



Owner's Manual

SportPro Synthetic Arena Groomers

M1, M3 & M5



NOTE: This Owner's Manual covers several models. Features may vary by model. Not all features in this manual are applicable to all models and the model depicted may differ from yours.

For Your Records

Located on the front right side of the frame is an ID plate showing the serial number. Record your machine’s information and serial number in the space provided below. ABI will use this information to give you prompt, efficient service when you order parts or need product support.

Model and Serial Number

Model Number:

Serial Number:

Invoice Number:

Purchaser’s Name:

Contact Information

ABI Attachments, Inc
520 S. Byrkit Ave.
Mishawaka, IN 46544

Customer Support

Email: support@abiattachments.com
Phone: (877)788-7253
Website: abisupport.com

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Safety



WARNING! The **SAFETY ALERT SYMBOL** indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.



CALIFORNIA PROPOSITION 65

WARNING! Cancer and reproductive harm- www.P65Warnings.ca.gov

SAFETY AT ALL TIMES

Careful operation is your best assurance against an accident. All operators, no matter how much experience they may have, should carefully read this manual and other related manuals, or have the manuals read to them, before operating the tow vehicle and this implement.

- Thoroughly read and understand the “Safety Label” section. Read all instructions noted on them.
- Do not operate the equipment while under the influence of drugs or alcohol as they impair the ability to safely and properly operate the equipment.
- The operator should be familiar with all functions of the tow vehicle and attached implement and be able to handle emergencies quickly.
- Make sure all guards and shields appropriate for the operation are in place and secured before operating implement.
- Keep all bystanders away from equipment and work area.
- Start tow vehicle from the driver’s seat with hydraulic controls in neutral.
- Operate tow vehicle and controls from the driver’s seat only.
- Never dismount from a moving tow vehicle or leave tow vehicle unattended with engine running.
- Do not allow anyone to stand between tow vehicle and implement while backing up to implement.
- Keep hands, feet, and clothing away from power-driven parts.
- While transporting and operating equipment, watch out for objects overhead and along side such as fences, trees, buildings, wires, etc.
- Do not turn tow vehicle so tight as to cause hitched implement to ride up on the tow vehicle’s rear wheel.
- Store implement in an area where children normally do not play. When needed, secure attachment against falling with support blocks.

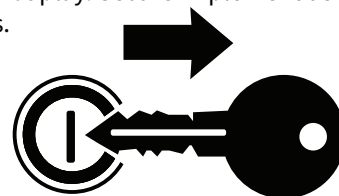
SAFETY PRECAUTIONS FOR CHILDREN

Tragedy can occur if the operator is not alert to the presence of children. Children generally are attracted to implements and their work.

- Never assume children will remain where you last saw them.
- Keep children out of the work area and under the watchful eye of a responsible adult.
- Be alert and shut the implement and tractor down if children enter the work area.
- Never carry children on the tractor or implement. There is not a safe place for them to ride. They may fall off and be run over or interfere with the control of the tow vehicle.
- Never allow children to operate the tow vehicle or implement, even under adult supervision.
- Never allow children to play on the tow vehicle or implement.
- Use extra caution when backing up. Before the tractor starts to move, look down and behind to make sure the area is clear.

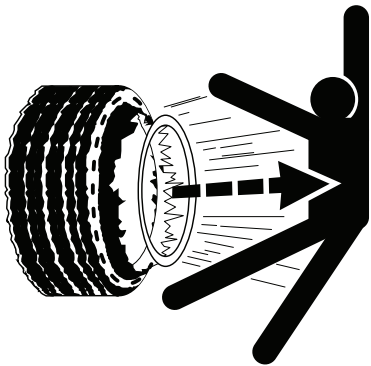
SHUTDOWN & STORAGE

- If engaged, disengage power take-off.
- Park on solid, level ground and lower implement to ground or onto support blocks.
- Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- Relieve all hydraulic pressure to auxiliary hydraulic lines
- Wait for all components to stop before leaving operator’s seat.
- Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.
- Detach and store implement in an area where children normally do not play. Secure implement using blocks and supports.



TIRE SAFETY

- Tire changing can be dangerous and must be performed by trained personnel using the correct tools and equipment.
- Always maintain correct tire pressure. Do not inflate tires above recommended pressures shown in the Operator's Manual.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- Securely support the implement when changing a wheel.
- When removing and installing wheels, use wheel handling equipment adequate for the weight involved.
- Make sure wheel bolts have been tightened to the specified torque.
- Some attachments may have foam or sealant inside them and must be disposed of properly.

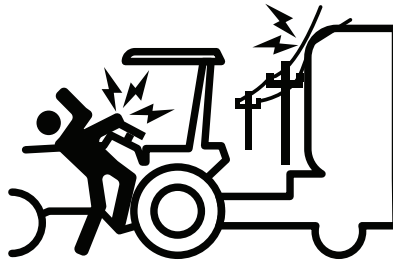


OPERATION SAFETY

- Stay alert for holes, rocks, and roots in the terrain and other hidden hazards. Keep away from drop-offs.
- Stop implement immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
- Never operate tractor and implement under trees with low hanging limbs. Operators can be knocked off the tractor and then run over by implement.

TRANSPORT SAFELY

- Comply with federal, state, and local laws.
- Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with tie downs and chains.
- Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is not equipped with brakes.
- Avoid contact with any overhead utility lines or electrically charged conductors.
- Always drive with load on end of loader arms low to the ground.
- Always drive straight up and down steep inclines with heavy end of a tow vehicle with loader attachment on the "uphill" side.



- Engage park brake when stopped on an incline.
- Maximum transport speed for an attached equipment is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- As a guideline, use the following maximum speed weight ratios for attached equipment:
 - **20 mph** when weight of attached equipment is less than or equal to the weight of machine towing the equipment.
 - **10 mph** when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.

PRACTICE SAFE MAINTENANCE

- Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- Work on a level surface in a clean dry area that is well-lit.
- Lower implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- Do not work under any hydraulic supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand.
- Use properly grounded electrical outlets and tools.
- Use correct tools and equipment for the job that are in good condition.
- Allow equipment to cool before working on it.
- Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- Inspect all parts. Make certain parts are in good condition & installed properly.
- Replace parts on this implement with genuine ABI Attachments parts only.
- Do not alter this implement in a way which will adversely affect its performance.
- Do not grease or oil implement while it is in operation.
- Remove buildup of grease, oil, or debris.
- Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- Remove all tools and unused parts before operation.



PREPARE FOR EMERGENCIES

- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.



USE SAFETY LIGHTS AND DEVICES

- Slow moving tractors, skid steers, self-propelled machines, and towed equipment can create a hazard when driven on public roads. They are difficult to see, especially at night. Use the Slow Moving Vehicle sign (SMV) when on public roads.
- Flashing warning lights and turn signals are recommended whenever driving on public roads.



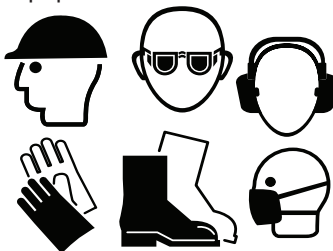
AVOID UNDERGROUND UTILITIES

- **Dig Safe, Call 811 (USA)** Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.
- Be sure to ask how close you can work to the marks they positioned.



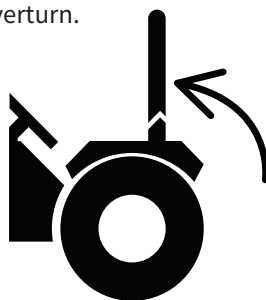
WEAR PERSONAL PROTECTION EQUIPMENT (PPE)

- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, and ear plugs.
- Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment safely requires the operator's full attention. Avoid wearing headphones while operating equipment.



USE SEAT BELT AND ROPS

- ABI Attachments recommends the use of a CAB or roll-over protective structures (ROPS) and seat belt in almost all tow vehicles. Combination of a CAB or ROPS and seat belt will reduce the risk of serious injury or death if the tow vehicle should be upset.
- If ROPS is in the locked-up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn.



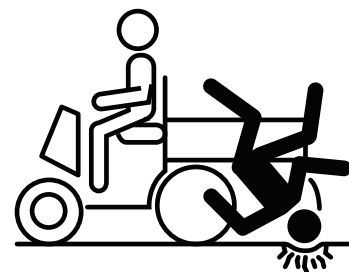
AVOID HIGH PRESSURE FLUIDS HAZARD

- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Before disconnecting hydraulic lines or performing work on the hydraulic system, be sure to release all residual pressure.
- Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- DO NOT DELAY. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.



KEEP RIDERS OFF MACHINERY

- Never carry riders on tractor or implement.
- Riders obstruct operator's view and interfere with the control of the tow vehicle.
- Riders can be struck by objects or thrown from the equipment. Never use tractor or implement to lift or transport riders.



Safety Labels

	10-10976 ⚠ WARNING CRUSHING AND PINCHING HAZARD • Be extremely careful handling various parts of the machine. They are extremely heavy and hands, fingers, feet and other body parts could be crushed or pinched between tow vehicle and implement. • Adjust controls from tow vehicle seat only. • Do not stand between tow vehicle and implement when tow vehicle is in gear. • Make sure parking brake is engaged before going between tow vehicle and implement. • Stand clear of machine when in operation or being raised or lowered.
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	10-10977 ⚠ WARNING FALLING BLADE HAZARD • Can cause serious injury or death • Keep hands and feet from under raised blades/rakes/teeth unless it is properly blocked and secured. • Always put implement in lowest possible position when adjusting or repairing • Always store implement in lowered position
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	10-10978 ⚠ WARNING TO PREVENT SERIOUS INJURY OR DEATH: • Avoid unsafe operation and maintenance. Do not operate or work on this machine without reading and understanding the operator's manual. • If manual is lost, call 877-788-7253 • Do not allow riders and keep others away during operation. • Lower implement, stop tow vehicle engine, set park brake and remove ignition key before servicing, adjusting, repairing or unplugging. • Safely support and secure implement before adjustments or repairs are made. • Park or block implement so it will not roll when disconnecting from tow vehicle. • Never place any part of the body underneath implement or between movable parts even when the engine has been turned off. • DO NOT operate or transport at high speeds. • DO NOT operate or transport on steep slopes.
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Uncrating Instruction & Setup

Initial Unpacking Instructions

Tools Needed:

- Gloves
- Safety Glasses
- Safety Shoes
- Tin Snips
- Knife



Fig 1.

Removing From Shipping Crate

1. Depending on the unit and options purchased, uncrating the unit can vary. Read instructions completely before continuing.
2. Confirm with packing slip that all components were shipped (Fig 1).
3. Cut any straps holding the unit onto the skid with Tin Snips (Fig 2). **WEAR GLOVES AND SAFETY GLASSES WHEN CUTTING THE METAL STRAPS. PLACE ONE HAND ON METAL STRAP WHILE CUTTING TO PREVENT STRAP FROM SPRINGING BACK TOWARD YOU AND CAUSE INJURY! (Fig 1). UNIT MAY SHIFT AS STRAPS ARE CUT, KEEP HANDS AND FEET CLEAR.**
4. Use a knife to remove any zip-ties, foam and or plastic wrap from unit (Fig 3-5). **BE CAREFUL TO NOT LET ANY COMPONENT FALL WHEN REMOVING ZIP-TIES OR PLASTIC WRAP THAT MAY CAUSE INJURY!**
3. Once unit is free of straps and or any packaged options, the unit can be removed from the skid.
 - If the unit is set up with a 3 point hitch, simply back your tow vehicle up to the unit and attach the 3 point hitch, raise the unit and pull away from the skid (Fig 6).
 - If the unit is set up with a tow behind hitch, some pre-assembly is required. See the "**Pre-Assembly instructions**" for assembling and removing unit from the skid.



Fig 2.



Fig 3.



Fig 4.



Fig 5.



Fig 6.

Uncrating Instruction (cont'd)

Pre-Assembly Instructions

Tools Needed:

- Gloves
- Safety Glasses
- Safety Shoes

1. After removing straps, zip-ties, foam and or plastic wrap from steps 2 and 3 from "**Removing From Shipping Crate**", lay hitch in front of unit with topline brackets facing upwards (**Fig 7**). Remove Toplink pin from brackets and set aside.

2. Remove both Tongue Hitch Harness Clevis pins and washers from unit to mount the Tongue Hitch Harness (**Fig 8**).

3. Lift Tongue Hitch Harness so both ends are in between welded brackets on frame and both holes in Tongue Hitch Harness line up with holes in brackets welded to frame. Slide (1) washer onto each Clevis pin (removed in step 2) then re-insert each pin back through holes in brackets on frame and Tongue Hitch Harness (**Fig 9**). Slide (1) washer onto each Clevis pin then secure both pins by re-inserting R-clips (removed in step 2) back into hole closest to washer in Clevis pins (**Fig 10**).

4. Swing Toplink down and lift Tongue Hitch Harness until holes in Toplink brackets welded to Tongue Hitch Harness line up with hole through end on Toplink and re-insert pin (removed in step 1) (**Fig 11**).

5. Secure pin by re-inserting Lynch pin (removed in step 1) back into Toplink pin (**Fig 12**).

Removing Tow Behind Double Roller Unit From Shipping Crate

1. To remove unit from skid, Back tow vehicle up to hitch. Turn Toplink adjustment pin clockwise or Counter-Clockwise as needed to align the end of the hitch on the unit with hitch on tow vehicle (**Fig 13**).

2. Slide hitch pin through the top hitch plate on Tongue Hitch Harness then through hitch on tow vehicle then on through lower hitch plate on Tongue Hitch Harness (**Fig 14**).

3. Lower wheels by cranking wheel jack handle clockwise until wheels are fully extended (**Fig 15**).

4. Slowly drive the tow vehicle forward until unit is free of the skid (**Fig 16**).



Fig 7.

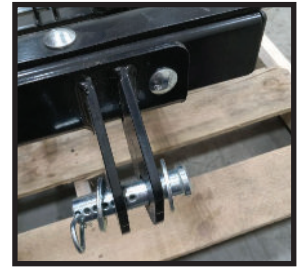


Fig 8.



Fig 9.



Fig 10.



Fig 11.



Fig 12.



Fig 13.



Fig 14.



Fig 15.



Fig 16.

Uncrating Instruction (cont'd)

Removing Tow Behind Single Roller Unit From Shipping Crate

Tools Needed:

- Gloves
- Safety Glasses
- Safety Shoes
- Drill w/#2 SQ head attachment or #2 SQ screw driver
- Hammer



Fig 17A.



Fig 17B.

1. Before removing the unit from the skid, the wooden frame front support needs to be removed from the skid. Rotate the crank on the Jack Stand to raise the unit off the wooden frame front support (**Fig 18**).
2. Use a drill w/#2 SQ head attachment (**Fig 19**) or #2 SQ screw driver to remove the screws securing the wooden frame front support to the skid (**Fig 20**).
3. Use a hammer to knock the wooden frame front support free and remove from skid (**unit may shift some when removing the wooden support**) (**Fig 21, 22 and 23**).
4. Back tow vehicle up to hitch. Rotate the hand crank on the Jack Stand as needed to align the end of the hitch on the unit with hitch on tow vehicle (**Fig 24**).
5. Slide hitch pin through the top hitch plate on Tongue Hitch Harness then through hitch on tow vehicle then on through lower hitch plate on Tongue Hitch Harness (**Fig 25**).
6. To keep the S-Tines from dropping in between the skid slats, widen the Hitch Toplink by rotating the Toplink handle - this will raise the unit lifting the S-Tines up away from the skid slats (**Fig 26 and 27**).
7. Fully extend the wheels by rotating the hand crank on the wheel assembly jack clockwise until the hand crank will not rotate anymore (**Fig 28**).
8. Fully Retract the Jack Stand on the front right side of the unit (**Fig 29**).
9. Pull out the Jack Stand Pin, rotate the Jack Stand and re-insert the pin to secure Jack Stand in stowed position (**Fig 30**).
10. Slowly Drive the tow vehicle forward until unit is free of the skid (**Fig 31**).

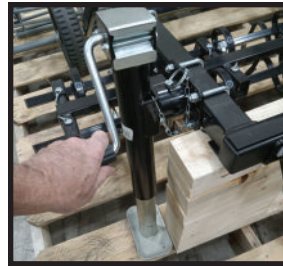


Fig 18.



Fig 19.

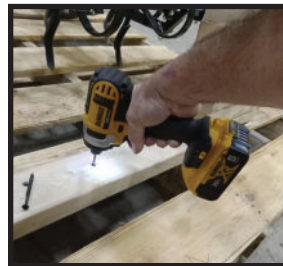


Fig 20.



Fig 21.



Fig 22.

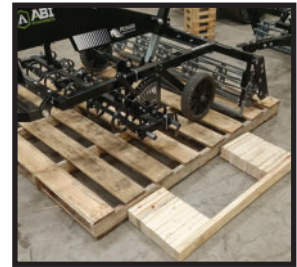


Fig 23.



Fig 24.



Fig 25.



Fig 26.



Fig 27.

Uncrating Instruction (cont'd)

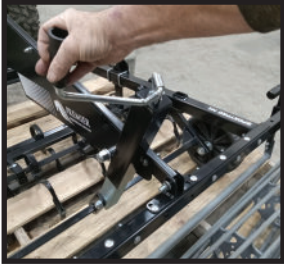


Fig 28.



Fig 29.



Fig 30.



Fig 31.

Swapping out S-Tines and Scarifiers

Tools Needed:

- Gloves
- Safety Glasses
- Safety Shoes
- Hammer
- Wood Block
- May need Pry Bar
- May need Jack or Jack Stand

Installing Scarifiers on groomer with S-Tines currently installed

To swap out S-Tines on the groomer with Scarifiers, ABI highly recommends this be completed with two people to avoid injury.

1. Rotate the Toplink that raises the S-Tine assembly high enough to allow room to remove the S-Tine sub-assemblies (**Fig 32**).
2. Pull the pin that secures the pitch (angle) control lever and pull the lever all the way forward and re-insert the pin to allow more room for S-Tine sub-assemblies removal (**Fig 33**).
3. On the front sub-assembly, pull the (4) pins that secure the (4) Pivot Lock Tubes and remove the Pivot Lock Tubes (**Fig 34, 35 and 36**).
4. On each side of the groomer on the underside of the S-Tine assembly are linkages held together by clevis pins. Remove the clip at the end of one clevis pin on each side of the groomer and remove the clevis pins and let the linkages hang (**Fig 37 and 38**).
5. Grab the loosened the front sub-assembly with both hands and pull until free from the frame (**Fig 39**).
7. On the rear S-Tine sub-assembly, pull the pin securing the pitch (angle) lever handle (**Fig 40**).
8. Pull off the plastic hand grip from the pitch (angle) lever handle (**Fig 41**).
6. Pull the (4) pins that secure the (4) Pivot Lock Tubes and remove the Pivot Lock Tubes (like what was done on the front sub-assembly) (**Fig 42**).
9. Grab the loosened rear sub-assembly with both hands and pull until free from the frame (**Fig 43**).
10. Slide both sub-assemblies out from under the groomer and set aside.
11. Slide the 1st Scarifier tube under the groomer (**Fig 44**).
12. If the Scarifiers are attached to the tube, remove them by pulling out the pin and sliding the scarifiers out of the slots (**Fig 45 and 46**).



Fig 32.



Fig 33.



Fig 34.



Fig 35.



Fig 36.



Fig 37.



Fig 38.



Fig 39.

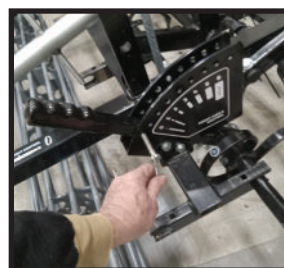


Fig 40.



Fig 41.

Swapping out S-Tines and Scarifiers (cont'd)

13. The Scarifier front and rear tube is the same tube with an "F" stamped on one side and an "R" stamped on the other (**Fig 47 and 48**). This is specific for the spacing of the scarifiers between the front and rear tubes when mounted to the groomer. There are 2 sizes of slots on both sides of the groomer tube. This will allow the Scarifiers to only be mounted from the underside of the tube in a specific pattern on each tube.

14. Lift the front tube up to the frame with the "F" stamp facing upwards (depending on the revision the "F" may be facing toward the front of the groomer or facing the rear of the groomer (**Fig 49**).

15. If you have no one to help, try using a jack or jack stand on the other side of the groomer to hold up the other end of the Scarifier tube to keep it level while sliding the tube onto the frame (**Fig 50**).

16. If needed, a hammer can be used to gently tap the front face of the tube on each end, alternating back and forth frequently to avoid binding up the tube while guiding it onto the frame. Tap the tube until the holes in the tube line up with the holes in the frame (**Fig 51 and 52**).

17. Insert (4) Pins through both the holes in the Scarifier tube and frame then secure the pin with the clip on the underside of the Scarifier tube (**Fig 53 and 54**).

18. Re-insert Scarifiers (with curved in facing toward the front of the groomer) and secure Scarifiers to tube using the Lynch Pins (**Fig 55 and 56**).

19. To install the rear Scarifier tube, repeat steps 2 through 7 (like what done to mount the front tube) with the "R" stamp facing upwards (**Fig 57**).

20. Once the rear tube is installed, re-attach the scarifiers (like what was done on the front tube) and the groomer is ready (**Fig 58 and 59**).

Installing S-Tines for the 1st time on a groomer set up with Scarifiers

If the S-Tine option kit is ordered to add to a groomer currently setup only for Scarifiers, follow the instruction sheet supplied with the S-Tine option kit.



Fig 42.



Fig 43.



Fig 44.

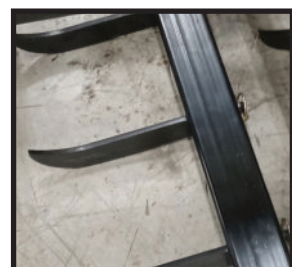


Fig 45.



Fig 46.



Fig 47.



Fig 48.



Fig 49.

Swapping out S-Tines and Scarifiers (cont'd)



Fig 50.



Fig 51.



Fig 52.



Fig 53.



Fig 54.



Fig 55.



Fig 56.



Fig 57.



Fig 58.



Fig 59.

Operation Guide

The M1 and M3 are tow behind arena groomers to be used behind either an ATV or UTV while the M5 is a 3 pt hitch style to be used with a CAT 1 tractor .

When discussing left and right sides of the arena groomer, it will be as though sitting in the tow vehicle seat and facing forward.

Once you have arrived at your arena and are ready to groom, fully retract the wheels (M1 or M3 style) by cranking the wheel jack counterclockwise until the handle can no longer rotate (**Fig 60**). **Failure to fully retract the wheels can result in plugging of the tool.**

S-Tines/Scarifiers Adjustment

In the front section of the groomer are either the S-Tines (**Fig 61**) or Scarifiers (**Fig 62**), depending on which component was ordered.

