

Myford Quick Change Rear Tool Post



Myford Rear Tool Post Shown with all Supplied Accessories

The Myford rear tool post is designed to fit both our Series 7 and Myford 254 lathes.

The toolpost is of the quick change (Dixon) type and comes complete with a special holder to carry the supplied 3/32" x 5/8" parting blade. The height of the tool may be adjusted to the centre height of the lathe by rotating the knurled bobbin, situated at the top of the tool holder and the height locked in position by the cap head setscrew for which an allen key is provided. Once set to the correct centre height, the tool holder complete with parting blade may be removed from the toolpost and returned again, in seconds, without disturbing the height setting.

The tool post is fitted to the two, rearmost, T slots on the cross slide by means of the two provided T bolts together with the central pivot bolt, which terminates underneath the toolpost as a T bolt. Attaching the unit square to the axis of the lathe is facilitated by the underside of the toolpost having a raised register which locates in the rearmost T slot. This is illustrated in **Photo.2**.

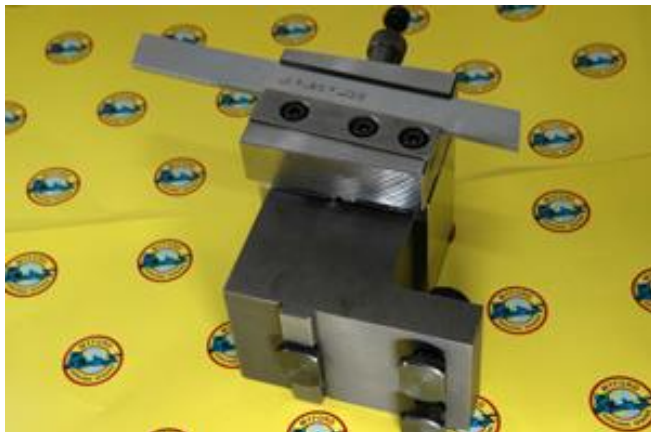


Photo.2 The Underside of the Rear Tool Post Showing Fixing Points

The three point fixing gives a very rigid tool mounting, which can be left permanently in place on all long cross slides without interfering with normal turning from the front tool post.

By loosening one large central bolt, the top of the tool post may be rotated around a central bush and the top, complete with tool holder, quickly turned through 90 Deg. to swing the blade further away from other turning operations. Even more conveniently, the blade and holder can be entirely removed and replaced again in seconds. The tool post will take all standard Myford quick change (QC) tool

holders so that normal lathe tools may be also be used, when fitted inverted on the rear toolpost.

Why Use a Rear Tool Post?

Parting off a turned piece from the bar stock is the operation that gives most lathe operators cause for concern when using a front tool post. The cut is a fairly wide one with the tool operating in a narrow slot where swarf may easily jam causing the tool to “dig in” with possible disastrous consequences to the turned work or even the tool itself. The Myford lathe is designed to minimise these problems with generous headstock bearing specifications and solid machine construction. Nevertheless, problems can occur and undoubtedly parting off from the rear is much easier on any lathe.

There are many theories why parting off from the rear improves the situation, but the most logical explanation is that when cutting from the rear, any tendency for the tool to dig in, results in the tool lifting away from the work easing the situation, whereas with the front tool post, a dig in results in the tool dipping forward making the situation worse. **Fig. 1** illustrates the point.

The second advantage of parting off from the rear is that swarf tends to clear from the work by gravity, whereas with the front tool post, swarf will often collect above the tool and jam the cutting action.

