



# CATALOGUE

## 49th Edition



## The Company And The Products

OEM Dynamics Pty Limited is a wholly Australian owned Company operating for over 40 years. The Company is a major supplier of fluid power related mechanical drives and accessories and industrial drives as well as being the industry leader in supply of oil heat transfer products for fluid power, gear and transmission oil cooling and compressor oil cooling through its DYNACOOOL Division. The Company exports products to over 20 countries. OEM Dynamics has Quality Assurance accreditation to the requirements of ISO9001.

## The Products



DYNAGEAR - These products are Australian made and produced at our factory in Ballina NSW. They include a wide range of splined accessories, couplings, diesel drives, agricultural gearboxes, driveline components and overhung load adaptors.

### CLAMPLOCK



CLAMPLOCK - Australian designed and made, spline locking mechanisms which are incorporated in our gear type couplings, splined universal joint yokes and splined driveline companion flanges.

## DURST®

DURST - Another of the Regal-Beloit US based companies which manufacture a range of high quality gear drives. OEM Dynamics assemble to order, from our Australian inventory, the new improved range of next generation hydraulic pump drive gearboxes for diesel engines.

## DYNACOOOL heat exchanger

DYNACOOOL- Dynacool division is a leading supplier of heat exchangers for fluid power service in Australia. We have provided in this catalogue some selections of our range of air cooled mobile oil coolers. For full details on our heat transfer products please refer to DYNACOOOL catalogue for air cooled oil coolers and accessories.

## The Services

OEM Dynamics prides itself on the ability to provide excellent customer service and rapid delivery of product. Our application engineers are highly experienced in providing technical advice in selection and the application of products. They have extensive training in mechanical interfacing, including hydraulic pump and motor attachments, spline identification, diesel engine housing and flywheel interfacing and the application of mechanical drives on mobile equipment in off road environments. The company maintains extensive inventory and customers can usually expect same day despatch of most items.

## About This Catalogue

Our new catalogue supersedes all previous publications. The DYNAGEAR power transmission catalogues have become a popular reference in the fluid power, mobile/off road and diesel industry for hydraulic pump and diesel engine interfacing standards as well as a useful sourcing reference for drive components for these industries. The new publication continues in this tradition, but with a broader sourcing selection for general mobile/off road applications by inclusion of some new products and greater detail on existing products. With the exception of those items requiring assembly to customer specifications, most catalogue products are stock lines and can usually be shipped immediately.

### FLEXILOCK



FLEXILOCK - Australian designed and made, gear type polymer element shaft couplings for fluid power applications and direct hydraulic pump drive kits for diesel engines.



HUB CITY - The Hub City line is of US origin. Some of these products are assembled in Australia under licence they include a range of worm reduction gearboxes, right angle bevel gearboxes and agricultural accessories.



TECHNODRIVE - We represent this well respected transmission manufacturer in Australia and South East Asia, with their range of Hydraulic pump drive gearboxes.

## CUSTOM MACHINING



This Division provides contract manufacturing facilities for custom parts such as tractor and vehicle drivetrain components, shafts for pumps and complex 5 axis machined, drilled and milled items.

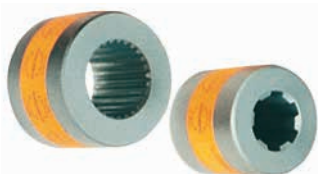
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## SPLINED HUBS FOR HYDRAULIC PUMPS, MOTORS & TRACTORS

### PRECISION SPLINED HUBS



**SPLINED HUBS** are manufactured from K1045 Carbon Steel. O.D. is machined true to spline axis after broaching. All items are supplied in soft condition and are suitable for machining. Hub outside diameter reflects a tolerance of  $-0.000" + 0.001"$ . Length tolerance is  $+ \text{ or } - 0.030"$ . Hubs are also suitable for welding.

Number of Teeth	Nom Spline O.D.	Specifications of Spline	Origin or Standard	Hub Length	Hub Diameter	Known uses for this Hub	Part Number
6	1"	6B STRAIGHT SAE	IMP. ANSI	1.75"	2.00"	HYD. ORBIT MOTORS	94/50005
6	1 3/8"	6B STRAIGHT SAE	IMP. ANSI	2.50"	2.50"	AG. TRACTOR P.T.O.	94/50033
9	5/8"	16/32 DP INV CL 5	IMP. ANSI	1.25"	1.25"	HYD. SAE A SPLINE	94/50001
8	36mm	STRAIGHT 32x36	DIN 5462	2.00"	2.25"	TRUCK P.T.O - Etc	94/500115
10	11/16"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.50"	GENERAL APPLICATIONS	94/500139
10	1 3/4"	10B STRAIGHT SAE	IMP. ANSI	2.25"	3.00"	DRIVELINE - SPICER	94/50081
11	3/4"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.50"	HYD.SAE A HD SPLINE	94/50002
12	13/16"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.50"	HYD. ORBITAL ETC.	94/50034
13	7/8"	16/32 DP INV CL 5	IMP. ANSI	1.50"	1.50"	HYD. SAE B SPLINE	94/50003
13	1 3/4"	8/16 DP INV CL 5	IMP. ANSI	2.25"	3.00"	HYD. SAE D/E SPLINE	94/50008
14	20mm	1.25 MODULE INV	DIN 5480	1.50"	1.50"	HYD. REXROTH ETC	94/50035
14	1 1/4"	12/24 DP INV CL 5	IMP. ANSI	2.00"	2.25"	HYD.SAE C SPLINE	94/50006
14	30mm	2 MODULE INV	DIN 5480	2.00"	2.25"	HYD. REXROTH ETC	94/50010
14	1 1/2"	10/20 DP INV CL 5	IMP. ANSI	2.25"	2.25"	GENERAL APPLICATIONS	94/50036
14	2 1/2"	6/12 DP INV CL 5	IMP. ANSI	3.25"	4.00"	GENERAL APPLICATIONS	94/500133
15	1"	16/32 DP INV CL 5	IMP. ANSI	1.75"	1.75"	HYD. SAE BB SPLINE	94/50004
15	2"	8/16 DP INV CL 5	IMP. ANSI	3.00"	3.25"	HYD. SAE F SPLINE	94/50037
16	30mm	A 30 x 27 INV	DIN 5482	2.00"	2.00"	LINDE HYD. PUMPS	94/50068
16	35mm	2 MODULE INV	DIN 5480	2.00"	2.25"	HYD. REXROTH ETC	94/50011
16	1.7"	10/20 DP INV CL 5	IMP. ANSI	2.25"	2.75"	GENERAL APPLICATIONS	94/50039
16	2 1/8"	8/16 DP INV CL 5	IMP. ANSI	2.96"	3.50"	HYD. ORBIT MOTORS	94/50040
17	1 1/8"	16/32 DP INV CL 5	IMP. ANSI	2.00"	2.25"	GENERAL APPLICATIONS	94/50027
17	1 1/2"	12/24 DP INV CL 5	IMP. ANSI	2.25"	2.50"	HYD. SAE CC SPLINE	94/50032
17	2 1/4"	8/16 DP INV CL 5	IMP. ANSI	3.00"	3.25"	GENERAL APPLICATIONS	94/50096
18	25mm	1.25 MODULE INV	DIN 5480	1.75"	1.75"	REXROTH	94/50020
18	25mm	1.25 MODULE INV	DIN 5480	1.75"	1.75"	KUBOTA	94/50020K
18	35mm	A 35 x 31 INV	DIN 5482	2.12"	2.25"	GENERAL APPLICATIONS	94/50021
18	40mm	2 MODULE INV	DIN 5480	2.25"	3.00"	HYD. REXROTH ETC	94/50041
19	1 1/4"	16/32 DP INV CL 5	IMP. ANSI	2.00"	2.50"	GENERAL APPLICATIONS	94/50069
20	3 1/2"	6/12 DP INV CL5	IMP. ANSI	3.25"	5.00"	STAFFA SHAFT	94/500137
21	1 3/8"	16/32 DP INV CL 5	IMP. ANSI	2.12"	2.25"	HYD. SUNDSTRAND, EATON	94/50007
21	45mm	2 MODULE INV	DIN 5480	2.25"	3.00"	HYD. REXROTH ETC	94/50042
22	70mm	3 MODULE INV	DIN 5480	2.50"	4.50"	STAFFA Z SHAFT	94/500127
23	1 1/2"	16/32 DP INV CL 5	IMP. ANSI	2.12"	2.25"	HYD.SUNDSTRAND.EATON	94/50043
23	48mm	A 48 x 44 INV	DIN 5482	2.75"	3.00"	GENERAL APPLICATIONS	94/50044
23	3"	8/16 DP INV CL 5	IMP. ANSI	3.75"	3.86"	GENERAL APPLICATIONS	94/500134
24	50mm	2 MODULE INV	DIN 5480	2.75"	3.25"	HYD.REXROTH ETC	94/50045
25	80mm	3 MODULE INV	DIN 5480	80mm	195mm	GENERAL APPLICATIONS	94/500129
26	1.4"	20/40 DP INV CL 5	IMP. ANSI	2.00"	2.00"	MARINE TRANSMISSIONS	94/50046
26	55mm	2 MODULE INV	DIN 5480	2.75"	3.25"	GENERAL APPLICATIONS	94/50047
26	2 1/4"	12/24 DP INV CL 5	IMP. ANSI	3.00"	3.25"	GENERAL APPLICATIONS	94/50048
27	1 3/4"	16/32 DP INV CL 5	IMP. ANSI	2.25"	3.00"	HYD.SUNDSTRAND.EATON	94/50009
28	60mm	2 MODULE INV	DIN 5480	75mm	100mm	GENERAL APPLICATIONS	94/500118
28	90mm	3 MODULE INV	DIN 5480	80mm	195mm	GENERAL APPLICATIONS	94/500128
40	2 9/16"	16/32 DP INV CL 5	IMP. ANSI	2.37"	3.37"	HYD.SUNDSTRAND.EATON	94/50049

### METRIC SPLINES TO DIN STANDARD

When ordering metric splines to DIN standard, the following criteria will be required.

**W35 X 2 X 30 X 16 X 9g**

Spline Dia    Module    Pressure Angle    No of teeth    Fit







## SPLINED COUPLINGS FOR HYDRAULIC PUMPS, MOTORS & TRACTORS

**SPLINE DETAILS.** Female involute splines listed in this catalogue are fillet root side fit. They may be used with flat root fit shafts.

Imperial involute splines are to ANSI B92.1-1970 Class 5. On ANSI splines actual O.D. of mating shaft may be smaller than shown as nominal spline O.D. to allow for root clearance.

Metric involute splines listed are to DEUTSCHE NORMEN DIN 5480, DIN 5482 or DIN 5462.



### SPLINED COUPLINGS



**SPLINED COUPLINGS** are manufactured from K1045 Carbon steel. They are intended for joining two splined shafts together and the outside diameter of the coupling cannot be guaranteed to be true to the axis of the spline. Couplings have thin wall, take care if welding.

Number of Teeth	Nom Spline O.D.	Specifications of Spline	Origin or Standard	Coupling Length	Coupling Diameter	Known uses for this Coupling	Part Number
6	3/4"	6B STRAIGHT SAE	IMP.	2.5"	1.37"	MOBILE EQUIPMENT	94/600100
6	7/8"	6B STRAIGHT SAE	IMP.	2.5"	1.37"	MOBILE EQUIPMENT	94/600101
6	1"	6B STRAIGHT SAE	IMP.	2.75"	1.37"	MOBILE EQUIPMENT	94/600005
6	1 1/8"	6B STRAIGHT SAE	IMP.	2.75"	1.56"	MOBILE EQUIPMENT	94/600102
6	1 1/4"	6B STRAIGHT SAE	IMP.	3.25"	1.87"	MOBILE EQUIPMENT	94/600082
6	34mm	STRAIGHT 28 x 34	DIN 5463.	80mm	50mm	SAI MOTORS	94/600114
6	1 3/8"	6B STRAIGHT SAE	IMP.	3.75"	1.75"	AG TRACTOR P.T.O.'s	94/600033
6	1 3/8"	6B STRAIGHT SAE	IMP.	6"	1.75"	AG TRACTOR P.T.O.'s	94/600033L
6	1 1/2"	6B STRAIGHT SAE	IMP.	3.75"	1.87"	MOBILE EQUIPMENT	94/600104
6	1 5/8"	6B STRAIGHT SAE	IMP.	3.75"	2.00"	MOBILE EQUIPMENT	94/600105
6	1 3/4"	6B STRAIGHT SAE	IMP.	3.75"	2.25"	MOBILE EQUIPMENT	94/600083
9	5/8"	16/32 DP INV CL 5	IMP.	2"	1.37"	HYD. SAE A SPLINE	94/600001
10	25mm	METRIC INV	DIN.	2.75"	1.37"	KUBOTA ETC	94/600107
10	1"	10B STRAIGHT SAE	IMP.	2.5"	1.37"	MOBILE EQUIPMENT	94/600108
10	1 1/32"	10B STRAIGHT SAE	IMP.	3.25"	1.50"	MOBILE EQUIPMENT	94/600123
10	1 1/8"	10B STRAIGHT SAE	IMP.	3.25"	1.50"	MOBILE EQUIPMENT	94/600109
10	1 1/4"	10B STRAIGHT SAE	IMP.	3.75"	1.75"	MOBILE EQUIPMENT	94/600110
10	1 3/8"	10B STRAIGHT SAE	IMP.	3"	1.75"	MOBILE EQUIPMENT	94/600111
10	1 1/2"	10B STRAIGHT SAE	IMP.	3"	1.87"	MOBILE EQUIPMENT	94/600112
11	3/4"	16/32 DP INV CL 5	IMP.	2"	1.37"	HYD. SAE A HD SPL	94/600002
13	7/8"	16/32 DP INV CL 5	IMP.	2"	1.37"	HYD. SAE B SPLINE	94/600003
13	7/8"	16/32 DP INV CL 5	IMP.	3"	1.37"	HYD. SAE B SPLINE	94/60003L
13	1 3/4"	8/16 DP INV CL 5	IMP.	3.75"	2.25"	HYD. SAE D/E SPLINE	94/600008
14	1 1/4"	12/24 DP INV CL 5	IMP.	3"	1.75"	HYD. SAE C SPLINE	94/600006
15	1"	16/32 DP INV CL 5	IMP.	3"	1.50"	HYD. SAE BB SPLINE	94/600004
20	1 3/4"	12/24 DP INV CL 5	IMP.	3"	2.25"	AG TRACTOR P.T.O.'s	94/600113S
20	1 3/4"	12/24 DP INV CL 5	IMP.	3.75"	2.25"	AG TRACTOR P.T.O.'s	94/600113
21	1 3/8"	16/32 DP INV CL 5	IMP.	3"	1.75"	AG TRACTOR P.T.O.'s	94/600007
21	1 3/8"	16/32 DP INV CL 5	IMP.	6"	1.75"	AG TRACTOR P.T.O.'s	94/60007L
23	1 1/2"	16/32 DP INV CL 5	IMP.	3"	2.00"	HYD SUNDSTRAND	94/600043
27	1 3/4"	16/32 DP INV CL 5	IMP.	3"	2.25"	HYD AND AG.	94/600009



## SPLINED SHAFTING & NIB SHAFTS FOR HYDRAULICS, OFF-ROAD & AGRICULTURAL

### STANDARD SPLINED SHAFTING

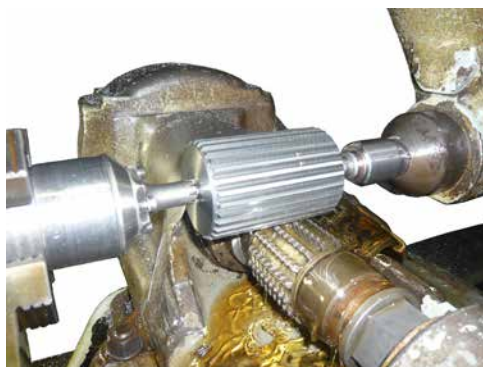


Splined shafting is hobbled for the full listed length. In some instances undercut chucking registers may be present at one end. A centre is provided at one end. Material is K1045 Carbon steel. Finish is black oxide rust preventative. Imperial involute splines are to ANSI B92.1-1970. Pressure angles on all involute splines listed are 30 degrees. Spline OD\* as listed for shafting, stubwelds and nibs is the form diameter. Actual major diameter may be smaller than form diameter by the form clearance for the subject spline. Straight sided splines are all to SAE standard.

Number of Teeth	Nom Spline O.D.*	Specifications of Spline	Origin or Standard	Shaft Length	Known uses for this Hub	Part Number
6	1"	6B STRAIGHT SAE	IMP	203mm (8")	MOBILE EQUIP	94/70005S
6	1"	6B STRAIGHT SAE	IMP	254mm (10")	MOBILE EQUIP	94/70005
6	1 1/8"	6B STRAIGHT SAE	IMP	254mm (10")	AGRICULTURE	94/700102
6	1 1/4"	6B STRAIGHT SAE	IMP	203mm (8")	MOBILE EQUIP	94/70082
6	34mm	STRAIGHT 34 x 28	DIN 5463	203mm (8")	AGRICULTURE	94/700114
6	1 3/8"	6B STRAIGHT SAE	IMP	203mm (8")	AGRICULTURE	94/70033
6	1 1/2"	6B STRAIGHT SAE	IMP	254mm (10")	MOBILE EQUIP	94/700104
6	1 3/4"	6B STRAIGHT SAE	IMP	203mm (8")	MOBILE EQUIP	94/70083
6	1 3/4"	6B STRAIGHT SAE	IMP	254mm (10")	MOBILE EQUIP	94/70083L
9	5/8"	16/32 DP INV 30PA	IMP. ANSI	152mm (6")	HYD. SAE A	94/70001
10	1 1/4"	10B STRAIGHT SAE	IMP	254mm (10")	MOBILE EQUIP	94/700110
10	1 3/4"	10B STRAIGHT SAE	IMP	203mm (8")	MOBILE EQUIP	94/70081
11	3/4"	16/32 DP INV 30PA	IMP. ANSI	152mm (6")	HYD. SAE AH	94/70002
12	13/16"	16/32 DP INV 30PA	IMP. ANSI	80mm	GENERAL	94/70034S
13	7/8"	16/32 DP INV 30PA	IMP. ANSI	152mm (6")	HYD. SAE B	94/70003
13	1 3/4"	8/16 DP INV 30PA	IMP. ANSI	203mm (8")	HYD. SAE D/E	94/70008
14	1 1/4"	12/24 DP INV 30PA	IMP	203mm (8")	HYD. SAE C	94/70006
14	1 1/4"	12/24 DP INV 30PA	IMP	280mm (11")	HYD. SAE C	94/70006LL #
15	1"	16/32 DP INV 30PA	IMP. ANSI	203mm (8")	HYD. SAE BB	94/70004
16	35mm	2 MODULE INV W35	DIN 5480	203mm (8")	HYD. REXROTH	94/70011
16	1.7"	10/20 DP INV 30PA	IMP. ANSI	203mm (8")	GENERAL	94/70039
16	2 1/8"	8/16 DP INV 30PA	IMP. ANSI	203mm (8")	GENERAL	94/70040
17	1 1/2"	12/24 DP INV 30PA	IMP. ANSI	203mm (8")	GENERAL	94/70032
18	35mm	B 35 x 31 INV	DIN 5482	203mm (8")	GENERAL	94/70021
18	40mm	2 MODULE INV W40	DIN 5480	204mm	GENERAL	94/70041
19	2 1/2"	8/16 DP INV 30PA	IMP. ANSI	203mm (8")	GENERAL	94/700131
20	1 3/4"	12/24 DP INV 30PA	IMP. ANSI	203mm (8")	AGRICULTURE	94/700113
21	1 3/8"	16/32 DP INV 30PA	IMP. ANSI	203mm (8")	AGRICULTURE	94/70007
21	45mm	2 MODULE INV W45	DIN 5480	203mm (8")	GENERAL	94/70042
22	70mm	3 MODULE INV W70	DIN 5480	254mm (10")	GENERAL	94/700127
23	1 1/2"	16/32 DP INV 30PA	IMP. ANSI	203mm (8")	HYD. SUND	94/70043
24	50mm	2 MODULE INV W50	DIN 5480	203mm (8")	HYD. REXROTH	94/70045
26	2 1/4"	12/24 DP INV 30PA	IMP. ANSI	203mm (8")	GENERAL	94/70048
27	1 3/4"	16/32 DP INV 30PA	IMP. ANSI	203mm (8")	AGRICULTURE	94/70009
28	60mm	2 MODULE INV W60	DIN 5480	203mm (8")	GENERAL	94/700118
40	2 9/16"	16/32 DP INV 30PA	IMP. ANSI	203mm (8")	HYD. SUND	94/70049

### SPLINED SHAFTS

Long splined shafts up to 1000mm can be manufactured upon request.  
Contact our Sales Office.



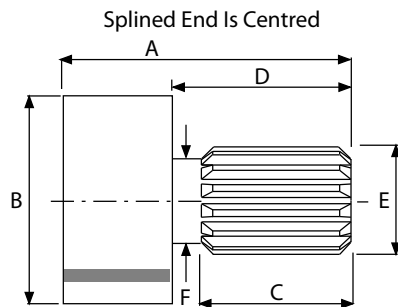


## STUBWELDS & P.T.O. ADAPTORS

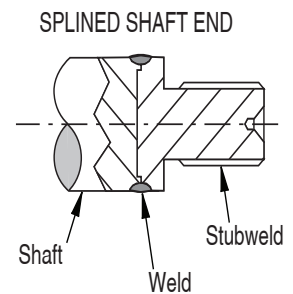
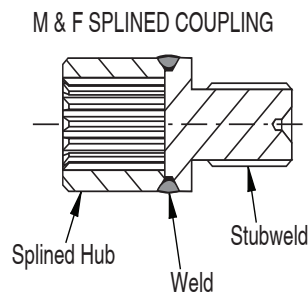
### SPLINED STUBWELDS FOR SAE HYDRAULIC APPLICATIONS

#### DETAILS AND APPLICATIONS

Material is alloy steel with splined end fully hardened. Buttress end is left as soft as possible for later machining and welding. Machining is held true on all surfaces for setup. Ideal for use with precision splined hubs for manufacturing of M & F couplings. Stubwelds may also be used for replacing splined ends of worn shafts or manufacturing splined ends on new shafts.



#### EXAMPLE APPLICATIONS



SAE	No. of Teeth	Spline Type	A	B	C	D	E Nom OD.	F	Part Number
A	9T	16/32 DP	58mm	34.92mm	22mm	28mm	5/8"	12mm	<b>76/70001</b>
B	13T	16/32 DP	64mm	44.45mm	27mm	34mm	7/8"	18mm	<b>76/70003</b>
BB	15T	16/32 DP	68mm	44.45mm	31mm	38mm	1"	21mm	<b>76/70004</b>
C	14T	12/24 DP	77mm	53.97mm	40mm	47mm	1 1/4"	27mm	<b>76/70006</b>
D	13T	8/16 DP	96mm	76.20mm	58mm	66mm	1 3/4"	37mm	<b>76/70008</b>

### SPLINED ADAPTOR COUPLINGS

Female spline to spline adaptor couplings made from EN36A. Order under OEM p/n# for unhardened condition. Order under Vickers p/n\* for case hardened condition.

