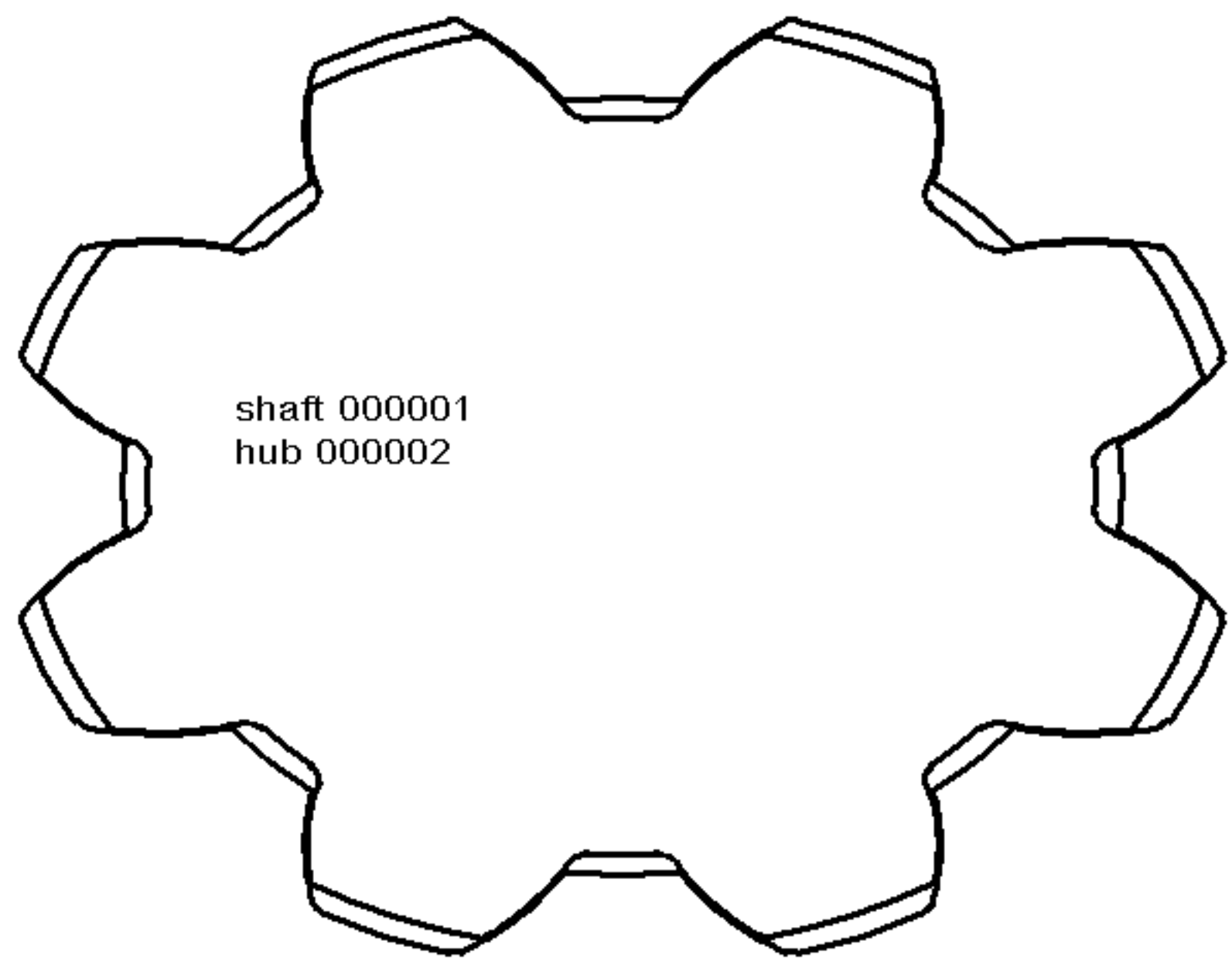




| TOOTHED SHAFT 000001            |                |
|---------------------------------|----------------|
| Tip diameter d3                 | 14.5           |
| Root diameter d4                | 11.5           |
| Module m                        | 1.6            |
| Pressure Angle alpha            | 30             |
| No.of teeth z                   | 8              |
| Basic rack                      | 15x12 DIN 5482 |
| Profile shift x*m               | +0.500         |
| Tooth depth h                   | 1.500          |
| Normal tooth thckn. sw          | 3.091          |
| Tooth thickness tolerance field | DIN 5482 - 9h  |
| Span measurement (k=2) W        | 7.626          |
| Span measurement (k=2) Wmax     | 7.606          |
| Span measurement (k=2) Wmin     | 7.571          |
| Complement. part                | 000002         |

