

命令模式

`DRaft d1 [@ l1] [, d2 @ l2, ... , dn @ ln] [/NODeflect]`

Sets the origin depth and, optionally, the trim angle and deflection, such that the given drafts are achieved.

设定原点深度，也可定义纵倾或变形，以达到给定的吃水。

`DRaft [@ l] [/PRINT] [/TITLE:"title"]`

Displays the current draft at the given location.

显示指定位置的当前吃水。

`DRaft "name" = b1 @ l1, b2 @ l2 [/NOPRINT]`

Defines a "draft line" from which drafts are measured.

定义一测量吃水的吃水基准线。

`DRaft BASEline`

Reverts to using the baseline for measuring drafts.

恢复到以基线为测量吃水的吃水基准线。

`DRaft "? "`

Displays the definition of the present "draft line" on the screen as well as in the report.

在屏幕上及报告中显示定义的吃水基准线。

`DRaft UNITS FT | Fld | FIE`

Sets system units for draft output when not in metric mode.

如当前单位不是公制单位时，定义吃水的输出单位。

参数说明

`di`

The draft at longitudinal location `li`, including any wave or deflection effect.

纵向位置 `li` 处的吃水，考虑波浪或变形影响。

`li`

The location at which `di` or `bi` is taken. The default is the LCF for a single draft.

纵向位置，用于 `di` 或 `bi` 的赋值。单个吃水一般默认位置为漂心位置 LCF。

`/NODEFLECT`

Causes a straight waterline to be used when 3 or more drafts are given.

当设定 3 个或更多吃水时，参数 `/NODEFLECT` 可以强制使水线为直线。

`/PRINT`

Writes the current draft to the print output device instead of to the screen.

把目前的吃水传送给输出打印设备，而不是屏幕显示。

`/TITLE: "title"`

Specifies a title or description which is shown preceding the value. The length of the draft title may be up to 70 characters.

定义显示吃水的标题或描述。吃水的标题长度最多 70 个字符。

name

The name or description (12 characters maximum) of the draft line.

吃水基准线的名称（最多 12 个字符）。

bi

The draft line height above baseline at li.

在 li 位置处，吃水基准线高于基线的高度。

/NOPRINT

Suppresses output of a report about the new draft line.

不打印输出新的吃水基准线信息。

FT

Specifies draft units in decimal feet (which is the default setting).

设定吃水单位为十进制的英尺(默认设定)。

FID

Specifies draft units in feet and decimal inches (e.g. "3'12.8").

设定吃水单位为英尺和十进制的英寸（例："3'12.8"）。

FIE

Specifies draft units in feet, inches, and eighths of inches (e.g. "3'127+").

设定吃水单位为英尺，英寸，八进制英寸（例："3'127+"）。

Definition: Draft is measured in the centerplane, perpendicular to the baseline. It is measured either from the baseline or from a user-defined "draft line". Draft must also refer to a certain longitudinal location relative to the origin.

定义：吃水 Draft 是在中线面上垂直于基线量取。从基线或用户定义的吃水基准线到水面的距离。吃水值同时要参考相对于原点的纵向位置。

Since draft becomes an impractical measure at large inclinations, its use is restricted to heel and trim angles less than 45°. When heel or trim is greater than 45° the DEPTH or HEIGHT commands may be used.

在大倾角状态下，这种吃水测量方法会变得与实际不符，因此它的使用限制在横倾和纵倾角度小于 45 度。当横倾和纵倾角度大于 45 度时，可以用 DEPTH 或 HEIGHT 命令。

Operation

操作

The origin depth is set, holding heel constant, in order to satisfy the given draft(s). If only one draft is given, the trim angle is also held constant.

为满足给定的吃水，设定原点深度，同时保持当前横倾不变。如果只给定一个吃水，当前纵倾也要会保持不变。

If two or more drafts are given, depth and trim are changed in order to arrive at the specified drafts.

如果给定两个或多个吃水，深度和纵倾将被调整，以达到指定的吃水。

If three or more drafts are given, a parabolic deflection is defined such that all of the drafts are satisfied as closely as possible in a "least squares" sense; i.e. the sum of the squares of the errors is minimized.

