

CRANE MODEL 5520B

280 W. 3rd St., Box 169 • Garner, IA 50438 • Phone: 641-923-3741 • Fax: 641-923-2812

UPDATED 01/23/03

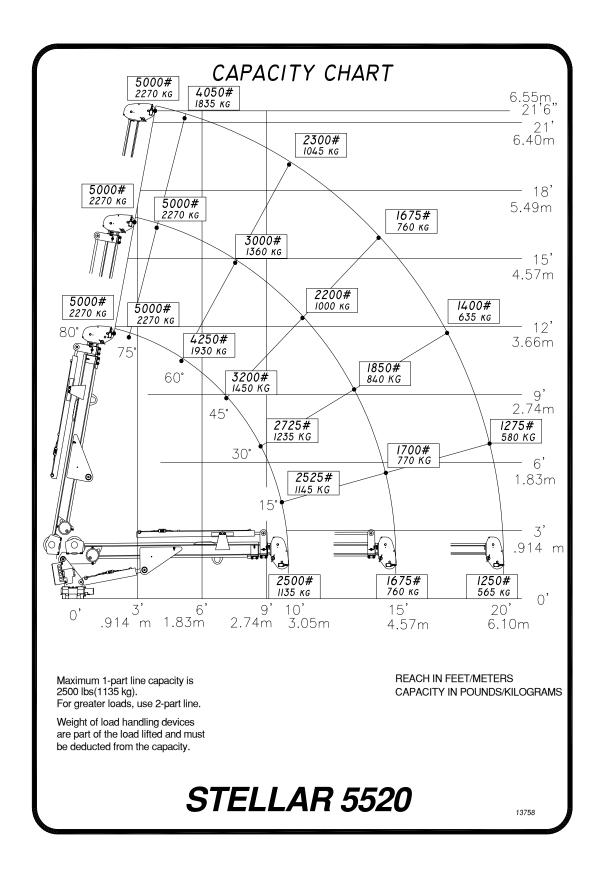
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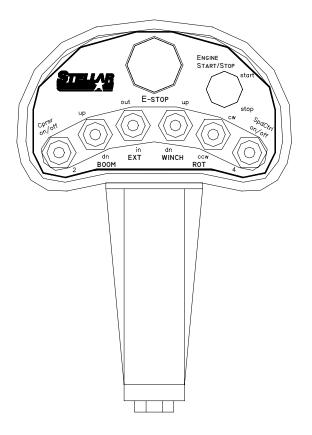
Model 5520 Crane SPECIFICATION SHEET

Crane Rating	25,000 ft-lbs (3.46 ton-meters)
Standard Boom Length	10'(3.05 m) from CL of Crane
Boom Extension	1 st stage: Hydraulic 60"(152.4 cm) 2 nd stage: Manual 60"(152.4 cm)
Maximum Horizontal Reach	20'(6.10 m) from CL of Crane
Maximum Vertical Lift (from crane base)	21' 4"(6.50 m)
Boom Elevation	-8 to +80 degree
Winch Specification Rope Diameter Line pull speed Max. single part line Max. double part line	5/16"(.794 cm) 40 ft/min (12.19 m/min) 2500 lbs (1135 kg) 5000 lbs (2270 kg)
Rotation	370 degree power (worm gear)
Lifting Capacities	2500 lbs @ 10'(1135 kg @ 3.05 m) 1670 lbs @ 15'(760 kg @ 4.57 m) 1250 lbs @ 20'(565 kg @ 6.10 m)
Power Supply Required	PTO & Pump (4.00 gpm @ 2500 psi) (15.14 lpm @ 172 bars)
Controls	Radio control standard for all functions.
Stowed Height (crane only)	31.50 inches (80.0 cm)
Mounting Space Required	18 x 20 inches (45.7 x 50.8 cm)
Approximate Shipping Weight	1400 lbs (635 kg)

