# STAHL

# 5000 Series Owner's Manual

As of June 2, 2010

TABLE OF CONTENTS	2
SAFETY	3-5
OPERATION	6-9
MAINTENANCE	10-11
SPECIFICATIONS	12
TROUBLESHOOTING	13
MOUNTING INSTRUCTIONS	14-18
PARTS	19-27
SCHEMATICS	28-29
WARRANTY	30

FOR THE LOCATION OF YOUR NEAREST DISTRIBUTOR CALL 330-264-7441

Revision 6/10

## SAFETY

#### - It is YOUR responsibility to maintain and operate this crane safely -

The following words and symbols will be used in your owner's manual:

! DANGER ! Indicates immediate danger and that special precautions are necessary.

! CAUTION ! Warns against potential hazards or cautions against unsafe practices.

Your **STAIL** crane is designed to meet all applicable government safety standards. Warranty will be voided if the crane is misused due to:

- Overloading
- Abuse
- Lack of (or improper) maintenance
- Unauthorized modification

#### ! CAUTION !

Operate your 5000 crane within the lifting capacities specified. Exceeding the lifting capacity for a given boom length can cause tipping or structural failure. Only the **STAHL** "New Machinery and Equipment" warranty shown on the last page of this manual is valid with this crane. No other warranty—verbal, written, or implied—is valid with this crane. Treat your **STAHL** crane with respect and service it regularly. These two things can add up to a safer working environment and longer equipment life.

#### ! CAUTION !

Note locations of Danger, Caution, and Lift Capacity decals on the 5000 crane. Read and understand each of these before attempting to operate the crane. If any of these labels are missing or cannot be read, contact your **STAHL** distributor for immediate replacement.

#### **GENERAL SAFE OPERATING PRACTICES**

**ALWAYS** inspect your crane daily, prior to use, for malfunctions, defects, or misuse.

ALWAYS keep the vehicle as level as possible while loading or unloading.

ALWAYS set the vehicle emergency brake before beginning crane operations.

**ALWAYS** keep the load as close to the ground as possible.

**ALWAYS** store the crane and hook when moving the truck.

**ALWAYS** store the controller securely to avoid unauthorized use of the crane.

**NEVER** swing a load that passes over people.

**NEVER** operate the crane within ten feet of a power line.

**NEVER** exceed the rated lifting capacity. Deduct the weight of any load handling equipment from rated capacity.

**NEVER** leave a load suspended in the air.

**NEVER** use the winch to drag a load into position before lifting.

**NEVER** operate the crane during an electrical storm or when high wind conditions exist.

**NEVER** side load the boom by dragging a load from the side.

**NEVER** try to service or repair the crane while the crane is operating.

**NEVER** place yourself between the load and truck or other fixed object.

**NEVER** move the truck while operating the crane or with a load on the crane.

#### SAFETY CHECKLIST

STRUCTURAL SOUNDNESS: Inspect the unit for damaged members and loose fasteners.

CONTROLS: Make a short test for proper control and operation of all functions.

**REPAIRS**: Fix all problems before using your crane.

**LEAKAGE**: Examine all of the hydraulic lines for frays and blisters. Look for signs of lubricating or hydraulic oil leakage.

**HYDRAULIC OIL SUPPLY**: With the crane in a stored position, and all cylinders retracted, check oil level in the hydraulic reservoir.

#### **DECAL PLACEMENT**

Note locations of the DANGER, CAUTION, and LIFT CAPACITY decals on **STAHL** 5000 cranes. Read and understand each of these decals before attempting to operate your crane. If any decals are missing or cannot be read, contact your **STAHL** distributor for immediate replacement.





LOAD CAPACITIES MEASURED IN POUNDS CRANE RATING : 25,000 FT./LB.

#### **DISTANCE IN FEET**

**NOTE:** Load capacities are based on 85% of tipping when all outriggers are extended and have firm contact with a solid surface. Vehicles must have proper axle load distribution and crane must be mounted in accordance with manufacturer's instructions.

#### **REMOTE CONTROL**

The crane remote control plugs into a receptacle. The blue line on the male plug on the remote control must line up with the flat spot on the receptacle at the base of the crane. Push the male plug onto the receptacle while turning the serrated portion of the male plug clockwise. Continue turning until the pin on the receptacle can be seen through the hole in the male plug and a "click" is felt.

