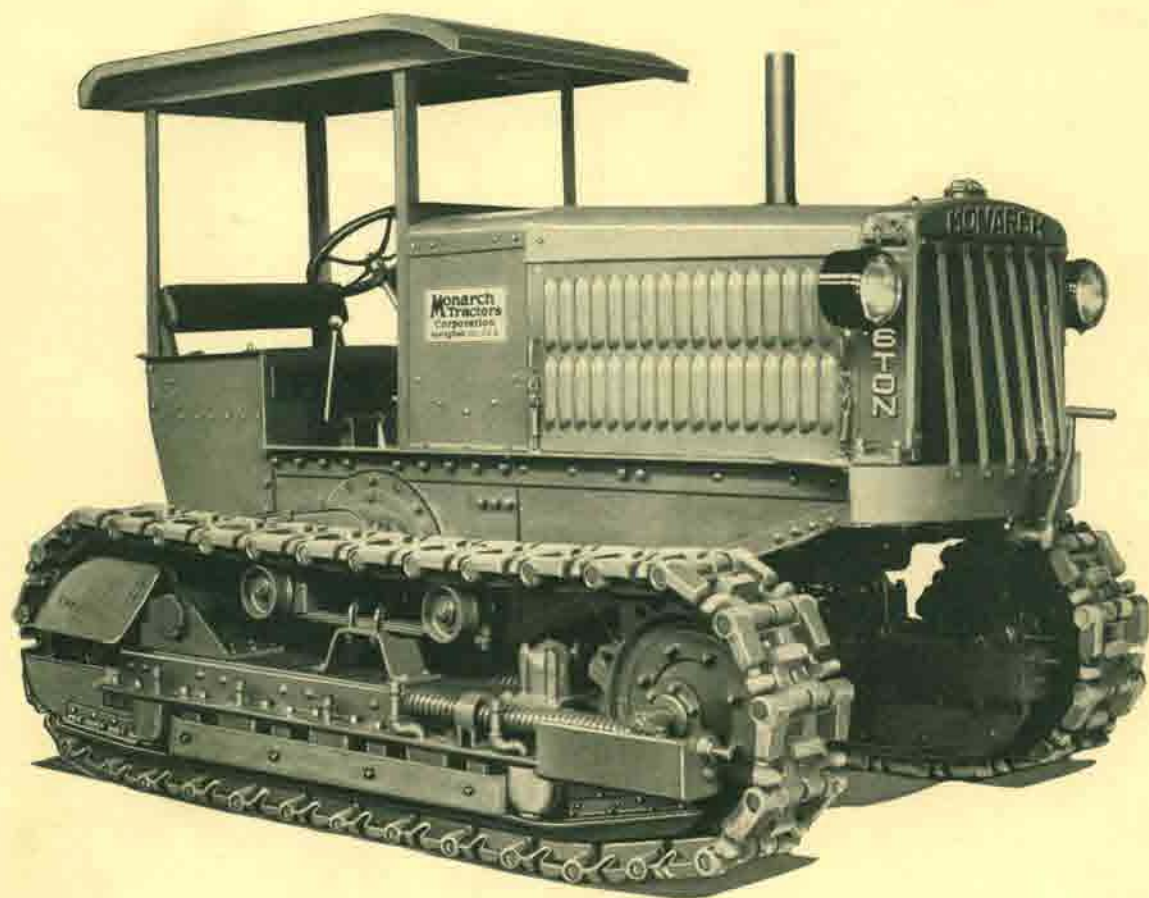


The 6-Ton Monarch Tractor

[MODEL H]



NEW SIZE, providing more power, faster speeds, exceptional traction and flexibility for every job in the medium duty field. The ideal tractive power for county and township road building and maintenance, for municipal and contracting service, for snow removal, hauling, and general industrial use. The most modern in design with many exclusive features of strength, accessibility and operating economy.

Brief Specifications

of the

6-Ton Monarch Tractor

Capacity:

40 draw-bar H. P.

General Dimensions:

Length over all	9' 9"
Width over all	6' 3 1/2"
Height to top of radiator	5' 3 3/4"
Height with top	7'
Length of ground contact	7'
Height of draw-bar hitch	1' 3"
Shipping weight (approximately)	12,000 lbs.

Speeds:

Three forward, one reverse. First 1.86; Second 2.82; Third 4.07; Reverse 3.26 M. P. H. By installing larger transmission sprockets above speeds are increased to: 2.06, 3.13, 4.50 and 3.61 respectively.

