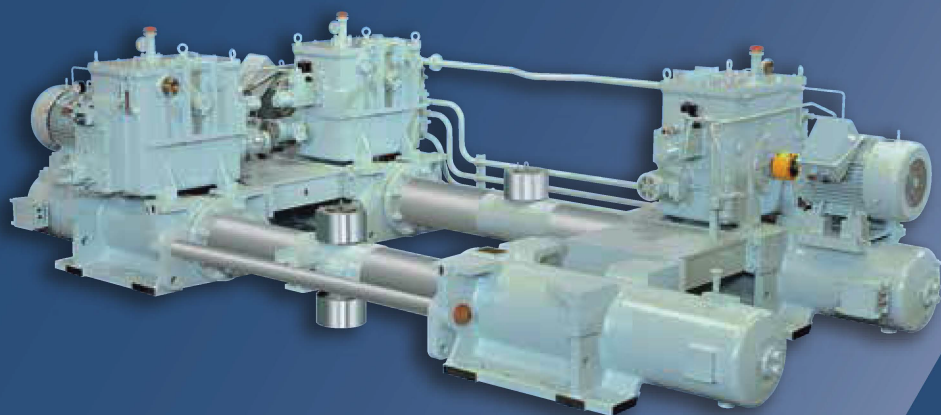


# Рулевые устройства судов KAWASAKI серии V

## Технические характеристики

## Kawasaki Electro-hydraulic Steering Gear



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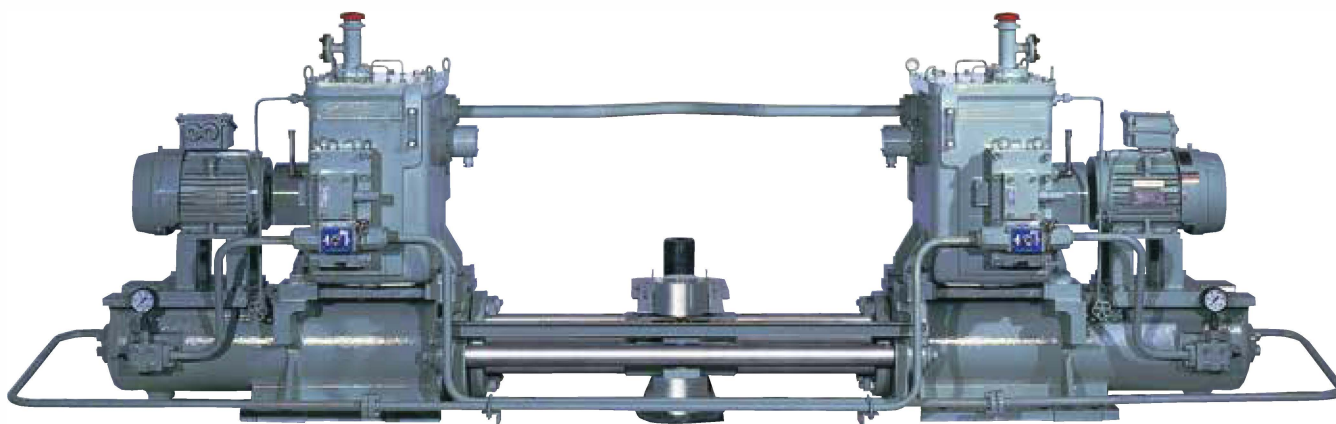
**Россия** (495)268-04-70

