

VARIABLE PISTON, OPEN LOOP PUMP

XD5-150

Displacement150.0 cc/rev
 Continuous Rated Pressure.....5,000 psi
 Peak Pressure5,800 psi
 Continuous Rated Shaft Speed2,400 RPM



Oilgear's Best Ideas, in a Mobile Package

XD5 takes Oilgear reliability and performance, and wraps it in a small mobile package. Like PVWJ and PVG, XD5 uses Hard-on-Hard and hydrobearing design philosophies, but combines those designs in a small, light mobile pump housing.

AVAILABLE WITH HORSEPOWER (TORQUE) LIMITING CONTROL

The pump will reduce delivery, as system pressure increases, to limit horsepower consumption.

BEST UNDER PRESSURE

XD5 offers 5,000 psi continuous rated pressure across the entire pump family.

MORE FLOW

XD5 design prioritizes inlet condition, meaning users can reach higher shaft speeds with only atmospheric pressure at the inlet.

PEAK POWER

Combining 5,000 psi continuous rated pressure with high shaft speeds allows XD5 to maximize the power output possible from a given displacement.

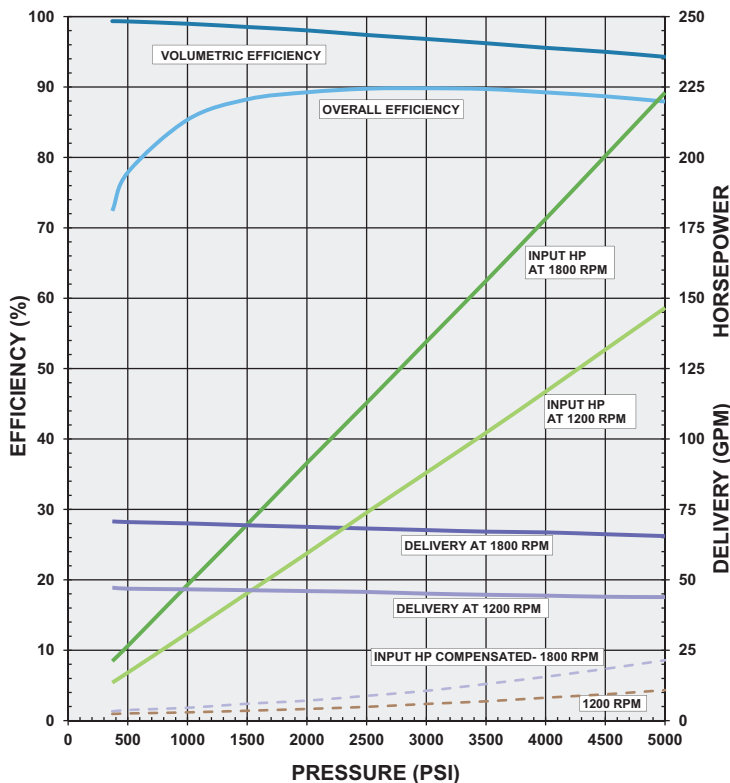
UP TO 32% SMALLER SPACE CLAIM

Smaller dimensional space claim makes first fit design and aftermarket drop-in-place easier.

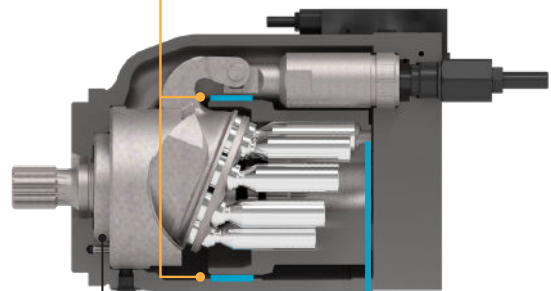
CLASS-LEADING POWER DENSITY

Combining a high power pump with a small overall package gives XD5 class-leading power density.

