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KYB Air-Oil Separated Fork Compression Kit 25-033-00

Let's not mince words, KYB AOS Forks are some of the best OEM forks on the planet. However, your experience or usage may not be what the manufacturer intended. This kit was developed to make your bike perform how you want. Whether you bought a WR as your first bike to ride trails or a YZ for an endurance race, there's a spec for you.

Installing this kit is not for a beginner, we have left out fork and cartridge removal from these instructions because we assume you already know how to do this. You will need to grind the peening off of posts and if done incorrectly you can easily destroy them. If you feel any trepidation about this have a suspension specialist perform the work for you. If you haven't changed fork seals you probably shouldn't try to install this kit.

	CAUTION! PERSONAL HARM OR INJURY MAY OCCUR
	Take extra care in this step
	Check service components

You will require the following tools and consumables to complete this installation:

- Inner Cartridge Tool (93-003-02)
- Fork Cap Spanner (93-003-01)
- 14mm Spanner
- 10mm Spanner
- Metal File
- Measuring Cup
- 2L of 5Wt Fork Oil (130010010101A)
- Vernier Callipers
- Bench Vice
- 28 or 29mm cartridge clamp (dependant on year and model) (93-004-08)
- Twin Chamber Shaft Holding Tool (93-017-00)
- Brake and Parts Cleaner
- Service Kit **Recommended** (24-374-20)
- Alloy Free Pistons **Recommended** (30-004-13)

Kit Contains:

QTY	Part
2	Pistons
1	Set of Shims
2	M6 x 1 Fuji Nuts
1	Setting card
1	Installation Manual



