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January 1928

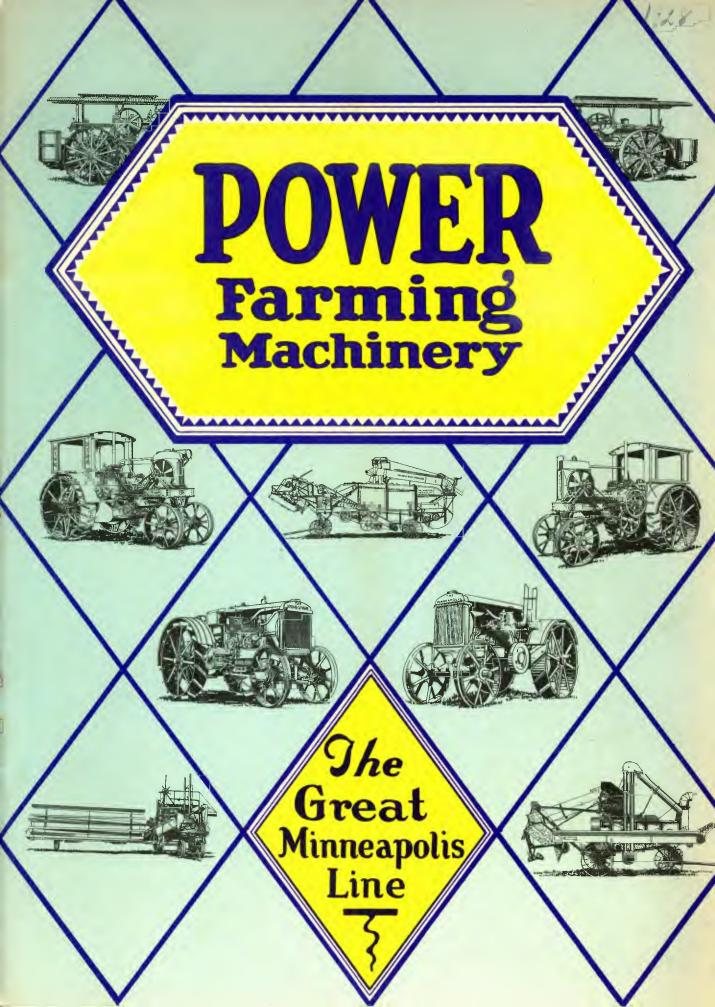
Advertising Brochure: The Great Minneapolis Line

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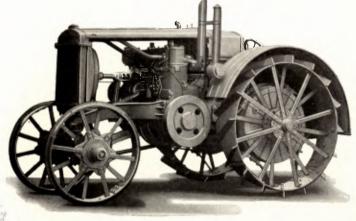


A Real Three Plow Tractor

Minneapolis Farm Tractors are steadily increasing in popularity owing to their ability to do more work at lower cost than the average farm tractor. They are so substantially built and so mechanically perfect that with ordinary care they will give years of satisfactory and economical service.

The unit principal of design is one of the important features in the construction of Minneapolis Farm Tractors as it permits easy access to all working parts, which is very much appreciated when adjustments or replacement of parts is found necessary. All working parts are entirely enclosed and run in oil, free from dirt.

Left Hand View The Minneapolis 17-30 Type "A" Farm Tractor



Short turning radius makes it very desirable for plowing or other draw-bar work. DIRECT POWER FROM CRANK SHAFT TO BELT PULLEY IN-SURES 100% POWER EFFICIENCY ON THE BELT, a feature not found in most other farm tractors.

Minneapolis Farm Tractors are built in two sizes, viz: 17-30 Type A and 17-30 Type B. In general construction and design they are almost identical, the difference being in the size of the motor and length of wheel base. The 17-30 Type A is equipped with a 4 cylinder motor having $4\frac{3}{4}$ "x7" cylinders, the wheel base is 6'8" and the total weight, is approximately 6100 lbs.

Motor-434''x7'', 4 cylinder. Motor Speed-825 R.P.M. Pulley Speed-825 R.P.M. Power Take-Off Speed-527 R.P.M. Extreme Length of Tractor-11' 1'' Extreme Width-6' 41/2'' Extreme Height-6' Wheel Base-6' 81/2'' Center to Center of Drive Wheels-581/2''. Turning Radius-outside circle, 13 ft. 9 in.

TOTAL WEIGHT—approximately 6100 lbs. Approximate Weight on Drivers—4600 lbs.

Approximate Road Speeds—Low, 2.33M.P.H.; High, 3.05 M.P.H.; Reverse, 2.21 M.P.H.



A Real Four Plow Tractor

The 17-30 Type B is equipped with a 4 cylinder motor having 47/8''x7'' cylinders, the wheel base is 7' 6'' and the total weight, is approximately 6800 lbs. Speed of motors on both Type A and Type B tractors, 825 R. P. M.

The general descriptive matter applies to both Type A and Type B tractors with the few exceptions as to specifications noted herein.

All Minneapolis Tractors operate successfully on kerosene.

Minneapolis Farm tractors are intended to furnish a maximum of reserve power required under the most extreme working conditions, and in this respect they will not be found wanting. The universal satisfaction they have given is sufficient assurance that we are offering a tractor that is unsurpassed in sturdiness and all around performance, and one that will not fail to satisfy the demand for a tractor possessing that combination of reserve power and light weight which is so much desired in a general farm purpose tractor.

After reading over the specifications given and studying the illustrations if there is anything not quite plain to you, if there is any particular measurement or specification you desire or any information wanted as to material used in any part, we sincerely hope you will not hesitate to communicate with us. Our entire organization is ready and willing to serve you in every way possible.

Left Hand View The Minneapolis 17-30 Type "B" Farm Tractor

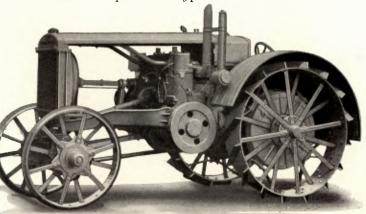
Motor— $4\frac{7}{8}''x7''$, 4 cylinder. Motor Speed—825 R. P. M. Pulley Speed—825 R. P. M. Power Take-Off Speed—527 R. P. M. Extreme Length of Tractor—11'-11''. Extreme Width—6' $4\frac{1}{2}''$. Extreme Height—6'.

