LIQUID MANURE SPREADER

WITH FLOTATION TIRES TO MINIMIZE SOIL COMPACTION

AVAILABLE WITH FULL LINE OF CULTIVATING RIGS, INJECTORS, DISC INCORPORATORS AND LOW LEVEL SPREADING TOOL BARS TO SAVE NUTRIENTS AND REDUCE POLLUTION

FULL LINE OF SPREADERS WITH SINGLE AXLE, TANDEM OR WITH POWER-STEERING ON TRANS-AXLES AND SUSPENSION WITH HYDRAULIC EQUALIZERS

5 YEAR LIMITED WARRANTY ON AXLES, HUBS, UNDER CARRIAGE, TANDEM AND ON TRANS-AXLES AND SUSPENSION WITH HYDRAULIC EQUALIZERS

- Unique shape of tank offering greater resistance to stress related factors.
- Low profile tank for maximum visibilty and stability.
- "V" shape bottom for more complete clean out.
- Standard exterior finish: epoxy primer and urethane paint.
- Available with "STEEL PLUS" option including a 10 year limited warranty against rust out.
- Size of tank from 2350 to 9500 US gallons.
- We also manufacture custom built truck mount tankers.

HOULE

HOULE OFFERS 7 MODELS OF SPREADERS EACH AVAILABLE IN DIFFERENT SIZES TO SUIT ALL NEEDS

- Power-steering on 1 trans-axle.
- Suspension with hydraulic equalizers.
- Overall width: 118" with 28L X 26 tires.
- 5 sizes between 3850 and 5800 US gallons.

- Power-steering on 2 trans-axles.
- Suspension with hydraulic equalizers.
- Overall width: 118" with 28L X 26 tires.
- 6 sizes between 4300 and 8300 US gallons.

- Power-steering on 3 trans-axles.
- Suspension with hydraulic equalizers.
- Overall width: 118" with 28L X 26 tires.
- 2 sizes: 8900 and 9500 US gallons.

- Closed tandem pivoting on brass bushings.
- Overall width: 118" with 28L X 26 tires.
- 6 sizes between 3350 and 6000 US gallons.

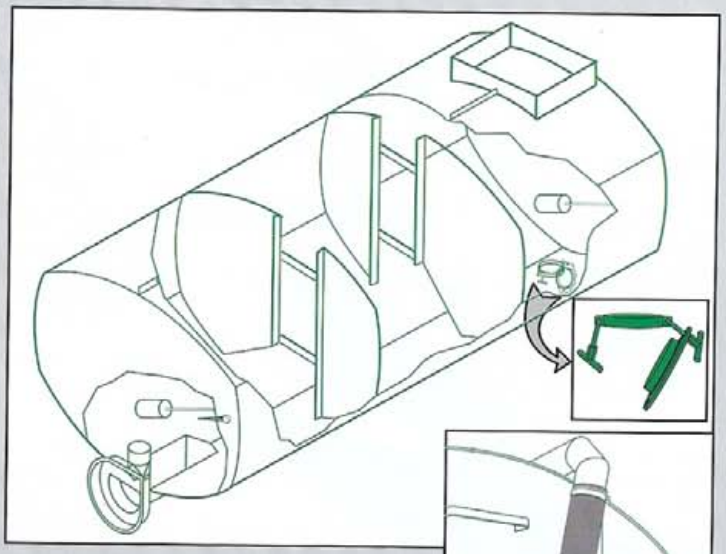
- Single axle.
- Overall width: 118" with 23.1 X 26 tires.
- 3 sizes between 2350 and 3150 US gallons.

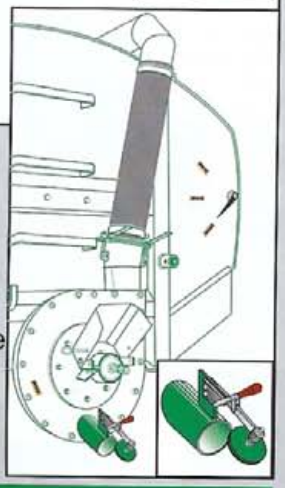
- Closed tandem pivoting on brass bushings.
- Overall width: 118" with 23.1 X 26 tires.
- 6 sizes between 2350 and 4500 US gallons.