OEM Part Number #	Vickers part Number *	Description	Part Size
56/01004	526682	9T 16/32DP - 15T 16/32DP	41.7OD X 68 Long
56/03004	526694	13T 16/32DP - 15T 16/32DP	41.7OD X 93 Long
56/04006	526696	15T 16/32DP - 14T 12/24DP	41.7OD X 93 Long
56/03027	864457	13T 16/32DP - 17T 16/32DP	41.7OD X 95.3 Long
56/06027	864458	14T 12/24DP - 17T 16/32DP	41.7OD X 95.3 Long
56/01027	864460	9T 16/32DP - 17T 16/32DP	41.7OD X 70.3 Long
56/01006	877039	9T 16/32DP - 14T 12/24DP	41.7OD X 63.7 Long
56/03006	877040	13T 16/32DP - 14T 12/24DP	41.7OD X 88.9 Long
56/00006	844045	14T 12/24DP	41.7OD X 88.9 Long
56/06032	877046	14T 12/24DP - 17T 12/24DP	47.6OD X 78.8 Long

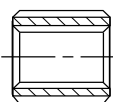




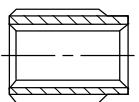


## SPLINED BUSHES, SLIP SLEEVES, ADAPTORS FOR HYDRAULIC PUMP AND MOTOR DRIVES

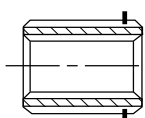
### SPLINED BUSHES, SLIP SLEEVES & ADAPTORS



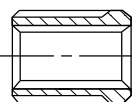
**TYPE 1**  
PLAIN DYNAGEAR



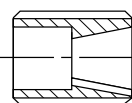
**TYPE 2**  
EXTENDED DYNAGEAR



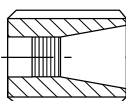
**TYPE 3**  
SNAP RING (EUROPE)



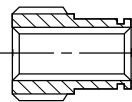
**TYPE 4**  
FUNK GEARBOX



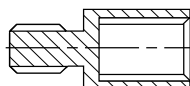
**TYPE 5**  
DIN 1:8 TAPER WITH KEY  
Has recess for nut



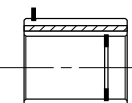
**TYPE 6**  
DIN TAPER THREADED  
CW pumps only



**TYPE 7**  
CONQUIP FRONT PTO



**TYPE 8**  
MALE/FEMALE



**TYPE 9**  
TERREL DURST GEARBOX

Type	Male Spline	Female Spline Or Round Bore	Overall Length	Part Number
1	15T 1" 16/32	Round 5/8" keyed	0.79"	58/03/03988
1	15T 1" 16/32	9T 5/8" 16/32	0.79"	58/03/03987
1	14T 1 1/4" 12/24	9T 5/8" 16/32	1.125"	58/03/10001
1	14T 1 1/4" 12/24	13T 7/8" 16/32	1.125"	58/03/10003
1	13T 1 3/4" 8/16	13T 7/8" 16/32	3.000"	58/03/01899
1	13T 1 3/4" 8/16	14T 1 1/4" 12/24	1.200"	58/03/20006
1	13T 1 3/4" 8/16	14T 1 1/4" 12/24	3.000"	58/03/01694
1	13T 1 3/4" 8/16	21T 1 3/8" 16/32	1.200"	58/03/20007
1	13T 1 3/4" 8/16	16T 35mm DIN	1.200"	58/03/20011
2	6T 1 3/4" Straight	6T 1.0" Straight	2.400"	58/03/01589
2	13T 1 3/4" 8/16	9T 5/8" 16/32	1.375"	58/03/20001
2	13T 1 3/4" 8/16	11T 3/4" 16/32	1.200"	58/03/20002
2	13T 1 3/4" 8/16	13T 7/8" 16/32	1.375"	58/03/20003
2	13T 1 3/4" 8/16	18T 25mm DIN	1.375"	58/03/20020
2	13T 1 3/4" 8/16	6T 1.0" Straight	1.200"	58/03/20005
2	13T 1 3/4" 8/16	15T 1.0" 16/32	1.375"	58/03/20004
2	13T 1 3/4" 8/16	14T 30mm DIN	1.560"	58/03/20010
2	13T 1 3/4" 8/16	Round 5/8" Keyed	1.375"	58/03/20012
2	13T 1 3/4" 8/16	Round 7/8" Keyed	1.375"	58/03/20014
2	13T 1 3/4" 8/16	Round 1.0" Keyed	1.375"	58/03/20015
3	23T 48mm DIN	12mm pilot bore	35mm	32/03/30000
3	13T 7/8" 16/32	9T 5/8" 16/32	1.312"	58/03/01369
3	15T 1" 16/32	9T 5/8" 16/32	1.500"	58/03/01666
3	14T 1 1/4" 12/24	11T 3/4" 16/32	45mm	58/03/10002L
3	14T 1 1/4" 12/24	13T 7/8" 16/32	1.500"	58/03/01698
3	14T 1 1/4" 12/24	13T 7/8" 16/32	2.000"	58/03/01698L
3	14T 1 1/4" 12/24	15T 1.0" 16/32	1.500"	58/03/00714
3	14T 1 1/4" 12/24	Round 16mm Keyed	45mm	58/03/10072
3	18T 35mm DIN	9T 5/8" 16/32	1.065"	T2060038
3	23T 48mm DIN	11T 3/4" 16/32	45mm	32/03/30002
3	23T 48mm DIN	13T 7/8" 16/32	45mm	32/03/30003
3#	23T 48mm DIN	13T 7/8" 16/32	45mm	32/03/30003C
3	23T 48mm DIN	Taper DIN 2 1:8	45mm	32/03/30016
3	23T 48mm DIN	18T 25mm DIN	45mm	32/03/30020
3	23T 48mm DIN	15T 1.0" 16/32	45mm	32/03/30004
3	23T 48mm DIN	15T 1.0" 16/32	29mm	32/03/30004S
3	23T 48mm DIN	14T 30mm DIN	45mm	32/03/30010
3	23T 48mm DIN	14T 1 1/4" 12/24	45mm	32/03/30006
3	23T 48mm DIN	14T 1 1/4" 12/24	60mm	32/03/30006L
3	23T 48mm DIN	21T 1 3/8" 16/32	45mm	32/03/30007
3	23T 48mm DIN	16T 35mm DIN	45mm	32/03/30011
3	23T 48mm DIN	16T 35mm DIN	61mm	32/03/30011L
3	23T 48mm DIN	17T 1 1/2" 12/24	45mm	32/03/30032
3	23T 48mm DIN	17T 1 1/2" 12/24	55mm	32/03/30032L
3	23T 48mm DIN	23T 1 1/2" 16/32	1 3/4"	32/03/30043
3	29T 62mm DIN	14T 1 1/4" 12/24	55mm	32/03/40006
3	29T 62mm DIN	13T 1 3/4" 8/16	55mm	32/03/40008
3	29T 62mm DIN	23T 48mm DIN	49mm	T2062004
3	36T 80mm DIN	13T 1 3/4" 8/16	75mm	32/03/50008
4	13T 1 3/4" 8/16	13T 7/8" 16/32	2.000"	028055
4	13T 1 3/4" 8/16	15T 1" 16/32	2.000"	028584
4	13T 1 3/4" 8/16	14T 1 1/4" 12/24	2.000"	028056
4	13T 1 3/4" 8/16	21T 1 3/8" 16/32	2.000"	028271
5	15T 1" 16/32	Taper DIN 2 1:8	0.79"	58/03/03985
5	13T 1 3/4" 8/16	Taper DIN 2	40mm	58/03/20016
5	13T 1 3/4" 8/16	Taper DIN 3	40mm	58/03/20017
6	13T 7/8" 16/32	Taper DIN 2 1:8	1.750"	54/03/00164
7	6T 1 3/4" Straight	6T 1.0" Straight	1.700"	58/03/00965
8	23T 48mm DIN	13T 1 3/4" 8/16	90mm	32/03/30008
9	13T 1 3/4" 8/16	9T 5/8" 16/32	2.000"	TS20900244
9	13T 1 3/4" 8/16	13T 7/8" 16/32	1.938"	TS20900245
9	13T 1 3/4" 8/16	15T 1.0" 16/32	1.750"	TS20900246
9	13T 1 3/4" 8/16	19T 1 1/4" 16/32	2.375"	TO12160131
9	13T 1 3/4" 8/16	14T 1 1/4" 12/24	1.750"	TS20900247
9	13T 1 3/4" 8/16	21T 1 3/8" 16/32	1.850"	TS12160120

# 32/03/30003C Has extra circlip and is counterbored on one end.

Most items are manufactured from alloy steel. Actual materials, finish and treatment may vary according to the origin of the part. Overall lengths may vary from that indicated depending on origin of the part. If length important check with our sales office. Other sizes may be available - consult sales office

## ROUND BORE WELD-IN HUBS

Bore	Keyway	A	B	C	D	Part Number
1/2"	None	58.5	63.5	58	49	91/80067
0.750"	0.187"	58.5	63.5	58	49	91/80013
19 mm	6 mm	58.5	63.5	58	49	91/80073
0.875"	#	58.5	63.5	58	49	91/80014
25 mm	8 mm	58.5	63.5	58	49	91/80026
1.000"	0.250"	58.5	63.5	58	49	91/80015
1.250"	0.312"	58.5	63.5	58	49	91/80024
24 mm	8 mm	58.5	63.5	58	49	91/80074
28 mm	8 mm	58.5	63.5	58	49	91/80075
30 mm	8 mm	58.5	63.5	58	49	91/80079
32 mm	10 mm	58.5	63.5	58	49	91/80080
1.375"	0.3125"	58.5	63.5	58	49	91/80065
35 mm	10 mm	58.5	63.5	58	49	91/80050
38 mm	10 mm	58.5	63.5	58	49	91/80051
1.500"	0.375"	58.5	63.5	58	49	91/80060
40 mm	12 mm	58.5	63.5	58	49	91/80052
42 mm	12 mm	58.5	63.5	58	49	91/80053
1.750"	0.437"	58.5	76.2	65	49	92/80061
45 mm	14 mm	58.5	76.2	65	49	92/80054
48 mm	14 mm	58.5	76.2	65	49	92/80055
50 mm	14 mm	58.5	76.2	65	49	92/80056
2.000"	0.500"	58.5	76	65	49	92/80062
55 mm	16 mm	58.5	90	75	49	92/80057

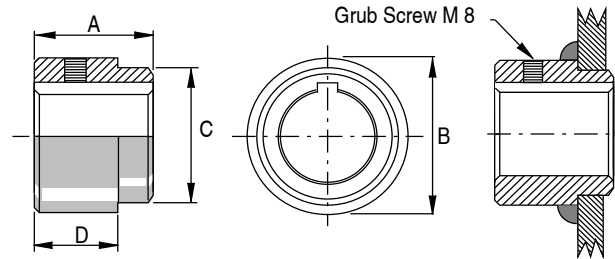
For connecting Hydraulic Orbit Motors to fabricated Winch Drums and Mixer Paddles, Electric Motor Sprocket Hubs and Machine Bosses.

Manufactured from K1045 mild steel.

Bore tolerance + 0.03 mm to + 0.06 mm.

Machined spigot dim. "C" tolerance +0.02 mm to + 0.05 mm.

Finish is black.



Other sizes may be manufactured to order if in sufficient quantity.

Contact our sales office for a quote.

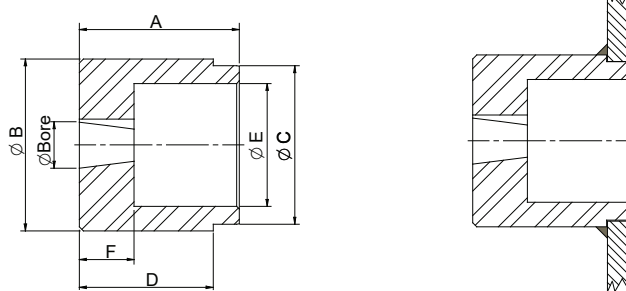
# Combination 3/16" and 1/4" keyway

## TAPERED BORE WELD-IN HUBS

Type	Bore	Taper	Keyway	A	B	C	D	E	F	Part Number
DIN 2	17mm	1:8	3.18mm	58.5	63	58	49	45	20	91/80016
DIN 3	21.5mm	1:8	4mm	58.5	63	58	49	45	23	91/80017
SAE J744	1.250"	1:8	0.312"	58.5	76.2	65	49	55	38.5	92/80180

Other sizes may be manufactured to order if in sufficient quantity.

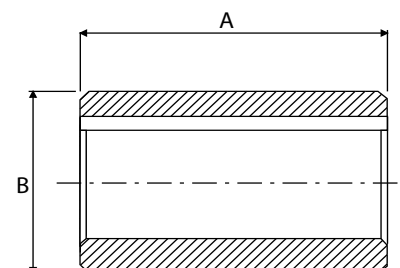
Contact our sales office for a quote.



## ROUND BORE MUFF COUPLINGS

Bore	Keyway	A	B	Part Number
19 mm	6 mm	70 mm	38.1 mm	95/60073
0.750"	0.187"	2.75"	1.50"	95/60013
20 mm	6 mm	70 mm	38.1 mm	95/60028
0.875"	0.250"	2.75"	1.50"	95/60084
25 mm	8 mm	2.75"	44.45 mm	95/60026
1.000"	0.250"	2.75"	1.75"	95/60015
1.062"	0.250"	2.75"	1.75"	95/60085
28 mm	8 mm	76 mm	50.8 mm	95/60075
30 mm	8 mm	76 mm	50.8 mm	95/60030
1.250"	#	3.00"	2.00"	95/60087
32 mm	10 mm	76 mm	50.8 mm	95/60080
1.312"	0.312"	3.00"	2.00"	95/60088
1.375"	0.312"	3.00"	2.25"	95/60065
1.437"	0.375"	3.00"	2.12"	95/60089
1.500"	0.375"	3.00"	2.25"	95/60060

Used for joining of shafts on pumps, electric motors, special machines or any application where a keyed round bore sleeve is required. The outside diameter is not necessarily held true with bore. Finish is black oxide rust preventative. Not threaded for set screw.



# Combination 1/4" and 5/16" keyway for p/n 95/60087.  
Specials made to order. Min batch quantity - 10 off.



## FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

**A STANDARD OFF THE SHELF SHAFT COUPLING SYSTEM DEVELOPED  
SPECIALLY FOR HEAVY DUTY FLUID POWER APPLICATIONS**



101 Series Complete coupling.

127 Series round bore.



101 Series round bore.



63 Series round bore.



127 Series CLC.



101 Series CLB.



63 Series CLA.

### SPLINED SHAFT CONNECTIONS.

The FLEXILOCK range includes most of the splined shaft connections currently utilized on hydraulic pumps and motors including imperial and metric sizes. All splined coupling hubs feature our popular CLAMPLOCK lateral or axial positive locking mechanisms which secure the coupling hub solidly on to the pump shaft and eliminate the spline wear associated with unlocked spline connections.

### ROUND BORE KEYED SHAFT CONNECTIONS.

Most standard bore sizes available in imperial and metric sizes to fit standard hydraulic pumps and motors and IEC electric motor shaft standards. Stock availability of standard sizes enables immediate use of the couplings without having to undertake expensive machining of bores and keyways.

### POWER RATINGS MATCHED TO APPLICATION.

The coupling design features a large gear teeth form with wide tooth face contact between the steel gear and the polymer element ensuring maximum power capacity in a small package over a long life cycle. Both splined and keyed hub designs are matched to effectively accommodate shaft sizes without excess weight penalty.

### BROAD APPLICATION VERSATILITY.

The steel hub design permits ease of modification to suit special applications. Hub gear plates are available for attachment to customer supplied components. Long or short hub versions can be manufactured to special order. SLC and SLD type hubs can be arranged to incorporate sprockets or pulleys for auxiliary drives.

### MAXIMUM MISALIGNMENT TOLERANCES.

**Axial Displacement.** The element total axial clearance to hubs should be no less than 2 mm or no greater than 4 mm total.

**Parallel Offset.** Hub parallel offset to each other should not exceed 0.5mm.

**Angular Misalignment.** 1° per hub or total included angle of 2°.

### SPEED.

Consult factory for speeds exceeding 3000 RPM.

**FLEXILOCK SIZING PROGRAM** - Consult your distributor to have your FLEXILOCK kit sized by our computer selection program.

\*Brief peak starting torque not to exceed 200% of continuous Torque.

Consult factory for heavy shock loading or stop/ start loading.

**Refer also to page 37 for applicable service factors.**

Continuous Power Ratings are for fluid power service, 10 hours per day with hubs within max. misalignment tolerance and temp not exceeding 100°C.

Intermittent Power Ratings are for fluid power service up to 4 hours per day with hubs in true alignment and where the temperature does not exceed 80°C.

FOR SHAFT SIZES SEE

[HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 43](#) &  
[ELECTRIC MOTOR SIZES PAGE 44.](#)





# FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

## 63 SERIES FLEXIBLE COUPLINGS



### PERFORMANCE SPECIFICATIONS.

Continuous		Intermittent	
Power/Rev*	Torque	Power/Rev*	Torque
0.0118 kW	113 Nm	0.0165 kW	157 Nm
0.0158 hp	83 ft lbs	0.0221 hp	116 ft lbs

FLEXIBLE COUPLINGS &  
REPLACEMENT ELEMENTS

### 63 Series Element

Part Number - **90/03/05741**

Description - White with 29 teeth

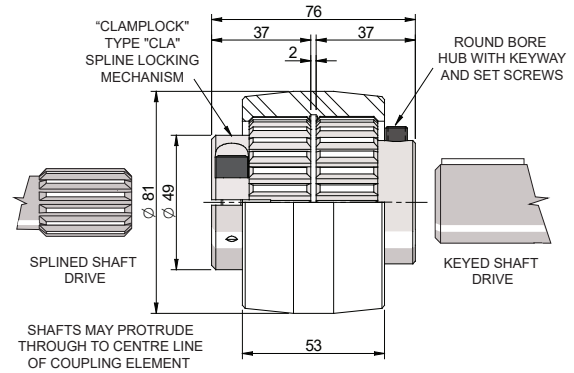
#### SPLINED CLA HUBS

Spline OD	No. of Teeth	DP/ MOD	Part No.
5/8"	9	16/32	<b>90/CLA01</b>
3/4"	11	16/32	<b>90/CLA02</b>
7/8"	13	16/32	<b>90/CLA03</b>
1"	15	16/32	<b>90/CLA04</b>

#### ROUND BORE

Bore	Keyway	Part No.
0.625"	0.156"	<b>90/90012</b>
19mm	6mm	<b>90/90073</b>
0.750"	0.187"	<b>90/90013</b>
0.875"	#	<b>90/90014</b>
24mm	8mm	<b>90/90074</b>
1.000"	0.250"	<b>90/90015</b>
Din 2 taper	3mm	<b>90/90016</b>
Din 3 taper	4mm	<b>90/90017</b>

# Combination 3/16" and 1/4" keyway



### Coupling Hub Arrangements

- CLA hub to Round Bore Hub (as shown)
- Round Bore Hub to Round Bore Hub
- CLA hub to CLA hub



# FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

## 101 SERIES FLEXIBLE COUPLINGS



### PERFORMANCE SPECIFICATIONS.

Continuous		Intermittent	
Power/Rev*	Torque	Power/Rev*	Torque
0.0354 kW	339 Nm	0.0469 kW	475 Nm
0.0475 hp	250 ft lbs	0.0665 hp	350 ft lbs

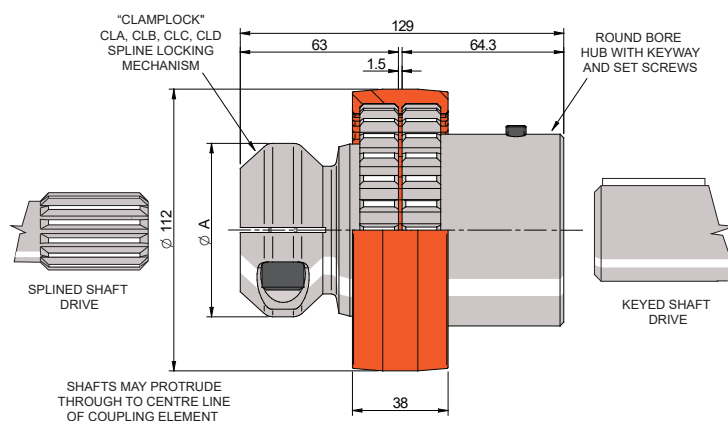
### 101 Series Element

Part Number - **91/03/03691**

Description - Orange with 30 teeth

### SPLINED CLAMPLOCK

Spline OD	No. of Teeth	DP/ MOD	Part No.
5/8"	9	16/32	<b>91/CLB01</b>
7/8"	13	16/32	<b>91/CLB03</b>
25 mm	18	1.25	<b>91/CLB20</b>
1"	15	16/32	<b>91/CLB04</b>
30 mm	14	2	<b>91/CLC10</b>
1 1/4"	14	12/24	<b>91/CLC06</b>
1 3/8"	6	6B	<b>91/CLC33</b>
1 3/8"	21	16/32	<b>91/CLC07</b>
32 x 36	8	-	<b>91/CLC115</b>
35 mm	16	2	<b>91/CLC11</b>
1 1/2"	17	12/24	<b>91/CLC32</b>
1 1/2"	23	16/32	<b>91/CLC43</b>
1 3/4"	13	8/16	<b>91/CLD08</b>



### ROUND BORE

Bore	Keyway	Part No.
0.500"	None	<b>91/90067</b>
Din 3 taper	4mm	<b>91/90017</b>
19mm	6mm	<b>91/90073</b>
0.750"	0.187"	<b>91/90013</b>
0.875"	#	<b>91/90014</b>
24mm	8mm	<b>91/90074</b>
25mm	8mm	<b>91/90026</b>
1.000"	0.250"	<b>91/90015</b>
28mm	8mm	<b>91/90075</b>
1.250"	0.312"	<b>91/90024</b>
32mm	10mm	<b>91/90080</b>
35mm	10mm	<b>91/90050</b>
38mm	10mm	<b>91/90051</b>
1.500"	0.375"	<b>91/90060</b>
40mm	12mm	<b>91/90052</b>
42mm	12mm	<b>91/90053</b>
1.750"	0.437"	<b>91/90061</b>
48mm	14mm	<b>91/90055</b>
55mm	16mm	<b>91/90057</b>
60mm	18mm	<b>91/90058</b>

### Clamplock Size

Size	A
CLB	55
CLC	69
CLD	79

### Coupling Hub Arrangements

- Clamplock hub to Round Bore Hub (as shown)
- Round Bore Hub to Round Bore Hub
- Clamplock hub to Clamplock hub

# Combination 3/16" and 1/4" keyway



# FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

## 127 SERIES FLEXIBLE COUPLINGS



127 Series Element

Part Number - 92/03/03244

Description - White with 28 teeth

### SPLINED CLAMPLOCK

Spline OD	No. of Teeth	DP/ MOD	Part No.
7/8"	13	16/32	92/CLB03
1"	15	16/32	92/CLB04
1 1/4"	14	12/24	92/CLC06
1 3/8"	6	6B	92/CLC33
1 3/8"	21	16/32	92/CLC07
35 mm	16	2	92/CLC11
1 1/2"	17	12/24	92/CLC32
1 1/2"	23	16/32	92/CLC43
1 1/2"	14	10/20	92/CLDA36
40 mm	18	2	92/CLDA41
1 3/4"	13	8/16	92/CLDA08
1 3/4"	27	16/32	92/CLDA09
45 mm	21	2	92/CLDA42

### AXIALSPLINED CLAMPLOCK

Nominal Bore	No. of Teeth	DP/ MOD	Part No.
40 mm	18	2	92/SLDA41
45 mm	21	2	92/SLDA42
1 3/4"	13	8/16	92/SLEA08
1 3/4"	27	16/32	92/SLEA09
48 mm	23	2	92/SLEA44
50 mm	24	2	92/SLEA45
2"	15	8/16	92/SLEA37

### ROUND BORE

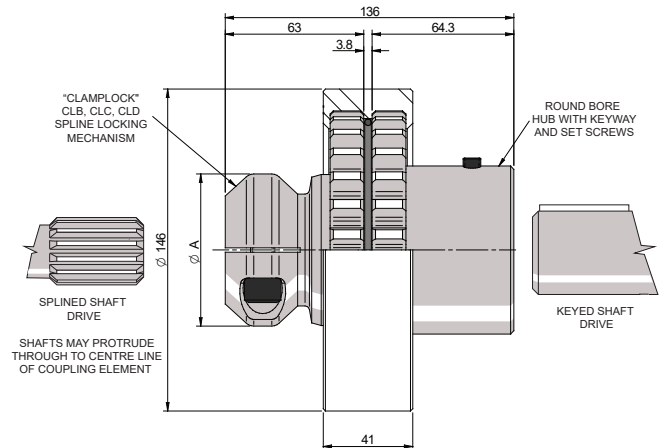
Bore	Keyway	Part No.
0.500"	None	92/90067
Din 3 taper	4mm	92/90017
0.875"	#	92/90014
1.000"	0.250"	92/90015
1.250"	0.312"	92/90024
38mm	10mm	92/90051
1.500"	0.375"	92/90060
40mm	12mm	92/90052
42mm	12mm	92/90053
1.750"	0.437"	92/90061
45mm	14mm	92/90054
48mm	14mm	92/90055
50mm	14mm	92/90056
2.000"	0.500"	92/90062
55mm	16mm	92/90057
60mm	18mm	92/90058
65mm	18mm	92/90059

# Combination 3/16" and 1/4" keyway

### PERFORMANCE SPECIFICATIONS.

Continuous Power/Rev*	Torque	Intermittent Power/Rev*	Torque
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0.0661 kW	632 Nm	0.0915 kW	884 Nm
0.0887 hp	466 ft lbs	0.1242 hp	652 ft lbs

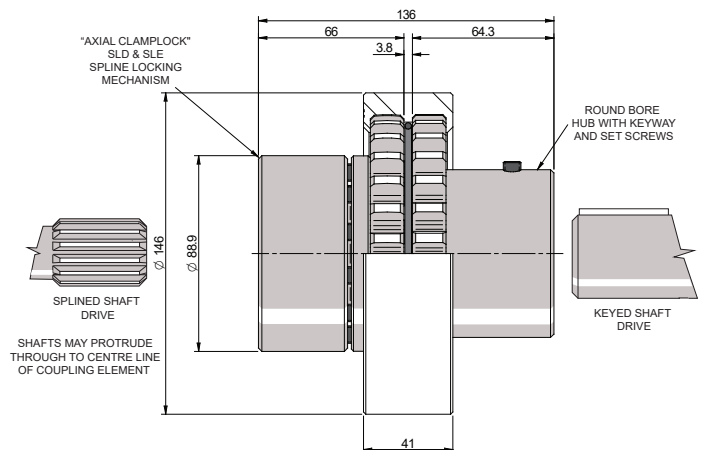


### Coupling Hub Arrangements

- Clamplock hub to Round Bore Hub (as shown)
- Round Bore Hub to Round Bore Hub
- Clamplock hub to Clamplock hub

### Clamplock

Size	A
CLB	55
CLC	69
CLD	79



### Coupling Hub Arrangements

- Axial Clamplock hub to Round Bore Hub (as shown)
- Round Bore Hub to Round Bore Hub
- Axial Clamplock hub to Axial Clamplock hub



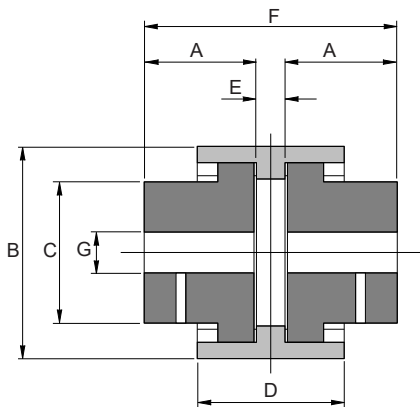
### FLEXIBLE MINI SHAFT COUPLINGS

Double Crowned Tooth Gear Type With Nylon Element  
And Sintered Steel Hubs.  
Interchanges with KTR couplings



MADE IN  
USA

Type	No. of teeth	A	B	C	D	E	F	G Min./Max.	Basic Torque Nm*	Basic kW Per 100 RPM*	Weight Kg
M-19	24	21.5	48.3	32	37	7	50	10/19	15.5	0.1617	0.27
M-28	34	35.5	65.6	44	46	9	80	10/28	44	0.4592	0.82
M-38	44	35.5	83.6	58.5	49	9	80	12/38	78.5	0.8194	1.90



#### \*Power And Torque Factors

Basic Power and Torque value allows for continuous use on mechanical drive equipment with moderate shock loading at full misalignment tolerance.

