

IOM Hull Hydrostatics

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All information is believed to be approximately correct but is provided as is without any guarantees. Use at your own risk !

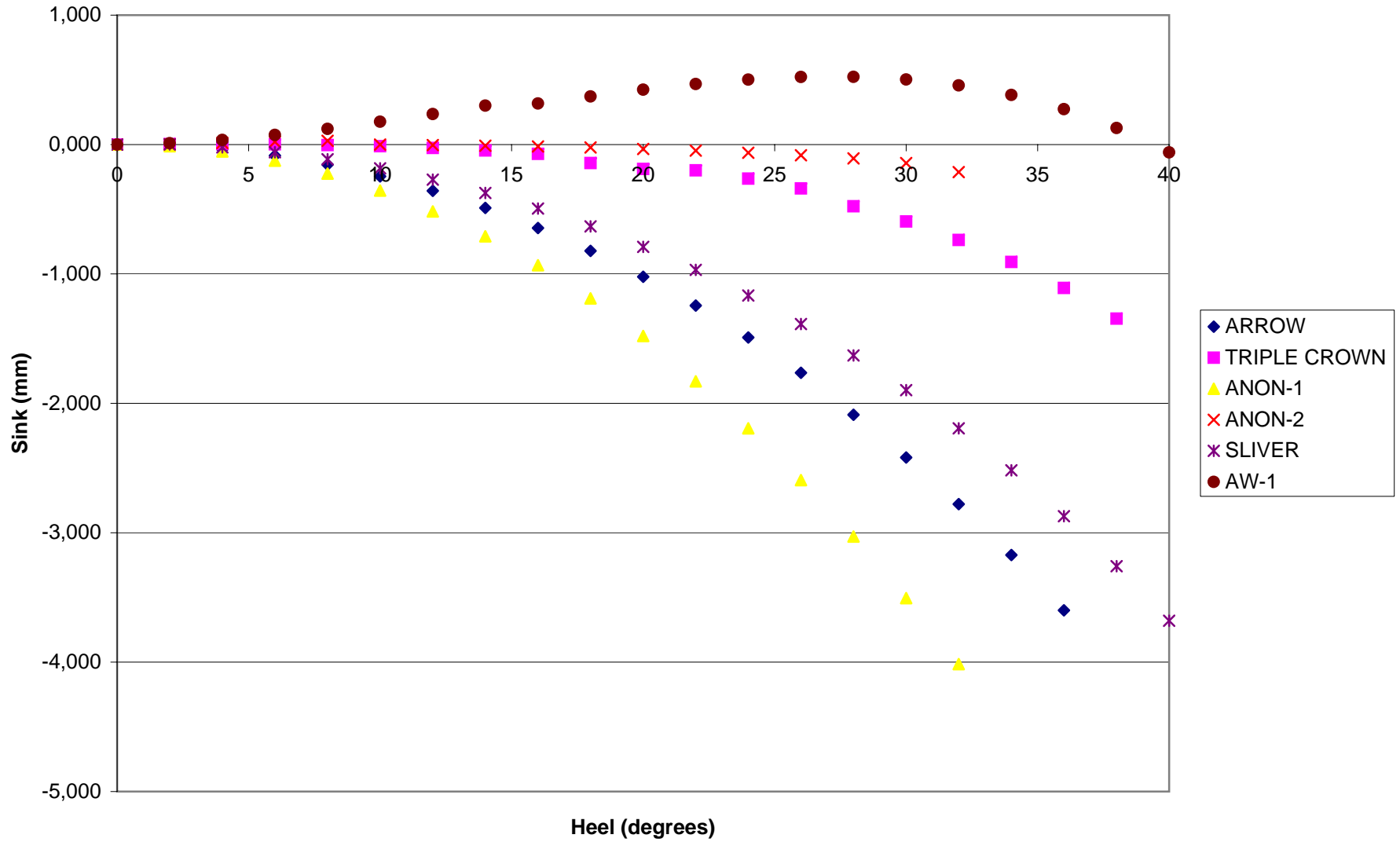
Anon-1 and Anon-2 are commercially available designs. AW-1 is something I have been playing around with in the CAD program myself. TripleCrown, Arrow, and Sliver are available on the internet.

All hull models were imported into a hydrostatics program with heel and trim set to zero. Then the boat was ballasted to 3700 g and the centre of gravity was positioned at Z=-200 mm and at the X-coordinate for the centre of buoyancy at zero heel.

