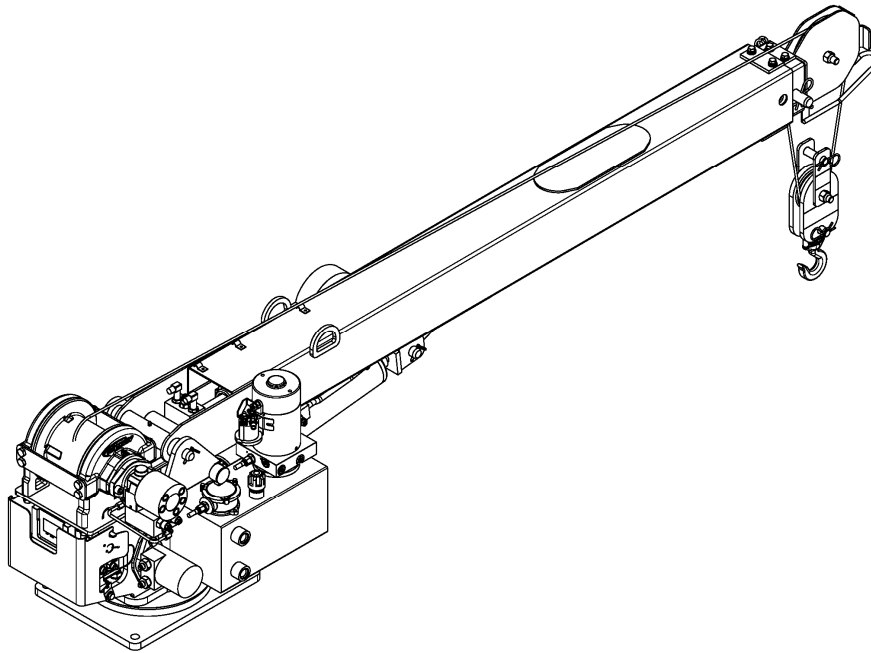




**3203EH**  
**NEXSTAR W/HORN**  
**ADDENDUM**

OWNERS MANUAL  
Manual No. 320991034



**Serial No.** \_\_\_\_\_

**Mailing Address:**

**P.O. Box 580697**

**Tulsa, OK 74158-0697**

**Physical Address:**

**Phone 1-800-777-2760**

**Fax 1-888-848-5445**

**<http://www.autocrane.com>**

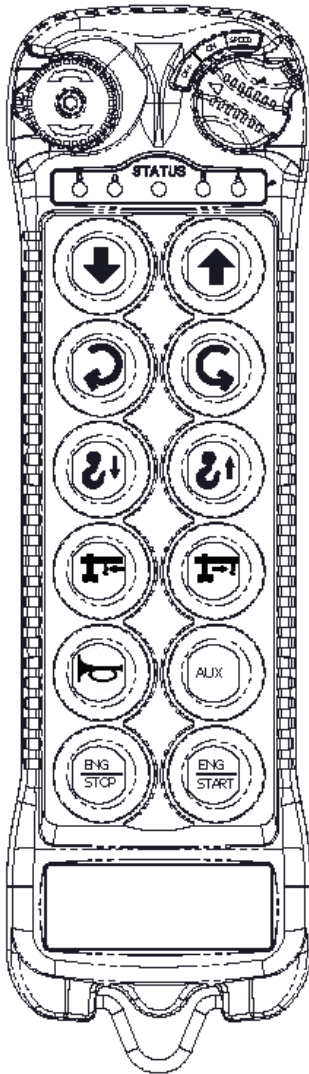
# 3203EH

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# CRANE OPERATION

## TRANSMITTER LAYOUT



**E-stop Switch**—Push to activate, Twist to release. Shuts down all outputs from receiver.

**On/Off/Multispeed**— Detachable key, On, Off, Multispeed, & Start Switch.

**Horn**—Push to sound horn

**Crane Controls**—Proportional push button. The function speed increases the more the button is pressed. Functions

**TURNING OFF TRANSMITTER**— Move the On/Off/Multi-speed switch to the “off” position

**TURNING ON TRANSMITTER**— Move the On/Off/Multi-speed switch to the “on” position, then move the On/Off/Multi-speed switch to the “Multi-speed” or “start” position momentarily. The status light should be blinking green when active with no buttons depressed.

