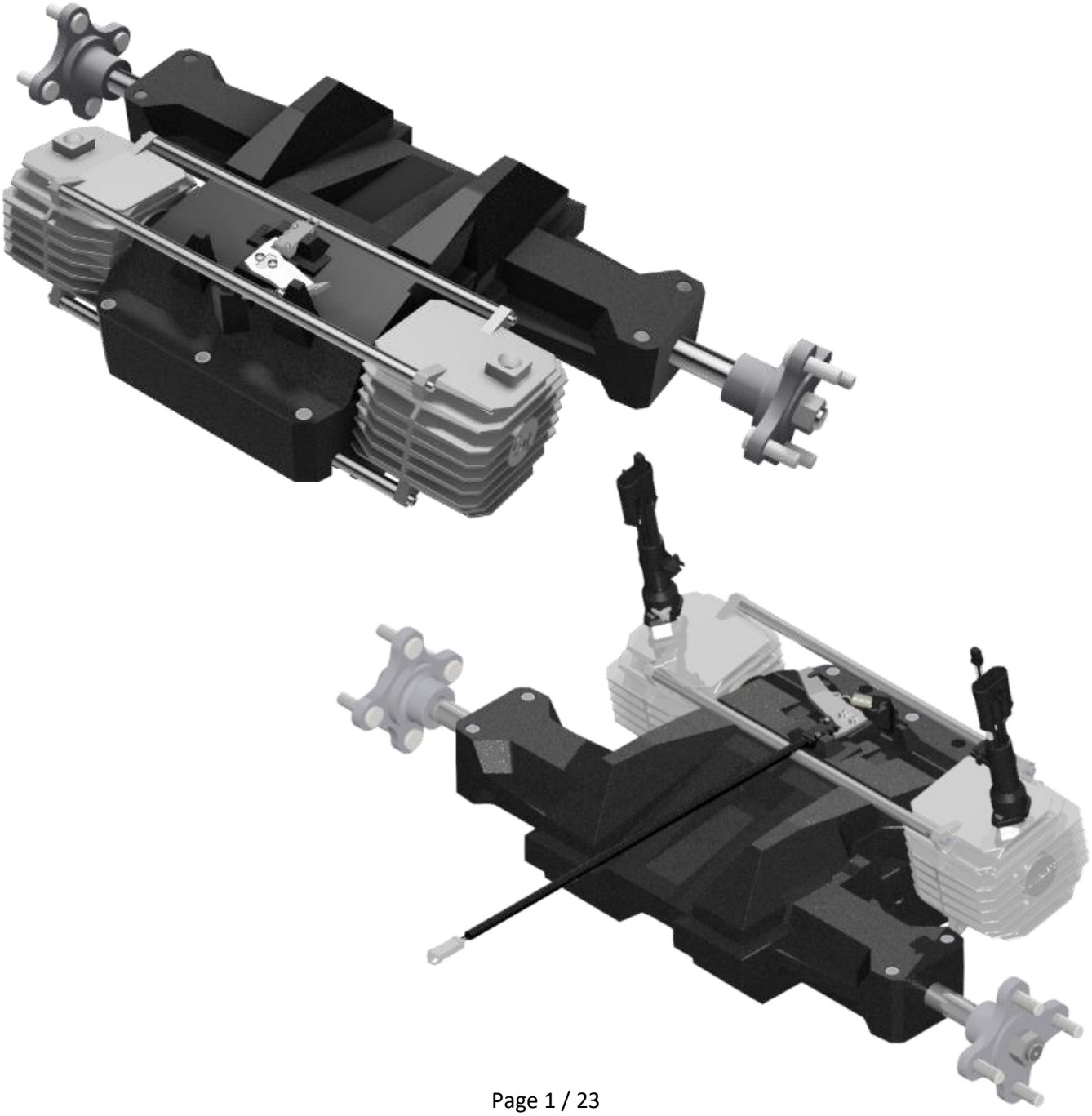
EZ2000 / EZ2200 repair manual

Updates

Rev. + date	Updates	Achieved by	Examined by
Rev A – 03/09/2024	1st issue	FG / PB	BC / AT / CJ



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1 Introduction

1.1 General Transmissions presentation

With 3 production sites, Mexico, China, France, and a policy focus on product quality and continuous innovation, General Transmission is a world leader in the design and manufacture of gearbox and transaxle, for lawn and garden equipment.

1.2 Manual introduction

The purpose of this manual is to provide service and repair information for the EZ2000 and EZ2200 transmission.
Exploded view, troubleshooting and repair procedures are also included.
Use fasteners from the replacement kits only to ensure compatibility.

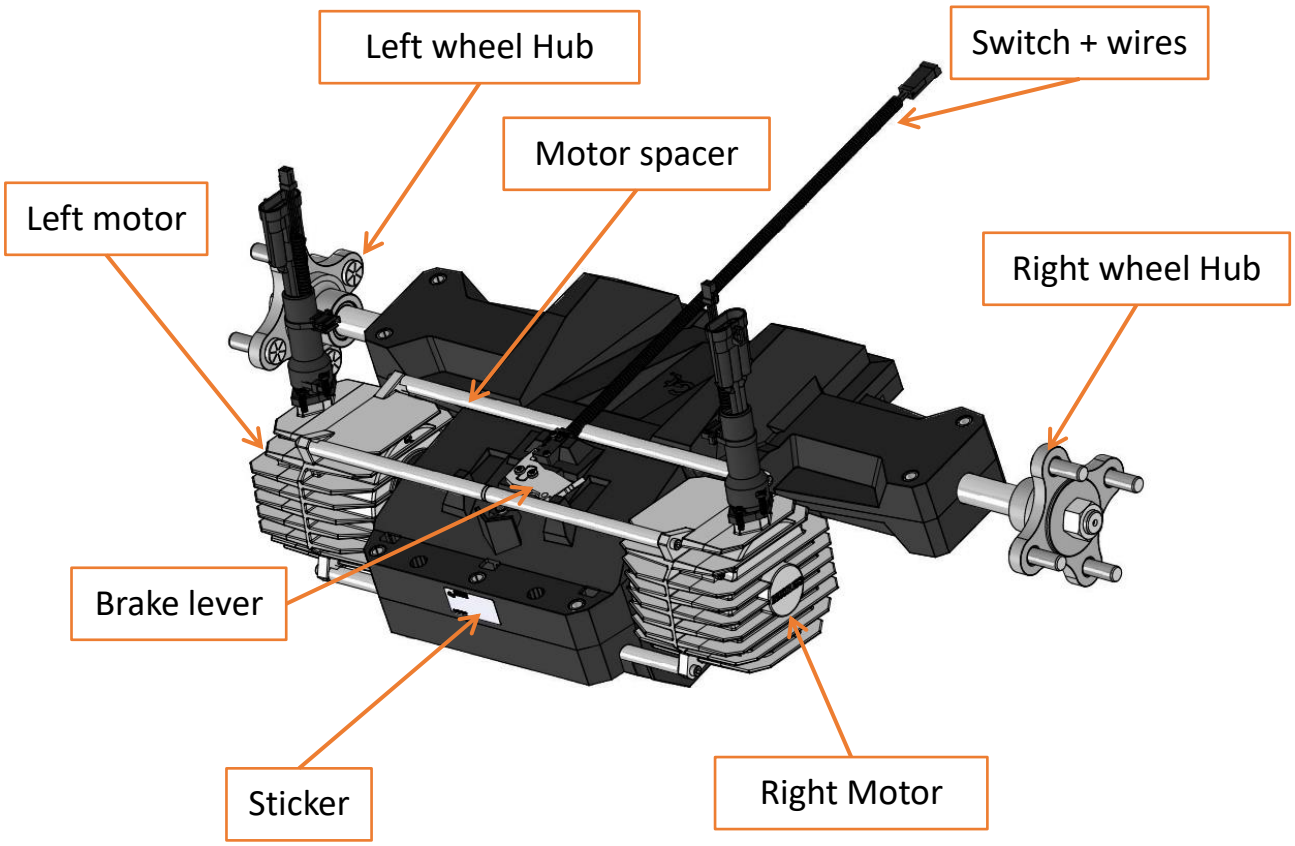
1.3 EZ 2000 transmission general description

The EZ 2000 transmission is designed to provide a drive solution for Electric Zero Turn Mower.

