

TC DRB 34 Operators & Parts Manual

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TURF AERATORS

MODEL TC DRB 34

OPERATORS & PARTS MANUAL



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Leading the field in aeration technology

SERIAL NUMBER

DELIVERY DATE

It is essential to quote the machine model and serial number when making service enquiries or ordering spare parts to avoid any delay.

The serial number of your Groundsman Pedestrian Operated Turf Cutter is located **on the front right side body panel if viewed from the rear of the machine.**

This machine was supplied by:

Dealer address:

If you require any further advice or assistance you can contact **Groundsman Industries directly on: TEL: 028 2766 7049 FAX: 028 2766 6855**

Email: bwarke@groundsmanindustries.co.uk

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SAFETY FIRST

1. All guards must be in place.

Always ensure that all guards are in position, properly fitted and maintained. Do not attempt to operate the machine before making this check each time the machine is used.

2. Beware of bystanders.

Operators should be aware that it is possible that debris can exit from the sides of the machine, so this area is best kept clear.

3. Always operate safely.

Never remove any guards or work at the any part of the mechanism while the engine is running. When tilting the machine up to rest on the engine protection bar to gain access to the cutter blade, always select a stable and level surface. Be aware that in this forward tilted position, petrol can leak through the filler cap if the tank is full. Take care not to allow petrol spillage or cause to ignite.

4. Never operate the machine with any parts missing.

Check the machine periodically for loose or damaged parts. Always use genuine Groundsman Industries replacement parts. Failures caused by the use of spurious replacement parts will **not** be covered by the factory warranty, nor will any liability be accepted for damages or injury thus incurred.

5. Modifications.

No liability will be accepted in respect of machines modified without specific **written** permission from Groundsman Industries.

6. Observe the manual.

No liability will be accepted where injury or damage is caused by using the machine in a manner other than detailed in this manual.

Do not start this machine or carry out any maintenance until you have read and understand the safety and operating instructions contained in this manual.

WARRANTY

Examination of the goods has been made by or on behalf of the purchaser and no warranty condition, description or representation on the part of the manufacturer is given or is to be implied or has been given from anything said or written in the negotiations between the parties or their representative beyond those mentioned below. Any statutory or other warrant condition, description or representation expressed or implied as to the goods is hereby expressly excluded.

In lieu, thereof the manufacturer undertakes to make good by repair or replacement at its option free of all charge during normal working hours. Any defects in the goods arising in the manufacturer's opinion from faulty design, materials or workmanship which shall become apparent within a period of 24 months in the case of machines, and 12 months in the case of spares from the date of receipt of the goods. At the termination of which period, all liability on the manufacturer's part ceases. Provided always and the above warranty is subject to the following conditions:

- A. The manufacturer's liability extends only to the repair or replacement and it accepts no liability for any consequential or other loss, damage or injury resulting directly or indirectly from any defect in the goods.
- B. The manufacturer's warranty does not extend to failures, defects or damage attributable to wear and tear, improper adjustments, neglect, and alteration of specification or accident.
- C. All defective parts must be returned to the dealer immediately together with full particulars of the defects, the machine number, the hours worked and the date machine was supplied.
- D. The manufacturer's warranty does not extend to proprietary or other components not of its manufacture, but it will as far as possible pass to the purchaser any benefits of any guarantee given to the manufacturer in respect of such components.
- E. In the event of the rejection by the manufacturer of any claim, the part or parts returned will be destroyed unless specific instructions to the contrary were given when part or parts were returned.
- F. No claim will be considered if other than genuine parts manufactured by the manufacturer or its order and listed in its catalogue are used.
- G. This warranty should only be construed as strictly limited in its application and is valid only in the country of purchase. If the goods shall change hands during the period of this warranty, this warranty will cease to have effect.
- H. The manufacturer accepts no responsibility for damage by fire or accident of any kind to any goods returned under the terms of this warranty. The manufacturer does not accept responsibility for any accident occurring to such goods whilst on the premises.
- I. This warranty shall cease to have effect if the purchaser removes, defaces or alters the manufacturer's number plate (serial number) or any other numbers or marks affixed to any Groundsman Industries Ltd product.
- J. In respect to machines sold which have been used since the date of manufacture for commercial, contract, hire, rental or demonstrator purposes, the warranty on this product is limited in duration to 12 months from the date of purchase.

TECHNICAL INFORMATION

TURF CUTTER Model TC DRB34

CUTTING BLADES Interchangeable Rear Mounted

SOD BLADES

Widths	Depth	
30cm (12")	0—7.5cm	(0—3")
35cm (14")	"	"
40cm (16")	"	"
45cm (18")	"	"

TRENCH BLADES

Width	Depth
7—15cm (3— 6")	0—13cm (0—5")

DE-COMPACTION & MOLE DRAINAGE BLADES

Single Blades Rear Centre Mounted.

Blade Thickness 4mm(3/16") Depth 13cm(5")

OVERALL DIMENSIONS

Safety Cradle Fitted Operator Handles Folded

Height: 80cm (31")
 Width: 58cm (23")
 Length: 110cm (43")

WEIGHT

127 Kilo (279 lbs)

Engine: 5.5 HP Honda GX160
 Drive System: Centrifugal Clutch and V-belt input to enclosed O ring Sealed Chain gearbox.
 Blade Mechanism: Central Connecting Rod and eccentric Drive Shaft. Sealed bearings throughout.

