

How To Use This Manual

This manual provides detailed instructions on maintenance, lubrication, installation, and parts identification for Sizes 1020–1200 & 20–200. Use the table of contents below to locate required information.

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THE PERFORMANCE AND LIFE OF THE COUPLINGS AND CLUTCHES DEPENDS LARGELY UPON HOW YOU INSTALL AND SERVICE THEM. CAREFULLY FOLLOW THE INSTRUCTIONS IN THIS MANUAL FOR OPTIMUM PERFORMANCE AND TROUBLE FREE SERVICE.

Introduction

This manual applies to Sizes 1020T thru 1200T and 20T thru 200T standard Falk Controlled Torque Couplings (T41) and Clutches (T44). Unless otherwise stated, information for Sizes 1020T thru 1200T applies to Sizes 20T thru 200T respectively, e.g. 1020T = 20T, 1200T = 200T, etc. For couplings furnished with special features, refer to assembly drawing furnished with coupling for proper assembly arrangement and any additional installation or maintenance requirements. The controlled torque clutches (T44) are designed to operate in either the horizontal or vertical position. However, refer to Factory for T41 vertical applications. Coupling sizes 1020T thru 1140T are supplied with one set of inch series cover fasteners and one set of metric cover fasteners. Use either set of fasteners, depending on your preference. Sizes 1150T thru 1200T are supplied with inch series fasteners only. Refer to Page 10 for part interchangeability.

WARNING: Consult applicable local and national safety codes for proper guarding of rotating members. Lockout starting switch of prime mover and remove all external loads from drive before installing or servicing couplings. Observe all safety rules when installing or servicing couplings. When abnormal abrasive, corrosive or wet conditions exist, use a guard that will protect the coupling and will also permit air to circulate to cool the coupling.

WARNING: Mixing grid coupling components from different manufacturers may cause premature failure and personal or property damage from flying debris.

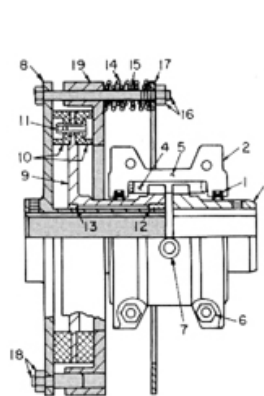
Limited End Float

When electric motors, generators, and other machines are fitted with sleeve or straight roller bearings, limited axial end float kits are recommended for protecting the bearings. Falk Controlled Torque couplings (T41) are easily modified to limit end float; refer to Manual 428-820 for instructions.

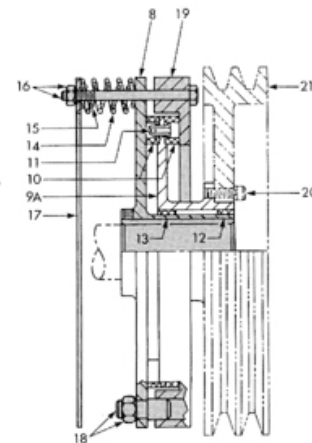
How the Controlled Torque Coupling or Clutch Operates

In the drawings below, the pressure from the springs (14 and 15) causes the drive plate (19) and the T41 hub (8) to engage the friction lining (10) on the T41 sleeve (9) or the T44 sleeve (9A) with a predetermined force. When the T41 hub is the DRIVING hub, the load is transmitted from the shaded section to the unshaded section from Parts 8 & 19 through 10 and 9, through the grid (4) and T hub (3) into the driven shaft or from Parts 8 and 19 through 10 and 9A, through the sheave or sprocket (21) into the V-belts or chain. When the driven machine is loaded beyond the spring setting, the unshaded portion of the coupling or clutch stalls while the remainder of the assembly (shaded) rotates on bearings (12 & 13). As soon as the torque requirements are reduced to the set limits, the coupling or clutch will again transmit the load. When the friction lining becomes worn, the load regulating spring setting can be adjusted as instructed on Pages 6 and 7.

T41 COUPLING



T41 CLUTCH



Overload Cutout Switch

To avoid prolonged slip during jams and overloads, install a proximity sensor cutout switch. This device detects reduction in speed of driven shaft and electrically shuts off prime mover; refer to Manual for 428-440 for instructions.

Lubrication (Type T41)

Adequate lubrication is essential for satisfactory operation. Because of its superior lubricating characteristics and low centrifuge properties, Falk Long Term Grease (LTG) is highly recommended. Sizes 1020T to 1090T10 are furnished with a pre-measured amount of LTG grease for each coupling. The grease can be ordered for larger size couplings.

The use of general purpose grease requires re-lubrication of the coupling at least every six months. If coupling leaks grease, is exposed to extreme temperatures, excessive moisture, experiences frequent reversals or axial movements; more frequent lubrication may be required.

USDA Approval

LTG has the United States Department of Agriculture Food Safety & Inspection Service approval for applications where there is no possibility of contact with edible products. (H-2 ratings).

Long Term Grease (LTG)

The high centrifugal forces encountered in couplings separate the base oil and thickener of general purpose greases. Heavy thickener, which has no lubrication qualities, accumulates in the grid-groove area of Steelflex couplings resulting in premature hub or grid failure unless periodic lubrication cycles are maintained.

Falk Long Term Grease (LTG) was developed specifically for couplings. It resists separation of the oil and thickener. The consistency of Falk LTG changes with operating conditions. As manufactured it is an NLGI #½ grade. Working of the lubricant under actual service conditions causes it to become semifluid while the grease near the seals will set to a heavier grade, helping to prevent leakage.

LTG is highly resistant to separation, easily out performing all other lubricants tested. The resistance to separation allows the lubricant to be used for relatively long periods of time.

Steelflex couplings initially lubricated with LTG will not require re-lubrication until the connected equipment is stopped for servicing. If a coupling leaks grease, is exposed to extreme temperatures, excessive moisture, or experiences frequent reversals, more frequent lubrication may be required.

Although LTG grease is compatible with most other coupling greases, the mixing of greases may dilute the benefits of LTG.

USDA Approval

LTG has the United States Department of Agriculture Food Safety & Inspection Service approval for applications where there is no possibility of contact with edible products. (H-2 ratings).

CAUTION: Do not use LTG in bearings.

Specifications — Falk LTG

The values shown are typical and slight variations are permissible.

AMBIENT TEMPERATURE RANGE — -20°F (-29°C) to 250°F (121°C). Min Pump = 20°F (-7°C).

MINIMUM BASE OIL VISCOSITY — 3300SSU (715cST) @ 100°F (38°C).

