Wagner Smith Equipment Co.

SERVICE FROM POLE TO POLE

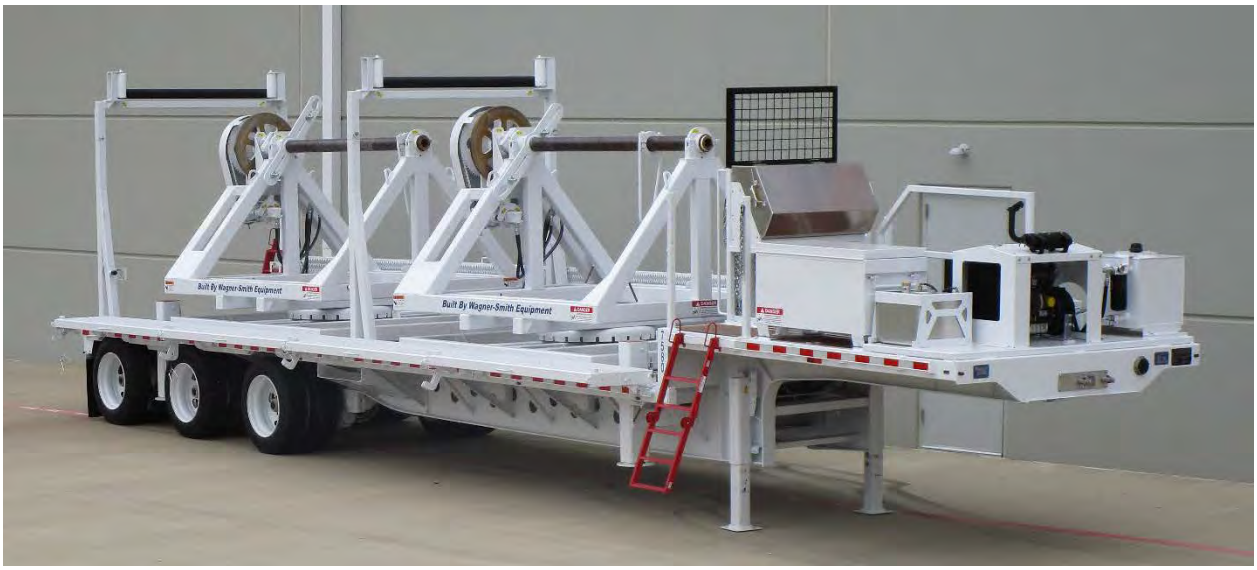
OPERATOR'S AND PARTS MANUAL

MODEL T-2PRC-108-85-30H

TWO POSITION TURRET REEL CARRIER

CONTROL # _____

SERIAL # _____



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Revised 04/26/2017

OPERATOR'S MANUAL INDEX

SECTION “A”
SAFETY

ATTENTION:

This manual is intended to give operational, parts, and maintenance information for the unit referenced on the front cover. It is not intended to replace safe operating practice or serve as a tension/ stringing operation procedures manual. This piece of equipment is designed for use in tension/ stringing operations within its specification only. Any use other than this that is not authorized by Wagner-Smith Equipment Co. is potentially dangerous and could result in severe injury or death. Additionally, this equipment should only be operated by trained personnel who are fully aware of the proper operating procedures and potential safety hazards encountered during tension/ stringing operations.

SECTION “A”
SAFETY

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

“DANGER” – Is used to indicate a hazardous situation which has a high probability of death or severe injury. Danger should not be considered for property damage accidents unless personal injury risk is present.

“WARNING” – Is used to indicate a hazardous situation which has some probability of death or serious injury. Warning should not be considered for property damage accidents unless personal injury risk is present.

“CAUTION” – Is used to indicate a hazardous situation which may result in minor or moderate injury. However, caution should not be used when there is a possibility of death or serious injury. Caution should not be considered for property damage accidents unless personal injury risk is present.

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact Wagner-Smith Equipment Company.

SECTION “A”
SAFETY

PREPARE FOR EMERGENCIES

Be prepared if a fire or accident occurs. Keep a first aid kit and fire extinguisher handy. Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against uncomfortable loud noises.

STAY CLEAR OF ROTATING SPINDLES AND CHAIN DRIVES

Entanglement in rotating reel spindle and reel spindle drive can cause serious injury or death.

Keep all guards in place at all times.

Wear close fitting clothing. Stop the engine and be sure the drives are completely stopped before performing any type of service on the equipment.

PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry. Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power driven parts. Disengage all power and operate controls to relieve pressure. Stop the engine. Remove the key. Allow machine to cool.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove all buildup of grease, oil, or debris.

Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

SECTION “A”
SAFETY

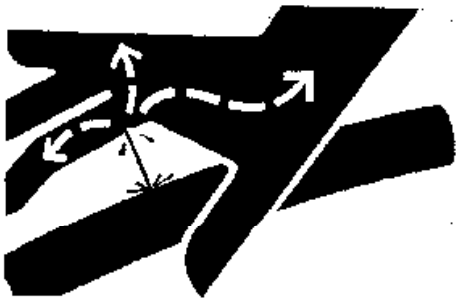
AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately.



REMOVE PAINT BEFORE WELDING OR HEATING

Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work in a well-ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

- If you use sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper container and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

SERVICE COOLING SYSTEM SAFELY

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

SECTION “A”
SAFETY

FILLING FUEL TANK

CAUTION: Handle fuel carefully. Do not fill the fuel tank when engine is running.

DO NOT smoke while filling fuel tank or servicing fuel system.

IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

WARNING

ELECTROCUTION HAZARD

DO NOT OPERATE THIS MACHINE WITHOUT PROPER GROUNDING

SECTION “A”
SAFETY

THIS MACHINE IS A HIGHLY

SPECIALIZED PIECE OF

EQUIPMENT THAT SHOULD BE

OPERATED ONLY BY

QUALIFIED PERSONNEL

SECTION “B”
INTRODUCTION

SECTION “B”
INTRODUCTION

The Wagner-Smith Company Model T-2PRC-108X85-30H is a trailer mounted two reel carrier. Each reel is hydraulically powered and can be manually rotated in 360 degrees and locked into twenty-four positions. It is designed to transport and tension cable or conductor reels up to 108 inches in diameter and 85 inches wide and up to 30,000 pounds in weight per reel stand.

The reel brake is operated by a hydraulic hand pump assembly applying friction to a 28” diameter brake disc. Brake force is controlled by the operator via a needle valve and hand pump per reel stand located on the operator’s stand.

