

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.

1.229 DIA.
1.223
1.30
2.19 TO FLANGE
MTG. SURFACE
SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

2

SAE 1" STRAIGHT
AVAILABLE ON 15 - 35
SINGLE PUMPS ONLY
TORQUE LIMIT 341 FT. / LBS.

1/4 x 1/4 x 1 1/2 KEY
.999 DIA.
.998
2.56 TO FLANGE
MTG. SURFACE

3

SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.

5/16 x 5/16 x 1 1/2 KEY
1.250 DIA.
1.248
2.19 TO FLANGE
MTG. SURFACE

4

SAE 7/8-13 SPLINE
AVAILABLE ON 15 - 35 SINGLE
AVAILABLE ON 15 - 20 TANDEM
TORQUE LIMIT 184 FT. / LBS.

1.05 FULL
SPLINE
.8585 DIA.
.8536
1.62 TO FLANGE
MTG. SURFACE
SPLINE DATA
DIAMETRAL PITCH 16/32
PRESSURE ANGLE 30°
NO. OF TEETH 13
MINOR DIA. .722-.733

5

SAE 1 1/4" STRAIGHT
LONG
TORQUE LIMIT 650 FT. / LBS.

5/16 x 5/16 x 2 KEY
1.250 DIA.
1.248
4.06 TO FLANGE
MTG. SURFACE

B

SAE 2x4 BOLT 'B' FLANGE

2.875 5.750
3.536 3.536
1.768 1.768
9/16" DIA.
6 HOLES
4.000 PILOT DIA.
3.998
4.63 6.87

C

SAE 2x4 BOLT 'C' FLANGE

3.562 7.125
2.253 4.506
9/16" DIA.
4 HOLES
11/16" DIA.
2 HOLES
4.506 2.253
5.000 PILOT DIA.
4.998
5.76 8.36

OPTIONAL:
SEE FLANGES
6.11±.06
3.06
R2.50
2.00
INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END
OPTIONAL:
SEE SHAFTS
1.00
2.49 FLANGE LENGTH
.26
A
H
OVERALL
2.50 + H
F
E
D
C
G
A
H

SINGLE PUMPS
ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

7.00 4.00
F
E
A
OVERALL
4.94 + B + H
F
E
D
C
G
A
H

TANDEM PUMPS
ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

6.11±.06
3.06
R2.50
2.00
INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END
OPTIONAL:
SEE SHAFTS
1.00
2.49 FLANGE LENGTH
.26
A
B
H
F
E
D
C
G
A
H

MODEL EXAMPLES

D 25 R-1 C

SERIES SIZE ROTATION FLANGE SHAFT
R = CLOCKWISE
L = COUNTERCLOCKWISE

D 25-25 R-1 C

SERIES SIZE ROTATION FLANGE SHAFT
R = CLOCKWISE
L = COUNTERCLOCKWISE

MOUNTING DIMENSIONS						SPECIFICATIONS								SAE 4-BOLT CONNECTOR CHART						
SIZE	A	B	H	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAX. PRESSURE NORMAL		MAX. PRESSURE SEVERE		SIZE	C	D	E	F	G
											PSI	BAR	PSI	BAR						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D15	1.25	3.02	3.62	1 1/4"	1"	.0129	2.98	48.8	600	2500	4000	276	3800	262	1"	.516	1.031	1.031	2.062	3/8-16
D20	1.36	3.31	3.89	1 1/4"	1"	.0172	3.97	65.1	600	2500	3800	262	3000	207	1 1/4"	.594	1.188	1.157	2.313	7/16-14
D25	1.50	3.59	4.18	1 1/2"	1 1/4"	.0215	4.97	81.4	600	2500	3000	207	2300	159	1 1/2"	.703	1.406	1.375	2.750	1/2-13
D30	1.64	3.87	4.45	1 1/2"	1 1/4"	.0258	5.96	97.7	600	2500	2500	172	2000	138	2"	.844	1.688	1.531	3.062	1/2-13
D35	1.85	4.16	4.75	1 1/2"	1 1/4"	.0301	6.95	114.0	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-
D40	1.85	4.44	5.04	2"	1 1/4"	.0344	7.95	130.2	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-
D45	2.16	4.73	5.32	2"	1 1/4"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.
PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

4	-	-	-	-	SCALE:	-
3	-	-	-	-	DWN. BY:	DR
2	MLM	ADDED SHAFT TORQUE LIMITS	03/17/2014	DATE:	03/09/1993	
1	DR	1.81 TO 1.82 FOR NO. 4 SHAFT	09/22/2000	CKD. BY:		
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:		

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADI .12

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SCALE:
INCHES
CENTIMETERS

GEARIEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

TITLE:
MOUNTING DIMENSIONS
D SERIES

MATERIAL:
DWG. NO.:
720901-2
REDRAWN 06/15/2010 MLM

SHAFTS AVAILABLE

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

3

SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.

5/16 x 5/16 x 1 1/2 KEY

FLANGES AVAILABLE

B

SAE 2x4 BOLT 'B' FLANGE

C

SAE 2x4 BOLT 'C' FLANGE

ADAPTERS AVAILABLE

A

SAE 2 BOLT 'A' ADAPTER

B

SAE 2x4 BOLT 'B' ADAPTER

COUPLINGS AVAILABLE

58

5/8-9 SPLINE COUPLING

SPLINE DATA

NUMBER OF TEETH 9
PRESSURE ANGLE 30°
DIAMETRAL PITCH 16/32
MAJOR DIA. .651 MAX.
MINOR DIA. .504-.514
SPACE WIDTH .0982-.1033

SNAP RING NOT REQ'D W/ TYRONE P12

1.28 MAXIMUM SHAFT EXTENSION

.65 MIN. FULL SPLINE

MOUNTING SURFACE

78

7/8-13 SPLINE COUPLING

SPLINE DATA

NUMBER OF TEETH 13
PRESSURE ANGLE 30°
DIAMETRAL PITCH 16/32
MAJOR DIA. .896-.901
MINOR DIA. .754-.759
SPACE WIDTH .0982-.1035

1.66 MAXIMUM SHAFT EXTENSION

1.02 FULL SPLINE

MOUNTING SURFACE

DWG. NO.: **721058-3**

OPTIONAL: SEE FLANGES

OPTIONAL: SEE SHAFTS

INLET FOR 'R' ROTATION
OUTLET FOR 'L' ROTATION
VIEWED FROM DRIVE END

OPTIONAL: SEE COUPLINGS

OPTIONAL: SEE ADAPTERS

ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

MOUNTING DIMENSIONS					SPECIFICATIONS										SAE 4-BOLT CONNECTOR CHART										
SIZE	A	B	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAXIMUM PRESSURE				SIZE	C	D	E	F	G						
										NORMAL		SEVERE													
										PSI	BAR	PSI	BAR												
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
DB15	1.25	3.02	1 1/4"	1"	.0129	2.98	48.8	600	2500	4000	276	3800	262	1"	.516	1.031	1.031	2.062	3/8-16						
DB20	1.36	3.31	1 1/4"	1"	.0172	3.97	65.1	600	2500	3800	262	3000	207	1 1/4"	.594	1.188	1.157	2.313	7/16-14						
DB25	1.50	3.59	1 1/2"	1 1/4"	.0215	4.97	81.4	600	2500	3000	207	2300	159	1 1/2"	.703	1.406	1.375	2.750	1/2-13						
DB30	1.64	3.87	1 1/2"	1 1/4"	.0258	5.96	97.7	600	2500	2500	172	2000	138	2"	.844	1.688	1.531	3.062	1/2-13						
DB35	1.85	4.16	1 1/2"	1 1/4"	.0301	6.95	114.0	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-						
DB40	1.85	4.44	2"	1 1/4"	.0344	7.95	130.2	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-						
DB45	2.16	4.73	2"	1 1/4"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-						

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.

PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

MODEL EXAMPLE

DB 25 R-1 C - B 78 -

SERIES

SIZE

ROTATION

FLANGE

SHAFT

COUPLING

ADAPTER PLATE

SPECIFY REAR PUMP AS REQUIRED
NOTE: SEE INSTRUCTION SHEET 110102
WHEN USING GEARTEK
'D' / HD' SERIES ON REAR

4	-	-	-	-	SCALE:	-
3	MLM	Chgd Oil Len. of Coupling #78 (1.95) to (1.75) Full Spline Len. (1.22) To (1.02)	07/14/2014	DWN. BY:	DR	-
2	MLM	ADDED SHAFT TORQUE LIMITS	03/17/2014	DATE:	06/09/1994	-
1	MLM	ADDED MIN. FULL SPLINE DIMENSIONS TO COUPLING NOS. 58 & 78	11/01/2002	CKD. BY:	-	-
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	-	-

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADI = .12

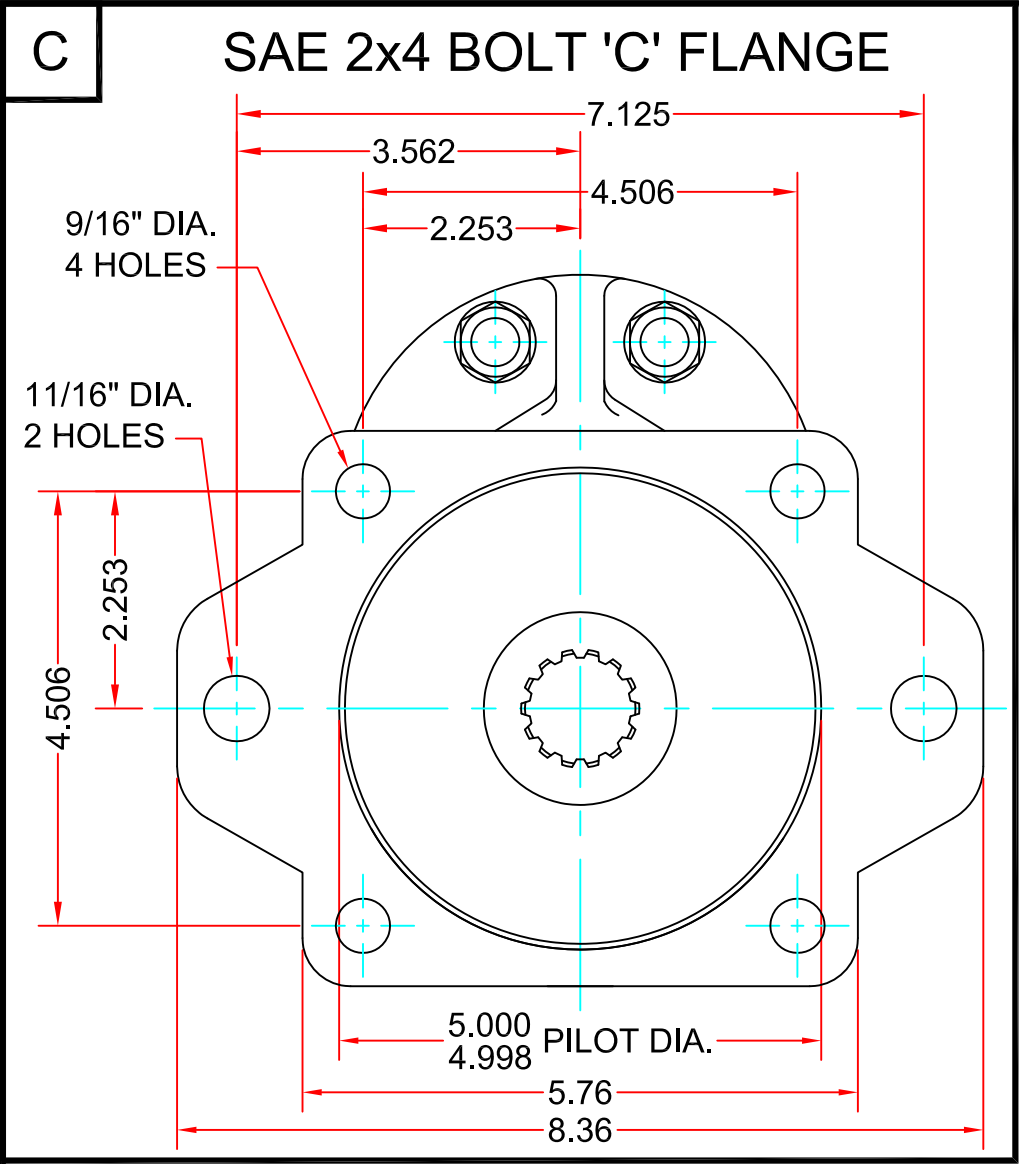
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SCALE:
INCHES 0 1 2
CENTIMETERS 0 1 2 3 4 5

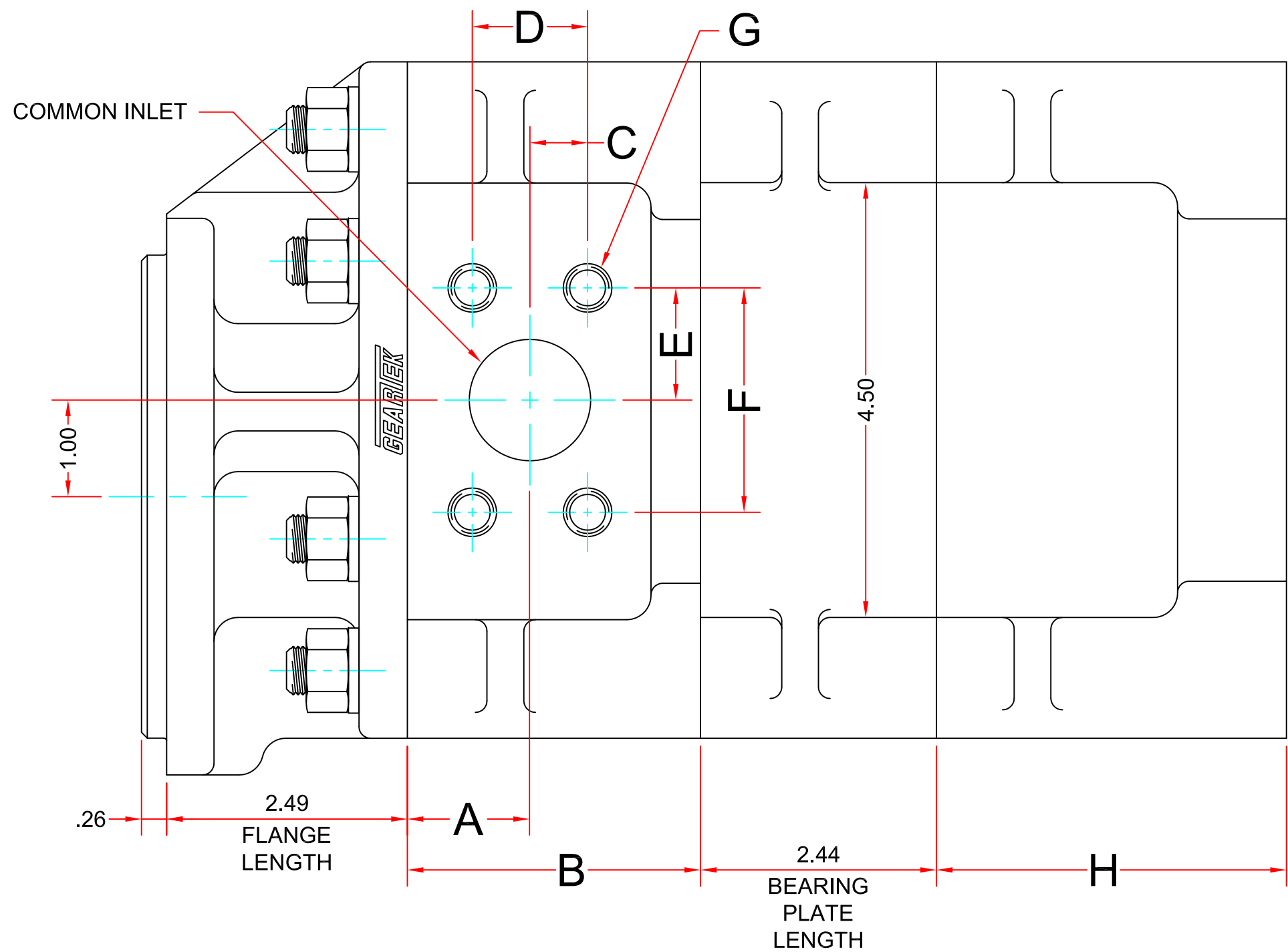
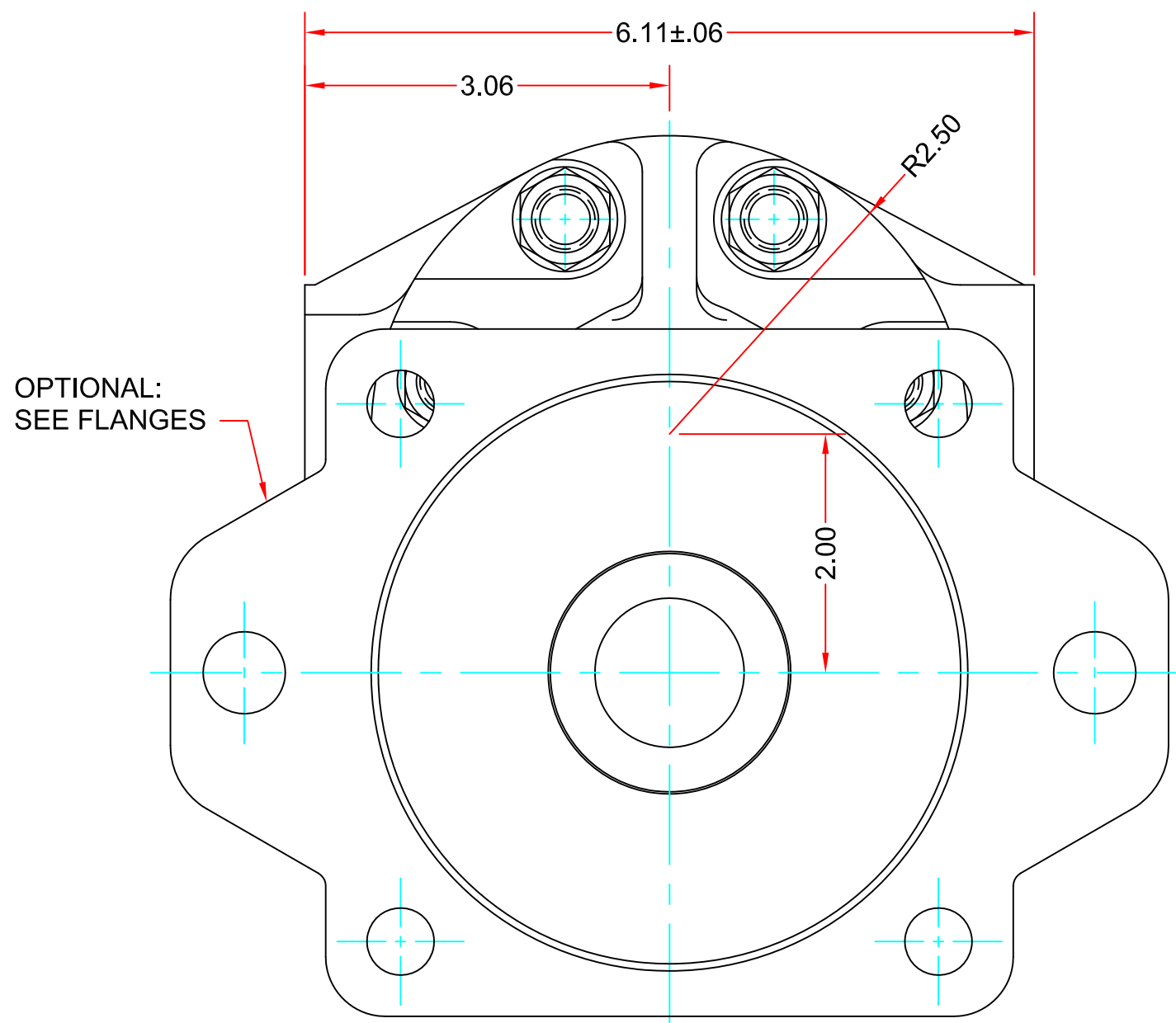
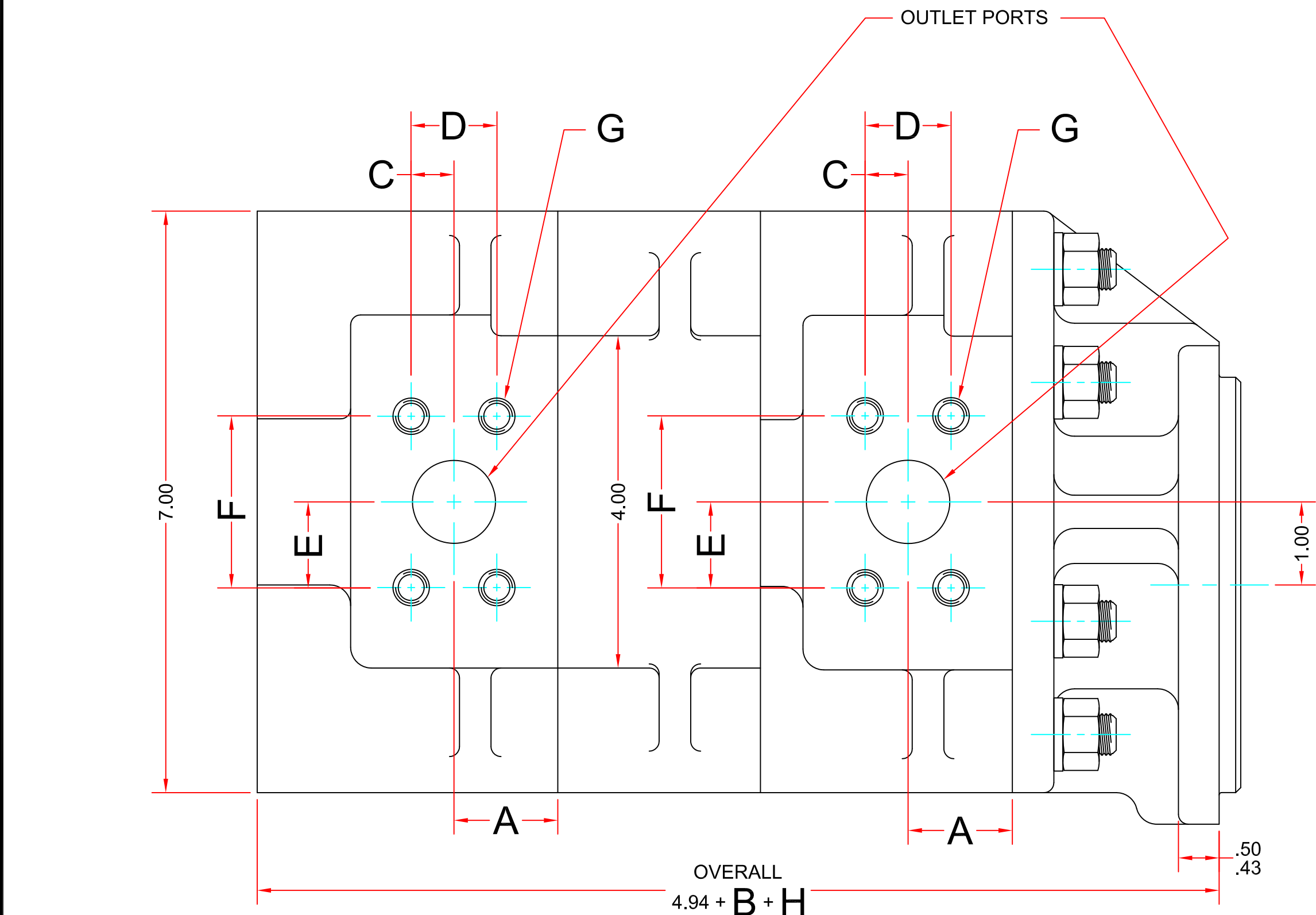
FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

