

*TTX Flow shock absorber for Kawasaki KX 250*

**KA 2193 0**

*Spare Parts List*



## Safety precautions

### **Note!**

The shock absorber/front fork/steering damper is an important part of the vehicle and will affect the stability.

### **Note!**

Read and ensure you understand the information in this manual and other technical documents provided by Öhlins, before using the product.

### **Note!**

Öhlins Racing AB can not be held responsible for any damage to the shock absorber/front fork/steering damper, vehicle, other property or injury to persons, if the instructions for mounting, usage and maintenance are not followed exactly.

### **Warning!**

After installing the Öhlins product, take a test ride at low speed to ensure your vehicle has maintained stability.

### **Warning!**

If the suspension makes an abnormal noise, or the function is irregular, or if you notice any leakage from the product, stop the vehicle immediately and return the product to an Öhlins Service Centre.

### **Warning!**

The product warranty shall only apply if the product has been operated and maintained in accordance with recommendations in this manual. If you have any questions regarding usage, service, inspection and/or maintenance please contact Öhlins.

### **Note!**

When working with the Öhlins product, always read the Vehicle Service Manual.

### **Warning!**

This product was developed and designed exclusively for a specific vehicle model and shall only be installed on the intended vehicle model in its original condition as delivered from the vehicle manufacturer.

### **Warning!**

This product contains pressurized nitrogen gas (N<sub>2</sub>). Do not open, service or modify this product without proper education (authorized Öhlins dealer/distributor) and proper tools.

## SAFETY SYMBOLS

In this manual, mounting instructions and other technical documents, important information concerning safety is distinguished by the following symbols:



The Safety Alert Symbol means: Warning! Your safety is involved.

### **Warning!**

The Warning Symbol means: Failure to follow warning instructions can result in severe or fatal injury to anyone working with, inspecting or using the shock absorber, or to bystanders.

### **Caution!**

The Caution Symbol means: Special precautions must be taken to avoid damage to the shock absorber.

### **Note!**

The Note Symbol indicates information that is important regarding procedures.

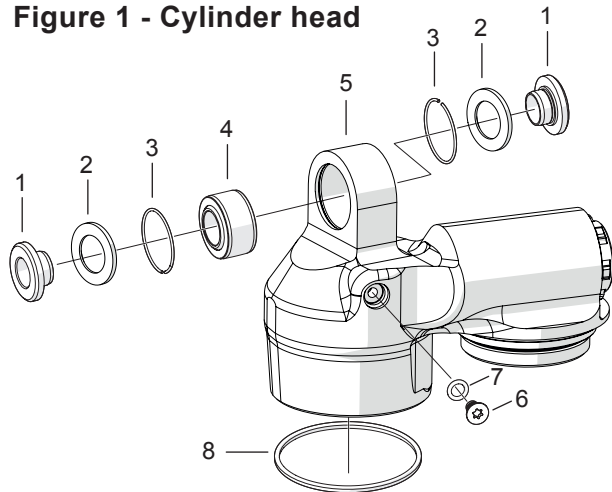
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**Figure 1 - Cylinder head**



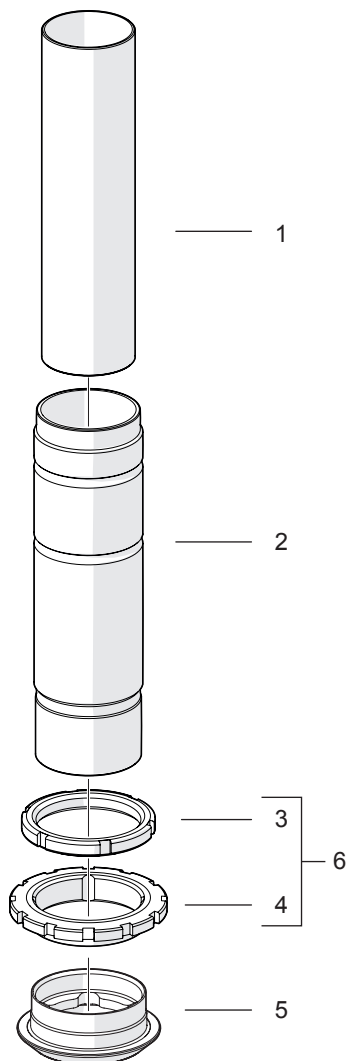
Pos	Part no	Pcs	Description	Notes
1-1	01218-57	2	Spacer, ball joint	
1-2	00534-01	2	Seal, ball joint	
1-3	00557-01	2	Circlip	
1-4	00536-13	1	Ball joint	
1-5	15180-60	1	Cylinder head	
1-6	00382-07	1	Screw	
1-7	00438-33	1	O-ring	
1-8	00638-77	1	O-ring	