For Hydraulic drive applications with uniform loading up to 8 hours per day with true alignment and temperature not above 82°C, basic Power and Torque values may be increased by 1.75. Maximum starting and breaking torque should not exceed two times basic torque. Intermittent, transient peak loads should not exceed three times the basic torque. [Refer page 35 for service factors.](#)

#### Misalignment Tolerances

Axial Displacement +/- 1mm.  
Parallel Offset 0.4 mm.  
Angular Misalignment 1° Per Hub.  
Axial Displacement (slip) 5 mm.

#### Temperature Range

Continuous 82°C.  
Intermittent 120°C.

GM 19 Series		
Bore	Keyway	Part No.
9.5mm	Pilot bore	<b>GM19/00</b>
11mm	4mm	<b>GM19/70</b>
1/2"	1/8"	<b>GM19/78</b>
14mm	5mm	<b>GM19/71</b>
5/8"	5/32" & 3/16"	<b>GM19/23</b>
3/4"	3/16"	<b>GM19/13</b>
18mm	6mm	<b>GM19/25</b>
19mm	6mm	<b>GM19/73</b>
	Nylon element	<b>GM19/E</b>

GM 28 Series		
Bore	Keyway	Part No.
6.2mm	Pilot bore	<b>GM28/00</b>
1/2"	1/8"	<b>GM28/78</b>
5/8"	5/32" & 3/16"	<b>GM28/23</b>
3/4"	3/16"	<b>GM28/13</b>
19mm	6mm	<b>GM28/73</b>
7/8"	3/16" & 1/4"	<b>GM28/14</b>
24mm	8mm	<b>GM28/74</b>
1"	1/4"	<b>GM28/15</b>
28mm	8mm	<b>GM28/75</b>
	Nylon element	<b>GM28/E</b>

GM 38 Series		
Bore	Keyway	Part No.
10.9mm	Pilot bore	<b>GM38/00</b>
5/8"	5/32" & 3/16"	<b>GM38/23</b>
22mm	6mm	<b>GM38/124</b>
7/8"	3/16" & 1/4"	<b>GM38/14</b>
24mm	8mm	<b>GM38/74</b>
25mm	8mm	<b>GM38/26</b>
1"	1/4"	<b>GM38/15</b>
28mm	8mm	<b>GM38/75</b>
30mm	8mm	<b>GM38/30</b>
1 1/4"	5/16"	<b>GM38/24</b>
	Nylon element	<b>GM38/E</b>

Other sizes are available contact our sales office.

For larger size couplings refer [Flexilock series on page 10 to 13.](#)

FOR BORE CODE DESCRIPTIONS [REFER PAGE 47](#)



## HOF MINI SHAFT COUPLINGS

### FLEXIBLE MINI SHAFT COUPLINGS

Drive Couplings are made from steel reinforced Nylon sleeve with two steel drive hubs. The crowned teeth formed gears permit axial and angular misalignment.

Interchanges with UCC DC-42 couplings.



FLEXIBLE COUPLINGS & REPLACEMENT ELEMENTS

Type	No. of teeth	A	B	C	D	E	F	G Min./Max.	Max Speed RPM	* Rating per 100 RPM kW	Weight Kg
HOF28	34	40	67.5	44	37	4	84	10/28	5000	0.75	1.1
HOF42	44	40	88	60	50	4	84	10/42	5000	1.32	1.9

#### Materials

Coupling halves : steel

Sleeve : Nylon 66

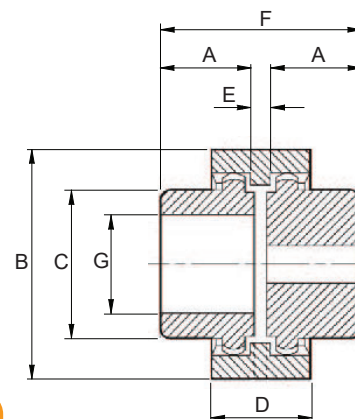
Max temp sleeve : 83°C

$$*Rating = \frac{kW (application) \times 100 \times SF}{RPM (application)}$$

Maximum angular misalignment is  $\pm 2^\circ$ .

Maximum radial misalignment is  $\pm 0.4mm$ .

[Refer page 35 for service factors \(SF\)](#)



#### Bore Size Options

HOF 28 Series		
Bore	Keyway	Part No.
10mm	Pilot bore	<b>HOF28/H</b>
1/2"	1/8"	<b>HOF28/78</b>
5/8"	5/32" & 3/16"	<b>HOF28/23</b>
16mm	5mm	<b>HOF28/72</b>
19mm	6mm	<b>HOF28/73</b>
3/4"	3/16"	<b>HOF28/13</b>
7/8"	3/16" & 1/4"	<b>HOF28/14</b>
1"	1/4"	<b>HOF28/15</b>
24mm	8mm	<b>HOF28/74</b>
28mm	8mm	<b>HOF28/75</b>

Nylon element **HOF28/S**

HOF 42 Series		
Bore	Keyway	Part No.
10mm	Pilot bore	<b>HOF42/H</b>
15mm	5mm	<b>HOF42/189</b>
5/8"	5/32"	<b>HOF42/12</b>
5/8"	5/32" & 3/16"	<b>HOF42/23</b>
DIN Grp 2		<b>HOF42/16</b>
3/4"	3/16"	<b>HOF42/13</b>
7/8"	3/16" & 1/4"	<b>HOF42/14</b>
7/8"	1/4"	<b>HOF42/84</b>
22mm	6mm	<b>HOF42/124</b>
24mm	8mm	<b>HOF42/74</b>
25mm	8 mm	<b>HOF42/26</b>
1"	1/4"	<b>HOF42/15</b>
28mm	8mm	<b>HOF42/75</b>
1 1/8"	5/16"	<b>HOF42/178</b>
1 1/8"	1/4"	<b>HOF42/66</b>
30mm	8mm	<b>HOF42/79</b>
1 1/4"	5/16"	<b>HOF42/24</b>
32mm	10mm	<b>HOF42/80</b>
1 3/8"	5/16"	<b>HOF42/65</b>
1 3/8"	3/8"	<b>HOF42/166</b>
35mm	10mm	<b>HOF42/50</b>
38mm	10mm	<b>HOF42/51</b>
1 1/2"	3/8"	<b>HOF42/60</b>
42mm	12mm	<b>HOF42/53</b>

**HOF42/S** Nylon element

Other sizes are available contact our sales office.

For larger size couplings refer [Flexilock series on page 10 to 13](#).

**FOR BORE CODE DESCRIPTIONS [REFER PAGE 47](#)**

## DG COUPLING ELEMENTS

High quality elements to match original manufacturers couplings, commonly used in imported heavy construction & earthmoving plant eg, excavators, cranes, dozers, forklifts etc.  
Komatsu, Kobelco, Hitachi, Kato, Tadano.

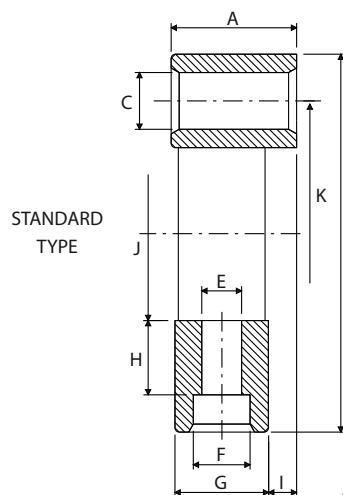
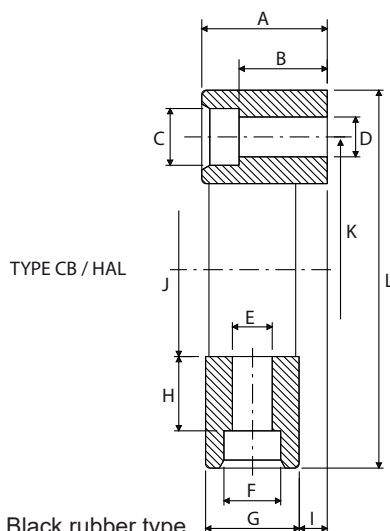


## ORDER CODE

Rubber Element Type	
Std. (thru hole)	Counter Bore Hole
DG/4	DG/4CB
DG/8	DG/8CB
DG/16	DG/16CB
DG/25	DG/25CB
DG/30	DG/30CB
DG/50	DG/50CB
DG/140	DG/140CB

Hytrel Element Type	
Element C/W insert	Element Only
DG/30HAL	
DG/40HAL	
DG/50HAL	
DG/110HAL	
DG/140HAL	DG/140H

## STD., CB & HAL TYPE COUPLING ELEMENTS



NOTE: Type Std. & CB = Black rubber type.  
Type HAL = White Hytrel type.

All dimensions in mm.  
All torques in Nm.

Type Std./CB/HAL	A	B	C	D	E	F	G	H	I	J	K Spacing	L	Nominal Torque	Max Torque
4	28	17	13.5	8.5	8.5	13.5	24	18.5	4	45	80/3 x 120°	100	50	125
8	32	20.5	16.5	10.5	10.5	16.5	28	20.5	4	60	100/3 x 120°	120	100	280
16	42	23.5	18.5	12.5	12.5	18.5	36	25.2	6	70	125/3 x 120°	150	200	560
25	46	26	21.5	14.5	14.5	21.5	40	27	6	85	140/3 x 120°	170	315	875
30	58	34.5	24.5	16.5	16.5	24.5	50	34.5	8	100	165/3 x 120°	200	500	1400
40	50	29.5	24.5	16.5	16.5	24.5	47.5	29	4	85	140/4 x 90°	170	600	1600
50	58	34.5	24.5	16.5	16.5	24.5	50	34.5	8	100	165/4 x 90°	200	700	2100
110	56	37	26	18.5	18.5	26	53	37	8	100	180/4 x 90°	230	1200	2500
140	70	45.5	30.5	20.5	20.5	30.5	62	47	8	125	215/4 x 90°	260	1700	4900





## ADAPTIVE RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

### POWER RATINGS MATCHED TO APPLICATION.

The coupling design features a very flexible element for power transfer, ensuring maximal torque capacity, with dampening of shock loads and excellent misalignment capacity. The element works well in harsh environments resulting in long life cycles.

### BROAD APPLICATION VERSATILITY.

The steel hub design permits ease of modification to suit specialized or challenging applications. The coupling range suits a large range of shaft sizes from 16mm (5/8") to 57mm (2 1/4") in popular splines and round bores. Specials can also be made to order.

### STANDARD SPLINED OR ROUND BORE SHAFT CONNECTIONS.

The DG Coupling range suits most splined shaft connections for hydraulic pumps and motors including imperial and metric sizes. Splined hubs use our popular CLAMPLOCK lateral or axial positive locking mechanisms eliminating the spline wear associated with unlocked spline connections.

Standard bore sizes using taperlock bushes are available in imperial and metric sizes to suit hydraulic pumps and motors and IEC electric motor shaft standards.



DG8 Spline to spline coupling

### MAXIMUM MISALIGNMENT TOLERANCES.

#### Axial Displacement.

The element locates the hubs on the shafts. However, up to +/- 2mm axial displacement is tolerated at 1000rpm.

#### Radial Misalignment.

Between 2mm @ 3000rpm and up to a total of 5mm at 1000 rpm.

SPEED: Consult factory for speeds exceeding 4000 RPM.

#### Angular Misalignment.

The total angular misalignment is 2° at 1400 rpm. This is speed dependent.

### PERFORMANCE SPECIFICATIONS.

SERIES	Continuous Torque	Maximum Torque	Intermittent Torque
DG8	100 Nm 83 ft lbs	250 Nm 183 ft lbs	157 Nm 116 ft lbs
DG25	315 Nm 250 ft lbs	800 Nm 590 ft lbs	475 Nm 350 ft lbs
DG50	700 Nm 466 ft lbs	2000 Nm 1475 ft lbs	884 Nm 652 ft lbs

### Ordering Information

To order a DG flexible coupling

1. Select the element size that will suit the torque output from the driving shaft. eg electric motor.
2. Select the flange and the hub sizes from the tables above. Ideally, the hub size will fit onto the smallest shaft.
3. The complete coupling will comprise of 3 ordered parts. The flange, the element and the hub.

### Example

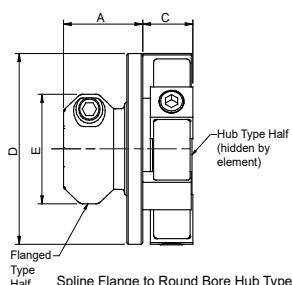
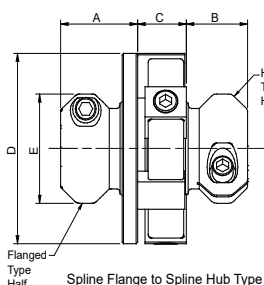
To couple an electric motor to a hydraulic pump. The electric motor is 90L IEC frame 4 pole motor. Power rating is 1.5 kW at 1440 rpm. Shaft size is 24mm with a 8mm key.

The pump is an SAE B pump with input shaft of 13T 16/32DP spline, nom. OD 7/8"

1. From page 40, use the formula to convert kW into torque. ie  $T = (1.5 \times 9549) / 1440 = 10 \text{ Nm}$ . The required element will therefore be a DG/8CB.
2. For the smallest shaft, being the 13T spline, use the hub part DG8HB03.
3. For the electric motor, shaft size 24mm, use the flange part DG8FL74.

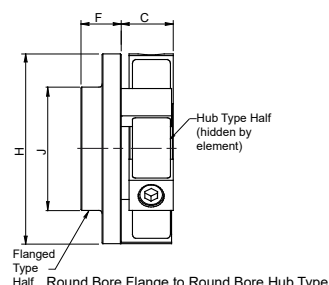
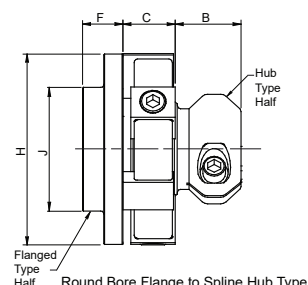
### CLAMPLOCK STYLE SPLINED HALF DIMENSIONS.

SERIES	A	B	C	D	E
DG8	52	44.6	33	120	69
DG25	62	39	46	170	79
DG50	71	43	58	200	94



### TAPERLOCK STYLE ROUND BORE DIMENSIONS.

SERIES	F	C	H	J
DG8	25.4	33	120	78
DG25	31.8	46	170	99
DG50	65.0	65	200	113



All dimensions in mm.



## ADAPTIVE RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

### DG8

Spline OD	No. of teeth	DP	Part Number Hub	Part Number Flange	Bore OD	Keyway	Part Number Hub TLB 1108	Part Number Flange TLB 1210 (max. bore #)
5/8"	9	16/32	DG8HB01	DG8FL01	7/8"	1/4"	DG8HB14	DG8FL14
7/8"	13	16/32	DG8HB03	DG8FL03	1"	1/4"	DG8HB15	DG8FL15
1"	15	16/32	DG8HB04	DG8FL04	1 1/4"	5/16"	-	DG8FL24
1 1/4"	14	12/24	DG8HB06	DG8FL06	24	8	DG8HB74	DG8FL74
					25	8	DG8HB26	DG8FL26
					30	8	-	DG8FL79
Rubber Element Part Number DG/8CB								

### DG25

Spline OD	No. of teeth	DP	Part Number Hub	Part Number Flange	Spline OD	No. of teeth	MOD	Part Number Hub	Part Number Flange
7/8"	13	16/32	DG25HB03	DG25FL03	30	14	2	DG25HB10	-
1"	15	16/32	DG25HB04	DG25FL04	35	16	2 MOD	DG25HB11	-
1"	6	6B Straight	DG25HB05	DG25FL05	36	8	STRAIGHT	DG25HB115	-
1 1/4"	14	12/24	DG25HB06	DG25FL06	40	18	2	-	DG25FL41
1 3/8"	6	6B Straight	DG25HB33	DG25FL33	45	21	2	-	DG25FL42
1 3/8"	21	16/32	DG25HB07	DG25FL07					
1 1/2"	14	10/20	-	DG25FL36					
1 1/2"	17	12/24	DG25HB32	-					
1 1/2"	23	16/32	DG25HB43	DG25FL43					
1 3/4"	13	8/16	DG25HB08	DG25FL08					
1 3/4"	27	16/32	-	DG25FL09					
Bore OD	Keyway		Part Number Hub TLB 1210 (max. bore #)	Part Number Flange TLB 1212 (max. bore #)	Bore OD	Keyway		Part Number Hub TLB 1210 (max. bore #)	Part Number Flange TLB 1212 (max. bore #)
1 1/4"	5/16"		DG25HB24	DG25FL24	32	10		DG25HB80	DG25FL80
1 1/2"	3/8"		DG25HB60	DG25FL60	35	10		DG25HB50	DG25FL50
					38	10		DG25HB51	DG25FL51
					42	12		-	DG25FL53
					48	14		-	DG25FL55
Rubber Element Part Number DG/25CB									

### DG50

Spline OD	No. of teeth	DP	Part Number		Spline OD	No. of teeth	MOD	Part Number	
			Hub	Flange				Hub	Flange
1 1/4"	14	12/24	-	DG50FL06	40	18	2	DG50HB41	DG50FL41
1 3/8"	21	16/32	-	DG50FL07	45	21	2	DG50HB42	DG50FL42
1 1/2"	14	10/20	DG50HB36	-	55	26	2	DG50HB47	DG50FL47
1 3/4"	13	8/16	DG50HB08	DG50FL08	60	28	2	DG50HB118	DG50FL118
1 3/4"	27	16/32	DG50HB09	DG50FL09					
2"	15	8/16	DG50HB37	DG50FL37					
2 1/4"	26	12/24	DG50HB48	DG50FL48					
2 1/4"	17	8/16	DG50HB96	DG50FL96					

Bore OD	Keyway	Part Number		Bore OD	Keyway	Part Number	
		Hub	Flange			Hub	Flange
		TLB 2012	TLB 3525			TLB 2012	TLB 3525
		(max. bore #)				(max. bore #)	
1 1/4"	5/16"	DG50HB24	-	32	10	DG50HB80	DG50FL80
1 1/2"	3/8"	DG50HB60	DG50FL60	38	10	DG50HB51	DG50FL51
1 3/4"	7/16"	DG50HB61	DG50FL61	42	12	DG50HB53	DG50FL53
2	1/2"	-	DG50FL62	48	14	DG50HB55	DG50FL55
2 1/4"	1/2"	-	DG50FL116	50	14	DG50HB56	DG50FL56

Rubber Element Part Number DG/50CB							
------------------------------------	--	--	--	--	--	--	--

# - Taperlock Bush Series - max. bore size (mm)

1108	25 (28)
1210	32
1615	40 (42)
2012	50
3525	95 (100)

# - Taperlock Bush Series - max. bore size (inches)

1108	1" (1 1/8")
1210	1 1/4"
1615	1 1/2" (1 5/8")
2012	2"
3525	3 1/2" (3 3/4" & 4")

Keyways are British Standard Metric BS 4235; Part 1; 1972 DIN 6885 and conform to ISO recommendations with the exception of those marked (**bold**) which are shallower.

Keyways marked (**bold**) are shallower than standard.

\* OTHER SIZES ARE AVAILABLE UPON REQUEST. HYTREL ELEMENT AVAILABLE UPON REQUEST. CONTACT OUR SALES OFFICE.

† FOR SHAFT SIZES SEE

[HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 43](#) &

[ELECTRIC MOTOR SIZES PAGE 44.](#)

[REFER PAGE 46 & 47](#)

FOR BORE CODE DESCRIPTIONS



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## UNIVERSAL JOINT DRIVE TRAIN COMPONENTS SPLINED YOKES AND COMPANION FLANGES



Contact with spinning driveshafts can result in serious injury. Safety guards should be fitted to protect personnel from contact with rotating shafts, or to contain the shaft in the event of failure.

### SPLINED CLAMPLOCK TYPE YOKES

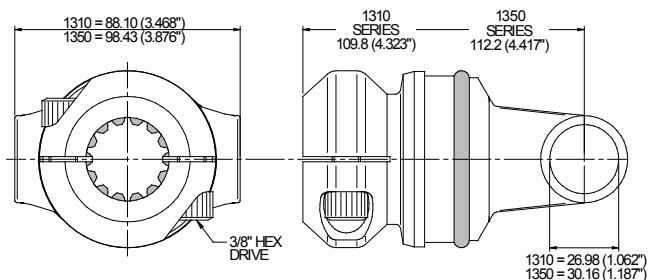
Specially developed for positive connection of driveline to splined hydraulic pump shafts.

WIDE APPLICATION RANGE. CLAMPLOCK yokes are available to fit SAE or metric hydraulic pumps or motor spline types found on mobile equipment.

PREVENTS FRETTING OR FLOGGING. The double bolt split clamp design locks solid on to splines giving long trouble free life.

HIGH STRENGTH FOR LONG LIFE. CLAMPLOCK yokes are manufactured from steel to a high degree of precision, accuracy and strength.

#### CLAMPLOCK YOKES

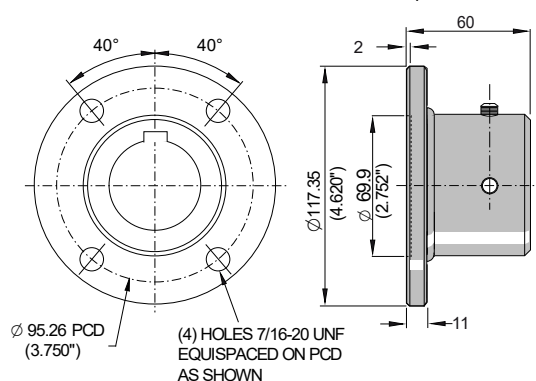


SERIES 1310 CLAMPLOCK YOKES			
Spline OD	No. of teeth	DP/MOD	Part No.
7/8"	13	16/32	84/02/13103
1"	15	16/32	84/02/13104
1"	6	6B STRAIGHT	84/02/13105
30mm	14	2	84/02/13110
1 1/4"	14	12/24	84/02/13106
32 X 36	8	STRAIGHT	84/02/131115
1 3/8"	21	16/32	84/02/13107
35mm	16	2	84/02/13111
1 1/2"	17	12/24	84/02/13132
1 1/2"	23	16/32	84/02/13143

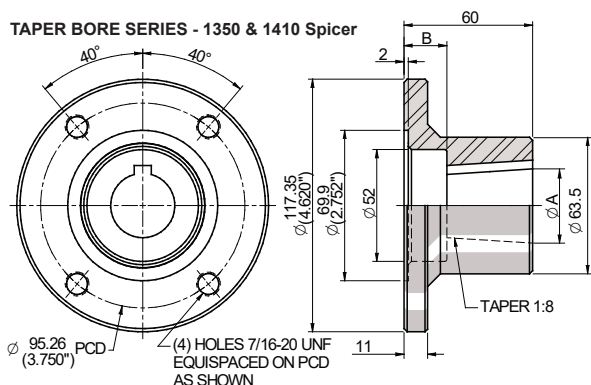
SERIES 1350 CLAMPLOCK YOKES			
Spline OD	No. of teeth	DP/MOD	Part No.
1 1/4"	14	12/24	84/02/13506
1 3/8"	6	6B Straight	84/02/13533
1 3/8"	21	16/32	84/02/13507
35mm	16	2	84/02/13511
1 1/2"	17	12/24	84/02/13532
1 1/2"	23	16/32	84/02/13543
1 3/4"	13	8/16	84/02/13508

### ROUND AND TAPER BORE KEYED SHAFT COMPANION FLANGES

#### ROUND BORE SERIES - 1350 & 1410 Spicer



#### TAPER BORE SERIES - 1350 & 1410 Spicer



All steel construction featuring keyway and 2 set screws for round bore types. Types shown are standard stock lines for 1310, 1350 and 1410 drivelines. Four hole companion flange fits Spicer type flange yokes (refer to matching yoke table on next page). We can produce special sizes to order if quantities are sufficient for production requirements.

Bore	Keyway	Hub OD	Part No.
0.5" pilot	-	63.5	84/F390067
1.000"	0.250"	63.5	84/F390015
1.250"	0.312"	63.5	84/F390024
1.500"	0.375"	63.5	84/F390060
1.750"	0.437"	69.5	84/F390061

"A" Bore	Keyway	B	Part No.
1.250"	0.312"	22	84/F390180
1.375"	0.312"	20	84/F390187
1.500"	0.375"	10	84/F390140

To Suit Spicer flanges 1260- 2-2-479, 1310- 2-2-479, 1350- 3-2-119 and 1410- 3-2-159.





## UNIVERSAL JOINT DRIVE TRAIN COMPONENTS SPLINED YOKES AND COMPANION FLANGES

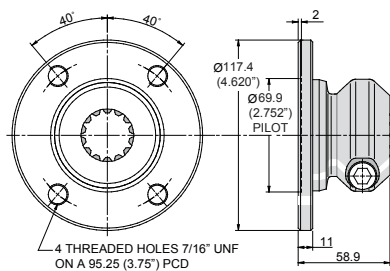
### SPLINED CLAMPLOCK TYPE UNIVERSAL JOINT COMPANION FLANGES



Four hole companion flanges fit Spicer type flange yokes (refer to matching yoke table at bottom of page).

Positive locking and positioning of drivelines to splined shafts on hydraulic pumps for 1350, 1410, 1480 and 1550 driveline PTO drives on mobile equipment such as Concrete Transit Mixers, Cranes, Harvesters, Dump Trucks, Tractors etc.