PERFORMANCE DATA



HYDRODYNAMIC BEARING



SAE HEAVY-DUTY SHAFT
AND WITH SEALED BEARINGS

HARDENED
RUNNING SURFACES

MODEL SPECIFICATIONS

FRAME SIZE MODEL			B-FRAME			C-FRAME	C/D-FRAME
			XD5-050	XD5-065	XD5-075	XD5-100	XD5-150
DRIVE	Maximum (RPM)		2700	2700	2700	2600	2400
	Minimum (RPM)		600	600	600	600	600
	Rotational Moment of Inertia (lbs.-in ²)		23	23	23	47	150
OUTPUT ¹	Pressure (PSIA)	Peak	5801	5801	5801	5801	5801
		Continuous	5000	5000	5000	5000	5000
		Minimum	100	100	100	100	150
	Nominal Volume at 1800 RPM, Rated Pressure, and Full Displacement (GPM)		22.0	28.8	33.3	42.4	63.0
CASE	Maximum Pressure (PSI) w/ Standard Shaft Seal		25	25	25	25	25
	Case Drain Port Size		#10 SAE	#10 SAE	#10 SAE	#12 SAE	#12 SAE
CONTROLS ²	Pressure Compensator	Pressure Controls (PSI) - Minimum Compensator Setting	500	500	500	500	500
		On-Stroke Time (ms) Simulating a step function at 1800 RPM, Continuous Rated Pressure, 500 psi P _Δ	60	60	60	80	240
		Off-Stroke Time (ms) Simulating a step function at 1800 RPM, Continuous Rated Pressure, 500 psi P _Δ	40	40	40	40	80
	Load Sense	Minimum Setting (PSI)	200	200	200	200	200
		Maximum Setting (PSI)	500	500	500	500	500
FLUID ³	Viscosity (SSU)	Minimum	65	65	65	65	65
		Maximum	2000	2000	2000	2000	2000
TEMPERATURE ⁴	Fluid Operating Range (F°)		14 to 190	14 to 190	14 to 190	14 to 190	14 to 190
	Fluid Minimum Starting (F°)		-40	-40	-40	-40	-40
	Fluid Maximum at Case Drain Port (F°)		230	230	230	230	230

1. Pumps should not be run at neutral for more than 30 consecutive minutes. For longer times, a 10% minimum stroke should be maintained. Be sure system and pumps are protected against overloads with high pressure relief valves. Peak pressure is the maximum pressure the unit can be operated at for 1% or less of every minute.
2. Fastest possible time, stroking times may be slower depending on conditions. Consult Oilgear Technical Sales.
3. See "Additional Notes" in Technical Bulletin 847019-C for filtration and contamination levels.
4. Minimum and maximum viscosities must be observed.

MODEL ORDERING INFORMATION | XD5-150



VARIABLE PUMP EXAMPLE	XD5 – 150 – D 1 U V – L D F Y – P – 1 N N /F SN – A2 – 10																									
BLOCK NUMBER	1	–	2	–	3	4	5	6	–	7	8	9	10	–	11	–	12a	12b	12c	12d	12e	13	–	14	–	15

1 = UNIT
XD5 Pump Family

2 = UNIT SIZE
150 150 cc/rev (9.16 cipr)

3 = HOUSING MOUNT
C With SAE C-2/4 Mounting
D With SAE D-4 Mounting

4 = DESIGN SERIES
1 Current

5 = DESIGN SERIES MODIFIER
U SAE Connections & Mounting

6 = SEALS
V Viton (Standard)
B Buna Nitrile

7 = ROTATION
L Left Hand (CCW)
R Right Hand (CW)

8 = VALVE PLATE TYPE
S Rear Ported
D Side Ported (<i>thru-shaft</i>)

9 = CONNECTION TYPE
F SAE Flange

10 = SHAFT TYPE
L 44-4 (SAE D Spline, 13 Tooth) 1
Y 44-1 (SAE D KEYED, Ø1.750) 1
S 38-4 (SAE C-C Spline, 17 Tooth) 2
K 32-4 (SAE C Spline, 14 Tooth) 2

11 = CONTROL TYPE
P Pressure Compensating

12a = CONTROL OPTION
1 Single Setting (standard)
R Remote Control

12b = SOLENOID VOLTAGE
N Non-Electrical Control

12c = CONNECTOR
N Non-Electrical Control

12d = MODULE
omit None
/F Load Sense without bleed
/B Load Sense with bleed 3
/H Horsepower (torque) Limiter
/G Horsepower (torque) Limiter with Load Sense without bleed

12e = INPUT HORSEPOWER @ 1800 RPM
Blank unless required option
Example: 070 = 70 HP Input

13 = VOLUME STOP
NN No Volume Stop
SN Adjustable Max. Volume Stop

14 = AUXILIARY ADAPTERS
Required for all thru-shaft units Blank for all non thru-shaft units
NN None
CP Coverplate
A2 82-2 (SAE A 2-Bolt) Adapter 16-4 (SAE A) Coupling, 9 Tooth
B2 101-2 (SAE B 2-Bolt) Adapter 22-4 (SAE B) Coupling, 13 Tooth
C2 127-2 (SAE C 2-Bolt) Adapter 32-4 (SAE C) Coupling, 14 Tooth
C4 127-4 (SAE C 4-Bolt) Adapter 32-4 (SAE C) Coupling, 14 Tooth
D4 152-4 (SAE D 4-Bolt) Adapter 1 44-4 (SAE D) Coupling, 13 Tooth

15 = GEAR PUMPS
Blank unless required option
05 8 ml/rev. (0.488 cipr)
07 11 ml/rev. (0.672 cipr)
10 16 ml/rev. (0.976 cipr)
14 23 ml/rev. (1.403 cipr)
20 33 ml/rev. (2.015 cipr)

1 -Unavailable with Housing Mount "C"

2 -Unavailable with Housing Mount "D"

3 -Unavailable with Control Option "R"

For non-standard requests, please contact technical sales. Subject to change without notice.

