

# Manufacturer's Fluid Specifications

The fluids noted below are recommended by the steering gear manufacturer. Any fluid noted below a specific gear is acceptable provided different oil types are not mixed. Any mixture or unapproved oil can lead to seal deterioration and leaks. Always completely flush the power steering system when replacing a steering gear or pump. Always refer to OEM specifications.

## ROSS MANUAL

### TRW 503 / 504 and GEMMER CAM & LEVER

85 / 140 weight gear oil

90 weight gear oil

## FORD BENDIX

Motorcraft - Marcon

Multi-Purpose ATF XT-2QDX or DDX (ESP-M2C166-H) or equivalent.

## ROSS HF54 and HF64

ATF "E" or "F"

Ford spec. M2C138CJ

ATF Dextron 2

Shell Rotella T .....SAE 30

Mobile .....SAE 10W30

Mobile .....SAE 10W40

Ashland .....SAE 10W40

Union .....SAE 10W40

Texaco.....SAE 10W40

## ROSS HFB52, HFB64 and HFB70

ATF "E" or "F"

Ford spec. M2C138CJ

ATF Dextron 2

Mack EO - K2 Engine oil

Shell Rotella T .....SAE 30

Mobile.....SAE 10W30

Mobile.....SAE 10W40

Ashland.....SAE 10W40

Union.....SAE 10W40

Texaco.....SAE 10W40

Unical Gaurdol.....SAE 15W40

Unical Gaurdol.....SAE 30

Essolube.....SAE 15W40

Chevron.....SAE 15W40

## **ROSS TAS40, TAS55 and TAS65**

ATF "E" or "F"

Ford spec. M2C138CJ

ATF Dextron 2

Mack EO - K2 Engine oil

Shell Rotella T .....	SAE 30
Mobile.....	SAE 10W30
Mobile.....	SAE 10W40
Ashland.....	SAE 10W40
Union.....	SAE 10W40
Texaco.....	SAE 10W40
Unical Gaurdol.....	SAE 15W40
Unical Gaurdol.....	SAE 30
Essolube.....	SAE 15W40
Chevron.....	SAE 15W40

## **ROSS HPS (mechanical section)**

90 weight gear oil

85 / 140 weight gear oil

## **SHEPPARD 292, 392, 492, and 592 series**

10W40 (API SD-SE) motor oil is preferred

## **SHEPPARD M80, M90, M100 and M110**

15W40 motor oil

ATF Dextron 2

GM Power Steering Fluid

Hydraulic fluid of Dextron

## **SAGINAW**

Gas Engines .....Power Steering Fluid only  
Amber or Yellow in color

Diesel Engines..... Power Steering Fluid  
Amber or Yellow in color or Dextron

## **R. H. Sheppard's Oil (Fluid) Specifications for Sheppard Power Steering Gears**

Page 14 of the Sheppard power steering manual on oil specifications states the following:

1. "The lubricant in the power steering system is the medium by which hydraulic pressures are applied and relieved, under control, to effect steering assist."
2. "In addition the lubricant also lubricates moving parts and dissipates heat which reduces efficiency and accelerates wear. It is of the utmost importance to use a lubricant specified and approved by R. H. Sheppard, Co. Inc., in the Sheppard Steering Gear.
3. "The Sheppard Gear requires the use of 10W-40 (AP SD – SE) motor oil. Highway vehicles should have the oil changed twice a year or every 50,000 miles. Off highway vehicles will require more frequent change intervals."
4. "The Series 5 and Series 6 steering gears may be operated with ATF, GM power steering fluid or Dexron. Motor oil is preferred. See Vehicle Manufacturer's Recommendations."

## **BAB Steering Hydraulics, Inc. Oil (Fluid) Specifications for Sheppard Power Steering Gears**

Our 15 + years experience as an aftermarket re-manufacturer has led BAB Steering to recommend **only** the use of 10W-40 (for sub zero conditions) or 15W-40 (normal conditions) motor oil in the early style 292 to 592 series of Sheppard Power Steering Gears. We offer the following explanations:

1. As stated by R. H. Sheppard Co. in #2 above; *"In addition the lubricant also lubricates moving parts and dissipates heat which reduces efficiency and accelerates wear."* BAB Steering Hydraulics, Inc. having remanufactured thousands of Sheppard Steering Gears has determined that motor oil (which is the lubricant preferred by the R. H. Sheppard Co.) extends both the efficiency and the life of the early style Sheppard Steering Gear. This fact is substantiated by the wear that is evident to the spool valve and worm screw areas on steering gears using Dexron, ATF or power steering fluid when compared to gears using the preferred motor oil.

2. Most technicians or parts people for that matter do not know how to identify or find the part number on a steering gear. So asking them to distinguish the series of a steering gear as an option to use Dexron, ATF or power steering fluid only compounds the problem. **NOTE:** The series of a gear is identified by the last number in the part number. For example a 492SEE5 is a Series 5 Sheppard Steering Gear and a 492CDZ4 is a Series 4 Sheppard Steering Gear. Both of these are Transit gears. The problem is the 492CDZ4 must use motor oil and so should the 492SEE5 because it is the preferred lubricant but you could use Dexron, ATF or power steering fluid in the 492SEE5. Keeping it simple reduces the risk of using the incorrect lubricant.
3. In technical terms, the early style Sheppard steering gear has a floating piston. The viscosity of the lubricant helps to center the piston in its housing and also seals one side from the other. Dexron, ATF and power steering fluid doesn't have the correct viscosity and tends to lose its viscosity after a period of time due to heat. The Series 5 and Series 6 Sheppard Steering Gears have plastic o-rings on the piston which help seal and center the piston. We can only assume this is the reason why Sheppard states in number 5 above that both these series of gears **may be** operated with ATF, GM power steering fluid or Dexron. However, Sheppard also states that: **Motor oil is preferred.**

*BAB Steering would like to point out that the wear that is evident to the spool valve and worm screw areas on the Series 4 steering gears is also evident on the Series 5 and Series 6 steering gears when using Dexron, ATF or power steering fluid compared to gears using the preferred motor oil*

4. BAB Steering Hydraulics believes that the manufacturer of the steering gear should dictate the correct lubricant for each of their gears. Allowing the Vehicle Manufacturer to make recommendations only confuses the issue. The Vehicle Manufacturer is not the manufacturer of the steering gear. However, we also believe that, keeping it simple reduces the risk of using the incorrect lubricant, which will reduce the life of the gear.

**Cut-Away of Early Style  
Sheppard Steering Gear**

