

Eaton®
Heavy Duty Hydrostatic Transmissions

(Supplement Sheet TO E-TRHD-MC001-E)



Series 1 Model Codes



Models 33 through 76
Hydrostatic Transmissions

Series 1 Variable Pump Model Code



Code Position	Feature	Code	Feature Description
14	POWER LIMITER VALVE SETTING PORT B	F	207 bar [3000 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	G	241 bar [3500 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	H	276 bar [4000 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	J	310 bar [4500 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	K	345 bar [5000 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	L	379 bar [5500 lbf/in ²]
14	POWER LIMITER VALVE SETTING PORT B	M	414 bar [6000 lbf/in ²]
15,16	CONTROL	EA	MOOG CONTROLLER
15,16	CONTROL	EJ	ELECTRONIC PROPORTIONAL CONTROL 12 VOLT DC WITHOUT ELECTRONIC DRIVER
15,16	CONTROL	EK	ELECTRONIC PROPORTIONAL CONTROL 24 VOLT DC WITHOUT ELECTRONIC DRIVER
15,16	CONTROL	EL	ELECTRONIC PROPORTIONAL CONTROL 12 AND 24 VOLT DC AND ELECTRONIC DRIVER WITH 1 TO 6 VOLT POTENTIOMETRIC COMMAND INPUT
15,16	CONTROL	EN	ELECTRONIC PROPORTIONAL CONTROL 12 AND 24 VOLT DC AND ELECTRONIC DRIVER WITH +/-20 mA COMMAND INPUT
15,16	CONTROL	ET	ELECTRONIC PROPORTIONAL CONTROL 12 AND 24 VOLT DC AND ELECTRONIC DRIVER WITH +/- 100 mA COMMAND INPUT
15,16	CONTROL	EV	ELECTRONIC PROPORTIONAL CONTROL 24 VOLT DC AND ELECTRONIC DRIVER WITH +/- 100 mA COMMAND INPUT AND 1.0625-12 UN-2A CASE DRAIN PORT WITH STEEL HEX PLUG
15,16	CONTROL	HA	HYDRAULIC REMOTE 1,4-14,1 bar [20-205 lbf/in ²]
15,16	CONTROL	HB	HYDRAULIC REMOTE 1,4-14,1 bar [20-205 lbf/in ²] WITH WIDE BAND NEUTRAL
15,16	CONTROL	HC	HYDRAULIC REMOTE 3,1-14,5 bar [45-210 lbf/in ²]
15,16	CONTROL	HD	HYDRAULIC REMOTE 4,5-20,0 bar [65-290 lbf/in ²]
15,16	CONTROL	HF	HYDRAULIC REMOTE 4,5-20,0 bar [65-290 lbf/in ²] WITH WIDE BAND NEUTRAL
15,16	CONTROL	HG	HYDRAULIC REMOTE 4,5-20,0 bar [65-290 lbf/in ²] WITH 12VDC (NC) DESTROKE VALVE (NON-MANIFOLD) WITH ELECTRICAL CONNECTOR (MALE ONLY) PER DIN 43650
15,16	CONTROL	HH	HYDRAULIC REMOTE 11,0-32,4 bar [160-470 lbf/in ²]
15,16	CONTROL	HJ	HYDRAULIC REMOTE 3,1-14,5 bar [45-210 lbf/in ²] WITH WIDE BAND NEUTRAL
15,16	CONTROL	MA	MANUAL
15,16	CONTROL	MB	MANUAL WITH WIDE BAND NEUTRAL AND 3/4-16UN PLUG IN NEUTRAL LOCKOUT PORT
15,16	CONTROL	MC	MANUAL WITH WIDE BAND NEUTRAL
15,16	CONTROL	ME	MANUAL WITH NEUTRAL DETENT
15,16	CONTROL	MF	MANUAL WITH INCHING VALVE
15,16	CONTROL	MG	MANUAL WITH INCHING VALVE AND NEUTRAL LOCKOUT SWITCH (NC)
15,16	CONTROL	MH	MANUAL WITH INCHING VALVE AND NEUTRAL DETENT
15,16	CONTROL	MJ	MANUAL WITH DESTROKE VALVE (MANIFOLD) 12VDC (NO) WITH 3 PIN WEATHERPACK CONNECTOR
15,16	CONTROL	MM	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NO) AND DESTROKE VALVE (MANIFOLD) 12VDC WITH 2 PIN WEATHER PACK CONNECTOR
15,16	CONTROL	MT	MANUAL WITH WIDE BAND NEUTRAL AND INCHING VALVE WITH SEAL
15,16	CONTROL	MU	MANUAL WITH WIDE BAND NEUTRAL, INCHING VALVE WITH SEAL AND NEUTRAL DETENT
15,16	CONTROL	MW	MANUAL WITH DESTROKE VALVE (MANIFOLD) 12VDC (NO) WITH 2 PIN WEATHERPACK CONNECTOR
15,16	CONTROL	MZ	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NC) WITH PACKARD 2 PIN CONNECTOR
15,16	CONTROL	NA	MANUAL WITH DESTROKE VALVE (MANIFOLD) 12VDC (NO) 3 PIN WEATHERPACK CONNECTOR AND NEUTRAL LOCKOUT SWITCH (NC) WITH PACKARD 2 PIN CONNECTOR
15,16	CONTROL	NB	MANUAL WITH DESTROKE VALVE (MANIFOLD) 24VDC (NO) 2 PIN WEATHERPACK CONNECTOR
15,16	CONTROL	NC	MANUAL WITH WIDE BAND NEUTRAL, INCHING VALVE WITH SEAL AND NEUTRAL LOCKOUT SWITCH (NC) WITH PACKARD 2 PIN CONNECTOR
15,16	CONTROL	ND	MANUAL WITH DESTROKE VALVE (MANIFOLD) 12VDC (NO) WITH 2 PIN WEATHERPACK CONNECTOR WITH NEUTRAL LOCKOUT SWITCH (NC) WITH PACKARD 2 PIN CONNECTOR
15,16	CONTROL	NG	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NC) AND DESTROKE VALVE (MANIFOLD) 12VDC (NC) WITH 2 PIN WEATHERPACK CONNECTOR
15,16	CONTROL	NK	MANUAL WITH WIDE BAND NEUTRAL, INCHING VALVE WITH SEAL AND NEUTRAL LOCKOUT SWITCH (NO)
15,16	CONTROL	NL	MANUAL WITH DESTROKE VALVE WITH DIODE (MANIFOLD) 12VDC (NO) WITH 2 PIN METRI-PACK CONNECTOR
15,16	CONTROL	NM	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NO) WITH 2 PIN WEATHERPACK CONNECTOR, ACCOUSTICAL ALARM IS INITIATED WHEN CONTROL LEVER IS ROTATED CW
15,16	CONTROL	NN	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NO) WITH 2 PIN WEATHERPACK CONNECTOR, ACCOUSTICAL ALARM IS INITIATED WHEN CONTROL LEVER IS ROTATED CCW
15,16	CONTROL	NP	MANUAL WITH NEUTRAL LOCKOUT SWITCH (NC) AND 1.0625-12 UN-2A CASE DRAIN PORT WITH STEEL HEX PLUG
15,16	CONTROL	RD	REMOTE ELECTRIC WITH (NC) DESTROKE VALVE, (3) 12VDC WITH (1) 2 PIN AND (1) 4 PIN WEATHERPAK CONNECTORS, NO DISPLACEMENT CONTROL, WITH 0,33 [.013] CONTROL SUPPLY ORIFICE

