

# **JERR-DAN<sup>®</sup>**

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## **Operation And Safety Manual**

*Original Instructions*

*Keep this manual with machine at all times.*

### **SS-70 SIDE STABILIZATION SYSTEM (WRECKER)**

SN 0230005100 & After

**5376000217**

*December 1, 2018 - Rev A*



# **JERR-DAN<sup>®</sup>**

An Oshkosh Corporation Company

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 **WARNING**

Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## **REVISION LOG**

December 1, 2018 - 0 - Original Issue of Manual.

## ***Read This First***

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This manual is a very important tool! Keep it with the machine at all times.

The purpose of this manual is to provide owners, users, and operators with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.

Due to continuous product improvements, Jerr-Dan Corporation reserves the right to make specification changes without prior notification. Contact Jerr-Dan Corporation for updated information.

## **OPERATOR QUALIFICATIONS**

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The operator of the machine must not operate the machine until this manual has been read, training is accomplished and operation of the machine has been completed under the supervision of an experienced and qualified operator.

Operators of this equipment must possess a valid, applicable driver's license, be in good physical and mental condition, have normal reflexes and reaction time, good vision and depth perception and normal hearing. Operator must not be using medication which could impair abilities nor be under the influence of alcohol or any other intoxicant during the work shift.

In addition, the operator must read, understand and comply with instructions contained in the following material furnished with the equipment:

- This Operation & Safety Manual
- All instructional decals and plates
- Any optional equipment instructions furnished
- Commercial vehicle's Operation & Maintenance Manuals

The operator must also read, understand and comply with all applicable Employer, Industry and Governmental rules, standards and regulations.

## **MODIFICATIONS**

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**Any modification to this machine must be approved by Jerr-Dan.**

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## **HAZARD CLASSIFICATION SYSTEM**

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### **SAFETY ALERT SYSTEM AND SAFETY SIGNAL WORDS**

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This is the Safety Alert Symbol. It is used to alert you to the potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates an imminently hazardous situation. If not avoided, will result in serious injury or death. This decal will have a red background.



Indicates a potentially hazardous situation. If not avoided, could result in serious injury or death. This decal will have an orange background.



Indicates a potentially hazardous situation. If not avoided, may result in minor or moderate injury. It may also alert against unsafe practices. This decal will have a yellow background.



Indicates information or a comply policy that relates directly or indirectly to the safety of the personnel or protection of property.

## ***Read This First***

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### **⚠ WARNING**

This product must comply with all safety related bulletins. Contact Jerr-Dan Corporation or the local authorized representative for information regarding safety bulletins which may have been issued for this product.

### **NOTICE**

Jerr-Dan Corporation sends safety related bulletins to the owner of record of this machine. Contact Jerr-Dan Corporation to ensure that the current owner of records are updated and accurate.

### **NOTICE**

Jerr-Dan Corporation must be notified immediately in all instances where Jerr-Dan product have been involved in an accident involving bodily injury or death of personnel or when substantial damage has occurred to personal property on the Jerr-Dan product.

#### **FOR:**

- Accident Reporting and Product Safety Publications
- Current Owner Updates
- Questions Regarding Product Applications and Safety
- Standards and Regulations Compliance Information
- Questions Regarding Product Modifications

#### **CONTACT:**

Product Safety and Reliability Department  
Jerr-Dan Corporation  
13224 Fountainhead Plaza  
Hagerstown, MD 21742  
USA

or Your Local Jerr-Dan Office

#### **In USA**

Toll Free: 1-877-554-7233

#### **Outside USA**

Phone: 240-420-2661

Fax: 301-745-3713

#### **E-mail**

ProductSafety@Jerr-Dan.com

## **REPORTING SAFETY DEFECTS**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Jerr-Dan Corporation.

If NHTSA receives similar complaints, it opens an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Jerr-Dan Corporation.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to:

Administrator  
NHTSA  
400 Seventh Street S.W.  
Washington, DC 20590

You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

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## **SECTION 1 - GENERAL SAFETY PRACTICES**

### **1.1 GENERAL**

This section outlines the necessary precautions for proper and safe machine operation and maintenance. For proper machine use, it is mandatory that a daily routine is established based on the content of this manual. A maintenance program, using the information provided in this manual must also be established by a qualified person and followed to ensure the machine is safe to operate.

The owner/user/operator of the machine must not operate the machine until this manual has been read, training is accomplished, and operation of the machine has been completed under the supervision of an experienced and qualified operator.

There may be times your truck may be exposed to direct contact with the public such as parades, charitable fundraisers, etc. Before allowing anyone other than a trained and experienced employee of your company near your truck, you should consult with your company safety officer and plan for safety.

If there are any question with regard to safety, training, inspection, maintenance, application, and operation, please contact Jerr-Dan Corporation.

#### **WARNING**

Failure to comply with the safety precautions listed in this manual could result in machine damage, property damage, personal injury or death.

## ***Section 1 - General Safety Practices***

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### **1.2 PRE-OPERATION**

#### **OPERATOR TRAINING AND KNOWLEDGE**

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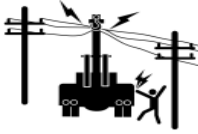
- Read and understand this manual before operating the machine.



- Do not operate this machine until complete training is performed by authorized persons.
- Only authorized and qualified personnel can operate the machine.
- Read, understand, and obey all DANGERS, WARNINGS, CAUTIONS, and operating instructions on the machine and in the manual.
- Use the machine in a manner which is within the scope of its intended application set by Jerr-Dan.
- All operating personnel must be familiar with the emergency operation of the machine as specified in this manual.
- Read, understand, and obey all applicable employer, local, and government regulations as the pertain to the operation of the machine.

## Section 1 - General Safety Practices

### ELECTRICAL HAZARDS



- This machine is not insulated and does not provide protection from contact or being near electrical current. This includes lightning and lightning strikes.
- NEVER operate the machine in an area where overhead power lines, overhead or underground cables, or other power sources may exist without ensuring the appropriate power utility company de-energizes the lines.
- Always check for power lines before raising the boom.
- Look up and use light to search for power lines in the dark.
- Allow for machine movement and electrical line swaying.
- Do not step off or touch a charged vehicle.
- Maintain a clearance of at least 10 ft. (3m) between any part of the machine from any electrical line or apparatus carrying up to 50,000 volts. Refer to the Minimum Approach Distance (MAD) chart. One foot additional clearance is required for every additional 30,000 volts or less.