TITLE:
MOUNTING DIMENSIONS
DB SERIES PIGGY BACK

MATERIAL:
DWG. NO.:
721058-3



DWG. NO.: **721835-3**



FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.

MOUNTING DIMENSIONS						SPECIFICATIONS							SAE 4-BOLT CONNECTOR CHART					
SIZE	A	B	H	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAXIMUM PRESSURE		SIZE	C	D	E	F	G
											PSI	BAR						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DFD15	1.25	3.02	3.62	1 1/4"	1"	.0129	2.98	48.8	600	2500	3000	207	1"	.516	1.031	1.031	2.062	3/8-16
DFD20	1.36	3.31	3.89	1 1/4"	1"	.0172	3.97	65.1	600	2500	3000	207	1 1/4"	.594	1.188	1.157	2.313	7/16-14
DFD25	1.50	3.59	4.18	1 1/2"	1 1/4"	.0215	4.97	81.4	600	2500	3000	207	1 1/2"	.703	1.406	1.375	2.750	1/2-13
DFD30	1.64	3.87	4.45	1 1/2"	1 1/4"	.0258	5.96	97.7	600	2500	2500	172	-	-	-	-	-	-
DFD35	1.85	4.16	4.75	1 1/2"	1 1/4"	.0301	6.95	114.0	600	2500	2500 *	172	-	-	-	-	-	-
DFD40	1.85	4.44	5.04	1 1/2"	1 1/4"	.0344	7.95	130.2	600	2500	2500 *	172	-	-	-	-	-	-
DFD45	2.16	4.73	5.32	1 1/2"	1 1/4"	.0387	8.94	146.5	600	2500	2500 *	172	-	-	-	-	-	-

MODEL EXAMPLE

DFD 25 25 - C

SERIES SIZE FLANGE

4	-	-	-	SCALE:	-
3	MLM	CHANGED D15-25 SIZE MAXIMUM PRESSURE TO 3000 PSI	06/02/2017	DWN. BY:	DR
2	MLM	UPDATED PRESSURE RATINGS	03/21/2014	DATE:	02/23/1998
1	MLM	REMOVED 9/16-18 CASE DRAIN FROM REAR	11/14/2001	CKD. BY:	-
REV.	BY	CHANGE DESCRIPTION	DATE	DATE	-
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADI .12			Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2017, Hydraulic Analysis, Inc.		
TITLE:			MOUNTING DIMENSIONS DFD SERIES		
MATERIAL:			DWG. NO.: 721835-3		

REDRAWN 06/16/2010 MLM

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.

2

SAE 1" STRAIGHT
AVAILABLE ON 15 - 35
SINGLE PUMPS ONLY
TORQUE LIMIT 341 FT. / LBS.

3

SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.

4

SAE 7/8-13 SPLINE
AVAILABLE ON 15 - 35 SINGLE
AVAILABLE ON 15 - 20 TANDEM
TORQUE LIMIT 184 FT. / LBS.

B

SAE 2x4 BOLT 'B' FLANGE

C

SAE 2x4 BOLT 'C' FLANGE

SINGLE PUMPS
ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

TANDEM PUMPS
ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

MODEL EXAMPLES

HD 25 R-1 C

SERIES

SIZE

ROTATION

FLANGE

SHAFT

HD 25-25 R-1 C

SERIES

SIZE

ROTATION

FLANGE

SHAFT

R = CLOCKWISE
L = COUNTERCLOCKWISE

MOUNTING DIMENSIONS					SPECIFICATIONS										SAE 4-BOLT CONNECTOR CHART								
SIZE	A	B	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAX. PRESSURE FRONT SECTION				MAX. PRESSURE REAR SECTION				SIZE	C	D	E	F	G
-	-	-	-	-	-	-	-	-	-	NORMAL	SEVERE	NORMAL	SEVERE	NORMAL	SEVERE	NORMAL	SEVERE	-	-	-	-	-	-
					PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR					
HD15	1.25	3.02	1 1/4"	1"	.0129	2.98	48.8	600	2500	4000	276	3800	262	4000	276	3800	262	1"	.516	1.031	1.031	2.062	3/8-16
HD20	1.36	3.81	1 1/4"	1"	.0172	3.97	65.1	600	2500	4000	276	3800	262	4000	276	3300	228	1 1/4"	.594	1.188	1.157	2.313	7/16-14
HD25	1.50	4.09	1 1/2"	1 1/4"	.0215	4.97	81.4	600	2500	4000	276	3100	214	3300	228	2600	179	1 1/2"	.703	1.406	1.375	2.750	1/2-13
HD30	1.64	4.38	1 1/2"	1 1/4"	.0258	5.96	97.7	600	2500	3300	228	2600	179	2800	193	2200	152	2"	.844	1.688	1.531	3.062	1/2-13
HD35	1.85	4.66	1 1/2"	1 1/4"	.0301	6.95	114.0	600	2500	2900	200	2300	159	2500 *	172	2000 *	138	-	-	-	-	-	-
HD40	1.85	4.95	2"	1 1/4"	.0344	7.95	130.2	600	2500	2500 *	172	2000	138	2500 *	172	2000 *	138	-	-	-	-	-	-
HD45	2.16	5.23	2"	1 1/4"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	138	2500 *	172	2000 *	138	-	-	-	-	-	-

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.

PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

4	-	-	-	SCALE:	-
3	-	-	-	DWN. BY:	DR
2	-	-	-	DATE:	05/03/1993
1	MLM	ADDED SHAFT TORQUE LIMITS	03/17/2014	CKD. BY:	-
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	-
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADI .12			Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2012, Hydraulic Analysis, Inc.		

SCALE:

INCHES 0 1 2

CENTIMETERS 0 1 2 3 4 5

TITLE:

MOUNTING DIMENSIONS
HD SERIES

MATERIAL:

DWG. NO.: 720939-1

REDRAWN 06/16/2010 MLM

SHAFTS AVAILABLE

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.

SPLINE DATA
DIAMETRAL PITCH 12/24
PRESSURE ANGLE 30°
NO. OF TEETH 14
MINOR DIA. 1.062-1.050

3

SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.

5/16 x 5/16 x 1 1/2 KEY
1.250 DIA.
1.248
2.19 TO FLANGE MTG. SURFACE

FLANGES AVAILABLE

B

SAE 2x4 BOLT 'B' FLANGE

2.875 5.750
3.536 1.768
9/16" DIA. 6 HOLES
4.000 3.998 4.63 6.87
3.536 1.768

C

SAE 2x4 BOLT 'C' FLANGE

3.562 7.125
4.506 2.253
11/16" DIA. 2 HOLES
5.000 4.998 5.76 8.36
4.506 2.253

ADAPTERS AVAILABLE

A

SAE 2 BOLT 'A' ADAPTER

4.188 2.094
3/8-16NC DEPTH .50 2 HOLES
4.62 2.31
3.253 3.250 4.63 6.87
3.253 3.250 4.63 6.87

B

SAE 2x4 BOLT 'B' ADAPTER

2.875 5.750
1/2-13NC THRU 2 HOLES
4.62 2.31
4.003 4.001 4.62 6.88
4.003 4.001 4.62 6.88

COUPLINGS AVAILABLE

58

5/8-9 SPLINE COUPLING

SPLINE DATA

NUMBER OF TEETH 9
PRESSURE ANGLE 30°
DIAMETRAL PITCH 16/32
MAJOR DIA. .651 MAX.
MINOR DIA. .504-.514
SPACE WIDTH .0982-.1033

1.75 .65 MIN. FULL SPLINE
1.28 MAXIMUM SHAFT EXTENSION

78

7/8-13 SPLINE COUPLING

SPLINE DATA

NUMBER OF TEETH 13
PRESSURE ANGLE 30°
DIAMETRAL PITCH 16/32
MAJOR DIA. .896-.901
MINOR DIA. .754-.759
SPACE WIDTH .0982-.1035

1.75 1.02 FULL SPLINE
1.66 MAXIMUM SHAFT EXTENSION

DWG. NO.: **720996-1-3**

7.00
D G
C F E 1.00 .49 .42
OVERALL 4.99 + B

6.11±.06 3.06 R2.50 2.00 4.62 2.31 3.253 3.250 4.63 6.87 3.253 3.250 4.63 6.87

.26 2.49 FLANGE LENGTH A B 2.50 ADAPTER LENGTH 4.50 .65 MIN. FULL SPLINE 1.28 MAXIMUM SHAFT EXTENSION

ALL VIEWS DRAWN FOR CLOCKWISE ROTATION

MOUNTING DIMENSIONS					SPECIFICATIONS										SAE 4-BOLT CONNECTOR CHART					
SIZE	A	B	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAXIMUM PRESSURE				SIZE	C	D	E	F	G	
										NORMAL		SEVERE								
										PSI	BAR	PSI	BAR							
HDB15	1.25	3.02	1 1/4"	1"	.0129	2.98	48.8	600	2500	4000	276	3800	262	1"	.516	1.031	1.031	2.062	3/8-16	
HDB20	1.36	3.81	1 1/4"	1"	.0172	3.97	65.1	600	2500	4000	276	3800	262	1 1/4"	.594	1.188	1.157	2.313	7/16-14	
HDB25	1.50	4.09	1 1/2"	1 1/4"	.0215	4.97	81.4	600	2500	4000	276	3100	214	1 1/2"	.703	1.406	1.375	2.750	1/2-13	
HDB30	1.64	4.38	1 1/2"	1 1/4"	.0258	5.96	97.7	600	2500	3300	228	2600	179	2"	.844	1.688	1.531	3.062	1/2-13	
HDB35	1.85	4.66	1 1/2"	1 1/4"	.0301	6.95	114.0	600	2500	2900	200	2300	159	-	-	-	-	-	-	
HDB40	1.85	4.95	2"	1 1/4"	.0344	7.95	130.2	600	2500	2500 *	172	2000	138	-	-	-	-	-	-	
HDB45	2.16	5.23	2"	1 1/4"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	138	-	-	-	-	-	-	

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.

PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

MODEL EXAMPLE

HDB 25 R-1 C - B 78 -

SERIES SIZE ROTATION FLANGE ADAPTER PLATE COUPLING

R = CLOCKWISE
L = COUNTERCLOCKWISE

SPECIFY REAR PUMP AS REQUIRED
NOTE: SEE INSTRUCTION SHEET 110102
WHEN USING GEARTEK
'D' / 'HD' SERIES ON REAR

REV.	BY	CHANGE DESCRIPTION	DATE	DATE
4	-	-	-	-
3	MLM	Chg'd OIL Len. of Coupling #78 (1.95) to (1.75) Full Spline Len. (1.22) To (1.02)	07/14/2014	DWN. BY: DR
2	MLM	ADDED SHAFT TORQUE LIMITS	03/18/2014	DATE: 06/09/1994
1	MLM	ADDED MIN. FULL SPLINE DIMENSIONS TO COUPLING NOS. 58 & 78	11/01/2002	CKD. BY: -

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADI = .12

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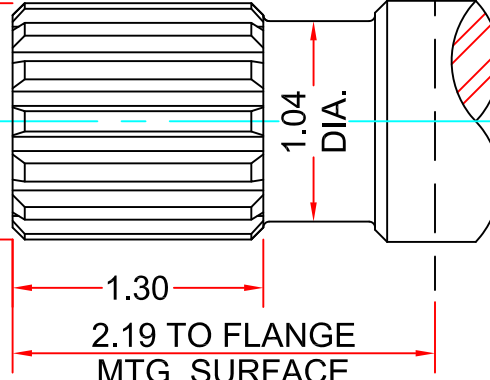
SCALE:
INCHES 0 1 2
CENTIMETERS 0 1 2 3 4 5

GEARTEK FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

TITLE: MOUNTING DIMENSIONS
HDB SERIES PIGGY BACK
MATERIAL: -
DWG. NO.: **720996-3**

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.



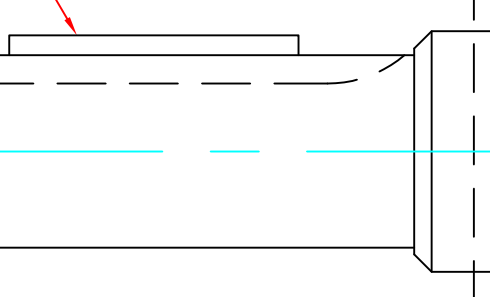
1.229 DIA.
1.223
1.30
2.19 TO FLANGE
MTG. SURFACE

SPLINE DATA

DIAMETRAL PITCH	12/24
PRESSURE ANGLE	30°
NO. OF TEETH	14
MINOR DIA.	1.062-1.050

2

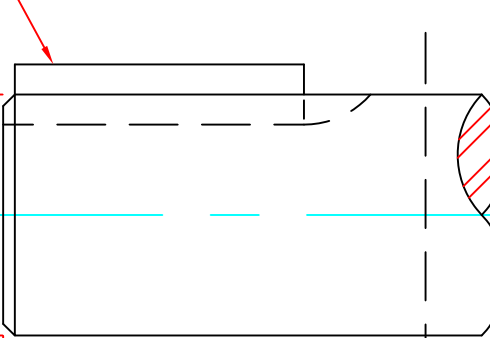
SAE 1" STRAIGHT
AVAILABLE ON 15 - 35
SINGLE PUMPS ONLY
TORQUE LIMIT 341 FT. / LBS.



1/4 x 1/4 x 1 1/2 KEY
2.56 TO FLANGE
MTG. SURFACE

3

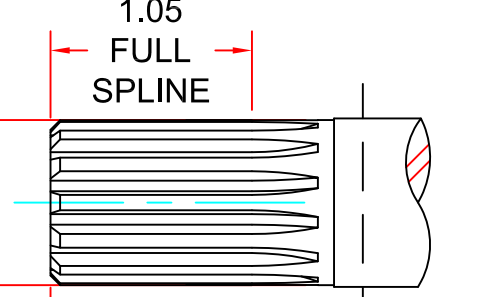
SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.



