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| Centerless grinding machine | Make: Officine Monzesi Spa - Model: 1500 - wheel speed m/s: 33 (6494 fpm) - rpm: 1020 | | |
| Grinding wheel | Specification: ZB | Dimensions mm. 610 x 508 x 304,8 (inches 23,5x20x12) | |
| Regulating wheel | Specification: A120V4R | Dimensions mm. 305x 508 x 140 (inches 12x20x5,5) | |
| Dressing tool | Diamod tool bit | | |
| Work piece | Pin for side pinion | | |
| Material | UNI 18NiCrMo5 | DIN | AISI/SAE |
| Hardness | Cementation + hardening | 58-60 Hrc | |
| Initial dimensions of work piece | Ø mm. 35,20 (1,385") | Lenght mm. 78,00 (3,07") | |
| Final dimensions of work piece | Ø mm. 35,00 (1,377") | Lenght mm. 78,00 (3,07") | |
| Stock removal | Total mm. 0,20 (.008") | Roughing removal mm. 0,12 (.005") one pass Finishing removal mm. 0,08 (.003") one pass | |
| Feed rate | Roughing | mt/min' 2,5 (98 ipm) | |
| | Finishing | mt/min' 2,5 (98 ipm) | |
| Dimensional tolerances | Straightness | mm. 0,005 (.00019") | |
| | Parallelism | mm. 0,005 (.00019") | |
| | Roundness | mm. 0,005 (.00019") | |
| Surface finish | Ra 0,12 | Rt 1,5 | Rz 1,0 |
| Dressing cycle | Dressing depth | mm. 0,015 (.0005") | |
| | Dressing speed | mm. 250/min' (9,8"/min) | |
| | Dressing frequency roughing | every 4 hours | |
| | Dressing frequency finishing | every 6 hours | |
| | Reason of the dressing | restore surface and reduce Ra | |
| Coolant | Water soluble coolant with 3% semi-synthetic oil Ph 8 | | |
| Notes | <i>The life of this ZB grinding wheel has been 6 months, working 12 hours a day.</i> | | |