

# **RS48-11C GOLF ROLLER MANUAL**



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## **IMPORTANT**

#### PLEASE READ AND UNDERSTAND BEFORE OPERATING MACHINE

- 1. Pre-check all nuts, bolts, grub screws for tightness prior to operating machine.
- 2. Understand the operating procedures and the controls before operating.
- 3. Use the machine to roll **18-36 greens** then **check** that all nuts, bolts etc. are tight.
- 4. Loose transmission and drive roller sprockets will cause damage to shafts & keyways. Ensure they are correctly tightened at all times.
- 5. Change the transmission oil after 50 hours of operation, then as per the servicing schedule.

As a guide to correct transmission oil use, Mobil I 5W-50W Synthetic Oil or an alternate in the U.S.A. use Lubemaster Synthetic, SAE 50 Transmission Lube, Phone. 1800 527 9929 or in Australia only use – Penrite Synthetic 5 SAE 5W-60. Phone +61 7 5594 7199. Or suitably equivalent oils from these manufacturers BP, Caltex, Castrol, Chevron, Esso, Exxon, Texaco.



# **MACHINE INFORMATION RECORD**

Congratulations on your investment in the RS48-11C Roll 'n' Spike Golf Green Roller and your move to smoother, faster, more consistent putting Greens. The following operation and maintenance manual has been prepared for use with the RS48-11C Roll 'n' Spike Golf Green Roller. It is intended as a guide and supplemental updates to the manual may take place at a future date, without prior notice.

This machine is engineered to be simple to operate and easy to maintain. If you have any questions or concerns that this manual does not address, please feel free to contact your distributor at:

NAME:		
ADDRESS:		
TELEPHONE:		
FACSIMILE:		

MACHINE INFORMATION
RS48-11C Roll 'n' Spike Golf Green Roller
Serial No.
Engine No
Transmission No
Purchase Date No.



## SAFETY INFORMATION

Safety is of the utmost importance when operating turf equipment. To ensure safe operation of the RS48-11C Roll 'n' Spike Roller, please follow the following safety guidelines.

- \* Always make a pre-operation inspection before you start the engine. If this procedure is not carried out damage to property or personnel may occur.
- \* Keep children, pets and inexperienced personnel away from the machine. This machine should only be operated by trained and skilled personnel check with your supervisor if you are unsure.
- \* Know how to stop the engine when in motion. Read and understand engine manufacturers manual, as supplied.
- \* Never permit inexperienced operators to use the machine. This machine requires certain knowledge and expertise to operate it; you must be a trained person to use this machine. Unskilled persons can harm themselves and others if they operate this machine.
- \* Do not use in enclosed areas unless well ventilated. Carbon monoxide gases are dangerous if inhaled, it can cause death; use the machine outdoors.
- \* When transporting the roller, make sure the trailer lock down mechanism is secure to prevent premature release. If the trailer lock is not correctly engaged while towing and releases accidentally, the front of the roller can drop and dig into the ground, causing the machine to move dangerously in any direction causing bodily injury. When carrying out maintenance ensure the latch is engaged correctly; if it is not the trailer arm could fly up making contact with a person(s) causing serious injury.
- \* When engine is running, always keep hands and loose clothing away from rotating chains and sprockets in the transmission area. If hair, clothing or loose objects become entangled on a rotating shaft serious bodily injury could occur. Stop engine before opening safety cover fitted to the transmission area.



#### **ONE YEAR WARRANTY**

**Universal Conditions:** Tru-Turf Equipment will either repair or replace any item or part of a Tru-Turf Equipment turf maintenance product that is defective in workmanship or material for a period of twelve (12) months from the date of delivery of the new product to the original end user. These items will be repaired or replaced free of charge and freight free.

Products Protected By This Warranty: This Warranty relates to the following products manufactured by Tru-Turf Equipment and parts used to make these products:- GR39 Golf Greens Roller; GR48 Golf Greens Roller; GR7000 Series Golf Greens Roller; GR11000 Series Golf Greens Roller; RS48 Roll 'n' Spike Golf Greens Roller; RS48-11 Series, Roll 'n' Spike Golf Greens Roller; Triplex Roll 'n' Spike Mower Attachment Heads and Brackets; MT2000-S&D Single and Dual; MT5000-S&D Single and Dual Tote for Walk Behind Mowers; SR72 Sports Ground Roll 'n' Spike Turf Roller.

**Parts Warranted By Suppliers To Tru-Turf:** Specific component parts supplied to Tru-Turf Equipment are covered by that supplier's Warranty. These parts include Eaton Transmission, Honda Engines and Kohler Engines.

**Normal Wear and Tear:** Tru-Turf Equipment will not repair or replace parts subject to normal maintenance routines as specified in the products Operator's Manual nor to parts subject to wear and tear during the correct operation of the product. These parts include, but are not limited to, oils, filters, tires, shafts, bearings, blades, spikers, slicers, brakes, belts, hoses and spark plugs.

Other Items Not Covered By This Warranty: Tru-Turf Equipment will not repair or replace free-of-charge any item that has been damaged by accident, lack of reasonable care and protection or lack of suitable storage. We will not cover parts that have been altered or modified by anyone other than Tru-Turf Equipment nor will we cover used parts that are installed in place of failed parts. We will not cover parts that have not been installed correctly by the end user or its agents nor will we cover parts that have not been maintained as per the Operator's Manual. Service calls and overtime labour rates will not be covered. We will not cover freight costs related to the return of the faulty product to Tru-Turf Equipment or its agents. Tru-Turf Equipment will not be liable for any consequential loss or damage or costs caused by or incidental to the failure of any new part supplied with the original purchase or any new part supplied as a replacement for any failed part.

Lodging Warranty Claims: The final purchaser of the new Tru-Turf Equipment product must lodge a Warranty Claim with Tru-Turf Equipment or its agents. The final purchaser must provide written evidence detailing the product's delivery date to that purchaser and the reasons why the purchaser believes that the product or its part is defective in the categories of faulty material or workmanship. The purchaser is to deliver the faulty product or part to Tru-Turf Equipment or its agents at the purchaser's expense. Acceptance or rejection of the Warranty Claim is entirely at the discretion of Tru-Turf Equipment or their Suppliers who warrant their own part/s.

No person or organization has the authority to modify the terms or conditions or limitations of this Warranty without the written consent of Tru-Turf Equipment



# **INITIAL ASSEMBLY**

When you receive the crate, the machine will be broken down into components ready for assembly. If you run into any problems during assembly, please feel free to call your local distributor or agent.

# **List of Components**

QTY	Description	QTY	Description
1	Operation, Maintenance & Parts Manual	1	Left-side Trailer Arm
1	Machine Frame/Body	1	Right-side Trailer Arm
1	Drivers Seat	2	22mm External Circlips
4	M8x20 Bolts	1	Drawbar Coupling Assembly
2	Tires mounted on Wheel Rim	2	2 1/4" x 3/8" UNF Hex Head Bolts
1	Steering Joystick	2	3/8" UNF Nyloc Nuts
1	Dampener Strut (attached to main body end)		



#### Step 1: MOUNTING THE SEAT TO THE SEAT BASE

Use the 4 x M8 x 20 bolts to fasten the seat to the seat base.

