



# Instruction and Maintenance Manual for Dodge Traction Box Gear Reducer

## Introduction

The Dodge Traction Box gear reducer is a specific-purpose, 2-stage parallel gearmotor designed to drive single or double ended loads through yoke-type universal joints. It is not designed to support overhung or thrust loads. The gearbox is shipped from the factory without oil. The input pinion, supplied by Dodge, is of the tapered bore type and is mounted to the motor by the customer, following the motor manufacturer's recommendations.

Included with gearbox are the input pinion and mounting washer, filter breather vent, spring loaded vent and reducer bushing. These are wrapped and shipped inside the motor flange. Oil is not supplied. Output shaft nuts and washers are threaded to the output shaft extensions.

## Input pinion installation

Clean motor shaft taper and pinion bore. Blue shaft taper, then push and rotate pinion onto shaft to develop contact pattern. Inspect for 70% or more contact between mating tapers. Correct by lapping against a master. Clean and oil parts. Install key, pinion, flat washer (if used) and nut. Hand tighten nut; tap to insure all clearance removed. Scribe match mark on nut and pinion side. Tighten nut 1 to 1-1/2 flats (1/6 to 1/4 turn). May also be installed by axial advance (to a measured stop) method, advancing pinion .0096" to .0128". Install cotter pin.

## Install motor

Remove pipe plug above the motor bore on gearbox input flange. Replace with spring loaded vent and reducer bushing (supplied with gearbox). Insure that the O-ring on the motor flange male tenon is in place. Grease the O-ring. Mount the motor to the gearbox using motor mounting hardware supplied with the motor.

## Mount gearmotor

Mount gearbox and motor. Install coupling yokes into output shafts. The coupling hub butts against the seal sleeves. Secure couplings to output shafts with retaining washers and insert-type locknuts (both supplied with gearbox). Torque nuts to 500 foot-pounds torque.

## Lubrication

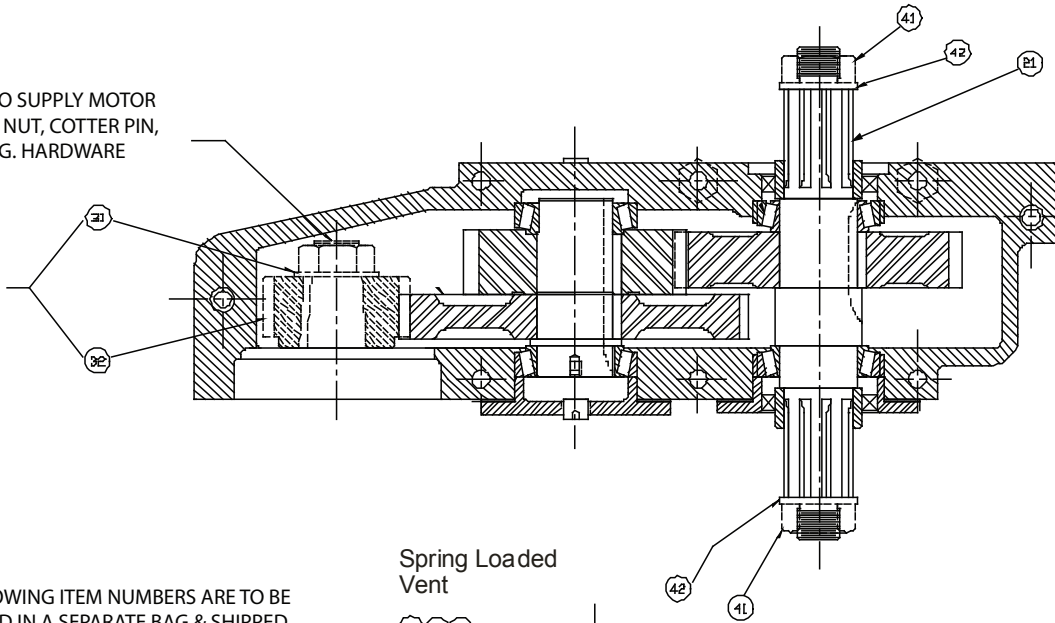
Supplied without oil. The gearbox is splash lubricated and must be filled before use. Remove oil level plug, located on the end of gearbox near output shaft, 1-1/8 inches below gearcase split line. Remove pipe plug from top of gearbox, outboard of the output shaft. Fill with approximately 1 gallon (8 pints) of rust and oxidation inhibited SAE 40 (ISO 150) oil. Reinstall level plug. Install filtered breather plug (supplied with gearbox) into top of gearcase.