CONNECTION TABLE

PORT	FITTING
INLET	2.5" SAE Code 61 Flange
OUTLET	1.25" SAE Code 62 Flange
CASE DRAIN (2 LOCATIONS)	#12 SAE Port
LOAD SENSE / REMOTE PILOT PORT	#4 SAE Port
GAUGE PORT	#4 SAE Port

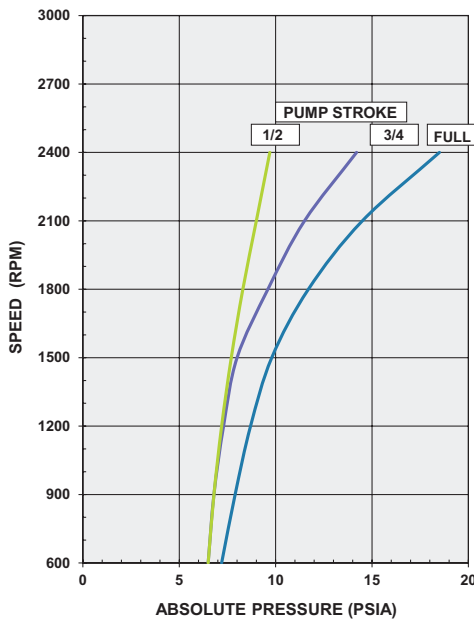
SHAFT TORQUE RATINGS

MODEL CODE DESIGNATOR	SHAFT SIZE	ALLOWABLE INPUT TORQUE, IN - LBS
K*	SAE C Spline - 14 Tooth, 12/24 Pitch	7,000
S	SAE C-C Spline - 17 Tooth, 12/24 Pitch	10,500
L	SAE D Spline - 13 Tooth, 8/16 Pitch	15,000
Y	SAE D Keyed - 1.75" Diameter	15,000