The reel spindle is a quick change type that requires no hand tools for changing the reel. Reel change is accomplished by opening two flip open bearing caps and lifting the reel spindle straight up.

The fairleads can be manually extended up to 48 inches in height and have five pinned positions.

The catwalks along the bottom deck provide additional workspace and are folded up when towing by latching them to the reel stands and fairleads.

The four hydraulic jacks in the front and rear have an 18 inch stroke and are controlled from the operator’s stand on the top deck.

The manufacturer’s manuals, for the majority of this unit’s components, are included to facilitate repairs, should they become necessary.

SECTION “C”
SPECIFICATIONS

SECTION “C”
SPECIFICATIONS

WAGNER-SMITH
MODEL T-2PRC-108X85-30H

TWO TURRET
POWERED REEL CARRIER
TRAILER MOUNTED

Specification No. 47108-37
Date 04/16/17

UNIT PERFORMANCE

- Reel Torque ..... 25,835 in-lbs.
- Max Force at O.D. ..... 478 lbs.
- Line Speed at Full Drum ..... 7 mph

REEL CARRIER

- Reel Quantity ..... TWO (2)
- Max Reel Diameter ..... 108 in.
- Max Reel Width ..... 85 in.
- Max Reel Weight ..... 30,000 lbs.
- Empty Trailer Weight ..... 30,200 lbs.
- Reel Brake(s) ..... Manually actuated caliper 28” diameter bronze solid disc brake
- Spindle Diameter ..... 5 in. complete with locking collars
- Reel Loading ..... Quick change type without altering reel brake adjustment

UNDERCARRIAGE

- Tires 255/70R22.5
- Axle(s) ..... Triple 20,000 lbs. capacity ea.
- Suspension ..... Air ride suspension
- Brakes ..... Air brakes
- GAWR ..... 60,000 lbs.
- GVWR ..... 100,000 lbs.

POWERTRAIN

- Engine ..... Kohler KDW1003-1301A-23HP
- Fuel Type ..... Diesel
- Fuel Capacity ..... 19 Gallons
- HYD. Reservoir ..... 30 Gallons

SECTION “C”
SPECIFICATIONS

UNIT DIMENSIONS

- Length ..... 44 ft. 8 in.
- Width (w/ catwalks raised) ..... 8 ft. 6 in.
- Width (w/ catwalks lowered) ..... 12 ft. 3 in.
- Height (w/ fairleads collapsed) ..... 12 ft. 9 in.
- Height (w/ fairleads extended) ..... 17 ft.

FEATURES

- Single-speed crank jack at front
- Four (4) hydraulic jacks, two (2) front and two (2) rear
- LED lighting compliant to D.O.T. regulation
- Hydraulic controls for powered rewind
- JOBOX toolbox for chain and tool storage
- Two (2) outrigger pad racks located on the trailer underside

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

QUICK CHANGE REEL SPINDLES

The reel spindle on this unit is unloaded by removing the pins (Fig. 1A) on both sides and opening the flip open type bearings. The reel spindle is then removed from the unit by lifting (Fig. 2) straight up with a crane or boom truck. Installation is accomplished by reversing the above procedure.

Figure 1: Spindle Bearing Lock

The clamping bolts on the lifting loops must ALWAYS be torqued to the following torque chart except when reel spindle is being removed. After installing reel spindle into reel and drive pins are fully seated into reel, the lifting loop must be installed right up against the reel and torque to the below chart.

5/8 inch bolt	140 ft-lbs.
3/4 inch bolt	240 ft-lbs.

Figure 2: Spindle Lifting Loops

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

REEL CALIPER BRAKES

The reel brakes on this unit are hydraulic caliper brake (Fig. 3) type using a hand pump control package (Fig.4) to set braking for the conductor reels. Braking is increased by adding pressure to the caliper by pumping the hand pump.

The steel brake discs insure dependable service with the machine.

Figure 3: Caliper Brake

Figure 4: Hand Pump Package

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

HYDRAULIC POWER PACKAGE

This unit is equipped with a hydraulic power package (Fig. 5). The power rewind option’s primary use is to recoil non-tensioned conductor from the ground. This could be scrap line dropped to the ground during re-conductoring or excess line from a terminated pull. This drive can be mechanical engaged or disengaged by positioning motor mount handle (Fig. 5A) after the quick release pin (Fig. 5B) have been opened.

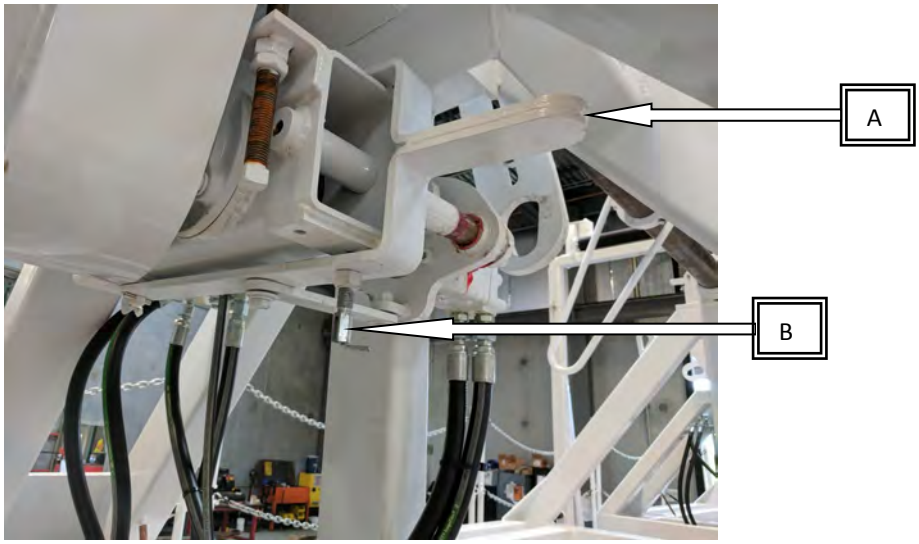


Figure 5: Hydraulic Power Package

Figure 6: Power Rewind Controls

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

TURRET REEL STAND

The reel stands (Fig. 7) on this unit are able to rotate 360 degrees. They may be locked in 24 different positions with the turret locking device (Fig. 8). To release the locking device, flip the drive dog (Fig. 8A) upward 90 degrees. To engage the locking device, flip the drive dog downward 90 degrees.

