NX6100 and PPC6000

Servo Replacement

Kurt Vanderzanden
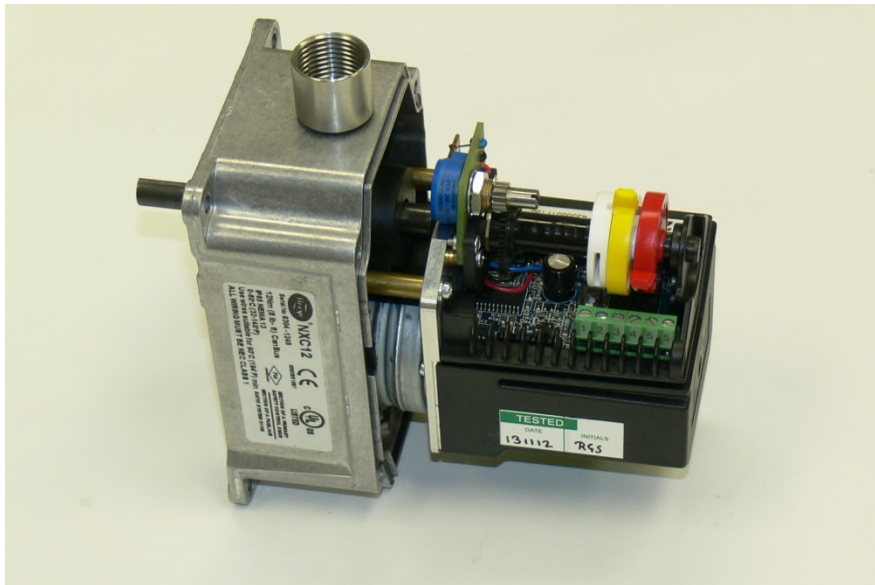
Servomotor Replacement

- All NXC series servomotors are 24volt powered

- All servomotors communicate via Canbus proprietary serial communications

- Each has a unique serial number

- Automatically registered when powered up

- Simple 4 Wire Wiring

Servomotor Replacement

Each servo has a unique serial number which is found on the label. For example: 3456 1234
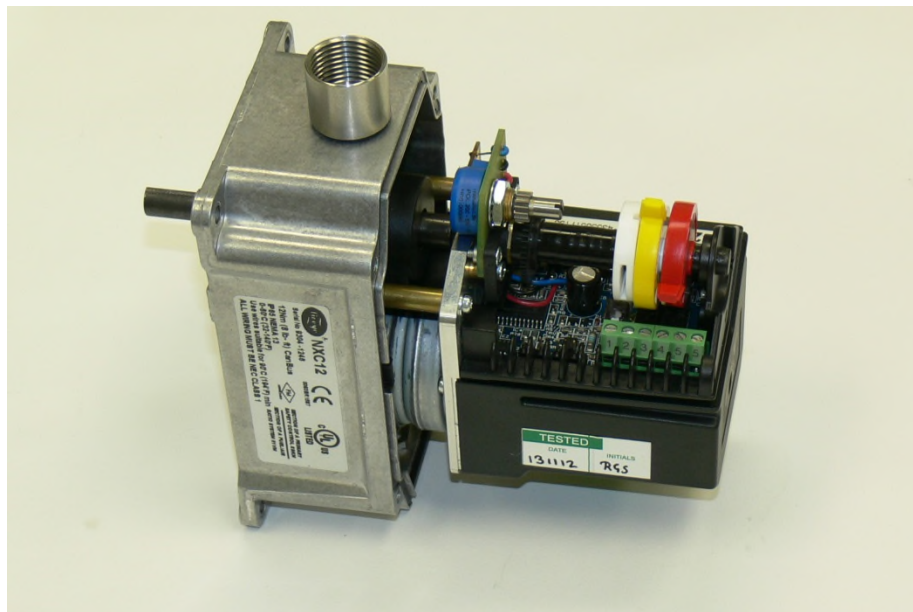
The first group of numbers is the serial number, 3456, the second group is the date code, 2012, week 34

Servomotor Replacement

PO (Off) Limit Switch Adjusters

Yellow: Factory Direction (CCW)

