



Original Instructions



Model shown includes optional upgrades

# RS48-11D & RS48-11DB USA GOLF ROLLER & SPIKER MANUAL



# Contents

Revised 06/June/2013

The products detailed in this manual conform to the following standards:  
Machinery Directive 2006/EC Annex VIII,  
EMC Directive 2004/108/EC / Article 10.1 & EN ISO 4254-1:2009.  
CE Declaration is available on the Tru-turf website.

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## **Note: Separate Engine Owners Manual Included**

This manual covers 2 models,  
RS48-11D Serial Number range 12000 to 12948  
& RS48-11DB serial number range RDB0001 to  
RDB0033 inclusive for both.

The RS48-11DB is a basic version of the  
RS48-11D, both models are identical with the  
following exceptions.

The RS48-11DB has all components relating to the  
Slicer/Spiker excluded.

The pages in this manual that cover the  
Slicer/Spiker components are not applicable to  
the RS48-11DB model, these are identified with  
an asterisk \* next to the each page in the contents  
list above and against each item detailed on the  
following pages.

Should the owner wish to add the excluded Slicer/  
Spiker components to the machine these are  
available as a kit. The kit can be purchased through  
your nearest dealer / Service agent.



# 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. If loose and the Loctite seal has been broken, treat item as per Loctite instructions, reseal, then tighten securely.
4. **Loose transmission and drive roller sprockets will cause damage to shafts and 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.**

We use and recommend Penrite Synthetic 5 SAE 5W-60. Available through our dealer network.

**U.S.A.** customers contact your dealer or visit [www.truturf.com](http://www.truturf.com) to find your nearest dealer.

**Australian** customers call 07 5594 7199.

**International** customers contact your dealer or visit [www.truturf.com](http://www.truturf.com) to find your nearest dealer.

# Machine Information Record

Congratulations on your investment in the RS48-11D Roll 'n' Spike & RS48-11DB 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 RS48-11D Roll 'n' Spike & RS48-11DB 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.

**Distributor Information**

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Machine Information**

Model. RS48-11D Roll 'n' Spike & RS48-11DB Golf Green Roller \_\_\_\_\_

Serial No. \_\_\_\_\_

Engine No. \_\_\_\_\_

Transmission No. \_\_\_\_\_

Purchase Date No. \_\_\_\_\_

# Safety Information

## Safety Information

**Safety is of the utmost importance when operating turf equipment.**

**To ensure safe operation of the RS48-11D Roll 'n' Spike & RS48-11DB Golf Green 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 of the catch. If the trailer catch is not correctly engaged while towing and releases accidentally, the front of the roller can drop and come in contact with the ground, causing the machine to move dangerously in any direction, this could cause bodily injury. When carrying out maintenance ensure the catch 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 shafts, 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.
- Never ride on the machine when machine is being towed.

**Operator, remember it is your responsibility to be aware of your surroundings. To avoid accidents, think safe and operate safe.**

# Warranty

## Universal Conditions

Tru-Turf Pty. Ltd. (Tru-Turf) will repair or replace any item or part of a Tru-Turf Golf Greens Roller that is defective in workmanship or material for a period of twenty four (24) months or unless otherwise stated, from the date of delivery of the new product to the original end user. Items identified as warrantable will be repaired or replaced by an approved Tru-Turf Dealer.

## Products Protected By This Warranty

This Warranty relates to the following products manufactured by Tru-Turf, listed by model series;

- a. GR, RS, RB, R52 Series Golf Greens Rollers.
- b. TR66 Series Triplex Roll 'n' Spike heads and mower attachment hardware.
- c. SR72 Sports ground roller.
- d. MT5000 Series Totes are covered for a period of twelve (12) months.

Ensure that your Dealer has completed and submitted the Online Warranty Registration and Inspection Report Form applicable to your unit.

This will ensure that it has been sent directly to Tru-Turf for registration.

## Parts Warranted by OEM Suppliers to Tru-Turf

Specific component parts supplied to Tru-Turf Pty. Ltd. by OEM suppliers are covered by that supplier's Warranty. These parts and components include Eaton Transmissions, Honda Engines, Sevcon & Curtis Controllers & Foot Pedals, Falk Gearboxes & Electric Motors. **Only Tru-Turf manufactured parts qualify for the twenty four (24) month warranty.**

## Normal Wear and Tear

Tru-Turf will not repair or replace parts that are subject to normal wear and tear and or that are subject to regular maintenance intervals as specified in the product Operator's Manual. These parts include, but are not limited to, oils, filters, tyres, shafts, bearings, blades, spikers, slicers, brakes, belts, hoses, spark plugs, drive chains, sprockets, drive rollers & smoothing rollers.

## Other Items Not Covered By This Warranty.

Tru-Turf will not repair or replace any item that has been damaged by accident, lack of reasonable care and protection or lack of suitable storage.

Tru-Turf will not warrant parts that have been altered or modified, nor aftermarket parts fitted without written Tru-Turf approval. Tru-Turf will not warrant used parts that are installed in place of failed parts.

Tru-Turf will not warrant parts that have not been installed by an approved Tru-Turf dealer, nor will Tru-Turf warrant parts that have not been maintained per the Operator's Manual.

The product is to be made available for Warranty repairs at the approved Tru-Turf dealer's premises or by arrangement with the approved dealer.

Service calls, overtime-labour rates and freight costs related to the return of the faulty product to Tru-Turf or its agents are not included.

Tru-Turf shall not be liable for any consequential loss, damage or costs incurred 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.

Ensure that your Dealer completed and submitted the Online Warranty Registration and Inspection Report Form applicable to your unit. This will also ensure that it has been sent directly to Tru-Turf for registration.

This record must be referred to along with the reasons why the purchaser believes that the product or a part is defective in the categories of faulty material or workmanship.

Acceptance or rejection of the Warranty Claim is entirely at the discretion of Tru-Turf or their OEM Suppliers who warrant their own part/s.

The Warranty Registration and Inspection Report Form along with the TRU-TURF Pty. Ltd. Warranty Terms & Conditions statement are available for viewing, download or printing as a ready reference by simply clicking the link provided on our website.

The Warranty Registration and Inspection Report Form must be signed by both the Dealer Rep and the Customer and returned or any warranty claim/s will be denied.

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

**TRU-TURF**

## EC Declaration of Conformity



**TRU-TURF EQUIPMENT**  
declares that the machinery stipulated below complies with all the  
relevant provisions of the:

**Machinery Directive (98/37/EC)**  
**EMC Directive (89/336/EEC)**

(as amended) and the National Laws and Regulations  
adopting these directives and other relevant directives.

**Manufacture** : TRU-TURF EQUIPMENT,  
Unit 2, Export Drive, Ernest,  
Queensland 4214, Australia.

**Machine description** : Golf Green Roller and Spiker

**Type** : RS48-11D Roll 'n' Spike

**Serial No.** : .....

**Harmonised standards applied: (including parts/clauses of):**

**EN 1553:1999** Agricultural self-propelled, mounted, semi-mounted and  
railed machines – Common safety requirements.

**EN ISO 12100-2:2003** Safety of Machinery. Basic Concepts, General Principles of  
Design. Technical principles

**'Responsible' Person** : *R. J. DUFFY*

**Position in Company** : *MANAGING DIRECTOR*

**Date** : .....

CE Technical File held in the European Union by:  
Designplus (Eng.) Limited, The Hollies, 10 Chapel Lane, West Bergholt, Colchester, Essex. CO6 3EG. UK.  
Acting on behalf of TRU-TURF EQUIPMENT as CE European Authorised Representative.



# CE DECLARATION



## RS48-11D GOLF ROLLER MANUAL ADDENDUM

*Important EU Machinery Directive Information*

### SAFETY WARNINGS



**Read Operator's Manual.**

Only personnel that have read and fully understood the Operator's Manual should operate this equipment.



**Keep Bystanders Away.**

The operator should ensure that bystanders are not in the immediate vicinity of the machine when it is in use.



**Machine Rollover.**

Do not use this machine on slopes greater than 10 degrees.



**Wear Ear Protection.**

This machine produces sound levels greater than 85dBA at the operator's ear. Wear ear protection in operation.

### SOUND AND VIBRATION LEVELS

The sound and whole body/hand/arm vibration levels for the **Roll 'n' Spike** are shown below. Please take note of the levels and determine appropriate action for your personnel.

It is recommended that you wear hearing protection and limit the time of use when operating the Roll 'n' Spike.

Sound Levels		
Machine Type	Measured Sound Pressure Lpa dB(A)	Guaranteed Sound Power Lw dB(A)
RS48-11D Roll'n Spike	88	101

Vibration Levels			
Machine Type	Measured value (m/s <sup>2</sup> )	Time to reach Exposure Action Value	Time to reach Exposure Limit Value
<b>Hand/Arm</b> RS48-11D Roll'n Spike	3.7	219 minutes	877 minutes (i.e. >8hours)
<b>Whole Body</b> RS48-11D Roll'n Spike	1.1	99 minutes	525 minutes (i.e. >8hours)

*Readings taken with engine at full throttle.*

# Assembly

## 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
1	Operation, Maintenance and Parts Manual
1	Machine Frame/Body
1	Drivers Seat
2	Armrests
4	$\frac{5}{16}$ " x $\frac{3}{4}$ " UNC Bolts
2	Tires mounted on Wheel Rim
1	Steering Joystick
1	Dampener Strut (attached to main body end)
1	Left-side Trailer Arm
1	Right-side Trailer Arm
2	30mm External Circlips
1	Drawbar Coupling Assembly
2	$2\frac{1}{2}$ " x $\frac{3}{8}$ " UNF Hex Head Bolts
2	$\frac{3}{8}$ " UNF Nyloc Nuts

# Assembly

## Assembly Procedure

### Step 1: Mounting the seat to the seat base.

- Use the four  $\frac{5}{16}$ " x  $\frac{3}{4}$ " UNC bolts to fasten the seat to the seat base.
- Remove armrest screws from the seat, position left and right side armrest, fasten and tighten.

### 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 in front of the foot pedal controls, insert the  $\frac{3}{8}$ " bolt into the bottom bolt hole, select a comfortable operating position, joystick forward for extra operating room or back for less, once determined insert the other  $\frac{3}{8}$ " bolt into the upper hole and tighten both bolts securely.

### Step 3: Attaching the left-hand trailer arm to machine body.

- Locate the trailer arm support axle 30mm in diameter ( $1\frac{1}{4}$ " ) which extends out on the left 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 the circlip is located in the groove correctly.

### Step 4: Attaching dampener strut and right hand trailer arm.

- Locate the trailer arm support axle 30mm in diameter ( $1\frac{1}{4}$ " ) 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, fit the circlip, ensuring it is located in the groove correctly.

### Step 5: Attaching draw bar to trailer arms.

- Locate the draw bar assembly.
- Gather the ends of the right and left trailer arms.
- Place the draw bar assembly between the trailer arms and align the holes, ensure the bend is upwards.
- Place one  $2\frac{1}{2}$ " x  $\frac{3}{8}$ " bolt through each hole, fit  $\frac{3}{8}$ " Nyloc nut to each bolt and tighten securely.
- Test to ensure the trailer catch is correctly locking the trailer arms in the down position and the catch locking pin fits correctly when transporting the roller, for safety.

# Assembly

## 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. The tires act as the suspension, hence the low P.S.I.
- Remove wheel nuts from both hubs, slide wheels onto hub with air valves facing outwards. Replace wheel nuts and tighten securely.
- Ensure the taper on the nuts, mate into the wheel tapers correctly.

## Step 7: Correct dampener strut operation

- When the roller is in the trailing position:
  1. carefully hold the draw bar assembly,
  2. lower machine until the front rests on the ground,
  3. release the locking catch,
  4. gently with a firm grip begin to raise the draw bar,
  5. when it has travelled sufficiently the dampener strut will take over and prevent the trailer arms rapidly rotating on it's axle, allowing the roller to lower to the surface gently.

## 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 the 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 if fitted from the top of the tank and replace it with the anti-splash breather supplied. Seal damage and oil leakage will occur if the breather is not installed. If this is not done damage to the seals in the transmission will occur.

## 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 procedures

## Operation procedures

### Pre-operation checks

- Check engine as per Honda manual.
- Ensure steering joystick has no looseness.
- Check that foot pedal depresses under normal foot pressure in both directions and returns to the neutral position. (Similar resistance to a motor vehicle clutch). If this action is not smooth, check the yoke and transmission struts for correct operation.
- Ensure that the draw bar locking catch mechanism is securely locked to the main draw bar and the safety pin is fitted when trailing the roller.
- Check and tighten grub screws fitted to 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 and Smoothing Head pivot bearings. Replace plastic caps if fitted.
- Grease rod ends, sparingly.
- Check tire pressure for proper operating pressure (18psi). **Do not over inflate.**
- Check for oil and fuel leaks - rectify before using machine.
- Lubricate the drive chain with a suitable chain lubricant.

## 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 and trailer.
- When approaching the green do not tow the 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 increases the weight on the rubber drive roller and gives better traction, it also 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  $\frac{1}{2}$  -  $\frac{3}{4}$  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 and less wear and tear on the equipment and operator.

# Operation procedures

- 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.

## 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 and back. The lever will remain in the off position until re-applied. Do not operate the roller with the park brake engaged, damage to the drive roller rubber coating will occur.
- Ensure the park brake is released prior to operating the roller, if not irreparable damage to the rubber on the drive roller will occur.

## 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 straight; look well ahead.
- Use 1/2 throttle until you are proficient at operating the roller.
- Once you choose your rolling line hold the joystick steady, correcting direction gently as required.
- 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 depression marks 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.

# Maintenance

## Maintenance

- Stop engine before performing any maintenance.
- Service the Honda engine according to the manufacturer's 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. For the ultimate performance we use and recommend the Penrite synthetic 5 SAE 5W-60 transmission oil. (Part No. R5226)

## 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 and also the weight is taken off the roller bearings.

## Service of the drive chain system

- Replacement - Some chains look a like, but they are not, use only the chain and sprockets recommended as per the correct spare parts number. Wrong pitch drive chain fitted will cause excessive sprocket wear and possible drive failure.
- Tensioning the drive chain - No adjustment is required; the chain tension is automatically adjusted.

## Lubrication

- Lubricate drive chain with a chain lube such as *Molykote, Innox* or *ChunkaRocol ITW*. Spray on the inside of the chain so that the lubricant is forced into each roller and around each pin 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, roughness or excessive looseness is detected, replace the faulty bearings.

# Maintenance

- If bearings are faulty
  - (a) Remove the complete smoothing head from the machine, undo the four swivel mount bolts on upper body and steering rod, wheel the roller away until the total head is exposed to work on.
  - (b) Remove roller shaft bolts from end plates, remove rollers from the heads.
  - (c) Fit new bearings, replace rollers into the heads, lubricate shaft bolts with an anti seize compound before installing them. Tighten securely and ensure rollers rotate freely when fully tightened.

or

If the rollers are a sealed type remove the roller and replace with a complete new roller.

  - (d) If the rods are removed or lengths altered ensure they are correctly adjusted so that the three heads are parallel to each other when in the straight ahead position. Adjust if necessary.

## Changing engine oil

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

## Changing transmission oil

### Ongoing Maintenance, Lubricant and Replacement Schedule (below)

**Note.** Areas indicated with a \* need to be changed when defective or as required. This may be before the recommended replacement schedule. Please replace all parts as necessary.

Description	Pre-Delivery	Pre-Operating	12 Monthly
Check Engine oil	✓	✓	
Check Transmission Oil Level	✓	✓	
Beware of contaminants entering the transmission	✓	✓	
Lubricate drive chain with WD40 or equivalent	✓	✓	
Check Tires Max 18 P.S.I.	✓	✓	
Check Gas	✓	✓	
Check Smoothing Roller Bearing	✓	✓	
Check Drive Roller Bearings	✓	✓	
Check for loose Nuts and Bolts	✓	✓	
Renew Engine Oil	as per manufacturers Handbook		
Renew Transmission Oil - See page 1 for correct oil	every 500hrs or...		✓
Renew Transmission Oil Filter	*		✓
Renew Smoothing Roller Bearings	*		✓
Renew Drive Roller Bearings	*		✓
Renew Chain Tensioner Sprocket Bearings	*		✓
Renew Drive Chain	*		✓
Replace Foot Pedal Struts	*		
Replace Trailer Strut	*		



# Fault Finding

## 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
- Rubber coupling broken

### Roller will not steer, check

- Woodruff Key is in place and not sheared
- Rod ends are connected to smoothing roller head and the steering arm
- Rod ends are not broken or seized
- Centre swivel bearing on top centre of each smoothing roller head has not seized
- Connecting rod are in place and serviceable

### 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

- Any out of alignment between engine and transmission.
- For damaged engine and transmission couplings

### Smoothing rollers seized, check

- Bearings have not seized
- Replace if necessary
- Accumulated dry debris is not locking the smoothing rollers.

