

Salsco, INC.
LEADER BY DESIGN

MADE IN THE U.S.A

OPERATORS AND PARTS MANUAL
MODEL 810M CHIPPER



MANUFACTURER OF OUTDOOR POWER EQUIPMENT

Products for Turf & Lawncare, Rental, Construction, Tree care, Wood Processing, Nursery & Farm Industries

Other Salsco Equipment

**3-1/2" - 18", Gas, Diesel, and P.T.O, Wood/Brush Chippers
Chipper Shredder Vacuums - Tailgate & Truckloader Vacuums
Shaving Mills - Gas and Electric Greens Rollers**

*Quality of Workmanship, Innovative
Design, Built to Last!*

105 School House Road
Cheshire, CT 06410 U.S.A.
800-872-5726, 203-271-1682, 203-271-2596 (Fax)
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TABLE OF CONTENTS

MODEL 810M CHIPPER

COVER & TABLE OF CONTENTS.....Pages 1 – 2

STATEMENT OF FACT Page - 3

SPECIFICATIONS & FEATURESPage - 4

SAFETY INSTRUCTIONS & COPIES OF DECALS.....Pages 5 – 9

OPERATING INSTRUCTIONS.....Page - 10

SERVICE & MAINTENANCE INSTRUCTIONSPages 11 - 12

PARTS DIAGRAMSPages 13 – 39

TORQUE CHARTSPage 40

SERVICE SCHEDULE LOGPage 41

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STATEMENT OF FACT

You have just purchased the highest quality, most dependable, Chipper on the market today. This unit has the ability to meet exact standards and perform for years with minimum downtime. **HOWEVER**, it cannot read nor will it understand this manual no matter how long you leave it on top of the machine.

It is your responsibility to read and understand this manual; it is also your responsibility to be certain this information is passed along to anyone who is expected to operate this equipment. Should you choose not to read, understand and pass along the information provided you, please expect equipment failure and possible injuries to persons around this equipment.

For the safety of the operator, it is imperative that this manual is carefully read and understood.

Once you have read this manual, it is your responsibility to be sure that all new operators read and understand this manual, especially all cautions stated.

As a manufacturer of equipment, we have a responsibility to design a safe piece of equipment. NOTE: The important safeguards and instructions in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution, and care are factors, which cannot be built into any product. These factors must be supplied by the person(s) caring for and operating this equipment.

ONLY YOU CAN PREVENT ACCIDENTS!

SPECIFICATIONS & FEATURES

The Salsco Model 810M is ruggedly built to withstand high volume usage by many different industries. Rental – Tree Care – Commercial Lawn and Golf Courses, just to name a few.

Some of the standard features and options include heavy duty ¼” diamond plate fenders with enclosed light guards, lockable tanks, extra large hydraulic and fuel tanks with drain plugs, 5,000-lb. axle, large, high speed, 28.10” diameter tires, bolt on feed hopper, two bed knives and 360° swivel chute.

The trailer frame is constructed of 2” x 4” rectangular steel tubing, continuous weld for strength and gussets where needed. The 5,000-lb Torflex axle features an independent suspension, cushioned with rubber, providing a smoother, quieter ride with no transfer of road shock from one wheel to the other.

Model 810M has a huge 10” x 18” chipper inlet opening and a 21” diameter feed roll. This, coupled with the largest infeed hopper in the industry, 1,881 square inches, allows our machine to ingest whole trees, branches and all. Even the largest home Christmas trees are no problem. Our Model 810, because of our feed roll design, will not only handle the hard woods of the North, but the grassy palm fronds of the Southern states. This unit will handle all your chipping needs, no matter what type of tree or plant.

The feed roll receives its power through a jackshaft from a hydraulic motor. This allows a double gear reduction and thus an increase of available torque. You’ll be amazed with the smoothness and ease of this feed system.

We use two bed knives, one horizontal and one vertical, which allows our machine to cut, where others might shred.

Safety is our main concern and we have gone the extra mile. However, only you can save yourself and your employees from the danger, which lies in these machines. It is your responsibility as the buyer of this machine, to make sure the operator has been trained. Talk to your operators every day – hold classes. Do something to help yourself. We can only go so far.

CAUTIONS

READ THOROUGHLY THE OPERATOR SAFETY INSTRUCTIONS ON THE FOLLOWING PAGES WHICH ARE THE AMERICAN NATIONAL STANDARD OF POWERED SHREDDERS/GRINDERS SAFETY SPECIFICATIONS, PROVIDED BY ANSI AND THE O.P.E.I.

THE FOLLOWING CAUTIONS ARE PROVIDED BY SALSCO AS A QUICK REFERENCE ONLY AND ARE NOT MEANT TO REPLACE THE PRECAUTIONS ON THE FOLLOWING PAGES.

- THINK -

1. **ALWAYS** use protective eyewear when machine is in operation.
2. **ALWAYS** use gloves and wear ear protection when machine is in operation.
3. **NEVER** put hands, legs or any part of your body into or near the chipper intake or discharge openings.
4. **NEVER** run machine with guards removed.
5. **ALWAYS** allow machine to cool off, remove key and put engine in neutral before attempting any maintenance or repair.
6. **BE SURE** machine has stopped completely, engine is off, key is removed and spark plug is disconnected before attempting any service or maintenance.
7. **NEVER** stand in front of chipper infeed hopper. It is possible for a chip or piece of wood to be thrown out.
8. **BE SURE** the machine is parked on a dry level surface before starting operation.
9. **DO NOT** operate with loose clothing or long unrestrained hair. **BE SURE** vines and branches are not wrapped around your body parts.
10. **DO NOT** operate on ice or any other slippery surface. **BE SURE** area around machine is clear and clean. You don't want to trip or fall into the machine.
11. **NEVER** leave machine running unattended, especially around youngsters or persons not instructed in the safe operation of this machine.
12. **READ** and understand federal guidelines provided with this manual on the following pages.

- IT'S YOUR HAND OR FOOT -

BRUSH CHIPPERS
ANSI Z133.1-2006
American National Standard for Arboricultural Operations
Safety Requirements

5.3 Brush Chippers

- 5.3.1 The items contained in section 5.1 shall always be included in the review of this section.
- 5.3.2 Access panels (for example, guards) for maintenance and adjustment, including discharge chute and cutter housing, shall be closed and secured prior to starting the engine of brush chippers. These access panels shall not be opened or unsecured until the engine and all moving parts have come to a complete stop (see Annex C, General Safety Procedures That Apply to All Tree Work).
- 5.3.3 Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall be equipped with an infeed hopper not less than 85 inches (2.15 m) measured from the blades or knives to ground level over the center line of the hopper. Side members of the infeed hopper shall have sufficient height so as to prevent workers from contacting the blades or knives during operations.
- 5.3.4 Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall have a flexible anti-kickback device installed in the infeed hopper to reduce the risk of injury from flying chips and debris.
- 5.3.5 Chippers equipped with a mechanical infeed system shall have a quick-stop and reversing device on the infeed system. The activating mechanism for the quick-stop and reversing device shall be located across the top, along each side, and close to the feed end of the infeed hopper within easy reach of the worker.
- 5.3.6 Vision, hearing, and/or other appropriate personal protective equipment shall be worn when in the immediate area of a brush chipper in accordance with section 3.4, Personal Protective Equipment.
- 5.3.7 Arborists, mechanics, and other workers shall not, under any circumstances, reach into the infeed hopper when the cutter disc, rotary drum, or feed rollers are moving.
- 5.3.8 When trailer chippers are detached from the vehicles, they shall be chocked or otherwise secured in place.
- 5.3.9 When in a towing position, chipper safety chains shall be crossed under the tongue of the chipper and properly affixed to the towing vehicle.
- 5.3.10 See section 8.6, Brush Removal and Chipping, for additional requirements.

BRUSH REMOVAL AND CHIPPING
ANSI Z133.1-2006
American National Standard for Arboricultural Operations
Safety Requirements

8.6 Brush Removal and Chipping

- 8.6.1 Traffic control around the jobsite shall be established prior to the start of chipping operations along roads and highways (see section 3.2, Traffic Control Around the Jobsite).
- 8.6.2 Brush and logs shall not be allowed to create hazards in the work areas.
- 8.6.3 To prevent an entanglement hazard, loose clothing, climbing equipment, body belts, harnesses, lanyards, or gauntlet-type gloves (for example, long-cuffed lineman's or welder's gloves) shall not be worn while operating chippers.
- 8.6.4 Personal protective equipment shall be worn when in the immediate area of chipping operations in accordance with section 3.4, Personal Protective Equipment, of this standard.
- 8.6.5 Training shall be provided in the proper operation, feeding, starting, and shutdown procedures for the chipper being used.
- 8.6.6 Maintenance shall be performed only by those persons authorized by the employer and trained to perform such operations.
- 8.6.7 Brush and logs shall be fed into chippers, butt or cut end first, from the side of the feed table center line, and the operator shall immediately turn away from the feed table when the brush is taken into the rotor or feed rollers. Chippers should be fed from the curb-side whenever practical.
- 8.6.8 The brush chipper discharge chute or cutter housing cover shall not be raised or removed while any part of the chipper is turning or moving. Chippers shall not be used unless a discharge chute of sufficient length or design is provided that prevents personal contact with the blades (see Annex C, General Safety Procedures That Apply to All Tree Work).
- 8.6.9 Foreign material, such as stones, nails, sweepings, and rakings, shall not be fed into chippers.
- 8.6.10 Small branches shall be fed into chippers with longer branches or by being pushed with a long stick.
- 8.6.11 Hands or other parts of the body shall not be placed into the infeed hopper. Leaning into or pushing material into infeed hoppers with feet is prohibited.
- 8.6.12 While material is being fed into the chipper infeed hopper chute, pinch points continually develop within the material being chipped and between the material and machine. The operator shall be aware of this situation and respond accordingly.
- 8.6.13 When feeding a chipper during roadside operations, the operator shall do so in a manner that prevents him or her from stepping into traffic or being pushed into traffic by the material that is being fed into the chipper.
- 8.6.14 When using a winch in chipper operations, the operator shall ensure that the winch cable is properly stored before initiating chipper operations.
- 8.6.15 Refer to section 5.3, Brush Chippers, for additional information.

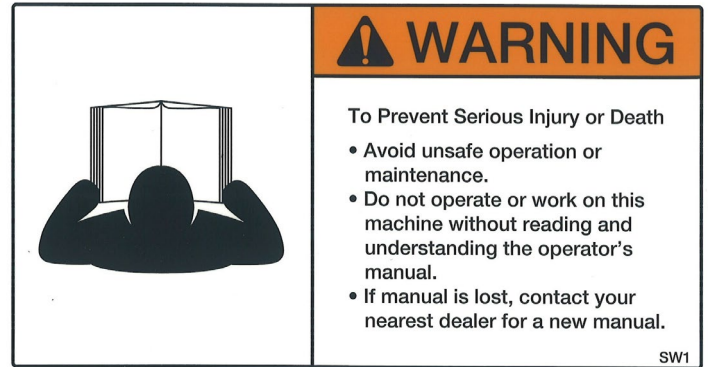
SAFETY DECALS

PART # 0314020

SAFETY RULES

1. DO NOT OPERATE WITH COVERS OFF.
2. KEEP HANDS & FEET AWAY!
3. DO NOT REFILL FUEL WHILE ENGINE IS HOT OR IS RUNNING!
4. READ MANUAL BEFORE OPERATING.
5. DO NOT OPERATE AROUND ANIMALS OR PEOPLE.
6. CAUTION - MACHINE CAN TURN DEBRIS INTO FLYING OBJECTS!

PART # 0314062




PART # 0314049



- SAFETY DECALS

PART # 0314060

 **WARNING**

MOVING PART HAZARD

To prevent serious injury or death from moving parts:

- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.

SW406

PART # 0314062

 **DANGER**



THROWN OBJECT HAZARD

To prevent injury or death from outlet chute projectiles:

- Stay away from outlet during operation.
- Keep others away.
- Do not direct outlet toward people, animals or buildings.

SW804

PART # 0314015

 **DANGER** 

KEEP HANDS AND FEET AWAY

PART # 0314063

 **DANGER**

HOT EXHAUST

SW 7

OPERATING INSTRUCTIONS

Count your extremities before you start!
Feet, hands, fingers, etc.

1. Read the manual again.
2. Look at the finger decal and study it. These could be yours!
3. Be sure all guards are in place before starting machine.
4. Set feed handle in reverse position (push towards machine).
5. Check engine oil and fuel levels, as per engine manufacturers specifications.
6. Be sure machine is on dry, flat surface and it's secured from rolling.
HINT: Be sure machine is not too close to the woodpile. You need room to work and move around.
7. Set engine just above idle and start motor. (Be sure to check that no one is around this machine but you). If you have a diesel engine, you may have cold engine start. Refer to the engine manual.
8. With machine just over idle and after the engine has warmed up, engage the clutch slowly.
9. Check engine manual for full throttle R.P.M. and recommendations and bring your machine to that R.P.M.
10. You are ready to chip wood, as soon as you put your safety glasses and gloves on and insert earplugs.
11. Move the feed handle away from the machine. This will engage the feed roll.
12. Standing at the rear of the machine, looking at the hopper, feed the wood to the feed roll. Once the machine begins, turn and walk away from the machine. It will draw the wood in without your help. Go get another piece and repeat this procedure.
13. With large diameter pieces, it may be necessary to send in a smaller piece to start the feed roll. Also, it may be necessary to monitor R.P.M. and back off on feed speed.
14. MACHINE SHUTDOWN PROCEDURES: Bring R.P.M. down to a full idle and disengage the clutch. Let engine run a few minutes to cool down and then shut down. Chipper flywheel will still be rotating.

HINTS

1. When operating machine, stand off to the side of the feed hopper when feeding wood into the machine. NEVER STAND DIRECTLY IN FRONT OF THE FEED HOPPER WHEN FEEDING WOOD INTO THE MACHINE.
2. When using the chipper and you have a short piece of wood bouncing around and not being grabbed by the feed roll, LEAVE IT! DO NOT TRY TO PUSH IT THROUGH WITH ARMS OR LEGS! The next limb will push it through.
3. When through with the job let the engine run at full R.P.M., making sure all material is through the machine before shutting it down. This will prevent injuries from flying debris when the machine is started up at the next job.
4. COUNT YOUR EXTREMITIES AGAIN. BE SURE THIS NUMBER MATCHES YOUR STARTING NUMBER.

**WHILE PERFORMING MAINTENANCE OR REPAIR, ALWAYS
REMOVE KEY FROM ENGINE!**

SERVICE SCHEDULE

1. **Engine & clutch adjustments** - follow service maintenance schedule set forth by the manufacturer in the engine and clutch manuals.
2. **Grease** all main bearings once a day. **DO NOT OVER GREASE.** Wipe extra grease off bearings. Bearing under guards for feed rolls need to be greased at least once a week. When removing guards, check chain tension.
3. Be sure to **clean** entire machine, especially around engine after using. Should it become necessary to remove the exhaust chute, **REMOVE KEY FROM ENGINE. NEVER TURN ENGINE OVER WHILE EXHAUST CHUTE IS REMOVED.**
4. **Sharpen/change chipper blades:** Remove key from engine and remove spark plug wires (gas engines only). Be sure throttle is in off position and clutch is disengaged. Be sure to put a red lock out tag on this machine to warn others of pending danger. Remove top pin from chipper housing access door and pivot housing open. This will allow access to impeller. Rotate impeller to a comfortable working position and tighten pusher screw against the impeller. This will lock the impeller while you service the blades. Sharpen the blades as evenly as possible and be sure you Locktite and tighten all bolts. A loose bolt coming out of this machine would be a large bullet. Should you drop a nut, bolt or blade in the housing you must retrieve it before you start up the machine. **HINT:** Salsco recommends replacement of nuts when replacing or sharpening chipper blades. The locking ability of these nuts may have been violated.
5. **Bed knife adjustment** is .070. To adjust the bed knife, remove access door on side of chip chamber and rotate impeller until blades pass in front of bed knife. Check with feeler gauge and set to .070. Repeat procedure for horizontal knife.
6. **Adjust infeed roll housing:** Remove both guards and pry housing front or rear and shim behind nylon. Tighten up and remove play.
7. **Check belt for wear and or adjustment:** Belt needs adjustment when belt is loose. Adjust belt as follows: Loosen four bolts holding engine and adjust engine to tighten bolts. You must remove the belt guard for proper access to belts.
8. **Remove infeed hopper:** Infeed hopper is removable for maintenance or storage but unit must **NEVER** be run without the hopper in place. Connect chain hoist or lifting device of some sort and remove bolts. Now hopper can be stored.
9. **Remove feed roll box:** Periodically the feed roll assembly will require disassembly. Remove the two hoses going to the drive motor (be sure to mark them for reassembly). Also, you must check the rotation of the feed roll upon reinstallation. Cap open hydraulic hoses. **Dirt is any hydraulic systems enemy.** Connect chain hoist or lifting device to feed roll box assembly and remove from machine. The feed roll can now be worked on to make necessary repairs. When replacing the feed roll box, be sure to shim behind the nylon wear strips to remove endplay.