Figure 7: Powered Reel Stand

Figure 8: Turret Locking Device (Drive Dog)

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

HYDRAULIC JACKS

The hydraulic jacks located in the front and rear of the bottom deck are controlled at the operator’s stand on the top deck. Each jack has an 18 inch stroke to provide stabilization to the unit during pulling operations. The jacks can be operated simultaneously (Fig. 10) but cannot be operated while the reel stands are using powered rewind.

Figure 9: Hydraulic Jack

Figure 10: Hydraulic Jack Controls

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

EXTENDABLE FAIRLEADS

The fairlead (Fig. 11A) height is adjustable up to 48 inches and includes five pinned positions. Remove the pins on both sides of the fairlead (Fig. 11B) and pull up from under the cross tube to raise the height. To lock the fairlead in place insert the pins back into the frame.

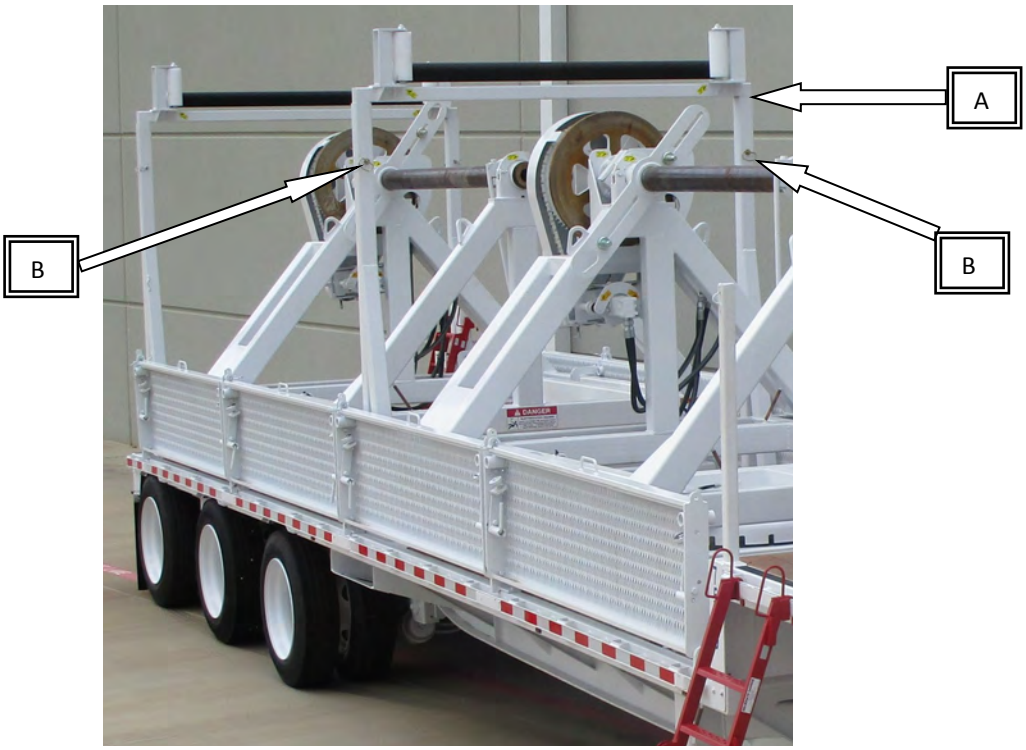


Figure 11: Fairlead

SECTION “D”
DESCRIPTION OF INDIVIDUAL FUNCTIONS

FOLD DOWN CATWALKS

The bottom deck of the trailer has eight (8) catwalks (Fig. 12A), four (4) on either side, that fold down and brace to the sides of the trailer for extra workspace around the reel stands. To fold down the catwalks, remove the pins between each set of catwalks. Pull the handle on the pivot brace (Fig. 13) and rotate the brace downward until the handle locks in place. Flip the latches (Fig. 12B) holding the catwalks to the reel stand and/or fairleads off and pull the catwalks down until the brace rests against the trailer. Pin the catwalks back together. Remove chain poles from storage (Fig. 14) and place them on catwalks. Retrieve chains from storage in toolbox and clip in place.

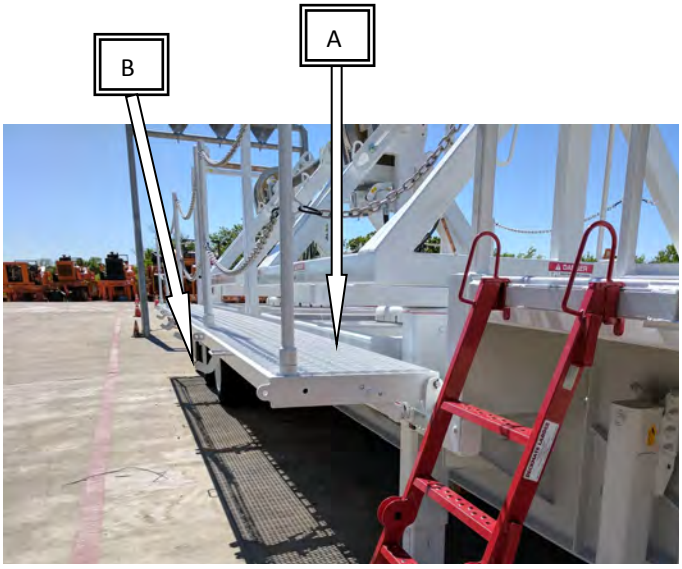


Figure 12: Fold Down Catwalk

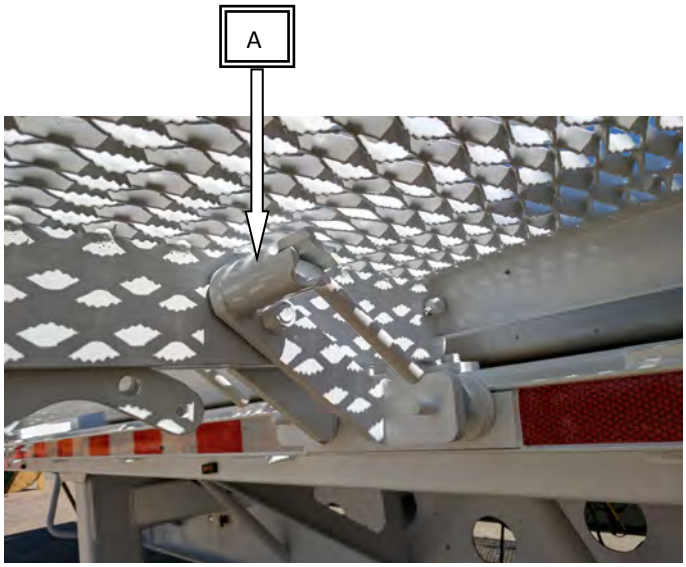


Figure 13: Pivot Brace

Figure 14: Chain Pole Storage

SECTION “E”
OPERATIONS

SECTION “E”
OPERATIONS

TOWING THE TRAILER

Towing Procedures:
Use a properly equipped and sized vehicle when towing this equipment. Any loose equipment or objects must be removed, tied down, or placed in a storage box, so not to become a hazard while the unit is being transported. Before leaving, verify brakes and all lighting are operational. Tires should be inflated while cold for maximum payload capacity; tire pressure varies with tire sizes.