May be manufactured to fit other flange yokes if required. Available to suit most common hydraulic pumps. Also available with agricultural splines.



#### CLC & CLD SERIES - 1350 & 1410 Spicer\*

Nom Spline OD	No Of Teeth	DP/ MOD	Part No.
7/8"	13	16/32	84/F3CLB03
1"	15	16/32	84/F3CLB04
1"	6	6B Straight	84/F3CLC05
1 1/4"	14	12/24	84/F3CLC06
1 3/8"	21	16/32	84/F3CLC07
1 3/8"	6	6B Straight	84/F3CLC33
32x36	8	8T Straight	84/F3CLC115
1 1/2"	17	12/24	84/F3CLC32
1 1/2"	23	16/32	84/F3CLC43
1 1/2"	14	10/20	84/F3CLD36
1 3/4"	13	8/16	84/F3CLD08
1 3/4"	20	12/24	84/F3CLD113
1 3/4"	27	16/32	84/F3CLD09
40 mm	18	2	84/F3CLD41
45 mm	21	2	84/F3CLD42

\*To Suit Spicer flanges

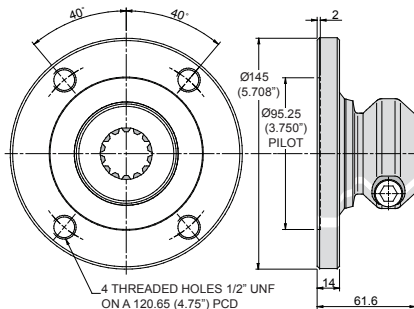
1260 - 2.2.479, 1310 - 2.2.479, 1350 - 3.2.119 and 1410 - 3.2.159.

#### CLC & CLD SERIES - 1410, 1480 & 1550 Spicer\*

Nom Spline OD	No Of Teeth	DP/ MOD	Part No.
1 1/4"	14	12/24	84/F5CLC06
1 3/8"	21	16/32	84/F5CLC07
1 1/2"	14	10/20	84/F5CLD36
1 1/2"	17	12/24	84/F5CLC32
1 3/4"	13	8/16	84/F5CLD08
1 3/4"	20	12/24	84/F5CLD113
1 3/4"	27	16/32	84/F5CLD09
40 mm	18	2	84/F5CLD41
45 mm	21	2	84/F5CLD42

\*To Suit Spicer flanges 1410- 3.2.429, 1480 - 3.2.479 and 1550 - 4.2.669.

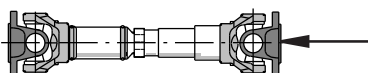
SPLINED YOKES &  
COMPANION FLANGES



FOR BORE CODE DESCRIPTIONS

[REFER PAGE 46 & 47](#)

### MATCHING YOKES



Spicer Series	Spicer Flange Yoke Number	Clamplock Companion Flange Series
1260	2-2-479	84/F3 .....
1310	2-2-479	84/F3 .....
1350	3-2-119	84/F3 .....
1410	3-2-159	84/F3 .....
1410	3-2-429	84/F5 .....
1480	3-2-479	84/F5 .....
1550	4-2-669	84/F5 .....

Matching yokes listed here are included as a guide only. These are not in our product range. To purchase the matching yokes contact your driveline supplier.

Flanged adaptors to suit other Spicer sizes may be available. Contact our sales office.



## HYDRAULIC PUMP DRIVE KITS FOR DIESEL ENGINES

### FLEXILOCK DRIVE KIT

FLEXILOCK has torsional vibration control and spline locking security.

#### LARGEST RANGE AVAILABLE IN THE WORLD TODAY.

With over 300 combinations we offer by far the largest standard range of direct hydraulic pump drive kits for diesel engines in the world today. The application versatility of our system is unique, covering SAE & DIN configurations.

#### A COMPLETE ENGINEERED PRODUCT.

Using a FLEXILOCK kit permits the customer to make a reliable pre-engineered connection between the engine and hydraulic pump without the necessity of designing a special adaptation.

#### WIDE POWER RANGE, UP TO 300 HP.

63 Series with capacity to 47 HP (35 kW) at 2500 RPM.  
101 Series with capacity to 142 HP (106 kW) at 2500 RPM.  
127 Series with capacity to 209 HP (156 kW) at 2200 RPM.  
195 Series with capacity to 300 HP (223 kW) at 2200 RPM.

#### WIDE RANGE OF ENGINE HOUSING ADAPTORS.

We have been manufacturing engine housing adaptors since 1977 and can provide a wide range of high quality adaptors from stock. Housing adaptors have UNC tapped holes for pump mounting.

#### LONG TROUBLE FREE LIFE.

Our special polymer flywheel driveplate elements are formulated for optimum elasticity at engine operating temperature and will continue to absorb engine torsional vibration over a very long life cycle. Unlike rubber drive connections, our elements do not harden and fret with continued engine heat exposure, but remain effective over long periods.

#### STEEL DRIVEPLATE.

Outer driveplate is steel with special polymer element riveted or bolted in place. The use of a steel drive plate eliminates dimensional instability often experienced with the full plastic style drives.

#### SUPERIOR SPLINE LOCKING SECURITY.

The CL and SL type CLAMPLOCK spline locking mechanisms in our all steel coupling hubs provide the highest level of spline locking security currently available from any source. Pump spline shaft wear or fretting is eliminated by simply tightening the screws provided. Material is high carbon steel not sintered metal as used by some competitors.

TABLE 1

ENGINE ADAPTOR INTERFACING AND PUMP COMPATIBILITY CHART  
Series By Performance.

63 Series Code 90			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
Torque - 135 Nm	34hp (25kW)	@1800 RPM	SAE 5 x 6 1/2"	C	A,B	0.24"(6mm)
Torque - 100 ft.lbs.	38hp (28kW)	@2000RPM	SAE 5 x 7 1/2"	E	A,B	0.24"(6mm)
M=2.5" (63mm)	41hp (30kW)	@2200RPM	SAE 5 x 8"	G	A,B	0.24"(6mm)
N=1.46" (37mm)	47hp (35kW)	@2500RPM	SAE 4 x 6 1/2"	A	A,B	0.31"(8mm)
			SAE 4 x 7 1/2"	H	A,B	0.31"(8mm)
			SAE 4 x 8"	J	A,B	0.31"(8mm)
101 Series Code 91			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
Torque - 406 Nm	102hp (76kW)	@1800RPM	SAE 5 x 6 1/2"	D	B,C	1.57"(40mm*)
Torque - 300 ft.lbs.	114hp (85kW)	@2000RPM	SAE 5 x 7 1/2"	F	B,C	1.57"(40mm*)
M=4" (101.5)	125hp (93kW)	@2200RPM	SAE 5 x 8"	G	B,C	0.24"(6mm)
N=2.54" (64.5mm)	142hp (106kW)	@2500RPM	SAE 5 x 8"	R#	B,C	0.24"(6mm)
			SAE 4 x 7 1/2"	Z	B,C	1.57"(40mm*)
			SAE 4 x 8"	J	B,C	0.31"(8mm)
			SAE 4 x 10"	K	B,C	0.31"(8mm)
			SAE 3 x 10"	M	B,C	0.31"(8mm)
			SAE 3 x 11 1/2"	P	B,C	0.31"(8mm)
			SAE 2 x 11 1/2"	S	C,D	0.43"(12mm)
127 Series Code 92			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
Torque - 678 Nm	152hp (113kW)	@1600RPM	SAE 4 x 10"	K	B,C	0.31"(8mm)
Torque - 500 ft.lbs.	170hp (127kW)	@1800RPM	SAE 3 x 10"	M	B,C	0.31"(8mm)
M=5" (126.7mm)	190hp (142kW)	@2000RPM	SAE 3 x 11 1/2"	P	B,C	0.31"(8mm)
N=2.54" (64.5mm)	209hp (156kW)	@2200RPM	SAE 2 x 11 1/2"	S	C,D	0.43"(12mm)
			SAE 1 x 11 1/2"	B	C,D,E	0.43"(12mm)
			SAE 1 x 14"	W	D,E,F	2"(51mm)
195 Series Code 95			Engine Interfacing	EAI Codes	Pump Size	Stand Off Distance "T"
Torque - 969 Nm	217hp (162kW)	@1600RPM	SAE 3 x 11 1/2"	P	C,D	0.31"(8mm)
Torque - 715 ft.lbs.	245hp (183kW)	@1800RPM	SAE 2 x 11 1/2"	S	C,D	0.43"(12mm)
M=7.66" (194.5mm)	272hp (202kW)	@2000RPM	SAE 1 x 11 1/2"	B	C,D,E	0.43"(12mm)
N=2.54" (64.5mm)	300hp (223kW)	@2200RPM	SAE 1 x 14"	W	D,E,F	2"(51mm)

TABLE 2

PUMP SIZES & FLANGE INTERFACING

Size	"P"	Pump Code
SAE A 2	3.25"	01
SAE B 2/4	4.00"	02
SAE C 2/4	5.00"	03
SAE D 4	6.00"	04
SAE E 4	6.50"	05
SAE F 4	7.00"	06
DIN Gp2	36.5mm	07
DIN Gp3	50.8mm	08
M100 4	100mm	09
M125 2/4	125mm	10
M140 4	140mm	11
M160 2/4	160mm	12
M180 4	180mm	13
M200 4	200mm	14
M224 4	224mm	15

$$P(\text{HP}) = \frac{T(\text{ft.lbs}) \times \text{RPM}}{5252}$$

$$P(\text{kW}) = \frac{T(\text{Nm}) \times \text{RPM}}{9549}$$

$$\text{lbf ft} = \text{Nm} \times 0.7376$$

$$\text{Nm} = \text{lbf ft} \times 1.356$$

\* Spacer used on this model - see drawing next page.

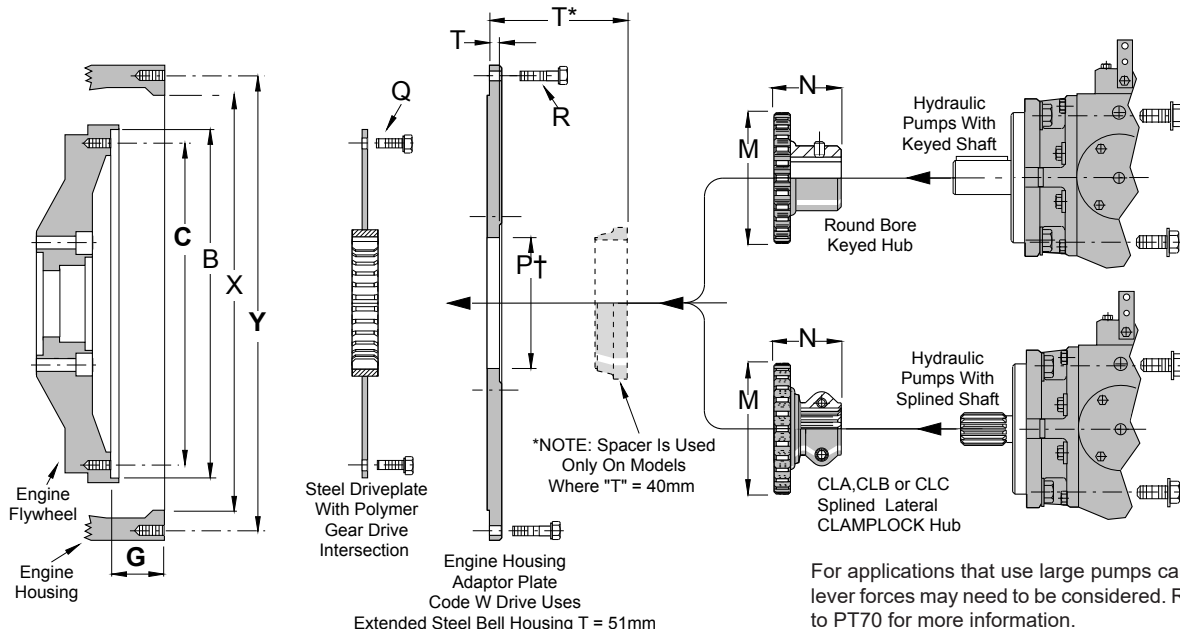
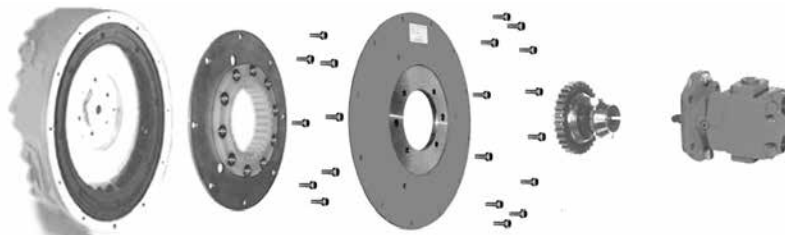
# EAI Code 'R' used on Hatz Diesel engines where the "G" dimension is 23mm. Refer to PT112 for full details.

For Diesel engine flywheel and engine housing industry standards refer to inside back cover.

Series 195- Number of teeth on element equals 44 teeth.



## HYDRAULIC PUMP DRIVE KITS FOR DIESEL ENGINES



DRIVE KITS FOR DIESEL  
ENGINES

FOR OTHER DIMENSIONS SEE [DIESEL ENGINE STANDARDS PAGE 49](#) & [HYDRAULIC PUMP STANDARDS PAGE 43](#) TO CONFIRM YOUR APPLICATION SIZING.

TABLE 3

### SPLINED PUMP SHAFT OPTIONS

Nominal Spline OD	No Of Teeth	DP/ MOD	Shaft Code
5/8"	9	16/32	01
3/4"	11	16/32	02
7/8"	13	16/32	03
1"	15	16/32	04
25mm	18	1.25	20
30mm	14	2	10
1 1/4"	14	12/24	06
1 3/8"	21	16/32	07
35mm	16	2	11
1 1/2"	17	12/24	32
1 1/2"	23	16/32	43
40mm	18	2	41
1 3/4"	13	8/16	08
1 3/4"	27	16/32	09
45mm	21	2	42
50mm	24	2	45
2"	15	8/16	37

### ROUND BORE KEYED PUMP SHAFT OPTIONS

Bore	Keyway	Code	Bore	Keyway	Code
5/8"	5/32"	12	1 1/2"	3/8"	60
3/4"	3/16"	13	40mm	12mm	52
7/8"	3/16"	14	1 3/4"	7/16"	61
1"	1/4"	15	45mm	14mm	54
1 1/4"	5/16"	24	50mm	14mm	56
35mm	10mm	50	55mm	16mm	57

\* Also has 0.250" Keyway. Other sizes available contact sales.

### DIN 1 IN 8 TAPER

14.7mm	DIN 2	16	19mm	DIN 3	17
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### FLYWHEEL IDENTIFICATION - SAEJ620D

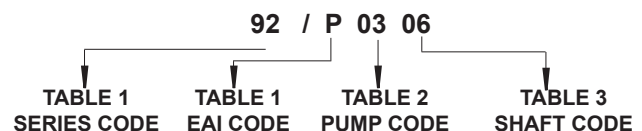
FW No	"C"	"B"	"G"	Bolts	"Q"
6 1/2	7.875" (200.02)	8.500" (215.90)	1.187" (30.2)	6	5/16"
7 1/2	8.750" (222.25)	9.500" (241.30)	1.187" (30.2)	8	5/16"
8	9.625" (244.48)	10.375" (263.52)	2.441" (62.0)	6	3/8"
10	11.625" (295.28)	12.375" (314.32)	2.118" (53.8)	8	3/8"
11 1/2	13.125" (333.38)	13.875" (352.42)	1.559" (39.6)	8	3/8"
14	17.250" (438.15)	18.375" (466.72)	1.000" (25.4)	8	1/2"
16	19.250" (488.95)	20.375" (517.52)	0.62" (15.7)	8	1/2"
18	21.375" (542.92)	22.500" (571.5)	0.62" (15.7)	6	5/8"

### ENGINE HOUSING IDENTIFICATION - SAE J607C

Hsg No	"X" (mm)	"Y" (mm)	Bolts	"R"
SAE 6	10.500" (266.70)	11.250" (285.75)	8	3/8"
SAE 5	12.375" (314.32)	13.125" (333.38)	8	3/8"
SAE 4	14.250" (361.95)	15.000" (381.00)	12	3/8"
SAE 3	16.125" (409.58)	16.875" (428.62)	12	3/8"
SAE 2	17.625" (447.68)	18.375" (466.72)	12	3/8"
SAE 1	20.125" (511.18)	20.875" (530.22)	12	7/16"
SAE 1/2	23.000" (584.20)	24.375" (619.12)	12	1/2"-13
SAE 0	25.500" (647.70)	26.750" (679.45)	16	1/2"-13

### ORDERING CODE (Complete Kit)

Bolt kits are supplied with UNC threads unless otherwise advised when ordered.



**Example:** 92/P0306 would be a 127 Series with Adaptor Plate to suit an SAE 3 Engine Housing and Driveplate to suit an 11 1/2" Flywheel. Adaptor Plate has a SAE C Pump mount and hub takes a 14 tooth Ø1.25" 12/24 DP shaft.

• NOTE :- NOT ALL SIZES AND COMBINATIONS ARE AVAILABLE OR POSSIBLE.



## REPLACEMENT FLYWHEEL DRIVE PLATES FOR STANDARD SAE DIESEL ENGINES

### A COMPLETE ENGINEERED PRODUCT.

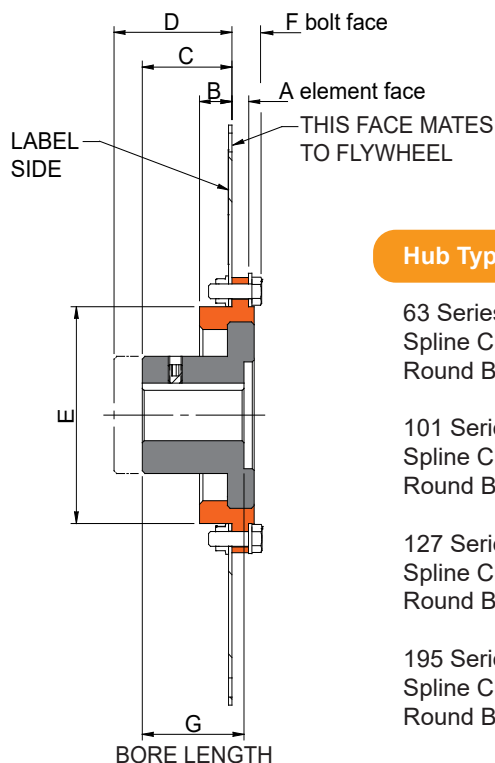
Using a FLEXILOCK flywheel drive plate permits the customer to make a reliable pre-engineered connection between the engine and hydraulic pump. These drive plates, with our Flexilock hubs can be used as a drop in replacement or for a new installation where the customer has an engine housing pump adaptor plate.

### LONG TROUBLE FREE LIFE.

Our special polymer flywheel driveplate elements are formulated for optimum elasticity at engine operating temperature and will continue to absorb engine torsional vibration over a very long life cycle. Unlike rubber drive connections, our elements do not harden and fret with continued engine heat exposure, but remain effective over long periods.

### STEEL DRIVEPLATE.

Outer driveplate is steel with special polymer element riveted or bolted in place. The use of a steel drive plate eliminates dimensional instability often experienced with the full plastic style drives.



#### Hub Type Dim G

63 Series	
Spline Clamplock	21.3
Round Bore	20
101 Series	
Spline Clamplock	45.2
Round Bore	58.5
127 Series	
Spline Clamplock	45.2
Round Bore	58.5
195 Series	
Spline Clamplock	45.2
Round Bore	58.5



**63 Series**  
No. of Teeth 29



**101 Series**  
No. of Teeth 30



**127 Series**  
No. of Teeth 28



**195 Series**  
No. of Teeth 44

#### 63 Series - Torque Continuous 135 Nm, 100 ft lbs

Engine FW	A	B	C	D	E	F	OEM P/No.
6 1/2	9.6	11.6	24.6	-	100	12.4	<b>90/05C00</b>
6 1/2	0	46	37	60	76.2	1.8	90/05D00
7 1/2	9.6	11.6	24.6	-	100	12.4	<b>90/01E00</b>
7 1/2	0	46	37	60	76.2	1.8	90/01F00
8	0	46	37	60	76.2	1.8	<b>90/06GJ0</b>
10	0	46	37	60	76.2	1.8	90/02KM0

#### 101 Series - Torque Continuous 406 Nm, 300 ft lb

Engine FW	A	B	C	D	E	F	OEM P/No.
6 1/2	1.2	30.3	63.3	79.5	117.5	5.5	91/05A00
6 1/2	10.7	14.7	53.8	63.9	149.2	11.5	<b>91/05Y00</b>
7 1/2	1.2	30.3	63.3	79.5	117.5	5.5	91/01A00
7 1/2	10.7	14.7	53.8	63.9	149.2	11.5	<b>91/01FZ0</b>
8	1.2	30.3	63.3	79.5	117.5	5.5	91/06A00
8	22.2	3.2	42.3	52.4	117.5	17	91/06B00
8	10.7	14.7	53.8	63.9	149.2	11.5	<b>91/06GJ0</b>
10	12.7	18.8	51.8	68.0	117.5	17	<b>91/02KM0</b>
10	1.2	30.3	63.3	79.5	117.5	5.5	91/02LN0
11 1/2	28.3	3.2	36.2	52.4	117.5	23	<b>91/03PS0</b>
11 1/2	12.7	18.8	51.8	68.0	117.5	17	91/03Q00

#### 127 Series - Torque Continuous 678 Nm, 500 ft lbs

Engine FW	A	B	C	D	E	F	OEM P/No.
7 1/2	1.2	30.2	63.3	79.4	142.6	5.5	92/01A00
8	1.2	24.2	63.3	73.4	142.6	5.5	92/06A00
8	10.7	14.7	53.8	63.9	175.0	11.5	92/06GJ0
10	12.7	12.7	51.8	61.9	142.6	17	<b>92/02KM0</b>
10	1.2	24.2	63.3	73.4	142.6	5.5	92/02LN0
11 1/2	28.3	3.2	36.2	52.4	142.6	23	<b>92/03PS0</b>
11 1/2	10.7	14.7	53.8	63.9	175.0	11.5	92/03Q00
14	10.7	14.7	53.8	63.9	175.0	11.5	92/04W00
14	1.2	24.2	63.3	73.4	142.6	5.5	92/04X00

#### 195 Series - Torque Continuous 969 Nm, 715 ft lbs

Engine FW	A	B	C	D	E	F	OEM P/No.
11 1/2	1.1	24.3	63.4	73.5	217.5	5.5	95/03A00
11 1/2	28.3	30.3	63.4	79.7	217.5	23	<b>95/03B00</b>
11 1/2	22.3	24.3	63.4	73.5	217.5	17	95/03B00S
14	12.7	14.7	53.8	63.9	217.5	11.5	95/04A00
14	10.7	14.7	53.8	63.9	217.5	17	95/04B00
14	1.1	3.1	36.2	52.4	217.5	5.5	95/04X00





## LIVE P.T.O. DRIVE KITS WITH FLEXILOCK ELEMENT FOR DIESEL ENGINES

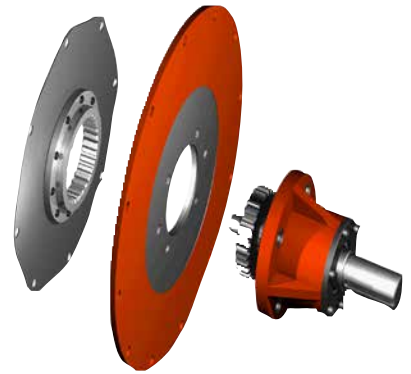
### APPLICATIONS

Pulley drives, Chain drives, other applications where a male output shaft from a diesel engine is required that does not add any side load on the engine crankshaft.

### FEATURES

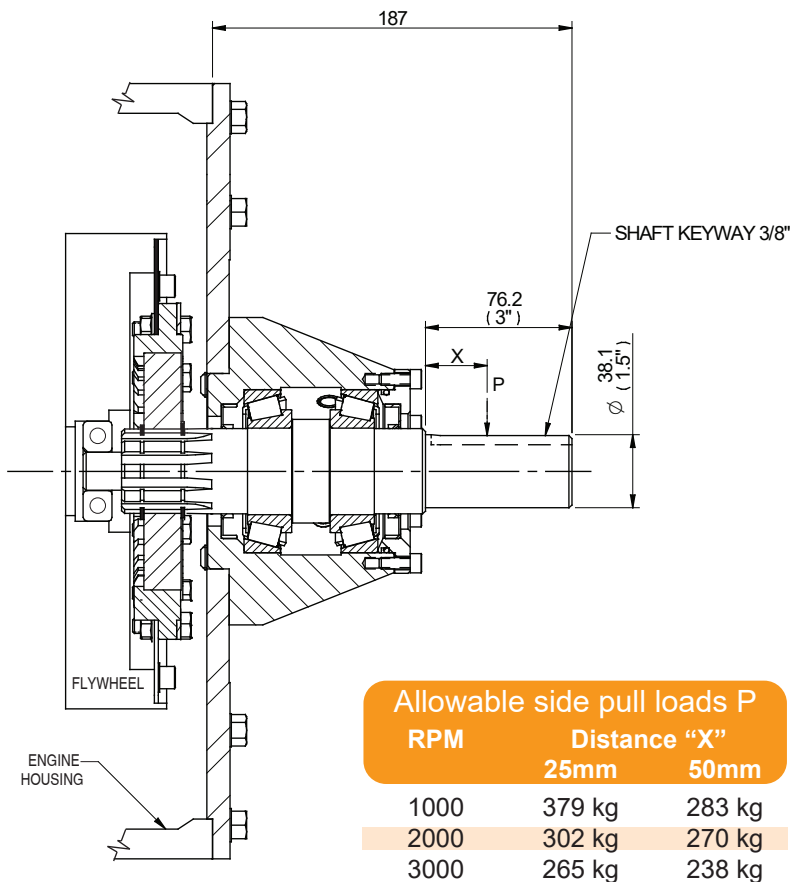
Taper roller bearings for high capacity and long life, spheroidal graphite cast iron housing. Flexilock drive for installation ease, reduces torsional vibration transmission and improves misalignment capacity. Protects engine bearings and crank from side load failures. Units are shipped dry. For oil type and filling instructions, refer to Form PT110.

