JENKINS IRON AND STEEL

Super Duty Direct Drive Brushmower

Owner's Manual



23023 US 71, Long Prairie, MN 56347

Phone: (320) 732-2658 | Toll-Free: 1.855.732.3843

www.jenkinsiron.com

Built Strong. Built to Last. Made in the USA.

⚠ READ THIS MANUAL COMPLETELY BEFORE OPERATING THIS ATTACHMENT.

TABLE OF CONTENTS

Section 1	Introduction and Product Overview
Section 2	Safety Warnings and Precautions
Section 3	Specifications
Section 4	Construction and Design Details
Section 5	What's Included
Section 6	Installation and Mounting
Section 7	Operation
Section 8	Maintenance
Section 9	Troubleshooting
Section 10	Replacement Parts Reference
Section 11	Warranty and Contact Information

Manual Revision Date: April 2026 | Document No. JIS-SDDD-OM-2026

Section 1: Introduction and Product Overview

Thank you for purchasing the Jenkins Iron and Steel **Super Duty Direct Drive Brushmower Attachment**. This manual contains essential information for safe installation, operation, and maintenance of your new attachment. Please read it thoroughly and keep it accessible for future reference.

The Super Duty Direct Drive Brushmower is purpose-built for **heavy brush clearing and land management** — not grass mowing. It represents the pinnacle of Jenkins engineering, combining a direct drive system with massive flywheel momentum to power through the toughest brush and small trees.

1.1 Key Features

- **Direct Drive System:** Eaton Char-Lynn hydraulic motor drives the cutting wheel directly — **NO gearbox**. This eliminates a common failure point and reduces maintenance requirements.
- **500 lb Flywheel:** Massive flywheel provides extraordinary rotational momentum for powering through heavy brush and small trees up to 7" in diameter.
- **¼" HD Free-Floating Deck:** Heavy-duty steel deck construction with lift straps that allow the deck to follow ground contours independently of the host machine.
- **Four Easy-to-Replace Blades:** Bolt-on blade design allows for quick field replacement without specialized tools. (Note: These are NOT dual swing-away blades like the standard Jenkins Brushmower.)
- **Standard Flow Hydraulics:** Operates on 14–26 GPM — compatible with most standard-flow skid steer loaders.
- **V-Slots in Deck:** Precision-cut V-slots promote airflow and improve material discharge for cleaner cutting.
- **Built-In Bypass Manifolds:** Integrated bypass protection for your host machine's hydraulic system.
- **6" Rear Roller:** Sets and maintains consistent cutting height across varied terrain.
- **Two 13,000 lb Rated Front Straps:** Heavy-duty straps provide deck flotation and ground-following capability.
- **Universal Skid Steer Quick-Attach:** Mounts to any standard skid steer quick-attach system.

1.2 Material Rating

The Super Duty Direct Drive Brushmower is rated for cutting material **1" to 7" in diameter**. This includes brush, saplings, small trees, and woody vegetation within that size range.

> ⚠ **IMPORTANT — NOT A GRASS MOWER**
>
> This unit is specifically designed for **brush and tree clearing**. It is **NOT** ideal or recommended for heavy grass mowing applications. The direct drive system and 500 lb flywheel are engineered for impact cutting of woody material, not fine grass mowing. For grass mowing applications, please see the Jenkins standard Brushmower.

1.3 Available Sizes

- **6-Foot Model:** 76" overall width, 72" cutting width
- **7-Foot Model:** 88" overall width, 84" cutting width

1.4 Optional Accessories

- **Wheel Kit** (245 lbs) — Adds ground wheels for additional deck support and height control.
- **Push Bar** (88 lbs) — Front-mounted push bar for pushing over small trees and guiding material into the cutting path.

1.5 Ideal Applications

- Heavy brush clearing
- Land clearing and site preparation
- Right-of-way (ROW) maintenance
- Tree line management
- Invasive species removal
- Pipeline and utility corridor maintenance
- Fence line clearing
- Pasture reclamation (woody growth, not grass)

Section 2: Safety Warnings and Precautions

The Super Duty Direct Drive Brushmower is a powerful piece of heavy equipment. Improper use can result in **serious injury or death**. Read and understand ALL safety warnings before operating this attachment. Safety is the operator's responsibility.

2.1 Understanding Safety Signal Words

Signal Word	Meaning
⍰ **DANGER**	Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.
⚠ **WARNING**	Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.
⚠ **CAUTION**	Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury or equipment damage.

2.2 General Safety

> ⚠ **WARNING — PERSONAL PROTECTIVE EQUIPMENT REQUIRED**
>
> The following PPE must be worn at ALL times during operation:
>
> - Hard hat / safety helmet
> - ANSI-rated safety glasses or face shield
> - Hearing protection (earplugs or earmuffs)
> - Steel-toe boots
> - Heavy-duty work gloves

- A **polycarbonate cab door** on the host machine is **strongly recommended**. Flying debris from brush cutting can exit the deck at high velocity.
- Maintain a minimum **75-foot safety perimeter** around the operating area at all times.
- Only **trained, authorized operators** may operate this attachment.
- Keep all bystanders, children, and animals well clear of the operating area.
- **Never** operate in enclosed spaces — exhaust gases and dust are hazardous.
- **Inspect the work area** before mowing for debris, rocks, wire, metal, and hidden obstacles that could be thrown by the blades or damage the attachment.
- Never operate while fatigued, ill, or under the influence of alcohol or medications that impair judgment.
- Know the location of all fire extinguishers and first aid equipment before beginning work.

