

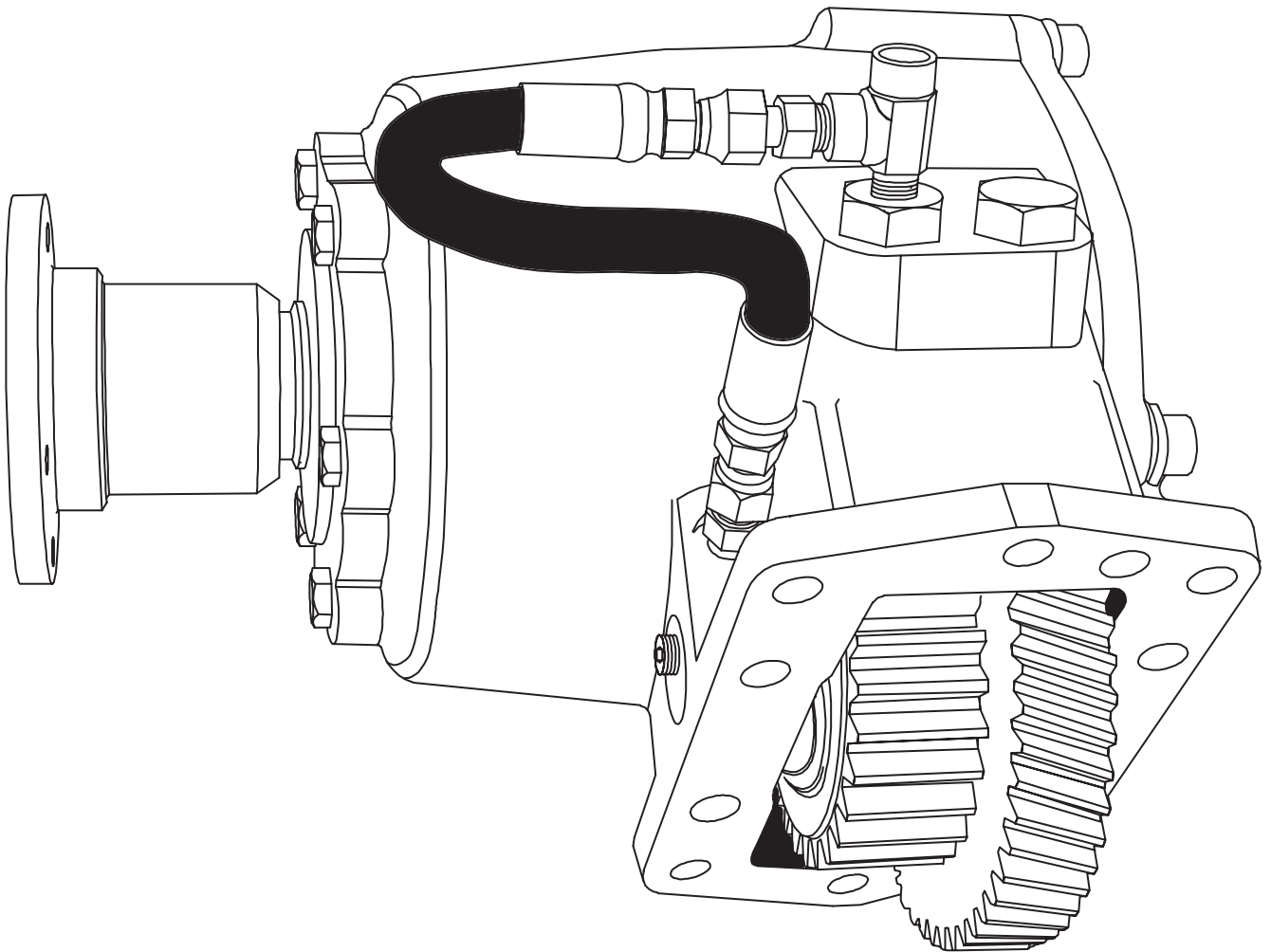


**Muncie®
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Products**

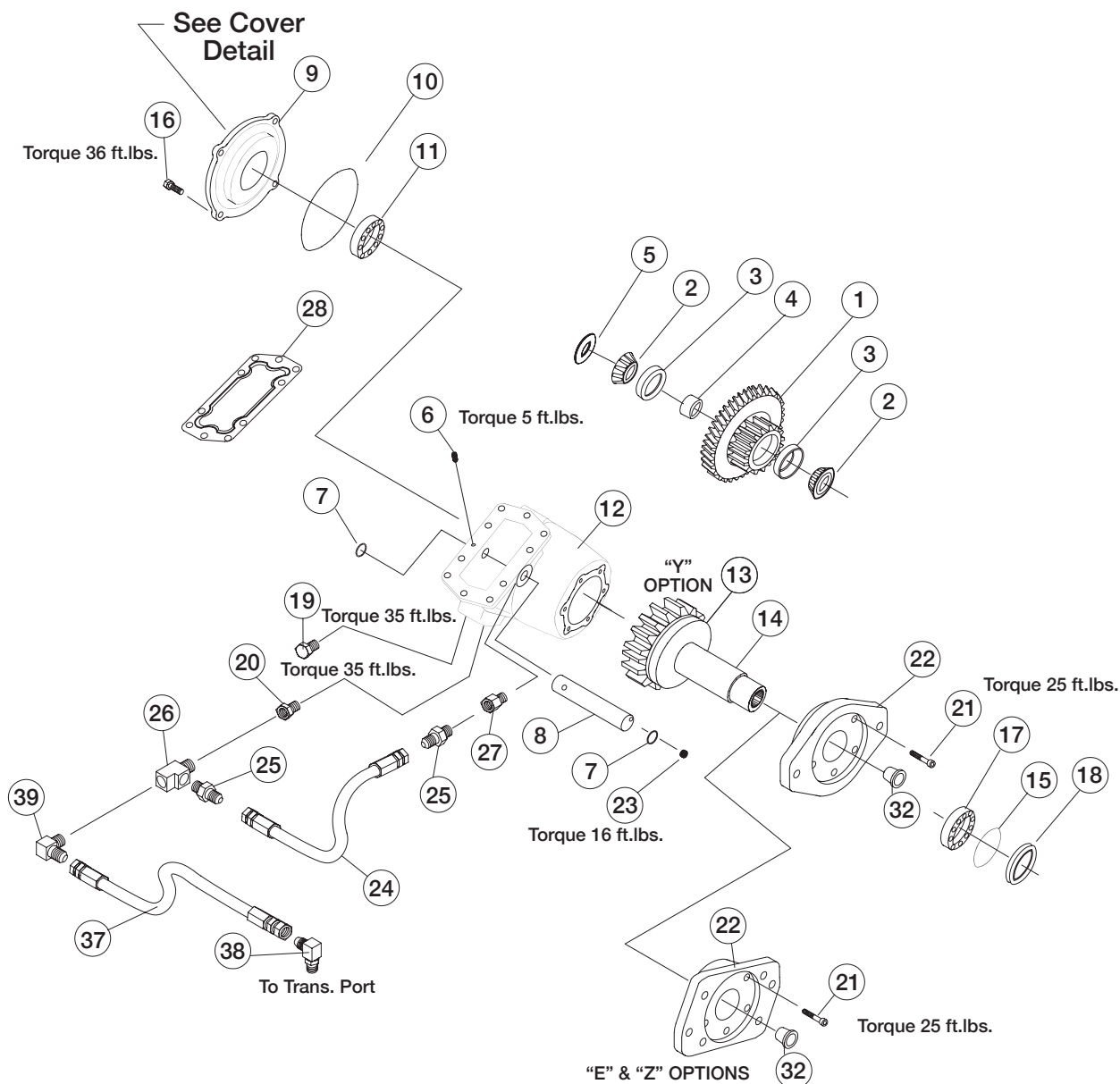
CD40 SERIES PTO

**HEAVY DUTY, CONSTANT DRIVE PTO FOR
THE ALLISON WORLD TRANSMISSION**

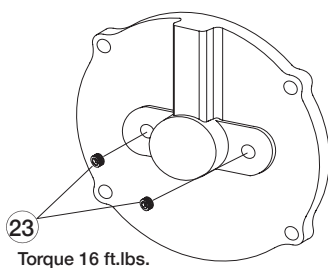
PARTS LIST AND SERVICE MANUAL



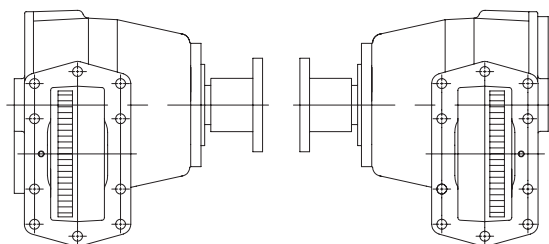
CD40 SERIES CLUTCH SHIFT PTO



CD40 COVER DETAIL (BACKSIDE)