1.4 How to use this manual

General Transmissions recommends, before tearing down the EZ2000 transmission, to make sure that you have a clean and organize work area, as well as the required specific tools.
General Transmissions also recommends to carefully read the general instructions provided in the manual, before starting any reparation.
When detecting a potential defective component, using the troubleshooting, it is necessary to complete the Preliminary operation, to be able to make the replacement operation. The repair procedure can then be followed.
A defective component might cause premature wear or deterioration of other components. Make sure that all necessary kits have been replaced.
For all service or repair operation, respect the shop and government safety rules.

2 External Controls and Functions



3 Product identification

Find the sticker on the transmission.

(P) : Customer part number
(S): Unique identification number
87xxxxx: Part number GT-Julian day-Last digit of year

4 Safety

4.1 Personal Safety

Safety precautions must be observed while servicing or repairing the transmission. This section is to be used in conjunction with all other safety material which may apply, such as:
-Local and shop safety rules.
-Government safety laws and regulations.
Do not place speed above safety.
Wear appropriate clothing. Loose or hanging clothing can be hazardous. Use the appropriate safety equipment.

4.2 Tool Safety

Use the proper tools and equipment for the task.

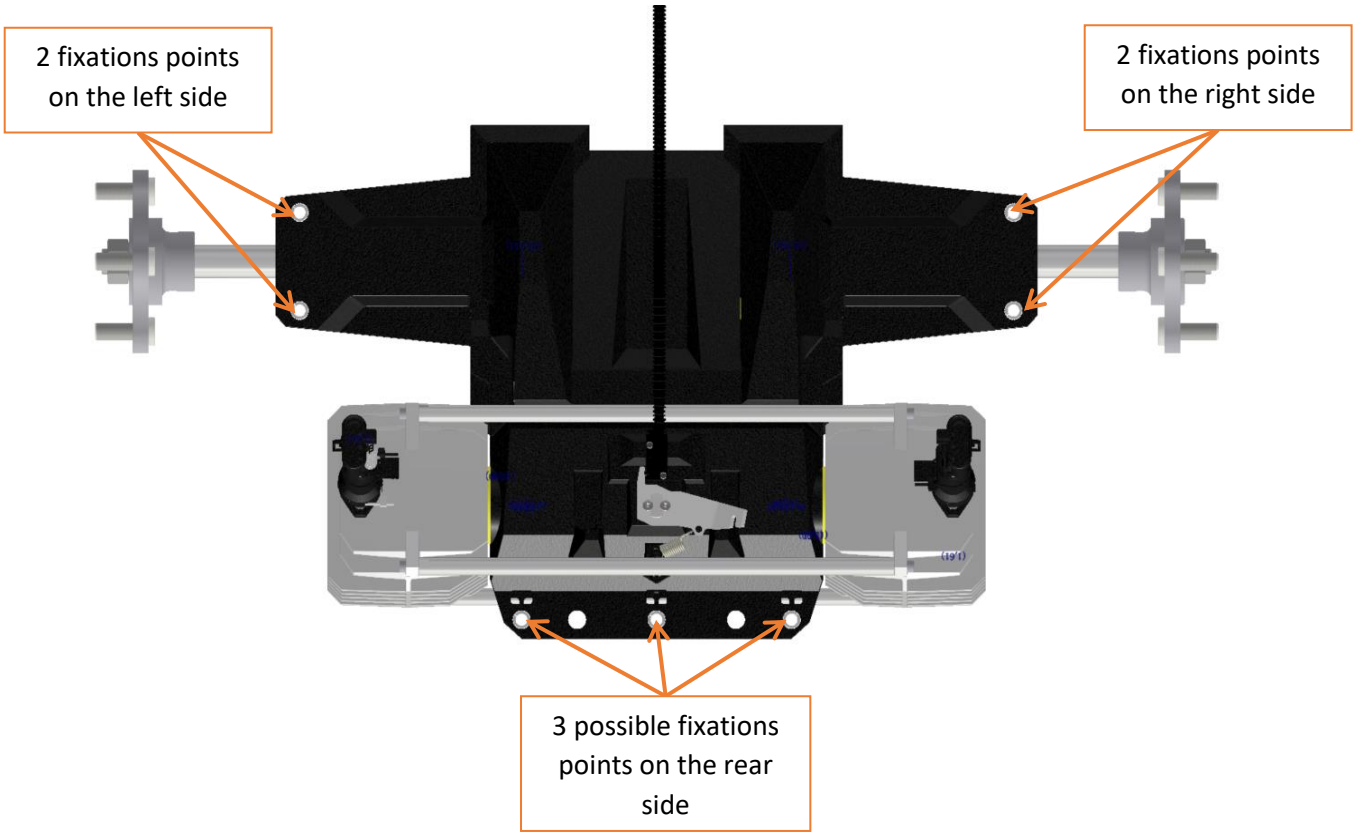
4.3 Servicing Safety

Certain procedures may require the vehicle to be disabled.

5 General Instructions

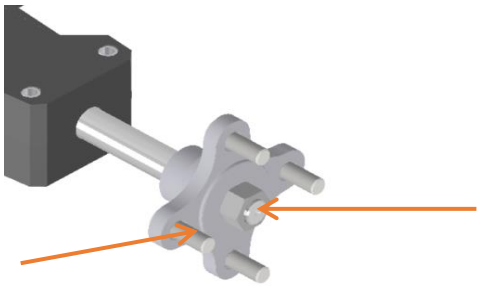
5.1 Preliminary check before tearing down the transmission

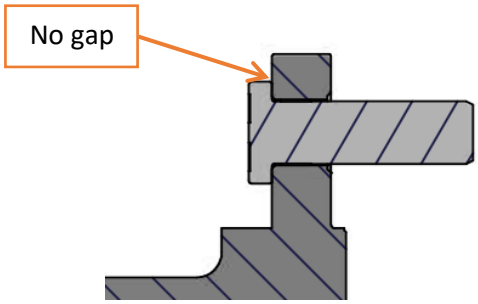
- Clean up the transmission
- Check all the linkages between tractor and transmission (see owner manual)
- Check the correct installation of the transmission (see view below)



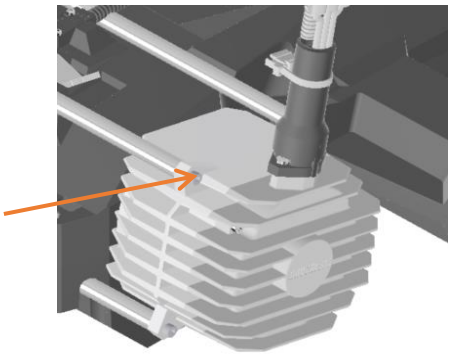
5.2 Preliminary check before re-installing the transmission

- Check the nuts is tightened / Check the stud position.

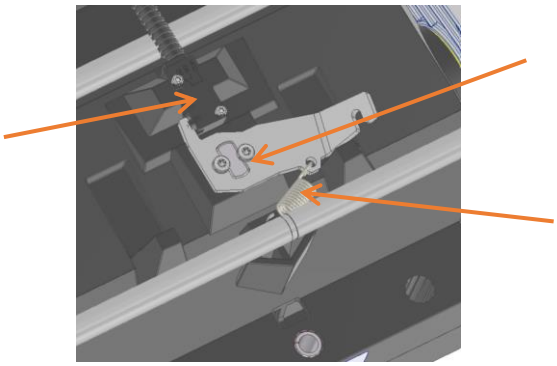




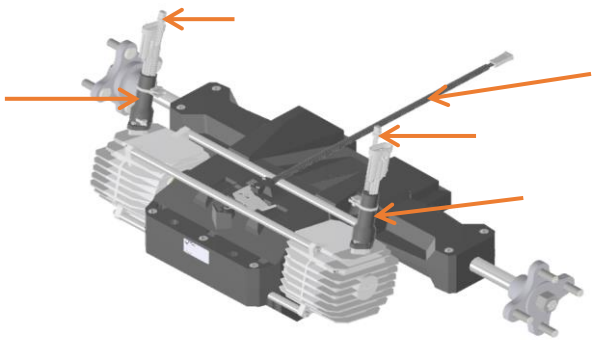
- Check the motor screws are well tightened.