Ground Drive: Direct linkage Disc Clutch engaging Four Wheel Drive

WHEELS

Front: 400 x 4 External Pneumatic Turf Tyres
 Rear: 8" Dia inter-changeable Rib Grip Blade Wheels

PERFORMANCE

All calculations are based on standard operating engine speed of 3600 RPM

Blade Speed	Depth Adjustable (Maximum)	Forward Speed	Coverage		
			BLADE	STANDARD	OPTIONAL
STANDARD 1049 oscillations 26 cuts per metre (24 per yard) OPTIONAL 21 cuts per metre (19 per yard)	TURF CUTTING 7.5cm (3")	STANDARD 40 mtrs/min(43 yds)	30cm (12")	720 Sq mtrs (780 Sq yds)	900 Sq mtrs (975 Sq yds)
	DE-COMPACT & MOLE DRAIN 13cm (5") TRENCH 13cm (5")	OPTIONAL 50 mtrs/min (54 yds)	35cm (14")	840 Sq mtrs (910 Sq yds)	1050 Sq mtrs (1137.5 Sq yds)
			40cm (16")	960 Sq mtrs (1040 Sq yds)	1200 Sq mtrs (1300 Sq yds)
			45cm (18")	1080 Sq mtrs (1170 Sq yds)	1350 Sq mtrs (1462.5 Sq yds)

The **OPTIONAL** specifications listed require chain sprocket replacements. Other customised gearing specifications available.

OPERATOR LEVERS AND CONTROLS



The Operators Handles fold for storage or carriage.



To adjust Operators Handles loosen locking lever and adjust to a comfortable working height. Re-clamp the lever firmly.



The Ground Drive Clutch Lever effects the front wheels only. Pull the lever back and down to the stop to engage ground drive. Up and forward is neutral or free wheel.



The Depth-Set Clamp Lever clamps or releases the depth-set dial to adjust the depth of cut which is indicated by the pointer on the scale. 0—8 cm (0—3”).



The Throttle Lever increases the engine speed to engage drive.

NOTE

Refer to pages 7 & 8 for operating instructions.

OPERATOR LEVERS AND CONTROLS



ENGINE

The Groundsman Model TC DRB34 is fitted with a Honda 5.5 HP petrol engine. Unleaded or low leaded is preferred to minimize combustion chamber deposits. Please refer to the Honda Owners manual for instructions regarding maintenance.



SETTING THE CUTTER DEPTH

To set the Cutter Blade Depth, unclamp the blade depth clamp lever and tilt the machine slightly forward..



Turn the Depth-Set Dial to the required depth observing the depth scale, which is calibrated 0-8 cm (0-3”).

NOTE

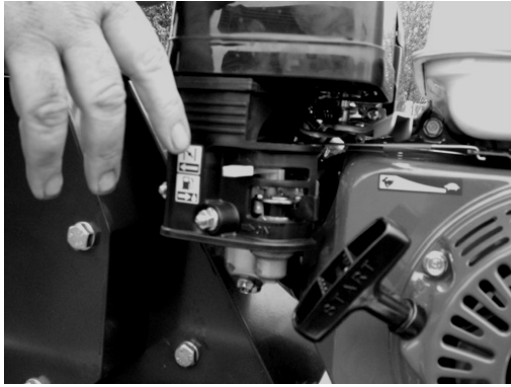
Set the depth to 7 or 8 cm (full depth) when using Mole or De-compaction blades.



IMPORTANT

Always re-tighten the Depth Clamp Lever firmly after setting the depth.

BASIC SETTING UP AND OPERATING INSTRUCTIONS



STARTING AND OPERATING

Ensure that the Ground Drive Clutch Lever is in the forward neutral position before starting the engine.

Turn the fuel tap on. This is located under the choke lever on the rear right hand side of the engine. Turn the ignition switch on. This is located at the front of engine.

If the engine is cold apply the choke. Start the engine and ease the choke off allowing to warm up a few minutes. Pull on the throttle lever to accelerate the engine and engage the blade drive.

When the Ground Drive Clutch Lever (which is located on the left side of the machine) is in the forward neutral position the front wheels are free to turn for transporting or manoeuvring the machine. To commence cutting pull the ground drive clutch lever all the way back to the stop to engage ground drive.

To commence cutting, rest the blade on the ground and applying a slight downward pressure, depress the throttle and allow the wheels to pull the blade into the ground.

Tilting the machine forward will clear the blade from the ground for turning and manoeuvring between cuts. Ground Drive can be maintained using the engine to propel the machine in a turn, or disengage ground drive and propel the machine manually.

FITTING BLADES



When removing or fitting blades, make sure that the Blade Mounting Cross Bar is at maximum distance from the wheels, using the throttle gently to drive the blade and crossbar to the maximum distance away from the wheels.

NOW THE ENGINE MUST BE SWITCHED OFF
Tilt the machine forward and rest onto the front frame.



Using the Tee Bar provided, loosen and remove the two retaining bolts and heavy washers.



With both hands slide blade forward to clear blade bolts and remove from the cross bar.

Use the reverse procedure to fit blade ensure that the Heavy Washers are refitted.

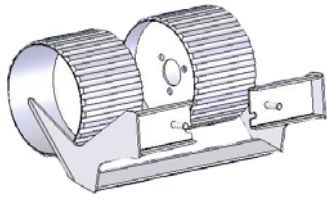


To fit Mole-Drain or Decompaction Blades locate the blade studs into crossbar, fit and tighten the nuts. The Heavy Washers are not required.



