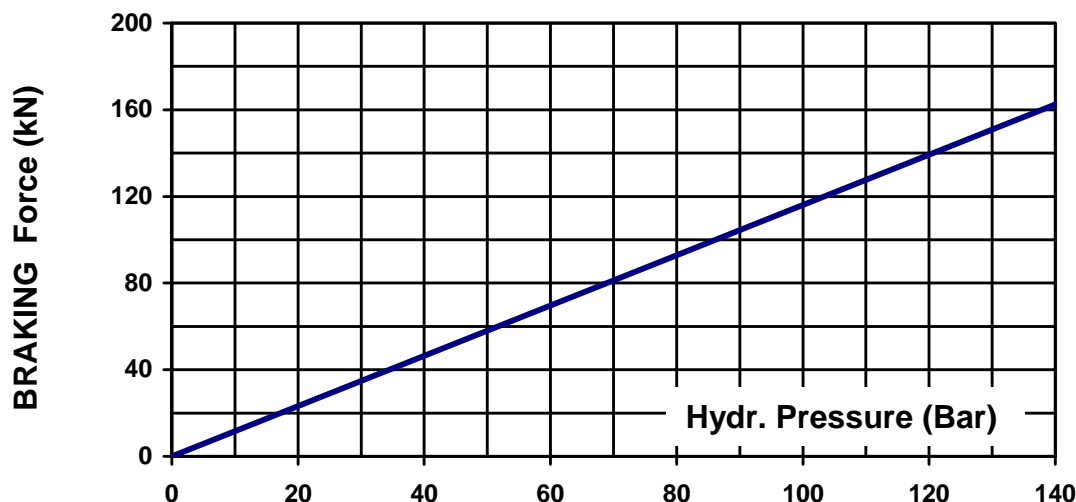


DATA SHEET

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:

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

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

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

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

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

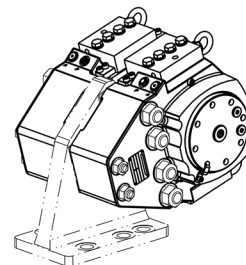
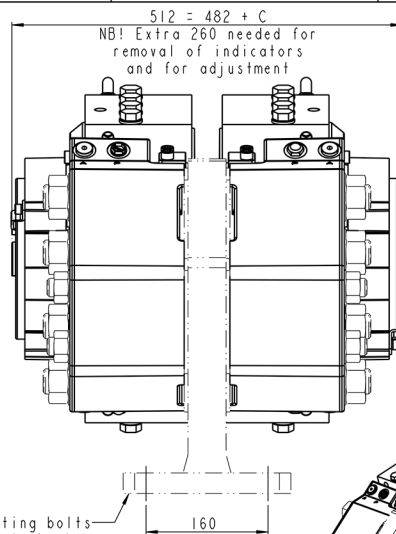
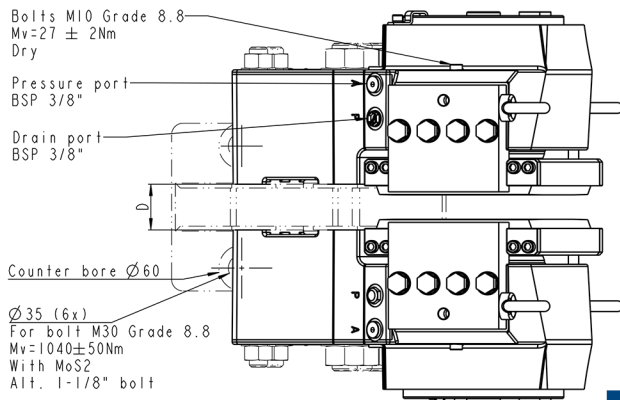
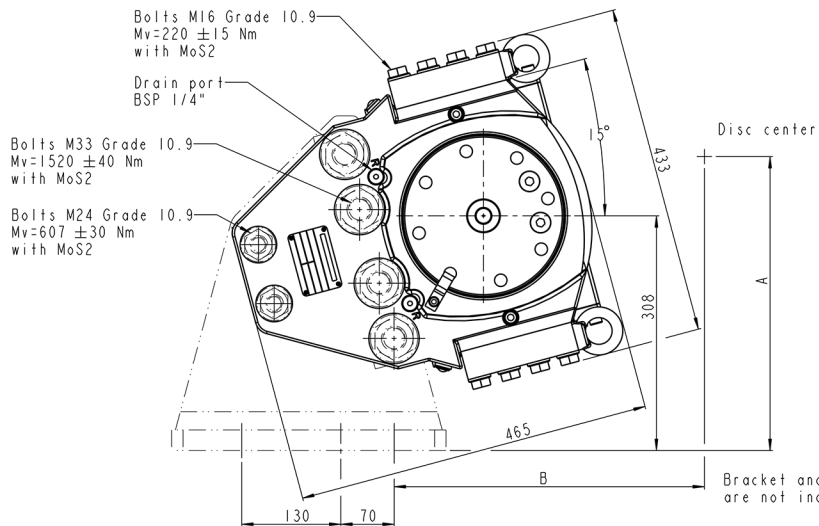
P=140bar

16/12 mm

from -20 to +70 °C

This drawing/document is the sole property of
Svendborg Brakes A/S and may not be copied,
given to a third party or used for unauthorized purpose

Rev. A 93224 RRH 21.08.2006
Rev. B 93703 SFR 27.03.2008



SCALE 1:10

Distance from center of disc (R = radius of disc)

A = 0,259(R-110) + 307,9

B = 0,966(R-110) + 117,2

C = Disc thickness

D= Mounting surface width= C+30

Mounting data, see drawing 490 1046

Weight: Approx. 310kg incl. brake pads (excl. bracket and bolts)

Tolerances for corner radii, angles, chamfers and threads according to: DS/EN 22768 - m		<input checked="" type="checkbox"/> Indicates Ra in µm	All dimensions in mm	Accep. for prod. by
Drawn by R.R.Hansen		Description		Draw*Design checked by
Date: 07.02.2006		BSAH 500-S-500		Revision B
		Drawing No.		Scale 1:5 (A3)
		490-3564		Sheet 1 of 1 sheets



CONFIDENTIAL

CHECKED BY SYSTEM
12-04-2010
RELEASED
by sif