

## Specifications

|                                |         |
|--------------------------------|---------|
| Max. working pressure          | 250 bar |
| Weight                         | 90 kg   |
| Working volume                 | 18 L    |
| Total volume                   | 20 L    |
| Max. cyl. load (start tipping) | 195 kN  |

## Max. pump flow

|                                     |           |
|-------------------------------------|-----------|
| With KO <sup>1</sup>                | 122 L/min |
| Without KO <sup>1</sup>             | 86 L/min  |
| With KO <sup>1</sup> below -20°C    | 85 L/min  |
| Without KO <sup>1</sup> below -20°C | 60 L/min  |

## Tipping time

|                                     |        |
|-------------------------------------|--------|
| With KO <sup>1</sup>                | 9 sec  |
| Without KO <sup>1</sup>             | 13 sec |
| With KO <sup>1</sup> below -20°C    | 13 sec |
| Without KO <sup>1</sup> below -20°C | 19 sec |
| Allowable lowering time             | 9 sec  |

| Extension               | 1   | 2   | 3   | 4 | 5 | 6 | 7 | Total |
|-------------------------|-----|-----|-----|---|---|---|---|-------|
| Effective diameter [mm] | 110 | 91  | 72  |   |   |   |   | 2605  |
| Stroke* [mm]            | 915 | 935 | 755 |   |   |   |   |       |

## Technical notes

- This cylinder is a lifting device only.
- It should not be used as a structural member and should not be subjected to side loads.
- Tipping valve must have a pressure relief at the cylinder port set not higher than max. working pressure.
- Verify max. cyl. load.
- Working temperature range is between -40°C and +80°C.
- Max. duration of extension is 0.5 hours (excluded hard chromed stages).
- Cylinder is painted black (RAL9005) with a min. thickness conforming to the 480 hours neutral salt spray test as per ISO 9227.
- <sup>1</sup> Hyva knock-off.

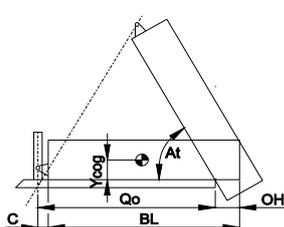
## Related documentation

Bracket options: 015BRA10 & 015BRA13

Mounting instructions: CYL-0031

Oil specifications: OIL-0011  
Spec sheet explanation: CYL-0041

## Tipping weight



|      |                              |
|------|------------------------------|
| BL   | body length                  |
| OH   | rear overhang                |
| Ycog | vert. pos. centre of gravity |
| Qo   | pivot length                 |
| C    | bracket length               |
| At   | tipping angle                |
|      | stroke x 60 / Qo             |

|           | 3400 |     |     | 3400 |     |     | 3400 |     |     |
|-----------|------|-----|-----|------|-----|-----|------|-----|-----|
| BL [mm]   | 200  | 400 | 600 | 200  | 400 | 600 | 200  | 400 | 600 |
| OH [mm]   | 47   | 50  | 54  | 47   | 50  | 54  | 47   | 50  | 54  |
| At [°]    | 47   | 50  | 54  | 47   | 50  | 54  | 47   | 50  | 54  |
| Ycog [mm] | 30   | 34  | 41  | 30   | 34  | 41  | 30   | 34  | 41  |
|           | 35   | 42  |     | 35   | 42  |     | 35   | 42  |     |
|           | 41   |     |     | 41   |     |     | 41   |     |     |

Tipping weight [ton] at maximum pressure of 250 bar for a vertically mounted cylinder and C is 158 mm

For detailed tipping calculations please refer to: <https://tipper.hyva.com>

# Alpha series - Front end cylinder with single eye

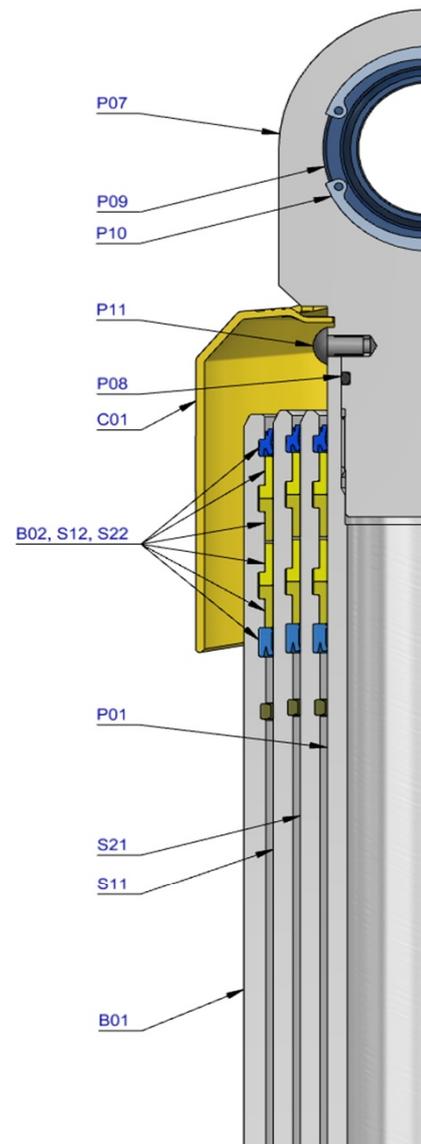


FE A110-3-02605-009-K1215

Item no.