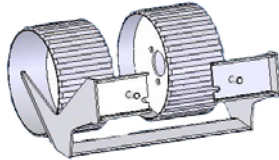
NOTE
See Blades and Accessories on page 10.

BLADES AND ACCESSORIES

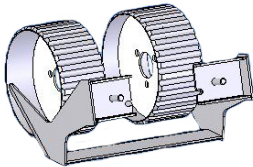


A Variety of Blades and Wheels are available for the TC DRB34

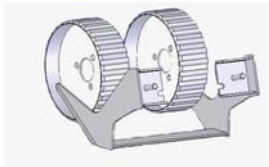
	Part Number
18" (450mm) Blade	TCSB18
Wheels	TCDBW18



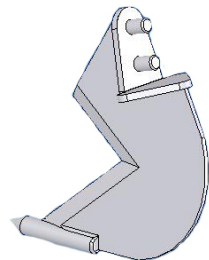
16" (400mm) Blade	TCSB16
Wheels	TCDBW16



14" (350mm) Blade	TCSB14
Wheels	TCDBW14

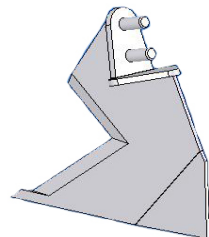


12" (300mm) Blade	TCSB12
Wheels	TCDBW12



SINGLE BLADES REAR CENTRE MOUNTED

Mole Drainage Blade 125mm(5") depth	TCMD5
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De-Compaction Sub-Plough Blade 125mm(5") depth	TCSP5
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NOTE

Other specialist blades are available or can be manufactured to suit your requirements including, Slitting, Trenching and Narrow Sod Stripping for Revetting etc.

***Guillotine Chop-Off attachment available from Sept. 2004**

Contact Groundsman Industries Technical Department.

See the full range of Groundsman Products and Accessories Catalogue available free of charge.

Phone: (+44) 028 2766 7049

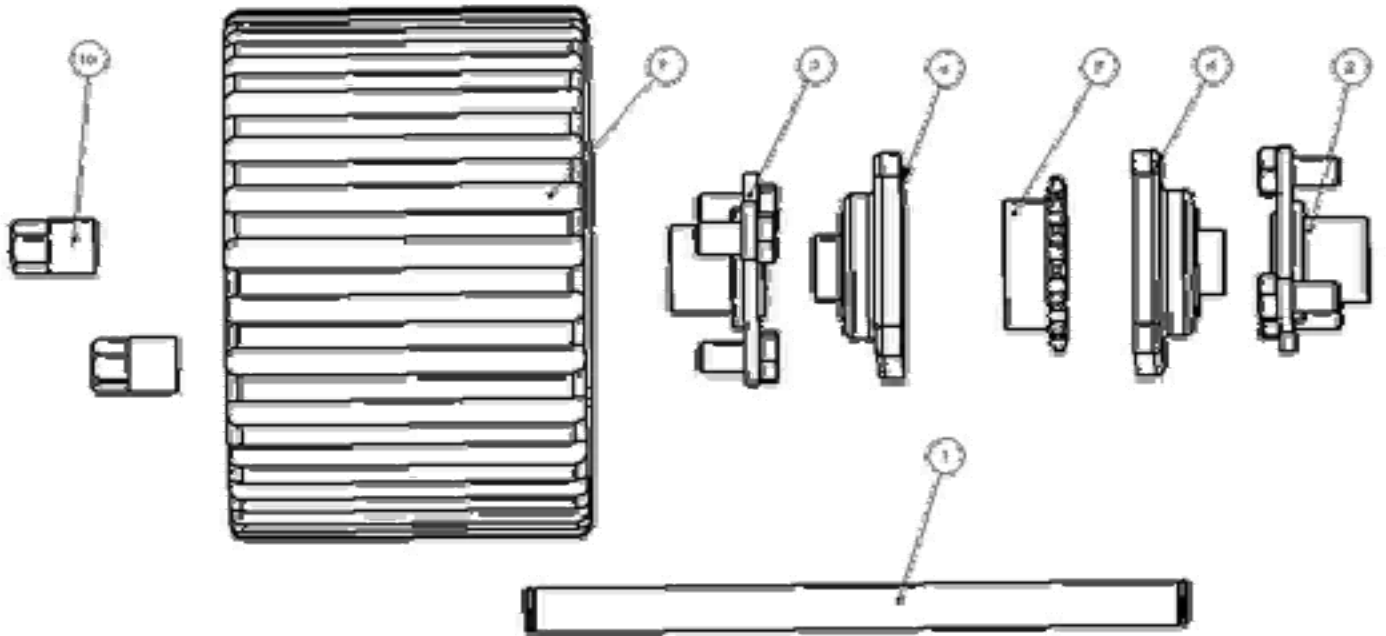
Fax: (+44) 028 2766 6855

Email: bwarke@groundsmanindustries.co.uk

ITEM	QTY.	PART NO.	
1	1	TC3031	Rear Axle Assembly
2	1	TC3040	Lower Compound Shaft Assembly
3	1	TC3023	Depth Screw Assembly
4	1	TC3046	Tension Sprocket Lower Compound To Front Axle
5	1	TC3048	Tension Sprocket Compound Shafts
6	1	TC3049	Tension Sprocket Crank to Compound
7	1	TC3047	Tension Sprocket Input to Crank
8	1	TC3050	Tension Sprocket Wheel to Wheel
10	1	TC3039	Upper Compound Shaft
14	1	TC3020B	Depth Set Bearing Block
15	1	TC3020	Blade-Leg
16	1	TC3026	Crank Assembly
17	1	TC3042	12in Sod Blade
18	1	TC3038	Input Shaft
19	1	TC3031A	Front Axle Assembly
20	1	TC3011	Belt Tensioner Pulley
21	1	CPC103	Engine Clutch Type 1
22	1	CPC104	Front Axle Clutch

