

TRE MK2 Differential Rebuild Kit Manual

- Rebuild Kit Includes

- TRE FSAE formulated diff fluid
- 2x end bell o-rings
- 2x stub axle o-rings
- 2x center o-rings
- 12x bolts
- 12x washers
- 1 tube sealeant

- For questions, please contact TRE at 1-800-922-GEAR (4327) or email us:

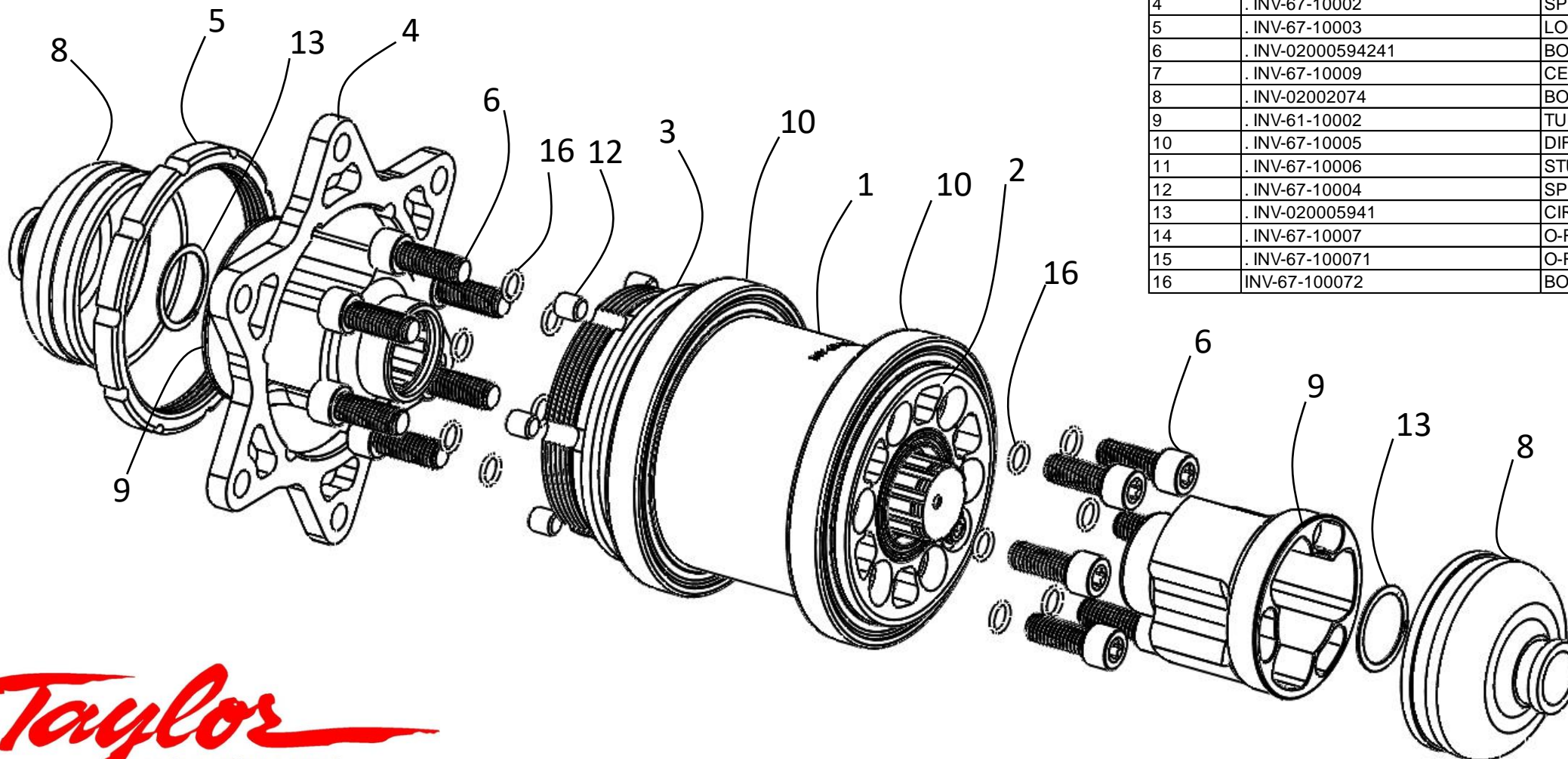
Courtney@taylor-race.com

david.k@taylor-race.com



MK2 Differential Parts Map

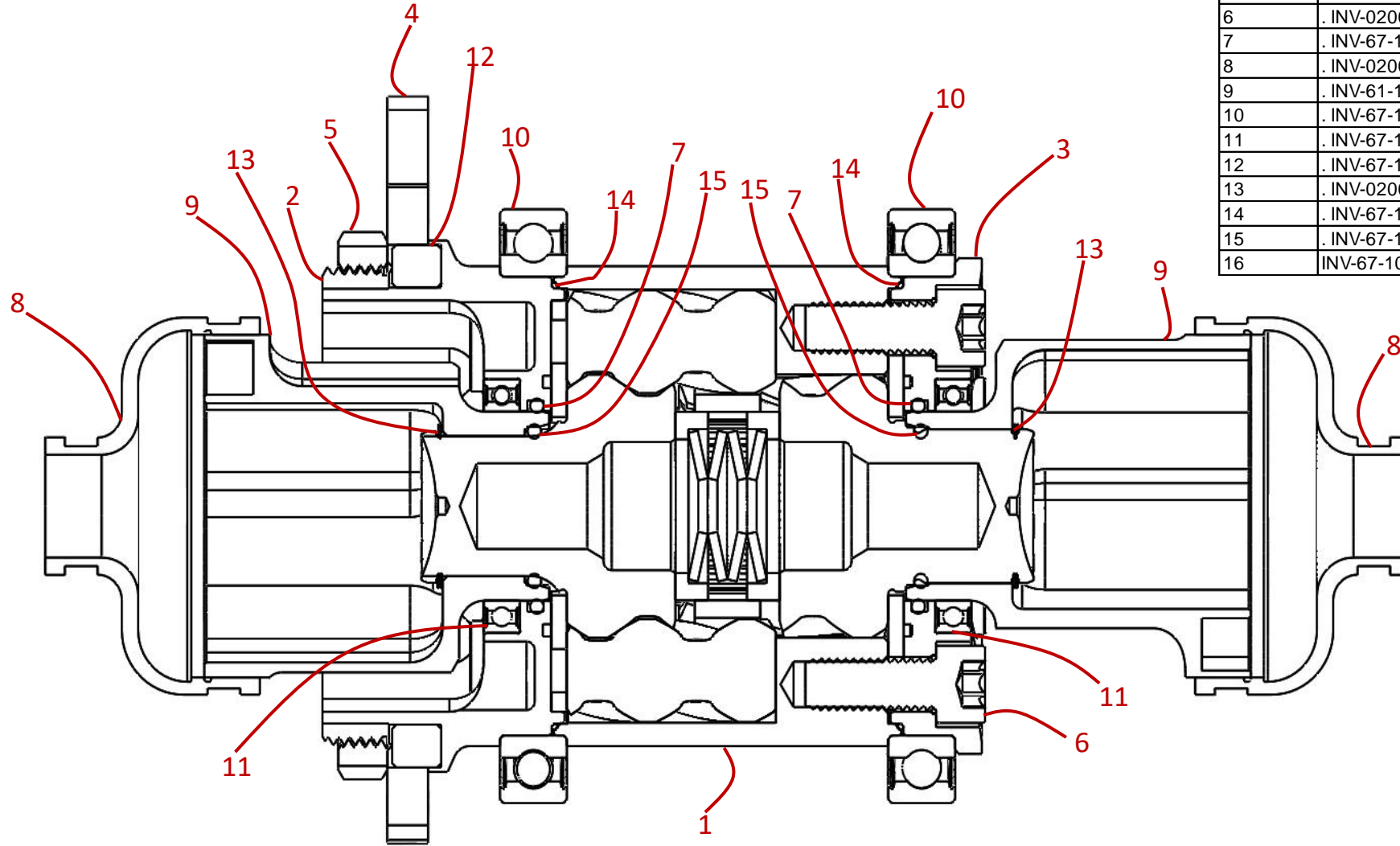
(exploded view)



