

## Specifications

Max. working pressure	250 bar
Weight	231 kg
Working volume	84 L
Total volume	91 L
Max. cyl. load (start tipping)	295 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>	27 sec
Without KO <sup>1</sup>	31 sec
With KO <sup>1</sup> below -20°C	39 sec
Without KO <sup>1</sup> below -20°C	44 sec
Allowable lowering time	27 sec

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	179	157	137	118	99			5405
Stroke* [mm]	1065	1085	1085	1085	1085			

## 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.

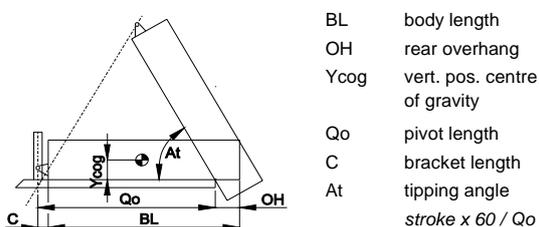
## Related documentation

Bracket options: 015BRA13 & 015BRA17

Mounting instructions: CYL-0032

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

## Tipping weight



BL [mm]	7100			6850			6600		
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	46	48	51	48	50	53	50	52	55
Ycog [mm]									
Qo	600	60	66	56	62	70	58	64	
C	54	60	66	56	62	70	58	64	
At	900	59	65	61					
	1200								

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
P01	70463301	PISTON MN2 S 099-1280-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	70235403	PISTON EYE SPH. MN 099 MK2 L=103	1
P08	70260115 K	O-RING 82.14 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

S41	70664300	STAGE MN2 118-1275	1
S42	70203118 K	PACKSET MN 118	1
S43	70209320 K	SLIDER MN 118 (2 x 1/2) A22	1
S44	70216118 K	OUTER STOPRING MN 118 A22	1
S45	70217118 K	LIFTRING MN 118 A22	1

S31	70665300	STAGE MN2 137-1275	1
S32	70203137 K	PACKSET MN 137	1
S33	70207137 K	SLIDER MN 137 A35	1
S34	70216137 K	OUTER STOPRING MN 137 A22	1
S35	70217137 K	LIFTRING MN 137 A22	1

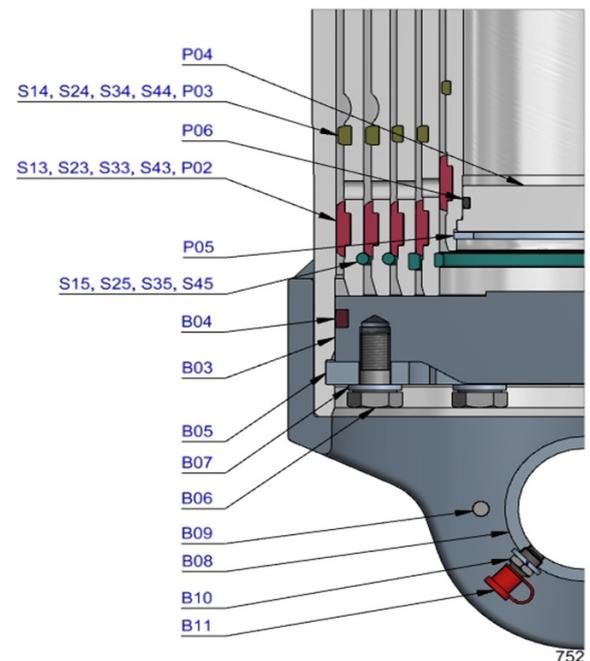
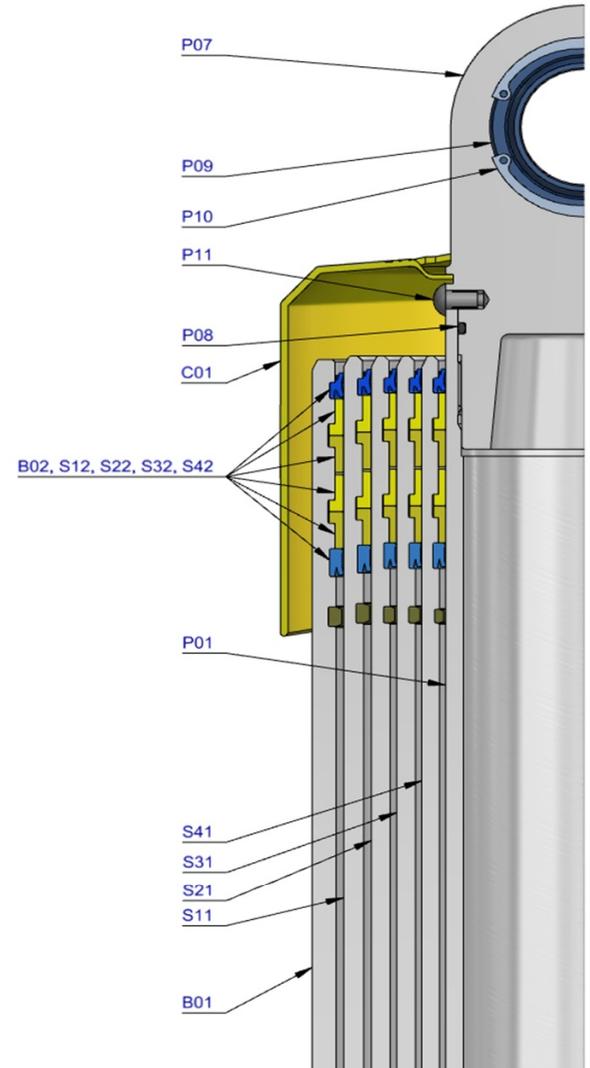
S21	70666300	STAGE MN2 157-1275	1
S22	70203157 K	PACKSET MN 157	1
S23	70207157 K	SLIDER MN 157 A35	1
S24	70216157 K	OUTER STOPRING MN 157 A22	1
S25	70213157 K	LIFTRING MN 157x5 MK2	1

S11	70667300	STAGE MN2 179-1275	1
S12	70203179 K	PACKSET MN 179	1
S13	70207179 K	SLIDER MN 179 A35	1
S14	70216179 K	OUTER STOPRING MN 179 A22	1
S15	70213179 K	LIFTRING MN 179x5 MK2	1

B01	70368310	BASE MN2 E 202-1326-4/4NSAE-330-O260	1
B02	70203202 K	PACKSET MN 202	1
B03	70225365	BOTTOM PLATE MN2 202	1
B04	70270202 K	SEAL BOTTOM PLATE MN 202	1
B05	70220205	LOCKING PLATE MN2 202	3
B06	01732020 K	BOLT HEX M12X25X1.25 SET 6 PCS	1
B07	01732523 K	WASHER SPRING M12 SET 6 PCS	1
B08	01793081	EYE TRUNNION TUBE (63-52.5) L=260	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

	71907750 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.