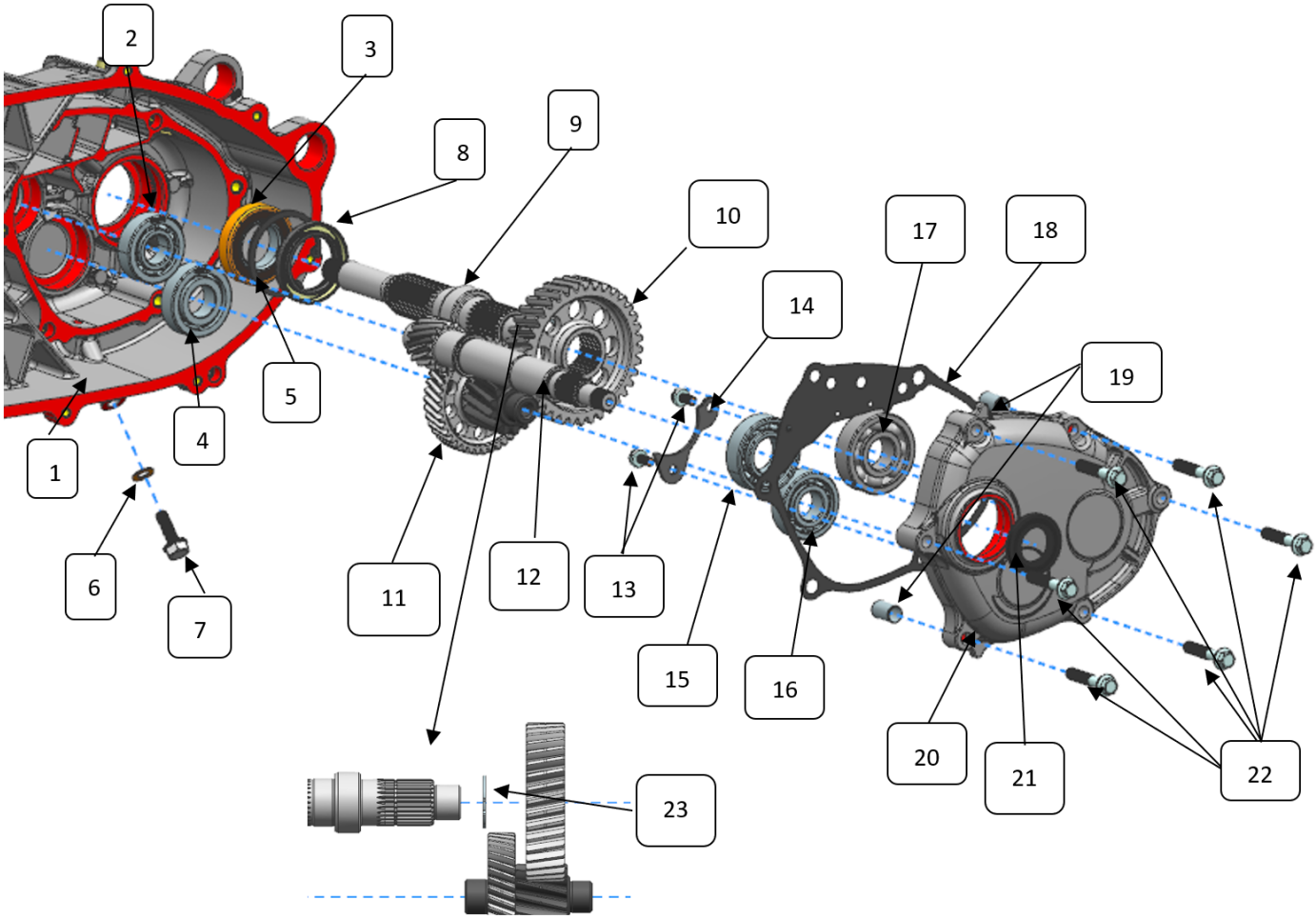
Gearbox

1. System components



Parts information

Serial number	Name	Quantity	Serial number	Name	Quantity
1	ZT1P77MP Left crankcase B	1	13	GB5789M6×12 (environmental protection color)	1
2	GB276-6204/P5C3 deep groove ball bearings	1	14	ZT1P77MP drive shaft bearing pressure plate	1
3	GB276-6006-2RS/P5C3 deep groove ball bearings	1	15	GB276 - 6205/P5C3H deep groove ball bearings	1
4	GB276 - 62/22/P5C3 deep groove ball bearings	1	16	GB276 - 6204/P5C3 deep groove ball bearings	1
5	GB893.1 circlip ϕ55 for holes	1	17	GB276 - 63/22P5C3 deep groove ball bearings	1
6	8.3×16×1.5 copper gasket	1	18	ZT1P72MN gearbox cover gasket	1
7	Non-standard bolt M8×25 (environmental protection color)	1	19	ϕ10×14 hollow positioning pin	1
8	FB38×56×7 hydrogenated nitrile oil seal	1	20	ZT1P77MP gearbox cover B	1
9	ZT1P79MP output shaft	1	21	FB25×42×6 fluorine rubber oil seal	1
10	ZT1P79MP output gear	1	22	GB16674M8×40 (environmental protection color zinc)	1
11	ZT1P79MP double gear assembly	1	23	GB894.1 circlip for shaft ϕ29×1.5	1
12	ZT1P79MP drive shaft	1			1

2.Maintenance information

General information

Gear box oil quantity

Maintainance		Oil volume
Gearbox oil	Routine maintenance (without disassembling the gearbox)	200ml
	Non-routine maintenance (disassembly of gearbox)	230ml

Bolt torque value

Bolt model	Assembly position	quantity	Torque (N.m)	Remark
GB16674M8×40 (environmental protection color zinc)	Gear case cover locking bolt	6	20±2.5	-
GB5789M6×12 (environmental protection color)	6205 bearing platen bolts	2	1 0 ± 0.5	Apply thread glue
