

The Howard ROTASPIKE®



**A New State of the Art in
Seedbed Tillage**

The new "HW" ROTASPIKE...



Designed exclusively for fast, economical seedbeds.

Howard's new Model "HW" ROTASPIKE is designed to save you money preparing seedbeds. It turns tractor PTO power into seedbed tillage power. It's fast, wide and tough, finishing more seedbed acres while saving power, fuel and time!

Traveling at speeds of up to 8 mph behind a 90-to-250 horsepower tractor, the ROTASPIKE prepares a perfect seedbed in plowed or chiseled ground in a single pass. The forward-rotating spikes conserve power while

shattering clods, breaking up trash and leveling the soil. You produce seedbeds faster, use less power and fuel, and create less compaction with single-trip ROTASPIKE efficiency. Multiply that efficiency by teaming the ROTASPIKE with chemical equipment and a planter or drill to incorporate, prepare and plant in one time-saving trip. The result? The fastest, most economical seedbeds you've ever had on your farm.

Designed for big seedbed acreage . . .

Designed to Work, Built to Last.

The ROTASPIKE is a power harrow designed to work in soil that has been plowed, chiseled or broken with a primary disk. In a single pass it prepares a perfect, ready-to-plant seedbed 15 to 20 feet wide at speeds of up to 8 mph! Since the ROTASPIKE converts tractor PTO power into seedbed tillage power, it does in a single pass what draft-type tillage implements take multiple trips to accomplish. You can prepare big seedbed acreage at a fraction of the cost—in trips, fuel and time.

Spikes Conserve Power, Handle Trash.

The ROTASPIKE puts forward-rotating spikes to work shattering clods, breaking up trash and leveling primary-tilled soil into a smooth, ready-to-plant seedbed. The spikes are set at a scrolled angle to till the soil both vertically and horizontally. Normal operating depths average 3-5 inches; maximum is 8 inches. The spikes create no drag, no resistance to forward motion. In fact, they actually help propel the tractor forward—saving power, fuel and tire wear. Fluid or wheel weights are NOT needed. Dual wheels are recommended for flotation to reduce soil compaction, NOT for traction. The spikes' rotary motion also helps the ROTASPIKE “run through” crop and weed residues without any problem.

Simultaneous Incorporation/Drilling/Planting.

Incorporate chemicals with the ROTASPIKE at the same time you prepare your seedbed—with superior results! The rotating spikes provide a horizontal and vertical mix, plus a controlled depth for herbicides, insecticides and fertilizers. Drilling or planting operations can be combined through the use of a bridge hitch for even greater seedbed savings. You can incorporate, prepare and plant your seedbed all in one economical step.



Built tough, wide and fast!

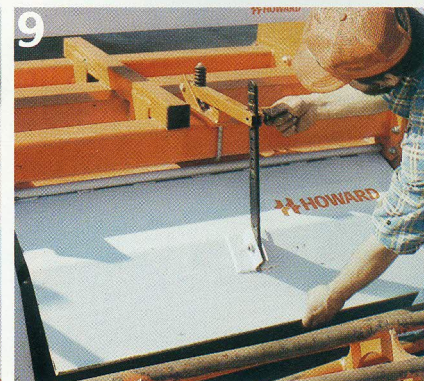
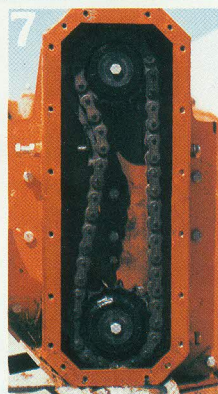
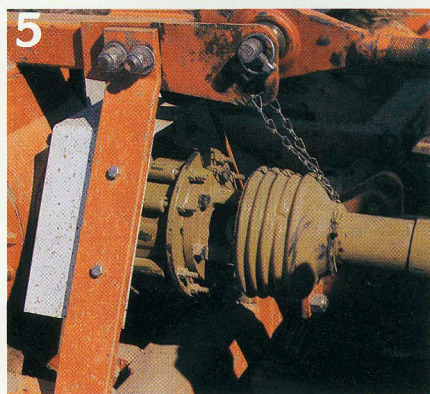
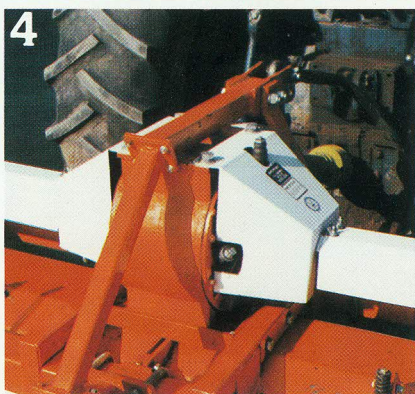
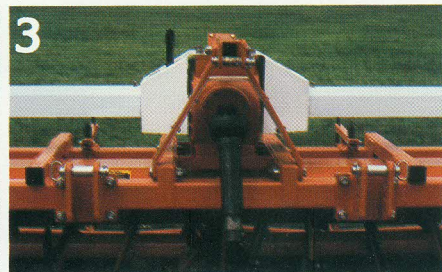
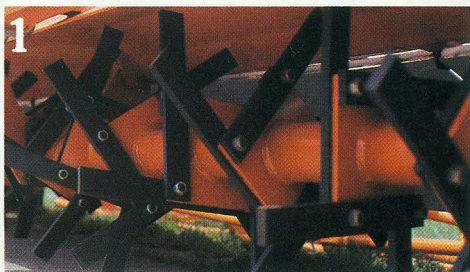
Superior Design from the Leader in Power Tillage.

