MERIT

M-15, 20 & 30E - 1 - 4G
ELECTRIC R.P.
350 SERIES

WARNING

BE SURE EQUIPMENT IS PROPERLY GROUNDED BEFORE USE. FAILURE TO DO SO MAY OCCUR IN INJURY OR DEATH.

SHOCK HAZARD

CONCRETE CUTTING EQUIPMENT
OPERATION, MAINTENANCE
AND PARTS MANUAL

KEEP YOUR MANUAL TO ORDER PARTS

20-30- HP ELECTRIC 350 SERIES 1-4 SPEEDS FRONT & REAR PIVOT

Blade Capacity.....14" to 30"
Weight.....1,000 LBS.
Height.....48"
Width.....29 1/2 with quick detach
Length.....46"
Drive Speed.....0 to 240 FPM
Max Cut Depth.....13"
Depth Control.....Mechanical
Spindle.....1 7/16" with tapered roller bearings
Arbor Size.....1"
Motor Manufacturer..... lincoln
voltage.....260-460 volts
Optional Equipment

- Night Light
- Water Pump
- 14" to 30" Blade Guards
- 4-Speed Gear Box with Neutral

Safety Precautions

Operating the 400, 600 & 800 Series Diesel & Gas. Concrete Saw and all of their components according to this manual. Failure to comply with and understand the following safety, operations, and maintenance instructions can result in serious injuries and/or death. All operators must be properly trained or supervised prior to using these saws and should understand the risks and hazards involved. Improper or unintended saw usage is discouraged and Merit Engineering cannot be held liable for any resulting damages.

Saw modifications should be made by Merit Engineering only to ensure proper safety and accuracy. Modifications made to these saws by the owner are not the responsibility of Merit Engineering and void all saw warranties if a problem arises as a result of the modification.

Refer to the Merit Engineering Parts Lists for additional information and part diagrams. Prior to operating the saw, record the saw's serial number, and the engine's model and serial numbers in the Serial Tags section in the Index for future reference.

The information in this manual may be updated at any time!

Safety Alerts

⚠DANGER
Serious injuries and/or death will occur if these instructions are not followed.

⚠WARNING
Serious injuries and/or death could occur if these instructions are not followed.

⚠CAUTION
Mild and/or moderate injuries could occur if these instructions are not followed.

⚠WARNING
Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Spark Arrester Requirement

⚠WARNING
In the State of California it is a violation of Section 4442 or 4443 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrester, as defined in Section 4442, maintained in effective, working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443

Respiratory Hazards

⚠WARNING
Concrete cutting produces dusts and fumes known to cause illness, death, cancer, respiratory disease, birth defects, and/or other reproductive harm. Safety protection techniques include, but are not limited to:

- Wearing gloves.
- Wearing safety goggles or a face shield.
- Using approved respirators.
- Washing work clothes daily.
- Using water when wet cutting to minimize dust.
- Washing the hands and face prior to eating/drinking.

For additional safety and self-protection information contact your employer, the Occupational Safety and Health Administration (OSHA), and/or The National Institute for Occupational Safety and Health (NIOSH).

General Safety

- Read and understand all of the safety, operations, and maintenance instructions provided in this manual prior to operating or servicing the saw.
- Keep saw components clean and free of slurry, concrete dust, and debris.
- Inspect water hoses prior to operating the saw. Clean, repair, or replace damaged components.

- Raise the saw to a proper height for access when working underneath the saw. Use chocks to block the wheels, and fit blocks or jacks under the frame edges at the front and back of the frame for additional support.

- When using a jack to raise the saw, place the jack against a solid, flat area under the frame base to properly support the saw while lifting.
- Repair the saw immediately when a problem arises.
- Replace saw decals if unreadable.
- Dispose of all hazardous waste materials according to city, state, and federal regulations.
- Always have a phone nearby, and locate the nearest fire extinguisher and first aid kit prior to operating the saw.
- Operate the saw wearing flame resistant clothing.
- Always wear safety glasses when removing retaining rings.
- Persons under the statutory age limit should not operate the saw.
- Keep all body parts away from rotating machinery.
- Replace all guards and access panels (unless stated otherwise) prior to operating the saw.
- Always pivot guards fully to avoid serious injuries.
- DO NOT assume the saw will remain still when in *Neutral* or when parking/stopping the saw on a slope. Chock the tires to help prevent unnecessary movement.
- All non-routine maintenance tasks should be performed by an authorized service center.

DO NOT:

- Drop equipment, supplies, tools, etc., when handling to help prevent injuries.
- Operate the saw around combustible materials or fumes to prevent fires/explosions.
- Lift and carry equipment, supplies, tools, etc., that are too heavy and/or cannot be lifted easily.

- Operate the saw without using the appropriate safety equipment required for the work task.

- Operate or service the saw with clothing, hair, or accessories that can snag in the machinery, which could lead to serious injuries or death!
- Operate the saw with anyone near the work area.
- Operate the saw until unnecessary materials have been removed from the work area.
- Operate the saw using attachments not associated with or recommended for the saw.
- Operate the saw around combustible materials or fumes to prevent fires/explosions.
- Operate the saw with anyone near the work area or within the direct line of the blade.
- Operate the saw until all unnecessary materials have been removed from the work area.
- Operate the saw with loose nuts, screws, and bolts.
- Operate the saw when ill or fatigued.
- Operate the saw under the influence of drugs and/or alcohol.
- Operate the saw on steep slopes.
- Cut concrete with guards and access panels removed.
- Grease the saw with the engine running (unless stated otherwise).
- Touch hot components when operating the saw.
- Leave the saw unattended until the engine is off and the blade has stopped spinning.
- Place the saw into storage until it has cooled down.
- Service the saw until it has cooled down.
- Service the saw with the engine running (unless stated otherwise).

Battery and Electrical Safety

- Ignitable explosive gases are emitted from the battery. DO NOT expose the battery to sparks or open flames.

- Keep the area around the battery well-ventilated.
- Keep the battery level when handling it.
- Use protective eyewear or a face shield, and avoid contact with the skin when handling/servicing the battery.
- Use a proper battery tester when testing the battery strength.
- Always be sure to connect the battery cables to the proper terminal when reconnecting the cables.
- Regularly inspect the battery, cables, clamps, and terminals for damages. Clean, replace, tighten and grease components as necessary.
- Always keep the battery cable clamps away from the battery terminals when the battery is disconnected to avoid accidental connections while servicing.
- Immediately rinse your clothing, skin, or eyes with water if exposed to battery acid. Seek medical attention immediately!
- Disconnect the battery prior to servicing all saw components (unless stated otherwise).
- Remove the battery when storing the saw for longer periods.
- Always use the correct size fuses (amps) to prevent fires.

Blade Safety

- Always use reinforced abrasive blades or steel-centered diamond blades.
- Never use a wet cutting blade without an adequate water supply to properly lubricate the blade.
- Inspect all blades prior to usage and discard damaged blades. Clean dirty blades as necessary.
- DO NOT install or remove a blade with the engine/motor running.
- Keep all body parts away from rotating blades.
- Inspect the blade flanges for damages, wear, and cleanliness. Clean or replace dirty/damaged components immediately.
- DO NOT expose yourself or anyone else to the direct line of the blade when operating the saw.

- Always use an appropriate size blade and the correct blade type based on the cutting task and the type of material being cut.
- The blade must always fit snug on the blade shaft and/or outer flange.
- Wear gloves and be alert to the surrounding environment when handling blades.
- When installing the blade, always point the arrow printed on the blade in the direction of the blade shaft's rotation.
- DO NOT exceed the blade's maximum recommended speed when cutting. Excessive blade speeds can cause blade breakage, resulting in serious injuries and/or death!
- DO NOT use damaged blades when cutting to avoid harming yourself, others, or the saw.
- DO NOT use a blade for cutting that requires a lower speed than the blade shaft speed.
- Tighten the blade shaft screw/nut as directed to properly secure the outer flange and blade. Failure to properly secure the outer flange and blade may cause parts to loosen or fall off the saw.
- Let the blade cool prior to removal when dry cutting (applicable models).
- Always install the correct blade shaft sheave, blade drive belts, and flanges when changing the blade size. Changing the blade shaft sheave requires assistance from technical support. Contact technical support prior to running the saw
- .Refer to the RPM Chart posted on the saw or in the Parts List for additional information.

Blade Guard Safety

- DO NOT operate the saw with the blade guard raised or removed.
- Blade exposure should not exceed 180° while cutting.
- When pivoting the front of the blade guard, raise/lower it cautiously and slowly to avoid serious injuries.

- Always pivot the front of the blade guard 180° (fully upward) so the guard does not swing down unexpectedly, causing serious injuries.

- DO NOT install or remove the blade guard with the engine running.
- Always use a blade guard that corresponds with the blade size.
- Inspect the blade guard and water tubes prior to starting the saw. Clean or replace dirty/damaged components immediately.
- When lowering the front part of the blade guard, pivot it cautiously and slowly to avoid serious injuries.

Fuel Safety

- Always use caution when refueling.
- Store all fuel in appropriate safety containers.
- DO NOT operate the saw with a fuel leak.
- DO NOT fuel the saw with the engine running.
- Let the engine cool prior to adding fuel.
- Refer to the engine manual for recommended fuels.
- Always use appropriate fuels in cold weather.
- Move the saw away from the refueling area prior to starting the engine.
- DO NOT smoke or expose fuel to open flames when filling the fuel tank or working with fuel.

- Clean up any spilled fuel prior to starting the engine.
- Drain the fuel tank and fuel lines when storing the saw for longer periods of time. Refer to the engine manual for additional recommendations.
- Fuel may seep out from the fuel cap vent (applicable models) when raising the saw if the fuel tank has been overfilled.

Engine Safety

- Refer to the engine manual as the primary source for engine safety.
- Refer to the engine manual for recommended oil.
- Always know how to turn off the engine quickly for emergency purposes.
- Make sure the speed control lever (applicable models) is at *Neutral* when starting the engine.
- Fill the fuel tank and check the oil level prior to starting the engine.
- Keep all body parts away from rotating parts with the engine running.

- DO NOT start the engine without the air filter(s) installed.
- DO NOT allow dust to enter the air intake tube when cleaning/replacing air filter(s).
- Immediately replace damaged saw components that may allow dust to enter the engine.
- DO NOT leave the engine/motor running unattended.
- Always operate the saw in well-ventilated areas. Concentrated engine exhaust can cause loss of consciousness and/or death.

- DO NOT operate the saw around combustible materials or fumes to prevent fires/explosions.
- DO NOT leave the saw unattended until the engine is off and the blade has stopped spinning.
- DO NOT touch the engine/muffler assembly with the engine running, and always let them cool down prior to touching or servicing the saw.
- Handle hot oil carefully when changing the oil.
- Wipe down the engine/motor exterior and guards daily or regularly to prevent high operating temperatures.
- DO NOT spray the engine/motor with water to prevent engine/motor damage.
- Let the engine cool prior to removing pressurized caps (applicable models).

- Clean the engine cooling system regularly to prevent high operating temperatures.
- DO NOT use any starter substances or starter fluids (e.g., starter fluid sprayed into the air filter) when starting the engine using a glow plug (applicable models). These materials are extremely flammable and explosive, and can melt parts or possibly explode when used to help start the engine.

Cutting Safety

- The direct work area should not contain buried or embedded electrical, gas, or water lines that could be damaged and/or cause personal injury while cutting.
- Turn off all electricity, gas, and water around the direct work area prior to cutting.
- DO NOT expose yourself or anyone else to the direct line of the blade when operating the saw.

- DO NOT allow any person, animal, and/or object in and around the work area while cutting.
- DO NOT assume the saw will remain still while in *Neutral* when stopping and/or parking the saw on a slope. Chock the wheels to prevent unnecessary movement.

Hydraulic Safety

- Turn off the engine prior to servicing and/or disconnecting hydraulic components.
- Lower the saw completely to relieve some hydraulic fluid pressure prior to servicing the saw.
- Always place a piece of cardboard or paper up against hydraulic components, or use a leak detection fluid to check for hydraulic fluid leaks. Keep all body parts away from leaks and/or areas that may eject hydraulic fluid. Pressurized hydraulic fluid can penetrate the skin, causing serious injuries. Seek medical attention immediately.

Belt Safety

- Turn off the engine and let the belts cool down prior to servicing them.
- Regularly inspect the belts for fraying, stress cracks, and/or breakage and replace immediately when damaged.
- Always check belt alignment prior to operating the saw.
- Over-tensioning the belts may damage the power take-off (PTO). Under-tensioning the belts may cause slippage, shorter belt life, and/or poor saw performance.
- Squealing belts indicate looseness.
- DO NOT use old and new belts on the same sheave together.

Transmission Safety

Clean the transmission fan and fan guard regularly to prevent high oil temperatures.

Transporting Safety

- Remove the blade prior to transporting the saw.
- Make sure the truck/trailer is in good, working condition and sufficient to transport the load. DO NOT tow the saw behind a vehicle.
- Close the fuel shutoff valve when transporting.
- Drain the fuel tank when transporting long distances.
- Use heavy-duty ramps that will support the weight of the saw and yourself when loading or unloading.
- Raise the saw to avoid damaging components while moving up and down ramps.
- Use extreme caution when guiding the saw up and down ramps. Slowly drive/push the saw forward down the ramp. Slowly back/pull the saw in reverse up the ramp. Avoid standing directly downhill from the saw to avoid serious injuries.

- Chock the wheels and secure the saw in a truck/trailer prior to transporting.
- Turn off the engine/motor once the saw is loaded into the truck/trailer. For self-propelled models, place the speed control lever at *Neutral* and engage the transmission prior to turning off the engine.
- Engage the brake once the saw is secure in the truck/trailer to help secure.
- Refer to the Department of Transportation (DOT) for additional information on proper transportation techniques and truck/trailer requirements.