Series 1 Variable Pump Model Code



Code Position	Feature	Code	Feature Description
15,16	CONTROL	RE	REMOTE ELECTRIC WITH (NC) DESTROKE VALVE, (3) 12VDC WITH (3) 2 PIN WEATHERPAK CONNECTORS, NO DISPLACEMENT LIMITER, WITH 0,33 [.013] CONTROL SUPPLY ORIFICE
15,16	CONTROL	RF	REMOTE ELECTRIC WITH (NC) DESTROKE VALVE INCLUDING 3,58 [.141] ORIFICE, (3) 12VDC WITH (3) 2 PIN WEATHERPAK CONNECTORS, NO DISPLACEMENT LIMITER, WITH 0,33 [.013] CONTROL SUPPLY ORIFICE
15,16	CONTROL	RG	REMOTE ELECTRIC WITH (NC) DESTROKE VALVE, (3) 24VDC WITH (3) 2 PIN WEATHERPAK CONNECTORS, NO DISPLACEMENT LIMITER, WITH 0,33 [.013] CONTROL SUPPLY ORIFICE
15,16	CONTROL	RH	REMOTE ELECTRIC WITH (NC) DESTROKE VALVE INCLUDING 3,18 [.125] ORIFICE, (3) 12VDC WITH (1) 2 PIN AND (1) 4 PIN WEATHERPAK CONNECTORS, NO DISPLACEMENT LIMITER, WITH 0,33 [.013] CONTROL SUPPLY ORIFICE
17	CONTROL SUPPLY ORIFICE (P)	0	NONE
17	CONTROL SUPPLY ORIFICE (P)	A	0,71 [.028] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	B	0,91 [.036] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	C	1,12 [.044] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	D	1,32 [.052] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	E	1,45 [.057] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	F	1,65 [.065] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	G	1,85 [.073] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	H	2,39 [.094] DIAMETER
17	CONTROL SUPPLY ORIFICE (P)	J	2,59 [.102] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	0	NONE
18	CONTROL ORIFICE - UPPER SERVO (S1)	A	0,71 [.028] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	B	0,91 [.036] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	C	1,12 [.044] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	D	1,32 [.052] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	E	1,45 [.057] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	F	1,65 [.065] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	G	1,85 [.073] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	H	2,39 [.094] DIAMETER
18	CONTROL ORIFICE - UPPER SERVO (S1)	J	2,59 [.102] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	0	NONE
19	CONTROL ORIFICE - LOWER SERVO (S2)	A	0,71 [.028] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	B	0,91 [.036] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	C	1,12 [.044] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	D	1,32 [.052] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	E	1,45 [.057] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	F	1,65 [.065] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	G	1,85 [.073] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	H	2,39 [.094] DIAMETER
19	CONTROL ORIFICE - LOWER SERVO (S2)	J	2,59 [.102] DIAMETER
20	PRESS OVERRIDE	0	NONE
20	PRESS OVERRIDE	2	INTERNAL PRESSURE OVERRIDE
20	PRESS OVERRIDE	5	INTERNAL PRESSURE OVERRIDE EXTERNALLY ADJUSTABLE
21	PRESS SETTING FOR PRESSURE OVERRIDE	0	NONE
21	PRESS SETTING FOR PRESSURE OVERRIDE	C	103 bar [1500 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	D	138 bar [2000 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	E	172 bar [2500 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	F	207 bar [3000 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	G	241 bar [3500 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	H	276 bar [4000 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	J	310 bar [4500 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	K	345 bar [5000 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	L	379 bar [5500 lbf/in ²]
21	PRESS SETTING FOR PRESSURE OVERRIDE	M	414 bar [6000 lbf/in ²]
22	CONTROL SPECIAL FEATURES	0	NO CONTROL SPECIAL FEATURES
22	CONTROL SPECIAL FEATURES	N	MANUAL CONTROL LEVER WITH EXTERNAL TORSION SPRING MECHANISM FOR NEUTRAL RETURN
22	CONTROL SPECIAL FEATURES	S	MANUAL CONTROL LEVER WITH TWO 1/4-28 UNF ATTACHMENT HOLES LOCATED AT 85,7 [3.375] AND 98,4 [3.875] FROM CONTROL SHAFT MOUNTING HOLE. LEVER MOUNTED PARALLEL TO PUMP DRIVE SHAFT TOWARDS MOUNTING FLANGE
22	CONTROL SPECIAL FEATURES	V	INCHING CONTROL LEVER WITH TWO 1/4-28 UNF ATTACHMENT HOLES LOCATED AT 85,7 [3.375] AND 98,4 [3.875] FROM INCHING SHAFT MOUNTING HOLE
22	CONTROL SPECIAL FEATURES	Y	MANUAL CONTROL LEVER WITH TWO 1/4-28 UNF ATTACHMENT HOLES LOCATED AT 85,7 [3.375] AND 98,4 [3.875] FROM CONTROL SHAFT MOUNTING HOLE
23	CHARGE PUMP	0	CHARGE PUMP INCLUDED
23	CHARGE PUMP	A	CHARGE PUMP WITH REMOTE PRESSURE FILTER PORTS ON THE -A- PORT SIDE