#### Step 2: MOUNT THE STEERING JOYSTICK TO THE STEERING SHAFT

- Select the steering joystick.
- Slide the joystick into the slot on the top of the steering shaft, already installed in the steering column directly behind the foot pedal controls, insert the 3/8" bolt into the bottom or lower bolt hole, select a comfortable operating position, joystick forward for extra operating room or back for less, once determined insert the other 3/8" bolt into the upper hole & tighten both bolts securely.

#### Step 3: ATTACHING THE LEFT-HAND TRAILER ARM TO MACHINE BODY

• Locate the trailer arm support axle 22mm in diameter (7/8") which extends out on the side of the machine, remove the circlip from the support axle. Oil machined portion. Slide the left hand side trailer arm, onto the axle, replace the circlip, ensuring it is located in the groove correctly.

#### Step 4: ATTACHING DAMPENER STRUT & RH TRAILER ARM

- Locate the trailer arm support axle 22 mm in diameter (7/8") which extends out on the right side of
  the machine, remove the circlip from the axle. Hold the right side trailer arm in the vertical position
  and slide it part way onto the axle. Locate dampener strut., remove packing from the unattached
  end.
- Apply Thread lock "Loctite" to the M10 bolt attached to the dampener strut. Screw the M10 bolt into the strut support on the trailer arm.
- If necessary use a soft headed hammer and tap the trailer arm onto the axle until the circlip groove is revealed, replace the circlip, ensuring it is located in the groove correctly.

#### Step 5: ATTACHING DRAWBAR TO TRAILER ARMS

Locate the drawbar assembly.



- Gather the ends of the right and left trailer arms.
- Place the drawbar assembly between the trailer arms and align the holes, ensure the bend is upwards.
- Place one 2-1/4" x 3/8" bolt through each hole, fit 3/8" Nyloc nut to each bolt & tighten securely
- Test to ensure the trailer latch is correctly locking the trailer arms in the down position. This is important when trailing the machine. Use the catch locking pin when transporting the roller, for safety.

#### Step 6: ATTACHING WHEELS TO TRAILER ARMS

- Locate the two wheels for the left and right side trailer arms
- Check tires for the correct air pressure, approximately 18psi. Do not exceed this pressure.
- Remove wheel nuts from both hubs, slide wheels onto hub with air valves facing outwards. Replace wheel nuts & tighten securely.

#### Step 7: CORRECT DAMPENER STRUT OPERATION

• When the roller is in the trailing position Carefully hold the drawbar assembly, release the locking catch, gently with a firm grip begin to raise the drawbar, when it has travelled sufficiently the dampener strut will take over & prevent the trailer arms rapidly rotating on it's axle, allowing the roller to lower to the surface gently. This prevents the operator from being injured. When the roller is resting on the ground push the trailer backwards gently, (do not use excessive force) until the trailer arms will travel no further. The dampener strut is designed to hold the trailer back behind the operator and the wheels off the ground.

#### Step 8: REPLACE ENGINE OIL

- A tag is placed on the engine's On/Off switch indicating you must fill the machine with oil prior to operation. Low oil level will cause engine to stop on steep hills, the engine cut off safety switch is designed this way to protect the engine from damage if low in oil.
- The oil in the engine upon delivery (if not pre-delivered) is to prevent the inside of the engine from



corroding, replace it with the correct engine oil, as per the manufacturers specifications.

#### Step 9: TRANSMISSION OIL TANK BREATHER

 Unscrew the plastic plug from the top of the tank & replace it with the anti-splash breather supplied.

#### **Step 10: LUBRICATE SMOOTHING HEAD PIVOT BEARINGS**

- There is a grease nipple or zirk located on both smoothing head centre ball joint swivels. Apply grease to lubricate fittings.
- When rolling of the green is completed, move the roller onto the fringe, stop the engine, lock the trailer into the trailing position, connect it to the towing vehicle then move off to the next green to be rolled. Do not put the trailer down into the towing position on the green; damage may occur to the green from the roller tires and body. **Remember** turn off the fuel cock whilst towing the roller.



#### **OPERATION**

#### **PRE-OPERATION CHECKS**

- Check engine as per Honda / Kohler manual.
- Ensure steering joystick has no looseness.
- Check that foot pedal depresses under normal foot pressure, both directions.
- Ensure that the drawbar locking catch mechanism is securely locked to the main frame bolt & the safety pin is fitted when trailing the roller.
- Check and tighten grub screws fitted to the foot pedal arm, the end bearing lock rings on the rubber coated drive roller and the spiker shaft bearings & pivot bearings on each smoothing head.
- Grease lightly Bearings fitted to Drive Roller, Spiker shaft & Smoothing Head pivot bearings. Replace plastic caps if fitted.
- Oil rod ends, sparingly.
- Check tire pressure for proper operating pressure (18psi).
- Check for oil and fuel leaks rectify before using machine.

#### STANDARD OPERATION PROCEDURES

- Inspect and check that the roller is serviceable prior to departing from workshop.
- Use a suitable towing vehicle to move roller from green to green.
- Maximum recommended towing speed would be equal to a motorized golf buggy. Approximately 4mph/7kph. Towing at excess speed or across rough terrain may cause damage to the machine.
- When approaching the green do not tow roller onto the green to set up, put the roller on the fringe of the green. Put trailer in the up position, start up the roller and drive it onto the green.
- Greens can be rolled in any direction; take care to ensure there are no crease lines produced on the surface.



- It is recommended that you place the smoothing head rollers on the high side of the green when rolling. This puts more weight on the rubber drive roller and helps give better traction, thus reduces slipping or spinning of the drive roller on the green, depending also on the operators ability. Whilst becoming familiar with the roller, set the throttle at about 1/2 speed. Press the left or right foot pedal down gently but not suddenly. Be smooth with your action, hold in this position until nearing the edge of the green, then take your foot gently off the pedal, the roller will come to a stop. Rest your other foot on the opposite pedal and gently apply the pressure to the pedal. It then starts to move the roller in the opposite direction. Once again be gentle with the pedal, but not sudden. By using the left and right pedal in this manner, will ensure there is no damage to the green & less wear and tear on the equipment and operator.
- The correct procedure for rolling the green is:
  - (A) Select the correct direction to roll the green, remember this roller can roll the greens in all directions.
  - (B) Start on one side of the green and work your way across the green in a zigzag fashion, slightly overlapping each lap you roll: this makes sure you miss no part of the green and all of the green is rolled. Avoid coming back across the green to roll missed areas if possible. You should be able to complete the rolling of 18 greens in the same time or quicker than by mowing using a triplex mower.
- When rolling of the green is completed, move the roller onto the fringe, stop the engine, lock the trailer into the trailing position, connect it to the towing vehicle then move off to the next green to be rolled. Do not put the trailer down into the towing position on the green; damage may occur to the green from the roller tires and body. **Remember** turn off the fuel cock whilst towing the roller.

#### POINTS TO REMEMBER

- Make sure the roller is serviceable before rolling.
- Start rolling from the fringe of the green.
- Smooth operation on the foot pedals.
- Pick a point on the other side of the green to roll to.
- Do not look at the green close to the roller; it makes it difficult to steer the roller; look well ahead.
- Use 1/2 throttle until you are proficient at operating the roller.



- Move the steering joystick a little at a time to change direction; excessive movement of the joystick makes it difficult to maintain a straight line.
- Roll in straight lines.
- Do not leave the engine running with the roller parked on the green; the engine vibration will cause roller depressions on the green.
- Move off the green when rolling is complete before putting the trailer in the down position.
- When rolling steep greens and the engine stops, check engine oil level. The engine is fitted with a safety switch; when the engine oil level is low the engine will stop.

