



Attn: Dealer Network, Customers and Fleets
Re: Sheppard Steering Gear Recall
Date: November 15, 2022

This notice is to inform our dealer network and customers of a safety recall issued by R.H. Sheppard Co., Inc. that affects a portion of TICO Pro-Spotters. Recently, Sheppard notified TICO and the NHTSA of a condition where a small percentage of steering gears were assembled without the required number of internal recirculating balls. This may cause a bind when loads are applied. In some cases, this may cause an internal fracture of the gear parts, resulting in loss of vehicle steering. This increases the likelihood of a crash. No accidents or injuries involving this affected component have been reported.

In accordance with the NHTSA requirements for safety recall reporting, TICO is releasing a safety recall on a portion of vehicles. The date range of the vehicles build is from June 2021 to March 2021. While we believe only a small number of vehicles are affected, the build date range includes over 500 vehicles. We are requesting dealers inspect steering gears on units, regardless of functionality and submit a case via EDGE notifying us of the serial number. We will then cross reference with Sheppard to determine if it is an affected unit. In the following service bulletin, the Chassis ID of the units will be used to identify units that require inspection.

If the serial number of the inspected gear is NOT affected by the Sheppard recall, no further action is required. TICO will cover inspection time, as provided by Sheppard in their documentation. We will also cover travel up to 1 hour.

If the serial number of the inspected gear IS affected by the Sheppard recall, a steering gear will be sent for replacement. TICO will cover inspection time, as provided by Sheppard in their documentation, as well as replacement time in accordance with Sheppard SRT. We will also cover travel up to 2 hours.

Please see the following documents, to include:

1. TICO Campaign Recall
2. R.H. Sheppard Co., Inc. recall 22E047
3. Identification Guideline Sheppard Steering Gears
4. Affected unit listing by Chassis ID

TICO CAMPAIGN BULLETIN

Date: November 15, 2022
To: Dealer Network, Customers & Fleet Customers
From: TICO Product Support
Contact: Madeline Waite **Phone:** 912-629-1427 **E-mail:** mwaite@ticotracors.com
Subject: Campaign Bulletin 16.48, 16.49, and 16.50 Operations
R.H. Sheppard Co., Inc. Steering Gear recall for affected TICO Pro-Spotters

Action Required: R.H. Sheppard Co., Inc. (Sheppard) has released a recall in accordance with safety requirements from the NHTSA on certain steering gears that may have been delivered and assembled in TICO Pro-Spotters. TICO is requiring the inspection and verification of serial numbers of steering gears that may need to be replaced.

Concern Reported: Sheppard has identified a small number of steering gears that fall within a particular serial number range that may have been manufactured without the correct number of recirculating balls. Affected steering gears may have bind when loads are applied. In worst case scenarios, the internal parts of the gear may fracture, resulting in loss of steering. Loss of steering may increase the likelihood of a crash. To date, Sheppard and TICO have not had any reports of accidents or injuries involving the affected product.

Units Involved:

Equipment Type: TICO Pro-Spotter

Model Year: 2021-2022

Chassis Mfr.: TICO

Body Mfr.: TICO

Quantity: 570 for inspection;
only 16 affected
for replacement

Unit Number Range(s):

Campaign Detail:

TICO is requiring vehicles built within the TICO identified affected date range to be inspected for the Sheppard issue serial number. Once this serial number is given to TICO, via EDGE, we will cross reference with Sheppard and verify if it is an affected gear. If the steering gear falls under the recall, Sheppard and TICO will provide a new replacement gear at no cost to UPS. If the steering gear is not an affected serialized number, no further action is required. See the following Sheppard Identification Guideline for instructions on finding and recording the serial number.