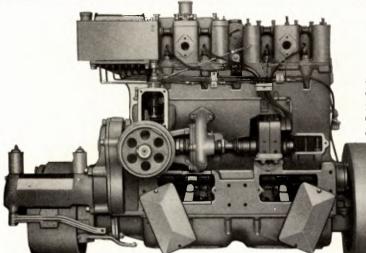
Wheel Base—7' $6\frac{3}{4}$ ".

Center to Center of Drive Wheels— $581_2^{\prime\prime\prime}$.

TURNING RADIUS—outside circle 16 ft. Total Weight—approximately 6800 lbs. Approximate Weight on Drivers— 4800 lbs.

APPROXIMATE ROAD SPEEDS—Low, 2.33 M. P. H.; high, 3.05 M. P. H.; Reverse, 2.21 M. P. H.





Front side of motor—note inspection plates partially removed water circulating pump and magneto—plate removed from governor housing —mechanical oil pump and pulley to drive radiator fan. Motor has four vertical cylinders cast en bloc mounted

crosswise and having removable cylinder sleeves.

Cylinder Sleeves: turned and ground. Interchangeable. Valves: located in head, made of best material, ground and hardened.

Crank Shaft: $2\frac{3}{4}$ in. diameter turned and ground.

Three bronze-back babbit-lined bearings. Total length of bearings 12 in.

Pistons: 6¹/₄ in. long, turned, ground and fitted with 4 rings.

Piston Pins: $4\frac{3}{8}$ in. long, $1\frac{1}{2}$ in. diameter, made of steel, hollow, case hardened and fastened in position with Woodruff key and dowel screw. Connecting Rods: 14 in. long, drop forged, heat treated.

Camshaft Bearings: 2 2/5 in. diameter, total length $7\frac{1}{2}$ in.

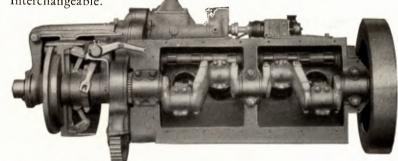
Cylinder Heads: Cast in pairs. Valves and spark plugs located in removable heads. A dust proof cover fastened to head with thumb nuts encloses the valves and rocker arms. Copper asbestos lined gaskets used between cylinder and heads.

> MOTOR LUBRICATION. Mechanical oil pump and splash effectually lubricate all motor parts.

CHASSIS LUBRICATION. Complete Alemite-Zerk oiling system throughout.

GOVERNOR. Fly ball type, our own make, enclosed and operating in oil. IGNITION. Bosch high tension magneto with impulse starter.

FUEL. Kerosene or gasoline. Gasoline tank capacity 6 gallons. Kerosene capacity 18 gallons.



Bottom of motor with crank case pan removed and belt pulley partially cut away to show method of operating twin disc clutch.

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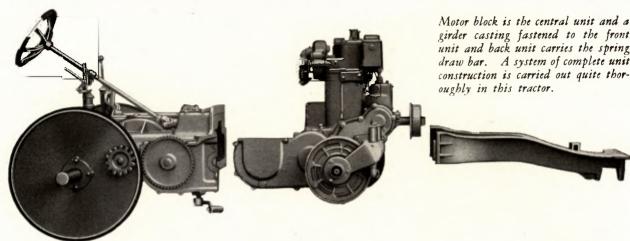
Rear view of motor. Note construction of oil sump for maintaining proper oil level on side hills. At side is sectional view of special manifold with heat-regulating valves which enable operator to use kerosene at all loads and under all climatic conditions. CARBURETOR. Standard make 1½-inch. Intake air through cleaner and the fuel mixture are heated from exhaust. Special manifold with heatregulating valves. Water

used with fuel. Suction water valve automatically controls the amount according to load.

COOLING SYSTEM. Tubular radiator and fan. Water circulated around cylinders and heads by means of a centrifugal pump having a capacity of $31\frac{3}{4}$ gallons per minute. Capacity of cooling system, $8\frac{1}{2}$ gallons.

CLUTCH. Multiple disc in belt pulley. A pulley brake is also operated by clutch lever so disengaging the clutch applies the brake to pulley face.

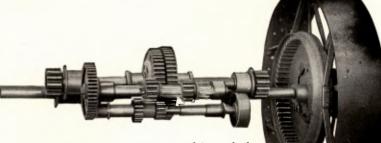




girder casting fastened to the front unit and back unit carries the spring draw bar. A system of complete unit construction is carried out quite thor-

BRAKE. An emergency brake is located on the reverse shaft and controlled by a foot pedal. It is always ready for service even if transmission gears are in neutral.

GEARS. All gears are enclosed and operate in oil. Transmission gear shafts on roller bearings. All transmission gears are forged steel, hardened and ground, having machine cut cogs. Gears splined on shaft, no feather keys used.



Method of delivering power to drive wheels through transmission and differential gears. Roller bearings for transmission shafts.

> Rear, floating type $2\frac{15}{16}$ -inch diameter. Axles. Front, motor type, roller bearings.

> DRIVE WHEELS. Power applied to both rear wheels. 52-inch diameter, 12-inch face, regularly fitted with 3-inch angle cleats.

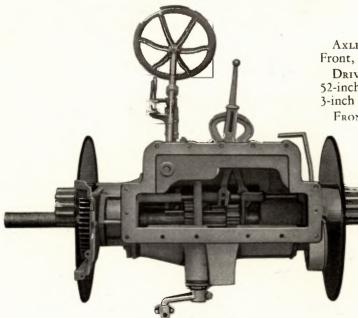
FRONT WHEELS. 36-inch diameter, 5-inch face, 11/4inch angle removable skid rings.

> STEERING GEAR. Worm gear type, completely enclosed in transmission case.

