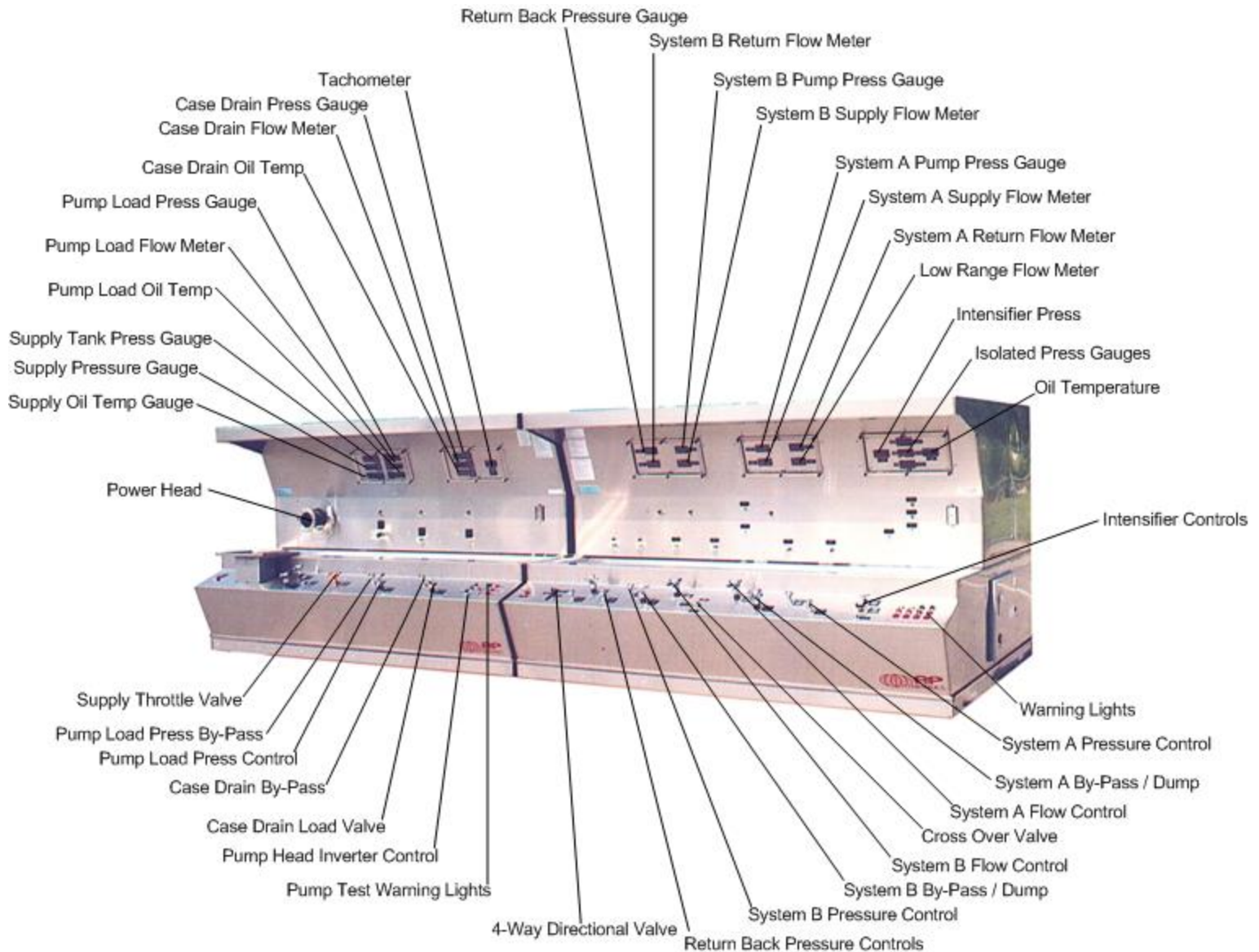


# UNIVERSAL, INDEPENDENT DUAL SYSTEM HYDRAULIC TEST STAND

**920  
Series**

*Our Competent Engineering Staff Ensures You are Provided with the Exact  
Hydraulic Testing Equipment for Current and Future Applications  
Which Will Increase Your Profitability*