Lifting Safety

- Move yourself and all others away from the lifting area when hoisting the saw to prevent being crushed.

Secure the appropriate hoisting cables, straps, and/or chains to the saw's designated lift points prior to hoisting.
DO NOT attempt to lift the saw irresponsibly and/or improperly.

LIFTING THE SAW

- Always use the lifting eye shown in the figure below.
- Make sure the lifting equipment (harness, chain, etc.) is rated for the weight of the saw.
- **Exercise extreme caution when lifting the saw. Injuries can be fatal.**
- Make sure the saw is off and the bottom frame is level with the ground prior to lifting.

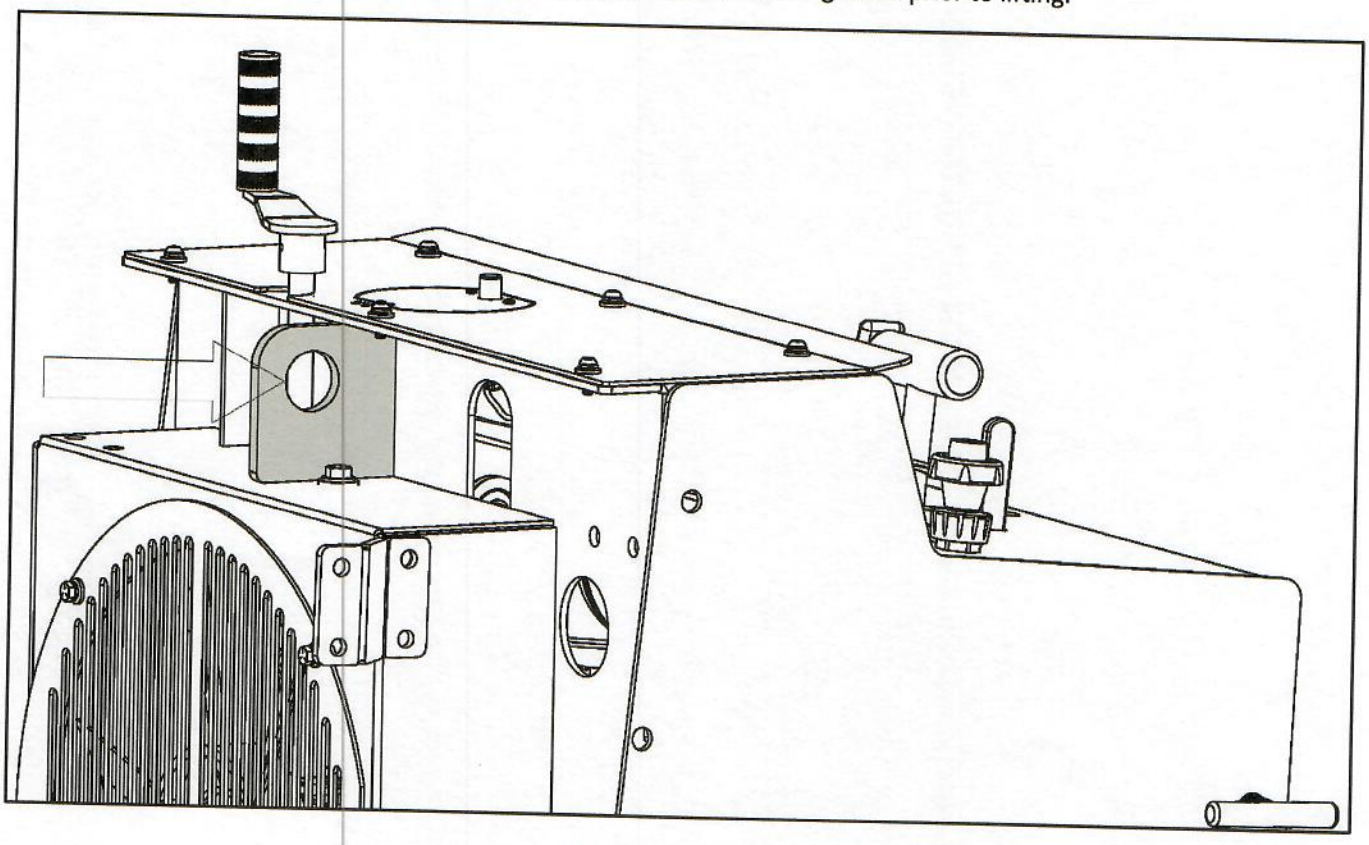

Figure 1: Lifting Eye

Safety Operations

MERIT Engineering & Equipment Co. recommends all operators follow the safety precautions below for optimal safety and performance of all equipment:

- Operators must be 18 years of age or older to operate this equipment
- Inspect equipment each time prior to operating equipment
- Inspect equipment for leaking oil or fuel prior to operation. Fire hazard may occur.
- Serious injury can occur if equipment is operated improperly
- Wear proper fitting clothing while operating equipment. Loose or baggy clothing can cause hazard with machinery and moving parts of equipment.
- Proper personal safety equipment must be worn at all times while equipment is in operation. Safety equipment includes safety glasses, gloves, earplugs and steel toe boots.
- Blade Guards must be secure in position on saw prior to use.
- Set cutting RPM per blade manufacturer specifications.
- Ensure machine is turned off prior to changing blade sizes or removing blade guards
- Prior to performing maintenance on equipment, equipment must be turned off and properly secured.
- Use extreme caution when unloading equipment from truck or transport. Equipment must only be off loaded on level ground. Injury or death may occur from falling equipment due to offloading on slope or unleveled ground.
- Never operate equipment under influence of drugs or alcohol
- Never allow other persons near the machine while it is in operation
- Never allow the machine to roll down an incline in the neutral position.
- To maintain control of the equipment always drive the saw in a forward motion when going down ramps and slopes
- Never jam, wedge or twist blade in a cut
- Never refuel equipment when the engine is running
- Always use the hook provided when lifting the machine

Battery Maintenance

- Due to the close proximity of the battery and fuel pump on the equipment, the battery must be removed from the equipment prior to charging or jumpstarting the battery. Any spark from the battery while in the machine may cause fire hazard resulting in injury.

Maintenance Operations

MERIT Engineering & Equipment Co. examines and tests each piece of equipment prior to shipment. A Quality Control Form, listing all equipment on the saw to be tested, is used to ensure quality is maintained and enforced during the building process.
Maintenance of the machine includes visual verifications of the filters, axles and bearings on each piece of equipment. For easy view and general maintenance all equipment should be washed after each use. Take care to ensure water is kept out of electrical switch area and the engines fuel tank.

Maintenance Schedule for Diesel Powered Equipment

Daily Maintenance

- Grease Spindle Bearings with lithium multi-purpose grease
- Verify Hydrostatic Pump Belt tension is correct
- Verify Blade Belt tension is correct
- Verify engine oil level every 8hours of operation

Weekly Maintenance

- Grease Rear Axle Bearings
- Grease Pivot Axle Bearings
- Check Gear box use 85-140 if needed. First change should be at 50hours than every 100 hours of operation
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-
-

Monthly Maintenance

- Verify Hydrostat Transmission to correct level with 30w non-detergent motor oil
- Verify Hydraulic Fluid for raise and lower pump using 1Quart Dexron ATF or equivalent

Engine Oil Specifications

Maintenance Schedule for Electrical Powered Equipment

Daily Maintenance

- Grease Spindle Bearings with lithium multi-purpose grease
- Verify Transmission Belt tension is correct
- Verify Blade Belt tension is correct

Weekly Maintenance

- Grease Rear Axle Bearings
- Grease Pivot Axle Bearings
- Hydrostat: Check and fill to proper level with SAE motor oil 30W

Monthly Maintenance

- Hydrostat: Check and fill to proper level with SAE motor oil 30W
- Check Rear Differential using 50W

Operation of Equipment Controls

MERIT Engineering & Equipment Co. recommends the following operating instructions must be followed during each use of equipment to maintain performance and proper operation.

- Unloading of Equipment: Equipment must be offloaded from truck or transport while on level ground. Attempting to off load equipment on a slope or unleveled ground can result in injury or death
- Water Supply during saw operation: Affix water connection to inlet hose in saw. Ensure water flow from saw to blade guard is unobstructed while sawing to maintain diamond blade temperature per blade specifications. All water lines should be free of dirt, debris and ice
- To raise the saw use "push up" button on handle. To lower the saw use "push down" button on handle.
- To control the lowering speed of the saw use the lowering control valve.
- To accelerate the saw in forward motion push the lever handle away from the operator. The saw will gradually increase in speed. To operate the saw in a backwards motion, pull the lever handle toward the operator
- To engage Posi-Traction pull and twist cable labeled "Posi-Traction" on the control panel.
- The True Neutral function of the saw is engaged by pulling and twisting the cable labeled as neutral on the control panel. By engaging this cable the gear connection in the hydraulic motor to the gears inside the differential disengages allowing the operator to freely move the saw backward and forward in the neutral position
- Prior to taking off the blade, shut off saw, then remove the nut with the wrench provided, raise the saw to clear blade and remove the outer half of the collar. Inspect both surfaces for dirt and other containments. Place the blade against the inside collar so that the hole in the blade seats on the collar pin. Place outer collar half and nut using wrench supplied. Tighten nut by striking the wrench handle with the hammer and then attach the blade guard.
- For all engine operation follow the procedure as listed in the manual.
- The saw may be maneuvered in several ways. Position the handles to suit the operator. The rear pivot differential axle allows the saw to be rotated by pushing the handles down to turn the saw.
- The performance of saw cutting relies on clean layout. Lay out the area to be cut with a chalked line or string and paint. Lead machine onto cut with the pointer down. When the pointer and blade are in line with the layout, turn the water on. Lower the blade into the cut. (Note: When cutting it is normal to make more than one pass to reach maximum depth.). After the saw blade reaches desired depth, move lever forward until saw reaches the proper cutting speed. When cut is finished, raise the saw until the blade clears the surface
- All equipment should be washed after each use. Take care to ensure water is kept out of electrical switch area and the engines fuel tank
- Ensure the saw is lubricated prior to storing after each use
- All equipment is manufactured to proper specifications and alignment. Any issues of misalignment due to the use of the saw should be brought to a qualified and trained technician for repair
- Parts should be ordered from MERIT Engineering & Equipment Co. The operator will need to give the model and serial number of the saw at the time of ordering.

Saw Cutting Operation

Saw Cutting Operations

Before Starting

- Check fluid levels
- Secure blade firmly to spindle shaft
- Verify all protective guards are in place
- Verify all personal protection equipment is worn

To Start Equipment

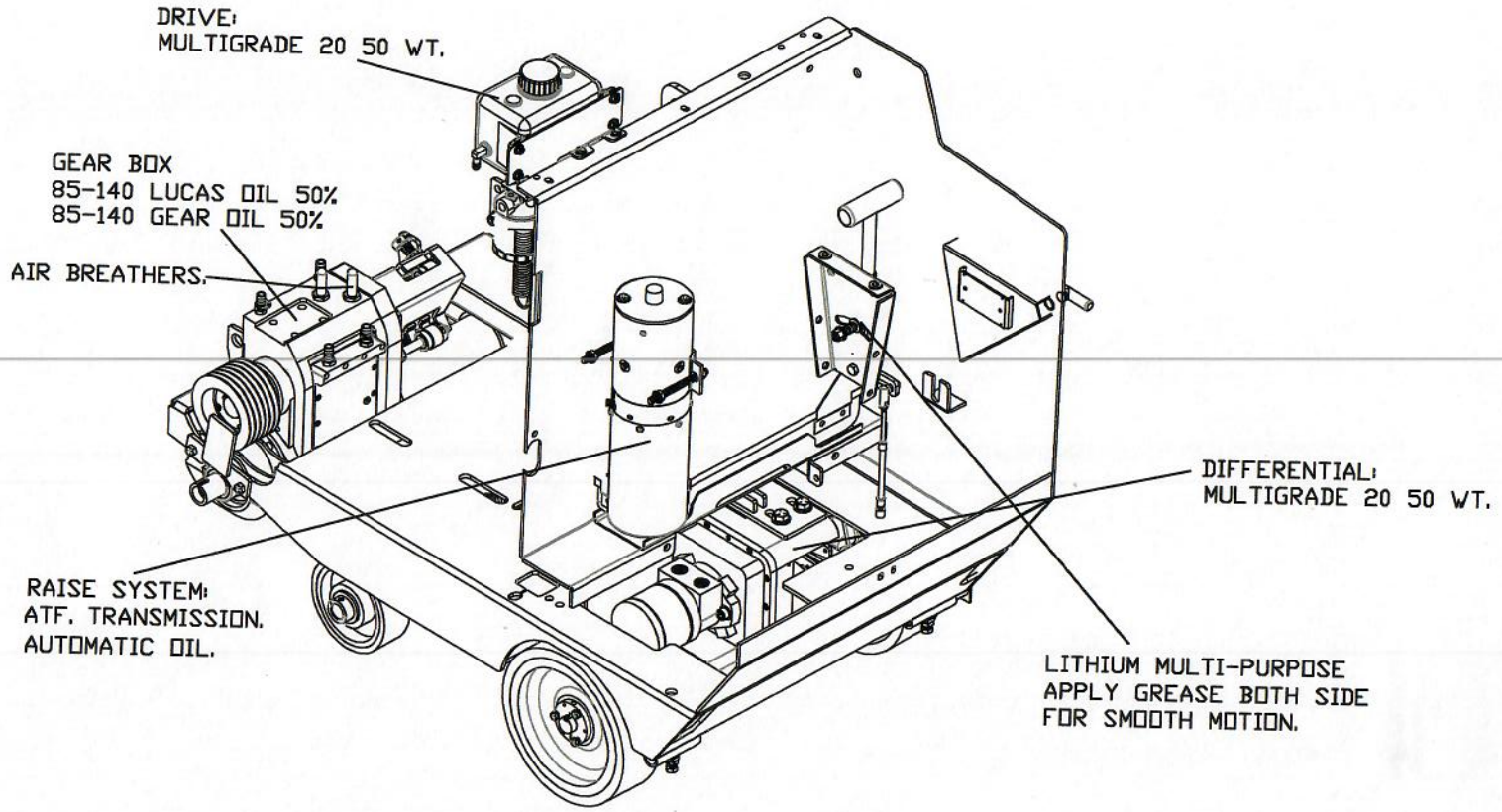
- Turn the OFF-ON-START C.C.W (hold it no more than 5 seconds; longer may damage glow plugs)
- Proceed to start the engine
- Allow engine to run at ½ throttle for several minutes to warm up engine

