

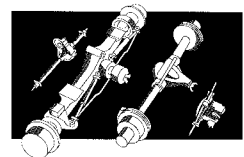


OFF-HIGHWAY AXLE



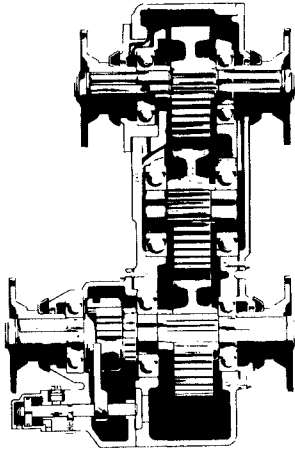
People Finding A Better Way™

S P I C E R

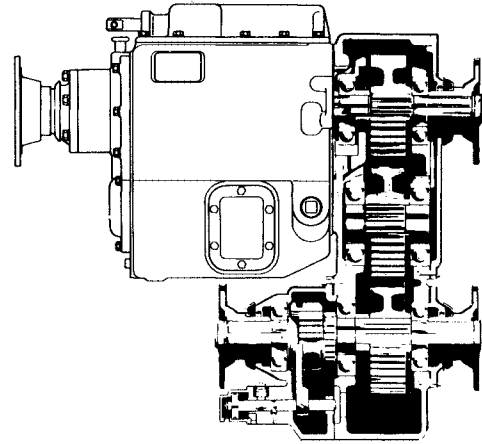


SPICER®

Transfer Cases



These Spicer Transfer Cases are adaptable to meet mid-ship mount and stationary applications in addition to direct mount to a variety of Spicer transmissions which provides an integral assembly for more efficient vehicle use.



On sand, ice, snow, mud or severe grades, there is nothing like all-wheel drive to take you through really tough terrain. With our transfer case, you can take your big trucks to where the work is, simply by pulling a lever and engaging the front wheel drive. You don't have to bring the work to the trucks . . . take the trucks to the work.

Spicer® Transfer Cases should be standard equipment on most "all-purpose" vehicles such as lumber fleets, snow plow vehicles and oil field hauling because it delivers maximum power in all transmission speeds.

Spicer Transfer Cases can be coupled directly to

a Spicer auxiliary transmission. It provides full torque capacity to both front and rear axles.

Conventionally geared in a 1:1 ratio, the unit features spur gears throughout. An optional front wheel disconnect is available to allow disengagement when all-wheel drive is not required. The disconnect is available in manual, or air with an electrical indicator switch.

Spicer Transfer Cases give you the rough terrain versatility you need to provide a real "all purpose" vehicle. All-wheel drive when and where you need it . . . disconnect features for use when all wheel drive isn't needed or where additional power flow options are desired.

TRANSFER CASE APPLICATIONS

Spicer Transfer Cases are used in the following vehicles:

- **TRANSIT MIXERS**
- **LOGGING UNITS**
- **DUMP AND BLOCK TRUCKS**
- **FIRE TRUCKS**
- **MILITARY VEHICLES**
- **OIL AND WATER DRILLING RIGS**
- **AGRICULTURE AND MINING TRUCKS**
- **and MANY MORE**

FEATURES AND BENEFITS

Ball bearing mounted gears and shafts prevent premature malfunctions.

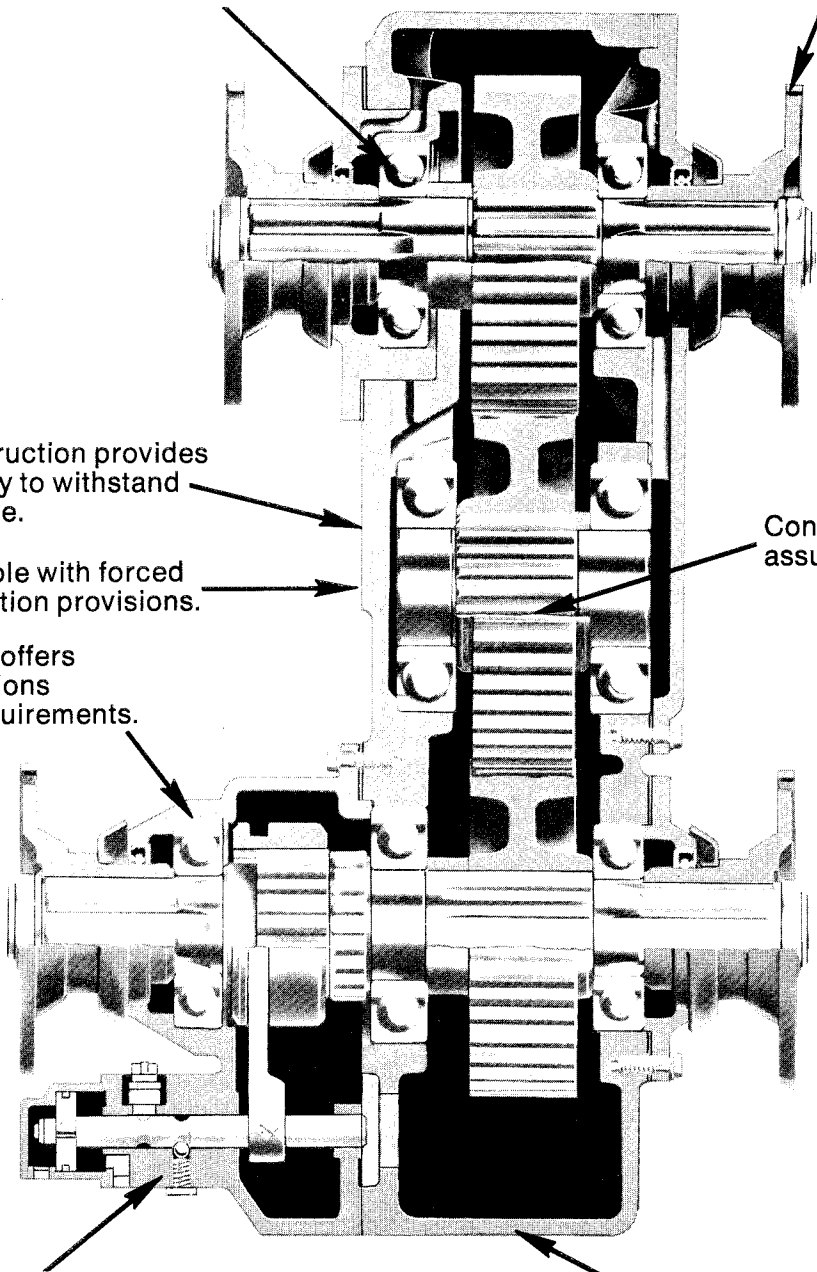
Available with customer specified end yokes or companion flanges.

One piece construction provides rigidity necessary to withstand off highway usage.

Available with forced lubrication provisions.

Versatile design offers many configurations for customer requirements.

Constant mesh gears assure long life.



Customer can specify two different shift operations.

Available with integral Spicer Auxiliary transmissions.

TRANSFER CASE TORQUE RATINGS

Continuous Duty Torque Rating — 3725 lb-ft.

Manual Transmission Low Gear Net Torque Rating (Based on 85% Efficiency) — 10,000 lb-ft.

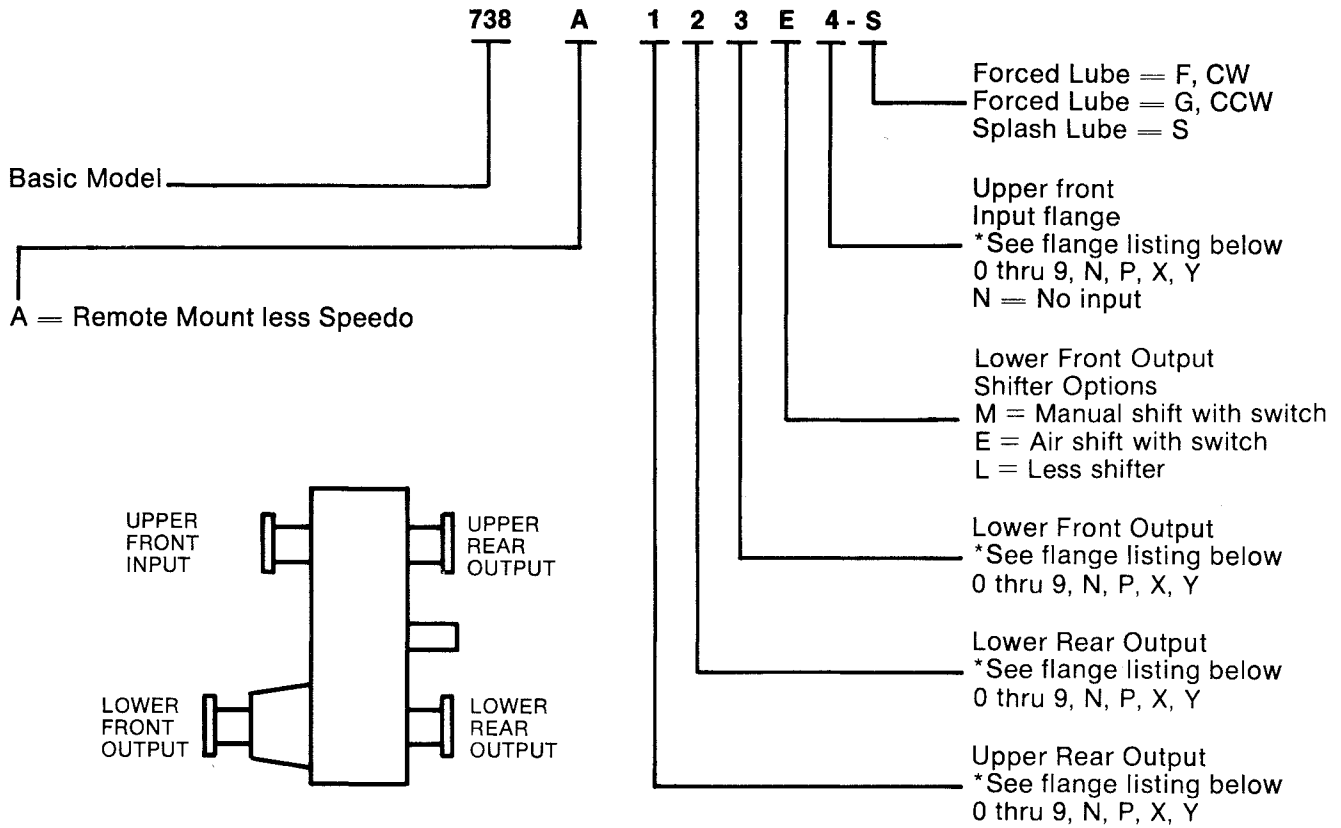
Automatic Transmission Stall Torque Rating = 11,000 lb-ft. (Stall Torque Value to be taken from Engine-Transmission Performance Curve).

Drop Gear Ratio — 1:1

Maximum Operating Speed = 5000 RPM

The maximum torque at the transfer case can be limited by either the engine capacity or the vehicle wheel skid. All applications must be approved by our Engineering Department.