2.3 Hydraulic Safety

⚠ DANGER — HYDRAULIC FLUID UNDER PRESSURE

Hydraulic fluid escaping under pressure can **penetrate the skin** and cause severe injury, gangrene, or death. A pin-hole leak can be invisible but deliver fluid at pressures exceeding 2,000 PSI. **NEVER** use your hand or any body part to check for hydraulic leaks. Use a piece of **cardboard or paper** to detect leaks. If hydraulic fluid penetrates the skin, seek **immediate emergency medical attention** — this is a medical emergency.

- **Relieve all hydraulic pressure** before disconnecting any hoses or fittings.
- Inspect all hoses, fittings, and couplers **before each use** for wear, abrasion, cracking, and leaks.
- Replace any damaged hydraulic components **immediately** — do not operate with compromised hydraulics.
- Use only hydraulic fluid recommended by your host machine manufacturer.

- Allow hydraulic components to cool before performing service — fluid and metal can cause burns.
- Use **cardboard or paper** (never bare hands) to check for pinhole leaks in hoses and fittings.
- Route hoses away from sharp edges, moving parts, and heat sources.

2.4 Operational Safety

> ⚠ **CAUTION — SPINNING BLADES AND 500 LB FLYWHEEL**
>
> The 500 lb flywheel carries **extreme rotational momentum** even after hydraulic flow is disengaged. The flywheel and blades will continue spinning for a significant period after the hydraulics are shut off. **Wait for COMPLETE stop** before performing any service, inspection, or blade replacement. Never reach under the deck while the flywheel or blades are in motion.

- Watch for thrown debris — material can be ejected at high speed from the cutting area.
- **Do NOT use this attachment for grass mowing** — it is not designed for it and will produce poor results.
- Do not attempt to cut material exceeding 7" in diameter.
- Avoid steep slopes — operate on slopes of 15° or less.
- Keep the deck level during operation for even cutting and safe performance.
- **Disengage hydraulics before leaving the host machine** for any reason.
- Never transport the attachment with the flywheel spinning.
- Be alert for changing terrain conditions, hidden obstacles, and wildlife.

2.5 Flywheel Safety

⚠ DANGER — FLYWHEEL KINETIC ENERGY

The 500 lb flywheel stores **significant kinetic energy** and takes **considerable time** to stop after hydraulic disengagement. The flywheel can continue rotating for several minutes after shutdown depending on operating conditions.

- **NEVER** approach the underside of the deck until the flywheel has **completely stopped spinning**.
- **Listen and visually confirm** zero rotation before servicing — look through the V-slots in the deck to verify the flywheel has stopped.
- Do not attempt to slow, stop, or brake the flywheel manually.
- Treat the flywheel as if it is always spinning until you have confirmed otherwise.

2.6 Blade Safety

⚠ WARNING — BLADE REPLACEMENT SAFETY

Before performing any blade inspection or replacement:

1. Disengage all hydraulic flow to the attachment.
2. Relieve all hydraulic pressure in the system.
3. Wait for the flywheel to come to a **complete stop**.
4. Visually confirm zero rotation through the deck V-slots.
5. Block the deck securely if it must be raised.
6. Wear heavy gloves — blades are sharp and may have jagged edges from wear.

Section 3: Specifications

The Super Duty Direct Drive Brushmower is available in two sizes. Review the specification comparison table below to confirm your model and understand its capabilities.

Specification	6' Model	7' Model
Overall Width	76"	88"
Cutting Width	72"	84"
Cutting Height	2.5"	2.5"
Material Rating	1"–7" diameter	1"–7" diameter
Blade Configuration	Four 17" blades	Four 20" blades
Deck Thickness	¼" HD steel	¼" HD steel
Deck Type	Free-floating with lift straps	Free-floating with lift straps
Drive System	Direct Drive — Eaton Char-Lynn (NO gearbox)	Direct Drive — Eaton Char-Lynn (NO gearbox)
Flywheel	500 lbs	500 lbs
Hydraulic Flow	14–26 GPM (standard flow)	14–26 GPM (standard flow)
Weight	1,848 lbs	2,116 lbs
Wheel Kit Weight	245 lbs	245 lbs
Push Bar Weight	88 lbs	88 lbs
Rear Roller	6"	6"
Front Straps	Two — 13,000 lb rated	Two — 13,000 lb rated
Bypass Manifolds	Yes (built-in)	Yes (built-in)
V-Slots in Deck	Yes	Yes
Coupler Type	Universal skid steer quick-attach	Universal skid steer quick-attach

⚠ **IMPORTANT NOTE**

This attachment is designed for **brush and tree clearing** (1"–7" material). It is **NOT** recommended for heavy grass mowing applications. For grass mowing, see the **Jenkins standard Brushmower**.