### 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

# Operating Positions

Towing Position



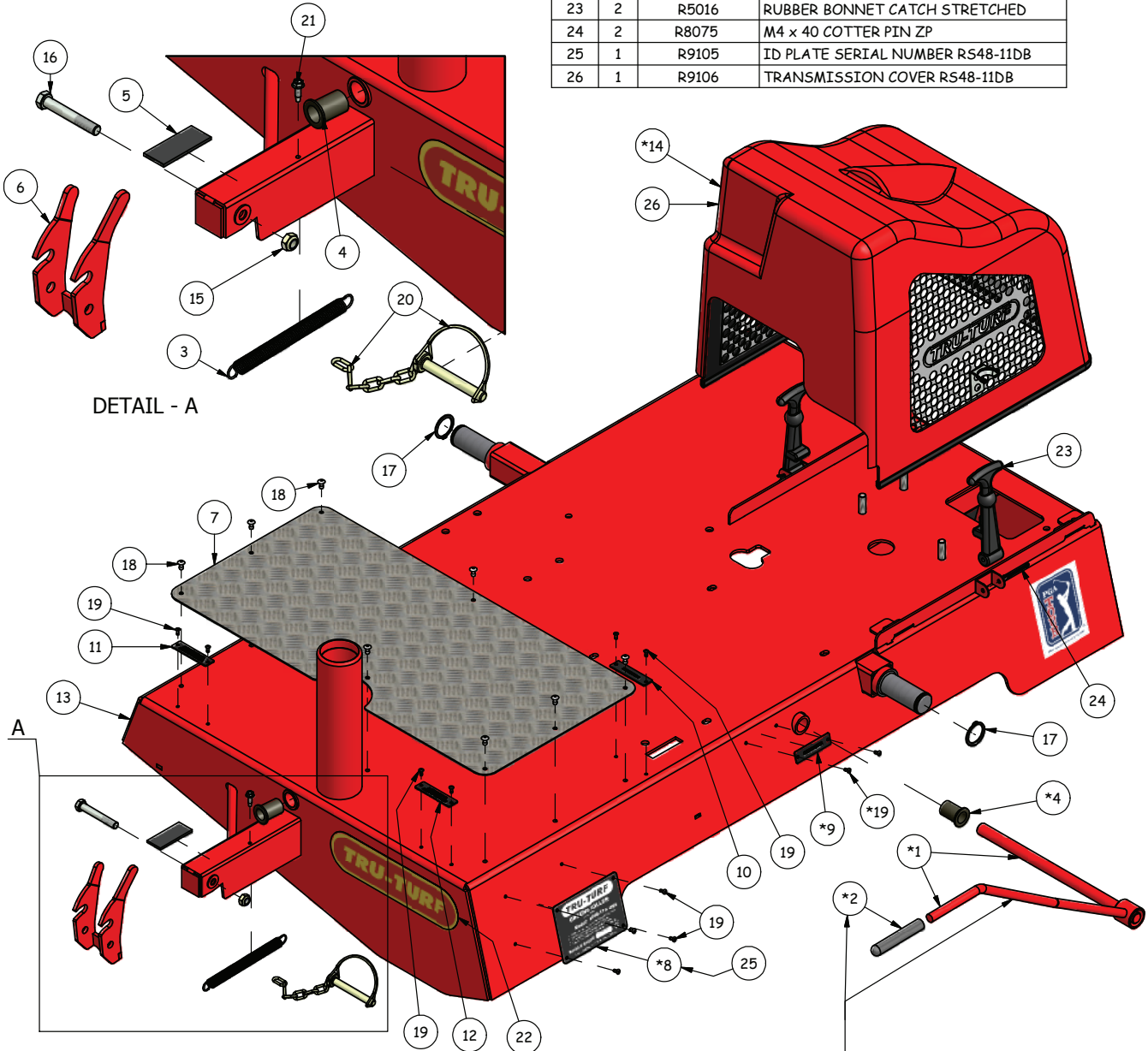
Rolling Position



# Upper Body Assembly

RS48-11D & DB UPPER BODY ASSY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
*1	1	*R5013	LEVER SPIKER HANDLE WELDED ASSY
*2	1	*R5014	GRIP HAND
3	1	R5049	SPRING LATCH & STEER
4	2	*R5075	BUSH ACETYL
5	1	R5159	RUBBER TRAILER REST
6	1	R6001	TRAILER CATCH NARROW WELDED ASSY
7	1	R6015	PLATE CHECKER FOOT PAD
*8	1	*R9020	PLATE SERIAL NUMBER RS48-11D USA
*9	1	*R6022	PLATE SPIKER LEVER
10	1	R6023	PLATE PARK BRAKE
11	1	R6024	PLATE MOVE RIGHT

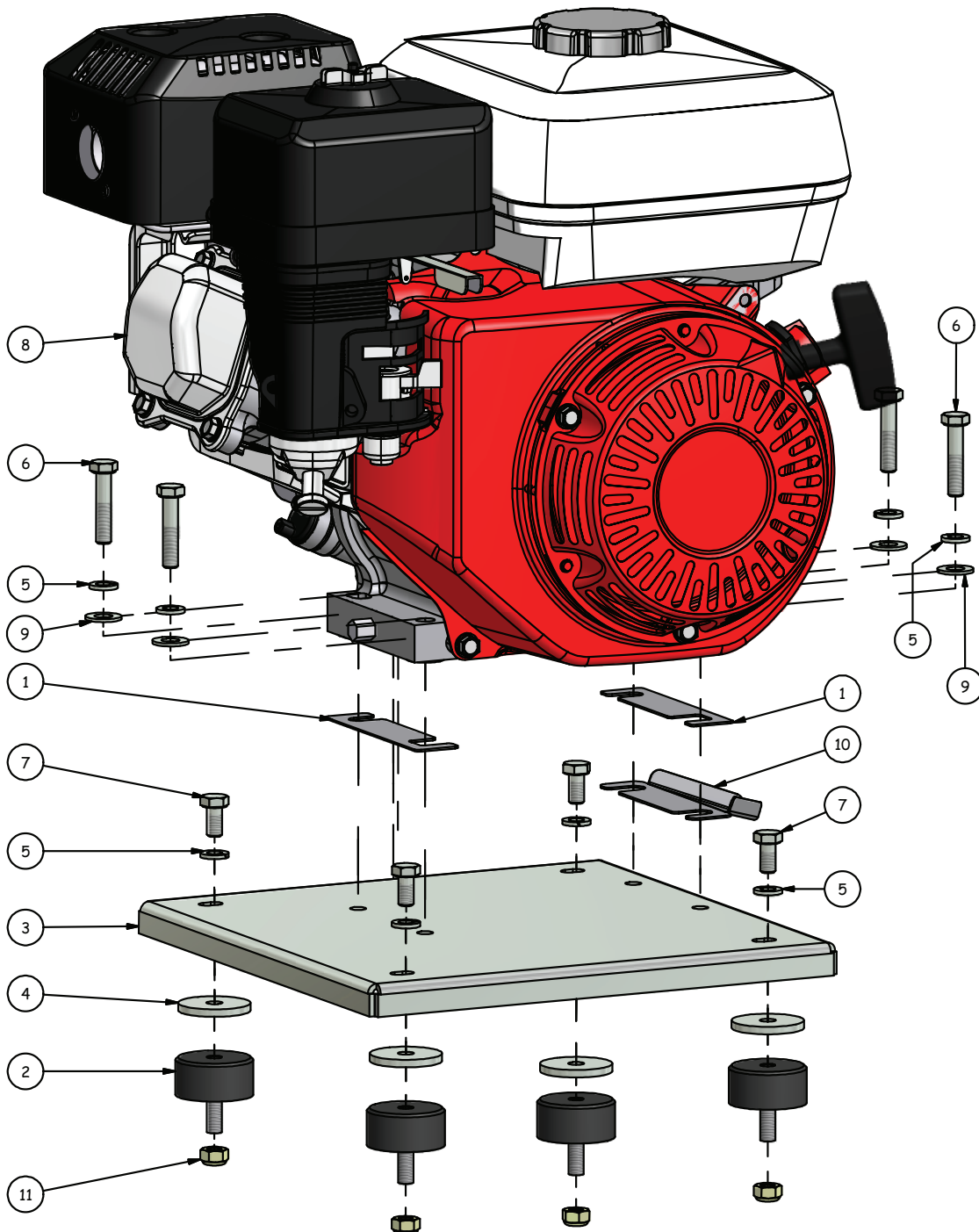
RS48-11D & DB UPPER BODY ASSY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
12	1	R6025	PLATE MOVE LEFT
13	1	R9000	BODY WELDED ASSY
*14	1	R7005	TRANSMISSION COVER RS48-11D
15	1	R8056	3/8 UNF NYLOC T-TYPE NUT
16	1	R8072	3/8 x 2.1/2 UNF BOLT ZP
17	2	R8082	CIRCLIP
18	8	R8134	RIVET
19	12	*R8260	RIVET BLACK
20	1	R6017	DRAWBAR SAFETY PIN & CHAIN
21	1	R8081	10-24x16 TEK SCREW ZP
22	1	R6057	STICKER TRU-TURF OBOUND 245X64
23	2	R5016	RUBBER BONNET CATCH STRETCHED
24	2	R8075	M4 x 40 COTTER PIN ZP
25	1	R9105	ID PLATE SERIAL NUMBER RS48-11DB
26	1	R9106	TRANSMISSION COVER RS48-11DB



ITEMS NOT APPLICABLE TO THE RS48-11DB MODEL ARE IDENTIFIED WITH AN ASTERISK \* NEXT TO THE PART AND ITEM NUMBERS.

# Honda Engine Mounting Assembly

HONDA ENGINE MOUNTING - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	Varies	R5085	ADJUSTING SHIM ENGINE MOUNT
2	4	R5142	RUBBER ISOLATION ENGINE MOUNT
3	1	R5149	ENGINE MOUNT PLATE WELDED ASSY
4	4	R6068	WASHER ZP 38 OD X 8.5 ID X 4 PACKER ENG MNT
5	8	R8051	5/16 SPRING WASHER ZP
6	4	R8065	5/16 x 1-1/2 UNF BOLT ZP
7	4	R8083	M8 x 16 BOLT ZP
8	1	R9001	GX200 ENGINE HONDA
9	4	R8046	5/16 x 3/4 WASHER ZP
10	1	R8378	OIL DRIP PAN - HONDA ENGINE
11	4	R8256	M8 NYLOC NUT ZP



# Seat Assembly

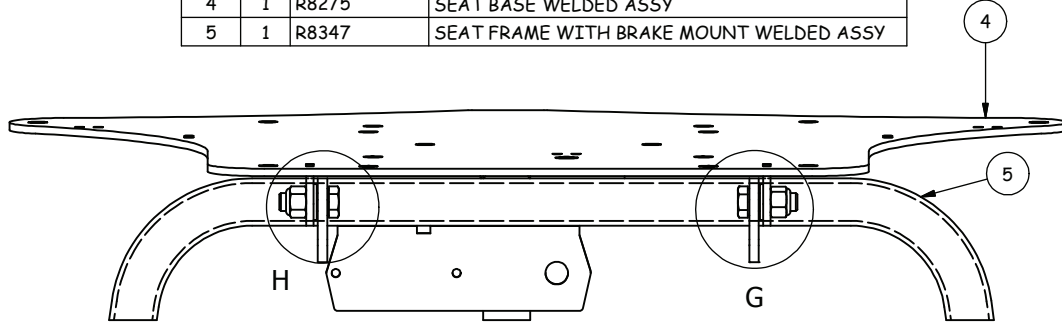
SEAT & FRAME ASSEMBLY - PARTS LIST							
ITEM	QTY	STOCK NUMBER	TITLE	ITEM	QTY	STOCK NUMBER	TITLE
1	1	E7067	LIGHT SWITCH	15	1	R8274	SEAT FRAME
2	1	R5016	CATCH RUBBER	16	1	R8275	SEAT BASE
3	1	R5129	METER HOUR TACHO	17	2	R8330	ROUND LED LIGHT C/W PLUG ASSY (Optional)
4	1	R5239	RUBBER LATCH HOOK	18	1	R8048	3/8 x 3/4 WASHER ZP
5	1	R6013	BUFFER STOP UNDER BODY	19	1	R8054	5/16 UNF NYLOC NUT
6	2	R8048	3/8 x 3/4 WASHER ZP	20	1	R8055	3/8 UNF NYLOC NUT P-TYPE
7	4	R8051	5/16 SPRING WASHER ZP	21	1	R8066	3/8 x 3/4 UNF BOLT ZP
8	5	R8055	3/8 UNF NYLOC NUT P-TYPE	22	1	R8189	5/16 x 2-1/2 UNF HEX BOLT
9	2	R8067	3/8 x 1 UNF HEX BOLT ZP	23	1	R8365	SEAT ALL PVC WITH ARMS
10	4	R8068	5/16 x 3/4 UNC BOLT ZP	24	1	R8362	SEAT ALL PVC PAN ONLY
11	1	R8075	M4 x 40 COTTER PIN ZP	25	1	R8363	ARM REST RH
12	2	R8076	RIVET ALUMINIUM 6-3	26	1	R8364	ARM REST LH
13	2	R8077	RIVET ALUMINIUM BLACK	27	1	R8270	WIRE LOOM FOR LIGHTS (Optional)
14	1	R8256	M8 NYLOC NUT ZP				



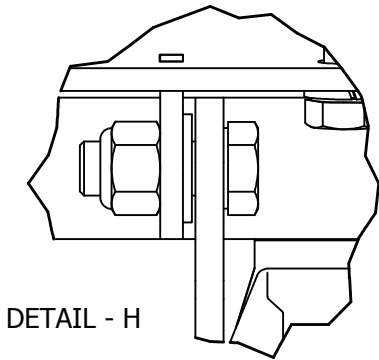
LIGHTS ARE OPTIONAL & COME AS A KIT.  
THE R8291 LIGHT KIT INCLUDES  
ITEMS AS CIRCLED.

# Adjusting Seat Base

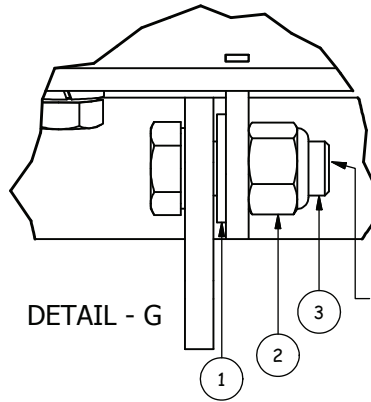
R8347 SEAT FRAME ASSY & ADJUSTING THE HINGE BOLTS			
ITEM	QTY	PART NUMBER	TITLE
1	2	R8048	3/8 x 3/4 WASHER ZP
2	5	R8055	3/8 UNF NYLOC NUT P-TYPE
3	2	R8067	3/8 x 1 UNF HEX BOLT ZP
4	1	R8275	SEAT BASE WELDED ASSY
5	1	R8347	SEAT FRAME WITH BRAKE MOUNT WELDED ASSY