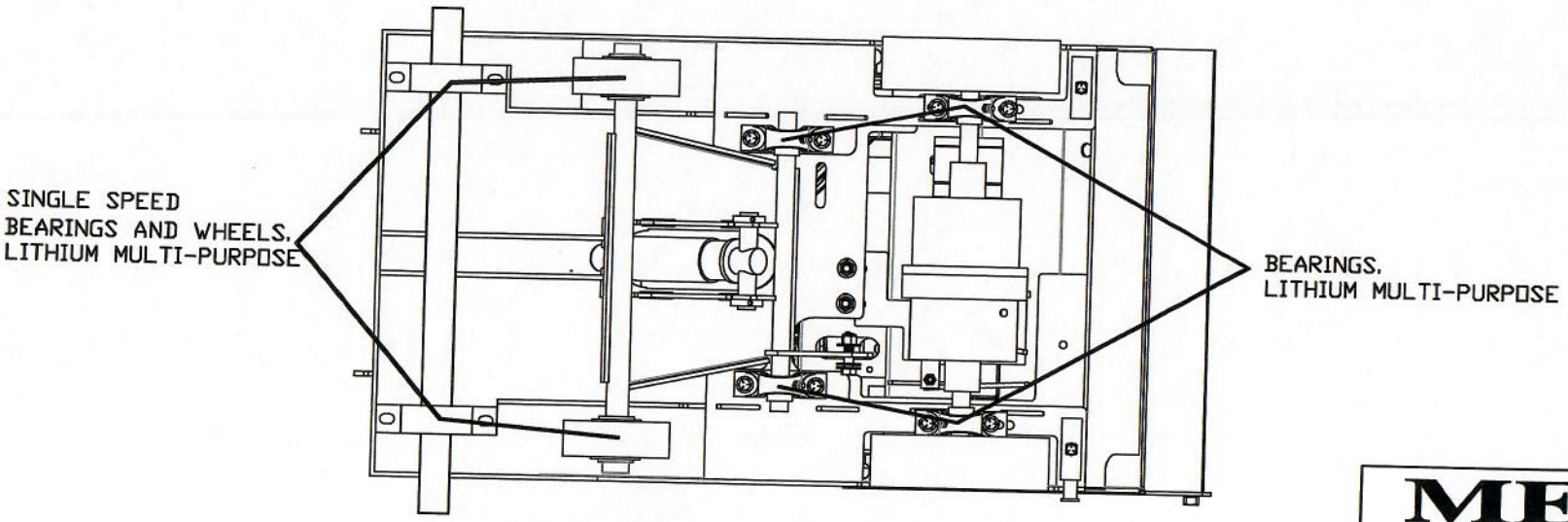
Operating

- Use the proper blades for material being cut. Use blades specific for asphalt and blades specific for concrete
- When cutting concrete, it is recommended to step cut with approximately 2 ½" deep passes
- Match spindle shaft speeds to blade manufactures recommended R.P.M. speeds
- If saw should raise out of cut, slow down forward speed

Stopping Engine

- DO NOT STOP ABRUPTLY WHEN HOT!
- Reduce throttle speed to idle and allow to run for 3 to 5 minutes before turning off OR SEVERE DAMAGE MAY OCCUR TO THE TURBO





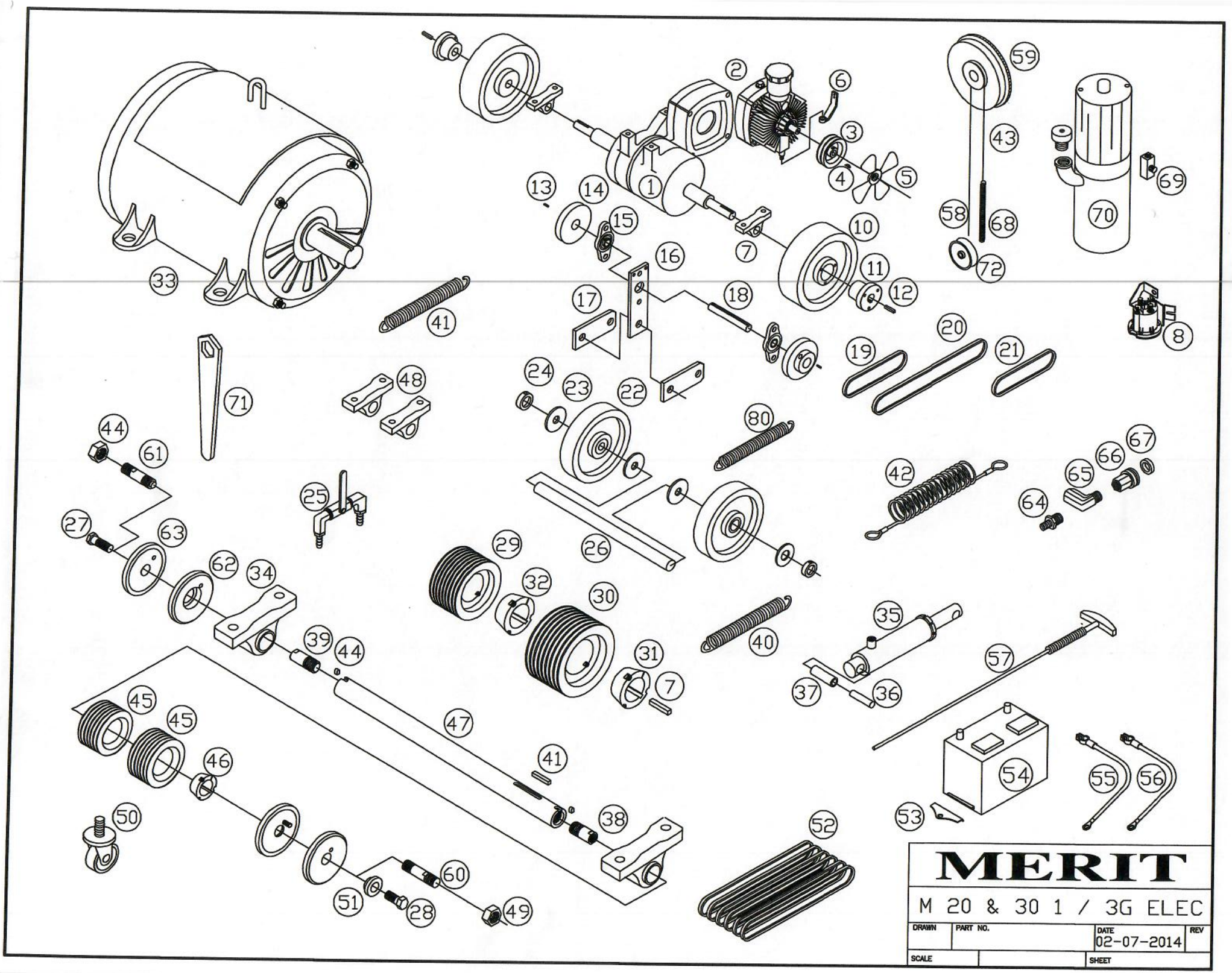
ELECTRIC

MERIT

TITLE: LUBRICATION CHART.

400E, 600E, 800E. ELECTRIC.

DATE: 10-29-11


MERIT
M 20 & 30 1 / 3G ELEC
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PART NO.
DATE
02-07-2014
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M-15, 20 & 30 1 / 4G ELECTRIC

ITEM	PART #	DESCRIPTION	QTY
1	30108	DIFFERENTIAL	1
2	30109	HYDROSTAT	1
3	30362	PULLEY, 2 "V"	1
4	30594	KEY, 1/8 X ½ WOODRUFF	1
5	30188	FAN	1
6	10591	LEVER, FWD/REV	1
7	30263	BEARING, 1" PILLOW BLOCK (FRONT AXLE ASSEMBLY)	2
8	33943	SOLENOID	1
9	30263	BEARINGS, 1" PILLOW BLOCK	2
10	30134	WHEEL, 10" X 3 "	2
11	33814	BUSHING, S H X 1" Q D	2
12	10334	KEY, STOCK ¼ X 2 1/4	2
13	10551	KEY, STOCK 3/16 X 1"	2
14	30385	SHEAVE, 3-1/2 X ¾	2
15	30345	BEARING, FLANGE ¾	2
16	10617	ARM, JACKSHAFT UPPER	1
17	10348	ARM, JACKSHAFT LOWER	2
18	10349	SHAFT, ¾ X 6	1
19	AP33	BELT, 2330 DRIVE (USED ON 15 H.P. 4 SPEEDS FROM MOTOR TO JACK SHAFT)	1
	AP33	BELT, 2330 DRIVE (USED ON 30 H.P. 4 SPEEDS FROM MOTOR TO JACK SHAFT)	1
	AP33	BELT, 2330 DRIVE (USED ON 30 H.P. SINGLE SPEED FROM MOTOR TO JACK SHAFT)	1
	AP33	BELT, 2330 DRIVE (USED ON 20 H.P. SINGLE SPEED FROM MOTOR TO JACK SHAFT)	1
	AP35	BELT, 2350 DRIVE (USED ON 20 H.P. 4 SPEEDS FROM MOTOR TO JACK SHAFT)	1
20	AP31	BELT, AP31 DRIVE (USED ON 15 H.P. 4 SPEEDS FROM JACK SHAFT TO TRANS)	1
	AP30	BELT, AP30 DRIVE (USED ON 30 H.P. 4 SPEEDS FROM JACK SHAFT TO TRANS)	1
	AP33	BELT, 2330 DRIVE (USED ON 30 H.P. SINGLE SPEED FROM JACK SHAFT TO TRANS)	1
	AP34	BELT, 2340 DRIVE (USED ON 20 H.P. SINGLE SPEED FROM JACK SHAFT TO TRANS)	1
	AP32	BELT, 2320 DRIVE (USED ON 20 H.P. 4 SPEEDS FROM JACK SHAFT TO TRANS)	1
21	AP27	BELT, 2270 DRIVE FOR ALTERNATOR	1
	AP28	BELT, 2280 DRIVE FOR ALTERNATOR	1
22	30133	WHEELS, 6" X 2" X 1"	2
23	33514	WASHER, 1" USS	2
24	30132	COLLAR, 1"	2
25	20623	VALVE, WATER ASSEMBLY	1
26	10318	BAR, 1"X 17 1/2 " FRONT AXLE	1
27	33956	BOLT, 5/8-11 L.H.T. (Q.D. OPTION)	1
28	33958	BOLT, 5/8-11 R.H.T (Q.D. OPTION)	1
29	10757	PULLEY, 3VX 4.75 7 G + 4.5 1G WELD ON (FOR SINGLE SPEED ON MOTOR)	1
30	33901	PULLEY, 3VX 6.00 7 G (FOR 4 SPEEDS ON MOTOR)	1
	10709	PULLEY, 3VX 4.1+ 4.5 7 G (USED ON MOTOR FOR 1 TO 1 SINGLE SPEED LOW RPM)	1
	33901-1	PULLEY, 3VX 5.6 7 GROOVE (FOR 20 H.P. "50 CYCLES" BALDOR MOTOR 1 SPEED)	1
31	30145	TAPER LOCK, 1 5/8-2517 (FOR 15 H.P AND 20 H.P.)	1
32	30145	TAPER LOCK, 1 7/8-2517 (FOR 30 H.P.)	1
	33619	TAPER LOCK, 1 5/8-2012 (FOR 20 H.P. 1 T0 1 SPEED)	1
33	40201	MOTOR, 20 H.P BALDOR ELECTRIC	1
	40721	MOTOR, 30 H.P LINCOLN ELECTRIC	1
34	30101	BEARING, 1-7/16 PILLOW BLOCK (SINGLE SPEED)	2
35	30459-5/8	CYLINDER, HYDRAULIC	1
36	30471	PIN, 5/8 X 3"	2
37	BUS056	5/8 X 3" X 1" BUSHING	2
38	11469	BUSHING, 1"-14 X 5/8-11 R.H.T. (Q.D. OPTION)	1
39	11470	BUSHING, 1"-14 X 5/8-11 L.H.T. (Q.D. OPTION)	1