****If during the campaign, we identify the 16 units requiring gear replacement before all trucks have been inspected, you will receive a notice that the campaign has ended. ****

Campaign Control #:	16.48	16.49	16.50
	Sheppard	Sheppard	Sheppard
	Steering	Steering	Steering
	Gear Box	Gear Box	Gear Box
	Campaign	Campaign	Campaign
	(Inspection)	(Replacement)	(Travel)
Labor Hours:	00.30 hours	2.5 hours	Up to 2 hours with prior approval

Parts Information:

Part(s) Cost: \$0.00

Warranty Information:

Warranty: Yes ☒ No ☐

Part 573 Safety Recall Report

22E-047

Manufacturer Name : R.H. SHEPPARD CO., INC.

Submission Date : MAY 28, 2022

NHTSA Recall No. : 22E-047

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : R.H. SHEPPARD CO., INC.

Address : 101 Philadelphia Street

P.O. Box 877 Hanover PA 17331-0877

Company phone : 717-637-3751

Population :

Number of potentially involved : 105,271

Estimated percentage with defect : 1 %

Equipment Information :

Brand / Trade 1 : Sheppard

Model : HD94E

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 01, 2022

Brand / Trade 2 : Sheppard

Model : M100P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 01, 2022

Brand / Trade 3 : Sheppard

Model : M110P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 4 : Sheppard

Model : HD94P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 5 : Sheppard

Model : XD120P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 6 : Sheppard

Model : MD83P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 7 : Sheppard

Model : SD110P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 8 : Sheppard

Model : M83P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 9 : Sheppard

Model : M90P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 01, 2022

Brand / Trade 10 : Sheppard

Model : M80P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Description of Defect :

Description of the Defect : Steering gear was assembled with fewer than the required number of recirculating balls which can lead to a fracture in the steering gear worm-shaft and loss of vehicle steering.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A steering gear with fewer than the required number of recirculating balls may bind when loads are applied. In some cases the balls may align on the same side of the gear's worm-shaft and concentrated loads may cause the gear's internal parts to fracture resulting in loss of vehicle steering. Loss of steering increases the likelihood of a crash.

Description of the Cause : An anomaly in the steering gear recirculating ball insertion operation occurred during assembly. Subsequent rework processes and inspections did not detect the missing recirculating balls.

Identification of Any Warning : Preceding the internal fracture, the steering may be perceived as strained by that can Occur : the driver. No audible or visual warning is available.

Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

2/8/22-Sheppard warranty lab receives a gear built 8/20/2021 with failed worm-shaft. 2/9/22 - warranty lab inspection/disassembly indicates fracture of the worm-shaft and less than the required number of recirculating balls 2/10/22-plant stops production. Additional inspections and process verifications put in place. Clean point is established. Material on hand is inspected and confirmed defect free. Production resumes. (2/10/22 - 5/13/22): review of all warranty from 2015-present indicated no similar failure ever received. engineering tests are performed to understand and to reproduce failure mode. 3/10/2022 - Sheppard contacted vehicle driver for description of event and confirmed no accident or injury, low speed and while backing up. 4/12/22 - Sheppard receives a second gear at incoming shipping facility 5/5/22- Sheppard warranty lab receives/inspects/disassembles the second gear built on 6/26/21 with failed worm-shaft and less than the required number of recirculating balls 5/6/22- The Product Integrity Committee meets for update on the product investigation. 5/13/22 - The Product Integrity Committee meets and recommends submission of a defect report 573

Description of Remedy :

Description of Remedy Program : A remedy program is under development. The 573 will be amended once an inspection and remedy plan has been developed.

How Remedy Component Differs from Recalled Component : NR

Identify How/When Recall Condition was Corrected in Production : On Feb 10, 2022 the recirculating ball insertion process control was enhanced. Additional process controls and inspectors were added to the process to verify that the correct number of recirculating balls in each steering gear.

Recall Schedule :

Description of Recall Schedule : NR

Planned Dealer Notification Date : JUL 15, 2022 - JUL 15, 2022

Planned Owner Notification Date : JUL 15, 2022 - JUL 15, 2022

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name : Daimler Trucks North America

Address : 4555 N. Channel Ave.
Portland OR 97217

Country : US

Company Phone : 503-745-5508

Name : HME, Inc.

