

The Line Shaft

The Official Newsletter of the

NORTH JERSEY ANTIQUE ENGINE & MACHINE CLUB

October 2018



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Founded on October 15th, 1979 by: Arthur Goble, Fred W. Westbrook, John Snook, Roy Bischoff & Lewis Quince

Pot-Luck Picnic - September 15, 2018

This years picnic was a joint affair with the *Sussex County Agricultural Society*.

As in previous years, the club provided the hamburgers, hotdogs and drinks and the members provided the side dishes and desserts!



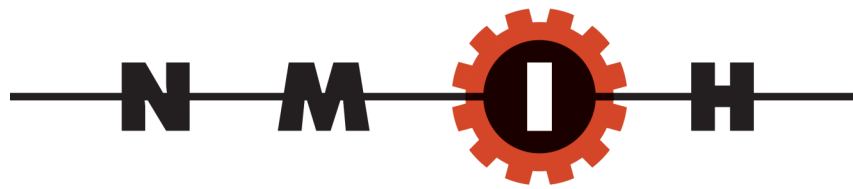
There was no shortage of food and drink!

Additional pictures on Pages 2

Our next meeting will be at 7 PM on October 11th at the SHED and will include the closing and winterization of the shed...we need members to attend!

67 Branchville Lawson Rd., Newton NJ 07860





National Museum of Industrial History

Almost two decades in the making, the **National Museum of Industrial History** finally opened its doors in August 2016. It is housed in the restored 1913 electrical repair shop of the defunct Bethlehem Steel Corp.'s Lehigh Valley plant. The present, scaled back 18,000-square-foot version, includes about 200 artifacts and has more of a regional Lehigh Valley focus than the national direction originally planned. Expansion can be assumed, as the museum extends to fill its second floor, an adjacent plaza, and possibly other buildings on the Bethlehem Steel campus. An affiliate of the Smithsonian Institution, many of the machines on display are on loan from them.

The fate of the once-behemoth steel company and the broader decline of American manufacturing in general, give these exhibits a nostalgic heft. Massive machines such as the Corliss pumping engine and the Linde-Wolf ammonia compressor inspire awe, like fossils of gigantic extinct species. Other smaller machines...some adorned with painted and sculptured decoration...can be appreciated as masterpieces of design.

As Oscar Wilde stated: "There is no country in the world where machinery is so lovely as in America!"