THICKENER — Lithium and Soap/Polymer.

CENTRIFUGE SEPARATION CHARACTERISTICS — ASTM #D4425 (Centrifuge Test) — K36 = 2/24 max., very high resistance to centrifuging.

NLGI GRADE (ASTM D-217) — ½.

CONSISTENCY (ASTM D-217) — 60 stroke worked penetration value in the range of 315-360 measured at 77°F (25°C).

MINIMUM DROPPING POINT — 350°F (177°C) min.

MINIMUM TIMKEN O.K. LOAD — 40 lbs.

ADDITIVES — Rust and oxidation inhibitors that do not corrode steel or swell or deteriorate synthetic seals.

Packaging

14 oz CARTRIDGES — For use in standard grease guns.

CASE LOTS AVAILABLE—Ten 14 oz cartridges, 60 – 14 oz cartridges.

35 lb PAIL — Ideal for larger size couplings or many smaller sizes.

120 lb KEG & 400 lb DRUM — For plants with central storage areas. A pump with a pressurized follower plate is required for dispensing grease.

General Purpose Grease

ANNUAL LUBRICATION — The following specifications and lubricants for general purpose grease apply to Falk Steelflex couplings that are lubricated annually and operate within ambient temperatures of 0°F to 150°F (-18°C to 66°C). For temperatures beyond this range (see Table 1), refer to Factory. If a coupling leaks grease, is exposed to extreme temperatures, excessive moisture or experiences frequent reversals, more frequent lubrication may be required.

Specifications — General Purpose Coupling Lubricants

The values shown are typical and slight variations are permissible.

DROPPING POINT — 300°F (149°C) or higher.

CONSISTENCY — NLGI No. 2 with 60 stroke worked penetration value in the range of 250 to 300.

SEPARATION AND RESISTANCE — Low oil separation rate and high resistance to separation from centrifuging.

LIQUID CONSTITUENT — Possess good lubricating properties, equivalent to a high quality, well refined petroleum oil.

INACTIVE — Must not corrode steel or cause swelling or deterioration of synthetic seals.

CLEAN — Free from foreign inclusions.

General Purpose Greases Meeting Falk Specifications

Lubricants listed in Table 1 are typical products only and should not be construed as exclusive recommendations.

TABLE 1— General Purpose Grease★

Ambient Temperature Range	0°F to 150°F (-18°C to 66°C)	-30°F to 100°F (-34°C to 38°C)
Manufacturer	Lubricant	Lubricant
Amoco Oil Co.	Amolith Grease #2	Amolith Grease #2
BP Oil Co.	Energrease LS-EP2	Energrease LS-EP1
Chevron U.S.A. Inc.	Dura-Lith EP2	Dura-Lith EP1
Citgo Petroleum Corp.	Premium Lithium Grease EP2	Premium Lithium Grease EP1
Conoco Inc.	EP Conolith Grease #2	EP Conolith Grease #2
Exxon Company, USA	Unirex EP2	Unirex EP2
E. F. Houghton & Co.	Cosmolube 2	Cosmolube 1
Imperial Oil Ltd.	Unirex EP2	Unirex EP2
Kendall Refining. Co.	Lithium Grease L421	Lithium Grease L421
Keystone division (Perwall) Corp.	81 EP-2	81 EP-2
Lyondell Petrochemical (ARCO)	Litholine H EP 2 Grease	Litholine H EP 2 Grease
Mobil Oil Corp.	Mobilux EP 111	Mobilith AW1
Petro-Canada Products	Multipurpose EP2	Multipurpose EP1
Phillips 66 Co.	Philube Blue EP	Philube Blue EP
Shell Oil Co.	Alvania Grease 2	Alvania Grease 2
Shell Canada Ltd.	Alvania Grease 2	Alvania Grease 2
Sun Oil Co.	Ultra Prestige 2EP	Ultra Prestige 2EP
Texaco Lubricants	Starplex JD2	Multifak EP2
Unocal 76 (East & West)	Unoba EP2	Unoba EP2
Valvoline Oil Co.	Multilube Lithium EP Grease	...

★ Grease application or re-lubrication should be done at temperatures above 20°F (7°C). If grease must be applied below 20°F (7°C), consult the Factory. Lubricants listed may not be suitable for use in the food industry; check with lubrication manufacturer for approved lubricants.

Lubrication Fittings

Size 1020T thru 1140T cover halves have 1/8 NPT lube holes and 1150T thru 1200T have 3/8 NPT lubrication holes. Use a standard grease gun and lube fitting as instructed on Page 6.

Installation Of Type T41 Controlled Torque Couplings & T44 Clutches

Installation

Only standard mechanics tools, wrenches, a straight edge and feeler gauges are required to install Controlled Torque couplings and clutches. Clean all parts using a nonflammable solvent. Check hubs, shafts and keyways for burrs.

Do not get grease on friction segments. Coupling Sizes 1020T thru 1090T are generally furnished for CLEARANCE FIT with setscrew over the keyway. Sizes 1100T and larger are furnished for an INTERFERENCE FIT without a setscrew.

CLEARANCE FIT HUBS — Do not heat clearance fit hubs. Install keys, mount hubs with flange face flush with shaft ends or as otherwise specified and tighten setscrews.

INTERFERENCE FIT HUBS — Furnished without setscrews. Heat hubs to 275°F (135°C) using an oven, torch, induction heater or an oil bath. To prevent damage DO NOT heat hubs beyond a maximum temperature of 400°F (205°C).

When an oxy-acetylene or blow torch is used, use an excess acetylene mixture. Mark hubs near the center of their length in several places on hub body with a temperature sensitive crayon, 275°F (135°C) melt temperature. Direct flame towards hub bore using constant motion to avoid overheating an area.

WARNING: *If an oil bath is used, the oil must have a flash point of 350°F (177°C) or higher. Do not rest hubs on the bottom of the container. Do not use an open flame in a combustible atmosphere or near combustible materials.*

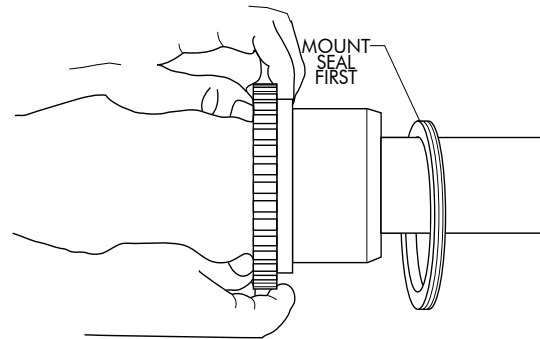
Heat hubs as instructed above. Mount hubs as quickly as possible with hub flange face flush with shaft end. Allow hubs to cool before proceeding. Insert setscrews (if required) and tighten.

