



Shop Manual

www.badgoat.net/ptcaths

August, 2012 Dog Days of Summer Edition

President's Message

Greetings –Since the last Shop Manual I have attended the Front Street Shuffle, the Owls Head Truck Show, the Green Mountain AHS Show, the New England Chapter ATCA Show, and the Granite State Chapter ATCA Show, and missed several others. Each event is unique in its' own way, and represents the efforts of several (to many) individuals who volunteer their time to make these event happen. Please take the time to thank the volunteers who work these shows for their efforts.

The Chapter would like to extend thank yous to the Owls Head Committee for their efforts in organizing and manning the Chapter table at this year's Owls Head Truck Show; the "cooks and kitchen crew" for the Sunday noon barbecue, to Hannaford and Hanley's Market for the donated food stuffs, and to everyone who donated items for Saturday's raffle.

Speaking of thank yous, the Chapter received a very nice thank you note from Frank Hale. Frank's B-Model Mack was featured on this year's Owls Head Truck Show shirt.

This Saturday, August 25th, is the Owls Head 35th Annual New England Auto Auction. Pickups and trucks make up 20% of the vehicles being offered this year. The trucks include numerous Model T and A trucks and other 30's – 70's Fords; several Chevrolets from the 40's thru the 80's; K-5 and KB-5 Internationals; '55 and '71 Dodges; a '49 Willys Jeepster and a '72 Jeep Commando. From my perspective two of the more interesting pieces being offered are the 1916 Signal Model HL Flat Bed and the 1930 Ford AA Roadster Dump Truck. The auction preview is all week and the auction starts Saturday the 25th at 9:30. Bidder registration is required.

September 22nd and 23rd is the Owls Head Earth Movers and Shakers Show – "an earth-moving gathering of construction vehicles large and small". Chapter member Steve Corson is trying to help the museum establish a little "traction" with this event. If you are free that weekend you might want to wander over. On Saturday there will be a handful of Model A's on display too.

The Cumberland Fair Association contacted the Chapter to see if we could furnish 8-10 trucks for this year's fair truck display. The fair runs from September 23rd through September 29th. Please contact me at 207-582-3224 if you would like to show a truck at the Cumberland Fair.

Information on the Fall Tour to Greenville can be found inside. It should be a nice tour. Unfortunately Annette and I will not be able to attend whereas I have committed us to attending my 40th high school reunion. Information on Higmo's, and the Late Fall Gathering will be in the September or October Shop Manual. See you there!

Ramblings By Lars Ohman

Here we are only two weeks away from Labor Day Weekend, and the summer has been filled with visits to The National Convention in West Springfield, Ma. a day with the Owls Head show, a couple of parades, a day showing at Scribner's Mill, in Harrison, and even a couple of cruise nights in Bridgton. I missed New Hampshire's Barrington show today, much to my dismay. Family obligations and an uncertain work schedule have curtailed some of our day trips for now. But I am saving time for our Fall Tour, and the Great Fall Auction and Chowdown. I promised Peter I would try to get the rest of the details on a story from the Depression Era when things were real tough in America, especially Aroostook County. I tried to contact the person who had related the story to me, but was unable to reach him. We have been fortunate to have other contributors with stories of their trucking adventures, and I will relinquish my space so others can tell their tales for all to enjoy. Enjoy this beautiful weather, I've been cutting firewood down back, and already have a maple tree turning colors down in the swale... I think I'll cut the tree down so Terry does not see it! Till the next time we cross paths; Stay safe, Lars

From the Workbench By Peter Mullin

We have a lot of entertaining and informative content this month so I will try to be brief. I am going to start off with an apology to Jon Doyle. His article on getting the GMC 702 V-12 in his latest acquisition "un-stuck" was sent to me back in April and was promptly lost in the abyss that is my e-mail mailbox. I have taken corrective measures that should make it far easier for me to keep track of newsletter articles that people submit to me electronically. Jon's article is a testament to the 3 P's of "getting stuck stuff un-stuck" – Patience, Persistence and proper Penetrant. Thanks, Jon - informative as always.

George Barrett has laid the ground work for further ventures into the history of the modern Diesel engine. I look forward to George delving deeper into these interesting storylines and particularly some more of the interesting characters that were involved in early Diesel innovation.