Series 1 Variable Pump Model Code



Code Position	Feature	Code	Feature Description
23	CHARGE PUMP	B	CHARGE PUMP WITH INTEGRAL PRESSURE FILTER MOUNTED ON THE -B- PORT SIDE
23	CHARGE PUMP	D	CHARGE PUMP WITH EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF SAE O-RING FITTING, WITH STEEL HEX PLUG
23	CHARGE PUMP	E	NO CHARGE PUMP
23	CHARGE PUMP	G	CHARGE PUMP WITH INTEGRAL PRESSURE FILTER AND DIAGNOSTIC FITTING MOUNTED ON THE -B- PORT SIDE PLUS INLET GAGE PORT WITH HEX PLUG
23	CHARGE PUMP	H	CHARGE PUMP WITH REMOTE PRESSURE FILTER PORTS ON -A- PORT SIDE AND INLET GAGE PORT ON -B- PORT SIDE
23	CHARGE PUMP	R	NO CHARGE PUMP, WITH REMOTE PRESSURE FILTER PORTS ON THE -B- PORT SIDE AND EXTERNAL DISCHARGE PORT WITH 90 DEGREE, 7/8-14 UNF, 37 DEGREE FLARE, TUBE FITTING
23	CHARGE PUMP	S	CHARGE PUMP WITH INTEGRAL PRESSURE FILTER AND DIAGNOSTIC FITTING, MOUNTED ON THE -B- PORT SIDE AND EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF-2B SAE O-RING FITTING, WITH STEEL HEX PLUG
23	CHARGE PUMP	T	CHARGE PUMP WITH EXTERNAL DISCHARGE PORT WITH STRAIGHT 7/8-14 UNF, 37 DEGREE FLARE, TUBE FITTING
23	CHARGE PUMP	U	CHARGE PUMP WITH INTEGRAL PRESSURE FILTER, MOUNTED ON THE -B- PORT SIDE AND EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF-2B SAE O-RING FITTING, WITH STEEL HEX PLUG
23	CHARGE PUMP	V	CHARGE PUMP WITH EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF PORT WITH SHIPPING PROTECTOR
23	CHARGE PUMP	W	CHARGE PUMP WITH INTEGRAL PRESSURE FILTER MOUNTED ON THE -A- PORT SIDE AND EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF-2B SAE O-RING FITTING WITH STEEL HEX PLUG
23	CHARGE PUMP	Y	CHARGE PUMP WITH REMOTE PRESSURE FILTER PORTS ON THE -B- PORT SIDE AND EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF-2B SAE O-RING FITTING WITH STEEL HEX PLUG
23	CHARGE PUMP	Z	CHARGE PUMP WITH REMOTE PRESSURE FILTER PORTS ON THE -B- PORT SIDE
24	AUXILIARY MOUNTING	O	NO AUXILIARY MOUNTING
24	AUXILIARY MOUNTING	A	SAE A-PAD (DRY)
24	AUXILIARY MOUNTING	B	SAE B-PAD (DRY)
24	AUXILIARY MOUNTING	C	SAE A-PAD (WET)
24	AUXILIARY MOUNTING	F	SAE B-PAD (WET)
24	AUXILIARY MOUNTING	L	SAE C-PAD, (TYPICALLY FRONT PUMP OF TANDEM) (WET) INCLUDES 14 TOOTH 12/24 PITCH SPLINE COUPLING, WITH 7/8-14 SAE O-RING PORT FOR CHARGE PRESSURE INLET
24	AUXILIARY MOUNTING	R	SAE A-PAD WITH 11 TOOTH 16/32 PITCH INTERNAL SPLINE (WET)
24	AUXILIARY MOUNTING	S	SAE C-PAD, (TYPICALLY FRONT PUMP OF TANDEM) (WET), INCLUDES 14 TOOTH 12/24 PITCH SPLINE COUPLING, CHARGE PRESSURE INLET PORT WITH 7/8-14 UNF, 37 DEGREE FLARE, TUBE FITTING (STRAIGHT FOR MODELS 33-46)
24	AUXILIARY MOUNTING	T	SAE B-PAD, NO SHAFT SEAL, INCLUDES 15 TOOTH 12/24 PITCH SPLINE COUPLING, CHARGE PRESSURE INLET PORT WITH 13/16-16 UNF, O-RING FACE SEAL FITTING (45 DEGREE FOR MODELS 33-46)
25	CHARGE PUMP DISPLACEMENT	0	NO CHARGE PUMP
25	CHARGE PUMP DISPLACEMENT	1	13,9 cm ³ /r [0.85 in ³ /r]
25	CHARGE PUMP DISPLACEMENT	2	17,4 cm ³ /r [1.06 in ³ /r]
25	CHARGE PUMP DISPLACEMENT	3	21,0 cm ³ /r [1.28 in ³ /r]
25	CHARGE PUMP DISPLACEMENT	4	27,9 cm ³ /r [1.70 in ³ /r]
25	CHARGE PUMP DISPLACEMENT	5	34,7 cm ³ /r [2.12 in ³ /r]
26	2nd DISPLACEMENT OF DUAL ELEMENT	0	NO DUAL ELEMENT
27	CHARGE PRESSURE REL VALVE SETTING	0	NONE
27	CHARGE PRESSURE REL VALVE SETTING	D	15 bar [220 lbf/in ²] - STANDARD
27	CHARGE PRESSURE REL VALVE SETTING	G	19 bar [280 lbf/in ²]
27	CHARGE PRESSURE REL VALVE SETTING	K	23 bar [340 lbf/in ²]
27	CHARGE PRESSURE REL VALVE SETTING	N	28 bar [410 lbf/in ²]
28	CHARGE PUMP SPECIAL FEATURES	0	NO CHARGE PUMP SPECIAL FEATURES
28	CHARGE PUMP SPECIAL FEATURES	A	STEEL CORE CHARGE PUMP GASKET
28	CHARGE PUMP SPECIAL FEATURES	C	90 DEGREE BARBED INLET FITTING FOR [1.00] ID HOSE
28	CHARGE PUMP SPECIAL FEATURES	M	CHARGE INLET MANIFOLD WITH CHARGE RELIEF VALVE
28	CHARGE PUMP SPECIAL FEATURES	N	STEEL CORE CHARGE PUMP GASKET AND CHARGE INLET MAINFOLD WITH CHARGE RELIEF VALVE
28	CHARGE PUMP SPECIAL FEATURES	P	CHARGE INLET MANIFOLD WITH EXTERNAL DISCHARGE PORT FOR 7/8-14 UNF SAE O-RING PORT AND STEEL HEX PLUG IN INLET PORT
29,30	SPECIAL PUMP ASSEMBLY FEATURES	00	NO SPECIAL FEATURES
29,30	SPECIAL PUMP ASSEMBLY FEATURES	15	REAR PUMP UNIT FOR TANDEM PUMP ASSEMBLY (NO SHAFT SEAL)
29,30	SPECIAL PUMP ASSEMBLY FEATURES	32	BOTH SERVO SLEEVES HAVE 7/8-14 UNF SAE O-RING PORTS AND STEEL HEX PLUGS
29,30	SPECIAL PUMP ASSEMBLY FEATURES	39	BOTTOM SERVO PISTON WITH EXTERNALLY ADJUSTABLE STOP

