

TG SERIES MECHANICAL SHIFT

MODEL NUMBER CONSTRUCTION

TG-6S-U60-04 C-1-B-X

PTO Type

TG — Triple Gear

Mounting Options

6S — SAE 6-Bolt Std. Mtg.
6D — SAE 6-Bolt Non-Std. Mtg. (S68)
6N — SAE 6-Bolt Non-Std. Mtg. (Spr. S71)
8S — SAE 8-Bolt Std. Mtg.
8D — SAE 8-Bolt Non-Std. Mtg.
8F — SAE 8-Bolt Non-Std. Mtg. — Eaton Endurant (E70 & E80)
6B — SAE 6-Bolt Std. Mtg. — Metric Studs
6L — SAE 6-Bolt Std. Mtg. — Less Stud Kit
8B — SAE 8-Bolt Std. Mtg. — Metric Studs
8L — SAE 8-Bolt Std. Mtg. — Less Stud Kit

OBSOLETE Mounting Options *

8M — SAE 8-Bolt Extra Deep Mtg.
6A — SAE 6-Bolt Std. Mtg. w/29TK3863 (for N56)
6C — SAE 6-Bolt Non-Std. Mtg. — Metric Studs
6F — SAE 6-Bolt Std. w/Dowel Pins — Metric Studs (F84)
6K — SAE 6-Bolt Non-Std. Mtg. — Less Stud Kit
8C — SAE 8-Bolt Non-Std. Mtg. — Metric Studs
8K — SAE 8-Bolt Non-Std. Mtg. — Less Stud Kit

Transmission Input Gear Options

A69 — Allison 6.86P 20° PA Spur
E70 — Eaton 7.065P 20° PA Spur
E80 — Eaton 8.048P 20° PA 28.98 RH
F63 — Fuller 6.35P 20° PA 22° LH
F66 — Fuller 6.65P 20° PA 21.5° LH
F70 — Fuller 7P 23° PA 26° LH
M65 — Mack 6.48P 17° 30' PA Spur
S71 — Tremec/Spicer 7P 17.5° PA 18° LH
S68 — Universal 6P or 6/8P 20° PA Spur Deep Reach
U60 — Universal 6P 20° Spur, Full Addendum
U68 — Universal 6P or 6/8P 20° PA Spur
Kit — None Less Input Gear

OBSOLETE Transmission Input Gears *

I84 — Aisin 8.46P 20° PA Spur *
C57 — Clark 5.7P 25° PA 38.7° LH *
C60 — Clark 6.100P 25° PA 18° 40' 48" RH *
C61 — Clark 6.100P 25° PA 32° 16' 48" LH *
C70 — Clark 7P 25° PA 30° 46' 48" LH *
C76 — Clark 7.6168P 18° 29' 22" 23° 12' 57" LH *
D94 — Dodge 9.41P 18.33° PA 26.47° RH *
F10 — Fuller 10.1P 20° PA Spur *
F11 — Fuller 10.1P 21.5° PA Spur *
F61 — Fuller 6.1P 20.5° PA 29° LH *
F62 — Fuller 6.27P 22.5° PA Spur *
F65 — Fuller 6.5P 20° PA 23° LH *
F75 — Fuller 7.5P 22° PA 15° LH *
F84 — Fuller 8.38P 18° PA 33.1° LH *
F89 — Fuller 8.97P 17° PA 30.25° LH *
G73 — GMC 7.3449P 20° PA 24° LH *
M80 — Mercedes 8.04P 17.5° PA 26.97° LH *
M83 — Mercedes 8.38P 17.5° PA 24.97° LH *
N81 — New Process 8.116P 20° PA 33° 30' LH *
N10 — New Venture 10.4019P 20° PA 34.5° LH *
N79 — New Venture 7.94P 22.5° PA 30° LH *
N80 — New Venture 7.99P 22.19° PA 29° LH *
N56 — Nissan 5.64P 20° PA Spur *
S60 — Tremec/Spicer 6P 17.5° PA 26° 10' 37" LH *
S61 — Tremec/Spicer 6P 17.5° PA 22.25° LH *
S63 — Tremec/Spicer 6.1P 20° PA 23.15° LH *
S70 — Tremec/Spicer 7P 17.5° PA 28° 4' 23" LH *
S73 — Tremec/Spicer 7P 22.5° PA 19° RH *
T81 — Tremec 8.1P 20° PA 29.47° RH *
T82 — Tremec 8.19P 20° PA 29.9° LH *

U57 — Universal
U62 — Universal
X68 — Universal

W80 — Warner
Z10 — Zed F
Z92 — Zed F
Z98 — Zed F
Z99 — Zed F

5 or 5/7P 20° Spur *
6P 25° PA Spur *
6P or 6/8P 20° PA Spur,
Full Dedendum *
8.0829P 20° PA 30° LH *
10.3673P 20° LH *
9.2364P 20° PA 36° LH *
9.96078P 20° RH *
9.96078P 20° RH *

Special Feature Options

X — None
A — Inverted Air Cover
G — Greaseable Shaft (K, P, & V Only)
H — High Torque (12, 13, 15, & 18 Only) Std.
I — Dual Terminal Indicator
J — High Torque—Pressure Lube
(12, 13, 15 & 18 Only)
P — Pressure Lube (Optional)

OBSOLETE Special Feature Options *

E — U60 w/Std. Gasket Pack
F — Clearance Idler Cap
M — Clearance Idler Cap
Q — Clearance Idler Cap—High Torque
V — U60 w/Std. Gasket Pack, Milled Idler Cap
7 — Remote Pressure Switch

Output Options

B — 1¼" Round Keyed Shaft
I — DIN 5462
K — SAE "B" ¾" -13T, SAE "B" 2- & 4-Bolt
P — SAE "BB" 1" -15T, SAE "BB" 2- & 4-Bolt
Q — SAE "B" ¾" -13T, SAE "A" 2-Bolt
R — SAE "A" ¾" -9T, SAE "A" 2-Bolt
S — SAE "B" ¾" -13T, SAE "B" 2-Bolt
T — SAE ¾" -11T, SAE "A" 2-Bolt

OBSOLETE Output Options *

C — 1410 Companion Flange *
F — SAE "A" 2-Bolt *
G — Special *
L — SAE "B" 2- or 4-Bolt, Low Box Mount *
M — SAE "A" ¾" -9T, SAE "A" 2- & 6-Bolt *
X — 1¼" -20T Spline for Companion Flange *
Z — SAE "C" 1¼" -14T, SAE "B" 2- & 4-Bolt *
2 — DIN 100 Companion Flange *

Assembly Arrangements

1 — Right Side Shaft Low
2 — Right Side Shaft Low, Gear to Rear
3 — Left Side Shaft Low
4 — Left Side Shaft Low, Gear to Rear

Shift Options

A — 12 V Manual Air
C — Cable Shift
E — 12 V Electric/Air
M — Constant Mesh (U6004)
P — Manual Air (Less Installation Kit)
Z — Cable (A69)
4 — 12 V Manual Air (A69)
5 — 12 V Electric/Air (A69)

OBSOLETE Shift Option *

F — 24 V Electric/Air *
H — 12 V Hydraulic Shift *
J — 24 V Hydraulic Shift *
K — 24 V Manual Air *
N — Special Electric/Air (N56) * **
S — Lectra Shift *
T — E-Hydra *
6 — Lectra Shift (A69) *
9 — 12 V Hydraulic Shift (A69 Only) *

Speed Ratios

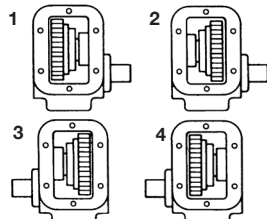
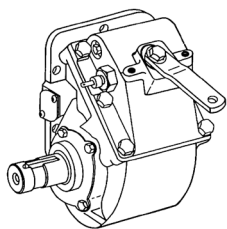
04 — .361:1
05 — .470:1
06 — .613:1
07 — .724:1
08 — .885:1
09 — .923:1
12 — 1.170:1
13 — 1.333:1
15 — 1.500:1
18 — 1.720:1

NOTES: * Obsolete input gears will be available as service parts only, until inventory is depleted.