**Minimum Approach Distance (M.A.D.)**

<b>Voltage Range (Phases to Phase)</b>	<b>MINIMUM APPROACH DISTANCE in Feet (Meters)</b>
0 to 50KV	10 (3)
Over 50KV to 200KV	15 (5)
Over 200KV to 350KV	20 (6)
Over 350KV to 500KV	25 (8)
Over 500KV to 750KV	35 (11)
Over 750KV to 1000KV	45 (14)

*NOTE: This requirement shall apply except where employer, local or government regulations are more stringent.*

- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the truck. The minimum approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person in accordance with the employer, local, or governmental requirements for work practices near energized equipment.

## Section 1 - General Safety Practices

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### DANGER

DO NOT MANEUVER TRUCK OR PERSONNEL INSIDE PROHIBITED ZONE (MAD). ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.

#### CRUSH AND COLLISION HAZARDS

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- Keep clear of all outriggers.
- Never extend or retract outrigger unless it is in full view.



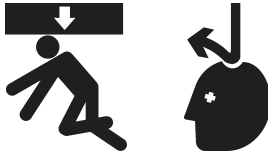
- Check under each wheel of the truck prior to retraction of outriggers to ensure all body parts are clear of wheels.
- Always use jack stands to support the boom and/or underlift before working underneath a lifted load.
- Warn personnel not to work, stand, or walk under a raised boom or underlift. Position barricades if necessary.
- Lower boom to stowed position prior to driving machine.
- Be aware of height clearances when traveling.



- Look out for and avoid other personnel, machinery, vehicles and obstructions in the area when driving the truck. Use a spotter if you DO NOT have a clear view.

## Section 1 - General Safety Practices

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When opening body compartments:

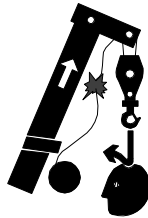
- Loose items may shift during transport, ensure to properly secure items when not in use
- Slide drawer(s) open slowly.
- Ensure all compartment doors are properly closed prior to transport.

### WINCH CABLE / FALLING LOAD HAZARDS

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- Keep people away during operation.
- Never exceed capacity of rigging or cable.
- Never stand on or straddle cable.
- Always keep a minimum of five (5) wraps of cable on winch drum.
- Keep tension on cable when unwinding.



- Always stop operation before block contacts sheave.
- If block contacts sheave, lower load by letting out cable and inspect for damage.
- Keep cables from contacting sharp objects.
- Never wrap cables around objects. Use appropriate chains/straps to wrap around the vehicle to be recovered, and attach the cable hook to the chain/straps.

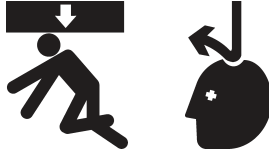
## ***Section 1 - General Safety Practices***

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- Never allow the cable to cross over itself when wrapping on the drum.
- All boom placement functions should be made with the winch wire ropes set in “free spool” to avoid over tensioning or breaking the winch wire ropes.
- Never use damaged cable. Never use cable menders. Replace damaged cable. Use cable and hooks with equal or greater rating.



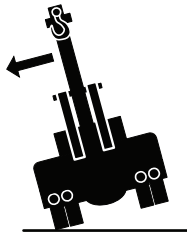
- Keep hands away from cable and drum during operation.



- Never operate recovery equipment with people under load.
- Jog winch clutch before pulling. Keep winch clutch engaged while the cable is loaded.
- Approved head gear must be worn during recovery operations.

### **TIP-OVER HAZARDS**

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- Set up on firm surface only.
- Deploy rear outrigger/spades onto proper firm surface.
- Ensure truck is level prior to any boom operations.



### FALL HAZARDS

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- Never use wrecker boom to hoist personnel.
- Never ride on boom, hook, load or any other device attached to wrecker boom or load line.
- DO NOT carry riders outside the cab. Riders could fall off the machine.
- Do not climb on the truck to access elevated service points. Only use approved ladders or grab handles and steps provided on the rear of the unit when accessing the service points on the top of the truck body in a controlled service environment. Always maintain 3-point contact, using two hands and one foot or two feet and one hand, when mounting or dismounting. These surfaces can become slippery, ensure to keep them and footwear clean and free of debris.

### CHEMICAL HAZARDS

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#### Exhaust Fumes

- DO NOT operate machine in an enclosed area without proper ventilation.
- DO NOT operate the machine in hazardous environments unless approved for that purpose by Jerr-Dan and site owner. Sparks from the electrical system and the engine exhaust can cause an explosion.

#### Flammable Fuel



- DO NOT fill the fuel tank or service the fuel system near an open flame, sparks or smoking materials. Engine fuel is flammable and can cause a fire and/or explosion.

## ***Section 1 - General Safety Practices***

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### **Hydraulic Fluid**



- DO NOT attempt to repair or tighten any hydraulic hoses or fittings while the engine is running or when the hydraulic system is under pressure.
- Stop engine and relieve trapped pressure. Fluid in the hydraulic system is under pressure and can penetrate the skin.
- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks. Wear gloves to protect hands from spraying fluid.

### **BATTERY HAZARDS**

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- Battery fluid is highly corrosive. Avoid contact with skin and clothing at all times.
- Keep sparks, flames, and lighted materials away from batteries.
- Charge batteries only in a well ventilated area.
- Wear proper eye protection when servicing battery.

## Section 1 - General Safety Practices

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### PERSONAL PROTECTIVE EQUIPMENT

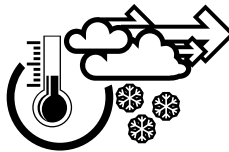
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- Use personal protective equipment when working on or around this vehicle.
- Remove rings, watches, jewellery, neckwear or other items that can catch in equipment.
- Wear :
  - o Snug fitting and sturdy long-sleeve shirt and long pants. Avoid loose fitting clothes.
  - o Sturdy gloves.
  - o Approved eye protection.
  - o Steel toed boots.
  - o Approved head gear.
  - o Approved hearing protection.

### WEATHER CONDITIONS

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- Be aware of the wind conditions. Wind may cause load to swing or shifting of load.
- If using in freezing conditions, you must be alert to possibility of ice forming on the device. Use Caution when extending and retracting winch cables, boom, and underlift. In addition use caution when opening/closing body panels
- Hydraulic cylinders are subject to thermal expansion and contraction. This may result in changes to the boom and/or attachment position while the machine is stationary. Factors affecting thermal movement can include the length of time the machine is stationary, hydraulic oil temperature, ambient air temperature and boom and/or attachment.

## ***Section 1 - General Safety Practices***

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### **VEHICLE EQUIPMENT DAMAGE**

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The act of lifting and towing casualty vehicles that have often been involved in a crash offers many opportunities to inflict worse damage on the towed vehicle, or even damage to the recovery vehicle. Recovery operators should take great care to avoid this damage. Follow these guidelines to reduce the potential for equipment damage.

