



UET Mixers Inc.
 26 Maple St.
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**XCEL Series of
 Turbine Mixers**

**TABLE OF
 CONTENTS**

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TABLE OF CONTENTS

Bulletin 01-050 (Recommended bolting torques).....Pg.1

Bulletin 02-150 (Installation of Mixer Drive Size 3 to 10).....Pg. 2

Bulletin 04-150 (Maintenance of Mixer Drive Size 3 to 10).....Pg. 5

Bulletin 05-150 (Lubrication of Mixer Drive Sizes 3 to 10).....Pg. 6

Bulletin 05-155 (Lubrication of Mixer Drive Sizes 3 to 10 Grease Lube Only).....Pg. 7

Bulletin 07-150 (Mixer Drive Parts Guide for Size 3 to 7).....Pg. 8

Bulletin 07-151 (Mixer Drive Parts Guide for Size 8 to 10).....Pg. 9



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XCEL Series of Turbine Mixers

Bulletin 01-050
11/15/11
Supersedes 01/24/05

Page
01 of 01

Recommended Bolting Torques

1. Tightening Torques

Use the values specified in the following table for fastening motors, units, and accessories to their mounting surfaces with SAE Grade 5 non-lubricated fasteners. If the tightening torque exceeds the capacity of the torque wrench, use a torque multiplier.

Thread Dia-UNC (in)	Painted Metal to Painted Metal (lb-in)	Painted Metal to Concrete (lb-in)
.250-20	90	70
.314-18	185	145
.375-16	330	255
.500-13	825	640
.625-11	1,640	1,280
.750-10	2,940	2,290
.875-9	4,560	3,750
1.000-8	6,800	5,600
1.125-7	8,900	7,000
1.250-7	12,600	10,000
1.375-6	16,500	13,000
1.500-6	22,100	17,500



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XCEL Series of Turbine Mixers

Bulletin 02-150
03/17/11
Supersedes 01/24/05

Page
01 of 03

Installation of Mixer Drive Sizes 3-10

Inspection

Carefully uncrate and remove wrappings from your UET EXCEL-FLO mixer. Inspect all surfaces for damage. If any such damage is noted, report immediately to your shipper service and to UET.

Mixer is shipped with shaft and turbine detached to maintain shaft tolerance levels. Check for all parts- shipment is usually packed in two or more crates. Foreign shipments may be coated with rust inhibitor which is removable with kerosene, carbon tetrachloride or other solvent compound.

For long term storage, re-pack the XCEL mixer after inspecting. If stored for more than one year, all lubricated parts must be inspected and the proper lubricant applied before operating the mixer. See manual section on "Lubrication".

Installation

DO NOT attach shaft to gearbox before mounting without reading the directions on this page.

Step 1: Carefully lift XCEL **gearbox** from its crate and remove packing.

Step 2: (If mixer overhead clearance is under 20", Step 4 may be required before mounting gearbox.) Lift mixer to mounting surface, position and bolt in place. All bolts should be tightened an extra ½ turn to insure placement (see Bulletin 01-050 for recommended bolt torque).

Step 3: **Using extreme care**, uncrate and remove **shaft** from packing. DO NOT jar or bend shaft. Incautious handling may result in mixer vibration during operation.

Step 4: Make sure setscrews at top of gearbox are backed off. Insert shaft (from bottom) with shorter keyway and polished end toward gearbox directly into the reducer quill until keyway is fully exposed at top of quill.

Step 5: Insert shaft key and fasten cap plate to recommended torque (see Bulletin 01-050). Then lower shaft until the cap plate rests on top of quill (fully supporting shaft).

Step 6: Now tighten gearbox setscrews onto shaft outside diameter.

Step 7: Attached shaft safety guard with provided hardware.

Step 8: (See Bulletin 02-200 for illustration) Remove turbine/turbine hub from packing and slide hub over shaft end until above keyway. Insert key and lower hub into position. Tighten hub set screws into key and shaft.