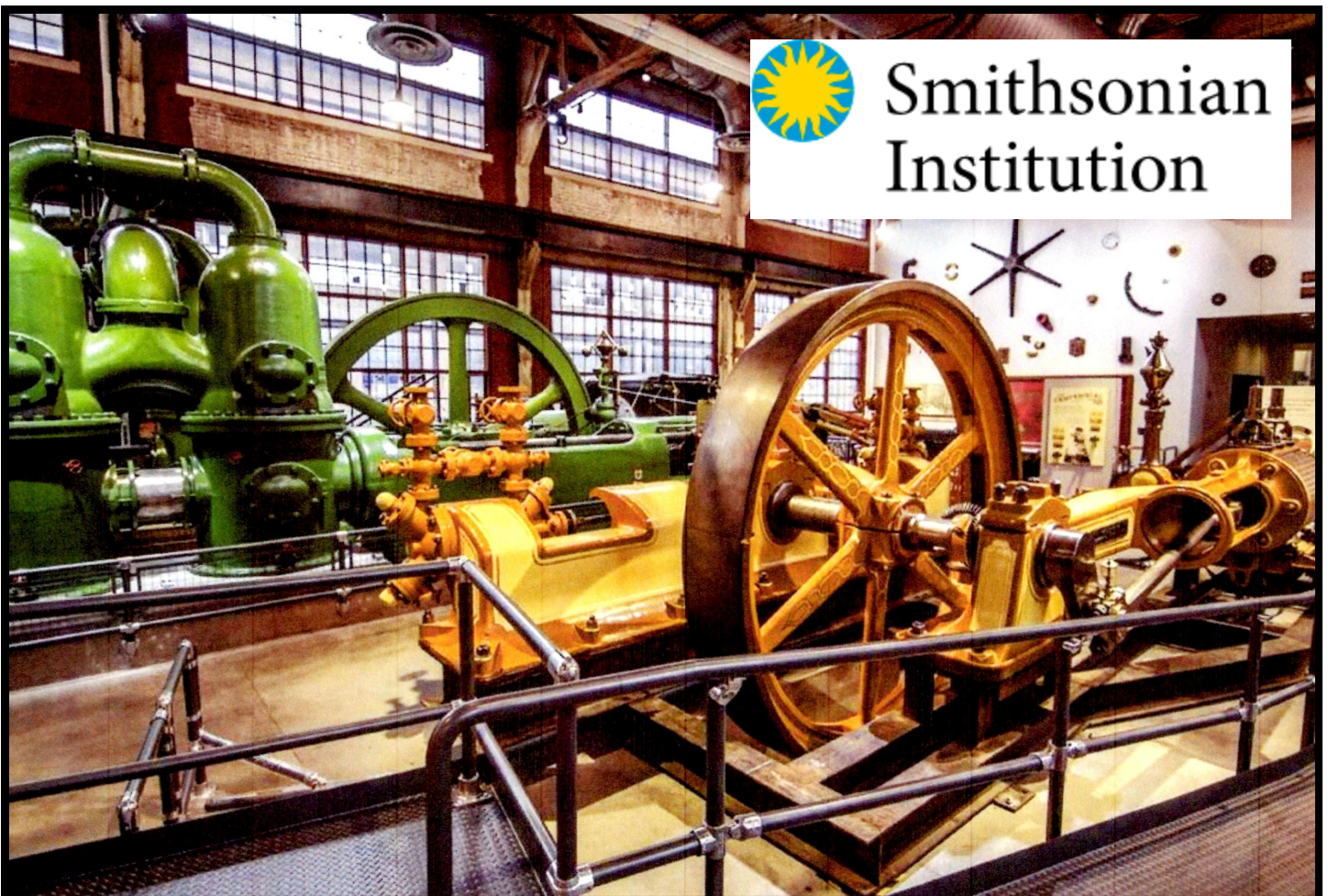
Of additional historic interest are the remnants of other factory buildings, the high-rise company headquarters, and especially the abandoned steel plants' blast furnaces...looming over the landscape like an Abstract Expressionist sculpture.

We are planning a car-pool trip as a CLUB EVENT for October 27th 2018!

Entrance fee: \$12.00, \$11.00 for seniors and "less" \$2.00 each if we can put together a group of 20 or more!

Contact: Martin Little at 973/875-4511 or mhlittle@centurylink.net

We need a head count, transport vehicles etc...this will be a discussion topic at the October 11th meeting!



The Ford Tractor

This is kind-of a long winded article, but then again...the Ford tractor story is kind-of a long winded story!

In the early 1900s Henry Ford's reputation was in the toilet. With a history of not paying attention to former businesses, several bankruptcies and a dislike for stockholders and partners, he formed an unlikely alliance with Alexander Malcolmson....a prominent Detroit businessman. Malcolmson became investor/stockholder #2 and somehow put together (10) additional stockholders and together they founded the *Ford Motor Company* in 1903. Henry Ford had some assets, but very little \$ of his own, so the initial \$28,000.00 and promissory notes of \$21,000.00 were largely stockholder money. Important among these investors were the Dodge Brothers, John and Horace (later of Dodge car & truck fame). They owned the largest machine shop in Detroit, which at one point covered 24 acres and employed 5,000 people. They put up \$10,000.00 in cash for a 10% share and immediately bought \$75,000.00 in new tooling on the strength of a vendor contract with *Ford Motor Company* to manufacture "all" the parts for the "yet-to-make-their-1st-car" manufacturer. Dodge designed and built all the various automotive components for Ford cars from day one thru the late teen years of the Model T, with the Ford factory only assembling the end product. In essence, for many years the Dodge Brothers were the Ford Factory. Unfortunately, by 1916 Ford's populist beliefs and instinctive NEED for CONTROL had reached a boiling point and considering the stockholders, who had initially put him in business, "parasites" and "idle drones" (his words) he stopped all investor dividends. The Dodge's took him to court and after a protracted battle, forced payment of a \$20 million special dividend to the stockholder group. Henry agreed to pay, but vowed never again to be tied to stockholders. The Fordson Tractor and the *Henry Ford & Son Company* would become instrumental toward that end!