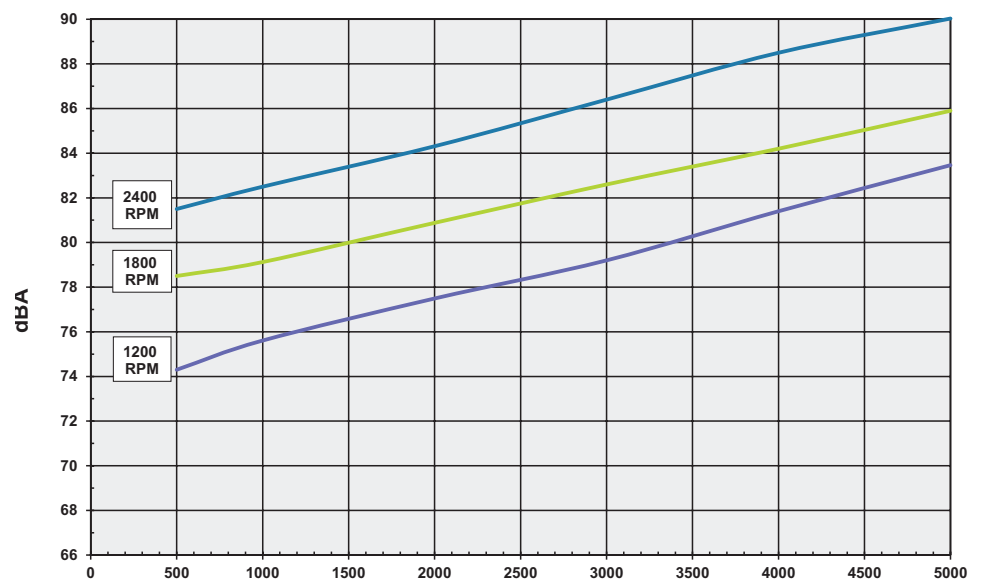
7500 IN-LB = MAXIMUM ALLOWABLE TORQUE APPLIED TO REAR OUTPUT

* Shaft is not rated for full pump torque at 5000 psi

INLET DATA

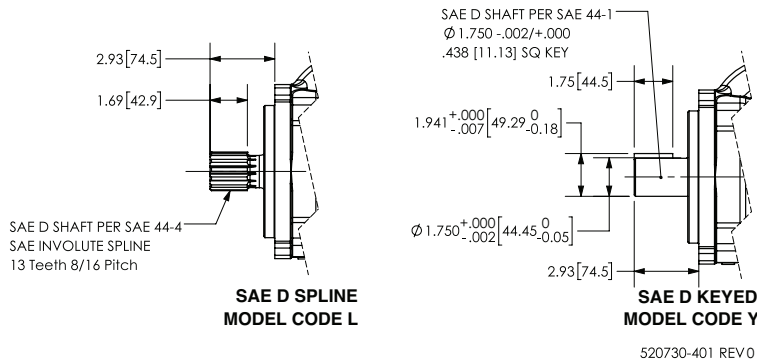


SOUND DATA

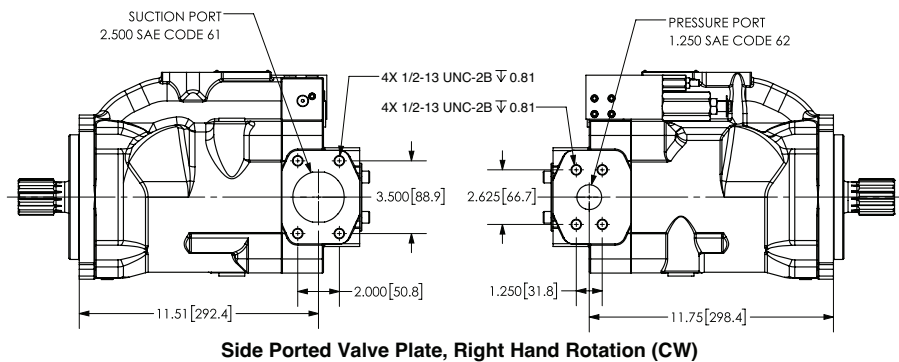


■ INSTALLATION DRAWING: D-FRAME PUMP

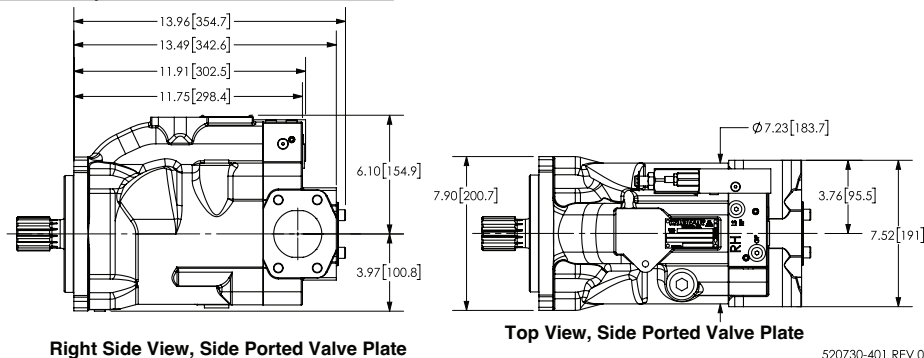
Driveshafts



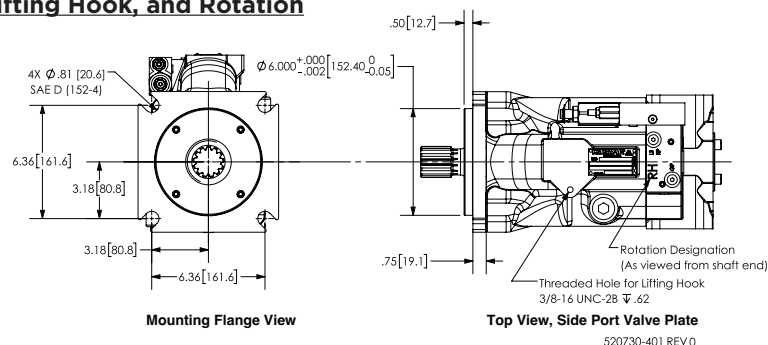
Valve Plate Views - Side Ported, Right Hand Rotation (CW), Ports reversed for CCW Pump



Clearance Dimensions, Side Ported Valve Plate

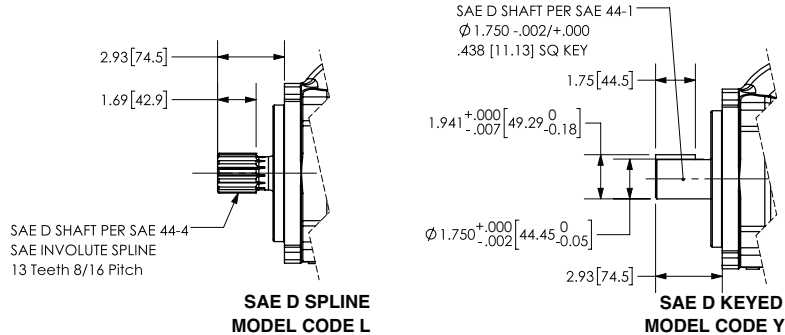


Mounting Flange, Lifting Hook, and Rotation



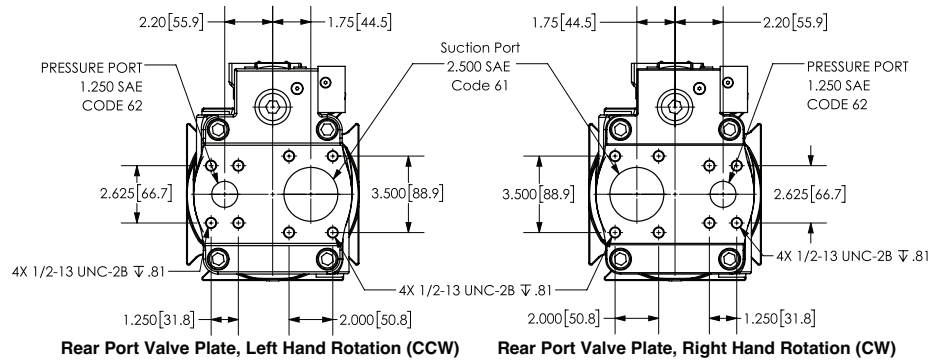
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Driveshafts