CAPACITY CHART



CRANE OPERATION



THIS CRANE IS OPERATED BY A RADIO CONTROL SYSTEM WHICH OPERATES AN ELECTRONIC VALVE BANK. THE CONTROLLER (AS SHOWN) OPERATES THE FOLLOWING FUNCTIONS:

> MAIN BOOM UP & DOWN EXTENSION BOOM IN & OUT WINCH UP & DOWN ROTATION CW & CCW

THIS CONTROLLER CAN ALSO BE UTILIZED TO OPERATE THE FOLLOWING OPTIONAL FUNCTIONS:

ENGINE START & STOP SPEED CONTROL ON & OFF COMPRESSOR ON & OFF

TWO OPTIONAL FUNCTIONS ARE ALSO AVAILABLE FOR OTHER CUSTOMER NEEDS. OPTION TWO AND OPTION FOUR ARE BOTH MOMENTARY 12 VOLT FUNCTIONS AND WILL REQUIRE A LATCHING RELAY FOR MOST INSTALLATIONS.

MANUAL OPERATION

IN CASE OF RADIO FAILURE THE CRANE CAN BE OPERATED USING THE MANUAL OVERRIDES LOCATED ON THE VALVE BANK. USE THE MANUAL OVERRIDES **ONLY** TO GET THE CRANE INTO A STOWED POSITION FOR TRAVEL. HAVE THE EQUIPMENT SERVICED FOR NORMAL RADIO USE.

WARNING

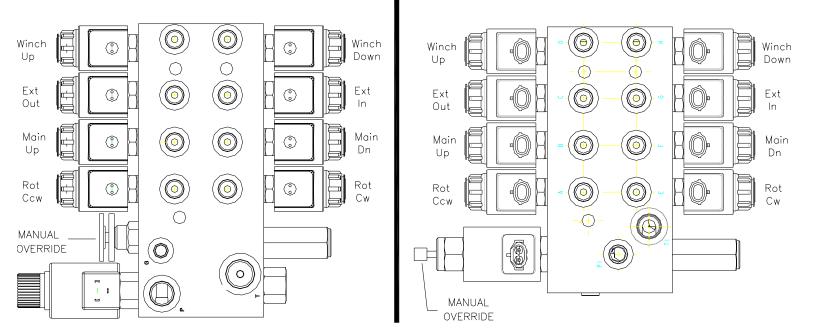
PROLONGED MANUAL OPERATION WILL CAUSE SEVERE DAMAGE TO THE HYDRAULIC SYSTEM.

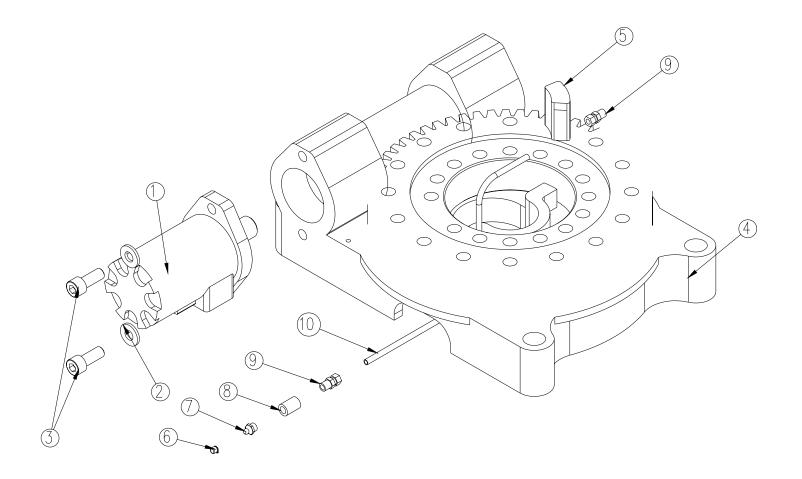
TO OPERATE CRANE MANUALLY:

- 1.) ACTIVATE MANUAL OVERRIDE VALVE BY TURNING STEM.
- 2.) OPERATE FUNCTIONS AS NEEDED TO STOW CRANE BY PUSHING ON THE END OF THE SOLENOID.
- 3.) RESTORE MANUAL OVERRIDE VALVE TO ORIGINAL POSITION.
- 4.) HAVE UNIT SERVICED.