** Requires Special Kit

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type II



Approximate Weights: 22 lbs. (10.0 Kg.) 6-Bolt; 25 lbs. (11.34 Kg.) 8-Bolt

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
04	54 (40)	285 (386)	200 (270)
05	51 (38)	270 (366)	189 (256)
06	47 (35)	245 (332)	172 (232)
07	44 (33)	230 (312)	161 (218)
08	44 (33)	230 (312)	161 (218)
09	39 (29)	205 (278)	144 (195)
12H	40 (30)	210 (284)	147 (199)
13H	40 (30)	210 (284)	147 (199)
15H	37 (28)	195 (264)	137 (185)
18H	33 (25)	175 (237)	123 (166)

SH SERIES MECHANICAL SHIFT

MODEL NUMBER CONSTRUCTION

SH-8S-U68-12 A-1-B-X

PTO Series

SH — SH Series

Mounting Options

6S — SAE 6-Bolt Std. Mount
 6B — SAE 6-Bolt Std. — Metric
 6C — SAE 6-Bolt Deep — Metric
 6D — SAE 6-Bolt Deep Mount
 6K — SAE 6-Bolt Deep — Less Stud Kit
 6L — SAE 6-Bolt Std. — Less Stud Kit
 6N — SAE 6-Bolt Non-Std. Mtg. — Jatco
 8S — SAE 8-Bolt Std. Mount
 8B — SAE 8-Bolt Std. — Metric
 8C — SAE 8-Bolt Deep — Metric
 8D — SAE 8-Bolt Deep Mount
 8F — SAE 8-Bolt Special — E80
 8K — SAE 8-Bolt Deep — Less Stud Kit
 8L — SAE 8-Bolt Std. — Less Stud Kit

Transmission Input Gear Options

E80 — Eaton/PACCAR 8.05P 20°PA 28.9RH
 F10 — Fuller 10.1P 20°PA Spur
 F11 — Fuller 10.1P 21.5°PA Spur
 F61 — Fuller 6.1P 20.5°PA 29°LH
 F84 — Fuller 8.38P 18°PA 33.1° LH
 F85 — Fuller 8.55P 21°PA Spur
 M65 — Mack 6.48P 17.5°PA Spur
 S71 — Spicer 7P 17.5°PA 18°LH
 S73 — Spicer 7P 22.5°PA 19°LH
 S68 — Universal 6P or 6/8P 20°PA Spur
 U60 — Universal 6P 20°PA Spur
 U68 — Universal 6P or 6/8P 20°PA Spur

OBSOLETE Transmission Input Gear Options *

F63 — Fuller 6.35P 20°PA 22° LH *
 F66 — Fuller 6.65P 20°PA 21.5° LH *
 F70 — Fuller 7.0P 23°PA 26° LH *
 S60 — Spicer 6P 17.5°PA 26.17° LH *
 S70 — Spicer 7P 17.5°PA 26.07° LH *

Special Feature Options

X — None
 P — Pressure Lube
 R — Pulse Generator/No Pressure Lube
 S — Pulse Generator/Pressure Lube

Output Options

B — 1½" Round Keyed Shaft
 C — 1410 Companion Flange
 E — SAE "C" 1¼" -14T, SAE "C" 2- & 4-Bolt
 I — DIN 5462
 K — SAE "B" ¾" -13T, SAE "B" 2- & 4-Bolt
 P — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt
 Q — SAE "B" ¾" -13T, SAE "A" 2-Bolt
 S — SAE "B" ¾" -13T, SAE "B" 2-Bolt
 T — SAE ¾" -11T, SAE "A" 2-Bolt
 Z — SAE "C" 1¼" -14T, SAE "B" 2- & 4-Bolt
 2 — DIN 100 Companion Flange

Assembly Arrangements

1 — Right Side Shaft Low
 3 — Left Side Shaft Low

Shift Options

A — Manual Air
 E — 12 V Electric/Air
 F — 24 V Electric/Air
 K — 24 V Manual/Air
 M — Constant Mesh
 P — Manual Air (Less Installation Kit)

Speed Ratios

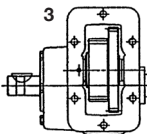
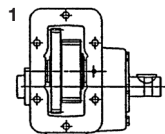
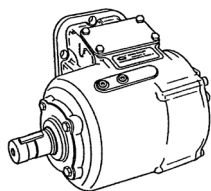
05 — .47:1
 07 — .70:1
 09 — .87:1, (8-Bolt Only)
 12 — 1.15:1

NOTE: * Obsolete input gears will be available as service parts only, until inventory is depleted.

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type

IV



Approximate Weights: 35 lbs. (15.9 Kg.) 6-Bolt; 37 lbs. (16.78 Kg.) 8-Bolt

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
05	76 (57)	400 (542)	280 (379)
07	76 (57)	400 (542)	280 (379)
09	71 (53)	375 (508)	263 (356)
12	62 (46)	325 (441)	228 (309)

CS6 AND CS8 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

CS 6S-M65 07-E 1 B X

PTO Series

CS — Clutch Shift (Standard Drag Brake)

Mounting Options

6B — SAE 6-Bolt Std. Mtg. — Metric Studs
 6D — SAE 6-Bolt Non-Std. Mtg.
 6S — SAE 6-Bolt Std. Mtg. —
 8B — SAE 8-Bolt Std. Mtg. — Metric Studs
 8D — SAE 8-Bolt Non-Std. Mtg.
 8S — SAE 8-Bolt Std. Mtg.
 8S — SAE 8-Bolt Non-Std. Mtg. — Metric

Transmission Input Gear Options *

I84 — Aisin 8.46P 20° PA Spur
 A67 — Allison 6.86P 20° PA Spur
 M65 — Mack 6.48P 17.5° PA Spur
 S68 — Spicer 6P or 6/8P 20° PA Spur Deep Reach
 U60 — Universal 6P 20° PA Spur
 U68 — Universal 6P or 6/8P 20° PA Spur

Speed Ratios *

03 — 0.33:1
 04 — 0.44:1
 05 — 0.47:1
 06 — 0.56:1
 07 — 0.71:1
 09 — 0.87:1
 12 — 1.15:1

Notes:

* Not all combinations are available for input gear options.
 Refer to the application catalog or the service parts list
 for additional information.

