OPERATION · MAINTENANCE · PARTS

Manual

Thiokol CHEMICAL CORPORATION

T R A C K M A S T E R

Model 4T2 through 4T10

OPERATING AND MAINTENANCE

INSTRUCTION MANUAL

Supplied By

THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

August 15, 1962

Logan, Utah Phone SK 2-2591

THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

January 25, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 1

SUBJECT: Change Interior Paint Color

Effective on machine serial number 178, the interior paint used on the 4T10 model Trackmaster is changed from a light ice blue to the standard Air Force blue enamel. This change was made to give a superior finish, and more resistance to scuffing than was possible with the previously used light colored paint.

The undercoating used beneath the paint is dark in color, and minor scuffing marks immediately showed through and presented a patchy appearance. In addition, the darker enamel is a tougher grade enamel than the light enamel used, and should be more resistant to normal wear and abrasion. All future model 4T10 Trackmasters produced for the Air Force will standardize on the Air Force blue interior.

RWE/nrh

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LOGAN, UTAH

January 25, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 2

SUBJECT: Throttle Linkage Change

Effective on serial number 166, the cable-type throttle is replaced by a rigid steel rod type. The cable running from the bell crank on the accelerator pedal to the bell crank which actuates the carburetor, has now been replaced by a 3/16 diameter steel rod which has universal ball joints on each end. The ball joints are mounted on a 10/32 thread, making length adjustment possible.

This change was accomplished so that in the event of a throttle return spring breakage or if it came unconnected, the operator could close the throttle by putting his toe under the accelerator pedal. In addition, it gives a more positive actuation to the throttle.

Should replacement be required on your present vehicle, the new throttle assembly is interchangeable with the previous cable unit. Ordering this item by the number in your present parts manual, will automatically bring the late model replacement.

RWE/nrh

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LOGAN, UTAH

January 25, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 3

SUBJECT: The Change in Routing of the Brake Cable

Effective on machine number 166, the brake cable has been re-routed so that it does not pass between the steering actuating rods. The cable has been routed out-board of the rods and fixed in place by an adel-type clamp. All future machines will incorporate this change. If it is found that there is interference or rubbing of the brake cable and the steering actuating rods, it is suggested that the mechanic make this change in the field. The change can be made by either disconnecting the cable in the front end, or in the rear end next to the transmission and re-routing the cable out-board from its previous position. Adel clamps are normally available locally at any Air Force installation, or they can be ordered from Thiokol Chemical Corporation.

RWE/nrh

THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

January 25, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 4

SUBJECT: Gasoline Can Holder

Effective on machine number 166, the gasoline can holder as supplied on vehicle serial number 165 and earlier is discontinued. All future machines will be supplied with the standard military-type gasoline can holder. The earlier type commercial holder will no longer be available, and orders for gasoline can holders will automatically be filled with the military-type holder.

RWE/nrh

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LOGAN, UTAH

February 8, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 5

SUBJECT: Use of the Engine and Battery Preheat Systems

Model 4T10 Trackmaster vehicles, as supplied to the Air Force under Contract AF 40(604)-11615, are equipped with a preheating system. This preheating system includes a crankcase oil heater which is thermostatically controlled, a coolant heating system with a positive circulating pump and a thermostatic control, and a battery system with a thermostatic control.

Contained in the compartment under the right front seat is a twenty-five foot (25') electrical cord. Inserting the appropriate plug into the receptacle on the front of the vehicle, and attaching the other end of the cord to a 110-volt power supply, automatically actuates all three preheating systems.

Because all of the heating systems are thermostatically controlled, they can be left on for extended periods, if desired, without fear of overheating. It is recommended, however, that the heating systems not be used more than is necessary to insure easy starting of the vehicle. How long to connect the preheating system prior to starting, of course, depends on the temperature conditions existing in the particular area where the vehicle will be operated. Some experiments by operating and maintenance people in the field can best determine the time required for the particular area.

The system has been tested at -68°F. The vehicle was subjected to this low temperature for a 24-hour period with the heating system connected. Starts of the engine were effected instantly indicating that the heating system can maintain an adequate engine temperature under continuous subjection to this low -68°F temperature. Under normal operation in the intermountain areas of the United States, in temperatures of -15°F to +15°F, four or five hours of preheat would probably bring the engine to a temperature at which normal warm weather starts could be effected.

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THIOKOL CHEMICAL CORPORATION
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LOGAN, UTAH

February 8, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 6

SUBJECT: Setting Track Tension

The tracks on all models of the Trackmaster are set with the track extension tube in its most rearward position or, usually, not to exceed one inch (1") of tube extension.

Track tension is not critical on this vehicle and running the tracks excessively tight will only cut power and consume excessive fuel due to increased rolling resistance. The tracks should only be tightened enough to eliminate excessive jumping or slippage of the track or drive sprockets. Occasional jumping of one tooth between the sprocket and the track is normal in some tight turning conditions, but no jumping of the track should be experienced in normal climbing, sidehilling, and straight run operation.

It is difficult to give an exact setting for track tension because this varies somewhat with the temperature and environment in which the vehicle is operated. As a guide, there should be a slight sag of an inch or so as the track runs over the top of the tires. An indication of overtightening of the tracks can also be determined by observing how the track goes around the front tires after operating the vehicle for a short distance to flex the track and insure equal tension in all areas of the track. The track grousers should not be tight enough to indent into the tire tread on the front wheel. If you are operating the vehicle with tracks so tight that they indent into the front tire, you are wasting fuel and power. CAUTION: Only make this check for tension after driving the vehicle a few hundred yards.

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THIOKOL CHEMICAL CORPORATION
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LOGAN, UTAH

February 8, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 7

SUBJECT: Fuses for Windshield Wipers

Some failure of the American Bosch windshield wiper as supplied on the 4T10 Trackmaster has been evidenced under severe operating conditions. The operator should be sure that the wiper blades are not frozen to the windshield when turning the switch on as this exerts excessive loads on the electric motor and could cause serious overheating.

The wiper electric circuit is normally supplied with a 30 Amp fuse as is recommended by the manufacturer of the wiper motors. It is suggested that this fuse capacity be reduced to 12 Amps. The 12 Amp fuse should be adequate for normal operation. Should this lighter fuse not be of high enough capacity for your operating conditions, go to the next higher rating. These fuses are available from any automotive jobber or from Thiokol Chemical Corporation. A heavy-duty replacement windshield wiper of increased capacity is available, but should only be necessary under the most severe and continuous operation conditions.

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February 8, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 8

SUBJECT: Radiator Coolant

On Page 15 of the Operation Manual, there is a note that straight Ethylene Glycol should not be used as a coolant. This note is included for commercial users of the vehicle. The appropriate mixture, as recommended by the manufacturer of the particular brand of coolant used, should be followed and strict compliance with charts showing recommended mixtures for the appropriate temperatures should be adhered to.

Commercial vehicles, when delivered by Thiokol Chemical Corporation, contain a mixture of two-thirds Ethylene Glycol and one-third water which will protect the engine to -65°F. Vehicles supplied to the Air Force under Contract AF 40(604)-11615 are filled with an Ethylene Glycol base antifreeze solution which meets military specification No. MIL-C-11755. This solution is used straight and is not to be diluted with water as it has been mixed to the proper proportions by the manufacturer of the antifreeze solution to meet the aforementioned military specification.

RWE/ab1

THIOKOL CHEMICAL CORPORATION
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March 27, 1962

ENGINEERING AND MAINTENANCE BULLETIN NO. 9

SUBJECT: Gear Housing Casting - Part Number 0109012

During a somewhat extensive testing program, we experienced a failure of one of the final drive gear housing castings, part number 0109012. This part has been redesigned and the new part furnished on all units delivered under Contract AF 40(604)-11615 from serial number 183 through 239.

Thiokol Chemical Corporation's standard warranty will be extended to cover part number 0109012 for the life of the vehicle on all vehicles from serial number 155 through 182.

BBR/abl

THIOKOL CHEMICAL CORPORATION
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C O N T E N T S

OPERATING AND MAINTENANCE INSTRUCTION MANUAL

PARTS MANUAL

CONTENTS

PARTS MANUAL - (Continued)

WARRANTY CLAUSE

Seller warrants that all material and work covered by this order will conform to the specifications, drawings, symbols, or other description furnished or specified by buyer, and will be of good material and workmanship and free from defect. Seller's responsibility, under this warranty, will be limited to replacing all parts found to be defective within ninety (90) days from date of delivery of said supply.

TRACKMASTER

SECTION I

GENERAL

1-1 GENERAL

1-2 This instruction covers operation, maintenance, adjustment, repair, and replacement instructions, pertaining to the Trackmaster. This is a track-laying type vehicle capable of transporting driver, passengers, or cargo.

1-3 The Trackmaster models are designated as follows:

4T2N	4T4N	4T8N	4T10N
4T2W	4T4W	4T8W	4T10W

A. "4T" designates the particular type of vehicle, with 2, 4, 8, and 10 indicating the number of passengers.

B. "N" designation indicates the narrow frame which provides maximum flotation due to the narrowness of the frame and the wide track which is used.

C. "W" designation indicates a wide frame which is employed where bare ground is generally encountered. This wide frame assists in steering under heavy loads and where rough terrain is encountered, and is equipped with narrow tracks as high flotation is not required.

1-4 The Trackmaster vehicle assembly consists of the following component sub-assembly groups as follows:

Engine Accessories
Clutch
Fuel System
Spring Suspension
Wheel Suspension
Cooling System
Chassis
Cab
Rear Angle Track Drive Assembly
Gear Shift and Speedometer Assembly
Hand Brake Assembly
Electrical System
Drive Shaft
Power Selector Assembly
Engine, Transmission, and Related Parts

1-5 Engine accessories and attachments include the exhaust system and engine mountings.

1-6 The clutch, which controls the engine transmission, is included within this group.

1-7 Wheel suspension system for all wheels is provided through a special patented linkage system. Overload springs may be adapted into the suspension.

1-8 The cooling system uses liquid-type coolant.

1-9 The chassis consists of a welded tubular structure providing minimum weight and maximum support for the cab.

1-10 The cab is principally constructed of 3/4" angle iron with aluminum covering securely riveted. The cab is attached to the chassis by rubber blocks which are mounted at several locations on the chassis.

1-11 The rear angle track drive assembly houses two automotive ring and pinion sets.

1-12 The brake is a transmission mounted drum and contracting band type, operating on the drive shaft behind the transmission and ahead of the power selector assembly.

1-13 The electrical system is a 12-volt system with a direct current, 30 Amp, generator. Some vehicles may be equipped with a 60 Amp direct current generator or a 60 Amp AC alternator.

1-14 The tracks are sprocket-driven, open-center type, each operating over four pneumatic tires and drive sprocket, tandem mounted.

1-15 The drive shaft is Spicer automotive type.

CAUTION

The drive shaft is capable of transferring uniform rate of speed only when properly assembled. With the spline capable of being assembled in many positions, only one will give proper results. A center-line through each of the bearing yokes of the assembled drive shaft, must be in the same plane, or parallel. This is the only position where the drive shaft will operate properly.

1-16 The power selector assembly provides power compensation on turns. Both tracks can have power on turns, with one high and one low speed on each track. The speed on each track can be used alternately or both high and low to give dual ratio to transmission. There are four dry multiple disc clutches, two of which are alternately operative with one of two steering handles.

1-17 Engine and Transmission - The Model B6PF-6001-CF is a 223 cubic inch Ford, 6 cylinder, gasoline, industrial engine rated at 138 maximum horsepower. It has a bore of 3.62 inches, a stroke of 3.6 inches, and a compression ratio of 8.1 to 1. This engine is an ultra-modern, overhead valve, short-stroke design which affords high output with slow piston speeds for greatest durability. The transmission is a Ford, heavy-duty, three-speed, remote head, syncromesh with three forward and one reverse speed.

CAUTION - IMPORTANT NOTICE

Failure has occurred at times as a result of the needle bearing cases of the universal cross not being properly nested in the yoke before the nuts are tightened on the U-bolts. Make certain the snap rings are securely in place on the drive shaft yokes.

TRACKMASTER

SECTION II

OPERATING ROUTINES

2-1 GENERAL

2-2 Operation of the Trackmaster is not based on any set intervals, but as the vehicle is used, the following steps should be taken in sequence through "Transmission Warm-up". The operator should be thoroughly familiarized with all of the following routines and cautions. These are discussed in SECTION III, OPERATING METHODS, and are not discussed in this section.

2-3 ROUTINES

TRACKMASTER

SECTION III

OPERATING METHODS

3-1 GENERAL

3-2 This section contains specified detailed instructions for the operation of the Trackmaster vehicle.

3-3 TOOLS

3-4 A tool kit is supplied for track and tire changing.

3-5 PRE-STARTING CHECKS

3-6 Before starting the engine, the driver should take the following steps and correct any abnormality:

a. Inspect all tires for proper inflation: 28-30 pounds. Under some conditions such as operation in severe muskeg, it may be desirable to increase the tire pressure to as much as 40 psi to reduce the tendency of the track to slip on the sprocket during tight turns.

b. Inspect track belts for tears from previous operation.

c. Examine area beneath vehicle to detect any loss of oil or coolant.

3-7 PRE-STARTING WARM-UP FOR EXTREMELY COLD WEATHER

3-8 If your vehicle is equipped with a Kim Hotstart heater, which operates on a 110 AC current, this should be plugged in sufficiently ahead of starting to heat the engine coolant. Normally four hours is sufficient time to warm the engine prior to starting in zero temperature conditions. In extreme low temperature conditions, i.e. down to a -65°F, it may be necessary to run the preheat system continually. Most users, in these extreme temperatures, leave the system on overnight.

CAUTION

Be sure to disconnect AC power supply cord from Kim Hotstart heater before moving vehicle.

3-9 STARTING AND ENGINE WARM-UP FOR LOW TEMPERATURE CONDITIONS

3-10 The following steps should be accomplished in order:

a. Assume driver's position so that instruments may be readily viewed and controls readily accessible.

b. Make sure the transmission shifting lever is in neutral.

c. Depress clutch pedal.

d. Turn on the master switch (pilot light will go on if switch is working properly).

e. Turn on ignition key.

f. Observe ammeter; discharge should be shown as key is turned on.

g. Observe fuel gauge; it should almost immediately indicate level of fuel in tank.

h. Observe temperature gauge; it should return to cold range.

i. Withdraw choke to full "out" position.

j. Depress foot accelerator down 1/4 to 1/3.

CAUTION

Do not pump foot accelerator; this will flood the carburetor. Should flooding of the engine occur, the engine can be cleared by continually holding the throttle depressed while the starter is operated.

k. Turn ignition key to far right to start engine.

l. Commence depressing choke slowly after first two or three revolutions of engine. When proper density of mixture is reached as the choke is depressed, the engine should fire.

m. After engine starts, depress choke only slightly beyond starting position.

n. Observe oil pressure gauge; it should rise as soon as engine starts.

o. Observe ammeter after engine starts; pointer should move clockwise to show charge.

p. As the engine warms up, continue to depress choke as clutch is slowly released (with transmission still in neutral).

NOTE

This order of starting is particularly effective in cold weather.

q. Allow engine to warm up until the temperature gauge shows some rise.

r. During hot weather, or if the engine has been previously run and is still warm, starting of the vehicle can be accomplished without use of the choke or pumping of the accelerator. Should the engine flood, operate the starter with the foot throttle completely depressed until the engine clears itself and fires.

3-11 PRE-DRIVING CHECKS

3-12 While the engine is warming up, the driver should make the following checks:

a. Make sure the windshield wiper, defroster, heater, and other accessories are all operating. A short check at this time could eliminate inconvenience later while on the trail.

b. Make sure dome light, backup light, and headlights are operating.

3-13 TRANSMISSION WARM-UP

3-14 The following steps should be taken to warm up the transmission:

a. Depress clutch and shift transmission into low or reverse gear.

b. Withdraw steering handles to the halfway position of the stroke or neutral position to release steering clutches in power selector.

c. Accelerate engine and slowly release foot clutch pedal to operate transmission, drive shaft and the gears in the power selector. Continue this process until gears turn freely.

d. Repeat the process for other gears until all gears shift freely.

3-15 DRIVING ROUTINES

3-16 The following steps should be taken to put the vehicle into motion:

a. Pull back steering handles to center or neutral position.

b. Depress clutch and shift into first gear.

c. Move both steering handles forward into high gear or rearward into low gear depending upon the gradient which the vehicle is being started.

d. Release the brake and release the clutch slowly putting the vehicle into forward motion.

CAUTION

Drive slowly until the drive assembly parts are slightly warmed up. In excessively cold weather, a slow speed should be maintained

until tracks, tires, tubes, and lubricants throughout the vehicle have had an opportunity to warm up.

e. To steer tightly to the right, draw right handle fully back and the left handle forward.

f. To steer tightly to the left, draw left handle fully back and the right handle forward.

g. The vehicle is normally run with the steering handles forward in high range. Most turns can be made by simply pulling the desired steering handle to neutral position. If a little power is added while the handle is in neutral, turning will be accomplished easier.

NOTE

In low transmission gear, and both handles fully back, the vehicle will climb any grade where footing can be obtained.

CAUTION

The left arrow on the tachometer dial indicates cruising range. Do not exceed the maximum tachometer reading indicated by the right arrow (this should be set at 3600 R.P.M.). Do not, under any condition, exceed an engine speed of 4000 R.P.M. which is the maximum designed speed for the engine.

CAUTION

During operation, frequent observation of the temperature gauge, oil pressure gauge, generator charge rate, and fuel level should be made by the driver, and correction made of any abnormality.

CAUTION

Operator should never drive with foot resting even lightly on clutch pedal as this causes unnecessary wear on the clutch throwout bearing. The foot should be placed on the clutch only when operation of the clutch is intended.

CAUTION

Although Trackmaster design has eliminated "choke-up" areas where trash, ice, or snow could collect to obstruct track operation, stiff fallen tree stubs should be avoided.

CAUTION

When vehicle is heavily loaded, do not drive rapidly over rough terrain.

CAUTION

Although the Trackmaster moves readily over terrain irregularities, extreme care should be taken to avoid tree stumps or any sharp objects which might puncture the track belting.

3-17 STOPPING

3-18 The vehicle may be stopped by pulling backward on both steering handles and releasing the accelerator. When speed is reduced sufficiently the engine clutch is depressed by the left foot and the foot brake or hand brake will bring the vehicle to rest. The transmission should then be shifted to neutral, the engine clutch released, the hand brake set on and the steering clutches engaged.

NOTE

If vehicle is to remain standing for any length of time in extremely cold weather, the transmission should be shifted to neutral and the hand brake set with the steering handles engaged either forward or backward. If the vehicle is on level ground, it would be well to not apply the parking brake to prevent any possibility of freezing in the "on" position.

3-19 FIELD PARKING

3-20 Since operation of vehicles is often done under the most severe weather conditions, the following recommendations are made for short time or field parking. In less severe weather, these steps may, of course, be omitted.

a. If possible, park in a sheltered spot out of snow-drifting area.

b. If no such sheltered spot is available, park on any available high ground.

c. If no shelter from wind is available, turn back of vehicle toward wind.

d. Set hand brake and engage steering clutches.

e. Leave engine running rather than risk being unable to start it.

f. If for any reason the engine cannot be left running, drain crankcase oil immediately upon stopping so that it can be heated and poured back into the engine to facilitate starting.

g. If the engine cannot be left running, remove battery and keep it warm.

h. Refuel as often as possible to reduce vapor condensation in fuel tank; when the tank is full, condensation is held to a minimum. A small quantity of alcohol or other commercial addative will also assist in preventing icing.

i. Drain condensed water out of gas tank as necessary.

3-21 POST-DRIVING ROUTINES

3-22 When the vehicle is parked under normal weather conditions, or at a base where shelter and PRE-STARTING WARM-UP facilities (Paragraphs 3-9 and 3-10) are available, accomplish the following steps before leaving the driver's seat:

a. Shift transmission into neutral and set the hand brake.

b. Engage steering clutches in either forward or backward.

CAUTION

No brake is applied when steering handles are in neutral even though the parking brake is applied until the steering clutches are engaged.

c. Turn off ignition key.

d. Turn off master cut-off switch.

CAUTION

It is particularly important that the transmission be shifted to neutral in extremely cold weather; otherwise, it may be difficult to obtain neutral for warm-up when the engine is again to be started.

3-23 POWER SELECTOR OPERATING METHODS

3-24 The novel power selector used in the Trackmaster has been especially provided to supply many characteristics of operation not ordinarily available from standard clutch and brake systems.

3-25 As the operator becomes familiar with the performance and operating requirements of the Trackmaster, these special features will become more readily apparent. Some of the pertinent operation advantages are pointed out as follows:

a. Frequently it will be found that after the vehicle has been placed in motion, a higher speed ratio would be adequate to continue the vehicle's travel.

b. With conventional design during the shifting operation from a lower to a higher speed, the vehicle slows down to the point where the motor cannot carry the work of propulsion in the higher speed range. It is then necessary to go back to the lower gear again.

c. The dual speed provided on the Trackmaster makes it possible to start in a low range (handles back) and by pushing the handles forward, a higher gear range is obtained without the necessity of shifting gears. Thus, quick transfer, flying clutch, makes it possible to obtain a higher rate of speed without the delay occasioned by a gear shifting operation.

3-26 Exceptionally heavy clutches are used for the power selector. Unless one of the clutches is held closed and in a slipping position during a sustained turning operation, the operator need have no fear of the use which is required.

3-27 The functions brought about by the steering controls of the power selector are diagramatically shown in the line diagram Figure 8. The handles are indicated in the forward position high range as the operator would sit at the left of the portrayal shown. Alternate positions are indicated by the dotted lines.

3-28 Positions of handles are identified in the following manner:

a. 1 and 6 - low speed clutches locked in engagement.

b. 2 and 7 - low speed clutches in slipping or feathering position.

c. 3 and 8 - neutral.

d. 4 and 9 - high speed clutches in slipping or feathering position.

e. 5 and 10 - high speed clutches locked in engagement.

3-29 Inasmuch as the handles may be used freely by the operator in any desired position, it will be seen that position 1, 6, 5, and 10, provide no slippage of the clutches and that 2, 7, 4, and 9 may be used for gradual or partial clutching operation where the clutches are slipping.

3-30 It will be apparent that if one handle is in position 5 and the other handle being used in position 7 that the low speed clutch would be slipping. This condition of operation occurs on long turns or long winding grades. If the 5 position on one hand is to be used for turning while 7 is engaged on the opposite handle, it is necessary that the handle providing the turning movement at 7 is swung forward at every opportunity to the position except when it is in use. This permits the slipping clutch to be thrown open so that the air can affect appropriate cooling.

3-31 For purposes of further clarification, since a crosswise position of the clutches is used for steering, both the handles should be retained at adjacent locations except when the actual turning requires cross steering.

3-32 For very steep grades, the handles should be in 1 and 6 while the transmission is in low.

a. To steer right, the handle at 6 is released to 7 permitting the right track to lag.

CAUTION

Before attempting extremely steep grades, every new and inexperienced operator should take a few minutes to try out the steering routines so as to become familiar with the best control methods.

NOTE

The operator should study Paragraphs 3-23 to 3-32 and become thoroughly familiar with these sections inasmuch as he will find, when he becomes acquainted with this new vehicle control, and learns to use it properly, that very good results are obtainable on very rough and steep terrain.

TRACKMASTER

SECTION IV

MAINTENANCE ROUTINES

4-1 GENERAL

4-2 This section specifies the maintenance routines and intervals for the Trackmaster vehicles.

4-3 KEY TO FREQUENCY

AN - As Necessary	Y - Once a Year
30D - Every 30 Days	500M - Every 500 Miles
60D - Every 60 Days	1000M - Every 1000 Miles
6MO - Every 6 Months	1500M - Every 1500 Miles
	5000M - Every 5000 Miles

NOTE

The dual division of time and mileage is used because often the engine is left running while the vehicle is standing.

4-4 ROUTINES

Routine	Interval	Reference Paragraph
Servicing		
Gasoline	AN	5-4
Crankcase Oil	AN	5-6
Tires	AN	5-9
Battery	30D	5-11
Coolant	AN	5-13
Lubrication		
Engine	See Table 1	
Distributor	See Table 1	
Oil Filter	See Table 1	
Wheel Adjustment Belts	6MO	5-16 and Table 1
Wheel Bearings	Y	5-16 and Table 1
Transmission	1000M	5-16 and Table 1
Power Selector	30D	5-16 and Table 1
Right Angle Track Drive Assembly	30D	5-16 and Table 1
Drive Shaft Slip Joints	1000M	5-16 and Table 1
Drive Shaft Universal Joints	1000M	5-16 and Table 1
Door and Safety Hatch Hinges and Catches	1000M	5-16 and Table 1

Routine	Interval	Reference Paragraph
Routine Tightening		
Lug Nuts on Wheels	500M	5-18
Jam Nuts on Spring and Linkage System	6M	5-18
Air Filter	AN	5-19

TRACKMASTER

SECTION V

MAINTENANCE METHODS

5-1 GENERAL

5-2 This section describes the operations required to keep the Trackmaster in good working condition.

5-3 SERVICING

5-4 (A) Gasoline

5-5 The Trackmaster vehicle operates best on gasoline of 80-96 octane, i.e. standard grade. Ethel grade gasoline is not necessary.

NOTE

For operation in extremely cold weather, addition to the fuel is recommended of some alcohol compound such as methenol or commercial anti-icing compound to prevent freezing of condensed water in gas tank. Several brands are available.

5-6 (B) Crankcase Oil

5-7 For continued use in cold weather, 10 weight oil should be used (See Table 1). 10 weight oil is correct for below freezing to -20°F. Below this temperature, 5 weight may be used or other special military grade, low temperature oil. In hot weather, 85°F temperature, such as in jungle or desert areas, use 30 weight oil.

5-8 The engine oil level should be checked each time the vehicle is operated and oil added any time the level is below the "add oil" line on the dipstick.

5-9 (C) Tires

5-10 Tire pressure should be kept at approximately 28-30 pounds. It may be desirable under difficult conditions, such as muskeg, to increase the tire pressure to as much as 40 psi. This will prevent slippage of the track on the sprocket during tight turns.

5-11 (D) Battery

5-12 Approximately every 30 days, caps on battery cells should be removed and distilled water added as necessary.

5-13 (E) Coolant

5-14 Ethylene Glycol base antifreeze has proven most effective in Trackmaster vehicles. Concentration will be determined by expected minimum temperatures. Follow the manufacturer's recommendation for Ethylene Glycol mixtures. All vehicles sold to the military organizations contain a permanent type antifreeze pre-mixed and should not be diluted with water. This antifreeze will protect to -65°F. A tag is applied to the radiator indicating the type antifreeze and the degree of protection, when the vehicles leave the factory.

CAUTION

Straight Ethylene Glycol must never be used as it freezes readily and is a poor coolant in warm weather. Never use less than 33% water for even the most severe weather, and use as much water as the weather will permit.

5-15 LUBRICATION

5-16 Lubrication recommendations are given in Table 1 of this section.

5-17 ROUTINE TIGHTENING

5-18 In addition to tightening such things as door catches, seat mounting brackets, and the like, as necessary, the following items should be checked every 30 days and tightened as necessary:

a. Lug nuts on all eight wheels.

b. Fan belt

c. Any other bolts on cab or accessory fastenings.

TABLE 1

LUBRICATION RECOMMENDATIONS

Fig. Ref. No.	No. of Fittings	1,000 Mile Lubrication or as indicated Description	Type of Lubricant Recommended
7	1	ENGINE: In sub-zero temperatures, the engine crankcase should be drained and refilled every 1,000 miles of operation.	SAE 10 Weight
		Under less severe operating temperatures, the oil should be changed every 1,500 miles of operation.	SAE 20 Weight

Fig. Ref. No.	No. of Fittings	1,000 mile Lubrication or as indicated Description	Type of Lubricant Recommended
6	1	DISTRIBUTOR: 6 to 8 drops when engine oil is changed.	SAE 10 Weight
5	1	OIL FILTER: Filter element should be replaced every 1,000 miles of operation. In sub-zero operating temperatures, it may become necessary to replace the element every 750 miles of operation.	Removable Cartridge #B9AE-6714-A (Ford)
4	1	TRANSMISSION: Check oil level frequently by removing filler plug in right side of case. Fill to level of filler plug hole. Drain and refill with fresh oil every 5,000 miles.	SAE 80 or 90 Hypoid Differential Lubricant
3	1	POWER SELECTOR: Check dipstick frequently for sufficient oil. Drain every 2,500 miles.	SAE 80 or 90 Hypoid Differential Lubricant, depending on climate.
1	2	RIGHT ANGLE TRACK DRIVE ASSEMBLY: Check oil frequently by removal of oil level plugs. Drain every 5,000 miles.	SAE 80 or 90 Hypoid Differential Lubricant, depending on climate.
2	6	DRIVE SHAFT UNIVERSAL JOINTS: Zerk fittings to be serviced every 1,000 miles.	Water Repellent Grease Marfax Multipurpose #2 or Equivalent.
11	2	OUTER AXLE BEARING: Zerk fittings to be serviced every 1,000 miles.	Water Repellent Grease Marfax Multipurpose #2 or Equivalent.
12	2	DRIVE SHAFT SLEEVE YOKE: Zerk fittings to be serviced every 1,000 miles.	Water Repellent Grease Marfax Multipurpose #2 or Equivalent.

Fig. Ref. No.	No. of Fittings	1,000 Mile Lubrication or as indicated Description	Type of Lubricant Recommended
		ZERK FITTINGS NOT SHOWN ON DIAGRAM AS FOLLOWS:	
13	1	A. Activating Assembly for Control Racks - Zerk fittings to be serviced every 1,000 miles.	Water Repellent Grease Marfax Multi-purpose #2 or Equivalent.
8	1	B. Shifting Lever Bushing Zerk Fitting at base of shifting lever. Accessible from driver compartment.	Water Repellent Grease Marfax Multi-purpose #2 or Equivalent.
14	1	C. Speedometer Angle Drive Joint (Remove plug and press grease in with finger, then replace plug.)	Small amount of Light Gear Grease
9	2	TRACK ADJUSTMENT BOLTS FOR LOCATING FRONT WHEEL: Lubricate when adjusting track tension.	Water Repellent Grease Marfax Multi-purpose #2 or Equivalent.
10	8	WHEEL BEARINGS: Clean and repack once a year. Lubricate with Zerk fitting (2 strokes) daily when in severe conditions of dust, mud, or water.	Water Repellent Grease Marfax Multi-purpose #2 or Equivalent.

For Lubrication Chart, see section entitled, DRAWING, CHARTS, AND FIGURES.

5-19 AIR FILTER

5-20 The Air Filter is a disposable dry filament type, encased top and bottom. It operates as a side intake filter. Replace at least once each six months and oftener as dust conditions require.

NOTE

In extremely dusty conditions, replacement once each week will be necessary.

NOTE

Operation of engine will choke off if filter becomes too dirty.

TRACKMASTER

SECTION VI

ADJUSTMENT AND REPLACEMENT PROCEDURES

6-1 GENERAL

6-2 This section covers adjustment and replacement procedures for the Trackmaster vehicle. The following items are discussed:

6-3 OCCASIONAL ADJUSTMENTS

6-4 The adjustments described in this sub-section should be made from time to time as needed.

6-5 FAN BELT

6-6 The fan belt which drives the blade, water pump, and generator is a V-type which needs occasional adjustment.

6-7 (A) Procedure

a. Loosen the capscrew which locks the belt adjustment arm to the generator.

b. Loosen the two generator mounting capscrews.

c. Swing the generator outward to tighten the belt.

d. When the belt is adjusted to permit 1/2" deflection with light thumb pressure, retighten the capscrew on the adjustment arm.

e. Retighten the two generator mounting capscrews.

6-8 CLUTCH (ENGINE ENGAGING)

6-9 The wear of the clutch disc makes necessary periodical adjustment of the clutch pedal to connecting link.

a. Adjust clevis and cone nut to position the clutch pedal.

b. Be sure to replace spring for holding throwout arm open.

NOTE

When properly adjusted, the pedal will be returned by spring and held against the bumper above the foot plate and arm. The pedal should have a free travel of approximately 1" before it commences disengaging the clutch.

6-10 CHOKE CONTROL CABLE

6-11 The choke cable should be checked occasionally to insure that when the choke button is fully depressed, the butterfly in the carburetor is wide open.

6-12 (A) Procedure

a. Make sure choke handle is fully depressed.

b. Remove carburetor air horn elbow to expose choke butterfly.

c. Loosen at carburetor the clamp on the choke wire shield.

d. Adjust choke wire shield to enable the choke wire to fully open choke butterfly.

e. Retighten choke wire shield clamp and withdraw choke button to make sure butterfly is completely closed when choke is fully withdrawn, adjusting as necessary.

f. Depress choke button to insure that butterfly is fully open, adjusting as necessary.

g. Replace carburetor air horn elbow.

6-13 RADIATOR

6-14 A space of 5/8" should be maintained between the fan blades and the radiator. A greater space results in loss of cooling efficiency; a smaller one may cause the fan blades to bump the radiator. Adjust as

necessary. Adjustment may be made by inserting a shim-washer between the radiator flanges and the mounting surface of the radiator brackets. In addition, a slight adjustment can be made at the threaded portion of the radiator braces.

6-15 HAND BRAKE

6-16 The hand brake may need to be adjusted periodically to insure that when the lever is pulled downward, the brake will be tight, and that when the lever is fully upward, the band and lining does not drag or ride on the drum. Occasionally, it may be necessary to readjust the band on the drum. Make sure that the side bolt which carries the band on the operating side of the brake drum is sufficiently tight to carry the band in such a way that it does not ride the top portion of the drum. The nut on the bottom of the tangent bolt may be tightened to insure that the range of the handle is sufficient to put appropriate tension on the brake band as required.

6-17 The knob on the end of the handle should be tightened only sufficiently to yield the proper amount of brake as the handle locks into the top position. It will be found that only a small amount of pressure is required and the cable length running to the handle is easily adjusted with the knob in the end of the handle.

6-18 TRACKS

6-19 The tension of the tracks will require an occasional adjustment to insure that sprockets do not slip, and the tracks fail to stay in engagement with the drive sprocket and wheels.

CAUTION

Never tighten the tracks more than is necessary to avoid slippage of the drive sprockets. The tighter the tracks, the more wear and abuse they sustain. When the tracks are properly adjusted, they will sag very slightly between the adjacent tires. The only time it has been found necessary to run the tracks with more tension than described above is in severe terrain where muskeg, rocks, and stumps are encountered during turning operations. In these conditions, the tracks should be tightened so there is little or no slack of the track between tires and a slight impression is made into the front tires by the track cleats. After tightening the tracks, the vehicle should be driven a short distance. If one track is tighter than the other, the vehicle will tend to drift or slightly turn to the side having the tighter track. Checking the track tension by driving a short distance after tightening will improve directional stability of the vehicle and make it more pleasant to drive on long trips.

NOTE

For long, cross-country runs where a minimum of turning and maneuvering is expected, a saving in gasoline and a relief from track abuse can be

gained by adjusting the track more loosely than would be required for ordinary yard use, deep snow or short-range trips.

6-20 (A) Procedure

CAUTION

The Trackmaster should not be loaded while track adjustment is being made.

a. Lubricate adjustment screw through the grease fitting.

b. Loosen nuts on capscrews.

c. Tighten or loosen adjustment screw.

NOTE

Turning adjustment screw counter clockwise moves the sliding member outward, carrying with it the front wheel axle, and since the wheel is carried on the front wheel axle, belt tension is tightened. Turning the adjustment screw clockwise loosens the track.

d. When the track is at the desired tension, with the adjustment screw firm against the back of the sliding member, tighten the tangent sleeve with nuts on capscrews.

6-21 TRACK REPAIRS (See also Paragraph 6-116 to 6-120)

6-22 Occasionally the track belting will become torn or a cleat will be broken and repairs will be required to restore operation. These problems are met in the following manner:

a. If tracks are torn, repairs are made by first removing track from vehicle. Figure 9 portrays a pictorial drawing which gives dimensions and methods of cutting and preparing the belting for lacing.

b. The clearance spacing set up is 5/8 total distance to compensate for the section which is taken up by the belt lacing. Any number of sections may be replaced by cutting between the cleats on either side of the damaged section so that the old section can be replaced with new belting.

c. The alligator lacings are installed as shown in Figure 10 by placing a bar or other reinforcement underneath the lacing and by pounding the loops of lacing through the belt.

CAUTION

Care should be taken to make certain that the spacer pin at A Figure 10 has been properly inserted, otherwise the pounding operation will tighten the loops until the pins cannot be inserted.

d. To replace a tire guide, it is necessary to remove the capscrews of the broken tire guide and the capscrews of the tire guide on each side of the one to be replaced. This will permit the adjacent tire guides to be slid endwise of the belting, thus affording sufficient room to insert the new cleat. Reposition and replace all bolts.

6-23 REAR ANGLE TRACK DRIVE ASSEMBLY

6-24 In maintaining the rear angle track drive assembly, as shown on Drawing 4T9-4, it would not ordinarily be necessary to disassemble this unit but rather to drain it and refill it with new oil. A check can easily be made, however, of the condition of the assembly by checking the back lash in the gears. This can be done by disconnecting the drive shaft and grasping the end yoke 14 and twisting it back and forth to determine the play in the teeth. It should not be less than .003 and not more than .010 between the teeth of the ring gear and pinion.

6-25 If the back lash is proven to be satisfactory and the unit is still to be taken apart, special care should be taken to see that all shims and retainers are identified as they are removed for exact replacement.

6-26 DISASSEMBLY

6-27 Disassembly of rear angle track drive assembly from vehicle will be accomplished in the following manner.

6-28 Remove tracks from sprockets.

6-29 Disconnect U-Joint from Item #55.

6-30 Disconnect anchor bar, Item 1, from frame mounting.

6-31 Remove sprockets, Item #39, from track drive axles, Items #23 and #24.

6-32 Disconnect track drive mounting rings, Item #31, from frame.

6-33 Remove assembly from vehicle.

6-34 Remove ring gear housing connecting tube, Item #9, from between right and left track drive assemblies. (This leaves two sub-assemblies, 1 right and 1 left, as shown in Figure 7.)

6-35 Considerable difficulty has been experienced in having this rear angle track drive repaired in the field.

6-36 The parts book itemizes all of the parts which belong to the sub-assembly of Group 9 and are listed as 9L and 9R in the parts book.

6-37 A cut from the parts book is shown as Figure 7 indicating the sub-assembly which should be carried in stock and ordered separately as a complete unit or exchanged at the factory for replacement.

6-38 This is recommended because of the extreme difficulty in getting absolute fit on adjustment of the ring gear and pinion.

6-39 The special instructions, however, found in the preceding pages of this section, if carefully followed, should bring about proper results.

6-40 Remove track drive mounting ring, Item #31, together with seals, bearings and sleeves from track drive axle.

6-41 Remove capscrews, Item #18, from ring gear and pinion housing, #14, and lift off bearing carrier flange, Item #48.

6-42 Remove axle from ring gear and pinion housing, Item #14.

6-43 Remove capscrews, Item #22, from ring gear and pinion housing, Item #14.

6-44 Use jack screws in flange of Item #52 for removing pinion assembly from ring gear and pinion housing, Item #14.

6-45 Remove pinion, seals, sleeves, shims and bearings from pinion mounting, Item #52.

6-46 The pinion bearings and the ring gear and their mounting bearings are pre-loaded at the time of original assembly. The preferred method of procedure in setting up the ring gear and pinion would be to assemble the axle 23 or 24 on the housing 14 and adjust the plate 47 and 12 so that a slight load could be observed on bearings 10 by rotating axle 23 or 24 when the capscrews 22 and 11 are tight. Shims 13 are provided to bring about the proper adjustment.

6-47 The pinion may then be inserted into the case and the back lash slowly checked as the plates come to place on the housing. This will determine whether or not the ring gear should be adjusted into the pinion or away from the pinion, in accordance with the clearance above mentioned.

6-48 It should be observed that two dimensions are shown on the drawing--5.406 and 5.411. This difference is represented by a .005 gasket 7. All measurements of the pinion location in the pinion housing should be made with the gasket in place, as shown in Figure 3.

6-49 With reference to the Drawing 4T9-4, it will be noted that the measurement of the distance that the pinion should be inserted in the housing is indicated as dimension 2.786. It will also be noted that another dimension is given, 2.625, which indicates the position the end of the pinion should assume with regard to the center line of the ring gear mounting axle. On the end of each of the pinions will be found an etched symbol similar to that of the ring gear. The ring gear and pinion are matched sets and should not be used otherwise. Etched on the end of the pinion will be found a decimal plus a minus the amount which the particular pinion, when properly positioned, alters from the standard of 2.625. Therefore, if the pinion should be marked with a plus .002, then the distance indicated on the drawing 2.625 should be converted to read 2.627. Since the dimension 2.786 presumes absolute accuracy, then the variation etched on the end of the pinion will need to be taken into account in connection with determining the proper distance shown in Figure 3.

6-50 Before attempting to take the measurement shown in Figure 3, the pinion should be mounted in its housing 52 with the nut 56 tightened firmly against the assembly including the sleeve 51 and shims 50 as required for operation. When the nut 56 is securely tightened, a slight pre-load should be found on bearings 53 and 49. Shim 6 is for pinion protrusion through the pinion housing 52. This is 2.781 as shown on Drawing 4T9-4 before correction.

6-51 A .005 gasket is maintained to be placed between the pinion mounting flange and the housing. (All measurements should be taken with this gasket in place.)

6-52 To correct for any variations, proceed as follows:

a. Step 1 - If housings are stamped plus, add the amount to 5.411; if stamped minus, subtract it from 5.411 to obtain the correct measurement. This tolerance will be found marked on the housing where the flange 48 and the flange on housing 52 are closest.

b. Step 2 - A plus on the pinion enlarges the 2.625 dimension and a minus reduces the 2.625. Determine the new value of the correct measurement.

c. Step 3 - Subtract result of Step 2 from the result of Step 1 and the new result will be the corrected 2.786 dimension for any given assembly.

6-53 Install the pinion securely into position and adjust the back last by shifting shims 13 from one side to the other, making sure to retain the same quantity of shims and retain the pre-load adjustment.

6-54 ASSEMBLY

6-55 Place inner protective collar, Item #44, drawing #4T9-4, over axle and beyond the shoulder from one to two inches, being followed with seal #50313, Item #26.

6-56 Install bearing cups #362-A, Item #27, and bearing cup spacer, Item #36, in mounting ring, Item #31, by placing in the correct position as shown on Drawing #4T9-4A. Insert bearing cone #369-S, Item #27, and bearing cone spacer, Item #29, in mounting ring, Item #31 as a mock-up assembly, making sure that pressure is applied against the cone on both sides to determine the possibility of a pre-load on bearings. If a pre-load is found in bearings, insert shims between bearing cone #369-S, Item #27, and bearing cone spacer, Item #29.

6-57 Place mounting ring, containing bearing, cone, bearing cone spacer, bearing cup, and bearing cup spacer over axle, making sure that smaller inside diameter of mounting ring, Item #31, is placed toward center of vehicle.

6-58 Seal #50313, Item #26, is inserted into mounting ring as shown on Drawing #4T9-4, with inner protective collar being located within .010 of the face of the seal. Secure inner protective collar with setscrew provided, Item #25.

6-59 Insert retaining ring spacer, Item #32, into axle mounting ring, Item #31, and install retaining ring, Item #33. Place polished end of track drive axle sleeve, Item #35, over track drive axles, Item #23 and #24, and against bearing cone #369-S, Item #27.

6-60 Slide seal #55093, Item #34, over track drive axle sleeve, Item #35, and insert seal into end of axle mounting ring, Item #31.

6-61 Slide outer protective collar, Item #43, over track drive axle sleeve, Item #35, to within .010 of the seal, Item #34, and secure with setscrew, Item #25.

6-62 Place and secure sprocket, Item #39, on to axle.

CAUTION

Protect seals when placing over splined axles. Notice should be given that the seals are installed as shown in Drawing #4T9-4, so that when grease is forced into the bearing cavity, it will push excess grease out and through the seals.

6-63 Insert ring gear housing connecting tube, Item #9, between right and left housing assemblies and secure with capscrews, Item #8, over lockwasher, Item #21.

6-64 Connect track drive assembly to frame with capscrews, Item #42, lockwashers, and nuts.

6-65 POWER SELECTOR

6-66 Care and adjustment of Clutches.

6-67 Exceptionally large clutches are used in the power selector for the following reason: If the clutches were smaller, it would be necessary to put hydraulic boosters or other means in order that sufficient pressure would be available to engage the clutch. By the present method, the clutches are oversize and this brings them into the range where they can be readily controlled manually, and, in addition to this, the cost of the larger clutches and the increased number of plates becomes a good investment because of increased service.

6-68 It will be noted that the small eccentric which is driven by the rack and pinion actuates two connecting rods simultaneously (See Drawings 4T22A-4). When either of the two clutches are engaged, the other is disengaged. The connecting link, it will be observed, carries jam nuts 17 and 18 on both sides of the yoke connection. The outside nuts, however, are preceded by a coil spring 16 which, when pressed solid, produces 50 per cent

MODEL 4T TRACKMASTER

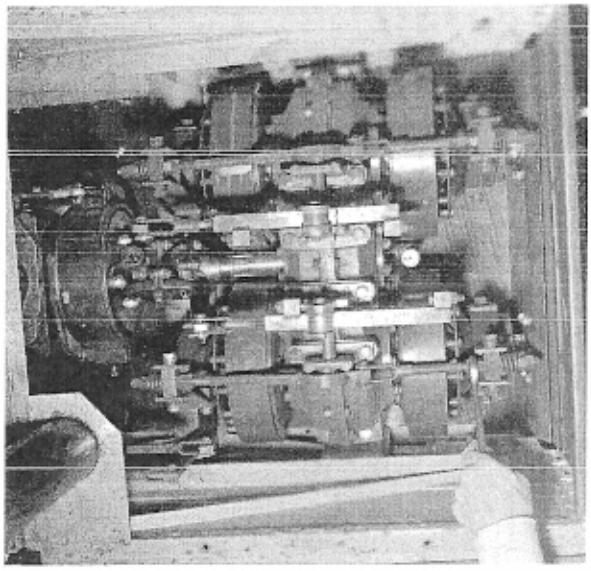


FIG. 1

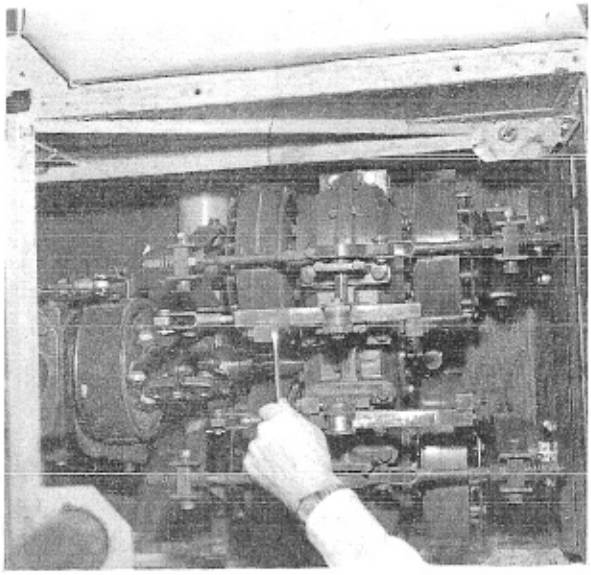


FIG. 2

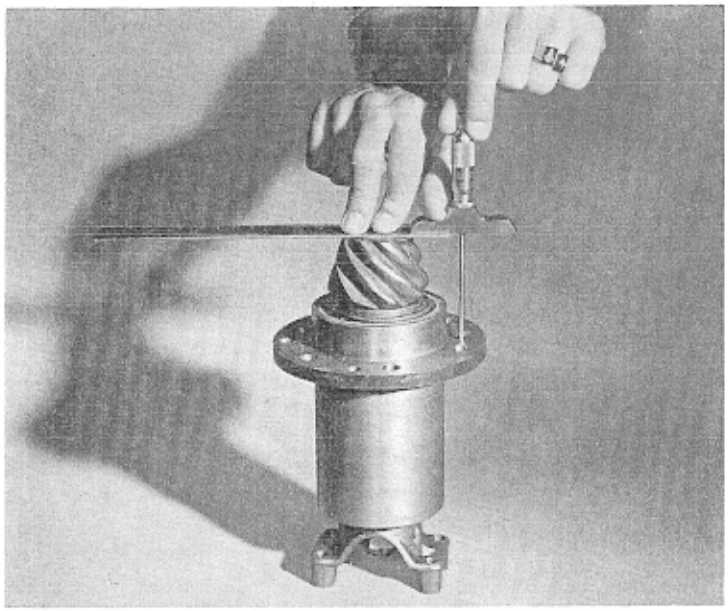


FIG. 3

greater pressure than is required to stall the motor with the clutch. It will be seen, therefore, that this spring, when compressed nearly solid, will always afford adequate pressure. Except in the extreme conditions of service, however, the handles will work very much more freely if the spring is not drawn up too tight. A brief period of experience will also indicate that if the inside nuts 17 are drawn up until they only have a very small amount of clearance when the clutch is engaged, that the operator will avoid the necessity of compressing the spring manually (See Figure 1).