如果给定 3 个或更多吃水，软件将以最小二乘法拟合出一个抛物线形的船舶变形，即平方差的和为最小，来使得每个设定的吃水都贴近于这个变形后的吃水。

When deflection is set by the DRAFT command, the depth and trim are set so that the deflection is zero at two locations. These two locations are: the forward and aft perpendiculars if the LBP command has defined them; the forward and aft ends of the "waterline" if the LWL command has defined them; or the extreme ends of the vessel if neither an LBP nor an LWL definition is in effect.

当 DRAFT 命令使船体变形时，设定深度和纵倾使两个位置的变形为 0。如果 LBP 已经定义，这两个位置为首尾垂线位置处。如果 LWL 已经定义，这两个位置为水线的两个端点。如果 LBP 和 LWL 都没定义，这两个位置为船舶计算模型的最前和最后的两端点。

The /NODEFLECT parameter may be used to force the deflection to zero, thus fitting a straight waterline through the draft data in a least squares sense.

参数/NODEFLECT 可以强制使船体变形为 0，这样软件将根据所设定的吃水以最小二乘法拟合出一条的直线为吃水。

Deflection and waves cannot coexist. When deflection is set, any wave which may have been in effect is "turned off".

船体变形和波浪不能同时存在，当设定变形后，便不予考虑波浪的作用，任何波浪都将被关闭。

Deflection remains in effect only as long as the waterplane remains unchanged. Any command which changes depth (draft), heel or trim will also remove the deflection.

只有当水面保持不变时，船体变形才会存在。任何能够改变深度（吃水），横倾或纵倾的命令都可以消除船体变形。

A maximum of 20 draft/location pairs may be given.

最多可以设定 20 对吃水/位置（draft/location）。

When LWL "ends" or Perpendicular locations are defined (see the LBP and LWL commands), they may be referenced by the keywords FP and AP in the draft command. The midpoint may also be referenced by the keyword MS, along with any MP assigned using the LBP command. These keywords may be used in place of the I1 and I2 parameters.

当水线端点或首尾垂线位置被设定好后（参考命令 LBP 和 LWL），在 draft 命令中，可以利用关键词 FP 和 AP 参考引用他们。中点可以用关键词 MS 参考引用。这些关键词可以代替参数 I1 和 I2.

For example,

例子:

DRAFT = 12.5 @ FP, 12.75 @ AP

DRAFT = 6.67 @ MS

首垂线位置吃水 12.5，尾垂线位置吃水 12.75，船中位置处吃水 6.67

When a single draft & location are being specified, the parameters may be given in either order; for example,

当定义单一位置吃水时，参数可以按照下面的任何顺序设定，例子:

DRAFT = 8 @ 50

DRAFT @ 50 = 8

are equivalent. Note that the latter form is like the DRAFT parameter on the GHS, CC and MAXVCG commands. (The FP, AP and MP keywords can also be used with those commands.)

以上两种格式是等效的，后者格式与命令 GHS,CC 和命令 MAXVCG 的参数格式相似，（在 GHS,CC 和 MAXVCG 中同样可以引用关键词 FP, AP 和 MP）。

When the location is omitted, the location of the LCF at that draft is assumed.

当位置被省略时，吃水的位置默认取漂心 LCF 的位置。

The screen-only output mode is triggered when the draft value is omitted.

The result is a short display showing the current draft at the given location.

当不输入任何吃水值时，屏幕显示模式被开启，屏幕会显示指定位置的当前吃水。

When the vessel is heeled or when waves with a beam heading component are present, it is important to note that the draft is taken in the centerplane; ie. the average of the port and starboard drafts.

当船舶发生横倾或遭遇横向波浪时，吃水取值于中线面位置的吃水，也就是左舷和右舷吃水的平均值。

Only the DRAFT, DEPTH or HEIGHT commands can change the depth if it is fixed (see the FIX command).

如果深度被锁定，只有 DRAFT, DEPTH 或 HEIGHT 命令可以改变深度。（参看 FIX 命令）。

Changing drafts upsets weight/displacement equilibrium, which can be restored by resetting the weight; eg. by issuing a SOLVE WEIGHT command.

改变吃水就打破了原来的重量/排水量平衡，可以通过重新定义船舶重量使平衡恢复，例如：通过命令 SOLVE WEIGHT 求解新的船舶重量。

Changing the trim with the TRIM command causes the origin depth to become undefined. Therefore, a DRAFT command should normally follow a TRIM command (or better, use the two-draft form of the DRAFT command and avoid the TRIM command altogether).

