

# CATALOGUE 49th Edition



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# 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 DYNACOOL 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.

# GLAMPLOGK







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.

# DYNACOOL heat exchanger

DYNACOOL- 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 DYNACOOL catalogue for air cooled oil coolers and accessories.

# **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.

# FLEXILOGK



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.

# TECH TODRIVE

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.

# 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.



# **CONTENTS**







# 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 + or - 0.030". Hubs are also suitable for welding.

| Number   | Nom            | Specifications    | Origin or | Hub            | Hub            | Known uses for         | Part      |
|----------|----------------|-------------------|-----------|----------------|----------------|------------------------|-----------|
| of Teeth | Spline O.D.    | of Spline         | Standard  | Length         | Diameter       | this Hub               | 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       |           |
|          |                |                   |           |                |                | STAFFA Z SHAFT         | 94/50042  |
| 22<br>23 | 70mm<br>1 1/2" | 3 MODULE INV      | DIN 5480  | 2.50"<br>2.12" | 4.50"<br>2.25" |                        | 94/500127 |
|          |                | 16/32 DP INV CL 5 | IMP. ANSI |                |                | HYD.SUNDSTRAND.EATON   | 94/50043  |
| 23       | 48mm<br>3"     | A 48 x 44 INV     | DIN 5482  | 2.75"          | 3.00"          | GENERAL APPLICATIONS   | 94/50044  |
| 23       |                | 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





# 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   | Nom         | Specifications    | Origin or | Coupling | Coupling | Known uses for      | Part       |
|----------|-------------|-------------------|-----------|----------|----------|---------------------|------------|
| of Teeth | Spline O.D. | of Spline         | Standard  |          | Diameter | this Coupling       | 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    | 94/60005   |
| 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    | 94/60082   |
| 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 | 94/60033   |
| 6        | 1 3/8"      | 6B STRAIGHT SAE   | IMP.      | 6"       | 1.75"    | AG TRACTOR P.T.O.'s | 94/60033L  |
| 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    | 94/60083   |
| 9        | 5/8"        | 16/32 DP INV CL 5 | IMP.      | 2"       | 1.37"    | HYD. SAE A SPLINE   | 94/60001   |
| 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   | 94/60002   |
| 13       | 7/8"        | 16/32 DP INV CL 5 | IMP.      | 2"       | 1.37"    | HYD. SAE B SPLINE   | 94/60003   |
| 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 | 94/60008   |
| 14       | 1 1/4"      | 12/24 DP INV CL 5 | IMP.      | 3"       | 1.75"    | HYD. SAE C SPLINE   | 94/60006   |
| 15       | 1"          | 16/32 DP INV CL 5 | IMP.      | 3"       | 1.50"    | HYD. SAE BB SPLINE  | 94/60004   |
| 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 | 94/60007   |
| 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      | 94/60043   |
| 27       | 1 3/4"      | 16/32 DP INV CL 5 | IMP.      | 3"       | 2.25"    | HYD AND AG.         | 94/60009   |



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

# STANDARD SPLINED SHAFTING





Splined shafting is hobbed 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.I-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.

|          |              | . 15              |           |             |                |             |
|----------|--------------|-------------------|-----------|-------------|----------------|-------------|
| Number   | Nom          | Specifications    | Origin or | Shaft       | Known uses for | Part        |
| of Teeth | Spline O.D.* | of Spline         | Standard  | Length      | this Hub       | 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

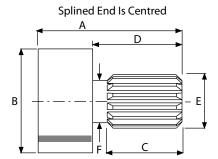
# SPLINED STUBWELDS FOR SAE HYDRAULIC APPLICATIONS

# **DETAILS AND APPLICATIONS**

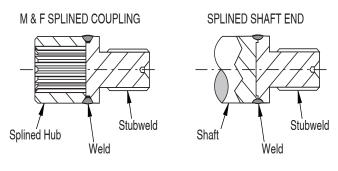
Material is alloy steel with splined end fully hardened. Buttress end is left as soft as possible for later machining and welding. Machining is held true on all surfaces for setup. Ideal for use with precision splined hubs for manufacturing of M & F couplings. Stubwelds may also be used for replacing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











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

# **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<br>Number # | Vickers part<br>Number * | Description               | Part Size          |
|----------------------|--------------------------|---------------------------|--------------------|
| 56/01004             | 526682                   | 9T 16/32DP - 15T 16/32DP  | 41.70D X 68 Long   |
| 56/03004             | 526694                   | 13T 16/32DP - 15T 16/32DP | 41.70D X 93 Long   |
| 56/04006             | 526696                   | 15T 16/32DP - 14T 12/24DP | 41.70D X 93 Long   |
| 56/03027             | 864457                   | 13T 16/32DP - 17T 16/32DP | 41.70D X 95.3 Long |
| 56/06027             | 864458                   | 14T 12/24DP - 17T 16/32DP | 41.70D X 95.3 Long |
| 56/01027             | 864460                   | 9T 16/32DP - 17T 16/32DP  | 41.70D X 70.3 Long |
| 56/01006             | 877039                   | 9T 16/32DP - 14T 12/24DP  | 41.70D X 63.7 Long |
| 56/03006             | 877040                   | 13T 16/32DP - 14T 12/24DP | 41.70D X 88.9 Long |
| 56/00006             | 844045                   | 14T 12/24DP               | 41.70D X 88.9 Long |
| 56/06032             | 877046                   | 14T 12/24DP - 17T 12/24DP | 47.60D X 78.8 Long |





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

# **SPLINED BUSHES, SLIP SLEEVES & ADAPTORS**



PLAIN DYNAGEAR



TYPE 2 EXTENDED DYNAGEAR



TYPE 3 SNAP RING (EUROPE)



TYPE 4 **FUNK GEARBOX** 



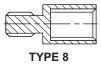
TYPE 5 **DIN 1:8 TAPER WITH KEY** Has recess for nut



TYPE 6 DIN TAPER THREADED CW pumps only



TYPE 7 **CONQUIP FRONT PTO** 



MALE/FEMALE



TERREL DURST GEARBOX

| . D D U Э | TES, SLIP SLEE                       | VES & ADAPTOR                        | (3               |                             |
|-----------|--------------------------------------|--------------------------------------|------------------|-----------------------------|
|           |                                      | Female Spline                        | Overall          |                             |
| Type      | Male Spline                          | Or Round Bore                        | 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<br>13T 1 3/4" 8/16   | 14T 1 1/4" 12/24<br>14T 1 1/4" 12/24 | 1.200"<br>3.000" | 58/03/20006<br>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<br>13T 1 3/4" 8/16   | 11T 3/4" 16/32<br>13T 7/8" 16/32     | 1.200"<br>1.375" | 58/03/20002<br>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<br>58/03/20012  |
| 2         | 13T 1 3/4" 8/16<br>13T 1 3/4" 8/16   | Round 5/8" Keyed Round 7/8" Keyed    | 1.375"<br>1.375" | 58/03/20012                 |
| 2         | 13T 1 3/4" 8/16                      | Round 1.0" Keyed                     | 1.375"           | 58/03/20015                 |
| 2         | 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<br>14T 1 1/4" 12/24     | 9T 5/8" 16/32<br>11T 3/4" 16/32      | 1.500"<br>45mm   | 58/03/01666<br>58/03/10002L |
| 3         | 14T 1 1/4" 12/24<br>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<br>23T 48mm DIN         | 9T 5/8" 16/32<br>11T 3/4" 16/32      | 1.065"<br>45mm   | T2060038<br>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<br>3    | 23T 48mm DIN<br>23T 48mm DIN         | 18T 25mm DIN<br>15T 1.0" 16/32       | 45mm<br>45mm     | 32/03/30020<br>32/03/30004  |
| 3         | 23T 48mm DIN                         | 15T 1.0" 16/32                       | 29mm             | 32/03/30004<br>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<br>23T 48mm DIN         | 14T 1 ½" 12/24                       | 60mm             | 32/03/30006L                |
| 3         | 23T 48mm DIN                         | 21T 1 3/8" 16/32<br>16T 35mm DIN     | 45mm<br>45mm     | 32/03/30007<br>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<br>29T 62mm DIN         | 23T 1 1/2" 16/32<br>14T 1 1/4" 12/24 | 1 3/4"<br>55mm   | 32/03/30043<br>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<br>028584            |
| 4         | 13T 1 3/4" 8/16<br>13T 1 3/4" 8/16   | 15T 1" 16/32<br>14T 1 1/4" 12/24     | 2.000"<br>2.000" | 028584                      |
| 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<br>6    | 13T 1 3/4" 8/16<br>13T 7/8" 16/32    | Taper DIN 3 Taper DIN 2 1:8          | 40mm<br>1.750"   | 58/03/20017<br>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<br>13T 1 3/4" 8/16   | 15T 1.0" 16/32<br>19T 1 1/4" 16/32   | 1.750"<br>2.375" | TS20900246<br>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 HUBS & COUPLINGS**

# **ROUND BORE WELD-IN HUBS**

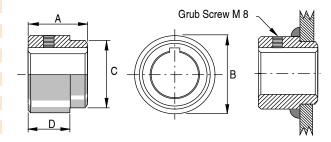
| Bore   | Keyway  | Α    | В    | С  | D  | Part<br>Number |
|--------|---------|------|------|----|----|----------------|
| 1/2"   | None    | 58.5 | 63.5 | 58 | 49 | 91/80067       |
| 0.750" | 0.187"  | 58.5 | 63.5 | 58 | 49 | 91/80013       |
| 19 mm  | 6 mm    | 58.5 | 63.5 | 58 | 49 | 91/80073       |
| 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.

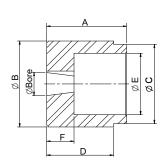
Contact our sales office for a quote.

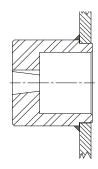
# Combination 3/16" and 1/4" keyway

# **TAPERED BORE WELD-IN HUBS**

| Туре     | Bore   | Taper | Keyway | A    | В    | С  | D  | E  | F    | Part<br>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 | 91/800180      |

Other sizes may be manufactured to order if in sufficient quantity. Contact our sales office for a quote.

