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Springer

# CATERPILLAR



“<sup>66</sup>results<sup>99</sup>”

CATERPILLAR



"results"

# CATERPILLAR

REGISTERED IN UNITED STATES PATENT OFFICE

BULLETIN TE 40

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THE HOLT MANUFACTURING COMPANY  
OF STOCKTON, CALIFORNIA, U. S. A.



BOLTE & BRADEN CO., PRINTERS  
50 MAIN STREET, SAN FRANCISCO



# CATERPILLAR


*The Holt Manufacturing  
Company*

*Stockton - California - U.S.A.*

BRANCH HOUSES:

SAN FRANCISCO  
LOS ANGELES CALIF.

SPOKANE  
WALLA WALLA WASH.



BEN J. HOLT  
PRESIDENT  
C. PARKER HOLT  
VICE PRESIDENT  
BEN C. HOLT  
VICE PRESIDENT  
C. A. BACHELDER  
TREASURER  
R. S. SPRINGER  
SECRETARY



FACTORY  
STOCKTON - CALIFORNIA -  
U.S.A.



## The Caterpillar

The Caterpillar is a known quantity. It has success back of it. It is not an experimental venture or an untried theory, but the proven product of a substantial, progressive manufacturing organization.

The Caterpillar is built by The Holt Manufacturing Company of Stockton, California. Through 28 years of general manufacturing experience, and 21 years of experience in building the foremost steam Traction Engines on the market, they have gained a knowledge of the difficulties and conditions found in Traction Engine work, that could be gained in no other way and in no shorter time. This long experience in manufacture as well as actual field work, has proven an invaluable asset in building the Caterpillar.

While the principle of the Caterpillar is new to many people, after seeing its construction and especially the wonderful work it does, it will readily be conceded to be the only practical way to carry great loads over the uneven surface of our roads and fields, and to give tractive surface and power sufficient to pull such loads under the severe conditions every traction engine will experience. The great reliability of the Caterpillar was proven by five years of extensive testing and actual use on our experimental farm, and at our own plant, before it was placed on the market. Since it has been placed on the market scores of them have been sold and the satisfaction given can best be told by the enthusiastic letters in which the owners endorse the Caterpillar.

Though the Caterpillar is a large machine for heavy work, it is built with precision and care seldom found in the construction of heavy machinery. In both general design and mechanical detail, it shows the careful study of the most competent engineers. The design is not complicated. Simplicity is the keynote of construction and the material used is of the highest grade. The result of these efforts is a machine that, not only on account of its thoroughly good principle, but also on account of its merits as a machine of wonderful construction and inherent durability, has proven to the world that it is efficient and will permanently remain efficient.



## Adaptability and Efficiency of the Caterpillar

The adaptability of the Caterpillar is practically unlimited. Its efficiency is wonderful. From the torturous hot sand fields of the Mojave Desert to the highest Sierras and Rockies, and from the low, wet Delta Lands to the beautiful valleys and farms, the Caterpillar has proven its worth.

On the desert you will find the Caterpillar doing work no other power will do. The terrific heat, the loose sand roads, and the scarcity of water, any one of which prevents the use of other powers, have no terror for the Caterpillar. The simple economical motor furnishes an abundance of power at all times, and the Caterpillar, possessing its own track, lays it on the sandy ground, changing the roadbed from loose sand to a smooth steel track, over which it rolls with ease.

In the highest mountains, where the roads are rough and the grades long and steep, the Caterpillar is hauling logs, lumber, ores and other freight. It is doing this work under the most severe conditions and in a manner never before thought possible.

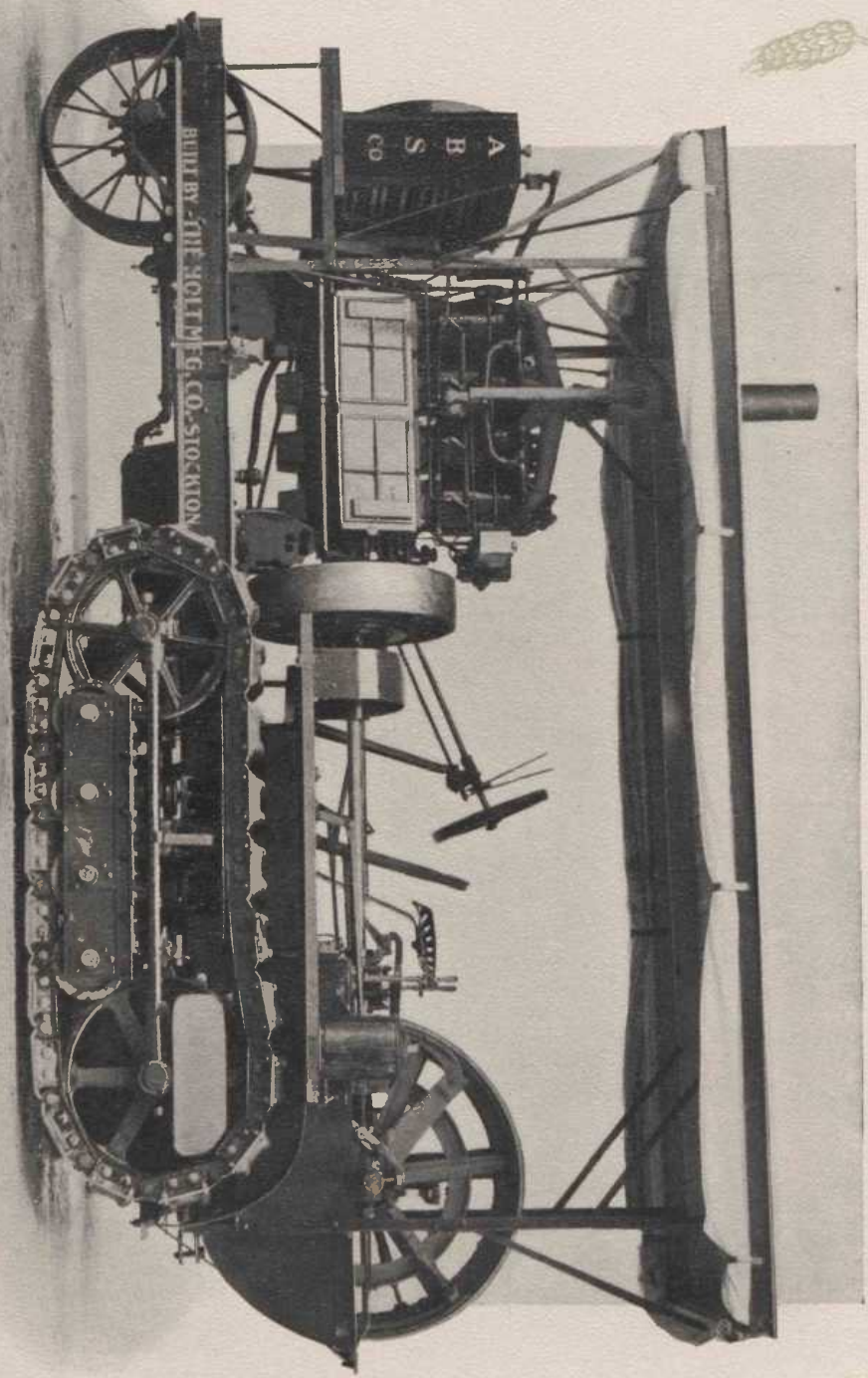
Then again we find the Caterpillar in the low delta lands, where the ground is so soft horses can not walk on it, and a wheel Traction Engine is impossible. Here the Caterpillar is working right along with the same steady power that has always characterized it and made it famous before the whole world. The soft bottom lands do not affect the Caterpillar; it does not mire, but moves steadily on, doing its work on ground that looks even dangerous to walk on.

In the valleys and on the farms the uses of the Caterpillar are innumerable. First it does the Plowing, Harrowing and Seeding; then the Harvesting, Threshing and Hauling; after that and between times it is free to do any other work one may have for it. It will furnish power for the blacksmith shop; pump water for irrigation or possibly to drain the low lands; it will run Saw, Feed or Flour Mills, barley Crushers, and in fact anything that needs a good steady power. The Caterpillar is at its greatest capacity on a farm; not because the conditions under which it may work are possibly better, but on account of the owner being able to furnish it with so many different tasks, all of which it will handle so successfully.





Caterpillar



Side View Showing Caterpillar Wheel and Spring Mounting



## General Description

### MOTOR

4 Cylinder, 4 Cycle. Cylinders cast separately with Valves in Head. Heads removable.

BORE—

6½ Inches.

STROKE—

8 Inches.

POWER—

45 B. H. P. continuously at 550 R. P. M.

COOLING—

Water. Vertical Tube Radiator and Fan.

IGNITION—

2 Separate and Complete Systems.

CURRENT SUPPLY—

Magneto and Dry Cells.

LUBRICATION—

Constant Level Splash System.

MOTOR CONTROL—

Automatic Governor Regulating Throttle. Hand Levers on Steering Wheel regulating speed within the limits of the Governor.

### TRANSMISSION

CLUTCH—

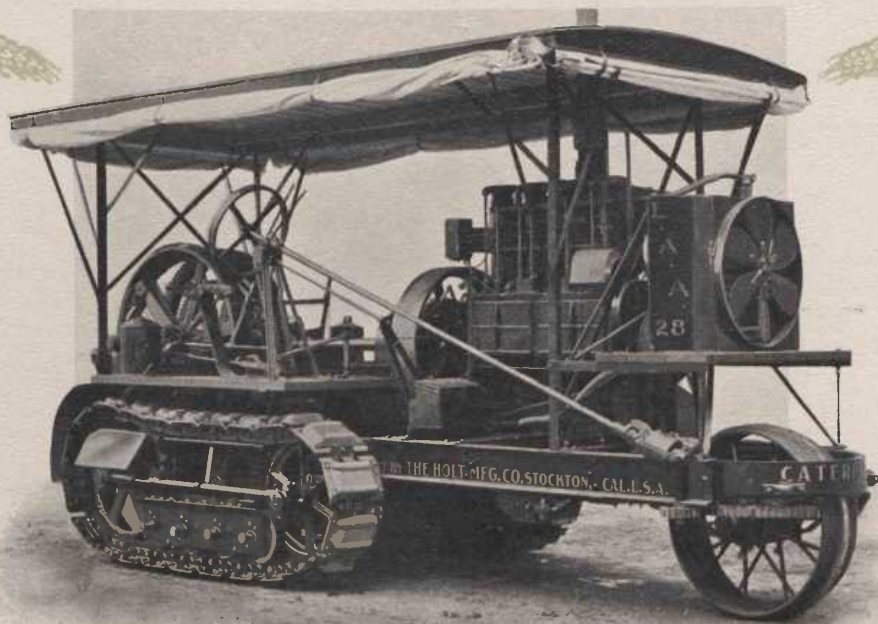
Multiple Disc, giving easy but positive engagement.