> Right front wheel runs in furrow and acts as guide, when plowing.

BELT PULLEY. 151/2-inch diameter, 71/2-inch face, mounted directy on crank shaft and runs on high duty roller bearing. The outer end of crank shaft is provided with outboard bearing which is equipped with S. K. F. double row self-aligning ball bearing. Pulley speed 825 R.P.M.

POWER TAKE-OFF. A very satisfactory power take-off attachment can be supplied at a slight additional cost-see illustration on page 7.



Transmission unit of tractor completely assembled. By slipping drive wheels part way off the complete set of transmission gears can be taken out as an assembled unit.



17-30 Motor Parts



Extra large crank shaft, 2³/₄ in. diameter, turned and ground. It has three bronze-back babbitt lined bearings. Total length of bearings 12 in.



Cam shaft showing driving gear attached. There are three bearings having a total length of $7\frac{1}{2}$ in. Diameter of shaft 2-2/5 in.



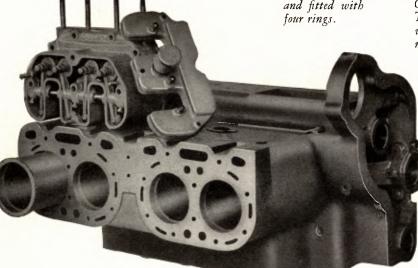
The connecting rod is 14 in. long, drop forged and heat treated. The cap on crank end of rod is held in place by four heavy steel bolts, insuring safety and more permanent adjustment.



The pistons are $6\frac{1}{4}$ in. long, turned, ground and fitted with four rings

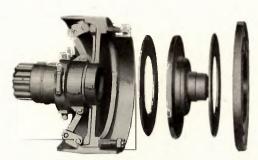


Cylinder head with valves in place. The heads are cast in pairs for convenience and economy in case replacement is necessary.

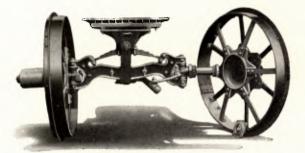


Part of cylinder block—cylinder sleeve partly withdrawn. Cylinder head on top with cap at side. Note part of timing gear housing.

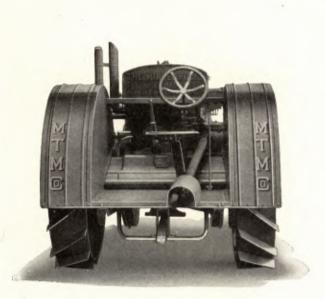




Cut showing belt pulley and disc clutch assembly. Clutch is positive and seldom requires adjustment.



Front Axle Assembly Note dust-proof roller bearings and spring mounting.



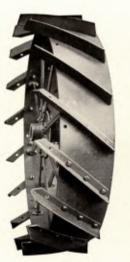
Rear view of 17-30 tractor showing Power Take-off attachment in place, also Draw Bar Hitch. Draw Bar has 15 in. clearance, 4 in. vertical and 15 in. lateral adjustments, and pulls from center line of rear axle.

Equipment for Drive Wheels on 17-30 Farm Tractor

Cleats or lugs are optional, except overhanging angle cleats which are furnished at slight additional cost. Extension rims are charged for extra.



Standard 3 in. Cleat



Overhanging 3 in. Cleat



Pennsylvania 2 in. Cleat

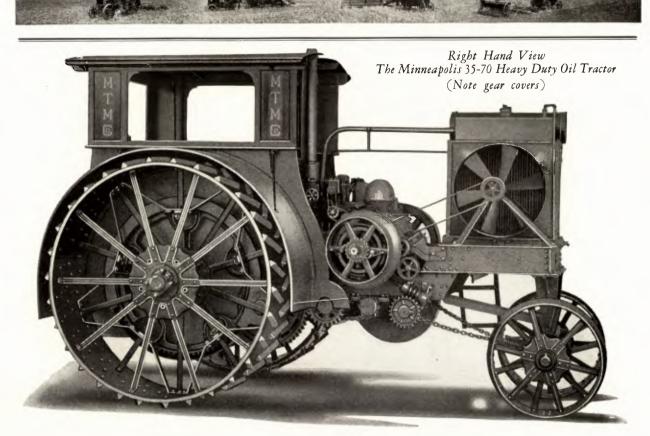




41/2 in. Spade Lugs 7 in. Ext.

6 in. Plain Rim





Minneapolis Heavy Duty Tractors have gained an enviable reputation among users everywhere. Their ability to perform all kinds of drawbar or belt work in a highly satisfactory manner has placed them in the front ranks of modern power equipment. They are unexcelled for sturdiness, dependability, accessibility and economy of operation, qualities which are made possible by reason of the Company's policy of maintaining the highest standards of manufacture, both as to construction and quality of materials used.

All Minneapolis Tractors operate successfully on kerosene and maintain an even flow of power under all loads.

The Minneapolis 35-70 Tractor has demonstrated its ability to withstand the severest hardships and furnish an abundance of power at a minimum cost of operation and upkeep. It will operate the largest separator built and maintain a uniform speed under the most extreme conditions.

THE MOTOR is a four cylinder, valve-in-head type. The cylinders are located parallel with the main frame, in horizontal position, and securely fastened to motor base by large heavy bolts. The motor base is bolted to the frame and cast solid in such manner that the lower half of crank and camshaft bearings are a part of the base itself, thus insuring perfect alignment of crankshaft, camshaft, timing gears and other important working parts. The motor is so perfectly designed that vibration is practically eliminated. Speed of motor 550 R.P.M.





COOLING, WATER. Positive circulation by means of a large gear-driven pump. Radiator consists of a top and bottom water tank, connected by a series of long brass tubes, cooled by a large fan driven by belt from the motor crank shaft. Radiator is enclosed, reducing evaporation to the minimum, and preventing dirt from getting into water to be accumulated in water jackets. The pump draws water from the bottom of radiator, forces it through water spaces or jackets, returning it to the radiator at top.

Capacity of cooling system is 60 gallons.

