"YOUR SOLUTION PROVIDER"

OGDEN WELDING SYSTEMS, INC.
372 W. DIVISION ST., SCHERERVILLE, IN 46375 U.S.A.
(P) 219-322-5252 (F) 219-865-1825 WWW.OGDENWELDING.COM

EQUIPMENT MANUAL

WEB SERVICE GANTRIES

Model Number: SG-5600-2GMAW-1--NGSSI-7010-01
Buyers PO Number: 440359-0000002

Northrop Grumman Ship Systems
Avondale, LA
Serial Numbers 1984-1986

1.0 Description and Operation

The web service gantry is a gantry type structure that spans the panel line and travels on floor rails. It is designed to carry multiple welding units to various positions to finish weld pre-tacked web sections. The gantry is moved utilizing a radio controlled transmitter box.

There are multiple workstations located along each side of the gantry. The workstations, each consisting of a hand operated welding unit, are suspended from hoists. Each hoist is mounted on the end of a powered jib boom. The booms can be individually rotated from side to side using the radio transmitter box. The hoists allow the welding units to be raised and lowered so the operator is able to reach multiple welding positions. Each hoist is individually controlled using a hand held operator control pendant.

Gantry Pushbuttons and Lights

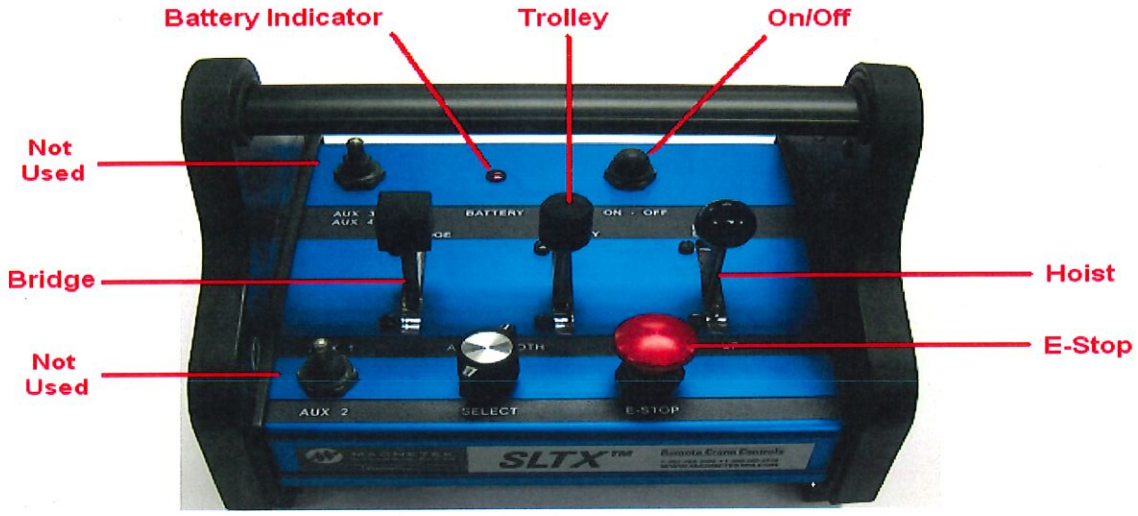
EMERGENCY STOP - An Emergency Stop pushbutton is located on each end of the gantry on the support leg assemblies. These are red mushroom head buttons that illuminate when pushed. Pressing either of these two Emergency stop buttons will stop gantry and trolley hoist movement.

POWER ON LIGHT – This is a green pilot light, located on the main control enclosure. It will be illuminated when the control power for the gantry is on.

GANTRY MOVING LIGHT – This is an Amber strobe light that is illuminated anytime the gantry is moving.

GANTRY MOVING HORN – This is an audible horn that sounds anytime the gantry is moving.

Radio Transmitter and Controls



Drawing A: RADIO TRANSMITTER BELLY BOX

EMERGENCY STOP - There is an Emergency Stop button located on the gantry's radio controlled transmitter box. This is a red mushroom head button. Pressing this Emergency stop button will stop the gantry movement.

ON-OFF – This is a momentary pushbutton. It is used to turn the radio controlled transmitter and receiver ON and OFF.

BATTERY – This is a red illuminated light. When the transmitter is ON the light will flash at a slow rate. When the transmitter is transmitting data the light will flash at a rapid rate.

