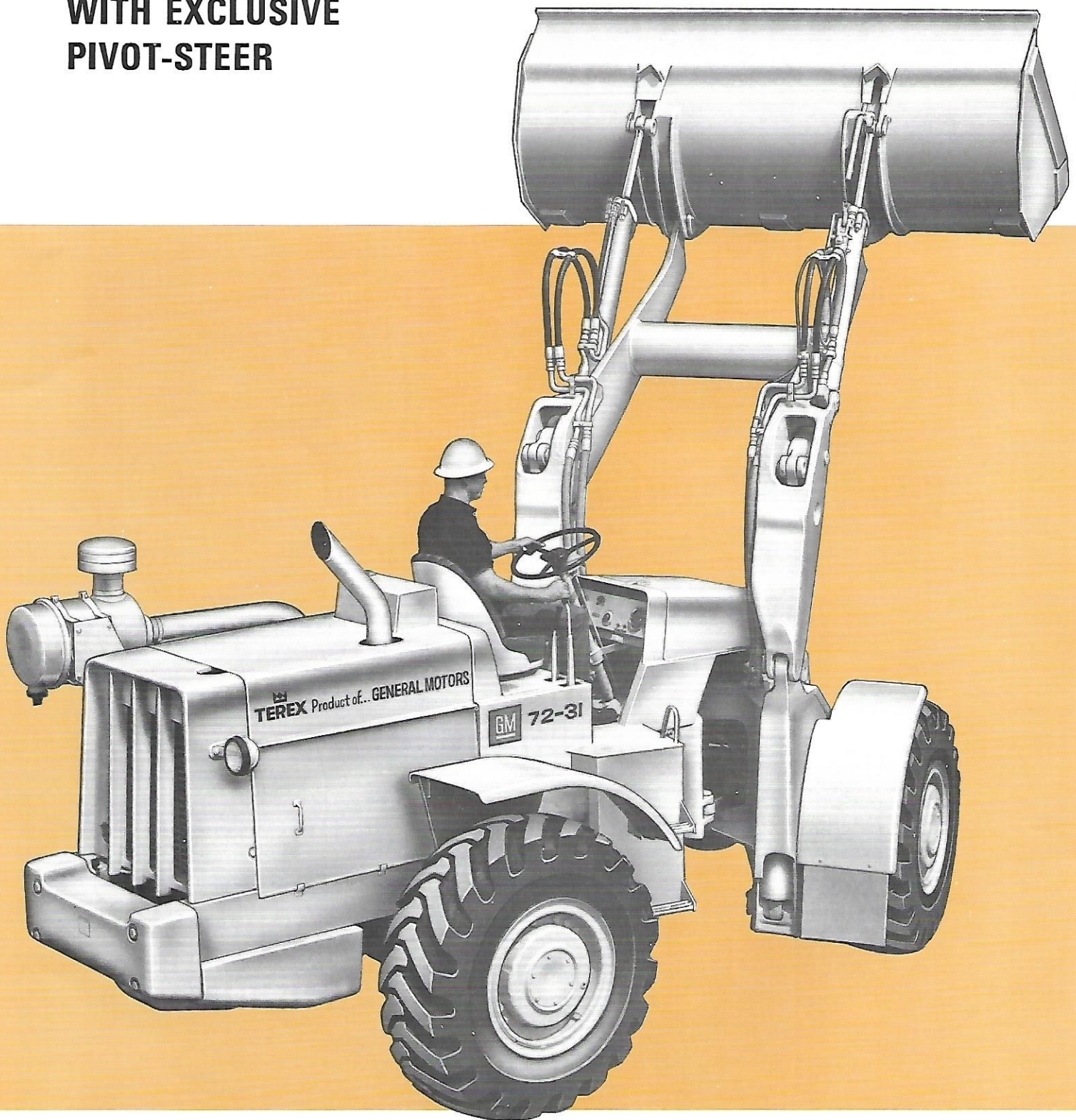


72-3I LOADER



**For greater profits:
SELECT THE TEREX 72-31 LOADER
WITH EXCLUSIVE
PIVOT-STEER**



**Common Sense Reasons
Why You Should Own the
TEREX 72-31
Front End Loader**

performance:

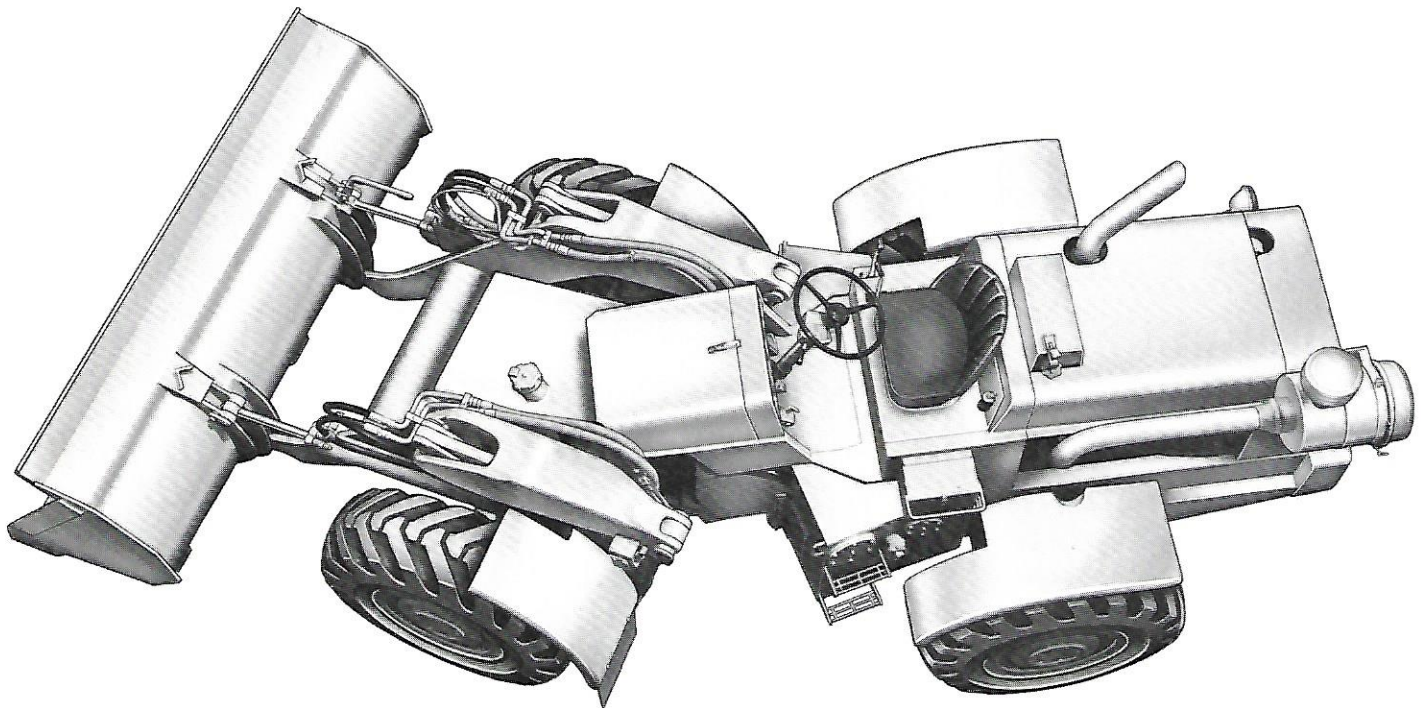
- 32,000-pound breakout force—tops in the industry
- 22,500-pound lifting capacity — bigger loads for more profits
- 145-gross horsepower—for greater production
- On-the-go powershifting—for faster cycles
- Twin-turbine transmission—delivers high torque to move the load instantly
- Seven buckets from 2½ to 5 cubic yards—one matched to your specific job
- Exclusive Pivot-Steer with 13'8" bucket swing—to spot loads better
- Optional Hi-Torque differentials — for better traction