Maximize Performance & Life

The performance and life of couplings depend largely upon how you install and maintain them. Before installing couplings, make certain that foundations of equipment to be connected meet manufacturers' requirements. Check for soft foot. The use of stainless steel shims is recommended. Measuring misalignment and positioning equipment within alignment tolerances is simplified with an alignment computer. These calculations can also be done graphically or mathematically.

Alignment is shown using spacer bar and straight edge. This practice has proven to be adequate for many industrial applications. However, for superior final alignment, the use of dial indicators (see Manual 458-834 for instructions), lasers, alignment computers or graphical analysis is recommended.

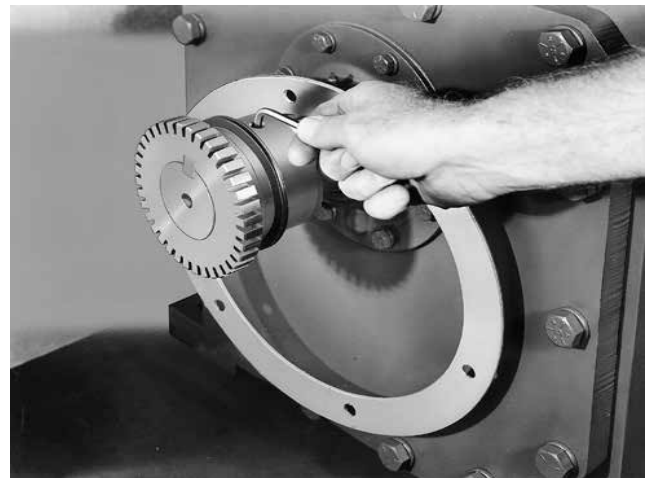
1— Mount Seals (Type T41 Only)



Lock out starting switch of prime mover.

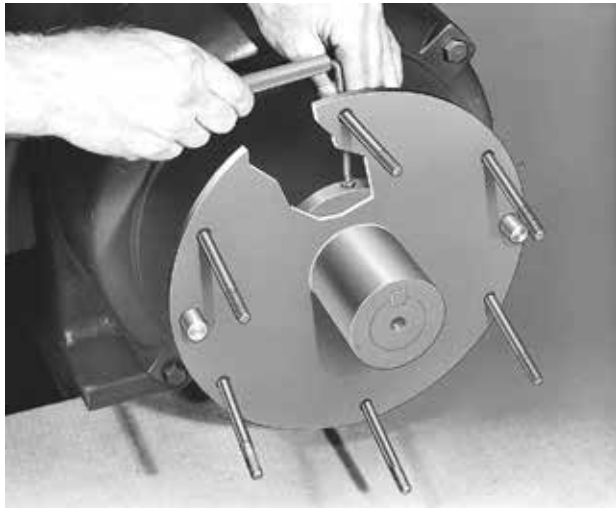
Lightly coat seal with grease and place seal on shaft BEFORE mounting T hub. To mount original seal or replacement seals over hubs, wrap tape over grid grooves and carefully stretch and roll the seal over the hub grooves.

2 — Mount T Hub (Type T41 Only)



Heat interference fit hubs as previously instructed. Mount hub so that the hub face is flush with the end of shaft (unless otherwise indicated). Allow hub to cool. Seal keyway to prevent leakage. Tighten setscrew when furnished.

3 — Mount T41 Hub

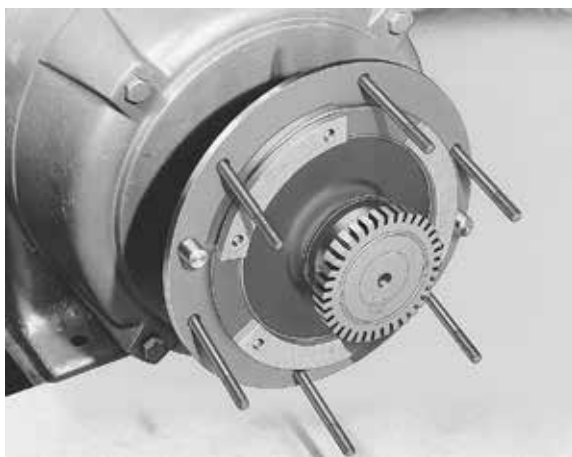


Sizes 1060-1140T41-2 couplings or T44-2 clutches use one-half the number of fasteners as Type T41opr T44. Locate fasteners in alternate holes.

CLEARANCE FIT HUBS — Mount controlled torque assembly (Parts 8 thru 19 on Page 11 with T41 hub flush with end of shaft. NOTE: For the T44 clutch, position the spring guide ring on the shaft first, before mounting the T41 hub. DO NOT install spring fasteners at this time. Proceed to Step 6.

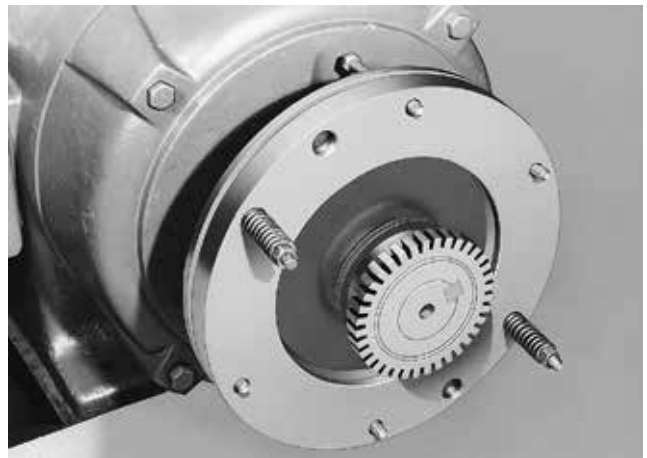
INTERFERENCE FIT HUBS — For T41 coupling, position spring guide ring on T hub. For T44 clutch, position spring guide ring on shaft. Heat T41 hub per Page 3. Insert fasteners in hub flange (T41 ONLY) BEFORE mounting hub. Mount T41 hub with face flush with end of shaft. Allow hub to cool. Seal keyway to prevent leakage. Proceed to Step 4

4 — Mount T41 or T44 Sleeve Assembly



Carefully slide the T41 or T44 sleeve assembly onto the T41 hub. The assembly must slide on freely and rotate freely. Mount seal per Step 1 (T41 only).

