt	HH 1/4-28 x 1	1
5	100255	Washer		2
6	100169	Nut	Lock Nut 1/4-28	2
7	100848	Bolt	HHCS 5/16-24 x 3/4	2
8	100208	Washer	Flat Washer 3/8	2
9	100551	Nut	Locknut 5/16-24 Hex	2
10	100893	Tow Bar Kit	Includes all except 3	
11	100170	Bolt	HH 1/4-28 x 1 1/2	1

# Transmission Complete



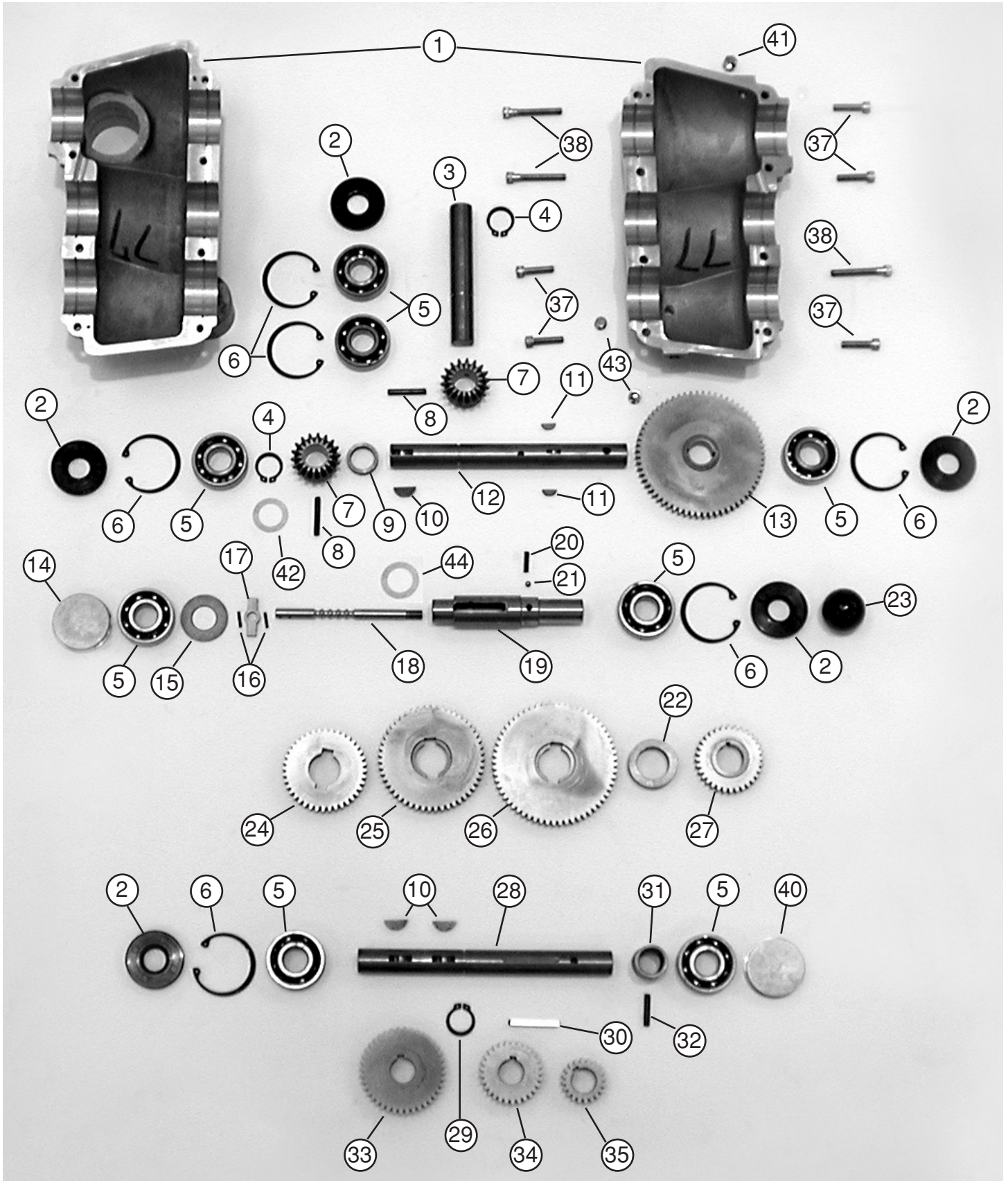
# Transmission with Attachments



Item	Part Number	Name	Description	Qty
1	103140	Transmission Assembly		1
2	100884	Rear Driven Clutch		1
3	100610	Brake Disc		1
4	100040	11 Tooth Sprocket		1
5	100270	Roll Pin		1
6	100043	Woodruff Key		3