FRONT VIEW

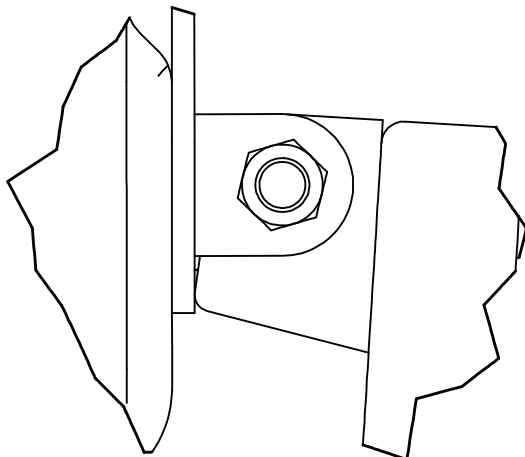


DETAIL - H

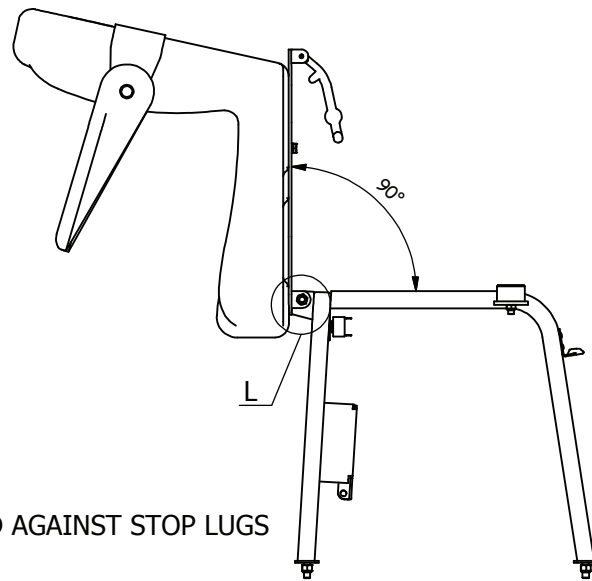


DETAIL - G

TYPICAL BOTH SIDES-TIGHTEN BOLT & NUT SO THAT THE SEAT WILL NOT FALL BACK WHEN RAISED TO A 45° ANGLE



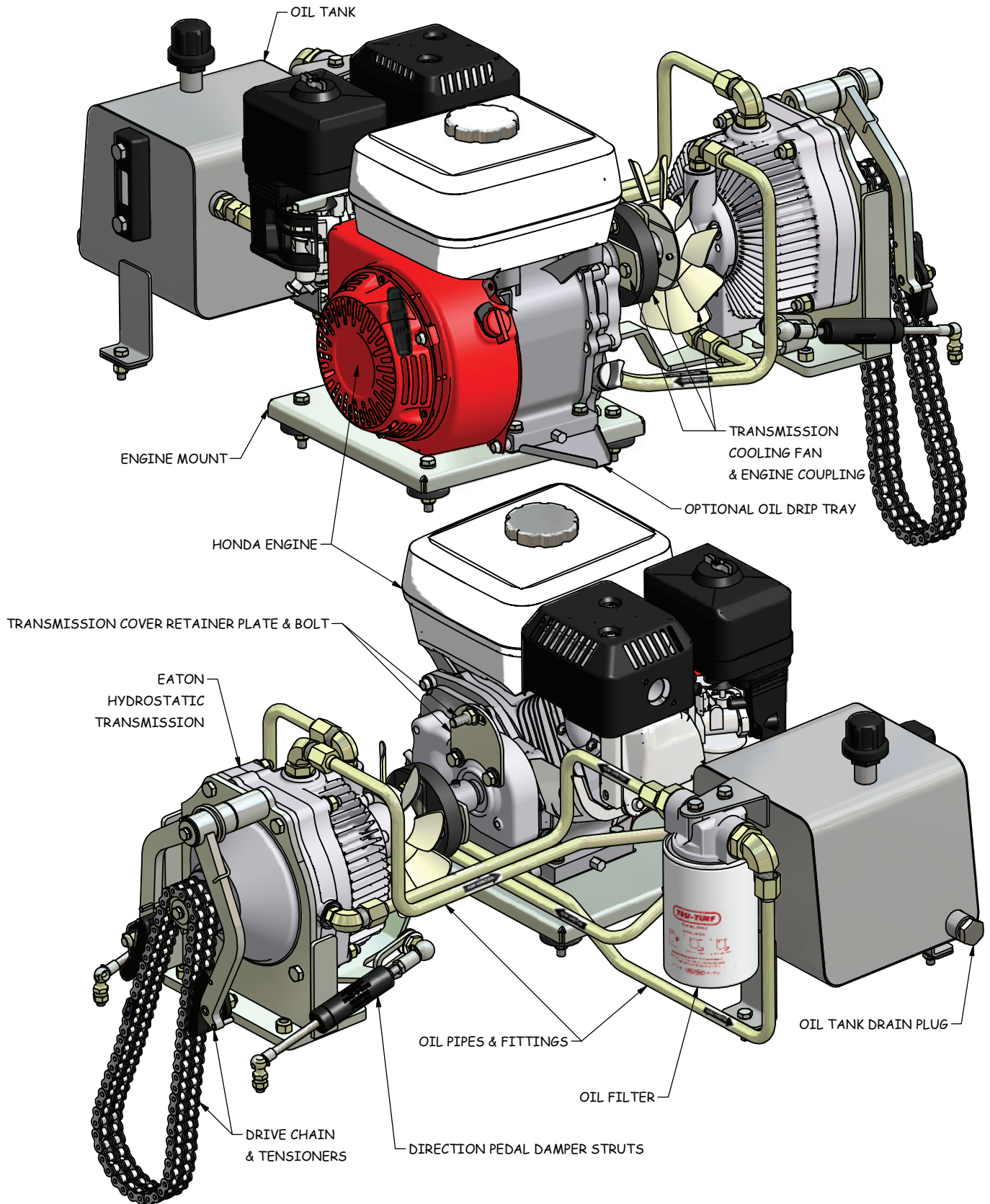
DETAIL - L



SEAT RAISED AGAINST STOP LUGS

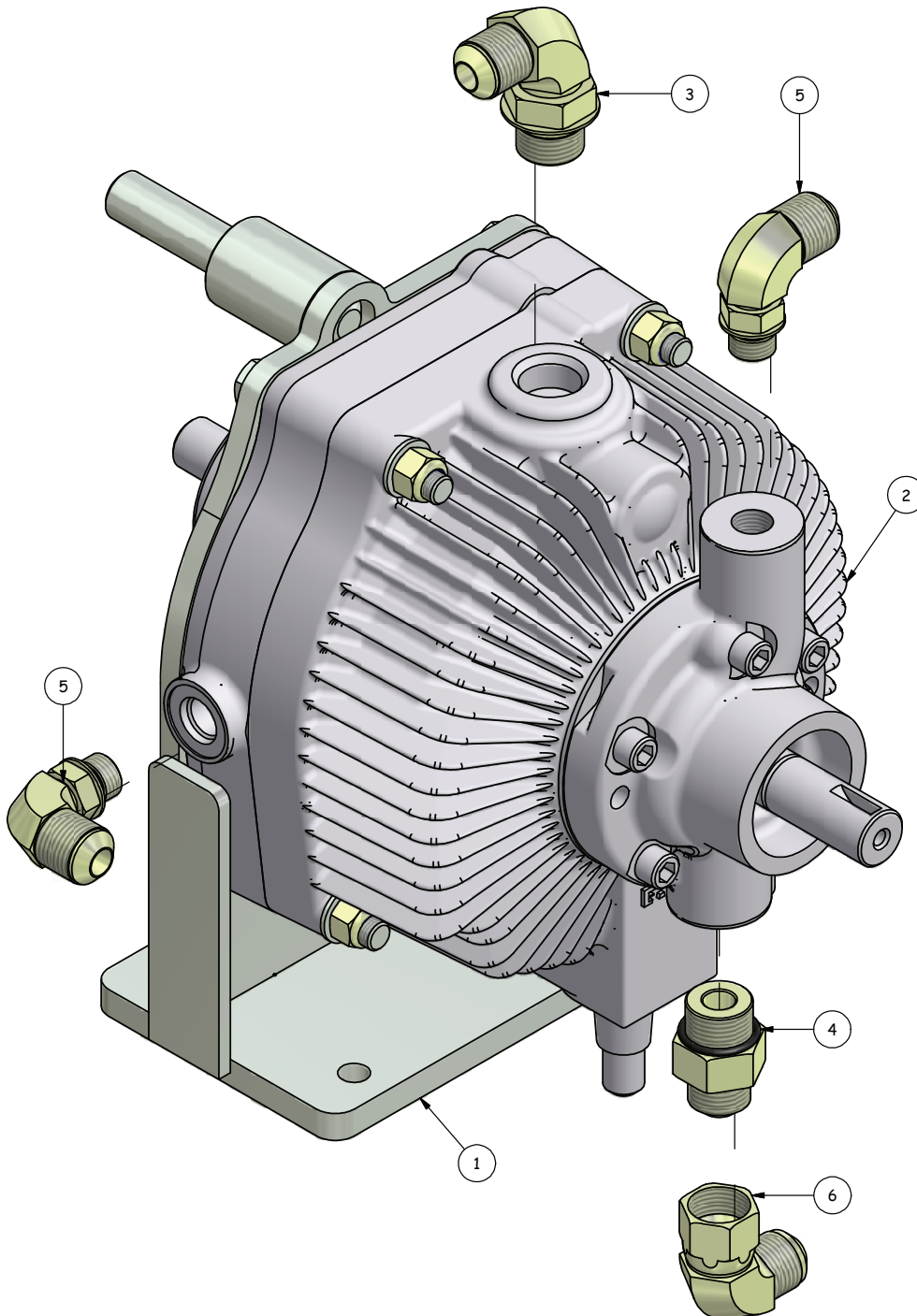
**NOTE: THE TILT LIMIT SYSTEM MAY NOT BE FITTED TO THIS MACHINE / MODEL.**

# Power Train General Assembly



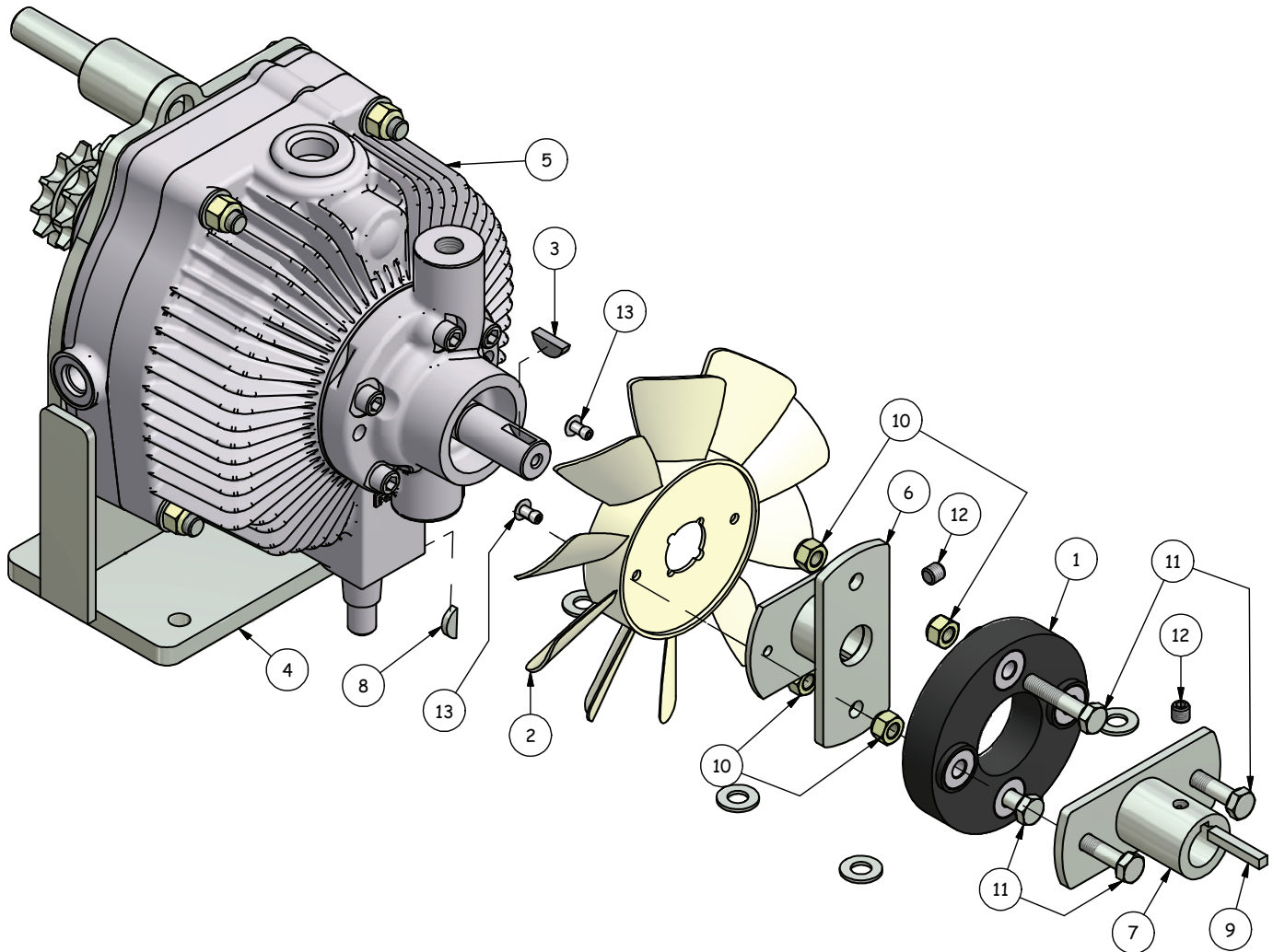
# Transmission Assembly & Pipe Fittings (Front)

EATON 11 TRANSMISSION - OIL PIPE FITTINGS PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5131	EATON 11 TRANSMISSION BRKT
2	1	R5133	EATON 11 HYDROSTATIC TRANSMISSION
3	1	R5227	FITTING 90 DEG ELBOW
4	1	R5230	FITTING STRAIGHT
5	2	R5233	FITTING 90 DEG ELBOW
6	1	R5234	FITTING 90 DEG ELBOW





# Transmission Assembly & Cooling Fan (Front)

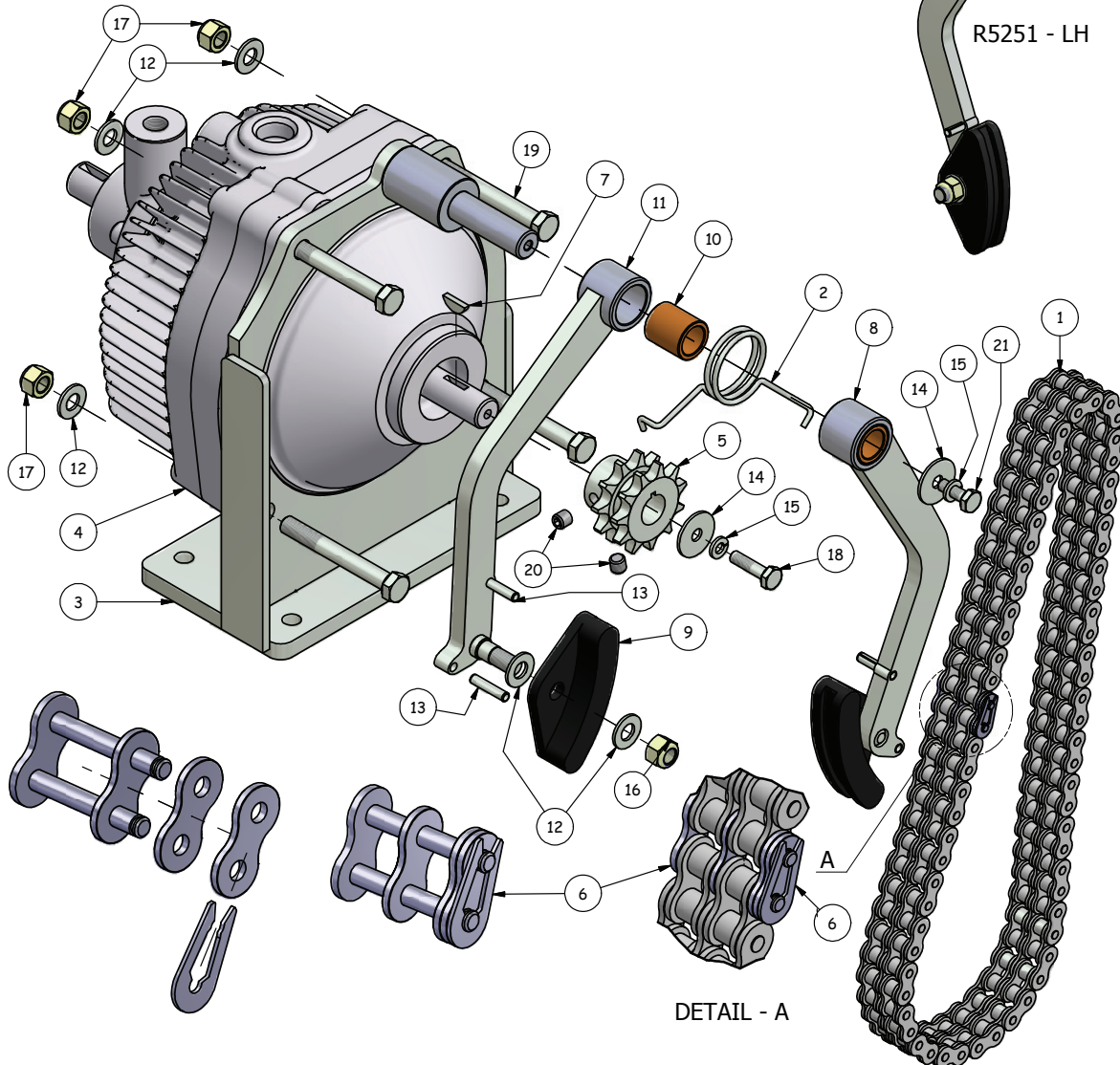


EATON 11 TRANSMISSION COOLING FAN & DRIVE COUPLING ASSEMBLY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5031	TRANSMISSION COUPLING RUBBER ASSY
2	1	R5033	FAN COOLING TRANSMISSION
3	1	R5089	KEY WOODRUFF 3/16" x 3/4"
4	1	R5131	EATON 11 TRANSMISSION BRKT
5	1	R5133	EATON 11 HYDROSTATIC TRANSMISSION
6	1	R5139	COUPLING EATON 11 TRANS
7	1	R5140	ENGINE DRIVE COUPLING HONDA 5.5HP
8	1	R5156	WOODRUFF KEY 1_8 x 5_8
9	1	R5195	KEY SHAFT HONDA ENGINE
10	4	R8054	5/16 UNF NYLOC NUT
11	4	R8065	5/16 x 1-1/2 UNF BOLT ZP
12	2	R8079	5/16 x 5/16 GRUB SCREW BLK
13	2	R8134	6-6 RIVET

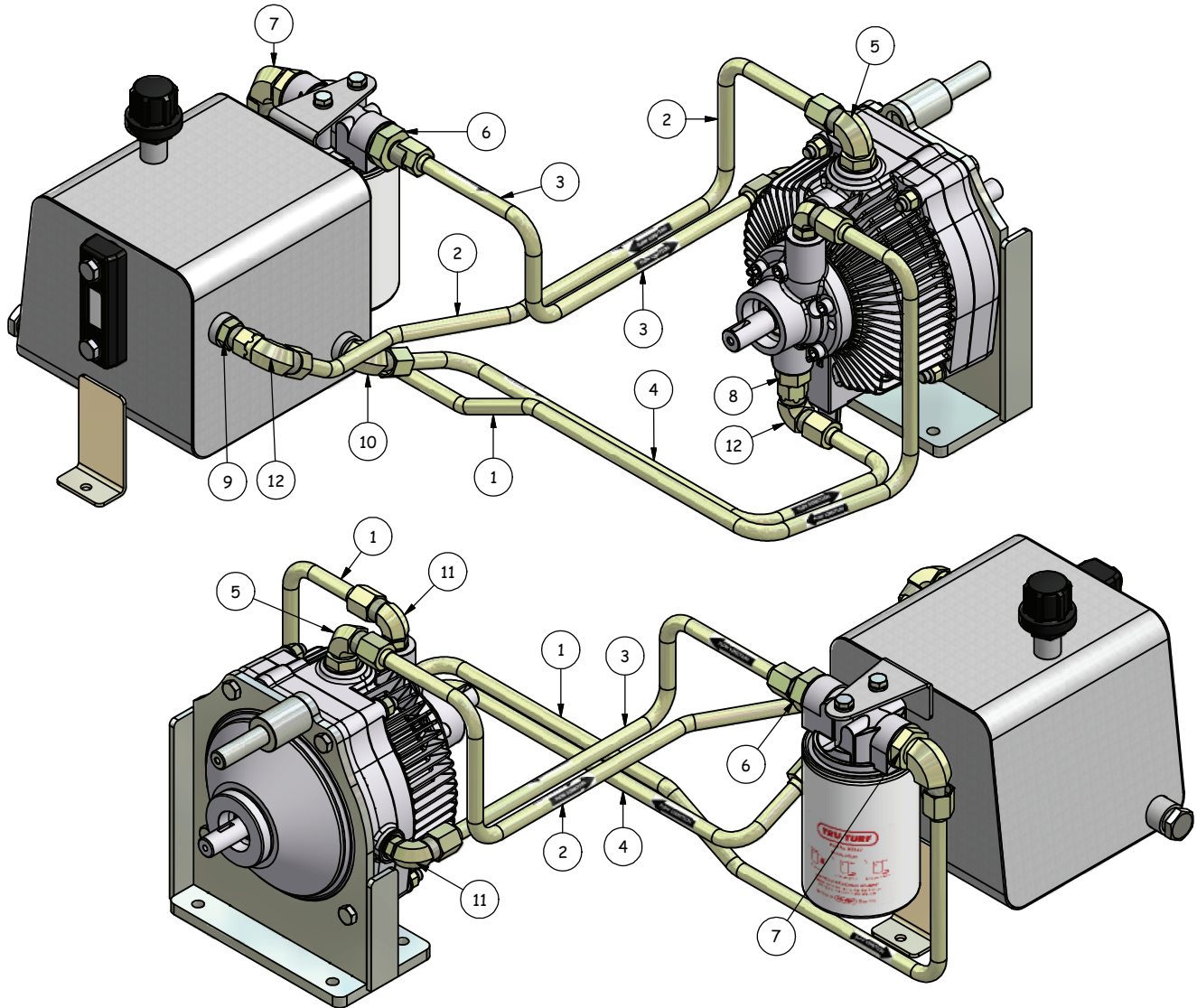
# Transmission, Chain & Tension Assembly (Rear)

