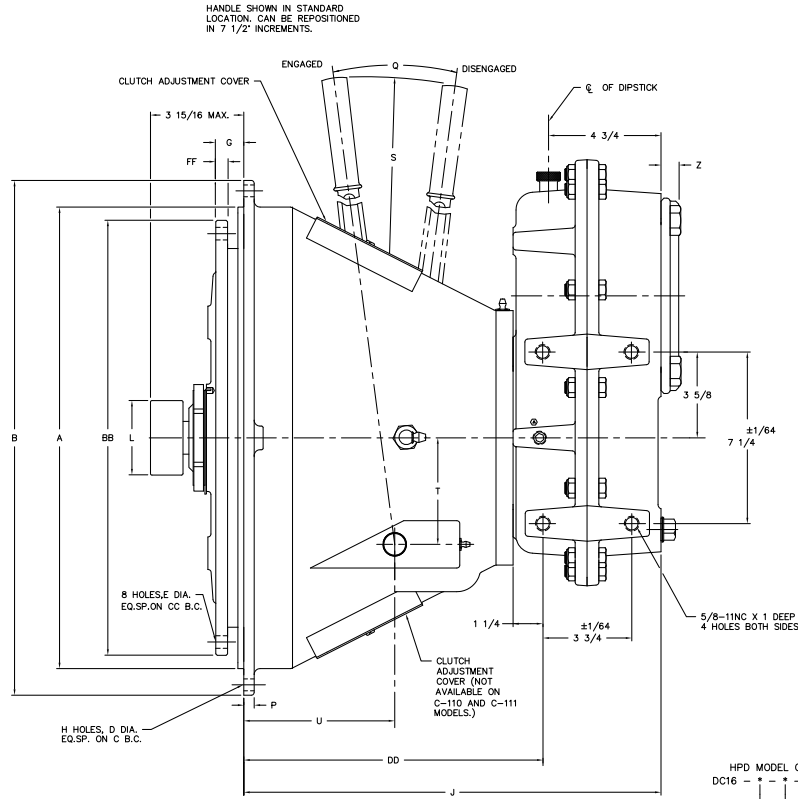
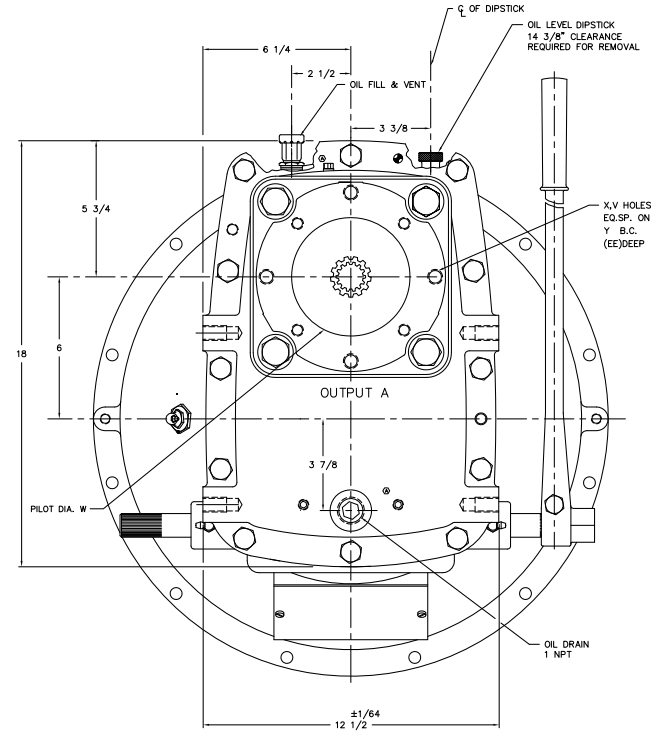


AVAILABLE GEAR RATIOS		
OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	MAX. INPUT SPEED (RPM)	
	U	D
1:1 E	3800	3800
1.14 UD	3550	4050
1.26 UD	3400	4300
1.40 UD	3200	4500
1.50 UD	3000	4500
1.73 UD	2600	4500
1.86 UD	2400	4500
2.07 U	2200	
2.16 U	2100	



P114 CLUTCH AND SAE#1 FLYWHEEL HOUSING SHOWN, REFER TO TABLE FOR OPTIONS



SAE C OUTPUT SHOWN

HPD MODEL CODE
DC16 - * - * - *
* OUTPUT POSITION A
* GEAR RATIO
* CLUTCH DESIGNATION
* SAE FLYWHEEL HOUSING SIZE

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

SAE SIZE	PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE
	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)		
A	2	3.250	5/8-16	4.18	.62	3
B	2	4.000	1/2-13	5.75	.56	13
BB	2	4.000	1/2-13	5.00	.56	13
BB	4	4.000	1/2-13	5.75	.56	15
C	2	5.000	5/8-11	7.12	.75	14
C	4	5.000	1/2-13	6.37	.75	14
CC	2	5.000	5/8-11	7.12	.75	17
CC	4	5.000	1/2-13	6.37	.75	17
D	2	6.000	3/4-10	9.00	1.00	13
D	4	6.000	3/4-10	9.00	1.00	13
E	4	6.500	3/4-10	12.50	.87	13
E	4	7.000	1-8	13.78	1.06	15

CLUTCH INSTALLATION DATA

REF SAE J620 AND SAE J617

SAE HSD. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	L	Q	DEG.	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
3	C110	2675	328	12.375	11.62	7/16	0.88	2.12	2.835	15 1/2	15 3/8	3	2 5/8	1270	275	
3	C111	3325	387	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	2 5/8	1270	290	
2 or 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	3 3/16	1540	325	
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	15 3/8	3 3/4	4 3/16	1930	350	
1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	400	
1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	450	

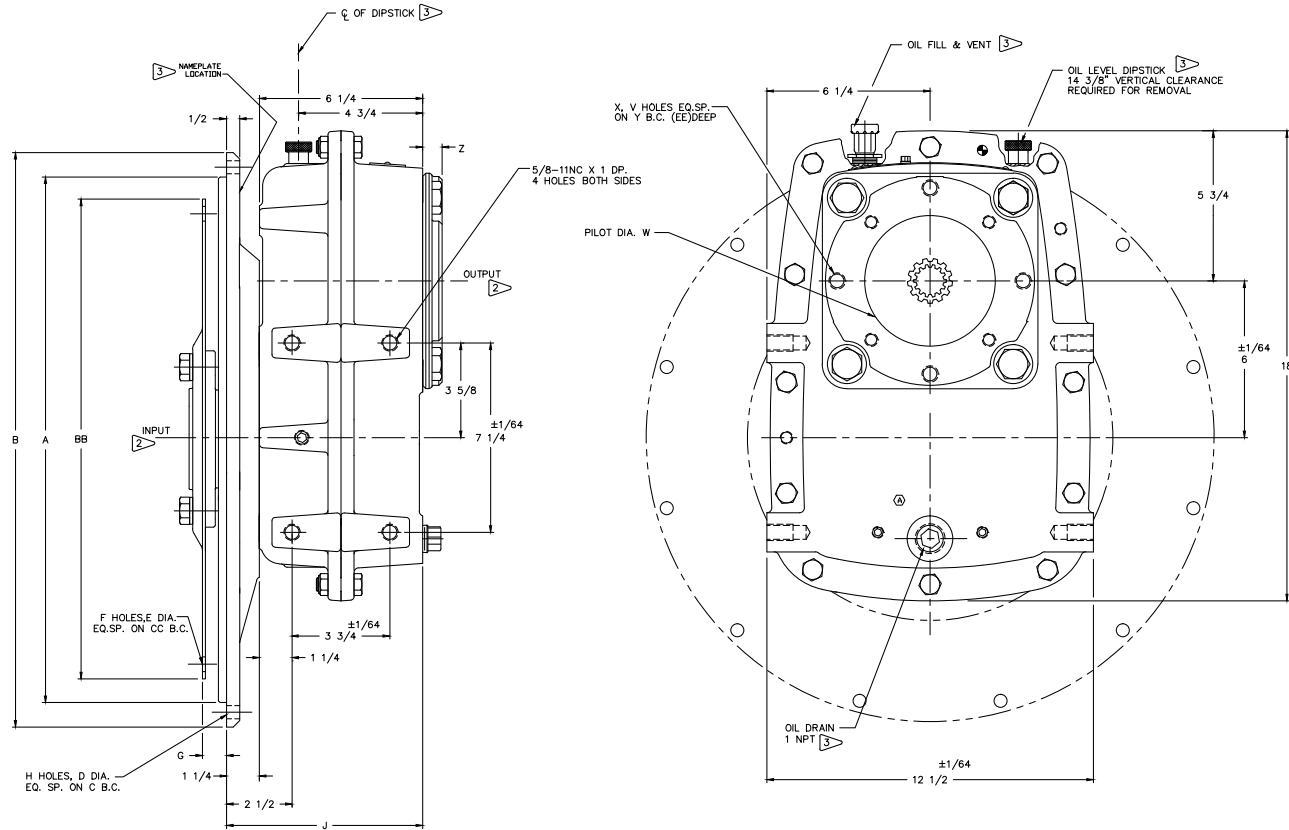
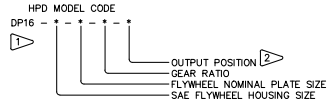
CLUTCH HOUSING DIMENSIONS

REF SAE J620 AND SAE J617

SAE NO.	A	B	C	D	H	DD	P	J
X(C110)	16.125	17.75	16.87	7/16	12	6.25	3/8	11.25
X(C110)	16.125	17.75	16.87	7/16	12	6.25	3/8	11.25
3	16.125	17.75	16.87	7/16	12	10.62	3/8	15.62
2	17.625	19.25	18.37	7/16	12	10.62	3/8	15.62
1	20.125	21.75	20.87	1/2	12	12.62	7/16	17.62

PUMP FLANGE DIMENSIONS REF SAE J744					ADAPTOR WIDTH *	30 DEG. INVOLUTE SPINE		
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	5/8-16	4.18	.62	.31	9	16/32
B	4	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
CC	2	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	4	5.000	5/8-11	7.12	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



NOTES:

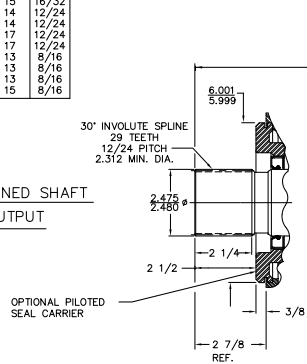
- 1 DT16 SIGNIFIES TORSION CONTROLS SPRING COUPLING RATHER THAN STANDARD DRIVE PLATE.
- 2 OUTPUT POSITION SHOWN IS 12:00 & THIS IS STANDARD. A "-6" SIGNIFIES 6:00 W/ OUTPUT BELOW THE INPUT.
- 3 ORIENT THE NAMEPLATE, VENT & DIPSTICK @ THE TOP OF THE UNIT & DRAIN @ THE BOTTOM PER NOTE 2.

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT				DRIVE PLATE DIMENSIONS REF SAE J620					ENGINE ADAPTOR DIMENSIONS REF SAE J617							
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX INPUT SPEED (RPM)		NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC	SAE NO.	A	B	C	D	H	J	UNIT WT. (LBS.)
	U	D														
1:1 E	3800	3800														280
1.14 UD	3550	4050														285
1.25 UD	3400	4300														295
1.40 UD	3200	4500	6 1/2	8.500	3/8	6	1.19	7.87	5	12.375	13.12	13.12	7/16	8	7.50	310
1.50 UD	3000	4500	7 1/2	9.500	3/8	8	1.19	8.75	4	14.250	15.00	15.00	7/16	12	7.50	285
1.75 UD	2600	4500	8	10.375	7/16	6	2.44	9.62	3	16.125	16.87	16.87	7/16	12	7.50	295
1.86 UD	2400	4500	10	12.375	7/16	8	2.12	11.62	3	16.125	16.87	16.87	7/16	12	7.50	310
2.07 U	2200		11 1/2	13.875	7/16	8	1.56	13.12	2	17.625	19.25	18.37	7/16	12	7.50	310
2.16 U	2100		14	18.375	9/16	8	1.00	17.25	1	20.125	21.75	20.87	1/2	12	7.50	320

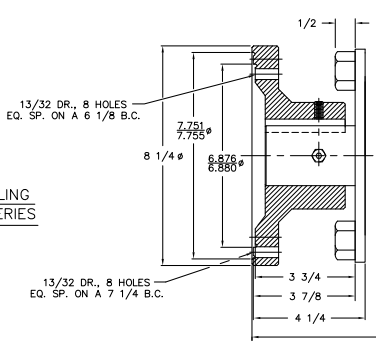
PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
BB	4	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

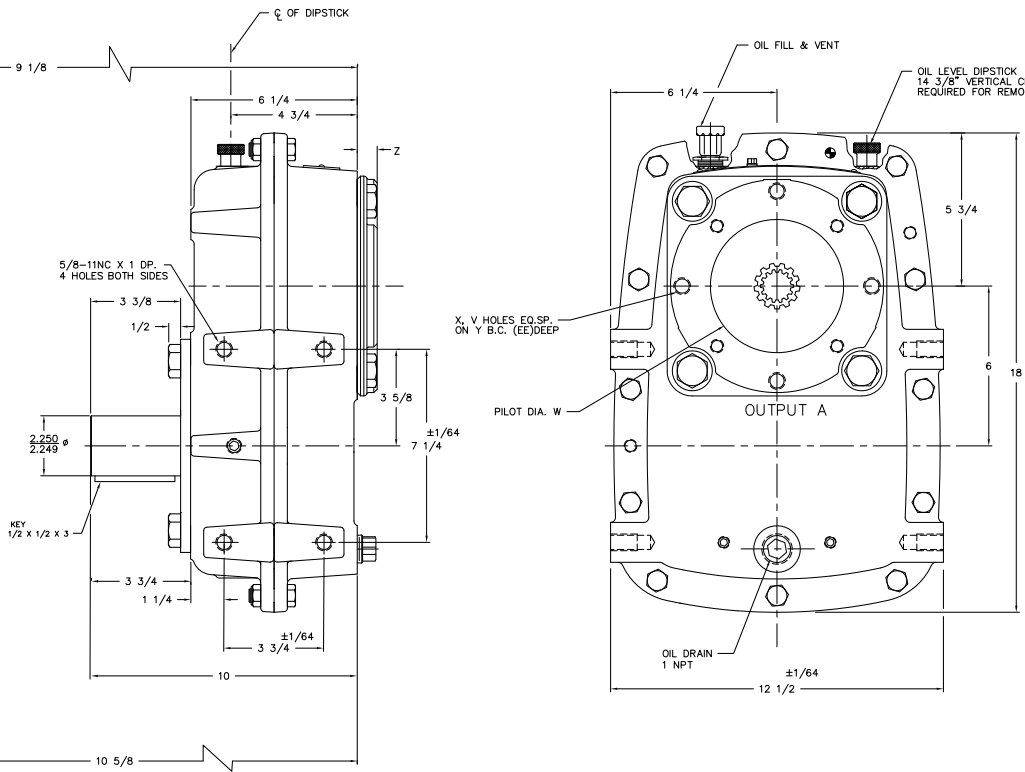
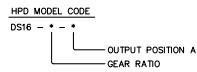
OPTIONAL SPLINED SHAFT
INPUT/OUTPUT



OPTIONAL FLANGED COUPLING
FOR SPICER 1600/1700 SERIES
INPUT/OUTPUT

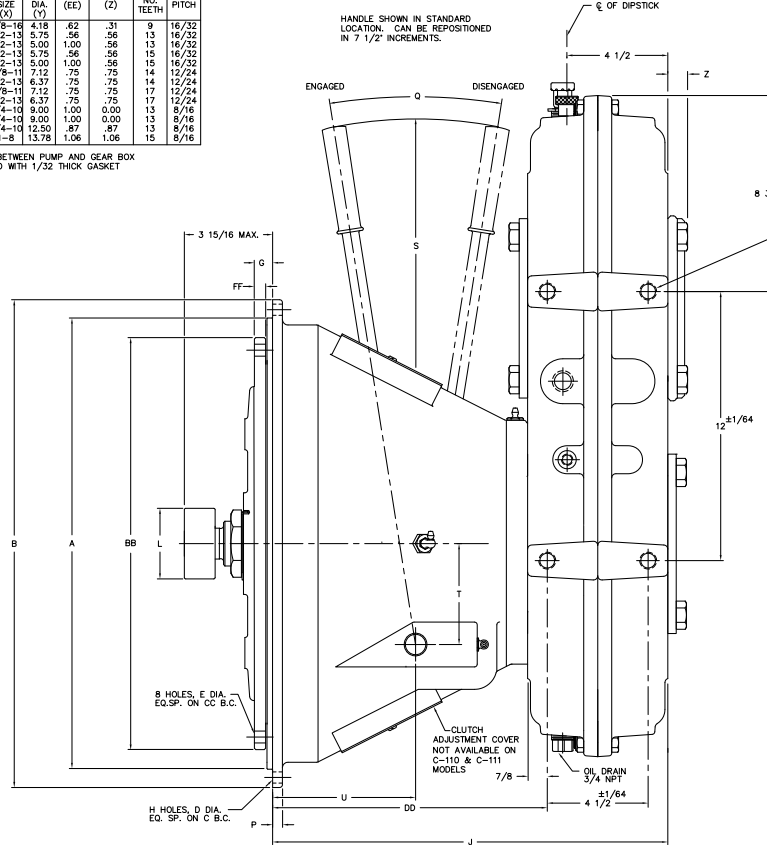


AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1:1 E	3800	3800
1:14 UD	3550	4050
1:26 UD	3400	4300
1:40 UD	3200	4500
1:50 UD	3000	4500
1:73 UD	2600	4500
1:86 UD	2400	4500
2:07 U	2200	
2:16 U	2100	



PUMP FLANGE DIMENSIONS REF SAE J744							ADAPTOR WIDTH *		30 DEG. INVOLUTE SPINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (Z)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH		
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32		
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32		
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32		
CC	2	4.000	1/2-13	5.75	.56	.56	15	16/32		
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24		
CC	2	5.000	5/8-11	6.37	.75	.75	17	12/24		
D	4	5.000	1/2-13	6.37	.75	.75	17	12/24		
D	2	6.000	3/4-10	8.00	1.00	0.00	13	8/16		
E	4	6.000	3/4-10	8.00	1.00	0.00	13	8/16		
F	4	6.500	5/4-10	12.50	.87	.87	13	8/16		
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16		

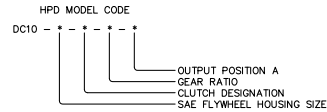
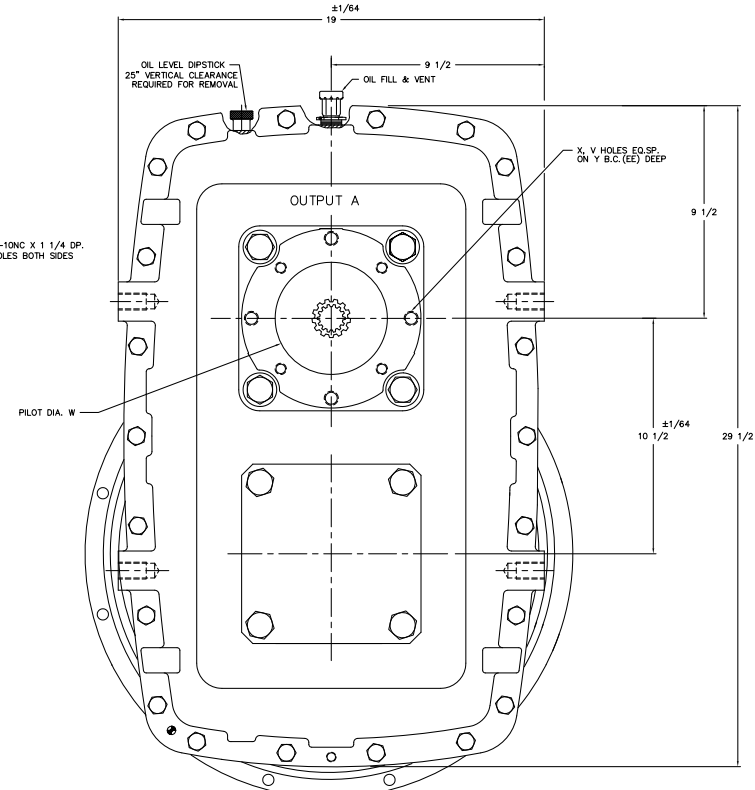
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



P114 CLUTCH AND SAE 1 FLYWHEEL HOUSING SHOWN, REFER TO TABLE FOR OPTIONS.

AVAILABLE GEAR RATIOS		
OUTPUT ROTATION		OPPOSITE INPUT
GEAR RATIO	U	D
1:1 E	2200	0
1.16 UD	2050	2400
1.28 UD	1950	2500
1.39 UD	1800	2600
1.56 U	1800	
1.69 U	1750	
2.00 U	1800	
2.13 U	1800	

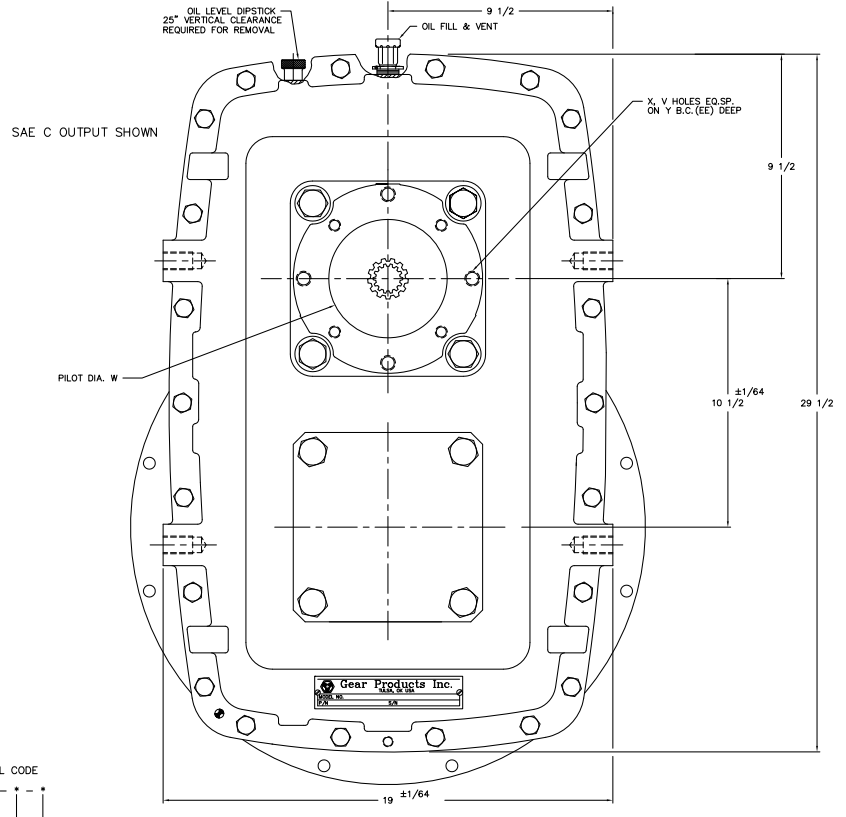
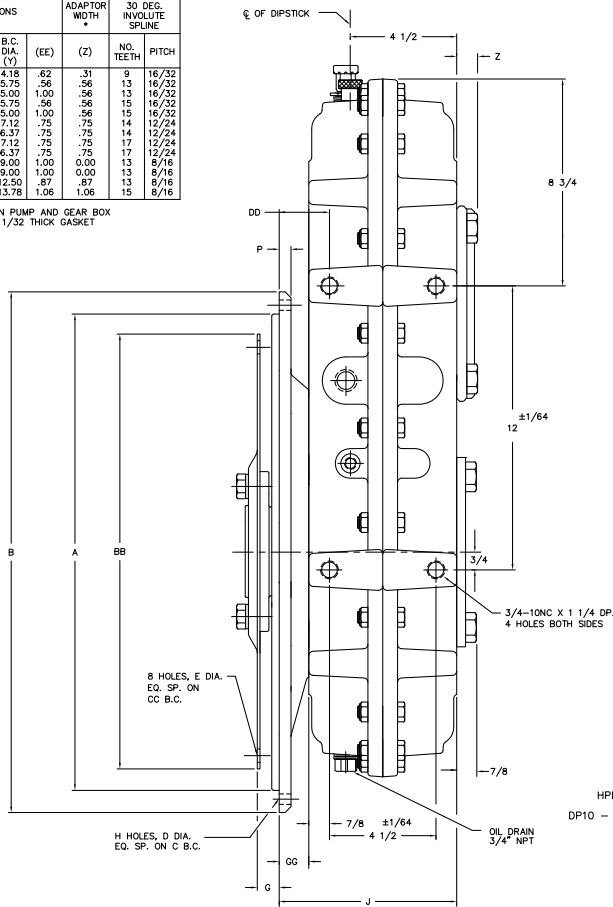
CLUTCH INSTALLATION DATA															
REF SAE J620 AND SAE J617															
SAE HSG. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	L	Q	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
2 or 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	3 3/16	1540	405
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	15 3/8	3 3/4	4 3/16	1930	415
1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	535
1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	545
1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	7 3/4	3150	560



CLUTCH HOUSING DIMENSIONS							
REF SAE J620 AND SAE J617							
SAE NO.	A	B	C	D	H	DD	J
3	16.125	17.75	16.87	7/16	12	10.25	3/8 15.62
2	17.625	19.25	18.37	7/16	12	10.25	3/8 15.62
1	20.125	21.75	20.87	1/2	12	12.25	7/16 17.62

PUMP FLANGE DIMENSIONS REF SAE J744					ADAPTOR WIDTH *		30 DEG. INVOLUTE SPURLE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	5/8-16	4.16	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
B	2	4.000	1/2-13	5.75	.56	.56	15	16/32
C	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
CC	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



HPD MODEL CODE
 DP10 - - - - -
 OUTPUT POSITION
 GEAR RATIO
 FLYWHEEL NOMINAL PLATE SIZE
 SAE FLYWHEEL HOUSING SIZE

SAE #1 ENGINE ADAPTOR AND 14" DRIVE PLATE SHOWN. REFER TO TABLES FOR OPTIONS.

