

REV	DESCRIPTION	BY	CHK	DATE	ECN
A	ENGINEERING RELEASE	DLL	SSW	6-13-00	M23604
B	REVISED	DLL	SSW	2-26-01	M25102
C	REVISED	DLL	SSW	10-24-01	39352

NOTE

1 UNIT MUST BE INSTALLED IN SUCH A POSITION THAT THE CASE DRAIN ASSURES AN OIL LEVEL AT OR ABOVE UNIT CENTERLINE OIL LEVEL MUST BE AT CENTERLINE OR ABOVE BEFORE STARTING

2 OPTIONAL FEATURE LOCATION MAY BE EITHER RIGHT SIDE OR LEFT SIDE

4 DIMENSION APPLIES ONLY WHEN PORT IS PLUGGED

AUXILIARY PORT (OPTIONAL TOP -C1) (BYPASS VALVE OPTIONAL) (PLUG OPTIONAL) (NO PORT OPTIONAL)

AUXILIARY PORT (CHARGE PRESSURE INLET -C2) (PLUG OPTIONAL)

CAUTION THIS BYPASS VALVE IS TO BE USED IN CASE OF EMERGENCY ONLY EXCESS TOWING MAY DAMAGE HYDRAULIC SYSTEM BEFORE TOWING VEHICLE TURN VALVE 90° TO DE-CLUTCH DO NOT TURN WHILE MACHINE IS RUNNING

2 FOR CONTROL SHAFT CONFIGURATION SEE SEPARATE DRAWING

FOR SHAFT CONFIGURATION SEE SEPARATE SHAFT INSTALLATION DRAWING

CASE DRAIN PORT -D1 (TOP) (PLUG OPTIONAL)

BYPASS VALVE OPTIONAL SEE SEPARATE BYPASS VALVE INSTALLATION DRAWING

17° MAX STROKE FOR 20.3 cm<sup>3</sup>/r [1.24 in<sup>3</sup>/r] DISP UNITS  
19.5° MAX STROKE FOR 23.6 cm<sup>3</sup>/r [1.44 in<sup>3</sup>/r] DISP UNITS  
CAM POS a

17°0' MAX STROKE FOR 20.3 cm<sup>3</sup>/r [1.24 in<sup>3</sup>/r] DISP UNITS  
19.5° MAX STROKE FOR 23.6 cm<sup>3</sup>/r [1.44 in<sup>3</sup>/r] DISP UNITS  
CAM POS b

DRAIN INTO REAR AUXILIARY FLANGE -D3 (OPTIONAL)

CASE DRAIN INTO FRONT MOUNTING FLANGE -D4 (OPTIONAL)