Setting Bank #	2503300	Rev.	C
Suspension Fluid	KYB DIM Fork Fluid		
Oil Volume (incl. Seal)	200ml		
Oil Volume (incl. Seal)	350ml		
Compression	C1	C2	C3
Fork Size	05.30 10 (x10)	06.30 10 (x10)	06.30 10 (x10)
1	06.28 10	06.28 10	06.29 10
2	06.26 10	06.27 10	06.28 10
3	06.24 10	06.25 10	06.26 10
4	06.22 10	06.23 10	06.24 10
5	06.20 10	06.21 10	06.22 10
6	06.18 10	06.19 10	06.20 10
7	06.16 10	06.17 10	06.18 10
8	06.14 10	06.15 10	06.16 10
9	06.12 10	06.13 10	06.14 10
10	06.10 10	06.11 10	06.12 10
11	06.08 10	06.09 10	06.10 10
12	06.06 10	06.07 10	06.08 10
13	06.04 10	06.05 10	06.06 10
14	06.02 10	06.03 10	06.04 10
15	06.00 10	06.01 10	06.02 10
16	05.98 10	05.99 10	06.00 10
17	05.96 10	05.97 10	05.98 10
18	05.94 10	05.95 10	05.96 10
19	05.92 10	05.93 10	05.94 10
20	05.90 10	05.91 10	05.92 10
21	05.88 10	05.89 10	05.90 10
22	05.86 10	05.87 10	05.88 10
23	05.84 10	05.85 10	05.86 10
24	05.82 10	05.83 10	05.84 10
25	05.80 10	05.81 10	05.82 10
26	05.78 10	05.79 10	05.80 10
27	05.76 10	05.77 10	05.78 10
28	05.74 10	05.75 10	05.76 10
29	05.72 10	05.73 10	05.74 10
30	05.70 10	05.71 10	05.72 10
31	05.68 10	05.69 10	05.70 10
32	05.66 10	05.67 10	05.68 10
33	05.64 10	05.65 10	05.66 10
34	05.62 10	05.63 10	05.64 10
35	05.60 10	05.61 10	05.62 10
36	05.58 10	05.59 10	05.60 10
37	05.56 10	05.57 10	05.58 10
38	05.54 10	05.55 10	05.56 10
39	05.52 10	05.53 10	05.54 10
40	05.50 10	05.51 10	05.52 10
41	05.48 10	05.49 10	05.50 10
42	05.46 10	05.47 10	05.48 10
43	05.44 10	05.45 10	05.46 10
44	05.42 10	05.43 10	05.44 10
45	05.40 10	05.41 10	05.42 10
46	05.38 10	05.39 10	05.40 10
47	05.36 10	05.37 10	05.38 10
48	05.34 10	05.35 10	05.36 10
49	05.32 10	05.33 10	05.34 10
50	05.30 10	05.31 10	05.32 10
51	05.28 10	05.29 10	05.30 10
52	05.26 10	05.27 10	05.28 10
53	05.24 10	05.25 10	05.26 10
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59	05.12 10	05.13 10	05.14 10
60	05.10 10	05.11 10	05.12 10
61	05.08 10	05.09 10	05.10 10
62	05.06 10	05.07 10	05.08 10
63	05.04 10	05.05 10	05.06 10
64	05.02 10	05.03 10	05.04 10
65	05.00 10	05.01 10	05.02 10
66	04.98 10	04.99 10	05.00 10
67	04.96 10	04.97 10	04.98 10
68	04.94 10	04.95 10	04.96 10
69	04.92 10	04.93 10	04.94 10
70	04.90 10	04.91 10	04.92 10
71	04.88 10	04.89 10	04.90 10
72	04.86 10	04.87 10	04.88 10
73	04.84 10	04.85 10	04.86 10
74	04.82 10	04.83 10	04.84 10
75	04.80 10	04.81 10	04.82 10
76	04.78 10	04.79 10	04.80 10
77	04.76 10	04.77 10	04.78 10
78	04.74 10	04.75 10	04.76 10
79	04.72 10	04.73 10	04.74 10
80	04.70 10	04.71 10	04.72 10
81	04.68 10	04.69 10	04.70 10
82	04.66 10	04.67 10	04.68 10
83	04.64 10	04.65 10	04.66 10
84	04.62 10	04.63 10	04.64 10
85	04.60 10	04.61 10	04.62 10
86	04.58 10	04.59 10	04.60 10
87	04.56 10	04.57 10	04.58 10
88	04.54 10	04.55 10	04.56 10
89	04.52 10	04.53 10	04.54 10
90	04.50 10	04.51 10	04.52 10
91	04.48 10	04.49 10	04.50 10
92	04.46 10	04.47 10	04.48 10
93	04.44 10	04.45 10	04.46 10
94	04.42 10	04.43 10	04.44 10
95	04.40 10	04.41 10	04.42 10
96	04.38 10	04.39 10	04.40 10
97	04.36 10	04.37 10	04.38 10
98	04.34 10	04.35 10	04.36 10
99	04.32 10	04.33 10	04.34 10
100	04.30 10	04.31 10	04.32 10
101	04.28 10	04.29 10	04.30 10
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109	04.12 10	04.13 10	04.14 10
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112	04.06 10	04.07 10	04.08 10
113	04.04 10	04.05 10	04.06 10
114	04.02 10	04.03 10	04.04 10
115	04.00 10	04.01 10	04.02 10
116	03.98 10	03.99 10	04.00 10
117	03.96 10	03.97 10	03.98 10
118	03.94 10	03.95 10	03.96 10
119	03.92 10	03.93 10	03.94 10
120	03.90 10	03.91 10	03.92 10
121	03.88 10	03.89 10	03.90 10
122	03.86 10	03.87 10	03.88 10
123	03.84 10	03.85 10	03.86 10
124	03.82 10	03.83 10	03.84 10
125	03.80 10	03.81 10	03.82 10
126	03.78 10	03.79 10	03.80 10
127	03.76 10	03.77 10	03.78 10
128	03.74 10	03.75 10	03.76 10
129	03.72 10	03.73 10	03.74 10
130	03.70 10	03.71 10	03.72 10
131	03.68 10	03.69 10	03.70 10
132	03.66 10	03.67 10	03.68 10
133	03.64 10	03.65 10	03.66 10
134	03.62 10	03.63 10	03.64 10
135	03.60 10	03.61 10	03.62 10
136	03.58 10	03.59 10	03.60 10
137	03.56 10	03.57 10	03.58 10
138	03.54 10	03.55 10	03.56 10
139	03.52 10	03.53 10	03.54 10
140	03.50 10	03.51 10	03.52 10
141	03.48 10	03.49 10	03.50 10
142	03.46 10	03.47 10	03.48 10
143	03.44 10	03.45 10	03.46 10
144	03.42 10	03.43 10	03.44 10
145	03.40 10	03.41 10	03.42 10
146	03.38 10	03.39 10	03.40 10
147	03.36 10	03.37 10	03.38 10
148	03.34 10	03.35 10	03.36 10
149	03.32 10	03.33 10	03.34 10
150	03.30 10	03.31 10	03.32 10
151	03.28 10	03.29 10	03.30 10
152	03.26 10	03.27 10	03.28 10
153	03.24 10	03.25 10	03.26 10
154	03.22 10	03.23 10	03.24 10
155	03.20 10	03.21 10	03.22 10
156	03.18 10	03.19 10	03.20 10
157	03.16 10	03.17 10	03.18 10
158	03.14 10	03.15 10	03.16 10
159	03.12 10	03.13 10	03.14 10
160	03.10 10	03.11 10	03.12 10
161	03.08 10	03.09 10	03.10 10
162	03.06 10	03.07 10	03.08 10
163	03.04 10	03.05 10	03.06 10
164	03.02 10	03.03 10	03.04 10
165	03.00 10	03.01 10	03.02 10
166	02.98 10	02.99 10	03.00 10
167	02.96 10	02.97 10	02.98 10
168	02.94 10	02.95 10	02.96 10
169	02.92 10	02.93 10	02.94 10
170	02.90 10	02.91 10	02.92 10
171	02.88 10	02.89 10	02.90 10
172	02.86 10	02.87 10	02.88 10
173	02.84 10	02.85 10	02.86 10
174	02.82 10	02.83 10	02.84 10
175	02.80 10	02.81 10	02.82 10
176	02.78 10	02.79 10	02.80 10
177	02.76 10	02.77 10	02.78 10
178	02.74 10	02.75 10	02.76 10
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180	02.70 10	02.71 10	02.72 10
181	02.68 10	02.69 10	02.70 10
182	02.66 10	02.67 10	02.68 10
183	02.64 10	02.65 10	02.66 10
184	02.62 10	02.63 10	02.64 10
185	02.60 10	02.61 10	02.62 10
186	02.58 10	02.59 10	02.60 10
187	02.56 10	02.57 10	02.58 10
188	02.54 10	02.55 10	02.56 10
189	02.52 10	02.53 10	02.54 10
190	02.50 10	02.51 10	02.52 10
191	02.48 10	02.49 10	02.50 10
192	02.46 10	02.47 10	02.48 10
193	02.44 10	02.45 10	02.46 10
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196	02.38 10	02.39 10	02.40 10
197	02.36 10	02.37 10	02.38 10
198	02.34 10	02.35 10	02.36 10
199	02.32 10	02.33 10	02.34 10
200	02.30 10	02.31 10	02.32 10
201	02.28 10	02.29 10	02.30 10
202	02.26 10	02.27 10	02.28 10
203	02.24 10	02.25 10	02.26 10