# Transmission in Sequence



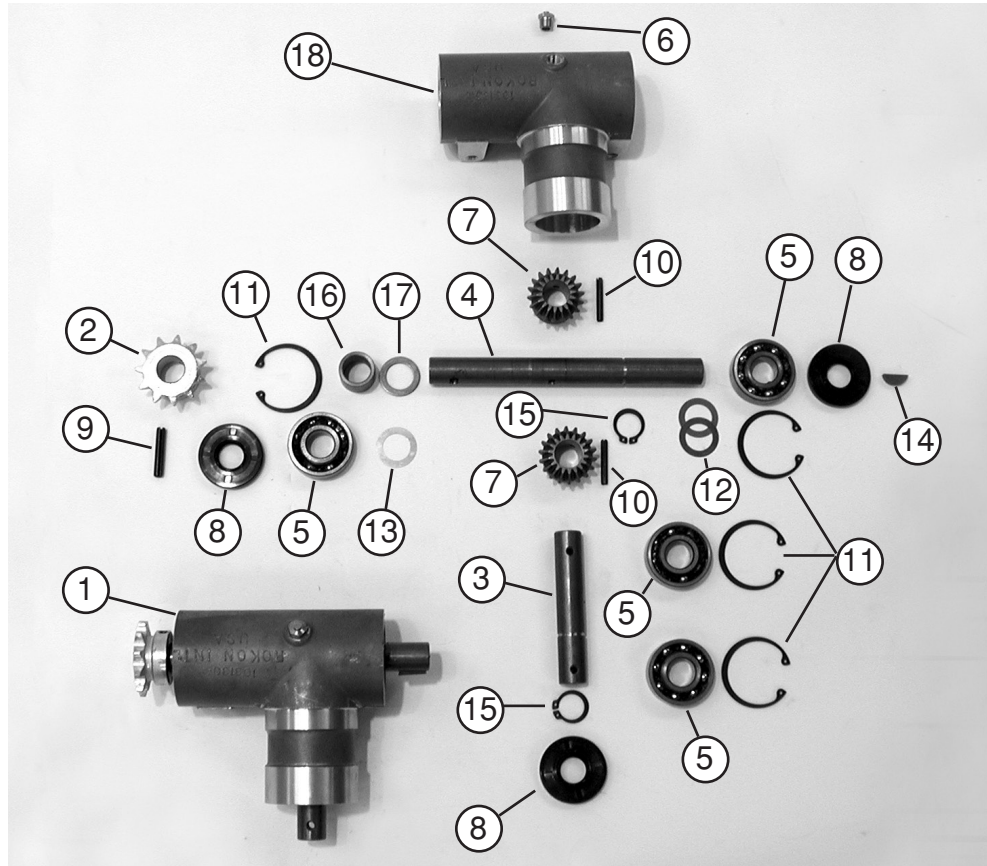
**Section 10**

# Transmission in Sequence

Item	Part Number	Name	Description	Qty
1	103141	Transmission Casting Machined	2 halves	1
2	101523	Oil Seal		5
3	103142	Shaft	Front Output	1
4	103134	Snap Ring		2
5	100158	Bearing		8
6	103136	Snap Ring		6
7	100160	Miter Gear		2
8	100045	Roll Pin	3/16" x 1 1/4"	2
9	101519	Spacer		1
10	100043	Woodruff Key	#9	3
11	101506	Key	#3	3
12	103143	Shaft	Rear Output	1
13	101517	Gear	64T Drive	1
14	105082-2	End Cap		1
15	101511	Spacer		1
16	101637	Roll Pin	3/32" x 1/2"	2
17	101633	Gear Selector		1
18	101634	Shift Rod		1
19	101632	Selector Shaft		1
20	101528	Spring		1
21	101527	Ball		1
22	101530	Spacer		1
23	101541	Shift Knob		1
24	101631-3	Gear	40T	1
25	101631-2	Gear	51T	1
26	101631-1	Gear	60T	1
27	101516	Gear	32T	1
28	107039	Shaft	Input	1
29	101505	Snap Ring		1
30	101548	Key	Straight Cut	1
31	101510	Spacer		1
32	100047	Roll Pin	3/16" x 1"	1