PTO ASSEMBLY ARRANGEMENTS



NO. 3 ASSEMBLY

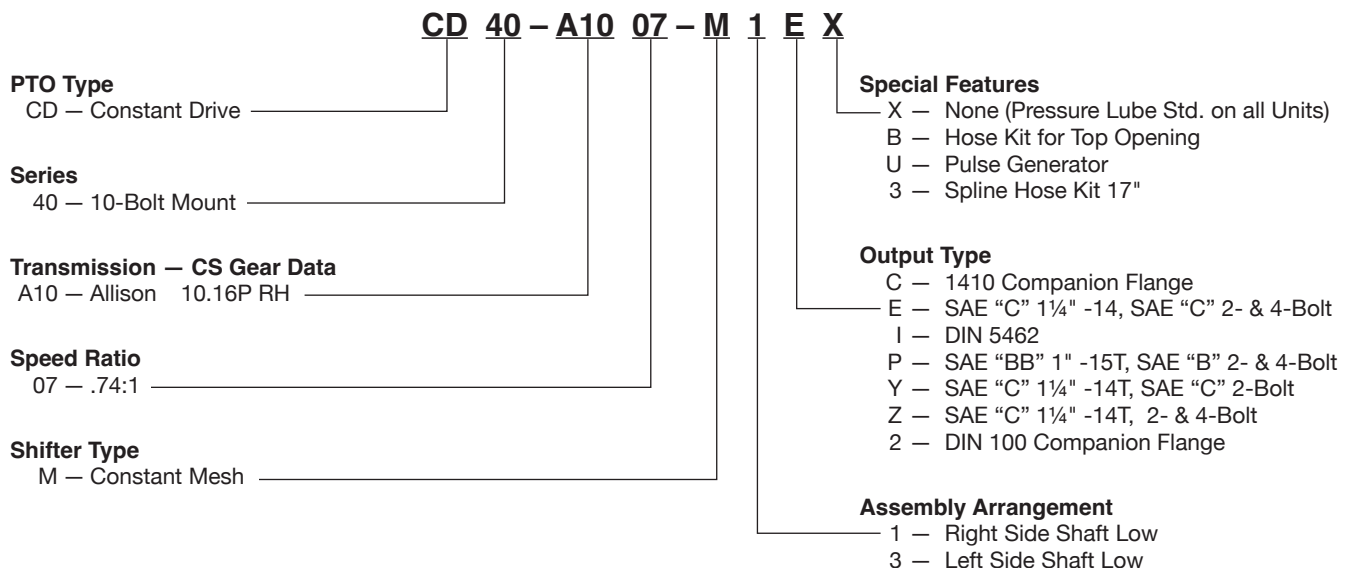
NO. 1 ASSEMBLY

PARTS LIST AND DESCRIPTION

Item	Part No.	Qty	Description
1	03T38671*	1	Input Gear – A1007
2	10T38684*	2	Bearing
3	10T38685*	2	Bearing Cup
4	See Table B*	1	Bearing Cone Spacer
5	See Table C*	1	Bearing Shim
*Part numbers for identification purposes only. Items sold as sub-assembly only.			
6	19T36082	1	Set Screw
7	12T35577	2	O-Ring
8	07T38689	1	Idler Shaft
9	15T39171	1	End Cover
10	12T36207	1	O-Ring
11	10T35994	1	Bearing
12	01T38681 01T38683	1	Housing “3” Arrangement (A10) Housing “1” Arrangement (A10)
13	02T39170*	1	Output Gear – 07 (38T)
14	06T39200*	1	Output Shaft “E”, “Y”, “Z”
*Part numbers for identification purposes only. Output shaft and ratio gear sold as an assembly only.			
	06TA4547		Output Shaft Ass’y “E”, “Y”, “Z” (07 Ratio)
15	12T36863	1	O-Ring
16	19M38100	4	Capscrew
17	10T35775	1	Bearing
18	11T37795	1	Shaft Seal
19	25T35999	1	Plug
20	25T35784	1	Lube Plug
21	19T31577	6	Cap Screw “E”, “Y”, “Z” Flange

