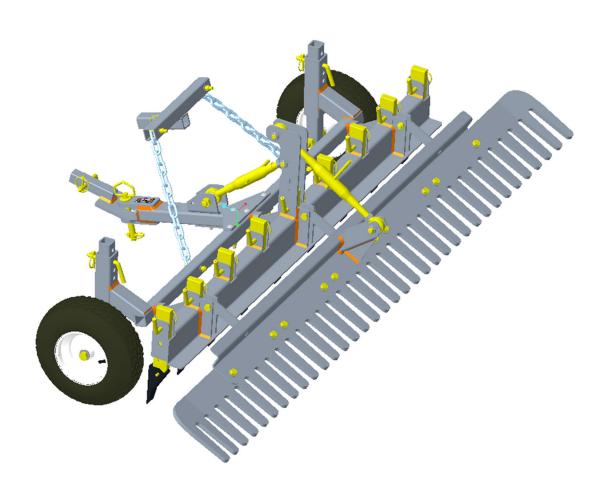


Product Instruction Sheet

ABI Force Z-23 Rear Rake Attachment



Unpacking Instructions:

Tools Needed:

- Safety Glasses
- Gloves
- Tin Shears
- (2) 15/16" wrenches
- (1) 1-1/16" wrench
- 1. Cut metal straps (Use caustion when cutting metal straps that they do not spring toward you and cause injury)
- 2. Cut Zip-Tie from "T" Bar
- 3. Remove plastic wrap from frame

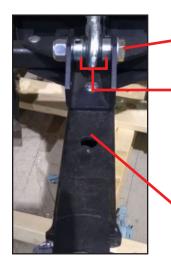


Remove steel straps, zip-ties, and plastic wrap.

Unit Setup and Adjustments:

Scarifier Pitch Adjustment

The Top Link will be shipped with the threads fully engaged within the main body of the Top Link and 1 end not bolted to the frame (for shipping purposes). Rotate Axle Frame Assembly so that Tongue and Gage Wheels (Tire) are facing forward and attach end of Top Link to frame using (2) 15/16" wrenches (See Figure 1). Remove from Skid.



Attach Top Link to frame using (2) 5/16" wrenches

Add Spacer to each side of link

Hole for optional Hitch Pin storage location when not attached to the Z-23 Force

Figure 1:

Rotate each end of the Top Link until about 1" of thread is showing on each end. This will get you close to the normal working position (pitch) of the Scarifiers. You can fine tune the pitch as desired.

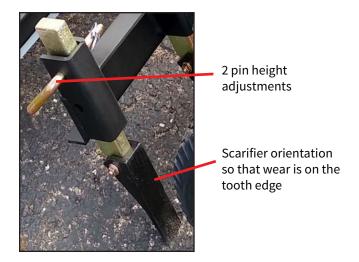
Once the pitch is set, tighten the nut (1-1/16" to keep the threaded ends from moving during operation. (See Figure 2)



Tighten Nut using 1-1/16" wrench once desired pitch is set

For initial setup, adjust the Top Link threads to about 1" of thread showing on both ends

Figure 2: Scarifier Pitch



Gage Wheels (Tires) Height Adjustment:

Adjust Gage Wheels up and down in 1/2" increments to determine how deep the scarifiers dig into the ground. (See Figure 3)

Initial setup is having the Gage Wheels height set with 1 hole showing on the tube (attached to wheel) exposed above tube mounted to frame. Height adjustment can be made for personal preferences.



Outer Tube holes are spaced 1/2" apart. Inner Tube holes are spaced 1" apart. Reinsert Pin and clip when desired height is achieved.

Figure 3:

Rake Pitch (angle) adjustment:

The Rake pitch (angle) is adjusted by the Rear Link. You will want to have the initial setup to have about 1" of thread showing on both ends of the Link (similar to the Top Link). Once the desired rake pitch is set, tighten the nut to prevent thread movement during operation. (See Figure 4)

Note: Too flat of rake angle (more parallel to the ground) will not allow good material flow. If the rake is too vertical, you will not like the finish.

It is recommended that the Rake be roughly perpendicular with the Scarifiers during initial setup then adjust from there for personal preference. The idea is when you are in loose material, the tips of rake are engaged into the material by about a 1/2" or so.

Rear Link is adjusted the same as the Top Link to control Rake pitch.



Figure 4:

It is recommended that the Rake be roughly perpendicular with the Scarifiers during initial setup then adjust from there for personal preference.

Raise Rear Lift to have easy access to Hitch/Receiver. Slide Auto-recentering Hitch into the Force Z-23 Reciever and Pin. (See Figure 5)

The Auto-Recentering Hitch allows the unit to automatically recenter behind the Force when lifted off the ground for transportation.

Adjust rear lift height as necessary to attach "T" bar with bent pin and lynch pin. (See Figure 6)

Roll Rear Rake Attachment up to Hitch and engage Pin and Lynch Pin. (See Figure 7)

Notes:

- 1. During operation, the Rear Lift needs to be completely lowered so that the chains have the proper slack to allow the unit to pivot and move about.
- 2. Optional Front weight kit is required when using Rear Rake Attachments.

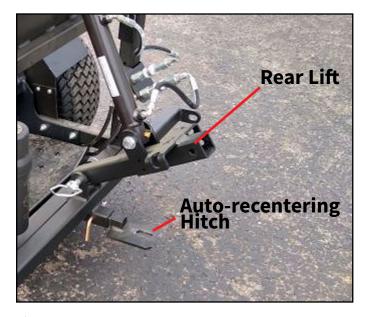
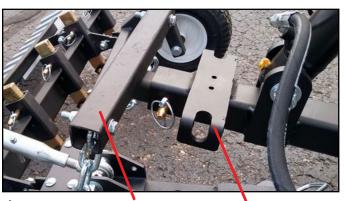


Figure 5



Figure 6



igure 7 "T" Bar Rear Lift

Service Parts

ITEM	PART #	DESCRIPTION	QТY
1	10-40489	WHEEL AXLE	2
2	10-31074	24" FINISH RAKE. EXT. SILVER 1/2" RH	1
3	10-50001	12" COMB, 1/2"	3
4	10-31075	24" FINISH RAKE. EXT. SILVER 1/2" LH	1
5	10-10048	SCARIFIER SHANK	9
6	10-10047	SCARIFIER TIP	9
7	10-60067	HUB/TIRE ASSEMBLY	2
8	10-20232	LYNCH PIN	14
9	10-20221	BENT PIN	13
10	10-20220	PIN	1