DRIVE—

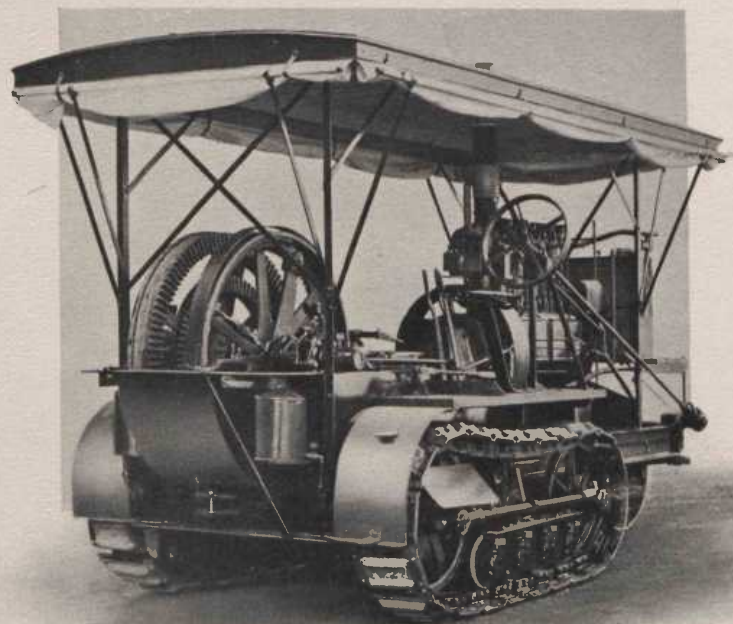
Shaft with Bevel Gears to Counter Shaft. Double Chain to Caterpillar Wheels. Drive to each Caterpillar Wheel governed by Positive Frictions allowing entire machine to be driven by one Caterpillar Wheel if necessary.

SPEEDS—

2 Forward and 1 Reverse. All speeds on Direct Drive. No Reduction gears in mesh on any speed.



Front View Showing Steering Gear and Front Wheel



Rear View Showing Driving Mechanism



## CATERPILLAR WHEELS

Four Steel Truck Wheels on each side carry the weight of the Engine. Truck Wheels turn on case hardened machined Steel Gudgeons, designed so they may be kept free from dirt and easily lubricated.

### TRACK—

The Track is built up of  $\frac{5}{8} \times 3\frac{1}{2}$ -inch, 50 Carbon Steel Plates. The Joints are formed by Case Hardened Pins turning in Sleeves of Malleable Iron Bushed with Hardened Steel.

### TRACK PLATES AND SHOES—

Track Plates are of drop forged steel and designed to prevent all dirt and dust from entering bearing. Track Shoes are Drop Forged Plow Steel shaped to give a firm grip on road surface, without damaging it in any way.

## FRAME

### MAIN FRAME—

8 Inch "I" Beams thoroughly braced and trussed.

### SPRINGS—

Weight of Caterpillar carried on Double Coil Springs, relieving entire mechanism of practically all road vibration.

### FRONT WHEEL—

Heavy Round Spoke. Spring Mounted.

### STEERING GEAR—

Worm and Complete Gear. Irreversible.

## TANK CAPACITIES

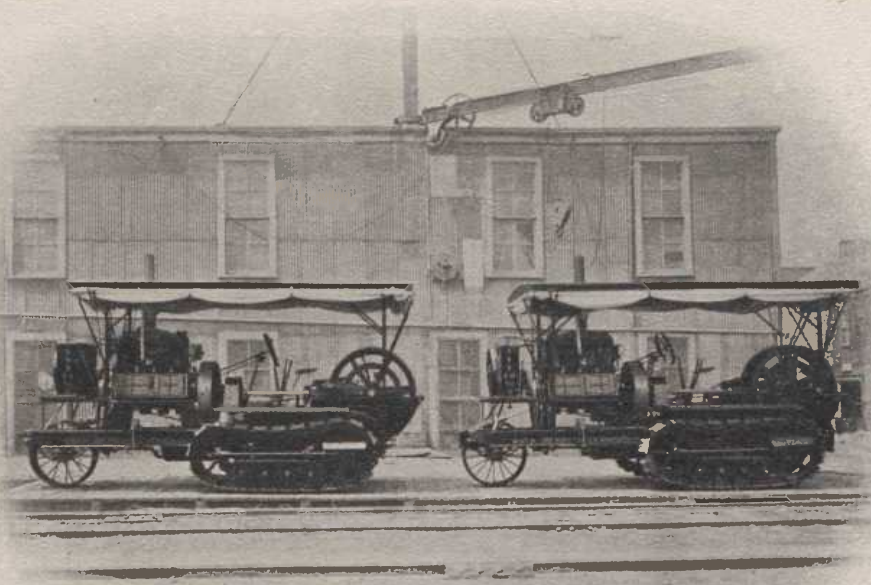
Fuel Tank, 70 Gallons. Water Tank, 56 Gallons.

## PRINCIPAL DIMENSIONS

Height over all.....	11 Feet	1 Inch
Length over all.....	18 Feet	7 Inches
Width over all.....	7 Feet	
Tread.....		82 Inches

## WEIGHT

Weight fully equipped, 16,800 lbs.

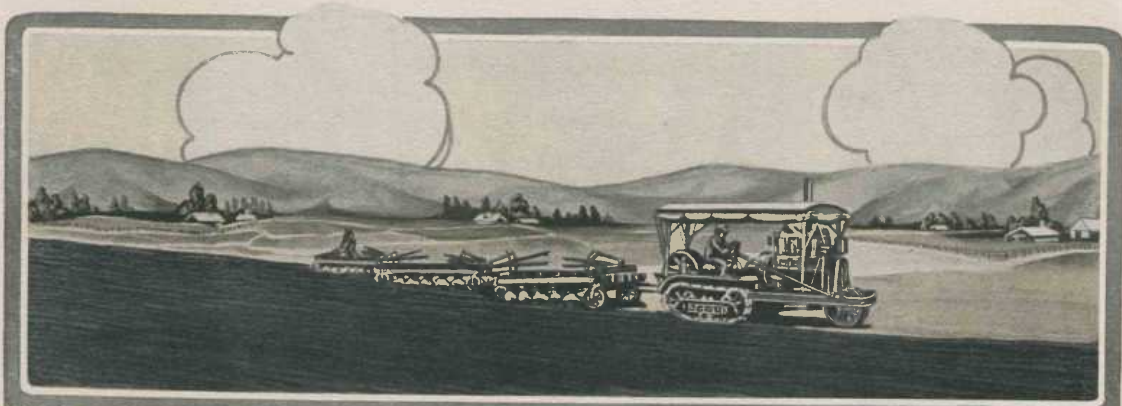


Two Caterpillars loaded for shipment to the Sacramento Valley Sugar Co.  
Hamilton City, California



A train of 19 Wagons ready for shipment to the City of Los Angeles, California





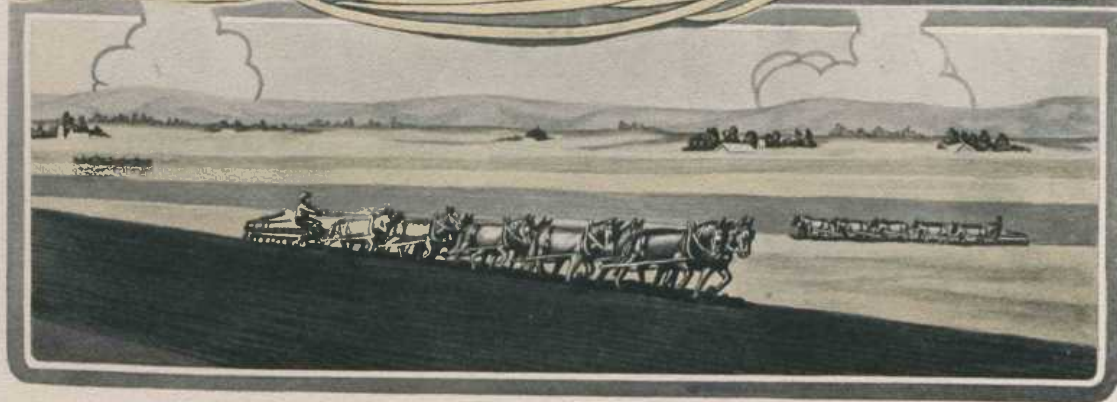
**S**UCCESS in Plowing is not wholly a matter of turning furrows in the proper manner. It is also essential that the work be done speedily and at low cost.

The Caterpillar has set a new standard in efficiency and economy in Plowing. It has reduced the cost materially and is doing the work better than is possible by any other method.

The Caterpillar will do your Plowing when the ground is in the proper condition; in the wet weather, when the ground is soft, or in the dry weather when the ground is hard. It needs no special conditions. It will work 24 hours a day. It never tires but always moves along with the same regularity.

The cost of operating the Caterpillar is low. The average fuel consumption is 35 gallons per day. A gallon of lubricating oil will last the same length of time, and best of all, it is an expense only when in operation.

IT COSTS NOTHING WHEN IDLE.





Tagus Ranch Co.,  
Tulare, California

Alpaugh, Cal.,  
July, 19, 1910.

Gentlemen:

I am in receipt of yours of the 12th inst.

Referring to The Holt Caterpillar Engine, will say that in my opinion it is the greatest production of the farming age. I am operating one on general farming work and it has filled every expectation. At the present time, I am plowing dry tule land, covered with a five-year growth of tules that stand in a solid mat 10 feet high, and turning them under 10 inches deep, in a manner I challenge any tool on earth to equal.

My engine has been in use sixty days, hauling on road and plowing. I use 40 gallons of distillate per day of 12 hours. Repairs, I have not required any. You can figure that an engineer and helper, with 40 gallons of distillate and sufficient lubricating oil, will take the place of 35 good mules and as much expense as it takes to run them, saying nothing of the freedom of labor troubles.