** Integral Solenoid Shift CS6 Only

Special Feature Options

X — None
 C — Pulse Generator/Pressure Lube/SPD-2000
 P — Pressure Lube
 R — Pulse Generator/No Pressure Lube
 S — Pulse Generator/Pressure Lube
 2 — 2021 & Later Hino ("S" Shift Type Only)

Output Options

B — 1¼" Round Keyed Shaft
 C — 1410 Companion Flange
 I — 36mm -8T, DIN 5462 (Euro)
 K — SAE "B" ¾" -13T, SAE "B" 2- & 4-Bolt
 L — 1" -15T, Low-Box Mount
 P — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt
 Q — SAE "B" ¾" -13T, SAE "A" 2-Bolt
 R — SAE "A" ¾" -9T, SAE "A" 2-Bolt
 S — SAE "B" ¾" -13T, SAE "B" 2-Bolt
 T — SAE ¾" -11T, SAE "A" 2-Bolt
 2 — DIN 100 Companion Flange
 6 — SAE ¾" -13T, SAE "B" 2-Bolt Special
 7 — SAE 1" -15T, SAE "BB" 2-Bolt Special

Assembly Arrangements

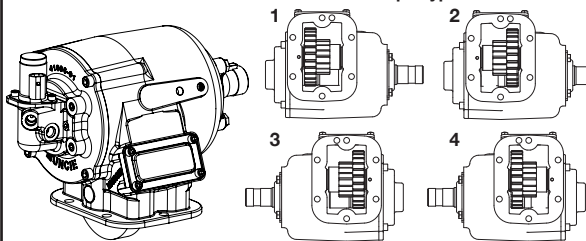
1 — Right Side Shaft Low
 2 — Right Side Shaft Low, Gear to Rear
 3 — Left Side Shaft Low
 4 — Left Side Shaft Low, Gear to Rear

Shift Options

A — Manual Air
 B — 12 V Electric/Hydraulic (I84 Only)
 D — 12 V Electric/Hydraulic 2013 Ram
 E — 12 V Electric/Air
 G — 12 V Electric/Hydraulic Ram (2014+ Gas
 or Diesel Integral Solenoid) (I84 Only)
 H — 12 V Electric/Hyd. (Auto Trans. Only)
 J — 24 V Electric/Hyd. (Auto Trans. Only)
 N — 12 V Electric/Hydraulic ** (1 Arr. PTO, Left
 Side; 3 Arr. PTO, Right Side Integral
 Solenoid) (A67/I84 Only)
 P — Manual Air Shift Less Activation Controls
 R — 24 V Electric/Hydraulic ** (Integral Solenoid)
 (I84 Only)
 S — 12 V Electric/Hydraulic** (Integral Solenoid)
 (A67/I84 Only)
 U — Hydraulic Shift ** Less Activation Controls
 (Integral Solenoid)
 2 — 12 V Electric/Hydraulic GM 4500-6500
 (2019 & Later) & International CV

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type IV



Approximate Weights: 47-49 lbs. (21.3-22.2 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
03	57 (43)	300 (407)	210 (285)
04	57 (43)	300 (407)	210 (285)
05	57 (43)	300 (407)	210 (285)
06	57 (43)	300 (407)	210 (285)
07	57 (43)	300 (407)	210 (285)
09	52 (39)	275 (373)	193 (261)
12	52 (39)	275 (373)	193 (261)
14	52 (39)	275 (373)	193 (261)

FA SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

FA 6B-184 06-H 3 B X

PTO Series

FA — Clutch Shift

Mounting Option

6B — SAE 6-Bolt Std. Mtg. — Metric Kit

Transmission Input Gear Option

184 — Aisin 8.46P 20°PA Spur

Speed Ratio

06 — 0.62:1

Special Feature Option

X — None

Output Options

B — 1¼" Round Keyed Shaft

Q — SAE "B" 7/8" -13T, SAE "A" 2-Bolt

T — SAE ¾" -11T, SAE "A" 2-Bolt

Assembly Arrangement

3 — Left Side Shaft Low

Shift Options

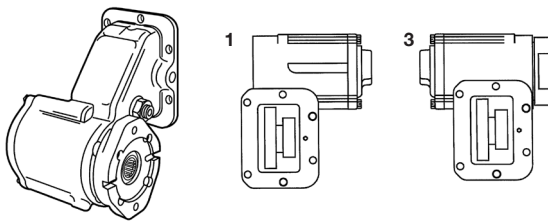
B — Electric/Hydraulic (184 Isuzu Chassis Only)

H — 12 V Electric/Hydraulic (AISIN Only)

Note:

* Driveline output is not possible on 4x4 chassis

ASSEMBLY ARRANGEMENTS



Approximate Weights: 34 lbs. (15.4 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
06 (FA6B-184)	15 (11)	79 (107)	79 (107)
06 (FA6B-184/ AS69RC Transmission)	24 (18)	124 (168)	89 (121)

FR6Q SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

FR6Q-F12-09-D-3-Q-X

PTO Series

FR6Q — Ford 6-Bolt Quiet

Transmission Input Gear Option

F12 — Ford 6R140

Speed Ratio Option

09 — .90:1

Shift Options *

6 — Electric/Hydraulic 2016 & Later F-650-F-750 Diesel Engine;
2017 & Later F-250-F-550 Diesel Engine

F — Electric/Hydraulic 2016 & Later F-650-F-750 Gas Engine;
2017 & Later F-250-F-550 Gas Engine

D — Electric/Hydraulic 2016 & Earlier F-250-F-550 Diesel Engine

G — Electric/Hydraulic 2015 & Earlier F-650-F-750 Gas Engine

Special Feature Options

X — None

B — Stationary **AND** Mobile

(Only available on 6, F, & D shift types)

6 — **Muncie Start**® Stationary **OR** Mobile

7 — **Muncie Start**® Stationary **AND** Mobile
(Only available on 6, F, & D shift types)

Output Options

B — 1¼" Round Keyed Shaft (4x2 Only)

N — SAE ¾" -11T MPP "N" Pump Mount

Q — SAE "B" 7/8" -13T, SAE "A" 2-Bolt (4x2 Only)

T — SAE ¾" -11T, SAE "A" 2-Bolt (4x2 Only)

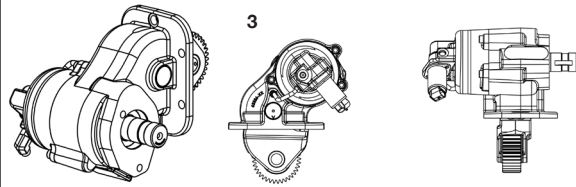
Assembly Arrangement

3 — Left Side Shaft Low

Note:

* Driveline output is not possible on 4x4 chassis.

