

Chapter 24C

CENTRE HOUSING, DISMANTLING

Contents

	<i>Page</i>		<i>Page</i>
Dismantling the drive assemblies	3	Removing bearings from the centre housing	2
Horizontal drive	3	Removing the drive assemblies	1
Lower vertical drive	3	Horizontal drive.. .. .	2
Upper vertical drive	3	Upper and lower vertical drives ..	1
General	1		

Illustrations

	<i>Fig.</i>		<i>Fig.</i>
Centre housing assembly	1	Press block T.74929 and three-pin adapter T.78599 for removing ball bearing from top vertical drive gear	6
Vice block T.74912 and spanner T.72556 for removing horizontal drive ring nut	2		
Pot fixture T.74923 and adapter T.73032 for removing horizontal drive from centre housing	3	Vice block T.74910 and spanner T.74911 for removing ring nut from horizontal drive shaft	7
Extractor T.78408 for removing the upper vertical drive outer roller race.. .. .	4		
Adapter T.78425 and extractor T.78409 for pressing out lower vertical drive outer roller race.. .. .	5	Vice block T.74910 and extractor T.74926 for removing roller inner race from horizontal drive shaft	8

THIS CHAPTER, which is applicable to both the Ghost 48 Mk. 1 and the Ghost 48 Mk. 2, contains instructions for dismantling the centre housing assembly, Fig. 1, after it has been removed from the air-intake in accordance with the instructions given in chapter 23. The general information contained in chapter 22 should be referred to as necessary.

REMOVING THE DRIVE ASSEMBLIES

Upper and lower vertical drives

1. Clamp the centre housing in vice block T.74912, Fig. 2. Unlock and remove the four $\frac{5}{16}$ in. B.S.F. nuts and tab washers which secure the upper vertical gear bearing housing.
2. Remove the housing from the assembly complete with the laminum adjusting washer, the upper ball bearing and the upper vertical bevel gear; tie the adjusting washer to the housing. (Pre-mod. 1148, this upper ball bearing was of the angular contact type; when mod. 1148 has been embodied the angular contact bearing is replaced by a duplex ball bearing having a divided inner race.
3. *48 Mk. 2 only.* Remove the retaining ring which secures the upper ball bearing in its housing.
4. Reverse the centre housing in the vice block.

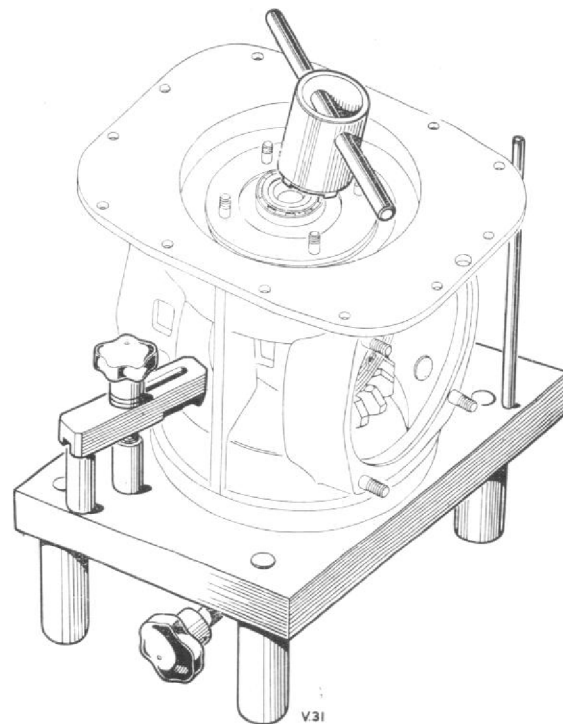


Fig. 2. Vice block T.74912 and spanner T.72556, used to remove horizontal drive ring nut.

Unlock and remove the four $\frac{5}{16}$ in. B.S.F. nuts and tab washers which secure the lower vertical gear bearing housing. Remove the lower vertical gear ball bearing housing complete with the laminum adjusting washer, the lower vertical gear ball bearing, the inner race of the lower gear roller bearing and the lower vertical bevel gear; tie the adjusting washer to the housing.

The 48 Mk. 1 is provided with a single steel retaining housing to accommodate the bottom drive ball bearing. The 48 Mk. 2, however, has both a steel and a light alloy housing which nip the outer race upper and lower faces; Fig. 1 illustrates this difference in the assemblies.

