

# CRANE MODEL 4420

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#### Model 4420 Crane SPECIFICATION SHEET

Crane Rating 16,000 ft-lbs (2.23 ton-meters)

Standard Boom Length 10'(3.05 m) from CL of Crane

Boom Extension 1<sup>st</sup> stage: Hydraulic 60"(152.4 cm)

2<sup>nd</sup> stage: Manual 60"(152.4 cm)

Maximum Horizontal Reach 20'(6.10 m) from CL of Crane

Maximum Vertical Lift 21' 6"(6.55 m)

(from crane base)

Boom Elevation -5 to +80 degree

Winch Specification

Rope Diameter 5/16"(.794 cm)
Line pull speed 25 ft/min (7.62 m)
Max. single part line 2000 lbs (905 kg)
Max. double part line 4000 lbs (1815 kg)

Rotation 370 degree power

(worm gear)

Lifting Capacities 1600 lbs @ 10'(725 kg @ 3.05 m)

1050 lbs @ 15'(475 kg @ 4.57 m) 800 lbs @ 20'(365 kg @ 6.10 m)

Power Supply Required 12 Volt Power Unit(165 max amp draw)

(2.00 gpm @ 2600 psi) (7.57 lpm @ 179 bars)

PTO & Pump

(3.00 gpm @ 2600 psi) (11.35 lpm @ 179 bars)

Controls 20'(6.10 m) cord with hand held

control for all functions.

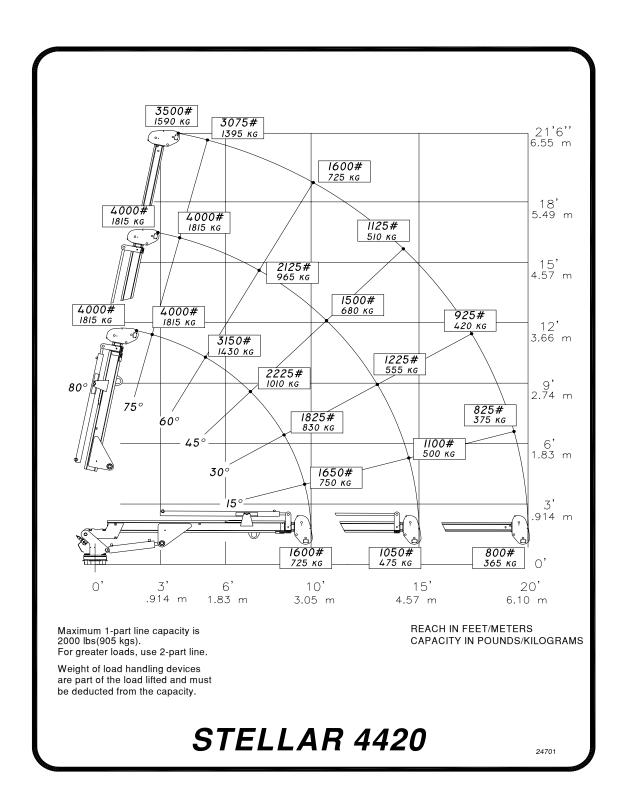
Stowed Height 33.50 inches (85.1 cm)

(crane only)

Mounting Space Required 18 x 15 inches (45.7 x 38.1 cm)

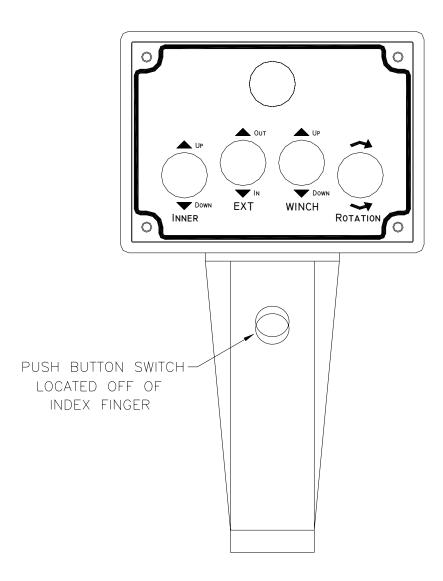
Approximate Shipping Weight 1050 lbs (475 kg)

#### **CAPACITY CHART**



#### **CRANE OPERATION**

#### 4 Function Handle



THIS CRANE IS CONTROLLED BY AN ELECTRONICALLY OPERATED VALVE BANK. THE CONTROLLER FOR THIS VALVE IS SHOWN TO THE SIDE.

THE FUNCTIONS IT CONTROLS ARE AS FOLLOWS:

MAIN BOOM UP & DOWN EXTENSION BOOM IN & OUT

WINCH UP & DOWN

ROTATION CW & CCW TO RUN ANY HYDRAULIC FUNCTIONS THE PUSH BUTTON

SWITCH(A SHOWN TO THE SIDE) MUST FIRST BE ACTIVATED.