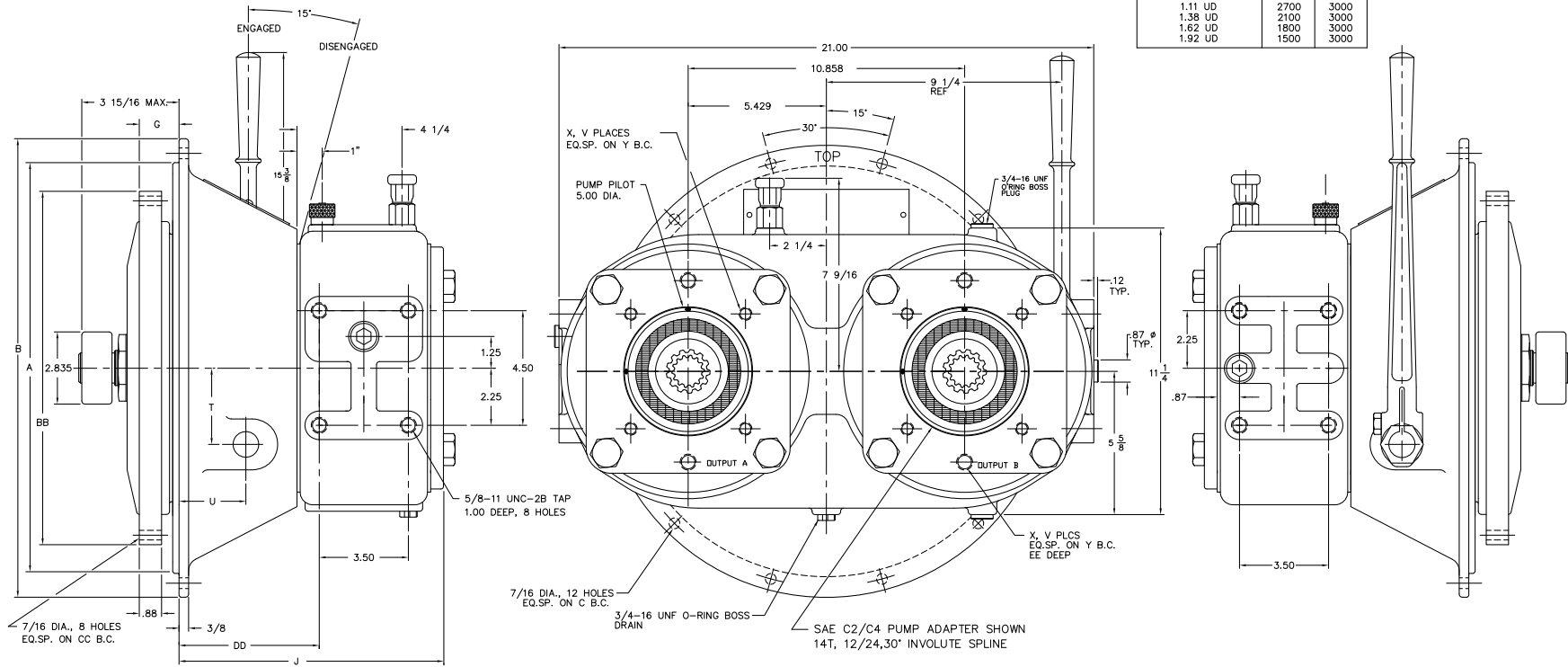
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX. INPUT SPEED (RPM)		UNIT WT. (LBS.)
	U	D	
1:1 E	2200	2200	
1:16 UD	2050	2400	
1:28 UD	1950	2500	
1:39 UD	1900	2600	
1:56 U	1800	2800	
1:69 U	1750	2900	
2:00 U	1800		
2:13 U	1800		

DRIVE PLATE DIMENSIONS REF SAE J620					
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC
10	12.375	7/16	8	2.12	11.62
11 1/2	13.875	7/16	8	1.56	13.12
14	18.375	9/16	8	1.00	17.25

ENGINE ADAPTOR DIMENSIONS REF SAE J617										
SAE NO.	A	B	C	D	H	J	P	DD	GG	UNIT WT. (LBS.)
3	16.125	17.75	16.87	7/16	12	7.50	1/2	2.12	1 1/4	295
2	17.625	19.25	18.37	7/16	12	7.50	1/2	2.12	1 1/4	310
1	20.125	21.75	20.87	1/2	12	7.50	1/2	2.12	1 1/4	320

SAE 3 ENGINE ADAPTER
SHOWN.

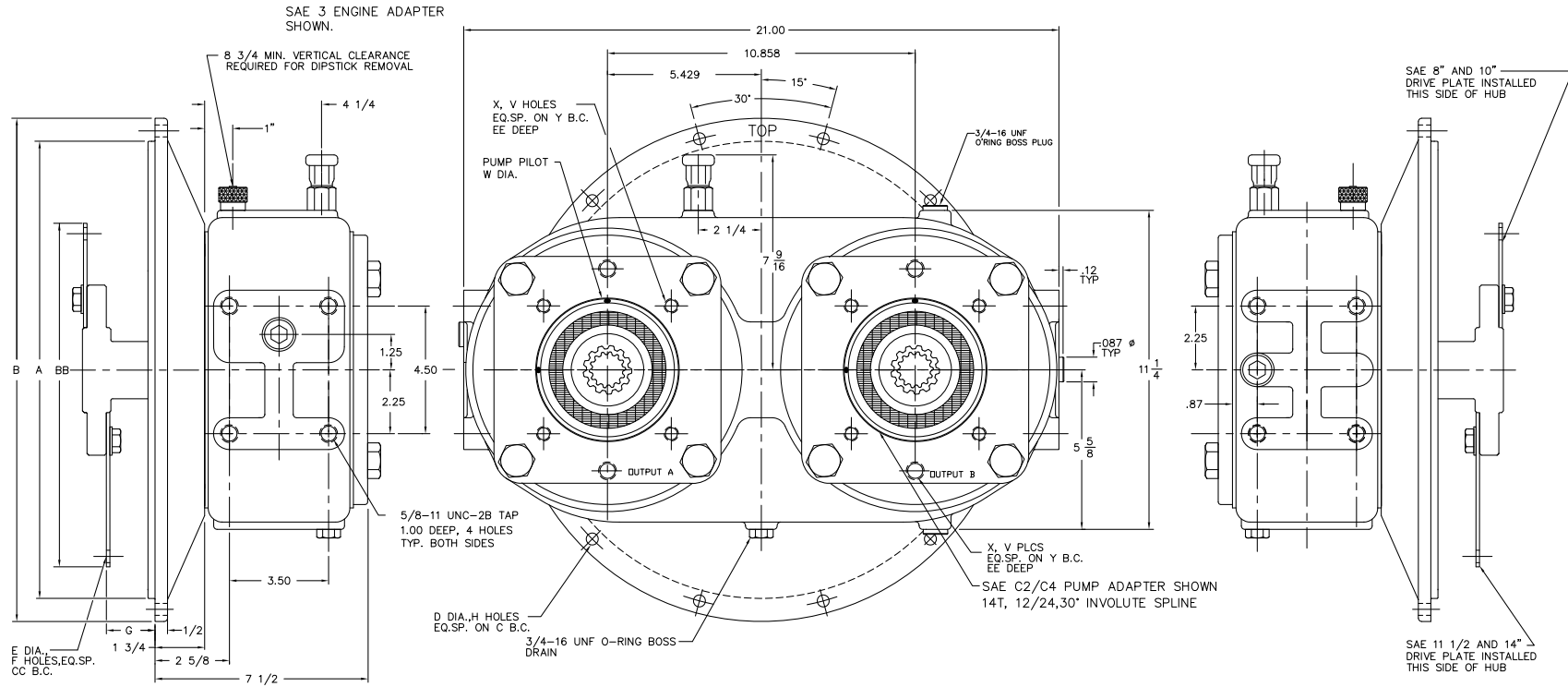
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX. INPUT SPEED (RPM)	
	U	D
1:1 E	3000	3000
1.11 UD	2700	3000
1.38 UD	2100	3000
1.62 UD	1800	3000
1.92 UD	1500	3000



CLUTCH INSTALLATION DATA REF SAE J620 AND SAE J617									
SAE HSG. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	G	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH
3	C110	2675	328	12.375	11.62	2.12	3	2 5/8	1270
3	C111	2325	387	13.875	13.12	1.56	3	2 5/8	1270
2 or 3	P111	2850	455	13.875	13.12	1.56	3	3 3/16	1540
2 or 3	P211	2850	910	13.875	13.12	1.56	3 3/4	4 3/16	1930

CLUTCH HOUSING DIMENSIONS REF SAE J620 AND SAE J617					
SAE NO.	A	B	C	DD	J
3 (C110)	16.125	17.75	16.87	5.75	10.62
3 (C111)	16.125	17.75	16.87	5.75	10.62
3 (P211)	16.125	17.75	16.87	10.50	15.37
2 (C110)	17.625	19.25	18.37	5.75	10.62

PUMP FLANGE DIMENSIONS REF SAE J744						30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS	PILOT DIA. (V)	BOLT SIZE (W)	B.C. DIA. (X)	HOLE DEPTH (EE)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.75	9	16/32
B	2	4.000	1/2-13	5.75	.75	13	16/32
B	4	4.000	1/2-13	5.00	.75	13	16/32
BB	2	4.000	1/2-13	5.75	.75	15	16/32
BB	4	4.000	1/2-13	5.00	.75	15	16/32
C	2	5.000	5/8-11	7.12	.87	14	12/24
C	4	5.000	1/2-13	6.37	.87	14	12/24
CC	2	5.000	5/8-11	7.12	.87	17	12/24
CC	4	5.000	1/2-13	6.37	.87	17	12/24
D	4	6.000	3/4-10	9.00	STUD	13	8/16

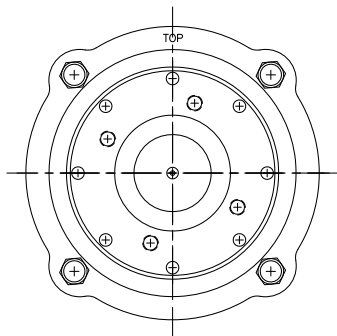
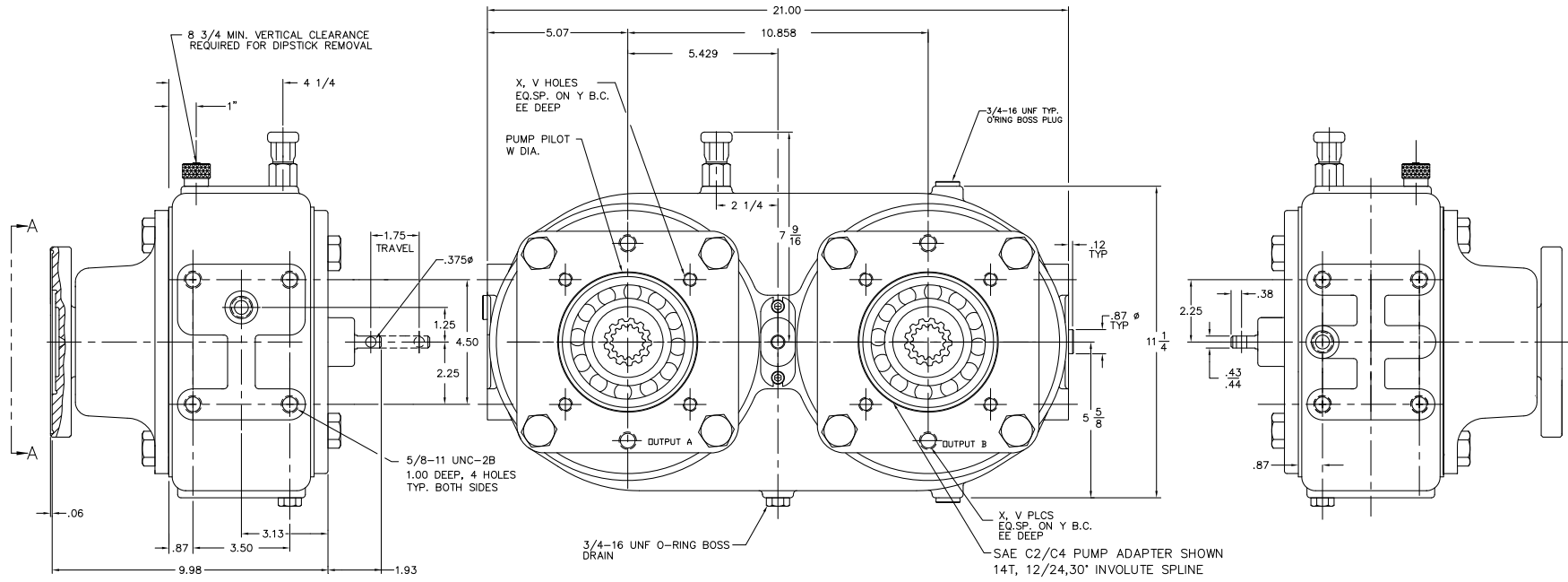


DRIVE PLATE DIMENSIONS REF SAE J620					
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC
8	10.375	7/16	6	2.44	9.62
10	12.375	7/16	8	2.12	11.62
11 1/2	13.875	7/16	8	1.56	13.12
14	18.375	9/16	8	1.00	17.25

ENGINE ADAPTOR DIMENSIONS REF SAE J617					
SAE NO.	A	B	C	D	H
1	20.125	21.75	20.87	1/2	12
2	17.625	19.25	18.37	7/16	12
3	16.125	17.75	16.87	7/16	12
4	14.250	15.87	15.00	7/16	12
5	12.375	14.00	13.12	7/16	8

PUMP FLANGE DIMENSIONS REF SAE J744					30 DEG. INVOLUTE SPLINE		
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.75	9	16/32
B	2	4.000	1/2-13	5.75	.75	13	16/32
B	4	4.000	1/2-13	5.00	.75	13	16/32
BB	2	4.000	1/2-13	5.75	.75	15	16/32
BB	4	4.000	1/2-13	5.00	.75	15	16/32
C	2	5.000	5/8-11	7.12	.87	14	12/24
C	4	5.000	1/2-13	6.37	.87	14	12/24
CC	2	5.000	5/8-11	7.12	.87	17	12/24
CC	4	5.000	1/2-13	6.37	.87	17	12/24
D	4	6.000	3/4-10	9.00	STUD	13	8/16

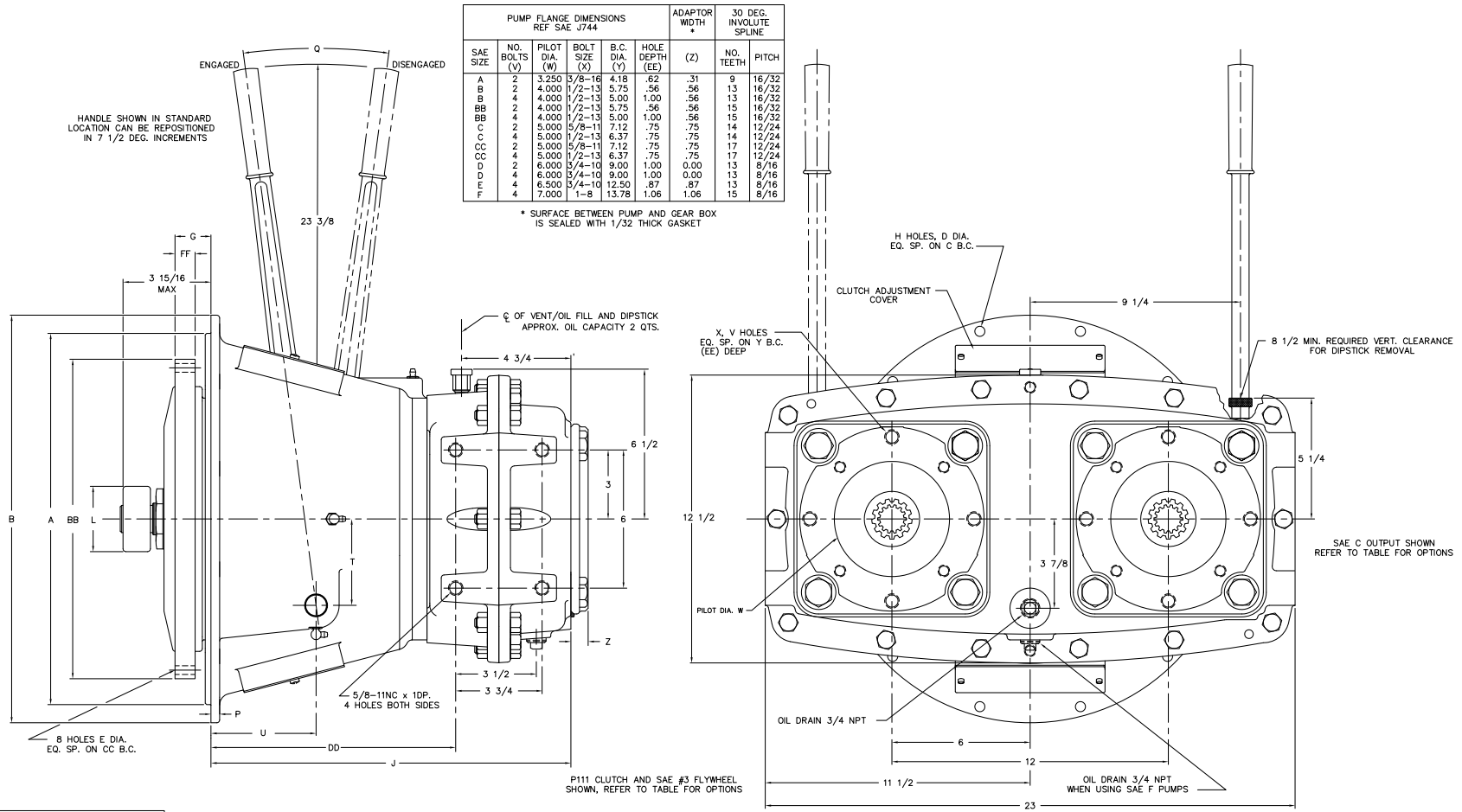
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U—SPEED INCREASING D—SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1:1E	3000	3000
1.11 UD	2700	3000
1.38 UD	2100	3000
1.62 UD	1800	3000
1.92 UD	1500	3000



VIEW A - A

PUMP FLANGE DIMENSIONS REF SAE J744							30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	NO. TEETH	PITCH	
A	2	3.250	3/8-16	4.18	.75	9	16/32	
B	2	4.000	1/2-13	5.75	.75	13	16/32	
BB	2	4.000	1/2-13	5.00	.75	13	16/32	
BB	4	4.000	1/2-13	5.75	.75	15	16/32	
C	2	5.000	5/8-11	7.12	.87	14	12/24	
C	4	5.000	1/2-13	6.37	.87	14	12/24	
CC	2	5.000	5/8-11	7.12	.87	17	12/24	
CC	4	5.000	1/2-13	6.37	.87	17	12/24	
D	4	6.000	3/4-10	9.00	1.00	13	8/16	

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX INPUT SPEED (RPM)		
	U	D	
U-SPEED INCREASING			
D-SPEED DECREASING			
1:1E	3000	3000	
1.11 UD	2700	3000	
1.38 UD	2100	3000	
1.62 UD	1800	3000	
1.92 UD	1500	3000	



PUMP FLANGE DIMENSIONS REF SAE J744							ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)		(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62		.31	9	16/32
B	2	4.000	1/2-13	5.75	.56		.56	13	16/32
BB	4	4.000	1/2-13	5.00	1.00		.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56		.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00		.56	15	16/32
C	2	5.000	5/8-11	7.12	.75		.75	14	12/24
C	4	5.000	1/2-13	6.37	.75		.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75		.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75		.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00		0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00		0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87		.87	13	8/16
F	4	7.000	1-8	13.78	1.06		1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

P111 CLUTCH AND SAE #3 FLYWHEEL SHOWN, REFER TO TABLE FOR OPTIONS

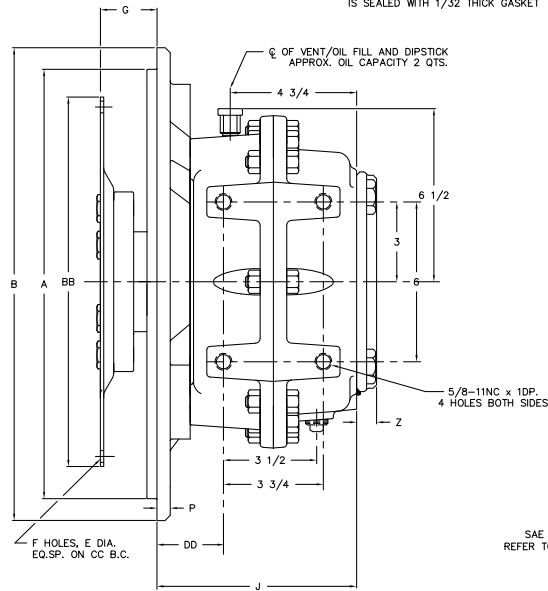
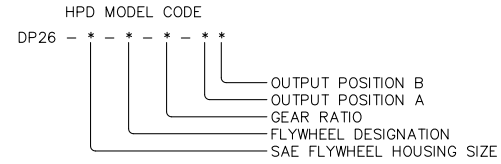
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX. INPUT SPEED (RPM)	
	U	D
1.00 E	3800	3800
1.14 UD	3550	4050
1.26 UD	3400	4300
1.40 UD	3200	4500
1.50 UD	3000	4500
1.73 UD	2600	4500
1.86 UD	2400	4500
2.07 U	2200	
2.16 U	2100	

CLUTCH INSTALLATION DATA REF SAE J620 AND SAE J617														
SAE HSG. SIZE	CLUTCH MODEL	MAX CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	L	Q	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
3	C110	2675	328	12.375	11.62	7/16	0.88	2.12	2.835	15 1/2	3	2 5/8	1270	405
3	C111	2325	387	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	3	2 5/8	1270	405
2 or 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	3	3 3/16	1540	415
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	3	3 3/4	4 3/16	4930
0 or 1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	6 3/8	3150	535
0 or 1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	6 3/8	3150	545

CLUTCH HOUSING DIMENSIONS REF SAE J620 AND SAE J617									
SAE NO.	A	B	C	D	H	DD	P	J	
3 (C110)	16.125	17.75	16.87	7/16	12	6.25	3/8	11.25	
3 (C111)	16.125	17.75	16.87	7/16	12	6.25	3/8	11.25	
3	16.125	17.75	16.87	7/16	12	10.62	3/8	15.62	
2	17.625	19.25	18.37	7/16	12	10.62	3/8	15.62	
1	20.125	21.75	20.87	1/2	12	12.62	7/16	17.62	
0	25.500	28.00	26.75	9/16	16	12.62	1/2	17.62	

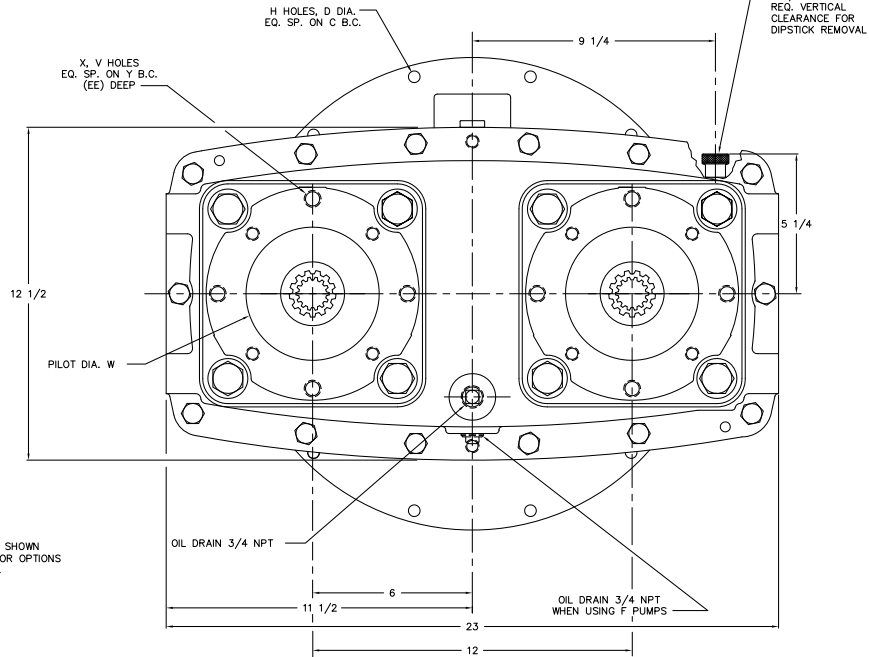
PUMP FLANGE DIMENSIONS										ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE
REF SAE J744											
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. TEETH	PITCH			
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32			
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32			
B	4	4.000	1/2-13	5.00	1.00	.56	13	16/32			
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32			
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32			
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24			
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24			
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24			
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24			
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16			
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16			
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16			
F	4	7.000	1-8	13.75	1.06	1.06	15	8/16			

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



DRIVE PLATE FOR SAE #10 FLYWHEEL SHOWN REFER TO TABLE FOR OPTIONS

ENGINE ADAPTOR SAE #3 SHOWN REFER TO TABLE FOR OPTIONS

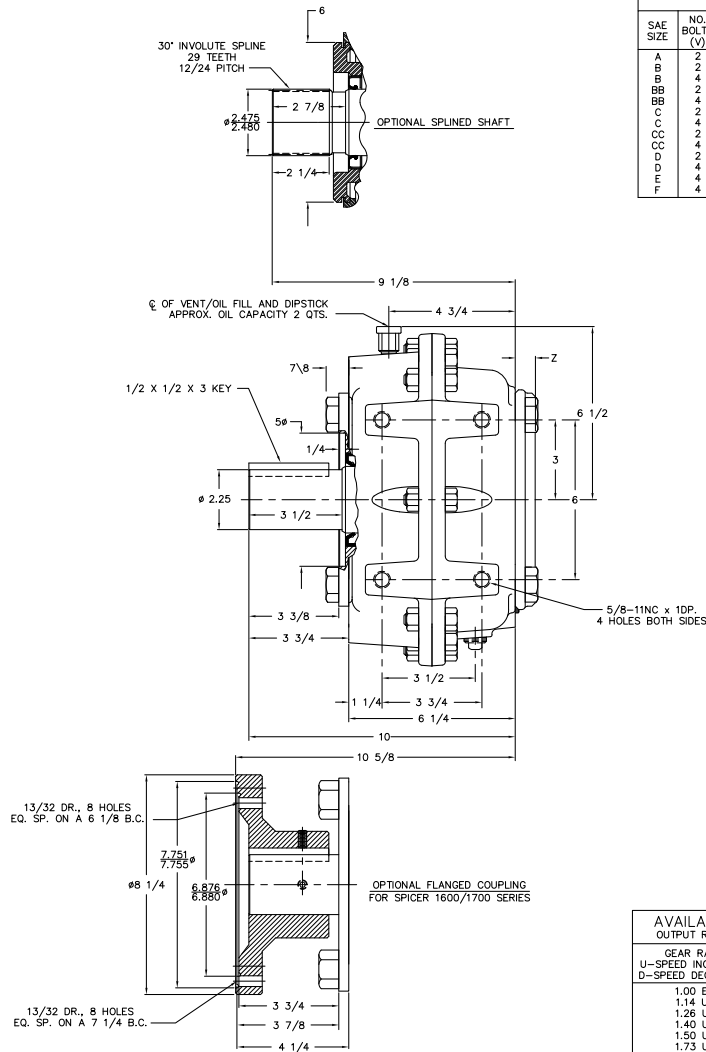


SAE C OUTPUT SHOWN REFER TO TABLE FOR OPTIONS TYPICAL

AVAILABLE GEAR RATIOS		
OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	MAX INPUT SPEED (RPM)	
	U	D
1.00 E	3800	3800
1.14 UD	3550	4050
1.26 UD	3400	4300
1.40 UD	3200	4500
1.50 UD	3000	4500
1.73 UD	2600	4500
1.86 UD	2400	4500
2.07 U	2200	
2.16 U	2100	

