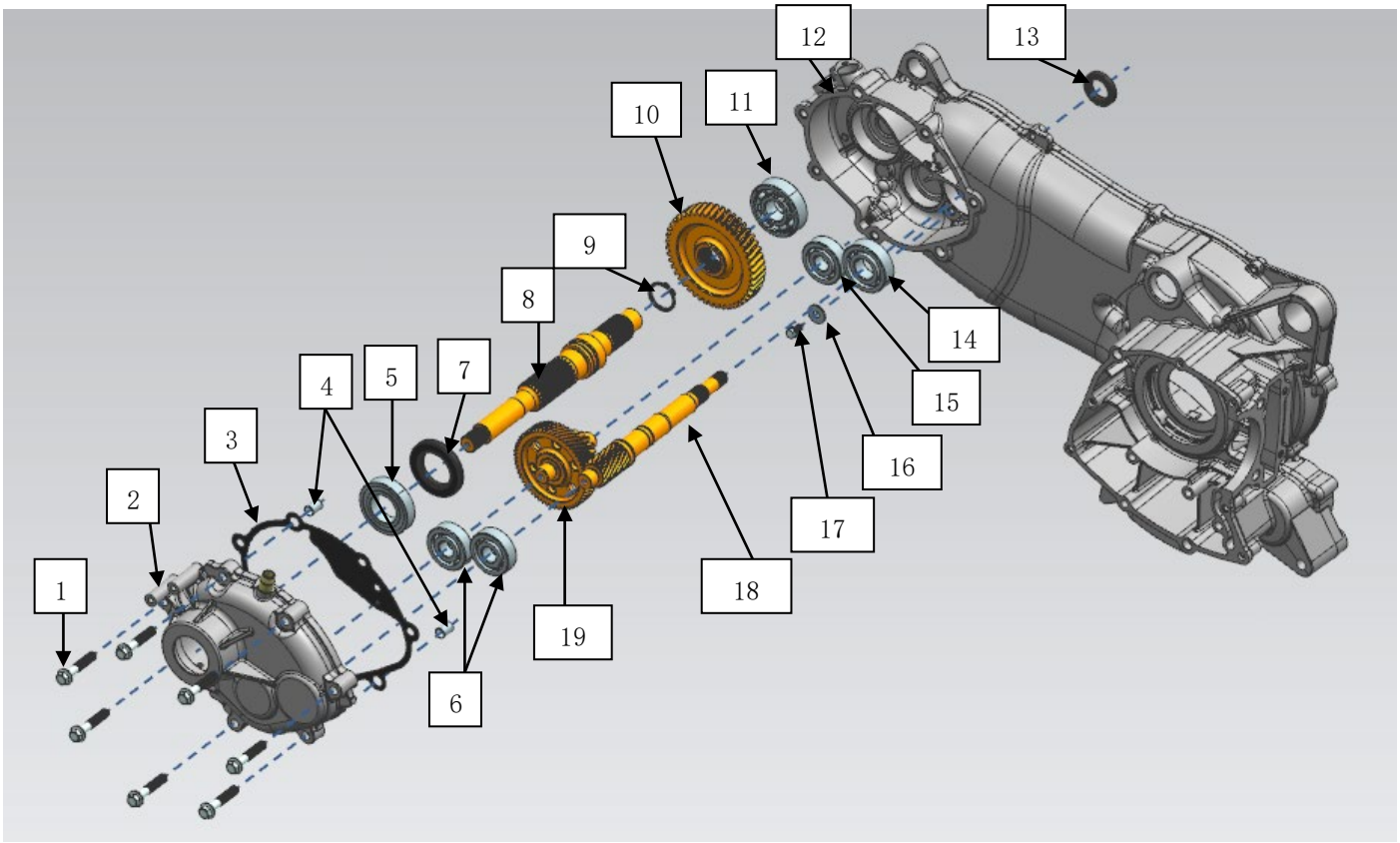
Gearbox

System components



No.	Name	Quantity	No.	Name	Quantity
1	Gb16674m8×40 (zinc)	7	12	ZT1P58MJ left crankcase	1
2	ZT1P58MJ gear box cover	1	13	Fb20×32×6 fluorine rubber oil seal	1
3	ZT1P58MJ gearbox cover gasket	1	14	Gb276-6204/p5c3 deep groove ball bearings (nitro enation)	1
4	Φ10×14 hollow positioning pin	2	15	Gb276-6302/p5c3 deep groove ball bearings (nitrided)	1
5	Gb276-60/28-2rk deep groove ball bearings (koyo)	1	16	6.2×19×2.5 spacers	1
6	Gb276-6302/p5c3 deep groove ball bearings (nitrided)	2	17	Gb5789m6×12 (zinc)	1
7	Fb35×54×7 fluorine rubber oil seal	1	18	ZT1P58MJ drive shaft	1
8	ZT1P58MJ output shaft	1	19	ZT1P52MI double gear subassembly	1
9	Gb894.1 shaft circlip ϕ25	1			
10	ZT1P52MI output gear	1			
11	Gb276-6304/p5c3 deep groove ball bearing	1			

Bolt torque value:

Bolt model	Assembly position	Quantity	Torque (N.m)	Remark
Gb16674m8×40 (zinc)	Gear case cover locking bolt	7	20±2.5	-
Gb5789m6×12 (zinc)	6204 bearing platen bolts	1	1 0 ± 1	Apply thread glue
Non-standard bolt m8×25 (zinc)	Gearbox oil drain bolt	1	20±2.5	-

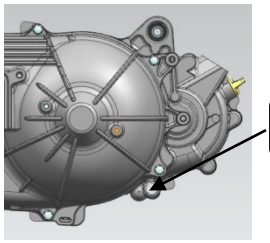
Gear case cover

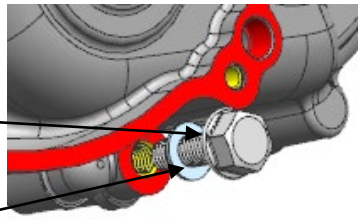
Assembly

When disassembling the gearbox, the engine does not need to be removed from the motorcycle, but the gearbox oil needs to be released.

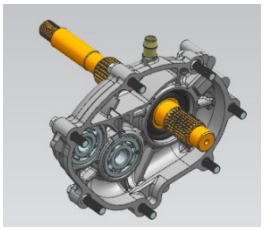