There are six switches on the remote control. Each is labeled as to the function and direction. For example: To activate the winch, push up on the switch to "winch up"; push down on the switch to "winch down".



#### 5000 SERIES OWNER'S MANUAL

The 5000 crane is designed to provide excellent service if operated within the maximum allowable load specifications stated on the unit's "Angle Indicator Plate" located on either side of the boom. A load chart is also included on page 6. Load information charts should be studied before operating the crane. Exceeding the stated load limit can cause tipping or structural failure. You should familiarize yourself with proper operation procedures to avoid overloading the crane. As an example: If a load of 4000 pounds is lifted at an 15' boom length at 75°, lowering the boom would cause an overload situation.

The 5000 crane is relatively simple to operate. Prior to field use, you should familiarize yourself with the controls and how the unit reacts to the controls. Practice operations should be performed with a light test weight progressing to a heavier test weight.

#### **LIFTING OVER 2,500 POUNDS**

A "two-part" line must be used whenever the load is **2,500 pounds** or greater. In order to "two-part" the line:

- Connect the winch cable eye to the pin on the bottom of the manually extendible boom section.
- Insert cable through the snatch block by removing the cotter pin and disassembling.
- Reassemble the snatch block. Be sure to reinsert the cotter pin in the snatch block.

You should also use a "two-part" line for loads under 2,500 pounds if you want to slow down the line speed of the cable.

#### LOAD LIFTING

It must be understood that all load ratings are formulated on 85% of tipping. Tipping is defined as a tire breaking contact with the ground. Further, all load ratings are dependent upon compliance with the following:

- The unit has been correctly installed in accordance with chassis requirements and truck body manufacturer's specifications.
- The intended operation is carried out on a level, solid surface with proper outrigger placement.

#### TASK PERFORMANCE

- 1. Position the 5000 crane as close to the job as possible on a firm, dry, and level surface. Avoid overhead obstruction on the work side of the unit.
- 2. Set the parking brake.
- 3. Extend and lower the outriggers until firm ground contact is made. On soft ground, use bearing pads to prevent sinking or tipping.
- 4. Run the winch line out before extending the boom.
- 5. Make sure the connection to the load is secure and will not come loose when lifting the load.

#### **OVERLOAD PROTECTION**

The 5000 crane is equipped with a counterbalance valve inside the lift cylinder to protect against overloading. In an overload condition, the boom will not elevate. Attempts to winch the load will cause a downward feathering of the boom until the overload condition is reduced. The counterbalance valve will also keep the boom from coming down in the unlikely event of a rupture to the hydraulic hoses that supply oil to the lift cylinder.

A pressure sensitive switch is located in the lifting cylinder. It can sense an overload situation. This causes a shutdown of the winch up, boom extension out, and boom elevation functions, and automatically resets after the crane has been moved out of the overload position.

An anti-two block feature is provided on the LRX models.

#### **ROTATION STOP**

A stop to prevent the unit from rotating continuously is located on the crane base. The stop is installed so that a full 360° plus is obtained. A stop lever is attached to the turret and extends so that it will contact the rotation stop on the base assembly. Do not remove the stop assembly. Continuous rotation will result in damage to the wiring harness and/or hydraulic hoses.

#### SPEED CONTROL OPERATION

The boom lift cylinder, extend cylinder, and rotation drive motor are preset at 2 gallons per minute (GPM). This flow control valve is located in the valve manifold block. The winch function receives the full "required 6 GPM" flow. An optional proportional flow control valve that controls the crane's operation speed from 0 to 6 GPM is available from **STAHL**.

#### **RELIEF VALVES**

The 5000 crane requires a relief valve located at the reservoir to maintain crane operating pressure at 2600 PSI. This relief valve is not supplied unless using a **STAHL** hydraulic reservoir. It is the customer's responsibility to provide this relief valve when using a reservoir not supplied by **STAHL**. The main function of this relief valve is to prevent overloading of the system if the boom is inadvertently rotated against an immovable object, while one of the other hydraulic functions is also being used. The relief valves would not normally require adjustment, but if the correct relief valve setting is suspect, refer to the maintenance section of this manual for the proper adjustment and testing procedure.

Proper maintenance on a regular schedule is essential to keep the unit operating at peak efficiency.