Item	Part No.	Qty	Description
22	14T35769 14T36007 14T39188	1	“E” Hydraulic Flange “Y” Hydraulic Flange “Z” Hydraulic Flange
23	25T21684	3	1/8" Pipe Plug
24	45T36308	1	Hose (10" Long)
25	43T37503	2	Fitting
26	43T39129	1	Tee Fitting
27	43M02203	1	Orifice Fitting
28	13T35777	1	Shaft Seal
32	25T35936	1	Cap Plug “E”, “Y”, “Z” (Storage Only)
	19T64314	8	Cap Screw (30 mm)
	20T63321	2	Alignment Stud
	21T64303	8	Washer
	43MK2810		Pressure Lube Kit (Option “X”)
37	45M4R528	1	Hose (28")
38	43M68014	1	Adapter Fitting (Transmission)
39	43M05522	1	Adapter Fitting (PTO)
	43MK3620		Pressure Lube Kit (Option “B”)
37	43M4R548	1	Hose (48")
38	43M68014	1	Adapter Fitting (Transmission)
39	43M05522	1	Adapter Fitting (PTO)
N.S.	48TK4891	1	Instalation Kit (Includes stud kit, instructions/gasket kit, label kit, and lube kit.)
N.S.	52MK101	1	Instruction/Gasket Kit
N.S.	36MK3841	1	Label Kit
N.S.	CD40-RBK	1	Rebuild Kit Includes: (1) 6, (2) 7, (1) 10, (1) 11, (1) 15, (1) 17, (1) 18, (1) 28
N.S.	CD40-GSK	1	Gasket Kit Includes: (1) 7, (1) 10, (1) 15, (1) 18, (1) 28

CD40 MODEL NUMBER CONSTRUCTION



CD40 PARTS LIST TABLES

Table A – Item #1 Input Gear
Service Parts Sold as Sub-assembly Only

Sub-Ass'y	Input Gear	Description (#T)
03TA4826	03T38671	Input Gear – A1007 (50/28)

Input sub-assembly includes: input gear, cone bearings, bearing cups, and cone spacer.

Table B – Item #4 Cone Spacer

Spacer	Description	Dimension
18T39242	Cone Spacer	0.798 / 0.796
18T39243	Cone Spacer	0.795 / 0.793
18T39244	Cone Spacer	0.792 / 0.790
18T39245	Cone Spacer	0.789 / 0.787
18T39246	Cone Spacer	0.786 / 0.784
18T39247	Cone Spacer	0.783 / 0.781
18T39248	Cone Spacer	0.780 / 0.778
18T39249	Cone Spacer	0.777 / 0.775
18T39250	Cone Spacer	0.774 / 0.772
18T39970	Cone Spacer	0.801 / 0.799
18T39971	Cone Spacer	0.804 / 0.802
18T39972	Cone Spacer	0.807 / 0.805
18T39973	Cone Spacer	0.810 / 0.808
18T39974	Cone Spacer	0.813 / 0.811
18T39975	Cone Spacer	0.813 / 0.811

Only one spacer is used in input sub-assembly.

Table C – Item #5 BEARING SHIM

Shim	Description	Dimension
18T39227	Bearing Shim	0.0650 / 0.0630
18T39228	Bearing Shim	0.0675 / 0.0655
18T39229	Bearing Shim	0.0700 / 0.0680
18T39230	Bearing Shim	0.0725 / 0.0705
18T39231	Bearing Shim	0.0750 / 0.0730
18T39232	Bearing Shim	0.0775 / 0.0755
18T39233	Bearing Shim	0.0800 / 0.0780
18T39234	Bearing Shim	0.0825 / 0.0805
18T39235	Bearing Shim	0.0850 / 0.0830
18T39236	Bearing Shim	0.0875 / 0.0855
18T39237	Bearing Shim	0.0900 / 0.0880
18T39238	Bearing Shim	0.0925 / 0.0905
18T39239	Bearing Shim	0.0950 / 0.0930
18T39240	Bearing Shim	0.0975 / 0.0955
18T39241	Bearing Shim	0.1000 / 0.0980

Only one shim is used in assembly of the PTO. Kit 18TK4832 includes one of each.


