

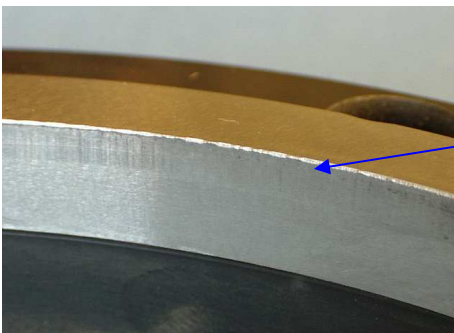
Regular service of Sibert Punch & Die sets

The main features of a Comp/Omicron P&D are –

1. Cutting parts (ID & OD)
2. Vacuum system
3. Turntable rotation (including the high precision bearings)
4. Damping system

Each of the 4 above features must work together to ensure that Punching continues. The P&D service covers all 4 of the above not just simply resharpening the cutting parts. There is little gain to be had by resharpening the cutting parts locally if the vacuum system is restricted due to nickel dust contamination or the damping system needs attention.

- Sibert strongly recommend regular servicing of P&D sets (5000 – 7000 punches between each service subject to correct alignment and use). Past experience has proven that the P&D cutting parts & vacuum system last longer if serviced on a regular basis
- Test punching with customer stampers (to production standards - back finished with protective film applied) allows accurate ID hole sizes to be produced and measured
- *Infrequently serviced P&D sets often require new parts prematurely once the P&D is returned for service as shown in the examples below*



OD cutting parts damaged or overused, thus requiring excessive material to be removed. OD cutting parts are then beyond serviceable limits.



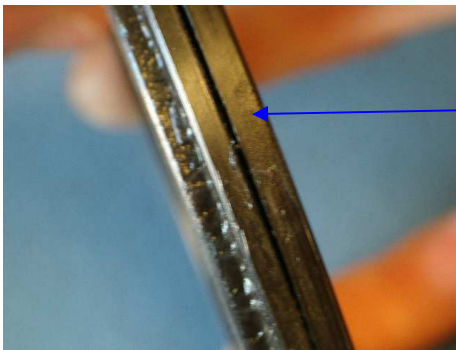
Internal vacuum seals & transfer tubes blocked with nickel dust. Excessive pre-vacuum (above -0.3 Bar to -0.4 Bar) e.g. **without** a stamper on the turntable could indicate partially blocked vacuum system & this could prevent the P&D from working.

Nickel contaminated bearings can become worn, resulting in ECC issues.

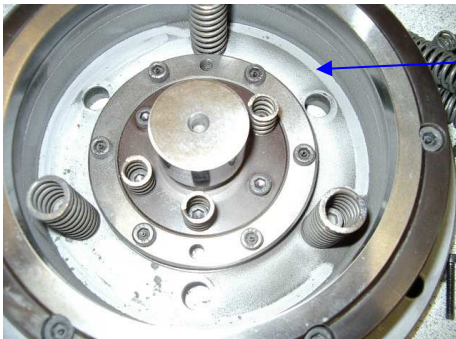
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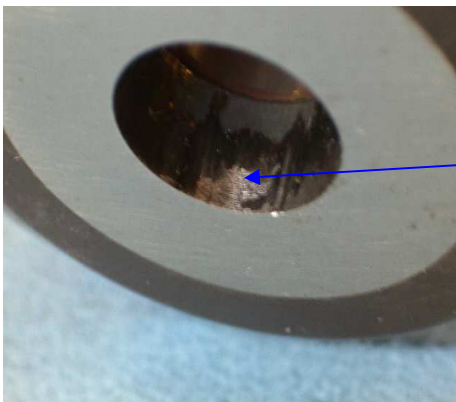
Worn transfer gear due to poor clearance during alignment. Place lower set in position with fixing screws loose & then moved forward to allow slight clearance between two brass gears. Securing screws should then be tightened.



Stamper does not remain in focus during rotation & there is poor vacuum. This is due to turntable assembly delaminating.



Upper set is heavily contaminated with nickel dust. Ensure stamper is clean thus preventing premature wear on cutting parts.



Scored bore of upper stripper due to nickel dust contamination prevents correct stripper movement & control. The stripper remains retracted in the upper position thus allowing the stamper to rise with the upper set after punching & thus creating deformation around punched ID hole.

Regular service of Sibert Punch & Die sets

A standard Omicron/Comp150 P&D resharpen will include:

- Inspection and resharpen of I/D and O/D cutting parts
- Notification given to customer when cutting parts are approaching end of serviceable life & need replacing on next service
- Check vacuum on turntable (check vacuum seals)
- Check concentricity/alignment of I/D and O/D cutting parts to hub.
- Replacement of turntable retaining screws x3
- Check all tamper proof screws are present & tight
- Check condition and action of stripper plate assembly
- Replacement of all consumable parts (Omicron pre centre "dibbers", turntable grease, vacuum tubes etc)
- Check condition of brass drive gear
- Check tightness of all screws, particularly the lower ejection ring screws (3off) and the nudge ring screws (3off)
- Check Omicron P&Ds auto centre/nudging system is functioning (testing carried on an automated test rig)
- Check Comp150 P&Ds manual nudging system is functioning
- Test punch customers sample stampers, once centred, to within specified limits
- Inspect & measure the I/D and O/D (quality of cut etc)
- Supply stamper certificate (with stamper hardness) if required by customer (blank sample attached)
- Supply a customer feedback form to enable direct feedback to Service team from customer

Please email chris.mosley@sibert.co.uk or call +44 1252 813310 direct for further details.

Punch and Die / Stamper Test Certificate

Certificate Number :
Customer :
Stamper Identification :
Stamper Hardness HV0.3 Front :
Stamper Hardness HV0.3 Back :
Punch and Die Assembly Number :
ID Punch and Die Serial Number :
Punch and Die Type :
Works Order Number :
Nominal ID :
Measured ID of Stamper :
Concentricity of ID to Data :
Nominal OD :
Measured Outside Diameter :
Roundness of ID :
Surface Finish of Stamper :
Date :
Inspected By :

The above measurements have been carried out using a 5D Macro Measurement System serial number 00013904.



Signature _____