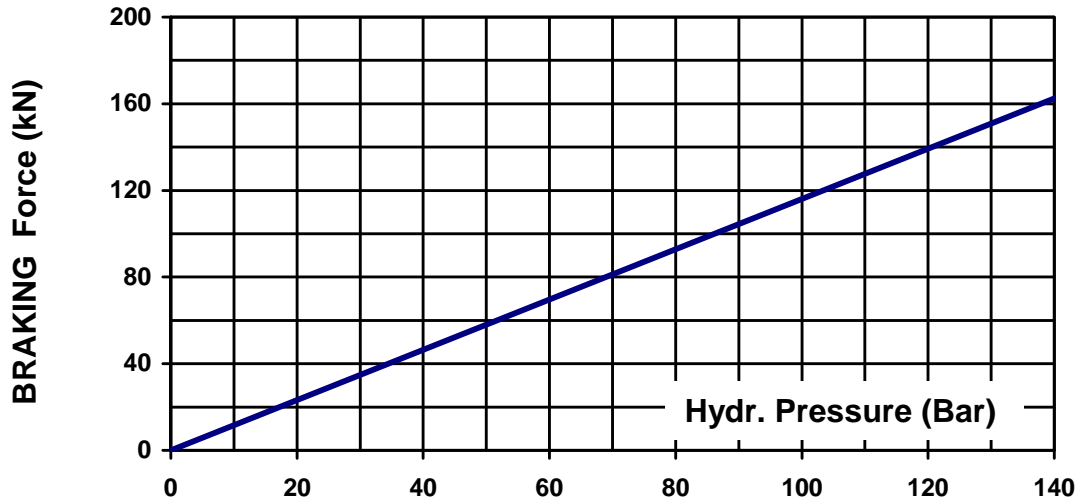


DATA SHEET

Name: DEB-0500-009
Date: 21.03.2016
Revision: A

TECHNICAL DATA AND CALCULATION FUNDAMENTALS FOR DISC BRAKE BSAH 500



The braking torque MB is calculated from following formulas:

$$M_B = a \cdot F_B \cdot \frac{(D_o - 0,22)}{2} \text{ [Nm]}$$

$$F_B = F_C \cdot 2 \cdot \mu \text{ [N]}$$

$$F_C = A \cdot P \cdot 10 \text{ [N]}$$

Where:

- a** is the number of callipers acting on the disc
- F_B** is the braking force according to table above [N]
- D_o** is the disc outer diameter [m]
- F_c** is the clamping force [N]
- A** [cm²], **P** [bar] and **μ** see values below

The actual braking torque may vary, depending on friction coefficient.

CALCULATION FUNDAMENTALS

Weight of caliper with bracket
Weight of caliper without bracket
Overall dimensions
Pad width

Pad area (organic)
Max. wear of pad (organic)
Pad area (sintered)
Max. wear of pad (sintered)

Nominal coefficient of friction
Total piston area - each caliper half:
Total piston area - each caliper:

Volume for each caliper at 1 mm stroke:
Volume for each caliper at 3 mm stroke:
Actuating time (guide value for calculation):

Pressure connection/port:
Drain connection port R:

Max. operating pressure:
Recommended pipe size:

Operating temperature range
(For temperatures outside this range contact Svendborg Brakes)

(*) On each brake pad

Dualspring (DS)

Approx. 380 kg
Approx. 300 kg
430 x 465 x 490 mm
220 mm
63.000 mm² (*)
11 mm (*)
43.600 mm² (*)
6 mm (*)
μ = 0.4
A = 145 cm²
290 cm²
30 cm³
90 cm³
0,4 sec.
3/8" BSP
1/4" BSP
P=140bar
16/12 mm
from -20 to +70 °C

Monospring (MS)

Approx. 480 kg
720 x 540 x 470 mm
220 mm
63.000 mm² (*)
6 mm (*)
43.600 mm² (*)
6 mm (*)
μ = 0.4
A = 145 cm²
145 cm²
15 cm³
45 cm³
0,4 sec.
3/8" BSP
1/4" BSP
P=140bar
16/12 mm
from -20 to +70 °C