CYLINDERS. 7¹/₄-inch by 9-inch, cast in pairs, from finest quality close-grained grey iron, securely fastened to motor base by large heavy bolts. Ample water space surrounding cylinders and cylinder heads, keeps motor cool whether running a light load or working to its limit of power and speed.

CYLINDER HEADS. Cast in pairs same as cylinders. The removal of these heads gives free, easy access to cylinders for removing carbon.

THE GOVERNOR. A uniform speed is maintained by an enclosed automatic throttling governor running in oil, driven from cam shaft by machine-cut gears, inside the crank case where they are free from exposure to dust and dirt.





VALVES. Located in cylinder heads, are turned and ground true to size. Water space surrounds the valves keeping them a uniform temperature and greatly reducing the chance of warping or breaking.

Pisrons are accurately turned, ground to size and polished. Each piston is fitted with four cast rings, carefully machined, ground and perfectly fitted. These rings are pinned so they can not turn on the piston, thus avoiding all chance of lost compression.

CAM SHAFT AND CAMS. One cam shaft with cams operates the intake and exhaust valves. The cams, rollers and pins are of very generous dimensions, of finest material for such use and

rial for such use, and practically wear resisting. CONNECTING RODS are of the very best quality forged steel of large dimensions. Cap on crank end is equipped with wick wiper cup, and held in place by four heavy steel bolts. Inspection of connecting rods and bearings is made easy by means of large removable hand hole plates in cover of motor base. If more room is needed for adjustments the entire cover can be easily taken off without any of the motor parts being disturbed.

MAIN CRANK SHAFT is 3³/₄ inch diameter and made of the very highest grade of forged steel, carefully machined, ground and fitted to two large heavy end bearings as well as a center bearing. The lower halves of these three crank shaft bearings are a part of the motor base itself.

Shimming is used in crank shaft and cam shaft boxes so any wear can be easily and quickly taken up. Side View Valve-in-head Motor as Used in 35-70 and 22-44 Tractors.

FUEL SUPPLY. A large tank holding 80 gallons is located under the platform, entirely out of the way and in the most convenient possible position for filling.

A chain-driven pump keeps a small brass auxiliary reservoir filled at all times. This auxiliary reservoir is located in cab, has sight glass gauge and overflow pipe back to main tank. A small fuel tank is attached to the top of the radiator.

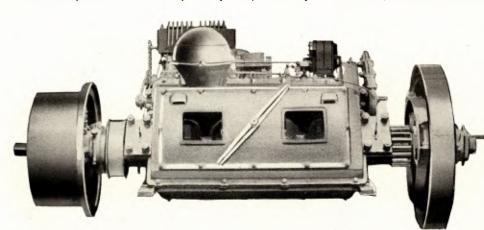
CARBURETOR. Latest type Kingston, gravity feed. IGNITION. Bosch high tension magneto, gear-

driven, with impulse starter. LUBRICATION. Multiple feed oil pump, chaindriven, located in plain view of operator, enabling him at all times to see and regulate the amount of oil mechanically forced through individual tubes to motor bearings, cylinders and other parts. Splash system in crank case is also used, thus giving two distinct systems of lubrication.

> BELT PULLEY on main crank shaft is 24-inch diameter, 101/4-inch face, flanged on inside.

A contracting shoe clutch in belt pulley applies the motor power for belt work, and the same type of clutch in fly wheel applies the motor power for traction work.

The motor is equipped with a safety device of our own design, for starting — making it impossible for operator to receive bodily injury from a "Kick - Back" when cranking.



Crank Shaft End 35-70 and 22-44 Motor Showing Inspection Plates Removed from Crank Case Cover.



FRAME. A stiff, rigid frame is absolutely necessary to the building of a reliable, durable and smooth running farm motor.

We use steel castings, heavy steel angles, I beams and plates all solidly fastened together with steel rivets of ample size and numbers to give sufficient strength to withstand all strain.

The motor, gears, axles and countershafts are bolted to this indestructible frame by heavy steel bolts with double nuts, insuring perfect alignment and working unity of all parts.

Maximum strength with minimum weight are things successfully achieved in the design and construction of the Minneapolis frame.

GEARS. Transmission and traction gears are allsteel, not semi-steel, and the main shaft pinion and first intermediate gear have machine-cut cogs. Gearing is of liberal dimensions, insuring great strength and durability. In designing and constructing farm motors for the heavy work required of them in plowing, hauling, harvesting, road building, and grading, the traction gears and parts are most important features. We invite careful inspection and comparison of our farm motors with other makes in this respect as well as in all others, believing such comparison will fully convince you that in farm motors, as well as other machinery, our policy is to build Right. (The Minneapolis Way).

The 35-70 Tractor is built with two speeds forward, 2.45 M.P.H. on high and 2 M.P.H. on low. Reverse 1.68 M.P.H. with motor speed of 550 R.P.M.

A contracting band brake on the first countershaft gear operated by a foot pedal controls traction wheels when gears are in a neutral position.



GEAR OILING. All traction and speed gears, as well as the shaft boxes, are oiled by a 12-feed mechanical oiler driven from the compensating gear, which, of course, starts the oiler to working just as soon as the traction is set in motion. This system of gear oiling is economical, yet sure.

DRIVE WHEELS. Same design and construction as drivers used on our other engines; they are 85 inches high and have 30-inch tires reinforced at rims, and malleable bolted on cleats $1\frac{3}{4}$ inches high.

FRONT WHEELS. 40 inches high, 14-inch tire.

EXTENSION WHEELS. 10-inch extension tires can be furnished if desired at additional cost.

Weight of extensions per set, 2,600 pounds.

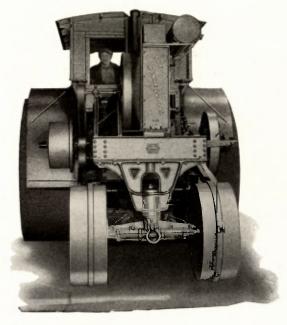
REAR AXLE is of the live axle or revolving type, 4 inches in diameter, machine-turned and fitted to large heavy babbitted bearings, 15 inches long.