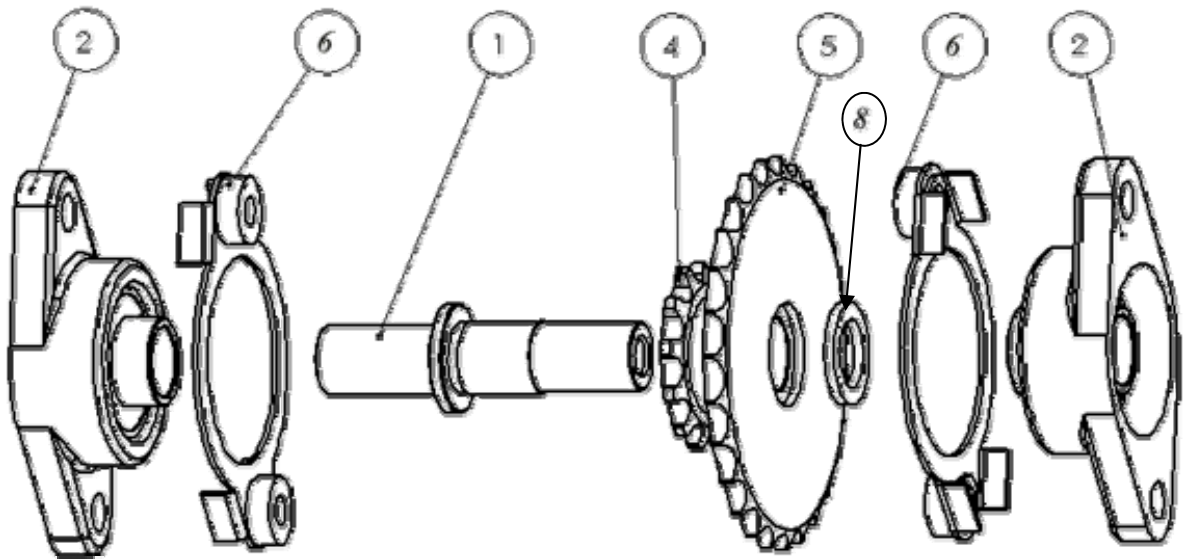
TC3031 Rear Axle Assy

ITEM	PART NO.	DESCRIPTION
1	TC3027A	Rear Axel
2	TC3017 H	Wheel Hub
3	TC3018A	Rear Wheel Hub Flange
4	BPC121HS	Hex Head Bolt
6	BPC031	Square Plumber Block Bearing
7	SPC007	Taper-Loc Sprocket
9	TCDBW18	18" Blade Wheel 8 inch
10	TC3042Q	Blade Nut



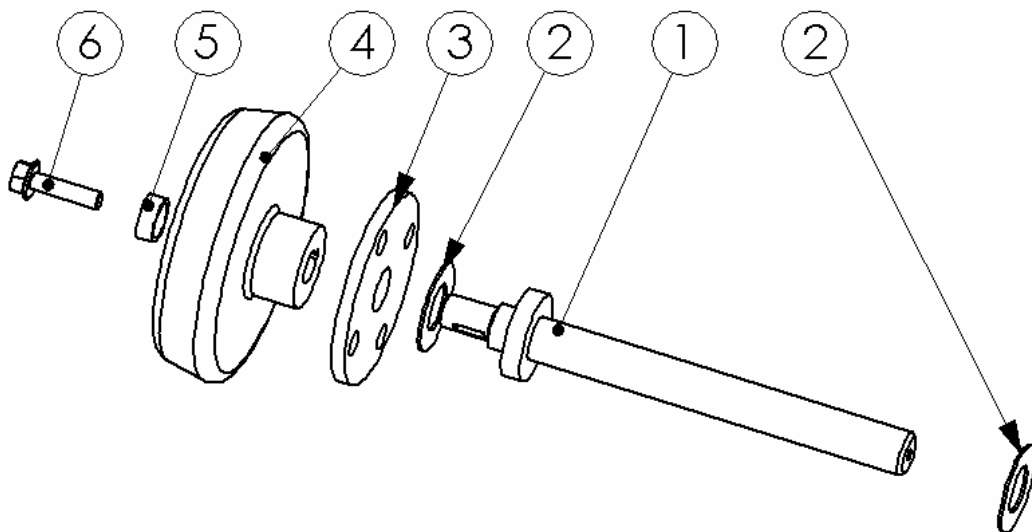
TC3040 Lower Compound Shaft Assembly

ITEM	PART NO.	DESCRIPTION
1	TC3040	Lower Compound Shaft Assembly
2	BPC029	Plumber Block 2 Bolt Bearing Flange
4	TC3040A	Compound Sprocket
5	TC3040B	Compound Sprocket
6	TC3070C	Two Nut Locator Plate
8	TC3040C	Compound Sprocket Spacer