Step 9: Firmly bolt blades in place on hub. Torque bolts to recommended value per Bulletin 01-050. Proceed to Bulletin 03-100, Mixer Operation.

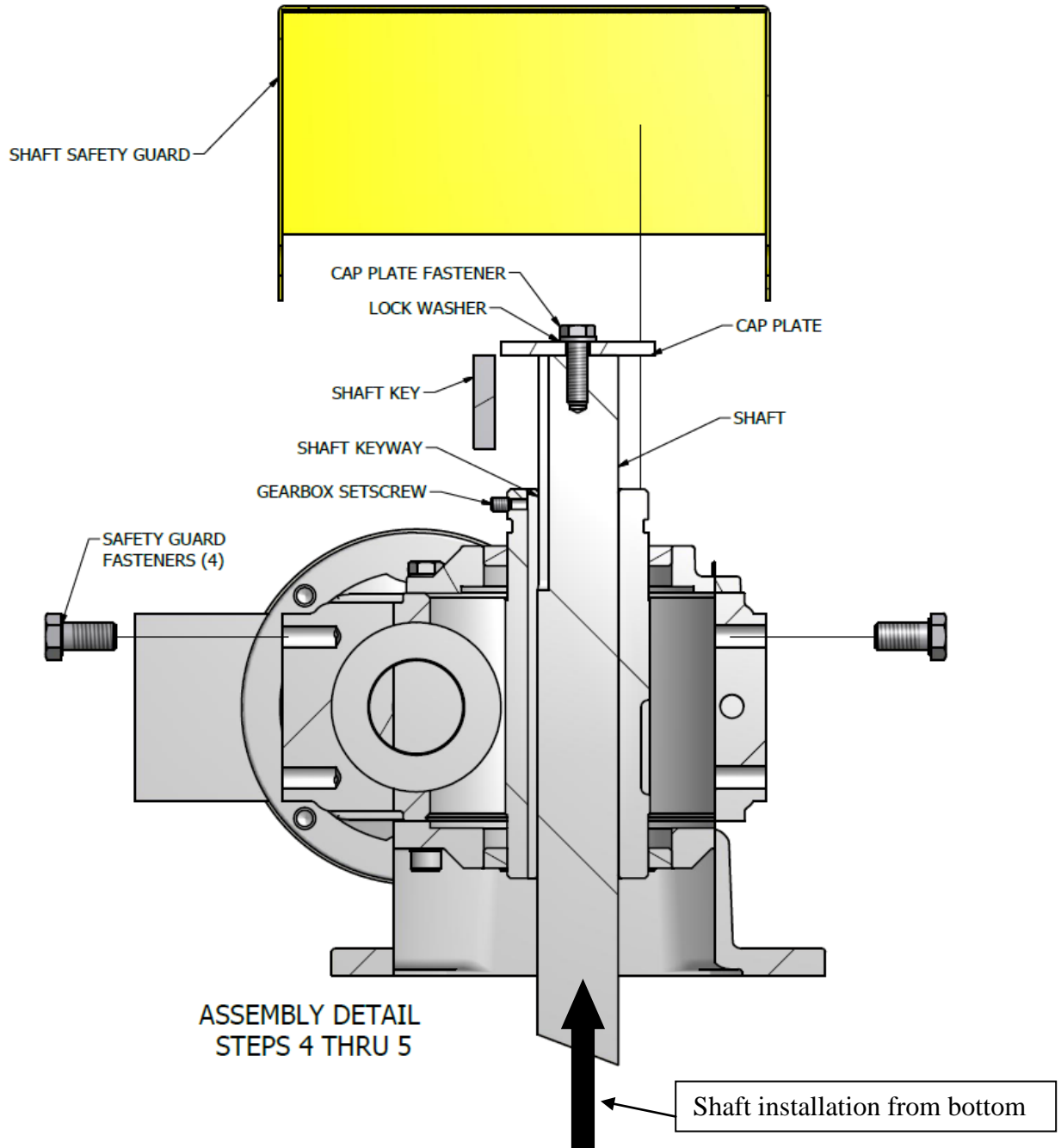


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XCEL Series of Turbine Mixers

Bulletin 02-150
03/17/11
Supersedes 01/24/05

Page
02 of 03



NOTE:

IF YOUR MIXER INCLUDES A REMOTE OR PEDESTAL MOUNTED HIGH/LOW PRESSURE STUFFING BOX, PROCEED TO BULLETIN 02-800 FOR COMPLETE INSTALLATION INSTRUCTIONS.