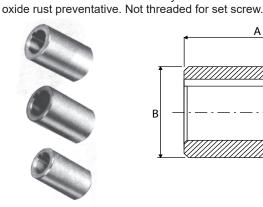


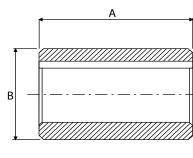


# **ROUND BORE MUFF COUPLINGS**

| Bore   | Keyway | Α     | В        | Part<br>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       |

# Combination 1/4" and 5/16" keyway for p/n 95/60087.





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

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







### 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.
REFER PAGE 46 & 47



FOR BORE CODE DESCRIPTIONS



# FLEXILOCK FLEXIBLE COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

# **63 SERIES FLEXIBLE COUPLINGS**



# PERFORMANCE SPECIFICATIONS.

| 4 | Contir     | nuous     | 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 |  |  |

**63 Series Element** 

Part Number - 90/03/05741

Description - White with 29 teeth

SPLINED CLA HUBS

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

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

# "CLAMPLOCK" TYPE "CLA" SPLINE LOCKING MECHANISM MECHANISM SPLINED SHAFT DRIVE SHAFTS MAY PROTRUDE THROUGH TO CENTRE LINE OF COUPLING ELEMENT

# **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.

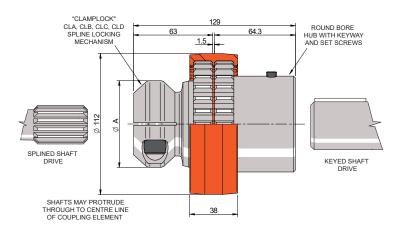
| Continuous |            | Intermittent |            |  |
|------------|------------|--------------|------------|--|
| Power/Rev* | Torque     | Power/Rev*   | Torque     |  |
|            |            |              |            |  |
| 0.0354 kW  | 339 Nm     | 0.0469 kW    | 475 Nm     |  |
| 0.0475 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<br>OD | No. of<br>Teeth | DP/<br>MOD | Part<br>No. |
|--------------|-----------------|------------|-------------|
| 5/8"         | 9               | 16/32      | 91/CLB01    |
| 7/8"         | 13              | 16/32      | 91/CLB03    |
| 25 mm        | 18              | 1.25       | 91/CLB20    |
| 1"           | 15              | 16/32      | 91/CLB04    |
| 30 mm        | 14              | 2          | 91/CLC10    |
| 1 1/4"       | 14              | 12/24      | 91/CLC06    |
| 1 3/8"       | 6               | 6B         | 91/CLC33    |
| 32 x 36      | 8               | -          | 91/CLC115   |
| 35 mm        | 16              | 2          | 91/CLC11    |
| 1 1/2"       | 17              | 12/24      | 91/CLC32    |
| 1 1/2"       | 23              | 16/32      | 91/CLC43    |
| 1 3/4"       | 13              | 8/16       | 91/CLD08    |
| 1 3/4"       | 21              | 16/32      | 91/CLC07    |
|              |                 |            |             |



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

| Clamplock<br>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



# 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 |
|--------------|-----------|
| AXIALSPLINED | CLAMPLOCK |

| Opinio | 140. 01 | D1 /  | i ait     |
|--------|---------|-------|-----------|
| OD     | Teeth   | MOD   | 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 |
|        |         |       |           |

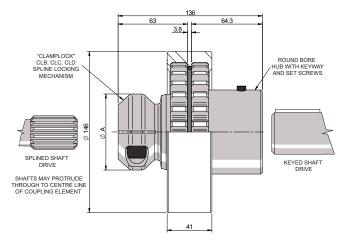
| Nominal<br>Bore | No. of<br>Teeth | DP/<br>MOD | Part<br>No. |
|-----------------|-----------------|------------|-------------|
| 40 mm           | 18              | 2          | 92/SLDA41   |
| 45 mm           | 21              | 2          | 92/SLDA42   |
| 1 3/4"          | 13              | 8/16       | 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   |

| 0.87 |
|------|
| 1.00 |
| 1.25 |
| 38m  |
| 1.50 |
| 40m  |
| 42m  |
| 1.75 |
| 45m  |
| 48m  |

| Bore        | Keyway | Part No. |
|-------------|--------|----------|
| 0.500"      | None   | 92/90067 |
| Din 3 taper | 4mm    | 92/90017 |
| 0.875"      | 0.250" | 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 |

# PERFORMANCE SPECIFICATIONS.

| Continuous |                  | Intermittent                       |  |  |
|------------|------------------|------------------------------------|--|--|
| Torque     | Power/Rev*       | Torque                             |  |  |
|            |                  |                                    |  |  |
| 632 Nm     | 0.0915 kW        | 884 Nm                             |  |  |
| 466 ft lbs | 0.1242 hp        | 652 ft lbs                         |  |  |
|            | Torque<br>632 Nm | Torque Power/Rev* 632 Nm 0.0915 kW |  |  |



# **Coupling Hub Arrangements**

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

| Clamplock<br>Size | Δ. |  |
|-------------------|----|--|
|                   |    |  |
| CLB               | 55 |  |
| CLC               | 69 |  |
| CLD               | 79 |  |

| ROUND BORE HUB WITH KEYWAY AND SET SCREWS  SPLINED SHAFT DRIVE  SHAFTS MAY PROTRUDE THROUGH TO CENTRE LINE OF COUPLING ELEMENT |
|--|
|--|

# **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

# GUARDEX,

# **GUARDIAN MINI SHAFT COUPLINGS**

# FLEXIBLE MINI SHAFT COUPLINGS

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



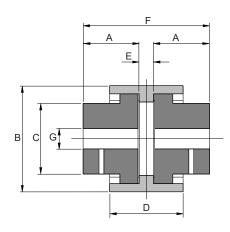






MADE IN USA

| Type | No. of<br>teeth | Α    | В    | С    | D  | E | F  | G<br>Min./Max. | Basic<br>Torque Nm* | Basic kW<br>Per 100 RPM* | Weight<br>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.

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

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

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

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 misalighment.

Interchanges with UCC DC-42 couplings.



С

| Туре  | No. of<br>teeth | Α  | В    | С  | D  | E | F  | G<br>Min./Max. | Max Speed<br>RPM | * Rating<br>per 100 RPM<br>kW | Weight<br>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 = \*RPM (application) x 100 x SF

RPM (application)

Maximum angular misalignment is ±2°. Maximum radial misalignment is ±0.4mm.

# Refer page 35 for service factors (SF)

# **Bore Size Options**

Nylon element HOF28/S

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

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







# **DYNAGEAR REPLACEMENT ELEMENTS**

# **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.









DG/4-30 DG/4-30CB

DG/40-140 DG/40-140CB

DG/30 - 110HAL OR H

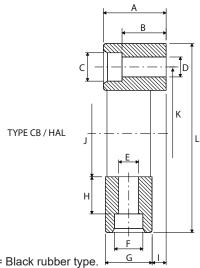
DG/140HAL OR H

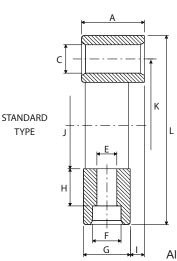
# **ORDER CODE**

| 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<br>/CB/HAL | Α  | В    | С    | D    | E    | F    | G    | Н    | 1 | J   | K<br>Spacing | L   | Nominal<br>Torque | Max<br>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 displacment 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  $2^{\circ}$  at 1400 rpm. This is speed dependent.

### PERFORMANCE SPECIFICATIONS.

| SERIES | Continuous<br>Torque | Maximum<br>Torque | Intermittent<br>Torque |
|--------|----------------------|-------------------|------------------------|
| DG8    | 100 Nm               | 250 Nm            | 157 Nm                 |
|        | 83 ft lbs            | 183 ft lbs        | 116 ft lbs             |
| DG25   | 315 Nm               | 800 Nm            | 475 Nm                 |
|        | 250 ft lbs           | 590 ft lbs        | 350 ft lbs             |
| DG50   | 700 Nm               | 2000 Nm           | 884 Nm                 |
|        | 466 ft lbs           | 1475 ft lbs       | 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\*9549)/1440 = 10 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. TAPERLOCK STYLE ROUND BORE DIMENSIONS. **SERIES SERIES** 52 DG8 44.6 33 120 69 DG8 25.4 33 120 78 DG25 62 39 46 170 79 DG25 31.8 46 170 99 DG50 71 43 58 200 DG50 65.0 200 113 (4) ➅ **(3)** Hub Type Half lub Type Half Type Half Type \_/ Half Round Bore Flange to Round Bore Hub Type \_\_\_\_ Spline Flange to Spline Hub Type Spline Flange to Round Bore Hub Type Round Bore Flange to Spline Hub Type

All dimensions in mm.