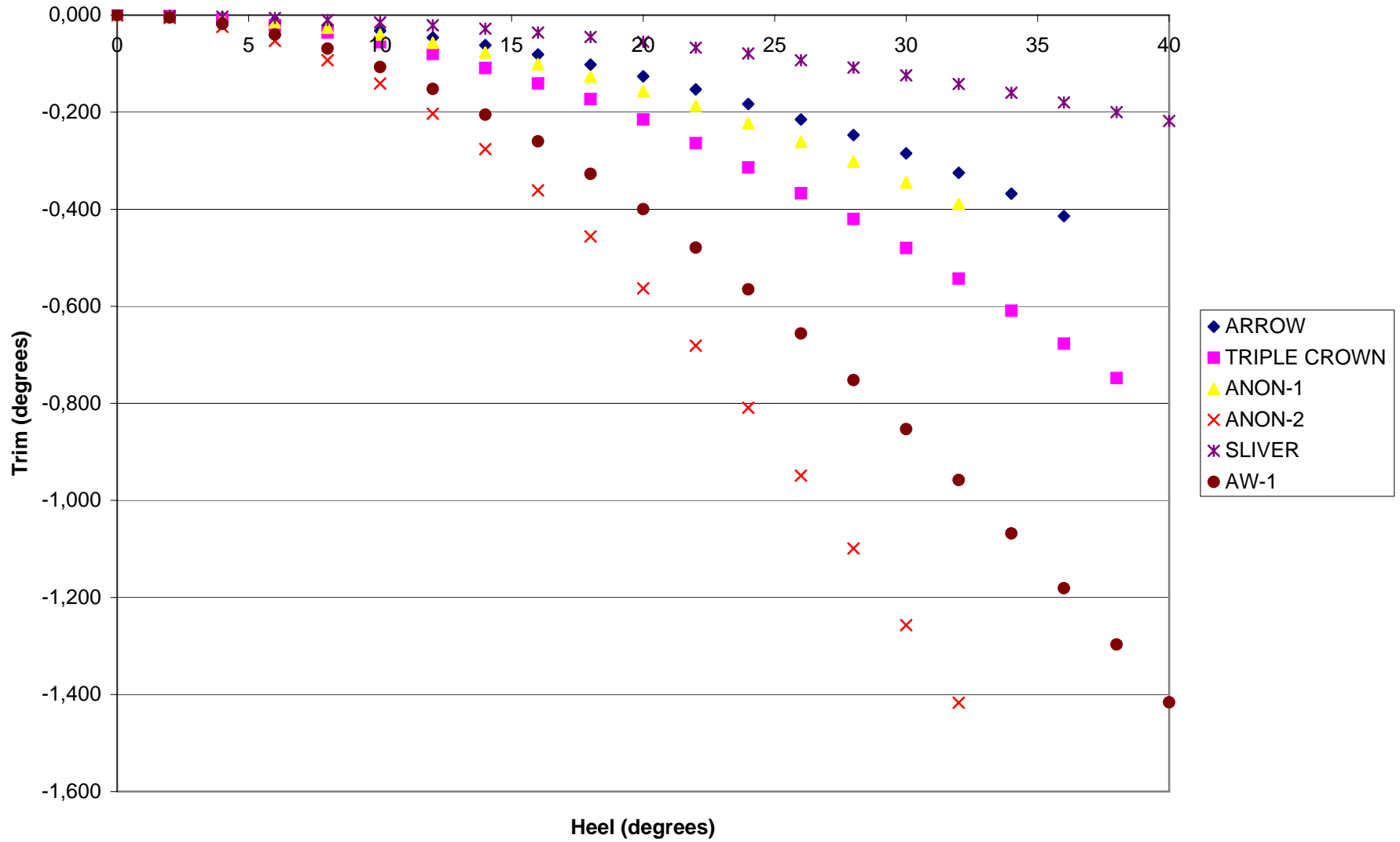
Then the boat was heeled in 2 degree increments up to the point where the sheerline hit the water surface. Hydrostatics parameters recorded and plotted as follows:

Page	Parameter	Description
1	Sink	the amount that the hull sinks(negative values) or lifts
2	Trim	the amount that the hull tilts along the longitudinal axis
3	CBX	X-coordinate of center of buoyancy
4	LCB%	same data as CBX but plotted as relative percentage
5	CP	prismatic coefficient = Volume / (w.l. length x midsection area)
6	CBL	block coefficient = Volume / (w.l. length x w.l. beam x draft)
7	RA	righting arm length
8	WPA	water plane area
9	WSA	wetted surface area
10	DRAFT	hull draft
11	BWL	beam at waterline
12		raw data

