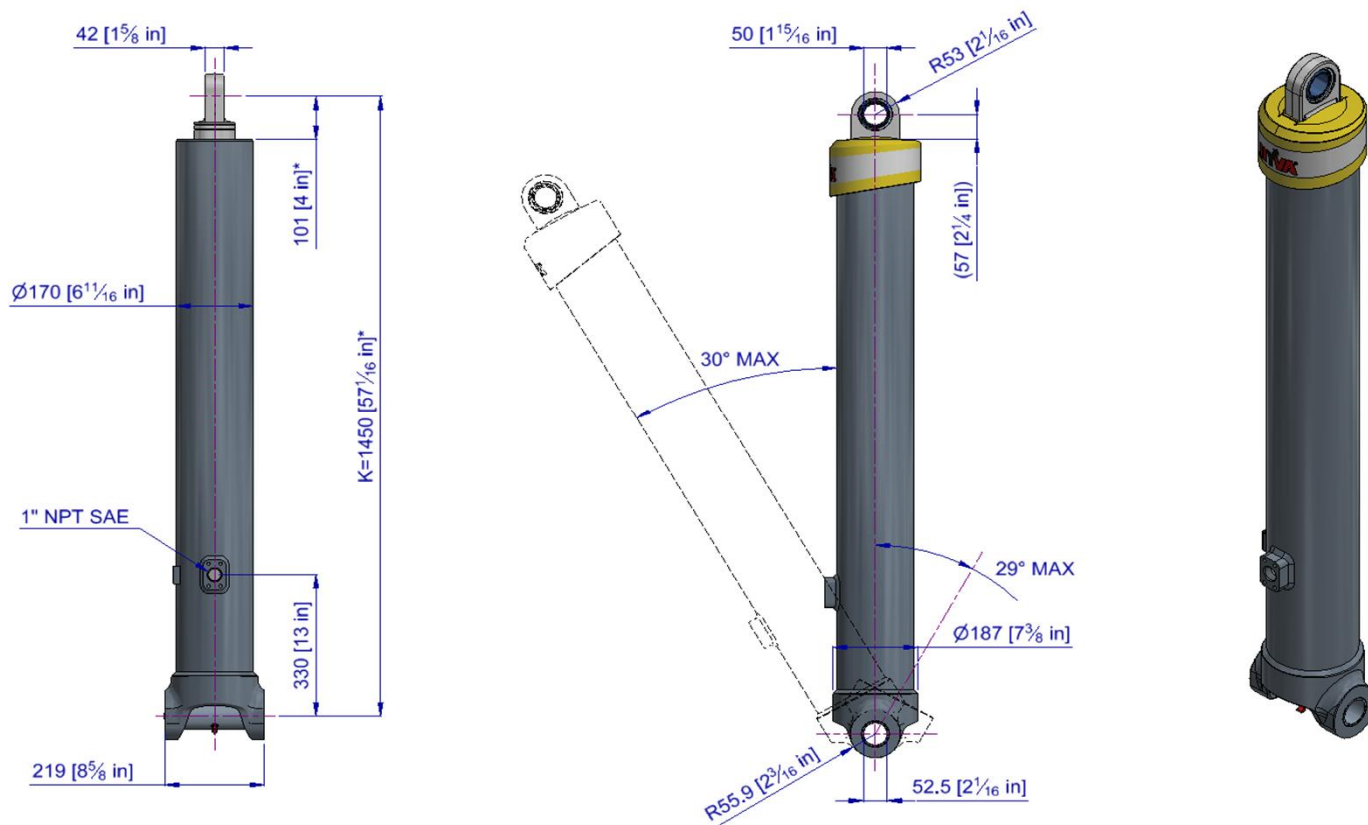




\* incl. 20 [-5; +30] mm pull out

3D model is available on request

### Specifications

|                                |         |
|--------------------------------|---------|
| Max. working pressure          | 250 bar |
| Weight                         | 160 kg  |
| Working volume                 | 50 L    |
| Total volume                   | 55 L    |
| Max. cyl. load (start tipping) | 245 kN  |

### Max. pump flow

|                                     |           |
|-------------------------------------|-----------|
| With KO <sup>1</sup>                | 190 L/min |
| Without KO <sup>1</sup>             | 137 L/min |
| With KO <sup>1</sup> below -20°C    | 133 L/min |
| Without KO <sup>1</sup> below -20°C | 96 L/min  |