Prior to 8/01/01

As of 8/01/01



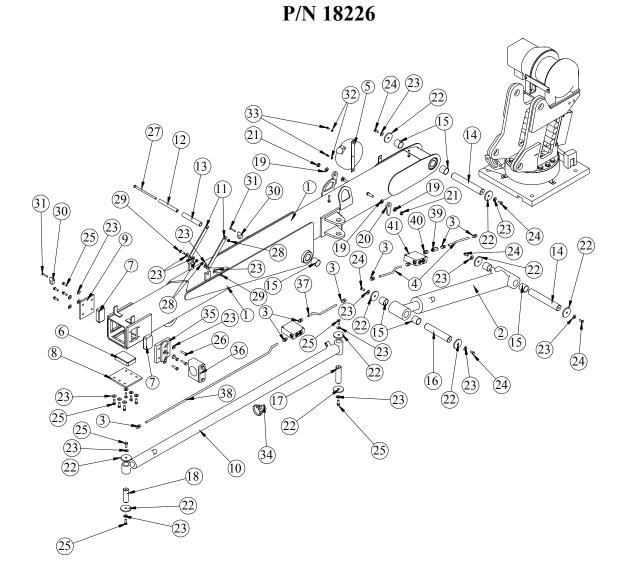


ITEM	PART	DESCRIPTION	QTY.
1	D1204	ROTATION MOTOR 5520	1
2	D0790	WASHER 0.50 FLAT GR8	2
3	D1307	CAP SCR 0.50-13X1.25 SH	2
4	16653	BEARING SWING DRIVE CAST	1
5	16504	STOP 3515	1
6	18942	MAST 5520B	1
6	C4808	CAP PLASTIC (RED)	1
7	c1592	ZERK 1/8 NPT STRAIGHT	1
8	C2256	FTG COUPLER PIPE 0.13	1
9	D1345	FTG CPRSN 0.12NPT/0.25 TUBE	2
10	D1810	TBE AIR SAEJ844 TYPE A .25	1

P/N 18950 2 (10) [Ð D (11 000 (1 6 8 (14) (4)5 Ф 0₁ C Þ (11 Ó 3 (15) (16) O 0 œ B 0 Ő **`**°° *₽*°° -13 n ര M œ 8 (0 Î (19) 9 (18) 0 Q (17) 0 (20)

