

April 2008

# HIT & MISS

Journal of the Western Antique Power Associates



## A WAPA group lends its expertise toward the preservation of two rare engines

This is an article about two engines, but the story can not be told without touching briefly upon a fascinating aspect of their history—the *location* of the engines.

Back in 1959, Michael Rubel purchased property on the outskirts of Glendora. He moved into the packing house that stood upon the property. Extravagant parties were held weekly and attendees included Dwight Eisenhower, Bob Hope, Angie Dickinson and Prince Philip.

Eventually Michael felt compelled to expand. With the help of many friends, he began construction of what was to become the Rubel Castle. The castle is constructed of local river rock, scrap steel, bottles and a myriad of other discarded items. Construction lasted for twenty years.

Today the Rubel Castle is maintained by the Glendora Historical Society. Everything is intact, just as when Michael lived there. The clock tower is fully operational, the machine

shop is fully stocked, caretakers live in the residential buildings, and the grounds are populated by a variety of old engines.

Tom Millett, WAPA member, nearby resident and member of the Glendora Historical Society has had a long-time interest in the Rubel Castle. He as generously arranged visits to the castle for WAPA members and has been a proponent of preserving some of the engines on the property.



Wayne Mabb and Bob Swan preparing to run the sixty

Two of the engines that clearly stand out from the others were built by the Western Gas Engine Corporation of Los Angeles. All California built engines are inherently desirable, and these two well-preserved specimens were especially deserving of a little maintenance.

Tom assembled two teams of volunteers from the ranks of WAPA, with the express understanding that we would preserve the engines in their original condition and bring them back to operating order.

Jim Davis, Tom Millett, Jack Johnson and Leroy Overstreet would tackle the thirty horsepower

engine that was coupled to a reciprocating water pump.

Rob Skinner, Kelley Garcia and Wayne Mabb would work on the sixty horsepower engine that resided in its own shed.

Joining the crew later on were Joe Giocomarra, Bob Swan, Dan Kato and Joe Siddons.

Of utmost importance was cleaning and oiling the engines in order to preserve them. Other obstacles were determining where the engines exhausted and properly piping up cooling water.

The engine house was poorly lit, so new lighting was installed. The coupling to the reciprocating pump was not mechanically sound, so it was removed and is currently being repaired.

The biggest hurdle proved to be the air system. We decided that it would be best if both engines could be started with air. The

original compressor was inadequate for the job, but we easily replaced it. More difficult were the leaks in the underground lines. Those issues are now resolved to our satisfaction and we only hope that no new leaks arise.

Both the Rubel Westerns, in their current configurations, are similarly equipped. Both engines are throttle



Top photo: Dan Kato, Jack Johnson, Joe Siddons, Jim Davis, Wayne Mabb, Bob Swan and Leroy Overstreet with the thirty horsepower Western engine.

Left: Dan Kato carefully rolling the sixty horsepower engine over for starting.

governed, have spark plug ignition, mechanical oiling and are fueled by gas.

Starting is simple and nearly effortless. Before anything else, the air compressor must be started. It takes 15-30 minutes to pump sufficient volume for starting the engines. While air pressure is building, the engine is checked out and wiped down. Oil points are lubricated and the mechanical oiler is manually operated for 30-40 revolutions.

Once adequate pressure builds, 100 psi for the thirty horse, 70 psi for the 60 horse, it's time to start the engine. The procedure differs slightly between the engines.

The sixty horse engine is equipped with an air-start mechanism. It automatically allows air into the cylinder at the proper time. The thirty horse engine only has a ball valve to manually

Western Gas Engine Company

Serial No.: 6677

Model: 1915

Rated Horsepower: 30

Fuel: Distillate

Magneto: Bosch Model 29

Bore: 9 1/4"

Stroke: 18"

Factory Tested on 11/15/15 by  
F.G. Geguah

Tested 39 h.p. at 250 r.p.m.

1 gallon fuel lasted 30 minutes at  
20 1/4 h.p.