#### **MANUAL OPERATION**

# IN CASE OF RADIO FAILURE THE CRANE CAN BE OPERATED USING MANUAL OVERRIDES LOCATED ON THE VALVE BANK.

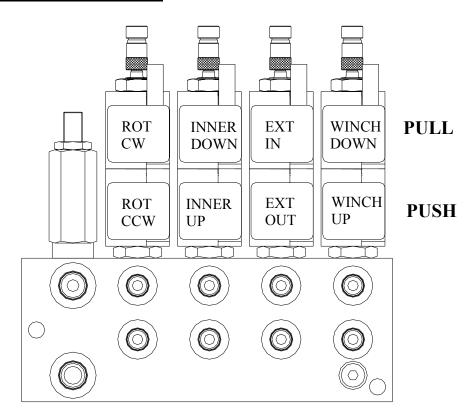
#### VALVE MANUAL OVERRIDE OPERATION

## 1. IDENTIFY SOLENOID FOR USE

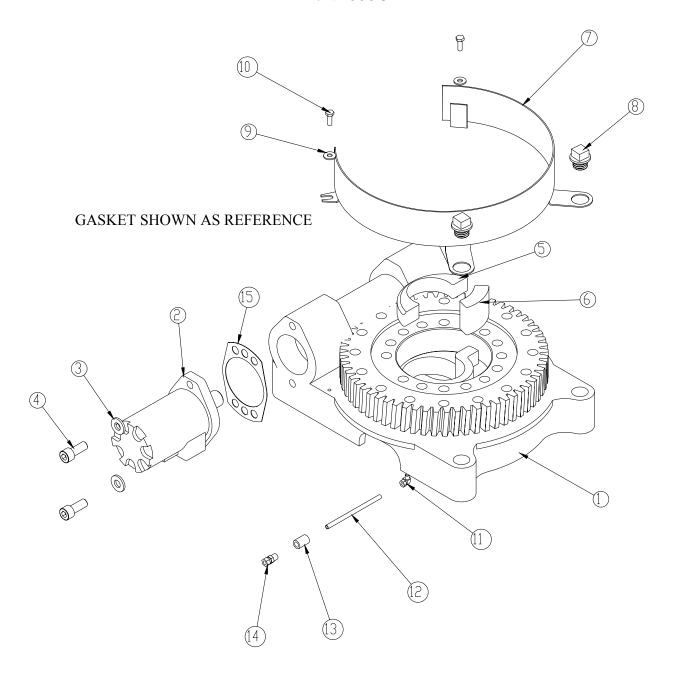
#### 2. OPERATE SOLENOIDS

UNLATCH THEN PUSH OR PULL TO OPERATE. LATCH WHEN FINISHED OPERATING.

#### 3. HAVE UNIT SERVICED

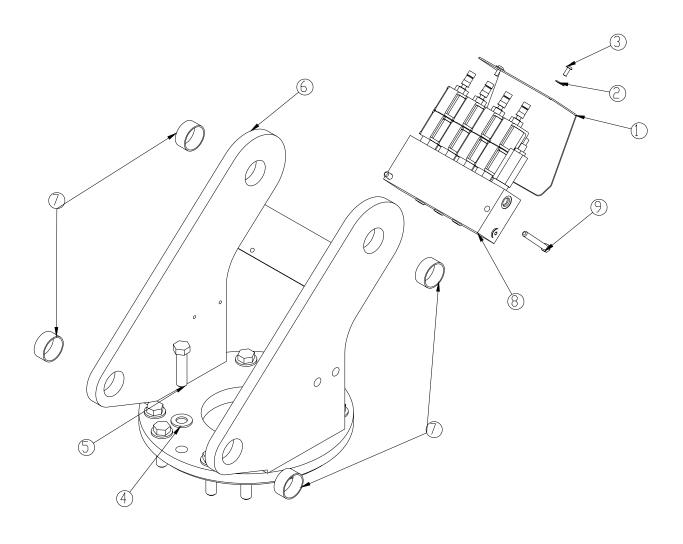


# **BASE ASSEMBLY**



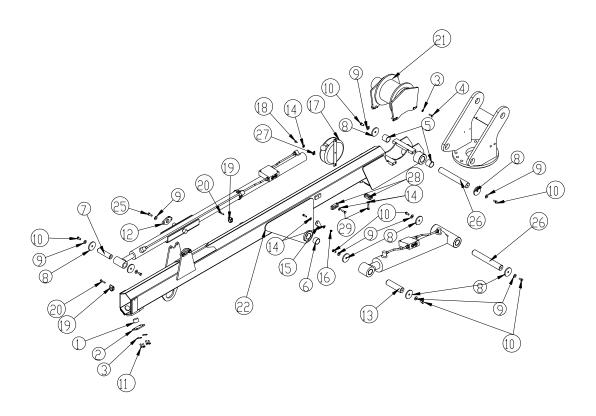
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	16653	BEARING SWING DRIVE CAST	1	9	0340	WASHER 0.25 FLAT	2
2	D1204	ROTATION MOTOR 5520	1	10	0479	CAP SCR 0.25-20X0.75 HHGR5	2
3	D0790	WASHER 0.50 FLAT GR8	2	11	D0240	FTG ELL 0.13 CPRSN TUBE TO NPT	1
4	D1307	CAP SCR 0.50-13X1.25 SH	2	12	22393	TUBE AIR	1
5	21164	PLATE CAST BASE 5520	1	13	C2256	FTG COUPLER PIPE 0.13	1
6	17750	STOP 3515	1	14	D1345	FTG CPRSN 0.12NPT/0.25 TUBE	1
7	18945	GUARD TTB 5520 CRANE	1	15	21151	GASKET MOTOR 008-10056-1	1
8	18948	CAP SCR 0.88-9 X .63 PLASTIC	2				

# MAST ASSEMBLY



ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	20428	COVER VB 3315	1	6	24561	MAST 3315 REV A	1
2	D0178	WASHER #10 SAE FLAT ZINC	2	7	21810	BUSHING GSI-2426-12 1.50X0.75	4
3	D1711	CAP SCR #10-24X0.50 BTNHD SS	2	8	24957	VB 4 SECT ELECT ON/OFF STERLING4GPM	1
4	C5902	WASHER 0.63 FLAT GR8	10	9	0489	CAP SCR 0.31-18X2.50 HHGR5	2
5	C1026	CAP SCR 0.63-11X2.50 HHGR8 ZY	10				