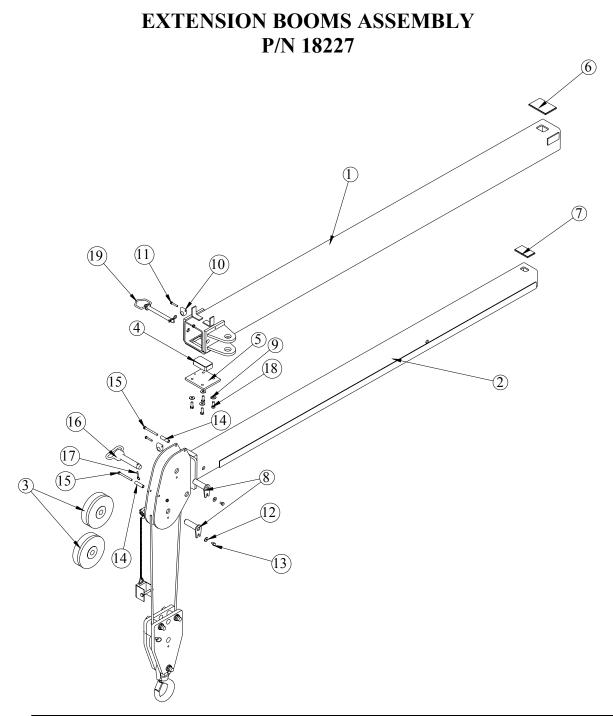
MAST ASSEMBLY

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	18942	MAST 5520B	1	11	0347	NUT 0.38-16 HH NYLOC	7
2	11362	WINCH KINEMATIC'S 3000#	1	12	0343	WASHER 0.31 FLAT	4
3	12810	VB 4 SECT ELECT W/PROP VLV HYDAK	1	13	0484	CAP SCR 0.31-18 X 0.50 HHGR5	4
4	11847	RADIO RECEIVER	1	14	10976	CAP SCR 6MMX12MM HHGR8	4
5	0067	BUSHING QSI-2426-24	4	15	0346	WASHER 0.38 FLAT	3
6	12137	COVER MAST 5520	1	16	0531	CAP SCR 0.38-16X3.50 HHGR5	3
7	C5902	WASHER 0.63 FLAT GR8	12	17	18945	GUARD TTB 5520 CRANE	1
8	C1026	CAP SCR 0.63-11X2.50 HHGR8 ZY	12	18	0340	WASHER 0.25 FLAT	2
9	C6353	WASHER 0.38 FLAT GR8	8	19	0479	CAP SCR 0.25-20X0.75 HHGR5	2
10	12167	CAP SCR 0.38-16X1.75 HHGR8	4	20	18948	CAP SCR 0.88-9 X .63 PLASTIC	2



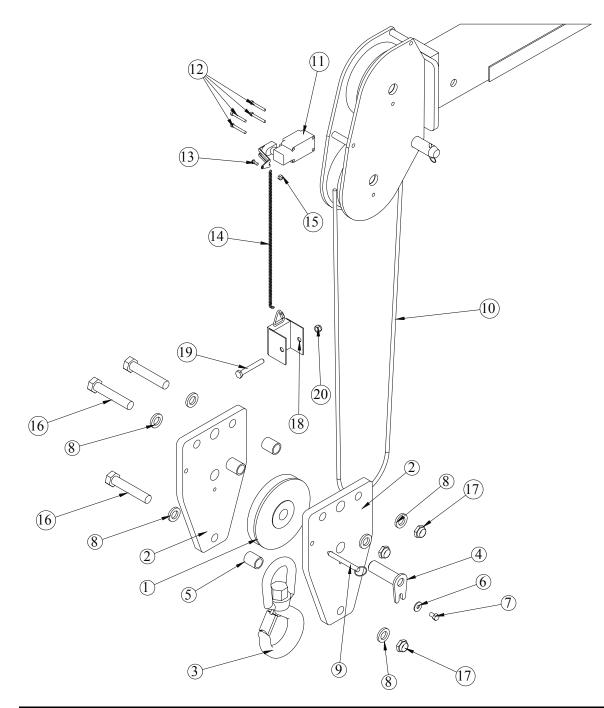
MAIN BOOM ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	12014	INNER BOOM 5520	1	22	7403	PIN CAP 0.44X2.50X.252	10
2	13754	CYLINDER 3.50X21.00	1	23	C6353	WASHER 0.38 FLAT GR8	28
3	0279	FTG ADAPT 6-F5OLO-S	8	24	9843	CAP SCR 0.38-16X0.75 HHGR8	6
4	15173	TUBE ASM 0.38X7.81 MAIN CYL 5520	2	25	13573	CAP SCR 0.38-16X1.00 HHGR8	14
5	11544	CORD REEL 6620	1	26	16962	CAP SCR 0.38-16X1.50 HHGR8	4
6	12040	WEAR PAD 3.00X4.50X1.00	1	27	C0987	CAP SCR 0.38-16X7.00 HHGR5	1
7	13642	WEAR PAD 2.00X3.50X0.97	2	28	0347	NUT 0.38-16 HH NYLOC	3
8	13643	PLATE WEAR PAD COVER 5520	1	29	0335	CAP SCR 0.38-16X1.25 HHGR5	2
9	13644	PLATE WEAR PAD COVER 5520	1	30	0337	HOSE CLAMP LN 4190 PP	2
10	13441	CYLINDER 2.00 X 60.00	1	31	0220	CAP SCR 0.25-20 X 1.50 HHGR5	2
11	13757	BRKT ROPE GUIDE 6620	2	32	C1033	WASHER 0.25 USS FLAT ZINC	2
12	13759	SPACER ROPE GUIDE 5520	1	33	0478	CAP SCR 0.25-20X0.50 HHGR5	2
13	13760	PIPE 0.75X6.00 PVC	1	34	14929	CLAMP 0.38 PORT TUBE	1
14	13811	PIN 1.50X9.75 D&T	2	35	14494	WEAR PAD COVER W\CLAMP 5520	1
15	0067	BUSHING QSI-2426-24	8	36	14491	CLAMP ASM CYL 5520(HRS4S65PPUNC)	1
16	13812	PIN 1.50X7.88 D&T	1	37	12158	TUBE ASM 0.38X8.88 MAIN CYL 6620	1
17	13813	PIN 1.25X4.50 D&T	1	38	13575	TUBE ASM 0.38X45.00 EXT CYL 5520	1
18	13814	PIN 1.25X3.50 D&T	1	39	15110	VALVE CHECK SINGLE W/ ORIFICE	1
19	D0790	WASHER 0.50 FLAT GR8	4	40	15111	FTG ADAPT MSTH/FSTH 6-4-F50G5	1
20	13815	PLATE ANGLE INDICATOR	2	41	13080	MANIFOLD ASM 6620 INNER HOLDING	2
21	C6106	NUT 0.50-13 HHGR5 NYLOC	2				