Test run 10 hours 15 minutes

1/9/17 Sold to Samuel Pine, Chino, CA

2/20/24 Rebored by Mike DeYong

Two weeks later the engine was sold  
to F.H. Nusbickle, San Dimas, CA

3/21/24 Added Type 17 clutch

3/21/24 Converted to run on gas

4/9/24 Two 9.400 piston rings

3/5/29 Still at Nusbickle. Parts to  
equip engine with throttle  
governing and inlet box. \$136.39

1/13/32 Re-pour bearings

3/16/39 Repair bore

Western Enterprise Engine Company

Serial No.: L7970

Model G22

Rated Horsepower: 50 (later revised to 60)

Fuel: gas

Magneto: Splitdorf

Bore: 12 1/4" (later revised to 13")

Stroke: 20"

Factory Tested on 1/22/25 by  
F.J. Thompson

Tested 54 h.p. at 224 r.p.m.

Engine equipped with governor speeding  
attachment

1/24/25 Sold to Jameson Oil Co.,  
Huntington Beach, CA

8/11/27 Cylinder cleaned

4/18/32 New 13" cylinder \$400,  
water pump \$36.90,  
magneto rebuild \$50,  
lubricator \$58,  
ER gear \$44.90

8/22/32 Sold to Clarence Gotteba,  
Cypress, CA

2/14/41 Sold to Richfield Oil Company,  
Huntington Beach, CA

put air into the cylinder. This requires that the operator open the valve on the "power stroke" of the piston, then close the valve, then reopen the valve for the next power stroke. The procedure takes some rhythm to get it right, but it's not difficult.

When it's time to start, the water is turned on. These engines use a total loss system. The incoming gas valve is turned on, allowing fuel into the gasometer. The gasometer is an accumulator for fuel. The flywheels are turned so that the piston is slightly past top-dead-center on the power stroke. If the operator has an assistant, he verbally communicates that he intends to start the engine. Receiving notification that all is clear, he opens the gas valve and then opens the air valve. The engine rolls over and within a couple revolutions, begins to fire on its own.

The air valve is then turned off, adjustments made to the fuel mixer, and checks made to

ensure the lubricator, cooling and other systems are functioning properly.

An exciting aspect of this project was learning about the history of each engine and the factory. Greg Johnson and Terry Hathaway were instrumental in providing this information. Terry has studied and written extensively on the Western company. Greg maintains a collection of *shop cards* that Western created for each engine that left the factory. Each shop card lists the features of the engine, the testing data, and all repairs that were conducted over the lifespan of the engine.

As of this writing, the crews still have a few chores to complete: finalizing the air systems, cleaning and minor details. The engines will be operational for the open house at the Rubel Castle on April 12. Come on out to get a look at the Westerns, the Castle and many other interesting artifacts. Directions and details are elsewhere in this issue.

# BIG WESTERN ENGINES!

Our work at the Rubel Castle led to the “discovery” of three more Western engines. These engines were used to pump water beginning about 1920. The engines are just as they were left on the day they were shut down for the last time. They are a magnificent time-capsule showing the early days of industrial technology.

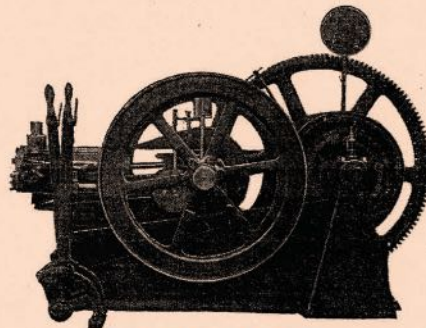
Two are Western Type D22 engines. They are 200 horsepower, two cylinder duplex engines. That is, they have two side-by-side cylinders. The operating mechanisms are similar to that of the single cylinder engines. The crankshaft throws are aligned so the cylinders fire every 360 degrees of flywheel rotation.



The other engine is a 320 horsepower twin-duplex. It is essentially two duplex engines, side-by-side, with a common crankshaft and one flywheel in the middle. Each side of the twin duplex engine has its own data plate and unique serial number. The throws on the crankshaft are 180 degrees apart, so a cylinder fires every 180 degrees of flywheel rotation. There is one governor on the left-side of the engine and a shaft that connects it to the right side of the engine.

This specimen might be the only twin-duplex Western left in existence.

## THE WESTERN GAS ENGINE.



THE WESTERN HOIST.

Lightest weight for its power; 50 per cent of speed controlled by foot lever; brake and clutch very sensitive and powerful; levers at end with everything straight ahead of operator; highly finished throughout.