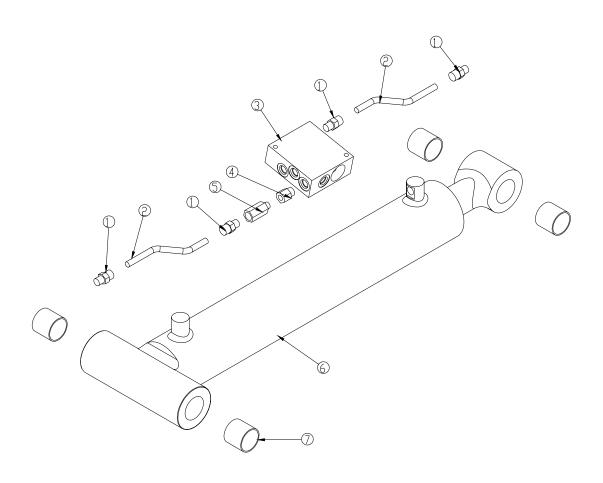
# MAIN BOOM ASSEMBLY



ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	19496	WEAR PAD .88X1.38 RND	2	16	0333	NUT 0.25-20 HHGR5 NYLOC	2
2	19497	PLATE 1ST EXT 3315 WEAR PAD	2	17	11544	CORD REEL 6620	1
3	5591	WASHER 0.31 SAE FLAT YELLOW GR8	16	18	0478	CAP SCR 0.25-20X0.50 HHGR5	2
4	21170	CAP SCR 0.31-18X1.00 HHGR8	8	19	0337	HOSE CLAMP LN 4190 PP	2
5	0067	BUSHING QSI-2426-24	2	20	0220	CAP SCR 0.25-20 X 1.50 HHGR5	2
6	16067	BUSHING QSI-2426-16	2	21	20039	WINCH 2000 4416 CRANE	1
7	9086	PIN 1.25X4.69 D&T	1	22	24569	INNER BOOM 4420	1
8	7403	PIN CAP 0.44X2.50X.252	8	23	25160	CYLINDER ASM 3.50X19.88	1
9	C6353	WASHER 0.38 FLAT GR8	12	24	25881	CYLINDER ASM 2.00X60.00	1
10	9843	CAP SCR 0.38-16X0.75 HHGR8	8	25	13573	CAP SCR 0.38-16X1.00 HHGR8	4
11	0420	CAP SCR 0.31-18X0.75 HHGR5	8	26	19512	PIN 1.50X10.50 D&T	2
12	3267	PLATE CYLINDER MTG	2	27	C5606	CLAMP 0.25 BLK VINYL	1
13	19514	PIN 1.50X5.50 D&T	1	28	8622	CLAMP HOSE/TUBE AG-2	2
14	0340	WASHER 0.25 FLAT	8	29	0485	CAP SCR 0.31-18X1.25 HHGR5	2
15	19881	PLATE ANGLE INDICATOR 3315	2				

# **CYLINDER ASSEMBLY - INNER**

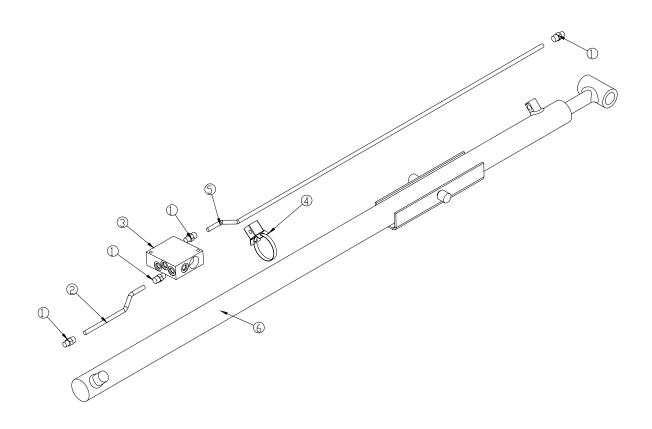
P/N 25160



ITEM	PART	DESCRIPTION	QTY.
1	0279	FTG ADAPT 6-F5OLO-S	4
2	19363	TUBE ASM 0.38X5.69 3315	2
3	13080	MANIFOLD ASM 6620 INNER HOLDING	1
4	15111	FTG ADAPT MSTH/FSTH 6-4-F50G5	1
5	15110	VALVE CHECK SINGLE W/ ORIFICE	1
6	24699	CYLINDER 3.50X19.88	1
7	0067	BUSHING QSI-2426-24	4