#### LUBRICATION

Maintenance and proper lubrication schedule will vary with climate conditions and the amount of usage the unit receives. The lubrication chart below is intended to serve for a normal workload and moderate weather variance. Periods of heavy use shorten service intervals.

ITEM	WHERE	INTERVAL	LUBRICATION PRODUCT
Slewing Ring	Grease Fitting	1 Month	Chevron Moly Grease #2
Winch Cable	Surface	6 Months	Light Oil
Pulley Block	Not Required		
The Worm and Gear Mesh	Directly on Gears	1 Month	Mobiltac "C", Shell Cardium EP Silver Streak
Sheave Bushing	Not Required		200, Moliude Alloy 936
Cylinder Pin Bushing	Not Required		
Turret to Boom Bushing	Grease Fitting	6 Months	Chevron Moly Grease #2
Hydraulic Filter	Reservoir	6 Months	10 Micron Filter

#### HYDRAULIC FLUID SPECIFICATION

Minimum viscosity specifications for hydraulic oil to be used in the crane should be Chevron AW68 or equivalent to eliminate the necessity of seasonal oil changes under normal temperature conditions. For operations in below freezing temperature, use a hydraulic fluid having a viscosity of 3000 SSU's.

Operating temperature of the hydraulic fluid should be within the range of 120°F–160°F (49°C–82°C).

**NOTE**: Arctic conditions present special requirements and considerations. Consult your oil supplier for the proper fluid for working under these severe conditions.

In addition to meeting the viscosity requirements, hydraulic fluid used in the system should contain the following additives:

- Anti-foam inhibitors
- Antioxidant inhibitors
- Anti-wear additives
- Rust resistant additives

#### PURGING AIR FROM THE SYSTEM

Air that is trapped in the cylinder will cause an erratic "bumpy" condition. To expel the air, hold the affected control open after the function has "bottomed out". Move the function in the opposite direction and again hold the control open. Attempt to operate the crane in a normal manner to determine if the air has been purged. When purging is complete, reevaluate hydraulic fluid level and add fluid if necessary.

#### **REMOTE CONTROL**

The remote control is subject to corrosion and must be checked at least twice a year and more often if operated in severe, wet conditions. To check for corrosion:

- 1. Remove the cover plate and inspect for lack of luster. Metal should appear bright and untarnished.
- 2. Spray the inside of the box with an ignition sealer such as Krylon.
- 3. Check all connections to make sure they are tight.

#### HYDRAULIC OIL DETERIORATION

Contamination of the hydraulic oil by solvents, water, dust or other abrasives will result in premature breakdown of the oil's anti-foam, lubrication, anti-rust and viscosity properties. Periodically, a sample of the hydraulic oil in the system should be drawn off and its condition checked for breakdown. To check quality:

- 1. Place oil sample in a clean glass.
- 2. Smell oil to detect a burnt or rancid odor.
- 3. Examine the oil for a cloudy or dark color.
- 4. Allow the sample to stand for several minutes and inspect it for water, which will settle to the bottom.

When any of the results above are observed, the system should be purged to the bottom and filled with new oil.

#### HYDRAULIC SYSTEM PURGING

The oil should be changed after **600 hours** of operation or every **six months**, whichever comes first. The procedure for purging the system is as follows:

- 1. Locate the unit in an area that provides solid, level footing and space to accommodate the full operating range of the crane.
- 2. Stabilize the unit with the outriggers. Move the crane to either side of the truck and extend the lift cylinder.
- 3. Drain the hydraulic fluid from the reservoir and clean the suction line filter.
- 4. Remove the reservoir return line. Refill the reservoir with Chevron AW68 or equivalent. Direct the return line into a sump waste container.
- 5. Rotate the crane 90 degrees, retract the extension boom, lower the main boom and operate the winch up and down for approximately ten seconds.
- 6. All components are now purged. Replace the return line filter cartridge and reinstall the return line to the reservoir.
- 7. Check the reservoir fluid level and add fluid to within one half inch (1/2") of the top. The boom elevation and extension cylinders must be fully retracted when refilling the reservoir.