M-15, 20 & 30 / 1 – 4G ELECTRIC

ITEM	PART #	DESCRIPTION	QTY
40	32549	SPRING, 9" (HEAVY DUTY FOR FRONT AXLE)	1
41	30185	SPRING, 9" BELT JACK SHAFT TENSIONER	1
42	30184	CABLE, POINTER	1
43	30577	BREATHER, PUMP	1
44	30137	1" 14 L.H.T. NUT	1
45	PUL006	3VX 4.75 6 G PULLEY (USED FOR 4 SPEEDS ON GEAR BOX) (USED FROM (5/15-15)	1
	30198	3VX 3.65 6 G PULLEY (USED FOR SINGLE SPEED ON SPINDLE)	1
	30198	3VX 3.65 6 G PULLEY (USED FOR 4 SPEEDS ON GEAR BOX) (USED UNTIL 4/15-15)	1
	10300	3VX 4.10 6 GROOVE (USED ON SPINDLE FOR 1 TO 1 SPEED)	1
46	BUS008	BUSHING, 1 3/8-2012 TAPER LOCK (GEAR BOX)	1
	BUS009	TAPER LOCK 2012 1 7/16 (USED ON SPINDLE FOR 1 TO 1 SPEED)	1
	33576	TAPER LOCK 1615 1 3/8 (FOR GEAR BOX)	1
	30147	TAPPER LOCK, 1 7/16-1615 (FOR SINGLE SPEED)	1
47	11675	SPINDLE, 1 7/16	1
48	30263	BEARING, 1" PILLOW BLOCK (DIFFERENTIAL ASSEMBLY)	2
49	30138	NUT, 1"- 14 R.H.T	1
50	30191	WHEEL, 2" CASTER	1
51	33957	BUSHING	2
52	3VX475	BELTS, 3VX 475 (FOR SINGLE SPEED (20 H.P.)	6
	3VX450	BELTS, 3VX 450 (FOR 4 SPEEDS (15 H.P.) (20 H.P.)	6
	3VX475	BELTS, 3VX 475 (FOR 4 SPEEDS (30 H.P.)	6
	3VX450	BELTS, 3VX 450 (FOR 20 H.P. "50 CYCLES" BALDOR MOTOR)	6
	3VX500	BELTS, 3VX 500 FOR SINGLE SPEED (30 H.P.)	6
53	30183	HOLD DOWN, BATTERY	1
54	30202	BATTERY, GROUP 26	1
55	30396	CABLE, 65" BATTERY POSITIVE	1
56	33877	CABLE, 65" BATTERY NEGATIVE	1
57	30240	CABLE, NEUTRAL	1
58	30141	CABLE, DEPTH GAUGE	1
59	PUL002	DEPTH GAUGE 6" X 1" X .250 HOLE	1
60	11376	STUD, 1" 14 R.H.T. X 3 1/2 (STANDARD)	1
61	11377	STUD, 1" 14 L.H.T. X 3 1/2 (STANDARD)	1
62	11410	COLLARS, 4" INNER	2
63	11411	COLLARS, 4" OUTER	2
64	30537	FITTING, ½ NPT X ½ BARB	1
65	30527	ELBOW, ½ NPT STREET	1
66	31032	CONNECTOR, HOSE ¾ GARDEN HOSE X ½ NPT	1
67	30610	WASHER, GARDEN HOSE	1
68	SPR010	SPRING 8.500 X .625 X .062 WIRE DEPTH GAUGE PLATED	1
69	30157	VALVE, NEEDLE	1
70	30156	PUMP, HYDRAULIC	1
71	10170	WRENCH, BLADE	1
72	PUL003	WHEEL, PLASTIC 1 3/4 X 1/4	2
73			
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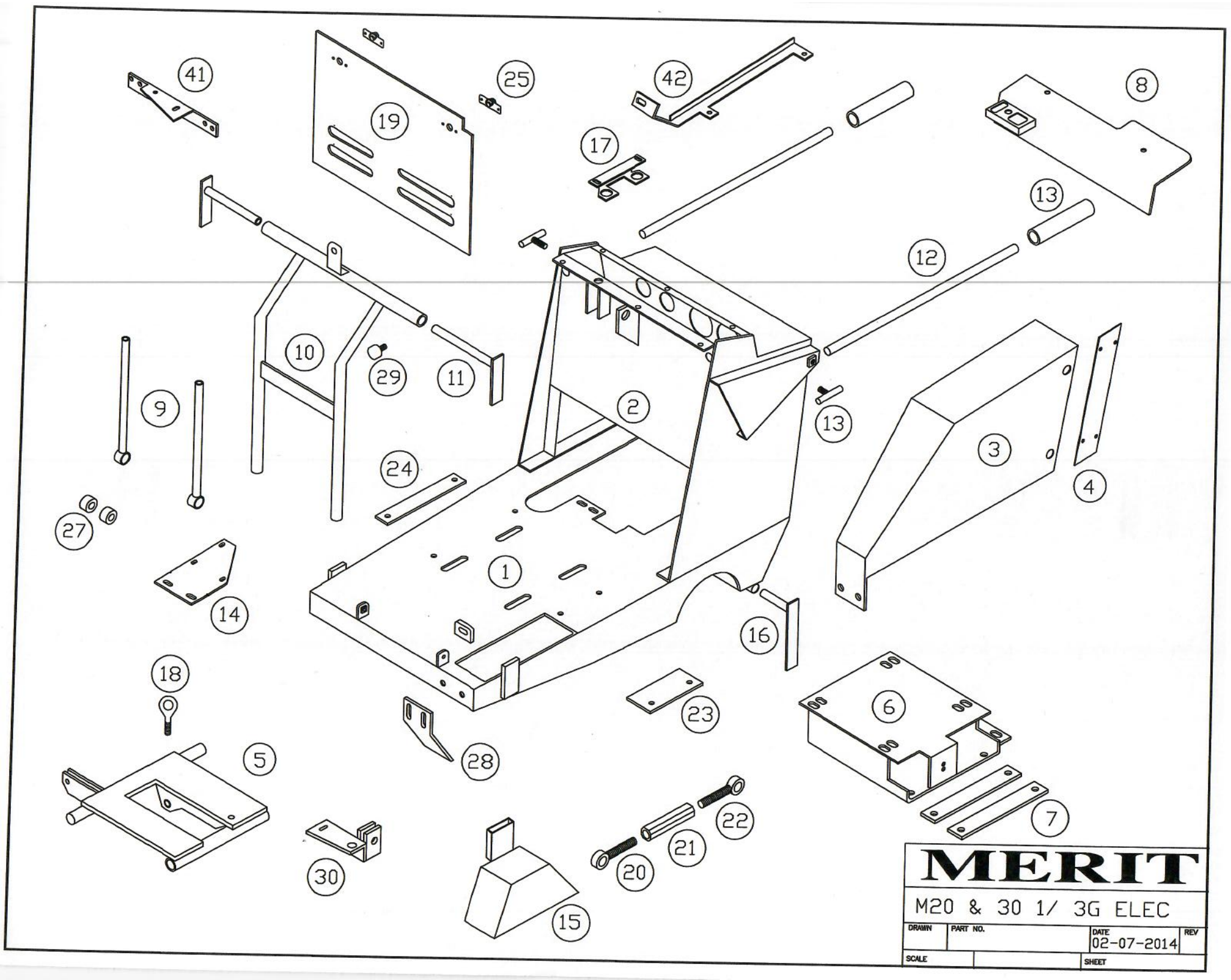


MERIT

M20 & 30 1/ 3G ELEC

DRAWN	PART NO.	DATE	REV
		02-07-2014	
SCALE		SHEET	

MERIT

M-15, 20 & 30 / 1 - 4G ELECTRIC

ITEM	PART #	DESCRIPTION	QTY
1	10343-3	BOTTOM, 3 SPEEDS	1
	10343	BOTTOM, SINGLE SPEED	1
2	10344-5	TOP, CONSOLE	1
3	10358	BELTGUARD	1
4	10346	PLATE, GUARD	1
5	10475	AXLE, FRONT	1
6	11539	MOUNT, MOTOR (MOTOR MOUNT FOR 30E & 20E HP.)	1
7	11540	MOTOR HOLD DOWN	2
8	11455	COVER, TOP	1
9	10480-2	TUBES, LOWER POINTER	2
10	10359	POINTER, UPPER FRAME	1
11	10289	GUIDE, POINTER ROD	2
12	10470	BARS, 42" X 1"	2
13	30186	GRIPS, HAND	2
14	10588	HOLD DOWN, DIFFERENTIAL	1
15	10311	GUARD, COLLAR	1
16	10218	GUIDE, REAR	1
17	11344	BKT, WATER VALVE	1
18	NPN	EYEBOLT, 3/8 X 2"	1
19	10345-5	PANEL, REAR	1
20	10385	TURN BUCKLE, 5/8-11 R.H.T.	1
21	10382	COUPLING, NUT	1
22	10381	TURN BUCKLE, 5/8-11 L.H.T.	1
23	11542	GUIDE, MOTOR SHORT (SINGLE SPEED)	1
24	11543	GUIDE, MOTOR LONG (SINGLE SPEED)	1
25	30261	LATCH, PANEL	2
26	10341	LOCKS, "Y" ½-13	2
27	BUS019	BUSHINGS PLASTIC "FOR POINTER"	2
28	11121	PROTECTOR, BELT (SINGLE SPEED)	1
29	30606	BUMPER, POINTER STOP	1
30	10610	BRACKET, JACK SHAFT	1
41	BRAK102	BRACKET, DEPTH GAUGE PLASTIC WHEELS	1
42	BRAK056	BRACKET, PONTER STOP	1

4- SPEEDS GEAR BOX MAINTENANCE

USE YOUR MERIT GEAR BOX TO MATCH OPTIMUM ENGINE PERFORMANCE TO BLADE MANUFACTURERS RECOMMENDED BLADE RPM FOR SUPERIOR CUTTING PERFORMANCE. TO MAINTAIN GEARBOX PERFORMANCE, PLEASE OBSERVE THE FOLLOWING WARNINGS.

▲ WARNING:

TO PREVENT WATER ENTRY TO GEARBOX, DO NOT SPRAY WATER UNDER HIGH PRESSURE DIRECT AT GEARBOX.

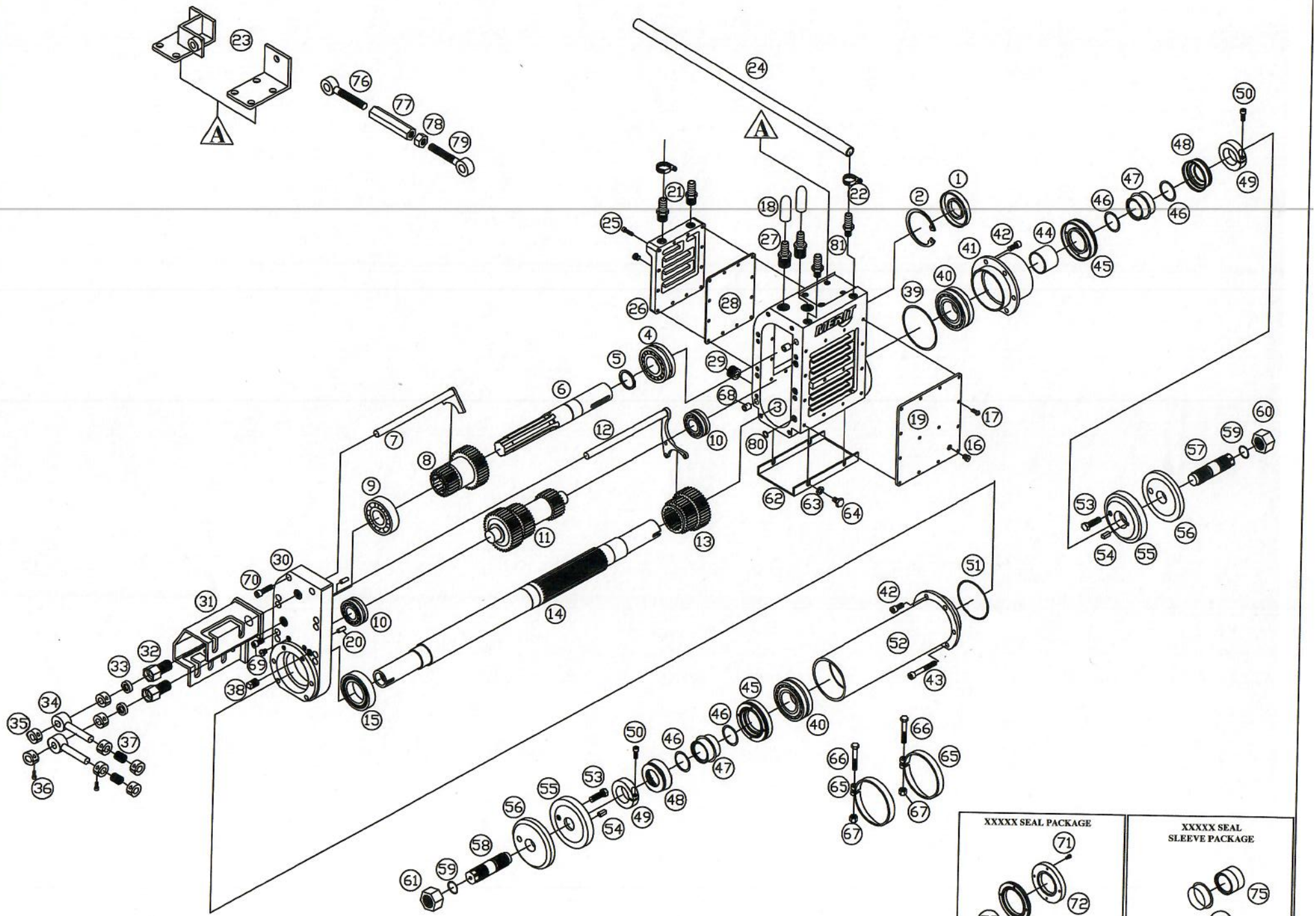
▲ WARNING:

DO NOT SHIFT GEARS WITH ENGINE RUNNING TO SHIFT GEARBOX USE SPINDLE WRENCH TO ROTATE THE SPINDLE SHAFT SLIGHTLY AS YOU MOVE THE SHIFTER TO THE NEXT GEAR.

