

## Specifications

Max. working pressure	220 bar
Weight	472 kg
Working volume	164 L
Total volume	175 L
Max. cyl. load (start tipping)	440 kN
Max. cyl. load (end of stroke) <sup>2</sup>	300 kN
Max. cyl. load (end of stroke) <sup>3</sup>	350 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>	45 sec
Without KO <sup>1</sup>	52 sec
With KO <sup>1</sup> below -20°C	64 sec
Without KO <sup>1</sup> below -20°C	74 sec
Allowable lowering time	36 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	214	191	169	149	129			6995
Stroke* [mm]	1370	1400	1405	1410	1410			

## 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 & 015BRA12

Mounting instructions: CYL-0030

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]	9300			8750			8200		
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	44	46	48	47	49	51	51	53	55
Ycog [mm]									
600	78	83	89	82	88	95	86	94	103
900	83	89	96	87	94		93		
1200	88	95		93					

Tipping weight [ton] at maximum pressure of 220 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

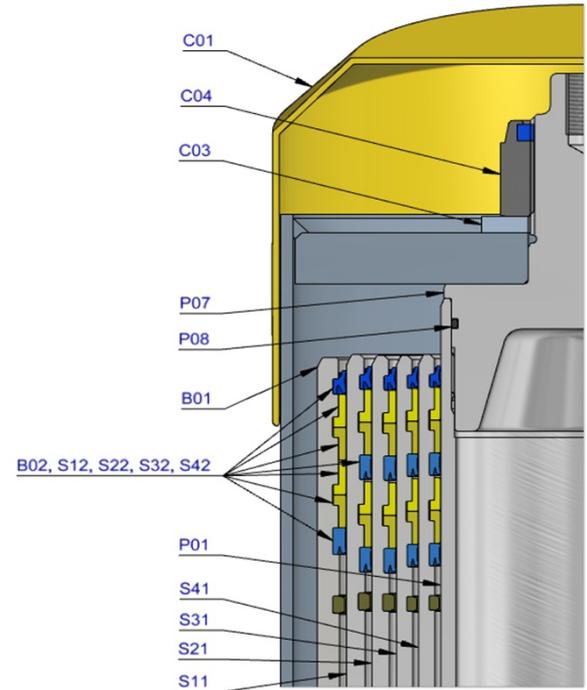


FC A214-5-06995-014-K0486-HD\*290

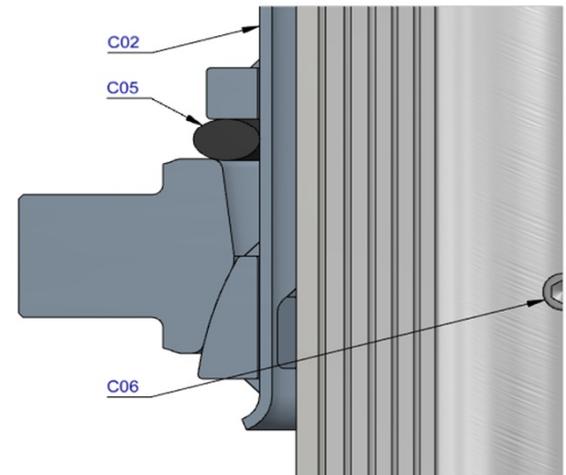
Item no.

70518584

Pos.	Part no.	Description	Qty.
C01	71839050	DUST COVER FC LOW 15-273	1
C02	71737497	COVER 273-1285 PIN60 A360 SPH LOCK	1
C03	01702956 K	WASHER M48 DIN 125B ZP	1
C04	01702907 K	TOPNUT NYLOC M48x3 DIN 985 ZP	1
C05	01791953	O-RING COVER D.273	1
C06	15014550 K	BOLT HSHC M12X30X1.75 Q8.8 DIN 912 ZP	1
P01	74414641	PISTON FL2 S 129-1645-HD-HC	1
P02	71807131 K	SLIDER FL 129 (2 X 1/2) A35	1
P03	71851129 K	OUTER STOPRING FL 129 A22	2
P04	71822715	BOTTOM PLATE PISTON FL 129 MK2 HD	1
P05	01745022 K	CIRCLIP 115 DIN 472 (122.0x4.0)	1
P06	71870225 K	O-RING PISTON BOTTOM 129	1
P07	71848400	PISTON HEAD FL 129 MK2	1
P08	71870125 K	O-RING 110.72 X 3.53 MM	1

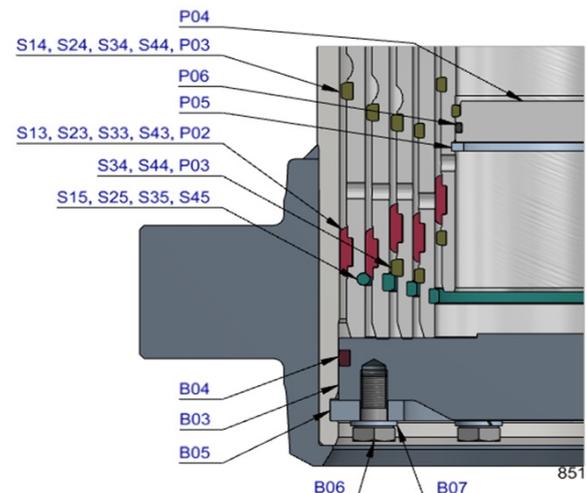


S41	74615640	STAGE FL2 149-1640-HD	1
S42	71808149 K	PACKSET FL 149/HP 150 TANDEM SEAL	1
S43	71807151 K	SLIDER FL 149 A35	1
S44	71851149 K	OUTER STOPRING FL 149 A22	2
S45	71852149 K	LIFTRING FL 149 A22	1



S31	74616640	STAGE FL2 169-1640-HD	1
S32	71808169 K	PACKSET FL 169 TANDEM SEAL	1
S33	71807171 K	SLIDER FL 169 A35	1
S34	71851169 K	OUTER STOPRING FL 169 A22	2
S35	71852169 K	LIFTRING FL 169 A22	1

S21	74617640	STAGE FL2 191-1640-HD	1
S22	71808191 K	PACKSET FL 191 TANDEM SEAL	1
S23	71807193 K	SLIDER FL 191 A35	1
S24	71851191 K	OUTER STOPRING FL 191 A22	1
S25	71852191 K	LIFTRING FL 191 A22	1



S11	74618640	STAGE FL2 214-1640-HD	1
S12	71808214 K	PACKSET FL 214 TANDEM SEAL	1
S13	71807216 K	SLIDER FL 214 A35	1
S14	71851214 K	OUTER STOPRING FL 214 A22	1
S15	71813214 K	LIFTRING FL 214x6	1

B01	74519644R1185	BASE FL2 238-1691-4/4BSAE-290-C273-HD	1
B02	71802238 K	PACKSET FL 238	1
B03	71825440	BOTTOM PLATE FL2 238	1
B04	71870050 K	SEAL BOTTOM PLATE FL 238	1
B05	71820238	LOCKING PLATE FL 238	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

	71908851 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.