DRIVE GEAR DIMENSIONS					
REF SAE J620					
NOMINAL SAE FLYWHEEL DIAMETER	BB	E	F	G	CC
6 1/2	8.500	3/8	8	1.19	7.87
7 1/2	9.500	3/8	8	1.19	8.75
8	10.375	7/16	8	2.44	9.62
10	12.375	7/16	8	2.12	11.62
11 1/2	13.875	7/16	8	1.56	13.12
14	18.375	9/16	8	1.00	17.25

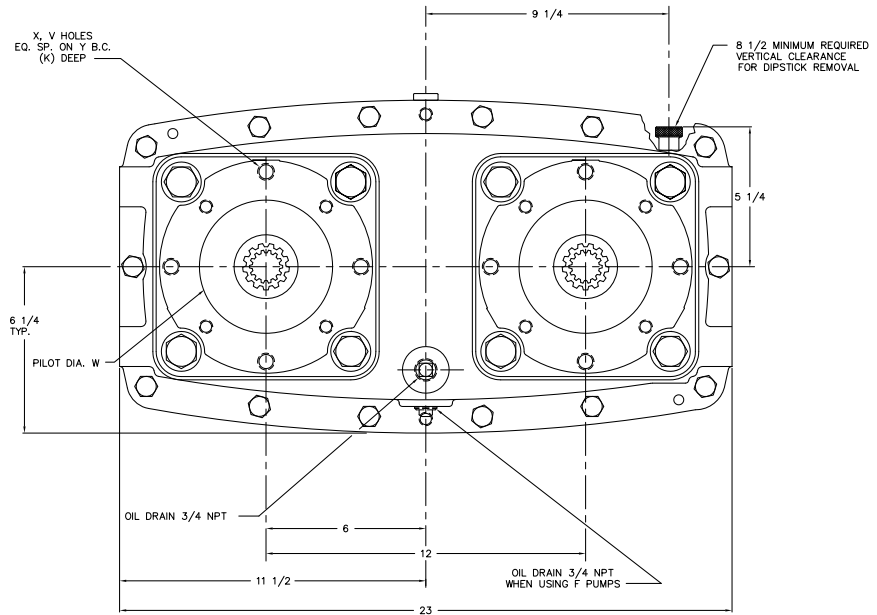
ENGINE ADAPTOR DIMENSIONS										
REF SAE J617										
SAE NO.	A	B	C	D	H	J	P	DD	GG	UNIT WT. (LBS.)
5	12.375	14.00	13.12	7/16	8	7.50	1/2	2.50	1 1/4	280
4	14.250	15.87	15.00	7/16	12	7.50	1/2	2.50	1 1/4	285
3	16.125	17.75	16.87	7/16	12	7.50	1/2	2.50	1 1/4	295
2	17.625	19.25	18.37	7/16	12	7.50	1/2	2.50	1 1/4	310
1	20.125	21.75	20.87	1/2	12	7.50	1/2	2.50	1 1/4	320



PUMP FLANGE DIMENSIONS						ADAPTOR WIDTH *		30 DEG. INVOLUTE SPLINE	
REF SAE J744									
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(K)	(Z)		NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31		9	16/32
B	2	4.000	1/2-13	5.75	.56	.56		13	16/32
B	4	4.000	1/2-13	5.00	1.00	.56		13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56		15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56		15	16/32
C	2	5.000	5/8-11	7.12	.75	.75		14	12/24
C	4	5.000	1/2-13	6.37	.75	.75		14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75		17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75		17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00		13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00		13	8/16
E	4	6.500	3/4-10	12.50	.87	.87		13	8/16
F	4	7.000	1-9	13.78	1.06	1.06		15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

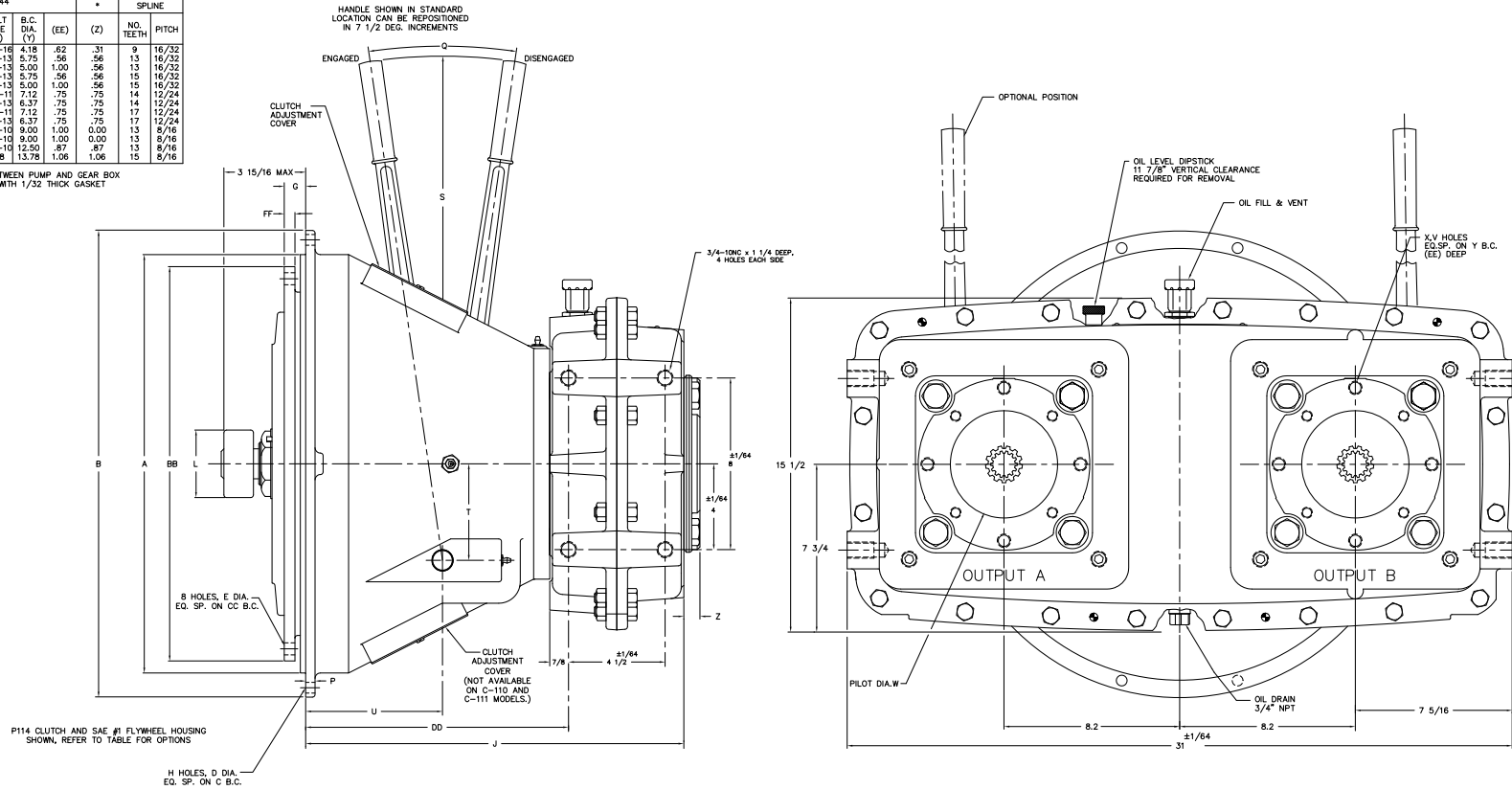
SAE C OUTPUT SHOWN
REFER TO TABLE FOR
OPTIONS



AVAILABLE GEAR RATIOS		
OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	MAX INPUT SPEED (RPM)	
	U	D
U-SPEED INCREASING		
D-SPEED DECREASING		
1.00 E	3800	3800
1.14 UD	3550	4050
1.26 UD	3400	4300
1.40 UD	3200	4500
1.50 UD	3000	4500
1.73 UD	2600	4500
1.86 UD	2400	4500
2.07 U	2200	
2.16 U	2100	

PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
B	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	5/8-11	6.37	.75	.75	14	12/24
CC	2	5.000	1/2-13	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

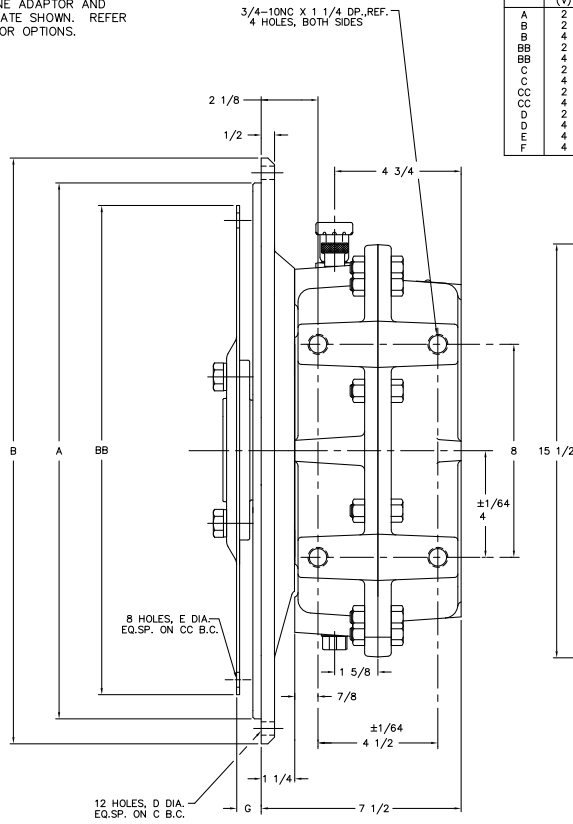


AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	MAX. INPUT SPEED (RPM)	
U-SPEED INCREASING D-SPEED DECREASING	U	D
1.00 E	2750	2750
1.16 UD	2600	3000
1.28 UD	2450	3150
1.34 UD	2400	3250
1.45 UD	2350	3400
1.56 UD	2300	3550
1.83 U	2100	3300
2.09 U	2050	

CLUTCH INSTALLATION DATA REF SAE J620 AND SAE J617															
SAE HSC. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	EE	FF	G	L	Q	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
3	C110	3100	328	12.375	11.62	7/16	0.88	2.12	2.835	15 1/2	15 3/8	3	2 5/8	1270	405
3	C111	2850	387	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	2 5/8	1270	405
2 or 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	3 3/16	1540	405
2 or 3	P211	2850	909	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	15 3/8	3 3/4	4 3/16	1930	415
1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	535
1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	545

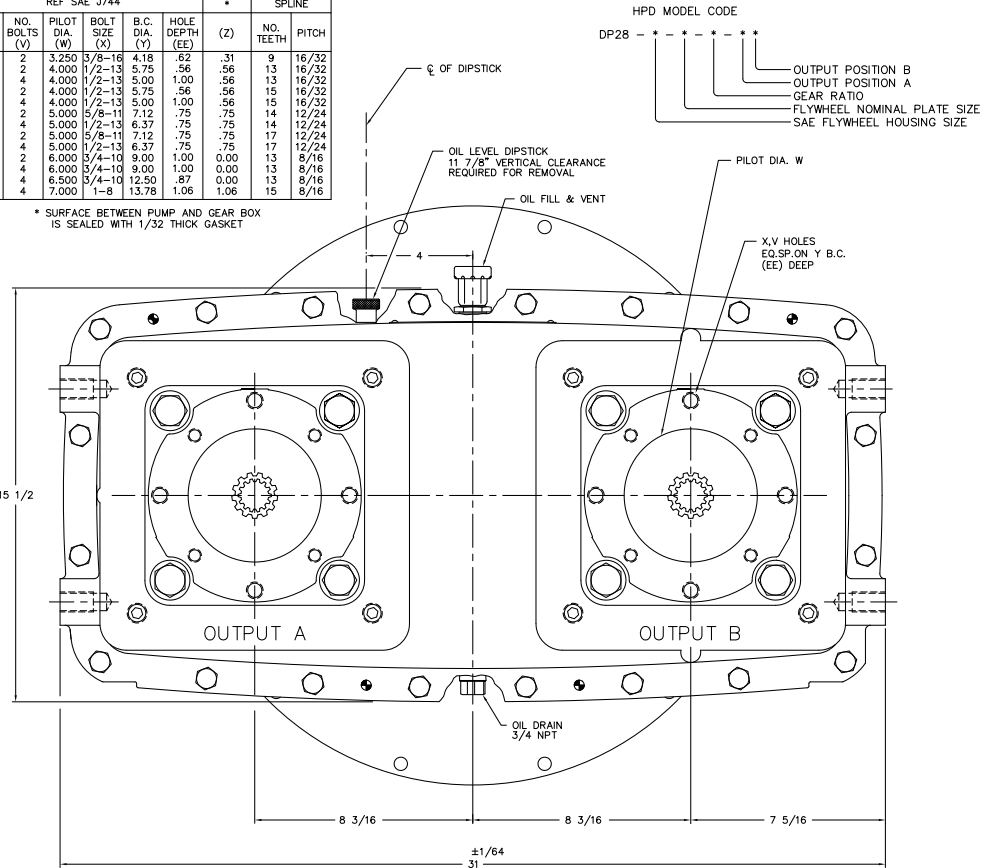
CLUTCH HOUSING DIMENSIONS REF SAE J620 AND SAE J617								
SAE NO.	A	B	C	D	H	DD	P	J
3(C110)	16.125	17.75	16.87	7/16	12	5.87	3/8	11.25
3(C111)	16.125	17.75	16.87	7/16	12	5.87	3/8	11.25
3	16.125	17.75	16.87	7/16	12	10.25	3/8	15.62
2	17.625	19.25	18.37	7/16	12	10.25	3/8	15.62
1	20.125	21.75	20.87	1/2	12	12.25	7/16	17.62

SAE #1 ENGINE ADAPTOR AND 14" DRIVE PLATE SHOWN. REFER TO TABLES FOR OPTIONS.



PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	SOLE DEPTH (EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
B	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	0.00	13	8/16
F	4	7.000	1-9	13.78	1.06	1.06	15	8/16

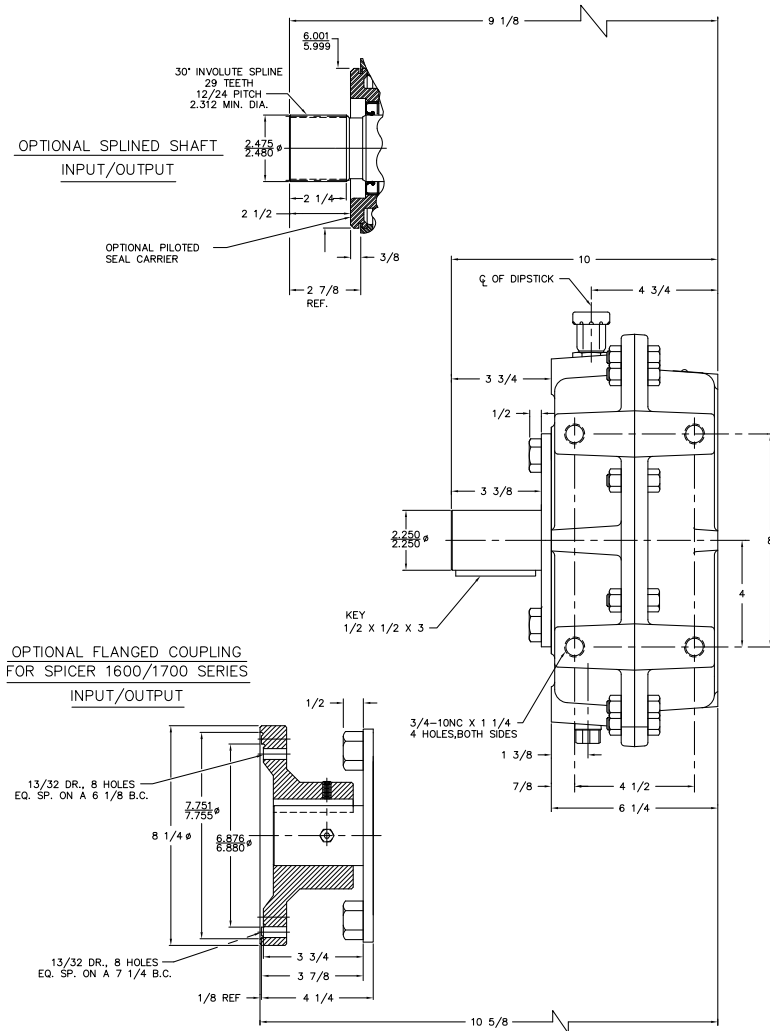
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U—SPEED INCREASING D—SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1.1 E	2750	2750
1.16 UD	2600	3000
1.28 UD	2450	3150
1.34 UD	2400	3250
1.45 UD	2350	3400
1.56 UD	2300	3550
1.93 U	2100	
2.99 U	2200	

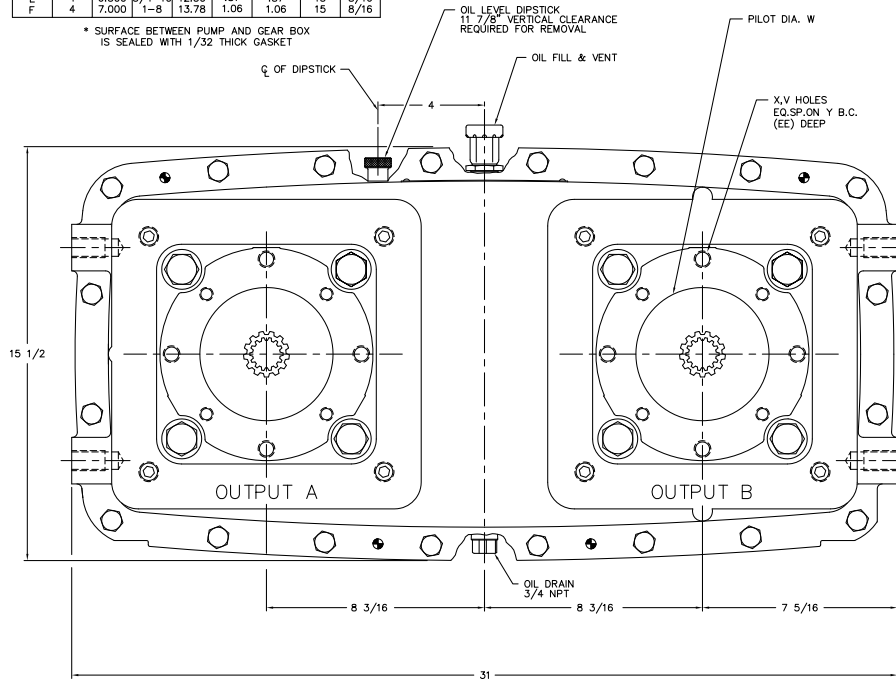
DRIVE PLATE DIMENSIONS REF SAE J620				
NOMINAL DRIVE PLATE DIAMETER	BB	E	G	CC
10	12.375	7/16	2.12	11.62
11 1/2	13.875	7/16	1.56	13.12
14	18.375	9/16	1.00	17.25

ENGINE ADAPTOR DIMENSIONS REF SAE J617					
SAE NO.	A	B	C	D	UNIT WT. (LBS.)
3	16.125	16.87	16.87	7/16	295
2	17.625	19.25	18.37	7/16	310
1	20.125	21.75	20.87	1/2	320



PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (Y)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
B	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-9	13.78	1.06	1.06	15	8/16

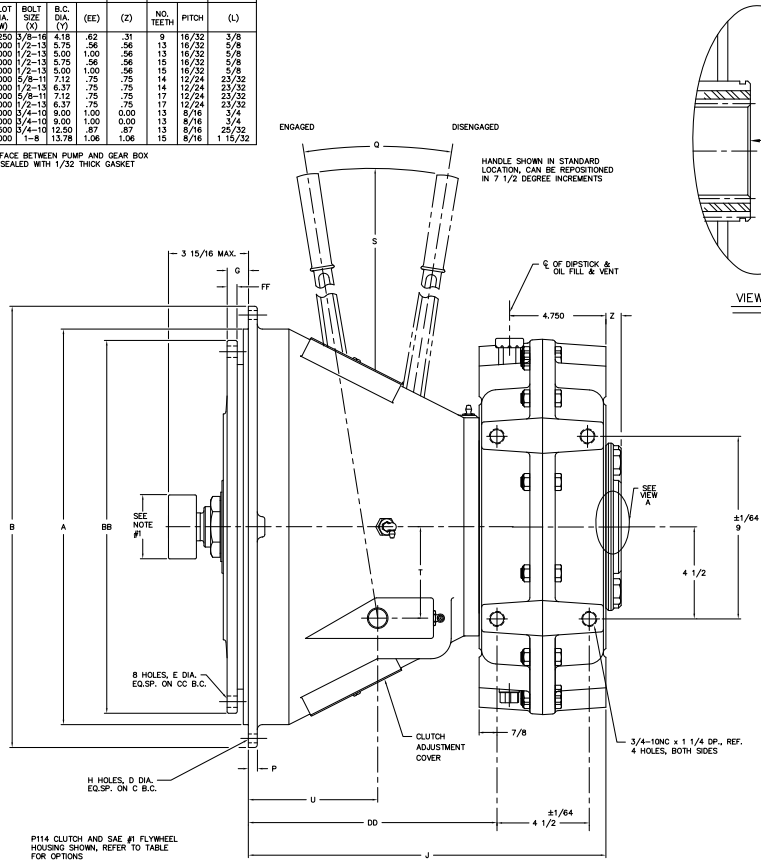
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1:1 E	2750	2750
1:16 UD	2600	3000
1:28 UD	2450	3150
1:34 UD	2400	3250
1:45 UD	2350	3400
1:56 UD	2300	3550
1:93 U	2100	
2:09 U	2050	

PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH		30 DEG. INVOLUTE SPURGE		DISTANCE TO SHAFT END	
SAE SIZE	NO. OF BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(G)	NO. TEETH	PITCH	(L)		
A	2	3.250	3/8-16	4.18	.82	.31	9	16/32	3/8		
B	4	4.000	1/2-13	5.78	.56	.56	13	16/32	5/8		
BB	2	4.000	1/2-13	5.00	1.00	.56	13	16/32	5/8		
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32	3/4		
C	4	5.000	5/8-11	7.12	.75	.75	14	12/24	23/32		
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24	23/32		
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24	23/32		
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24	23/32		
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16	3/4		
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16	3/4		
E	4	6.500	7/8-10	12.50	.87	.87	13	8/16	29/32		
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16	1 15/32		

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

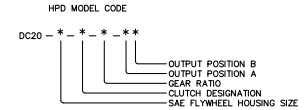
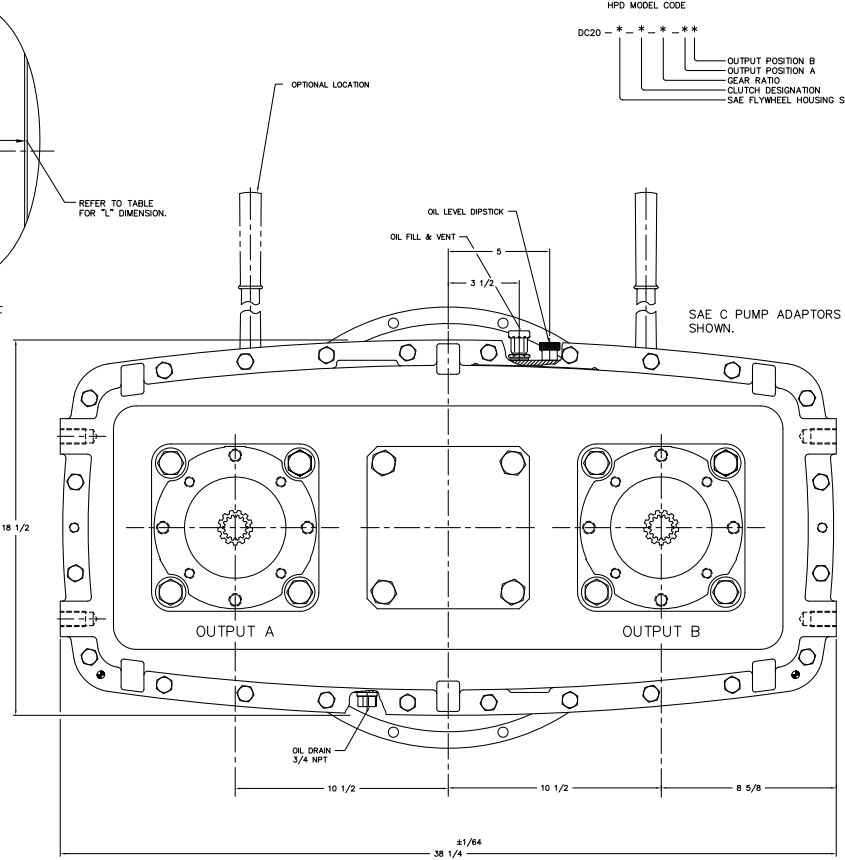


NOTE:

- CUSTOMER TO SPECIFY PILOT BEARING O.D. (2.835 OR 3.150).