Red: CW Rotation.
Option 5.x set to 1

Direction is from shaft end with wire entry at top

Servomotor Replacement

Factory Default Direction "Anti Clockwise" (CCW) Position of Limiters

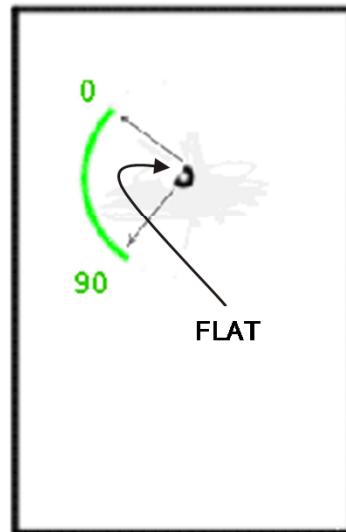Alternate Direction "Clockwise" (CW) Position of Limiters
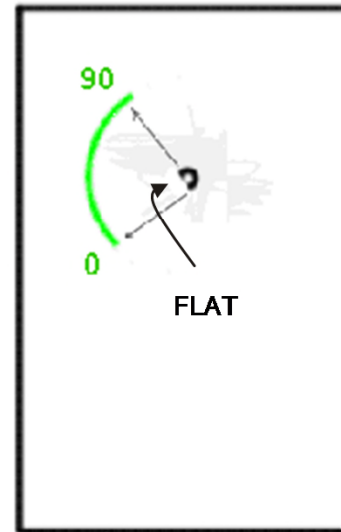
NEXUS

Servomotor Replacement

Shaft Positions as viewed from Shaft End
For NXC04, NXC12, NXC20, NXC40 ONLY

9 to 12
O'clock

0

90

FLAT

P0
Option Parameter 5.x
Set to 0

6 to 9
O'clock

90

0

FLAT

P0
Option Parameter 5.x
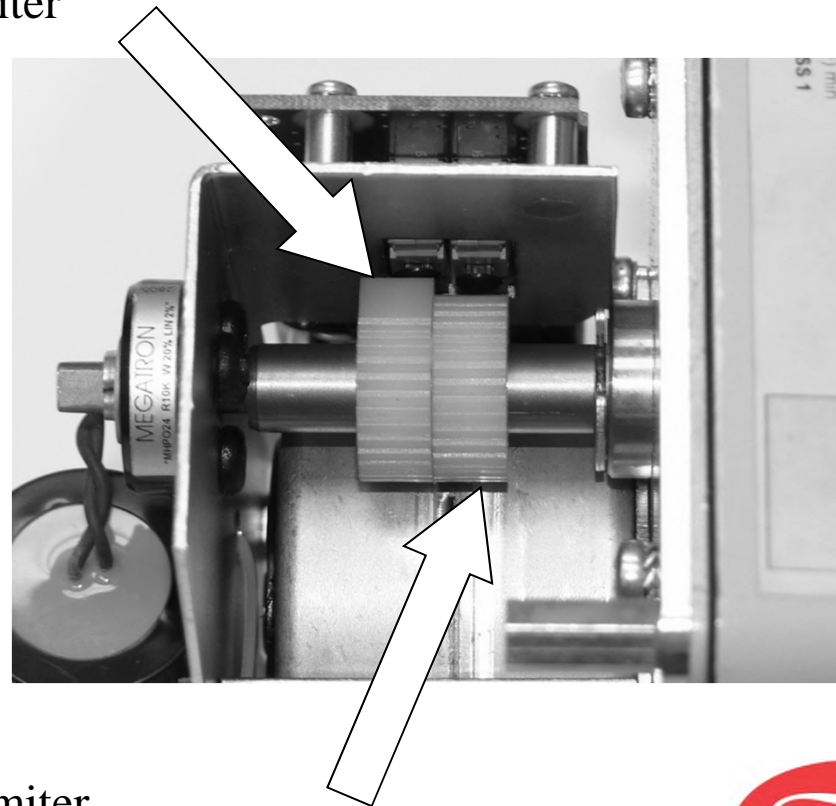Set to 1

fireye
United Technologies

Servomotor Replacement

Counter-clockwise limiter

NXC40 Servomotor has no "fine adjustment" screw. These cams are only friction tight.`