Address : 1950 Byron Center Ave.
Wyoming MI 49519

Country : US

Company Phone : 616.534.1463

Name : Kalmar Solutions

Address : 415 E. Dundee
Ottawa KS 66067

Country : US

Company Phone : (785) 248-0776

Name : Kodiak America

Address : PO Box 370
Paul ID 43347

Country : US

Company Phone : NR

Name : Link-Belt Construction Equip.

Address : 2651 Palumbo Dr
Lexington KY 40509

Country : US

Company Phone : (859) 264-6439

Name : Orange EV LLC

Address : 500 NW Business Park Lane
Riverside MO 64150

Country : US

Company Phone : NR

Name : Pierce Manufacturing Inc.

Address : 2600 American Dr.
Appleton WI 54913-2017

Country : US

Company Phone : 920.225.0671

Name : TICO Mfg/Terminal Services

Address : PO Box 1434
Savannah GA 31402

Country : US

Company Phone : 843-536-8139

Name : Crane Carrier Co

Address : 1951 Reiser Avenue S.E.
New Philadelphia OH 44663

Country : US

Company Phone : NR

Name : SUPACAT LTD.

Address : THE AIRFIELD DUNKESWELL
England 00

Country : GB

Company Phone : 1404 892082

Name : Kenworth Truck Co.

Address : 10630 NE 38th Place
Kirkland WA

Country : US

Company Phone : 425-828-5201

Name : Autocar LLC
Address : 551 South Washington St.
Hagerstown IN 47346

Country : US
Company Phone : NR

Name : Capacity of Texas
Address : 401 Capacity Drive
Longview TX 75604

Country : US
Company Phone : NR

Name : JCB Manufacturing Inc.
Address : 2000 Bamford Blvd.
Pooler GA 31322

Country : US
Company Phone : NR

Name : Peterbilt Motors Inc
Address : 3200 Airport Road
Denton TX 31322

Country : US
Company Phone : 940-220-2760

Name : AM General LLC
Address : 105 N. Niles Avenue
South Bend IN 46617

Country : US
Company Phone : NR

Name : Kovatch Mobile Equipment
Address : One Industrial Complex
Nesquehoning PA 18240

Country : US
Company Phone : (570) 669-5581

Name : New Flyer of America
Address : 711 Kernaghan Ave
Winnipeg Manitoba 00 R2C 2T4

Country : CA
Company Phone : NR

Name : Oshkosh Truck Corp.

Address : 2307 Oregon St.
Oshkosh WI 54903

Country : US

Company Phone : NR

Name : Eldorado National Inc

Address : 9670 Galena St.
Riverside CA

Country : US

Company Phone : NR

Name : Emergency One, Inc

Address : 1601 SW 37th Ave
Ocala FL 34474

Country : US

Company Phone : NR

Name : Ferrara Fire Apparatus, Inc.