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

|  | Spline<br>OD  | No.<br>of teeth   | DP   | Part N<br>Hub  | umber<br>Flange  | Bore<br>OD  | Кеуч  | vay  | Hub<br>TLB 1108   | Number<br>Flange<br>TLB 1210<br>bore #)   |
|--|---|---|--|--|--|---|---|--|---|---|
| DG8                                    | 5/8"<br>7/8"<br>1"<br>1 1/4"  | 9<br>13<br>15<br>14   | 16/32<br>16/32<br>16/32<br>12/24   | DG8HB01<br>DG8HB03<br>DG8HB04<br>DG8HB06   | DG8FL01<br>DG8FL03<br>DG8FL04<br>DG8FL06   | 7/8"<br>1"<br>1 1/4"<br>24<br>25                        | 1/4<br>1/4<br>3 5/1<br>8 8  | 1"<br>6"   | DG8HB14<br>DG8HB15<br>-<br>DG8HB74<br>DG8HB26   | DG8FL14 DG8FL15 DG8FL24 DG8FL74 DG8FL26   |
|  | Rubbe   | r Elemen  | t Part Number  | DG/8CB   |  | 30  | 8   |  | -   | DG8FL79   |
|  | Spline<br>OD o  | No.<br>of teeth   | DP   | Part N<br>Hub  | umber<br>Flange  | Spline<br>OD  | No.<br>of teeth   | MOD  | Part N<br>Hub   | lumber<br>Flange  |
|  | 7/8"<br>1"<br>1"  | 13<br>15<br>6   | 16/32<br>16/32<br>6B Straight  | DG25HB03<br>DG25HB04<br>DG25HB05   | DG25FL03<br>DG25FL04<br>DG25FL05   | 30<br>35<br>36  | 14<br>16<br>8   | 2<br>2 MOD<br>STRAIGHT                                     | DG25HB10<br>DG25HB11<br>DG25HB115   | -<br>-  |
|  | 1 1/4"<br>1 3/8"<br>1 3/8"  | 14<br>6<br>21   | 12/24<br>6B Straight<br>16/32  | DG25HB06<br>DG25HB33<br>DG25HB07   | DG25FL06<br>DG25FL33<br>DG25FL07   | 40<br>45  | 18<br>21  | 2 2  | -   | DG25FL41<br>DG25FL42  |
| 52                                     | 1 1/2"<br>1 1/2"<br>1 1/2"  | 14<br>17<br>23  | 10/20<br>12/24<br>16/32  | DG25HB32<br>DG25HB43   | DG25FL36   |   |   |  |   |   |
| DG25                                   | 1 3/4"<br>1 3/4"  | 13<br>27  | 8/16<br>16/32  | DG25HB08   | DG25FL08<br>DG25FL09   |   |   |  |   |   |
|  | Bore  | Keyv  | vay  | Part N   |  | Bore (  | OD Keyv   | vay  |   | lumber  |
|  | OD  |   |  | Hub<br>TLB 1210<br>(max.)  | Flange<br>TLB 2012<br>pore #)  |   |   |  | Hub<br>TLB 1210<br>(max.  | Flange<br>TLB 2012<br>bore #)   |
|  | 1 1/4"  | 5/1   |  | DG25HB24   | DG25FL24   | 32  | 10  |  | DG25HB80  |   |
|  | 1 1/2"  | 3/8   | <b>5</b> "   | DG25HB60   | DG25FL60   | 35<br>38  | 10<br>10  | )  | DG25HB50<br>DG25HB51  | DG25FL51  |
|  |   |   |  |  |  |   |   |  |   |   |
|  | Rubbe   | r Elemen  | t Part Number  | DG/25CB  |  | 42  | 12<br>14  |  | -   | DG25FL53<br>DG25FL55  |
|  | Spline  | No.   | t Part Number  | Part N   | umber  | 48<br>Spline  | 14<br>No.   |  | Part Nu   | DG25FL55<br>imber   |
|  | Spline  |   |  |  | umber<br>Flange  | 48<br>Spline  | 14  | 1  | -   | DG25FL55  |
|  | Spline<br>OD o  | No.<br>of teeth   | DP<br>12/24  | Part N   | Flange<br>DG50FL06   | Spline OD of  | No.<br>of teeth   | MOD 2  | Part Nu<br>Hub<br>DG50HB41  | DG25FL55 Imber Flange DG50FL41  |
|  | Spline<br>OD 0<br>1 1/4"<br>1 3/8"<br>1 1/2"  | No. of teeth  14 21 14  | 12/24<br>16/32<br>10/20  | Part N<br>Hub<br>-<br>DG50HB36   | Flange DG50FL06 DG50FL07   | 48<br>Spline<br>OD c<br>40<br>45<br>55                  | No. of teeth  18 21 26  | MOD 2 2 2 2 2  | Part Nu<br>Hub<br>DG50HB41<br>DG50HB42<br>DG50HB47  | DG25FL55 mber Flange DG50FL41 DG50FL42 DG50FL47   |
|  | Spline<br>OD 0<br>1 1/4"<br>1 3/8"<br>1 1/2"<br>1 3/4"  | No. of teeth  14 21 14 13   | 12/24<br>16/32<br>10/20<br>8/16  | Part N<br>Hub<br>-<br>DG50HB36<br>DG50HB08   | Plange DG50FL06 DG50FL07 - DG50FL08  | Spline OD of 40 45                                      | No. of teeth  18 21   | MOD 2 2 2  | Part Nu<br>Hub<br>DG50HB41<br>DG50HB42<br>DG50HB47  | DG25FL55 Imber Flange DG50FL41 DG50FL42   |
|  | Spline<br>OD 0<br>1 1/4"<br>1 3/8"<br>1 1/2"<br>1 3/4"<br>1 3/4"<br>2"  | No. of teeth  14 21 14  | 12/24<br>16/32<br>10/20  | Part N<br>Hub<br>-<br>DG50HB36   | Flange DG50FL06 DG50FL07   | 48<br>Spline<br>OD c<br>40<br>45<br>55                  | No. of teeth  18 21 26  | MOD 2 2 2 2 2  | Part Nu<br>Hub<br>DG50HB41<br>DG50HB42<br>DG50HB47  | DG25FL55 mber Flange DG50FL41 DG50FL42 DG50FL47   |
| 20                                     | Spline<br>OD 0<br>1 1/4"<br>1 3/8"<br>1 1/2"<br>1 3/4"<br>1 3/4"  | No. of teeth  14 21 14 13 27  | 12/24<br>16/32<br>10/20<br>8/16<br>16/32   | Part N<br>Hub<br>-<br>DG50HB36<br>DG50HB08<br>DG50HB09   | DG50FL06<br>DG50FL07<br>-<br>DG50FL08<br>DG50FL09<br>DG50FL37<br>DG50FL48  | 48<br>Spline<br>OD c<br>40<br>45<br>55                  | No. of teeth  18 21 26  | MOD 2 2 2 2 2  | Part Nu<br>Hub<br>DG50HB41<br>DG50HB42<br>DG50HB47  | DG25FL55 mber Flange DG50FL41 DG50FL42 DG50FL47   |
| DG50                                   | Spline<br>OD 0<br>1 1/4"<br>1 3/8"<br>1 1/2"<br>1 3/4"<br>1 3/4"<br>2"<br>2 1/4"                              | No. of teeth  14 21 14 13 27 15 26 17   | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16  | Part N<br>Hub  - DG50HB36 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012   | DG50FL06<br>DG50FL07<br><br>DG50FL08<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96   | 48<br>Spline<br>OD c<br>40<br>45<br>55                  | No. of teeth  18 21 26 28   | MOD  2 2 2 2 2   | Part Nu<br>Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu<br>Hub  TLB 2012   | DG25FL55 mber Flange  DG50FL41 DG50FL47 DG50FL118  mber Flange TLB 3525   |
| DG50                                   | Spline OD 0  1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4"  Bore O  | No. of teeth  14 21 14 13 27 15 26 17  D Keyv   | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16  | Part N<br>Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.)                                   | Flange DG50FL06 DG50FL07 DG50FL08 DG50FL09 DG50FL37 DG50FL48 DG50FL96 umber Flange   | 48<br>Spline<br>OD 0<br>40<br>45<br>55<br>60<br>Bore Ol | No. of teeth  18 21 26 28   | MOD  2 2 2 2 2   | Part Nu<br>Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu Hub TLB 2012 (max. b   | DG25FL55 mber Flange  DG50FL41 DG50FL47 DG50FL118  mber Flange TLB 3525   |
| DG50                                   | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" Bore O   | No. of teeth  14 21 14 13 27 15 26 17  D Keyv   | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16  | Part N<br>Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.)                                   | DG50FL06<br>DG50FL07<br>DG50FL08<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>umber<br>Flange<br>TLB 3525<br>pore #)                         | 48<br>Spline<br>OD 0<br>40<br>45<br>55<br>60<br>Bore Ol | No. of teeth  18 21 26 28  D Keywa  | MOD  2 2 2 2 2   | Part Nu Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu Hub  TLB 2012  (max. b)   | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #) DG50FL80                                      |
| DG50                                   | Spline OD 0  1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4"  Bore O  | No. of teeth  14 21 14 13 27 15 26 17  D Keyv   | DP  12/24 16/32 10/20 8/16 16/32 8/16 12/24 8/16  vay  | Part N<br>Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.)                                   | DG50FL06<br>DG50FL07<br><br>DG50FL08<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96   | 48<br>Spline<br>OD 0<br>40<br>45<br>55<br>60<br>Bore Ol | No. of teeth  18 21 26 28  D Keywa  10 10 10 12   | MOD  2 2 2 2 2   | Part Nu<br>Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu Hub TLB 2012 (max. b   | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)   |
| DG50                                   | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" 2 1/4" Bore O  | No. of teeth  14 21 14 13 27 15 26 17  D Keyv   | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16  | Part N<br>Hub  DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60                   | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48<br>Spline<br>OD 0<br>40<br>45<br>55<br>60<br>Bore Ol | No. of teeth  18  | MOD  2 2 2 2 2   | Part Nu<br>Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu<br>Hub  TLB 2012  (max. b)  DG50HB80  DG50HB51  DG50HB53  DG50HB53           | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55          |
| DG50                                   | Spline OD 0  1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" 2 1/4"  Bore O  1 1/4" 1 1/2" 1 3/4" 2 1/4"                | No. of teeth  14 21 14 13 27 15 26 17  D Keyv   | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16  | Part N Hub  DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.)  DG50HB24 DG50HB60 DG50HB61            | DG50FL06<br>DG50FL08<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>umber<br>Flange<br>TLB 3525<br>pore #)                                     | 48 Spline OD 0 40 45 55 60  Bore Ol 32 38 42            | No. of teeth  18 21 26 28  D Keywa  10 10 10 12   | MOD  2 2 2 2 2   | Part Nu Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu Hub  TLB 2012  (max. b)  DG50HB80  DG50HB51  DG50HB53                           | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53                   |
| DQ                                     | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" Bore O 1 1 1/4" 1 1/2" 1 3/4" 2 1/4" Rubbe                 | No. of teeth  14 21 14 13 27 15 26 17  D Keyv  5/11 3/8 7/11 1/2 1/2 r Elemen                               | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16<br>vay                                 | Part N Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60 DG50HB61 - DG/50CB | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48<br>Spline<br>OD 0<br>45<br>55<br>60<br>Bore Ol       | No. of teeth  18 21 26 28  D Keywa  10 10 12 14 14  | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                      | Part Nu<br>Hub  DG50HB41  DG50HB42  DG50HB47  DG50HB118  Part Nu<br>Hub  TLB 2012  (max. b)  DG50HB80  DG50HB51  DG50HB53  DG50HB55  DG50HB56 | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55 DG50FL55 |
| # - Ti                                 | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2 1/4" 2 1/4" Bore O 1 1 1/4" 1 1/2" 1 3/4" 2 1/4" Rubbe saperlock E | No. of teeth  14 21 14 13 27 15 26 17  D Keyw  5/11 3/8 7/11 1/2 1/2 r Elemen  Sush Series                  | 12/24<br>16/32<br>10/20<br>8/16<br>16/32<br>8/16<br>12/24<br>8/16<br>vay                                 | Part N Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60 DG50HB61 - DG/50CB | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48 Spline OD 0 40 45 55 60  Bore Ol 32 38 42 48 50      | 14 No. of teeth  18 21 26 28  D Keywa  10 10 12 14 14  # - Taperlock 1108                   | MOD  2 2 2 2 2 2 3 3 4  Bush Series - ma 1" (1 1/8         | Part Nu Hub  DG50HB41 DG50HB42 DG50HB47 DG50HB118  Part Nu Hub TLB 2012 (max. b DG50HB51 DG50HB53 DG50HB55 DG50HB56                           | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55 DG50FL55 |
| # - Ti<br>1108<br>1210                 | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2 1/4" Bore O 1 1 1/4" 1 1/2" 1 3/4" 2 1/4" Rubbe                    | No. of teeth  14 21 14 13 27 15 26 17  D Keyv  5/11 3/8 7/11 1/2 r Elemen: Bush Series                      | 12/24 16/32 10/20 8/16 16/32 8/16 12/24 8/16  12/24 8/16  vay  t Part Number - max. bore size ((28)      | Part N Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60 DG50HB61 - DG/50CB | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48 Spline OD 0 40 45 55 60  Bore Ol 32 38 42 48 50      | 14 No. of teeth  18 21 26 28  D Keywa  10 10 12 14 14 14  # - Taperlock 1108 1210           | MOD  2 2 2 2 2 2 2 1 1/1/11/11/11/11/11/11/11/11/11/11/11/ | Part Nu Hub  DG50HB41 DG50HB42 DG50HB47 DG50HB118  Part Nu Hub TLB 2012 (max. b)  DG50HB80 DG50HB51 DG50HB53 DG50HB55 DG50HB55 DG50HB56       | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55 DG50FL55 |
| # - Ti<br>1108<br>1210<br>1615<br>2012 | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" Bore O 1 1 1/4" 1 1/2" 1 3/4" 2 2 1/4" Rubbe gaperlock E   | No. of teeth  14 21 14 13 27 15 26 17  D Keyv  5/11 3/8 7/11 1/2 1/2 1/2  r Elemen  Sush Series 25 32 40 50 | 12/24 16/32 10/20 8/16 16/32 8/16 12/24 8/16  12/24 8/16  vay  t Part Number - max. bore size ((28) (42) | Part N Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60 DG50HB61 - DG/50CB | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48 Spline OD 0 40 45 55 60  Bore Ol 32 38 42 48 50      | 14 No. of teeth  18 21 26 28  D Keywa  10 10 12 14 14 14  # - Taperlock 1108 1210 1615 2012 | MOD  2 2 2 2 2 2 1 1/1/1/1/1/1/1/1/1/1/1/1/                | Part Nu Hub  DG50HB41 DG50HB42 DG50HB47 DG50HB118  Part Nu Hub TLB 2012 (max. b DG50HB51 DG50HB53 DG50HB55 DG50HB55 DG50HB56                  | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55 DG50FL55 |
| # - Ti<br>1108<br>1210<br>1615         | Spline OD of 1 1/4" 1 3/8" 1 1/2" 1 3/4" 2" 2 1/4" Bore O 1 1 1/4" 1 1/2" 1 3/4" 2 2 1/4" Rubbe gaperlock E   | No. of teeth  14 21 14 13 27 15 26 17  D Keyv  5/11 3/8 7/11 1/2 1/2 1/2  r Elemen  Sush Series 25 32 40 50 | 12/24 16/32 10/20 8/16 16/32 8/16 12/24 8/16  12/24 8/16  vay  t Part Number - max. bore size ((28) (42) | Part N Hub  - DG50HB36 DG50HB08 DG50HB09 DG50HB37 DG50HB48 DG50HB96  Part N Hub TLB 2012 (max.) DG50HB24 DG50HB60 DG50HB61 - DG/50CB | DG50FL06<br>DG50FL07<br>DG50FL09<br>DG50FL37<br>DG50FL48<br>DG50FL96<br>Umber<br>Flange<br>TLB 3525<br>DOTE #)<br>DG50FL60<br>DG50FL61<br>DG50FL61 | 48 Spline OD 0 40 45 55 60  Bore Ol 32 38 42 48 50      | 14 No. of teeth  18 21 26 28  D Keywa  10 10 12 14 14 14  # - Taperlock 1108 1210 1615      | MOD  2 2 2 2 2 2 1 1/1/1/1/1/1/1/1/1/1/1/1/                | Part Nu Hub  DG50HB41 DG50HB42 DG50HB47 DG50HB118  Part Nu Hub TLB 2012 (max. b)  DG50HB80 DG50HB51 DG50HB53 DG50HB55 DG50HB55 DG50HB56       | DG25FL55 mber Flange  DG50FL41 DG50FL42 DG50FL47 DG50FL118  mber Flange TLB 3525 ore #)  DG50FL80 DG50FL51 DG50FL53 DG50FL55 DG50FL55 |

ISO recommendations with the exception of those marked (bold) which are shallower. \* OTHER SIZES ARE AVAILABLE UPON REQUEST. HYTREL ELEMENT AVAILABLE UPON REQUEST. CONTACT OUR SALES OFFICE.

HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 43 &



**ELECTRIC MOTOR SIZES PAGE 44. REFER PAGE 46 & 47** 



<sup>†</sup> FOR SHAFT SIZES SEE



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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

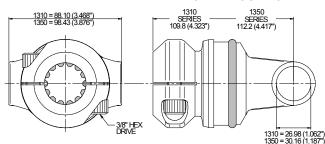
Specially developed for positive connection of driveline to splined hydraulic pump shafts.

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**



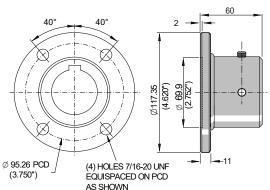


|           | SERIES 1310  | CLAMPLOCK YO | KES          |
|-----------|--------------|--------------|--------------|
| Spline OD | No. of teeth | DP/MOD       | Part No.     |
| 7/8"      | 13           | 16/32        | 84/02/13103  |
| 1"        | 15           | 16/32        | 84/02/13104  |
| 1"        | 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



| 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 |

| TAPER BORE SERIES - 1350 & 1410 Spicer                   | B .  |
|--|--|
| 40°  | <del>                                     </del> |
| 0,2582<br>0,2582<br>0,2582<br>0,2582<br>0,2582<br>0,2582 | 49. 39. 39. 39. 39. 39. 39. 39. 39. 39. 3        |
| Ø 95.26 PCD (4) HOLES 7/16-20 UNF EQUISPACED ON PCD      | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,          |
| AS SHOWN   |  |

| "A" Bore | Keyway | В  | 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.

84/F3CLD42



# UNIVERSAL JOINT DRIVE TRAIN COMPONENTS SPLINED YOKES AND COMPANION FLANGES

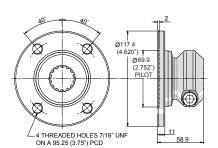
# SPLINED CLAMPLOCK TYPE UNIVERSAL JOINT COMPANION FLANGES



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.

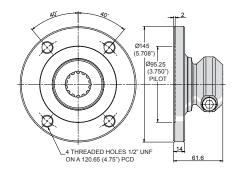


| CLC & CLD SERIES - 1350 & 1410 Spicer* |       |             |             |  |  |
|--|-------|-------------|-------------|--|--|
| Nom                                    | No Of | DP/         |             |  |  |
| Spline OD                              | Teeth | MOD         | Part No.    |  |  |
| 7/8"                                   | 13    | 16/32       | 84/F3CLB03  |  |  |
| 1"                                     | 15    | 16/32       | 84/F3CLC04  |  |  |
| 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  |  |  |

\*To Suit Spicer flanges 1260 - 2.2.479, 1310 - 2.2.479, 1350 - 3.2.119 and 1410 - 3.2.159.

21

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



| Nom       | No Of | DP/   |             |
|-----------|-------|-------|-------------|
| Spline OD | Teeth | 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.

# FOR BORE CODE DESCRIPTIONS

### REFER PAGE 46 & 47

45 mm

### **MATCHING YOKES** Matching yokes listed here are included as a guide only. These are not in our product range. To purchase 1260 2-2-479 84/F3 ..... the matching yokes contact your 1310 2-2-479 84/F3 ..... driveline supplier. 84/F3 ..... 1350 3-2-119 1410 3-2-159 84/F3 ..... Flanged adaptors to suit other Spicer 1410 3-2-429 84/F5 ..... sizes may be available. Contact our 1480 3-2-479 84/F5 ..... sales office. 1550 4-2-669 84/F5 .....



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

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

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

 $lbf ft = Nm \times 0.7376$ 

Nm = lbf ft x 1.356

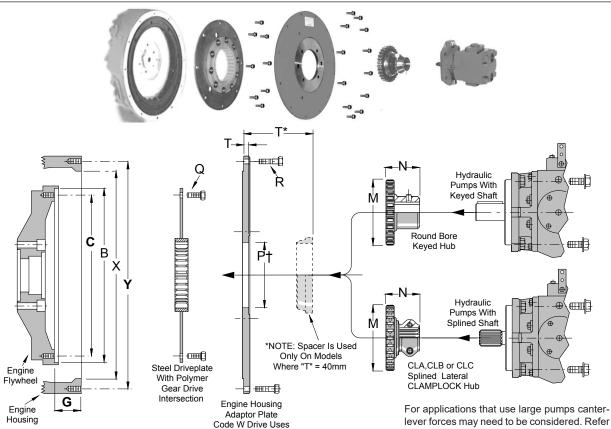
<sup>#</sup> EAI Code 'R' used on Hatz Diesel engines where the "G" dimension is 23mm. Refer to PT112 for full details. For Diesel engine flywheel and engine housing industry standards refer to inside back cover. Series 195- Number of teeth on element equals 44 teeth.



<sup>\*</sup> Spacer used on this model - see drawing next page.



# HYDRAULIC PUMP DRIVE KITS FOR DIESEL ENGINES



FOR OTHER DIMENSIONS SEE <u>DIESEL ENGINE STANDARDS INSIDE BACK COVER</u> & <u>HYDRAULIC PUMP STANDARDS PAGE 43</u> TO CONFIRM YOUR APPLICATION SIZING.

Extended Steel Bell Housina T = 51mm

# TABLE 3

| SPLINED PUMP SHAFT OPTIONS |       |       |       |  |  |  |  |  |
|----------------------------|-------|-------|-------|--|--|--|--|--|
| Nominal                    | No Of | DP/   | Shaft |  |  |  |  |  |
| Spline OD                  | Teeth | MOD   | 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**

| 110011 | DOIL          | <b>'L'ILD</b> |               |                 | 110110    |
|--------|---------------|---------------|---------------|-----------------|-----------|
| 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" Ke | yway. C       | Other sizes a | vailable contac | ct sales. |
|        |               | 4             | O TABE        | _               |           |

DIN 1 IN 8 TAPER

14.7mm DIN 2 **16** 19mm DIN 3 **17** 

# **FLYWHEEL IDENTIFICATION - SAEJ620D**

to PT70 for more information.

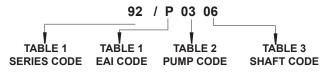
| FW No  | "C"                       | "B"              | "G"                    | <b>Bolts</b> | "Q"   |
|--------|---------------------------|------------------|------------------------|--------------|-------|
| 6 1/2  | 7.875" ( <b>200.02</b> )  | 8.500" (215.90)  | 1.187" ( <b>30.2</b> ) | 6            | 5/16" |
| 7 1/2  | 8.750" ( <b>222.25</b> )  | 9.500"(241.30)   | 1.187" (30.2)          | 8            | 5/16" |
| 8      | 9.625" ( <b>244.48</b> )  | 10.375"(263.52)  | 2.441" ( <b>62.0</b> ) | 6            | 3/8"  |
| 10     | 11.625" ( <b>295.28</b> ) | 12.375"(314.32)  | 2.118" (53.8)          | 8            | 3/8"  |
| 11 1/2 | 13.125" (333.38)          | 13.875"(352.42)  | 1.559" ( <b>39.6</b> ) | 8            | 3/8"  |
| 14     | 17.250" ( <b>438.15</b> ) | 18.375"(466.72)  | 1.000" (25.4)          | 8            | 1/2"  |
| 16     | 19.250" ( <b>488.95</b> ) | 20.375" (517.52) | 0.62" (15.7)           | 8            | 1/2"  |
| 18     | 21.375"( <b>542.92</b> )  | 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" ( <b>285.75</b> ) | 8     | 3/8"    |
| SAE 5   | 12.375" (314.32) | 13.125" ( <b>333.38</b> ) | 8     | 3/8"    |
| SAE 4   | 14.250" (361.95) | 15.000" ( <b>381.00</b> ) | 12    | 3/8"    |
| SAE 3   | 16.125" (409.58) | 16.875" ( <b>428.62</b> ) | 12    | 3/8"    |
| SAE 2   | 17.625" (447.68) | 18.375" ( <b>466.72</b> ) | 12    | 3/8"    |
| SAE 1   | 20.125" (511.18) | 20.875" ( <b>530.22</b> ) | 12    | 7/16"   |
| SAE 1/2 | 23.000" (584.20) | 24.375" ( <b>619.12</b> ) | 12    | 1/2"-13 |
| SAE 0   | 25.500" (647.70) | 26.750" ( <b>679.45</b> ) | 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.

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# REPLACEMENT FLYWHEEL DRIVE PLATES FOR STANDARD SAE DIESEL ENGINES

# A COMPLETE ENGINEERED PRODUCT.

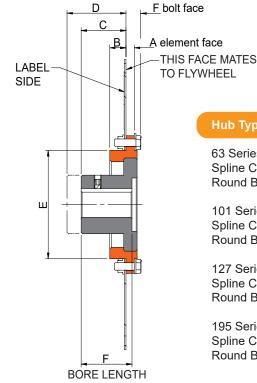
Using a FLEXILOCK flywheel drive plate permits the customer to make a reliable pre-engineered connection between the engine and hydraulic pump. These drive plates, with our Flexilock hubs can be used as a drop in replacement or for a new installation where the customer has an emgine housing pump adaptor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

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.

LONG TROUBLE FREE LIFE.