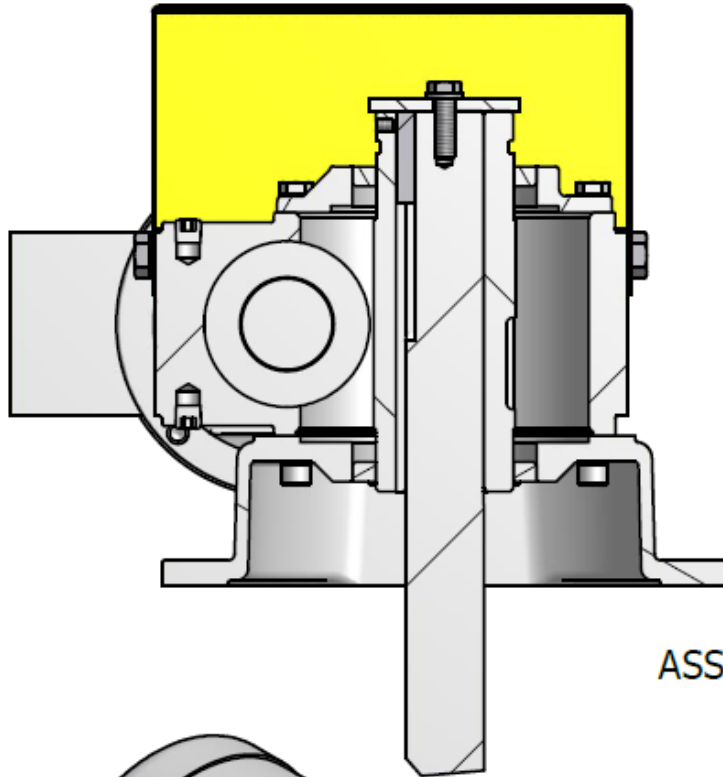


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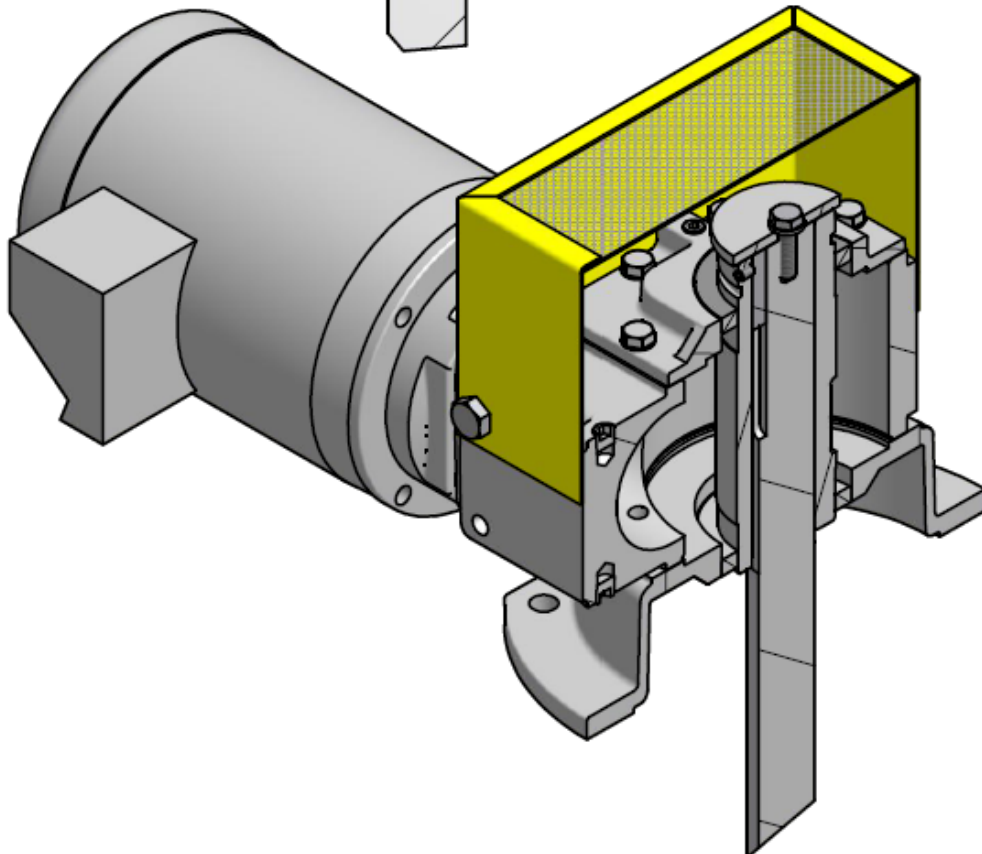
XCEL Series of Turbine Mixers