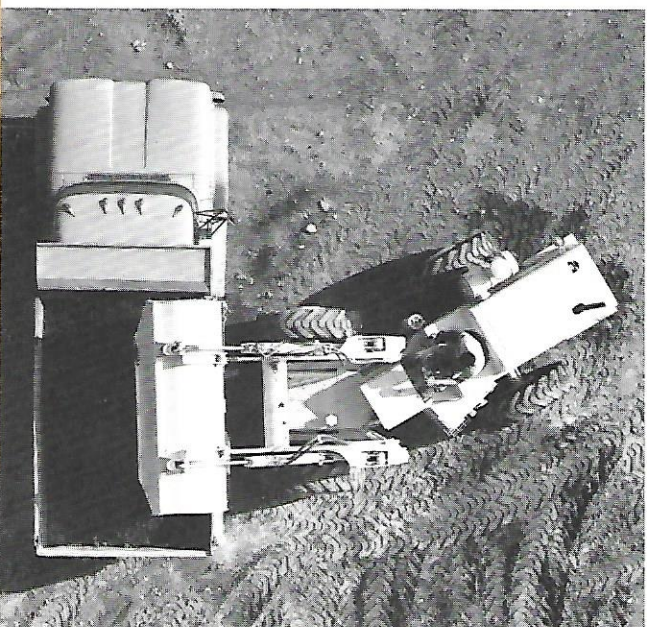
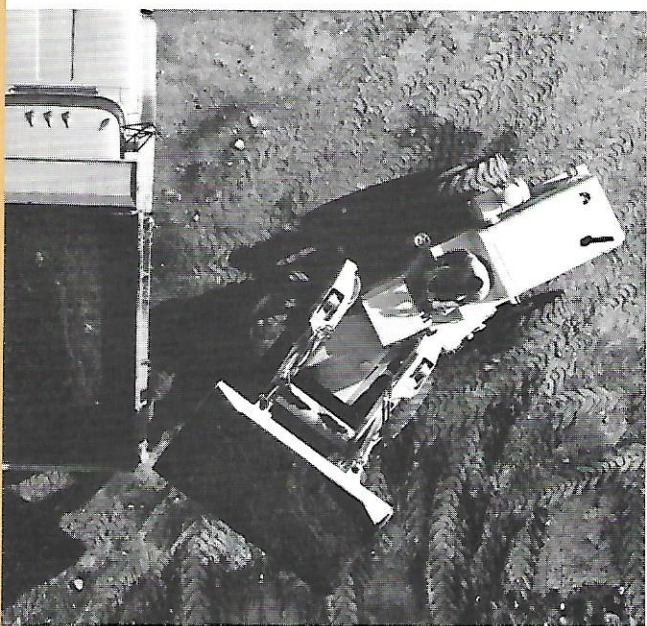
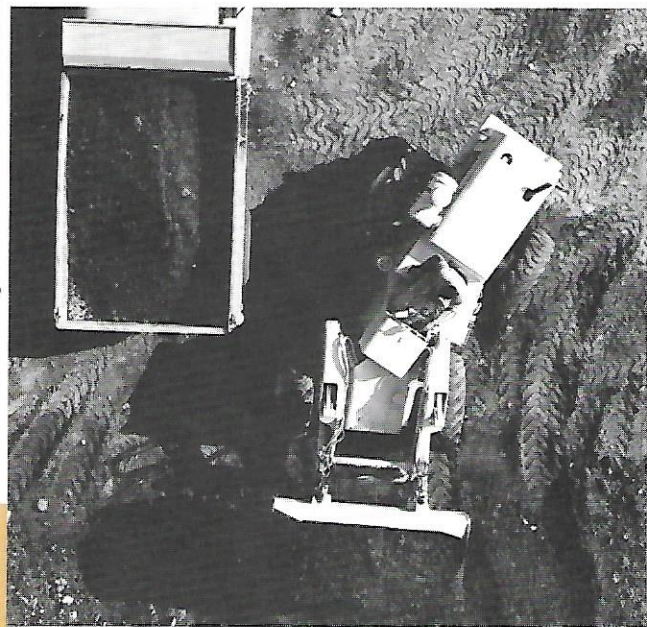
safety and comfort:

- 19,800-pound tipping load—more stability on rough ground
- Accumulator steering, dual brake system — for extra safety
- New TEREX cabs with excellent visibility, greater operator comfort

economy and reliability:

- GM 4-71N engine — economical to operate and maintain
- Excellent interchangeability of engine parts—less expense to owner
- Ground-level maintenance—more time on the job
- 24-volt alternator and starting system—for fast cold-weather starts
- Unexcelled dealer service and parts—the world around





It's What's Up Front that counts:

Maximum bucket travel of 13'-8" pays off in greater production

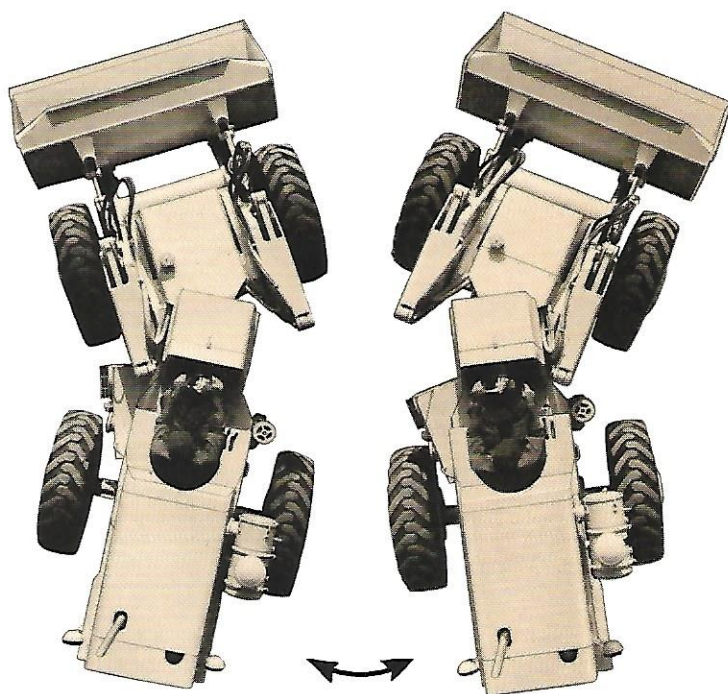
When the time comes to maneuver in tight places the TEREX 72-31 swivels only a little in the rear, but a whole lot in the front because of Pivot-Steer—it's what's up front that counts.