#### 5000 SERIES OWNER'S MANUAL

# SPECIFICATIONS

#### **FEATURES**

- Crane Rating: 25,000 ft/lb capacity.
- Hydraulic extension boom provides reach up to 20'.
- Hydraulic planetary winch with brake.
- Self-lubricating Nylatron<sup>™</sup> bearing allows smooth operation of inner and outer booms. .
- Multifunction, removable remote control provides safe operation up to 25' away. .
- Electrical solenoid-operated valves. .

#### SPECIFICATIONS

- Hydraulic to 20' Extension:
- Lifting Height Above Base: 18' •
- Weight: 1200 lbs. •
- Length: 140.00" •
- Width: 22.00"
- Height: 30.00" •
- **Base Dimensions:** 18.00" x 18.00" (11.75" x 14.75" bolt pattern) •
- **Rotation System:** 370° non-continuous hydraulic - turntable bearing w/self locking worm drive. •
- Remote Control: Lightweight remote control unit with 25' cable. .
- Winch Cable: 100' of 5/16" aircraft cable, W/ latch hook traveling block and down haul weight. 1 RPM.
- **Rotation Speed:**
- -5° to +75° 20 seconds. Boom Elevation Speed: •
- Boom Extension Speed: 10' to 15' - 18 seconds.
- Winch Line Speed: 50' per minute - single line. •
- 14,500 GVWR. Min. Chassis Req.:

#### HYDRAULIC REQUIREMENTS

- Crane requires 6 Gallon Per Minute at 2600 PSI.
- 18-gallon capacity hydraulic reservoir optional. •
- Open centered, full pressure hydraulic system.

A hydraulic power source must be provided if an adequate system is unavailable on vehicle.

#### **OUTRIGGER REQUIREMENT**

Truck must be equipped with heavy-duty outrigger.

# TROUBLESHOOTING

# 5000 SERIES OWNER'S MANUAL

SYMPTOM	PROBABLE CAUSE		
Function fails to respond to controls	Pressure switch malfunctioning Low hydraulic fluid Faulty hydraulic pump Short circuit in remote control Crane not grounded to truck Solenoid in control valve malfunctioning Bad ground on control valves Circuit breakers tripped Dead battery Anti-two block malfunctioning		
Slow down of functions speed	Relief valve set too low Low hydraulic fluid Clogged filter/strainer Pump not providing enough GPM		
Boom drifts under load	Cylinder piston seals leaking Counterbalance valve defective Crane is overloaded		
Boom or winch will not lift load	Restriction in hydraulic line Cylinder piston seals leaking Relief valve not set properly Pump losing prime Overload condition Filter clogged Counterbalance valve defective		
Cable mis-wrap	Loose cable being wound on drum		
Unusual noise during operation	Cavitation due to low hydraulic oil Load is excessive Suction line filter is clogged Relief valve set too low Relief valve defective Air in the lines		
Winch motor runs but fails to wind cable	Gear train is damaged		
Erratic operation of hydraulic function	Air in hydraulic system		
Crane will not rotate	Low hydraulic fluid Hydraulic motor defective Bad ground on control valve		
Rotation speed too fast or too slow	Flow controls set incorrectly Control valve defective		

#### ! CAUTION !

Improperly mounted cranes can injure people or damage property. These instructions describe installation of a **STAHL** crane on a typical **STAHL** service body. Contact the dealer for other service body/truck chassis combinations.

#### ! CAUTION !

The truck chassis must be capable of safely supporting the entire chassis, body, crane, other equipment and the maximum capacity of the crane - 5000 pounds.

**STAHL** 5000 cranes must be installed on a truck chassis with a GVWR of at least 14,500 pounds. The GVWR must exceed the curb weight of the complete vehicle by at least the rated load of the crane (5000lbs). The curb weight is the total weight of the chassis, body, crane, and other equipment. (See example below.)

GVWR = 14,500LBS

CURB WT. = BODY WT. (1500 LBS) + CRANE WT. (1200 LBS) + CHASSIS WT. (5000 LBS) = 7700 LBS

GVWR (14,500 LBS) – CURB WT. (7700 LBS) = 6800 LBS > 5000 LBS

#### ! CAUTION !

Never attach, change, or use unauthorized components on your **STAILL** crane. This could result in failure of the crane and/or possible injuries and voids any warranty or liability.