Bulletin 02-150
03/17/11
Supersedes 01/24/05

Page
03 of 03



ASSEMBLED DETAIL





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XCEL Series of Turbine Mixers

Bulletin 04-150
11/28/11
Supersedes 01/24/05

Page
01 of 01

Maintenance of Mixer Drive Size 3 to 10

1. Your UET XCEL Mixer is a completely sealed gearbox with breathing mechanism. No venting is required!!!

Sizes 3-6 have the breathing mechanism located opposite the high speed end of the gearbox.

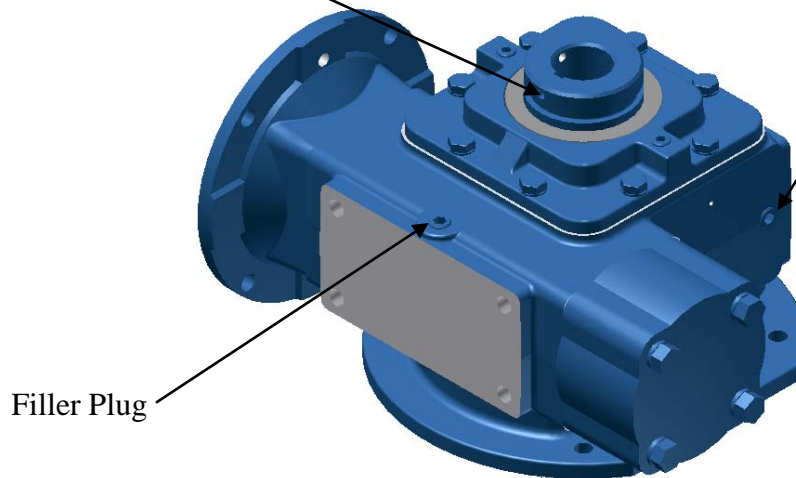
Sizes 8-10 have a separate breathing canister which is shipped loose. Remove the temporary pipe plug (see diagram below) and install the breathing cannister.

2. Refer to Figure 1 below. This shows recommended fill level for lubricant. Remove plug and check oil level.
3. For proper maintenance of new units, drain oil while warm after 1500 hours of operation. Add new oil to the recommended level.

RECOMMENDED OIL LEVELS AND CHANGES: Oil should be changed every 5,000 hours of operation, at the very least, with more frequent changes if operating in harsh environment, moisture condensation is detected in the oil or a sludge build-up is noted inside the housing.

