

## Specifications

Max. working pressure	250 bar
Weight	165 kg
Working volume	51 L
Total volume	55 L
Max. cyl. load (start tipping)	345 kN
Max. cyl. load (end of stroke) <sup>2</sup>	231 kN
Max. cyl. load (end of stroke) <sup>3</sup>	270 kN

## Max. pump flow

With KO <sup>1</sup>	190 L/min
Without KO <sup>1</sup>	170 L/min
With KO <sup>1</sup> below -20°C	133 L/min
Without KO <sup>1</sup> below -20°C	119 L/min

## Tipping time

With KO <sup>1</sup>	16 sec
Without KO <sup>1</sup>	18 sec
With KO <sup>1</sup> below -20°C	23 sec
Without KO <sup>1</sup> below -20°C	26 sec
Allowable lowering time	16 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	149	129	110					3835
Stroke* [mm]	1280	1300	1255					

## 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: 015BRA17

Mounting instructions: CYL-0032

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

BL [mm]	5000			4850			4700		
OH [mm]	200	400	600	200	400	600	200	400	600
At [°]	47	49	51	48	51	53	50	53	56
Ycog [mm]	63	68	74	64	69	76	65	71	79
	69	75	84	70	78		72		
	76								

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

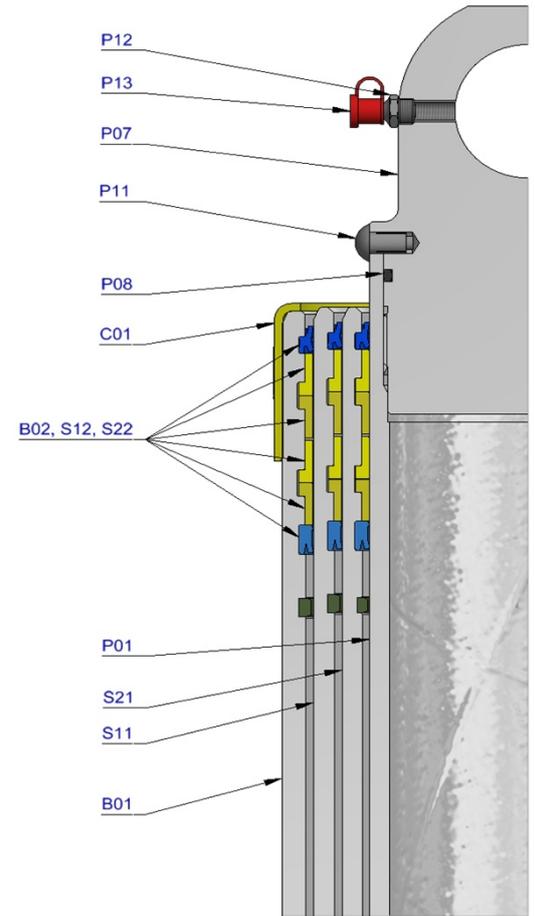


FEE A149-3-03835-249-K1660

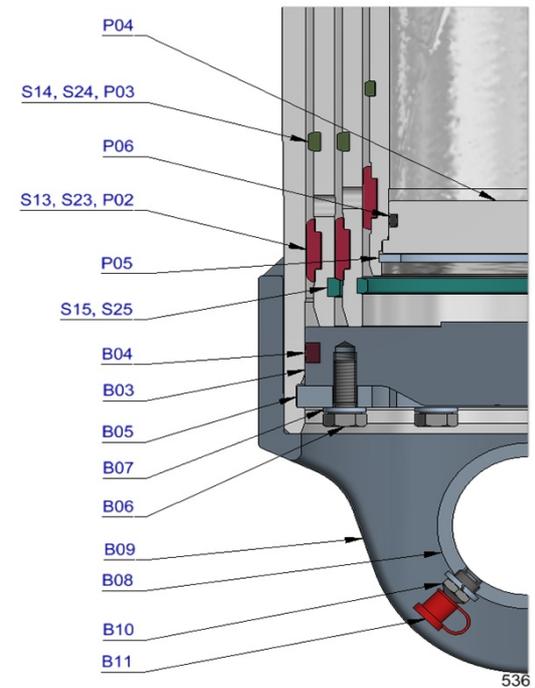
Item no.

70575246

Pos.	Part no.	Description	Qty.
C01	71839230	DUST RING FL2 149	1
P01	74403513	PISTON FL2 S 110-1515-HC (SR=45)	1
P02	71853110 K	SLIDER FL 110 (2 X 1/2) A22	1
P03	71851110 K	OUTER STOPRING FL 110 A22	1
P04	71822110	BOTTOM PLATE PISTON FL 110	1
P05	01745050 K	CIRCLIP 100 DIN 472 (105.5x3.0)	1
P06	71870220 K	O-RING PISTON BOTTOM 110	1
P07	71847320	PISTON EYE SOLID FL 110 L=050 H=50.8 GR	1
P08	01226538 K	O-RING 91.67 X 3.53 MM NBR	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



S21	74604510	STAGE FL2 129-1510	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	74605510	STAGE FL2 149-1510	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	74506524	BASE FL2 E 169-1549-4/4NSAE-330/450-O209	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	01793051	EYE TRUNNION TUBE (63-52.5) L=209	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

	71908530 K	Consists of all packsets with packset grease and O-rings	
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## 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.