V
TRANSIENT DEFORMATION

The details of the Transient Deformation Test are shown below:

Run the preliminary running-in cycle according to the following procedure:
- Number of brake applications: 100
- Initial speed of brake application V_i = 100 [km/h]
- End speed of brake application V_e = 0
- Braking pressure P = 20 bar
- Initial temperature of brake application T_i = 100°C (*)

(*)Braking initial temperature measured inside the brake lining as shown in Fig. 1

Wait until the brake disc cools down to ambient temperature, then run the test cycle proceeding as follows:
- Initial speed of brake application V_i = 100 [km/h]
- End speed of brake application V_e = 0
- Deceleration = 6 [m/s^2]
- Simulated inertia = 100 [kgm ^{2}]
- Number of brake applications (at deceleration = 6 [m/s^2]) = sufficient to build up disc temperature to the 650°C
- Time between brake applications = 22 [s] (meant as time interval between end of one brake application and start of the next).

During the Transient Test both the "d" and "C" parameters shown in Fig.4 must be online measured and stored by data acquisition system.
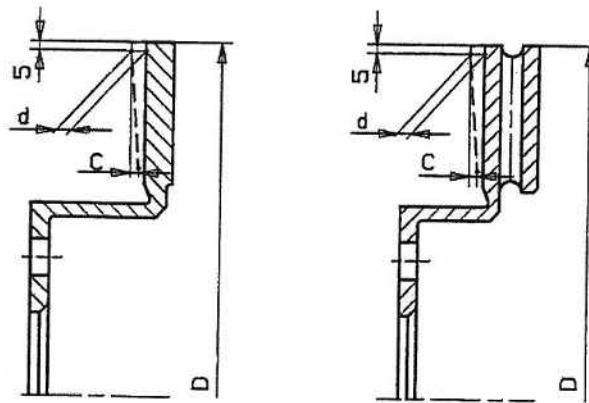

Fig. 4

Example requirements are shown in Table 8.

Table 8

Disc external diameter D [mm]	Maximum "d" allowed [mm]	Maximum taper "C" allowed [mm]
≤ 280	0.50	0.25
> 280 ≤ 300	0.60	0.30
> 300 ≤ 330	0.70	0.35
> 330	0.75	0.40