**2 Year  
Warranty**



Model 07-924-05

## **Universal, Independent Dual System Hydraulic Test Stand Features:**

1. Dual Independent Hydraulic Test System for Testing All Hydraulic Components Such As Reducing Valves, Linear Actuators and Related Components
2. Universal Hydraulic Test Stand Hydraulic Pump and Motor Test System for Testing All Hydraulic Pumps and Motors



9283 Industrial Blvd. Leland, NC 28451 USA  
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ap-hydraulics.com

# UNIVERSAL, INDEPENDENT DUAL SYSTEM HYDRAULIC TEST STAND

*Dual Independent Hydraulic Test System for Testing  
All Hydraulic Components Such As Reducing Valves, Linear  
Actuators, and Related Components*

## STANDARD FEATURES AND SPECIFICATIONS FOR THE DUAL INDEPENDENT HYDRAULIC TEST SYSTEM:

- **Completely Independent Dual System**
  - Each System May be Used Independently or Combined Together for Maximum Flows
  - Will Deliver Different Pressures and Flows Simultaneously
  - Two Separate Work Stations for System A & B
- **System A**
  1. Oilgear® Pump
  2. Lincoln® Motor
  3. Complete Pressure Adjustment (450 – 5000 PSI)
  4. Complete Flow Adjustment (0 – Full GPM)
  5. Pressure and Return Ports
  6. Digital Pressure Gauges (.25% Accuracy)
  7. Digital Supply and Return Flow Meters (1% Accuracy)
  8. Safety Over Pressure Relief Valve
  9. By-Pass Dump Valve
  10. Pump Flow Control Valve
  11. Pump Pressure Control Valve
- **System B**
  1. Oilgear® Pump
  2. Lincoln® Motor
  3. Complete Pressure Adjustment (450 – 5000 PSI)
  4. Complete Flow Adjustment (0 – Full GPM)
  5. Pressure and Return Ports
  6. Digital Pressure Gauges (.25% Accuracy)
  7. Digital Supply and Return Flow Meters (1% Accuracy)
  8. Safety Over Pressure Relief Valve
  9. By-Pass Dump Valve
  10. Pump Flow Control Valve
  11. Pump Pressure Control Valve
- **Five Pumps**
  1. Oilgear® System A Pressure Compensated Pump
  2. Oilgear® System B Pressure Compensated Pump
  3. S/C® High Pressure Intensifier Pump (10,000 PSI)
  4. Work Sink Drain Pump
  5. Reservoir Kidney Loop Pump
- **Instrumentation – All Gauges Feature Easy Programmability for Field Calibration**
  - **Five Digital Flow Meters (1% Accuracy)**
    1. System A Pump Supply Flow
    2. System B Pump Supply Flow
    3. System A Return Flow
    4. System B Return Flow
    5. Low Range (.4 – 7 GPM)
  - **Seven Digital Pressure Gauges (.25% Accuracy)**
    1. System A Supply Pressure
    2. System B Supply Pressure
    3. Return Back Pressure
    4. Low Independent Pressure Gauge
    5. Medium Independent Pressure Gauge
    6. High Independent Pressure Gauge
    7. Intensifier Pressure Gauge
- **Air Over Oil Intensifier**
  1. Digital Pressure Gauge (.25% Accuracy)
  2. Air Shut-Off Valve
  3. Air Regulator
  4. Safety Over Pressure Relief Valve
  5. By-Pass Dump Valve
  6. Dedicated Port
- **Safety Features**
  1. Two Ergonomically Located Emergency Stop Switches
  2. Safety Over Pressure Relief Valves for both System A and B
  3. Safety Drip Pan Completely Covers Bottom to Ensure Clean Floors
  4. All Electrical Components Installed in NEMA 4, 12 Enclosure
  5. All Gauges are Fully Enclosed in NEMA 4, 12 Enclosure with a Clear Front Safety Glass Cover
  6. Operational LED Warning Indicator Lights
  7. Dual Heavy Duty Floor Locks to Ensure Stability
  8. Optional Safety Glass Sliding Doors for Work Sink