6-69 It is the intention of the design that as the eccentric passes over dead center, or caming action, that the spring should compress only very slightly. This reduces the clutch shifting process to a fingertip pressure. If the nut 17 is backed off considerably and the handle operated, it will be apparent that considerable effort is required to recompress the spring.

6-70 The rack is provided with capscrews as stops and adjustment should be made so that just beyond top dead center or cam top of the eccentric, the rack will come against its stop (See Drawing 22A-4, Items #28 and #29). This makes it unnecessary for the operator to recompress the spring in order to disengage the clutch (See Figure 2).

The stop screw should be set to let the gear rack travel about 1/16" beyond the cam dead center or only enough to provide a slight detent effect to hold the steering levers in high ratio position or low ratio position.

6-71 SERVICE CONSIDERATIONS

6-72 This power selector is used in the snow vehicle for many reasons, but one of the principal purposes for its use is that it presents an essentially full-proof mechanism. No shifting is required of gears, no engaging or disengaging of gears, the operator cannot destroy the power selector with a mistake and long periods of uninterrupted service can be expected so long as sufficient oil is maintained in the gear case. It is the intention of the design that this gear case should operate with the same lubricant that is used in the transmission and the rear angle drive assembly. Clutch plates may be removed by first removing the unit from the vehicle and by pulling the clutch drums from the shafts. The clutches can be replaced without opening the gear case.

6-73 DISASSEMBLY (See Power Selector Drawing, Group 22)

6-74 The power selector can best be disassembled by first removing the clutch pressure plates 20 from the side shafts 14.

6-75 Remove snap rings 42.

6-76 Loosen setscrews 9 where they occur.

6-77 Remove drums by use of puller (tapped holes are available for puller).

6-78 Remove clutch discs 39 and 40.

6-79 Remove spacers 41.

6-80 The side shafts 14 can then be pressed in either direction out of the case. The case can then be split on the center line by removing the capscrews and the housing will come apart. Two of the side gears remain in one half of the case. The power input gears remain in one half of the case. The power input gears and the other two side gears will remain in the other half of the case.

6-81 Loosen setscrews 10.

6-82 Pull spider off gear hub 33.

6-83 Press gear hub through bearing 29.

6-84 Remove capscrews 4 to remove bearing 29 and flange 37.

6-85 REASSEMBLY

NOTE

Care should be taken to assure that the proper pre-load is prepared for the taper roller bearings 52. To accomplish this, perform the steps as follows:

6-86 With the side gears removed, assemble case with shaft 7 in place.

6-87 Tighten cap 58 with screws 4 against shims 2.

6-88 Tighten ring 8 with screws 4 against the proper amount of shims 2 to give a slight drag on shaft.

NOTE

This drag is best selected by noting if the shaft will spin after a sharp twist. This must not be too tight. It should be taken up, however, to remove all slack.

6-89 Reverse Steps 6-40 to 6-51 to reassemble.

6-90 WHEEL AXLE ASSEMBLY (Drawing 4T5B-2 - Axle 1, 2, 3 is a [illegible] assembly)

6-91 Sleeve 12 is provided to space bearings 13 so that when nut 6 is tight, the bearings will not be under pre-load. At least .005 more length is required in this sleeve than the distance between the shoulders which nest bearings 13.

6-92 Nut 9 should never be adjusted too tight. This nut should be adjusted by the normal procedure for setting up front wheel bearings on an automobile, i.e. tighten the nut to insure seating of the bearings, then back off the nut and retighten until just snug. If the cotter key cannot be inserted at this point, back off to the next slot which aligns with the other key hole.

6-93 Spin hub as nut 9 is tightened until a slight drag is noted on hub. Back off nut one hole to relieve drag.

NOTE

In adjusting for tightness in the hub, the slack should be taken out, but no appreciable amount of drag (or pre-load on the bearings) should be present.

6-94 If the axle is removed for any reason, before re-installing, examine the axle for bending or distortion of any kind which would tend to cause misalignment of the wheel. The axle pivot shaft and the stub wheel hub axle should lie in parallel planes to each other and both of these round members should be at right angles to the square connecting link to which they are welded. A simple check with a combination square will determine whether these members have been bent from their original right angle positions.

6-95 SPRING SUSPENSION (Drawing 4T5A-3)

6-96 The spring suspension is a linkage wherein all four wheels on each side are interconnected to one large central spring. The end arms 1 and 6 are mounted 45° less than a right angle to provide for the correction of rocking of the cab.

6-97 The center arms 7 and 10 are mounted at 90° to provide equal ground pressure on the four center wheels.

6-98 The center spring 15 is pre-loaded so that the fiber stress of the spring will not reverse.

6-99 The drawbar guide bushing 14 will be found to sustain some wear. This should be replaced after it has worn to show 1/8" of play on the drawbar.

CAUTION

In removing the spring from the case 9, release threaded bolts 11 in alternate corners to let off the pressure. This could be dangerous if allowed to flip open when the spring housing cap 13 is removed.

6-100 When reassembling spring case, be sure to replace the rubber bumper 19 under the flanged spring pickup 18.

NOTE

Turnbuckle 5 was originally placed in the linkage to adjust linkage after track tightening. Because of the slight amount of adjustment required, these are eliminated on later models.

6-101 OVERLOAD SPRINGS

6-102 The overload spring assembly is a pusher-type spring which acts against Arm 7. To increase the pull on tie rod 33 and link 9, it may be adjusted by the nuts 15 and 16 on the telescoping extension arm.

6-103 DISASSEMBLY OF THE OVERLOAD SPRING SYSTEM

6-104 First remove the overload spring assembly from the vehicle. Remove nuts 29, lock-washer 28 and capscrews 27. This permits the assembly to come apart. Guide bushing 30, in plate 26 and guide bushing 22 on the inside end of shaft 21 serve to align the spring operation. Positioning nuts 16 may be used to increase or decrease the pressure of the overload spring and jam nuts 15 lock these control nuts 16 in place.

CAUTION

Care should be taken to make certain that the positioning nuts 16 are firmly locked into position. Jam nut 15 should be tightened after adjustment.

CAUTION

The axis of pin 18 must be horizontal when these positioning nuts 16 are locked into position. Otherwise, the vertical movement provided for by clevis and pin 18 would be restricted and would cause damage to the anchor mounting 17.

6-105 TRACK JACK

6-106 There are two track jacks. One jack is placed on each side of track to provide equal tension to each side when connecting or disconnecting track joint.

6-107 The purpose of this operation is to bring the lacing together to receive the pins.

NOTE

The pins are molded to engage the lacing on each side and the two pins mismatch swells, with the smooth sides together. Make sure by examining the lacing that the pins are inserted with the proper end first to result in matching the position of the pins with respect to the lacing.

6-108 WHEEL JACK AND WHEEL REMOVAL

6-109 A special jack is provided as indicated on Figures 4 and 5. This heavy duty implement jack also serves as the track jack previously discussed in Paragraph 105. A hook is provided on the jack to engage the vehicle frame which is welded on the outside of the center cross member of the frame.

6-110 The special wheel suspension system which connects all of the wheels by a linkage tends to draw all of the wheels downward as the frame rises. This ordinarily would make it necessary to lift the frame excessively high in order to remove a wheel. To overcome this problem, a special axle hook 5, Figure 5, is provided which positions the axle.

6-111 The hook is intended to merely drop over the axle and it will readily assume its proper position when the wheel and axle are in a somewhat elevated position.

6-112 If the vehicle happens to be setting in such a position that the hook will not readily engage the wheel axle, the following procedure will position the axle so that the hook 5 can be readily engaged.

a. Assuming the front wheel were to be removed as indicated in Figure 4, place the jack under the frame at the rear of the vehicle. If the frame is raised at the rear, it will be noted that the frame at the front is tilted downward.

b. When the front end of the frame is tilted downward, the front wheel will rise with respect to the frame and the hook will then fall into position.

c. Place the jack under the pad of the center cross member of the frame and as the frame is raised, the hook will retain the axle so that the wheel can be raised from the ground line.

d. Figure 5 shows the hook 5 in position on the second axle from the front, which may be restrained by the hook for removal of the second wheel as the jack raises the front of the frame.

e. All four wheels may be removed on either side by placing the jack under the center cross member of the frame and lifting the wheels off the ground by using the hook as indicated.

6-113 ACCELERATOR ADJUSTMENT

6-114 The foot throttle is connected to the carburetor by means of a cable and bell crank assembly. The throttle can be adjusted by loosening the capscrew and nut which hold the bell crank to the engine intake manifold. Loosening this nut and bolt and sliding the bell crank mounting bracket slightly will tighten or loosen the cable when moved in the desired direction. On some models, a throttle rod assembly is used instead of the cable assembly. Where used, the rod can be shortened or lengthened by screwing the threaded rod ends in or out.

6-115 This cable should be raised until the accelerator pedal touches the floor at full throttle. If this is not done, the heavy pressure of the operator's foot will break the cable and linkage. The floorboard is, therefore, considered to be the stop for the accelerator.

6-116 BOLT-ON TYPE REPAIRS FOR TRACKS

6-117 The alligator-type lacing, earlier discussed, would be the preferred method of correcting damage of the tracks when repairs can be made in favorable conditions.

6-118 When necessary to make an emergency repair to the track belting in the field, it is possible to bolt a short length of belting over the injured length of belting as a doubler sheet. The repair piece of belting can be held in place by inserting it between the backing plates and the track cleats. The track bolts can then be re-installed. It may be necessary to use slightly longer bolts when making this type of repair. It is suggested that this type of repair span four cleats if possible.

6-119 It is recommended that the belting which is carried as spare belting be drilled as shown in Figure 9 and 11 and that capscrews 1 1/4" and 1 1/2" long which replace the 1" and 1 1/4" capscrews originally found in the belting be carried as replacement items with the machine when it is in service away from the maintenance facility.

6-120 Some users of conveyor belting have adopted the lap method of attaching the belt ends as a formal practice. It, therefore, should be considered that this lap method is altogether acceptable. The lap method of splicing means that the belts are overlapped a distance long enough to permit clamping by two adjacent cleats. While satisfactory, this method is not as convenient for track changing purposes as the use of alligator-type splicing.

6-121 ELECTRICAL SYSTEM

6-122 The electrical system is a 12-volt system using a single wet cell battery. Some installations use two batteries in parallel for increased capacity. On special order, some vehicles have been equipped with 24-volt systems to permit the use of special communication equipment.

6-123 The instrument panel is held in position by four bolts, one on each side of the instrument panel and two exposed on the outside above the instrument panel. Removal of the two exposed bolts will allow the panel to be pivoted downward from its normal position. Check speedometer cable and other wires for freedom of movement before pivoting the panel. The panel should pivot down, exposing the rear side for inspection.

6-124 Replace in the reverse order.

6-125 Four master switches control accessories, lights, and electric equipment within the vehicle. Bayonet-type fuse holders are provided with knobs accessible on the face of the instrument panel and can readily be removed for inspection.

6-126 The following diagram will give the call out for whatever accessories are used in association with each of the 30 ampere fuses.

6-127

Heater
Spotlight
Backup Light

Dome Light

Left Windshield
Wiper
Headlights
Instruments
Lighter

Right Windshield
Wiper

TRACKMASTER

SECTION VII

VEHICLE CAPACITIES

7-1 The vehicle capacities cover the various models which are produced by Thiokol Chemical Corporation, Logan Works. A brief description and explanation of each model is found in Paragraph 1-3.

	MODEL 4T2	MODEL 4T4	MODEL 4T8	MODEL 4T10
7-2 VEHICLE WEIGHT (EMPTY)	4410	4550	4800	5060

7-3 Weight will vary according to the particular model Trackmaster as explained in Section I General. The wide and narrow frame, as explained in Paragraphs 1-3-b and 1-3-c,are of the same approximate weight.

7-4 GROUND PRESSURE AND TRACK AREA (EMPTY)

	Effective Track Area in Square Inches on Ground*				Pounds Per Square Inch			
Track Width and Part No.	MODEL 4T2	MODEL 4T4	MODEL 4T8	MODEL 4T10	MODEL 4T2	MODEL 4T4	MODEL 4T8	MODEL 4T10
(16-2) 31 1/2"	6460	6460	6460	6460	.68	.70	.74	.78

* This measurement is taken as a length 6" ahead of the front axle and 6" behind the rear axle. Actual distance between front and rear axle is 90 1/2".

		MODEL 4T2	MODEL 4T4	MODEL 4T8	MODEL 4T10
7-5 VEHICLE OVERALL LENGTH		142"	142"	142"	142"
7-6 VEHICLE OVERALL WIDTH		94"	94"	94"	94"
7-7 VEHICLE OVERALL HEIGHT		84"	84"	84"	84"
7-8 WHEEL BASE		90 1/2"	90 1/2"	90 1/2"	90 1/2"
7-9 FUEL CAPACITY		19 gal.	19 gal.	19 gal.	19 gal.
7-10 GROUND CLEARANCE	Front -	15"	15"	15"	15"
	Rear -	20"	20"	20"	20"
7-11 MAXIMUM SAFE OPERATING SPEED		35 mph	35 mph	35 mph	35 mph
7-12 FUEL CONSUMPTION		4-8 mpg	4-8 mpg	4-8 mpg	4-8 mpg
7-13 TURNING RADIUS		15'	15'	15'	15'

7-14 WIDTH BETWEEN TRACK CENTERS

MODEL 4T2N	MODEL 4T4N	MODEL 4T8N	MODEL 4T10N
62"	62"	62"	62"
MODEL 4T2W	MODEL 4T4W	MODEL 4T8W	MODEL 4T10W
66"	66"	66"	66"

7-15 CLIMBING ABILITY

7-16 60% to 70% grade under favorable snow conditions.

7-17 SIDEHILLING ABILITY

7-18 Approximately 40% to 50% grade or 75% of climbing ability, center of gravity is very low. Vehicle will generally slide sideways before tipping becomes critical.

7-19 CARRYING CAPACITY

7-20 Driver plus passengers and cargo as stated on vehicle identification plate.

7-21 TOWING CAPACITY

7-22 A bolt and clevis-type hitch is provided on a tow bar for towing 1,000 to 1,500 pounds.

7-23 ENGINE

7-24 Ford Industrial, six cylinder, series 223, engine displacement 223 cubic inch, engine horsepower maximum 130.

7-25 TRANSMISSION

7-26 Ford heavy-duty three-speed; three forward and one reverse.

7-27 BRAKES

7-28 Heavy-duty hand parking brake on drive shaft at rear of transmission. The speed is generally controlled by compression and is generally adequate except in extreme driving conditions of ditch crossing, etc., where foot brake or parking brake provides additional control.

7-29 ELECTRICAL SYSTEMS

7-30 Battery, instruments and lights operate on a 12-volt system.

7-31 TRACKS

7-32 Steel tire guides and grousers mounted on rubber belting.

a. (16-2) 31 1/2 wide, three ply, 48 ounce duct 1/16 rubber covers.

b. (16-3) 27 1/2 wide, three ply, 48 ounce, duct 1/16 rubber covers.

c. (16-5) 21 1/2 wide, four ply, 48 ounce, duct 1/16 rubber covers.

7-33 TIRES

7-34 6:40 x 15 standard automotive type, (tubes natural rubber in extreme cold weather. Synthetic rubber tubes in United States and warmer climates).

7-35 DRIVE SPROCKETS

7-36 Two steel fabricated drive sprockets having 1/2" vulcanized rubber coating on the outside of the teeth provide the track drive. These sprockets are splined to the axle for simplicity of removal and replacement. Sprockets can be recoated with rubber on an exchange basis where desirable.

7-37 WHEEL AND SPRING SUSPENSION

7-38 All wheels are mounted by interdependent suspension, spring controlled. Each wheel is capable of 8" vertical movement for smooth operation on rough terrain. Five inch off-set wheel suspension members retain wheels in plane with track guides.

a. Front wheel adjustable for track tension control.

b. Anti-friction tie rod bearing mounts (life packed for lubrication).

c. Full circle coil compression springs (2).

d. Wheels and axles are standard implement type.

7-39 This design substantially reduces the front-end drop of conventional vehicles when going over high objects as the center of gravity of the vehicle passes over the obstruction in a crawling motion.

7-40 CAB

7-41 Aluminum cover riveted to welded angle iron, front slope windshield to facilitate visibility. Cab is rubber-mounted on chassis by eight hard rubber pads. Cab is undercoat sealed inside and bottom to exclude track noise, vibration, and frost from entering cab. There is one front entrance door on each side of vehicle. Each door is equipped with slide windows and rear entrance door has double latches.

7-42 SEATS

a. Model 4T2 - One seat on each side of engine with an open cargo carrying space approximately 71" and 70" in rear.

b. Model 4T4 - Four seats and short pickup bed.

c. Model 4T8 - One seat on each side of engine with three seats located on each side of passenger compartment.

d. Model 4T10 - One seat on each side of engine with four seats located on each side of passenger compartment.

7-43 POWER SELECTOR

7-44 The power selector is a new exclusive patented design which provides power compensation on turns; both tracks can be powered on turns; one high and one low speed on each track. Either speed on each track can be used alternately on both high and low to give dual drive ratio to transmission. There are four dry multiple disc clutches, two of which are alternately operative with one of two steering handles.

7-45 RING GEAR AND PINION RATIO

7-46 5.38:1, ring gear and pinion right angle drive (2).

THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

MODEL 4T TRACKMASTER

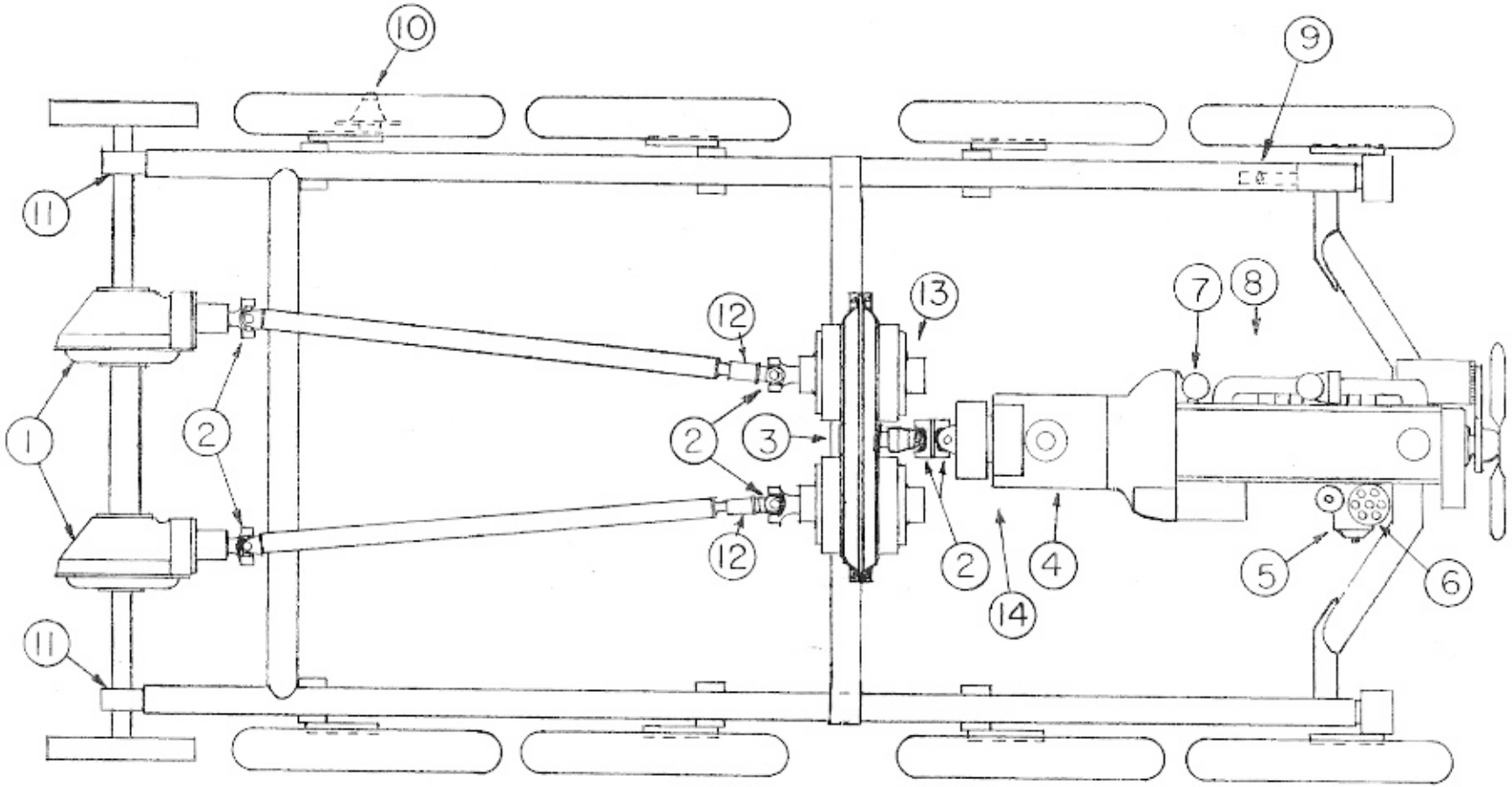
SECTION VIII

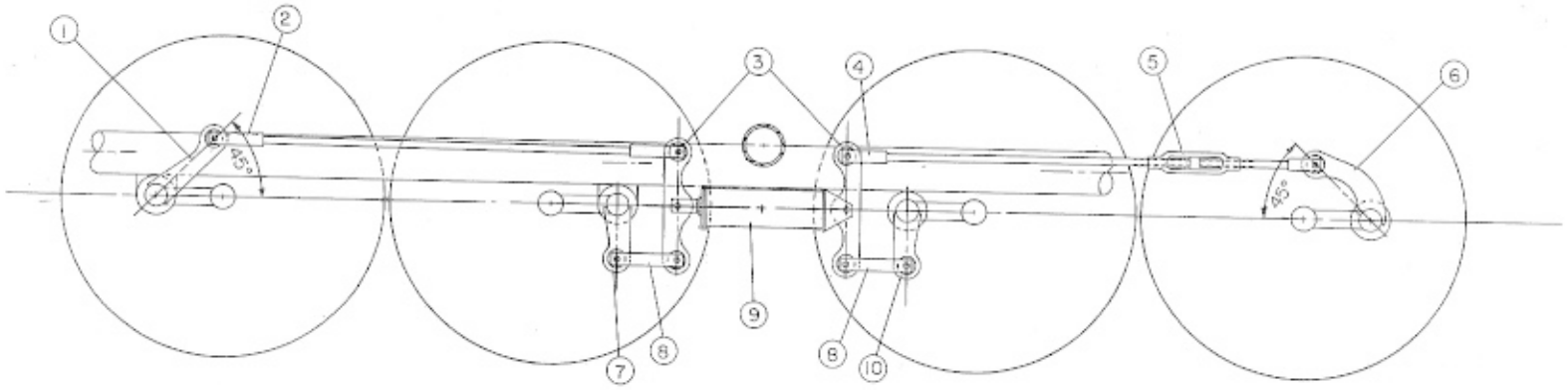
DRAWINGS, CHARTS, AND FIGURES SECTION

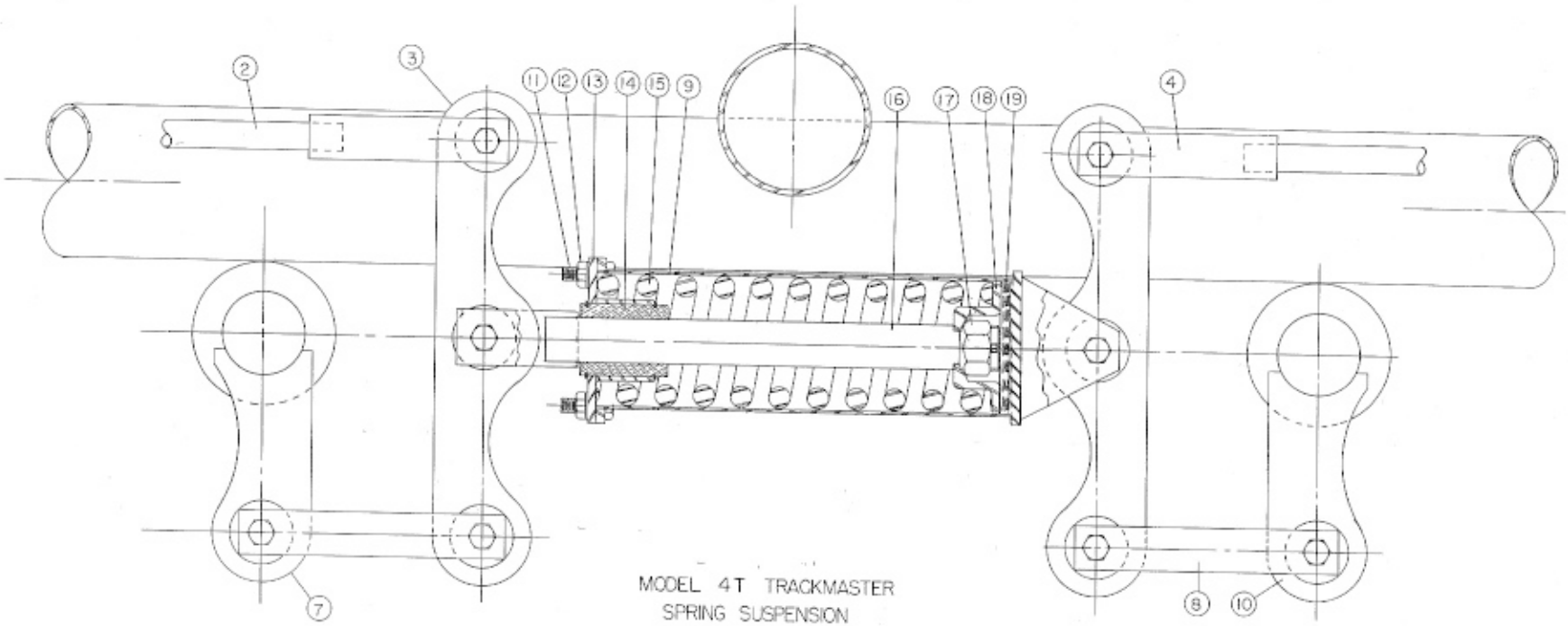
Description	Drawing Chart or Figure Number	Discussion
Lubrication Chart	None	5-15
Spring Suspension	Drawing 5A-3	6-95
Wheel Suspension	Drawing 5B-2	6-90
Overload Springs	Drawing 19-1-2	6-101
Angle Track Drive Assembly	Drawing 9-4	6-23
Drive Shaft	Drawing 18-3-12	1-15
Power Selector Assembly	Group 22	6-65
Power Selector Controls	Drawing 22A-4	6-68, 6-70
Adjustment of Clutches	Figure 1-2	6-28, 6-70
Measurement of Pinion	Figure 3	6-48
Wheel Jack	Figure 4-5	6-108 - 112
Track Jack	Figure 6	6-105 - 107
Angle Track Drive Sub-Assembly	Figure 7	6-34, 6-37
Steering Controls of Power Selector	Figure 8	3-27
Cutting and Preparing Belting	Figure 9	6-22
Installing Alligator Lacing	Figure 10	6-22
Bolt-On Type Repairs for Tracks	Figure 11	6-116, 6-120

MODEL 4T TRACKMASTER

LUBRICATION CHART



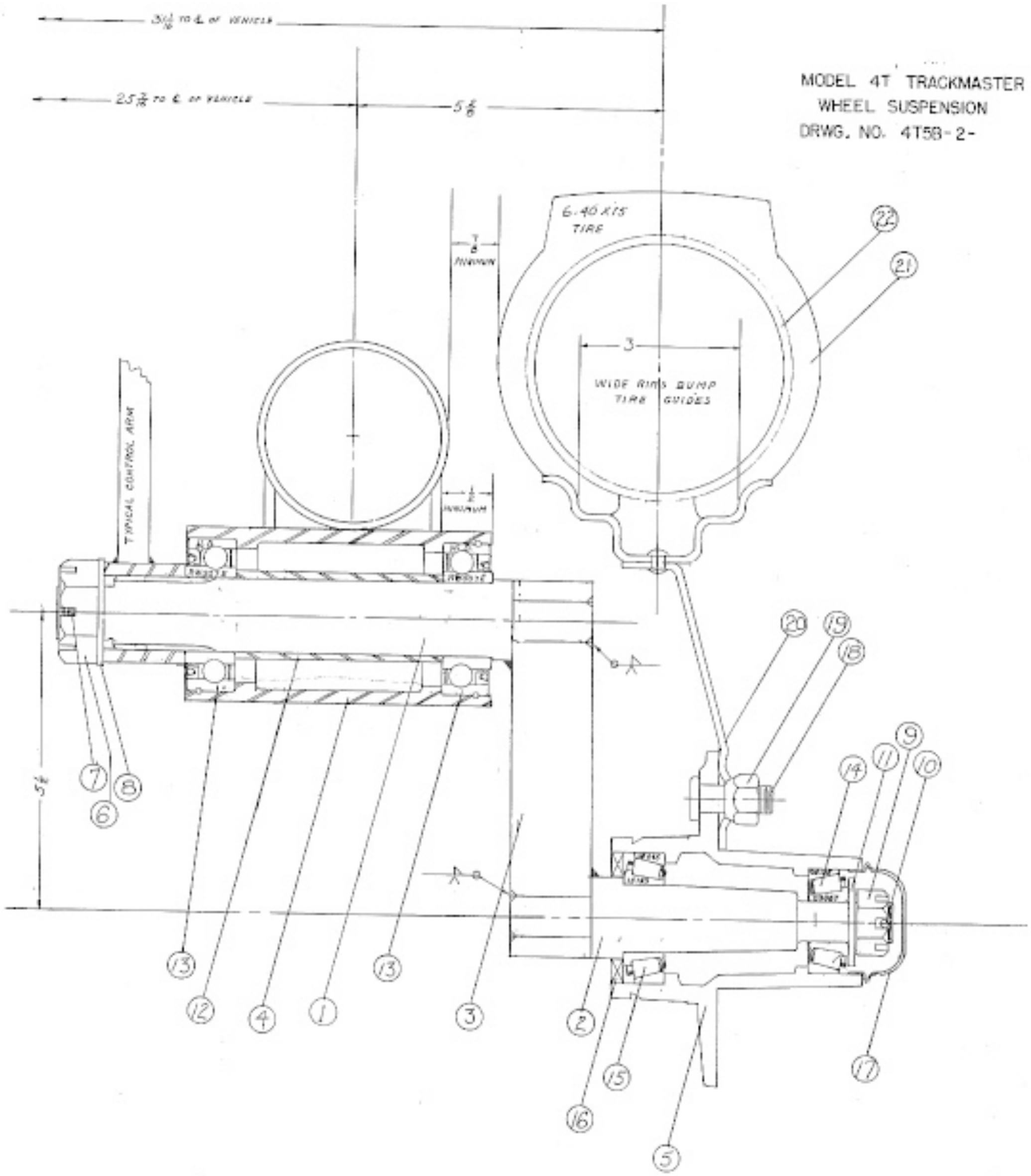




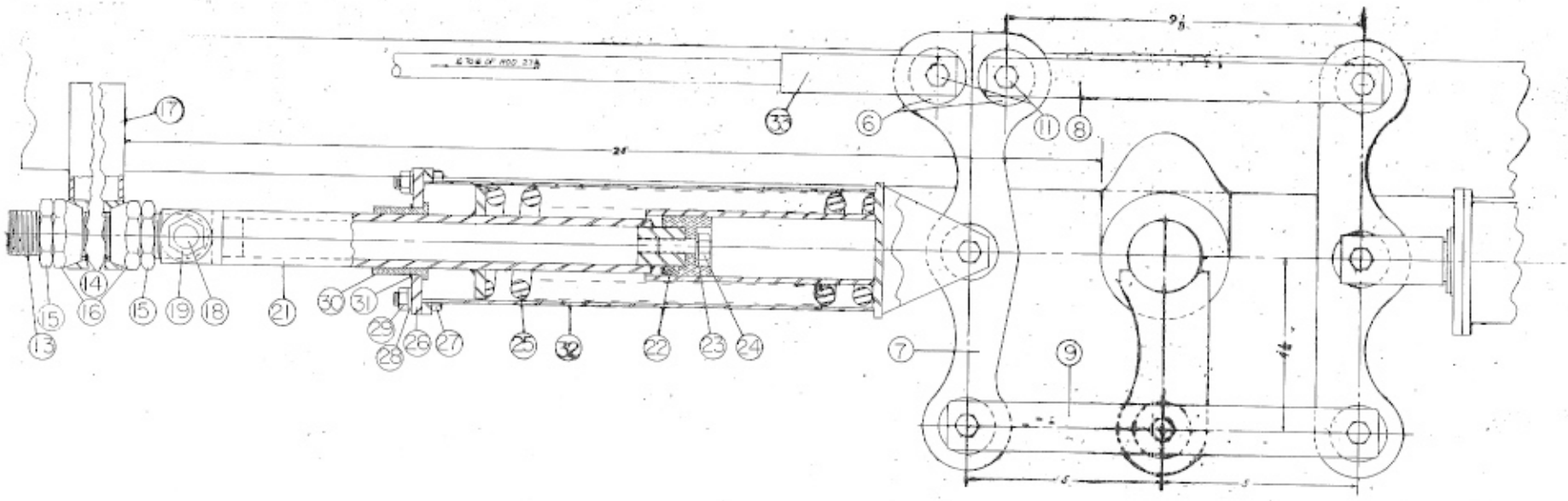
MODEL 4T TRACKMASTER
SPRING SUSPENSION
DRWG. NO. 4T5A-3-

		SPRING SUSPENSION
		TRACKMASTER
	SCALE: FULL	DATE: 2-4-60

MODEL 4T TRACKMASTER
WHEEL SUSPENSION
DRWG. NO. 4T5B-2-

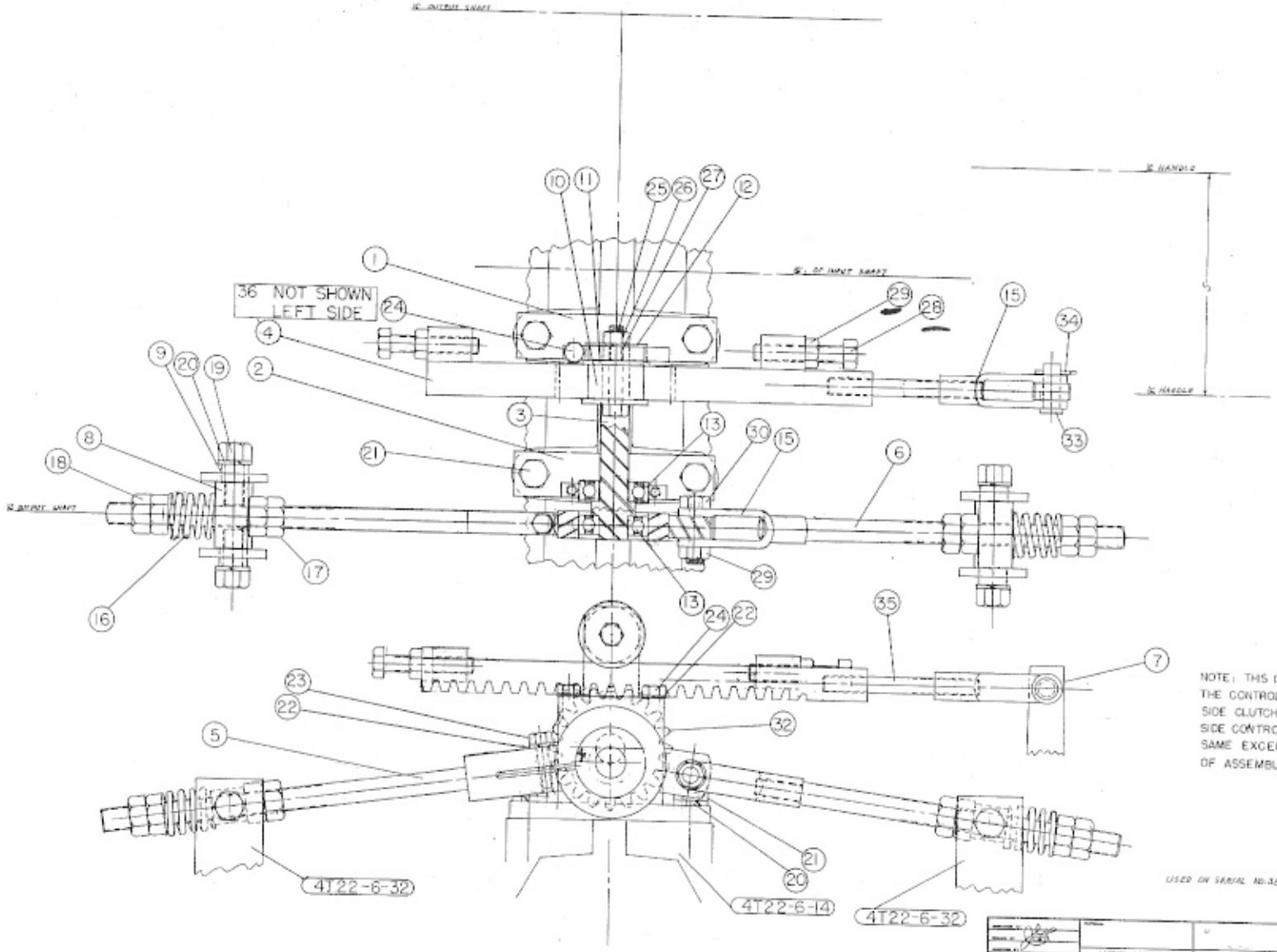


ALTERED 12-11-58	SCALE FULL SIZE	SUSPENSION, WHEEL
		TRACKMASTER
		DATE 7-9-56 / DATE 7-10-56 / 4T5B-2



4T19-1-2

		LAYOUT, OVERLOAD SPRINGS
		TRACKMASTER
	SCALE: FULL SIZE	DATE 2-1-60 / 2-8-60 / 4T19-1-2

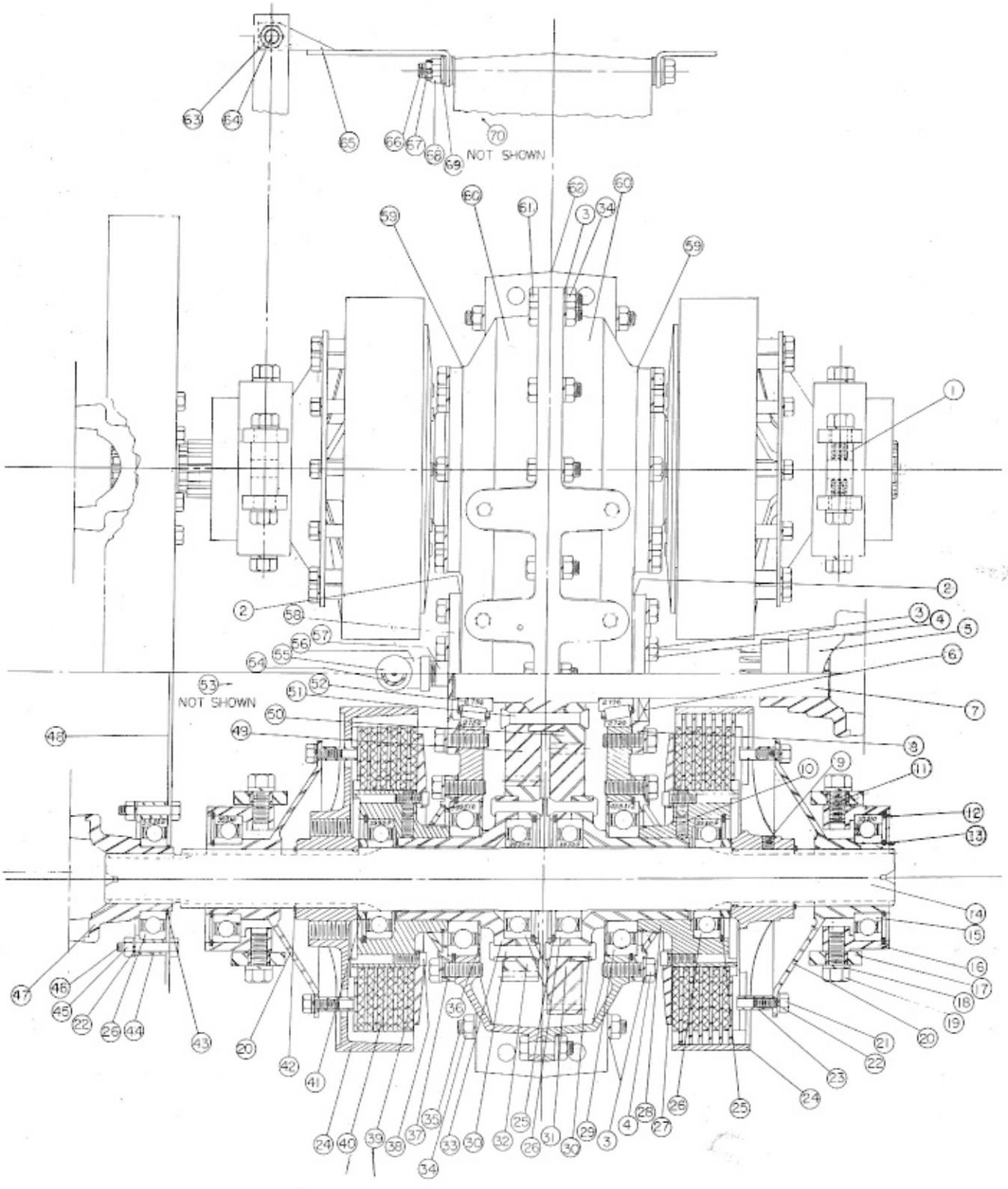


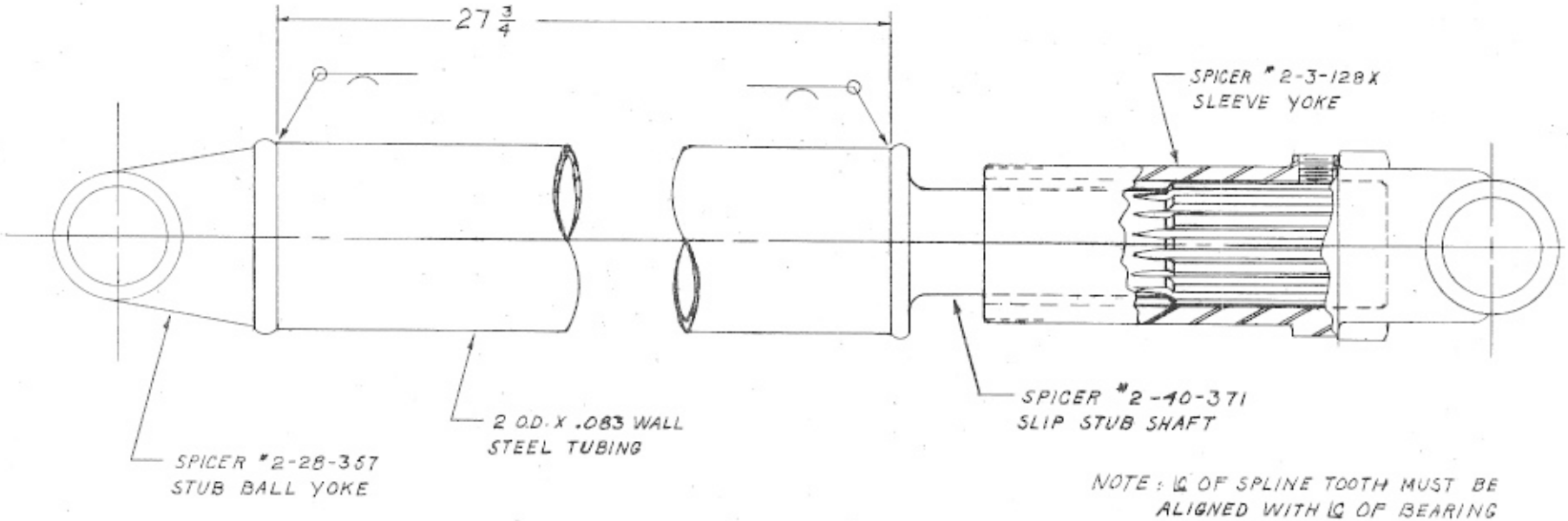
NOTE: THIS DRAWING PORTRAYS THE CONTROLS FOR THE RIGHT SIDE CLUTCHES ONLY. LEFT SIDE CONTROLS NEARLY THE SAME EXCEPT FOR DETAILS OF ASSEMBLY.

USED ON SERIAL NO.38 AND FOLLOWING

ALTERED 8-20-58		CONTROLS, POWER SELECTOR
	SCALE FULL SIZE	TRACKMASTER
		DATE 5-2-58 DATE 5-6-58 PART 22A4

MODEL 4T TRACKMASTER
GROUP 22 - POWER SELECTOR ASSY.