WARNINGS:

- CHECK OIL LEVEL WEEKLY.
- CHANGE OIL EVERY 50 HOURS OF OPERATION.
- USE MULTI–GRADE GEAR OIL 85–140 – 50%
- USE LUCAS OIL MULTI–GRADE 85–140 – 50%
- DO NOT FILL OIL AT VENT TANK.
- DO NOT OVER FILL CHECK YOUR OIL LEVEL.
- DURING FREEZING CONDITIONS DRAIN WATER OUT

4 SPEED GEAR BOX (SMALL)



No.	P/N	DESCRIPTION	QTY	No.	P/N	DESCRIPTION	QTY
1	SEA006	SEAL 35 X 72 X 10	1	46	RIN014	O-RING # 220	4
2	RIN006	INT. SNAP RING 2-3/4	1	47	SEA010	SEAL SLEEVE PACKAGE	2
3	CAS002	CENTER CASTING	1	48	CAP004	SLURRY SMALL CAP	2
4	BEA007	BEARING 22207	1	49	COL011	SHAFT COLLAR 1-3/8	2
5	RIN005	EXT SNAP RING 1-3/8	1	50	SCR059	SHCS 1/4-28 X 3/4	2
6	SHA002	INPUT SHAFT	1	51	RIN012	O-RING # 151	1
7	FOR002	SHIFTER FORK	1	52	HOU002	LONG HOUSING	1
8	GEA007	TOP SLIDER GEAR	1	53	BOL007	BOLT 3/8-16 X 1-1/4	2
9	BEA004	BEARING 6306	1	54	KEY002	SQUARE KEY 1/4 X 5/8	2
10	BEA006	BEARING 22205	2	55	COL013	4" INNER BLADE COLLAR	2
11	GEA003	IDLER GEAR	1	56	COL015	4" OUTER BLADE COLLAR	2
12	FOR001	LONG SHIFTER FORK	1	57	STU001	STUD RHT	1
13	GEA002	BOTTOM SLIDER GEAR	1	58	STU002	STUD LHT	1
14	SHA006	OUTPUT SHAFT 400 SERIES	1	59	RIN009	O-RING #20	2
14	SPI007	OUTPUT SHAFT 350 SERIES	1	60	NUT014	NUT 1-14 RHT	1
15	BEA001	BEARING 6009	1	61	NUT015	NUT 1-14 LHT	1
16	PLU003	HEX PLUG 2HP50NS	5	62	PLAT006	SKID PLATE	1
17	SCR001	BHCS 10-24 x 1/2"	15	63	WAS027	1/4 FLAT WASHER	4
18	CAP003	RUBBER END CAP	2	64	BOL001	BOLT 1/4-20 x 1/2"	4
19	PLAT002	COOLER PLATE	1	65	CLA018	STOP CLAMP	2
20	PIN002	DOWEL PIN 1/4 x 5/8"	2	66	BOL010	BOLT 5/16-18 x 2"	2
21	FIT025	BARB FITTING 1/2 BARB 3/8 NPT	2	67	NUT026	NYLON LOCK NUT 5/16-18	2
22	CLA020	WATER HOSE CLAMP	2	68	BUS010	DRILL BUSHING 7/16ODx0.251IDx1/2L	2
23	BRAK016	BRACKET, BELT TENSIONER (DIESEL)	1	69	SCR064	SHCS 5/16-18 x 1/2"	4
23	BRAK017	BRACKET BELT TENSIONER (ELECTRIC)	1	70	SCR065	SHCS 5/16-18 x 1-1/4"	6
24	HOS022	1/2" WATER HOSE	1	71	SCR054	SET SCREW 6-32 x 1/4"	4
25	SCR062	SHCS 10-24 x 3/4"	10	72	SEA014	SEAL 45 X 80 X 10	1
26	COV001	COOLER COVER	1	73	PLAT007	SLURRY SMALL PLATE	1
27	FIT021	BARB FITTING 1/2 BARB 1/2 NPT	2	74	SLE001	SPEEDI SLEEVE CR 99177	1
28	PLAT005	INTERMEDIATE PLATE	1	75	BUS013	SEAL SLEEVE BUSHING	1
29	PLU004	MAGNETIC PLUG 1/2 NPT	1	76	TUR001	TURNBUCKLE 1/2-13 LHT	1
30	COV005	END COVER	1	77	NUT003	COUPLING NUT 4" 1/2-13 R&L	1
31	BRAK007	NOTCHED BRACKET	1	78	NUT012	NUT 1/2-13	1
32	HOU006	SHIFTER HOUSING	2	79	TUR002	TURNBUCKLE 1/2-13 RHT	1
33	SEA008	SEAL SKF 4931	2	80	RIN008	O-RING # 012	3
34	LEV001	SHIFT LEVER	2	81	FIT015	BARB FITTING 1/2 BARB 1/4 NPT	2
35	COL005	1/2" SHAFT SPLIT COLLAR	8				
36	SCR090	SHCS 8-32 x 5/8	8				
37	SPR009	SPRING (CS # B11-59)	2				
38	PLU002	PLUG 1/4 NPT SQUARE HEAD	1				
39	RIN015	O-RING # 237	1				
40	BEA008	BEARING 22208	2				
41	HOU007	SHORT HOUSING	1				
42	SCR067	SHCS 5/16-18 x 3/4"	8				
43	SCR091	SHCS 5/16-18 x 2-1/4"	4				
44	SPA002	SPACER	1				
45	SEA009	SEAL PACKAGE	2				

During the warranty period, Merit will repair or replace gearboxes found to be defective in material or workmanship. Merit's commitment under this warranty is explicitly limited to gearboxes confirmed to be defective by Merit or an authorized service center. Until such a determination is made, all shipping and labor costs will be assumed by purchaser.

To make a claim under this warranty, the purchaser must:

- Notify Merit in writing (email is acceptable) of defective gearbox within 10 days of failure;
- Have operated and maintained the gearbox in accordance with Merit's instructions and/or manual; and
- Provide the gearbox serial number with the claim, **including pictures of the issue.**

Warranty does not extend to any gearbox that has been abused, misused, neglected, involved in an accident, repaired or modified without Merit's authorization, or used in violation of instructions provided by Merit. **Any gearboxes that have been opened/tampered with prior to evaluation by an authorized Merit technician will have their warranty voided.**

Gearboxes will be subject to a prorated warranty as follows:

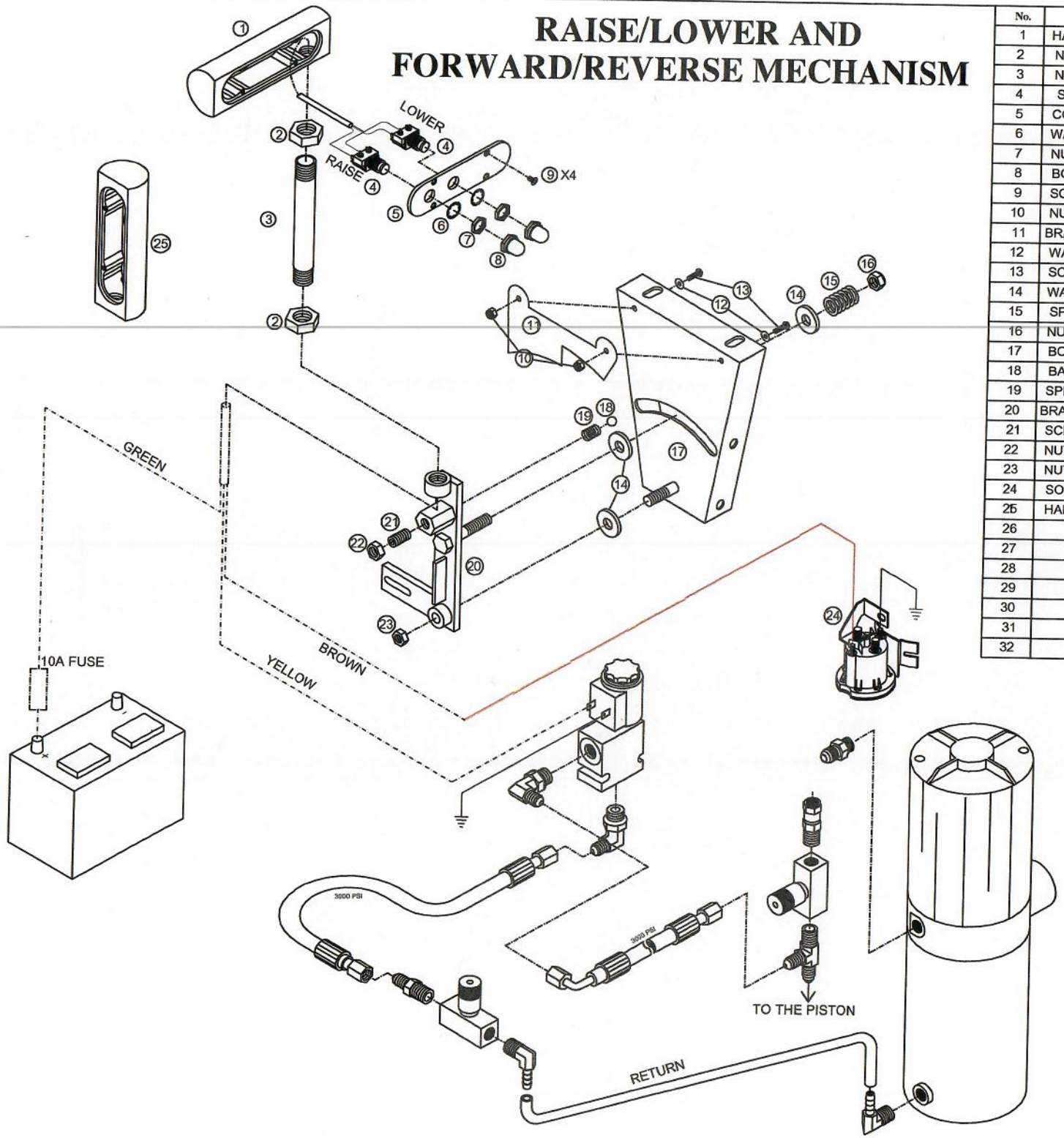
Months from Ship Date	Warranty Covered by Merit (%)
1-6	Full Warranty
6-7	75
7-8	60
8-9	50
9-10	40
10-11	30
11-12	20
12+	No Warranty

Any components sent as replacements will not be grounds for an extension of warranty; the same principle applies to rebuilds.

All warranties are delivered at a standard shipping rate. To expedite a warranty, the difference between standard shipping and next day will be invoiced.

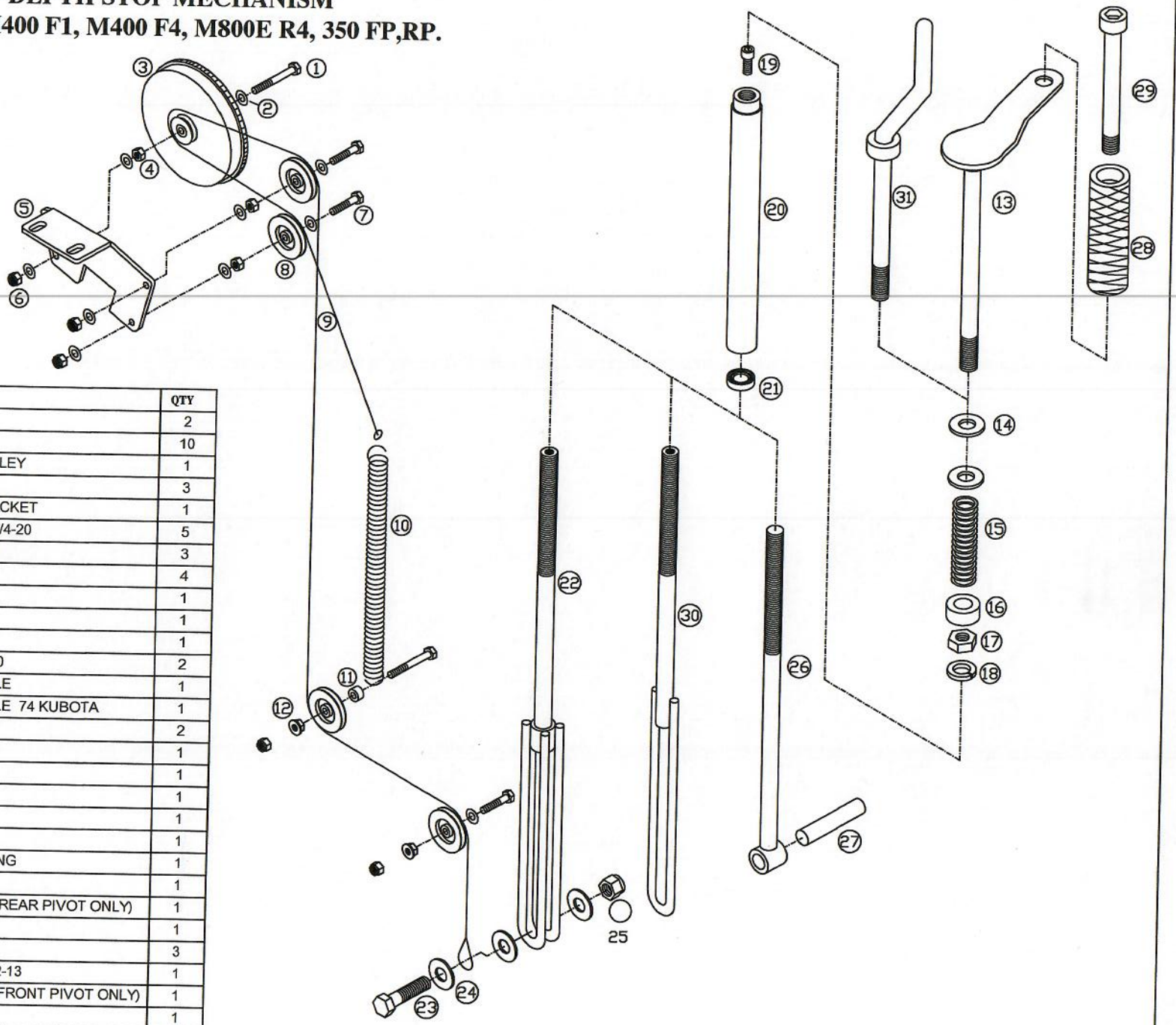
DISCLAIMER: Gearboxes must be thoroughly maintained. Any gearboxes used beyond safe operating limitations will be subject to a voided warranty if clear signs of neglect and abuse are found upon inspection.

