

# Alpha series - Front end cylinder with outer cover



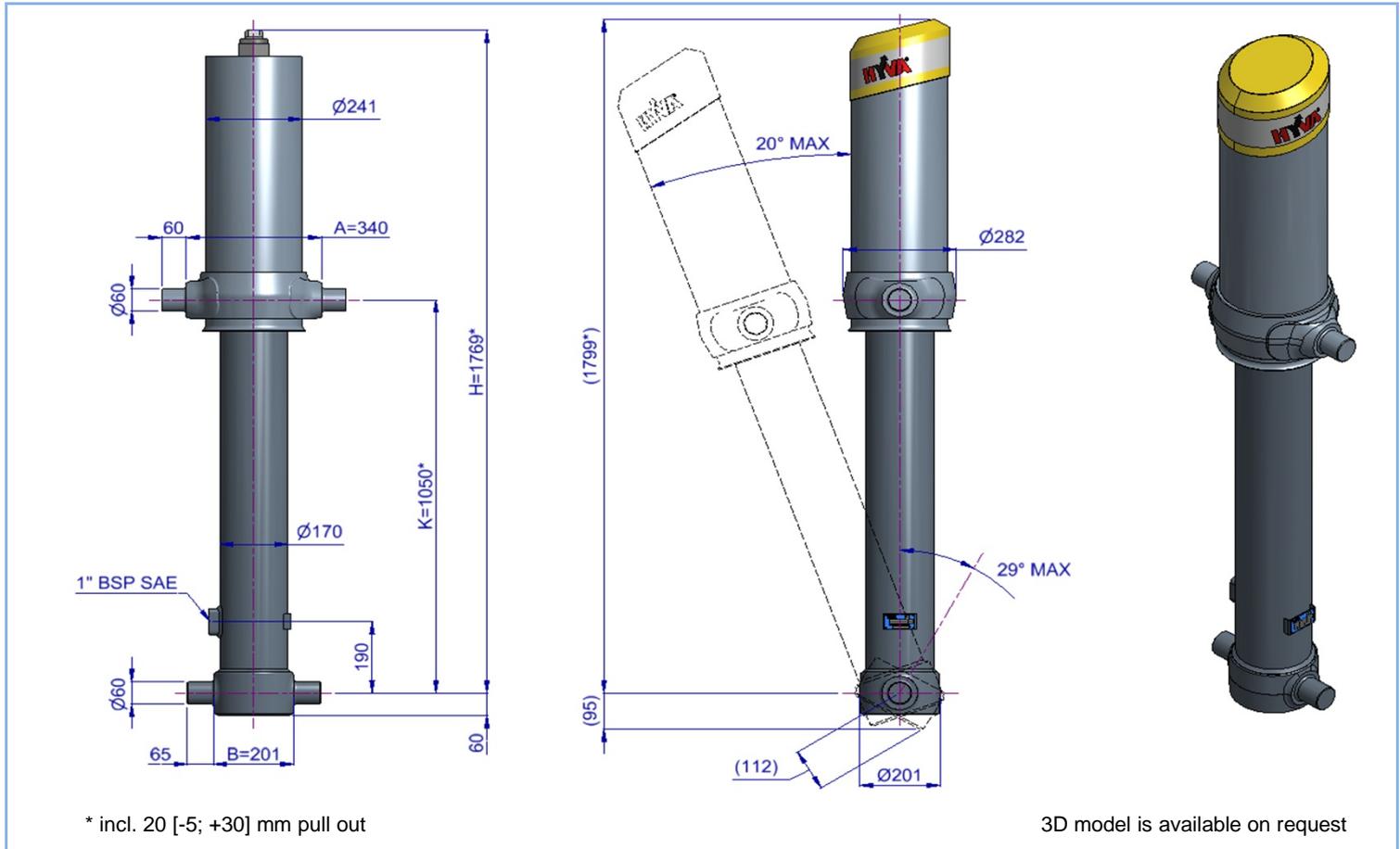
FC A149-4-05700-074-K1050

Item no.

70525458

Tipping weight

44 - 60 ton



## Specifications

|                                |         |   |           |   |        |
|--------------------------------|---------|---|-----------|---|--------|
| Max. working pressure          | 250 bar | Max. pump flow (with KO <sup>1</sup> )    | 190 L/min | Resulting tipping time (with KO <sup>1</sup> )    | 21 sec |
| Weight                         | 251 kg  | Max. pump flow (without KO <sup>1</sup> ) | 137 L/min | Resulting tipping time (without KO <sup>1</sup> ) | 29 sec |
| Working volume                 | 66 L    |   |           | Allowable lowering time                           | 21 sec |
| Total volume                   | 72 L    |   |           |   |        |
| Max. cyl. load (start tipping) | 245 kN  |   |           |   |        |
| Max. cyl. load (end of stroke) | 208 kN  |   |           |   |        |

KO<sup>1</sup>: Hyva pneumatic knock off

| Extension               | 1    | 2    | 3    | 4    | 5 | 6 | 7 | Total |
|-------------------------|------|------|------|------|---|---|---|-------|
| Effective diameter [mm] | 149  | 129  | 110  | 91   |   |   |   |       |
| Stroke* [mm]            | 1410 | 1430 | 1430 | 1430 |   |   |   | 5700  |

## 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. • When the cylinder is mounted at an angle, the maximum tipping weight could be reduced. • Maximum backwards angle of rotation during operation is 29 deg.
- Working pressure depends on the application, but must never exceed the maximum working pressure stated. • 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 thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO10289, rating 9).