### Tipping time

|                                     |        |
|-------------------------------------|--------|
| With KO <sup>1</sup>                | 16 sec |
| Without KO <sup>1</sup>             | 22 sec |
| With KO <sup>1</sup> below -20°C    | 23 sec |
| Without KO <sup>1</sup> below -20°C | 31 sec |
| Allowable lowering time             | 16 sec |

| Extension               | 1    | 2    | 3    | 4    | 5 | 6 | 7 | Total |
|-------------------------|------|------|------|------|---|---|---|-------|
| Effective diameter [mm] | 149  | 129  | 110  | 91   |   |   |   | 4320  |
| Stroke* [mm]            | 1065 | 1085 | 1085 | 1085 |   |   |   |       |

### 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.

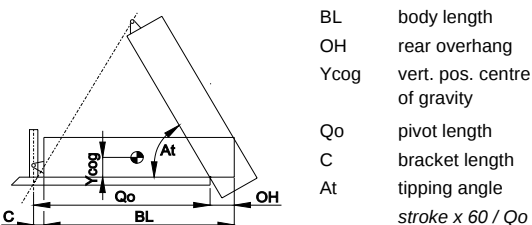
### Related documentation

Bracket options: 015BRA13 &amp; 015BRA17

Mounting instructions: CYL-0032

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

### Tipping weight



| BL [mm]          | 200 | 500 | 800 | 200 | 500 | 800 | 200 | 500 | 800 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| OH [mm]          | 46  | 49  | 52  | 47  | 50  | 54  | 49  | 52  | 56  |
| At [°]           | 46  | 49  | 52  | 47  | 50  | 54  | 49  | 52  | 56  |
| Ycog [mm]        | 46  | 52  | 61  | 47  | 54  |     | 49  | 56  |     |
| Qo [mm]          | 46  | 52  | 61  | 47  | 54  |     | 49  | 56  |     |
| C [mm]           | 51  |     |     | 53  |     |     |     |     |     |
| At [°]           |     |     |     |     |     |     |     |     |     |
| stroke x 60 / Qo |     |     |     |     |     |     |     |     |     |

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 double eye

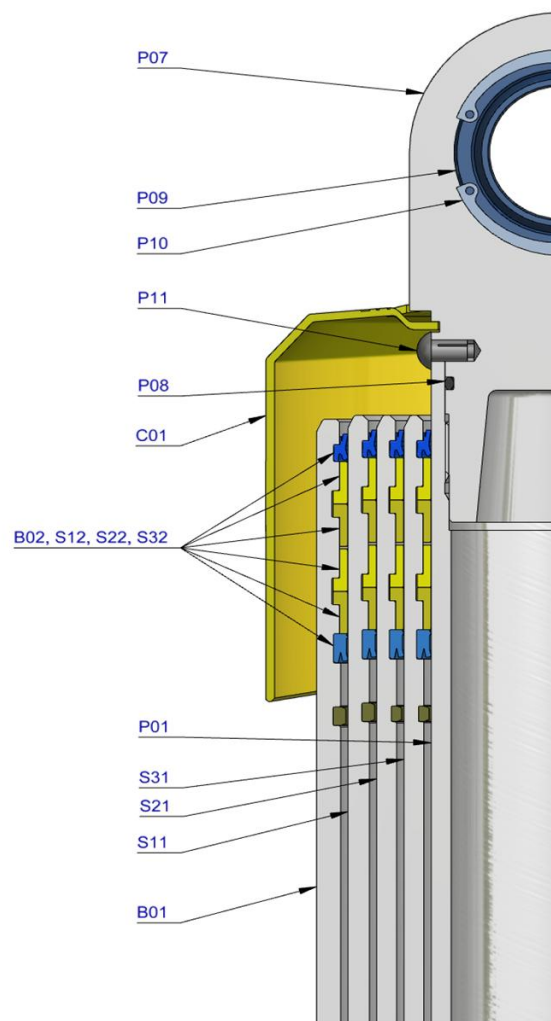


FEE A149-4-04320-221-K1450

Item no.