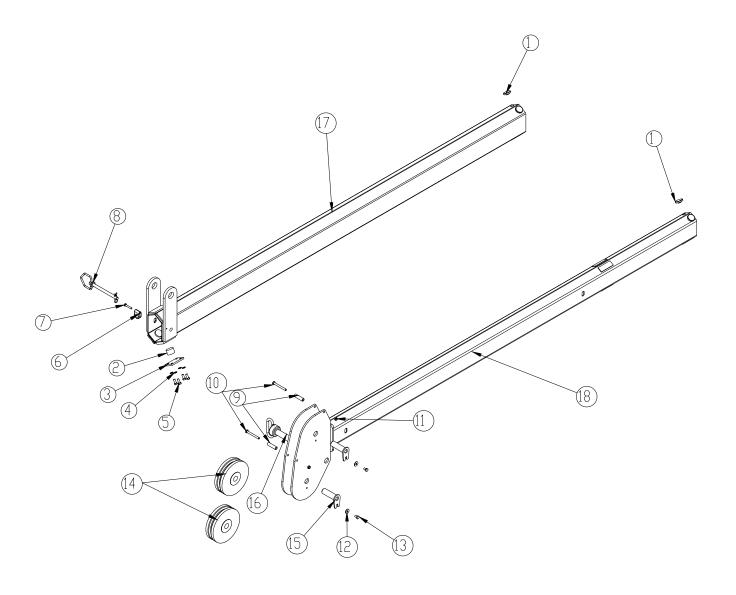
\*CYLINDER BUSHINGS FOR REFERENCE ONLY

# **CYLINDER ASSEMBLY – EXTENSION**



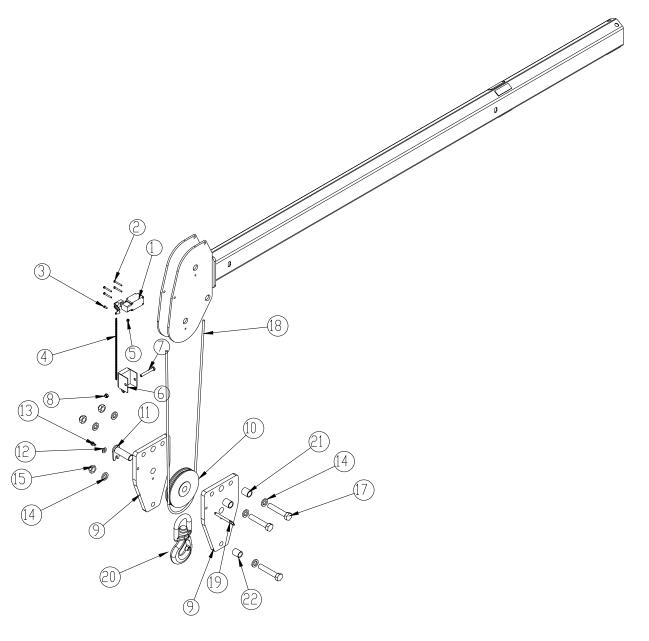
ITEM	PART	DESCRIPTION	QTY.
1	0279	FTG ADAPT 6-F5OLO-S	4
2	12158	TUBE ASM 0.38X8.88 MAIN CYL 6620	1
3	16154	MANIFOLD ASM 6620 INNER HOLDING	1
4	14929	CLAMP 0.38 PORT TUBE	1
5	13575	TUBE ASM 0.38X45.00 EXT CYL 5520	1
6	24566	CYLINDER 2.00 X 60.00	1

# **EXTENSION BOOM ASSEMBLY**



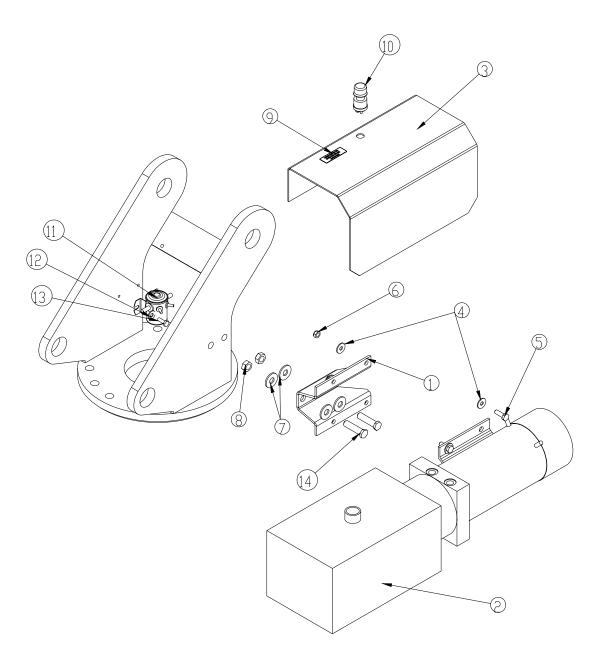
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	19457	WEAR PAD 0.25X1.38 RND	4	10	12178	CAP SCR 0.31-18X3.25 HHGR5	2
2	19496	WEAR PAD .88X1.38 RND	2	11	0342	NUT 0.31-18 HH NYLOC	2
3	19497	PLATE 1ST EXT 3315 WEAR PAD	2	12	0343	WASHER 0.31 FLAT	2
4	5591	WASHER 0.31 SAE FLAT YELLOW GR8	8	13	0484	CAP SCR 0.31-18 X 0.50 HHGR5	2
5	0420	CAP SCR 0.31-18X0.75 HHGR5	8	14	11545	SHEAVE 6620 6.75 DIA .31R/1.94 THK	2
6	0337	HOSE CLAMP LN 4190 PP	1	15	9706	PIN TEAR DROP 1.00X3.25	2
7	0220	CAP SCR 0.25-20 X 1.50 HHGR5	1	16	12824	PIN HITCH 1.00X4.50	1
8	C5629	PIN HITCH 0.50X5.50	1	17	24691	EXT BOOM 4420 1ST	1
9	11936	SPACER BOOM TIP 3820	2	18	24692	EXT BOOM 2ND 4420	1

# **CABLE AND HOOK ASSEMBLY**



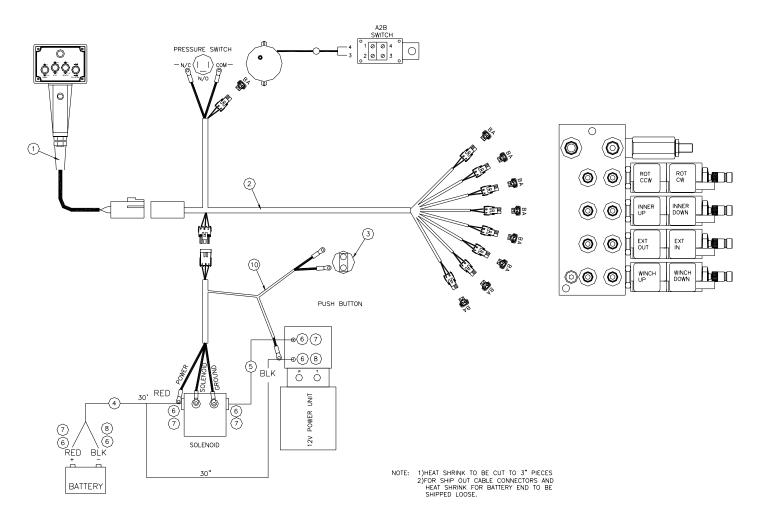
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	11938	SWITCH LIMIT A2B FURNAS 3SE3170	1	12	0343	WASHER 0.31 USS FLAT ZINC	1
2	12177	CAP SCR #10-24 X 1.50 SHGR5	4	13	0484	CAP SCR 0.31-18 X 0.50 HHGR5	1
3	D1711	CAP SCR #10-24X0.50 BTNHD SS	1	14	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	6
4	10972	CHAIN 0.105 (RM) 2607-21201	1	15	C0538	NUT 0.75-10 HHGR8 NYLOC	3
5	C4956	NUT #10-24 HH NYLOC SS	1	17	C6218	CAP SCR 0.75-10X4.00 HHGR8 ZY	3
6	19994	WEIGHT 3315 ATB	1	18	9610	WIRE ROPE 0.31 6X19 IWRC-XIP 90FT	1
7	0530	CAP SCR 0.38-16X2.75 HHGR5	1	19	9263	PIN .38X3.00 QUICK RELEASE	1
8	0347	NUT 0.38-16 HH NYLOC	1	20	25842	HOOK 3 TON SWIVEL CROSBY 1028618	1
9	9676	PLATE 6620 SNATCH BLOCK	2	21	27812	SPACER 6620 SNATCH BLOCK UHMW	2
10	11934	SHEAVE 6620 6.50 DIA .31R/1.12 THK	1	22	11666	SPACER 5520 SNATCH BLOCK	1
11	9706	PIN TEAR DROP 1.00X3.25	1				