Towing Checklist:
1) Front jacks in the retracted position (Fig. 1A).
2) Reel stands locked in place and properly orientated for catwalks to fold up (Fig. 1B).
3) Fairleads are pinned at lowest position (Fig. 1C).
4) Front and rear hydraulic jacks in the retracted position (Fig. 1D).
5) Poles and chains in storage locations
6) Catwalks raised, latched and pinned in place (Fig. 1E).
7) Ladders hanging and pinned in storage bracket (Fig. 1F).
8) Cover latched to the operator’s stand (Fig. 1G).
9) Tires inflated to 125 PSI (cold).
10) Trailer lighting is operative.
11) Air brakes are operative.

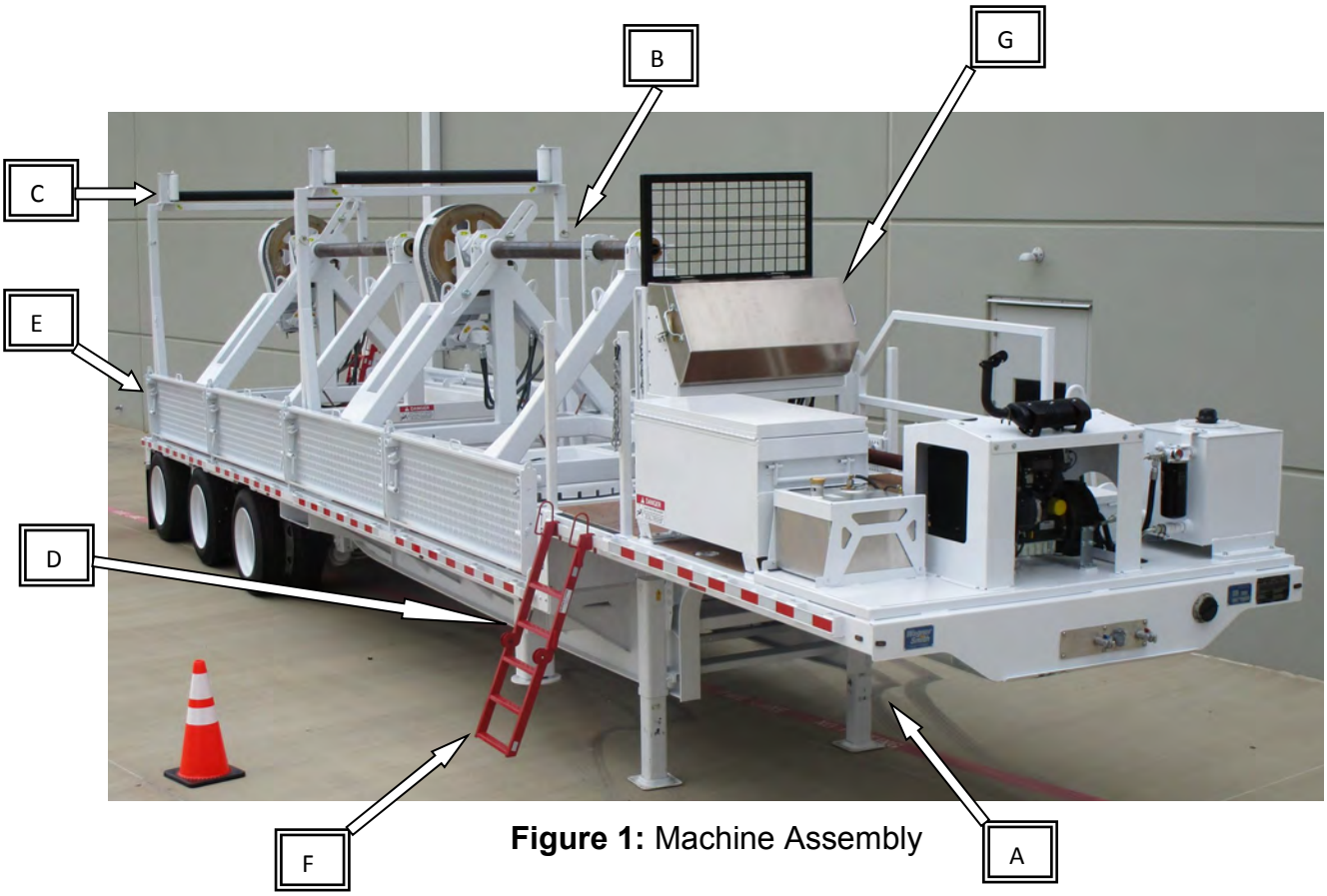


Figure 1: Machine Assembly

SECTION "E"
OPERATIONS

FIELD SETUP

1) Position the trailer such that it is adequately lined up with work area. The following checklist may be used to assist with this process:

Field Setup Checklist:

1) Locate the unit on level ground; Rotate the reel stand so that it is in line with the conductor to be pulled.
2) Level the unit as follows:
    a) Raise the front jack (Fig. 1A) until the trailer disengages and clears the towing vehicle.
    b) Relocate tow vehicle.
    c) Lower or raise jack until unit is level.
    d) Lower hydraulic jacks (Fig. 1D).
    e) Anchor the trailer securely.
    f) **"Ground the unit"** to prevent operator injury should the unit become electrically energized.

PERFORM DAILY PREVENTATIVE MAINTENANCE

Daily Maintenance Checks are the following:

1) Before powering on, check:
    a) For any fluid leaks.
    b) Loose nuts and bolts.
    c) Hydraulic oil reservoir filler cap in place and secure.
    d) Hydraulic system oil level.
3) After running the power unit, check:
    a) Check for any fluid leaks.
    b) If there are any unusual noises shut down immediately.
4) After power off, check:
    a) For any fluid leaks.
    b) Loose nuts and bolts.
    c) Hydraulic oil reservoir filler cap in place and secure.