#### **SPIKER**

• Important, to initially engage the spikers ensure the roller is in motion, once the spikers are engaged they can be left in this position until the spiking operation is completed on that green. It is important that the spikers are kept in the raised position at all times other than when spiking the greens.

#### **EMERGENCY & PARK BRAKE**

 To engage, push parking lever forward until it will travel no further, the lever operates on a over cam principal, when it is fully engaged the lever will remain in this position with the brake applied.
 To dis-engage the park brake, pull the lever up & back. The lever will remain in the off position until re-applied.



#### **MAINTENANCE**

#### MAINTENANCE

- Stop engine before performing any maintenance
- Service the Honda or Kohler engine according to the manufacturers maintenance schedule.

#### **TRANSMISSION (PUMP, EATON 11)**

- Initially, change the oil at 50 hours running time, then;
- Change oil every 500 hours or annually, whichever occurs first
- Change hydraulic oil filter every 500 hours or annually, whichever occurs first.
- Only use the manufacturer's recommended replacement oil filter
- When fitting the filter, follow the instructions supplied with the filter. This will ensure that the filter remains tight and that no leaks occur
- Check all hard line oil pipes for rubbing, excessive vibration, leaks and tightness on a regular basis
- Check transmission oil level on oil tank sight glass. Oil level should remain at a minimum of 25mm (1") and at a maximum of 40mm (1.5") from the top of the tank
- Oil Capacity including filter is 6 liters or 5.3 U.S. quarts
- As a guide to correct transmission oil, see page 1 of this manual.

#### **STORING**

• It is important to store this roller in the towing position. This ensures the trailer strut is in the closed position, protecting the shaft from corrosion, then failure & that the weight is taken off the roller bearings.

#### SERVICE OF THE DRIVE CHAIN SYSTEM

- **Replacement** Use only the chain and sprockets recommended as per the correct spare parts number. Wrong pitch drive chain fitted will cause excessive sprocket wear & possible drive failure.
- Tensioning the drive chain No adjustment is required; the chain tension is automatically



adjusted.

#### **LUBRICATION**

 Lubricate Drive Chain with Chain Oil, WD40 or equivalent (CRC; Penetrene etc.) each time prior to rolling of the Greens

#### SERVICE OF SMOOTHING ROLLER BEARINGS

 Whilst the Roller is suspended by the Trailer, check operational smoothness of the bearings fitted to each smoothing roller by rotating the rollers by hand. If bearing tightness or excessive looseness is detected, replace the faulty bearings.

#### \* If bearings are faulty

- (a) Remove roller shaft bolts from end plates, remove rollers from the heads.
- (b) Screw a bolt back into the shaft end, knock out one end bearing, then use the same shaft to knock out the other end bearing.
- (c) Fit new bearings, replace rollers into the heads, lubricate shaft bolts with an anti seize compound before installing them. Tighten securely & ensure rollers rotate freely when fully tightened.
- (d) Be sure the spacing washers are fitted to the shaft ends before installing the rollers into the heads.

#### **CHANGING OIL**

 Change oil and service as per the manufacturers Servicing Schedule enclosed as a separate insert to this manual.

3 Monthly | 6 Monthly | 12 Monthly

Monthly



# **APPLIES TO RS48-11C**

fitted with the Eaton 11 Transmission & Stainless Steel Oil Tank

# MAINTENANCE SCHEDULE - ONGOING

	Pre - Delivery	Pre-operating	
Check Engine Oil	×	×	
Check Transmission Oil Level	×	X	
Beware of contaminants entering the	ng the transmission		
Lubricate drive chain with WD40 or equivalent	×	×	
Check Tyres Max P.S.I. 18	X	X	
Check Gas	X	X	
Check Smoothing Roller Bearings	X	X	
Check Drive Roller Bearings	X	X	
Check for loose Nuts & Bolts	×	×	

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JBRICANTS & REPLACEMENT SCHEDUL
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Renew Engine Oil	As per Ma	As per Manufacturers Handbook	Handbook	
Renew Transmission Oil - See page 1 for correct oil	Every 500 hours	JO		×
Renew Transmission Oil Filter				×
Renew Smoothing Roller Brgs	When defective or		×	×
Renew Drive Roller Bearings	When defective or			×
Renew Chain Tensioner Sprocket Bearings	As required or			×
Renew Drive Chain	As required or			×
Replace Foot Pedal Struts	When defective			
Replace Trailer Strut	When defective			



# **FAULT FINDING**

#### ROLLER WILL NOT MOVE ONE OR EITHER WAY

Check: • Chain is okay

- Sprockets are not worn or slipping on the shaft
- Foot control is operating check all arms are secure
- For Sheared Sprocket Keys

#### **ROLLER WILL NOT STEER**

**Check:** • Woodruff Key is in place & not sheared

- Rod ends are connected to smoothing roller head and the steering arm
- Centre swivel bearing on top centre of smoothing rollers have not seized
- Connecting rod is in place & serviceable
- Roller shaft bolts in the head centre have not worked loose and are locking.

#### **ROLLER HAS EXCESSIVE VIBRATION**

Check:

- Disconnect engine-to- transmission and isolate the drive chain to determine whether the problem is in the engine or in the transmissions
- If engine is at fault contact your nearest engine agent for rectification
- If the transmission is at fault, repair or replace as necessary, or seek professional advice from a local Eaton Service Center

#### **SMOOTHING ROLLERS SEIZED**

**Check:** • Bearings have not seized



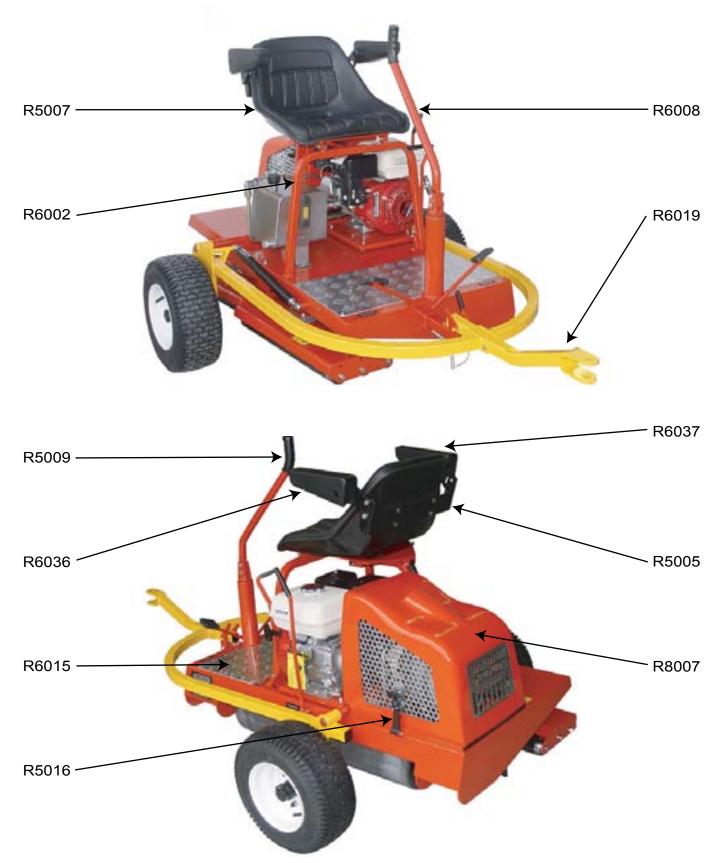
#### RUBBER DRIVE ROLLER WILL NOT ROTATE

