

# Coronet Herald lathe

Mark Baker tries out a new midi-lathe from Record Power



The Coronet Herald lathe from Record Power was launched last year and Record's sales description says: 'Thanks to a number of innovative design solutions the capabilities, features and performance of the Herald far exceed anything a machine of this size has been capable of before. It brings top-end professional performance at a fraction of the size and cost of comparable heavy-duty machines.'

I have been able to use it now for the past three months and, mindful of Record's comments, set about seeing what it was capable of.

## Lathe arrival and assembly

The equipment arrived with me on a pallet, the lathe and leg stand set in separate boxes. The various parts of the lathe were nicely packaged and supported for protection. The metal parts all had a coating of oil/grease to protect them, which was quickly cleaned off with paper towel and a mild solvent. Since the lathe can be used as a bench-top model, you need to decide if you mount the lathe on a bench or on a stand, either homemade or bought. I wanted to use the tubular leg stand Record offers for this lathe.

To fit the legs, the lathe needs to be laid on its side or, if inverted, minus the headstock, tailstock and toolrest assembly. The legs are held in place by two bolts and once the front and rear legs on each end are affixed, there is a fifth bolt that locks the two meeting plates on the legs together. Once the legs were in place I screwed the rubber feet, about 25mm high sections of rubber, to the underside of the legs and then stood the lathe up.

The tailstock is held in place by a screw lock clamp mechanism. The handle to do this is on the rear side of the tailstock. The toolrest assembly is locked in place by a camlock-handle mechanism and the toolrest positioned and held in



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place by a threaded lever lock handle.

The headstock – minus the motor and control – is locked in place by a level clamping mechanism on the rear side of the lathe. The motor and speed controller is placed on a machined round rod at the rear of the headstock and slid on to this so the pulleys fit into the hole in the headstock. A nut is used to secure the motor in place on the end of the round rod and a lever-locking arm is placed in an arced slot and used to lock the motor in place. The belt was slid over the pulleys, of which there are three in total.

When assembled, the lathe centre height once on the legs comes to about 75mm below my elbow. To raise it further one can place blocks under the legs and they can be screwed in place, of course without the rubber bungs, or one can buy riser blocks to fit under the lathe before fitting the legs.

## Initial impressions

Assembly can be done solo, but it is helpful to have a second person. The headstock, lathe bed, tailstock and toolrest assembly are all cast iron. Each is nicely fettled, and painted and machined parts. I was impressed with the quality.

When looking at the headstock, I noted that at the end of the lathe spindle, which runs through a hole in the end of a plate section covering a gap on the headstock casting, there is a handwheel. Look at the picture captioned 'inside the headstock'. This shows that there is no rear bearing at the end of the spindle. There are three bearings in total in the extended cast housing at the front of the headstock. Two are placed at the front of the housing, then there is a gap and then the third is at the rear of the extended housing. This is not a new concept and is used on other makes of lathes, some of which are much larger, with good success to this day.

Note also the castellated 24-position indexing wheel, the silver spindle-lock/indexing lock button, the small screw to affix the flip-over cover and the pulleys. All lock positively and easily.

The headstock can be moved along the lathe bed and/or rotated. This is done by slacking off the headstock locking mechanism at the rear. Once the pressure is eased off you rotate it to any position you like, even turning it 360°.

There is an audible click which corresponds to preset positions you can lock into if you choose. There are three indents to shift the spindle from inline with the lathe bed to 90° to the bed. Once in the position you lock it in place. If you set the spindle at 90° to the lathe bed you can turn larger work using a bowl-turning attachment or a floor-standing rest.



Inside the headstock



The rear side of the tailstock



The digital speed control and speed readout unit

Swivelling the headstock can be a huge help when hollowing out work. You have a nicer working position than when leaning over a lathe bed. The swivelling headstock also means you can turn the head round to the other side and select the reverse spindle rotation on the controller, which enables left-handed turners to work successfully. This, of course, requires that the chuck used has a mechanical locking mechanism to lock it onto the spindle so it cannot rotate off.