738 MODEL NUMBER CONSTRUCTION — REMOTE MOUNT

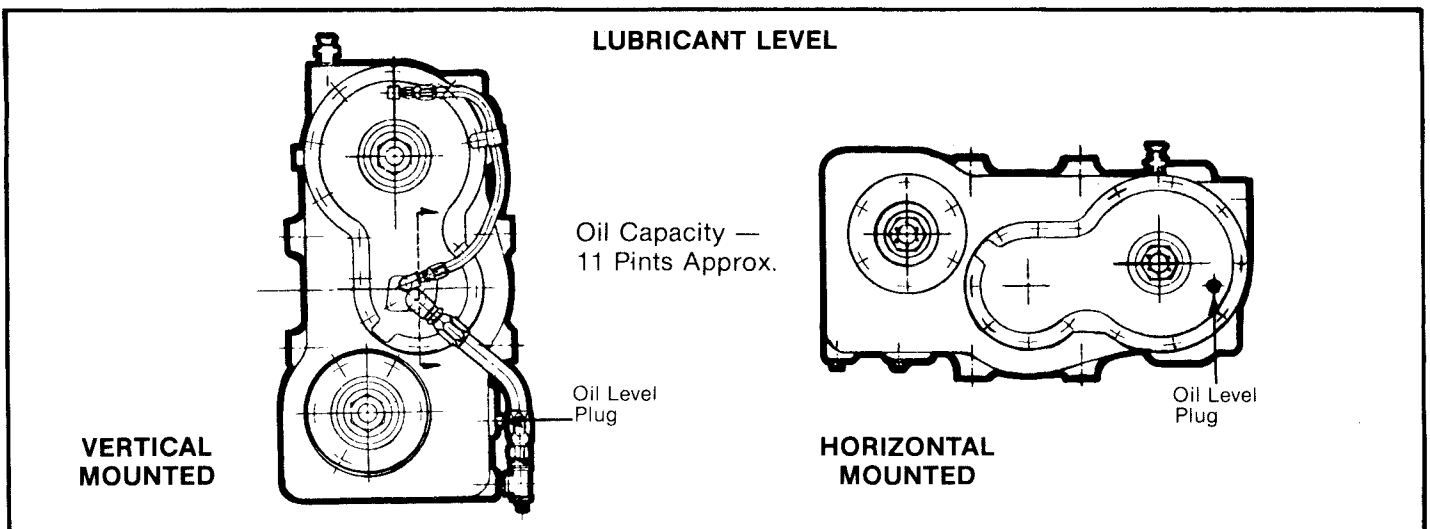


NOTE: CW Input Pump = 378889-1 (F)
CCW Input Pump = 378853-1 (G)

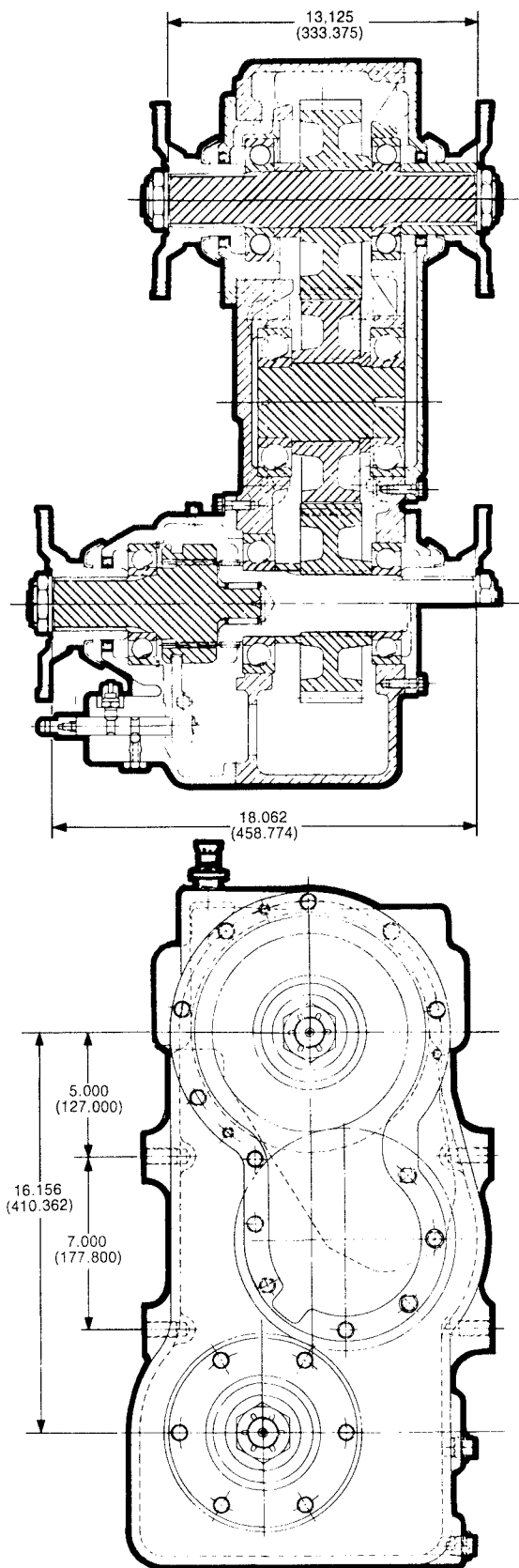
*FLANGE and END YOKE LISTING
N = No output (Blanked off)
P = No flange, output (Paper sleeve)
0 = 5-1-2541, 1610 Series Flange
1 = 5-1-4641X, 1610 Series Flange with Slinger
2 = 6-1-1731, 1710 Series Flange
3 = 6-1-4091X, 1710 Series Flange with Slinger

4 = 6.5-1-481, 1810 Series Flange
5 = 6.5-1-1471X, 1810 Series Flange with Slinger
6 = 6-4-3031, 1710 End Yoke
7 = 6-4-3461X, 1710 End Yoke with Slinger
8 = 6.5-4-1971, 1810 End Yoke
9 = 6.5-4-2831X, 1810 End Yoke with Slinger
X = 5-4-4751X, 1610 End Yoke with Slinger
Y = 6-1-1481, 1710 Series Flange

WEIGHT — 430 lbs.



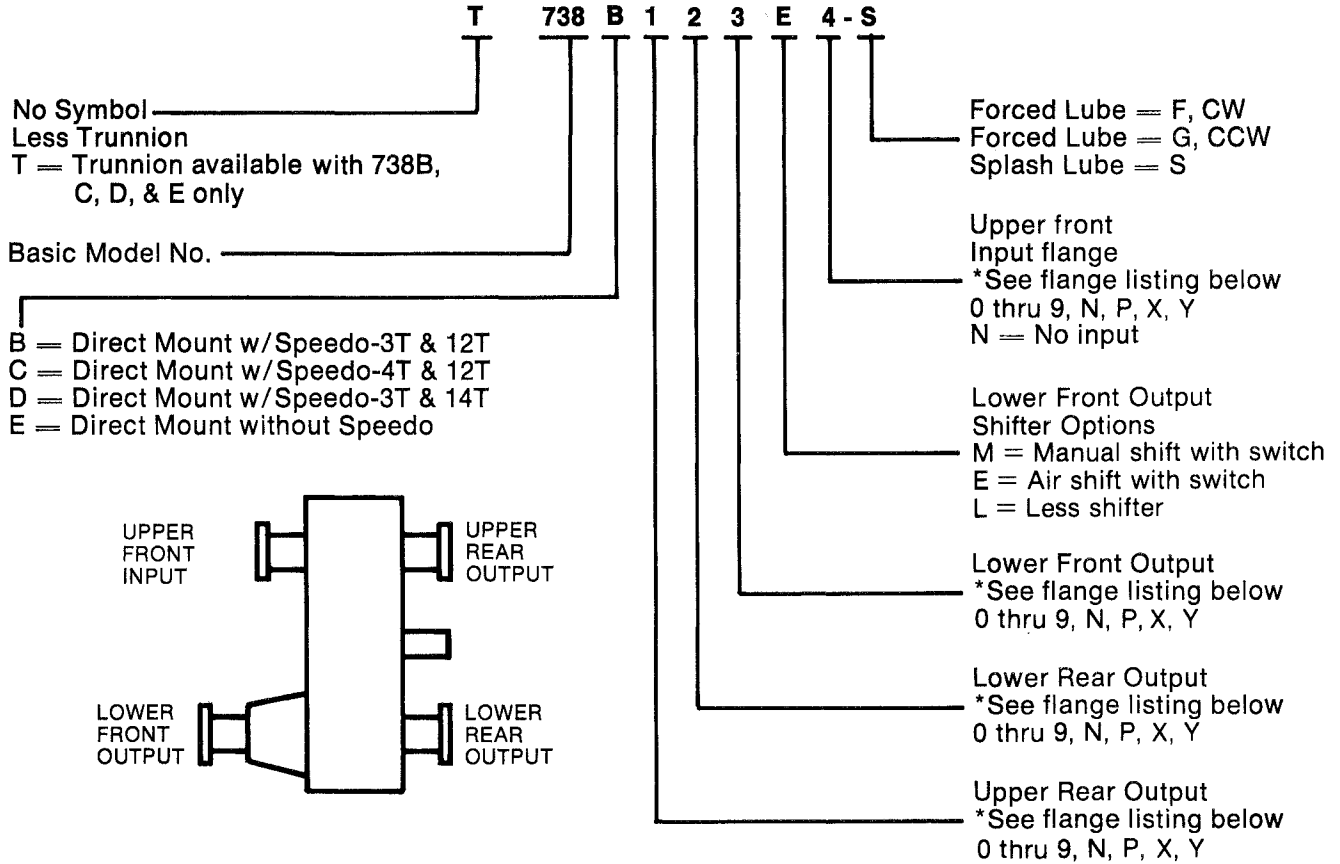
738-A



RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F.	SAE 30, 40, or 50	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152
Below 0° F.	SAE 30	NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Above 0° F.	SAE 90	Straight Mineral Gear Oil - R & O Type
Below 0° F.	SAE 80	