Plug and Drain locations

Grease Fitting
(Not all models apply)



Because of the varying oil quantities, the normal level plugs are not appropriate for monitoring oil levels

Filler Plug

Figure 1

Drain Plug
Inside base flange



Lubrication of Mixer Drive Sizes 3-10

1. Unit Lubrication

Oil Properties	
AGMA Viscosity Grade	4
ISO Viscosity Grade	150
Viscosity at SSU 104°F Cst	626-765 135-165
Manufacturer	Lubricant
Mobil Oil Corp. Or Equal	SHC629

Lubricating Oils NOT Recommended—Ordinary motor oil (regardless of stated viscosity), automotive rear end oils, and EP lubricants that contain sulphur, chlorine, or phosphorus compounds (such compounds are extremely corrosive to bronze)

2. Unit Oil Change

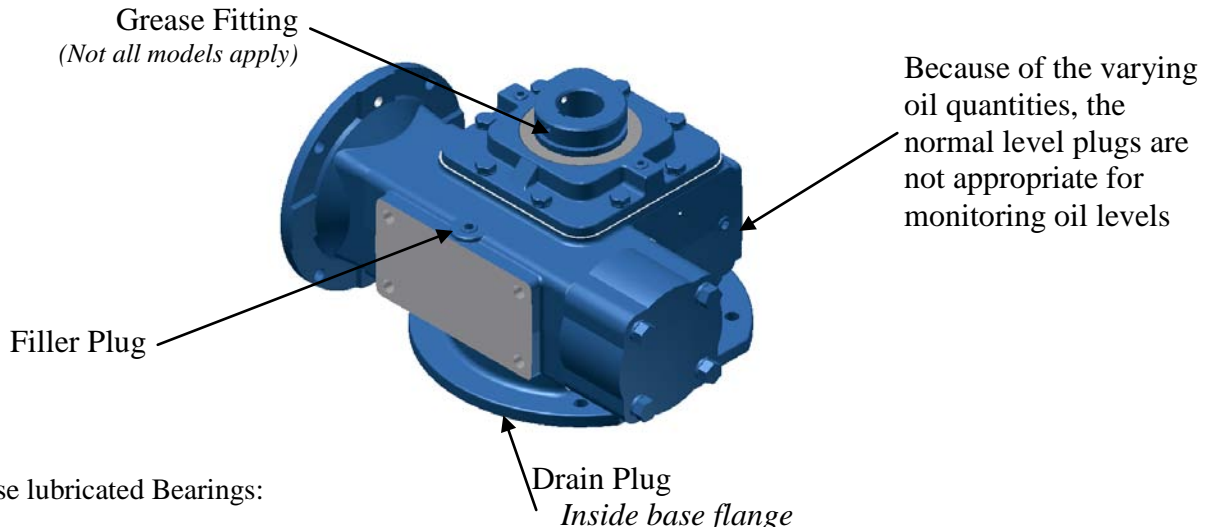
Operational Oil Temperatures*

Mixer gear reducers in normal operation can generate temperatures up to 200°F depending on the type of reducer and the severity of the application (loading, duration of service, ambient temperature). Oil temperatures in excess of 200°F may be the signal of a problem. **⚠ CAUTION! For personal protection, be sure oil has cooled to a safe temperature before performing maintenance.**

Mixer Size	Mixer Oil Capacities	
	Oil Qty (Milliliters)	Oil Qty (ounces)
3	560	18.9
4	1450	49
5	1770	59.8
6	2525	85.3
7	3540	119.6
8	3786	128
9	8517	288
10	12303	416

1ml = .061in³/.0019 pts/.0338 fl oz.

The table above shows that the correct oil amount will not allow any measureable pressure build-up to occur on units equipped with S-EQUALIZER



3. Grease lubricated Bearings:

Recommended Lubrication for Bearings—NOTE not all models apply* Bearings that are not adequately lubricated by the splash system will have grease fittings. Fiber grease with a work penetration of 310 to 340 at 77°F, and an ASTM point of 350°F, minimum should be used to pressure lubricate the bearings.