- Closed tandem pivoting on brass bushings.
- Overall width: 147" with 28L X 26 tires.
- 6 sizes between 3150 and 6000 US gallons.

SPECIFICATIONS AND STANDARD EQUIPMENTS

- New design of baffles allowing for easier access and better visual inspection inside the spreader.
- Independent front and back fill indicators with float built from P.V.C. pipe filled with rigid urethane foam mounted on nylon and stainless steel pivot.
- Adjustable front slope to bring more solid material towards the pump.
- Pump intake lowered 5" to empty the spreader thoroughly. (N.A. on model EL-66)
- Std impeller: 22-1/2 Ø X 540 R.P.M.
- Bearing assembly of impeller built with tapered roller bearings in oil bath sealed with 3 greasable seals.
- Standard P.T.O.: serie 35 with single universal joint to spread manure in straight line without turning.



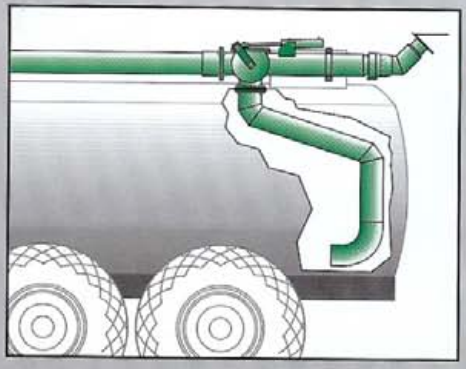


- 6" Ø drain with quick opening at spreader rear end.
- 4" Ø drain with quick clamp to empty impeller housing.
- 6" Ø discharge pipe with flexible hose connection.
- 3-1/2" Ø standard spreading nozzle.

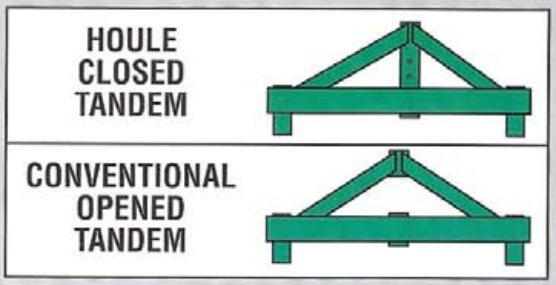
OPTIONAL EQUIPMENTS

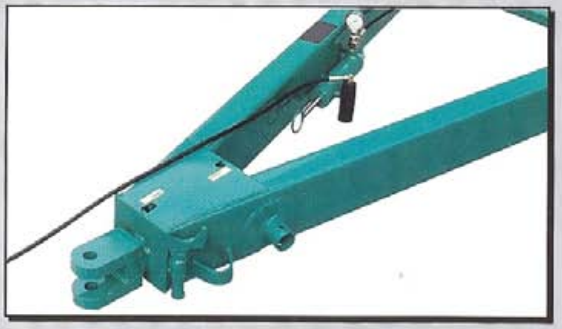
- Three 6" Ø clean-out openings on top of spreader to easily clean the inside with a pressure washer.
- Directional valve and inside agitation kit to maintain solid material in suspension inside spreader while traveling.
- Low level spreading nozzle at 36" from ground for precise and narrower spreading pattern in windy conditions.

- Constant velocity P.T.O. to spread manure while gradually turning with the spreader.
- P.T.O. 1000 R.P.M. available with 4 sizes of impellers according to P.T.O. R.P.M., tractor HP, manure consistency and desired spreading speed.
- 4" and 5" Ø spreading nozzle for faster unloading.