RAISE/LOWER AND FORWARD/REVERSE MECHANISM



No.	P/N	DESCRIPTION	QTY
1	HAN002	HANDLE	1
2	NUT001	NUT 3/8 NPT	2
3	NIP003	NIPPLE	1
4	SWI011	SWITCH	2
5	COV012	COVER	1
6	WAS056	15/32 STAR WASHER	2
7	NUT076	15/32 JAM NUT	2
8	BOO001	RUBBER BOOT	2
9	SCR070	SHCS 6-32 X 1/4	4
10	NUT028	NUT NYLON LOCK 6-32	2
11	BRAK010	BRACKET STOP	1
12	WAS016	WASHER FLAT #6	2
13	SCR055	SCREW 6-32 x 1/2	2
14	WAS046	WASHER HARDEN 3/8"	3
15	SPR021	SPRING 3758	1
16	NUT025	NUT NYLON LOCK 3/8-16	1
17	BOD001	BODY	1
18	BAL001	BALL 3/8"	1
19	SPR004	SPRING 2603	1
20	BRAK005	BRACKET	1
21	SCR052	SET SCREW 3/8-16 X 3/4	1
22	NUT050	NUT JAM 3/8-16	1
23	NUT039	NUT 5/16-18	1
24	SOL001	LIFT PUMP, SOLENOID	1
25	HAN005	HANDLE, FOR RIDER	1
26			
27			
28			
29			
30			
31			
32			

DEPTH GAUGE AND DEPTH STOP MECHANISM
M400 R1, M400 R4, M400 F1, M400 F4, M800E R4, 350 FP,RP.

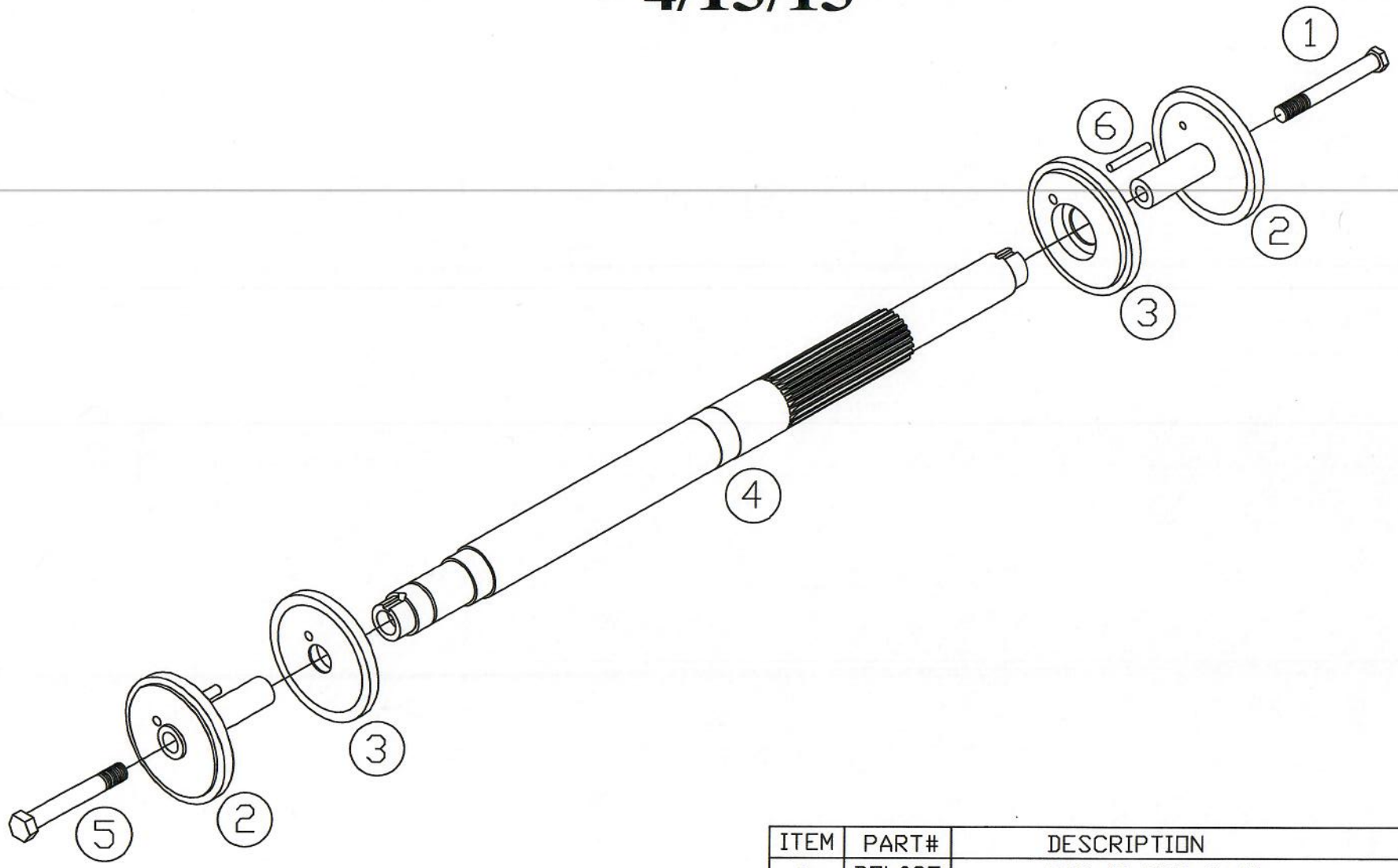


No.	P/N	DESCRIPTION	QTY
1	BOL004	BOLT 1/4-20 X 2"	2
2	WAS008	FLAT WASHER 1/4	10
3	PUL002	DEPTH GAUGE PULLEY	1
4	NUT036	NUT 1/4-20	3
5	BRAK003	DEPTH GAUGE BRACKET	1
6	NUT024	NYLON LOCK NUT 1/4-20	5
7	BOL003	BOLT 1/4-20 X 1-1/4	3
8	PUL003	PLASTIC PULLEY	4
9	CAB001	CABLE 57-7/8	1
10	SPR010	SPRING	1
11	COL002	COLLAR 1/4"	1
12	NUT042	FLANGED NUT 1/4-20	2
13	HAN001	DEPTH STOP HANDLE	1
13	HAN074	DEPTH STOP HANDLE 74 KUBOTA	1
14	WS004	FLAT WASHER 5/8"	2
15	SPR002	SPRING	1
16	COL020	COLLAR 11/16"	1
17	NUT046	JAM NUT 5/8-11	1
18	WAS007	SPLIT WASHER 5/8"	1
19	SCR067	SHCS 5/16-18 X 3/4	1
20	HOU001	DEPTH STOP HOUSING	1
21	SEA005	SEAL 25 X 15 X 7	1
22	ROD001	DEPTH STOP ROD (REAR PIVOT ONLY)	1
23	BOL006	BOLT 1/2-13 X 2"	1
24	WAS003	FLAT WASHER 1/2"	3
25	NUT018	NYLON LOCK NUT 1/2-13	1
26	ROD002	DEPTH STOP ROD (FRONT PIVOT ONLY)	1
27	PIN006	PIN 5/8 X 3"	1
28	HAN001	HANDLE	1
29	BOL032	SHOULDER BOLT	1
30	ROD011	DEPTH STOP ROD (350 RP, 350 FP ONLY)	1
31	HAN011	DEPTH STOP HANDLE (350 F.P. ONLY)	1
31	HAN012	DEPTH STOP HANDLE (350 R.P. ONLY)	1

