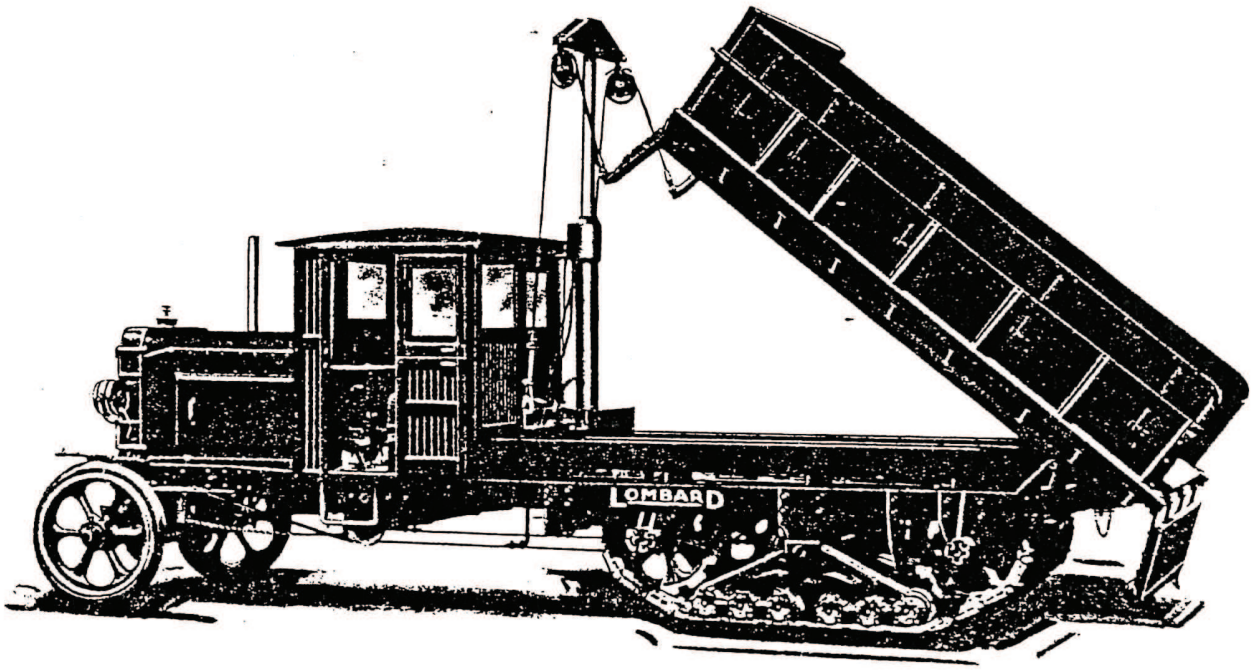
LOMBARD

Tractor Truck

Heavy Duty Contractors Special



SPECIFICATIONS · Model CS-88

A Tractor and Truck of unusual capacity --- rugged construction and the ability to operate under extremely difficult conditions. Six yards level---seven to eight yards heaped.

Bulletin 4

LOMBARD TRACTOR AND TRUCK CORPORATION

NEW YORK CITY WATERVILLE, MAINE

LOMBARD TRACTORS

Brief of Specifications

Lombard Standard Six Tractor—Model SR 100

Six Cylinder Motor 5¼" x 7"

100 H. P. at 1000 R. P. M.

110 H. P. at 1200 R. P. M.

Length over all 22' 3" Platform 4' 3¼" x 8' 3¼"

Interchangeable front wheel or sleds

Speeds in high 7 miles per hour or 9 miles per hour according to final gear ratio specified

Weights Approximate—Front 5000 lbs. Rear 13850 lbs. Total 18850 lbs.

Complete Specifications on request

Lombard Big Six Tractor—Model SR 125

Six Cylinder Motor 6" bore 7" stroke

125 H. P. at 1000 R. P. M.

142 H. P. at 1200 R. P. M.

All other details practically the same as Model SR 100

Complete Specifications on request

The above models are used for hauling long trailing loads, snow plowing, logging or other work where heavy power is necessary. Special platforms and adaptations of these chassis are constantly being made. Let us figure on your problem.