Series 1 Variable Pump Model Code



Code Position	Feature	Code	Feature Description
29,30	SPECIAL PUMP ASSEMBLY FEATURES	40	BOTH SERVO PISTONS WITH EXTERNALLY ADJUSTABLE STOPS
29,30	SPECIAL PUMP ASSEMBLY FEATURES	58	1350 SERIES END YOKE ASSEMBLED TO DRIVE SHAFT
29,30	SPECIAL PUMP ASSEMBLY FEATURES	59	1310 SERIES END YOKE ASSEMBLED TO DRIVE SHAFT
29,30	SPECIAL PUMP ASSEMBLY FEATURES	61	ACCOMMODATES AUXILIARY UNIT WITH SAE C-PAD PILOT WITHOUT O-RING MATING GROOVE
29,30	SPECIAL PUMP ASSEMBLY FEATURES	65	ACCOMMODATES AUXILIARY UNIT WITH SAE WET B-PAD PILOT WITHOUT O-RING MATING GROOVE
29,30	SPECIAL PUMP ASSEMBLY FEATURES	67	METAL CASE DRAIN PLUG IN BOTH PORTS
31	PAINT AND PACKAGING	0	PAINTED PRIMER BLUE (STANDARD)
32	IDENTIFICATION ON UNIT	0	STANDARD
33	DESIGN CODE	B	B

Pump Performance

Pump Performance

Model		33	39	46	54	64	76
Displacement	in ³ /rev	3.32	3.89	4.60	5.44	6.44	7.62
	cm ³ /rev	54,4	63,7	75,3	89,1	105,5	124,8
Maximum Shaft Speed*	RPM @ 18°	4510**	4160	4160	3720	3720	2775
Peak Pressure***	PSI [bar]	6000 [415]	6000 [415]	6000 [415]	6000 [415]	6000 [415]	6000 [415]
Output Flow	GPM @ 3500 PSI	61.5	67.3	79.2	84.1	99.1	87.9
	LPM @ 241 bar	233	255	300	318	375	333
Input Torque	lb-in @ 3500 PSI	2049	2346	2786	3285	3900	4552
	Nm @ 241 bar	232	265	315	371	441	514

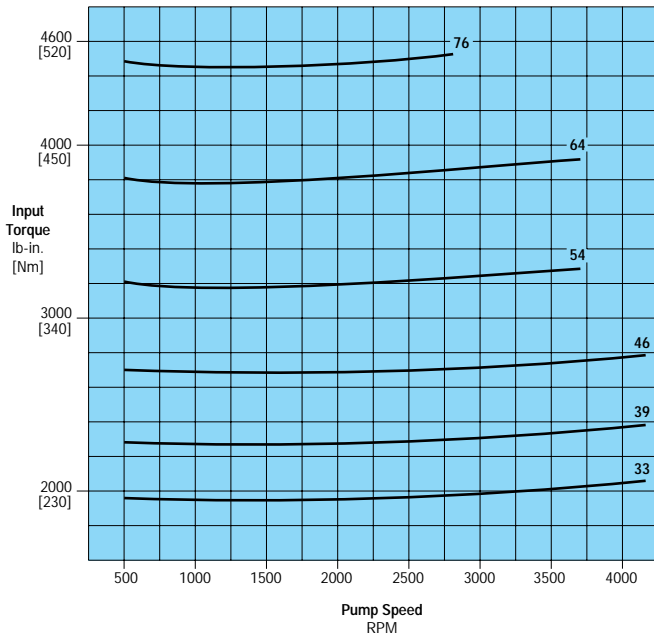
Pump performance calculated at 96% efficiency.

