



1619 COUNTY K
CUSTER, WI 54423
PHONE 715-592-4650 • FAX 715-592-5063
E-Mail · tip@tipinc.com
www.tipinc.net



GS-16 WALK BEHIND SPIKER

**OPERATOR'S INSTRUCTIONS
AND PARTS MANUAL**

=T.I.P. Inc.=

GS-16 Walk Behind Spiker

Congratulations on your purchase of the T.I.P. GS-16 Walk Behind Spiker! You can rest assured that you have one of the highest quality turf spiker systems on the market today. With proper care and maintenance, your GS-16 will provide you with years of reliable service. If you have any questions about the GS-16, or any of our other turf care products, feel free to call us or drop us a line. We would be delighted to serve you in the future. Thank you for your patronage.

CONTENTS

Section	Page
Table of Contents	1
Limited Warranty	2
Assembly	3
Operation Instructions	4
Storage	4
Maintenance	5
Parts	6-9
Decals	10
Warranty Registration Card	11

=T.I.P. Inc.=
Limited Warranty

T.I.P. Inc. warrants that the equipment it manufactures will be free from defects in materials and workmanship for a period of one year from delivery date. This warranty is extended to the Original Purchaser only, and is non-transferable.

Should a defect in materials or workmanship be experienced within the warranty period, T.I.P. Inc. shall, at its discretion, furnish F.O.B Custer, WI, new or remanufactured parts to replace the non-conforming parts. T.I.P. Inc. shall not cover any labor costs incurred by the purchaser to replace said parts.

This warranty is limited to new equipment, parts or accessories that are manufactured by T.I.P. Inc., provided that the equipment is used and maintained according to the instructions in the manual, and the Original Purchaser has completed, signed and returned the enclosed Warranty Registration form to T.I.P. Inc. within 30 days after the delivery of said equipment. This warranty does not apply to damage or deterioration to the equipment resulting from, but not limited to; natural wear and tear, abuse of goods, presence of abrasives, chemical action, improper installation, misuse, vandalism, or acts of God. This warranty does not apply to goods manufactured by others, beyond the warranties stated by the manufacturers for those goods.

The limited warranty expressed hereunder, is exclusive, and T.I.P. Inc. makes no other representations, warranties, or guarantees, neither expressed nor implied, as to merchantability or the fitness of said equipment for any particular use or purpose, or that the equipment or installation of equipment when placed into operation will comply with applicable national, state, and local health and safety laws. T.I.P. Inc. shall not be liable for any consequential or indirect damages including, but not limited to, loss of anticipated profits or production, increase of cost of operation, loss due to spoilage of material, or penalties or fines arising from non-compliance.

ASSEMBLY

If your GS-16 Spiker/Seeder came delivered on a pallet, first remove machine and all parts from the pallet. Fasten the handle to the body of the spiker, lining the holes in the handle with those in the frame. Select the holes that will place the handle at the correct height for the operator.

ENGINE/DRIVE TRAIN

The engine should be checked for proper lubrication levels before first use according to the engine manufacturer's Owner's Manual.

Fill fuel tank with regular unleaded gasoline.

ADJUSTING SEEDER BOX

The seeder box on the Spiker/Seeder must be calibrated before use to ensure proper application rates. Be sure to re-calibrate before each use. Differing atmospheric conditions can change flow rates of some materials. To calibrate, use the following procedure:

CAUTION!

Catching material from the outlets on the seeder box is recommended, so that no material is applied to the soil until calibration is completed. Doing otherwise is at the operator's own risk.

1. Suspend a calibration pan below the seeder box to catch falling material.
2. Set gauge to proper setting. If the proper setting is unknown, set at an approximate range.
3. Place a sufficient amount of material in the hopper for a practice area.
4. Cover a known area, such as 1000 sq ft.
5. Weigh the contents in the calibration pan.
6. Divide the weight by the known area to determine the rate. If necessary, adjust the gauge up or down and repeat.
7. When proper calibration is achieved, log gauge setting for future reference.

To convert pounds per 1000 sq ft to pounds per acre, multiply your rate by 43.6.

If it is impractical to mark off and cover a known area for calibration, use this alternative method to calibrate:

1. With gauge set and sufficient material in hopper, raise spike drum completely off of the ground.
2. Start engine and turn the spike drum the proper amount of revolutions to dispense test material. 1000 square feet of spiked area equals 159 1/8 revolutions of the drum. 1/100th of an acre equals 69 3/8 revolutions of the drum. These numbers assume no overlap in spiked area.
3. Weigh the contents in the calibration pan.
4. Divide the weight by the known area to determine the rate. If necessary, adjust the gauge up or down and repeat.
5. When proper calibration is achieved, log gauge setting for future reference.

OPERATION

Fill the seeder box with the appropriate material and make sure cover is secure and metering slide is closed.

After you reach the location where the spiker/seeders is to be used, start the engine according to the engine operator's manual. The spiker will not roll while the engine is idling. When you pull the throttle handle, the centrifugal clutch will engage and the spiker will begin to move. Open the seed box by moving the seed box cable lever. Proceed forward in a straight line only. Turning with the spike drum in contact with the ground can cause turf damage or damage to the spiker/seeders. When you reach the end of the pass, raise spike drum completely off the ground before turning around. Close the seed box with the handle.