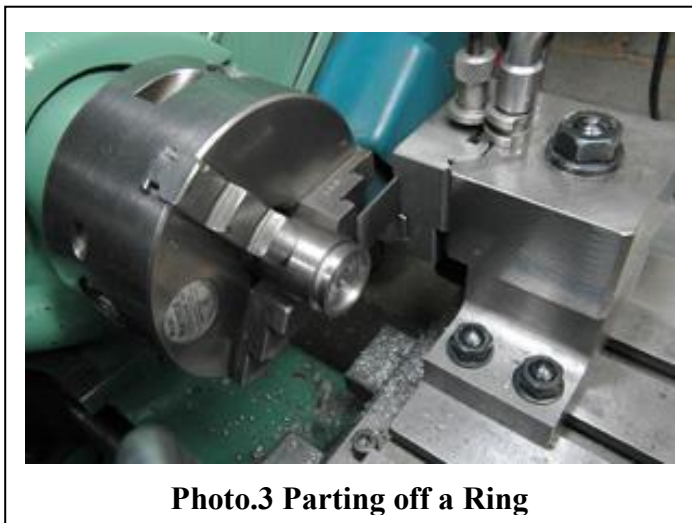
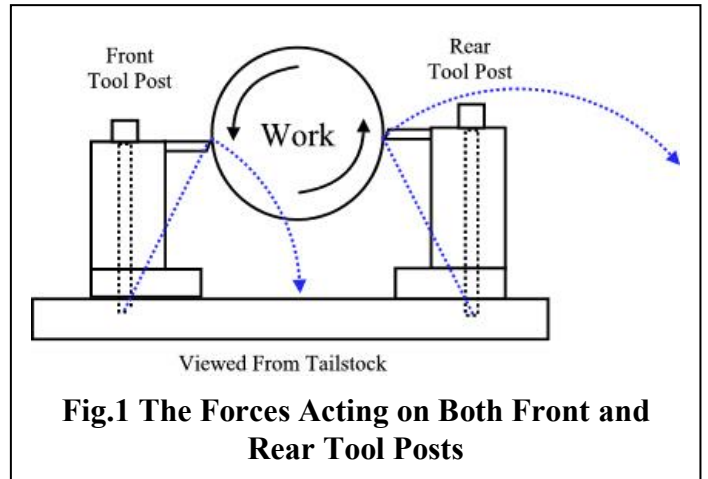