Section 4: Construction and Design Details

The Super Duty Direct Drive Brushmower is built with Jenkins' commitment to rugged, dependable construction. Every component is selected and engineered for maximum durability in the harshest clearing conditions.

4.1 Direct Drive System

The heart of the Super Duty is its **Eaton Char-Lynn hydraulic motor**, which drives the 500 lb flywheel **directly** — with no gearbox in the power path. This is a critical design advantage:

- **Eliminates the gearbox** — the most common failure point in conventional brushmower attachments.
- **Reduces maintenance** — no gearbox oil to check, change, or worry about.
- **Simplifies the drivetrain** — fewer moving parts means fewer potential failure points.
- **Maximizes power transfer** — direct coupling eliminates parasitic losses through gears.

4.2 500 lb Flywheel

The massive 500 lb flywheel is the defining feature of the Super Duty. It stores enormous rotational kinetic energy, providing:

- **Momentum-based cutting:** The flywheel's stored energy powers blades through heavy material without stalling the motor.
- **Consistent cutting force:** Even when encountering thick brush or small trees, the flywheel maintains blade speed.

- **Reduced hydraulic demand:** The flywheel's momentum supplements hydraulic power, reducing peak flow demands on the host machine.

4.3 Deck Construction

- **¼" HD Steel Deck:** Resists impact damage from rocks, stumps, and heavy brush.
- **Free-Floating Design:** The deck is suspended from the host machine by lift straps, allowing it to follow ground contours independently — protecting both the attachment and the host machine from shock loads.
- **Two 13,000 lb Rated Front Straps:** Heavy-duty straps provide deck flotation while allowing full range of ground-following movement.
- **6" Rear Roller:** Sets consistent cutting height and provides smooth ground tracking across uneven terrain.
- **V-Slots:** Precision-cut openings in the deck promote airflow through the cutting chamber, improving material discharge and preventing buildup under the deck.

4.4 Blade System

- **Four Bolt-On Blades:** Unlike the dual swing-away blades on the standard Jenkins Brushmower, the Super Duty uses four bolt-on blades for maximum cutting coverage and easy replacement.
- **17" Blades** on the 6' model; **20" Blades** on the 7' model.
- Blades are designed for quick field replacement with common hand tools.

4.5 Hydraulic Integration

- **Built-In Bypass Manifolds:** Protect the host machine's hydraulic system from pressure spikes and provide a safe path for hydraulic flow when the attachment is not in use.
- **½" Flat-Face Couplers:** Standard quick-connect fittings for clean, drip-free hookup and disconnection.
- **Standard Flow Operation:** 14–26 GPM compatibility means the Super Duty works with most skid steer loaders without requiring high-flow hydraulics.

4.6 Quick-Attach Mounting

The Super Duty features a **universal skid steer quick-attach plate**, compatible with all standard skid steer loader mounting systems. No adapters or modifications are required for most machines.

Section 5: What's Included

Your Super Duty Direct Drive Brushmower ships fully assembled and ready for mounting. Verify the following items upon delivery:

✓	Item	Notes
☐	Fully assembled brushmower deck with 500 lb flywheel	Inspect for shipping damage
☐	Pre-installed Eaton Char-Lynn direct drive motor	Verify motor is securely mounted
☐	Four blades (installed)	17" (6' model) or 20" (7' model)
☐	Hydraulic hoses	Supply and return lines
☐	½" flat-face hydraulic couplers	Pre-installed on hose ends
☐	6" rear roller (installed)	Verify free rotation
☐	Two 13,000 lb front straps (installed)	Inspect for shipping damage
☐	Bypass manifolds (installed)	Verify connections are tight
☐	This Owner's Manual	Keep for reference

NOTE — OPTIONAL ACCESSORIES

The **Wheel Kit** (245 lbs) and **Push Bar** (88 lbs) are optional accessories and are **sold separately**. Contact Jenkins Iron and Steel or your authorized dealer to order.

If any items are missing or damaged upon delivery, contact Jenkins Iron and Steel immediately at **(320) 732-2658** or **1.855.732.3843**.

Section 6: Installation and Mounting

6.1 Pre-Installation Checklist

Before mounting the Super Duty Direct Drive Brushmower, complete the following checks:

1. **Verify hydraulic flow:** Confirm your host machine provides **14–26 GPM** of hydraulic flow. Insufficient flow will result in poor performance; excessive flow may damage the motor.
2. **Inspect the host machine:** Ensure the skid steer loader is in proper working condition. Check that the quick-attach system latches and locks are functioning correctly.
3. **Check hydraulic fluid:** Verify the host machine's hydraulic fluid is at the proper level and in good condition. Top off or replace as needed per the host machine manufacturer's specifications.
4. **Verify machine capacity:** Confirm the host machine's rated operating capacity can safely handle the attachment weight (1,848 lbs for the 6' model; 2,116 lbs for the 7' model).
5. **Inspect the attachment:** Walk around the brushmower and visually inspect for shipping damage, loose bolts, damaged hoses, or any other issues.
6. **Review coupler compatibility:** Confirm the host machine's hydraulic couplers are compatible with the ½" flat-face couplers on the attachment.