738 MODEL NUMBER CONSTRUCTION — DIRECT MOUNT



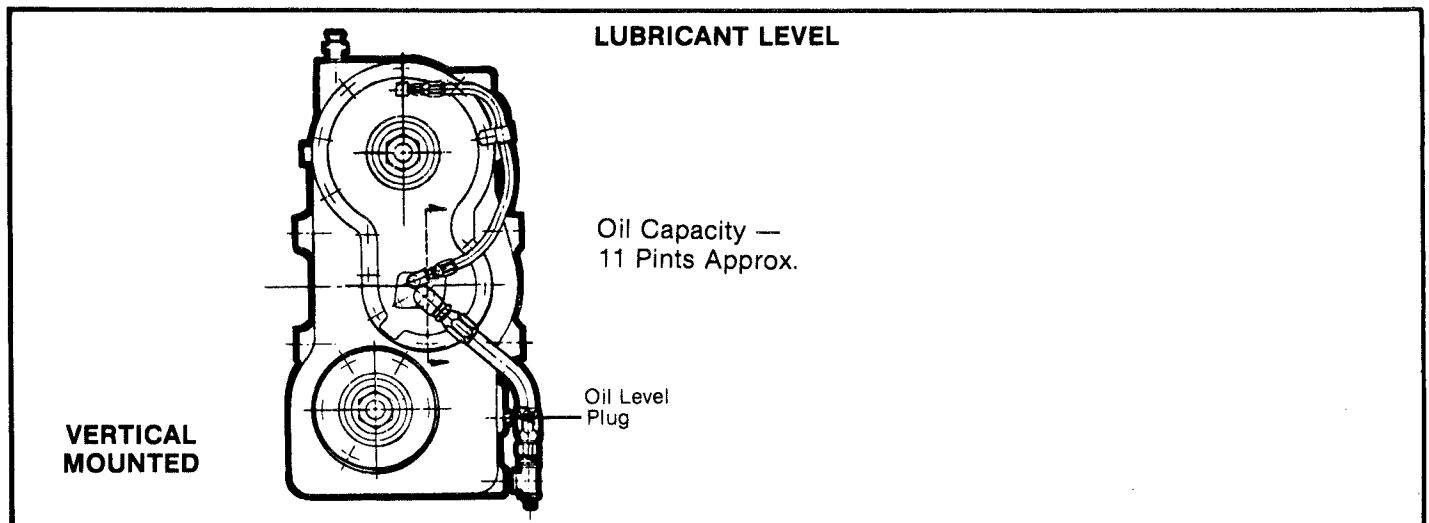
NOTE: CW Input Pump = 378889-1 (F)
 CCW Input Pump = 378853-1 (G)

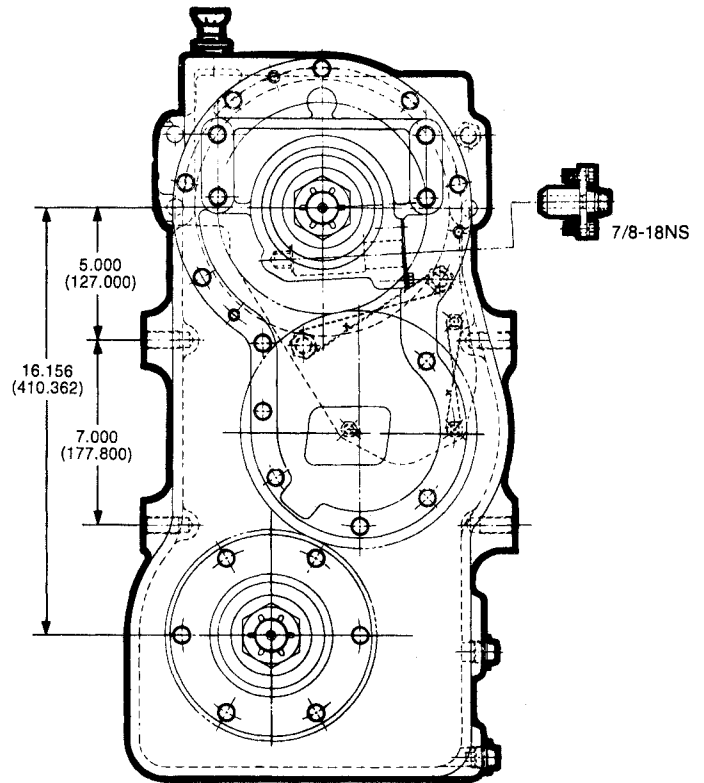
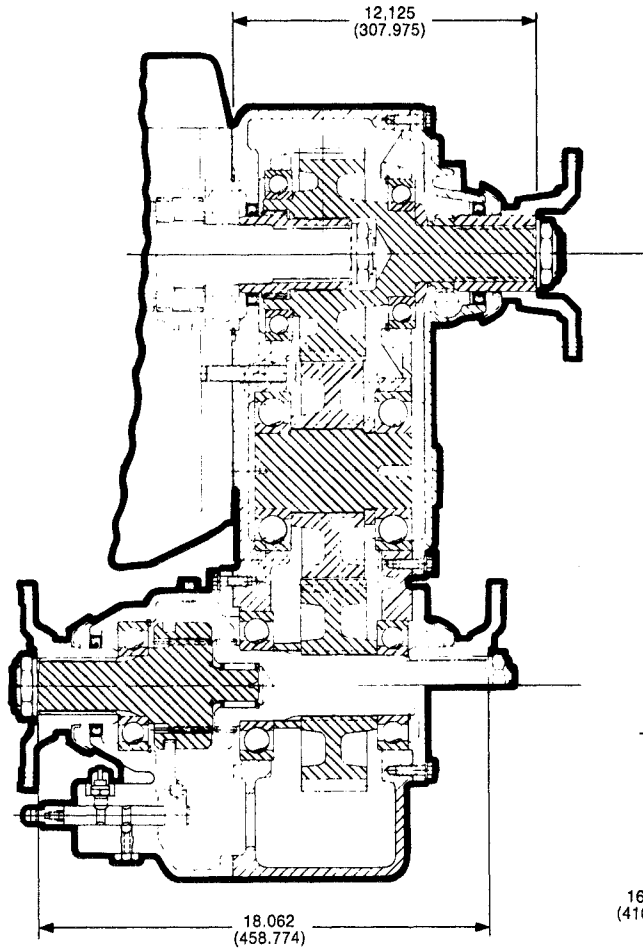
***FLANGE and END YOKE LISTING**

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- 4 = 6.5-1-481, 1810 Series Flange
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- 6 = 6-4-3031, 1710 End Yoke
- 7 = 6-4-3461X, 1710 End Yoke with Slinger
- 8 = 6.5-4-1971, 1810 End Yoke
- 9 = 6.5-4-2831X, 1810 End Yoke with Slinger
- X = 5-4-4751X, 1610 End Yoke with Slinger
- Y = 6-1-1481, 1710 Series Flange

WEIGHT — 430 lbs.





AVAILABLE SPEEDOMETER GEAR SETS		
	DRIVE GEAR	DRIVEN GEAR
B	70-452-5 (3 T.) (S.W. 447077)	70-453-2 (12 T.) (S.W. 70509)
C	70-452-6 (4 T.) (S.W. 447120)	70-453-4 (12 T.) (S.W. 448193)
D	70-452-8 (3 T.) (S.W. 447182)	70-453-1 (14 T.) (S.W. 65949)
E	70-452-8 (3 T.) (S.W. 447182)	NONE

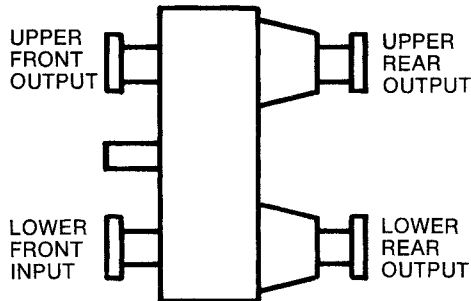
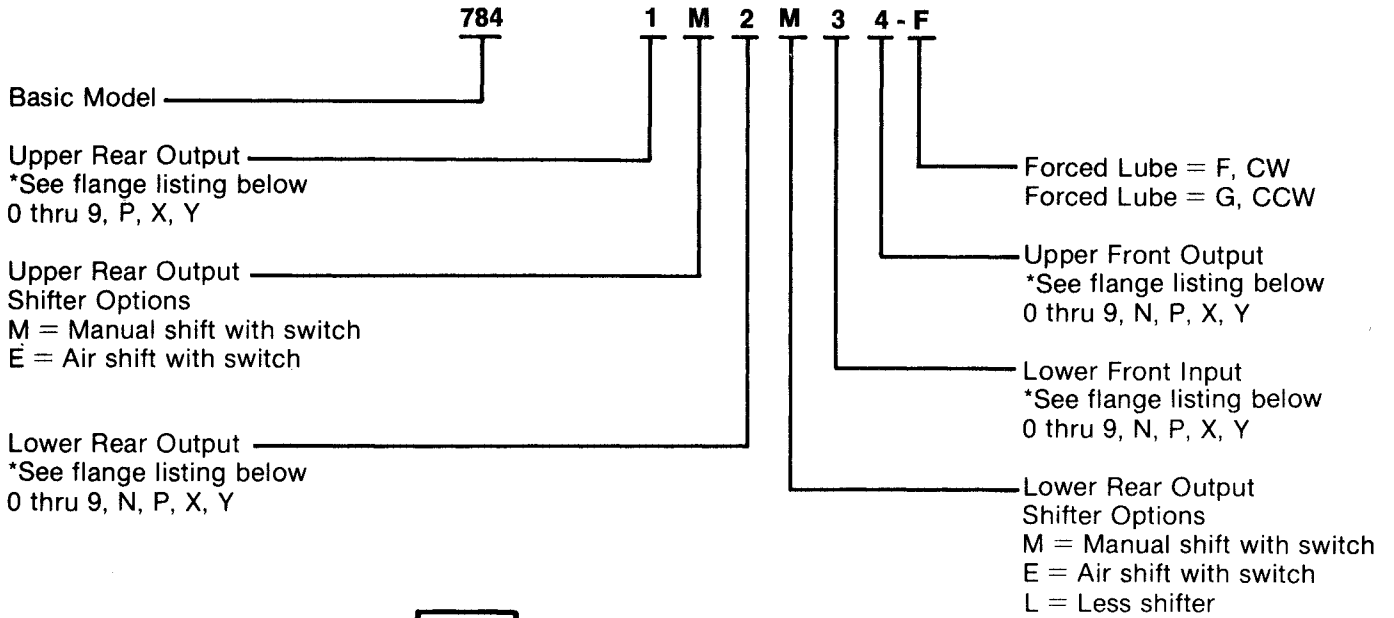
OPTIONAL SPICER AUXILIARY TRANSMISSIONS

R8031R	R8341F
R8341C	R8341G
R8341D	R8341K
R8341E	R8341L

RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F. Below 0° F.	SAE 30, 40, or 50 SAE 30	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152 NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Above 0° F. Below 0° F.	SAE 90 SAE 80	Straight Mineral Gear Oil - R & O Type