Main Frame:

Heavy structural steel, riveted and braced.

Motor:

4 cylinders, valve-in-head, heavy duty type, specially built for this tractor. Completely enclosed. Bore 5 1/8". Stroke 6 1/2". 60 brake H. P. at 1000 R. P. M.

Pistons:

Special close grained grey iron. Three compression rings and one oil ring. Piston pins held by bronze locks.

Crank Case:

Upper part bolted to main frame. Bottom part in two halves, lower part being an oil pan, easily removable to give complete access to all crank shaft bearings.

Crank Shaft:

Drop forged S. A. E. 1045 steel, heat treated; 2 7/8" dia.

Main Bearings:

Three main bearings. Upper half fitted in upper part of crank case.

Connecting Rods:

Special aluminum alloy forgings, extra light and strong; bearings spun in at crank shaft ends.

Lubrication:

Full force feed oiling through drilled crank shaft. Oil pressure gauge at foot of steering column.

Ignition:

American Bosch ZR-4 magneto.

Carburetor:

Zenith Model 77-A 1 3/4".

Air Filter:

United, dry cleaner type.

Governor:

Pierce, centrifugal type, fully enclosed.

Cooling:

Gear driven centrifugal pump in connection with 4-blade fan. Fan mounted on ball bearings and driven by silent chain, fully enclosed with provision for chain adjustment.

Radiator:

Modine, single suspended core type, with cast header and sides.

Transmission Case:

Single heavy reinforced casting bolted into heavy steel side plates of main frame. Rear of case carried on main pivot axle.

Transmission:

Selective sliding gear type. Three speeds forwards, one reverse; completely enclosed and protected against entrance of dust and against oil leakage. All spline shafts machined from chrome nickel steel heat treated. Gears cut from nickel steel forgings, hardened. All loads carried on New Departure ball bearings and Hyatt roller bearings. All bearings extra large. Transmission operates constantly in oil bath; no oil pump.

Steering Column:

Truck type steering column. Slight turn of wheel steers and controls tractor. Foot pedals operate brakes.

Master Clutch:

Double dry plate type, with four friction surfaces, cast iron against Thermoid linings.

Steering Clutches:

Multiple disc type, 12 discs. Housings completely protected against entrance of dirt and against oil leakage. Clutches are completely accessible and may be removed in shortest time. Most accessible adjustment for clutch throw-out.

Main Pivot Axle:

Rear weight of tractor carried on chrome nickel steel heat treated pivot axle 3" dia., providing correct oscillation of track members.

Equalizer Bar:

Front weight of tractor carried through heavy coil springs on to extra heavy equalizer bar of riveted steel construction. Equalizer bar carried on to truck frames through ball and socket joints. This in connection with main pivot axle provides correct flexibility and oscillation of track members under all conditions.

Final Drive:

Two extra heavy Baldwin chains $2\frac{1}{4}$ " pitch, roller type. Fully protected by detachable housings. Eccentric adjustment provides means for maintaining proper chain tension. Chain sprockets cut steel, heat treated and hardened to provide greatest durability. Rear chain sprocket of ring type, bolted on to steel hub.

Truck Frames:

Heavy steel channel construction, riveted, bolted and trussed.

Truck Wheels:

Truck wheels mounted in pairs, 5 pairs in each truck frame. Wheels are 10" dia., one-piece drop forged steel, machined and heat treated. Each pair pressed on $2\frac{1}{4}$ " steel axle, heat treated. Each end of axle is mounted on a Hyatt roller bearing with inner and outer races, and carried in a journal box comprising a single casting. Inner side of journal box fitted with a positive dirt and oil seal of cork ring type, preventing entrance of dirt or leakage of oil. Journal box contains large reservoir holding sufficient oil to last approximately two weeks. Entire construction exclusively Monarch. Truck wheels practically unbreakable and will out-last any other type.

Track Supporting Rollers:

Two double rollers of drop forged steel, heat treated, mounted on bronze bushings and carried on spring brackets. Ample means for lubrication.

Tracks:

Each track contains 31 links or shoes, 13" wide, 8" pitch. Each track link is a ONE-PIECE STEEL DROP FORGING, carefully machined and heat treated to give maximum toughness and service. The track assembly is extremely simple, comprising only one link (unit forging), one track pin $1-11/32$ " dia., $11-7/8$ " long, machined and case hardened, two tubular steel bushings, machined and case hardened, one small retainer clip, and two welch expansion plugs fitting over the ends of the pins. Link provides a smooth ground contact but with a special form of corrugation which assists traction but does not damage a finished road surface. Detachable grousers. No other tracks but Monarch employ one piece drop forged steel track links; this construction constitutes the greatest advance ever made in track design, and provides increased durability, mileage and economy.