SECTION “E”
OPERATIONS

LOADING THE CONDUCTOR REELS

Load the conductor reels as follows:

1) Verify that the turret reel stand is locked into place. This can be checked by verifying that the drive dog is flipped down.
2) Rotate the empty reel spindle to position the reel lift eye in the up position.
3) Lock the mechanical caliper brake to hold the spindle in its up position.
4) Attach lifting device to be used, then open the bearing housing by removing the locking pin and flip open the bearing housing on both sides and lift reel spindle straight to remove.
5) Remove the spindle bearing (Fig. 3A) and reel locking collar (Fig. 3B) and install spindle in the conductor reel. Pay close attention that the conductor will spool off in the proper direction.

Note: Re-install the reel spindle by reversing the above procedures.

Figure 2: Drive Dog (locked position)

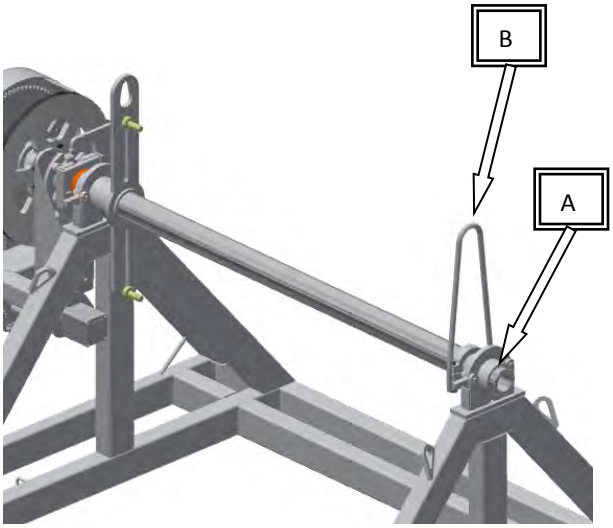


Figure 3: Spindle Lifting Loops

Figure 4: Caliper Brake

Figure 5: Spindle Bearing Housing

SECTION "E"
OPERATIONS

POWER REWIND

NOTICE: Power rewind is **required to be disengaged** during tail tensioning or pulling against the reel, ***Failure to do so will result in damage to the hyd. power package.***

To Disengage Power Rewind:

1) Engage reel brake caliper (Fig. 6).
2) Remove pin (Fig. 7A) and disengage (pull out) drive motor using shifting handle (Fig. 7B).
3) Pin handle into disengaged position. (Fig. 7A)

To Engage Power Rewind:

1) Engage power rewind only when there is no tension conductor. The rewind package's primary use is to recoil non-tensioned conductor from the ground. This could be scrap line dropped to the ground during re-conductoring or excess line from a terminated pull.
    a) Engage motor drive coupling to sprocket system using drive motor handle (Fig. 7).
        1. Remove quick release pin (Fig. 7A).
        2. Engage (push in) drive motor handle to sprocket system (Fig. 7B). KEEP HANDS CLEAR of all potentially moving parts.
        3. Pin quick release pin into engaged position (Fig. 7A).
    b) Assure that there is no line pull then release the reel hydraulic brake (Fig. 6).
2) After assuring that every one is clear from the machine and conductor being pulled, pull-in may begin.

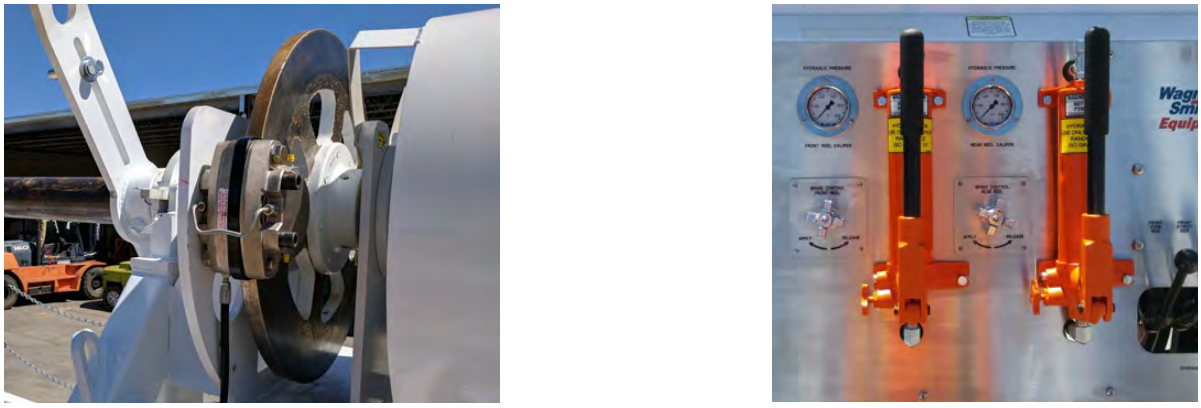


Figure 6: Brake Caliper/Controls

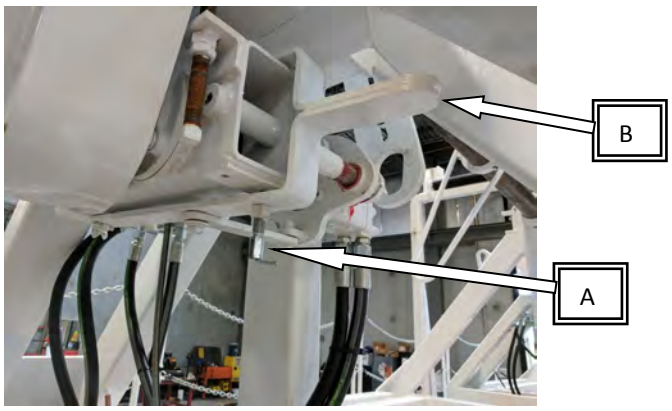


Figure 7: Drive Motor

SECTION “E”
OPERATIONS

TENSIONING WITH THE UNIT

CAUTION: BEFORE TENSIONING WITH THIS UNIT FROM THE SIDE OR ANGULAR DIRECTION, FULLY EXTEND JACKS.

NOTE: This unit is not designed to tension against a puller on its own, it is only intended to keep tail tension in the line. When tensioning conductor, it must be run through a bullwheel tensioner.

