



## AMOS August 2016 Newsletter

### AMOS Board Meeting 8/2/16 @ 7:00PM - recap

Guests Present: Doug Keller, Richard Sandler, Fred Quartier

#### Unfinished Business :

**Flag Pole** - Discussion of how and whether to erect the pole that was donated. Requires heavy equipment, probably \$300 rental. Makes more sense to purchase a new pole of a more appropriate size for around \$100. **MOTION** by Randy Sizemore seconded by Gloria Irely to buy a new flagpole.

**MOTION** to table the previous motion defeated. Motion to purchase new pole passed by vote of 8-2. Jim Irely to find out actual price for new flagpole.

**Night Fly Combat** - Successful. At one point 200 people present according to Basil. Mike Haston received a lot of approving email. Only problem reported were mosquitoes and some questionable safety practices. Discussion of whether to make this a regular event. Drawback is that it is a nonmember event and doesn't produce revenue for the club. Jim Irely suggests allowing Dan Stuart to make a pitch for continuing the event to show how it can benefit the club. There will be discussion at the general meeting.

#### New Business:

**Jimmy Garcia** - Disabled brother of our adjoining property owner. Mike reported he had buddy boxed with Bob Deatherage. Apparently he enjoyed it despite severe handicap. General approval to allow him to continue to buddy-box if he wants to. If he is not actually flying, the 60 day limit on training shouldn't apply.

**Security Camera** - Security Camera stolen again. Working on designing a more theft-proof mounting.

#### Board Reports:

**President Mike Haston** - Field looks good. Runway could use some patching.

**Vice President Randy Sizemore.** How long the fire department took to respond when Fred was injured. Fred: pretty quick. All our safety stuff was there.

Jim Irely - Local fire station says always call 911, don't call them.

**Query:** should non-performance by a board member result in denial of free dues?  
Discussion followed. Gloria Irey: only sanction should be not eligible to run again.  
John: very divisive issue. Could open a can of worms.

**MOTION** by Jim Irey, second by John Sorenson to drop discussion.

**Secretary Jody Kahan** - Will miss 9/6 Board meeting. John Sorenson volunteers to do minutes. Club Constitution and By-Laws updated through 7/12/2016 and posted on website.

Looking into conversion of club from public benefit organization back to mutual benefit. Annual report to CA Attorney General for 2014 year in progress.

**Treasurer Gloria Irey** - No Treasurer's report. Will report for both July and August next month. \$2,718 in checking account. Jim Irey : \$650 in checks he hasn't given to Gloria.

**Safety/Training Marvin Bennet** - Has to be gone for six weeks or so. Fred Quartier will continue to act for him. Training going well.

**Membership Jim Irey** - 214 members. No one has joined since 7/5.

**Field Marshall Glen Gibson** - Expressed thanks for help hauling chairs at last event.

**Past President John Sorenson** - The lawnmower that had belt put in wrong needs to have a new one installed correctly. At combat event main runway, cross runway, and helicopter pad were all in use. We have one of the few fields in the area that can accommodate anything that flies.

## **AMOS General Meeting 8/9/16 @ 7:00PM - recap**

President Mike Haston was absent. Vice-president Randy Sizemore presided.

### **Unfinished Business**

**Flag Pole:** Jim Irey reported that a new flag pole was installed. it was cheaper to buy a new lighter flag pole than to rent heavy equipment to raise the one that was donated to us. We now have two flag poles. The one to the north is for the American flag. The other is for any other flag.

**Night Combat Fly** - Discussion of Night Combat event held July 23 and organized by member Dan Stuart with many non-member participants. Vice president stated Dan et al would like to put on event again, possibly monthly. Up to members whether to allow. event, at one point 200 people present. John Sorenson - these flyers are non-members, several crashes. Damage to runway requires patching. Possible benefit to members is they can participate or watch.

**Jim Irey** - Safety concerns. Dan should have to convince the club that benefits outweigh the drawbacks. Randy Sizemore - doesn't think the club should bear expense of event for nonmembers.

Possibly require a flying fee from pilots. John Hainlen - Club purpose is to have fun.

This is fun. Let them do it. Most spectators were club members. Jim Irey - Dan wanted to open this up, advertise, make it bigger.

**MOTION** by Jim Irey second by Doug Keller:

**Jim Irey will contact Dan Stuart and invite him to come to a Board Meeting or General Meeting and make his case for why this event should continue.** Motion passed on voice vote.