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## ***MOUNTING AND INSTALLATION***

<b>ITEM NO.</b>	<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	1	404223010	CABLE, POWER HEAVY-DUTY 25FT LG
2	1	404218105	MASTER SWITCH ASSEMBLY
3	6	083800000	CLIP, CABLE #838
4	1	320988005	DECAL 3203 LOAD CHART
5	1	320991031	MANUAL, OWNERS 3203EH NEXSTAR
6	1	320991034	3203EH NS W/HORN MANUAL ADDENDUM
7	4	404227000	NUT HX 3/4-16UNF, GR 8
8	1	320433000	TRAVELING BLOCK ASSEMBLY
9	4	404226000	SCR HX HD 3/4-16UNF x 3 LG GR 8
10	2	005604000	SCREW HX HD 1/4-20UNC X 1 LG
11	4	022102000	WASHER FL 3/4
12	4	022101000	WASHER SP LK 3/4
13	2	020200000	WASHER SP LK 1/4
14	2	020300000	WASHER FL 1/4
15	1	366823256	TRANSMITTER, 12 BUTTON FULL PROP.
16	1	320991035	DECAL, HORN

1. Vehicle should meet minimum GVW Rating of 10,500 pounds (does not include bodies or accessories).
2. Make sure mounting surface is properly reinforced to withstand 8,800 ft-lb capacity loading of crane and that outriggers are used to provide total stability for the truck.
3. A 9" dia. Hole should be cut out of mounting location (centered with mounting bolts) for access. Reference general dimensions for bolt pattern.
4. Make sure the mounting bolts are 3/4"-16UNF Grade 8. Torque bolts to 335 ft-lbs (dry).
5. When crane is not in operation, a boom support should always be used and the traveling block should be connected to the hook loop.
6. See the following pages for additional electrical installation.
7. Load test the crane to ensure proper functioning and truck stability.
8. Make certain the owner's manual is delivered to the customer.
9. For additional help: call the service department at the Auto Crane Company.  
(918) 836-0463 (Tulsa, Oklahoma).

# 3203EH

## ***MOUNTING AND INSTALLATION***

### **Electrical hookup:**

Wiring (FM – cable from base of crane, HW – cable from junction box):

CONNECT THE BLACK WIRE TO THE BATTERY NEGATIVE (GROUND).

CONNECT THE RED WIRE TO FUSED 12VDC POWER. 12VDC POWER SHOULD BE SUPPLIED THROUGH A DEDICATED SWITCH THAT IS POWERED ONLY WHEN THE IGNITION SWITCH IS ON.

USE THE YELLOW WIRE FOR HORN POWER

USE THE BLUE WIRE FOR ENGINE START.

USE THE ORANGE WIRE FOR ENGINE STOP.

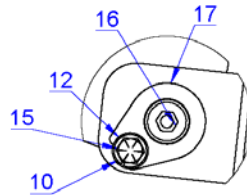
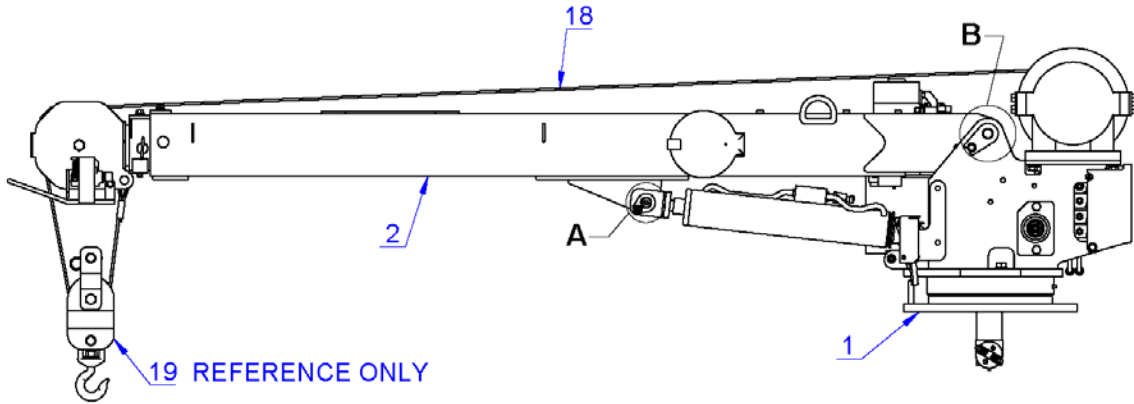
USE THE GREEN WIRE FOR AUXILIARY (12VDC MAINTAINED-FM ONLY).

### **WARNING**

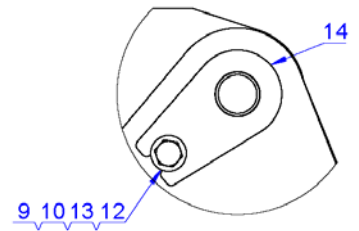
**FEDERAL LAW** (49 CFR PART 571) REQUIRES THAT THE FINAL STAGE MANUFACTURER OF A VEHICLE CERTIFY THAT THE BEHICLE COMPLIES WITH ALL APPLICABLE FEDERAL REGULATIONS. ANY MODIFICATIONS PERFORMED ON THE VEHICLE PRIOR TO THE FINAL STAGE ARE ALSO CONSIDERED INTERMEDIATE STAGE MANUFACTURING AND MUST BE CERTIFIED AS TO COMPLIANCE. THE INSTALLER OF THIS CRANE AND BODY IS CONSIDERED ONE OF THE MANUFACTURERS OF THE VEHICLE. AS SUCH A MANUFACTURER, THE INSTALLER IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE REGULATIONS, AND IS REQUIRED TO CERTIFY THAT THE VEHICLE IS IN COMPLIANCE.