- Ensure that switch and lever are in well screwed position. Check the presence of the brake spring.



- Check the integrity of the connectors and electrical wires.



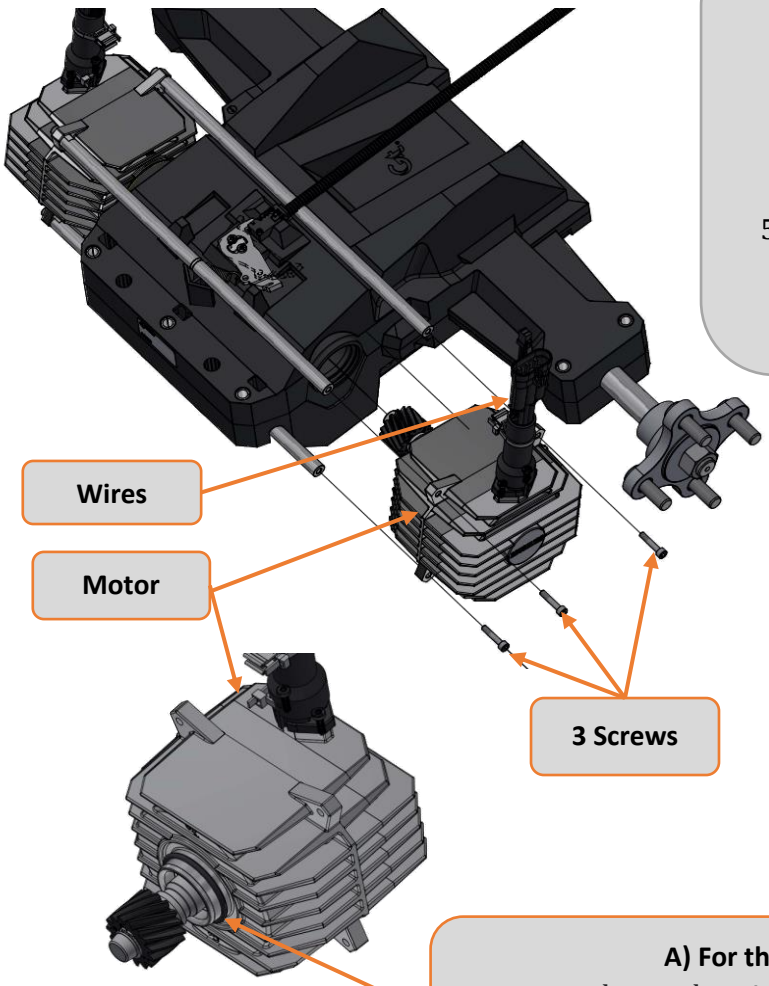
6 Troubleshooting

TROUBLESHOOTING CHECKLIST									
Customer complaints	**Potential failure**	**Component to replace**	**OP 1**	**OP 2**	**OP 3**	**OP 4**	**OP 5**	**OP 6**	**OP 7**
Loss of traction Loss of power	Motor cable damage	Motor	**R**						
	Motor broken	Motor	**R**						
	Damaged brake spring	Brake kit		**R**					
	Damaged brake switch	Brake switch			**R**				
	Hub broken	Hub				**R**			
	Output shaft broken	transmission							
	Internal failure	transmission							
Loss of pedal brake	Broken brake lever	brake kit		**R**					
Impossibility to screw the wheel nuts	Stud damaged	Stud					**R**		
Loss of brake functions	Internal failure	transmission							
Transaxle vibrations	Bad transaxle fixation	Compression limiter						**R**	
Motor spacer damaged	Deformation or bad thread	Motor spacer							**R**
R = **R**eplacement operation / **P** = **P**reliminary operation									

7 Repair Procedures

7.1 OP 1. Motor replacement

After tearing down the transmission, please follow the steps to replace the motor left or right.



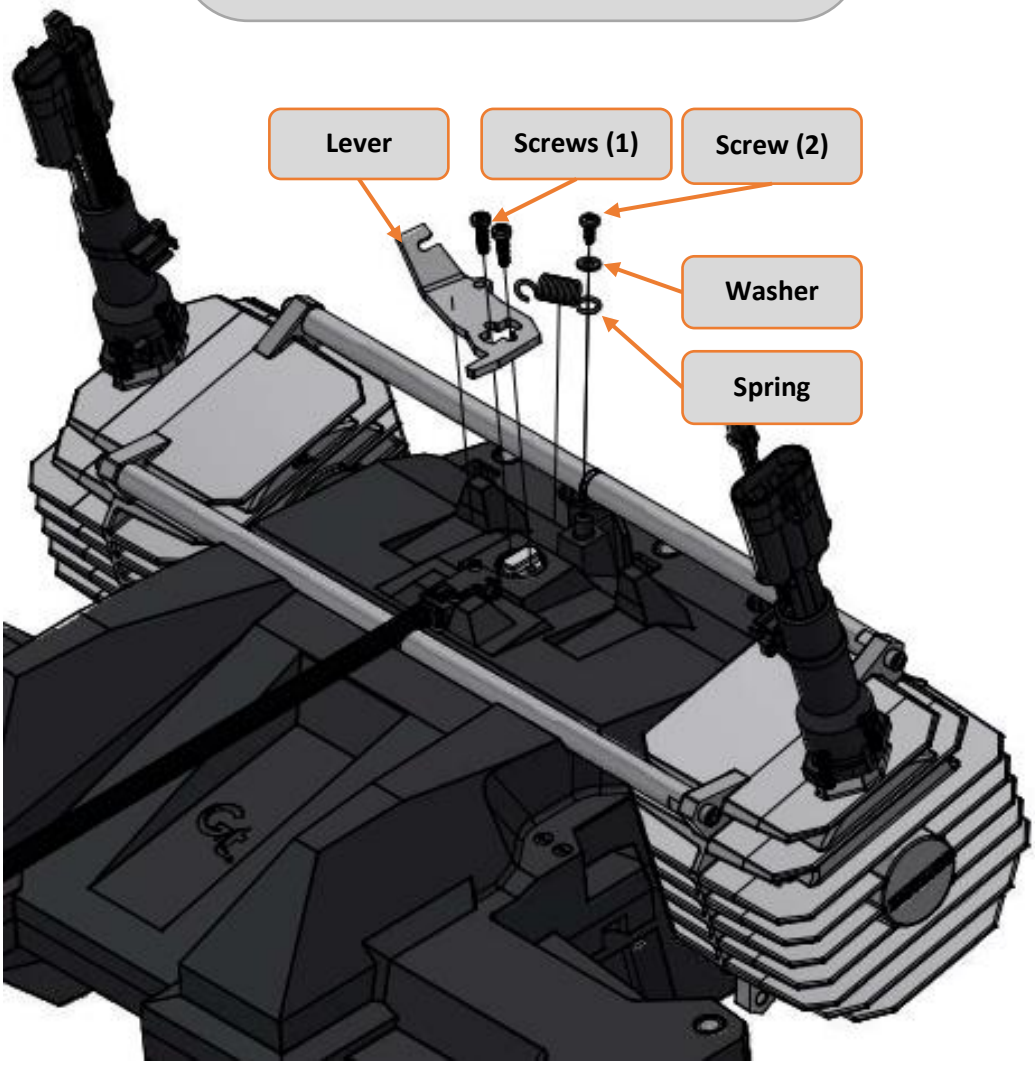
Steps to replace the motor:
1 - Unscrew the 3 screws
2 - Remove the motor and its wires
---
3 - Take the new Motor
4 - Check the point **A)**
5 - Replace the new motor with the same wires orientation
6 - Tighten the 3 screws at 6 Nm±0,1

A) For the Oring:
- ensure the good position = against shoulder
- ensure it is not twisted
- ensure the Oring is greased

Note: When reassembling the motor, respect the tightening torque of the screws:
6Nm ±0,1
Block the steel spacers using the double D shape to unscrew or tighten the 3 screws.