Address : 27855 James Chapel Road North
Holden LA 70744

Country : US

Company Phone : NR

Name : Global Environmental Products

Address : 5405 Industrial Parkway
San Bernardino CA 92407

Country : US

Company Phone : NR

Name : Grove (Manitowoc) Worldwide

Address : Box 21
Shady Grove PA 17256-0021

Country : US

Company Phone : 717-593-5116

Name : Meritor, Inc

Address : 2135 West Maple Rd
Troy MI 48084

Country : US

Company Phone : 920-424-5307

Name : Mil-Stak, Inc.
Address : 2201 Hwy. 30 w
Fruitland ID 83619

Country : US
Company Phone : 208-452-6045

Name : Tenco, Inc
Address : 1318 Principale
St-Valerien de Milton 00 JOH 2B0

Country : CA
Company Phone : 450-388-1328

Name : Navistar Inc
Address : 2701 Navistar Dr
Lisle IL 60532

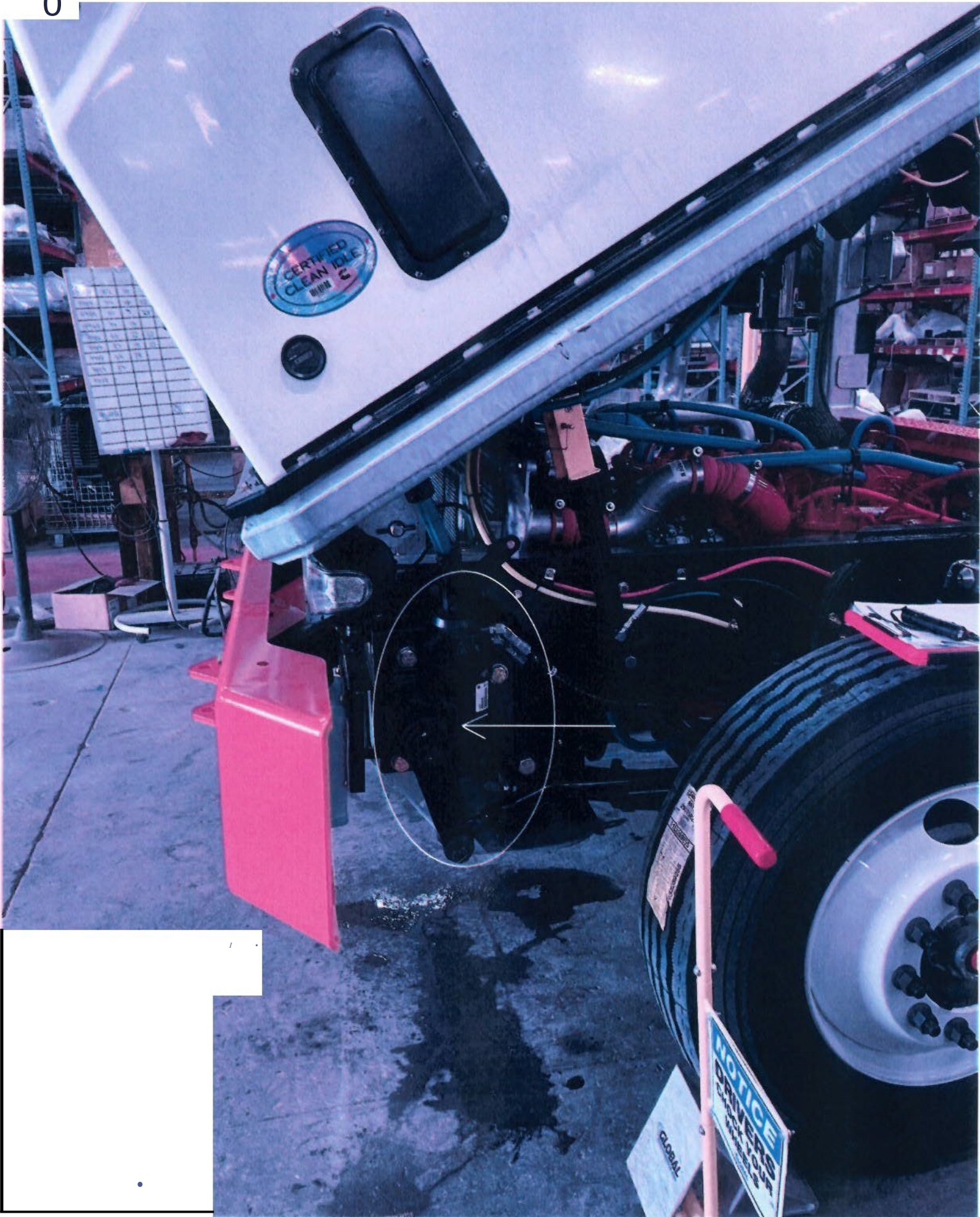
Country : US
Company Phone : 331-332-1590