Yours very truly,  
W. H. WILBUR.

The Holt Mfg. Co.,  
Stockton, California

Grafton, Cal.,  
August, 2, 1910.

Gentlemen:

It has been three weeks now since the delivery of my Holt Caterpillar Engine. I have been using the engine on some very rough tule ground, mashing down the tules and smoothing up the ground. The engine has been doing very satisfactory work and I am more than pleased with it.

I expect to have the engine plowing within the next two weeks, and there is no question in my mind but that the engine will continue to do very satisfactory work. At the present time, the engine is doing the work of 40 head of horses.

Yours very truly,  
YOLO RANCH CO.  
Per. H. C. HINCHLEY.





Caterpillar owned by W. H. Wilbur, Alpaugh, California,  
Breaking Tule Jungle



No other  
Power, Horses  
or Engine, can  
traverse this mass.  
The Caterpillar not only  
does this, but also pulls a Roller and 10 Disc Plows, plowing 10 Inches Deep



The Holt Mfg. Co.,  
Stockton, California

Farmington, Cal.,  
August 29, 1910

Gentlemen:

We have one of your Gasoline Caterpillar Traction Engines, 45 horse power, which we have been using for plowing, harvesting and hauling grain.

We plowed 24 acres per day, with a fuel consumption of 4 gallons per hour, plowing 6 inches deep and 110 inches wide. This plowing cost us 45 cents per acre.

The Caterpillar Engine has given us excellent satisfaction and we find that we can do our farm work for one-half the expense of what it formerly cost us to do our work with horses.

After a season's work, the engine is as good as new. We are very well pleased with our investment.

Yours very truly,

WILLIAMSON BROS.

The Holt Mfg. Co.,  
Stockton, California

King City, Cal.,  
February 7, 1910

Gentlemen:

We are in receipt of your favor inquiring in regard to our Traction Engine. Will say in reply that we are pulling 8 ft. of plows at present, in about the worst gumbo soil I have ever seen. In other soil, which is somewhat lighter we pulled 10 ft. of plows. We also pull 20 ft. of drills with harrows behind them, over plowed land, which we consider a feat that no other type of traction engine could do, except the Caterpillar. The depth of plowing has been an average of 5 inches. We use about 40 gallons of distillate per day of 12 hours.

Thanking you for past favors and wishing you much success we remain,

Yours very truly,

WALKER BROS.



Caterpillar pulling 160 inches of Plows.  
E. A. Brim, Williams, California



Breaking Virgin Sod. Eight, 14 Inch Furrows 8 inches deep.  
S. A. Wright, Dunkirk, Montana



The Holt Mfg. Co.,  
Stockton, California

Suisun, Cal.,  
August 10, 1910

Gentlemen:

The Caterpillar has been in continuous use since its arrival, about July 8th, pulling two 20-inch plows, to a depth of 11 inches. The fuel consumption has been small averaging about 30 gallons a day.

Our land on Grizzly Island is a mixture of peat and sediment, having been used as a pasture since it was reclaimed nearly 40 years ago. There is a growth of very tough salt grass sod, and when dry, the horses can not pull the plows; when wet, the horses will mire down. This land has never been plowed before, because it was not practical and economical to plow with horses.

The only type of traction engine that can be used on our land is the Caterpillar, and our Caterpillar is certainly doing this work well and economically. The Caterpillar has proven very satisfactory to us and is deserving of a great deal of credit.

Respectfully,

BERT A. CHAPLIN.  
F. N. CHAPLIN.

Le Grand, California.

Drove Caterpillar from Stockton to Le Grand, a distance of 68 miles, over regular county roads, without any trouble whatever. Am now plowing night and day. Engine giving excellent satisfaction.

W. M. MAZE.

The Holt Mfg. Co.,  
Stockton, California

Madera, Cal.,  
January 23, 1910

Gentlemen:

In regard to the Holt Gasoline Caterpillar Traction Engine, will say that I am doing my plowing for one-half of what it has cost me previously in doing this work with mules.

Yours truly,

J. L. FREEMAN.



In Virgin Soil, pastured since reclaiming. Pulling 2, 24 inch Plows, at a depth of 12 inches

Turning Salt Grass Sod on Grizzly Island. Caterpillar and Haines Special Plow owned by F. N. & Bert R. Chaplain, Suisun, California





The Holt Mfg. Co.,  
Stockton, California

Le Grand, Cal.,  
January 30, 1910

Gentlemen:

In reply to your favor of a few days ago, inquiring how we are making it with the Caterpillar Traction Engine.

On account of green men, bad weather and the time spent in trying out different plows, we have not, up to date, run the engine steadily, except a few days of ten hours at a time, when we plowed, sowed and harrowed about 30 acres per day. We are using about 35 gallons of distillate in a ten hours' run.

Comparing it with mules, will say that the engine has so much in its favor that if we had to farm with mules, we would cut farming out.

Thanking you for the interest you have taken in this tractor since we have had it, we are,

Yours very truly,

CUNNINGHAM CORPORATION.

The Holt Mfg. Co.,  
Stockton, California

Holly, Colo.,  
August 31, 1910

Gentlemen:

In March of 1910, we bought one of your Caterpillar Engines for general farm use. The repairs on this engine have been light so far, but we have not used it a sufficient length of time to state positively what the result would be from an economic standpoint.

We were, however, impressed to such an extent that we have ordered and just received two more of the engines. We are inclined to think that the Caterpillar Engine will revolutionize farming.

Yours very truly,

THE HOLLY SUGAR CO.



Plowing 30 Acres per  
day. Cunningham Corporation,  
LeGrand, California



Putting Land in condition for  
Sugar Beets. Holly Sugar Co.,  
Holly, Colorado



The Holt Mfg. Co.,  
Stockton, California

Oxnard, Cal.,  
February 1, 1910

Gentlemen :

After using one of your Gasoline Caterpillar Plowing Outfits for the last three weeks, I want to say that it has given entire satisfaction in every respect. I can plow, harrow and pulverize my land for one-half what it would cost me using horses.

At this time I can not suggest any improvements in the construction of your engine, and to show you that I mean what I say, I wish to place with you my order for a similar engine to the one I recently bought from you, providing you can make delivery at a time satisfactory to me. Will ask you to kindly advise me as to the time you can make delivery of this engine.

With very best wishes, I remain,

Yours truly,

J. BORCHARD

Maxwell, Cal.  
Building a canal with Caterpillar and Eric Scraper for the Sacramento Valley Irrigation. The greatest power for this work.

HARBINSON & KITCHEN.

The Holt Mfg. Co.,  
Stockton, California

Camarillo, Cal.,  
August 16, 1910

Gentlemen :

The Caterpillar engine I purchased last November is a success, and does the work we bought it for better than we expected.

We plowed four hundred acres dry, a depth of from 10 to 12 inches. Plowed about ten or eleven acres a day, working about eight hours a day, at a cost of not over fifteen dollars per day, which included three dollars charged to depreciation.

Yours very truly,

Wm. A. ARNEILL

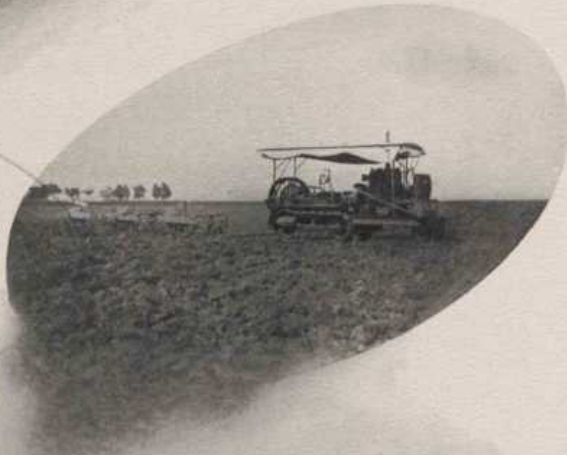




Caterpillar



Pulling 12, 14 inch Plows.  
Columbia View Farm,  
Trinidad, Washington



R. L. McCabe Plowing  
Outfit at Byron,  
California



Plowing a strip 12 feet wide.  
Replacing 30 horses



The Holt Mfg. Co.,  
Stockton, California

Floribel Ranch, Hardwick, Cal.,  
July 30, 1910

Gentlemen :

I have been operating one of your 1910 Caterpillar Engines on my ranch in Kings county, Cal., since last January. The breaking up of new sod, by means of the engine and Haines-Houser Disc Plows, has been very successful.

The following is a copy of the books for a 35-hour run, as an example of what the engine costs me to operate.

135 Gallons Distillate .....	\$13.50
2 Gallons Cylinder Oil.....	.90
Crude Oil and Miscellaneous.....	3.40
Labor .....	15.75

In the above mentioned time, 65 acres were plowed, at a cost of about 52 cents per acre.

Very respectfully yours,  
CERF ROSENTHAL.

The Holt Mfg. Co.  
Stockton, California

Los Angeles, Cal.,  
September 23, 1910

Gentlemen :

Herewith I beg to hand you my check No. 8724 for \$2,650, to cover balance due as per your invoice of August 25th, for payment on Gasoline Caterpillar Traction Engine.

I desire to tell you that this engine is giving me the most perfect satisfaction in plowing on my Ranch near Angiola, Cal., and in every way far exceeds the representations made by your agent, Mr. Hadley, as to what it would do when I ordered it. We are now plowing, both day and night shifts, pulling thirteen big disc plows and it does not seem to be any load for the engine at all; the depth of furrow runs from 6 to 8 inches. The engine is simple, easily handled and controlled, and I think I have solved the plowing situation on my ranch, where a large acreage must be turned over in the shortest time possible, and where the soil is very soft from overflow water and irrigation. You are at liberty to quote me in the strongest terms as to the general efficiency of this engine and the satisfactory manner in which it does its work.

Kindly receipt invoices attached and return to my office.

Yours truly,  
C. A. CANFIELD



Caterpillar and Haines-Houser Disc Plows,  
owned by  
Cefr Rosenthal,  
Hardwick, California



Cultivating  
Land for Beans.  
Frank Barnard,  
Sawtelle, California



One of the Four Plowing Outfits  
owned by the American Beet Sugar Company



Pendleton, Oregon,

June 18, 1910

Mr. A. S. Bennett,  
The Dalles, Oregon

My Dear Mr. Bennett:

Yours of the 15th inst. at hand, and in reply will say that I have been using The Holt Caterpillar Engine for some time, and I deem it practical and it is certainly a success.