5/16 x 5/16 x 1 1/2 KEY
2.19 TO FLANGE
MTG. SURFACE

4

SAE 7/8-13 SPLINE
AVAILABLE ON 15 - 35 SINGLE
AVAILABLE ON 15 - 20 TANDEM
TORQUE LIMIT 184 FT. / LBS.



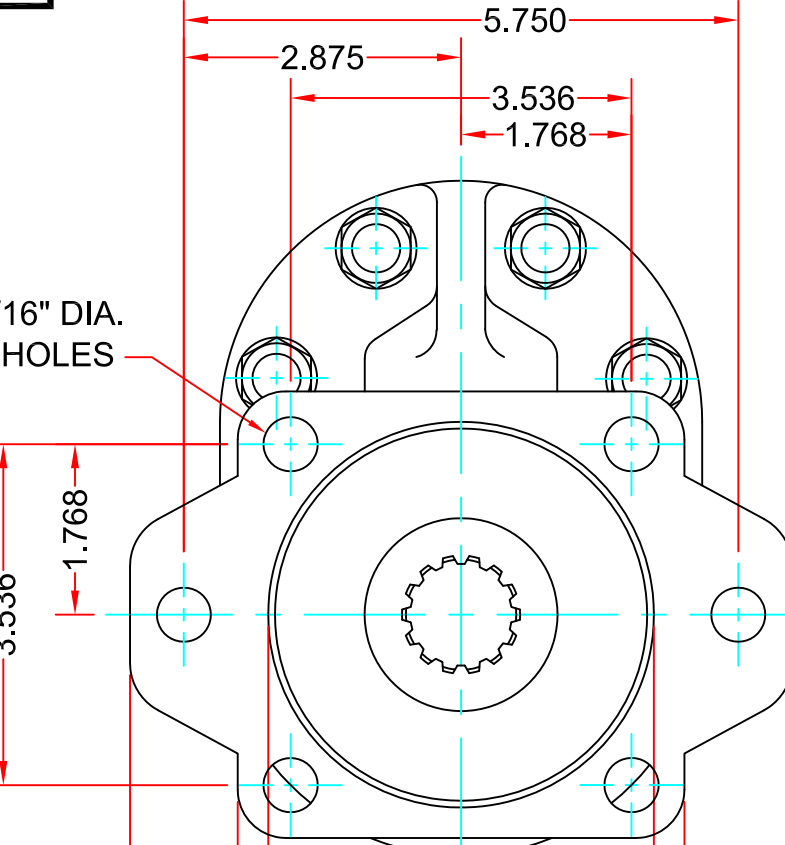
1.05
FULL
SPLINE
1.62 TO FLANGE
MTG. SURFACE

SPLINE DATA

DIAMETRAL PITCH	16/32
PRESSURE ANGLE	30°
NO. OF TEETH	13
MINOR DIA.	.722-.733

B

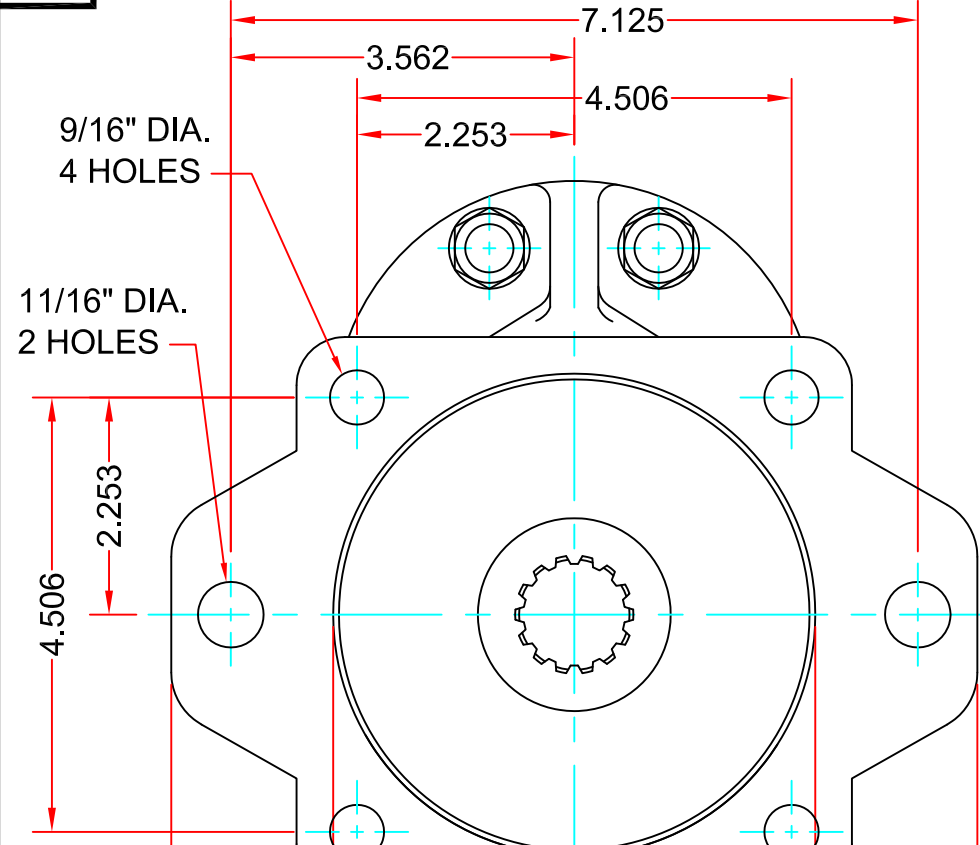
SAE 2x4 BOLT 'B' FLANGE



9/16" DIA.
6 HOLES
2.875
5.750
3.536
1.768
4.000
3.998
PILOT DIA.
4.63
6.87

C

SAE 2x4 BOLT 'C' FLANGE



9/16" DIA.
4 HOLES
11/16" DIA.
2 HOLES
3.562
7.125
2.253
4.506
5.000
4.998
PILOT DIA.
5.76
8.36

C

D

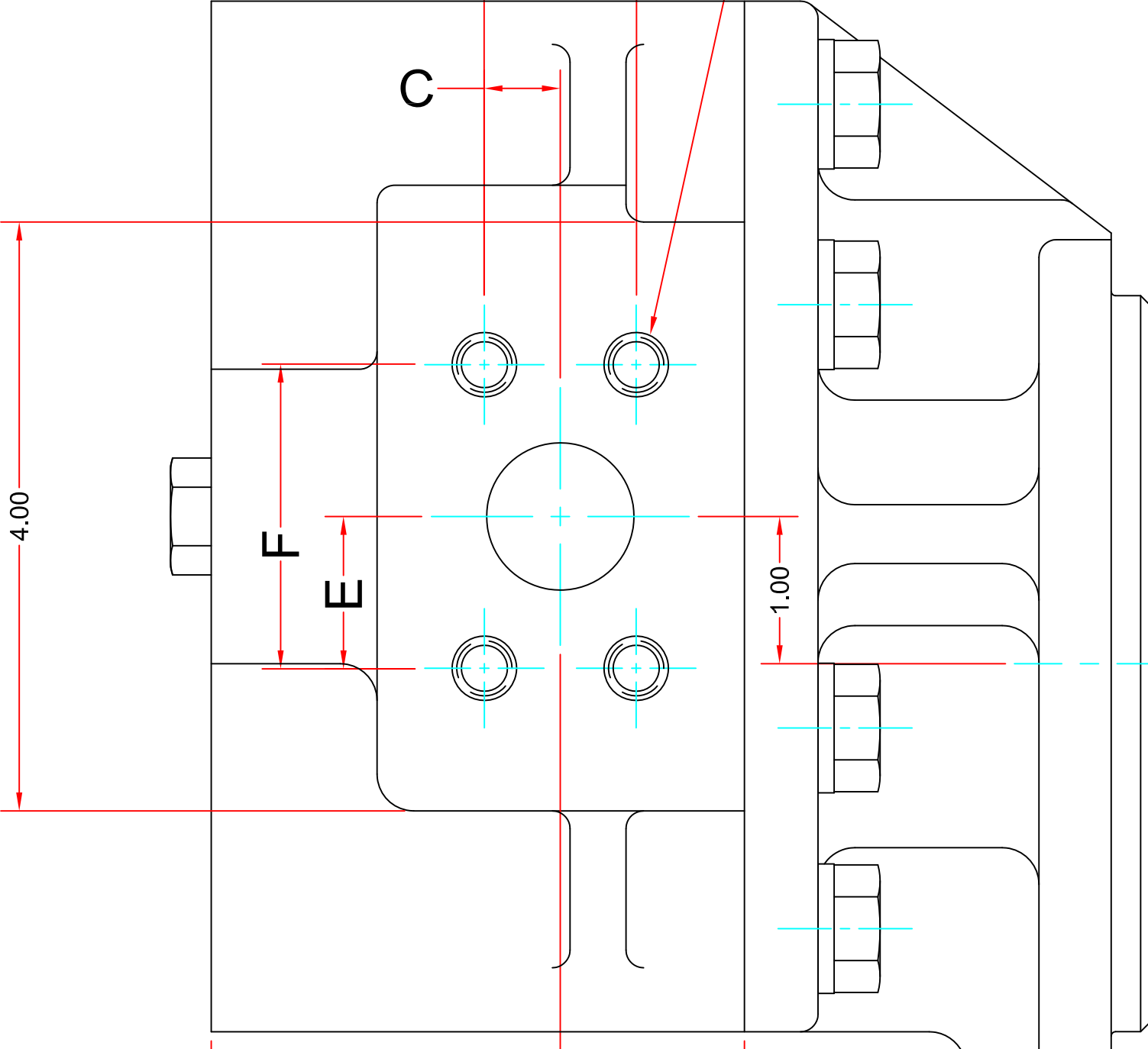
G

F

E

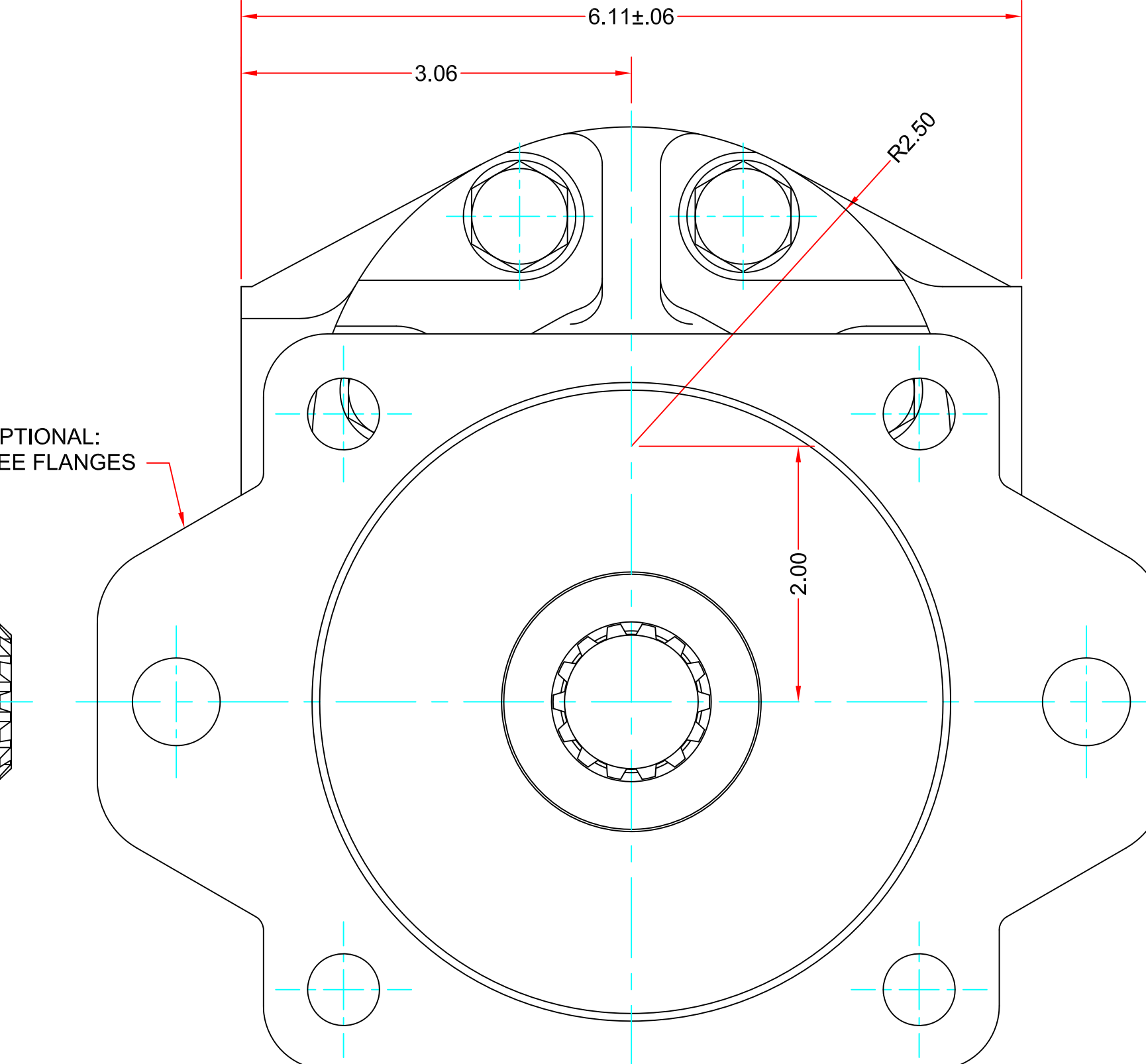
A

OVERALL
2.50 + B



.50
.43

OPTIONAL:
SEE FLANGES



OPTIONAL:
SEE SHAFTS

C

D

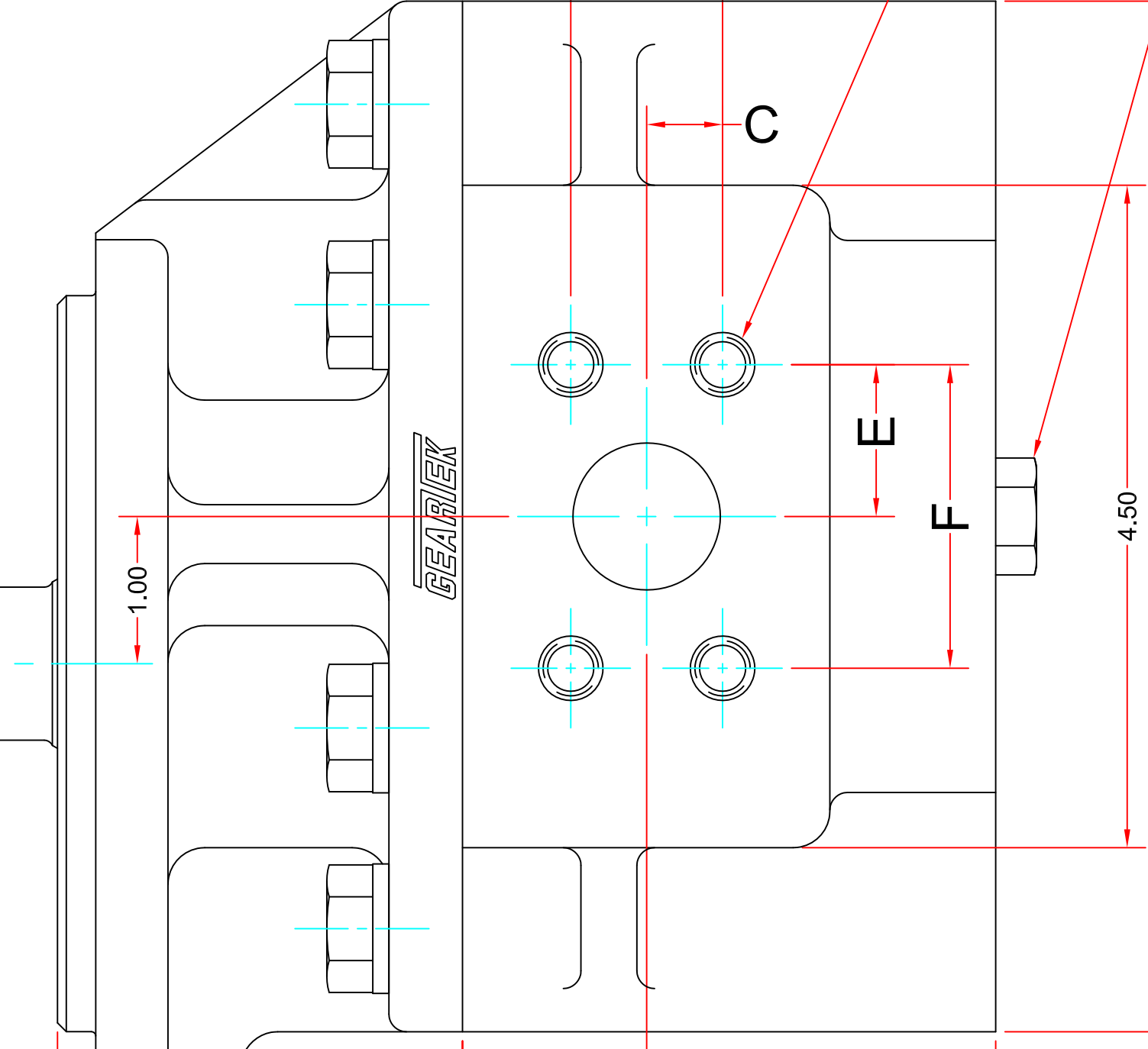
G

F

E

A

B



TAIL DRAIN MUST BE USED
IF BACK PRESSURE EXCEEDS
100 PSI ON MOTORS
9/16-18UNF-2B
SAE NO. 6 O-RING BOSS
ON VERTICAL CENTERLINE
STEEL PLUG USED ON 'RD' MODELS

DWG. NO.: 720970-3

MODEL EXAMPLES

REVERSIBLE
PUMP

RD 25 - 1 C

SIZE

FLANGE
SHAFT

BI-DIRECTIONAL
MOTOR

MD 25 - 1 C

SIZE

FLANGE
SHAFT

MOUNTING DIMENSIONS					SPECIFICATIONS								MOTORS		SAE 4-BOLT CONNECTOR CHART						
SIZE	A	B	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAX. PRESSURE NORMAL	MAX. PRESSURE SEVERE		HP / OUT @ 2400 RPM 2500 PSI	IN /LB TORQUE @ 2400 RPM 2500 PSI		SIZE	C	D	E	F	G
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	1.25	3.62	1"	1"	.0129	2.98	48.8	600	2500	2500	172	2500	38	680	1050	1"	.516	1.031	1.031	2.062	3/8-16
20	1.36	3.89	1"	1"	.0172	3.97	65.1	600	2500	2500	172	2500	50	960	1430	1 1/4"	.594	1.188	1.157	2.313	7/16-14
25	1.50	4.18	1 1/4"	1 1/4"	.0215	4.97	81.4	600	2500	2500	172	2300	64	1240	1810	1 1/2"	.703	1.406	1.375	2.750	1/2-13
30	1.64	4.45	1 1/4"	1 1/4"	.0258	5.96	97.7	600	2500	2500	172	2000	74	1520	2181	-	-	-	-	-	-
35	1.85	4.75	1 1/2"	1 1/2"	.0301	6.95	114.0	600	2500	2500 *	172	2000 *	90	1800	2561	-	-	-	-	-	-
40	1.85	5.04	1 1/2"	1 1/2"	.0344	7.95	130.2	600	2500	2500 *	172	2000 *	105	2050	2940	-	-	-	-	-	-
45	2.16	5.32	1 1/2"	1 1/2"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	124	2350	3320	-	-	-	-	-	-

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.

PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

4	-	-	-	SCALE:	-
3	MLM	ADDED SHAFT TORQUE LIMITS	03/18/2014	DWN. BY:	DR
2	DR	NO. 4 SHAFT EXT. FROM 1.81 TO 1.82	10/30/2000	DATE:	06/07/1993
1	DR	CHANGED PRESSURE RATINGS	01/26/1994	CKD. BY:	-
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	-

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADI .12

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TITLE:
MOUNTING DIMENSIONS
MD & RD SERIES

MATERIAL:
-

DWG.
NO.:
720970-3

REDRAWN 06/16/2010 MLM

1

SAE 1 1/4-14 SPLINE
TORQUE LIMIT 650 FT. / LBS.

2

SAE 1" STRAIGHT
AVAILABLE ON 15 - 35
SINGLE PUMPS ONLY
TORQUE LIMIT 341 FT. / LBS.

3

SAE 1 1/4" STRAIGHT
TORQUE LIMIT 650 FT. / LBS.

4

SAE 7/8-13 SPLINE
AVAILABLE ON 15 - 35 SINGLE
AVAILABLE ON 15 - 20 TANDEM
TORQUE LIMIT 184 FT. / LBS.

B

SAE 2x4 BOLT 'B' FLANGE

C

SAE 2x4 BOLT 'C' FLANGE

MODEL EXAMPLE

MD H 25 - 1 C

BI-DIRECTIONAL MOTOR

HIGH PRESSURE SEAL

SIZE

FLANGE SHAFT

OPTIONAL: SEE FLANGES

OPTIONAL: SEE SHAFTS

MOUNTING DIMENSIONS					SPECIFICATIONS								MOTORS		SAE 4-BOLT CONNECTOR CHART						
SIZE	A	B	INLET SIZE	OUTLET SIZE	U.S. GALLONS	CUBIC INCHES	CUBIC CENT.	MIN. RPM	MAX. RPM	MAX. PRESSURE NORMAL	MAX. PRESSURE SEVERE		HP / OUT @ 2400 RPM 2500 PSI	IN /LB TORQUE @ 2400 RPM 2500 PSI	SIZE	C	D	E	F	G	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	1.25	3.62	1"	1"	.0129	2.98	48.8	600	2500	2500	172	2500	38	680	1050	1"	.516	1.031	1.031	2.062	3/8-16
20	1.36	3.89	1"	1"	.0172	3.97	65.1	600	2500	2500	172	2500	50	960	1430	1 1/4"	.594	1.188	1.157	2.313	7/16-14
25	1.50	4.18	1 1/4"	1 1/4"	.0215	4.97	81.4	600	2500	2500	172	2300	64	1240	1810	1 1/2"	.703	1.406	1.375	2.750	1/2-13
30	1.64	4.45	1 1/4"	1 1/4"	.0258	5.96	97.7	600	2500	2500	172	2000	74	1520	2181	-	-	-	-	-	-
35	1.85	4.75	1 1/2"	1 1/2"	.0301	6.95	114.0	600	2500	2500 *	172	2000 *	90	1800	2561	-	-	-	-	-	-
40	1.85	5.04	1 1/2"	1 1/2"	.0344	7.95	130.2	600	2500	2500 *	172	2000 *	105	2050	2940	-	-	-	-	-	-
45	2.16	5.32	1 1/2"	1 1/2"	.0387	8.94	146.5	600	2500	2500 *	172	2000 *	124	2350	3320	-	-	-	-	-	-

FOR METRIC DIMENSIONS
MULTIPLY 25.4 x IN. = mm

* CONSULT FACTORY FOR
APPLICATION APPROVAL.


PRESSURES MAY BE
LIMITED TO SHAFT TYPE.

4	-	-	-	SCALE:	-
3	MLM	ADDED SHAFT TORQUE LIMITS	03/18/2014	DWN. BY:	MLM
2	DR	NO. 4 SHAFT EXT. FROM 1.81 TO 1.82	10/30/2000	DATE:	08/28/2003
1	DR	CHANGED PRESSURE RATINGS	01/26/1994	CKD. BY:	-
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	-
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADI .12			Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2012, Hydraulic Analysis, Inc.		
TITLE:			MOUNTING DIMENSIONS MDH SERIES		
MATERIAL:			DWG. NO.: 722766-1		

SCALE:
INCHES
CENTIMETERS

GEARIEK® FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

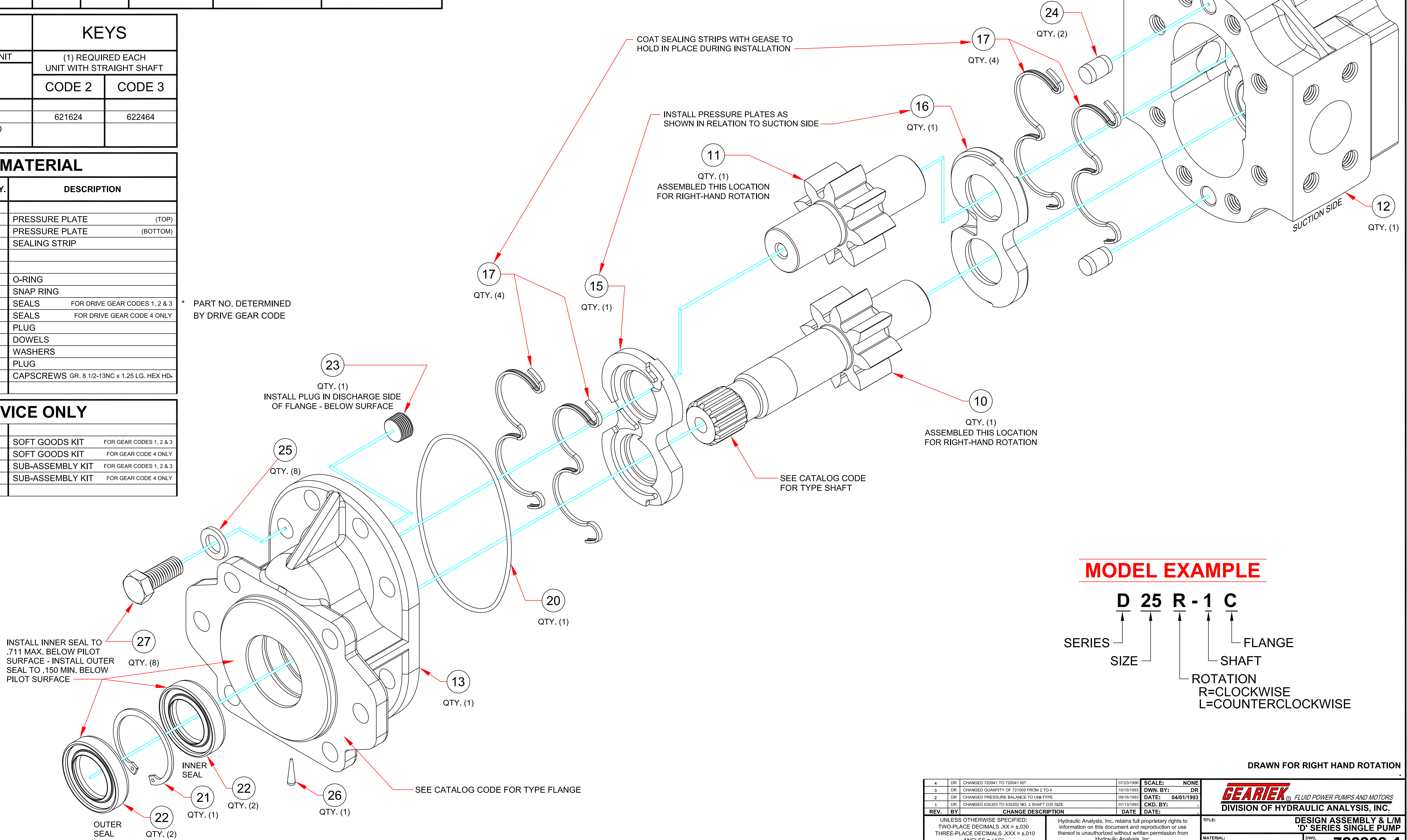
722766-1
REDRAWN 06/16/2010 MLM

SIZE 	10 DRIVE GEARS					11 IDLER GEARS	12 BODIES	BLANK PORT BODIES
	(1) REQUIRED EACH UNIT					(1) REQUIRED EACH UNIT	(1) REQUIRED EACH UNIT	FOR PARTS ORDERS ONLY
	CODE 1 1 1/4" SPLINE	CODE 2 1" KEYED	CODE 3 1 1/4" KEYED	CODE 4 7/8" SPLINE				
							(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY	(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY
D15	635273	635212	635219	635288		634006	654561	720910
D20	635274	635213	635210	635289		634097	654563	720911
D25	635275	635214	635221	635280		634098	654566	720912
D30	635276	635215	635222	635291		634099	654568	720913
D35	635277	635216	635223	635292		634090	654037	720914
D40	635278		635224			634080	654038	720915
D45	635279		635225			634899	654550	720916

13				FLANGES		KEYS	
(1) REQUIRED EACH UNIT				(1) REQUIRED EACH UNIT WITH STRAIGHT SHAFT			
CODE B 2 & 4 BOLT 'B'		CODE C 2 & 4 BOLT 'C'				CODE 2	CODE 3
656040		673338				621624	622464
(1) EACH BEAR, 720959 & 720960 IN FLANGE ASSEMBLY							

LIST OF MATERIAL				
ITEM NO.	PART NO.	QTY.	DESCRIPTION	
15	633206	1	PRESSURE PLATE	(TOP)
16	633207	1	PRESSURE PLATE	(BOTTOM)
17	721009	4	SEALING STRIP	
20	66-156-N552-90	1	O-RING	
21	69-5000-200	1	SNAP RING	
22	625256	* 2	SEALS	FOR DRIVE GEAR CODES 1, 2 & 3
	625527	* 2	SEALS	FOR DRIVE GEAR CODE 4 ONLY
23	720932	1	PLUG	
24	31-16KH3390	2	DOWELS	
25	622257	8	WASHERS	
26	626698	1	PLUG	
27	73D-8-12HG8	8	CAPSCREWS GR. 8 1/2-13NC x 1.25 LG. HEX HD.	

FOR SERVICE ONLY				
	720917	1	SOFT GOODS KIT	FOR GEAR CODES 1, 2 & 3
	720918	1	SOFT GOODS KIT	FOR GEAR CODE 4 ONLY
	720940	1	SUB-ASSEMBLY KIT	FOR GEAR CODES 1, 2 & 3
	720041	1	SUB-ASSEMBLY KIT	FOR GEAR CODE 4 ONLY



SIZE	10	FRONT DRIVE GEAR				11	IDLER GEARS	12	REAR DRIVE	13	FRONT BODIES	FRONT BODIES	14	REAR BODIES	REAR BODIES	15	STUDS	15	STUDS	DWG. NO.: 720925-9
	(1) REQ'D EACH UNIT					(1) REQ'D EACH SECTION	(1) REQ'D EACH UNIT	(1) REQ'D EACH UNIT	SAE 4-BOLT CONNECTORS (2) BEARINGS 720958 INCLUDED IN BODY ASSY.	BLANK PORT BODIES FOR PARTS ORDERS ONLY (2) BEARINGS 720958 INCLUDED IN BODY ASSY.	(1) REQ'D EACH UNIT	SAE 4-BOLT CONNECTORS (2) BEARINGS 720958 INCLUDED IN BODY ASSY.	BLANK PORT BODIES FOR PARTS ORDERS ONLY (2) BEARINGS 720958 INCLUDED IN BODY ASSY.	(8) REQ'D EACH UNIT FOR ALL SIZES EXCEPT W/ D10 ON REAR	(8) REQ'D EACH UNIT FOR D10 REAR SECTION ONLY					
	CODE 1 1 1/4-14 SPLINE		CODE 3 1.25 KEYED	CODE 4 7/8-13 SPLINE																
D10	-	-	-	-	-	636628	721071	-	-	-	721078	-	-	-	-	-	-	-		
D15	637101	-	635878	639888	-	634006	636135	657456	650074	654561	720910	623558	622793							
D20	634008	-	635115	637955	-	634097	634003	655988	650075	654563	720911	623541	622794							
D25	634009	-	635116	-	-	634098	634004	655989	650076	654566	720912	623550	623541							
D30	634000	-	635117	-	-	634099	634005	655980	650077	654568	720913	623543	623541							
D35	635111	-	635118	-	-	634090	635197	654446	650078	654037	720914	622796	623550							
D40	635181	-	635119	-	-	634080	635198	654447	650079	654038	720915	622797	623543							
D45	635113	-	635110	-	-	634899	635199	654435	650070	654550	720916	622798	622796							

17 FLANGES					KEYS	
(1) REQ'D EACH UNIT					(1) REQ'D EACH UNIT	
CODE B 2X4-B	CODE C 2X4-C				FOR STRAIGHT SHAFTS	
					-	CODE 3
656040	673338				-	622464
(1) EACH 720959 & 720960 BUSHINGS IN FLG. ASSY.						

*** NOT REQUIRED WITH D10 ON REAR

** PART NO. DETERMINED BY REAR SECTION SIZE

* PART NO. DETERMINED BY DRIVE SHAFT CODE

SIZE	10 FRONT DRIVE GEAR				11 IDLER GEAR	12 BODY	BODY	13 STUDS
	(1) REQ'D EACH UNIT				(1) REQ'D EACH UNIT	(1) REQ'D EACH UNIT	FOR PARTS ORDERS ONLY	(8) REQ'D EACH UNIT
	CODE	CODE				(2) BEARINGS NO. 720958 INCLUDED IN BODY ASS'Y SAE 4-BOLT CONNECTOR	(2) BEARINGS NO. 720958 INCLUDED IN BODY ASS'Y BLANK PORT BODIES	
	1	3						
	1.25 SPLINE	1.25 KEYED						
DB15	637101	635878	-	-	634006	657456	650074	625593
DB20	634008	635115	-	-	634097	655988	650075	622763
DB25	634009	635116	-	-	634098	655989	650076	622584
DB30	634000	-	-	-	634099	655980	650077	623565
DB35	635111	-	-	-	634090	654446	650078	622766
DB40	635181	-	-	-	634080	654447	650079	622860
DB45	635113	-	-	-	634899	654435	650070	622484

14 FLANGES		15 ADAPTER PLATES		16 COUPLINGS	17 SNAP RINGS FOR COUPLINGS		KEYS	
(1) REQ'D EACH UNIT		(1) REQ'D EACH UNIT		(1) REQ'D EACH UNIT	** (1) REQ'D EACH UNIT		(1) REQ'D EACH UNIT	
CODE	CODE	CODE	CODE	CODE	FOR CODE	FOR CODE	FOR CODE	FOR CODE
B	C	A	B	58	78	58	78	3
2X4-B	2X4-C	3.25 PILOT	4.00 PILOT	5/8 SPLINE	7/8 SPLINE	COUPLING	COUPLING	SHAFT
656040	673338	723001	723000	638468	722707	69-N5000-51	69-N5000-75	622464
(1) EACH 720958 & 720960 BUSHINGS IN FLG. ASSY.								