AVAILABLE GEAR RATIOS		
GEAR RATIO		MAX. INPUT SPEED
U-SPEED INCREASING	OUTPUT ROTATION OPPOSITE INPUT	(RPM)
D-SPEED DECREASING	U	D
1:1 E	2200	2200
1:16 UD	2500	2400
1:28 UD	1950	2500
1:39 UD	1800	2600
1:56 UD	1800	2800
1:69 U	1750	1750

CLUTCH INSTALLATION DATA													
REF SAE J620 AND SAE J617													
SAE HSD SIZE	CLUTCH MODEL	MAX CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	Q	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT SIZE RECD. TO ENGAGE CLUTCH
3 OR 2	P211	2850	910	13.875	13.12	7/16	1.88	1.56	15 1/2	15 3/8	3 3/4	4 3/16	1930
1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	18	23 3/8	4 1/2	6 3/8	3150
1	P214	2500	1630	18.375	17.25	9/16	0.50	1.00	18	23 3/8	4 1/2	6 3/8	3150
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	18	23 3/8	4 1/2	7 3/4	3150



CLUTCH HOUSING DIMENSIONS									
REF SAE J620 AND SAE J617									
SAE NO.	A	B	C	D	H	DD	P	J	
3	16.125	17.75	16.87	7/16	12	10.25	3/8	15.62	
2	17.625	19.25	18.37	7/16	12	10.25	3/8	15.62	
1	20.125	21.75	20.87	1/2	12	12.25	7/16	17.62	
0	25.500	28.00	28.75	9/16	16	12.25	1/2	17.62	

PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH Y	30 DEG. INVOLUTE SPINE Z	NO. OF TEETH PITCH	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)			
A	2	3.250	1/8-16	4.18	.62	.31	9	16/32	
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32	
B	4	4.000	1/2-13	5.00	1.00	.56	13	16/32	
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32	
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32	
CC	2	5.000	1/2-13	7.12	.75	.75	14	12/24	
CC	4	5.000	1/2-13	6.37	.75	.75	14	12/24	
CC	2	5.000	1/2-13	7.12	.75	.75	17	12/24	
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24	
CC	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16	
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16	
D	4	6.500	3/4-10	12.50	.87	.87	13	8/16	
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16	

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

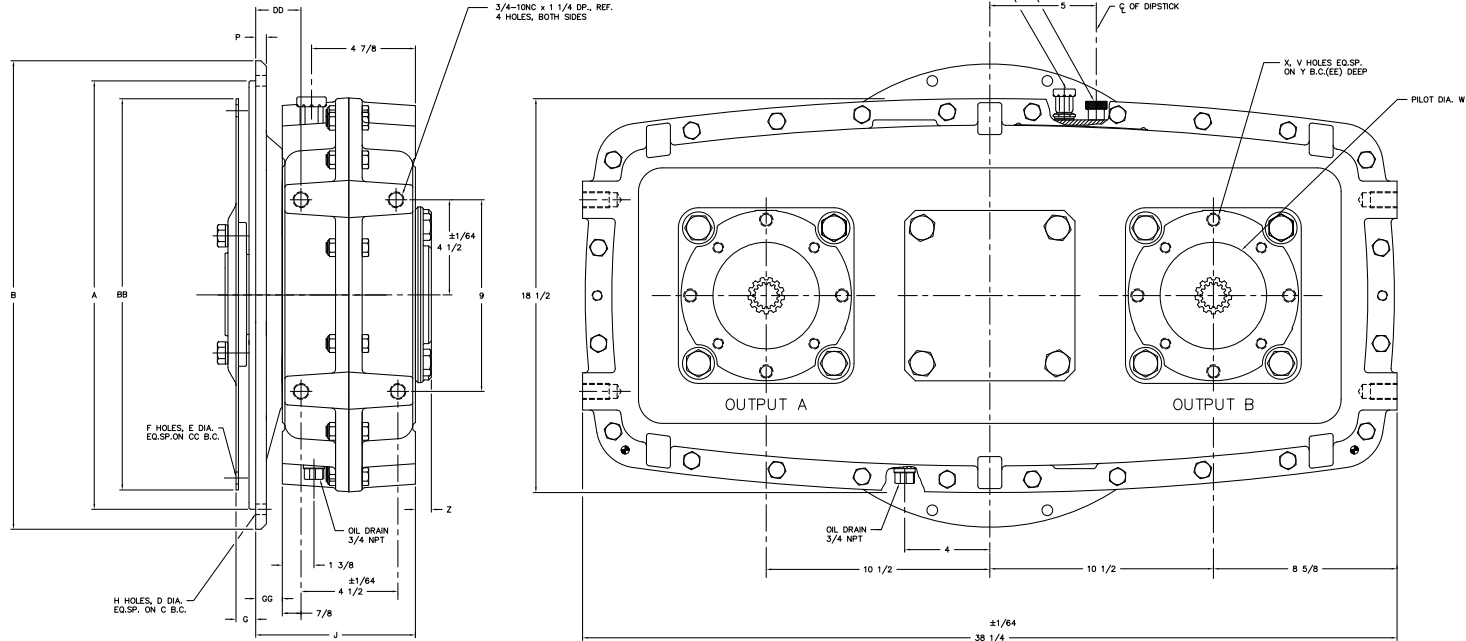
HPD MODEL CODE

DP30

- OUTPUT POSITION B
- OUTPUT POSITION A
- GEAR RATIO
- FLYWHEEL NOMINAL PLATE SIZE
- SAE FLYWHEEL HOUSING SIZE

OIL LEVEL DIPSTICK
14 3/8" VERTICAL
CLEARANCE REQUIRED
FOR REMOVAL

SAE C PUMP ADAPTOR'S
SHOWN.



SAE #1 ENGINE ADAPTOR AND
14" DRIVE PLATE SHOWN. REFER
TO TABLES FOR OPTIONS

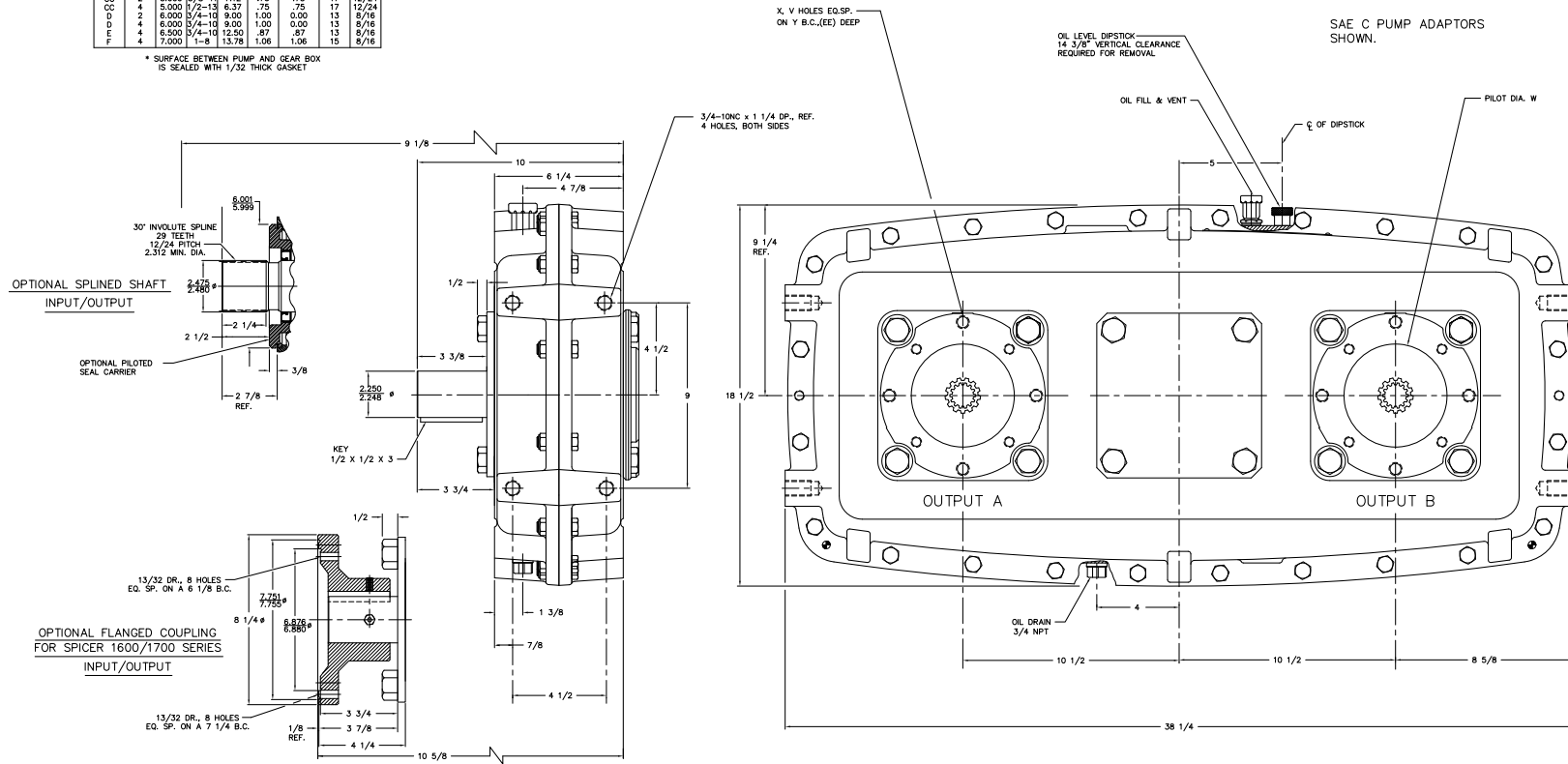
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED (RPM)	U	D
1.00 E	2200		2200
1.16 UD	2050		2400
1.28 UD	1950		2500
1.39 UD	1900		2600
1.56 UD	1800		2800
1.69 U	1750		
2.00 U	1800		
2.13 U	1900		

DRIVE PLATE DIMENSIONS REF SAE J620					
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC
10	12.375	7/16	6	2.12	11.62
11 1/2	13.875	7/16	6	1.56	13.12
14	18.375	9/16	6	1.00	17.25
16	20.375	9/16	6	.62	19.25
18	22.500	11/16	6	.62	21.37

ENGINE ADAPTOR DIMENSIONS REF SAE J617										
SAE NO.	A	B	C	D	H	J	P	DD	GG	UNIT WT. (LBS.)
3	16.125	16.87	16.87	7/16	12	7.50	1/2	2.50	1 1/4	295
2	17.625	19.25	18.37	7/16	12	7.50	1/2	2.50	1 1/4	310
1	20.125	21.75	20.87	1/2	12	7.50	1/2	2.50	1 1/4	320
0	25.500	28.00	26.75	9/16	16	8.00	1	2.625	1 3/4	390

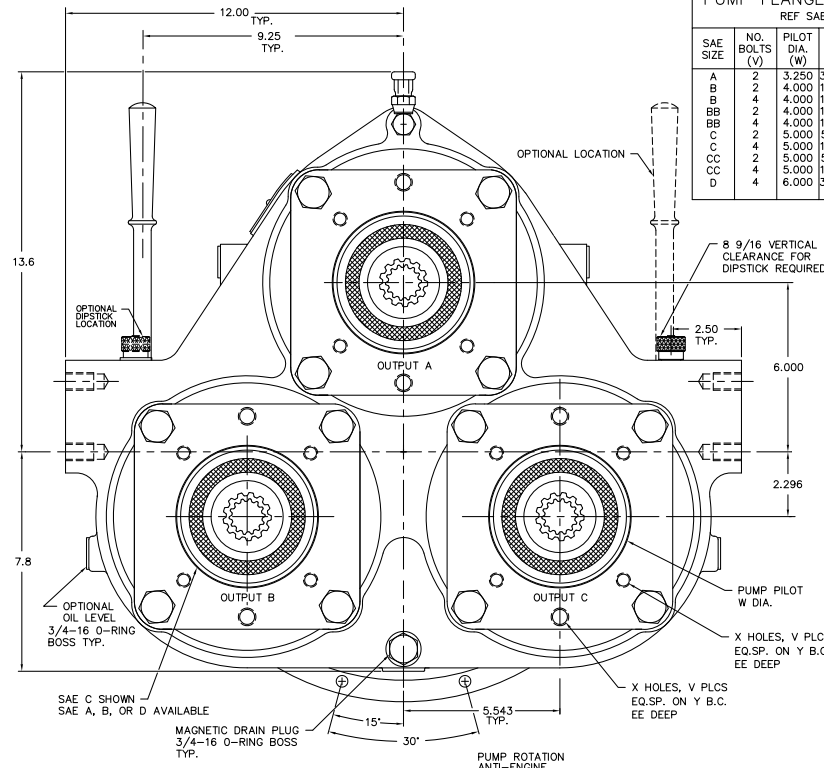
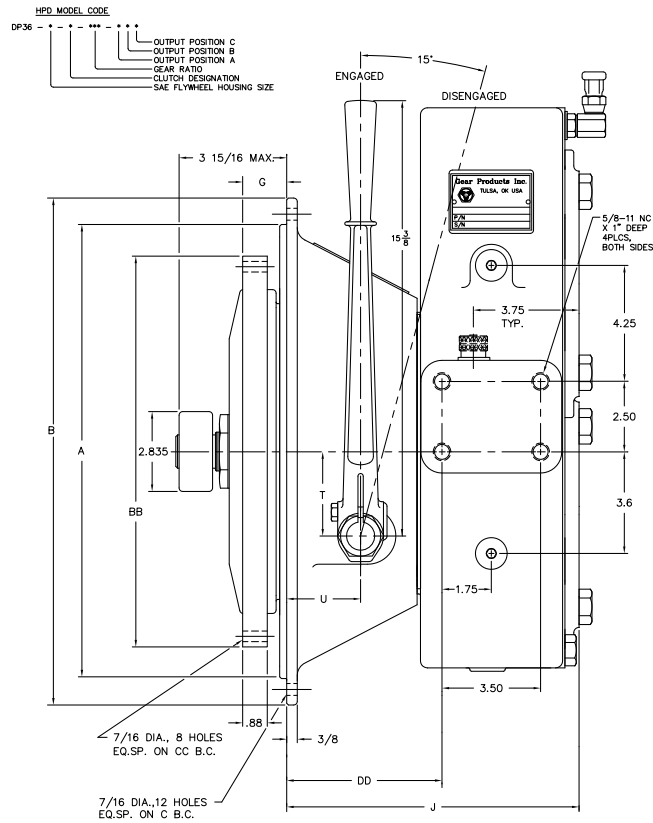
PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. INVOLUTE SPURLE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. SIZE (W)	B.C. DIA. SIZE (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	1/2-16	4.38	.62	.31	9 16/32
B	2	4.000	1/2-13	5.35	.56	.56	13 16/32
B	4	4.000	1/2-13	5.00	1.00	.56	13 16/32
BB	2	4.000	1/2-13	5.35	.56	.56	15 16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15 16/32
C	2	5.000	5/8-11	7.32	.75	.75	14 12/24
C	4	5.000	1/2-13	6.37	.75	.75	14 12/24
CC	2	5.000	5/8-11	7.32	.75	.75	17 12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17 12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13 8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13 8/16
E	4	6.500	1/4-10	12.50	.87	.87	13 8/16
F	4	7.000	1-8	13.78	1.06	1.06	15 8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



AVAILABLE GEAR RATIOS		
OUTPUT ROTATION OPPOSITE INPUT		MAX. INPUT SPEED (RPM)
GEAR RATIO	U	
U-SPEED INCREASING	U	D
D-SPEED DECREASING	U	D
1.1 E	2200	3200
1.16 UD	2050	2400
1.28 UD	1950	2500
1.39 UD	1900	2600
1.56 UD	1800	2800
1.69 U	1750	
2.00 U	1800	
2.13 U	1800	

HPD MODEL CODE
DS20 - * * * *
 * OUTPUT POSITION B
 * OUTPUT POSITION A
 * GEAR RATIO



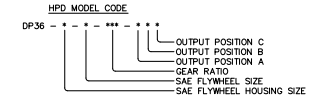
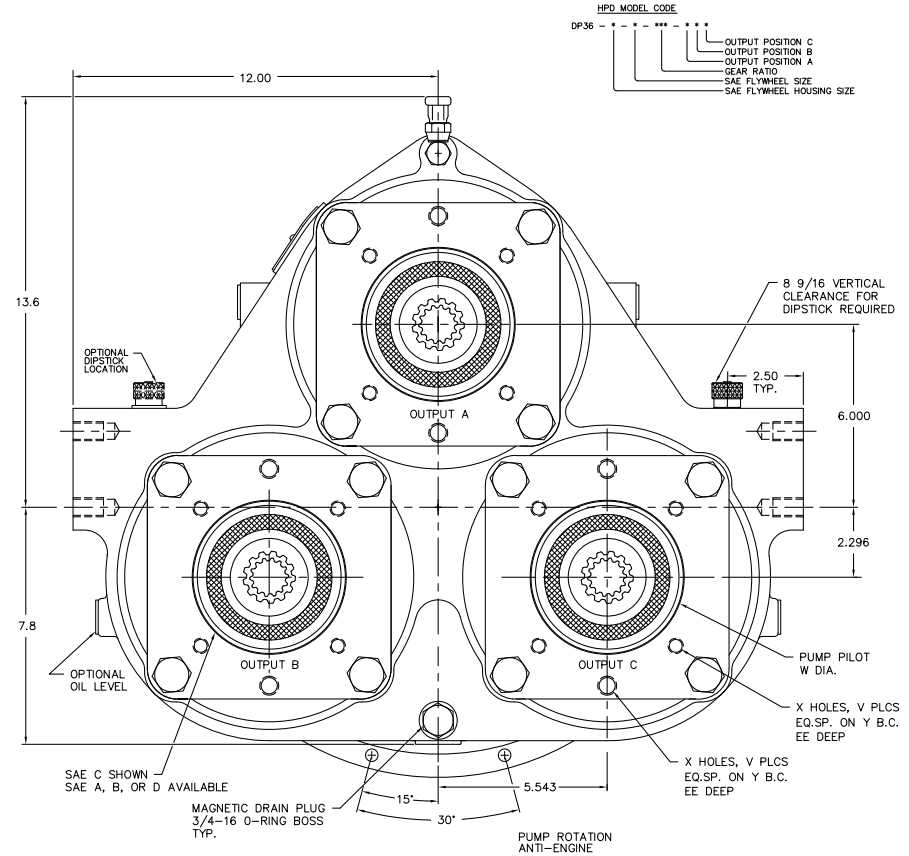
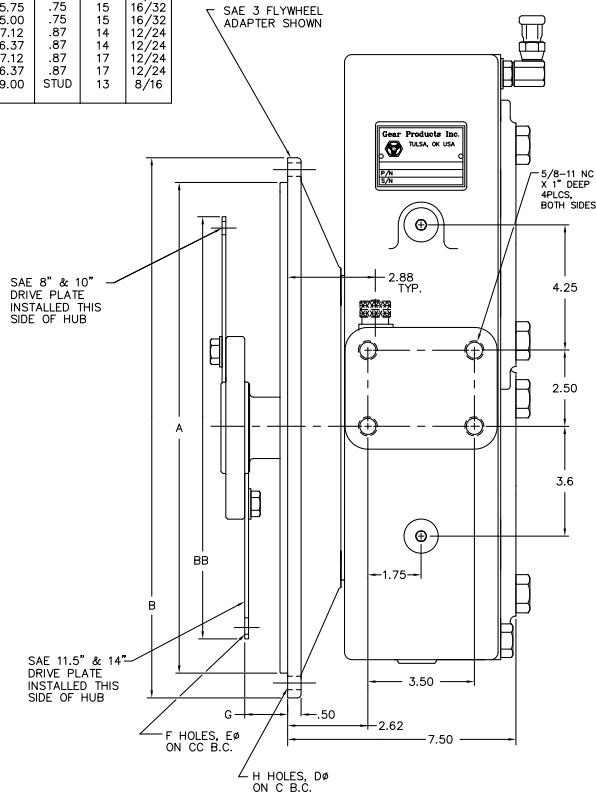
PUMP FLANGE DIMENSIONS						30 DEG. INVOLUTE SPLINE	
REF SAE J744							
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.75	9	16/32
B	2	4.000	1/2-13	5.75	.75	13	16/32
B	4	4.000	1/2-13	5.00	.75	13	16/32
BB	2	4.000	1/2-13	5.75	.75	15	16/32
BB	4	4.000	1/2-13	5.00	.75	15	16/32
C	2	5.000	5/8-11	7.12	.87	14	12/24
C	4	5.000	1/2-13	6.37	.87	14	12/24
CC	2	5.000	5/8-11	7.12	.87	17	12/24
CC	4	5.000	1/2-13	6.37	.87	17	12/24
D	4	6.000	3/4-10	9.00	1.00	13	8/16

CLUTCH INSTALLATION DATA									
REF SAE J620 AND SAE J617									
SAE HSG. SIZE	CLUTCH MODEL	MAX CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	G	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH
3	C110	2675	328	12.375	11.62	2.12	3	2 5/8	1270
3	C111	2325	387	13.875	13.12	1.56	3	2 5/8	1270
2 or 3	P111	2850	455	13.875	13.12	1.56	3	3 3/16	1540
2 or 3	P211	2850	910	13.875	13.12	1.56	3 3/4	4 3/16	1930

CLUTCH HOUSING DIMENSIONS					
REF SAE J620 AND SAE J617					
SAE NO.	A	B	C	DD	J
3 (C110)	16.125	17.75	16.87	5.75	10.62
3 (C111)	16.125	17.75	16.87	5.75	10.62
3 (P211)	16.125	17.75	16.87	10.50	15.37
2 (C110)	17.625	19.25	18.37	5.75	10.62
2 (C111)	17.625	19.25	18.37	5.75	10.62

AVAILABLE GEAR RATIOS			
OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	U—SPEED INCREASING D—SPEED DECREASING	MAX INPUT SPEED (RPM)	
		U	D
1:1E		3000	3000
1.05 UD		2850	3000
1.10 UD		2700	3000
1.27 UD		2350	3000
1.40 UD		2150	3000
1.54 UD		1950	3000

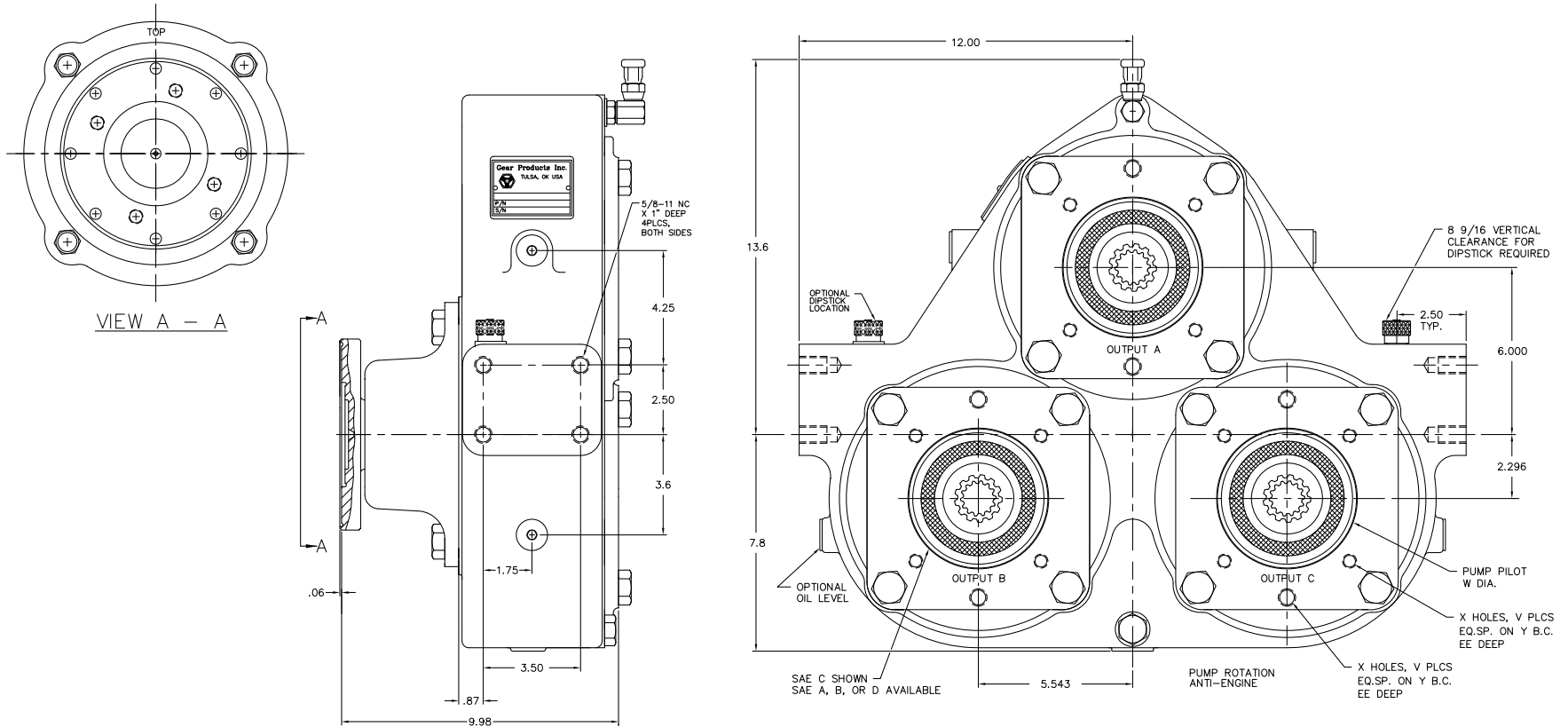
PUMP FLANGE DIMENSIONS REF SAE J744						30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.75	9	16/32
B	2	4.000	1/2-13	5.75	.75	13	16/32
B	4	4.000	1/2-13	5.00	.75	13	16/32
BB	2	4.000	1/2-13	5.75	.75	15	16/32
BB	4	4.000	1/2-13	5.00	.75	15	16/32
C	2	5.000	5/8-11	7.12	.87	14	12/24
C	4	5.000	1/2-13	6.37	.87	14	12/24
CC	2	5.000	5/8-11	7.12	.87	17	12/24
CC	4	5.000	1/2-13	6.37	.87	17	12/24
D	4	6.000	3/4-10	9.00	STUD	13	8/16



ENGINE ADAPTOR DIMENSIONS REF SAE J617					
SAE NO.	A	B	C	D	H
1	20.125	21.75	20.87	1/2	12
2	17.625	19.25	18.37	7/16	12
3	16.125	17.75	16.87	7/16	12
4	14.250	15.87	15.00	7/16	12
5	12.375	14.00	13.12	7/16	8

