MTZ-Kirovets K744 (435 hp)

Articulated Track Tractors

- Mercedes-Benz Tier 4 Final, no DPF.
- Bosch-Rexroth hydraulic system.
- Optimal weight distribution, ideal for pulling implements.
- Reduced ground pressure, less soil compaction and high levels of traction in most fields.
- Less vibration increases driving comfort and reduces operator stress.
- Sun protected tinted glass front window provides panoramic view.
- Proven design - Most popular high powered tractor in the world: over 500,000 units produced since 1962.
- Includes many extra features as part of the standard package: Semi Powershift, Differential locks and more.
- Solid mechanical design of the power train.
- Easy to service and maintain.
- Wheeled Version model available.
Mercedes-Benz OM 470 engine
Mercedes-Benz diesel engine: 435 hp, 4 stroke, 6 cylinders in-line, turbocharged, Tier 4F
OM470 provides dependable and cost effective performance.
- High torque at low RPM
- Good fuel efficiency
- Very efficient on the use of Adblue® (DEF)
- Does not require a DPF.
- 600 hour intervals between oil changes

Kirovets Transmission: 16F - 8R within 6 Ranges
Kirovets transmission is a mechanical transfer gearbox with hydraulic control. It provides the precise speed best suited for your operation.
The speed transmission offers 16 forward and 8 reverse gears by using 6 ranges (4 Forward, 2 Reverse). Within each range Power Shift allows smooth gear shift on the move without breaking the power flow. Gears are produced with ultra-fine tolerances, to ensure better fit and extended life expectancy of the transmission.

4 WD with self-locking “no slip” differential
Kirovets tractor driving axles include “no slip” self-locking differentials. They ensure unsurpassed off-road capability in the most challenging conditions.
Planetary reduction gears transfer the power directly to the wheels.
The benefits of such design among others is good accessibility for maintenance.
The braking system is air controlled.

Smooth Ride and Shock Protection of main components
First thing users notice is the smooth ride of the tractor, because the MTZ-Kirovets K744 offers triple protection from shocks and impacts:
- Leaf spring suspension.
- Air ride cab is included in basic configuration.
To reduce long term damage from shocks and vibration, the engine, transmission, cab and fuel tank are installed on frame using rubber/metallic pads which extends life expectancy of the components.

Proven design - Most popular high-powered tractor in the world
Petersburg Tractor Works (PTZ, manufacturer of the “Kirovets”) was established in 1801, started producing licenced Fordson tractors in 1924. The plant has been mass producing the Kirovets model with total production since 1962 exceeding 500,000 units. Kirovets tractors have been in use on farms in the USA and Canada since the 80’s. Factory original parts are available for all old models allowing the farmers to maximize their return on original investment.

Operator’s Station offers modern fingertip control center
Panoramic view cab. Centrally located high quality operator’s seat with adjustable suspension. The Operator Station is comfortable, convenient, quiet and safe. Control platform puts all controls at fingertip position. No mechanical connection to gear box means lower vibration and quieter cab. Air suspension under the pressurized cab gives you a smooth ride, regardless of terrain. The cab metal is shielded by modern vibration-absorbing rubberized and soundproofing materials. Tilting and adjustable steering column, heater, air conditioner and radio are standard.

Cat IV 3 pt hitch‡ and wheels options
3-point hitch‡, category IV and Walterscheid type automatic lower link hooks for simple mounting of Implements. The multipurpose hitch is suitable for implements of category IV and III (optional adapters may be required) Optional 1,000 rpm PTO‡ is available.
Convert your current tracks to wheeled Tractor‡. It takes about 2 hours for on farm conversion and then back again to tracks. No need for a second Tractor. You can also add Duals‡ or Flotation Tires‡

Optimal weight distribution
Optimal weight distribution (60/40 becomes close to 50/50 when implements are attached). High pull power combined with low ground pressure.
- Front frame weights.
- Rear frame weights.
- Drawbar is rated for 11,000 lbs.”

- Leaf Spring Suspension
- Rubber/Metallic Pads
- High Quality Seat
- Front Weights
- Rear Weights
- Drawbar rated for 11,000 lbs
Comfortable Work Station allows full day of Productivity

We made the operator’s workplace convenient, comfortable and safe. In the tense periods of field work, the cabin becomes a home for the driver, providing comfort for sometimes as long as 10-12 hours a day. Track driven tractors, with air suspension under the pressurized cab, gives you a smooth ride, regardless of terrain. Reducing overall vibration which increases driving comfort, reduces operator stress for greater productivity.