As early as 1905 Henry Ford had begun experimenting with tractors. He set up a development team within the *Ford Motor Company* and eventually they would produce (3) tractors using the 4-cylinder engine adapted from the Model B automobile and a lightweight, mobile and cheap-to-build 4th tractor based on the Model T...using the T engine. All were experimental, built using automotive components, and none went into production.

By the 2nd decade of the 1900s, Henry Ford had become obsessed with getting into the farm tractor business. Unfortunately, the *Ford Motor Company* was a corporation and not a privately held company and the "other" stockholders had little interest in further diluting profits and their meager "dividends" with the R&D of another new venture (or more appropriately, another Henry Ford adventure).

In 1915 Henry organized a private stand-alone enterprise, the *Henry Ford & Son Company*, with the sole purpose of de-

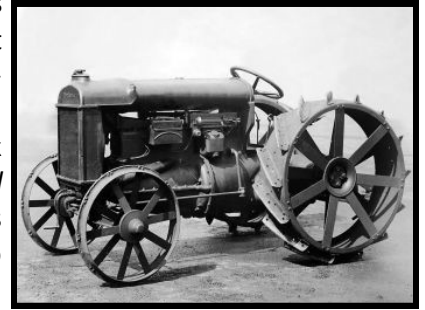
veloping a marketable tractor and the factory to build it. The separation of the two companies was finalized in 1916 and Henry agreed to pay the *Ford Motor Company* \$46,810.76 for previous tractor developmental work/designs and an agreement not to call his new Tractor a FORD. Henry would remain the actual and visible head of both companies.

Henry Ford & Son Company started tractor production in late 1917, selling 6,000 general purpose tractors to England and a further 1,000 to Canada. These were NO-NAME tractors and were nicknamed the MOM tractors...because they were built for England's Ministry Of Munitions. In 1918 the company began producing this same tractor with a few updates, eventually called the F-Model, for the US commercial market including the name FORDSON prominently displayed on the upper radiator tank. A contraction of the companies name, FORDSON was registered as a trademark in the same year. A 4-cylinder, multi-fuel (gasoline, kerosene or alcohol), 20 HP, unit-frame, tractor (Henry Ford & Son held the patent for unit-frame design for many years...think cheap to build)...it incorporated steel drive wheels, a 3-speed transmission, flywheel magneto and a worm drive rear differential. It was hardly the first tractor in the farming industry, but it was the first: light-weight, mass-produced and importantly...affordable tractor, selling for about \$750.00. It was built in Dearborn Michigan and used the assembly-line process of manufacturing.

After World War I, tractor production began in Cork Ireland (still part of the UK at this time) and the company consigned a huge amount of American built tractors to the Soviet Union...which soon became the companies largest customer. The FORDSON tractor had become an international player.

By 1919 Henry and his auto company stockholders were once again butting heads...Henry wanting to take the *Ford Motor Company* into vertical integration (ore to out-the-door...owning all stages of production from the iron mine to the delivery to the customer). By 1919 they were producing 750,000 cars per year or 40% of all the cars produced in America. On March 5th 1919, the *Los Angeles Examiner* (working off a "TIP"), printed the headline..."Henry Ford Organizing Huge New Company to Build Better, Cheaper Car" and pointed to the *Henry Ford & Son Company* as the probably COMPANY! Following this, Henry made vague statements about leaving the car company and the viability of *Ford Mo-*

tor Company without him, and amid rumors of high-level financial deals and stories of mysterious groups maneuvering to buy the car company, the stockholders lost confidence in the future value of their holdings. This once again proves the old adage: NOTHING IS NEW and that “fake news” is not a 21st century phenomena. Henry Ford had pulled a sleight of hand, secretly bought all the company’s stock and he, his son Edsel and wife Clara emerged as the only stockholders. The *Ford Motor Company* was now PRIVATE and Henry had full control, proceeded with his vertical integration vision, replaced managers that were not completely devoted to him and consolidated his power. Again, this sounds awfully 21st century?



In late 1919 the tractor operation was moved to Ford’s new River Rouge Plant, also in Dearborn Michigan, and it became the TRACTOR DIVISION of the *Ford Motor Company*. Sales of the Fordson F-Model were strong during the 1920s with a total production of 650,000 units by the late 20s, this despite the 1920-21 depression and sparked by an insanely low price during the mid-20s TRACTOR WARS (a price war instituted by Henry). It is a closely guarded secret, but Ford probably made little to no \$ on these tractors..the shareholders had been right! In early 1928, with dwindling sales, stronger competition (International’s Farmall had bypassed the Fordson in sales), and a now “antique” and “cantankerous” no-profit tractor...Ford ended Fordson production. Ford had shut down the Cork Ireland plant in 1922, so for a short time, they were totally out of the tractor business.