SERVICE SCHEDULE	AS NEEDED	DAILY	WEEKLY	MONTHLY
CHECK WHEEL BEARINGS	X	-	-	X
CHECK LUG NUTS	X	-	-	-
CHECK LIGHTS	X	X	-	-
CHECK ENGINE OIL	X	X	-	-
CLEAN MACHINE	X	X	-	-
GREASE INFEED ROLL BEARING	X	-	X	-
GREASE DISC SHAFT BEARING	X	X	-	-
SHARPEN CHIPPER BLADES	X OR	-	X	-
CHECK & ADJUST BED KNIFE	X OR	-	X	-
CHECK & ADJUST ROLL HOUSING	-	-	-	X
CHECK TIRE AIR PRESSURE	X	-	-	X
CHECK ALL NUTS & BOLTS	X	X	-	-
CHECK ENGINE BELT TENSION	X	-	X	-
CHECK HYDRAULIC OIL	X	-	-	X
CHECK HYDRAULIC HOSES	X	-	-	X

NEVER, UNDER ANY CIRCUMSTANCES, START THE ENGINE WHEN UNIT IS OPEN OR AT ANY TIME DURING SERVICE OR ROUTINE MAINTENANCE

IMPELLER REMOVAL PROCEDURE

1. Remove key from engine and disconnect battery cables.
2. Remove discharge elbow.
3. Remove pin lock and pivot top housing open.
4. Remove top housing exhaust half.
5. Remove belt guard.
6. Remove hydraulic pump. Leave hoses connected, just slide out of sleeve and lay on the side.
7. Loosen engine-mounting bolts and back off slide pusher bolts. Loosen belts and remove.
8. Remove pulley from impeller shaft.
9. Remove top and bottom clevis pins from front feed wheel lift cylinder if unit is equipped with this option.
10. Loosen horizontal and vertical bed knives and slide them away from the impeller.
11. Remove chip blades from impeller. (Follow procedure in service schedule, line item # 4)
12. Connect lifting device to impeller. (Use bolt hole for chip blade and **KEEP IN MIND** – WHEN CHOOSING A LIFTING DEVICE, THE IMPELLER WEIGHS APPROXIMATELY 700-lbs.)
13. Remove bolts from both flange bearings. Back off setscrews in bearings.
14. Carefully lift impeller out of machine.
15. Remove both flange bearings and all spacers from impeller.

INSTALLATION OF IMPELLER

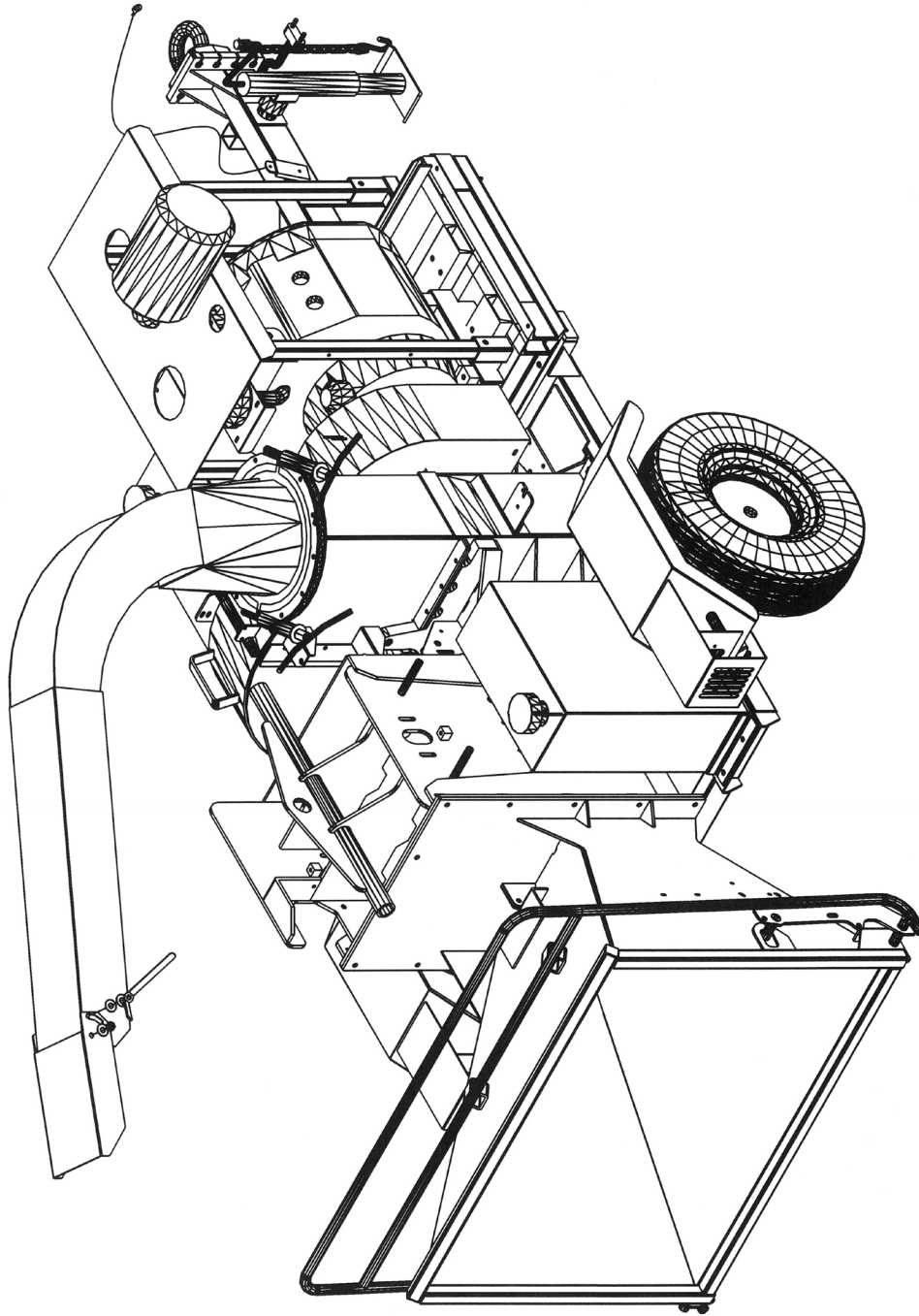
1. Connect suitable lifting device to impeller and set in machine. **KEEP IN MIND** – WHEN CHOOSING A LIFTING DEVICE, THE IMPELLER WEIGHS APPROXIMATELY 700-lbs. Be sure both shaft ends are clean and free from burrs. Bearing must slide freely on shaft.
2. Slide bearing on shafts and start the four bolts, rear bearing, two front bearings diagonally.
3. Tighten four bolts on rear bearing and two bolts on front bearings diagonally.
4. Slide impeller towards rear of machine. Impeller hub should touch rear-bearing race.
5. Measure distance from impeller hub and front bearing race.
6. Remove front bearing slide shims over shaft to equal that distance. **CAUTION: DO NOT ADD MORE SHIMS THAN ARE REQUIRED.** This could cause premature bearing failure. Reinstall front bearing.
7. With impeller shimmed and bearings tight, impeller should not slide front or rear.
8. Install all bearing mounting bolts with blue Loctite. Also Loctite and tighten bearing set screws.
9. Install all chip blades. Be sure to use new hardware and Loctite each time blades are removed and reinstalled. (Follow procedure in service schedule, line item #4)
10. Set bed knives and lock in place. (.070 clearance between chip blades and bed knives)
11. Reinstall top housing and discharge elbow. Be sure to use roll pin to keep housing aligned.
12. Install pulley. Be sure to use straight edge to line up pulley.
13. Install belts and adjust to specs shown in service manual with discharge chute and impeller assembly.
14. Be sure to recheck pulley with straight edge.
15. Install pump and use Loctite.
16. Install belt guard.
17. Install front lift cylinder, if so equipped.
18. Check to be sure all guards are in place and all bolts and nuts have been installed and tightened to proper specs.
19. Connect battery cables and start engine.
20. Engage clutch slowly. Start impeller and check for noise or vibration.
21. Engage impeller and bring engine up to operating R.P.M. **DO NOT START UNIT WITHOUT ALL GUARDS IN PLACE.**
22. Test lift cylinder feed wheel if so equipped.
23. Lower feed wheel and bring engine to idle.
24. Shut down engine and put machine in neutral.
25. Once machine has come to a halt, re-grease bearings.
26. Send machine to work. It's ready!

REMEMBER: REMOVE KEY FROM ENGINE, DISCONNECT BATTERY CABLES AND LOCK-OUT UNIT WHENEVER PERFORMING SERVICE AND MAINTENANCE.

ITEM	DESCRIPTION	PART NO	QTY
	10" CHIPPER - 810M - MUNICIPAL	0010130	

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

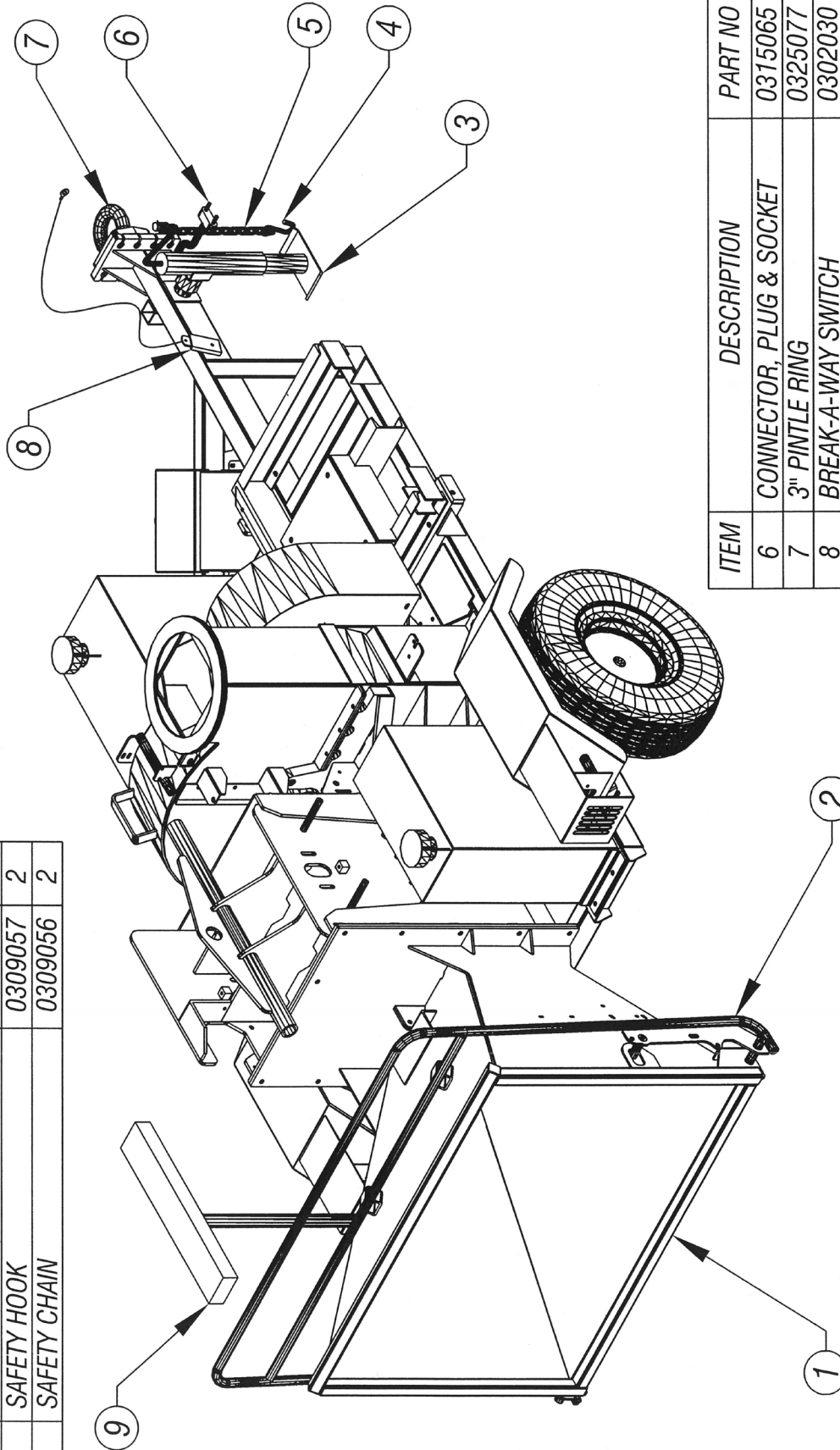


810M CHIPPER ASSY - DWG #1

REV. NO.		DESCRIPTION		DATE	

ISSUED: 08-04-2009

ITEM	DESCRIPTION	PART NO	QTY
1	CHUTE, IN-FEED	0226181	1
2	HANDLE, FWD / REV POWER FEED	0223137	1
3	JACK-BULLDOG, TOP WIND	0369006	1
4	SAFETY HOOK	0309057	2
5	SAFETY CHAIN	0309056	2

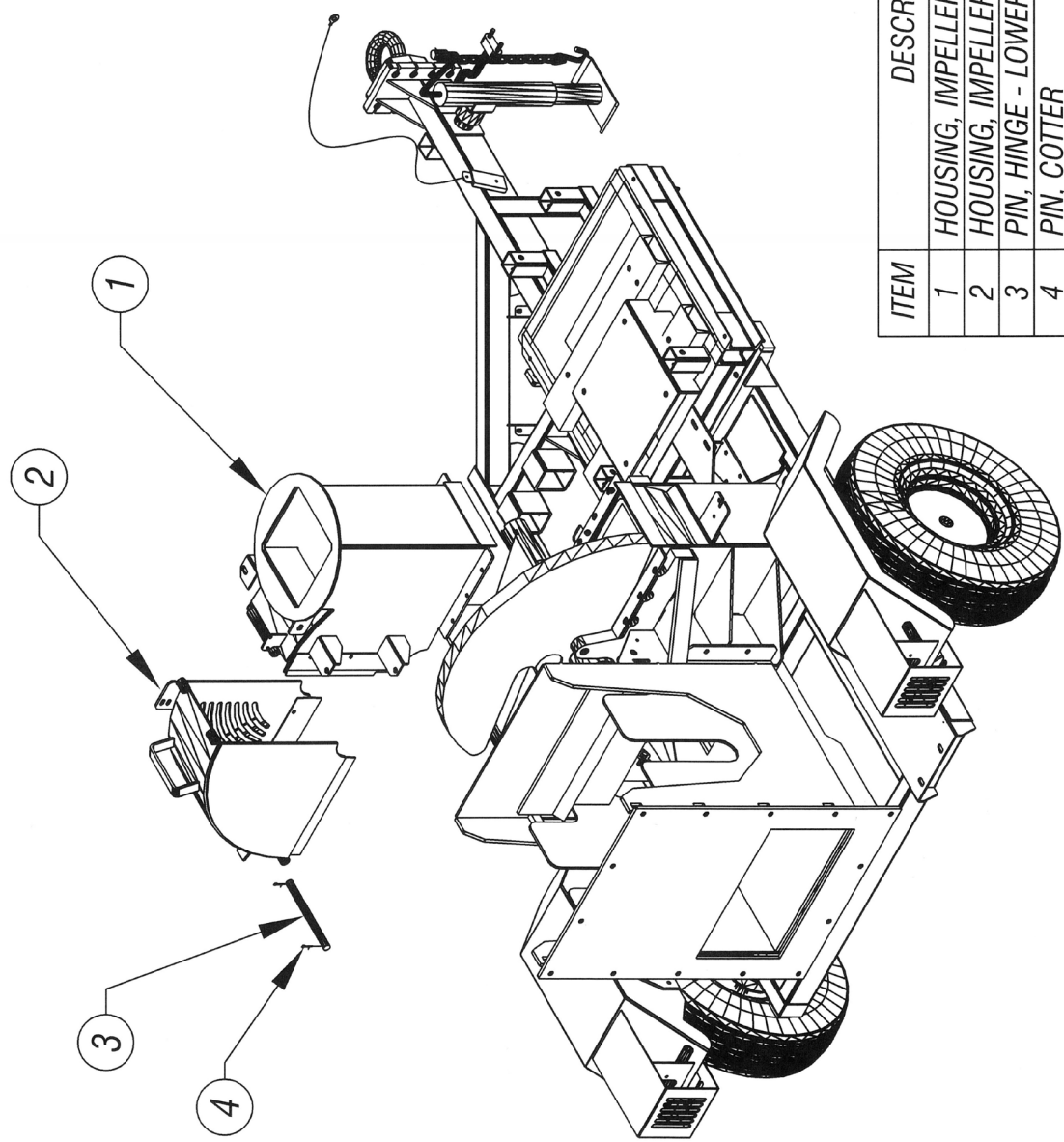


ITEM	DESCRIPTION	PART NO	QTY
6	CONNECTOR, PLUG & SOCKET	0315065	1
7	3" PINTLE RING	0325077	1
8	BREAK-A-WAY SWITCH	0302030	1
9	WOOD PUSHER ROD	0359007	1