The Operator Station - comfort, convenient and safe.
Centrally located operator’s seat is fully adjustable and has a wide adjustment range in height, longitudinal position, according to driver’s weight. A second seat is standard. Steering column height is adjustable and tilts, with multifunction color dashboard display on column.

Sun protected tinted glass allows panoramic front window view and the increased glass area greatly improves visibility from the driver’s seat.

Pressurised cab is cushioned with metal shielded by modern vibration-absorbing insulation, rubberized and soundproofing materials.

Trimble Auto Guidance is available as an option.

Heater, Air conditioner and radio are standard.

Built-in safety cage (ROPS) with thermo-vibration and noise insulation. This new comfortable cabin with improved noise prevention and vibrating insulation is just right for a productive day in the field.

New pneumatic control platform puts all controls at fingertip position. No mechanical connection to gearbox, means lower vibration and quieter cab.

- Ergonomics and ease of operations;
  - All transmission controls are one panel under right hand.
- Convenience;
  - Current hear is shown on display screen
- Ease of operations: no need to pull mechanical levers, it’s done through pneumatic cylinders
- Quieter cab: with lower vibration levels. No more mechanical connection to gear box. No more extra “holes” in the floor.
- Gearbox operation is now “foolproof”;
  a) Impossible to change gears/ranges without stopping main shaft first.
  b) Alarm will appear if “T” Temporary main shaft brakes are used for over 50 seconds.
- All controls are in easy reach of your right hand, including this new fingertip gear shifter, puts all transmission controls in one panel.

MTZ-Kirovets K744 - 435 hp
Articulated Tractors with Tracks
For Industrial and Agricultural Use

GET MORE DONE WITH LESS. Less hassle, less fuel, less maintenance – and more power.
Simple and reliable Tier 4F engine with very low DEF consumption.
Regular maintenance is less of a hassle as well, because it’s performed standing at ground level, and less often than with any competitive tractor.
Engine Oil only needs to be changed every 600 hours. And you use only one oil for all hydraulic operations. Earlier into the field in Spring with tracks.
No need to have two different types of tractors. If wanted you can convert to wheels in about two hours on site.
Caterpillar track designed specifically for use in harsh conditions, thus providing easy access to the terrain for working at any time of the year and saving money and time. Four independent tracks, with each being able to rotate at a different speed. For example: you can stop the front left track and rotate at maximum speed with the front right track.

Our tracks are 4 axle design with large rollers which can prevent the overheating of rollers and rubber tracks, improving the life time and reliability of the undercarriage rotating parts.

Dependable use of power is achieved by positive drive design with large sprocket diameter (increased speed) and always in contact rubber drive lugs to sprocket engagement thereby reducing the torque and pressure on each rubber track drive lug increasing the life of the track.

When required, tracks are easily dismantled and replaced with standard wheels, in your yard, in about 2 hours.

MTZ-Kirovets K744 equipped with rubber tracks (Front and Rear axle)

Machine weight: 13,300 kg - 29,321 lbs.
Machine weight with tracks: 19,900 kg - 43,871 lbs.
Weight on front axle: 10,546 kg - 23,249 lbs. - (60%)
Weight on rear axle: 9,354 kg - 21,283 lbs. - (40%)
Ground pressure front axle - 0.41 Kg/cm$^2$ - 5.83 psi
Ground pressure rear axle - 0.36 Kg/cm$^2$ - 5.12 psi
Mid rollers:
Undercarriage with 2 mid rollers assembled on a mechanical balancer which hallow oscillating performance around the center pivot. The oscillating system makes the undercarriage adaptable to all soil conditions, following the shape of the ground.

- this improve DRIVING COMFORT
- reduces VIBRATIONS
- increase track LIFE TIME.

A 4 axle undercarriage represents a perfect compromise between performances and reliability. The mid rollers (coated with polyurethane) and designed with “big diameter” (360 mm) are designed to reduce overheating during long working sessions in field and during fast and long distance transportation of the machine. A 4 axle undercarriage is also a solution on MAINTENANCE COSTS REDUCTION (less parts to check, maintain and replace).