I received a fair number of "Member Profiles" from the Owls Head Truck Show. Look for these to appear in the "Shop Manual" in the coming months. I will leave it to others to report on the show overall.

Details can be found within this issue on the upcoming Fall Tour to Greenville and Moosehead Lake. For all the trips I have made to Greenville in recent years; I have never visited most of the stops on the agenda. That's about all I have for now. Hope to see you at the Fall Tour – look out for Moose!

Owls Head Truck Show Report

By Secretary Diane S. Munsey

We had a pretty good year this year at the Owls Head Truck Show. There didn't seem to be that big a crowd as usual even though the weather was perfect. Not too hot and not too cold. A lot of our regular members didn't show up this year. We really missed you guys.

We had a new way to do the Raffles this year. It seemed to be a hit with everybody. We would like to thank the following donors for their raffle items:

Steve Corson; Corson's Auto Parts (Rockland Napa) - Battery Charger-
William Goddard; William Goddard Insurance Co. - \$100.00 Irving gas card
Napa and Tom Heald - Tool Box
Mary King - Kitchen-in-a-Bag
Tom Hudgins – Hand Painted Chock Block
Peter Mullin; Stingray City Collectibles – Die Cast Fire Truck
Clayton Hoak - 2/\$25.00 Sears Gift Cards and National Show Chock Block
Hildy Cockery - Crocheted Afghan
Lars & Terry Ohman - Tools, Fire Pot & Lotions
Pine Tree Chapter - \$100.00 Tractor Supply Gift Card
Don and Diane Munsey - B-B-Q Grill

We pretty much sold out of shirts this year. A supplemental order (L-XXL) is in the works.

We picked up 11 new members in just 2 days. We will keep trying to get more.

A full report of all expenses and receipts will be given at the March Business meeting.

A big THANK YOU FOR ALL THE VOLUNTEERS who helped us.

New Members – Signed up at Owls Head:

Gordon & Carol Ann Prentice
Bristol, Maine

Michael Whitehead
Brunswick, Maine

Nate Lewis
Lewiston, Maine

Patrick Chase
Whitefield, Maine

Mark Murphy
Stow, Massachusetts

Dennis Gentile & Sharon Daley
Rutland, Massachusetts

Jeffrey A. Merrick
Stow, Massachusetts

Bill & Bernie Cameron
Farmington, New Hampshire

Larry E. Warley
Poland Springs, Maine

Philip Wheeler (rejoined)
Wolfboro, New Hampshire

George E. Homes
Corinth, Maine

Fall tour September 15 & 16

Gather Friday evening around the campfire at Phillips' camp in Shirley.

Saturday

8:30 meet at Indian Hill Trading Post

9:00 leave for tour to Kokadjo on the east side of Moosehead Lake and old saw mill (tour guide - Ralph Balla)

12:30 depart on the Katahdin, a 1914 steamboat, for a 3 hour narrated cruise on Moosehead Lake. Lunch is available for

purchase on the boat or you may bring your own on board. Tickets: Adults \$33.00, Senior (65+) \$29.00, Youth (11-16) \$18.00, kids 10 & under free.

After the cruise, checkout Greenville shops, museums, etc.

Evening meal is on your own - Greenville & Greenville Junction have many restaurants, pubs, cafes (We have eaten at most of them and they are all good!)

Sunday

8:30 meet at Indian Hill Trading Post

9:00 leave for B-52 crash site. On 1-24-63 a USAF Stratofortress bomber crashed on a training mission into the west side of Elephant Mountain in sub-zero temperatures. Of the nine crew members, only two survived. Small pieces of debris line the path to the main crash site, where parts of the plane's tail, wings, tires and wheels can be seen.

Some time - I'm not sure when - there will be water skiing at Balla's camp; power provided by Ralph and his canoe!

Lodging in the area

Greenville: Indian Hill Motel (\$70-80 /night) 207-695-2623

Kineo View Motor Lodge (\$179-189 /night) 800-659-8439

Leisure Life Resort (\$75 /night) 207-695-3737

Evergreen Lodge (\$120-160 /night) 207-695-2369

Greenville Junction: Chalet Mooshead (\$119-165 /night) 207-695-2956

Kelleys Landing (\$125 /night) 207-695-4438

Moose Mountain Inn (\$90 /night) 800-792-1858

Directions to Shirley/Greenville/Moosehead Lake Region

I-95 to exit 157 Newport take left onto Rt.11

Follow Rt.11 thru Newport to traffic light. Go straight thru light on Rt 11 & 7 to Corinna.