PLATFORM. Large and roomy. Located over rear axle, and high enough to enable the operator to see distinctly either forward or backward. Operator has complete control of engine from platform, as all levers have been placed in easy reach with a view to making The Minneapolis the most convenient and easiest handled farm motor on the market.

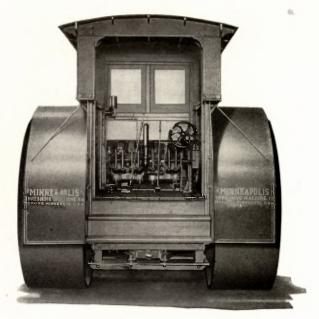
Cab over the platform is furnished regularly with all engines of this class. It is neat in design and adds to the operator's comfort.

Type of Chassis Used on 35-70 H. P. Tractor The Construction of the 22-44 H. P. Chassis is Quite Similar





Front view of 35-70 Tractor. Note clear view ahead, also front mounting which provides short turning radius.



Rear view of 35-70 Tractor, showing operating levers and large roomy platform. Note handy position of draw bar.

Specifications

RATING. Drawbar horsepower 35, belt horsepower 70.

MOTOR. 7¹/₄-in.x9-in. 4 cylinder, valves-in-head, horizontal cross frame mounting.

Motor Speed. 550 R.P.M.

CRANKSHAFT. 3³/₄-in. diameter, forged steel, three large main bearings.

BELT PULLEY. Mounted on crankshaft, 24-in. diameter, 10¹/₄-in. face.

CLUTCHES. A contracting shoe clutch in belt pulley applies the power for belt work, and the same type of clutch in fly wheel applies the power for traction work.

IGNITION. Bosch high tension magneto with impulse starter.

CARBURETOR. Latest type Kingston, gravity feed.

COOLING SYSTEM. Water, capacity 60 gallons. Tubular radiator, large fan and centrifugal pump.

OILING SYSTEM. Mechanical force feed oiler and splash for motor. Separate mechanical force feed oiler for traction gears and bearings. FUEL SUPPLY. 80 gallon kerosene tank mounted under platform, 20 gallon gasoline tank mounted on radiator.

GEARING. All gears are ALL STEEL, not semisteel, and are of liberal dimensions. Master gears and master pinions have 5-in. face.

REAR AXLE. 4 inches in diameter.

DRIVE WHEELS. 85 inches high, 30 inch face, regularly furnished with bolted on malleable cleats. 10 inch extension tires can be furnished if desired, at additional cost.

FRONT WHEELS. 40 inches high, 14 inch face.

WHEEL BASE. 11-ft. 4 inches.

LENGTH. 17 feet 2 inches. Width 10 feet 2 inches. Height 11 feet 4 inches.

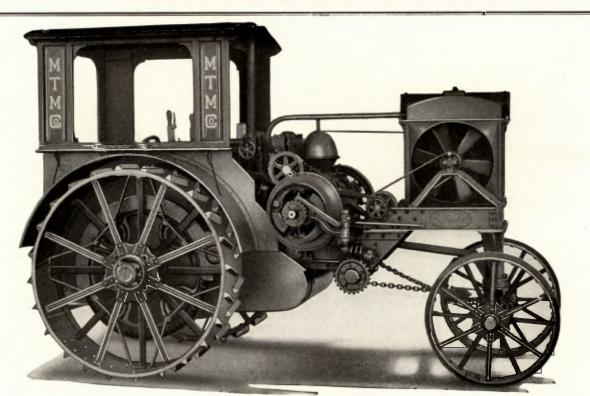
TURNING RADIUS. (Outside) 20 feet 2 inches.

HEIGHT OF DRAWBAR. 24 inches from ground.

STATIC WEIGHT on drive wheels 16,360 pounds.

TOTAL WEIGHT. 22,500 pounds.

ROAD SPEED. High, 2.45 M.P.H.; Low, 2 M.P.H.; Reverse 1.68 M.P.H.



The Minneapolis 22-44 Four Cylinder Oil Tractor

The Minneapolis 22-44 Tractor is built with a valve-in-head motor and is the same in general design and construction as our 35-70 Tractor. The illustrations and descriptive matter apply to both sizes although the dimensions and specifications of course differ.

It will furnish dependable and economical power for all kinds of drawbar or belt work. It will successfully operate medium sized standard separators and its steadiness on the belt makes it very desirable for threshing.

RATING. Drawbar horsepower 22, belt horsepower 44.

MOTOR. 6 inches by 7 inches, 4 cylinder, valves-inhead. Horizontal cross frame mounting.

MOTOR SPEED. 700 R.P.M.

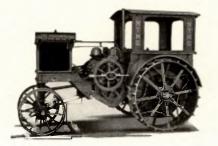
CRANKSHAFT. 3 inch diameter, forged steel, three large main bearings.

BELT PULLEY. Mounted on crank shaft, 181/2 inch diameter 101/8 inch face.

CLUTCHES. An expanding shoe clutch in belt pulley applies the power for belt work, and a contracting shoe clutch in fly wheel applies the power for traction work.

IGNITION. Bosch high tension magneto with impulse starter.

CARBURETOR. Latest type Kingston, gravity feed.



Cooling System. Water, capacity 14 gallons. Tubular radiator, large fan and centrifugal pump.

OILING SYSTEM. Mechanical force feed oiler and splash for motor. Separate mechanical force feed oiler for traction gears and bearings.

FUEL SUPPLY. 30 gallon kerosene tank mounted under platform, 9 gallon gasoline tank mounted on radiator.

GEARING. Semi-steel, except main shaft pinion and intermediate gear which are of steel having machine cut cogs. All gears of liberal dimensions.

REAR AXLE. $3\frac{7}{16}$ inches in diameter. DRIVE WHEELS. 62 inches high, 20 inch face,

regularly furnished with bolted-on malleable cleats. 10 inch extension tires can be furnished if desired at additional cost.