- Ensure vehicle is positioned in an area free from overhead obstructions. Keep a safe working distance from overhead power lines, bridges, road signs and other objects.
- Avoid retracting or extending the wrecker boom while under load.
- Do not tow a vehicle on its drive wheels unless steps have been taken to protect its transmission and differential. Follow the recommendations of the vehicle manufacturer or use a towing dolly.
- Never attach the chain hooks in such a way as to damage brake lines or other functional parts.
- Ensure proper ground clearance of the underlift boom when traveling. Keep the underlift boom raised high enough off the ground when roading to avoid dragging it over road surfaces.
- Do not move the recovery vehicle while rear hydraulic stabilizers are extended.
- Outrigger spades may damage paved surfaces.
- **Do not use machine as a ground when performing any welding operations.**
- Never tie down the front of the recovery vehicle. This procedure may place excessive load on the chassis frame or other structural components leading to damage and costly repairs.
- Don't travel with the PTO engaged. Damage to the recovery vehicles transmission and hydraulic components will occur. Engage the PTO only when operating the hydraulic controls.
- When using stabilizer pads on pavement or concrete, it is suggested that you use larger rubber or wood pads under the stabilizer pads to help distribute the heavy loads. Damage to the pavement or concrete may result.
- The tire lift and grid tubes must be in their outermost positions for storage on the under lift when folded up in the travel position to avoid damage to the body.

## **SECTION 2 - PRE OPERATION AND INSPECTION**

### **2.1 PRE-OPERATION CHECK AND INSPECTION**

**Note:** Complete all required maintenance before operating unit.

#### **⚠ WARNING**

**FALL HAZARD.** Use extreme caution when checking items beyond your normal reach. Use an approved ladder.

The pre-operation check and inspection, performed at beginning of each work shift or at each change of operator, should include the following:

1. **Cleanliness** - Check all surfaces for leakage (oil, fuel or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
2. **Structure** - Inspect the machine structure for dents, damage, weld or parent metal cracks or other discrepancies.
3. **Safety Decals Placards** - Ensure all safety decals are legible and in place. Clean or replace as required. See page 2-2 for details.
4. **Operation and Safety Manual(s)** - Operation & Safety Manual(s) are in cab.
5. **Walk-Around Inspection** - See page 2-4 for details.
6. **Attachments/Accessories** - Inspect all attachments for dents, damage, weld or parent metal cracks or other discrepancies. Inspect tie-down straps for cuts, frays or tears. Inspect chains for weld or parent metal cracks or other discrepancies.
7. **Operational Check** - Once the walk-around inspection is complete, perform a warm-up and operational check (see page 2-6) of all systems in an area free of overhead and ground level obstructions. See Section 3 - Controls and Indicators for more specific operating instructions.

#### **⚠ WARNING**

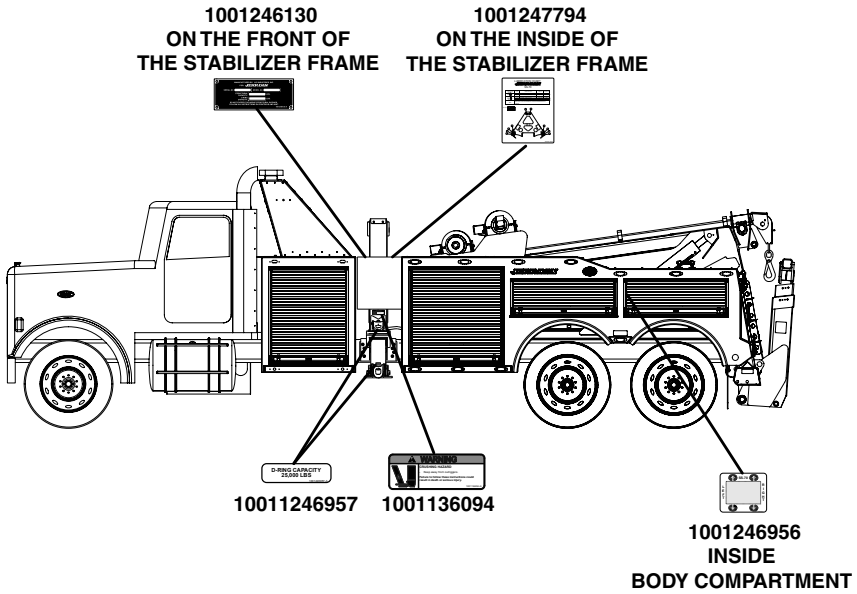
If your SS-70 does not operate properly, immediately bring machine to a stop, lower boom to stowed position and stop the engine. Determine cause and correct before continued use.

## Section 2 : Pre-operation and Inspection

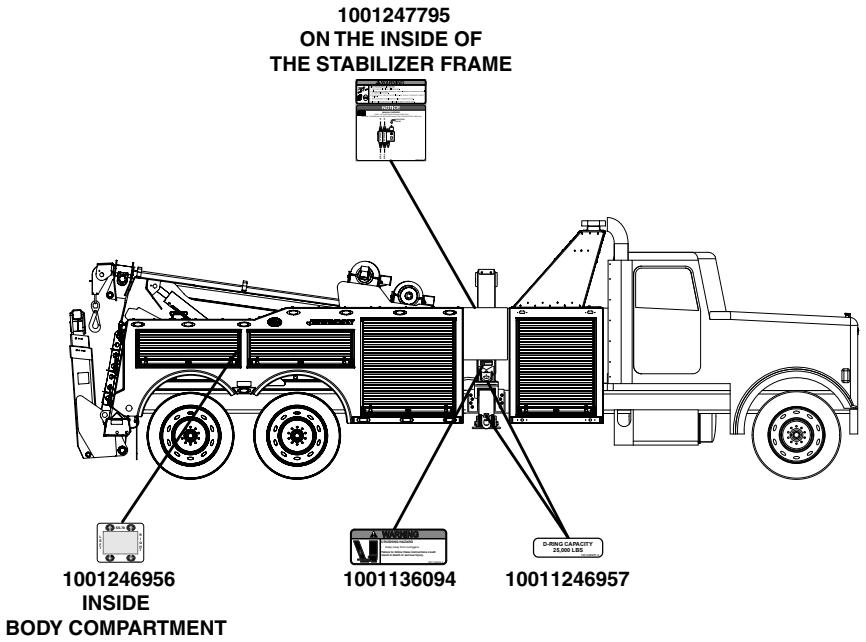
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### 2.2 DECALS

Ensure all **DANGER, WARNING, CAUTION** and instructional decals and proper capacity charts are legible and in place. Clean and replace as required.