NOTICE: Power rewind is **required to be disengaged** during tail tensioning or pulling against the reel, ***Failure to do so will result in damage to the hyd. power package.***

Tension with this Unit as Follows:

1) Fully extend hydraulic jacks. See Section “D” for procedure to extend jacks.
2) Rotate reel toward direction of pull. See Section “D” for procedure for rotation of turret.
3) Ground the unit and reel stand being used at the ground rods (Fig. 8).
4) Use the mechanical caliper to set the braking tension for the conductor on the reels. The reel brakes should be adjusted only tight enough to keep the conductor from slipping in the tensioner and to keep the reel from over running. See Section “D” for procedure for increasing/decreasing brakes.

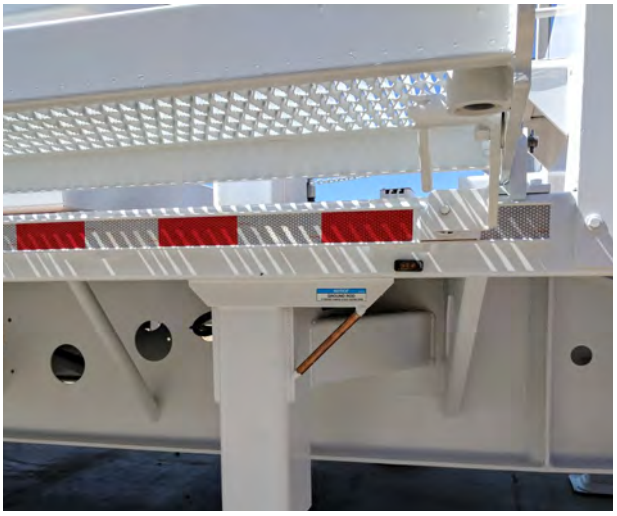


Figure 8: Ground Rod Locations

SECTION “F”
ROUTINE MAINTENANCE

SECTION “F”
ROUTINE MAINTENANCE

The Wagner-Smith Equipment Co. Model T-2PRC-108X85-30H is a trailer mounted two reel carrier. This unit must be given regular care and operated in accordance with the instructions provided in this document.

It is imperative that the advanced hydraulic system incorporated by this design be kept clean. It is suggested that a good periodic preventative maintenance schedule be followed in maintaining this unit.

Upon receipt, this unit should be checked for damage from shipping. In addition, the following checks should be made:

DAILY INSPECTION

1) Before starting the engine check:
   a) Engine oil level.
   b) Engine fuel level.
   c) Hydraulic system oil level.
   d) The hydraulic oil shutoff valve is open, turned fully counterclockwise.
   e) Hydraulic oil system pressure gauge reads zero.
2) After starting the engine check:
   a) Hydraulic system pressure gauge reads 500-800 psi with directional control lever in the neutral position.
   b) Check for any fluid leaks.
   c) If there is any unusual noises shut down engine immediately.
3) After engine shutdown check:
   a) For any fluid leaks.
   b) Loose nuts and bolts.
   c) Hydraulic oil reservoir filler cap in place and secure.

SECTION “F”
ROUTINE MAINTENANCE

BEFORE STARTING ENGINE

Do the following BEFORE STARTING THE ENGINE for the first time each day:

1) Check all mounting bolts and nuts for tightness.
2) Check engine oil level on dipstick (Fig. 1A).
    a) Add oil as required, using seasonal viscosity grade oil. (See DIESEL ENGINE OIL in Fuels, Lubrications, and Coolant Section for oil specification in engine manual in Section “G” of this manual.)

IMPORTANT: NEVER operate the engine with the oil level below the lower mark or above the higher mark on the dipstick.

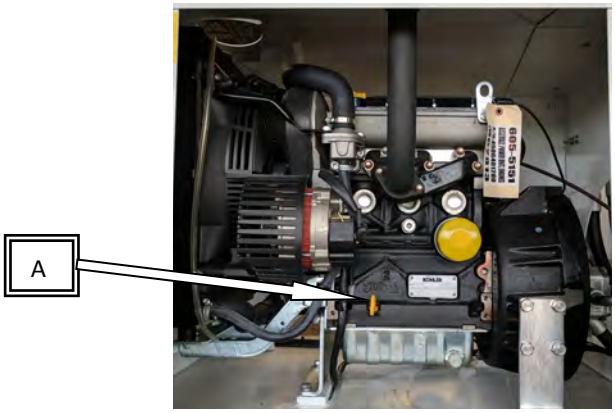


Figure 1: Engine Oil Dipstick

3) Check coolant system level (fig. 2).
    a) Check the coolant level when the engine is cold. Coolant level should be at bottom of filler neck. Fill the radiator (Fig. 2) with proper coolant solution if the level is low. (See ADDING COOLANT in Service As Required Section in engine manual in Section “J” of this manual). Check overall cooling system for leaks.

CAUTION: Explosive release of fluids from pressurized cooling system can cause serious burns.

Only remove the filler cap when the engine is cold or when cool enough to touch with bare hands. Slowly loosen the cap to first stop to relieve pressure before removing completely.

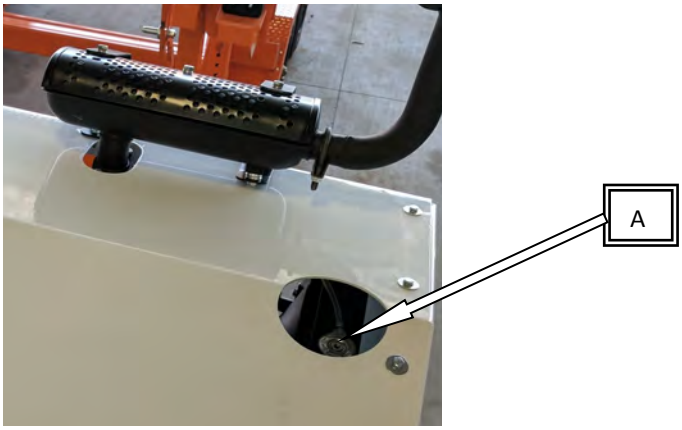


Figure 2: Radiator

SECTION “F”
ROUTINE MAINTENANCE

4) Check air cleaner dust unloader (Fig. 3).
   a) The air cleaner has an automatic dust unloader valve (Fig. 3), squeeze the unloader valve on air cleaner assembly to clear away any dust buildup.

IMPORTANT: Maximum air intake restriction is 6.25 kPa (0.06 bar) (1.0 psi) (25 in. H_2O). A clogged air cleaner element will cause excessive intake restriction and a reduced air supply to the engine.