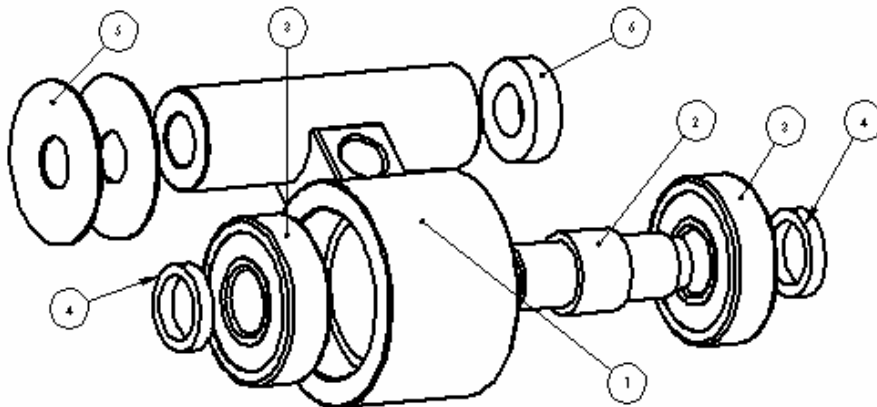
TC3052 Depth Set Screw

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3025-2	Depth Set Spindle
2	2	TC3025A	Spindle Thrust Washer
3	1	TC3024	Depth-Crank Cap
4	1	HPC005	Hand wheel
5	1	TC3025-2A	Handle retainer washer
6	1	BPC0625CP	M6 x 25



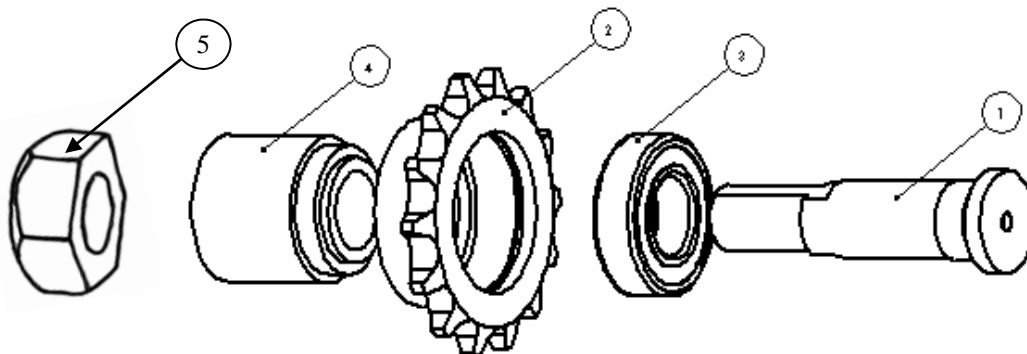
TC3020 Depth Set Bearing Block Assembly

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3020	Depth-Set Clamp Bearing. Housing
2	1	TC3041	Blade Leg Pivot Spindle
3	2	BPC102	Single Row Radial Ball Bearing
4	2	TC3033E	Blade Leg Pivot Spindle Spacer
5	2	TC3020C	Depth-Set Clamp Block Spacer
6	1	TC3020A	Depth-set Inter Clamp Washer



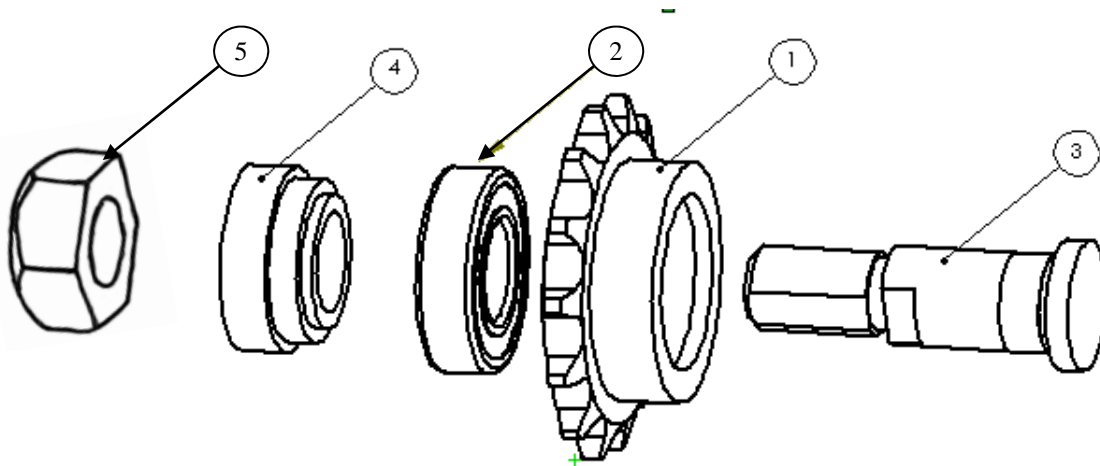
TC3046 Tensioner Lower Comp To Rear Axle

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3046	Chain Tensioner Spindle Lower Compound
2	1	TC3045	Chain Tensioner Lower Compound
3	1	BPC028	Bearing Single Row
4	1	TC3046A	Tension Spindle Spacer Low Compound
5	1	NPCF916NY	Hex Nut