Locating the hinge pin one-third the distance from front to rear wheels gives the 72-31 shorter, faster cycles during loading operations. It moves back less than its own length, forward only half its length.

Then too, exclusive Pivot-Steer affords a full-turn tipping load of 18,000 pounds and straight-ahead tipping load of 19,800 pounds—nearly a ton greater than a familiar competitor. Greater bucket swing with bigger loads mean production is up and so are profits.

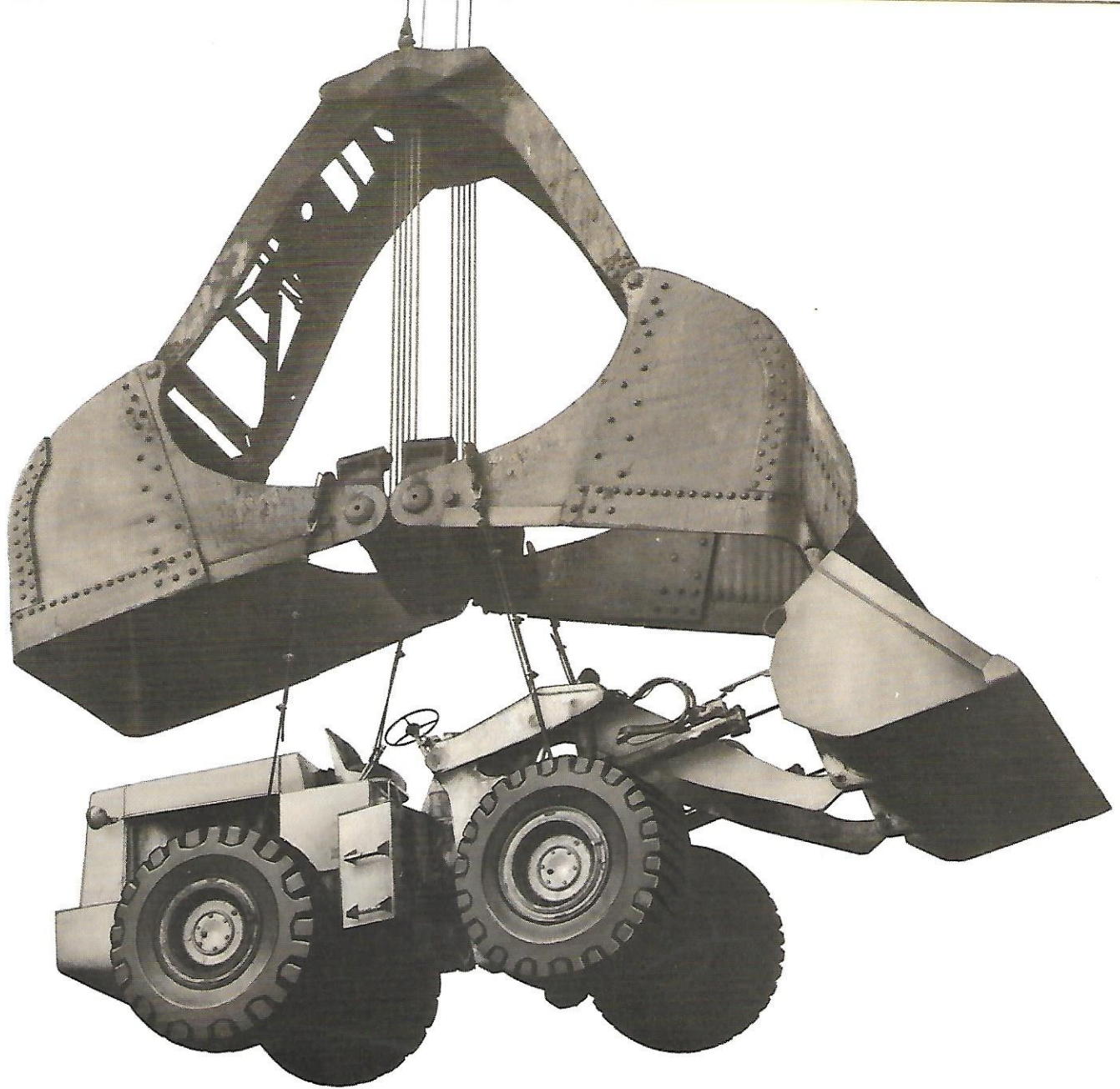
Operator rides in rear

Riding the rear section, the operator has full "feel" and control of his machine and positive steering empty or loaded. He maintains a full sense of direction and degree of turn without confusion.



Duck walks

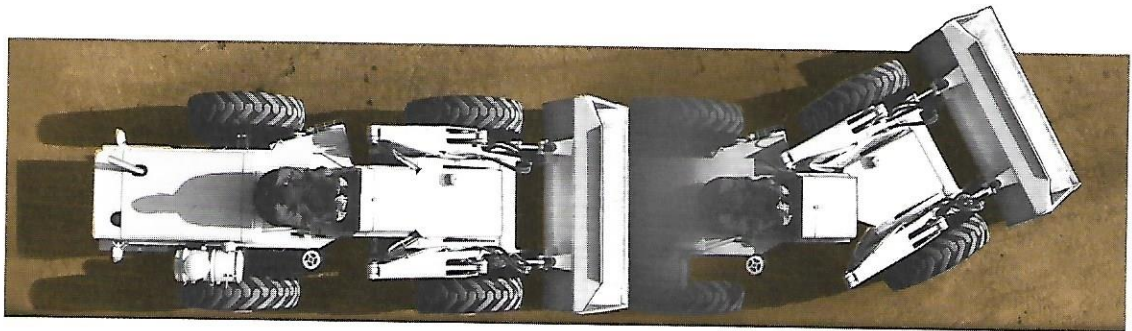
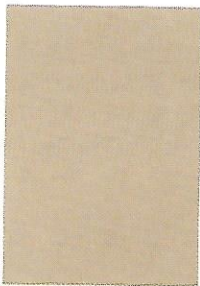
When traction is a problem such as wet or slippery ground, operator simply "duck walks", achieving traction by changing the footing of all four wheels; walking right out.