## **POWER UNIT ASSEMBLY – Electric Version Only** P/N 20432



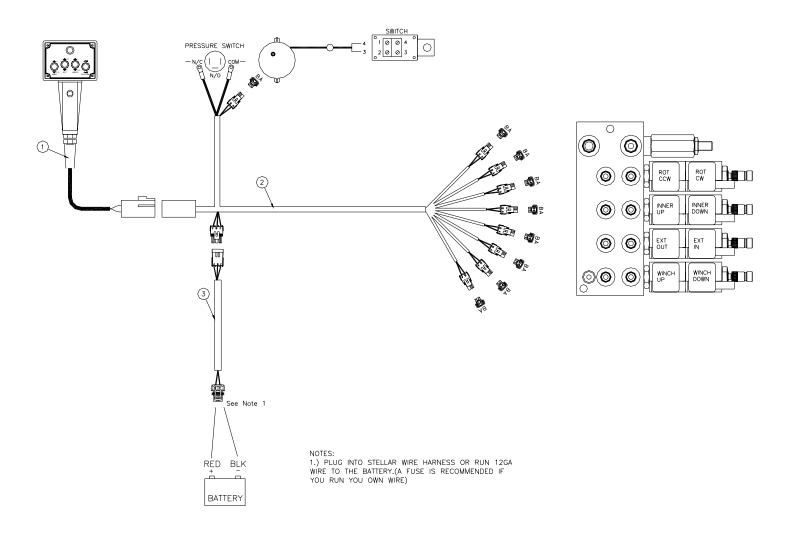
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	17132	BRKT POWER UNIT 5520	1	8	C6106	NUT 0.50-13 HHGR5 NYLOC	2
2	16994	POWER UNIT 12V 5520 HORZ	1	9	18472	DECAL MANUAL OPERATION 5520	1
3	19997	COVER POWER UNIT 5520	1	10	17771	SWITCH PUSH BUTTON 9216-03	1
4	0343	WASHER 0.31 FLAT	8	11	18468	SOLENOID 12V 200 AMP CONT 24143	1
5	C0922	CAP SCR 0.31-18X1.00 HHGR5	4	12	0340	WASHER 0.25 FLAT	2
6	0342	NUT 0.31-18 HH NYLOC	4	13	0479	CAP SCR 0.25-20X0.75 HHGR5	2
7	0352	WASHER 0.50 USS FLAT ZINC	4	14	0501	CAP SCR 0.50-13X2.00 HHGR5	2

# CONTROL KIT – Electric Version P/N 20435



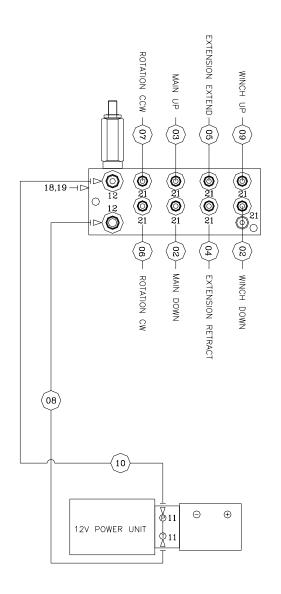
ITEM	PART No.	DESCRIPTION	QTY
01	20436	HANDLE ASSEMBLY	1
02	25889	WIRE HARNESS 3315 MULTI FUNCTION VB	1
03	17771	SWITCH PUSH BUTTON 9216-03	1
04	20466	CABLE #2 2 WIRE	32.5
05	18627	CABLE #2 RED	18"
06	4466	TERML #1x.38 COPPER LUG	6
07	15219	HEAT SHRINK 0.50 RED (RM) 22241	12"
08	15218	HEAT SHRINK 0.50 BLK (RM) 22241	6"
09	18472	DECAL MANUAL OPERATION 5520	1
10	25887	WIRE HARNESS 3315 ELECTRIC	1

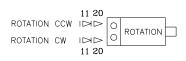
# CONTROL KIT – Hydraulic Version P/N 24331

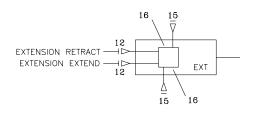


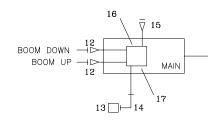
03	25888	WIRE HARNESS 3315 HYD	1
02	25889	WIRE HARNESS 3315 MULTI FUNCTION VB	1
01	20436	HANDLE ASSEMBLY	1
ITEM	PART No.	DESCRIPTION	ΩТΥ

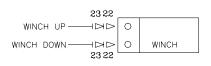
# HYDRAULIC KIT – Electric Version Only P/N 25882