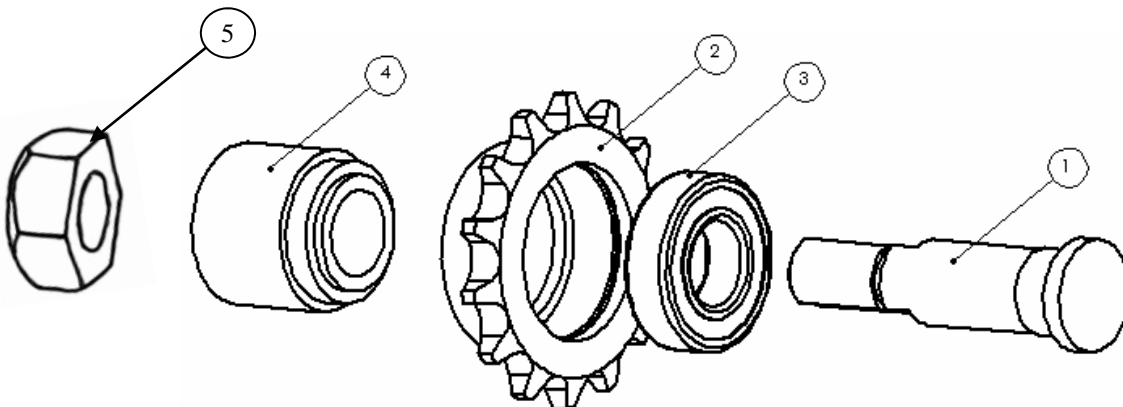
TC3047 Tensioner Input To Crank

ITEM	QTY	PART NO.	DESCRIPTION
1	1	TC3045	Chain Tensioner
2	1	BPC028	Bearing Single Row
3	1	TC3046	Chain Tensioner Spindle
4	1	TC3047A	Tensioner Spacer
5	1	NPCF916NY	Hex Nut



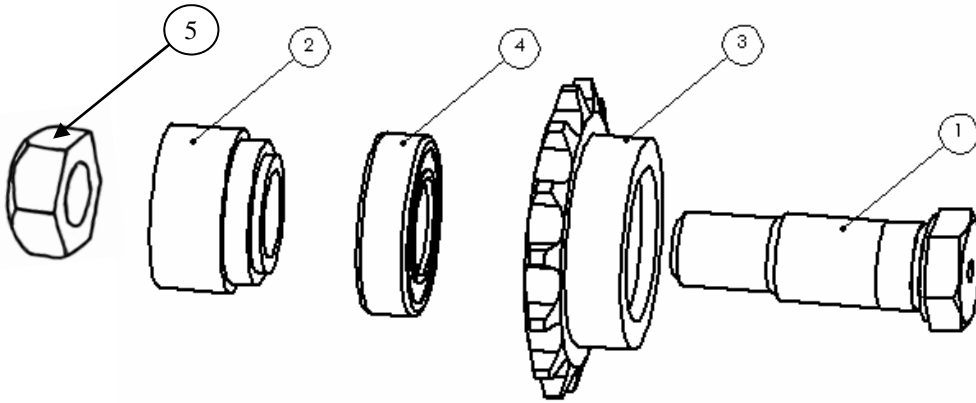
TC3048 Tensioner Compound Shaft

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3048	Chain Tensioner Spindle
2	1	TC3045	Chain Tensioner Sprocket
3	1	BPC028	Bearing Single Row
4	1	TC3048A	Tension Spindle Spacer
5	1	NPCF916NY	Hex Nut



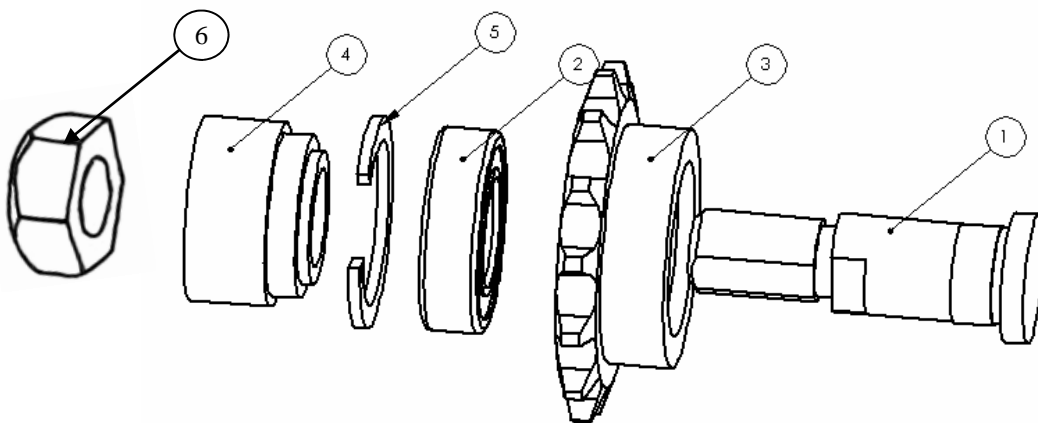
TC3049 Tensioner Crank to Compound

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3011G	Tensioner Sprocket Spindle
2	1	TC3049A	Tension Spindle Spacer
3	1	TC3045	Chain Tensioner Sprocket
4	1	BPC028	Bearing Single Row
5	1	NPCF916NY	Hex Nut



