

# KAMOME SIDE THRUSTER CPP- TYPE SERIES

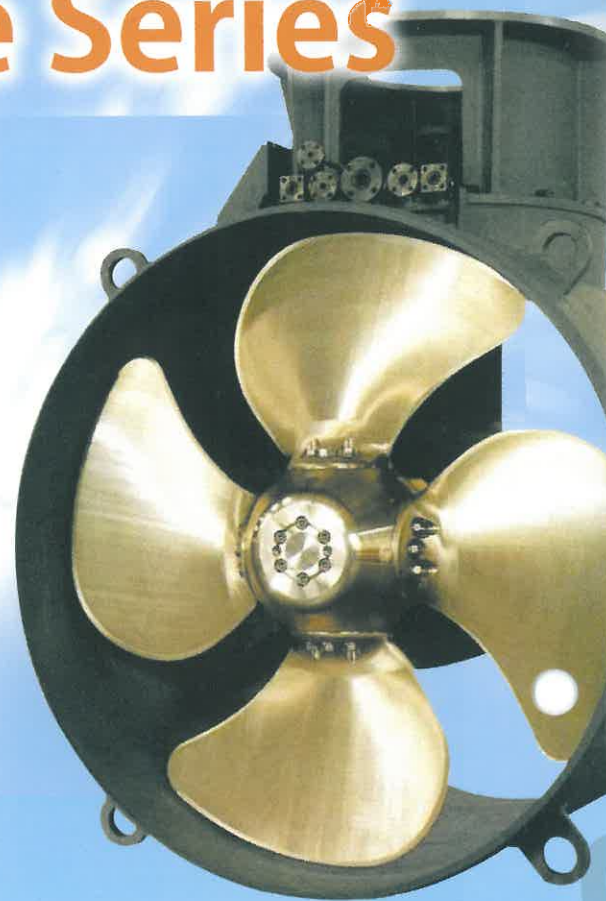


かもめプロペラ株式会社

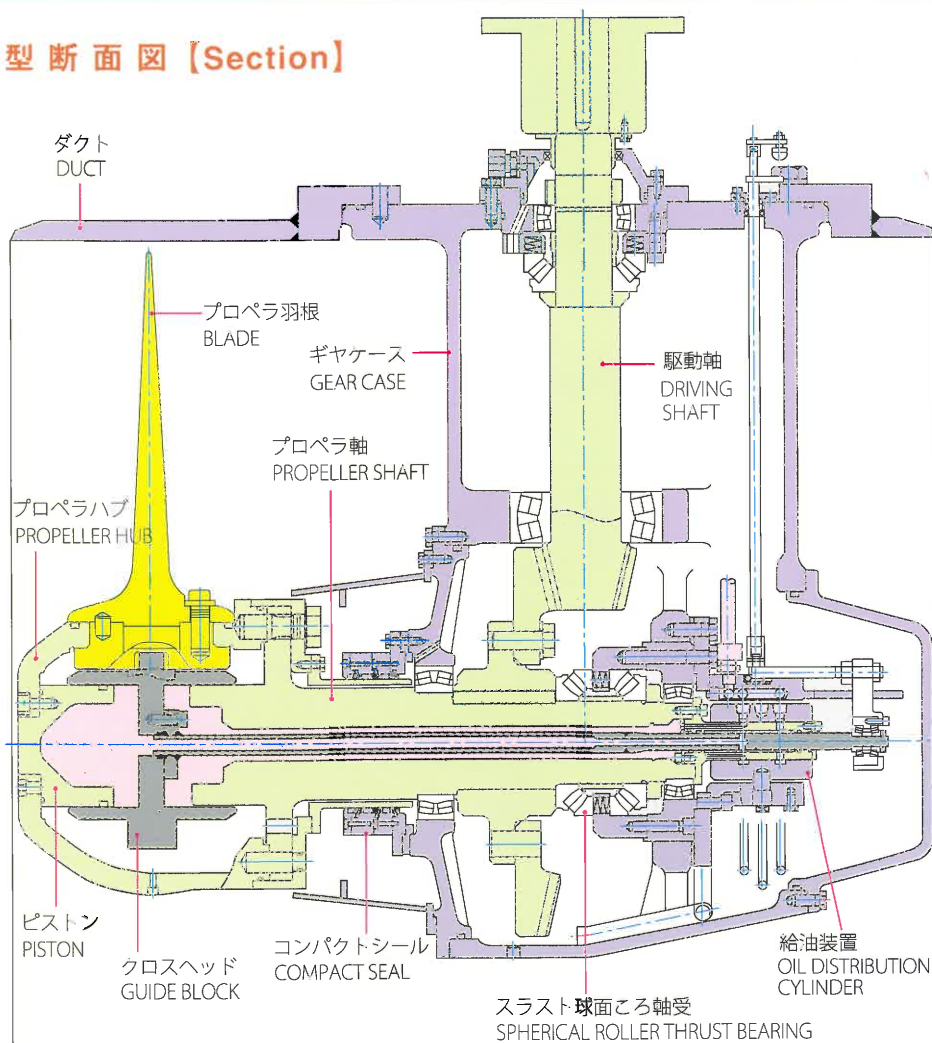
# CPP-Type Series

## 特 長 【Superiority】

- ① 3,500台の納入実績を基に、優れた性能と高い信頼性を実現しました。  
Outstanding performance and high reliability has been realized through the delivery of more than 3,500 units.
- ② 厚板ダクトの採用および新翼形の開発によって低騒音、低振動を確保しました。快適な船舶居住性をお約束します。  
Employing thicker duct plate and developing new propeller have achieved less noise and vibration, which follow comfortable living environment on board.