Be aware that the seeder box is driven from the spike drum, so the drum must be turning to operate the seeder box. When starting a pass with the spiker/seeders, be sure to start with enough extra space to allow the seeder box to deliver material to the desired area. Also, be aware that you may need to close the supply of material from the seeder box before you raise the spiker/seeders at the end of a pass.

CAUTION

Be sure to have the spiker/seeders drum completely raised when transporting machine from one location to another. NEVER have spike drum in contact with gravel or hard clay paths, concrete, asphalt, or any other hard packed surfaces. This will cause damage to the spikes.

STORAGE

Always store the GS 16 Spiker/Seeders with the drum off of the ground. Place the spike drum on a block of wood to prevent damage to the spikes.

MAINTENANCE

Grease the bearings on the spike drum every 50 hours. Add grease to the gearbox every 50 hours. Wipe off any excess.

Inspect entire spike drum for loose or broken/missing spikes weekly. Replace if necessary. Check tension on the seeder box drive chain and spike drum drive chain. Lube chain weekly.

Perform maintenance on the engine and throttle cables, etc. as recommended in the engine owner's manual.

Check operation of seeder box control cable weekly. Replace cable if operation becomes difficult. Clean out seed box after each use.

PARTS

**PART#**

BU20004010X3/4

DESCRIPTION#40 10 TOOTH
DRIVE SPROCKET**QTY**

1



BU20004020

#40 20 TOOTH
SEED BOX
DRIVE SPROCKET

1



AC4040BS70X1

#40 70 TOOTH
SPIKER DIRVE
SPROCKET

1



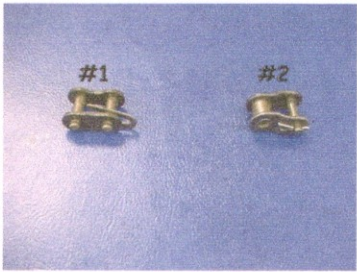
HO2175685

GEARBOX ASS'Y

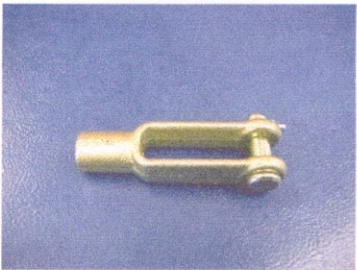
1



PART#	DESCRIPTION	QTY
BUMRC40	#40 ROLLER CHAIN	91"



#1 BUHKK40-CL	#40 CONN LINK	2
#2 BUHKK40-OL	#40 1/2 LINK	1



TE175-601-204	CABLE CLEVIS	1
---------------	--------------	---



TEUDL-241-2-82X	SEED BOX CABLE	1
-----------------	----------------	---

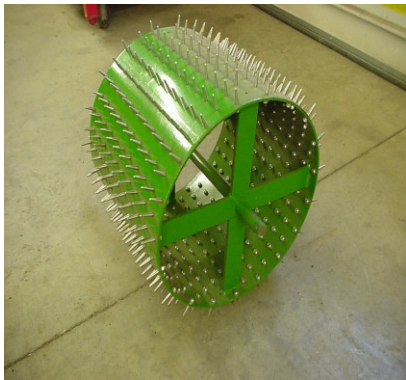


FF003501100042	THROTTLE CABLE	1
----------------	----------------	---

PART#	DESCRIPTION	QTY
	RR17850-V06-003 THROTTLE LEVER	1
	GA09M904 SEED BOX	1
	EPGX31SA HONDA GX31 MOTOR	1






















PART #	DESCRIPTION	QTY
DM116SPIKE DM100SPIKE	Spike, Stainless 1-1/16" Standard	1208
	Spike, Stainless 3/4" Optional	1208
	Nylock Nut for Spike	1208






GS16DRUMKIT	Full Drum Kit: comes complete with cross members, axle, and spikes.	1
-------------	--	---



IPSA205-16G	1" Bearing for Drum Kit assembly.	2
-------------	--------------------------------------	---

#1	#2	#3	PART	DESCRIPTION	QTY
			#1 IM444-218	DECALS	1 EA
			#2 IM449-287		
			#3 IM449-307		
			#4 IM449-360		
			#5 IM449-396		
			#6 IM452-315		
			GPDN	DECAL	2

	#1	#1 QS3245	DANGER DECAL	7
	#2	#2 QS145	DANGER DECAL	7
		QS66	NO RIDER DECAL	1

MAIL THIS WARRANTY CARD TODAY

IF IT IS NOT REGISTERED IN THE HOME OFFICE OF
T.I.P. INC.

CUSTER, WI 54423

ANY CLAIM YOU HAVE UNDER THE WARRANTY
WILL NOT BE HONORED....

DON'T DELAY

PLEASE COMPLETE THE WARRANTY REGISTRATION
AND
RETURN IMMEDIATELY.

CUT HERE

T.I.P. INC.

1619 COUNTY K

CUSTER, WI 54423

PHONE 715-592-4650 • FAX 715-592-5063

WARRANTY REGISTRATION

NAME: _____

ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DEALER'S NAME: _____

DEALERS ADDRESS: _____

CITY/STATE/ZIP CODE: _____

DATE OF PURCHASE: _____

S/N _____

MODEL# _____

I HAVE READ AND FULLY UNDERSTAND ALL
SAFETY DIRECTIONS AND AGREE TO TRAIN ALL PERSONNEL
OPERATING THIS MACHINE.

SIGNATURE: _____

DATE: _____