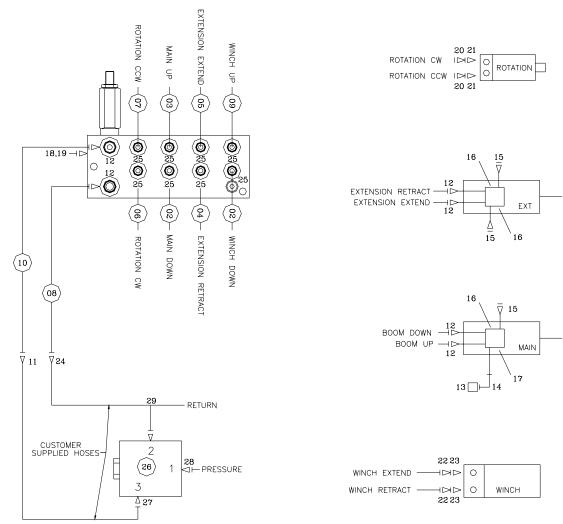






12	C4922	FTG ADAPT 4-6 F50LO-S	6				
11	3338	FTG MF/MSTR 90 4-6 C50L0-S	4	23	D1190	FTG ADAPT 4-6 V5OLO-S	2
10	21160	HOSE-HYD .25 X 16	1ref	22	20060	FTG ADAPT MBSPP/FSTR 3/8-6 F40HG5	2
09	21159	HOSE-HYD .25X 25	1ref	21	D1291	FTG ADAPT 4-F50LO-S	8
08	21161	HOSE-HYD .25 X 17	1ref	20	C1111	FTG ADAPT MSTR/FSTR 10-6 F50G5	2
07	21158	HOSE-HYD .25X 34	1ref	19	6691	FTG MSTR/FNPT 6-1/4	1
06	15032	HOSE-HYD .25 X 35	1ref	18	6397	GAUGE OIL LF 2.5" 0-5000 CBM	1
05	13022	HOSE-HYD .25 X 73	1ref	17	11991	VALVE C-BAL PLUG	1ref
04	25884	HOSE-HYD .25 X 71	1ref	16	9803	VALVE C-BAL	3ref
03	25006	HOSE-HYD .25 X 27	1ref	15	C4961	PLUG STR HOLLOW HEX 0.38 6-HP50N	3ref
02	13438	HOSE-HYD .25 X 26	2ref	14	3861	FTG ML FM O'RING 90 DEG	1
01	25883	HOSE KIT 4420 CRANE (incl:2-11)	1	13	3862	SWITCH PRES OVERLD 744.6-S03R-2900N	1
ITEM	PART No.	DESCRIPTION	QTY	ITEM	PART No.	DESCRIPTION	QTY

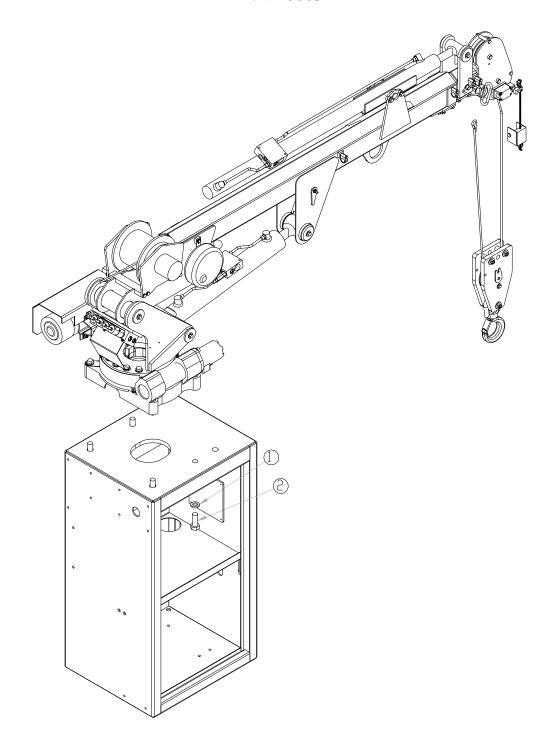
# HYDRAULIC KIT – Hydraulic Version Only P/N 25885



NOTE: FASTEN FLOW CONTROL(P/N 26196) IN CRANE BOX AND RUN HOSES AS SHOWN

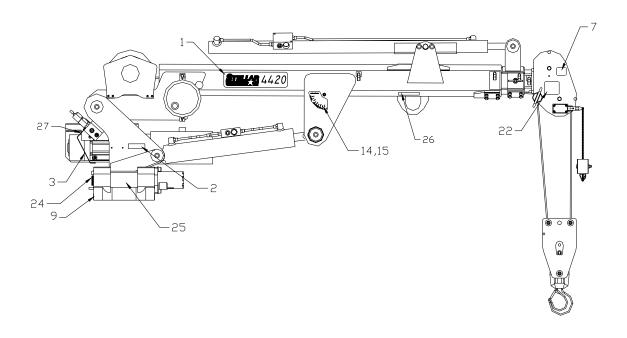
15	C4961	PLUG STR HOLLOW HEX O.	38 6-HP50N	3ref				
14	3861	FTG ML FM O'RING 90 DEG		1	29	C2345	FTG TEE 6-S50L0-S	1
13	3862	SWITCH PRES OVERLD 744.6-S03R-2900N		1	28	C0338	FTG MF/MSTR 90 6-C50L0-S	1
12	C4922	FTG ADAPT 4-6 F50LO-S		6	27	0279	FTG ADAPT 6-F50LO-S	1
11	12171	FTG SWIVEL 0.38 FS/FS PS81JMJM-6-6		1	26	26196	VALVE FLW CTRL/PR FRCA-XAN-ECI-3GPM	1
10	23182	HOSE-HYD .25 X 15		1ref	25	D1291	FTG ADAPT 4-F50LO-S	8
09	21159	HOSE-HYD .25X 25		1ref	24	12172	FTG SWIVEL 0.50 FS/FS PS81JMJM-8-8	1
80	23183	HOSE-HYD .38 X 14		1ref	23	D1190	FTG ADAPT 4-6 V50L0-S	2
07	21158	HOSE-HYD .25X 34		1ref	22	20060	FTG ADAPT MBSPP/FSTR 3/8-6 F40HG5	2
06	15032	HOSE-HYD .25 X 35		1ref	21	3338	FTG MF/MSTR 90 4-6 C50L0-S	2
05	13022	HOSE-HYD .25 X 50		1ref	20	C1111	FTG ADAPT MSTR/FSTR 10-6 F50G5	2
04	25884	HOSE-HYD .25 X 50		1ref	19	6691	FTG MSTR/FNPT 6-1/4	1
03	25006	HOSE-HYD .25 X 27		1ref	18	6397	GAUGE OIL LF 2.5" 0-5000 CBM	1
02	13438	HOSE-HYD .25 X 26		2ref	17	11991	VALVE C-BAL PLUG	1ref
01	25886	HOSE KIT 4420 CRANE (incl:2-10)		1	16	9803	VALVE C-BAL	3ref
ITEM	PART No.	DESCRIPTION		QTY	ITEM	PART No.	DESCRIPTION	QTY