DRIVE PLATE DIMENSIONS REF SAE J620						
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC	
8	10.375	7/16	6	2.44	9.62	
10	12.375	7/16	8	2.12	11.62	
11 1/2	13.875	7/16	8	1.56	13.12	
14	18.375	9/16	8	1.00	17.25	

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1:1E	3000	3000
1.05 UD	2850	3000
1.10 UD	2700	3000
1.27 UD	2350	3000
1.40 UD	2150	3000
1.54 UD	1950	3000

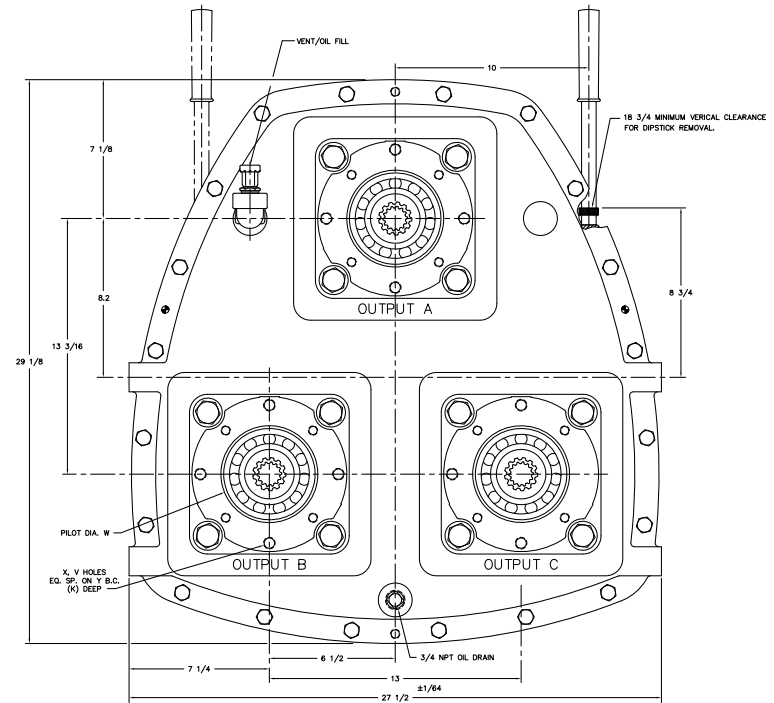
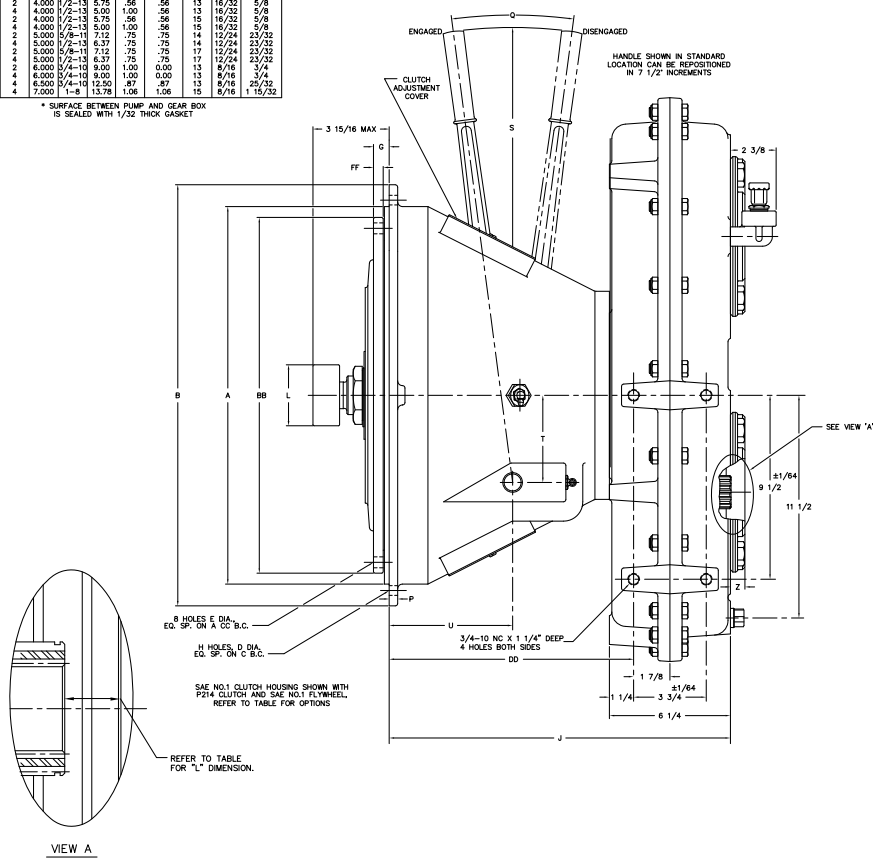


PUMP FLANGE DIMENSIONS REF SAE J744							30 DEG. INVOLUTE SPLINE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	NO. TEETH	PITCH	
A	2	3.250	3/8-16	4.18	.75	9	16/32	
B	2	4.000	1/2-13	5.75	.75	13	16/32	
B	4	4.000	1/2-13	5.00	.75	13	16/32	
BB	2	4.000	1/2-13	5.75	.75	15	16/32	
BB	4	4.000	1/2-13	5.00	.75	15	16/32	
C	2	5.000	5/8-11	7.12	.87	14	12/24	
C	4	5.000	1/2-13	6.37	.87	14	12/24	
CC	2	5.000	5/8-11	7.12	.87	17	12/24	
CC	4	5.000	1/2-13	6.37	.87	17	12/24	
D	4	6.000	3/4-10	9.00	STUD	13	8/16	

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U—SPEED INCREASING D—SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1:1E	3000	3000
1.05 UD	2850	3000
1.10 UD	2700	3000
1.27 UD	2350	3000
1.40 UD	2150	3000
1.54 UD	1950	3000

PUMP FLANGE DIMENSIONS REF SAE #744				ADAPTOR WIDTH	30 DEG. INVOLUTE SPLINE	DIST. TO SHAFT END	
SAE SIZE	NO. OF HOLES	PILOT DIA. (W)	B.C. SIZE DIA. (V)	(K)	(Z)	NO. OF TEETH	PITCH (L)
A	2	3.250	3/8-11	4.18	.62	31	16/32 3/8
B	2	4.000	7/8-13	5.75	.56	56	13 16/32 5/8
BB	4	4.000	7/8-13	5.00	1.00	.56	13 16/32 5/8
C	2	4.000	1/2-13	5.75	.56	56	15 16/32 5/8
CC	4	4.000	1/2-13	5.00	1.00	.56	15 16/32 5/8
D	2	5.000	5/8-11	7.12	.75	75	14 12/24 23/32
E	2	5.000	7/8-13	6.37	.75	75	14 12/24 23/32
F	2	5.000	5/8-11	7.12	.75	75	17 12/24 23/32
G	4	5.000	7/8-13	6.37	.75	75	17 12/24 23/32
H	2	6.000	3/4-10	9.00	1.00	0.00	13 8/16 3/4
I	4	6.000	3/4-10	9.00	1.00	0.00	13 8/16 3/4
J	4	6.500	5/4-10	12.50	.87	.87	13 8/16 25/32
K	4	7.000	1-9	13.75	1.00	1.00	15 8/16 1 15/32

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



SAE C OUTPUT SHOWN REFER TO TABLE FOR OPTIONS

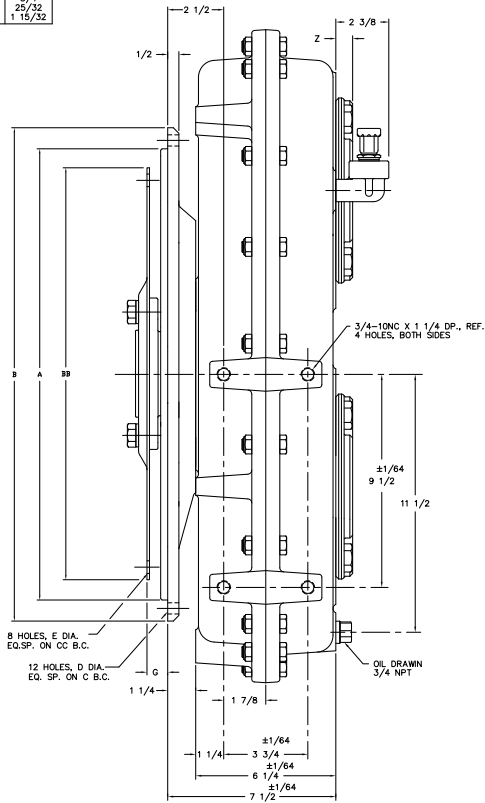
AVAILABLE GEAR RATIOS		OUTPUT ROTATION OPPOSITE INPUT	
GEAR RATIO	MAX. INPUT SPEED (RPM)	U	D
1:1 E	2750	2750	2750
1.16 U	2600	2600	3000
1.28 U	2450	3100	
1.34 U	2400	3050	
1.45 U	2350	3450	
1.56 U	2300	3500	
1.93 U	2100		
2.59 U	2050		
2.90 U	1870		

CLUTCH INSTALLATION DATA REF SAE #650 AND SAE #617														
SAE HOUSING SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB-FT)	BB	CC	E	FF	G	L	Q	S	T	U	TORQUE (LB-IN.) ON OPERATING SHAFT REQD. TO DRIVE CLUTCH
2 W 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	3 3/8	1540
2 W 3	P211	2850	909	13.875	13.12	7/16	1.88	1.56	2.835	16 1/2	15 3/8	3 3/4	4 3/8	1930
1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150
1	P214	2900	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150
1	P314	2900	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	7 3/4	3150

CLUTCH HOUSING DIMENSIONS REF SAE #650 AND SAE #617								
SAE NO.	A	B	C	D	H	DD	P	J
3	16.125	17.75	16.87	7/16	12	10.25	3/8	15.62
2	17.625	19.25	18.37	7/16	12	10.25	3/8	15.62
1	20.125	21.75	20.87	1/2	12	12.25	7/16	17.62

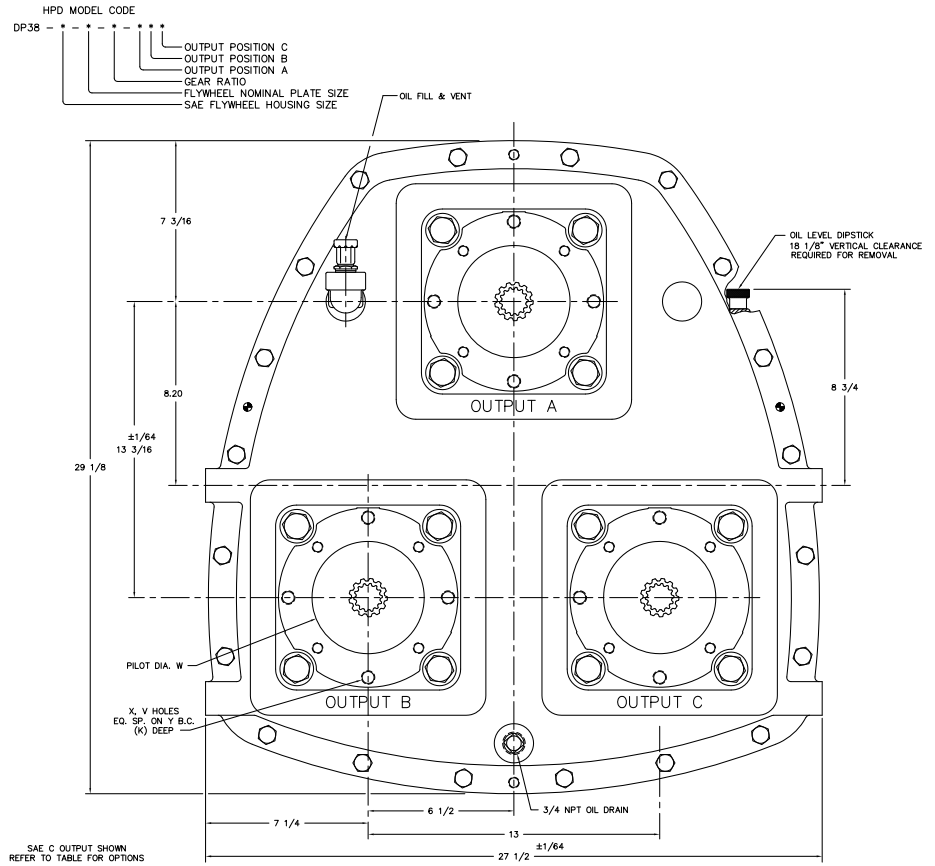
PUMP DIMENSIONS REF SAE J744						ADAPTOR WIDTH (K)	30 DEG. INVOLUTE SPURGE (Z)	DIST. TO SHAFT END. (L)
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(K)	(Z)	NO. TEETH PITCH	(L)
A	2	3.250	5/8-16	4.18	.82	.31	9 16/32	3/8
B	2	4.000	1/2-13	5.75	.56	.56	13 16/32	5/8
BB	4	4.000	1/2-13	5.00	1.00	.56	13 16/32	5/8
CC	2	4.000	1/2-13	5.75	.56	.56	15 16/32	5/8
C	4	4.000	1/2-13	5.00	1.00	.56	15 16/32	5/8
CC	2	5.000	5/8-11	7.12	.75	.75	14 12/24	23/32
D	4	5.000	1/2-13	6.37	.75	.75	14 12/24	23/32
CC	2	5.000	5/8-11	7.12	.75	.75	17 12/24	23/32
D	4	5.000	1/2-13	6.37	.75	.75	17 12/24	23/32
D	4	6.000	5/4-10	8.00	1.00	0.00	13 8/16	3/4
E	4	6.500	5/4-10	12.50	.87	.87	13 8/16	25/32
F	4	7.000	1-8	13.78	1.06	1.06	15 8/16	1 15/32

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET



SAE #1 ENGINE ADAPTOR AND 14" DRIVE PLATE SHOWN. REFER TO TABLES FOR OPTIONS.

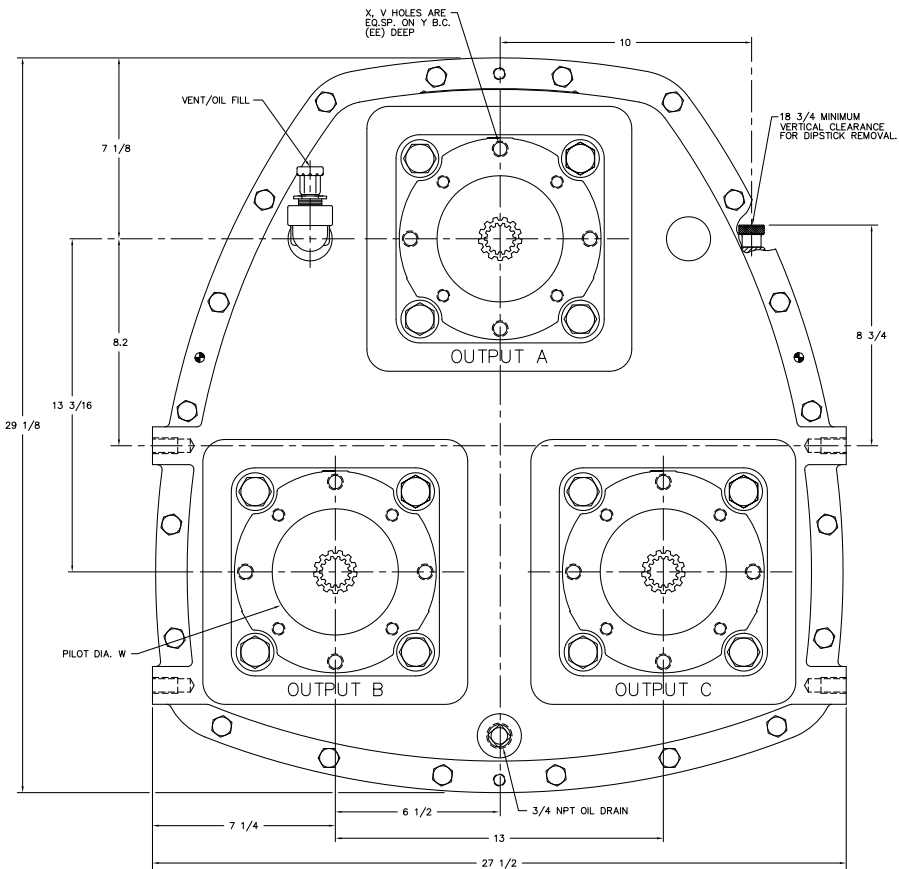
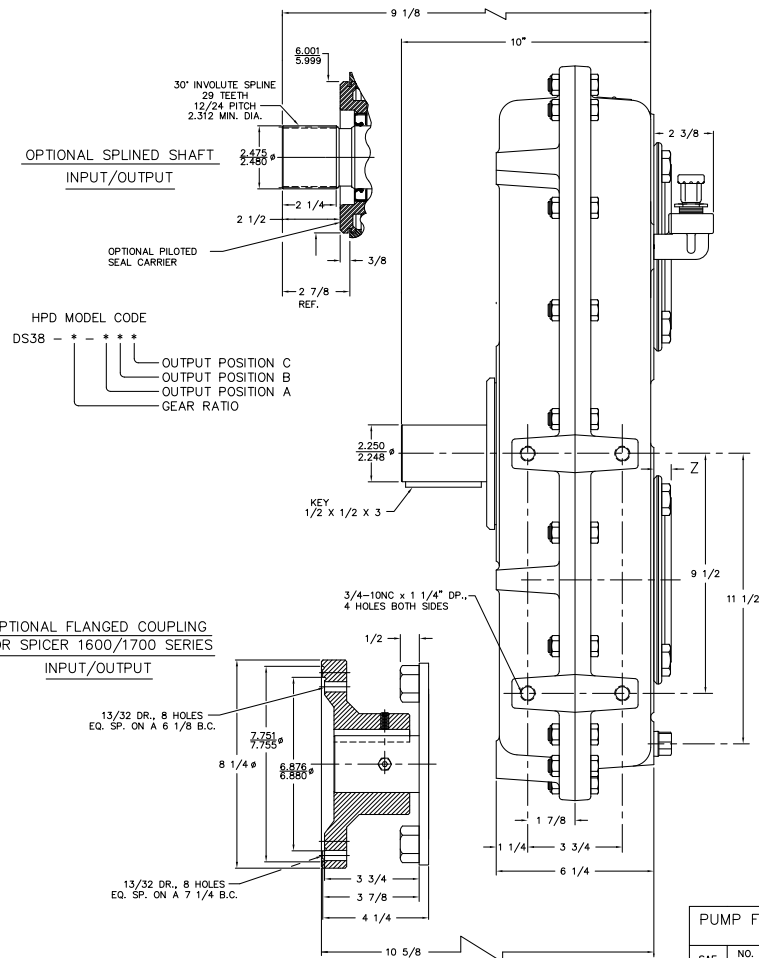
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED (RPM)		
U-SPEED INCREASING	U	D	
D-SPEED DECREASING			
1.00 E	2750	2750	
1.16 UD	2600	3000	
1.28 UD	2450	3100	
1.34 UD	2400	3250	
1.45 UD	2350	3400	
1.56 UD	2300	3550	
1.93 U	2100		
2.09 U	2050		
2.90 U	1870		



SAE C OUTPUT SHOWN REFER TO TABLE FOR OPTIONS

DRIVE PLATE DIMENSIONS REF SAE J620				
NOMINAL DRIVE PLATE DIAMETER	BB	E	G	CC
8	10.375	7/16	2.44	9.62
10	12.375	7/16	2.12	11.62
11 1/2	13.875	7/16	1.56	13.12
14	18.375	9/16	1.00	17.25

ENGINE ADAPTOR DIMENSIONS REF SAE J617							UNT WT. (LBS.)
SAE NO.	A	B	C	D	H	GG	
3	16.125	16.87	16.87	7/16	12	1 1/4	295
2	17.625	19.25	18.37	7/16	12	1 1/4	310
1	20.125	21.75	20.87	1/2	12	1 1/4	320



PUMP FLANGE DIMENSIONS
REF SAE J744

SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	SOLE DEPTH (EE)	ADAPTOR WIDTH * (Z)	NO. TEETH	30 DEG. INVOLUTE SPLINE PITCH
A	2	3.250	5/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	4	4.000	1/2-13	5.75	.56	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-10	13.78	1.06	1.06	15	8/16

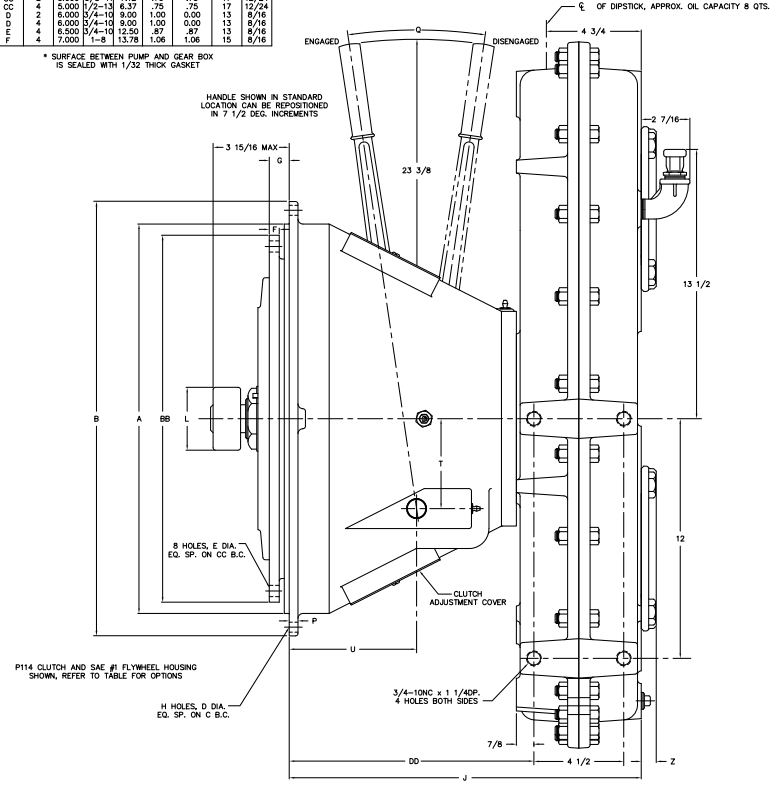
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

SAE C OUTPUTS SHOWN
REFER TO TABLE FOR OPTIONS

PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. INVOLUTE SPINE		
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (Z)	(2)	NO. TEETH	PITCH
A	2	3.750	5/8-11	4.18	.62	.31	9	16/32
B	4	4.000	1/2-13	5.75	.56	.36	13	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	14	12/24
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
DD	4	6.500	3/4-10	12.50	.87	.87	13	8/16
E	4	7.000	1-8	13.75	1.06	1.06	15	8/16

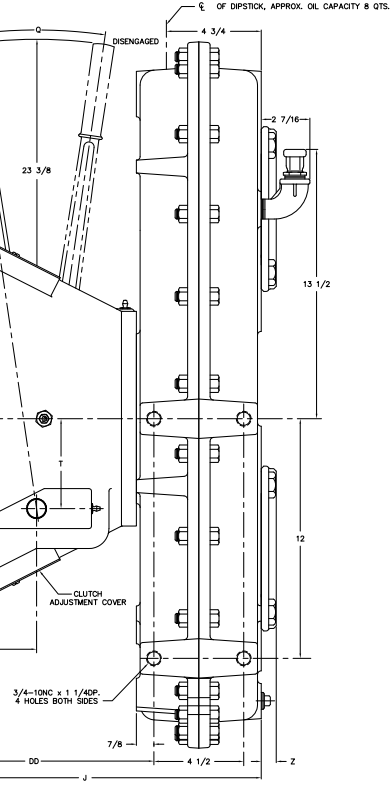
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

HANDLE SHOWN IN STANDARD LOCATION CAN BE REPOSITIONED IN 7 1/2 DEG. INCREMENTS



P114 CLUTCH AND SAE #1 FLYWHEEL HOUSING SHOWN, REFER TO TABLE FOR OPTIONS

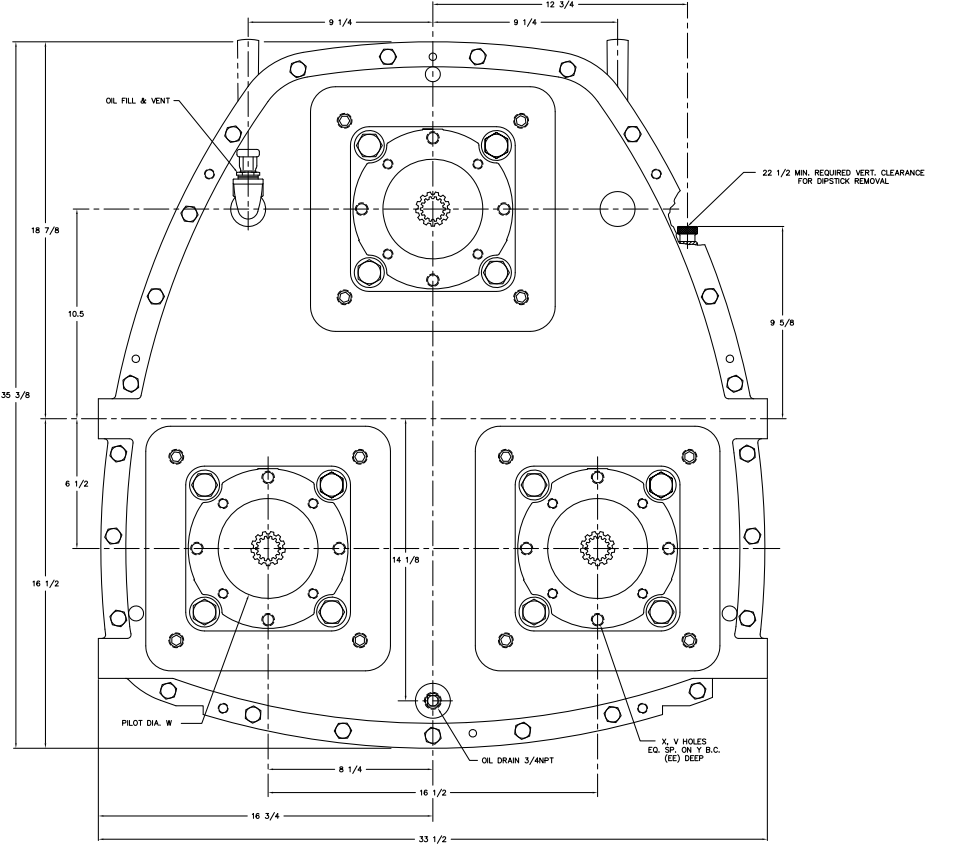
H HOLES, D DIA. EQ. SP. ON C.B.C.



