Data file information

Data is tab delineated texte following fields are columnar as follows:

50 (Scan rate)
Pressure\Fluid temperature\RPCU Temperature\Output stroke\Output force\Input stroke\Input force

Time between data points is inverse scan rate. Ie. 50 scans/sec = .02 secs/scan

Note:
1. **Stroke** is in inches on a 5 inch total stroke
2. **Output** is a calculated value based on different hydraulic pressure across a driven cylinder.
3. **Input force** is in lbs.
4. **Temperatures** are in °F.
5. **Pressure** is in PSIG

Filenames are arranged by test unit and date of test and are numbered sequentially. Name modifier is state of hydraulic system. AON = A system only on.

File attachment comments

Production Unit

8/22/96

- EUNIT-#01 Setup run, fixture verification
- EUNIT-#02 Setup run, fixture verification
- EUNIT-#03 Setup run, fixture verification
- EUNIT-#04 Setup run, fixture verification
- EUNIT-#05 Setup run, fixture verification, pneumatic input cylinder flow ctls closed
- EUNIT-#06 Setup run, fixture verification
- EUNIT-#07 Setup run, fixture verification
- EUNIT-#08 Setup run, fixture verification, pneumatic input cylinder flow ctls ½-3/4 open
- EUNIT-#09 Setup run, fixture verification, pneumatic input cylinder flow ctls 1-½ open
- EUNIT-#10 Setup run, fixture verification, pneumatic input cylinder flow ctls full open
- EUNIT-#11 Setup run, fixture verification, pneumatic input cylinder flow ctls 2 open
- EUNIT-#12 Setup run, fixture verification, pneumatic input cylinder flow ctls ½ open
- EUNIT-#13 Setup run, fixture verification, y/d ON with hardovers
- EUNIT-#14 Setup run, fixture verification, y/d ON with .3 Hz sin
- EUNIT-#15 Setup run, fixture verification, troubleshooting y/d

8/23/96

- EUNIT-#01 Setup run, room temp, input cylinder flow control ½ and full open
- EUNIT-#02 Setup run, room temp, input cylinder flow control 2 open
- EUNIT-#03 Setup run, room temp, input cylinder flow control 2 open
- EUNIT-#04 Setup run, y/d on; hardovers, sin setup
- EUNIT-#05 Setup run, cold soak, a) A system OFF, A system ON, c) press reduced to 500 d) 0° achieved
- EUNIT-#06 Setup run, cold soak, a) input cylinder flow control 2 open, b) input cylinder flow control 1/2 open, c) y/d hardover
- EUNIT-#07 Setup run, y/d On-sin .3 Hz
- EUNIT-#08, Setup run, Bypass A system
- EUNIT-#09, Setup run, Bypass B system
- EUNIT-#10, Setup run, cold soak , note: output stroke polarity reversed to match input direction

- EUNIT-#11, Setup run, cold run y/d ON
- EUNIT-#12 Setup run, cold soak, input cylinder flow control ½
- EUNIT-#13 Setup run, cold soak, input cylinder flow control 2 open
- EUNIT-#14 Setup run, cold soak
- EUNIT-#15 Setup run, fluid thermal cycle test
- EUNIT-#16 Setup run, warmup
- EUNIT-#17 Setup run, lid off chamber

8/26/96

- 2-3_A_B Cold soak
- EUNIT-#01 example strokes at room temp
- EUNIT-#02 cold soak canceled
- 2-4A_A_B Cold soak, 50 cycle test-input force 60-70 lbs
- 2-4B_A_B repeat 2-4A
- 2-4C_A_B repeat 2-4A; 10 cycles; input cylinder flow control ¼ open
- 2-5_A_B manual hand input-no input data
- 2-7_A_B y/d ON
- 2-9A_A_B y/d On sine 1 Hz
- 2-9B_A_B y/d On sine .3 Hz
- 3-0A_A_B Cold soak
- 3-0B_A_B Cold soak w/ yaw damper solenoid ON at 3000 psig
- 4-1_A_B Cold soak a) input cylinder flow control ¼ open, b) input cylinder flow control 2 open, c) A system OFF y/d ON

8/27/96

- 4-5_A_B Cold run, a) y/d solenoid on-sine wave input b) pneumatic input cylinder choke full open, c) pneumatic input cylinder choke 1/4 open
- 4-5B_A_B Cold run, y/d on, repeat of above
- 3-1_A_B temperature rise and stabilization
- 3-2_A_B y/d ON-sine 1 Hz
- 3-3_A_B input cycles a) pneumatic input cylinder choke 1/4 open, b) pneumatic input cylinder choke 2 open

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Accident Unit

8/27/96

- SOAKDOWN Cold soak, precedes all 8/27/96 testing
- 3-1A_A_B Cold run, a) y/d solenoid on, temp. stabilization, b) pneumatic input cylinder choke full open, c) pneumatic input cylinder choke 1/4 open
- 3-1B_A_B Cold run, a) open hot fluid
- 3-1_AON Cold run A system only,
- 3-2_AON Cold run A system only, a) high speed input, b) slow seed input, c)high speed extend/slow speed retract
- 3-1A_BON Cold run B system only, a)y/d on sine input
- 3-2A_BON Cold run B system only, a) pneumatic input cylinder choke 2 turns open, b) pneumatic input cylinder choke 1/4 turn open
- 3-1B_BON Cold run B system only
- 3-2b_BON Cold run B system only, a) pneumatic input cylinder choke 2 turns open, b) pneumatic input cylinder choke 1/4 turn open
- 3-2_A_B Cold run, a) pneumatic input cylinder choke 2 turns open, b) pneumatic input cylinder choke 1/4 turn open
- 3-2A_AON Cold run A system only

8/27/96

- **3-0_A_B** Cold soak
- **4.0_A_B**
- **4-1A_B**
- **4-1B_B**
- **4-1_AON** Cold run A system only
- **4-1_BON** Cold run B system only
- **5-0_A_B** Setup a) y/d sin, b) 5 Hz, c) 3 Hz, d) 2 Hz, e) 5 Hz, f) 3 Hz, g) Input secondary actuation

8/28/96

- 5-1A_A_B Air Injection tests
- 5-1B_A_B Air Injection tests, y/d on-no command
- 5-1C_A_B Air Injection tests, .3 Hz sin y/d
- 5-1D_A_B Air Injection tests, A system only, .3 Hz sin y/d
- 5-1E_A_B Air Injection tests, B system only, .3 Hz sin y/d
- 6-1A_A_B yaw damper hardovers
- 6-1B_A_B yaw damper hardovers
- 7-1A_A_B silting tests. Note changed input position during tests
- 7-1b_A_B a) removed input cylinder pin at approx 20 secs, b) removed input cylinder pin at approx 290 secs
- 7-1C_A_B immediately following silting (1 hr, 12 min) a) pull scale at input arm 1.5 lbf-60 secs, b) pull scale at input arm 1.75 lbf-220 secs, c) pull scale at input arm 1.75 lbf-295 secs, note: with no load on input arm, actuator drifted to extend. Breakaway measured at input arm = 4 lbs with y/d solenoid OFF.
- MANUAL Hand inputs to arm
- 4-1A-SYS System A only Note: retract stroke hesitated sveral times; extend OK Disconnected input arm and tested pneumatic cylinder-OK
- 4-1B-SYS System B only