# NESS BIG SUCKER, BILLET SUCKER, DERBY SUCKER & TWIN SUCKER AIR CLEANER KITS for all 1999-2012 Twin Cam Models Arlen Ness Part # 18-505, 18-506, 18-507, 18-508, 18-827, 18-828, 18-829, (except 99-01 F.I. FLT and 08-12 FLT) ARB E.O. D-639-5

#### **IMPORTANT NOTE:**

When installing 18-827, 18-828, 18-829 place 1/8" chrome washer supplied between your stock 08-up Dyna air cleaner cover and the air filter element, torque to OEM specs.



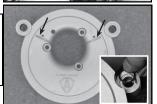
Thank you for purchasing this Arlen Ness product. We believe that our products are the they very best available and are engineered to provide a lifetime of use. The Ness Big Sucker air cleaner for all 1999-2012 Twin Cam (except 1999-2001 F.I. FLT and 2008-11 FLT models) provides the cleanest installation available. Basic hand tools and a service manual applicable to your model of motorcycle are all that is necessary to complete the installation. If you ride a custom-built bike, please call our technical assistance department and they will be able to recommend the best service manual to use with your motorcycle.

PARTS:			
Quantity	Description	Quantity	Description
i	Air Cleaner Element (Varies per kit)	2	Banjo Bolt
1	Big Sucker Backing Plate (Varies per kit)	1	Gasket, back plate to throttle body
1	Air cleaner cover (Varies per kit, exc. 18-505 thru 18-508 & Derby Sucker kits)	3	Stand off
1	Derby air filter ring (Derby Sucker kits only)	3	1/4-20 x 1-1/4 Set Screw, Black
1	Twin Sucker Backing Plate (Twin Sucker Kit only)	2	Banjo bolt Washer
1	Twin Sucker Body (Twin Sucker Kit Only)	4	Banjo Bolt O-Ring
2	Twin Sucker Filter (Twin Sucker Kit Only)	4	Plastic plugs (Stg. II kits only)
1	Twin Sucker Body to Backing Plate Gasket (Twin Sucker Kit Only)	1	Loctite Removable Threadlocker
5	1/4-20 x 1/2 Buttonhead, chrome (Derby Sucker kits only)	1	Nylon Spacer (Steel cover kits Only)
3	1/4-20 x 1/2" Sockethead, Black (Twin Sucker Kit Only)	3	1/4-20 x 1/2 Buttonhead, Stainless
1	5/16-18 x 1-1/4 Flathead, chrome (exc. 18-505 thru 18-508, Derby Sucker & Retro kits)	4	1/4-20 x 1/2" Hex Bolt (Twin Sucker Only)
1	5/16-18 x 1-1/4 allen head, chrome (Retro kit only)		

**Step 1:** Begin by removing the existing air cleaner and backing plate as illustrated in the appropriate service manual for your year and model of motorcycle. Clean the flange on the carburetor/throttle body as well as the bosses on the cylinder heads. Using the rubber covered gasket supplied, put a thin coat of grease on the face of the throttle body to hold it in place during assembly.



**Step 2:** The new backing plate features differ from earlier backing plates, featuring two small ribs that are designed to direct oil into the throttle bore. Four o-rings are included to seal the backing plate (inset). To keep them in place during installation, apply a small amount of grease in the o-ring grooves. Keep an eye on them while you position the backing plate to ensure all four o-rings are positioned correctly.



**Step 3:** Install the supplied washers onto the breather bolts, then install the appropriate breather bolts as seen in picture at right. (The bolts in this kit may very, you may get button heads, as shown in the inset picture). Apply thread sealing paste such as Loctite, ARP, etc. to the threads of the breather bolts leave loose for now, as this will allow the backing plate studs to align easily.



**Step 4:** Using blue thread locker on the threads, install the <u>black set screws into backing plate stand offs</u> opposite of the hex and torque them to 3-5 ft/lbs (36-60 in/lbs). Next, using thread locker on the threads of the stand off assembly attach the back plate to the throttle body/ carburetor. Torque stand offs to 3-5 ft/lbs (36-60 in/lbs). Torque the banjo bolts to 10-12 ft/lbs. The backing plate is now secure.

\* Twin Sucker Kit s Only—Use (3) 1/4-20 x 1/2" black Sockethead allens in place of set screws and stand off bolts. These require the same torque setting of 3-5 ft/lbs.



Step 5: Install the air cleaner element on the backing plate by lining up three holes with three stand offs. Secure it using thread locker on the three Buttonhead screws supplied and torque them to 3-5 ft/lbs (36-60 in/lbs). Note: After installing a stg II filter element plug the remaining four holes with four plastic plugs provided.



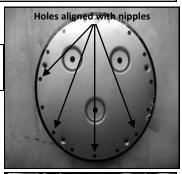
\* Install Twin Sucker body with gasket supplied between the backing plate and the body using (4) 1/4-20 x 1/2" hex bolts supplied. The top bolt with not be used on carburetor models.



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**Important note:** Before installing the Derby Sucker filter element make sure that the holes in the outer plate are aligned with and fully seated over the nipples in the outer edge of the filter element. 15 holes with 15 nipples.

### Step 6: Cover installation



#### OEM air cleaner cover on kits 18-505 and 18-507

Fully clean and install your existing air cleaner cover using OEM hardware as per the specifications in the appropriate service manual for your year and model of motorcycle.



#### **Twin Sucker Kits**

Install both filters & tighten both hose clamps securely.



#### Big Sucker kits w/steel covers and Billet Sucker kits

Using the 5/16-18 x 1-1/4" countersunk allen w/threadlocker attach outer cover to air filter element. Torque to 5 ft.lbs. Note: Steel cover kits use a nylon spacer between the cover and air filter w/ the countersunk facing the outer cover. Retro covers uses a standard 5/16-18 x 1-1/4" allen to attach it.



## **Derby Sucker kits**

Install the chrome air filter ring over the air filter lining up the holes in the ring with the threaded holes in air filter.



#### **Derby Sucker kits**

Install your choice of derby covers using thread locker on five 1/4 -20 x 1/2" chrome button head allens (supplied). Torque to 3-5 ft/lbs (36-60 in/lbs).



To ensure maximum performance adopt cleaning and reoiling of the air filter element as part of the regular maintenance schedule. Arlen Ness recommends using the Big Sucker Filter Recharge Kit part # 18-096 (red) for standard filters or SS Sucker Filter Recharge Kit part # 18-075 (clear) for Stainless Steel filters.

IMPORTANT NOTE: Due to the increased air flow it may be necessary to rejet your carburetor or install some kind of adjustable fuel tuner. Arlen Ness recommends a Big Shot adjustable fuel tuner (call for application info)