FRONT WHEELS. 38 inches high, 8 inches wide with removable skid rings.

WHEEL BASE. 9 feet 11/2 inches.

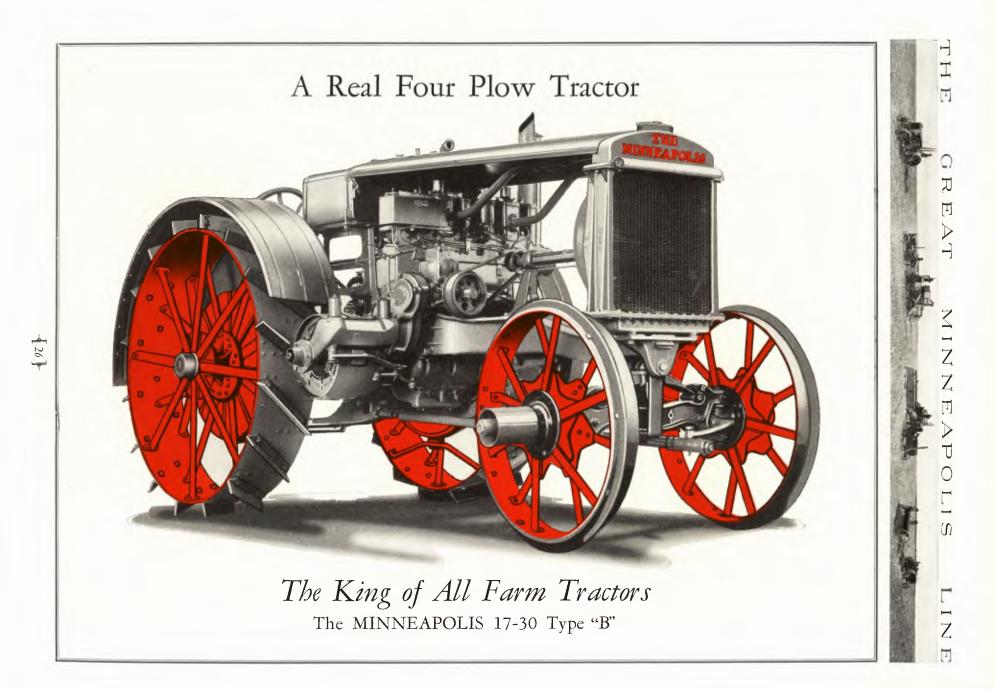
LENGTH. 14 feet, width 7 feet 1 inch, height 9 feet 5 inches.

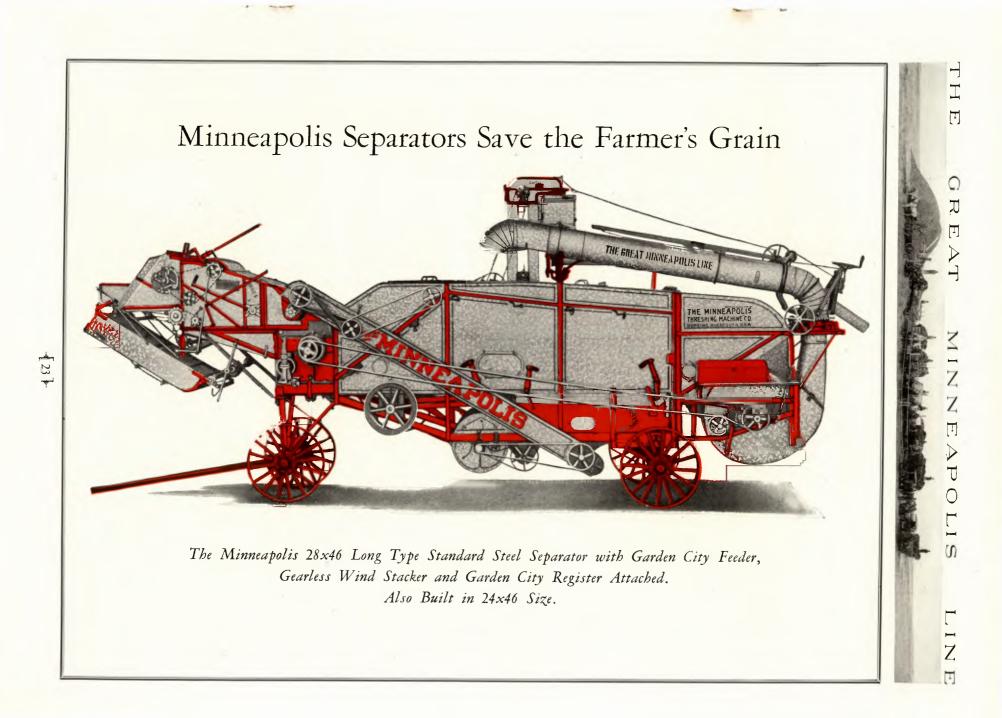
TURNING RADIUS. 15 feet 3 inches.

HEIGHT OF DRAWBAR. 23 inches from ground.

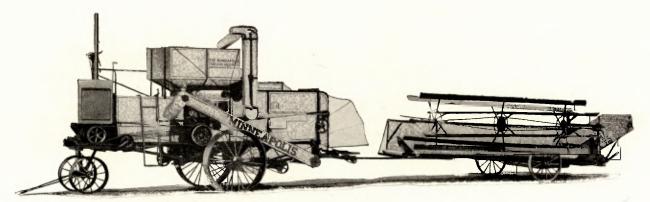
STATIC WEIGHT. On drive wheels, 8,195 pounds. TOTAL WEIGHT. 12,410 pounds. ROAD SPEED. High, 2.6 M.P.H.; Low, 1.98

M.P.H.; Reverse, 1.98 M.P.H.









Cut Showing Method of Transporting Header. No Interference with Traffic on the Road.

HEADER TRANSPORT. For transporting over the road the header can be quickly detached from the separator and mounted on a light two wheel truck, which is furnished for this purpose. This can be done without the aid of lifting jacks or any other special tools.

