

Specifications

Max. working pressure	220 bar
Weight	316 kg
Working volume	98 L
Total volume	106 L
Max. cyl. load (start tipping)	245 kN
Max. cyl. load (end of stroke) ²	103 kN
Max. cyl. load (end of stroke) ³	121 kN

Max. pump flow

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

Tipping time

With KO ¹	31 sec
Without KO ¹	43 sec
With KO ¹ below -20°C	44 sec
Without KO ¹ below -20°C	61 sec
Allowable lowering time	31 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	169	149	129	110	91			7130
Stroke* [mm]	1410	1430	1430	1430	1430			

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.

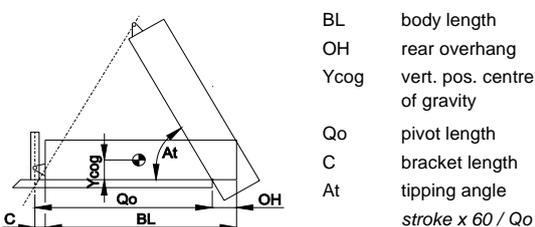
Related documentation

Bracket options: 015BRA10 & 015BRA12

Mounting instructions: CYL-0030

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

Tipping weight



BL [mm]	9400			9100			8800		
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	45	46	48	46	48	50	48	50	52
Ycog [mm]									
600	39	41	44	40	42	46	41	44	47
900	41	44	48	42	45	49	43	47	52
1200	43	47	51	45	49	54	47	51	57

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

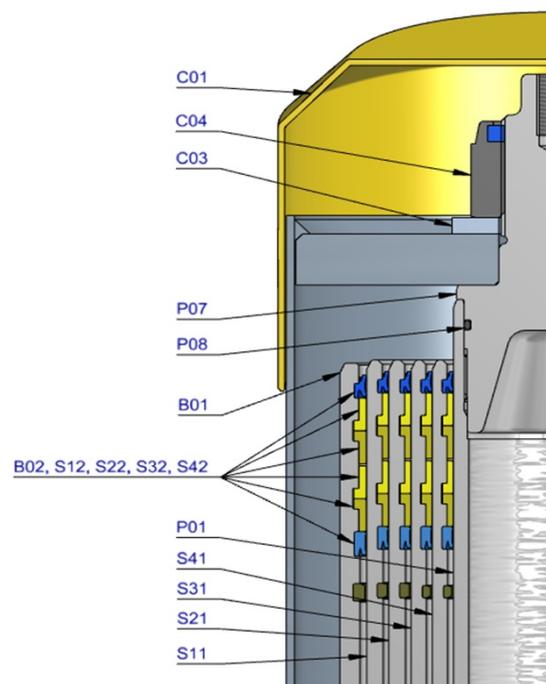


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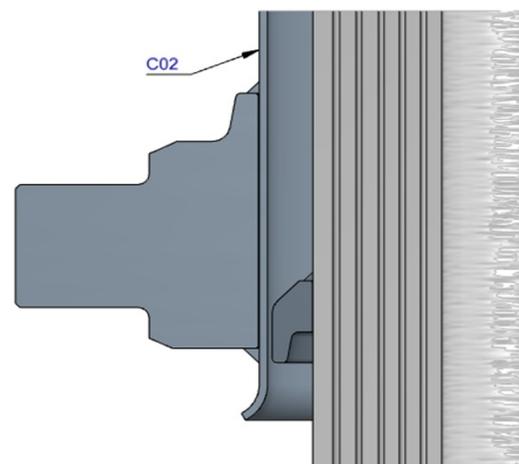
Item no.

70526582

Pos.	Part no.	Description	Qty.
C01	71839030	DUST COVER FC LOW 15-241	1
C02	71709301	COVER 241-0885 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



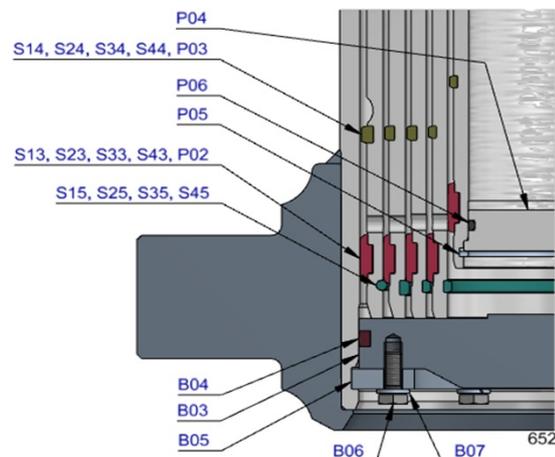
S41	74603650	STAGE FL2 110-1640	1
S42	71802110 K	PACKSET FL 110	1
S43	71853110 K	SLIDER FL 110 (2 X 1/2) A22	1
S44	71851110 K	OUTER STOPRING FL 110 A22	1
S45	71852110 K	LIFTRING FL 110 A22	1



S31	74604650	STAGE FL2 129-1640	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	74605650	STAGE FL2 149-1640	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	74606650	STAGE FL2 169-1640	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	74507654R0785	BASE FL2 191-1683-4/4BSAE-290-C242	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

	71908650 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.