

**NESS 7 x 7 RAKED TREE KIT****Fitment: 2014-2023 and later HD FLT/FLH & 2024 FLHRXS, FLHTK & FLTRT****24-UP FLHX, FLTRX, (See Note)****Designed to fit 21" X 5.5 and 23" Wheels****Part Number: 20-389**

Thank you for purchasing this Arlen Ness, Ent. product. We believe our products are the best available and engineered to provide a lifetime of use. Some specific Hand tools, Service Manual for your year and Motorcycle model, and general shop supplies are all you need to complete this installation. Please retain these installation instructions for future reference. We strongly suggest the installation is done by a master technician in a properly equipped service department. Incorrect installation may lead to malfunctions and pose serious safety risks or death. Follow the recommended maintenance schedule outlined in the product manual. Regular maintenance is essential for the continued safe operation of your motorcycle. Replace any parts showing signs of wear or damage promptly. By following these safety guidelines, you contribute to a safer riding experience. If you have any questions or concerns, contact our customer support for assistance. Ride safely.

Bill of Materials:

- (1) Top Triple Tree
- (1) Bottom Triple Tree
- (2) 49mm Travel Limiters
- (2) 7/16-14 1/2" SHCS SS
- (7) 3/8 AN Washers
- (7) 3/8 -16 x 1 -1/2 " Socket Head Bolts
- (1) 20-389 instructions w/travel limiter
- (1) Nacelle I_20-389 – I Template

NOTE: On 24-UP FLHX, FLTRX, the use of Alloy Art's Nickel Plated Chromoly Race Stem is required.

AARS-1 Steering Stem Upper Raw

AARS-2 Steering Stem Upper Black Anodize

NOTE: On Road King FLHR models, The Nacelle Will Require Significant Modifications

NOTE: Nacelle is not usable on 2024 models,

Tools Required:

- Basic Hand tools
- Torque wrench
- Red Thread lock
- Blue Thread lock
- Factory Service Manual

Attention: DO NOT

LOWER FORKS,

STANDERD FORK LEGS

ONLY!!!

DO NOT USE WITH TOUR

PACK.

NOTE: Prior to installing the Top Tree the fork stop bolts must be installed. Using Red threadlock install the supplied 7/16-14 1/2" SHCS into the bottom of the top tree adjacent to the fork stem hole. Torque to 50 Ft/Lbs

Steps:

1. Remove Fairing, Forks, and Tree Assembly, as instructed in the Service Manual.
2. Refer to page #2 for instruction to install Neoprene Travel Limiter for your specific Wheel and Fender combination. **Note: Do not Lower Forks, Standard Fork Length only.**



Image #1



Image #2

3. 2015 – Up Road Glide models only: When re-installing the Gauge Nacelle, you will need to trim the shaded area of the templates on . **(See Image #1 & #2)** show template placement. Use the same supplied template for both sides of the Nacelle.

4. Install Forks and Fairing, as instructed in the Service Manual. Note: The seven OEM Triple Tree Pinch Bolts are 5/16" diameter. The 20-389 features 3/8 – 16 Pinch Bolts. Install one 3/8 AN Washer on each bolt, add a drop of blue thread locker and install the Seven Pinch Bolts and Torque to 30 ft. lbs.

NOTE: The tree's have Nacelle Mounts, these mounts are not used on 2024 fitments



Arlen Ness Fork Travel Limiters

2014 and up FLT FLH 49mm

Arlen Ness Fork Travel Limiters limit the travel of the fork sliders when using wheels that are a larger diameter than stock. The resilient material provides a smoother, softer limit than using metal travel limiters, and eliminates that metal to metal “clunk” sound on fork compression.

Measure and Cut Travel Limiter

1. Install wheel, fender, brake lines, and any other features that will affect the fork travel.
2. With the bike safely suspended so there is no load on the front wheel, measure from the top of the fender to the feature that the fender would strike first as the forks compress. This point could be the fairing, the brake “T” fitting, the triple tree, or some other feature, depending on your particular set up. We will call this dimension “X” and record this it for future use.

FLH 49mm Forks: The amount of travel is 4.3” on these models. From that we subtract .375” to allow for compression of the limiter material, leaving 3.925”. From 3.925”, subtract dimension “X” from **Step 2**. The remainder is the minimum Travel Limiter Length. Record this dimension for future use. ($3.925 - X = \text{Travel Limiter Length}$).

4. Mark the Travel Limiter Length from **Step 3** around the diameter of both Travel Limiters and cut to size. Make sure that the cut is flat and both Travel Limiters are the same length.

Install Travel Limiters

1. Drain oil and remove fork sliders from fork legs per the appropriate HD Service Manual, leaving fork dampener exposed as in **Image #1** below.
2. Place a finger full of grease to the inside of the Travel Limiter to hold it in place and slide the Travel Limiter over the aluminum collar at the bottom of the fork dampener as in **Image #2**.
3. Making sure the aluminum collar and Travel Limiter stay in place, re-assemble forks per the appropriate HD Service Manual.
4. Test operation of forks and length of Travel Limiters. Place motorcycle securely on lift ramp or equivalent and use ratcheting tie downs to slowly compress the forks until they stop against the Travel Limiters while watching for any interference.
5. Arlen Ness will not be liable for any damage caused by miscalculation or installation error.



Image #1



Image #2