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 F        |
|--|--------------|
| 63 Series<br>Spline Clamplock<br>Round Bore  | 21.3<br>20   |
| 101 Series<br>Spline Clamplock<br>Round Bore | 45.2<br>58.5 |
| 127 Series<br>Spline Clamplock<br>Round Bore | 45.2<br>58.5 |
| 195 Series<br>Spline Clamplock<br>Round Bore | 45.2<br>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<br>FW | A   | В    | С    | D  | E    | F    | OEM<br>P/No. |
|--------------|-----|------|------|----|------|------|--------------|
| 6 1/2        | 9.6 | 11.6 | 24.6 | -  | 100  | 12.4 | 90/05C00     |
| 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 | 90/01E00     |
| 7 1/2        | 0   | 46   | 37   | 60 | 76.2 | 1.8  | 90/01F00     |
| 8            | 0   | 46   | 37   | 60 | 76.2 | 1.8  | 90/06GJ0     |
| 10           | 0   | 46   | 37   | 60 | 76.2 | 1.8  | 90/02KM0     |
|              |     |      |      |    |      |      |              |

| 101 Series - Torque Continuous 406 Nm, 300 ft | 101 Seri | Jontinuous 406 in | ก. 300 π เช |
|---|----------|-------------------|-------------|
|---|----------|-------------------|-------------|

| Engine<br>FW | <b>A</b> | В    | С    | D    | E     | F    | OEM<br>P/No. |
|--------------|----------|------|------|------|-------|------|--------------|
|              |          |      |      |      |       |      | 0.1/0=1.00   |
| 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 | 91/05Y00     |
| 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 | 91/01FZ0     |
| 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 | 91/06GJ0     |
| 10           | 12.7     | 18.8 | 51.8 | 68.0 | 117.5 | 17   | 91/02KM0     |
| 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   | 91/03PS0     |
| 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

|        |      | 101940 | COLICII | IGOGO | 070111 | 1, 000 | 10100    |
|--------|------|--------|---------|-------|--------|--------|----------|
| Engine | Α    | В      | С       | D     | E      | F      | OEM      |
| FW     |      |        |         |       |        |        | 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     | 92/02KM0 |
| 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     | 92/03PS0 |
| 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<br>FW     | Α   | В   | С    | D    | E              | F   | OEM<br>P/No.                |
|------------------|-----|-----|------|------|----------------|-----|-----------------------------|
| 11 1/2<br>11 1/2 |     |     |      |      |                |     | 95/03A00<br><b>95/03B00</b> |
| 11 1/2           |     |     |      |      |                |     | 95/03B00S                   |
| 14<br>14         | . — |     |      |      | 217.5<br>217.5 |     | 95/04A00<br>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**

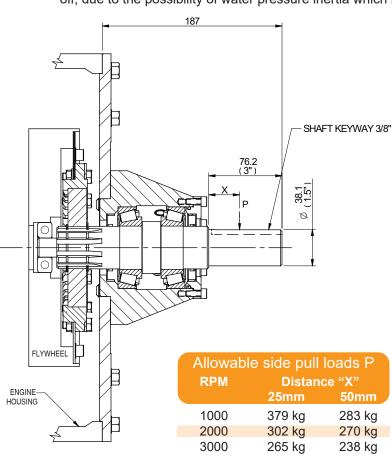
Taper roller bearings for high capacity and long life, spheroidal graphite cast iron housing. Flexilock drive for installation ease, reduces torsional vibration transmission and improves misalignment capacity. Protects engine bearings and crank from side load failures. Units are shipped dry. For oil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

<u>Warning</u> - 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.



# Overhung load calculation (lbs)

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

### 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)

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

### 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<br>Series | Engine<br>Housing | Engine<br>Flywheel | Power.*<br>Rating | Speed<br>RPM | LPTO Part<br>Number | Pilot Bearing<br>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.



# 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.

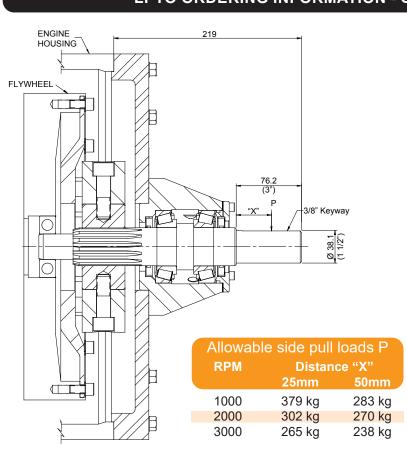
### **FEATURES**

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



# Overhung load calculation (lbs)

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

### 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)

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

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



# OVERHUNG LOAD ADAPTORS FOR HYDRAULIC MOTORS

# LDA OVERHUNG LOAD CAPACITY 600 A. L10 Life 1000 Hrs B. L10 Life 2000 Hrs C. L10 Life 3000 Hrs With Reference to Load At Shaft Location 500 OVERHUNG LOAD (kg) 400 300 Α В 200 100 500 1500 2000 2500 2800 100 1000 SPEED (RPM)





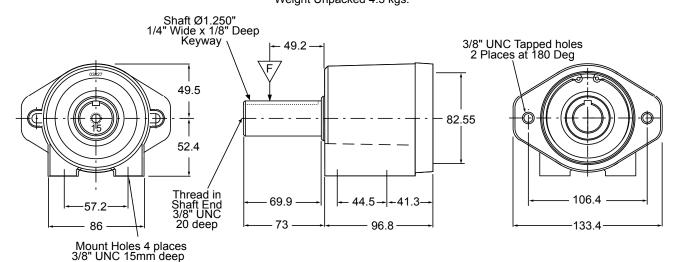
# **MODEL LDA**

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 0rbit motors and 25 mm shaft to suit the SAMHYDRAULIK BG orbit motor.

# **MODEL LDA DIMENSIONS**

# MODEL LDA Weight Unpacked 4.3 kgs.

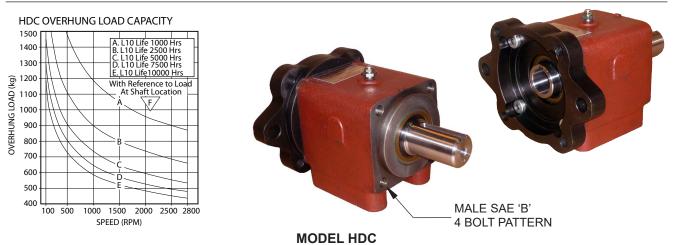


# LDA Ordering information

| 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      |



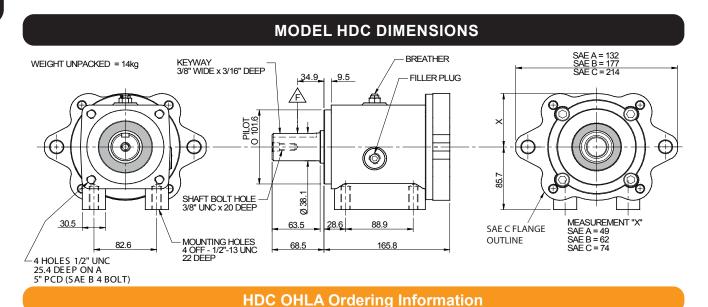
# OVERHUNG LOAD ADAPTORS FOR HYDRAULIC MOTORS



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.



### 93 **BearingType Output Shaft Type** Taper Roller **Blank** 01 5/8" 9T 16/32 DP Spline Cylindrical Roller R 02 3/4" 11T 16/32 DP Spline 03 7/8" 13T 16/32 DP Spline Input Shaft Type 04A 1" 15T 16/32 DP Spline Male Shaft 1 1/2" x 3/8" Key 15 1 1/4" 06 14T 12/24 DP Spline 5/32" Keyway 5/8" 12 Round **Output Flange** 13 3/4" 1/8" Keyway Round 14 7/8" 1/4" Keyway SAE A 2 Bolt 1 Round

Other options may be available. Contact our Sales Office.

For bore code descriptions REFER PAGE 46 & 47



28

SAE B 2/4 Bolt

SAE C 2/4 Bolt

2

3

15

24

1"

1 1/4"

1/4" Keyway

5/16" Keyway

Round

Round



# MODEL HH DOG CLUTCH FOR HYDRAULIC PUMPS AND MOTORS

### APPLICATIONS.

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.

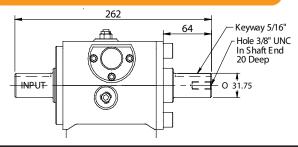
### CAPACITY.

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.

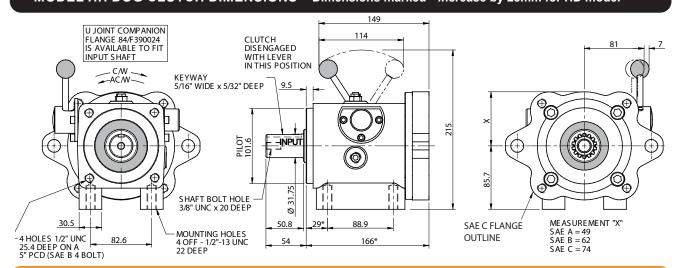
Warning. Clutch may not be engaged while engine is running.



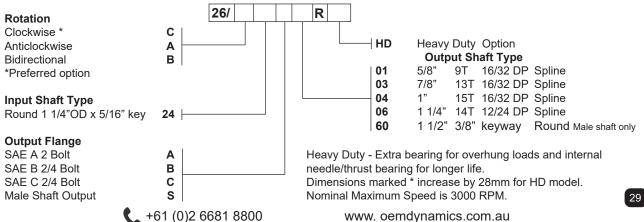




### MODEL HH DOG CLUTCH DIMENSIONS Dimensions marked \* increase by 28mm for HD model



# HH Dog Clutch Ordering Information





# 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.

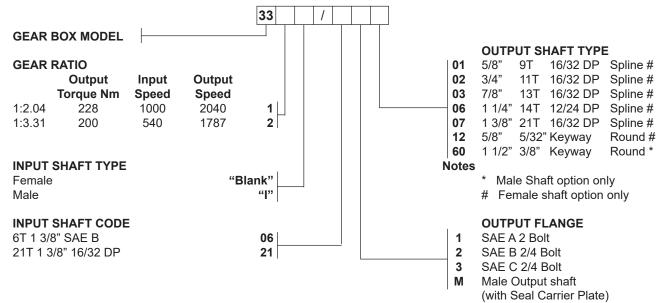
Maximum power is 50 HP (37.5 kW) with the 1:3.31 ratio models at 540 RPM input and 65 HP (49 kW) in the 2.04 ratio models at 1000 RPM input. The T33 and T33I male shaft input model is available to accept most **SAE "A"**, **SAE "B" or SAE "C"** hydraulic pumps. Pump adaptors on the T33 & T33I may be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







# T33 & T33I Ordering Information



Other options may be available. Contact our Sales Office.

Output rotation is opposite to input rotation.

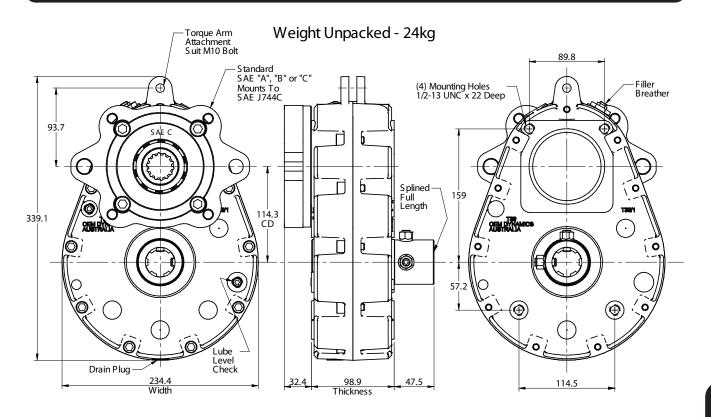
For bore code descriptions REFER PAGE 46 & 47





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

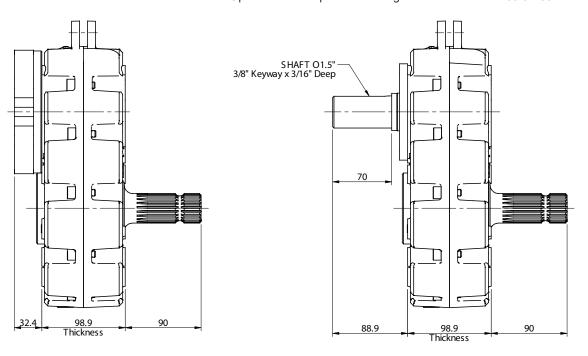
# **MODEL T33 Dimensions**



# **MODEL T331 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

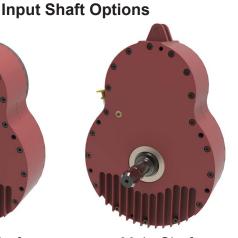
# **MODEL T55**

**MODEL T55 APPLICATION** The model T55 builds on the years of engineering experience with PTO pump drives. They were developed for use as directly driven hydraulic pump speed increasers for 1000 RPM tractor PTO shafts. The T55 Model is provided with a number of male and female shaft options. Internally, oil direction vanes are fitted for improved bearing lubrication. Four mounting holes are provided. The unit is designed for mounting either directly on a tractor PTO; or on an implement and driven by a PTO shaft. A number of ratios are available. Contact our Sales Dept. for details.