33	101509-3	Gear	40T	1
34	101509-2	Gear	29T	1
35	101509-1	Gear	20T	1
36	100163	Plug		2
37	101525	Screw	1/4"-20 X 1"	1
38	101524	Screw	1/4"-20 X 1 3/4"	1
39	101939	Dowel Pin		2
40	105082-1	End Cap		1
41	108987	Pressure Relief Valve		1
42	101615	Shim	.005	1
43	100163	Plug		2
44	101598	Shim (1x1.5)	.010	1

## Section 10

# Miter Box

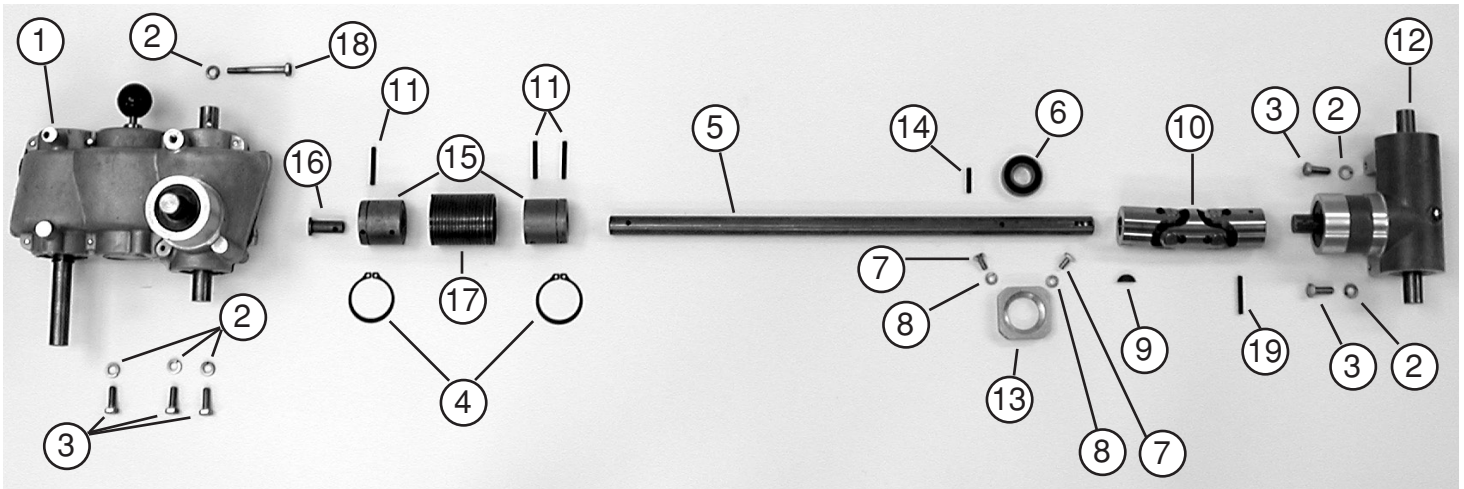


Item	Part Number	Name	Description	Qty
1	103131	Miter Box Assembly		1
2	100040	11 T Sprocket		1
3	108053	Miter Box Drive Shaft		1
4	103132	Miter Box Driven Shaft		1
5	100158	Bearing		4
6	108987	Pressure Relief Vent		1
7	100160	Miter Gear		2
8	101523	Oil Seal		3
9	100270	Roll Pin		1
10	100045	Roll Pin		2
11	103136	Snap Ring		4
12	101615	Shim ID 3/4" OD 1 1/8" .005	more as needed	1
13	101616	Shim ID 3/4" OD 1 1/8" .010	more as needed	1
14	100043	Woodruff Key	Connects to Brake Disc	1
15	101505	Snap Ring		2
16	100108	Spacer		1
17	100853	Spacer		1
18	103130	Miter Box		1