1. Use a t-shaped sleeve -14# to remove the non-standard bolt m8×25 and copper gasket at the bottom of the gearbox, and release the gear chamber oil.

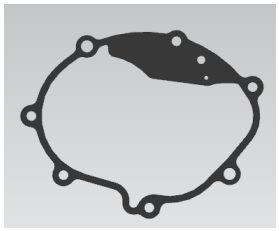
8.3×16×1.5 copper gasket after the engine oil is released, and pre-tighten it with a t-shaped sleeve -14# , tighten the bolt with a fixed torque wrench and set the torque to 20±2.5 N.m)



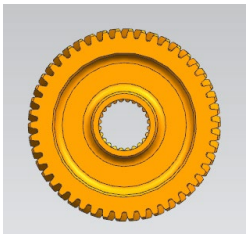


1. Use a t-shaped sleeve -10# to remove the gear box cover locking bolt, and then remove the gear box cover, gear box cover gasket, and positioning pin in sequence.





Then remove the output gear, duplex gear assembly, output shaft and output shaft retaining ring in sequence.



output gear

ZT1P52MI double gear

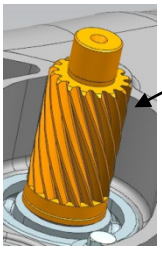
Output shaft

Inspection

1. **Check the gear case cover bearing and oil seal.** Turn the inner ring of the bearing by hand, and the bearing turns smoothly and silently. If the bearing rotation is 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.

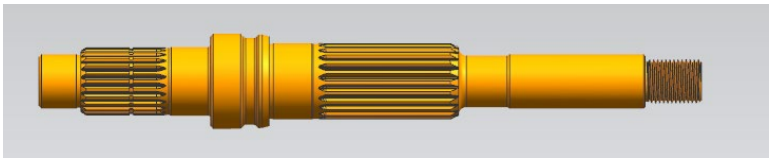
2. **Check the left crankcase bearing and oil seal.** Turn the inner ring of the bearing by hand, the bearing will rotate smoothly and silently, if the bearing rotates stuck, please replace the bearing. Check the drive shaft oil seal, there is no scratch or abnormal wear on the oil seal, if it is scratched or abnormal wear, please replace it.