Horizontal drive

1. Unlock and remove the four $\frac{1}{4}$ in. B.S.F. nuts and tab washers which secure the front bearing retaining cover. Remove the cover to expose the horizontal gear assembly ring nut and cup locking washer.
2. Open up the cup locking washer and, using spanner T.72556, remove the ring nut and locking washer, Fig. 2.
3. Remove the spacer ring situated between the locking washer and the front bearing; remove the centre housing from the vice block.

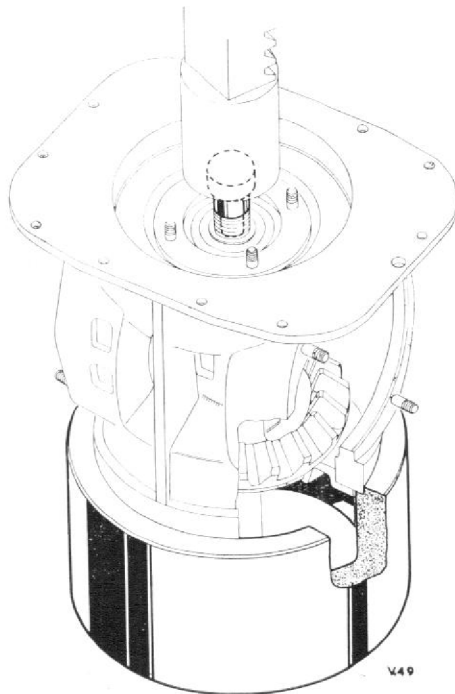


Fig. 3. Pot fixture T.74923 and adapter T.73032, used to remove horizontal drive from centre housing.

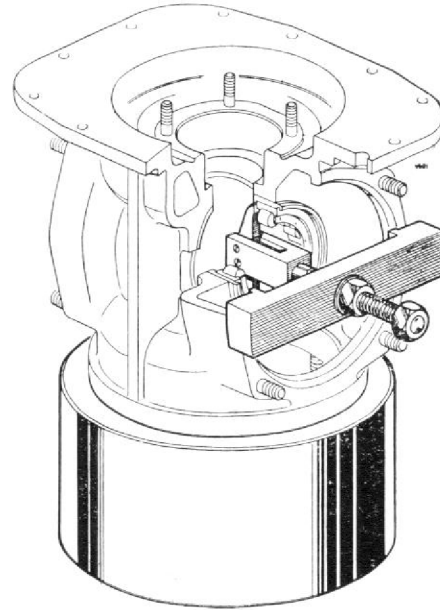


Fig. 4. Extractor T.78408 for removing the upper vertical drive outer roller race.

4. Unlock and remove the six nuts and tab washers which secure the rear bearing housing.
5. Place the centre housing, front face uppermost, on pot fixture T.74923 and using adapter T.73032, press out the horizontal gear assembly, Fig. 3.

REMOVING BEARINGS FROM THE CENTRE HOUSING

1. Remove the horizontal drive front bearing housing and laminum adjusting washer from the centre housing; place the bearing housing on press block T.74927 and using adapter T.74831, press out the bearing.
2. Remove the two circlips which retain the upper and lower vertical drive bearings in the centre housing. Loosen the centre bolt nut of extractor T.78408 and adjust the bolt until the two toggles pass through the upper vertical outer roller race; pull out the bolt until the flat ends of the toggles bear on the underside of the race and the bridge of the extractor rests on the centre housing, Fig. 4.
3. Screw the centre screw nut finger-tight on to the bridge and using suitable spanners, hold the head of the centre bolt and screw the nut in a clockwise direction to extract the race; remove the extractor.
4. Position the centre housing on adapter T.78425, lower drive housing downwards and

using extractor T.78409, press out the lower vertical drive roller bearing outer race, Fig. 5.

DISMANTLING THE DRIVE ASSEMBLIES

Upper vertical drive

1. Remove the internal circlip from the serrated bore and place the assembly, ring nut outwards, on vice block T.74928.
2. Open up the cup locking washer and using spanner T.72554, remove the ring nut and cup locking washer.
3. Reverse the assembly and position it on press block T.74929, using three-pin adapter T.78599, Fig. 6; press off the ball bearing.
4. Place the drive shaft bearing housing on pot fixture T.74931; using adapter T.74832 press out the bearing.