6.2 Mounting Procedure

> ⚠ **WARNING**
>
> Ensure the host machine is on firm, level ground during mounting. Keep all personnel clear of the attachment and machine during the mounting process. Never stand between the machine and the attachment.

7. Position the skid steer loader on **firm, level ground** facing the brushmower attachment.

8. Lower the loader arms to align the **quick-attach plate** with the attachment's mounting plate.
9. Slowly drive forward, engaging the **top edge** of the quick-attach plate into the top hook of the attachment's mounting plate.
10. Tilt the loader arms **back (curl)** to roll the attachment toward the machine, engaging the bottom latches.
11. Verify that the **quick-attach latches have fully engaged and locked**. Visually inspect both sides. On machines with manual pins, insert and secure the locking pins.
12. **Shut down the host machine** engine before connecting hydraulic hoses.
13. Clean the hydraulic coupler faces on both the machine and the attachment. Connect the **supply (pressure) hose** to the machine's auxiliary hydraulic pressure port.
14. Connect the **return hose** to the machine's auxiliary hydraulic return port.
15. Route hoses to avoid **pinch points, sharp edges, and moving parts**. Secure with ties or clips as needed.
16. Start the host machine, raise the attachment slightly off the ground, and **verify all connections** — check for leaks, confirm the deck moves freely, and test the hydraulic engagement briefly at low RPM.

6.3 Verifying Free-Floating Deck Movement

After mounting, verify the free-floating deck system is functioning properly:

17. With the attachment raised slightly, gently push down on one side of the deck. It should pivot freely on the lift straps.
18. The deck should return to a neutral, level position when released.
19. Check that the **front straps** are not twisted, kinked, or binding.
20. Verify the **6" rear roller** spins freely and makes ground contact when the deck is lowered.

6.4 Checking Strap Tension and Roller Height

- Front straps should be snug but not overly tight — the deck must be able to float and follow terrain.
- The rear roller sets the cutting height at approximately **2.5 inches**. Verify the roller is positioned correctly and rotates freely.
- With the deck on flat ground, measure from the ground to the bottom edge of the blade tips to confirm cutting height.

6.5 Dismounting Procedure

21. **Disengage hydraulic flow** to the attachment and wait for the flywheel to come to a **complete stop**.
22. Lower the attachment to the ground on a **firm, level surface**.
23. **Shut down the host machine** engine.
24. **Relieve hydraulic pressure** by cycling the auxiliary control several times with the engine off (per your machine's procedure). Then disconnect the hydraulic hoses. Cap all open couplers to prevent contamination.
25. Release the **quick-attach latches** or remove locking pins.
26. Tilt the loader arms **forward (dump)** to disengage the bottom of the quick-attach plate, then slowly back the machine away from the attachment.

6.6 Optional Accessory Installation

6.6.1 Wheel Kit Installation

- The wheel kit mounts to the pre-drilled mounting points on each side of the deck.
- Install wheels using the provided hardware. Torque all fasteners to the specifications included with the wheel kit.
- Adjust wheel height to match the desired cutting height (typically aligned with the rear roller).
- Verify both wheels spin freely and are at the same height setting.

6.6.2 Push Bar Installation

- The push bar mounts to the front of the deck using the pre-drilled mounting points.
- Align the push bar bracket with the deck mounting holes and secure with the provided hardware.
- Torque all fasteners to the specifications included with the push bar kit.
- Verify the push bar is rigid and does not interfere with deck flotation or strap movement.

Section 7: Operation

7.1 Pre-Operation Checklist

Complete the following checks **before every use**:

27. Walk the work area and inspect for **rocks, wire, metal, stumps, and hidden obstacles**.
28. Verify all **hydraulic connections** are secure and leak-free.
29. Inspect all four **blades** for damage, excessive wear, cracking, or missing hardware.
30. Check the **front straps** for wear, fraying, or damage.
31. Verify the **rear roller** spins freely.
32. Confirm the **quick-attach is fully latched and locked**.
33. Ensure all **PPE is worn** (hard hat, safety glasses, hearing protection, steel-toe boots, heavy gloves).
34. Confirm a **75-foot safety perimeter** is clear of all bystanders, children, and animals.

7.2 Starting and Engaging the Brushmower

> ⚠ **IMPORTANT — FLYWHEEL SPIN-UP**
>
> Allow the flywheel to reach **full operating speed** before engaging any material. The 500 lb flywheel requires time to build momentum. Engaging material before the flywheel is at full speed will bog down the motor and may cause stalling.

35. Start the host machine and bring the engine to **full operating RPM**.
36. Raise the attachment slightly off the ground.
37. Engage the **auxiliary hydraulic flow** to begin spinning the flywheel.
38. **Wait** until the flywheel reaches full speed — you will hear and feel the attachment reach a steady, high-speed hum.
39. Lower the deck to the ground and begin moving forward into the material at a **controlled, steady pace**.