**Check:** • Roller shaft end bearings have not seized

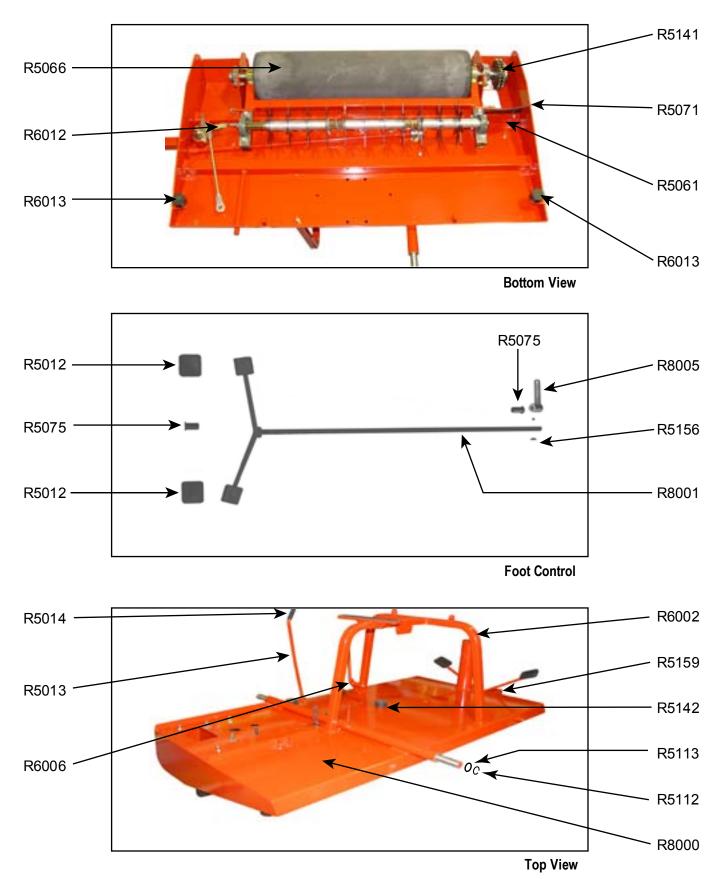
- Broken chain
- Slipping sprockets
- the Park Brake is not locked on
- Accumulated dry debris is not locking the smoothing rollers



