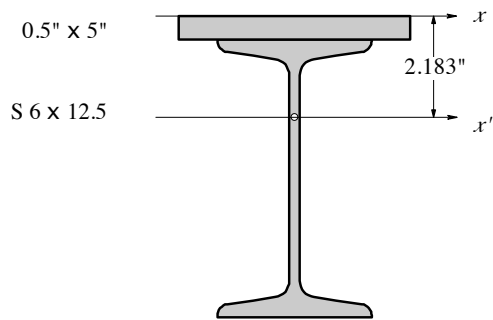


Example 1

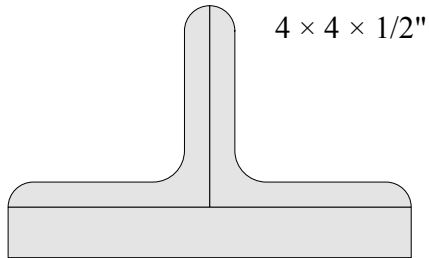
A built-up beam is made from a $1/2$ " by 5" inch plate welded to the top of an S 6 \times 12.5 in standard section. The centroid of the combined section is located 2.183" below the top surface.

Determine the moment of inertia of the combined section about the the centroidal x' axis.

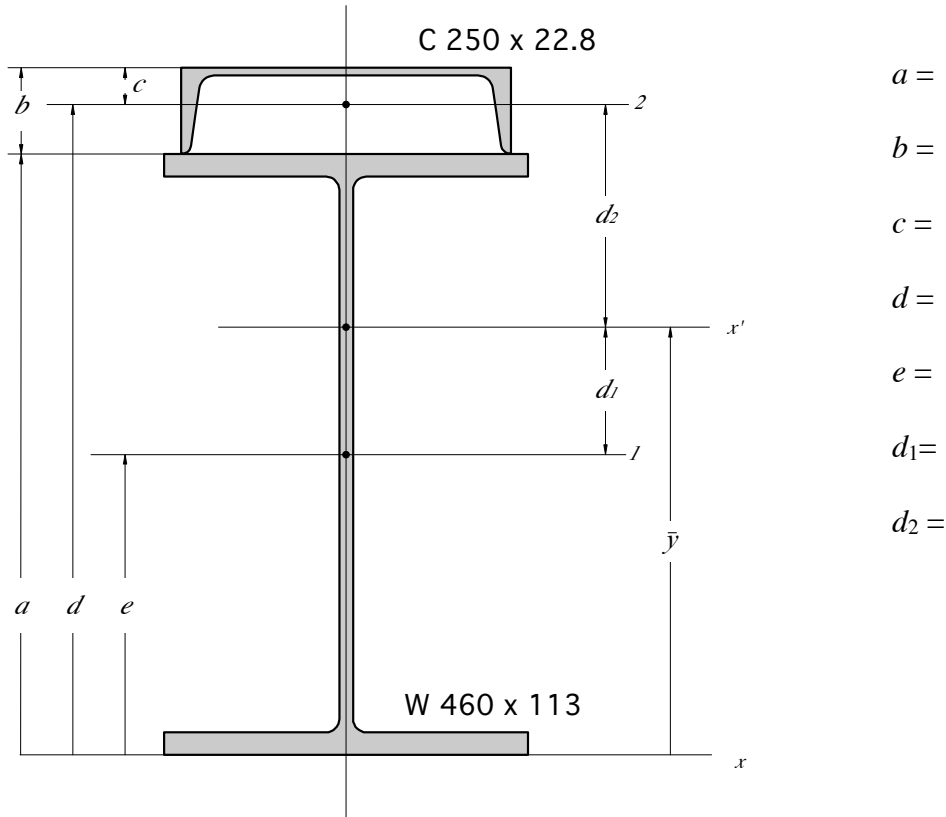


Example 2

A built up beam is made of two $4 \times 4 \times 1/2$ " angles welded to a $1" \times 8"$ plate. Determine the moment of inertia about x - and y - axes passing through the centroid of the combined shape.



The strength of the wide flanged rolled section shown is increased by welding a channel to its upper flange. Determine the moment of inertia and radius of gyration of the combined section with respect to its centroidal x and y axes.



- $a =$
- $b =$
- $c =$
- $d =$
- $e =$
- $d_1 =$
- $d_2 =$

Part	A_i	\bar{y}_i	$A_i \bar{y}_i$	d_i	\bar{I}_i	$(I_{x'})_i$	$(\bar{I}_y)_i$
1							
2							
Sum							