Pos	Part no	Tightening torque	Loctite	Grease
1-2	00534-01			Air filter oil
1-6	00382-07	3 Nm		

**Note!**

Use grease 00146-XX on all o-rings and x-rings.

**Figure 2 Shock absorber body**



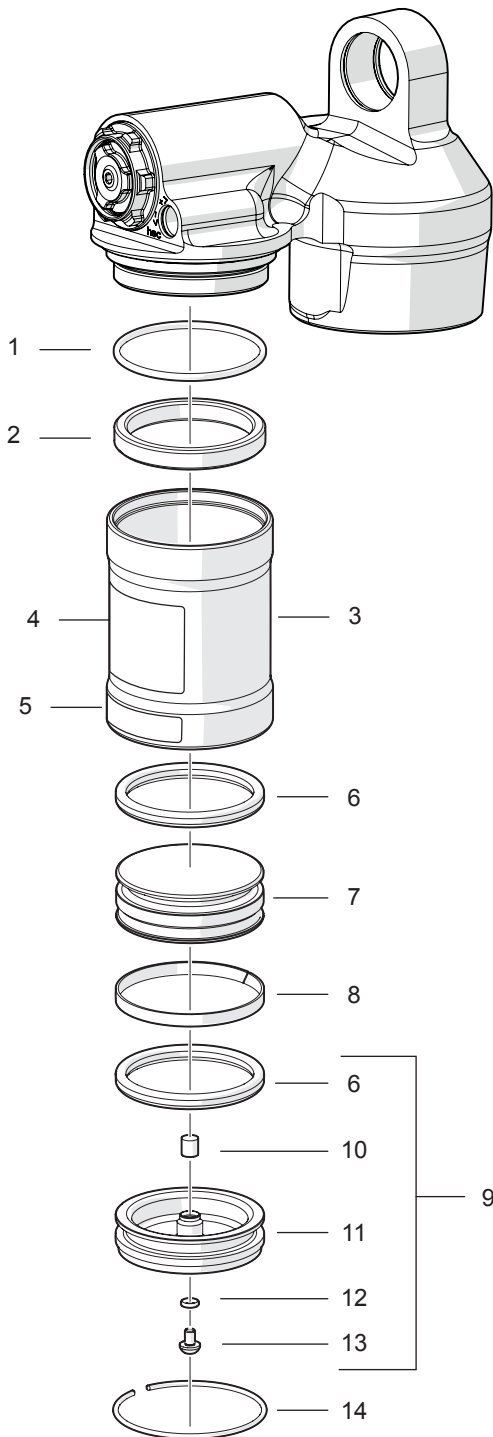
Pos	Part no	Pcs	Description	Notes
2-1	15083-01	1	Cylinder tube inner	
2-2	15082-04	1	Cylinder tube outer	
2-3	15089-01	1	Lock nut	
2-4	00544-07	1	Spring platform	
2-5	15087-04	1	Spring clip	
2-6	15999-22	1	Service kit	

Pos	Part no	Tightening torque	Loctite	Grease
2-1	15083-01	160 Nm		Add 00146-XX-01 on thread
2-2	15082-04	200 Nm	2701	Add 00146-XX on sealing surface towards cylinder head.

**Note!**

Use grease 00146-XX on all o-rings and x-rings.