To adjust the S-Tines or Scarifiers:

- S-Tines are usually used for arenas that require mixing or have limited moisture and clay. S-Tines can be adjusted for both depth and pitch independently. S-Tines pitch (angle) can be adjusted to different settings depending on desired result by pulling the pin and adjusting the lever handle (**Fig 63**) then re-inserting the pin back through the side plates AND THE HOLE IN THE HANDLE - "PASSIVE" for remixing materials (**Fig 64**) up to "ACTIVE" for more aggressive engagement of the material, pulling up fibers that have settled down near the base and may also be used for breaking up compaction (**Fig 65**). They can be raised or lowered by rotating the left Toplink as needed for desired depth (**Fig 66**). The S-Tines have an infinite amount of depth settings up to a 4" depth shown by the max depth gauge (**Fig 67**). 0" depth is when the S-Tines are set in the "ACTIVE" setting (vertical) and the tips are at ground level.
- Scarifiers are usually used for arenas with a lot of clay, denser fiber or large amounts of water applied. Scarifiers are used to break up hard compacted materials. Scarifiers can be adjusted up or down by rotating the left Toplink as needed for desired depth (**Fig 68**). The Scarifiers have an infinite amount of depth settings up to a 4" depth. 0" depth is when the scarifiers tips are at ground level (**Fig 69**). Scarifiers do not have a pitch adjustment.

Coil Tines Adjustment

In the mid section of the groomer are the Coil Tines (**Fig 70**). Coil Tines can be adjusted up and down as well as their pitch (angle).

Coil Tines pitch (angle) can be adjusted to different settings depending on desired result pulling the pin and adjusting the lever handle (**Fig 71**) then re-inserting the pin back through the side plates AND THE HOLE IN THE HANDLE - "PASSIVE" for filling in grooves and pressing down large fibers (**Fig 72**) up to "ACTIVE" for arroagating and leveling the arena surface (**Fig 73**).

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To adjust up and down, rotate the right Toplink as needed for desired depth (**Fig 74**). The Coil Tines have an infinite amount of depth settings up to a 4" depth shown by the max depth gauge (**Fig 75**) when Coil Tines are set in the "ACTIVE" setting.



Fig 60.

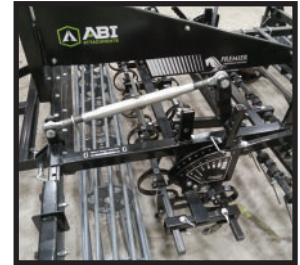


Fig 61.



Fig 62.



Fig 63.



Fig 64.



Fig 65.



Fig 66.



Fig 67.



Fig 68.



Fig 69.

Operation Guide (cont'd)



Fig 70.



Fig 71.



Fig 72.



Fig 73.



Fig 74.



Fig 75.

Smoothing Bar Adjustment

Toward the rear of the groomer is the Smoothing Bar (**Fig 76**).

The Smoothing Bar levels out any build up of material and fills in any lines or grooves. The underside of the Smoothing Bar smooths the material. The excess material flows over the top of the Smoothing Bar to prevent build up and plugging.

The plates that secure the Smoothing Bar to the groomer frame have (4) holes spaced 1" apart. The Smoothing Bar Handles have (4) holes spaced 3/4" apart. By matching the holes in the Smoothing Bar Handles with the holes in the plates, the Smoothing Bar can be adjusted in 1/4" increments for a total travel of 5.25" by pulling the pin on each side of the groomer and raising or lowering to the desired height (**Fig 77 and 78**). The "1", "2", "3" and "4" decals on both sides of the groomer are to use as references to make sure both sides are equally set so the Smoothing Bar is level to the arena. Ensure the holes in the handle match side to side with the numbers on the decals to keep bar smooth.

It is recommended that the smoothing bar be set at "grade" level or slightly above to knock off any high points and prevent excessive material build up on the smoothing bar..



Fig 76.



Fig 77.



Fig 78.

Operation Guide (cont'd)

Initial 3pt Hitch Setup

The M5 arena groomer is a 3 pt hitch style to be used with a CAT 1 tractor. Follow the steps below for 1st time setup. After setup is complete, be sure to leave topline attached to the arena groomer when disconnecting from tractor so settings will be unaffected.

Setting the Turning Hitch Latch Plate and Wedge

1. Set the arena groomer on the ground.
2. The frame of the arena groomer is to be level with the ground.

To level the frame on a dual roller style, have the arena groomer attached to the 3pt hitch and the rollers setting on the ground. Adjust the topline until the 3pt Ball Mount Turn Weldment post and the 3pt Cat 1 Connection Turn Weldment post are parallel with each other (**Fig 79**).

To level the frame on a single roller style, have the arena groomer attached to the 3pt hitch and the roller setting on the ground. Adjust the three point arms on the tractor until the arena groomer frame looks level. Now adjust the topline until the 3pt Ball Mount Turn Weldment post and the 3pt Cat 1 Connection Turn Weldment post are parallel with each other (**Fig 79**). Recheck the frame to see if it's still level. If not, repeat these steps until the frame is level and the posts are parallel with each other.

3. During operation the vertical post on the 3pt Cat 1 Connection Turn Weldment needs to be parallel with the vertical post on the 3pt Ball Mount Turn Weldment (**Fig 79**). Rotate Toplink on 3pt hitch clockwise or counter-clockwise as needed until posts are parallel. This will allow the Turning Hitch Latch Plate to be free of the Turning Hitch Latch Wedge so the arena groomer can turn with the tractor (**Fig 80**). **(COVER PLATE HAS BEEN REMOVED FOR PICTORIAL PURPOSES ONLY. THE COVER MUST BE IN PLACE AT ALL TIMES (EXCEPT MAINTENANCE) TO AVOID SERIOUS INJURY TO HANDS AND FINGERS!)**

4. When the arena groomer is lifted off the ground the large dual springs on the 3pt hitch push the vertical weldment posts together locking the Turning Hitch Latch Plate into the Turning Hitch Latch Wedge so the arena groomer will not pivot left or right when pulling out of the arena or taking the arena groomer short distances (**Fig 81**).

5. When taking the arena groomer long distances while still attached to the 3pt hitch, raise the arena groomer off the ground then lift and rotate the Travel Lock Handle down to prevent the arena groomer from pivoting left or right (**Fig 82**). **REMEMBER TO RAISE THE TRAVEL LOCK HANDLE BACK UP BEFORE GROOMING AN ARENA** (**Fig 83**).



Fig 79.

3pt Ball Mount Turn Weldment

3pt Cat 1 Connection Turn Weldment

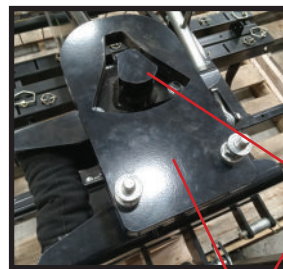


Fig 80.

Turning Hitch Latch Plate

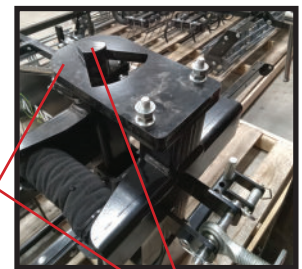


Fig 81.

Turning Hitch Latch Wedge



Fig 82.

Travel Lock Locked



Fig 83.

Travel Lock Unlocked

Operation Guide (cont'd)

Setting the Stop Pins

The stop Pins located on each end of the 3pt Cross Tube prevent the arena groomer from contacting the tractor tire when making sharp turns.

There are 4 holes on each end of the 3pt Cross Tube to adjust the Stop Pin location. Follow the steps below to determine the best hole to use to allow the most pivoting of the arena groomer without contacting the tractor tire:

1. With the arena groomer on the ground attached to the 3pt hitch on the tractor and both Stop Pins in the inner most hole on both ends of the 3pt Cross tube (**Fig 84**), slowly turn the tractor sharp to the right.
2. If the arena groomer does not come in contact with the tractor tire, the setting is good.
3. If the arena groomer does come into contact with the tractor tire, straighten the tractor back out and pull the R-clip securing the Stop Pin to the 3pt Cross Tube, pull the Stop Pin out of the inner most hole (**Fig 85**) and insert it to the next hole (**Fig 86**). Replace the R-clip to secure the Stop Pin to the 3pt Cross Tube (**Fig 87**).
4. Slowly turn the tractor sharp to the right again. If the arena groomer still comes in contact with the tractor tire, repeat step 3 and move the Stop Pin out another hole. Continue this process until the arena groomer no longer comes in contact with the tractor tire.
5. Repeat steps 1 through 4 only turning to the tractor to the left and adjust the left Stop Pin until the arena groomer does not come in contact with the left tractor tire.

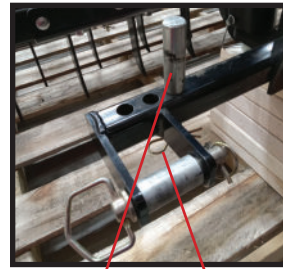


Fig 84.

Stop Pin

R-clip



Fig 85.



Fig 86.



Fig 87.

Tips for Grooming with 3pt SportPro

1. To adjust the groomer attachments depths, drive in a straight line and intermittently stop about every 20ft to evaluate the amount of material being moved/groomed and adjust the attachments, if necessary, in small increments until the desired amount of material is being moved.
2. Do Not make quick sharp turns with arena groomer raised without engaging the Travel Lock on 3pt Hitch.
3. Do Not overlap groomed and ungroomed surfaces while loosening material - arena groomer will trail sideways.
4. When exiting the arena, slowly raise the arena groomer and allow it to center before exiting through the gates or other restrictions.

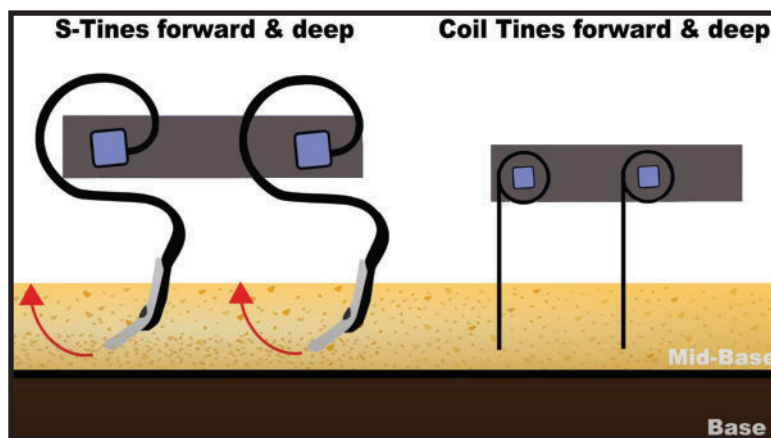
Operation Guide (cont'd)

Tips for Arena Grooming

1. If a component of the tool is plugging, raise that component. By raising the ground engaging component, it will allow material to flow better and pass through the tool eliminating the plugging.

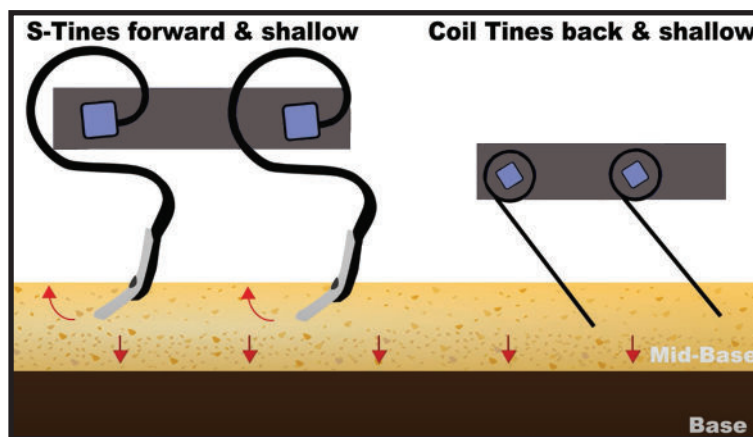
S-TINES ANGLED FORWARD & DEEP/COIL TINES FORWARD & DEEP

This setting will let the S-Tines lift small particles that have settled near the base and also will mix footing additives. Avoid contact with base material as well as base mats or a separation cloth if installed. The Coil Tines will break up chunks and help mix and blend the arena surface.



S-TINES ANGLED FORWARD & SHALLOW/COIL TINES BACK & SHALLOW

This setting will let the S-Tines mix the top surface while compacting the mid-base. The Coil Tines will help push material down and help pack as well as vibrate, filling in the grooves from the S-Tines.

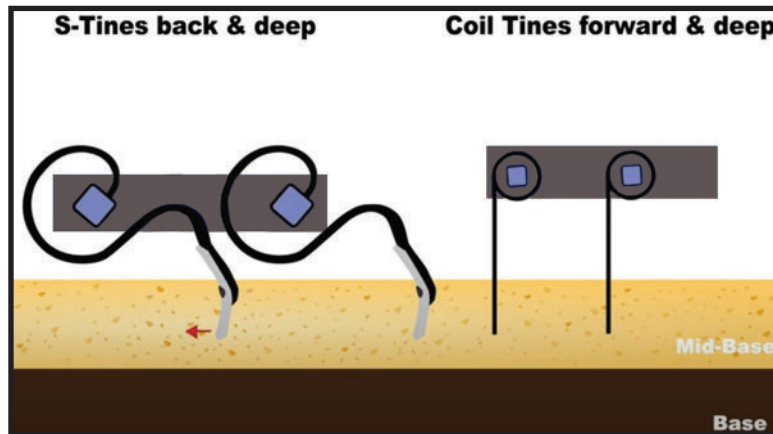


Operation Guide (cont'd)

Tips for Arena Grooming (cont'd)

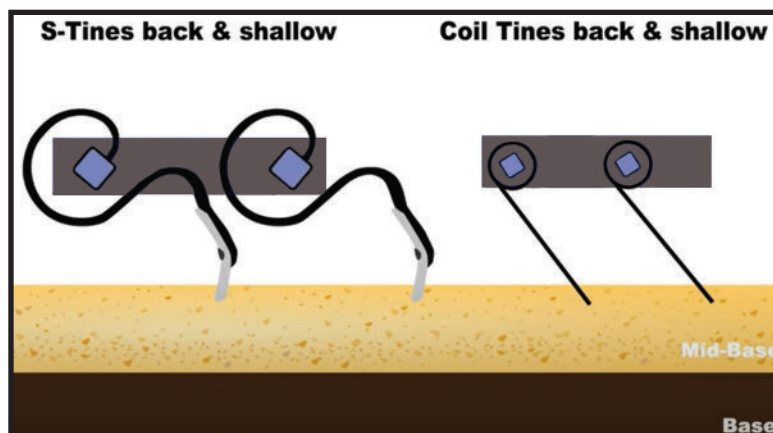
S-TINES ANGLED BACK & DEEP/COIL TINES FORWARD & DEEP

This setting will let the S-Tines scrape hard spots in the base as well as loosen and redistribute material and sand to level the arena surface. The Coil Tines will break up chunks and help mix and blend the arena surface.



S-TINES ANGLED BACK & SHALLOW/COIL TINES BACK & SHALLOW

This setting will let the S-Tines level and fluff the top layer of the arena surface. This position also protects the base mat or separation layer cloth if the arena has one. The Coil Tines will fill in the grooves from the S-Tines and help compact the mid-base.



Maintenance

Toplinks - Be sure to keep the threaded parts of toplinks silicone spray lubricant so they don't seize over time (**Fig 88**).

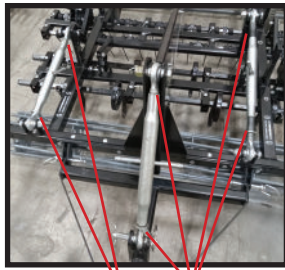


Fig 88.
Grease threaded portion of Toplinks.

Roller Bearings - The bearings on both ends of the Roller should be greased every 3 months. They should also be greased before any long period of storage (**Fig 89 and 90**).



Fig 89.
Location of Grease Fitting on Wheel Hub Assembly.



Fig 90.
Location of Grease Fitting on Wheel Hub Assembly.

M5 3PT HITCH - Annually inspect the wear on the TURNING HITCH LATCH PLATE and TURNING HITCH LATCH WEDGE by removing the TURNING HITCH TOP COVER and confirm the plate and wedge do not have excessive wear or do not fit firmly together. If too much wear is found on either the plate or wedge or both, remove them using (2) 3/4" wrenches (or socket set) to remove the plate and (2) 9/16" wrenches (or socket set) for the wedge and replace with new ones. **SEE PAGES 36 & 37 FOR REPLACEMENT PART NUMBERS.**

While the plate and wedge are disassembled, lower the TURN 3PT CAT I CONNECT WELDMENT and apply silicone spray lubricant to the Ball Hitch then raise the TURN 3PT CAT I CONNECT WELDMENT and reassemble the new plate and wedge and cover (**Fig 91**).

Finish - To prevent rust from developing on a surface due to scratches on the tool, use a rust stopping primer and semi-gloss black paint to refinish the damaged area.

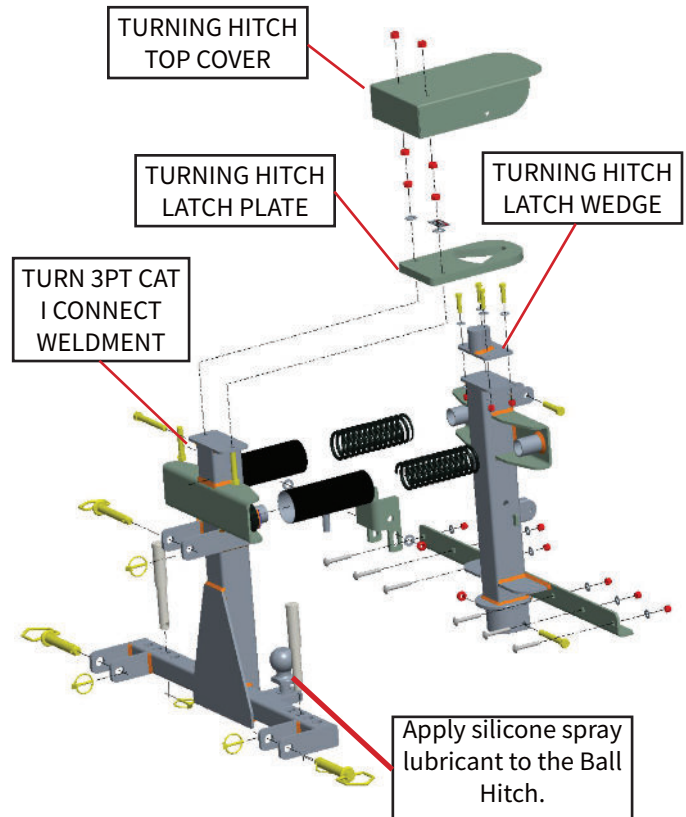


Fig 91.

Replacement Parts

1. All of the ground engaging components are considered wear parts and will need to be replaced as they wear out from use. To reorder, please contact the ABI Support department at 877-788-7253.

Troubleshooting & FAQs

Replacing damaged or worn Scarifier

Replace the Scarifier when approximately 2" to 3" of the Scarifier tip is worn away (**Fig 92**).

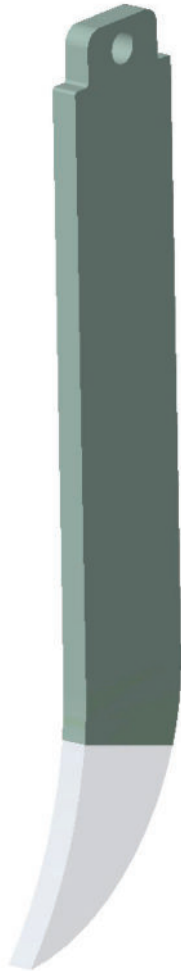


Fig 92.

1. To replace a damaged Scarifier, rotate the topline that controls the height of the scarifier assembly until the scarifier assembly is high enough to get the damaged scarifier out (**Fig 93**).
2. Remove the pin that holds the Scarifier in position (**hold onto the scarifier while removing the pin to keep the scarifier from falling**) and pull the scarifier out (**Fig 94 and 95**).
3. Slide repaired or new scarifier into position making sure the curved portion of the scarifier is facing the same direction as the other scarifiers (**Fig 96**).
4. Re-install pin to secure scarifier (**Fig 97**).



Fig 93.



Fig 94.



Fig 95.



Fig 96.



Fig 97.

Troubleshooting & FAQs (cont'd)

Worn S-Tine Sweep (Tip)

After approximately 2/3 of the Sweep on the S-Tine is worn away, loosen the nut on the back side of the Sweep using a 13mm wrench (or adjustable wrench) and pivot the sweep 180 degrees and re-tighten the nut. This can be done with the S-Tine still attached to the arena groomer. Remove the Sweep from the S-Tine once both ends of the Sweep are worn and replace with a new Sweep (**Fig 98**).

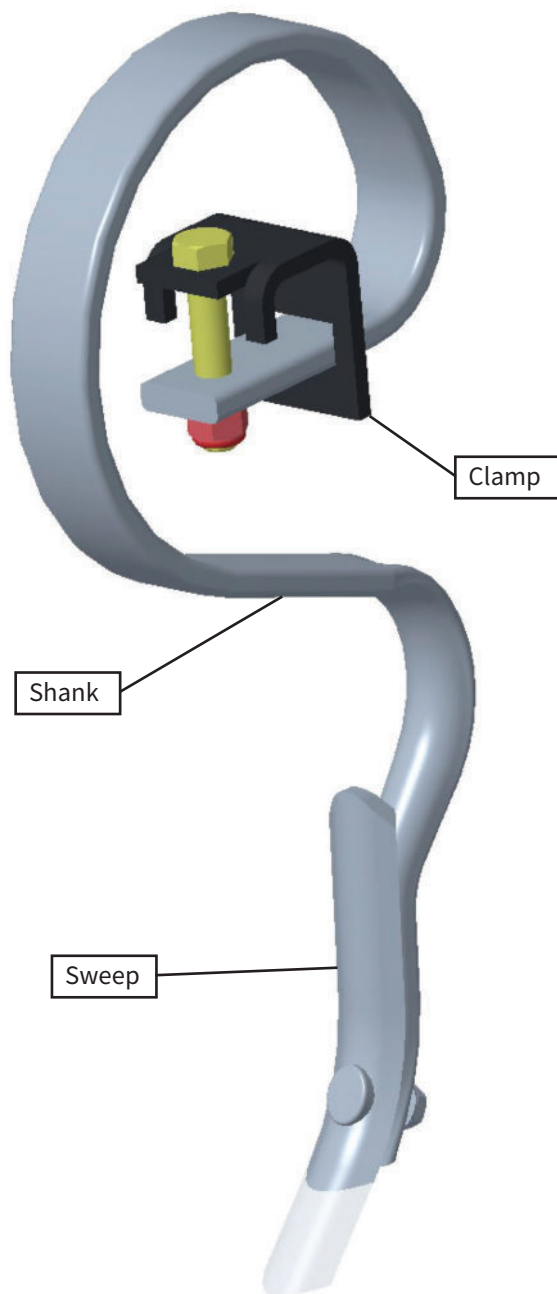


Fig 98.

Visit: www.abisupport.com

Replacing damaged S-Tine Shank

1. Rotate the Toplink that raises the S-Tine assembly high enough to allow room to remove the damaged S-Tine (**Fig 99**).

2. Pull the pin that secures the pitch (angle) control lever and pull the lever all the way forward and re-insert the pin to allow more room for S-Tine removal (**Fig 100**).

NOTE: THIS MANUAL WILL SHOW HOW TO REMOVE THE S-TINE SUB-ASSEMBLY TO REMOVE A DAMAGED S-TINE. IT MAY BE POSSIBLE TO SWAP OUT AN S-TINE WHILE THE SUB-ASSEMBLY IS STILL MOUNTED TO THE GROOMER IF THERE IS ROOM FOR THE TOOLS NEEDED TO MAKE THE SWAP.