After the header is on the truck it can easily be hitched to the rear end of the separator and trailed over any ordinary road without interfering with other traffic. It will also trail through a ten foot gate,

The new Minneapolis Combine we bought of you this season has done the work to our entire satisfaction. It handles the grain both as to separation and cleaning very satisfactorily. We have combined to date about 500 acres with it, without any breakdowns or delay of any kind due to the machine.

We sure like our Minneapolis Combine and think it is hard to beat.

Mrs. Minnie Segelke, Harry Segelke, Gurley, Nebr. and by simply setting the reel back on the platform, the complete machine can be stored in a shed 8 ft. 6 inches wide.

THE PLATFORM and supporting arms are made of special high carbon steel beams, joined together by reinforcing plates, which are secured with rivets and bolts. This gives the strongest possible construction with the least weight.

THE CANVASES are made of heavy agricultural duck with hard wood slats and leather straps the full length.

The Minneapolis Combine bought of you this year has given very good service and we are more than pleased with the way it operates and handles the grain. We have harvested about 500 acres of wheat with it so far this season, and it was always ready to go, doing a good job of cleaning and saving the grain, and we would recommend the Minneapolis to anyone wanting a real Combine.

> Fred Siemers, etal, Huntsman, Nebr.

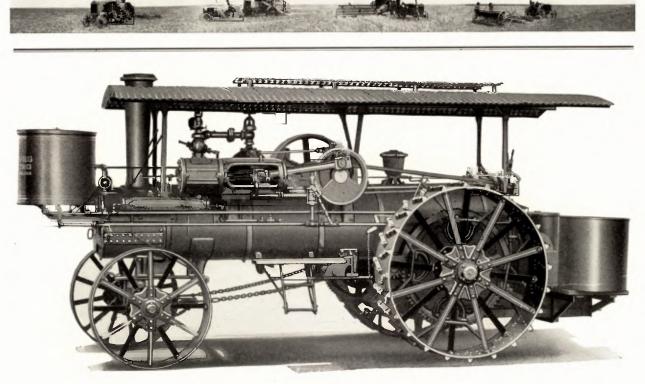
Our 17-30 tractor and combine that we bought from you has done the work that it was intended to do. The tractor handles the combine up hill and down without an effort, and the combine handles the wheat, heavy and light. It saves the grain and puts it in the wagon nice and clean. I am more than pleased with the outfit.

> George Kaiser, Covington, Okla.

Replying to your inquiry with reference to the Combine-Harvester Thresher that I purchased from you this season, will say that it has given me perfect satisfaction, and is by far the best grain saver that I ever saw operated. E. E. Wells,

Lockney, Texas.





The Minneapolis Simple Steam Engine Mounted on Special Butt Strap Seam Boiler (An extra charge is made for cab, tank on platform and gear oiler)

Sizes 20 H. P. and 24 H. P.

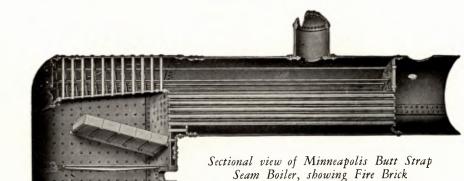
The Great Minneapolis Line of steam traction engines is well and favorably known where modern and reliable steam power is in demand. It is our aim to build durable and economical engines, of handsome design and in sizes to meet the requirements of the trade in all sections where steam is used for farm power.

All boilers for Minneapolis engines are designed to meet the requirements of the most rigid boiler laws. These boilers are built in our own boiler shop, of the best quality of flange and firebox steel, by skilled workmen having at hand the most modern equipment for such work. They are built in accordance with A. S. M. E. rules governing construction and inspection, and the purchaser of a Minneapolis engine Equipped to burn wood, coal or straw, as ordered.

can rest assured that he has a safe boiler and one that can be lawfully operated in any state.

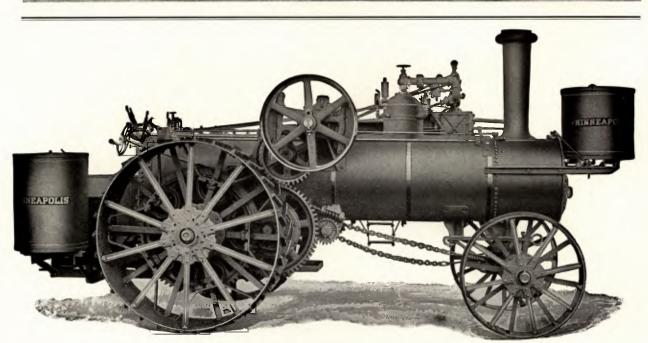
THE BOILER. The Minneapolis boilers are of the full water bottom type, which is considered by all experienced operators as the most satisfactory for traction engines. While it is more expensive to build than the open bottom type, it is a safer boiler, as it gives ample room for mud and sediment below the fire line. It also makes a more durable boiler, as it is securely tied and stayed at the bottom, adding greatly to its strength.

Our boilers are all re-inforced, under the idler axle and main shaft bracket, by riveting an extra piece of boiler sheet inside the boiler.



A Free, Easy Steamer and Economical

> Seam Boiler, showing Fire B Arch for Straw Burner.



The Minneapolis Simple Steam Engine Mounted on Special Butt Strap Seam Boiler (An extra charge is made for Tank on Platform) Sizes 20 H. P. and 24 H. P.

THE FIREBOX is made with a slope to crown sheet and very large, to insure perfect combustion. It has much larger steam space over the water line than other makes, which is an item to be carefully considered.

In building the Minneapolis engine we have kept in mind the convenience of the operator. The injector, the pump and dampers are easily handled by the engineer from the platform. The band wheel, steering wheel, reverse lever and friction clutch lever are all on the right hand side, making it a very easy engine to run on the road or to line up to a separator for threshing.

WATER SUPPLY. Our steam engines are equipped with a water pump and one injector, which we consider the most satisfactory means of supplying water to the boiler.

THE GOVERNOR is the Pickering latest pattern, for traction engines, and is provided with the ball ranger speed changing device.