Kit includes : - Flexilock flywheel driveplate, Flexilock engine housing adaptor plate, bearing supported stub shaft.



### LPTO ORDERING INFORMATION - COMMON TYPES

**Warning** - Do not use on water pumps with time clock shutdown, engine must be idled down before switching off, due to the possibility of water pressure inertia which may cause the coupling to fail.



#### Allowable side pull loads P

RPM	Distance "X"	
	25mm	50mm
1000	379 kg	283 kg
2000	302 kg	270 kg
3000	265 kg	238 kg

#### Overhung load calculation (lbs)

$$\text{OHL (lbs)} = \frac{126000 \times \text{HP}}{\text{RPM} \times d} \times K$$

where

OHL(lbs) = load in pounds due to belt pull.

HP = diesel engine power in horse power.

RPM = speed.

d = pulley pitch diameter in inches.

#### Overhung load calculation (N)

$$\text{OHL (N)} = \frac{19100 \times \text{kW}}{\text{RPM} \times d} \times K$$

where

OHL(N) = load in Newtons due to belt pull.

kW = diesel engine power in kilowatts.

RPM = speed.

d = pulley pitch diameter in metres.

K = factor

1.0 for single chain drive.

1.1 for timing belt drive.

1.25 for double chain drive.

1.5 for V-belts.

2.5 for flat belts.

$$\text{OHL (lbs)} \times 0.4536 = \text{OHL(kg)}.$$

$$\text{OHL (N)} \times 0.102 = \text{OHL(kg)}.$$

Flexilock Series	Engine Housing	Engine Flywheel	Power.* Rating	Speed RPM	LPTO Part Number	Pilot Bearing Customer Supply
127	SAE 3	11 1/2	52 kW	2600	92/P03L603	6306-2RS
127	SAE 4	10	52 kW	2800	92/K03L603	6306-2RS
127	SAE 4	8	52 kW	2800	92/J03L603	6305-2RS
127	SAE 4	7 1/2	52 kW	2800	92/H03L603	6304-2RS
127	SAE 5	7 1/2	52 kW	3000	92/E03L603	6304-2RS
127	SAE 5	6 1/2	52 kW	3000	92/D03L603	6304-2RS

\* Do not exceed allowable side pull load

\* Do not exceed allowable drive plate element connection capacity of 678Nm

\* The load on the 1 1/2" shaft connection must be considered. We recommend using a taper lock bush of appropriate torque capacity that exceeds the application conditions.

Above are standard combinations. Other combinations available. Consult our sales office.



## LIVE P.T.O. DRIVE KITS WITH DG COUPLING ELEMENT FOR DIESEL ENGINES.

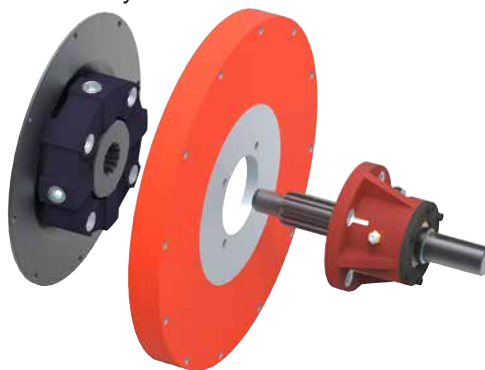
### APPLICATIONS

Pulley drives, Chain drives, other applications where a male output shaft from a diesel engine is required that does not add any side load on the engine crankshaft. DG coupling LPTO's are torsionally flexible and thus can be used in applications with some shock loading such as with water pumps and where torsional engine vibration is an issue.

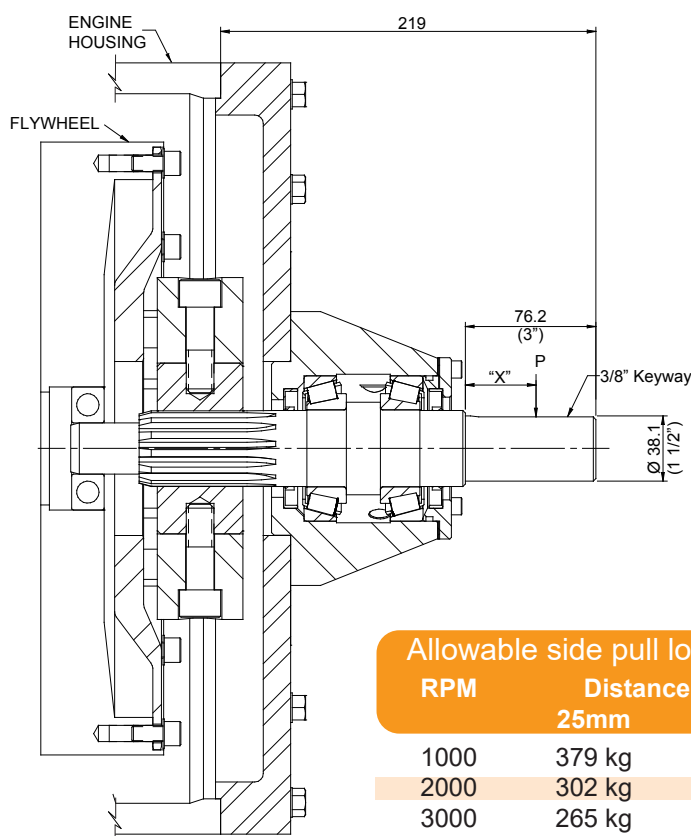
### FEATURES

Taper roller bearings for high capacity and long life, spheroidal graphite cast iron housing. DG coupling element drive for installation ease, reduces torsional vibration transmission and improves misalignment capacity. Protects engine bearings and crank from side load failures. Units are shipped dry. For oil type and filling instructions, refer to Form PT149

Kit includes : - Flywheel driveplate, Rubber element, Steel hub, Engine housing adaptor plate, bearing supported stub shaft.



### LPTO ORDERING INFORMATION - COMMON TYPES



#### Allowable side pull loads P

RPM	Distance "X"	
	25mm	50mm
1000	379 kg	283 kg
2000	302 kg	270 kg
3000	265 kg	238 kg

#### Overhung load calculation (lbs)

$$\text{OHL (lbs)} = \frac{126000 \times \text{HP}}{\text{RPM} \times d} \times K$$

where

OHL(lbs) = load in pounds due to belt pull.

HP = diesel engine power in horse power.

RPM = speed.

d = pulley pitch diameter in inches.

#### Overhung load calculation (N)

$$\text{OHL (N)} = \frac{19100 \times \text{kW}}{\text{RPM} \times d} \times K$$

where

OHL(N) = load in Newtons due to belt pull.

kW = diesel engine power in kilowatts.

RPM = speed.

d = pulley pitch diameter in metres.

K = factor

1.0 for single chain drive.

1.1 for timing belt drive.

1.25 for double chain drive.

1.5 for V-belts.

2.5 for flat belts.

OHL (lbs) x 0.4536 = OHL(kg).

OHL (N) x 0.102 = OHL(kg).

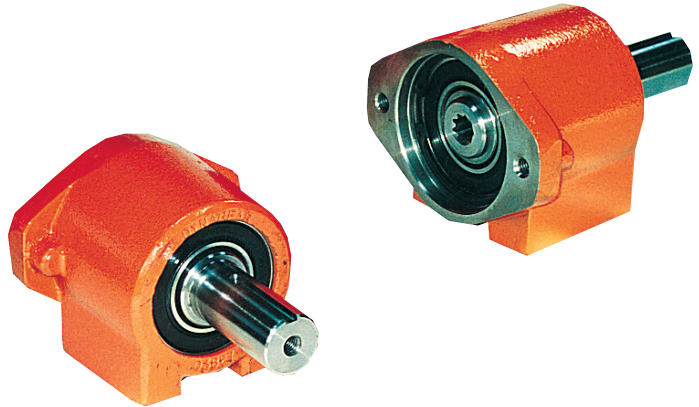
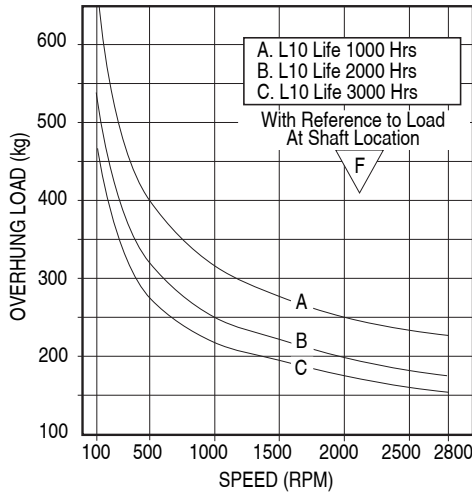
Flexilock Series	Engine Housing	Engine Flywheel	Power.* Rating	Speed RPM	LPTO Part Number	Pilot Bearing Customer Supply
DG50	SAE 3	11 1/2	52 kW	2600	<b>DG/P03L603</b>	6306-2RS
DG50	SAE 4	10	52 kW	2800	<b>DG/K03L603</b>	6306-2RS
DG16	SAE 4	7 1/2	52 kW	2800	<b>DG/H03L603</b>	6304-2RS
DG16	SAE 5	7 1/2	52 kW	2800	<b>DG/E03L603</b>	6304-2RS
DG16	SAE 5	6 1/2	52 kW	3000	<b>DG/D03L603</b>	6304-2RS

\* Do not exceed allowable side pull load

\* Do not exceed allowable spline shaft connection capacity of 450Nm

\* The load on the 1 1/2" shaft connection must be considered. We recommend using a taper lock bush of appropriate torque capacity that exceeds the application conditions.

## LDA OVERHUNG LOAD CAPACITY



## MODEL LDA

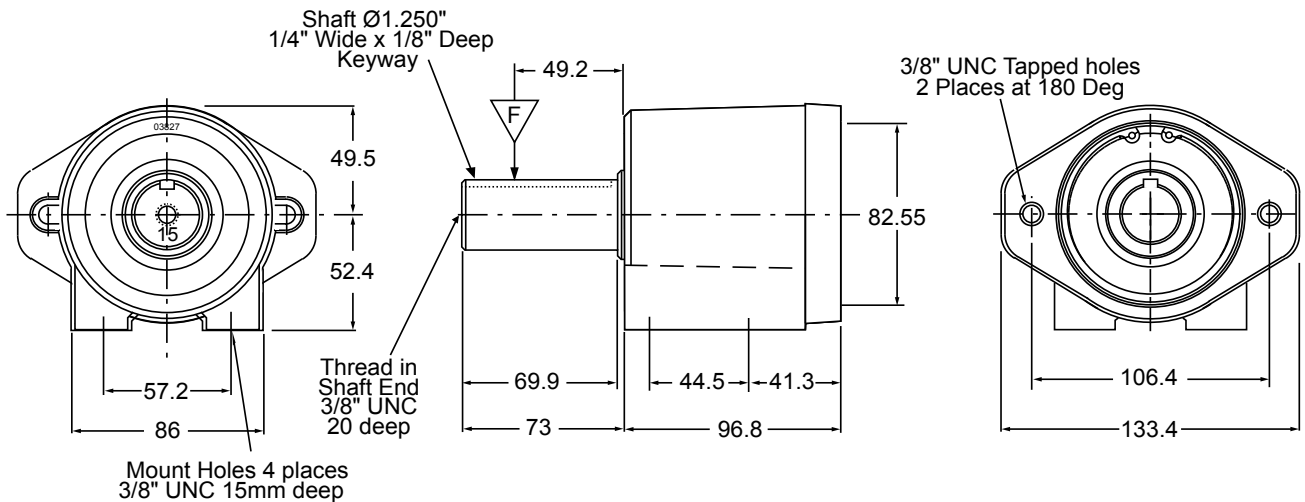
This is a low cost model with a fixed SAE "A" motor adaptor and 6 shaft size options. Bearings are sealed Ball Bearing type greased for life. OHLA can be mounted in any plane.

Shaft options include most of those required for high speed hydraulic motors. Also included is the 1" shaft option for Charlyn, Ross TRW and Danfoss Orbit motors and 25 mm shaft to suit the SAMHYDRAULIK BG orbit motor.

## MODEL LDA DIMENSIONS

### MODEL LDA

Weight Unpacked 4.3 kgs.

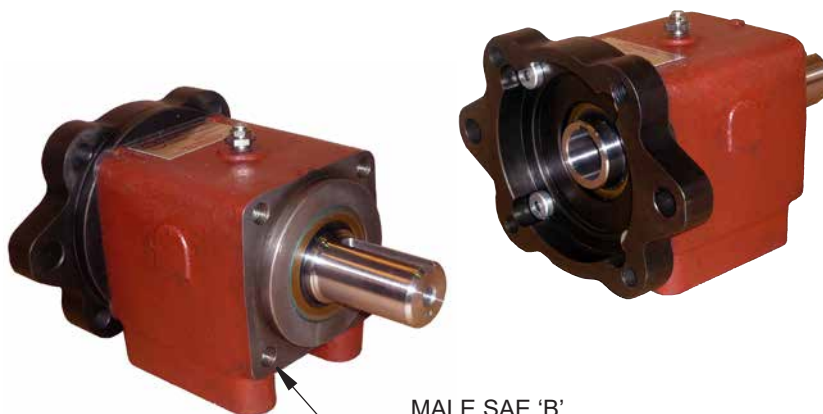
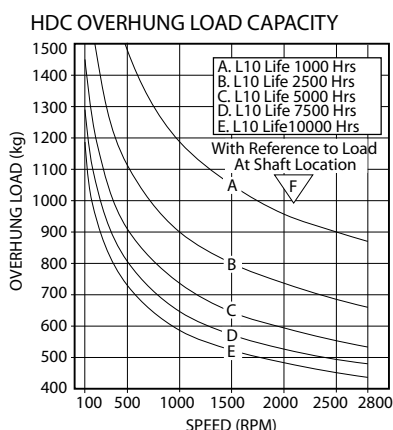


### LDA Ordering information

Part Number	Hyd Motor Shaft Type
64/125101	Spline 9T 5/8" OD 16/32 DP
64/125102	Spline 11T 3/4" OD 16/32 DP
64/125112	Round 0.625" OD 0.156" Keyway
64/125113	Round 0.750" OD 0.187" Keyway
64/125114	Round 0.875" OD 0.250" Keyway
64/125115	Round 1.000" OD 0.25" Keyway
64/125126	Round 25mm OD 8mm Keyway



## OVERHUNG LOAD ADAPTORS FOR HYDRAULIC MOTORS



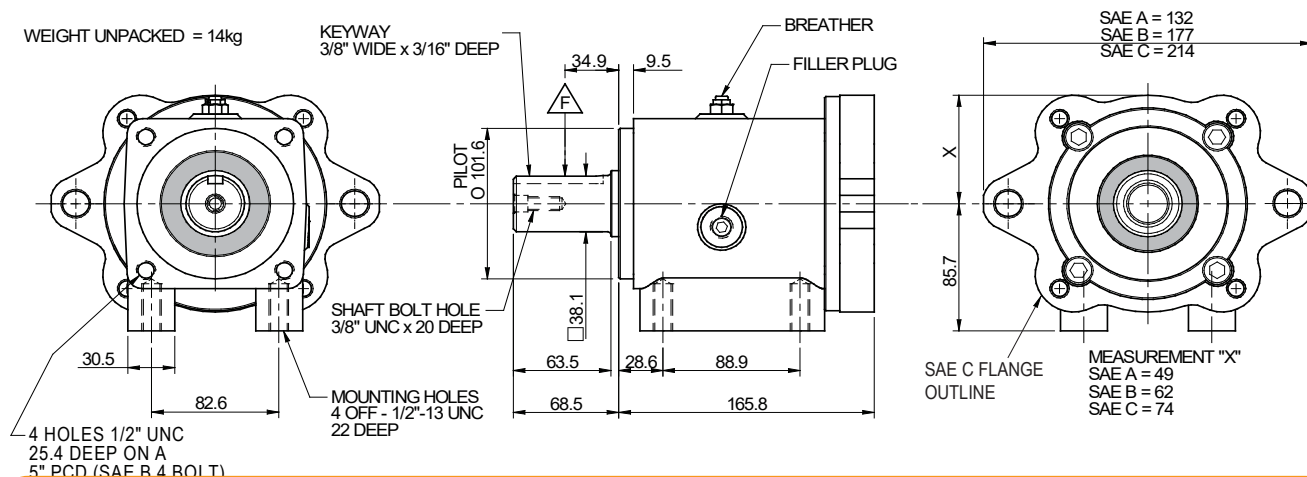
### MODEL HDC

This model has removable SAE hydraulic motor adaptors and may be supplied with SAE "A", SAE "B" or SAE "C" motor interfacing and 10 shaft size options accommodating almost any SAE Hyd motor up to SAE "C". The HDC model may also be face mounted via a set of front mount holes and pilot. DIN 2 & 3 adaptors can be made to order, please consult with our Sales Office.

Bearings can be either Taper Roller or Cylindrical Roller types depending on the application. For applications with high axial load such as fan drives or mixer units, then Taper Roller bearings are recommended. For applications with little or no axial load such as chain or pulley drives, then Cylindrical Roller bearings can be used. The advantage of Cylindrical Roller bearings is that servicing and replacement is easier as no preloading of the new bearings is required, making field servicing of the unit more economical. External dimensions for both bearing model types are the same.

Units are shipped dry. For oil type and filling instructions, refer to Form PT09  
Grease filling is required for vertical mount applications, consult with our Sales Office.

### MODEL HDC DIMENSIONS



### HDC OHLA Ordering Information

#### BearingType

Taper Roller  
Cylindrical Roller

#### Input Shaft Type

Male Shaft 1 1/2" x 3/8" Key

#### Output Flange

SAE A 2 Bolt  
SAE B 2/4 Bolt  
SAE C 2/4 Bolt

Blank

R

15

1

2

3

93

/

#### Output Shaft Type

01	5/8"	9T	16/32 DP	Spline
02	3/4"	11T	16/32 DP	Spline
03	7/8"	13T	16/32 DP	Spline
04A	1"	15T	16/32 DP	Spline
06	1 1/4"	14T	12/24 DP	Spline
12	5/8"	5/32"	Keyway	Round
13	3/4"	1/8"	Keyway	Round
14	7/8"	1/4"	Keyway	Round
15	1"	1/4"	Keyway	Round
24	1 1/4"	5/16"	Keyway	Round

Other options may be available. Contact our Sales Office.

For bore code descriptions [REFER PAGE 46 & 47](#)





Direct front crankshaft drive of hydraulic pumps from engine on cranes, transit mixers, special vehicles, fishing boats etc where pump requires disengaging when not in use. Use anticlockwise version for above applications. Drives for hydraulic pumps from rear of engine or from flywheel PTO when engine has separate power delivery requirement where hydraulic pump needs disengaging when not in use. Use clockwise version for direct drive off rear of engine.

The unit may be supplied to suit SAE 'A', SAE 'B' or SAE 'C' hydraulic pumps or motors or as a shaft to shaft version. The standard manual version shown, features automatic spring loaded engagement on start-up and positive gate control in either the engaged or disengaged positions. The unit may be easily adapted for electric solenoid or cable control. The clutch casing is cast iron, bearings are deep groove ball type. The drive dogs are specially shaped to provide fast engagement and resistance to jump out even with reversing loads. The dogs are made from hardened high strength alloy steel. The unique actuating mechanism is designed for long trouble free life.

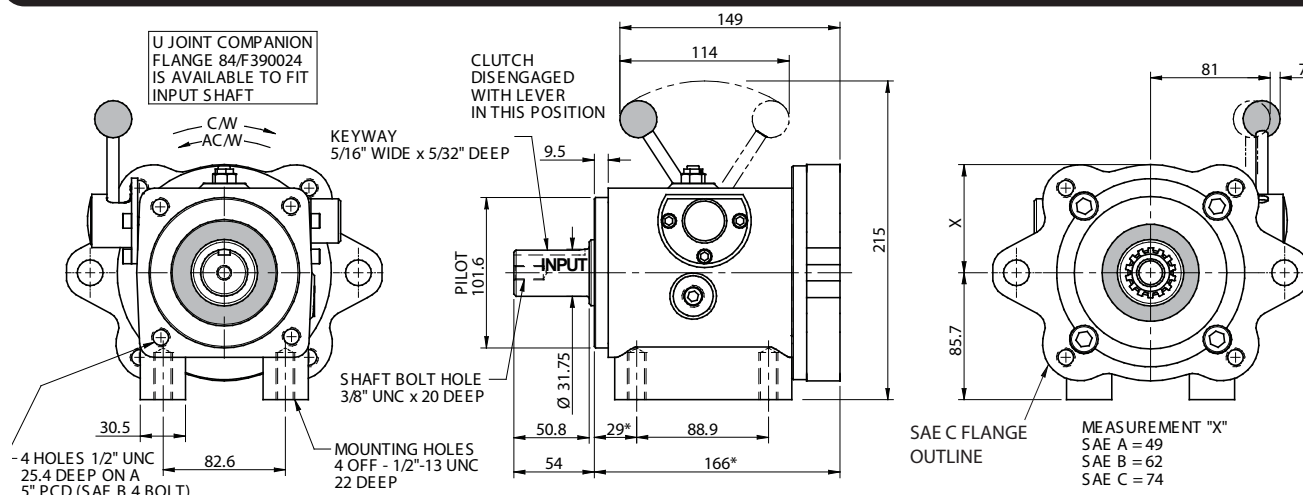
Maximum continuous input capacity is 0.04 kW (0.053 HP) per rev with a continuous torque rating of 382 Nm (282 lbf ft) Max brief peak torque is 560 Nm (413 lbs ft). Side loading is limited, contact our sales office. The unit is shipped dry, and must be filled before use. Units are shipped dry. For oil type and filling instructions, refer to Form **PT95**. Ensure gasket or sealant is used between hyd. pump/motor and clutch as spline is open to lubricant.

STRAIGHT SHAFT OPTION.



Weight Unpacked 18 kg.

**MODEL HH DOG CLUTCH DIMENSIONS**    Dimensions marked \* increase by 28mm for HD model



## HH Dog Clutch Ordering Information

Clockwise \*

Anticlockwise

Bidirectional

\*Preferred option

Round 1 1 1/4"OD x 5/16" key

SAE A 2 Bolt  
SAE B 2/4 Bolt  
SAE C 2/4 Bolt  
Male Shaft Output

C  
A  
B

24

**A  
B  
C  
S**

26/					R	
-----	--	--	--	--	---	--

HD

### Heavy Duty Option

### Output Shaft Type

<b>01</b>	5/8"	9T	16/32 DP	Spline
<b>03</b>	7/8"	13T	16/32 DP	Spline
<b>04</b>	1"	15T	16/32 DP	Spline
<b>06</b>	1 1/4"	14T	12/24 DP	Spline
<b>60</b>	1 1/2"	3/8"	keyway	Round

Heavy Duty - Extra bearing for overhung loads and internal needle/thrust bearing for longer life.  
Dimensions marked \* increase by 28mm for HD model.  
Nominal Maximum Speed is 3000 RPM.



## HYDRAULIC PUMP DRIVES FOR AGRICULTURAL TRACTOR P.T.O. AND IMPLEMENT MOUNTING

### MODEL T33 & T33I

**CAST IRON CASES** Unlike our competitors, we utilise cast iron gear case construction. Cast iron expansion at the high temperatures encountered with this application is near equal to the expansion of the bearings and the outer bearing rings are retained in the case. Aluminium cases with high heat expansion often fail due to the outer bearing ring spinning and displacing particles of aluminium which destroy the bearings.

**PARTS AVAILABILITY** The drives have been designed in Australia and are manufactured at our facility in Ballina N.S.W. Customers can obtain parts and service without delay. Technical assistance is available from the people who designed the product.

**MODEL T33 APPLICATION** These models embody over 20 years of engineering experience with PTO pump drives. They were developed for use as directly driven hydraulic pump speed increasers for 540 or 1000 RPM tractor PTO shafts. Models for 540 RPM PTO's are provided with a 1 3/8" 6T spline hollow shaft and for 1000 RPM PTO's, a 1 3/8" 21T spline hollow shaft. Shafts are splined internally for full length for through drive. Normal practice is to utilise a torque arm to restrain the drive from rotation.

**MODEL T33I APPLICATION** This model was developed for use as an implement mounted hydraulic pump speed increaser for 1000 or 540 rpm tractor PTOs where thrust loads from PTO shafts are encountered. Tapped mounting holes are provided. The T33I male shaft input & output model is supplied with a Ø1 1/2" x 3/8" keyed output shaft.

Maximum power is 50 HP (37.5 kW) with the 1:3.31 ratio models at 540 RPM input and 65 HP (49 kW) in the 2.04 ratio models at 1000 RPM input. The T33 and T33I male shaft input model is available to accept most **SAE "A", SAE "B" or SAE "C"** hydraulic pumps. Pump adaptors on the T33 & T33I may be changed in the field. **DIN 2 & 3** adaptors can be made to order, please consult with our Sales Office.