# **MACHINE COMPONENTS**

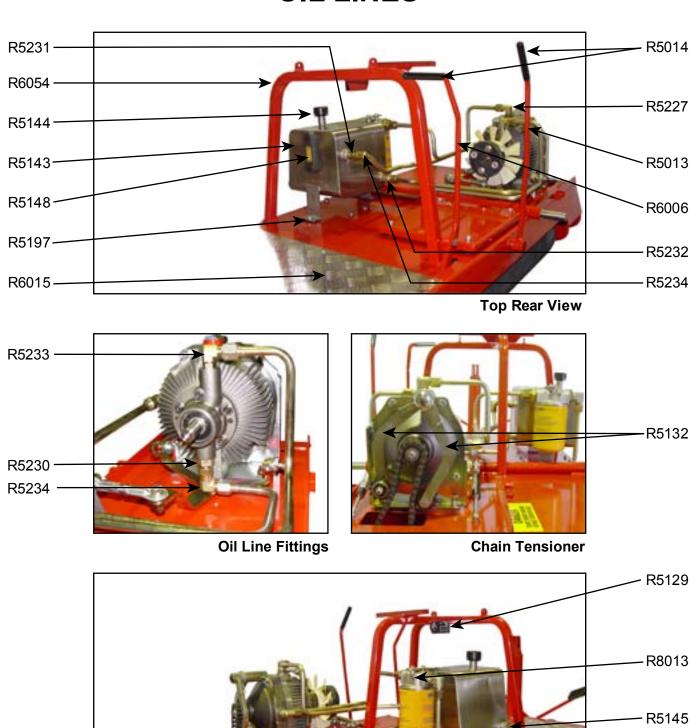








# **OIL LINES**



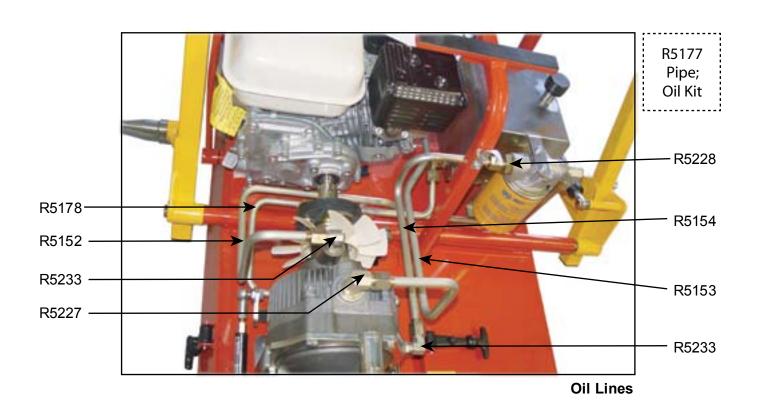
**Top Rear View** 

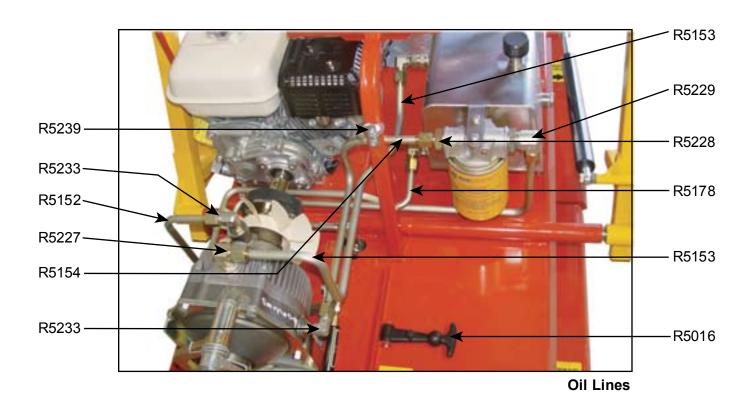
R5147

- R8011



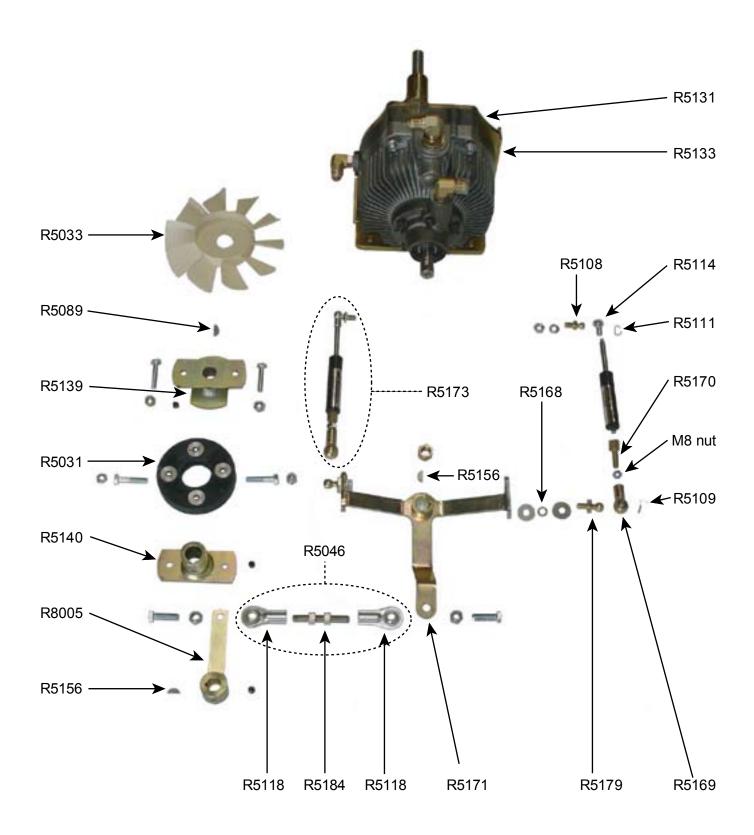
# **OIL LINES**





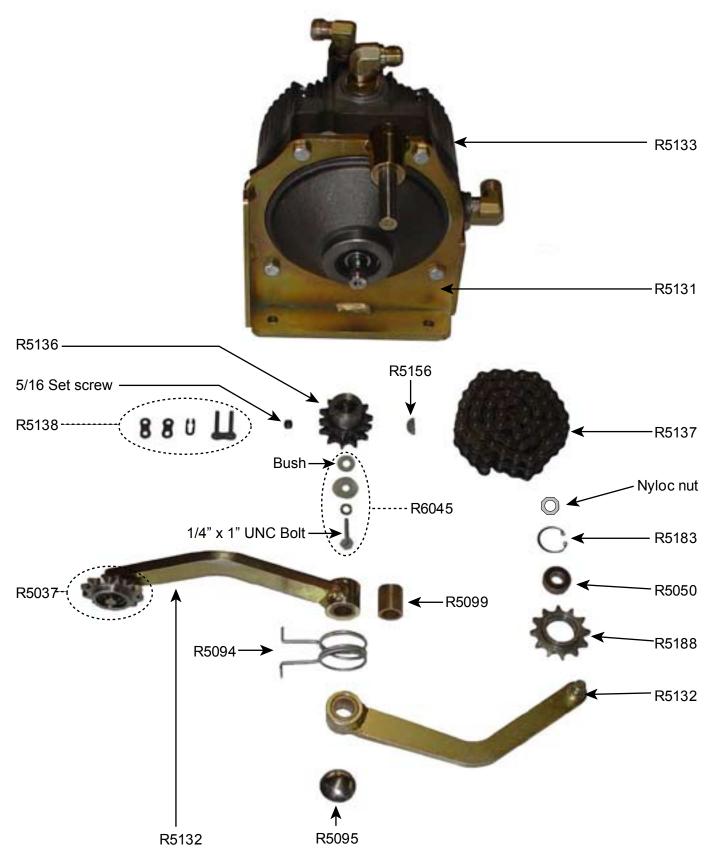


# TRANSMISSION AND YOKE



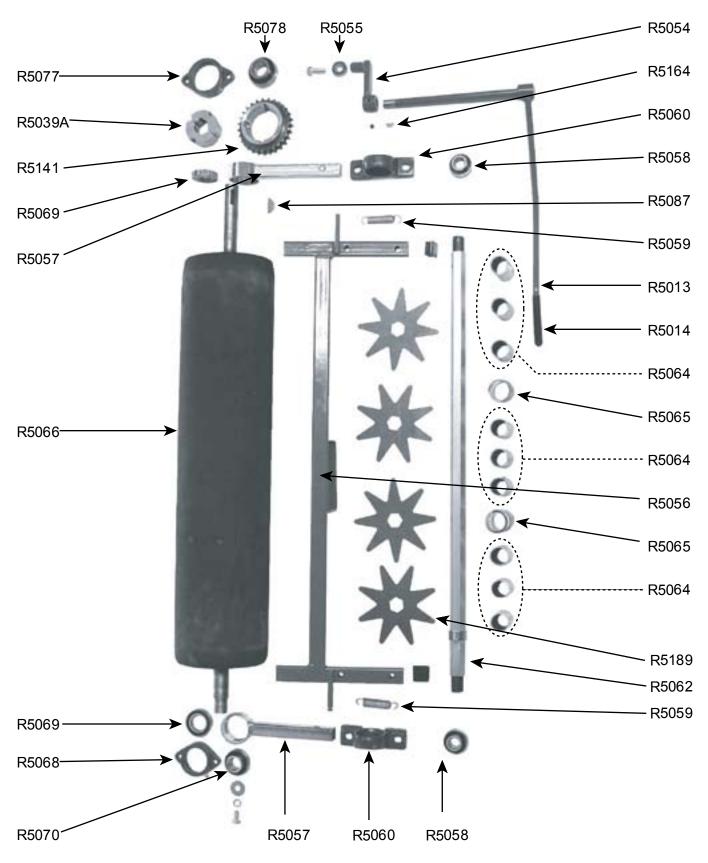


# TRANSMISSION AND CHAIN TENSIONER



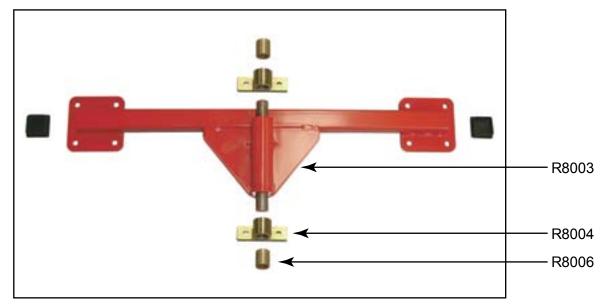