I used it in plowing 960 acres this spring, and the actual cost per acre was 47 cents. We made an average of 30 acres per day with the starting which always draws back some.

We ploughed as high as 35 acres some days, and used (9) nine (14) fourteen inch plows (but it could have pulled (12) twelve plows as well). Ploughed to the depth of 8 to 9 inches.

We also made a test on rolling land, and found it very satisfactory in every way. Everything was always in favor of the engine, and I am well pleased in the way it works in general. I expect to use it in pulling my Harvester when cutting my 960 acres of wheat.

I find that the Engine far exceeds every representation made by Mr. Ben C. Holt to me, and I can not recommend this Engine any too highly. For further information I am at your service.

Yours very truly,

DAVID H. NELSON.

The Holt Mfg. Co.,  
Spokane, Washington

Dunkirk, Mont.,

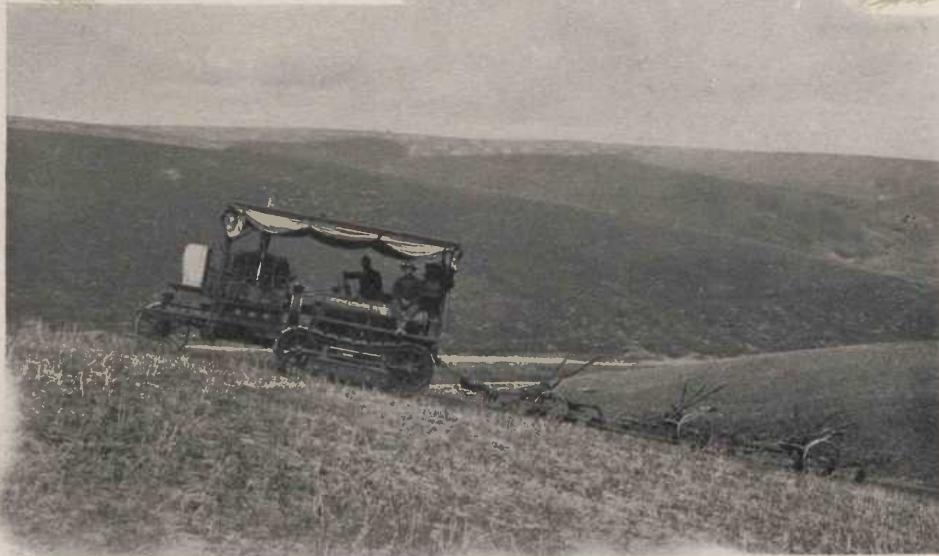
August 22, 1910

Gentlemen:

I consider the Caterpillar Engine superior to any make of Engine I have seen operating in Montana, and I have seen them all.

Yours very truly,

S. A. WRIGHT.



The Caterpillar does wonderful work in the hills



Caterpillar Plowing  
Outfit of  
David H. Nelson,  
Pendleton, Oregon



San Francisco, Cal.,

August 8, 1910

The Holt Mfg. Co.,  
Stockton, California

Gentlemen:

We take pleasure in advising you that we have operated one of your Gasoline Caterpillar Traction Engines for the past year, most successfully. It is an ideal machine to plow with on soft peat land, especially on land which has been badly cracked, and on soft damp land where it would be impossible to use horses. We have been plowing damp land where the water followed the furrow.

The average operating expenses per day of ten hours are as follows:

Labor.....	\$ 5.50
Fuel.....	3.50
Lubricating Oils.....	.50
Repairs and Maintenance.....	1.50
	<u>\$11.00</u>

Our Caterpillar has been used to plow and disc the toughest kind of virgin and buckskin peat. In this plowing we are required to cross numerous partially graded small sloughs. We are using one Haines-Houser three gang 14 inch plows, plowing to an average depth of 6 inches. In a ten hour day, we plowed on an average of 12 acres, making our total cost per acre about 91 cents. Our cost of plowing this land with horses was around \$2.50, and we suffered a number of losses by horses stepping into cracks and badly injuring their legs. In discing this same land, we pulled 30 feet of disc harrows, at the rate of 2½ miles per hour, which is equal to 9 acres per hour. Our cost of discing is 12 cents per acre.

In conclusion, will say that I consider The Holt Caterpillar Traction Engine the most scientific machine of its kind on the market to-day, suitable for all classes of work, cheap and simple to operate, and an engine which develops all the horse power guaranteed. We consider it indispensable to us in our present and future work of breaking up some 6,000 acres of virgin soil. We expect continued success with the Caterpillar this fall, in handling our next year's crop on the old land.

Wishing your company every success, we remain,

Yours very truly,

SONOMA LAND CO.

W. P. Henry, Secretary.

Williams, Cal.

Dragging 60 feet of heavy iron harrows. No work at all for Caterpillar. Engine giving excellent satisfaction.

J. S. GIBSON.



Breaking reclaimed Swamp Land

Plowing Wire Grass Sod.  
 The Sonoma Land Company  
 of San Francisco now own  
 and operate 2 Caterpillar  
 Plowing Outfits





Rio Vista, Cal.,

August 13, 1910

The Holt Mfg. Co.,  
Stockton, California

Gentlemen:

In devising a machine which multiplies the work of a day, you give the farmer an opportunity to simplify his labor and lower the cost of production.

I have purchased one of your recent inventions, the "Caterpillar," and for the space of two months have experimented with it, with the result that I find it upon the whole, satisfactory.

I conclude that while it is adapted to many kinds of service, its special function is to simplify the age-long task of plowing, by cheapening it, and yet improving it. In the Caterpillar we have an almost incredible development and application of power.

To perform the work of forty horses, viz.: to draw 14 feet of plows, 7 inches deep, with the complement of harrows attached, with a machine weighing less than 9 tons, indicates a change in agriculture as great, if not greater, than that produced by the steam harvester.

My experience does not cover a sufficient length of time to enable me to speak critically about its durability, but thus far, the severest tests made by *inexperienced* operators have not revealed any weakness of construction.

I have plowed and harrowed delta lands, which, when uncovered, would not sustain the weight of a horse; under such conditions, the fuel expense was less than 40 cents per hour.

Finally, the practical efficiency of any machine depends much on the care bestowed on details and preparation for its work.

I have no hesitation in saying, that you have done for the farmer in the field of mechanics, what the College has done for him in the great field of Agricultural Chemistry.

Yours truly,  
PETER COOK.

Arbuckle, Calif.

Pulling 42 feet of Gorham Seeders with Caterpillar, over very rough summer-fallow. Would take 30 head of good mules to do the same work.

THOS. B. WOHLFROM.





Columbia Agricultural  
Company,  
Clatskanie, Oregon.  
Plowing reclaimed  
Marsh Land



The Caterpillar  
moves steadily over  
land that looks even  
dangerous to walk on



Condon, Oregon,

The Holt Mfg. Co.,  
Walla Walla, Washington

April 3, 1910

Gentlemen :

We are running night and day with our outfit. I have two good men now. We are handling 12 plows, 14-inch, and a Dunham 15-foot soil packer. We are plowing for spring seeding only, and when we start summer fallowing, we will cut off two plows, and plow a little deeper. We are plowing about 4 inches now.

Yours very truly,

E. C. ROGERS.

Medford, Ore.,

The Holt Mfg. Co.,  
Stockton, California

August 13, 1910

Gentlemen :

Replying to yours of August 5th, regarding Gasoline Caterpillar Traction Engine, which we have had in service for the past six months, will state that this engine is doing very good work. We have been using it for pulling stumps and brush and clearing land, also to pull road grader, and in fact for all traction purposes.

We find this a very powerful engine and has given us very good service.

Yours very truly,

FRANK H. RAY.



Caterpillar Plowing  
 Outfit owned by  
 Mr. E. C. Rogers,  
 Condon, Oregon



Pulling 14 Feet of Plows and  
 a 15 Foot Soil Packer



The Holt Mfg. Co.,  
Stockton, California

Los Angeles, Cal.,  
March 31, 1910.

Gentlemen:

I am farming to beans, two ranches of about 700 acres each. On one I work 30 head of horses. The soil is light and easy to work. On the other, I work your Caterpillar Engine and hire horses to do the light work. This latter expense will be cut out next season, when we will have the proper engine farm tools. The soil on this ranch is mostly heavy.

I have just written up my books for the two ranches, which I keep separate, and have the expense accounts of the two ranches, which I thought might interest you.

NOVEMBER 1, 1909, to MARCH 1, 1910.

ENGINE--

Depth of plowing, 10 to 12 inches.  
Hours, 1,760.  
Fuel--Lights, Oils and Distillates..... \$ 369.76  
Labor ..... 602.25  
Repairs ..... 14.00  
Horse Hire and Labor..... 1,100.00 \$2,086.01

HORSES--

Depth of plowing, 4 to 6 inches.  
Hours, 900.  
Feed--Hay, \$12.50 per ton ..... \$ 936.00  
Grain, \$1.60 ..... 720.00  
Labor ..... 1,100.00  
Repairs--Harness..... 65.00 \$2,821.00

We run the engine day and night, weather permitting, but since March 1st, having our work in hand, we overhauled the engine at an expense of \$375, which puts her in first-class shape for another season's run, as we will have only two weeks more work for her. We will then run her under the shed and discharge the engineers, as it will not take but eight head of horses to plant and cultivate until the beans are ready to harvest next season. While on the other ranch, we will have 22 extra horses to feed, at about \$6 per head, until October 1st.

Thanking you for past favors, I am,

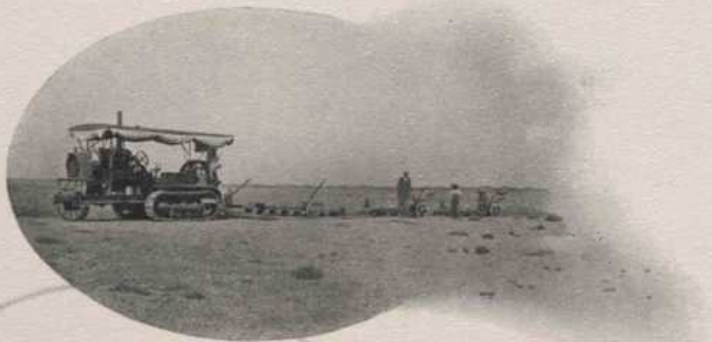
Yours very truly,

F. E. BARNARD.

Pulling 60 feet of harrows on the high speed.  
per day.