784 MODEL NUMBER CONSTRUCTION — REMOTE MOUNT



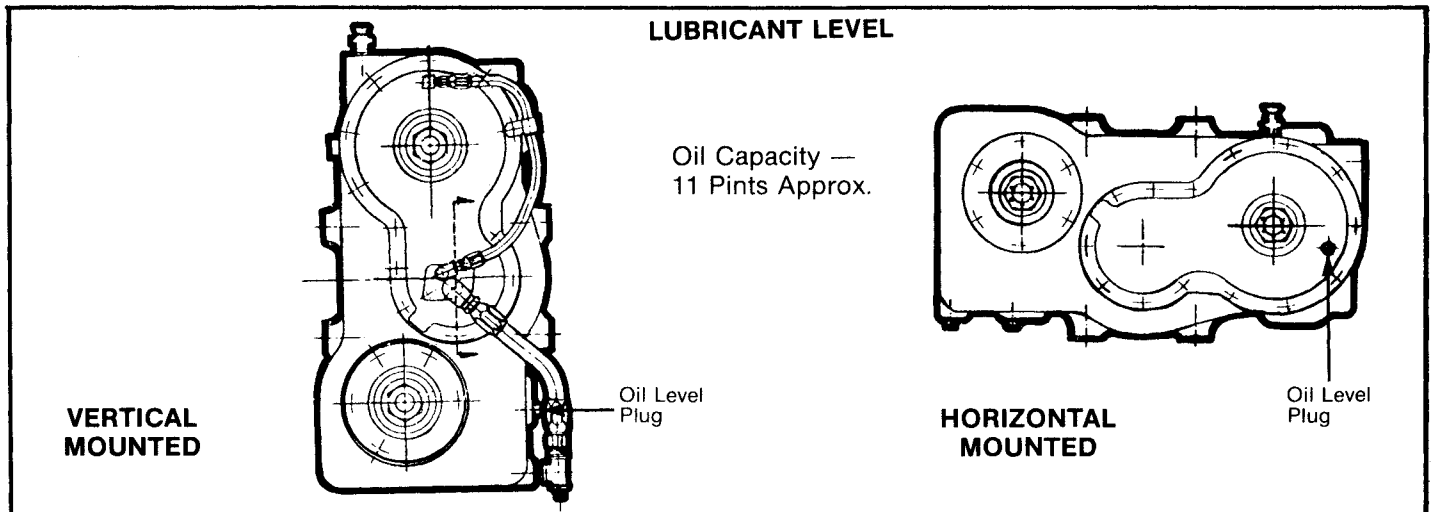
NOTE: CW Input Pump = 378889-1 (F)
CCW Input Pump = 378853-1 (G)

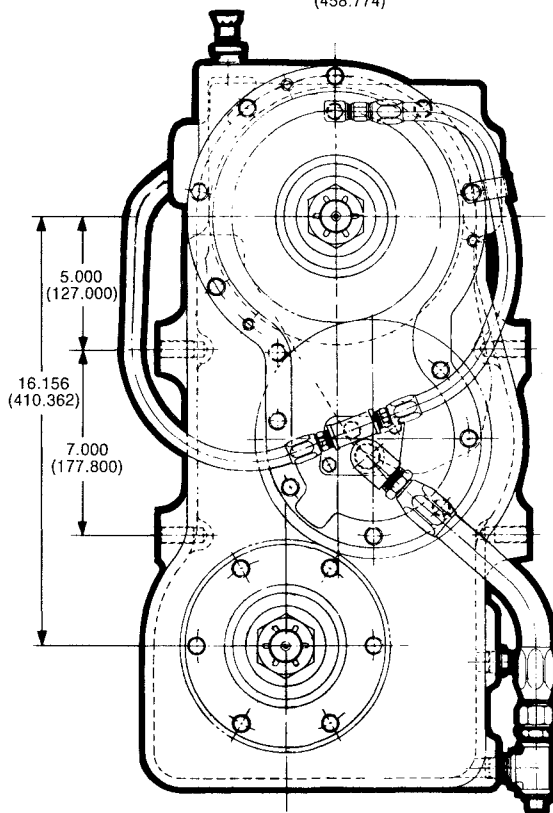
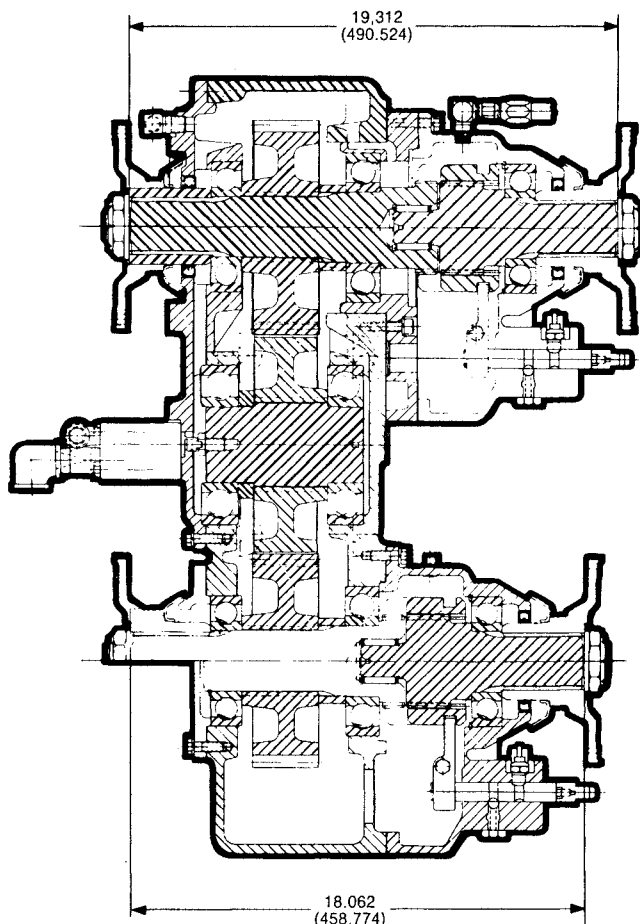
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5 = 6.5-1-1471X, 1810 Series Flange with Slinger
6 = 6-4-3031, 1710 End Yoke
7 = 6-4-3461X, 1710 End Yoke with Slinger
8 = 6.5-4-1971, 1810 End Yoke
9 = 6.5-4-2831X, 1810 End Yoke with Slinger
X = 5-4-4751X, 1610 End Yoke with Slinger
Y = 6-1-1481, 1710 Series Flange

WEIGHT - 460 lbs.

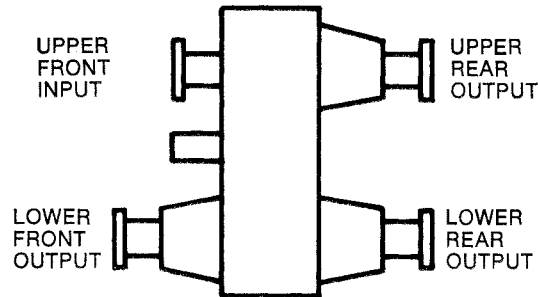
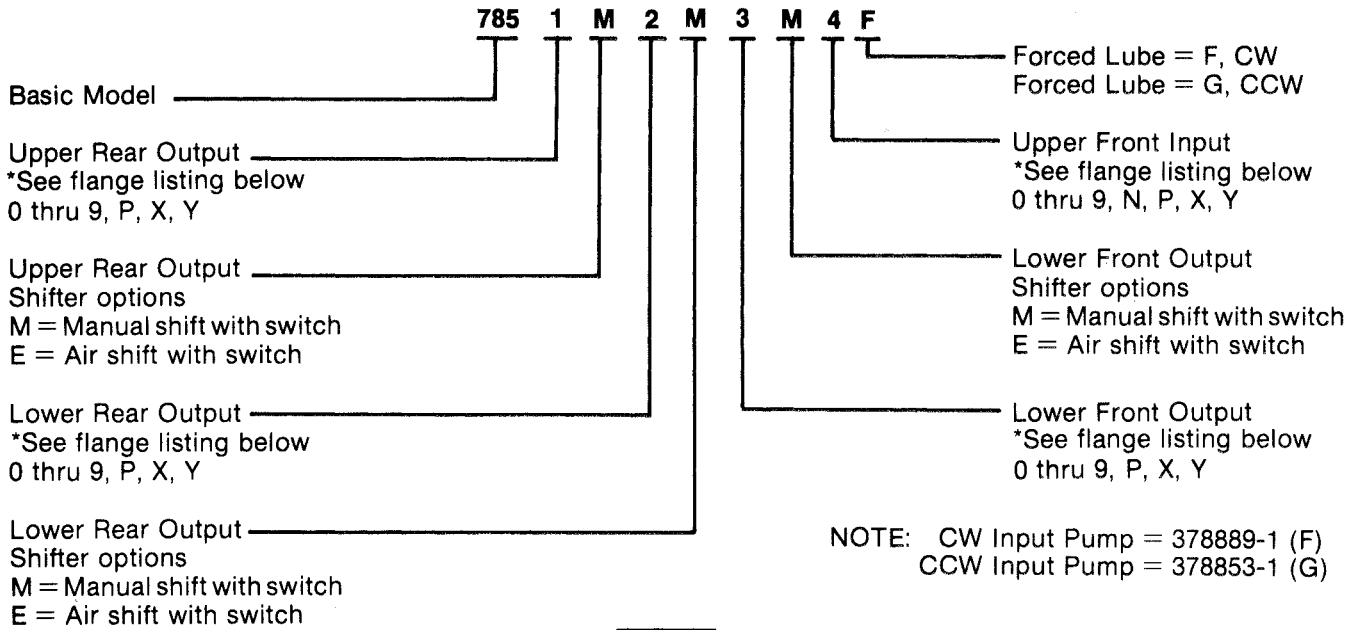




RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F.	SAE 30, 40, or 50	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152 NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Below 0° F.	SAE 30	
Above 0° F.	SAE 90	Straight Mineral Gear Oil - R & O Type
Below 0° F.	SAE 80	