Drain and refill the gearbox with the recommended (new, clean) lubricant every 6 months or 2500 hours of operation. More frequent under extremely severe conditions.

**WARNING:** Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by Dodge nor are the responsibility of Dodge. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

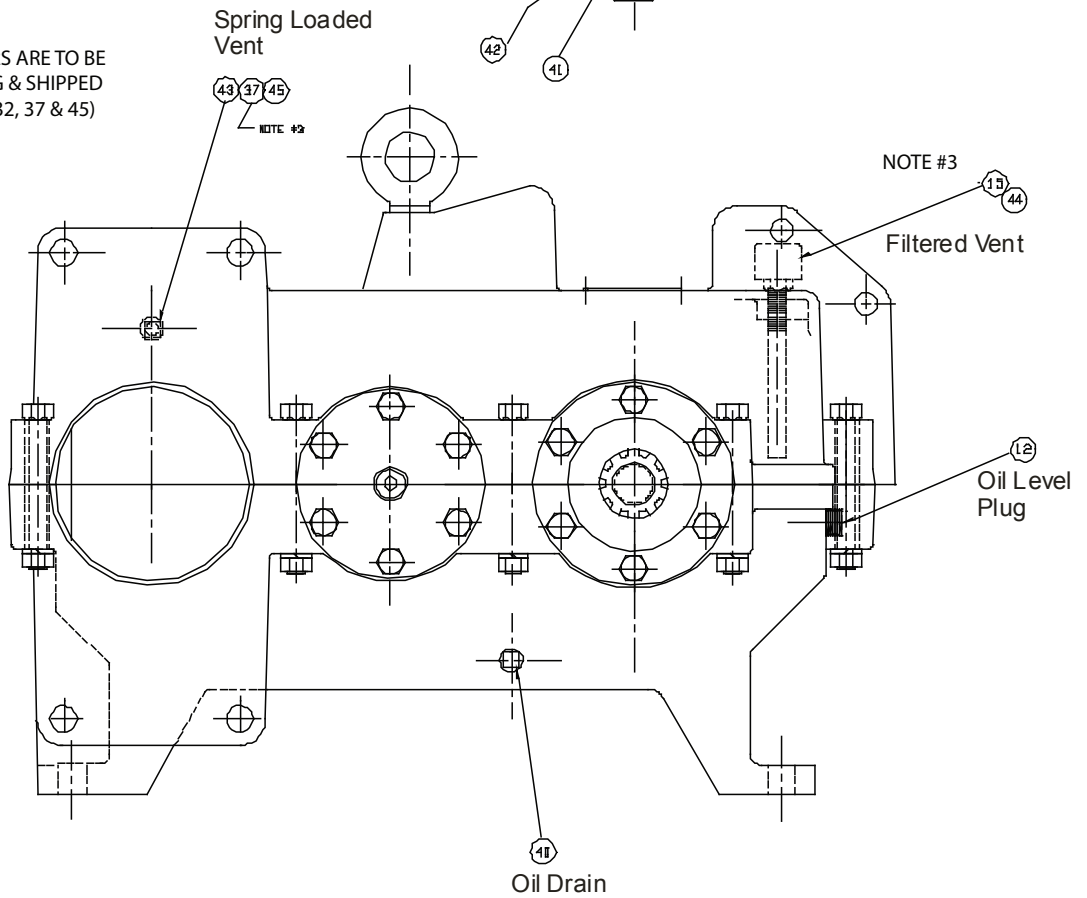
MOTOR DIV. TO SUPPLY MOTOR  
KEY, SLOTTED NUT, COTTER PIN,  
AND MTR. MTG. HARDWARE

NOTE #3



NOTES

3 THE FOLLOWING ITEM NUMBERS ARE TO BE  
FURNISHED IN A SEPARATE BAG & SHIPPED  
WITH EACH UNIT (ITEM 15, 31, 32, 37 & 45)



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