The T55 is available to accept most SAE "B", SAE "C" or SAE "D" hydraulic pumps. Pump adaptors on the T55 may be changed in the field.



Female Shaft



Male Shaft

# **Output Shaft Options**



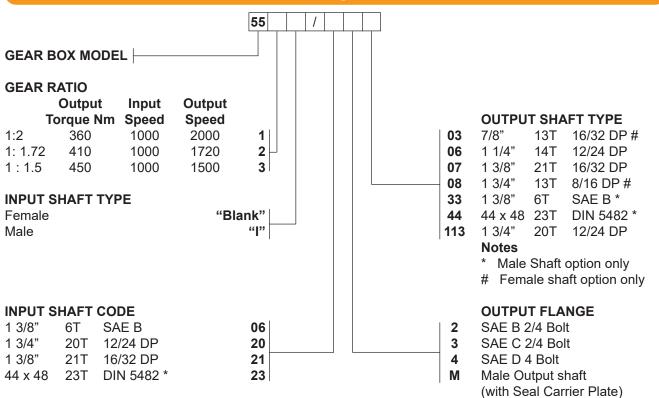
Hydraulic Pump Drive with female spline



Male Shaft

Standard orientation shown, inverted orientation available. For operation in other orientations, contact our Sales Office.

# **T55 Ordering Information**



Other options may be available. Contact our Sales Office.

Output rotation is opposite to input rotation.

For bore code descriptions REFER PAGE 46 & 47

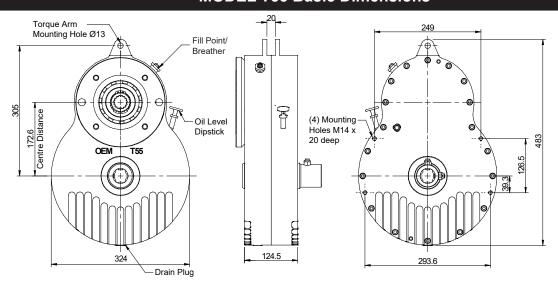




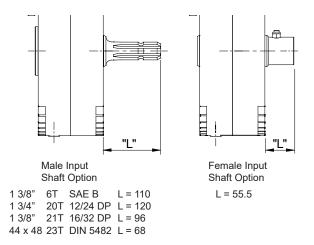
# HYDRAULIC PUMP DRIVES FOR AGRICULTURAL IMPLEMENT MOUNTING

# **MODEL T55**

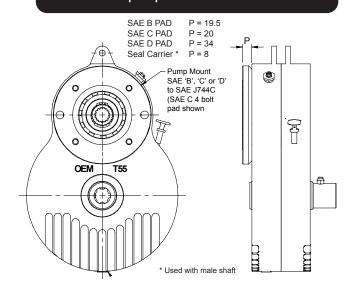
# **MODEL T55 Basic Dimensions**



# MODEL T55 input shaft dimensions

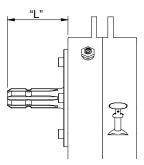


# MODEL T55 output pad dimensions



# 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.

# **DURST**

# **DURST HYDRAULIC PUMP DRIVE**

# **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**

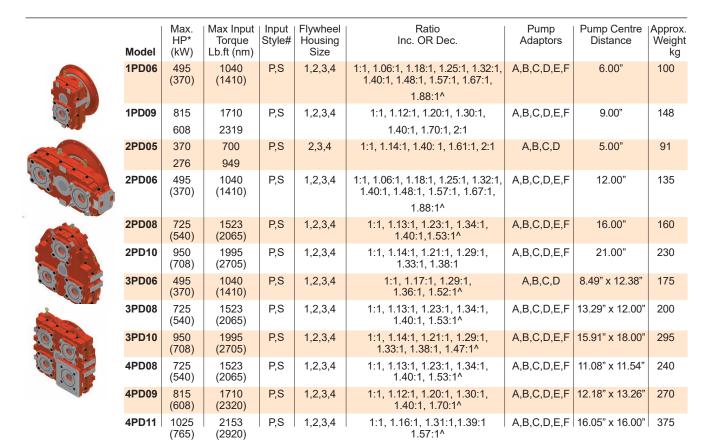
Pump rotation is anti-enginewise. Standard available pump adaptors and sleeves include SAE A, B, C, D & E.

### 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.

# **DURST**

# PUMP DRIVE SELECTION GUIDE



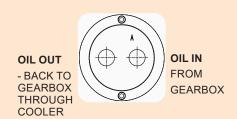
# **SERVICE FACTOR**

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





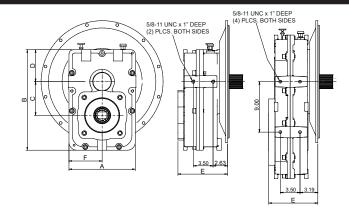
# **DURST**

# **PUMP DRIVE DIMENSIONS**

# **DIMENSIONAL DRAWINGS**

### **MODEL 1PD** 1PD06 1PD09 11.75" 16.63" Α В 17.81" 25.63" С 6.00" 9.00" D 5.69" 8.32" E\* 8.75" 8.75" F 5.88" 8.31"

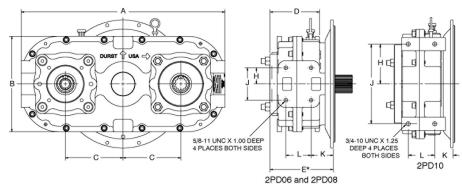
<sup>\*</sup> Pads SAE D2 and E = 8.88" F = 9.25"



# MODEL 2PD

|    | 2PD05  | 2PD06  | 2PD08  | 2PD10  |
|----|--------|--------|--------|--------|
| Α  | 21.00" | 23.00" | 28.24" | 37.00" |
| В  | 11.00" | 11.50" | 13.25" | 16.50" |
| С  | 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"  |
| Н  | 2.25"  | 2.25"  | 2.25"  | 6.00"  |
| J  | 4.50"  | 4.50"  | 4.50"  | 12.00" |
| Κ  | 2.62"  | 2.62"  | 3.06"  | 2.75"  |
| L  | 3.50"  | 3.50"  | 3.50"  | 4.00"  |

<sup>\*</sup> Pads SAE D2 and E = 8.88" F = 9.25"



# MODEL 3PD

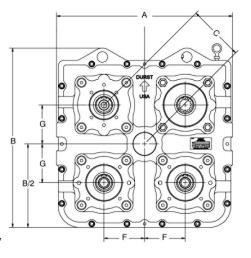
|            | 3PD06  | 3PD08  | 3PD10             |
|------------|--------|--------|-------------------|
| Α          | 24.00" | 25.00" | 33.50"            |
| В          | 21.25" | 26.75" | 32.60"            |
| B/2        | 7.50"  | 11.79" | 13.18"            |
| С          | 6.50"  | 8.00"  | 10.50"            |
| 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"             |
| Н          | 0      | 2.25"  | 0                 |
| J          | 2.50"  | 4.50"  | 12.00"            |
| K          | 2.62"  | 2.63"  | 3.00"             |
| L<br>* Pac | 3.50"  | 3.50"  | 3.75"<br>F = 9.25 |

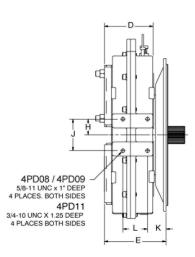
# B DUMBST O UBA C C SHOTH SIDES STORY SIDES

# **MODEL 4PD**

|     | 4PD08  | 4PD09  | 4PD11  |
|-----|--------|--------|--------|
| Α   | 25.00" | 28.00" | 33.25" |
| В   | 25.52" | 28.02" | 33.00" |
| B/2 | 11.88" | 13.13" | 16.50" |
| С   | 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"  |
| Н   | 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"  |
|     |        |        |        |

<sup>\*</sup> Pads SAE D2 and E = 8.88" F = 9.25"





## **DURST**

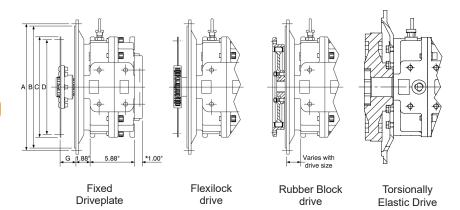
## PUMP DRIVE INPUT AND OUTPUT OPTIONS

## **FLYWHEEL AND HOUSING ADAPTORS**

| Ho      |         |         |
|---------|---------|---------|
| SAE No. | Α       | В       |
| 1       | 20.875" | 20.125" |
| 2       | 18.375" | 17.625" |
| 3       | 16.875" | 16.125" |
| 4       | 15.000" | 14.250" |

| SA      | E Drive P | late Options |        |
|---------|-----------|--------------|--------|
| SAE No. | С         | D            | G      |
| 8       | 10.375"   | 9.625"       | 2.438" |
| 10      | 12.375"   | 11.625"      | 2.125" |
| 11 ½    | 13.875"   | 13.125"      | 1.562" |
| 14      | 18.375"   | 17.250"      | 1.000" |

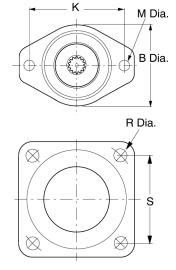
<sup>\*</sup> D2, E and F Pads are thicker.



## **SAE PUMP AND SHAFT ADAPTORS**

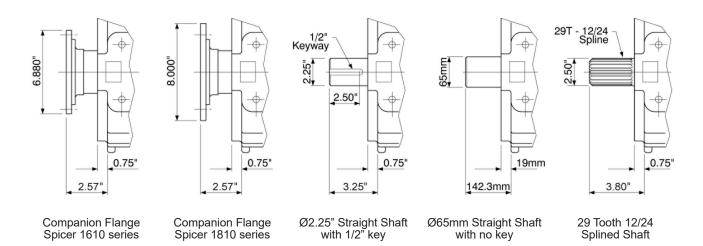
| SAE Pump Adaptor Plates |         |        |         |        |          |  |  |  |  |
|-------------------------|---------|--------|---------|--------|----------|--|--|--|--|
| Mountii<br>Flang        |         | 2 Bolt | type    | 4 Bo   | olt Type |  |  |  |  |
| Shaft S                 | ize K   | M      | В       | S      | R        |  |  |  |  |
| Α                       | 4.188"  | 0.438" | 3.750"  | -      | -        |  |  |  |  |
| В                       | 5.750"  | 0.562" | 4.750"  | 3.536" | 0.562"   |  |  |  |  |
| С                       | 7.125"  | 0.688" | 5.810"  | 4.508" | 0.562"   |  |  |  |  |
| D                       | 9.00"   | 0.812" | 7.880"  | 6.364" | 0.812"   |  |  |  |  |
| Е                       | 12.500" | 1.062" | 10.620" | 8.839" | 0.812"   |  |  |  |  |
| F                       | 13 781" | 1 062" | 11 750" | 9 745" | 1 062"   |  |  |  |  |

| SAE S | haft Adaptors |
|-------|---------------|
|       | Spline        |
| SAE   | Teeth & Pitch |
| Α     | 9T - 16/32    |
| В     | 13T - 16/32   |
| BB    | 15T - 16/32   |
| С     | 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**



## **DURST**

### **ENGINEERED SPECIALS**

## **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.





# AM SERIES HYDRAULIC PUMP DRIVE GEARBOXES DIESEL OR INDEPENDENT INPUT

## **TECHNODRIVE PUMP DRIVES**











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<br>Max.<br>(Nm) | Output Torque<br>Max.per Pump<br>(Nm) | Input Speed<br>Max.<br>(RPM) |
|--------|------------------------------|---------------------------------------|------------------------------|
| TWO PU | IMP 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 P | UMP 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. +61 (0)2 6681 8800

#### **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.

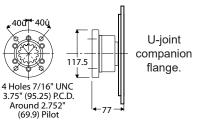
Most models can be supplied with a centrally mounted gear pump for passing lube oil to a water or air cooled heat exchanger. We stock heat exchanger kits for most models.