Lombard Contractors Special Model CS 88

4 Cylinder Motor—6" Bore 7" Stroke

88 H. P. at 1000 R. P. M.

97 H. P. at 1200 R. P. M.

Length over all of chassis 23' 9"

Length chassis behind cab 12 feet

Body—Six yard water level capacity 6' x 12'

Heaviest type wood and steel construction for rock

Other lighter types body if desired with single or double acting tail gates

15 ton hydraulic hoist heavy duty type

Speeds in high 7 miles per hour or 9 miles per hour according to final gear ratio specified

Weight Empty—Front 5240 lbs. Rear 18610 lbs. Total 23850 lbs.

Weights given cover heavy body illustrated which weighs 4800 lbs.

Load Capacity 15 tons

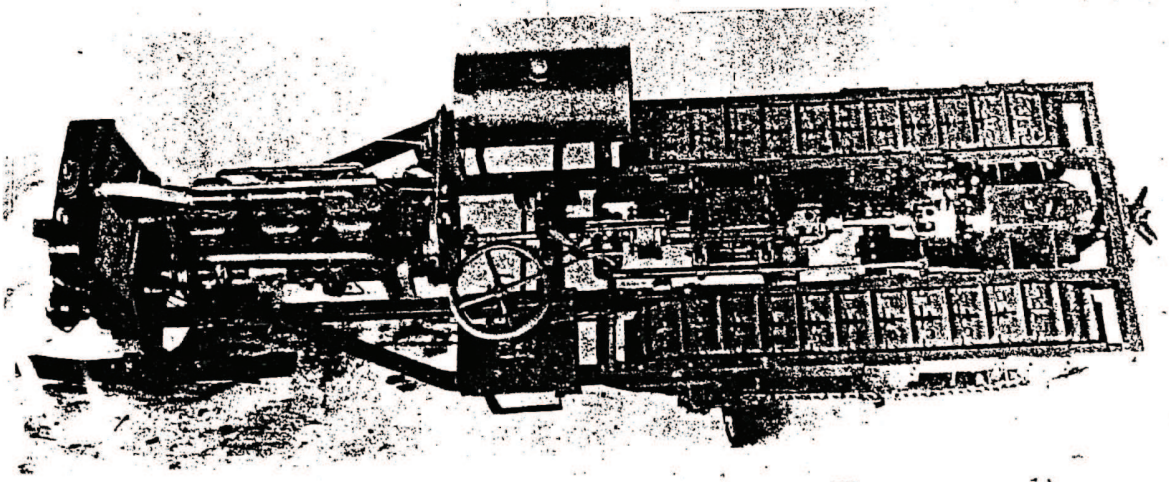
Complete Specifications on request

Lombard Twenty Ton Load Tractor Model GT

This model built to order to suit customer's particular problem. Speeds same as other models. Special types of platforms, rack bodies, crane mountings or dump bodies are available.

Platforms average about 14 feet long by 7 feet wide and chassis about 24 feet long. Powered with 88 H. P. or 125 H. P. motors according to character of work performed.

Tell us your problem so we may submit detailed information.



Chassis of Model SR 100 showing unusual accessibility

WATERVILLE, MAINE

LOMBARD TRACTORS

SPECIFICATIONS

LOMBARD TRACTOR TRUCK

Heavy Duty Contractors Special

Model CS-88

MOTOR

CLIMAX R4U four cylinder four cycle type. Cylinders cast in pairs. Detachable Heads. Bore 6", Stroke 7", Pistons 6 15-16" long, 4 oil seal rings, Bronze bushings for pins. Forged connecting rods. Silchrome valves 2¼" Diameter 3-8" lift. Three bearing crankshaft with 3¼" diameter bearings. Gasoline fuel.

POWER

97 Brake H.P. at 1,200 R.P.M.
Note: Brake Horse Power means power as actually measured at the flywheel connection. It is not a theoretical rating.

GOVERNOR

Centrifugal type—normal setting 1,000 R.P.M. can be increased by dash control up to maximum 1,200 R.P.M. when required.

PISTON DISPLACEMENT

791.6 cubic inches.

MAXIMUM TORQUE

475 ft.—lbs. at 650 R.P.M.

WEIGHT OF MOTOR

Approximate 2,000 lbs.