- ③ 取扱が容易で操作性の良いかもめ独自の制御装置 KTC100を標準装備しました。  
Easily operating and maintaining KTC100 Control System has been newly developed by Kamome and equipped as a standard accessory.
- ④ 水槽試験に基づく堅牢、合理的な構造設計です。剛性、耐久性に優れ、保守が容易です。  
Tough and rational structural design based on tank test has accomplished superior strength and durability and easy maintenance.

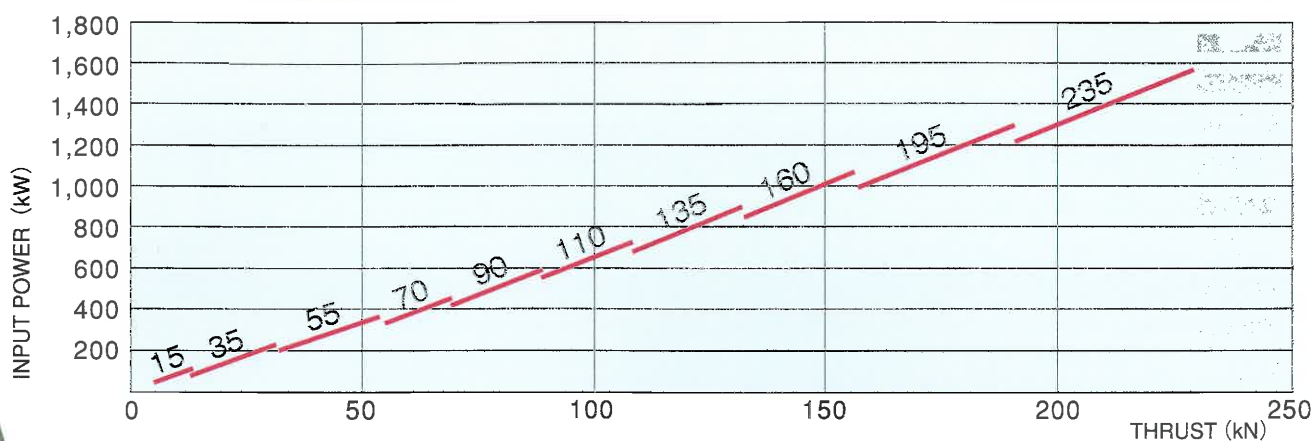


## T C B 型 断面図 【Section】



KAMOME

型式選定表 [Select Table]



性能表 [Performance Table]