# 3203EH GENERAL ASSEMBLY

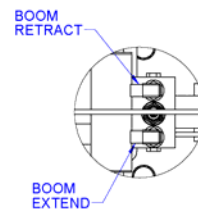
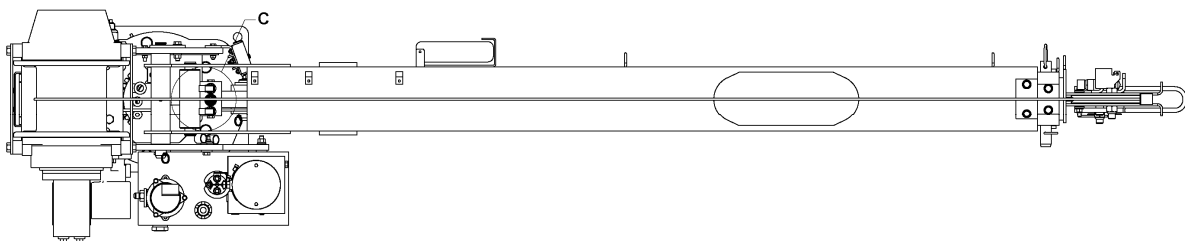
P/N 320991008



DETAIL A



DETAIL B



DETAIL C

- NOTES:  
1. SHOWN FOR REFERENCE ONLY  
2. REFERENCE 320991011 FOR ELECTRICAL LAYOUT  
3. REFERENCE 366823270 FOR RECEIVER RE PROGRAMMING INSTRUCTIONS