Record offers an optional extra bowl-turning attachment (BTA), which is a casting that sits in toolrest assembly so you can create an articulated arm system that you can place on the left or the right of the headstock for turning larger items.

PHOTOGRAPH COURTESY OF RECORD POWER

## ◀ In use

Before having the lathe for test I recall Record Power talking about how much research and time it put into the motor controller and circuitry and how much money is invested in it. Whatever it did certainly worked well for me. I found the power delivery was smooth, precise and responsive with no hesitation whatsoever. It is also quiet. There is loads of torque for larger faceplate or spindle work up the diameter capacity over the bed.

There is a small time delay before reaching the speed selected and for it to stop after switching it on or off.

Maximum torque for larger work is obtained by working on the slower pulley. The speed range possible not only caters for the larger work, but also for small lace bobbins and delicate spindles.

There is a belt ratio press-button that you click to indicate which belt you are on which will give a minimum and maximum speed range appropriate to the pulley selected. The speed ranges are: 95-1055, 140-1868 and 290-3890rpm. The middle pulley is the one that will likely suit the largest variety of work.

It is worth noting that the lathe has a reverse spindle rotation option too. The speed control unit takes a little getting used to, but it is quickly learned.

When turning some spindle work using a 150mm long piece of 115mm diameter sycamore spindle work held on a spigot in the chuck working on the unsupported tailstock end of the wood, I noticed some vibration. It wasn't much but it was there and, despite various cuts, I could not stop it. I experienced the same on the outer edge of faceplate work on 250mm x 100mm timber.

I tried various things to find out the cause. It wasn't the bearings or the chuck. I tried many chucks, I tried various tools and the small amount of vibration was replicated. I wondered if it was the stand. I tried the lathe on the DML305 adjustable stand and there was no vibration, so it must be the leg area.

Re-fitting the lathe on the leg stands, I tracked it down to the rubber feet and when I removed them it stopped the issue. No further vibration was encountered.

## Using the BTA

Trying the bowl turning attachment I found that there is a slight amount of flex when it is used at maximum reach when rough-shaping work using it to turn the maximum diameter possible. Nothing that I found prevents the turning of the work, just go a bit gentler on the heavy cuts, or that affects the finishing cuts.

I think that most people would only turn work with a BTA occasionally so it is nice to have for those occasional jobs.



Turning between centres



Turning with the bowl turning attachment in place

## Conclusion

I loved the leg design as it allows you to fit a dust extractor underneath, saving valuable workshop space. The manual says the legs can be filled with sand, for extra weight. Having said that I also like the DML305 leg stand system, which is height adjustable. This gives you a nice choice to what you fit the lathe on. The tubular leg stand costs £150, the DML305 stand costs £119.99.

I found the lathe a delight to use. People have said that the styling of it harks back to times of yesteryear. I agree and like it. Functionality wise, it did everything I asked of it without fuss and components stayed put when locked in place with no creep under pressure and use. I think it is a great midi-lathe which will suit many turners' needs, capacity and space-wise. At £999 I think it is a very good price for what it delivers. ●



Optional rise blocks to increase height of lathe

## Tech spec

- Maximum between centres: 508mm
- Maximum swing over bed: 355mm
- Maximum bowl diameter when using the bowl-turning attachment: 533mm
- Spindle speeds: 95-3980rpm
- Swivel headstock
- 24-position indexing
- Three pulleys
- Motor input P1: 1kW
- Motor output P2: 0.75kW
- Thread: M33 x 3.5
- Taper: 2 Morse taper
- Weight: 48 kg
- Size: W870 x D290 x H252 mm
- Five-year warranty – covering manufacturing and construction defects for a period of five years from the purchase date.

## ACCESSORIES SUPPLIED

- Knock-out/lever bar
- Revolving centre
- Four-prong drive spur
- Faceplate
- Instruction manual

## PRICES:

- Coronet Herald lathe: £999.99
- Tubular leg stand: £149.99
- Cast iron outrigger: £49.99
- Bench feet (riser blocks): £69.99
- Bed extension 400mm: £179.99

Contact: Record Power

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