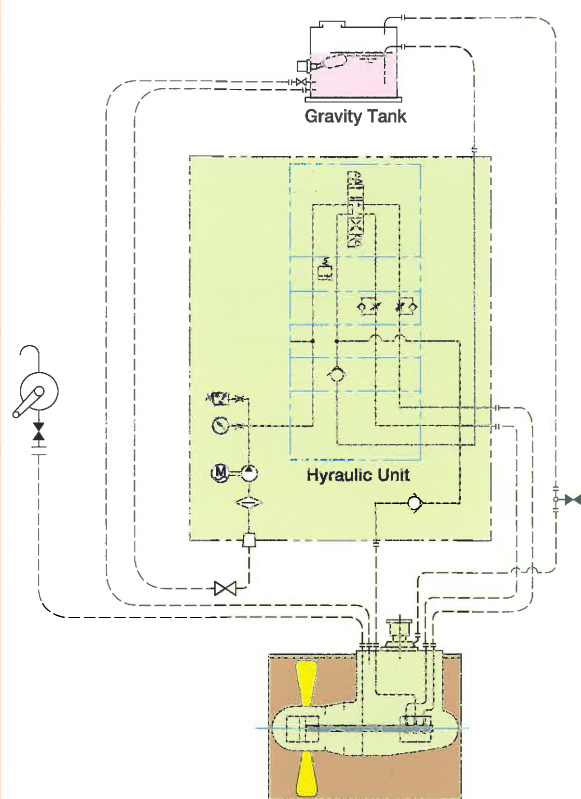
| Type    | Propeller Dia. (mm) | Max. Thrust |       | Max. Input Power (kW) | Input Speed (rpm) |       | Propeller Speed (rpm) |      |
|---------|---------------------|-------------|-------|-----------------------|-------------------|-------|-----------------------|------|
|         |                     | (kN)        | (ton) |                       | 60Hz              | 50Hz  | 60Hz                  | 50Hz |
| TCA-15  | 700                 | 15.8        | 1.61  | 95                    | 1,750             | 1,450 | 778                   | 785  |
| TCB-35  | 880                 | 34.3        | 3.5   | 229                   | 1,750             | 1,450 | 656                   | 666  |
| TCB-55  | 1,100               | 53.9        | 5.5   | 362                   | 1,750             | 1,450 | 532                   | 534  |
| TCB-70  | 1,250               | 68.6        | 7.0   | 459                   | 1,750             | 1,450 | 480                   | 483  |
| TCB-90  | 1,400               | 88.3        | 9.0   | 596                   | 1,750             | 1,450 | 429                   | 441  |
| TCB-110 | 1,550               | 108         | 11.0  | 731                   | 1,750             | 1,450 | 396                   | 393  |
| TCB-135 | 1,700               | 132         | 13.5  | 902                   | 1,170             | 1,450 | 356                   | 356  |
| TCB-160 | 1,850               | 157         | 16.0  | 1,072                 | 1,170             | 1,450 | 331                   | 328  |
| TCB-195 | 2,050               | 191         | 19.5  | 1,302                 | 1,170             | 980   | 299                   | 298  |
| TCB-235 | 2,250               | 230         | 23.5  | 1,572                 | 1,170             | 980   | 274                   | 273  |

※諸要目は予告なしに変更される場合があります。  
The particulars may have changes without a previous notice.

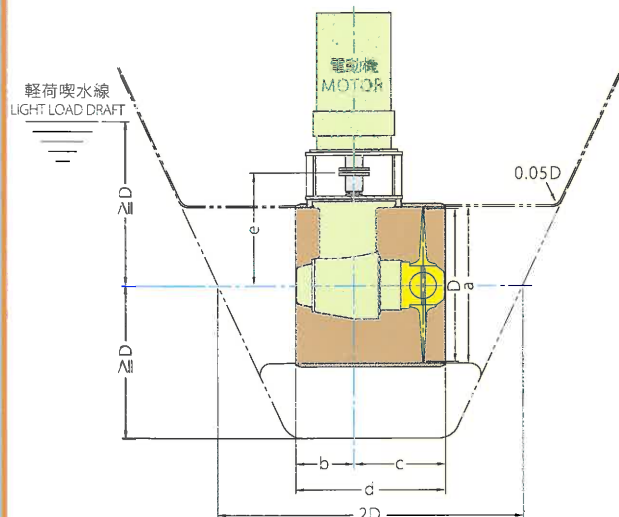
補機要目表 [Particular of Mover]

| Type    | Pump Capacity (ℓ/min) | Pump Pressure (MPa) | Pump Speed (rpm) | Motor Power (kW) | Gravity Tank Capacity (ℓ) |
|---------|-----------------------|---------------------|------------------|------------------|---------------------------|
| TCA-15  | 3.6                   | 3.9                 | 1,140            | 0.75             | 30                        |
| TCB-35  | 3.6                   | 7.8                 | 1,140            | 0.75             | 50                        |
| TCB-55  | 3.6                   | 7.8                 | 1,140            | 0.75             | 50                        |
| TCB-70  | 5.6                   | 7.8                 | 1,710            | 1.5              | 50                        |
| TCB-90  | 11.0                  | 7.8                 | 1,710            | 2.2              | 50                        |
| TCB-110 | 11.0                  | 7.8                 | 1,710            | 2.2              | 50                        |
| TCB-135 | 14.3                  | 7.8                 | 1,735            | 3.7              | 90                        |
| TCB-160 | 20.2                  | 7.8                 | 1,735            | 3.7              | 90                        |
| TCB-195 | 20.2                  | 7.8                 | 1,735            | 3.7              | 90                        |
| TCB-235 | 20.2                  | 7.8                 | 1,735            | 3.7              | 90                        |