RS48-11C,D&E & GR11000C/D AUS/USA CHAIN & TENSIONERS - PARTS LIST

ITEM	QTY	STOCK NUMBER	TITLE
1	1	E7050	DRIVE CHAIN 08B-2
2	1	R5094	SPRING TENSIONED CHAIN ARM
3	1	R5131	EATON 11 TRANSMISSION BRACKET
4	1	R5133	EATON 11 HYDROSTATIC TRANSMISSION
5	1	R5136	SPROCKET 11TOOTH TRANSMISSION 08B-2
6	1	R5138	DRIVE CHAIN SPLIT LINK ASSY
7	1	R5156	WOODRUFF KEY
8	2	R5251	CHAIN TENSIONER ASSY COMPLETE
9	2	E7044	CHAIN TENSION GUIDE
10	2	R5099	BUSH BRONZE CHAIN TENSIONER ARMS
11	2	R5132	CHAIN TENSION ARM
12	8	R8048	3/8 x 3/4 WASHER ZP
13	4	R8293	ROLL SPRING PIN ZP M5 x 24
14	2	R8045	1/4 x 1.0 WASHER ZP
15	2	R8050	1/4 SPRING WASHER ZP
16	6	R8054	5/16 UNF NYLOC NUT
17	6	R8055	3/8 UNF NYLOC NUT P-TYPE
18	1	R8059	1/4 x 1.0 UNC BOLT ZP
19	4	R8073	3/8 x 3.0 UNF HEX BOLT ZP
20	2	R8079	5/16 x 5/16 GRUB SCREW BLK
21	1	R8118	1/4 x 3/4 UNC BOLT ZP

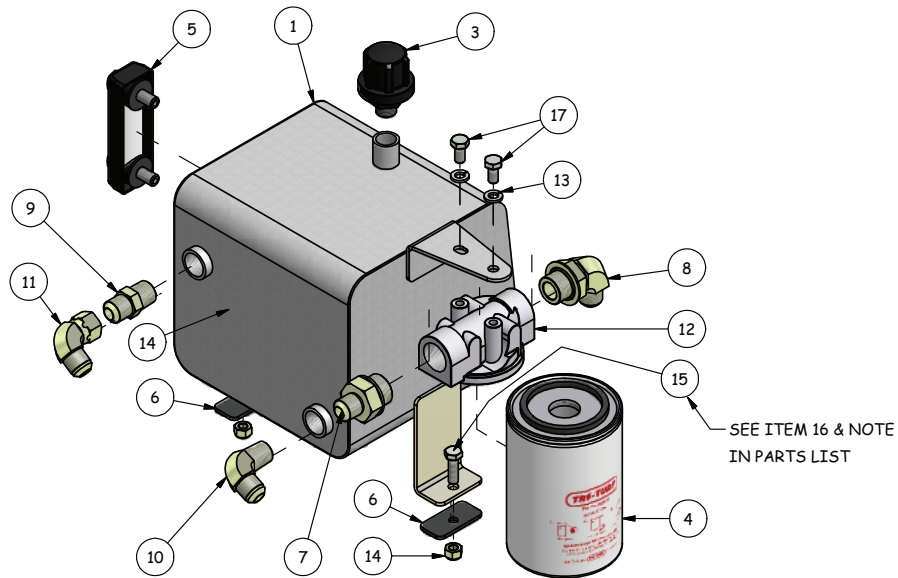


# Transmission Pipes & Reservoir

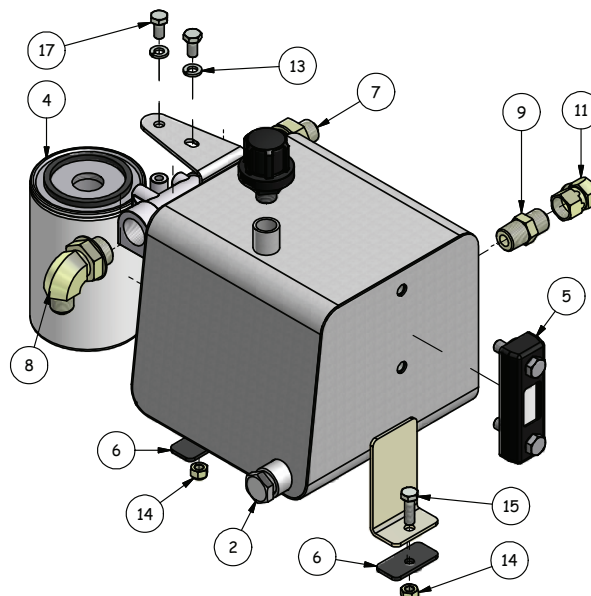


OIL TANK PIPES-FITTINGS IDENTIFICATION			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5152	PIPE TRANS-PUMP TO OIL FILTER
2	1	R5153	PIPE TRANSMISSION TO OIL TANK
3	1	R5154	PIPE OIL FIL TER TO ACCELERATION VALVES
4	1	R5178	PIPE OIL TANK TO TRANS-PUMP
5	1	R5227	FITTING 90 DEG ELBOW
6	1	R5228	FITTING STRAIGHT
7	1	R5229	FITTING 90 DEG ELBOW
8	1	R5230	FITTING STRAIGHT
9	1	R5231	FITTING STRAIGHT
10	1	R5232	FITTING 90 DEG ELBOW
11	2	R5233	FITTING 90 DEG ELBOW
12	2	R5234	FITTING 90 DEG ELBOW

# Transmission Hydraulic Reservoir & Fittings

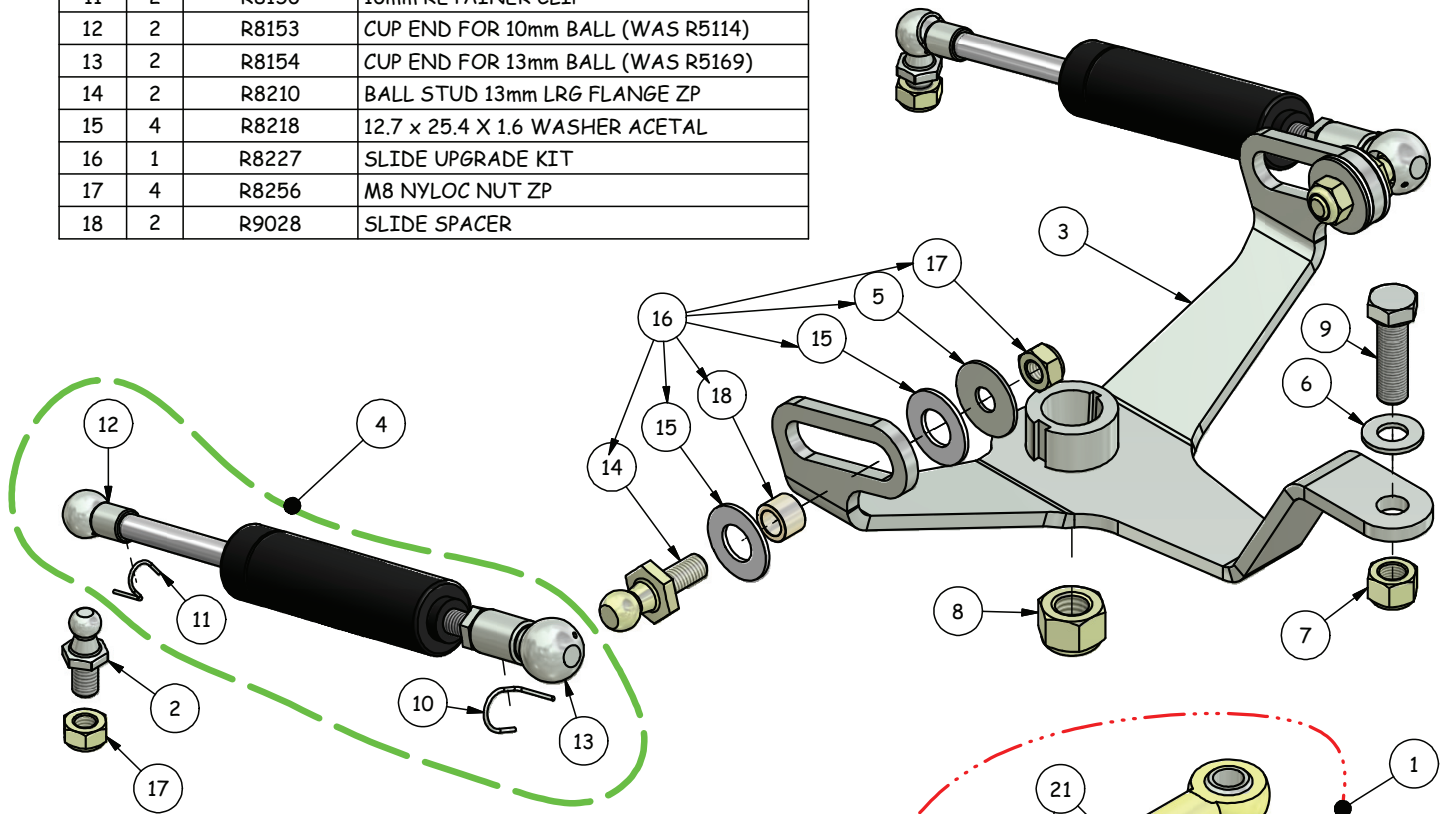


OIL TANK & FITTINGS - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5143	OIL TANK
2	1	R5145	PLUG TANK DRAIN 1/2" BSP
3	1	R5144	BREATHER OIL TANK
4	1	R5147	CARTRIDGE FILTER TRANSMISSION OIL TANK
5	1	R5148	SIGHT GAUGE COMPLETE TRANS OIL TANK
6	2	R5197	RUBBER STRIP OIL TANK MOUNT
7	1	R5228	FITTING STRAIGHT
8	1	R5229	FITTING 90 DEG ELBOW
9	1	R5231	FITTING STRAIGHT
10	1	R5232	FITTING 90 DEG ELBOW
11	1	R5234	FITTING 90 DEG ELBOW
12	1	R8013	HOUSING FILTER TRANSMISSION OIL TANK
13	2	R8051	5/16 SPRING WASHER ZP
14	2	R8054	5/16 UNF NYLOC NUT
15	2	R8064	5/16 x 1.0 UNF BOLT ZP
16	1	R8084	5/16 x 2-3/4 UNF (FOR R52-11TC ONLY SUBSTITUTE FOR REAR BOLT R8064)
17	8	R8083	M8 x 16 BOLT ZP

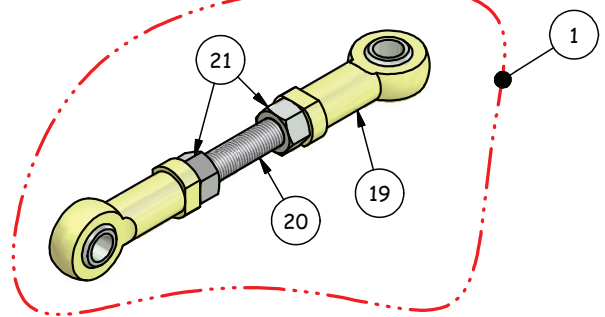


# Yoke & Strut Assembly

YOKE & STRUTS - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5046	CONNECTING ROD ASSY
2	2	R5108	BALL STUD 10mm SMALL FLANGE ZP
3	1	R5171	TRANSMISSION YOKE
4	2	R5173	GAS STRUT COMPLETE ASSY
5	2	R8047	5/16-1.0 FLAT WASHER ZP
6	1	R8048	3/8 x 3/4 WASHER ZP
7	1	R8055	3/8 UNF NYLOC NUT P-TYPE
8	1	R8060	1/2" UNC NYLOC NUT ZP
9	1	R8069	3/8 x 1-1/4 UNF BOLT ZP
10	2	R8149	13mm RETAINER CLIP
11	2	R8150	10mm RETAINER CLIP
12	2	R8153	CUP END FOR 10mm BALL (WAS R5114)
13	2	R8154	CUP END FOR 13mm BALL (WAS R5169)
14	2	R8210	BALL STUD 13mm LRG FLANGE ZP
15	4	R8218	12.7 x 25.4 X 1.6 WASHER ACETAL
16	1	R8227	SLIDE UPGRADE KIT
17	4	R8256	M8 NYLOC NUT ZP
18	2	R9028	SLIDE SPACER

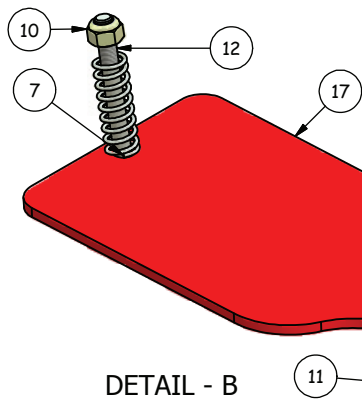
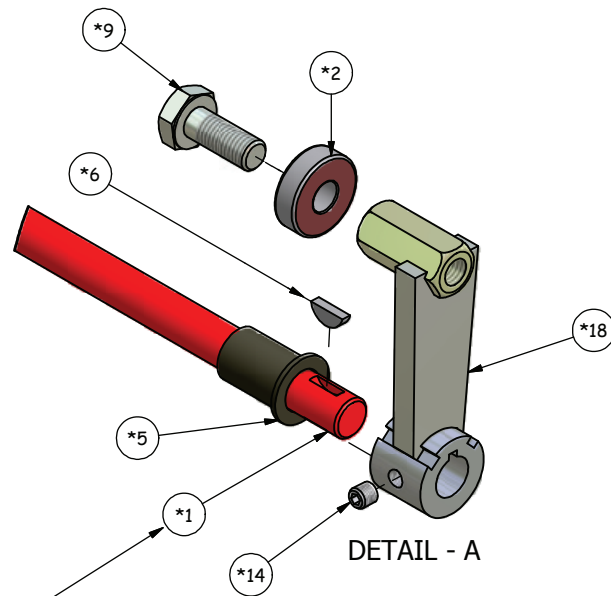


R5046 TRANSMISSION CONNECTING ROD - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
19	2	R5118	ROD END 3/8 UNF
20	1	R5184	ROD THREADED 3/8 UNF
21	2	R8091	3/8 UNF NUT ZP