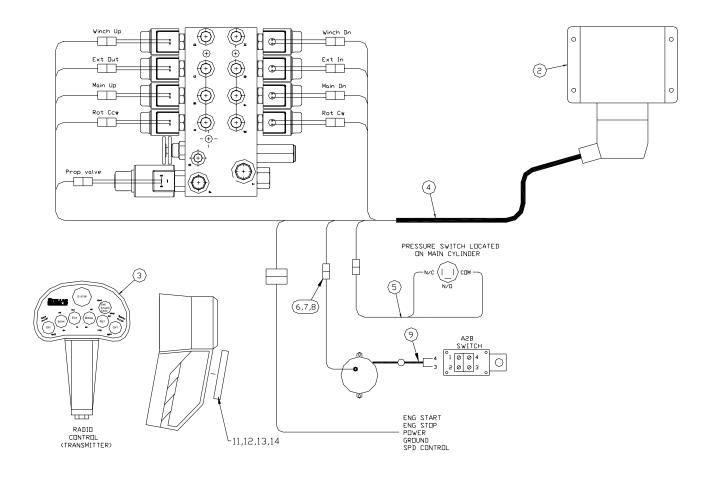
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	12023	EXT BOOM 1ST 5520	1	11	0220	CAP SCR 0.25-20 X 1.50 HHGR5	2
2	12013	EXT BOOM 2ND 5520	1	12	0343	WASHER 0.31 FLAT	2
3	11545	SHEAVE 6620 6.75 DIA .31R/1.94 THK	2	13	0484	CAP SCR 0.31-18 X 0.50 HHGR5	2
4	13642	WEAR PAD 2.00X3.50X0.97	1	14	11936	SPACER BOOM TIP 3820	2
5	13644	PLATE WEAR PAD COVER 5520	1	15	12178	CAP SCR 0.31-18X3.25 HHGR5	2
6	13645	WEAR PAD 3.00X4.50X.63	1	16	12824	PIN HITCH 1.00X4.50	1
7	13646	WEAR PAD 2.00X3.50X.63	1	17	5753	PIN 0.19X1.56 LYNCH	1
8	9706	PIN TEAR DROP 1.00X3.25	2	18	13573	CAP SCR 0.38-16X1.00 HHGR8	4
9	C6353	WASHER 0.38 FLAT GR8	4	19	D1298	PIN HITCH 0.63X6.25	1
10	0337	HOSE CLAMP LN 4190 PP	2				