In Corinna stay on Rt.7 towards Dexter.

In Dexter take Rt. 23 (on left) towards Sangerville & Gilford.

Follow Rt 23 to its end at intersection with Rt.16, 6 & 15 in Gilford.

Turn left and stay on Rt.6 &15 thru Gilford, Abbott & Monson towards Shirley & Greenville.

Directions to Phillips camp

There is a "Welcome to Shirley" sign on the left at the foot of a hill on a curve. At the top of the next hill, on the left is Upper Shirley Corner Road. On the right is Blanchard Road (dirt). If you pass the rest area, visitors center or Indian Hill Trading Post, you have gone too far. Camp (#99 Upper Shirley Corner Road) is on the left, after the brown gambrel and before the yellow ranch. We will try to have signs at the end of Upper Shirley Corner Road.

Restoration Tips

By Jon Doyle

Someone asked me recently what truck restoration was all about and my response was “It’s about getting stuck stuff unstuck!” My latest challenge is a 1965 Walter FVBS powered by a fairly rare engine, a GMC 12 cylinder gas 702 cubic inch. It was derived from the early mid-60’s GMC V-6 of 351 cubic inches, thus two of them made 702 on a common crankshaft base and block. The engine is stuck. The first thing to do was to get the sparkplugs out and, when I went to do that, I discovered that out of twelve of them seven were so badly wasted because of the buildup in the recess in which they’ve set that they were absolutely no hexes left at all and the other five were problematic. The first thing I did was to fill all of the sparkplug wells with a mixture of, first, Fluid Film and then, later, Kroil. I let it set for 30 days.

Let’s talk about the first five that I got out – only one of those responded to the standard 13/16” sparkplug wrench. It came out whole, but only with a 26” breaker bar. The remaining four of that category responded to deep well metric sockets which could be pounded on over what was left of the hex – shorter breaker bars were no help there either, the longer one (26”) had to do. The remaining seven survivors were a bit of a problem. The first thing that happened was an attempt to get them out with thin deep well sockets. (6 point where you could get them in, because they hold better, and 12 where you couldn’t get a 6 point in because of the difference in wall thickness.)

Typically, what happened was that the ceramic top (It is ceramic and not porcelain.) would break off, so one was left with the bottom of the plug which is screwed into the block. (After a while I broke them off on purpose, because they simply got in the way.) Of that bunch, sometimes the lower ceramic portion of the plug could be picked out with a really nice set of long nosed pliers made by our Chinese friends, because the ceramic would loosen where it is tapered down inside the plug insert and one could pull out the center electrode and then get out the rest. Of that bunch, five of the tapered portions preferred to stay in place, so what to do. I found that by gathering up my courage I could beat upon the ceramic with a center punch and either crack it or soften it to the extent or I could drill it with a drill made for glass ceramics and porcelain. Those drills require a very slow speed and it’s hard to maintain that while standing on one’s head. They certainly could not be drilled with any effect until the center punch essentially shattered the ceramic so that it was softer. Those got vacuumed out and it was not unlike the technique of a dentist office where they put a vacuum device in your mouth while they do some serious work on your teeth.

At that point I was left with seven stubs of sparkplugs firmly stuck in the heads. I hadn’t lost any pieces of ceramic in the cylinder nor any center electrodes, so I contemplated what to do by way of easy outs of the traditional fluted/twisted shape or the other alternatives of the square ones with a sharpened portion on one side. I worried about breaking those off, because I did once in my career and spent a good part of a day or two getting that piece out because you can’t drill it. An easy out is probably one of the most misnamed tools there is. It ain’t easy and it don’t come out. I turned to the tool magazines and learned that Hanson, now owned by IRWIN of Vise Grips fame makes a form of easy out called a hex head multi-spline extractor. It has

spiral and very sharp grooves cut into its lower extremity and a very substantial hex top in varying sizes, depending on how big the extractor is. One takes those, drops them into the empty sparkplug hole now containing just the bare steel part of the plug and pounds them home. Typically, in a sparkplug that's an 18 millimeter that's a 13/32" extractor. Again, it was necessary to put the long breaker bar on. (Remember, these things have been soaking for over a month as this point – the residue and dirt and junk was so tightly packed in beside them, it had to be drilled away because it wouldn't respond to scratch awls and such tools.) They all came out, some with more difficulty than others and only once did I have to go from 13/32" to the next biggest size of 7/16". Those extractors work superbly. Kroil did its thing and the Fluid Film kept things wet sitting there.