5 — Mount Drive Plate



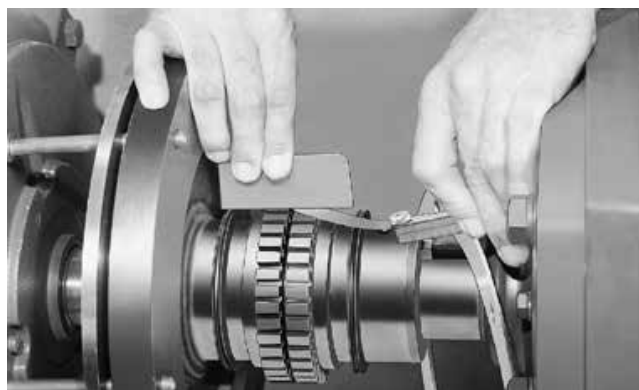
Mount drive plate so that the drive pins are engaged. Temporarily hold the assembly in place with two or three inner springs and adjusting nuts.

6 — Gap and Angular Alignment (Type T41 Only)



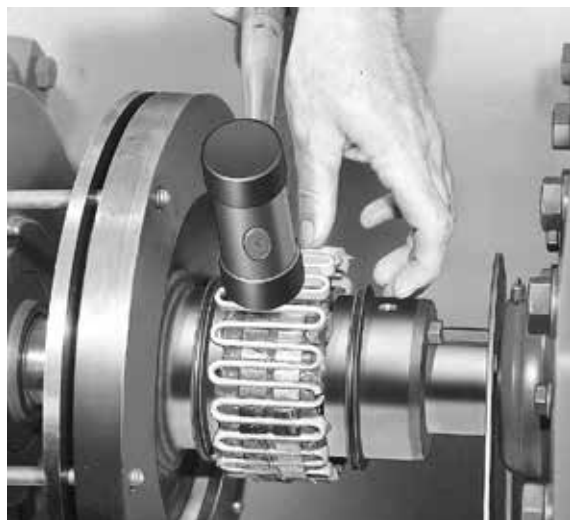
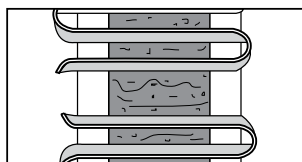
Use a spacer bar equal in thickness to the gap specified in Table 3, Page 9. Insert bar as shown above, to same depth at 90° intervals and measure clearance between bar and hub face with feelers. The difference in minimum and maximum measurements must not exceed the ANGULAR installation limits specified in Table 3.

7 — Offset Alignment (Type T41 Only)



Align so that a straight edge rests squarely (or within the limits specified in Table 3) on both hubs as shown above and also at 90° intervals. Check with feelers. The clearance must not exceed the PARALLEL OFFSET installation limits specified in Table 3. Tighten all foundation bolts and repeat Steps 6 and 7. Realign coupling if necessary.

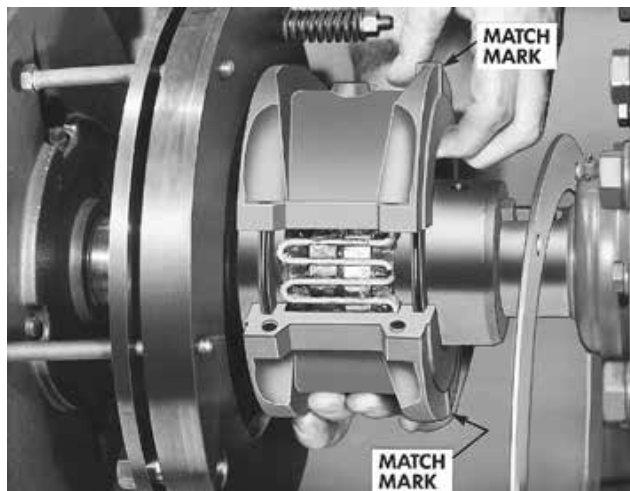
8 — Insert Grid (Type T41 Only)



CAUTION: Do not get grease on friction segments.

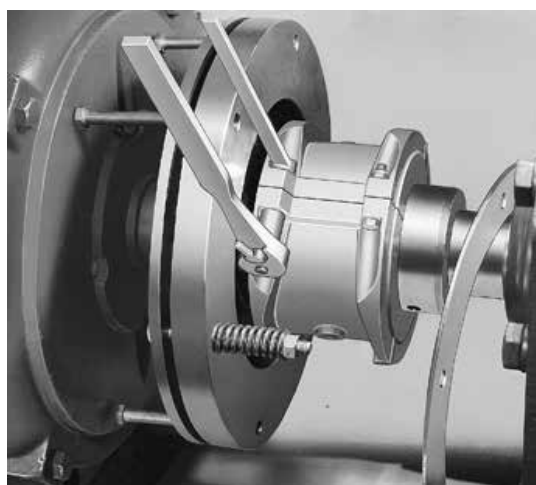
Pack gap and grooves with specified lubricant before inserting grid. When grids are furnished in two or more segments, install them so that all cut ends extend in the same direction (as detailed in the exploded view picture above); this will assure correct grid contact with non-rotating stop in cover halves. Spread the grid slightly to pass over the coupling teeth and seat with a soft mallet.

9 — Pack With Grease & Assemble Covers Type T41 Only)



Pack the spaces between and around the rid with as much lubricant as possible and wipe off excess flush with top of grid. Position seals on hubs to line up the grooves in cover. Position gaskets on flange of lower cover half (Sizes 1150 and larger; block-up lower cover half into position) and assemble covers so that the match marks are on the same side. If the coupling is to be used vertically, consult Rexnord.

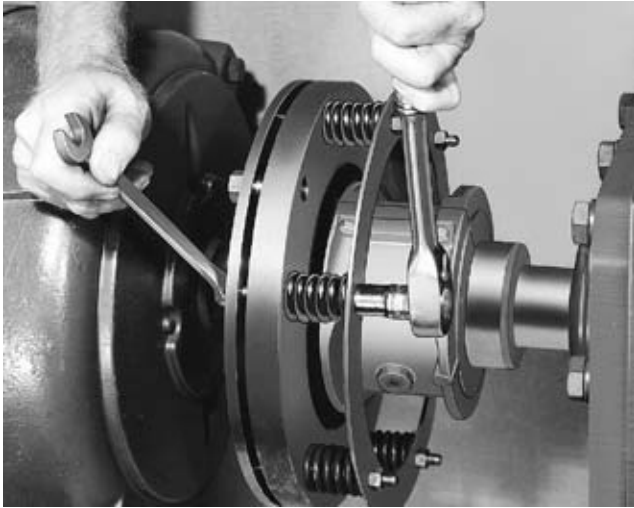
10 — Torque Cover Fasteners (Type T41 Only)



Push gaskets in until they stop against the seals and secure cover halves with fasteners, tighten to torque specified in Table 3. Make sure gaskets stay in position during tightening of fasteners.