785 MODEL NUMBER CONSTRUCTION — REMOTE MOUNT

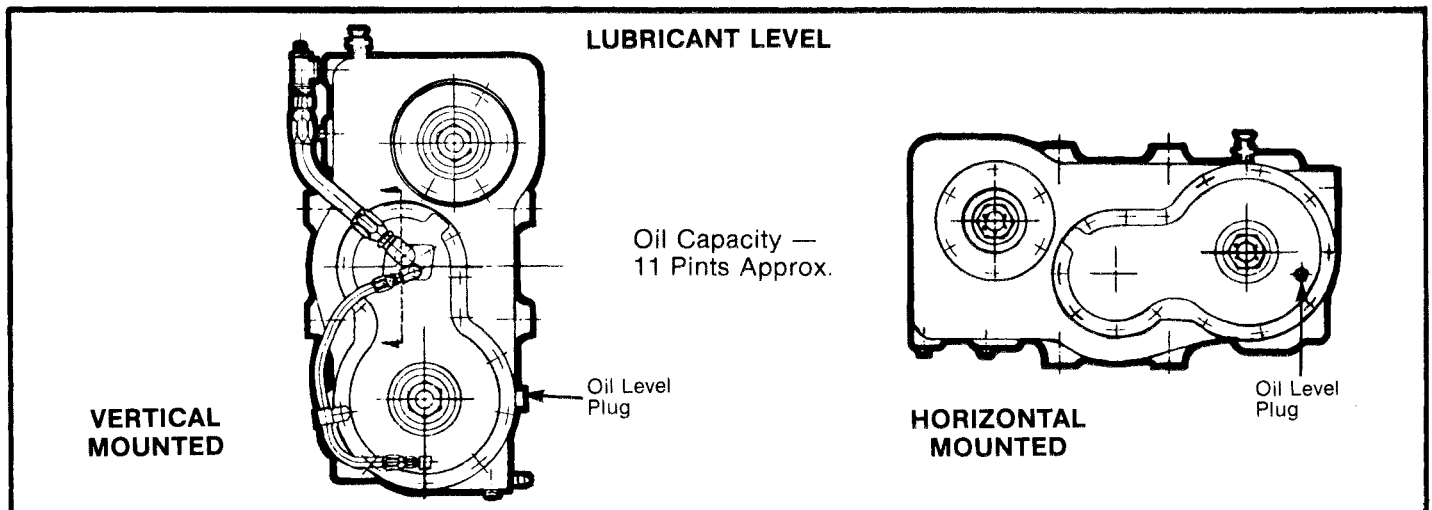


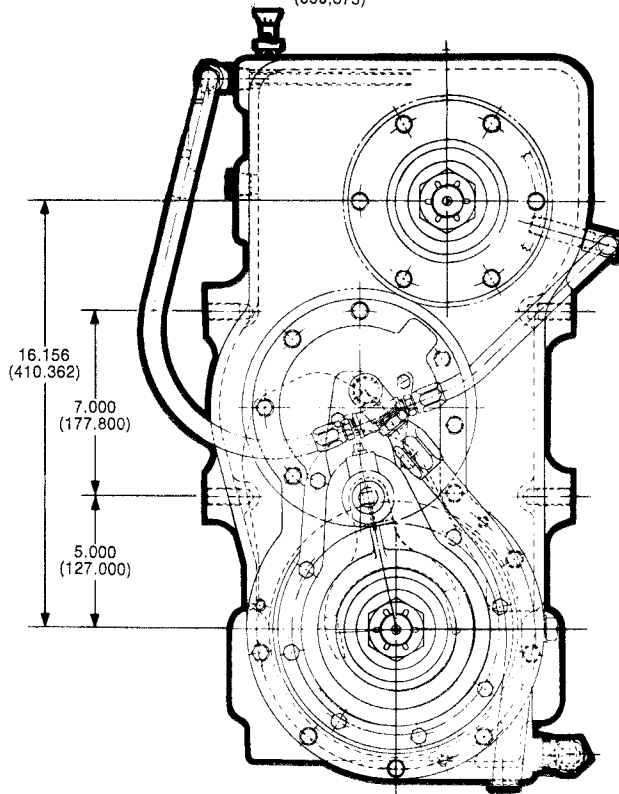
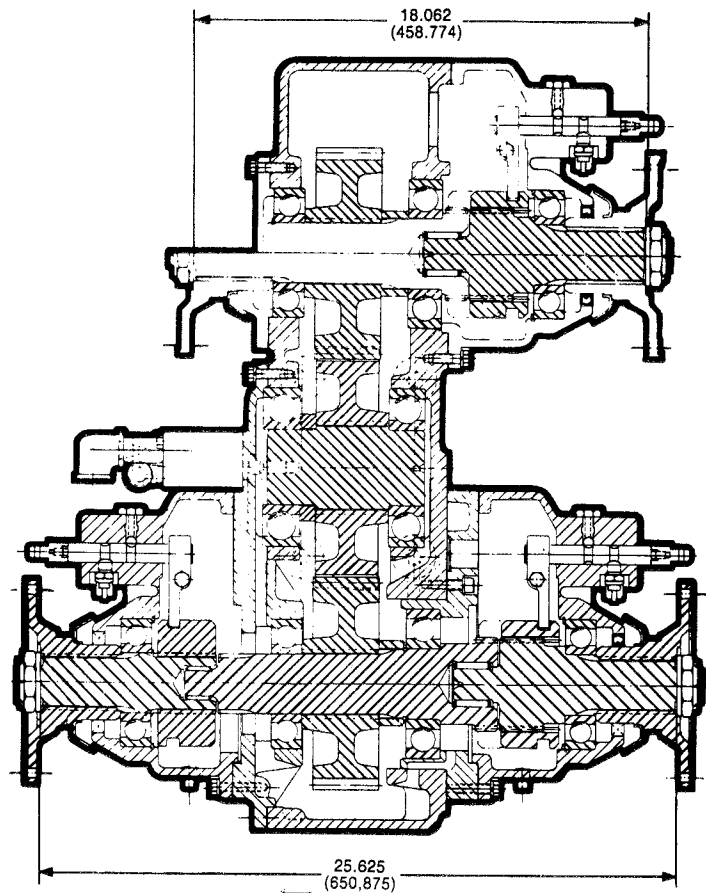
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8 = 6.5-4-1971, 1810 End Yoke
9 = 6.5-4-2831X, 1810 End Yoke with Slinger
X = 5-4-4751X, 1610 End Yoke with Slinger
Y = 6-1-1481, 1710 Series Flange

WEIGHT — 570 lbs.

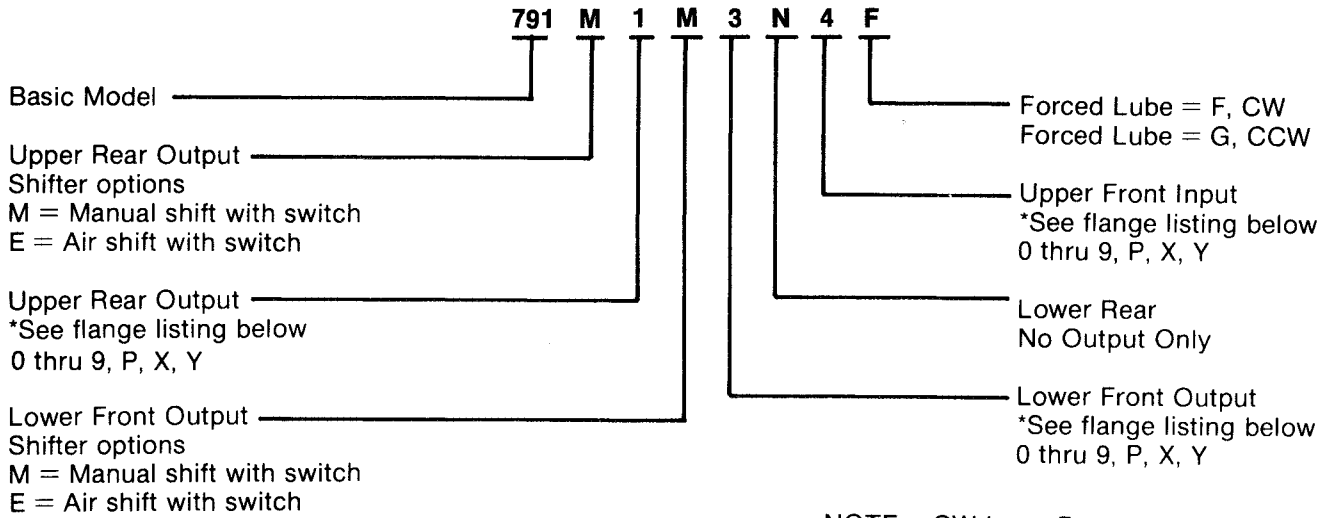




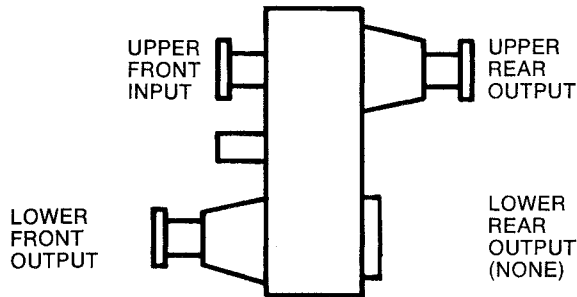
RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F.	SAE 30, 40, or 50	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152 NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Below 0° F.	SAE 30	
Above 0° F.	SAE 90	Straight Mineral Gear Oil - R & O Type
Below 0° F.	SAE 80	

791 MODEL NUMBER CONSTRUCTION — REMOTE MOUNT



NOTE: CW Input Pump = 378889-1 (F)
CCW Input Pump = 378853-1 (G)

