

# **E25 Motor**

## **Safety, Operation, Maintenance & Parts Manual**

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**065352 25HP Motor Assembly** **rev. A**

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**Safety is our #1 concern!**

*Form 668*

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<b>Used with</b>	
<b>LT40 Super</b>	<b>J7.20</b>
<b>LT40HD Super</b>	<b>K4.02</b>
<b>LT50HD</b>	<b>A6.01</b>

**Includes Wide versions, if available**

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**WARNING! Read and understand this manual before using this machine.**

**California**  
Proposition 65 Warning



**WARNING:** Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.  
If in an enclosed area, vent the exhaust to the outside.  
Do not modify or tamper with the exhaust system.  
Do not idle the engine except as necessary.

For more information go to **[www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)**.



**WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to **[www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood)**.

**Active Patents assigned to Wood-Mizer, LLC**

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: [woodmizer.com/patents](http://woodmizer.com/patents)

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## SECTION 1 ABOUT THIS MANUAL

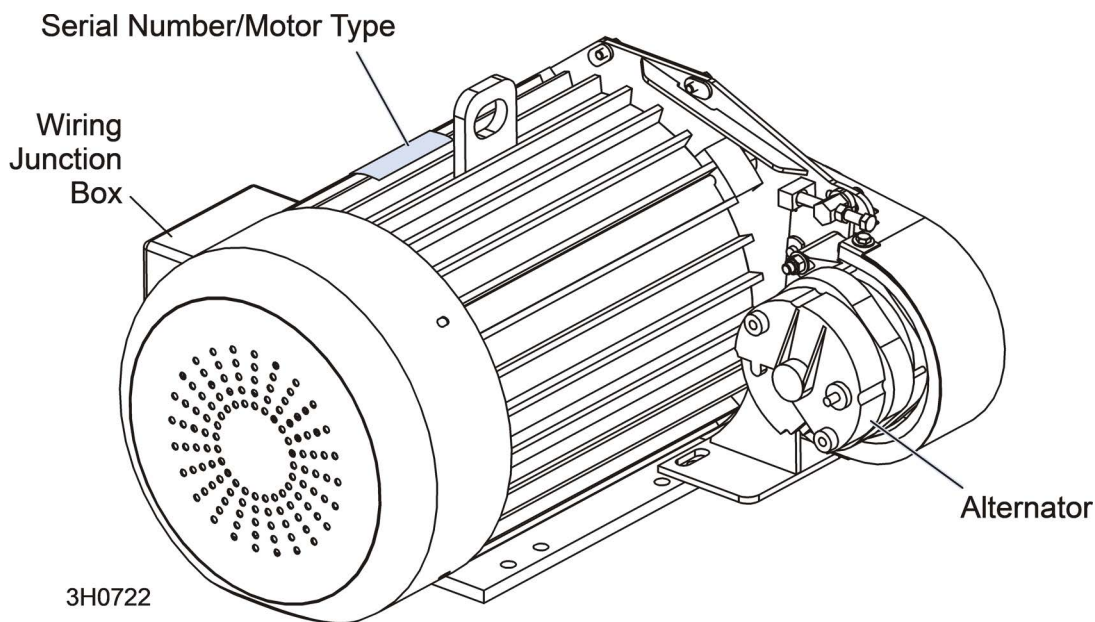
This manual is provided as a supplement to the equipment manufacturer's manuals. This manual provides information specific to the use of this equipment on the Wood-Mizer® sawmill. Refer to the sawmill operator's manual and manufacturer's manual before attempting to operate this equipment.

**NOTICE** Read the sawmill operator's manual and engine manufacturer's manual for instructions and safety precautions before operating this equipment.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

For electric sawmill installation instructions and power requirements, see Form 542, Electric Sawmill Installation Instructions.


### *E25 Motor*




## SECTION 2 OPERATION

### 2.1 Starting The Motor

#### Motor Control Lights

 *Alternator Charge Indicator:* Lights up if the alternator is not charging the battery.

 *Key Switch Indicator:* Lights up when the key is in either the on or accessory (#1 or #3) position.