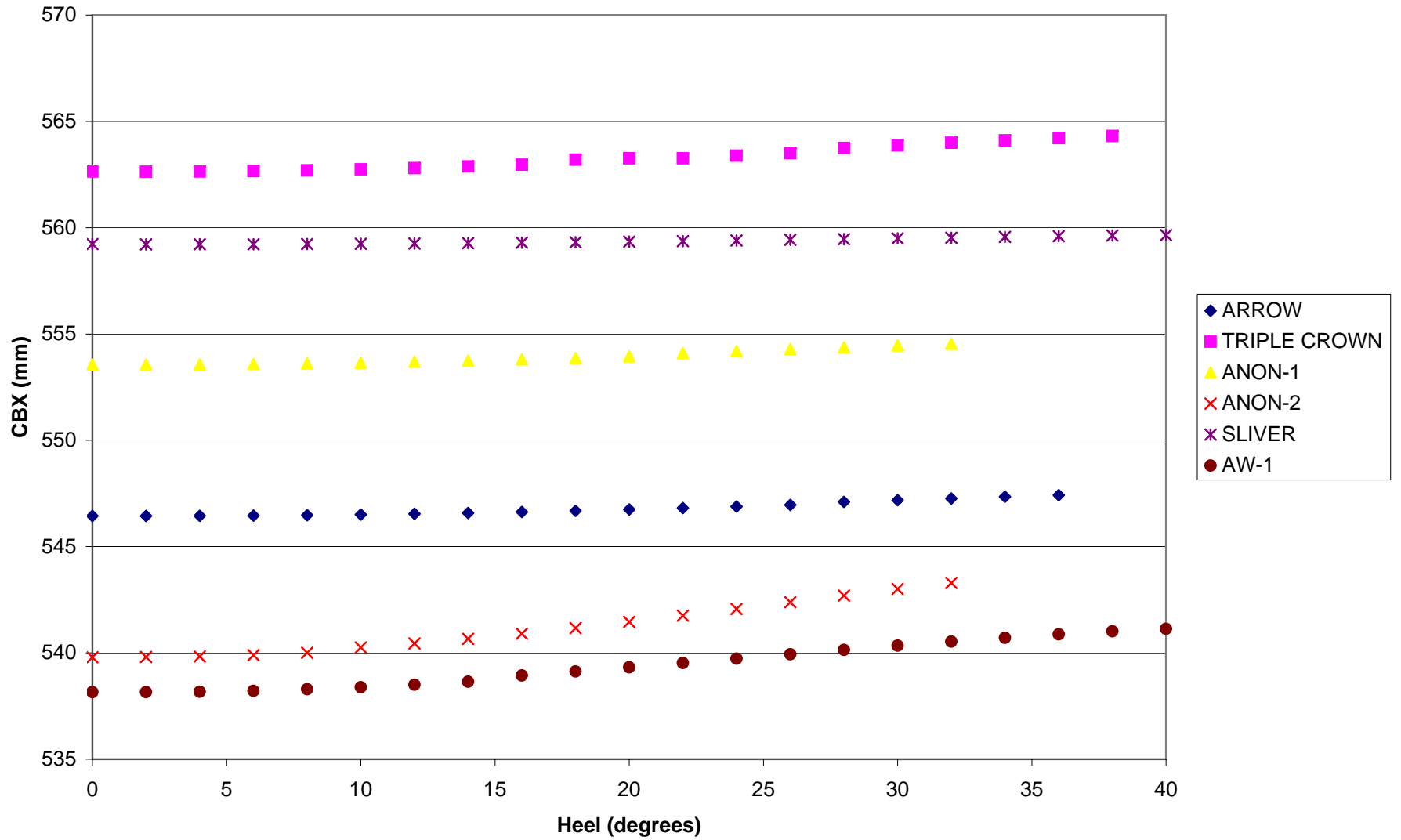
Sink



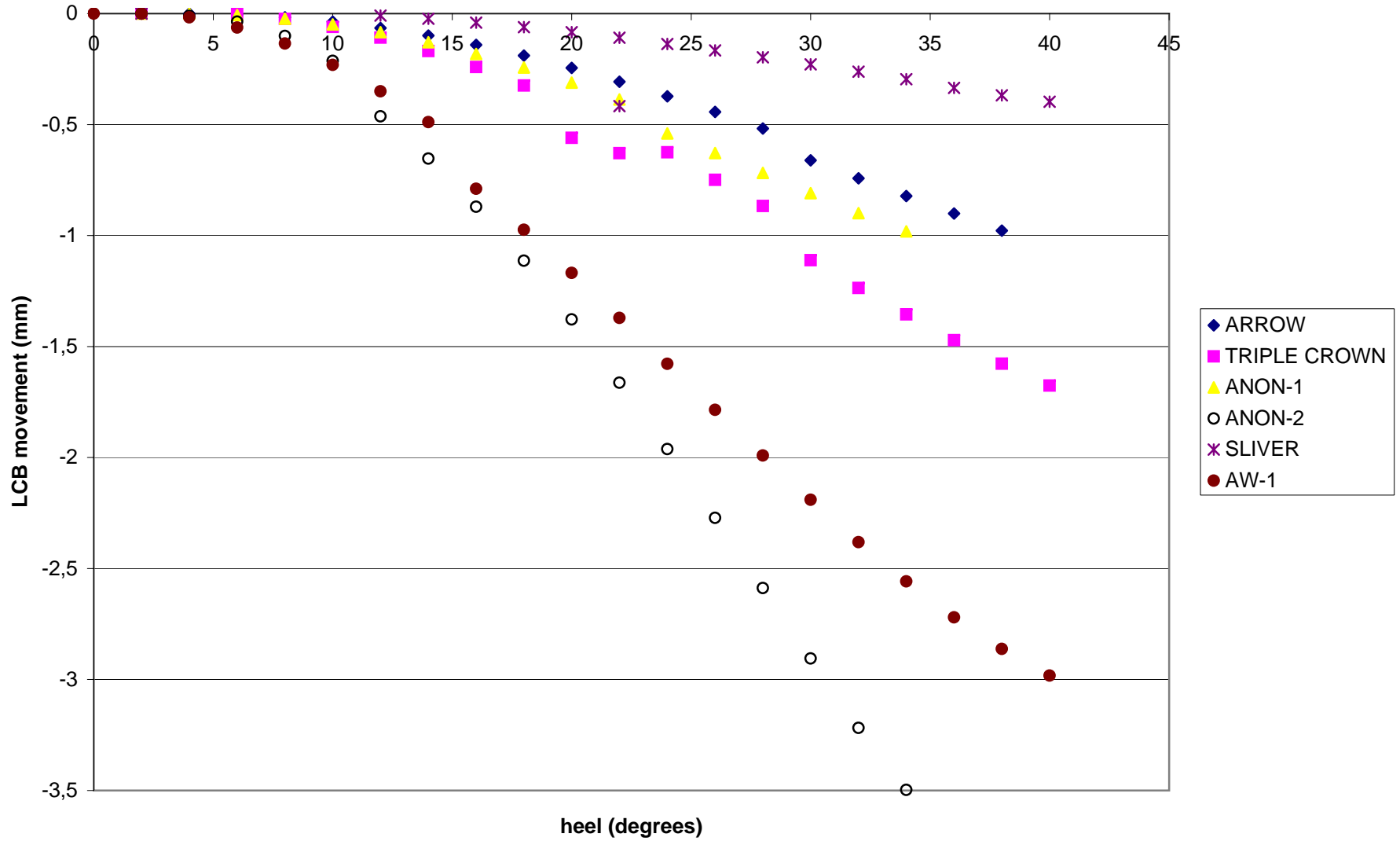