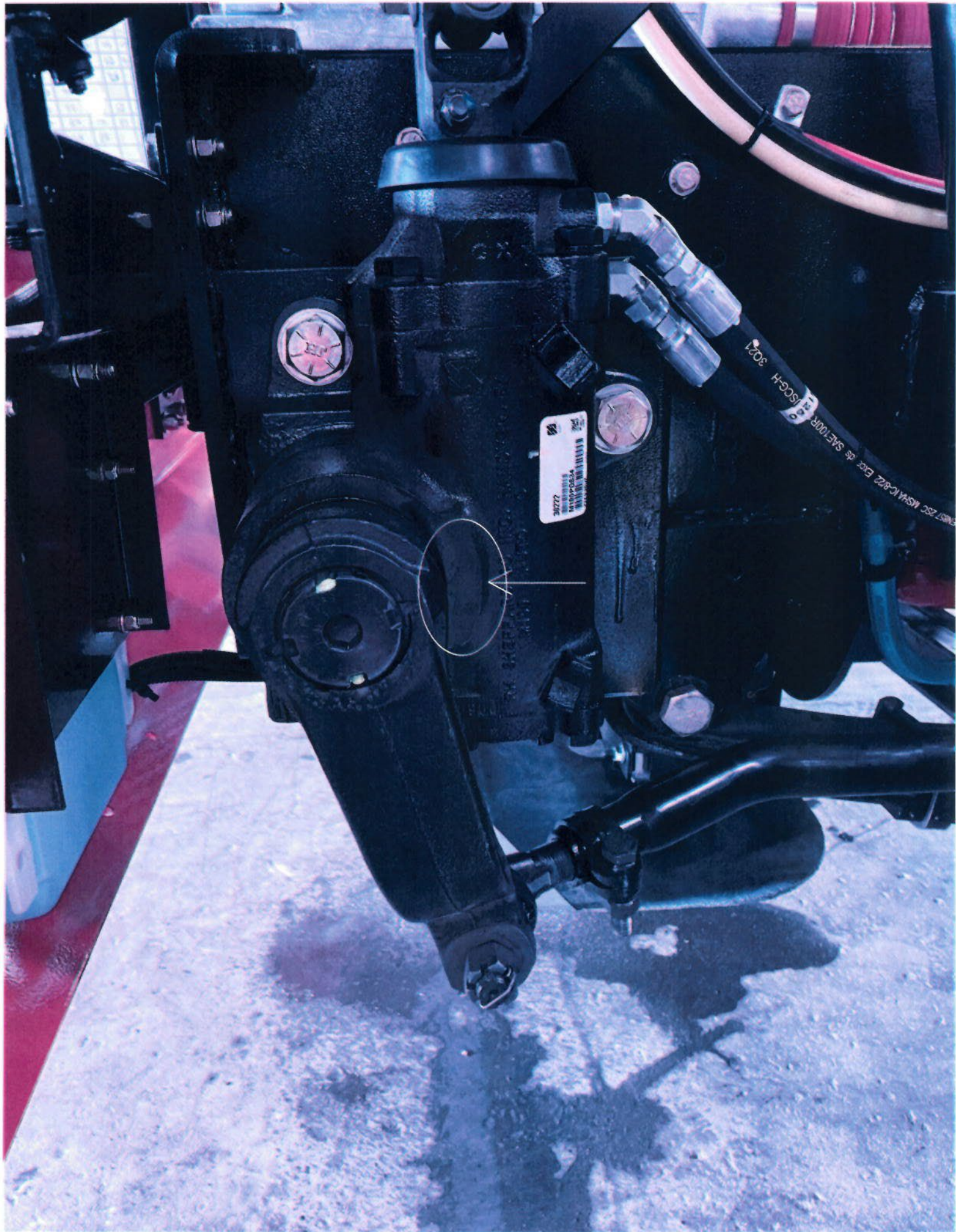
Name : Volvo Trucks North America, Inc
Address : 7900 National Service Road
Greensboro NC 27409-9416