# **DRIVE ROLLER AND SPIKER**

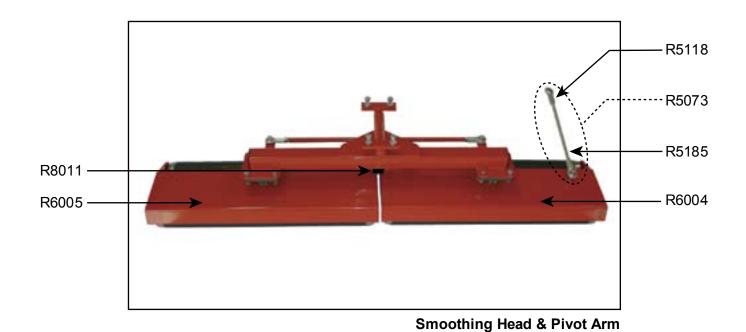




# **PIVOT FRAME AND SMOOTHING HEADS**



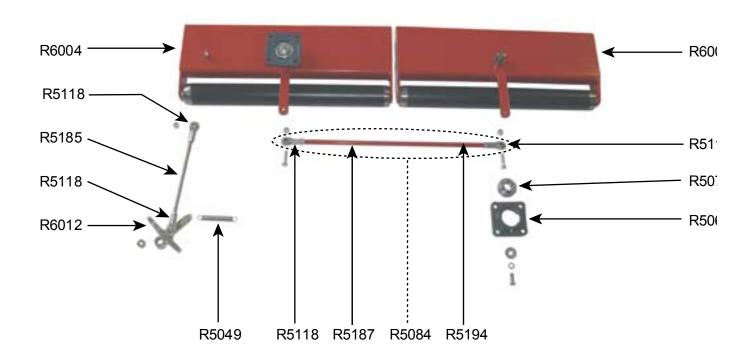
Pivot Arm, Smoothing Head

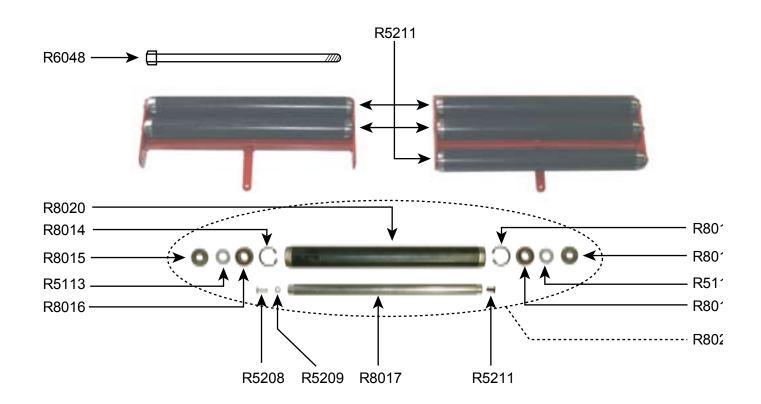


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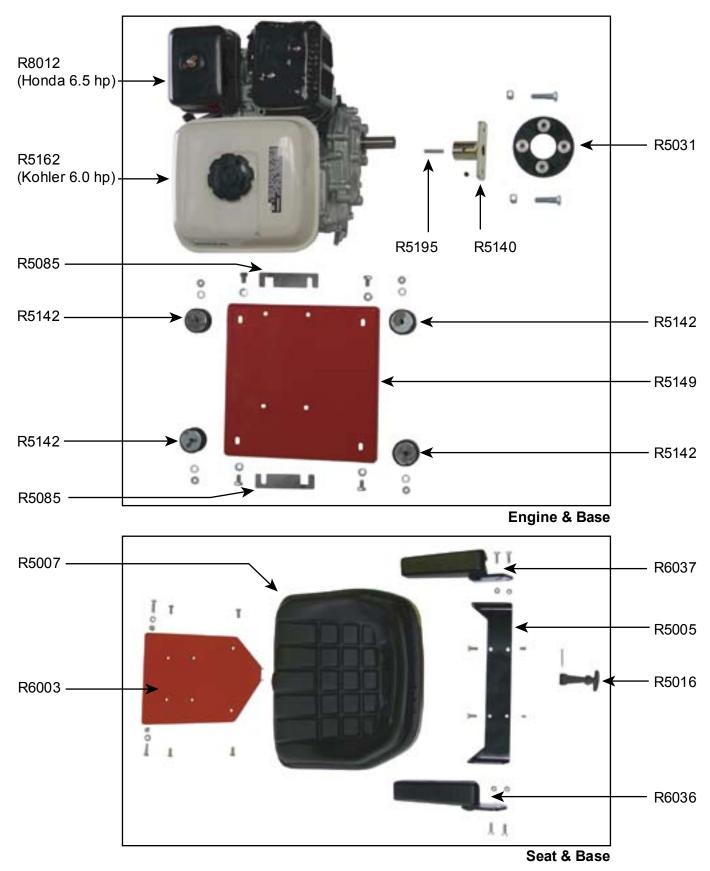
# **SMOOTHING HEAD AND COMPONENTS**





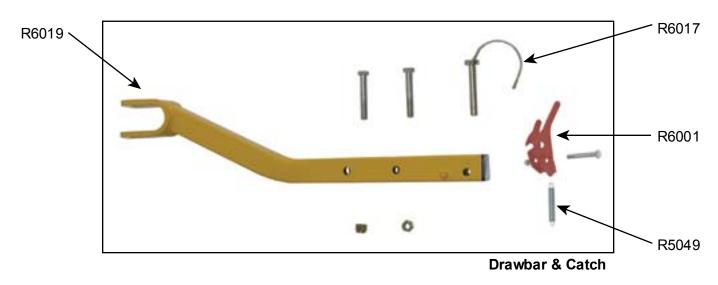


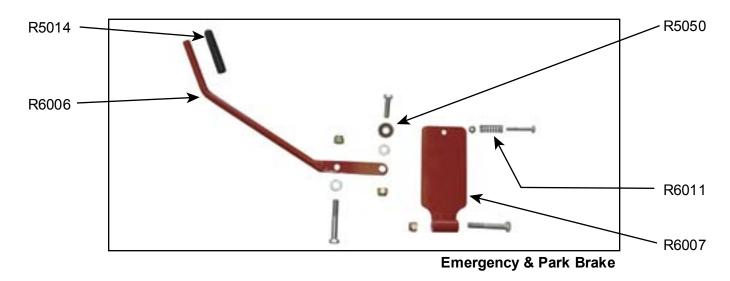
# **ENGINE WITH BASE AND SEAT WITH BASE**