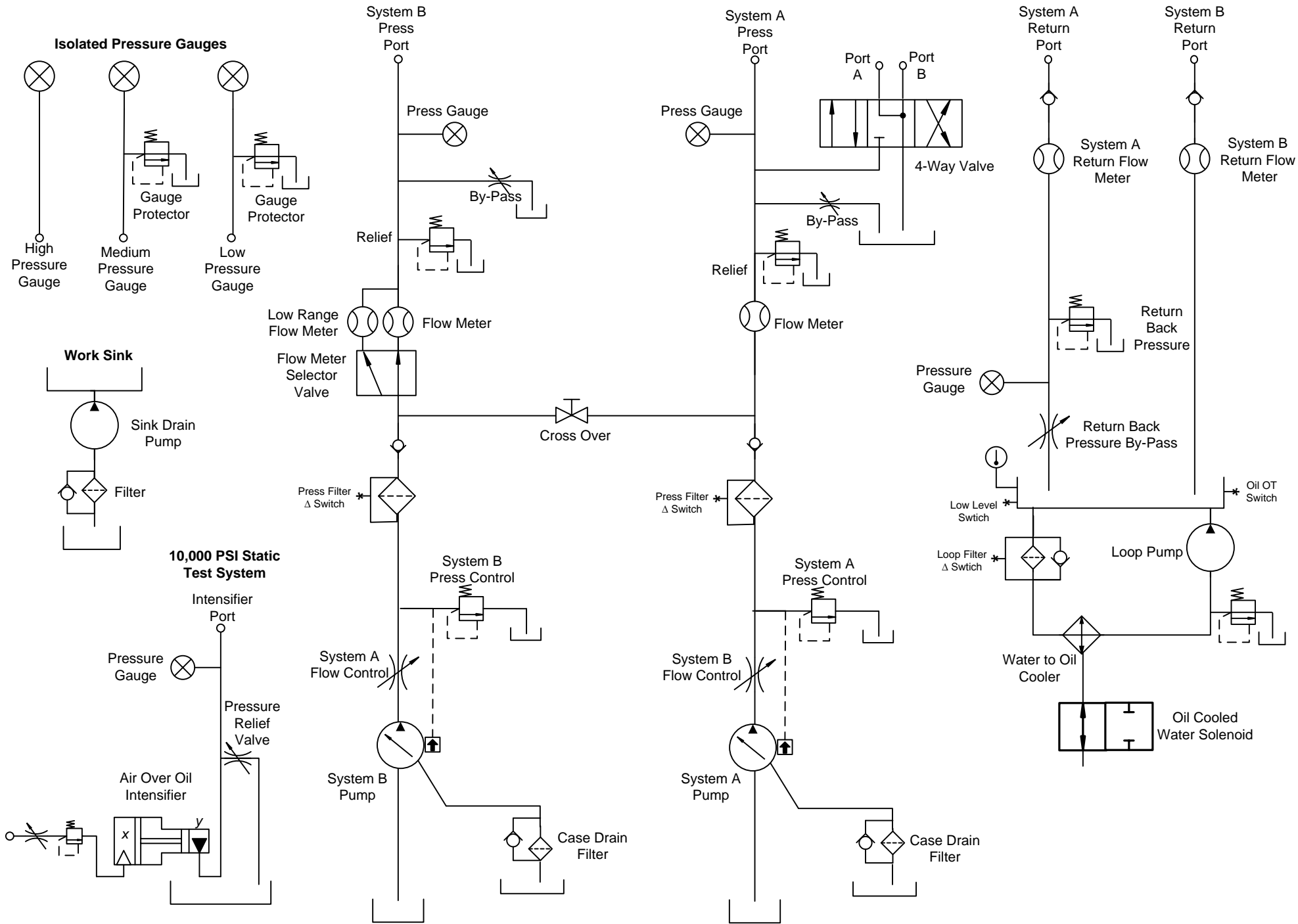


# UNIVERSAL, INDEPENDENT DUAL SYSTEM HYDRAULIC TEST STAND

*Dual Independent Hydraulic Test System for Testing  
All Hydraulic Components Such As Reducing Valves, Linear  
Actuators, and Related Components*