Non-standard bolt M8×25 (environmental protection color)	Gearbox oil drain bolt	1	20±2.5	-

Tool

1.T bar-10#
2. Circlip pliers for shaft
3. Fixed torque wrench
4.10# Extended socket head
5.14# socket head

3. Fault phenomenon/fault analysis

3.1. The gas pedal of the engine runs normally, but the motorcycle does not move

· Damage of the drive shaft, output shaft, double tooth keyway or helical teeth in the gearbox causes the idling rear wheel to not move.

· The gears or bearings in the gearbox are stuck, causing the motorcycle to be unable to move (the rear wheels cannot rotate at this time).

3.2. There is abnormal noise in the gearbox

· Gears are worn, and the gear meshing surface is corroded or damaged.

• Bearings are worn or damaged.

3.3. Gearbox oil leakage

· The oil seal is worn or damaged.

· The locking bolts of the gearbox are loose or the joint surface of the gearbox cover leaks oil.

4. Disassembly and decomposition of the gearbox

When disassembling the gearbox, the engine does not need to be removed from the vehicle, but the gearbox oil needs to be drained and the following parts removed.

Drain the gearbox oil.

The parts to be disassembled are as follows:

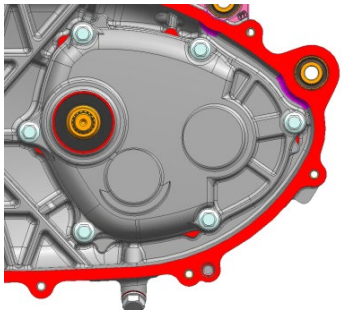
·Left crankcase cover (**Refer to ZT1P79MP engine maintenance manual -- left crankcase cover, continuously variable clutch subassembly -- left crankcase cover**)

·CVT assembly (**Refer to ZT1P79MP engine maintenance manual -- left crankcase cover, CVT clutch sub-assembly -- CVT clutch sub-assembly**)

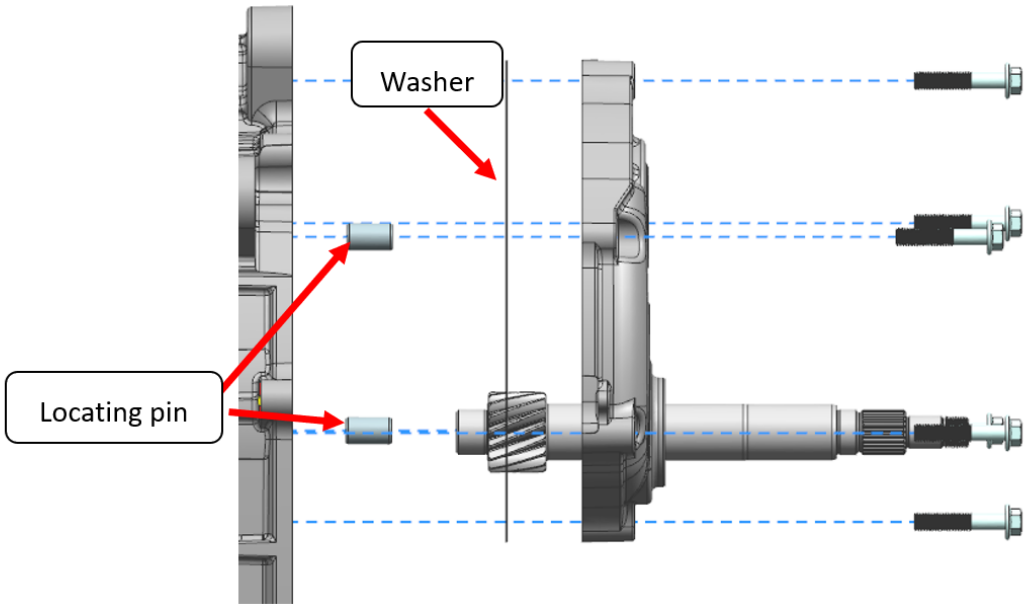
·Rear brake oil pipe, rear rocker arm assembly