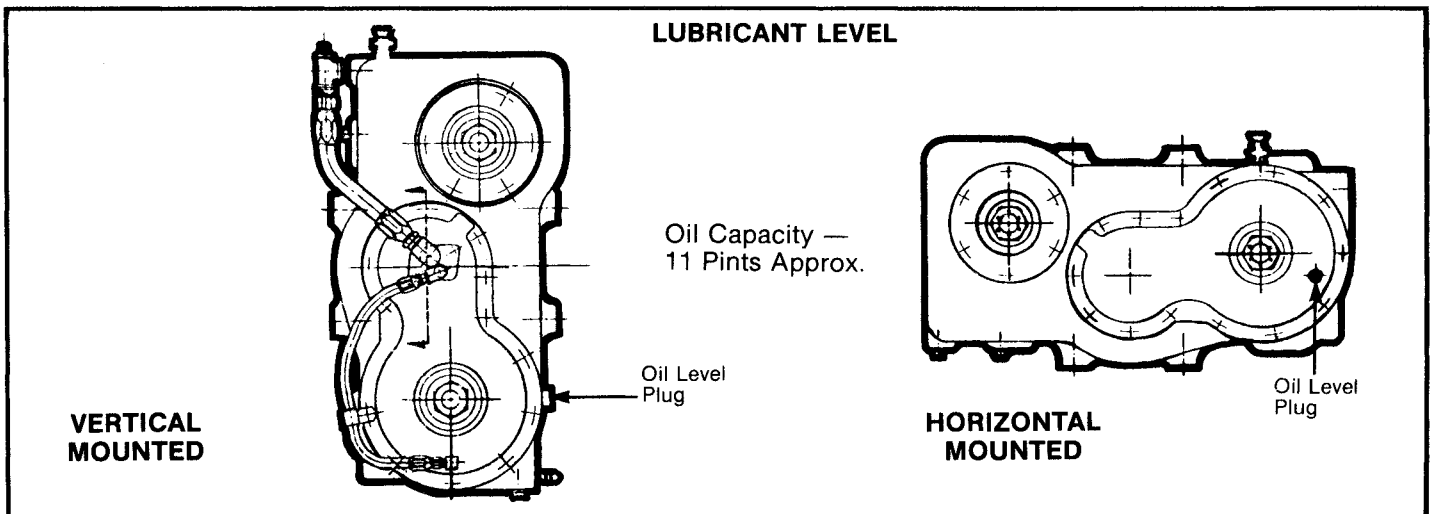


*FLANGE and END YOKE LISTING

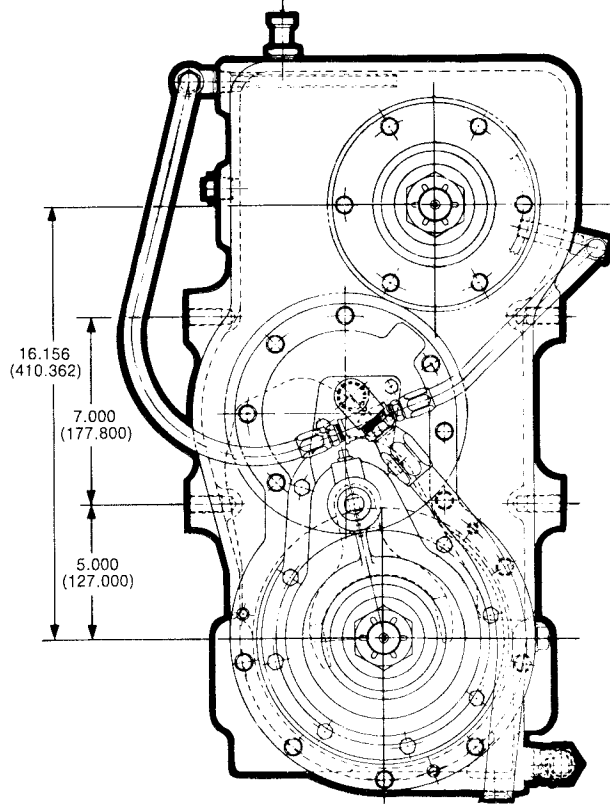
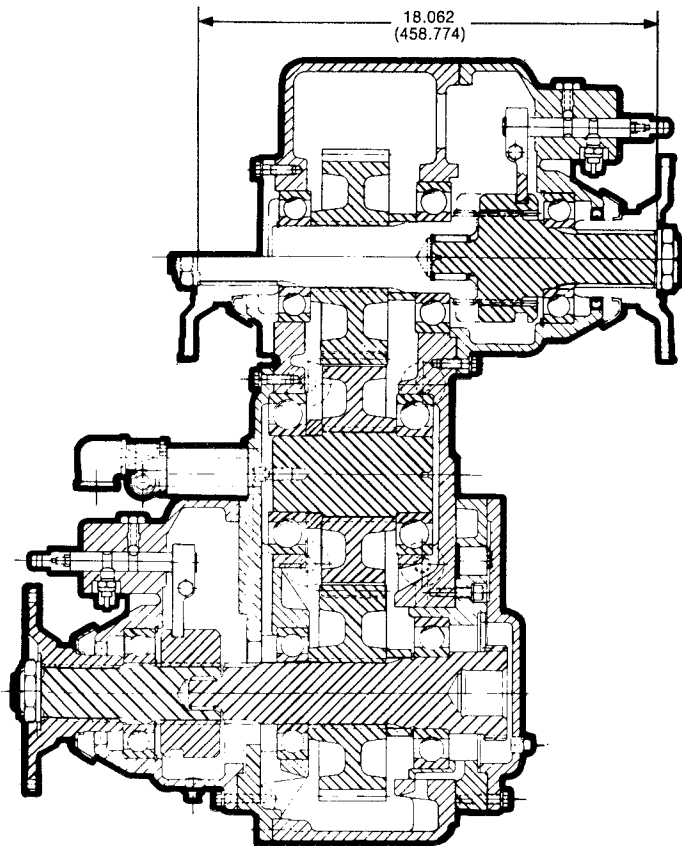
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8 = 6.5-4-1971, 1810 End Yoke
9 = 6.5-4-2831X, 1810 End Yoke with Slinger
X = 5-4-4751X, 1610 End Yoke with Slinger
Y = 6-1-1481, 1710 Series Flange

WEIGHT — 500 lbs.



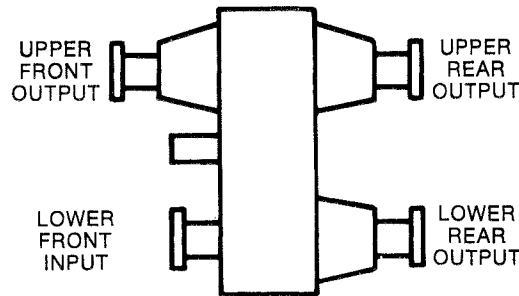
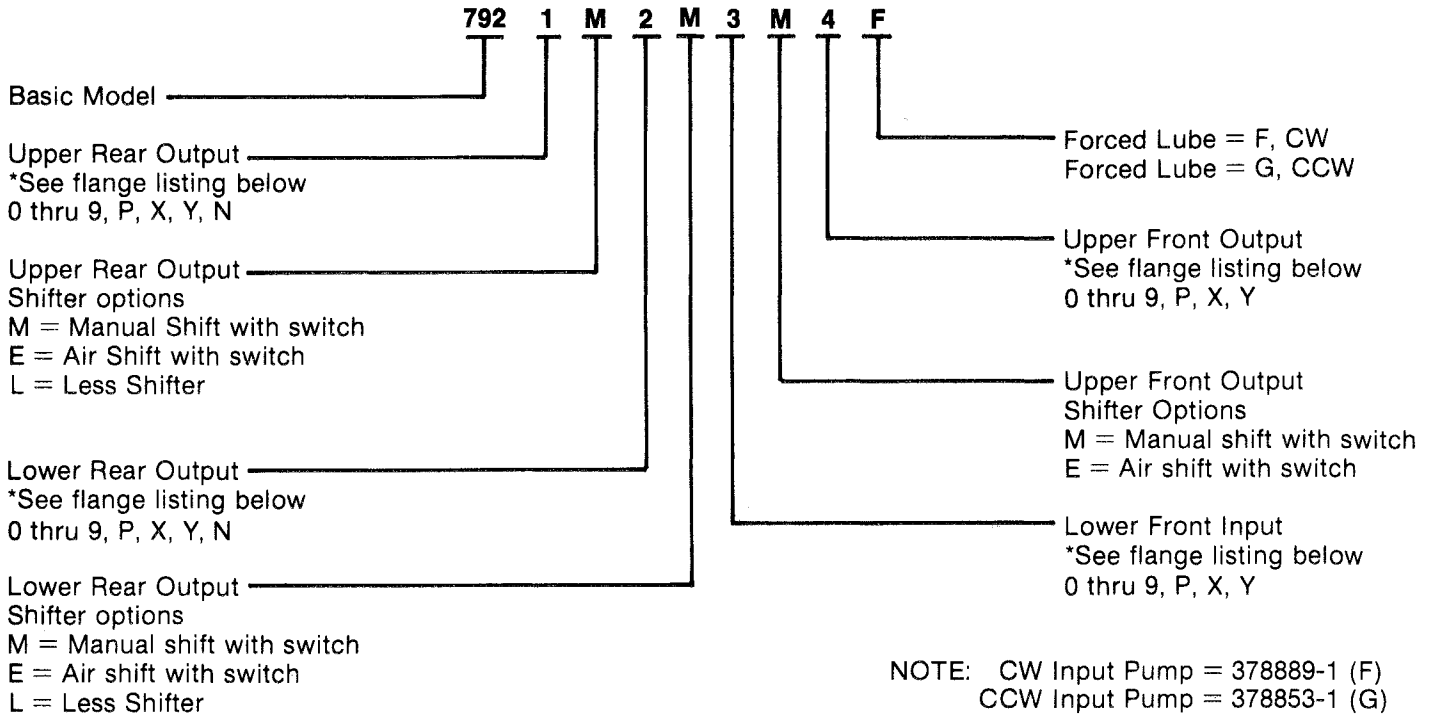
791



RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F.	SAE 30, 40, or 50	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152 NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Below 0° F.	SAE 30	
Above 0° F.	SAE 90	Straight Mineral Gear Oil - R & O Type
Below 0° F.	SAE 80	