- **Super Clean Filtration – Industry Leading Filtration Ensures Quality While Increasing Aircraft Component Life**
- System A & B High Efficiency, Non-Bypass Pressure Filters (3 Micron Absolute)
- Reservoir Kidney Loop Filter (3 Micron Absolute)
- Sink Drain Filter (3 Micron Absolute)
- Reservoir Fill Pump Filter (3 Micron Absolute)
- **4-Way Directional Flow Control Valve**  
Manually Operated 4-Way Directional Flow Control Valve with Complete Flow Control to Either Port A or Port B
- **Hedland® Digital Low Flow Return Meter** with Electric Selector Valve for Testing Internal Leakage of Components (.4 - 7 GPM Standard)
- **Operational Warning Lights**
  1. System A & B Pressure Filter Condition  
LED Warning Indicator for Clogged Conditions
  2. Kidney Loop Pump Filter Condition  
LED Warning Indicator for Clogged Conditions
  3. Reservoir Low Level LED Warning Indicator
  4. High Fluid Temperature LED Warning Indicator
- **3 Each Stand Alone Noshock® Pressure Gauges (.25% Accuracy)**  
\* Suggested Ranges 0-60 PSI, 0-1000 PSI, 0-7500 PSI
- Over Pressure Gauge Savers on All Gauges
- **Reservoir Kidney Loop Pump**
- Continuously Filters Fluid
- Continuously Cools Fluid
- **Automatic Oil Temperature Control**
- Panel Mounted Oil Temperature Set Point
- Digital Oil Temperature Gauge
- **Return Back Pressure for Dynamically Loading Components**
- Return Back Pressure By-Pass Valve
- Return Back Pressure, Pressure Adjustment Valve
- Return Back Pressure, Pressure Gauge
- Return Back Pressure Flow Meter
- **Additional Features**
- All Welded, 14 Gauge B3 (Brushed Finish) Stainless Steel Cabinet
- Illuminated Work Area Provided By Overhead Sink Light
- Test Port for all Pressure Gauges
- Easy Access Exterior Fluid Sampling Valve to Meet Quality Parameters
- Safety Drip Pan Completely Covers Bottom
- Work Sink with Perforated Metal Grating
- Heavy Duty All Welded 1/4" Thick Wall Tubing Frame with Fork Lift Brackets
- Easy Maneuvering Ensured by Two Fixed and Two Swivel Castors with Stability Provided by the Heavy Duty Floor Lock
- Work Sink Drain Pump with Filter (4 GPM)
- Durable Laser Engraved, Aluminum Placards
- Panel Mounted Operational Instructions
- Current Pressure Gauge and Flow Meter Certificates of Calibration





Series 920 Hydraulic Test Stand Schematic

# HYDRAULIC PUMP TEST STAND

*Universal Hydraulic Test Stand - Hydraulic Pump and Motor  
Test System for Testing All Variable and Fixed Displacement Pumps*

## STANDARD FEATURES AND SPECIFICATIONS FOR HYDRAULIC PUMP AND MOTOR TEST SYSTEM:

- **Supply Port**
  1. Digital Supply Pressure Gauge (.25% Accuracy)
  2. Supply Throttle
  3. Supply Pressure Adjustment (0-200 PSI)
  4. Digital Oil Temperature Gauge
  5. Automatic Supply Pressure Control
  6. Precise Supply Pressure Regulator
- **Pressure Port**
  1. Load Valve
  2. By-Pass Dump Valve
  3. Digital Pressure Gauge (.25% Accuracy - 0-5000 PSI)
  4. Digital Oil Temperature Gauge
  5. Digital High Pressure Flow Meter (1% Accuracy)
- **Case Drain Port**
  1. Load Valve
  2. By-Pass Dump Valve
  3. Digital Pressure Gauge (.25% Accuracy - 0-600 PSI)
  4. Digital Oil Temperature Gauge
  5. Digital Flow Meter (.4 - 7 GPM - 1% Accuracy)
  6. Case Drain Sump Tank  
Allows Pressure Adjustment from (0-200 PSI)
- **Super Clean Filtration – Industry Leading Filtration Ensures Quality While Increasing Aircraft Component Life**
  - Pump Outlet Filter
  - Supply Port Filter
  - Loop Pump Filter with LED Filter Condition Warning Indicator
  - Supply Tank Desiccant Filter
  - Sump Tank Filter
- **Instrumentation – All Gauges Feature Easy Programmability for Field Calibration**
  - **Two Digital Flow Meters (1% Accuracy)**
    1. Pump Flow Outlet (Refer Model Number for Flow Range)
    2. Case Drain Flow (.4 – 7 GPM)
  - **Four Digital Pressure Gauges (.25% Accuracy)**
    1. Supply Tank Pressure (0 - 200 PSI)
    2. Supply Port Pressure (0 - 200 PSI)
    3. Pump Outlet Pressure (0 – 5000 PSI)
    4. Case Drain Pressure (0 – 200 PSI)
- **Oil Temperature Control - Two Extra Capacity Oil Coolers to Ensure 100% Duty Cycle**
  1. Extra Capacity Pump Outlet Load Valve Oil Cooler
  2. Loop Pump Oil Cooler That Will Continuously Cool Fluid
- **Safety Features**
  1. Ergonomically Located Emergency Stop Switch
  2. Safety Over Pressure Relief Valve
  3. Safety Drip Pan Completely Covers Bottom to Ensure Clean Floors
  4. All Electrical Components Installed in NEMA 4, 12 Enclosure
  5. All Gauges are Fully Enclosed in NEMA 4. 12 Enclosure with a Clear Front Safety Glass Cover
  6. Operational LED Warning Indicator Lights
  7. Dual Heavy Duty Floor Locks to Ensure Stability
  8. Optional Safety Glass Sliding Doors for Work Sink
  9. Supply Tank Over Pressure Relief Valve