O-RINGS	
(1) REQUIRED EACH UNIT	
66-042-N674-70	66-045-N674-70
CAPSCREWS	
(2) REQUIRED EACH UNIT	
73D-6-12HG8	73D-8-12HG8

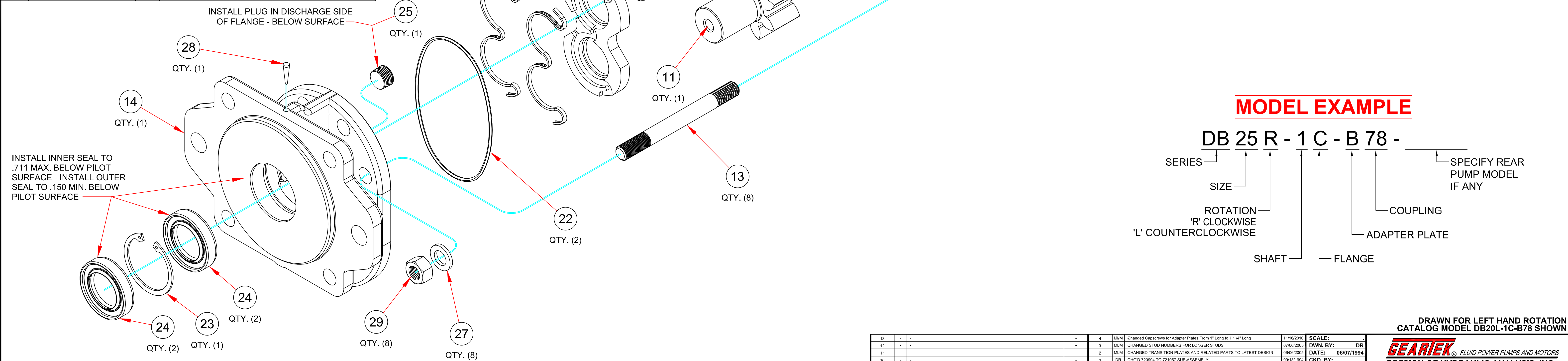
EXCEPTIONS:
** SNAP RING NOT REQUIRED IF USING TYRONE P12 ON REAR

PARTS COMMON TO ALL UNITS

ITEM NO.	PART NO.	QUAN.	DESCRIPTION
18	633206	1	PRESSURE PLATE (TOP)
19	633207	1	PRESSURE PLATE (BOTTOM)
20	721009	4	SEALING STRIP
-	-	-	-
22	66-156-N552-90	2	O-RING
23	69-5000-200	1	SNAP RING
24	625256	2	SEAL FOR CODE 1 & 3 SHAFTS
25	720932	1	PLUG
26	31-16KH3390	4	DOWELS
27	622257	8	WASHER
28	626698	1	PLUG
29	60-HR8	8	NUT 1/2-20NF HEAT TREATED
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

FOR SERVICE ONLY

-	720991	1	SOFT GOODS KIT	CODE 1 & 3 SHAFTS
-	720994	1	SUB-ASSEMBLY KIT	CODE 1 & 3 SHAFTS
-	-	-	-	-
-	-	-	-	-




NOTE: IF SHIPPING WITHOUT FRONT PUMP O-RING, CAPSCREWS & COUPLING w/ SNAP RING TO BE SHIPPED IN A PLASTIC BAG

MODEL EXAMPLE

DB 25 R - 1 C - B 78 -

SERIES SIZE ROTATION 'R' CLOCKWISE 'L' COUNTERCLOCKWISE SHAFT FLANGE COUPLING ADAPTER PLATE SPECIFY REAR PUMP MODEL IF ANY

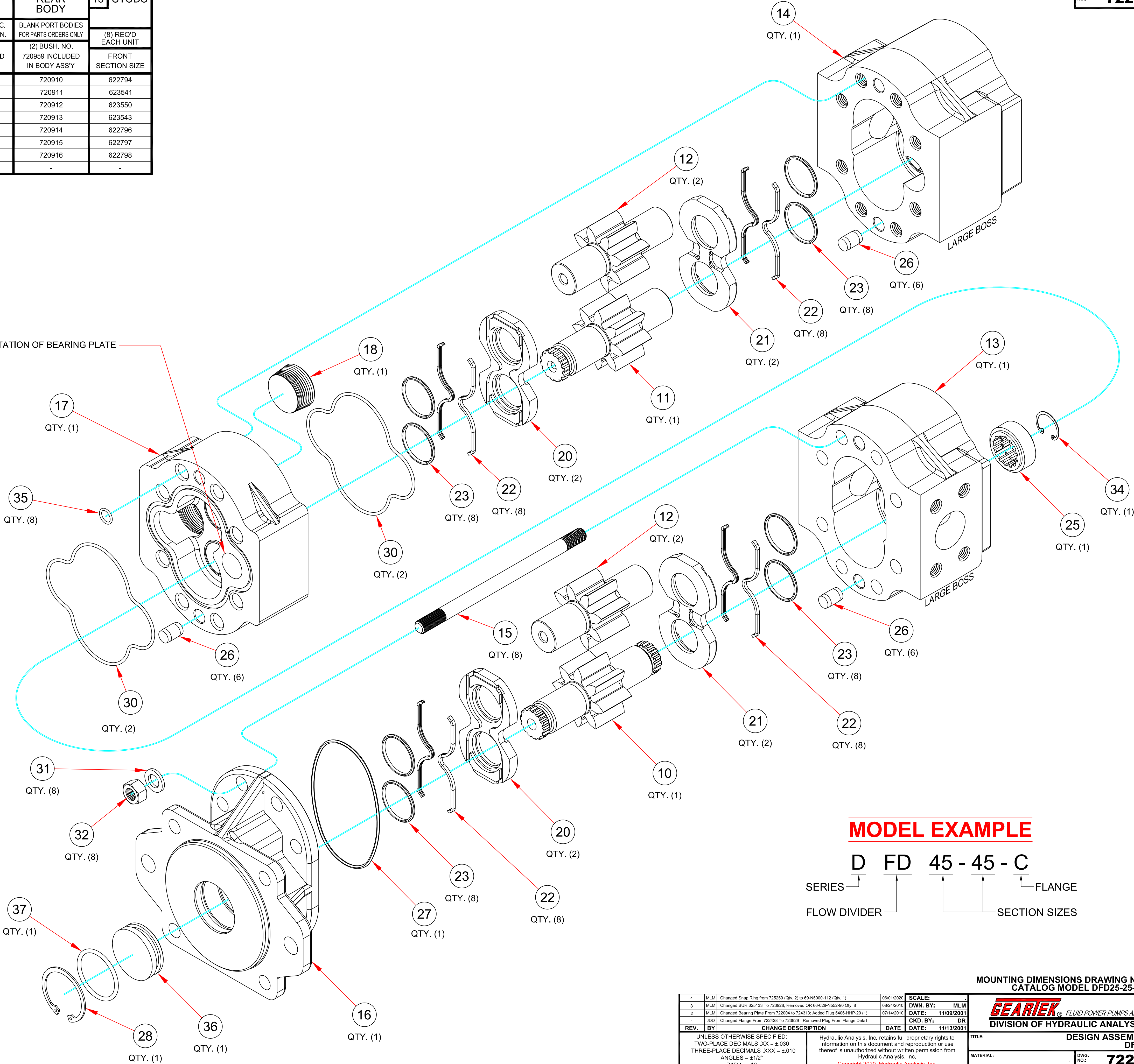
13	-	-	-	4	MLM	Changed Capscrews for Adapter Plates From 1" Long to 1.14" Long	11/16/2010	SCALE:			 FLUID POWER PUMPS AND MOTORS DIVISION OF HYDRAULIC ANALYSIS, INC.		
12	-	-	-	3	MLM	CHANGED STUD NUMBERS FOR LONGER STUDS	07/06/2005	DWN. BY:	DR				
11	-	-	-	2	MLM	CHANGED TRANSITION PLATES AND RELATED PARTS TO LATEST DESIGN	06/06/2005	DATE:	06/07/1994				
10	-	-	-	1	DR	CHSD 720994 TO 721057 SUB-ASSEMBLY	09/13/1994	CKD. BY:					
9	-	-	-	-	REV. BY	CHANGE DESCRIPTION	DATE	DATE:					
8	-	-	-	-	UNLESS OTHERWISE SPECIFIED:						TITLE:	DESIGN ASSEMBLY & L/M	
7	-	-	-	-	TWO-PLACE DECIMALS .XX = ±.030						DB SERIES PIGGY-BACK		
6	MLM	Changed Coupling 720989 to 722707			11/11/2014	THREE-PLACE DECIMALS .XXX = ±.010						MATERIAL:	DWG. NO.
5	MLM	Removed 2nd Snap Ring Groove From View Showing Code 58 Coupling			07/07/2014	ANGLES = ±1/2°							
REV.	BY	CHANGE DESCRIPTION	DATE	RADII .12						Copyright 2017, Hydraulic Analysis, Inc.			
												721056-6	

	10	11	12	13			14		15
	FRONT DRIVE GEAR	REAR DRIVE GEAR	IDLER GEARS	FRONT BODY	FRONT BODY	REAR BODY	REAR BODY	STUDS	
	(1) REQUIRED EACH UNIT	(1) REQUIRED EACH UNIT	(1) REQUIRED EACH SECTION	(1) REQ'D EA. SEC. SAE 4-BOLT CONN. (2) BUSH. NO. 720959 INCLUDED IN BODY ASS'Y	BLANK PORT BODIES FOR PARTS ORDERS ONLY (2) BUSH. NO. 720959 INCLUDED IN BODY ASS'Y	(1) REQ'D EA. SEC. SAE 4-BOLT CONN. (2) BUSH. NO. 720959 INCLUDED IN BODY ASS'Y	BLANK PORT BODIES FOR PARTS ORDERS ONLY (2) BUSH. NO. 720959 INCLUDED IN BODY ASS'Y	(8) REQ'D EACH UNIT	
SIZE								FRONT SECTION SIZE	
DFD15	636136	636135	634006	722429	650074	721454	720910	622794	
DFD20	635133	634003	634097	722430	650075	721456	720911	623541	
DFD25	635134	634004	634098	722431	650076	721463	720912	623550	
DFD30	635135	634005	634099	722432	650077	722436	720913	623543	
DFD35	635170	635197	634090	722433	650078	722437	720914	622796	
DFD40	635464	635198	634080	722434	650079	722438	720915	622797	
DFD45	637274	635199	634899	722435	650070	722439	720916	622798	
-	-	-	-	-	-	-	-	-	-

16	FLANGES			
	(1) REQUIRED EACH UNIT			
	CODE			
	C	-	-	-
	2x4 'C'	-	-	-
	723929	-	-	-
	(2) BUSHINGS NO. 720959 IN FLANGE ASSY.			

PARTS COMMON TO ALL UNITS			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
17	724313	1	BEARING PLATE
18	5406-HHP-20	1	PLUG <small>INSTALL PLUG ON OUTLET SIDE OF UNIT</small>
20	633803	2	PRESSURE PLATE (TOP)
21	633804	2	PRESSURE PLATE (BOTTOM)
22	633199	8	SEALING STRIP
23	723928	8	BACK-UP RING
-	-	-	-
25	634172	1	COUPLING
26	31-16KH3390	6	DOWELS
27	66-156-N552-90	1	O-RING
28	69-5000-200	1	SNAP RING
-	-	-	-
30	66-158-N552-90	2	O-RING
31	622257	8	WASHER
32	60-HR8	8	NUT
-	-	-	-
34	69-N5000-112	1	SNAP RING
35	66-906-06-N552-90	8	O-RING (STUD STABILIZERS)
36	722404	1	PLUG
37	66-224-N552-90	1	O-RING
-	-	-	-
	722557	1	SUB-ASSEMBLY
	722558	1	SOFT GOODS KIT

NOTE: ORIENTATION OF BEARING PLATE



MODEL EXAMPLE

SERIES **D** **FD** **45 - 45 - C** FLANGE
FLOW DIVIDER SECTION SIZES

MOUNTING DIMENSIONS DRAWING NO. 721835
CATALOG MODEL DFD25-25-C SHOWN

4	MLM	Changed Snap Ring from 722559 (Qty. 2) to 69-N5000-112 (Qty. 1)	06/01/2020	SCALE:	
3	MLM	Changed BUR 625133 To 723928; Removed OR 66-028-N552-90 Qty. 8	08/24/2010	DWN. BY:	MLM
2	MLM	Changed Bearing Plate From 722004 to 724313; Added Plug 5406-HHP-20 (1)	07/14/2010	DATE:	11/09/2001
1	JDD	Changed Flange From 722428 To 723929 - Removed Plug From Flange Detail		CKD. BY:	DR
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	11/13/2001
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADIi .12			Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2020, Hydraulic Analysis, Inc.		

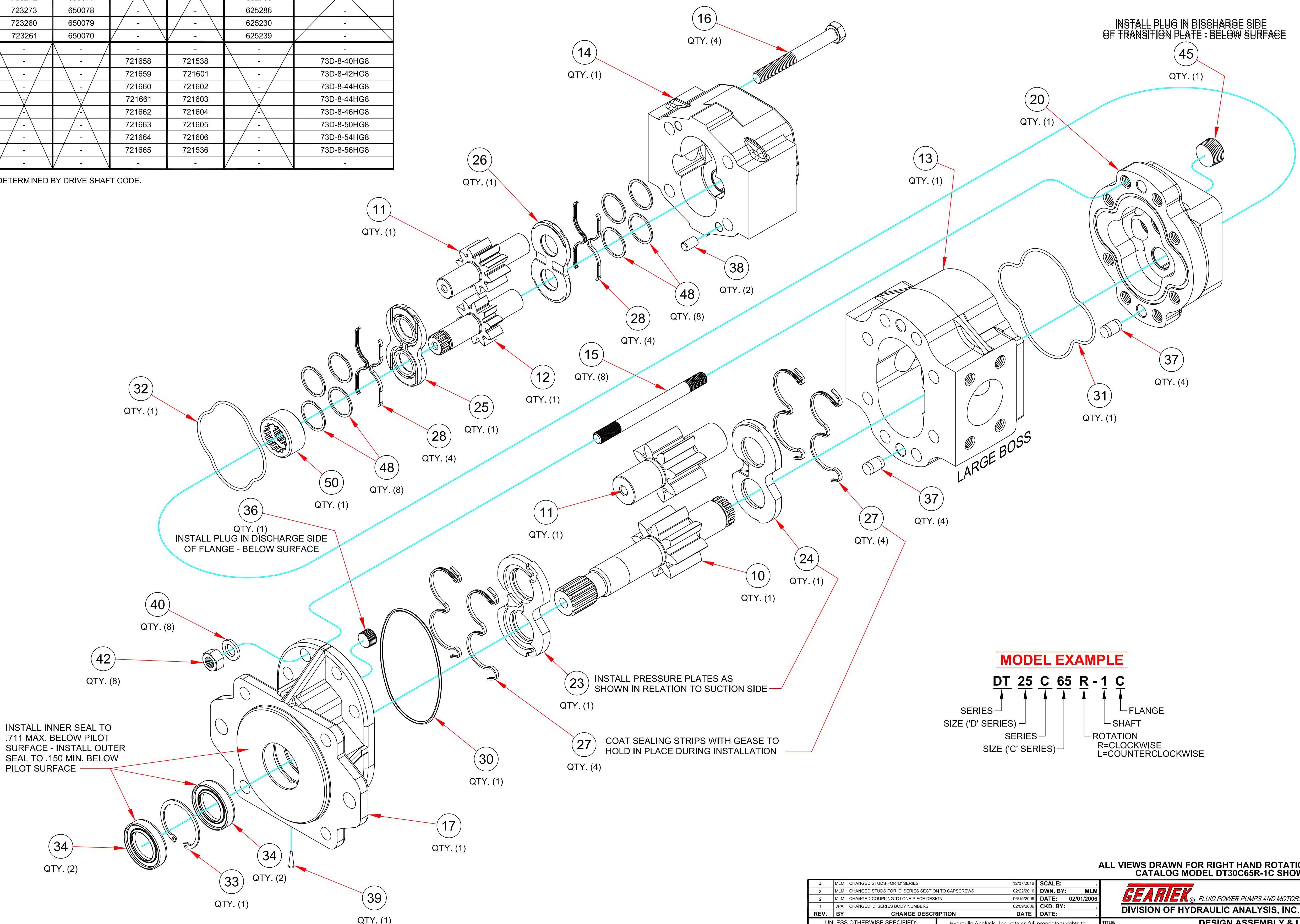
TITLE: DESIGN ASSEMBLY & L/M DFD SERIES	
MATERIAL:	DWG. NO.: 722427-4

SIZE	10 FRONT DRIVE GEARS			11 IDLER GEARS	12 REAR DRIVE GEARS	13 FRONT BODIES		14 REAR BODIES		15 FRONT STUDS	16 REAR CAPSCREWS
	(1) REQUIRED EACH UNIT			(1) REQUIRED EACH SECTION	(1) REQUIRED EACH UNIT	(1) REQUIRED EACH UNIT (2) BRG. NO. 720958 INCLUDED		(1) REQUIRED EACH UNIT (2) BRG. NO. 722852 INCLUDED		(8) REQUIRED EACH UNIT	(4) REQUIRED EACH UNIT
	CODE 1 1.25 SPLINE	CODE 3 1.25 KEYED	CODE 4 .875 SPLINE			SAE 4-BOLT CONNECTORS	BLANK PORT BODIES FOR SERVICE ONLY	SAE 4-BOLT CONNECTORS	BLANK PORT BODIES FOR SERVICE ONLY		
-	-	-	-	-	-	-	-	-	-	-	-
D15	637101	635878	639888	634006	-	723270	650074	-	-	622763	-
D20	634008	635115	637955	634097	-	723271	650075	-	-	622584	-
D25	634009	635116	721073	634098	-	655981	650076	-	-	622560	-
D30	634000	635117	721072	634099	-	723272	650077	-	-	622766	-
D35	635111	635118	-	634090	-	723273	650078	-	-	625286	-
D40	635181	635119	-	634080	-	723260	650079	-	-	625230	-
D45	635113	635110	-	634899	-	723261	650070	-	-	625239	-
-	-	-	-	-	-	-	-	-	-	-	-
C45	-	-	-	721560	721581	-	-	721658	721538	-	73D-8-40HG8
C65	-	-	-	721561	721582	-	-	721659	721601	-	73D-8-42HG8
C85	-	-	-	721548	721583	-	-	721660	721602	-	73D-8-44HG8
C100	-	-	-	721562	721584	-	-	721661	721603	-	73D-8-44HG8
C115	-	-	-	721563	721585	-	-	721662	721604	-	73D-8-46HG8
C150	-	-	-	721564	721586	-	-	721663	721605	-	73D-8-50HG8
C180	-	-	-	721565	721587	-	-	721664	721606	-	73D-8-54HG8
C200	-	-	-	721566	721588	-	-	721665	721536	-	73D-8-56HG8
-	-	-	-	-	-	-	-	-	-	-	-

17 FLANGES					KEYS	
(1) REQUIRED EACH UNIT					(1) REQ'D EACH UNIT	
CODE B 2x4 'B'	CODE C 2x4 'C'	-	-	-	CODE 3 1.25 KEYED	
656040	673338	-	-	-	622464	
(1) 720959 BEARING IN FLANGE ASSEMBLY						
(1) 720960 BEARING IN FLANGE ASSEMBLY						

PARTS COMMON TO ALL UNITS			
ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION
20	723081	1	TRANSITION PLATE
-	-	-	-
-	-	-	-
23	633206	1	PRESSURE PLATE
24	633207	1	PRESSURE PLATE
25	721569	1	PRESSURE PLATE
26	721570	1	PRESSURE PLATE
27	721009	4	SEALING STRIP
28	721682	4	SEALING STRIP
-	-	-	-
30	66-156-N552-90	1	O-RING
31	66-158-N552-90	1	O-RING
32	66-153-N552-90	1	O-RING
33	69-5000-200	1	SNAP RING
34	625256	2	SEAL
34	625527	2	SEAL
-	-	-	-
36	720932	1	PLUG
37	31-16KH3390	4	DOWEL
38	627110	2	DOWEL
39	626698	1	PLUG
40	622257	12	WASHER
-	-	-	-
42	60-HR8	8	NUT
-	-	-	-
-	-	-	-
-	-	-	-
45	5406-HHP-12	1	PIPE PLUG
-	-	-	-
48	721691	8	BACK-UP RING
-	-	-	-
-	-	-	-
50	723233	1	COUPLING
-	-	-	-
-	-	-	-
-	723237	1	SUB-ASSEMBLY KIT
-	723238	1	SUB-ASSEMBLY KIT
-	-	-	-
-	-	-	-
-	723239	1	SOFT GOODS KIT
-	723240	1	SOFT GOODS KIT
-	-	-	-
-	-	-	-
-	-	-	-

* DETERMINED BY DRIVE SHAFT CODE.