GANTRY – This lever is used to control the gantry's forward and reverse movement. Moving the lever a small portion of the way will make the gantry move at a slow speed. Moving the lever the full extent of the travel will make the gantry move at a rapid speed. The moment the lever is released, it will return to the center position and the gantry movement will stop.

BOOM – This lever is used to control the selected boom's lateral rotation. Moving the lever forward will rotate the boom to the left. Pulling the lever back will rotate the boom to the right. The moment the lever is released, it will return to the center position and the boom motion will stop.

BOOM SELECT – This is a six position selector switch that selects which of the six booms will be moved. The switch position will activate the respective boom. For example, when the switch is in the "1" position, boom 1 is active and will rotate when the boom lever is used.

NORTH VACUUM – This is toggle switch that will turn the north fume extraction unit on and off.

SOUTH VACUUM – This is a toggle switch that will turn the south fume extraction unit on and off.

Sequence of Operation

All main disconnect switches on the power distribution should be in the "ON" position for normal machine operation. Check to make sure that all the emergency stop pushbuttons are pulled out.

The Radio Transmitter Belly Box (See Drawing A on page 6), contains the switches for the operation of the gantry and hoist.

1. Press and release the ON/OFF pushbutton on the radio transmitter box. The radio transmitter box enables the control of the receiver. The battery light on the transmitter will be illuminated or flashing showing the status of the receiver.

2. Press and release the ON/OFF pushbutton again to energize the radio receiver unit located in the main control enclosure (reference D9119-015). The green POWER ON light will illuminate when gantry power is on.

The gantry control moves the gantry in the forward or reverse direction.

Warning: **All Welding guns and smoke extraction hoses must be secured to the weld units before being raised to the full UP position.**

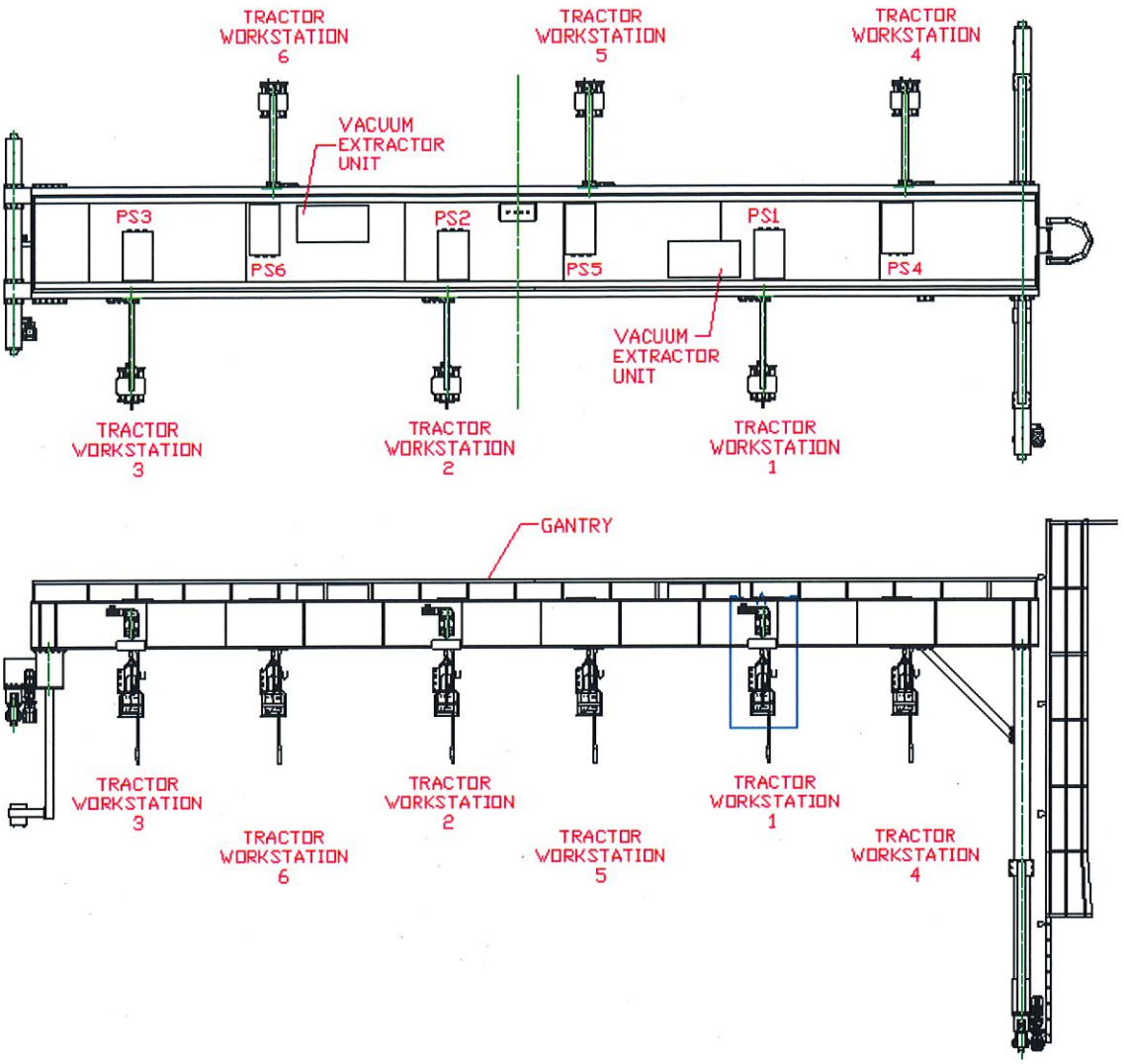
Warning: **All welding units must be in the fully raised position before moving the gantry.**