810M CHIPPER ASSY - DWG #2

ISSUED: 08-04-2009

REV	DESCRIPTION	DATE

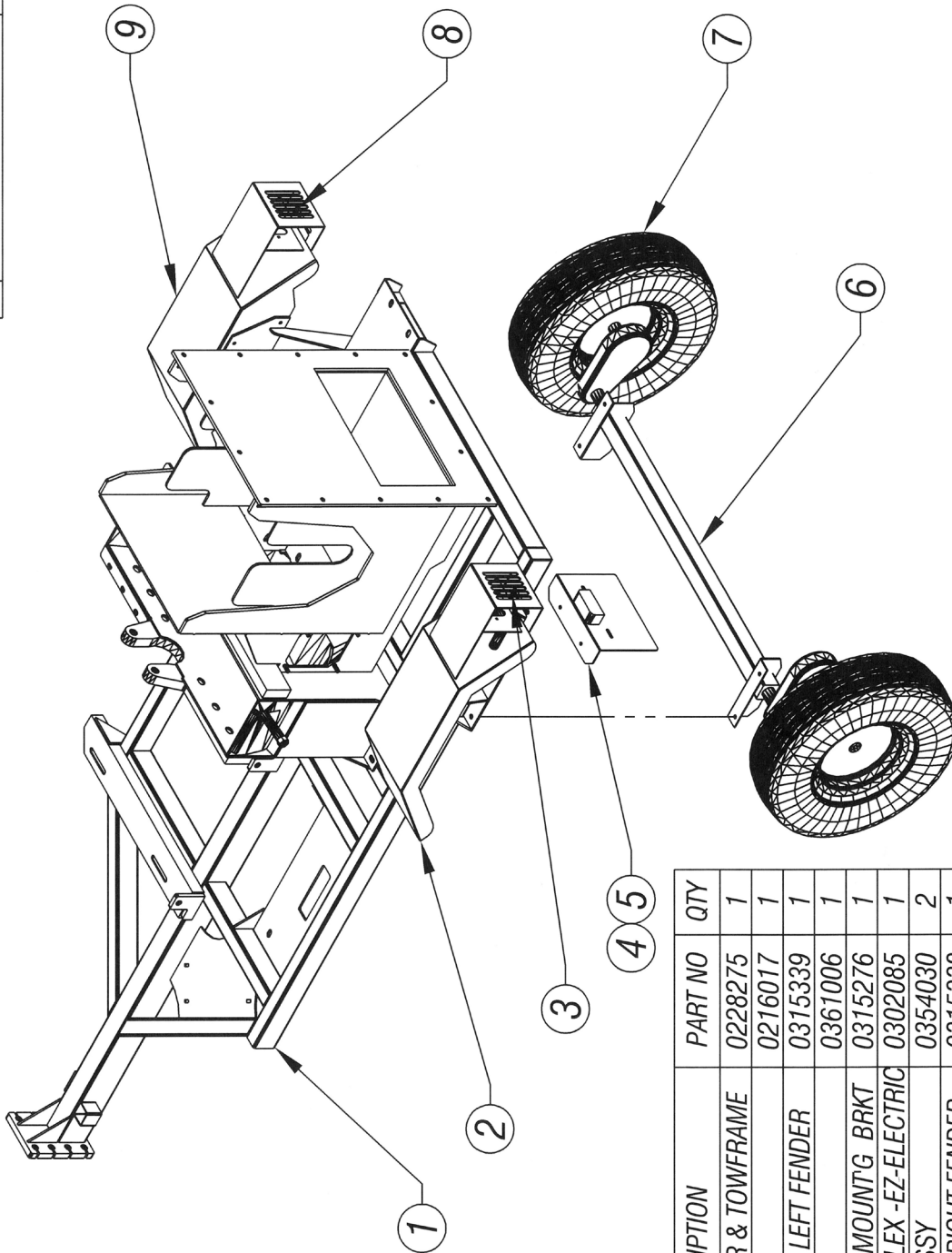


ITEM	DESCRIPTION	PART NO	QTY
1	HOUSING, IMPELLER - FIXED	0228225	1
2	HOUSING, IMPELLER - UPPER REMOVABLE	0228226	1
3	PIN, HINGE - LOWER HOUSING	0440034	1
4	PIN, COTTER	0340004	2

810M CHIPPER ASSY - DWG #3

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

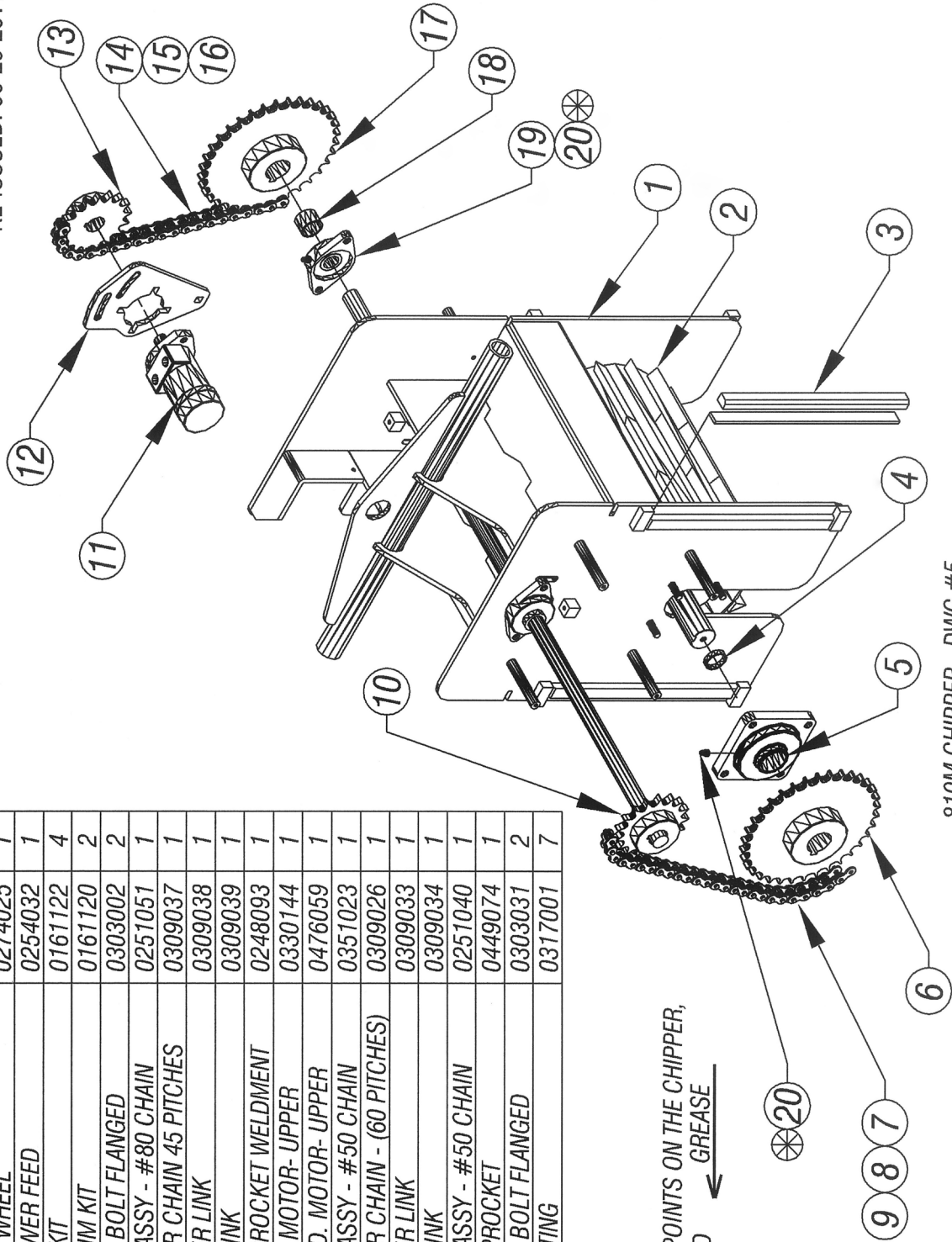


ITEM	ASSY DESCRIPTION	PART NO	QTY
1	HSG, IMP-LOWER & TOWFRAME	0228275	1
2	FENDER - LEFT	0216017	1
3	TRAILER LIGHT - LEFT FENDER	0315339	1
4	LIGHT KIT	0361006	1
5	LICENSE LIGHT / MOUNTG BRKT	0315276	1
6	AXLE, #11 TORFLEX -EZ-ELECTRIC	0302085	1
7	TIRE / WHEEL ASSY	0354030	2
8	TRAILER LIGHT - RIGHT FENDER	0315338	1
9	FENDER - RIGHT	0216016	1

810M CHIPPER - DWG #4

ISSUED: 05-26-2010
 RE-ISSUED: 06-29-2011

ITEM	DESCRIPTION	PART NO	QTY
1	YOKE, FEED WHEEL	0274025	1
2	WHEEL, POWER FEED	0254032	1
3	WEAR BAR KIT	0161122	4
4	SPACER/SHIM KIT	0161120	2
5	BEARING, 4 BOLT FLANGED	0303002	2
6	SPROCKET ASSY - #80 CHAIN	0251051	1
7	#80 ROLLER CHAIN 45 PITCHES	0309037	1
8	#80 MASTER LINK	0309038	1
9	#80 HALF LINK	0309039	1
10	SHAFT & SPROCKET WELDMENT	0248093	1
11	HYD. DRIVE MOTOR- UPPER	0330144	1
12	MOUNT, HYD. MOTOR- UPPER	0476059	1
13	SPROCKET ASSY - #50 CHAIN	0351023	1
14	#50 ROLLER CHAIN - (60 PITCHES)	0309026	1
15	#50 MASTER LINK	0309033	1
16	#50 HALF LINK	0309034	1
17	SPROCKET ASSY - #50 CHAIN	0251040	1
18	SPACER, SPROCKET	0449074	1
19	BEARING, 2 BOLT FLANGED	0303031	2
20	GREASE FITTING	0317001	7



810M CHIPPER - DWG #5

NOTE:
 ⊗ ALL GREASE POINTS ON THE CHIPPER,
 ARE IDENTIFIED ← GREASE

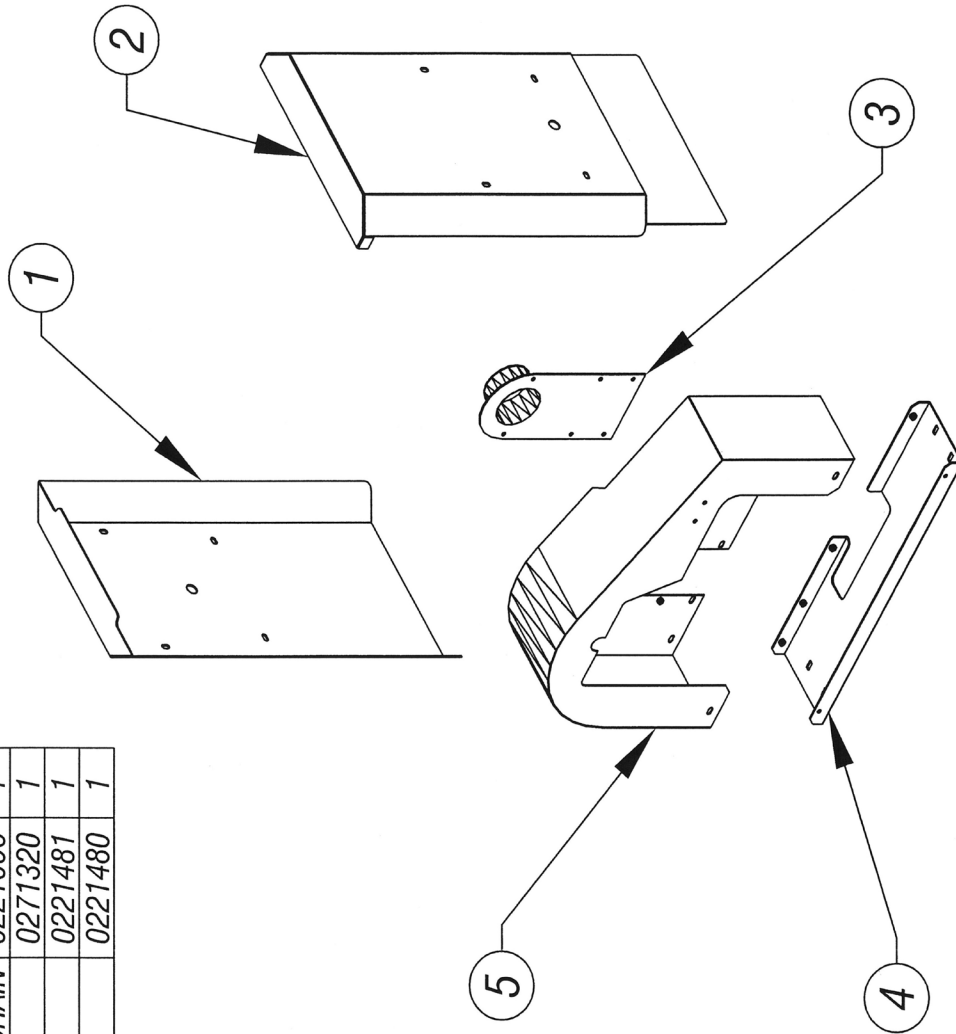
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ITEM	DESCRIPTION	PART NO	QTY
1	GUARD, IDLER FD WHEEL CHAIN	0221097	1
2	GUARD, DR. FEED WHEEL CHAIN	0221096	1
3	COVER, IMPELLER SHAFT	0271320	1
4	GUARD, BELT - BOTTOM	0221481	1
5	GUARD, BELT	0221480	1

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

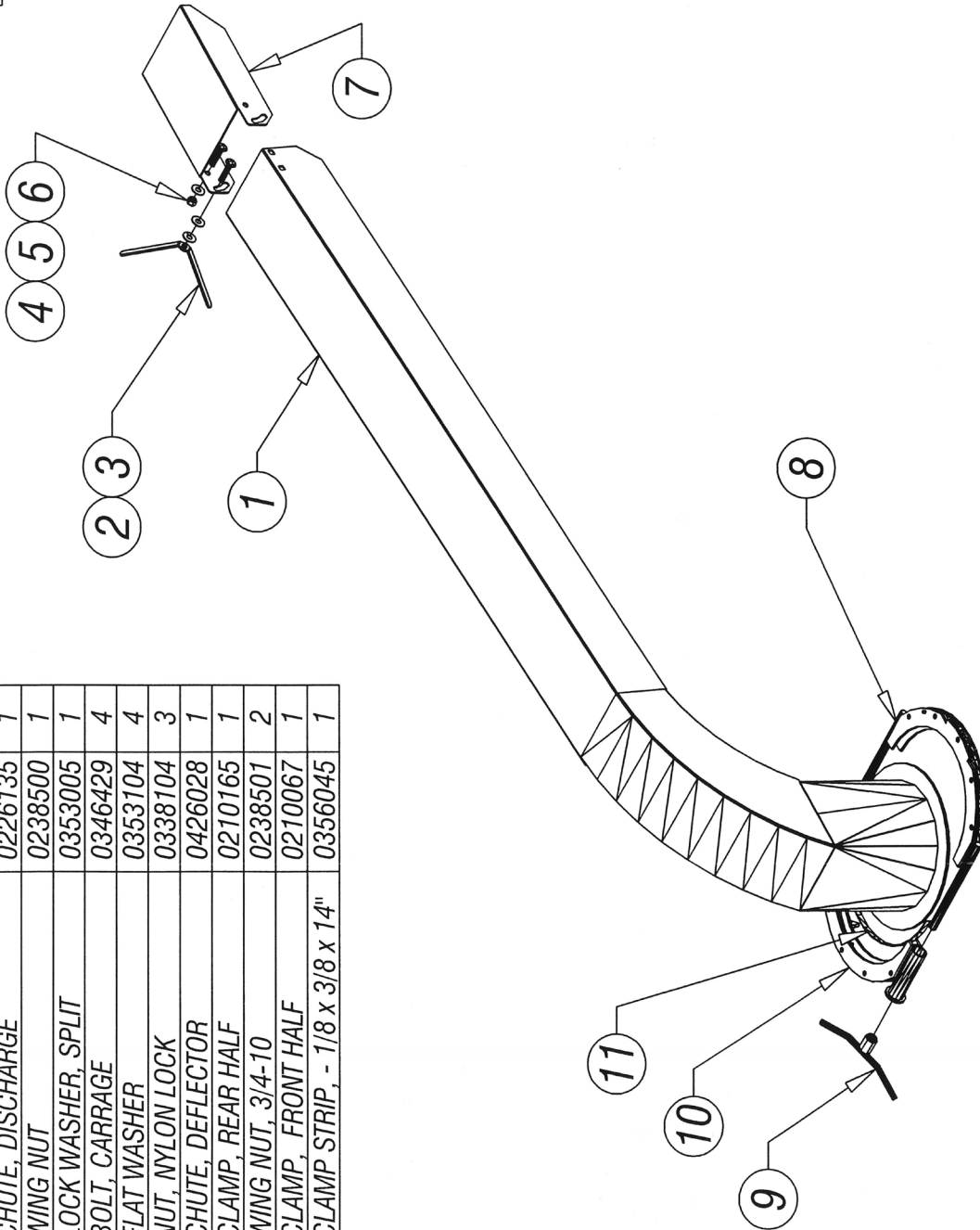


810M CHIPPER - DWG #6

REV	DESCRIPTION	REVISIONS	DATE

ISSUED: 08-04-2009

ITEM	DESCRIPTION	PART NO	QTY
1	CHUTE, DISCHARGE	0226135	1
2	WING NUT	0238500	1
3	LOCK WASHER, SPLIT	0353005	1
4	BOLT, CARRAGE	0346429	4
5	FLAT WASHER	0353104	4
6	NUT, NYLON LOCK	0338104	3
7	CHUTE, DEFLECTOR	0426028	1
8	CLAMP, REAR HALF	0210165	1
9	WING NUT, 3/4-10	0238501	2
10	CLAMP, FRONT HALF	0210067	1
11	CLAMP STRIP, - 1/8 x 3/8 x 14"	0356045	1