MODEL EXAMPLE

DT 25 C 65 R - 1 C

SERIES SIZE ('D' SERIES) SERIES SIZE ('C' SERIES) FLANGE ROTATION R=CLOCKWISE L=COUNTERCLOCKWISE

ALL VIEWS DRAWN FOR RIGHT HAND ROTATION CATALOG MODEL DT30C65R-1C SHOWN

4	MLM	CHANGED STUDS FOR 'D' SERIES	12/07/2016	SCALE:	
3	MLM	CHANGED STUDS FOR 'C' SERIES SECTION TO CAPSCREWS	02/22/2010	DWN. BY:	MLM
2	MLM	CHANGED COUPLING TO ONE PIECE DESIGN	06/15/2006	DATE:	02/01/2006
1	JPA	CHANGED 'D' SERIES BODY NUMBERS	02/08/2006	CKD. BY:	
REV.	BY:	CHANGE DESCRIPTION	DATE	DATE:	

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADIi .12

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TITLE: DESIGN ASSEMBLY & L/M DTC SERIES

MATERIAL:

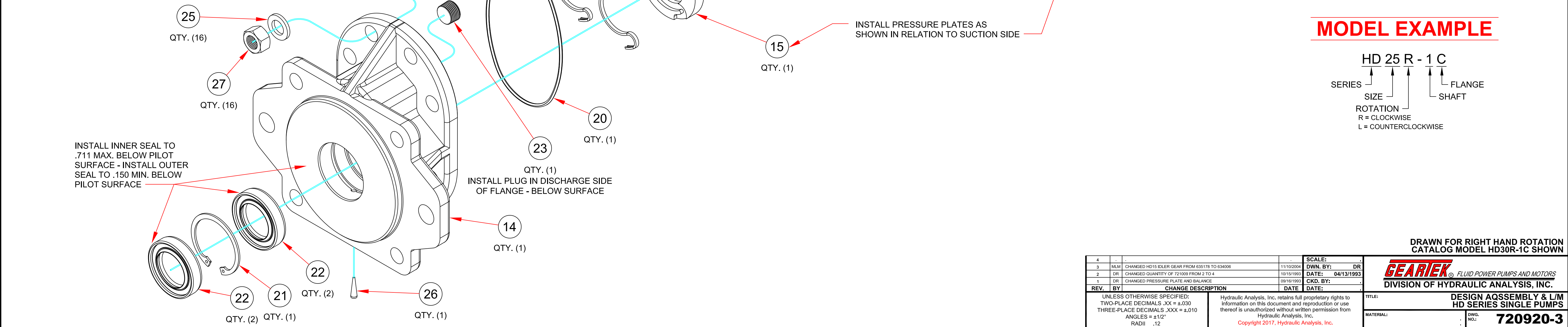
DWG. NO.: 723235-4

SIZE ↓	10 DRIVE GEAR					11 IDLER GEAR		12 BODIES		BLANK PORT BODIES		13 STUDS	
	(1) REQUIRED EACH UNIT					(1) REQUIRED EACH UNIT		(1) REQUIRED EACH UNIT		FOR PARTS ORDERS ONLY		(8) REQUIRED EACH UNIT	
	CODE 1 1 1/4-14 SPLINE	-	CODE 3 1 1/4" KEYED	-	-			(2) BEARINGS 720960 ** INCLUDED IN BODY ASSEMBLY		(2) BEARINGS 720960 ** INCLUDED IN BODY ASSEMBLY			
-	-	-	-	-	-	-		-		-		-	
HD15	635273	-	635219	-	-	634006		657456 **		650074 **		625357	
HD20	635274	-	635210	-	-	636662		659743		673311		625358	
HD25	635275	-	635221	-	-	636508		659744		673312		625358	
HD30	635276	-	-	-	-	636330		659745		673313		625359	
HD35	635277	-	-	-	-	636216		658486		673314		625359	
HD40	635278	-	-	-	-	635088		658216		673315		625359	
HD45	635279	-	-	-	-	639647		657095		673316		720923	

14 FLANGES					KEYS	
(1) REQUIRED EACH UNIT					(1) REQ'D EACH UNIT w/ STRAIGHT SHAFT	
CODE B 2 & 4 BOLT 'B'	CODE C 2 & 4 BOLT 'C'	-	-	-	-	CODE 3
656040	673338	-	-	-	-	622464
(1) BEARING EACH 720959 AND 720960 IN FLANGE ASSEMBLY						

LIST OF MATERIAL			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
15	633206	1	PRESSURE PLATE (TOP)
16	633207	1	PRESSURE PLATE (BOTTOM)
17	721009	4	SEALING STRIPS
-	-	-	-
-	-	-	-
20	66-156-N552-90	1	O-RING
21	69-5000-200	1	SNAP RING
22	625256	2	SEALS
23	720932	1	PLUG
24	31-16KH3390	2	DOWELS
25	622257	16	WASHERS
26	626698	1	PLUG
27	60-HR8	16	NUTS
-	-	-	-
29	652247	1	COVER PLATE
30	66-241-N674-70	1	O-RING
-	-	-	-
-	-	-	-

FOR SERVICE ONLY			
-	-	-	-
720921	1	SOFT GOODS KIT	-
-	-	-	-
720942	1	SUB-ASSEMBLY KIT	-
-	-	-	-
-	-	-	-



SIZE <div>↓</div>	10	DRIVE GEAR					11	IDLER GEAR	12	REAR DRIVES	13	BODIES	BLANK PORT BODIES		15	STUDS						
	(1) REQUIRED EACH UNIT						(1) REQUIRED EACH UNIT	(1) REQUIRED EACH UNIT	(1) REQUIRED EACH UNIT	FOR PARTS ORDERS ONLY	(8) REQUIRED EACH UNIT											
	CODE 1 1 1/4-14 SPLINE	- - -	CODE 3 1 1/4* KEYED	- - -	- - -	- - -			(2) BEARINGS 720960 ** INCLUDED IN BODY ASSEMBLY	(2) BEARINGS 720960 ** INCLUDED IN BODY ASSEMBLY	REAR SECTION SIZE											
											15	20	25	30	35	40	45					
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
HD15	637101	-	635878	-	-	634006	636135	657456 **	650074 **	625362	-	-	-	-	-	-	-					
HD20	636945	-	637102	-	-	636662	634003	659743	673311	625363	625364	-	-	-	-	-	-					
HD25	636507	-	637103	-	-	636508	634004	659744	673312	625363	625364	625364	-	-	-	-	-					
HD30	636339	-	-	-	-	636330	634005	659745	673313	626484	625364	625364	625366	-	-	-	-					
HD35	636211	-	-	-	-	636216	635197	658486	673314	625364	625364	625366	625366	625366	-	-	-					
HD40	636126	-	-	-	-	635088	635198	658216	673315	625364	625366	625366	625366	622819	625383	-	-					
HD45	636127	-	-	-	-	639647	635199	657095	673316	625364	625366	625366	622819	625383	625383	625383	-					

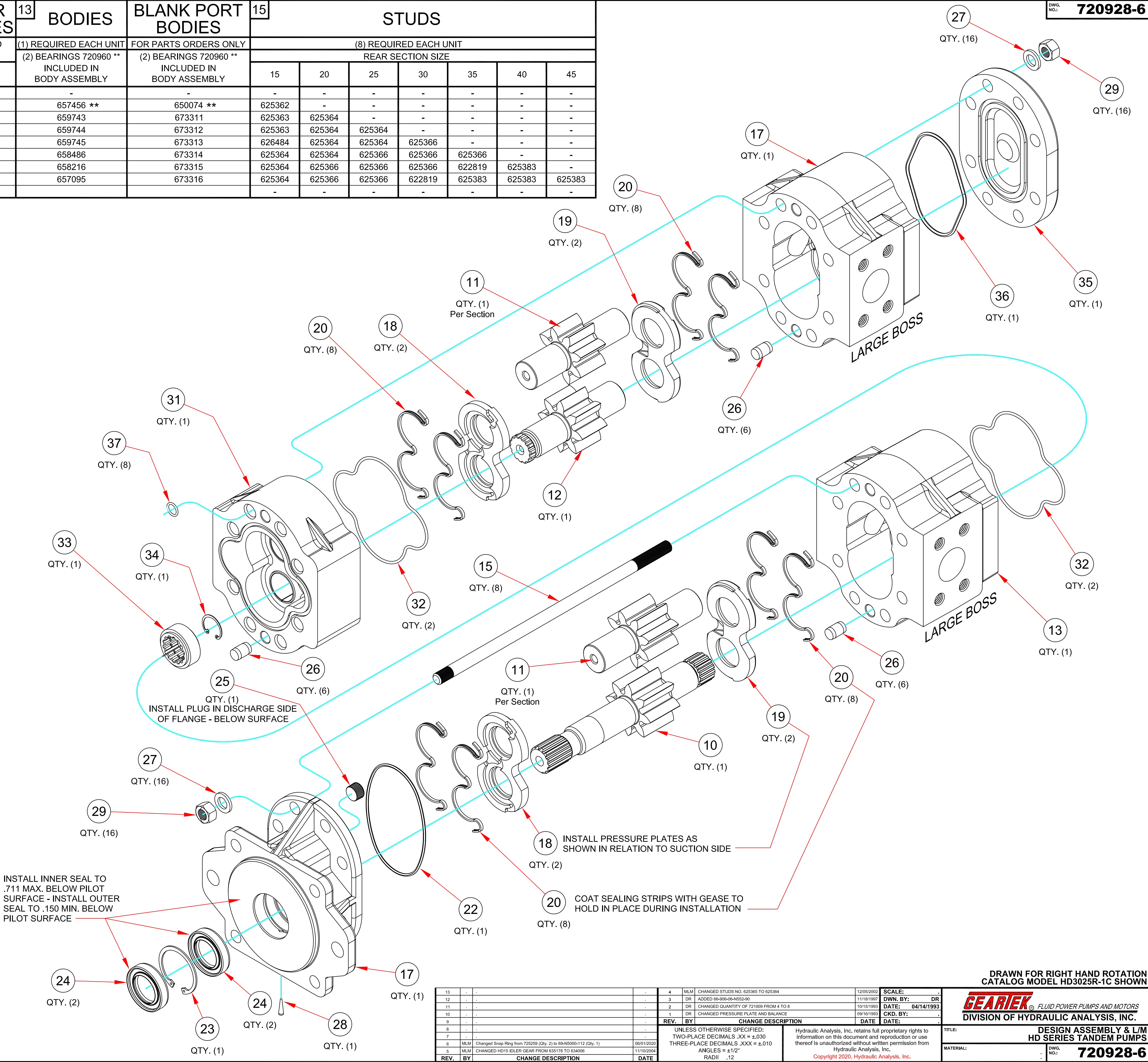
17 FLANGES					KEYS	
(1) REQUIRED EACH UNIT					(1) REQ'D EACH UNIT w/ STRAIGHT SHAFT	
CODE B 2 & 4 BOLT 'B'	CODE C 2 & 4 BOLT 'C'	-	-	-	-	CODE 3
656040	673338	-	-	-	-	622464
(1) BEARING EACH 720959 AND 720960 IN FLANGE ASSEMBLY						


LIST OF MATERIAL			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
18	633206	2	PRESSURE PLATES (TOP)
19	633207	2	PRESSURE PLATES (BOTTOM)
20	721009	8	SEALING STRIPS -
-	-	-	-
22	66-156-N552-90	1	O-RING -
23	69-5000-200	1	SNAP RING -
24	625256	2	SEALS -
25	720932	1	PLUG -
26	31-16KH3390	6	DOWELS -
27	622257	16	WASHERS -
28	626698	1	PLUG -
29	60-HR8	16	NUTS -
-	-	-	-
31	650962	1	BEARING PLATE -
32	66-158-N552-90	2	O-RINGS -
33	634172	1	COUPLING -
34	69-N5000-112	1	SNAP RING -
35	652247	1	COVER PLATE -
36	66-241-N552-90	1	O-RING -
37	66-906-06-N552-90	8	O-RINGS (STUD STABILIZERS) -
-	-	-	-

FOR SERVICE ONLY			
-	-	-	-
720929	1	SOFT GOODS KIT	-
-	-	-	-
720946	1	SUB-ASSEMBLY KIT	-
-	-	-	-
-	-	-	-

NOTES	
** EXCEPTION - BEARING NO. 720958	

MODEL EXAMPLE	
HD 25 25 R - 1 C	FLANGE SHAFT
SERIES	SIZE
ROTATION R = CLOCKWISE L = COUNTERCLOCKWISE	



13	-	-	-	4	MLM	CHANGED STUDS NO. 625365 TO 625364	12/05/2002	SCALE:	-	 FLUID POWER PUMPS AND MOTORS DIVISION OF HYDRAULIC ANALYSIS, INC.	
12	-	-	-	3	DR	ADDED 88-906-06-N552-90	11/18/1997	DWN. BY:	DR		
11	-	-	-	2	DR	CHANGED QUANTITY OF 721009 FROM 4 TO 8	10/15/1993	DATE:	04/14/1993		
10	-	-	-	1	DR	CHANGED PRESSURE PLATE AND BALANCE	09/16/1993	CKD. BY:	-		
9	-	-	-	-	-	-	DATE:	DATE:	-		
8	-	-	-	-	-	-	-	-	-	TITLE: DESIGN ASSEMBLY & L/M HD SERIES TANDEM PUMPS	
7	-	-	-	-	-	-	-	-	-		
6	MLM	Changed Snap Ring from 726259 (Qty. 2) to 69-N5000-112 (Qty. 1)	06/01/2020	-	-	-	-	-	-		
5	MLM	CHANGED HD15 IDLER GEAR FROM 635176 TO 634006	11/10/2004	-	-	-	-	-	-		
REV.	BY	CHANGE DESCRIPTION	DATE	-	-	-	-	-	-		
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADIi .12						Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2020, Hydraulic Analysis, Inc.				MATERIAL:	DWG. NO.: 720928-6

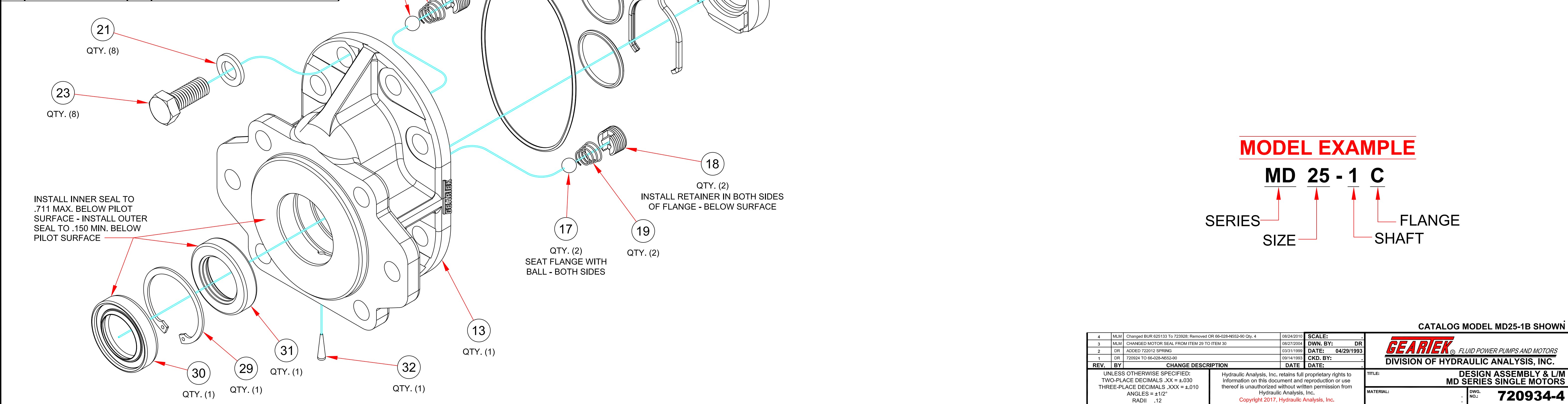
DRAWN FOR RIGHT HAND ROTATION
CATALOG MODEL HD3025R-1C SHOWN

GEARTEK FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

SIZE	10	DRIVE GEARS			11	IDLER GEARS	12	BODIES	BLANK BODIES
	(1) REQUIRED EACH UNIT				(1) REQUIRED EACH SECTION	(1) REQUIRED EACH UNIT		FOR PARTS ORDERS ONLY	
	CODE 1	CODE 2	CODE 3			SAE 4-BOLT CONN.			
	1.25 SPLINE	1.00 KEYED	1.25 KEYED			(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY		(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY	
-	-	-	-		-	-	-	-	
MD15	635273	635212	635219		634006	652045	720910		
MD20	635274	635213	635210		634097	652046	720911		
MD25	635275	635214	635221		634098	652047	720912		
MD30	635276	635215	635222		634099	652048	720913		
MD35	635277	635216	635223		634090	652049	720914		
MD40	635278	-	635224		634080	652040	720915		
MD45	635279	-	635225		634899	652051	720916		

13 FLANGES					KEYS	
(1) REQUIRED EACH UNIT					(1) REQ'D EACH UNIT	
CODE	CODE	-	-	-	CODE	CODE
B	C	-	-	-	2	3
2x4 'B'	2x4 'C'	-	-	-	1.00 KEYED	1.25 KEYED
656040	673338	-	-	-	621624	622464
(1) EACH OF BEARINGS 720959 & 720960 IN FLANGE ASSEMBLIES						

PARTS COMMON TO ALL UNITS			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
15	633803	1	PRESSURE PLATE TOP
16	633804	1	PRESSURE PLATE BOTTOM
17	85-375	2	BALLS
18	720933	2	RETAINERS
19	722012	2	SPRINGS
20	31-16KH3390	2	DOWELS
21	622257	8	WASHERS
22	6408-HHP-6-0	1	PLUG
23	73D-8-12HG8	8	CAPSCREWS
26	633199	4	SEALING STRIPS
27	723928	4	BACK-UP RINGS
28	66-156-N552-90	1	O-RING
29	69-5000-200	1	SNAP RING
30	625256	1	SEAL
31	68-125-200-14HVT	1	MOTOR SEAL
32	626698	1	PLUG
FOR SERVICE ONLY			
	720935	1	SOFT GOODS KIT
	720947	1	SUB-ASSEMBLY KIT