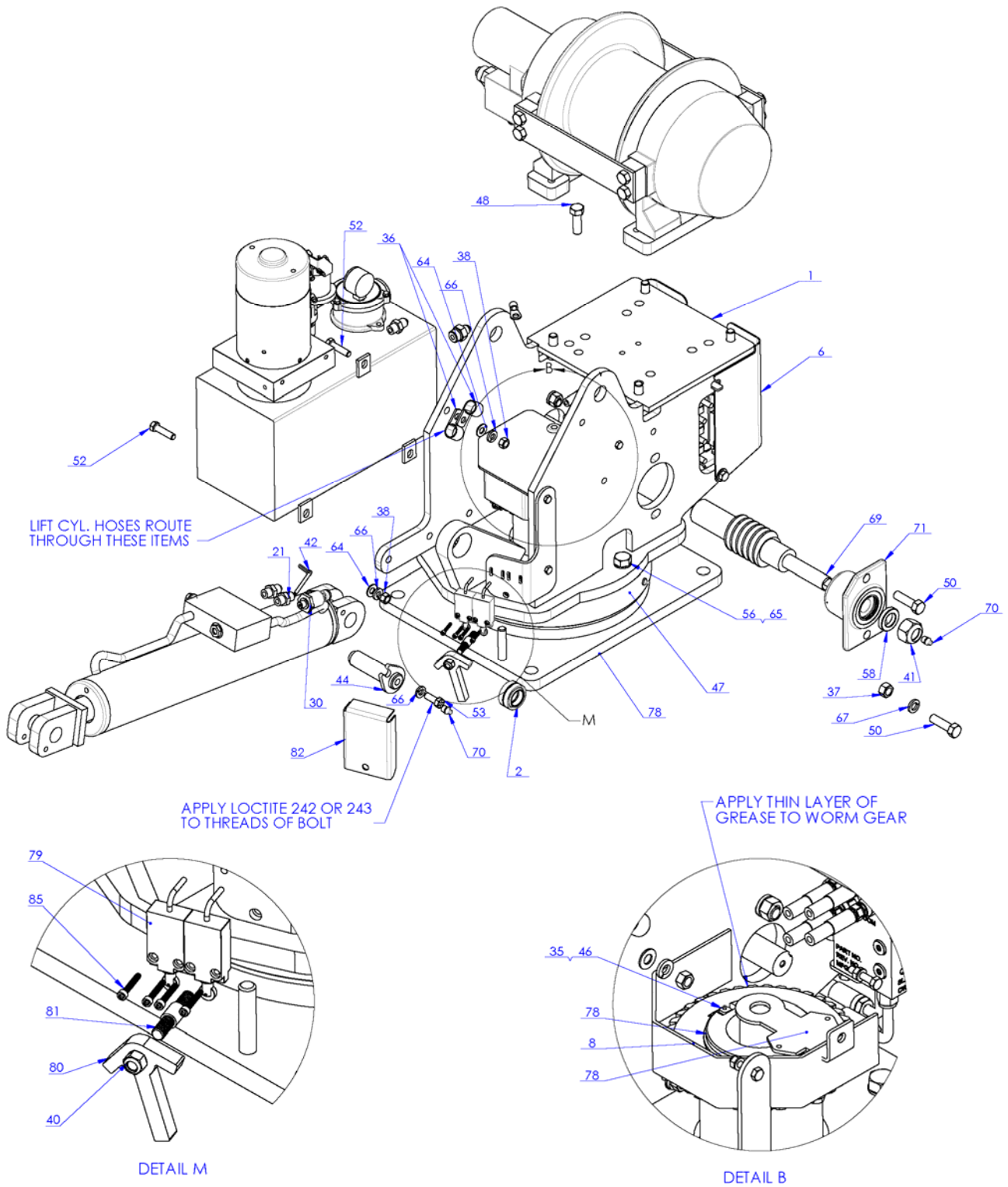
# **3203EH GENERAL ASSEMBLY**

**P/N 320991008**

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	320991208	PED. ASS'Y, 3203PRX NEXSTAR FM W/HORN
2	1	320988102	BOOM ASSY 3203 PRX
3	1	366823254	SENSOR, TRI-AXIS
4	1	366823236	LIGHT, LED (RED, GREEN, YELLOW)
5	1	005901000	SCREW HX HD 1/4-20UNC X 1/2 LG
6	4	001302000	SCREW RD HD #8-32UNC X 7/8 LG
7	4	15500000	NUT HX #8-32UNC CP
8	4	019700000	WASHER SP LK #8
9	1	330372000	NUT HX 3/8-16UNC
10	2	021100000	WASHER SP LK 3/8
11	2	360678000	PIN, 3/16 COTTERLESS RING
12	2	021200000	WASHER FL 3/8
13	1	009109000	SCREW HX HD 3/8-16UNC X 1 1/2 LG
14	1	404220000	PIN WDMT BOOM/PED
15	1	330371000	SCREW HX HD 3/8-16UNC X 1 LG GR8
16	1	023930000	ZERK, GREASE
17	1	320824000	PIN, LIFT CYLINDER
18	1	320338002	CABLE ASS'Y, 7/32" x 62FT, THIMBLE END
19	1	320433000	TRAVELING BLOCK ASSEMBLY
20	1	320991300	DECAL LAYOUT, 3203EH NEXSTAR
21	1	320991033	KIT, SHIP 3203EH NEXSTAR W/HORN
22	1	366823270	TRANSMITTER RETROFIT KIT

