

## Specifications

Max. working pressure	220 bar
Weight	215 kg
Working volume	73 L
Total volume	79 L
Max. cyl. load (start tipping)	345 kN
Max. cyl. load (end of stroke) <sup>2</sup>	119 kN
Max. cyl. load (end of stroke) <sup>3</sup>	139 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>	23 sec
Without KO <sup>1</sup>	27 sec
With KO <sup>1</sup> below -20°C	33 sec
Without KO <sup>1</sup> below -20°C	39 sec
Allowable lowering time	23 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	157	137	118	99				5540
Stroke* [mm]	1370	1390	1390	1390				

## 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.

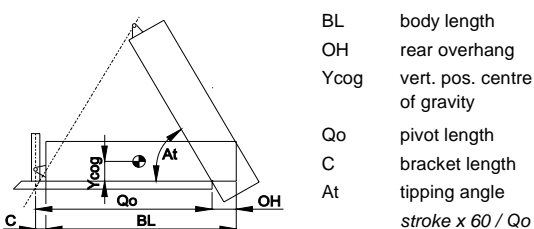
## Related documentation

Bracket options: 015BRA10

Mounting instructions: CYL-0031

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

## Tipping weight



BL [mm]	7300			7050			6800		
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	46	48	50	48	50	53	49	52	55
Ycog [mm]									
600	46	50	55	47	51	57	48	53	60
900	49	54	61	51	56	64	52	59	68
1200	53	59	68	55	62	73	57	66	79

Tipping weight [ton] at maximum pressure of 220 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.
------	----------	-------------	------

P01	70493581	PISTON MN2 S 099-1585-HC (V+SR=74)	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	70235420	PISTON EYE SOLID MN 099 L=070 H=50 WD=50	1
P08	70260115 K	O-RING 82.14 X 3.53 MM	1

S31	70694580	STAGE MN2 118-1580 (V+SR=74)	1
S32	70203118 K	PACKSET MN 118	1
S33	70209320 K	SLIDER MN 118 (2 x 1/2) A22	1
S34	70216118 K	OUTER STOPRING MN 118 A22	1
S35	70217118 K	LIFTRING MN 118 A22	1

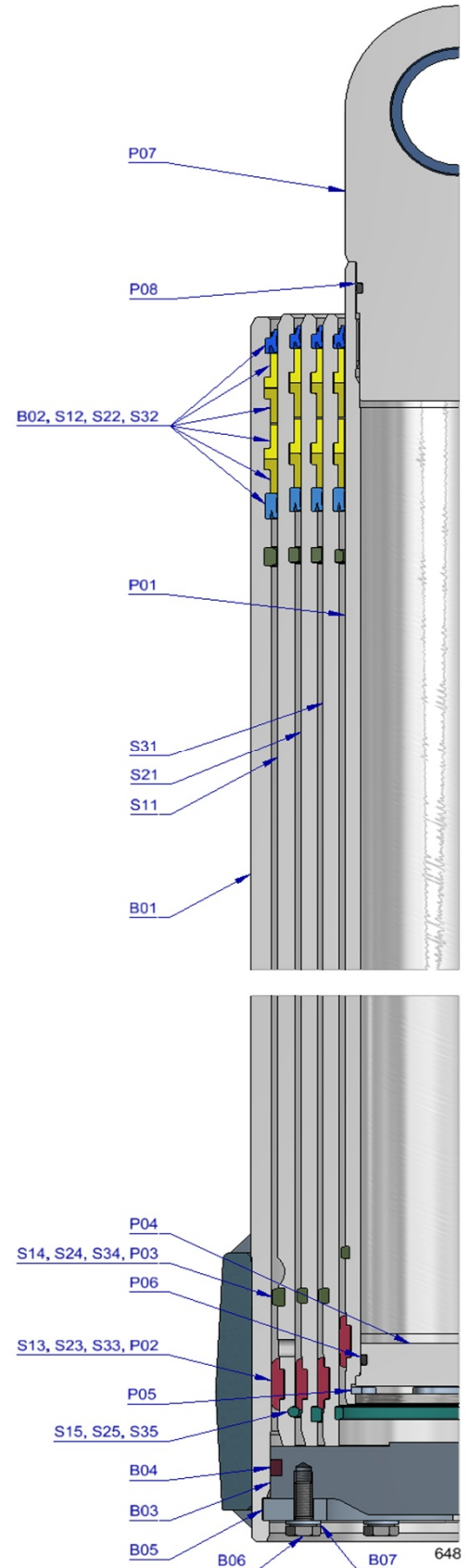
S21	70695580	STAGE MN2 137-1580 (V+SR=74)	1
S22	70203137 K	PACKSET MN 137	1
S23	70207137 K	SLIDER MN 137 A35	1
S24	70216137 K	OUTER STOPRING MN 137 A22	1
S25	70217137 K	LIFTRING MN 137 A22	1

S11	70696580	STAGE MN2 157-1580 (V+SR=74)	1
S12	70203157 K	PACKSET MN 157	1
S13	70207157 K	SLIDER MN 157 A35	1
S14	70216157 K	OUTER STOPRING MN 157 A22	1
S15	70213157 K	LIFTRING MN 157x5 MK2	1

B01	70367592	BASE MN2 179-1623-4/4BSAE-N1553-V0700	1
B02	70203179 K	PACKSET MN 179	1
B03	70225360	BOTTOM PLATE MN2 179	1
B04	70270179 K	SEAL BOTTOM PLATE MN 179	1
B05	70220185	LOCKING PLATE MN2 179	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

	71907640 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.