

# HELLER

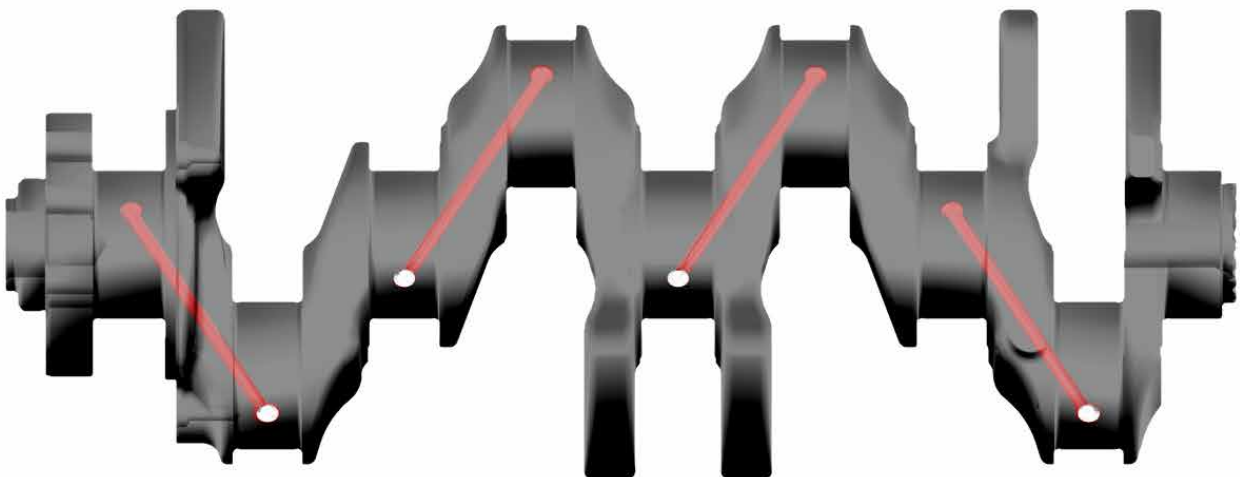


|                       |  |                       |
|-----------------------|--|-----------------------|
| Halle / Hall:         | 3  | <b>Uhrzeit / Time</b> |
| Maschine / Machine:   | MCC15 / Bearbeitungszentrum / Machining center                             | 10:30 - 11:00 Uhr     |
| Industrie / Industry: | Automobil / Automotive   | 12:00 - 12:30 Uhr     |
| Bauteil / Workpiece:  | Kurbelwelle Ölkanal bohren / Crankshaft oil hole drilling (Ø 150 x 400 mm) | 13:30 - 14:00 Uhr     |
| Material / Material:  | 42CrMo4 / 1.7225   | 15:00 - 15:30 Uhr     |
| CAM / CNC control:    | Siemens 840D sl  | 16:30 - 17:00 Uhr     |

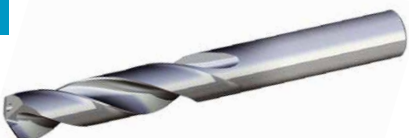
| Nr. / No. | Bearbeitung / Machining         | Werkzeug / Tool    | Ø  | z | Vc [m/min] | fz [mm] | n [U/min] | vf [mm/min] | ae [mm] | ap [mm] | Wendeplatte / Insert | Qualität / Grade |
|-----------|---------------------------------|--------------------|----|---|------------|---------|-----------|-------------|---------|---------|----------------------|------------------|
| 1         | Pilotbohren / Pilot drill       | SHO 30503-PH ref.  | 5  | 2 | 80         | 0,04    | 5090      | 407         | 5       | -       | -                    | TT9030           |
| 2         | Tiefbohren / Deep hole drilling | SHO 050x150x6-6495 | 5  | 2 | 90         | 0,06    | 5729      | 687         | 5       | -       | -                    | TT9030           |
| 3         | Kegelsenken / Countersink       | 45N16015TRRA45     | 16 | 2 | 20         | 0,16    | 1250      | 400         | -       | -       | -                    | IN2005           |

## BEARBEITUNGSSCHRITTE MACHINING STEPS

1-3



1



2



3