8 OP 2. Brake kit replacement

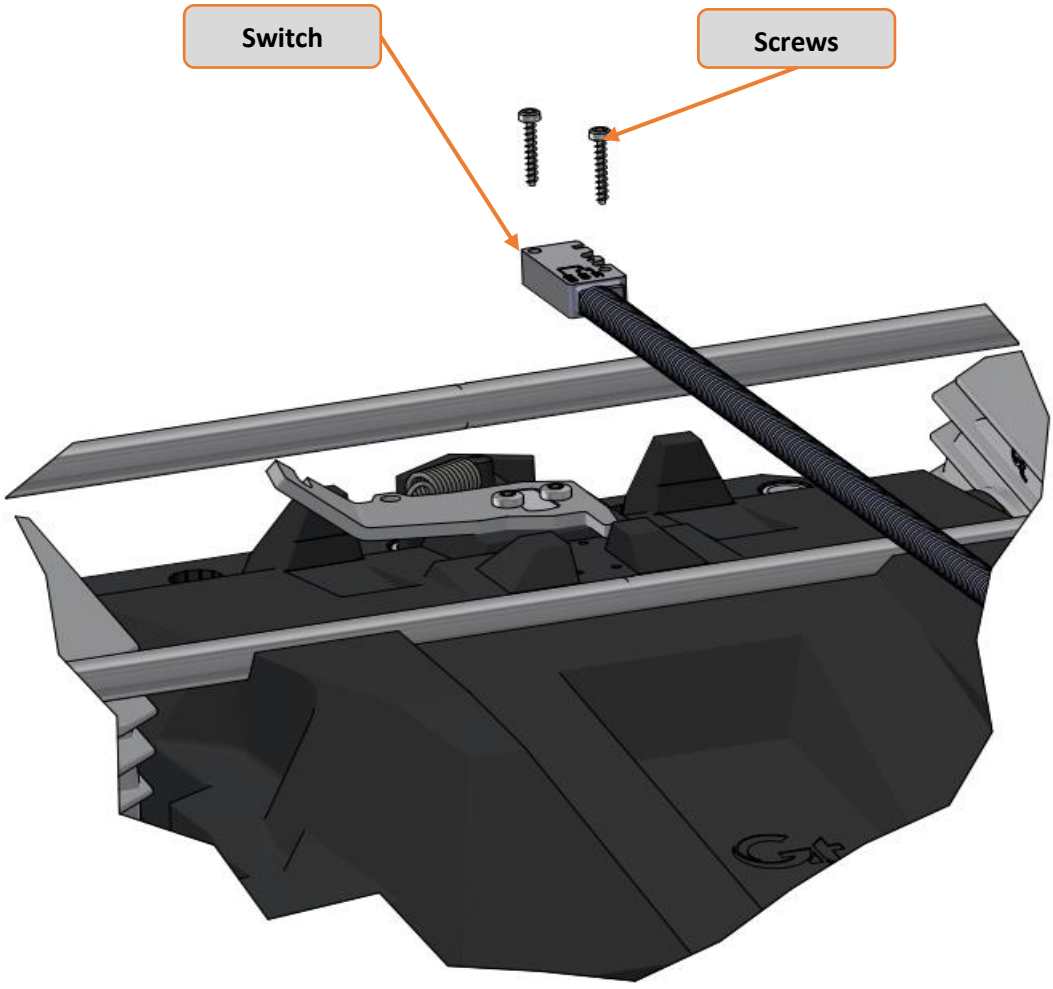
Steps to replace the brake kit:
1 - Unscrew the screw (2)
2 – Remove the spring
3 – Unscrew the 2 screws (1)
4 - Remove the lever
---
3 - Replace the new brake kit
4 - Tighten the 2 screws (1) at 3 N.m±0,1
5 – Tighten the screw (2) at 1 N.m±0,1



Note: When reassembling the components, respect the tightening torque of the screws (1) 3Nm ±0,1 and the screw (2) 1N.m ±0.1
Do not forget the washer

9 OP 3. Brake switch replacement

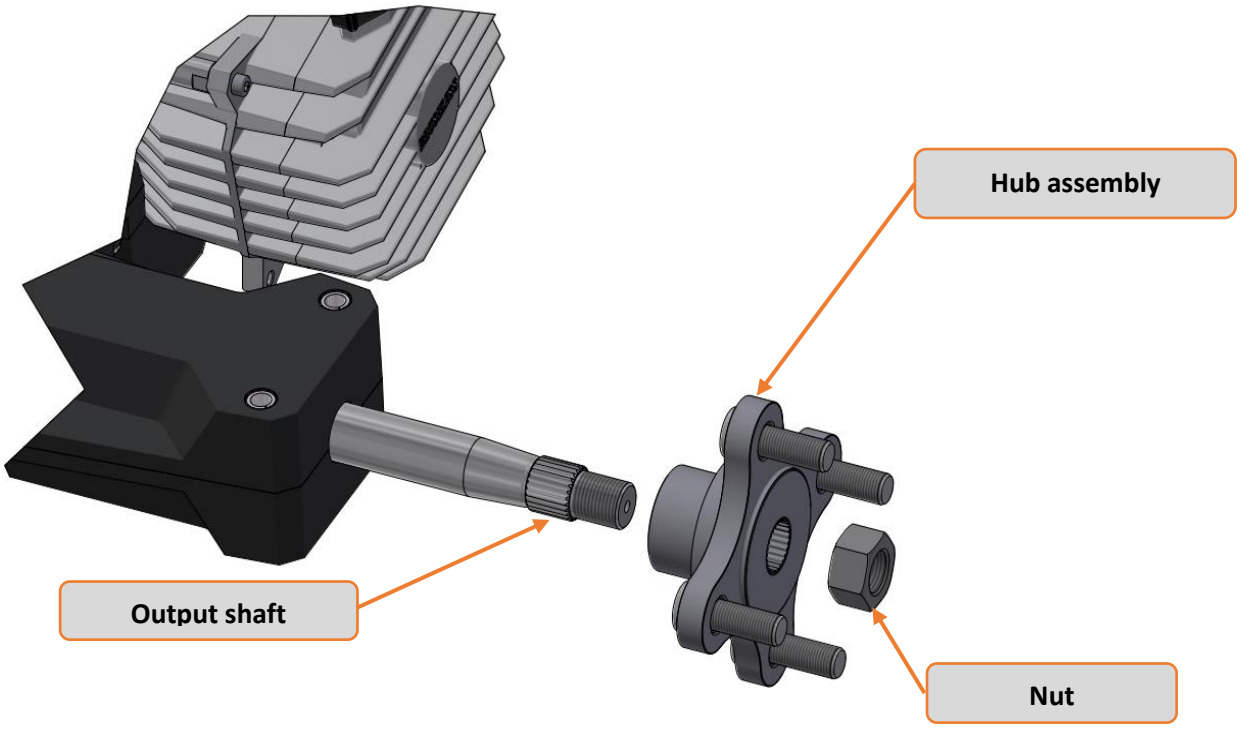
Steps to replace the brake kit:
1 - Unscrew the 2 screws
2 - Remove the switch
---
3 - Replace the new switch
4 - Tighten the 2 screws at 0,9 Nm±0,1



Note: The brake switch can easily be broken if the screwing torque is not respected.