# **INSTALLATION KIT**



ITEM	PART	DESCRIPTION	QTY.
1	8648	WASHER 0.88 SAE FLAT YELLOW GR8	4
2	17688	CAP SCR 0.88-9X2.25 HHGR8 ZY	4

## DECAL KIT P/N 24332



14	13820	DECAL ANGLE INDICATOR CS	1				
*13	C1179	DECAL-ELECTROCUTION 4.5×7.5	2	27	25159	DECAL WARNING MANUAL OVERRIDES	1
*12	C5918	DECAL-DANGER MOVING O.R.	2	26	24712	DECAL CAUTION STOW HOOK	1
*11	C4795	DECAL-DANGER O.R.	2	25	15171	DECAL GREASE WORM DRIVE BEARINGS	1
*10	4190	DECAL-DANGER	1	24	4188	DECAL-ROTATION ALIGNMENT	1
09	9188	DECAL-ROTATE/GREASE	1	*23	C4541	DECAL-CRANE STOWING	1
*08	4189	DECAL-DANGER	1	22	12300	DECAL-TWO BLOCKING	1
07	4186	DECAL-ELECTROCUTION 2×2.75	1	*21	4214	DECAL-SERVICE	1
*06	C4544	DECAL-DANGER	1	*20	C0568	DECAL-DIESEL	2
*05	C4540	DECAL-DANGER	1	*19	12452	DECAL MANUAL EXT	1
*04	C4545	DECAL-ELECTROCUTION 5×13	4	*18	C5911	DECAL-STELLAR 2×4.5	3
*03	24701	DECAL CAPACITY	2	*17	C5910	DECAL-STELLAR 4×9.5	1
02	15172	DECAL ASME/ANSI B30.22/B30.5	1	*16	12451	DECAL HOISTING PERSONNEL	1
01	24700	DECAL IDENTIFICATION	2	15	13819	DECAL-ANGLE INDICATOR SS	1
ITEM	PART No.	DESCRIPTION	QTY	ITEM	PART No.	DESCRIPTION	QTY

\*USE THESE DECALS WITH BODY PACKAGE

#### STABILITY PROCEDURE

Definition of **STABILITY** for the Stellar Telescopic Crane Products:

A truck is stable until the load cannot be lifted off the ground with the winch, without tipping over the truck.

Every Stellar crane installed must be tested for stability to determine the actual load capacity of the final truck package. The actual test data must be recorded and supplied with the truck at the time of in-service and should be kept with the truck at all times. The following procedure will test the truck package for stability and will provide a stability capacity chart. The load limit information shown on the stability capacity chart is formulated on 85% of tipping.

#### Set Up

- -Locate the truck on a test course in position for loading and engage travel brakes.
- -Set outriggers so that they make contact with firm, level footings.
- -Operate the crane under partial load to assure operator proficiency and proper machine function.

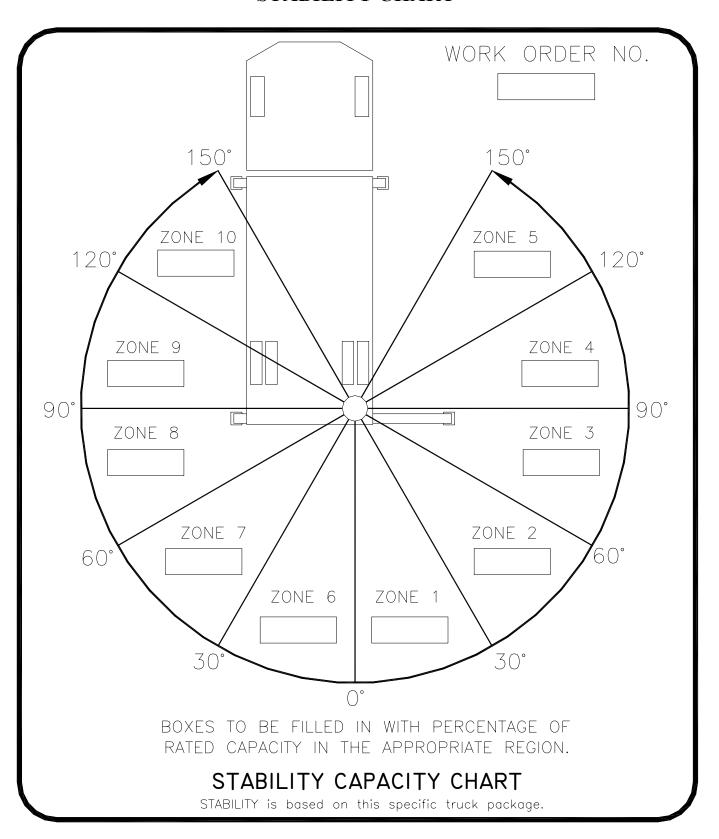
#### **Test Data for 4420 Crane**

- <u>Maximum Horizontal Reach</u> 240 inches (center of rotation to boom tip)
- Stability Test Weight 945#