Our engines are equipped to burn wood, coal or straw, as ordered. All straw burner engines are furnished with grates to burn wood and coal. All our boilers are jacketed with wood lagging, covered with galvanized iron, held in place by brass bands.

EVERY MINNEAPOLIS ENGINE is fired up and thoroughly tested on the brake to see that it develops the required horse-power; it is also tested out on the road, to see that the traction is right, before it is allowed to go to the paint shop for painting and packing, ready for shipment.







I used one of your combines this year. We had about 10 days of rain and a little hail just as the wheat was ripening up and put the wheat down so badly that we had to go down on the ground and pick up everything, weeds, straw and all, but at that, I was able to cut 35 to 50 acres daily under those conditions. It beat my expectations, so I am very well satisfied.

J. D. Cain, Wichita, Kans.



You will no doubt be interested in my success with the TWO COMPLETE MINNEAPOLIS OUTFITS, each consisting of a 17-30 Type B Tractor and 28x46 Separator, which I purchased from you this fall.

As you are aware this has not been a good fall for threshing as the grain has been tough and the straw long but both the separators and tractors worked to my entire satisfaction.

Irwin Oscar Larson, Aldersyde, Alta., Canada.



Your letter asking me how I liked my Combine purchased of vou this year, will say I cut 555 acres of wheat in eleven and one-half days, without any trouble at all. The separator absolutely saved the grain. I am more than pleased with it.

R. Bolser, Cullison, Kansas.



Just a few words to tell you how we like our outfit. We bought a 17-30 tractor and a 28x46 steel separator. The separator sure cleans the grain well. The engine has lots of power for threshing and ploughing. It can pull four plows eight inches deep, easy. We sure like the outfit fine.

H. Turgeon, Cullen, Sask., Canada.



Last year I purchased one of your 28x46 Standard separators. This year I purchased one of your 17-30 Type B tractors. I threshed my own wheat and also for a number of my neighbors. In all I was threshing about six weeks and will say I did not have any expense. Would gladly recommend this machine and tractor to anyone.

Geo. W. Shepherd, Glenarm, Ill.



We are very well pleased with the 17-30 type A tractor and 24x46 steel separator purchased from you this season. We find that it will do more and better work than any outfit that we have used before.

Emil Huslegard & Sons, Independence, Wis.





I am very well satisfied with my 28x46 Minneapolis separator purchased this fall and sincerely believe it is the very best type of separator made. It is easily operated and my 17-30 Minneapolis tractor handles it with ease.

M. Raaen, New Effington, S. D.



Had a very satisfactory run this fall with my new 17-30 type B tractor and 28x46 separator and like my outfit just fine.

W. J. Robertson, Minto, Manitoba, Canada.



I just want to let you know how much we think of your Combine Harvester down here in old Floyd County, Texas. It has given me perfect satisfaction and all of my customers say that your machine sure does the cleanest job of cutting and threshing that they ever saw done.

C. A. Strickland, Lockney, Texas.



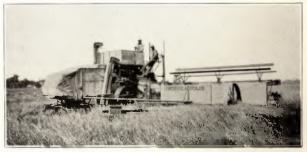
This fall I purchased one of your 17-30 tractors and Standard steel 28x46 separators. I am more than pleased with the work of both and I can speak with truthfulness when recommending the Minneapolis to my friends and neighbors. My customers are well satisfied with the fast and clean work it does.

C. L. Spilde, Granville, N. Dak.



In 1922 I purchased a 17-30 Type A tractor and this spring I traded it in on a 17-30 Type B. I have experienced honest tractor service from the 17-30—plenty of power, easy starting, and economical to operate. I am a strong booster for Minneapolis equipment and hope to be a member of the Minneapolis family for years to come.

H. G. Herd, Marysville, Ohio.



In regard to my combine that I bought of you last summer, will say that it is one of the best combines I ever saw or had anything to do with. It beats them all for capacity, clean threshing and saving the grain, and it is as near trouble-proof as you can find anywhere. It is easy to operate and light draft as I pulled it with a 15-30 tractor. I cut and threshed 360 acres of wheat in just six days, so you can see that I never had any trouble.

Chas. H. Archer, Pawnee Rock, Kans.





Your Minneapolis Combine sure is a wheat eater and time saver, as I averaged 50 acres per day. There were several different makes in the field and all had more or less trouble, but the Minneapolis stopped only to unload.

I can certainly recommend the Minneapolis and think that no one could go wrong by getting one.

S. C. Blair, Stockton, Kans.



I purchased one of your 16 foot combines this year and have cut 750 acres of wheat with it and have 500 acres of flax to cut yet. Have had no repairs of any kind and figure that it has cleared this year's payment already and can recommend it to anyone raising grain as a money saver in labor as well as grain. It has cost me to operate it an average of 67c an acre for labor, gas and oil.

Clyde Hatch, Bullhead. S. Dak



The 17-30 type B tractor and 28x46 Standard Steel Separator I purchased from you this year is one of the best machines I ever have seen, and this is my 36th year I have been threshing. We use eight teams on this machine and it keeps them all busy.

C. H. Jansen, Darfur, Minn.



The 17-30 type B tractor and 16 ft. combine I purchased from you have proved to me there is a difference in tractors and combines. I have used my outfit when the ground was wet and the wheat damp, and when everything was dry and nice, and I will say that the combine has done the work right under all these conditions.

I haven't been troubled in any way with the outfit and consider it OK in every respect.

Ernest Kaiser, Marshall, Okla.



After purchasing one of your 22-44 tractors in 1925 and a second 22-44 in 1926, I will say that I am well pleased with both of them. Of course, if I had not been satisfied, I would not have purchased a second one.

Frank Ikewood, West Walworth, N. Y.



After considering the purchase of a threshing outfit for six months, I decided to take the Minneapolis 17-30 type B tractor and 28x46 Standard separator, for which I am not sorry. As a grain cleaner, saver and fast thresher, it sure is a dandy. I threshed this season's run without any trouble and left only satisfied customers.

M. C. Smith, Columbia City, Ind.