Lubrication of Mixer Drive Sizes 3-10 (*Grease Lube Only*)

1. Unit Lubrication

Grease Properties	
NLGL Number	1 (Min.)
Penetration Unworked	326
Viscosity at 104°F Cst	125
Manufacturer:	Lubricant:
American Lubricants, Inc.	Semi-Synthetic Lithium Complex

Mixer Size	Mixer Oil Capacities	
	Grease Qty (Milliliters)	Grease Qty (ounces)
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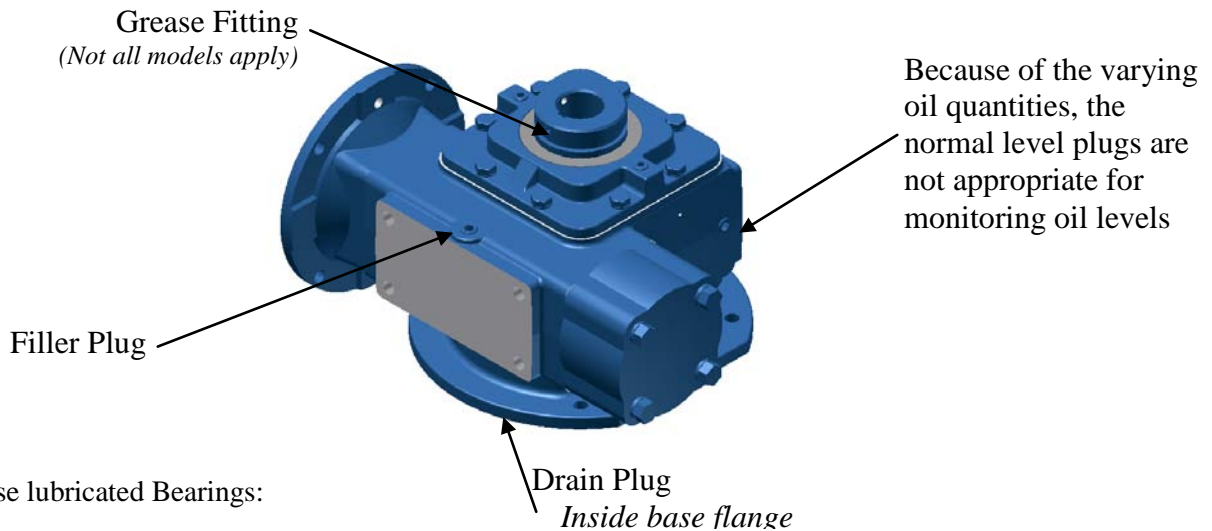
Lubricating Greases **NOT** Recommended—Ordinary grease (regardless of stated viscosity) and EP lubricants that contain sulphur, chlorine, or phosphorus compounds (such compounds are extremely corrosive to bronze)

These are approximates. Always fill units to fill line

2. Unit Oil Change

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Bulletin 07-150
 1/12/12
 Supersedes 01/24/05