There's a message here – patience, which is not one of my virtues, has to be used in great quantities as much as does the Kroil; and, yes, I thought of but did not use some of the other magic potions that we use for removal, such as Liquid Wrench and PB Blaster. I saved for another day my own concoction, because I didn't want it in the cylinders which is half acetone and half ATF fluid - deadly stuff in many ways. WD-40 I reserve for lubricating the hinges on my pliers.

In any event, the message here is that, if you've got it really stuck, you need to clean it carefully; you need to soak it for a period of time; use some really good penetrant like Kroil. (It sells for over \$80 a gallon at the well known restorer supply Eastwood, but is available on the manufacture Kano Labs website for \$46.95.)

I thought I'd pass these experiences along in case they might help somebody who finds themselves in a similar pickle.

I'm now engaged in filling the cylinders full of Kroil, letting that set for a while, and then see if I can roll the engine over. I believe I can, but it teaches one another lesson, which is don't buy a truck with a stuck engine – I long ago said that I'd never do that again, but the engine was intriguing because of its rarity and also because parts are available and it's basically two standard engines. Free consults available!

More Diesel Engine History

By George Barrett

When I started the series about Charles Kettering and the story of him developing (actually inventing) the Detroit Diesel I never gave any thought about writing anything further than when the 71 series started to sell in 1937. After some thought and conversations I think I'll embark on a trip through the history of the high speed diesels, forerunners of what we have today. When I say "high speed" I'm pointing out the difference between the extremely big heavy stationary engines that usually didn't turn more than 300 RPM and the 900 RPM engines that started development in the 1930s. The term "high speed" was used in textbooks and technical papers of the 40s and 50s but there appears to be no definitive speed to separate the two, but the diesels that Kettering eventually built were high speed. They were also easily mass produced, adaptable

to a variety of uses, much smaller, and could be sold as a package off the shelf and installed in a variety of applications.

In the early 1930s about the only trucks that had diesel engines were ones created by mechanically inclined fellows who wanted to try something new. Although I am writing for a newsletter subscribed to by those who are interested in trucks I think everyone will find the upcoming articles interesting. The engines developed in the 1930s were the platforms for testing, adjusting, evaluating, and re-engineering. All those involved in the manufacturing of the various makes and models did their best with the knowledge, metals, and machine tools that were available to them. The engines we have today were developed over the last eighty years and I am fascinated with the various ideas that were tried and discarded as well as the ones that worked well and were improved upon.

Eventually I want to write about all the diesels that appeared in American trucks but spend more time on popular ones. There are some losers and some winners as judged by how many were sold and then there are the winners and losers in the hearts of the men who owned and drove the trucks. It is interesting to note that one of the earliest innovators with automotive diesels created a company that today has a nearly 40% market share of the heavy highway trucks. The story of Clessie Cummins is a very interesting one of a hard working guy who would try almost anything and never had the money he needed to really do an outstanding job. There's a one page article in the August 13 issue of Engineering News Record about the troubles Navistar is having with its clean air technology and how they will use the system of their rival, Cummins, to get out of a serious jam. Who would have bet fifty years ago that Cummins would be a winner, Cat would enter and then get out of the truck engine business, and the once mighty General Motors would be struggling to simply make cars?

In 1935 Caterpillar started selling five specific power units ranging from 44 to 160 horsepower for various uses other than crawler tractors. The smallest was a four cylinder 4.25" x 5.5" (D4400). The other four were all 5.75" x 8" in 3, 4, 6, and V8 cylinder configurations. The four cylinder D8800 was used in the D-7, the 6 cylinder D13000 powered the D-8. This is the beginning of the long successful story of the high speed diesel.

Lets take a look at the possibilities of selling diesels eighty years ago. Toward the end of the 1930s Caterpillar produced a 32 page three color brochure (no, the third color was blue, not yellow) of all the applications that could use the new Cat diesel power units. While today we seldom think about where we are going to plug in our various electrical appliances but this was not true in 1935. There are 120 photographs of 120 different applications, many which would have no place in today's world because of the vast network of power lines throughout the country.