CABLE AND HOOK ASSEMBLY P/N 18228



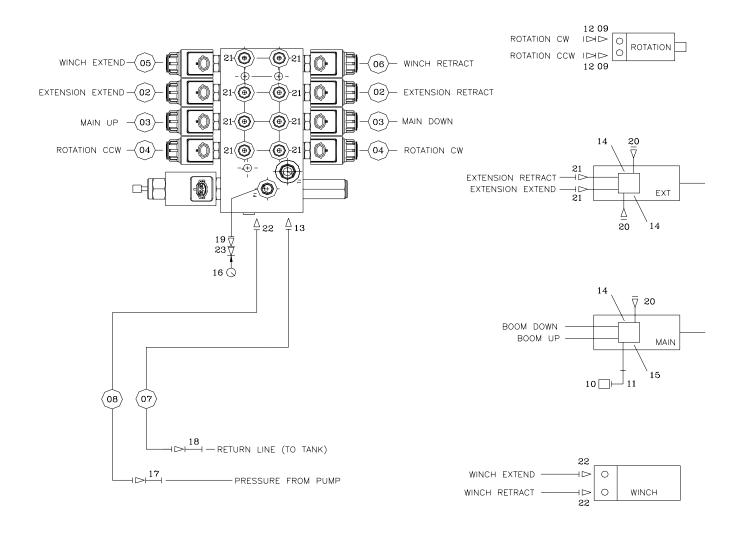
ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	11934	SHEAVE 6620 6.50 DIA .31R/1.12 THK	1	11	11938	SWITCH LIMIT A2B FURNAS 3SE3170	1
2	9676	PLATE 6620 SNATCH BLOCK	2	12	12177	CAP SCR #10-24 X 1.50 SHGR5	4
3	3863	HOOK 5 TON	1	13	D1711	CAP SCR #10-24X0.50 BTNHD SS	1
4	9706	PIN TEAR DROP 1.00X3.25	1	14	10972	CHAIN 0.105 (RM) 2607-21201	1
5	11666	SPACER 5520 SNATCH BLOCK	3	15	C4956	NUT #10-24 HH NYLOC SS	1
6	0343	WASHER 0.31 FLAT	1	16	C6218	CAP SCR 0.75-10X4.00 HHGR8 ZY	3
7	0484	CAP SCR 0.31-18 X 0.50 HHGR5	1	17	C0538	NUT 0.75-10 HHGR8 NYLOC	3
8	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	6	18	19994	WEIGHT 3315 ATB	1
9	9263	PIN .38X3.00 QUICK RELEASE	1	19	0530	CAP SCR 0.38-16X2.75 HHGR5	1
10	9610	WIRE ROPE 0.31 6X19 IWRC-XIP 90FT	1	20	0347	NUT 0.38-16 HH NYLOC	1

