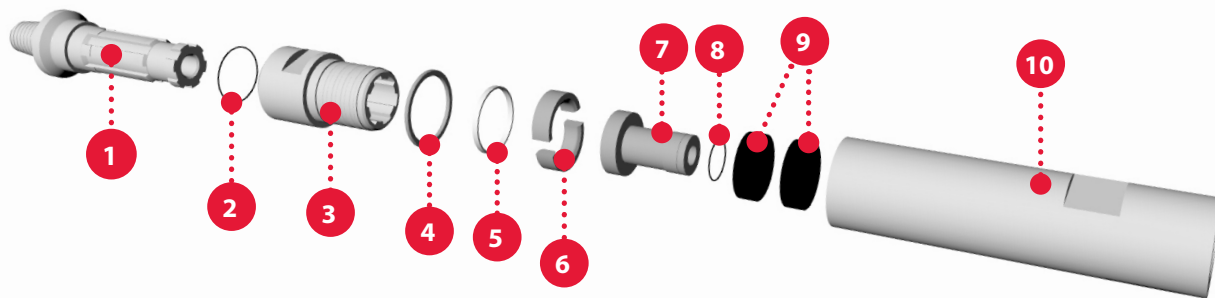


2"-6" HD SHOCK ABSORBERS



1. Parts List



Size	HDSA2	HDSA3	HDSA4	HDSA5	HDSA6
Effective length	346 mm / 13.62"	457 mm / 17.93"	483 mm / 19.02"	514 mm / 20.27"	578 mm / 22.76"
Outside diameter	62 mm / 2.44"	79.4 mm / 3.13"	95.4 mm / 3.76"	115 mm / 4.53"	140 mm / 5.51"
Net weight	7,5 kg / 16.5 lbs	14,3 kg / 31.5 lbs	22,1 kg / 48.7 lbs	33,2 kg / 73.2 lbs	53,0 kg / 116.8 lbs

Ref	Description	Part number				
		HDSA2	HDSA3	HDSA4	HDSA5	HDSA6
1	Top connector	SA02HD0810F	SA03HD0801M (2 3/8" reg. pin)	SA04HD0801M (2 3/8" reg. pin)	SA05HD0803M (3 1/2" reg. pin)	SA06HD0803M (3 1/2" reg. pin)
2	Seal 'O' ring*	N / A	SA03HD03	SA04HD03	SA05HD03	SA06HD03 (2 of)*
3	Splined Nut	HSB2837ST	SA03HD01	SA04HD01	SA05HD01	SA06HD01
4	Breakout washer	N / A	SA03HD25	SA04HD25	SA05HD25	SA06HD25
5	Splined Nut Seal	SA02HD10	SA03HD10	SA04HD10	SA05HD10	SA06HD10
6	Retainer ring	HSB2S37ST	SA03HD011	SA04HD011	SA05HD011	SA06HD011
7	Thrust guide	SA02HD12	SA03HD12	SA04HD12	SA05HD12	SA06HD12
8	Thrust guide 'O' ring	SA02HD12A	SA03HD12A	SA04HD12A	SA05HD12A	SA06HD12A
9	Buffer x 2**	SA02HD05 (1 of)**	SA03HD05	SA04HD05	SA05HD05	SA06HD05
10	Bottom connector	SA02HD0911M	SA03HD0901F (2 3/8" reg. box)	SA04HD0901F (2 3/8" reg. box)	SA05HD0903F (3 1/2" reg. box)	SA06HD0903F (3 1/2" reg. box)
Complete Shock Absorber		SA02HD11MF-B	SA03HD01MF-B	S04HD01MF-B	S05HD03MF-B	S06HD03MF-B

NB. * HDSA6 features 2 seal 'O' rings
 ** HDSA2 uses 1 buffer

Important:

Refer to the above component parts table when following the servicing and maintenance guidelines, as internal configuration may vary slightly depending on the shock absorber model you are using.



ALWAYS THINK SAFETY FIRST!

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2. Servicing & Maintenance

The Robit HD range of Shock Absorbers, suitable for 2" through to 6" DTH hammers should be serviced after every 500 hours of operation or every 6 months of intermittent use.

To disassemble the unit the Top Connector (item 1) needs to be unscrewed from the Bottom Connector (item 10). This can best be achieved by locking the Bottom Connector either in a vice or hammer splitting bench, depending on the size of the Shock Absorber and splitting the Top Connector at the spanner flats on the Splined Nut (item 3).

If the Shock Absorber is proving particularly difficult to break open, then by cutting through the Breakout Washer (item 4) with a pencil grinder or similar, this should facilitate easier opening. Take care not to cut into the Locking Nut. Note the 2" HDSA2 does not feature a breakout washer.

Remove and carefully inspect the Buffers (item 9). If either of them is showing any signs of wear, distortion or fatigue they must both be replaced.

Remove the Retainer Ring (item 6) and Slide the Splined Nut off the Top Connector. Examine the Seal "O" Ring (item 2) and also the Seal and if they are showing any signs of wear or distortion, they must be replaced.

It is inevitable that there will be progressive wear between splines of the Top Connector shaft and those of the Splined Nut. When this wear pattern exceeds 2mm in either component, it is recommended that this component be replaced. Excessive wear will eventually lead to failure of the Top Connector shaft or thread with the consequent loss of both hammer and bit.

Before re-assembling the Shock Absorber, make sure all the components are cleaned and then apply a good quality, heat resistant grease to the splines of the Top Connector shaft and the splines of the Nut. This will both reduce wear and help in splitting when the unit is next ready for service.

With the Top Connector held in the vertical position, slide over the Splined Nut and attach the Retainer Rings to the Top Connector. Ensure that the Thrust Guide and Buffers are all in line then place the Bottom Connector over the Splined Nut and tighten down fully to a maximum torque value as shown below for the appropriate Shock Absorber size.

For optimum performance and lifetime from your Robit DTH shock absorber, it should only be positioned directly behind the DTH hammer in the drill string. Failure to do so will invalidate any warranty.

The Robit DTH shock absorber range 2" to 6" are designed for best performance when used pin thread facing upwards.

Although using with the pin thread downwards is acceptable, it can increase the risk of dust and debris ingress into the unit, reducing service periods and increasing service costs.

DO NOT apply weld to any of the external surfaces. Your Robit DTH shock absorber is manufactured from quality heat treated materials. Applying weld or extreme heat will compromise the heat treatment process and could lead to premature failure. This will also invalidate any warranty.

Maximum Torque Values

2" HDSA2	170 kgm
3" HDSA3	200 kgm
4" HDSA4	250 kgm
5" HDSA5	400 kgm
6" HDSA6	700 kgm