#### ! CAUTION !

#### MOST SERVICE BODIES ARE NOT STRONG ENOUGH TO MOUNT A CRANE!

You must reinforce the compartment and floor before you mount the crane. Get help from the truck dealer or distributor if the **STAHL** 5000 crane is installed on a non-**STAHL** body, in another body/chassis combination or in a different location. It is recommended that a **STAHL** crane body and outriggers be used with the 5000 crane. Consult the distributor for the proper body required for your application.

- 1. Layout the mounting holes on the mounting surface (refer to figure below). Drill four (4) 0.93" diameter holes and flame cut the five inch (5") diameter hole.
- 2. Lift the crane into position. Make sure the power lead and the two (2) hydraulic hoses are fed through the five inch (5") diameter hole.
- 3. Bolt the 5000 crane to the mounting surface with four (4) 0.88" grade eight bolts and four (4) grade eight lock nuts. Torque the 0.88" bolts to 375 foot pounds. Use of other than 0.88" grade eight bolts and lock nuts may result in the crane breaking loose from the mounting surface when in use.
- 4. It is necessary to support the boom in the stored position. The boom support should also have a place to secure the hook in the stored position. The figure below shows a typical boom support.



#### ! CAUTION !

#### -DISCONNECT NEGATIVE BATTERY CABLE BEFORE PROCEEDING-

- 5. The 5000 crane comes with an optional pre-plumbed eighteen (18) gallon reservoir. The **STAHL** reservoir assembly comes with a suction screen, return line filter, relief valve, filler, sight gauge, strainer, tank cap and breather. The mounting of the reservoir is an integral part of tank design and will bolt directly into brackets that are preinstalled in the **STAHL** crane body in the compartment under the crane-mounting surface (RH rear compartment). Prior to mounting the tank, a three-inch (3") diameter access hole must be added to the back of the compartment for routing suction and pressure lines along with the power wire. An optional between-the-frame tank is also available
- 6. Run the power lead to the front of the truck. Locate the lead so that it will be protected. Install cable clamps to hold the wire securely in place.
- 7. Connect the power wire to the positive terminal on the vehicle battery. A 15-amp in-line fuse must be installed near the battery to protect harness from electrical shorts.
- 8. Reconnect the negative battery cable. The 5000 crane is self-grounding and does not require an additional ground cable.
- 9. The 5000 crane requires a six (6) gallon/minute flow rate at 2600 PSI to operate efficiently. It is your responsibility to choose the correct P.T.O. and pump that will suit this requirement and fit the transmission that is on the truck. The P.T.O. and pump supplier you use will offer assistance in making the correct selection.
- 10. A throttle advance should also be used to keep the engine RPM's high enough to produce the required flow and pressure. There are many types available depending on your preference. The simplest type is a vernier control cable that must be set with each use. There are other types available that will advance throttle on demand and return idle to normal automatically. These are available in both hydraulic activated and electronically activated.
- 11. Connect the hydraulic lines as shown in figure shown on the next page.

#### ! CAUTION !

IF THE POWER WIRE IS ROUTED SO THAT IT PASSES THROUGH ANY BODY OR CHASSIS SHEET METAL, A GROMMET MUST BE USED TO PROTECT WIRES FROM BEING CUT. IF THE POWER WIRE COMES INTO CONTACT WITH A GROUNDED SURFACE, A DEAD SHORT WILL OCCUR POSSIBLY CAUSING DAMAGE TO THE CRANE, VEHICLE BATTERY OR ELECTRICAL SYSTEM.

- 12. The suction line from tank to pump should be a minimum of one-inch (1") diameter. The pressure line from the pump to the relief valve must be a minimum of one-half inch (1/2") diameter hose SAE100R2. The connection at the relief valve is a one-half inch, 37 degree (1/2"-37°) JIC male fitting. **STAHL** does not supply these two (suction & pressure) lines.
- 13. The proper length hoses are supplied with the crane for hookup to the reservoir. Both the pressure and return lines in the crane are one-half inch, 37 degree (1/2"-37°) JIC. If the reservoir is mounted in a location other than the right rear compartment, additional hoses will need to be made. The crane pressure line (running up the center to revolving connections) connects to a fitting on top of the relief valve. The crane return line (coming from the rotation valve) connects to the one-half inch (1/2") JIC fitting between the relief valve and return line filter.