Item ID	Part Number	Item Description
1	INV-06-10001A	MK2 FSAE DIFF SINGLE W/ADAP
2	. INV-60-10002	END BELL NON DRIVE SIDE
3	. INV-60-10003	END BELL DRIVE SIDE MK2
4	. INV-67-10002	SPROCKET STAR
5	. INV-67-10003	LOCK RING NUT
6	. INV-02000594241	BOLT END-BELL TO DIFF (NEW)
7	. INV-67-10009	CENTER O-RING
8	. INV-02002074	BOOT 2.5in TULIP DSR/F1000/FSA
9	. INV-61-10002	TULIP MKII TRECHAIN DRIVE DIFF
10	. INV-67-10005	DIFF BEARING
11	. INV-67-10006	STUB BEARING
12	. INV-67-10004	SPROCKET DOWEL
13	. INV-020005941	CIRCLIP OUTPT FLNG CHAIN DRIVE
14	. INV-67-10007	O-RING END BELL MK2 TRE
15	. INV-67-100071	O-RING STUB AXLE MK2 TRE
16	INV-67-100072	BOLT SEALING WASHER

MK2 Differential Parts Map

(cross-sectional view)



Item ID	Part Number	Item Description
1	INV-06-10001A	MK2 FSAE DIFF SINGLE W/ADAP
2	. INV-60-10002	END BELL NON DRIVE SIDE
3	. INV-60-10003	END BELL DRIVE SIDE MK2
4	. INV-67-10002	SPROCKET STAR
5	. INV-67-10003	LOCK RING NUT
6	. INV-02000594241	BOLT END-BELL TO DIFF (NEW)
7	. INV-67-10009	CENTER O-RING
8	. INV-02002074	BOOT 2.5in TULIP DSR/F1000/FSA
9	. INV-61-10002	TULIP MKII TRECHAIN DRIVE DIFF
10	. INV-67-10005	DIFF BEARING
11	. INV-67-10006	STUB BEARING
12	. INV-67-10004	SPROCKET DOWEL
13	. INV-020005941	CIRCLIP OUTPT FLNG CHAIN DRIVE
14	. INV-67-10007	O-RING END BELL MK2 TRE
15	. INV-67-100071	O-RING STUB AXLE MK2 TRE
16	INV-67-100072	BOLT SEALING WASHER