CAUTION: make certain lubrication plugs are installed before operating. Remove excess lubricant.

11 — Assemble Balance of Controlled Torque Parts



For the T41 coupling, remove the springs and adjusting nuts that were temporarily installed in Step 5. For the T44 clutch, install drive plate so that the drive pins are engaged. Type T41 or T44, All Sizes: Install a set of both inner and outer springs. Type T41-2 or T44-2, Sizes 1030 thru 1050: Install inner springs. Type T41-2 or T44-2, Sizes 1060 thru 1140: Install inner springs on alternate fasteners; only one-half the number of inner springs of a T41 or T44 are required.

Install the spring guide ring and tighten adjusting nuts evenly until all springs are slightly compressed.

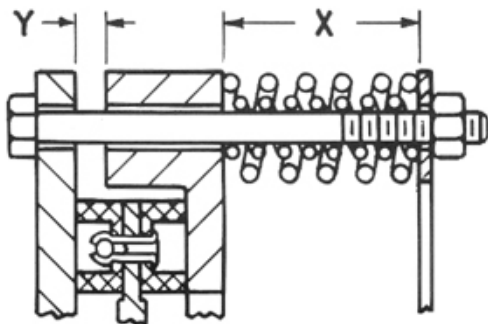
11A — Install Sheave or Sprocket

Mount sheave or sprocket on T44 sleeve. Insert fasteners supplied by Rexnord with spring lock washers and tighten evenly to torque specified in Table 3. Align sheave or sprocket and tighten belts or chains as instructed by the manufacturer.

12 — Distance X (Break-In)

Refer to Spring Adjustment Chart furnished with the coupling. Set Distance X for ALL springs to the (▲) value given on the chart for your coupling size. Operate the coupling for 1000 revolutions at 100% slip. Slip time in seconds equals $60000 \div \text{RPM}$.

EXAMPLE: With a 1750 rpm motor, slip time = $60000 \div 1750$ = 34 seconds.



13 — Distance X (Operating)

Determine the Operating Distance X for the required slip torque from the Spring Adjustment Chart for your coupling size. The standard slip torque chart provided for each coupling size is defined for running conditions, after a break-in period. Uniformly tighten adjusting nuts to the required Distance X for ALL springs.

13A — Distance X (Initial Start-Up)

Initial slip torque values could be 30% – 40% higher than those shown in the Spring Adjustment Chart for your coupling size. If the maximum slip torque is critical, then additional break-in sessions (See Section 12) might be required or it could be necessary to increase Operating Distance X (determined for the application) by 35% until slip occurs at an acceptable magnitude. Allow the T41 Hub, Drive Plate and T41 or T44 sleeve to cool to room temperature between break-in sessions if multiple break-in sessions are performed. After break-in, when the coupling reaches stable conditions an adjustment may be necessary to Distance X per the Spring Adjustment Chart to achieve the intended slip torque based on the application requirements.

14 — Startup and Run

Momentary slip may occur at startup. If slip continues at operating load, shut down. If the system is not overloaded, determine a new Distance X for 20% more slip torque from the Spring Adjustment chart. Restart. If slip continues, shut down and refer complete details to Factory. Over tightening of adjusting nuts will increase the torque transmission capability and may defeat the slip feature of the coupling and may cause connected equipment to be damaged.

15 — Distance X (Periodic Adjustment)

Refer to Page 7.

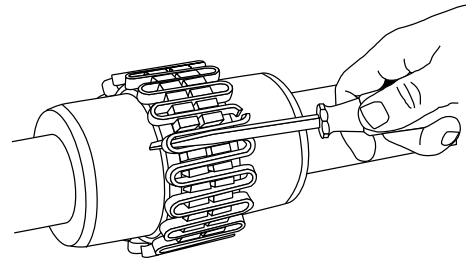
Annual Maintenance

For extreme or unusual operating conditions, check coupling more frequently.

1. Check tightening torques of all fasteners.
2. Inspect seal ring and gasket to determine if replacement is required. If leaking grease, replace.
3. When connected equipment is serviced, disassemble and clean grease from coupling. Inspect for wear. Replace worn parts. Check alignment per steps on Page 4 and 5. Install coupling per this manual using new gaskets and seals.



Begin at the open end of the grid section and insert the rod or screwdriver into the loop ends. Use the teeth adjacent to each loop as a fulcrum and pry the grid out radially in even, gradual stages, proceeding alternately from side to side. Install new grid per Step 8.



Periodic Lubrication (Type T41 Only)

The required frequency of lubrication is directly related to the type of lubricant chosen, and the operating conditions. Steelflex couplings lubricated with common industrial lubricants, such as those shown in Table 1, should be relubricated annually. The use of Falk Long Term Grease (LTG) will allow lubrication intervals to be extended to beyond five years. When relubricating, remove all lubrication plus and insert lubrication fitting. Fill with recommended lubricant until an excess appears at the opposite hole. **DO NOT OVERFILL.**

CAUTION: Make certain all plugs have been inserted after lubricating.

Distance X — Periodic Adjustment

Distance X will increase as the coupling slips and parts wear. Retighten ALL locknuts to the Distance X determined in Step 13 or (14).

NOTE: If coupling is furnished with optional adjustment sleeves, when lining wear occurs due to slippage, steel sleeves must be ground to maintain the desired X-distance.

Distance Y (See sketch on Page 6)

Replace friction segments when Distance Y approaches .050". See Page 8 for instructions. **NOTE:** Distance Y with new friction segments is .20" for sizes up to 1100T and .36" for size 1110T and larger.

Coupling Disassembly & Component Replacement

Whenever it is necessary to completely disassemble the coupling, lock out the starting switch, remove load from system and reverse steps 1 thru 11.

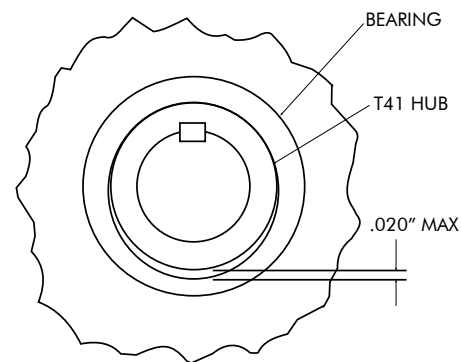
SEAL REPLACEMENT — Refer to Step 1.