**Казахстан** (772)734-952-31

**Киргизия** (996)312-96-26-47

# V Series

## TYPE RV for 35 deg.



RV21

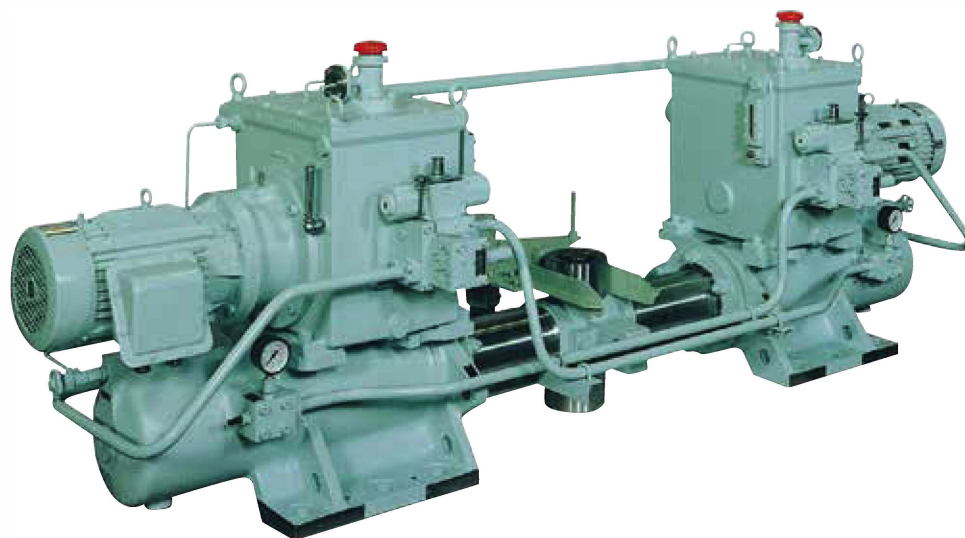
### ARTICULARS & DIMENSIONS

| Particulars                                    |                         | Type              | RV21-032<br>RV22-032             | RV21-036<br>RV22-036 | RV21-045<br>RV22-045 | RV21-051<br>RV22-051 | RV21-063<br>RV22-063 | RV21-070<br>RV22-070 | RV21-086<br>RV22-086 |
|------------------------------------------------|-------------------------|-------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Torque at 35 deg.<br>and max. working pressure | kN·m                    |                   | 314                              | 353                  | 441                  | 500                  | 618                  | 687                  | 844                  |
|                                                | t·m                     |                   | 32                               | 36                   | 45                   | 51                   | 63                   | 70                   | 86                   |
| Rudder turning angle                           | deg                     |                   | 70                               |                      |                      |                      |                      |                      |                      |
| Rudder turning speed                           | deg/s                   |                   | 65 / 28                          |                      |                      |                      |                      |                      |                      |
| Normal radius of tiller arm                    | mm                      |                   | 465                              | 510                  |                      | 580                  |                      | 640                  |                      |
| Max. working pressure                          | MPa                     |                   | 23.5                             | 19.2                 | 23.5                 | 19.2                 | 23.5                 | 19.2                 | 23.5                 |
| Safety valve set pressure                      | MPa                     |                   | 29.4                             | 24.0                 | 29.4                 | 24.0                 | 29.4                 | 24.0                 | 29.4                 |
| RV21                                           | Pump type × number      |                   | LV-030 × 2                       |                      |                      |                      | LV-060 × 2           |                      |                      |
|                                                | Motor output × number   | kW                | 11 × 2                           | 11 × 2               | 15 × 2               | 15 × 2               | 18.5 × 2             | 22 × 2               | 25 × 2               |
|                                                | Motor synchronous speed | min <sup>-1</sup> | 1,800                            |                      |                      |                      |                      |                      |                      |
|                                                | Motor rating            |                   | 50% cont. , 100% 1h. , 200% 30s. |                      |                      |                      |                      |                      |                      |
| RV22                                           | Pump type × number      |                   | LV-030 × 2                       |                      |                      |                      |                      |                      |                      |
|                                                | Motor output × number   | kW                | 5.5 × 2                          | 7.5 × 2              | 7.5 × 2              | 7.5 × 2              | 11 × 2               | 11 × 2               | 15 × 2               |
|                                                | Motor synchronous speed | min <sup>-1</sup> | 1,800                            |                      |                      |                      |                      |                      |                      |
|                                                | Motor rating            |                   | 50% cont. , 100% 1h. , 200% 30s. |                      |                      |                      |                      |                      |                      |
| Approx. dimensions                             |                         | A                 | mm                               | 2,000                |                      | 2,100                |                      | 2,300                |                      |
|                                                |                         | B                 | RV21 mm                          | 1,066                |                      | 1,076                |                      | 1,151                |                      |
|                                                |                         |                   | RV22 mm                          | 1,066                |                      | 1,076                |                      | 1,075                |                      |
|                                                |                         | C                 | mm                               | 190                  |                      | 200                  |                      | 212                  |                      |
|                                                |                         | D                 | mm                               | 305                  |                      | 290                  |                      | 325                  |                      |
|                                                |                         | E                 | RV21 mm                          | 1,210                |                      | 1,255                |                      | 1,335                |                      |
|                                                |                         |                   | RV22 mm                          | 1,210                |                      | 1,255                |                      | 1,325                |                      |
|                                                |                         |                   |                                  |                      |                      |                      |                      |                      |                      |