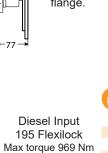


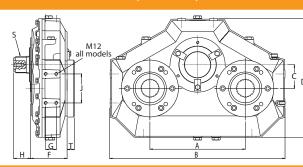
# AM SERIES HYDRAULIC PUMP DRIVE GEARBOXES DIESEL OR INDEPENDENT INPUT

## **INPUT OPTIONS**

## MODELS AM216, AM220, AM230 & AM232



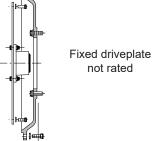


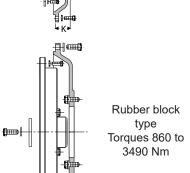


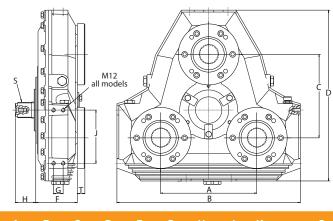
| MODEL | Α   | В   | С  | D   | F     | G  | н    | J   | K  | S              | Wt kg |
|-------|-----|-----|----|-----|-------|----|------|-----|----|----------------|-------|
| AM216 | 254 | 450 | -  | 253 | 110   | 0  | 63.5 | 100 | 50 | B48x44 DIN5482 | 40    |
| AM220 | 299 | 570 | 86 | 360 | 129   | 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



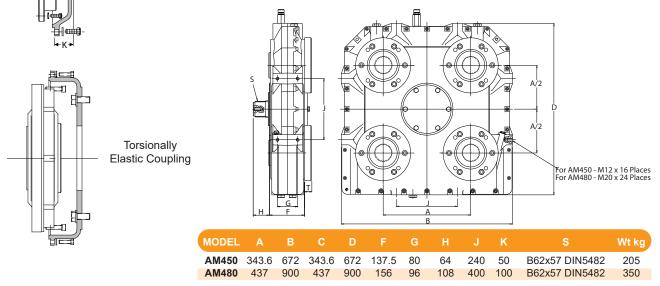




| MODEL | Α   | В   | С   | D   | F     | G  | н    | J   | K   | S              | Wt kg |
|-------|-----|-----|-----|-----|-------|----|------|-----|-----|----------------|-------|
| AM320 | 220 | 450 | 190 | 447 | 110   | 0  | 63   | 100 | 50  | B48x44 DIN5482 | 48    |
| AM330 | 299 | 570 | 259 | 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



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

Weight - 217kg.





#### OEM DYNAMIC SERVICES

## **COMPLEX MACHINING OPERATIONS**

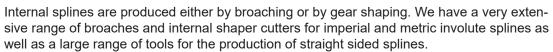
Our machining capacity includes the Okuma Multus multifunction CNC machine shown at right. This machine is equipped with double ended spindles for complete machining of parts in one set up. This five axis machine; C, X, Y Z and B; allows operations such as turning, milling, drilling and tapping to be 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





### 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.

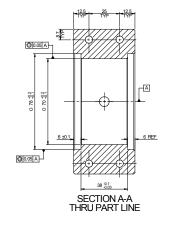
We stock a large range of Durst & Technodrive pump drive spare parts.

## **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

 $Nm \times 0.7376 = lbf ft$ lbf ft x 1.356 = NmIb in x = 0.1130 = Nm $kgm \times 9.807 = Nm$  $kgm \times 7.232 = lbf ft$ 

#### **POWER**

 $kW \times 1.341 = HP$  $HP \times 0.7457 = kW$ Met HP x 0.7355 = kWTon of Rfg x 3.517 = kW

#### **PRESSURE**

 $PSI \times 6.89 = kPa$  $PSI \times 0.0689 = Bar$ Bar  $\times$  14.5 = PSI  $inH_{2}O \times 0.249 = kPa$ 

#### **VOLUME**

Gal (UK)  $\times 4.546 = \text{Litres}$ Gal (US)  $\times$  3.785 = Litres Cu Ft x 28.32 = Litres

#### LENGTH

Inch x 25.4 = mmFeet x 0.3048 = metre

#### **AREA**

Sq Inch x 6.452 = Sq cm $Sq Ft \times 0.0929 = Sq mtr$ 

#### **VELOCITY**

 $Ft/s \times 0.3048 = m/s$ mph x 1.609344 = km/hKnot UK x 1.853 = km/h

### **TEMPERATURE**

 $^{\circ}$ C x 1.8 + 32 =  $^{\circ}$ F

#### MASS

 $Oz \times 28.3495 = gram$  $1b \times 0.4536 = kg$ Ton UK x 1.016 = Tonne

#### **VISCOSITY**

SSU x4.6 = cSt

#### **OTHER**

 $BTU/hr \times 0.293 = W$ Kilocalorie x 4.1868 = kJ  $CFM \times 0.000472 = m^3/s$ 

#### POWER TORQUE AND SPEED RELATIONSHIPS US UNITS

 $HP = T \times RPM$  $RPM = \underline{HP \times 5252}$  $T = HP \times 5252$ **RPM** 5252 Where T = Torque Ft Lbs HP = Horsepower

RPM = Revs Per Minute

#### POWER TORQUE AND SPEED RELATIONSHIPS ISO UNITS

 $T = kW \times 9549$ kW = TxRPM $RPM = \underline{kW \times 9549}$ **RPM** 9549

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

## HYDRAULIC (FLUID POWER) POWER US UNITS

PSI = Lbs per Sq Inch Pressure HP = PSI x US GPM 1714 US GPM = Gallons Per Minute US Above is theoretical power. Add inefficiency.

### HYDRAULIC (FLUID POWER) POWER ISO UNITS

Bar = Pressure Bar  $kW = Bar \times L/min$ 600 L/min = Litres Per Minute Above is theoretical power. Add inefficiency.

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

 $\Delta T ^{\circ}C = kW \times K$  $kW = L/min \times \Delta T ^{\circ}C$  $L/min = kW \times K$ L/min Where L/min = Oil flow in Litres per minute

 $\Delta T$  °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

Heat Load =  $\frac{V \times Cp \times (t2-t1)}{}$ = kW

Where t1 = Initial oil temp (°C) t2 = 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.

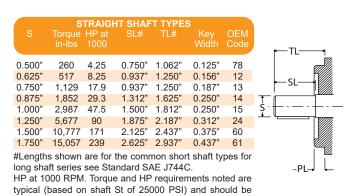


# HYDRAULIC PUMP & MOTOR MOUNT FLANGE & SHAFT INDUSTRY STANDARDS

## **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.



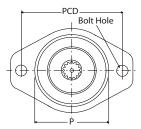
| 9T 20/40 DP 260 4.25 1/2" 1.062" AA 91 9T 16/32 DP 517 8.25 5/8" 1.250" A 01 11T 16/32 DP 1,129 17.9 3/4" 1.500" AH 02 13T 16/32 DP 1,852 29.3 7/8" 1.625" B 03 15T 16/32 DP 2,987 47.5 1" 1.812" BB 04 14T 12/24 DP 5,677 90 1 1/4" 2.187" C 06 21T 16/32 DP 6,839 108 1 3/8" 2.187" CS 07 17T 12/24 DP 10,777 171 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 | 30 Details   | eg INVC<br>Torque<br>in-lbs | HP at |        | IE TYPI<br>TL | SAE | OEM<br>Code* | <del>⊦</del> —TL— |
|---|--------------|-----------------------------|-------|--------|---------------|-----|--------------|-------------------|
| 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  | 9T 20/40 DP  | 260                         | 4.25  | 1/2"   | 1.062"        | AA  | 91           |                   |
| 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 11/4" 2.187" C 06 21T 16/32 DP 6,839 108 13/8" 2.187" CS 07 17T 12/24 DP 10,777 171 11/2" 2.437" CC 32 13T 8/16 DP 15,057 239 13/4" 2.937" D 08 13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08  | 9T 16/32 DP  | 517                         | 8.25  | 5/8"   | 1.250"        | Α   | 01           |                   |
| 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   | 11T 16/32 DP | 1,129                       | 17.9  | 3/4"   | 1.500"        | AH  | 02           |                   |
| 14T 12/24 DP 5,677 90 1 1/4" 2.187" C 06<br>21T 16/32 DP 6,839 108 1 3/8" 2.187" CS 07<br>17T 12/24 DP 10,777 171 1 1/2" 2.437" CC 32<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" D 08<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08   | 13T 16/32 DP | 1,852                       | 29.3  | 7/8"   | 1.625"        | В   | 03           |                   |
| 21T 16/32 DP 6,839 108 1 3/8" 2.187" CS 07<br>17T 12/24 DP 10,777 171 1 1/2" 2.437" CC 32<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" D 08<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08   | 15T 16/32 DP | 2,987                       | 47.5  | 1"     | 1.812"        | BB  | 04           |                   |
| 17T 12/24 DP 10,777 171 1 1/2" 2.437" CC 32<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" D 08<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08   | 14T 12/24 DP | 5,677                       | 90    | 1 1/4" | 2.187"        | С   | 06           |                   |
| 13T 8/16 DP 15,057 239 1 3/4" 2.937" D 08<br>13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08 PL→  | 21T 16/32 DP | 6,839                       | 108   | 1 3/8" | 2.187"        | CS  | 07           |                   |
| 13T 8/16 DP 15,057 239 1 3/4" 2.937" E 08 PL→   | 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   | 80           |                   |
| 15T 8/16 DP 24,245 285 2" 3.437" F 37   | 13T 8/16 DP  | 15,057                      | 239   | 1 3/4" | 2.937"        | Ε   | 08           | PL→               |
|   | 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.

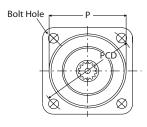
\* OEM Code. Unique code for ID of shaft or bore sizes. Appears as last two numbers in all Part Numbers for Splined Hubs, Splined Couplings, Splined Shafts, Flexilock Hubs, Clamplock Components, Over Hung Load Adaptors or Gearboxes shown in this catalogue.

| TW<br>SAE<br>Code | O BOLT I<br>Bolt<br>PCD | MOUNT<br>Bolt<br>Hole | I <b>NG FLA</b><br>P | NGE<br>PL |
|-------------------|-------------------------|-----------------------|----------------------|-----------|
| AA                | 3.250"                  | 0.406"                | 2.00"                | 0.250"    |
| Α                 | 4.187"                  | 0.437"                | 3.25"                | 0.250"    |
| В                 | 5.750"                  | 0.562"                | 4.00"                | 0.375"    |
| С                 | 7.125"                  | 0.687"                | 5.00"                | 0.500"    |
| D                 | 9.000"                  | 0.812"                | 6.00"                | 0.500"    |
| Е                 | 12.500"                 | 1.062"                | 6.50"                | 0.625"    |
| F                 | 13.781"                 | 1.062"                | 7.00"                | 0.625"    |

considered as a guide only.