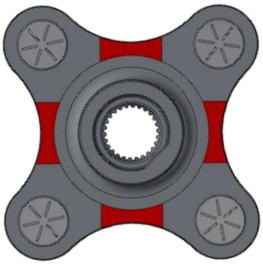
10 OP 4. Hub replacment

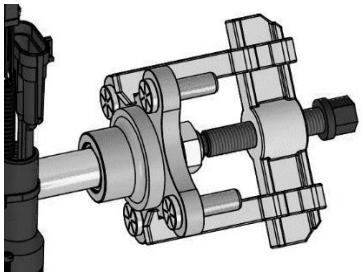
Steps to replace the hub assembly:
1 - Unscrew the nut
2 - Remove hub assembly with hub puller
---
3 - Replace the new hub assembly
4 - Tighten the nut at 295 Nm±5
(The hub must not rotate while tightening the nut)



Note:

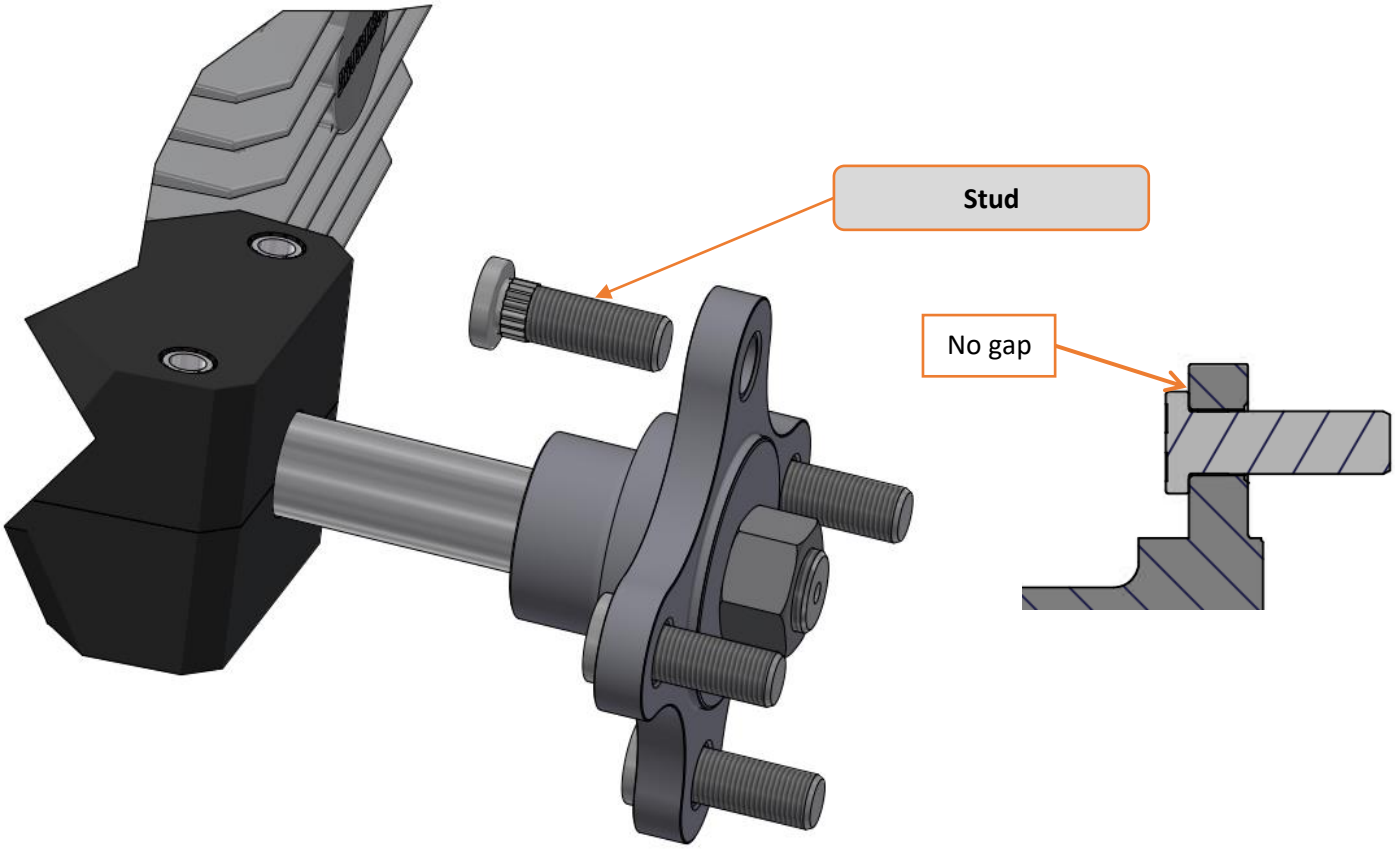
- Do not use a hammer to remove the hub.
- The hub puller must push on the shaft end, and must be put on the following red areas:





11 OP 5. Stud replacement

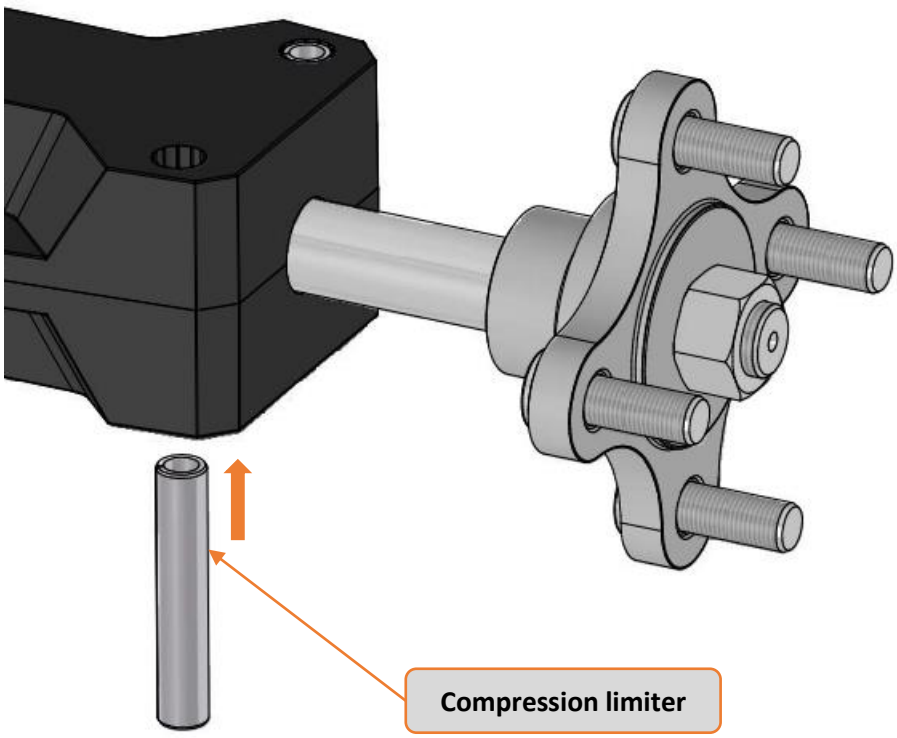
Steps to replace the Stud:
*1 - Remove the stud with a hammer *
---
2 - Grease the stud hole
3 - Refit the new stud using a wheel nut
4 - Tighten the nut until the stud is correctly positioned (tightening torque is approximately 50N.m).



***Note: the shock must not be transmitted to the shaft and absorbed by the transmission. The hub must be blocked as close as possible to the stud before starting to remove the stud.**