Clockwise limiter

fireye
United Technologies

Servomotor Replacement

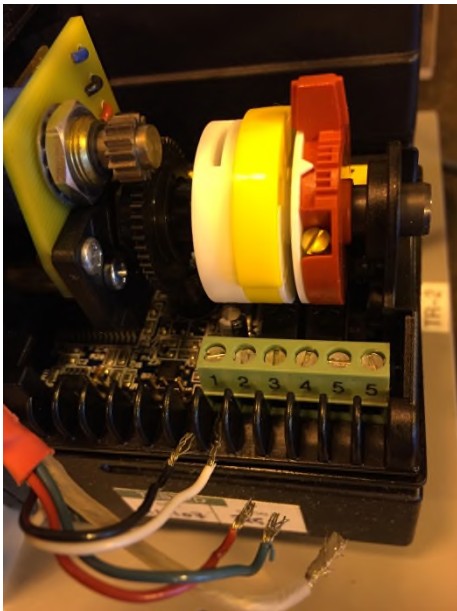For this example, the gas servo will be replaced on the trainer.

Note the position of the flat on the gas servo. It drives CW to open.

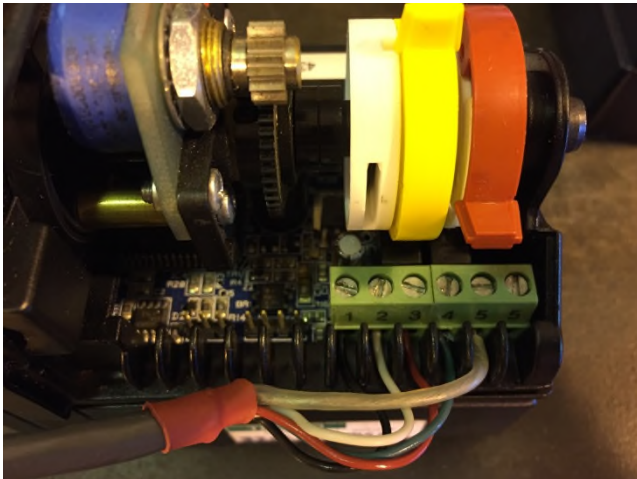# Servomotor Replacement

Power down the control

Disconnect the
wiring from the servo

Disconnect coupling

Servomotor Replacement

Connect wiring to new servo.

Do not connect coupling at this time

Power up control

Servomotor Replacement

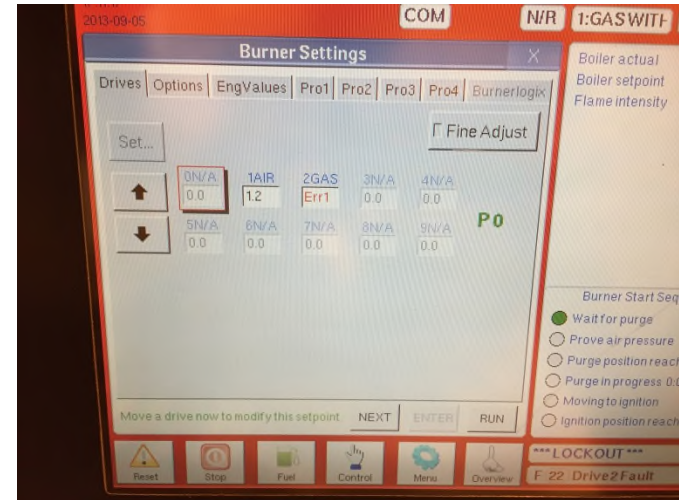The servo replaced will show a fault on power up