GRID REMOVAL AND REPLACEMENT (Type T41 Only) —

Remove the cover halves. A round rod or screwdriver that will conveniently fit into the open loop ends of the grid is required.

BEARING REPLACEMENT — Move connected equipment to expose bearing and measure clearance as illustrated. If clearance exceeds .020" at either bearing, replace both bearings. To measure inner bearing clearance, remove T41 or T44 sleeve and reverse assembly.

Carefully drive out old bearings and tap new bearings in place as illustrated below. Mount the T41 or T4 sleeve on the T41 hub. The assembly must slide on and rotate freely. Complete assembly as instructed. Use new gaskets and seals.

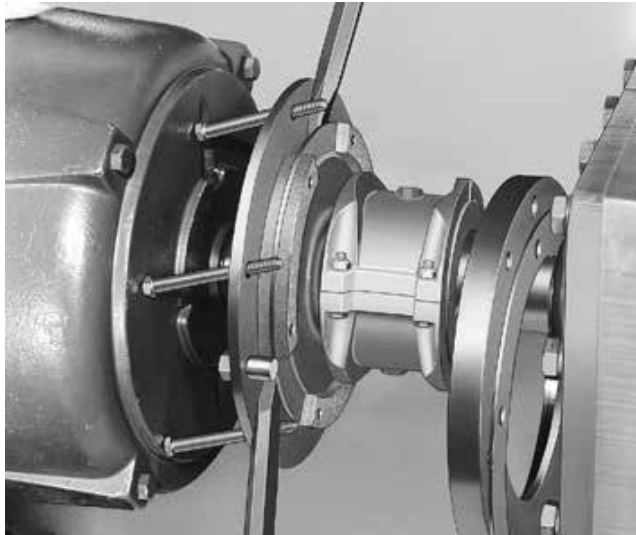


FRICTION SEGMENT REPLACEMENT

CAUTION: Always replace ALL friction segments.

Remove the spring guide ring and drive plate and hang them on the T hub shaft. Insert pry bars as shown to separate the T41 or T44 sleeve from the T41 hub enough to insert new friction segments.

CAUTION: Do not bend the T41 or T44 sleeve flange.

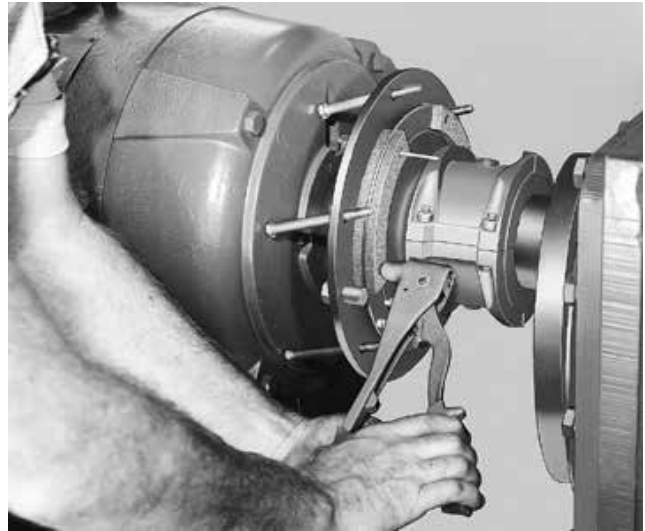


Chisel rivets flush with the T41 or T44 sleeve face. Drive out the inner friction segments. Clean metal parts, especially the friction surfaces of the T41 hub and drive plate. Use a nonflammable solvent.

IMPORTANT: Always use the same size and number of friction segments as were removed; these vary with coupling size and type.

Position an inner and outer friction segment in line with the T41 or T44 sleeve holes and insert all the blind rivets. Place rivet gun over pin of blind rivet and firmly seat gun against washer face of rivet; squeeze handle of gun until rivet pin breaks.

Discard pin. Repeat procedure for all segments and rivets. Friction segments must be tight against the T41 or T44 sleeve. Assemble drive plate, springs, spring guide ring, and adjust load regulating springs per Steps 11 thru 14.



RIVET GUNS AND RIVETS — The blind rivets and rivet guns employed are standard commercial products of the fastener industry and are nationally available. Blind rivet size is 3/16" diameter with aluminum material for all Type T41 coupling sizes. Cherry brand rivets are supplied by Falk with replacement friction segments.

The blind rivets and rivet guns in Table 2 are acceptable.

TABLE 2 *

Manufacturer	Rivet Type	Hand Held Riveter	Power Riveter
Cherry Commercial Products	Cherry "N" Rivets	G28	FH702-5C6Z
USM Corporation "Pop" Rivet Division	Open End Rivets	PRP26A	PRG51
Dayton	Blind Rivet	4X577	...
Marson Fastener Corporation	Buttonhead Rivets	HP-2	PHT-2
Semplex Corporation	Rivex Rivets	R-700	RPT-30

* Rivets must be used with manufacturer's riveter.

Type T Coupling Installation & Alignment Data

Maximum life and minimum maintenance for the coupling and connected machinery will result if couplings are accurately aligned. Coupling life expectancy between initial alignment and maximum operating limits is a function of load speed, and lubrication. Maximum operating values listed in Table 3 are based on cataloged allowable rpm.

Values listed are based upon the use of the gaps listed, standard coupling components, standard assemblies, and cataloged allowable speeds.

Values may be combined for an installation or operating condition.

EXAMPLE: 1060T max. Operating misalignment is .016" parallel plus .018" angular.

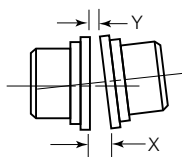
NOTE: For applications requiring greater misalignment, refer application details to the Factory.

Angular misalignment is dimension X minus Y as illustrated below.

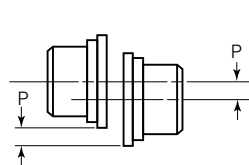
Parallel misalignment is distance P between the hub center lines as illustrated below.

End float (with zero angular and parallel misalignment) is the axial movement of the hub(s) within the cover measured from "O" gap.