ASSEMBLY ARRANGEMENTS



Approximate Weight: 35 lbs. (15.9 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
09 Stationary	39 (29)	200 (271)	140 (190)
09 Mobile	22 (16)	120* (162)	120 (162)

*FR6Q limit in mobile applications for continuous and intermittent

82 SERIES MECHANICAL SHIFT

MODEL NUMBER CONSTRUCTION

82 8S-U68-05 L-1-C-X

PTO Series

82 — 8-Bolt 82 Series

Mounting Options

8S — SAE 8-Bolt Std. Mtg.
 8B — SAE 8-Bolt Std. Mtg. — Metric Studs
 8L — SAE 8-Bolt Std. Mtg. — Less Stud Kit
 8F — SAE 8-Bolt Non-Std. — Eaton Endurant (E70 & E80)
 8R — SAE 8-Bolt Std. Mtg. — Special Roller Bearing

Transmission Input Gear Options

E70 — Eaton 7.055P 20° PA Spur
 E80 — Eaton 8.048P 20° PA 28.98 RH
 U62 — Universal 6P 25° PA Spur
 U68 — Universal 6 or 6/8P 20° Spur

OBSOLETE Transmission Input Gear Options *

F11 — Fuller 10.1P 21.5° PA Spur *
 F68 — Fuller 6 or 6/8P 20° Spur *
 M65 — Mack 6.48P 17° 30' Spur *
 S70 — Spicer 7P 17.5° PA 28° 4' 23" LH *
 U57 — Universal 5 or 5/7P 20° Spur *

Speed Ratios

05 — .47:1
 08 — .75:1
 09 — .93:1
 10 — 1.00:1
 12 — 1.15:1
 13 — 1.33:1
 15 — 1.50:1
 19 — 1.89:1 (Cannot be sold in kit form)

OBSOLETE Speed Ratio *

06 — .60:1 *

Special Feature Options

X — None
 G — Greaseable Output Shaft (EG, PG, & ZG Only)
 P — Pressure Lubrication
 8 — Greaseable Shaft Plus Pressure Lube
 W — Wet Spline Output (E Output Only)

Output Options

C — 1410 Companion Flange
 D — SAE "B" 7/8" -13T, SAE "B" 2- & 4-Bolt
 E — SAE "C" 1 1/4" -14T, SAE "C" 2- & 4-Bolt
 I — DIN 5462
 P — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt
 Z — SAE "C" 1 1/4" -14T, SAE "B" 2- & 4-Bolt
 2 — DIN 100 Companion Flange

Assembly Arrangements

1 — Right Side Shaft Low
 2 — Right Side Shaft Low, Gear to Rear
 3 — Left Side Shaft Low
 4 — Left Side Shaft Low, Gear to Rear
 5 — Tall Housing—Right Side Shaft Low
 6 — Tall Housing—Right Side Shaft Low, Gear to Rear
 7 — Tall Housing—Left Side Shaft Low
 8 — Tall Housing—Left Side Shaft Low, Gear to Rear

Shift Options

L — Lever
 M — Constant Mesh
 R — Double Acting Manual Air (Dual Cylinder)
 S — 12 V Double Acting Electric/Air (Dual Cylinder)
 T — Air Shift (Less Activation Controls) (Dual Cylinder)

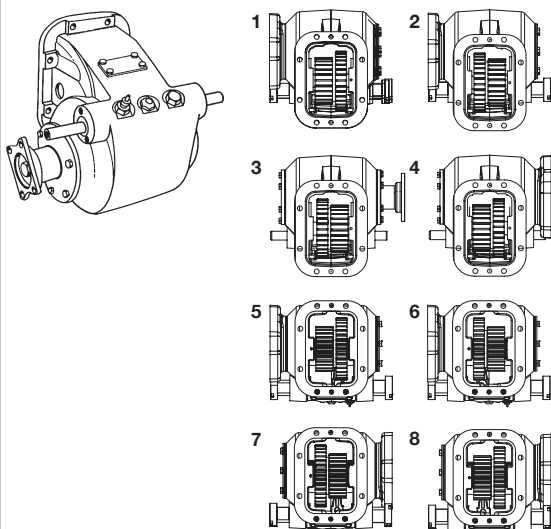
Note:

* Obsolete input gears and speed ratios will be available as service parts only, until inventory is depleted.

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type

IV



Approximate Weights: 85 lbs. (38.6 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
05	95 (71)	500 (678)	350 (475)
08	85 (63)	450 (610)	315 (427)
09	78 (58)	410 (556)	287 (389)
10	78 (58)	410 (556)	287 (389)
12	71 (53)	375 (508)	263 (256)
13	71 (53)	375 (508)	263 (256)
15	67 (50)	350 (475)	245 (332)
19	57 (43)	300 (407)	210 (285)

A30 SERIES CONSTANT DRIVE

MODEL NUMBER CONSTRUCTION

A30-A10 07-MX 3 BB PX XX

PTO Series

A30 — Medium Duty Constant Drive 10-Bolt

Transmission Input Gear Option

A10 — Allison 3000/4000 Series

Speed Ratios

05 — .54:1
06 — .63:1
07 — .73:1
08 — .84:1
09 — .90:1
10 — .97:1
11 — 1.11:1
12 — 1.19:1
15 — 1.48:1

Shift Option

MX — Constant Drive

Assembly Arrangements

1 — Right Side Shaft Low
3 — Left Side Shaft Low
5 — No Offset (Straight Out From Opening)

Notes:

* Wet Spline Option Available

** Special Flange Arrangement Example: A1 or T3: for proper code selection adjust flange to the ideal position and note the letter that aligns centered with the marked dots.

*** Use with Shaft Extension

**** Obsolete special feature options will be available as service parts only, until inventory is depleted.

Flange Position Codes **

A1-T3 — Custom Flange Position

XX — Flange Shipped Loose

Blank — Default Position

Special Feature Options

PX — Standard Hose Kit

PW — Wet Spline & Standard Hose Kit ***

BX — Top Opening Hose Kit

BW — Top Opening Hose Kit Wet Spline

XX — Delete Hose Kit

OBSOLETE Special Feature Options ****

US — Pulse Generator & SPD-2000

UB — Pulse Generator & Top Opening Hose Kit

UX — Pulse Generator & Standard Hose Kit

Output Options

1X — 1¼" Round Keyed Shaft

BA — SAE "B" ⅞" -13T, SAE "A" 2-Bolt

BB — SAE "B" ⅞" -13T, SAE "B" 2- & 4-Bolt *

BS — SAE "B" ⅞" -13T, SAE "B" 2-Bolt *

CB — XSMC Shaft Extension Mount *, ***

CC — SAE "C" 1¼" -14T, SAE "C" 2- & 4-Bolt *

II — DIN 5462 *

PB — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt *

PS — SAE "BB" 1" -15, T SAE "B" 2-Bolt *

TA — SAE ¾" -11T, SAE "A" 2-Bolt

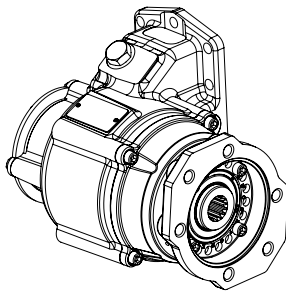
X2 — 1½" -10T, DIN 100 Companion

X4 — 1½" -10T Male, 1410 Companion Flange

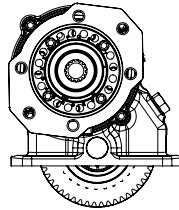
XX — 1½" -10T Male, For Companion Flange