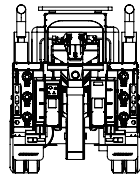
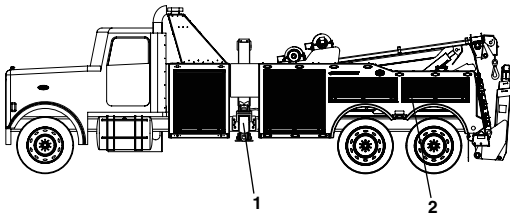
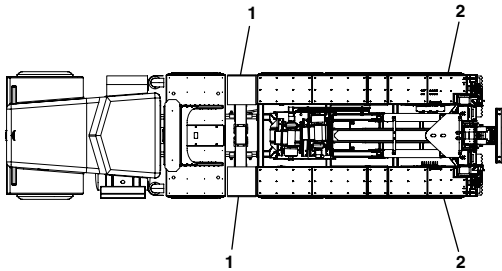
## Section 2 : Pre-operation and Inspection



## Section 2 : Pre-operation and Inspection

### 2.3 WALK-AROUND INSPECTION

**NOTE:** Complete all required maintenance before operating the unit.



Begin your walk-around inspection at item 1, as noted below checking each item in sequence.

**INSPECTION NOTE:** On all components, make sure there are no loose or missing parts, that they are securely fastened and no visible leaks or excessive wear exists in addition to any other criteria mentioned. Inspect all structural members including attachment for cracks, excessive corrosion and other damage.

#### **WARNING**

**FALL HAZARD.** Use extreme caution when checking items beyond your normal reach. Use an approved ladder.

#### **CAUTION**

All products are subject to age, wear and deterioration, all of which cause a reduction in the products breaking strength capacity. It is recommended that all products be regularly inspected to follow component manufacturer's recommendations. Any worn, deformed, misused or overloaded products must be replaced immediately.



## ***Section 2 : Pre-operation and Inspection***

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1. Stabilizer/Spades – Left Hand and Right Hand
  - a. Check for presence of grease
  - b. Cylinder pivot pins, secure
  - c. Hydraulic hoses undamaged, not leaking
  - d. Spade Claw pivot pin, secure
  - e. D-Ring pivot pins, secure
2. Electric/Hydraulic Controls
  - a. Hydraulic hoses undamaged, not leaking
  - b. Valve, not leaking
  - c. Electrical control switches undamaged

## ***Section 2 : Pre-operation and Inspection***

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### **2.4 OPERATIONAL CHECKS**

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#### **OPERATIONAL CHECK**

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When engine warms, perform an operational check:

1. Service brake and parking brake operation.
2. Horn and back-up alarm. Must be audible from inside operators cab with engine running.
3. Manually controlled hydraulic functions - all functions operate smoothly and the controls return to the "Neutral Off" position.
4. Hydraulic filter condition indicator.
5. Power-Take-Off operation.
6. Electric over hydraulic controlled functions - all functions operate smoothly and the controls return to the "Neutral Off" position.
7. Body lighting operation.
8. Emergency lighting operation.

## **SECTION 3 - CONTROLS & INDICATORS**

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### **3.1 GENERAL**

This section provides the necessary information needed to understand control functions.

The controls inside the cab control the body compartment lights, emergency lights, auxiliary lights and the Power Take Off. The Power Take Off provides a transfer of power from the transmission to a hydraulic pump to provide hydraulic power to the SS-70.

The controls in the rear body compartment control the SS-70 functions.

*Note: The manufacturer has no direct control over machine application and operation. The user and operator are responsible for conforming with good safety practices.*

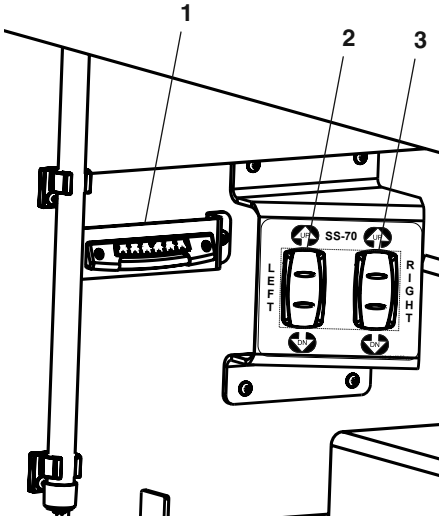
**Section 3 - Controls & Indicators**

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**3.2 CONTROLS**

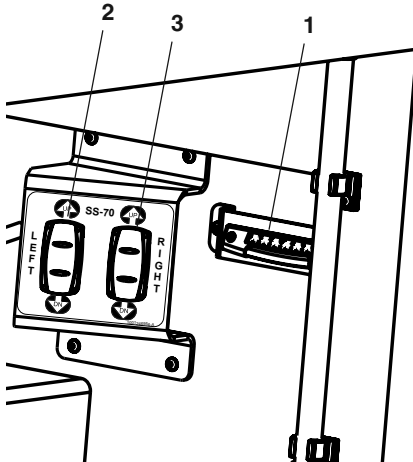
**LEFT HAND - SIDE CONTROL STATION**

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**RIGHT HAND - SIDE CONTROL STATION**

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### ***Section 3 - Controls & Indicators***

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1. Bubble Level : Used to level the body from left to right.
2. Left Side Stabilizer Control : Controls the extend/retract functions of the left side stabilizer.
3. Right Side Stabilizer Control : Controls the extend/retract functions of the right side stabilizer.

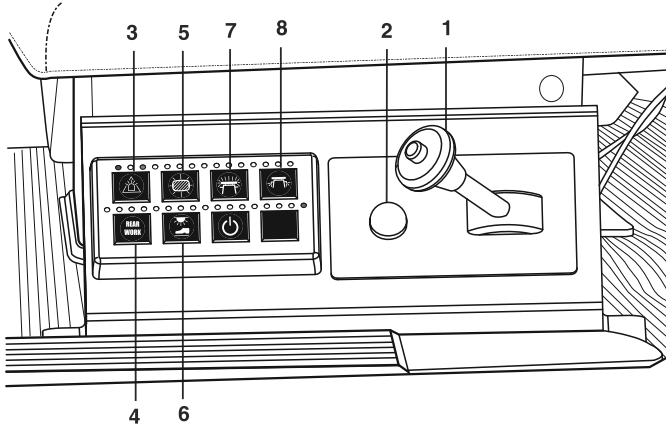
## Section 3 - Controls & Indicators

### 3.3 IN-CAB CONTROLLER

The in-cab switch panel is powered by the truck chassis ignition switch. The Green LED will illuminate on the switch panel when the ignition switch is in the on position.