Strong pivot point

The rugged front and rear frames are held together at two points by 2½"-diameter kingpins within hardened steel bushings. Two bronze thrust washers take up slack in the pivot point. The rear section

which supports the operator's compartment and power train is constructed of 10"-deep box-channel sections with wrap-around frame to accommodate counterweights and attachments.



Close quarter work

Easily works close to walls, curbs or fences because all wheels track within bucket path and the rear

wheels track inside front wheels. There is no need for the operator to look back to avoid obstructions.



Engine and Transmission carefully matched for greater Loader production—

The GM Powershift transmission and twin turbine converter was selected for installation in the TEREX 72-31 Loader because of its excellent compatibility to the GM 4-71N engine.

The converter closely matches the transmission to the engine, senses automatically the loader's various operating demands for power under all conditions. The engine is permitted to work at maximum power, delivering full torque at all times to the wheels. This excellent match allows faster hydraulics, more power to the wheels, for speedier cycles and greater production. This means greater profits for its owners.

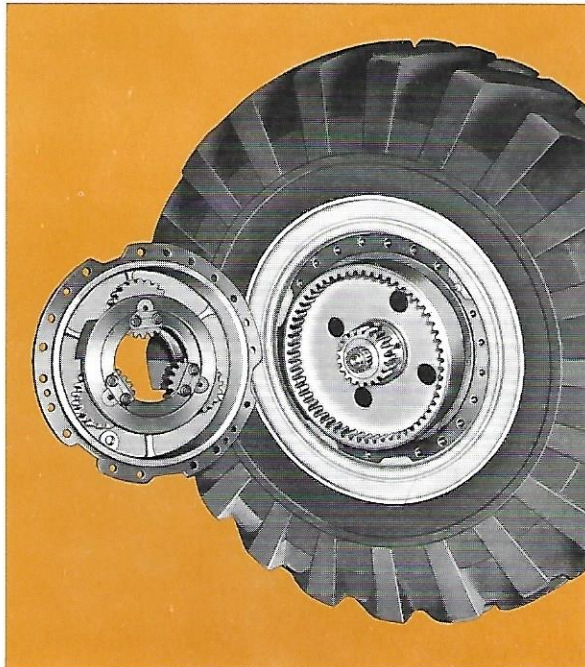
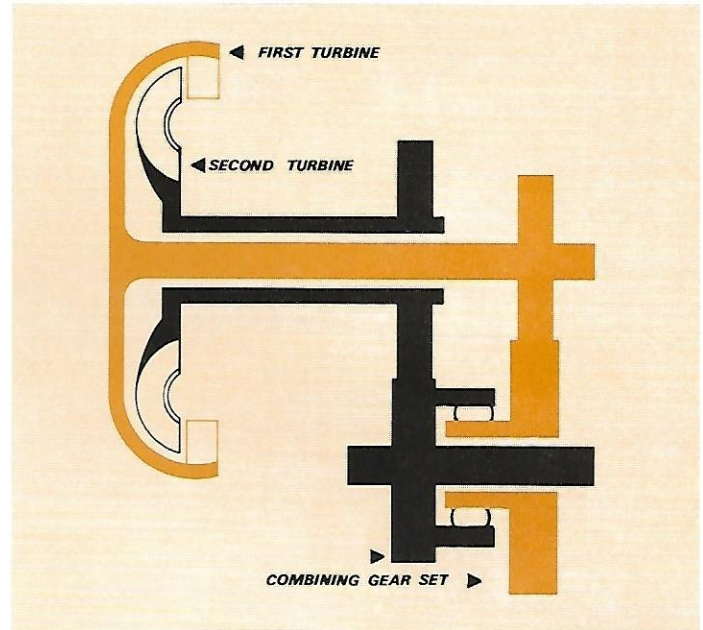
Unexcelled productivity with

Twin Turbine Converter

The GM twin turbine converter with automatic crowd provides unexcelled productivity.

The first turbine and its output gear set provides high torque multiplication necessary for crowding and getting the load underway.

The second turbine and gear set provides more speed for travel. The transmission shifts automatically between first and second, and between third and fourth, allowing the operator to concentrate on his job.



4-wheel planetary drive... full-floating axles

Planetary final drives in the hub of each wheel reduce the strain on the entire power train and make servicing simple. Axle shafts are free-floating. They transmit torque only, with all machine and load weight carried by the axle housing and spindles.



The modern GM 4-71N Engine— Easy to Start, Economical to Maintain

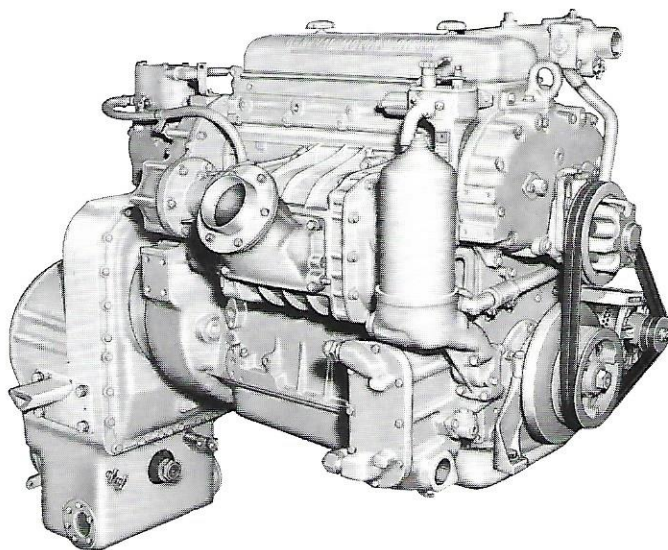
Easy to start in all types of weather, economical to operate and maintain, this modern GM 4-71 naturally aspirated engine delivers 145 gross or 136 flywheel horsepower for snappy loader performance.

Cam-actuated unit injectors for each cylinder, meter, pressurize, atomize and inject fuel all in one operation—delivering up to 9% greater performance from the same fuel.

Owners and mechanics alike appreciate the excellent interchangeability of less expensive engine parts, readily available from GM dealers the world around.

24-volt alternator and starting system standard on 72-31 Loader

24-volt alternator and starting system are standard on all TEREX Loaders — meaning greater starting ease in cold weather. The alternator delivers more power to batteries at engine idle. Proven by thousands of hours of in-the-field trouble-free operation, the new alternator features its own built-in voltage regulator.