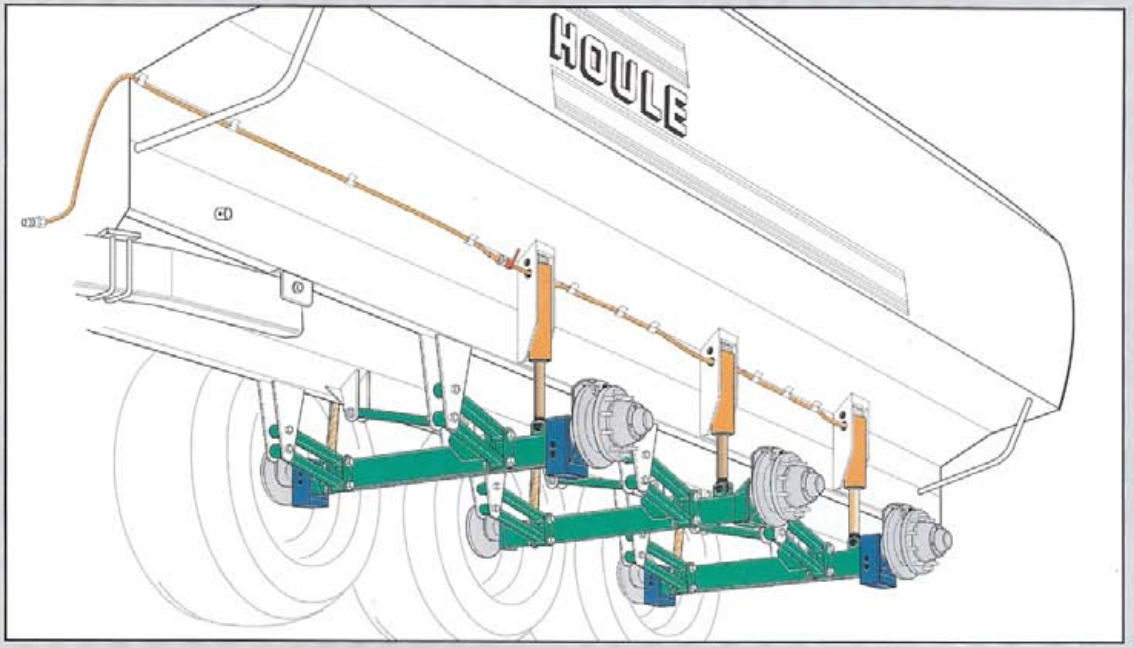
CLOSED TANDEM SUSPENSION





- Unique shape of under carriage cross member allowing a lower profile spreader.
- "Closed" tandem design for a better torsion resistance than a conventional tandem.
- Greasable walking tandem spindle pivoting on brass bushings.
- Pivot-point of walking tandem is off centered to allow for a smoother ride over rough ground and reduce weight on front wheels for easier turning.
- Under carriage tank supports located very close to the wheels to avoid flexing and torsion.
- Bolted axles for easy servicing.
- Adjustable under carriage to increase or decrease the weight on the tractor draw bar.
- Heavy-duty tow bar bolted to full length tank skids to pull the under carriage without transmitting any stress to the tank.

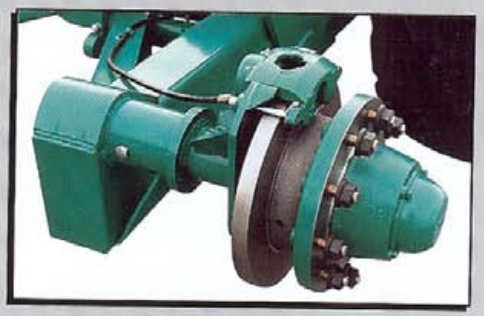
SUSPENSION WITH HYDRAULIC EQUALIZERS



- Each trans-axle is attached underneath the spreader with 4 traction sway-bars and 1 crossway sway-bar mounted on rubber bushings.
- The suspension cylinders of one side of the spreader are connected together to allow the wheels to stroke up and down to follow landscape. The suspension stroke is adjusted by connecting the hydraulic hose to the tractor.
- Pivot joints of steering knuckles are mounted on greasable trust bearings and brass bushings.
- Bolted axles for easy servicing.