Ford of England re-opened the plant and restarted production of the new Model-N at Cork in late 1928, shifting production to Dagenham England in 1933 and continued using the Fordson name until 1964. Some of these tractors were imported to the USA and maintained a small presence in the American market.

After an (11)year hiatus, American production resumed in 1939 with the FORD N-Series tractors (the Fordson name was dropped in the USA.), which would include the 9N, 2N and 8N models.

The 9N was the first American-made production tractor to incorporate “from-the-factory” the Harry Ferguson THREE-POINT HITCH system. Developed by the Irish inventor in the 1920s, originally as a mechanical device and later updated to hydraulics, the hitch had previously been sold as both an aftermarket attachment and as a European OEM attachment. Henry Ford entered into a “hand-shake” agreement with Ferguson in 1938, investing millions in the *Ferguson Company* and officially called the 9N a “Ford Tractor with the Ferguson system”, while unofficially it was called the “Ford-Ferguson”. The 9N was a general-purpose row-crop 2-plow tractor and, besides the Ferguson Hitch, included a rear PTO, a 4-cylinder 23 HP engine producing 12.65 drawbar horsepower, the old Fordson 3-speed transmission and was the lowest priced tractor on the market. It sold well, 650,000 world-wide during its life-span, but, it was not exactly a state-of-the-art tractor.

In 1942 the 9N would be re-launched as the 2N. With very few improvements, it was actually a way to get around War Time Price Controls and to raise the price of the tractor, as it was realized they were making no \$ “again”.

In 1945, due to Henry’s failing health (Henry I died on April 7th 1947), his grandson Henry II took over control of the *Ford Motor Company*. He immediately canceled the handshake agreement with Ferguson (it would be a messy divorce, eventually costing Ford \$9-million).

In 1948 Ford launched the 8N, which would become the “most popular farm tractor of all time in North America”, surpassing the 9N and all other brands and models in America. The 8N was upgraded to a 4-speed transmission and produced 23.16 drawbar horsepower, doubling the 9N.

In 1953 the 8N was replaced by the NAA series, called the Golden Jubilee Model. Interestingly, Ford claimed it had 20.2 drawbar horsepower and it was independently tested at 26.8. It was slightly longer, slightly taller and slightly heavier and had an over-head valve 32 HP engine. It also included an engine driven (vs. PTO driven) hydraulic pump. The 600 series and all following numbered Series tractors are derived from the Golden Jubilee. Ford would follow with the 801 and 901, Ford’s first tractors with American diesel engines, and the Powermaster and Workmaster Series and in 1961 the 6-cylinder diesel powered Model 6000. *Ford Motor Company* purchased *New Holland* in 1985 forming *Ford New Holland* and sold the company to *Fiat SPA* of Italy in 1990 and, it is now part of CNH....the *CASE NEW HOLLAND GROUP*.

Contrary to popular belief, Henry Ford and the *Ford Motor Company* did not invent the assembly line or were even the first to bring it to automotive manufacturing. The assembly line had been in use since the 11th century in the ship building industry and Ransom E. Olds of *Oldsmobile* and *REO* truck fame brought it to the automotive sector...Olds also built the first mass-produced low-priced car...the Olds Curved Dash, circa 1901...and sold thousands!

Fall Plow Days

Event coordinator: Chuck Klim 973/903-3583
October 13th, 2018 at Ideal Farms in Lafayette NJ

Denville Parade

Event coordinator: Howard Squires 973/886-1872 howardsquire@aol.com
Actual date not confirmed

National Museum of Industrial History

Event coordinator: Martin Little...973/875-4511
October 27th, 2018



Volunteers for Plow Day Event (s):

Linda Klim

973-948-0693

Calling out to the ladies of the NJAE&MC. Our tractor boys are excited about a plow day that will be on October 13th at Ideal Farms. They will play...Oops, I mean plow, all day so how about we make a nice lunch for these good ole boys. We will be discussing it at the September and October meetings, but I'm hoping to talk with you before then.

klimconstruction@gmail.com

For Sale:

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973/271-4956

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