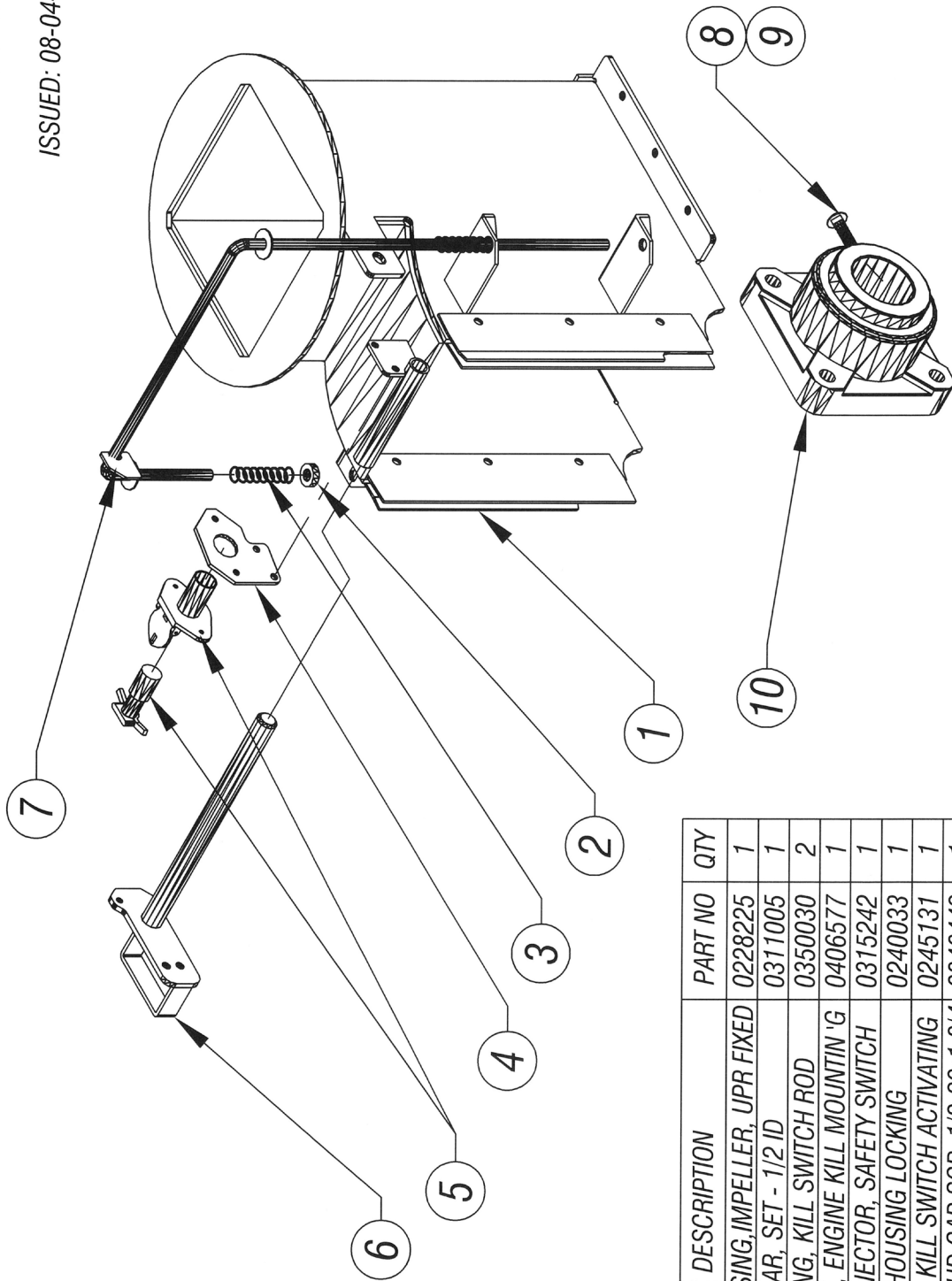


810M CHIPPER - DWG #7

http://www.sharepoint.com/personal/garrettkaelin_foleyco_com/Documents/Desktop/Manuals/Workin

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

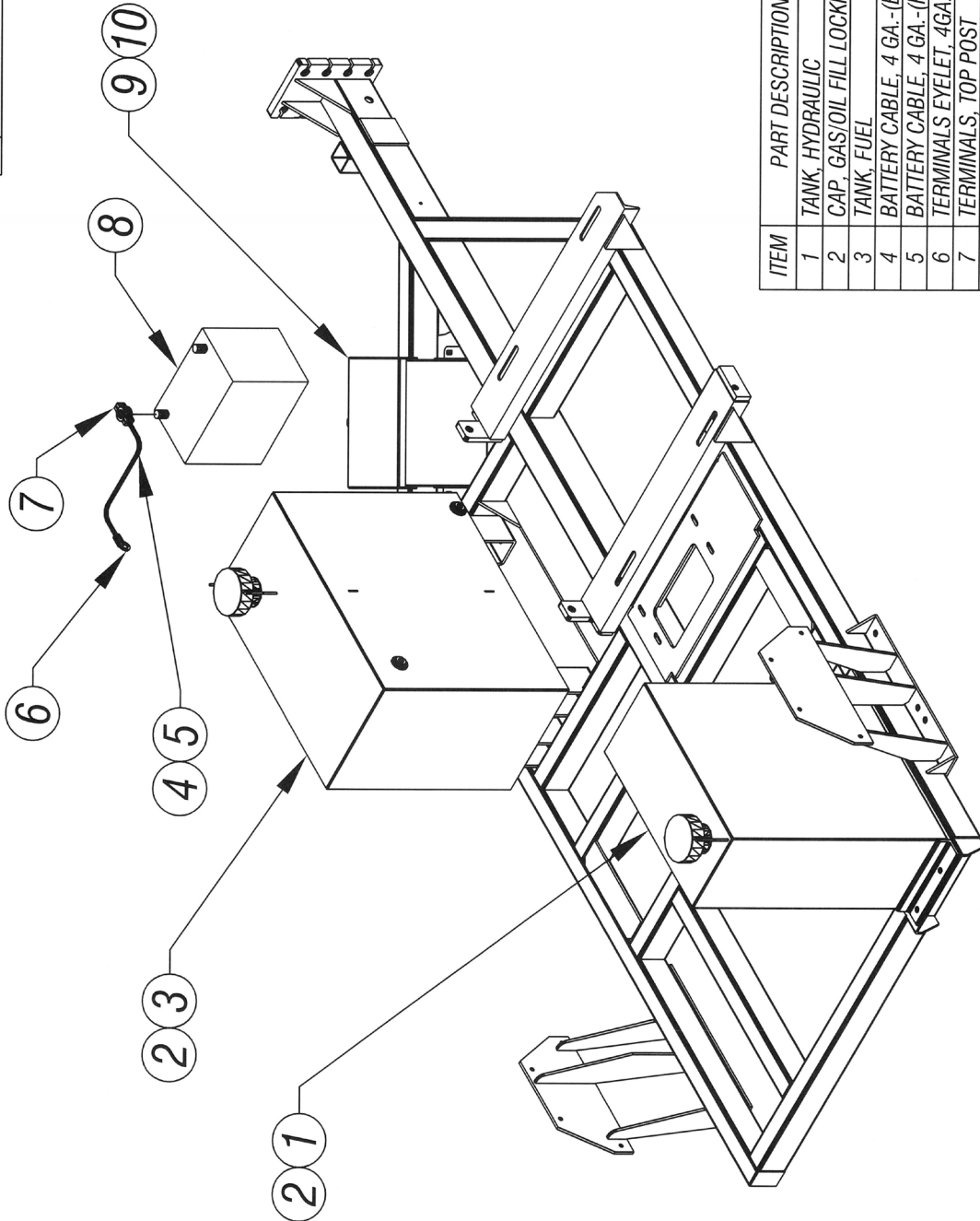


810M CHIPPER - DWG #8

ITEM	DESCRIPTION	PART NO	QTY
1	HOUSING, IMPELLER, UPR FIXED	0228225	1
2	COLLAR, SET - 1/2 ID	0311005	1
3	SPRING, KILL SWITCH ROD	0350030	2
4	BRKT, ENGINE KILL MOUNTIN'G	0406577	1
5	CONNECTOR, SAFETY SWITCH	0315242	1
6	PIN, HOUSING LOCKING	0240033	1
7	ROD, KILL SWITCH ACTIVATING	0245131	1
8	SOC HD CAP SCR, 1/2-20x1 3/4	0346442	1
9	JAM NUT, 1/2 - 20	0338058	1
10	BEARING, 4-BOLT FLANGED	0303035	2

ISSUED: 08-04-2009

REV	DESCRIPTION	DATE

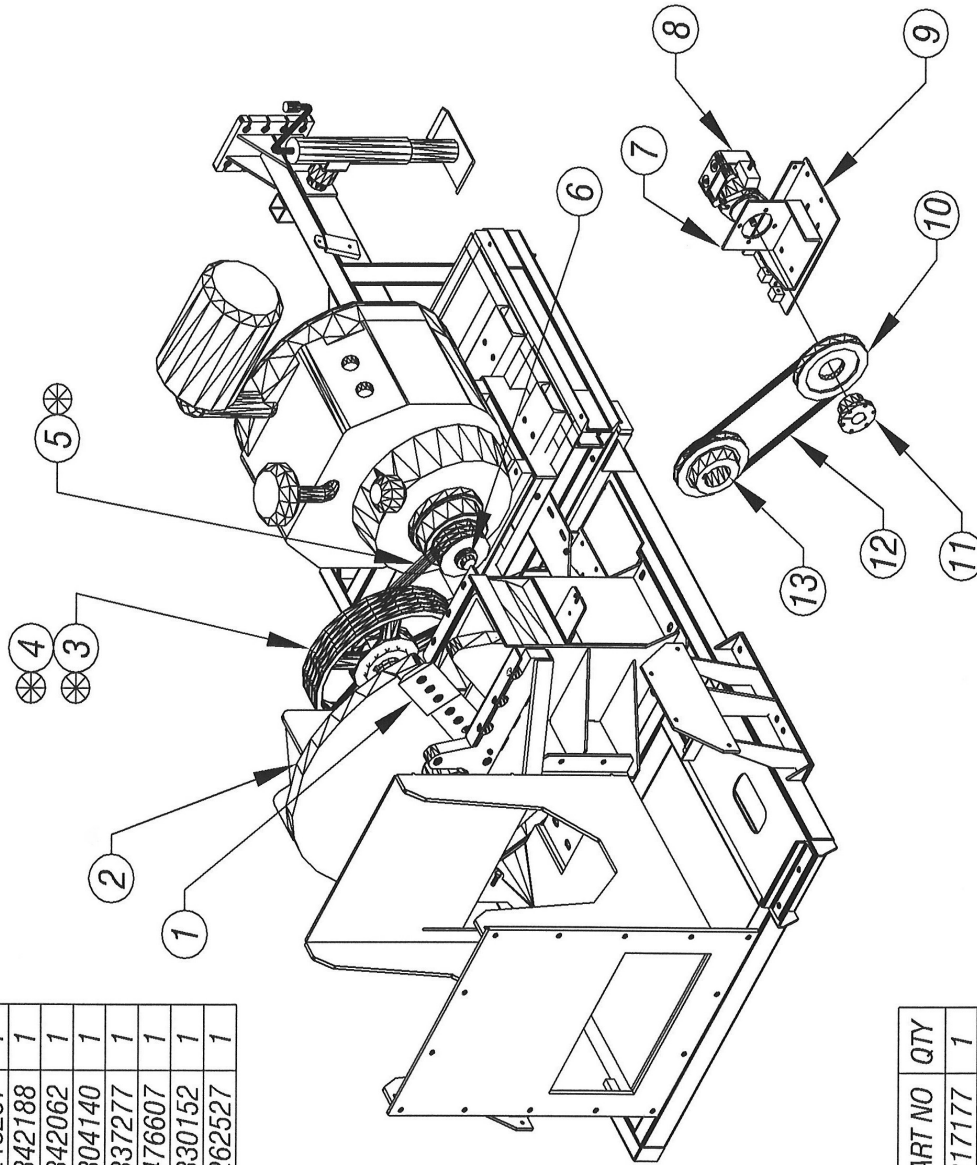


ITEM	PART DESCRIPTION	PART#	QTY
1	TANK, HYDRAULIC	0252095	1
2	CAP, GAS/OIL FILL LOCKING	0271024	2
3	TANK, FUEL	0252103	1
4	BATTERY CABLE, 4 GA.-(BLACK)	STOCK	1
5	BATTERY CABLE, 4 GA.-(RED)	STOCK	1
6	TERMINALS EYELET, 4GA. WIRE	0315059	2
7	TERMINALS, TOP POST	0315058	2
8	BATTERY, 12 VOLTS	0315060	1
9	BATTERY BOX	0280001	1
10	COVER, BATTERY BOX	0271020	1

810M CHIPPER - DWG #9

ISSUED: 08-04-2009
 RE-ISSUED: 07-05-2011

ITEM	DESCRIPTION	PART NO	QTY
1	BLADE, CHIPPER IMPELLER	0305047	4
2	SHAFT / IMPELLER	0248257	1
3	SHEAVE, IMPELLER SIDE	0342188	1
4	SF BUSHING, (2.750 ID)	0342062	1
5	V-BELT - IMPELLER TO ENGINE	0304140	1
6	CLUTCH, CENTRIFUGAL & PULLEY	0337277	1
7	MOUNT, HYDRAULIC PUMP	0476607	1
8	PUMP, HYDRAULIC	0330152	1
9	PLATE, HYD PUMP SLIDE	0262527	1



NOTE:
 ⊗ FOR WISCONSIN AND
 KUBOTA ENGINES

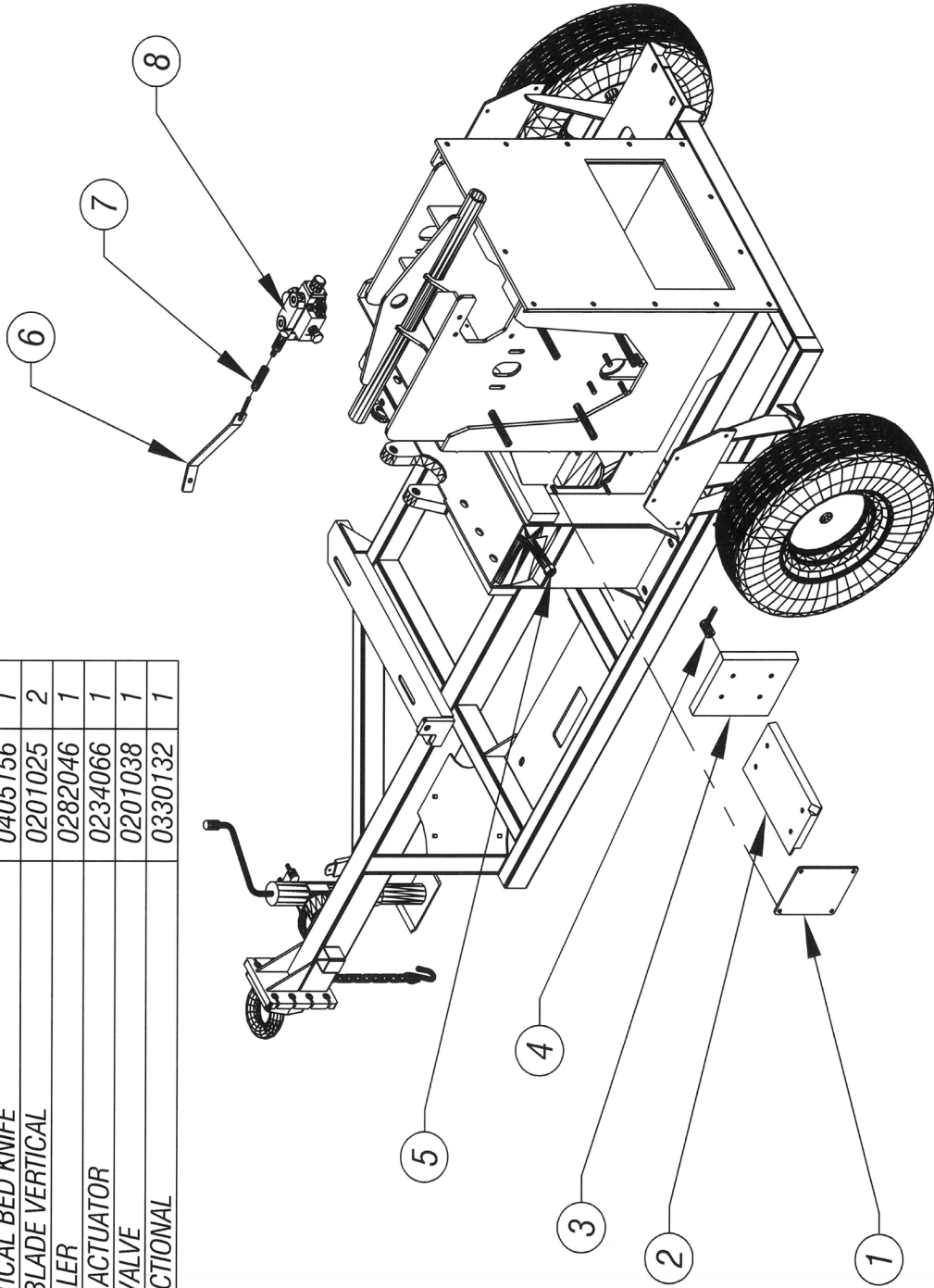
ITEM	DESCRIPTION	PART NO	QTY
10	SHEAVE, HYDRAULIC PUMP	0317177	1
11	SDS BUCHING (HYD PUMP)	0342175	1
12	V-BELT - IMPELLER TO PUMP	0304011	1
13	SHEAVE, SHAFT / IMPELLER	0242242	1

810M CHIPPER ASSY - DWG #10

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

ITEM	DESCRIPTION	PART NO	QTY
1	DOOR, BED KNIFE ACCESS	0260088	1
2	BLADE, HORIZONTAL BED KNIFE	0405157	1
3	BLADE, VERTICAL BED KNIFE	0405156	1
4	ADJUSTER, BLADE VERTICAL	0201025	2
5	STOP, IMPELLER	0282046	1
6	LINK, VALVE ACTUATOR	0234066	1
7	ADJUSTER, VALVE	0201038	1
8	VALVE, DIRECTIONAL	0330132	1