7.3 Proper Brush Clearing Technique

- **Approach Speed:** Move into material at a slow, controlled pace. Let the flywheel and blades do the work — do not force material.
- **Let the Flywheel Work:** The 500 lb flywheel is your primary cutting force. Its stored momentum powers through material. Do not ram into heavy brush at high speed.
- **Don't Force Material:** If the attachment begins to slow or bog, stop forward progress and allow the flywheel to recover speed before continuing.
- **Multiple Passes:** For very dense areas, make multiple passes. Do not try to clear everything in one pass.
- **Approach Angle:** For saplings and small trees, approach at a slight angle rather than head-on for the cleanest cut.

7.4 Material Size Guidelines

Material Size	Approach
Under 1" (light brush/grass)	NOT recommended — this unit is not designed for grass mowing. Use a standard Brushmower.
1"–3" (brush, small saplings)	Normal forward speed. The flywheel will handle this material easily.
3"–5" (heavy brush, saplings)	Moderate forward speed. Let the flywheel build momentum between encounters.
5"–7" (small trees)	Slow approach. Allow full flywheel speed before engagement. May require multiple passes.
Over 7"	**DO NOT ATTEMPT.** Material exceeding 7" is beyond the rated capacity of this attachment.

7.5 Why NOT for Grass Mowing

NOTE — GRASS MOWING

The Super Duty Direct Drive Brushmower is **not designed for grass mowing**. The direct drive system and 500 lb flywheel are engineered for **impact cutting of woody material**. The blade configuration, flywheel speed, and deck design do not produce the fine, even cut quality expected from a grass mower. Attempting to use this attachment for grass mowing will produce poor results and is not an intended application. For grass mowing, use the **Jenkins standard Brushmower**.

7.6 Using the Free-Floating Deck on Uneven Terrain

- The free-floating deck automatically follows ground contours via the lift straps and rear roller.
- Avoid sudden movements or high-speed operation on rough terrain — let the deck float naturally.
- On hilly terrain, mow across the slope rather than up and down when practical.

- If the deck catches on an obstacle, stop immediately, disengage hydraulics, and clear the obstruction before continuing.

7.7 Tips for Heavy Brush

- Let the **flywheel momentum build** between passes — allow full RPM recovery before engaging the next section of material.
- **Don't rush.** Slow and steady produces better results and reduces wear on the attachment.
- For areas with mixed material sizes, clear the lighter material first, then make a second pass for the heavier material.
- If working in areas with potential hidden obstacles (fence wire, old metal, etc.), proceed with extreme caution.
- Take breaks to inspect blade condition during extended heavy-use sessions.

7.8 Flywheel Cool-Down and Shutdown

40. When finished, raise the deck off the ground.
41. Disengage the auxiliary hydraulic flow.
42. Allow the flywheel to spin down to a **complete stop** — do not attempt to brake it.
43. Visually and audibly confirm the flywheel has stopped before dismounting or performing any service.

7.9 Transport Position and Travel

- Raise the attachment to full height and curl back for travel.
- **Disengage hydraulic flow** — never transport with the flywheel spinning.
- Travel at reduced speed, especially on uneven surfaces.
- Use caution when transporting on trailers — secure the attachment and host machine per applicable regulations.

7.10 What NOT to Do

DO NOT:

1. **Do NOT exceed the 7" material diameter rating.** Exceeding rated capacity can damage the attachment and void the warranty.
2. **Do NOT approach the deck until the flywheel has completely stopped spinning.**
3. **Do NOT mow over stumps, large rocks, or metal debris.** These can damage blades and the deck.
4. **Do NOT operate without proper PPE.**
5. **Do NOT force material.** Let the flywheel do the work.
6. **Do NOT operate on steep slopes** exceeding 15°.
7. **Do NOT transport with the flywheel spinning.**

Section 8: Maintenance

Regular maintenance is essential to keep your Super Duty Direct Drive Brushmower in peak operating condition. The direct drive system significantly reduces maintenance compared to gearbox-driven models, but routine inspections and service are still required.

⚠ **WARNING — BEFORE ALL MAINTENANCE**

Before performing any maintenance or inspection:

1. Disengage all hydraulic flow.
2. Shut down the host machine engine.

3. Wait for the flywheel to **completely stop**.
4. Relieve all hydraulic pressure.
5. Block the deck if it must be raised for underside access.

8.1 Daily Inspection Checklist

Perform the following inspections **before each day of operation**:

44. Visually inspect all four **blades** for damage, cracks, excessive wear, and secure mounting.
45. Check all **blade bolts** for tightness.
46. Inspect the **flywheel** for visible damage, cracks, or foreign object impact.
47. Inspect the **Eaton Char-Lynn motor** and motor mount for secure attachment and leaks.
48. Check all **hydraulic hoses** for wear, abrasion, cracking, bulging, and leaks.
49. Inspect **hydraulic couplers** for damage and clean connection faces.
50. Check the **front straps** (both) for wear, fraying, cracking, or deformation.
51. Verify the **rear roller** rotates freely and is not damaged.
52. Inspect the **deck** for cracks, impact damage, and bent areas.
53. Verify the **quick-attach plate** is not damaged and mounting hardware is tight.

8.2 Greasing Schedule

Grease all fittings **every 8–10 hours of operation** using a high-quality NLGI #2 multi-purpose grease.

