

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

3D model is available on request

## Specifications

Max. working pressure	250 bar
Weight	136 kg
Working volume	39 L
Total volume	42 L
Max. cyl. load (start tipping)	345 kN

## Max. pump flow

With KO <sup>1</sup>	190 L/min
Without KO <sup>1</sup>	162 L/min
With KO <sup>1</sup> below -20°C	133 L/min
Without KO <sup>1</sup> below -20°C	113 L/min

## Tipping time

With KO <sup>1</sup>	12 sec
Without KO <sup>1</sup>	14 sec
With KO <sup>1</sup> below -20°C	17 sec
Without KO <sup>1</sup> below -20°C	20 sec
Allowable lowering time	12 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	137	118	99					3490
Stroke* [mm]	1150	1170	1170					

## 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.

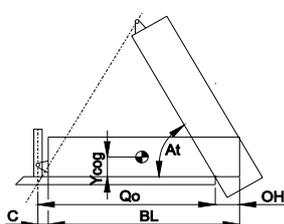
## Related documentation

Bracket options: 015BRA13 & 015BRA17

Mounting instructions: CYL-0032

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

## Tipping weight



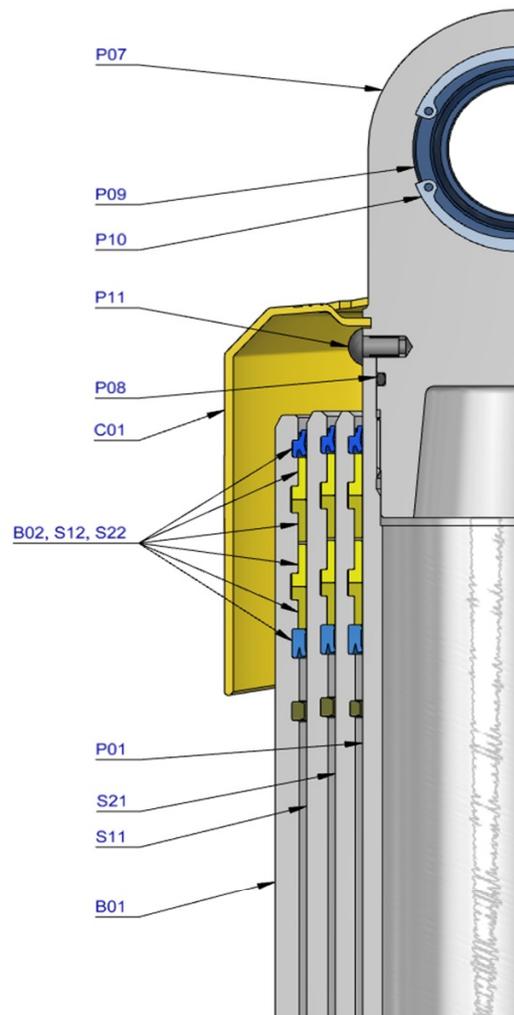
BL	body length
OH	rear overhang
Ycog	vert. pos. centre of gravity
Qo	pivot length
C	bracket length
At	tipping angle
	stroke x 60 / Qo

BL [mm]	4600			4500			4400		
OH [mm]	200	400	600	200	400	600	200	400	600
At [°]	46	49	51	47	50	53	49	51	54
Ycog [mm]									
400	52	56	62	52	57	64	53	58	65
700	57	63	72	58	65	75	59	67	78
1000	63	72	85	65	75		67	78	

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>

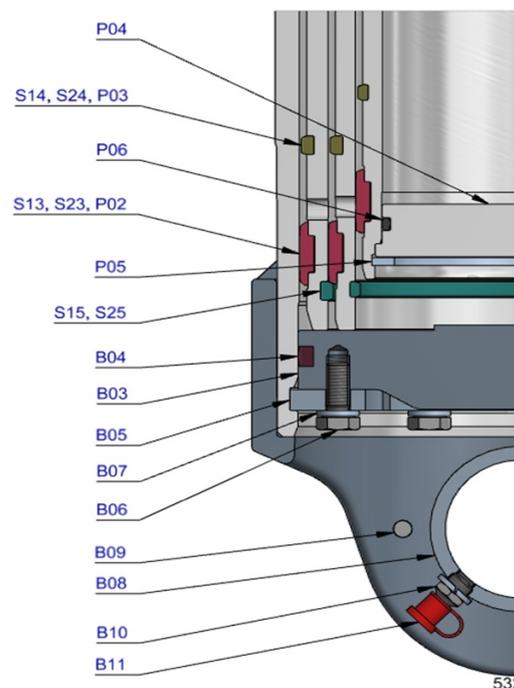
Pos.	Part no.	Description	Qty.
C01	71839110	DUST COVER FE 129-3/137-3	1
P01	70463371	PISTON MN2 S 099-1365-HC	1
P02	70209310 K	SLIDER MN 099 (2 x 1/2) A22	1
P03	70216099 K	OUTER STOPRING MN 099 A22	1
P04	70224099	BOTTOM PLATE PISTON MN 099	1
P05	01770580 K	CIRCLIP 90 DIN 472 (95.5x3.5)	1
P06	70260215 K	O-RING PISTON BOTTOM 099	1
P07	70235400	PISTON EYE SPH. MN 099 MK2 L=075	1
P08	70260115 K	O-RING 82.14 X 3.53 MM	1
P09	71875455 K	SPHERICAL BEARING D.50.8 MAINT. FREE	1
P10	01770560 K	CIRCLIP 75 DIN 472 (79.5x3.0)	1
P11	71875012	PIN ROUND HEAD GROOVED 8x15 mm	2



S21	70664370	STAGE MN2 118-1360	1
S22	70203118 K	PACKSET MN 118	1
S23	70209320 K	SLIDER MN 118 (2 x 1/2) A22	1
S24	70216118 K	OUTER STOPRING MN 118 A22	1
S25	70217118 K	LIFTRING MN 118 A22	1

S11	70665370	STAGE MN2 137-1360	1
S12	70203137 K	PACKSET MN 137	1
S13	70207137 K	SLIDER MN 137 A35	1
S14	70216137 K	OUTER STOPRING MN 137 A22	1
S15	70217137 K	LIFTRING MN 137 A22	1

B01	70366385	BASE MN2 E 157-1399-4/4NSAE-330/450-O209	1
B02	70203157 K	PACKSET MN 157	1
B03	70225355	BOTTOM PLATE MN2 157	1
B04	70270157 K	SEAL BOTTOM PLATE MN 157	1
B05	70220157	LOCKING PLATE MN 157	3
B06	01732055 K	BOLT HEX M8X20X1.25 SET 6 PCS	1
B07	01732559 K	WASHER SPRING M8 SET 6 PCS	1
B08	01793052	EYE TRUNNION TUBE (63-54) 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

	71907530 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.