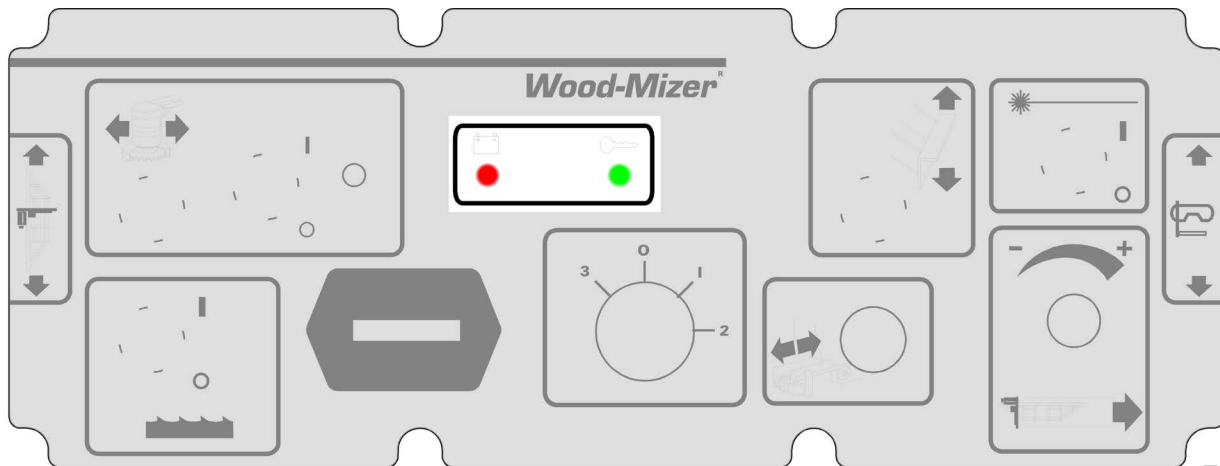




FIG. 2-1

#### MOTOR START

 **DANGER!** Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the motor. Failure to do so will result in serious injury.

 **WARNING!** Be sure the power feed switch is in the neutral position before turning the key switch to the on (#1) or accessory (#3) position. This prevents accidental carriage movement, which may cause serious injury or death.

Turn the key switch to the start (#2) position and release.

#### MOTOR SHUTOFF

Turn the key switch to the off (#0) position.

## SECTION 3 MAINTENANCE

Refer to the manufacturer's manual for maintenance intervals and procedures unless otherwise instructed in this manual. Follow the manufacturer's recommendations for dusty conditions.

**NOTICE** Refer to the manufacturer's manual for complete maintenance instructions. This manual only provides information about additional procedures or procedures to be performed at different time intervals than found in the manufacturer's manuals



**.WARNING!** Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather **after every shift**. Failure to do so may result in fire, causing death or serious injury.



### 3.1 Safety

Use caution when performing maintenance or service to the motor.



**DANGER!** Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members resulting in possible injury.



**WARNING!** Remove the blade before performing any motor service. Failure to do so may result in serious injury.

**WARNING!** Always wear proper and necessary safety equipment when performing service functions. Proper safety equipment includes eye protection, breathing protection, hand protection and foot protection.

### 3.2 Battery

Check the battery electrolyte level every 50 hours of operation. See manufacturer's manual for instructions.



**DANGER!** Batteries expel explosive gases. Keep sparks, flames, burning cigarettes, or other ignition sources away at all times. Always wear safety goggles and a face shield when working near batteries. Failure to do so will cause serious injury.



**WARNING!** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

### 3.3 Alternator Belt

The belt tension should be checked after the first 100 hours of operation, when the battery is not charging properly or when the alternator belt is squealing.

If the battery continues to not charge properly or the belt continues to squeal after the initial belt adjustment, replace the belt.

**IMPORTANT!** Sawmills built prior to March 1999 were provided with a sight hole in the alternator bracket to gauge belt tension. To achieve proper belt tension, **do not use the sight hole**. Follow the procedure below to check the belt tension and adjust if necessary.

1. Release the blade tension and remove the blade from the sawmill if necessary.
2. Turn the key switch to OFF (0) and remove the key.

3. Remove the drive belt cover and alternator cover.
4. Use a belt tension gauge to measure the belt tension.
5. Place the gauge on the belt at the midpoint between the two pulleys.