Grease Point	Qty. of Fittings	Interval	Notes
Roller Bearings	2	Every 8–10 hrs	Ensure roller spins freely after greasing
Push Arms	2	Every 8–10 hrs	Both straps, both ends — keeps deck floating freely
Wheel Kit Bearings (if	2	Every 8–10 hrs	Only applicable if optional wheel kit is

Grease Point	Qty. of Fittings	Interval	Notes
installed)			installed

8.3 Blade Inspection and Replacement

The Super Duty uses four bolt-on blades. Inspect blades regularly and replace when worn, cracked, bent, or damaged.

8.3.1 Blade Inspection

- Inspect blades before each use and periodically during extended operations.
- Look for: cracks, chips, excessive rounding of the cutting edge, bends, and missing material.
- Replace blades in **complete sets of four** to maintain flywheel balance.
- If a single blade is severely damaged, replace all four to avoid imbalance.

8.3.2 Blade Replacement Procedure

54. **STOP the flywheel completely** and relieve all hydraulic pressure before proceeding.
55. Block the deck securely in the raised position.
56. Remove the blade bolts using the appropriate wrench or socket. Note: bolts may be very tight — use a breaker bar if needed.
57. Remove the worn blades and inspect the blade mounting surfaces on the flywheel for damage.
58. Install the new blades, aligning them with the mounting holes on the flywheel.
59. Install new blade bolts (replace bolts each time — do not reuse). Torque to the specification listed on the blade packaging or contact Jenkins for current torque specifications.
60. Verify all four blades are securely mounted and have clearance to spin freely.
61. Lower the deck and test at low RPM, listening for any unusual vibration or noise.

8.4 Hydraulic System Maintenance

- **Hose Inspection:** Check all hoses before each use. Replace any hose showing wear, abrasion, cracking, bulging, or weeping.
- **Fluid Level:** Monitor the host machine's hydraulic fluid level. The attachment relies on the host machine's hydraulic system — maintain it per the machine manufacturer's guidelines.
- **Coupler Care:** Keep flat-face couplers clean. Wipe coupler faces before connecting. Cap open couplers when the attachment is disconnected to prevent contamination.
- **Bypass Manifolds:** Inspect manifold connections periodically. Ensure they are tight and leak-free.

8.5 Direct Drive Motor Inspection

> **□ NOTE — NO GEARBOX OIL**
>
> Because the Super Duty uses a direct drive system with **no gearbox**, there is no gearbox oil to check, change, or monitor. This is a significant maintenance advantage over standard gearbox-driven brushmower models.

- Inspect the Eaton Char-Lynn motor for external leaks at the shaft seal and port fittings.
- Check motor mounting bolts for tightness.
- Listen for unusual noises during operation — grinding, knocking, or whining may indicate internal motor wear.
- If motor performance decreases (slower spin-up, reduced cutting power), have the motor inspected by a qualified hydraulic technician.

8.6 Flywheel Inspection

- **Balance:** After blade replacement, verify the flywheel is balanced. Excessive vibration during operation indicates an imbalance — stop immediately and inspect.

- **Bearing Wear:** Listen for rumbling, grinding, or roughness in the flywheel bearings. Worn bearings must be replaced immediately to prevent catastrophic failure.
- **Runout:** Periodically check the flywheel for wobble (runout). Excessive runout indicates bearing wear or flywheel damage.
- **Visual Inspection:** Check for impact damage, cracks, or deformation through the deck V-slots.

8.7 Deck Inspection

- Inspect the ¼" HD steel deck for **cracks, dents, and wear-through**, especially around blade clearance areas.
- Check welds for cracking — particularly at strap mounting points and roller brackets.
- **V-Slot Clearing:** Ensure V-slots are not clogged with debris. Clear them regularly to maintain proper airflow and material discharge.
- Straighten any bent deck edges that could affect cutting performance or create safety hazards.

8.8 Strap Inspection and Replacement

- Inspect the two 13,000 lb front straps before each use.
- Look for: wear, fraying, cracking, stretching, deformation, and damaged attachment hardware.
- Replace straps immediately if any signs of wear or damage are found — strap failure can allow the deck to drop unexpectedly.
- Lubricate strap pivot points every 8–10 hours per the greasing schedule.

8.9 Roller Inspection

- Verify the 6" rear roller rotates freely and smoothly.
- Inspect for flat spots, dents, cracks, and excessive wear.
- Check roller bearings for roughness or play.
- Grease roller bearings per the maintenance schedule.
- Replace the roller if it no longer provides consistent ground tracking.

8.10 Storage Guidelines

When storing the Super Duty Direct Drive Brushmower for extended periods:

62. **Clean thoroughly.** Remove all debris, dirt, and plant material from the deck, blades, roller, and V-slots.
63. **Grease all fittings.** Apply a fresh coat of grease to all grease points before storage.
64. **Apply rust preventative** to bare metal surfaces, blade edges, and the deck underside.
65. **Store on blocks** to keep the deck off the ground and prevent moisture damage.
66. **Relieve hydraulic pressure** and cap all open couplers.
67. Store in a **dry, covered location** if possible.
68. Inspect blade condition and replace before the next season if needed.
69. Cover the attachment with a tarp if outdoor storage is unavoidable.