CD40 DISASSEMBLY & REASSEMBLY

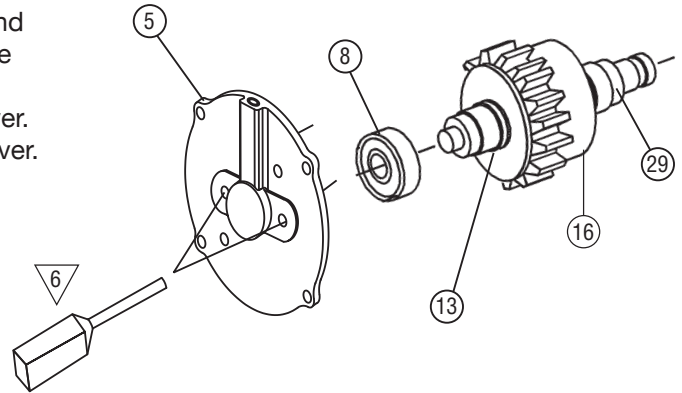
(REFERENCE EXPLODED VIEW ON PAGE 2)

DISASSEMBLY PROCEDURE



– DENOTES SPECIAL SERVICE PROCEDURES

1. Remove CD40 input gear, by removing the set screw in the pad and driving idler shaft from housing (26, 27).
3. Remove the four large socket capscrews (4) which hold bearing cover to PTO housing.
4. Position housing against a bench block and hit end of output shaft with a soft face hammer to remove entire output shaft assembly with bearing cover.
5. Remove the two pipe plugs (45) from bearing cover. This exposes ball bearing assembly within the cover.
-  6. Using a 1/4" punch and alternating between the two holes, drive bearing and shaft assembly from bearing cover.
7. Using snap ring pliers, remove snap ring (11) located on output shaft end while gently pushing on piston cup (24).
8. Pull piston cup (24) from the shaft and piston (21) will go with it.
9. Tap piston cup on a wood surface to remove piston.
10. Remove spring (20). The clutch friction discs (18), spacer disc (19), spacer ring (16), and inner clutch hub (17) can be removed by pointing shaft end down.
11. The snap ring (11) on opp end of bell gear can be removed with snap ring pliers. This allows bell gear to be removed towards closed end. The internal bearing (13) of bell gear can easily be removed.



REASSEMBLY PROCEDURE


12. The reassembly of the unit is made in reverse of the disassembly.
13. Be sure to lubricate O-Rings and all bearings upon installation.


Torque cap screws to values shown or to following values:


5/16 cap screws – 18 ft.lb.

3/8 cap screws – 36 ft.lb.

1/4 set screw – 9 ft.lb.

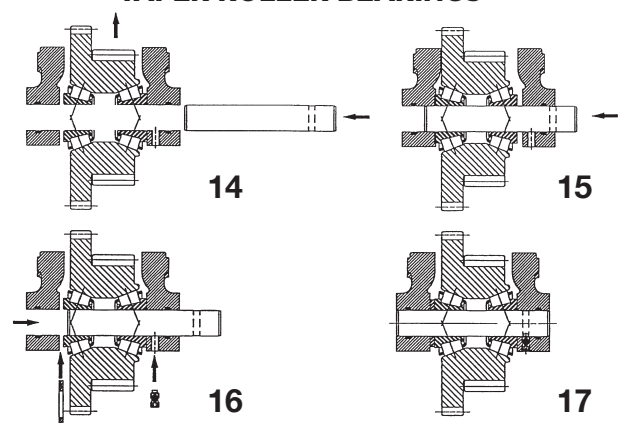
-  14. Place input bearing into input gear and slide this group into housing to line up idler shaft.

-  15. Tap idler shaft into housing and through both bearing races.