# 3203EH PEDESTAL ASSEMBLY

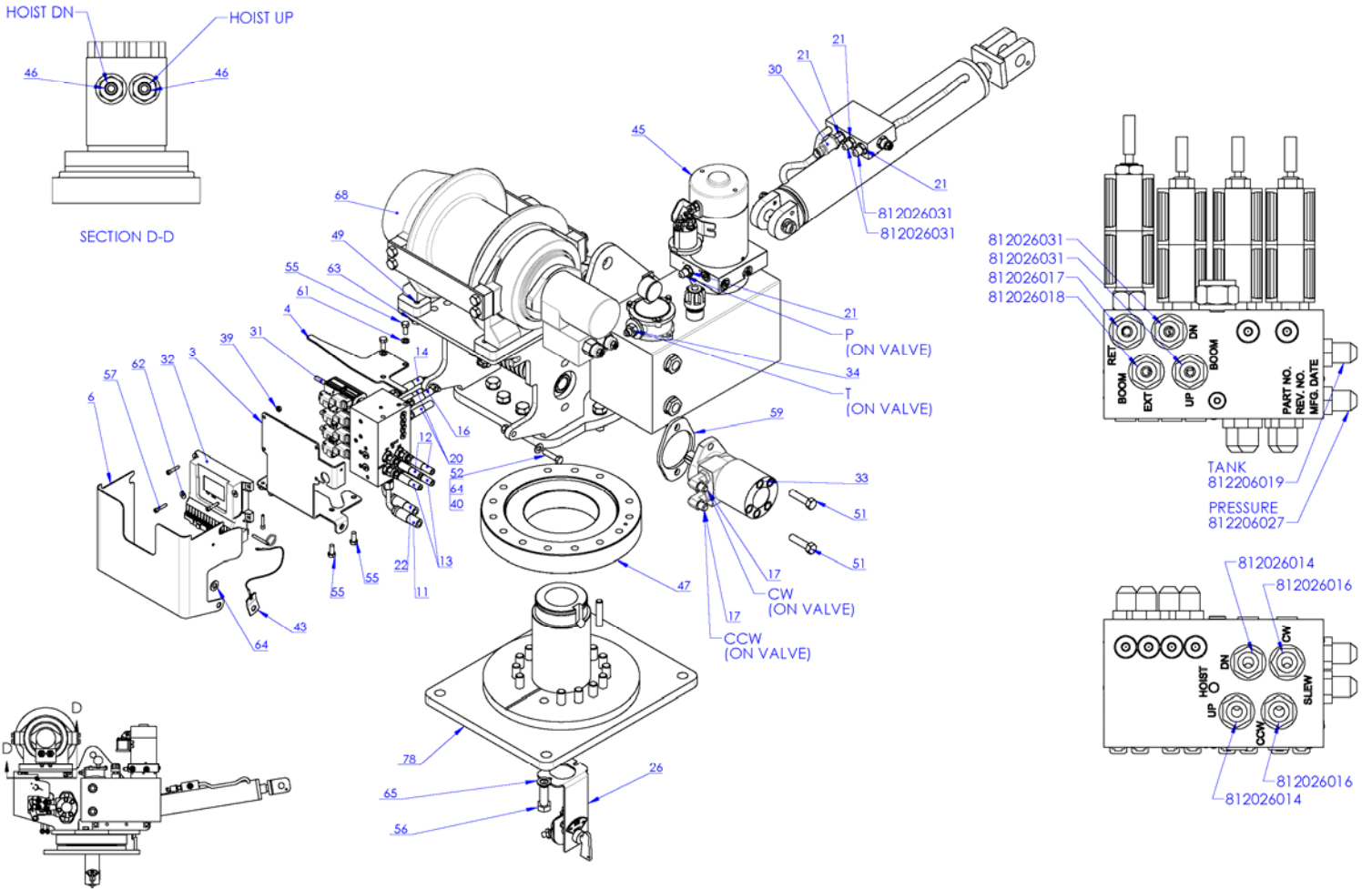
P/N 320991208





# 3203EH PEDESTAL ASSEMBLY

## P/N 320991208



# 3203EH PEDESTAL ASSEMBLY

P/N 320991208

NOTES	ITEM NO.	QTY	PART NUMBER	DESCRIPTION
	1	1	320991215	PEDESTAL WMT, 3203/4004 EH
	2	1	320858000	BEARING, SPHERICAL 1.00 ID
	3	1	320991223	BRACKET, LOWER VALVE & RECEIVER
	4	1	320991222	BRACKET, UPPER VALVE 3203/4004 EH
	5	1	320991226	BRACKET, UPPER TWECO NEXSTAR
	6	1	320991224	COVER, VALVE/RECIEVER NEXSTAR
	7	1	320845000	CYLINDER, LIFT
	8	1	320991282	GEAR, WORM, 6.667PD, 4.00 ID, w/GROUND
	9	1	320991240	KIT, HOSE NEXSTAR 3203PRX/4004EH
7	10	2	202755000	FITTING, -10 SAE/-6 JIC, STR
7	11	1	812206019	HOSE, 3/8" x 3/8" JICF x 3/8" JICF 90° LONG x 19"
7	12	2	812026014	HOSE, 1/4" x 3/8" JICF x 3/8" JICF x 14"
7	13	2	812026016	HOSE, 1/4" x 3/8" JICF x 3/8" JICF x 16"
7	14	1	812026017	HOSE, 1/4" x 3/8" JICF x 3/8" JICF x 17"
7	15	1	812206027	HOSE, 3/8" X 3/8" JICF X 3/8" JICF 90 27 LG
7	16	1	812026018	HOSE, 1/4" x 3/8" JICF x 3/8" JICF x 18"
7	17	2	490198	FITTING 10SAE(M)/6JIC ELBOW 90
7	21	3	200876	FITTING 6 SAE/6 JIC STRAIGHT
7	19	2	812026016	HOSE ASSY -4 HOSE -6 FEMALE JIC
7	20	2	812026031	HOSE, 1/4" x 3/8" JICF x 3/8" JICF x 31"
7	21	1	369611000	ADAPTER, STR -6 ORM/ -4 ORF
7	22	1	812206027	HOSE, 3/8" x 3/8" JICF x 3/8" JICF 90° LONG x 27"
	23	1	320991296	KIT, HARNESS EH FM NEXSTAR W/HORN
8	24	1	366823265	HARNESS, NEXSTAR WITH HORN
8	25	1	320991292	CABLE, 2GA 5/16-3/8 TERM 29LG