# HYDRAULIC PUMP TEST STAND

*Universal Hydraulic Test Stand - Hydraulic Pump and Motor  
Test System for Testing All Variable and Fixed Displacement Pumps*

**STANDARD FEATURES AND SPECIFICATIONS FOR  
HYDRAULIC PUMP AND MOTOR TEST SYSTEM:**

- The Pump Test Stand (PTS) is Designed for Testing All Fixed and Variable Displacement Pumps
- Precise Digital Pressure Gauges
- High Accuracy Digital Flow Meters
- Stainless Steel Pressure Supply Tank (175 Gallons)
- 5000 PSI Working Pressure
- All Gauges Enclosed in Skydrol Proof Enclosure
- Stainless Steel Construction
- Heavy Duty Work Sink with Grating
- Sink Drain Pump with Filter
- Loop Pump for Reservoir, Continuously Filters and Cools Fluid
- High Capacity Loop Pump Filter and Pump Outlet Filter
- LED Warning Indicators for Loop Filter, Supply Tank Low Level, and High Fluid Temperature
- Dual, Extra Capacity Water to Oil Coolers
- Automatic Oil Temp Control
- Guaranteed No Leaks, Safety Pan Completely Covers Bottom
- Current Pressure Gauge and Flow Meter  
Certificates of Calibration

**VARIABLE FREQUENCY DRIVE FEATURES:**

- Eaton® All Digital Variable Frequency
- Panel Mounted Controls
  1. Master Switch
  2. Emergency Stop Switch
  3. RPM Control Switch – High Resolution Potentiometer (0-6000 RPM Adjustable Speed) (10,000 RPM Available)
  4. Rotational Switch
- Digital Readouts
  1. Panel Mounted Tachometer RPM
  2. Motor Over Voltage
  3. Motor Over Current
  4. Motor Over Temperature
  5. Ground Fault
  6. Output Phase Supervision
  7. Encoder Fault