SAE C OUTPUT SHOWN REFER TO TABLE FOR OPTIONS

HPD MODEL CODE
DC30 -

- OUTPUT POSITION C
- OUTPUT POSITION B
- OUTPUT POSITION A
- GEAR RATIO
- CLUTCH DESIGNATION
- SAE FLYWHEEL HOUSING SIZE



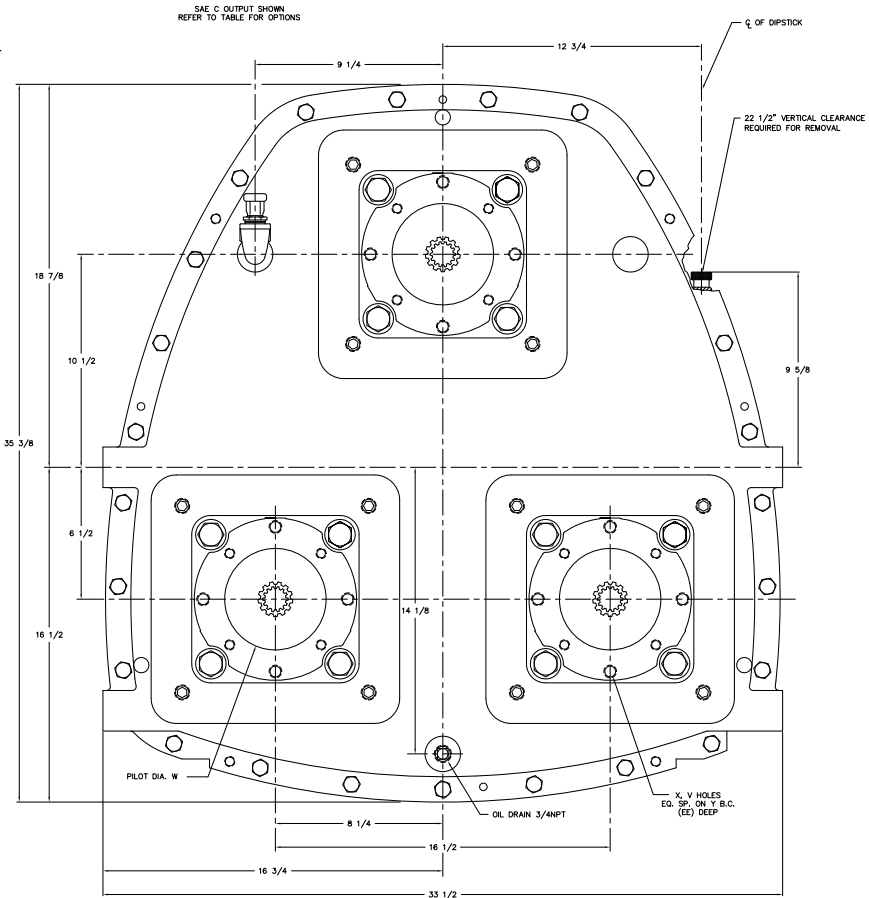
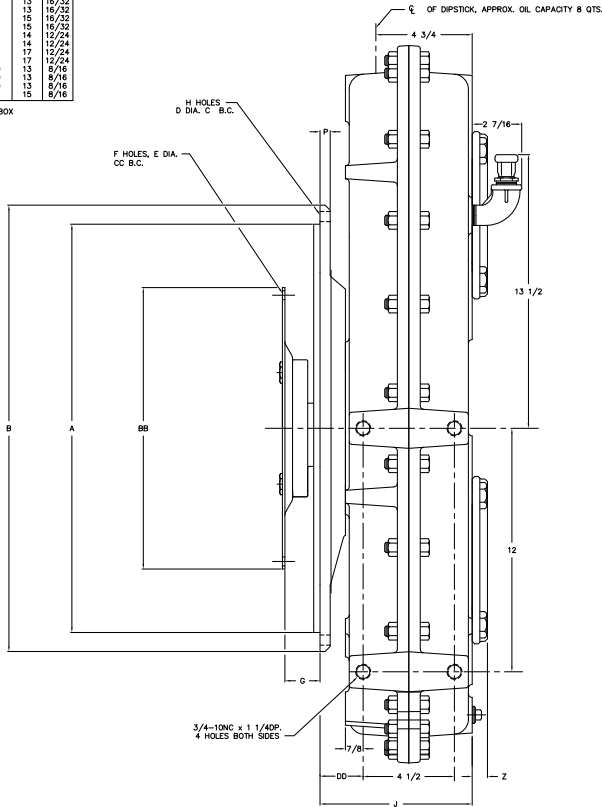
AVAILABLE GEAR RATIOS		
OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	U	D
U-SPEED INCREASING		
D-SPEED DECREASING		
1:1 F	2200	20
1:16 UD	2050,2400	18,21
1:28 UD	1950,2500	17,22
1:39 UD	1900,2600	17,23
1:56 U	1800	15
1:69 U	1750	15

CLUTCH INSTALLATION DATA														
REF SAE J620 AND SAE J617														
SAE HSG. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	B	CC	E	F	G	L	Q	T	U		
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	3 3/4	4 3/16	1930	415
0 or 1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	6 3/8	3150	535
0 or 1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	6 3/8	3150	545
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	7 3/4	3150	560

CLUTCH HOUSING DIMENSIONS							
REF SAE J620 AND SAE J617							
SAE NO.	A	C	D	H	DD	P	J
3	16.125	16.87	7/16	12	10.25	3/8	15.62
2	17.625	18.37	7/16	12	10.25	3/8	15.62
1	20.125	20.87	1/2	12	12.25	7/8	17.62
0	25.500	26.75	9/16	16	12.25	1/2	17.62

PUMP FLANGE DIMENSIONS REF SAE J744					ADAPTOR WIDTH	30 DEG. INVOLUTE SPURGE		
SAE SIZE	NO. OF BOLTS	PILOT DIA. (V)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. OF TEETH	PITCH
A	2	3.250	5/8-18	4.18	.62	.31	9	16/32
B	2	4.000	1/2-18	5.75	.56	.56	13	16/32
B	4	4.000	1/2-18	5.00	1.00	.56	13	16/32
BB	2	4.000	1/2-18	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-18	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-18	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-18	6.37	.75	.75	17	12/24
D	2	6.000	3/4-16	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-16	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-16	12.50	.87	0.00	13	8/16
F	4	7.000	1-8	15.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET.



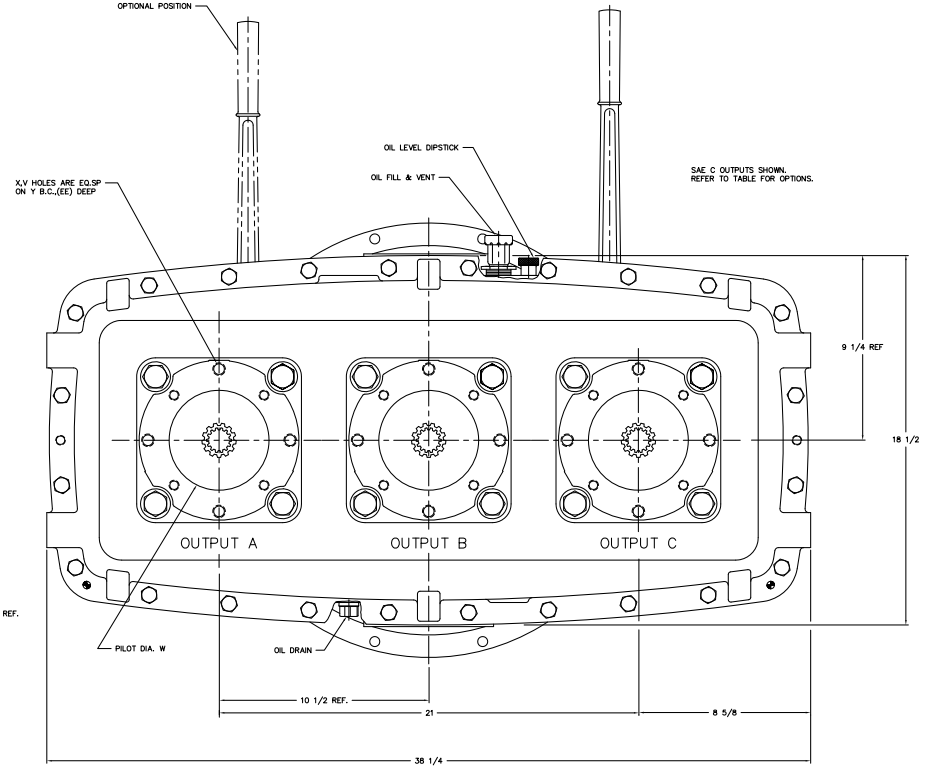
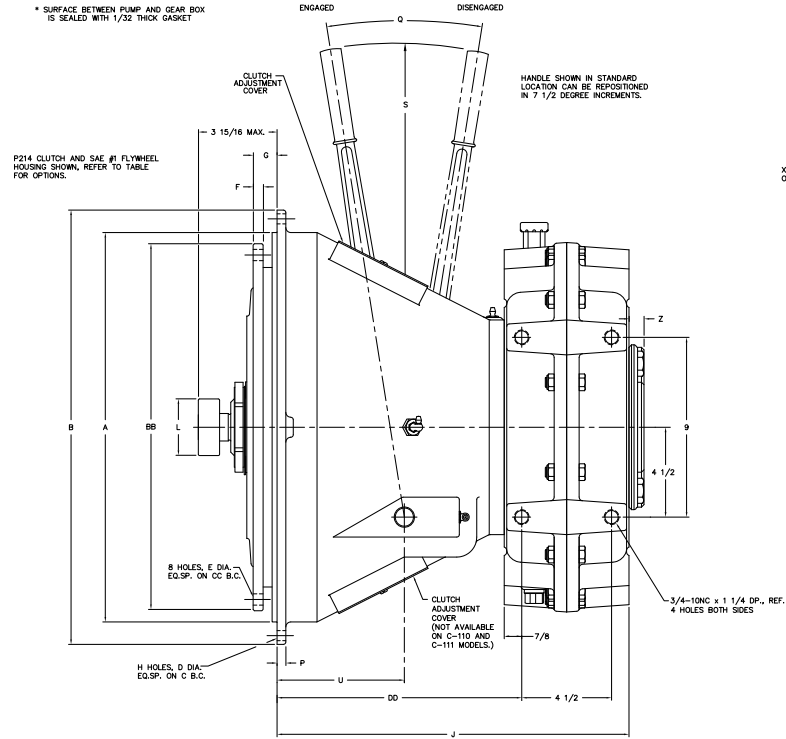
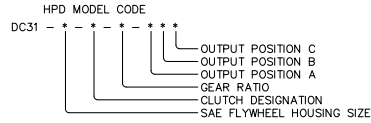
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX INPUT SPEED (RPM)		
U-SPEED INCREASING	U	D	
D-SPEED DECREASING			
1.00 E	2200	2200	
1.16 UD	2550	2450	
1.28 UD	1950	2500	
1.39 UD	1900	2600	
1.56 U	1800	1800	
1.69 U	1750	1750	

DRIVE PLATE DIMENSIONS REF SAE J620					
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC
11 1/2	13.875	7/16	8	1.56	13.12
14	18.375	9/16	8	1.00	17.25
16	23.375	9/16	8	.62	19.25
18	22.500	11/16	6	.62	21.37

ENGINE ADAPTOR DIMENSIONS REF SAE J617									
SAE NO.	A	B	C	D	H	DD	J	P	UNIT WT. (LBS.)
3	16.125	17.75	16.87	7/16	12	2.125	7.50	1/2	295
2	17.625	19.25	18.37	7/16	12	2.125	7.50	1/2	310
1	20.125	21.75	20.87	1/2	12	2.125	7.50	1/2	320
0	25.500	28.00	26.75	9/16	16	2.625	8.00	1	390

PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH	30 DEG. INVOLUTE SPURGE	
SAE SIZE	NO. (V)	PILOT DIA. (V)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
A	2	4.000	1/2-13	5.75	.56	.56	13	16/32
B	2	4.000	1/2-13	5.00	1.00	.56	15	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	2	6.500	1/2-13	12.50	.87	.87	13	8/16
E	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

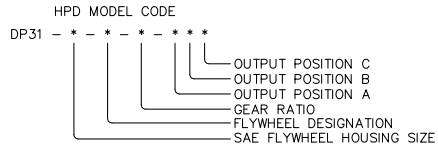
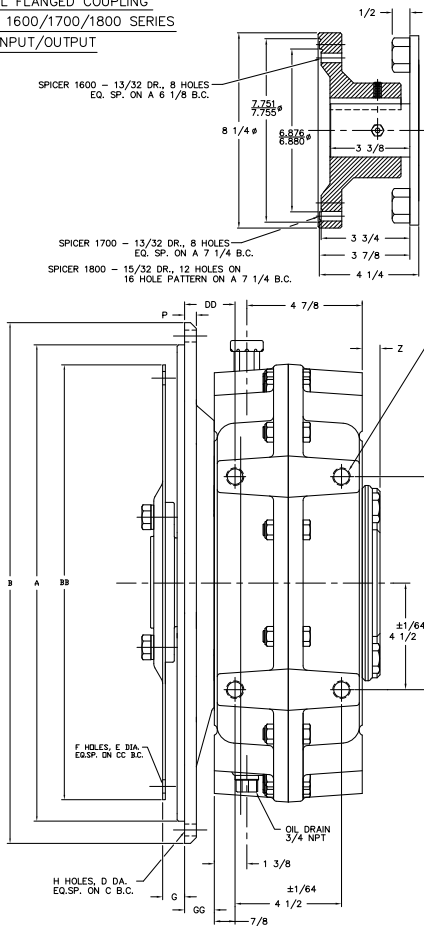


AVAILABLE GEAR RATIOS			
GEAR RATIO	OUTPUT ROTATION	MAX. INPUT SPEED (RPM)	OPPOSITE INPUT
U-SPEED INCREASING		U	D
D-SPEED DECREASING		D	U
1.11 F		2200	2200
1.16 UD		2050	2400
1.28 UD		1950	2550
1.39 UD		1900	2600
1.56 UD		1800	2800
1.69 U		1750	

CLUTCH INSTALLATION DATA															
REF SAE J620 AND SAE J617															
SAE HSC. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	L	Q	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT REQD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
3	C110	2675	328	12.375	11.62	7/16	0.88	2.12	2.835	15 1/2	15 3/8	3	2 5/8	1540	405
3	C111	2325	387	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	2 5/8	1540	405
2 or 3	P111	2850	455	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	15 3/8	3	3 1/16	1540	405
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	15 3/8	3/4	3/16	1930	415
0 or 1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	535
0 or 1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	6 3/8	3150	545
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	23 3/8	4 1/2	7 3/4	3150	560

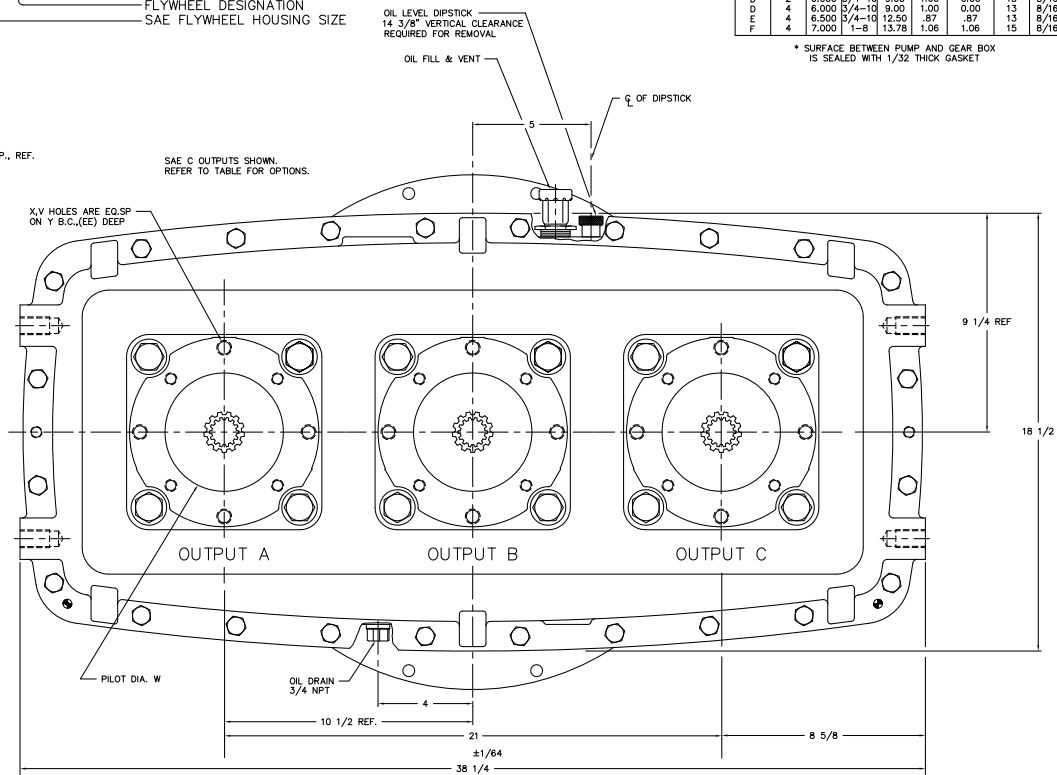
CLUTCH HOUSING DIMENSIONS									
REF SAE J620 AND SAE J617									
SAE HSC. SIZE	A	B	C	D	H	DD	P	J	
3(C110)	16.125	17.75	16.87	7/16	12	10.62	3/8	15.62	
3(C111)	16.125	17.75	16.87	7/16	12	10.62	3/8	15.62	
3	16.125	17.75	16.87	7/16	12	10.62	3/8	15.62	
2	17.625	19.25	18.37	7/16	12	10.62	3/8	15.62	
1	20.125	21.75	20.87	1/2	12	12.62	7/16	17.62	
0	25.500	28.00	26.75	9/16	16	12.62	1/2	17.62	

OPTIONAL FLANGED COUPLING
FOR SPICER 1600/1700/1800 SERIES
INPUT/OUTPUT



PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPURGE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.225	5/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
C	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	5.000	5/8-11	7.12	.75	.75	17	12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
E	4	6.500	3/4-10	12.50	.87	.87	13	8/16
F	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

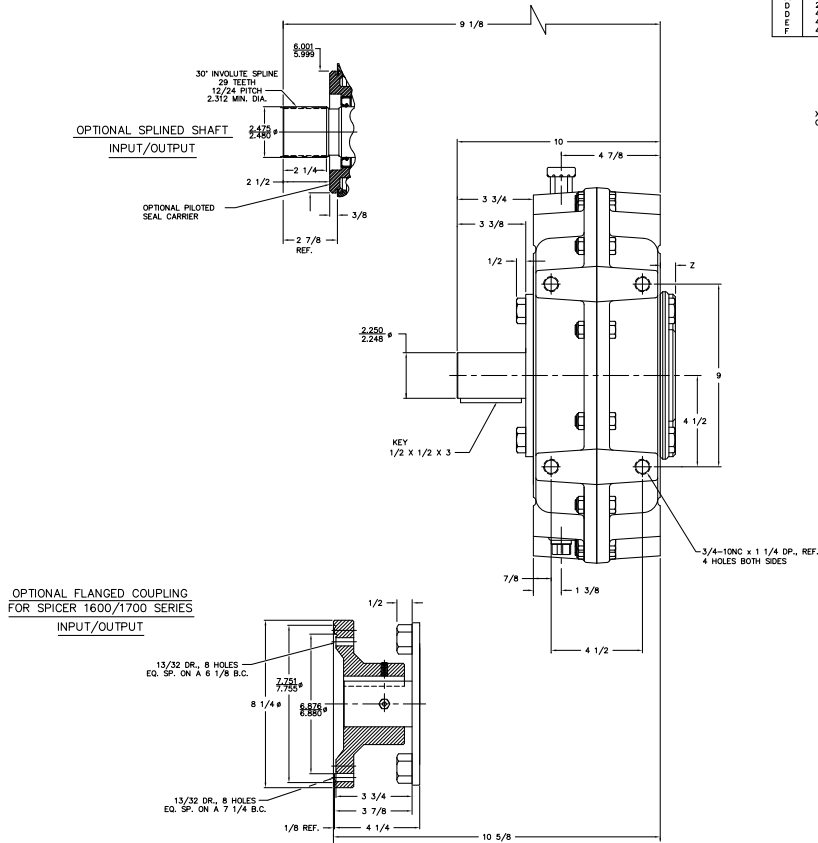


SAE#1 ENGINE ADAPTOR AND
14" DRIVE PLATE SHOWN. REFER
TO TABLES FOR OPTIONS.

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED (RPM)		D
	U-SPEED INCREASING	D-SPEED DECREASING	
1:1 E	2200	2200	
1.16 UD	2050	2400	
1.28 UD	1950	2600	
1.39 UD	1900	2600	
1.56 UD	1800	2800	
1.69 U	1750		

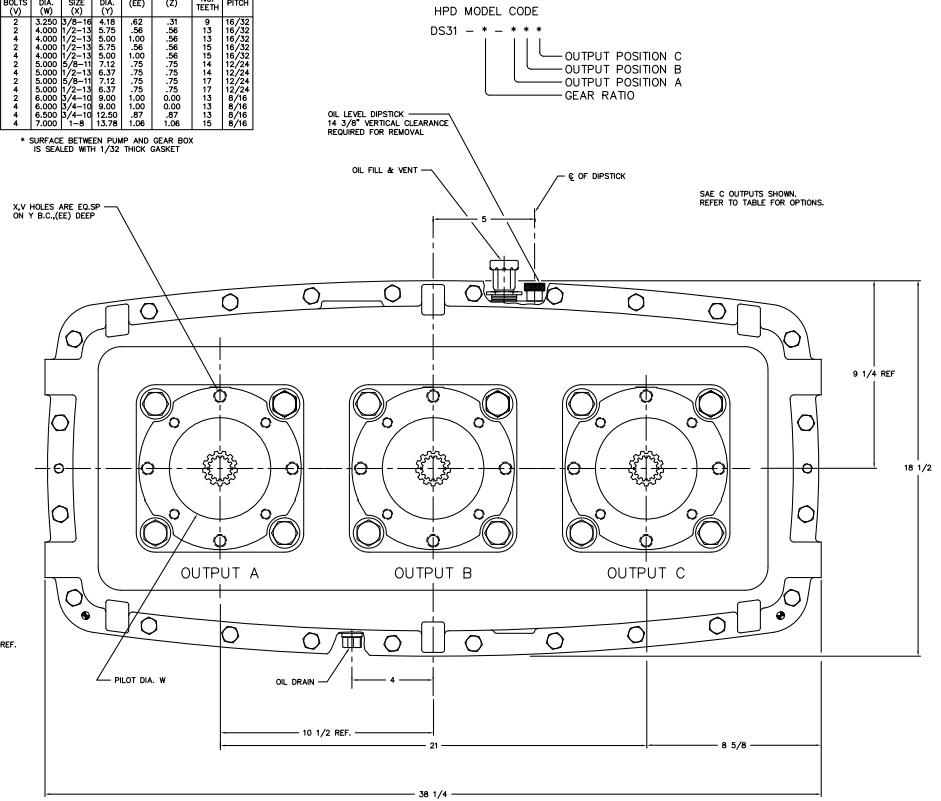
DRIVE PLATE DIMENSIONS REF SAE J620					
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	G	CC
10	12.375	7/16	8	2.12	11.62
11 1/2	13.875	7/16	8	1.56	13.12
14	18.375	9/16	8	1.00	17.25
16	20.375	9/16	8	.62	19.25
18	22.500	11/16	6	.62	21.37

ENGINE ADAPTOR DIMENSIONS REF SAE J617										
SAE NO.	A	B	C	D	H	J	P	DD	GG	UNIT WT. (LBS.)
3	16.125	16.87	16.87	7/16	12	7.50	1/2	2.125	1 1/4	295
2	17.625	19.25	18.37	7/16	12	7.50	1/2	2.125	1 1/4	310
1	20.125	21.75	20.87	1/2	12	7.50	1/2	2.125	1 1/4	320
0	25.500	28.00	26.75	9/16	16	8.00	1	2.625	1 3/4	390



PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. INVOLUTE SPLINE		
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	3/8-16	4.18	.62	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32
C	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
CC	2	5.000	5/8-11	7.12	.75	.75	14	12/24
C	4	5.000	1/2-13	6.37	.75	.75	14	12/24
CC	2	6.000	5/8-11	9.00	1.00	0.00	13	8/16
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24
D	4	6.000	D/4-10	9.00	1.00	0.00	13	8/16
D	4	6.500	D/4-10	12.00	.87	.87	13	8/16
E	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

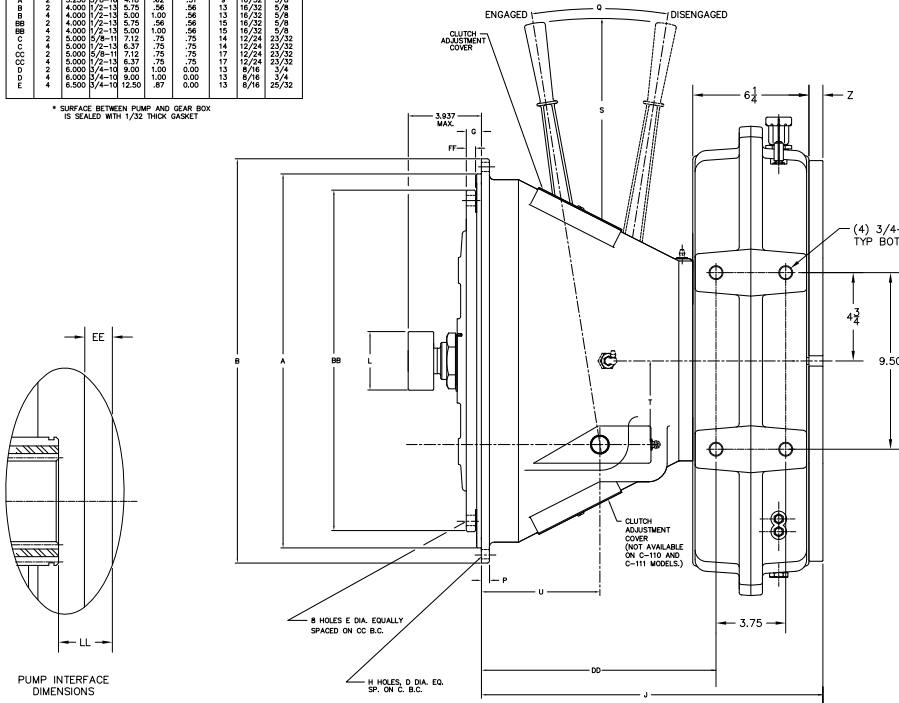


AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED	U	D
U-SPEED INCREASING D-SPEED DECREASING	(RPM)		
1:1 E	2200		2200
1:16 UD	2050		2400
1:28 UD	1950		2500
1:39 UD	1900		2600
1:56 UD	1800		2800
1:69 U	1750		