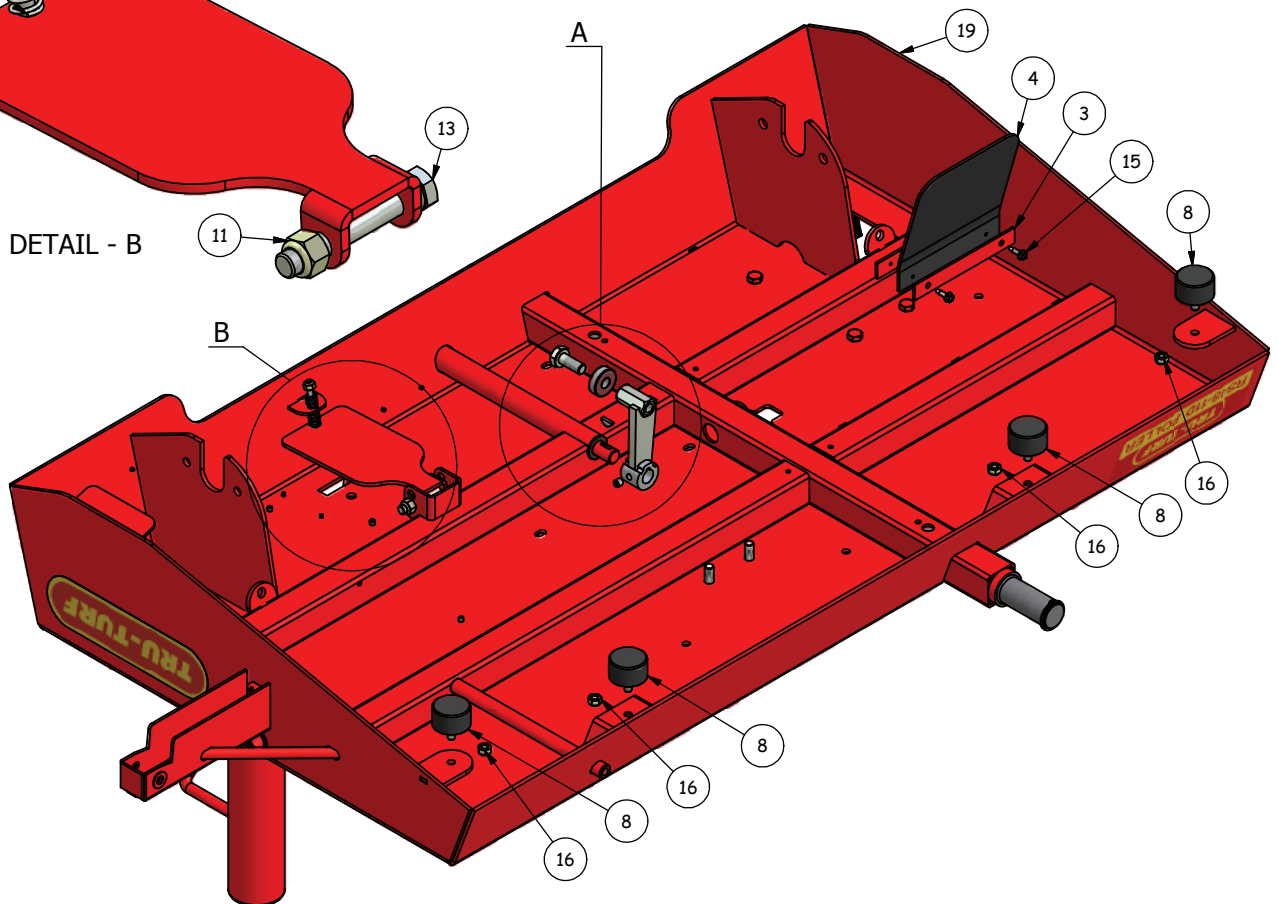


# Under body

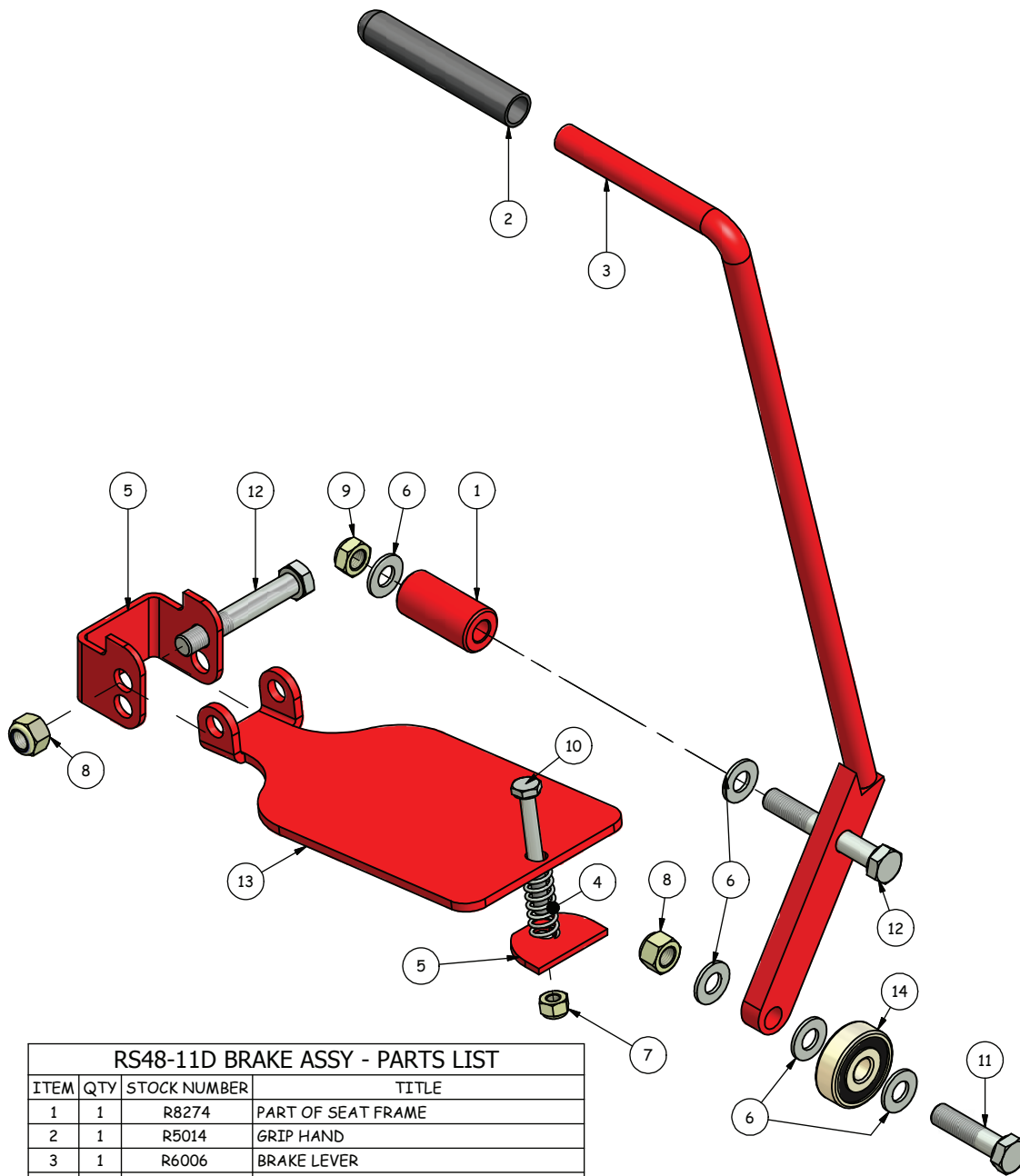
RS48-11D & DB UNDER BODY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
*1	1	*R5013	LEVER SPIKER HANDLE
*2	1	*R5055	BEARING 6201-2RS
3	1	R5061	STRAP MUDFLAP SCREW ON
4	1	R5071	MUD FLAP
*5	1	*R5075	BUSH ACETYL 27 DIA X 32
*6	1	*R5164	KEY WOODRUFF 4X6.5
7	1	R6011	BRAKE RETURN SPRING
8	4	R6013	BUFFER STOP UNDER BODY
*9	1	*R8042	M12 X 30 BOLT ZP
10	1	R8053	1/4 UNF NYLOC NUT
11	1	R8055	3/8 UNF NYLOC NUT P-TYPE
12	1	R8062	1/4 x 2.1/4 UNF BOLT ZP
13	1	R8072	3/8 x 2.1/2 UNF BOLT ZP
*14	1	*R8079	5/16 x 5/16 GRUB SCREW BLK
15	2	R8081	10-24x16 TEK SCREW ZP
16	4	R8256	M8 NYLOC NUT ZP
17	1	R8280	BRAKE PLATE FOLDED
*18	1	*R8298	SPIKER/SLICER ENGAGING ARM
19	1	R9000	BODY



ITEMS NOT APPLICABLE TO THE RS48-11DB MODEL ARE IDENTIFIED WITH AN ASTERISK \* NEXT TO THE ITEM & PART NUMBERS.

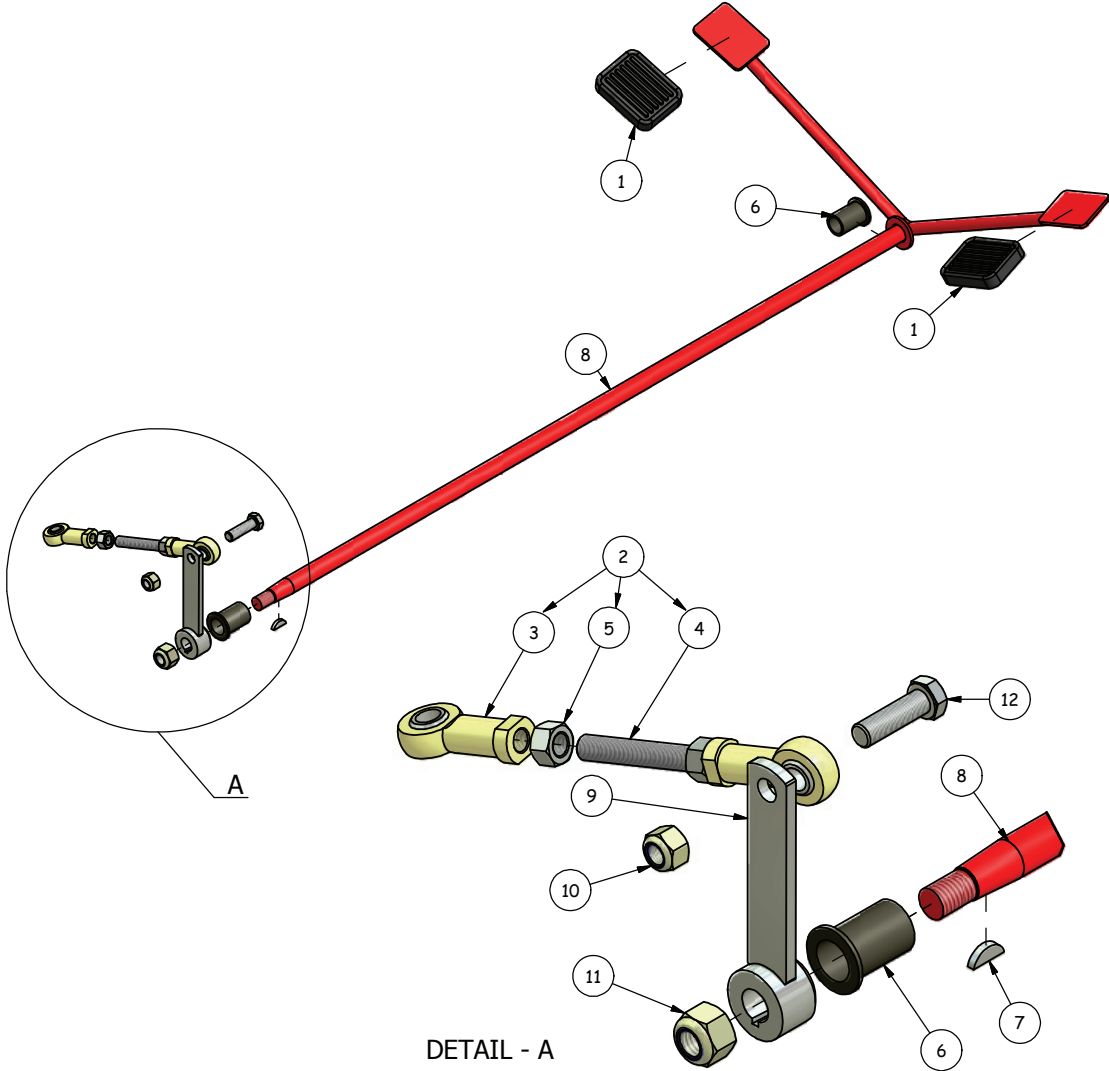


# Brake Assembly



RS48-11D BRAKE ASSY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R8274	PART OF SEAT FRAME
2	1	R5014	GRIP HAND
3	1	R6006	BRAKE LEVER
4	1	R6011	BRAKE RETURN SPRING
5	1	R9000	PART OF BODY
6	5	R8048	3/8 x 3/4 WASHER ZP
7	1	R8053	1/4 UNF NYLOC NUT
8	2	R8055	3/8 UNF NYLOC NUT P-TYPE
9	1	R8056	3/8 UNF NYLOC T-TYPE NUT
10	1	R8062	1/4 x 2.1/4 UNF BOLT ZP
11	1	R8070	3/8 x 1.1/2 UNF BOLT ZP
12	2	R8072	3/8 x 2.1/2 UNF BOLT ZP
13	1	R8280	BRAKE PLATE FOLDED
14	1	T7019	BEARING BRAKE

# Foot Pedal Assembly

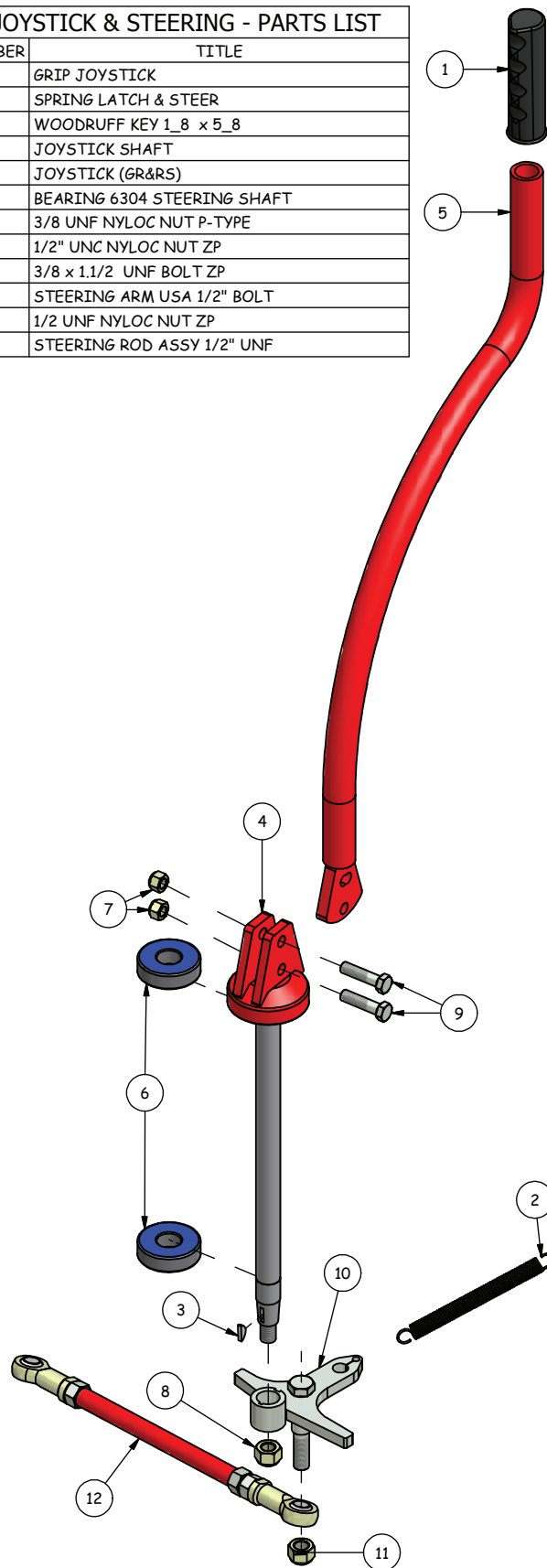


RS48-11C, D & E / GR11000C&D AUS & USA FOOT PEDAL ASSEMBLY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	2	R5012	PAD FOOT PEDAL
2	1	R5046	ACTUATOR ROD ASSY
3	2	R5118	ROD END 3/8 UNF
4	1	R5184	ROD THREADED 3/8 UNF
5	2	R8091	3/8 UNF NUT ZP
6	2	R5075	BUSH ACETYL 27 DIA X 32
7	1	R5156	WOODRUFF KEY
8	1	R8001	FOOT PEDAL
9	1	R8005	FOOT PEDAL TRANS ACTUATOR ARM
10	1	R8055	3/8 UNF NYLOC NUT P-TYPE
11	1	R8060	1/2" UNC NYLOC NUT ZP
12	1	R8069	3/8 x 1-1/4 UNF BOLT ZP

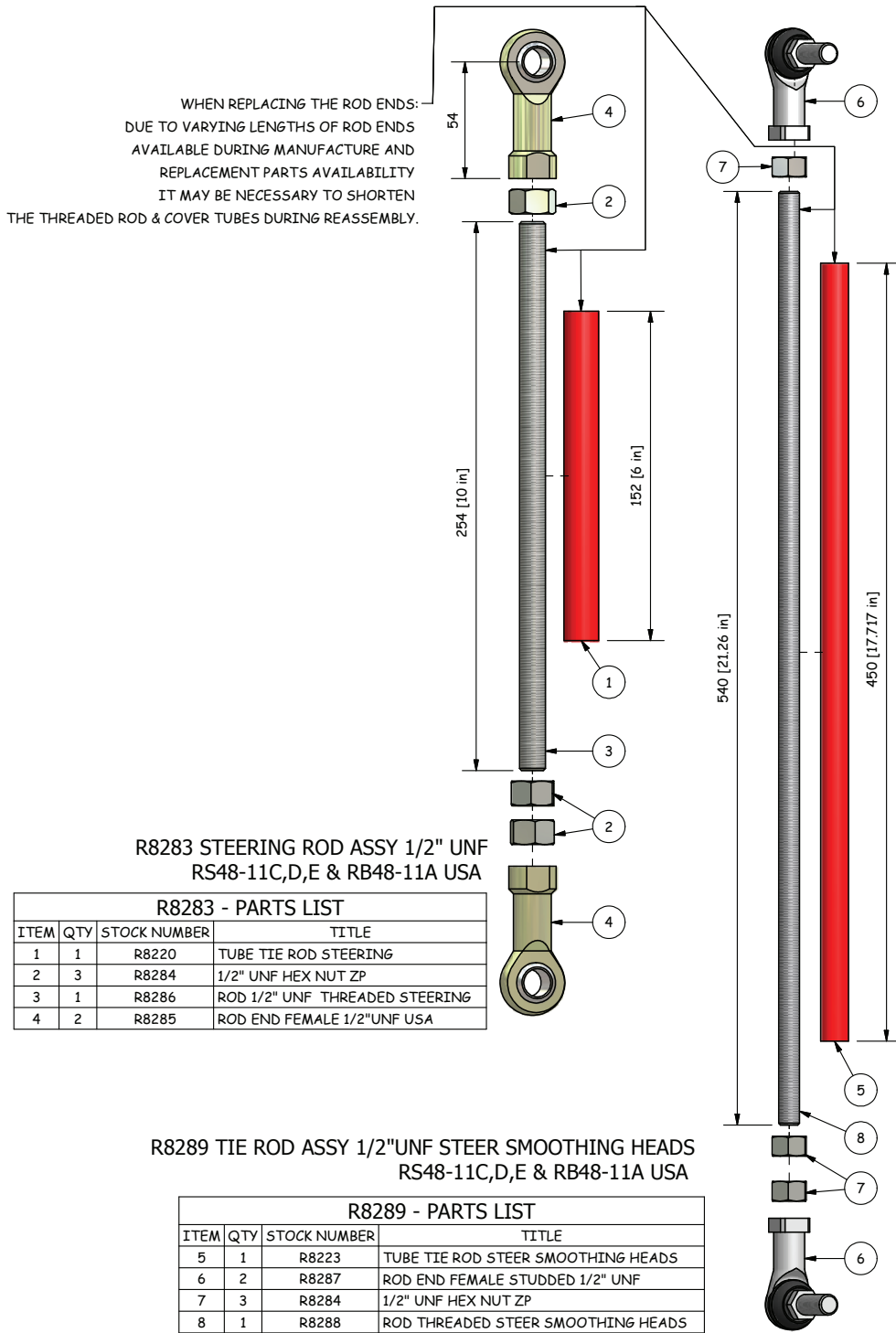


# Joystick & Steering Assembly

RS48-11D USA JOYSTICK & STEERING - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5009	GRIP JOYSTICK
2	1	R5049	SPRING LATCH & STEER
3	1	R5156	WOODRUFF KEY 1_8 x 5_8
4	1	R6009	JOYSTICK SHAFT
5	1	R6056	JOYSTICK (GR&RS)
6	2	R8018	BEARING 6304 STEERING SHAFT
7	2	R8055	3/8 UNF NYLOC NUT P-TYPE
8	1	R8060	1/2" UNC NYLOC NUT ZP
9	2	R8070	3/8 x 1.1/2 UNF BOLT ZP
10	1	R9017	STEERING ARM USA 1/2" BOLT
11	1	R8101	1/2 UNF NYLOC NUT ZP
12	1	R8283	STEERING ROD ASSY 1/2" UNF