CONTROL KIT P/N 14035

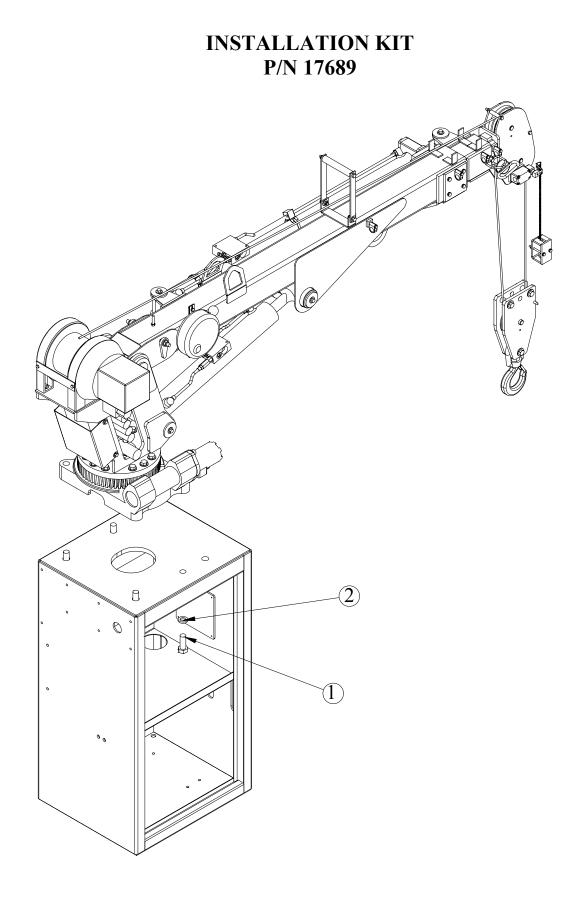


14	0333	NUT 0.25-20 HHGR5 NYLOC	1
13	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	1
12	6832	DECAL MAGNET COVER-2.94DIA	1
11	6629	MAGNET 70# 2.80 DIA	1
10	16255	BATTERY CHARGER W/BTRY 110-3.6V	1
09	10965	CABLE GROMMET	1
08	9756	CONTACT M TERM SHROUD 18-20	2
07	8384	CABLE SEAL 18-20 PACKARD	2
06	9752	CONNECT 2 PIN SHROUD	1
05	13004	WIRE HARNESS PRESSURE SWITCH 6620	1
04	12134	WIRE HARNESS RADID/VB	1
03	11834	TRANSMITTER - RADID (PART DF 1)	REF
02	11847	RECEIVER - RADIO (PART OF 1)	REF
01	11835	RADIO CONTROLLER ASSEMBLY	1
ITEM	PART No.	DESCRIPTION	QTY

HYDRAULIC KIT P/N 19001

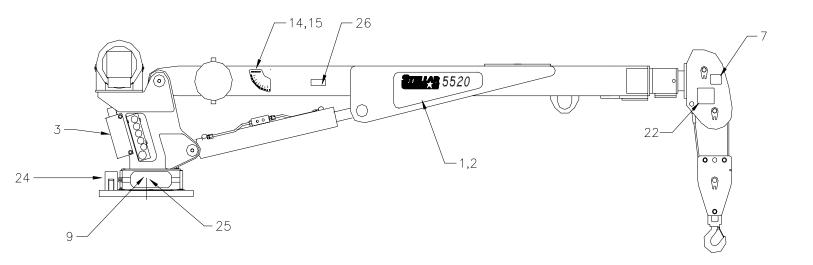


12	3338	FTG MF/MSTR 90 4-6 C50LO-S	2				
11	3861	FTG ML FM O'RING 90 DEG	2	23	d1430	FTG ADAPT O'RING FMP 6-1/4 F50G-S	1
10	3862	SWITCH PRES OVERLD 744.6-S03R-2900N	1	22	0279	FTG ADAPT 6-F50LO-S	3
09	C1111	FTG ADAPT MSTR/FSTR 10-6 F50G5	2	21	C4922	FTG ADAPT 4-6 F50L0-S	10
08	13034	HOSE-HYD .38 X 6	1ref	20	C4961	FTG O'RING PLUG	REF
07	21691	HOSE-HYD .38 X 5	1ref	19	12865	FTG ADAPT MSTR/FSTR 6410-L-6-6-1.50	1
06	15034	HOSE-HYD .25 X 13	1ref	18	12172	FTG SWIVEL 0.50 FS/FS PS81 JMJM-8-8	1
05	15033	HOSE-HYD .25 X 12	1ref	17	12171	FTG SWIVEL 0.38 FS/FS PS81 JMJM-6-6	1
04	15032	HOSE-HYD .25 X 35	2ref	16	6397	GAUGE OIL LF 2.5" 0-5000 CBM	1
03	15031	HOSE-HYD .25 X 23.50	2ref	15	11991	VALVE C-BAL PLUG	REF
02	14800	HOSE-HYD .25 X 63.50	2ref	14	9803	VALVE C-BAL	REF
01	19002	HOSE KIT,5520 CRANE (incl:2-8)	1	13	1554	FTG ADAPT 8-F50L0-S	1



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	17688	CAP SCR 0.88-9X2.25 HHGR8 ZY	4
2	8648	WASHER 0.88 SAE FLAT YELLOW GR8	4