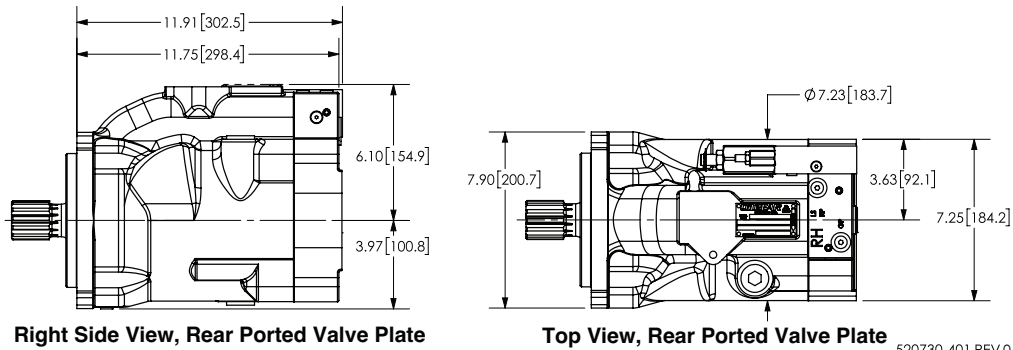
520730-401 REV 0

Valve Plate Views - Rear Ported



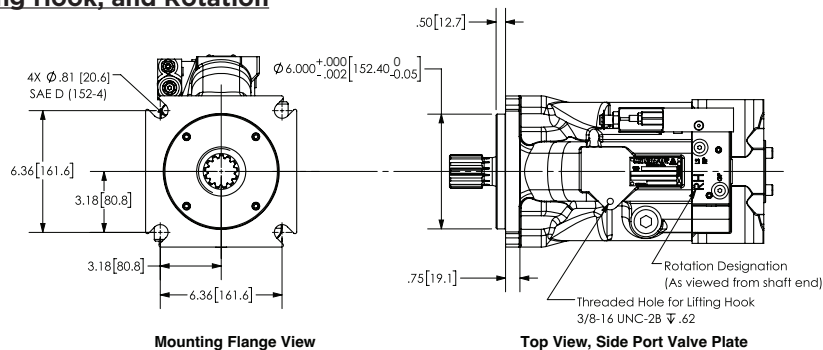
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Clearance Dimensions, Rear Ported Valve Plate



520730-401 REV 0

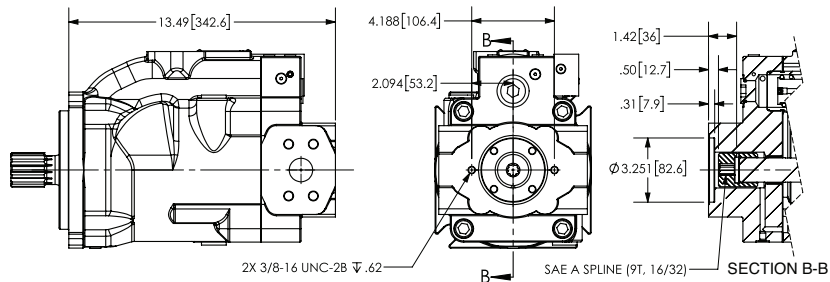
Mounting Flange, Lifting Hook, and Rotation



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■ INSTALLATION DRAWING: D-FRAME PUMP

