

Specifications

| | |
|---|---------|
| Max. working pressure | 190 bar |
| Weight | 268 kg |
| Working volume | 93 L |
| Total volume | 97 L |
| Max. cyl. load (start tipping) | 245 kN |
| Max. cyl. load (end of stroke) ² | 84 kN |
| Max. cyl. load (end of stroke) ³ | 98 kN |

Max. pump flow

| | |
|-------------------------------------|-----------|
| With KO ¹ | 170 L/min |
| Without KO ¹ | 119 L/min |
| With KO ¹ below -20°C | 119 L/min |
| Without KO ¹ below -20°C | 83 L/min |

Tipping time

| | |
|-------------------------------------|--------|
| With KO ¹ | 33 sec |
| Without KO ¹ | 47 sec |
| With KO ¹ below -20°C | 47 sec |
| Without KO ¹ below -20°C | 67 sec |
| Allowable lowering time | 33 sec |

| Extension | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|-------------------------|------|------|------|------|------|---|---|-------|
| Effective diameter [mm] | 169 | 149 | 129 | 110 | 85 | | | 6830 |
| Stroke* [mm] | 1350 | 1370 | 1370 | 1370 | 1370 | | | |

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. • ¹ Hyva knock-off. • ² Unsubstantial unloading (sticky load). • ³ Substantial unloading.

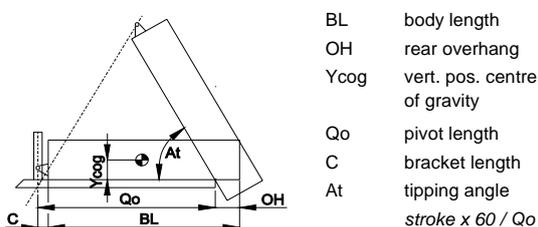
Related documentation

Bracket options: 015BRA10 & 015BRA13

Mounting instructions: CYL-0031

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

Tipping weight



| BL [mm] | 9000 | | | 8600 | | | 8200 | | |
|-----------|------|-----|-----|------|-----|-----|------|-----|-----|
| OH [mm] | 200 | 500 | 800 | 200 | 500 | 800 | 200 | 500 | 800 |
| At [°] | 46 | 47 | 49 | 48 | 50 | 52 | 50 | 53 | 55 |
| Ycog [mm] | | | | | | | | | |
| 600 | 29 | 31 | 33 | 30 | 32 | 35 | 31 | 34 | 37 |
| 900 | 31 | 33 | 36 | 32 | 35 | 38 | 34 | 37 | 41 |
| 1200 | 33 | 36 | 39 | 34 | 38 | 42 | 37 | 41 | 47 |

Tipping weight [ton] at maximum pressure of 190 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 | 71839131 | DUST COVER FE 169-5/179-5/191-6 | 1 |
| P01 | 74432581 | PISTON FL2 S 085-1585-HC | 1 |
| P02 | 71853085 K | SLIDER FL 085 (2 X 1/2) A22 | 1 |
| P03 | 71851085 K | OUTER STOPRING FL 085 A22 | 1 |
| P04 | 75322085 | BOTTOM PLATE PISTON 085 | 1 |
| P05 | 01770560 K | CIRCLIP 75 DIN 472 (79.5x3.0) | 1 |
| P06 | 75372085 K | O-RING PISTON BOTTOM HP 085 | 1 |
| P07 | 71847150 | PISTON EYE SPH. FL 085 MK2 L=075 | 1 |
| P08 | 01225807 K | O-RING 66.27 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 |