Pushing a switch button will activate the selected function. The Blue LED will illuminate above the switch button when a function is activated.

An Orange LED will illuminate above a switch button when there is an electrical fault in that function or that option is not installed

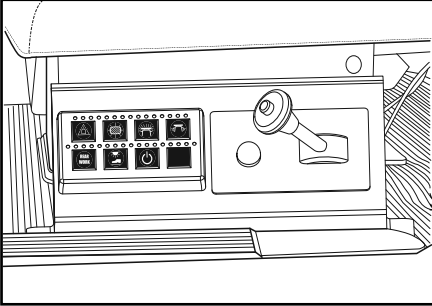


1. Power Take Off Switch	: Engages and disengages the Power Take Off.
2. Power Take Off Indicator Light	: Indicates that the Power Take Off is "Engaged" when illuminated.
3. Awareness Lights Switch	: Controls Emergency Lighting.
4. Rear Work Light Switch	: Controls Upper Rear Work Lights.
5. Flasher Lights Switch	: Controls Flasher Lights.
6. Perimeter Lights Switch	: Controls Perimeter Lights.
7. Beacon Light Switch	: Controls Pylon Beacon Light.
8. Work Lights Switch	: Controls Pylon and Boom Work Lights.

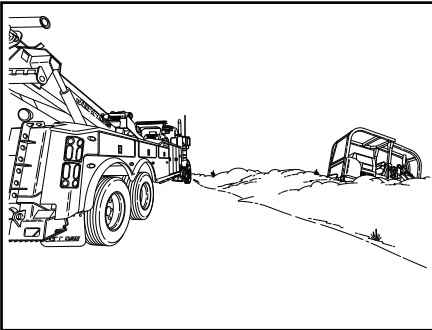
## **SECTION 4 - OPERATION**

The primary operator controls are located in the Right Hand Rear body compartment. A secondary set of operator controls are located in Left Hand Rear body compartment. There are also two optional handheld remote controllers.

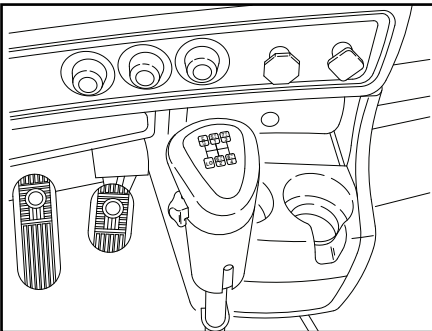
### **4.1 SS-70 OPERATION**



1. Turn on the emergency lights and auxiliary work lights. Refer to Controls and Indicators Section 3.

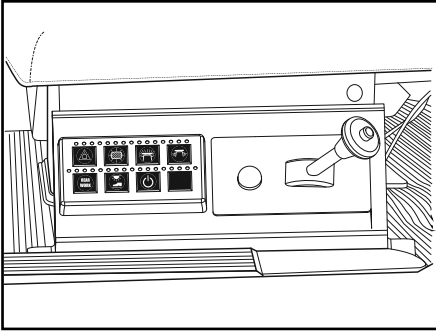


2. Position the recovery vehicle on firm ground as close as possible to the vehicle that you intend to pull/recover.



3. Place the recovery vehicle's transmission gear selector into neutral, set the parking brake and chock rear the wheels.

## Section 4 : Operation



4. Engage the power take-off (PTO)  
See PTO operator's manual.

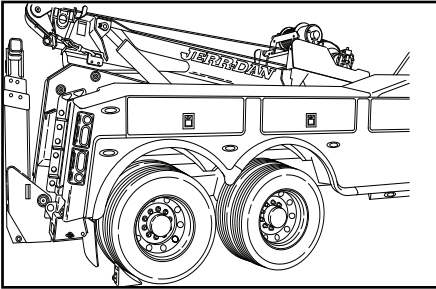
### NOTICE

**NEVER TRAVEL WITH THE POWER TAKE OFF CONTROL ENGAGED.** This could result in damage to the PTO unit and the recovery vehicle's transmission.

5. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1000-1200 R.P.M. of P.T.O. output shaft speed for optimum performance. Refer to the cab chassis manufacturer's manual for throttle control operation.

### CAUTION

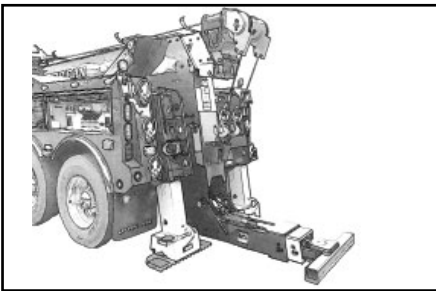
Never exceed 1200 R.P.M. When your hook up is complete, reset the engine idle to normal.



6. Check the area around the recovery vehicle and the vehicle to be pulled/recovered for obstructions or hazards.

### NOTICE

Be sure the casualty vehicle is not in gear or park. Keep the casualty vehicle parking brake set.



7. Lower the underlift boom to about one (1) in. from the ground.



## Section 4 : Operation



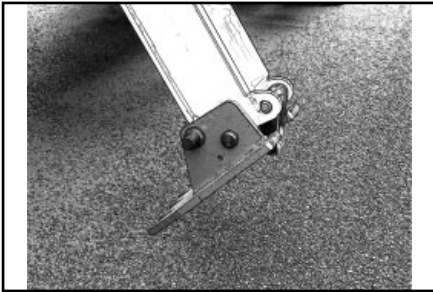
8. Next, lower the SS-70 stabilizers to the ground.
9. The left and right stabilizers operate independently of each other. The stabilizers only need to touch the ground to support the load. .

### **⚠ CAUTION**

Do not attempt to use the stabilizers to level or raise the truck.

### **⚠ CAUTION**

Stand clear of the stabilizers to avoid crushing injury. Area should be clear of feet when lowering the stabilizers. Also, never move the recovery vehicle with the stabilizers on the ground or damage to the stabilizers can occur.



10. If you are on gravel or a soft surface the integral spades can give you more gripping power.

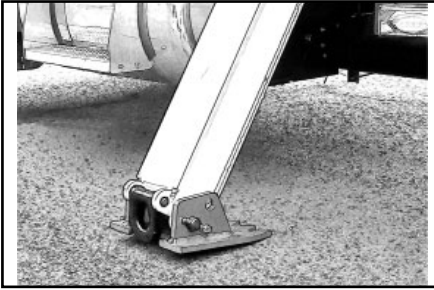
### **⚠ WARNING**

Area must be clear of feet when lowering the stabilizers.