Grimes, Cal.  
Harrow quarter section

CHAS. J. FROH.



Plowing Outfit of  
Iowa Land and Water Company,  
Alpaugh, California



Pulling 14 feet of Plows  
with Harrows

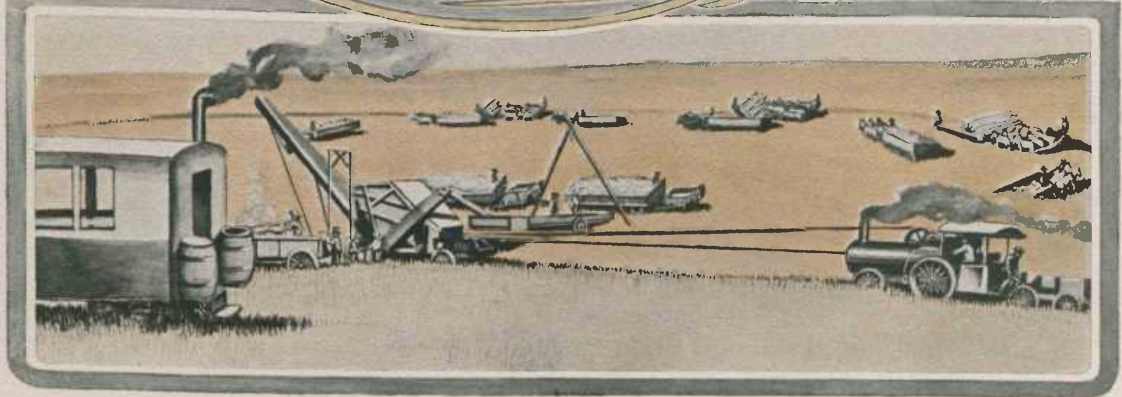






**A**S EVIDENCE OF REAL WORTH of the Caterpillar in the Harvest Field, in the following pages we are pleased to present the opinion of users. Accompanying these opinions are shown photographs of many different machines in operation.

The value of the Caterpillar in the harvest field can not be over-estimated. The Harvest season is a time when every moment counts and much must be done in a short period. Herein is where the Caterpillar has the greatest advantage. It takes but one man to operate it, freeing you from possible labor troubles. Its speed, a bit faster than ordinary horse travel, with its ability to keep continuously moving, allows an immense acreage to be cut each day. Its steady even power affording threshing and cleaning to be done with less possibility of waste than any other method, together with its low cost of operation, makes it an ideal power for a harvester.





Thornton, Cal.,

August 17, 1910

The Holt Mfg. Co.,  
Stockton, California.

Gentlemen:

Our Caterpillar Engine, No. 1004, which we purchased from you the first part of December, 1908, has just finished its second season of harvesting 1,500 acres, on our land at Thornton.

Since purchasing the Caterpillar, we have plowed and harvested for two seasons, 1,500 acres each season, making a total of 3,000 acres. During this time, the total amount spent for repairs has been \$425.96. The cost of repairs per acre is, therefore, about 7 cents. The original Caterpillar track is still on the engine and is in good condition.

The engine is very economical and is doing our work for less than one-half of what it would cost us to do the same work if we used horses or mules.

Yours very truly,

HICKEY & LAMB,

Per J. J. Hickey.

Buttonwillow, Cal.,

August 23, 1910

The Holt Mfg. Co.,  
Stockton, California.

Gentlemen:

In reply to your letter of July 27th, we have had our Caterpillar Engine in use about five weeks, harvesting. It is giving very good satisfaction, and the best testimonial that we can give, is the fact that we have ordered another engine, which we received to-day.

Yours truly,

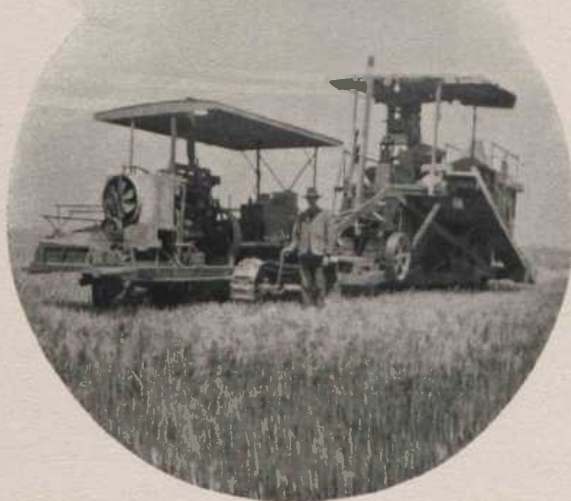
MILLER & LUX, INC.,

Per James Ogden, Superintendent.





The Caterpillar gives  
the steady motion  
required to handle  
down grain



Caterpillar and  
24 foot  
Combined Harvester



The Holt Mfg. Co.,  
Stockton, California.

Merced, Cal.,  
August 8, 1910

Gentlemen:

I have just finished harvesting 1,800 acres of grain with the Caterpillar Engine I bought of you, and it is a grand success. The expense of running it is very small, as it required an average of only 30 gallons of distillate and  $\frac{1}{2}$  gallon of lubricating oil per day. It gives very steady motion and is much less expense than a team.

Yours truly,  
A. P. TYCHSEN.

The Holt Mfg. Co.,  
Walla Walla, Wash.

Pendleton, Oregon,  
July 24, 1910

Gentlemen:

Thinking perhaps you would be pleased to learn how the Caterpillar Engines are hauling Combined Harvesters in Umatilla County, I take pleasure in advising you that we now have three of these engines at work in the harvest fields near Pendleton, Ore.

One of these engines, owned by Mr. D. H. Nelson, is pulling a 14-foot Holt Holley Harvester, and is traveling on an average of 25 miles a day, and is doing as fine work as I ever saw done with any machine.

Mr. P. B. Hoisington is working near Adams and is pulling a 16-foot Holt Harvester in wheat that is yielding between 50 and 60 bushels per acre, and is cutting about 45 acres a day. He has no trouble at all handling this grain and is saving it all.

Hamilton & Crow are harvesting on the Indian Reservation, near Pendleton, with a 20-foot Holt Regular Combined Harvester in barley that is yielding 70 bushels per acre. The Caterpillar handles this machine with ease, and travels about 25 miles a day, threshing about 4,000 bushels per day.

I consider that the Caterpillar is going to reduce the cost of raising wheat in the Northwest, fully 25 per cent from the cost at the present time.

Yours truly,  
E. L. SMITH.



Harvesting Outfit  
of S. H. Edwards,  
Condon, Oregon



Caterpillar and 18 foot regular side hill Harvester  
owned by John Caspar, Walla Walla, Washington



The Holt Mfg. Co.,  
Walla Walla, Wash.

Pendleton, Oregon,  
August 11, 1910

Gentlemen:

I am very busy at present, but will take a minute's time to tell you that I am well pleased with the Caterpillar Engine and Holley Combined Harvester. The cutting season has been short on account of so many machines, but I have had a splendid run. On Mr. Jerry Stone's farm, we cut eighty acres in one and three-quarter days with a sixteen-foot Holley. I think more of my Caterpillar every day.

Thanking you for past favors, I am,

Yours truly,

P. B. HOISINGTON.

The Holt Mfg. Co.,  
Stockton, California.

Imperial, Cal.,  
August 2, 1910

Gentlemen:

We have used your Gasoline Caterpillar Traction Engine to draw our Combined Harvester, and are perfectly satisfied with it in every way. The power is exactly what we want, and the cost per day is not great, there being an expenditure of five dollars per day for oil and fuel, and an average of one dollar per day for up-keep.

Respectfully,

LYALL BROS.

The Holt Mfg. Co.,  
Stockton, California.

Byron, Cal.,  
Sept. 2, 1910

Gentlemen:

The Holt Caterpillar Engine gives me good satisfaction, both for plowing and harvesting. I can easily pull my 16-ft. cut Holt Combined Harvester, making a larger acreage average, both plowing and harvesting, than I can with 30 head of horses.

I made a great saving when I sold my horses and bought a Caterpillar.

Yours very truly,

ROY L. McCABE.



Caterpillar and Harvester  
owned by E. C. Rogers, Condon, Oregon



Caterpillar and 16-foot Harvester of R. L. McCabe,  
Byron, California



The Holt Mfg. Co.,  
Stockton, California.

Woodland, Cal.,  
August 1, 1910

Gentlemen:

In reply to yours of July 27th.

I have been using the Caterpillar 48 days harvesting and it has given me the best of service. I have only lost one day on account of the engine. The consumption of fuel is about 30 gallons of distillate per day. The up-keep cost has been remarkably low, as I have spent only \$7.50 in repairs. The cost of harvesting per acre with the Caterpillar is less than 95 cents per acre.

The Caterpillar is worth two harvesting teams in the field.

Respectfully yours,

GEO. D. ZIMMERMAN.

The Holt Mfg. Co.,  
Stockton, California.

Angiola, Cal.,  
September 15, 1910

Gentlemen:

We are very much pleased with our Caterpillar Engine. During Harvest season this year we pulled a 20 foot Harvester for 55 days, without any loss of time whatever on the part of the Engine. We used 4 gallons of distillate per hour.

Since that time we have been pulling 10 Haines-Houser Disc Plows in dry, hard ground. We have now plowed 700 acres, and are pleased to say that both the Plows and Caterpillar are giving entire satisfaction.