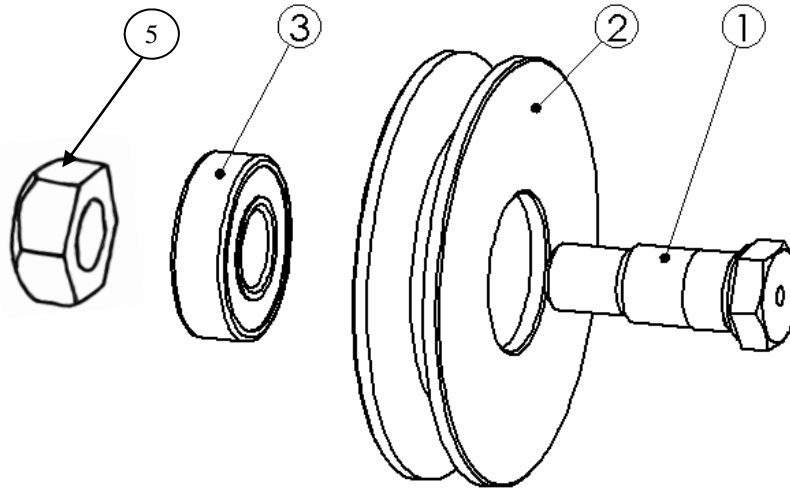
TC3050 Tensioner Wheel to Wheel

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3050B	Chain Tensioner Spindle
2	1	BPC028	Bearing Single Row
3	1	TC3045	Chain Tensioner Sprocket
4	1	TC3050A	Tension Spacer
5	1	CPC082	Tensioner Internal Circlip
6	1	NPCF916NY	Hex Nut



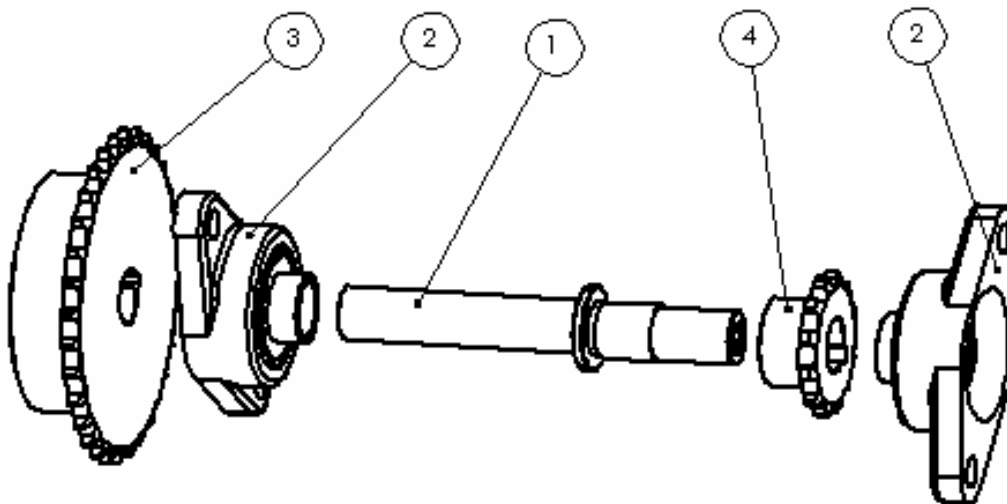
TC3011 Belt Tensioner

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3011E	Tensioner Pulley Spindle
2	1	TC3011A	Belt Tensioner Pulley
3	1	BPC105	Bearing Single Row
4	1	NPCF916NY	Hex Nut



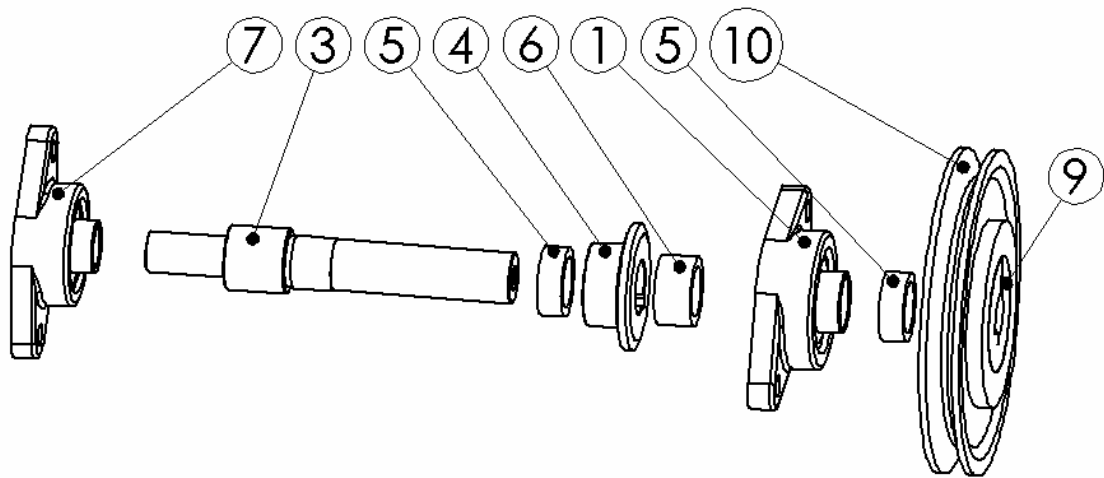
TC3039 Upper Compound Shaft

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3039	Upper Compound Shaft
2	2	BPC029	Plumber Block 2 bolt Flange
3	1	SPC006	Taper-Loc Sprocket Upper Compound
4	1	TC3035A	Crank-Shaft Aux Sprocket