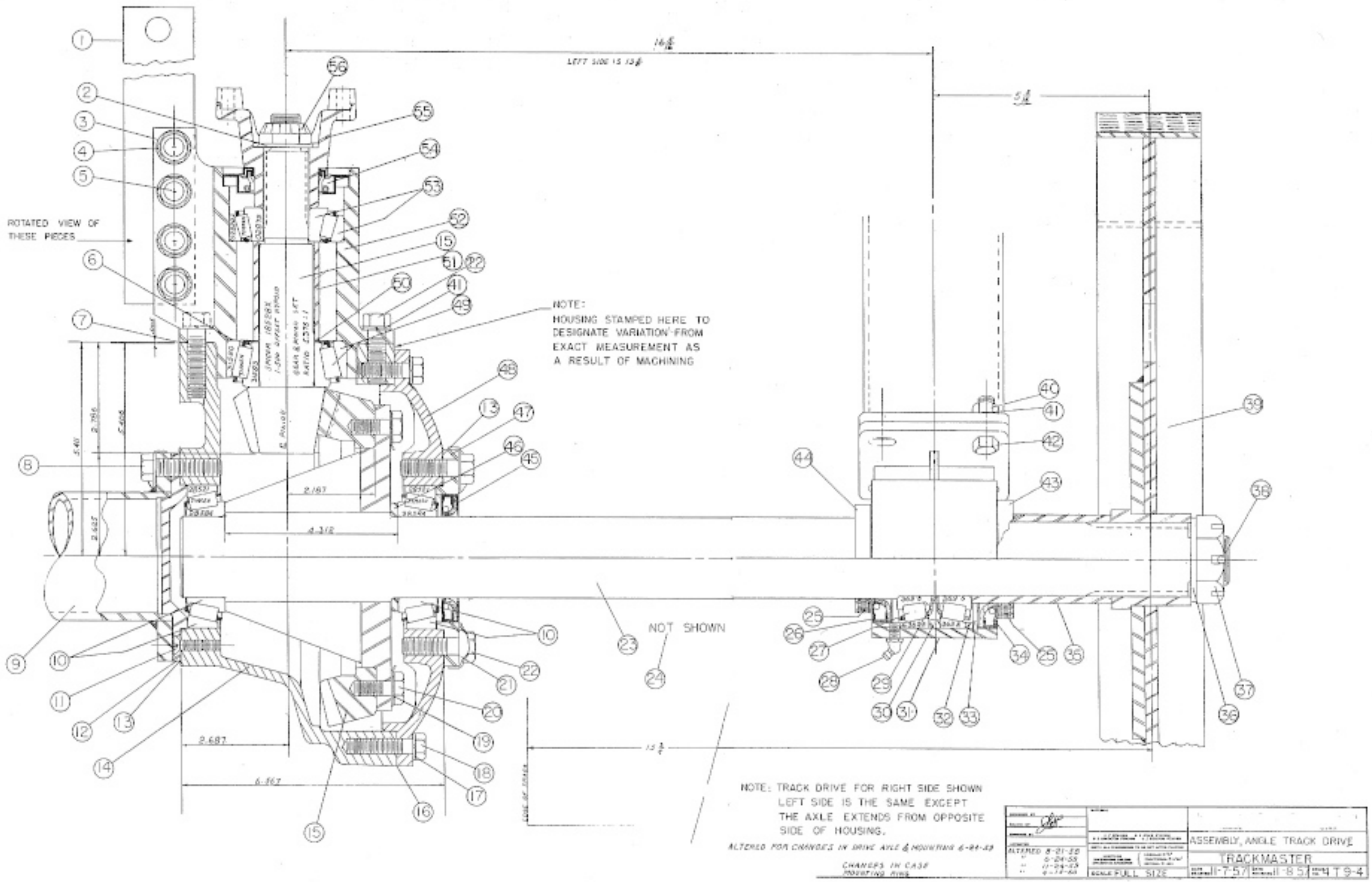
NOTE: ℄ OF SPLINE TOOTH MUST BE ALIGNED WITH ℄ OF BEARING HOLES IN YOKES AS INDICATED.

FOR SHORT FRAME

2 REQUIRED

25 TO 27 3/4

DESIGNED BY DRAWN BY CHECKED BY APPROVED ALTERED 2-1-60	MATERIAL AS INDICATED 1 / POLISH 3 / FINE FINISH 2 / SMOOTH FINISH 4 / ROUGH FINISH NOTE: ALL DIMENSIONS TO BE MET AFTER PLATING UNLESS OTHERWISE DIMENSIONS UNLESS OTHERWISE SPECIFIED: ANGULAR ± ½°; FRACTIONAL ± 1/64"; DECIMAL ± .010 SCALE FULL SIZE	SHAFT, DRIVE TRACKMASTER DATE STARTED 6-26-59 DATE FINISHED 6-26-59 DRWG. No. 4T18-3-12


ROTATED VIEW OF THESE PIECES
NOTE: HOUSING STAMPED HERE TO DESIGNATE VARIATION FROM EXACT MEASUREMENT AS A RESULT OF MACHINING
LEFT SIDE IS 13 5/8
NOT SHOWN
NOTE: TRACK DRIVE FOR RIGHT SIDE SHOWN LEFT SIDE IS THE SAME EXCEPT THE AXLE EXTENDS FROM OPPOSITE SIDE OF HOUSING.
ALTERED FOR CHANGES IN DRIVE AXLE & MOUNTING 6-24-55
CHANGES IN CASE MOUNTING RING
ALTERED 8-21-58
ASSEMBLY, ANGLE TRACK DRIVE
TRACKMASTER
SCALE FULL SIZE
4 T 9-4

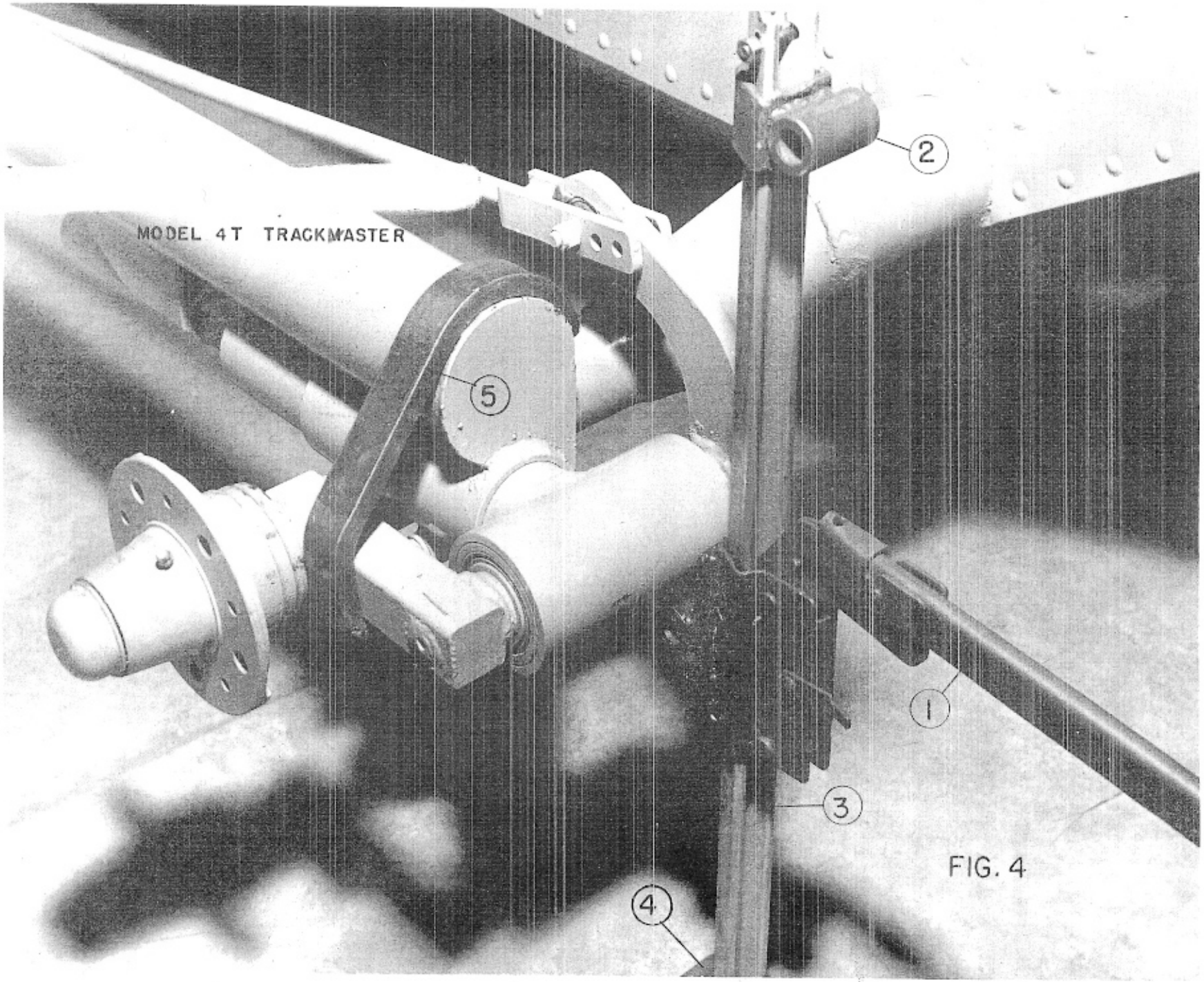


FIG. 4

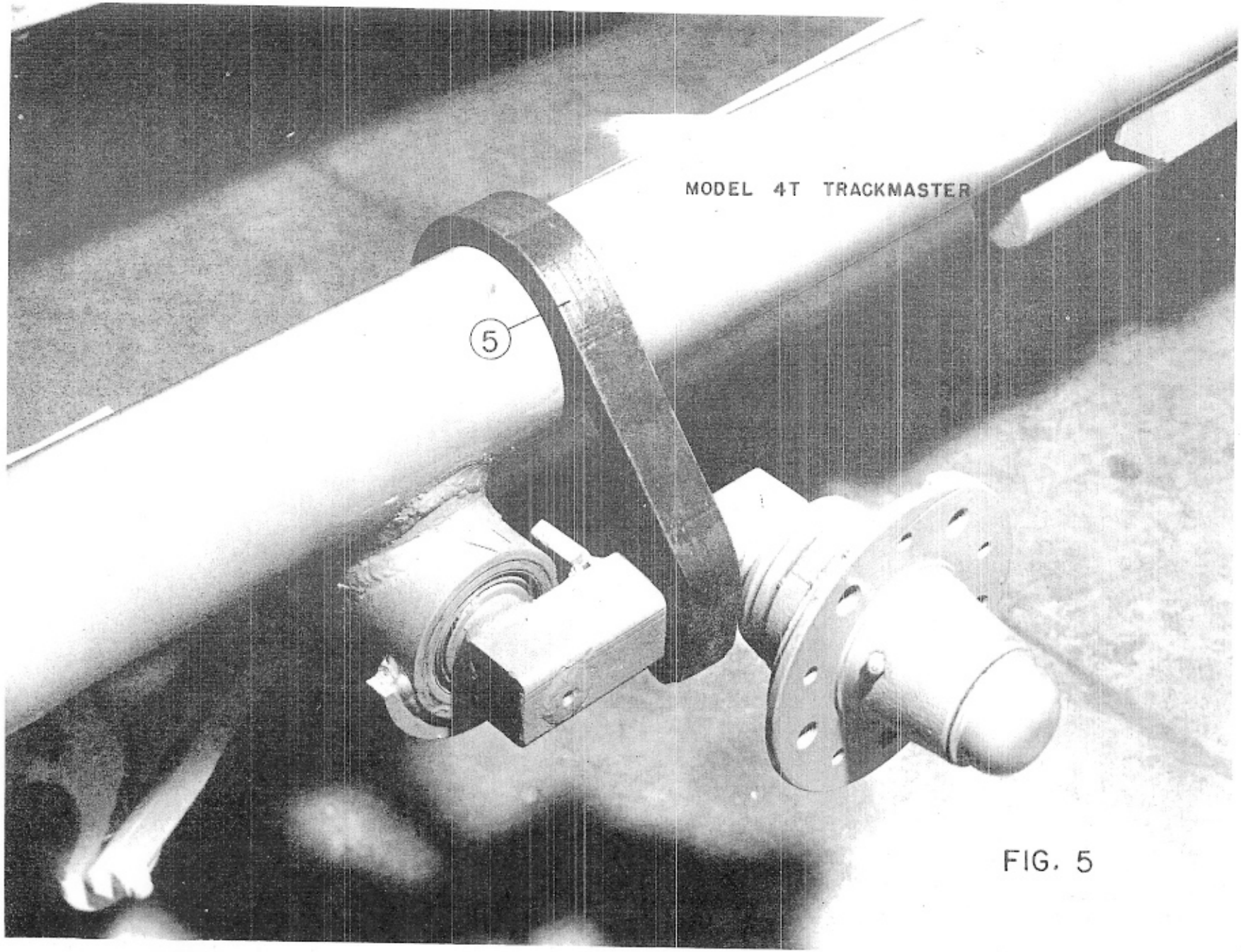


FIG. 5

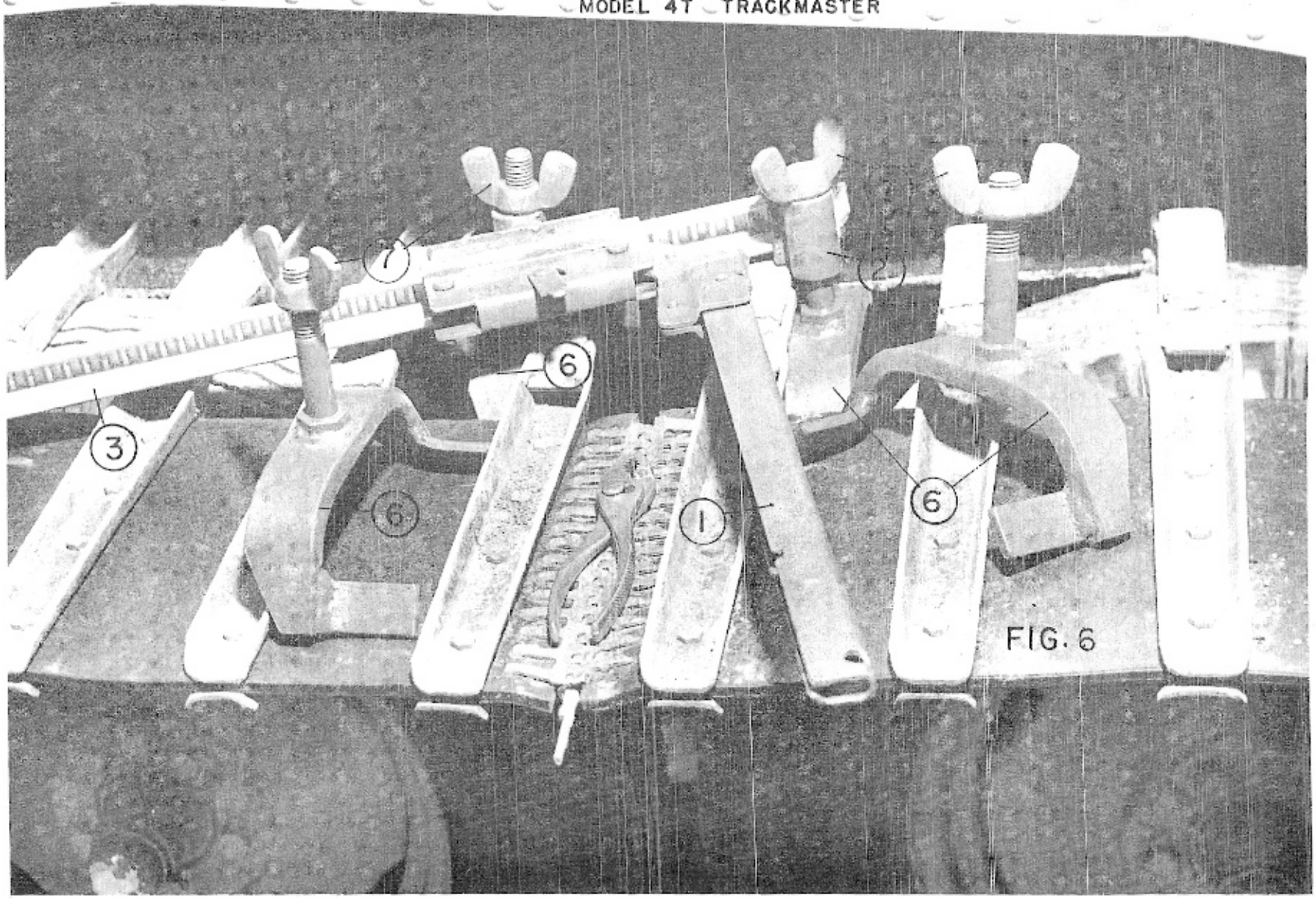
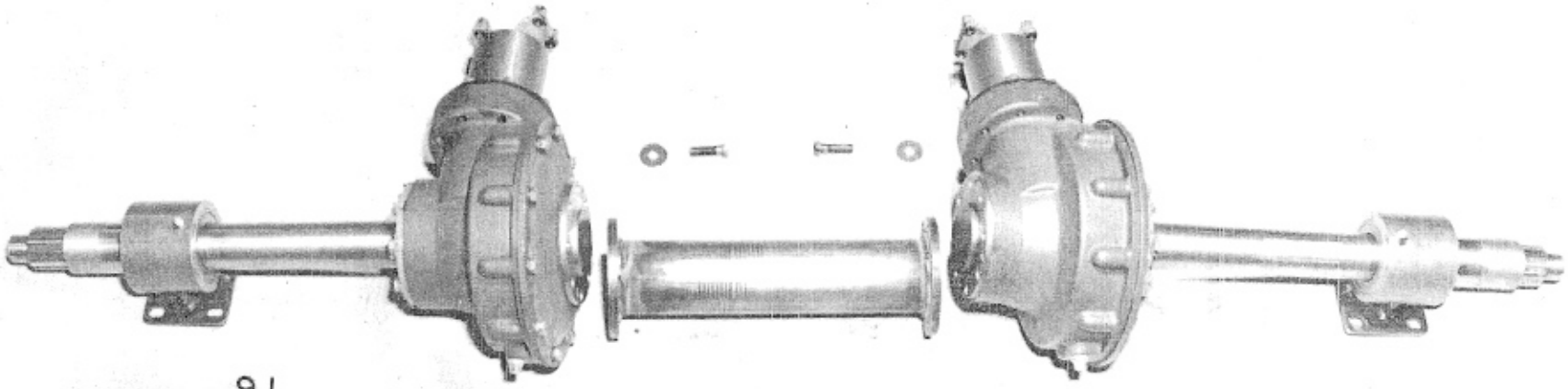


FIG. 6

MODEL 4T TRACKMASTER
ANGLE TRACK-DRIVE ASSEMBLY
GROUP 9



9 L
SUB ASSY.

9 R
SUB ASSY.

MODEL 4T TRACKMASTER

STEERING CONTROLS OF POWER SELECTOR

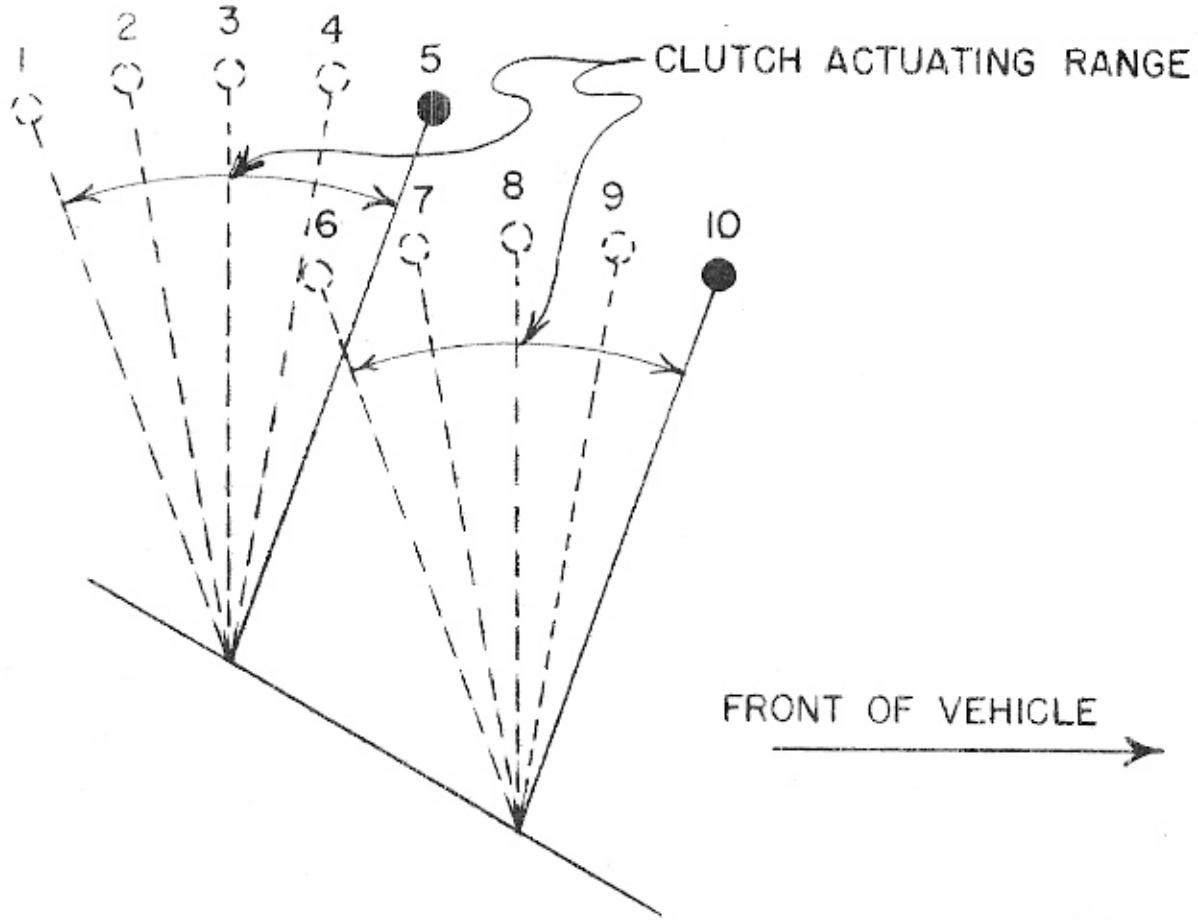


FIG 8

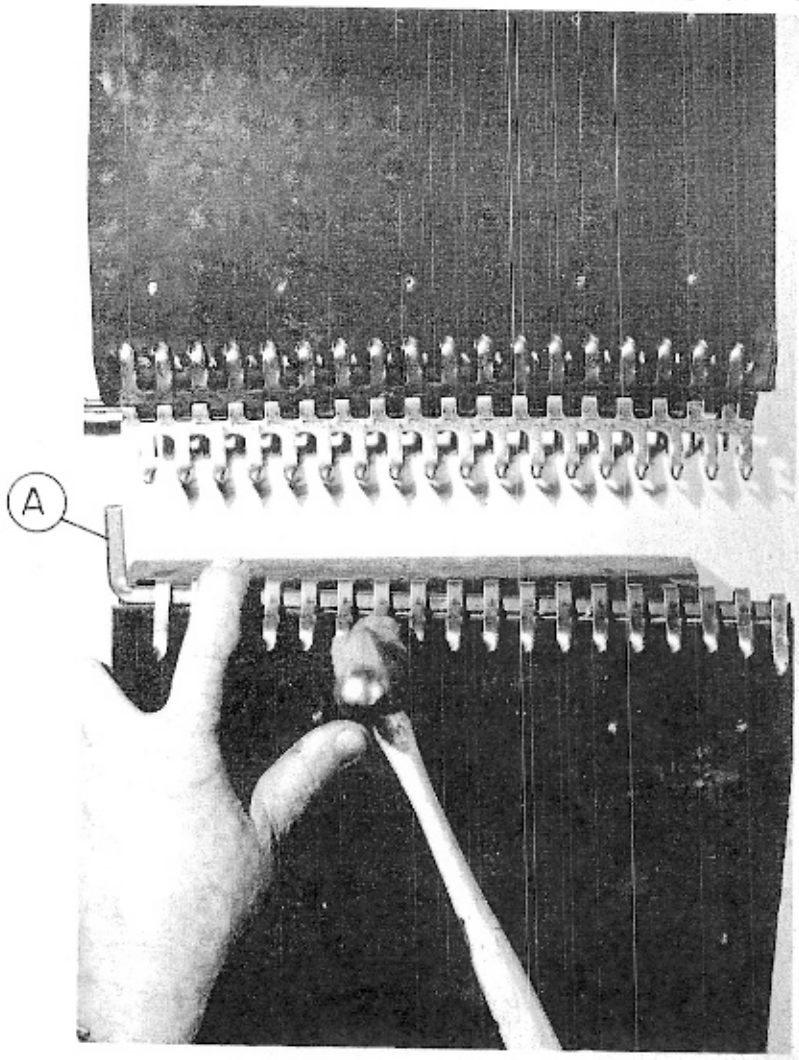


FIG. 10

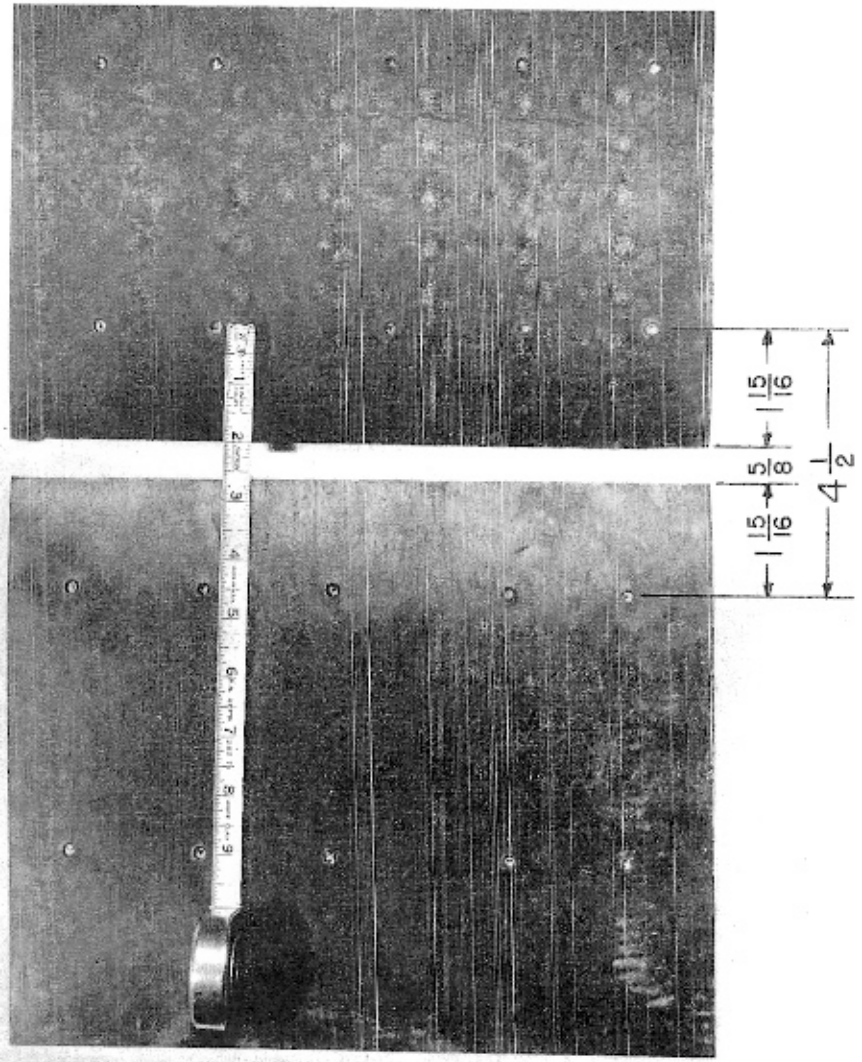


FIG. 9

MODEL 4T TRACKMASTER

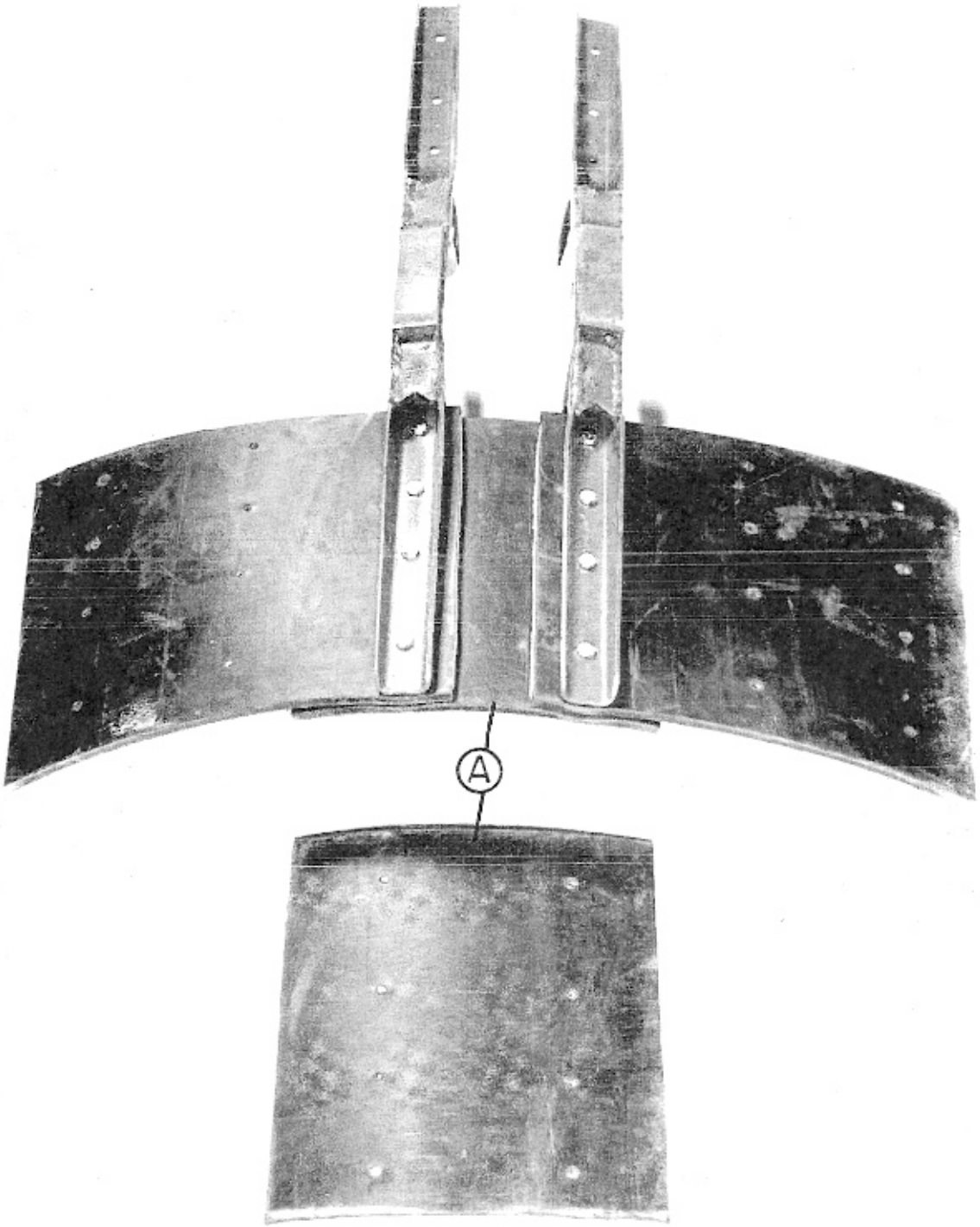


FIG. 11

THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

MODEL 4T TRACKMASTER

ENGINE

The engine used within the Model 4T Trackmaster is manufactured by Ford Motor Company. The following is descriptive information listing necessary data for the identification of the engine:

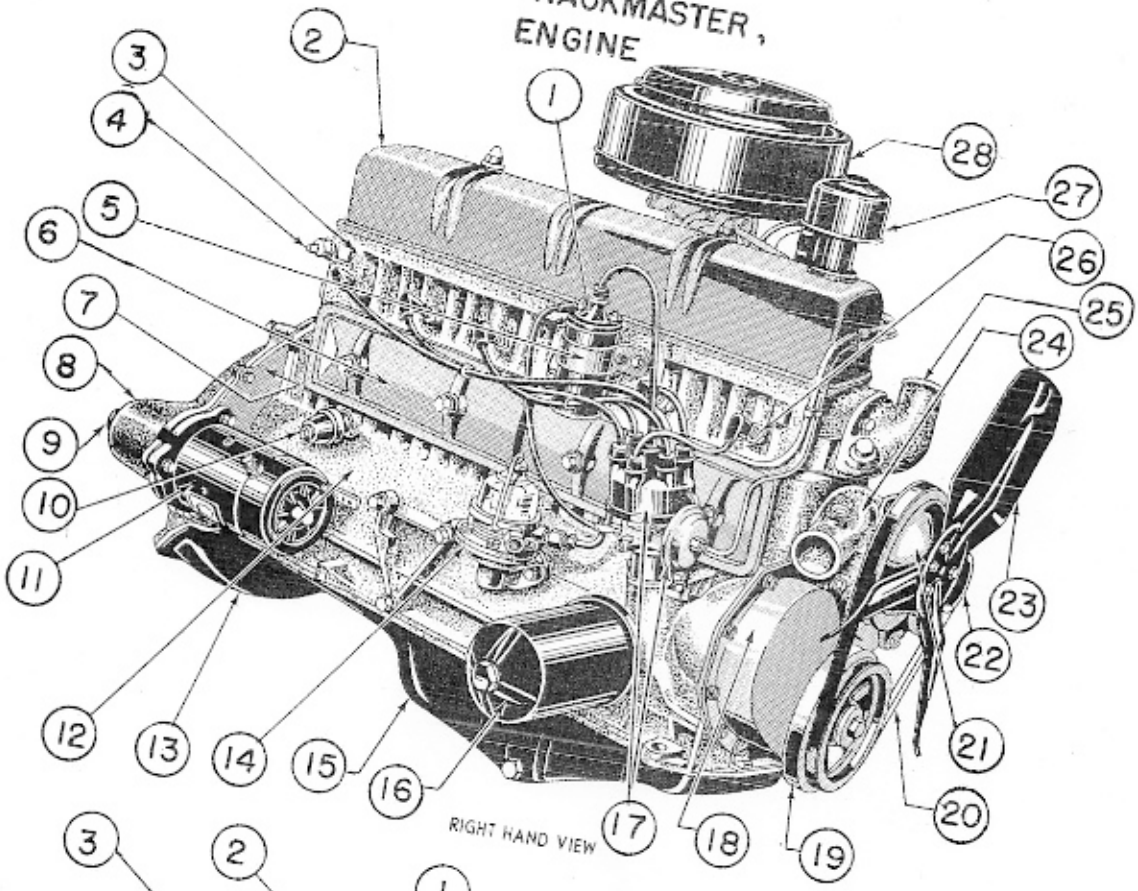
Model B6PF-6001-CD, 223 Cubic Inches,
Overhead Valve, 6 Cylinder, Engine

The detailed parts for the above engine are pictured and described in the following sections. The descriptive information within these sections relate the item numbers for identification.

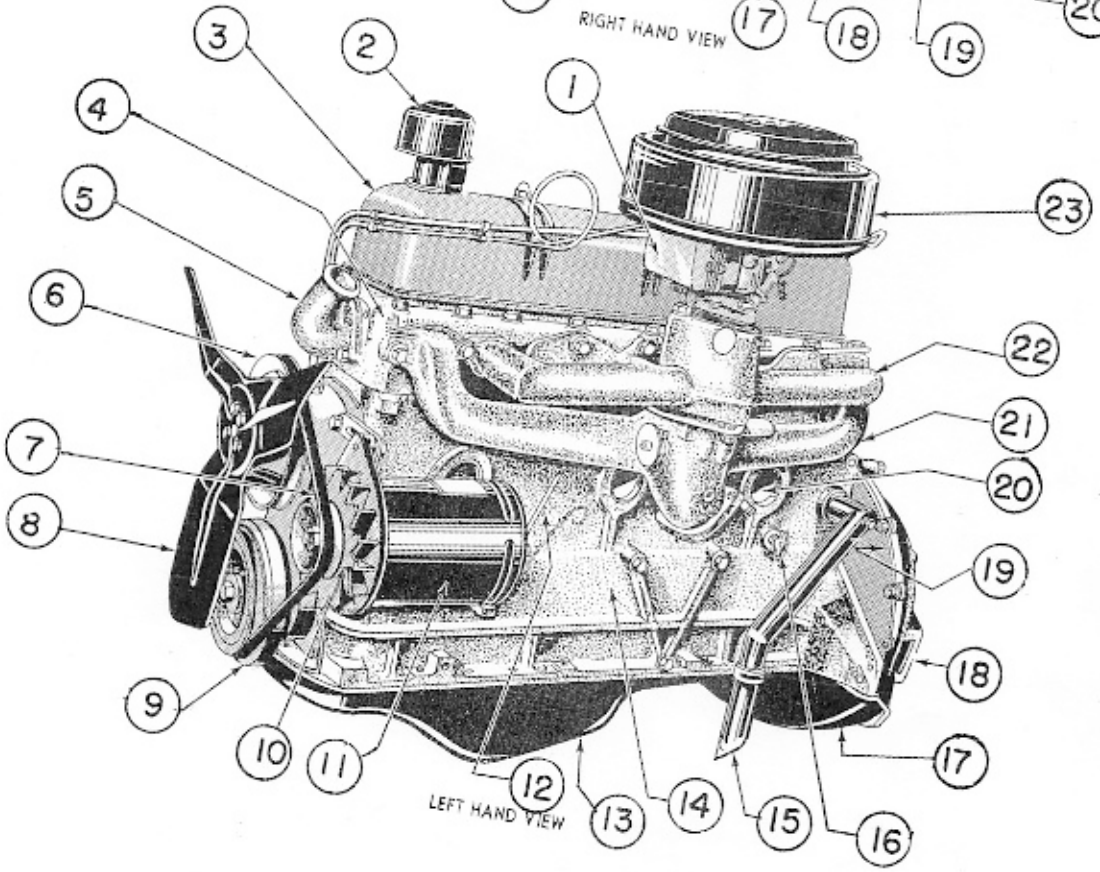
The part number, description, and quantity required for each complete vehicle is shown for replacement or identification.

A Ford Motor Company Shop Manual, Publication #7099-59, is available for maintenance and repair of the engine. This manual may also be obtained from Thiokol Chemical Corporation, Logan Works.

MODEL 4 TRACKMASTER, ENGINE



RIGHT HAND VIEW



LEFT HAND VIEW

-1644

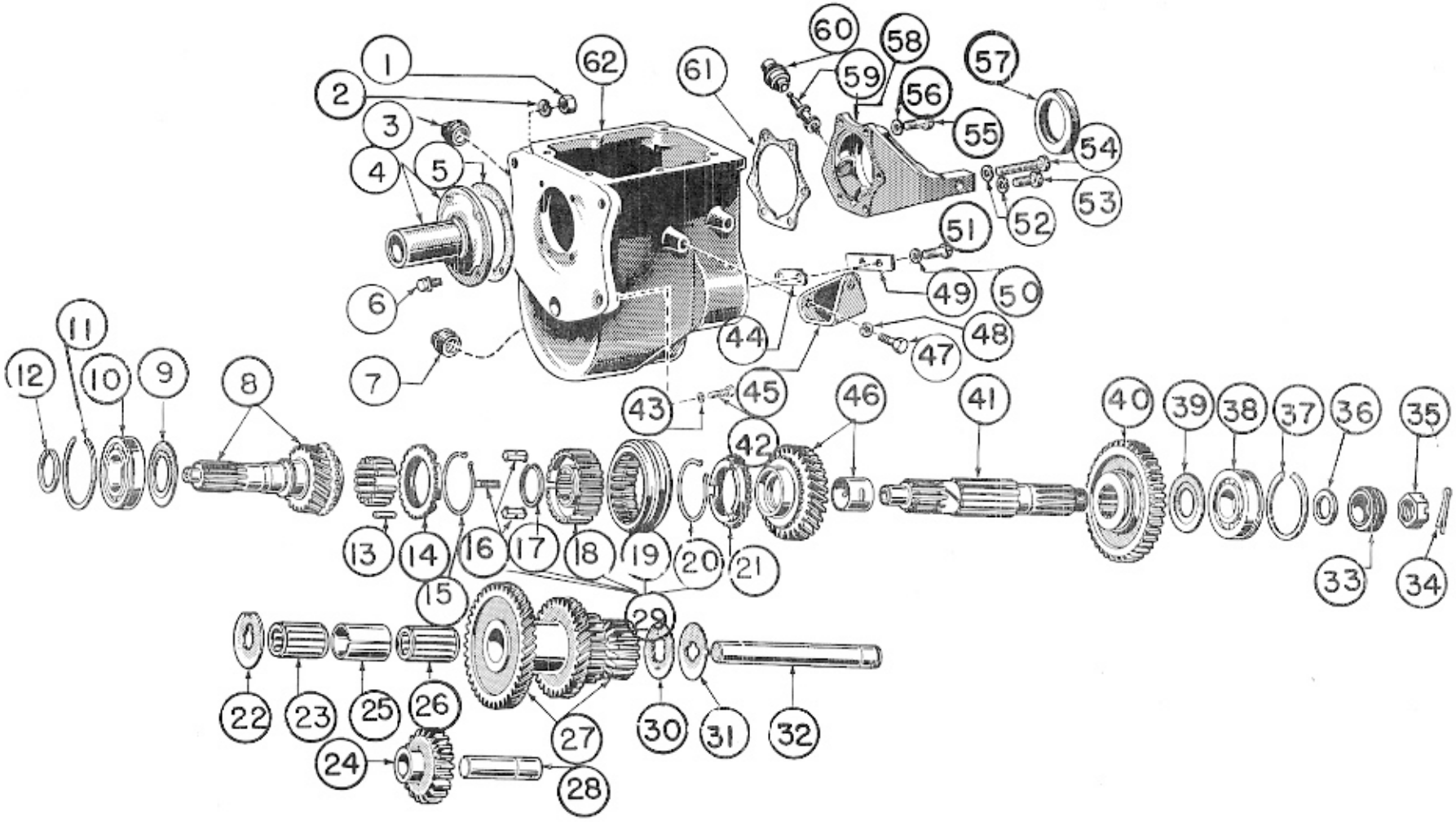
THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

MODEL 4T TRACKMASTER

Group Name ENGINE Page 39

Item Number	Part Number	Description	Number Required
1	B6A-12029-B	Coil, Ignition (Right Hand View)	1
2-3	B9AE-6582-F	Cover, Rocker Box	1
3-4	B9AE-6049-A	Head, Cylinder	1
4	- - -	Temperature Sending Unit (See Group 15, Item 50)	-
5	B5A-12044-A	Strap, Coil	1
6	EAA-6519-B	Cover, Valve Push Rod	1
7-19	EAG-7007-A	Plate, Rear Cover Adapter	1
8-18	B8Y-7505-B	Housing, Clutch and Flywheel	1
9	EAG-6677	Cap, Starter Bendix Dust	1
10	- - -	Oil Pressure Sending Unit (See Group 15, Item 49)	-
11	B6A-11002-A	Starter Assembly	1
12-14	COAE-6010-G	Block, Cylinder	1
13-17	COTT-7564-A	Cover, Dust Seal, Clutch	1
14	B8A-9350-E	Pump, Fuel	1
15-13	B8A-6675-B	Pan Assembly, Engine Oil	1
16	B9AE-6714-A	Filter Assembly, Disposable Oil	1
17	B8A-12127-J	Distributor Assembly	1
18	B6A-6019-A	Cover, Timing Gear	1
19-9	EBP-6316-A	Dampener, Crankshaft Pulley	1
20-7	EAG-8620-B	Belt, Fan, and Generator	1
21-6	EBP-8509-B	Pulley, Water Pump	1
22-10	FAA-10130-A	Pulley, Generator	1
23-8	B7C-8600-A	Blade, Fan	1
24	B6C-8501-C	Pump, Water	1
25-5	B7C-8592-A	Outlet, Water, Cylinder Head	1
26	B5C-12405-A	Plug, Spark Ignition	6
27-2	B7A-6766-A	Cap, Breather	1
28-23	B6T-9600-A	Cleaner, Air, Optional, Oil Type	1
1	JF-9510-A	Carburetor Assembly (Left Hand View)	1
11	B6A-10002-H	Generator Assembly (30 Amp) (See B6A-10002-G for 60 Amp Generator)	1
12	B8C-6750-A	Dipstick	1
15	B7C-6758-A	Breather, Road Tube	1
16	8A-8115-A	Draincock	1
20	7HA-6266-A	Plug, Block, Soft	7
21	B8A-9426-A	Manifold, Exhaust	1
22	B9A-9424-A	Manifold, Intake	1
23	B6J-9632-A	Elbow, Carburetor, Standard	1
*	B7A-6882-AL	Adapter, Disposable Oil Filter (Right Hand View)	1
*	B7AZ-6079-A	Valve Grind, Gasket Kit	1
*	B7A-6013-A	Engine Overhaul, Partial Gasket Set	1
*	B6A-10002-G	Generator Assembly (60 Amp)	1

