

OPERATING INSTRUCTIONS AND PARTS LIST BRIDGE DRIVE GEAR CASE

GENERAL

Units are intended to be used within 30 days after receipt. If they are to be stored for a longer period of time, contact the factory for storage precautions.

START-UP

Check the motor nameplate to verify that the phase, hertz and voltage agree with the available power supply. Connect to the power supply according to the furnished wiring diagram. Figure 2 shows motor coupling location. Assure that the motor vent faces downward.

▲WARNING

WORKING IN OR NEAR EXPOSED ENERGIZED ELECTRIC EQUIPMENT PRESENTS THE DANGER OF ELECTRIC SHOCK.

TO AVOID INJURY:

- **Be certain that electrical power supply is off and locked in the open position before attempting any electrical connections. Lockout/tagout must be accomplished per ANSI Z244.1.**
- **Be certain that this equipment is properly grounded per the National Electrical Code ANSI/NFPA 70. Follow all national, state and local electrical codes when providing electrical service.**

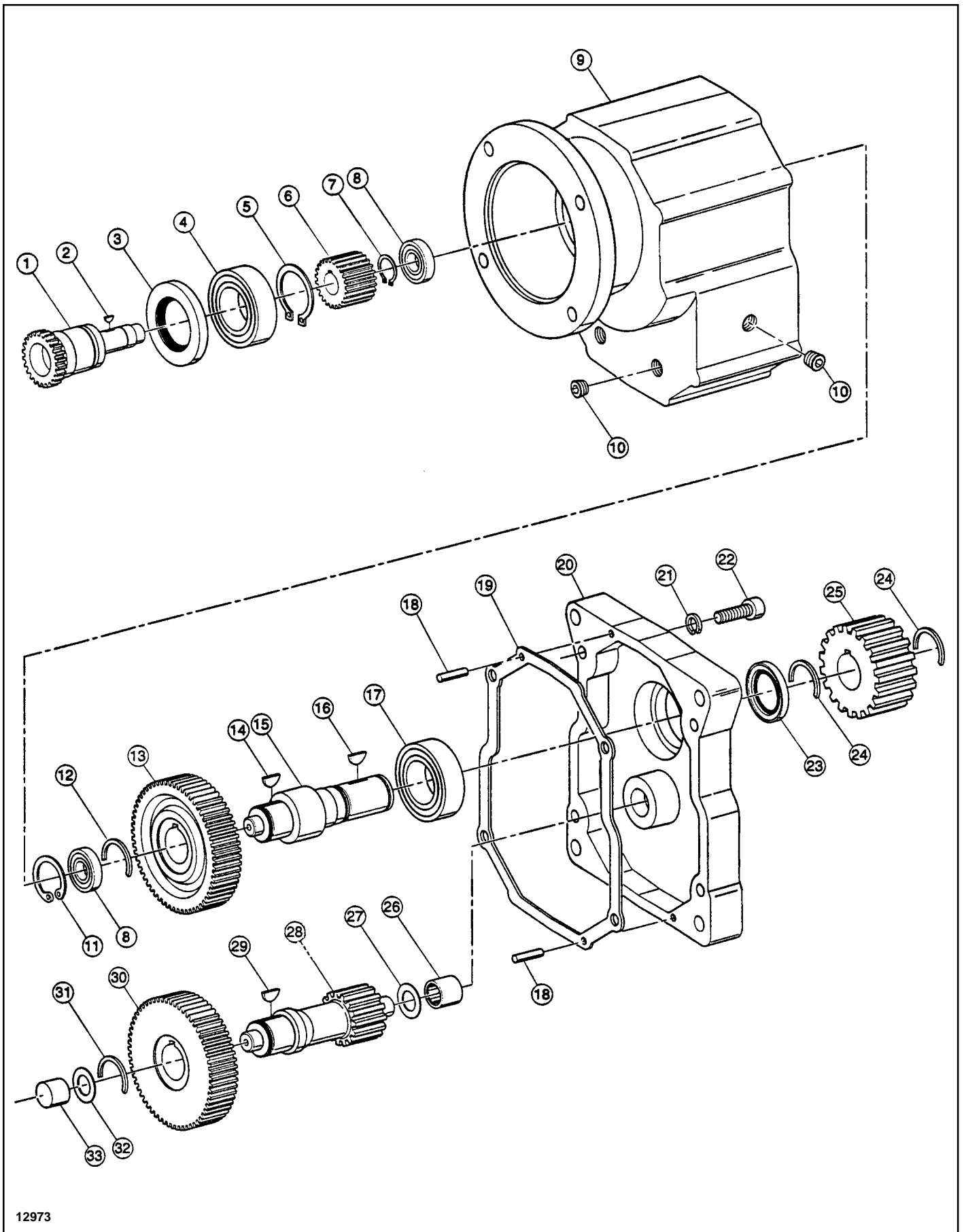
Before putting unit into operation, substitute vent plug for solid pipe plug at the highest position. Failure to do so can cause pressure in the housing, forcing out oil and damaging the seals, which will void the warranty.