ZB — SAE "C" 1¼" -14T, SAE "B" 2- & 4-Bolt *

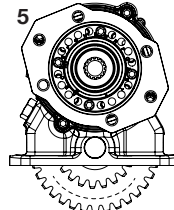
ASSEMBLY ARRANGEMENTS



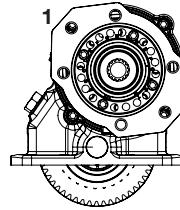
3



5



1



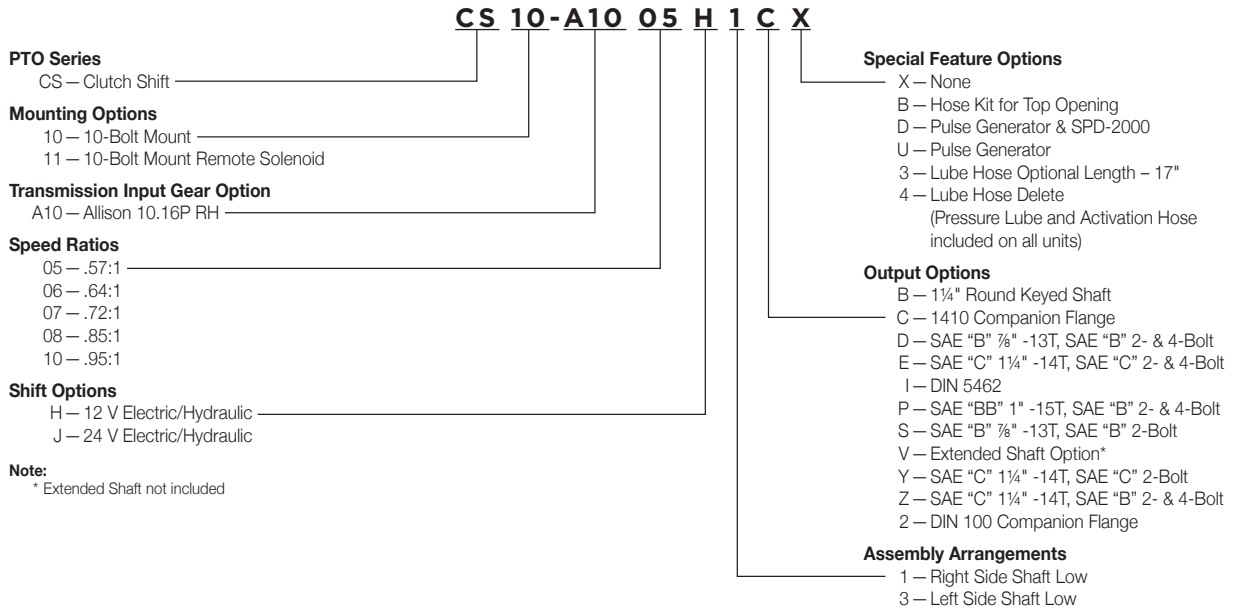
Approximate Weight: 38 lbs. (17.2 Kg.)

TORQUE AND HORSEPOWER RATINGS

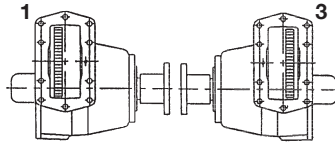
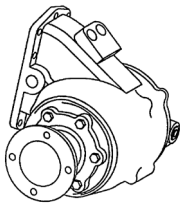
Speed Ratio	Engine % 3000/4000 Series	Intermittent/Continuous HP @ 1,000 RPM (kW)	Intermittent/Continuous Torque lbs.ft. (Nm)
05	74 / 105	77 (57)	400 (542)
06	85 / 122	77 (57)	400 (542)
07	99 / 141	79 (59)	415 (563)
08	114 / 163	69 (51)	360 (488)
09	122 / 176	65 (48)	340 (461)
10	131 / 187	59 (44)	310 (420)
11	151 / 215	52 (39)	275 (373)
12	162 / 231	50 (37)	265 (359)
15	201 / 287	39 (29)	205 (278)

CS10/11 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION



ASSEMBLY ARRANGEMENTS



Approximate Weight: 65 lbs. (29.5 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
05	95 (71)	500 (678)	350 (475)
06	91 (68)	480 (651)	336 (456)
07	86 (64)	450 (610)	315 (427)
08	80 (60)	420 (569)	294 (398)
10	73 (54)	385 (522)	270 (365)

A20 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

A 20 - A 10 07 - H X 3 B B P X X X

PTO Series

A20 — Medium Duty Clutch Shift 10-Bolt

Transmission Input Gear Option

A10 — Allison 3000/4000 Series

Speed Ratios

05 — .54:1
06 — .63:1
07 — .73:1
08 — .84:1
09 — .90:1
10 — .97:1
11 — 1.11:1
12 — 1.19:1
15 — 1.48:1

Shift Options

HX — 12 V Electric/Hydraulic 2015-2020
HR — 12 V Electric/Hydraulic Remote Mount
JX — 24 V Electric/Hydraulic
JR — 24 V Electric/Hydraulic Remote Mount
XX — Electric/Hydraulic w/o Activation Components
RS — Reduced Harness **Muncie Start**[®]
RX — 12 V Reduced Harness (Wiring Pigtails Only)
SX — 12 V **Muncie Start**[®] Integral
SR — 12 V **Muncie Start**[®] Remote Mount
H2 — 12 V Electric/Hydraulic Hino 2021 & Newer
S2 — 12 V **Muncie Start**[®] Hino 2021 & Newer

OBSOLETE Shift Options ****

HH — 12 V Electric/Hydraulic Hino 2020 & Older ****
J2 — 24 V Electric/Hydraulic Hino 2021 & Newer ****

Assembly Arrangements

1 — Right Side Shaft Low
3 — Left Side Shaft Low
5 — No Offset (Straight Out From Opening)

Flange Position Codes **

A1-T3 — Custom Flange Position
XX — Flange Shipped Loose
Blank — Default Position

Special Feature Options

PX — Standard Hose Kit
PW — Wet Spline w/Standard Hose Kit ***
BX — Top Opening Hose Kit
BW — Top Opening Hose Kit Wet Spline
XX — Delete Hose Kit

OBSOLETE Special Feature Options ****

US — Pulse Generator & SPD-2000 ****
UX — Pulse Generator & Standard Hose Kit ****
UB — Pulse Generator & Top Opening Hose Kit ****

Output Options

1X — 1½" Round Keyed Shaft
2I — DIN 5462 Euro
AA — SAE "A" ½" -9T, SAE "A" 2-Bolt
BA — SAE "B" ¾" -13T, SAE "A" 2-Bolt
BB — SAE "B" ¾" -13T, SAE "B" 2- & 4-Bolt *
BS — SAE "B" ¾" -13T, SAE "B" 2-Bolt *
CB — XSMC Shaft Extension Mount *, ***
CC — SAE "C" 1¼" -14T, SAE "C" 2- & 4-Bolt *
II — DIN 5462 *
PB — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt *
PS — SAE "BB" 1" -15T, SAE "B" 2-Bolt *
TA — SAE ¾" -11T, SAE "A" 2-Bolt
X2 — 1½" -10T, DIN 100 Companion Flange
X4 — 1½" -10T Male, 1410 Companion Flange
XX — 1½" -10T Male, For Companion Flange
ZB — SAE "C" 1¼" -14T, SAE "B" 2- & 4-Bolt *