* The maximum pump shaft speed may be limited by the charge pump speed rating.

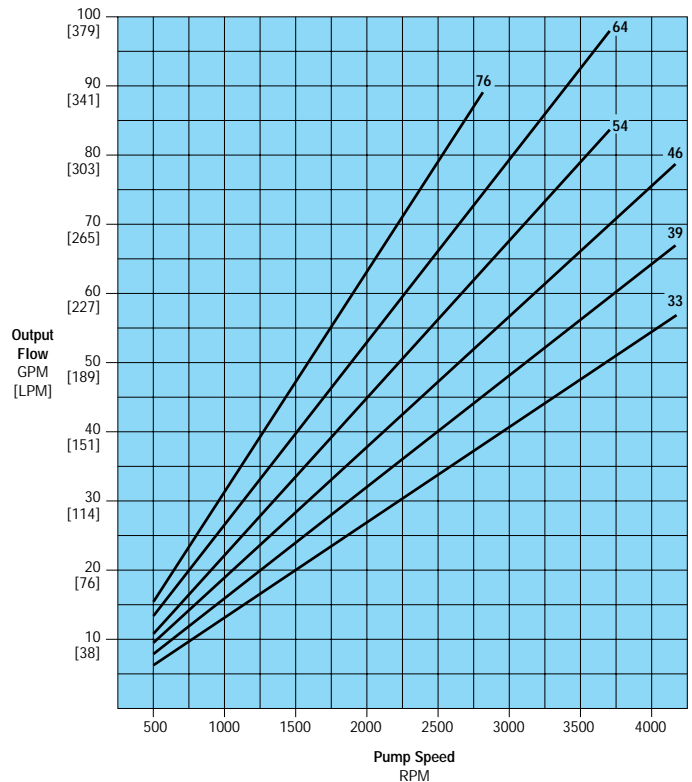
** The maximum swashplate angle on model 33 pumps is 15.5°.

*** Peak pressure should not exceed 1% of operating time.

Input Torque vs Speed



Output Flow vs Speed



System Pressure 3500 psi [240 bar]
 Charge Pressure 220 psi [15 bar]
 Oil Viscosity 60 SUS
 Temperature 180° F [82° C]

Charge Pump Performance

Eaton offers a choice of four charge pump displacements to go with their heavy duty transmission line: .85, 1.28, 1.70, and 2.12 in³/rev [13,9; 21,0; 27,8; 34,7 cm³/rev]. These charge pumps are available with one or more of the following options:

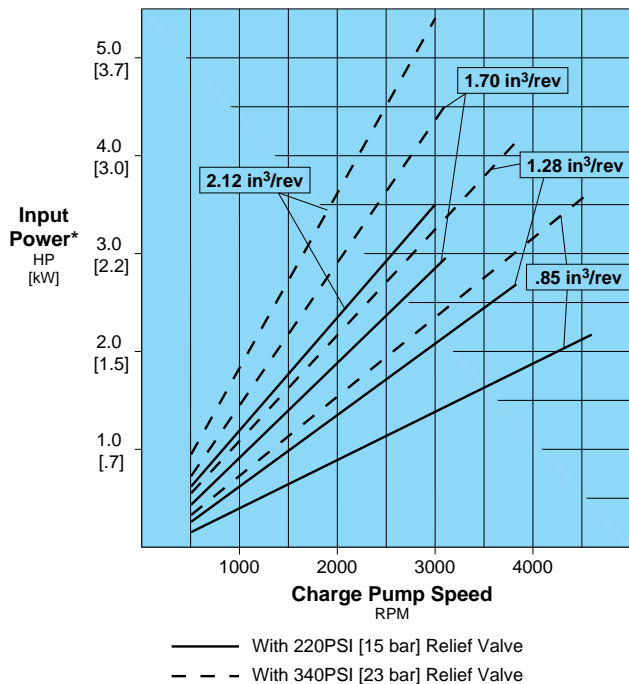
- a pressure sensing port
- remote pressure side filter ports
- a spin-on pressure side filter
- mounting flanges for auxiliary pumps

Charge Pump Performance

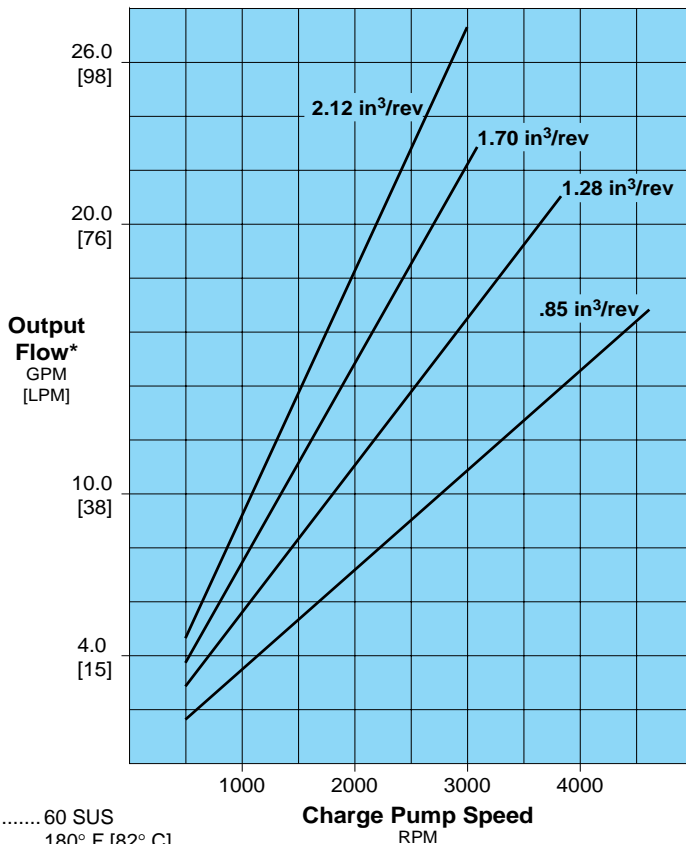
Displacement	in ³ /rev	.85	1.28	1.70	2.12
	cm ³ /rev	13,9	21,0	27,9	34,7
Maximum Shaft Speed	RPM	4600	3800	3100	3000
Output Flow @ Maximum Speed*	GPM	16.9	21.0	22.8	27.5
	LPM	64,0	79,5	86,3	104,2
Input Power @ 220 PSI [15 bar] and Maximum Speed*	HP	2.17	2.70	2.93	3.54
	kW	1,62	2,01	2,18	2,64