* Not Shown



MODEL 4 TRACKMASTER,

TRANSMISSION = 3 SPEED

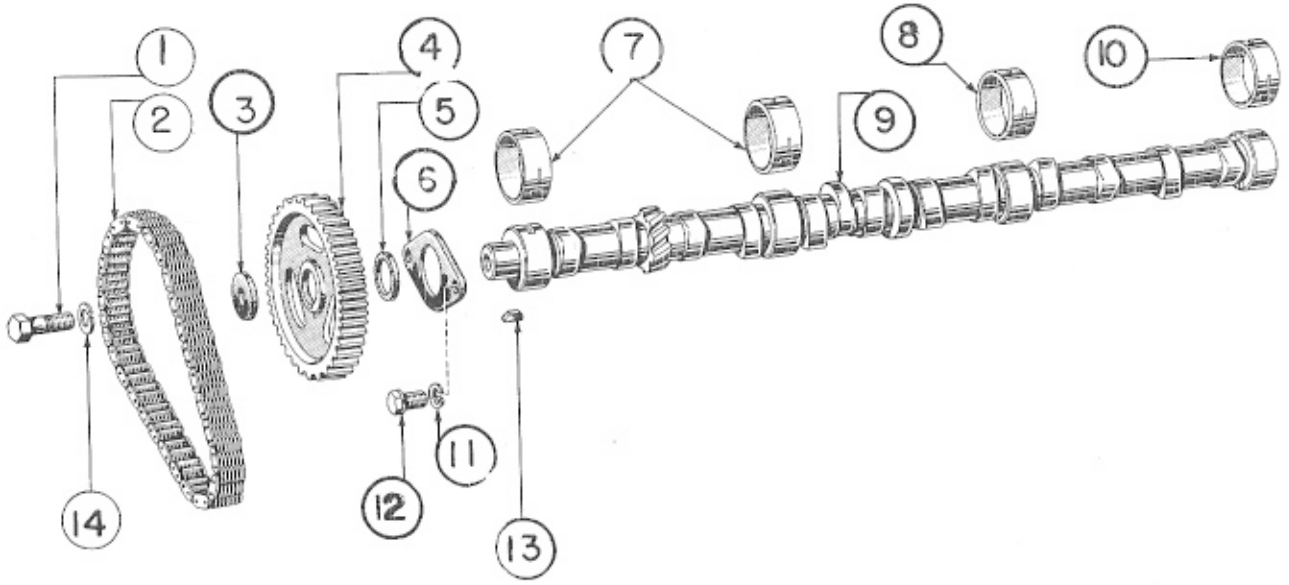
Item Number	Part Number	Description	Number Required
1	33848-S	Nut, Hex, 9/16 - 18	As Required
2	34810-S	Lockwasher, 9/16	As Required
3	343051-S	Plug, 3/4	1
4	TBAA-7050-A	Retainer, Input Shaft Bearing	1
5	70-7051	Gasket, Input Shaft Retainer	As Required
6	350673-S	Bolt, 5/16 - 18 x 3/4	As Required
7	353051-S	Plug, 3/4	1
8	B7Y-7017-A	Shaft, Transmission Input	1
9	8D-7040	Baffle, Input Shaft Oil	1
10	8D-7025	Bearing, Transmission Input Shaft	1
11	8D-7026	Snap Ring, Transmission Input Shaft Bearing	1
12	8D-7064-A	Snap Ring, Transmission Input Shaft Bearing to Shaft	1
13	8D-7120	Roller, Transmission Bearing	16
14	8D-7107	Ring, Synchronizer Blocking	1
15	8D-7109	Snap Ring, Synchrohub	1
16	8D-7116	Insert, Intermediate and High Clutch Hub	3
17	8D-7059	Snap Ring, Output Shaft	1
18	8D-7105	Hub, Intermediate and High Clutch	1
19	8D-7106-B	Sleeve, Intermediate and High Clutch	1
20	8D-7109	Snap Ring, Synchrohub	1
21	8D-7107	Ring, Synchronizer Blocking	1
22	8D-7119-A	Washer, Counter Shaft Gear Thrust	1
23	BB-7118	Bearing, Transmission Countershaft	1
24	8D-7141	Gear and Bushing, Reverse Idler	1
25	8D-7115	Spacer, Transmission Countershaft	1
26	BB-7118	Bearing, Transmission Countershaft	1
27	B7Y-7113-A	Gear, Cluster	1
28	8D-7140	Shaft, Reverse Idler Gear	1
29	8D-7124-B	Synchronizer Assembly, Transmission	1
30	8D-7119-A	Plate, Countershaft, Gear Thrust	1
31	8D-7128	Plate, Countershaft Gear Thrust	1
32	8D-7111	Countershaft, Transmission	1
33	01T-17285-B	Driving Gear, Speedometer	1
34	72089-S	Cotter Pin, 1/8 x 1 3/4	As Required
35	351165-S	Nut, Castle, 1 - 20	1
36	8J-17288	Spacer, Speedometer Gear	1
37	8D-7070	Snap Ring, Transmission Output Shaft Bearing	1
38	8D-7065	Bearing, Transmission Output Shaft	1
39	8D-7080	Baffle, Transmission Output Shaft Oil	1
40	8D-7100	Gear, Low and Reverse Sliding	1
41	8J-7061	Shaft, Transmission Output	1
42	21053-S	Bolt, 9/16 - 12 x 1 7/8	As Required
43	34810-S	Lockwasher, 9/16	As Required
44	2D-77403	Gasket, Idler Shaft Lock Plate	1
45	TBAA-7507-A	Bracket, Clutch Release Equalizer Bar	1
46	B7Y-7102-A	Gear and Bushing Assembly, Intermediate	1
47	20388-S	Bolt, 3/8 - 16 x 1	As Required
48	34807-S	Lockwasher, 3/8	As Required
49	BB-7155	Retainer, Countershaft and Reverse Idler Shaft	1
50	34807-S	Lockwasher, 3/8	As Required

Item Number	Part Number	Description	Number Required
51	20348-S	Bolt, 3/8 - 16 x 3/4	As Required
52	34807-S	Lockwasher, 3/8	As Required
53	20408-S	Bolt, 3/8 - 16 x 1 1/8	As Required
54	22582-S	Bolt, 3/8 - 16 x 2	As Required
55	20408-S	Bolt, 3/8 - 16 x 1 1/8	As Required
56	34807-S	Lockwasher, 3/8	As Required
57	01T-4813-A	Retainer	1
58	TBAA-7085-A	Retainer Assembly, Transmission Output Shaft Bearing	1
59	01T-17271-B	Gear, Speedometer Driven	1
60	01T-17269	Bearing, Speedometer Driven Gear	1
61	8D-7086	Gasket, Output Shaft Retainer	1
62	TBAA-7006-A	Case Assembly, Transmission	1
*	A8T-7002-C	Kit, Transmission, Small Parts Repair	1

* Not Shown

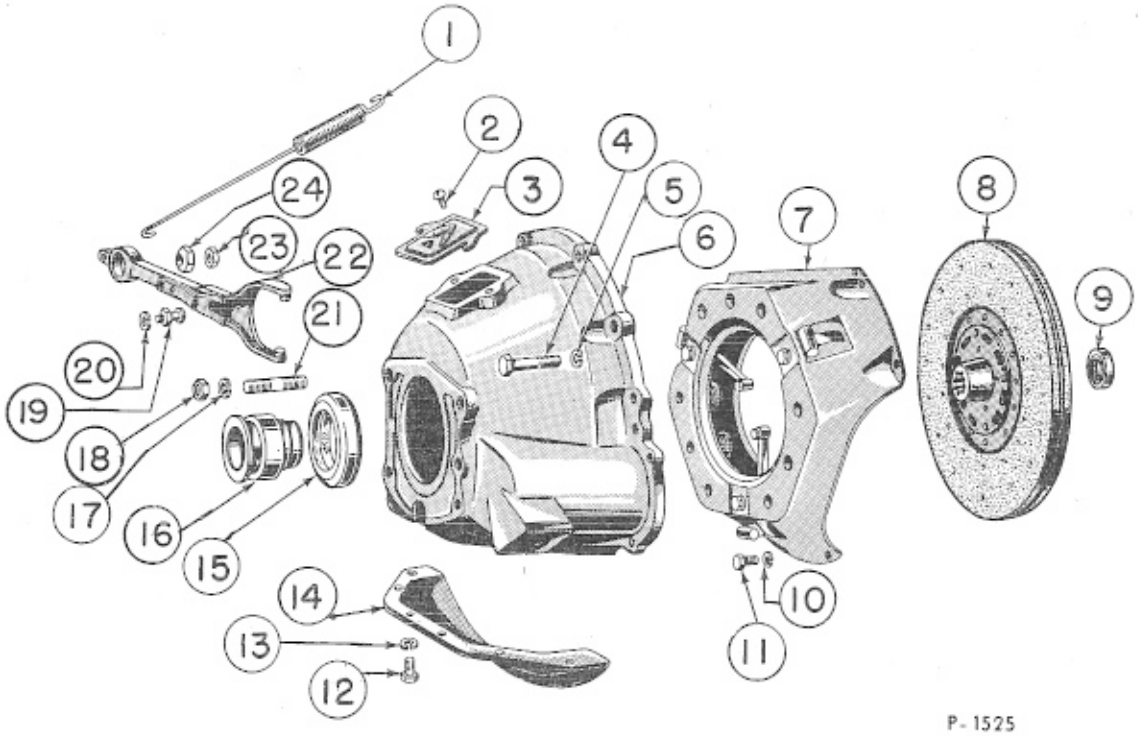
MODEL 4 TRACKMASTER

CAMSHAFT, GEAR & BEARINGS



Item Number	Part Number	Description	Number Required
1	21847-S	Bolt	1
2	EAA-6268-B	Chain, Timing	1
3	EAA-6278-B	Washer	1
4	EAA-6256-A	Gear	1
5	EBU-6265-A	Spacer	1
6	EAA-6269-B	Plate, Thrust	1
7	EAA-6261-B	Bearing, Camshaft, Front and Intermediate	2
8	EAA-6270-B	Bearing, Camshaft, Main	1
9	B7A-6250-A	Camshaft	1
10	EAA-6261-B	Bearing, Camshaft, Rear	1
11	34806-S	Lockwasher	1
12	20346-S	Bolt	1
13	74175-S	Key, Woodruff, 5/32 x 5/8	1
14	34808-S	Washer	1

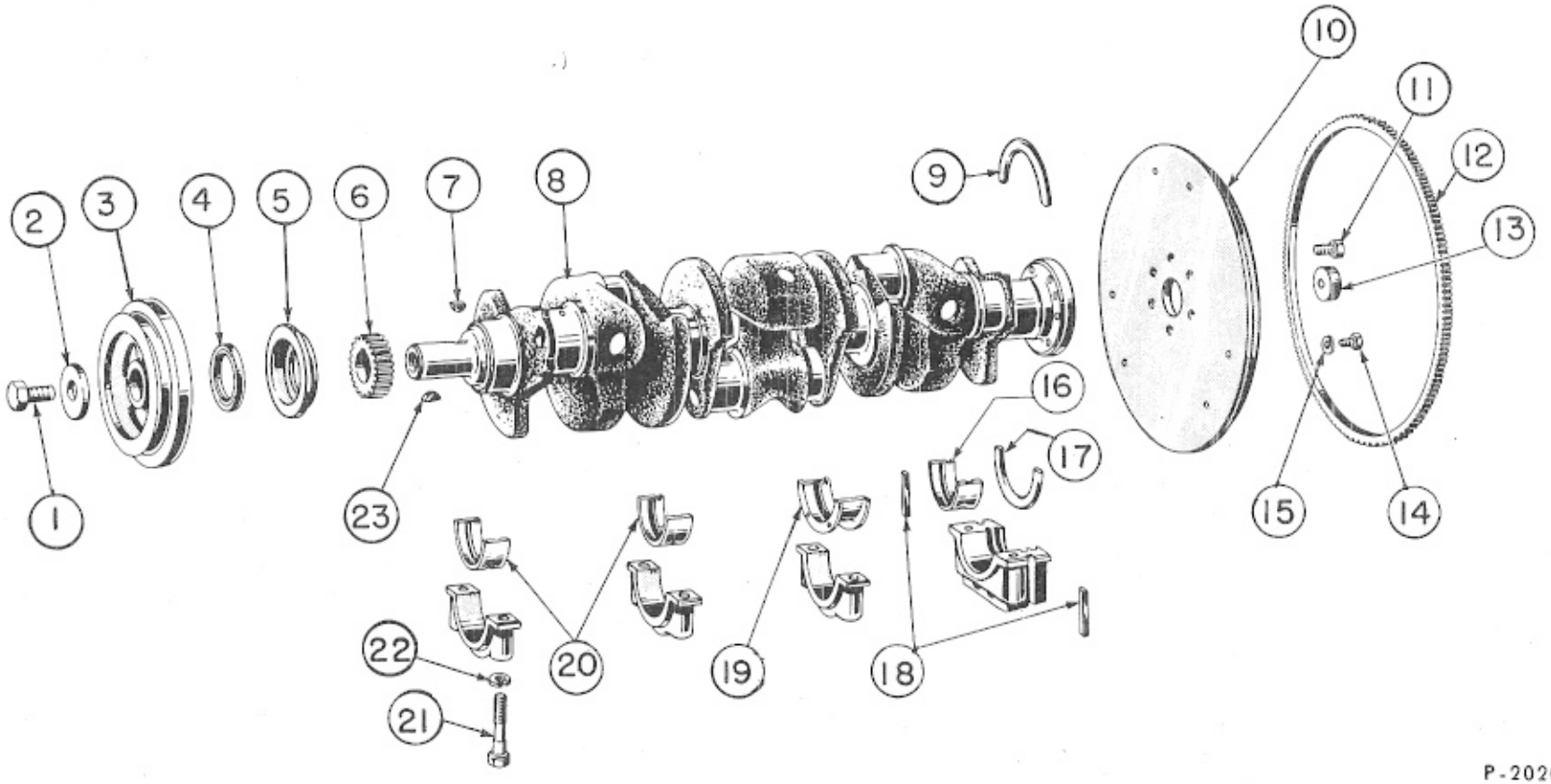
MODEL 4 TRACKMASTER,
CLUTCH ASSEMBLY



P-1525

Item Number	Part Number	Description	Number Required
1	B7C-7523-A	Spring, Retracting	1
2	26148-S	Screw, Round Head, 5/16 - 18 x 3/8	As Required
3	48-7518	Cover, Clutch Housing Inspection	1
4	21551-S	Bolt, Hex Head, 7/16 - 14 x 2 3/4	As Required
5	34808-S	Lockwasher, 7/16	As Required
6	B8Y-7505-B	Housing, Clutch	1
7	B7Y-7563-A	Plate and Cover Assembly, Clutch Pressure	1
8	B6D-7550-A	Disc Assembly, Clutch	1
9	B-7600-A	Bearing, Clutch Pilot	1
10	34806-S	Lockwasher, 5/16	As Required
11	350433-S	Bolt, Hex Head	As Required
12	20310-S	Bolt, Hex Head	As Required
13	34806-S	Lockwasher, 5/16	As Required
14	COTT-7564-A	Cover, Clutch Housing Dust	1
15	78-7580-A	Bearing Assembly, Clutch Release	1
16	TAAA-7571-A	Hub, Clutch Release Bearing	1
17	34810-S	Lockwasher, 9/16	As Required
18	33848-S	Nut, 9/16 - 18, Hex	As Required
19	TAAA-7522-A	Trunnion, Clutch Release Lever	1
20	34810-S	Lockwasher, 9/16	As Required
21	354320-S	Stud, 9/16 - 12 x 9/16 - 18 x 2 9/16	As Required
22	B8C-7515-A	Lever Assembly, Clutch Release	1
23	33800-S	Nut, 3/8 - 24	As Required
24	352516-S	Nut, 3/8 - 24 Special Cone	As Required

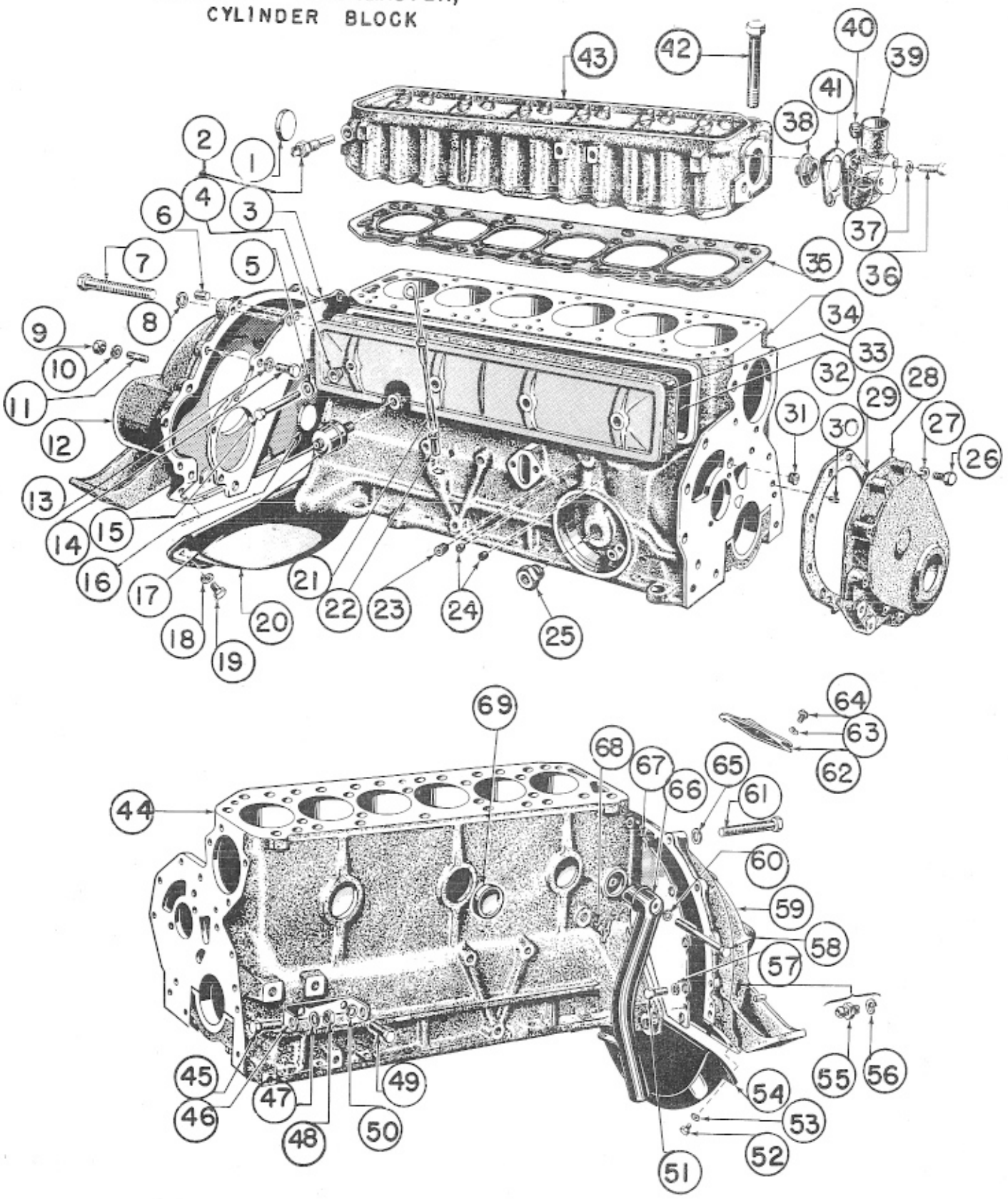
MODEL 4 TRACKMASTER,
CRANKSHAFT ASSEMBLY



P-2020

Item Number	Part Number	Description	Number Required
1	354566-S	Bolt, Crankshaft Pulley Retaining	1
2	EAA-6378-A	Washer, Plain, Damper to Crankshaft	1
3	EBP-6316-A	Dampener, Single Sheave	1
4	EAA-6700-B4	Seal, Crankshaft	1
5	B6A-6310-A	Slinger	1
6	B8A-6306-B	Gear, Crankshaft	1
7	74175-S	Key, Woodruff, 5/32 x 5/8	1
8	B6A-6303-E	Crankshaft	1
9	B4A-6701-A	Seal, Rear Crankshaft, Upper	1
10	B4A-6375-B	Flywheel Assembly	1
11	EAA-6379-B	Bolt, Flywheel to Crankshaft Flange	6
12	EAA-6384-A	Gear, Flywheel Starter	1
13	B-7600-A	Bearing, Pilot	1
14	350433-S	Bolt, Clutch Pressure Plate	6
15	34806-S	Washer	6
16	EAG-6331-G	Bearing, Rear Main, Standard	2
17	B4A-6701-A	Seal, Rear Crankshaft, Lower	1
18	EAA-6336-B	Seal, Rear Main Cap	2
19	B9TE-6342-A	Bearing, Main Thrust, Standard	2
20	B9TE-6333-A	Bearing, Front and Intermediate, Standard	4
21	59A-6345-A	Bolt, Main Bearing Cap	8
22	34809-S	Washer	8
23	74151-S	Key, Woodruff	1

MODEL 4 TRACKMASTER,
CYLINDER BLOCK

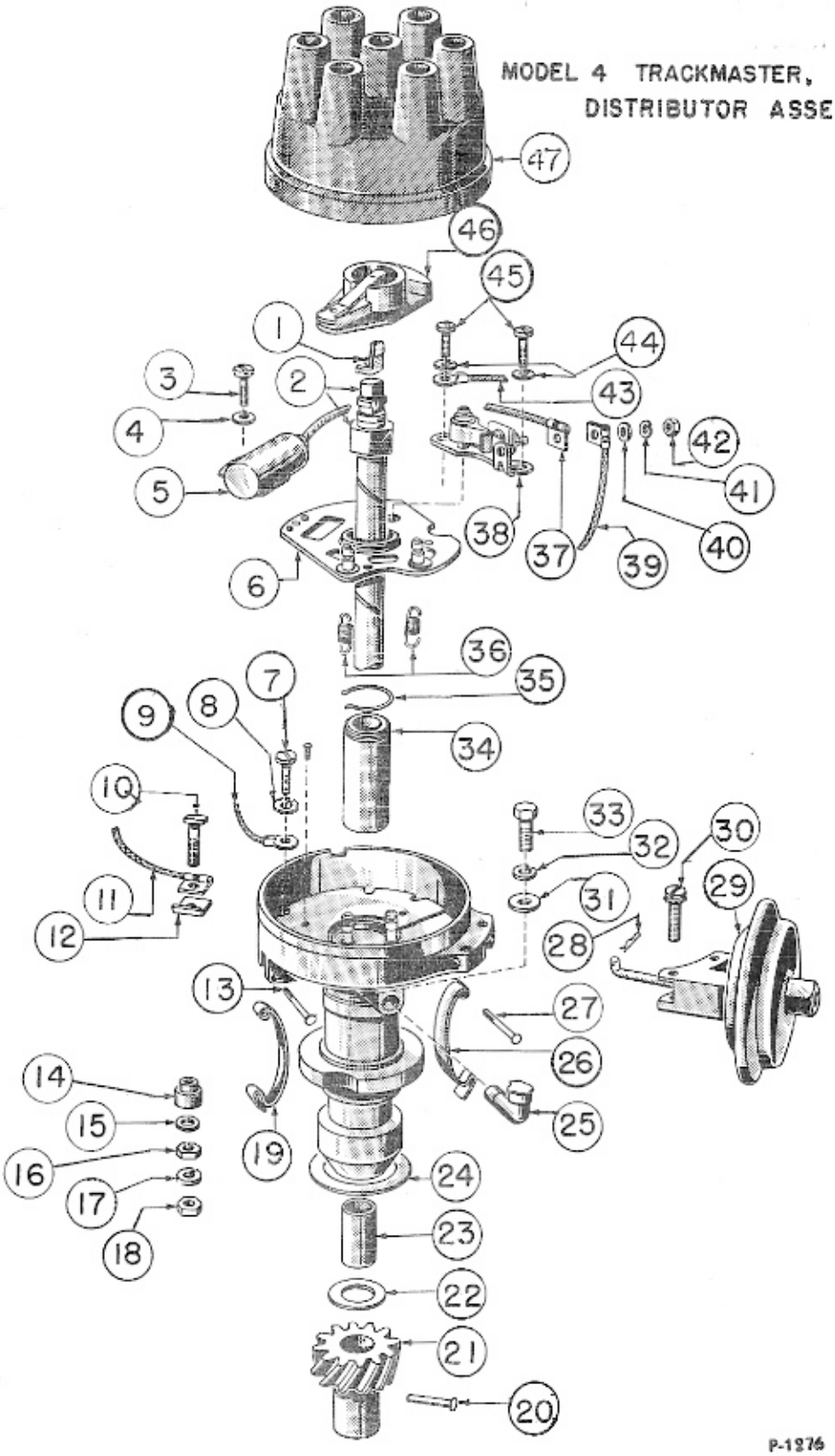


Item Number	Part Number	Description	Number Required
1	7HA-6266-A	Plug, Soft, Cylinder Head and Block	1
2	- - -	Temperature Sending Unit (See Group 15, Item 50)	1
3	EAG-7007-A	Plate, Rear Cover Adapter	1
4	EAA-6570-C	Grommet, Valve Cover, Bolt	4
5	44722-S	Washer, Flat, 5/16	As Required
6	73249-S	Pin	-
7	21551-S	Bolt, 7/16 - 14 x 2 3/4	-
8	34808-S	Lockwasher, 7/16	As Required
9	33848-S	Nut, 9/16 - 18	-
10	34810-S	Lockwasher, 9/16	-
11	354320-S	Rod, Threaded	-
12	B84-7505-B	Housing, Clutch and Flywheel	1
13	34806-S	Lockwasher, 5/16	As Required
14	20326-S	Bolt, 5/16 - 18 x 5/8	-
15	24504-S	Bolt	-
16	7HA-6266-A	Plug, Soft, Block	7
17	- - -	Oil Pressure, Sending Unit (See Group 15, Item 49)	1
18	34806-S	Lockwasher, 5/16	As Required
19	2-310-S	Bolt, 5/16 - 18 x 1/2	As Required
20	COTT-7564-A	Cover, Dust Seal, Clutch	1
21	B8C-6750-A	Dipstick	1
22	-7020	Tube	1
23	87709-S	Setscrew	-
24	B2A-6026-B	Plug, Water Pump	1
25	B7A-6890-A	Insert, Oil Filter Mounting Bolt	1
26	357913-S	Bolt	-
27	34805-S	Lockwasher, 1/4	-
28	B6A-6019-A	Cover, Timing Gear	1
29	EAA-6020-B	Gasket, Timing Gear Cover	1
30	73428-S	Plug	-
31	87710-S	Plug	-
32	EAA-6521-B	Gasket, Valve Push Rod Cover	1
33	EAA-6519-B	Cover, Valve Push Rod	1
34-44	COAE-6010-G	Block, Cylinder	1
35	COAE-6051-A	Gasket, Cylinder Head	1
36	20388-S	Bolt	-
37	34847-S	Lockwasher	-
38	B7A-8575-A	Thermostat	1
39	B7C-8592-A	Outlet, Cylinder Head Water	1
40	358066-S	Plug	-
41	EAA-8255-B	Gasket, Cylinder Water Outlet	1
42	B2AZ-6065-A	Head, Cylinder Bolt	16
43	B9AE-6049-A	Head, Cylinder	1
45	24430-S	Bolt	-
46	B6A-6129-B	Bracket, Generator to Block	1
47	34808-S	Lockwasher, 7/16	As Required
48	33801-S	Nut	-
49	20410-S	Bolt	-
50	34808-S	Lockwasher, 7/16	As Required
51	20326-S	Bolt	-

Item Number	Part Number	Description	Number Required
52	20310-S	Bolt, 5/16 - 18 x 1/2	-
53	34806-S	Lockwasher, 5/16	As Required
54	COTT-7564-A	Cover, Dust Seal, Clutch	1
55	-7522	Trunnion	-
56	34810-S	Lockwasher	-
57	34806-S	Lockwasher, 5/16	-
58	21579-S	Bolt	As Required
59	B8Y-7505-B	Housing, Clutch and Flywheel	1
60	34806-S	Lockwasher, 5/16	As Required
61	21551-S	Bolt	-
62	48-7518	Plate, Inspection Cover	1
63	34806-S	Lockwasher	-
64	26148-S	Bolt	-
65	34808-S	Lockwasher, 7/16	As Required
66	B7C-6758-A	Breather, Road Tube	1
67	EAG-7007-A	Plate, Rear Cover Adapter	1
68	8A-8115-A	Draincock	1
69	7HA-6266-A	Plug, Block, Soft	7
*	B7A-6882-A	Adapter, Disposable Oil Filter	1
*	COTE-6009-E	Short Block Assembly	1

* Not Shown

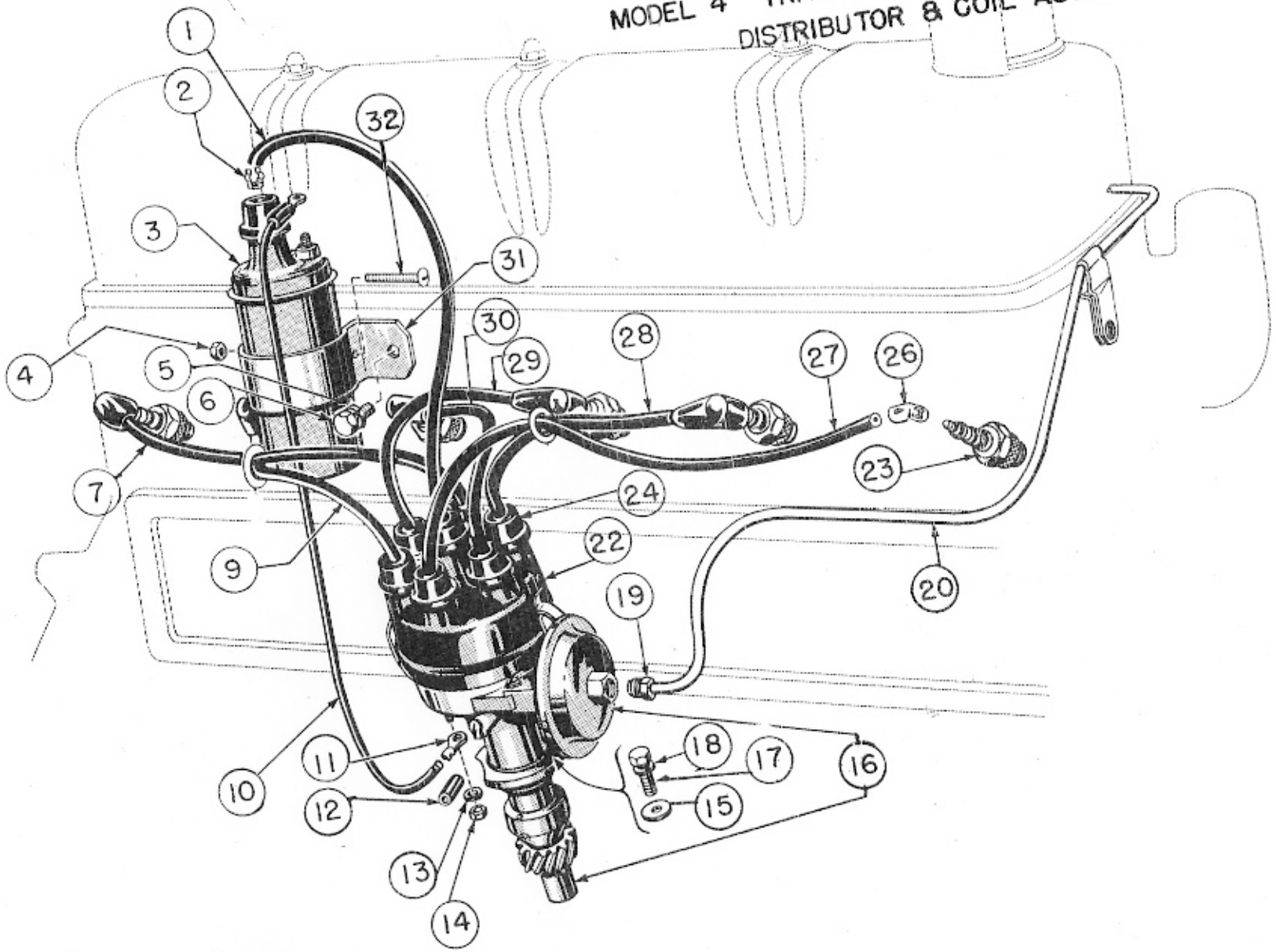
MODEL 4 TRACKMASTER,
DISTRIBUTOR ASSEMBLY



P-1276

Item Number	Part Number	Description	Number Required
1	OBA-12213	Retainer, Distributor Rotor	1
2	B5A-12175-B	Shaft and Cam Assembly, Distributor	1
3	31037-S	Screw, Fillister Head, 8-32 x 5/16	As Required
4	34802-S	Lockwasher, No. 8	As Required
5	7RA-12300-C	Condenser Assembly, Distributor	1
6	B8A-12151-A	Plate Assembly, Distributor Breaker	1
7	31037-S	Screw, Fillister Head, 8 - 32 x 5/16	1
8	34802-S	Lockwasher, No. 8	As Required
9	7RA-12264	Wire Assembly, Distributor Breaker Ground	1
10	350032-S	Screw, 10 - 32 x 27/32	As Required
11	B6A-12216-A	Wire Assembly, Primary Terminal	1
12	B7A-12234-B	Washer, Primary Terminal Screw, Ins.	1
13	B-12145	Rivet, Distributor Terminal Housing Clamp	2
14	7RA-12233	Bushing, Primary Terminal Screw, Outer	1
15	351256-S	Washer, No. 10, Flat	As Required
16	34079-S	Nut, No. 10 - 32	-
17	34803-S	Lockwasher, No. 10	As Required
18	34079-S	Nut, No. 10 - 32	As Required
19	7RA-12144	Clamp Distributor Housing Hold Down	2
20	61489-S	Pin, 1/8 x 13/16, Button Head	As Required
21	B5A-12390-A	Gear, Distributor Driven, 12 Tooth	1
22	B8A-12179-A	Washer, Distributor Driven Gear Thrust	1
23	FAA-12132-A	Bushing, Distributor Housing Lower	1
24	FAA-12143-A	Gasket, Distributor Base	1
25	FAA-12135-A	Oiler, Distributor Housing	1
26	7RA-12144	Clamp, Distributor Housing, Hold Down	2
27	B-12145	Rivet, Distributor Housing, Clamp	2
28	353610-S	Retainer	As Required
29	7RA-12370-B	Diaphragm Assembly, Distributor Vacuum Control	1
30	43243-S8	Screw and Lockwasher, 8 - 32 x 3/4	As Required
31	44722-S	Washer, Flat, 5/16	As Required
32	34806-S	Lockwasher, 5/16	As Required
33	20386-S	Bolt, 5/16 - 18 x 1	As Required
34	A8A-12120-A	Bushing, Distributor Housing	1
35	7RA-12146	Snap Ring, Distributor Breaker Plate	1
36	FDE-12225-A	Spring, Distributor Diaphragm	1
37	7RA-12300-C	Condenser Assembly, Distributor	1
38	FAA-12171-A	Point Set Assembly, Breaker Arm and Contact	1
39	B6A-12216-A	Wire Assembly, Primary Terminal	1
40	351192-S	Washer, No. 6, Flat	As Required
41	34801-S	Lockwasher, No. 6	As Required
42	34051-S	Nut, No. 6 - 32	As Required
43	7RA-12264	Wire Assembly, Distributor Breaker Ground	1
44	34802-S	Lockwasher, No. 8	As Required
45	31037-S	Screw, Fillister Head, 8 - 32 x 5/16	As Required
46	FAA-12200-B	Rotor Assembly, Distributor	1
47	7HA-12106	Housing Assembly, Distributor Terminal	1
- -	B8A-12127-J	Distributor Assembly	1

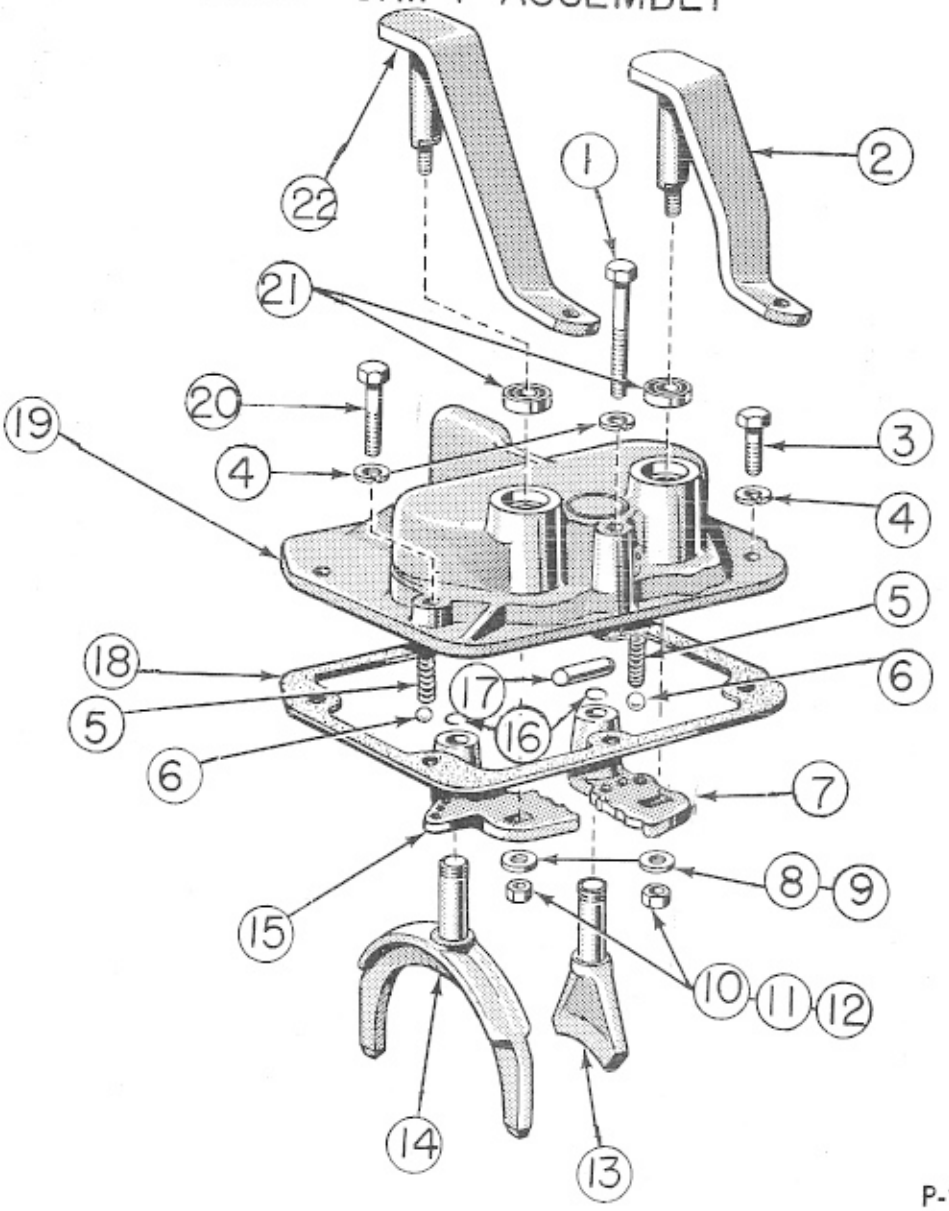
MODEL 4 TRACKMASTER
DISTRIBUTOR & COIL ASSY.



P-1252

Item Number	Part Number	Description	Number Required
1	8EQ-12298	Wire Assembly, High Tension to Coil	1
2	B8A-14466-B	Terminal, High Tension Wire	As Required
3	B6A-12029-B	Coil Assembly, Ignition	1
4	34079-S	Nut, 10 - 32	As Required
5	34806-S	Lockwasher, 5/16	As Required
6	20326-S	Bolt, 5/16 - 18 x 5/8	As Required
7	-12285	Serviced in B8A-12259-A Wire Set	1
8	Not Shown	- - -	-
9	-12282	Serviced in B8A-12259-A Wire Set	1
10	-14302	Random Stock Wire Cut to Length	-
11	- - -	Not Used	-
12	8A-14455-B	Sleeve, Wiring	As Required
13	34803-S	Lockwasher, No. 10	As Required
14	34079-S	Nut, 10 - 32	As Required
15	44722-S	Washer, Flat, 5/16	As Required
16	B8A-12127-J	Distributor Assembly	1
17	20356-S	Bolt	As Required
18	34806-S	Lockwasher, 5/16	As Required
19	351112-S	Nut, 3/8 - 24 Weatherhead	As Required
20	B7A-12226-B	Tube, Vacuum Distributor (Make from 3/16 Tubing - Developed length 37 3/4")	1
21	Not Shown	- - -	-
22	7HA-12106	Housing Assembly, Distributor Terminal	1
23	B5C-12405-A	Spark Plug Assembly, 860	6
24	2N-12113	Seal, Wire Terminal Weather	1
25	Not Shown	- - -	-
26	B8A-14453-A	Snap-On Terminal, Spark Plug	As Required
27	-12286)		
28	- 12283)	Serviced in B8A-12259-A, Wire Set	1
29	-12284)		
30	-12287)		
31	B5A-12044-A	Strap, Ignition Coil, Mounting	1

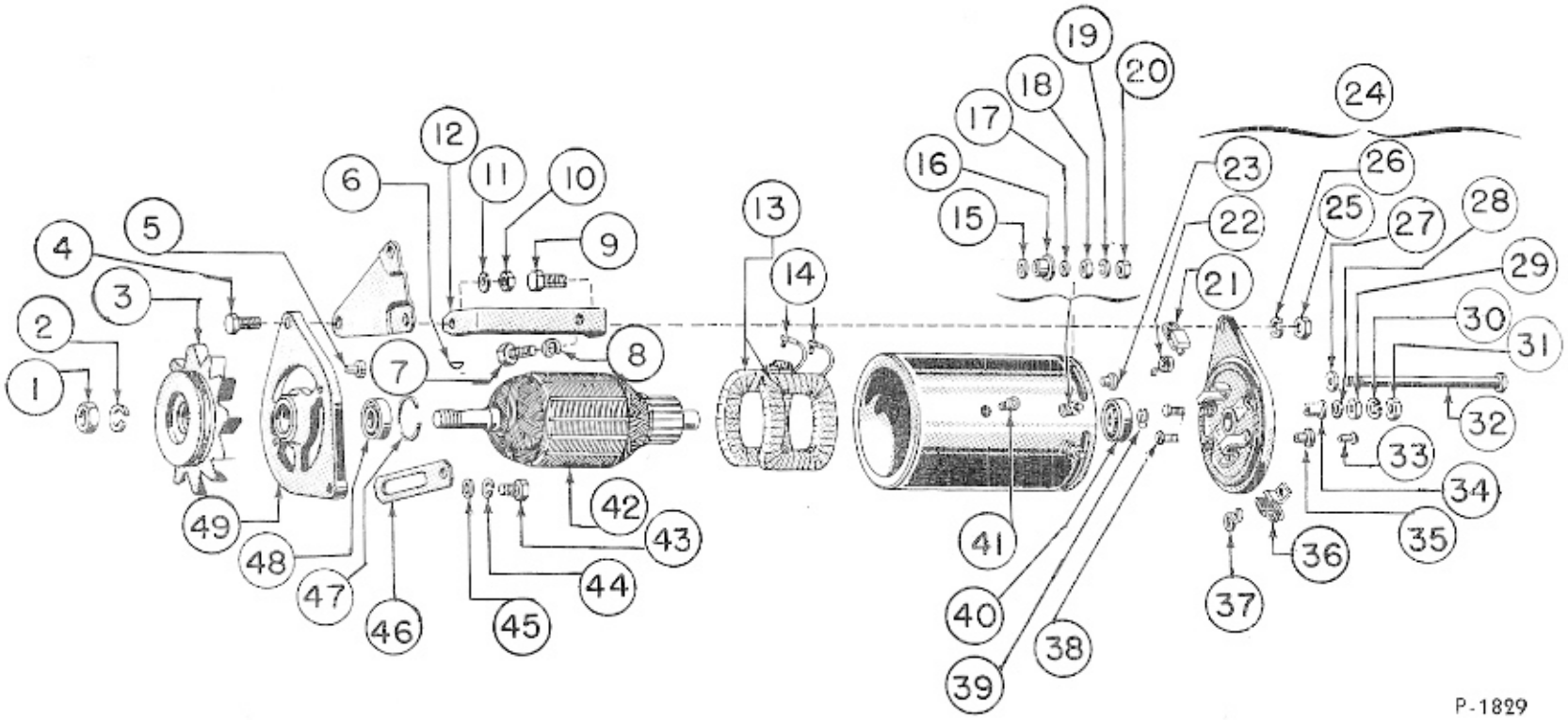
MODEL 4 TRACKMASTER
GEAR SHIFT ASSEMBLY



P-1377

Item Number	Part Number	Description	Number Required
1	45522-	Bolt, Hex, 3/8" - 16 x 2 1/2"	As Required
2	B9TT-7290-A	Lever Assembly, Transmission, Low and Reverse	1
3	20388-S	Bolt, Hex 3/8" - 16 x 1"	As Required
4	34807-S	Lockwasher, 3/8"	As Required
5	8D-7234	Spring, Transmission	1
6	372720-S	Ball, 3/8"	As Required
7	2J-7283-A	Cam, Transmission, Low and Reverse	1
8	44722-S	Washer, Flat 5/16"	As Required
9	44726-S	Washer, Flat 3/8"	As Required
10	34393-S	Lock Nut, Hex 5/16" - 24	As Required
11	34030-S	Castle Nut - 3/8" - 24	As Required
12	34033-S	9/16" - 18 Castle Nut	As Required
13	2J-7231-A	Fork, Transmission, Low and Reverse	1
14	2J-7230-A	Fork, Transmission, High and Intermediate	1
15	2J-7281-A	Cam, Transmission, High and Intermediate	1
16	8L-7683	Lock Ring, Transmission Shifter Fork	2
17	2J-7233	Plunger, Transmission Shifter Lock	1
18	8D-7223	Gasket, Transmission Housing	1
19	2J-7204-A	Housing Assembly, Transmission Gear Shift	1
20	20448-S	Bolt, Hex, 5/16" - 16 x 1 3/8"	As Required
21	56H-7688	Seal, Transmission Shifter	2
22	B9TT-7285-A	Lever Assembly, Transmission, Intermediate and High	1