“FROM FACTORY DIRECT TO USER.”

Designed and built by Western experts, for Western use with Western fuel. The strongest, simplest and most successful engine on the market to-day.

BURNS CHEAPEST FUEL AND USES LEAST.

Burns gasoline, distillate or crude oil, and requires from 20 to 40 per cent less than any other make. Better, cheaper and more convenient than steam.

OUR ILLUSTRATED CATALOGUE

Fully describes every detail in construction of Western Engines. It tells how and why they lead all other makes—it gives the facts, the proof. Your name will bring it—free Ask for latest catalogue A-9.

**Western Gas Engine Co.**

908-932 N Main Street, LOS ANGELES, CAL.

# MINUTES OF THE BOARD OF DIRECTORS MEETING HELD MARCH 14, 2008

**Board members present:** Wayne Mabb, Bob Swan, Bob Smith, Tom Millett, Kelley Garcia, Joe Siddons, Jack Johnson and Leroy Overstreet.

**Board member excused:** Craig Maxwell.

**Members present:** Gus Lukrofka, George Noble, Slats Seeley, Rob Skinner, Jim Davis, David Ruhland, Tom Fee and Larry Madole.

**Meeting called to order** at 7:03 p.m. by President Wayne Mabb.

**Flag salute** led by Jack Johnson.

## REPORTS:

**President:** Wayne Mabb welcomed everyone and spoke briefly about work at the Rubel Pharm Castle.

**Vice President:** Bob Swan explained that our insurance is up for renewal at no increase in premium. Bob moved to pay the premium of \$1265, seconded by Jack Johnson. Vote carried unanimously.

**Secretary:** The minutes of the February 8, 2008 board meeting were approved on a motion by Millett and seconded by Bob Smith.

**Treasurer:** Kelley Garcia distributed a detailed financial report for the year 2007. The net inflow for the year was \$8,400.91 which included all operation and investments. Report to be on file for audit.

**Membership:** Jack Johnson introduced new member Tom Fee. Tom lives in Temple City and has a John Deere engine. He is eager to participate in club events. Jack stated he had 13 members who have not paid dues this year. He asked if the board wanted phone calls be placed to them. After discussion, President Mabb agreed to make calls to the delinquent members.

Jack stated that he has received three checks in memory of Robert Helms and will turn them over to the treasurer. Jack stated he got a letter from Jarvis Williams and passed it around to members present.

**Purchasing:** Leroy Overstreet stated we have enough corn for the Highland show and that Millett has found a supplier in South El Monte.

**Safety:** Joe Siddons had nothing to report.

**Library:** Craig Maxwell absent.

**Shows:** Bob Smith reviewed the upcoming shows, the Highland show being the first. Tulare show is coming up in April. The Rubel Castle in Glendora is having an open house on April 12<sup>th</sup>. There is a request for WAPA to participate in an Art Festival in San Dimas on April 26<sup>th</sup>. Smith moved to sanction, seconded by Overstreet. Four members expressed interest in attending. Antique Truck show will be on May 4<sup>th</sup> at March Air Base Museum. Sanction moved by Smith, seconded by Johnson. Whittier Founders show on May 10<sup>th</sup> sanctioned with motion by Smith and seconded by Johnson. Larry Madole presented a request from Cal Poly for our participation in their second annual Tractor & Car show. Since it's on May 10<sup>th</sup>, the consensus was to continue the item to next meeting and Larry would get more details.

**BREAK:** 7:52pm to 8:09pm.

**Bob Smith continued** the show report. The South Pasadena Car Show is on September 14<sup>th</sup>. It will be sanctioned at a later date. Bob has received an e-mail from a lady in Aliso Viejo who is asking for information about our club. They are having a Founder's Day in September. Nothing firm on our participation. Board members asked Bob to get more details.

Tom Millett announced that he will be checking with officials of the San Dimas Car Show to see whether we

will have better exposure and not blocked with vendors and cars. If better arrangements can't be made, we will discontinue that show.

**Editor Report:** Rob Skinner asked that everyone wanting to submit articles to him should get them in immediately this month as he has the issue ready for print.

**Prado Regional Park:** Tom reported that Craig Maxwell would be making contact with county officials to set up a face-to-face meeting with them.