Figure 3 Reservoir



Pos	Part no	Pcs	Description	Notes
3-1	00338-16	1	O-ring	
3-2	15081-01	1	Adapter	
3-3	00406-08	1	Reservoir	
3-4	00191-74	1	Sticker "Öhlins"	
3-5	00196-15	1	Sticker "Warning"	
3-6	00638-58	2	O-ring	
3-7	05007-02	1	Reservoir piston	
3-8	05090-01	1	Teflon band	
3-9	00161-11	1	Reservoir top assy	
3-10	00604-01	1	Rubber valve	
3-11	05305-01	1	Reservoir end	
3-12	00338-59	1	O-ring	
3-13	01050-01	1	Screw M4x5	
3-14	00329-06	1	Circlip	

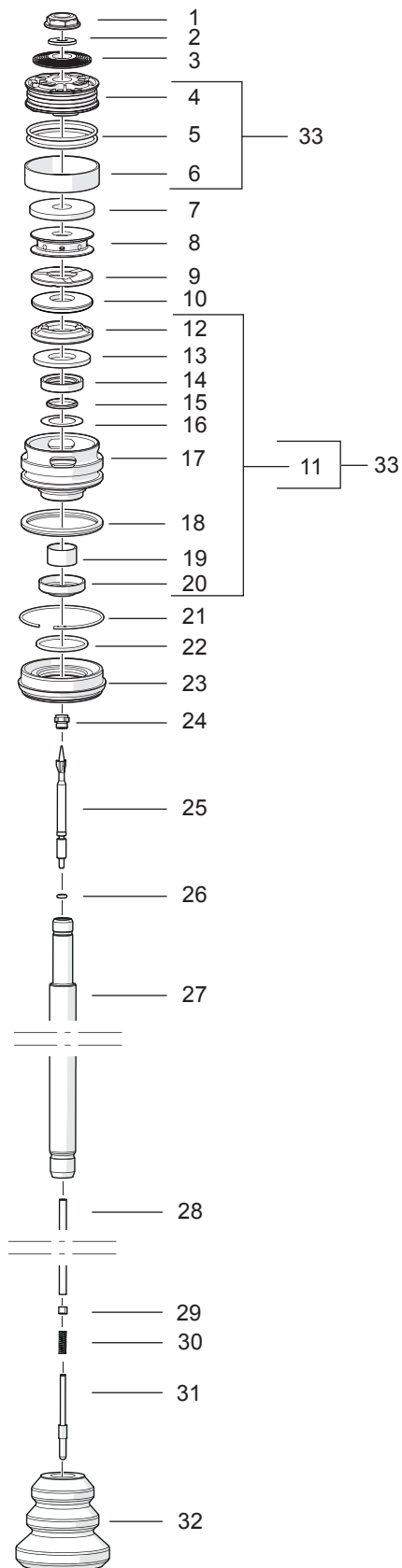
Pos	Part no	Tightening torque	Loctite	Grease
3-2	15081-01	1 Nm		
3-3	00406-08	70 Nm		00146-XX on thread and 00146-XX + 00147-XX inside tube
3-10	00604-01			00146-XX
3-13	01050-01	3 Nm		

**Note!**

Use grease 00146-XX on all o-rings and x-rings.