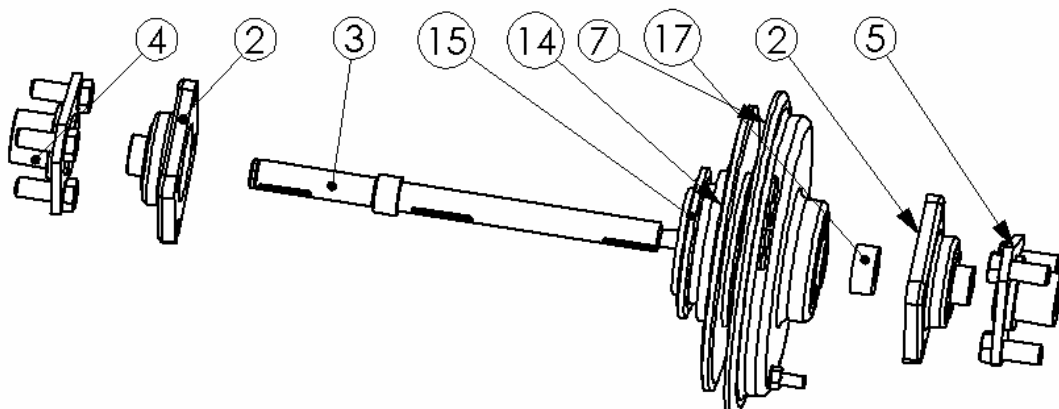
TC3038 Input Shaft

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	BPC030	Plumber Block 2 Bolt Bearing Flange
3	1	TC3038	Input Shaft
4	1	TC3038A	Input Shaft Sprocket
5	2	TC3033D	Input Shaft Outer Spacer
6	1	TC3033C	Input Shaft Inner Spacer
7	1	BPC029	Plumber Block 2 Bolt Bearing Flange
9	1	BPC034	Pulley Bush
10	1	BPC041	Taper-Lock Pulley



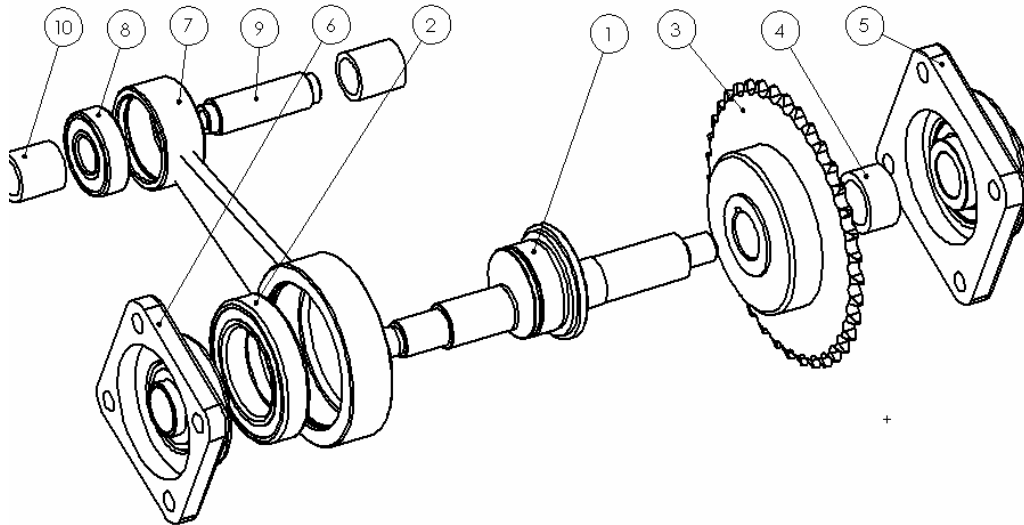
TC3034 Front Axle

ITEM	QTY.	PART NO.	DESCRIPTION
2	2	BPC031	Square Plumber Block Bearing
3	1	TC3034	Front Axle
4	2	TC3017 H	Wheel Hub
5	2	TC3018A	Wheel Hub Flange
7	1	CPC104	Front Axle Clutch
14	1	TC3032A	Clutch Sprocket Wheel
15	1	TC3032B	Clutch Sprocket
17	1	TC3034C	Front Axle Clutch Spacer



TC3026 Crank Assembly

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	TC3026	Crank-Shaft
2	1	BPC107	Bearing Single Row Radial Ball Bearing
3	1	TC3035	Crank Sprocket
4	1	TC3036	Crank-Shaft / Sprocket Spacer
5	1	BPC032	Plumber-Block Bearing & Insert
6	1	BPC032	Plumber-Block Bearing & Insert
7	1	TC3016A	Con-Rod
8	1	BPC027	Bearing Single Row Radial Ball Bearing
9	1	TC3037	Con-Rod Small End Spindle
10	2	TC3033B	Small-End Spindle Spacer



CHAINS AND BELTS

ITEM	PART NO	DESCRIPTION
1	CPC117	UPPER COMPOUND TO LOWER COMPOUND
2	CPC118	INPUT SHAFT TO CRANK
3	CPC119	FRONT AXIL TO LOWER COMPOUND
4	CPC120	FRONT TO REAR AXIL
5	CPC121	CRANK TO UPPER COMPOUND
6	BPC133	BELT MAIN DRIVE