Weight distribution from track unit to ground:
Rollers and idlers are strategically spaced in way to equally distribute the pressure on ground caused by machine weight. This allow to the machine to float on soft soil conditions, work in any kind of field condition and always reduce soil compaction.
25 pins reinforced sprockets: The sprocket gear is the “core” of the transmission, this device transmits all the torque power, comes out from the machine final drive to the rubber track and from it to the ground. So this one of the most mechanically important part of the undercarriage unit. A good design here mean:

1. Self cleaning capacity: The sprocket as been design in way to make it SELF-CLEANING, the parts which compose the sprocket are welded together and designed to allow to the mud or dirt to get out it self while the machine is working and so the sprocket is turning, this will save you time and money on cleaning the undercarriages very often during the season especially while working in mud condition.

2. Proper power transmission: the sprocket is reinforced in way to absorb and transmit all the torque comes from the machine final drive to the rubber tracks, thank’s to the bigger diameter on market (1.203 m - 47.3 inches) (competitors sprockets are: 1.003 m - 39.5 inches) it can offer a bigger wrapping angle of the rubber tracks (10 drive lugs are always engaged with the sprocket) it mean: contact pressure is distributed on 10 different lugs continuously = increased life time of the rubber tracks, reduced fuel consumption and better transmission of the HP from engine to the ground.

3. Positive drive lugs engagement: this solution offers the best way to engage the “gear” = sprocket to the “chain” = rubber track, and reduces the risk (almost to 0) that the track can slip on it or jump on it. even when hard work in field require all the tractive effort from the machine, this system can easily support the operator request without any power loose all the time.

Our Soucy Rubber Tracks
Rubber track: available in 2 width versions: 762 mm or 900 mm (30” or 36”). Agricultural aggressive tread design to improve traction, reduces vibrations and increase driving comfort. SOUCY group rubber products for High HP articulated tractors.

Due to the evolved geometry, SOUCY rubber tracks perfectly match the technical and engineering performances required by our undercarriages, especially for applications on like articulated tractors for use in Agriculture and Construction as well.

<table>
<thead>
<tr>
<th>GEOMETRY REVOLUTION FOR QUADTRACT 30”</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRACK WIDTH</td>
</tr>
<tr>
<td>mm - in.</td>
</tr>
<tr>
<td>Soucy</td>
</tr>
<tr>
<td>Competitor C</td>
</tr>
<tr>
<td>Competitor G</td>
</tr>
</tbody>
</table>

SZ CABLES: A TRACK THAT STAYS IN PLACE
In order to prevent untwisting of the cables and ensure optimal alignment of the track, cables wrapped in opposite directions (S and Z cables) are positioned alternately inside the track from the middle to the outside. This installation method enables a uniform and optimal tension throughout the tracks life span, ensuring high performance and longevity.

SOUCY RUBBER TRACK
1 Layer of SZ Cables
2 Layers of Fabric
1 Layer of Cables
3 Layers of Fabric
External profiles stuck on belt
Cracking

