

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

3D model is available on request or [www.hyva.com](http://www.hyva.com)

Specifications		Max. pump flow		Tipping time	
Max. working pressure	250 bar	With KO <sup>1</sup>	220 L/min	With KO <sup>1</sup>	22 sec
Weight	232 kg	Without KO <sup>1</sup>	162 L/min	Without KO <sup>1</sup>	30 sec
Working volume	81 L	With KO <sup>1</sup> below -20°C	154 L/min	With KO <sup>1</sup> below -20°C	31 sec
Total volume	88 L	Without KO <sup>1</sup> below -20°C	113 L/min	Without KO <sup>1</sup> below -20°C	43 sec
Max. cyl. load (start tipping)	295 kN			Allowable lowering time	18 sec
Max. cyl. load (end of stroke) <sup>2</sup>	168 kN				
Max. cyl. load (end of stroke) <sup>3</sup>	196 kN				

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

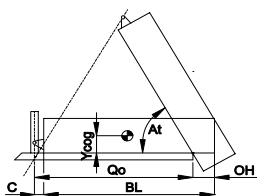
Bracket options:	015BRA10 & 015BRA13
Mounting instructions:	CYL-0031
Oil specifications:	OIL-0011
Spec sheet explanation:	CYL-0041

Configuration

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	179	157	137	118	99			5200
Stroke* [mm]	1015	1040	1045	1050	1050			

Tipping weight

For detailed tipping calculations please refer to: <https://tipper.hyva.com>



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

BL [mm]	200	6900	800	200	6650	800	200	6400	800
OH [mm]	45	500	48	50	47	500	52	49	500
At [°]	45	48	50	47	50	52	49	52	55
Ycog [mm]	54	60	67	56	62	71	58	65	

Tipping weight [ton] at maximum pressure of 250 bar for a vertically mounted cylinder and C is 158 mm

Pos.	Part no.	Description	Qty.
C01	71839131	DUST COVER FE 169-5/179-5/191-6	1
P01	70443301	PISTON MN3 S 099-1280-HD-HC	1
P02	70207099K	SLIDER MN 099 (2 x 1/2) A35	1
P03	70216099K	OUTER STOPRING MN 099 A22	2
P04	70230099	BOTTOM PLATE PISTON MN 099 MK2 HD	1
P05	01745042K	CIRCLIP 85 DIN 472 (90.5x3.0)	1
P06	70260215K	O-RING PISTON BOTTOM 099	1
P07	70235401	PISTON EYE SPH. MN3 099 L=075 GR	1
P08	70260115K	O-RING 82.14 X 3.53 MM	1
P09	01770085K	SPHERICAL BEARING D.50.3 DO GREASED	1
P10	01770560K	CIRCLIP 75 DIN 472 (79.5x2.5)	1
P11	71875012	PIN ROUND HEAD GROOVED 8x15 mm	2
P12	56288044K	GREASE NIPPLE M8x1 DIN 71412	1
P13	01317670K	GREASER PROTECTION CAP	1

S41	70674300	STAGE MN2 118-1275-HD	1
S42	70202118K	PACKSET MN 118 TANDEM SEAL	1
S43	70207118K	SLIDER MN 118 (2 x 1/2) A35	1
S44	70216118K	OUTER STOPRING MN 118 A22	2
S45	70217118K	LIFTRING MN 118 A22	1

S31	70675300	STAGE MN2 137-1275-HD	1
S32	70202137K	PACKSET MN 137 TANDEM SEAL	1
S33	70207137K	SLIDER MN 137 A35	1
S34	70216137K	OUTER STOPRING MN 137 A22	2
S35	70217137K	LIFTRING MN 137 A22	1