MODEL 4 TRACKMASTER,
GENERATOR ASSEMBLY



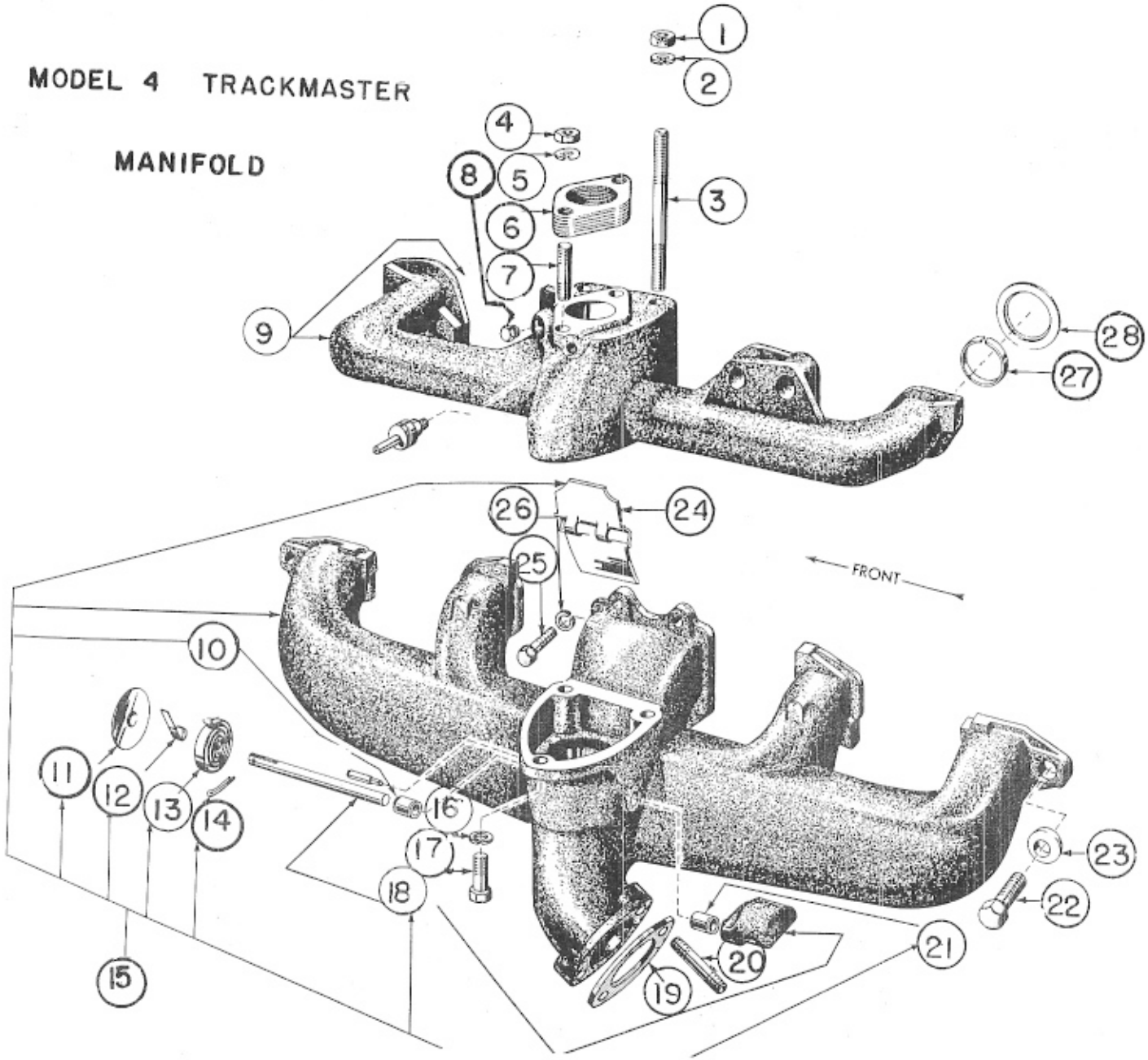
P-1829

Item Number	Part Number	Description	Number Required
1	351124-S	Nut, 21/32 - 20	As Required
2	351496-S	Lockwasher, 43/64	As Required
3	FAA-10130-A	Pulley, Generator	1
4	20470-S	Bolt	As Required
5	18-10088	Dowel, End Plate Locating	2
6	74175-S	Key, Woodruff	As Required
7	20390-S	Bolt, 7/15 - 14 x 1	As Required
8	34808-S	Lockwasher, 7/16	As Required
9	20470-S	Bolt	As Required
10	33801-S	Nut, 7/16 - 14	As Required
11	34808-S	Lockwasher, 7/16	As Required
12	B6A-6129-B	Bracket, Generator to Cylinder Block Mounting	1
13	B6A-10175-B	Coil Assembly, Generator Field	1
14	01A-10211	Screw, Generator Terminal	1
15	81A-10208	Washer, Terminal Screw, Insulating, Inner	1
16	81A-10206	Insulator, Frame Terminal Screw, Outer	1
17	44716-S	Washer, Flat, No. 10	As Required
18	34079-S	Nut, 10 - 32	As Required
19	34803-S	Lockwasher, No. 10	As Required
20	34079-S	Nut, 10 - 32	As Required
21	B6A-10043-B	Brush Set, Generator	1
22	91A-10057	Spring, Generator Brush	2
23	18-10088	Dowel, End Plate Locating	2
24	B5A-10050-A	Plate and Brushes Assembly, Rear End	1
25	33801-S	Nut, 7/16 - 14	As Required
26	34808-S	Lockwasher, 7/16	As Required
27	34805-S	Lockwasher, 1/4	As Required
28	44719-S	Washer, Flat, 1/4	As Required
29	33796-S	Nut, 1/4 - 28	As Required
30	34805-S	Lockwasher, 1/4	As Required
31	33796-S	Nut, 1/4 - 28	As Required
32	8A-10120	Bolt, Frame through, 1/4 - 20 x 6.56"	2
33	18-11069	Rivet	As Required
34	01A-10202	Bushing, Terminal Screw Insulating	1
35	8BA-10048-B	Insulator, Brush Holder Rivet	1
36	B6A-10043-B	Brush Set, Generator	1
37	91A-10057	Spring, Generator Brush	2
38	B4A-10211-A	Screw, Generator Terminal	2
39	FAB-10087-A	Spring, Generator Bearing	1
40	FAA-10095-A	Bearing, Generator, Rear	1
41	68-10044	Screw, Pole Piece	2
42	B6A-10005-A	Armature Assembly, Generator	1
43	20388-S	Bolt, 3/8 - 16 x 1	As Required
44	34847-S	Lockwasher, 3/8	As Required
45	44726-S	Washer, Flat, 3/8	As Required
46	EBP-10145-A	Arm, Generator Belt Adjustment	1
47	01A-10163	Ring, Front End Plate Bearing Stop	1
48	7RA-10094	Bearing, Generator End Plate	1
49	B6A-10139-B	Plate Assembly, Front End	1
- -	B6A-10002-H	Generator Assembly (30 Amp)	1

Item Number	Part Number	Description	Number Required
- -	B6A-10002-G	Generator Assembly, 60 Amp	1
1	351056-S8	Nut, 1/2 - 20	1
2	34809-S8	Lockwasher, 1/2	1
3	B6C-10130-B	Pulley Generator	1
4	20470-S	Bolt	1
5	18-10088	Dowel, End Plate Locating	2
6	74144-S	Key, Woodruff 1/8 x 5/8	1
7	20390-S	Bolt, 7/16 - 14 x 1	2
8	34808-S	Lockwasher, 7/16	As Required
9	20470-S	Bolt	As Required
10	33801-S	Nut, 7/16 - 14	As Required
11	34808-S	Lockwasher	As Required
12	B7C-6129	Bracket, Generator to Cylinder Block Mounting	1
13	B6C-10175-A	Coil Assembly, Generator Field	1
14	B8C-10211-A	Screw, Generator Terminal	1
15	10208	Washer, Terminal Screw, Insulating Inner	1
16	10206	Insulator, Frame Terminal Screw, Outer	1
17	44716-S	Washer, Flat No. 10	As Required
18	34079-S7	Nut, 10 - 32	As Required
19	34803-S	Lockwasher, No. 10	As Required
20	34079-S7	Nut, 10 - 22	As Required
-	B6C-10043-A	Brush Set, Generator	1
22	B6C-10057-A	Spring, Generator Brush	2
23	18-10088	Dowel, End Plate Locating	2
24	B6C-10050-A	Plate End Brushes Assembly, Rear End	1
25	33801-S	Nut, 7/16 - 14	As Required
26	34808-S	Lockwasher, 7/16	As Required
27	34805-S	Lockwasher, 1/4	As Required
28	44719-S	Flatwasher, 1/4	As Required
29	33796-S	Nut, 1/4 - 28	As Required
30	34805-S	Lockwasher, 1/4	As Required
31	33796-S	Nut, 1/4 - 28	As Required
32	8A-10120	Bolt, Frame through	2
33	18-11069	Rivet	As Required
34	B8C-10202-A	Bushing, Terminal Screw Insulating	1
35	8BA-10048-B	Insulator, Brush Holder Rivet	1
36	B6C-10043-A	Brush Set, Generator	1
37	B6C-10057-A	Spring, Generator Brush	2
38	B8C-10211-A	Screw, Generator Terminal	3
39	FAB-10087-A	Spring, Generator Bearing	1
40	B8C-10095-A	Bearing, Generator, Rear	1
41	68-10044	Screw, Pole Piece	2
42	B6C-10005-D	Armature Assembly, Generator	1
43	20388-S	Bolt, 3/8 - 16 x 1	As Required
44	34847-S	Lockwasher, 3/8	As Required
45	44726-S	Flatwasher, 3/8	As Required
46	B8Q-10145-C	Arm, Generator Belt Adjustment	1
47	B6C-10163	Ring, Front End Plate Bearing Stop	1
48	7RA-10094-A	Bearing, Generator	1
49	B6C-10139-A	Plate Assembly, Front End	1

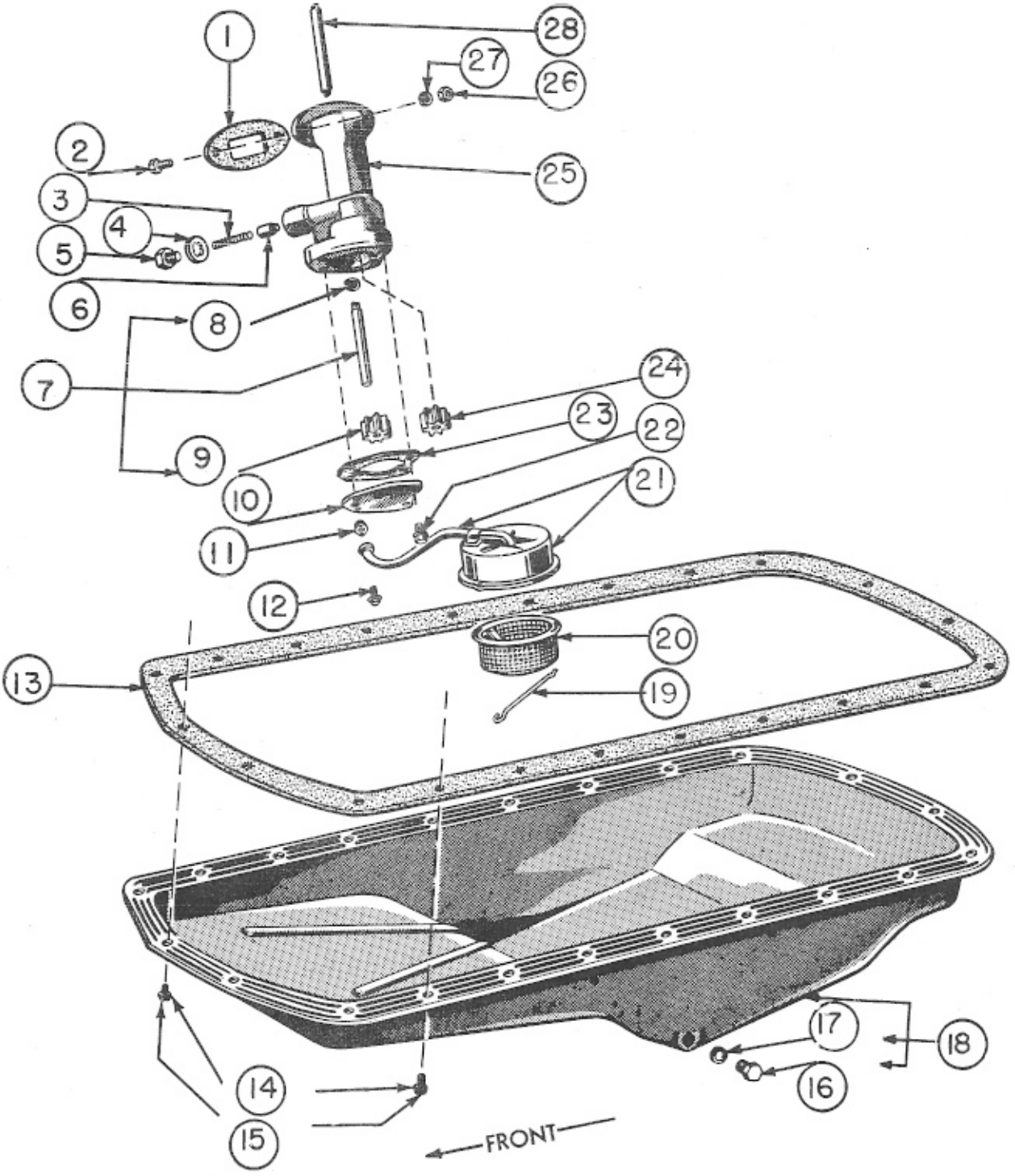
MODEL 4 TRACKMASTER

MANIFOLD

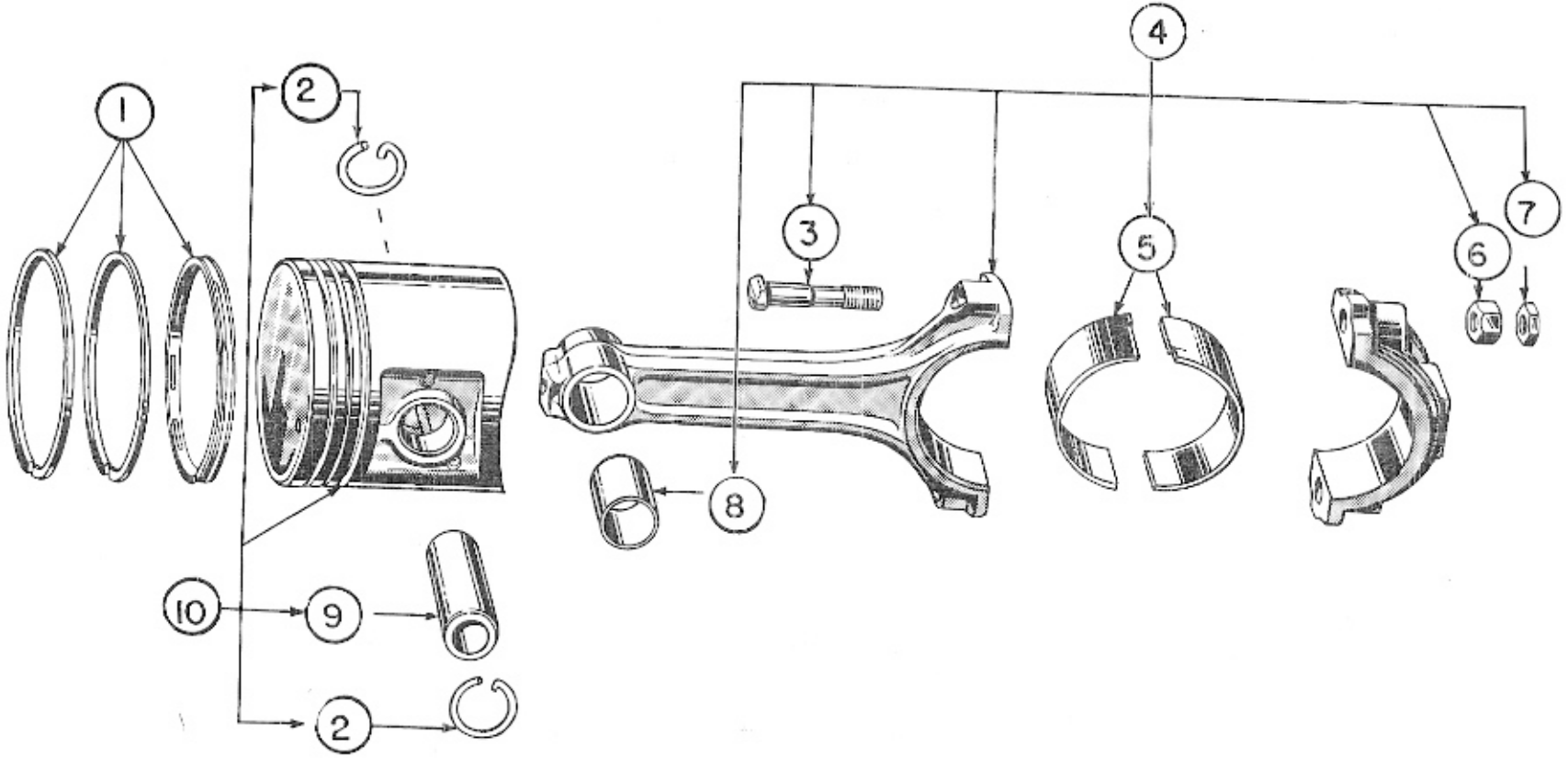


Item Number	Part Number	Description	Number Required
1	33814-S	Nut, 3/8 - 24	As Required
2	34847-S	Lockwasher, 3/8	As Required
3	88624-S	Stud, 3/8 - 16 and 24 x 4 7/8	As Required
4	33925-S	Washer	As Required
5	34847-S	Lockwasher, 3/8	As Required
6	B6A-9447-B	Gasket, Carburetor to Intake Manifold	6
7	88407-S	Stud, 3/8 - 16 and 3/8 - 24 x 1 11/16	As Required
8	358066-S	Plug, 3/8	As Required
9	B9A-9424-A	Manifold, Intake	1
10	1GA-9462	Bushing, Exhaust Thermostatic Control Valve	2
11	B2A-9451-A	Shield, Exhaust Thermostatic Control Valve	1
12	EAA-9449-A	Spring, Exhaust Thermostatic Control Valve	1
13	B4A-9467-A	Spring, Exhaust Valve Control	1
14	72015-S	Pin, Cotter, 1/16 x 3/4	As Required
15	B8A-9426-A	Manifold, Exhaust	1
16	34847-S	Lockwasher, 3/8	As Required
17	20388-S	Bolt, 3/8 - 16 x 1	As Required
18	B8A-9464-A	Shaft and Counterweight Assembly, Exhaust	1
19	1GA-9450	Gasket, Exhaust Manifold, Outlet	1
20	88393-S	Stud, 7/16 - 20 and 7/16 - 14 x 1 1/2	As Required
21	1GA-9462	Bushing, Exhaust Thermostatic Control Valve	2
22	20448-S	Bolt, 3/8 - 16 x 1 5/8	As Required
23	EAA-9443-A	Clamp, Intake and Exhaust Manifold to Head	10
24	B6A-9460-A	Valve, Exhaust Thermostat Control	1
25	20408-S	Bolt, 3/8 - 16 x 1 1/8	As Required
26	34847-S	Lockwasher, 3/8	As Required
27	B6A-9471-A	Sleeve, Intake Manifold to Cylinder Head	4
28	B6A-9461-A	Gasket, Intake Manifold to Head	4
29	EAA-17595	Assembly Silencer (Windshield Wiper)	1

MODEL 4 TRACKMASTER.
OIL PUMP & PAN

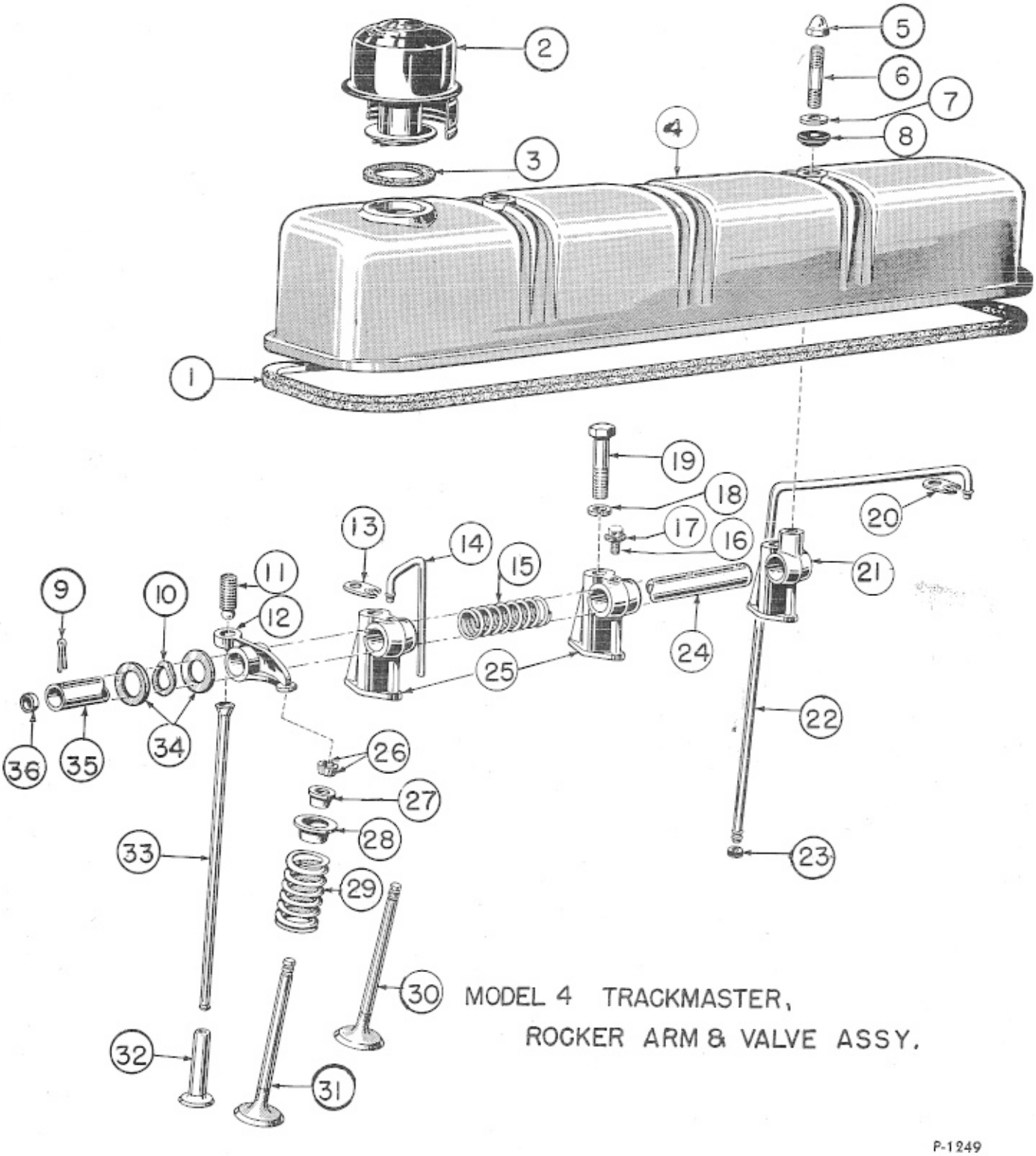


Item Number	Part Number	Description	Number Required
1	B7A-6659-A	Gasket, Oil Pump to Cylinder Block Mounting	1
2	EAA-6638-A	Bolt, Oil Pump Mounting	2
3	EAA-6654-A	Spring, Oil Pump Relief	1
4	-6669	No Longer Used	-
5	EAA-6666-A	Plug, Oil Relief Valve	1
6	EAA-6663-A	Plunger, Oil Relief Valve	1
7	B5A-6607-B	Shaft and Gear Assembly, Oil Pump Drive	1
8	EAA-6636-A	Snap Ring, Oil Pump Drive Shaft	1
9	EAA-6614-B	Gear, Oil Pump	1
10	B8A-6616-B	Plate Assembly, Oil Pump Body	1
11	B9AE-6621-C	Gasket, Oil Pump Screen Cover	1
12	42848-S	Bolt	As Required
13	COAE-6710-A	Gasket, Engine Oil Pan	1
14	34805-S	Lockwasher, 1/4	As Required
15	24308-S	Bolt, 1/4 - 20 x 1/2	As Required
16	B7A-6730-A	Plug, Oil Pan Drain	1
17	01A-12410-A	Gasket, Oil Pan Drain Plug	1
18	B8A-6675-B	Pan Assembly, Engine Oil	1
19	68-6628	Bale, Screen Retaining	1
20	41A-6623-A	Screen, Oil Pump	1
21	B9TE-6615-B	Cover and Inlet Tube	1
22	42846-S	Bolt	As Required
23	EAA-6619-C	Gasket, Oil Pump Cover Plate	1
24	EAA-6614-B	Gear, Oil Pump	1
25	- - -	Not Serviced	-
26	33786-S	Nut	-
27	34827-S	Washer	-
28	B9A-6A618-B	Shaft, Oil Pump Intermediate	1



MODEL 4 TRACKMASTER,

PISTON & CONNETING ROD



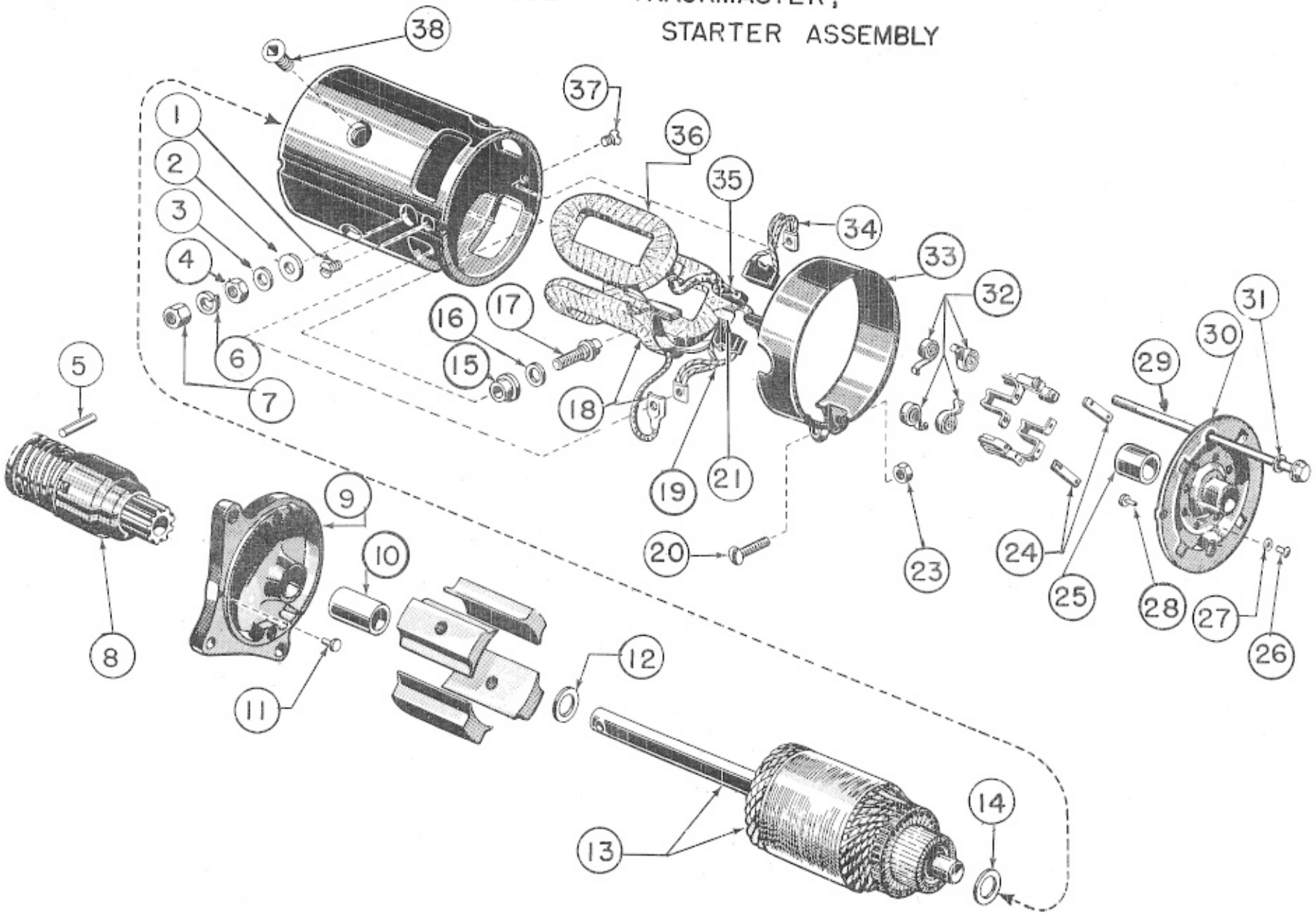
MODEL 4 TRACKMASTER,
ROCKER ARM & VALVE ASSY.

P-1249

Item Number	Part Number	Description	Number Required
1	B7A-6584-A	Gasket, Rocker Arm Cover	1
2	B7A-6766-A	Cap Assembly, Oil Filler and Breather	1
3	EAA-6789-A	Gasket, Oil Filler and Breather Cap	1
4	B9AE-6582-F	Cover, Valve Rocker Arm	1
5	34180-S	Nut, Acorn	As Required
6	88442-S	Stud	As Required
7	351236-S	Washer, Flat	As Required
8	EAA-6570-C	Grommet, Valve Rocker Arm Stud	2
9	72035-S	Cotter Key	As Required
10	EAA-6598-A	Washer, Spring, Valve Rocker Arm Shaft	2
11	B6A-6549-C	Screw, Valve Rocker Arm Adjusting	12
12	B6A-6564-G	Arm and Screw Assembly, Valve Rocker	12
13	EAA-6574-A	Bracket, Valve Rocker Arm, Inlet Tubes	2
14	B5A-6588-B	Tube, Valve Rocker Arm Shaft Oil Outlet	1
15	B6A-6587-A	Spring, Valve Rocker Arm to Shaft	5
16	24465-S	Bolt, Hex Head	As Required
17	34805-S	Washer, Lock	As Required
18	34808-S	Washer, Lock	As Required
19	21302-S	Bolt, Hex Head	As Required
20	EAA-6574-A	Bracket, Valve Rocker Arm, Inlet Tubes	2
21	EAA-6532-A	Support, Valve Rocker Arm Shaft, Front & Inter.	2
22	EAA-6580-B	Tube, Valve Rocker Arm, Shaft Oil Inlet	1
23	EAA-6594-A	Seal, Valve Rocker Arm Shaft Inlet Tube	1
24	EAA-6563-B	Shaft, Valve Rocker Arm	1
25	EAA-6531-A	Support, Valve Rocker Arm Shaft	4
26	7HA-6518	Lock Key, Valve Spring Retainer	24
27	B9A-6517-A	Sleeve, Valve Spring Retainer	12
28	B9A-6514-A	Retainer, Valve Spring	12
29	B6A-6513-A	Spring, Valve	12
30	B4A-6507-A	Valve, Intake, Standard Stem	6
31	EAF-6505	Valve, Exhaust, Standard Stem	6
32	EAA-6500-D	Tappet Assembly, Valve	12
33	COAE-6565-C	Rod, Valve Push	12
34	EAA-6590-A	Washer, Valve Rocker Arm Shaft	4
35	EAA-6563-B	Shaft, Valve Rocker Arm	1
36	EAA-6572-A	Plug, Valve Rocker Arm Shaft	2
*	B5A-6571-A	Seal, Stem, Valve	12

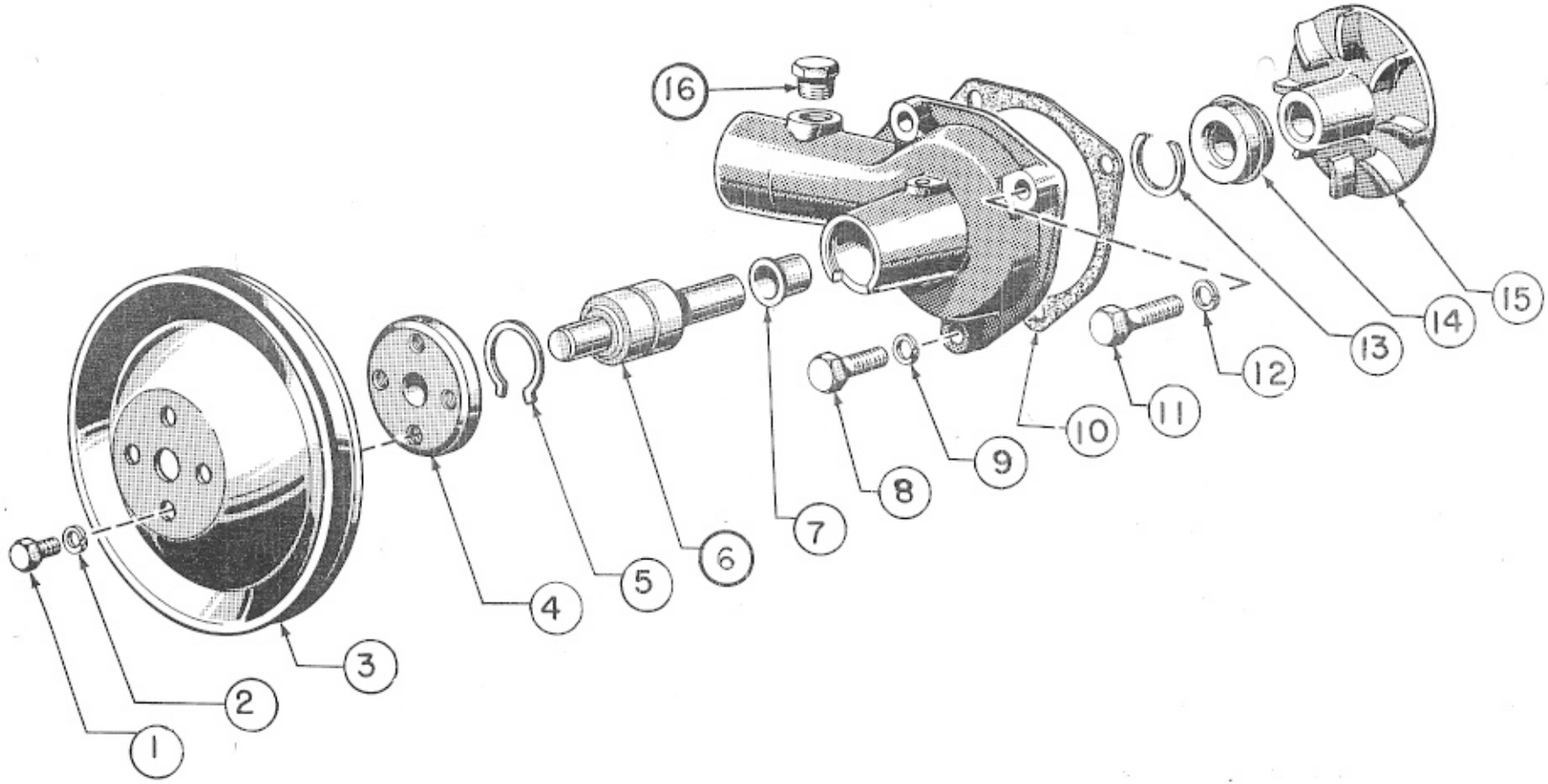
* Not Shown

MODEL 4 TRACKMASTER, STARTER ASSEMBLY



P-1965

Item Number	Part Number	Description	Number Required
1	30495-S	Screw, Oval Head, 10 - 32 x 3/4	As Required
2	18-11094-B	Washer, Starter Field Terminal Insulating	1
3	B5A-11095-A	Washer, Starter Field Terminal Screw	1
4	33923-S	Nut, 5/16 - 24	As Required
5	52-11365	Pin, Starter Drive Pinion	1
6	34806-S	Lockwasher, 5/16	As Required
7	33923-S	Nut, 5/16 - 24	As Required
8	7CM-11350-C	Drive Assembly, Starter	1
9	COAF-11130-A	Plate Assembly, Starter, Rear End	1
10	1CM-11135-A	Bushing, Starter Rear End Plate	1
11	18-10088	Dowel, End Plate Locating	2
12	18-11036	Washer, Starter Armature Thrust	2
13	B6A-11005-B	Armature Assembly, Starter	1
14	18-11036	Washer, Starter Armature Thrust	2
15	18-11107	Bushing, Starter Field Terminal Insulator	1
16	B5A-11093-A	Washer, Starter Field Terminal	1
17	B6A-11102-A	Terminal Starter Field	1
18	B6A-11090-B	Coil, Starter Field, L.H.	1
19	18-11056	Serviced in Brush Set 18-11057 Brush Assembly, Non-insulated, Starter	2
20	27177-S	Screw, Round Head, 10 - 32 x 1/2	As Required
21	70-11083	Coil, Starter Field	1
22	Not Shown	- - -	-
23	34079-S	Nut, 10 - 32	As Required
24	11062	Insulator	1
25	18-11052	Bushing, Front End Plate	1
26	-11069	Service in B4A-11049-A	1
27	8BA-10048	Service in B4A-11049-A Plate and Bushing Assembly, Front End	-
28	18-10088	Dowel, End Plate Locating	2
29	8A-10120	Bolt, Frame through	2
30	B4A-11049-A	Plate and Bushing Assembly, Front End	1
31	34905-S	Lockwasher, 1/4	As Required
32	B-11059	Spring, Starter Brush	4
33	B1TZ-11126-A	Band Assembly, Cover	1
34	-11056	Brush Set, Service under 18-11057	1
35	-11055	- - -	-
36	70-11085	Coil, Starter Field, R.H.	1
37	30495-S	Screw, Oval Head, 10 - 32 x 3/4	As Required
38	68-10044	Screw, Pole Piece	1
- -	B6A-11002-A	Starter Assembly	1



MODEL 4 TRACKMASTER
WATER PUMP

Item Number	Part Number	Description	Number Required
1	24327-S	Bolt	4
2	34846-S	Lockwasher	4
3	EBP-8509-B	Pulley, Water Pump	1
4	B6A-8553-A	Hub, Water Pump Pulley	1
5	OBA-8576-A	Snap Ring	1
6	EBP-8530-A	Shaft and Bearing	1
7	7HA-8550	Slinger	1
8	24428-S	Bolt	As Required
9	34827-S	Lockwasher	As Required
10	EAA-8507-A	Gasket, Water Pump	1
11	20188-S	Bolt	As Required
12	34827-S	Lockwasher	As Required
13	8BA-8630-A	Lock Ring	1
14	7RA-8564-B	Seal, Water Pump	1
15	EAA-8512-A	Impeller, Water Pump	1
16	358066-S	Plug	1
- -	B6C-8501-C	Pump, Water	1

Note: Items 10, 15, 6, 7, 5, 13, and 14 are furnished in Water Pump Repair Kit, B4A-8591-B

T R A C K M A S T E R

Model 4T2 through 4T10

Serial Number 155-

PARTS MANUAL

Supplied By

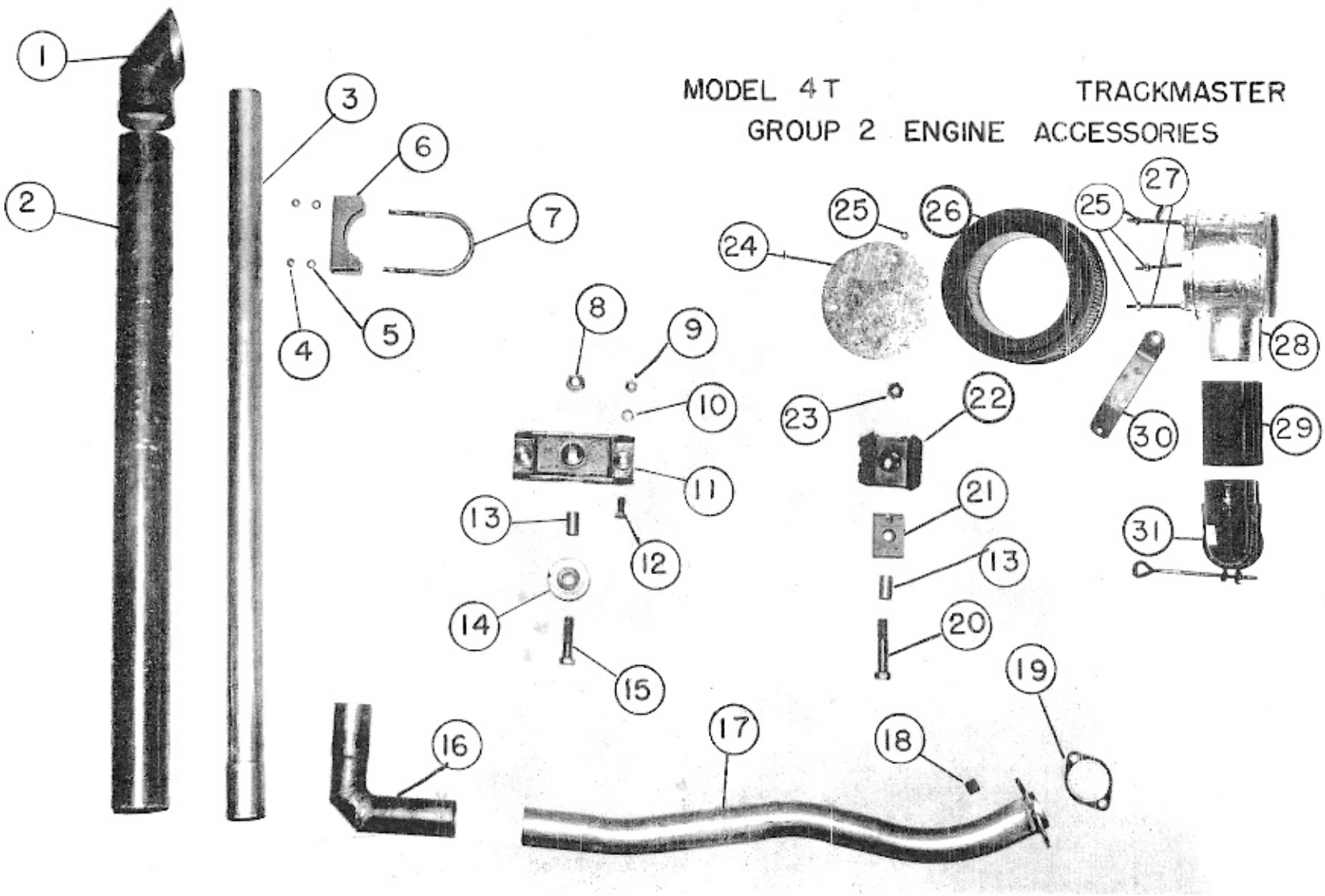
THIOKOL CHEMICAL CORPORATION
LOGAN WORKS
LOGAN, UTAH

August 15, 1962

Logan, Utah Phone SK 2-2591

MODEL 4T TRACKMASTER

GROUP 2 ENGINE ACCESSORIES

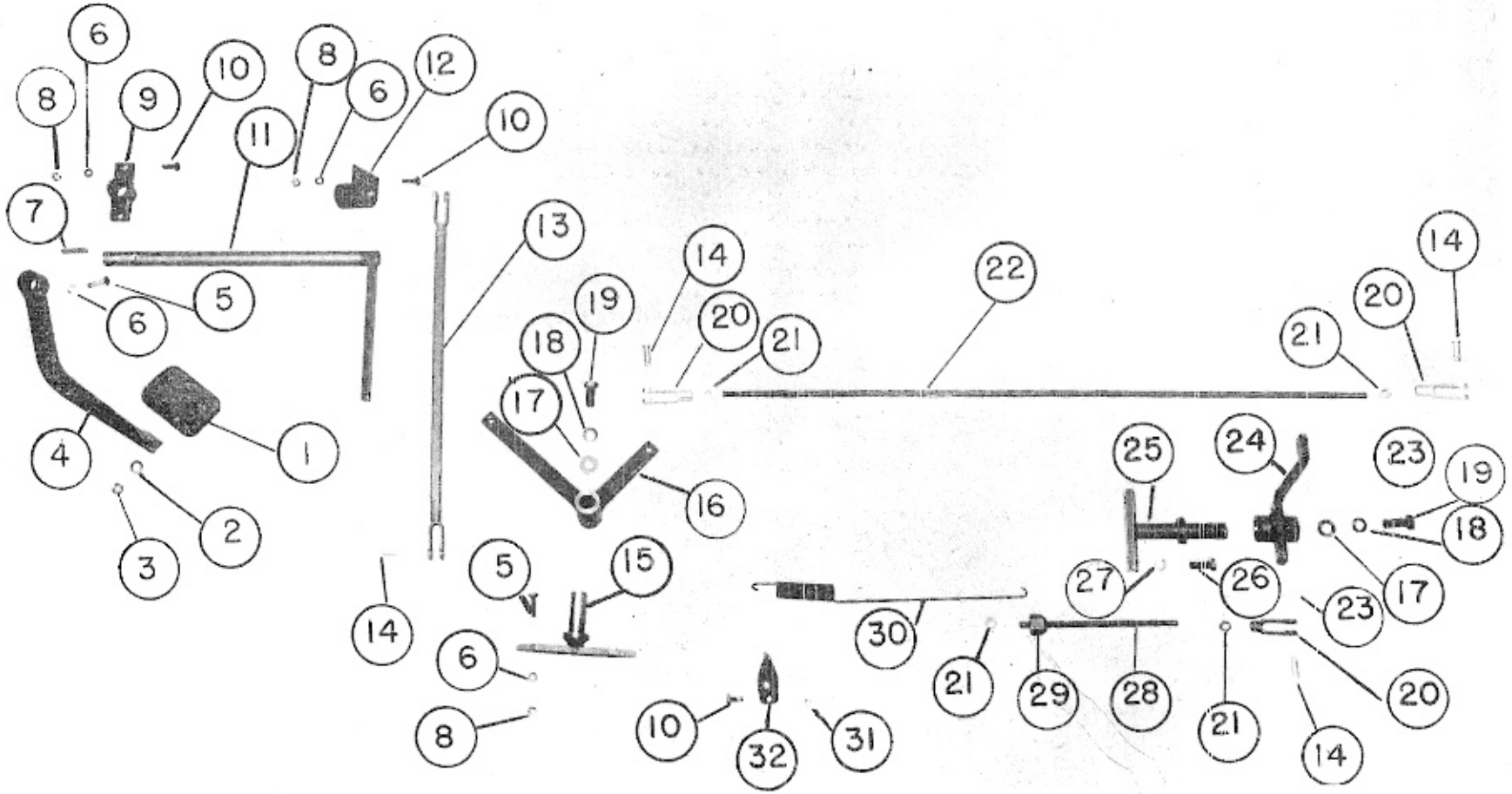


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	- - -	Not Applicable	-	- - -
2	- - -	Not Applicable	-	- - -
3	- - -	Not Applicable	-	- - -
4	- - -	Not Applicable	-	- - -
5	- - -	Not Applicable	-	- - -
6	- - -	Not Applicable	-	- - -
7	- - -	Not Applicable	-	- - -
8	0102015	Nut, Mounting Bolt, Front	2	All
9	0101273	Nut, Hex 7/16 - 20 NF	2	All
10	0101258	Lockwasher, 7/16	2	All
11	0102016	Insulator, Front, Upper	1	All
12	0101221	Capscrew, Hex, 5/16 - 18 NC x 1" Long	2	All
13	0102017	Spacer, Insulator, Front and Rear	3	All
14	0102018	Insulator, Front, Lower	1	All
15	0102019	Bolt, Front Mounting	1	All
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	2-3-2	Nut, Brass	2	All
19	0102020	Gasket, Exhaust Flange	1	All
20	0102021	Bolt, Rear Mounting	2	All
21	0102022	Insulator, Rear, Lower	2	All
22	0102023	Insulator, Rear, Upper	2	All
23	0102024	Lock Nut, 7/16 - 18	2	All
24	0102028	Mounting Cover, Air Cleaner Element	1	All
25	0101207	Nut, Hex 1/4 - 28 NF	12	All
26	0102025	Element, Air Cleaner	1	All
27	0102029	Connecting Rods, Air Cleaner Assembly	3	All
28	0102030	Mounting, Air Cleaner Element	1	All
29	0102006	Hose, Carburetor and Air Cleaner Connecting	1	All
30	0102009	Mounting Bracket, Air Cleaner Element	1	All
31	0102008	Elbow, Carburetor	1	All
*	0102011	Exhaust Pipe, Header Section	1	All
*	0102012	Exhaust Pipe, Power Selector Section	1	All
*	0102013	Exhaust Pipe, Section #3	1	All
*	0102014	Exhaust Pipe, Section #4	1	4T10, 4T8
*	0102007	Muffler	-	4T10, 4T8
*	0102026	Exhaust Pipe, Section #4	1	4T2, 4T4
*	0102027	Clamp (Maremont #X200)	4	4T2, 4T4
*	0102027	Clamp (Maremont #X200)	3	4T8, 4T10
*	0102031	Fan Blade	1	All
*	0102032	Muffler Clamp	1	All

* Not Shown

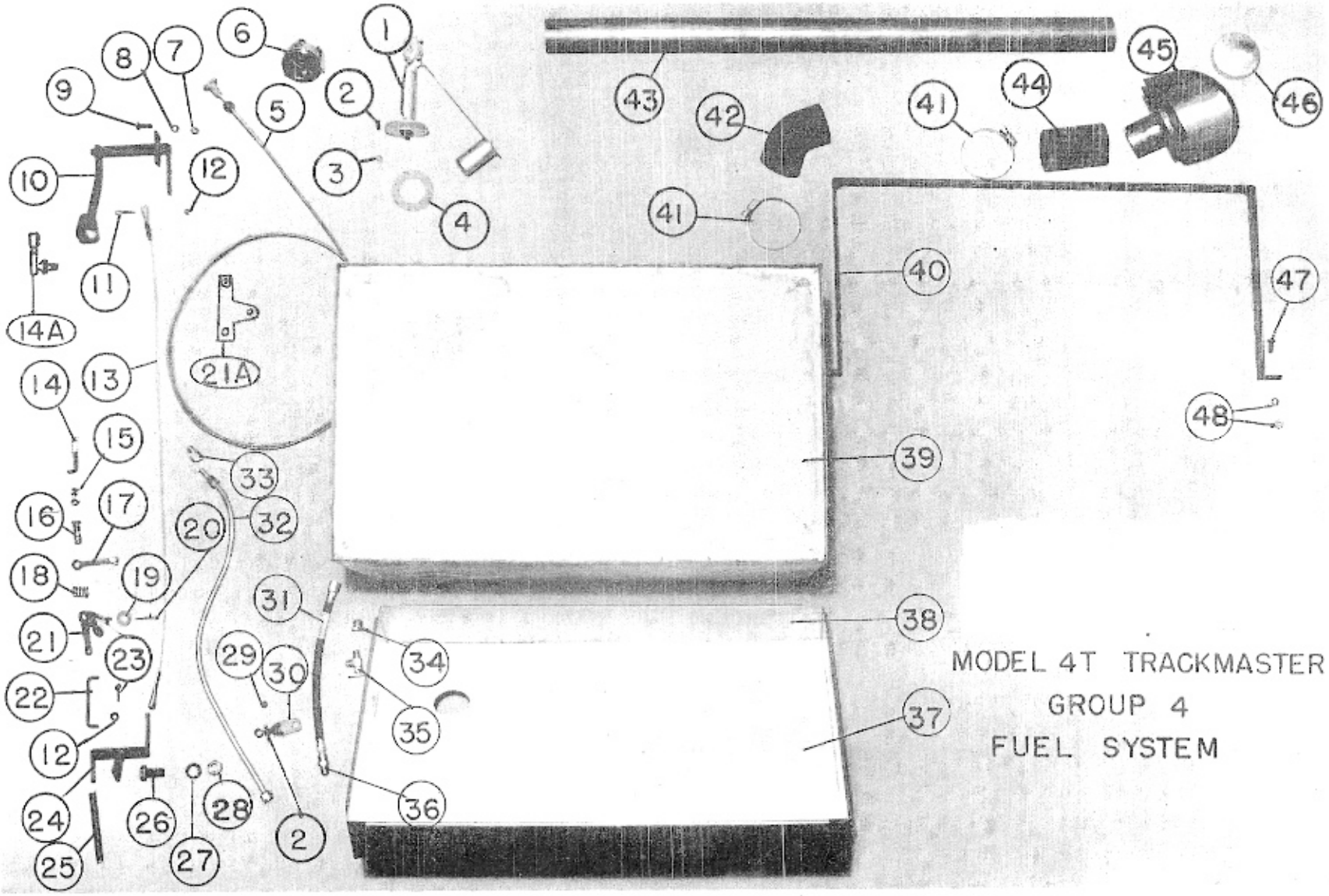
MODEL 4T TRACKMASTER

GROUP 3 CLUTCH



Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0114017	Pad, Clutch Pedal	1	All
2	0101211	Lockwasher, 3/8	3	All
3	0101210	Nut, Hex 3/8 - 24 NF	5	All
4	0103002	Pedal, Clutch	1	All
5	0101248	Capscrew, Hex Head, 1/4 - 28 NF x 1 Long	6	All
6	0101208	Lockwasher, 1/4	6	All
7	0103004	Key, Clutch Pedal Shaft, 3/16 Square	1	All
8	0101207	Nut, Hex 1/4 - 28 NF	5	All
9	- - -	Not Applicable	-	- - -
10	- - -	Not Applicable	-	- - -
11	0103003	Shaft, Clutch Pedal	1	All
12	- - -	Not Applicable	-	- - -
13	0103010	Link, Clutch, Connecting Shaft to Arm	1	All
14	0101289	Clevis Pin, 3/8 x 29/32	5	All
15	0103011	Post, Mounting, Arm	1	All
16	0103005	Arm, Control	1	All
17	0101286	Flatwasher, 7/16	2	All
18	0101258	Lockwasher, 7/16	3	All
19	0101288	Capscrew, Hex Head 7/16 - 20 NF x 1 Long	2	All
20	0101290	Yoke, Brake 3/8 - 24 NF	3	All
21	- - -	(Same as #3)	-	- - -
22	0103009	Rod, Connecting	1	All
23	0101280	Cotterpin, 3/32 x 1	5	All
24	0103012	Arm, Cross	1	All
25	0103013	Post, Cross Arm Mounting	1	All
26	0101247	Capscrew, Hex Head 3/8 - 16 NC x 1 1/4 Long	2	All
27	- - -	(Same as #2)	-	- - -
28	0103014	Link, Connecting, Cross Arm to Clutch Throwout Arm	1	All
29	0103015	Nut, Cone 3/8 - 24 NF	1	All
30	0103008	Spring, Clutch Pedal, 5 x 1 x .125 Regular Hooks	1	All
31	- - -	Not Applicable	-	- - -
32	0103016	Anchor, Spring Return	1	All
*	0101273	Nut, Hex 7/16 - 20 NF	1	All
*	0103006	Stop, Clutch Control Arm	1	All
*	0101297	Capscrew, 1/4 - 28 NF x 7/8 Long	1	All
*	0101340	Collar	1	**
*	0103017	Pedal, Clutch	1	***
*	0103018	Bushing	2	All

* Not Shown
** 4T8, serial number 187 only.
*** 4T4, Serial number 165, 4T8, serial number 187 only.