Track Drive:

Sprocket comprises machined steel hub to which is bolted steel ring gear with integral sprocket teeth, heat treated. Mounted on Hyatt roller bearings.

Front Sprocket:

Front sprocket of same ring gear construction and interchangeable with track drive sprocket. Mounted on Timken roller bearings.

Track Release:

Front sprocket equipped with automatic coil spring in connection with adjusting screw for maintaining track tension.

Fuel Supply:

Tank capacity 31 gallons. Gravity feed on all grades.

Draw-Bar:

Swinging draw-bar with three different positions for locking at rear.

Electric Starter and Lights:

Complete electric starting and lighting outfit furnished if ordered. An exclusive Monarch convenience.

Equipment:

Standard equipment includes top, grousers, tools, radiator guard and hood over motor. Canvas curtains, complete winter cab, power pulley attachment, special snow and ice grousers, etc., furnished as extra equipment if ordered.

The 6-Ton Monarch Tractor

(MODEL H)

The increasing demand for "more power" has been fully met by the 6-Ton Monarch. A new size, it provides 40 H. P. at the drawbar, with the extra traction and the right speeds for handling a 10-foot grader or equivalent load under extreme conditions. With power to do more work than a 5-Ton or other medium size tractor can do, the 6-Ton has the extra pull which saves time and gets more work done on every job of grading, maintenance, contracting, snow removal or hauling.

Township, county and state officials recognize the advantage of a 10-foot grader for many conditions, and the 6-Ton is the ideal power unit for that load. Where an 8-foot or 9-foot blade is used, the extra capacity of the 6-Ton is equally valuable, as it enables a deeper cut or faster speeds, which means more miles of road graded and maintained in a given period of operation. It pulls maintainers, levelers, scarifiers, trains of wheel scrapers, or other road tools which over-tax lighter tractors, and fits in many conditions where a heavier tractor would not be suitable. It weighs slightly over 6 tons on the road, and its 60 H. P. valve-in-head motor is perfectly adapted to this weight. With exceptionally long tracks, the 6-Ton keeps its traction and pulls evenly on rough ground or in soft soil. It is low and compact in design, with perfect balance and distribution of weight. With its method of pivoting and spring mounting, it possesses remarkable track flexibility which enables it to climb over obstructions smoothly and evenly and to operate over rough ground without "pitching." Under full load the front end of the tractor stays on the ground and maintains the full advantage of the long tracks.

In contracting, the 6-Ton provides ample power for blading, pulling sub-graders, hauling wagons from elevator or shovel, for plowing, scarifying, and for all hauling work where a capacity of 40 H. P. at the drawbar is essential. For snow removal work the

6-Ton handles medium size snow plows through deeper drifts and under more difficult conditions. The long tracks provide sure traction with smooth power and ease of handling, in connection with the faster road speeds which can be provided for snow work.

For work in the oil fields, for overland hauling in the mining and lumber industries, the 6-Ton has the drawbar capacity and the flexibility suited to rough or roadless country, for operating over steep grades and working in close quarters where short turning is essential. For public utilities, on engineering and development projects, and for general industrial use, the 6-Ton provides a combination of tractive power, practical speeds and a rugged construction not obtainable in any other medium duty tractor.

In the 6-Ton design, Monarch engineers have incorporated new and exclusive features of construction which represent mature experience in applying tractors to road building and industrial work. It has been designed in accordance with the most modern engineering practice, including all specifications for materials, heat treatments, bearings, methods for lubrication, accessibility, etc.

The greatest advance made in the construction of track type tractors is provided in the new Monarch track links of one-piece drop forged steel. Accurately forged by dies from solid billets, these track links are then accurately machined by special tools in our own plant; they are then carefully heat treated in our own electric furnaces so as to give maximum strength and toughness, and unusual care is given to the assembly and test of the entire track unit. A careful inspection of this track will readily show its high quality of materials, its improved and simple design, and its capacity for severe service.

With its companion 10-Ton Monarch (90 H. P.), the 6-Ton is built under all the basic Patents applying to track-type tractors, which is an assurance of permanency and a protection to the buyer.



**Monarch
Tractors**

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