For Top Production— Simple coordinated operator control

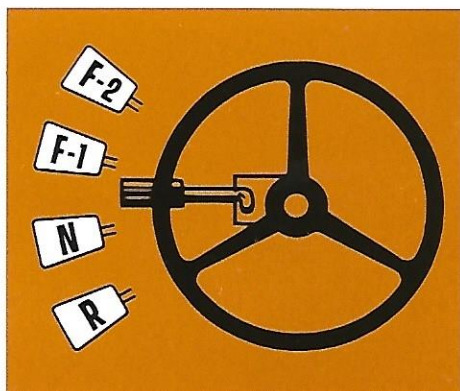
Single lever on-the-go shifting

A single lever provides on-the-go powershifting of the twin turbine transmission, for faster forward and reverse speeds.

The two forward-gear ranges, each using its own turbine, automatically provide two torque ranges, the equivalent of four speeds. The transition from crowd to travel is automatic, the transmission sensing the load changes on the machine.

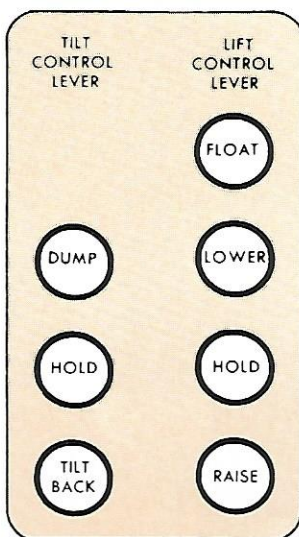
In practice, operators generally move into low range for heavy work and into high range for travel. They have fewer operations to perform, are less fatigued, and are more easily trained.

Actuated by the brake pedal, the air-operated transmission declutch allows greater power to be sent to the hydraulic system. This permits the operator to hold his position while loading into a hopper or truck.



Control of bucket and lift arms

Control levers are conveniently located to the operator's right. Inside lever controls bucket: forward to dump—back to rollback or retract. It is spring loaded in the dump position and automatically returns to hold when released.



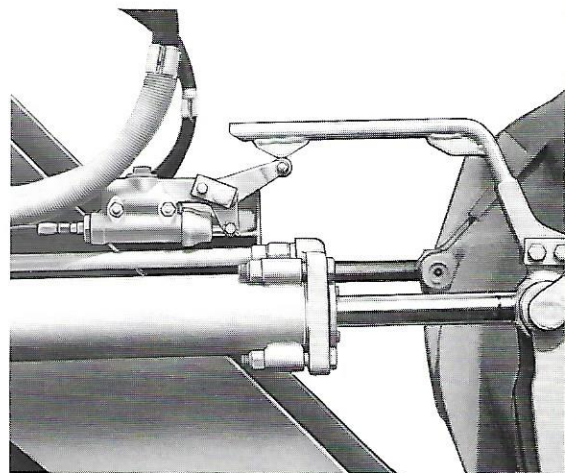
In the tilt-back position, lever remains back until automatic bucket leveling valve senses bucket is in proper attitude for digging. Automatic leveling valve can be manually overridden if a digging angle greater than preset is desired by holding the control lever until the bucket passes the preset dig position.

Outside lever controls lift arms. Lift arms control may be set in the raise position as loader moves into the pile, then, because the tilt circuit takes precedence over lift circuit, both bucket digging action and lift arm raise are controlled by working only the tilt lever.

Automatic crowd

Hydro Powershifting, with one-lever control, incorporates automatic crowd in low range. The load demand automatically selects the torque range. No manual downshifting is necessary to obtain maximum push. Hydro Powershift responds instantly and automatically.

Automatic bucket leveling...lift kick-out



As operator completes dumping and brings bucket lever back to rollback, a cam on an actuating arm attached to bucket trips a valve which returns rollback lever to hold position. This stops bucket at dig position. Operator can over-ride valve by holding lever for full rollback. A second cam stops the action at full rollback.

There is also an adjustable air lift-kickout to set the maximum dump height to any desired height.



The modern GM 4-71N Engine— Easy to Start, Economical to Maintain

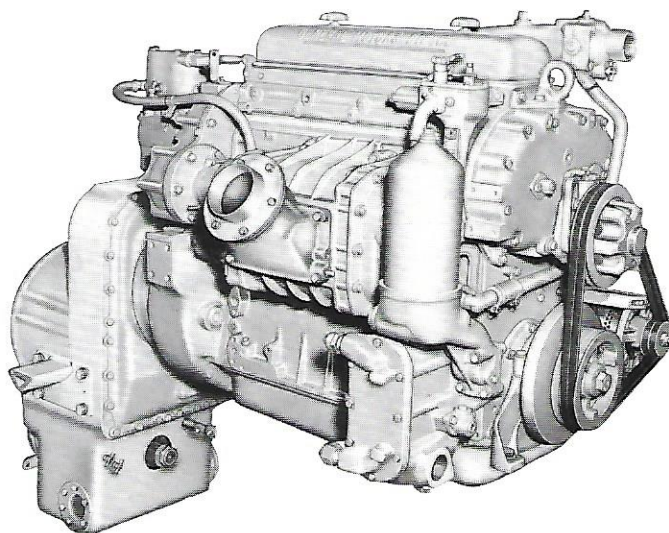
Easy to start in all types of weather, economical to operate and maintain, this modern GM 4-71 naturally aspirated engine delivers 145 gross or 136 flywheel horsepower for snappy loader performance.

Cam-actuated unit injectors for each cylinder, meter, pressurize, atomize and inject fuel all in one operation—delivering up to 9% greater performance from the same fuel.

Owners and mechanics alike appreciate the excellent interchangeability of less expensive engine parts, readily available from GM dealers the world around.

24-volt alternator and starting system standard on 72-31 Loader

24-volt alternator and starting system are standard on all TEREX Loaders — meaning greater starting ease in cold weather. The alternator delivers more power to batteries at engine idle. Proven by thousands of hours of in-the-field trouble-free operation, the new alternator features its own built-in voltage regulator.



Independent Hydraulic Systems for greater production

The TEREX 72-31 has independent hydraulic systems for power steering and loader operation. Each system has its own gear pump, pressure tank, and filter — assuring top steering and loading efficiency, and minimizing any possible contamination. Steering is not affected by bucket-loading demands. Hydraulics are fast and reliable for greatest production.

strong lift arms

Lift arms are 1¼" thick, 100,000 PSI, high-strength steel. They are designed with a minimum of superstructure or connecting linkage to provide excellent visibility and minimum weight.

They are quickly raised or lowered by 6"-diameter, double-acting jacks. Bucket-tilt jacks are 4" in diameter. Lifting capacity is a big 22,500 pounds.