Country : US
Company Phone : 301-573-5972

* NR - Not Reported

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90904

0251012-0

FH SHEPPARD CO. INC., HANOVER
M100 AUTO

30222

M100POS34



Identification Guideline

Sheppard™ Steering Gears

RHS0007

Effective Date: 7/1/22

Identifying Sheppard™ Steering Gears Covered in this Field Action

A potentially defective steering gear can be identified by a serial number and a part number engraved into the steering gear housing. Perform the following procedure to identify the steering gear serial number and part number.

1. Park the vehicle on a flat surface.
2. Set the transmission to park or neutral and set the parking brake.
3. Ensure the vehicle ignition is turned off.
4. Install the wheel chocks.
5. Unlatch and open the hood to access the steering gear.
6. Locate the steering gear serial number and part number.

NOTE: If the serial number or part number cannot be easily read due to paint application, gently scrape the number(s) with a flathead screw driver, wire brush, or emery cloth, or apply acetone. Too much intervention may cause the numbers and letters to be illegible.

There are three common styles of engraving locations to be aware of when locating the serial number and part number. NOTE: If you need assistance with locating or deciphering the steering gear serial number and/or part number, email steering22@rh-sheppard.com. Sending a photograph of the steering gear serial number and part number may be helpful.

Style 1: This style will have the serial number and part number engraved on one line with a space between the part number and serial number. The entire engraving should be centered on the machined surface as shown in *Figure 1*.

Style 2: This style will also have the serial number and part number engraved on one line with a space between the part number and serial number. The only difference is the amount of machined surface given for the engraving. The numbers should be engraved on more of a curve due to the lack of space provided. See *Figure 2*.

Style 3: The serial number and part number should be displayed on one line with a space between the part number and serial number. This style will also have a customer number printed on the housing opposite of the part number and serial number. See *Figure 3*.

7. Record the Vehicle Identification Number (VIN), steering gear serial number, and steering gear part number.
8. Use the URL provided by your vehicle manufacturer to access the Sheppard Steering Gear Classification Tool. This URL is expected to be available after August 1, 2022.

Vehicles with a "Good" steering gear serial number can be returned to service with no further remedy action required. Sheppard will cover the labor involved in the serial number inspection.

Vehicles with a steering gear serial number identified as "Suspect" will require removal and replacement. Sheppard will provide a 1:1 replacement gear (that does not contain the defect), free of charge, manufactured outside the stated dates. Follow the OEM Instructions on recording the VIN, serial number, and part number in order to process a claim.

A "Not Found" serial number indicates circumstances such as a possible character input error by the individual conducting the inspection or some other unique situation. Receipt of a Not Found classification will require you to contact the Sheppard Steering Gear Recall Product Action Center noted at the close of this letter.