PRESSURE PORT A  
CAM POS a RH ROT  
CAM POS b LH ROT

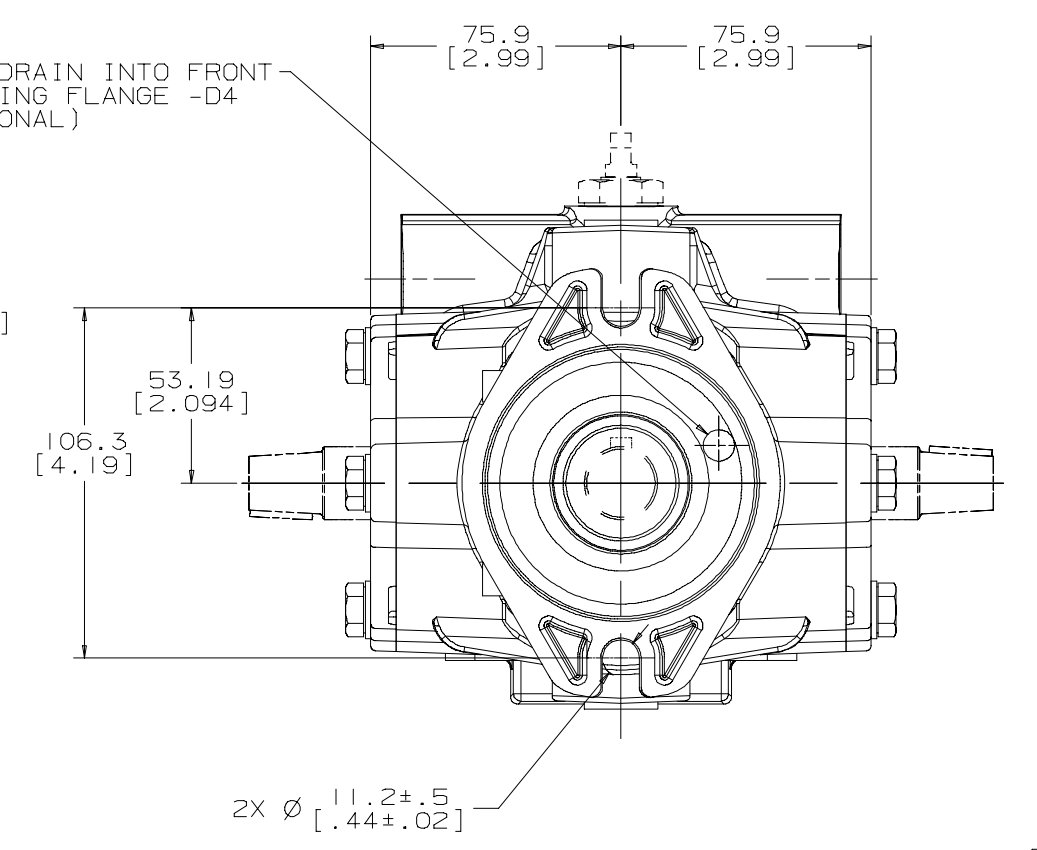
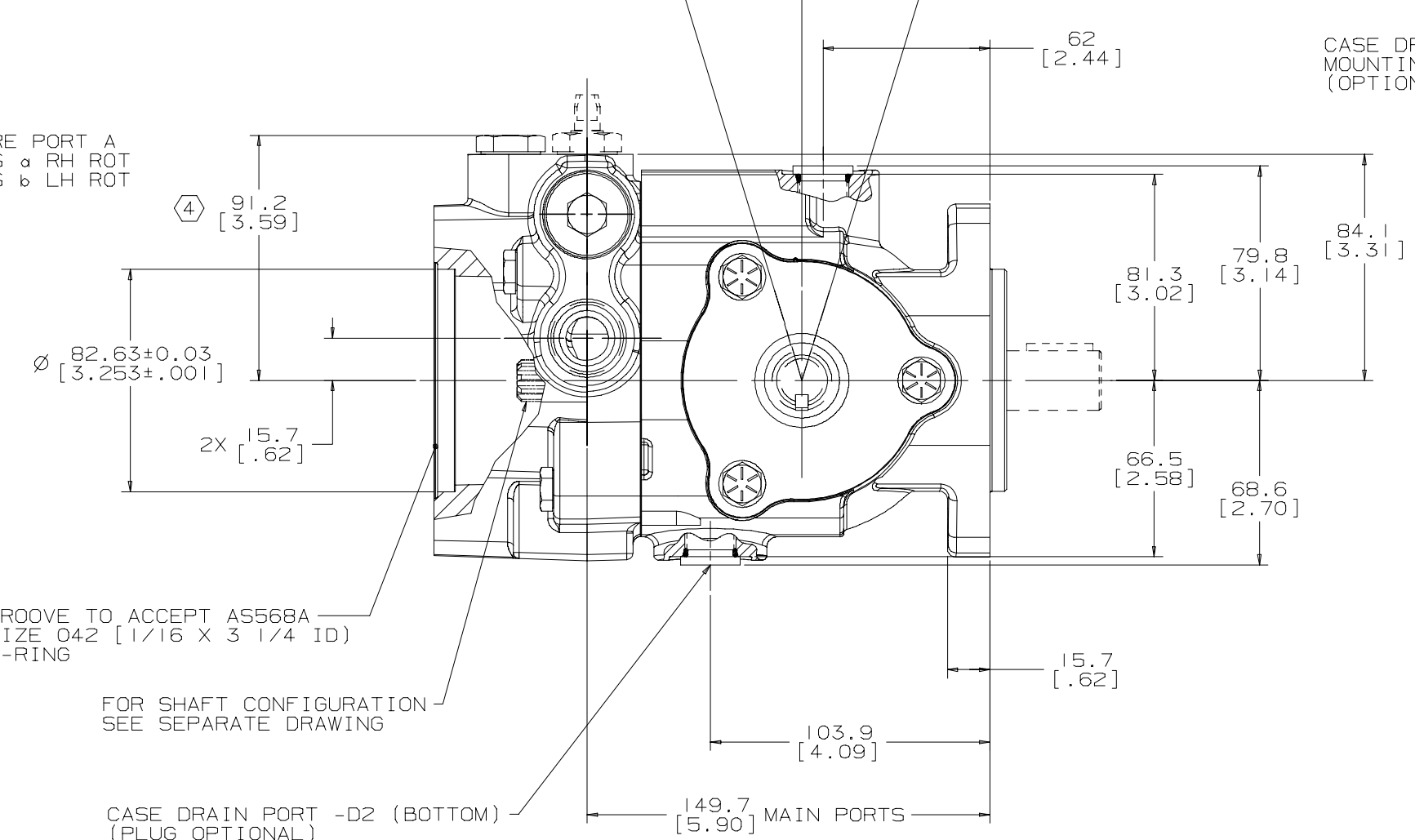
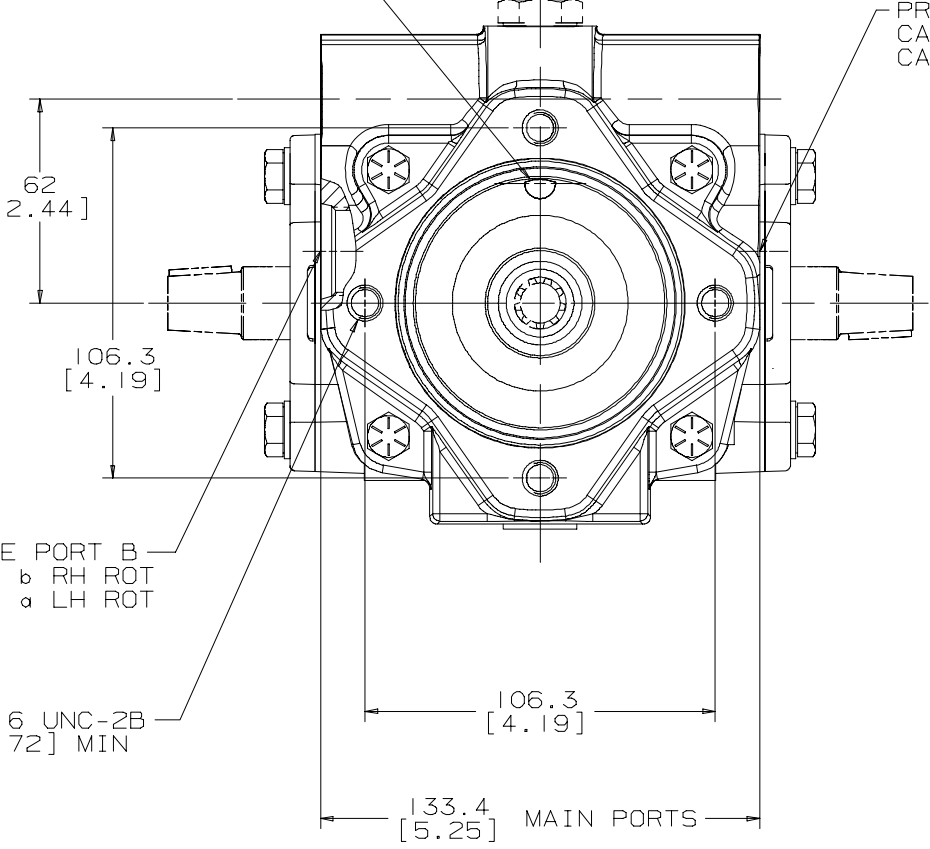
PRESSURE PORT B  
CAM POS b RH ROT  
CAM POS a LH ROT