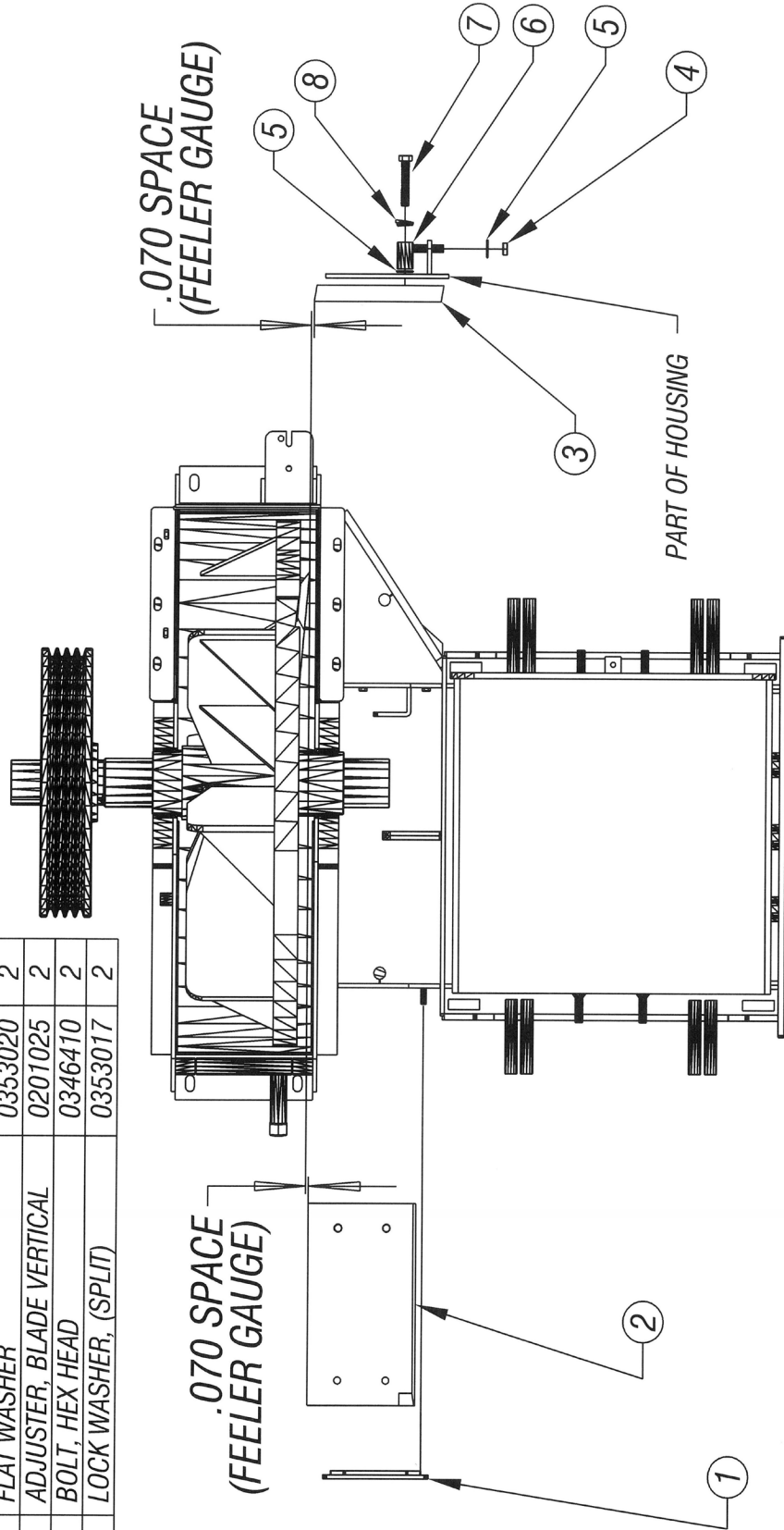


810M CHIPPER ASSY - DWG #11

REV.	DESCRIPTION	DATE

ISSUED: 05-13-2010

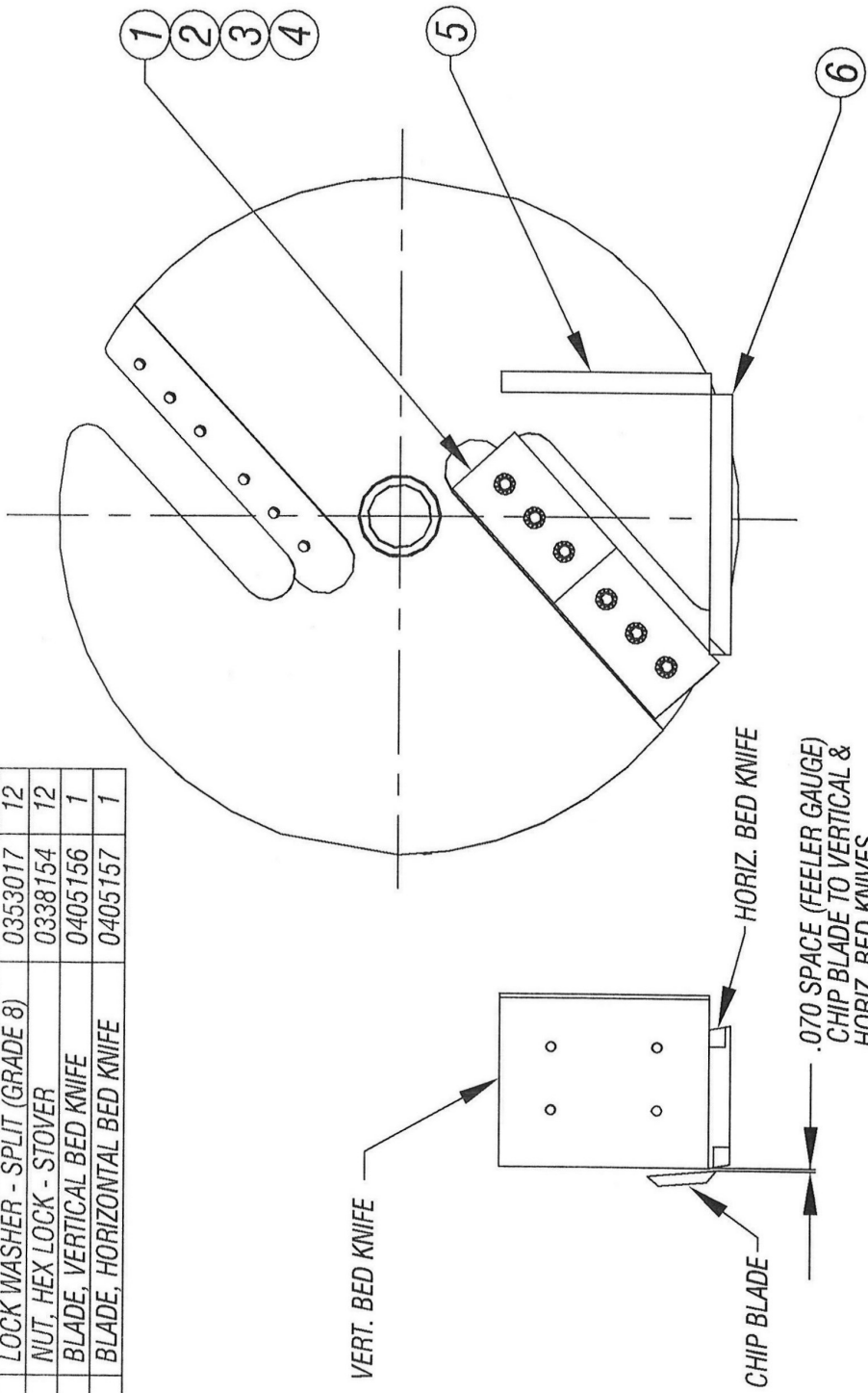
ITEM	DESCRIPTION	PART NO	QTY
1	DOOR, BED KNIFE ACCESS	0260088	1
2	BLADE, HORIZONTAL BED KNIFE	0405157	1
3	BLADE, VERTICAL BED KNIFE	0405156	1
4	HEX HEAD NYLON LOCK NUT	0338104	1
5	FLAT WASHER	0353020	2
6	ADJUSTER, BLADE VERTICAL	0201025	2
7	BOLT, HEX HEAD	0346410	2
8	LOCK WASHER, (SPLIT)	0353017	2



BED KNIFE ADJUSTMENT
810M CHIPPER ASSY - DWG #26

ISSUED: 05-24-2010
 ISSUED: 01-11-2013

ITEM	DESCRIPTION	PART NO	QTY
1	BLADE, CHIPPER IMPELLER	0305047	4
2	FLAT HEAD SOC CAP SCREW	0346491	12
3	LOCK WASHER - SPLIT (GRADE 8)	0353017	12
4	NUT, HEX LOCK - STOVER	0338154	12
5	BLADE, VERTICAL BED KNIFE	0405156	1
6	BLADE, HORIZONTAL BED KNIFE	0405157	1

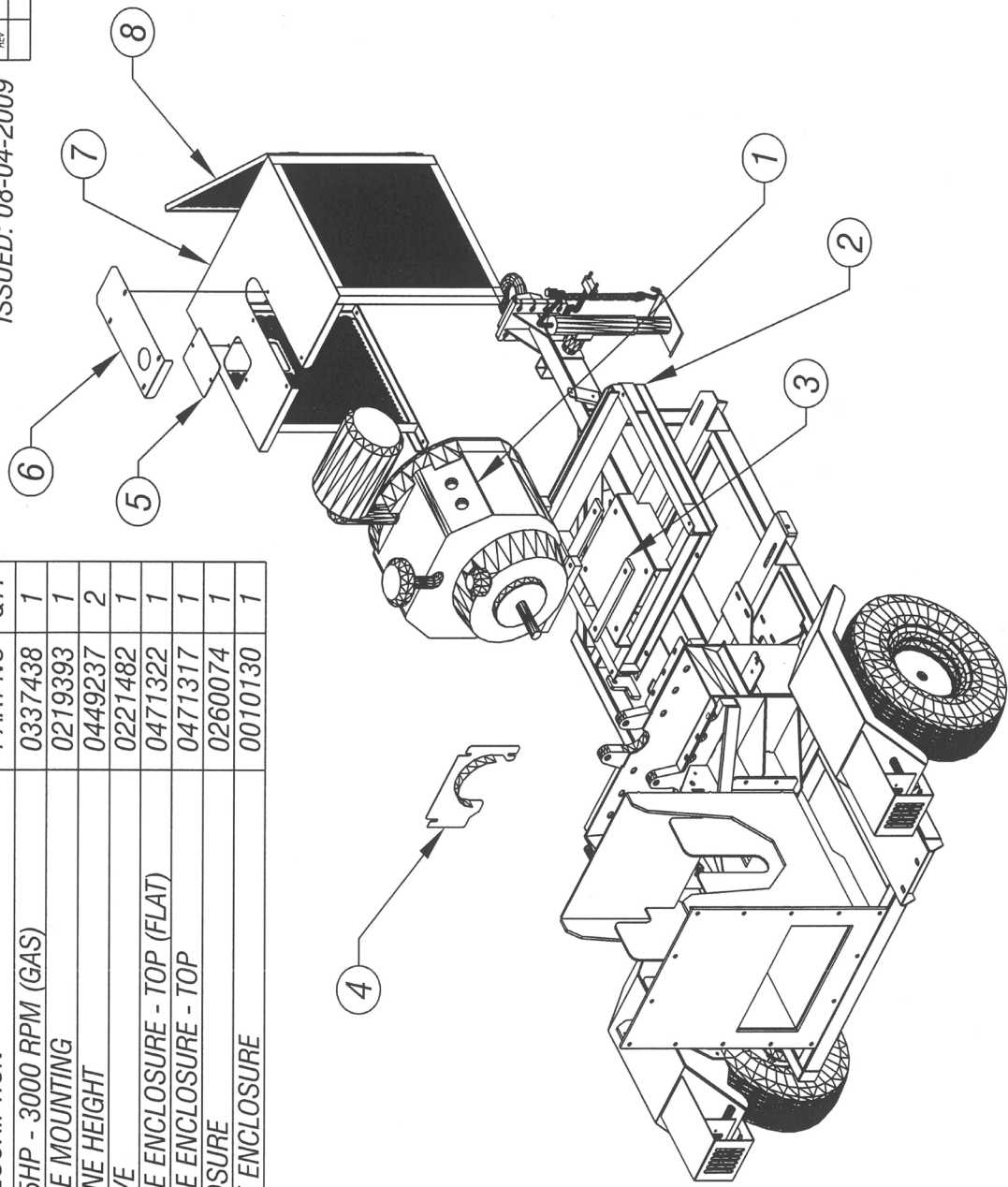


BED KNIFE ADJUSTMENT
 810M CHIPPER ASSY - DWG #27

REV	DESCRIPTION	REVISIONS	DATE

ISSUED: 08-04-2009

ITEM	DESCRIPTION	PART NO	QTY
1	WISCONSIN 35HP - 3000 RPM (GAS)	0337438	1
2	FRAME, ENGINE MOUNTING	0219393	1
3	SPACER, ENGINE HEIGHT	0449237	2
4	GUARD, SHEAVE	0221482	1
5	COVER, ENGINE ENCLOSURE - TOP (FLAT)	0471322	1
6	COVER, ENGINE ENCLOSURE - TOP	0471317	1
7	ENGINE ENCLOSURE	0260074	1
8	DOOR, ENGINE ENCLOSURE	0010130	1

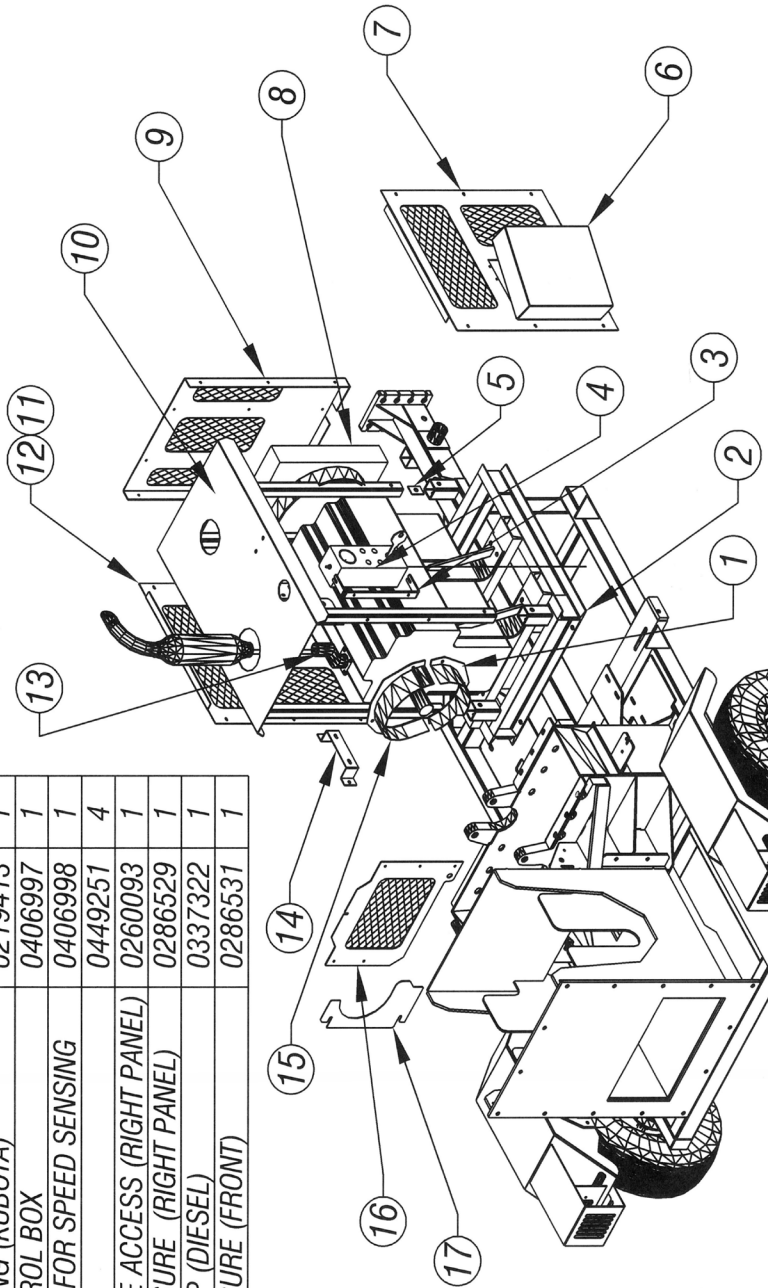


ENGINE OPTION - WISCONSIN 35HP (GAS)
810M CHIPPER - DWG #12

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

ITEM	DESCRIPTION	PART NO	QTY
1	FLANGE, ENGINE BELL HOUSING (BOTTOM HALF)	0266120	1
2	FRAME, ENGINE MOUNTING (KUBOTA)	0219413	1
3	BRACKET, ENGINE CONTROL BOX	0406997	1
4	BRACKET, TACHOMETER FOR SPEED SENSING	0406998	1
5	SPACER, ENGINE COVER	0449251	4
6	DOOR - ENG ENCLOSURE ACCESS (RIGHT PANEL)	0260093	1
7	PANEL - ENGINE ENCLOSURE (RIGHT PANEL)	0286529	1
8	ENGINE, KUBOTA 35.5 HP (DIESEL)	0337322	1
9	PANEL - ENGINE ENCLOSURE (FRONT)	0286531	1