There are no pictures of rubber tired trucks or machinery, and even though their diesel engines were powering all their crawler tractors there is only one picture of a tracked machine and that was a power shovel loading rock. There is no indication that these new diesels powered crawlers other than the fact that the name is the "Caterpillar Tractor Co".

Cat electric sets are shown powering lighting for a speedway in Syracuse and a store in Riggins, Idaho.; a cotton gin in Waymont, Georgia and a flour mill in East Earl, PA; a Tungsten floating mill in Ely, Nevada operating 24 hours a day, and a creamery needing electric motors to start the steam plant every morning in Wisconsin. Closer to home, in Lowell, MA there was a D-17000 for supplying electric power for lights and elevators during weekends for the big Boott Mill complex stretching along the Merrimack River.

Marine interests are well represented with examples of towing, fishing, small freight and passenger vessels. One from our state is the Aerolite, a 56 foot lobster smack from the Jonesport area. I looked it up and it was built in 1927 with a gasoline engine and about 1937 it was re-powered by its original owner, Mr. L. H. Simmons with a D13000. That's a D-8 size engine, seems big but it was only 132 horsepower at 1000 RPM. Two years earlier the horsepower would have been only 95 at 850 RPM.

The big sales pitch in every case is fuel consumption. The Jonesport lobster smack "uses only about 4.5 gallons of 6.5 cent fuel an hour. My inflation calculator tells me that's \$1.17 in today's dollars but let's remember, unlike today, gasoline was very much more expensive than number two fuel oil. The brochure also places emphasis on the savings over steam plants and their many necessary components.

In the 1930s the question seemed to be could the newer expensive diesel engine save enough money for its owner over the presently owned gasoline or steam power unit. So stay tuned, I don't know at this time exactly what direction I'm going to go in first but if anyone wishes to nudge me onto a specific path it could be done fairly easily as long as I've got the research material.

Your 2012-13 Chapter Officers and Directors:

President - Clayton Hoak 299 East Stage Road, Pittston, ME 04345; (207) 582-3224; email choak@myfairpoint.net

Vice President - John Ellingwood Jr. P.O. Box 683 Waterboro, ME 04087; Home (207) 247-6795 Cell (207) 590-2298; email jellin@sacoriver.net

Secretary - Diane Munsey, Rusty Fender Estates 785 River Road, Dresden, ME 04342; (207) 737-2997; email muns43@localnet.com

Treasurer - Harold "Jamie" Mason 104 Falmouth Road, Falmouth, ME 04105; (207) 949-1360; email haroldjmason@gmail.com

Director - Peter Mullin 200 Stanford Street, South Portland, ME; 04106 (207) 767-6080; email wfd44@maine.rr.com

Director - Wayne Devoe Jr. 56 Allendale Road Newport, VT 05855; (207) 318-0323 email wdevoe@comcast.net

Director - Lars Ohman 6 Antique Drive Sabattus, ME 04280; (207) 375-6515; email peckapohl@roadrunner.com

Director - Steve Marshall 77 Murray Road Shapleigh, ME 04076; (207) 651-7115; email srmcam@metro.net

Director - Art Johnson 709 Old Post Road Bowdoinham, ME 04008; (207) 751 3525; email patart1939@aol.com