# 12v DC HOOK-UP



**FIGURE 6** 

# **TYPICAL RESERVOIR TANK HOOK-UP**



**FIGURE 7** 

# PARTS

#### TURRET AND BASE SERVICE PARTS - ILLUSTRATION



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	202508	MOUNTING BASE ASM - 5000#
2	1	95736-001	BEARING - ROTATION
3	1	95736-002	DRIVE - ROTATION
4	1	202506	TURRET - WELDMENT - 5000#
5	1	202268	BUSHING 1.50 IDX1.66 ODX1.25L
6	18	201771	FHSCS 5/8-11 X 4.00
7	1	95420-006	MOTOR-HYD , ROTATION
8	1	926535	GREASE FITTING 1/4-28
9	20	919879	LOCK WASHER 5/8 LOCK RINGS
10	20	964047	SHCS 5/8-11 X 3.00
11	1	201450	BRACKET ASM - MOUNTING
12	1	203124	COVER-HOSE
13	1	203675	COVER - ROTATION - RH ASM
14	1	203679	GUARD - CRANE SIDE
15	1	203682	GUARD - CRANE SIDE -ASM
16	1	203685	GUARD - CRANE SIDE -ASM
17	1	203601	PANEL - REAR COVER
18	1	203726	BRACKET - MOUNTING -ASM
19	1	203727	PANEL -END - ASM
20	1	203858	BRACKET ASM - TUBE MOUNTING
21	1	203867	COVER ASM - LH SIDE
22	1	943652	DANGER DECAL
23	1	943653	DANGER DECAL-LARGE
24	1	943654	CAUTION DECAL
25	1	201168	DECAL - OVERLOAD WARNING
26	1	201196	DECAL - LOAD SENSOR WARNING
27	2	201197	DANGER - SCISSORS POINT
28	1	123477	ALARM - BACK-UP
29	1	201686	REMOTE CONTROL
30	1	204030	HARNESS - 5000 CRANE
31	1	201042	HARNESS - PRESSURE
32	1	95618-006	DUST CAP

# PARTS

#### **BOOM ASSEMBLY SERVICE PARTS – ILLUSTRATION**



#### **BOOM ASSEMBLY SERVICE PARTS - PARTS LIST**

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	202183	MAIN BOOM ASM - 5000 # CRANE
2	1	202201	BOOM ASM-2ND EXT-5000# CRANE
3	22	95421-001	PLUG-BOOM GUIDE,SM
4	7	95079-001	PLUG-BOOM GUIDE
5	1	202219	BOOM ASM-3RD EXT-5000# CRANE
6	1	202257	CYLINDER - EXTN 5000# CRANE
7	1	202268	BUSHING 1.50 IDX1.66 ODX1.25L
8	2	903125	BUSHING 1.125 ID X 1.28 OD X 1
9	4	95456-001	SNAP-RING-1.00 SHAFT
10	1	202272	PIN - 1.00" DIA X 5.00"
11	1	95422-007	PIN-CLEVIS,
12	1	95424-003	PIN-COTTER
13	1	95422-002	PIN-CLEVIS, 0.75 DIA. X 2.75
14	1	95424-002	PIN-COTTER-2.68
15	1	201825	PIN-CLEVIS38 X 2.50
16	1	925063	HAIR PIN-WIRE DIA .094 X 2 5/16 LG
17	1	201030	PIN - EXTENSION CYLINDER
18	1	202445	SHEAVE - 10.00 O.D.X1.38
19	2	95480-001	ARROW
20	2	919003	HEX NUT 1/4-20
21	2	917494	HEX HD CAP SCR 1/4-20 X 3/4
22	1	202456-01	LOAD CHART- 5000#
23	1	202456-02	LOAD CHART- 5000#
24	1	3891	SERIAL TAG-STAHL-UNIVERSAL
25	2	918416	DRIVE SCREW 1/8DIA X 5/16LONG
26	2	202463	DECAL - 5000 LRX
27	4	95475-001	DECAL-STRIPES
28	2	95907-537	DECAL-STAHLWART-CRANE BOOM
29	2	202467	DECAL - 10 FT
30	1	202470	DECAL KIT - GAUGE STRIPE-10FT
31	2	201181	DANGER DECAL-BOOM
32	2	201186	DANGER DECAL - LOAD
33	2	95674-001	CYLINDER MNTG WELDMENT
34	12	917736	SCR-F.H.S.C.S. 3/8-16 X 3/4
35	2	201031	SPACER - EXTENSION CYLINDER
36	1	201753	PLATE - CABLE WEAR
37	2	964049	SCR-BHC-1/4-20X1/2 SS
38	1	203002	WINCH - WARN HY3000
39	1	95899-037	PIN-TURRET,BOOM-1.125
40	2	95168-017	SNAP-RING-1.125 SHAFT
41	1	204047	CABLE W/THIMBLE - 5/16" X 100'
42	2	95736-028	PLATE - SNATCH BLOCK
43	1	95413-003	HOOK W/CATCH
44	1	95861-003	SHEAVE
45	2	95422-002	CLEVIS PIN75" DIAMETER
46	1	95907-198	CLEVIS PIN ASM75" X 2.50
47	3	95424-002	COTTER PIN
48	2	95736-027	SPACER