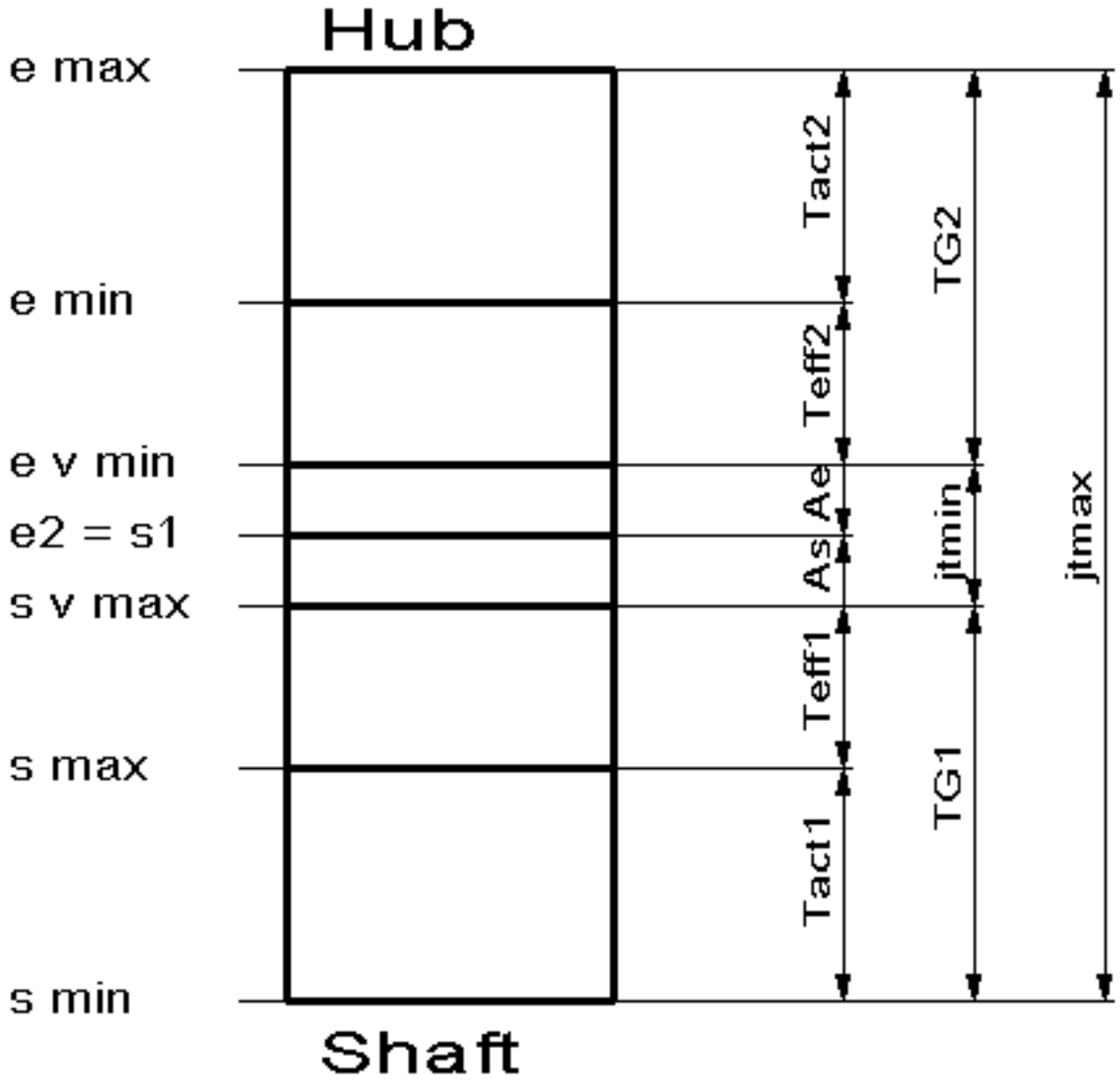
| TOOTHED HUB 000002        |                |
|---------------------------|----------------|
| Root diameter d1          | 15             |
| Tip diameter d2           | 12             |
| Module m                  | 1.6            |
| Pressure Angle alpha      | 30             |
| No.of teeth z             | 8              |
| Basic rack                | 15x12 DIN 5482 |
| Profile shift x*m         | -0.500         |
| Tooth depth h             | 1.500          |
| Normal space width lw     | 3.091          |
| Gap width tolerance field | DIN 5482 - 10H |
| Meas. Dim. Mi (DM=3) nom  | 9.085          |
| Meas. Dim. Mi (DM=3) max  | 9.158          |
| Meas. Dim. Mi (DM=3) min  | 9.273          |
| Complement. part          | 000001         |

Application Example  
of WN10 manual

Tolerance tooth thickness / tooth gap  
A / B 15 x 12 DIN 5482 - 10H / 9h

| Load                       |          |     |      |
|----------------------------|----------|-----|------|
| Rated torque               | TN       | Nm  | 100  |
| maximum Torque             | Tmax     | Nm  | 300  |
| Service factor             | KA       |     | 1.75 |
| equival. Torque            | Teq      | Nm  | 175  |
| load alternating factor    | fW       |     | 1.00 |
| load distrib.factor        | K lambda |     | 1.53 |
| equiv.eff.surface pressure | peq      | MPa | 466  |
| max.eff.surface pressure   | pmax     | MPa | 666  |

| STRENGTH                   |      | 1       | 2     |
|----------------------------|------|---------|-------|
| Material                   |      | 16MnCr5 | GG-20 |
| Yield Point                | Re   | 600     | 150   |
| Supp. Factor               | fS   | 1.20    | 2.00  |
| Hardness factor            | fH   | 1.15    | 1.00  |
| Perm.surface pressure      | padm | 828     | 300   |
| load peak frequency factor | fL   | 1.37    | 1.15  |
| safety marg. fW*padm/peq   | Seq  | 1.78    | 0.64  |
| safety marg. fL*padm/pmax  | Smax | 1.70    | 0.52  |



TG2 = 0.09 mm  
Tact2 = 0.056 mm  
Teff2 = 0.034 mm  
Ae = 0 mm

TG1 = 0.063 mm  
Tact1 = 0.04 mm  
Teff1 = 0.023 mm  
As = 0 mm

emax = 3.18 mm  
emin = 3.125 mm  
evmin = 3.09 mm  
e2 = s1 = 3.09 mm  
svmax = 3.09 mm  
smax = 3.068 mm  
smin = 3.028 mm

jtmin = 0 mm  
jtmax = 0.153 mm  
jvmax = 0.057 mm