12 OP 6. Compression limiter replacement

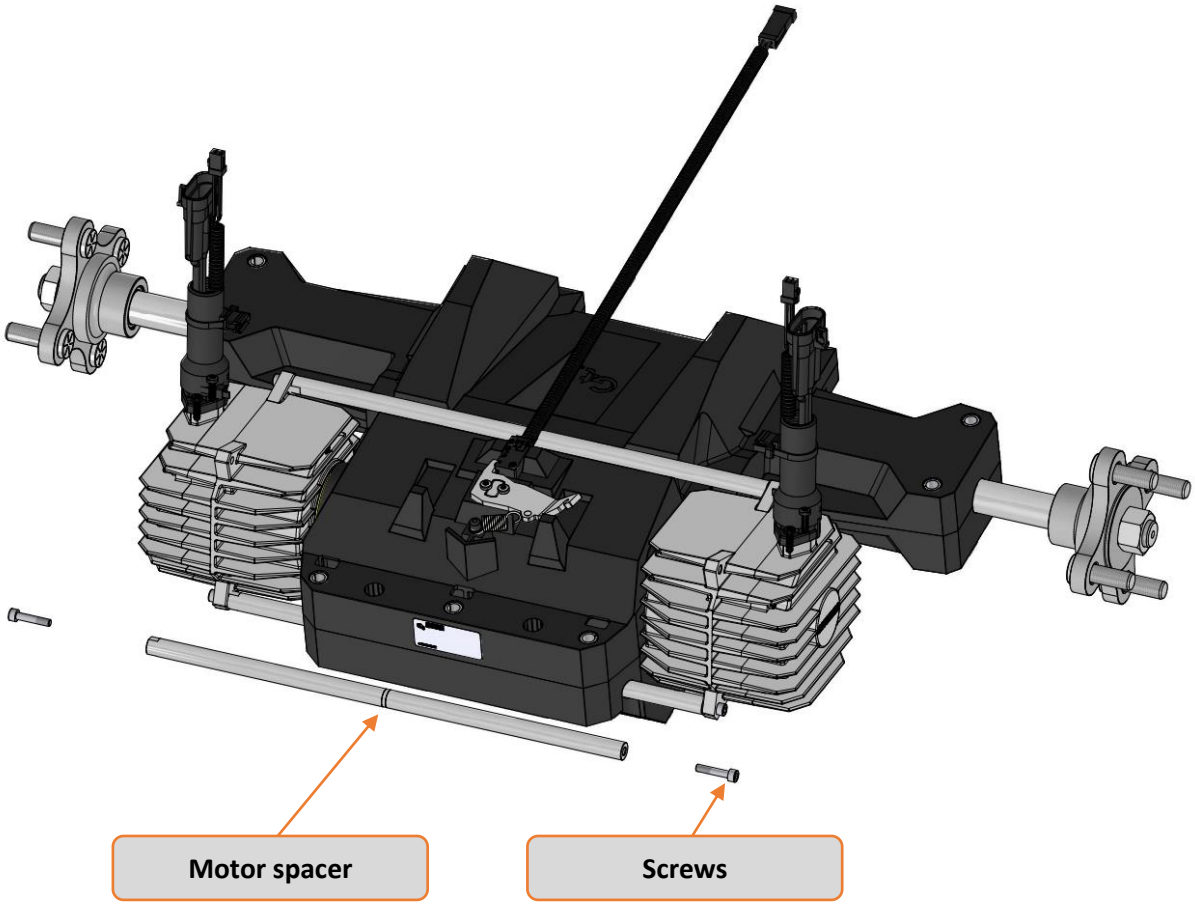
Steps to replace the compression limiter:
1 - Remove the compression limiter with a hammer and a pin
---
2 - replace the new compression limiter in the lower housing
3 - Refit the new compression limiter with a hammer



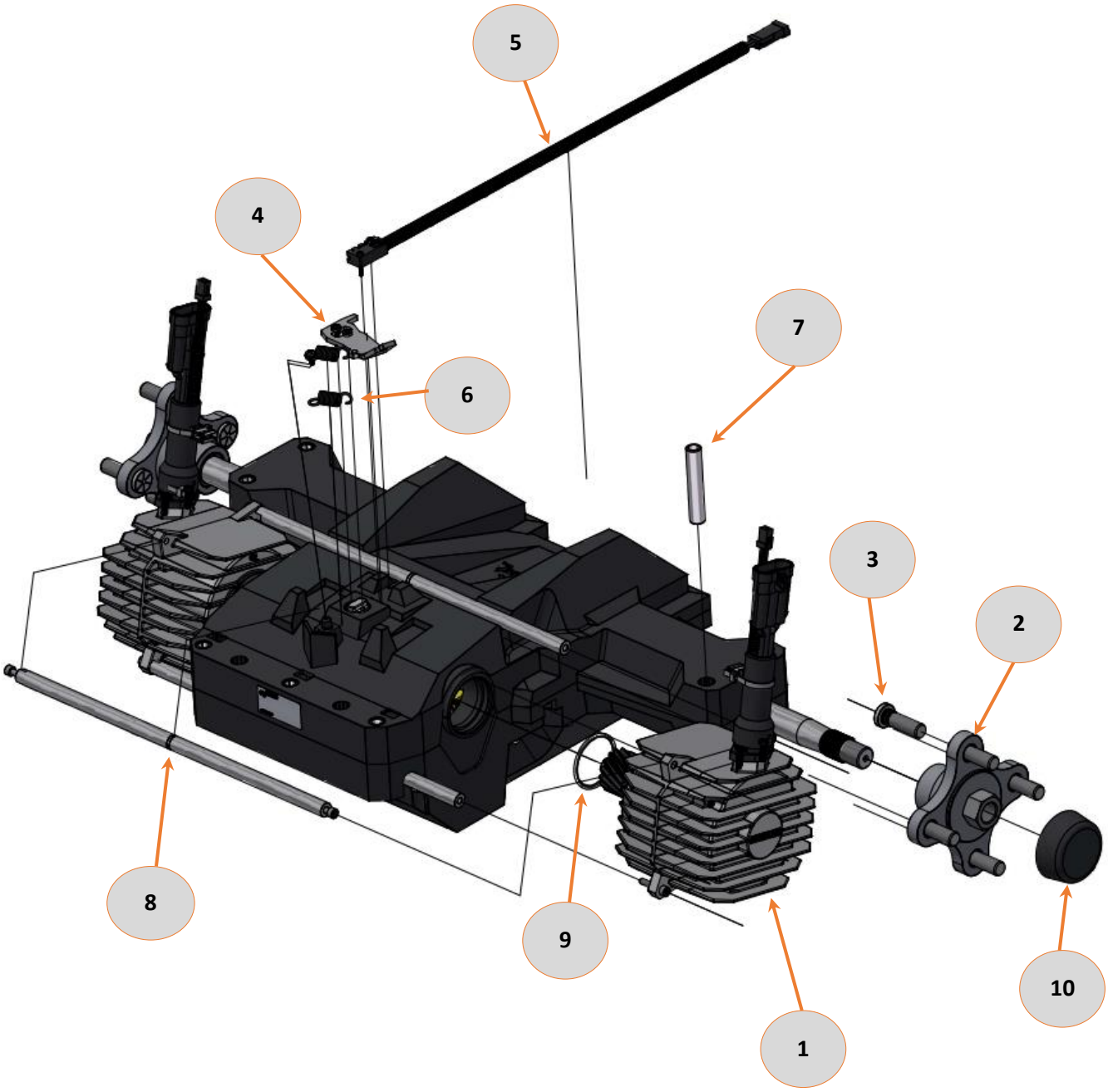
Note: Do not hit the housing as this may break it.

12 OP 7. Motor spacer replacement

Steps to replace the motor spacer:
1 - Unscrew the 2 screws
2 - Remove the motor spacer
---
3 - replace the new motor spacer
4 - Tighten the 2 screws at 6 Nm±0,1 using the two flats to stop the rotation of the spacer



13 Exploded View

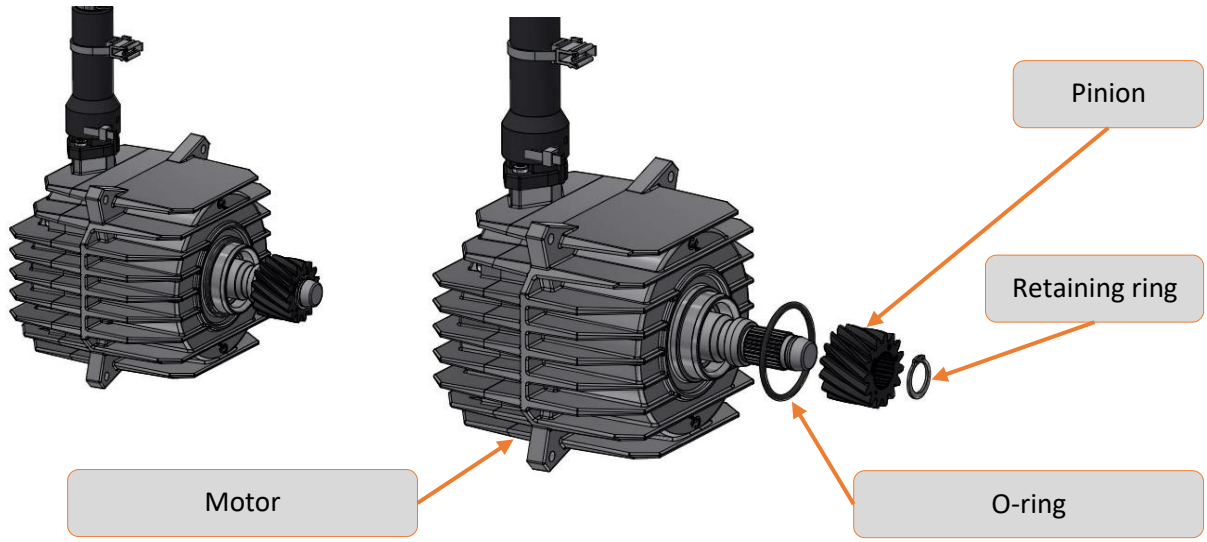


87245			87254		
item	Designation	PN	Item	Designation	PN
	Transaxle EZ2000	GT87245		Transaxle EZ2200	GT87254
1	Motor	GT79526	1	Motor	GT79526
2	Wheel hub asm & nut	GT79603	2	Wheel hub asm & nut	GT79603
3	Wheel stud	GT43632	3	Wheel stud	GT43632
4	Brake lever kit	GT79602	4	Brake lever kit	GT79602
6	Traction spring	GT01145	6	Traction spring	GT01145
7	Compression limiter	GT17270	7	Compression limiter	GT17270
8	Motor spacer & screws	GT79581	8	Motor spacer & screws	GT79581
9	Seal	GT41892	9	Seal	GT41892
10	Nut cover	GT31026	10	Nut cover	GT31026

