

## Specifications

|   |         |
|---|---------|
| Max. working pressure                       | 250 bar |
| Weight                                      | 282 kg  |
| Working volume                              | 109 L   |
| Total volume                                | 118 L   |
| Max. cyl. load (start tipping)              | 345 kN  |
| Max. cyl. load (end of stroke) <sup>2</sup> | 170 kN  |
| Max. cyl. load (end of stroke) <sup>3</sup> | 198 kN  |

## Max. pump flow

|                                     |           |
|-------------------------------------|-----------|
| With KO <sup>1</sup>                | 220 L/min |
| Without KO <sup>1</sup>             | 190 L/min |
| With KO <sup>1</sup> below -20°C    | 154 L/min |
| Without KO <sup>1</sup> below -20°C | 133 L/min |

## Tipping time

|                                     |        |
|-------------------------------------|--------|
| With KO <sup>1</sup>                | 30 sec |
| Without KO <sup>1</sup>             | 34 sec |
| With KO <sup>1</sup> below -20°C    | 43 sec |
| Without KO <sup>1</sup> below -20°C | 49 sec |
| Allowable lowering time             | 24 sec |

| Extension               | 1    | 2    | 3    | 4    | 5    | 6 | 7 | Total |
|-------------------------|------|------|------|------|------|---|---|-------|
| Effective diameter [mm] | 191  | 169  | 149  | 129  | 110  |   |   | 6025  |
| Stroke* [mm]            | 1180 | 1205 | 1210 | 1215 | 1215 |   |   |       |

## 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. • <sup>2</sup> Unsubstantial unloading (sticky load). • <sup>3</sup> Substantial unloading.

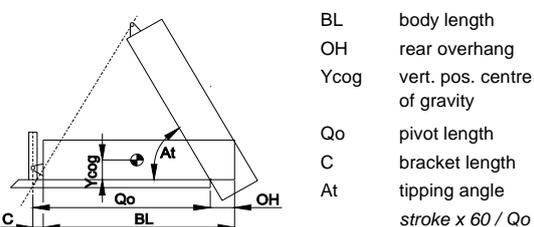
## Related documentation

Bracket options: 015BRA10 & 015BRA13

Mounting instructions: CYL-0031

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

## Tipping weight



| BL [mm]   | 8000 |     |     | 7650 |     |     | 7300 |     |     |
|-----------|------|-----|-----|------|-----|-----|------|-----|-----|
| OH [mm]   | 200  | 500 | 800 | 200  | 500 | 800 | 200  | 500 | 800 |
| At [°]    | 45   | 47  | 49  | 48   | 50  | 52  | 50   | 52  | 55  |
| Ycog [mm] |      |     |     |      |     |     |      |     |     |
| 600       | 65   | 70  | 77  | 67   | 73  | 81  | 70   | 77  |     |
| 900       | 70   | 76  |     | 73   |     |     |      |     |     |
| 1200      |      |     |     |      |     |     |      |     |     |

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>

| Pos. | Part no.   | Description                         | Qty. |
|------|------------|-------------------------------------|------|
| C01  | 71839130   | DUST COVER FE 169-4/191-5           | 1    |
| P01  | 74413441   | PISTON FL2 S 110-1445-HD-HC         | 1    |
| P02  | 71807112 K | SLIDER FL 110 (2 X 1/2) A35         | 1    |
| P03  | 71851110 K | OUTER STOPRING FL 110 A22           | 2    |
| P04  | 71822710   | BOTTOM PLATE PISTON FL 110 MK2 HD   | 1    |
| P05  | 01745021 K | CIRCLIP 97 DIN 472 (102.5x3.0)      | 1    |
| P06  | 71870220 K | O-RING PISTON BOTTOM 110            | 1    |
| P07  | 71847301   | PISTON EYE SPH. FL 110 MK2 L=075 GR | 1    |
| P08  | 01226538 K | O-RING 91.67 X 3.53 MM NBR          | 1    |
| P09  | 01770085 K | SPHERICAL BEARING D.50 DO GREASED   | 1    |
| P10  | 01770560 K | CIRCLIP 75 DIN 472 (79.5x3.0)       | 1    |
| P11  | 71875012   | PIN ROUND HEAD GROOVED 8x15 mm      | 2    |
| P12  | 56288044 K | GREASE NIPPLE M8x1 DIN 71412        | 1    |
| P13  | 01317670 K | GREASER PROTECTION CAP              | 1    |

|     |            |                                   |   |
|-----|------------|-----------------------------------|---|
| S41 | 74614440   | STAGE FL2 129-1440-HD             | 1 |
| S42 | 71808129 K | PACKSET FL 129/HP 129 TANDEM SEAL | 1 |
| S43 | 71807131 K | SLIDER FL 129 (2 X 1/2) A35       | 1 |
| S44 | 71851129 K | OUTER STOPRING FL 129 A22         | 2 |
| S45 | 71852129 K | LIFTRING FL 129 A22               | 1 |

|     |            |                                   |   |
|-----|------------|-----------------------------------|---|
| S31 | 74615440   | STAGE FL2 149-1440-HD             | 1 |
| S32 | 71808149 K | PACKSET FL 149/HP 150 TANDEM SEAL | 1 |
| S33 | 71807151 K | SLIDER FL 149 A35                 | 1 |
| S34 | 71851149 K | OUTER STOPRING FL 149 A22         | 2 |
| S35 | 71852149 K | LIFTRING FL 149 A22               | 1 |