## Section 10

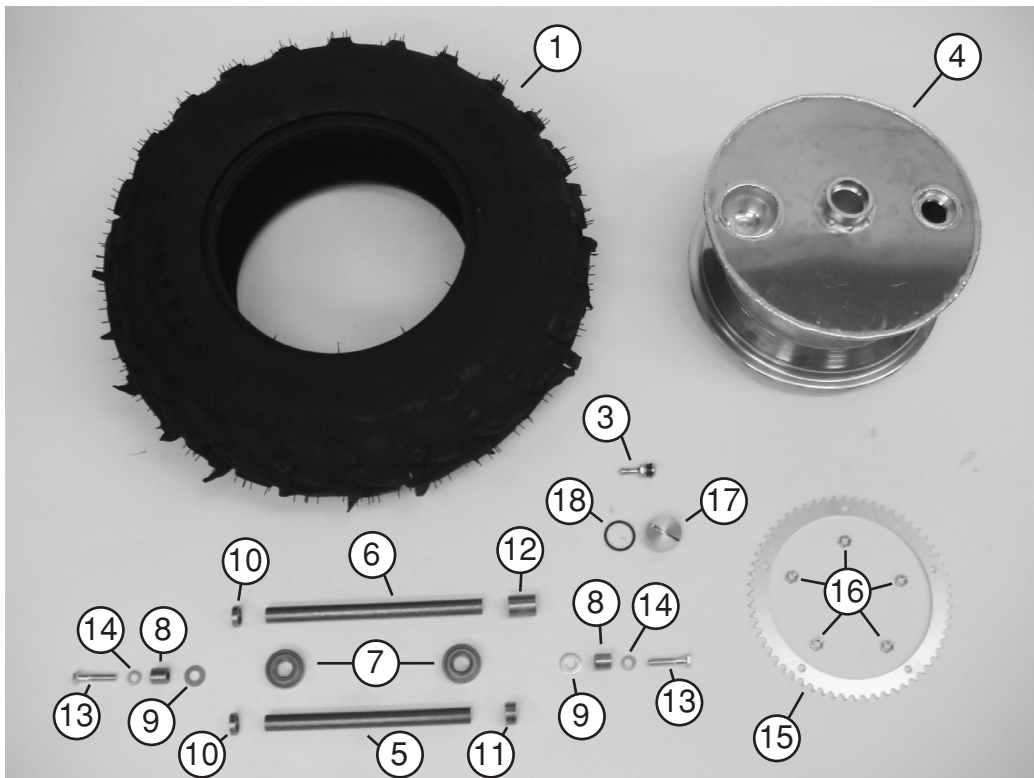
# Transmission to Miter Box



Item	Part Number	Name	Description	Qty
1	103140	Transmission Case Assembly	Three Speed	1
2	100039	Lock Washer	5/16	6
3	100038	Screw	5/16-18 x 7/8	5
4	100307	Snap Ring		2
5	108079	Drive Shaft	Four Stroke Models	1
6	100314	Drive Line Bearing		1
7	100252	Screw	1/4-20 x 1/2	2
8	100281	Lock Washer	1/4	2
9	100043	Drive Line Key	#9 Woodruff	1
10	108054	Universal Joint		1
11	100046	Roll Pin	3/16 x 1 1/2	3
12	103131	Miter Box Assembly	Front All Models	1
13	100312	Bearing Retainer	Drive Line Support	1
14	100047	Roll Pin	3/16 x 1	1
15	101655	Drive Line Boss		2
16	101656	Retaining Pin		1
17	100002	Overrunning Clutch Spring		1
18	101529	Screw	HH Bolt 5/16-18 x 2 1/4	1
19	100045	Roll Pin		1
20	101641	Drive Line Assembly		1