87244			87248		
item	Designation	PN		Designation	PN
	Transaxle EZ2000	GT87244		Transaxle EZ2000	GT87248
1	Motor	GT79560	1	Motor	GT79570
2	Wheel hub asm & nut	GT79577	2	Wheel hub asm & nut	GT79577
3	Wheel stud	GT43632	3	Wheel stud	GT43632
4	Brake lever kit	GT79578	4	Brake lever kit	GT79578
5	Brake switch	GT79579	5	Brake switch	GT79579
6	Traction spring	GT01145	6	Traction spring	GT01145
7	Compression limiter	GT17270	7	Compression limiter	GT17270
8	Motor spacer & screws	GT79581	8	Motor spacer & screws	GT79581
9	Seal	GT41892	9	Seal	GT41892

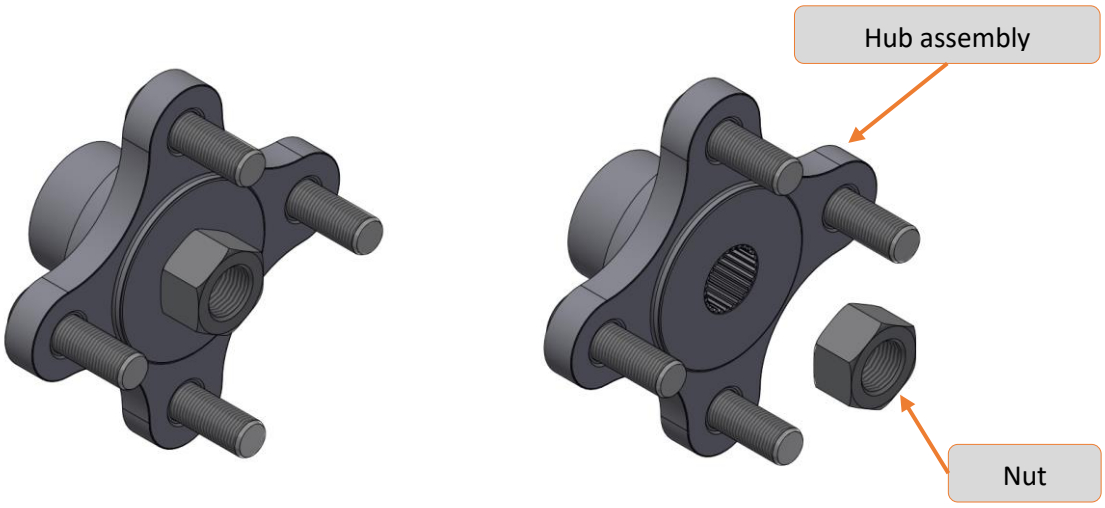
13.1 Motor kit exploded view

GT79560 or GT79570 or GT79526
The O-ring seal can be ordered alone: GT41892.



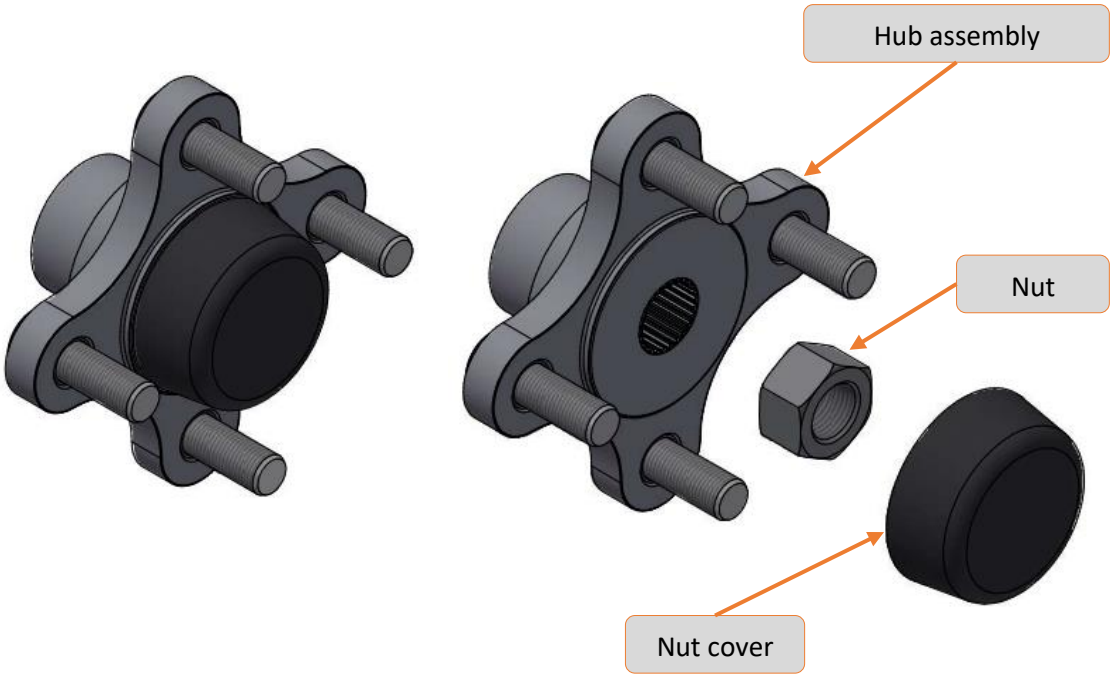
13.2 Wheel hub assembly & Nut exploded view

GT79577



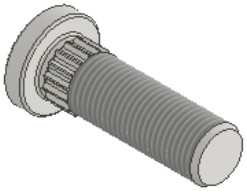
13.3 Wheel hub assembly & Nut exploded view