·Rear wheel assembly

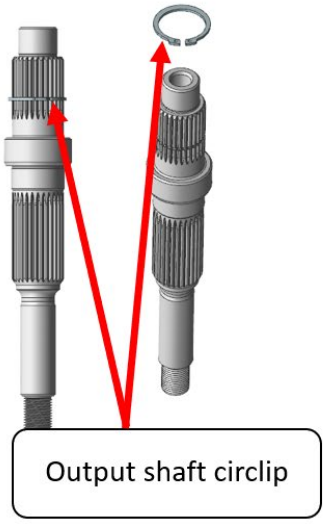
1. As shown in the picture, use T bar -10# to remove the 6 GB16674M8×40 locking bolts of the gearbox cover.

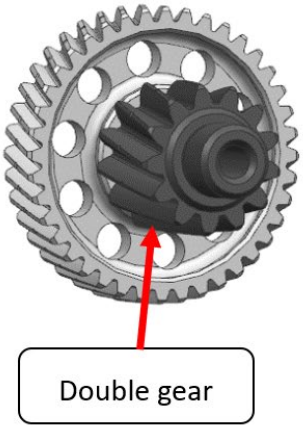


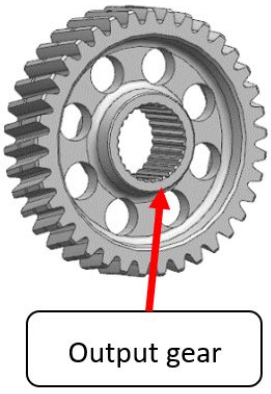
2. As shown in the figure, remove the gear case cover, gear case cover gasket and positioning pin in sequence.



3. As shown in the figure, remove the output gear, duplex gear assembly, output shaft and output shaft retaining ring in sequence.