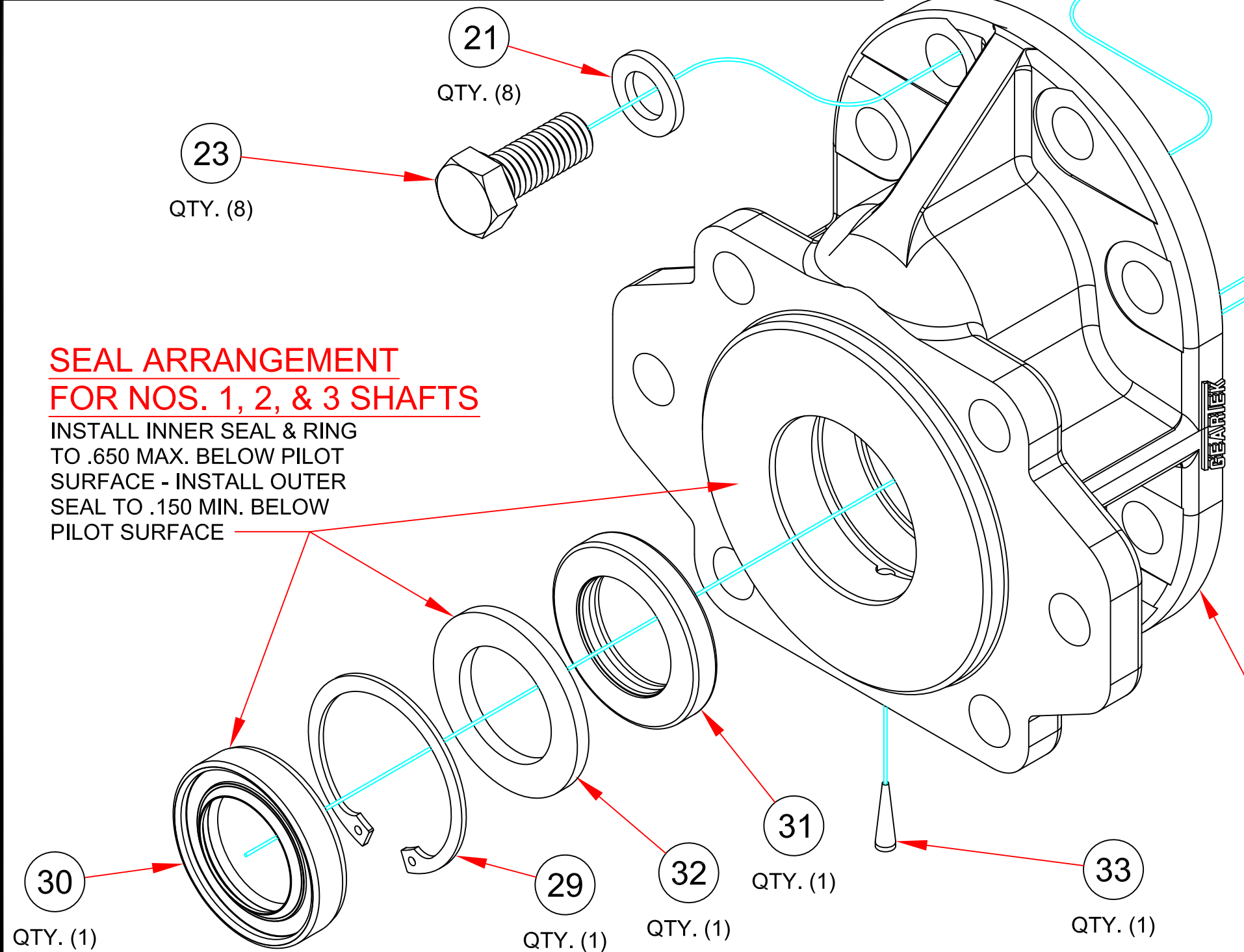
4	MLM	Changed BUR 625133 To 723628; Removed OR 66-028-N552-90 Qty. 4	08/24/2010	SCALE:	
3	MLM	CHANGED MOTOR SEAL FROM ITEM 29 TO ITEM 30	08/27/2004	DWN. BY:	DR
2	DR	ADDED 722012 SPRING	03/31/1999	DATE:	04/29/1993
1	DR	720924 TO 66-028-N552-90	09/14/1993	CKD. BY:	
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	
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			TITLE: DESIGN ASSEMBLY & L/M MD SERIES SINGLE MOTORS		
			MATERIAL:		
			DWG. NO.: 720934-4		

SIZE	10	DRIVE GEARS				11	IDLER GEARS	12	BODIES	BLANK BODIES
	(1) REQUIRED EACH UNIT					(1) REQUIRED EACH SECTION		(1) REQUIRED EACH UNIT		FOR PARTS ORDERS ONLY
	CODE 1	CODE 2	CODE 3	CODE 4	SAE 4-BOLT CONN.		(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY	(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY		
	1.25 SPLINE	1.00 KEYED	1.25 KEYED	.875 SPLINE						
-	-	-	-	-	-	-	-	-		
MDH15	635273P	635212P	635219P	635288P	634006	652045	720910			
MDH20	635274P	635213P	635210P	635289P	634097	652046	720911			
MDH25	635275P	635214P	635221P	635280P	634098	652047	720912			
MDH30	635276P	635215P	635222P	635291P	634099	652048	720913			
MDH35	635277P	635216P	635223P	635292P	634090	652049	720914			
MDH40	635278P	-	635224P	-	634080	652040	720915			
MDH45	635279P	-	635225P	-	634899	652051	720916			

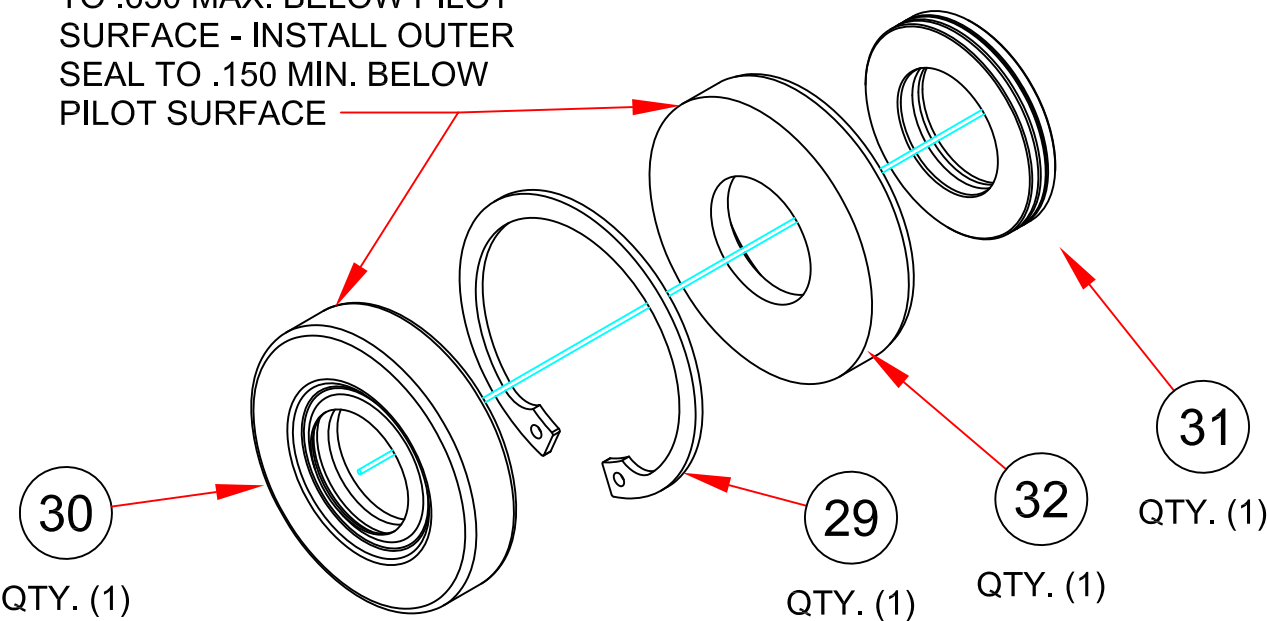
13 FLANGES						KEYS	
(1) REQUIRED EACH UNIT						(1) REQ'D EACH UNIT	
CODE	CODE	-	-	-	-	CODE	CODE
2x4 'B'	2x4 'C'	-	-	-	-	2	3
656040	673338	-	-	-	-	1.00 KEYED	1.25 KEYED
656040	673338	-	-	-	-	621624	622464
(1) EACH OF BEARINGS 720959 & 720960 IN FLANGE ASSEMBLIES							

PARTS COMMON TO ALL UNITS				
ITEM NO.	PART NO.	QTY.		DESCRIPTION
		FOR SHAFT NOS. 1, 2 & 3	FOR SHAFT NO. 4	
14	GT5537	1	-	SUB-ASSEMBLY KIT
	722762	-	1	SUB-ASSEMBLY KIT
15	633803	1	1	PRESSURE PLATE TOP
16	633804	1	1	PRESSURE PLATE BOTTOM
17	85-375	2	2	BALLS
18	720933	2	2	RETAINERS
19	722012	2	2	SPRINGS
20	31-16KH3390	2	2	DOWELS
21	622257	8	8	WASHERS
22	6408-HHP-6-0	1	1	PLUG
23	73D-8-12HG8	8	8	CAPSCREWS
-	-	-	-	-
25	GT5536	1	-	SOFT GOODS KIT
	722761	-	1	SOFT GOODS KIT
26	633199	4	4	SEALING STRIPS
27	723928	4	4	BACK-UP RINGS
28	66-156-N552-90	1	1	O-RING
29	69-5000-200	1	1	SNAP RING
30	625256	1	-	SEAL
	625527	-	1	SEAL
31	726183	1	-	HIGH PRESSURE SEAL
	722575	-	1	HIGH PRESSURE SEAL
32	721777	1	-	SEAL RING
	722760	-	1	SEAL ADAPTER
33	626698	1	1	PLUG
34	66-906-06-N552-90	1	1	O-RING

SEAL ARRANGEMENT FOR NOS. 1, 2, & 3 SHAFTS
INSTALL INNER SEAL & RING TO .650 MAX. BELOW PILOT SURFACE - INSTALL OUTER SEAL TO .150 MIN. BELOW PILOT SURFACE



SEAL ARRANGEMENT FOR NO. 4 SHAFT
INSTALL INNER SEAL & ADAPTER TO .650 MAX. BELOW PILOT SURFACE - INSTALL OUTER SEAL TO .150 MIN. BELOW PILOT SURFACE



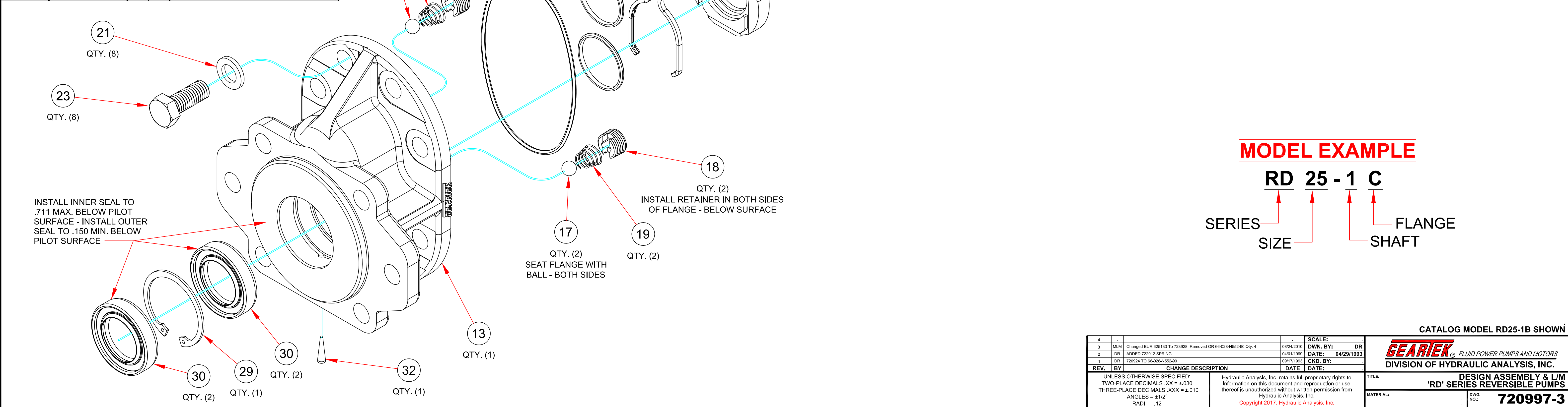
MODEL EXAMPLE
MD H 25 - 1 C
SERIES
HIGH PRESSURE SEAL
SIZE
FLANGE
SHAFT

4				CATALOG MODEL MDH25-1B SHOWN			
3	MLM	CHANGED SEAL 721801 TO 726183	08/24/2016	SCALE:	DWN. BY:	MLM	
2	MLM	Changed BUR 625133 To 723928; Removed OR 66-028-N552-90 Qty. 4	08/24/2010	DATE:	08/22/2003		
1	MLM	CHANGED ALL DRIVE GEARS TO "P" SUFFIX FOR POLISHING	08/10/2007	CKD. BY:			
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:			
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADIi .12				Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2017, Hydraulic Analysis, Inc.			
TITLE:				DESIGN ASSEMBLY & L/M 'MDH' SERIES			
MATERIAL:				DWG. NO.: 722759-3			

SIZE	10 DRIVE GEARS				11 IDLER GEARS	12 BODIES	BLANK BODIES
	(1) REQUIRED EACH UNIT					(1) REQUIRED EACH UNIT	FOR PARTS ORDERS ONLY
	CODE 1	CODE 2	CODE 3	CODE 4		(1) REQUIRED EACH SECTION	SAE 4-BOLT CONN.
	1.25 SPLINE	1.00 KEYED	1.25 KEYED	.875 SPLINE		(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY	(2) BEARINGS 720958 INCLUDED IN BODY ASSEMBLY
-	-	-	-	-	-	-	-
RD15	635273	635212	635219	635288	634006	652045	720910
RD20	635274	635213	635210	635289	634097	652046	720911
RD25	635275	635214	635221	635280	634098	652047	720912
RD30	635276	635215	635222	635291	634099	652048	720913
RD35	635277	635216	635223	635292	634090	652049	720914
RD40	635278	-	635224	-	634080	652040	720915
RD45	635279	-	635225	-	634899	652051	720916

13 FLANGES					KEYS	
(1) REQUIRED EACH UNIT					(1) REQ'D EACH UNIT	
CODE	CODE	-	-	-	CODE	CODE
B	C	-	-	-	2	3
2x4 'B'	2x4 'C'	-	-	-	1.00 KEYED	1.25 KEYED
656040	673338	-	-	-	621624	622464
(1) EACH OF BEARINGS 720959 & 720960 IN FLANGE ASSEMBLIES						

PARTS COMMON TO ALL UNITS				
ITEM NO.	PART NO.	QTY.		DESCRIPTION
		FOR SHAFT NOS. 1, 2 & 3	FOR SHAFT NO. 4	
14	720999	1	-	SUB-ASSEMBLY KIT
14	721000	-	1	SUB-ASSEMBLY KIT
15	633803	1	1	PRESSURE PLATE TOP
16	633804	1	1	PRESSURE PLATE BOTTOM
17	85-375	2	2	BALLS
18	720933	2	2	RETAINERS
19	722012	2	2	SPRINGS
20	31-16KH3390	2	2	DOWELS
21	622257	8	8	WASHERS
22	6408-HHP-6-0	1	1	PLUG
23	73D-8-12HG8	8	8	CAPSCREWS
-	-	-	-	-
25	721010	1	-	SOFT GOODS KIT
25	721011	-	1	SOFT GOODS KIT
26	633199	4	4	SEALING STRIPS
27	723928	4	4	BACK-UP RINGS
28	66-156-N552-90	1	1	O-RING
29	69-5000-200	1	1	SNAP RING
30	625256	2	-	SEALS
30	625527	-	2	SEALS
-	-	-	-	-
32	626698	1	1	PLUG
-	-	-	-	-



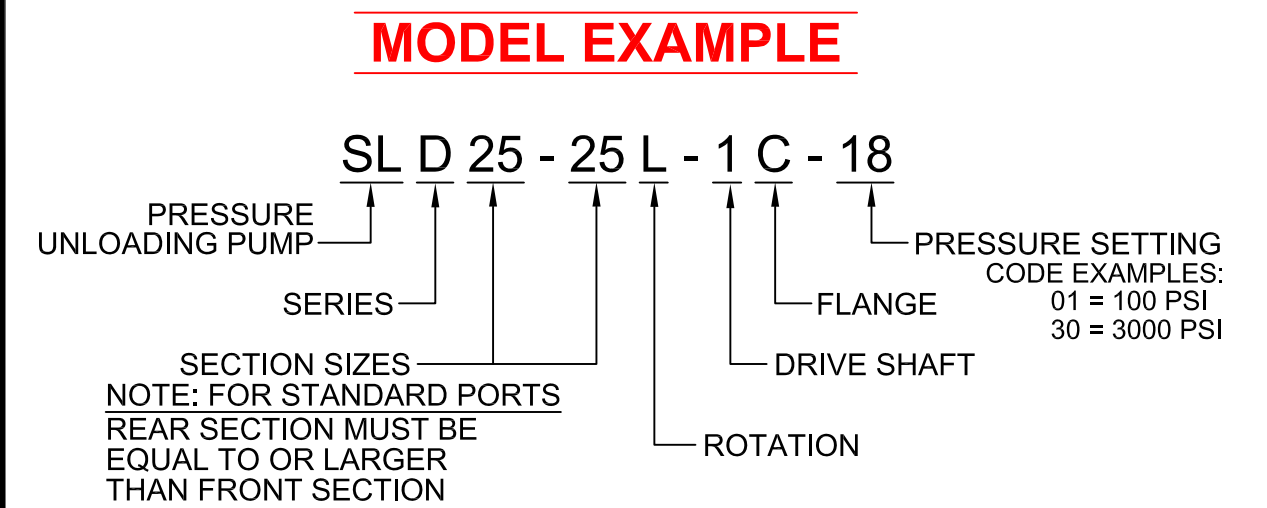
4				SCALE:		CATALOG MODEL RD25-1B SHOWN	
3	MLM	Changed BUR 625133 To 723928; Removed OR 66-028-N552-90 Qty. 4	08/24/2010	DWN. BY:	DR	GEARTEK FLUID POWER PUMPS AND MOTORS DIVISION OF HYDRAULIC ANALYSIS, INC.	TITLE: DESIGN ASSEMBLY & L/M 'RD' SERIES REVERSIBLE PUMPS
2	DR	ADDED 722012 SPRING	04/01/1999	DATE:	04/29/1993		
1	DR	720924 TO 66-028-N552-90	09/17/1993	CKD. BY:	-		
REV.	BY	CHANGE DESCRIPTION	DATE	DATE:	DATE:	MATERIAL:	DWG. NO.: 720997-3
UNLESS OTHERWISE SPECIFIED: TWO-PLACE DECIMALS .XX = ±.030 THREE-PLACE DECIMALS .XXX = ±.010 ANGLES = ±1/2° RADIi .12			Hydraulic Analysis, Inc. retains full proprietary rights to information on this document and reproduction or use thereof is unauthorized without written permission from Hydraulic Analysis, Inc. Copyright 2017, Hydraulic Analysis, Inc.				