9. Keep record of all inspected steering gears and their status outcomes.

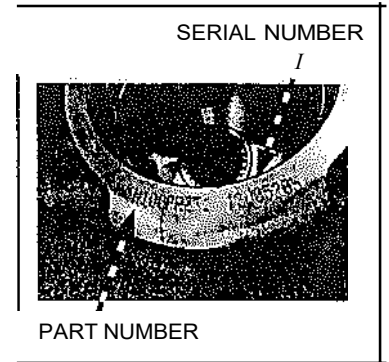


Figure 1 - Style 1

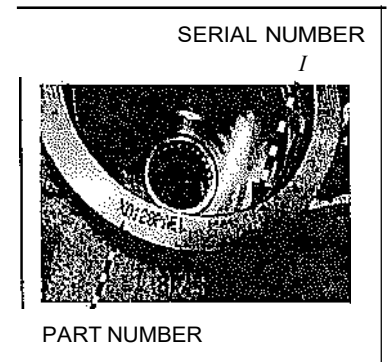


Figure 2 - Style 2

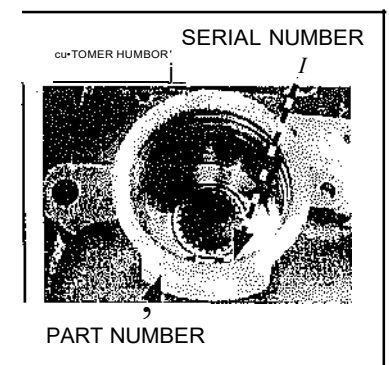


Figure 3 - Style 3

(continued)

)'t/;

_,,Jii" o7

Effective Date: 7/1/22

/. " ,,,

Interpreting the Serial Number and Part Number:

A serial number and part number are engraved into the steering gear housing. See Figure 4 for further information on interpreting the serial number and part number.

SERIAL NUMBER EXAMPLE:

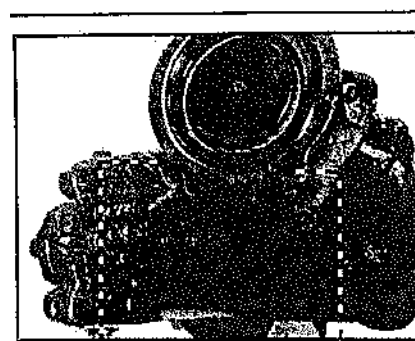
J 21 E 07957 -C

21 represents the year the steering gear was built.

.C indicates the steering gear has a snap ring style sector cover with a retainer clip.

E indicates the month the steering gear was built
(A= January, B = February,
C = March, D=April;
E = May, etc.).

07957 is the sequential serial number for gears built that month.



PART NUMBER EXAMPLE:

\$ D. 11 0 PAU 3

SO slm1ds far-savere duty."
Tt,n first cliaactars or the
p□rt numberrepresent the
sloaring gear family,

110 111dicetes the diameter
of the piston 1nm.

L

3 indicates the steering gear has automatic relief plungers. Other designators are "1" for manual relief plungers and "2" for special applications. An additional number after "3" indicates there is a pitman arm installed on the steering gear.

PAU: The first letter in this sequence will either be "P" to indicate "Power" or "S" to indicate "Slave." "AU" represents the specific model of the M110 steering gear.

PART NUMBER



SERIAL NUMBER



Figure 4- Serial Number and Part Number Interpretation

See Figure 5 for representations of each number (year) and letter (month) for steering gear serial numbers.

ENGRAVED NUMBERS		ENGRAVED LETTERS	
0	!	A-JANUARY	I
1	I	B -FEBRUARY	II
2	I	C-MARCH	I
3	I	D -APRIL	m
4		E -MAY	I
5	00	F-JUNE	I
6	I	G. JULY	
7		H -AUGUST	I
8			
9	m)		
		I - SEPTEMBER	I
		J. OCTOBER	I
		K-NOVEMBER	I
		L-DECEMBER	m
		p" POWER GEAR	I
		R - REMAN. GEAR	
		S - SLAVE GEAR	I

Figure 5 - Engraved Numbers and Letters

(continued)

Unit listing (By Chassis ID)