**Christmas Party.** Date December 13. Price for tickets, \$14/person up to December 1, \$28 per person after that. Randy Sizemore: Donations requested to reduce Club's share of the cost. If club's share of cost is below \$500 any difference will go to door prizes. Donation box passed around.

### **New Business:**

**First person view(FPV)** - AMA requires FPV pilot to have a spotter and to keep aircraft within the spotter's line of sight. Randy Sizemore: Woodland Davis requires all pilots of high performance aircraft to have a spotter. This is a recommended practice, but not required by our club Bye-laws.

**Committees** - John Sorenson: It is time to set up the Nominations Committee, Budget Committee and Audit Committee. Randy Sizemore: Mike Haston was hoping some of the same people would do it again. Volunteers are requested. Jim Irey will send email to members asking for volunteers.

### **Board Reports:**

**Secretary Jody Kahan** - Model Aviation DVDs for anyone to borrow, return at next general meeting. Constitution, By-laws and field regulations now updated through July12, 2016 and up on club website.

**Treasurer Gloria Irey** - As of 7/31/2016 \$2,718 in checking account plus \$650 in checks not deposited yet from new members.

**Membership Jim Irey** - 215 members.

**Safety/Training Marvin Bennett** - Fred Quartier: Marvin undergoing cancer treatment. Fred acting in his place until he returns. Discussed accident that occurred when he accidentally hit throttle while picking up plane from runway.

**Lesson** - if your transmitter can be programmed to have a throttle cut switch **always use it**. If you don't know how to program this ask someone. Also watch out for accidentally hitting reverse on throttle.

Mention of a certain member who is repeatedly making high-speed passes over the runway. He may be brought before the board for disciplinary action.

**Randy Sizemore**: In case of emergency always call 911. Don't attempt to reach the local fire department.

**John Sorenson**: Member donated a new first aid kit from Highway Patrol. It is in the shed. Looks like a duffel bag.

**Field Marshall Glen Gibson** - All of the shade covers have been roped except one. It will be taken care of soon.

**Past President John Sorenson** - Giving a talk about electronics at Placer High School. If any members have old electronics, John would appreciate being able to use them for show and tell.

## **AMOS 2016 EVENT CALENDAR**

**Giant Scale** Sat - Sept 24 - Gary Meyers and Basil Yousif - Get your big planes ready!!!

<http://amosrc.com/events/event/64-thunder-valley-rally-of-the-giants>

**AmoBro** - Profile Model Fun Fly Friday and Saturday - October 7-8 - Randy Allen

**Christmas Party Tuesday December 13th at 6:00PM Turkey Creek Golf Club** -

**\$14 per person, Pre-paid by 12/1.**

**This party will be AMOS subsidized to make the dinner cheaper so more members can attend. Be there!!**

**Drinks at 6:00 PM - Dinner at 7:00 PM**

**Menu: sliced turkey, ham, garlic potatoes, green bean casserole, rolls.**

**Stuffing is still a question. Hosts - Randy Sizemore , Jim and Carmella Hill**

# THUNDER VALLEY RALLY OF GIANTS

AMOS GIANT SCALE MODEL AIRPLANE EVENT

**Saturday, September 24, 2016**

**Amos Flying Field: 4015 East Catlett Rd, Lincoln, CA**

**Any Giant Scale 80" wingspan or 1/4 scale  
and above Model Airplane accepted**

**3D and Warbird Models are welcome**

**Free overnight RV parking**

**\$10 Landing fee and  
AMA insurance is required**

**BBQ Hamburger or Hotdog  
with drink and chips \$6.00**

## CONTACTS

**Basil (916) 410-2791**

**Gary (916) 276-6990**



## AMOS Event News

### Electric Fun Fly and Appreciation Day August 27th

The Electric Fun Fly event and Swap meet was held on Saturday August the 27. There was a large early turnout of Sellers for the Swap Meet but there was a shortage of buyers.

This was a great day of flying electric planes and eating delicious BBQ food. The small band of Pilots consisted of many of the AMOS regulars who come out and fly there electric planes at the field. There were a few of Pilots from other clubs. The Limbo contest was fun for those who came out of it with there plane in tact.

John Heinlen the Event MC did a great job of letting everyone just have fun and organizing the limbo event.

Rich Newaski was collecting funds for the Disabled Veteran Fund and had his book on hand for Sale. The Disabled Vet Fund made around \$50



## Rebuilding a Two Stroke Glow Model Engine

Two Stroke Glow Engines for Various types of R/C models can start to run badly after a short period of usage. Helicopter and Model Car Engines are good examples, while running they get a lot of heat and high loads Airplane engines fair the best but buy one at a swap meet that's frozen and you will have to also rebuild it. After a little work they can run great for another stretch.