# Steering & Tie Rod Assembly



R8283 STEERING ROD ASSY 1/2" UNF  
RS48-11C,D,E & RB48-11A USA

R8283 - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R8220	TUBE TIE ROD STEERING
2	3	R8284	1/2" UNF HEX NUT ZP
3	1	R8286	ROD 1/2" UNF THREADED STEERING
4	2	R8285	ROD END FEMALE 1/2" UNF USA

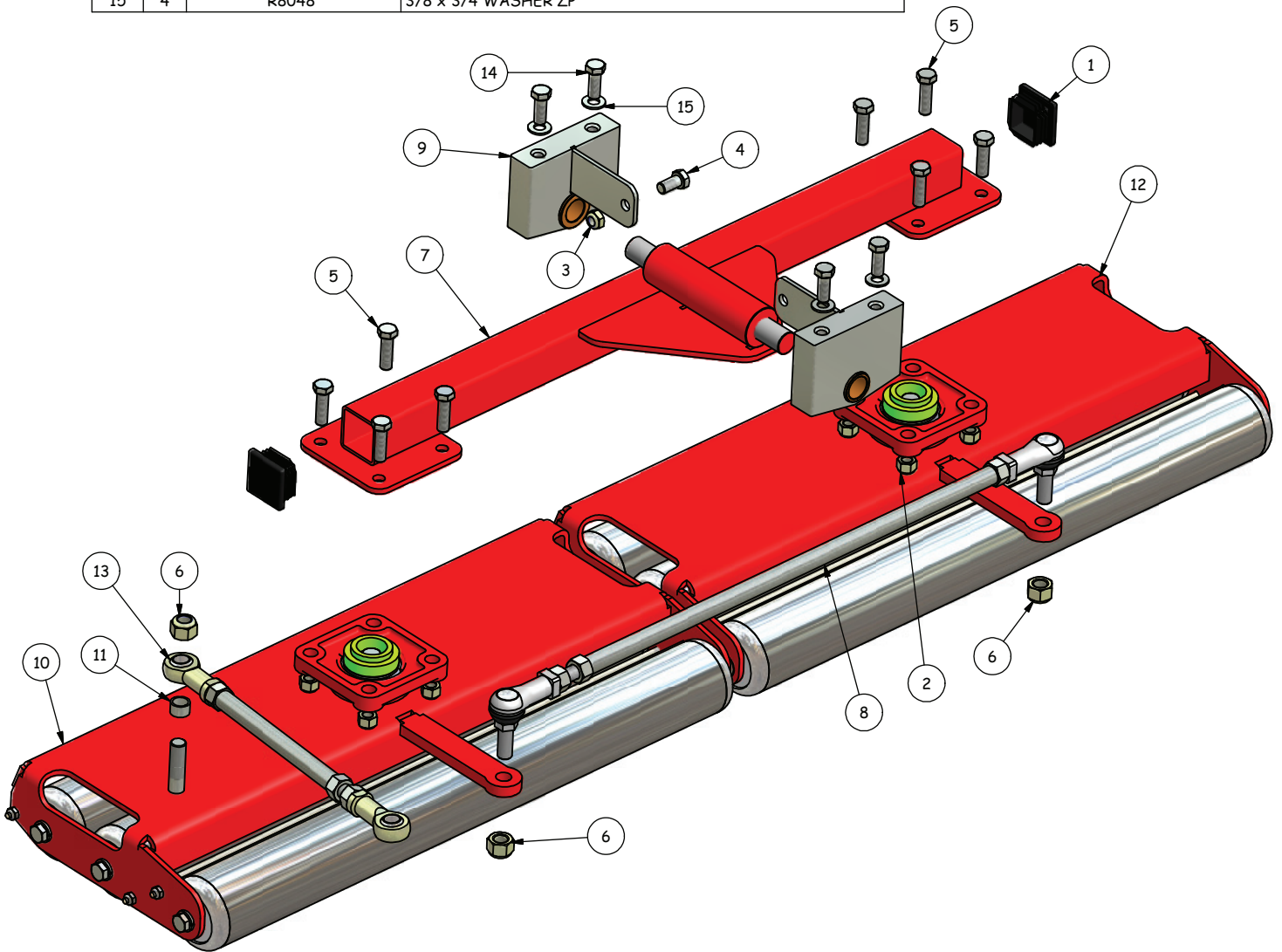
R8289 TIE ROD ASSY 1/2" UNF STEER SMOOTHING HEADS  
RS48-11C,D,E & RB48-11A USA

R8289 - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
5	1	R8223	TUBE TIE ROD STEER SMOOTHING HEADS
6	2	R8287	ROD END FEMALE STUDDED 1/2" UNF
7	3	R8284	1/2" UNF HEX NUT ZP
8	1	R8288	ROD THREADED STEER SMOOTHING HEADS

# Smoothing Head Assembly

RS48-11D & E USA PIVOT BEAM & SMOOTHING HEADS ASSY - PARTS LIST

ITEM	QTY	STOCK NUMBER	TITLE
1	2	R5025C	40x40 PLASTIC END CAP
2	8	R8055	3/8 UNF NYLOC NUT P-TYPE
3	1	R8056	3/8 UNF NYLOC T-TYPE NUT
4	1	R8066	3/8 x 3/4 UNF BOLT ZP
5	8	R8069	3/8 x 1-1/4 UNF BOLT ZP
6	3	R8101	1/2 UNF NYLOC NUT ZP
7	1	R8205	PIVOT BEAM SMOOTHING HEADS
8	1	R8289	TIE ROD ASSY 1/2" UNF STEER SMOOTHING HEADS
9	2	R8315	PIVOT BUSH BLOCK ASSY
10	1	R9015	SMOOTHING HEAD FRONT COMPLETE ASSY USA
11	1	E7028	TUBE STEERING HEAD SPACER
12	1	R9016	SMOOTHING HEAD REAR COMPLETE ASSY USA
13	1	R9023	STEERING ROD ASSY 1/2" UNF
14	4	R8067	3/8 x 1 UNF HEX BOLT ZP
15	4	R8048	3/8 x 3/4 WASHER ZP



# Smoothing Roller Assembly Exploded

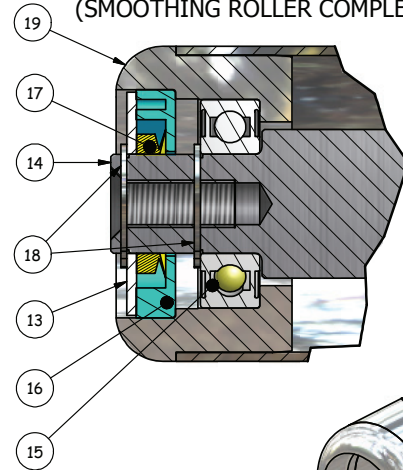
**R9015 FRONT SMOOTHING HEAD COMPLETE ASSY USA - PARTS LIST**

ITEM	QTY	STOCK NUMBER	TITLE
1	1	R5067	HOUSING
2	1	R5070	BEARING
3	4	R8052	3/8 SPRING WASHER ZP
4	1	R8066	3/8 x 3/4 UNF BOLT ZP
5	3	R8067	3/8 x 1 UNF HEX BOLT ZP
6	2	R8090	1/4 x 1/4 UNC GRUB SCREW BLK
7	3	R8158	3/8 UNF x 1 CSK BOLT ZP
8	3	R8201	SCRAPER ROD RS48 3-16
9	3	R8217	63.5 DIA SMOOTHING ROLLER COMPLETE ASSY
10	1	R8225	RUBBER DAMPNER PIVOT BEARING
11	3	R8250	3/16 UNF NYLOC NUT SS
12	1	R9013	SMOOTHING HEAD COVER FRONT

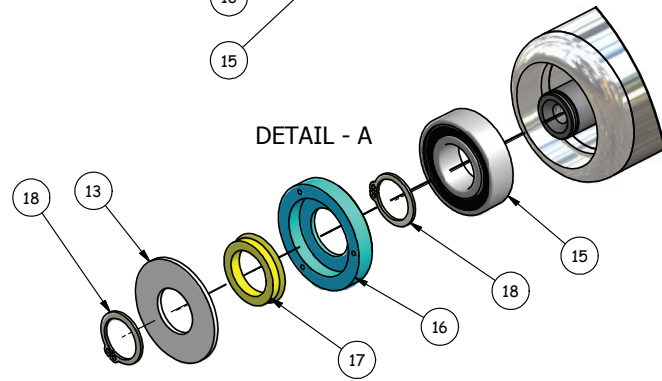
**R8217 SMOOTHING ROLLER ASSY - PARTS LIST**

ITEM	QTY	STOCK NUMBER	TITLE
13	2	R8209	SHIELD
14	1	R8211	SHAFT
15	2	R8212	BEARING
16	2	R8213	SEAL INSERT
17	2	R8214	SEAL
18	4	R8215	CIRCLIP
19	1	R8216	TUBE & ENDS ONLY

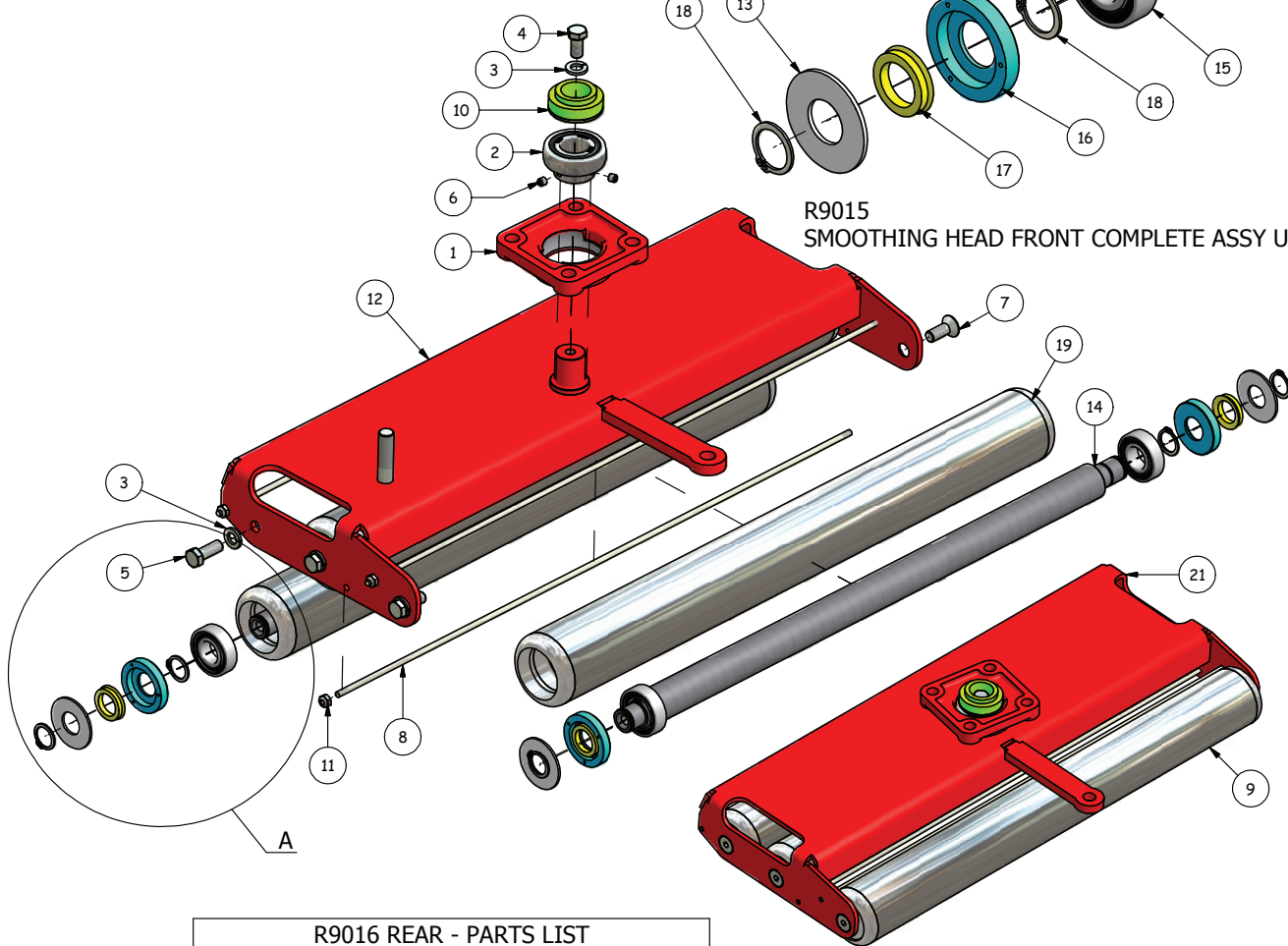
**SECTION DETAIL - R8217  
(SMOOTHING ROLLER COMPLETE)**