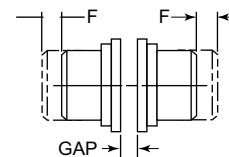
ANGULAR MISALIGNMENT



PARALLEL OFFSET MISALIGNMENT












END FLOAT


TABLE 3 — Misalignment & End Float

SIZE	Installation Limits						Operating Limits						Fastener Tightening Torque Values			Allow. Speed (rpm)	Lubrication Weight	
	Parallel Offset-P		Angular (x-y)		Normal Gap ± 10%		Parallel Offset-P		Angular (x-y)		End Float Physical Limit (Min) 2 x F		Cover		Sheave or Sprocket		lb	kg
	Max Inch	Max mm	Max Inch	Max mm	Inch	mm	Max Inch	Max mm	Max Inch	Max mm	Inch	mm	Inch Series Fasteners (lb-in)	Metric Fasteners	Inch Series Fasteners (lb-in)			
1020T	.006	.15	.003	.08	.125	3	.012	.30	.010	.25	.210	5.33	100	11.3	48	3600	.06	.03
1030T	.006	.15	.003	.08	.125	3	.012	.30	.012	.30	.198	5.03	100	11.3	48	3600	.09	.04
1040T	.006	.15	.003	.08	.125	3	.012	.30	.013	.33	.211	5.36	100	11.3	120	3600	.12	.05
1050T	.008	.20	.004	.10	.125	3	.016	.41	.016	.41	.212	5.38	200	22.6	250	3600	.15	.07
1060T	.008	.20	.005	.13	.125	3	.016	.41	.018	.46	.258	6.55	200	22.6	440	3600	.19	.09
1070T	.008	.20	.005	.13	.125	3	.016	.41	.020	.51	.259	6.58	200	22.6	440	3600	.25	.11
1080T	.008	.20	.006	.15	.125	3	.016	.41	.024	.61	.288	7.32	200	22.6	710	2800	.38	.17
1090T	.008	.20	.007	.18	.125	3	.016	.41	.028	.71	.286	7.26	200	22.6	1100	2500	.56	.25
1100T	.010	.25	.008	.20	.188	5	.020	.51	.033	.84	.429	10.90	312	35	2190	2100	.94	.43
1110T	.010	.25	.009	.23	.188	5	.020	.51	.036	.91	.429	10.90	312	35	3960	1850	1.1	.51
1120T	.011	.28	.010	.25	.250	6	.022	.56	.040	1.02	.556	14.12	650	73	3960	1750	1.6	.74
1130T	.011	.28	.012	.30	.250	6	.022	.56	.047	1.19	.551	14.00	650	73	3960	1450	2.0	.91
1140T	.011	.28	.013	.33	.250	6	.022	.56	.053	1.35	.571	14.50	650	73	3960	1300	2.5	1.14
1150T	.012	.30	.016	.41	.250	6	.024	.61	.062	1.57	.620	15.75	650	...	...	1100	4.3	1.95
1160T	.012	.30	.018	.46	.250	6	.024	.61	.070	1.78	.640	16.26	650	...	...	950	6.2	2.8
1170T	.012	.30	.020	.51	.250	6	.024	.61	.079	2.00	.617	15.67	1300	...	...	870	7.7	3.5
1180T	.015	.30	.022	.46	.250	6	.030	.76	.089	2.26	.717	18.21	1300	...	...	760	8.3	3.8
1190T	.015	.38	.024	.61	.250	6	.030	.76	.097	2.46	.620	15.75	1300	...	...	720	9.7	4.4
1200T	.015	.38	.027	.69	.250	6	.030	.76	.107	2.72	.620	15.75	2300	...	...	620	12.4	5.6

TABLE 4 — Coupling Cover Fastener Identification

SIZE	INCH SERIES FASTENERS				METRIC FASTENERS	
	Old Style		New Style			
1020-1070T10		SAE Grade 8 †		SAE Grade 8		Property Class 10.9
1080-1090T10		SAE Grade 8		SAE Grade 8		Property Class 10.9
		SAE Grade 5		SAE Grade 5		Property Class 8.8

★ Sizes 1150 thru 1200 are currently furnished with inch series fasteners only.
 ★ Older style covers, Sizes 1020T10 thru 1070T10 must utilize socket head cap screws and locknuts held by the cover.

Parts Identification

All coupling parts have identifying part numbers as shown on the following pages. When ordering parts, always SPECIFY SIZE and TYPE.

Parts Interchangeability

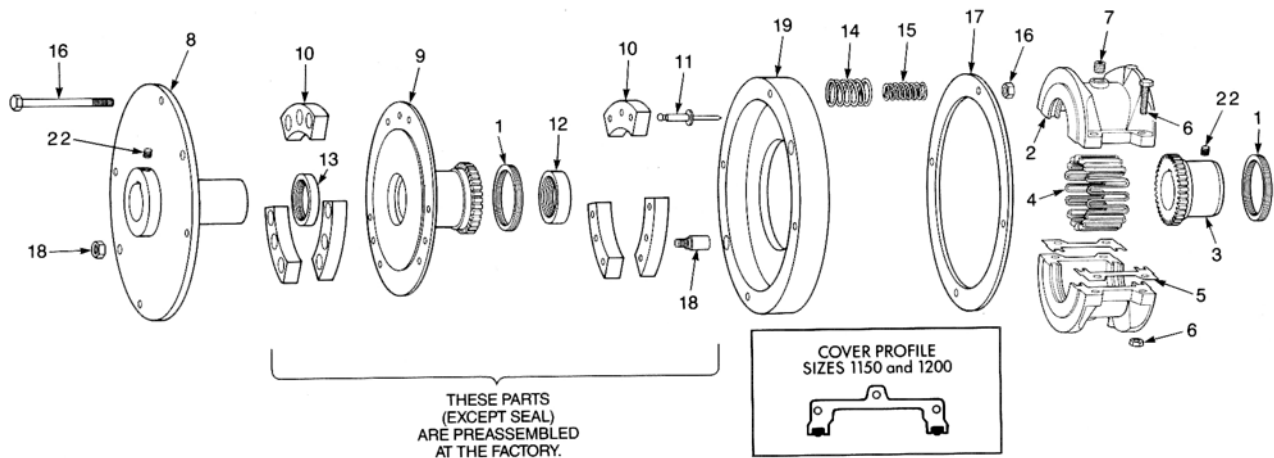
Parts are interchangeable between Sizes 1020T and 20T, 1030T, and 30T, etc, except as noted.

GRIDS — Size 1020T thru 1200T Steelflex couplings use blue grids. Older models, 20T thru 200T, use orange grids.

CAUTION: Blue grids may be used in all applications, but DO NOT substitute orange grids for blue.

COVERS — CAUTION: DO NOT mix cover halves of different designs. Sizes 1020T thru 1070T covers have been manufactured in several different two-rib designs and 1080T thru 1200T covers have been manufactured with different two and three rib designs.

