r the toe slab
e moment
e depth
ve cover to reinforcement for base slab = 60 *mm*]

$= M = 53297.83\ Nm$

$M_u = 1.5 \times 53297.83 = 79946.745\ Nm$

$= d = 450 - 60 = 390\ mm$

$$\frac{M_u}{bd^2} = \frac{79946.745 \times 10^3}{1000 \times 390^2} = 0.526$$

ge of steel

$$p_t = 50\left[\frac{1-\sqrt{1-\frac{4.6 \times 0.526}{20}}}{\frac{250}{20}}\right] = 0.25\%$$

$$A_{st} = \frac{0.25}{100}(1000 \times 390) = 975\ mm^2$$

f 12 *mm* diameter bars $= \frac{113 \times 1000}{975} = 115\ mm$

2 *mm* ϕ *bars @ 110 mm c/c*

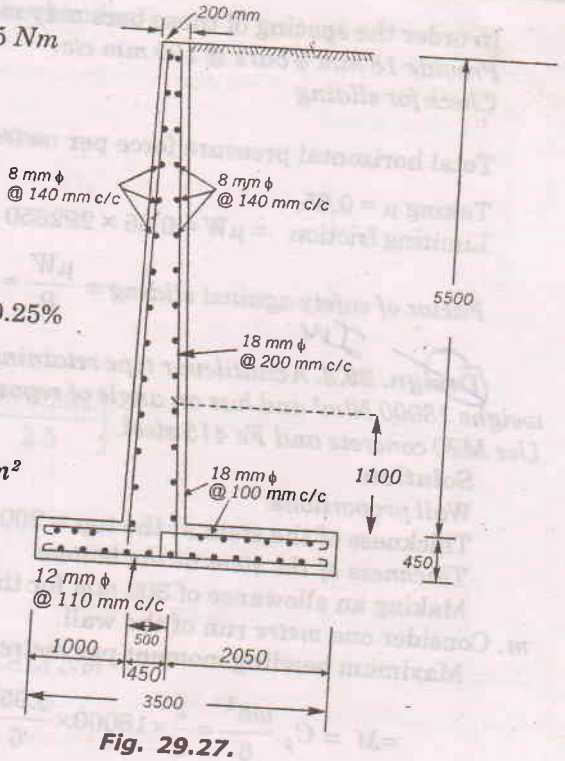

Fig. 29.27.

heel slab

ng moment calculations for a 1 *metre* wide strip of the wn in the table below.

B.M. Calculations for a 1 metre wide strip of the heel slab

Load due to	*Magnitude of the load (N)*	*Distance from b (m)*	*Moment about b (Nm)*
cking $2.05 \times 5.5 \times 18500$	208587.5	1.025	213802.19
L of heel slab $2.05 \times 0.45 \times 25000$	23062.5	1.025	23639.06
			237441.25
duct for upward pressure			
h 41330×2.05	84726.5	1.025	86844.66
$\frac{1}{2} \times 2.05 \times 49534$	50772.35	$\frac{2.05}{3}$	34694.44
Total duduction			
for Heel slab			121539.10
			115902.15

eel slab $= 115902.15\ Nm$

ment $M_u = 1.5 \times 115902.15 = 173853.23\ Nm$

$$\frac{M_u}{bd^2} = \frac{173853.23 \times 10^3}{1000 \times 390^2} = 1.143$$

steel

$$p_t = 50\left[\frac{1-\sqrt{1-\frac{4.6 \times 1.143}{20}}}{\frac{250}{20}}\right] = 0.566\%$$

$$A_{st} = \frac{0.566}{100}(1000 \times 390) = 2207\ mm^2$$

m diameter bars $= \frac{254 \times 1000}{2207} = 115\ mm$