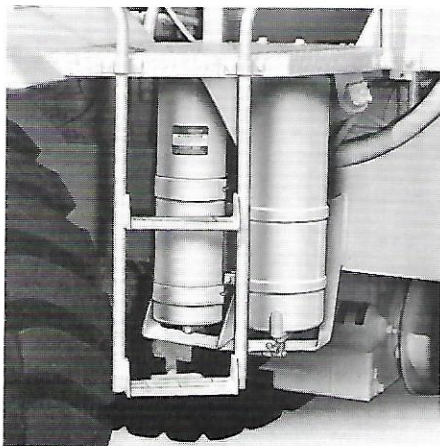




Power reservoir provides numerous advantages

The power reservoir or accumulator for the steering system (tank at left in lower photo) stores energy so that full power steering is maintained even at idle engine speed. The separate steering system allows for control after engine is shut down or in the event of engine or main hydraulic system power failure.

The power reservoir also releases additional power for greater breakout and bucket-lifting force during operation of the loader.



Dual braking for extra safety

All TEREX loaders are equipped with dual air-over-hydraulic four-wheel brakes. The air reservoir tank (at right in photo) assures safe stops in case of loss of air or brake fluid to either axle. Independent braking of each axle is assured with separate power clusters and brake lines.

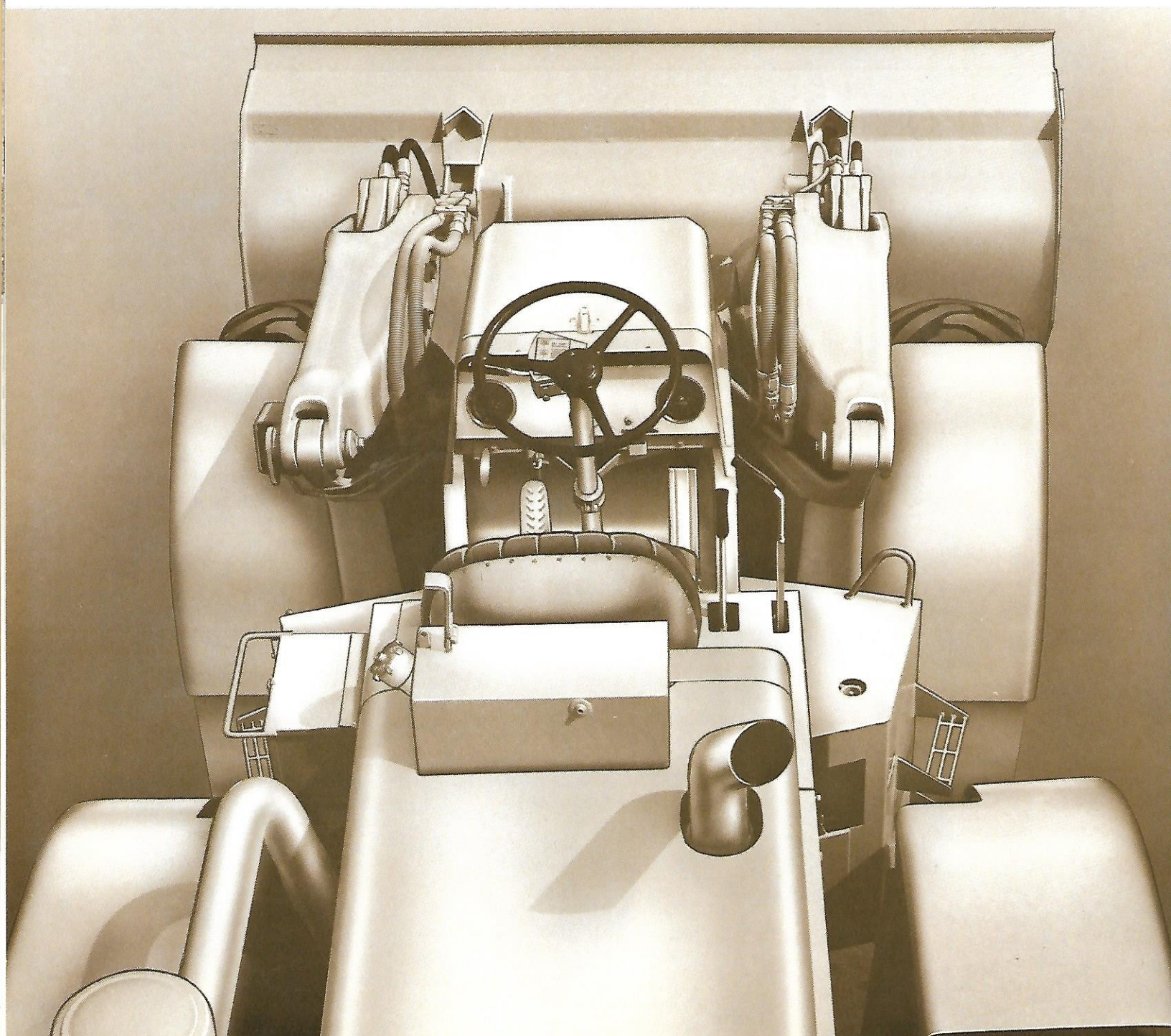
Operator's compartment designed for comfort, convenience and ease of operation

Operator's compartment is well oriented for comfort, convenience and ease of operation. This walk-in concept with clean open deck promotes top operator production. High-strength lift-arms are positioned well ahead of operator, providing greater safety.

Controls are conveniently located — the forward-reverse range selector lever is within easy reach on the left of the steering wheel.

Bucket-tilt and lift controls are located at right seat level. Operator's left foot controls brake; the right, engine acceleration.

Left-hand instrument cluster contains water temperature, fuel level, and engine lubricating pressure gauges. Right cluster contains transmission oil pressure, converter temperature and ammeter gauges.



Exceptional stability under all working conditions...

Short turning radius, long wheel base

The exceptional stability of the 72-31 is a direct result of locating the pivot-point one-third the distance from front to rear wheels. This results in a short turning radius for faster cycles, more stability and higher tipping load for greater production. Superior tipping loads, 19,800 pounds straight ahead, 18,000 pounds at full turn combined with a breakout force of 32,000 pounds places the 72-31 at the top of the class.

Rear axle oscillation maintains stability over rough ground. Axle oscillates 11 degrees either side of center for a total of 22 degrees. This provides a maximum of 15 inches wheel rise.

Visibility

Bucket and lift-arms are located well forward of operator. Related linkage is clean and simple. Visibility of bucket in load, carry, and dump positions is one of the best among all loaders in the industry.