Disassembly of MK2 Differential

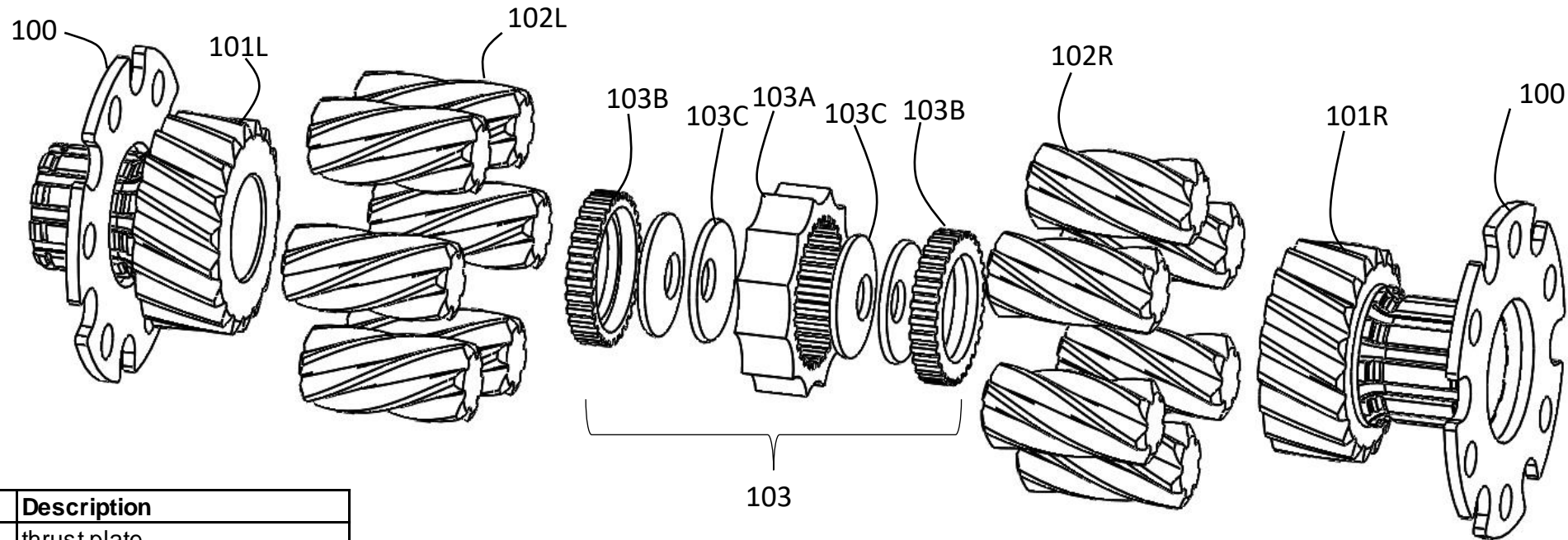


- Begin on a clean workbench and tools
 - Strap wrench or conformal soft vise jaws for holding differential housing
 - Snap ring pliers
 - 5/16" Allen Driver
 - Torque wrench set to 38 ft-lb (for reassembly)
- Remove sprocket star (#4) by removing lock ring nut (#5), if desired.
 - Lock ring nut is a left-handed thread, which should be safety wired once installed. Use wire snips to remove safety wire from lock ring nut.
- Remove boots and tripods from tulips (#9) to access the circlip (#13)
- Remove snap ring (#13), pull tulip (#9) from stub shaft of differential (#1)
 - A 3-jaw pulley puller is recommended if the tulip is tight
- Remove bolts (#6) from end bell (#2 or #3)
- Slide end bell (#2 or #3) and bearing (#10) from housing of differential (#1)
- At this point, the differential seals can be replaced without further disassembly of the differential (#1).
 - Further disassembly/reassembly instruction are provided for the internal gearing (power pack) of the differential if there is a need to inspect or adjust pre-load of the differential.

Reassembly of MK2 Differential

- Differential (#1) disassembly/reassembly of internal gearing (“power pack”) instructions provided separately.
- Install new stub axle o-ring (#15) on stub axle. Apply a small bead of sealant on diameter of o-ring (#15)
- Install new center o-ring (#7) on internal diameter of end bell (#2 or #3)
- Install end bell o-ring (#14) on the end bell (#2 or #3). Apply a small bead of sealant on diameter of o-ring.
 - The bearing (#10) should be positioned onto the end bell (#2 or #3) before applying the sealant.
- Position end bell over axle of sun gear and attach to the differential housing using bolts (#6).
 - Torque bolts to 38 ft-lbs in a star pattern.
- Apply a small bead of sealant around the stub axle splines just outboard of the o-ring (#15). Install tulip (#9) onto stub axle and then install snap ring (#13).

MK2 Differential Power Pack (exploded view)



ID No.	Description
100	thrust plate
101R	right-hand pitch sun gear
101L	left-hand pitch sun gear
102R	right-hand pitch planet gears
102L	left-hand pitch planet gears
103	center thrust pack
103A	outer spring housing
103B	inner spring housing
103C	Bellville springs

MK2 Power Pack

- The internal gearing of the differential is referred to as the power pack. For clarity, the parts map is shown without the outer housing.
- The right-handed sun gear (#101R) mates with the right-handed planet gears (#102R), likewise the left-handed sun-gear (#101L) and the left-handed planet gears (#102L) are a mating set.
- Belleville washers are assembled in opposing orientation, see cross-section view. Light pre-load is recommended using 4 Belleville washers. Heavier pre-load is achieved using 6 Belleville washers.
- For finer adjustment of preload, if desired, shims can be used in addition to the Belleville washers.