Trim



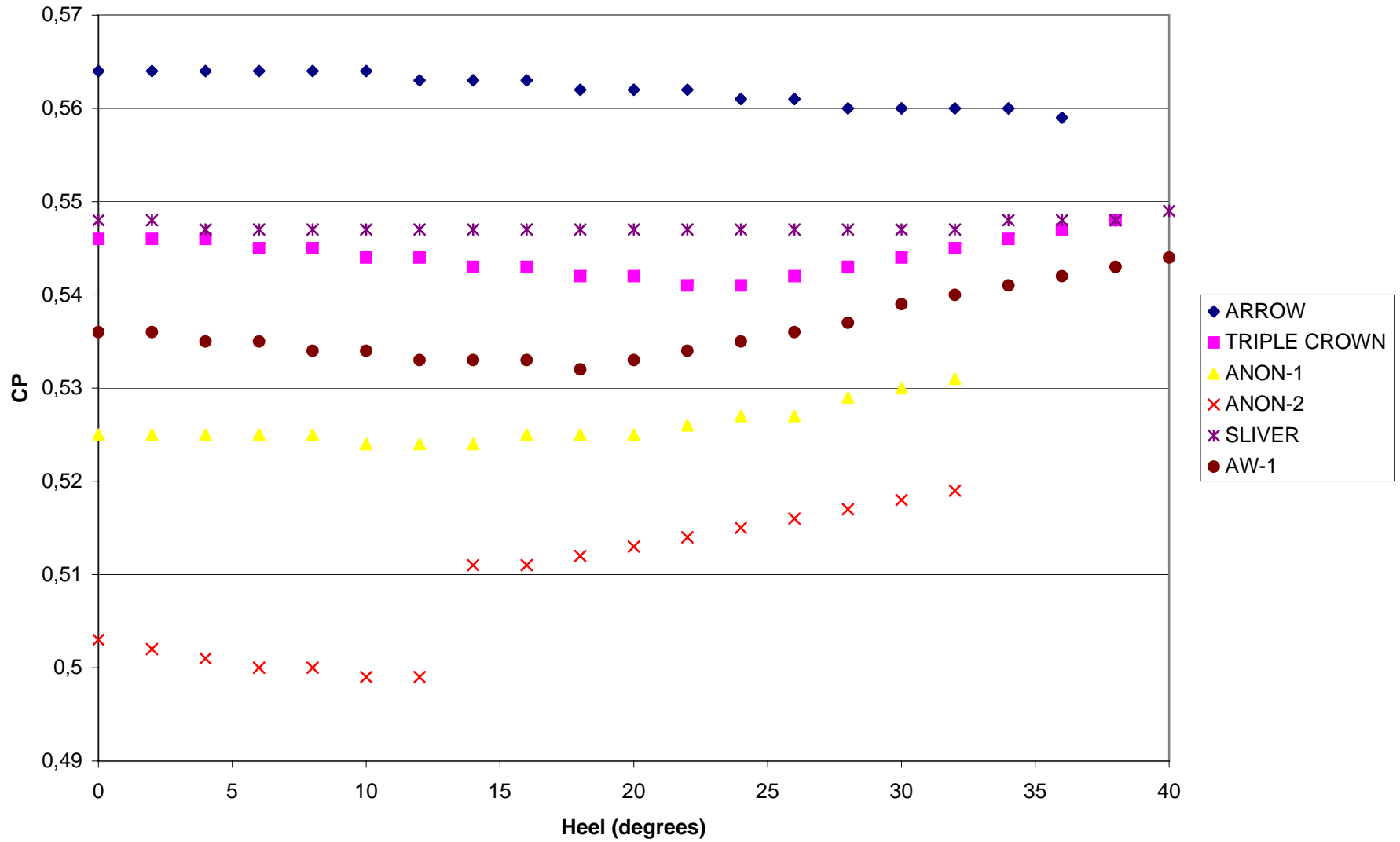
CBX