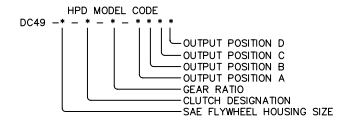
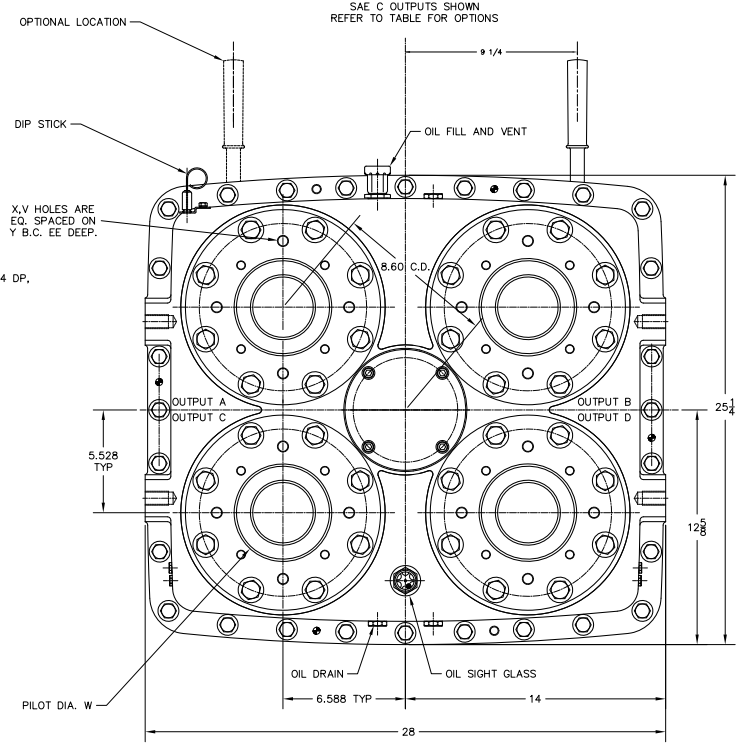
PUMP FLANGE DIMENSIONS REF SAE J744					ADAPTOR THK**		30 DEG. INVOLUTE SPURGE		FACE TO SPURGE	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	PILOT DEPTH (Z)	(Z)	NO. TEETH	PITCH DIA.	(LL)	
A	2	3.250	3/8-16	4.18	.52	.31	9	16/32	3/8	
B	2	4.000	7/16-13	5.75	.56	.56	13	16/32	5/8	
BB	4	4.000	7/16-13	5.00	1.00	.56	15	16/32	5/8	
C	2	4.000	7/16-13	5.75	.56	.56	15	16/32	5/8	
CC	2	5.000	5/8-11	7.12	.75	.75	14	12/24	23/32	
D	2	5.000	7/16-13	6.37	.75	.75	14	12/24	23/32	
E	2	5.000	5/8-11	7.12	.75	.75	17	12/24	23/32	
F	2	6.000	7/16-13	6.37	1.50	0.00	17	12/24	23/32	
	2	6.000	5/8-11	8.00	1.00	0.00	13	8/16	3/4	
	4	6.000	7/16-13	6.37	1.50	0.00	13	8/16	3/4	
	4	6.500	5/8-11	12.50	.87	0.00	13	8/16	25/32	

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32" THICK GASKET

NOTE: HANDLE SHOWN IN STANDARD LOCATION CAN BE REPOSITIONED AT 7 1/2" INCREMENTS FOR CONVENIENCE OF OPERATION.



SAE NO.1 CLUTCH HOUSING SHOWN WITH P114 CLUTCH REFER TO TABLE FOR OPTIONS



PUMP INTERFACE DIMENSIONS

AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO	MAX. INPUT SPEED	UNIT
U-SPEED INCREASING	(RPM)	BT
D-SPEED DECREASING	(RPM)	BT
1:1 E	2500	2500
1:1.5 UD	2170	2500
1:2 UD	2000	2500
1:3 UD	1980	2500
1:3.5 UD	1900	2500
1:69 U	1479	2500

CLUTCH INSTALLATION DATA REF SAE J620 AND SAE J617															
SAE HSG. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF BOLT SIZE	G	L	Q	S	T	U	TORQUE (LB.-IN.) ON OPERATING SHAFT RECD. TO ENGAGE CLUTCH	UNIT WT. (LBS.)
2 or 3	P211	2850	910	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	15.38	3 3/4	4 3/16	1930	415
0 or 1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	3.150	18	23.38	4 1/2	6 3/8	3150	546
0 or 1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	3.150	18	23.38	4 1/2	6 3/8	3150	546
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	23.38	4 1/2	7 3/4	3150	560

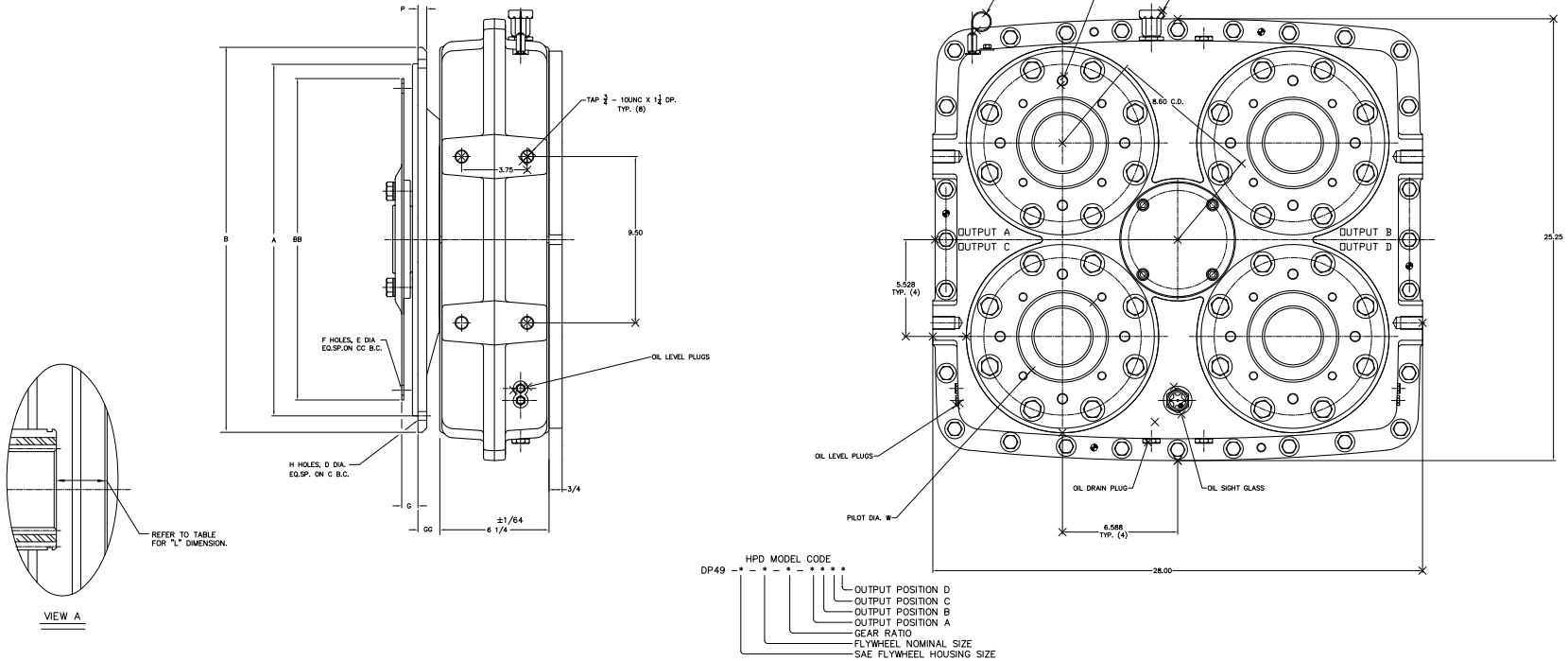
CLUTCH HOUSING DIMENSIONS REF SAE J620 AND SAE J617									
SAE NO.	A	B	C	D	H	P	J	DD	
2	16.425	17.75	16.87	7/16	12	3/8	14.37	10.12	
3	17.825	19.25	18.87	1/2	12	3/8	14.37	10.12	
1	20.125	21.75	20.87	1/2	12	7/16	16.37	12.12	

PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. INDICATE SPLINE		DISTANCE TO SHAFT END	
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (Y)	B.C. DIA. (Z)	(EE)	(ZZ)	NO. TEETH	PITCH (L)	(L)
A	2	3.250	5/8-18	4.18	.62	.31	9	16/32	3/8
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32	5/8
BB	4	4.000	1/2-13	5.00	1.00	.56	13	16/32	5/8
BB	2	4.000	1/2-13	5.75	.56	.56	15	16/32	5/8
BB	4	4.000	1/2-13	5.00	1.00	.56	15	16/32	5/8
C	2	5.000	5/8-18	7.12	.75	.75	14	12/24	23/32
CC	4	5.000	1/2-13	6.37	.75	.75	14	12/24	23/32
CC	2	5.000	5/8-18	7.12	.75	.75	17	12/24	23/32
CC	4	5.000	1/2-13	6.37	.75	.75	17	12/24	23/32
D	2	6.000	3/4-16	9.00	1.00	1.00	13	8/16	3/4
DD	4	6.000	1/4-18	9.00	1.00	1.00	13	8/16	3/4
F	4	6.250	3/4-16	9.50	.87	1.00	13	8/16	25/32
F	4	7.000	1/4-8	13.78	1.06	1.06	10	8/16	1 15/32

* SURFACE BETWEEN PUMP AND GEAR BOX IS SCALED WITH 1/32 THICK GASKET

SAE #1 ENGINE ADAPTER AND 14" DRIVE PLATE SHOWN REFER TO TABLES FOR OPTIONS.

SAE OUTPUTS SHOWN REFER TO TABLE FOR OPTIONS



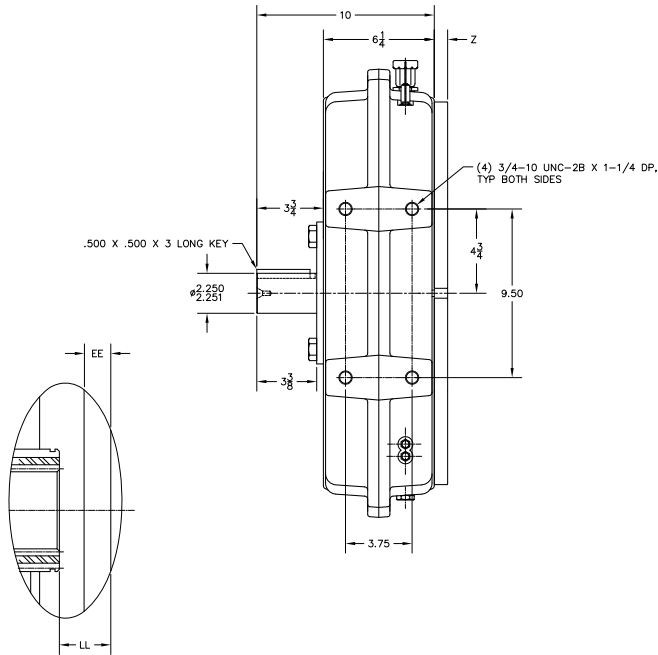
DRIVE PLATE DIMENSIONS REF SAE #620				
NOMINAL DRIVE PLATE DIAMETER	BB	E	F	CC
11 1/2	18.875	7/16	8	1.58
14	18.375	9/16	8	1.00
16	23.75	9/16	8	.62
18	22.500	1/16	8	.62

ENGINE ADAPTOR DIMENSIONS REF SAE #817							
SAE NO.	A	B	C	D	H	P	DD GG
3	16.125	17.75	16.87	7/16	12	1/2	2 1/8 1 1/4
2	17.625	19.25	18.37	7/16	12	1/2	2 1/8 1 1/4
1	20.125	21.75	20.87	1/2	12	1/2	2 1/8 1 1/4
0	25.500	28.00	26.75	9/16	16	1	2 5/8 1 3/4

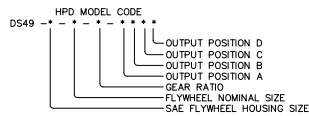
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED (RPM)		
U-SPEED INCREASING	U	D	
1:1 U	2500	2500	
1:15 UD	2170	2500	
1:2 UD	2040	2500	
1:26 UD	1980	2500	
1:36 UD	1900	2500	
1:69 U	1479	2500	

SAE SIZE	PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR THK. (Z)	30 DEG. PRODUCE SPLINE (Z)	FACE TO SPLINE (L)
	NO. HOLES (V)	PILOT DIA. (W)	BOLT DIA. (Y)	BOLT DEPTH (X)			
A	2	3.250	1/8-16	4.18	.52	31	9 18/32 3/8
B	2	4.000	1/2-13	5.75	.56	36	13 10/32 5/8
BB	4	4.000	1/2-13	5.75	.56	36	13 10/32 5/8
C	2	5.000	5/8-11	7.15	.75	35	14 12/24 1 1/2
CC	4	5.000	5/8-11	7.15	.75	35	14 12/24 1 1/2
D	2	6.000	7/8-10	8.00	1.00	0.00	13 8/16 3/4
E	4	6.000	7/8-10	8.00	1.00	0.00	13 8/16 3/4
F	4	7.000	1-8	13.78	1.06	1.06	15 8/16 1 15/32

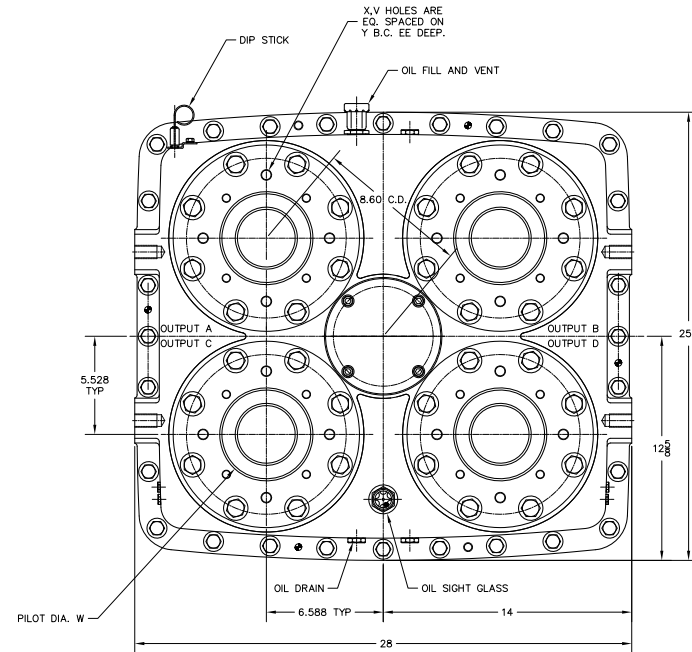
* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32" THICK GASKET



PUMP INTERFACE DIMENSIONS



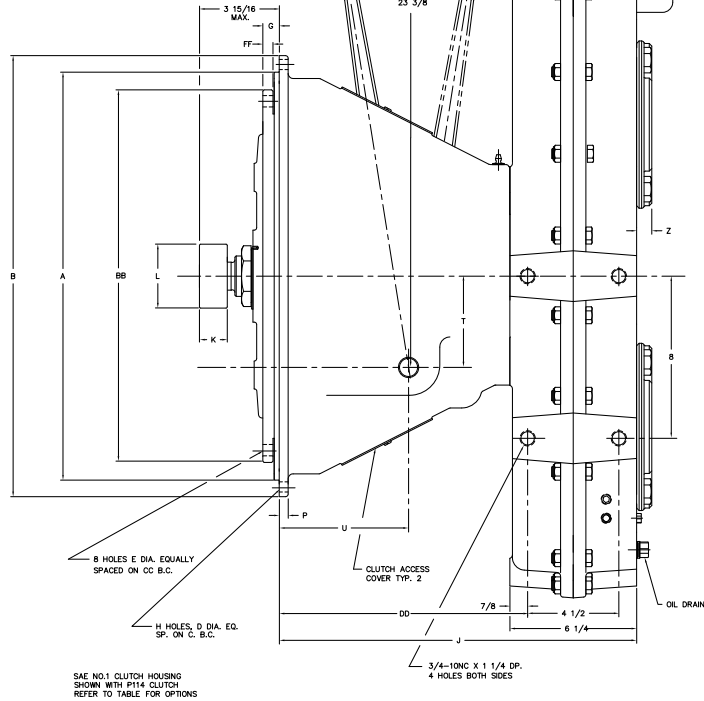
SAE OUTPUTS SHOWN
REFER TO TABLE FOR OPTIONS



AVAILABLE GEAR RATIOS		OUTPUT ROTATION OPPOSITE INPUT	
GEAR RATIO	MAX. INPUT SPEED (RPM)	GEAR RATIO	MAX. INPUT SPEED (RPM)
U-SPEED INCREASING		D-SPEED DECREASING	
1.1 U	2500	2500	2500
1.15 UD	2170	2170	2500
1.21 UD	2080	2080	2500
1.26 UD	1980	1980	2500
1.36 UD	1800	1800	2500
1.39 UD	1879	1879	2500

PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. INVOLUTE SPLINE		
SAE SIZE	NO. BOLTS (N)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE)	(Z)	NO. TEETH	PITCH
A	2	3.250	1/8-18	4.18	.82	.31	9	16/32
B	2	4.000	1/2-13	5.75	.86	.56	13	16/32
BB	4	4.000	1/2-13	5.75	.86	.56	15	16/32
C	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
CC	4	4.000	1/2-13	5.00	1.00	.56	15	16/32
D	2	5.000	5/8-11	7.12	.75	.75	14	12/24
E	4	5.000	1/2-13	6.37	.75	.75	14	12/24
F	2	5.000	5/8-11	7.12	.75	.75	17	12/24
G	4	5.000	1/2-13	6.37	.75	.75	17	12/24
H	2	6.000	3/4-10	9.00	1.00	0.00	13	8/16
I	4	6.000	3/4-10	9.00	1.00	0.00	13	8/16
J	4	6.500	3/4-10	12.50	.87	.87	13	8/16
K	4	7.000	1-8	13.78	1.06	1.06	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32 THICK GASKET

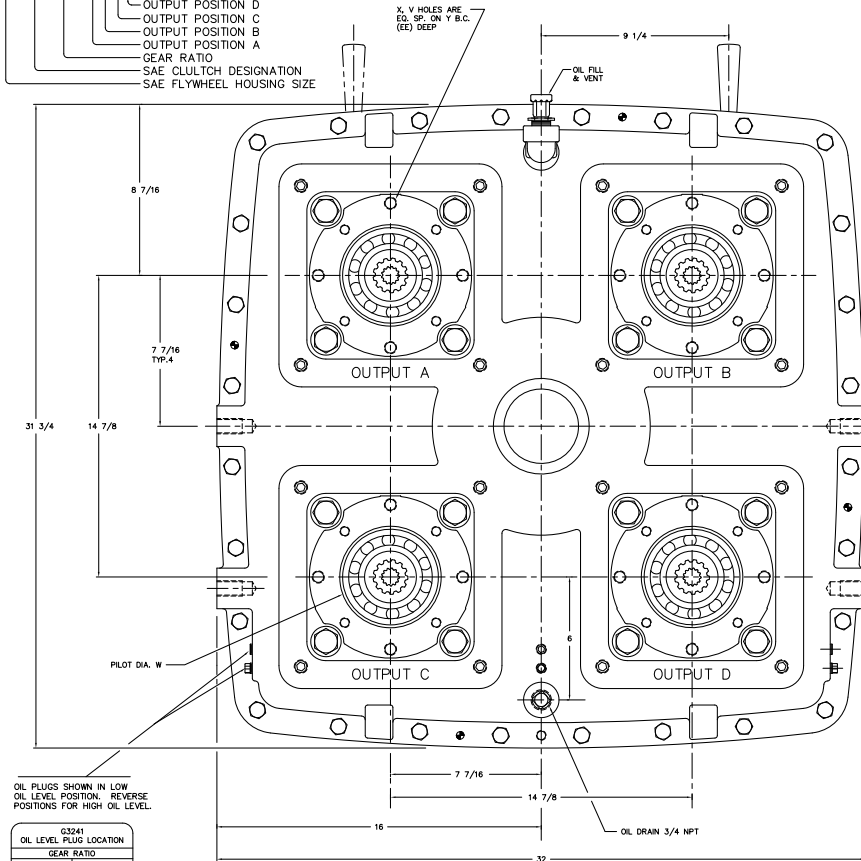


NOTE: HANDLE SHOWN IN STANDARD LOCATION CAN BE REPOSITIONED AT 7 1/2" INCREMENTS FOR CONVENIENCE OF OPERATION.

HPD MODEL CODE

DC41 - - - - -

- OUTPUT POSITION D
- OUTPUT POSITION C
- OUTPUT POSITION B
- OUTPUT POSITION A
- GEAR RATIO
- SAE CLUTCH DESIGNATION
- SAE FLYWHEEL HOUSING SIZE



SAE C OUTPUTS SHOWN REFER TO TABLE FOR OPTIONS

OIL PLUGS SHOWN IN LOW OIL LEVEL POSITION. REVERSE POSITIONS FOR HIGH OIL LEVEL.

G3241 OIL LEVEL PLUG LOCATION	
GEAR RATIO	
USE LOW OIL LEVEL	USE HIGH OIL LEVEL
1:1E	1:16U
1:16D	1:28U
1:28D	1:39U
1:39D	1:56U
1:56D	1:69U

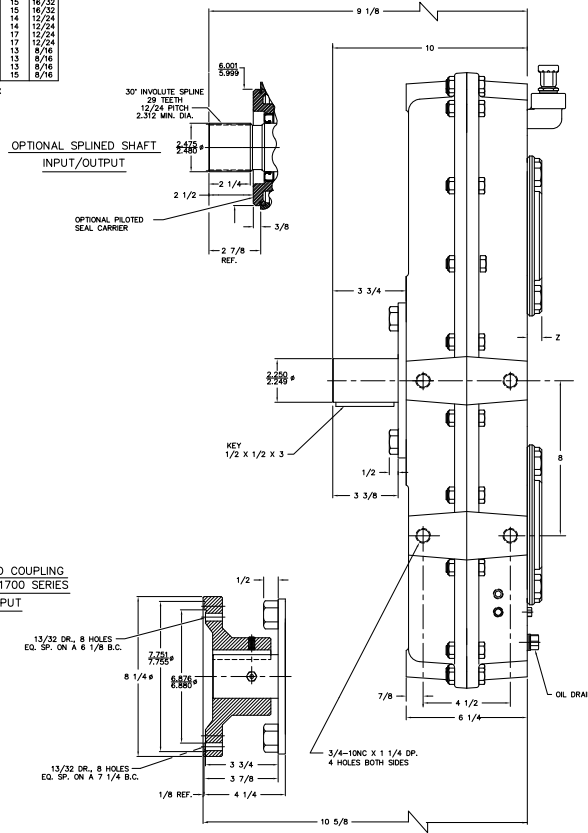
AVAILABLE GEAR RATIOS			
OUTPUT ROTATION OPPOSITE INPUT			
GEAR RATIO	MAX. INPUT SPEED (RPM)	U	D
1:1 E	2200	2000	
1:16 UD	2050, 2400	1800, 2100	
1:28 UD	1900, 2200	1700, 2000	
1:39 U	1800	1700	
1:56 U	1800	1500	
1:69 U	1750	1500	

CLUTCH INSTALLATION DATA															
REF SAE J620 AND SAE J617															
SAE HSG. SIZE	CLUTCH MODEL	MAX. CLUTCH SPEED (RPM)	WORKING TORQUE (LB.-FT.)	BB	CC	E	FF	G	K	L	Q	T	TORQUE (LB.-IN.) ON OPERATING SHAFT REQ'D TO ENGAGE CLUTCH	UNT. WT. (LBS.)	
2 or 3	P111	2850	485	13.875	13.12	7/16	0.88	1.56	1.187	2.835	15 1/2	3	3 3/16	1540	405
2 or 3	P211	2850	810	13.875	13.12	7/16	1.88	1.56	1.187	2.835	15 1/2	3 3/4	4 3/16	1950	415
0 or 1	P114	2400	810	18.375	17.25	9/16	0.50	1.00	1.375	3.150	18	4 1/2	6 3/8	3150	535
0 or 1	P214	2500	1620	18.375	17.25	9/16	0.50	1.00	1.375	3.150	18	4 1/2	6 3/8	3150	545
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	1.375	3.150	18	4 1/2	7 3/4	3150	560

CLUTCH HOUSING DIMENSIONS								
REF SAE #620 AND SAE #617								
SAE NO.	A	B	C	D	H	P	J	DD
3	16.125	17.75	16.87	7/16	12	3/8	18.62	10.24
2	17.625	19.25	18.37	7/16	12	3/8	15.62	10.24
1	20.125	21.75	20.87	1/2	12	7/8	17.62	12.24
0	25.500	28.00	26.75	9/16	16	1/2	17.82	12.24

PUMP FLANGE DIMENSIONS REF. SAE J744						ADAPTOR WIDTH	30 DEG. INVOLUTE SPURGE	
SAE SIZE	NO. OF BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	(EE) (Z)	(C)	NO. TEETH	PITCH
A	2	3.250	1/2-16	4.18	.65	.31	9	16/32
B	2	4.000	1/2-13	5.75	.56	.56	13	16/32
BB	4	4.000	1/2-13	5.00	1.00	.56	13	16/32
C	2	4.000	1/2-13	5.75	.56	.56	15	16/32
CC	4	5.000	5/8-11	7.12	.75	.75	14	12/24
D	2	5.000	5/8-11	7.12	.75	.75	17	12/24
DD	4	5.000	5/8-11	6.37	.75	.75	17	12/24
E	2	6.000	3/4-10	8.00	1.00	0.00	13	8/16
EE	4	6.000	3/4-10	8.00	1.00	0.00	13	8/16
F	4	7.000	1-8	13.78	1.00	1.00	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32" THICK GASKET

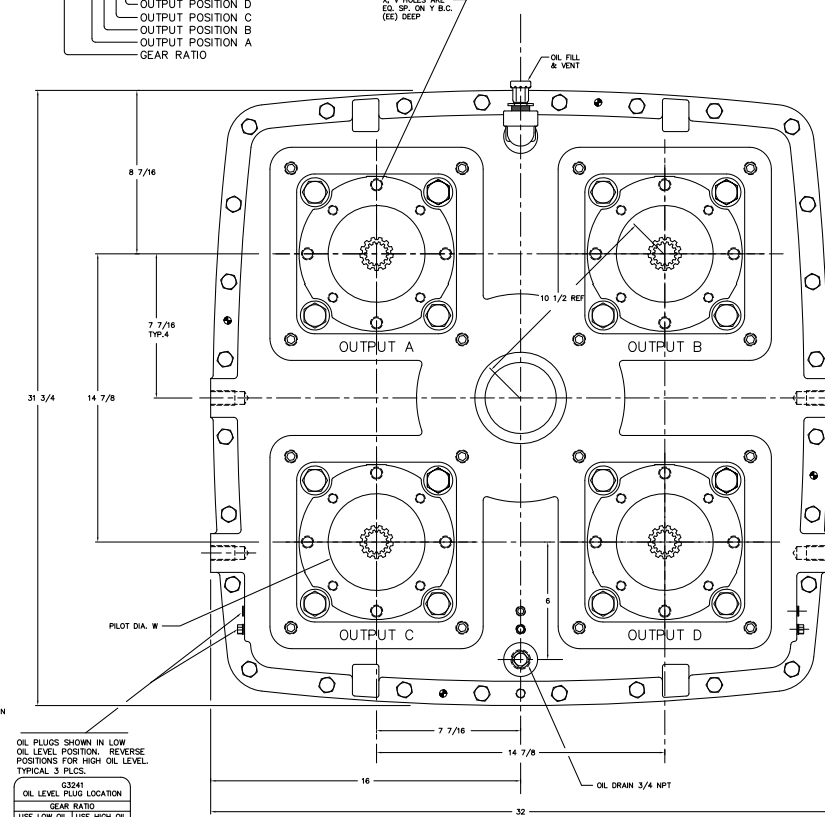


HPD MODEL CODE

- DS41 -
- OUTPUT POSITION D
 - OUTPUT POSITION C
 - OUTPUT POSITION B
 - OUTPUT POSITION A
 - GEAR RATIO

X, V HOLES ARE
EQ. SP. ON Y B.C.
(EE) DEEP

SAE C OUTPUTS SHOWN
REFER TO TABLE FOR OPTIONS



OIL PLUGS SHOWN IN LOW
OIL LEVEL POSITION. REVERSE
POSITIONS FOR HIGH OIL LEVEL.
TYPICAL 3 PLCS.