3. Pull the (4) pins that secure the (4) Pivot Lock Tubes and remove the Pivot Lock Tubes (**this may be the front or rear tube depending where the damaged S-Tine is located**) (**Fig 101, 102 and 103**).

4. On each side of the groomer on the underside of the S-Tine assembly are linkages held together by clevis pins. Remove the R-clip at the end of one clevis pin on each side of the groomer and remove the clevis pins and let the linkages hang (**Fig 104 and 105**).

NOTE: STEPS 1 THROUGH 4 APPLY TO BOTH FRONT AND REAR S-TINE SUB-ASSEMBLIES. STEPS 5 AND 6 ARE ADDITIONAL STEPS TO REMOVE THE REAR S-TINE SUB-ASSEMBLY

5. Pull the pin securing the pitch (angle) lever handle (**Fig 106**).

6. Pull off the plastic hand grip from the pitch (angle) lever handle (**Fig 107**).

7. Grab the loosened sub-assembly with both hands and pull until free from the frame (**Fig 108 and 109**).

8. Slide sub-assembly out from under the groomer and set in an area accessible to work on.

9. Before removing the damaged S-Tine, mark or etch a line next to the S-Tine to know where to mount the new S-Tine (**Fig 110**).

10. Use (2) 9/16" wrenches (recommend 1 wrench be a ratcheting wrench because of the tight working area) (**Fig 111**).

11. Slide S-Tine back out of the slot in the clamp bracket to release it from the mounting tube and remove (**Fig 112, 113 and 114**).

Troubleshooting & FAQs (cont'd)

Replacing damaged S-Tine Shank

12. Replace S-Tine clamp bracket back onto the mounting tube facing the same direction as the other clamp brackets (make sure both bent tabs on clamp bracket are on top of mounting tube). Slide new S-Tine onto mounting tube facing the same direction as the other S-Tines (**Fig 115**).

13. Slide S-Tine into slot on clamp bracket until hole in S-Tine aligns with hole in clamp bracket (**Fig 116**).

14. Insert bolt (originally removed from damaged S-Tine) into hole on clamp bracket then on through hole in S-Tine. Replace washer and nut (originally removed from damaged S-Tine) onto bolt hand tight only (**Fig 117**).

15. Align clamp bracket with mark or etched line from step 9 then tighten nut using (2) 9/16" wrenches (recommend 1 wrench be a ratcheting wrench because of the tight working area) (**Fig 118**).

16. Once the new S-Tine is mounted, slide the sub-assembly back under the groomer. Grab sub-assembly with both hands and lift and slide into slots of frame (be sure front sub-assembly is centered on frame). If rear sub-assembly is being remounted, slide lever handle up into lever bracket then slide sub-assembly into slots of frame (**Fig 119, 120 and 121**).

17. Replace the (4) Pivot lock tubes and secure them with the (4) pins (**Fig 122 and 123**).

18. If rear sub-assembly is being remounted, slide plastic grip back onto pitch (angle) lever handle (**Fig 124**).

19. Re-attach linkages on both side by replacing the clevis pins and R-clips removed in step 4 (**Fig 125 and 126**).

20. Replacing S-Tine assembly is now complete (**Fig 127**).



Fig 99.



Fig 100.

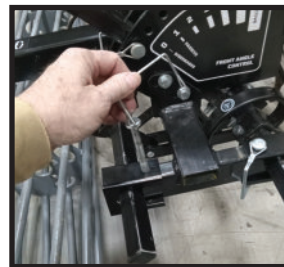


Fig 101.



Fig 102.



Fig 103.



Fig 104.



Fig 105.



Fig 106.

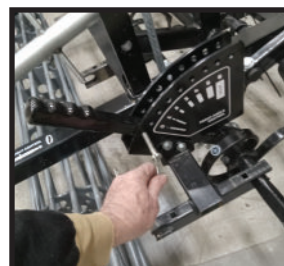


Fig 107.



Fig 108.

Troubleshooting & FAQs (cont'd)

Replacing damaged S-Tine Shank



Fig 109.



Fig 110.



Fig 119.



Fig 120.



Fig 111.



Fig 112.



Fig 121.



Fig 122.



Fig 113.



Fig 114.

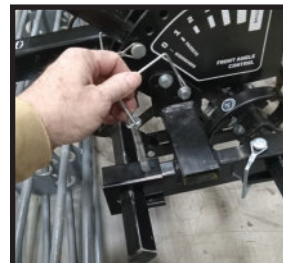


Fig 123.



Fig 124.



Fig 115.



Fig 116.



Fig 125.



Fig 126.



Fig 117.

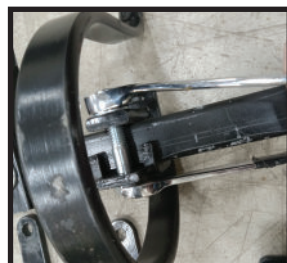


Fig 118.



Fig 127.

Troubleshooting & FAQs (cont'd)

Replacing damaged or worn Coil Tine

Replace the Coil Tine when approximately 2" TO 3" of the Coil Tine tips are worn away (**Fig 128**).



Fig 128.

Replacing damaged or worn Coil Tine

1. Rotate the Toplink that raises the Coil Tine assembly high enough to allow room to remove the front or rear Coil Tine sub-assembly with the damaged or worn Coil Tine (**Fig 129**).

2. Pull the pin that secures the pitch (angle) control lever and pull the lever all the way forward and re-insert the pin to allow more room for Coil Tine removal (**Fig 130**).

3. Pull the (4) pins that secure the (4) Pivot Lock Tubes and remove the Pivot Lock Tubes (**this may be the front or rear tube depending where the damaged Coil Tine is located**) (**Fig 131 and 132**).

4. On each side of the groomer on the underside of the Coil Tine assembly are linkages held together by clevis pins. Remove the clip at the end of one clevis pin on each side of the groomer and remove the clevis pins and let the linkages hang (**Fig 133, 134 and 135**).

NOTE: STEPS 1 THROUGH 4 APPLY TO BOTH FRONT AND REAR COIL TINE SUB-ASSEMBLIES. STEPS 5 AND 6 ARE ADDITIONAL STEPS TO REMOVE THE REAR COIL TINE SUB-ASSEMBLY

5. Pull the pin securing the pitch (angle) lever handle (**Fig 136**).

6. Pull off the plastic hand grip from the pitch (angle) lever handle (**Fig 137**).

7. Grab the loosened sub-assembly with both hands and pull until free from the frame (**Fig 138**).

8. Slide sub-assembly out from under the groomer and set in an area accessible to work on.

9. Use (2) 9/16" wrenches (or socket set) to remove damaged or worn Coil Tine as well as any other Coil Tine and linkage bracket that are in the way or removing the bad one (**Fig 139**).

10. Slide Coil Tine(s) and linkage bracket off mounting tube .

11. Slide new Coil Tine (as well any removed) onto mounting tube facing the same direction as the other Coil Tines. Re-insert bolts securing Coil Tines onto mounting tube and thread nuts onto bolts and tighten using (2) 9/16" wrenches (or socket set). If linkage bracket was removed, re-attach linkage bracket onto mounting tube in the same direction as it was before removing. Insert bolt through bracket and tube then thread nut onto bolt and tighten using 9/16" wrench (or socket set). (**Fig 140**).

Troubleshooting & FAQs (cont'd)



Fig 129.



Fig 130.



Fig 131.



Fig 132.



Fig 133.



Fig 134.



Fig 135.



Fig 136.



Fig 137.



Fig 138.

Replacing damaged or worn Coil Tine

12. Once the Coil Tines and linkage bracket are mounted, slide the sub-assembly back under the groomer and complete steps 3 through 8 in reverse to re-attach the sub-assembly onto the frame. Grab sub-assembly with both hands and lift and slide into slots of frame (be sure front sub-assembly is centered on frame). If rear sub-assembly is being remounted, slide lever handle up into lever bracket then slide sub-assembly into slots of frame. Replace the (4) Pivot lock tubes and secure them with the (4) pins. If rear sub-assembly is being remounted, slide plastic grip back onto pitch (angle) lever handle (**Fig 141 and 142**).



Fig 139.



Fig 140.



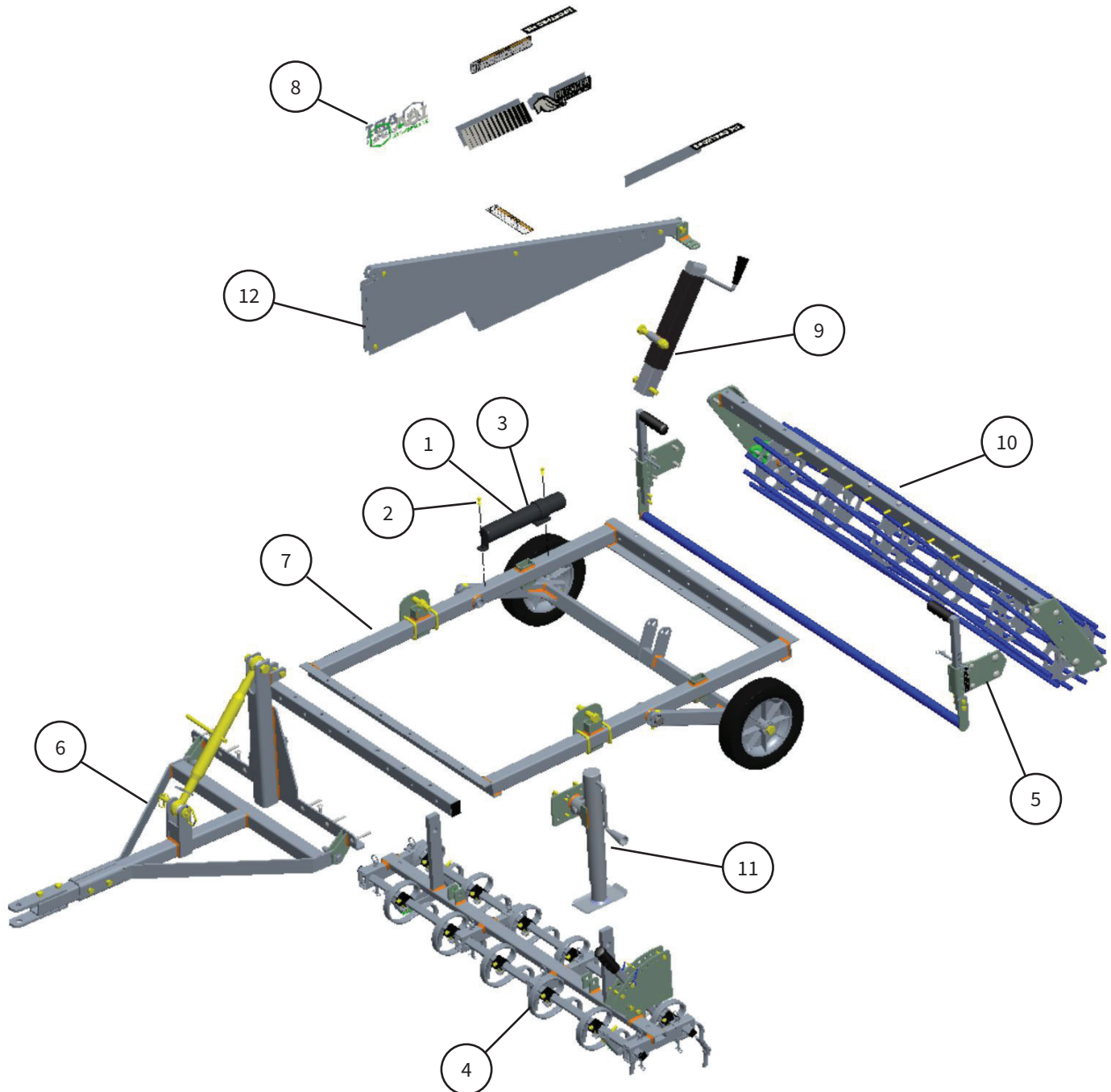
Fig 141.



Fig 142.

Parts Description (cont'd)

M1 SportPro



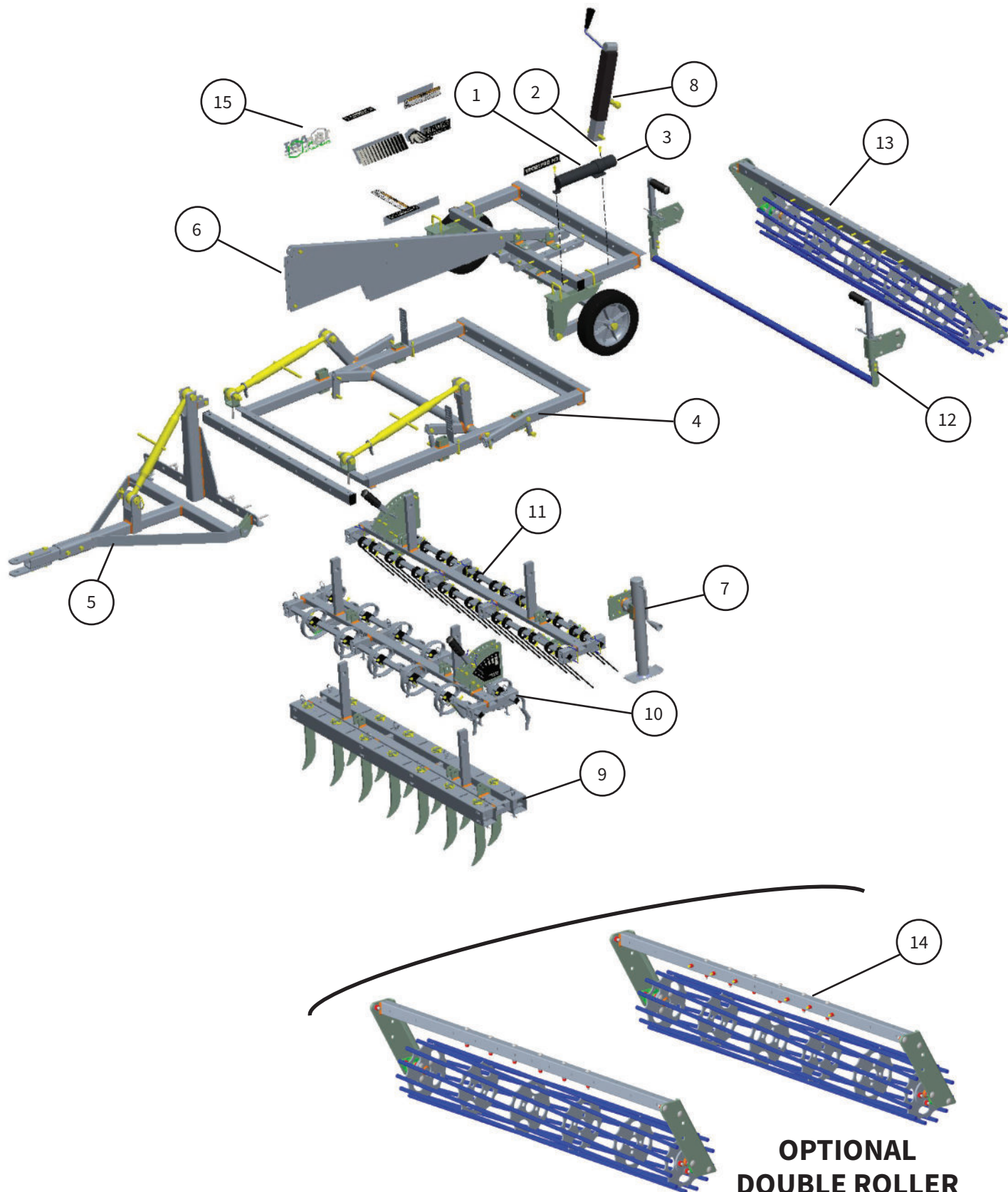
Parts Description (cont'd)

M1 SportPro (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10449	MANUAL CANISTER
2	10-20577	SCREW SELF TAP: HEX: 5/16x1: ZINC
3	10-80100	OWNER'S MANUAL: SPORTPRO SYNTHETIC
4	10-90592	ASM: 5.5' S TINE: SYNTH
5	10-90622	ASM: 5.5' SMOOTHING BAR: SYNTH
6	10-90650	ASM: TONGUE AND JACK: SYNTHETIC
7	10-90653	ASM: M1 FRAME: SYNTHETIC
8	10-90662	ASM: M1 DECAL PACK
9	10-90665	ASM: M1 MANUAL WHEEL LIFT SYSTEM
10	10-90671	ASM: SINGLE 5.27' ROLLER: SYNTHETIC (SHORT)
11	10-90675	ASM: JACK SIDEWIND W/MTG BRKT; 2 1/2" TUBE
12	10-90679	ASM: SHORT MAST: SYNTHETIC

Parts Description

M3 SportPro



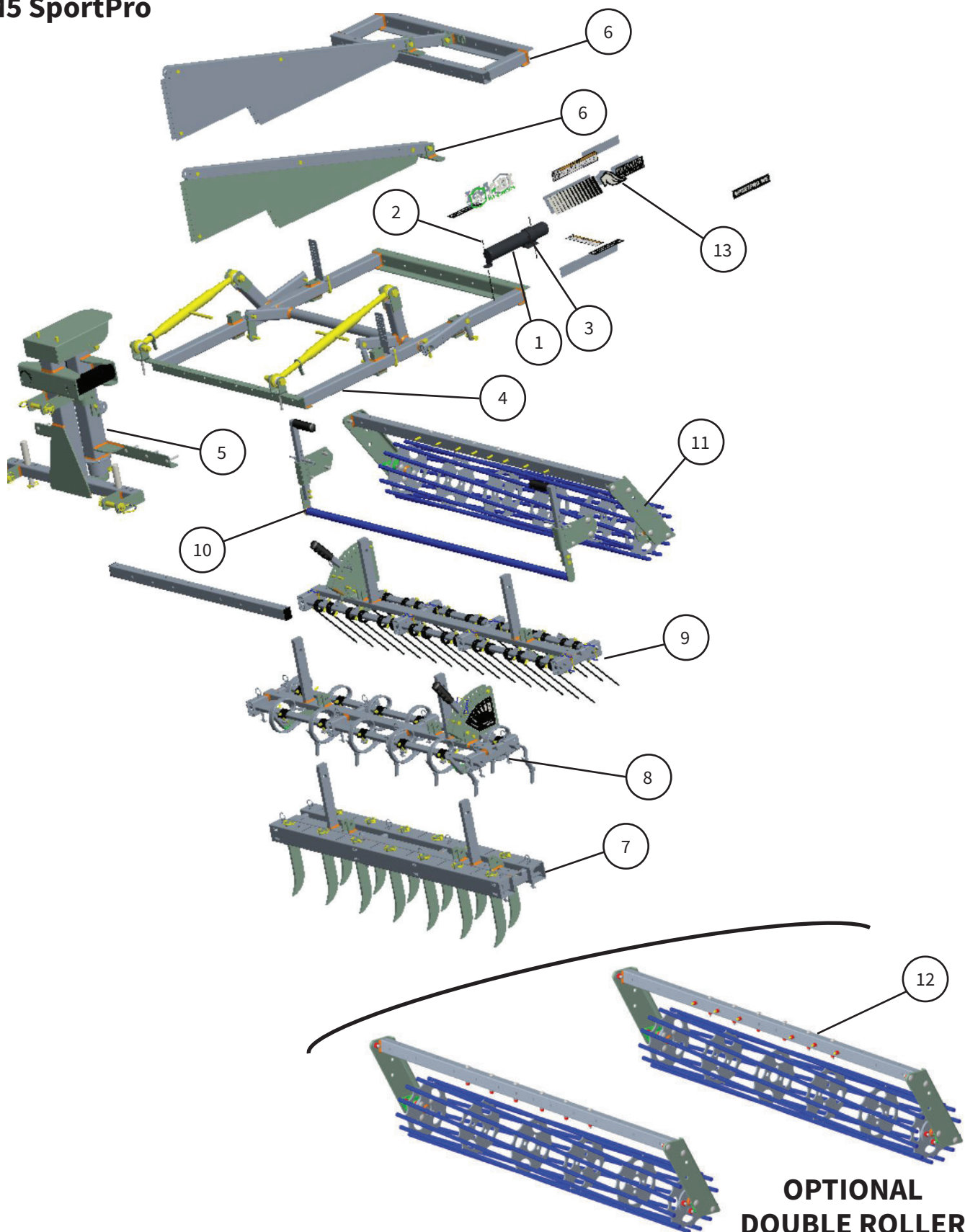
Parts Description (cont'd)

M3 SportPro (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10449	MANUAL CANISTER
2	10-20577	SCREW SELF TAP: HEX: 5/16x1: ZINC
3	10-80100	OWNER'S MANUAL: SPORTPRO SYNTHETIC
4	10-90654	ASM: FRAME AND ROCKER: SYNTHETIC
5	10-90650	ASM: TONGUE AND JACK: SYNTHETIC
6	10-90651	ASM: FRAME EXTN AND WHEEL LIFT: SYNTHETIC
7	10-90675	ASM: JACK SIDEWIND W/MTG BRKT; 2 1/2" TUBE
8	10-90666	ASM: M3 MANUAL WHEEL LIFT SYSTEM
9	10-90636	ASM: 6' SCARIFIER: SYNTH (OPTION)
9	10-90637	ASM: 7' SCARIFIER: SYNTH (OPTION)
10	10-90592	ASM: 5.5' S-TINE: SYNTH (OPTION)
10	10-90596	ASM: 6.5' S-TINE: SYNTH (OPTION)
11	10-90593	ASM: 5.5' COIL TINE: SYNTH
11	10-90597	ASM: 6.5' COIL TINE: SYNTH
12	10-90622	ASM: 5.5' SMOOTHING BAR: SYNTH
12	10-90624	ASM: 6.5' SMOOTHING BAR: SYNTH
13	10-90657	ASM: SINGLE 5.27' ROLLER: SYNTHETIC
13	10-90659	ASM: SINGLE 6.58' ROLLER: SYNTHETIC
14	10-90658	ASM: DOUBLE 5.27' ROLLER: SYNTHETIC (OPTION)
14	10-90660	ASM: DOUBLE 6.58' ROLLER: SYNTHETIC (OPTION)
15	10-90663	ASM: M3 DECAL PACK