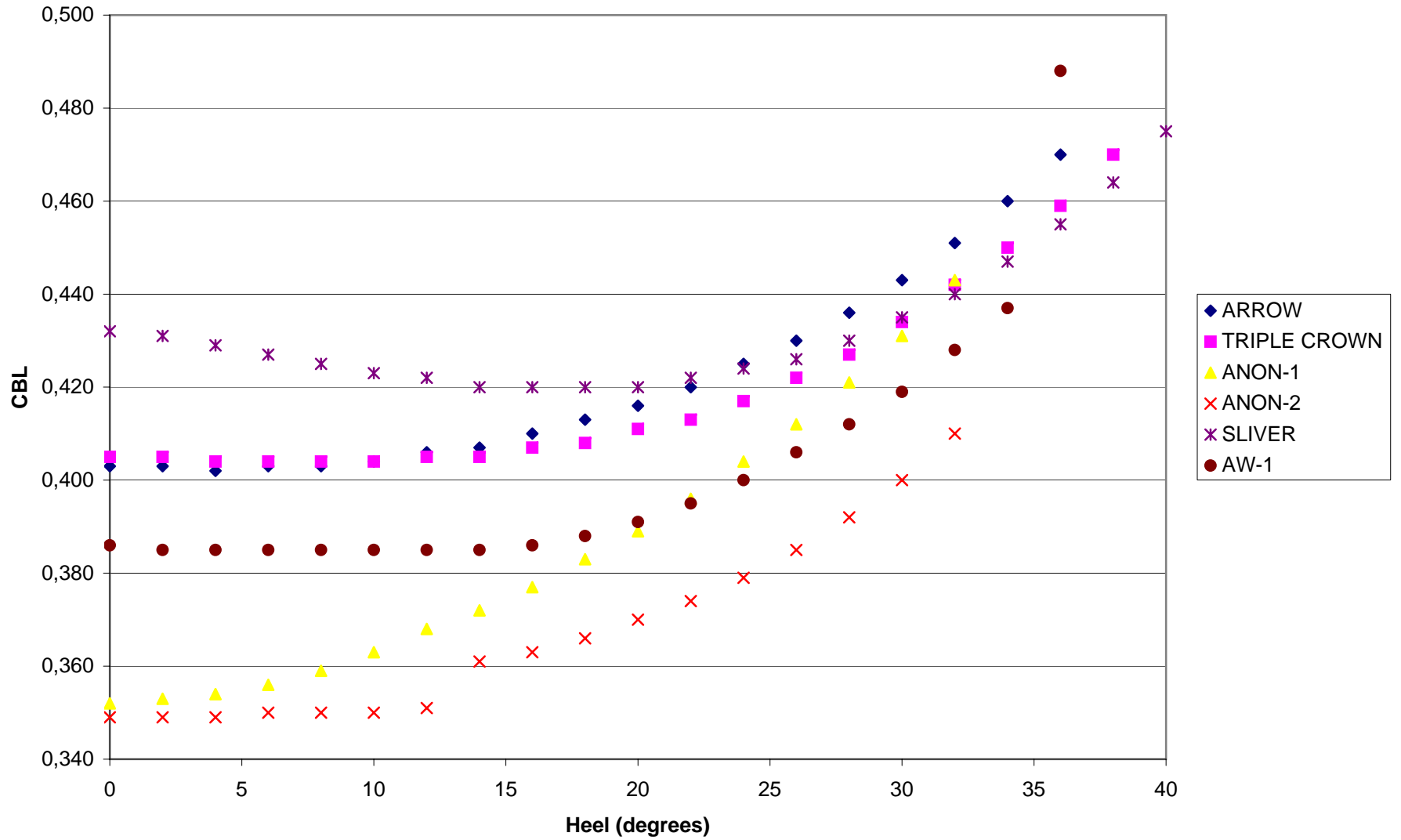
LCB movement (- is aft)