**T33 Pump Side**



**T33I Input Side**



### T33 & T33I Ordering Information

GEAR BOX MODEL				GEAR RATIO		INPUT SHAFT TYPE		INPUT SHAFT CODE		OUTPUT SHAFT TYPE	
Output Torque Nm	Input Speed	Output Speed				Female	Male	6T 1 3/8" SAE B	21T 1 3/8" 16/32 DP		
228	1000	2040	1							01	5/8" 9T 16/32 DP Spline #
200	540	1787	2							02	3/4" 11T 16/32 DP Spline #
										03	7/8" 13T 16/32 DP Spline #
										04	1" 15T 16/32 DP Spline #
										06	1 1/4" 14T 12/24 DP Spline #
										07	1 3/8" 21T 16/32 DP Spline #
										12	5/8" 5/32" Keyway Round #
										60	1 1/2" 3/8" Keyway Round *
										<b>Notes</b>	
										* Male Shaft option only	
										# Female shaft option only	
										<b>OUTPUT FLANGE</b>	
										1 SAE A 2 Bolt	
										2 SAE B 2/4 Bolt	
										3 SAE C 2/4 Bolt	
										M Male Output shaft (with Seal Carrier Plate)	

Other options may be available. Contact our Sales Office.

**Output rotation is opposite to input rotation.**

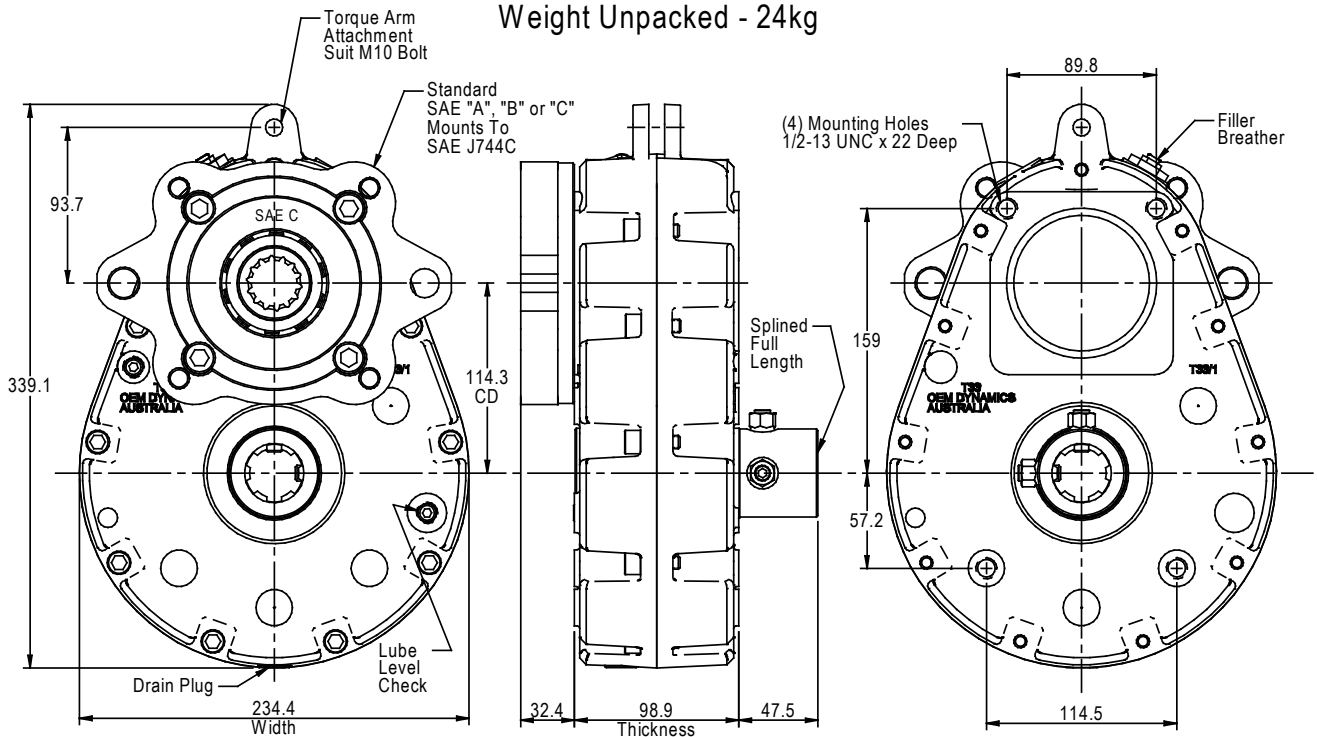
For bore code descriptions [REFER PAGE 46 & 47](#)



## HYDRAULIC PUMP DRIVES FOR AGRICULTURAL TRACTOR P.T.O. AND IMPLEMENT MOUNTING

### MODEL T33 Dimensions

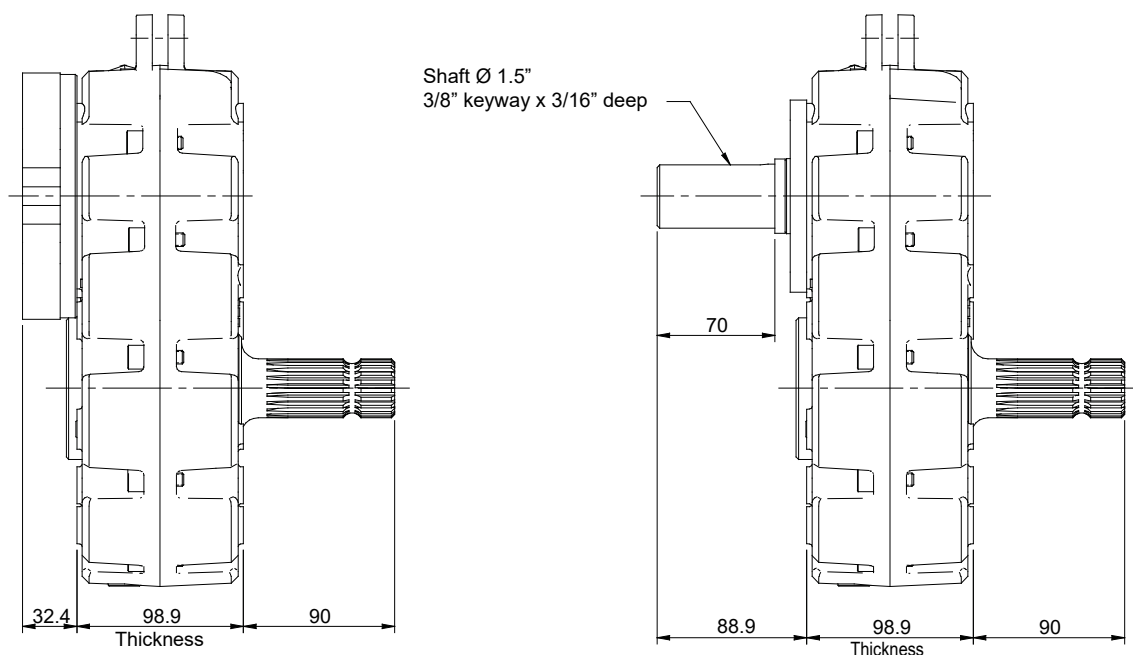
Weight Unpacked - 24kg



### MODEL T33 MALE SHAFT INPUT

### MALE INPUT & OUTPUT DIMENSIONS

Optional male output shaft arrangement available on T33 & T33i models.



Units are shipped dry. For oil type and filling instructions, refer to Form PT08 for T33 & Form PT101 for T33i



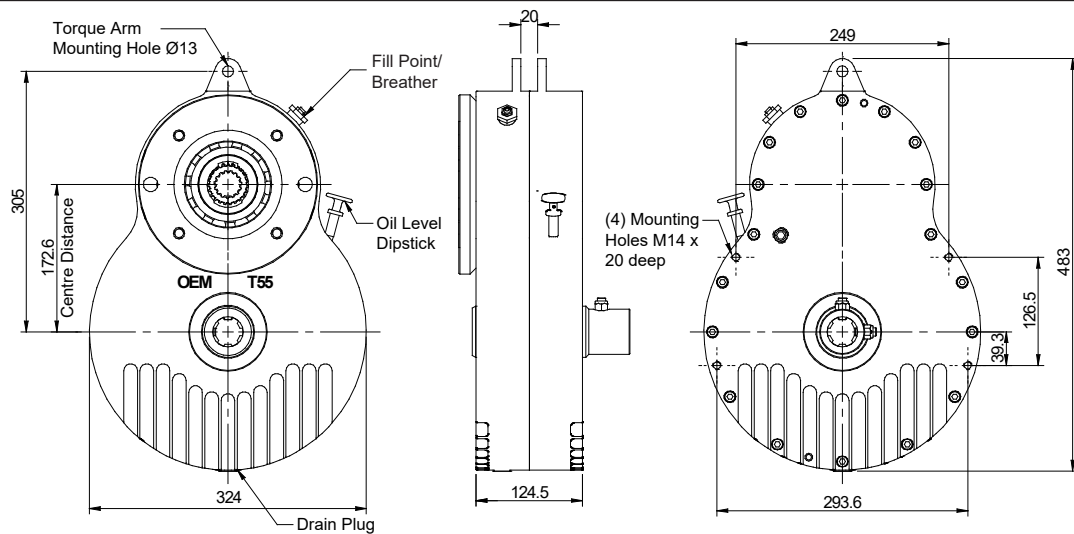




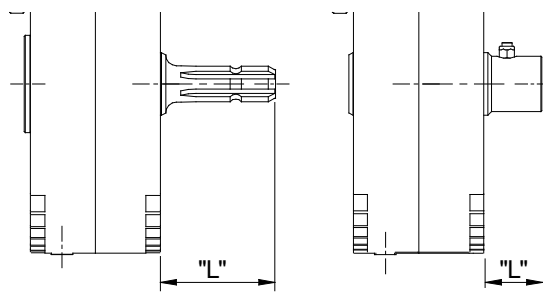
# HYDRAULIC PUMP DRIVES FOR AGRICULTURAL IMPLEMENT MOUNTING

## MODEL T55

### MODEL T55 Basic Dimensions



### MODEL T55 input shaft dimensions

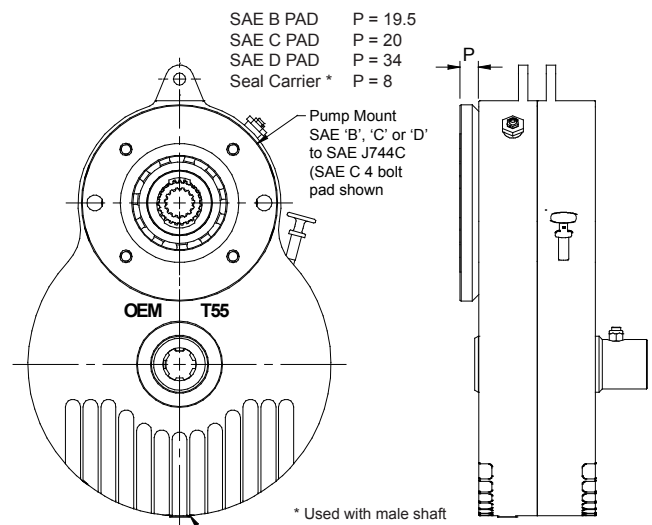


Male Input  
Shaft Option

Female Input  
Shaft Option  
L = 55.5

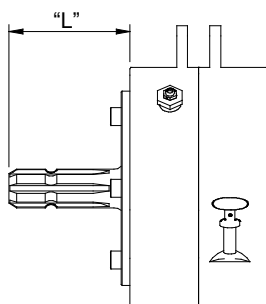
1 3/8"	6T	SAE B	L = 110
1 3/4"	20T	12/24 DP	L = 120
1 3/8"	21T	16/32 DP	L = 96
44 x 48	23T	DIN 5482	L = 68

### MODEL T55 output pad dimensions



### MODEL T55 male output shaft dimensions

1 3/8"	6T	SAE B	L = 110
1 3/4"	20T	12/24 DP	L = 120
1 3/8"	21T	16/32 DP	L = 96
44 x 48	23T	DIN 5482	L = 68



All dimensions in millimetres

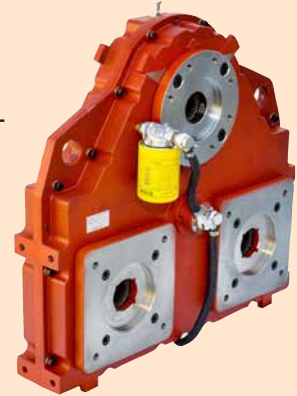
Weight : 60 kg approx.

Oil Volume : 1.4 L approx. Units are shipped dry. Refer to Form PT159 for oil type and filling instructions

### FEATURES & BENEFITS



- **MODULAR DESIGN** – bearings and gears are self-contained within the housings. Input and output adaptors are not required to retain the bearings. Input and output adaptors can be added or changed anytime prior to unit installation.
- **SOS SPUR GEARS** – (solid-on-shaft) one-piece gear/shaft design provides consistent and uniform alignment. Reduces the total number of parts. Bearings pressed on gears simplify assembly.
- **SIMPLER TO SERVICE** – does not require pressing shafts into bearings and gears through the housings. Ball bearings do not require shimming or special adjustment of pump pads and input adapters.
- **FEWER PARTS** – adapter groups are reduced to a single set of input housings and output pads for the entire product line. Gears (31 total) are interchangeable across different models.
- **WET SPLINE** – oil passages built into the housings, along with the bearing design, create constant oil flow across splines and through bearings, resulting in longer, trouble-free operation.
- **DROP-IN REPLACEMENT** – footprint is interchangeable with superceded Terrel, federal & Hub City pump drives and with other brands.
- **HIGHER RATING** – gear geometry and large ball bearings result in a higher horsepower rating over the present product line.
- **SHORT LEAD TIME** – large inventory range held in Australia allows quick turn around of orders.



### HYDRAULIC PUMP DRIVES

Durst has developed a family of gear drive products for use with hydraulic pumps and motors. These drives are available for mounting SAE standard hydraulic flanges and pump or motor shaft configurations directly to the gear drive unit. Models are available to mount directly to SAE flywheel housings, with or without clutches or can be driven through independent mounting arrangements.

### THERMAL CAPACITY

The thermal capacity is defined as the power a gear drive will transmit continuously without overheating. Durst pump drives are used in such a wide variety of operating conditions that only mechanical ratings are shown. Under conditions such as restricted air circulation, high speeds and high loads, the thermal capacity may be less than the mechanical rating. Checking the thermal capacity is extremely important during the first few hours of operation. If the heat is being generated faster than it can be dissipated, severe damage may result and provisions for additional cooling should be provided. This may be accomplished by air circulation around the unit or by a recirculating oil system (see below). If additional cooling is not possible a larger capacity unit should be used.

### OPTIONAL LUBE PUMP AND OIL COOLER.

Most models can be supplied with a centrally mounted gear pump for passing lube oil to a water or air cooled heat exchanger. We stock heat exchanger kits for most models.

### RATINGS

The power ratings in this brochure are based upon the following operating conditions:

- Continuous service (8 hours/day).
- Uniform operating loads.
- Maximum oil sump temperature of 93°C (200°F).

Ratings are based upon component life using a 1:1 ratio @ 2500 rpm for a 2000 hour L-10 life. The full unit rating can be loaded through one pump pad provided the total loading does not exceed unit rating. Durst pump drives are engineered for an optimum balance between mechanical and thermal capacities. Durst drives are designed to accept 100 percent starting overloads or momentary peaks from electric motor driven applications.

### RPM LIMITATIONS

For shaft speeds in excess of 3000 rpm consult factory.

### ENGINE HOUSING ADAPTORS

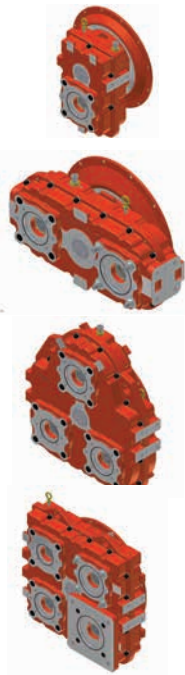
Housing adaptors SAE 1, 2, 3 & 4 are available for all models.

### HYDRAULIC PUMP ADAPTORS

Pump rotation is anti-engine-wise. Standard available pump adaptors and sleeves include SAE A, B, C, D & E.

### REDUCED PUMP SPLINE WEAR

All Durst models now feature a new lubrication system where the lubricant is directed through the centre of the gear to the gear shafts across the pump spline intersections. This feature ensures that premature spline wear caused by fretting will not occur.

	Model	Max. HP* (kW)	Max Input Torque Lb.ft (nm)	Input Style#	Flywheel Housing Size	Ratio Inc. OR Dec.	Pump Adaptors	Pump Centre Distance	Approx. Weight kg
	1PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.06:1, 1.18:1, 1.25:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1, 1.88:1^	A,B,C,D,E,F	6.00"	100
	1PD09	815 (608)	1710 (2319)	P,S	1,2,3,4	1:1, 1.12:1, 1.20:1, 1.30:1, 1.40:1, 1.70:1, 2:1	A,B,C,D,E,F	9.00"	148
	2PD05	370 (276)	700 (949)	P,S	2,3,4	1:1, 1.14:1, 1.40:1, 1.61:1, 2:1	A,B,C,D	5.00"	91
	2PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.06:1, 1.18:1, 1.25:1, 1.32:1, 1.40:1, 1.48:1, 1.57:1, 1.67:1, 1.88:1^	A,B,C,D,E,F	12.00"	135
	2PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1^	A,B,C,D,E,F	16.00"	160
	2PD10	950 (708)	1995 (2705)	P,S	1,2,3,4	1:1, 1.14:1, 1.21:1, 1.29:1, 1.33:1, 1.38:1	A,B,C,D,E,F	21.00"	230
	3PD06	495 (370)	1040 (1410)	P,S	1,2,3,4	1:1, 1.17:1, 1.29:1, 1.36:1, 1.52:1^	A,B,C,D	8.49" x 12.38"	175
	3PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1^	A,B,C,D,E,F	13.29" x 12.00"	200
	3PD10	950 (708)	1995 (2705)	P,S	1,2,3,4	1:1, 1.14:1, 1.21:1, 1.29:1, 1.33:1, 1.38:1, 1.47:1^	A,B,C,D,E,F	15.91" x 18.00"	295
	4PD08	725 (540)	1523 (2065)	P,S	1,2,3,4	1:1, 1.13:1, 1.23:1, 1.34:1, 1.40:1, 1.53:1^	A,B,C,D,E,F	11.08" x 11.54"	240
	4PD09	815 (608)	1710 (2320)	P,S	1,2,3,4	1:1, 1.12:1, 1.20:1, 1.30:1, 1.40:1, 1.70:1^	A,B,C,D,E,F	12.18" x 13.26"	270
	4PD11	1025 (765)	2153 (2920)	P,S	1,2,3,4	1:1, 1.16:1, 1.31:1, 1.39:1, 1.57:1^	A,B,C,D,E,F	16.05" x 16.00"	375

\* HP rating @ 2500RPM      # P = Plate Driven      S = Shaft Driven      ^ Increaser only

### SERVICE FACTOR

Prime Mover	Duration of Service	Driven Machine Load Classification Multiplier		
		Uniform	Moderate Shock	Heavy Shock
Electric Motor, Steam Turbine, or Hydraulic Motor	Occasional _ hr. per day	0.50	0.80	1.25
	Intermittent 3 hr. per day	0.80	1.00	1.50
	Over 3 hr. per day and incl. 10 hr. per day	1.00	1.25	1.75
	Over 10 hr. per day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	Occasional _ hr. per day	0.80	1.00	1.50
	Intermittent 3 hr. per day	1.00	1.25	1.75
	Over 3 hr. per day and incl. 10 hr. per day	1.25	1.50	2.00
	Over 10 hr. per day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Occasional _ hr. per day	1.00	1.25	1.75
	Intermittent 3 hr. per day	1.25	1.50	2.00
	Over 3 hr. per day and incl. 10 hr. per day	1.50	1.75	2.25
	Over 10 hr. per day	1.75	2.00	2.50

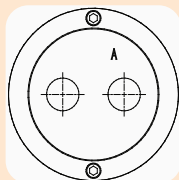
Input Torque Calculation.

Maximum Rated Input Torque Max Application Torque X Service Factor.

Caution: Always insure your powertrain is free of torsional vibrations. DURST is not responsible for damage or failure due to unaddressed torsional vibrations.

### OPTIONAL LUBE PUMP

OIL OUT  
- BACK TO  
GEARBOX  
THROUGH  
COOLER



OIL IN  
FROM  
GEARBOX

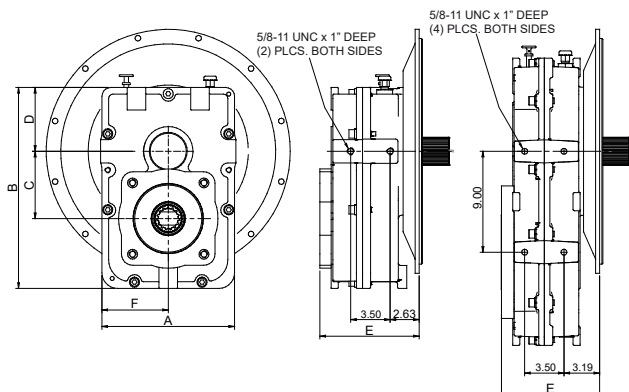


### DIMENSIONAL DRAWINGS

#### MODEL 1PD

	1PD06	1PD09
A	11.75"	16.63"
B	17.81"	25.63"
C	6.00"	9.00"
D	5.69"	8.32"
E*	8.75"	8.75"
F	5.88"	8.31"

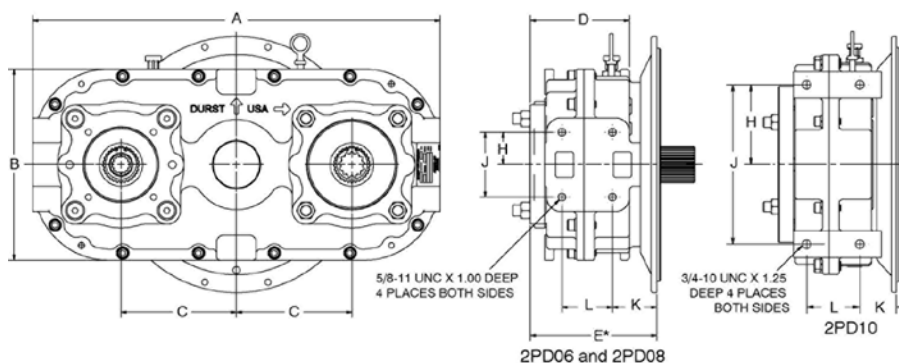
\* Pads SAE D2 and E = 8.88" F = 9.25"



#### MODEL 2PD

	2PD05	2PD06	2PD08	2PD10
A	21.00"	23.00"	28.24"	37.00"
B	11.00"	11.50"	13.25"	16.50"
C	5.00"	6.00"	8.00"	10.50"
D	6.88"	6.88"	6.88"	6.88"
E*	8.75"	8.75"	8.75"	8.75"
H	2.25"	2.25"	2.25"	6.00"
J	4.50"	4.50"	4.50"	12.00"
K	2.62"	2.62"	3.06"	2.75"
L	3.50"	3.50"	3.50"	4.00"

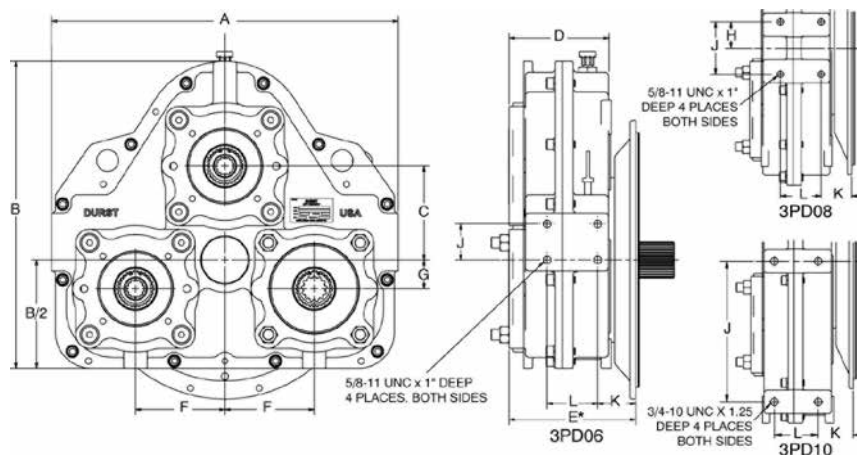
\* Pads SAE D2 and E = 8.88" F = 9.25"



#### MODEL 3PD

	3PD06	3PD08	3PD10
A	24.00"	25.00"	33.50"
B	21.25"	26.75"	32.60"
B/2	7.50"	11.79"	13.18"
C	6.50"	8.00"	10.50"
D	6.88"	6.88"	6.88"
E*	8.75"	8.75"	8.75"
F	6.19"	6.00"	9.00"
G	1.99"	5.29"	5.41"
H	0	2.25"	0
J	2.50"	4.50"	12.00"
K	2.62"	2.63"	3.00"
L	3.50"	3.50"	3.75"

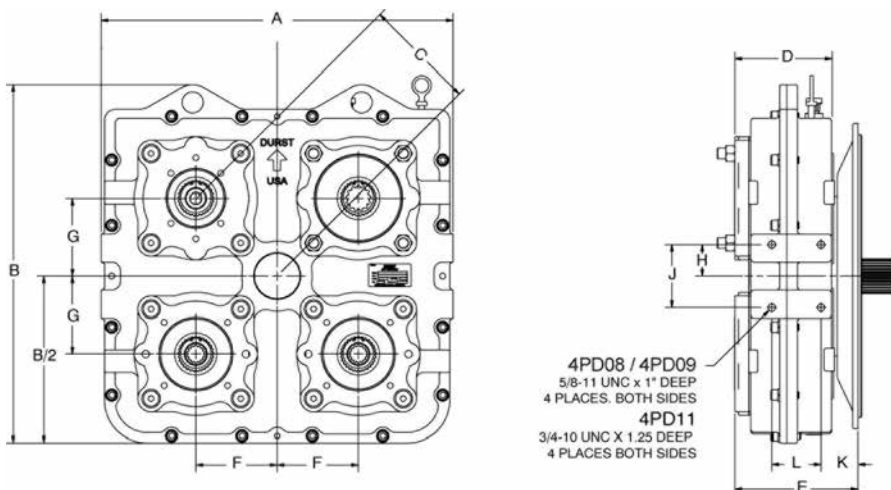
\* Pads SAE D2 and E = 8.88" F = 9.25"



#### MODEL 4PD

	4PD08	4PD09	4PD11
A	25.00"	28.00"	33.25"
B	25.52"	28.02"	33.00"
B/2	11.88"	13.13"	16.50"
C	8.00"	9.00"	11.33"
D	6.88"	7.63"	6.88"
E*	8.75"	8.75"	8.75"
F	5.77"	6.63"	8.00"
G	5.54"	6.09"	8.03"
H	2.25"	4.75"	4.00"
J	4.50"	9.50"	8.00"
K	2.62"	3.13"	3.06"
L	3.50"	3.75"	4.00"

\* Pads SAE D2 and E = 8.88" F = 9.25"





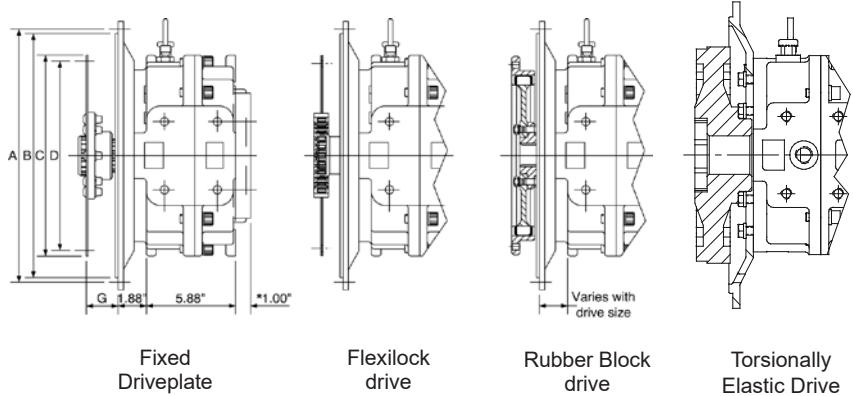
### FLYWHEEL AND HOUSING ADAPTORS

#### SAE Flywheel Housing Options

SAE No.	A	B
1	20.875"	20.125"
2	18.375"	17.625"
3	16.875"	16.125"
4	15.000"	14.250"

#### SAE Drive Plate Options

SAE No.	C	D	G
8	10.375"	9.625"	2.438"
10	12.375"	11.625"	2.125"
11 1/2	13.875"	13.125"	1.562"
14	18.375"	17.250"	1.000"



\* D2, E and F Pads are thicker.