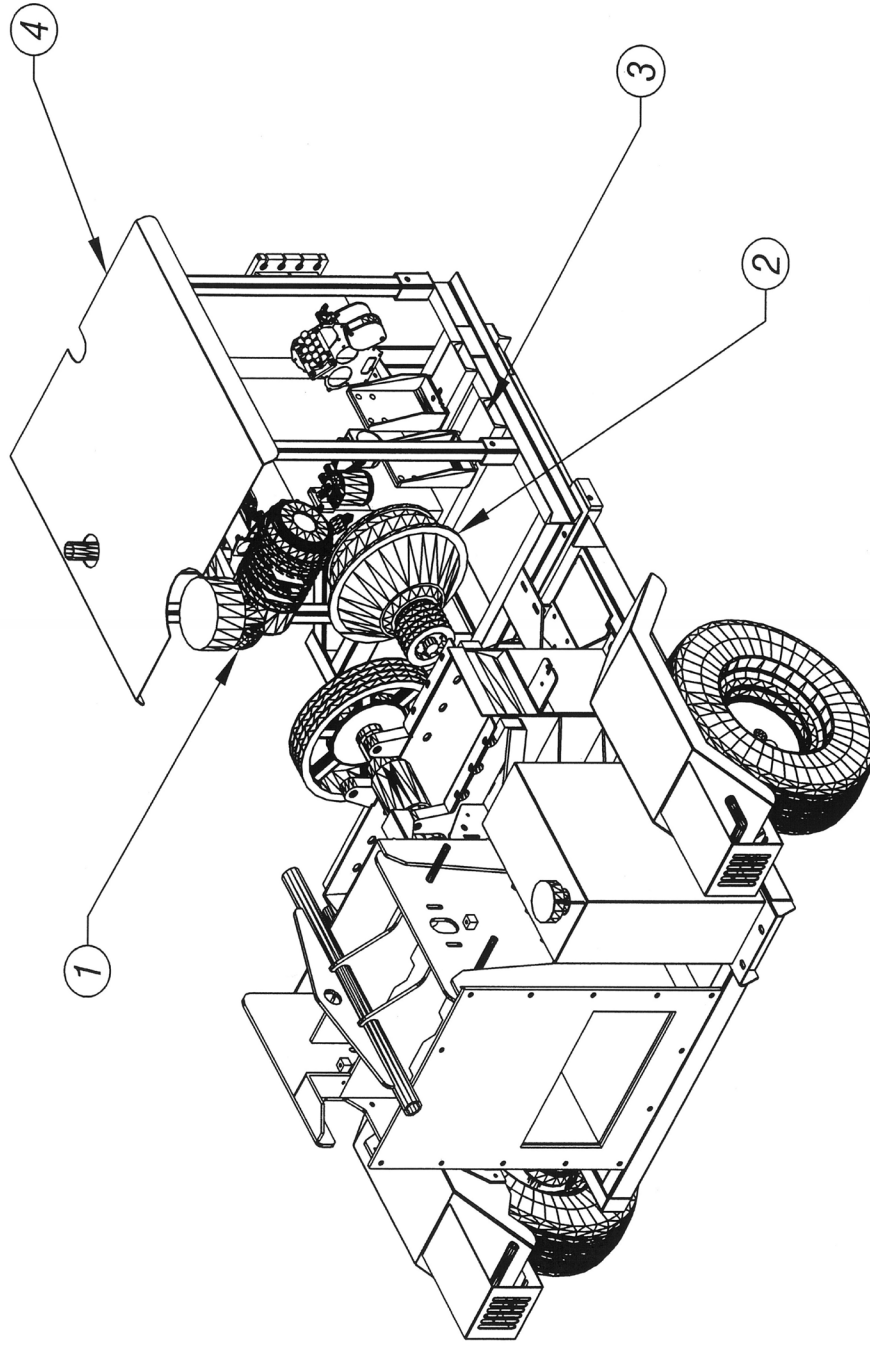
ITEM	DESCRIPTION	PART NO	QTY
10	COVER - RAIN, ENGINE	0271266	1
11	PANEL - ENGINE ENCLOSURE (LEFT PANEL)	0286530	1
12	DOOR-ENGINE ENCLOSURE ACCESS,(LEFT PANEL)	0260094	1
13	EXHAUST PIPE ADAPTER	0237372	1
14	BRACKET, EXHAUST MOUNT	0471322	1
15	FLANGE, ENGINE BELL HOUSING (TOP HALF)	0266119	1
16	PANEL - REAR, ENGINE ENCLOSURE	0286532	1
17	GUARD. SHEAVE	0421503	1

ENGINE OPTION - KUBOTA 35.5 HP (DIESEL)
810M CHIPPER - DWG #13

ITEM	DESCRIPTION	PART NO	QTY
1	ENGINE, CATERPILLAR 50 HP (DIESEL)	0337532	1
2	CLUTCH, BELL HOUSING	0337535	1
3	FRAME, ENGINE MOUNTING	0219460	1
4	COVER, ENGINE - RAIN	0271410	1

REV	DESCRIPTION	DATE

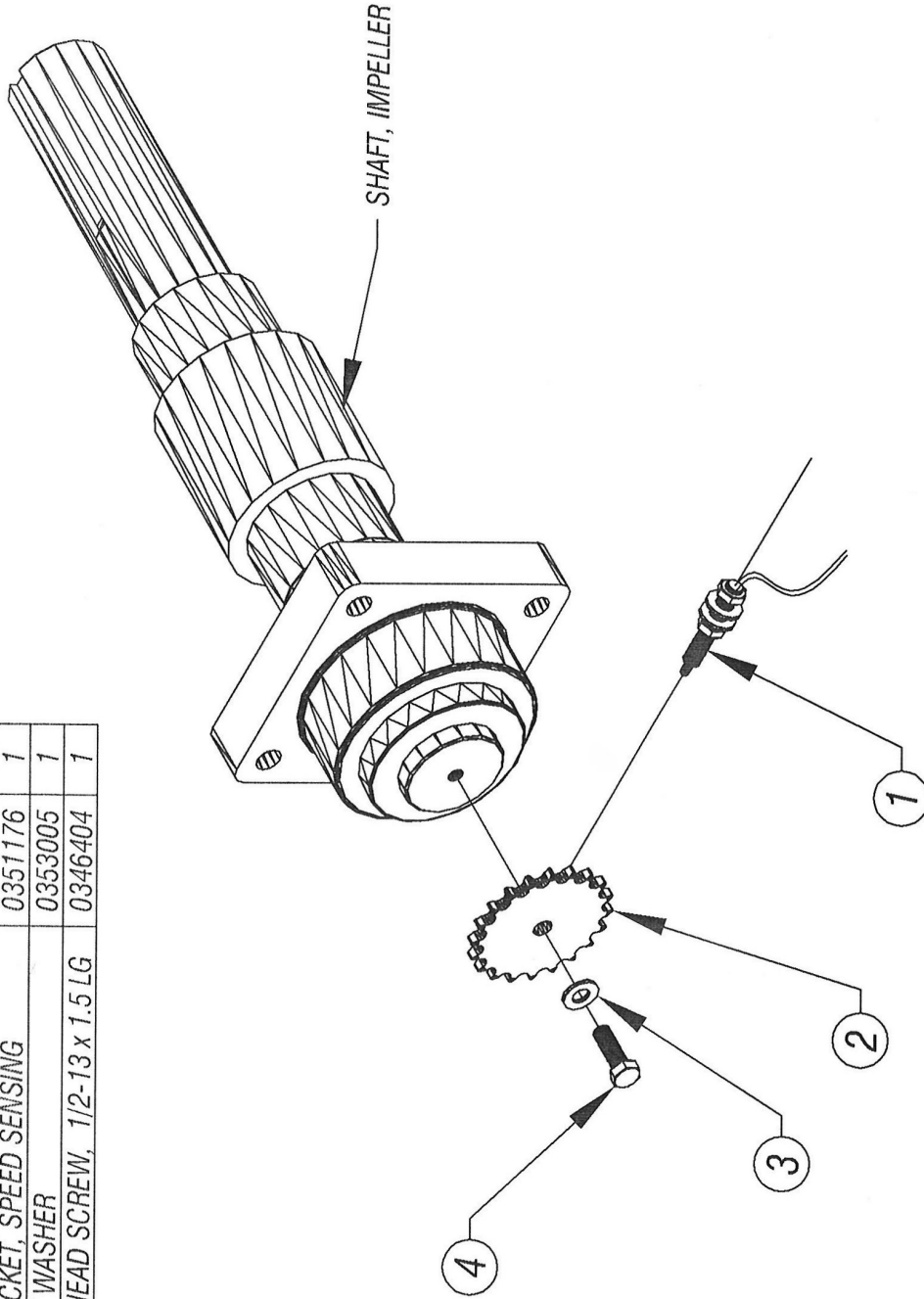
ISSUED: 08-04-2009



ENGINE OPTION - CATERPILLAR 50 HP (DIESEL)
810M CHIPPER - DWG #14

ISSUED: 08-04-2009
 ISSUED: 01-11-2013

ITEM	DESCRIPTION	PART NO	QTY
1	MAGNETIC PICK-UP	0315128	1
2	SPROCKET, SPEED SENSING	0351176	1
3	LOCK WASHER	0353005	1
4	HEX HEAD SCREW, 1/2-13 x 1.5 LG	0346404	1

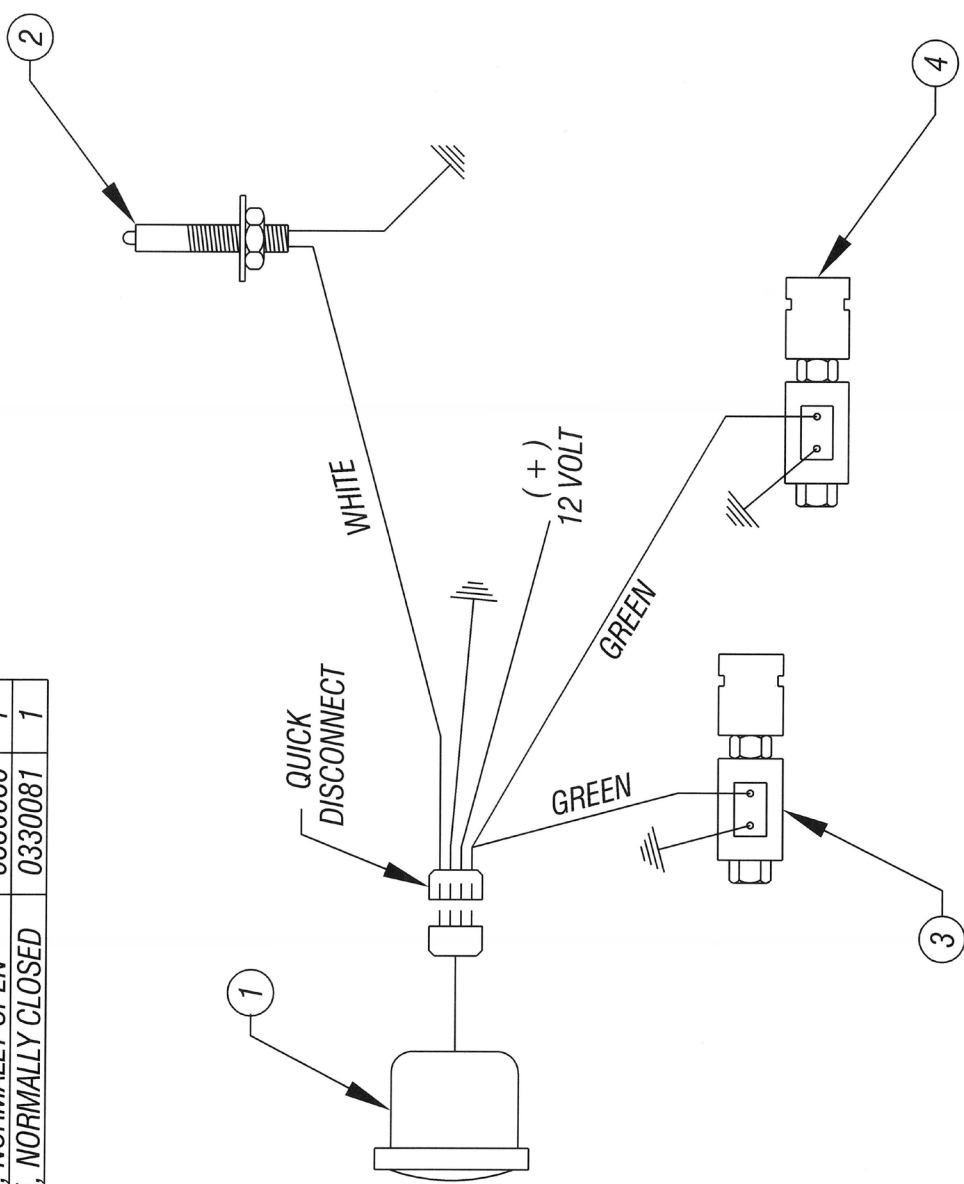


SPEED SENSING OPTION
 810M CHIPPER - DWG #15

ITEM	DESCRIPTION	PART NO	QTY
1	TACHOMETER WITH WIRING HARNESS	0315250	1
2	MAGNETIC PICK-UP	0315128	1
3	SOLENOID VALVE, NORMALLY OPEN	0330080	1
4	SOLENOID VALVE, NORMALLY CLOSED	0330081	1

REV	DESCRIPTION	DATE

ISSUED: 06-08-2010



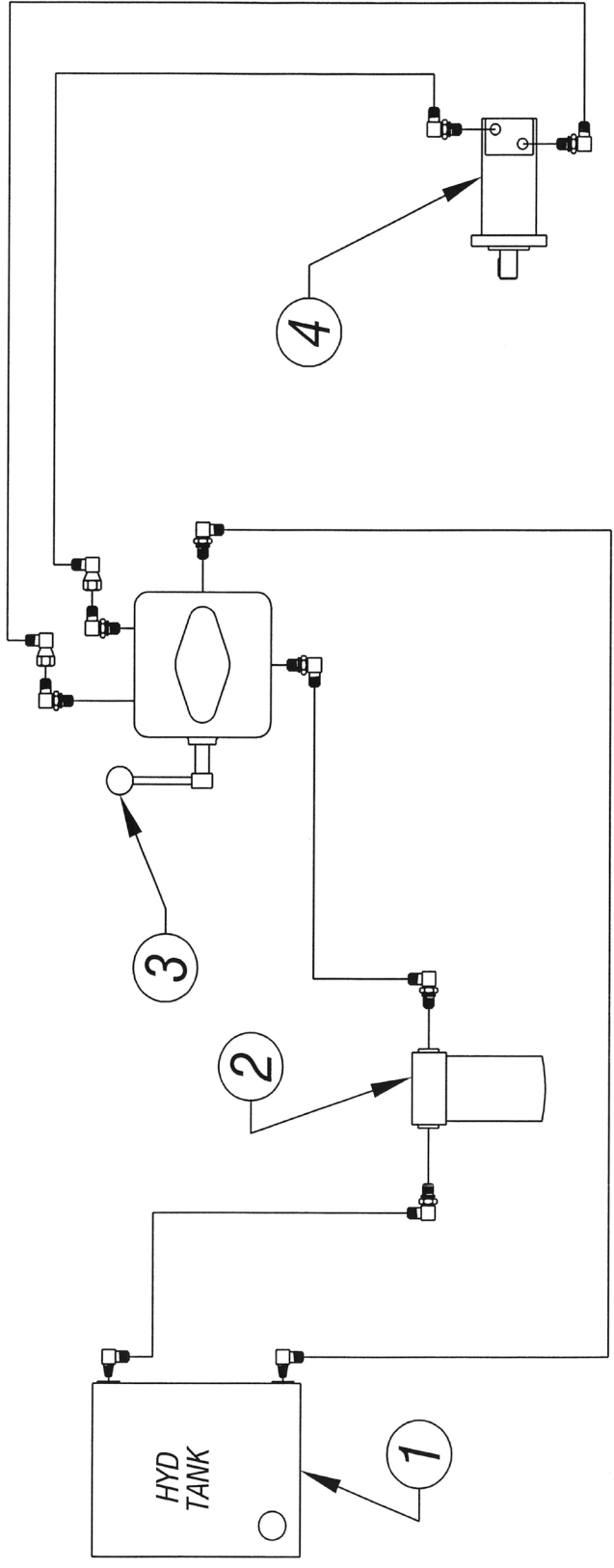
WIRING DIAGRAM FOR SPEED SENSING OPTION
 (WITHOUT AUTO REVERSE)
 810M CHIPPER - DWG #16

ITEM	DESCRIPTION	PART NO	QTY
1	TANK, HYDRAULIC OIL	0252012	1
2	FILTER & HOUSING	0318022	1
3	PUMP, HYDRAULIC	0330021	1
4	DRIVE MOTOR, HYDRAULIC	0330142	1