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Figure 4 Shaft assembly



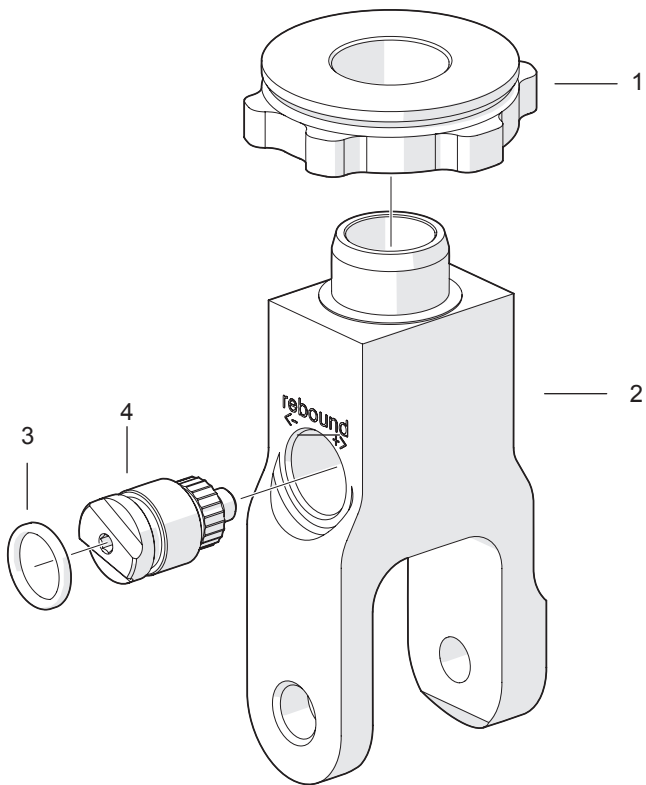
Pos	Part no	Pcs	Description	Notes
4-1	00539-03	1	Flange nut	
4-2	00519-11	1	Stop washer	
4-3	-	-	Shim stack rebound	See spec. card
4-4	15039-02	1	Piston	
4-5	00638-97	2	O-ring	
4-6	15026-03	1	Piston band	
4-7	-		Shim stack comp.	See spec. card
4-8	00519-16	1	Stop washer	
4-9	01069-02	1	Spacer 2 mm	Plastic
4-9	01069-03	2	Spacer 3 mm	Plastic
4-10	01268-03	1	Spacer stepped	Alu.
4-11	05129-22	1	Seal head assy	
4-12	03067-03	1	Stop rubber	
4-13	04752-03	1	Washer	
4-14	04717-03	1	Seal	
4-15	01032-23	1	Back-up ring	
4-16	04729-04	1	Shim	
4-17	05122-17	1	Seal head	
4-18	00638-75	1	O-ring	
4-19	01056-14	1	Bushing	
4-20	01031-02	1	Scraper	
4-21	00329-23	1	Circlip	
4-22	00638-27	1	O-ring	
4-23	15084-03	1	End cap	
4-24	15064-01	1	Shaft jet	
4-25	15065-01	1	Adjustment needle	
4-26	00338-14	1	O-ring	
4-27	15047-28	1	Shaft	
4-28	15066-06	1	Adj. shaft	
4-29	15068-01	1	Spacer	
4-30	15067-01	1	Spring	
4-31	18014-04	1	Adj. pin	
4-32	00563-31	1	Bump rubber	
4-33	15999-24	1	Service kit	

Pos	Part no	Tightening torque	Loctite	Grease
4-1	00539-03	30 Nm		
4-11	05129-22			00146-XX on seal
4-24	15064-01	4 Nm	243	
4-25	15065-01	1 Nm		
4-28	15066-06			00146-XX

**Note!**

Use grease 00146-XX on all o-rings and x-rings.

**Figure 5 End piece clevis**



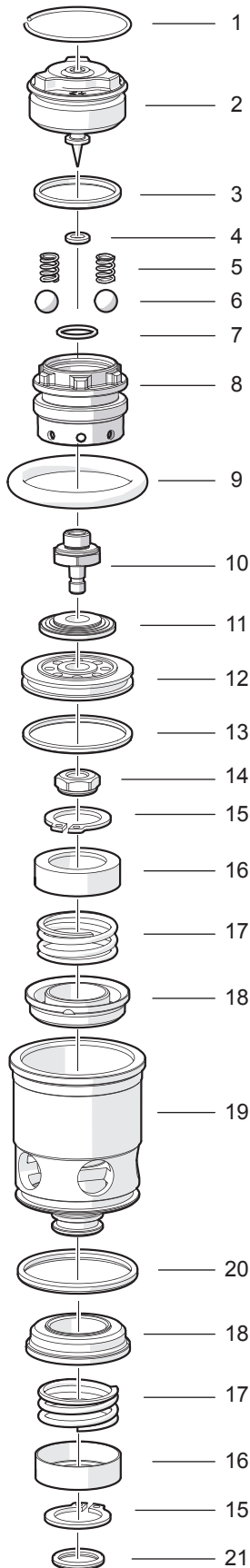
Pos	Part no	Pcs	Description	Notes
5-1	15086-01	1	Stop washer	
5-2	15085-04	1	End bracket	
5-3	00582-01	1	O-ring	
5-4	15088-03	1	Adjustment screw	

Pos	Part no	Tightening torque	Loctite	Grease
5-2	15085-04	60 Nm	603	
5-4	15088-03			00146-XX