MODEL 4T TRACKMASTER

GROUP 4

FUEL SYSTEM

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0104015	Sending Unit, Fuel Level	1	4T2, 4T8, 4T10
1	0104016	Sending Unit, Fuel Level	1	4T4
2	0101229	Machine Screw, #10 - 32 NF	6	4T2, 4T8, 4T10
3	0101230	Washer, Tooth Lock, #10 Int.	5	All
4	0104032	Gasket, Sending Unit Mounting	1	All
5	0104033	Cable, Choke Control	1	All
6	0104035	Gauge, Fuel	1	All
7	0101214	Nut, Hex Head, 1/4 - 20 NC - 2B	2-4	All
8	0101208	Lockwasher, 1/4 Medium	2	All
9	0101231	Capscrew, 1/4 - 20 NC - 2A	2	All
10	- - -	Not Applicable	-	- - -
11	- - -	Not Applicable	-	- - -
12	- - -	Not Applicable	-	- - -
13	- - -	Not Applicable	-	- - -
14	- - -	Not Applicable	-	- - -
14A	0104036	Rod Assembly, Carburetor	1	All
15	- - -	Not Applicable	-	- - -
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	- - -	Not Applicable	-	- - -
19	- - -	Not Applicable	-	- - -
20	- - -	Not Applicable	-	- - -
21	- - -	Not Applicable	-	- - -
22	- - -	Not Applicable	-	- - -
23	- - -	Not Applicable	-	- - -
24	0104010	Arm, Throttle Activating	1	All
25	0104017	Spring, Throttle Return	1	All
26	0101233	Capscrew, Hex Head, 1/2 - 20 NF x 1 1/2	1	All
27	0101234	Lockwasher, 1/2 Medium	1	All
28	0101232	Nut, Hex 1/2 - 20 NF	1	All
29	0101236	Nut, Self-Locking (Hug Nut) #10 - 32 NF	2-3	All
30	0104014	Clamp, Throttle	1	All
31	0104018	Line, Flexible Fuel	1	All
32	0104021	Line, Assembly, Fuel 5/16	1	4T8, 4T10
33	0104020	Elbow, Male 90°	1	All
34	0104022	Bushing, Fuel Line	1	All
35	0104023	Cock, Shut Off	1	4T4, 4T8, 4T10
36	0104024	Union, Fuel Line	1	4T8, 4T10
37	- - -	Not Applicable	-	- - -
38	- - -	Not Applicable	-	- - -
39	0104031	Tank, Gasoline, Square	1	**
40	0104009	Strap, Gas Tank Hold-Down, Square	2	**
41	0104025	Clamp, Hose	2-4	All
42	0104026	Hose, 45° Elbow	1	4T4
43	0104027	Pipe, Filler	1	4T4
44	0104028	Hose, Straight	1	4T4
45	0104030	Inlet Receptacle	1	All
46	0104029	Cap, Gas Tank	1	All

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
47	- - -	Not Applicable	-	- - -
48	0101235	Elastic Stop Nut, 3/8 - 24 NF	2-4	4T2, 4T10
*	0104037	Hose, Gas Tank Inlet, Mod.	1	4T8, 4T10
*	0104034	Base, Gasoline Tank	1	4T8, 4T10
*	0104019	Fuel Line Assembly	1	4T8, 4T10
*	0104038	Standard Nut, 5/16 Tube	2-3	All
*	0104039	Short Nut, 5/16 Tube	1	4T4, 4T8, 4T10
*	0104040	Hose, Protective, Fuel Line	1	4T4, 4T8, 4T10
*	0104041	Bracket, Fuel Line	1	4T8, 4T10
*	0101336	Clamp, Line Supporting	1	4T4, 4T8, 4T10
*	0104043	Cable Connector, Throttle	1	All
*	0104044	Cable, Throttle	1	All
*	0104062	Bracket, Throttle Cable	1	All
*	0101249	Machine Screw, Fillister Head, #10 - 32 NF	2	4T8, 4T10
*	0104045	Ball Joint, Rod End	1	All
*	0104046	Rod, Throttle Linkage	1	All
*	0101251	Nut, Hex, #10 - 32 NF	2	All
*	0104013	Clevis, Throttle Control Rod	1	All
*	0101224	Pin, Clevis 3/16 Diameter x 11/32 Long	1	All
*	0101225	Pin, Cotter, 1/16 Diameter x 3/8 Long	2	All
*	0104008	Control Linkage, Footfeed	1	All
*	0104005	Linkage, Footfeed	1	All
*	0101223	Washer, Flat, #8 Standard	1	All
*	0101252	Capscrew, Hex Head, 1/4 - 28 NF x 5/8	2	All
*	0104052	Tank, Gasoline, 4T4	1	4T4
*	0104057	Base, Gas Tank, 4T2	1	4T2
*	0104056	Strap, Tie-Down, 4T4	1	4T4
*	0104047	Pedal, Footfeed	1	All
*	0101241	Nut, Self-Locking (Huglug) 1/4 - 28 NF	2	All
*	0104050	Tank, Gasoline (Round Corners)	1	***
*	0104006	Strap, Gas Tank Hold-Down (Round)	2	****
*	0104048	Fuel Line Assembly, Long 5/16	1	4T4
*	0104049	Fuel Line Assembly, Short 5/16	1	4T2
*	0104051	45° Street Elbow, 1/8 NPT	1	4T4
*	0104054	Gasket, Hold-Down Strap, Short	1	4T4
*	0104055	Gasket, Hold-Down Strap, Square	2	**
*	0104053	Gasket, Hold-Down Strap, Round	2	****
*	0104058	Pad, Gas Tank Mounting	1	4T4
*	0104012	Gas Tank Hold-Down	1	4T2
*	0104059	Pan, Gas Tank	1	4T4
*	0104060	Cap, Sending Unit Protective	1	All
*	0104061	Hose, Gas Tank Inlet	1	4T2, 4T4
*	0104042	Clamp, Line Supporting, Mod.	1	4T2
12	0104066	Cable Assembly, Throttle Control	1	*****

* Not Shown

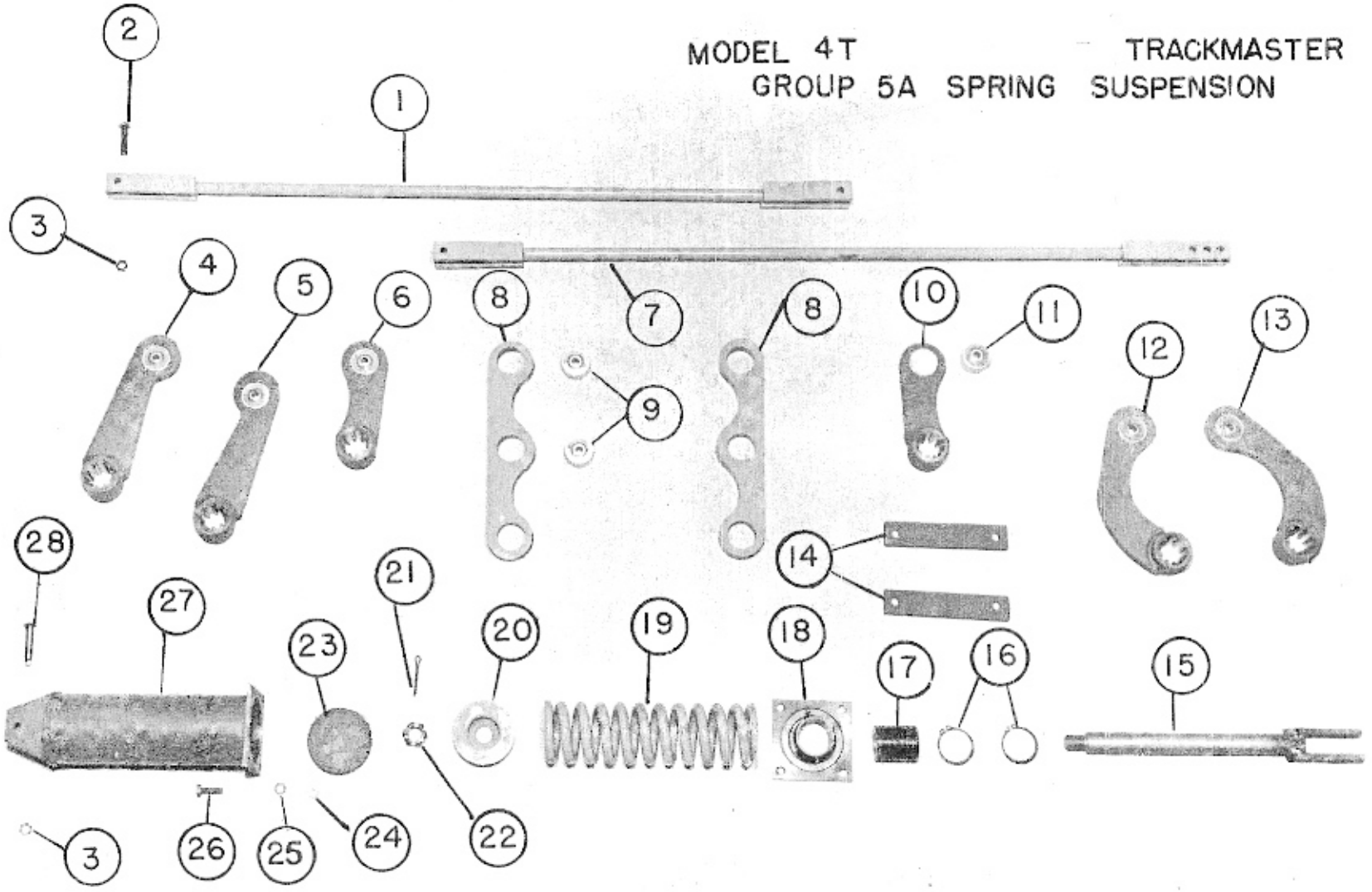
** For Model 4T10, Serial Numbers 155 through 169. (EXCEPTION: Serial Number 163 has part numbers 0104053, 0104050, and 0104006 installed.)

*** For Models 4T2, 4T8, and 4T10 after Serial Number 169.

**** For Models 4T8 and 4T10 after Serial Number 169.

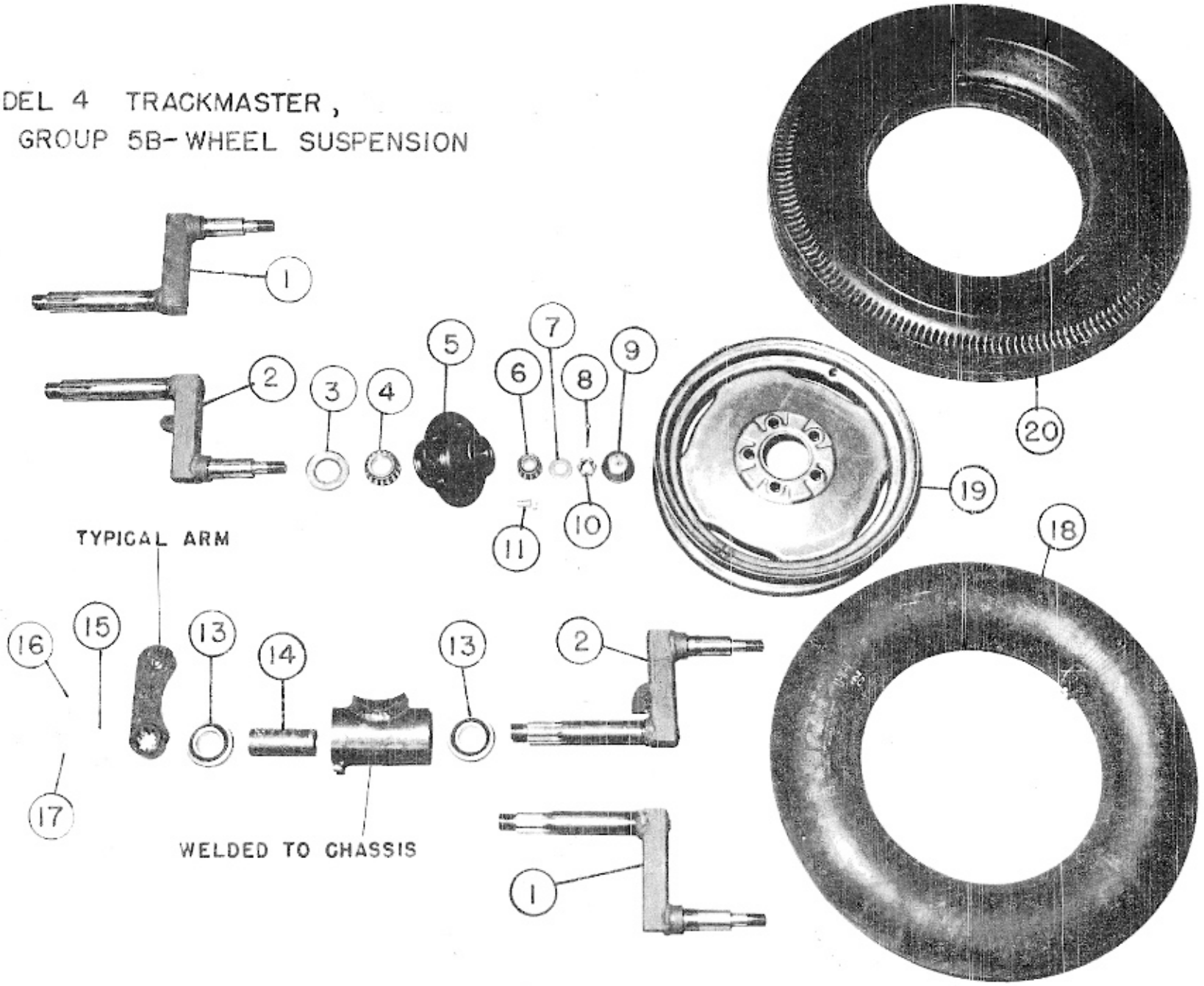
***** Serial Numbers 155 through 165.

MODEL 4T TRACKMASTER
GROUP 5A SPRING SUSPENSION



Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0105056	Connecting Rod, Rear Axle Control Arm to Balance Member	2	All
2	0101260	Clevis Bolt, AN-26-25 3/8 - 24 NF x 1 9/16 Long	8	All
3	0101235	Elastic Stop Nut, Regular Thin, 3/8 - 24 NF, MS20364-624-A	20	All
4	0105011	Axle Control Arm, Left Rear	1	All
5	0105012	Axle Control Arm, Right Rear	1	All
6	0105020	Axle Control Arm, Front Center (1) Left Rear Center and (1) Right	2	All
7	0105021	Connecting Rod, Balance Member to Front Axle Control Arm	2	All
8	0105022	Balance Member, Spring Suspension	4	All
9	0105023	Bearing Balance Member	12	All
10	0105024	Axle Control Arm, Front Center (1) Right, Rear Center (1) Left	2	All
11	0105025	Bearing, Axle Control Arm	8	All
12	0105026	Axle Control Arm, Front Left	1	All
13	0105027	Axle Control Arm, Front Right	1	All
14	0105028	Link, Connecting, Balance Member to Axle Control Arm, Center	4 Pair	All
15	0105029	Drawbar, Spring	2	All
16	0122061	Ring, Retaining	4	All
17	0105031	Guide Bushing, Spring Drawbar	2	All
18	0105032	Cap, Spring Housing	2	All
19	0105033	Spring, Suspension, Comp. 1/2 Rd. 3" OD x 10 o/a 12 TC, Cad. Plated	2	All
20	0105034	Flange, Spring Pickup	2	All
21	0101242	Cotterpin, 1/8" x 1 1/2"	2	All
22	0105014	Nut, Castle, 3/4" - 16 NF Modified	2	All
23	0105015	Cushion, Rubber Spring	2	All
24	0101219	Nut, Hex 5/16" - 18 NC	8	All
25	0101220	Lockwasher, Spring 5/16"	8	All
26	0101221	Capscrew, 5/16" - 18 NC x 1"	8	All
27	0105035	Housing, Spring	2	- - -
28	0101259	Clevis Bolt, AN-26-29 3/8 - 24 NF x 1 13/16 Long	12	- - -
- -	5A-4	Spring Suspension Assembly (Assembled Items 1 through 28)	2	- - -

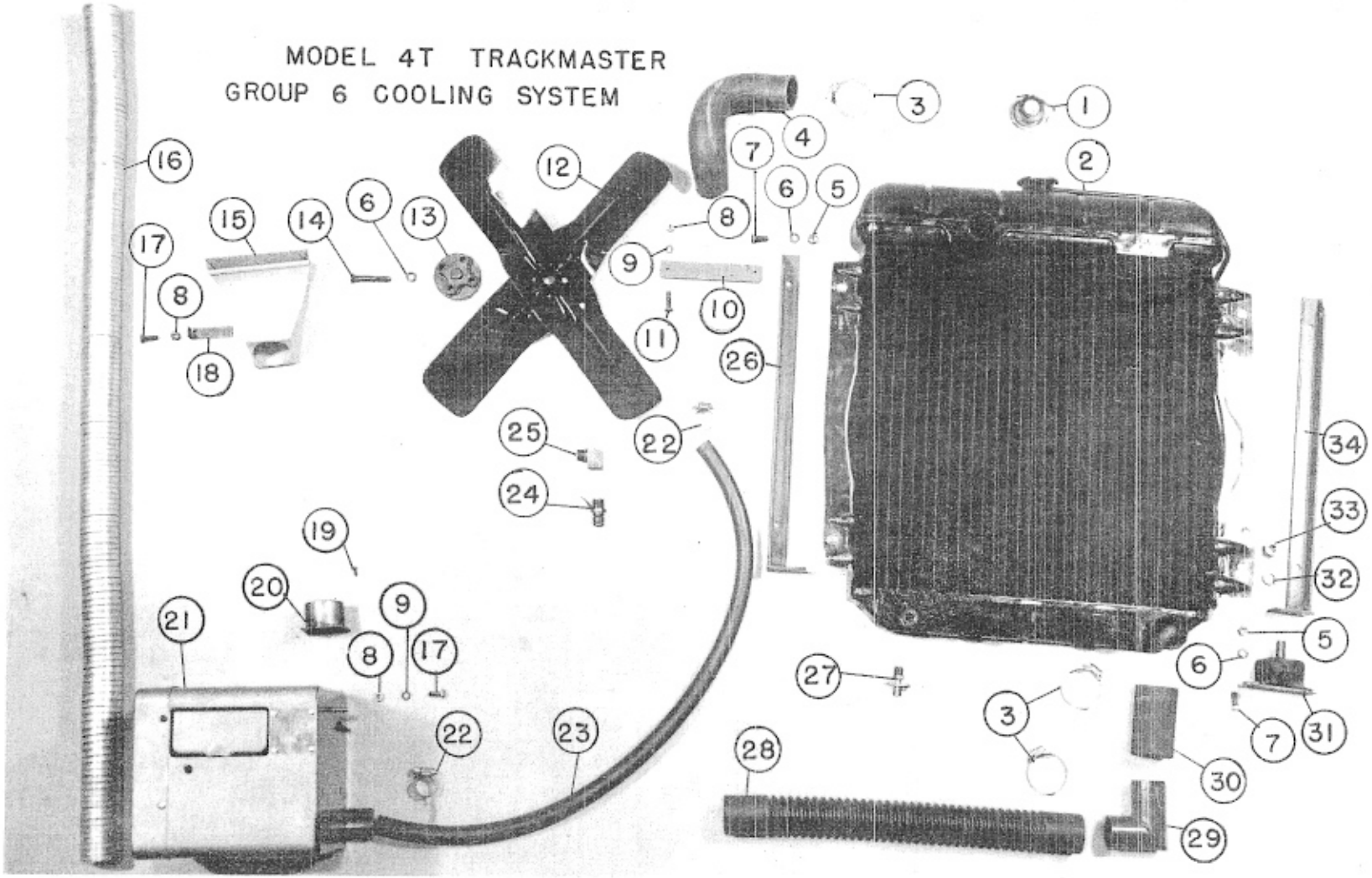
MODEL 4 TRACKMASTER,
GROUP 5B- WHEEL SUSPENSION



Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0105009	Axle Assembly, First and Fourth Wheel	4	All
2	0105010	Axle Assembly, Second and Third Wheel	4	All
3	0105036	Seal, Grease	8	All
4	0105037	Cone, Wheel Bearing, Inner	8	All
5	0105050	Hub	8	All
6	0105038	Cone, Wheel Bearing, Outer	8	All
7	0101317	Flatwasher, SAE 5/8 Standard	8	All
8	0101331	Cotterpin, 5/32" x 1"	8	All
9	0105040	Cap, Dust	8	All
10	0101318	Nut, Axle, Slotted 5/8 - 18	8	All
11	- - -	Not Applicable	-	- - -
12	- - -	Not Applicable	-	- - -
13	0105041	Bearing, Axle	16	All
14	0105042	Spacer, Bearing	8	All
15	0101227	Flatwasher, 1" SAE	16	All
16	0101228	Cotterpin, 1/8 x 1 3/4	8	All
17	0105045	Nut, Castle, 1" - 14 NF, Modified	8	All
18	0105017	Tube, Natural Rubber	8	Optional
18	0105018	Tube, Synthetic Rubber	8	Optional
19	0105043	Wheel 6 HOLE — (5" HOLE 5B-2-20 WHEEL)	8	All
20	0105016	Tire	8	All
*	0101226	Grease Fitting	8	All
*	0105044	Nut, Wheel Lug	48	All
	0105039	Hub Assembly	8	All
		Consists of the following:		
	0105050	Hub		
	0105040	Cap, Dust		
	0101226	Grease Fitting		
	0105055	Cup, Wheel Bearing, Outer		
	0105054	Cup, Wheel Bearing, Inner		
	0105053	Hub Bolt		

* Not Shown

MODEL 4T TRACKMASTER
GROUP 6 COOLING SYSTEM

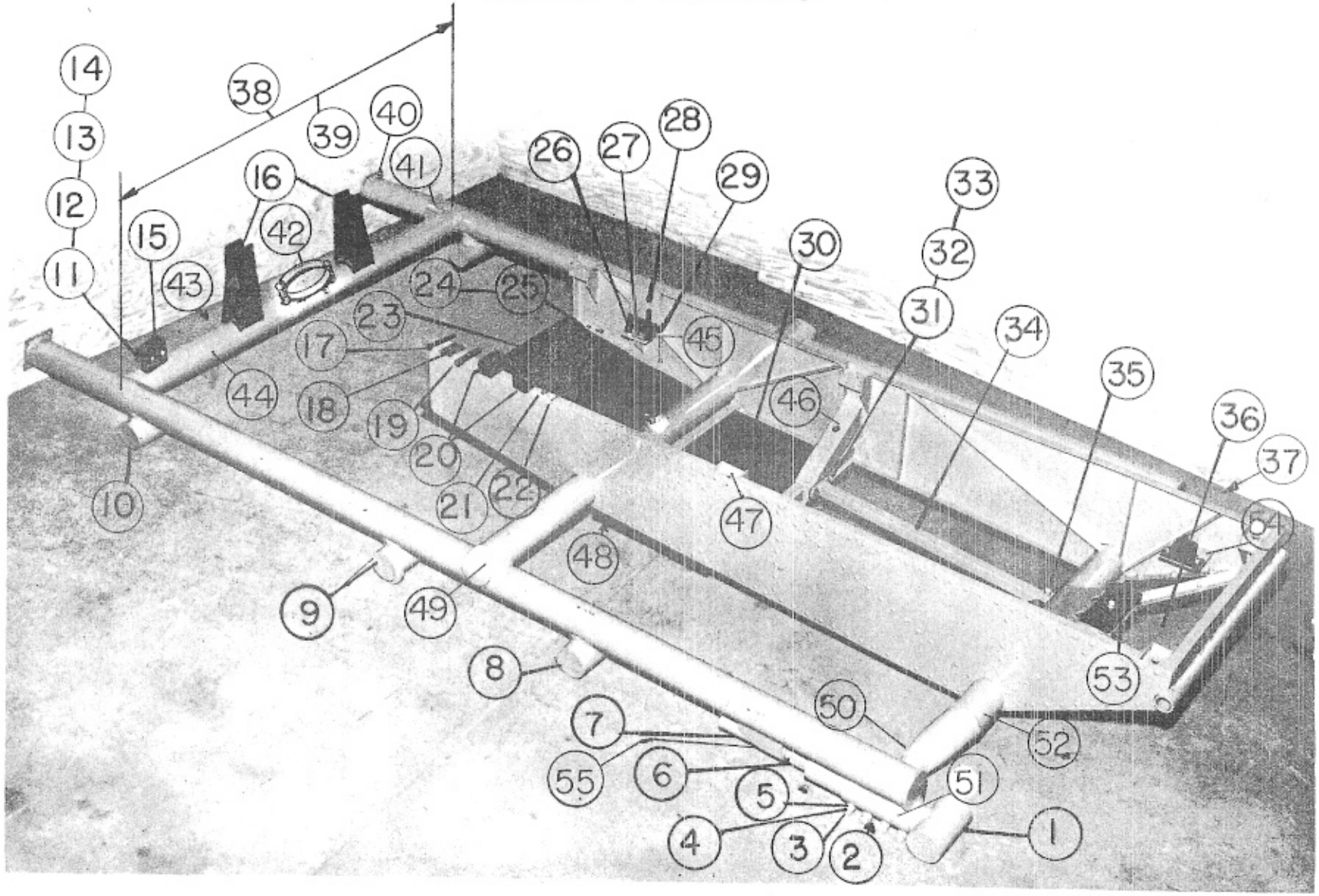


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0106021	Cap, Radiator	1	All
2	0106022	Radiator	1	All
3	0101328	Clamp, Hose	4	All
4	0106019	Hose, Upper, Radiator	1	All
5	0101243	Nut, Hex 5/16 - 24 NF	4	All
6	0101220	Lockwasher, Spring-Type 5/16 Medium	8	All
7	0101308	Capscrew, Hex Head, 5/16 - 24 NF x 3/4	4	All
8	0101214	Nut, Hex 1/4 - 20 NC	4	All
9	0101208	Lockwasher, Spring-Type 1/4	4	All
10	0106010	Brace, Radiator Mount to Frame	2	All
11	0101222	Capscrew, Hex Head 1/4 - 20 NC x 1	4	All
12	- - -	Fan Blade (See Engine Accessories Group)	1	All
13	- - -	Not Applicable	-	- - -
14	0101276	Capscrew, Hex Head, 5/16 - 24 NF x 1 1/2	4	All
15	- - -	Not Applicable	-	- - -
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	- - -	Not Applicable	-	- - -
19	- - -	Not Applicable	-	- - -
20	- - -	Not Applicable	-	- - -
21	- - -	Not Applicable	-	- - -
22	0101329	Clamp, Heater Hose	4	All
23	0106026	Hose, Heater, 19" Long	2	All
24	0106020	Connector, Heater Hose	2	All
25	0101327	Street Elbow, 3/8 Pipe	1	All
26	0106017	Mount, Left Side, Radiator	1	All
27	0106024	Valve, Drain, Radiator	1	All
28	0106028	Hose, Lower	1	All
29	- - -	Not Applicable	-	- - -
30	- - -	Not Applicable	-	- - -
31	0106025	Insulator, Radiator Support	2	All
32	0101234	Lockwasher, Spring-Type 1/2	2	All
33	0101232	Nut, Hex 1/2 - 20 NF	2	All
34	0106018	Mount, Right Side, Radiator	1	All
*	0106011	Mounting Pad, Defroster Heater	1	All
*	0101229	Machine Screw, R.H. #10 - 32 NF x 1/2	4	All
*	0101236	Nut, Self-Locking Essna-Type	4	All
*	0106029	Defroster Assembly	1	All
*	0106031	Defroster Heater	1	All

* Not Shown

MODEL 4T TRACKMASTER

GROUP 7 - CHASSIS

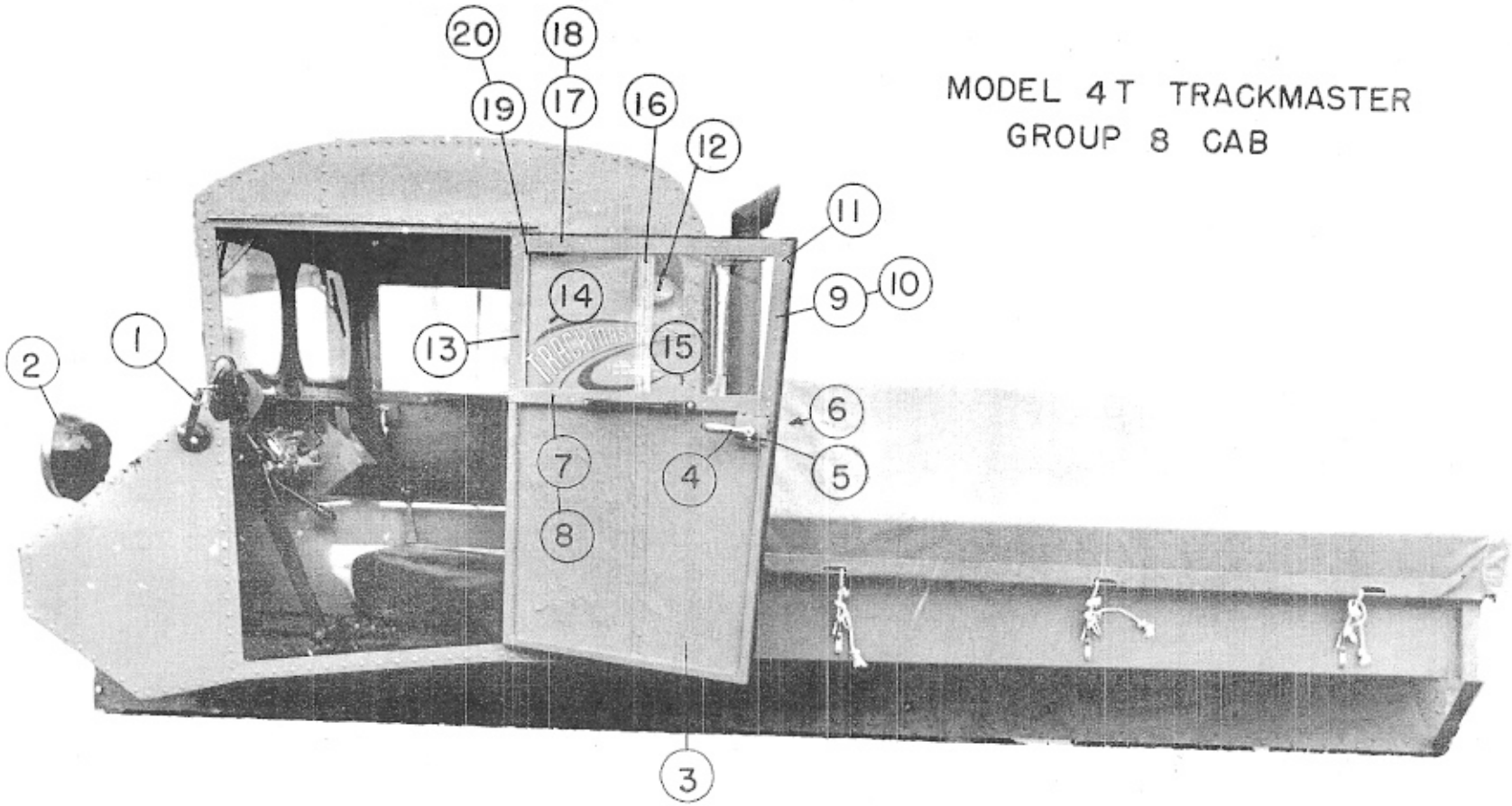


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0107012	Sliding Member, Right	1	A11
2	0107013	Key, Sliding Member	2	A11
3	0101275	Capscrew, Hex Head, 1/2 - 20 NF x 3 1/4	8	A11
4	0101232	Nut, Hex, 1/2 - 20 NF	8	A11
5	0101234	Lockwasher, Spring, 1/2 Medium	8	A11
6	0107014	Bolt, Track Adjustment	2	A11
7	0107015	Head, Track Adjustment	2	A11
8	0107025	Housing, Axle Assembly, Left Rear Center (1), Right Front Center (1)	2	A11
9	0107024	Housing, Axle Assembly, Left Front Center (1), Right Rear Center	2	A11
10	0107026	Housing, Axle Assembly, Rear	2	A11
11	0101276	Capscrew, Hex Head, 5/16 - 24 NF x 1 1/2	4	A11
12	0101268	Washer, Flat, 5/16 Standard	4	A11
13	0101220	Lockwasher, Spring, 5/16 Medium	4	A11
14	0101243	Nut, Hex, 5/16 - 24 NF	4	A11
15	0107016	Bumper, Rubber	2	A11
16	0107011	Support, Rear Cab	2	A11
17	0101277	Capscrew, Hex Head, 7/16 - 20 NF x 4 1/2	8	A11
18	7-1-27	Plate, Backing	8	A11
19	7-1-22	Sleeve, Rubber Mounting	8	A11
20	0107017	Pad, Rubber Mounting	16	A11
21	0101278	Nut, Castle, 7/16 - 20 NF	8	A11
22	0101253	Cotterpin, 3/32 x 3/4	8	A11
23	0107020	Screen Assembly, Ventilating, Rear	1	A11
24	0101208	Lockwasher, Spring, 1/4 Medium	57	A11
25	0101248	Capscrew, Hex Head, 1/4 x 28 NF x 1	57	A11
26	0101279	Nut, Castle, 1/2 - 20 NF	4	A11
27	0101280	Cotterpin, 3/32 x 1	4	A11
28	- - -	Capscrew, Hex Head, 1/2 - 20 NF x 3	4	A11
29	0107022	Pad, Power Selector Mounting	2	A11
30	0107021	Screen Assembly, Ventilating, Center	1	A11
31	0101272	Capscrew, Hex Head, 7/16 - 20 NF x 1 1/2	4	A11
32	0101258	Lockwasher, Spring, 7/16 Medium	6	A11
33	0101273	Nut, Hex, 7/16 - 20 NF	6	A11
34	7-2-14	Brace, Engine Protective	2	A11
35	0101274	Capscrew, Hex Head, 7/16 - 20 NF x 1 1/4	2	A11
36	0107006	Panel, Protective, Front	1	A11
37	0107018	Sliding Member, Left	1	A11
38	7-1-30	Chassis, 50 7/8 Wide, Model 4TN	1	Includes all Part Nos. and Item Nos. shown on pictorial page of Chassis, except 39.
39	7-1-31	Chassis, 55 Wide, Model 4TW	1	Includes all Part Nos. and Item Nos. shown on pictorial page of Chassis, except 38.

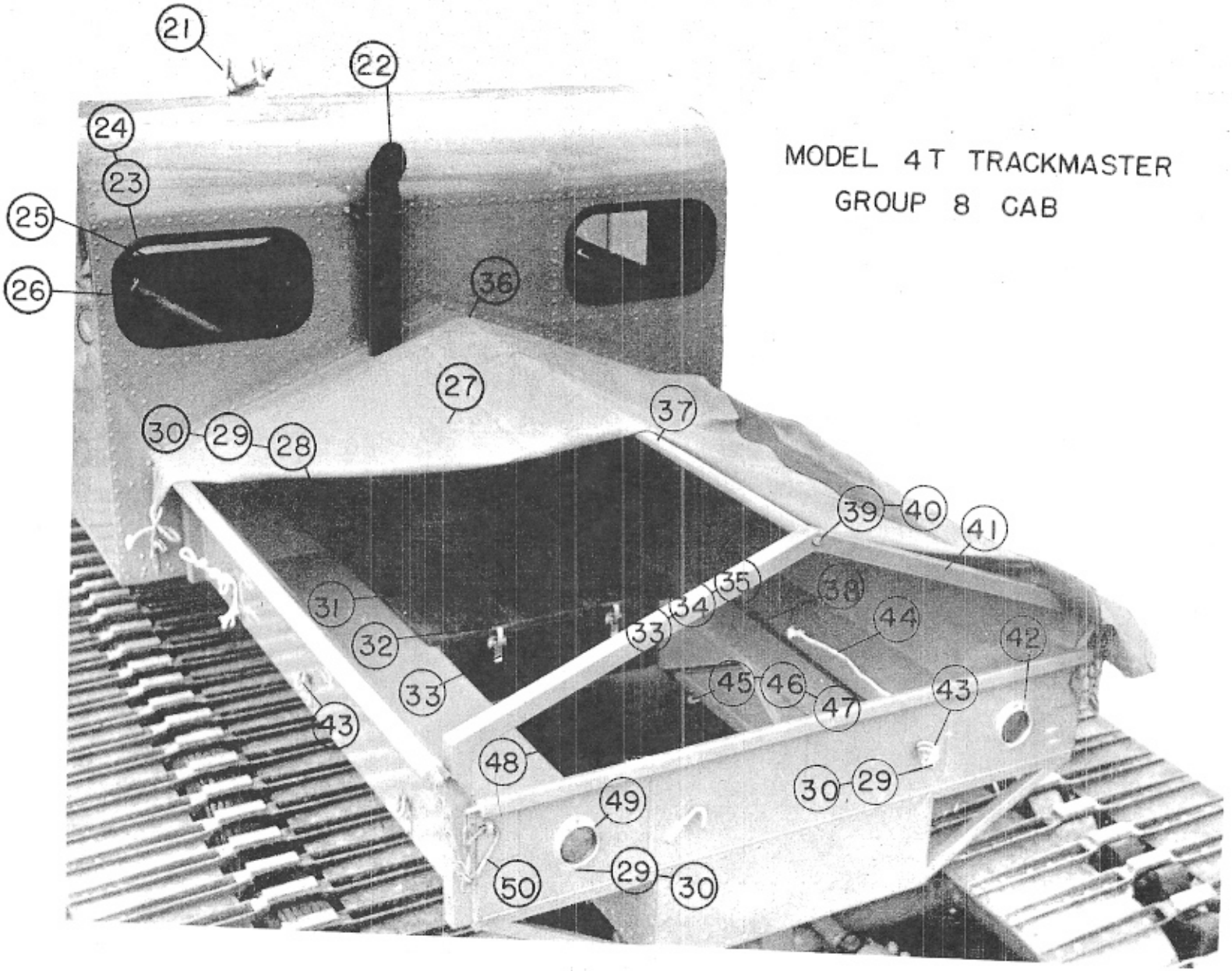
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
40	7-1-47	Plate, Mounting Track Drive Assembly	2	- - -
41	7-1-44	Bracket, Bumper Pad	2	- - -
42	0107019	Clamp, Trailer Hitch	1	- - -
43	0107005	Anchor, Track Drive Assembly	2	- - -
44	7-1-42	Cross Member, Chassis Rear	1	- - -
44	7-2-42	Cross Member, Chassis Rear	1	- - -
45	7-1-39	Mounting, Power Selector	2	- - -
46	0107023	Cross Member, Rear Engine, Mount	1	See Gr.2,Items 13,20,21,22,23 for Rear Eng. Mtg. Pad Ass'y.
47	7-1-40	Well, Rubber Cab Mounting	6	- - -
48	7-1-46	Anchor, Trailer Hitch	1	- - -
49	7-1-38	Cross Member, Chassis Center	1	See Item 38, Model 4TN.
49	7-2-38	Cross Member, Chassis Center	1	See Item 39, Model 4TW.
50	7-1-36	Mounting Tube, Front Cross Member	2	- - -
51	7-1-33	Clamping Tube, Adjustable Wheel	2	- - -
[illegible]	7-1-35	Cross Member, Chassis Front	1	See Item 38, Model 4TN.
52	0107028	Cross Member, Chassis Front	1	See Item 39, Model 4TW.
53	7-1-50	Bracket, Front Engine Mounting	1	See Gr.2,Items 8,9,10,11,12, 13,14,15 for Front Engine Mtg. Pad Ass'y.
54	0107029	Bracket, Radiator Mounting	2	All
55	0101281	Grease Fitting, 1/4 - 28 NF	2	All
*	0107030	Anchor, Control Shaft	1	All
*	0107010	Hitch, Trailer	1	All
*	0107007	Bracket, Chassis Support	2	All
*	0107008	Mounting Bracket, Kim Hotstart	1	On Machines where Hotstart units ordered.
*	0107009	Mounting Bracket, Water Pump	1	On Machines where Hotstart pumps ordered.