ISSUED: 08-04-2009

REV	DESCRIPTION	DATE

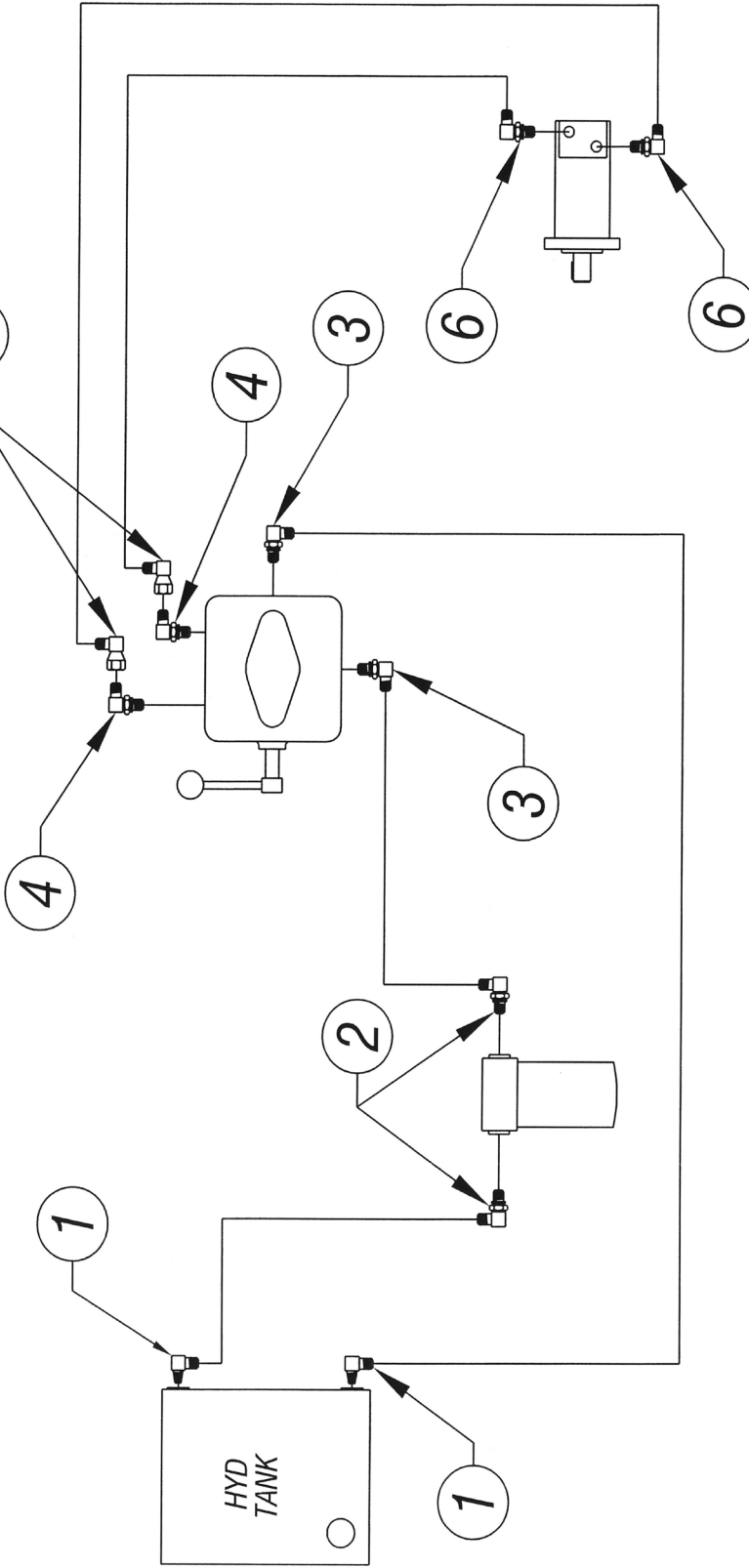
HYDRAULIC COMPONENTS



HYDRAULIC HOOK-UP, BASIC CHIPPER
810M CHIPPER - DWG #17

ITEM	DESCRIPTION	PART NO	QTY
1	90° ELBOW, 1/2 FLARE x 1/2 MPT	0317052	2
2	90° ELBOW, 1/2 FLARE x 3/4 O-RING	0317079	2
3	90° ELBOW, 1/2 FLARE x 3/8 O-RING	0317064	2
4	90° ELBOW, 1/2 FLARE x 1/2 O-RING	0317030	2
5	90° SWIVEL ELBOW, 1/2 FL x 1/2 O-RING	0317055	2
6	90° ELBOW, 1/2 FLARE x 5/8 O-RING	0317027	2

HYDRAULIC FITTINGS



HYDRAULIC HOOK-UP, BASIC CHIPPER
810M CHIPPER - DWG #18

REV.	DESCRIPTION	DATE

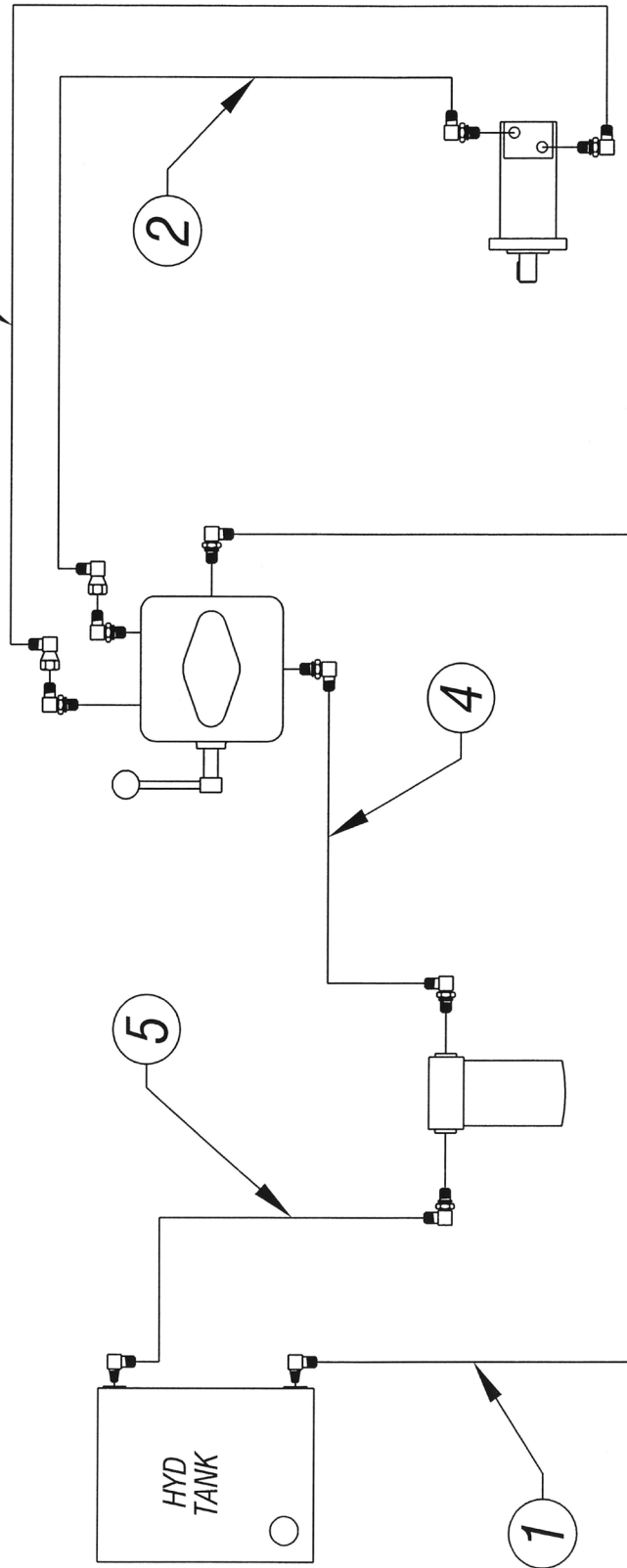
ISSUED: 08-04-2009

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

HYDRAULIC HOSES

ITEM	DESCRIPTION	PART NO	QTY
1	HOSE, TANK TO PUMP, 1/2 ID x 38" LG	0327159	1
2	HOSE, PUMP TO MOTOR, 1/2 ID x 86" LG	0327246	1
3	HOSE, MOTOR TO PUMP, 1/2 ID x 88" LG	0327245	1
4	HOSE, PUMP TO FILTER, 1/2 ID x 21" LG	0327209	1
5	HOSE, FILTER TO TANK, 1/2 ID x 25" LG	0327160	1



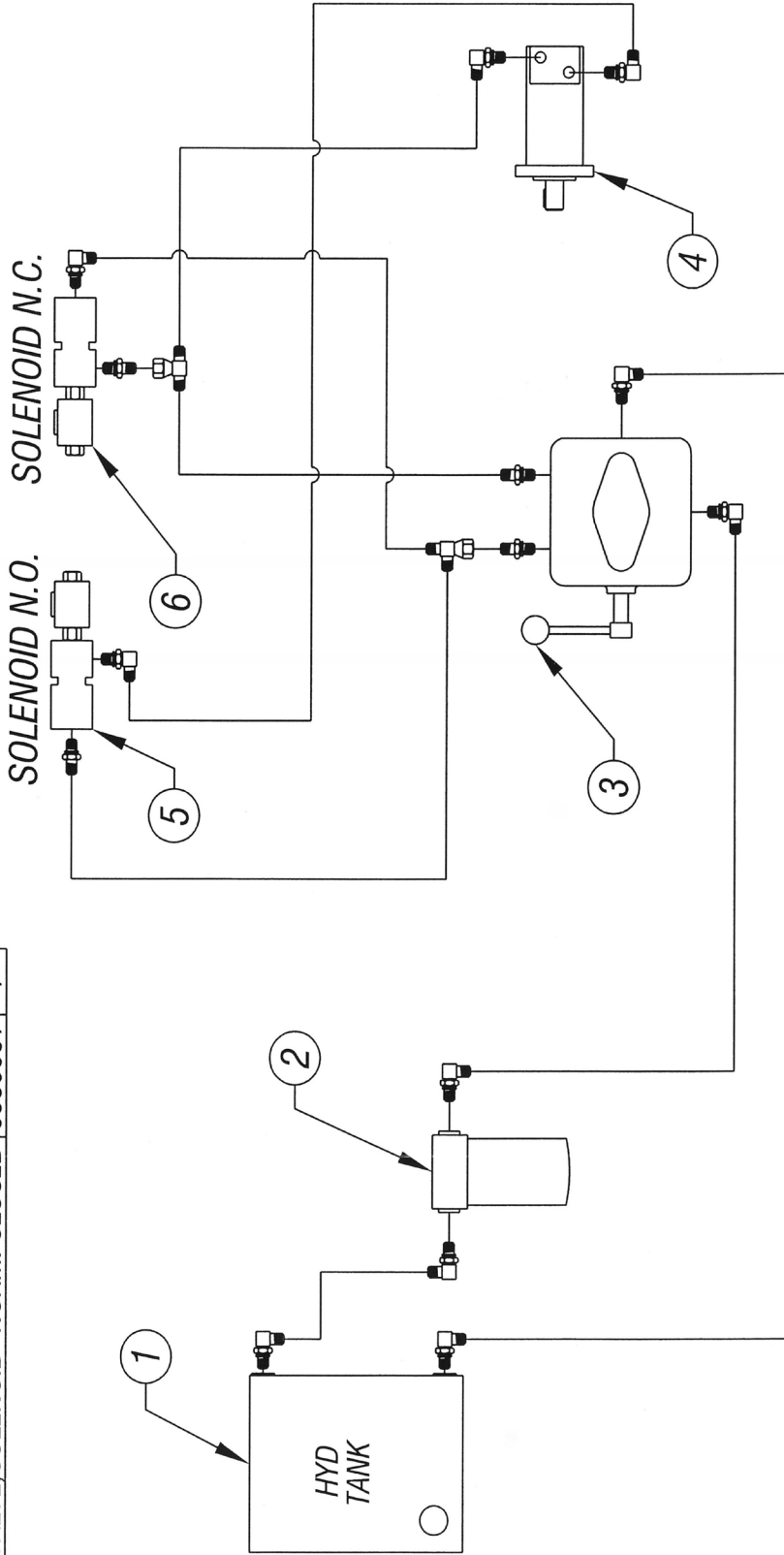
HYDRAULIC HOOK-UP, BASIC CHIPPER
810M CHIPPER - DWG #19

REV	DESCRIPTION	DATE

ISSUED:08-04-2009

HYDRAULIC COMPONENTS

ITEM	DESCRIPTION	PART NO	QTY
1	TANK, HYDRAULIC OIL	0252012	1
2	FILTER & HOUSING	0318022	1
3	PUMP, HYDRAULIC	0330021	1
4	DRIVE MOTOR, HYDRAULIC	0330142	1
5	VALVE, SOLENOID- NORM. OPEN	0330106	1
6	VALVE, SOLENOID- NORM. CLOSED	0330081	1



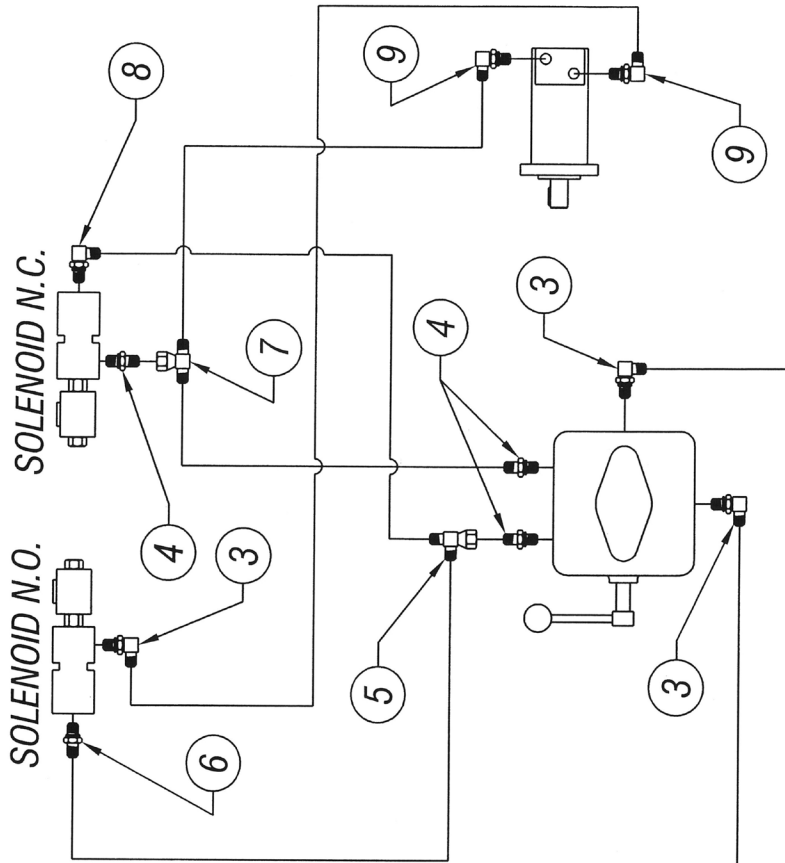
HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING
810M CHIPPER - DWG #20

REV#	DESCRIPTION	DATE

ISSUED: 08-04-2009

HYDRAULIC FITTINGS

ITEM	DESCRIPTION	PART NO	QTY
1	90° ELBOW, 1/2 FLARE x 1/2 MPT	0317052	2
2	90° ELBOW, 1/2 FLARE x 3/4 O-RING	0317079	2
3	90° ELBOW, 1/2 FLARE x 3/8 O-RING	0317064	3
4	CONNECTOR, 1/2 FLARE x 3/8 O-RING	0317066	2
5	SWIVEL RUN TEE, 1/2 FLAREx1/2 SWIV.	0317118	1
6	CONNECTOR, 1/2 FLARE x 3/8 O-RING	0317066	1
7	SWIVEL TEE, 1/2 FLRx1/2FLRx1/2 SWIV.	0317171	1
8	90° ELBOW, 1/2 FLARE x 1/2 O-RING	0317007	1
9	90° ELBOW, 1/2 FLARE x 5/8 O-RING	0317008	2



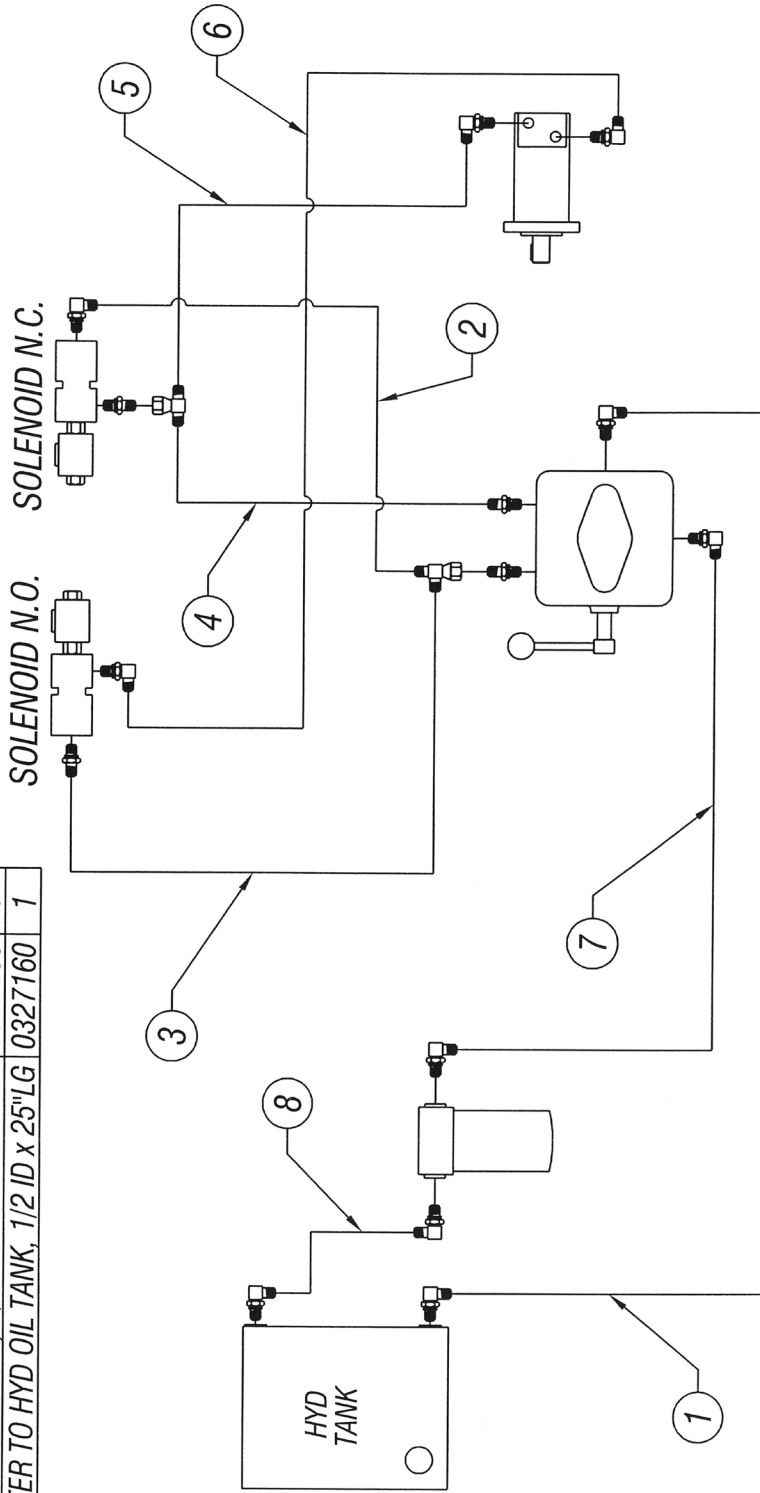
HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING
810M CHIPPER - DWG #21