792 MODEL NUMBER CONSTRUCTION — REMOTE MOUNT

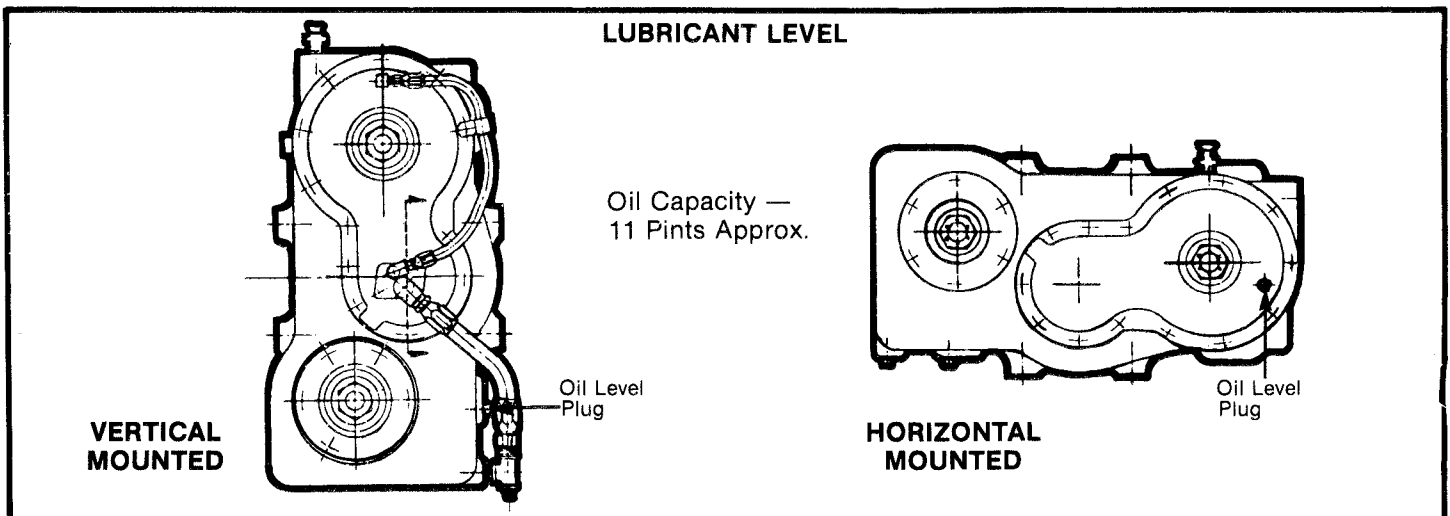


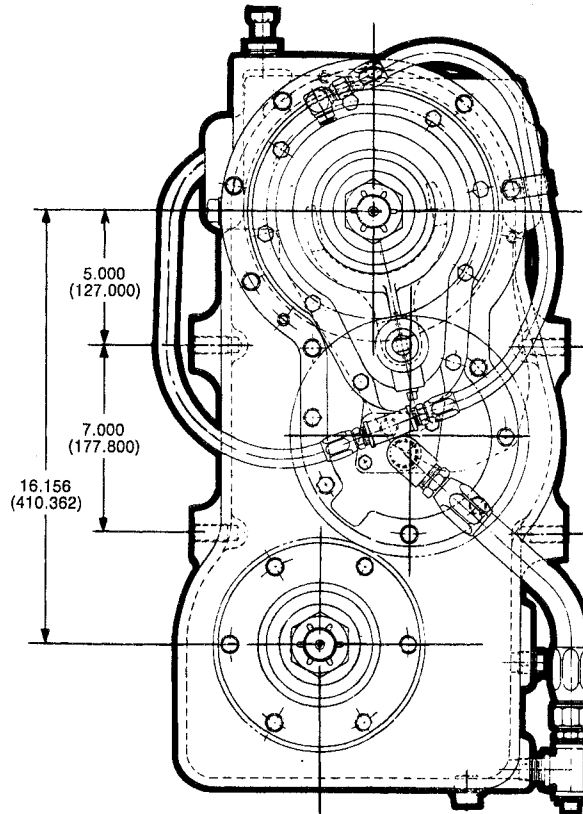
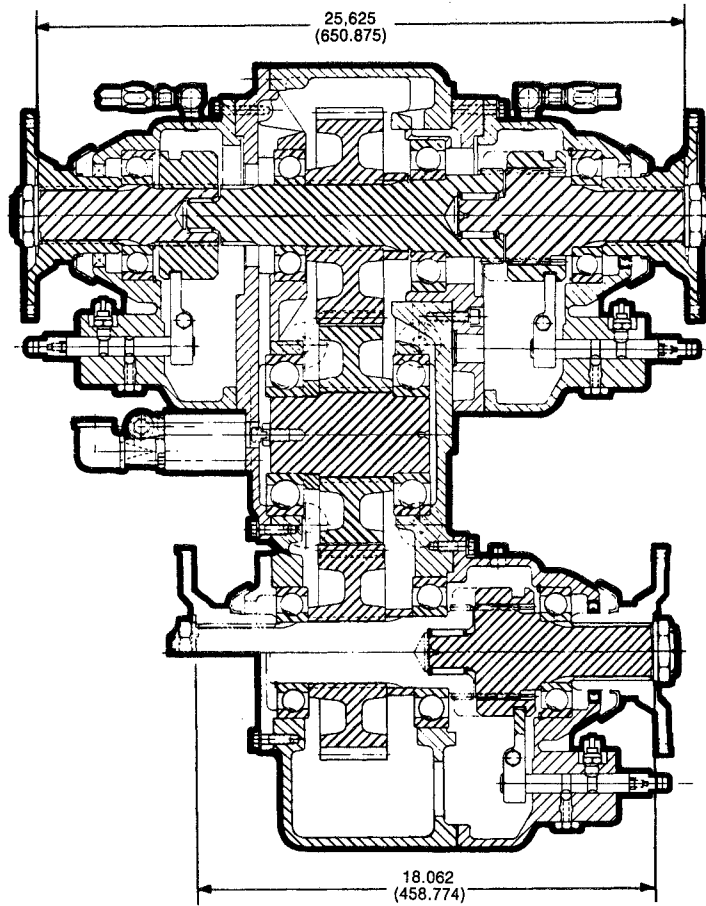
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- 8 = 6.5-4-1971, 1810 End Yoke
- 9 = 6.5-4-2831X, 1810 End Yoke with Slinger
- X = 5-4-4751X, 1610 End Yoke with Slinger
- Y = 6-1-1481, 1710 Series Flange

WEIGHT - 520 lbs.





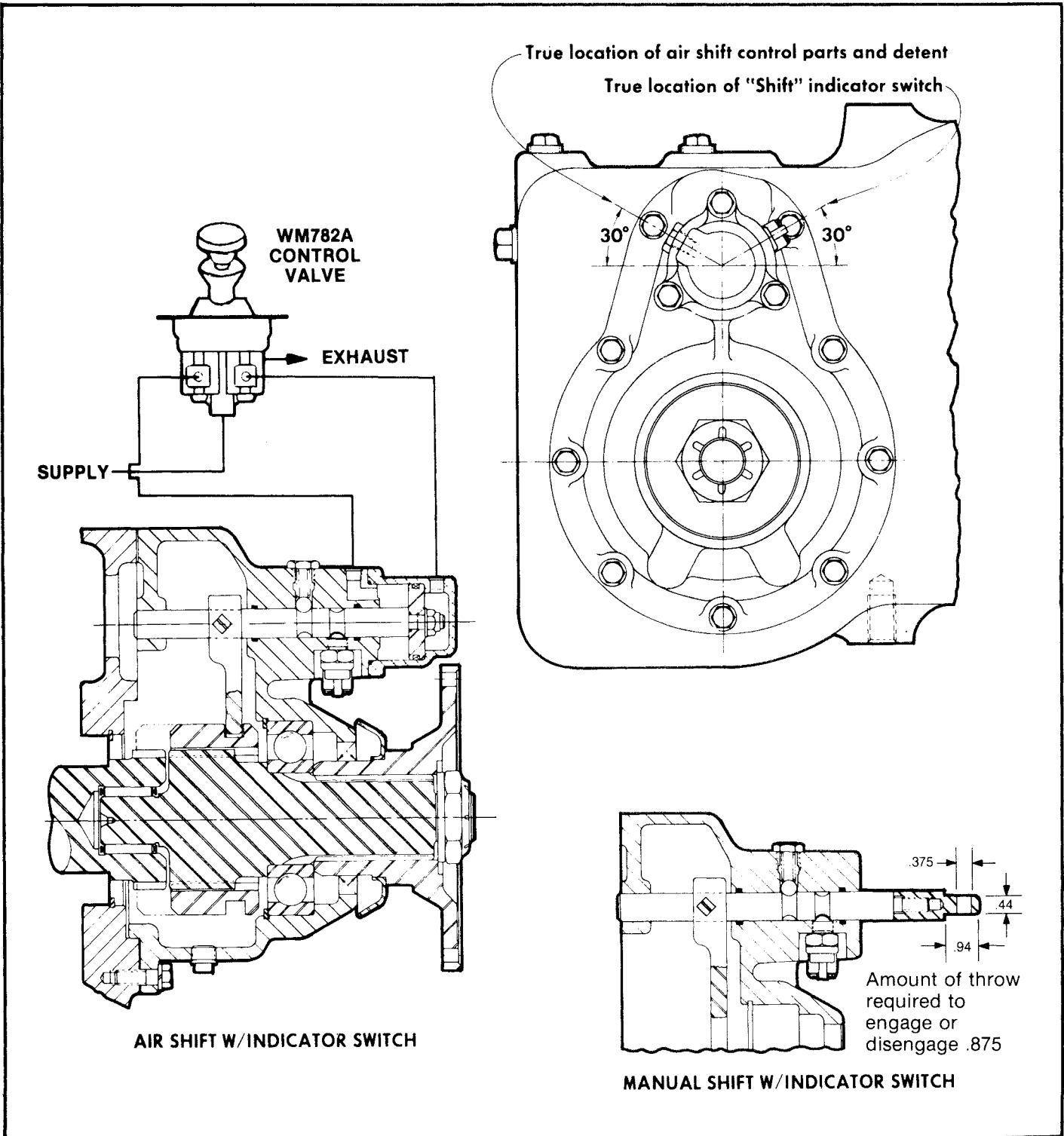
RECOMMENDED LUBRICANTS

TEMPERATURE	GRADE	TYPE
Above 0° F.	SAE 30, 40, or 50	Heavy Duty Engine Oil Meeting MIL-L-2104C or MIL-L-46152 NOTE: Oils Meeting MIL-L-2104B or MIL-L-45199 Are Also Acceptable
Below 0° F.	SAE 30	
Above 0° F.	SAE 90	Straight Mineral Gear Oil - R & O Type
Below 0° F.	SAE 80	

DISCONNECTS FOR SPICER® HEAVY-DUTY TRANSFER CASES

The new disconnect requires air to both engage and disengage the output. A detent is added on the shifter spool to maintain position if air supply is lost. There is also a manual shift option available for this new design with an indicator light switch being standard on both. The line drawings illustrate both options in detail.

The controls inside the cab will need to be a 4-way valve so that air can be supplied to either side of the piston in the disconnect. The indicator light switch needs to be wired from the battery (or another source) to one terminal and also to a light in the cab. The light should be "ON" when the disconnect is engaged. Air pressure to shift is 40 PSI minimum while the manual requires a pull of 125 lbs. at the spool end.

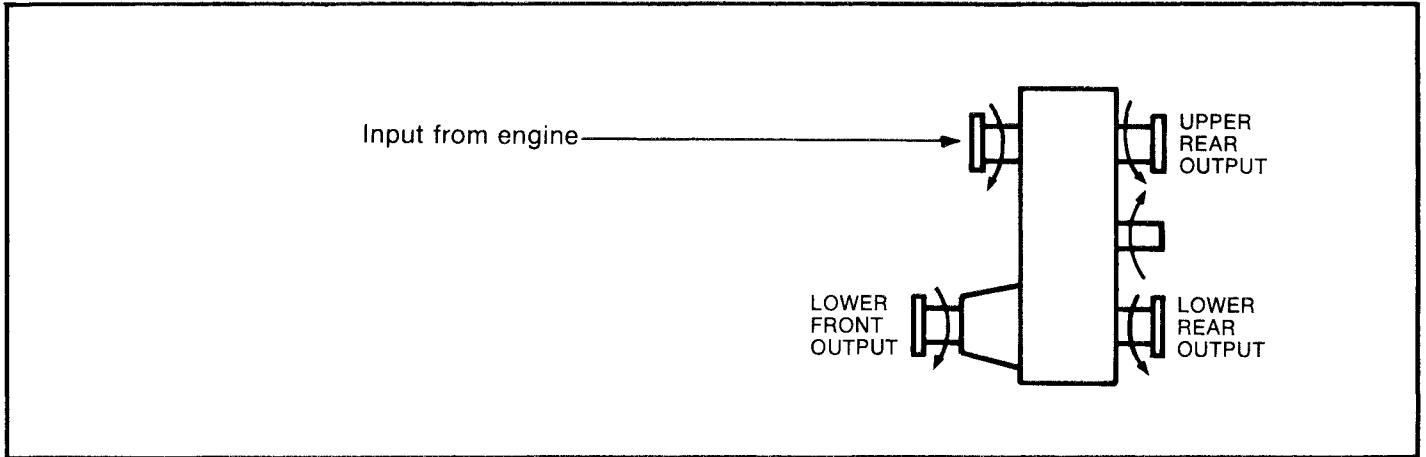


TRANSFER CASE LUBE PUMPS

Spicer Heavy Axle Division will analyze your application requirements to determine proper utilization of transfer case lube pumps.

738 A, B, C, D, or E: OPTIONAL EQUIPMENT

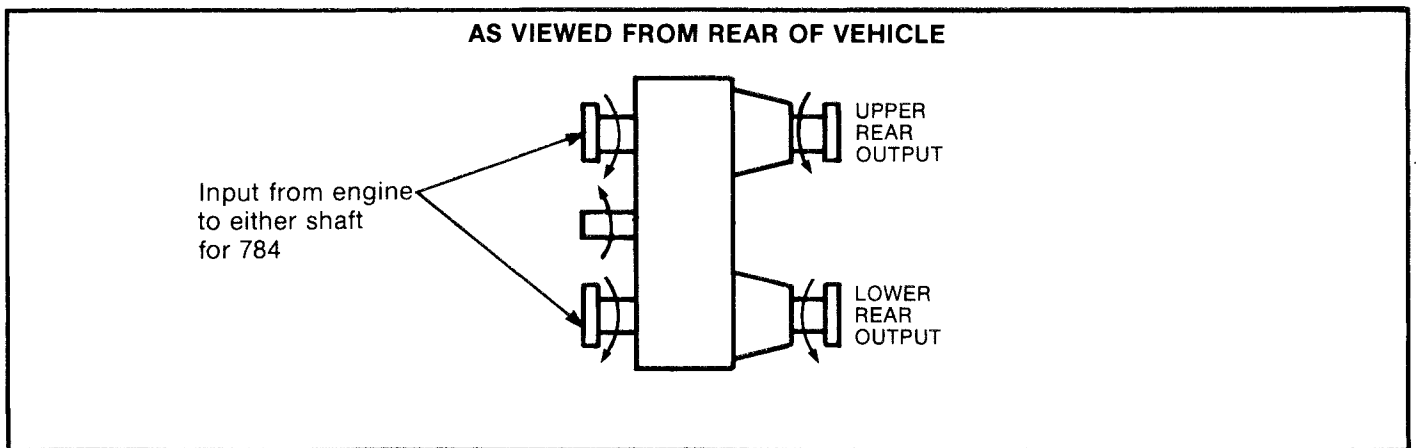
The lube pump is an option on the above transfer cases. When input to the transfer case is less than 1000 RPM (continuous) a lube pump is recommended. Use of a lube pump allows the transfer case to operate at 300 RPM minimum (continuous). Pump rotation is determined by viewing rotation at input shaft of pump.