Step 1:

Remove the forks from the bike, drain the oil from the outer cartridge then remove the spring and inner cartridge. You may be tempted to simply remove the compression assembly while the forks are still in the bike. We don't recommend this since there's no way to bleed the cartridge this way.

Step 2: (Optional)

Disassemble outer tubes, inspect seals, bushes and dust wipers. Replace if necessary.

Step 3:

Clamp the cartridge in a cartridge clamp. If there is a hand adjuster remove this first. Unscrew the compression assembly with an inner cartridge tool. Once it's loose push the cartridge rod up to move the compression assembly out enough to grip it then pull it out the rest of the way.

Turn the cartridge upside down and pump the cartridge rod a few times to remove the old oil and place it upside down to allow the remaining oil to drain out.



Step 4: (Optional)

If you're not replacing the free piston skip to step 5

Otherwise clamp the inner cartridge tool in a vice, place the compression assembly on it upside down and use your 14mm spanner to remove the compression post.

Now you can simply slide the free piston assembly off and slide the new one on. You won't need to use a seal bullet the shaft has a smooth chamfer so if you're gentle you won't damage the seal. If you have a particularly old bike (pre 2010) you may need to use the included nylon spacer. If the spring is not compressed when you reinstall the post, you need to use the spacer otherwise it's not necessary.