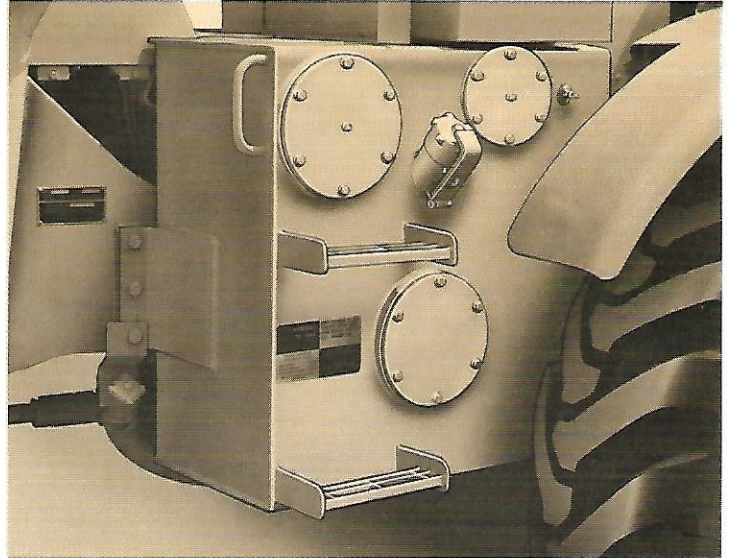
Quick check of daily maintenance items...

outstanding ground level servicing

Accessibility for easy servicing and maintenance is a built-in design feature of all TEREX loaders. Daily maintenance is readily taken care of at ground level.

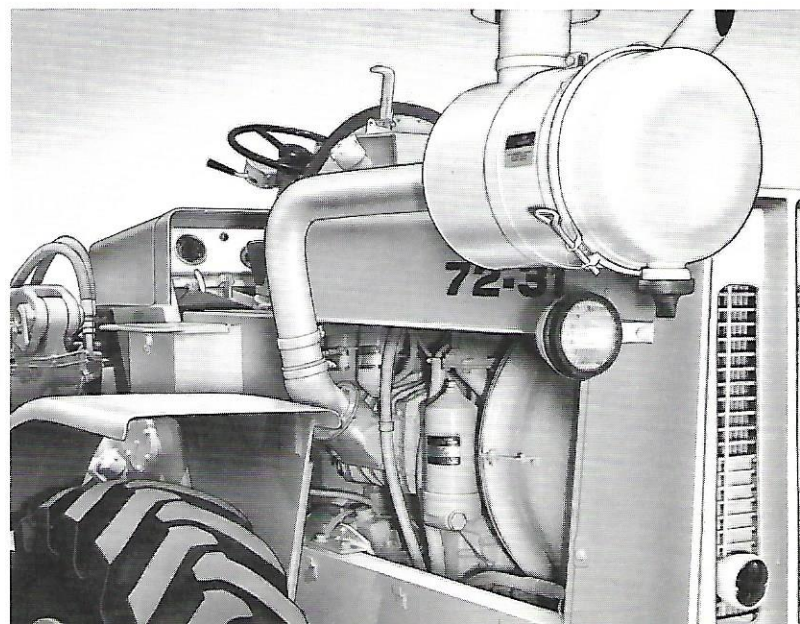
Access posts are provided to service the bucket hydraulic system main filter, suction screen, and to clean the tank without loss of fluid.

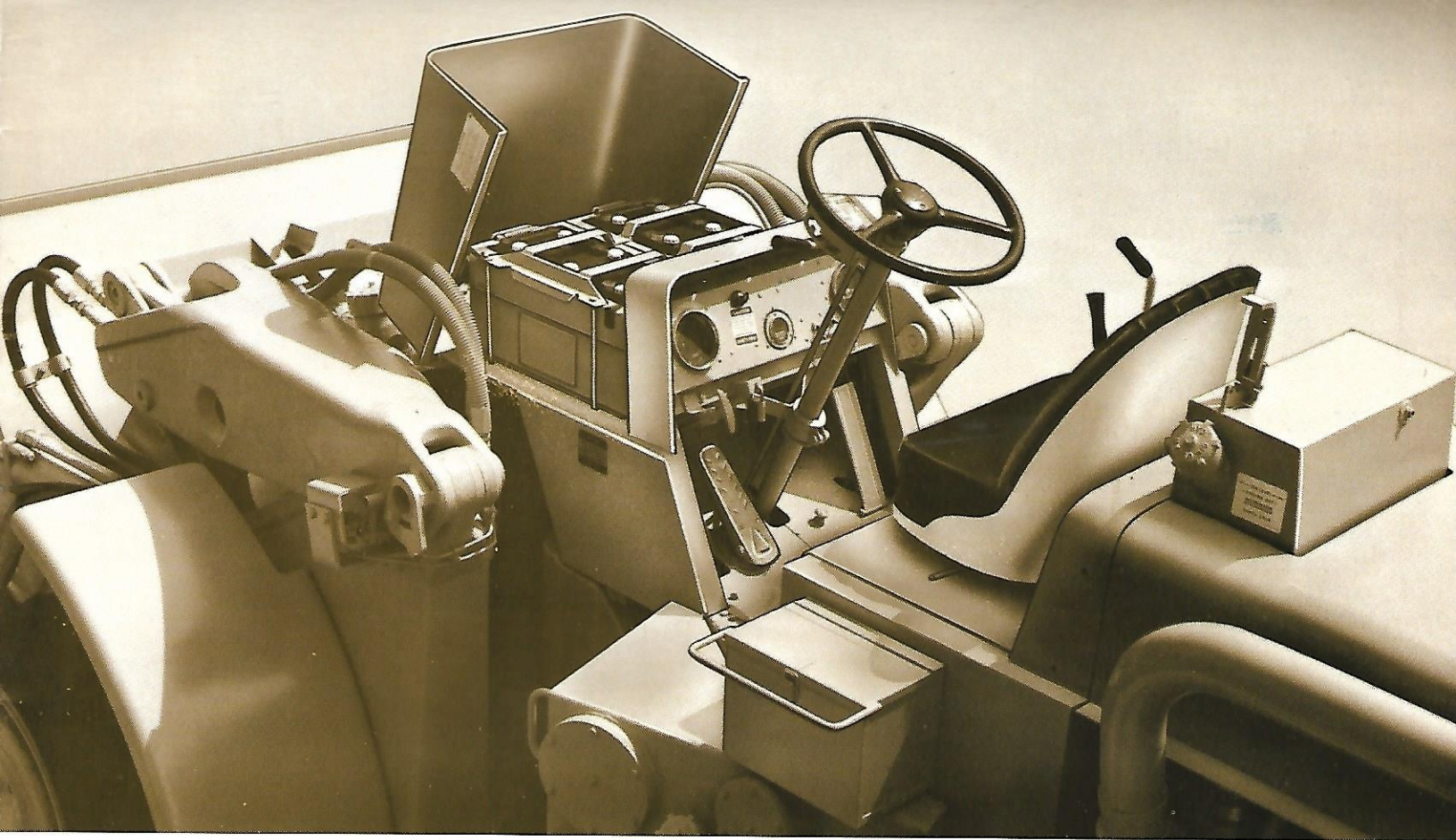
The air cleaner restriction gauge mounted behind the seat is easily seen from operator's compartment.