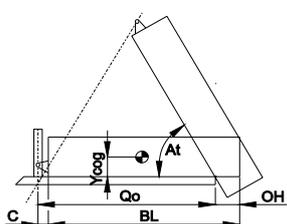
## Related documentation

Bracket options: 015BRA10 & 015BRA12

Mounting instructions: CYL-0030

Oil specifications: OIL-0011

## 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             |

| BL [mm]   | 7500 |     |     | 7150 |     |     | 6800 |     |     |
|-----------|------|-----|-----|------|-----|-----|------|-----|-----|
| OH [mm]   | 200  | 500 | 800 | 200  | 500 | 800 | 200  | 500 | 800 |
| At [°]    | 45   | 47  | 49  | 47   | 50  | 52  | 50   | 53  | 56  |
| Ycog [mm] |      |     |     |      |     |     |      |     |     |
| 600       | 44   | 48  | 53  | 46   | 50  | 56  | 48   | 53  | 60  |
| 900       | 47   | 52  | 58  | 49   | 55  |     | 52   |     |     |
| 1200      | 51   |     |     |      |     |     |      |     |     |

Tipping weight [ton] at maximum pressure of 250 bar for a vertically mounted cylinder and C is 229 mm

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

# Alpha series - Front end cylinder with outer cover

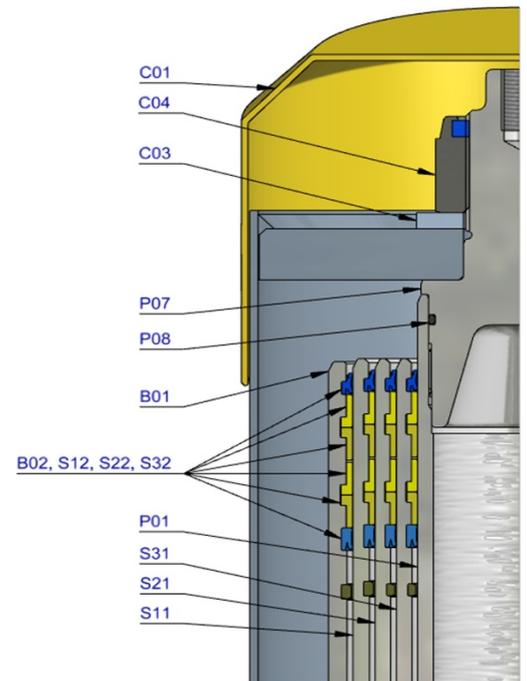


FC A149-4-05700-074-K1050

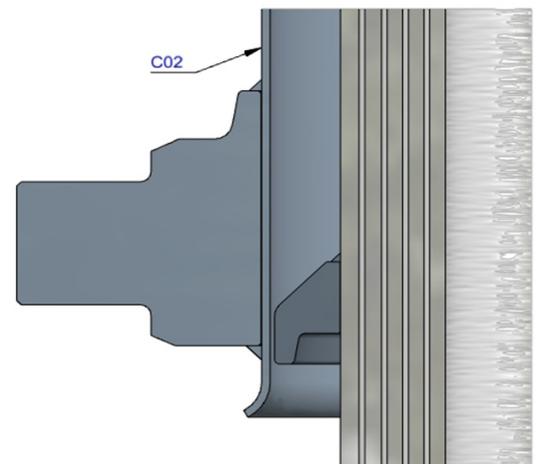
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| Pos. | Part no.   | Description                   | Qty. |
|------|------------|-------------------------------|------|
| C01  | 71839030   | DUST COVER FC LOW 15-241      | 1    |
| C02  | 71709285   | COVER 241-0735 PIN60 A340 FIX | 1    |
| C03  | 01702956 K | WASHER M48 DIN 125B ZP        | 1    |
| C04  | 01702907 K | TOPNUT NYLOC M48x3 DIN 985 ZP | 1    |
| P01  | 74402651   | PISTON FL2 S 091-1645-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  | 71848200   | PISTON HEAD FL 091 MK2        | 1    |
| P08  | 01226430 K | O-RING 72.62 X 3.53 MM        | 1    |

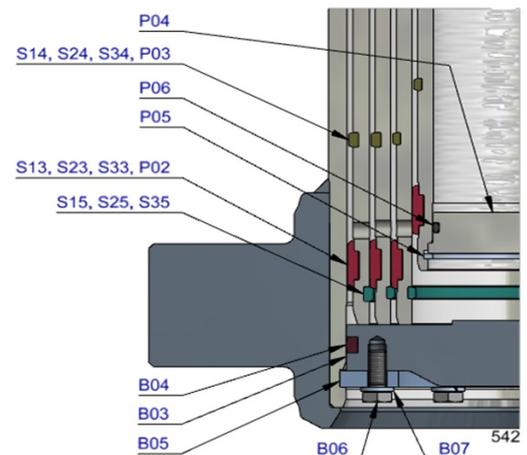


|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S31 | 74603650   | STAGE FL2 110-1640          | 1 |
| S32 | 71802110 K | PACKSET FL 110              | 1 |
| S33 | 71853110 K | SLIDER FL 110 (2 X 1/2) A22 | 1 |
| S34 | 71851110 K | OUTER STOPRING FL 110 A22   | 1 |
| S35 | 71852110 K | LIFTRING FL 110 A22         | 1 |



|     |            |                             |   |
|-----|------------|-----------------------------|---|
| S21 | 74604650   | STAGE FL2 129-1640          | 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 | 74605650   | STAGE FL2 149-1640        | 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 | 74506652R0635 | BASE FL2 169-1679-4/4BSAE-190-90-C242 | 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 |

## Seal kit complete

|  |            |  |  |
|--|------------|--|--|
|  | 71908540 K | Consists of all packsets with packset grease and O-rings |  |
|--|------------|--|--|

## Notes

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

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