Evaluating the engine - First thing is to look into the cylinder opening to check the cylinder wall, Piston and Ring. Use a small flashlight. Look for deep scratches in the piston and the cylinder walls. Then turn the throttle arm on the carburetor. It should turn easily and also not have deep scratches in the barrel. If your buying a used engine you might just get a worn out paperweight.

If the engine has deep scratches it's probably not wise to restore it. The parts will cost more than a new engine. However removing 2 stroke oil gunk buildup and runtime tarnish buildup on the internal parts or replacing the bearings or a Piston Ring will make it a cost effective restoration.



O.S. Hyper 50 Heli Motor parts after cleaning. Had 50 hours runtime.

Tools - A set of Allen Wrenches that fit the head and case bolts. Spray Bottle with Rubbing Alcohol. Steel Wool - fine with no soap. Glow engine After-Run oil or Auto motor oil.



99 cent store Steel Wool.

**Disassembly** - Remove the back plate by removing the four Allen bolts. Turn it a little and it should come out. keep the gasket in tact.

Loosen the nut on the Carburetor mount and remove the Carburetor.

Loosen and remove the Allen bolts on the cylinder head and remove the head.



Pull out the cylinder liner. You might have to get under the lip of the flange with a small screwdriver and pry it up. Be careful!! Note the location of the alignment tab on the top.



If you want to mark the visible side of the piston rod with a small scratch so you can install it the same way it came out now is the time. Also Note the location of where the Piston Ring is open. Some pistons have a metal stopper in the ring gap that the ends of the ring collapse on to when the piston is pushed into the cylinder sleeve so the ring doesn't turn inside the piston gap.

Remove the Piston, Ring and Rod assembly by lifting it up and off the Crankshaft.

Don't remove the Piston ring from the piston unless you intend to replace it. It will break if you try to put it back on. Some engines use Teflon inserts to keep the piston rod in place. Don't loose them when you pull the piston out of the liner. I like engines that use a clip to hold the rod in.

Check your Bearings - make sure your crankshaft turns smoothly inside the engine. Pull back and fourth to make sure there's no play in the bearings.



You can check the Crankshaft with a Caliper but if its bad it's costly to replace!

Now remove the Crankshaft. Stick a finger inside the middle of each bearing and check them for play. If the middle ring of the bearing has any amount of play replace it.

#### Removing the Bearings.

Front Bearing: You can pop this one out with a long round socket wrench bit (similar to a spark plug bit) that will fit inside of the engine, running through where the crankshaft you removed sat. It will end up on the back of the bearing. Tap the part of the bit sticking out the back of the engine with a rubber hammer to pop out the bearing.

Rear Bearing: The engine block with bearing has to be heated in a oven preheated to 270 degrees for around 20 minutes. Remove the engine from the oven (with Gloves on) and tap the engine on something hard. The bearing will pop out. Mine needed more than 20 minutes of heat.



Order a set of new bearings. There are many replacement bearings on Ebay for any engine. Many times a Bearing set can be used for many different engines. They can cost as low as \$10 for a set of two. Original OS Mfg Bearings can be expensive. I used Team FastEddy Bearings that cost \$17 for the set. These are popular replacements the model car guys use.



### **Carburetor Cleaning:**

Remove the needle valves. I leave the low needle inside the barrel but if you suspect there's dirt inside the hole you can remove it too. With the Rubbing Alcohol spray bottle I spray inside where the fuel intake hole and the needle valve hole. This should blow out any dirt trapped inside the carb. Put the needles back in and oil the barrel. The throttle action should be smooth.



### **Engine Cleaning:**

Use some plastic bristle brushes and spray some Rubbing Alcohol on the outside of the engine body head and carburetor and scrub clean.



### **Piston and Cylinder Sleeve cleaning:**

Spraying on Rubbing Alcohol, take fine Steel Wool and clean off any discoloration on the piston. Clean in a circular pattern, not up and down. Be careful not to bend the ring or it will break. Take Steel Wool and insert it in the cylinder sleeve and turn the sleeve in a circular pattern so the wool cleans off residue inside the drum. A fast cleaning should do it. The circular cleaning pattern is used vs. up and down because it's opposite to the way the piston moves inside the cylinder when the engine is running. Spray off parts and clean then use oil and fit the piston into the cylinder and check the way they move together.