GT79603



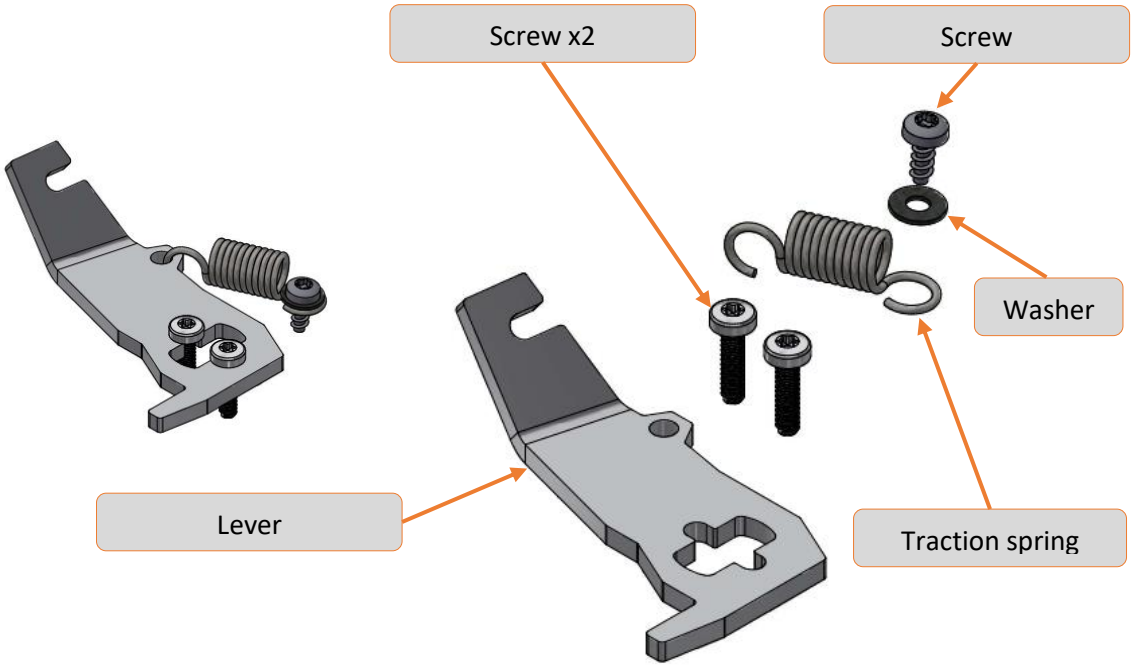
13.4 Wheel stud

GT43632



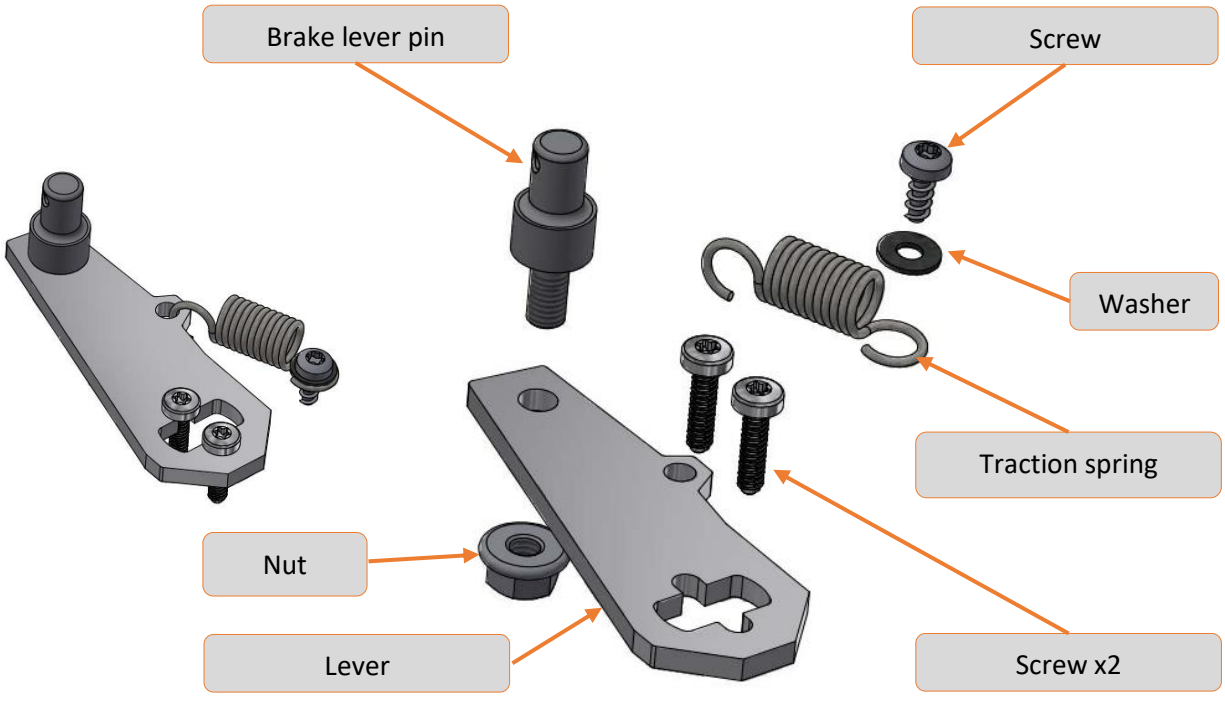
13.5 Brake lever kit exploded view

GT79578



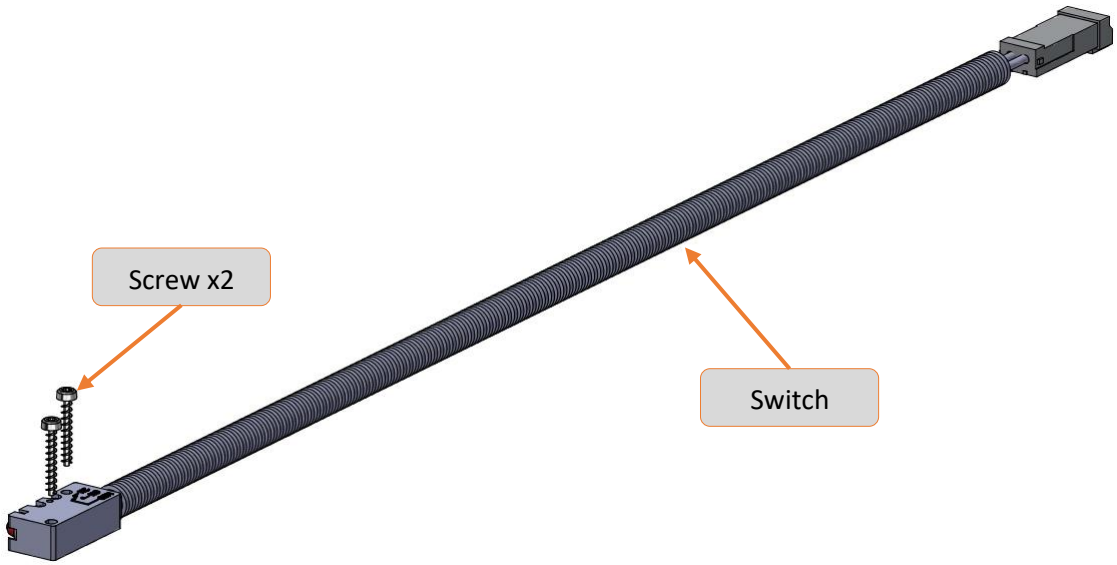
13.6 Brake lever kit exploded view

GT79544



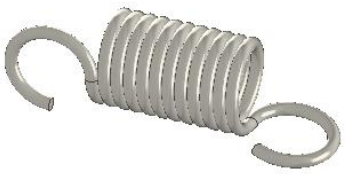
13.7 Brake switch

GT79579



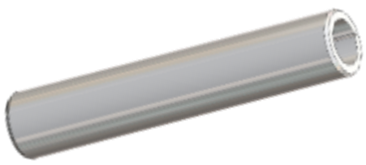
13.8 Traction spring

GT01145



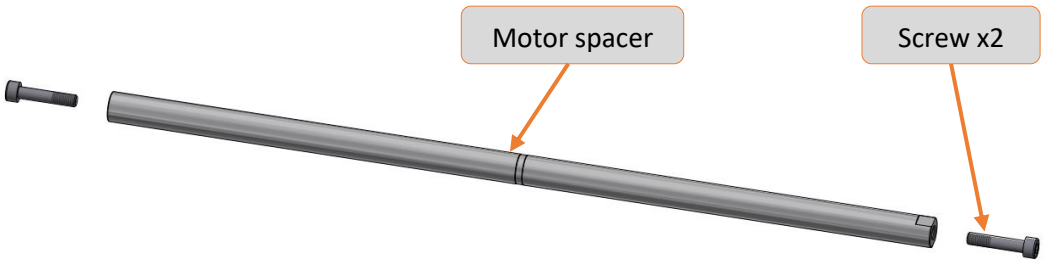
13.9 Compression limiter

GT17270



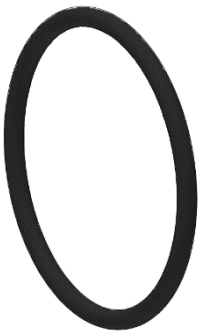
13.10 Motor spacer + Screws

GT79581



13.11 Seal

GT41892



13.12 Nut cover

GT31026

General Transmissions
BP 317 – ZI du Bois Joly Sud
2, Rue Johannes Gutemberg
85503 Les Herbiers Cedex
France

General Transmissions inc.
302 Lorenaly Drive, Suite E
Brownsville, TX 78526
USA

General Transmissions China
General Transmissions (Suzhou)
82 Ping Sheng Lu, SIP
Suzhou, 215126
P.R.China

General Transmissions inc.
27351 Spectrum way
Oak Ridge North, TX 77385
USA

After Sales Service contact:
service@generaltransmissions.com

www.generaltransmissions.com