Warning: **The gantry will travel back and forth but will travel back to the center, or HOME POSITION, immediately following the release of the trolley control.**

Warning: **The jib boom always returns to center or home position. It will move as long as you are holding the controls. It will ALWAYS return to home position upon releasing the control**

North and South Vacuum Controls: Located on the top of the gantry are two vacuum extractor units. These can be activated from the belly box.

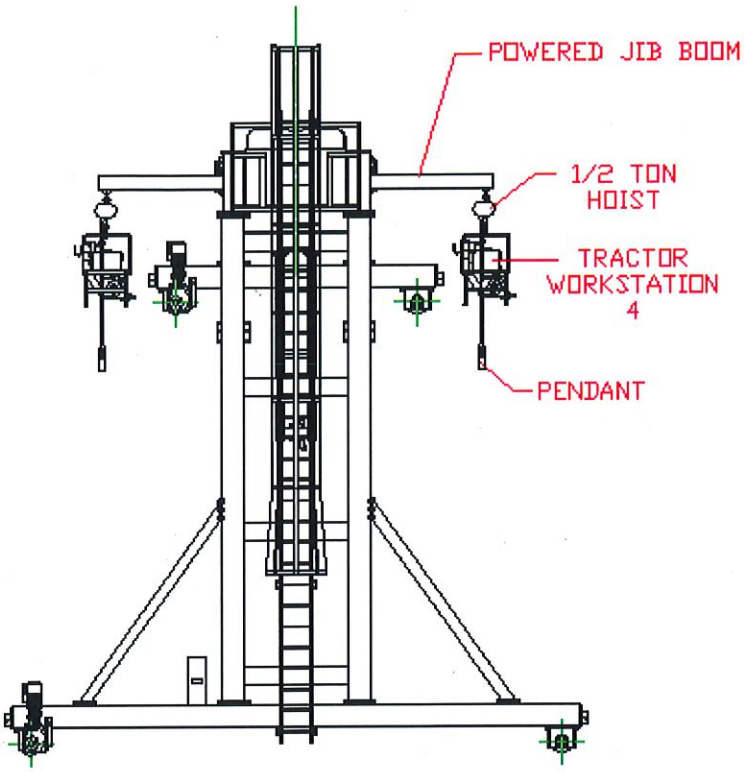
Each work station consists of a hand operated welding unit that is suspended from the hoist. The hoist is mounted on the end of each powered jib boom. The units are raised or lowered using the hand held control pendant.



Drawing B: FRONT VIEW OF SERVICE GANTRY

Boom Controls: The boom lever momentarily rotates the boom right or left. Releasing the lever will return the boom to the center position and stop.

The boom selection knob on the belly box activates the respective boom. For example, when the switch is in the "1" position, boom 1 is active and will rotate when the boom lever is used.



Drawing C: SIDE VIEW WEB SERVICE GANTRY

Caution: **Always check that welding grounds are in place before welding.**

Once the weld is complete, secure the welding guns and smoke extraction hoses before raising the welding units.

To turn the GANTRY CONTROL POWER OFF, press and release the ON/OFF button. This will turn the power off to the radio transmitter and receiver. The POWER ON light will turn off at this time.