# 3203EH PEDESTAL ASSEMBLY

P/N 320991208

NOTES	ITEM NO.	QTY	PART NUMBER	DESCRIPTION
8	26	1	404218105	MASTER SWITCH ASSEMBLY
8	27	1	320991293	CABLE, 2GA, 1/4-3/8 TERM, 72"LG
	28	1	320991250	KIT, ELEC/HYD 3203PRX/4004EH FM
9	29	1	366823269	KIT, ELEC. CNTRL NEXSTAR I
9	30	1	366823255	TRANSDUCER, PRESSURE 0-3000 PSI
9	31	1	320991251	VALVE BLOCK, 3203PRX/4004EH PROPORTIONAL
9	32	1	366823252	RECEIVER, PROPORTIONAL W/LCD
	33	1	404241285	MOTOR, HYD 8.0 CU IN, SAE 2-BOLT 1" SHAFT
	34	1	202756000	ADAPTER, STRAIGHT 8SAE(M)-6JIC(M)
	35	1	340602	KEY, 3/4 SQ X 1
	36	2	480024	MOUNT PENDANT CABLE RETAINER
	37	5	17701	NUT HX 1/2-13UNC
	38	3	330372	NUT HX 3/8-16UNC
	39	5	15801	NUT HX NYLK #10-24UNC ZP
	40	4	17301	NUT HX NYLK 3/8-16UNC CP
	41	1	19000	NUT HX NYLK 7/8-14UNF
	42	1	360678000	PIN, 3/16 COTTERLESS RING
	43	1	366823240	PIN, 3/16 W/LANYARD
	44	1	320824000	PIN, LIFT CYLINDER
	45	1	320991270	POWER UNIT, NEXSTAR 3203/4004 EH
	46	1	404028	RETAINING RING, SNAP RING
	47	1	320878000	ROTATION BEARING
	48	1	10201	SCREW HX HD 1/2-13UNC x 1 1/2 LG
	49	4	738647000	SCREW HX HD 1/2-13UNC X 1 1/4 LG GR8
	50	2	11603	SCREW HX HD 1/2-13UNC X 1 3/4 LG

# 3203EH PEDESTAL ASSEMBLY

P/N 320991208

NOTES	ITEM NO.	QTY	PART NUMBER	DESCRIPTION
	51	2	11608	SCREW HX HD 1/2-13UNC X 2 LG
	52	5	9109000	SCREW HX HD 3/8-16UNC X 1 1/2 LG
	53	1	330371	SCREW HX HD 3/8-16UNC X 1 LG GR8
	54	1	8400	SCREW HX HD 3/8-16UNC X 3/4 LG GR 5
	55	5	7807	SCREW HX HD 5/16-18UNC X 3/4 LG GR5
	56	23	12198	SCREW HX HD 5/8-11UNC X 1 3/4 LG GR8
	57	5	460094000	SCREW, SOC HD, #10-24 X 1"L, ZPL
	58	1	330483	SPACER
	59	1	320879000	SPACER ROTATION
	60	1	320991253	TAG, ID 3203PRX/FX
	61	5	20600	WASHER 5/16 LOCK SS
	62	5	20000	WASHER FL #10 ZP
	63	5	21600	WASHER FL 1/2
	64	7	21200	WASHER FL 3/8
	65	23	23902	WASHER FL 5/8 HARDENED
	66	5	21100	WASHER SP LK 3/8
	67	9	21500000	WASHER, SP LK 1/2
	68	1	123331	HOIST, RPH2000
	69	1	404015	WORM SHAFT
	70	2	239300	ZERK, GREASE
	71	1	330478000	BEARING HOUSING ASSY
	72	3	6200	SCREW HX HD 1/4-20UNC X 1 1/4 LG
	73	3	20200	WASHER SP LK 1/4
	74	1	320989234	TOP PLATE, GEAR COVER, 3203 PR/PRX, HW
	75	1	320989232	SIDE PLATE, GEAR COVER, 3203H