OILING SYSTEM

15 lbs. pressure to crankshaft, camshaft and connecting rod bearing — Capacity of sump 18 qts. Eccentric vane type pump—Cylinders Oil Mist.

IGNITION

Bosch ZR4 Magneto—Impulse Coupling. Note: On special order double ignition is furnished with Bosch Magneto, Distributor and Coil Synchronized so either or both may be used at same time. Cylinders arranged for 2 spark plugs.

FUEL SYSTEM

60 Gallon Main Tank and Stewart vacuum tank. Sediment chamber in main fuel tank. Gas Filter and water trap in pipe line to vacuum tank. Stromberg 2" Type M-5 Carburetor. Air Cleaner of ample capacity.

STARTING AND LIGHTING

Leece Neville 12 volt starting motor with separate generator, 12 volt 150 Ampere Hour Storage Battery placed in cab for easy access and maintenance. Magnetic type push button switch on dashboard—Two headlamps, dash and trouble light.

COOLING SYSTEM

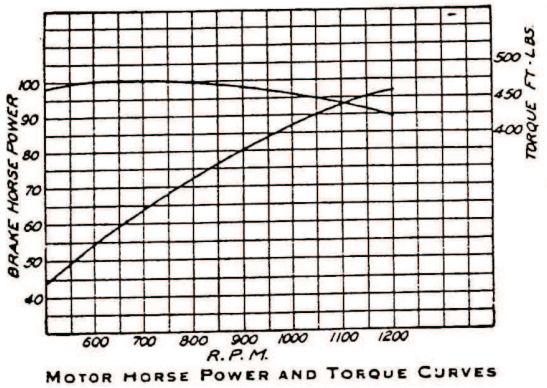
Gear Driven Centrifugal Pump. Water in radiator core—7½ gallons. Water in engine—7½ gallons. Radiator multi-tube type in cast iron shell. Four blade 24" diameter belt driven fan, easily adjusted. Dash type motometer radium dial.

CLUTCH

Special Heavy Duty Lombard unit type. Multiple dry disc—10 Forged Steel Plates 11½" diameter. *Outside adjustment one spring only.*

TRANSMISSION

Heavy duty dental type fully enclosed. Three speeds forward and one in reverse. Gears always in mesh. Positive lock gear shift in all positions. Transmission and Clutch unit mounted in steel casting frame assuring perfect alignment and accessibility. Ball or Roller bearings throughout.



MOTOR HORSE POWER AND TORQUE CURVES

PROPELLER SYSTEM

Straight line drive from engine to worm drive. Two universal joints between engine and clutch and transmission. Two extra heavy universals between transmission and worm drive.

REAR DRIVE AND DIFFERENTIAL

Worm drive with forged heat treated alloy steel worm and bronze gear. Differential mounted with heavy cast steel housings and spider. Alloy steel differential gears and pinions properly treated and hardened. Ratio 10 3 4 to 1 or 14 1 3 to 1.

FINAL DRIVE

Sprockets Manganese steel press fitted and keyed to shafts. Sprocket shafts heat treated alloy steel 3¼" diameter in bronze bearings mounted in cast steel hangers. Sprockets normally carry no chassis weight. Front sprockets have teeth same as rear.

LAG BELT OR TREAD

Each side has 31 lags 13" wide. Highest grade Manganese steel—one piece castings connected by chrome nickel heat treated and hardened pins.

ROLLER TRUCKS

Each side has two cast steel trucks with six pairs rollers each. Trucks hung on main equalizers of cast steel to allow lag belt to conform to ground inequalities.

LOMBARD TRACTORS

ROLLERS AND BEARINGS

Rollers of Manganese Steel mounted on alloy steel shaft. Special heavy duty Timken roller bearings mounted in dirt and dust proof housings.

WHEELS

Dayton Cast Steel Wheels Heavy pattern with 36" diameter 6" tread solid rubber tires. Wheels mounted on auto type steering knuckles with Timken bearings. Steering knuckles have ball thrust bearings at top providing easy steering. Turning Radius 35 feet (outside wheel).

STEERING GEAR

Steering Hand Wheel with bevel gear reduction operating chains on drums—Easily repaired in the field if ever required. Slight slack in chains provides steering cushion. Easily adjusted.