4X 3/8-16 UNC-2B  
▽ 18.3 [ .72 ] MIN

GROOVE TO ACCEPT AS568A SIZE O42 [ 1/16 X 3 1/4 ID ] O-RING

FOR SHAFT CONFIGURATION SEE SEPARATE DRAWING

CASE DRAIN PORT -D2 (BOTTOM) (PLUG OPTIONAL)



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN		DRAWING BASED ON ANSI Y14.5M-1982	
INCHES <input type="checkbox"/>		THE REPRODUCTION, DISTRIBUTION, AND UTILIZATION OF THIS DOCUMENT, AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED. OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. ALL RIGHTS RESERVED IN THE EVENT OF THE GRANT OF A PATENT, UTILITY MODEL, OR DESIGN. (PER ISO 16016)	
MILLIMETERS <input checked="" type="checkbox"/>			
TOLERANCES			
.X	----	DRAWN BY/DATE DLL 8-25-99	MATERIAL/HEAT TREAT
.XX	----	CHECKED BY/DATE SSW 7-6-00	
.XXX	----	ENGRD BY/DATE SSW 7-6-00	TITLE
<	----	METALLURGY----	SERIES 160 PISTON PUMP INSTALLATION
UNSPECIFIED RADII ARE	----	BY/DATE	NUMBER
UNSPECIFIED DRAFT ANGLES ARE	----		A-1302-022
DRAWING FORMAT	DO NOT SCALE	ARITHMETICAL AVERAGE	SCALE 1/1
CADD <input checked="" type="checkbox"/> MANUAL <input type="checkbox"/>			SHEET 1 OF 1