3. **Check the duplex gear assembly, output gear, and drive shaft helical teeth** for abnormal wear and corrosion, and replace them if any.

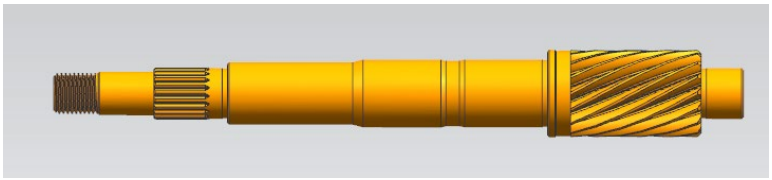


4. **Check the spline position of the drive shaft and output shaft** to see if there is any bending deformation or abnormal wear. If so, please replace it.

(note: if there is no abnormality in the drive shaft, it is not recommended to take it out from the left box. Taking it out will damage the 6204 bearing; if the drive shaft is abnormal, please remove the 6204 bearing pressure plate bolt and pressure plate to replace the drive shaft and 6204 bearing.)



Output shaft



Drive

Install

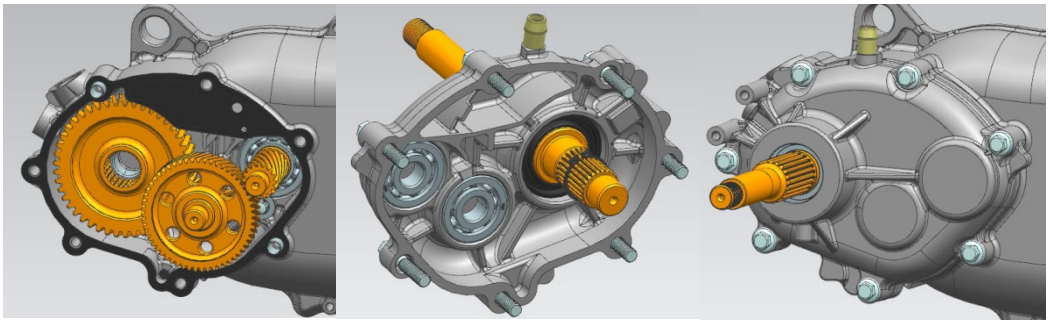
Before the gear case cover is installed, remove oil stains and residual paper pads on the joint surface of the gear case cover, and check the joint surface of the gear case cover to ensure that there are no scratches or bumps.

1. Spray engine oil on each bearing in the gearbox, install the duplex gear assembly and output gear in sequence, and spray engine oil on each part in the same way.

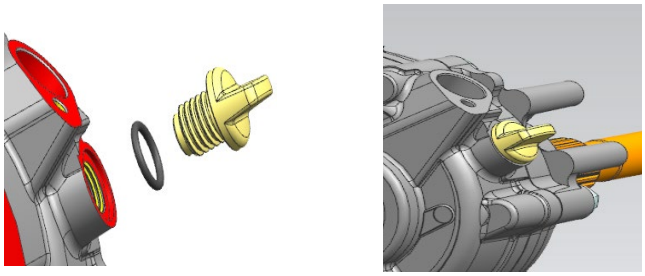
Assemble the output shaft with the retaining ring fully installed on the gearbox cover subassembly.

Put two positioning pins and a brand-new gearbox cover paper gasket on the joint surface of the gearbox, apply engine oil on the bearing surface of the gearbox cover, install the gearbox cover in place, and put in 7 pieces of gb16674m8×40 (zinc) in sequence the bolts are pre-tightened diagonally from the position of the positioning pin and tightened with a fixed torque, the torque is 20±2.5N.m .

(requirement: after the gearbox assembly is completed, there is no stagnation or abnormal noise when the drive shaft is rotated)



2. Manually unscrew the oil filler cap of the gearbox, add 170ml of engine oil, screw in the oil filler nut after refueling and tighten it.



Maintenance		Oil volume
Gearbox oil	Routine maintenance (without disassembling the gearbox)	160ml
	Non-routine maintenance (disassembly of gearbox)	170ml

3. After the assembly is completed, wipe off the oil stains around the gear case cover.