Page
 01 of 01

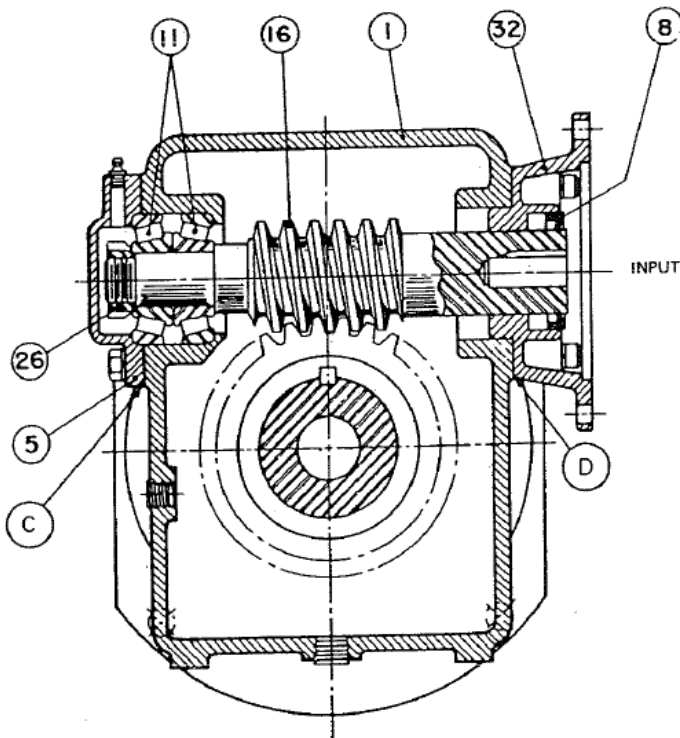
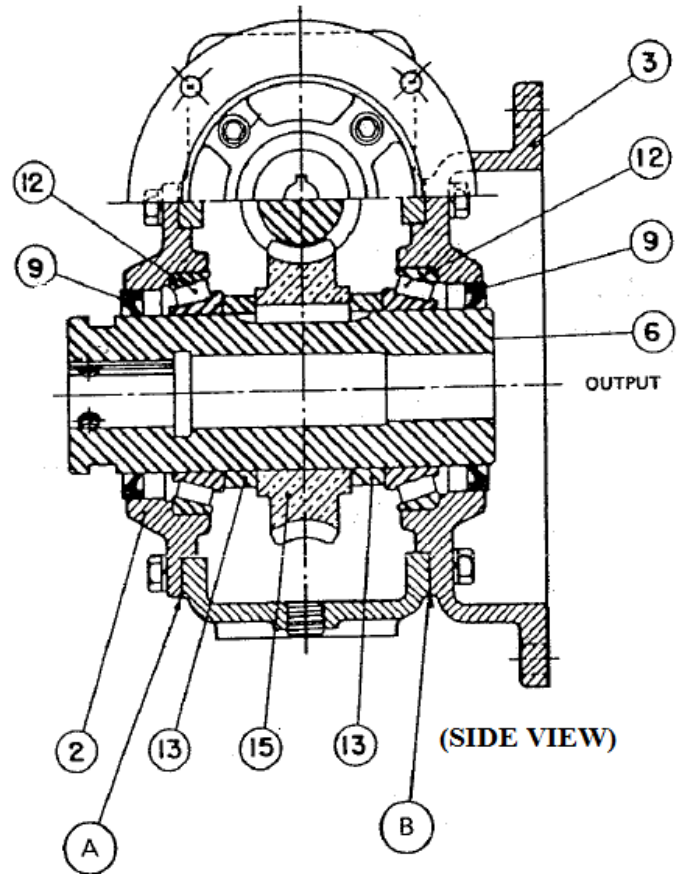
Mixer Drive Parts Guide For Sizes 3-7

1. Preventative Maintenance Parts Kit No. 200

Item #	Description	Quantity
08	High Speed Seal	1
09	Slow Speed Seal	4

2. Major Overhaul Parts Kit No. 210

Item #	Description	Quantity
08	High Speed Seal	1
09	Slow Speed Seal	4
11	High Speed Bearing	1
12	Slow Speed Bearing	2
15	Slow Speed Gear	1
16	High Speed Worm </td <td>1</td>	1
33	Gasket/Shim Pack	1



Note:

Locations "A & B" indicate shim position for low speed shaft adjustment

Location "C" indicates shim position for high speed shaft adjustment

Location "D" uses gasket for sealing only and will not adjust shaft end play. (Ref: Item 33 Parts List.)