**DETAIL - A**



**R9015  
SMOOTHING HEAD FRONT COMPLETE ASSY USA**



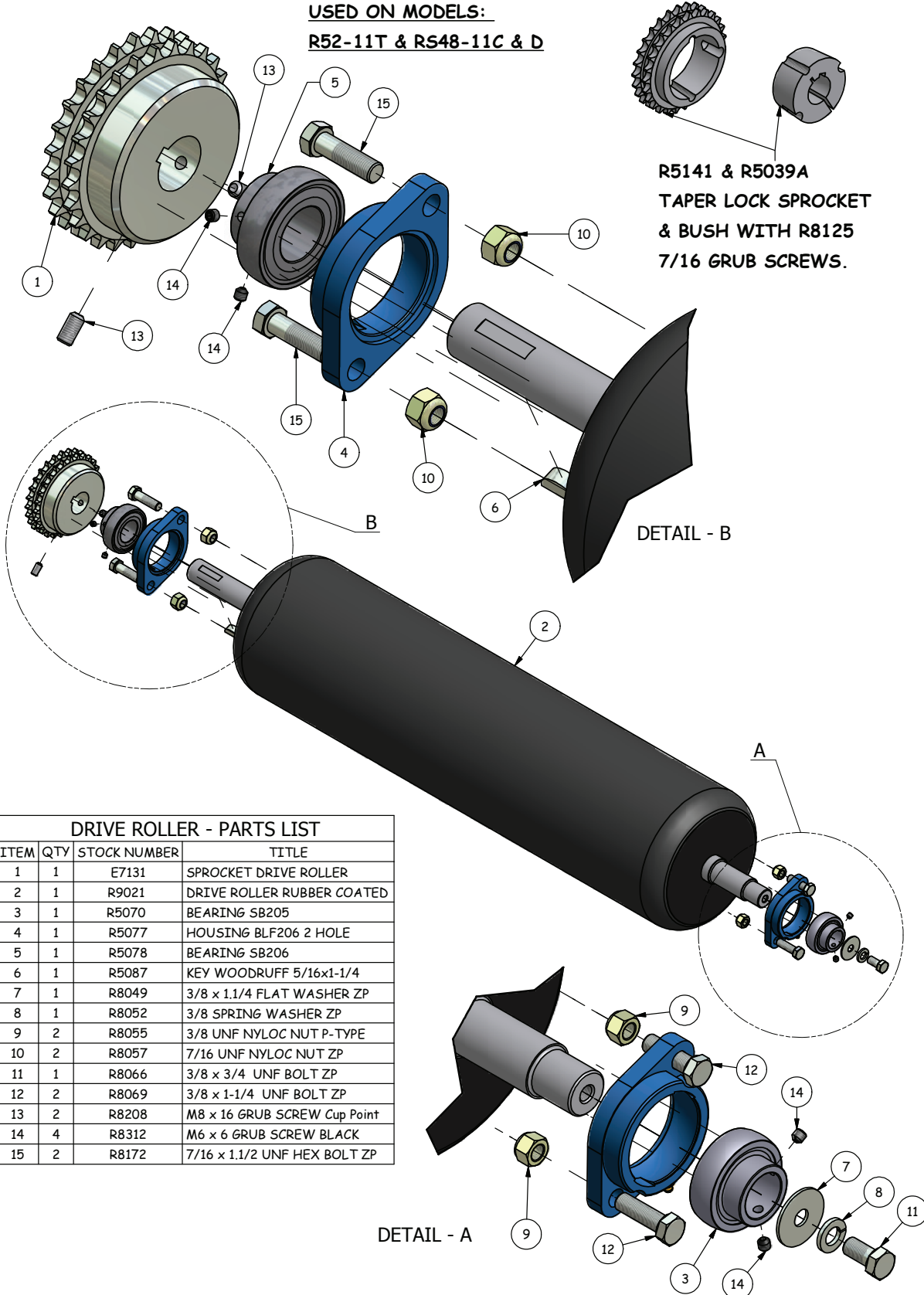
**R9016 REAR - PARTS LIST**

ITEM	QTY	STOCK NUMBER	TITLE
21	1	R9014	SMOOTHING HEAD COVER REAR

**R9016  
SMOOTHING HEAD REAR COMPLETE ASSY USA**

# Drive Roller

**USED ON MODELS:  
R52-11T & RS48-11C & D**

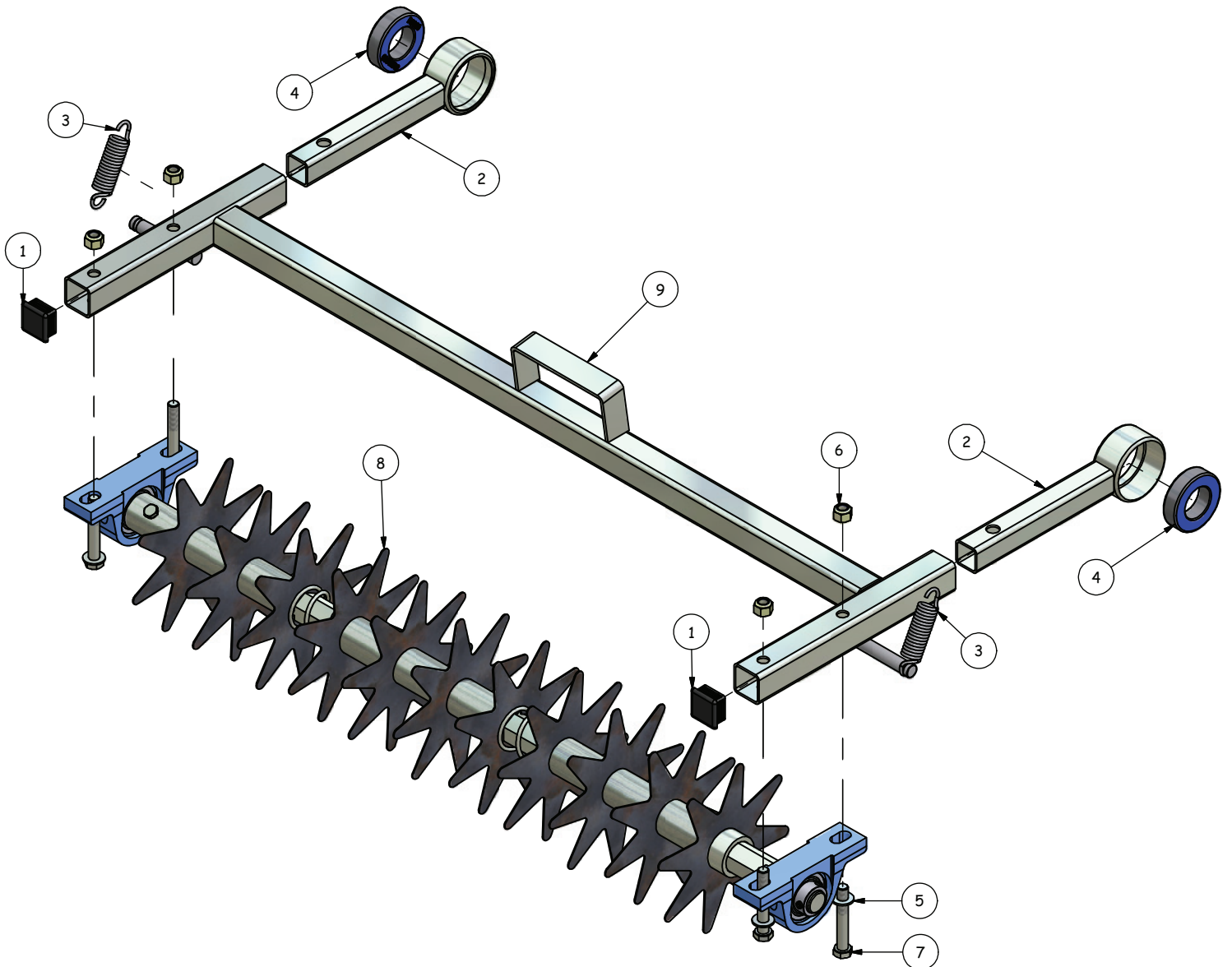


DRIVE ROLLER - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	E7131	SPROCKET DRIVE ROLLER
2	1	R9021	DRIVE ROLLER RUBBER COATED
3	1	R5070	BEARING SB205
4	1	R5077	HOUSING BLF206 2 HOLE
5	1	R5078	BEARING SB206
6	1	R5087	KEY WOODRUFF 5/16x1-1/4
7	1	R8049	3/8 x 1.1/4 FLAT WASHER ZP
8	1	R8052	3/8 SPRING WASHER ZP
9	2	R8055	3/8 UNF NYLOC NUT P-TYPE
10	2	R8057	7/16 UNF NYLOC NUT ZP
11	1	R8066	3/8 x 3/4 UNF BOLT ZP
12	2	R8069	3/8 x 1-1/4 UNF BOLT ZP
13	2	R8208	M8 x 16 GRUB SCREW Cup Point
14	4	R8312	M6 x 6 GRUB SCREW BLACK
15	2	R8172	7/16 x 1.1/2 UNF HEX BOLT ZP

# Slicer Frame Assembly

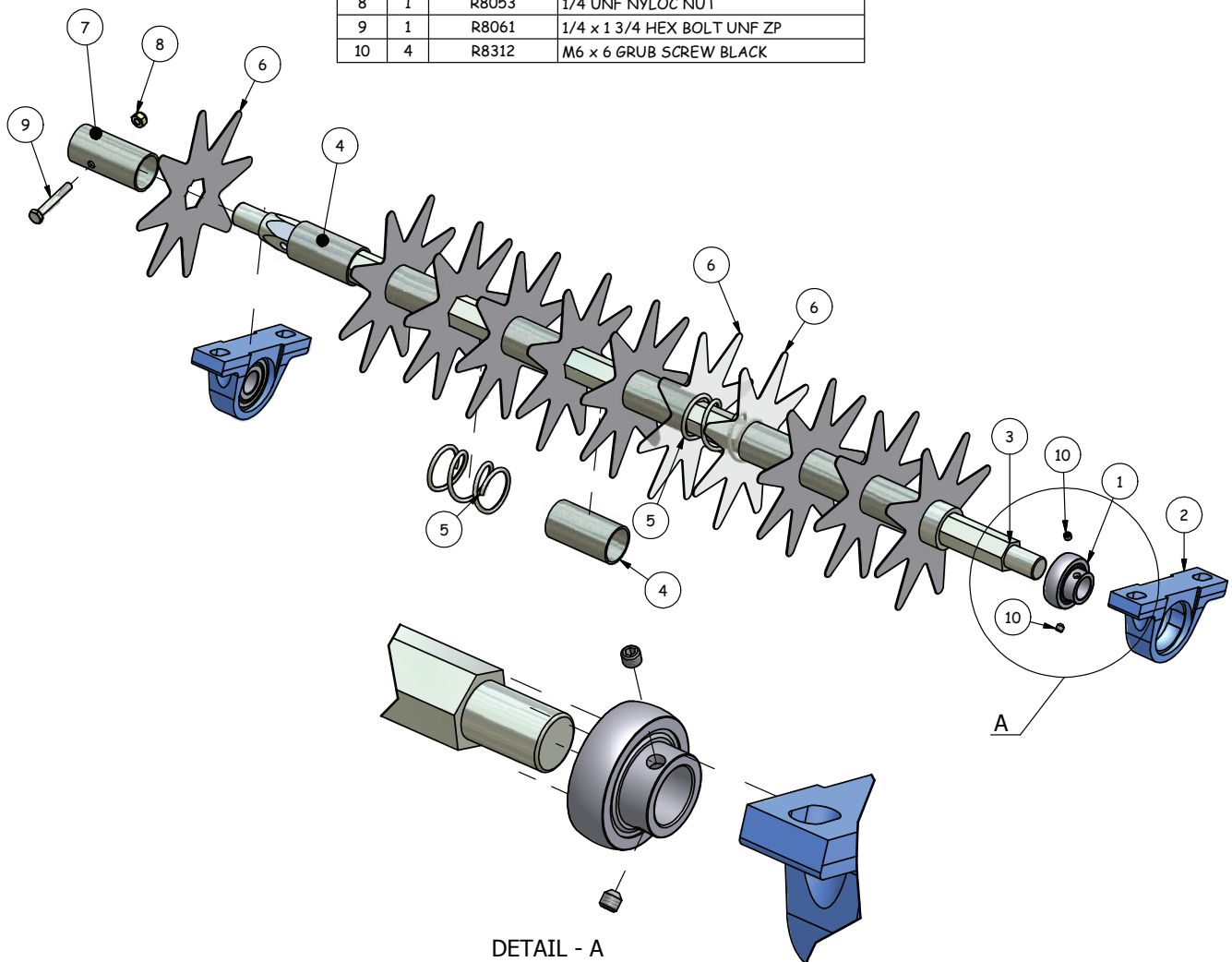
RS48-11D SLICER/SPIKER TO FRAME ASSY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	2	R5025A	END CAP
2	2	R5057	ARM BEARING CARRIER WELDED ASSY
3	2	R5059	SPIKER FRAME RETURN SPRING
4	2	R5069	BEARING 6006-2RS
5	4	R8048	3/8 x 3/4 WASHER ZP
6	4	R8055	3/8 UNF NYLOC NUT P-TYPE
7	4	R8072	3/8 x 2.1/2 UNF BOLT ZP
8	1	R8299	SLICER ASSY
9	1	R9022	SLICER MOUNT FRAME

THE SLICER ASSEMBLY AND MOUNTING FRAME ARE NOT FITTED TO THE RS48-11DB. IT IS AVAILABLE AS A KIT, P/N R9099 AND CAN BE FITTED TO THE RS48-11DB. CONTACT YOUR LOCAL DEALER TO ORDER THE KIT.



# Slicer Assembly

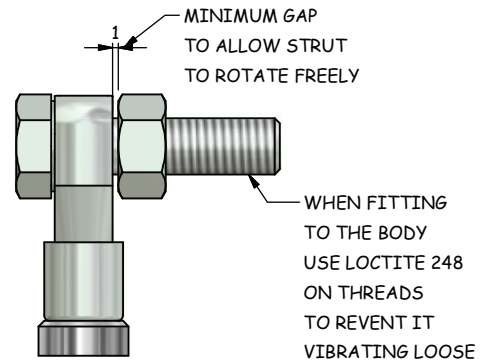
R8299 SLICER ASSEMBLY - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	2	R5058	BEARING SB204
2	2	R5060	BEARING HOUSING BLP204
3	1	R5062	SHAFT SLICER/SPIKER WELDED ASSY
4	8	R5064	SPACER SLICER BLADES SHAFT
5	2	R5065	SPRING SLICER BLADE
6	11	R5189	SPIKER BLADE 8 POINT
7	1	R5240	SLICER SHAFT LOCKING COLLAR
8	1	R8053	1/4 UNF NYLOC NUT
9	1	R8061	1/4 x 1 3/4 HEX BOLT UNF ZP
10	4	R8312	M6 x 6 GRUB SCREW BLACK



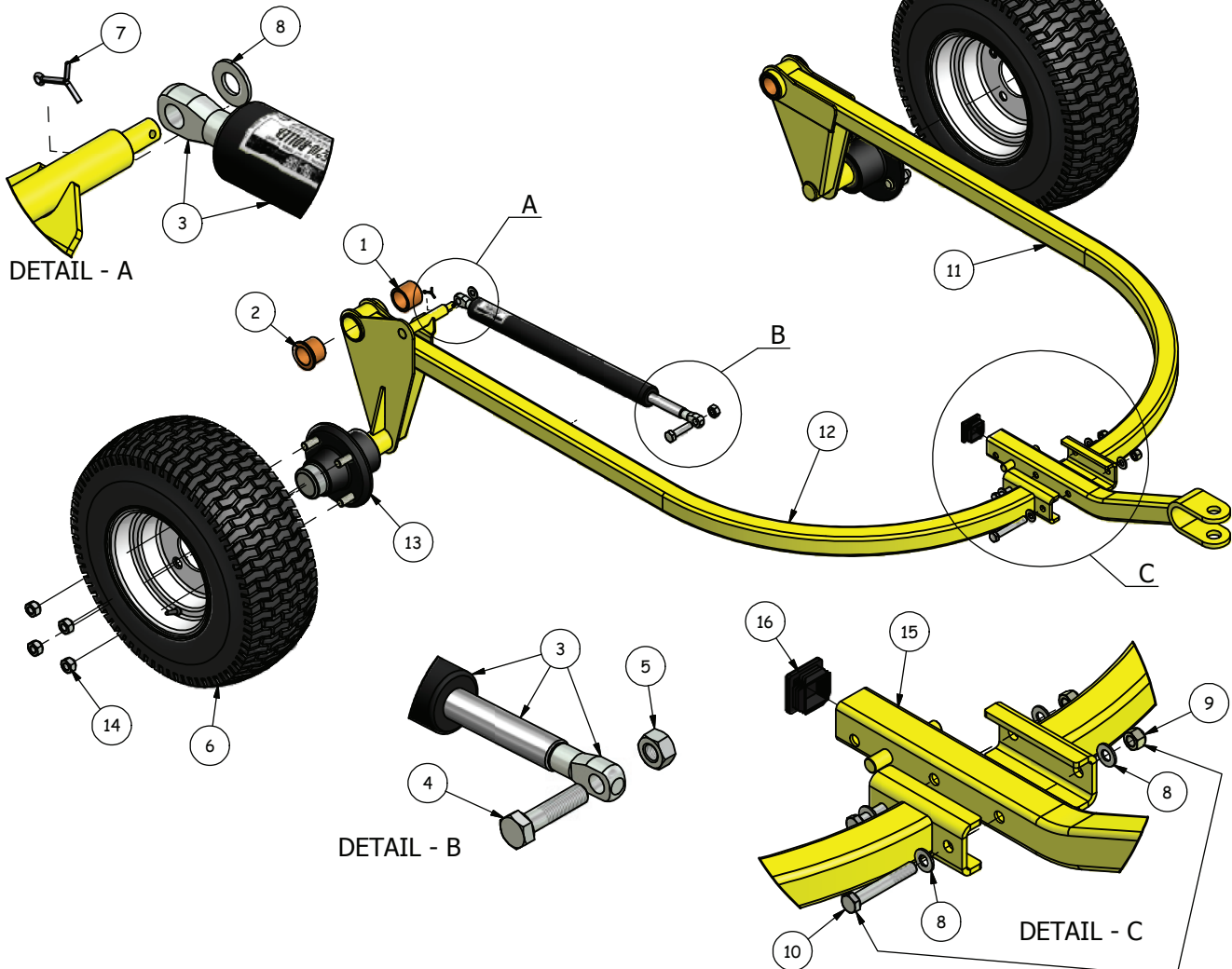
# Trailer Assembly

## RS48-11D & DB TRAILER ASSY - PARTS LIST

ITEM	QTY	STOCK NUMBER	TITLE
1	2	E7006	BUSH PLAIN BRONZE
2	2	E7007	BUSH FLANGED BRONZE
3	1	R5210	GAS STRUT ASSY
4	1	R8038	M10 x 40 BOLT ZP
5	1	R8088	M10 NUT ZP
6	2	R6039	WHEEL 4 STUD 16" TYRE
7	1	R8036	SPLIT PIN M2-5X20 ZP
8	5	R8048	3/8 x 3/4 WASHER ZP
9	2	R8055	3/8 UNF NYLOC NUT P-TYPE
10	2	R8072	3/8 x 2.1/2 UNF BOLT ZP
11	1	R9018	TRAILER ARM LH - PARALLEL AXLE
12	1	R9019	TRAILER ARM RH - PARALLEL AXLE
13	2	R9037	WHEEL HUB COMPLETE PARALLEL AXLE
14	4	R9036	WHEEL NUT 1/2" UNF - USA
15	1	R9084	DRAW BAR
16	1	R5025B	END CAP BLACK PLASTIC 35x35



FITTING R5210 TO BODY

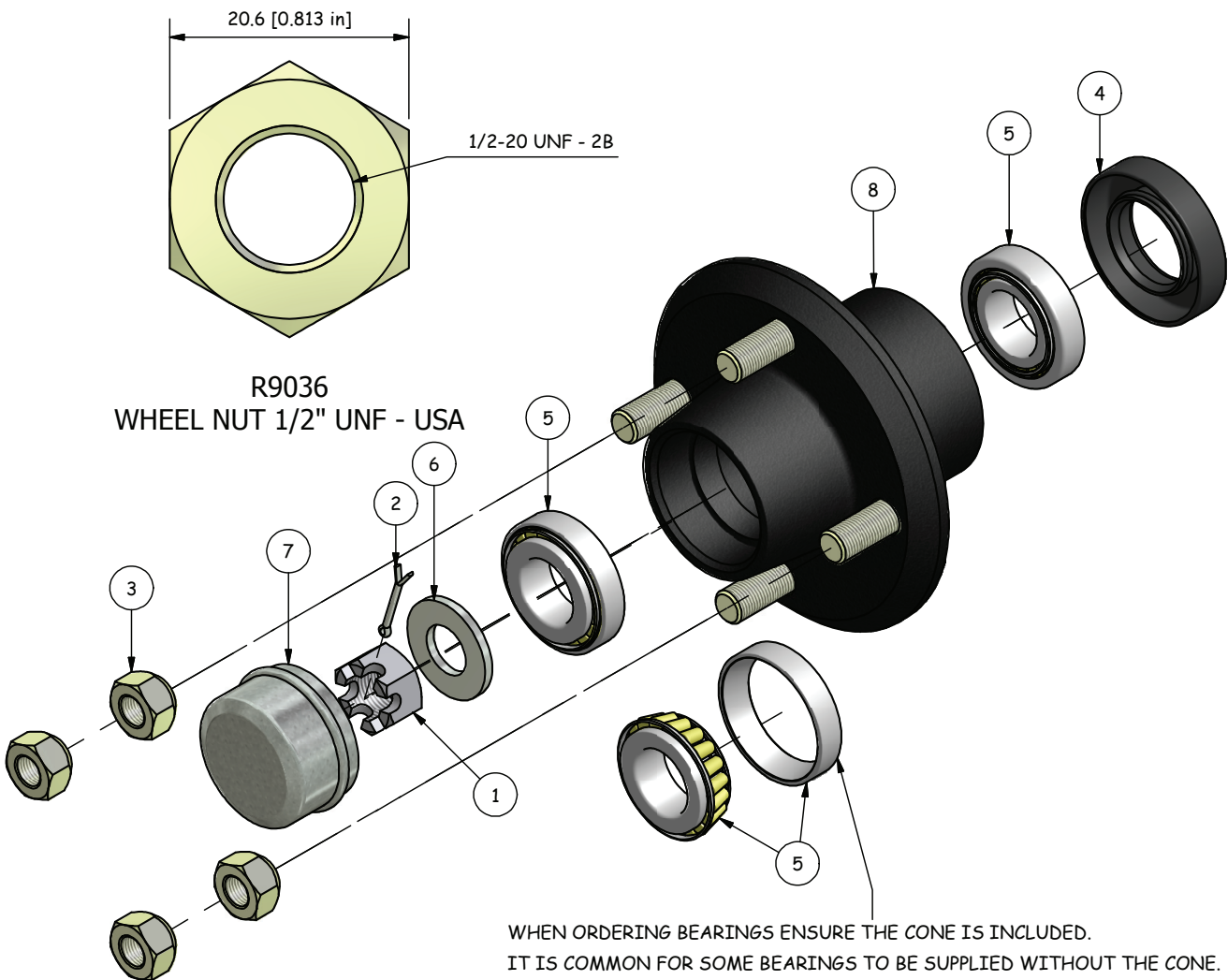


WHEN TRAILER DRAWBAR IS BEING ASSEMBLED THESE BOLTS & NUTS MUST BE CORRECTLY TIGHTENED TO 47 FOOT-POUNDS OR 63.7n-M. IF NOT SUFFICIENTLY TIGHT THE DRAWBAR CAN BECOME LOOSE AND THE HOLES WILL WEAR MAKING IT DANGEROUS WHEN TOWING OR RAISING / LOWERING THE TRAILER.