Optional disc brakes

Discs brakes activated by the tractor hydraulic system, with master cylinder and pressure regulator valve for maximum performance.

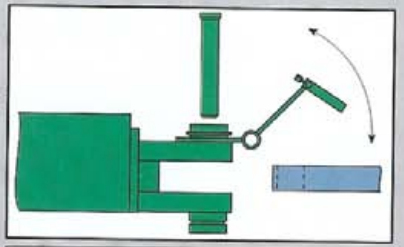


POWER-STEERING SYSTEM OF EL48 SPREADERS

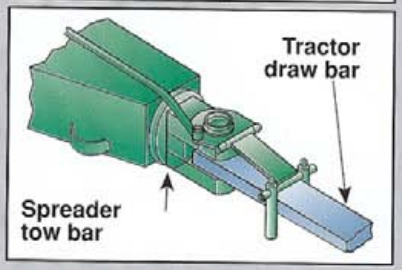
DESIGNED TO AUTOMATICALLY STEER THE DIRECTIONAL WHEELS ON FORWARD AND REVERSE WITHOUT REVERSING THE CONTROL VALVE OF TRACTOR

The power-steering system fed by the tractor steers the directional wheels of the spreader to follow the tractor turning angle allowing easy sharp turns without destroying the vegetation.

The power-steering valve control mechanism has a hinge to easily connect the spreader to the tractor draw bar and is designed to transmit the tractor turning angle to the power-steering valve without being affected by any play between the spreader hitch and the tractor draw bar.

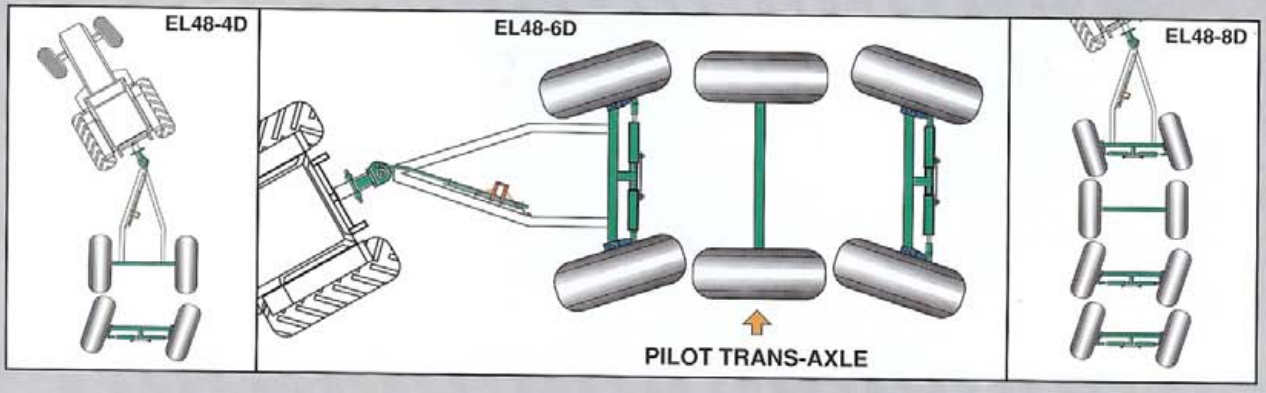


One push-pull cable with one end attached to the steering arm of the directional wheels and the other end attached to the valve of the power-steering constantly indicates the steering angle of the directional wheels to maintain them at the same turning angle as the tractor.



Pre-loaded springs on the power-steering cylinders bring automatically the directional wheels back in straight line position as soon as the power-steering cylinders are no longer fed.

A spring loaded mechanism protects the power-steering control if tractor is turning without supplying hydraulic oil pressure to the directional valve.