Servomotor Replacement

903 Enter 38 Enter

903038 Enter

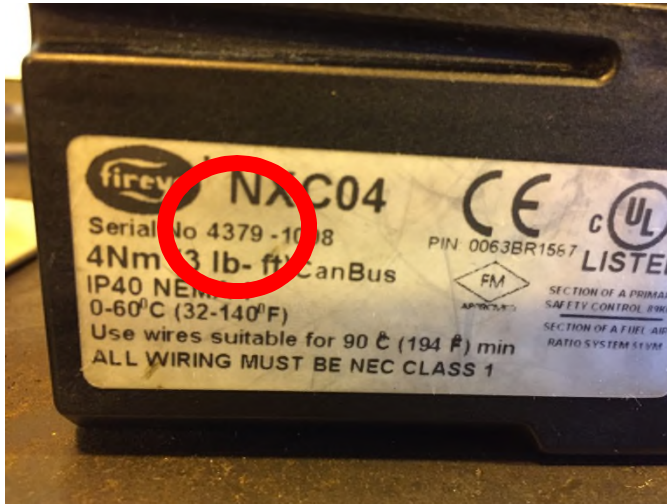Go into full commissioning passcode

Servomotor Replacement

Go to option 3.XX to select new servo serial number

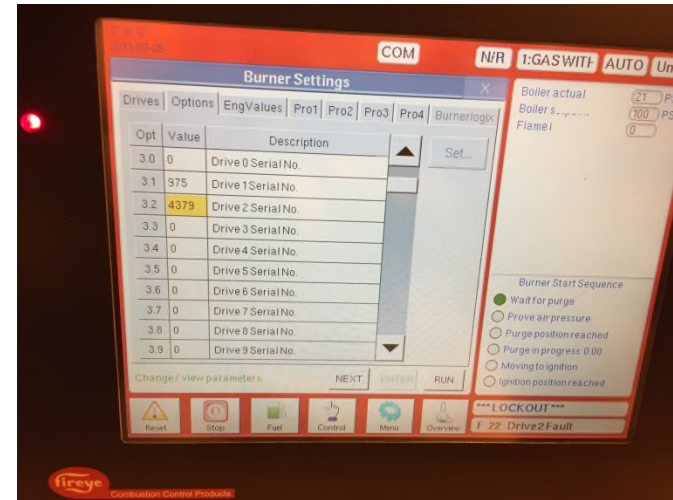# Servomotor Replacement

Find first 4 digits of serial number
4379 in this example
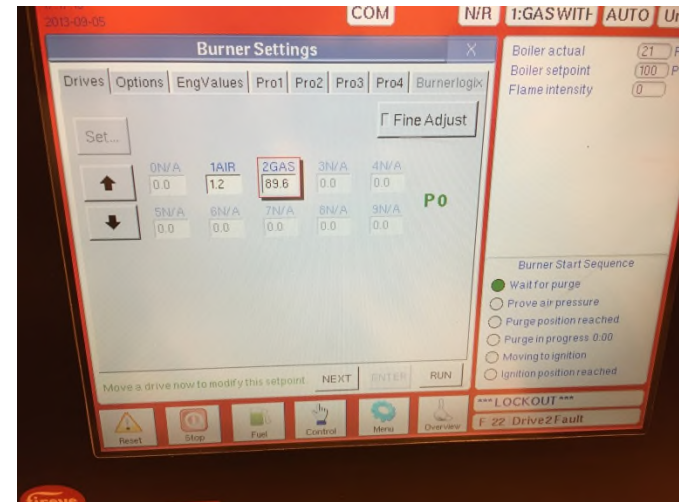
Servomotor Replacement