Howard pioneered power tillage for agriculture and has remained the leading designer and manufacturer of rotary tillage equipment for over fifty years. The "HW" ROTASPIKE is the culmination of this half century of research and experience in the power tillage field.

Compare the design, features and performance of the ROTASPIKE with other power harrows. You'll see why the "HW" brings new reliability and true economy to seedbed preparation.

The "HW" spikes (1) are special heat-treated steel to resist bending and breaking. They are mounted at an angle to the rotor (2) for aggressive vertical and horizontal tillage action. An adjustable, 3-point hitch (3)

accommodates Category II or III standard or quick hitch linkage. The rugged single-speed gearbox (4) is suitable for 90-to-250 H.P. tractors with 1000 rpm PTO. Heavy-duty internal components assure long life in the toughest field conditions. Gearbox oil fill and check plugs are easily accessible. Protection for shock loads is provided by the spring-loaded, adjustable friction clutch (5). Power is transmitted by twin stress-proof steel jackshafts (6) to twin side drives equipped with adjustable #120 roller chain (7). All bearings offer grease fittings (8) conveniently located for easy lubrication. The adjustable trailing shields (9) help control final soil tilth; snapper pins permit quick adjustment. A full-width crumble roller (10) accurately controls tillage depth while slightly firming the seedbed.



Saves power, fuel and time!

Compare the costs. The ROTASPIKE vs. old-fashioned draft tillage.

Every tillage trip you make costs money. In tractor fuel. In field time. In equipment maintenance. And the costs keep rising. Multiple trips with conventional tillage implements quickly add up to more fuel burned, more time spent, more maintenance needed . . . **MORE COSTLY SEEDBEDS!**

The "HW" ROTASPIKE slashes seedbed costs by doing more work, faster and more efficiently than draft-type tillage implements. In one quick trip you can turn a plowed, chiseled or primary disked field into a ready-to-plant seedbed. Compare that with the three or four trips necessary with disks, field cultivators or harrows. The ROTASPIKE saves fuel and time. The spikes' rotary motion also creates no drag, but actually helps propel your tractor forward. Compare that with the costly power needed to overcome the rolling resistance of conventional tillage tools. But for the ultimate seedbed economy, try teaming the ROTASPIKE with chemical equipment and a planter or drill. It's the **ultimate comparison** with old-fashioned draft tillage.



FIELD CAPACITY

| GROUND SPEED (MPH) | ACRES PER HOUR* | | | |
|--------------------|-----------------|--------|--------|--------|
| | HW 144 | HW 160 | HW 180 | HW 240 |
| 2 | 2.5 | 2.7 | 3.1 | 4.1 |
| 2.5 | 3.0 | 3.4 | 3.9 | 5.2 |
| 3 | 3.7 | 4.0 | 4.6 | 6.1 |
| 3.5 | 4.3 | 4.8 | 5.4 | 7.2 |
| 4 | 5.0 | 5.5 | 6.2 | 8.2 |
| 4.5 | 5.6 | 6.2 | 7.0 | 9.3 |
| 5 | 6.2 | 6.8 | 7.7 | 10.2 |
| 5.5 | 6.8 | 7.5 | 8.5 | 11.3 |
| 6 | 7.4 | 8.2 | 9.3 | 12.4 |
| 6.5 | 8.0 | 8.8 | 10.0 | 13.3 |
| 7 | 8.6 | 9.5 | 10.8 | 14.4 |
| 7.5 | 9.3 | 10.2 | 11.6 | 15.4 |
| 8 | 9.9 | 10.9 | 12.4 | 16.5 |