油圧系統図 [Hydraulic System Diagram]



## 配置図 [Configuration]



## 据付について [Installation]

スラストは、おおむね次の事項を満足する範囲で、できるだけ船首または船尾近くに据え付けてください。

- 船底からの高さ：1～1.5D
  - 軽荷喫水線からの没水深度：1～1.5D
  - トンネル長さ：2D
  - 重力タンクの据付高さ：満載喫水線から1.5～2.0m
- トンネルの開口部の丸み： $D \times 0.05$ を設計点としております。  
(Dはプロペラ直径、基準はプロペラ中心線とします)

ギヤケース内及び重力タンク内潤滑油：工業用ギヤオイル、粘度グレードISO VG100相当品。

The thruster would be installed on the bow or stern as fore or aft as possible under the following conditions:

- Height from base line : 1~1.5D
- Depth from Light loaded draft line : 1~1.5D
- Length of tunnel : 2D
- Height of gravity tank : 1.5~2.0 meter above full loaded draft line.

Roundness of hull opening for tunnel:  $D \times 0.05$

Lub. Oil and Hyd. oil : Gear oil ISO VG100

(D: Propeller diameter, Base : Center of propeller)

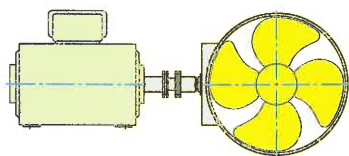
## 標準寸法表 [Standard Dimension]

|             | TCA-15 | TCB-35 | TCB-55 | TCB-70 | TCB-90 | TCB-110 | TCB-135 | TCB-160 | TCB-195 | TCB-235 |
|-------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| D           | 700    | 880    | 1,100  | 1,250  | 1,400  | 1,550   | 1,700   | 1,850   | 2,050   | 2,250   |
| a           | 714    | 898    | 1,122  | 1,276  | 1,428  | 1,582   | 1,734   | 1,888   | 2,092   | 2,296   |
| b           | 310    | 430    | 445    | 470    | 535    | 545     | 580     | 600     | 640     | 660     |
| c           | 590    | 640    | 715    | 770    | 835    | 905     | 970     | 1,045   | 1,140   | 1,240   |
| d           | 900    | 1,070  | 1,160  | 1,240  | 1,370  | 1,450   | 1,550   | 1,645   | 1,780   | 1,900   |
| e           | 567    | 690    | 842    | 934    | 1,030  | 1,136   | 1,217   | 1,344   | 1,500   | 1,610   |
| Weight (kg) | 860    | 1,320  | 2,100  | 2,650  | 3,450  | 4,300   | 5,500   | 6,000   | 7,500   | 9,000   |

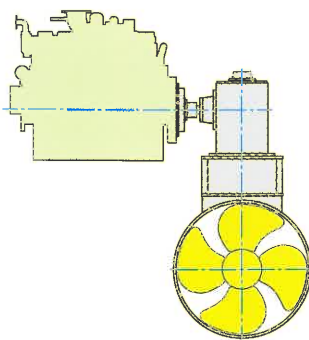
(mm)

## H型・L型配置図 [Configuration]

H型



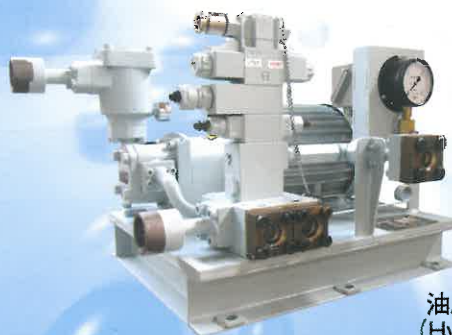
L型



## 付属機器

Accessories

KTC100制御装置  
(Control System)