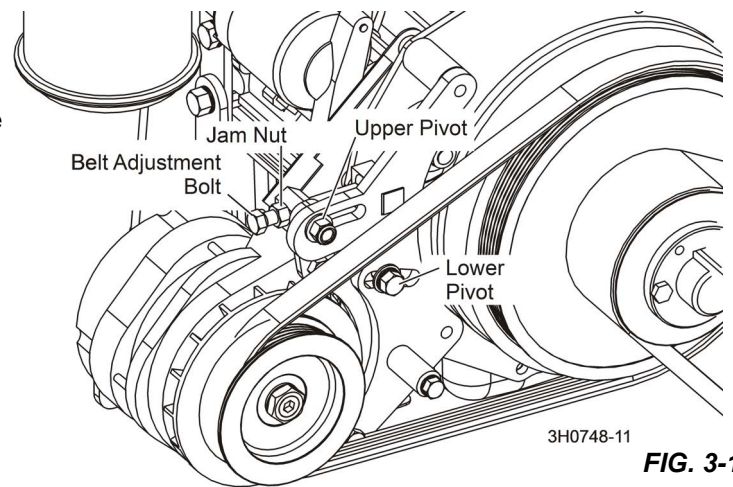
If the belt has more than 3/16" at 9 lb. of deflection, tighten the belt as described below.

6. Loosen the upper pivot, lower pivot and the adjustment bolt jam nut.
7. Turn the belt tension adjustment bolt clockwise to tighten the belt, counterclockwise to loosen the belt.
8. Adjust the bolt until the proper belt tension is achieved.



**CAUTION!** Do not overtighten the alternator belt. Damage to the alternator will occur.

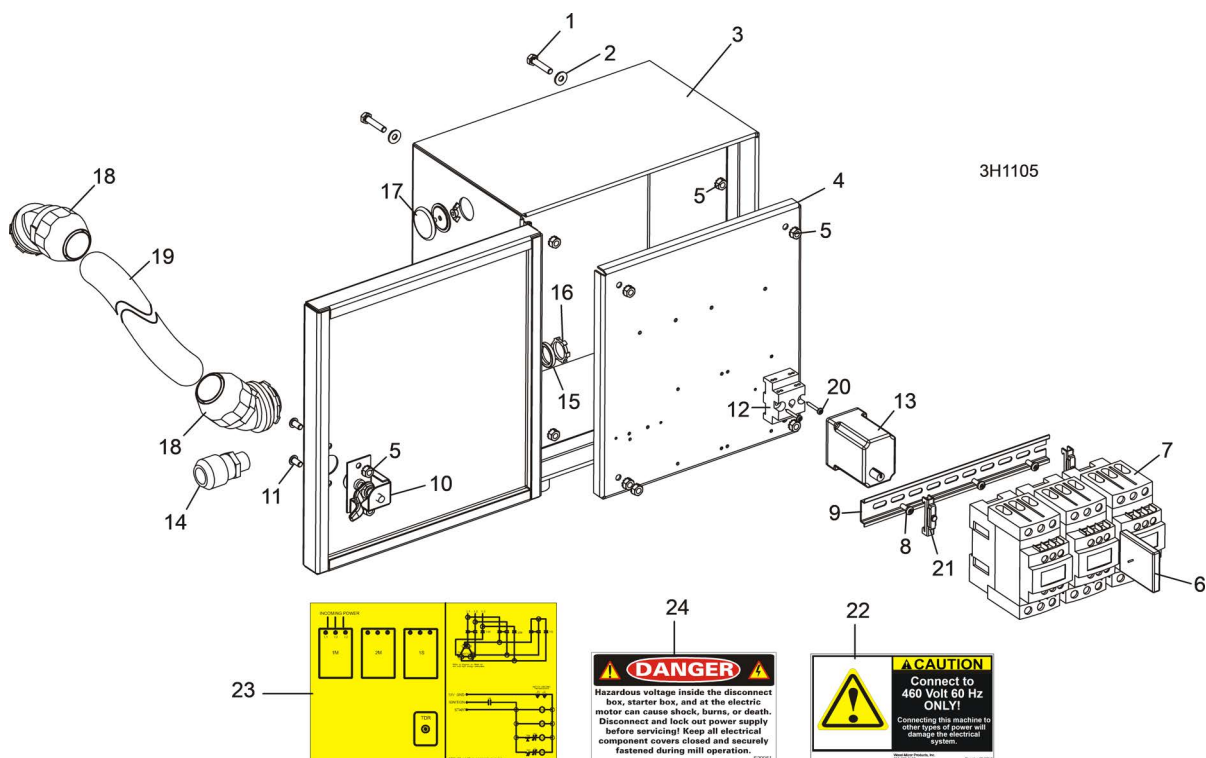
9. After the alternator belt has been tensioned, tighten the adjustment bolt jam nut.
- Tighten the upper and lower pivots and replace the belt covers.