Parts Description

M5 SportPro



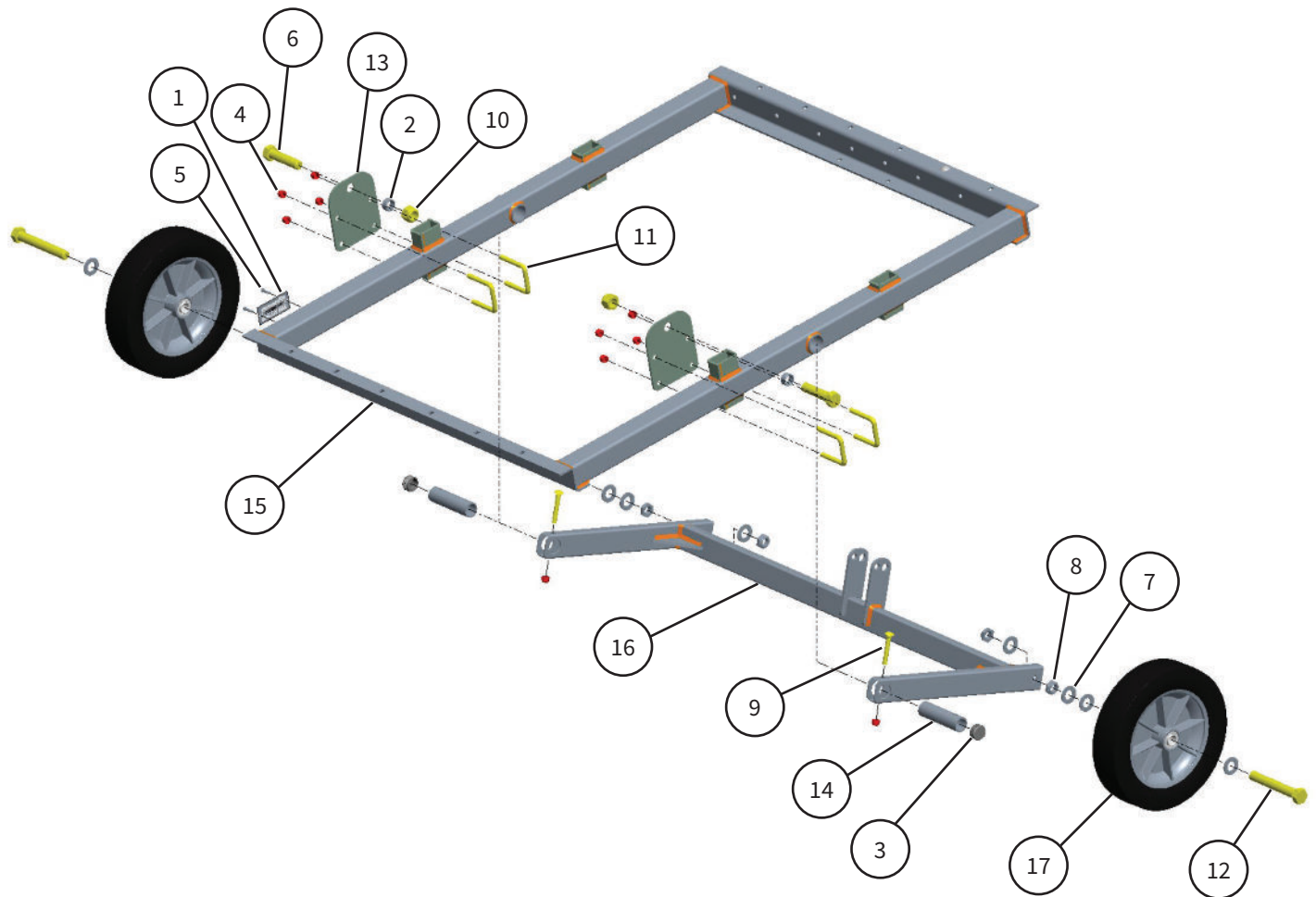
Parts Description (cont'd)

M5 SportPro (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10449	MANUAL CANISTER
2	10-20577	SCREW SELF TAP: HEX: 5/16x1: ZINC
3	10-80100	OWNER'S MANUAL: SPORTPRO SYNTHETIC
4	10-90654	ASM: FRAME AND ROCKER: SYNTHETIC
5	10-90633	ASM: TURN 3PT CAT I: SYNTH
6	10-90661	ASM: SHORT MAST: SYNTH (SHORT)
6	10-90652	ASM: FRAME EXTN AND MAST TUBE: SYNTH (EXTENDED)
7	10-90636	ASM: 6' SCARIFIER: SYNTH (OPTION)
7	10-90637	ASM: 7' SCARIFIER: SYNTH (OPTION)
8	10-90592	ASM: 5.5' S-TINE: SYNTH (OPTION)
8	10-90596	ASM: 6.5' S-TINE: SYNTH (OPTION)
9	10-90593	ASM: 5.5' COIL TINE: SYNTH
9	10-90597	ASM: 6.5' COIL TINE: SYNTH
10	10-90622	ASM: 5.5' SMOOTHING BAR: SYNTH
10	10-90624	ASM: 6.5' SMOOTHING BAR: SYNTH
11	10-90657	ASM: SINGLE 5.27' ROLLER: SYNTHETIC
11	10-90659	ASM: SINGLE 6.58' ROLLER: SYNTHETIC
12	10-90658	ASM: DOUBLE 5.27' ROLLER: SYNTHETIC (OPTION)
12	10-90660	ASM: DOUBLE 6.58' ROLLER: SYNTHETIC (OPTION)
13	10-90663	ASM: M3 DECAL PACK

Parts Description (cont'd)

10-90653: ASM: M1 FRAME: SYNTHETIC



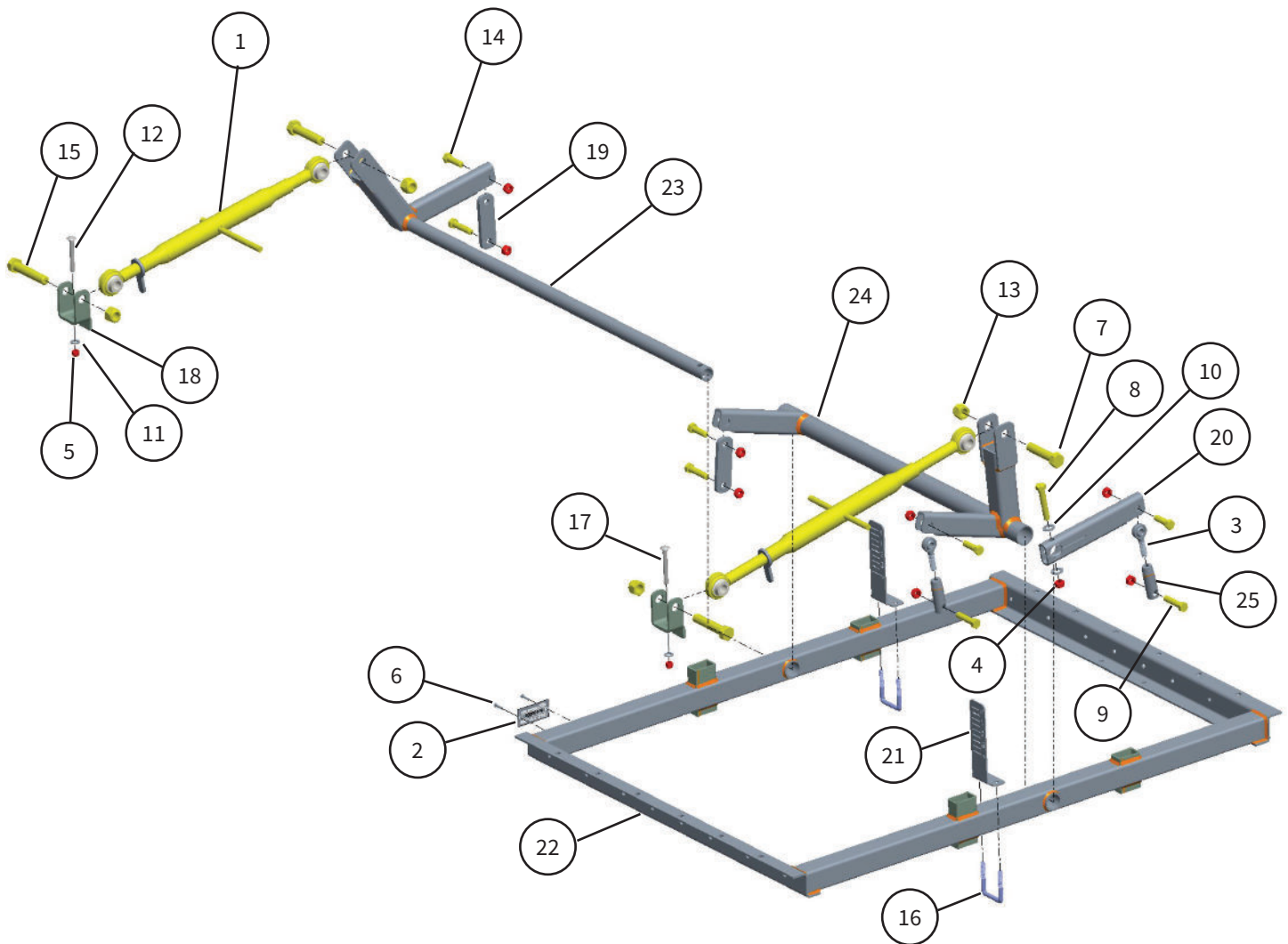
Parts Description (cont'd)

10-90653: ASM: M1 FRAME: SYNTHETIC (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10161	ABI SERIES SERIAL NUMBER PLATE
2	10-10343	BUSHING: 3/4" ID X 1/2":ZINC
3	10-11215	PLUG: BLACK PLASTIC RD, 1-1/4" DIA X .52 DP
4	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
5	10-20104	RIVET: 0.5-0.625 GRIP: SHOP SUPPLY
6	10-20174	BOLT HEX: 3/4-10x3.25: GR5: ZINC
7	10-20197	WSHR SAE: 3/4: GR5: ZINC
8	10-20207	NUT THIN NYLK: 3/4-10: GR2: ZINC
9	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
10	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
11	10-20493	UBOLT SQ: 3/8-16x2 IDx2.625 OAL: ZINC
12	10-20558	BOLT HEX: 3/4-10x5.5: GR5: ZINC
13	10-32584	PLATE: S TINE LOCK: SYNTH
14	10-32594	TUBE: WL STRD PIVOT: SYNTH
15	10-40646	WLDMT: CORE FRAME: SYNTH
16	10-40709	WLDMT: STANDARD WHEEL LIFT: SYNTH
17	10-60101	WHEEL: KENDA 12 X 3: 3/4 HUB

Parts Description (cont'd)

10-90654: ASM: FRAME AND ROCKER: SYNTHETIC



Parts Description (cont'd)

10-90654: ASM: FRAME AND ROCKER: SYNTHETIC (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10078	TOPLINK, 21" W/LOCK:ZINC
2	10-10161	ABI SERIES SERIAL NUMBER PLATE
3	10-11167	BALL JOINT ROD END, 1/2-20 THREAD
4	10-20050	NUT STOV: 1/2-13: GR5: ZINC
5	10-20055	NYLOCK NUT:3/8-16:ZINC GR5
6	10-20104	RIVET: 0.5-0.625 GRIP: SHOP SUPPLY
7	10-20166	BOLT HEX: 3/4-10x3.5: GR5: ZINC
8	10-20168	BOLT HEX: 1/2-13x3: GR5: ZINC
9	10-20181	BOLT HEX: 1/2-13x2.25: GR5: ZINC
10	10-20194	WSHR SAE: 1/2: ZINC
11	10-20195	WSHR SAE: 3/8: ZINC
12	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
13	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
14	10-20359	BOLT HEX: 1/2-13x1.75: GR5: ZINC
15	10-20361	BOLT HEX: 3/4-10x4: GR5: ZINC
16	10-20493	UBOLT SQ: 3/8-16x2 IDx2.625 OAL: ZINC
17	10-20561	BOLT CARR: 3/8-16x3.25: GR5: ZINC
18	10-32378	BRKT: LIFT CONTROL: SYNTH
19	10-32393	BRKT: LIFT LINK: SYNTH
20	10-32401	TUBE: BOLT ON ROCKER ARM: SYNTH
21	10-32581	BRKT: SIGHT GAGE MNT: SYNTH
22	10-40646	WLDMT: CORE FRAME: SYNTH
23	10-40649	WLDMT: INNER ROCKER: SYNTH
24	10-40650	WLDMT: OUTER ROCKER: SYNTH
25	10-40693	WLDMT: ADJUSTING LINK: SYNTH

10-90650: ASM: TONGUE AND JACK: SYNTHETIC



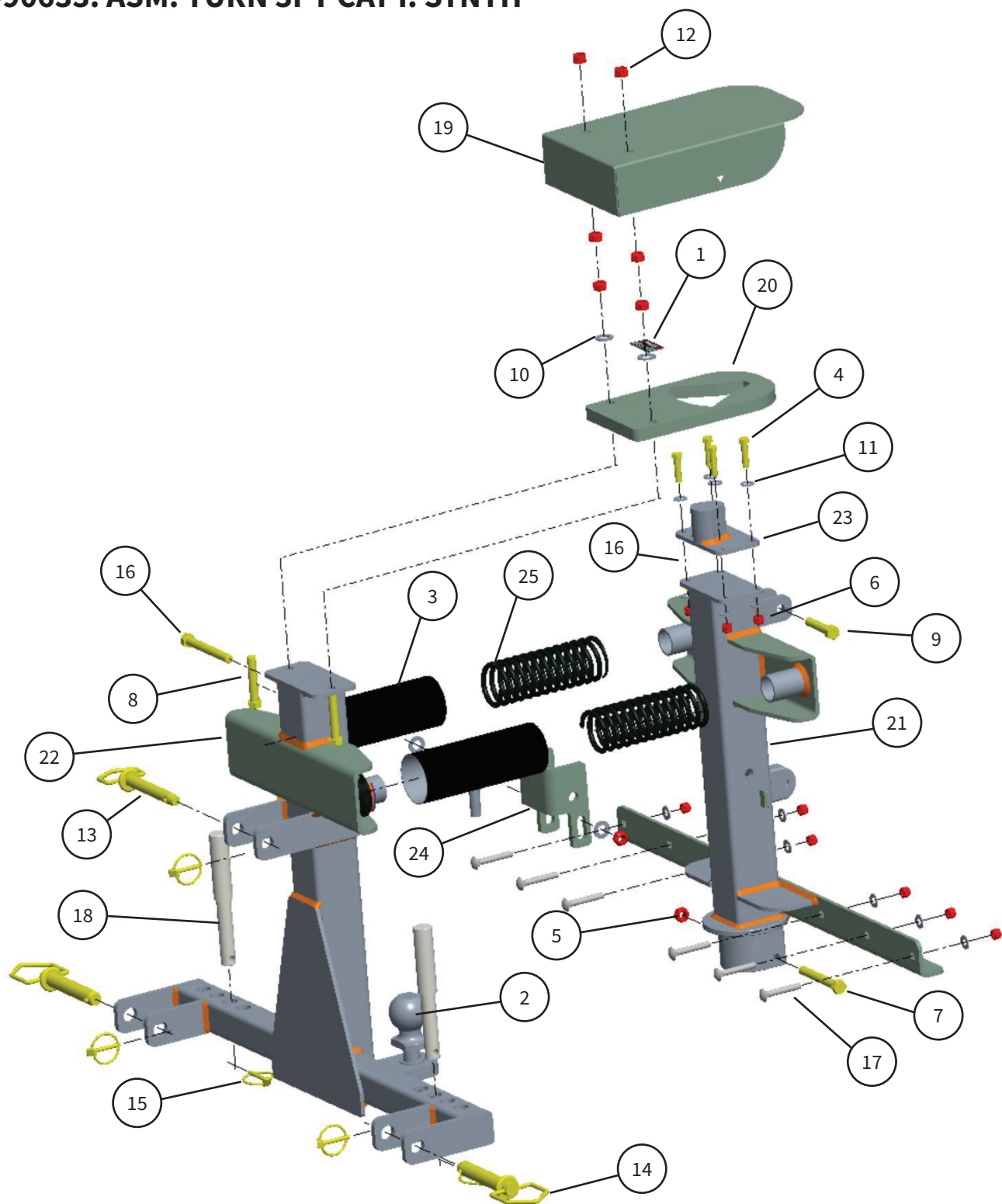
Parts Description (cont'd)

10-90650: ASM: TONGUE AND JACK: SYNTHETIC (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10078	TOP LINK 21" (16" BODY) W/ LOCK: ZINC
2	10-20050	NUT STOV: 1/2-13: GR5: ZINC
3	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
4	10-20166	BOLT HEX: 3/4-10x3.5: GR5: ZINC
5	10-20172	BOLT HEX: 1/2-13x3.5: GR5: ZINC
6	10-20185	BOLT HEX: 1/2-13x2.5: GR5: ZINC
7	10-20194	WSHR SAE: 1/2: ZINC
8	10-20195	WSHR SAE: 3/8: ZINC
9	10-20197	WSHR SAE: 3/4: GR5: ZINC
10	10-20220	PIN HITCH: 3/4x4.25 UL: ZINC
11	10-20232	PIN LYNCH: 1/4x2.125 OALx1.375 UL: ZINC
12	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
13	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
14	10-20375	BOLT HEX: 1/2-13x3.25: GR5: ZINC
15	10-20574	PIN R-CLIP: 1/8x0.563 IDx2.563 OAL: ZINC
16	10-20575	PIN CLEVIS: ADJUSTABLE: 3/4x3: ZINC
17	10-30048	PLATE: HITCH BAR
18	10-32415	TUBE: TONGUE DRAWBAR: SYNTH
19	10-40657	WLDMT: TONGUE CONNECT: SYNTH
20	16-50000	ASM: HITCH HARNESS

Parts Description (cont'd)

10-90633: ASM: TURN 3PT CAT I: SYNTH



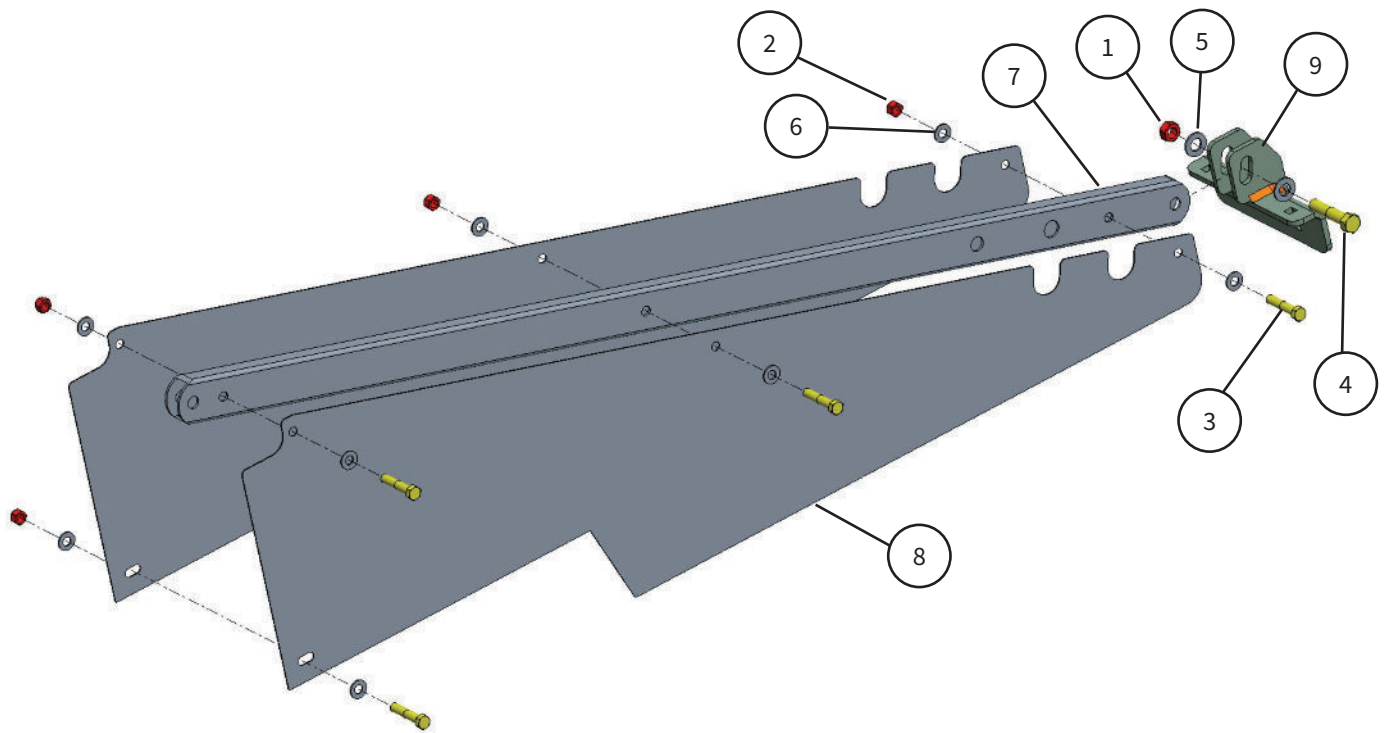
Parts Description (cont'd)

10-90633: ASM: TURN 3PT CAT I: SYNTH (cont'd)

ITEM	PART #	DESCRIPTION
1	10-10096	LBL: PINCH POINT A 1" X 2"
2	10-11203	HITCH BALL: 2-5/16": TURNING 3PT HITCH
3	10-11217	SLEEVE: 4.65" FLAT: 2.87" ID
4	10-20043	BOLT HEX: 3/8x16x1.5: GR5: ZINC
5	10-20050	NUT STOV: 1/2-13: GR5: ZINC
6	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
7	10-20141	BOLT HEX: 1/2-13x4: GR5: ZINC
8	10-20169	BOLT HEX: 1/2-13x2.75: GR5: ZINC
9	10-20185	BOLT HEX: 1/2-13x2.5: GR5: ZINC
10	10-20194	WSHR SAE: 1/2: ZINC
11	10-20195	WSHR SAE: 3/8: ZINC
12	10-20201	NUT NYLK: 1/2-13: GR5: ZINC
13	10-20220	PIN HITCH: 3/4x4.25 UL: ZINC
14	10-20228	PIN HITCH: 7/8x5.75 OALx4.25 UL: ZINC
15	10-20232	PIN LYNCH: 1/4x2.125 OALx1.375 UL: ZINC
16	10-20320	BOLT HEX: 1/2-13x4.5: GR5: ZINC
17	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
18	10-20560	PIN STEP: 1-1/8x0.875 IDx8 OAL: ZINC
19	10-32618	COVER: TOP TURNING HITCH: SYNTH
20	10-32619	PLATE: TURNING HITCH LATCH: SYNTH
21	10-40670	WLDMT: TURN 3PT BALL MNT: SYNTH
22	10-40671	WLDMT: TURN 3PT CAT I CONNECT: SYNTH
23	10-40672	ASM: REPLACEABLE WEDGE: SYNTH
24	10-40735	WLDMT: LOCKING BRKT: TURN 3PT
25	10-40750	ASM: SPRING WITH LOCK COLLAR: TURNING 3PT HITCH

Parts Description (cont'd)