MAINTENANCE

Reducers using mineral base oils should have the oil changed every 2000 hours or every year. Synthetic lubricants should be changed every 10,000 hours or 2 years. For adverse operating conditions these intervals should be shorter. **DO NOT MIX SYNTHETIC AND MINERAL BASE OILS.** The units should be checked periodically for increased noise, surface temperature, vibration, shaft movement and amperage draw.

The gear case takes one quart of oil and is filled with MOBILGEAR 634. The following lubricants, or their equivalents, are recommended.

Type of Lubricant	Temperature Range	AGMA	Mobil
Mineral Base	50 to 125°F	7EP	Mobilgear 634
Mineral Base	15 to 60°F	5EP	Mobilgear 630
Synthetic	-20 to 140°F	--	SHC 634



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Figure 1. Gear Case Assembly.

Figure 1. Gear Case Assembly (Continued).

Reference Number	Part Number	Quantity Required	Description
1	TGC-147	1	Input Shaft Sub-Assembly - Includes Ref. Nos. 1 thru 8
	TGC-148		13.04:1 Ratio
	TGC-149		8.96:1 Ratio
	TGC-150		6.97:1 Ratio
2	TGC-105	1	6.08:1 Ratio
	TGC-106		Input Pinion Shaft
	TGC-107		14 Teeth (13.04:1)
3	TGC-108	1	19 Teeth (8.96:1)
4	TGC-109	1	No Teeth - Used with Ref. Nos. 2, 6 and 7
5	TGC-110	1	Woodruff Key - Used With Part Number TGC-107 Only
6	TGC-111	1	Input Seal
7	TGC-112		Ball Bearings
	TGC-113		External Retaining Ring
	TGC-114	1	Input Pinion - Used With Part Number TGC-107 Only
8	TGC-115	2	23 Teeth (6.97:1)
9	TGC-116	1	15 Teeth (6.08:1)
10	TGC-117	4	External Retaining Ring - Used With Part Number TGC-107 Only
11	TGC-118	1	Ball Bearings (Only 1 in Input Shaft Sub-Assembly)
12	TGC-120	1	Gear Case
13	TGC-121	1	Hex Socket Plug - 1/4 - 18 NPTF
14	TGC-122	1	Internal Retaining Ring - Plated
15	TGC-123	1	Output Shaft Sub-Assembly - Includes Ref. Nos. 12 thru 15
16	TGC-122	1	Open Square Section External Retaining Ring
17	TGC-124	1	Output Gear - 37 Teeth
18	TGC-125	2	Woodruff Key
19	TGC-126	1	Output Shaft
20	TGC-127	1	Woodruff Key
21	TGC-128	4	Ball Bearing
22	TGC-129	4	Dowel Pins
23	TGC-130	1	Gear Case Gasket
24	TGC-120	2	Gear Case Cover
25	TGC-131	1	Hi-Collar Spring Lock Washer - Plated - 3/8
26	TGC-132	1	Socket Head Cap Screw - Plated - 3/8-16 x 1-1/2
27	TGC-133	1	Output Seal
28	TGC-153		Open Square Section External Retaining Rings
	TGC-154		Output Pinion - 19 Teeth
	TGC-155		Needle Bearing
	TGC-156		Thrust Washer
29	TGC-138	1	Intermediate Shaft Sub-Assembly - Includes Ref. No. 28 thru 31
30	TGC-122	1	13.04:1 Ratio
31	TGC-139		8.96:1 Ratio
	TGC-140		6.97:1 Ratio
	TGC-141		6.08:1 Ratio
	TGC-142		Intermediate Pinion Shaft - 15 Teeth
32	TGC-120	1	Woodruff Key
33	TGC-143	1	Intermediate Gear
34	TGC-144	1	74 Teeth (13.04:1)
35	TGC-157	1	69 Teeth (8.96:1)
36	TGC-146		65 Teeth (6.97:1)
37	TGC-158		37 Teeth (6.08:1)
	TGC-159		Open Square Section External Retaining Ring
	TGC-160		Thrust Washer
	TGC-161		Needle Bearing
			Vent Plug (Not Shown)
			Wheel Grease (Not Shown)
			Truck Mounting Hardware (Not Shown)
			Motor Mounting Hardware - Includes Coupling (Not Shown)
			For Motor with 56C Frame
			For Motor with 145TC Frame
			For Motor with 180C Frame