UPDATED 10-8-2013

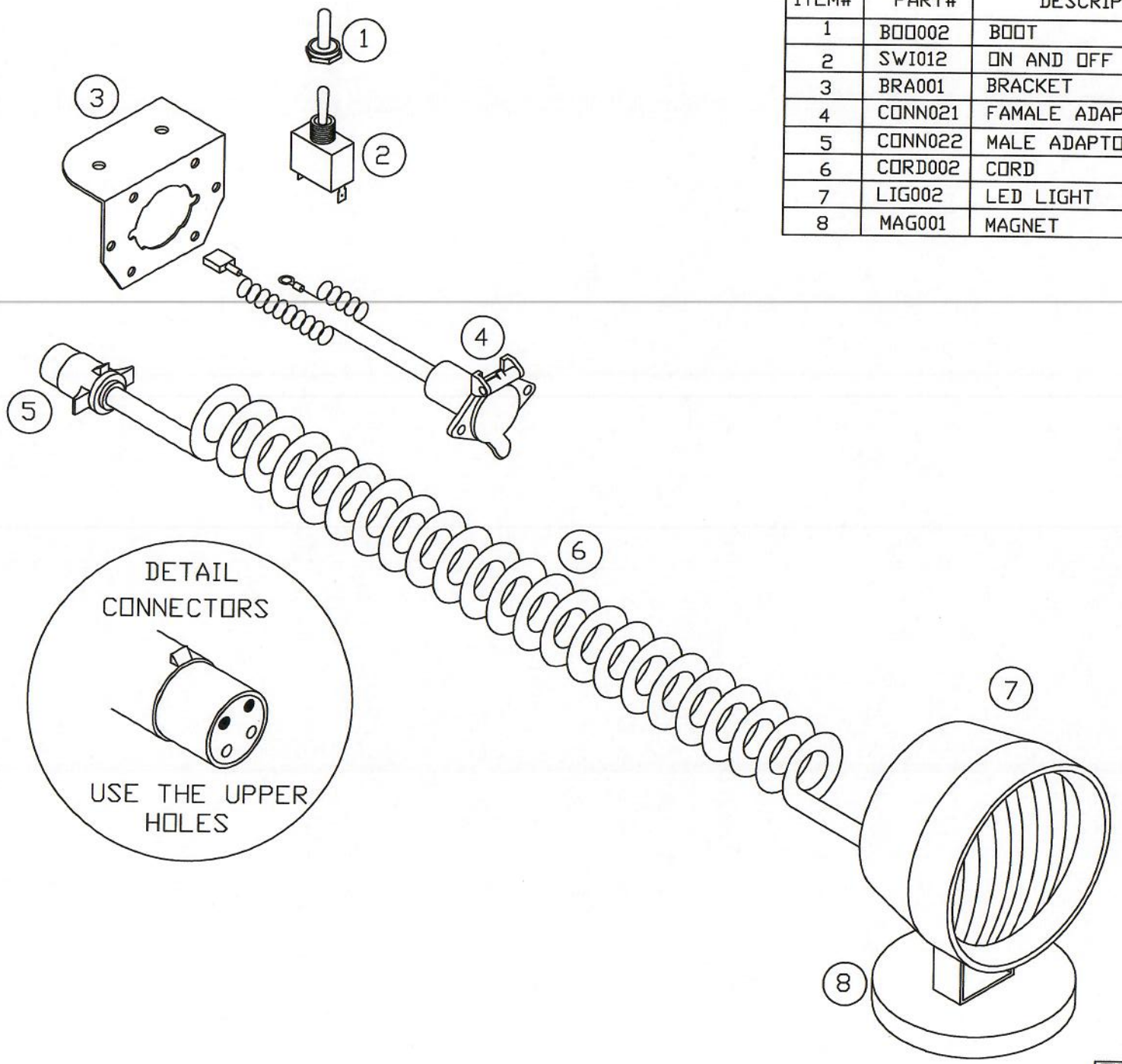
SPECIAL COLLAR SET 350, 400 SERIES

4/15/15



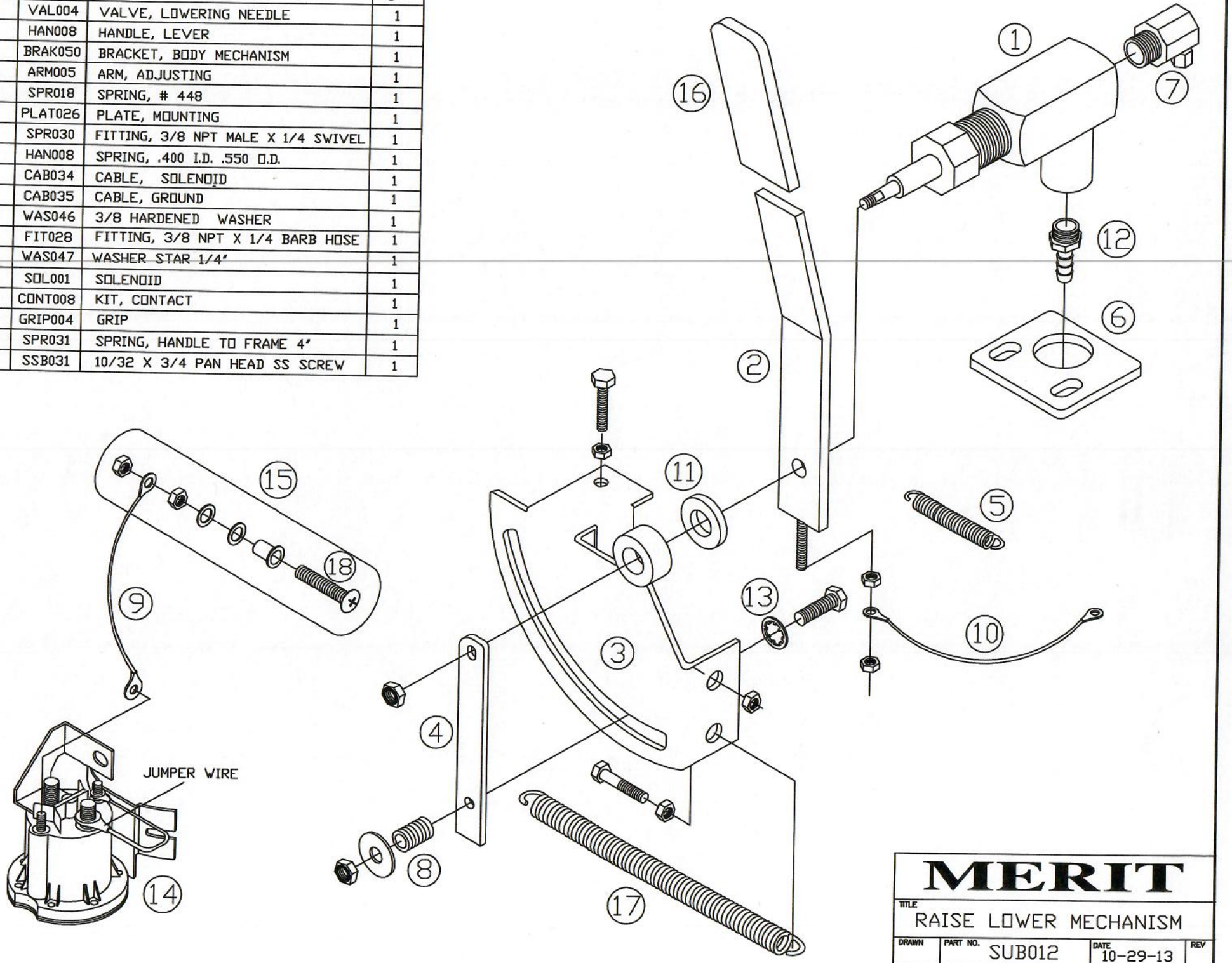
ITEM	PART#	DESCRIPTION	QTY
1	BOL035	5/8-11 RHT X 4"	1
2	COL024	OUTER COLLAR 4"	2
3	COL013	INNER COLLAR 4"	2
4	SPI016	SPINDLE (400)	1
4	SPI015	SPINDLE (350)	1
5	BOL036	5/8-11 LHT X 4"	1
6	PIN003	DOWEL PIN 3/8 X 1 1/2	2

ITEM#	PART#	DESCRIPTION	QTY
1	B00002	BOOT	1
2	SWI012	ON AND OFF SWITCH	1
3	BRA001	BRACKET	1
4	CONN021	FAMALE ADAPTOR	1
5	CONN022	MALE ADAPTOR	1
6	CORD002	CORD	1
7	LIG002	LED LIGHT	1
8	MAG001	MAGNET	1



TITLE			
NIGHT LIGHT SET UP			
DRAWN	PART NO.	DATE 04-05-13	REV
	DEBURR ALL SHARP EDGES		

ITEM	C/N	DESCRIPTION	QTY
1	VAL004	VALVE, LOWERING NEEDLE	1
2	HAN008	HANDLE, LEVER	1
3	BRAK050	BRACKET, BODY MECHANISM	1
4	ARM005	ARM, ADJUSTING	1
5	SPR018	SPRING, # 448	1
6	PLAT026	PLATE, MOUNTING	1
7	SPR030	FITTING, 3/8 NPT MALE X 1/4 SWIVEL	1
8	HAN008	SPRING, .400 I.D. .550 O.D.	1
9	CAB034	CABLE, SOLENOID	1
10	CAB035	CABLE, GROUND	1
11	WAS046	3/8 HARDENED WASHER	1
12	FIT028	FITTING, 3/8 NPT X 1/4 BARB HOSE	1
13	WAS047	WASHER STAR 1/4"	1
14	SOL001	SOLENOID	1
15	CONT008	KIT, CONTACT	1
16	GRIP004	GRIP	1
17	SPR031	SPRING, HANDLE TO FRAME 4"	1
18	SSB031	10/32 X 3/4 PAN HEAD SS SCREW	1

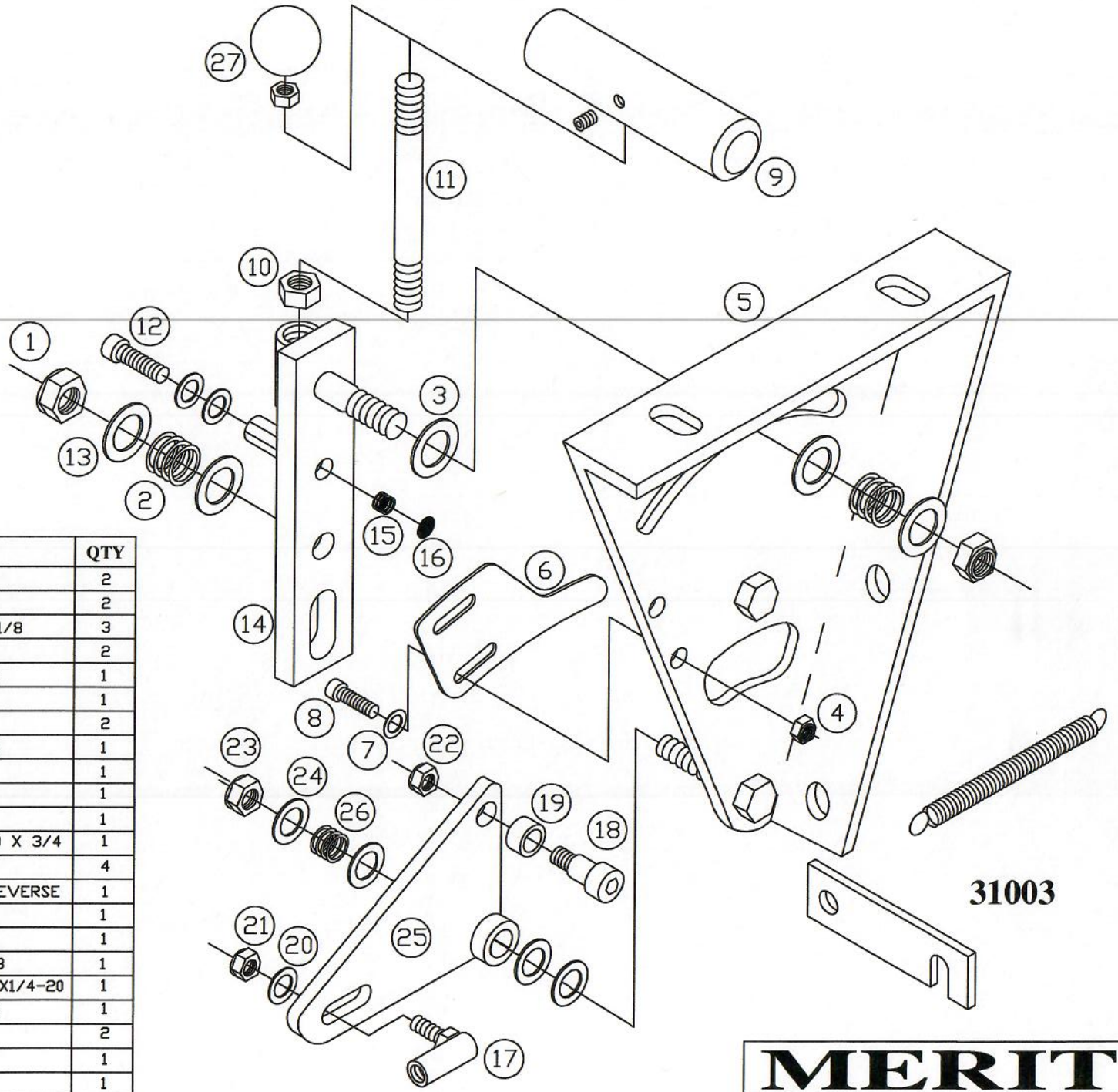


MERIT

TITLE: RAISE LOWER MECHANISM

DRAWN	PART NO.	DATE	REV
	SUB012	10-29-13	

SCALE | DEBURR ALL SHARP EDGES AND HOLES | SHEET



ITEM	C/N	DESCRIPTION	QTY
1	NPN	LOCK NUT, 3/8-16	2
2	NPN	SPRING, B-6	2
3	NPN	WASHER, HARD 3/8 X 7/8 X1/8	3
4	NPN	NUTS, KEEPS 10/32	2
5	10320-1	BKT, FORWARD AND REVERSE	1
6	10323	PLATE, INDEX	1
7	NPN	WASHER, FLAT #10	2
8	NPN	SCREW, PHIL 10/32 X 5/8	1
9	11706	"T" HANDLE, NYLON	1
10	NPN	NUT, 3/8-16	1
11	NPN	STUD, 3/8-16 X 5"	1
12	NPN	SCREW, SOCKET HEAD 1/4-20 X 3/4	1
13	NPN	WASHER, 3/8	4
14	10321-1	LEVER, SHIFT FORWARD & REVERSE	1
15	NPN	SPRING, BB7	1
16	30885	BALL, SS 5/16	1
17	30906	BALLJOINT, 1/4-28 X 1/4-28	1
18	NPN	SCREW, SHOULDER 5/16X1/2 X1/4-20	1
19	10324	BUSHING, 5/16 X 1/2 X 7/16	1
20	NPN	WASHER, 1/4	2
21	NPN	HEX NUT, 1/4-28	1
22	NPN	JAM NUT, NYLON 5/16-18	1
24	NPN	WASHER, FLAT 5/16	4
25	10322	PLATE, CABLE CONNECTION	1
26	NPN	SPRING,	1
27	NPN	BALL	1