#### **Test Procedure**

- -Rotate the crane into zone 1 position.
- -With the crane fully retracted and the boom horizontal, winch the test weight off the ground. Note: keep the weight within six inches of the ground at all times.
- -Extend the boom outward until full extension has been reached or until the truck becomes unstable (again, use the winch to keep the weight within six inches of the ground).
- -If the boom goes full extension without becoming unstable, the crane is termed stable for this zone and 100% can be written in the zone 1 data box.
- -If the truck becomes unstable prior to going full extension retract the boom until the truck becomes stable and measure the horizontal reach in this position (center of rotation to boom tip). This is the <u>stable horizontal reach</u> for this zone. Use the following formula to determine the percentage of rated capacity. <u>Stable horizontal reach</u> divided by <u>Maximum horizontal reach</u> multiplied by 100 equals the percentage of rated capacity for this zone. Record this number in the data box for zone 1. This is the revised capacity due to stability for this zone.
- -Repeat this procedure for each zone until the worksheet is completed.
- -This is the revised CAPACITY based on STABILITY of this package.

## **STABILITY CHART**



#### **Limited Warranty Statement**

for Stellar Tire Service Trucks, Truck-mounted Cranes, Truck-mounted Stellarc Welders
& Truck-mounted Compressed Air Systems ONLY

Stellar Industries, Inc. (Stellar) warrants products designed and manufactured by Stellar to be free from defects in material and workmanship under proper use and maintenance. Products must be installed and operated in accordance with Stellar's written instructions and stated lifting capacities. The warranty period shall be Twelve (12) month warranty on all Stellar designed and fabricated parts, and Ninety (90) days repair labor.

The warranty period shall begin from the date recorded by Stellar as the in-service date. This date will be derived from the completed warranty registration card. In the event a warranty registration card is not received by Stellar, the factory ship date will be used. Stellar's obligation under this warranty is limited to, and the sole remedy for any such defect shall be, the repair and/or replacement (at Stellar's option) of the part and/or component in question. Stellar after-sales service personnel must be notified by telephone, fax, e-mail, or mail of any warranty-applicable damage within fourteen (14) days of it's occurrence. If at all possible, Stellar will ship the replacement part within 24-hours of notification by the most

economical, yet expedient, means possible. Expedited freight delivery will be at the expense of the owner. Warranty claims must be submitted and shall be processed in accordance with Stellar's established warranty claim procedure. Stellar Service personnel must be contacted prior to any warranty claim. A return materials authorization (RMA) account number must be issued to the claiming party prior to the return of any warranty parts. Parts returned without prior authorization will not be recognized for warranty consideration. All damaged parts must be returned to Stellar freight prepaid; freight collect returns will be refused.

Warranty service will be performed by any Stellar new equipment distributor, or by any Stellar-recognized service center authorized to service the type of product involved, or at the Stellar factory. At the time of requesting warranty service, the owner must present evidence of date of delivery of the product. The owner shall be obligated to pay for any overtime labor requested of the servicing company by the owner, any field service call charges, and any towing and/or transportation charges associated with moving the equipment to the designated repair/service provider.

All obligations of Stellar and it's authorized dealers and service providers shall be voided if someone other than an authorized Stellar dealer provides other than routine maintenance service without prior written approval from Stellar. In

authorized Stellar dealer provides other than routine maintenance service without prior written approval from Stellar. In the case repair work is performed on the Stellar-manufactured product, original Stellar parts must be used to keep the warranty in force. The warranty may also be voided if the product is modified or altered in any way not approved, in writing, by Stellar engineering.

The owner/operator is responsible for furnishing proof of the date of original purchase of the Stellar product in question. Warranty registration is the ultimate responsibility of the owner and may be accomplished by the completion and return of the Stellar product registration card provided with the product. If the owner is unsure of registration, he is encouraged to contact Stellar at the address below to confirm registration of the product in question. This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in Stellar's written instructions, recommendations, and specifications. Any damage resulting from owner/operator failure to perform such duties shall void the coverage of this warranty. The cost of labor and supplies associated with routine maintenance will be paid by the owner.

The only remedies the owner has in connection with the breach or performance of any warranty on the Stellar product specified are those set above. In no event will Stellar, the Stellar distributor/dealer, or any company affiliated with Stellar be liable for business interruptions, costs of delay, or for any special, indirect, incidental, or consequential costs or damages. Such costs may include, but are not limited to, loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, or any other incidental cost.

All products purchased by Stellar from outside vendors shall be covered by the warranty offered by that respective manufacturer only. Stellar does not participate in, or obligate itself to, any such warranty.

Hydraulic cylinders used in Stellar products are subject to the same warranty provisions stated above. Should a cylinder defect develop within the above stated warranty period, notify Stellar immediately. Stellar will ship, freight prepaid, by the most effective, expedient, means a new or re-manufactured cylinder of the same size and type. An authorization for return of the original part will be issued at the time the order is placed. The defective cylinder is to be returned to Stellar freight prepaid by the owner. Cylinders returned freight collect will be refused. Should the defective cylinder not be returned within 30 days of shipping the replacement cylinder, the owner is responsible to pay Stellar the full purchase price of the replacement part.

Stellar reserves the right to make changes in design or improvement upon it's products without imposing upon itself the same upon it's products theretofore manufactured.

This warranty will apply to all Stellar Tire Service Trucks, Truck-mounted Cranes, Truck-mounted Stellarc Welders & Truck-mounted Compressed Air Systems shipped from Stellar's factory after January 1,1997. The warranty is for the use of the original owner only and is not transferable without prior written permission from Stellar.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. STELLAR INDUSTRIES, INC. IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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