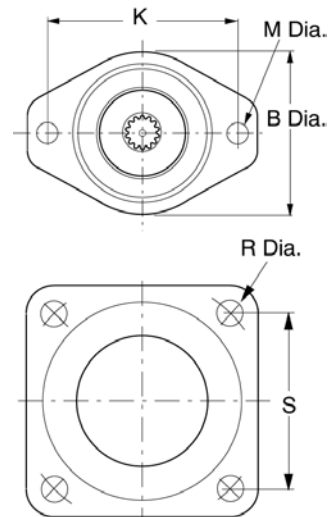
### SAE PUMP AND SHAFT ADAPTORS

#### SAE Pump Adaptor Plates

Mounting Flange	2 Bolt type		4 Bolt Type		
Shaft Size	K	M	B	S	R
A	4.188"	0.438"	3.750"	-	-
B	5.750"	0.562"	4.750"	3.536"	0.562"
C	7.125"	0.688"	5.810"	4.508"	0.562"
D	9.00"	0.812"	7.880"	6.364"	0.812"
E	12.500"	1.062"	10.620"	8.839"	0.812"
F	13.781"	1.062"	11.750"	9.745"	1.062"

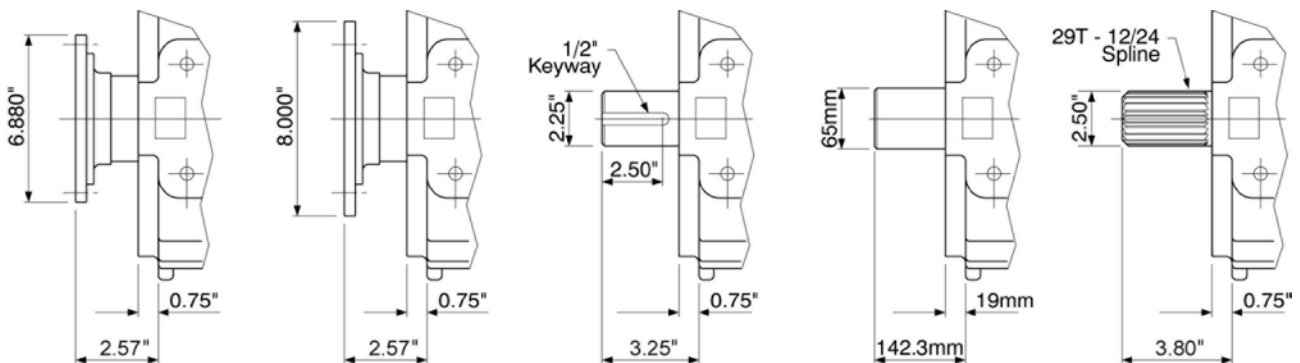
#### SAE Shaft Adaptors

SAE	Spline Teeth & Pitch
A	9T - 16/32
B	13T - 16/32
BB	15T - 16/32
C	14T - 12/24
CC	17T - 12/24
D	13T - 8/16
E	13T - 8/16
F	15T - 8/16
CS	21T - 16/32



NOTE: PUMP ROTATION IS OPPOSITE TO INPUT ROTATION.

### INPUT SHAFT / FLANGE OPTIONS



Companion Flange  
Spicer 1610 series

Companion Flange  
Spicer 1810 series

Ø2.25" Straight Shaft  
with 1/2" key

Ø65mm Straight Shaft  
with no key

29 Tooth 12/24  
Splined Shaft

Other Shaft Option Available. Specials Made To Order.

### SPECIAL GEARBOXES

OEM Dynamics stock an extensive range of Durst Next Generation Hydraulic Pump Drives, while also offering Custom Engineered Solutions to compliment standard Durst Pump Drive unit configurations. Whether you need to mount a non-SAE standard hydraulic pump, fit special input/output shafts or couplings, fit hydraulic pumps or shafts on either side of the Pump Drive Unit or install a recirculating lubrication pump, filter and oil cooler, we can help. From the smallest modification to a complete system, we can analyse, improve, and design it using the latest computer-assisted design hardware. Our experienced in-house mechanical engineering, design and manufacturing team utilize CAD, 3D Engineering Modelling and Finite Element Analysis (FEA) programs.

Some examples of the custom designed and built Durst Hydraulic Pump Drive projects that have been carried out at our Ballina NSW facility include:

#### FIVE PUMP GEARBOX with through drive shaft

The unit below (shown from both sides) is a custom designed and built Durst Model 5PD10 (Special) Five Pump Drive unit that OEM Dynamics designed and re-engineered using a standard Durst Model 3PD10 Triple Drive unit for a Dredging Machine application. It is fitted with a total of 5 x Hydraulic Pump Mounting Pads (1 x SAE-D and 2 x SAE-C Mounting Pads) while 2 x additional Output Ports have been blanked off for possible future use. There is also an Oil Recirculating Lubrication Pump, Oil Filter and Water Cooled Oil Cooler fitted. To complete this very unique unit, OEM Dynamics have also designed and fitted a Through Drive Shaft to drive a 75kW (100Hp) Centrifugal Water Pump.



ENGINE  
INPUT SIDE



PUMP OUTPUT  
SIDE



#### TWO PUMP GEARBOX WITH DOG CLUTCHES

This drive is a custom designed and built Durst Model 2PD06 Double Pump Drive unit that OEM Dynamics re-engineered to allow the fitting of 2 x OEM Dynamics Model HH Dog Clutches with SAE-C Hydraulic Pump Mounting pads, which will allow each pump to be individually engaged and disengaged, while the unit has also been fitted with a Torsionally Resistant Input Drive Coupling for a Vehicle River Crossing Ferry application.

#### THREE PUMP GEARBOX

This drive is a custom designed and built Durst Model 3PD10 Triple Pump Drive unit OEM Dynamics re-engineered to fit a Bosch Rexroth A4CSG500 Hydraulic Pump for a Dredging Machine application. It has a 405mm diameter, 8 Bolt mounting pad and 80mm diameter splined drive shaft, while the unit is also fitted with 1 x SAE-D Hydraulic Pump Pad with the 3rd Pump Pad being blanked off for possible future use. An Oil Recirculating Lubrication System comprising of a Pump, Oil Filter and Water Cooled Oil Cooler has also been fitted.



To find out more about OEM Dynamics Custom Engineering Solutions for Durst Hydraulic Pump Drives, contact our Customer Support Department located at our Ballina NSW office.

## TECHNODRIVE PUMP DRIVES



Model AM220



Model AM330



Model AM480

### APPLICATION

These gearboxes permit a number of hydraulic pumps to be driven from the one power source, usually, a diesel engine. However, they may be driven from most power sources directly as a shaft to shaft drive through a flexible coupling or via a universal joint drive train. Two, three and four pump models are available. In some instance, pumps can be mounted on both front and back of gearbox. Eg:- Up to 9 pumps have been fitted to the model AM450.

### TECHNICAL DETAILS

- Cases, housings and adaptors are grey iron.
- Gears: Shaved spur on AM 216/320.
- Ground teeth on larger models.
- Standard gear ratio 1:1. Other ratios on application.
- Bearings are deep groove ball with L10 life of 5000 hours.

### POWER , TORQUE AND THERMAL RATINGS

The mechanical strength capability of all hydraulic pump drive gearboxes far exceeds their thermal capacity. These gearboxes can transmit high torque loads, however their service life is more often limited by the thermal capacity. For maximum life the lube oil temperature should not exceed 95 °C. Selection of the gearbox must take into account actual operating conditions, this includes considering the input power, speed, type of load and duty experienced. During operation lubricant oil temperature should be closely monitored, it is therefore important to ensure easy access to drain, fill and oil level plugs when designing the installation. It is strongly recommended that all applications are reviewed by our factory sales engineers. All selections must be approved prior to unit shipment to validate warranty.

Model	Input Torque Max. (Nm)	Output Torque Max.per Pump (Nm)	Input Speed Max. (RPM)
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#### TWO PUMP DRIVES

AM216	630	315	3200
AM220	1080	540	3200
AM230	1620	810	2600
AM232	2300	1150	2400

#### THREE PUMP DRIVES

AM320	630	315	3200
AM330	1080	540	3200
AM345	1620	810	2600
AM365	2900	1450	2200

#### FOUR PUMP DRIVES

AM450	2600	1300	2400
AM480	3800	1900	1800

Above figures are based on gearboxes with 1:1 gear ratios.  
For figures for other ratio's, please consult our Sales Office.

### SERVICE CATEGORIES AND FACTORS

The service factor for your application must be applied to the power rating for each model. Mobile & off road equipment , stationary industrial appliances and appliances with cooling systems all have different service factors. For an application to be considered intermittent periods of operation at maximum power must be followed by periods of shutdown sufficient to allow lube oil to cool to near ambient temperature. Where systems cycle with full power on and off for short periods only, 6 minutes should be considered as max continuous duty cycle time.

Contact our sale office for a service factor for your application.

### GEARBOX LIFE CONSIDERATIONS

On diesel engine applications, the life of the gearbox may be significantly reduced if torsional vibration (TV) is not considered. This is most relevant where the hydraulic pump elements have large rotating masses (moments of inertia). The life of the gearbox and hyd pumps will be increased if TV can be reduced or eliminated. All of our pump drives are available with a range of flywheel mounted couplings for most applications. These include flywheel mounted Flexilock 195 polymer gear type couplings and RBD type couplings. The flywheel mounted fixed driveplate type couplings will not absorb TV and are recommended only for use in mobile light duty service.

### HYDRAULIC PUMP ADAPTORS.

Pump rotation is anti-engine wise. Standard available pump adaptors and shaft sleeves include SAE: A, B, C, D and E. We also stock most metric (DIN) type adaptors and shaft sleeves. The design of Technodrive pump drives also permits to fitting of nonstandard pumps with keyed or splined shafts.

**ENGINE INTERFACING.** See diesel engine standards J620D for flywheels and J617C for engine housings on the inside back cover of this catalogue.

**LONG LIFE EXPECTANCY.** Technodrive are highly experienced and recognise the specific problems associated with this high speed gearbox application. Gear design and manufacture is arranged to provide low noise levels and high efficiency. Special attention has been given to case design to take into account the lubrication requirements for the gears, bearings and internal splines.

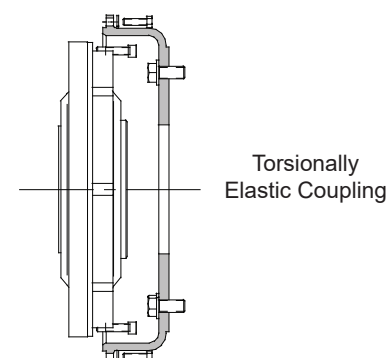
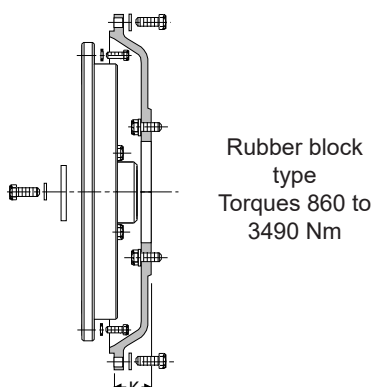
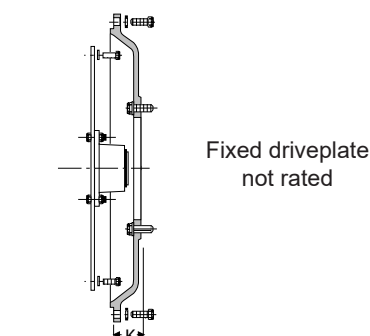
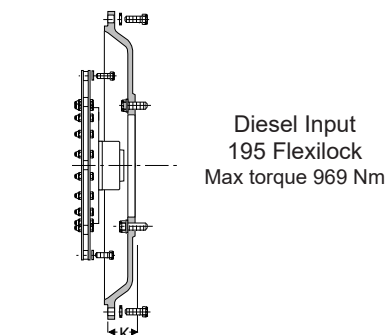
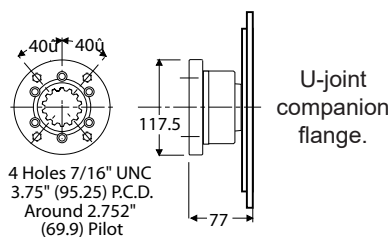
### TECHNICAL SERVICE AND SPARES READILY AVAILABLE.

OEM Dynamics are the largest stockists of Technodrive outside of Europe and maintain a large inventory of service parts for pump drives. OEM Dynamics have been associated with hydraulic pump drive applications for 20 years and we are proud to be able to offer the best advice available in the industry.

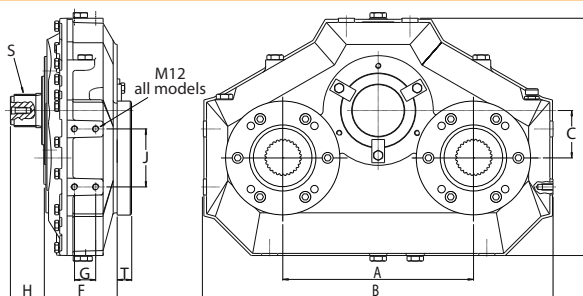
### OPTIONAL LUBE PUMP AND OIL COOLER.

Most models can be supplied with a centrally mounted gear pump for passing lube oil to a water or air cooled heat exchanger. We stock heat exchanger kits for most models.

## INPUT OPTIONS



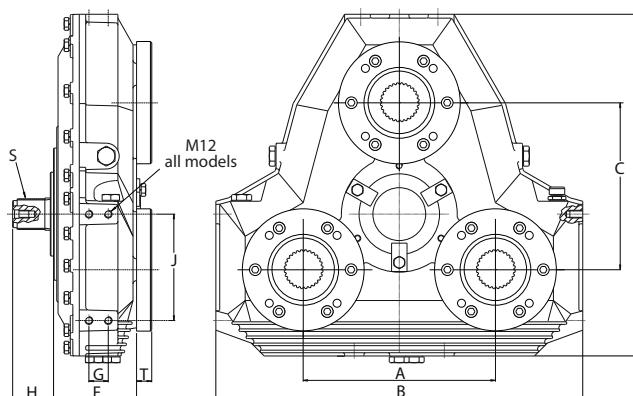
## MODELS AM216, AM220, AM230 & AM232



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM216	254	450	-	253	110	0	63.5	100	50	B48x44 DIN5482	40
AM220	299	570	86	360	129	30	63.5	165	50	B48x44 DIN5482	76
AM230	360	660	90	450	137.5	40	64	110	50	B62x57 DIN5482	103
AM232	460	800	-	430	137	40	64	110	50	B62x57 DIN5482	132

T - varies from 15 to 75. Depends on pump

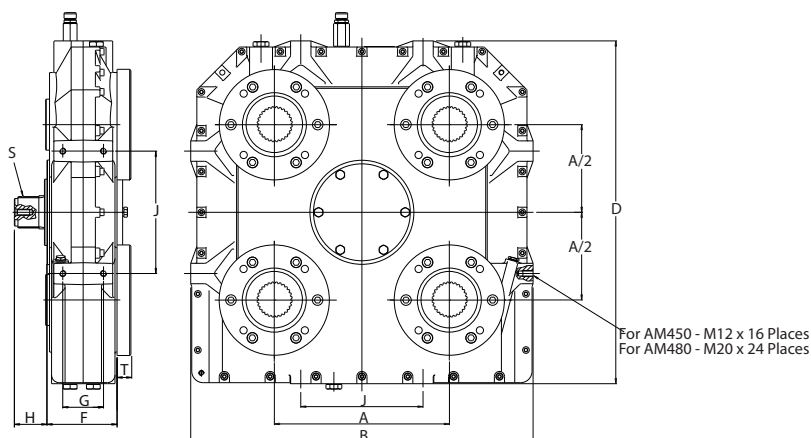
## MODELS AM320, AM330, AM345 & AM365



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM320	220	450	190	447	110	0	63	100	50	B48x44 DIN5482	48
AM330	299	570	259	530	129	30	63.5	165	50	B48x44 DIN5482	139
AM345	360	660	291	630	137.5	40	64	110	50	B62x57 DIN5482	131
AM365	420	850	371	845	156	96	108	230	100	B62x57 DIN5482	215

T - varies from 15 to 75. Depends on pump

## MODELS AM450 & AM480



MODEL	A	B	C	D	F	G	H	J	K	S	Wt kg
AM450	343.6	672	343.6	672	137.5	80	64	240	50	B62x57 DIN5482	205
AM480	437	900	437	900	156	96	108	400	100	B62x57 DIN5482	350

T - varies from 15 to 75. Depends on pump.

Weight - 217kg.



### COMPLEX MACHINING OPERATIONS

Our machining capacity includes the Okuma Multus multifunction CNC machine shown at right. This machine is equipped with double ended spindles for complete machining of parts in one set up. This five axis machine; C, X, Y Z and B; allows operations such as turning, milling, drilling and tapping to be performed at any angle. The machine tool capacity is 80 stations and automatic bar feed up to 100mm diameter. Single work pieces up to 710mm diameter or 1500 mm in length can be accommodated in the machine. The capacity and versatility of our CNC machines enable work pieces of considerable complexity to be produced with a minimum number of operations. Such versatility permits considerable reduction in cost whilst maintaining a high degree of quality and accuracy.



#### PRODUCTION OF SPLINED COMPONENTS IS OUR SPECIALITY

These products are Australian made and produced at our factory in Ballina NSW. They include a wide range of splined accessories, couplings, diesel drives, agricultural gearboxes, driveline components and overhung load adaptors

Internal splines are produced either by broaching or by gear shaping. We have a very extensive range of broaches and internal shaper cutters for imperial and metric involute splines as well as a large range of tools for the production of straight sided splines.



#### PRODUCTION OF GEARS

We manufacture external and internal spur and helical gear components for a wide range of applications and have available a large range of hobs for gears and sprockets. External and internal gear shaper cutters are also available for the generation of gears by the gear shaping method. Gear tooth rounding is also carried out at our facility.

### RECONDITIONING SERVICE

OEM Dynamics offers a reconditioning service on all OEM power transmission components as well as other manufacturer's pump drives, transfer boxes and right angle drives.

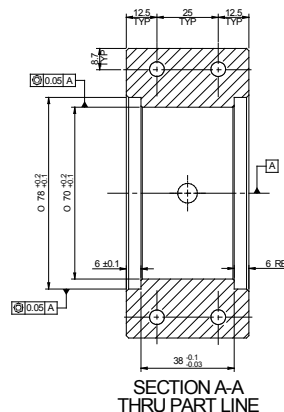
We stock a large range of Durst & Technodrive pump drive spare parts.

### CAD MODELLING

Using the latest *Solid Edge* CAD modelling programme from Siemens PLM, OEM Dynamics can offer fast, efficient and accurate modelling of parts & assemblies. OEM can provide customized solutions for all requirements. From projects costing \$100 to \$1M, we can provide a solution to your requirements.

We can import/ export most common formats including DXF, DWG, STP & IGES.

We can also export drawings in pdf format and 3d models in 3d pdf format.







## CONVERSIONS AND USEFUL FORMULA

### CONVERSIONS

#### TORQUE

Nm x 0.7376 = lbf ft  
lbf ft x 1.356 = Nm  
lb in x 0.1130 = Nm  
kgm x 9.807 = Nm  
kgm x 7.232 = lbf ft

#### POWER

kW x 1.341 = HP  
HP x 0.7457 = kW  
Met HP x 0.7355 = kW  
Ton of Rfg x 3.517 = kW

#### PRESSURE

PSI x 6.89 = kPa  
PSI x 0.0689 = Bar  
Bar x 14.5 = PSI  
inH<sub>2</sub>O x 0.249 = kPa

### VOLUME

Gal (UK) x 4.546 = Litres  
Gal (US) x 3.785 = Litres  
Cu Ft x 28.32 = Litres

### LENGTH

Inch x 25.4 = mm  
Feet x 0.3048 = metre

### AREA

Sq Inch x 6.452 = Sq cm  
Sq Ft x 0.0929 = Sq mtr

### VELOCITY

Ft/s x 0.3048 = m/s  
mph x 1.609344 = km/h  
Knot UK x 1.853 = km/h

### TEMPERATURE

°C x 1.8 + 32 = °F

### MASS

Oz x 28.3495 = gram  
lb x 0.4536 = kg  
Ton UK x 1.016 = Tonne

### VISCOSITY

SSU x 4.6 = cSt

### OTHER

BTU/hr x 0.293 = W  
Kilocalorie x 4.1868 = kJ  
CFM x 0.000472 = m<sup>3</sup>/s

#### POWER TORQUE AND SPEED RELATIONSHIPS US UNITS

$$T = \frac{HP \times 5252}{RPM} \quad HP = \frac{T \times RPM}{5252} \quad RPM = \frac{HP \times 5252}{T}$$

Where T = Torque Ft Lbs  
HP = Horsepower  
RPM = Revs Per Minute

#### POWER TORQUE AND SPEED RELATIONSHIPS ISO UNITS

$$T = \frac{kW \times 9549}{RPM} \quad kW = \frac{T \times RPM}{9549} \quad RPM = \frac{kW \times 9549}{T}$$

Where T = Torque Newton Metres  
kW = Kilowatts  
RPM = Revs Per Minute

#### HYDRAULIC ( FLUID POWER) POWER US UNITS

$$HP = \frac{PSI \times US\ GPM}{1714} \quad PSI = \text{Lbs per Sq Inch Pressure}$$

US GPM = Gallons Per Minute US  
Above is theoretical power. Add inefficiency.

#### HYDRAULIC ( FLUID POWER) POWER ISO UNITS

$$kW = \frac{Bar \times L/min}{600} \quad Bar = \text{Pressure Bar}$$

L/min = Litres Per Minute  
Above is theoretical power. Add inefficiency.

#### Power, Heat and Flow Relationships. ISO UNITS

$$\Delta T\ ^\circ C = \frac{kW \times K}{L/min} \quad kW = \frac{L/min \times \Delta T\ ^\circ C}{K} \quad L/min = \frac{kW \times K}{\Delta T\ ^\circ C}$$

Where L/min = Oil flow in Litres per minute  
 $\Delta T\ ^\circ C$  = Entering temp of oil minus exit temp of oil.  
kW = Heat to be removed  
K = 34.5 for Oil  
K = 14.3 for Water

K factors above are typical only and will vary with density and temperature of fluid.

#### Heat Load Based on Temperature Rise Over Time ISO UNITS

$$\text{Heat Load} = \frac{V \times Cp \times (t_2 - t_1)}{T} = kW$$

Where t<sub>1</sub> = Initial oil temp (°C)  
t<sub>2</sub> = Final oil temp (°C)  
T = Time for temp rise (seconds)  
V = System oil volume (litres)  
Cp = Oil heat capacity (kJ/L °C) Cp=1.72 Typ for oil.



# HYDRAULIC PUMP & MOTOR MOUNT FLANGE & SHAFT INDUSTRY STANDARDS

## PUMP STANDARDS

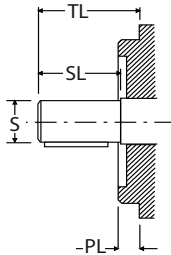
EXTRACTS FROM SAE J744C ANSI STANDARD FOR FLUID POWER PUMPS AND MOTORS.