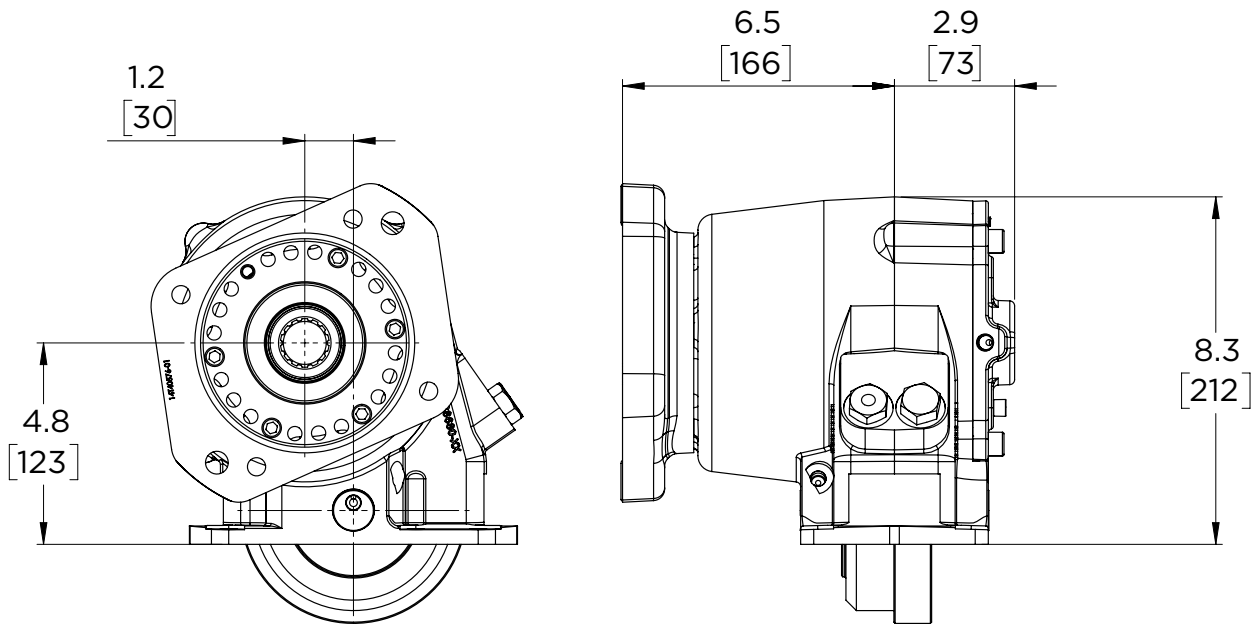
-  16. Tap idler shaft in reverse direction so that it is flush with bearing in this assembly. Insert thickest shim that can be **installed by hand** in gap between bearing and housing. Rotate input gear to ensure it is not excessively tight or loose. Recommended bearing pre-load is .002" loose to .006" loose.

-  17. Tap idler shaft into position and install set screw.

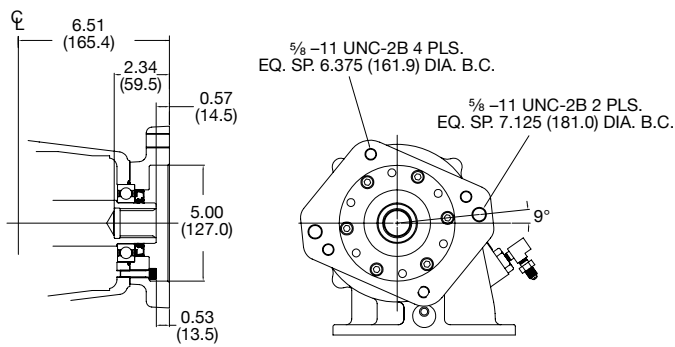
TAPER ROLLER BEARINGS



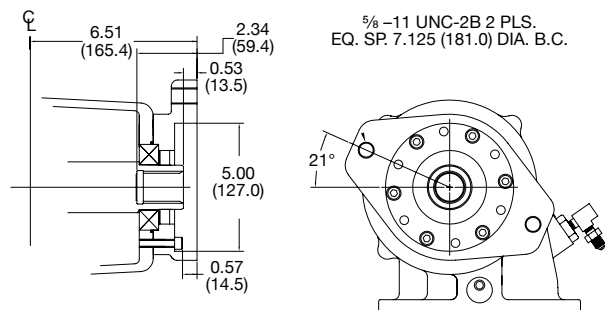
CD40 SERIES MOUNTING DIMENSIONS IN INCHES (MM)



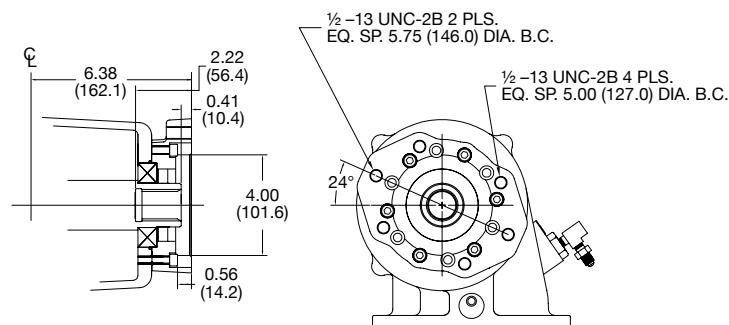
SAE C 2- & 4-Bolt 1 1/4" -14T Spline Output ("E" Option)