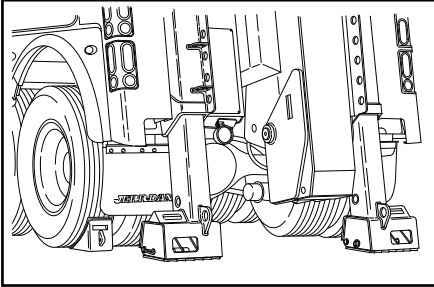
### **⚠ CAUTION**

Do not move the recovery vehicle with the stabilizers on the ground or damage to the recovery vehicle can occur.

## Section 4 : Operation

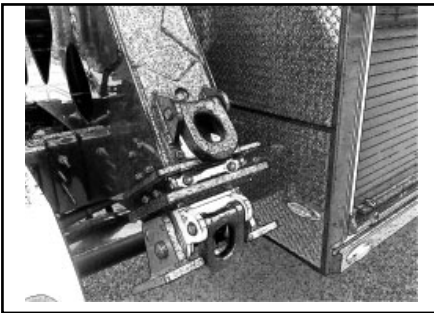


11. If you are on concrete or pavement and can't use the integral spades, pull the spade retaining pin allowing the stabilizer pad to level out flat before completely lowering the stabilizers.



### NOTICE

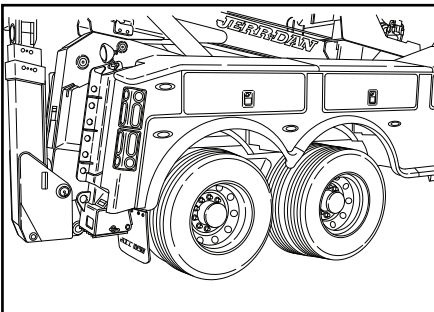
Jerr-Dan also recommends that the rear stabilizers be lowered to help stabilize the recovery vehicle. (See **Heavy Duty Wrecker Operation Manual**)



12. Retract the stabilizers.

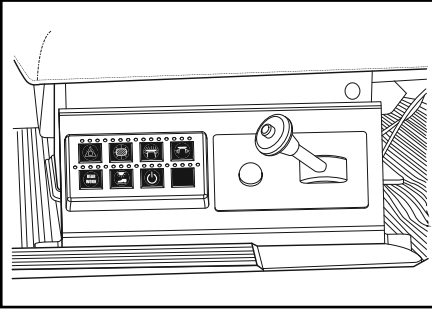
### CAUTION

If you removed the stabilizer foot pin earlier to use the stabilizer foot flat, the stabilizer foot will self stow it's self when the stabilizers are retracted.



13. Remove the wheel chocks for the recovery vehicle's rear tires.

## ***Section 4 : Operation***



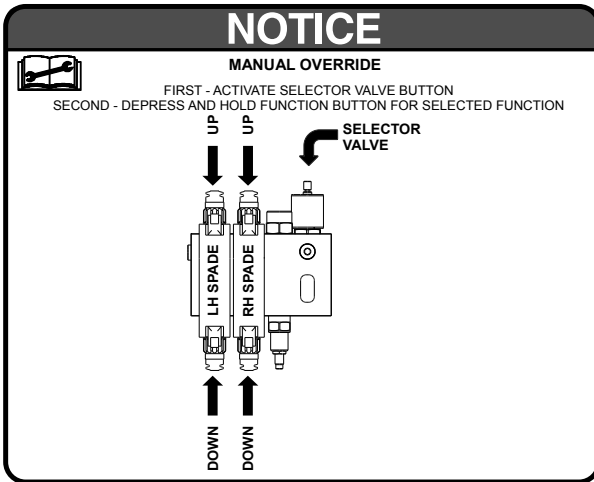
14. Disconnect the power take-off (PTO). Refer to PTO operator's manual. **NEVER TRAVEL WITH THE POWER TAKE-OFF CONTROL ENGAGED.** This could result in damage to the PTO unit and the recovery vehicle's transmission.

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## SECTION 5 - EMERGENCY PROCEDURES

### 5.1 RAISING/RETRACTING OF THE STABILIZERS

In the event of an electrical over hydraulic system failure, the stabilizers may be retracted using the manual override feature of the hydraulic valve. Follow the instructions on the decal located inside the stabilizer frame by the hydraulic control valve.



In the event of total loss of engine power or hydraulic pump failure with the stabilizers extended, the situation must be properly evaluated and dealt with on an individual basis. **Contact a local Authorized Distributor for specific instructions.**

Secure the unit using the following procedures:

#### **WARNING**

Do not retract stabilizer(s) with boom elevated and/or extended.

1. Clear the area around the unit of all personnel.
2. Engage the parking brake. Place the transmission control lever in "PARK".
3. Chock front and rear wheels.
4. Section off the area with string or tape to restrict any personnel from entering the area.

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## **SECTION 6 - MAINTENANCE**

### **INTRODUCTION**

Service the product in accordance with the maintenance schedule on the following pages.

Wear all the protective clothing and personal safety devices issued to you or called for by job conditions.

DO NOT wear loose clothing or jewelry that can get caught on controls or moving parts.

Clean lubrication fittings before lubricating.

Intervals shown are for normal usage and conditions. Adjust intervals for abnormal usage and conditions.

Check all lubricant levels when lubricant is cool. For ease of filling hydraulic reservoir, use a funnel with a hose or flexible tube for best results.

When performing maintenance that requires accessing the top of the truck, use only an approved ladder.



Use only safe practices when maintaining this equipment. Always shut off the engine before reaching into pinch areas.

Place Do Not Operate Tags on the ignition switch and the steering wheel before attempting to perform any service or maintenance. Remove the key and disconnect battery leads.

### **⚠ WARNING**

CUT/CRUSH/BURN HAZARD. Do not perform service or maintenance on the machine with the engine running, with the exception of the hydraulic return filter indicator checks.

### **⚠ WARNING**

The SS-70 hydraulic systems operate at extremely high and potentially dangerous pressures. The operator must relieve any system pressure before disconnecting or removing and portion of the system.

## ***Section 6 - Maintenance***

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### **6.1 MAINTENANCE AND LUBRICATION**

The truck chassis itself is on a maintenance schedule recommended by the manufacturer. Follow these guidelines and protect your vehicle warranty.

There are a number of different lubricants used on your SS-70. The following Lubricant Chart shows the proper lubricant and the most common brands and specification which meet the requirements. Refer to Section 6.3.

