
International Standard



7461

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Shipbuilding — Shiplines — Numerical representation of elements of the hull geometry

Construction navale — Formes et lignes de navires — Représentation numérique des éléments de la forme géométrique de la carène

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Descriptors : shipbuilding, ship hulls, geometric characteristics, numeric representations, information interchange.

Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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Shipbuilding — Shiplines — Numerical representation of elements of the hull geometry

1 Scope and field of application

This International Standard establishes a method of representing the geometry of ship hull lines in numerical form, to allow exchange of geometrical data between different systems of ship hull definition. The data formats to be used are specified in ISO 7838.

2 References

ISO 7460, *Shipbuilding — Shiplines — Identification of geometric data*.

ISO 7838, *Shipbuilding — Shiplines — Formats and data organization*.

3 Numerical definition of lines

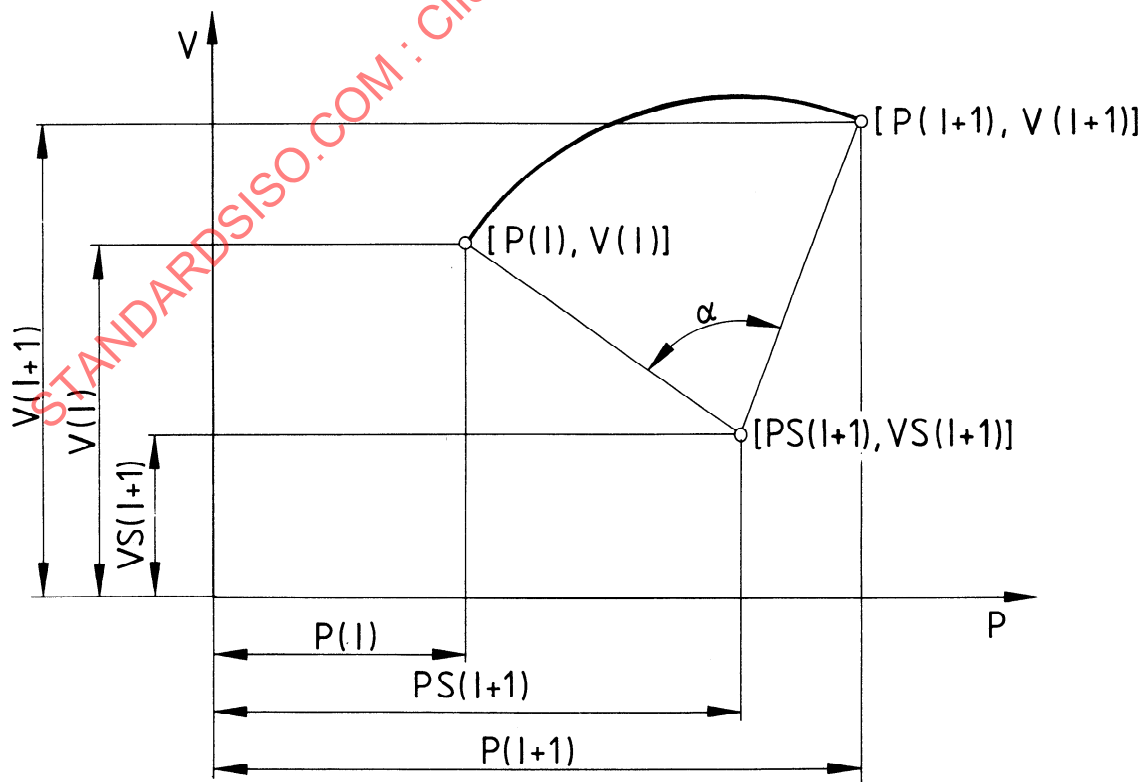
A plane chain curve is adopted as the standardized basis to define ship hull lines. Those lines which do not lie in a plane are defined as projections on orthogonal planes.

3.1 Interpolating functions

The ship hull lines are defined by means of a set of interpolating functions. The standard interpolating functions are straight line and circular arc.

3.2 Definition of the ship hull line

The ship hull line is composed of $(N - 1)$ segments. Each segment may be a straight line or a circular arc. The angle α of a circular arc is less than π (see the figure).



Figure