70543098

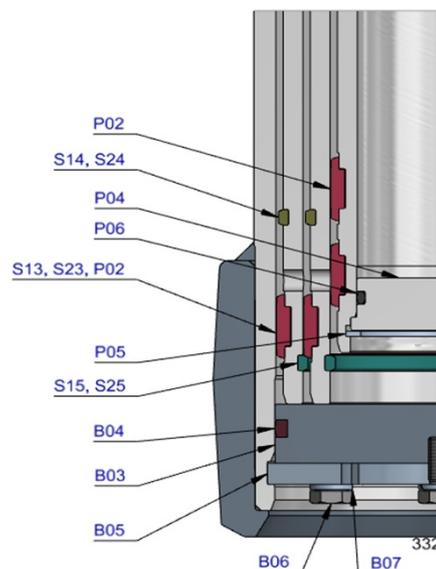
| Pos. | Part no.   | Description                        | Qty. |
|------|------------|------------------------------------|------|
| C01  | 71839100   | DUST COVER FE 110-3/118-3          | 1    |
| P01  | 74401205   | PISTON FL2 S 072-1130-HC (SR=180)  | 1    |
| P02  | 71853072 K | SLIDER FL 072 (2 X 1/2) A22        | 2    |
| P04  | 71822072   | BOTTOM PLATE PISTON FL 072         | 1    |
| P05  | 01745026 K | CIRCLIP 63 DIN 472 (67.2x2.0)      | 1    |
| P06  | 71870210 K | O-RING PISTON BOTTOM 072           | 1    |
| P07  | 71847100   | PISTON EYE SPH. FL 072 MK2 L=075   | 1    |
| P08  | 01226420 K | O-RING 53.57 X 3.53 MM             | 1    |
| P09  | 71875450 K | SPHERICAL BEARING D.50 MAINT. FREE | 1    |
| P10  | 01770560 K | CIRCLIP 75 DIN 472 (79.5x3.0)      | 1    |
| P11  | 71875012   | PIN ROUND HEAD GROOVED 8x15 mm     | 2    |



|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S21 | 74602200   | STAGE FL2 091-1125          | 1 |
| S22 | 71802091 K | PACKSET FL 091              | 1 |
| S23 | 71853091 K | SLIDER FL 091 (2 X 1/2) A22 | 1 |
| S24 | 71851091 K | OUTER STOPRING FL 091 A22   | 1 |
| S25 | 71852091 K | LIFTRING FL 091 A22         | 1 |

|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S11 | 74603200   | STAGE FL2 110-1125          | 1 |
| S12 | 71802110 K | PACKSET FL 110              | 1 |
| S13 | 71853110 K | SLIDER FL 110 (2 X 1/2) A22 | 1 |
| S14 | 71851110 K | OUTER STOPRING FL 110 A22   | 1 |
| S15 | 71852110 K | LIFTRING FL 110 A22         | 1 |

|     |            |                               |   |
|-----|------------|-------------------------------|---|
| B01 | 74504200   | BASE FL2 129-1164-4/4BSAE-190 | 1 |
| B02 | 71802129 K | PACKSET FL 129/HP 129         | 1 |
| B03 | 71825415   | BOTTOM PLATE FL2 129          | 1 |
| B04 | 71870025 K | O-RING BOTTOM PLATE FL 129    | 1 |
| B05 | 71820129   | LOCKING PLATE FL 129          | 3 |
| B06 | 01732055 K | BOLT HEX M8X20X1.25 SET 3 PCS | 1 |
| B07 | 01732559 K | WASHER SPRING M8 SET 3 PCS    | 1 |



## Seal kit complete

|  |            |  |  |
|--|------------|--|--|
|  | 71908330 K | Consists of all packsets with packset grease and O-rings |  |
|--|------------|--|--|

## Notes

The inner stopring is pre-mounted in the grooves on spare bases and stages. Therefore, when ordering new tubes, it is not required to order inner stoprings separately.

For repair instructions see: CYL-0040. Serial no. is located on type plate and near type plate support.