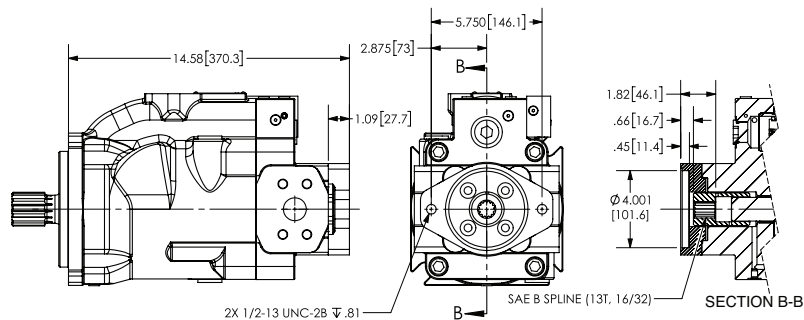
SAE A (82-2) Mounting Adapter



SAE A (82-2) MOUNTING ADAPTER

5 0730-401 REV 0

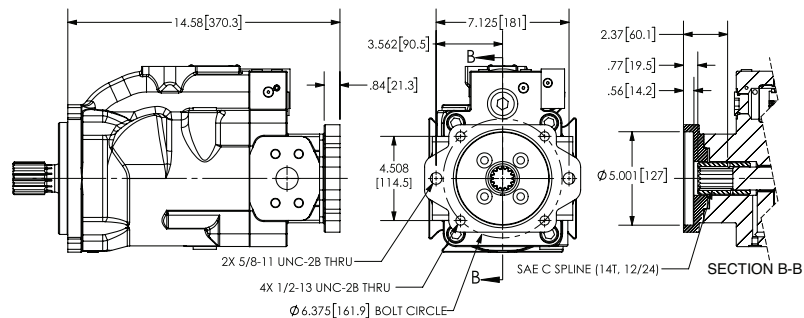
SAE B (101-2) Mounting Adapter



SAE B (101-2) MOUNTING ADAPTER

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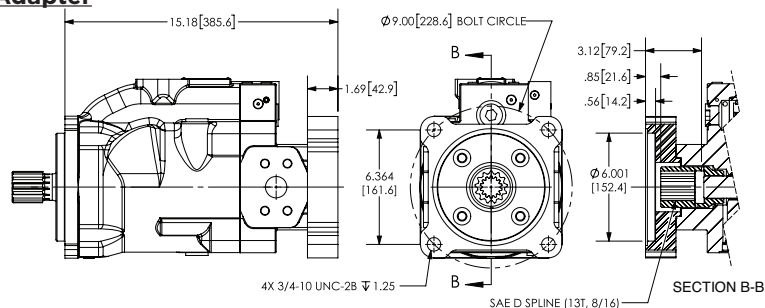
SAE C (127-2/4) Mounting Adapter



SAE C (127-2/4) MOUNTING ADAPTER

520730-401 REV 0

SAE D (152-4) Mounting Adapter

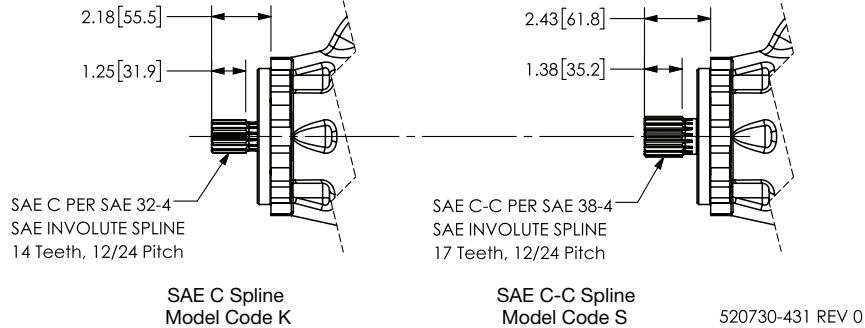


SAE D (152-4) MOUNTING ADAPTER

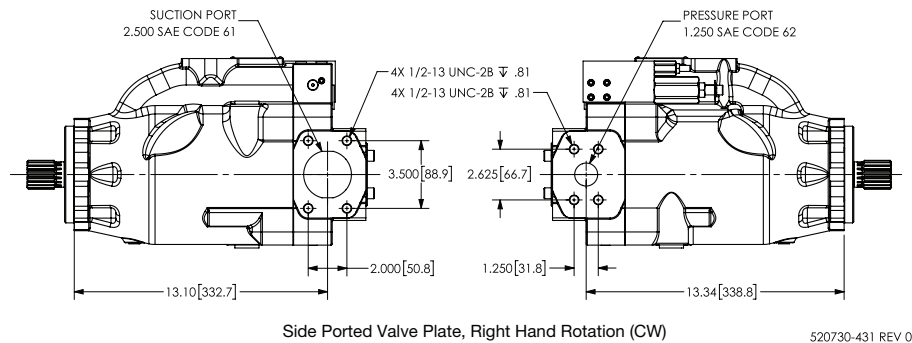
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■ INSTALLATION DRAWING: C-FRAME PUMP