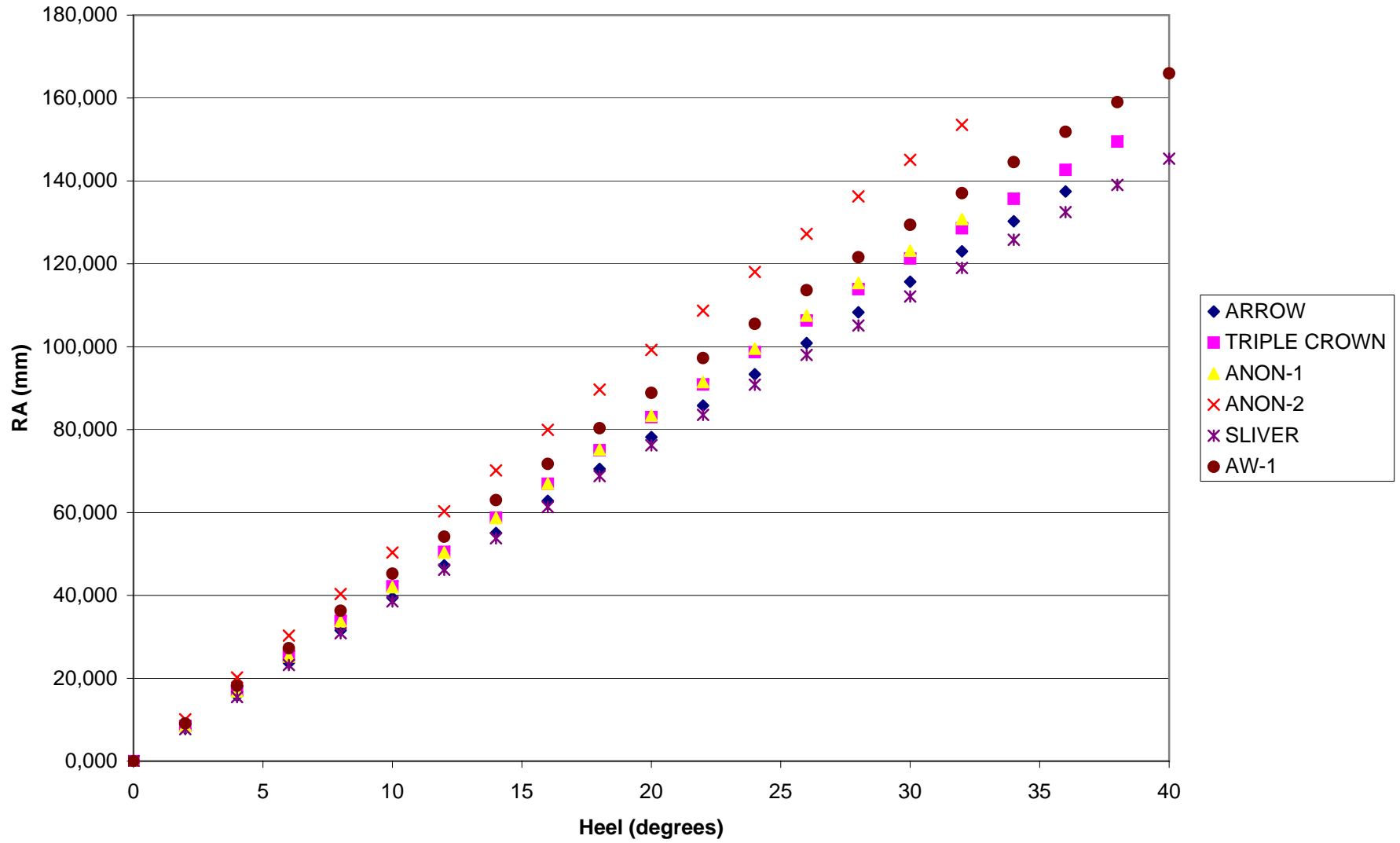
CP



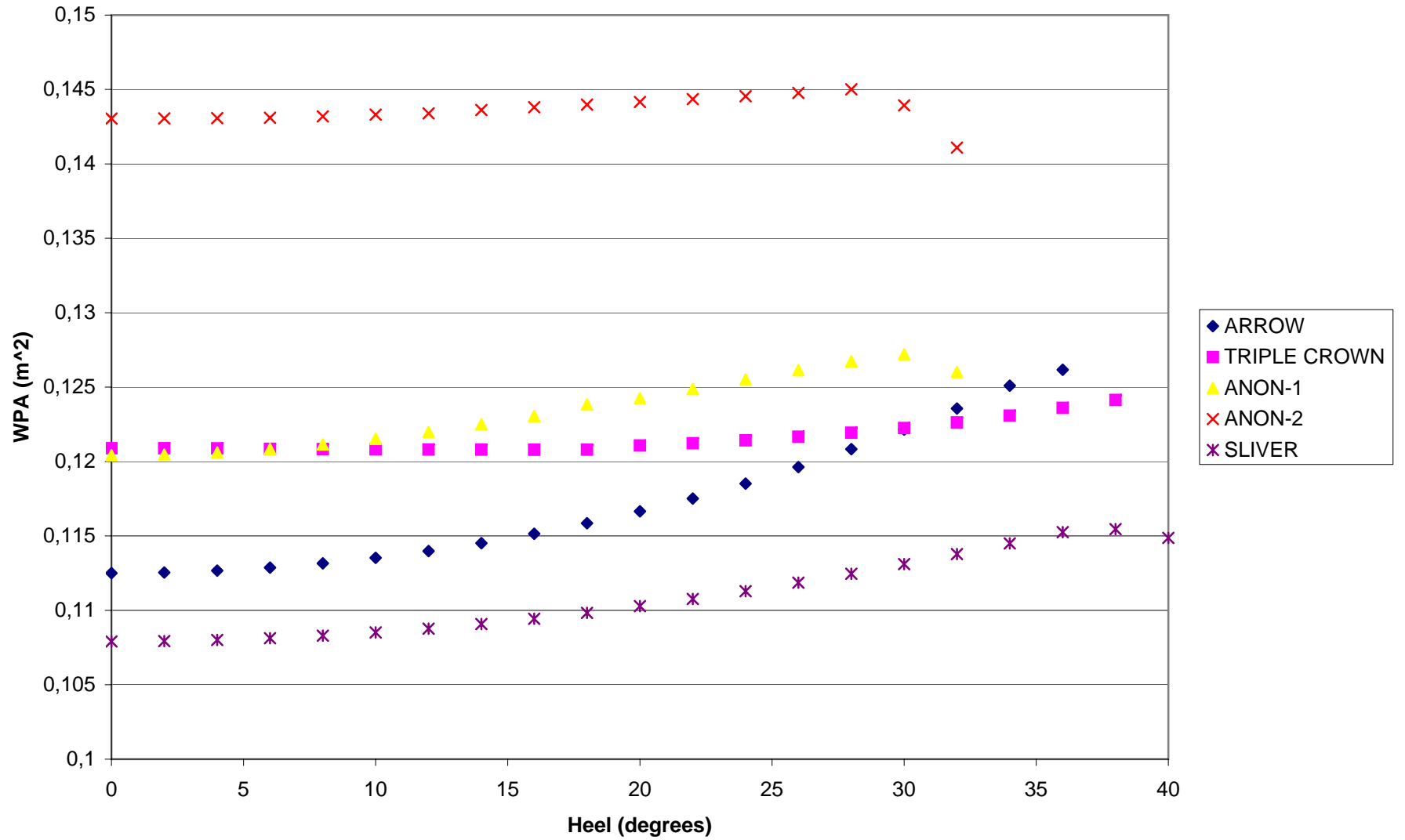