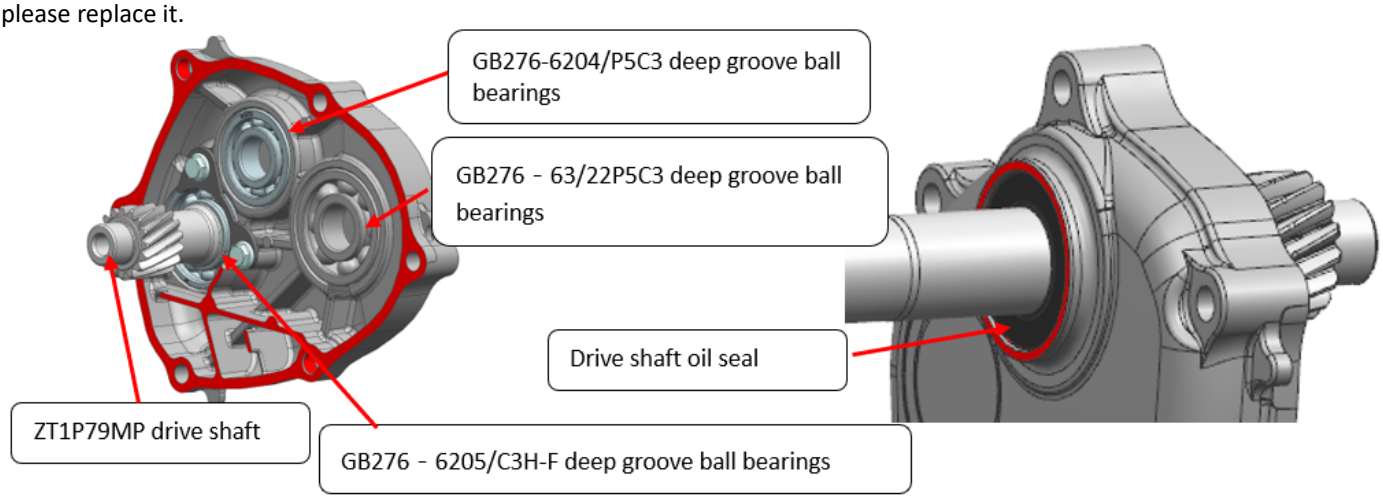




5. gearbox gear, bearing inspection

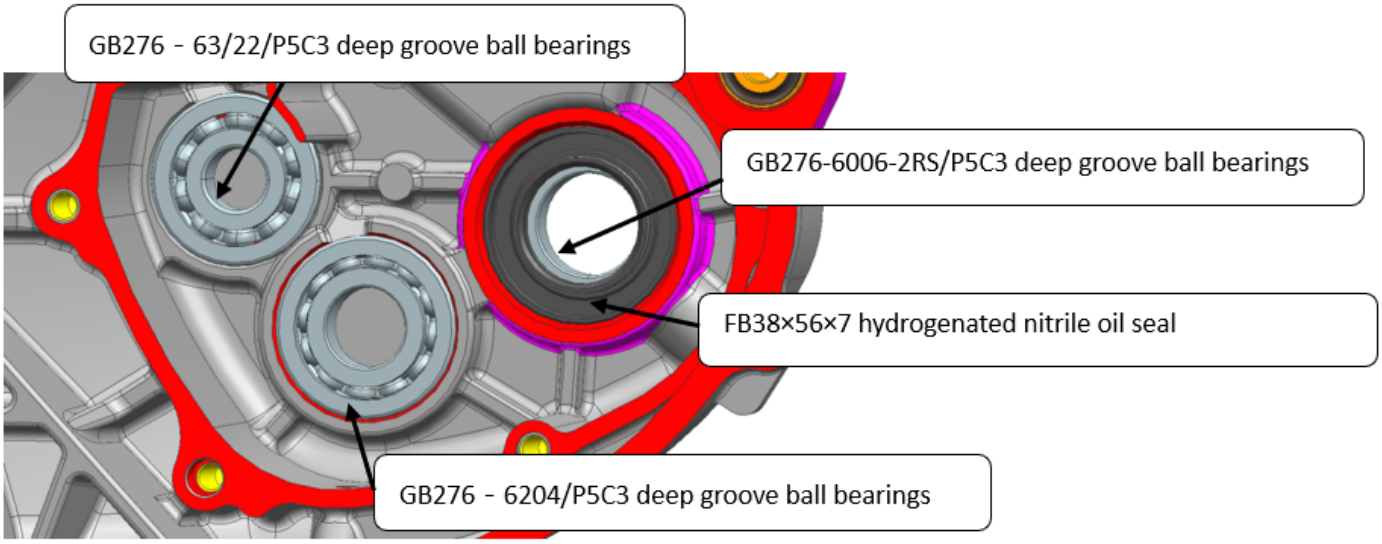
Gearbox cover bearing and oil seal inspection

1. As shown in the figure, turn the inner ring of the bearing by hand, the bearing will rotate smoothly and silently, and turn the drive shaft by hand, the bearing of the drive shaft will rotate smoothly and silently. If the bearing rotation is stuck, please replace the bearing. Check the drive shaft oil seal, there is no scratch or abnormal wear on the oil seal, if it is scratched or abnormal wear, please replace it.



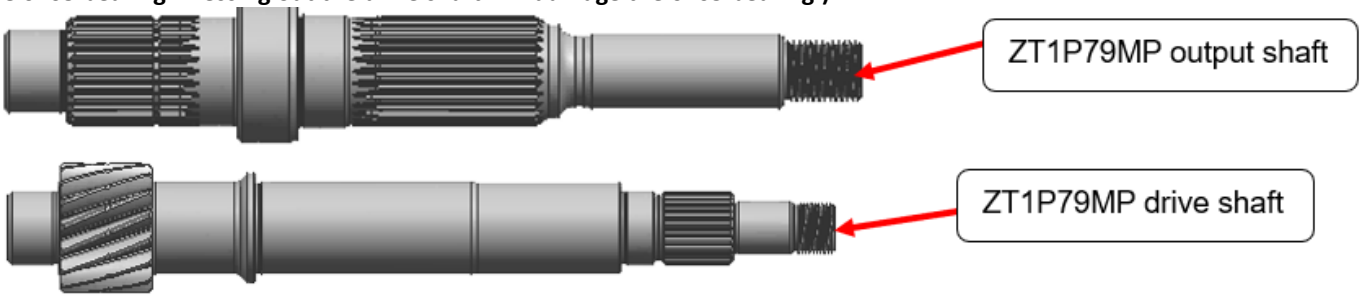
Inspection of left crankcase bearing and oil seal

1. As shown in the figure, turn the inner ring of the bearing by hand, and the bearing will rotate smoothly and silently. If the bearing rotates stuck, please replace the bearing. Check the output shaft oil seal, there is no scratch or abnormal wear on the oil seal, if it is scratched or abnormal wear, please replace it.

