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Rebuilt Motorcycle Suspension General Installation Instructions

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Fork Installation Guide

1. Please review the steps below in this guide prior to beginning installation. Shock install notes are at the lower section of this installation guide. This is a general reference so please refer to the service manual for model specifics.
2. Make sure Steering Head Bearings are properly adjusted! They are integral to proper handling and safety. Replace as needed, we have top quality made in Japan Tapered Roller Bearings available. Check Wheel Bearings, service or replace as needed. T quality made in Japan Wheel Bearings are also available
3. Bolt Calipers & Master Cylinders to mounting brackets, torque mounting bolts, check torque setting on all mounting Bolts. Plug in brake light switch & test. Fit any dust boots at levers, actuators, etc. Fit brake lines to holders & route carefully! Refer to service manual for proper line routing, this is critical!
4. Fit one fork into the triple clamps at the appropriate fork height, typically chrome (not fork cap) tube flush with upper clamp or higher per the service manual recommendation. Tighten only the lower triple clamp pinch bolt for now.
5. Fit second fork into the triple clamps matching the installed height of the first tube but only snug down the lower triple clamp pinch bolt as this forks position may need to be adjusted to minimize binding & stiction per the next step. If the forks do not slide easily thru the top triple clamps loosen the center crown nut at the top clamp. If the forks are still difficult to push thru the clamp than one or both clamps are bent...
6. Although the manual calls for the forks height to be matched at the top, the bottom (at axle) is actually the place to base for position match on. Make sure the axle will slide thru the mounting lug holes easily and rotate freely. Adjust the fork height position as needed to achieve this, do not be concerned if a slight height difference results at the upper triple clamp fork tube height (if this occurs it is due to production tolerance difference in fork components). Torque both sides lower triple clamp pinch bolts, leaving uppers loose as well as top clamp center crown nut at this point.
7. Install fender and (if present) fork brace, snug down the bolts but do not tighten yet. It is critical that fork brace fit perfectly with no binding! A poorly fitting fork brace does more harm than good. Machine fork brace or its mounting holes as needed to achieve a perfect fit.
8. Making sure brake rotors or drum/ brake panel & shoes are clean fit the wheel and axle, again only snug tightening the axle nut & pinch bolts.
9. Inspect, clean, replace brake pads as needed (or brake shoes on drum brakes prior to installing wheel) and install brake calipers onto forks, torque mounting bolts to spec. If disc brakes pump them up until lever is firm, bleed fluid if needed. For Drum brakes make sure cable is routed, lubed and adjusted to spec.
10. Gently pump the front end/forks several times. Tighten but do not torque the axle nut then torque the axle pinch bolts first then torque axle nut to spec. Working from the bottom up tighten to spec in order: Fender bolts, fork brace, upper triple clamp and lastly the center crown nut at the top triple clamp.
11. Verify steering head bearings are properly adjusted: with front wheel elevated turn the bars back & forth. Movement should be firm with very slight drag but smooth, no binding. Set the bars about half way thru between center & full lock, from this point the front end should swing on its own to lock. Check both the left & right, adjust steering bearing tension as needed to achieve

this. NOTE! If the steering bearings require adjustment loosen top triple clamp pinch bolts during adjustment as the clamps height position will change slightly, torque pinch bolts & center crown bolt upon completion.

12. Double check ALL front end bolts for torque. Check & adjust tire PSI to spec (28-38 PSI front, 32-42 PSI rear) Check brake light function & make sure brakes are working. Verify that all cables, wires, etc. are routed correctly and not being pinched or stretched. NOTE: In the case of air forks no air pressure is required after having fork springs upgraded.
13. Test ride carefully as the front end will feel much different than before. Ride at least one tank of fuel before making any adjustments to fork settings. If you wish to make adjustments to the fork settings (Preload, Gold Valves, etc.) refer to the 'Setup & Tuning Guide' included with your documents included in forks shipment. Sag should be 30-40mm. If out of this range then the preload needs to be adjusted. Call as needed to tech & tuning support.

Shocks Installation Guide

1. Please review the steps below in this guide prior to beginning installation. Shock install notes are at the lower section of this installation guide. This is a general reference so please refer to the service manual for model specifics.
2. Carefully inspect swingarm movement prior to installing shocks. It is critical for proper suspension action, movement, handling and safety that the swingarm moves freely with no roughness and no side-play. Service or replace the swingarm bearings as needed before continuing!
3. On single shock models take the time to clean & grease all linkage bearings, replace any worn parts as this is the prime opportunity to do so and these bearings can have dramatic effects on your suspension.
4. Twin shock models will on occasion be different left/right due to the mounts, check the mounting eyelets/clevis.
5. Straight body (non-reservoir) shocks must be installed with the shock body at the top, chrome shaft at bottom otherwise they may not work properly (Öhlins floating piston & Race Tech G3-S IFP are exceptions to this rule and can potentially be installed facing either direction).
6. Reservoir shocks typically mount with the reservoirs at the top however they can be mounted in either direction with reservoirs top or bottom) Reservoirs may face forward or backwards depending upon available clearance and owner preference.
7. Install the shocks making sure they are vertically aligned top/bottom, there may be spacers or washers to the inside or outside of the mounts. Grease the bushings at the mounts as well as the threads at mounting nuts/bolts.
8. Single shock models are the same procedure making sure shock body is facing the appropriate direction so that reservoir or its hose as well as nitrogen fittings will not contact frame during suspension operation.
9. After fitting shocks to the motorcycle bounce on it gently for proper movement and to insure no fittings or hoses are coming into contact with frame. Check & adjust tire pressure, chain adjustment, brake adjustment, brake light function, etc prior to riding.
10. Adjust shock preload for 30-40mm sag or to suit your personal preference then test ride. Adjust preload and damping adjusters (if present) to suit. Note that damping adjusters at the bottom of the shock (shaft end) are rebound damping control. Adjusters on reservoirs are compression damping control. Turning the adjuster inwards makes shock stiffer and its movement slower, adjusting outwards make shock softer and its movement faster. Adjust in small increments and record your settings. Call for tech support as needed.

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