DECAL KIT P/N 14036



26	15172	DECAL ASME/ANSI B30.22/B30.5	1
25	15171	DECAL GREASE WORM DRIVE BEARINGS	1
24	4188	DECAL-ROTATION ALIGNMENT	1
*23	C4541	DECAL-CRANE STOWING	1
22	12300	DECAL-TWO BLOCKING	1
*21	4214	DECAL-SERVICE	1
*20	C0568	DECAL-DIESEL	2
*19	12452	DECAL MANUAL EXT	1
*18	C5911	DECAL-STELLAR 2x4.5	3
*17	C5910	DECAL-STELLAR 4x9.5	1
*16	12451	DECAL HOISTING PERSONNEL	1
15	13819	DECAL-ANGLE INDICATOR SS	1
14	13820	DECAL ANGLE INDICATOR CS	1
*13	C1179	DECAL-ELECTROCUTION 4.5x7.5	2
*12	C5918	DECAL-DANGER MOVING O.R.	2
*11	C4795	DECAL-DANGER O.R.	2
*10	4190	DECAL-DANGER	1
09	9188	DECAL-ROTATE/GREASE	1
*08	4189	DECAL-DANGER	1
07	4186	DECAL-ELECTROCUTION 2x2.75	1
*06	C4544	DECAL-DANGER	1
*05	C4540	DECAL-DANGER	1
*04	C4545	DECAL-ELECTROCUTION 5x13	4
*03	13758	DECAL CAPACITY	2
02	14219	DECAL IDENTIFICATION SS	1
01	14220	DECAL IDENTIFICATION CS	1
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 5520 Crane

- <u>Maximum Horizontal Reach</u> – 240 inches (center of rotation to boom tip)

- Stability Test Weight – 1475#

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).

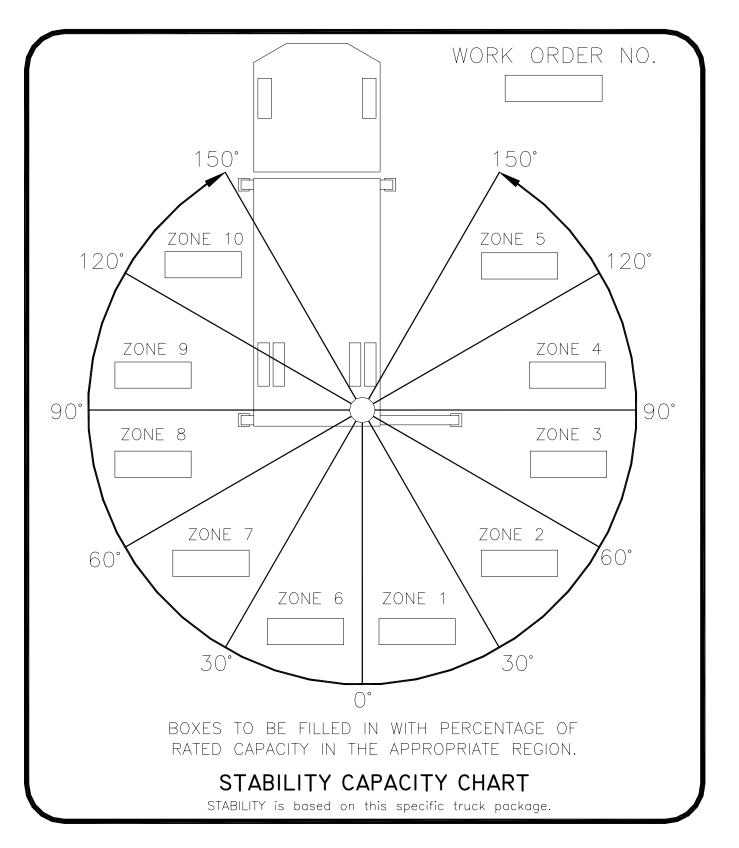
-If the boom goes full extension without becoming unstable, the crane is termed stable for this zone and 100% can be written in the zone 1 data box.

-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 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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REVISED 10/05/2000