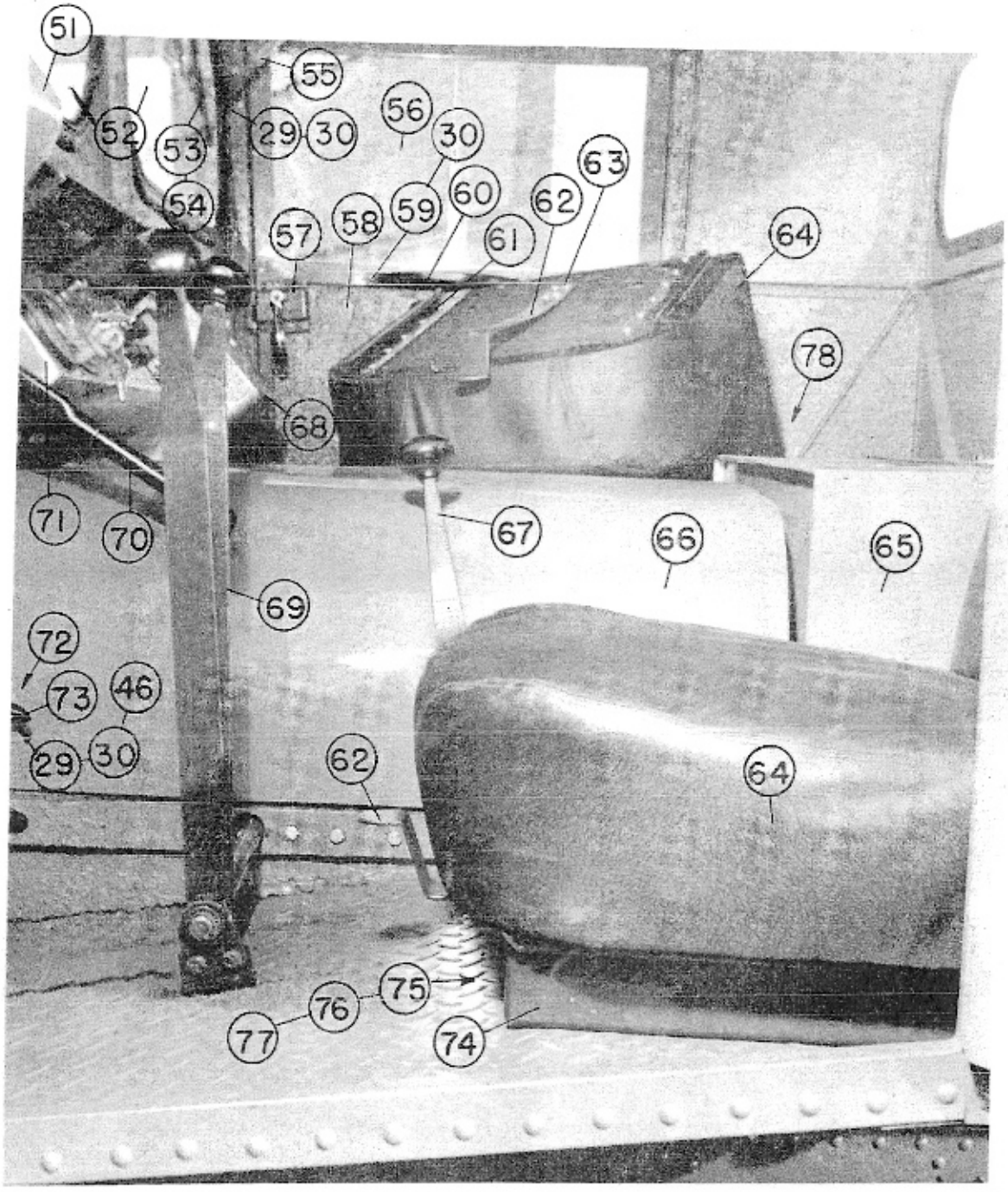
* Not Shown

MODEL 4T TRACKMASTER
GROUP 8 CAB



MODEL 4T TRACKMASTER
GROUP 8 CAB





MODEL 4 T TRACKMASTER

GROUP 8 CAB

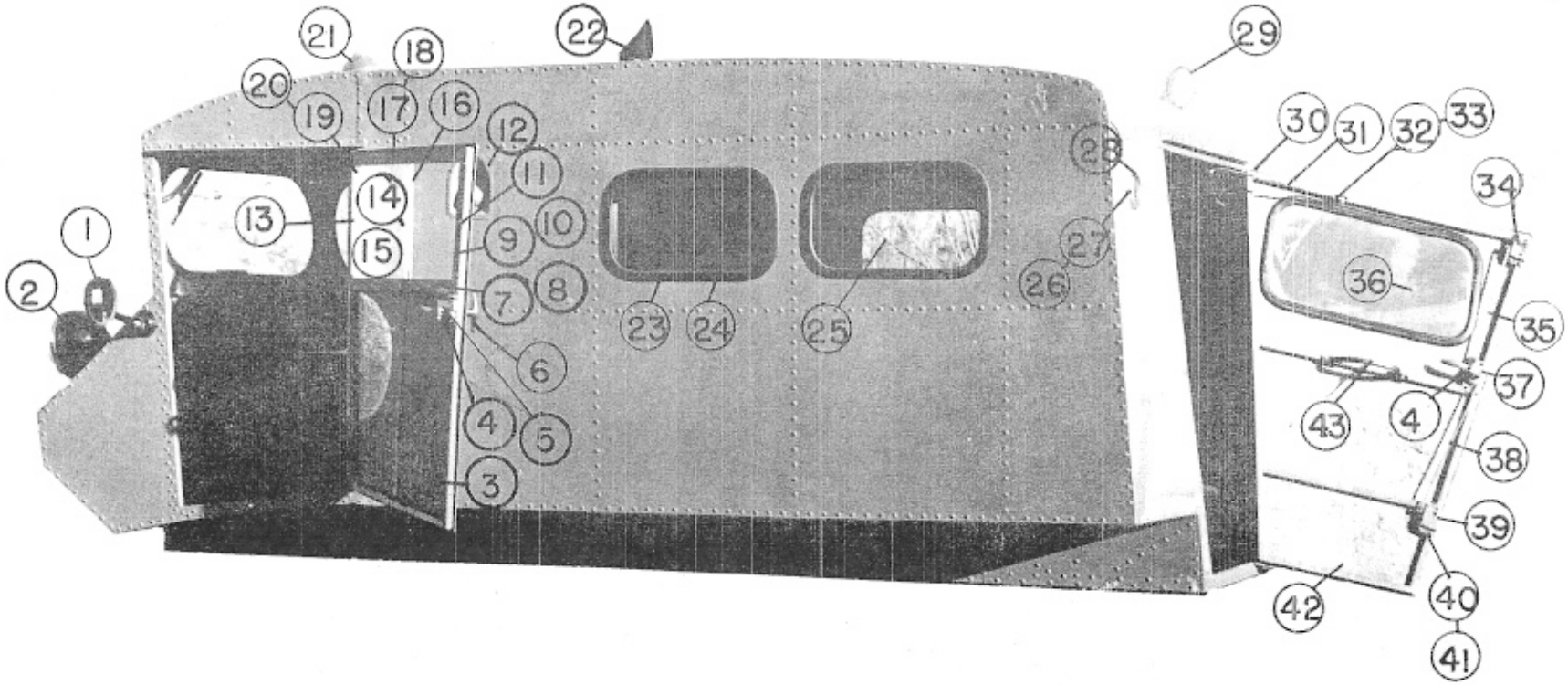
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0108037	Mirror, Rear View	2	4T2, 4T4
2	- - -	Headlight (See Group 15)	2	4T2, 4T4
3	0108038	Door, Left Front	1	4T2, 4T4
4	0108039	Handle, Inside Door	2 - 4T2 3 - 4T4	4T2, 4T4
5	0108040	Lock, Door, L.H.	1	4T2, 4T4
6	0108041	Locking "T" Handle, Outside Door	2 - 4T2 3 - 4T4	4T2, 4T4
7	- - -	Not Applicable	-	- - -
8	- - -	Not Applicable	-	- - -
9	- - -	Not Applicable	-	- - -
10	- - -	Not Applicable	-	- - -
11	- - -	Not Applicable	-	- - -
12	0104030	Gas Inlet Receptacle (See Group 4)	-	- - -
13	- - -	Not Applicable	-	- - -
14	0108043	Glass, Stationary Window, Front Doors	2 - 4T2 3 - 4T4	4T2, 4T4
15	0108044	Glass, Sliding Window	2 - 4T2 3 - 4T4	4T2, 4T4
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	- - -	Not Applicable	-	- - -
19	- - -	Not Applicable	-	- - -
20	- - -	Not Applicable	-	- - -
21	- - -	Spotlight (See Group 19)	-	- - -
22	- - -	Exhaust (See Group 2)	-	- - -
23	0108042	Weatherstrip, Self-sealing, Window	As Required	4T2, 4T4
24	0108076	Locking Strip, Weatherstrip	As Required	4T2, 4T4
25	0108045	Window, Cab Rear	2 - 4T2 3 - 4T4	4T2, 4T4
26	- - -	Pipe, Filler (See Group 4)	-	- - -
27	0108046	Bed Cover	1	4T4
27	0108047	Bed Cover	1	4T2
28	0108112	Tab, Front, Power Selector Cover	2	4T2
29	0101309	Capscrew Hex Head, 1/4 - 28 NF x 3/4 Long	4	4T2, 4T4
30	0101241	Nut, Self-locking, 1/4 - 28 NF	4	4T2, 4T4
31	0108110	Cover, Power Selector Assembly	1	4T2
31	0108111	Cover, Power Selector Assembly	1	4T4
32	0108128	Tab, Rear, Power Selector Cover	2	4T2
33	0108048	Clamp, Cover Hold-Down	6	4T2, 4T4
34	0101229	Machine Screw #10 - 32 NF x 1/2 Long R.D., Head	4	4T2, 4T4
35	0101236	Nut, Machine Essna #10 - 32 NF	4	4T2, 4T4
36	0108054	Post, Cover Anchor	1	4T4
36	0108054	Post, Cover, Anchor	1	4T2
37	0108049	Bar, Ridge	1	4T2
37	0108050	Bar, Ridge	1	4T4
38	0108051	Rod, Cover, Stabilizing	2	4T2

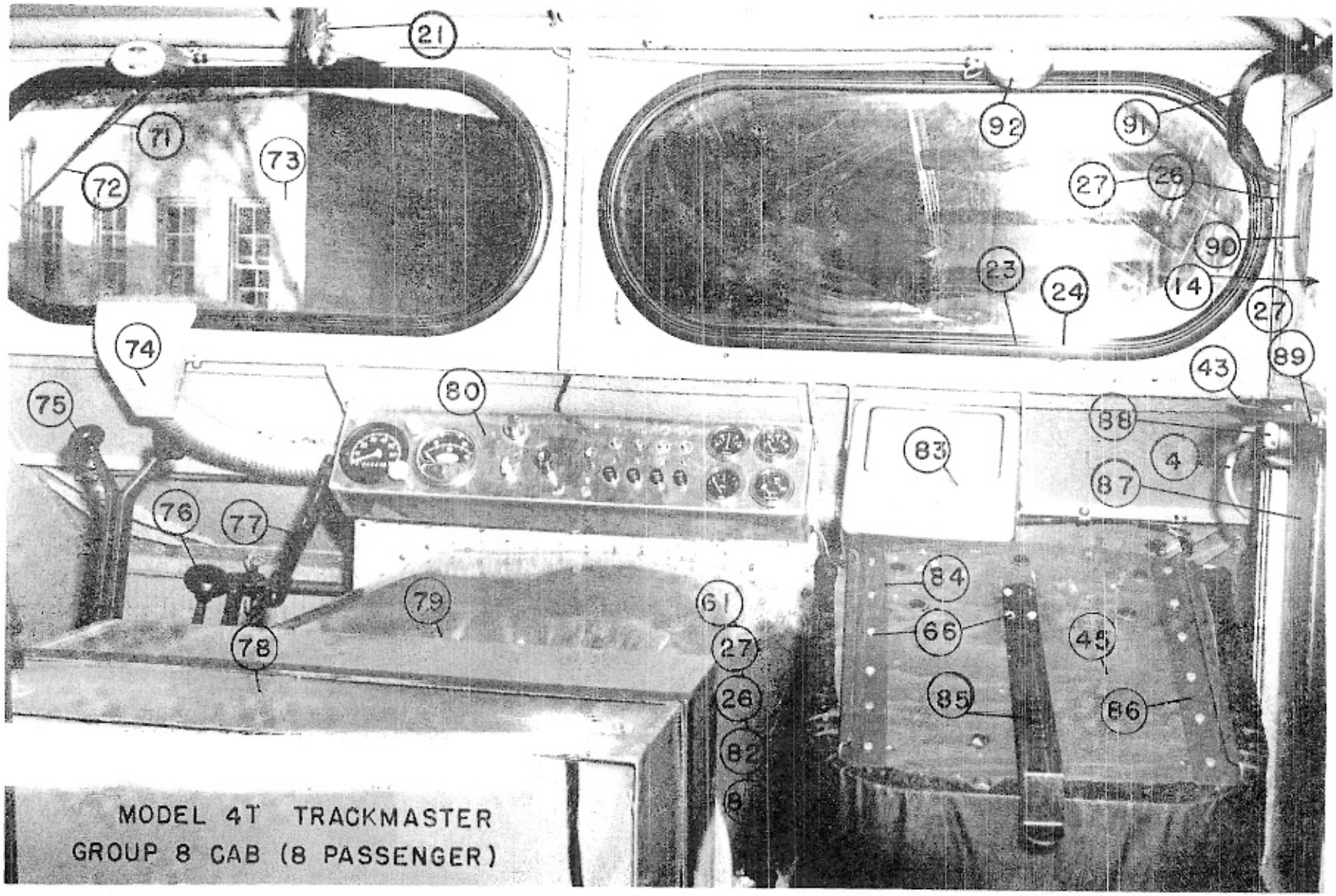
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
38	0108052	Rod, Cover, Stabilizing	2	4T4
39	0101238	Capscrew, Hex Head, 3/8 - 24 NF x 2 Long	1	4T2, 4T4
40	0101211	Lockwasher	1	4T2, 4T4
41	0108053	Support, Removable Cover	1	4T2
41	0108053	Support, Removable Cover	1	4T4
42	0108055	End Gate	1	4T2
42	0108055	End Gate	1	4T4
43	0108056	Rope Locks	10	4T2
43	0108056	Rope Locks	10	4T4
44	0108057	Rope, Binding	10	4T2
44	0108057	Rope, Binding	10	4T4
45	0101240	Capscrew, 1/4 - 28 NF x 1 1/4	7	4T2, 4T4
46	- - -	Not Applicable	-	- - -
47	0101241	Nut, Essna, 1/4 - 28 NF	As Required	4T2, 4T4
48	0108058	Deck Plate, Rear	1	4T2
48	0108059	Deck Plate, Rear	1	4T4
49	0108060	Reflectors, Rear	2	4T2, 4T4
50	0108061	Chain, End Gate	2	4T2
50	0108061	Chain, End Gate	2	4T4
[illegible]	- - -	Defroster, Windshield (See Group 6)	-	- - -
52	0108062	Glass, Windshield	2	4T2, 4T4
53	0108063	Arm, Windshield Wiper	2	4T2, 4T4
54	0108064	Blade, Windshield Wiper	2	4T2, 4T4
55	0108065	Handle, Assist	2 - 4T2	
			3 - 4T4	4T2, 4T4
56	0108044	Glass, Sliding Window	2 - 4T2	
			2 - 4T4	4T2, 4T4
57	0108067	Lock, Door, R.H.	1 - 4T2	
			2 - 4T4	4T2, 4T4
58	0108068	Door, Right Front	1	4T2, 4T4
*	0108069	Door, Right Center	1	4T4
59	- - -	Not Applicable	-	- - -
60	0108065	Handle, Assist	2 - 4T2	
			3 - 4T4	4T2, 4T4
61	- - -	Not Applicable	-	- - -
62	- - -	Not Applicable	-	- - -
63	0101239	Screw, Sheet Metal #12 x 3/4	32 - 4T2	
			64 - 4T4	4T2, 4T4
64	- - -	Seat (See End of Group)	-	- - -
65	- - -	Gas Tank (See Group 4)	-	- - -
66	0108072	Hood, Engine	1	4T2, 4T4
67	- - -	Gearshift (See Group 10)	-	- - -
68	- - -	Heater (See Group 6)	-	- - -
69	- - -	Handle, Control (See Group 22A)	-	- - -
7	- - -	Brake, Emergency (See Group 14)	-	- - -

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
71	- - -	Panel, Instrument (See Group 15)	-	- - -
72	0108073	Bracket, Hood Latch	4	4T2, 4T4
73	- - -	Not Applicable	-	- - -
74	0108074	Frame, Seat Mounting	2 - 4T2	
			4 - 4T4	4T2, 4T4
75	0101248	Capscrew, Hex Head, 1/4 - 28 NF x 1 Long	8 - 4T2	
			16 - 4T4	4T2, 4T4
76	0101207	Nut, Hex Head, 1/4 - 28 NF	8 - 4T2	
			16 - 4T4	4T2, 4T4
77	0101208	Lockwasher, 1/4 Medium	8 - 4T2	
			16 - 4T4	4T2, 4T4
78	- - -	Not Applicable	-	- - -
*	0108002	Radiator Shutter Assembly	1	4T2, 4T4
*	0108036	Panel, Power Selector Protective	1	4T2, 4T4
*	0108106	Panel, Hood Left Side	1	4T2, 4T4
*	0108107	Panel, Hood Right Side	1	4T2, 4T4
*	0108093	Rubber Weatherstrip	As Required	4T2, 4T4
*	0108091	Channel, Glass Run	As Required	4T2, 4T4
*	0108092	Spacer, Rubber	As Required	4T2, 4T4
*	0108094	Channel, Stationary Glass	As Required	4T2, 4T4
*	0108095	Finger Pull	As Required	4T2, 4T4
*	0108102	Spacer, Wiper	2	4T2, 4T4
*	0108113	Floor Board	1	4T4
*	0108025	Cover, Radiator Access	1	4T2, 4T4
*	0108144	Hinge, Left and Right Front Doors (before Serial Number 155)	2	4T2, 4T4
*	0108161	Bracket, Milsco Seat Mounting, Front	2	4T2, 4T4
*	0108162	Bracket, Milsco Seat Mounting, Rear	2 - 4T2	
			6 - 4T4	4T2, 4T4
64	0108077	Seat, Milsco	2 - 4T2	
			4 - 4T4	4T2, 4T4
*	0108140	Spring, Door Handle	3	4T2, 4T4

* Not Shown

MODEL 4T TRACKMASTER
GROUP 8 CAB (8 PASSENGER)





MODEL 4T TRACKMASTER
GROUP 8 CAB (8 PASSENGER)

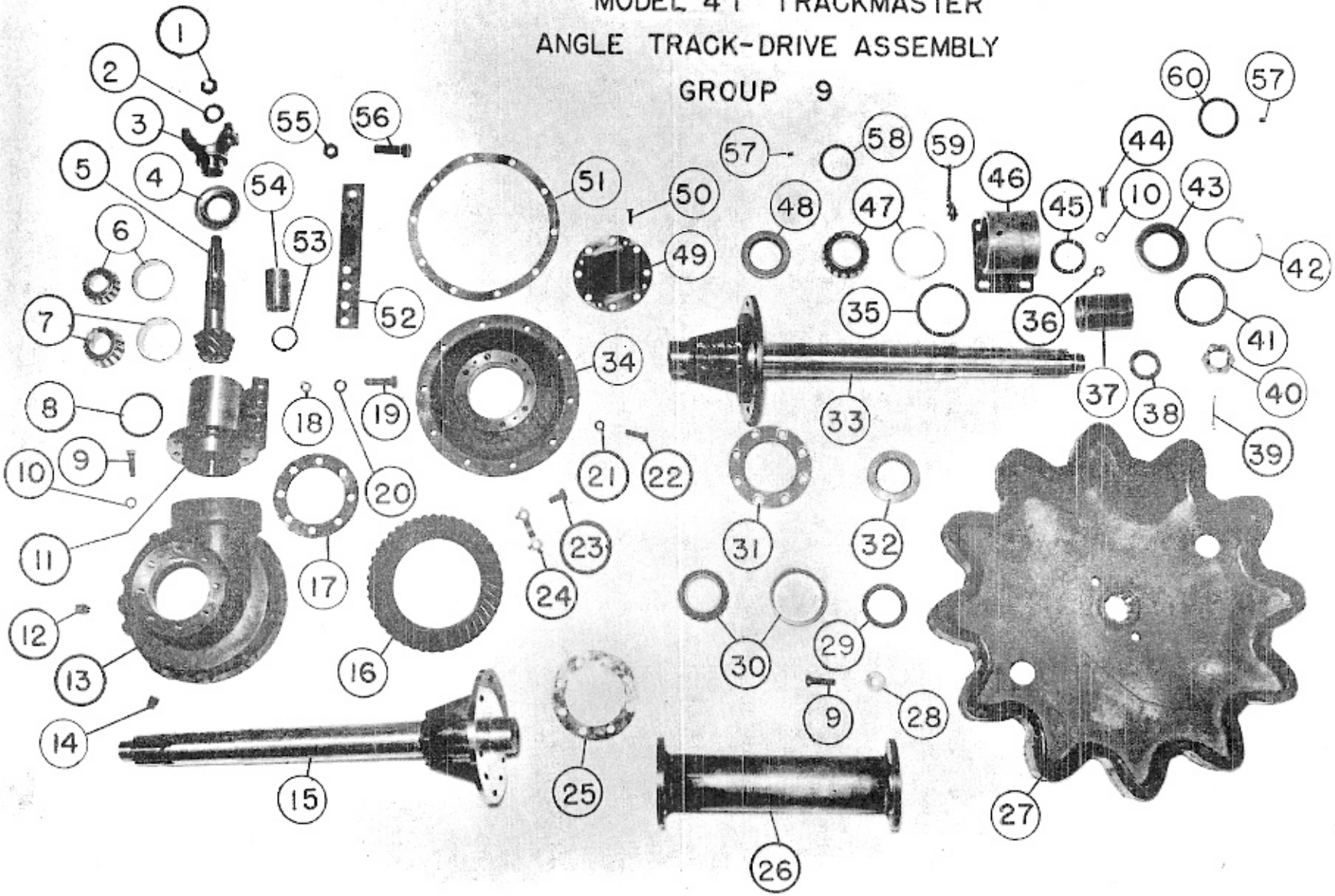
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0108037	Mirror, Rear View	2	4T8, 4T10
2	- - -	Headlight (See Group 15)	-	- - -
3	0108038	Door, Left Front	1	4T8, 4T10
4	0108039	Handle, Inside Door	3	4T8
4	0108088	Handle, Inside Door, L.H.	2	4T10
4	0108089	Handle, Inside Door, R.H.	1	4T10
5	0108040	Lock, Door, L.H.	1	4T8
6	0108041	Locking T Handle, Outside Door	3	4T8
6	0108090	Handle, Outside, L.H. and R.H.	3	4T10
7	- - -	Not Applicable	-	- - -
8	- - -	Not Applicable	-	- - -
9	- - -	Not Applicable	-	- - -
10	- - -	Not Applicable	-	- - -
11	- - -	Not Applicable	-	- - -
12	0104030	Gas Inlet Receptacle (See Group 4)	-	- - -
13	- - -	Not Applicable	-	- - -
14	0108043	Glass, Stationary Window, Front Doors	2	4T8, 4T10
15	0108044	Glass Assembly, Sliding Window	2	4T8, 4T10
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	- - -	Not Applicable	-	- - -
19	- - -	Not Applicable	As Required	4T8, 4T10
20	- - -	Not Applicable	As Required	4T8, 4T10
21	- - -	Spotlight (See Group 19)	-	- - -
22	- - -	Exhaust, (See Group 2)	-	- - -
23	0108042	Weatherstrip, Self-Sealing, Window	As Required	4T8, 4T10
24	0108076	Locking Strip, Weatherstrip	As Required	4T8, 4T10
25	0108045	Window, Cab Sides	4 - 4T8 6 - 4T10	4T8, 4T10
26	0101287	Capscrew, 1/4 - 28 NF x 1/2 Long	-	4T8, 4T10
27	0101207	Nut, Hex Head, 1/4 - 28 NF	-	4T8, 4T10
*	0101208	Spring Lock, Washer 1/4 Medium	-	4T8, 4T10
28	0108060	Reflectors, Rear	2	4T8, 4T10
29	- - -	Backup Light (See Group 19)	-	- - -
30	0108075	Hinge, Door	As Required	4T8, 4T10
31	0108079	Cable, Door Stop	As Required	4T8, 4T10
32	0101250	Capscrew, 5/16 - 24 NF x 1" Long	2	4T8, 4T10
33	0101243	Nut, Hex 5/16 - 24 NF	2	4T8, 4T10
34	0108096	Bolt Lock, Back Door, R.H.	1	4T8
35	0108097	Rod, Upper Back Door Lock	1	4T8
36	0108080	Glass, Back Door	1	4T8, 4T10
37	0108098	Center Control, Back Door	1	4T8
38	0108099	Rod, Lower Back Door Lock	1	4T8
39	0108096	Bolt Lock, Back Door L.H.	1	4T8
40	0101298	Machine Screw, R.H., #10 - 32 NF x 1 1/4	16	4T8
41	0101236	Nut, Hex Head Self-Locking, #10 - 32 NF	20	4T8
42	0108081	Door, Back	1	4T8, 4T10
43	0108065	Handle, Door Closing	3	4T8, 4T10

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
44	- - -	Not Applicable	-	- - -
45	0108077	Seat, Pilot	1	4T8, 4T10
46	- - -	Not Applicable	-	- - -
47	0108074	Frame, Seat Mounting	1	4T8, 4T10
48	- - -	Not Applicable	-	- - -
48	- - -	Not Applicable	-	- - -
49	0108027	Cover, Power Selector Assembly	1	4T8, 4T10
50	0108128	Tab, Rear, Power Selector Cover	2	4T8, 4T10
51	0108048	Clamp, Cover Hold-Down	2	4T8, 4T10
52	0108036	Panel, Power Selector Protective	1	4T8, 4T10
53	0101231	Hex Head Capscrew, 1/4 - 20 NC x 3/4 Long	4	4T8, 4T10
54	- - -	Not Applicable	-	- - -
55	0101208	Lockwasher, 1/4	4	4T8, 4T10
56	0101214	Nut, Hex Head, 1/4-20 NC	4	4T8, 4T10
57	- - -	Not Applicable	-	- - -
58	0108101	Back Rest,L.H. Side	1	4T8
58	0108103	Back Rest, L.H. Side	1	4T10
59	0108082	Cushion, L.H. Side	1	4T8
59	0108083	Cushion, L.H. Side	1	4T10
60	0101240	Capscrew, 1/4 - 28 NF x 1 1/4 Long	7	4T8, 4T10
61	- - -	Not Applicable	-	- - -
62	0108086	Deck Plate, Rear	1	4T8
62	0108028	Deck Plate, Rear	1	4T10
63	0108084	Back Rest, R.H. Side	1	4T8
63	0108085	Back Rest, R.H. Side	1	4T10
64	0108104	Cushion, R.H. Side	1	4T8
64	0108105	Cushion, R.H. Side	1	4T10
65	- - -	Not Applicable	-	- - -
66	0101239	Screw, Sheet Metal, #12 x 3/4 Long	As Required	4T8, 4T10
67	0101241	Nut, Hex Head, 1/4 - 28 NF	As Required	4T8, 4T10
68	0101229	Machine Screw, #10 - 32 NF x 1/2 Long	As Required	4T8, 4T10
69	0108078	Frame, Co-pilot Seat Mounting	1	4T8, 4T10
70	0108131	Tab, Front, Power Selector Cover	2	4T8, 4T10
71	0108063	Arm, Windshield Wiper	2	4T8, 4T10
72	0108064	Blade, Windshield Wiper	2	4T8, 4T10
73	0108062	Glass, Windshield	2	4T8, 4T10
74	- - -	Defroster, Windshield (See Group 6)	-	- - -
75	- - -	Handles, Control (See Group 22-A)	-	- - -
76	- - -	Gear Shift (See Group 16)	-	- - -
77	- - -	Brake (See Group 14)	-	- - -
78	- - -	Gas Tank (See Group 4)	-	- - -
79	0108072	Hood Engine	1	4T8, 4T10
80	- - -	Panel, Instrument (See Group 15)	-	- - -
81	0108073	Bracket, Hood Latch	4	4T8, 4T10
82	0108048	Clamp, Cover Hold Down	4	4T8, 4T10
83	- - -	Heater (See Group 6)	-	- - -
84	- - -	Not Applicable	-	- - -
85	- - -	Not Applicable	-	- - -

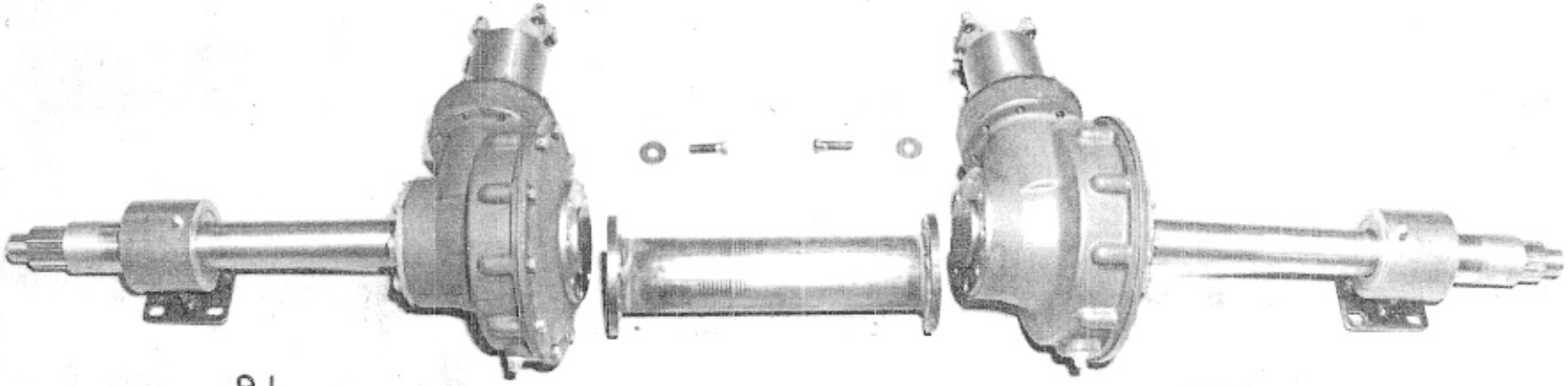
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
86	0108070	Bracket, Mounting Seat, Rear	2	4T8, 4T10
87	0108068	Door, Right, Front	1	4T8, 4T10
88	0108067	Lock, Door, R.H.	1	4T8
89	- - -	Not Applicable	-	- - -
90	0108044	Glass, Sliding Window	1	4T8, 4T10
91	0108005	Handle, Assist Door Opening	4	4T8, 4T10
92	- - -	Motor, Windshield Wiper (See Group 15)	-	- - -
*	0108093	Rubber Weatherstrip	As Required	4T8, 4T10
*	0108091	Channel, Glass Run	As Required	4T8, 4T10
*	0108092	Spacer, Rubber	As Required	4T8, 4T10
*	0108094	Channel, Rigid Weatherstrip	As Required	4T8, 4T10
*	0108095	Finger Pull, Sliding Window	2	4T8, 4T10
*	0108106	Panel, Hood, Left Side	1	4T8, 4T10
*	0108107	Panel, Hood, Right Side	1	4T8, 4T10
*	0108108	Step, Rear Entrance	1	4T8, 4T10
*	- - -	Escape Hatch (See Group 19)	-	- - -
*	- - -	Spare Tire Mount (See Group 19)	-	- - -
*	0108109	Anchor, Back Door Stop	2	4T8, 4T10
*	0108102	Spacer, Wiper	2	4T8, 4T10
*	0108029	Floor Panel, Battery Box and Heater Mounting	-	- - -
*	- - -	Exhaust (See Group 2)	-	- - -
*	0108002	Radiator Shutter Assembly	1	4T8, 4T10
*	0108025	Cover, Radiator, Access	1	4T8, 4T10
*	0108156	Weather Seal Retainer Right Side	1	All
*	0108157	Weather Seal Retainer, Front	1	All
*	0108158	Weather Seal, Side	2	All
*	0108159	Weather Seal, Front	1	All
*	0108163	Mount, Striker Plate (Escape Hatch)	1	4T10
45	0108175	Seat, Co-Pilot	1	4T10
*	0108179	Retainer, Left Side Weather Seal	1	All

* Not Shown

MODEL 4T TRACKMASTER
ANGLE TRACK-DRIVE ASSEMBLY
GROUP 9



MODEL 4T TRACKMASTER
ANGLE TRACK-DRIVE ASSEMBLY
GROUP 9



9 L
SUB ASSY.

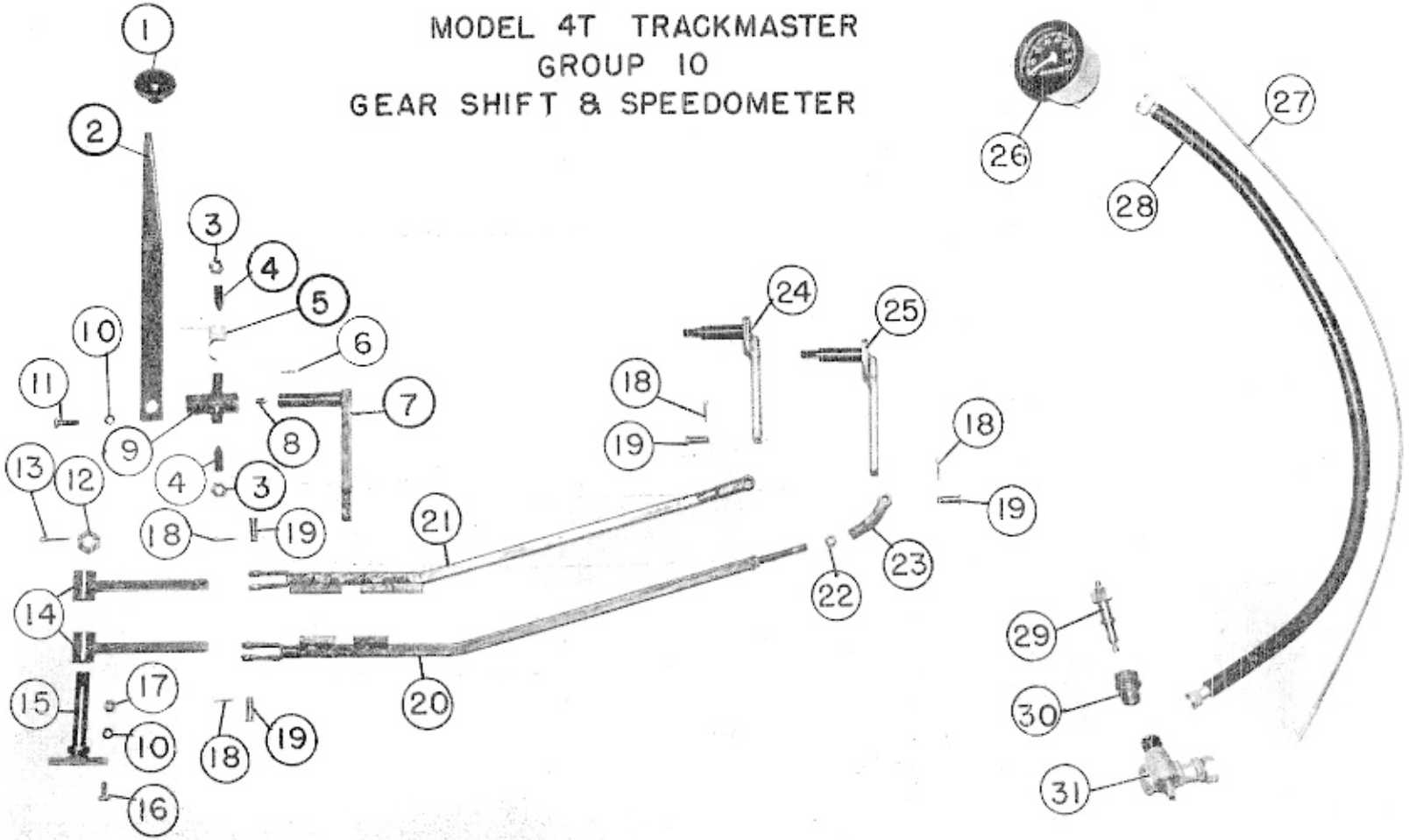
9 R
SUB ASSY.

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0109045	Nut, Pinion	2	All
2	0101358	Washer - Flat	2	All
3	0109018	End Yoke	2	All
4	0109007	Seal, Pinion	2	All
5	0109013	Pinion, 5.375:1	1 set	All
6	0109009	Bearing - Outer Pinion	2	All
7	0109010	Bearing - Inner Pinion	2	All
8	0109011	Shim	2	All
9	0101261	Screw, Hex Head 7/16 - 14 NC x 1 1/2	40	All
10	0101258	Lockwasher, Spring-type, 7/16 Standard	24	All
11	0109030	Housing, Pinion	2	All
12	0101356	Plug, Magnetic, 3/8 Pipe	2	All
13	0109012	Housing, Ring Gear and Pinion	2	All
14	0101355	Plug, 3/8 Pipe	2	All
15	0109008	Axle, Left	1	All
16	0109014	Ring Gear, 5.375:1	1 set	All
17	0109015	Gasket, Pinion Mounting	2	All
18	0101232	Nut, 1/2, 20 NF	8	All
19	0101263	Capscrew, Hex Head 1/2, 20 NF x 2	8	All
20	0101234	Lockwasher, 1/2 Spring-type, Medium	8	All
21	0101211	Spring, Lockwasher, 3/8 Medium	20	All
22	0101247	Capscrew, Hex Head, 3/8 - 16 NC x 1 1/4	20	All
23	0109016	Bolt, Ring Gear	20	All
24	0109017	Lock, Ring Gear	10	All
25	0109032	Shim Pack, Axle	As Required	All
26	0109031	Tube, Connecting	1	All
27	0109006	Sprocket, Track Drive, 12 Tooth	2	All
28	0109056	Locking Plate, Axle Sleeve	16	All
29	0109033	Spacer, Narrow, Axle	2	All
30	0109019	Bearing, Inner, Axle	4	All
31	0109034	Flange, Seal Retaining	2	All
32	0109020	Seal, Axle	2	All
33	0109021	Axle, Right	1	All
34	0109028	Flange, Bearing Mount	2	All
35	0109035	Spacer, Bearing	2	All
36	0101264	Nut, Hex 7/16, 14 NC	8	All
37	0109022	Sleeve, Axle	2	All
38	0101357	Washer, Flat	2	All
39	0101267	Cotterpin, 5/32 x 2	2	All
40	0109046	Nut, Sprocket, Axle, 1 1/4, 12 [illegible] 2B	2	All
41	0109036	Spacer, Retaining Ring	2	All
42	0109037	Ring, Retaining	2	All
43	0109023	Seal, Outer, Axle	2	All
44	- - -	See Reference No. 9	-	- - -
45	0109038	Spacer, Bearing Cone	2	All
46	0109039	Ring, Axle Mount	2	All
46A	- - -	Not Applicable	-	- - -

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
47	0109024	Bearing, Outer Axle	4	All
48	0109025	Seal, Inner Axle	2	All
49	0109040	Cap, Bearing, Retaining	2	All
50	0101271	Machine Screw, Flat Head, 1/4, 20 NC x 3/4	8	All
51	0109041	Gasket, Housing	2	All
52	0109027	Bar, Anchor	2	All
53	0109026	Shim Pack, Pinion Bearing Spacer	As Required	All
54	0109029	Spacer, Pinion Bearing	2	All
55	0101292	Nut, Essna Self-locking, 5/8 - 18 NF	2	All
56	0101293	Capscrew, Hex Head, 5/8 - 18 NF x 1 3/4	2	All
57	0101299	Setscrew, Socket Head, 1/4 - 28 NF x 1/4	4	All
58	0109042	Collar, Protective, Inner	2	All
59	0101301	Fitting, Grease, 1/4 - 28 UNF-2A, 45° Angle	2	All
60	0109043	Collar, Protective, Outer	2	All
61	0109049	Capscrew, Hex Head, 5/8 - 18 NF x 6 3/8	2	All
*	0101300	Nut, Castle, 5/8 - 18 NF	2	All
*	0109044	Bracket, Mounting	4	All
*	0101284	Cotterpin, 1/8 x 1	2	All
- -	0109001	Track Drive Assembly	Reference	All
-	9-5A	Axle Mounting, Track Drive, Assembly	Reference	All
- -	9-5B	Axle Mounting, Track Drive	Reference	All
- -	9-5C	Angle Track Drive	Reference	All

* Not Shown

MODEL 4T TRACKMASTER
GROUP 10
GEAR SHIFT & SPEEDOMETER



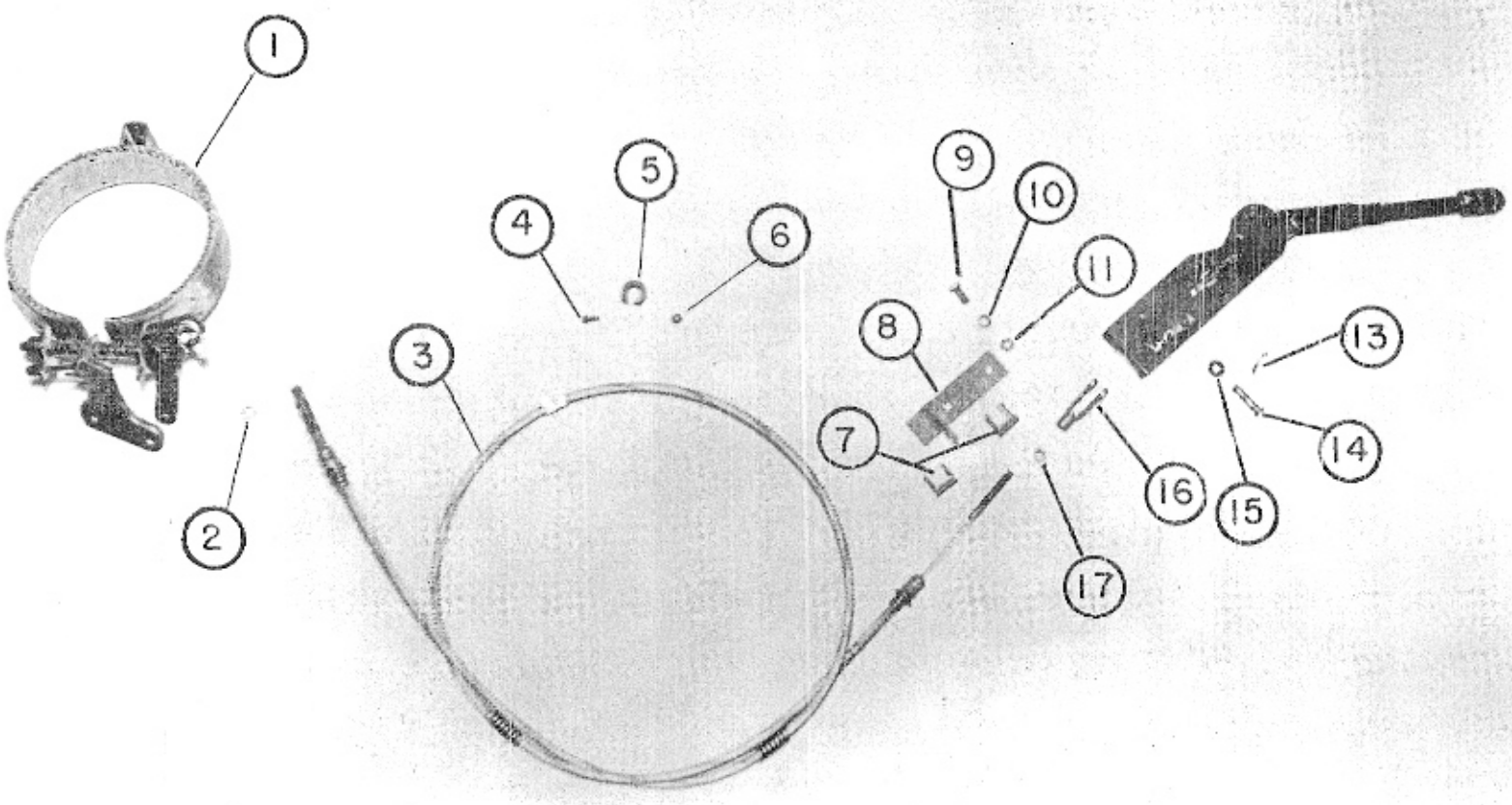
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0110029	Knob, Gear Shift	1	All
2	0110012	Lever, Gear Shift	1	All
3	0101264	Nut, Hex, 7/16 - 14 NC	2	All
4	0110013	Pin, Pivot	2	All
5	0110030	Spring, Keeper	1	All
6	0110011	Key, Gear Shift Lever	1	All
7	0110031	Arm, Shifting	1	All
8	- - -	Not Applicable	-	- - -
9	0110010	Cross, Shifting	1	All
10	0101208	Spring Lockwasher, 1/4 Medium	3	All
11	0101248	Capscrew, Hex Head, 1/4 - 28 NF x 1	1	All
12	0101282	Nut, Hex, Regular Slotted, 5/8 - 18 NF	1	All
13	0101284	Cotterpin, 1/8 x 1	1	All
14	0110032	Arm, Linkage Support	2	All
15	0110033	Post, Linkage, Support Arm Mounting	1	All
16	0101231	Capscrew, Hex Head, 1/4 - 20 NC x 3/4	2	All
17	0101283	Nut, Hex, 1/4 - 20 NC	2	All
18	0101253	Cotterpin, 3/32 x 3/4	4	All
19	0101289	Clevis Pin, 3/8 x 29/32	4	All
20	0110014	Link, Shifting, Left	1	All
21	0110015	Link, Shifting, Right	1	All
22	0101210	Nut, Hex, 3/8 - 24 NF	2	All
23	0101290	Brake Yoke, 3/8 - 24 NF	2	All
24	0110009	Lever, 2nd and 3rd Gears (External Attachment)	1	All
24	0110034	Lever, Transmission, 2nd and 3rd Gears (Internal Attachment)	1	All
25	0110008	Lever, 1st and Reverse Gears (External Attachment)	1	All
25	0110035	Lever, Transmission, 1st and Reverse Gears (Internal Attachment)	1	All
26	0110028	Head, Speedometer	1	All
27	0110019	Core Assembly, Speedometer	1	All
28	0110018	Housing Assembly, Speedometer Core	1	All
29	- - -	Gear, Speedometer Driven (See Transmission Group, Item 59)	-	- - -
30	- - -	Bearing, Speedometer Driven Gear (See Transmission Group, Item 60)	-	- - -
31	0110017	Joint, Drive	1	All
*	0110037	Bushing, Shifting Cross	2	All
*	0110036	Bushing, Linkage Support Arm	2	**