REV.	DESCRIPTION	DATE

ISSUED: 08-04-2009

HYDRAULIC HOSES

ITEM	DESCRIPTION	PART NO	QTY
1	OIL TANK TO PUMP, 1/2 ID x 38" LONG	0327159	1
2	PUMP TEE TO SOL.N/C, 1/2 IDx17"LONG	0327173	1
3	PUMP TEE TO SOL.N/O, 1/2 ID x 13.5 LG	0327139	1
4	PUMP TO TEE SOL.N/C, 1/2 ID x 14.5 LG	0327161	1
5	MOTOR TO TEE SOL.N/C, 1/2 ID x 81"LG	0327247	1
6	MOTOR TO SOL.N/O, 1/2 ID x 79" LONG	0327343	1
7	PUMP TO FILTER, 1/2 ID x 21" LONG	0327209	1
8	FILTER TO HYD OIL TANK, 1/2 ID x 25" LG	0327160	1



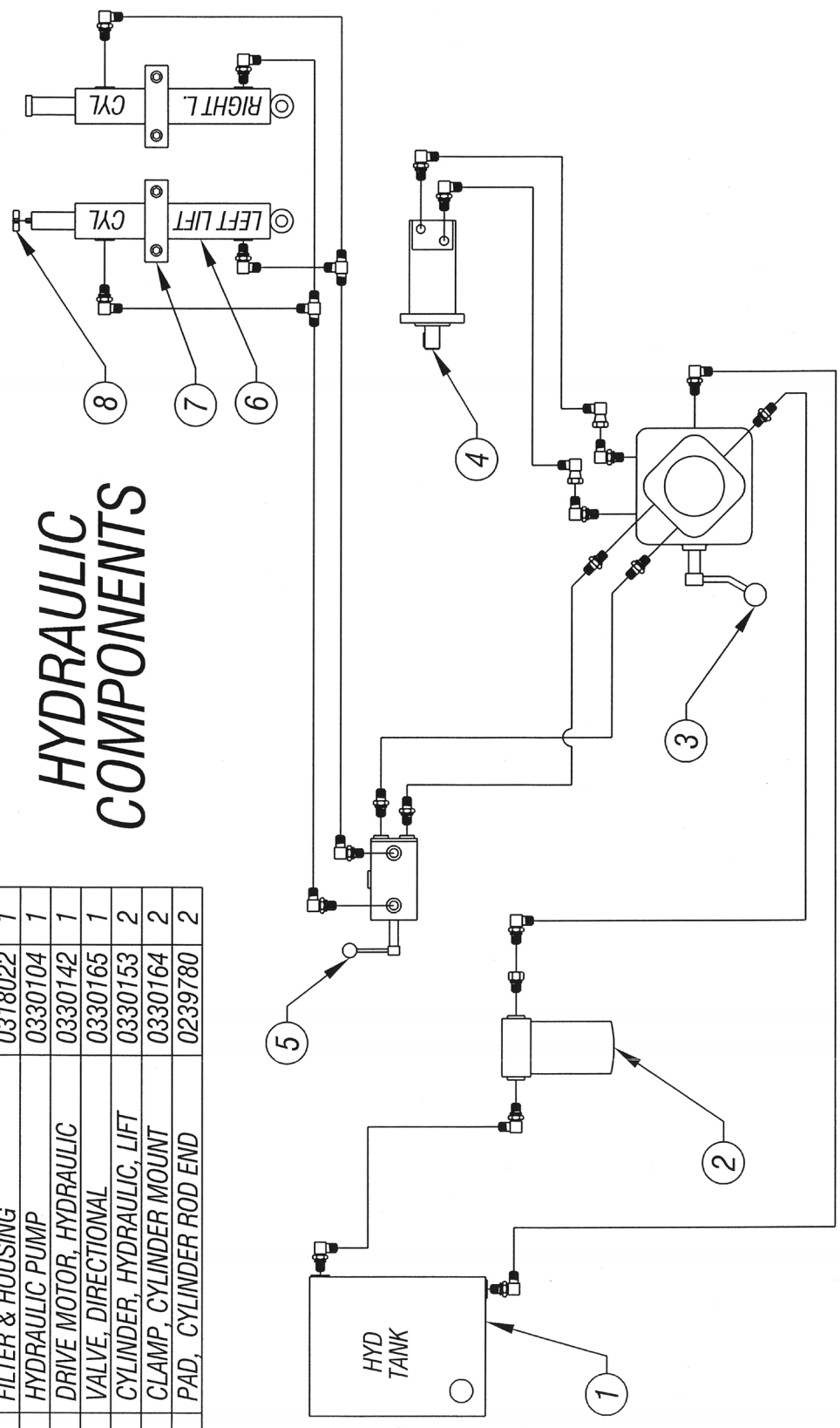
HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING
810M CHIPPER - DWG #22

ITEM	DESCRIPTION	PART NO	QTY
1	TANK, HYDRAULIC OIL	0252012	1
2	FILTER & HOUSING	0318022	1
3	HYDRAULIC PUMP	0330104	1
4	DRIVE MOTOR, HYDRAULIC	0330142	1
5	VALVE, DIRECTIONAL	0330165	1
6	CYLINDER, HYDRAULIC, LIFT	0330153	2
7	CLAMP, CYLINDER MOUNT	0330164	2
8	PAD, CYLINDER ROD END	0239780	2

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

HYDRAULIC COMPONENTS



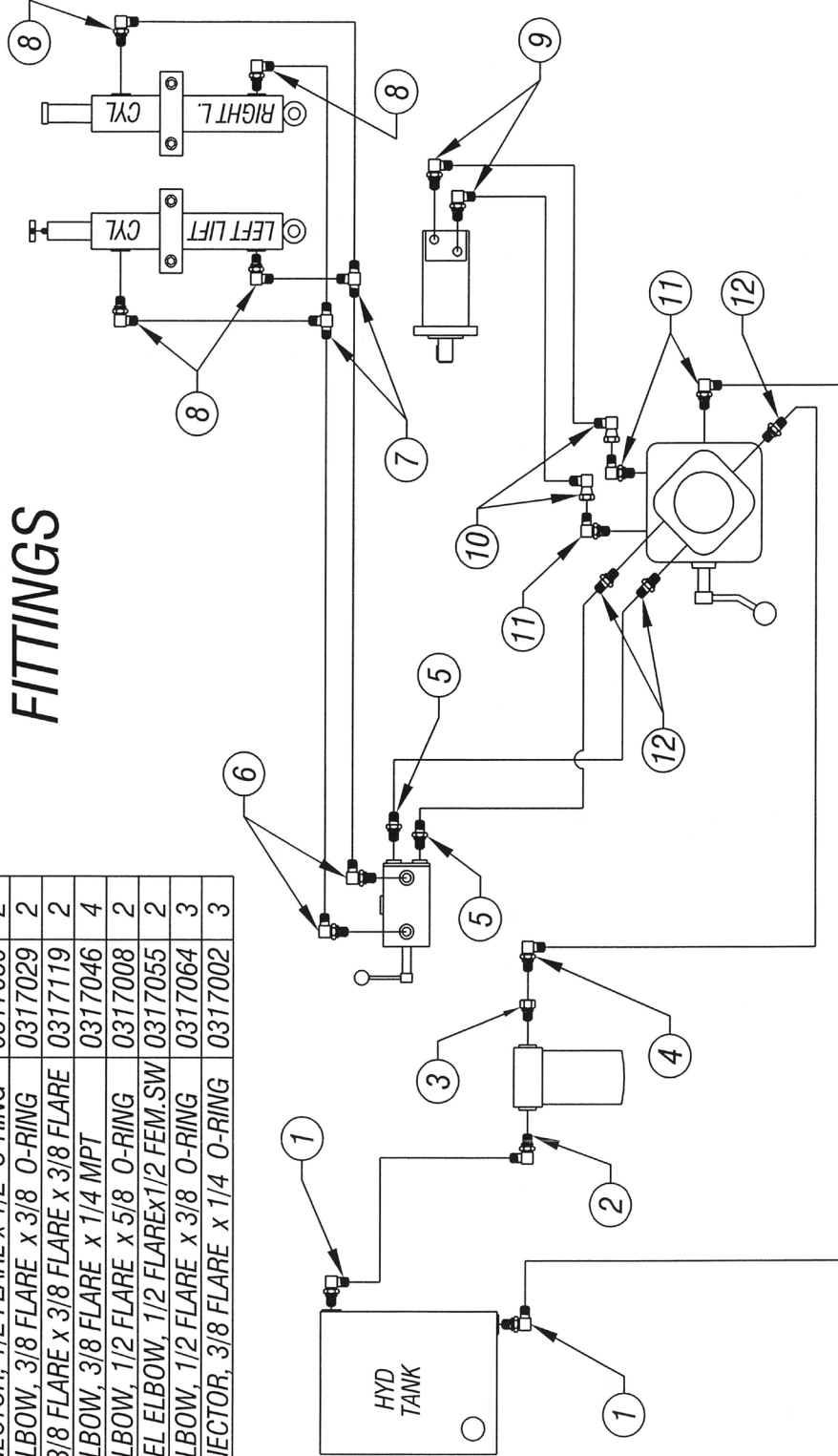
HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING & HYDRAULIC LIFT
810M CHIPPER - DWG #23

REV	DESCRIPTION	DATE

ISSUED: 08-04-2009

HYDRAULIC FITTINGS

ITEM	DESCRIPTION	PART NO	QTY
1	90° ELBOW, 1/2 FLARE x 1/2 MPT	0317052	2
2	90° ELBOW, 1/2 FLARE x 1/2 O-RING	0317079	1
3	ADAPTER, 1/2 M- O-RINGx1/2F- O-RING	0317253	1
4	90° ELBOW, 3/8 FLARE x 1/2 O-RING	0317044	1
5	CONNECTOR, 1/2 FLARE x 1/2 O-RING	0317030	2
6	90° ELBOW, 3/8 FLARE x 3/8 O-RING	0317029	2
7	TEE, 3/8 FLARE x 3/8 FLARE x 3/8 FLARE	0317119	2
8	90° ELBOW, 3/8 FLARE x 1/4 MPT	0317046	4
9	90° ELBOW, 1/2 FLARE x 5/8 O-RING	0317008	2
10	SWIVEL ELBOW, 1/2 FLAREx1/2 FEM.SW	0317055	2
11	90° ELBOW, 1/2 FLARE x 3/8 O-RING	0317064	3
12	CONNECTOR, 3/8 FLARE x 1/4 O-RING	0317002	3



HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING & HYDRAULIC LIFT
810M CHIPPER - DWG #24

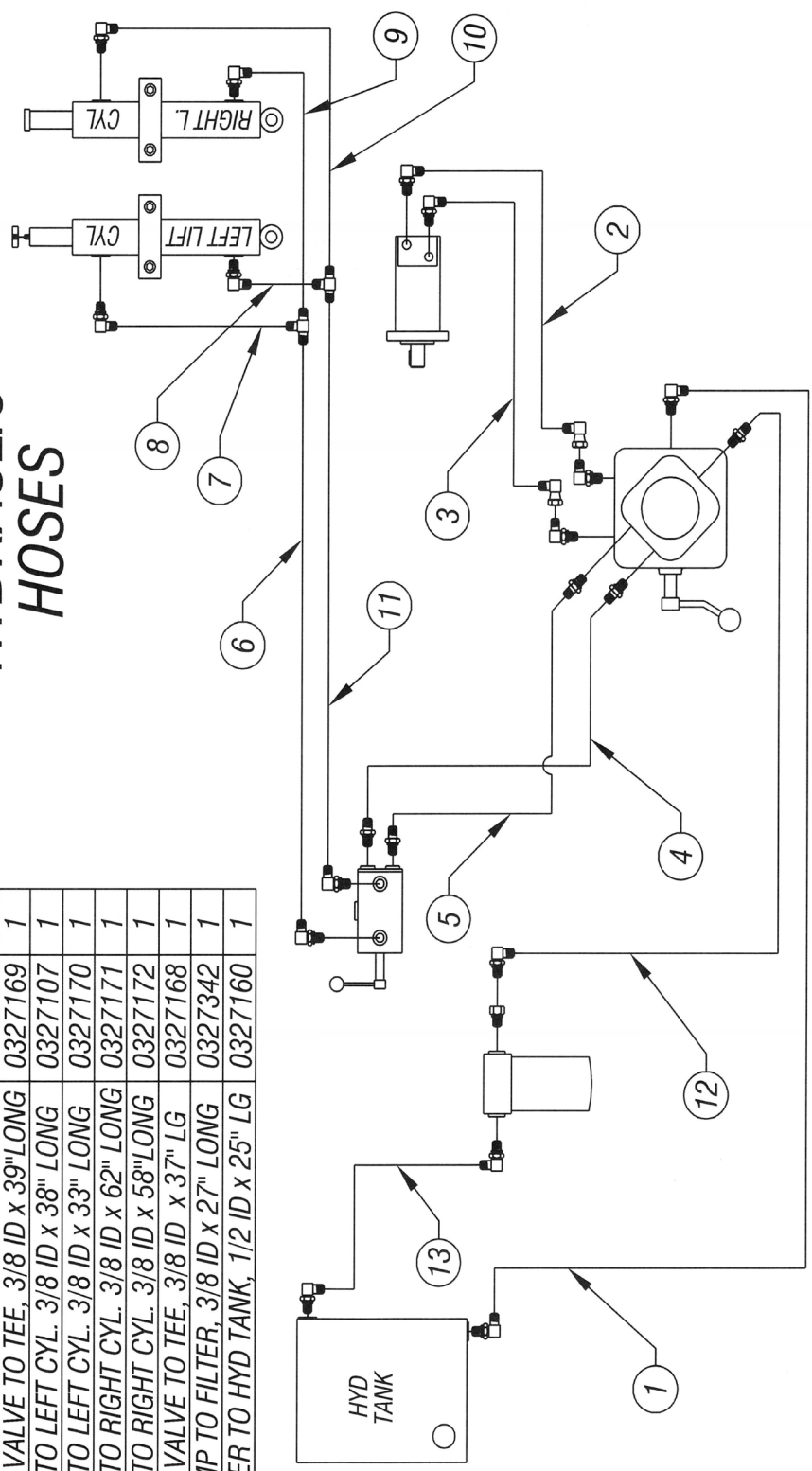
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TEM	DESCRIPTION	PART NO	QTY
1	TANK TO PUMP, 1/2 ID x 38" LONG	0327159	1
2	PUMP TO MOTOR, 1/2 ID x 88" LONG	0327245	1
3	MOTOR TO PUMP, 1/2 ID x 86" LONG	0327246	1
4	PUMP TO LIFT VALVE 3/8 ID x 98" LG	0327166	1
5	LIFT VALVE TO PUMP, 3/8 ID x 99" LG	0327167	1
6	LIFT VALVE TO TEE, 3/8 ID x 39" LONG	0327169	1
7	TEE TO LEFT CYL. 3/8 ID x 38" LONG	0327107	1
8	TEE TO LEFT CYL. 3/8 ID x 33" LONG	0327170	1
9	TEE TO RIGHT CYL. 3/8 ID x 62" LONG	0327171	1
10	TEE TO RIGHT CYL. 3/8 ID x 58" LONG	0327172	1
11	LIFT VALVE TO TEE, 3/8 ID x 37" LG	0327168	1
12	PUMP TO FILTER, 3/8 ID x 27" LONG	0327342	1
13	FILTER TO HYD TANK, 1/2 ID x 25" LG	0327160	1

ISSUED: 08-04-2009

REV	DESCRIPTION	DATE

HYDRAULIC HOSES



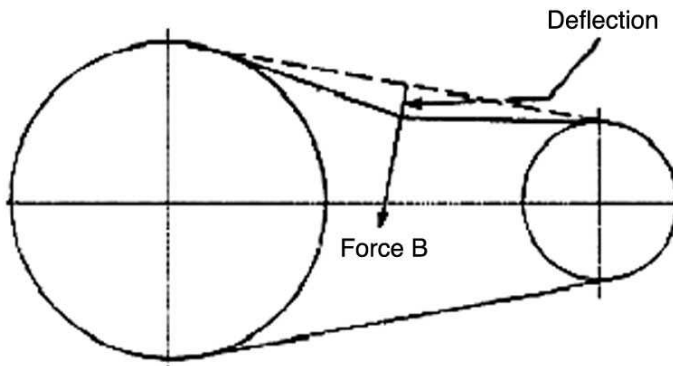
HYDRAULIC HOOK-UP, BASIC WITH SPEED SENSING & HYDRAULIC LIFT
810M CHIPPER - DWG #25

Below is a quick reference chart for various "Flat Head Cap Screws" and the torque recommendations.

VALUES ARE STATED IN FOOT POUNDS

BOLT SIZE	Thds Per Inch	SAE Grade 5	SAE Grade 8
1/4	20	10	14
	28	---	---
5/16	18	19	29
	24	---	---
3/8	16	33	47
	24	---	---
7/16	14	54	78
	20	---	---
1/2	13	78	119
	20	---	---
9/16	12	114	169
	18	---	---
5/8	11	154	230
	11	---	---
3/4	10	257	380
	10	---	---
7/8	9	382	600
	9	---	---
1	8	587	700
	8	---	---

Drive Belt Tension Measurement by Deflection



Deflection should be 3/8" when 8-12 lbs. push is applied at "B"