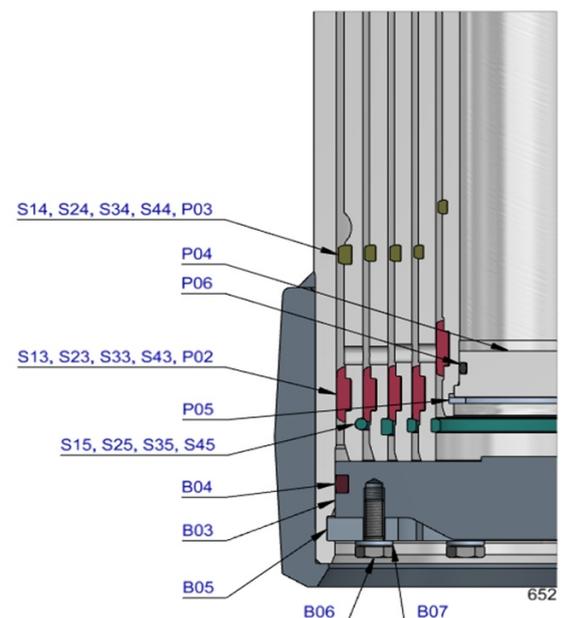
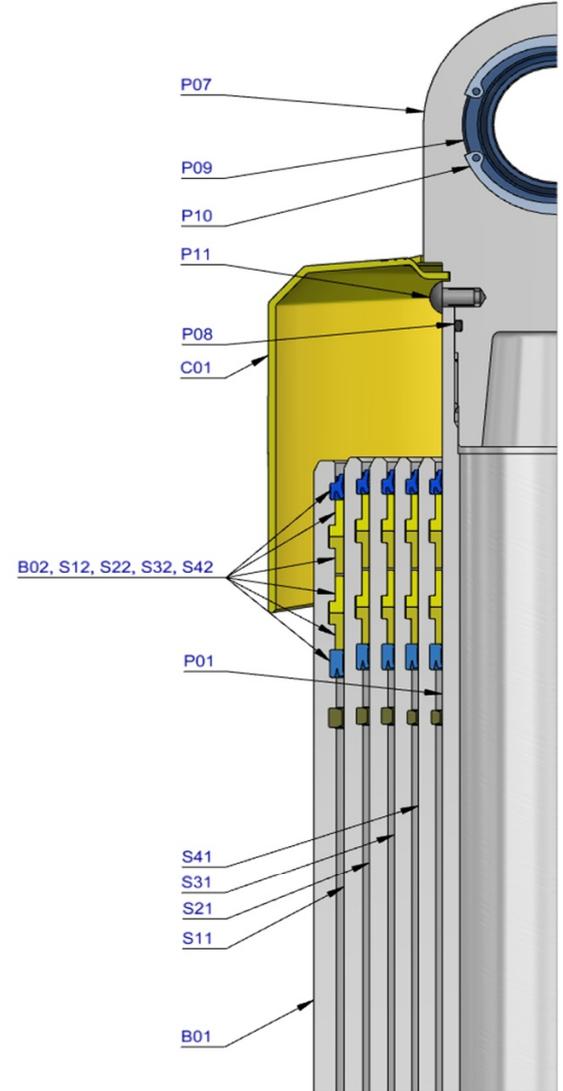
| | | | |
|-----|------------|--|---|
| S41 | 74633580 | STAGE FL2 110-1580 ID90 | 1 |
| S42 | 75302110 K | PACKSET HP 110 | 1 |
| S43 | 71853110 K | SLIDER FL 110 (2 X 1/2) A22 | 1 |
| S44 | 71851110 K | OUTER STOPRING FL 110 A22 | 1 |
| S45 | 71850111 K | INNER STOPRING/LIFTRING FL 110 ID 90 A22 | 1 |

| | | | |
|-----|------------|-----------------------------|---|
| S31 | 74604580 | STAGE FL2 129-1580 | 1 |
| S32 | 71802129 K | PACKSET FL 129/HP 129 | 1 |
| S33 | 71853129 K | SLIDER FL 129 (2 X 1/2) A22 | 1 |
| S34 | 71851129 K | OUTER STOPRING FL 129 A22 | 1 |
| S35 | 71852129 K | LIFTRING FL 129 A22 | 1 |

| | | | |
|-----|------------|---------------------------|---|
| S21 | 74605580 | STAGE FL2 149-1580 | 1 |
| S22 | 71802149 K | PACKSET FL 149/HP 150 | 1 |
| S23 | 71807151 K | SLIDER FL 149 A35 | 1 |
| S24 | 71851149 K | OUTER STOPRING FL 149 A22 | 1 |
| S25 | 71852149 K | LIFTRING FL 149 A22 | 1 |

| | | | |
|-----|------------|---------------------------|---|
| S11 | 74606580 | STAGE FL2 169-1580 | 1 |
| S12 | 71802169 K | PACKSET FL 169 | 1 |
| S13 | 71807171 K | SLIDER FL 169 A35 | 1 |
| S14 | 71851169 K | OUTER STOPRING FL 169 A22 | 1 |
| S15 | 71813169 K | LIFTRING FL 169x5 | 1 |

| | | | |
|-----|------------|-------------------------------|---|
| B01 | 74507584 | BASE FL2 191-1623-4/4BSAE-290 | 1 |
| B02 | 71802191 K | PACKSET FL 191 | 1 |
| B03 | 71825430 | BOTTOM PLATE FL2 191 | 1 |
| B04 | 71870040 K | SEAL BOTTOM PLATE FL 191 | 1 |
| B05 | 71820195 | LOCKING PLATE FL2 191 | 3 |
| B06 | 01732055 K | BOLT HEX M8X20X1.25 SET 6 PCS | 1 |
| B07 | 01732559 K | WASHER SPRING M8 SET 6 PCS | 1 |



Seal kit complete

| | | | |
|--|------------|--|--|
| | 71908652 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.