Yours truly,

LESTER BROS.,

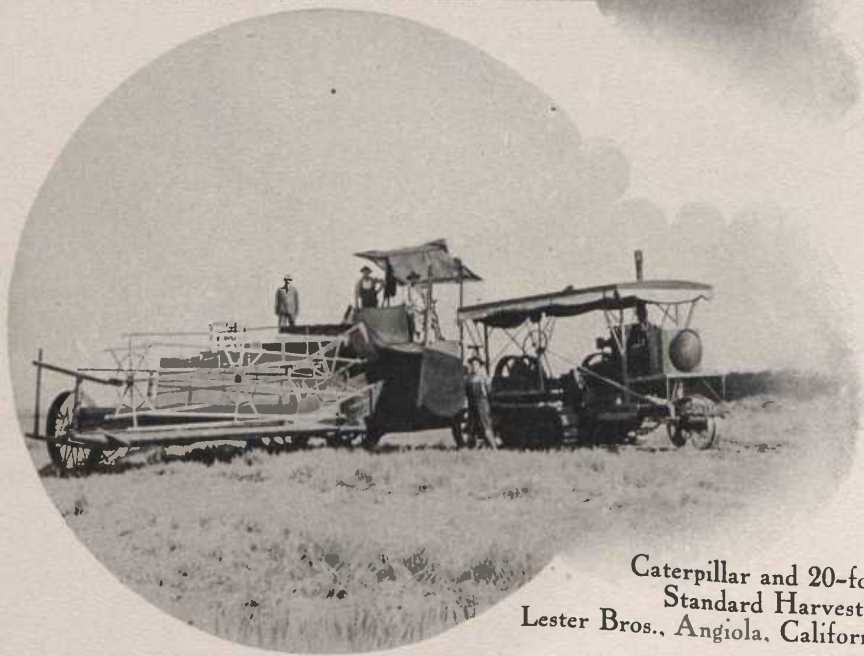
By J. L. Lester.



A fine crop and the best way  
to handle it.  
Geo. D. Zimmerman,  
Woodland, California



Caterpillar and 20-  
foot Regular Side  
Hill, owned by  
John Crow,  
Pendleton, Oregon



Caterpillar and 20-foot  
Standard Harvester,  
Lester Bros., Angiola, California



The Holt Mfg. Co.,  
Spokane, Wash.

Ralston, Wash.,  
September 16, 1910

Gentlemen:

I am well satisfied with the Caterpillar and the way it handled my Combined Harvester. I was afraid it would not go up some of the short, steep hills I had to cut, but it walked right up them, and Mr. Holt has certainly got the speed on them alright for running a Combined.

We harvested 880 acres in 27½ working days, without any lost time, which I consider pretty good, as we had some very weedy grain.

Yours truly,

OTIS LEONARD.

The Holt Mfg. Co.,  
Stockton, California

Calexico, Cal.,  
August 13, 1910

Gentlemen:

In regard to the engine, will say that it has proved to be all that we expected, and the up-keep and fuel costs, have been much less than a person could reasonably expect, when all things are considered.

We have made no big runs, but can not blame that to anything wrong, either with the engine or separator, but rather to the fact that we are working over newly bordered land and the grain was very weedy.

We believe the engine will handle a thirty-two horse load any place stock can take it, with a fuel consumption of four gallons of distillate per hour, and a gallon of cylinder oil per day.

We have run eighty days and our extra expense, including what it will cost to put it in first class condition, will not be over one dollar per day.

Wishing you further success, we remain,

Yours very truly,

JEROME & COOK.





Caterpillar and Harvester owned by Otis Leonard,  
Ritzville, Washington



Caterpillar Harvesting Outfit, David H. Nelson,  
Pendleton, Oregon



The Holt Mfg. Co.,  
Stockton, California.

Williams, Cal.,  
August 3, 1910

Gentlemen:

I have just finished a fifty day run with your Gasoline Caterpillar Traction Engine, and found it a success from the start to the finish.

This run was made on an average of 33 gallons of distillate per day, at a cost of \$3.38, and 35 cents for standard gas engine oil. Repairs amounted to \$7.50 for the season.

I plowed 300 acres in nine and one-half days, at a cost of \$110.00, or 36 $\frac{2}{3}$  cents per acre. The plowing done by the engine was re-plowing summer fallow, pulling sixteen 10-inch plows, or 160 inches, from 4 to 5 inches deep. The rest of the time the engine pulled an 18-foot Standard Haines-Houser Combined Harvester. We averaged about 40 acres per day, and our largest run for one day's work was 1,126 sacks. The cost of harvesting per acre was 65 cents.

From the success I have had, I feel that I can heartily recommend the Caterpillar to any one who is in the field to purchase one.

Yours very truly,

E. A. BRIM.

Mr. A. S. Newland,  
Ritzville, Wash.

Pendleton, Ore.,  
September 3, 1910

Dear Sir:

Crow & Hamilton with an engine like mine, cut 1400 acres with a 20-foot machine, but on level ground. On different days they cut over 65 acres in 50 bushel wheat. One day they harvested 75 acres running out over 1300 sacks. My biggest day's work was 45 acres on bad ground.

Yours very truly,

EDGAR W. SMITH.



Caterpillar

E. A. Brim, of Williams, California,  
cut, threshed and sacked 1126 sacks  
of barley in one day



Caterpillar and Harvester  
owned by  
C. A. Canfield,  
Angiola, California



N. P. Truchot  
harvested a section  
in 14 days, averaging 46 acres per day



The Holt Mfg. Co.,  
Walla Walla, Wash.

Blalock, Oregon,  
August 11, 1910

Gentlemen:

In regard to the Caterpillar Engine we purchased of you March 21, 1910, will say that we started plowing April 1st, and plowed about 1,900 acres. We pulled from 10 to 14, 14-inch plows and plowed from 6 to 7 inches deep, averaging 35 acres per day, and with a night shift, 65 acres. We find that the engine draws a good load up hill, and slides very little on a steep hillside. The cost for plowing our land was 75 cents per acre with the Caterpillar, and with horses it cost 90 cents per acre.

We have been harvesting 20 days with the Caterpillar, and 16-foot Holt Holley Harvester. We are making good progress with the outfit, and find it to be a most complete harvesting outfit. We are harvesting 30 acres per day, at a cost of \$1.10 per acre for labor, fuel and lubricating oils.

We expect to get a large benefit from the use of your engine, from the fact that we can do our plowing in the proper season, much earlier than if we depended on horses. By doing our plowing early, we retain all of the moisture, which we would lose if we depended on horses; consequently, we can do a much higher class of farming.

Yours respectfully,

S. T. BUNCH & SONS.

The Holt Mfg. Co.,  
Spokane, Wash.

Dunkirk, Montana,  
September 28, 1910

Gentlemen:

Everything is going along nicely. The engine is running perfectly.

W. W. REID.



Caterpillar and Harvester owned by S. T. Bunch & Sons,  
Blalock, Oregon



Caterpillar and Harvester of J. M. Hart, Brawley, California



Extract from Third Annual Report of the Bureau of  
the "Los Angeles Aqueduct," Nov. 30, 1908.

"In the effort to reduce the cost of wagon haul below that of ordinary team transportation, trials have been made of traction engines of various design. It was found that the familiar types of engines with comparatively narrow wheel treads, were useless in the deep dust and sand of desert roads. A special type, however, called the "Caterpillar" or "Paddlewheel" Engine—so designated from the peculiar construction of its rear and propelling wheels—has been placed in service with good results.

This engine, instead of having the large hind wheel commonly known, carries its weight on five truck wheels which run on a track of plow steel, so protected that it is nearly impossible for sand to reach the bearings. The hind wheels are of the sprocket type and engage an endless belt of "shoes" or "platforms" which pass around the sprocket and center wheels, 78 inches distant, the latter acting as idlers. These platform wheels have the same tractive area as an ordinary round wheel, 54 feet in diameter.

While manufactured with either steam or gasoline power, the latter has been found best adapted for use on the "Aqueduct." The motor used is of the four cylinder, vertical, water cooled type, with 6-in. x 8-in. cylinders, developing 40 brake h. p. at 550 R. P. M. Distillate is used for fuel at a cost of less than 1 cent per h. p. per hour.

The capacity of these engines naturally varies with the grade. Loads of from 15 to 20 tons are possible on level roads. Specially built trucks capable of carrying from 6 to 10 tons are used. Compressors, transformers and other heavy machinery, weighing from 7 to 10 tons, are easily transported over grades of loose sand ranging from 12 to 20 per cent, and around the sharp curves of mountain roads. Ordinary wagon transportation of such loads under like conditions would be an impossibility.

Accurate cost data has been kept of the performance of these machines, together with team haul, for the purpose of comparison. Recent work in the Jawbone and Mojave sections shows an average ton mile cost of 20 cents for engine haul, against an average of from 40 cents to 50 cents for team transportation."



A Double-header  
crossing the desert

The city of Los Angeles is using 28  
complete Caterpillar Freighting Outfits  
in the construction of her gigantic aqueduct



Extract from Fourth Annual Report of the Bureau of  
the "Los Angeles Aqueduct," July 1, 1909.

"Wagon haulage from the railroad has been greatly facilitated by the employment of traction engines of the "Caterpillar" type, a style peculiarly adapted to desert conditions. With a capacity of from five to fifteen tons, depending on the grade, these engines make regular trips to the various camps at an average ton mile cost of 25 cents. It is interesting to compare this figure with the lowest bid received for this work, namely 80 cents per ton mile.

Ordinary wagon haul with teams is carried on in connection with the work of the traction engines, distributing the material to the tunnel portals, and conduit construction camps at an average cost of 50 cents per ton mile. Roads have been constructed to all necessary points on easy grades, affording ready access to the work.

The problem of transportation, which bid fair to be the chief obstacle to the successful prosecution of construction, has been successfully combated and solved by the varied methods employed; and while constant supervision is necessary, the economical haulage of materials is now an accomplished fact."

Hegsted Jenson Co.,  
Rexburg, Idaho.

Los Angeles, Cal.,  
January 22, 1910

Gentlemen:

In reply to yours of January 17th, will say that we have about twenty of the Holt Caterpillar Engines on our work, and find them well adapted to such work as we have; namely, heavy hauling over desert roads. We do not attempt to use them regularly on steep grades nor rough roads, although we have used them at times under such conditions, quite successfully.

Yours very truly,

J. B. LIPPINCOTT,  
Assistant Chief Engineer.





Hauling Crushed Rock  
on the Mojave Desert



Not a human being  
but the engineer and  
helper within miles



Freighting  
in Arizona



The Holt Mfg. Co.,  
Stockton, California

Oxnard, Cal.,  
August 4, 1910

Gentlemen:

You will be interested in the results we have obtained from the Caterpillar Traction Engine purchased from you in November, 1909.