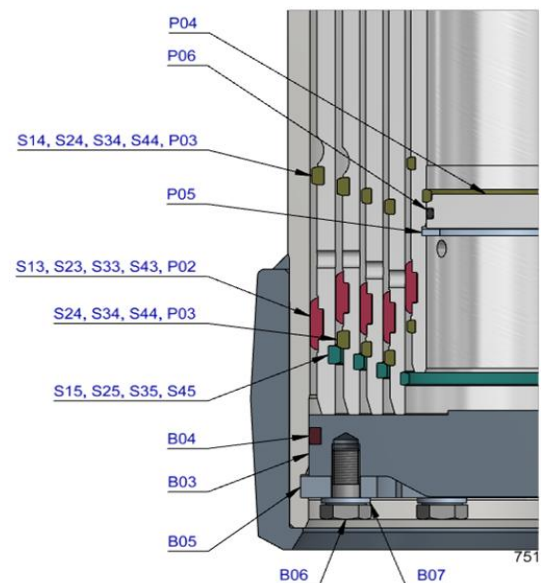
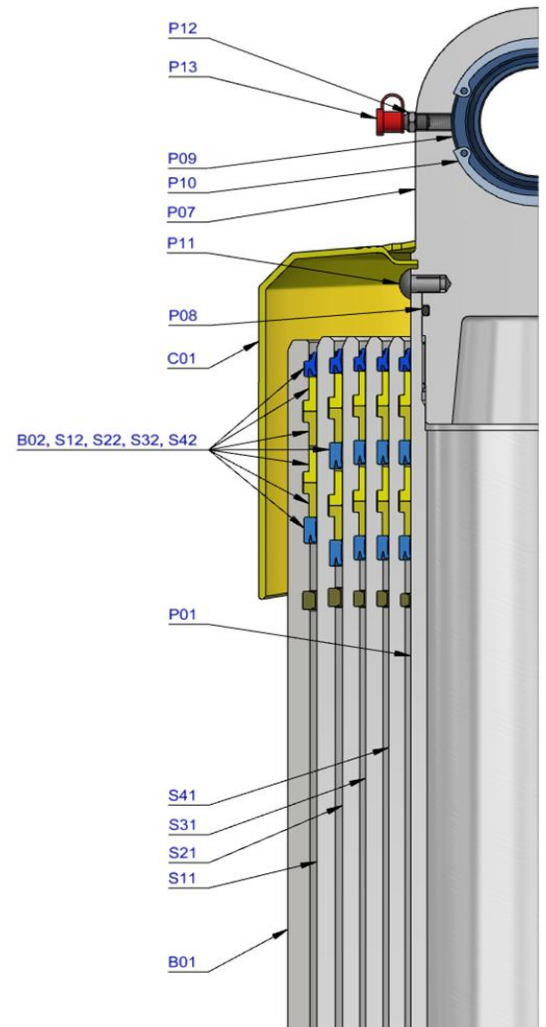
S21	70676300	STAGE MN2 157-1275-HD	1
S22	70202157K	PACKSET MN 157 TANDEM SEAL	1
S23	70207157K	SLIDER MN 157 A35	1
S24	70216157K	OUTER STOPRING MN 157 A22	2
S25	70217157K	LIFTRING MN 157 A22	1

S11	70677300	STAGE MN2 179-1275-HD	1
S12	70202179K	PACKSET MN 179 TANDEM SEAL	1
S13	70207179K	SLIDER MN 179 A35	1
S14	70216179K	OUTER STOPRING MN 179 A22	1
S15	70217179K	LIFTRING MN 179 A22	1

B01	70378318	BASE MN2 202-1326-4/4BSAE-700-HD	1
B02	70203202K	PACKSET MN 202	1
B03	70225365	BOTTOM PLATE MN2 202	1
B04	70270202K	SEAL BOTTOM PLATE MN 202	1
B05	70220205	LOCKING PLATE MN2 202	3
B06	01732020K	BOLT HEX M12X25X1.25 SET 6 PCS	1
B07	01732523K	WASHER SPRING M12 SET 6 PCS	1

### Seal kit complete

71907751K	Consists of all packsets with packset grease and O-rings
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### Notes

The inner stopring and piston bottom are pre-mounted on spare bases, stage and pistons. Therefore, when ordering new tubes, it is not required to order these parts separately.

For repair instructions see: CYL-0040. Serial no. is located on type plate and near type plate support.