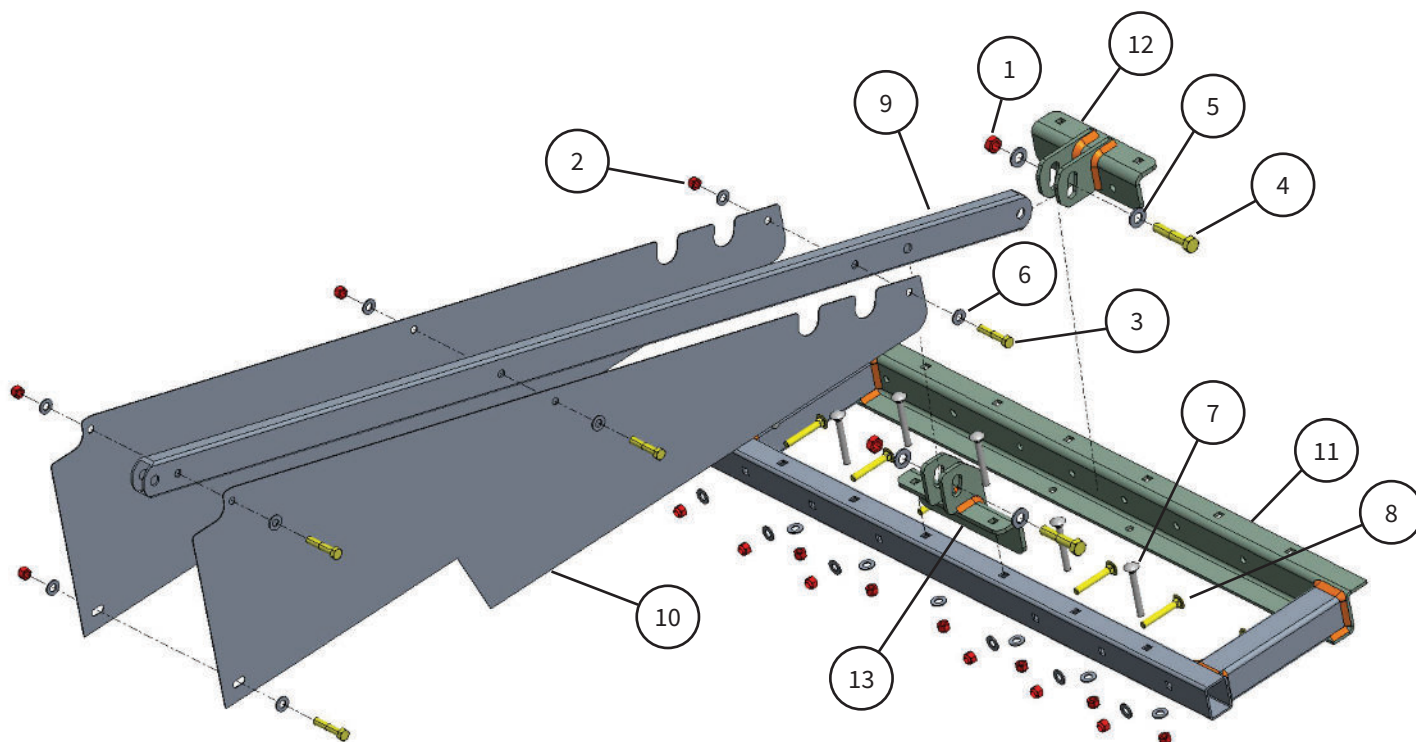
10-90661: ASM: SHORT MAST: SYNTHETIC



ITEM	PART #	DESCRIPTION
1	10-20050	NUT STOV: 1/2-13: GR5: ZINC
2	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
3	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC
4	10-20185	BOLT HEX: 1/2-13x2.5: GR5: ZINC
5	10-20194	WSHR SAE: 1/2: ZINC
6	10-20195	WSHR SAE: 3/8: ZINC
7	10-32370	TUBE: MAIN SHORT: SYNTH
8	10-32613	PANEL: UNIVERSAL SIDE COVER: SYNTH
9	10-40754	WLDMT: MIDMOUNT MAST BRACE

Parts Description (cont'd)

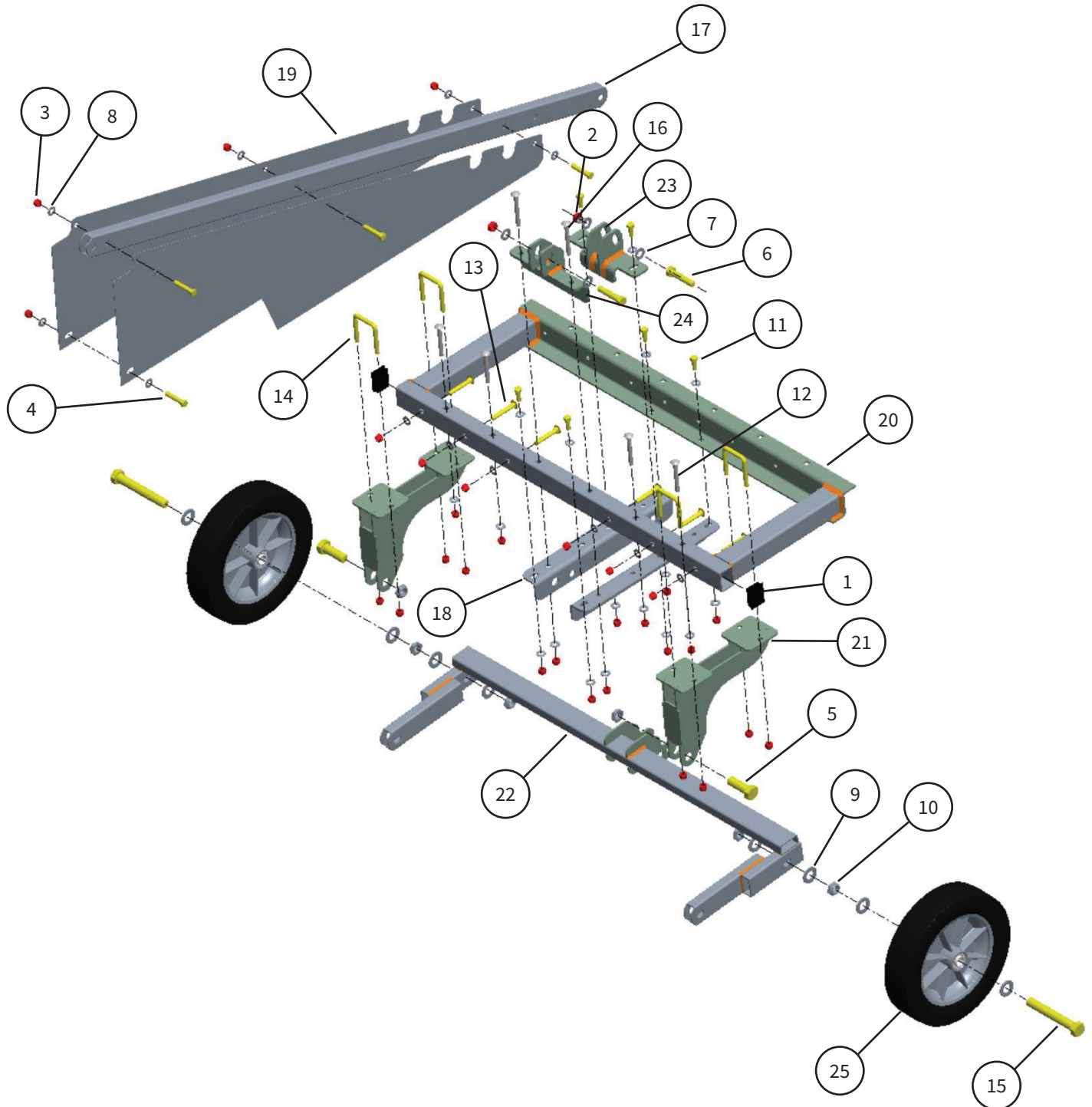
10-90652: ASM: FRAME EXTN AND MAST TUBE: SYNTHETIC



ITEM	PART #	DESCRIPTION
1	10-20050	NUT STOV: 1/2-13: GR5: ZINC
2	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
3	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC
4	10-20185	BOLT HEX: 1/2-13x2.5: GR5: ZINC
5	10-20194	WSHR SAE: 1/2: ZINC
6	10-20195	WSHR SAE: 3/8: ZINC
7	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
8	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
9	10-32429	TUBE: MAIN LONG: SYNTH
10	10-32613	PANEL: UNIVERSAL SIDE COVER: SYNTH
11	10-40713	WLDMT: SHORT CORE FRAME EXT: SYNTH
12	10-40753	WLDMT: M5 MAST BRACE
13	10-40754	WLDMT: MIDMOUNT MAST BRACE

Parts Description (cont'd)

10-90651: ASM: FRAME EXTN AND WHEEL LIFT: SYNTHETIC



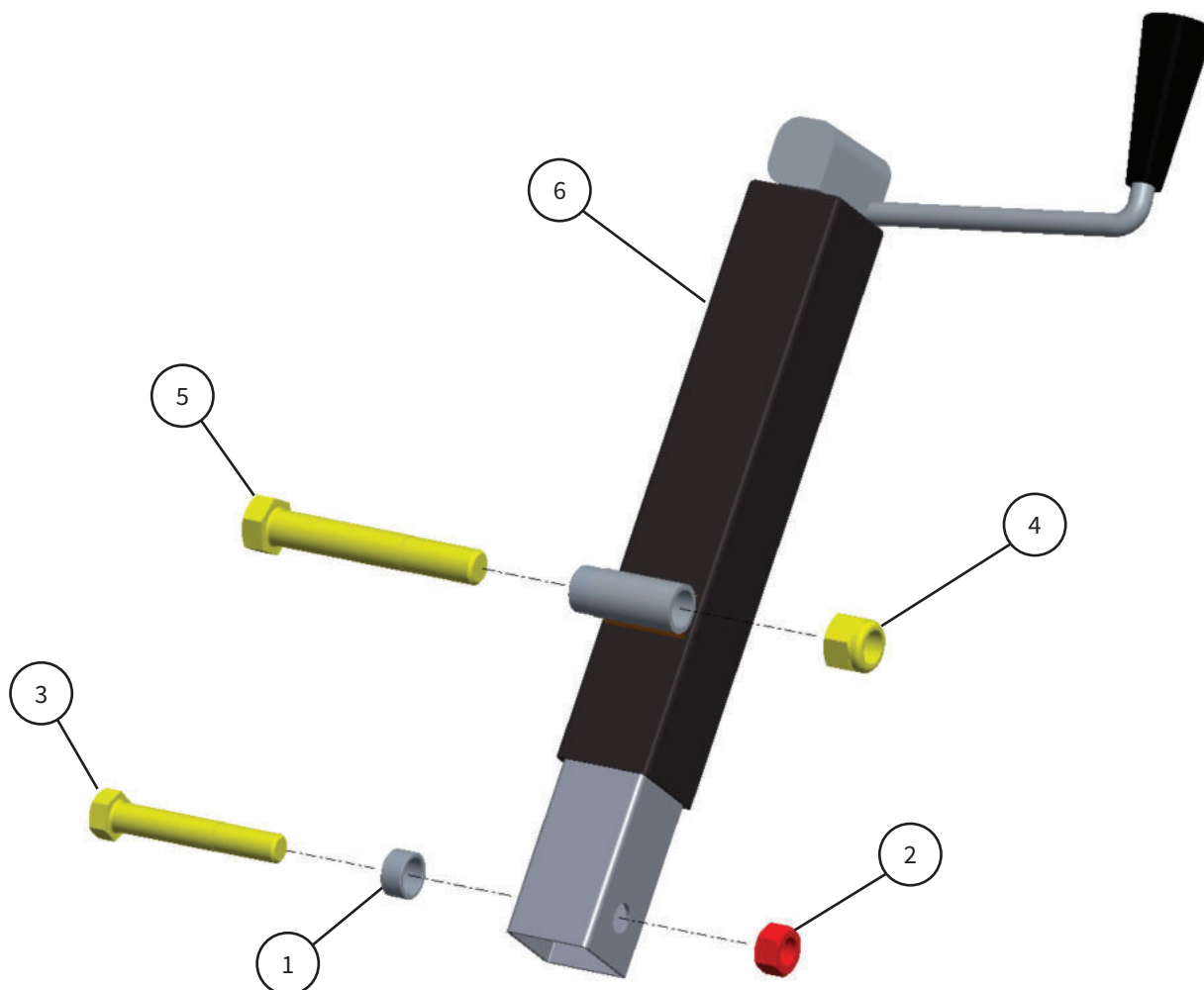
Parts Description (cont'd)

10-90651: ASM: FRAME EXTN AND WHEEL LIFT: SYNTHETIC (cont'd)

ITEM	PART #	DESCRIPTION
1	10-11219	CAP: 1.5 X 2 RECT 10-14 GA: BLACK PLASTIC
2	10-20050	NUT STOV: 1/2-13: GR5: ZINC
3	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
4	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC
5	10-20070	BOLT HEX: 3/4-10x2.25: GR8: ZINC
6	10-20185	BOLT HEX: 1/2-13x2.5: GR5: ZINC
7	10-20194	WSHR SAE: 1/2: ZINC
8	10-20195	WSHR SAE: 3/8: ZINC
9	10-20197	WSHR SAE: 3/4: GR5: ZINC
10	10-20207	NUT THIN NYLK: 3/4-10: GR2: ZINC
11	10-20279	BOLT HEX: 3/8-16x1: GR5: ZINC
12	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
13	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
14	10-20493	UBOLT SQ: 3/8-16x2 IDx2.625 OAL: ZINC
15	10-20558	BOLT HEX: 3/4-10x5.5: GR5: ZINC
16	10-20561	BOLT CARR: 3/8-16x3.25: GR5: ZINC
17	10-32429	TUBE: MAIN LONG: SYNTH
18	10-32605	PLATE: WL JACK SUPPT: SYNTH
19	10-32613	PANEL: UNIVERSAL SIDE COVER: SYNTH
20	10-40658	WLDMT: CORE FRAME EXT: SYNTH
21	10-40745	WLDMT: PIVOT: WHEEL LIFT: SYNTH
22	10-40746	WLDMT: WHEEL AXLE: WHEEL LIFT: SYNTH
23	10-40752	WLDMT: M3 MAST BRACE
24	10-40754	WLDMT: MIDMOUNT MAST BRACE
25	10-60101	WHEEL: KENDA 12 X 3: 3/4 HUB

Parts Description (cont'd)

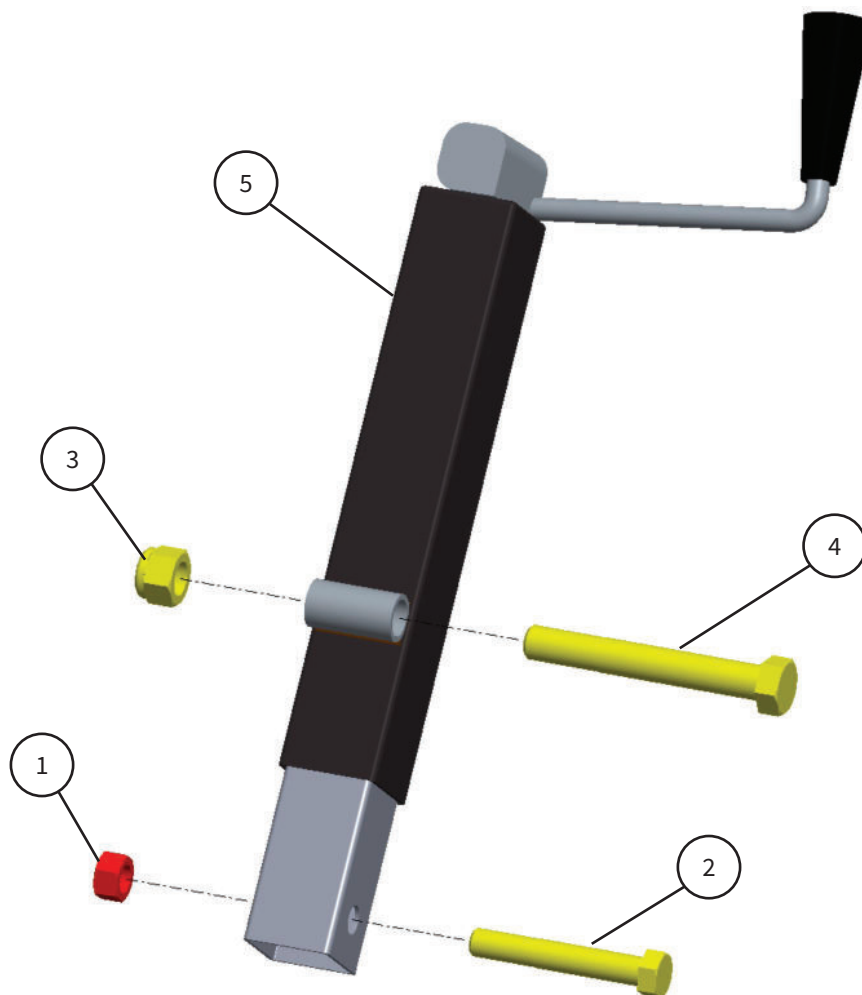
10-90665: ASM: M1 MANUAL WHEEL LIFT SYSTEM



ITEM	PART #	DESCRIPTION
1	10-10343	BUSHING: 3/4" ID X 1/2": ZINC
2	10-20209	NUT NYLK: 5/8-11: ZINC
3	10-20291	BOLT HEX: 5/8-11x4: GR5: ZINC
4	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
5	10-20557	BOLT HEX: 3/4-10x5: GR5: ZINC
6	10-40043	RASCAL MANUAL JACK

Parts Description (cont'd)

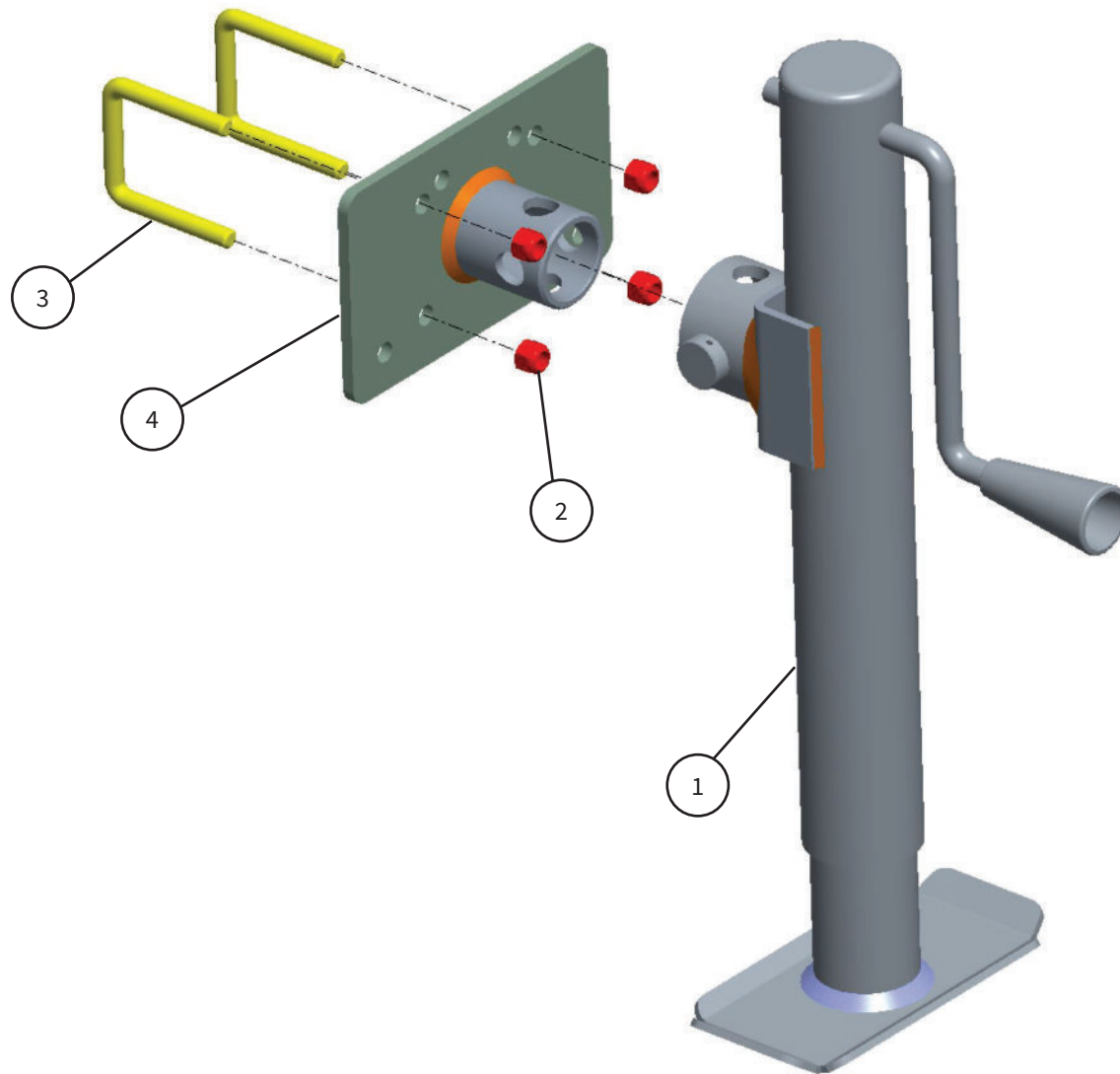
10-90666: ASM: M3 MANUAL WHEEL LIFT SYSTEM



ITEM	PART #	DESCRIPTION
1	10-20209	NUT NYLK: 5/8-11: ZINC
2	10-20291	BOLT HEX: 5/8-11x4: GR5: ZINC
3	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
4	10-20557	BOLT HEX: 3/4-10x5: GR5: ZINC
5	10-40043	RASCAL MANUAL JACK

Parts Description (cont'd)

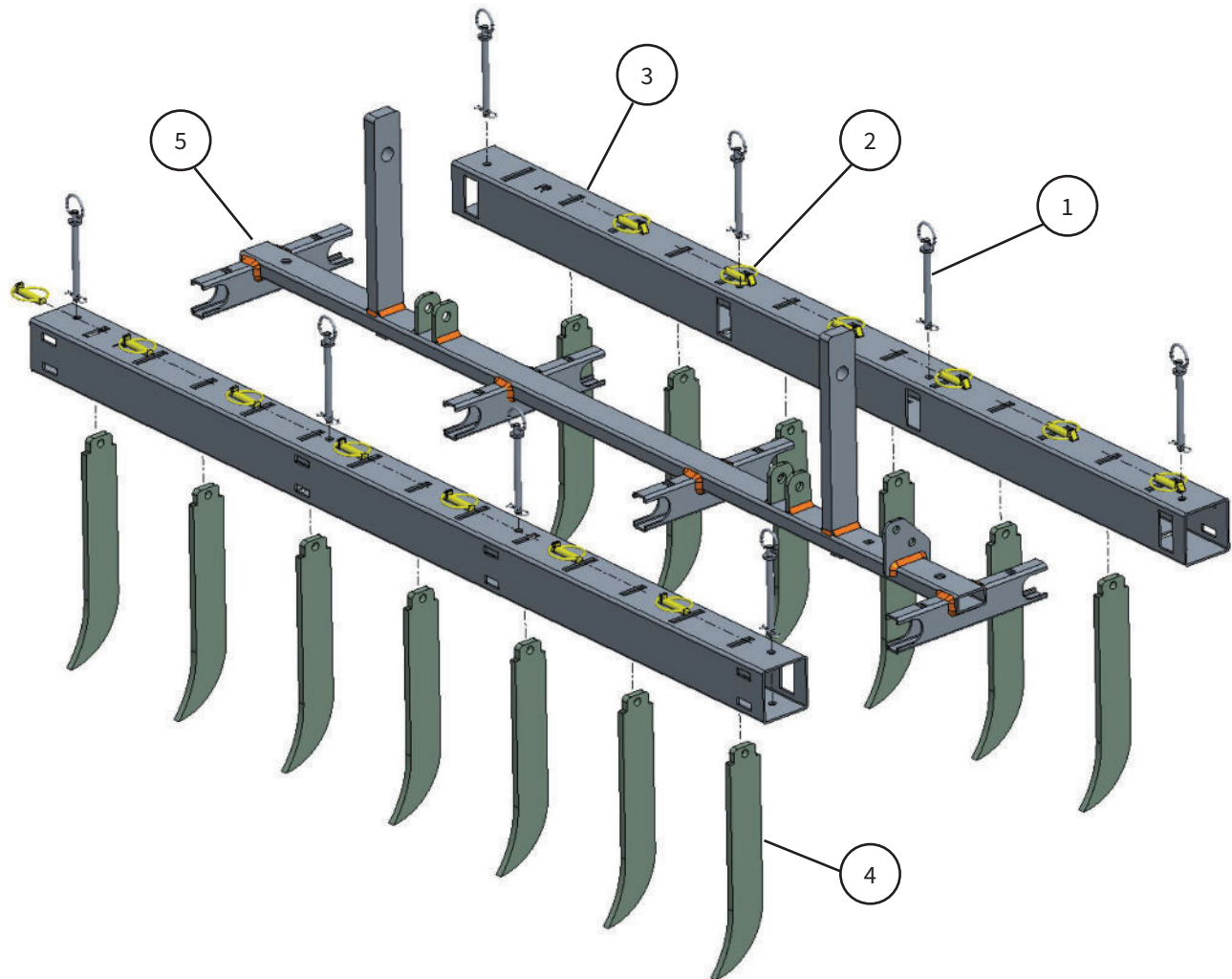
10-90675: ASM: JACK SIDEWIND W/MTG BRKT; 2 1/2" TUBE