Notes:

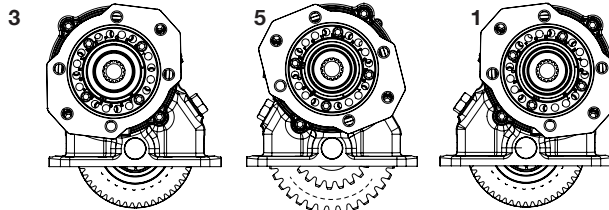
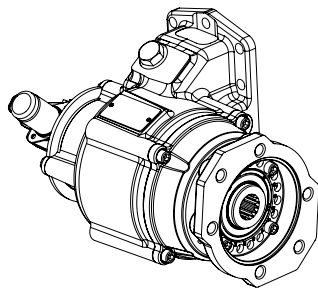
* Wet Spline Option Available

** Special Flange Arrangement Example: A1 or T3: for proper code selection adjust flange to the ideal position and note the letter that aligns centered with the marked dots.

*** Use with Shaft Extension

**** Obsolete input gears and special feature options will be available as service parts only, until inventory is depleted.

ASSEMBLY ARRANGEMENTS



Approximate Weight: 47 lbs. (21 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Engine % 3000/4000 Series	Intermittent/Continuous HP @ 1,000 RPM (kW)	Intermittent/Continuous Torque lbs.ft. (Nm)
05	74/105	77 (57)	400 (542)
06	85/122	77 (57)	400 (542)
07	99/141	79 (59)	415 (563)
08	114/163	69 (51)	360 (488)
09	122/176	65 (48)	340 (461)
10	131/187	59 (44)	310 (420)
11	151/215	52 (39)	275 (373)
12	162/231	50 (37)	265 (359)
15	201/287	39 (29)	205 (278)

CS40/41 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

CS 41-A10 07-H 3 C X

PTO Series

CS — Clutch Shift

Mounting Options

40 — 10-Bolt Mount

41 — 10-Bolt Mount — Remote Solenoid

Transmission Input Gear Option

A10 — Allison 10.16P RH

Speed Ratios

07 — 0.74:1

10 — 1.06:1

12 — 1.20:1

Shift Options

H — 12 V Electric/Hydraulic

J — 24 V Electric/Hydraulic

Note:

* Extended Shaft not included

Special Feature Options

X — None

B — Hose Kit for Top Opening

D — Pulse Generator & SPD-2000

U — Pulse Generator

3 — Special Hose Kit 17"

6 — Muncie Start® Stationary OR Mobile

Output Options

C — 1410 Companion Flange

E — SAE "C" 1¼" -14T, SAE "C" 2- & 4-Bolt

I — DIN 5462

P — SAE "BB" 1" -15T, SAE "B" 2- & 4-Bolt

V — Muncie Extended Shaft*

Y — SAE "C" 1¼" -14T, SAE "C" 2-Bolt

Z — SAE "B" 1¼" -14T, SAE "B" 2- & 4-Bolt

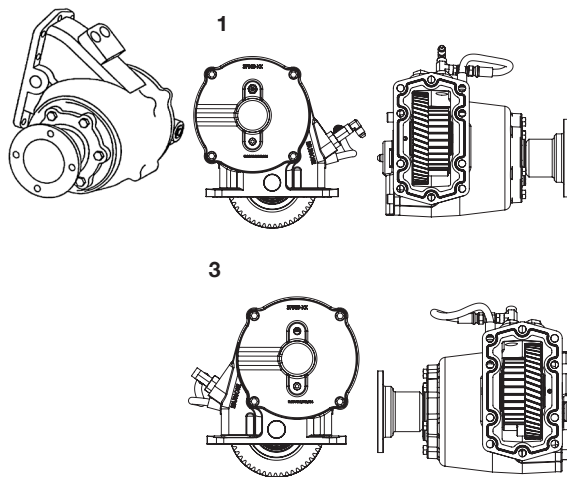
2 — DIN 100 Companion Flange

Assembly Arrangements

1 — Right Side Shaft Low

3 — Left Side Shaft Low

ASSEMBLY ARRANGEMENTS



Approximate Weight: 69 lbs. (31.3 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
07	114 (85)	600 (813)	420 (569)
10	103 (76)	545 (739)	382 (517)
12	93 (70)	490 (664)	343 (465)

F20 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

F20-F13 12 GX 5 TN PX

PTO Series

F20 — Ford

Transmission Input Gear Option

F13 — Ford 10R140

Speed Ratio

12 — 1.18:1

Shift Options

GX — Gas Engine Standard

GS — Gas Engine **Muncie Start**®

DX — Diesel Engine Standard

DS — Diesel Engine **Muncie Start**®

RX — Reduced Harness (Wiring Pigtails Only)

RS — Reduced Harness **Muncie Start**®

Special Feature Options

PX — Single Mode (Either Stationary **OR** Mobile)

PB — Dual Mode (Both Stationary **AND** Mobile)

Output Options

1X — 1¼" Round Keyed Shaft

BA — SAE "B" 7/8" -13T, SAE-"A" 2-Bolt

TN — SAE ¾" -11T, MPP "N" Pump Mount (Standard)

TA — SAE ¾" -11T, SAE-"A" 2-Bolt

UU — ISO 14 25mm -6T, 21 UNI 222 3-Bolt Flange

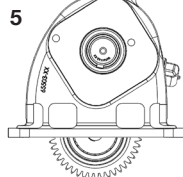
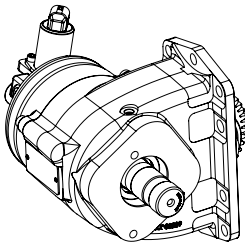
Assembly Arrangement

5 — No Offset (Straight Out from Opening)

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type

N.A.



Approximate Weight: 29 lbs. (13.15 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	% of Engine Speed	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)
12	130%	50 (37)	261 (354)

F22 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

F22-F13 12 DX 5 TN PX

PTO Series

F22 — Ford

Transmission Input Gear Option

F13 — Ford 10R140

Speed Ratio

12 — 1.18:1

Shift Options

DX — 12 V Diesel Engine Standard

DS — 12 V Diesel Engine **Muncie Start®**

RX — 12 V Reduced Harness (Wiring Pigtails Only)

RS — 12 V Reduced Harness **Muncie Start®**

Special Feature Options

PX — Single Mode (Either Stationary **OR** Mobile)

PB — Dual Mode (Both Stationary **AND** Mobile)

Output Options

1X — 1¼" Round Keyed Shaft

BA — SAE "B" 7/8" -13T, SAE-"A" 2-Bolt

BB — SAE "B" 7/8" -13T, SAE-"B" 2- & 4-Bolt

TN — SAE ¾" -11T, MPP "N" Pump Mount

TA — SAE ¾" -11T, SAE-"A" 2-Bolt

UU — ISO 14 25mm -6T, 21 UNI 222 3-Bolt Flange

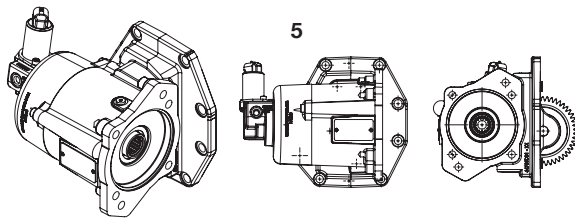
Assembly Arrangement

5 — No Offset (Straight Out from Opening)

ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type

N.A.