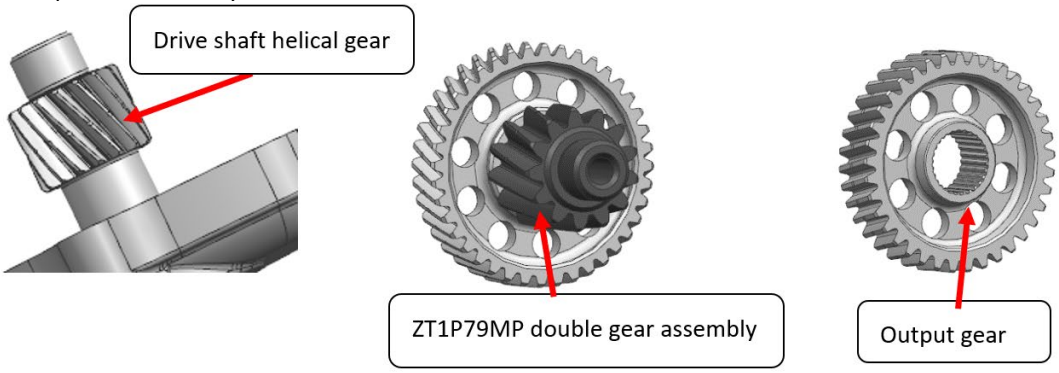


Drive shaft, output shaft, duplex gear inspection

1. As shown in the figure, check the position of the drive shaft, output shaft and splines for bending deformation and abnormal wear. If so, please replace them. **(Note: If the drive shaft has no obvious problems, it is not recommended to press it out from the 6205 bearing. Pressing out the drive shaft will damage the 6205 bearing.)**



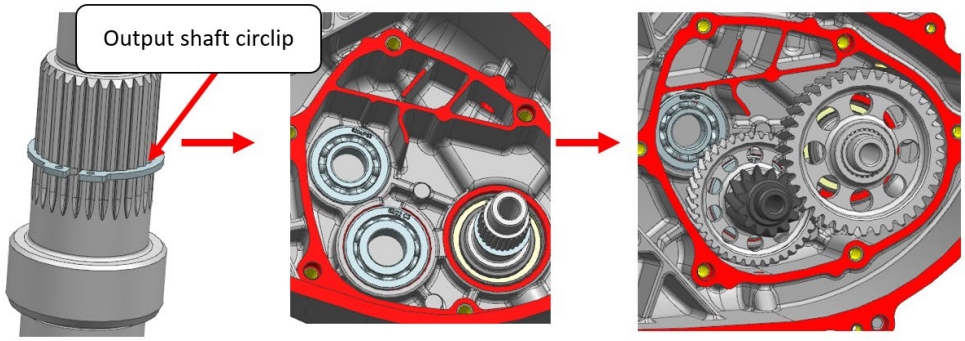
2. As shown in the figure, check the duplex gear assembly, output gear, and drive shaft helical teeth for abnormal wear and corrosion, and replace them if any.



6. Gear box assembly

Before the gear case cover is installed, remove oil stains and residual paper pads on the joint surface of the gear case cover, and check the joint surface of the gear case cover to ensure that there are no scratches or bumps.

1. As shown in the figure, apply engine oil on the bearing surface of the gear chamber of the left crankcase, insert the output shaft with the output shaft retaining ring installed into the corresponding position of the left crankcase (there will be a bang when the output shaft is installed in place), and then insert the double gear assembly and the output shaft gear are installed in place.



2. As shown in the figure, the positioning pin and the new gearbox cover paper pad are placed on the joint surface of the gearbox, apply engine oil on the bearing surface of the gear box cover, install the gear box cover in place, put in 6 M8×40 bolts in sequence, pre-tighten diagonally from the position of the positioning pin and tighten it with a fixed torque, the torque is 20± 2.5N.m .