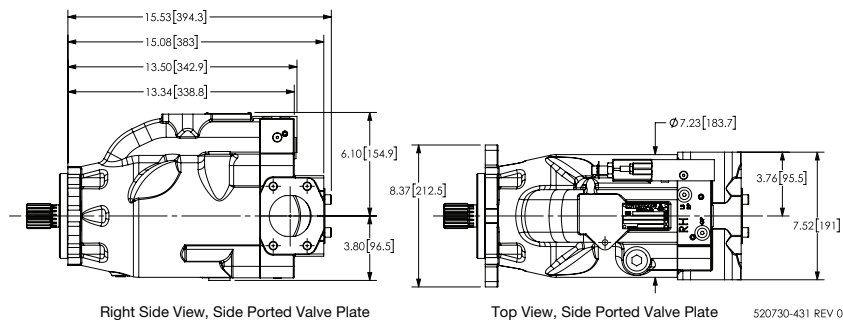
Driveshafts



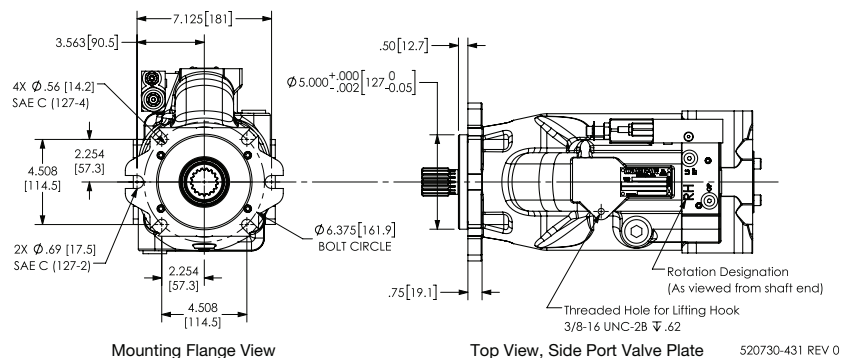
Valve Plate View, Side Ported, Right Hand Rotation (CW), Ports Reversed for CCW Pump



Clearance Dimensions, Rear Ported Valve Plate

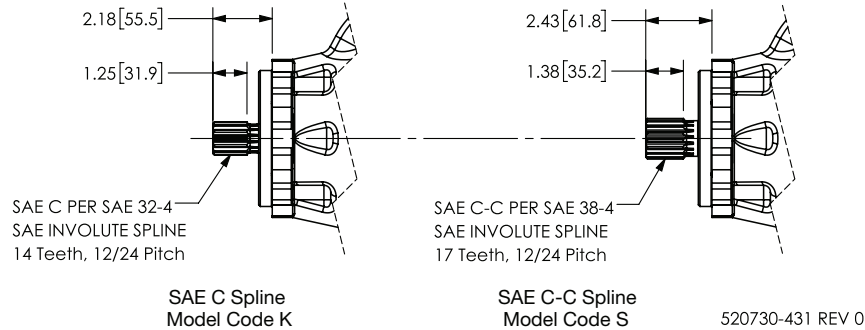


Mounting Flange, Lifting Hook, and Rotation

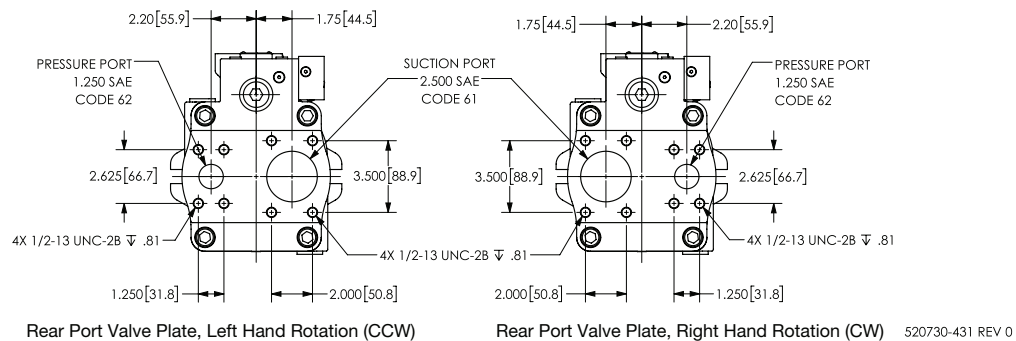


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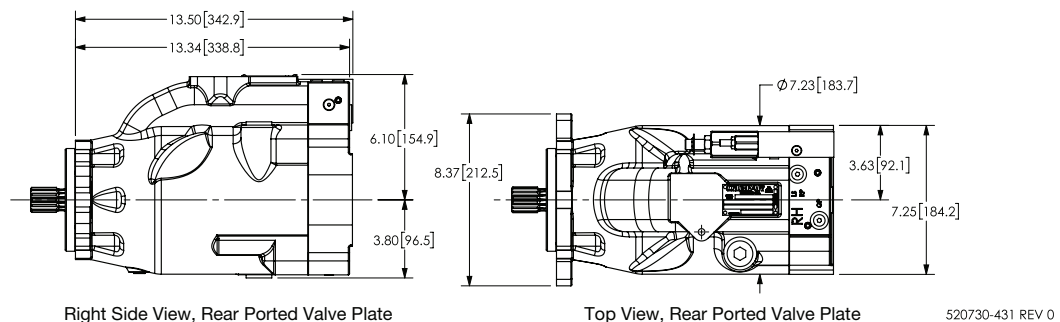
Driveshafts