Lower vertical drive

1. Remove the internal circlip from the gear and position the assembly, ring nut outwards, on vice block T.74933.
2. Open up the cup locking washer; use spanner T.74934 to remove the ring nut; remove the cup locking washer.
3. Using extractor T.74935, draw off the inner race of the roller bearing.
4. Reverse the gear assembly in the vice block.
5. Open up the cup locking washer; use spanner T.74934 to remove the ring nut; remove cup locking washer.
6. Reverse the gear assembly and place it on press block T.74936; using three-pin adapter

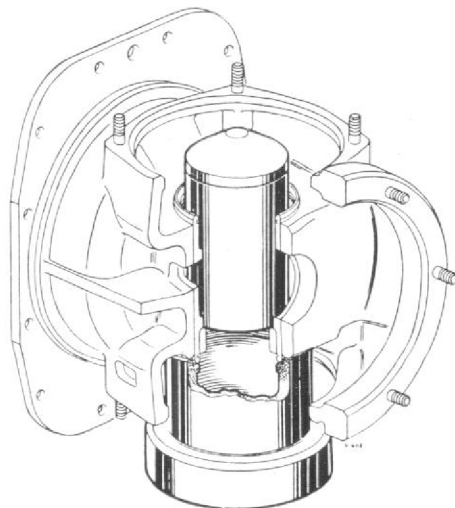


Fig. 5. Adapter T.78425 and extractor T.78409 for pressing out lower vertical drive outer roller race.

T.74937 press off the ball bearing.

7. Place the housing on pot fixture T.74939 and using adapter T.74938, press out the ball race.

Horizontal drive

1. Remove the rear bearing housing from the shaft complete with the outer race of the rear roller bearing.
2. Remove the roller bearing outer race retaining circlip from the housing.

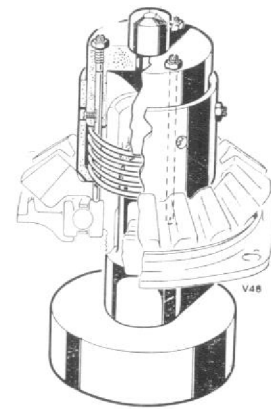


Fig. 6. Press block T.74929 and three-pin adapter, T.78599 for removing ball bearing from top vertical drive gear.

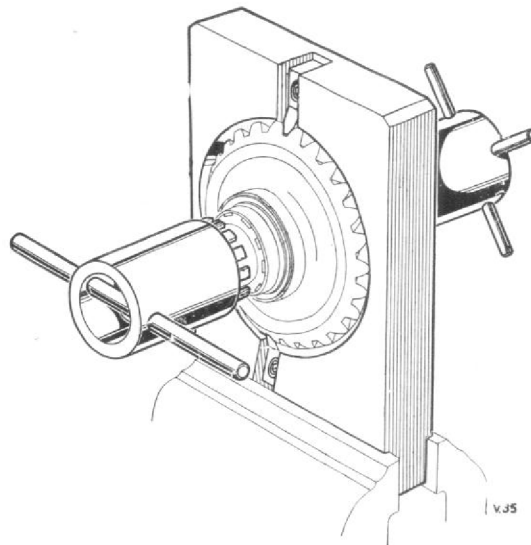


Fig. 7. Vice block T.74910 and spanner T.74911, for removing ring nut from horizontal drive shaft.

3. Place the housing on pot fixture T.74924 and using adapter T.74925, press out the outer race of the roller bearing.
4. Position the drive shaft, ring nut outwards, in vice block T.74910, Fig. 7.
5. Open up the cup locking washer, use spanner T.74911 to remove the ring nut; remove the cup locking washer.
6. Locate the centre screw pad of extractor

T.74926 in the bore of the gear shank and the claws in the slots machined in the gear; draw off the roller inner race, Fig. 8.

7. Remove the gear from the vice block.
8. Place the inner and outer races of the roller bearing together.
9. Wrap all ball and roller bearings in grease-proof paper for protection and stack them carefully in a box with all the other parts; mark the box with the engine number.

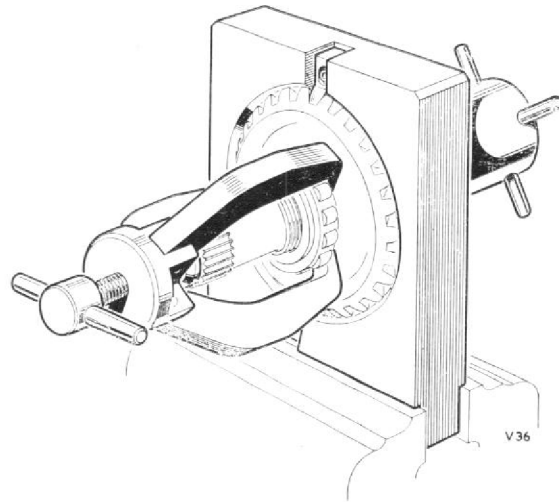


Fig. 8. Vice block T.74910 and extractor T.74926, for removing roller inner race from horizontal drive shaft.

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