**FIG. 3-1**

## SECTION 4 REPLACEMENT PARTS

### 4.1 Motor Starter Assembly

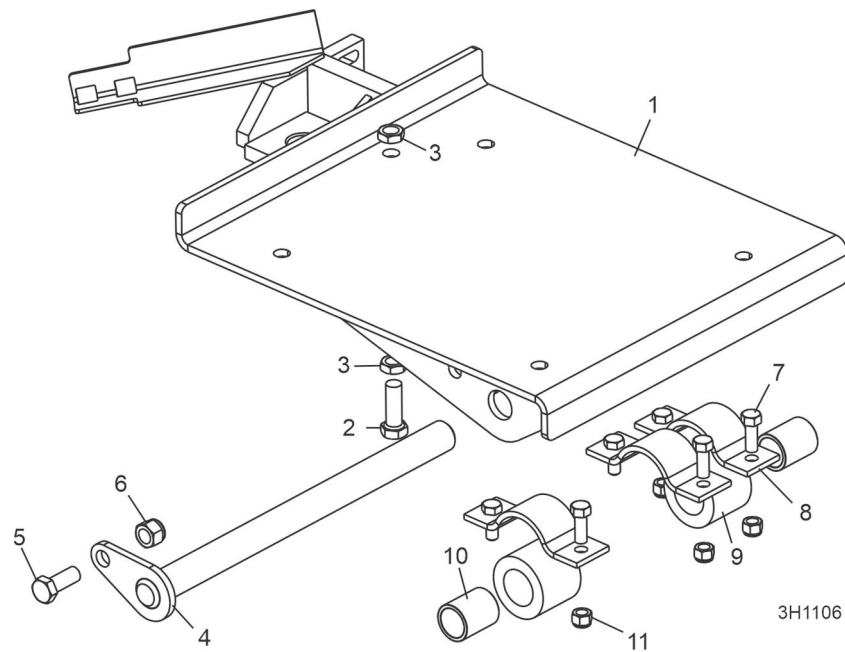


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	014399	<b>STARTER ASSEMBLY, 25HP 3-PHASE 50/60HZ 3450RPM ELECTRIC MOTOR</b>		1
1	F05005-3	Bolt, 1/4-20 x 1 1/4" Hex Head Tap		4
2	F05011-11	Washer, 1/4" SAE Flat		4
3	014405	Box, Electric Motor Starter Enclosure	Available in assemblies only.	1
4	S10212	Panel, Starter Box Component Mounting		1
5	F05010-9	Nut, 1/4-20 Hex Self-Locking		11
6	023171-1	Interlock, D40-D80 Contactor Mechanical		1
7	069521	Contactor, 65Amp 3P 12VDC Coil D-A Series		3
8	F05015-17	Screw, #10-24 x 1/2" Philips Pan Head Type 23		3
9	024474-10	DIN Rail, 35mm x 7.5mm x 10" Steel Sym		1
10	P20048	Latch, Starter Box Door		1
11	F05005-112	Screw, 1/4-20 X 1/2" Button Head Socket Stainless		2
12	E10216	Socket, 8-pin Relay Sq-D #00605 Class 8501 Type NR52B		1
13	050826	Timer Kit, 12V Y-Delta Replacement		1
14	E20456	Connector, SR507 Cord		1
15	E20460	Ring, 1/2" Sealing		1
16	E20461	Nut, 1/2" #141 Lock		1
17	024250	Plug, AS075 OilTite Painted		1
18	014448	Connector, 1.25" 45° Nylon		2