## Section 10

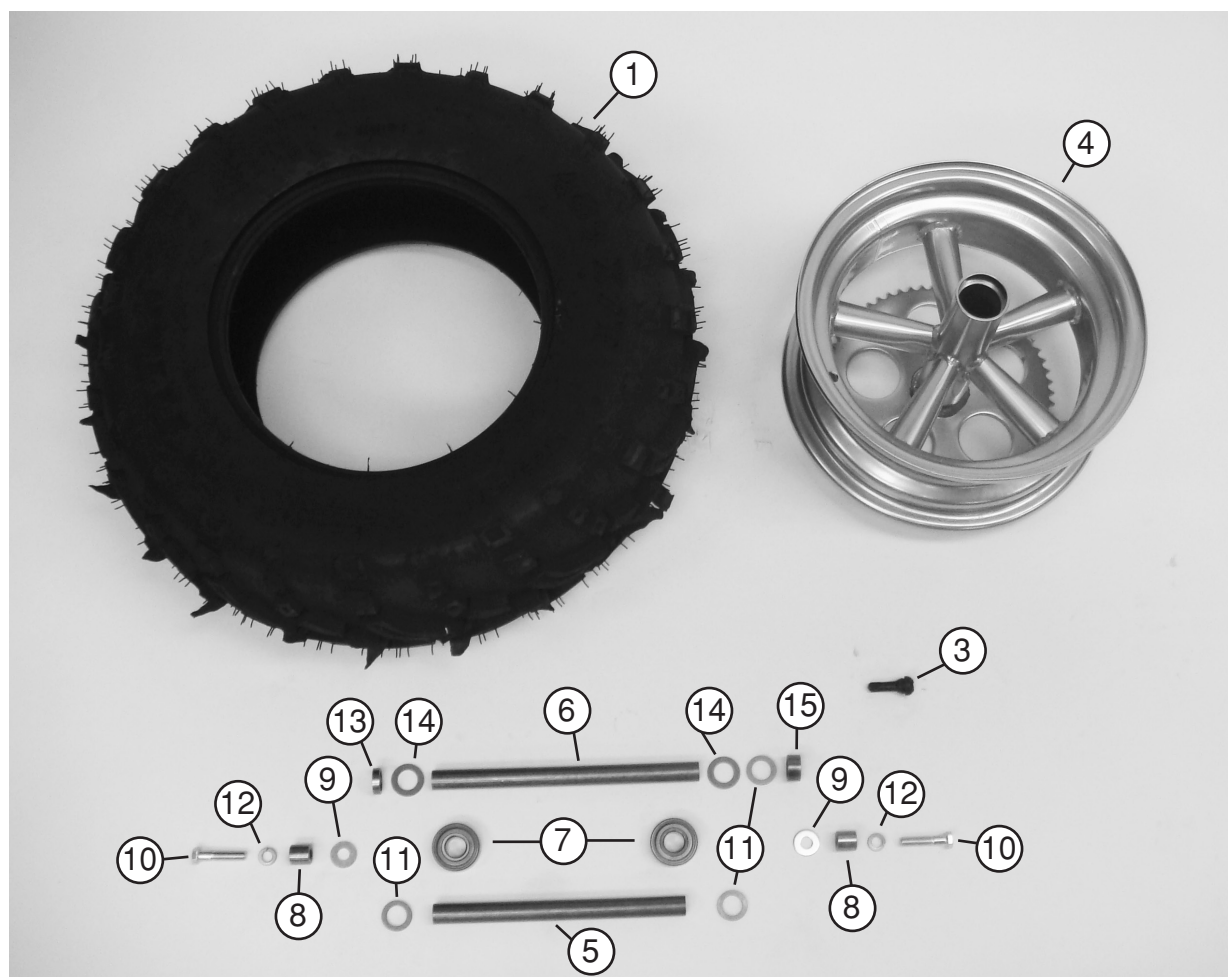
# Aluminum Wheels



Item	Part Number	Name	Description	Qty
1	100836	Tire 8 x 12	Titan 489 XT	2
3	100542	Valve Stem	12" only	2
4	108156A	Aluminum Wheel 12"		2
5	100405	Axle		2/1
6	108329	Axle Front Suspension		1
7	100772	Bearing		4
8	100522	Axle Spacer		4
9	100208	Washer		4
10	100756	Spacer	Dead Side	2
11	100758	Spacer	Sprocket Side	2
12	108330	Spacer		1
13	101181	Bolt	3/8-24 x 1 3/4"	4
14	100288	Lockwasher	3/8" Lock	4
15	108112	Sprocket	60T	2
16	100036	Jam Nut		10
17	100523	Plug		2
18	100516	O Ring		2
19	108930	Axle Kit Aluminum Wheel	NOT SHOWN	1
20	108932	Axle Kit Aluminum Wheel w/ AutoGrab	NOT SHOWN	1