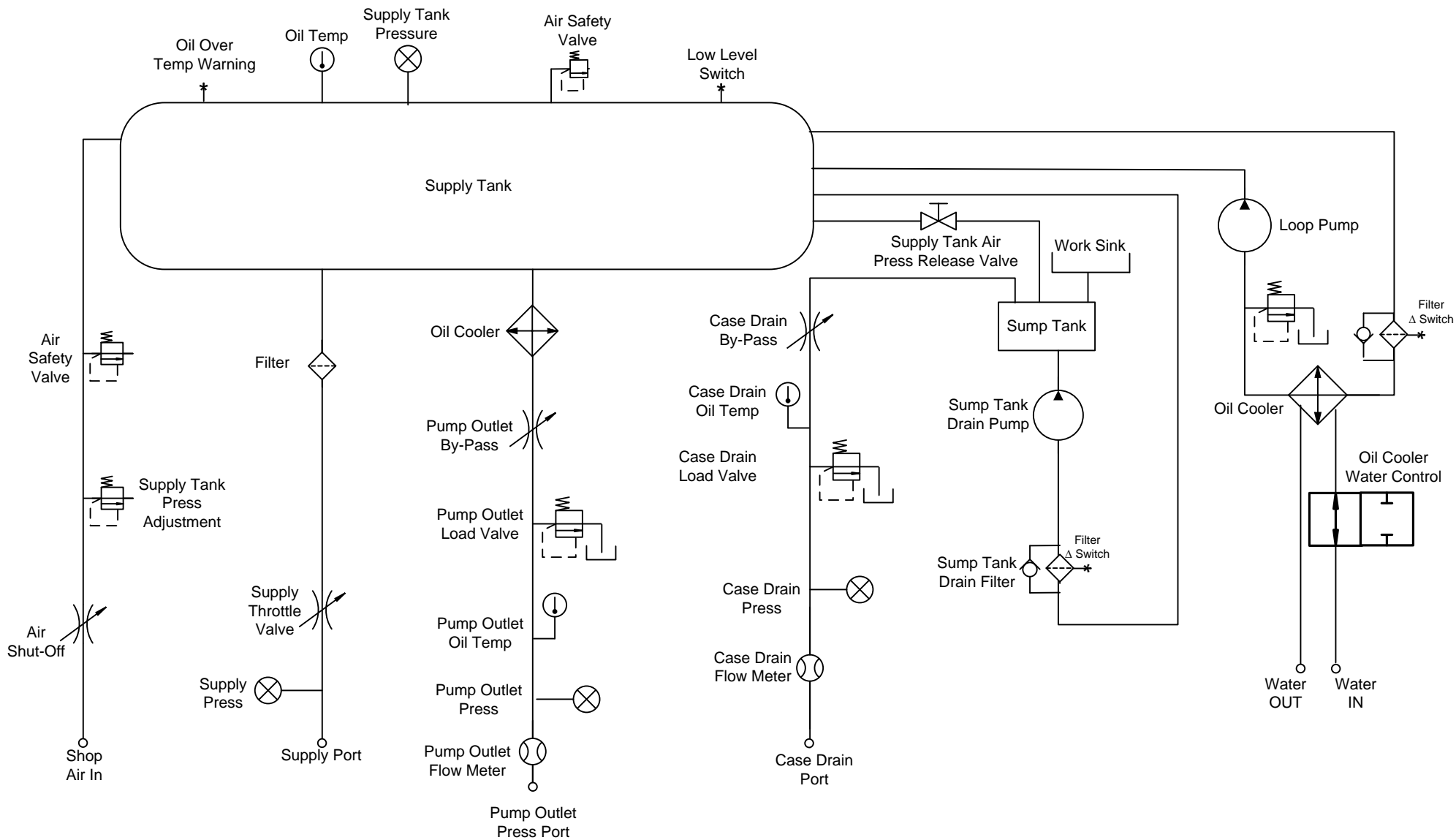
Dimensions: Length 225" Width 85" Height 88"

<b>SPECIFICATIONS:</b>						
SERIES MODEL	PUMP PRESSURE PSI (bar)	COMBINED TOTAL MOTOR HP (kw)	COMBINED TOTAL PUMP FLOW		PUMP TEST VARIABLE DRIVE HP (kw)	WEIGHT Lbs. (kg)
			50 Hz GPM (lpm)	60 Hz GPM (lpm)		
07-922-**	450 - 5000 PSI 30 - 340 bar	120 HP 88 kw	41 GPM 155 lpm	50 GPM 189 lpm	100 HP 75 kw	5700 lbs 2528 kg
07-924-**	450 - 5000 PSI 30 - 340 bar	150 HP 112 kw	54 GPM 204 lpm	65 GPM 246 lpm	125 HP 93 kw	6700 lbs 3039 kg
07-926-**	450 - 5000 PSI 30 - 340 bar	200 HP 149 kw	66 GPM 250 lpm	80 GPM 302 lpm	150 HP 112 kw	7700 lbs 3492 kg