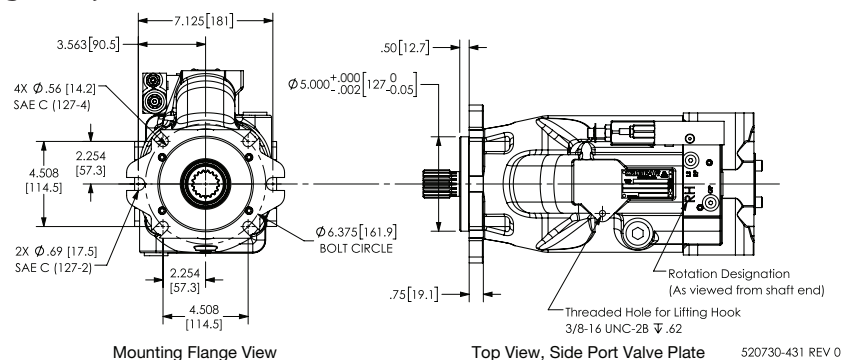
Valve Plate Views - Rear Ported



Clearance Dimensions, Rear Ported Valve Plate

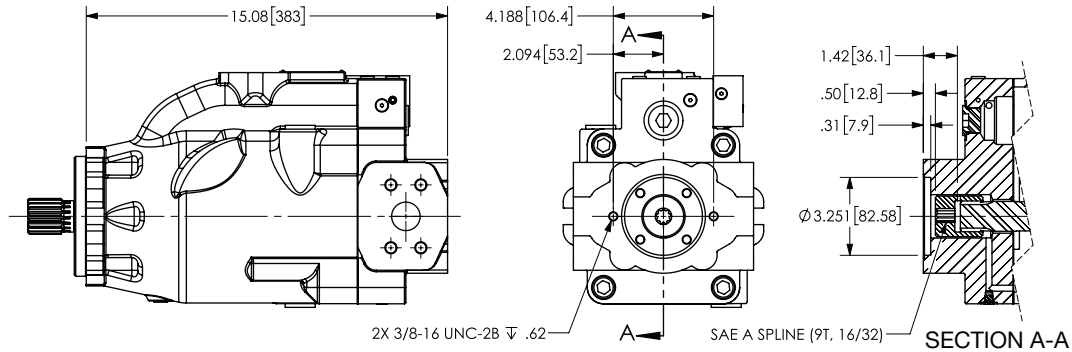


Mounting Flange, Lifting Hook, and Rotation



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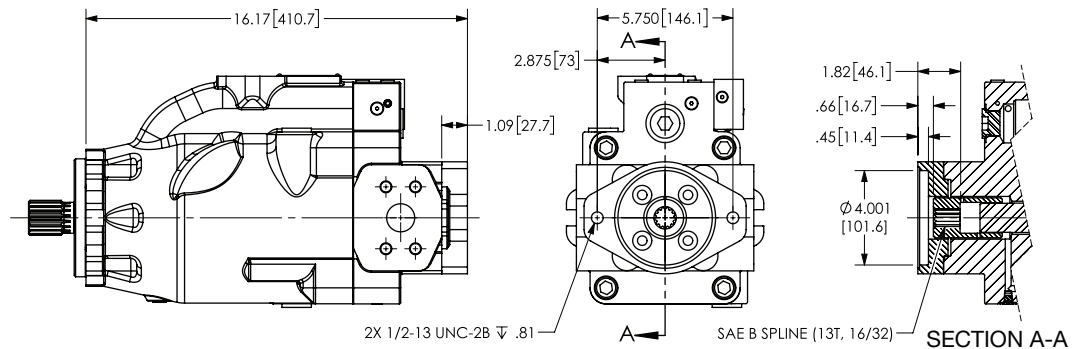
SAE A (82-2) Mounting Adapter



SAE A (82-2) Mounting Adapter

520730-431 REV 0

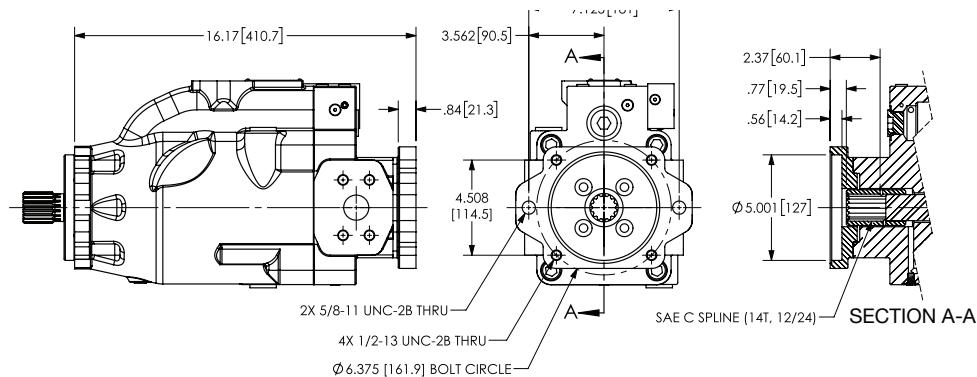
SAE B (101-2) Mounting Adapter



SAE B (101-2) Mounting Adapter

520730-431 REV 0

SAE C (127-2/4) Mounting Adapter



SAE C (127-2/4) MOUNTING ADAPTER

520730-431 REV 0



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