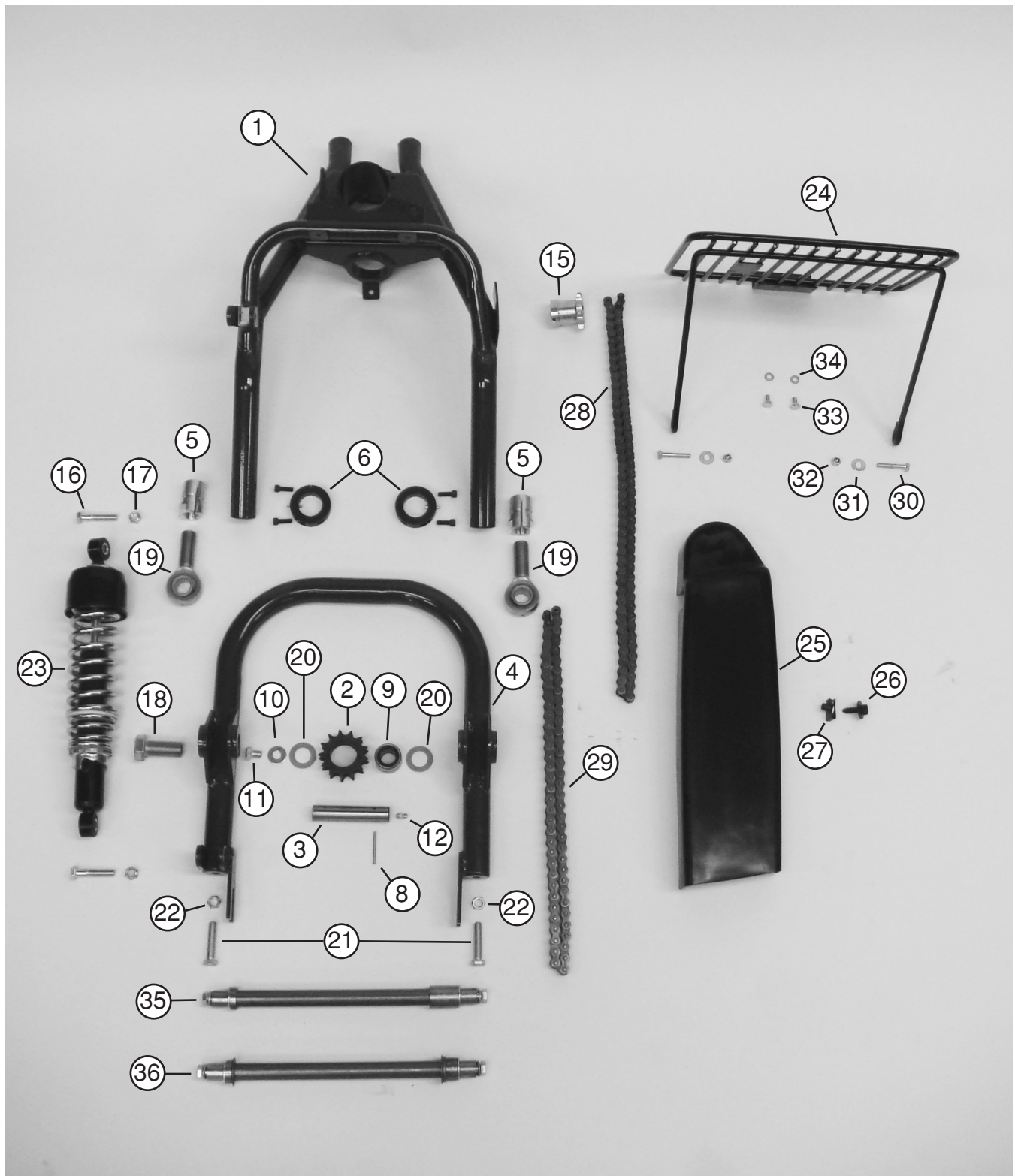
## Section 10

# Steel Wheels



Item	Part Number	Name	Description	Qty
1	100836	Tire 8 x 12	Titan 489 XT	2
3	100541	Valve Stem	12" only	2
4	100116	Wheel	12" Steel	2
5	100405	Axle		2/1
6	108329	Axle Front Suspension		1
7	100772	Bearing		2
8	100522	Axle Spacer		2
9	100208	Washer		2
10	101181	Bolt	3/8-24 x 1 3/4"	2
11	100853	Shim		2
12	100288	Lockwasher	3/8" Lock	2
13	100756	Spacer	Dead Side	1
14	300090C	Washer	703402 Washer	2
15	100758	Spacer	Sprocket Side	1
16	108929	Axle Kit Steel Wheel	NOT SHOWN	1
17	108931	Axle Kit Steel Wheel w/ AutoGrab	NOT SHOWN	1

# Auto Grab Front Suspension





**Section 10**

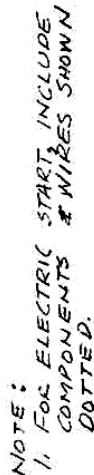
# Auto Grab

## Front Suspension


Item	Part Number	Name	Description	Qty
1	108303	Fork Front Suspension		1
2	108308	Sprocket Double		1
3	108309	Shaft Idler		1
4	108311	Swing Arm Tube		1
5	108319	Nut Rod End		2
6	108320	Collar Clamp, Assy		2
7	108321	Spring Pin 1/8x5/8	NOT SHOWN	2
8	108322	Roll Pin LH Bearing Mtg 1/8x1 1/2"		1
9	108323	Bearing		1
10	100208	Washer, Double Sprocket		2
11	108326	HH Bolt for Idler Sprocket		1