\*\*Model by Fluid Type: Mil-H-5606 = 02 Mil-H-83282 = 03 Skydrol = 05



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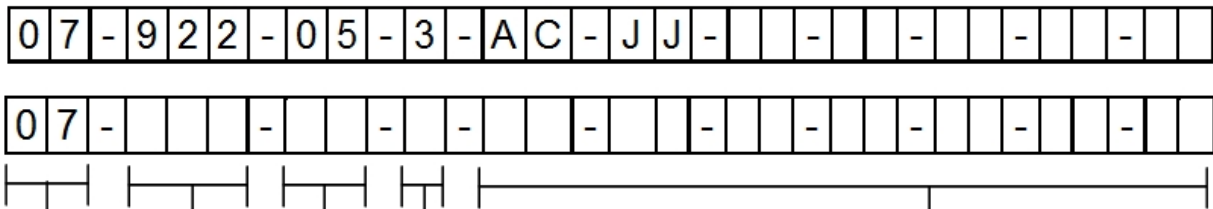
## Series 920 Pump Test Stand Schematic

# Ordering Instructions

- Step 1: Determine Size of the Hydraulic Test Stand Required, Refer to Aircraft's Component Overhaul Manuals For:
- A. Maximum (GPM) Gallons Per Minute
  - B. Maximum (PSI) Pound Per Square Inch
  - C. Testing Procedures and Operation of Components
- Step 2: Refer to Aircraft's Component Overhaul Manuals for Type of Hydraulic Fluid.
- Step 3: Determine the input voltage the Hydraulic Test Stand will be operated on. When ordering, the most common error is selecting incorrect input voltages 50 Hertz the flow will be reduced by 17%
- Step 4: Call A&P Hydraulics experienced sales staff for any questions for explanation of the complete range of Hydraulic Test Stand Options that we offer.

**EXAMPLE:**

Hydraulic Test Stand – 50 GPM @ 5000 PSI – Skydrol Fluid – 460 Volt 60 Hertz 3 Phase  
 Optional: Extra Pressure Gauge (0-60 PSI) and Safety Glass Doors



CHAR	GPM	LPM	PSI	BAR	HP	KW
922	50	189	5000	340	120	88
924	65	246	5000	340	150	112
926	80	302	5000	340	200	149

CHAR	FLUID TYPE
2	Mil-H-5606
3	Mil-H-83282
5	Skydrol
6	Mil-PRF-87257

CHAR	VOLT/FREQ/PHASE
0	208V60Hz/3ph
1	220V60Hz/3ph
2	308V60Hz/3ph
3	460V60Hz/3ph
4	575V60Hz/3ph
5	200V50Hz/3ph
6	220V50Hz/3ph
7	380V50Hz/3ph
8	415V50Hz/3ph
9	440V50Hz/3ph

**Isolated Digital Pressure Gauge with Port (.25% Accuracy)**

CHAR	OPTION DESCRIPTION
AB	Pressure Gauge (0-25 PSI)
AC	Pressure Gauge (0-60 PSI)
AD	Pressure Gauge (0-100 PSI)
AE	Pressure Gauge (0-500 PSI)
AF	Pressure Gauge (0-1000 PSI)
AG	Pressure Gauge (0-1500 PSI)
AH	Pressure Gauge (0-3000 PSI)
AI	Pressure Gauge (0-5000 PSI)
AK	Pressure Gauge 4-20ma Data Acquisition Output

**Isolated Digital Flow Meter with Port (1% Accuracy)**

CHAR	OPTION DESCRIPTION
BC	Flow Meter (.02-0.2 GPM)
BD	Flow Meter (.05-0.5 GPM)
BE	Flow Meter (0.1-1.0 GPM)
BF	Flow Meter (0.2-2.0 GPM)
BG	Flow Meter (1-10 GPM)
BH	Flow Meter (1-15 GPM)
BI	Flow Meter (2-25 GPM)
BJ	Flow Meter (2-50 GPM)
BK	Flow Meter (4-80 GPM)
BL	Flow Meter 4-20ma Data Acquisition Output
BM	High Precision Digital Flow Meter (.25% Accuracy)

CHAR	OPTION DESCRIPTION
JJ	Safety Glass Doors
KK	Custom Engineering
LL	Digital Rotary Torquemeter
RR	Rear Door Sound Proofing
SS	Rotary Torquemeter 10,000 RPM
WW	Second Language Operation Placards & Owner's Manual
XX	CE Compliant