Approximate Weight: 29 lbs. (13.15 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	% of Engine Speed	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)
12	130%	50 (37)	261 (354)

RS4S SERIES REAR MOUNT

MODEL NUMBER CONSTRUCTION

RS 4S-P82Z1 E 1 C X

PTO Series

RS4S — Rear Shaft Mount 4-Bolt

Mounting Options

4S — Non-Std. 4-Bolt Mount

Application Options

P82 Z1 — ZF Meritor
 P86 Z3 — ZF Meritor
 P86 Z4 — ZF Meritor
 P86 Z5 — ZF Meritor
 P86 VN — Volvo I-Shift/Mack mDRIVE
 P86 VM — Volvo I-Shift/Mack mDRIVE

Dual Application Options

P93 VN — Volvo I-Shift/Mack mDRIVE
 P93 VM — Volvo I-Shift/Mack mDRIVE

Special Feature Option

X — None

Output Options

C — 1310 Companion Flange
 K — SAE "B" 2- & 4-Bolt
 I — DIN 5462

Assembly Arrangement

1 — Standard Rear Mounting

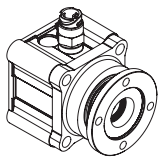
Shift Options

A — Manual Air Shift
 E — 12 V Electric/Air Shift Standard
 P — Air Shift (Less Activation Controls)
 (Rec. VN or VM)
 Z — 12 V Electric/Air Shift (P86Z* Includes
 Harness Meritor)

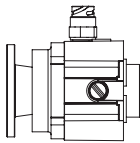
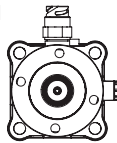
ASSEMBLY ARRANGEMENTS

SAE Recommended Practice J772 Envelope Type

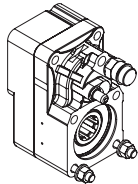
N.A.



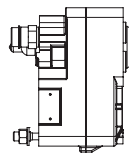
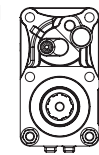
1



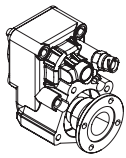
RS4S-P81



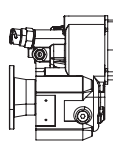
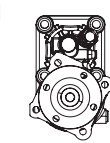
1



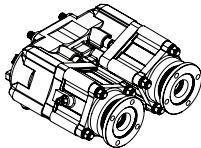
RS4S-P84



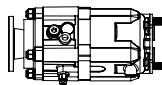
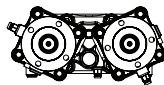
1



RS4S-P86



1



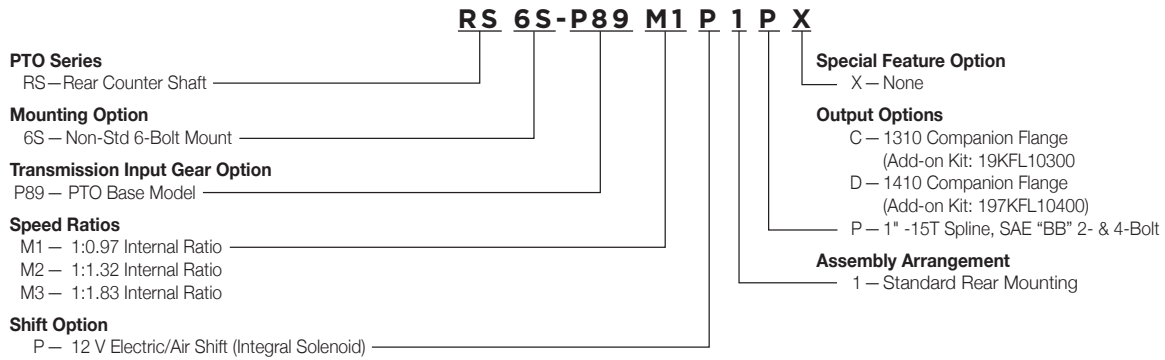
RS4S-P93

TORQUE AND HORSEPOWER RATINGS

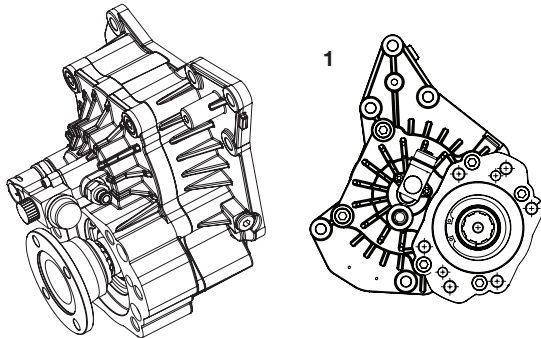
Internal Ratio	Intermittent HP @ 1,000 RPM (kW)	MAX Torque lbs.ft. (Nm)
P82Z	40 (32)	200 (298)
P81Z2	84 (62)	442 (600)
P81V8	84 (62)	442 (600)
P84Z2	57 (42)	300 (407)
P84Z4	70 (52)	369 (500)
P86VN	70 (52)	369 (500)
P86VM	63 (47)	331 (450)
P93VN	70 (52)	369 (500)
P93VM	63 (47)	331 (450)

RS6S-P89M SERIES DETROIT DT12

MODEL NUMBER CONSTRUCTION



ASSEMBLY ARRANGEMENTS



Approximate Weight: 23 lbs. (10.4 Kg.)