*Acres per Hour is an estimate of practical field capacity allowing for turns in headlands, overlapping, refueling, etc.

Specifications

TILLAGE WIDTH:

HW-144 12', (144"), (3.7 m)
HW-160 13'4", (160"), (4.1 m)
HW-180 15', (180"), (4.6 m)
HW-240 20', (240"), (6.1 m)

POWER RANGE:

For tractors from 90 to 250 H.P. with 1000 rpm PTO.

LINKAGE:

3-point, Category II or III standard or quick hitch. Category III quick hitch narrow.

TILLAGE DEPTH:

Adjustable to 8" (20.3 cm) maximum via full-width, 2-section crumble roller. Roller position is controlled by 3 hand-operated screw jacks.

ROTOR & SPIKES:

Twin rotors have multiple flanges with each flange carrying 4 spikes. Spikes are special heat-treated 5160 steel. Hard-faced spikes for abrasive soils are available as optional equipment.

HW-144 56 spikes
HW-160 64 spikes
HW-180 72 spikes
HW-240 96 spikes

SAFETY CLUTCH:

A spring-loaded, adjustable friction clutch is provided as standard.

TRANSMISSION:

Power is transmitted by a shielded universal drive joint to a single-speed

gearbox. Twin stress-proof steel jackshafts carry power to twin side drives equipped with roller chain.

On **HW-144**, **HW-160** and **HW-180** models, standard U.J. drive is 1 $\frac{3}{8}$ ", 21-spline; a 1 $\frac{3}{4}$ ", 20-spline U.J. drive is optional.

Side drive is via standard #120 roller chain.

Rotor speed is 342 rpm at 1000 rpm PTO.

On **HW-240** models, standard U.J. drive is 1 $\frac{3}{4}$ ", 20-spline; a 1 $\frac{3}{8}$ ", 21-spline U.J. drive is optional.

Side drive is via heavy-duty #120 roller chain.

Rotor speed is 300 rpm at 1000 rpm PTO.

BEARINGS:

Heavy-duty ball and tapered roller bearings are used throughout. All ball bearings have grease fittings for easy lubrication.

OPTIONAL EQUIPMENT:

BEDSHAPING KIT

Bedshaping kits are available for producing raised seedbeds in 30", 34", 36", 38", 40", 60" and 66" widths.

FRONT RIPPER KIT

The ripper kit is designed for operating in difficult secondary-tillage conditions and in light stubbles. The

rippers loosen the soil ahead of and several inches below the spikes. This kit is not intended to justify using the ROTASPIKE as a primary tillage tool.

DISC COULTER

MOUNTING KIT

For operating in loose trash conditions, notched disc coulters can be mounted to the ROTASPIKE to prevent trash accumulation ahead of the side drives.

The mounting kit includes installation brackets, all necessary nuts/bolts and the hub systems for the disc coulters.

OPERATING DIMENSIONS & WEIGHT:

| HW 144 | HW 160 | HW 180 | HW 240 |
|---------------------------------------|------------------------------|------------------------------|------------------------------|
| Overall Width | | | |
| 14'-4" (4.4 m) | 15'-8" (4.8 m) | 17'-4" (5.3 m) | 22'-4" (6.8 m) |
| Overall Length (front to back) | | | |
| 6'-2" (1.9 m) | 6'-2" (1.9 m) | 6'-2" (1.9 m) | 6'-2" (1.9 m) |
| Overall Height | | | |
| 3'-10" (1.2 m) | 3'-10" (1.2 m) | 3'-10" (1.2 m) | 4'-1" (1.3 m) |
| Weight | | | |
| 3726 lbs. (1690 kg) | 3930 lbs. (1783 kg) | 4147 lbs. (1881 kg) | 5000 lbs. (2268 kg) |

DEALER



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