Late August – November Calendar of Events

- Aug 25 Owls Head Transportation Museum – New England Auto Auction
Contact the Museum @ 207-594-4418 or visit their website – www.owlshead.org
- Sept 1-2 Owls Head Transportation Museum – Vintage Motorcycle Meet.
Contact the Museum @ 207-594-4418 or visit their website – www.owlshead.org
- Sept 14-16 HCEA International Convention, HCEA Museum Grounds, Bowling Green, OH
419-352-5616
- Sept 15-16 **Pine Tree Chapter** Fall Tour – Greenville-Moosehead area Details in this issue.
Contact: Carl Phillips (207) 839-4975 or e-mail bphilips@maine.rr.com
- Sept 22-23 Owls Head Transportation Museum Earth Movers and Shakers Show.
Contact the Museum @ 207-594-4418 or visit their website – www.owlshead.org
- Sept 22-23 ATHS Hudson Mohawk Chapter Antique Truck Show & Flea Market
Ballston Spa, NY Contact Dick Linstead (518) 581-1829.
- Sept 23-29 **Pine Tree Chapter Truck Display** – at Cumberland Fair
Contact: Clayton Hoak (207) 582-3224
- Oct 5-6 21st Annual All Mack Truck Show at Gerharts in Lititz, PA
Details write: Box 405, Lititz, PA 17543 or call 717-625-8544
- Sep 30-Oct 7 Fryeburg Fair
- Oct 10-13 Hershey 2012
- Oct 6-7 Owls Head Transportation Museum – Foreign Auto Festival
Contact the Museum @ 207-594-4418 or visit their website – www.owlshead.org
- Oct tbd **Pine Tree Chapter** Late Fall Get Together/ Great Fall Auction Location and
Details tbd; Contact: Clayton Hoak (207) 582-3224
- Oct 27-28 Owls Head Transportation Museum – Great Fall Auction & Flea Market
Contact the Museum @ 207-594-4418 or visit their website – www.owlshead.org
- Nov 3-4 Higmo’s Logging and Music Annual Saw Mill Days; Details to be perfected;
Contact: Allen Higgins or Paula Hersom (207) 442-0701

DUES NOTICE - Membership Renewal + Update Form

Please sign me up for another years worth of membership in the Pine Tree Chapter, ATHS. Membership in the American Truck Historical Society is required.

Name _____

Date _____

Street _____

Phone: () _____

City _____

E-Mail _____

State _____ Zip _____

Mail to: Pine Tree Chapter ATHS

C/O Harold “Jamie” Mason

104 Falmouth Road

Falmouth, Maine 04105

Pine Tree Chapter Dues of \$10.00 run from January to December.

Owls Head T-shirt Re-order

Due to the overwhelming popularity of this year's Owls Head Truck Show T-shirt, featuring Frank Hale's Red B-61 Mack, it has been decided that we will be placing a supplemental order for more t-shirts in the most popular sizes (L, XL, and XXL). It should be noted that we still have limited quantities available in the smaller adult sizes and good availability in the children's sizes. We will be ordering a sufficient quantity to insure that pricing remains the same as it was at Owls Head. Those that missed out on getting a shirt at the Owls Head Show that wish to ensure that they get one from this supplemental order should contact John Ellingwood ASAP (Home (207) 247-6795 Cell (207) 590-2298; email jellin@sacoriver.net) with your size and color (ash gray or black) choices. We hope to have this new production run available in time for the Fall Tour.

Member Bulletin Board

Wanted: Information to help locate an early '60's GMC conventional with the 702 cubic inch V-12 engine. Many of these were run by the oil companies back in the day as they were the only ones that could afford the fuel. Contact: Tom Heald (207) 799-5318 or (207) 233-2892 or e-mail lilbucksaw@yahoo.com

For Sale: 1931 Ford Model "AA" dump truck with Gar-Wood hydraulic hoist. Interior is good and the roof is solid, reasonable paint on an older restoration, runs, drives, has lights, and brakes. 7:50x20" good rubber on rear and 6:50x20" on the front. Stock 4 cylinder engine, and 4 speed transmission, solid radiator, and 6 volt lighting. This truck is "Turn Key" driveable. Available in Raymond, ME. This truck has been seen at Watson's Wheels & Water Show many times. Contact: Jim Floyd (207) 655-4289 or (207) 671-0042. Asking \$8500.00

Member Profile – Feel Free to Add Pages Pictures and Stories

Name: _____ **Date of Birth:** _____

Family: _____

First Truck Driven/Driving Job: _____

Current Truck Driven/Employment: _____

Other Trucks Driven/Driving Jobs: _____

Antique Truck(s) Owned Current or?: _____

Family Involvement in Trucks/Trucking: _____

Who, Where and When?



Can anyone identify the Truck, Contractor, Jobsite, and Year the picture was taken? Please submit your answers to: Peter Mullin (207) 767-6080 or e-mail wfd44@maine.rr.com. First to get it right will be noted in the next "Shop Manual"

Pine Tree Chapter ATHS
C/o Peter Mullin
200 Stanford St.
South Portland, Maine 04106

Next event: September 15-16 Pine Tree Chapter Fall Tour
– Greenville and Moosehead Lake