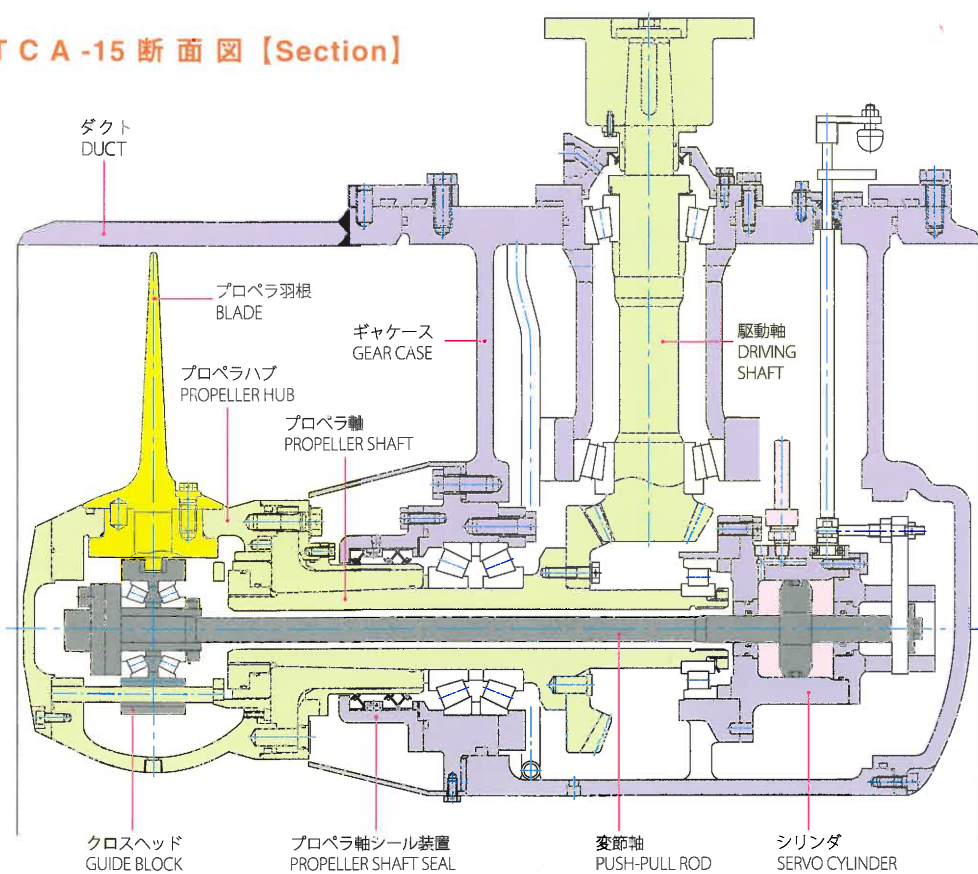
油圧ユニット  
(Hydraulic Unit)



重力タンク  
(Gravity Tank)



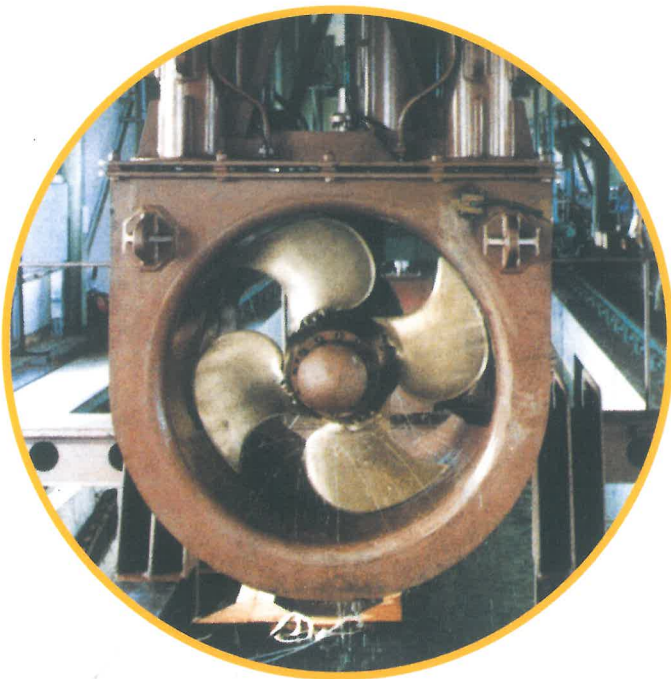
TCA-15 断面図 [Section]



## 研究開発 【Research & Development】

当社では、スラストの性能向上とともに振動低減を図る為に模型試験、実機による水槽試験及び実船試験などの系統的研究を行いその成果を製品に反映しております。

Systematic study including model tests, tank tests with actual thrusters and running tests on ships were conducted in order to reduce vibration and noise of thrusters, the results of which are reflected to high quality of our products.



回流水槽での実機試験 (Tank Test)



騒音計測 (Noise Measurement)



新明和エンジニアリング



**XMH**

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