TRIM 命令可以改变纵倾，同时也改变了原点深度。因此 DRAFT 命令通常跟着 TRIM 命令。（可以采用定义两点吃水的方式避免和 TRIM 命令并用）。

Normally, the baseline is used as the point from which draft is measured at a particular longitudinal location. However, this may be changed by means of the special form of the draft command:

通常，在纵向某位置处基线是用来测量吃水的吃水基准线，然而，可以通过下面的命令定义新的吃水基准线。

DRAFT "name" = b1 @ l1, b2 @ l2

where name is what this type of draft will be called. The b1 and b2 are like "drafts" of the new draft line relative to the baseline. The l1 and l2 define the longitudinal locations at which b1 and b2 are taken; they also act just like the LWL command to define the Perpendicular locations only if these were previously undefined. A two-line summary of the new draft line is sent to the screen and any open report. This summary can be repeated later using the form:

“name”为新的吃水基准线的名称，b1 和 b2 为新的吃水基准线在纵向位置 l1 和 l2 处相对于基线的偏移量。如果首垂线和尾垂线并未定义，系统会像 LWL 命令一样定义垂线的位置。同时一个两行的新吃水基准线的汇总会被发送到屏幕或任何打开的报告。这个汇总可以用以下命令格式再次显示：

DRAFT "? "

Once in effect, the draft line is used both for input and for output.

这个当前有效的吃水基准线，将同时用于输入和输出

Reversion to baseline drafts is accomplished by using the special form:

利用下面的命令语句可以恢复基线作为吃水基准线。

DRAFT BASELINE

Note that quotation marks are required around the draft line name, but are not used around BASELINE since it is a key word.

注意：吃水基准线的名称要加引号，但是 BASELINE 不用加，因为它是关键词。

The UNITS form specifies the format for displaying drafts throughout the system when not in metric mode (unless overridden as by drafts listed for the GHS command in ft'inch format).

UNITS 命令用于指定吃水的输出单位，如果吃水的输出单位不是公制单位。（除非用类似于 GHS 命令中，定义吃水时用的英制格式 ft'inch 取代）。

Output:

输出

When three or more drafts are given, a table is produced which shows locations and drafts given as well as the drafts which now exist at those locations and the differences between the given- and used-drafts.

当设定三个或更多吃水时,会生成所设定的各个位置的吃水,以及最后拟合的对应位置下的吃水,两个吃水的差也会显示出来。

In the draft-line-defining mode, a report shows the definition of the new draft line unless the /NOPRINT parameter is present.

在吃水基准线的定义模式中,如果不出现参数/NOPRINT,报告会显示新吃水基准线的定义。

When no draft is given, the command sends a one-line summary showing the current draft at a given location (default=LCF) either to the screen or (if/PRINT parameter is present) to any open report.

当没有设定吃水时,则一个单行的指定位置的当前吃水(默认在漂心位置 LCF),将会被屏幕显示出来或发送到报告(如果出现 if/PRINT 参数)。

Examples

样例

Specifying 14.5 draft at 3.33 forward of the origin:

相对于原点船首方向 3.33 处,设定吃水 14.5:

DRAFT 14.5 @ 3.33F

Setting both depth and trim via a pair of draft measurements:

通过定义一对吃水,设定深度和纵倾:

DRAFT 14.5 @ 3.33F, 15.01 @ 92.5A

Setting the draft at midsection (when the LBP or LWL ends have been defined):

设定船中吃水(当 LBP 或 LWL 已经定义):

DRAFT 10.5 @ MS

Setting draft at both perpendiculars:

定义首尾垂线处吃水:

DRAFT 5.5 @ FP, 6.5 @ AP

Setting the draft at the LCF:

设定漂心吃水:

DRAFT 9.77

Setting depth, trim and deflection:

设定吃水深度,纵倾和船体变形:

DRAFT 8.75 @ FP, 8.25 @ MS, 8.33 @ AP

Defining a new draft line at the bottom of a sloping keel:

定义新的吃水基准线在斜龙骨底部:

DRAFT "Keel" = 2.00 @ FP, -0.50 @ AP