*Theoretical Values

Charge Pump Power vs Speed



Charge Pump Flow vs Speed

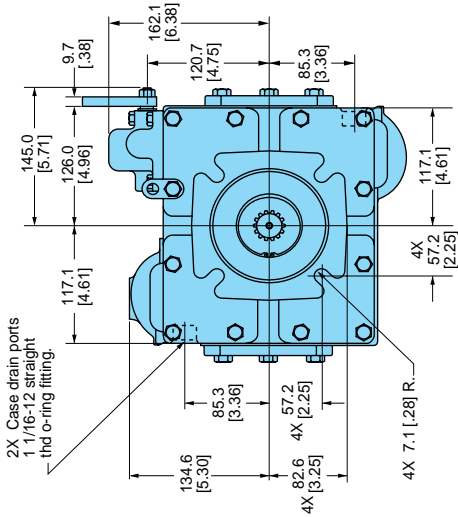


Oil Viscosity 60 SUS
 Temperature 180° F [82° C]

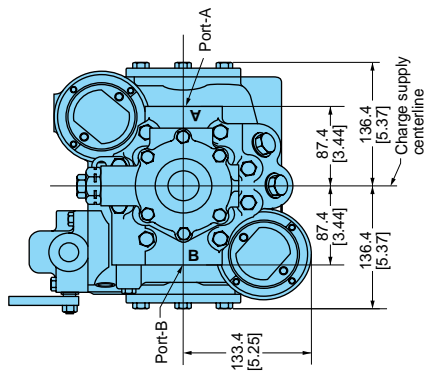
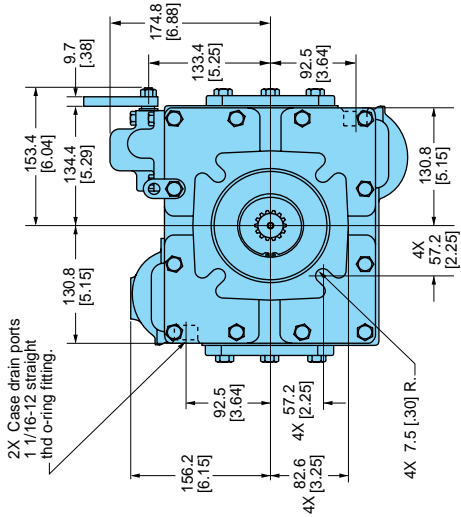
* Theoretical Values

Power Limiter Pump Dimensions

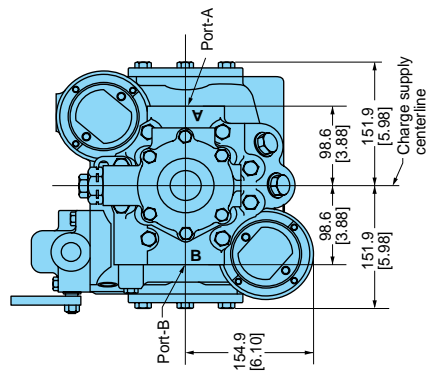
Models 33, 39, and 46 Power Limiter Pumps



Models 54 and 64 Power Limiter Pumps



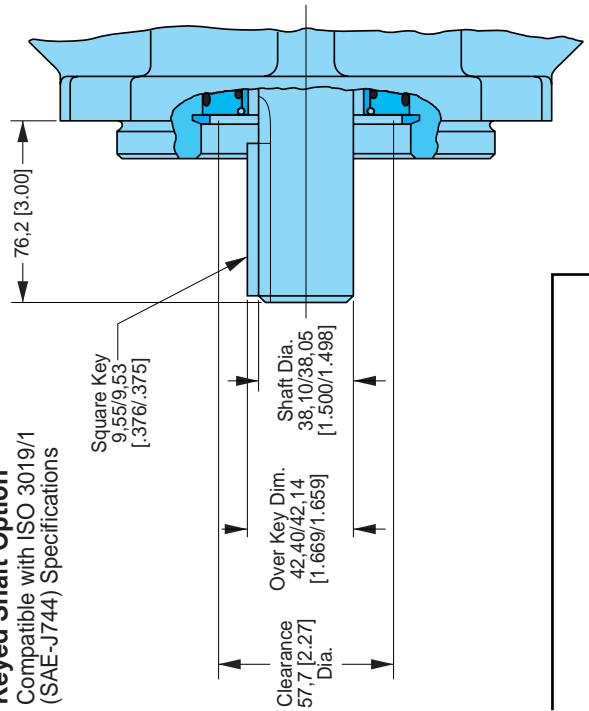
Charge Pump Options		Dimension 'G'
Displacement	cc/rev	in.
.85	13.9	92.2
1.28	21.0	96.6
1.70	27.8	104.9
2.12	34.7	111.6
		4.38