ITEM	PART #	DESCRIPTION
1	10-10075	JACK: SIDEWIND TUBULAR
2	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
3	10-20493	UBOLT SQ: 3/8-16x2 IDx2.625 OAL: ZINC
4	10-40743	WLDMT: JACK MNT PLATE: UNIVERSAL

Parts Description (cont'd)

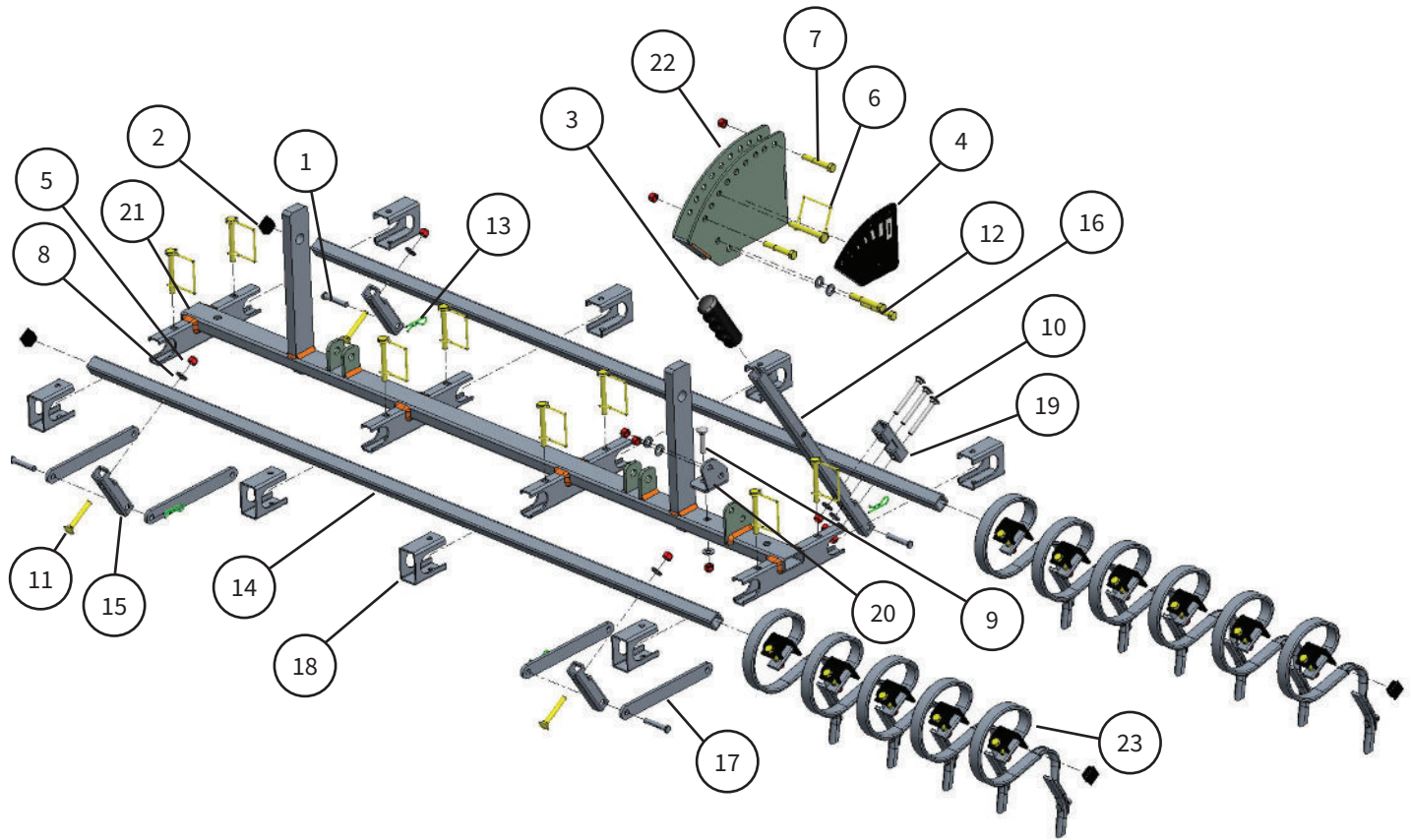
Scarifier Assembly Option



ITEM	PART #	DESCRIPTION
1	10-11211	PIN: CLEVIS, LOOP-GRIP W/ HAIRPIN COTTER PIN: 3/8" DIA X 4.25" UL
2	10-20233	PIN LYNCH: 1/2x1.25 UL: ZINC
3	10-32629	TUBE: SCARIFIER MNT: 6' SYNTH
3	10-32631	TUBE: SCARIFIER MNT: 7' SYNTH
4	10-32630	SCARIFIER: 3/8" THICK: SYNTH
5	10-40651	WLDMT: 5.5' S-TINE: SYNTH
5	10-40661	WLDMT: 6.5' S-TINE: SYNTH

Parts Description (cont'd)

S-Tine Assembly Option



Parts Description (cont'd)

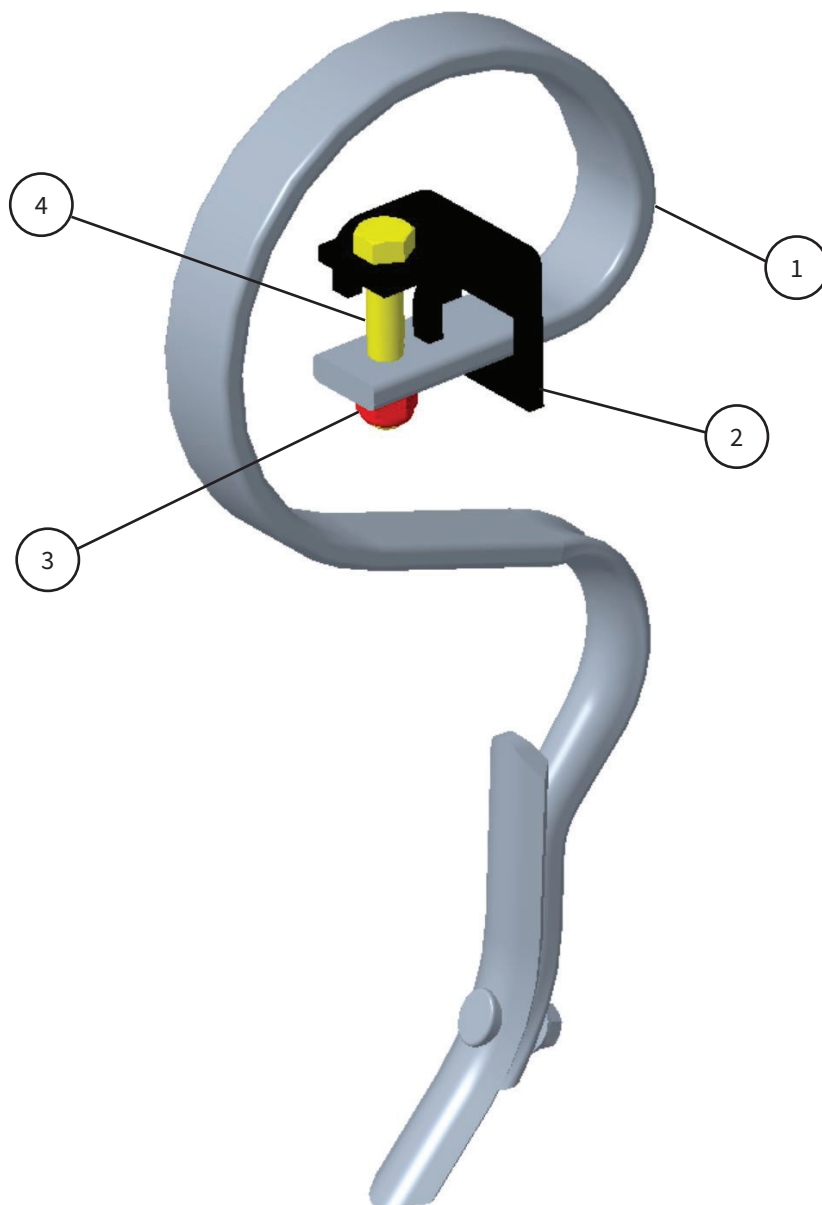
S-Tine Assembly Option (cont'd)

ITEM	PART #	DESCRIPTION
1	10-11212	PIN: ADJUSTABLE CLEVIS, 3/8 DIA X 2"
2	10-11214	PLUG: PLASTIC SQ, 1" SQ X .43 DP
3	10-11216	HAND GRIP: 1-1/8" DIAMETER, BLACK
4	10-11239	LBL: FRONT ANGLE CONTROL: SYNTH
5	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
6	10-20125	PIN SQ LK: 3/8x2.5
7	10-20180	BOLT HEX: 3/8-16x2.5: GR5: ZINC
8	10-20195	WSHR SAE: 3/8: ZINC
9	10-20286	BOLT CARR: 3/8-16x1.75: GR5: ZINC
10	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
11	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
12	10-20408	BOLT HEX: 3/8-16x2.75: GR5: ZINC
13	10-20559	PIN COTTER: 1/8x1.938 OAL: ZINC

ITEM	PART #	DESCRIPTION
14	10-32384	TUBE: 5.5' S-TINE: SYNTH
14	10-32419	TUBE: 6.5' S-TINE: SYNTH
15	10-32385	TUBE: PITCH CONTROL: SYNTH
16	10-32386	TUBE: PITCH HANDLE: SYNTH
17	10-32387	PLATE: S-TINE PITCH LINK: SYNTH
18	10-32388	TUBE: PIVOT LOCK: SYNTH
19	10-32389	TUBE: PITCH CONTROL SUPPT: SYNTH
20	10-32392	BRKT: S-TINE PITCH LOCK MNT: SYNTH
21	10-40651	WLDMT: 5.5' S-TINE: SYNTH
21	10-40661	WLDMT: 6.5' S-TINE: SYNTH
22	10-40652	WLDMT: PITCH LOCK: SYNTH
23	10-90587	ASM: S-TINE

Parts Description (cont'd)

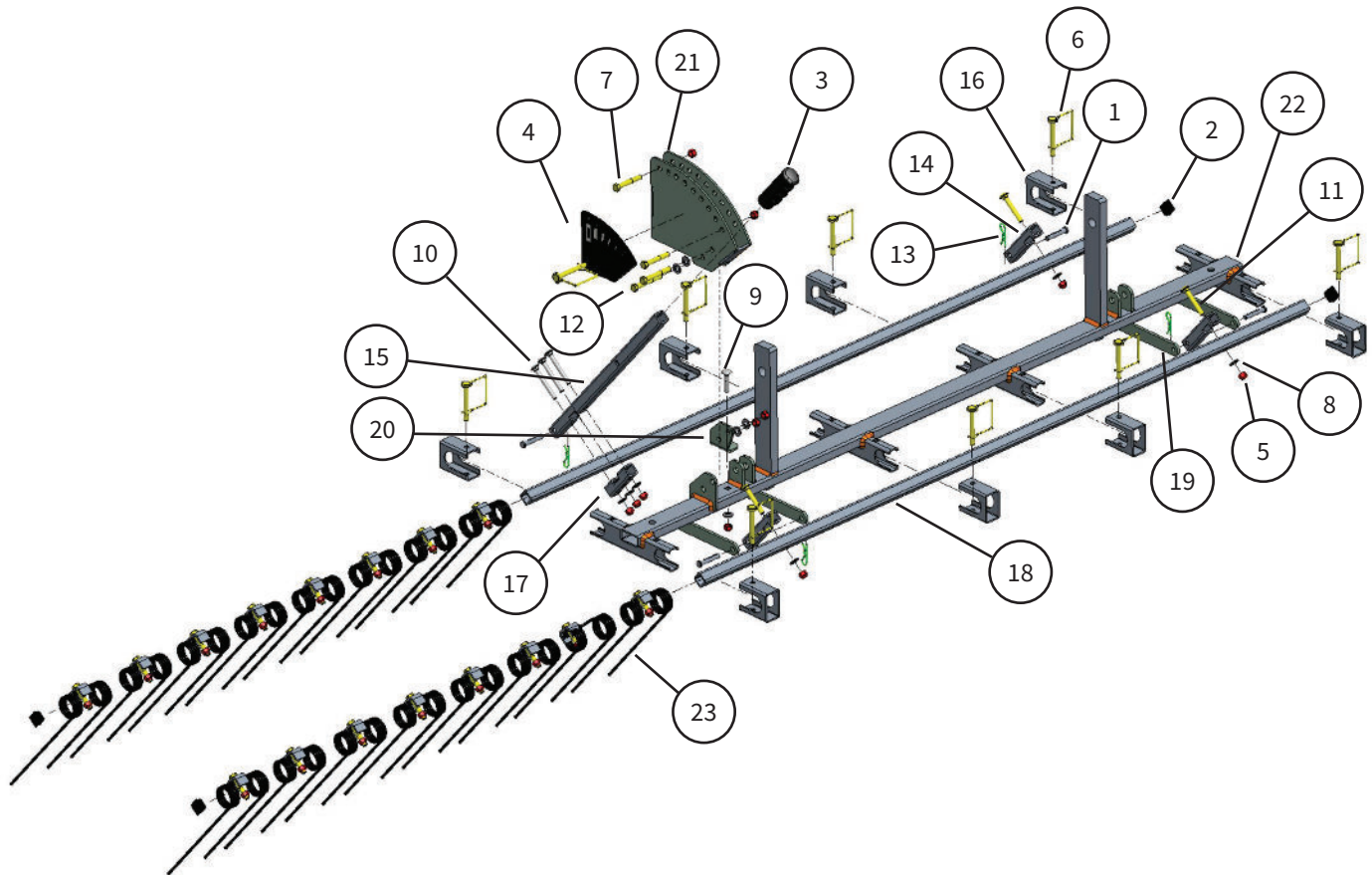
10-90587: ASM: HARROW TINE (S-TINE)



ITEM	PART #	DESCRIPTION
1	10-11137	HARROW TINE 25 x 8 RAU W/POINT 25mm X 5mm X 140mm
2	10-11138	HARROW TINE 25 x 8 RAU CLAMP
3	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
4	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC

Parts Description (cont'd)

Coil Tine Assembly Option



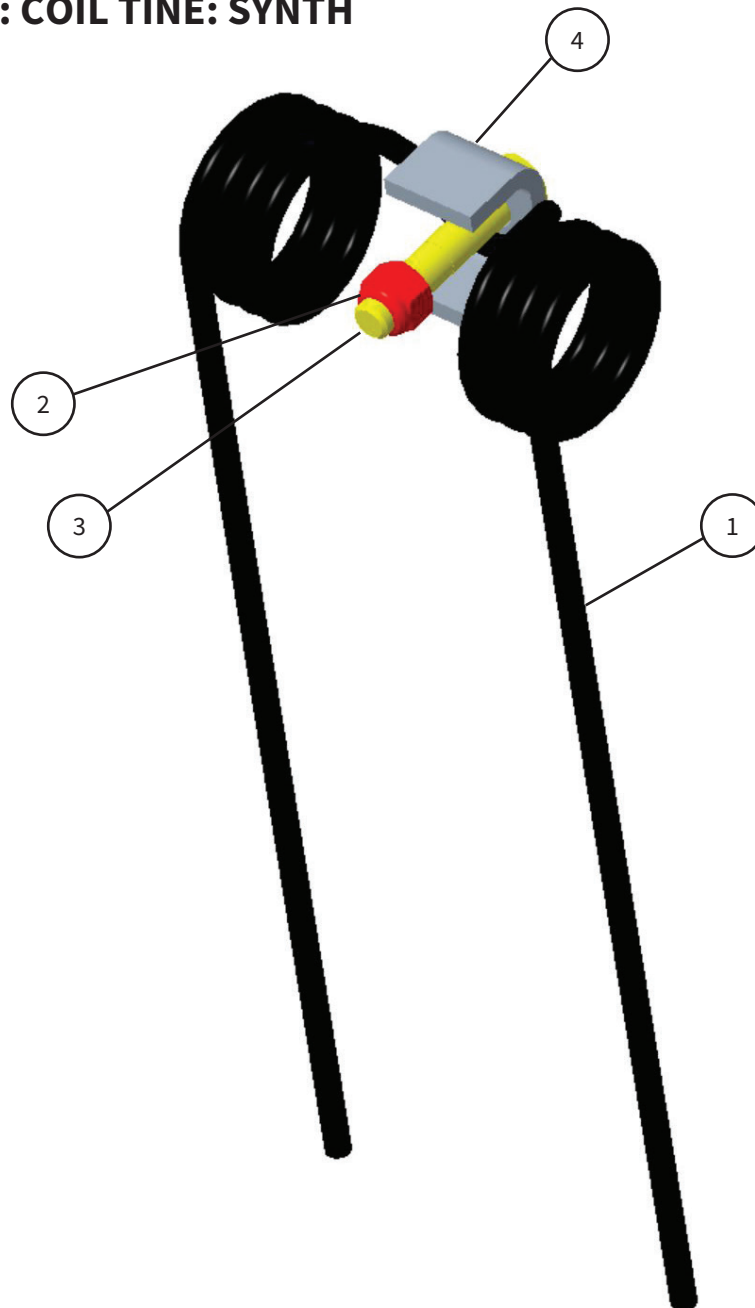
Parts Description (cont'd)

Coil Tine Assembly Option (cont'd)

ITEM	PART #	DESCRIPTION
1	10-11212	PIN: ADJUSTABLE CLEVIS, 3/8 DIA X 2"
2	10-11214	PLUG: PLASTIC SQ, 1" SQ X .43 DP
3	10-11216	HAND GRIP: 1-1/8" DIAMETER, BLACK
4	10-11240	LBL: REAR ANGLE CONTROL: SYNTH
5	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
6	10-20125	PIN SQ LK: 3/8x2.5
7	10-20180	BOLT HEX: 3/8-16x2.5: GR5: ZINC
8	10-20195	WSHR SAE: 3/8: ZINC
9	10-20286	BOLT CARR: 3/8-16x1.75: GR5: ZINC
10	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
11	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
12	10-20408	BOLT HEX: 3/8-16x2.75: GR5: ZINC
13	10-20559	PIN COTTER: 1/8x1.938 OAL: ZINC
14	10-32385	TUBE: PITCH CONTROL: SYNTH
15	10-32386	TUBE: PITCH HANDLE: SYNTH
16	10-32388	TUBE: PIVOT LOCK: SYNTH
17	10-30389	TUBE: PITCH CONTROL SUPPT: SYNTH
18	10-32397	TUBE: 5.5' COIL TINE: SYNTH
18	10-32421	TUBE: 6.5' COIL TINE: SYNTH
19	10-32398	PLATE: COIL TINE PITCH LINK: SYNTH
20	10-32586	BRKT: COIL TINE PITCH LOCK MNT: SYNTH
21	10-40652	WLDMT: PITCH LOCK: SYNTH
22	10-40653	WLDMT: 5.5' COIL TINE: SYNTH
22	10-40662	WLDMT: 6.5' COIL TINE: SYNTH
23	10-90594	ASM: COIL TINE: SYNTH

Parts Description (cont'd)

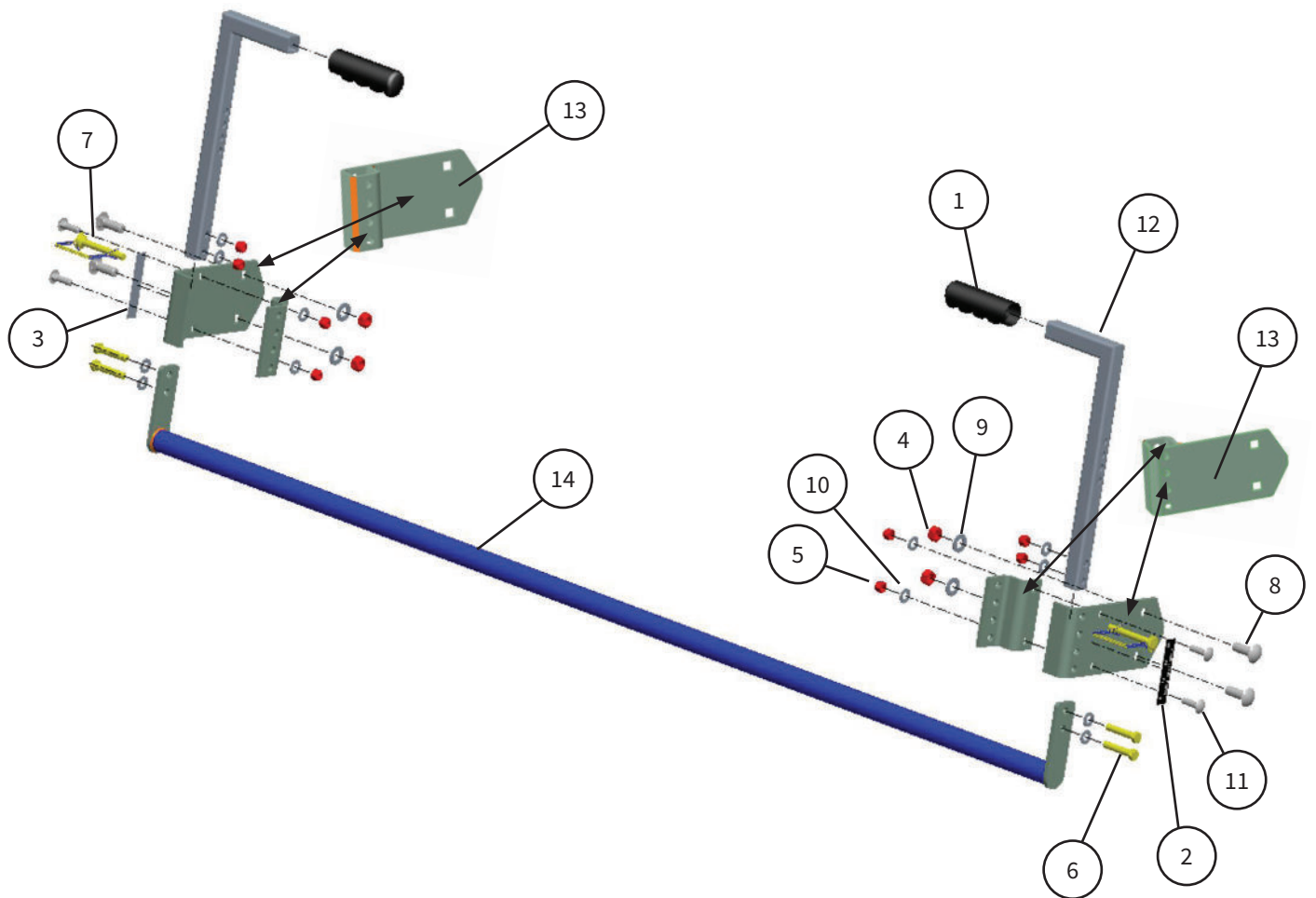
10-90594: ASM: COIL TINE: SYNTH



ITEM	PART #	DESCRIPTION
1	10-11129	COIL TINE
2	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
3	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC
4	10-32430	BRKT: COIL TINE CLAMP: SYNTH