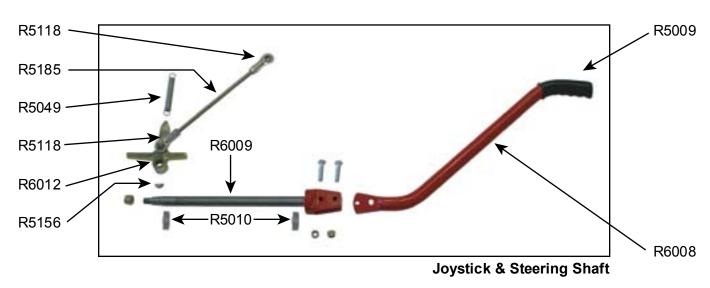




# DRAWBAR, BRAKE AND JOYSTICK

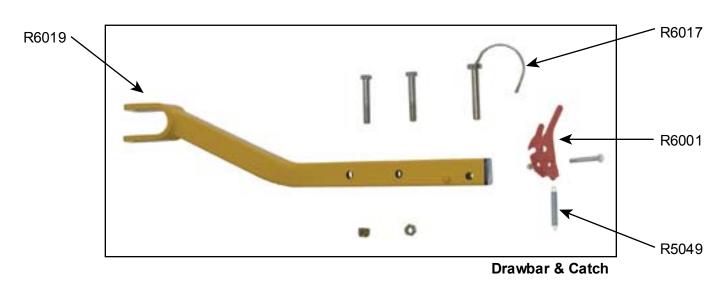


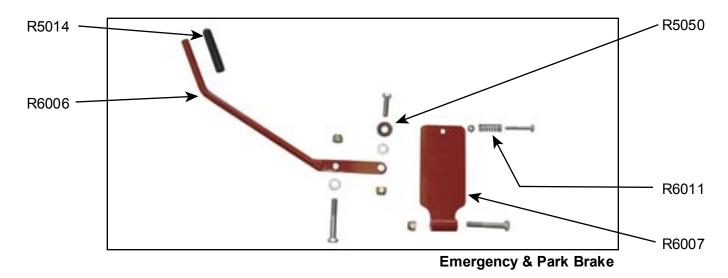


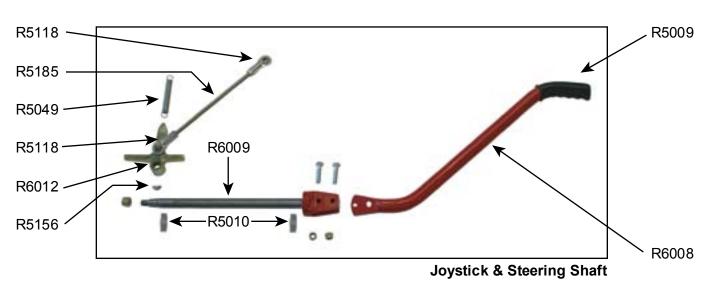




# TRAILER FRAME AND COMPONENTS



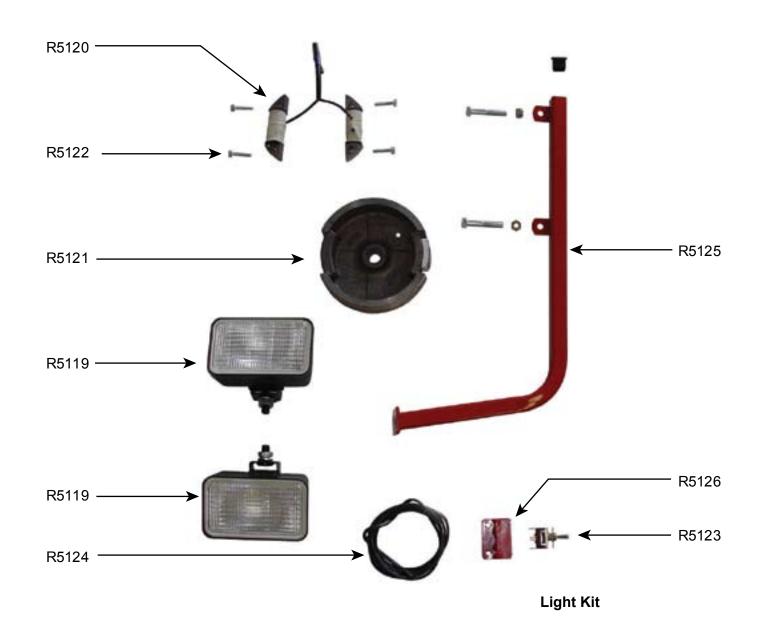






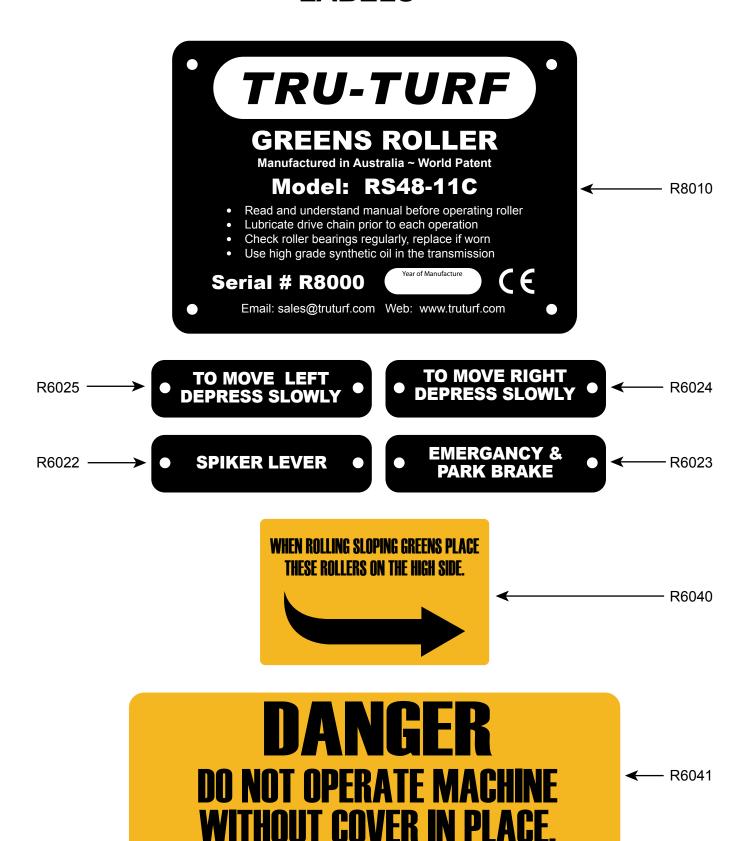
# **OPTIONS**

#### Kit Complete, Order R5127





# **LABELS**





# **PARTS LIST**

PART NO.	PAGE NO.	DESCRIPTION
R5005	17,26	Bracket; Arm Rest Support
R5007	17,26	Seat; Pan; P2
R5009	17,27	Grip; Hand; Joystick
R5010	27	Bearing; 6304
R5012	18	Pad; Rubber; Foot Pedal
R5013	18,19,23	Lever; Spiker Handle
R5014	18,19,23,27	Grip; Lever; Spiker Handle
R5016	17,20,26	Catch; Cover; Transmission
R5031	21,26	Coupling; Rubber
R5033	21	Fan
R5037	22	Sprocket Kit; Simplex
R5039A	23	Bush; Taper Lock
R5046	21	Rod Unit; Connecting Arm; Foot Pedal to Yoke; Transmission
R5049	25,27,28	Spring; Steering Return
R5050	22,27	Bearing; 6000
R5054	23	Arm; Spiker Engaging
R5055	23	Bearing; 6201; Arm; Spiker Engaging
R5056	23	Frame; "H" Spiker
R5057	23	Arm; Bearing Carrier; Spiker Frame
R5058	23	Bearing; B4
R5059	23	Spring; Return; Spiker Frame
R5060	23	Housing; P204; for B4
R5061	18	Strap; Mud Flap
R5062	23	Shaft; Hexagon; Spiker
R5064	23	Spacer; Set; Spiker Shaft
R5065	23	Spring; Spiker Spacer; fits on Hex Shaft
R5066	18,23	Roller; Drive
R5067	25	Housing; F205; 4 hole; for R5070 Bearing
R5068	23	Housing; LFL5J; 2 hole for R5070 Bearing
R5069	23	Bearing; 6006; Fits R5057
R5070	23,25	Bearing; B5
R5071	18	Mud Flap
R5073	24	Rod Unit; Steering Arm to Smoothing Head
R5075	18	Bush; Nylon; Black
R5077	23	Housing; LFL6J; for R5078 B6 Bearings
R5078	23	Bearing; B6
R5084	25	Rod Unit; Connecting Smoothing Heads, complete with Rod Ends & Tube
R5085	26	Shim; Honda / Kohler Engine; 1.0 mm Thick