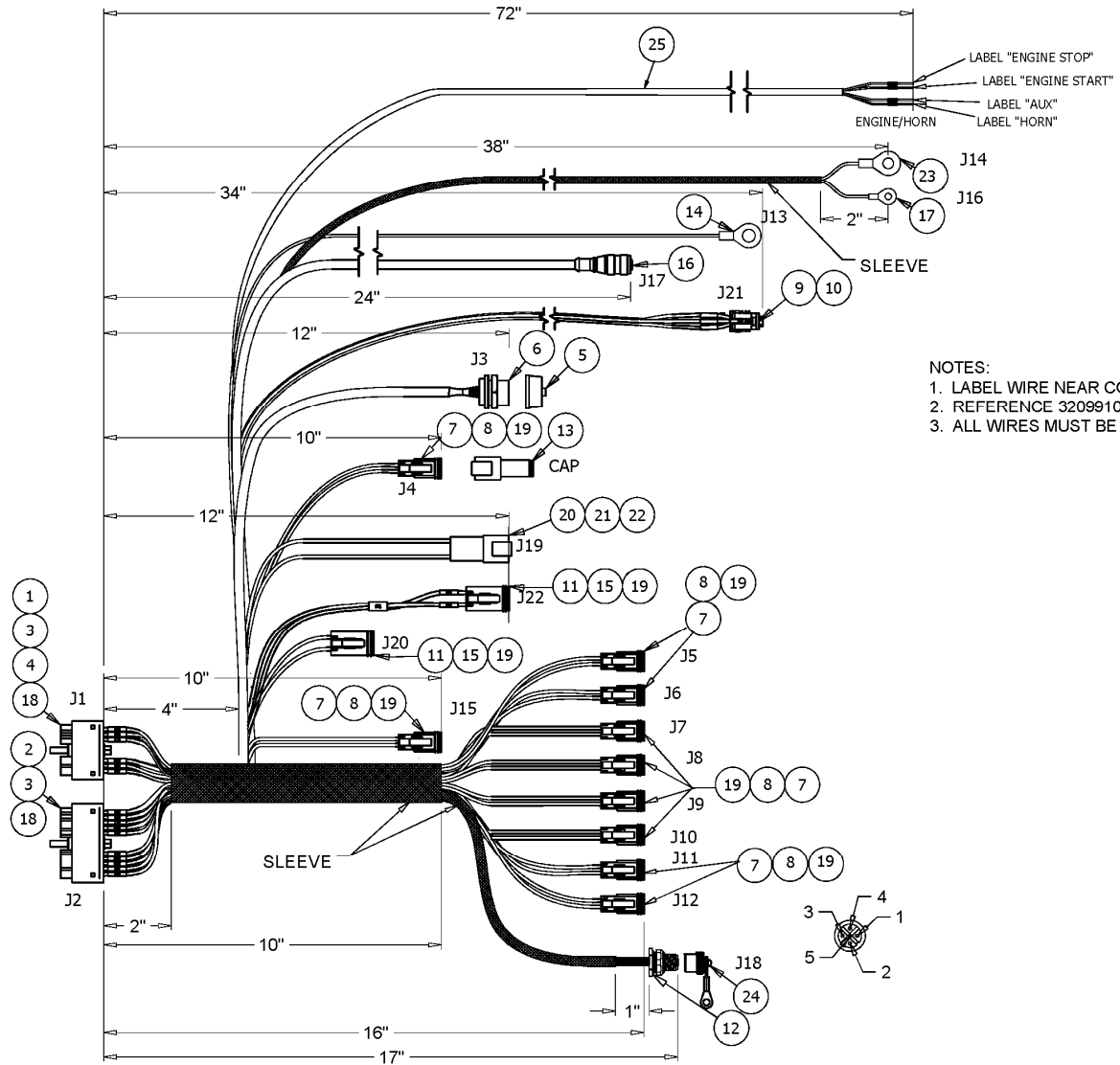
# 3203EH PEDESTAL ASSEMBLY

P/N 320991208

NOTES	ITEM NO.	QTY	PART NUMBER	DESCRIPTION
	76	2	750734000	GROMMET, 0.38ID x 0.69OD x 0.14THK
	77	1	320989216	BRACKET, SWITCH MNT, ROT STOP, 3203 PR/PRX
	78	1	404193100	BASE WMT, 3203 PR/PRX, W/ ROT. STOP
	79	1	320989214	ROTATION STOP SWITCH ASSEMBLY, 11"
	80	1	366671000	ARM, ROTATION STOP
	81	1	366673000	PIN, ROTATION STOP
	82	1	320989217	COVER, ROTATION STOP, 3203 PR/PRX
	83	4	725321	NUT HX NYLK #8-32UNC
	84	4	19700	WASHER SP LK #8
	85	4	6210000	CAPSCREW-#8-32 X 7/8 LG SOC HD Z/P
	86	1	366675000	WASHER, NYLON
	87	3	15900	NUT HX 1/4-20UNC SS
	88	1	750169000	GROMMET, RUBBER