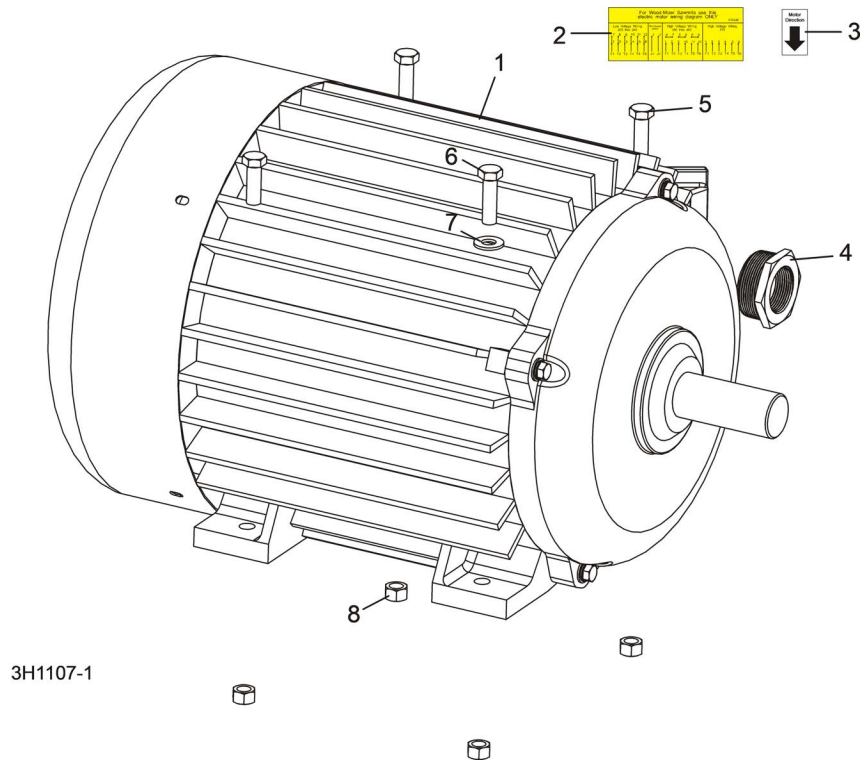
REF	PART #	DESCRIPTION	COMMENTS	QTY.
19	R01633	Conduit, 1.25" Maxi-Flex		3.58 Ft.
20	F05004-42	Screw, #6 x 1" Phillips Pan Head Type A Sheet Metal		2
21	E22707	Clamp, Plastic DIN Rail		2
22	042015	Decal, 460V 60Hz Power Supply Caution		1
23	014344	<b>DECAL, Y-DELTA E20/E25 ELECTRIC WIRING</b>		1
24	S20061	<b>DECAL, ELECTRICAL HAZARD DANGER</b>		1

## 4.2 Motor Mount Assembly (220/380/415-440V)



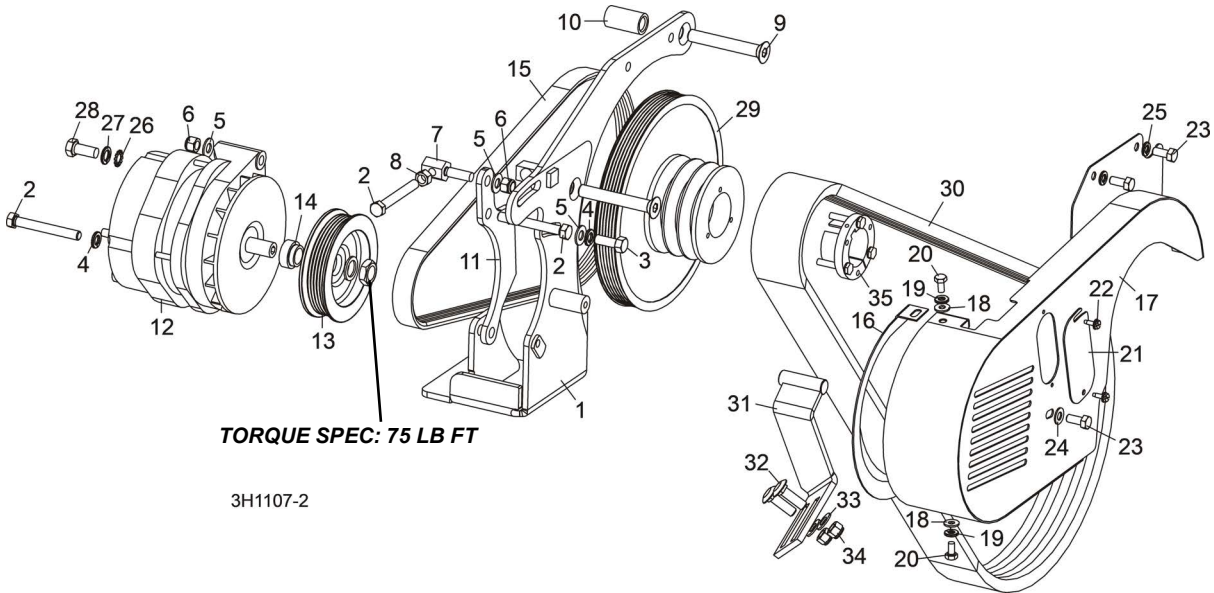
REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	065428	Mount Weldment, Electric Motor (2011)		1
2	F05008-33	Bolt, 1/2-13 1 1/2" Hex Head Grade 5		1
3	F05010-31	Nut, 1/2-13 Hex Jam		2
4	014154	Pin Weldment, Engine Mount Pivot		1
5	F05008-37	Bolt, 1/2-13 x 1 1/4" Hex Head Grade 5		1
6	F05010-8	Nut, 1/2-13 Nylon Lock		1
7	F05007-7	Bolt, 3/8-16 x 1" Hex Head		3
8	014540	Clamp Weldment, Motor Mount Bushing		3
	016380	Bushing Assembly, Motor Mount		3
9	016378	Bushing, 2" OD x 2"	Available in assemblies only.	1
10	016379	Bearing, 1" x 1 1/4" x 2"	Available in assemblies only.	1
11	F05010-10	Nut, 3/8-16 Hex Nylon Lock		6