NOTES:

- Specify Model, Serial No., and Ration when ordering any of the above parts
- Consult factory for Current Pricing & Availability



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Bulletin 07-151
 1/12/12
 Supersedes 11-30-98

Page
 01 of 01

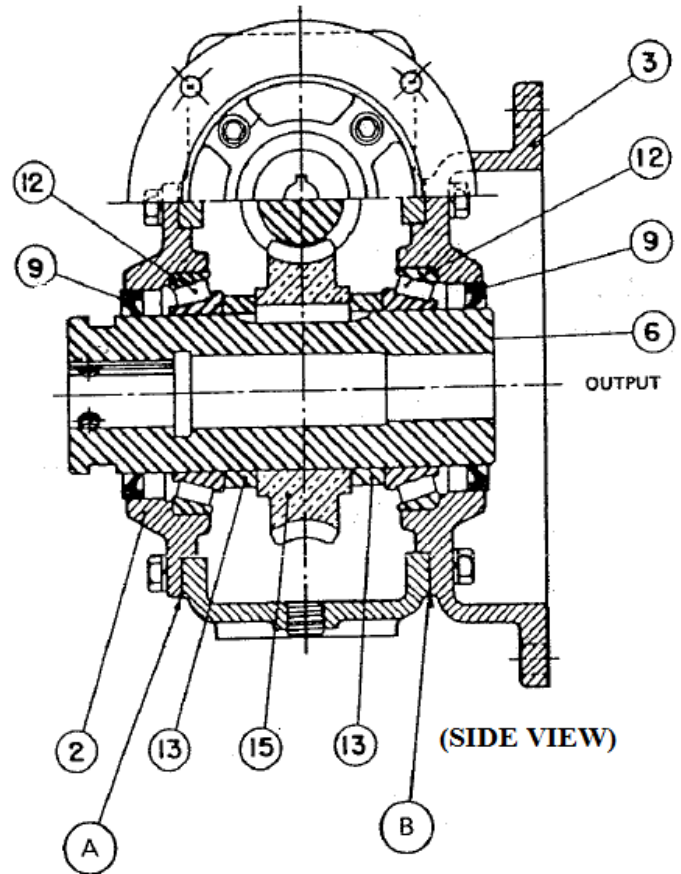
Mixer Drive Parts Guide For Sizes 8-10

1. Preventative Maintenance Parts Kit No. 200

Item #	Description	Quantity
08	High Speed Seal	1
09	Slow Speed Seal	4

2. Major Overhaul Parts Kit No. 210

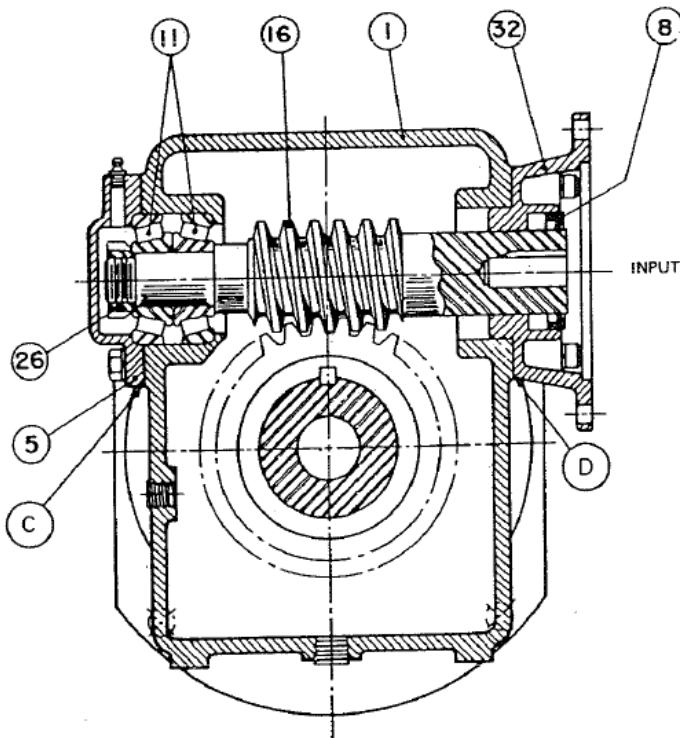
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12	Slow Speed Bearing	2
15	Slow Speed Gear	1
16	High Speed Worm </td <td>1</td>	1
33	Gasket/Shim Pack	1



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