# 3203EH MAIN HARNESS

P/N 366823265

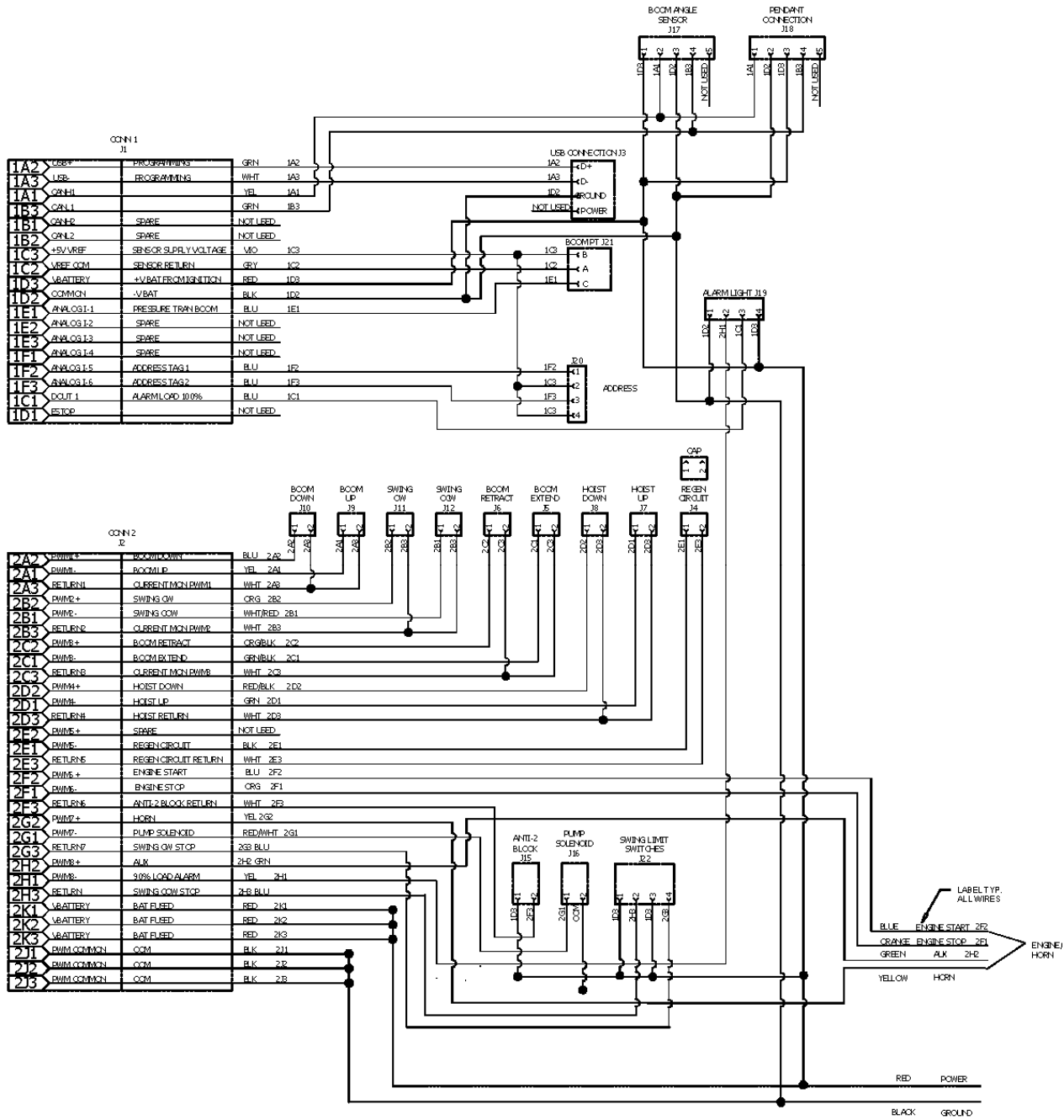


- NOTES:  
 1. LABEL WIRE NEAR CK  
 2. REFERENCE 3209910  
 3. ALL WIRES MUST BE

CONNECTOR	DESCRIPTION	LABEL
J1	RECIEVER 18 PIN CONNECTION	-
J2	RECIEVER 30 PIN CONNECTION	-
J3	USB CONNECTION	USB
J4	REGEN CIRCUIT	CAN
J5	BOOM EXTEND	EXT
J6	BOOM RETRACT	RET
J7	HOIST UP	HU
J8	HOIST DN	HD
J9	BOOM UP	BMUP
J10	BOOM DN	BMDN
J11	ROTATE CW	CW
J12	ROTATE CCW	CCW
J13	GROUND	GND
J14	POWER	PWR
J15	ANTI-2 BLOCK	A2B
J16	PUMP SOLENOID	PUMP
J17	BOOM ANGLE SENSOR	ANG
J18	PENDANT CONNECTION	PEND
J19	ALARM LIGHT	ALRM
J20	ADDRESS	ADRS
J21	BOOM PT	BMPT
J22	SWING LIMIT SWITCH	SWING

# 3203EH ELECTRIC SCHEMATIC

## P/N 320991011



- NOTE:
1. ALL JUMPERS TO BE 4" FROM CONNECTORS TO J1 & J2
  2. ALL WIRES TO BE 18 GAUGE UNLESS SPECIFIED.