70575268

| Pos. | Part no.   | Description                          | Qty. |
|------|------------|--------------------------------------|------|
| C01  | 71839121   | DUST COVER FE 149-4/157-4            | 1    |
| P01  | 74402301   | PISTON FL2 S 091-1280-HC             | 1    |
| P02  | 71853091 K | SLIDER FL 091 (2 X 1/2) A22          | 1    |
| P03  | 71851091 K | OUTER STOPRING FL 091 A22            | 1    |
| P04  | 71822091   | BOTTOM PLATE PISTON FL 091           | 1    |
| P05  | 01745012 K | CIRCLIP 82 DIN 472 (87.5x2.5)        | 1    |
| P06  | 71870215 K | O-RING PISTON BOTTOM 091             | 1    |
| P07  | 71847200   | PISTON EYE SPH. FL 091 MK2 L=075     | 1    |
| P08  | 01226430 K | O-RING 72.62 X 3.53 MM               | 1    |
| P09  | 71875450 K | SPHERICAL BEARING D.50.3 MAINT. FREE | 1    |
| P10  | 01770560 K | CIRCLIP 75 DIN 472 (79.5x3.0)        | 1    |
| P11  | 71875012   | PIN ROUND HEAD GROOVED 8x15 mm       | 2    |

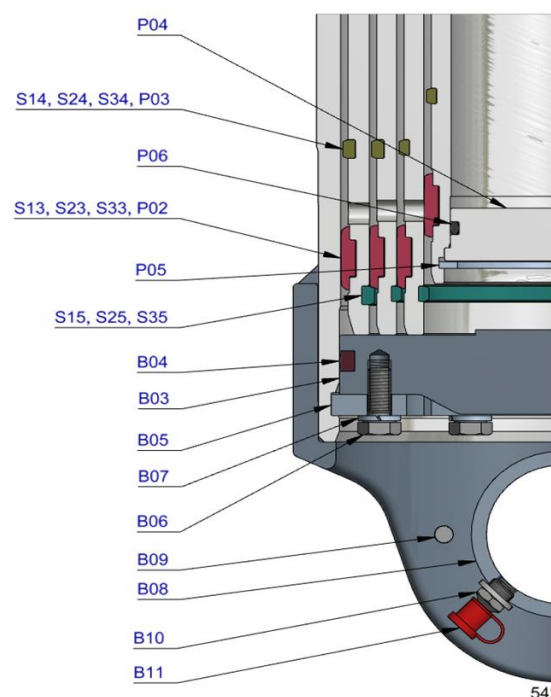


|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S31 | 74603300   | STAGE FL2 110-1275          | 1 |
| S32 | 71802110 K | PACKSET FL 110              | 1 |
| S33 | 71853110 K | SLIDER FL 110 (2 X 1/2) A22 | 1 |
| S34 | 71851110 K | OUTER STOPRING FL 110 A22   | 1 |
| S35 | 71852110 K | LIFTRING FL 110 A22         | 1 |

|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S21 | 74604300   | STAGE FL2 129-1275          | 1 |
| S22 | 71802129 K | PACKSET FL 129/HP 129       | 1 |
| S23 | 71853129 K | SLIDER FL 129 (2 X 1/2) A22 | 1 |
| S24 | 71851129 K | OUTER STOPRING FL 129 A22   | 1 |
| S25 | 71852129 K | LIFTRING FL 129 A22         | 1 |

|     |            |                           |   |
|-----|------------|---------------------------|---|
| S11 | 74605300   | STAGE FL2 149-1275        | 1 |
| S12 | 71802149 K | PACKSET FL 149/HP 150     | 1 |
| S13 | 71807151 K | SLIDER FL 149 A35         | 1 |
| S14 | 71851149 K | OUTER STOPRING FL 149 A22 | 1 |
| S15 | 71852149 K | LIFTRING FL 149 A22       | 1 |

|     |            |                                      |   |
|-----|------------|--------------------------------------|---|
| B01 | 74506310   | BASE FL2 E 169-1314-4/4NSAE-330-O219 | 1 |
| B02 | 71802169 K | PACKSET FL 169                       | 1 |
| B03 | 71825425   | BOTTOM PLATE FL2 169                 | 1 |
| B04 | 71870035 K | SEAL BOTTOM PLATE FL 169             | 1 |
| B05 | 71820169   | LOCKING PLATE FL 169                 | 3 |
| B06 | 01732055 K | BOLT HEX M8X20X1.25 SET 6 PCS        | 1 |
| B07 | 01732559 K | WASHER SPRING M8 SET 6 PCS           | 1 |
| B08 | 01793061   | EYE TRUNNION TUBE (63-52.5) L=219    | 1 |
| B09 | 01746121 K | BOLT LOCKING M8x25 DIN 7991          | 1 |
| B10 | 56288044 K | GREASE NIPPLE M8x1 DIN 71412         | 2 |
| B11 | 01317670 K | GREASER PROTECTION CAP               | 2 |



## Seal kit complete

|  |            |                                                          |  |
|--|------------|----------------------------------------------------------|--|
|  | 71908540 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.