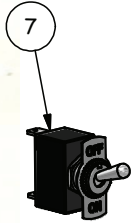
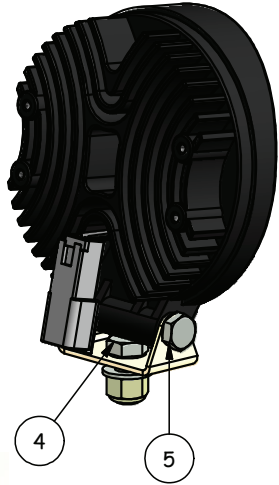
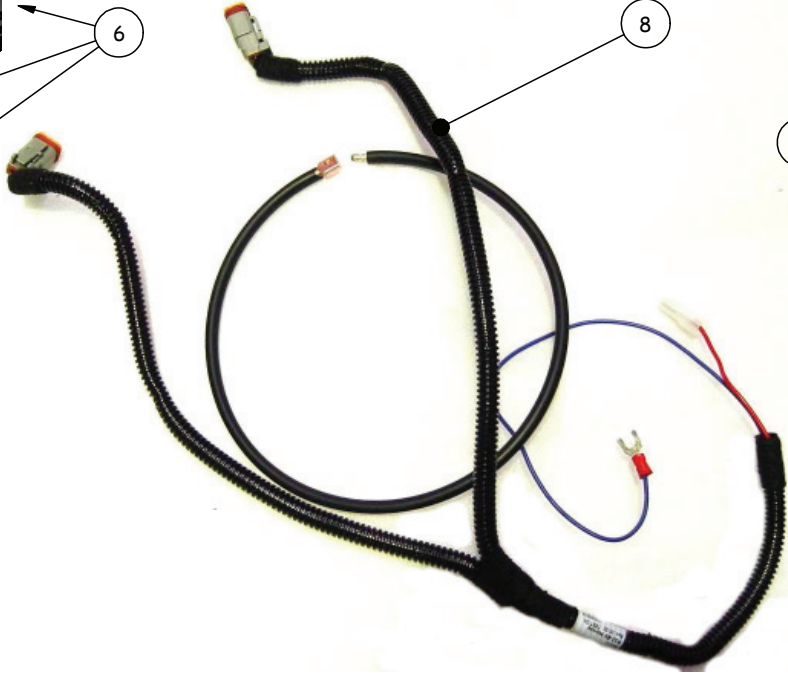
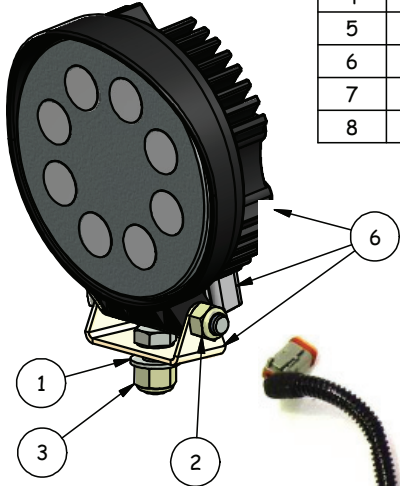
# Hub Complete Assembly

R9037 HUB COMPLETE PARALLEL AXLE - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R6031 & R9033	CASTLE NUT-STUB AXLE 3/4-16 UNF
2	1	R6032 & R9034	SPLIT PIN-STUB AXLE
3	4	R9036	WHEEL NUT 1/2" UNF - USA
4	1	R9029	SEAL INNER HUB CR 12610
5	2	R9030	BEARING TAPER ROLLER L44643
6	1	R9032	WASHER-STUB AXLE
7	1	R9035	HUB BEARING CAP
8	1	R9038	HUB TRAILER PARALLEL AXLE



# LED Light Kit (Optional)

R8291 LIGHT KIT - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	2	R8048	3/8 x 3/4 WASHER ZP
2	2	R8054	5/16 UNF NYLOC NUT
3	2	R8055	3/8 UNF NYLOC NUT P-TYPE
4	2	R8066	3/8 x 3/4 UNF BOLT ZP
5	2	R8189	5/16 x 2-1/2 UNF HEX BOLT
6	2	R8330	LED LIGHT ROUND
7	1	E7067	LIGHT SWITCH
8	1	R8270	WIRE HARNESS



# Brush Kit (Optional)

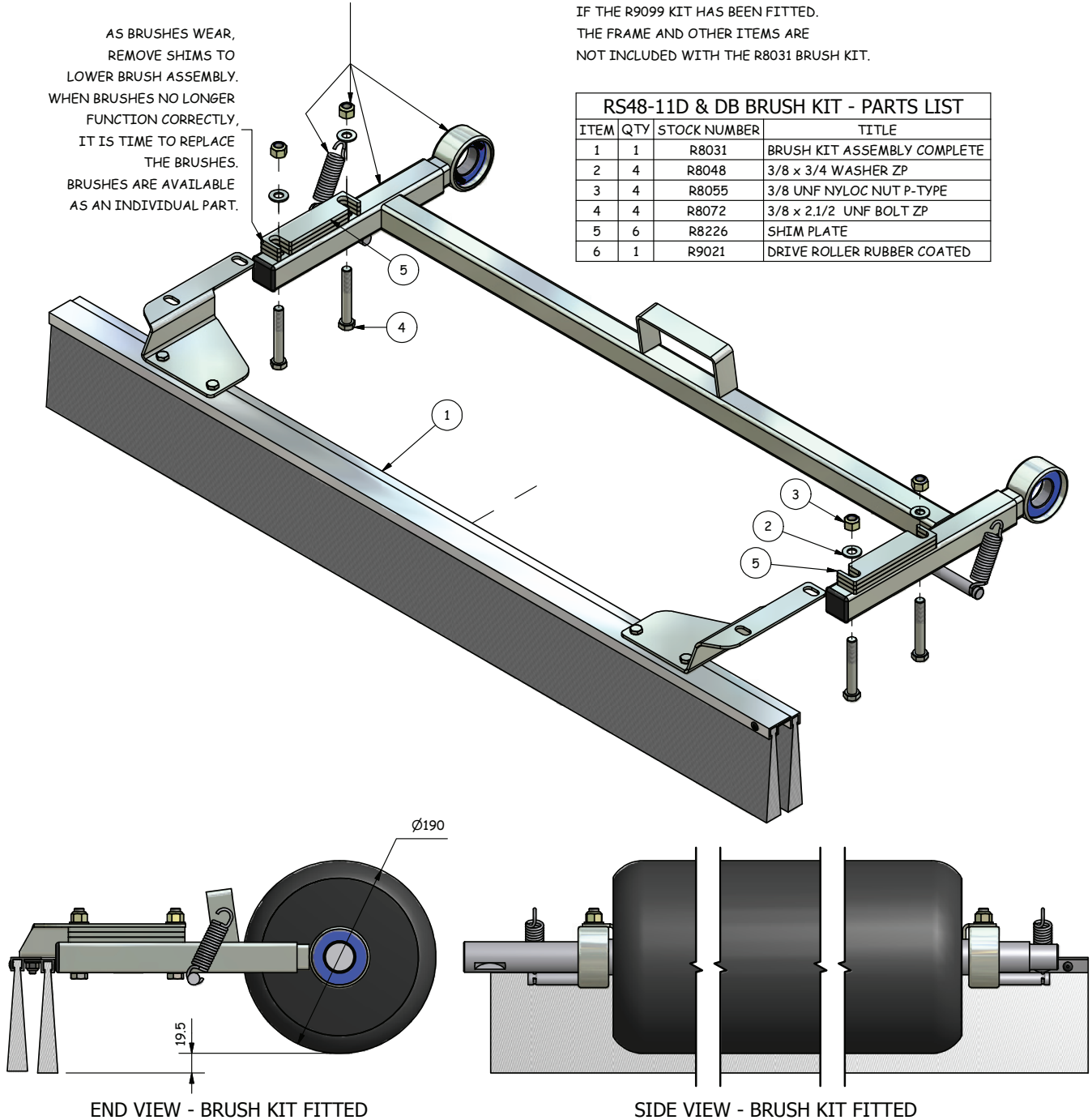
FRAME, SPRINGS, BEARINGS & 3/8" FASTENERS ARE NOT PART OF THE KIT.

AS BRUSHES WEAR, REMOVE SHIMS TO LOWER BRUSH ASSEMBLY. WHEN BRUSHES NO LONGER FUNCTION CORRECTLY, IT IS TIME TO REPLACE THE BRUSHES. BRUSHES ARE AVAILABLE AS AN INDIVIDUAL PART.

PLEASE NOTE:

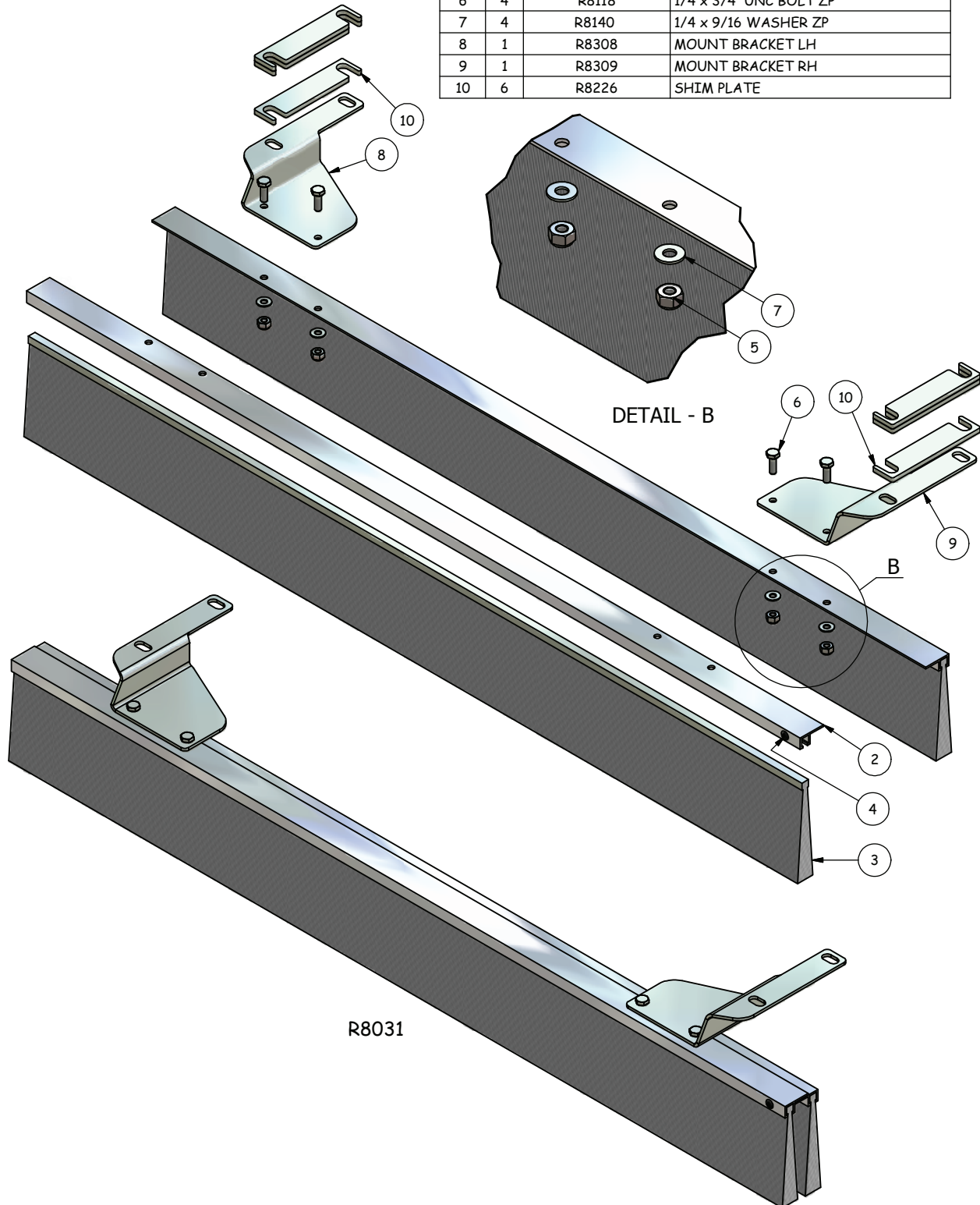
THE BRUSH KIT CAN ONLY BE FITTED TO THE RS48-11DB IF THE R9099 KIT HAS BEEN FITTED. THE FRAME AND OTHER ITEMS ARE NOT INCLUDED WITH THE R8031 BRUSH KIT.

RS48-11D & DB BRUSH KIT - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	1	R8031	BRUSH KIT ASSEMBLY COMPLETE
2	4	R8048	3/8 x 3/4 WASHER ZP
3	4	R8055	3/8 UNF NYLOC NUT P-TYPE
4	4	R8072	3/8 x 2.1/2 UNF BOLT ZP
5	6	R8226	SHIM PLATE
6	1	R9021	DRIVE ROLLER RUBBER COATED



# Brush Kit (Optional)

R8031 RS48 BRUSH KIT - PARTS LIST			
ITEM	QTY	STOCK NUMBER	TITLE
1	2	R8030	BRUSH ASSEMBLY
2	1	R8028	ALUMINIUM EXTRUSION
3	1	R8029	BRUSH INFILL FOR KIT
4	1	R8077	RIVET ALUMINIUM BLACK
5	4	R8116	1/4 UNC NYLOC NUT S/S
6	4	R8118	1/4 x 3/4 UNC BOLT ZP
7	4	R8140	1/4 x 9/16 WASHER ZP
8	1	R8308	MOUNT BRACKET LH
9	1	R8309	MOUNT BRACKET RH
10	6	R8226	SHIM PLATE



R8031

# Labels



R9103 →

## RS48-11DB



# Sample Form

## Warranty Registration & Inspection Report

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Any units not registered with Tru-Turf Pty. Ltd. are not eligible for warranty claims. This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery. Please email, fax or mail signed and dated copy of the completed form to Tru-Turf Pty. Ltd.

### Dealer Information

Dealer ID

Dealer

Contact

Email

### Customer Information

Customer

Contact

Address

State

Zip/Postcode

Country

Email

Phone

### Mark when completed

- |   |   |
|---|---|
| <input type="checkbox"/> Red Cap on Oil Tank has been removed and replaced by the Black Breather Cap. | <input type="checkbox"/> Sprockets for Transmission and Drive Roller are tight.   |
| <input type="checkbox"/> Transmission Oil checked at correct level.                                   | <input type="checkbox"/> Trailer Arm Pivot Bushes have been greased.  |
| <input type="checkbox"/> Engine Oil checked at correct level.   | <input type="checkbox"/> "Important Notice" regarding the correct oils to be used in the Transmission has been read and complied with.            |
| <input type="checkbox"/> Tire pressures checked to a maximum 18psi (124kPa).                          | <input type="checkbox"/> All Safety Decals have been installed and are legible. Operating and Safety Instructions have been read and understood.  |
| <input type="checkbox"/> Drive Chain lubricated with a water-displacing solvent (WD40, CRC etc.).     | <input type="checkbox"/> Transmission Guard is in place and secured.  |
| <input type="checkbox"/> Drive Chain tension is correct.  | <input type="checkbox"/> Seat, Joystick, Trailer Arms, Dampener Struts, Drawbar, Wheels and Tires are correctly assembled, installed and secured. |
| <input type="checkbox"/> Nuts, Bolts, Grub Screws are tightened.                                      |   |
| <input type="checkbox"/> Bearings have been lubricated and rotate freely.                             |   |

### Inspection Report & Safety Check

Model No.

Serial No.

Delivery Date

The above equipment and operator's manual have been received by the buyer and they have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Submit Claim Form

# Sample Form

## Warranty Claim Form

---

### Dealer Information

Dealer ID

Dealer

Contact

Email

### Customer Information

Customer

Contact

Address

State

Zip/Postcode

Country

Email

Phone

### Machine Information

Model No.

Serial No.

Hour Meter Reading

Job/Repair Order Number

Unit Failure Date

Repair Start Date

Repair Completion Date

Hours spent on repair

### Issue Details

Describe the complaint, cause and corrective action

Cause of issue

Type of issue

### Manufacturer's parts used

Quantity

Part No.

Description

Price

Sub-Total

Add Part

Total \$

### Additional Parts and Charge

Quantity

Part No.

Description

Price

Sub-Total

Add Part

Total \$

### Labour Charges

Hours

Description

Rate / Hour

Sub-Total

Add Item

Total \$

Claim Total \$

Submit Claim Form

# Notes & Bulletins