Transfer cases with a "G" at the end of the model number must have input rotation as shown. (Model 738 A, B, C, D, or E.) Opposite rotation input requires an "F" pump.

784, 785, 791, and 792: STANDARD EQUIPMENT

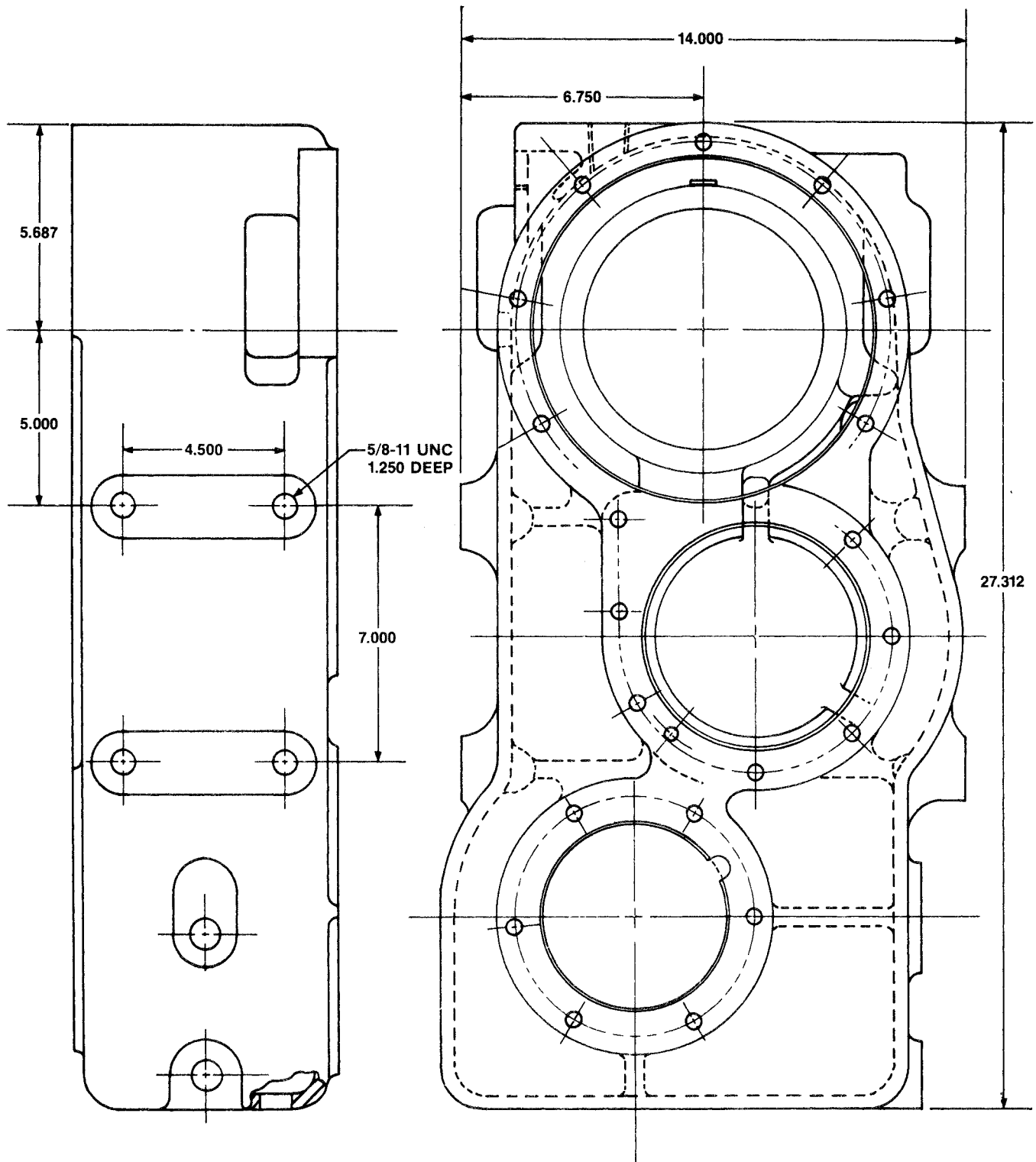
The lube pump is standard equipment on the above models due to their heavy duty use as stationary power-take-offs. The lube pump direction of rotation still must be signified at the end of the model number.



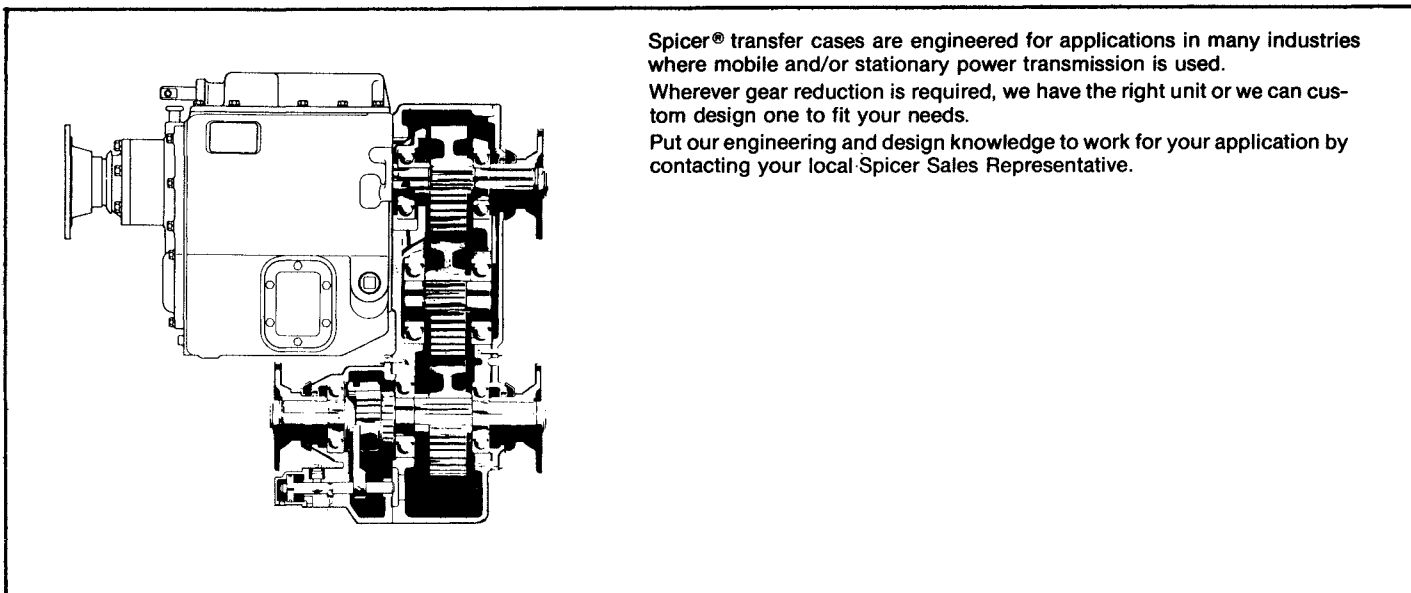
Transfer cases with an "F" at the end of the model number must have input rotation as shown. (Models 784, 785, 791 and 792.)

Opposite rotation input requires a "G" pump.

ORIENTATION OF MOUNTING HOLES TO INPUT AND OUTPUT CENTER LINES FOR TRANSFER CASE



OTHER DRIVES



Spicer® transfer cases are engineered for applications in many industries where mobile and/or stationary power transmission is used. Wherever gear reduction is required, we have the right unit or we can custom design one to fit your needs. Put our engineering and design knowledge to work for your application by contacting your local Spicer Sales Representative.

PERFORMANCE ASSURANCE

Rated torque and speeds of our products are provided in current catalogs to assist the buyer in selecting the proper product. In addition, application assistance is offered by our engineers for guidance to the buyer in selection of a catalog product and for design and application of custom designs. Since the actual performance characteristics of all our products in the buyer's application is the responsibility of the buyer, performance assurance is usually accomplished through manufacture of a prototype by us, and a test or qualification program on the part of the buyer.

HEAVY EQUIPMENT DRIVES WARRANTY

Dana Corporation, Spicer Heavy Axle Division, guarantees all its products will leave the factory in good condition. Dana Corporation warrants its Transfer Cases against defects in workmanship and materials for a period of 180 days or 1500 hours whichever occurs first, from the time (not to exceed two (2) years) the product is placed in service. Adjustments under this warranty will be made only after completion of inspection of the part or product. Our liability under the warranty shall extend only to the replacement or correction of any defective part or product determined by our inspection as not conforming to this warranty. All material must be returned freight prepaid.

This warranty shall not apply to any product which shall have been repaired or altered without our knowledge and consent or operated or installed contrary to our instruction or subjected to misuse, improper maintenance or is damaged by accident or negligence.

THIS WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND THERE ARE NO OTHER WARRANTIES THAT EXTEND BEYOND THIS EXPRESS WARRANTY.

Dana Corporation, Spicer Heavy Axle Division, reserves the right to discontinue models or to change specifications at any time without notice. No discontinuance or change shall create any liability on the part of the Dana Corporation in respect to its products in the hands of its customers or products on order not incorporating such change even though delivered after any such change.

Specifications, descriptions and illustrative material contained herein were as accurate as known at the time this publication was approved for printing. Dana Corporation reserves the right to discontinue models at any time or change specifications or design without notice or without incurring obligation.

DANA CORPORATION
SPICER HEAVY AXLE DIVISION
P.O. Box 2229 • Fort Wayne, Indiana 46801
219-482-8440

For more information, contact:

DANA CORPORATION
SPICER OFF-HIGHWAY
AXLE DIVISION
PO. Box 2424
Fort Wayne, IN 46801
Tel: (219) 481-3174
Fax: (219) 481-3165

APPLICATION POLICY

Capability ratings, features and specifications vary depending upon model, type of application and type of service. Application approvals must be obtained from Spicer. Spicer specifications are subject to change without notice.

SOHAD-H201-12/94-2M