Photo.3 Parting off a Ring

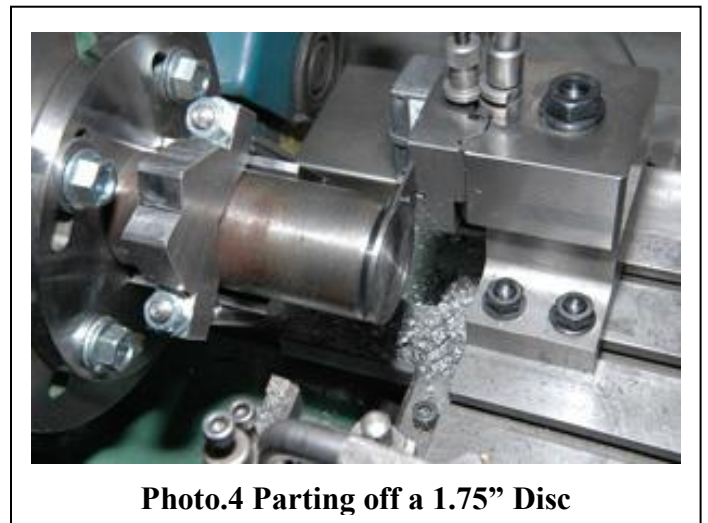


Photo.4 Parting off a 1.75" Disc



Photo.5 The Disc From The Parting Tool

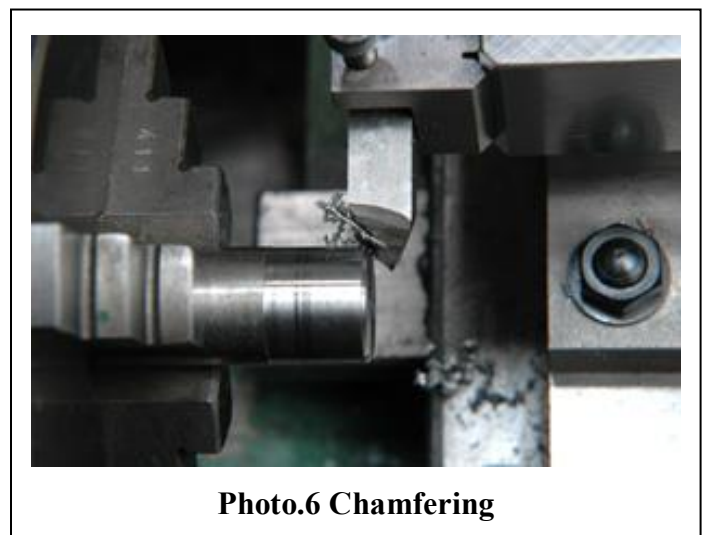


Photo.6 Chamfering

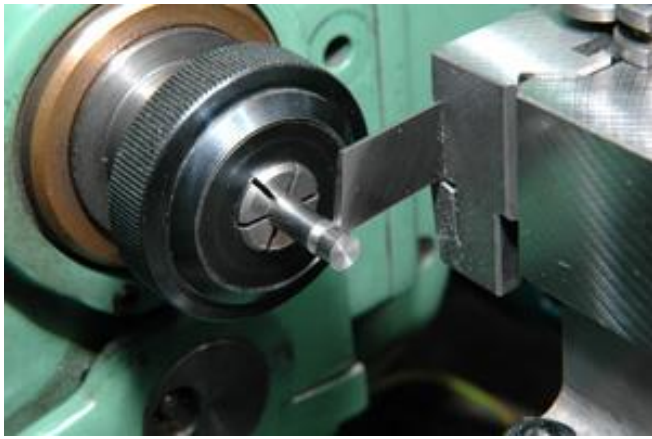


Photo.7 Working Near The Headstock

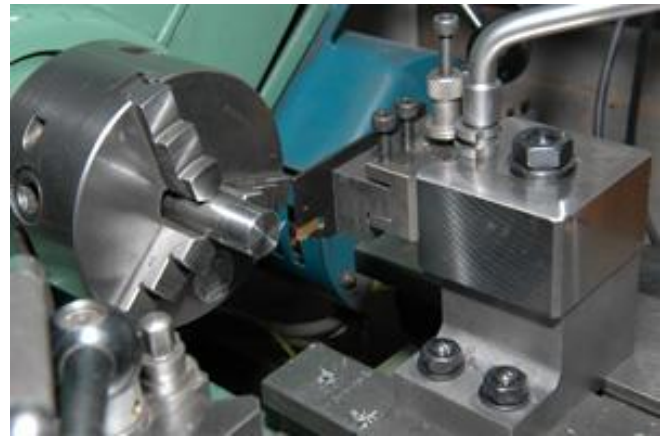


Photo.8 Adapting a Tipped Blade

Photos 3 to 8 are taken using the lathe of a Myford owner and show the rear toolpost in every day use.

Photo. 3 This shows a normal parting operation where the operator is parting off a ring or fine washer from a 1" steel bar. It is important to keep the tool cutting when parting off and not to let the tool chatter or rub. Chattering is usually caused by too high a lathe speed, but is also often a sign that the operator is being too timid. Increasing the cut will often create a better finish when parting off, and with all parting operations, it is advisable to flood the work with coolant to improve cutting, but also to ensure that swarf is carried away from the cutting tip.

Photo.4 Here a thin disc was required 1.75" (44.45 mm) diameter and the photo shows this being parted from 1.75" bar stock. The lathe was running in direct drive and the seemingly impossible overhang, unsupported by the tailstock, caused no problems whatsoever. The bar was held in a Myford Keats Angle Plate and the smooth operation is testimony to the rigidity of both the Keats Angle Plate and to the Myford Lathe itself. The rear tool post makes this sort of operation simple to carry out. The parting blade itself is easily sharpened with only simple equipment such as an oilstone

Photo. 5 This is the disc which was parted off in the previous photo. The finish is straight from the parting tool and was actually far superior to the appearance in this flash photo.

Photo. 6 A rear toolpost is ideal for utilising as a chamfering toolpost. Here a normal Myford QC tool holder has been used on the rear toolpost with a chamfer tool fitted inverted in the holder. It takes less than 3 seconds to interchange this with a parting tool.

Photo.7 One advantage of this rear toolpost compared with other designs, is that due to the overhang of the QC holder to the left of the cross slide, the parting tool can be used close to the end of the mandrel. This is most useful when using Myford collets, as in the picture, or using a collet adaptor.

Photo.8 The supplied parting blade cuts so smoothly that it is unnecessary to use tipped parting blades. However for lathe operators who already own, and prefer to use, tipped parting blades such as the Q-Cut, a simple adaptation enables them to be used with this rear toolpost using a standard Myford QC holder.

The Myford Rear Toolpost and parting blades may be obtained from our sales department or from our stand at one of the many Model Engineering Exhibitions along with a large selection of other Myford accessories.