SAE "C" 2- & 4-Bolt 1 1/4" -14 Spline ("E" Option)

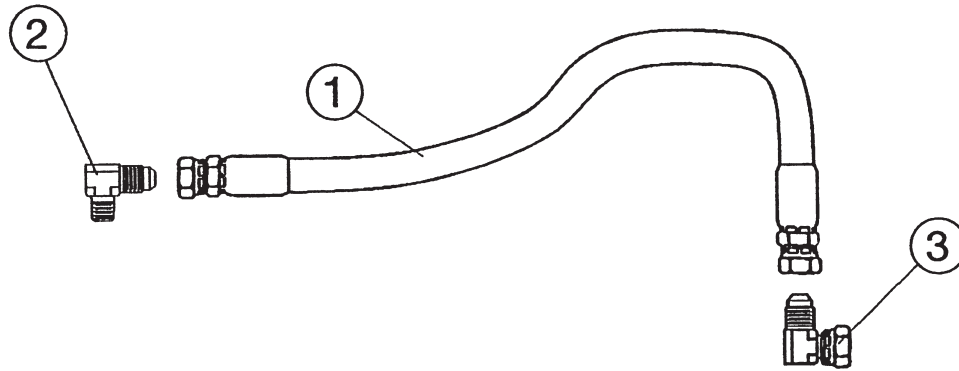


SAE "C" 2-Bolt 1 1/4" -14 Spline ("Y" Option)



SAE "B" 2- & 4-Bolt 1 1/4" -14 Spline ("Z" Option)

INSTALLATION HOSE KITS



43TK3881 HOSE KIT (STANDARD)

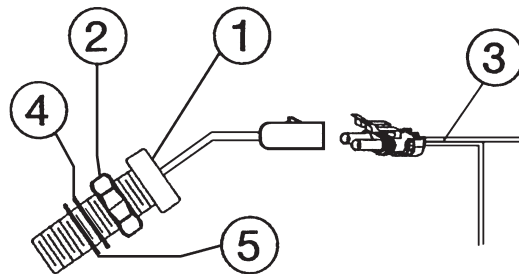
43TK3885 HOSE KIT FOR TOP R.S. HD SERIES

Item	Part No.	Qty	Description
1	45T36274 45T36273	1	Hose Ass'y Std. (28") Hose Ass'y HD Top (57")
2	43M68014	1	Elbow (Transmission)
3	43T36445	1	Elbow (Use as needed) (43TK3881 only)

SPEED SENSOR KIT

31TK3873

SPECIAL OPTION "U"



Item	Part No.	Qty	Description
1	31T35108	1	Mag Pickup
2	21T35109	1	Jam Nut
3	34M1415	1	Wiring Harness
4	21T36099	1	Flat Washer
5	12T35774	11	O-Ring

LUBE HOSE INSTALLATION

INSTALLATION TIPS:

Do not use Teflon tape on pipe threads. If sealant is to be used, it is recommended that paste style thread sealant or Loctite® pipe thread sealant be used. Allow the proper drying times before pressurizing.

SEE MANUFACTURERS INSTRUCTIONS.

CD40 with lube hose already installed into end of idler shaft (Fig. 1) Remove the hose from the fittings (Fig. 2). Remove both fittings at the idler shaft and discard the silver 90 degree fitting. Remove the pipe plug from the housing and install it in the end of the idler shaft (Fig. 3). Remove the street tee and hose fitting from the lube port below the model tag. Install PTO onto the transmission. Install the street tee, 43M02203 straight orifice fitting and hose fittings and tighten as shown in (Fig. 5). Install hose as shown in (Fig. 6) and tighten being careful not to twist the hose.

CD40 WITHOUT LUBE HOSE INSTALLED (FIG. 3)

If the 1/8" pipe plug is located in the housing port above the idler shaft, remove and install it in the end of the idler shaft (Fig. 3). Locate the lube hose, hose fittings, 43M02203 straight orifice fitting and street tee (Fig. 4). Install PTO onto the transmission. Install the street tee, 43M02203 straight orifice fitting and hose fittings and tighten as shown in (Fig. 5). Install hose as shown in (Fig. 6) and tighten being careful not to twist the hose.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



A Member of the Interpump Group

SP06-02 (Rev. 03-23)

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