Alpha series - Front end cylinder with single eye

HYVA®

FE A169-5-05830-019-K1609-P85*290

Item no.	70596456
Tipping weight	39 - 55 ton

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

3D model is available on request

Specifications

Max. working pressure	250 bar
Weight	248 kg
Working volume	82 L
Total volume	87 L
Max. cyl. load (start tipping)	245 kN
Max. cyl. load (end of stroke)[2]	124 kN
Max. cyl. load (end of stroke)[3]	145 kN

Max. pump flow

With KO[1]	170 L/min
Without KO[1]	119 L/min
With KO[1] below -20°C	119 L/min
Without KO[1] below -20°C	83 L/min

Tipping time

With KO[1]	29 sec
Without KO[1]	41 sec
With KO[1] below -20°C	41 sec
Without KO[1] below -20°C	59 sec
Allowable lowering time	29 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	169	149	129	110	85			
Stroke* [mm]	1230	1250	1250	1250	850			5830

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.
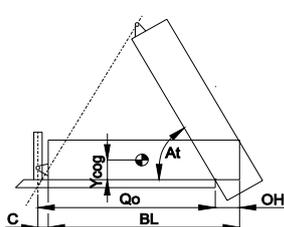
Related documentation

Bracket options: 015BRA10 & 015BRA13	Mounting instructions: CYL-0031	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]		7700			7400			7100	
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	46	48	50	48	50	52	50	52	55

Ycog [mm]									
600	39	43	47	40	44	49	42	46	52
900	42	46	52	44	49	55	46	52	
1200	45	51		48	54		51		

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

Pos.	Part no.	Description	Qty.
C01	71839131	DUST COVER FE 169-5/179-5/191-6	1

Pos.	Part no.	Description	Qty.
P01	74432529	PISTON FL2 S 085-1525-HC (SR=380)	1
P02	71853085 K	SLIDER FL 085 (2 X 1/2) A22	1
P03	71851085 K	OUTER STOPRING FL 085 A22	1
P04	75322085	BOTTOM PLATE PISTON 085	1
P05	01770560 K	CIRCLIP 75 DIN 472 (79.5x3.0)	1
P06	75372085 K	O-RING PISTON BOTTOM HP 085	1
P07	71847150	PISTON EYE SPH. FL 085 MK2 L=075	1
P08	01225807 K	O-RING 66.27 X 3.53 MM	1
P09	71875450 K	SPHERICAL BEARING D.50 MAINT. FREE	1
P10	01770560 K	CIRCLIP 75 DIN 472 (79.5x3.0)	1
P11	71875012	PIN ROUND HEAD GROOVED 8x15 mm	2

Pos.	Part no.	Description	Qty.
S41	74633440	STAGE FL2 110-1440 ID90	1
S42	75302110 K	PACKSET HP 110	1
S43	71853110 K	SLIDER FL 110 (2 X 1/2) A22	1
S44	71851110 K	OUTER STOPRING FL 110 A22	1
S45	71850111 K	INNER STOPRING/LIFTRING FL 110 ID 90 A22	1

Pos.	Part no.	Description	Qty.
S31	74604440	STAGE FL2 129-1440	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

Pos.	Part no.	Description	Qty.
S21	74605440	STAGE FL2 149-1440	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

Pos.	Part no.	Description	Qty.
S11	74606440	STAGE FL2 169-1440	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

Pos.	Part no.	Description	Qty.
B01	74507444	BASE FL2 191-1483-4/4BSAE-290	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

	71908652 K	Consists of all packsets with packset grease and O-rings	
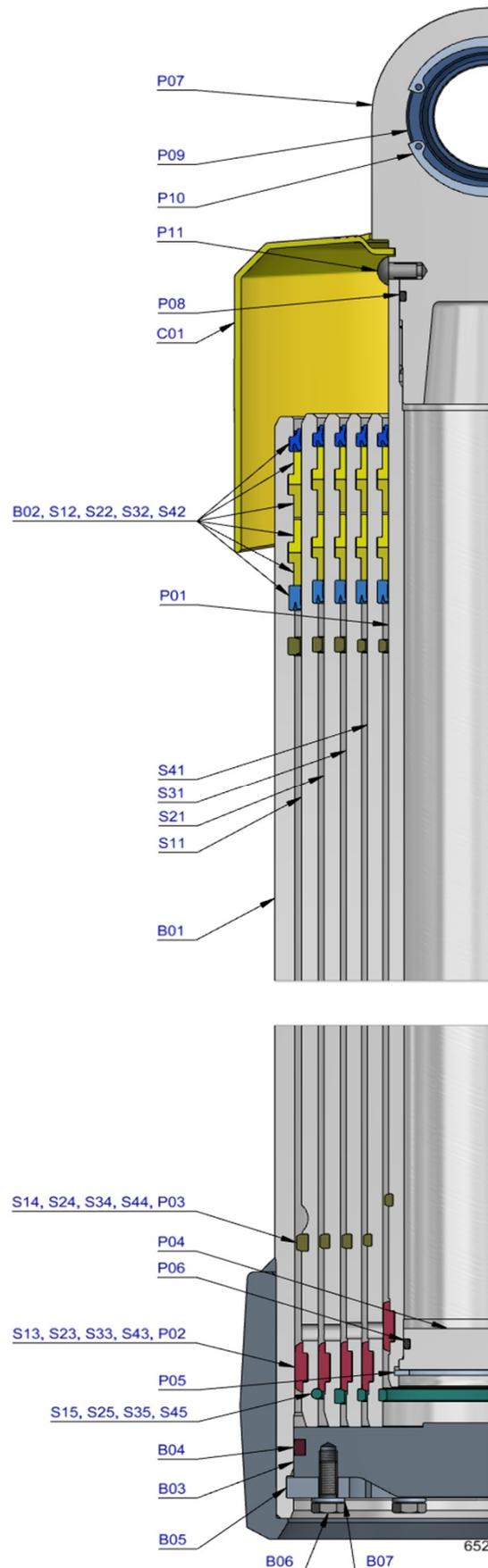
Notes

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.