Fuel, oil, air filters

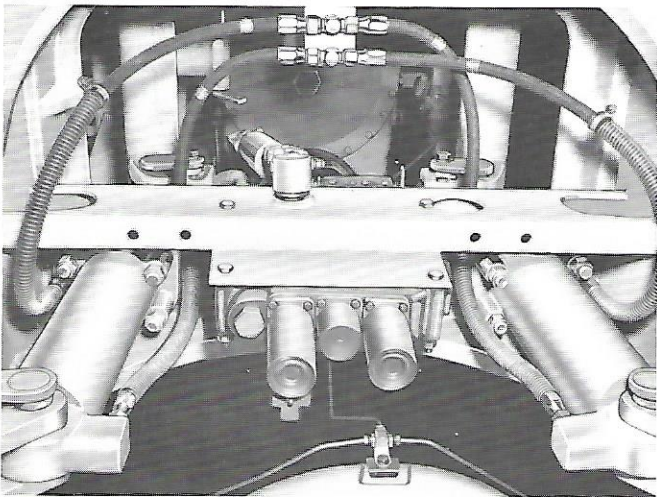
All hydraulic system, engine oil, fuel and air filters are located on the left side of the machine, easily accessible for quick maintenance.





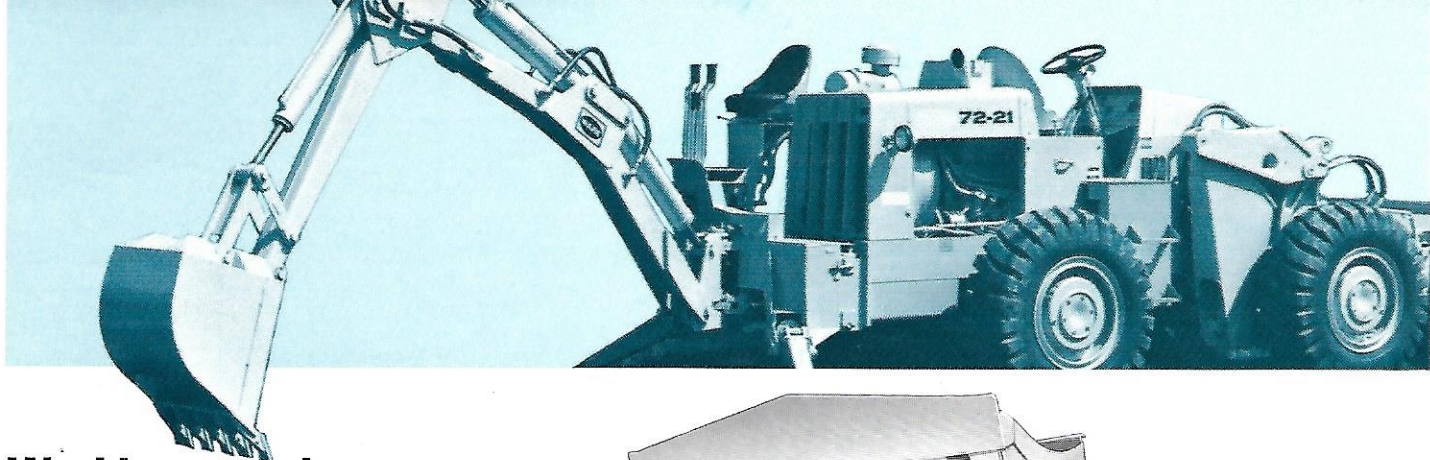
Hinged access panels

The dash panel swings forward to expose the back side of instrument panel wiring and gauges. The cover in front of the dash panel tilts back to expose the batteries for checking or servicing. Access panels in the operator's compartment expose the steering gear and linkage, service brake treadle valve and main hydraulic pump. On the right side, a large panel is readily removed to allow access to the hydraulic manifold, steering pump and bucket control linkage.



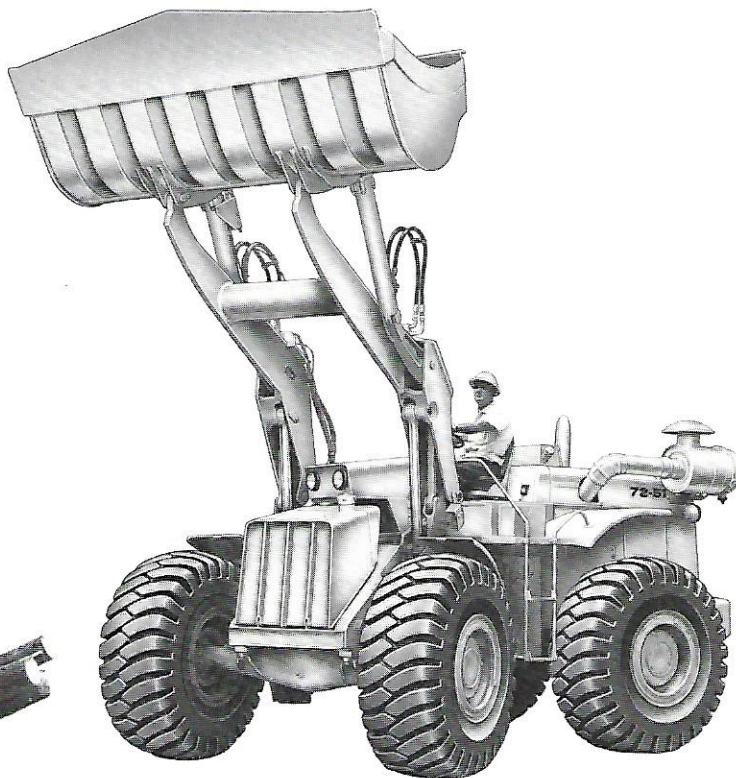
Main control valve... steering jacks

The fuel tank swings forward to provide easy access to the control valve, front steering cylinder jacks and the top bolts on the differential carrier.



Working attachments match job requirements

Seven buckets are available to match any specific job. These include four general purpose buckets ranging from $2\frac{1}{2}$ to $3\frac{1}{4}$ cubic yards, a five yard light material bucket, $2\frac{1}{2}$ yard Drott 4-in-1 bucket, a $2\frac{1}{2}$ yard side dump bucket, rock bucket kit, weld-on and bolt-on bucket teeth. Also utility blades, back hoe, fork lift, log and lumber grapples, snow removal equipment, winch, railroad car coupler, plus many convenience and comfort options allow you to adapt the 72-31 Loader for specific job requirements, obtain maximum productivity.



Earthmoving Equipment Division • General Motors Corporation • Hudson, Ohio 44236

THE W. W. WILLIAMS COMPANY

835 W. Goodale Blvd., COLUMBUS, OHIO 43212

Interstate 71 at State Route 303,
BRUNSWICK, OHIO 44212

11563 Mosteller Rd., Sharonville
CINCINNATI, OHIO 45241

1230 Conant St., TOLEDO, OHIO 43537 • 301 East Warren St., CADIZ, OHIO 43907