FULL LINE OF SPREADING TOOL BARS

WITH PRECISE MANURE FLOW CONTROL AND GRAVITY DISCHARGES ELIMINATING SPRAY DRIFT AND REDUCING ODORS.

Houle spreading tool bars are designed to properly apply hog or dairy manure on growing fields, between rows of corn, or on harvested fields.

With these tool bars, manure can be applied on top of ground, and then be covered by a layer of soil if needed. Manure can also be injected to desired depth beneath growing or harvested fields.

MANURE DISTRIBUTOR WITH ATOP DISCHARGES

Distributor with gravity discharge tubes to supply a constant volume of manure to each atop discharge.

Spring loaded adjustable manure flow regulator to supply the desired volume of manure to the distributor.

Openings for quick inspection, drain gate valve and 3" cold flex hoses as standard equipment.

Standard distributor

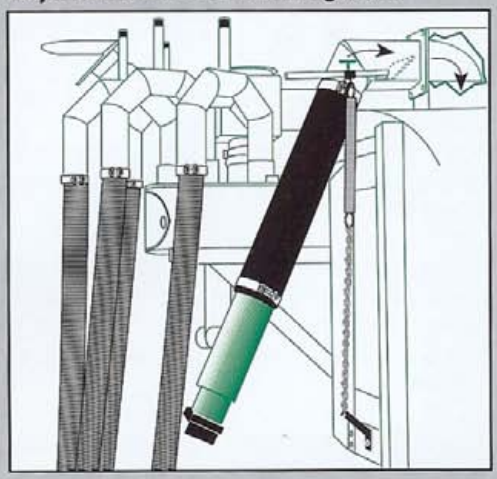
The standard distributor without rotative knives is recommended for hog manure or slurry without bedding.

Optional rotative knives on distributor

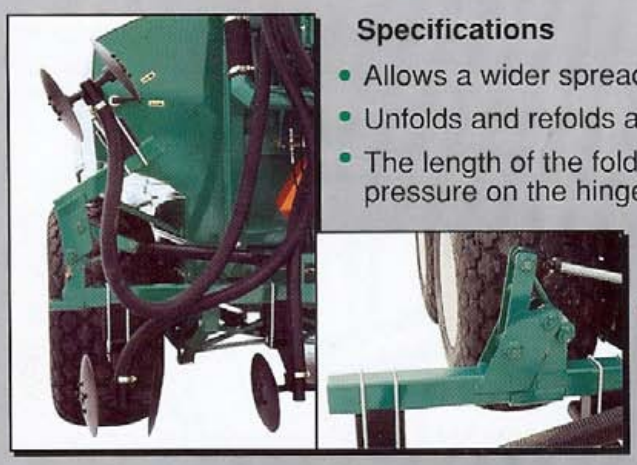
Hydraulic motor with 2 rotative knives located underneath the gravity atop discharge tubes to prevent plugging when spreading manure with bedding.

Distributor with atop discharges

Adjustable manure flow regulator



OPTIONAL FOLDING ENDS FOR TOOL BAR



Specifications

- Allows a wider spreading pattern.
- Unfolds and refolds as the tool bar is lowered or raised.
- The length of the folding cylinder is adjustable to maintain a constant pressure on the hinge to eliminate vibrations and wear.

Advantage

- Allows the ends of a wide tool bar to fold up without exceeding the total width of the spreader to safely travel on public roads.

NOTE: The folding ends option is only available on tool bars for side corn dressing.

TOOL BAR WITH S-TINE SHANK CULTIVATING RIGS FOR SIDE DRESSING CORN

Specifications:

- Tool bar available with 4, 5, 6 or 8 floating cultivating rigs.
- Gauge wheel on each cultivating rig for positive depth control.
- Adjustable weeding width.
- Excellent efficiency on fields having a minimum of corn residues or rocks.

Characteristics:

- Gives nutrients and moisture to growing crop when it needs it.
- Manure is incorporated into the soil reducing odors and nutrient loss.
- Loosen up the soil between rows for improved aeration.
- Helps control weeds.