# V Series

## TYPE RV for 35 deg.



RV21

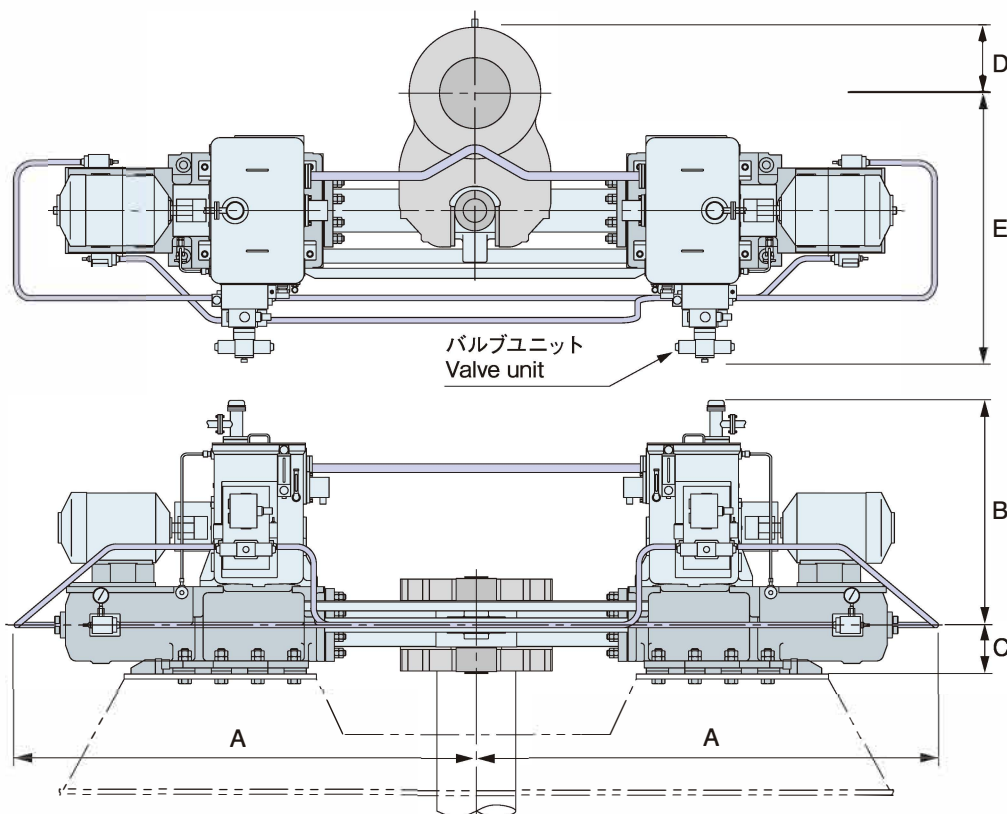
### ARTICULARS & DIMENSIONS

| Particulars                                 |                         |       | Type              | RV21-010              | RV21-013 | RV21-017 | RV21-022 | RV21-027 |
|---------------------------------------------|-------------------------|-------|-------------------|-----------------------|----------|----------|----------|----------|
| Torque at 35 deg. and max. working pressure |                         | kN·m  |                   | 105                   | 130      | 170      | 220      | 270      |
|                                             |                         | t·m   |                   | 10.7                  | 13.3     | 17.3     | 22.4     | 27.6     |
| Rudder turning angle                        |                         | deg   |                   | 70                    |          |          |          |          |
| Rudder turning speed                        |                         | deg/s |                   | 65/28                 |          |          |          |          |
| Normal radius of tiller arm                 |                         | mm    |                   | 140                   |          | 180      |          |          |
| Max. working pressure                       |                         | MPa   |                   | 18.0                  | 22.0     | 14.0     | 18.0     | 22.0     |
| Safety valve set pressure                   |                         | MPa   |                   | 22.5                  | 27.5     | 17.5     | 22.5     | 27.5     |
| RV21                                        | Pump type × number      |       |                   | LV-017 × 2            |          |          |          |          |
|                                             | Motor output × number   |       | kW                | 3.7 × 2               | 3.7 × 2  | 5.5 × 2  | 5.5 × 2  | 7.5 × 2  |
|                                             | Motor synchronous speed |       | min <sup>-1</sup> | 1,800                 |          |          |          |          |
|                                             | Motor rating            |       |                   | 100% cont., 230% 30s. |          |          |          |          |
| Approx. dimensions                          | A                       | mm    |                   | 1,400                 |          | 1,610    |          |          |
|                                             | B                       | mm    |                   | 820                   |          | 845      |          |          |
|                                             | C                       | mm    |                   | 155                   |          | 200      |          |          |
|                                             | D                       | mm    |                   | 240                   |          | 295      |          |          |
|                                             | E                       | mm    |                   | 761                   |          | 841      |          |          |

Hand pump for steering can be installed as an option.