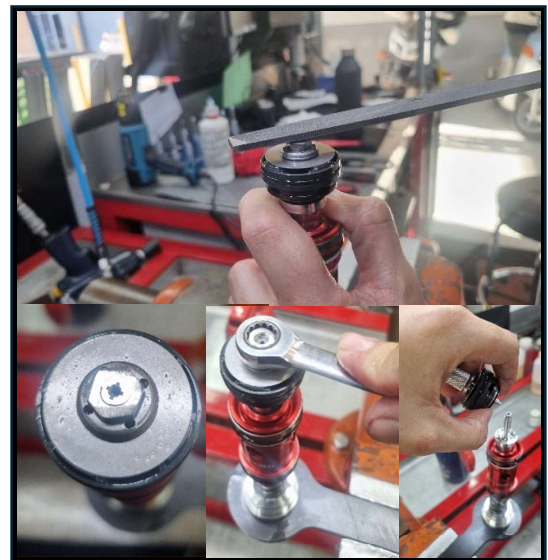


Step 5:



The nut on your compression post will have been peened over at the factory to prevent it from coming loose. You need to remove the peening, or you will snap the post or strip the threads. There are many ways to do this but the safest way is to file them away. Once you think you've removed enough try to remove the nut with a 10mm spanner while holding the post with a 14. If it's difficult stop, file some more and try again. It shouldn't be hard to remove the nut.

Once the nut is off, remove the entire shim and piston assembly. if there's a burr, file a small chamfer on to the post. This will make installing a new nut easier. Now wash it down with brake clean and compressed air if you have it, to make sure there's no swarf left that could get into anything.



Step 6:



The kit comes pre-assembled with the C3 specification, which fits the most applications. It may not be for you however. Read the back of the specification sheet and decide on the specification you'd like. You will be able to assemble it from the supplied extra shims. They are separated by a 32mm shim by thickness. Make sure the 30mm diameter shims are against the piston face and the 22mm free bleed shims are against the ports on the post.

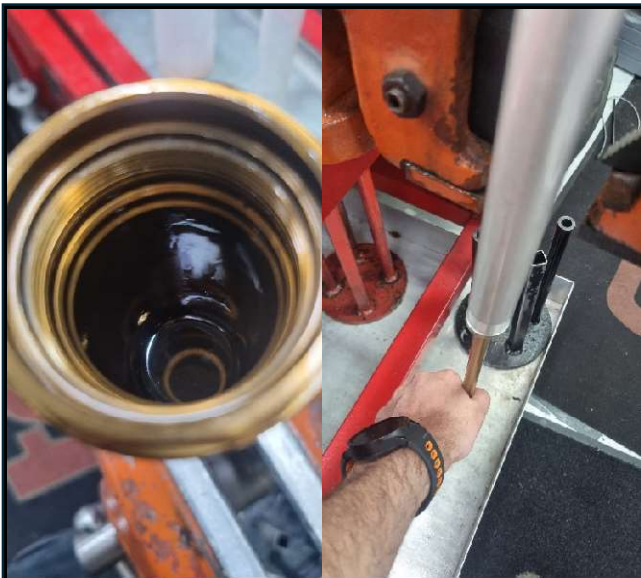
If you've never done this before, We'd recommend you build the specification on a screwdriver measuring the shims as you go.

Once the specification is built, install it onto the post. Before you tighten the assembly make sure the check plate is riding on the collar and not being pinched.

Then torque the fuji nut to 5N/m.



Step 7:



Place the compression assembly somewhere safe and clamp the cartridge again. Pull the damper rod all the way to the bottom, then pour oil into the cartridge until its about 20mm below the bleed holes. Slowly pump the cartridge rod a few times to bleed it, be careful not to squirt yourself with oil, if you do don't worry there is more than necessary in there already and we'll be removing it later. Let the cartridge rod fall back down to the bottom and wait five minutes, any remaining air will bubble to the top.

Step 8:

Check your compression assembly looks like the photo on the next page where the shims all sit flush against the piston face also make sure the check plate moves up then snaps back down. If it's all good you can continue, otherwise go back to step 6 and check everything over. Now using the inner cartridge tool reinstall the compression assembly. Be aware this will be difficult. You will need to push down and turn at the same time, and you will be fighting against the spring to do it, it can help to stand on something so you can use your weight to press while you turn. If it's too hard there might be too much oil, while pushing the compression in, push the damper rod up a little. This will let some oil out.



Once the compression assembly is reinstalled remove the cartridge from the clamp, hold it upright and slowly push the rod up to the top. Some oil should come out, and the shaft should rebound back out on its own. If no oil came out remove the compression assembly, add some oil and try again.

Step 9:

You can now reassemble the cartridges into the forks and add oil to the outer chamber. The specification sheet contains starting points. Do up the cap and replace them into your bike. Don't be afraid to use your clickers we recommend you start with both the rebound and compression set to 8 out from full hard but feel free to experiment. There's a table on the last page so you can write down what you've done. That way you'll always have a reference point to return to.

Date	Rebound	Compression	Comments
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