COMPETITOR RUBBER TRACK
1 Layer of Cables
3 Layers of Fabric

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<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine</strong></td>
<td><strong>Mercedes-Benz OM470 (MTU 1100 series)</strong></td>
</tr>
<tr>
<td><strong>Horsepower</strong></td>
<td><strong>435 hp Engine</strong></td>
</tr>
<tr>
<td><strong>Displacement</strong></td>
<td><strong>10.6L (647 cu. in.)</strong></td>
</tr>
<tr>
<td><strong>Max. Torque, Nm@RPM</strong></td>
<td><strong>2100 @ 1300 RPM</strong></td>
</tr>
<tr>
<td><strong>Rated Speed RPM</strong></td>
<td><strong>1800 RPM</strong></td>
</tr>
<tr>
<td><strong>Fuel Consumption</strong></td>
<td><strong>151 gr/hp hr (205 gr/kWt hr)</strong></td>
</tr>
<tr>
<td><strong>Oil change interval</strong></td>
<td><strong>600 hours</strong></td>
</tr>
<tr>
<td><strong>Electrical Equipment</strong></td>
<td><strong>Alternator 28V 35/80A</strong></td>
</tr>
<tr>
<td><strong>Starter rated voltage</strong></td>
<td><strong>24V 7,000 W</strong></td>
</tr>
<tr>
<td><strong>Batteries</strong></td>
<td><strong>2 x 12V 190Ah 1100A(CCA)</strong></td>
</tr>
<tr>
<td><strong>Transmission</strong></td>
<td><strong>Type Semi Powershift</strong></td>
</tr>
<tr>
<td><strong>No. of Gears</strong></td>
<td><strong>16F (in 4 Ranges) / 8R (in 2 Ranges)</strong></td>
</tr>
<tr>
<td><strong>Speed Range</strong></td>
<td><strong>3.1 to 25 km/h (1.9 to 15.5 mph)</strong></td>
</tr>
<tr>
<td><strong>Reverse</strong></td>
<td><strong>3.8 to 18.6 km/h (2.4 to 11.6 mph)</strong></td>
</tr>
<tr>
<td><strong>Wheels</strong></td>
<td><strong>speed is increased by 1.2x</strong></td>
</tr>
<tr>
<td><strong>4WD</strong></td>
<td><strong>Full-time Planetary Manually engaged Self-locking Leaf springs with double stroke shock absorbers</strong></td>
</tr>
<tr>
<td><strong>Front Axle</strong></td>
<td><strong>Final Drive Planetary</strong></td>
</tr>
<tr>
<td><strong>Rear Axle</strong></td>
<td><strong>Differential Suspension in front</strong></td>
</tr>
<tr>
<td><strong>Suspension in front</strong></td>
<td><strong>Built-in ROPS, thermo/vibro/noise insulated. Radio, Heat and Air Conditioning</strong></td>
</tr>
<tr>
<td><strong>Cab</strong></td>
<td><strong>Built-in ROPS, thermo/vibro/noise insulated. Radio, Heat and Air Conditioning</strong></td>
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**Capacities**

| Fuel Tank | **1 Tank, 800 L (211.3 gal.)** |
| Cooling System | **175 L (46.2 gal.)** |
| **PTO (Optional)** | **1,000 rpm, 20 spine, 45 mm (1¾")** |
| **Hydraulic System** | **Closed Center, Load Sensitive (LS)** |
| **Pressure Maximum** | **210 bar (3,046 psi)** |
| **At the coupler** | **185 bar (2,683 psi)** |
| **Standard Pump** | **280 L/min (74 gpm)** |
| **Maximum available flow at single valve 140 L/min (37 gpm)** | **Remote Valves 4 free + 1 connected to 3pt hitch 80 l/min (21 gpm)** |
| **3 point hitch (Optional)** | **Lift capacity @ hitch point Cat IV 9000 Kg (19,841.6 lbs)** |
| **Return line from hydraulic motor, standard, low restriction, straight to hydraulic tank.** | **Weights** |
| **Weight (Tracks)** | **19,900 kg (43,871 lbs.)** |
| **Weight distribution (Tracks)** | **10,546 kg (23,249 lbs.) - (60%)** |
| **Front axle** | **9,354 kg (21,283 lbs.) - (40%)** |
| **Rear axle** | **Return line from hydraulic motor, standard, low restriction, straight to hydraulic tank.** |
| **Warranty** | **2 years, 2,000 hours** |
| **Power Train warranty is available up to 5 years, 8,000 hours** | **Dimensions with 762 mm (30") tracks** |

**Dimensions**

<table>
<thead>
<tr>
<th>Overall Length</th>
<th>Overall Wheelbase</th>
<th>Ground Clearance</th>
<th>Forodable Depth</th>
<th>Overall Width</th>
<th>Overall Height</th>
<th>Track Tread</th>
<th>Minimum turning radius</th>
<th>Ground Pressure (Front)</th>
<th>Ground Pressure (Rear)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.70 m 25.3 ft</td>
<td>3.75 m 12.3 ft</td>
<td>1047 mm 41.2 in.</td>
<td>1.22 m 4.00 ft</td>
<td>3.29 m 10.7 ft</td>
<td>4.36 m 14.3 ft</td>
<td>762 mm 30 in.</td>
<td>7.96 m 26.1 ft</td>
<td>0.41 Kg/cm² 5.83 psi</td>
<td>0.36 Kg/cm² 5.12 psi</td>
</tr>
</tbody>
</table>