Parts Description (cont'd)

Smoothing Bar Assembly



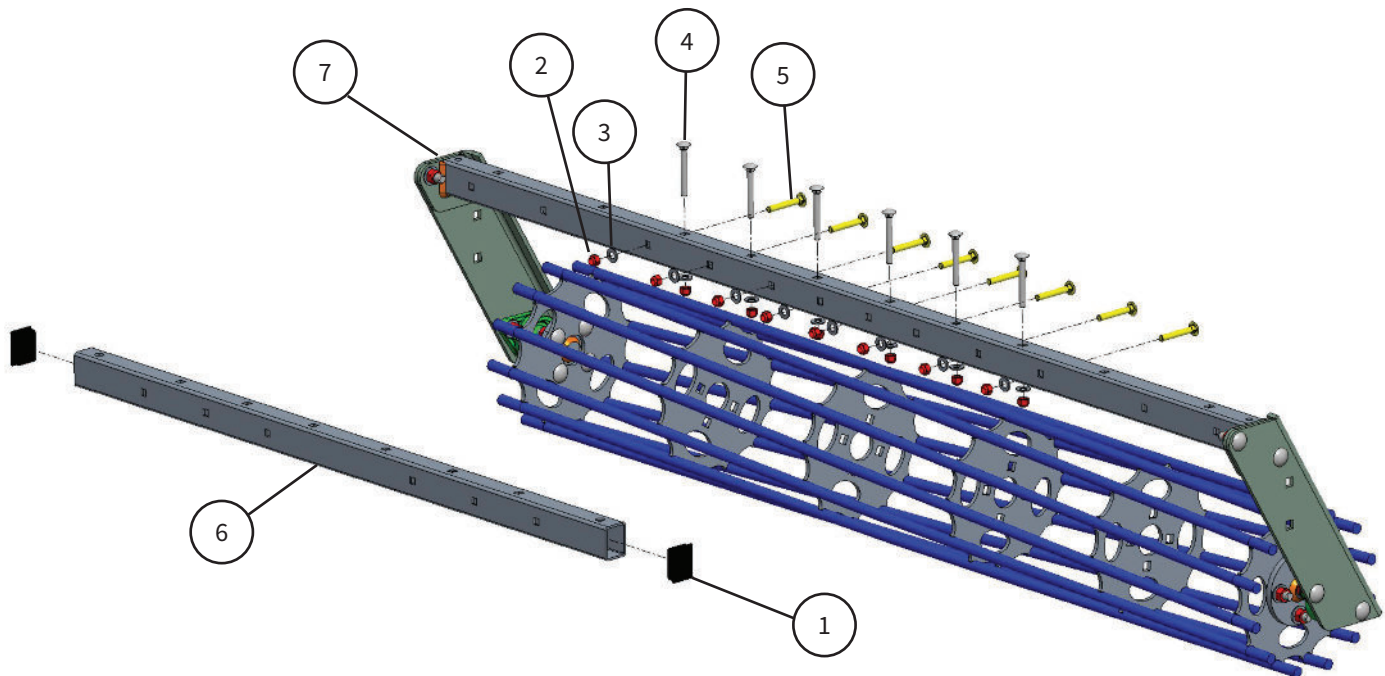
Parts Description (cont'd)

Smoothing Bar Assembly (cont'd)

ITEM	PART #	DESCRIPTION
1	10-11216	HAND GRIP: 1-1/8" DIAMETER, BLACK
2	10-11243	LBL: LH SMOOTHING BAR ADJUST: SYNTH
3	10-11255	LBL: RH SMOOTHING BAR ADJUST: SYNTH
4	10-20050	NUT STOV: 1/2-13: GR5: ZINC
5	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
6	10-20062	BOLT HEX: 3/8-16x2: GR5: ZINC
7	10-20125	PIN SQ LK: 3/8x2.5
8	10-20188	BOLT CARR: 1/2-13x1.5: GR5: ZINC
9	10-20194	WSHR SAE: 1/2: ZINC
10	10-20195	WSHR SAE: 3/8: ZINC
11	10-20398	BOLT CARR: 3/8-16x1.25: GR5: ZINC
12	10-32588	TUBE: SMOOTHING BAR HANDLE: SYNTH
13	10-41053	WLDMT: SMOOTHING BAR MOUNT: SYNTH
14	10-40655	WLDMT: 5.5' SMOOTHING BAR: SYNTH
14	10-40663	WLDMT: 6.5' SMOOTHING BAR: SYNTH

Parts Description (cont'd)

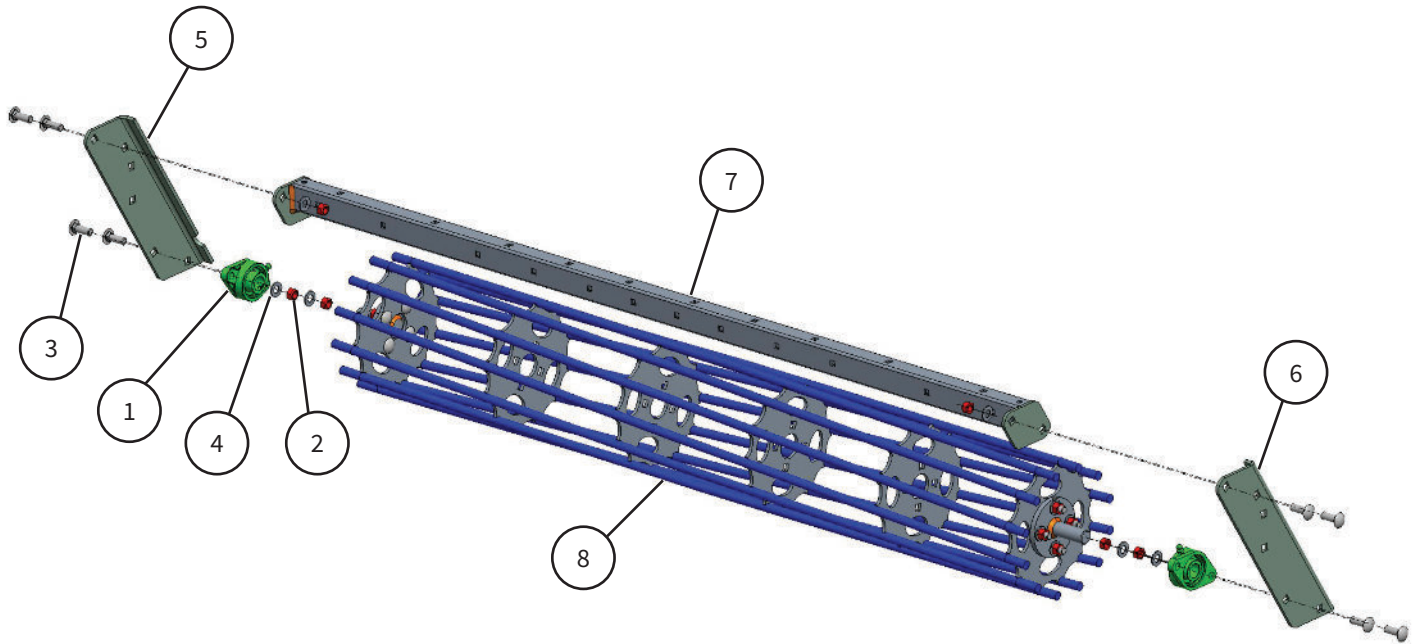
Single Roller Assembly Option



ITEM	PART #	DESCRIPTION
1	10-11219	CAP: 1.5 X 2 RECT 10-14 GA: BLACK PLASTIC
2	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
3	10-20195	WSHR SAE: 3/8: ZINC
4	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
5	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
6	10-32620	TUBE: FRAME CROSS EXT: SYNTH
7	10-90655	ASM: 5.27' BAR STYLE ROLLER: SYNTH
7	10-90656	ASM: 6.5' BAR STYLE ROLLER: SYNTH

Parts Description (cont'd)

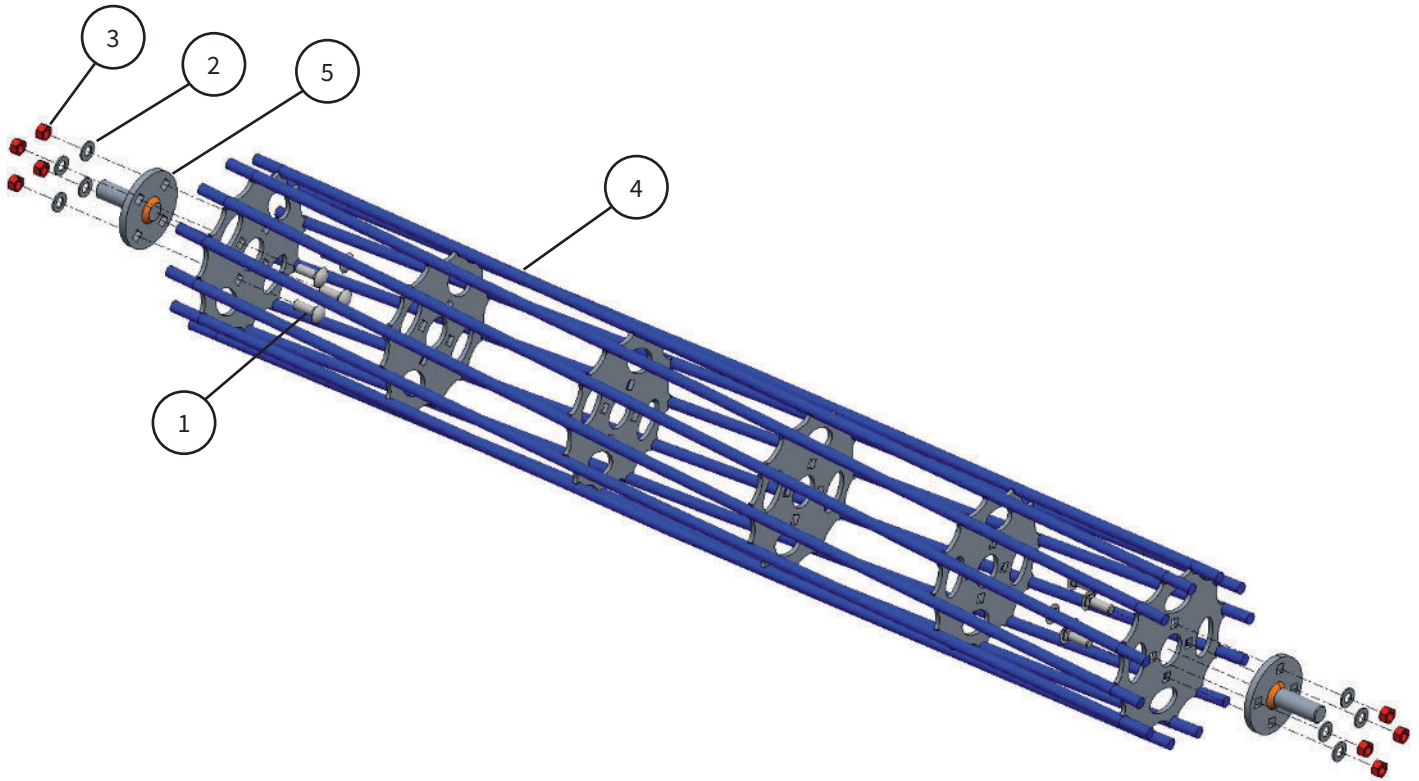
Roller Assembly



ITEM	PART #	DESCRIPTION
1	10-11116	BEARING: FLANGE MOUNT: FL 205: 1" B
2	10-20050	NUT STOV: 1/2-13: GR5: ZINC
3	10-20188	BOLT CARR: 1/2-13x1.5: GR5: ZINC
4	10-20194	WSHR SAE: 1/2: ZINC
5	10-32366	PLATE: RH BRNG MNT: SYNTH
6	10-32367	PLATE: LH BRNG MNT: SYNTH
7	10-40647	WLDMT: 5.5' ROLLER SUB-FRAME: SYNTH
7	10-40659	WLDMT: 6.5' ROLLER SUB-FRAME: SYNTH
8	10-90617	ASM: 5.5' BAR STYLE ROLLER: SYNTH
8	10-90618	ASM: 6.5' BAR STYLE ROLLER: SYNTH

Parts Description (cont'd)

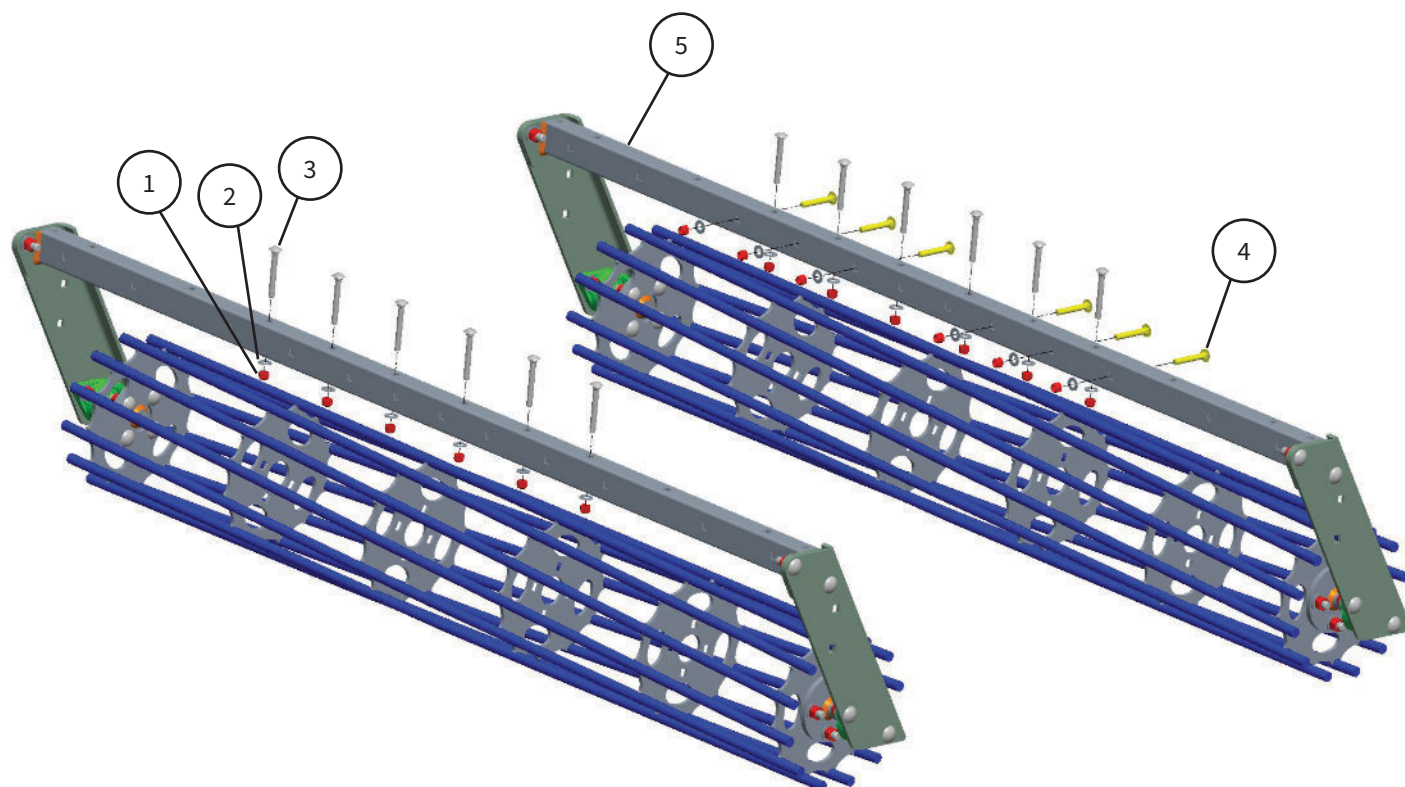
Roller w/Axles



ITEM	PART #	DESCRIPTION
1	10-20188	BOLT CARR: 1/2-13x1.5: GR5: ZINC
2	10-20194	WSHR SAE: 1/2: ZINC
3	10-20201	NUT NYLK: 1/2-13: GR5: ZINC
4	10-40704	WLDMT: 5.5' BAR STYLE ROLLER: SYNTH
4	10-40705	WLDMT: 6.5' BAR STYLE ROLLER: SYNTH
5	10-40736	WLDMT: 1" STUB AXLE: ROLLING BAR BASKET

Parts Description (cont'd)

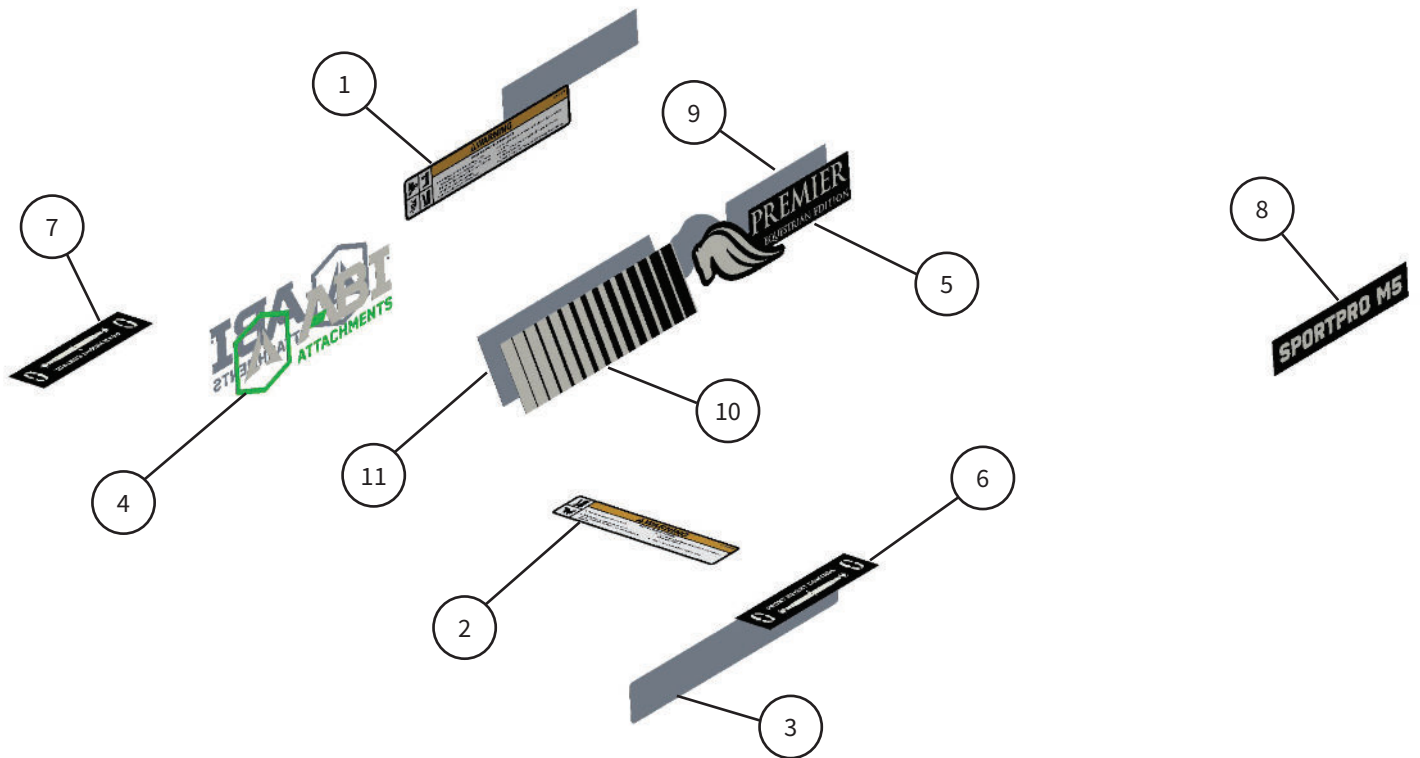
Roller Assembly Option



ITEM	PART #	DESCRIPTION
1	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
2	10-20195	WSHR SAE: 3/8: ZINC
3	10-20288	BOLT CARR: 3/8-16x3: GR5: ZINC
4	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
5	10-90655	ASM: 5.27' ROLLER: SYNTHETIC
5	10-90656	ASM: 6.5' ROLLER: SYNTHETIC

Parts Description (cont'd)

SportPro Decal Pack



ITEM	PART #	DESCRIPTION
1	10-10976	LBL: WARNING - CRUSHING - PINCHING
2	10-10977	LBL: WARNING - FALLING BLADE
3	10-10978	LBL: WARNING - READ MANUAL
4	10-11237	LBL: ABI PANEL: SYNTH
5	10-11238	LBL: LH PREMIER EQUESTRIAN HORSE HEAD: SYNTH
6	10-11244	LBL: FRONT HEIGHT CONTROL: SYNTH (M3 & M5 ONLY)
7	10-11245	LBL: REAR HEIGHT CONTROL: SYNTH (M3 & M5 ONLY)
8	10-11246	LBL: SPORTPRO M1 MODEL: SYNTH
8	10-11247	LBL: SPORTPRO M3 MODEL: SYNTH
8	10-11249	LBL: SPORTPRO M5 MODEL: SYNTH
9	10-11253	LBL: RH PREMIER EQUESTRIAN HORSE HEAD: SYNTH
10	10-11256	LBL: LH SPORTPRO LASER LINES: SYNTH
11	10-11257	LBL: RH SPORTPRO LASER LINES: SYNTH

Options

OPTIONAL BALL HITCH INSTALLATION

Use the steps below to replace the current hitch plates with optional 10-10072 Galvanized 2" Ball Hitch Coupler (**Fig 143**).

1. Remove both hitch plates using (2) 3/4" wrenches (or socket set). Set hardware aside - these will be used later to secure ball hitch to tongue (**Fig 144 and 145**).
2. Set Ball hitch (10-10072) onto tongue aligning both holes in ball hitch with holes in tongue (**Fig 146**).
3. Slide (1) washer onto both bolts (from step 1) and slide bolts through holes in ball hitch and tongue (**Fig 147**).
4. Slide (1) washer onto both bolts (from step 1) from the underside of tongue then thread (1) nut (from step 1) onto threads of bolts hand tight (**Fig 148**).
5. Tighten both nuts using (2) 3/4" wrenches (or socket set) (**Fig 149**).
6. 2" Ball hitch is now ready to use. Keep both hitch plates in case the need to switch back from the ball hitch (**Fig 150**).