#### HYDRAULIC COMPONENT SERVICE PARTS - ILLUSTRATION



#### HYDRAULIC COMPONENT SERVICE PARTS - PARTS LIST

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	202257	CYLINDER - EXTN 5000# CRANE
2	1	202587	CYLINDER, LIFT 4.00 X 16.50
3	1	203563	TUBE - EXTENSION
4	1	203560	TUBE - PRESSURE
5	1	203561	TUBE - RETURN
6	4	95488-005	BULKHEAD UNION-3/8 TUBE TO 3/8-JIC
7	1	203562	TUBE - EXTENSION
8	1	203558	TUBE - LIFT CYLINDER
9	2	201487	BRACKET - TUBE MTG
10	8	95488-006	ELBOW -6 MOR X -6 TUBE SWAGELOK
11	1	203559	TUBE - LIFT CYLINDER
12	1	203554	TUBE - ROTATION - TO RELIEF
13	1	203555	TUBE - ROTAION - TO RELIEF
14	4	95488-011	CONNECTOR - 10 MOR X -6 TUBE FLAIRLESS
15	1	203556	TUBE - RELIEF VALVE / MOTOR
16	1	203557	TUBE - RELIEF VALVE / MOTOR
17	1	203122	VAVLE - COMBO - 4 FUNCTION
18	1	203499	BRACKET - VALVE MOUNTING
19	1	203505	BRACKET - VALVE MOUNTING
20	1	95736-039	CROSS RELIEF VAVLE
21	1	203863	TUBE - WINCH
22	1	203864	TUBE - WINCH
23	3	203870	ADAPTER -6MOR X -6FOR
24	2	203871	ADAPTER -10MOR X -8FOR
25	4	203872	ELBOW - SWGLOK -8TUBE X -8MOR
26	4	95488-022	BULKHEAD UNION-1/2-TUBE TO 1/2-JIC MALE
27	2	203873	ADAPTER -10MOR X -6FOR
28	1	203876	ADAPTER -8MOR X -8FOR
29	2	203880	HOSE - 21" (EXTEND)
30	2	203881	HOSE - 21" (LIFT)
31	1	203884	HOSE - 21" (WINCH)
32	1	203885	HOSE - 24" (WINCH)
33	1	203892	HOSE - 34" (RETURN)
34	1	203893	HOSE - 36" (PRESSURE)

# PARTS

#### WINCH SERVICE PARTS - ILLUSTRATION



CONTACT STAHL OR YOUR DISTRIBUTOR FOR CURRENT SERVICE PARTS INFORMATION.

#### ANTI TWO-BLOCK SERVICE PARTS



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	4	95493-005	BUSHING-SHORTY
2	1	927204	Heyco snap bushing 1.093/1.125 dia
3	1	95493-013	BRACKET-CORD REEL
4	2	917806	TRUSS HD M.S. 1/4-20 X 1/2
5	6	962110	HEX WASHER HD-SELF TAPPING
6	1	201524	COVER - SWITCH MOUNTING
7	1	95493-003	SWITCH - HOLDER
8	1	95493-002	SWITCH-WATERPROOF
9	1	95493-004	STRAIN RELIEF
10	1	95493-012	BRACKET BUSHING-WINCH
11	3	95493-006	BRACKET BUSHING-MAIN
12	1	95493-011	BRACKET BUSHING-HYD
13	1	95467-001	CORD REEL
14	1	203114	GUIDE ASM - CABLE