TORQUE AND HORSEPOWER RATINGS

Internal Ratio	Intermittent HP @ 1,000 RPM (kW)	MAX Torque lbs.ft. (Nm)
M1	60 (45)	317 (430)
M2	60 (45)	317 (430)
M3	57 (43)	295 (400)

8405A SERIES MECHANICAL SHIFT

MODEL NUMBER CONSTRUCTION

8405A-07-A-3 K-X

PTO Series

8405A — (6P-20° PA Spur) U68
8405B — U68 with Metric Stud Kit

Speed Ratios

07 — .73:1
08 — .84:1
09 — 1:1

Shift Options

A — 12 V Manual Air
P — Manual Air (Less Activation Kit)

Special Feature Option

X — None

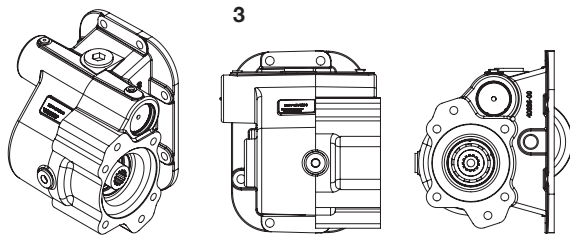
Output Options

B — 1¼" Round Keyed Shaft
K — SAE "B" Pump Mount
P — SAE "BB" Pump Mount

Assembly Arrangement

3 — Left Side Shaft Low

ASSEMBLY ARRANGEMENTS



Approximate Weight: 35 lbs. (15.9 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent HP @ 1,000 RPM (kW)	Intermittent Torque lbs.ft. (Nm)	Continuous Torque lbs.ft. (Nm)
07	44 (33)	230 (312)	161 (218)
08	44 (33)	230 (312)	161 (218)
09	39 (29)	205 (278)	144 (195)

P58/P60 SERIES PTO FOR PACCAR TX-8

MODEL NUMBER CONSTRUCTION

P 58 - Z 11 10 XX 5 BB PX

PTO Series

P58 — Paccar TX-8
P60 — Paccar TX-8

Transmission Input Gear Option

Z11 — ZF Powerline/Paccar TX-8

Speed Ratios

10 — 0.97:1
10 — 0.98:1

Shift Option

XX — Air Shift Only w/o Activation Components

Special Feature Options

PX — Left Hand Side Hose Kit
BX — Right Hand Side Hose Kit

Output Options

BB — SAE "B" 2- or 4-Bolt
2I — DIN 5462 (Euro)
X3 — 1310 Companion Flange

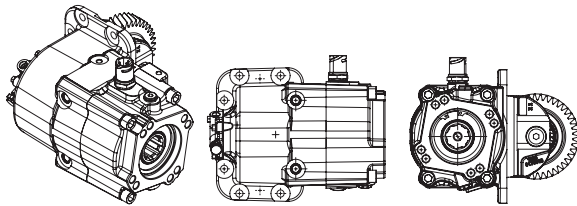
Assembly Arrangement

5 — No Offset

ASSEMBLY ARRANGEMENTS

P58/P60

5



P58: Approximate Weight: 47 lbs. (21 Kg.)

P60: Approximate Weight: 33 lbs. (15 Kg.)

TORQUE AND HORSEPOWER RATINGS

PTO	Internal Ratio	Intermittent HP @ 1,000 RPM (kW)	MAX Torque lbs.ft. (Nm)
P58	10	80 (60)	420 (569)
P60	10	49 (37)	258 (350)

Z21 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

Z21-Z11 11-DX-1 BS-BX

PTO Series

Z21 — Passenger-Side, Clutch Shift

Transmission Input Gear Option

Z11 — TorqueFlite HD/ZF PowerLine

Speed Ratio

11 — 1.13:1

Shift Option

DX — 12 V Integral RAM

Special Feature Options

BX — Standard

BW — Standard Wet Spline

Output Options

TA — SAE "A" 2-Bolt, ¾" -11T Spline

BA — SAE "A" 2-Bolt, ⅞" -13T Spline

BS — SAE "B" 2-Bolt, ⅞" -13T Spline

BB — SAE "B" 2- & 4-Bolt, ⅞" -13T Spline

PB — SAE "B" 2- & 4-Bolt, 1" -15T Spline

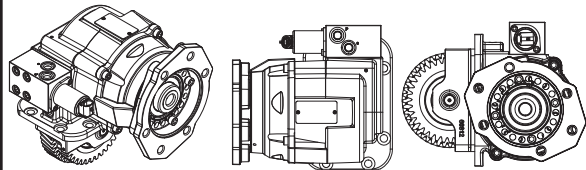
II — DIN 5462

Assembly Arrangement

1 — Right Side Shaft Low

ASSEMBLY ARRANGEMENTS

1



Approximate Weight: 50 lbs. (22.7 Kg.)

TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent/Continuous HP @ 1,000 RPM (kW)	Intermittent/Continuous Torque lbs.ft. (Nm)
11	50 (37)	265 (359)

Z25 SERIES CLUTCH SHIFT

MODEL NUMBER CONSTRUCTION

Z25-Z11 13-DX-3 TA-PX

PTO Series

Z25 — Driver-Side, Clutch Shift

Transmission Input Gear Option

Z11 — TorqueFlite HD/ZF PowerLine

Speed Ratio

13 — 1.26:1

Shift Option

DX — 12 V Integral RAM

Special Feature Option

PX — Standard

Output Options

TA — SAE ^{***}A 2-Bolt, ¾" -11T Spline

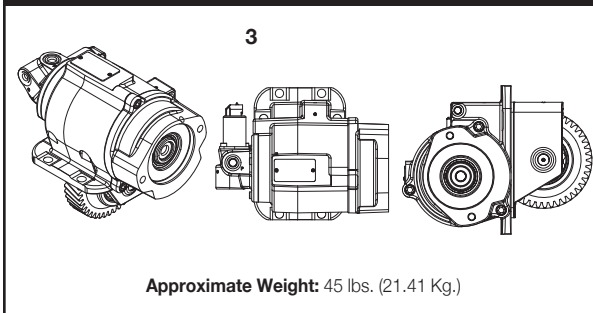
1X — 1.25" Round Keyed Shaft (4x2 ONLY)

UU — UNI for FX Series Bent Axis Piston Pump

Assembly Arrangement

3 — Left Side Shaft Low

ASSEMBLY ARRANGEMENTS



TORQUE AND HORSEPOWER RATINGS

Speed Ratio	Intermittent/Continuous HP @ 1,000 RPM (kW)	Intermittent/Continuous Torque lbs.ft. (Nm)
13	24 (18)	125 (169)

HC6/8 SERIES HYDROCAR

MODEL NUMBER CONSTRUCTION

HC6S-M7618-A 3 B X

PTO Series

HC6S — 6-Bolt Mount
HC8S — 8-Bolt Mount

Base PTO Series *

M7618	P2081
M7818	P2107
P09B1	P2138
P09H4	P2195
P09J1	P2244
P09J2	P2254
P09J4	P2262
P09J5	P22Z3
P09W1	P2277
P10J1	P2285
P10J2	P23Z2
P10J3	P2373
P10J4	P2374
P11J1	P2515
P11J2	P26Z1
P13H1	P28H1
P13H3	P28Z6
P15S1	P30MK
P15S2	P30MW
P1623	P33M9
P18G2	P37H2
P18G5	P6082
P1901	P6085
P1935	P6086
P2000	P6088
P2039	

Special Feature Option

X — None

Output Options

B — 1¼" Round Keyed Shaft
C — 1310 Companion Flange
D — 1410 Companion Flange
I — DIN 5462
K — SAE "B" 2- & 4-Bolt, -13T
P — SAE "B" 2- & 4-Bolt, =15T

Assembly Arrangements

1 — Standard Rear Mounting
3 — Left Side Shaft Low

Shift Options

C — Cable
A — Air (Manual)
E — 12 V Electric/Air
P — Air (Less Activation Kit)
T — Electric (E-Hydra 12 V)

Note:

* Applications, Torque, HP, and Internal Ratios vary.

HC6S-P11J*-C3*X SHOWN LESS OUTPUT FLANGE