CBL



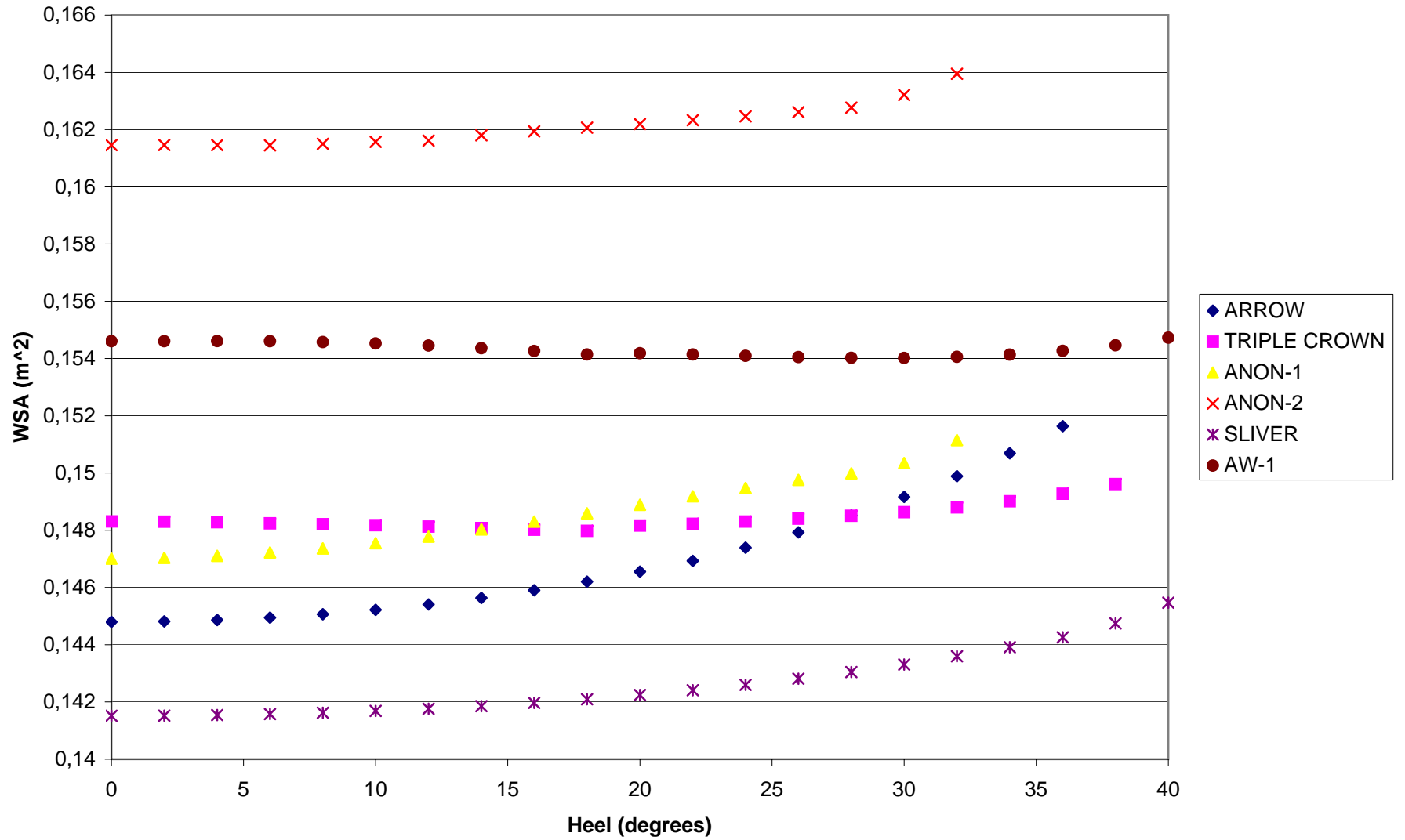
RA