## Now you are ready to assemble the Engine!



Assemble the engine starting with installing the new bearings. A rubber mallet and different sized long Socket wrench bits can help to reinstall the bearings.



Tap the bearings in place. add a little bit of oil where they will sit. The front bearing can be tapped into place with the rubber mallet. The inside rear bearing will have to be tapped in with the Socket wrench bit. They should seat completely inside the engine housing and not stick out.

The socket wrench bit should push on the outside of the bearing housing and not where the balls or the inside racer is. Sometimes a Bearing seal has to be removed from the bearing before installation. Copy the original bearings. Usually the inside bearing will have the seal removed towards the crankshaft. It's easy to take the seal off one side of a new bearing just use a Xacto Blade. You should see the bearing balls from inside the crankcase after installing the bearing.

Install the crankshaft, add oil and make sure it rolls smoothly with the new bearings and the clearances are good. The bearings might have to be tapped further in if the clearance is off.

### Cylinder Piston Assembly:

The other tricky part of the engine assembly is to get the Piston with Ring in the Cylinder Liner and hooked up to the crankshaft. When compressing the ring on to the piston there is a notch in the piston groove that will hold both sides of the ring from turning when it's compressed. You have to line it up when putting the piston into the liner. Some cheaper smaller engines don't have the stopper in the groove. Some like ABC engines don't even use a ring so this step is much easier.

There's two ways to get the piston ring liner assembly hooked up with the crankshaft.



1) Set up the Liner with the piston and ring inserted and try to get the arm on to the crankshaft inside the engine. The Piston Rod can move up a little to help fit it.

2) Install the Piston Rod onto the crankshaft first then making sure the notch on the Piston groove lines up with the Piston Ring push the Cylinder Liner inside the engine and over the Piston/Ring collapsing the ring by turning the Cylinder Liner a small amount. Use lots of oil!! The Cylinder liner has a angled bottom to help collapse the ring. This method is harder but works for me.

On some engines if the first method works it's better because you can compress the ring outside of the engine which is much easier and there's less chance of having to do it over.

Line up the Cylinder Liner with the notch (Usually to the back) to make sure its inserted correctly so all the port holes line up.

Rotate the crankshaft, the piston should move smoothly. If it doesn't that means the ring isn't Seated or lined up properly or you didn't tap the inside bearing in far enough. Start over.

### **Head Installation:**

Install the head using a cross pattern to tighten the Allen bolts. Tighten them snug and uniform.



### **Carburetor and Rear Plate installation:**

Install the Carburetor and tighten the locking nut to secure it. Install the Back Plate Cover and tighten the four Allen bolts in a cross pattern.



### **Testing:**

With the glow plug removed the engine should make a sizzling sound with a small pop at the end when the piston moves inside the cylinder when you rotate the crankshaft. The oil you used in the assembly will be displaced because of the seal caused by the ring as it's moving up and down which makes these sounds. Go back to Factory settings on all Needle Valves.

Install all the needed Prop Nuts, Mounts , Propellers, Fans etc. and put the engine in your Model.



This rebuilt engine is running like New!!

**Important:** Use a old glow plug at first. Debris inside the engine from all the cleaning can ruin a new Glow Plug element. Run a tank out with the old glow plug. If it starts to fail keep the glow driver attached until you've run the tank out. Now install your new Glow plug and Have Fun!!

## **Best of Jokes:**

1) Jim decided to tie the knot with his long time girlfriend.

One evening, after the honeymoon, he was cleaning his planes. His wife was standing there watching him.

After a long period of silence she finally speaks.

"Honey, I've been thinking, now that we are married I think it's time you quit RC planes. Maybe you should sell your planes.

" Jim gets this horrified look on his face.

She says, "Darling, what's wrong?" "There for a minute you were sounding like my ex-wife.";

"Ex wife!" she screams, "I didn't know you were married before!"

"I wasn't!";

## **Bears**

Mommy Bear and Daddy Bear were in divorce court. The judge looked down and asked the Baby Bear, "So Baby Bear, do you want to live with Daddy Bear?"

"Oh, no," Baby Bear replied, "I don't want to live with Daddy Bear. He beat me."

"Well then, you should live with Mommy Bear," answered the judge. "On, no, I don't want to live with Mommy Bear. She beat me."

"Well then, Baby Bear, who do you want to live with?" Baby Bear said, "I want to live with the Chicago Bears - They don't beat anybody!"