# PARTS

# 5000 SERIES OWNER'S MANUAL

### **ROTATION STOP SERVICE PARTS**



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	203733	BRACKET - LIMIT
2	1	203734	LEVER - LIMIT
3	1	203730	SPACER - COVER MOUNTING
4	1	203731	SPACER - COVER MOUNTING
5	2	203735	BRACKET - COVER MTG
6	1	203736	COVER - LIMIT
7	2	95493-003	SWITCH - HOLDER
8	2	95493-002	SWITCH-WATERPROOF
9	1	203737	BRACKET - LIMIT STOP
10	2	919865	FLAT WASHER 1/4
11	1	917335	HEX HD CAP SCREW #1/4-20 X 2.5
12	1	919702	HEX HD ESNA NUT 1/4-20

#### HYDRAULIC SCHEMATIC



#### WIRING DIAGRAM



# ONE - YEAR LIMITED WARRANTY

#### COVERED PRODUCTS:

- STAHL Crane One (1) year from the date of purchase by the original owner of record for s parts including the structural integrity of the crane boom assembly, turret assembly, and base plate weldment. Product(s) not made of galvaneal steel are warranted to the original owner of record for 180 days from the date of purchase.
- □ Should the warranted product rust through s will cover labor and materials to replace and/or repair defective materials and/or install new materials (solely at the discretion of s)
- □ The foregoing collectively constitutes the "Warranty".

#### ELIGIBILITY.

- **D** This Warranty shall only apply to products listed herein and initially purchased after June 1, 1995
- Product(s) warranted must be properly maintained and serviced under the guidelines recommended in the owner's manual. The original owner must complete and submit the warranty registration card within thirty (30) days of purchase.
- This Warranty applies only when an authorized s up fitter properly installs the product, and it is used for the purpose for which it was designed.
- □ This Warranty is not transferable.

#### **EXCLUSIONS**

- This Warranty applies to s Cranes only and excludes all items supplied by distributors or mounting stations including, but not limited to finish paint, lettering, installation, wiring, optional parts, modifications and the like.
- Derived Product(s) that have been misused, abused, altered, or intentionally damaged.

#### SPECIFIC "NO RUST, NO BUST" WARRANTY EXCLUSIONS

- Product(s) must have perforation in the metal. Rust in the paint or surface rust is not considered rust through.
- □ Product(s) purchased in prime paint condition.
- Product(s) purchased and used outside the United States and Canada.
- □ Product(s) used to carry corrosive materials.
- STAHL shall not be liable to the original owner/user or any third party for any direct or indirect, incidental or consequential damages including, but not limited to, transportation costs, lost profits, and loss of income, as a result of a vehicle being out of service.

#### WARRANTY CLAIMS PROCEDURE

- Claims may be handled by contacting your nearest authorized s distributor. All claims are to be filed in writing and will be administered through a **STAHL** distributor. All repairs must be authorized by s prior to any work being performed and must be done by an authorized s distributor or by a person or company pre-approved by s in writing.
- STAHL reserves the right to inspect products returned by the original owner under this Warranty to determine whether the product is covered. Inspection shall, at STAHL's option, be performed at the factory, or at such other reasonable place as may be designated by s, and in such event freight for returning products shall be paid by the original owner. STAHL also reserves the right to require dated proof of purchase from the original owner. Unauthorized repair or replacement prior to inspection or repair or replacement not in accordance with s recommendations and procedures may void the Warranty.

#### DISCLAIMER OF IMPLIED WARRANTIES; LIMITATIONS OF REMEDIES:

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, GIVEN BY S FOR THIS PRODUCT. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. THE PURCHASER'S REMEDIES FOR LOSS, DAMAGE, OR EXPENSE RESULTING FROM THE USE OR MISUSE OF THIS PRODUCT ARE LIMITED TO THOSE EXPRESSED IN THIS LIMITED WARRANTY.

THIS LIMITED WARRANTY GIVES PURCHASER SPECIFIC LEGAL RIGHTS, AND PURCHASER MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW DISCLAIMERS OF OR LIMITATIONS ON IMPLIED WARRANTIES OR THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE DISCLAIMER AND LIMITATION MAY NOT APPLY TO PURCHASER