Section 9: Troubleshooting

Use the diagnostic table below to identify and resolve common issues. If the problem persists after following the recommended solutions, contact Jenkins Iron and Steel for technical support.

> ⚠ **WARNING**
>
> Always follow all safety procedures before troubleshooting. Ensure the flywheel has **completely stopped**, hydraulic pressure is relieved, and the host machine is shut down before inspecting the attachment.

Symptom	Possible Cause	Solution
Flywheel won't	No hydraulic flow to	Verify auxiliary hydraulics are engaged. Check that

Symptom	Possible Cause	Solution
spin	the attachment	couplers are fully connected. Check the host machine's auxiliary hydraulic circuit fuse/switch.
Flywheel won't spin	Seized motor or flywheel bearing	Shut down immediately. Do not force. Inspect the Eaton Char-Lynn motor and flywheel bearings for seizure. Contact a qualified hydraulic technician.
Flywheel spins slowly / won't reach full speed	Insufficient hydraulic flow from host machine	Verify host machine provides 14–26 GPM. Increase engine RPM to full throttle. Check hydraulic fluid level.
Flywheel spins slowly / won't reach full speed	Worn or damaged motor	If flow is adequate and flywheel still won't reach speed, the Eaton Char-Lynn motor may need service or replacement.
Flywheel won't stop after disengaging hydraulics	Normal operation	The 500 lb flywheel stores significant kinetic energy and takes considerable time to coast down. **Wait patiently.** If it spins for an unusually long time, this is not typically a concern — the mass is simply carrying momentum.
Excessive flywheel vibration	Unbalanced blades or missing blade	Shut down immediately. Inspect all four blades. Replace damaged blades. Always replace in full sets of four for balance.
Excessive flywheel vibration	Worn flywheel bearing	Inspect flywheel bearings for play, roughness, or noise. Replace bearings if worn.
Blades won't cut effectively	Worn or dull blades	Inspect blades. Replace all four blades with new ones. Blades are not designed to be sharpened — replace when worn.
Excessive blade wear	Cutting abrasive material (sandy soil, rocks)	Inspect work area more carefully for rocks and abrasive debris. Raise cutting height if possible. This is accelerated wear, not a defect.
Blade thrown during operation	Blade bolt failure or improper installation	**STOP IMMEDIATELY.** Inspect all blade mounting hardware. Replace missing blade and bolt. Always use new bolts when installing blades. Torque to specification.
Hydraulic system overheating	Excessive workload or low fluid level	Reduce workload intensity. Check hydraulic fluid level. Ensure the host machine's hydraulic cooler is functioning properly and airflow is not restricted.
Hydraulic leaks at couplers	Damaged coupler face or O-ring	Disconnect, clean, and inspect coupler faces. Replace damaged O-rings or couplers. Ensure couplers are fully seated when connected.
Hydraulic pressure loss	Hose leak, fitting failure, or bypass manifold issue	Inspect all hoses and fittings for leaks (use cardboard, NOT hands). Check bypass manifold connections. Replace any damaged components.

Symptom	Possible Cause	Solution
Deck won't float / follow terrain	Straps too tight or binding	Inspect front straps. Ensure they are not twisted or kinked. Verify pivot points are greased and move freely.
Uneven cutting height	Deck not level, worn roller, or uneven strap tension	Check rear roller for flat spots or damage. Verify both front straps are equal length and properly tensioned. Level the deck on flat ground.
Deck dragging / not floating	Strap failure or incorrect mounting	Inspect straps for damage. Verify straps are correctly attached at both ends. Replace damaged straps immediately.
Motor stalling in heavy material	Material exceeds rated capacity or insufficient flywheel speed	Do not exceed 7" material diameter. Allow flywheel to reach full speed before engaging material. Slow approach speed. Make multiple passes for dense areas.
Material wrapping around flywheel/blades	Vines, wire, or fibrous material in work area	Stop and disengage. Wait for flywheel to fully stop. Remove wrapped material carefully. Inspect the work area for wire, vines, or baling twine before mowing.
Push bar bending or loosening	Exceeding material rating or loose mounting hardware	Do not use push bar on material exceeding rated capacity. Inspect and retorque push bar mounting hardware. Replace push bar if bent.
Wheel kit wheels not tracking evenly	Uneven height adjustment or worn bearings	Verify both wheels are set to the same height. Inspect wheel bearings for wear. Grease bearings per schedule.
Quick-attach won't latch	Misalignment or worn latch mechanism	Reposition the host machine and realign the quick-attach plate. Inspect latches for wear or debris. Clean and lubricate latch mechanism.
Unusual motor noise (grinding, whining, knocking)	Internal motor wear or contaminated hydraulic fluid	Stop operation immediately. Check hydraulic fluid for contamination (milky, dark, or gritty). Have motor inspected by a qualified hydraulic technician.
Grass won't cut properly	N/A — Wrong application	**This unit is NOT designed for grass mowing.** The direct drive system and 500 lb flywheel are engineered for brush and tree clearing. For grass mowing, use the **Jenkins standard Brushmower**.