TOOL BAR WITH CONCAVE DISC INCORPORATORS FOR SIDE DRESSING CORN

Specifications:

- Tool bar available with 4, 5, 6 or 8 —16" Ø concave disc incorporators.
- Each disc incorporator is mounted on fully flexible spring leafs to follow ground's contours.
- Stronger spring leafs following tires insure even penetration on each disc incorporator.
- Excellent efficiency on fields having lots of corn residues or rocks.

Characteristics:

- Gives nutrients and moisture to growing crop when it needs it.
- Manure is incorporated into the soil reducing odors and nutrient loss.

LOW LEVEL SPREADING

Specifications

- Low tool bar with 5 nozzles.
- Spreading width = 25' wide.
- Full width of tool bar = 20' wide.

Advantages

- Manure is applied by gravity close to ground to reduce both odors and loss of nutrients.
- Allows for even spreading without spray drift regardless of wind conditions.
- Narrower spreading pattern which allows for increased tractor speed reducing soil compaction.

12 ft TOOL BAR WITH 4 CONCAVE DISC INCORPORATORS

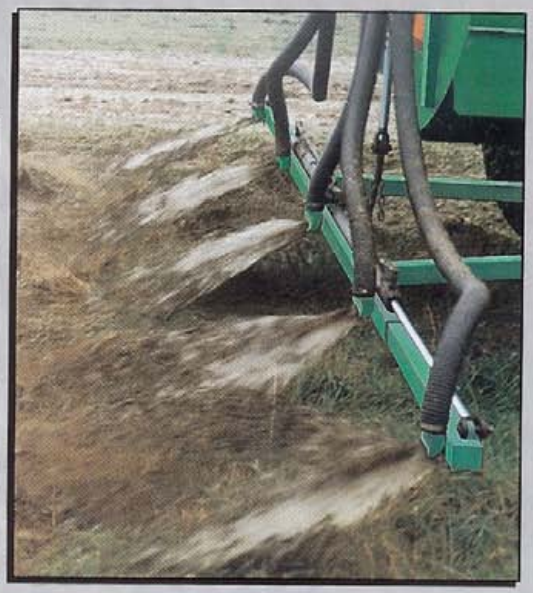
Specifications

- Heavy-duty tool bar with tie rods transmitting tool bar pulling load directly to the hitch (EL-66 and EL-84).
- Each incorporator has two 22" concave discs mounted on fully flexible spring leafs to follow ground's contours.
- Hydraulically pressurized tool bar to transfer a constant floating downpressure on the tool bar.
- Excellent efficiency on harvested fields having lots of residues or rocks.

Advantages

- In a single operation it allows to surface apply the manure away from groundwater and to cover it with soil, eliminating odors, nutrient loss and surface run-off problems.
- Easier to pull than a tool bar with injectors.
- Allows increased tractor speed reducing soil compaction.
- Manure being applied on top and covered with loose soil, nutrients are absorbed before reaching groundwater.

TOOL BAR WITH FOLDING ENDS



TOOL BAR WITH INJECTORS

Specifications

- Heavy-duty tool bar available with 4 or 5 injectors.
- Tie rods transmit injectors pulling load directly to the hitch (EL-66 and EL-84).
- Hydraulically pressurized tool bar to transfer a constant floating downpressure including 2 adjustable gauge wheels for positive depth control.
- Heavy-duty injector with positive spring action.
- Long injector sweep to gradually lift the ground reducing required power from tractor.
- **Optional:** 20" Ø spring loaded coulter wheel to cut into sod and residues making a path in front of the injector.

Advantages

- Allows injection of manure under top layer of ground.
- Applies manure near plants roots.
- Breaks up compaction and perform primary tillage at the same time.
- Allows use of manure when needed without odors, loss of nutrients or surface run-off problems.
- With 22-1/2" wide sweeps, most of the underground surface gets in contact with a thin layer of manure.