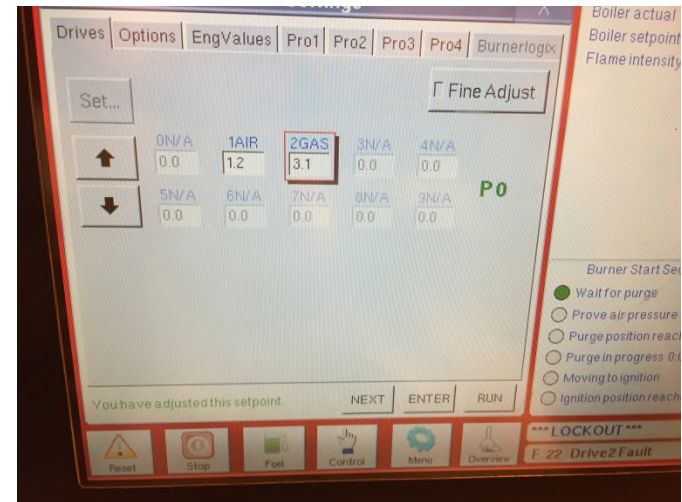

Select the new servo serial number

Servomotor Replacement

The gas servo is full open because it is reversed

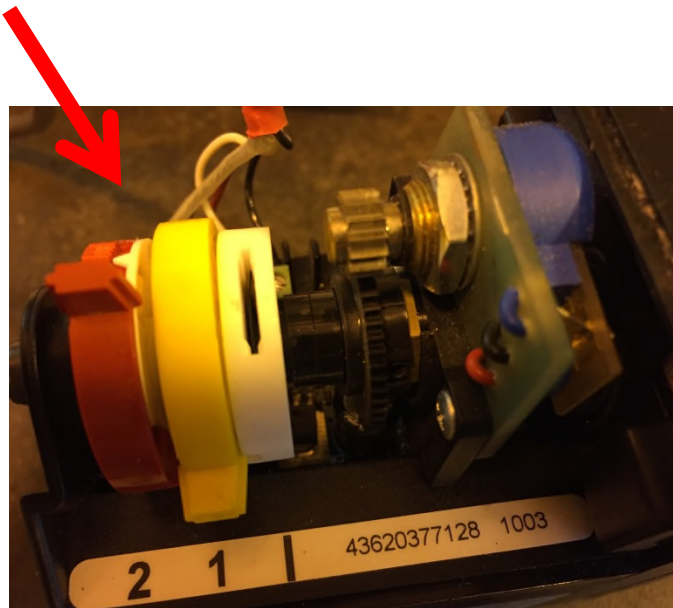# Servomotor Replacement
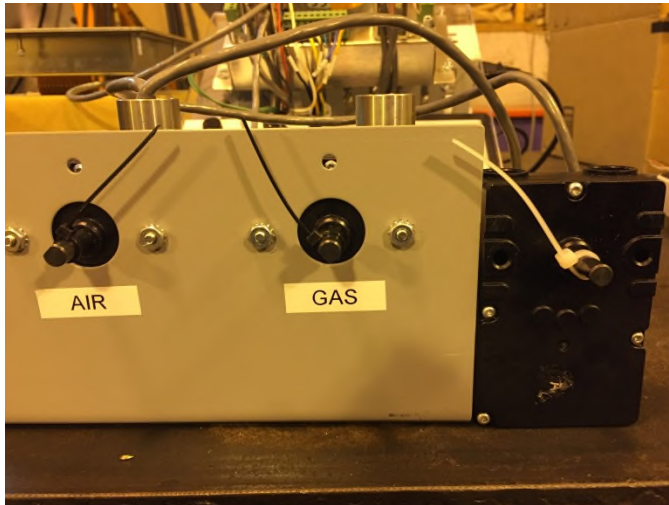

Drive servo to minimum position

Servomotor Replacement
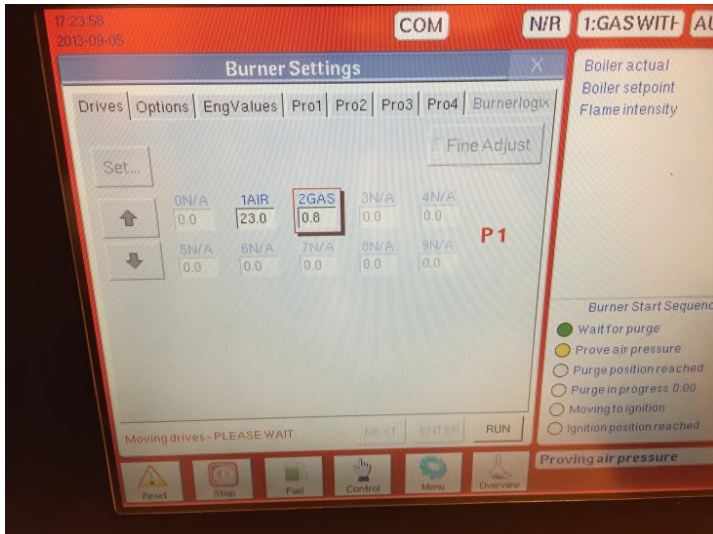
Adjust PO position
if necessary

Servomotor Replacement

Connect new servo
 to coupling
 and check travel

Servomotor Replacement

"Enter" the P0 setting

Start burner and "Next" completely though the curve

Check combustion at each point

Exit commissioning