The SAE standard J744C was originally developed for off road vehicle use in USA. Not all pumps and motors are built to this standard.

### STRAIGHT SHAFT TYPES

S	Torque in-lbs	HP at 1000	SL#	TL#	Key Width	OEM Code
0.500"	260	4.25	0.750"	1.062"	0.125"	78
0.625"	517	8.25	0.937"	1.250"	0.156"	12
0.750"	1,129	17.9	0.937"	1.250"	0.187"	13
0.875"	1,852	29.3	1.312"	1.625"	0.250"	14
1.000"	2,987	47.5	1.500"	1.812"	0.250"	15
1.250"	5,677	90	1.875"	2.187"	0.312"	24
1.500"	10,777	171	2.125"	2.437"	0.375"	60
1.750"	15,057	239	2.625"	2.937"	0.437"	61

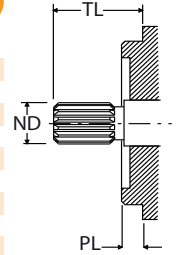
#Lengths shown are for the common short shaft types for long shaft series see Standard SAE J744C.  
HP at 1000 RPM. Torque and HP requirements noted are typical (based on shaft St of 25000 PSI) and should be considered as a guide only.



### 30 Deg INVOLUTE SPLINE TYPES

Spline Details	Torque in-lbs	HP at 1000	ND	TL	SAE Code	OEM Code*
9T 20/40 DP	260	4.25	1/2"	1.062"	AA	91
9T 16/32 DP	517	8.25	5/8"	1.250"	A	01
11T 16/32 DP	1,129	17.9	3/4"	1.500"	AH	02
13T 16/32 DP	1,852	29.3	7/8"	1.625"	B	03
15T 16/32 DP	2,987	47.5	1"	1.812"	BB	04
14T 12/24 DP	5,677	90	1 1/4"	2.187"	C	06
21T 16/32 DP	6,839	108	1 3/8"	2.187"	CS	07
17T 12/24 DP	10,777	171	1 1/2"	2.437"	CC	32
13T 8/16 DP	15,057	239	1 3/4"	2.937"	D	08
13T 8/16 DP	15,057	239	1 3/4"	2.937"	E	08
15T 8/16 DP	24,245	285	2"	3.437"	F	37

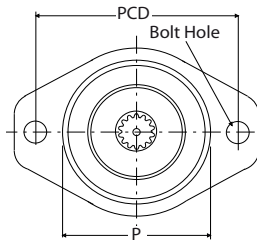
HP at 1000 RPM. Torque and HP requirements noted are typical (based on shaft St of 25000 PSI) and should be considered as a guide only. Torsional stress is calculated at spline undercut.



\* OEM Code. Unique code for ID of shaft or bore sizes. Appears as last two numbers in all Part Numbers for Splined Hubs, Splined Couplings, Splined Shafts, Flexilock Hubs, Clamplock Components, Over Hung Load Adaptors or Gearboxes shown in this catalogue.

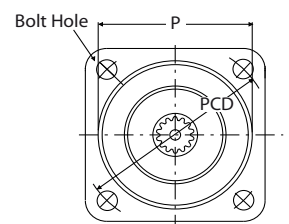
### TWO BOLT MOUNTING FLANGE

SAE Code	Bolt PCD	Bolt Hole	P	PL
AA	3.250"	0.406"	2.00"	0.250"
A	4.187"	0.437"	3.25"	0.250"
B	5.750"	0.562"	4.00"	0.375"
C	7.125"	0.687"	5.00"	0.500"
D	9.000"	0.812"	6.00"	0.500"
E	12.500"	1.062"	6.50"	0.625"
F	13.781"	1.062"	7.00"	0.625"



### FOUR BOLT MOUNTING FLANGE

SAE Code	PCD	Bolt Hole	P	PL
B	5.000"	0.562"	4.00"	0.375"
C	6.375"	0.562"	5.00"	0.500"
D	9.000"	0.812"	6.00"	0.500"
E	12.500"	0.812"	6.50"	0.625"
F	13.781"	1.062"	7.00"	0.625"

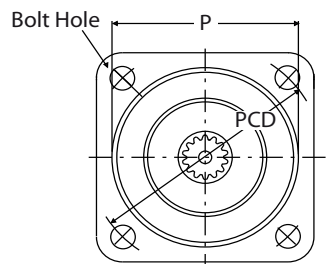


## METRIC ISO FLANGES

### FOUR BOLT MOUNTING FLANGE

ISO Code	P	PCD	Bolt Hole
M80	80	100	9
M100	100	125	11
M125	125	160	14
M140	140	180	16
M160	160	200	18
M180	180	224	22
M200	200	250	22
M224	224	280	24

Dim's in mm

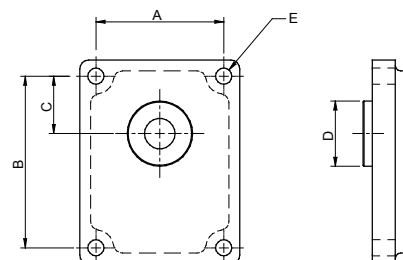


## DIN FLANGES

### DIN MOUNTING FLANGE

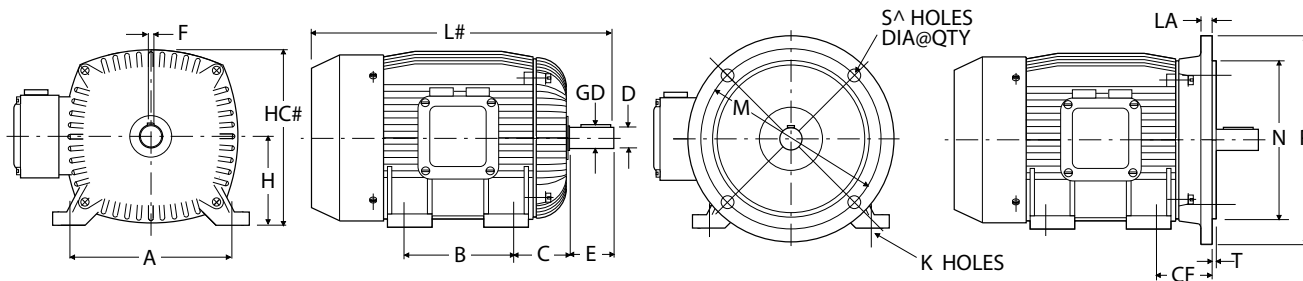
Group	A	B	C	D	E Bolt Hole
2	71.5	96.2	32.5	36.5	9
3	98	128	42	50.8	11

Dim's in mm



NO RESPONSIBILITY IS ACCEPTED FOR OMISSIONS VARIATIONS OR ERRORS.

## ELECTRIC MOTOR SIZES



# Dimensions so marked are subject to variation depending on the brand of motor being used and may not be shown.

S^ Frames 63 through 200L have 4 holes on 45 deg. The remainder 8 holes on 22 deg 30 min. Relationship of power output verses frame may vary with manufacturer.

FRAME	DIMENSIONS (mm)																		POWER RANGE kW @ MOTOR RPM			
	A	B	C	CF	D	E	F	GD	H	HC#	K	L#	LA	M	N	P	S^	T	3000	1500	1000	750
63	100	80	40	40	11	23	4	12.5	63	124	7	213	6	115	95	140	10	3	0.12-0.25	0.12-0.18		
71	112	90	45	45	14	30	5	16	71	140	7	235	9	130	110	160	10	3.5	0.37-0.55	0.25-0.37	0.18	0.12
80	125	100	50	50	19	40	6	21.5	80	158	10	272	10	165	130	200	12	3.5	0.75-1.10	0.55-0.75	0.37-0.55	0.18
90S	140	100	56	56	24	50	8	27	90	178	10	300	10	165	130	200	12	3.5	1.50	1.10	0.75	0.37
90L	140	125	56	56	24	50	8	27	90	178	10	320	10	165	130	200	12	3.5	2.20	1.50	1.10	0.55
100L	160	140	63	63	28	60	8	31	100	198	12	362	11	215	180	250	15	4	3.0	2.2-3.0	1.5	0.75-1.1
112M	190	140	70	70	28	60	8	31	112	222	12	391	11	215	180	250	15	4	4.0	4.0	2.2	1.5
132S	216	140	89	89	38	80	10	41	132	260	12	475	12	265	230	300	15	4	5.5-7.5	5.5	3.0	2.2
132M	216	178	89	89	38	80	10	41	132	260	12	515	12	265	230	300	15	4	9.2	7.5	4.0-5.0	3.0
160M	254	210	108	108	42	110	12	45	160	314	15	600	18	300	250	350	19	5	11.0-16.0	9.2-11.0	7.5	4.0-5.5
160L	254	254	108	108	42	110	12	45	160	314	15	645	18	300	250	350	19	5	18.5	15.0	9.2-11.0	7.5
180M	279	241	121	121	48	110	14	51.5	180	354	15	670	18	300	250	350	19	5	22.0	18.5		9.2
180L	279	279	121	121	48	110	14	51.5	180	354	15	710	18	300	250	350	19	5	22.0	22.0	15.0	11.0
200M	318	267	133	133	55	110	16	59	200	392	19	775	18	350	300	400	19	5		22.0	15.0	11.0
200L	356	305	133	133	55	110	16	59	200	392	19	775	18	350	300	400	19	5	30.0-37.0	30.0	18.5-22.0	15.0
225S	356	286	149	149	55/60	110	16/18	#	225	455	19	820	18	400	350	450	19	5	45	37.0-45.0	30	18.5-22.0
225M	356	311	149	149	55/60	110	16/18	#	225	455	19	845	18	400	350	450	19	5	45	37.0-45.0	30	18.5-22.0
250S	406	311	168	168	60/70	140	18/20	#	250	480	24	930	18	500	450	550	19	5	55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0
250M	406	349	168	168	60/70	140	18/20	#	250	480	24	930	18	500	450	550	19	5	55.0-75.0	55.0-75.0	37.0-45.0	30.0-37.0



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## OEM DYNAMICS SHAFT CODES

### OEM SHAFT CODES FOR SPLINES

#### Imperial Involute Splines to ANSI B92.1 Class 5

Shaft Code	Nominal Diameter	No of Teeth	DP
91	1/2"	9	20/40
<b>01</b>	5/8"	9	16/32
139	11/16"	10	16/32
<b>02</b>	3/4"	11	16/32
34	13/16"	12	16/32
<b>03</b>	7/8"	13	16/32
<b>04</b>	1"	15	16/32
27	1 1/8"	17	16/32
<b>06</b>	1 1/4"	14	12/24
69	1 1/4"	19	16/32
135	1 3/16"	20	16/32
<b>07</b>	1 3/8"	21	16/32
46	1.40"	26	20/40
32	1 1/2"	17	12/24
36	1 1/2"	14	10/20
<b>43</b>	1 1/2"	23	16/32
77	1 9/16"	24	16/32
121	1.60"	15	10/20
175	1 5/8"	19	12/24
39	1.70"	16	10/20
<b>08</b>	1 3/4"	13	8/16
<b>09</b>	1 3/4"	27	16/32
113	1 3/4"	20	12/24
136	1 13/16"	28	16/32
97	1 7/8"	14	8/16
<b>37</b>	2"	15	8/16
132	2"	19	10/20
178	2 1/8"	33	16/32
40	2 1/8"	16	8/16
48	2 1/4"	26	12/24
96	2 1/4"	17	8/16
171	2 3/8"	18	8/16
131	2 1/2"	19	8/16
133	2 1/2"	14	6/12
167	2 1/2"	24	10/20
<b>169</b>	2 1/2"	29	12/24
49	2 9/16"	40	16/32
197	2 3/4"	21	8/16
134	3"	23	8/16
165	3"	47	16/32
137	3 1/2"	20	6/12

#### Imperial Straight Splines SAE B

Shaft Code	Nominal Diameter	No of Teeth
100	3/4"	6
101	7/8"	6
<b>05</b>	1"	6
108	1"	10
109	1 1/8"	10
102	1 1/8"	6
82	1 1/4"	6
110	1 1/4"	10
<b>33</b>	1 3/8"	6
111	1 3/8"	10
104	1 1/2"	6
112	1 1/2"	10
105	1 5/8"	6
81	1 3/4"	10
83	1 3/4"	6

#### Metric Involute Splines to DIN 5480 9H/ 9g

Shaft Code	Nominal Diameter	No of Teeth	Module
35	20	14	1.25
20	25	18	1.25
10	30	14	2
141	32	14	2
11	35	16	2
186	38	24	1.5
<b>41</b>	40	18	2
177	40	14	2.5
195	40	12	3
199	40	25	1.5
<b>42</b>	45	21	2
<b>45</b>	50	24	2
47	55	26	2
170	55	17	3
118	60	28	2
193	60	18	3
127	70	22	3
192	72	27	2.5
<b>129</b>	80	25	3
<b>128</b>	90	28	3

#### Metric Involute Splines to DIN 5482 H10/ h9

Shaft Code	Nominal Diameter	No of Teeth	Module
29	25 x 22	14	1.6
154	28 x 22	15	1.75
68	30 x 27	16	1.75
21	35 x 31	18	1.75
172	40 x 36	20	1.9
143	45 x 41	22	2
<b>44</b>	48 x 44	23	2
184	50 x 45	24	2

#### Metric Involute Splines to ANSI B92.2 5H/ 5h

Shaft Code	Nominal Diameter	No of Teeth	Module
179	24	24	1

#### Metric Straight Splines to DIN ISO 14 (DIN 5462 & 5463)

Shaft Code	Nominal Diameter	No of Teeth
196	21 x 25	6
114	28 x 34	6
<b>115</b>	32 x 36	8
164	32 x 38	8
194	36 x 40	8
190	56 x 65	8

Common Spline Codes  
are marked in **bold**





## OEM DYNAMICS SHAFT CODES

### OEM SHAFT CODES FOR ROUND & TAPER BORES WITH KEYS

**Imperial Round Bore  
with key to ANSI B17.1**

Shaft Code	Nominal Diameter	Key W
<b>78</b>	1/2"	1/8"
22	9/16"	1/8"
<b>13</b>	3/4"	3/16"
<b>15</b>	1"	1/4"
85	1 1/16"	1/4"
66	1 1/8"	1/4"
86	1 3/16"	1/4"
<b>88</b>	1 5/16"	5/16"
<b>65</b>	1 3/8"	5/16"
89	1 7/16"	3/8"
<b>60</b>	1 1/2"	3/8"
159	1 5/8"	3/8"
201	1 3/4"	3/8"
64	1 7/8"	1/2"
<b>62</b>	2"	1/2"
99	2 1/8"	1/2"
130	2 3/16"	1/2"
116	2 1/4"	1/2"
120	2 3/8"	5/8"
122	2 7/8"	3/4"
162	3"	3/4"
157	3 3/8"	7/8"

**Imperial Round Bore  
with dual keys**

Shaft Code	Nominal Diameter	Key A	Key B
<b>23</b>	5/8"	3/16"	5/32"
<b>14</b>	7/8"	1/4"	3/16"
87	1 1/4"	1/4"	5/16"

**Imperial Round Bore  
with key to BS46.1**

Shaft Code	Nominal Diameter	Key W
178	1 1/8"	5/16"
<b>24</b>	1 1/4"	5/16"
166	1 3/8"	3/8"
90	1 5/8"	7/16"
61	1 3/4"	7/16"
202	2 1/8"	5/8"
176	2 1/2"	5/8"

**Metric Round Bore  
with key to BS4235**

Shaft Code	Nominal Diameter	Key W x H
70	11	4 x 4
94	12	4 x 4
93	13	5 x 5
<b>71</b>	14	5 x 5
189	15	5 x 5
<b>72</b>	16	5 x 5
156	17	5 x 5
25	18	6 x 6
<b>73</b>	19	6 x 6
28	20	6 x 6
124	22	6 x 6
95	23	8 x 7
<b>74</b>	24	8 x 7
26	25	8 x 7
<b>75</b>	28	8 x 7
76	29	8 x 7
<b>79</b>	30	8 x 7
<b>80</b>	32	10 x 8
50	35	10 x 8
<b>51</b>	38	10 x 8
52	40	12 x 8
<b>53</b>	42	12 x 8
54	45	14 x 9
<b>55</b>	48	14 x 9
<b>56</b>	50	14 x 9
145	53	16 x 10
57	55	16 x 10
58	60	18 x 11
59	65	18 x 11
63	70	20 x 12
146	75	20 x 12
160	85	22 x 14
126	90	25 x 14
147	100	28 x 16
173	110	28 x 16
163	120	32 x 18
151	130	32 x 18

**DIN Taper 1:8**

Shaft Code	DIN Group	Nominal Diameter	Key Width
181	1	8	3/32"
<b>16</b>	2	14.7	1/8"
<b>17</b>	3	19	5/32"
18	3.5	21.7	3/16"
98	4	28.1	1/4"

**SAE J501 Taper 1:8**

Shaft Code	Nominal Diameter	Key Width
198	1"	1/4"
180	1 1/4"	5/16"
187	1 3/8"	3/8"
<b>140</b>	1 1/2"	3/8"

Common Bore Codes  
are marked in **bold**

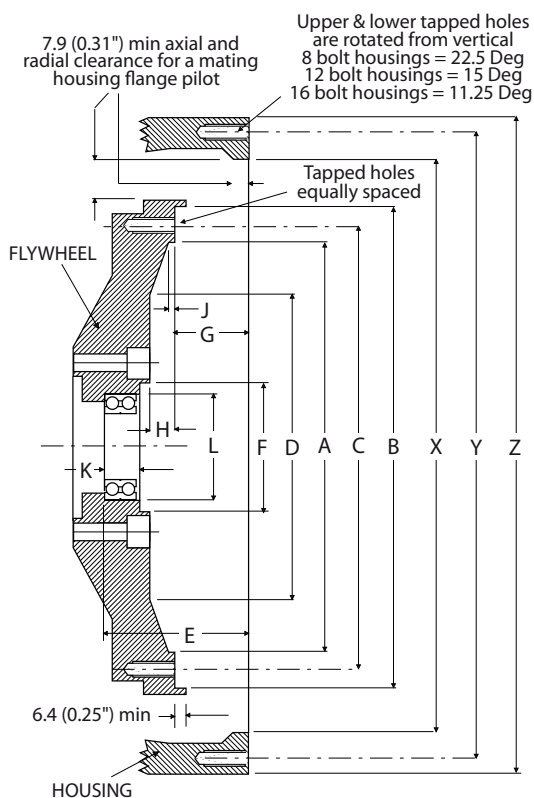


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## ENGINE & FLYWHEEL STANDARDS

### EXTRACTS FROM SAE J620D FOR ENGINE FLYWHEELS AND SAE J617C FOR ENGINE FLYWHEEL HOUSINGS

Flywheels to J620D are in common use on diesel engines supplied for industrial and marine applications. Engines supplied for the truck market are usually fitted with automotive type flywheels which do not conform to standard J620D. Also some engines from Europe and Japan have variations away from standard such as metric threads in flywheel or housing or non standard machining.



The appropriate standards list tolerances for machined surfaces, threads bore eccentricity and face deviation. Should any of this detail be required please consult our sales staff for a copy of the complete SAE standard. Flywheel shown with pilot bearing installed for reference only. Pilot bearing is required only when using over centre clutches or torque converters. If fitting a flywheel drive plate for hydraulic pump drives, the bearing should be removed.

Flywheel No.	A		B		C		D	
	mm	inch	mm	inch	mm	inch	mm	inch
6 1/2	184.2	7.25	215.90	8.500	200.02	7.875	127.0	5.00
7 1/2	206.2	8.12	241.30	9.500	222.25	8.750	—	—
8	225.6	8.88	263.52	10.375	244.48	9.625	—	—
10	276.4	10.88	314.32	12.375	295.28	11.625	196.8	7.75
11 1/2	314.5	12.38	352.42	13.875	333.38	13.125	203.2	8.00
14	409.4	16.12	466.72	18.375	438.15	17.250	222.2	8.75
16	460.2	18.12	517.52	20.375	488.95	19.250	254.0	10.00
18	498.3	19.62	571.5	22.500	542.92	21.375	—	—

Flywheel No.	E		F		G		H	
	mm	inch	mm	inch	mm	inch	mm	inch
6 1/2	71.4	2.81	63.5	2.50	30.2	1.19	12.7	0.50
7 1/2	71.4	2.81	63.5	2.50	30.2	1.19	12.7	0.50
8	100.1	3.94	76.2	3.00	62.0	2.44	12.7	0.50
10	100.1	3.94	76.2	3.00	53.8	2.12	15.7	0.62
11 1/2	100.1	3.94	—	—	39.6	1.56	28.4	1.12
14	100.1	3.94	101.6	4.00	25.4	1.00	28.4	1.12
16	100.1	3.94	104.6	4.12	15.7	0.62	28.4	1.12
18	100.1	3.94	104.6	4.12	15.7	0.62	31.8	1.25

Flywheel No.	J		K		L		Q - Tapped holes	
	mm	inch	mm	inch	mm	inch	No	Size
6 1/2	9.7	0.38	17.5	0.69	52.0	2.047	6	5/16"-18
7 1/2	12.7	0.50	17.5	0.69	52.0	2.047	8	5/16"-18
8	12.7	0.50	19.0	0.75	62.0	2.441	6	3/8"-16
10	12.7	0.50	28.4	1.12	72.0	2.834	8	3/8"-16
11 1/2	22.4	0.88	31.8	1.25	72.0	2.834	8	3/8"-16
14	22.4	0.88	38.1	1.50	80.0	3.149	8	1/2"-13
16	22.4	0.88	44.4	1.75	100.0	3.937	8	1/2"-13
18	31.8	1.25	44.4	1.75	100.0	3.937	6	5/8"-11

Housing SAE-No.	X		Y		Z		R - Tapped holes	
	mm	inch	mm	inch	mm	inch	No	Size
6	266.70	10.500	285.75	11.250	307.8	12.12	8	3/8"-16
5	314.32	12.375	333.38	13.125	355.6	14.00	8	3/8"-16
4	361.95	14.250	381.00	15.000	403.4	15.88	12	3/8"-16
3	409.58	16.125	428.62	16.875	450.8	17.75	12	3/8"-16
2	447.68	17.625	466.72	18.375	489.0	19.25	12	3/8"-16
1	511.18	20.125	530.22	20.875	552.4	21.75	12	7/16"-14
1/2	584.20	23.000	619.12	24.375	647.7	25.50	12	1/2"-13
0	647.70	25.500	679.45	26.750	711.2	28.00	16	1/2"-13

### Splined Components

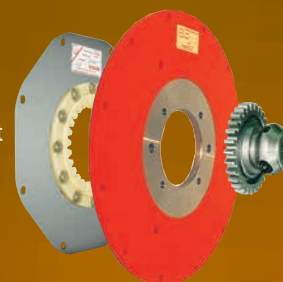
Splined hubs  
Couplings  
Shafting  
Stubwelds  
Slipsleeves



Available ex-stock.  
Components can also be  
manufactured to customer requirements.

### Flexilock Single Pump Drives

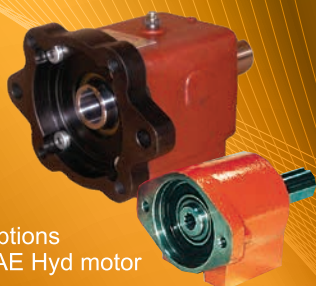
Pre-engineered single pump drives now available in four power sizes. With over 300 combinations we offer the largest standard range of direct drive kits for diesel engines. These drives utilise the clamplock spline locking mechanism and our special polymer element is formulated for optimum elasticity at engine operating temperatures to absorb engine torsional vibrations over a long cycle life.



### HDC and LDA Overhung Load Adaptors

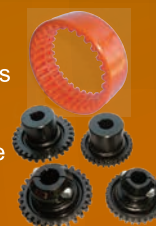
Model HDC - This model may be supplied to suit SAE 'A', SAE 'B' or SAE 'C' hydraulic pump motor interfacing and 12 shaft size options accommodating almost any SAE Hyd motor up to SAE "C".

Model LDA - this is a low cost model with fixed SAE "A" motor adaptor and 7 shaft size options.



### Flexilock Couplings

Developed for hydraulic pumps, includes most splined and round bore shaft connections. Feature a large gear tooth form with wide face contact between the steel gear and polymer element giving high power capacity in a small unit.



### Disconnects

Used where a hydraulic pump requires disengaging when not in use. Available in clockwise or anticlockwise versions. Supplied to suit SAE 'A', 'B' or 'C' hydraulic pump or motors or as a shaft to shaft version.



### Tractor PTO Hydraulic Pump Drives

These drives were developed for use as directly driven hydraulic pump speed increasers. Maximum power is 50 horsepower at 540 RPM Horsepower at 1000 RPM input for the 2.04 ratio model. The T33 is available to accept most SAE "A", SAE "B" or SAE "C" hydraulic pumps. Male shaft models are available for implement mounting.



### Durst "Next Generation" Pump Drives

Durst PD Series "Next generation" Hydraulic Pump Drives allow a number of hydraulic pumps to be driven from a single power source. They can be driven by either Direct Mount through a Fixed Drive Plate, Flexible Coupling, Shaft to Shaft Drive or a Universal Joint Drive Shaft assembly. Available in a Single, Double, Triple or Four Pump version with 1:1, increase or reduction gear ratios, the Durst PD Series modular design utilises Interchangeable Gears, Input and Pump Mounting Adaptors across the entire range providing application flexibility.



### Technodrive Pump Drives

Technodrive gearboxes allow a number of hydraulic pumps to be driven from a single power source. They can be driven by either Direct Mount through a Flexible Coupling, Shaft to Shaft Drive, or via a Universal Joint Drive Shaft assembly. Double, Triple and Four Pump versions are available, while in some instances pumps can be mounted on both the front and rear of the gearbox – while up to 9 hydraulic pumps have been fitted to the pictured Model AM480