Figure 3: Air Cleaner Dust Unloader

5) Check fuel filter (Fig. 4).
   a) Check the transparent fuel filter bowl for water and dust. If dust deposits are visible, replace the filter and clean filter bowl. (See REPLACE FUEL FILTER ELEMENT, in Lubrication and Maintenance/400 hour/6 Month Section in engine manual in Section “G” of this manual.)

Figure 4: Fuel Filter

6) Check engine compartment.
   a) Make a thorough inspection of the engine compartment. Look for oil or coolant leaks, worn fan and accesso ry drive belts, loose connections and trash buildup, and have repairs made as needed if leaks are found.

NOTE: Wipe all fittings, caps, and plugs before performing any maintenance to reduce the chance of system contamination.

7) Inspect:
   a) Radiator for leaks and trash buildup.
   b) Air intake system hoses and connections for cracks and loose clamps.
   c) Fan, alternator, and accessory drive belts for cracks, breaks or other damage.
   d) Water pump for coolant leaks.

NOTE: It is normal for a small amount of leakage to occur as the engine cools down and parts contract. Excessive coolant leakage may indicate the need to replace the water pump seal. Contact your engine distributor or servicing dealer for repairs.

SECTION “F”
ROUTINE MAINTENANCE

8) Check hydraulic system oil level (Fig. 5).
   a) Oil level must be on full mark before daily startup.
   b) Operating oil temperature should range in the following:
      1. -40°F Minimum (cold start)
      2. 140-185°F Recommended
      3. 220°F Rated
      4. 240°F Maximum intermittent

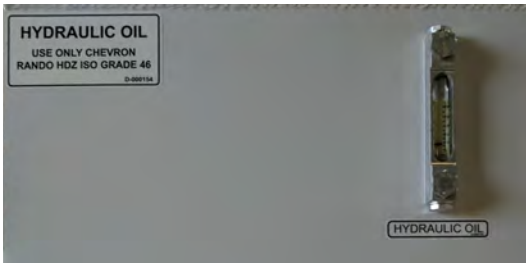


Figure 5: Hydraulic Oil Level Gauge and Temperature Indicator

9) Verify hydraulic reservoir shut-off valve is open (Fig. 6).
   a) The shut-off valve (Fig. 6) is located in the suction line of the pump, between the reservoir and filter. Turn the valve handle counterclock- wise until fully opened. When the system needs service turn valve handle clock wise until fully closed.

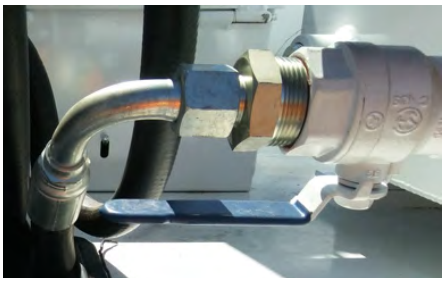


Figure 6: Oil Reservoir Shut-off Valve

10) Check fuel gauge (Fig. 7).

Figure 7: Fuel Gauge

10) Hydraulic pressure gauge should read zero (Fig. 8).

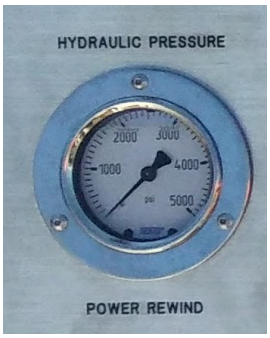


Figure 8: Hydraulic Pressure Gauge

SECTION “F”
ROUTINE MAINTENANCE

AFTER STARTING ENGINE

Do the following AFTER STARTING ENGINE and placing in high idle for first time each day:

1) Check for fuel leaks.
2) Check for hydraulic oil leaks.
3) Hydraulic system gauge operation:

NOTE: Apply hydraulic brakes (Fig. 9) and increase engine speed to full throttle (3600 rpm) prior to checking the following:

Figure 9: Hydraulic Hand Pumps

a) Verify Power Rewind levers are in neutral position (Fig. 10). Hydraulic system pressure gauge should read approximately 0 psi (Fig. 11).
b) With levers in Pull In position (Fig. 10), hydraulic pressure gauge should read approximately 2,500 psi (Fig 11).

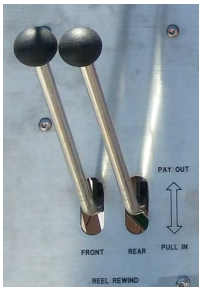
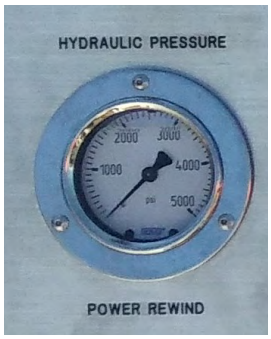


Figure 10: Power Rewind Levers

Figure 11: Hydraulic Pressure Gauge



4) Power Rewind operation.
   a) Moving the lever(s) (Fig. 10) slightly into the pull-in position will allow the reel drive to slowly rotate as it will in pull-in mode.
   b) Moving the lever(s) further into the pull-in position will increase the speed of the reel drive.
   c) Returning the lever(s) to the neutral position will stop the reel drive from rotating.
   d) Moving the lever(s) into the pay-out position will allow the reel drive to rotate as it will in payout mode.

   NOTE: If the reel does not come to a complete stop when the lever is returned to the neutral position, contact Wagner-Smith Equipment Co. for further troubleshooting instructions.

5) Check chain drive and sprockets on reel stands.
   a) Chain should be tight.
   b) Sprockets should be in alignment.

SECTION “F”
ROUTINE MAINTENANCE

AFTER FIRST 50 HOURS OPERATION

1) Refer to engine manual for break-in service in Section “G” of this manual.

EACH 50 HOURS/WEEKLY INSPECTION

1) Grease reel spindle brake caliper (Fig. 12A).
2) Check for water in hydraulic oil (water will cause the oil to look milky).

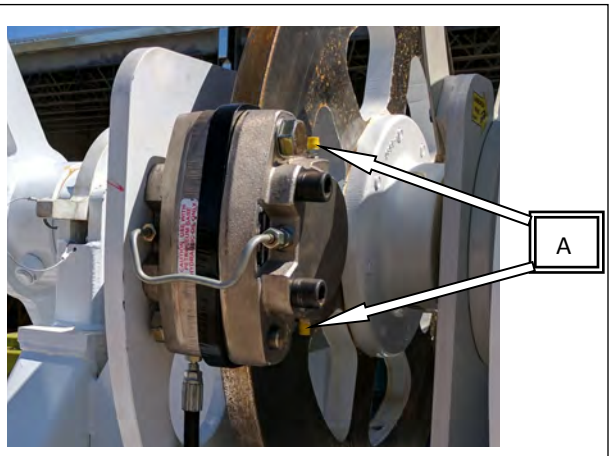


Figure 12: Brake Caliper

EACH 100 HOUR INSPECTION

1) Perform 50 hour inspection.
2) Refer engine manual in Section “G” of this manual.
3) Check battery fluid level (Fig. 13).