During the plowing season we plowed from 12 to 14 acres a day, at a depth of from 9 to 12 inches, in land that contained considerable salt grass, and as a consequence difficult to plow.

The daily cost of the above work was as follows:

Engineer .....	\$5.00	
Plowman .....	2.50	
Distillate, 40 gallons at 9 cents per gallon .....	3.60	
Oils and Grease .....	.67	
Estimated Depreciation .....	3.00	\$14.77

From the above figures you will note that we are plowing at a little over \$1.00 per acre, which is about one-third of what it would cost to do the same work with horses or mules.

We recently tried out our Caterpillar Engine for pulling beets and it worked very satisfactorily. We pulled two two-row plows with the engine, thus doing the work of 28 horses and saving one man.

We have had constant use for our Caterpillar since its arrival. When we were not plowing, we have used the engine for hauling beans, beets and gravel. We recently hauled a lot of beans from El Rio to Hueneme, a distance of six miles. We made two trips per day, hauling 600 bags of beans per trip. A sack of lima beans will average 80½ pounds, which means that we were hauling a little over 24 tons to the trip.

In hauling beets, we used four wagons, each containing a little over five tons of beets. On our present haul of six miles, we are making three round trips per day of 14 hours, using three men, the third man making the last trip and putting the engine in condition for the first trip in the morning.

The cost per day for hauling beets is as follows:

Head Engineer .....	\$5.00	
Second Engineer .....	3.50	
Swamper .....	2.80	
Distillate, 55 gallons .....	4.67	
Oils and Grease .....	.75	
Wear and Tear on Outfit .....	3.00	\$19.72

As the engine hauls 20 tons per trip, or 60 tons per day, the cost is 32.8 cents per ton. We figure that the cost of hauling by team over the same road, is at least 80 cents per ton. Yours very truly,

THE AMERICAN BEET SUGAR CO.,

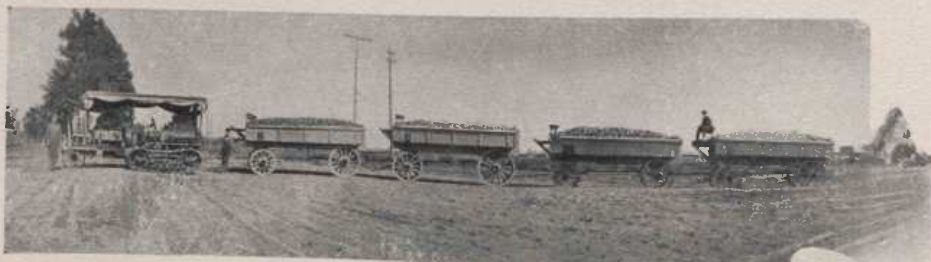
J. A. Driffill, Manager.



Caterpillar



A Gravel Train



Hauling Sugar Beets



A Load of Sugar

Three of the seven Caterpillar Outfits operated by the American Beet Sugar Company



Los Angeles, Cal.,

August 11, 1910

The Holt Mfg. Co.,  
Stockton, California.

Dear Sirs:

In reply to your letter of August 2d, addressed to Mr. W. L. Stewart, which has been handed us for reply, have to advise that our experience in using the Caterpillar Engines has been on the whole very satisfactory.

We find that the engine can be operated for about 75 per cent of the working days, the remaining 25 per cent being required for making of repairs and unfit weather conditions. Our experience has shown that the engines can haul either two 8-ton trucks or one 8-ton truck and one 15-ton truck, loaded to about 12 tons, at the rate of 15 miles per day, using 24 gallons of distillate, .02 gallon of lubricating oil and about 3 pounds of cup grease, making the cost per day in round figures \$11.00.

We purchased two of your engines the first day of October, and four additional ones the first day of November, and in averaging up the work, together with the expense incurred, we find that our material was hauled at an output of 15 cents per ton mile.

Yours truly,

PRODUCERS TRANSPORTATION CO.

By L. C. Leeds.

The Holt Mfg. Co.,  
Stockton, California

Fallon, Nevada,

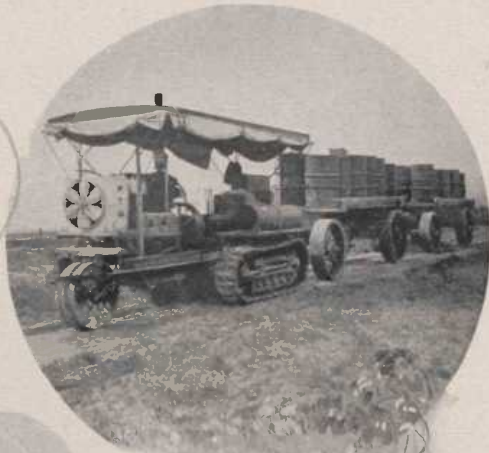
December, 28, 1909

Hauled twenty tons over slick, icy road. Engine a marvel.

R. L. DOUGLASS.



Three of the six Freighting  
Outfits operated by the  
Producers Transportation Co.,  
at work on the 231 Mile  
Pipe Line



Hauling  
Oil



A load of Heavy  
Cast Pipe Flanges



Transporting 15-ton Boiler Units  
for Pipe Line Pumping Stations



The Holt Mfg. Co.,  
Stockton, California.

Hanford, Cal.,  
July 29, 1910

Gentlemen:

In reply to your inquiry concerning the service of the three Caterpillar Engines shipped me, will say that they are the most satisfactory engines I have ever worked. Used one on a 20 foot harvester for 50 days, without the slightest expense, except for fuel and oil. **NOT ONE CENT IN REPAIRS.**

The other two we are using to haul grain from La Hacienda to Angiola, a distance of 14 miles, over a very heavy road, hauling  $17\frac{1}{2}$  tons of grain, making a round trip every day and using 50 gallons of distillate. Up to the present time it has always cost us \$4.50 per ton to move the grain—over the same road we are now moving it for less than \$1.00 per ton.

Am mailing you some photos under separate cover.

Yours very truly,

WILL A. SAGE,  
Mgr. La Hacienda Ranch Co.

The Holt Mfg. Co.,  
Stockton, California.

Oxnard, Cal.,  
November 16, 1910

Gentlemen:

I am sending you under separate cover, photograph of our Caterpillar Engine hauling train load of beets consisting of twenty-two tons. The machine was in this service for nearly two months, and with but very few exceptions made three trips per day, covering a distance of forty-two miles.

Yours very truly,

AMERICAN BEET SUGAR CO.



Caterpillar

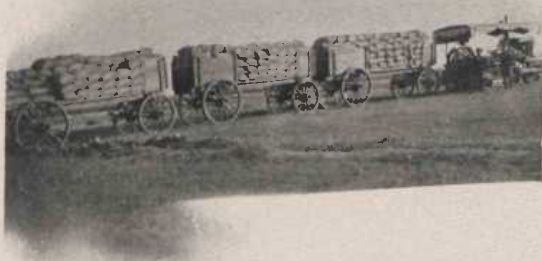
All freighting,  
harvesting and  
plowing on the  
La Hacienda  
Ranches is done by  
their three  
Caterpillar Outfits



Hauling  $17\frac{1}{2}$  tons a  
distance of 14 miles.  
A round trip every  
day



Reducing cost of  
transportation from  
\$4.00 to \$1.00 per  
ton



Replacing three  
8-horse teams



UNION OIL COMPANY OF CALIFORNIA  
**COMPARATIVE PERFORMANCE**  
 OF  
**CATERPILLAR ENGINES**

Report for Months of November and December

Engine Number	Number Hours Worked	Miles Traveled	Tons Hauled	Cost Per Ton Mile
1046	340	597.00	221.54	.21
1047	435	751.09	279.90	.18
1048	400	463.00	223.90	.33
1049	335	593.91	198.81	.21
1053	340	364.96	542.72	.11
1054	365	414.04	545.80	.12

Los Angeles, Cal.,  
 February 25, 1910

The Holt Mfg. Co.,  
 Stockton, California

Gentlemen:

I beg to enclose you herewith a statement showing operation of our Caterpillar Engines in the Valley, for the months of November and December. Allowing 12 cents a gallon for distillate and assuming that all repair parts purchased during these two months were used up, and allowing for depreciation, we figure the cost of hauling per ton mile at 19.3 cents. This, we believe, is a very favorable showing under the conditions, which certainly were not favorable to economical work.

Yours truly,

UNION OIL COMPANY OF CALIFORNIA,

W. L. Stewart,

Mgr. Executive and Field Depts.





Pumping Water for Irrigation.  
Caterpillar owned by G. S.  
Webb, Lovelock, Nevada



Caterpillar Freighting Outfit of the  
Nevada Sandstone Co., Bracken, Nevada



LOS ANGELES AQUEDUCT  
**COMPARATIVE PERFORMANCE**  
 OF  
**CATERPILLAR ENGINES**

Division S. A.—December, 1909

Engine	Fuel and Oil	Wages of Crew	Shop Repairs	Depreciation	Total Haul	Total Cost	Cost Per Ton Mile
1020	52 39	\$151 25	\$87 35	50 00	1402	\$340 99	.243
1021	21 23	176 00	70 86	50 00	1500	318 09	.212
1025	81 94	177 12	121 19	50 00	2280	430 25	.189
1026	59 46	162 50	247 51	50 00	1067	519 47	.487
1028	39 74	176 00	301 49	50 00	1256	567 23	.452
1030	82 18	183 75	255 91	50 00	1722	571 84	.332
1033	70 90	113 75	74 46	50 00	1455	309 11	.212
1034	86 76	170 87	65 54	50 00	2958	373 17	.126
1035	66 46	188 25	71 97	50 00	3221	376 68	.117
1036	82 84	176 12	81 73	50 00	1388	390 69	.281
1037	69 90	149 50	98 52	50 00	1637	367 92	.225
1039	64 80	174 75	38 20	50 00	2530	327 75	.130
1041	95 87	116 00	52 30	50 00	2189	314 17	.144
1042	44 48	95 75	16 46	25 00	1637	181 69	.111

Total Cost ..... \$5,389.05  
 Total Ton Miles ..... 26242  
 Average Cost per Ton Mile ..... \$ 0.205

The Holt Mfg. Co.,  
 Stockton, California.