HARDWARE — Older style covers, Sizes 1020T thru 1070T, utilized socket head cap screws with captured locknuts. The new style covers use hex head cap screws (either inch or metric) and unrestrained locknuts. Specify either inch series SOCKET head or inch or metric series HEX head cap screws when ordering replacement parts.

**Part Descriptions — Type T41
Controlled Torque Coupling**


- | | | |
|---|--|--------------------------------------|
| 1. Seal (T10) | 8. T41 Hub (Specify Bore & Keyway) | 16. Fastener and Adjusting Nut |
| 2. Cover (T10) | 9. T41 Sleeve * | 17. Guide Ring |
| 3. T Hub (Specify Bore & Keyway) | 10. Friction Segment † | 18. Drive Pin and Nut |
| 4. T Grid | 11. Rivet † | 19. Drive Plate |
| 5. Gasket (T10) | 12. Bearing, Outer | 22. Setscrew (Size 1020T thru 1090T) |
| 6. Fasteners (T10) — Coupling may be supplied with one set each of inch series fasteners and metric fasteners | 13. Bearing, Inner | |
| 7. Lubrication Plug | 14. Spring, Outer (not required for T41-2) | |
| | 15. Spring, Inner (T41 & T41-2) | |

* Part 9 is available only in assembly with Parts 10 through 13; however, Parts 10 & 11, and Parts 12 & 13 may be purchased without Part 9.

† Friction segments with rivets consist of a complete set for a coupling and are available only as sets.

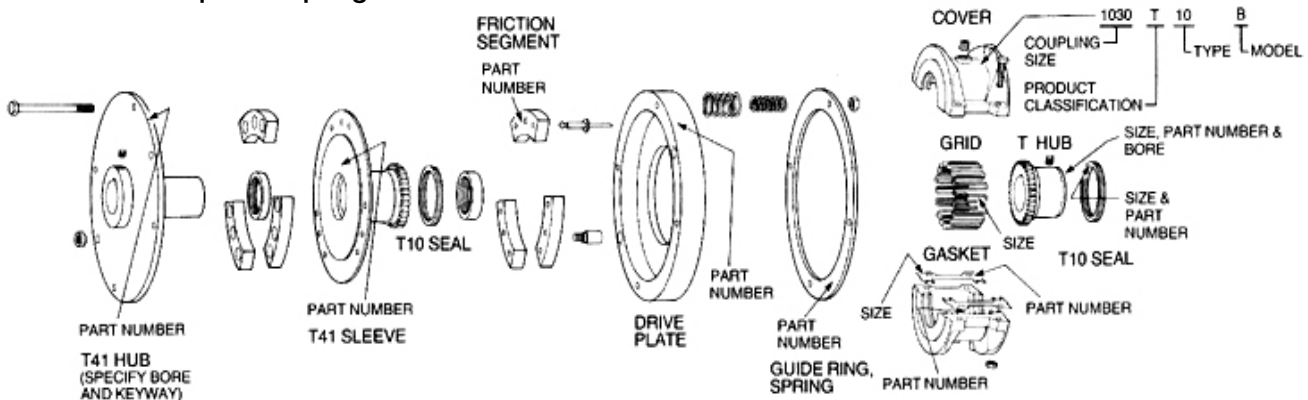
Order Information

1. Identify part(s) required by name above.
2. Furnish following information.

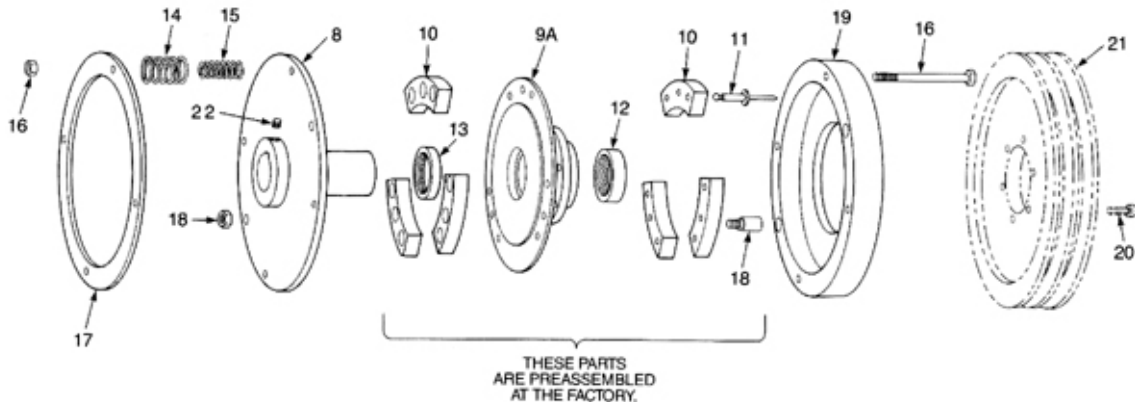
EXAMPLE:

Coupling Size: 1030
 Coupling Type: T41
 T Hub Bore: 1.375
 T Hub Keyway: .312 x .156
 T41 Hub Bore: 1.250
 T Hub Keyway: 250 x .125

3. Price parts from 102-101 and discount sheet.

**Part Descriptions — Type T41
Controlled Torque Coupling**


**Part Descriptions — Type T44
Controlled Torque Clutch***



- | | | |
|------------------------------------|--|--|
| 8. T41 Hub (Specify Bore & Keyway) | 14. Spring, Outer (not required for T44-2) | 19. Drive Plate |
| 9A. T44 Sleeve † | 15. Spring, Inner (T44 & T44-2) | 20. Fasteners, Sheave or Sprocket
(furnished only when Part 21
is ordered) |
| 10. Friction Segment ‡ | 16. Fastener and Adjusting Nut | 21. Sheave or Sprocket (Optional) |
| 11. Rivet † | 17. Guide Ring | 22. Setscrew (Size 1020T thru 1090T) |
| 12. Bearing, Outer | 18. Drive Pin and Nut | |
| 13. Bearing, Inner | | |
| 7. Lubrication Plug | | |

J The Type T44 clutch has common parts with the Type T41 coupling, except parts 9A, 20, and 21.

† Part 9A is available only in assembly with Part 10 through 13; however, Parts 10 & 11, and Parts 12 & 13 may be purchased without part 9A.

‡ Friction segments with rivets consist of a complete set for a clutch and are available only as sets.

Order Information

1. Identify part(s) required by name above.
2. Furnish following information.

EXAMPLE:

Coupling Size: 1030
Coupling Type: T44
Bore: 1.250
Keyway: .250 x .125

3. Price parts from 102-101 and discount sheet.

**Part Number Location — Type T44
Controlled Torque Clutch**