### 4.3 Motor Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	P12393	Cover, Engine		1
1	065352	<b>MOTOR, 25HP LINCOLN ULTIMATE E</b>	<b>065485 Motor Kit</b> includes 065352 motor, wire terminals, reducer bushing and decals. Kit 065485 only applies to sawmills originally equipped with Ultimate E motor. See Section 4.6 for conversion kit information for previous revisions.	1
2	014345	Decal, E20/E25 Wlring		1
3	S20097	Decal, Motor Direction		1
4	065493	Fitting, 2" NPT x 1 1/4" NPT Reducer		1
5	F05008-33	<b>BOLT, 1/2-13 X 1 1/2" HEX HEAD GRADE 5</b>		3
6	F05008-88	Bolt, 1/2-13 x 1 3/4" Hex Head Grade 5		1
7	F05011-2	<b>WASHER, 1/2" SAE FLAT</b>		1
8	F05010-3	<b>NUT, 1/2-13 HEX LOCK</b>		4

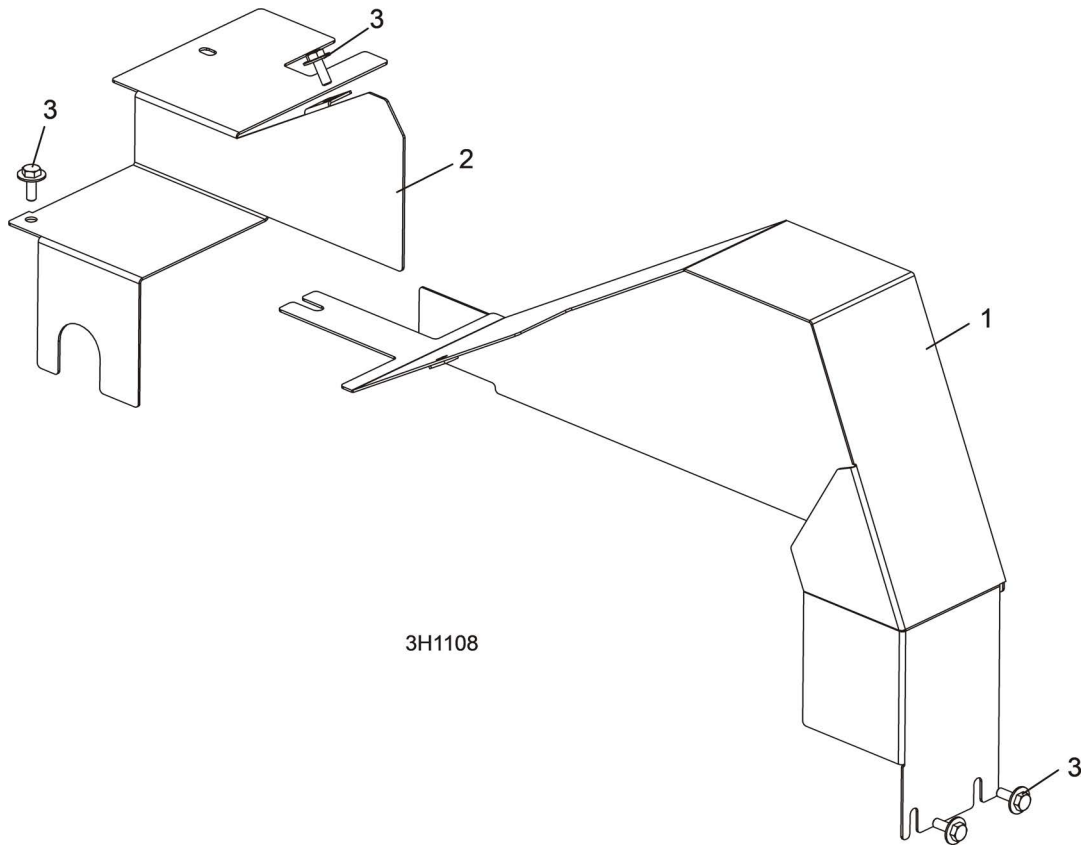
## 4.4 Drive And Alternator Assembly (460V )