Because the battery is the “heart” of the electrical system, periodic checks are necessary to keep functioning properly. Keep the battery fluid level to bottom of filler neck with distilled water. If water is added during freezing weather, run the engine 20 to 30 minutes before shutting it off. This mixes the added water with the electrolyte and will prevent it from freezing and damaging the battery. Have the battery charge checked regularly during extreme cold weather.

Keep battery clean by wiping it with a damp cloth. Keep all connections clean and tight. Remove any corrosion, and wash the terminals with a solution of 1 part baking soda and 4 part's water. Tighten all connections securely.

Coat the battery terminals and connectors with a mixture of petroleum jelly and baking soda to retard corrosion.

CAUTION: Keep fire away from the top of open battery cells. Combustible gas is always present.

4) Check the drive chain for alignment.
5) Sprockets must be aligned properly. This can best be accomplished by checking with a straight edge along the finished sides of the sprockets. Chain should be lubricated with a **Synthetic lubricant with molybdenum disulfide anti-wear additive.**

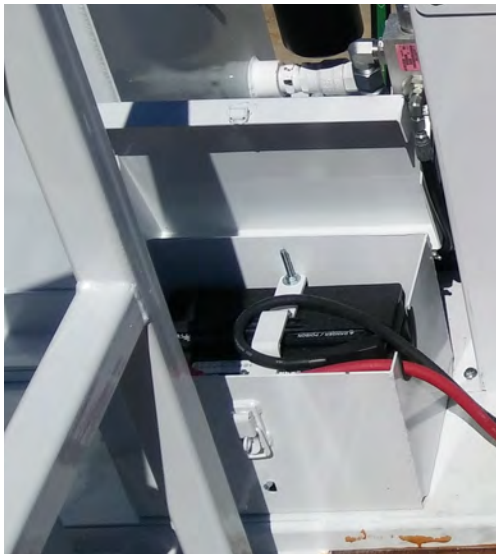


Figure 13: Battery

SECTION “F”
ROUTINE MAINTENANCE

EACH 200 HOUR/3 MONTHS INSPECTION

1) Perform 100 hour inspection.
2) Refer to engine owner’s and operator’s manual.
3) Grease Reel Spindle Bearings (Fig. 14).
    a) The amount of grease that the bearing will take for a particular application can only be determined by expe rience. If excess grease is applied to the bearing, it will cause overheating. It will be necessary to remove grease fitting to permit excess grease to escape. When establishing a lubrication schedule, note that a small amount of grease at frequent intervals is prefer able to a large amount at infrequent intervals. **Use a No. 2 Lithium base grease or equivalent.**

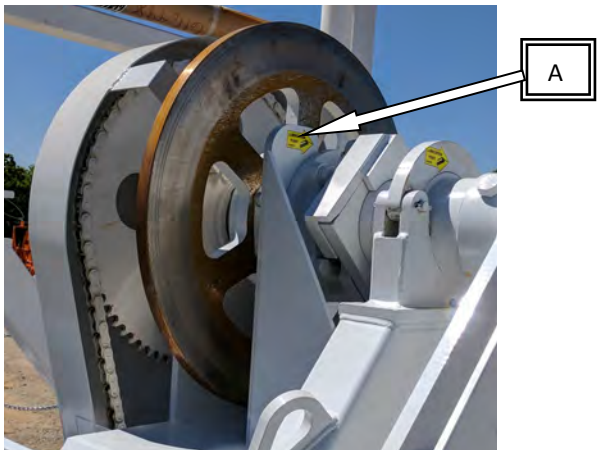


Figure 14: Reel Spindle Bearings

EACH 400 HOUR/6 MONTHS INSPECTION

1) Before lubrication extend the jack leg (Fig. 15) approximately two inches from maximum retracted position. Then use the two grease fittings to lubricate the jack.

    NOTE: DO NOT use lubricants containing Teflon.

2) Check Air Intake System.

IMPORTANT: The air intake system must not leak. Any leak, no matter how small, may result in engine failure due to abra- sive dirt and dust entering the intake system.

2) Inspect all intake hoses (piping) for cracks. Replace if neces- sary.
3) Check clamps on piping which connect the air cleaner to en- gine. Tighten clamps as necessary. This will help prevent dirt from entering the air intake system through loose connections causing internal engine damage.

IMPORTANT: See engine maintenance manual for detailed instructions on servicing the air filter.

Figure 15: Manual Front Jacks

SECTION “F”
ROUTINE MAINTENANCE

HYDRAULIC SYSTEM

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting fuel or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles that eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

If any fluid is injected into the skin, a doctor familiar with this type injury must surgically remove it within a few hours or gangrene may result. Doctors unfamiliar with this type of injury may call the Deere & Company Medical Department in Moline, Illinois, or another knowledgeable medical source.

1) Fluid and Filter Maintenance
2) Change Hydraulic Fluid Filter (Fig. 16).

Unless otherwise specified on the applicable unit specification, should not produce more than 5 in Hg at the charge pump when new and should be changed when inlet vacuum is 10 in Hg. Exceeding these values may result in charge pump cavitation, aerated fluid and life reduction of the transmission. These values apply at normal operating speeds and temperatures. Cold weather startups may exceed these values.

Before removing the oil filter element (Fig. 16) turn off oil flow to filter by closing valve (Fig. 17). After replacing filter, be sure to re-open valve (Fig. 17) before resuming operation.

It is recommended that the fluid and filter be changed every 2,000 hours.

Figure 16: Hydraulic Fluid Filter

Figure 17: Hydraulic Oil Shut-off

PUMPS AND MOTORS SERVICING

1) For servicing the Sundstrand Pump see Sundstrand Service Manual (BLN-09947 Rev. F) in Section “G” of this manual.
2) For servicing the Danfoss Hydraulic Motor see Danfoss Repair Instruction (520L0595 Rev. 0401) in Section “G” of this manual.

SECTION “G”
ENGINE MANUAL