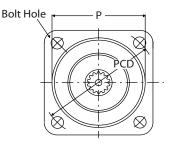


| FOL<br>SAE<br>Code | JR BOLT<br>PCD | MOUNT<br>Bolt<br>Hole | ING FLA | ANGE<br>PL |
|--------------------|----------------|-----------------------|---------|------------|
| В                  | 5.000"         | 0.562"                | 4.00"   | 0.375"     |
| С                  | 6.375"         | 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

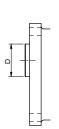
| FOUR BO<br>ISO<br>Code | LT MOU<br>P     | NTING F<br>PCD | LANGE<br>Bolt<br>Hole |
|------------------------|-----------------|----------------|-----------------------|
|                        |                 |                |                       |
| M80                    | 80              | 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<br>Dim's ir | 280<br>n mm    | 24                    |



## **DIN FLANGES**

| Group | A    | IN MOUI<br>B | NTING FI<br>C | L <b>ANGE</b><br>D | E<br>Bolt Hole |
|-------|------|--------------|---------------|--------------------|----------------|
| 2     | 71.5 | 96.2         | 32.5          | 36.5               | 9              |
| 3     | 98   | 128          | 42            | 50.8               | 11             |

Dim's in mm



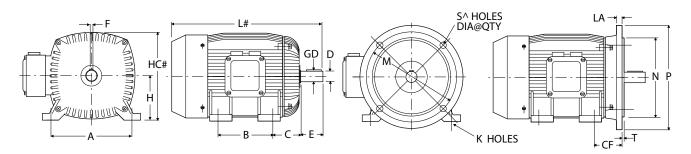
NO RESPONSIBILITY IS ACCEPTED FOR OMISSIONS VARIATIONS OR ERRORS.





## **IEC ELECTRIC MOTOR FRAME SIZES**

## **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.

|       |     |     |     |     |       |     | DII   | MENS | IONS | (mm | )  |     |    |     |     |     |    |     | POWE      | ER RANGE k\ | W @ MOTOR | RPM       |
|-------|-----|-----|-----|-----|-------|-----|-------|------|------|-----|----|-----|----|-----|-----|-----|----|-----|-----------|-------------|-----------|-----------|
| FRAME | Α   | В   | С   | CF  | D     | E   | F     | GD   | Н    | HC# | K  | L#  | LA | М   | N   | Р   | 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 | 0.12-0.10   | 0.18      | 0.12      |
| 80    | 125 |     | 50  |     | 19    | 40  | 6     | 21.5 | 80   |     | 10 | 272 | 10 |     |     |     | 12 |     | 0.37-0.33 | 0.25-0.37   | 0.37-0.55 | 0.12      |
|       |     |     |     | 50  |       |     | -     |      |      | 158 |    |     |    | 165 | 130 | 200 |    |     |           |             |           |           |
| 90S   | 140 |     | 56  | 56  | 24    | 50  | 8     | 27   | 90   | 178 | 10 | 300 | 10 |     | 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 | 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      |
|       |     | 267 | 133 | 133 | 55    | 110 | 16    | 59   | 200  | 392 | 19 | 775 | 18 | 350 | 300 | 400 | 19 | 5   |           | 22.0        | 15.0      | 11.0      |
| 200L  |     | 305 |     | 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  |     |     |     | 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  |     |     | 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 |     | 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

|   | naft<br>ode | Nominal<br>Diameter | No of<br>Teeth | DP            |  |
|---|-------------|---------------------|----------------|---------------|--|
| , | 91          | 1/2"                | 9              | 20/40         |  |
|   | 01          | 5/8"                | 9              | 16/32         |  |
|   | 39          | 11/16"              | 10             | 16/32         |  |
|   | 02          | 3/4"                | 11             | 16/32         |  |
|   | 34          | 13/16"              | 12             | 16/32         |  |
|   | 03          | 7/8"                | 13             | 16/32         |  |
|   | 04          | 1"                  | 15             | 16/32         |  |
|   | 27          | 1 1/8"              | 17             | 16/32         |  |
|   | 06          | 1 1/4"              | 14             | 12/24         |  |
|   | 69          | 1 1/4"              | 19             | 16/32         |  |
|   | 35          | 1 3/16"             | 20             | 16/32         |  |
|   | 07          | 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         |  |
|   | 43          | 1 1/2"              | 23             | 16/32         |  |
|   | 77          | 1 9/16"             | 24             | 16/32         |  |
|   | 21          | 1.60"               | 15             | 10/20         |  |
|   | 75          | 1 5/8"              | 19             | 12/24         |  |
|   | 39          | 1.70"               | 16             | 10/20         |  |
|   | 80          | 1 3/4"              | 13             | 8/16          |  |
|   | 09          | 1 3/4"              | 27             | 16/32         |  |
|   | 13          | 1 3/4"              | 20             | 12/24         |  |
|   | 36          | 1 13/16             | 28             | 16/32         |  |
|   | 97          | 1 7/8"              | 14             | 8/16          |  |
|   | 37          | 2"                  | 15             | 8/16          |  |
|   | 32          | 2"                  | 19             | 10/20         |  |
|   | 78          | 2 1/8"              | 33             | 16/32         |  |
|   | 40<br>48    | 2 1/8"<br>2 1/4"    | 16<br>26       | 8/16<br>12/24 |  |
|   | 96          | 2 1/4               | 17             | 8/16          |  |
|   | 71          | 2 3/8"              | 18             | 8/16          |  |
|   | 31          | 2 1/2"              | 19             | 8/16          |  |
|   | 33          | 2 1/2"              | 14             | 6/12          |  |
|   | 67          | 2 1/2"              | 24             | 10/20         |  |
|   | <b>69</b>   | 2 1/2"              | 29             | 12/24         |  |
|   | 49          | 2 9/16"             | 40             | 16/32         |  |
|   | 97          | 2 3/4"              | 21             | 8/16          |  |
|   | 34          | 3"                  | 23             | 8/16          |  |
|   | 65          | 3"                  | 47             | 16/32         |  |
|   | 37          | 3 1/2"              | 20             | 6/12          |  |

## Imperial Straight Splines SAE B

| Shaft<br>Code | Nominal<br>Diameter | No of<br>Teeth |  |
|---------------|---------------------|----------------|--|
|               |                     |                |  |
| 100           | 3/4"                | 6              |  |
| 101           | 7/8"                | 6              |  |
| 05            | 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             |  |
| 33            | 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<br>Code | Nominal<br>Diameter | No of<br>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    |
| 41            | 40                  | 18             | 2      |
| 177           | 40                  | 14             | 2.5    |
| 195           | 40                  | 12             | 3      |
| 199           | 40                  | 25             | 1.5    |
| 42            | 45                  | 21             | 2      |
| 45            | 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    |
| 129           | 80                  | 25             | 3      |
| 128           | 90                  | 28             | 3      |

## Metric Involute Splines to DIN 5482 H10/ h9

| Shaft<br>Code           | Nominal<br>Diameter           | No of<br>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             |
| 44                      | 48 x 44                       | 23             | 2             |
| 184                     | 50 x 45                       | 24             | 2             |
| 172<br>143<br><b>44</b> | 40 x 36<br>45 x 41<br>48 x 44 | 20<br>22<br>23 | 1.9<br>2<br>2 |

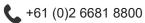
## Metric Involute Splines to ANSI B92.2 5H/ 5h

| Shaft<br>Code | Nominal<br>Diameter |    | Module |
|---------------|---------------------|----|--------|
|               |                     |    |        |
| 179           | 24                  | 24 | 1      |

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

| Shaft<br>Code |         | No of<br>Teeth |
|---------------|---------|----------------|
| 196           | 21 x 25 | 6              |
| 114           | 28 x 34 | 6              |
| 115           | 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

#### **Metric Round Bore** with key to BS4235

### **DIN Taper 1:8**

| Shaft<br>Code | Nominal<br>Diameter | Key<br>W |
|---------------|---------------------|----------|
| 78            | 1/2"                | 1/8"     |
| 22            | 9/16"               | 1/8"     |
| 13            | 3/4"                | 3/16"    |
| 15            | 1"                  | 1/4"     |
| 85            | 1 1/16"             | 1/4"     |
| 66            | 1 1/8"              | 1/4"     |
| 86            | 1 3/16"             | 1/4"     |
| 88            | 1 5/16"             | 5/16"    |
| 65            | 1 3/8"              | 5/16"    |
| 89            | 1 7/16"             | 3/8"     |
| 60            | 1 1/2"              | 3/8"     |
| 159           | 1 5/8"              | 3/8"     |
| 201           | 1 3/4"              | 3/8"     |
| 64            | 1 7/8"              | 1/2"     |
| 62            | 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"     |

| ******        | , 20                |              |
|---------------|---------------------|--------------|
| Shaft<br>Code | Nominal<br>Diameter | Key<br>W x H |
| 70            | 11                  | 4 x 4        |
| 94            | 12                  | 4 x 4        |
| 93            | 13                  | 5 x 5        |
| 71            | 14                  | 5 x 5        |
| 189           | 15                  | 5 x 5        |
| 72            | 16                  | 5 x 5        |
| 156           | 17                  | 5 x 5        |
| 25            | 18                  | 6 x 6        |
| 73            | 19                  | 6 x 6        |
| 28            | 20                  | 6 x 6        |
| 124           | 22                  | 6 x 6        |
| 95            | 23                  | 8 x 7        |
| 74            | 24                  | 8 x 7        |
| 26            | 25                  | 8 x 7        |
| 75            | 28                  | 8 x 7        |
| 76            | 29                  | 8 x 7        |
| 79            | 30                  | 8 x 7        |
| 80            | 32                  | 10 x 8       |
| 50            | 35                  | 10 x 8       |
| 51            | 38                  | 10 x 8       |
| 52            | 40                  | 12 x 8       |
| 53            | 42                  | 12 x 8       |
| 54            | 45                  | 14 x 9       |
| 55            | 48                  | 14 x 9       |
| 56            | 50                  | 14 x 9       |
| 4.4.5         | E 2                 | 10 11 10     |

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

## **SAE J501 Taper 1:8**

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

### **Imperial Round Bore** with dual keys

|    | Nominal<br>Diameter | Key<br>A | Key<br>B |  |
|----|---------------------|----------|----------|--|
| 23 | 5/8"                | 3/16"    | 5/32"    |  |
| 14 | 7/8"                | 1/4"     | 3/16"    |  |
| 87 | 1 1/4"              | 1/4"     | 5/16"    |  |

| 30  | 50  | 17 / 3  |
|-----|-----|---------|
| 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 |
|     |     |         |

## Imperial Round Bore with key to BS46.1

| Shaft<br>Code | Nominal<br>Diameter | Key<br>W |
|---------------|---------------------|----------|
| 178           | 1 1/8"              | 5/16"    |
| 24            | 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"     |

Common Bore Codes are marked in **bold** 

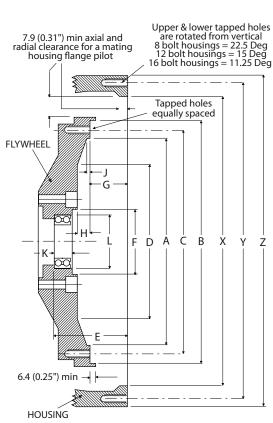


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## **ENGINE & FLYWHEEL STANDARDS**

# 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<br>No. | <b>A</b><br>mm inch | B<br>mm inch  | <b>C</b><br>mm inch | <b>D</b><br>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<br>No. | E<br>mm inch | F<br>mm inch | <b>G</b><br>mm inch | H<br>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 | J         | K         | L           | Q - Ta | apped holes |
|----------|-----------|-----------|-------------|--------|-------------|
| No.      | 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 | Х             | Υ             | Z           | R - Tapped holes |
|---------|---------------|---------------|-------------|------------------|
| SAE-No. | 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**

Available ex-stock. Components can also be

## **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 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.



#### 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





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