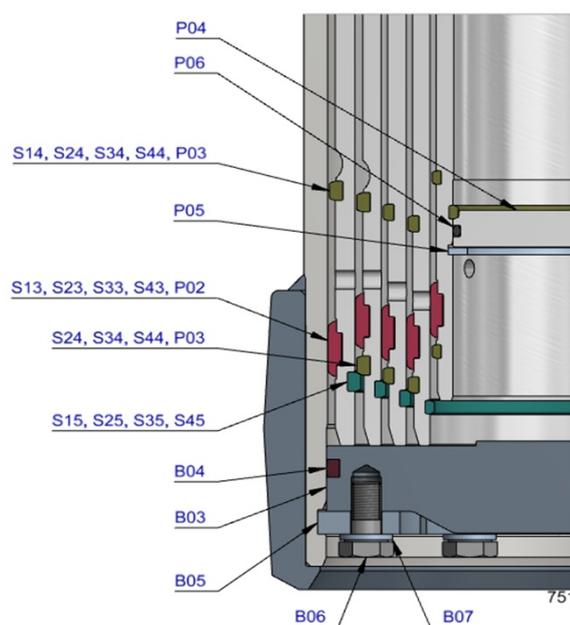
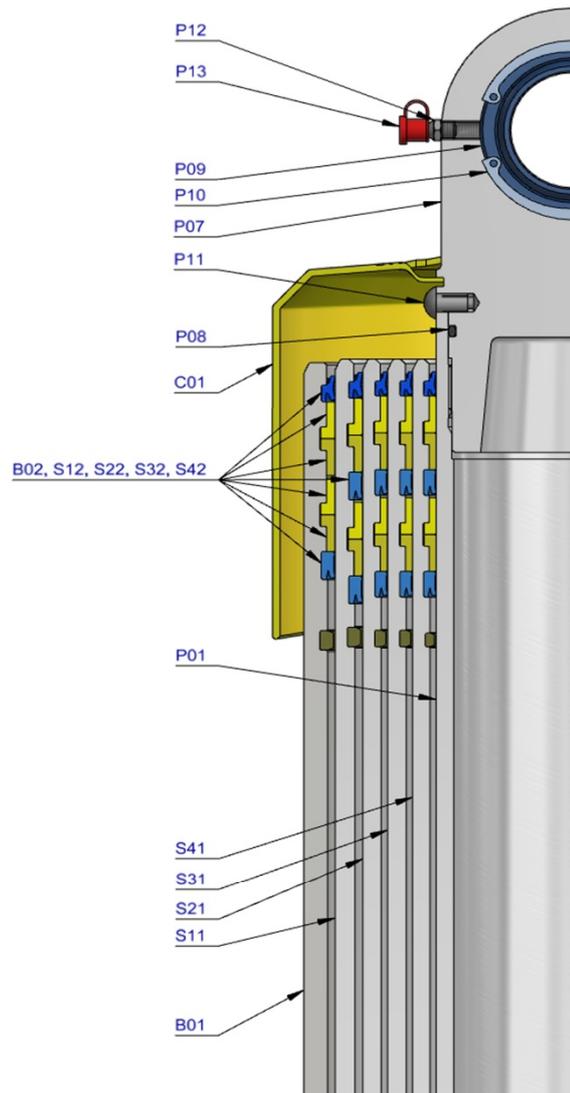
|     |            |                            |   |
|-----|------------|----------------------------|---|
| S21 | 74616440   | STAGE FL2 169-1440-HD      | 1 |
| S22 | 71808169 K | PACKSET FL 169 TANDEM SEAL | 1 |
| S23 | 71807171 K | SLIDER FL 169 A35          | 1 |
| S24 | 71851169 K | OUTER STOPRING FL 169 A22  | 2 |
| S25 | 71852169 K | LIFTRING FL 169 A22        | 1 |

|     |            |                            |   |
|-----|------------|----------------------------|---|
| S11 | 74617440   | STAGE FL2 191-1440-HD      | 1 |
| S12 | 71808191 K | PACKSET FL 191 TANDEM SEAL | 1 |
| S13 | 71807193 K | SLIDER FL 191 A35          | 1 |
| S14 | 71851191 K | OUTER STOPRING FL 191 A22  | 1 |
| S15 | 71852191 K | LIFTRING FL 191 A22        | 1 |

|     |            |                                  |   |
|-----|------------|----------------------------------|---|
| B01 | 74518447   | BASE FL2 214-1491-4/4BSAE-390-HD | 1 |
| B02 | 71802214 K | PACKSET FL 214                   | 1 |
| B03 | 71825435   | BOTTOM PLATE FL2 214             | 1 |
| B04 | 71870045 K | SEAL BOTTOM PLATE FL 214         | 1 |
| B05 | 71820214   | LOCKING PLATE FL 214             | 3 |
| B06 | 01732020 K | BOLT HEX M12X25X1.25 SET 6 PCS   | 1 |
| B07 | 01732523 K | WASHER SPRING M12 SET 6 PCS      | 1 |

### Seal kit complete

|  |            |  |  |
|--|------------|--|--|
|  | 71908751 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.