OIL LEVEL PLUG LOCATION	
GEAR RATIO	
USE LOW OIL LEVEL	USE HIGH OIL LEVEL
1:1 E	1.16U
1:1.6 UD	1.28U
1:2.8 UD	1.39U
1:5.0 U	1.56U
1:6.0 U	1.69U

AVAILABLE GEAR RATIOS

GEAR RATIO	OUTPUT ROTATION OPPOSITE INPUT	
	U - SPEED INCREASING	D - SPEED DECREASING
1:1 E	2200	2200
1:1.6 UD	2000	2400
1:2.8 UD	1950	2500
1:5.0 U	1800	
1:6.0 U	1850	
1:6.9 U	1750	

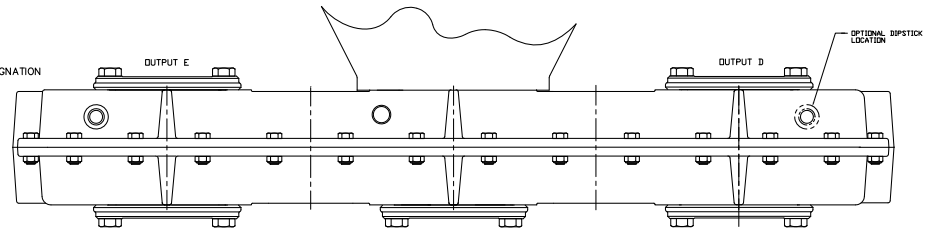
PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH		30 DEG. PROCLUTE SPURLE		
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT DIA. (X)	B.C. DIA. (Y)	(Z)	(Z)	NO. TEETH	PITCH
A	2	3.250	5/8-16	4.18	.42	.31	8	16/32
B	4	4.000	7/8-13	5.75	.56	.56	13	16/32
BB	4	4.000	7/8-13	5.90	.56	.56	15	16/32
BB	4	4.000	7/8-13	6.00	1.00	.56	15	16/32
CC	2	5.000	9/8-11	7.12	.75	.75	14	12/24
CC	4	5.000	7/8-13	6.37	.75	.75	14	12/24
CC	4	5.000	9/8-11	7.12	.75	.75	17	12/24
D	2	6.000	7/4-10	8.00	1.00	0.00	13	8/16
D	4	6.000	7/4-10	8.00	1.00	0.00	13	8/16
E	4	7.000	1-8	13.78	1.08	1.08	15	8/16

* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32" THICK GASKET

HPD MODEL CODE

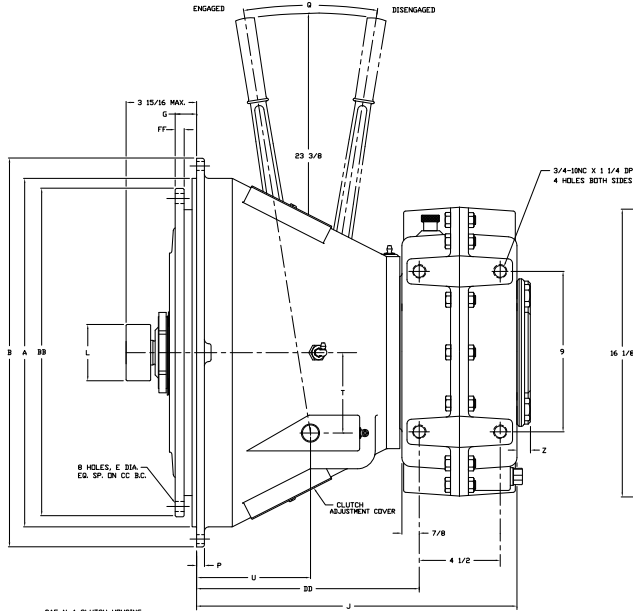
DC58 - - - - -

- OUTPUT POSITION E
- OUTPUT POSITION D
- OUTPUT POSITION C
- OUTPUT POSITION B
- OUTPUT POSITION A
- GEAR RATIO
- NOMINAL FLYWHEEL/CLUTCH DESIGNATION
- SAE FLYWHEEL HOUSING SIZE



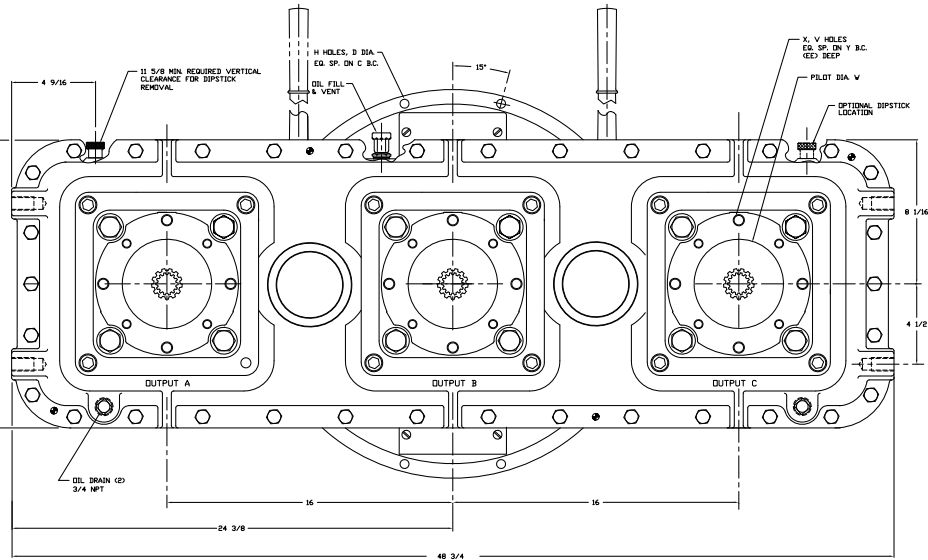
HANDLE SHOWN IN STANDARD LOCATION. CAN BE REPOSITIONED IN 7 1/2 DEGREE INCREMENTS.

ENGAGED DISENGAGED



8 HOLES, E DIA. EQ. SP. DN CC B.C.
CLUTCH ADJUSTMENT COVER

SAE No.1 CLUTCH HOUSING SHOWN WITH P204 CLUTCH REFER TO TABLE FOR OPTIONS.

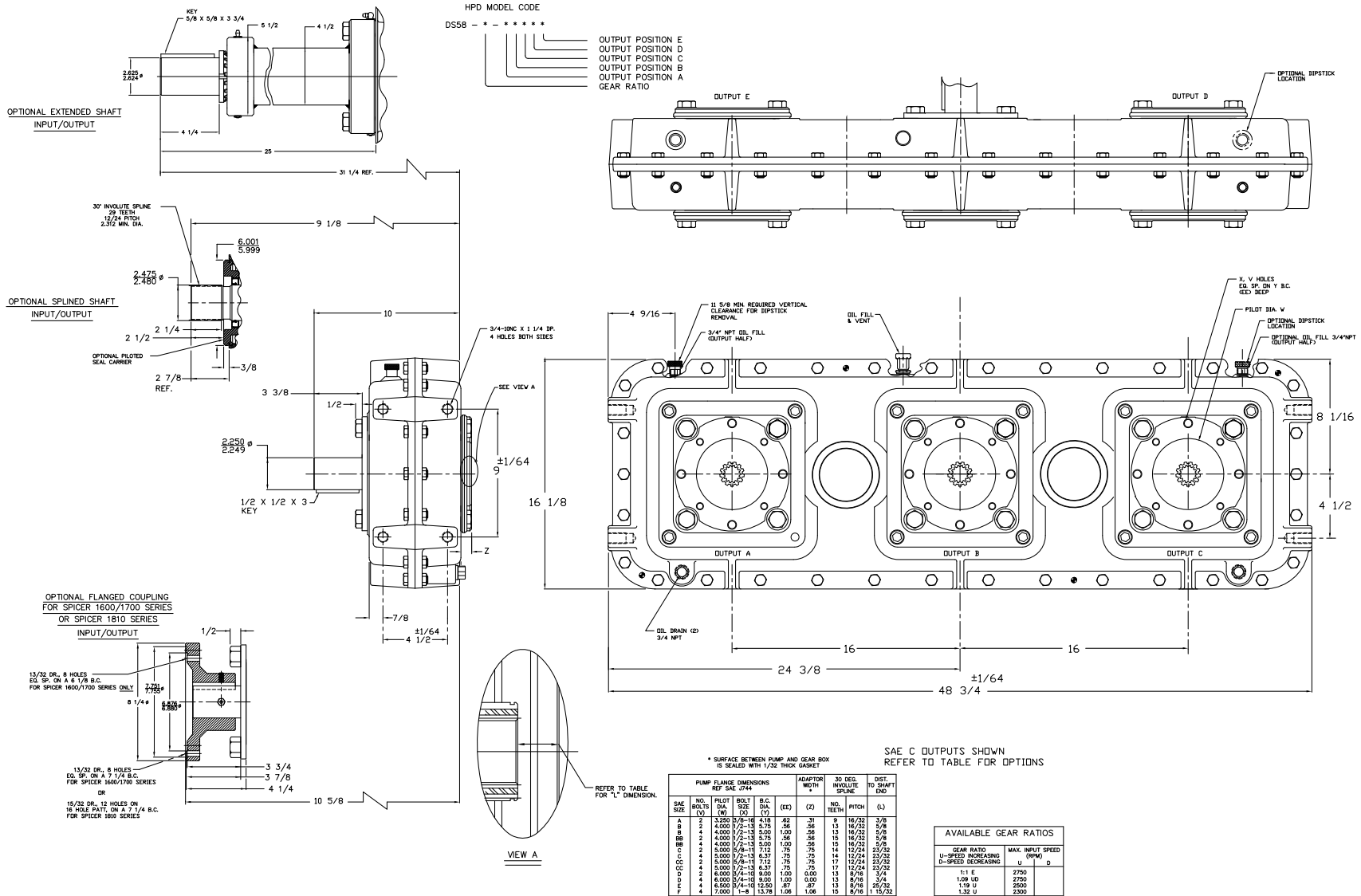


SAE C OUTPUTS SHOWN
REFER TO TABLE FOR OPTIONS

AVAILABLE GEAR RATIOS			
GEAR RATIO	MAX. INPUT SPEED (RPM)	MAX. INPUT SPEED (RPM)	U
U-SPEED INCREASING	2750	2750	D
D-SPEED DECREASING	1.00 U	2750	D
	1.10 U	2500	D
	1.25 U	2300	D

CLUTCH INSTALLATION DATA REF SAE J620 AND SAE J617														
SAE HSD. SIZE	CLUTCH MODEL	MAX. CLUTCH TORQUE (LBS.-FT.)	WORKING TORQUE (LBS.-FT.)	BB	CC	E	FF	G	L	Q	T	U		
2 or 3	P111	2050	13.875	13.12	7/16	0.88	1.56	2.835	15 1/2	3	3 3/8	1940	405	
2 or 3	P311	2650	13.875	13.12	7/16	1.88	1.56	2.835	15 1/2	3	3 3/8	1940	410	
0 or 1	P114	2400	8.10	18.375	17.25	9/16	0.50	1.00	3.150	15	4 1/2	6 3/8	3150	535
0 or 1	P214	2500	8.10	18.375	17.25	9/16	0.50	1.00	3.150	15	4 1/2	6 3/8	3150	540
0 or 1	P314	2500	2430	18.375	17.25	9/16	0.50	1.00	3.150	18	4 1/2	7 3/4	3150	560

CLUTCH HOUSING DIMENSIONS REF SAE J620 AND SAE J617									
SAE NO.	A	B	C	D	H	P	J	DD	DD
3	16.125	17.75	16.87	7/16	12	3/8	15.62	10.25	10.25
2	17.625	19.25	18.37	7/16	12	3/8	15.62	10.25	10.25
1	20.125	21.75	20.87	1/2	12	7/8	17.62	12.25	12.25
0	25.500	28.00	26.75	9/16	18	1/2	17.62	12.25	12.25

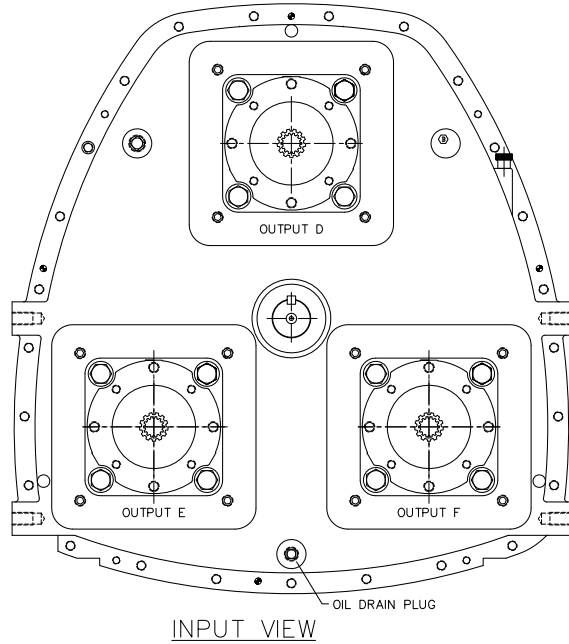


* SURFACE BETWEEN PUMP AND GEAR BOX IS SEALED WITH 1/32" THICK GASKET

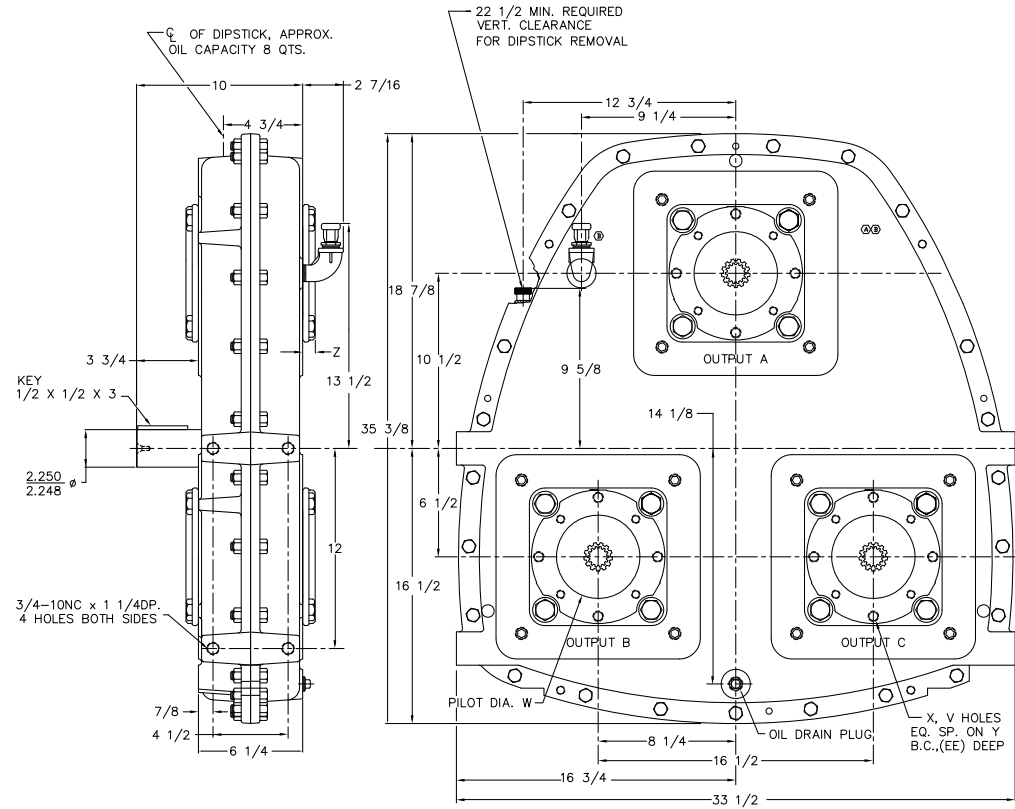
SAE SIZE	PUMP FLANGE DIMENSIONS REF SAE J744				ADAPTOR WIDTH	30 DEG. INVOLUTE SPINE	DIST. TO SHAFT END
	NO. HOLES	PILDT DIA. (V)	BOLT SIZE (W)	B.C. DIA. (Y)			
A	2	1.3250	3/8	1.418	.62	.31	17/32
B	2	4.000	1/2-13	5.75	.58	.58	14/32
BB	4	4.000	1/2-13	5.00	1.00	.58	14/32
BBB	2	4.000	1/2-13	5.75	.58	.58	14/32
C	4	5.000	1/2-13	6.37	.75	.75	14/32
CC	2	5.000	5/8-11	7.12	.75	.75	12/24
CCB	4	5.000	1/2-13	6.37	.75	.75	12/24
D	2	6.000	3/4-10	8.00	1.00	0.00	8/16
DD	4	6.000	3/4-10	8.00	1.00	0.00	8/16
E	4	6.500	3/4-10	12.50	1.00	1.00	8/16
		7.000	1-8	13.75	1.08	1.08	15/32

PUMP FLANGE DIMENSIONS REF SAE J744						ADAPTOR WIDTH *	30 DEG. INVOLUTE SPURGE
SAE SIZE	NO. BOLTS (V)	PILOT DIA. (W)	BOLT SIZE (X)	B.C. DIA. (Y)	HOLE DEPTH (EE)	(Z)	NO. TEETH PITCH
A	2	3.250	5/8-16	4.18	.62	.31	9 16/32
B	2	4.000	1/2-13	5.75	.56	.56	13 16/32
BB	4	4.000	1/2-13	5.00	.56	.56	13 16/32
C	2	4.000	1/2-13	5.75	.56	.56	15 16/32
CC	4	4.000	1/2-13	5.00	.56	.56	15 16/32
D	2	5.000	5/8-11	7.12	.75	.75	14 12/24
E	2	5.000	1/2-13	6.37	.75	.75	14 12/24
F	4	5.000	5/8-11	7.12	.75	.75	17 12/24
CC	4	5.000	1/2-13	6.37	.75	.75	17 12/24
D	2	6.000	3/4-10	9.00	1.00	0.00	13 8/16
D	4	6.000	3/4-10	9.00	1.00	0.00	13 8/16
E	4	6.500	3/4-10	12.50	.87	.87	13 8/16
F	4	7.000	1-8	13.78	1.06	1.06	15 8/16

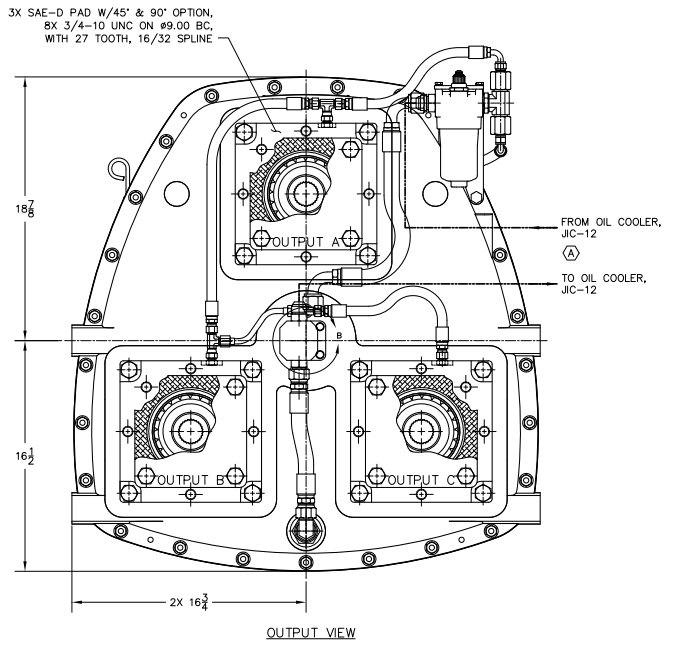
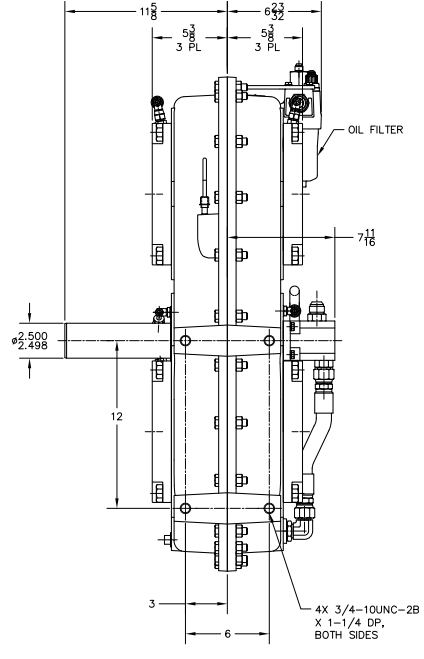
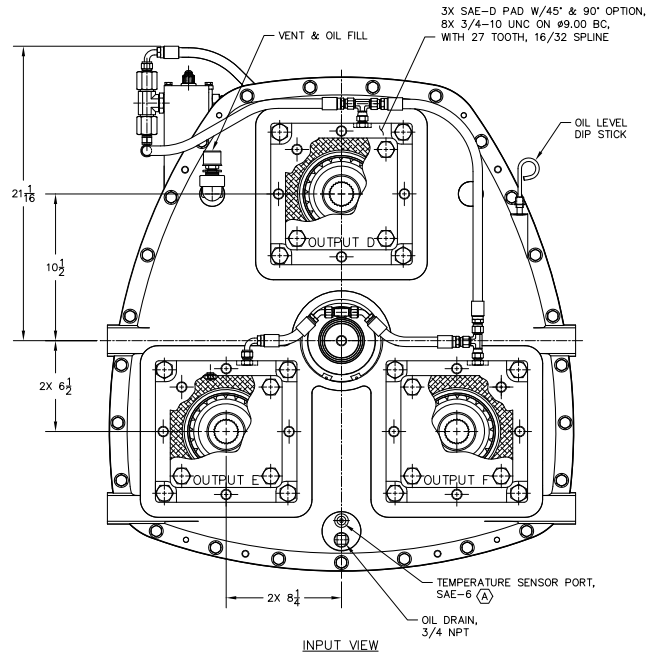
* SURFACE BETWEEN PUMP AND GEAR BOX
IS SEALED WITH 1/32 THICK GASKET



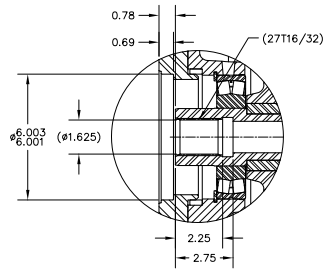
SAE C OUTPUT SHOWN
REFER TO TABLE FOR OPTIONS



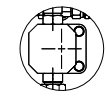
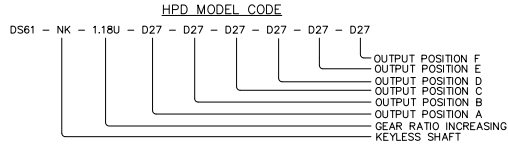
AVAILABLE GEAR RATIOS OUTPUT ROTATION OPPOSITE INPUT		
GEAR RATIO U-SPEED INCREASING D-SPEED DECREASING	MAX INPUT SPEED (RPM)	
	U	D
1.00 E	2200	2200
1.16 UD	2050	2400
1.28 UD	1950	2500
1.39 UD	1900	2600
1.56 U	1800	
1.69 U	1750	



SOME DETAIL OMITTED FOR CLARITY



PUMP ENGAGEMENT TYPICAL
SCALE: 1.5X



DETAIL B
NOTE OIL PUMP OFFSET!!
THIS OFFSET IS NECESSARY FOR OIL PUMP OPERATION
WHEN INPUT SHAFT ROTATES CW!