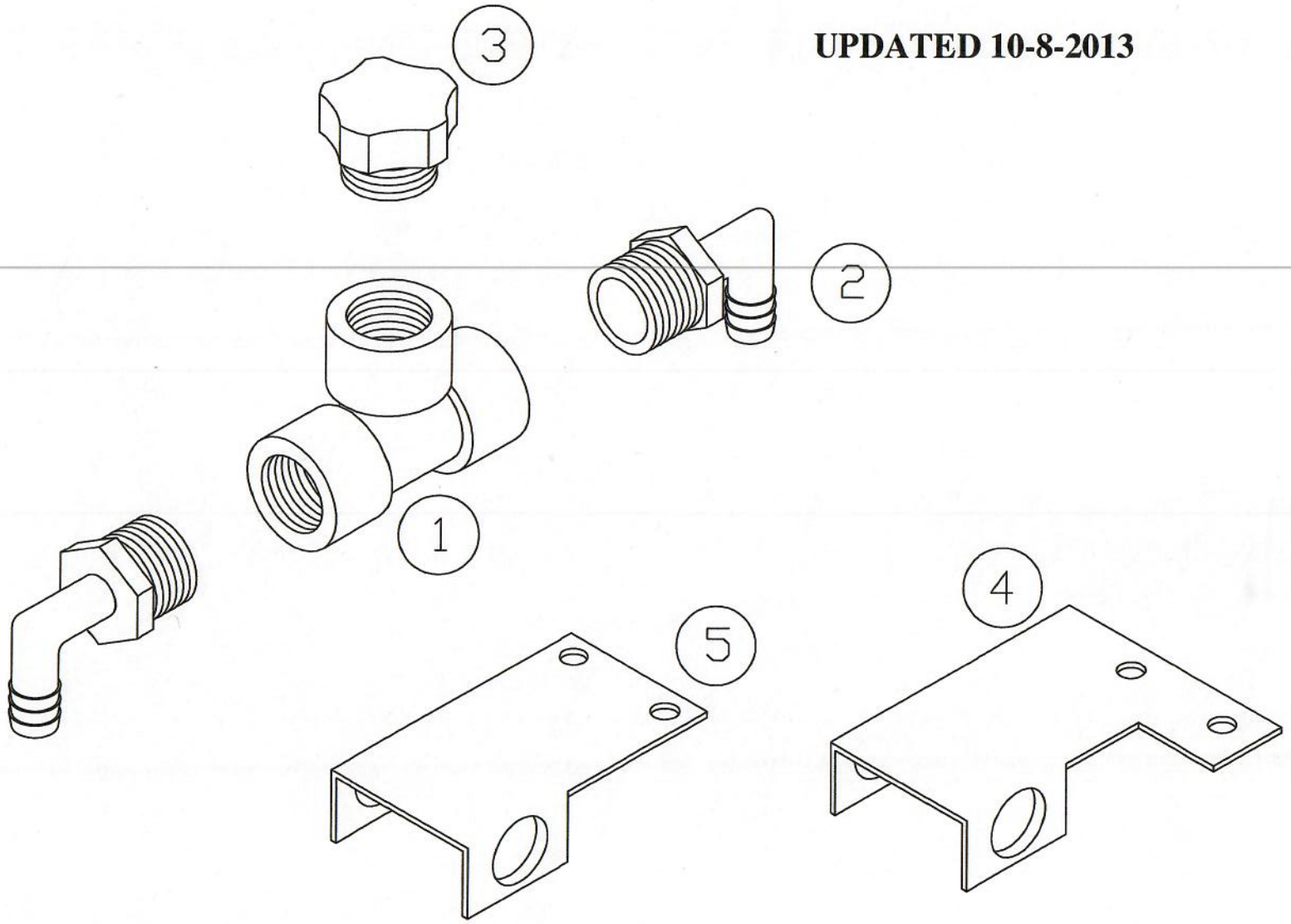
MERIT

TITLE: SPEED CONTROL

DRAWN	PART NO.	DATE	REV
JVG		04-08-15	

SCALE | DEBURR ALL SHARP EDGES AND HOLES | SHEET

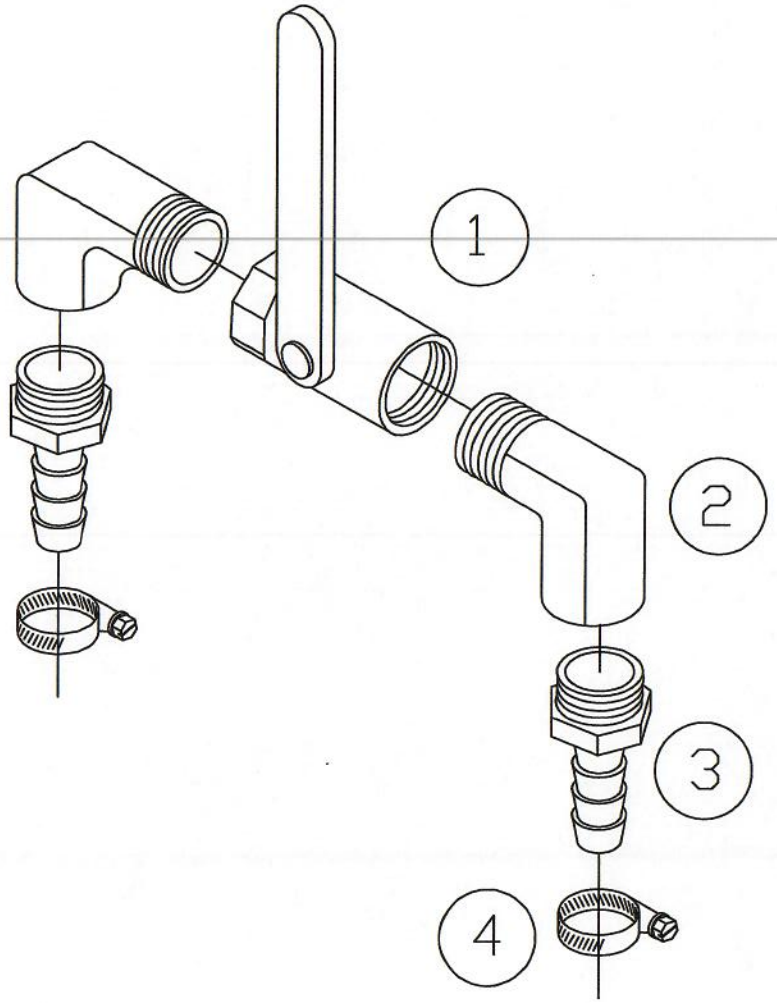
UPDATED 10-8-2013

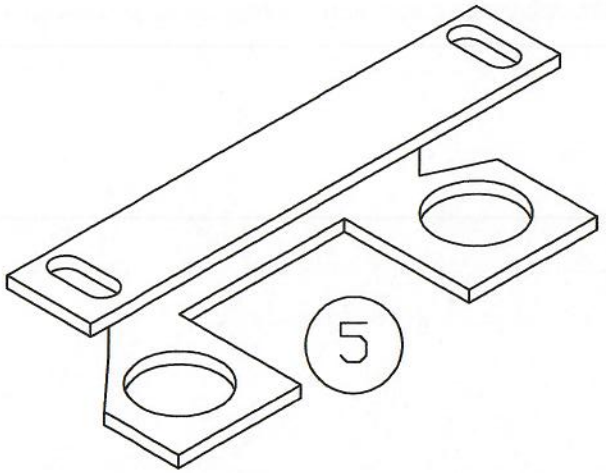


ITEM	PART #	DESCRIPTION	QTY
1	FIT096	3/4 "T" FITTING NPT NYLON	1
2	FIT057	3/4 MPT X 1/2 BARB 90 NYLON	2
3	CAP001	CAP	2
4	BRE002	BRACKET, BREATHER 600	1
5	BRE005	BRACKET, BREATHER 400	1

TITLE			
BREATHER GEAR BOX			
DRAWN	PART NO. BRE004	DATE 10-8-2013	REV
SCALE		SHEET	

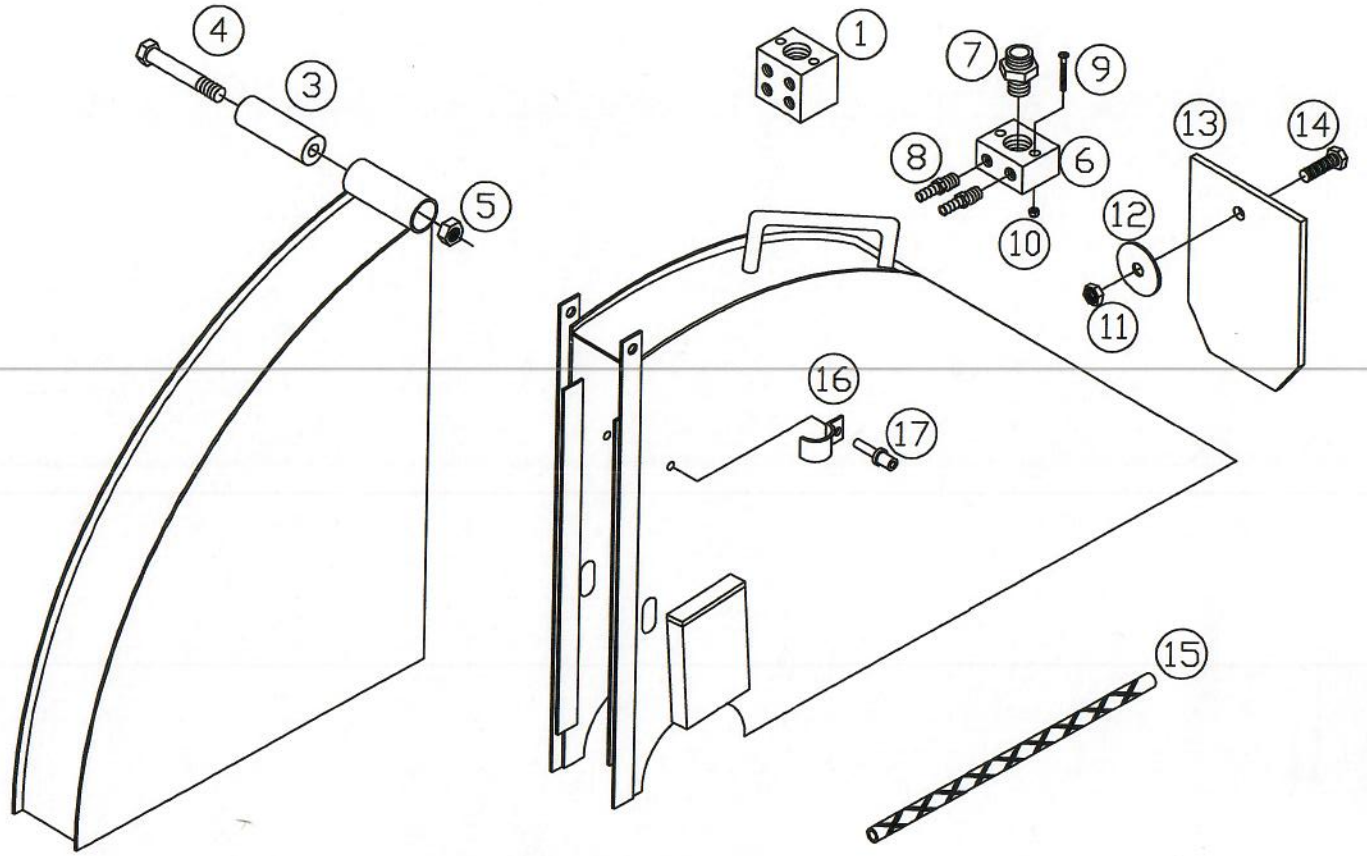
UPDATED 10-8-2013





ITEM	PART #	DESCRIPTION	QTY
1	VAL005	1/2 APOLLO BALL VALVE	1
2	FIT034	ELBOW STREET 1/2 BRASS	2
3	BUS002	BRASS BUSHING 1/2 NPT 1/2 BARB	2
4	CLA001	1/2 HOSE CLAMP	2
5	BRAK034	BRACKET	1

TITLE	WATER VALVE		
DRAWN	PART NO. VAL001	DATE 07-12-2012	REV
SCALE		SHEET	



ITEM	C/N	DESCRIPTION	QTY
1	MAN007	MANIFOLD, 5 PORTS	1
2	BUS031	BUSHING, NYLON 2 5/16	1
3	BUS030	BUSHING, NYLON 3 5/16	1
4	BOL011	BOLT, 3/8-16 X 2 3/4	1
5	NUT016	JAM NUT 3/8-16	1
6	MAN001	MANIFOLD, WATER BLOCK 3 PORTS	1
7	FIT054	FITTING, NU22-8-12	2
8	FIT048	HOSE BARB, 125-4-2	AR
9	SCR049	PHIL PAN HD 10/32 X 1 1/2	2
10	NUT011	KEPT LOCK NUTS 10/32	1
11	NUT023	LOC NUT, NYLON 5/16	1
12	WAS044	WASHER, 1/4 X 2"	1
13	FLAP012	FLAP, 6" X 8"	1
14	SCR002	CAP SCREW, 5/16 X 3/4	1
15	HOS005	HOSE, CLEAR 48"	2
16	CLA013	JIFFY CLAMP	2
17	RIV003	RIVET, BUTTONHEAD 3/16	2

BLADEGUARDS FROM 12" UP TO 72"

WIDE BLADEGUARDS AVAILABLE.

FLUSH CUT BLADEGUARDS AVAILABLE.

TITLE	BLADEGUARDS ALL	REV
DRAWN	PART NO.	DATE 04-22-2011
SCALE		SHEET

Limited Warranty

Warranty:
Merit Engineering and Equipment Co.: Warrants that at the time of shipment the product manufactured by Merit Engineering and Equipment Co. and sold hereunder shall be free from defects in material and workmanship.

Warranty Adjustments:

Merit Engineering & Equipment Co. agrees to repair or furnish any component within 30 days from date of purchase provided it is operated and maintained in accordance with Merit Engineering & Equipment Co. instructions and manual.

Merit Engineering & Equipment Co. must authorize all warranty repairs. Upon examination by Merit Engineering & Equipment Co. equipment proves to be defective, within the warranty, a receipt verifying purchase date and serial number will be required to obtain adjustment.
One year warranty on major components (such as engine, transmission, differential, hydraulic pump, water pump) with an authorized service facility. See instruction manual for warranty of manufacturer of that product.

No product will be accepted for return or replacement without authorization by Merit Engineering & Equipment Co. Products returned to Merit Engineering & Equipment Co. are to be addressed as:

Merit Engineering & Equipment Co.
ATTN: Warranty Department
2281 Crosswind Drive
Prescott, AZ 86301
928.771.0575 Fax: 928.771.0815

Exclusions from Warranty:
This warranty does not extend to any product manufactured by Merit Engineering & Equipment Co., which has been subjected to misuse, neglect, accident, or used in violation, of instructions furnished by Merit Engineering & Equipment Co.

LIMITED WARRANTY

Supplier warrants that Products manufactured by it come with the following limited warranty: Except for engines, Products are free from defects in workmanship and materials for one year from date of purchase. Engines included in any Product are not warranted by Supplier. Instead, engines are subject to their respective manufacturer's warranty.

In the event of a defect, malfunction, or failure to conform with this warranty, Supplier will repair the Product without charge within thirty days from the date of purchase on the condition that the Product was operated, maintained and installed in accordance with Supplier's instructions and/or manual. However Supplier will not pay for the following items: shipping costs, transportation fees, taxes, certifications or any other item not specifically related to the necessary repair.

In order to make a claim under this warranty, the claimant must:

a. within 10 days of its failure, notify Supplier, in writing, of the failure of the Product to conform to the warranty;

b. have operated and maintained the Product in accordance with Supplier's instructions and/or manual; and

c. provide the serial number of the Product in its claim.

This warranty does not extend to any Product which has been subjected to abuse, misuse, neglect, improper installation, involved in an accident, repair or modification not authorized in writing by Supplier, or has not been properly used, stored or maintained or used in violation of instructions provided by Supplier.

No agent, employee, or representative of Supplier has any authority to bind Supplier to any affirmation, representation, or warranty concerning the Product. It is expressly agreed that the liability of Supplier will be limited to the replacement and repair of the goods in accord with the stated warranty, and there are no other warranties or representations with respect to the nature and quality of the Product sold by Supplier except for the express warranty contained herein. Any other warranty is agreed to be inconsistent with the stated warranty, and it is the intent of the parties to specifically DISCLAIM ANY WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS. Supplier shall have no liability for any (a) consequential, special or liquidated damages arising from or related to use of the Product or breach of the warranty contained herein, including, without limitation, lost revenue or a loss of production or down time; (b) damages to or from products or services not provided by Supplier; or (c) repair, replacement or other expenses incurred in correcting any products, including, without limitation, Products manufactured by Supplier.

Notwithstanding any other obligation to the contrary, Supplier's maximum liability for any and all damages and losses arising from or related to a Product manufactured by Supplier shall not exceed the purchase price for such Product.

No other express warranty is given and no affirmation of Supplier, by words or action, will constitute a warranty. Supplier retains the right to modify or change the composition, design, color, and appearance of the Products if in Supplier's judgment this is advisable. There are no express warranties other than those contained in this warranty."