12	108327	Grease Fitting		1
13	108329	Axle Front Suspension	NOT SHOWN	1
14	108330	Spacer Axle Sprocket Side	NOT SHOWN	1
15	108331	Sprocket 11T Front Suspension		1
16	101181	Shock bolt		2
17	100212	Shock nut		2
18	107026	Bolt Steering 3/4-16 x1 3/4"		1
19	108335	Rod End		2
20	108336	Thrust Bearing		2
21	100573	Wheel Adjuster Bolt		2
22	100036	Nut 3/8-24		2
23	109002-S2	Shock Eye to Eye		1
24	110015	Cargo Rack for Front Suspension		1
25	108299	AutoGrab Chain Guard		1
26	101629	Stud		1
27	101630	Stud Receptacle		1
28	108946	Chain Horizontal 67P		1
29	108947	Chain Vertical 86P		1
30	100170	HH Bolt 1/4-28x 1 1/2		2
31	100255	Flat Washer		2
32	100169	Lock Nut 1/4-28		2
33	100167	1/4-28x1/2 HH Bolt		2
34	100281	Lock Washer 1/4 Spring		2
35	108932	Axle Kit Aluminum Wheel w/ AutoGrab		1
36	108931	Axle Kit Steel Wheel w/ AutoGrab		1
37	108303KIT	Front Fork Suspension Assembly	Parts Shown	1





# Wiring Diagram





LEGEND

 250 SPADE TERMINAL, MAKE W/FEW VOLS  
" " " " " "

 BUTT SPLICE 1 WIRE INTO 3, ETC,  
" " " " " "

 RING TERMINAL  
" " " " " "

 SLICING  
" " " " " "

 WIRE. 18 GA. 300V

## Notes