Models 33 through 64 Shaft and Port Dimensions

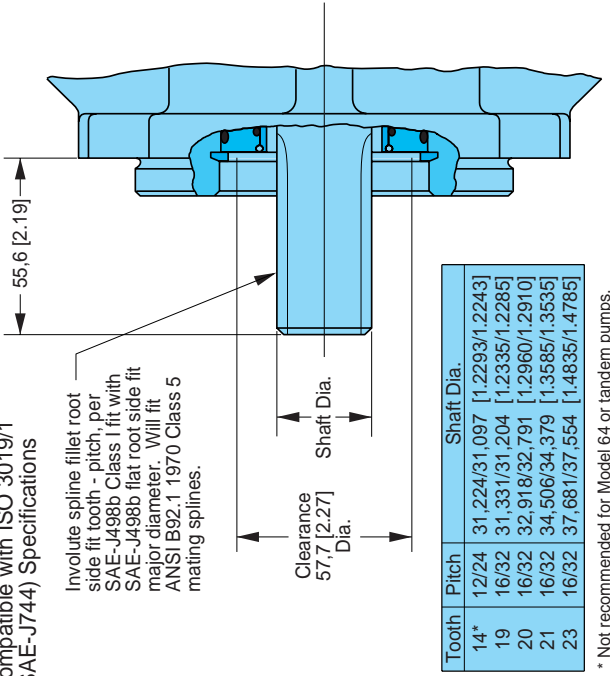
Keyed Shaft Option

Compatible with ISO 3019/1 (SAE-J744) Specifications



Spined Shaft Options

Compatible with ISO 3019/1 (SAE-J744) Specifications



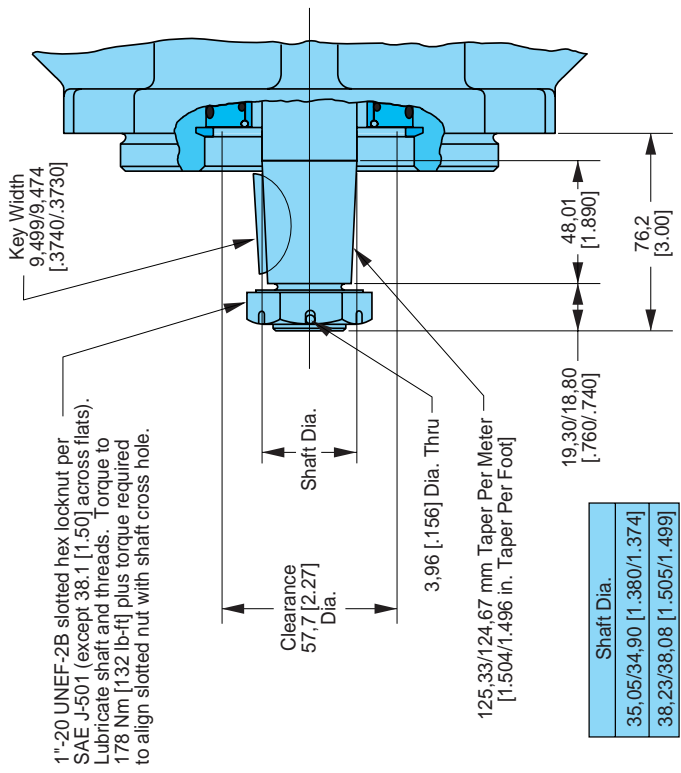
Involute spline fillet root side fit tooth - pitch, per SAE-J498b Class 1 fit with SAE-J498b flat root side fit major diameter. Will fit ANSI B92.1 1970 Class 5 mating splines.

Tooth	Pitch	Shaft Dia.
14*	12/24	31.224/31.097 [1.2293/1.2243]
19	16/32	31.331/31.204 [1.2335/1.2285]
20	16/32	32.918/32.791 [1.2960/1.2910]
21	16/32	34.506/34.379 [1.3585/1.3535]
23	16/32	37.681/37.554 [1.4835/1.4785]

* Not recommended for Model 64 or tandem pumps.

Tapered Shaft Options

Compatible with ISO 3019/1 (SAE-J744) Specifications

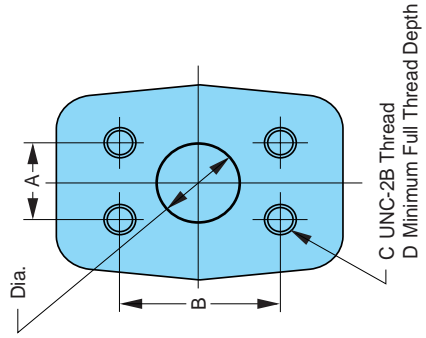


1"-20 UNEF-2B slotted hex locknut per SAE J-501 (except 38.1 [1.50] across flats). Lubricate shaft and threads. Torque to 178 Nm [132 lb-ft] plus torque required to align slotted nut with shaft cross hole.

Shaft Dia.
35.05/34.90 [1.380/1.374]
38.23/38.08 [1.505/1.499]

Split Flange Port Options

Per SAE-J518 Specifications



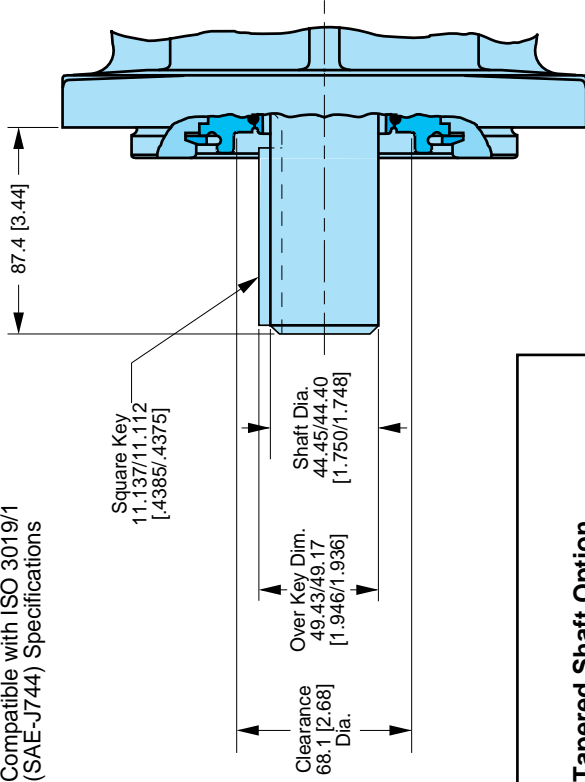
Code	Dia.	A	B	C	D
61	25.4 [1.00]	26.19 [1.031]	52.37 [2.062]	3/8-16	22.4 [.88]
62	25.4 [1.00]	27.76 [1.093]	57.15 [2.250]	7/16-14	27.0 [1.06]

All dimensions given in millimeters [inches].