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	024537	Wire Assembly, 61/140 Amp Alternator Plug		1
	N/A	Alternator Kit, 140 Amp E25		1
		Belt Guard Parts	<a href="#">See Section 4.29</a>	
1	065412	Bracket Weldment, Alternator Mounting		1
2	F05007-1	Bolt, 3/8-16 x 3" Hex Head Full Thread		3
3	F05007-7	Bolt, 3/8-16 x 1" Hex Head		1
4	F05011-4	Washer, 3/8" Split Lock		2
5	F05011-3	Washer, 3/8" SAE Flat		3
6	F05010-10	Nut, 3/8-16 Nylon Lock		2
7	023764	Stud, Alternator Belt Tension Adjustment		1
8	F05010-1	Nut, 3/8-16 Hex		1
9	F05008-181	Bolt, 1/2-13 x 3" Flat Socket Head		2
10	065457	Spacer, E25 Alternator Mount		2
11	015875	Plate Weldment, Alternator Mount		1
	023730	Alternator Assembly, 140 Amp	Available in assemblies only.	1
12	023695	Alternator, 140 Amp		1
	036572	Pulley Assembly, 140 Amp Alternator	Torque pulley nut to 75 lb ft	1
13	023694	Pulley, 140 Amp Alternator	Available in assemblies only.	1
14	036571	Spacer, Alternator Pulley		1
15	006524	Belt, 6PK1145 Alternator		1
16	023799	Guard, 140 Amp Alternator Belt Rear		1
17	065423	Guard Weldment, E25 Alternator 2011		1
18	F05011-11	Washer, 1/4" SAE Flat		2
19	F05011-14	Washer, 1/4" Split Lock		2
20	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		2
21	023794	Plate, Alternator Belt Access		1
22	F05015-17	Bolt, #10-24 x 1/2" Pan Head		2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
23	F05006-5	Bolt, 5/16-18 x 3/4" Hex Head		3
24	F05011-17	Washer, 5/16" SAE Flat		1
25	F05011-13	Washer, 5/16" Split Lock		2
26	F81003-11	Bolt, M10-1.5x25mm Hex Head Grade 8.8		1
27	F05011-88	Washer, 10mm Split Lock		1
28	F05011-36	Washer, 3/8" External Star Lock		1
29	016534	Pulley, 5Vx4.06 Poly V (60Hz)	For 50Hz, replace motor pulley with 016533 Sheave. (LT40 Super J7.08+/LT40HD Super K3.07+/LT50 A5.07+ only need 016533 Sheave.)	1
30	065400	Belt, 3/5VL780 Drive (60HZ)		1
31	065436	Bracket Weldment, Drive Belt Support		1
32	F05007-127	Bolt, 3/8-16 x 1 1/4" Carriage Head Grade 5		2
33	F05011-3	Washer, 3/8" SAE FLAT		2
34	F05010-10	Nut, 3/8-16 Hex Nylon Lock		2
35	016546	Bushing, SH x 1 5/8"		1

## 4.5 Engine Pulley Guards (E25)



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	065452	Guard Weldment, E25 Motor Pulley		1
2	023793	Guard, E25 Side Motor Pulley		1
3	F05005-134	Bolt, 1/4-20 x 3/4" Hex Head with conical washer		4