SIZE ↓	10 FRONT DRIVE GEAR				11 REAR DRIVE	12 IDLER GEARS	13 FRONT BODY	FRONT BODY BLANK	14 REAR BODY	REAR BODY BLANK	15 STUDS						
	(1) REQ'D EACH UNIT										(1) REQ'D EACH UNIT	(1) REQ'D EACH SECTION	(1) REQ'D EACH UNIT (2) BEARINGS NO. 720958 INCLUDED IN BODY ASSEMBLY	(1) REQ'D EACH UNIT (2) BEARINGS # 720958 INCLUDED IN EACH BODY ASSEMBLY	(1) REQ'D EACH UNIT (2) BEARINGS NO. 720958 INCLUDED IN BODY ASSEMBLY	(1) REQ'D EACH UNIT (2) BEARINGS # 720958 INCLUDED IN EACH BODY ASSEMBLY	(8) REQ'D EACH UNIT
	CODE	CODE			DETERMINE SIZE BY FRONT SECTION FROM LEFT AND REAR SECTION BELOW												
	1	3			D15	D20	D25	D30	D35	D40							D45
	1.25 SPLINE	1.25 KEYED															
SLD15	637101	635878	-	-	636135	634006	723301	650074	723308	726994	723465	622966	622967	623721	622673	622674	622562
SLD20	634008	635115	-	-	634003	634097	723302	650075	723309	726995		622967	623721	622673	622674	622562	622676
SLD25	634009	635116	-	-	634004	634098	723303	650076	723310	726996				622673	622674	622562	622676
SLD30	634000	635117	-	-	634005	634099	723304	650077	723311	726997					622562	622676	622586
SLD35	635111	635118	-	-	635197	634090	723305	650078	723312	726998						622612	622586
SLD40	635181	635119	-	-	635198	634080	723306	650079	723313	726999							622471
SLD45	635113	635110	-	-	635199	634899	723307	650070	723314	727000							723466

20 FLANGES				KEYS		CARTRIDGE VALVES							
(1) REQ'D EACH UNIT				(1) REQ'D EACH UNIT FOR STRAIGHT SHAFTS		SED SOLENOID				SLD SEQUENCE			
CODE B 2X4-B	CODE C 2X4-C	CODE D 4-C		-	CODE 3	ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
656040	673338	721059		-	622464	47	724518	1	SOLENOID VALVE	47	724306	1	RELIEF VALVE
(1) EACH 720959 & 720960 BUSHINGS IN FLG. ASSY.						-	-	-	-				

PARTS COMMON TO ALL UNITS				12-DL COIL				24-DL COIL			
ITEM NO.	PART NO.	QUAN.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
30	633206	2	PRESSURE PLATE TOP	70	724519	1	12 VOLT LEADWIRE COIL	70	724520	1	24 VOLT LEADWIRE COIL
31	633207	2	PRESSURE PLATE BOTTOM	-	-	-	-	-	-	-	-
32	721009	8	SEALING STRIP								
33	720932	1	PLUG								
34	85-375	1	BALL (3/8" DIA.)								
35	66-156-19359	1	O-RING (VITON)								
36	69-5000-200	1	SNAP RING								
37	625256	2	SEAL								
-	-	-	-								
39	720933 *	1	RETAINER								
40	31-16KH3390	8	DOWELS								
41	622257	8	WASHERS								
42	626698	1	PLUG								
43	60-HR8	8	NUTS								
-	-	-	-								
45	722012	1	SPRING								
-	-	-	-								
-	-	-	-								
48	724220	1	VALVE BODY								
49	723274	1	COUPLING PLATE								
50	634172	1	COUPLING								
51	69-N5000-112	1	SNAP RING								
52	66-158-19359	2	O-RING (VITON)								
53	622035	1	PISTON								
54	636073	1	SPOOL								
55	13338	1	SPRING								
56	14713	1	BACK-UP RING								
57	66-121-N674-70	1	O-RING								
58	66-906-04-N552-90	5	O-RING								
59	73D-6-22HG8	4	CAPSCREWS								
60	724354	1	VALVE BLOCK								
61	66-906-06-N552-90	8	O-RING								
62	66-222-N552-90	1	O-RING								
63	6408-HHP-10-0	1	PLUG								
64	6408-HHP-4-0	5	PLUG								
65	622036	1	RETAINER								
66	66-906-10-N552-90	1	O-RING								
67	66-159-19359	1	O-RING								
68	724338	5	WASHERS								
FOR SERVICE ONLY											
-	GT6387	1	SOFT GOODS KIT								
-	-	-	-								
-	GT6386	1	SUB-ASSEMBLY KIT								
-	-	-	-								

INSTALL INNER SEAL TO .711 MAX. BELOW PILOT SURFACE - INSTALL OUTER SEAL TO .150 MIN. BELOW PILOT SURFACE



* INSTALL RETAINER IN INLET SIDE OF FLANGE - BELOW SURFACE

INSTALL PLUG IN DISCHARGE SIDE OF FLANGE - BELOW SURFACE

INSTALL PRESSURE PLATES AS SHOWN IN RELATION TO SUCTION SIDE

COAT SEALING STRIPS WITH GEASE TO HOLD IN PLACE DURING INSTALLATION

4	MLM	Changed Snap Ring from 720959 (Qty. 2) to 69-N5000-112 (Qty. 1)	06/01/2020	SCALE:	
3	MLM	ADDED BLANK BODY NUMBERS FOR REAR SECTIONS	10/10/2019	DWN. BY:	MLM
2	MLM	CHANGED QUANTITY OF WASHER (724338) FROM 4 TO 5	07/12/2012	DATE:	04/28/2010
1	MLM	ADDED SED OPTION TO LHM	09/07/2010	CKD. BY:	
REV.	BY:	CHANGE DESCRIPTION	DATE	DATE:	

UNLESS OTHERWISE SPECIFIED:
TWO-PLACE DECIMALS .XX = ±.030
THREE-PLACE DECIMALS .XXX = ±.010
ANGLES = ±1/2°
RADIi .12

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TITLE: DESIGN ASSEMBLY & L/M SLD or SED SERIES COMPOSITE

MATERIAL:

DWG. NO.: 724305-4

DRAWN FOR RIGHT HAND ROTATION CATALOG MODEL SLD2525R-1D SHOWN

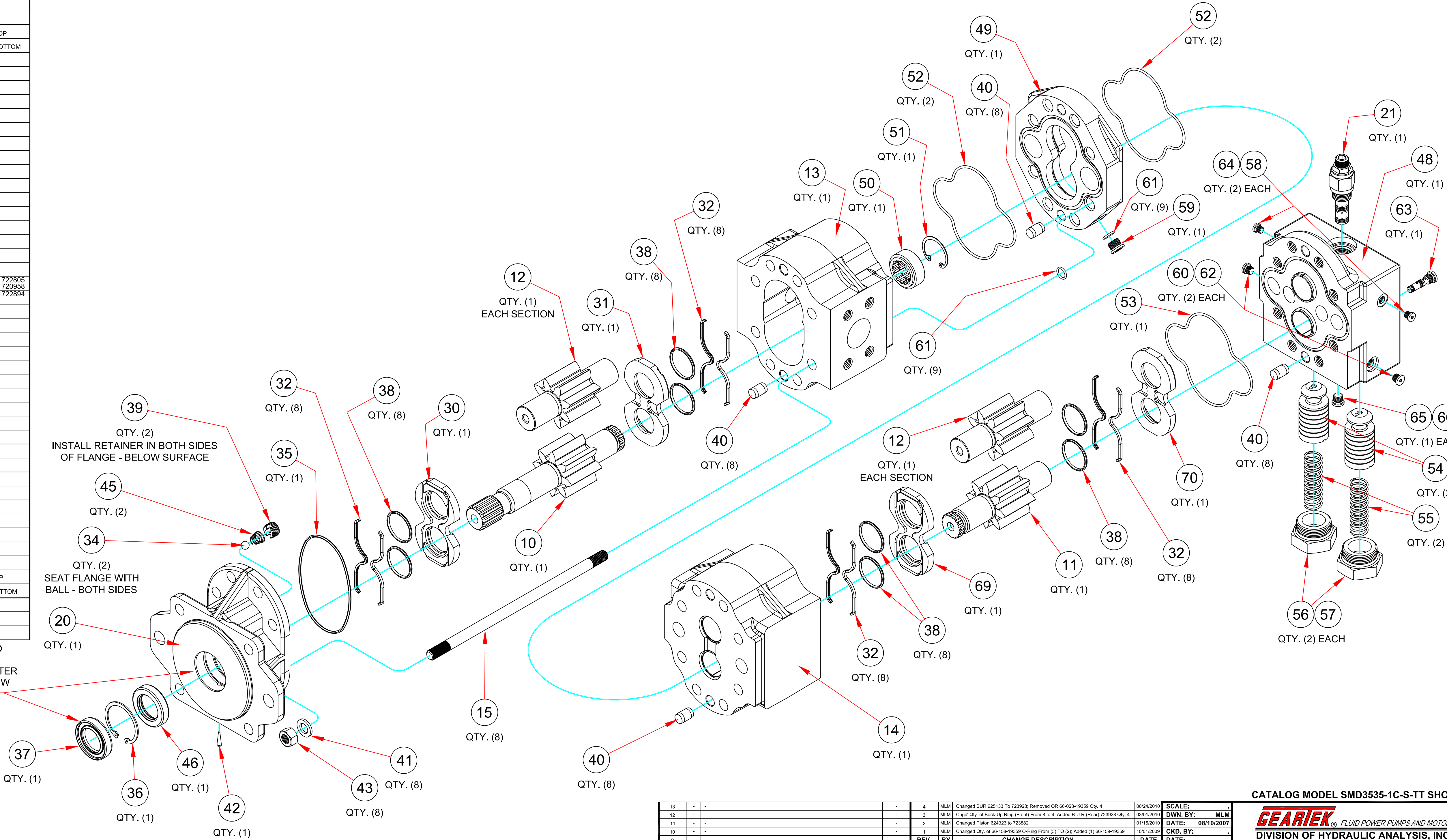
GEARTEK FLUID POWER PUMPS AND MOTORS
DIVISION OF HYDRAULIC ANALYSIS, INC.

SIZE ↓	10	FRONT DRIVE GEAR			11	REAR DRIVE	12	IDLER GEARS	13	FRONT BODY			14	REAR BODY	15	STUDS						
	(1) REQ'D EACH UNIT								(1) REQ'D EACH UNIT				(1) REQ'D EACH UNIT		(8) REQ'D EACH UNIT							
	CODE 1	CODE 3				(1) REQ'D EACH UNIT		(1) REQ'D EACH SECTION	(2) BEARINGS NO. 720958 INCLUDED IN BODY ASSEMBLY				(2) BEARINGS NO. 720958 INCLUDED IN BODY ASSEMBLY		DETERMINE SIZE BY FRONT SECTION FROM LEFT AND REAR SECTION BELOW							
	1.25 SPLINE	1.25 KEYED							CODE 'LL' PORTS O-RING BOSS	CODE 'TT' PORTS SPLIT FLANGE	BLANK PORTS				D15	D20	D25	D30	D35	D40	D45	
SMDH15	637101	635878	-	-		636135		634006		722868	723058	650074	722912		723465	622966	622967	623721	622673	622674	622562	
SMDH20	634008	635115	-	-		634003		634097		722869	723007	650075	722913		622966	622967	623721	622673	622674	622562	622676	
SMDH25	634009	635116	-	-		634004		634098		722871	723059	650076	722914		622967	623721	622673	622674	622562	622676	622612	
SMDH30	634000	635117	-	-		634005		634099		722872	723060	650077	722915		623721	622673	622674	622562	622676	622612	622586	
SMDH35	635111	635118	-	-		635197		634090		722873	723061	650078	722916		622673	622674	622562	622676	622612	622586	622471	
SMDH40	635181	635119	-	-		635198		634080		722874	723062	650079	722917		622674	622562	622676	622612	622586	622471	622679	
SMDH45	635113	635110	-	-		635199		634899		722875	723063	650070	722918		622562	622676	622612	622586	622471	622679	723466	

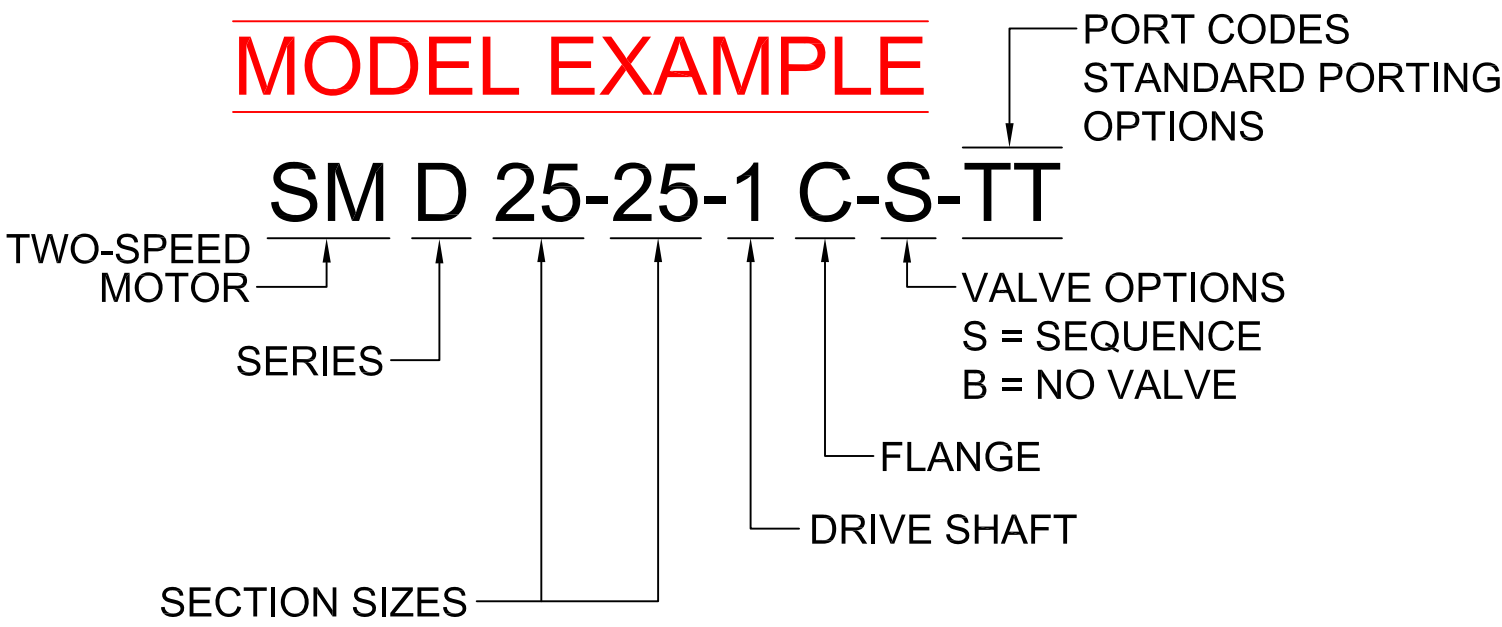
	20	FLANGES				KEYS		21	VALVE OPTIONS		
	(1) REQ'D EACH UNIT					(1) REQ'D EACH UNIT		(1) REQ'D EACH UNIT			
	CODE B 2X4-B	CODE C 2X4-C	CODE D 4-C		FOR STRAIGHT SHAFTS		CODE B NO VALVE	CODE S SEQUENCE			
					-	CODE 3					
	656040	673338	721059		-	622464	722880	722877			
	(1) EACH 720959 & 720960 BUSHINGS IN FLG. ASSY.										

PARTS COMMON TO ALL UNITS			
ITEM NO.	PART NO.	QTY.	DESCRIPTION
30	633803	1	PRESSURE PLATE (FRONT SECTION ONLY) TOP
31	633804	1	PRESSURE PLATE (FRONT SECTION ONLY) BOTTOM
32	633199	8	SEALING STRIP
-	-	-	-
34	85-375	2	BALL (3/8" DIA.)
35	66-156-19359	1	O-RING (VITON)
36	69-5000-200	1	SNAP RING
37	625256	1	SEAL
38	723928	8	BACK-UP RINGS
39	720933	2	RETAINER
40	31-16KH3390	8	DOWELS
41	622257	8	WASHERS
42	626698	1	PLUG
43	60-HR8	8	NUTS
-	-	-	-
45	722012	2	SPRING
46	68-125-250-14HVT	1	SEAL
		1	
48	722810	1	VALVE BODY CASTING NO. 722805 (2) BEARINGS NO. 720958
49	722895	1	COUPLING PLATE CASTING NO. 722894
50	634172	1	COUPLING
51	69-N5000-112	1	SNAP RING
52	66-158-19359	2	O-RING (VITON)
53	66-159-19359	1	O-RING (VITON)
54	723882	2	PISTON
55	623849	2	SPRING
56	6408-20-0	2	PLUGS
57	66-906-20-8309	2	O-RING
58	66-906-02-N552-90	2	O-RING
59	6408-HHP-6-0	1	PLUG
60	6408-HHP-3-0	2	PLUG
61	66-906-06-N552-90	9	O-RING
62	66-906-03-N552-90	2	O-RING
63	722876	1	SHUTTLE VALVE
64	6408-HHP-2-0	2	PLUG
65	6408-HHP-4-0	1	PLUG
66	66-906-04-N552-90	1	O-RING
69	722988	1	PRESSURE PLATE (REAR SECTION ONLY) TOP
70	722989	1	PRESSURE PLATE (REAR SECTION ONLY) BOTTOM
FOR SERVICE ONLY			
	722882	1	SOFT GOODS KIT
	722883	1	SUB-ASSEMBLY KIT

INSTALL INNER SEAL TO .711 MAX. BELOW PILOT SURFACE - INSTALL OUTER SEAL TO .150 MIN. BELOW PILOT SURFACE



MODEL EXAMPLE



CATALOG MODEL SMD3535-1C-S-TT SHOWN

13	-	-	4	MLM	Changed BUR 625133 To 722938; Removed OR 66-026-19359 Qty. 4	08/24/2010	SCALE:	
12	-	-	3	MLM	Chgd Qty. of Back-Up Ring (Front) From 8 to 4; Added B-4 R (Rear) 723928 Qty. 4	03/01/2010	DWN. BY:	MLM
11	-	-	2	MLM	Changed Piston 624323 to 723882	01/15/2010	DATE:	08/10/2007
10	-	-	1	MLM	Changed Qty. of 66-158-19359 O-Ring From (3) TO (2); Added (1) 66-159-19359	10/01/2009	CKD. BY:	
9	-	-	-	REV.	BY	DATE	DATE:	
8	-	-	-	CHANGE DESCRIPTION				
7	-	-	-	UNLESS OTHERWISE SPECIFIED:				
6	-	-	-	TWO-PLACE DECIMALS .XX = ±.030				
5	MLM	Changed Snap Ring from 722529 (Qty. 2) to 69-A5000-112 (Qty. 1)	06/01/2020	THREE-PLACE DECIMALS .XXX = ±0.010				
REV.	BY	CHANGE DESCRIPTION	DATE	ANGLES = ±12°				
				RADII = .12				
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Copyright 2020, Hydraulic Analysis, Inc.							MATERIAL:	DWG. NO.: 723532-5