FRAME

Chassis frame heavy 7" channels 19 3-4 lbs. per foot. Heavy gusset castings and cross members insure rigidity. Section under dump body consists of 2 channels one above the other with spacers giving beam depth of 17"—an enormous safety margin against bending under load.

CHASSIS DIMENSIONS

Length Overall 23' 8 7-8".
Width Overall 6' 10½" (At front wheel hubs).
Length of frame 22' 1 3-8" width 5' 8".
Height top of frame 3' 1".
Height top of radiator 6' 8" Top of Cab 8' 3".
Draw bar height 2' 10" Top of Hoist 9' 6 1-4".

THREE POINT SUPPORT

Front axle steel casting. Chassis weight carried at midpoint on springs. Chassis frame on rough ground takes plane of rear supports, pivoting on front axle, relieving frame of twisting stresses.

SPROCKET CENTERS

Normal 89" with provision at forward end for adjustment as lag belt wear occurs. Front Sprockets mounted in cast steel yokes so adjustment of lag belt can be made without changing square setting of shafts and bearings.

WHEEL BASE AND TREAD

Wheel base 16' 3-8" (Center front wheels to center between roller trucks).
Tread width center to center lag belt 48".
Front wheel tread width center to center 68½".
Outside to outside of lag belt 61".
Inside to inside of lag belt 35".

ROAD BEARING

Length of Road bearing of lag belts on level 58".
Total Road Bearing on Lags 1,508 square inches.
Light weight on lags 12.3 lbs. per square inch of road area.
With ten ton body load 25 lbs. per square inch of road area.

WEIGHTS APPROXIMATE

On Front Wheels 5,240 lbs.
On Rear Lags 18,610 lbs. Total 23,850 lbs.
Above weights without load.

LUBRICATION

Except in motor, transmission and rear end drive, Alemite pressure grease system used throughout.

BRAKES

Clasp type cast iron brake shoes operating on brake drum of main drive shaft just forward of worm drive housing. Foot and hand operated.

SPEEDS (MILES per Hour)

At engine speed of 1,200 R.P.M.

Speed	10½-1 Drive	14 1/3-1 Drive
1st.	2.28	1.75
2nd.	4.56	3.50
3rd.	9.12	7.00
Reverse	2.29	1.51

CAB

Completely enclosed cab with 2 part door on drivers side. Windows on all sides.

DUMP BODY

An especially rugged steel and wood body for serving steam shovels loading rock is standard equipment and is described below but other bodies of lighter construction in wood and steel or all steel can be furnished on special order for less severe service. Details furnished on application.

DUMP BODY CONSTRUCTION STANDARD EQUIPMENT.

Built for the most severe Rock excavation work serving steam shovels. Combination wood and steel construction. Floor—1-4" steel plate one piece over 2" hardwood floor. Cross bolsters nine heavy 4" I beams and one 3" x 2" angle. Longitudinal Sills—Four angles 4" x 3" x ½" full length under cross sills. Side Sills and Run Boards—all oak steel fitted. Rear Posts—all steel hickory fitted. Side Braces—Twelve Structural steel braces supporting steel bound side posts with underbody braces. Top rail—covered with 3½" x 3" x 3-8" steel angle. Tailgate—one way folding under platform. Chain support. A 3½" x 2½" x 1-4" steel angle supports full width of gate when hooked up level with floor. Weight of dump body 4,800 lbs. (including side boards).

DUMP BODY DIMENSIONS AND CAPACITY

Length inside 12 feet width inside 6 feet. Height permanent sides 18½ inches. Side boards 9" high. Overall width 87 3-4". Height of front 30".
Capacity without side boards 4.11 cubic yards.
Capacity with side boards 6.11 cubic yards.
Above capacity on water full basis.

DUMP ANGLE AND TIME

40 degrees insuring quick unloading. Load dumped and body lowered in one minute. Hoist controls wholly within cab.

HOIST

Heavy duty single cylinder hydraulic hoist. 6" ground bore cylinder 42½" piston travel. Lifting capacity 15 tons. Oversize cables, cross arms and base. Ball and socket joints in sheaves. A quality product. Weight 700 lbs.

TOOLS

Complete set tools, socket wrenches, ten ton jack and Alemite compressor.

DRIVE

Handled throughout the same as any heavy duty wheeled truck. Special drivers not required.