Table 1: EC8 rules for detailing and dimensioning of primary beams (secondary beams: as in DCL)

	DC H	DCM	DCL
"critical region" length	$1.5h_w$	h_w	
Longitudinal bars (L):			
ρ_{min}, tension side	$0.5f_{ctm}/f_{yk}$		$0.26f_{ctm}/f_{yk}$, 0.13%(0)
ρ_{max}, critical regions(1)	$\rho' + 0.0018f_{cd}/(\mu_\phi \varepsilon_{sy,d} f_{yd})$(1)		0.04
$A_{s,min}$, top & bottom	2Φ14 ($328mm^2$)	-	
$A_{s,min}$, top-span	$A_{s,top\text{-}supports}/4$	-	
$A_{s,min}$, critical regions bottom	$0.5A_{s,top}$(2)		-
$A_{s,min}$, supports bottom	$A_{s,bottom\text{-}span}/4$(0)		
d_{bL}/h_c - bar crossing interior joint(3)	$\leq \dfrac{6.25(1+0.8\nu_d)}{(1+0.75\dfrac{\rho'}{\rho_{max}})} \dfrac{f_{ctm}}{f_{yd}}$	$\leq \dfrac{7.5(1+0.8\nu_d)}{(1+0.5\dfrac{\rho'}{\rho_{max}})} \dfrac{f_{ctm}}{f_{yd}}$	-
d_{bL}/h_c - bar anchored at exterior joint(3)	$\leq 6.25(1+0.8\nu_d)\dfrac{f_{ctm}}{f_{yd}}$	$\leq 7.5(1+0.8\nu_d)\dfrac{f_{ctm}}{f_{yd}}$	-
Transverse bars (w):			
(i) outside critical regions			
spacing $s_w \leq$	$0.75d$		
$\rho_w \geq$	$0.08\sqrt{(f_{ck}(MPa)}/f_{yk}(MPa)$(0)		
(ii) in critical regions:			
$d_{bw} \geq$	6mm		
spacing $s_w \leq$	$6d_{bL}$, $\dfrac{h_w}{4}$, $24d_{bw}$, 175mm	$8d_{bL}$, $\dfrac{h_w}{4}$, $24d_{bw}$, 225mm	-
Shear design:			
V_{Ed}, seismic(4)	$1.2\dfrac{\sum M_{Rb}}{l_{cl}} \pm V_{o,g+\psi_2 q}$ (4)	$\dfrac{\sum M_{Rb}}{l_{cl}} \pm V_{o,g+\psi_2 q}$ (4)	From the analysis for the "seismic design situation"
$V_{Rd,max}$ seismic (5)	As in EC2: $V_{Rd,max}=0.3(1-f_{ck}(MPa)/250)b_{wo}zf_{cd}\sin 2\delta$ (5), with $1 \leq \cot\delta \leq 2.5$		
$V_{Rd,s}$, outside critical regions(5)	As in EC2: $V_{Rd,s}=b_w z \rho_w f_{ywd} \cot\delta$ (5), with $1 \leq \cot\delta \leq 2.5$		
$V_{Rd,s}$, critical regions(5)	$V_{Rd,s}=b_w z \rho_w f_{ywd}$ ($\delta=45^o$)	As in EC2: $V_{Rd,s}=b_w z \rho_w f_{ywd} \cot\delta$, with $1 \leq \cot\delta \leq 2.5$	
If $\zeta \equiv V_{Emin}/V_{Emax}$(6) <-0.5: inclined bars at angle $\pm\alpha$ to beam axis, with cross-section A_s/direction	If $V_{Emax}/(2+\zeta)f_{ctd}b_w d>1$: $A_s=0.5V_{Emax}/f_{yd}\sin\alpha$ & stirrups for $0.5V_{Emax}$	-	

(0) NDP (Nationally Determined Parameter) according to Eurocode 2. The Table gives the value recommended in Eurocode 2.

(1) μ_ϕ is the value of the curvature ductility factor that corresponds to the basic value, q_o, of the behaviour factor used in the design.

(2) The minimum area of bottom steel, $A_{s,min}$, is in addition to any compression steel that may be needed for the verification of the end section for the ULS in bending under the (absolutely) maximum negative (hogging) moment from the analysis for the "seismic design situation", M_{Ed}.

(3) h_c is the column depth in the direction of the bar, $\nu_d = N_{Ed}/A_c f_{cd}$ is the column axial load ratio, for the algebraically minimum value of the axial load in the "seismic design situation", with compression taken as positive.

(4) At a member end where the moment capacities around the joint satisfy: $\sum M_{Rb} > \sum M_{Rc}$, M_{Rb} is replaced in the calculation of the design shear force, V_{Ed}, by $M_{Rb}(\sum M_{Rc}/\sum M_{Rb})$

(5) z is the internal lever arm, taken equal to 0.9d or to the distance between the tension and the compression reinforcement, $d-d_1$.

(6) V_{Emax}, $V_{E,min}$ are the algebraically maximum and minimum values of V_{Ed} resulting from the ± sign; V_{Emax} is the absolutely largest of the two values, and is taken positive in the calculation of ζ; the sign of V_{Emin} is determined according to whether it is the same as that of V_{Emax} or not.