**Note!**

*Use grease 00146-XX on all o-rings and x-rings.*

**Figure 6 Valve assembly**



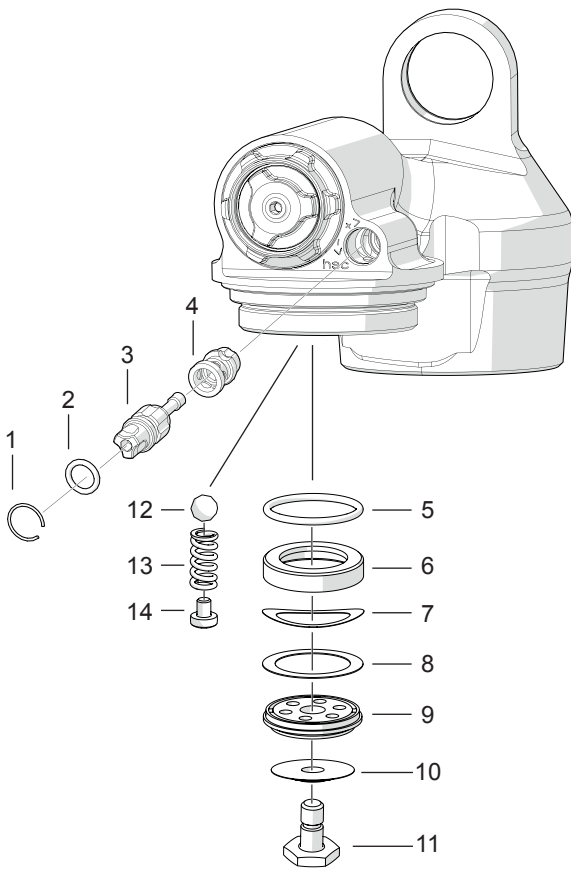
Pos	Part no	Pcs	Description	Notes
6-1	00557-01	1	Circlip	
6-2	15095-01	1	Adj. needle	
6-3	00338-11	1	O-ring	
6-4	00338-82	1	O-ring	
6-5	15433-01	2	Spring	
6-6	00884-07	2	Ball	
6-7	00438-22	1	O-ring	
6-8	15094-02	1	Adj. housing	
6-9	00338-70	1	O-ring	
6-10	15098-01	1	Valve holder	
6-11	-	-	Shim stack	See spec. card
6-12	15096-02	1	Valve	
6-13	00438-02	1	O-ring	
6-14	15421-01	1	Nut	
6-15	05009-12	2	Circlip	
6-16	15092-01	2	Check valve spring cup	
6-17	21046-15	2	Spring	
6-18	15091-01	2	Check valve	
6-19	15090-02	1	Check valve housing	
6-20	00576-07	1	O-ring	
6-21	00438-63	1	O-ring	

Pos	Part no	Tightening torque	Loctite	Grease
6-6	00884-07			00146-XX
6-8	15094-02	20 Nm		00146-XX on all threads
6-10	15098-01	20 Nm		
6-14	15421-01	5 Nm		

**Note!**

Use grease 00146-XX on all o-rings and x-rings.

**Figure 7 HSC adjuster and valve assy.**



Pos	Part no	Pcs	Description	Notes
7-1	01473-02	1	Circlip	
7-2	00338-53	1	O-ring	
7-3	15078-01	1	Adj. screw	
7-4	15079-01	1	Bleed jet	
7-5	00638-25	1	O-ring	
7-6	01247-01	1	Check valve housing	
7-7	01246-01	1	Wave washer	
7-8	01245-01	1	Check valve shim	
7-9	15077-01	1	Valve	
7-10		1	Shim stack high speed valve	See spec. card
7-11	15069-01	1	Valve screw M6	
7-12	00884-06	1	Ball	
7-13	03083-01	1	Spring	
7-14	01050-01	1	Screw	

Pos	Part no	Tightening torque	Loctite	Grease
7-4	15079-01	7 Nm		00146-XX
7-11	15069-01	7 Nm		00146-XX
7-14	01050-01	3 Nm		

**Note!**

Use grease 00146-XX on all o-rings and x-rings.





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