Model 76 Shaft and Port Dimensions

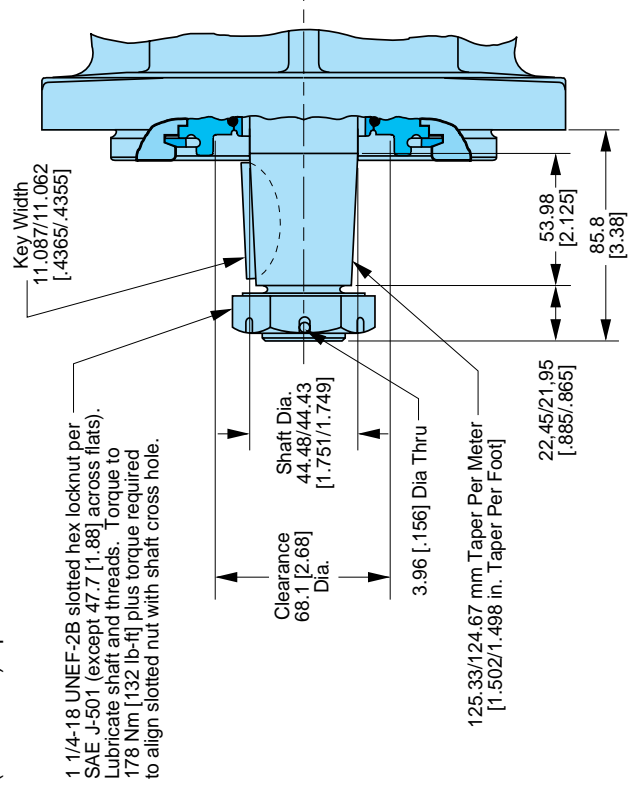
Keyed Shaft Option

Compatible with ISO 3019/1 (SAE-J744) Specifications



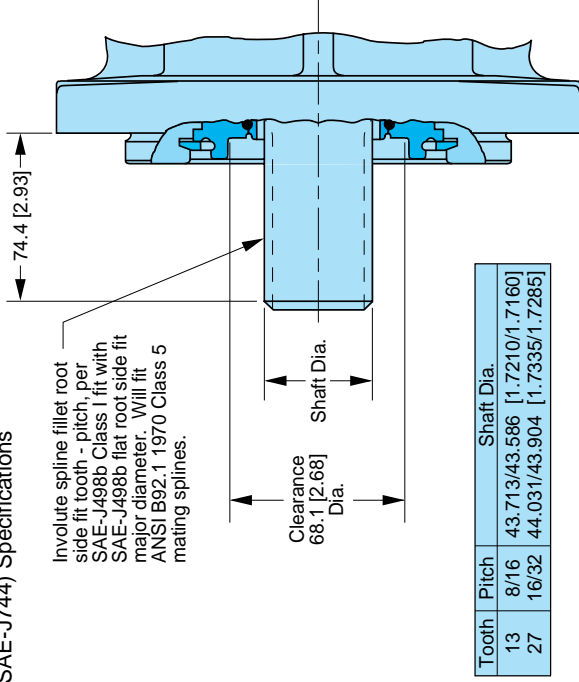
Tapered Shaft Option

Compatible with ISO 3019/1 (SAE-J744) Specifications



Spined Shaft Options

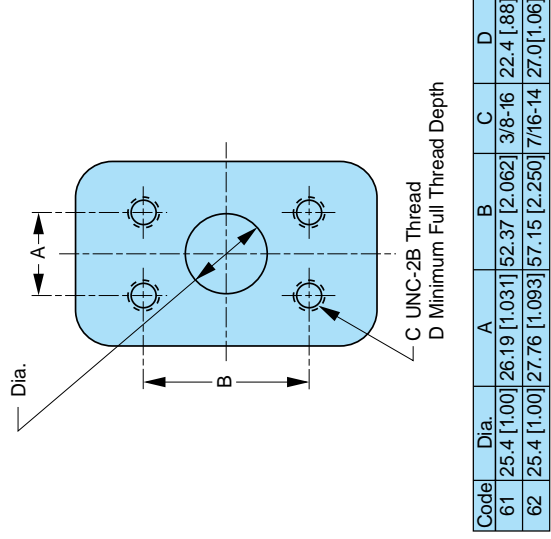
Compatible with ISO 3019/1 (SAE-J744) Specifications



Tooth	Pitch	Shaft Dia.
13	8/16	43.713/43.586 [1.7210/1.7160]
27	16/32	44.031/43.904 [1.7335/1.7285]

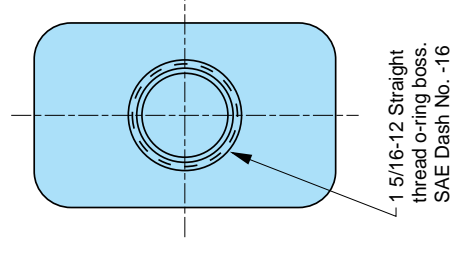
Split Flange Port Options

Per SAE-J518 Specifications



O-ring Port Option

Per SAE-J514 Specifications



All dimensions given in millimeters [inches].