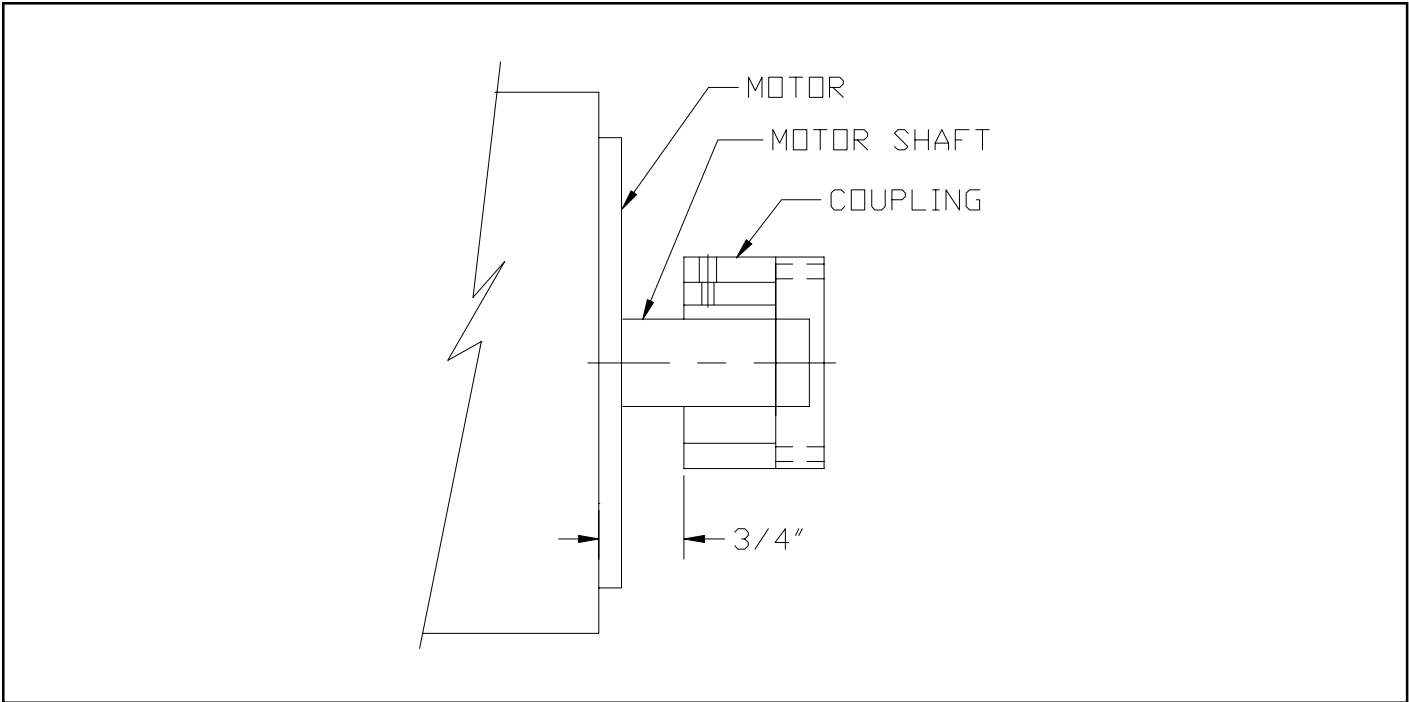


Figure 2. Coupling Location.

WARRANTY

WARRANTY AND LIMITATION OF REMEDY AND LIABILITY

A. Seller warrants that its products and parts, when shipped, and its work (including installation, construction and start-up), when performed, will meet applicable specifications, will be of good quality and will be free from defects in material and workmanship. All claims for defective products or parts under this warranty must be made in writing immediately upon discovery and, in any event, within one (1) year from shipment of the applicable item unless Seller specifically assumes installation, construction or start-up responsibility. All claims for defective products or parts when Seller specifically assumes installation, construction or start-up responsibility, and all claims for defective work must be made in writing immediately upon discovery and, in any event, within one (1) year from completion of the applicable work by Seller, provided, however, all claims for defective products and parts made in writing no later than eighteen (18) months after shipment. Defective items must be held for Seller's inspection and returned to the original f.o.b. point upon request. **THE FOREGOING IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES WHATSOEVER, EXPRESS, IMPLIED AND STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS.**

B. Upon Buyer's submission of a claim as provided above and its substantiation, Seller shall at its option either (i) repair or replace its product, part or work at either the original f.o.b. point of delivery or at Seller's authorized service station nearest Buyer or (ii) refund an equitable portion of the purchase price.

C. This warranty is contingent upon Buyer's proper maintenance and care of Seller's products, and does not extend to normal wear and tear. Seller reserves the right to void warranty in event of Buyer's use of inappropriate materials in the course of repair or maintenance, or if Seller's products have been dismantled prior to submission to Seller for warranty inspection.

D. The foregoing is Seller's only obligation and Buyer's exclusive remedy for breach of warranty, and is Buyer's exclusive remedy hereunder by way of breach of contract, tort, strict liability or otherwise. In no event shall Buyer be entitled to or Seller liable for incidental or consequential damages. Any action for breach of this agreement must be commenced within one (1) year after the cause of action has accrued.