

# SALES & ENGINEERING DATA

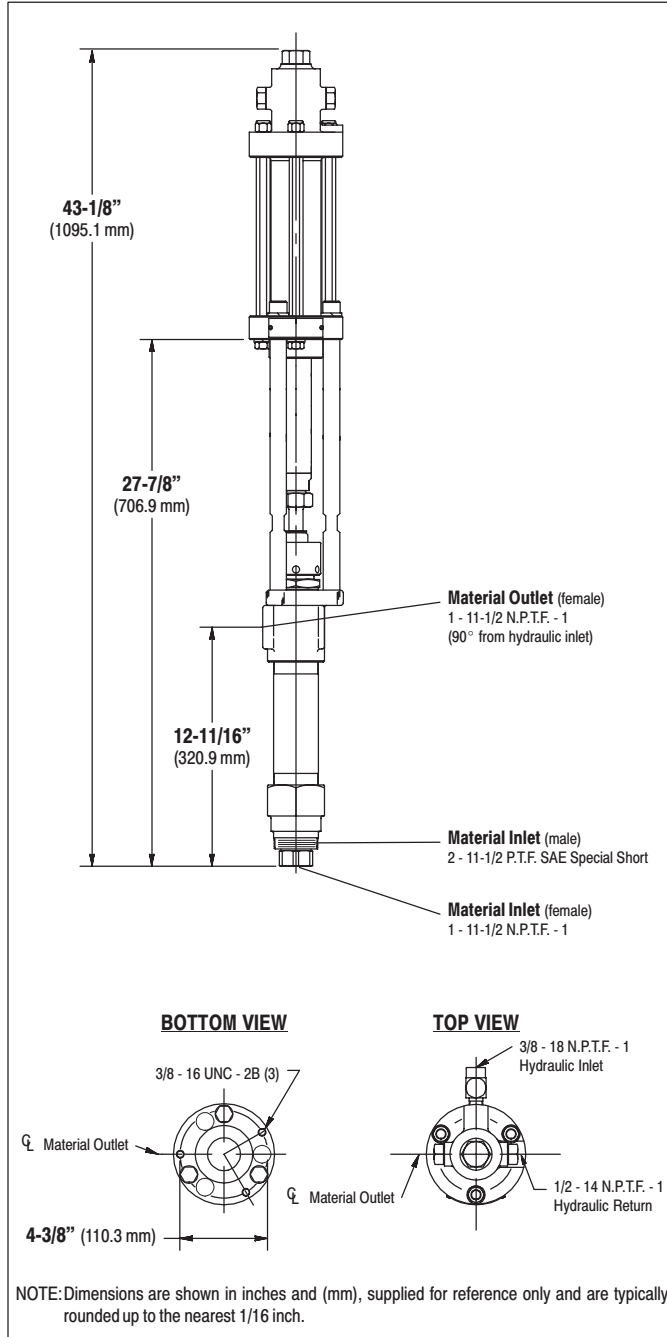
## 650944-X4X TWO-BALL PUMP SERIES

RATIO  
SERIES: **3.3:1**

FLUID P.S.I.  
RANGE: **165 - 3994**

RELEASED: 12-12-95  
REVISED: 5-26-10  
(REV. C) S-841

### DIMENSIONAL DATA



**ACCESSORIES:**  
67069 Wall Mount Bracket

### SPECIFICATIONS

#### CONSTRUCTION

|                                            |                                  |
|--------------------------------------------|----------------------------------|
| Model Series (refer to option chart below) | 650944-X4X                       |
| Type                                       | Hydraulically Operated, Two Ball |
| Ratio                                      | 3.3:1                            |
| Hydraulic Motor                            | 61588-100                        |
| Motor Repair Kit                           | 637164                           |
| Motor Size                                 | 2.062 sq." (13.3 sq. cm)         |
| Stroke                                     | 6" (15.2 cm)                     |
| Hydraulic Inlet (female)                   | 3/8 - 18 N.P.T.F. - 1            |
| Hydraulic Return (female)                  | 1/2 - 14 N.P.T.F. - 1            |
| Lower Pump End Series                      | 66301-X4X                        |
| Lower Pump Repair Kit                      | 637306-X43                       |
| Packing Options:                           |                                  |

|   |                                                                         |
|---|-------------------------------------------------------------------------|
| 3 | - Glass filled PTFE                                                     |
| C | - UHMW-PE                                                               |
| G | - UHMW-PE / Leather staggered                                           |
| P | - UHMW-PE / Glass filled PTFE staggered upper • UHMW-PE lower           |
| R | - Glass filled PTFE / UHMW-PE staggered upper • Glass filled PTFE lower |

|                          |                               |
|--------------------------|-------------------------------|
| Material Inlet (female)  | 1 - 11-1/2 N.P.T.F. - 1       |
| (male)                   | 2 - 11-1/2 P.T.F. SAE (short) |
| Material Outlet (female) | 1 - 11-1/2 N.P.T.F. - 1       |

#### MATERIALS OF CONSTRUCTION

|                            |                           |
|----------------------------|---------------------------|
| Lower Pump End Materials:① |                           |
| Outlet Body                | CF-8M Stainless Steel     |
| Cylinder (650944-XX3)      | 316 S.Stl Hard Chrome     |
| (650944-XXB)               | 316 S.Stl Ceramic coated  |
| Plunger (650944-XX3)       | 17-4 S.Stl Hard Chrome    |
| (650944-XXB)               | 17-4 S.Stl Ceramic coated |
| Upper Ball                 | Tungsten Carbide          |
| Upper Seat                 | Tungsten Carbide          |
| Lower Ball                 | 316 Stainless Steel       |
| Lower Seat                 | Tungsten Carbide          |
| Inlet Body                 | CF-8M Stainless Steel     |
| Weight                     | 41.3 lbs (18.7 kgs)       |

#### PERFORMANCE

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| Hydraulic Inlet Pressure Range         | 50 - 1200 p.s.i. (3.4 - 82.8 bar)    |
| Fluid Pressure Range                   | 165 - 3994 p.s.i. (11.4 - 275.4 bar) |
| Required H-power @ 50 c.p.m.           | 3.2 @ 1200 p.s.i. (82.8 bar)         |
| Hydraulic flow required @ 50 c.p.m.    | 4.9 g.p.m. (18.5 l.p.m.)             |
| Maximum rec'd Cycles / Minute          | 50                                   |
| Displacement In <sup>3</sup> Per Cycle | 7.434                                |
| Volume / Cycle                         | 4.1 oz. (121.8 ml)                   |
| Cycles Per Gallon                      | 31.1                                 |
| Flow @ 50 Cycles / Minute              | 1.6 g.p.m. (6.1 l.p.m.)              |
| Noise Level                            | N / A                                |
| Maximum Temperature Limit              | 130° F (54° C)                       |

Notes:

- ① All wetted components are passivated or electro-polished and have corrosion resistance characteristics of 300 Stainless Steel.

## PERFORMANCE CURVES

### TWO-BALL PUMP, 2.062 SQ." HYDRAULIC MOTOR, 6" STROKE, 3.3:1 RATIO