The hydraulic filters located on the return side of the hydraulic tank come equipped with restriction indicator gauges. The gauge shows the condition of the filter element. When the needle reaches the red band (25 psi), the filter is starting to bypass and the element needs to be changed. Failure to change the filter element will result in premature wear and/or failure of any or all of the hydraulic components. **Only check gauge when hydraulic fluid is at operating temperature. Cold oil is more dense and will give a false indicator gauge reading.** Refer to Section 6.3.

The body of your Jerr-Dan has been built from a polypropylene material which has been carefully assembled in our factory.

To keep your polypropylene body clean and free of dirt use any non-abrasive soap or detergent that is safe to the touch. Use a soft cloth or sponge and finish with a thorough rinsing. Drying with a soft cloth or chamois will prevent spotting or streaking. To clean tough stains from the white polypropylene surfaces, a clear pipe cleaner suitable for ABS, CPVC, or PVC can be used. There are rubber plugs in the bottom of the vertical tool compartments of the body to provide water drainage when cleaning out the compartments. The roll-up doors in your body require very little maintenance, and are simple to clean. Any door with a painted surface should not be cleaned aggressively cleaned for 30 days from time of shipment. When cleaning anodized doors, use only a mild non-abrasive soap and water. The side channels should be inspected and cleaned periodically to remove the dirt and grime from inside the channels. A dry silicone spray can be applied to ensure smooth operation. DO NOT use lithium or grease to lubricate the track, these lubricants only attract dirt. The slide out chain board tracks and the pull-out/tilt down drawer tracks should be cleaned periodically and free of debris.

For all sling, strap, chain and lifting components refer to the manufacturer inspection and maintenance schedules.



**6.2 OILS AND GREASES**

The following oils and greases are suitable for use with your Jerr-Dan Product.

<b>Company</b>	<b>Product</b>
<b>HYDRAULIC OILS</b>	
1. Chevron	Clarity AW 46
2. Exxon	Univis N46
3. Mobil	Mobilfluid 424
4. Texaco	Rando HD 46
5. Kendall	AW 46
6. Citgo	Mystik AW 46
7. Amoco	AW 46
8. Conoco	Super
9. Mobil	DTE10 Excel 32 (for cold weather use)
10. Conoco	AW Hydraulic Fluid MV 32 (for cold weather use)
<b>GREASES</b>	
1. Drydene	HD Lithium EP2
2. Gulf	Crown EP2
3. Amoco	Amolith EP2
4. Shell	Alvania EP2
5. Texaco	Marfax EP2
6. Mobil	Mobilux EP2
7. Sunoco	Prestige EP2

## Section 6 - Maintenance

### 6.3 SS-70 LUBRICATION POINTS

The following lubrication charts are located inside the stabilizer frame of the SS-70 body.

# LUBRICATION CHART

## **JERR-DAN**

### SS-70

LUBRICATION INTERVAL	ID No.	IDENTIFICATION	SERVICE	LUBRICATION
<b>50</b> OR SEMI-MONTHLY	1	PADS, WEAR / STEEL	COAT	MPG
<b>100</b> OR MONTHLY	2	CYLINDER, SPADE EXTEND	LUBRICATE	MPG
	3	D-RING	LUBRICATE	MPG
MPG	HEAVY DUTY MULTI-PURPOSE EP LITHIUM COMPLEX NLGI No. 2 GREASE.			

NOTES:

1001247794-A

**6.4 TROUBLE SHOOTING**

You probably won't require anything but preventive maintenance to keep your SS-70 running, however, the following chart should help you isolate and correct minor problems if they occur with use. Any service work on the hydraulic system should be performed by qualified mechanics.

**HYDRAULIC SYSTEM**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Slow operation	<ul style="list-style-type: none"> <li>a. Low engine RPM</li> <li>b. Low oil level</li> <li>c. Blocked or restricted hose</li> <li>d. Dirty hydraulic oil</li> <li>e. Hydraulic pump worn</li> <li>f. Frozen hydraulic lines</li> </ul>	<ul style="list-style-type: none"> <li>a. Speed up engine</li> <li>b. Check level and fill with the specified oil</li> <li>c. Inspect: remove blockage</li> <li>d. Drain, flush and refill with clean oil, replace filter</li> <li>e. Rebuild or replace</li> <li>f. Thaw and remove water</li> </ul>
Valve sticks	<ul style="list-style-type: none"> <li>a. Insufficient lubrication</li> <li>b. Broken centering spring or clogged with foreign material</li> </ul>	<ul style="list-style-type: none"> <li>a. Lubricate per lube chart</li> <li>b. Inspect, clean or replace</li> </ul>
Valve leaks	<ul style="list-style-type: none"> <li>a. Defective seals</li> </ul>	<ul style="list-style-type: none"> <li>a. Inspect and replace</li> </ul>
Cylinder leaks	<ul style="list-style-type: none"> <li>a. Defective seals or rods</li> </ul>	<ul style="list-style-type: none"> <li>a. Inspect and replace</li> </ul>
Erratic cylinder function	<ul style="list-style-type: none"> <li>a. Air in the system</li> <li>b. Defective pump (pulsating)</li> </ul>	<ul style="list-style-type: none"> <li>a. Cycle hydraulic system 10 to 15 times to remove air</li> <li>b. Replace if necessary</li> </ul>
Electric controls switch fails to respond	<ul style="list-style-type: none"> <li>a. Electric power turned off</li> </ul>	<ul style="list-style-type: none"> <li>a. Turn on CONTROL power switch in cab</li> </ul>
Oil heating up	<ul style="list-style-type: none"> <li>a. Oil Cooler not working</li> </ul>	<ul style="list-style-type: none"> <li>a. Repair or replace</li> </ul>

## Section 6 - Maintenance

### TROUBLESHOOTING

#### P.T.O. FUNCTIONING IMPROPERLY

Problem	Cause	Solution
Intermittent operation	a. Poor Electrical connection	a. Check electrical connections
Rattling noise in P.T.O.	a. P.T.O. backlash too loose (Consult P.T.O. Manual)	a. Shims must be removed
Howling noise in P.T.O.	a. P.T.O. backlash too tight (Consult P.T.O. Manual)	a. Shims must be added
Gear oil leak between P.T.O. and pump	a. Defective shaft seal	a. Remove and replace
P.T.O. will not engage or disengage	a. Electrical circuit wiring b. Solenoid Valve malfunctioning c. Blown fuse	a. Check/repair electrical wiring problem circuit. b. Repair or replace c. Replace fuse