Fig 143.



Fig 144.



Fig 145.



Fig 146.



Fig 147.



Fig 148.



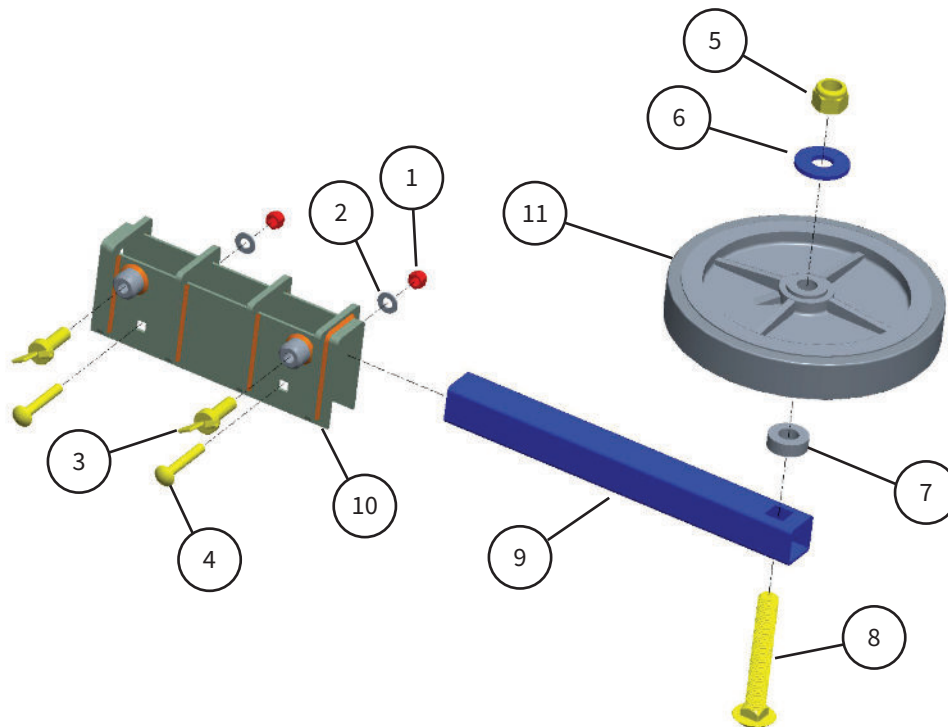
Fig 149.



Fig 150.

Options (cont'd)

10-90638: ASM: RAIL WHEEL OPTION: SYNTH

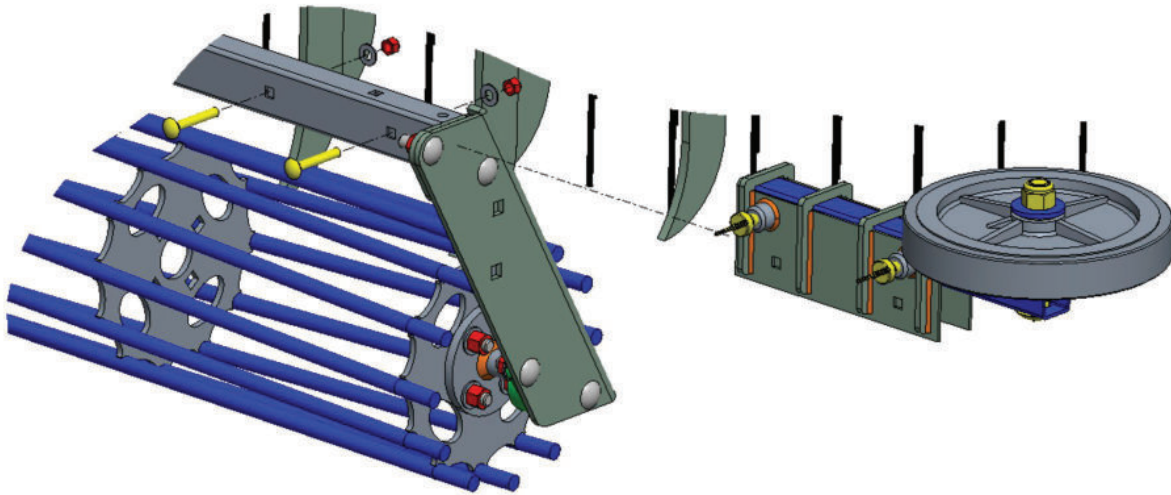


ITEM	PART #	DESCRIPTION
1	10-20055	NUT NYLK: 3/8-16: GR5: ZINC
2	10-20195	WSHR SAE: 3/8: ZINC
3	10-20256	BOLT WING: 1/2-13x1.5: GR5: ZINC
4	10-20330	BOLT CARR: 3/8-16x2.5: GR5: ZINC
5	10-20344	NUT NYLK: 3/4-10: GR5: ZINC
6	10-20506	WSHR USS: 3/4: ZINC
7	10-20564	SPCR RD: 3/4x1.5 ODx0.5 W: ZINC
8	10-20571	BOLT CARR: 3/4-10x5: GR5: ZINC
9	10-32633	TUBE: RAIL WHEEL: SYNTH
10	10-40744	WLDMT: RAIL WHEEL BRACKET: SYNTH
11	10-60102	WHEEL: 10" X 1.5" GREY TPR: 3/4 HUB

Options (cont'd)

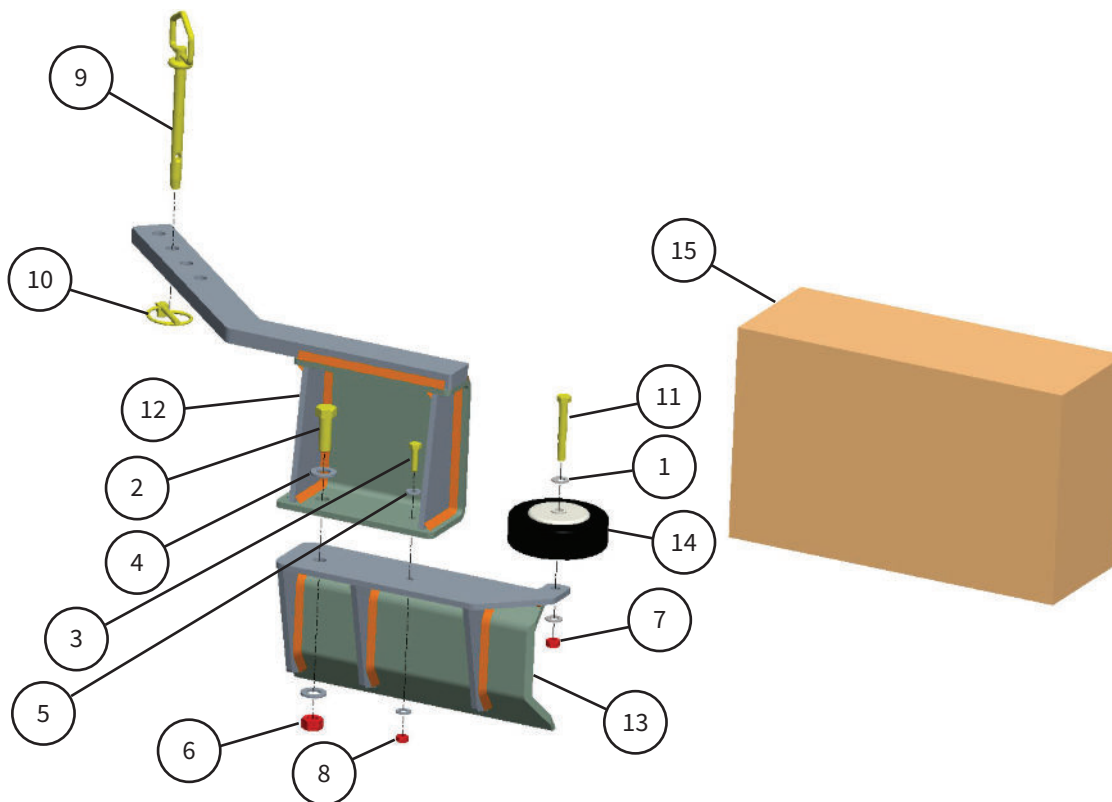
10-90638: ASM: RAIL WHEEL OPTION: SYNTH (CON'T)

Slides over the front Roller tube until the 2 holes in the Rail Wheel Bracket line up with the 2 holes in the Roller tube. Insert 3/8-16 x 2-1/2" long carriage head bolt into each hole of the bracket and tube. Slide (1) 3/8" Flat Washer onto each bolt then thread (1) 3/8-16 Nylock Nut onto each bolt and tighten with 9/16" socket set (or wrench).



Options (cont'd)

10-90673: KIT: RAIL BLADE RIGHT: SYNTHETIC

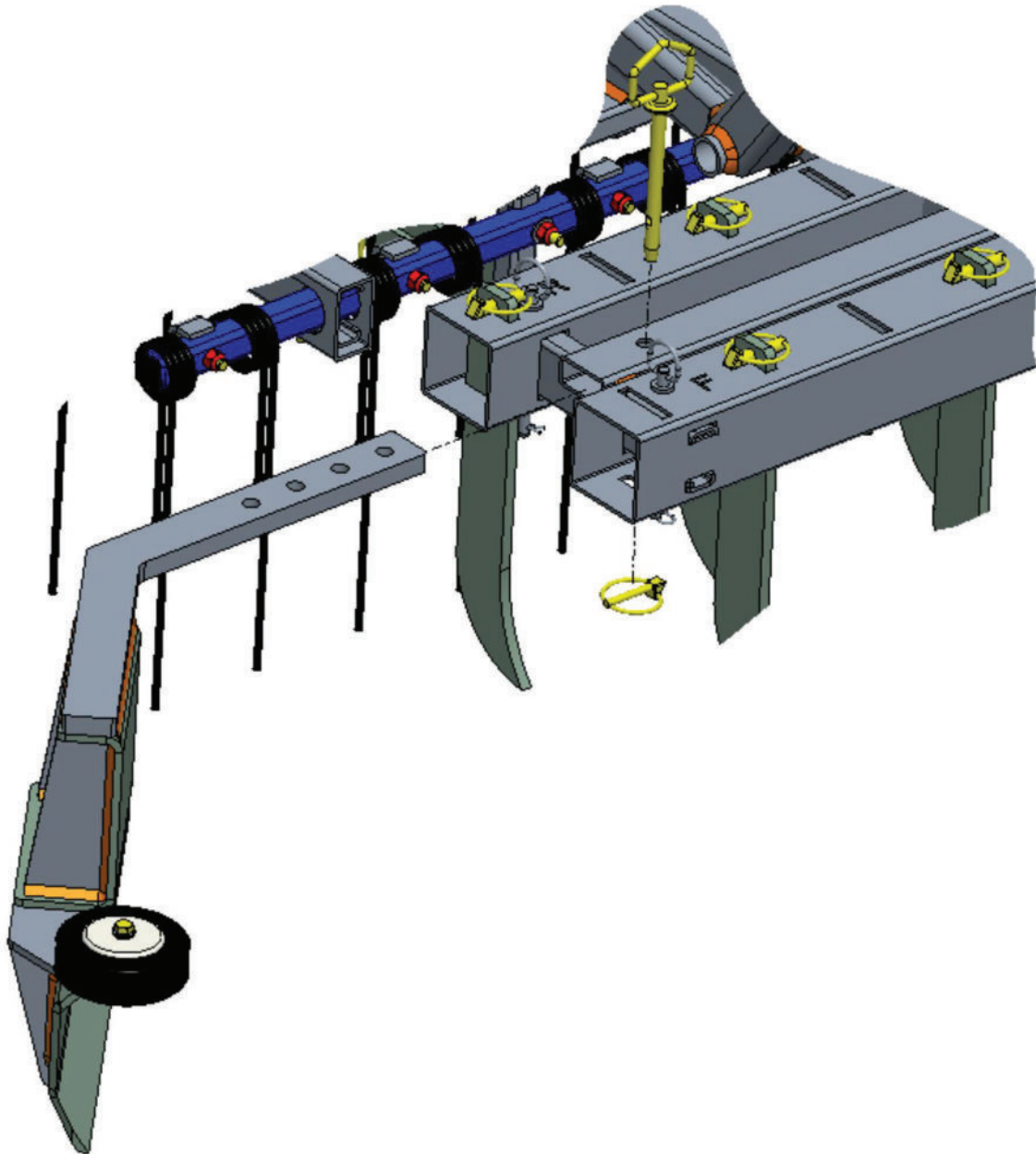


ITEM	PART #	DESCRIPTION
1	10-20128	WSHR SAE: 5/16: ZINC
2	10-20164	BOLT HEX: 1/2-13x1.5: GR5: ZINC
3	10-20175	BOLT HEX: 1/4-20x1: GR5: ZINC
4	10-20194	WSHR SAE: 1/2: ZINC
5	10-20196	WSHR SAE: 1/4: ZINC
6	10-20201	NUT NYLK: 1/2-13: GR5: ZINC
7	10-20202	NUT NYLK: 5/16-18: GR5: ZINC
8	10-20208	NUT NYLK: 1/4-20: GR5: ZINC
9	10-20230	PIN HITCH: 1/2x5.75 OALx4.25 UL: ZINC
10	10-20232	PIN LYNCH: 1/4x2.125 OALx1.375 UL: ZINC
11	10-20368	BOLT HEX: 5/16-18x2.5: GR5: ZINC
12	10-40739	WLDMT: RH RAIL BLADE UPPER: SYNTH
13	10-40740	WLDMT: RH RAIL BLADE LOWER: SYNTH
14	10-60069	WHEEL: RAIL BLADE: TR3E RASCAL
15	10-80027	50 TIP BOX 8-1/2 X 5-1/4 X 13-1/4 5PF 275C PLAIN

Options (cont'd)

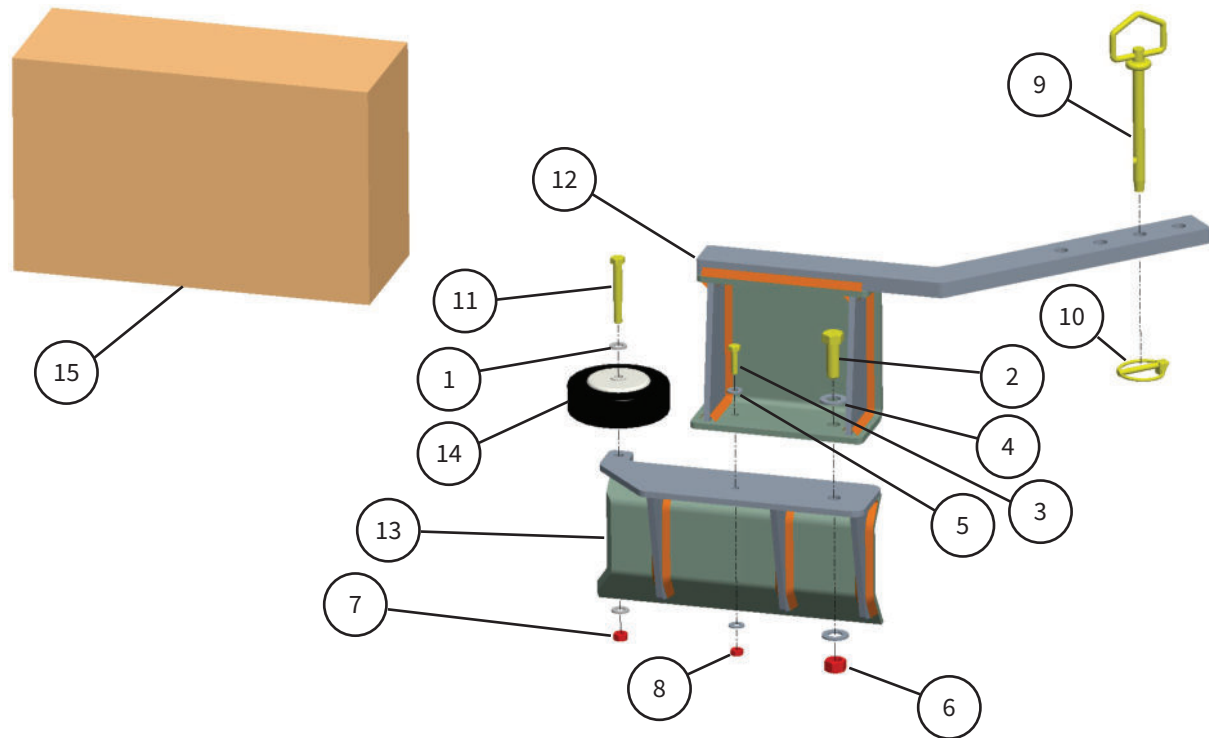
10-90673: KIT: RAIL BLADE RIGHT: SYNTHETIC (CON'T)

Slides into the end of the center tube on either the Scarifier tube assembly (shown) or S-Tine tube assembly. Insert pin through hole in tube assembly then through desired hole (4 choices) in Rail Blade Bracket then through bottom hole in tube assembly. Attach Lynch Pin through hole in Pin to secure to tube assembly.



Options (cont'd)

10-90674: KIT: RAIL BLADE LEFT: SYNTHETIC

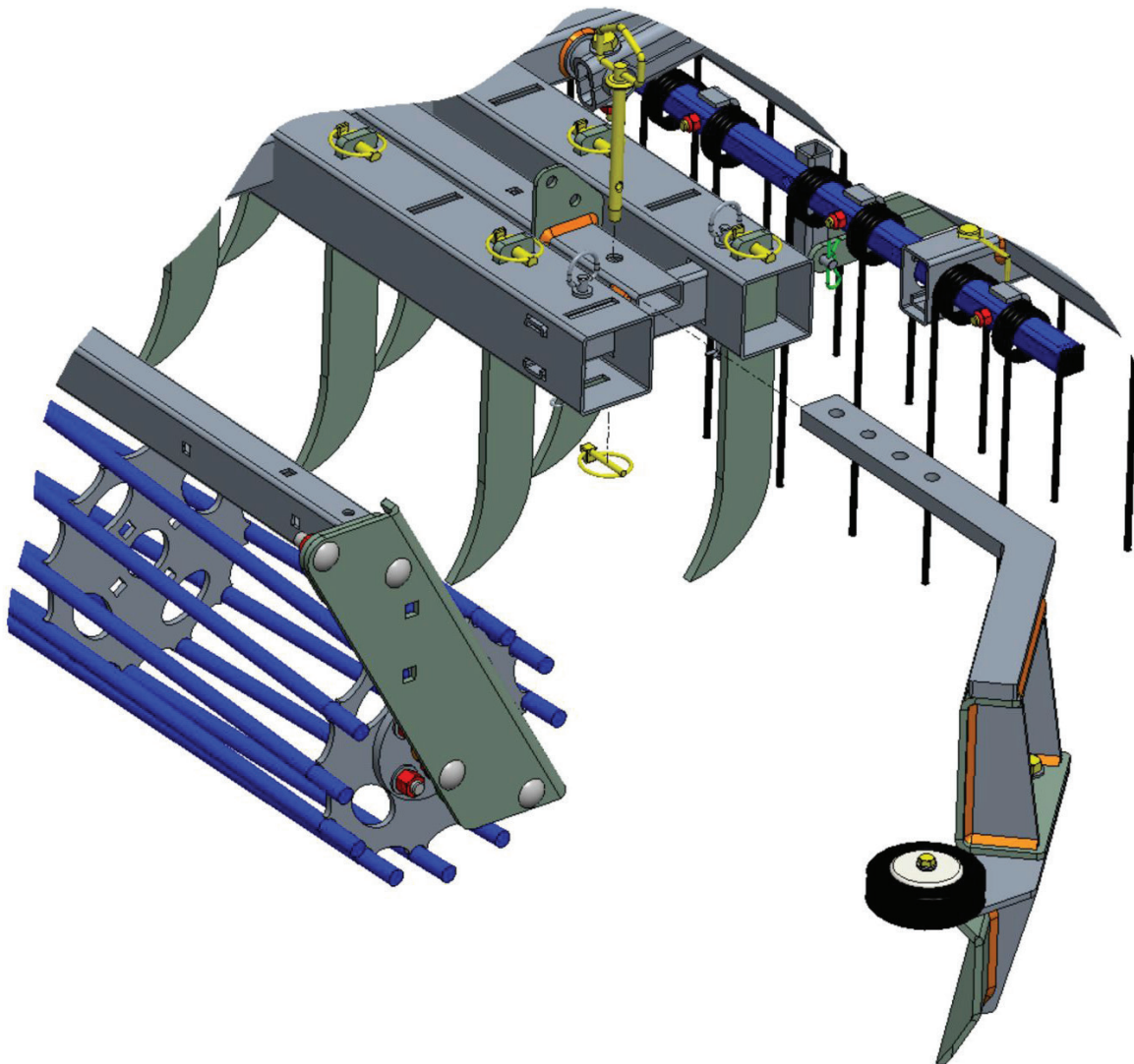


ITEM	PART #	DESCRIPTION
1	10-20128	WSHR SAE: 5/16: ZINC
2	10-20164	BOLT HEX: 1/2-13x1.5: GR5: ZINC
3	10-20175	BOLT HEX: 1/4-20x1: GR5: ZINC
4	10-20194	WSHR SAE: 1/2: ZINC
5	10-20196	WSHR SAE: 1/4: ZINC
6	10-20201	NUT NYLK: 1/2-13: GR5: ZINC
7	10-20202	NUT NYLK: 5/16-18: GR5: ZINC
8	10-20208	NUT NYLK: 1/4-20: GR5: ZINC
9	10-20230	PIN HITCH: 1/2x5.75 OALx4.25 UL: ZINC
10	10-20232	PIN LYNCH: 1/4x2.125 OALx1.375 UL: ZINC
11	10-20368	BOLT HEX: 5/16-18x2.5: GR5: ZINC
12	10-40741	WLDMT: LH RAIL BLADE UPPER: SYNTH
13	10-40742	WLDMT: LH RAIL BLADE LOWER: SYNTH
14	10-60069	WHEEL: RAIL BLADE: TR3E RASCAL
15	10-80027	50 TIP BOX 8-1/2 X 5-1/4 X 13-1/4 5PF 275C PLAIN

Options (cont'd)

10-90674: KIT: RAIL BLADE LEFT: SYNTHETIC (CON'T)

Slides into the end of the center tube on either the Scarifier tube assembly (shown) or S-Tine tube assembly. Insert pin through hole in tube assembly then through desired hole (4 choices) in Rail Blade Bracket then through bottom hole in tube assembly. Attach Lynch Pin through hole in Pin to secure to tube assembly.



Foot Notes

[illegible]

Contact Information

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To order parts or to speak to one of ABI's Customer Service Representatives contact us Monday to Friday 9am to 5pm EST.

The setup video for operation is available at abisupport.com under Synthetic Footing Arena Drags.

For additional information on the use or setup of the SportPro Synthetic Arena Drags, please contact the ABI customer support team at (877)723-7253.

Additional support videos are available at the ABI support page (abisupport.com) under each tool.

Warranty Information and Return Policy - Warranty and return policy information can also be found on the ABI support page under each tool. For additional questions regarding warranty or return policy, contact the ABI customer support team at (877)723-7253.