# V Series

## TYPE RV for 45 deg.



- Note. 1. Dimension "A" indicates max. distance from center of rudder stock to end of electric motor and pipe line.
2. The above list is for rudder turning angle of  $\pm 45$  deg. and electric source of 60Hz. Please consult with us on another condition.
3. In the case of steering over 35 deg. on both sides, ship's speed shall be reduced under half of maximum service speed.

## ARTICULARS & DIMENSIONS

| Particulars                                 |                         | Type              | RV21-010              | RV21-013 | RV21-017 | RV21-022 | RV21-027 | RV21-031<br>RV22-031           | RV21-038<br>RV22-038 | RV21-044<br>RV22-044 | RV21-054<br>RV22-054 | RV21-061<br>RV22-061 | RV21-075<br>RV22-075 |
|---------------------------------------------|-------------------------|-------------------|-----------------------|----------|----------|----------|----------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Torque at 35 deg. and max. working pressure | kN·m                    |                   | 105                   | 130      | 170      | 220      | 270      | 311                            | 380                  | 436                  | 535                  | 600                  | 735                  |
|                                             | t·m                     |                   | 10.4                  | 13.3     | 17.3     | 22.4     | 27.6     | 32                             | 39                   | 45                   | 55                   | 61                   | 75                   |
| Rudder turning angle                        | deg                     |                   | 90                    |          |          |          |          |                                |                      |                      |                      |                      |                      |
| Rudder turning speed                        | deg/s                   |                   | 65/28                 |          |          |          |          |                                |                      |                      |                      |                      |                      |
| Normal radius of tiller arm                 | mm                      |                   | 140                   |          | 180      |          | 480      |                                | 540                  |                      | 600                  |                      |                      |
| Max. working pressure                       | MPa                     |                   | 18.0                  | 22.0     | 14.0     | 18.0     | 22.0     | 18.0                           | 22.0                 | 18.0                 | 22.0                 | 18.0                 | 22.0                 |
| Safety valve set pressure                   | MPa                     |                   | 22.5                  | 27.5     | 17.5     | 22.5     | 27.5     | 22.5                           | 27.5                 | 22.5                 | 27.5                 | 22.5                 | 27.5                 |
| RV21                                        | Pump type × number      |                   | LV-017 × 2            |          |          |          |          | LV-030 × 2                     |                      | LV-060 × 2           |                      |                      |                      |
|                                             | Motor output × number   | kW                | 3.7 × 2               | 3.7 × 2  | 5.5 × 2  | 5.5 × 2  | 7.5 × 2  | 11 × 2                         | 11 × 2               | 15 × 2               | 15 × 2               | 18.5 × 2             | 22 × 2               |
|                                             | Motor synchronous speed | min <sup>-1</sup> | 1,800                 |          |          |          |          |                                |                      |                      |                      |                      |                      |
|                                             | Motor rating            |                   | 100% cont., 230% 30s. |          |          |          |          | 50% cont., 100% 1h., 200% 30s. |                      |                      |                      |                      |                      |
| RV22                                        | Pump type × number      |                   | —                     |          |          |          |          | LV-03                          |                      |                      |                      |                      |                      |
|                                             | Motor output × number   | kW                | —                     |          |          |          |          | 5.5 × 2                        | 7.5 × 2              | 7.5 × 2              | 11 × 2               | 11 × 2               | 11 × 2               |
|                                             | Motor synchronous speed | min <sup>-1</sup> | —                     |          |          |          |          | 1,800                          |                      |                      |                      |                      |                      |
|                                             | Motor rating            |                   | —                     |          |          |          |          | 50% cont., 100% 1h., 200% 30s. |                      |                      |                      |                      |                      |
| Approx. dimensions                          | A                       | mm                | 1,490                 |          | 1,730    |          | 2,350    |                                | 2,600                |                      | 2,855                |                      |                      |
|                                             | B                       | mm                | 820                   |          | 845      |          | 1,025    |                                | 1,110                |                      | 1,130                |                      |                      |
|                                             | C                       | mm                | —                     |          | —        |          | 1,025    |                                | 1,075                |                      | 1,101                |                      |                      |
|                                             | D                       | mm                | 155                   |          | 200      |          | 200      |                                | 212                  |                      | 236                  |                      |                      |
|                                             | E                       | mm                | 240                   |          | 295      |          | 350      |                                | 355                  |                      | 390                  |                      |                      |
|                                             | F                       | mm                | 760                   |          | 840      |          | 1,225    |                                | 1,295                |                      | 1,355                |                      |                      |

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