8637	8685	8756	8822	8869	8952
8638	8686	8757	8823	8870	8953
8640	8687	8758	8824	8871	8954
8641	8688	8759	8825	8872	8955
8642	8689	8760	8826	8873	8956
8643	8690	8761	8827	8874	8962
8644	8691	8762	8828	8875	8963
8645	8692	8763	8829	8876	8964
8646	8693	8764	8830	8877	8965
8647	8694	8765	8831	8878	8966
8648	8695	8766	8832	8879	8969
8649	8696	8767	8833	8880	8970
8650	8697	8768	8834	8881	8971
8651	8698	8778	8835	8882	8972
8652	8723	8779	8836	8883	8973
8653	8724	8780	8837	8884	8974
8654	8725	8781	8838	8885	8975
8655	8726	8782	8840	8886	8976
8657	8727	8783	8841	8887	8992
8658	8728	8784	8842	8888	8993
8659	8729	8785	8843	8889	8994
8660	8730	8786	8844	8890	8995
8661	8731	8787	8845	8891	8996
8662	8732	8788	8846	8892	8997
8663	8733	8789	8847	8893	8999
8664	8734	8790	8848	8894	9000
8665	8735	8791	8849	8895	9001
8666	8736	8792	8850	8896	9002
8667	8737	8793	8851	8897	9003
8668	8739	8794	8852	8898	9006
8669	8740	8795	8853	8899	9007
8670	8741	8796	8854	8900	9008
8671	8742	8797	8855	8929	9009
8672	8743	8798	8856	8930	9010
8673	8744	8799	8857	8931	9012
8674	8745	8800	8858	8932	9013
8675	8746	8801	8859	8933	9017
8676	8747	8802	8860	8934	9018
8677	8748	8803	8861	8935	9019
8678	8749	8814	8862	8937	9022
8679	8750	8815	8863	8940	9023
8680	8751	8816	8864	8941	9024
8681	8752	8817	8865	8942	9027
8682	8753	8818	8866	8943	9028
8683	8754	8819	8867	8944	9029
8684	8755	8820	8868	8945	9030

See Next Page

Chassis ID Listing (cont.)

9031	9081	9170	9259	9312	9381	10321
9032	9082	9171	9260	9313	9382	10322
9033	9083	9172	9261	9314	9393	10323
9034	9084	9173	9262	9315	9394	10324
9035	9085	9174	9263	9321	9395	10325
9036	9086	9175	9264	9322	9396	10326
9037	9087	9176	9265	9323	9397	
9038	9088	9177	9266	9324	9398	
9039	9089	9178	9267	9325	9399	
9040	9090	9179	9268	9326	9400	
9041	9091	9181	9269	9327	9401	
9042	9092	9182	9270	9328	9402	
9043	9113	9183	9271	9329	9403	
9044	9114	9184	9272	9330	9404	
9045	9115	9185	9273	9331	9405	
9046	9119	9186	9274	9332	9406	
9047	9120	9187	9275	9333	9407	
9048	9121	9188	9276	9334	9408	
9049	9122	9189	9277	9346	9409	
9050	9123	9190	9278	9347	9410	
9051	9124	9191	9279	9348	9411	
9052	9125	9192	9280	9349	9412	
9053	9126	9193	9281	9350	9413	
9054	9127	9194	9282	9351	9414	
9055	9128	9195	9283	9352	9415	
9056	9129	9197	9284	9353	9416	
9057	9130	9198	9285	9354	9417	
9058	9131	9199	9286	9355	9418	
9059	9137	9200	9287	9356	9419	
9061	9141	9201	9288	9357	9420	
9063	9142	9202	9289	9358	9421	
9064	9143	9203	9290	9359	9422	
9065	9144	9204	9291	9360	9476	
9066	9145	9205	9292	9361	9477	
9067	9146	9206	9293	9362	9478	
9068	9147	9207	9294	9363	9480	
9069	9148	9208	9295	9364	9481	
9070	9149	9209	9296	9365	9482	
9071	9150	9210	9297	9366	9483	
9072	9161	9211	9298	9367	9484	
9073	9162	9212	9299	9368	9485	
9074	9163	9213	9300	9369	9486	
9075	9164	9214	9301	9370	9487	
9076	9165	9254	9302	9371	9488	
9077	9166	9255	9303	9372	9489	
9078	9167	9256	9309	9373	9490	
9079	9168	9257	9310	9374	10230	
9080	9169	9258	9311	9375	10320	