PART NO.	PAGE NO.	DESCRIPTION
R5087	23	Key, Woodruff 8x30
R5089	21	Key; Woodruff 3/16"
R5094	22	Spring; Arm; Chain Tensioner
R5095	22	Washer; Capped
R5099	22	Bush; Bronze; for Chain Tensioner Arms
R5108	21	Ball Fitting; Small Flange
R5109	21	Clip; Retainer
R5111	21	Clip; Retainer
R5112	18	Circlip; External 25mm
R5113	18,25	Washer, Flat, 24x44x2 mm
R5114	21	Cup; End Short
R5118	21,24,25,27	Rod End
R5129	19	Meter; Hour/Tach
R5131	21,22	Bracket; Transmission; Eaton 11
R5132	19,22	Arm; Chain Tensioner
R5133	21,22	Transmission; Eaton 11
R5136	22	Sprocket; 11 Tooth; Duplex
R5137	22	Chain, Duplex; Eaton 11 Transmission
R5138	22	Joiner; Chain; Duplex Eaton 11 Transmission
R5139	21	Coupling; Transmission; Eaton 11 Honda 5.5hp or Kohler 6hp
R5140	21,26	Coupling; Engine; Honda 5.5hp or Kohler 6hp
R5141	18,23	Sprocket; 27tooth; Duplex; Drive Roller; Eaton 11 Transmission
R5142	18,26	Cushion; Rubber; for Engine Base Plate
R5143	19	Tank; Stainless Steel; Transmission Oil
R5144	19	Breather; Tank; Transmission Oil
R5145	19	Plug; Drain; Tank; Transmission Oil
R5147	19	Cartridge; Filter; Tank; Transmission Oil
R5148	19	Gauge; Sight; Tank; Transmission Oil
R5149	26	Plate; Mounting; Engine
R5152	20	Pipe; Oil
R5153	20	Pipe; Oil
R5154	20	Pipe; Oil
R5156	18,21,22,27	Key; Woodruff; 1/8" x 5/8"
R5158	19	Rubber Strip; Frame; Seat
R5159	18	Rubber Strip; Rest; Trailer
R5162	26	Engine; Kohler; 6 hp
R5164	18,21,23	Key; Woodruff; 4 x 6.5mm
R5168	21	Spacer; Stainless Steel; Strut End; Transmission



PART NO.	PAGE NO.	DESCRIPTION
R5169	21	Cup End; Long
R5170	21	Bolt: Adjuster; for Transmission Strut
R5171	21	Yoke; Eaton 11 Transmission; to suit Rear Struts
R5173	21	Strut; connects to R5171 Yoke
R5177	20	Pipe; Oil; Kit
R5178	20	Pipe; Oil
R5179	21	Ball Fitting; Large Flange
R5183	22	Circlip; Internal 1" (25mm)
R5184	21	Rod; Connects Transmission Yoke – Foot Pedal Arm
R5185	24,25,27	Rod; Connects Steering Arm to Smoothing Head
R5187	25	Tube 12.7mm x 495mm; For R5084 Rod
R5188	22	Sprocket; 12 Tooth
R5189	23	Spiker Blades, 8 point
R5194	25	Rod 3/8" x 570mm; Connects L & R Smoothing Heads
R5195	26	Key Honda / Kohler 32.5 x 5 x 5mm
R5197	19	Pad; Rubber Oil Tank
R5202	28	Strut; Trailer; Spec 031103 (Bare)
R5203	28	Strut; End; Bolt Type; M10 Thread
R5204	28	Strut; Bolt & Nut; M10 x 40 + M10 Nut
R5208	25	Bolt, 3/8" x 1" NF
R5209	25	Spring Washer 3/8"
R5210	28	Kit; Strut; 32mm dia. Body
R5211	25	CSK Screw 3/8" x 1"
R5227	20	Fitting; 90 deg Elbow; M-10 ORB to M-8 JIC (G-NP-90-1214);
		Transmission (Top; Rear)
R5228	20	Fitting; Straight M-12 BSPP-ORR to M-8 JIC with Dowty Seal (B-G-
		1212); Tank; Filter Head (Out)
R5229	20	Fitting; 90 deg Elbow M-12 BSPP-ORR to M-8 JIC with Dowty Seal
		(GBP-90-1212); Tank; Filter Head (In)
R5230	19	Fitting; Straight M-10 ORB to M-8 JIC (S90-1214); Transmission
		(Bottom)
R5231	19	Fitting; Straight M 1/2" NPT to M-8 JIC (A-G-0812); Tank (Front; Top)
R5232	19	Fitting; 90 deg Elbow M-8 JIC to M 1/2" NPT (A-G-90-0812); Tank;
		Bottom (Rear)
R5233	19,20	Fitting; 90 deg Elbow M-6 ORB to M-8 JIC (G-NP-90-1209);
		Transmission (Top; Front) and Transmission (Side)
R5234	19	Fitting; 90 deg Elbow F-8 JIC SWIVEL to M-8 JIC (G-J-90-1212);
		Transmission (Bottom) and Tank (Front; Top)



PART NO.	PAGE NO.	DESCRIPTION
R6001	27, 28	Catch; Trailer
R6002	17,18,19	Seat; Frame
R6003	26	Base Plate; Seat
R6004	24,25	Smoothing Head; Front
R6005	24,25	Smoothing Head; Rear
R6006	18,19,27	Lever; Emergency & Park Brake
R6007	27	Plate; Brake
R6008	17,27	Joystick
R6009	27	Shaft; Steering
R6011	27	Spring; Compression Brake
R6012	18,25,27	Arm; Steering
R6013	18	Stop; Rubber, Smoothing Head
R6015	17,19	Plate, Footrest, Checker
R6017	27	Pin; Safety, Drawbar
R6019	17,27,28	Drawbar
R6022	30	Plate; Spiker Lever
R6023	30	Plate; Emergency & Park Brake
R6024	30	Plate; Move Right
R6025	30	Plate; Move Left
R6026	28	Hub; Trailer
R6027	28	Seal; Hub Inner
R6028	28	Bearing; Hub Inner
R6029	28	Bearing; Hub Outer
R6030	28	Washer; Hub
R6031	28	Nut; Stub
R6032	28	Pin; Cotter, Stub
R6033	28	Cap; Hub
R6034	28	Nut; Wheel, Hub
R6035	28	Hub; Wheel Complete
R6036	17,26	Armrest LH
R6037	17,26	Armrest RH
R6039	28	Wheel / Tire 4 Stud
R6040	28	Sticker; Sloping Greens
R6041	28	Sticker; Danger, Cover Removal
R6045	22	Bush, Sprocket
R6048	25	Scraper; Rod
R8000	18	RS48-11C Body



PART NO.	PAGE NO.	DESCRIPTION
D0004	40	Foot Dadala Tananad
R8001	18	Foot Pedals Tapered
R8002	28	Trailer Arm LH
R8003	24	Smoothing Head Pivot Frame
R8004	24	Smoothing Head Pivot Bush Holder
R8005	18,21	Foot Pedal Arm Tapered
R8006	24	Bush Bronze Smoothing Head Pivot 20x26x30
R8007	17	RS48-11C Transmission Cover
R8008	28	Trailer Arm RH
R8009	28	Bush Bronze Trailer Arms 25x32x30
R8010	30	Naming Plate RS48-11C
R8011	19,24	Ruber Buffer, Pivot Frame
R8012	26	Engine Honda 6.5HP
R8013	19	Housing; Filter; Tank; Transmission Oil
R8014	25	Circlip; Smoothing Rollers
R8015	25	Washer; Smoothing Roller 25X52X3
R8016	25	Bearing; 6205 Stainless Steel
R8017	25	Shaft; Smoothing Roller Suites Tube R8020
R8020	25	Tube; Smoothing Roller with Circlip R8014
R8021	25	Tube; Complete Kit

# **OPTIONS AVAILABLE**

R5119	29	Light 2 Off (50W)
R5120	29	Coil; Lighting; for Honda 4.0 hp & 5.5hp
R5121	29	Flywheel, Honda 5.5hp
R5122	29	Bolt; Flange
R5123	29	Switch; Light
R5124	29	Harness; Wire
R5125	29	Bracket; Lights; for Light Kit
R5126	29	Bracket; Switch; for Light Kit
R5127	29	Light Kit; Complete