Imperial, Cal.,  
 August 1, 1910

Gentlemen:

In reply to your letter of July 27th, we take pleasure in stating that both of the Caterpillar Engines, Nos. 1009 and 1011, purchased from you during the last twelve (12) months, have proven to be just what we needed in our work in cleaning out our irrigating canals. They not only do the work very satisfactorily, but they also do the work much cheaper than any machine we have had heretofore. The work required of these engines puts them to a very severe test on account of the continuous side-pulling they are required to do, but they seem to stand it with comparatively small wear.

Thanking you for your prompt attention to our orders in the past, we are,

Very respectfully yours,

IMPERIAL WATER CO., No. 1,  
 Ray S. Carberry, Superintendent.



One of the three Caterpillars  
owned by the Imperial Water Co.,  
of Imperial, California,  
pulling Canal Scraper



A finished Canal after being cleaned  
by Scraper pulled by Caterpillar



List of Owners of  
 Gasoline Caterpillar Traction Engines

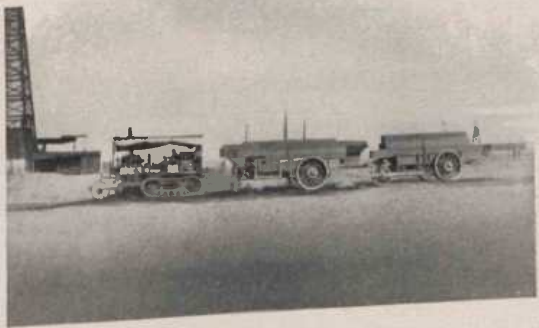
- City of Los Angeles, Los Angeles, California  
 Lamb & Hickey, Thornton, California  
 City of Los Angeles, Los Angeles, California  
 Kern Trading & Oil Co., San Francisco, California  
 City of Los Angeles, Los Angeles, California  
 Dan Grigg Land Co., Sharon, California  
 Imperial Water Co., No. 1, Imperial, California  
 Crocker-Huffman Land and Water Co., Merced, California  
 Imperial Water Co., No. 1, Imperial, California  
 D. K. McDonald, Spokane, Washington  
 John Paget, Lamoine, Washington  
 David H. Nelson, Pendleton, Oregon  
 C. K. Malone, Choteau, Montana  
 Willis & Willis, Dutton, Montana  
 E. C. Rogers, Condon, Oregon  
 City of Los Angeles, Los Angeles, California  
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 City of Los Angeles, Los Angeles, California



Two of the 28 Freight  
Trains operated by the  
city of Los Angeles



The Atchison, Topeka & Santa Fe  
Railway use their Caterpillar for  
hauling supplies in the Oil Fields



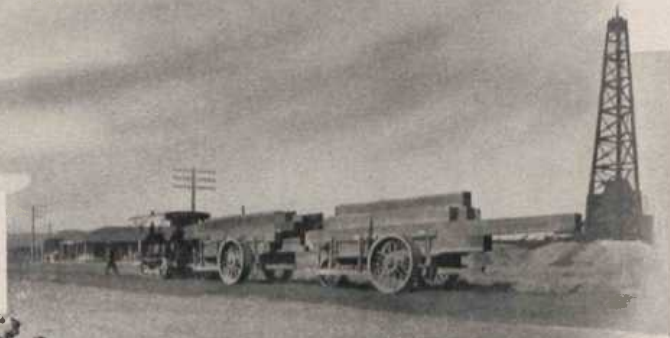


List of Owners of Gasoline  
Caterpillar Traction Engines—Continued

City of Los Angeles, Los Angeles, California  
 City of Los Angeles, Los Angeles, California  
 Sonoma Land Co., San Francisco, California  
 Sonoma Land Co., San Francisco, California  
 C. A. Canfield, Los Angeles, California  
 Union Oil Co., of California, Los Angeles, California  
 Union Oil Co., of California, Los Angeles, California  
 Union Oil Co., of California, Los Angeles, California  
 Union Oil Co., of California, Los Angeles, California  
 C. Bolte, Honolulu, Territory of Hawaii  
 F. E. Barnard, Sawtelle, California  
 Wm. Arneille, Camarillo, California  
 Union Oil Co., of California, Los Angeles, California  
 Union Oil Co., of California, Los Angeles, California  
 American Beet Sugar Co., Oxnard, California  
 J. L. Freeman, Sharon, California  
 Orchard Home Co., Medford Oregon  
 Crocker-Huffman Land & Water Co., Merced, California  
 Crocker-Huffman Land & Water Co., Merced, California  
 Walker Bros., King City, California  
 Cunningham Corporation, Le Grand, California  
 H. J. Kinkaid, Fallon, Nevada  
 Jas. Leonard & J. B. Dawley, Oxnard, California  
 Borchard Bros., Oxnard, California  
 Huasteca Petroleum Co., Los Angeles, California  
 Huasteca Petroleum Co., Los Angeles, California  
 Cerf Rosenthal, San Anselmo, California  
 W. W. Masten, Klamath Falls, Oregon  
 City of Los Angeles, Los Angeles, California  
 City of Los Angeles, Los Angeles, California  
 City of Los Angeles, Los Angeles, California  
 A. J. Stalder, Vernalis, California  
 G. S. Webb, Lovelock, Nevada  
 W. P. Truchot, Chouteau, Montana  
 Occidental Land & Improvement Co., Sharon, California  
 P. B. Hoisington, Echo, Oregon  
 Chanslor-Canfield Midway Oil Co., Los Angeles, California  
 S. A. Wright, Spokanc, Washington  
 Holly Sugar Co., Holly, Colorado  
 R. Madsen, Clovis, California  
 J. W. Jameson, Chouteau, Montana  
 S. T. Bunch & Sons, Blalock, Oregon



Caterpillar Freight Trains  
owned by the  
Southern Pacific  
Railroad Company





List of Owners of Gasoline  
Caterpillar Traction Engines—Continued

Nevada Wonder Mining Co., Philadelphia, Pennsylvania  
 Nevada Wonder Mining Co., Philadelphia, Pennsylvania  
 Tampico Petroleum Co., Los Angeles, California  
 Nevada Sand Stone Co., Ocean Park, California  
 Williamson Bros., Farmington, California  
 R. L. McCabe, Byron, California  
 C. A. Canfield, Los Angeles, California  
 J. M. Hart, Brawley, California  
 Lyall Bros., Imperial, California  
 American Beet Sugar Co., Chino, California  
 Jerome & Cook, Calexico, California  
 Sacramento Valley Sugar Co., Hamilton City, California  
 California-Mexico Land & Cattle Co., Calexico, California  
 Lester Bros., Angiola, California  
 E. A. Brim, Williams, California  
 Montana Land Co., Los Alamitos, California  
 A. P. Tychesen, Merced, California  
 W. A. Sage, Alpaugh, California  
 Peter Cook, Rio Vista, California  
 Geo. D. Zimmerman, Woodland, California  
 Iowa Land & Water Co., Los Angeles, California  
 W. H. Wilbur, Alpaugh, California  
 C. Parker Holt Ranch, Holt, California  
 Jess McKay, Sonora, California  
 Sacramento Valley Sugar Co., Hamilton City, California  
 Otis Leonard, Ralston, Washington  
 La Hacienda Ranch Co., Alpaugh, California  
 Miller & Lux, Inc., San Francisco, California  
 Hamilton & Crow, Pendleton, Oregon  
 Long & Walters, Angiola, California  
 Willoughby Bros., Beverly, California  
 La Hacienda Ranch Co., Alpaugh, California  
 F. N. & Bert R. Chaplin, Suisun, California  
 S. H. Edwards, Mayville, Washington  
 Sacramento Valley Sugar Co., Hamilton City, California  
 Sacramento Valley Sugar Co., Hamilton City, California  
 T. A. Taylor, Madras, Oregon  
 Yolo Ranch Co., Oakland, California  
 Santa Paula Land Co., Santa Paula, California  
 Columbia Agricultural Co., Clatskanie, Oregon  
 Holly Sugar Co., Holly, Colorado  
 Holly Sugar Co., Holly, Colorado





One of the three Caterpillar  
Freight Trains owned by the  
Holly Sugar Co..  
Holly, Colorado

Hauling Beans  
Willoughby Bros.,  
Beverly, California



The Sacramento Valley Sugar Co.  
of Hamilton City, California  
operate four Caterpillars



List of Owners of Gasoline  
Caterpillar Traction Engines—Continued

- Alameda Sugar Co., San Francisco, California  
 Harbison & Kitchen, Colusa, California  
 Casper Borchard, Camarillo, California  
 Miller & Lux, San Francisco, California  
 Thos. B. Wohlfrom, Arbuckle, California  
 Francis D. Pastorius, Durango, Colorado  
 Kern County Land Co., Bakersfield, California  
 Metz & Harris, Santa Ana, California  
 Patterson Ranch, Oxnard, California  
 Houx Bros. & Kaerth, Maxwell, California  
 Chas. J. Froh, Grimes, California  
 Patrick Calhoun, San Francisco, California  
 O. J. Griner, Winters, California  
 Shedd Bros., Madera, California  
 Alex Jeffrey, Myford, California  
 California Asparagus Co., Rio Vista, California  
 J. S. Gibson Co., Williams, California  
 H. L. Button, Woodland, California  
 Tobey Bros., Arlington, Oregon  
 Ventura Farming Co., Ventura, California  
 W. M. Maze, Le Grand, California  
 Tejon Ranchos, Bakersfield, California  
 American Beet Sugar Co., Oxnard, California  
 Medler Bros., Wasco, Oregon  
 American Beet Sugar Co., Oxnard, California  
 Frank Dorn, Hollister, California  
 F. M. Hoskins, Dayton, Washington  
 Blake-Rutherford Farm Co., Kennewick, Washington  
 Rush & Stewart, Rio Vista, California  
 U. F. Kester, Parkfield, California  
 The United States Sugar & Land Co., Garden City, Kansas  
 Col. Morrison, Fairfield, Washington  
 S. Yamamoto, Buena Park, California  
 American Beet Sugar Co., Rocky Ford, Colorado  
 American Beet Sugar Co., Rocky Ford, Colorado  
 Chas. Moreing, Stockton, California  
 Imperial Water Co., No. 1, Imperial, California  
 E. O. Tobey, Arlington, Oregon  
 Columbia View Farm, Trinidad, Washington  
 Woodward Bros., Pendleton, Oregon  
 Lower Yakima Irrigation Co., Kennewick, Washington