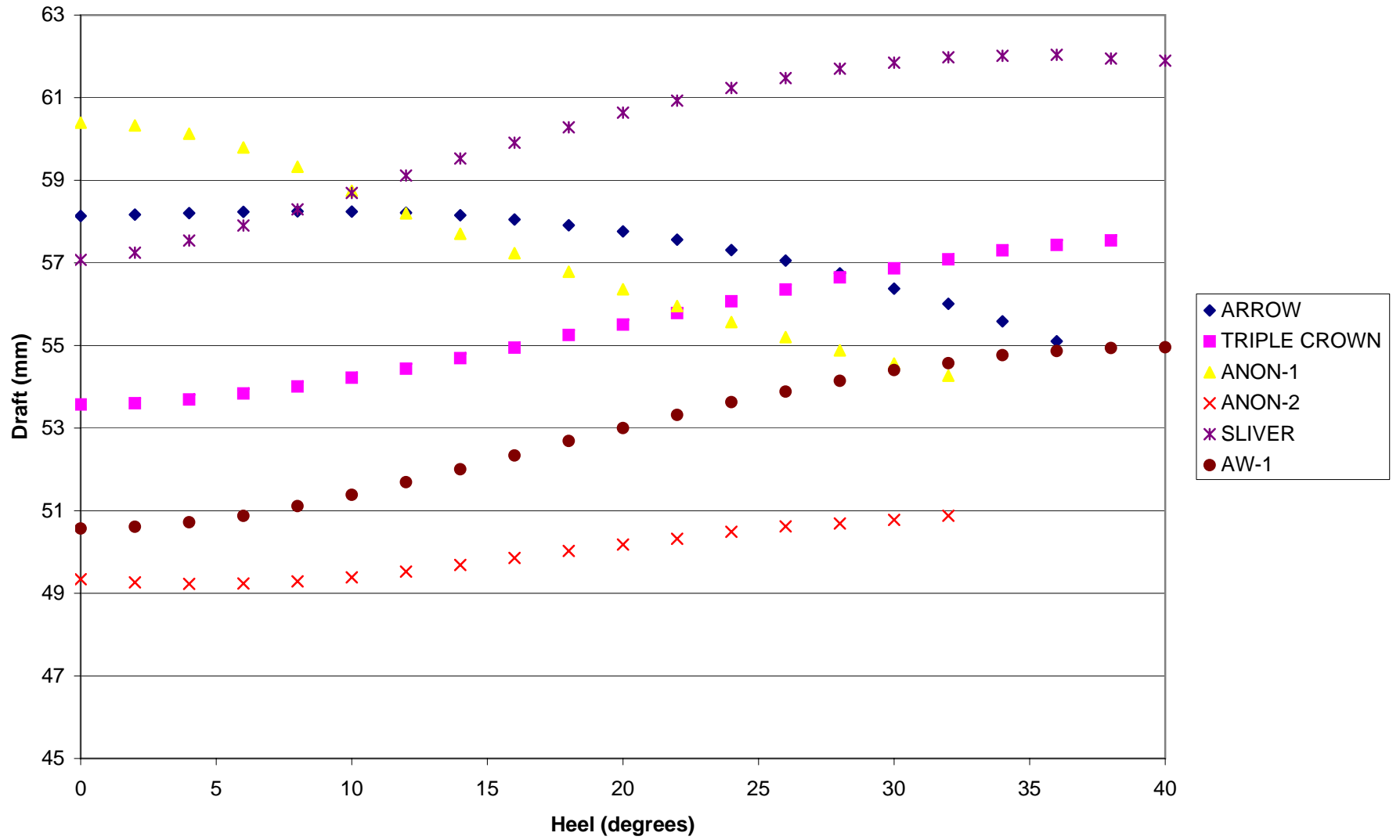
WPA



WSA



DRAFT



BWL

