

AbstractCONCAVE LASER-RESURFACED PART, METHOD AND DEVICE FOR
PRODUCING IT

Device for resurfacing a concave face (2) of a tubular part (1) by supplying resurfacing material and energy by a laser, comprising a laser source for generating a laser beam (9), resurfacing material delivery means (5) based on hard refractory particles and metal alloy particles, in order to deliver the resurfacing material close to a resurfacing zone (6) on the concave face (2) of the tubular part (1) to be resurfaced, laser beam delivery means (7) and directing means (8) for directing the laser beam (9) into the resurfacing zone (6). The laser source is a diode laser (4) and the laser beam delivery means (7) conduct the latter over a penetration length (L) along a penetration direction and then the directing means (8) deflect the laser beam (9) into a radial direction (II-II) away from the penetration direction, so that the laser source may lie outside the tubular part (1) and the laser beam delivery means (7) may be axially engaged completely or partly in the tubular part (1).

Figure 1