**Rubel Castle:** Rob Skinner gave a report on the 60HP engine and the progress being made. Leroy

Overstreet gave a report

on the 30HP engine. There is

a head gasket leak that

has to be dealt

with. Also,

the pump clutch

is a project

in itself. It needs

to be freed

up. Old Business:

Tom Millett announced that

he has received the printing order

from El Monte Printing. The order was

for 100 large cookbooks at \$3.25 ea. – 250 small cookbooks at \$1.82 ea. – 5000 recipe flyers at \$.0358 ea. – 1000 club brochures at \$.179 ea. He

presented the grand total bill to Treasurer Kelley Garcia for \$1307.66.

It was the consensus of the board to charge \$4.00 for the small cookbook, \$8.00 for the large one and \$11.00 for one of each.

**New Business:** Treasurer Garcia announced that she was returning the annual dues paid for by the Helm family for Bob's membership.

Announcements: None

Adjournment: 8:47 p.m.

Tom Millett, Secretary



Tom Denson in Highland

# Playing Safe

Our first show of the year is only days away, so this seems like a good time to mention safety. There's probably very little I can say about safety that we all don't already know, but if we take a few minutes periodically to think about safe practices, we will be less inclined to cut corners and endanger ourselves and others.

Since many of our engines have not been run in months, it would be a good idea to look everything over closely before the first start up of the season.

As you are wiping down the engine, cleaning off any dust or oil, look for any cracked or broken parts. Feel for anything that has become loose, especially flywheel gib keys and governor parts.

Make sure that all the mechanisms still work freely, from the valves and magneto parts to the latch out. The last thing you

want is for oil that has become gummy to prevent your governor from working properly.

Despite the severity of a governor failure, it, and other unforeseen malfunctions, *do* occur. Always have a contingency plan to shut down *any* of your engines in case an emergency arises. Often, shutting off the fuel will not kill the engine for many minutes.

A contingency plan can be as simple as yanking a plug wire. It might be holding in an exhaust latch-out. It might be manually holding in an exhaust valve. Regardless of what you choose, realize that all these measures pose their own hazards. A shock from the magneto might cause you to "jump" and contact a moving flywheel. A "latch-out" and an exhaust valve both present serious pinch points. Consider all these possibilities before firing that engine up for the first time.

If a situation mandates that you take action, be prepared so that you can do so while remaining calm and not creating a more serious situation.

There are a myriad of other safety issues to write about, but space is limited. You probably know them all anyway, so please take a few minutes to consider safe work practices so we can all have an incident-free show season.



## March 29, Saturday Highland Citrus Festival

This is a reminder. Details are in the March Hit & Miss and online at [www.wapa.us](http://www.wapa.us).

## April 11, Friday 7:00 p.m. Board of Directors Meeting

The WAPA Board of Directors meeting is held at Heritage Park in Santa Fe Springs. Heritage Park Rd. is off Telegraph Road just west of Norwalk Boulevard. The meeting is held in the train depot next to the steam locomotive.

## April 12, Saturday Rubel Castle

The Castle will be having a Neighbor Appreciation event and Historical Society Open House on April 12. WAPA members are also

invited. The facility will be open between 10 a.m. and 2 p.m.

The address is 844 N. Live Oak, in Glendora. From the 210, take Grand Ave. 2.2 miles north to Sierra Madre Ave. Turn right and go 1.0 miles to Live Oak. Turn left. When you reach the Castle, park on the street.

## April 18-20 Tulare

This is it: California's biggest engine show! Our area is the same as always, at the intersection of Median St. (the parade route) and East Greenbelt. If you've never been, take the 99 north to Tulare. Follow the signs to the International Agri-Center. At the entrance, go straight back. We're adjacent to a block walled restroom. Jim Davis and a host of

other WAPA folks will be there by mid-morning on Thursday.

## May 4, Saturday Antique Historical Truck Show

Mark your calendars. Details will appear in next months' edition.

The Hit & Miss is the monthly newsletter of the Western Antique Power Associates. It is sent to all members. Past issues are available online to all members at [www.wapa.us](http://www.wapa.us).

If you have an idea for an article you would like to write, a classified ad, or any thing else, contact the editor.

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