If the issue is not listed above or the suggested solution does not resolve the problem, contact **Jenkins Iron and Steel Technical Support** at **(320) 732-2658** or toll-free at **1.855.732.3843**.

Section 10: Replacement Parts Reference

The following table lists common replacement parts and accessories for the Super Duty Direct Drive Brushmower. Contact Jenkins Iron and Steel or your authorized dealer to order replacement parts. Always provide your **model size (6' or 7')** and **serial number** when ordering.

Part	Description	Qty. Per Unit
Blades — 17"	Replacement cutting blades for the 6' model	4 per unit
Blades — 20"	Replacement cutting blades for the 7' model	4 per unit
Blade Bolts	Grade 8 mounting bolts for blade attachment (replace with each blade change)	4 per unit (1 per blade)
Eaton Char-Lynn Motor	Direct drive hydraulic motor — complete replacement assembly	1 per unit
Flywheel Bearings	Main flywheel support bearings	2 per unit
Hydraulic Hoses	Supply and return hoses with fittings (specify model when ordering)	2 per unit (1 supply, 1 return)
½" Flat-Face Couplers	Quick-connect hydraulic couplers (male and female pairs)	2 pairs per unit
Front Straps — 13,000 lb	Deck flotation straps with mounting hardware	2 per unit
Rear Roller — 6"	Complete rear roller assembly with bearings and brackets	1 per unit
Roller Bearings	Replacement bearings for the 6" rear roller	2 per unit
Bypass Manifold	Hydraulic bypass manifold assembly	1 per unit
Grease Fittings (Zerks)	Standard grease fittings — various locations	12+ per unit
Quick-Attach Wear Plates	Replaceable wear plates for the universal quick-attach mounting plate	As needed
Wheel Kit (Optional)	Ground wheel kit with mounting hardware — 245 lbs	Sold separately
Push Bar (Optional)	Front-mounted push bar with mounting hardware — 88 lbs	Sold separately

ORDERING PARTS

When ordering replacement parts, always have the following information ready:

- Model size: 6' (76" overall) or 7' (88" overall)
- Unit serial number (located on the quick-attach plate)
- Part description and quantity needed

Contact: **(320) 732-2658** | Toll-Free: **1.855.732.3843** | **www.jenkinsiron.com**

Section 11: Warranty and Contact Information

11.1 Warranty Coverage

Jenkins Iron and Steel warrants the Super Duty Direct Drive Brushmower Attachment to be free from defects in **materials and workmanship** for a period of **two (2) years** from the date of original purchase, subject to the terms and conditions outlined below.

11.1.1 What Is Covered

- Defects in materials used in manufacturing.
- Defects in workmanship, including welding, assembly, and fabrication.
- Premature failure of structural components under normal use within rated specifications.

11.1.2 What Is NOT Covered

- **Normal wear items:** Blades, front straps, rear roller, roller bearings, grease fittings, and hydraulic hoses are consumable/wear items and are not covered under warranty.
- **Misuse or abuse:** Damage resulting from operating the attachment beyond its rated specifications (e.g., cutting material exceeding 7" in diameter).

- **Unauthorized modification:** Any alterations, modifications, or repairs not authorized by Jenkins Iron and Steel.
- **Improper maintenance:** Failure resulting from inadequate maintenance, including failure to grease, inspect, or replace worn components.
- **Exceeding rated capacity:** Damage caused by exceeding the attachment's rated material diameter, hydraulic flow specifications, or host machine capacity.
- **Unintended applications:** Damage or dissatisfaction resulting from using the attachment for applications it is not designed for, including grass mowing.
- **Cosmetic damage:** Scratches, dents, paint wear, and surface corrosion from normal use and exposure.
- **Acts of nature:** Damage from floods, storms, lightning, or other natural events.

11.2 Warranty Claim Process

70. **Contact Jenkins Iron and Steel** by phone or through the website to report the issue and initiate a warranty claim.
71. Provide your **name, contact information, date of purchase, model size, and serial number**.
72. Describe the **nature of the defect** in detail. Provide photographs if possible.
73. Jenkins will evaluate the claim and may request the unit or component be returned for inspection.
74. If the claim is approved, Jenkins will **repair or replace** the defective component at its discretion, at no charge for parts. Shipping and labor costs may apply depending on the nature and location of the repair.
75. Jenkins Iron and Steel reserves the right to make the final determination on all warranty claims.

11.3 Limitation of Liability

Jenkins Iron and Steel's liability under this warranty is limited to the repair or replacement of defective parts. In no event shall Jenkins Iron and Steel be liable for incidental, consequential, or special damages, including but not limited to lost profits, downtime, or injury resulting from the use of this product. Some

states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

11.4 Contact Information

Contact	Details
Company	Jenkins Iron and Steel, Inc.
Address	23023 US 71, Long Prairie, MN 56347
Phone	(320) 732-2658
Toll-Free	1.855.732.3843
Website	www.jenkinsiron.com

Jenkins Iron and Steel

"Built Strong. Built to Last. Made in the USA."

© 2026 Jenkins Iron and Steel, Inc. All rights reserved.