#### HYDRAULIC PUMP

Problem	Cause	Solution
Pump noisy (Cavitation)	a. Low oil supply b. Heavy oil c. Dirty oil filter d. Restriction in suction line e. Pump worn	a. Fill to proper level b. Fill with proper oil (See chart) c. Replace filter d. Clean out and remove e. Repair or replace
Pump slow or fails to respond	a. Low oil supply b. Cold Thick Oil	a. Fill to proper level b. Drain and refill with a low temperature oil
Oil heating up	a. Foreign material lodged in relief valve filter b. Using too light oil c. Dirty oil d. Oil level too low e. Pump worn (slippage)	a. Inspect and remove/replace b. Drain and refill with clean oil c. Drain, flush and refill with clean oil/replace filter d. Fill to proper level e. Repair or replace

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**TROUBLESHOOTING**

**HYDRAULIC PUMP**

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Oil foaming	a. Air leaking into suction line b. Wrong kind of oil c. Oil level too low	a. Tighten all connections b. Drain and refill with non-foaming type of hydraulic oil (See lube chart) Replace filter c. Refill to proper level
Hydraulic oil leak between P.T.O. and pump	a. Defective shaft seal	a. Replace shaft seal
Pump leaks at front and rear covers	a. Defective seals	a. Replace seals

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## **SECTION 7 - SPECIFICATIONS**

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### **7.1 PRODUCT SPECIFICATIONS**

SS-70

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#### **OPERATING SPECIFICATIONS AND PERFORMANCE DATA**

**DO NOT EXCEED THE FOLLOWING RATINGS:**

MAXIMUM STRUCTURAL RATING: ..... 32,000 lbs.

MAXIMUM D-RING RATING: ..... 25,000 lbs.

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### **7.2 CAPACITIES**

#### **Hydraulic System**

Operating Pressure ..... 3000 psi max.

Cylinder Relief Pressure ..... 4000 psi max.

System Flow ..... 15 gpm max.

Power beyond, max pass through flow ..... 42 gpm max.

Type of Oil

0° to 104° F ..... Mobilfluid® 424

-40° to 0° F ..... Mobile DTE 10 Excel 32M

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An Oshkosh Corporation Company

# TRANSFER OF OWNERSHIP

## To Product Owner:

If you now own but ARE NOT the original purchaser of the product covered by this manual, we would like to know who you are. For the purpose of receiving safety-related bulletins, it is very important to keep Jerr-Dan Corporation updated with the current ownership of all Jerr-Dan products. Jerr-Dan maintains owner information for each Jerr-Dan product and uses this information in cases where owner notification is necessary.

Please use this form to provide Jerr-Dan with updated information with regard to the current ownership of Jerr-Dan products. Please return completed form to the Jerr-Dan Product Safety & Reliability Department via facsimile or mail to address as specified below.

Thank You,  
Product Safety & Reliability Department  
*Jerr-Dan Corporation*  
13224 Fountainhead Plaza  
Hagerstown, MD 21742  
USA  
Telephone: +1-717-485-6591  
Fax: +1-301-745-3713

**NOTE:** Leased or rented units should not be included on this form.

Mfg. Model : \_\_\_\_\_

Serial Number : \_\_\_\_\_

Previous Owner : \_\_\_\_\_

Address : \_\_\_\_\_  
\_\_\_\_\_

Country : \_\_\_\_\_ Telephone : (\_\_\_\_\_) \_\_\_\_\_

Date of Transfer : \_\_\_\_\_

Current Owner : \_\_\_\_\_

Address : \_\_\_\_\_  
\_\_\_\_\_

Country : \_\_\_\_\_ Telephone : (\_\_\_\_\_) \_\_\_\_\_

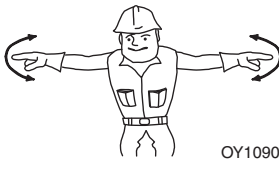
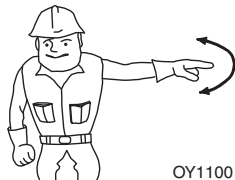

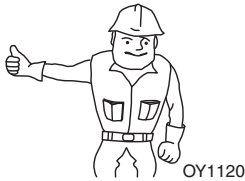
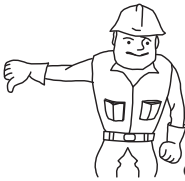
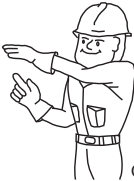
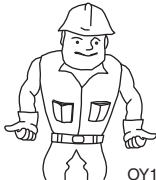
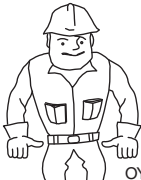


Who in your organization should we notify?

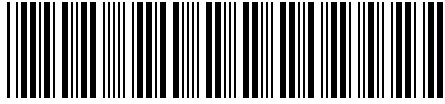
Name : \_\_\_\_\_

Title : \_\_\_\_\_

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# Hand Signals

 <p>OY1090</p> <p><b>EMERGENCY STOP</b> - With both arms extended laterally, hands open downward, move arms back and forth.</p>	 <p>OY1100</p> <p><b>STOP</b> - With either arm extended laterally, hand open downward, move arm back and forth.</p>	 <p>OY1110</p> <p><b>STOP ENGINE</b> - Draw thumb or forefinger across throat.</p>
 <p>OY1120</p> <p><b>RAISE BOOM</b> - With either arm extended horizontally, fingers closed, point thumb upward.</p>	 <p>OY1130</p> <p><b>LOWER BOOM</b> - With either arm extended horizontally, fingers closed, point thumb downward.</p>	 <p>OY1140</p> <p><b>MOVE SLOWLY</b> - Place one hand motionless in front of hand giving motion signal. (Raise load slowly shown)</p>
 <p>OY1150</p> <p><b>EXTEND BOOM</b> - With both hands clenched, point thumbs outward.</p>	 <p>OY1160</p> <p><b>RETRACT BOOM</b> - With both hands clenched, point thumbs inward.</p>	 <p>OY1170</p> <p><b>THIS FAR TO GO</b> - With hands raised and open inward, move hands laterally, indicating distance to go.</p>
 <p><b>SWING BOOM</b> - Arm extended, point with finger in direction of swing of boom.</p>	<p><b>Special Signals</b> - When signals for auxiliary equipment functions or conditions not covered are required, they shall be agreed upon in advance by the operator and signalman.</p>	



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**JERR-DAN**

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Hagerstown, MD 21742  
Phone (717) 597-7111*

**TOW**   
**SUPPORT**  
by **JERR-DAN**

*Phone (800) 926-9666*

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[www.jerr-dan.com](http://www.jerr-dan.com)