* Not Shown

** All Models After Serial Number 193

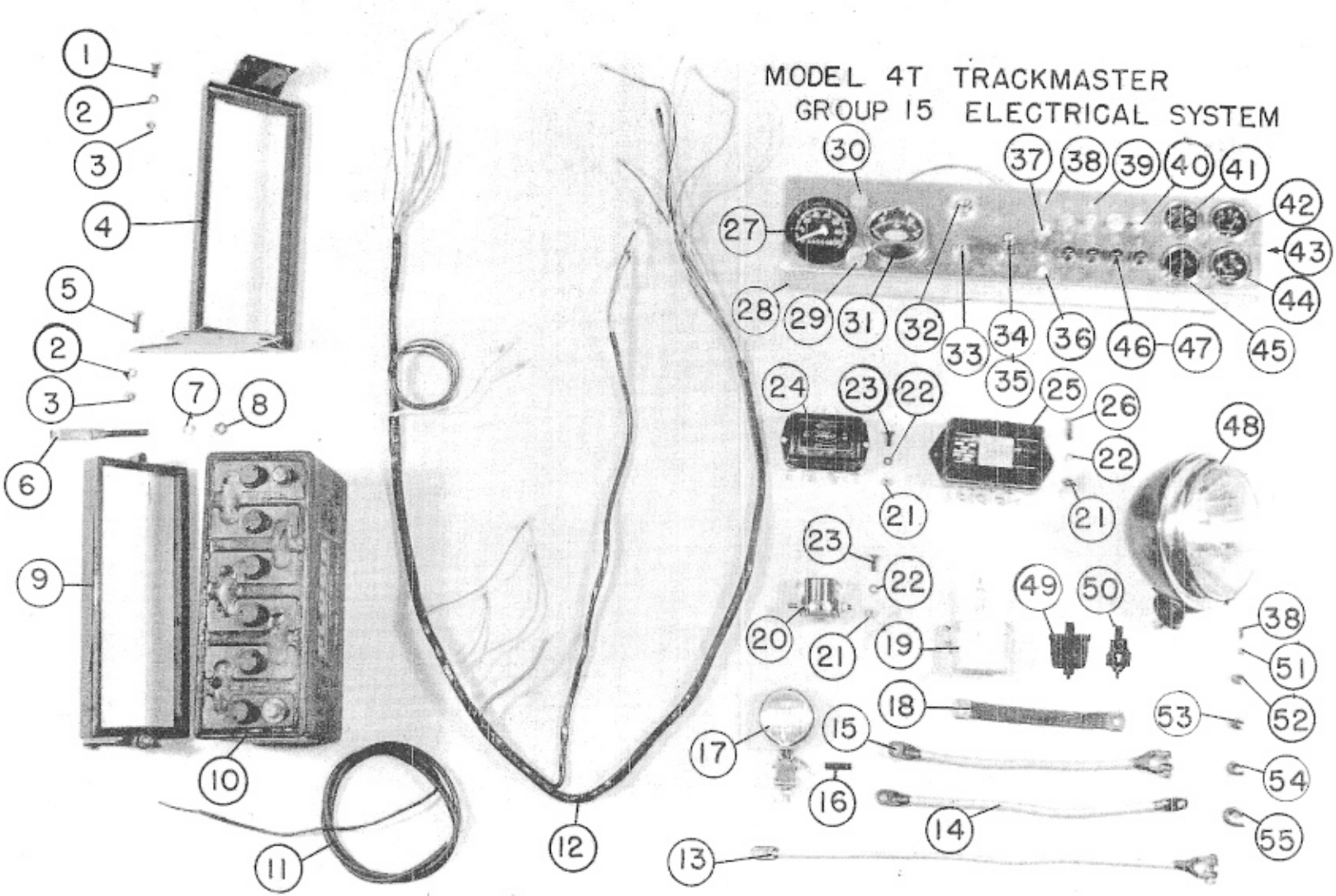
MODEL 4T TRACKMASTER

GROUP 14 HAND BRAKE ASSEMBLY

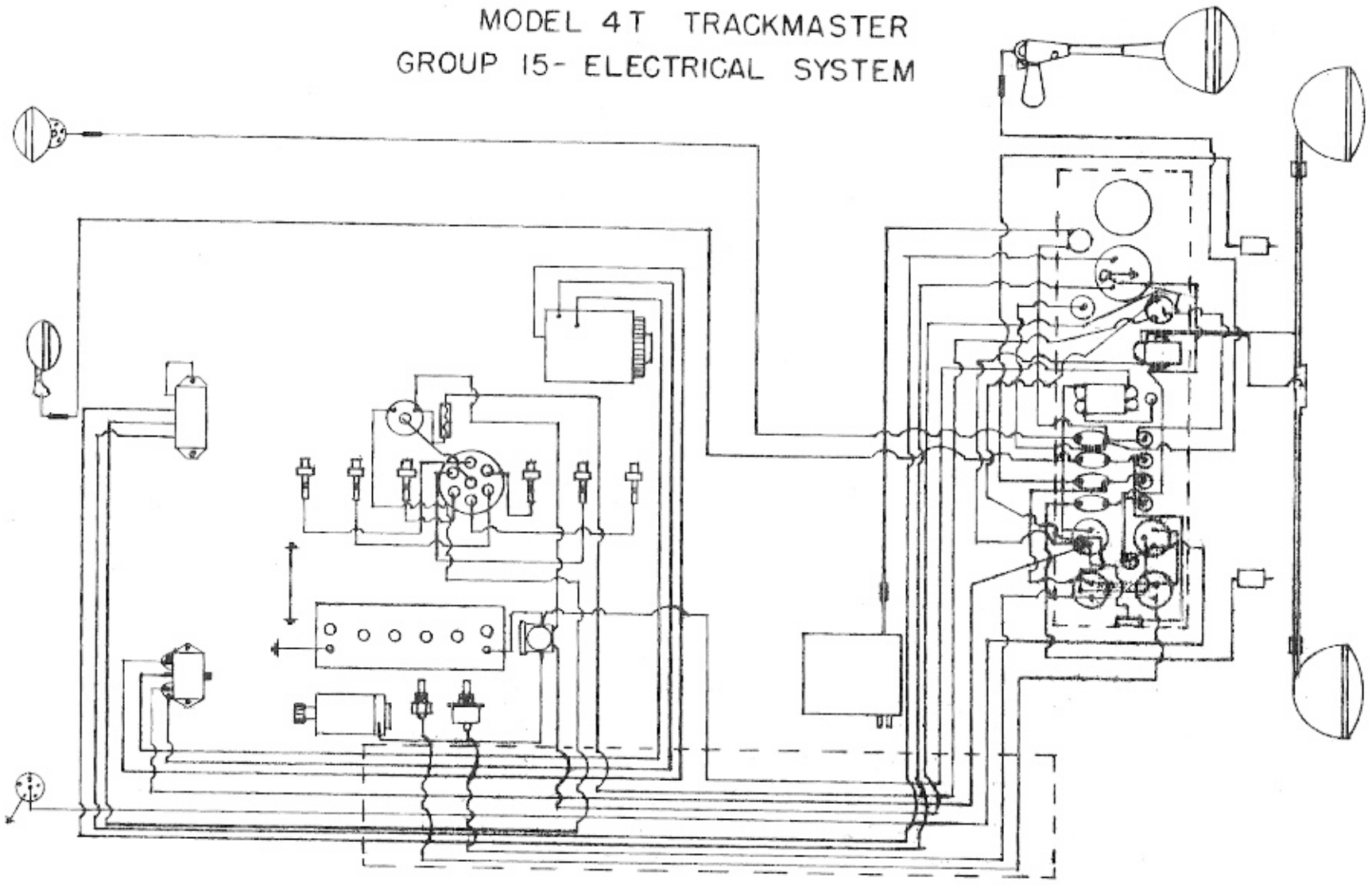


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0114009	Brake Band Assembly	1	All
2	0101210	Nut, Hex, 3/8 - 24 NF	2	All
3	0114008	Cable	1	All
4	- - -	Not Applicable	-	- - -
5	- - -	Not Applicable	-	- - -
6	- - -	Not Applicable	-	- - -
7	- - -	Not Applicable	-	- - -
8	- - -	Not Applicable	-	- - -
9	- - -	Not Applicable	-	- - -
10	- - -	Not Applicable	-	- - -
11	- - -	Not Applicable	-	- - -
12	0114010	Brake Handle Assembly	1	All
13	- - -	Not Applicable	-	- - -
14	0101255	Clevis Pin, MS20392-4-25	1	All
15	- - -	Not Applicable	-	- - -
16	0101291	Yoke, Brake	1	All
17	- - -	Not Applicable	-	- - -
*	0101211	Lockwasher, 3/8 Medium	5	All
*	0101212	Cotterpin, 1/16 x 3/4 Long	2	All
*	0114005	Return Spring	1	All
*	0114016	Retainer Clip	1	All
*	0114013	Bracket, Brake Cable Mounting	1	All
*	0101213	Hex Head Capscrew, 1/4 - 20 NC 5/8 Long	2	All
*	0101214	Hex Nut, 1/4 - 20 NC	2	All
*	0101208	Lockwasher, 1/4 Medium	6	All
*	0101215	Hex Head Capscrew, 3/8 - 16 NC x 1" Long	4	All
*	0101216	Hex Nut, 3/8 - 16 NC	4	All
*	0114017	Pad	1	All
*	0114011	Spacer	1	All
*	0114003	Bearing	2	**
*	0114021	Shaft, Foot Brake	1	All
*	0114002	Lever	1	All
*	0114014	Key	1	All
*	0101254	Clevis Pin, MS20392-5-25	1	All
*	0101217	Flat Washer, 3/8 Standard	5	All
*	0101218	Hex Head Capscrew, 5/16 - 18 NC x 2 1/2 Long	3	All
*	0101219	Hex Nut, 5/16 - 18 NC	3	All
*	0101220	Lockwasher, 5/16 Medium	5	All
*	0114019	Hand Brake Link	2	All
*	0101221	Hex Head Capscrew, 5/16 - 18 NC x 1" Long	2	All
*	0101222	Hex Head Capscrew 1/4 - 20 NC x 1" Long	2	All
*	0114020	Cable Mount	1	All
*	0101223	Hex Head Capscrew 1/4 - 28 NF x 1 1/4 Long	2	All
*	0114015	Key	1	All
*	0114004	Brake Pedal	1	All
*	0114012	Spacer	1	All
*	0114006	Bearing Assembly, Self Aligning, 1" Bore	2	***
*	0114007	Sleeve Bearing	2	All

* Not Shown
** All Models after Serial Number 166
*** Serial Numbers 155 - 164


MODEL 4T TRACKMASTER
GROUP 15 ELECTRICAL SYSTEM

MODEL 4T TRACKMASTER
GROUP 15- ELECTRICAL SYSTEM

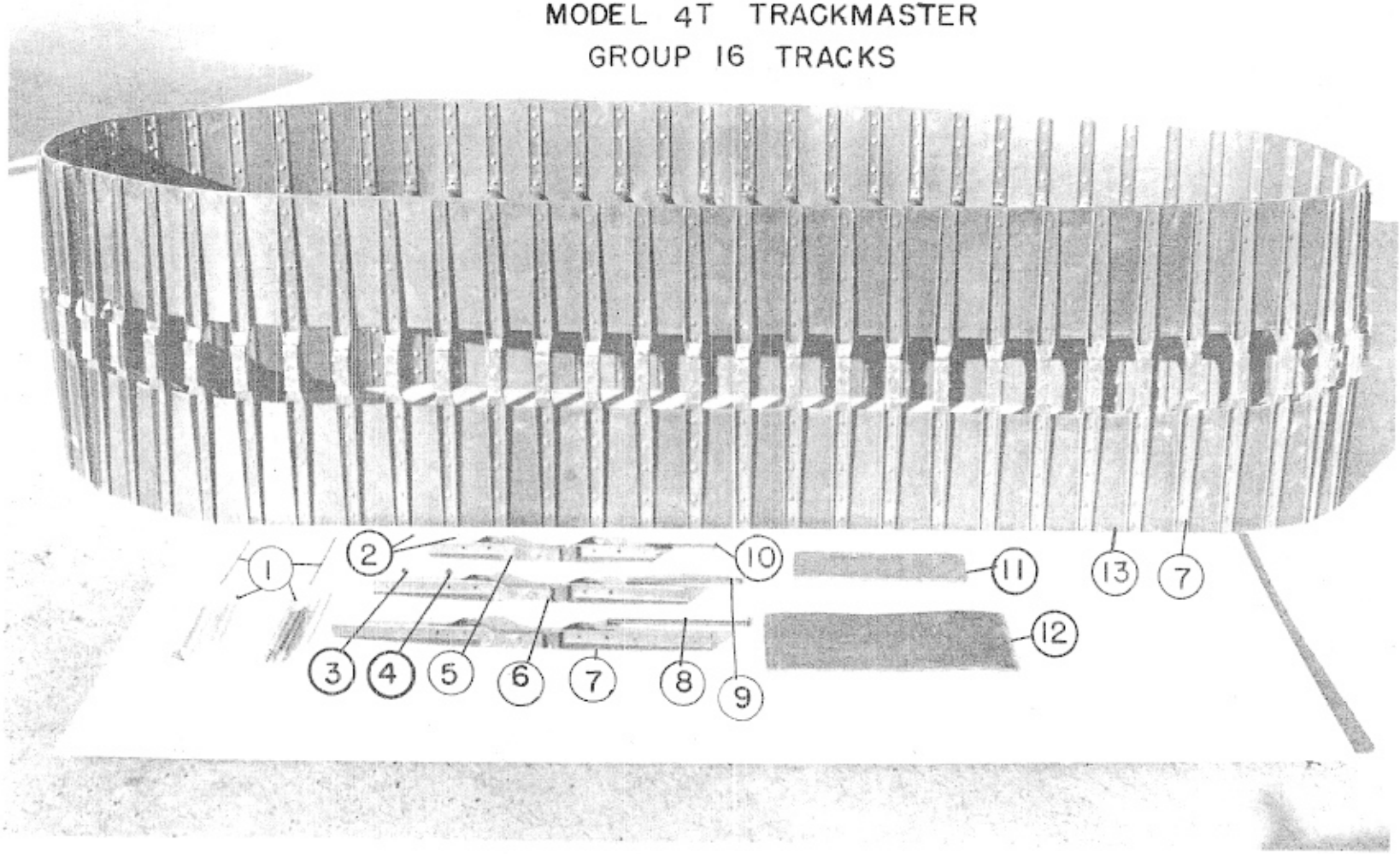


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0101307	Capscrew, Hex Head, 5/16 - 18 NC x 3/4	2	*
2	0101220	Lockwasher, Spring, 5/16 Medium	4	*
3	0101219	Nut, Hex 5/16 - 18 NC	4	*
4	0115056	Frame, Battery, Mount	1	*
5	0101221	Capscrew, Hex Head, 5/16 - 18 NC x 1	2	*
6	0115009	Bracket, Battery Hold-down	2	*
7	0101217	Flatwasher, 3/8 Standard	2	*
8	0101216	Nut, Hex 3/8 - 16 NC	2	*
9	0115057	Frame, Battery, Hold-Down	1	*
10	0115017	Battery, 12 volt	1	*
11	0115026	Wiring Assembly, Head Lights	1	All
12	0119009	Wiring Assembly, Harness, Special	1	Special Equip.
12	0115015	Wiring Assembly, Harness	1	All
**	0115016	Wire, Sending Unit, Fuel	1	4T4
13	15-2-28	Cable, Battery, Negative	1	All
14	0115034	Cable, Starter	1	All
15	15-2-29	Cable, Battery, Positive	1	*
16	15-1-99	Connector, Wire	4-5	All
17	- - -	Not Applicable	-	- - -
18	0115035	Cable, Ground, Engine	1	All
19	0115030	Motor, Windshield Wiper, 12 volt	2	All
20	0115031	Switch, Solenoid	1	All
21	0101214	Nut, Hex, 1/4 - 20 NC	7	All
22	0101208	Lockwasher, Spring, 1/4 Medium	7	All
23	0101231	Capscrew, Hex Head, 1/4 - 20 NC x 3/4	5	All
24	0115032	Regulator, Voltage	1	All
25	0115033	Sender, Tachometer	1	All
26	0101303	Capscrew, Hex Head, 1/4 - 20 NC x 1	2	All
27	- - -	Speedometer (See Group 10)	-	- - -
28	0115011	Panel, Instrument	1	All
29	- - -	Choke Control (See Group 4)	-	- - -
30	0115027	Switch, Heater Control	1	All
31	0115037	Head, Tachometer	1	All
32	15-1-84	Receptacle, Trouble Light	1	All
33	0115019	Switch, Ignition	1	All
34	0115038	Switch, Light	1	All
35	0115039	Knob, Light Control Switch	1	All
36	15-1-20	Light, Pilot, Master Switch	1	All
37	0115040	Master Switch	1	All
38	0101310	Machine Screw, Round Head, # 10 - 32 NF x 3/8 Long	As Required	All
39	0101305	Machine Screw, Pan Head, #6 - 32 NC x 3/8 Long	8	All
40	0115022	Switch, Toggle	4	All
41	0115041	Ammeter	1	All
42	0115042	Gauge, Oil, Dash Unit	1	All
43	15-2-21A	Socket, Light	1	All
**	0115023	Light, Instrument Panel	-	All

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd	Applicable Models
**	0115021	Globe, Light, Panel	-	All
43	0115008	Bracket, Socket	-	All
44	- - -	Fuel Gage Dash (See Group 4)	-	- - -
45	0115043	Gage, Temperature, Dash	1	All
46	0115044	Fuse Holder	4	All
47	0115024	Fuse	4	All
48	0115029	Headlight Assembly	2	All
49	0115025	Sending Unit, Oil Pressure	1	All
50	0115036	Sending Unit, Temperature	1	All
51	0101302	Elastic Stop Nut #10 - 24 NC	2	All
52	15-1-101	Clamp, Line Supporting	As Required	All
53	15-1-102	Clamp, Line Supporting	As Required	All
54	15-1-103	Clamp, Line Supporting	As Required	All
55	15-1-104	Clamp, Line Supporting	As Required	All
**	0115003	Box, Battery (2)	-	Special Equip.
**	0115004	Lid, Battery Box (2)	-	Special Equip.
**	0115005	Frame, Battery Hold-down (2)	-	Special Equip.
**	0115013	Light, Dome, 12 Volt	1	All (2, 4T10)
**	0115012	Globe, Dome Light, 12 volt	1	All (2, 4T10)
**	0115018	Globe, Light, 12 Volt	3	All (4, 4T10)
**	0115020	Button, Starter	1	All
	0101337	Nut, Sems, Hex, #10 - 32 NF	As Required	All
**	0115028	Seal Beam, Headlight	As Required	All
**	0115045	Wire End, #10 Stud, 16 - 14 Gage	As Required	All
**	0115047	Wire End, 1/4 Stud, 12 - 10 Gage	As Required	All
**	0115046	Snap Plug	As Required	All
**	0115048	Wire End, 1/4 Stud, 16 - 14 Gage	As Required	All
**	0115049	Wire End, #10 Stud, 12 - 10 Gage	As Required	All
**	0115050	Wire End, #10 Stud, 22 - 16 Gage	As Required	All
**	0115051	Wire End, #10 Stud, 8 Gage	As Required	All
**	0115052	Wire End, 5/16 Stud, 8 Gage	As Required	All
**	0115053	Wire, Tach Sending Unit Ground	1	All
**	0115054	Wire End, Female Connector	As Required	All
**	0115059	Motor, Windshield Wiper	As Required	All

All, unless Special Equipment Alters
** Not Shown

MODEL 4T TRACKMASTER
GROUP 16 TRACKS

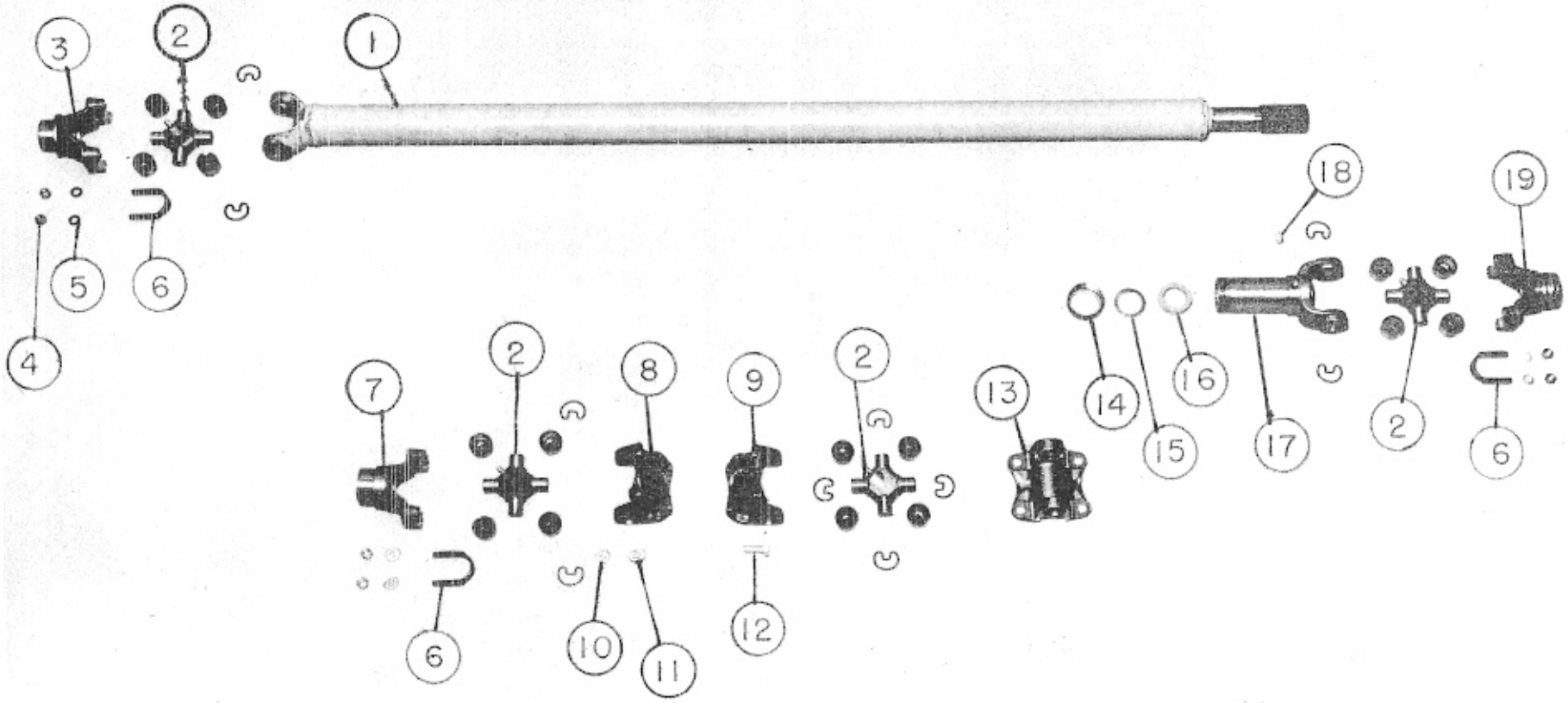


Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	16-2-8	Lacing, 12" Belt Connecting (31 1/2 Width Track)	8 pcs.	All
2	16-3-8	Lacing, 10" Belt Connecting (27 1/2 Width Track)	8 pcs.	All
3	16-5-8	Lacing, 7" Belt Connecting (21 1/2 Width Track)	8 pcs.	All
4	H2E-4F	Nut, Self-locking Huglug, 1/4 - 28 NF (for 12" Belting)	1320 ea.	All
5	H2E-4F	Nut, Self-locking Huglug, 1/4 - 28 NF (for 10" Belting)	1056 ea.	All
6	H2E-4F	Nut, Self-locking Huglug, 1/4 - 28 NF (for 7" Belting)	792 ea.	All
7	H1A-4-8F	Capscrew, 1/4 - 28 NF x 1" (for 12" Belting)	1056 ea.	All
8	H1A-4-8F	Capscrew, 1/4 - 28 NF x 1" (for 10" Belting)	792 ea.	All
9	H1A-4-8F	Capscrew, 1/4 - 28 NF x 1" (for 6" Belting)	528 ea.	All
10	H1A-4-10F	Capscrew, 1/4 - 28 NF x 1 1/4" (Same No. used on each size Belting)	264 ea.	All
11	16-5-3	Guide and Cleat Assembly Tire, for 7" Belting (21 1/2 Width Track)	132 ea.	All
12	16-3-3	Guide and Cleat Assembly Tire, for 10" Belting (27 1/2 Width Track)	132 ea.	All
13	16-2-3	Guide and Cleat Assembly, Tire for 12" Belting (31 1/2 Width Track)	132 ea.	All
14	16-2-9	Plate, Backing for 12" Belting (31 1/2" Width Track)	264 ea.	All
15	011[illegible]030	Plate, Backing for 10" Belting (27 1/2 Width Track)	264 ea.	All
16	16-5-9	Plate, Backing for 7" Belting (21 1/2 Width Track)	264 ea.	All
17	16-5-4	Belting, 7" Track (21 1/2 Width Track)	98' 9"	All
18	16-3-4	Belting, 10" Track (27 1/2 Width Track)	98' 9"	All
19	16-2-4	Belting, 12" Track (31 1/2 Width Track)	98' 9"	All
-	0116032	Tracks, Set of (31 1/2" Wide) Composed of 12" Belting	- - -	- - -
-	0116033	Tracks, Set of (27 1/2" Wide) Composed of 10" Belting	- - -	- - -
-	16-5	Tracks, Set of (21 1/2 Wide) Composed of 7" Belting	- - -	- - -

NOTE: Set of Tracks 16-2, 16-3, 16-5, Divided into 6 Sections in Length.
In Ordering, Specify Number of Sections Needed or Complete Set by Part Number.

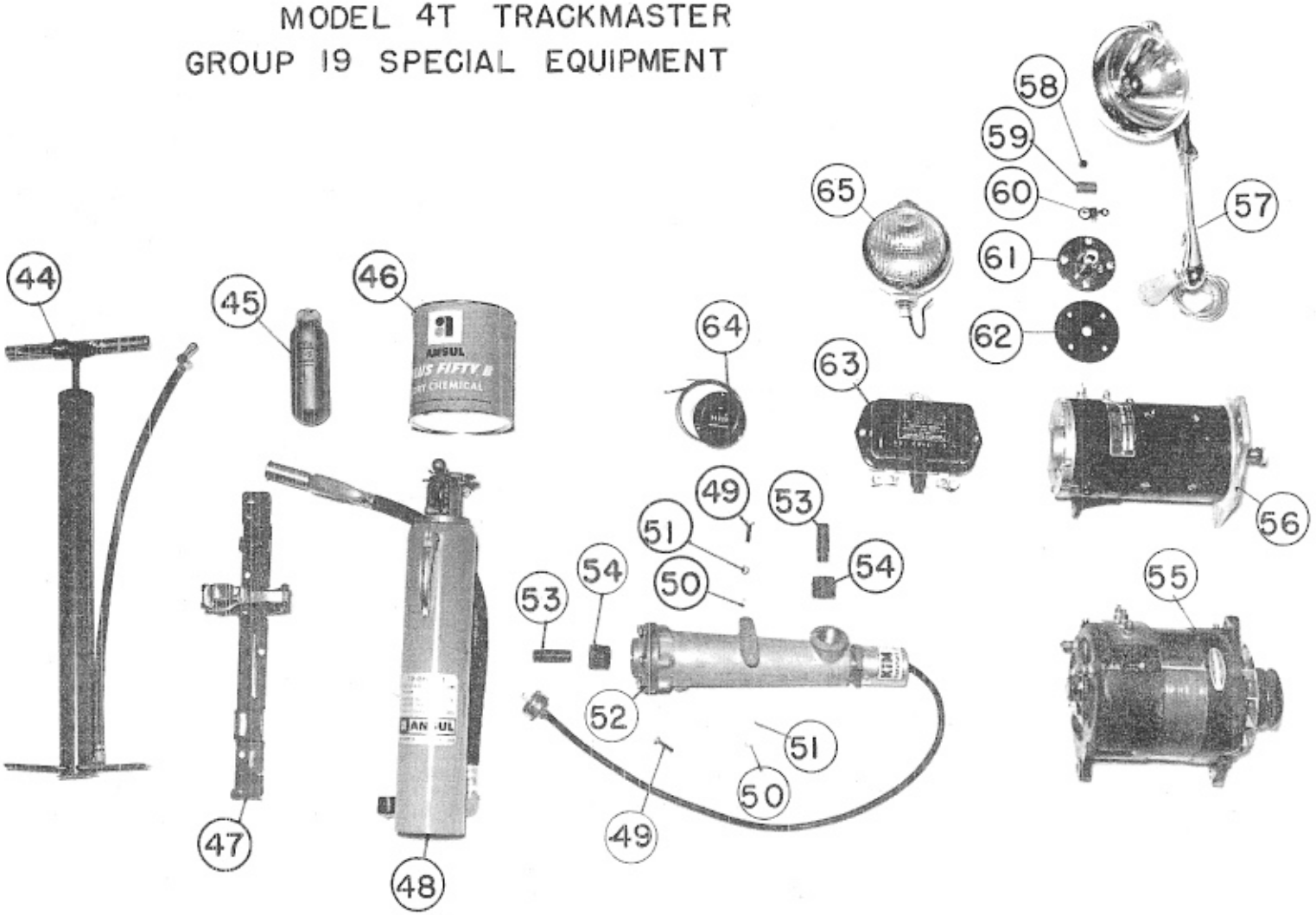
MODEL 4 TRACKMASTER,

GROUP 18-- DRIVE SHAFTS



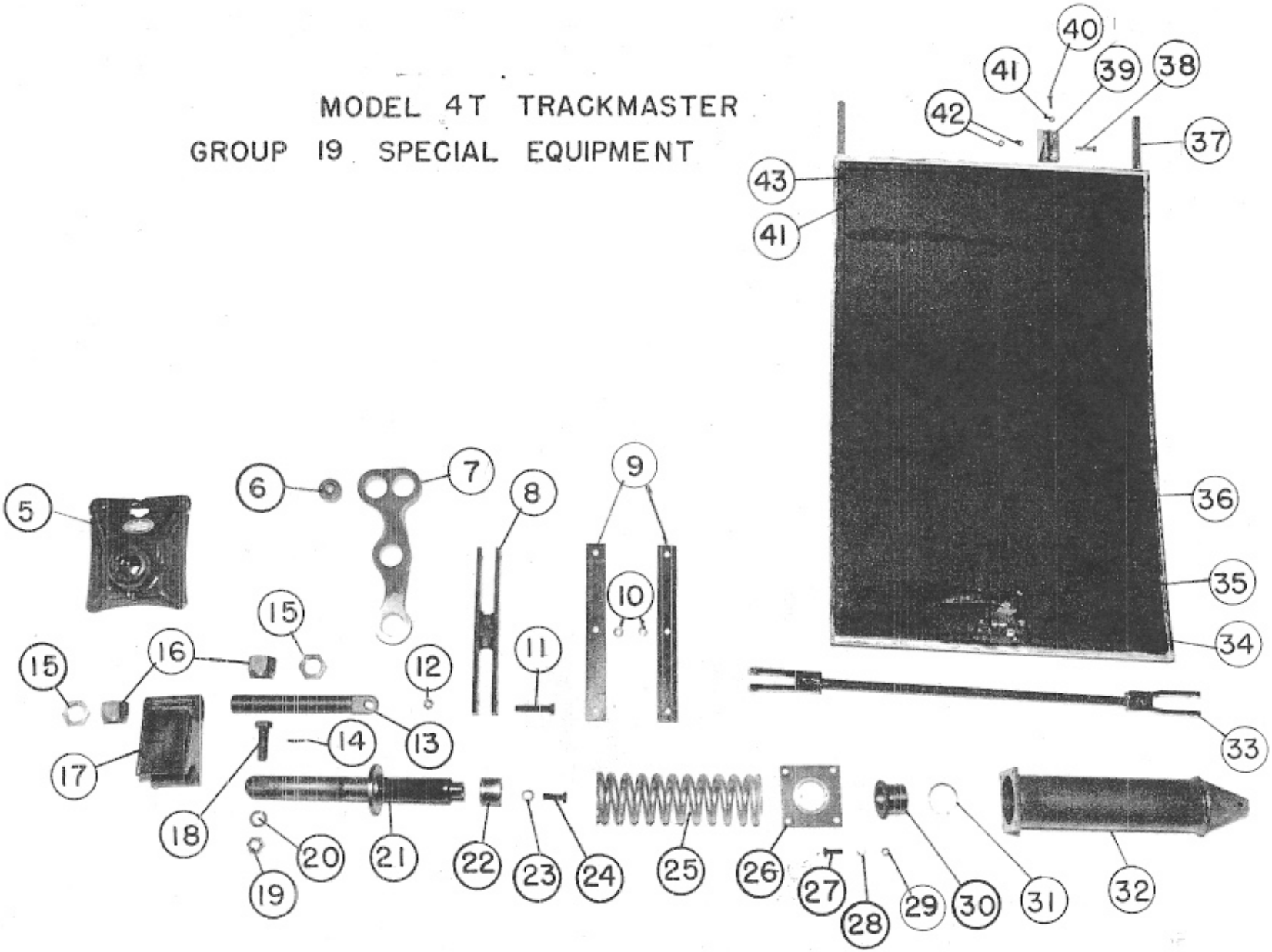
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	0118004	Shaft, Rear, Drive	2	All
2	0118005	Kit, Bearing and Journal	4	All
3	- - -	End Yoke (See Group 9, Track Drive)	-	- - -
4	0101243	Hex Nut 5/16 - 24	12	All
5	0101244	Lock Washer, Star 5/16	12	All
6	0118006	U-Bolt	6	All
7	0118007	End Yoke, Input Shaft	1	All
8	0118008	Flange Yoke, Left	1	All
9	0118009	Flange Yoke, Right	1	All
10	0101210	Hex Nut, 3/8 - 24	4	All
11	0101211	Lockwasher, 3/8 Medium	11	All
12	0101245	Hex Head Capscrew, 3/8 - 24 NF x 1" Long	4	All
13	0118010	Yoke, Flange	1	All
14	0118011	Cap, Dust	2	All
15	0118014	Steel Washer	2	All
16	0118012	Cork Washer	2	All
17	0118013	Yoke, Sleeve	2	All
18	0101246	Grease Fitting, 1/4 - 28 NF	2	All
19	- - -	End Yoke (See Group 22, Power Selector)	-	- - -

MODEL 4T TRACKMASTER
GROUP 19 SPECIAL EQUIPMENT

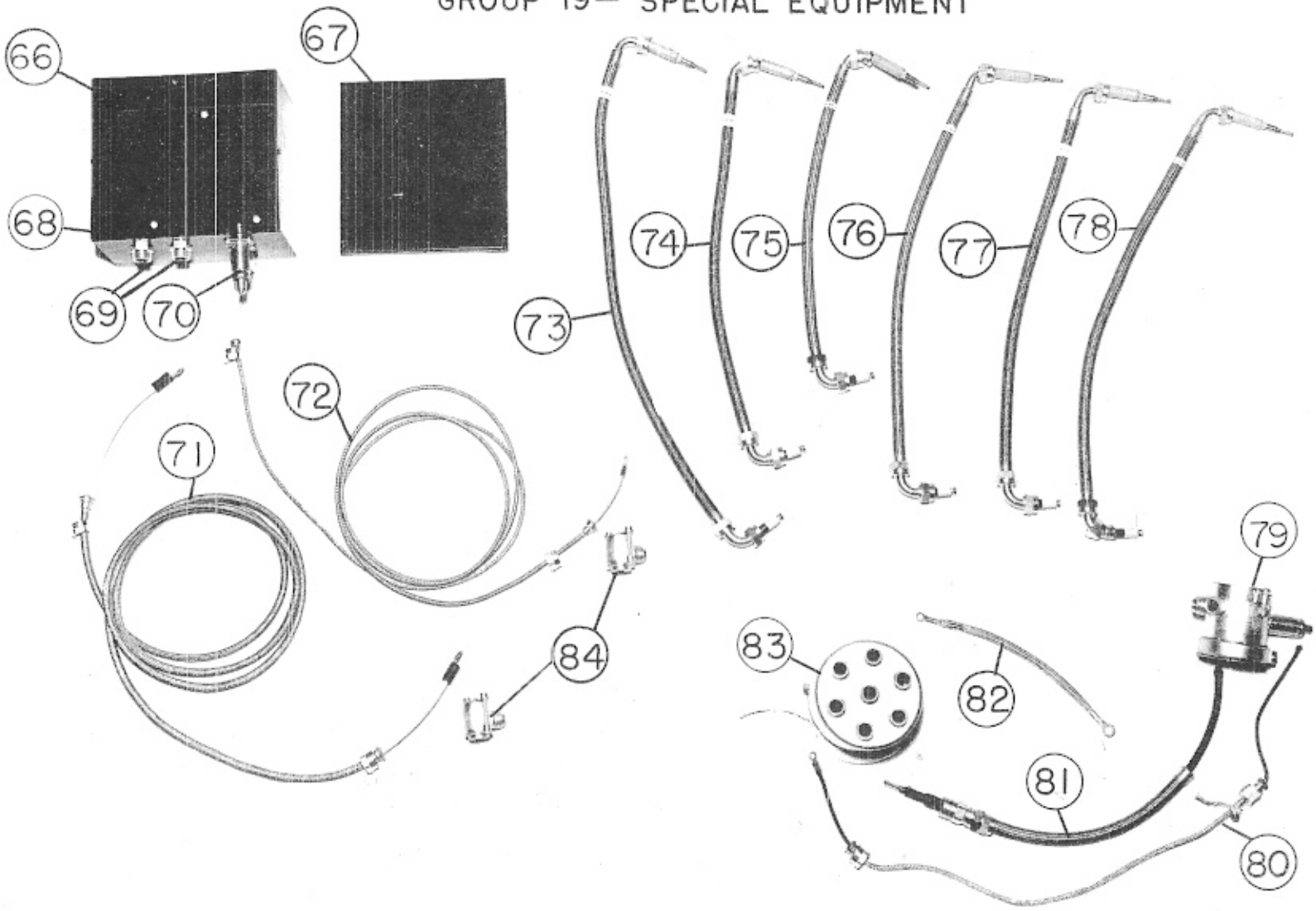


MODEL 4T TRACKMASTER

GROUP 19 SPECIAL EQUIPMENT



MODEL 4T TRACKMASTER
GROUP 19– SPECIAL EQUIPMENT



Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	- - -	Not Shown or Used	-	- - -
2	- - -	Not shown or Used	-	- - -
3	- - -	Not Shown or Used	-	- - -
4	- - -	Not Shown or Used	-	- - -
5	- - -	Not Used	-	- - -
6	0119008	Bearing, Overload Balance Member	8	- - -
7	0119077	Balance Member, Overload	2	- - -
8	0119078	Connecting Link, Upper Balance Member	2	- - -
9	0119079	Connecting Link, Lower Balance Member	4	- - -
10	0119080	Spacer, Lower Connecting, Link Bearing	4	- - -
11	0119017	Capscrew, Modified	10	Not Applicabl
12	0101235	Essna Self-locking Nut, 3/8 - 24 NF	8	- - -
13	0119021	Adjustment Screw, Overload Spring	2	- - -
14	0103004	Same as Clutch Pedal Key	2	- - -
15	0101334	Nut, Jam, 1 1/8 - 12 NF	4	- - -
16	0119055	Adjustment Nut, 1 1/8 - 12 NF Overload	4	- - -
17	0119081	Anchor, Overload Spring	2	- - -
18	0101295	Capscrew, Hex Head 5/8 - 18 NF x 2 Long	2	- - -
19	0101294	Hex Nut, 5/8 - 18 NF	2	- - -
20	0101296	Lockwasher, 5/8 Medium	2	- - -
21	0119042	Pushrod, Overload Spring	2	- - -
22	0119043	Guide Bushing, Pushrod, End	2	- - -
23	0101211	Lockwasher, 3/8 Medium	2	- - -
24	0101245	Capscrew, Hex Head, 3/8 - 24 NF x 1 Long	2	- - -
25	0119044	Overload Spring, Compressed 1/2 Round, 3" OD x 10 o/a 92 TC Cadium Plated	2	- - -
26	0119081	Cap, Overload Spring, Housing	2	- - -
27	0101221	Capscrew, Hex Head, 5/16 - 18 NC x 1	8	- - -
28	0101220	Lockwasher, 5/16 Medium	8	- - -
29	0101219	Nut, Hex, 5/16 - 18 NC	8	- - -
30	0119045	Guide Bushing, Pushrod, Central	2	- - -
31	0119046	Retaining Ring	2	- - -
32	0119047	Housing, Overload Spring	2	- - -
33	0119048	Connecting Rod, Rear Axle Control Arm to Overload Spring Balance Member	2	- - -
*	0119005	Escape Hatch Assembly	1	- - -
34	0119049	Bolt Lock	1	- - -
35	0119050	Handle, Inside Escape Hatch	1	- - -
36	19-1-3C	Door, Escape Hatch	1	- - -
37	0119063	Bar, Hinge	2	- - -
38	0101240	Capscrew, Hex Head, 1/4 - 28 NF x 1 1/4	2	- - -
39	19-1-3E	Clevis, Hinge	2	- - -
40	0101248	Capscrew, Hex Head, 1/4 - 28 NF x 1	4	- - -
41	0101208	Lockwasher, 1/4 Medium	8	- - -
42	0101207	Nut, Hex, 1/4 - 28 NF	12	- - -
43	0101265	Capscrew, Hex Head, 1/4 - 28 NF x 1 1/2	4	- - -
44	19-1-5	Pump, Tire	1	- - -

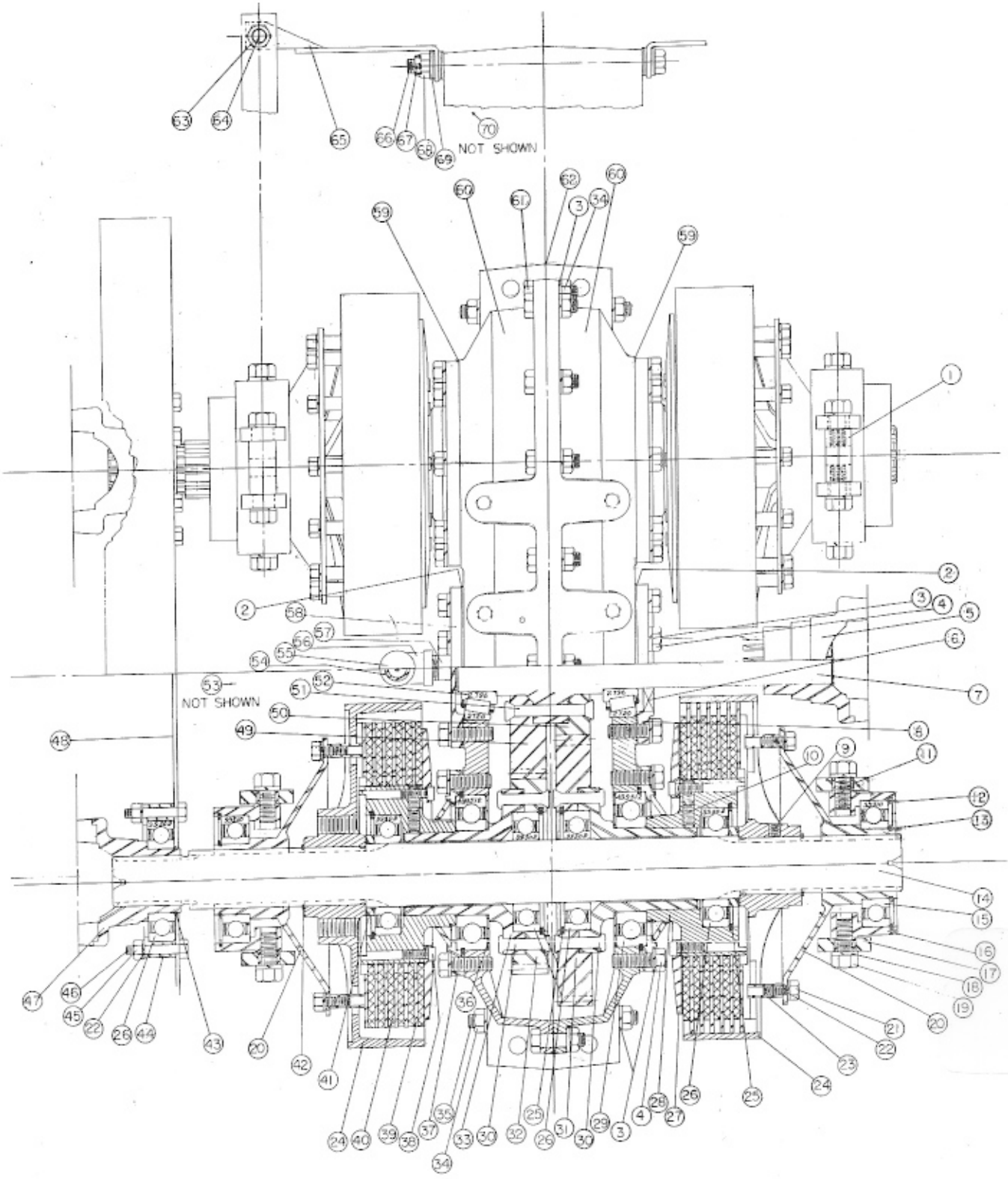
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
45	19-1-6	Cartridge, Nitrogen, Pressurizing	1	- - -
46	19-1-7	Powder, Dry Chemical	1	- - -
47	19-1-8A	Bracket, Fire Extinguisher, Fire Extinguisher, Charged Dry	1	- - -
48	19-1-8	Chemical, Nitrogen Cartridge Type, Squeeze Grip Valve, Straight Type Nozzle	1	- - -
49	0101248	Capscrew, Hex Head, 1/4 - 28 NF x 1	2	- - -
50	0101207	Nut, Hex, 1/4 - 28 NF	2	- - -
51	0101208	Lockwasher, 1/4 Medium	2	- - -
52	19-1-4	Heater, Kim Hotstart	1	- - -
53	19-1-4A	Nipple, Pipe, 3/8 x 2	2	- - -
54	19-1-4B	Reducer, 1/8 to 3/8 Pipe	2	- - -
55	19-1-9	Generator, Self-Rectifying, A.C.	1	- - -
- -	19-1-10	Regulator, Transistor	1	- - -
56	0119051	Generator, Heavy-Duty (60 Amp) Use Regulator, Item 63 and Fan Belt #6-2-39 when Heavy-Duty Generator	1	- - -
57	0119037	Spotlight, Roof Mount Type	1	- - -
58	19-1-1A	Grommet, Rubber	1	- - -
59	19-1-1B	Sleeve, Metal	1	- - -
60	19-1-1C	Clamp, Mounting	1	- - -
61	19-1-1D	Flange, Mounting	1	- - -
62	19-1-1E	Gasket, Mounting, Flange	1	- - -
63	0119038	Regulator, Heavy-Duty Generator	1	- - -
64	0119052	Hourmeter	1	- - -
65	0119122	Backup Light	1	- - -
*	- - -	Fan, Belt (Used with Heavy-Duty Generator)	1	- - -
*	19-1-15	Shielded Ignition Kit	1	- - -
66	0119089	Box, Regulator	1	- - -
67	0119090	Cover, Regulator	1	- - -
68	19-1-15P	Nut, Retaining	2	- - -
69	19-1-15R	Adapter, Regulator Box	2	- - -
70	19-1-15S	Capacitors, Regulator Box	1	- - -
71	19-1-15T	Lead, Armature to Regulator	1	- - -
72	19-1-15U	Lead, Field to Regulator	1	- - -
73	19-1-15F	Lead, Spark Plug (Cyl. #6)	1	- - -
74	19-1-15E	Lead, Spark Plug (Cyl. #5)	1	- - -
75	19-1-15D	Lead, Spark Plug (Cyl. #4)	1	- - -
76	19-1-15C	Lead, Spark Plug (Cyl. #3)	1	- - -
77	19-1-15B	Lead, Spark Plug (Cyl. #2)	1	- - -
78	19-1-15A	Lead, Spark Plug (Cyl. #1)	1	- - -
79	19-1-15G	Shield, Coil	1	- - -
80	19-1-15H	Lead, Low Tension	1	- - -
81	19-1-15J	Lead, High Tension	1	- - -
82	19-1-15K	Strap, Bond	1	- - -
83	19-1-15L	Shield, Distributor	1	- - -
*	19-1-15X	Spark Plug, Shielded	6	- - -
84	19-1-15W	Shield, Generator Term	2	- - -

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
*	19-2-16	Tracks, set of (31 1/2 wide) of 12" Belting, Special Snow Grouser Tracks (Set consists of 6 sections in length)	-	- - -
*	19-3-16	Tracks, set of (27 1/2 wide) of 10" Belting, Special Snow Grouser Tracks (Set consists of 6 sections in length)	-	- - -
*	19-5-16	Tracks, set of (21 1/2 wide) of 7" Belting, Special Snow Grouser Tracks (Set consists of 6 sections in length)	-	- - -
*	19-2-16A	Guide and Cleat Assembly Tire (for 12" Belting, 31 1/2 width, Special Snow Grouser Track)	-	- - -
*	19-3-16A	Guide and Cleat Assembly Tire (for 10" Belting, 27 1/2 width, Special Snow Grouser Track)	-	- - -
*	19-5-16A	Guide and Cleat Assembly Tire (for 7" Belting, 21 1/2 width, Special Snow Grouser Track)	-	- - -
-	- - -	Plate, Backing for 12", 10" and 7" Belting (Same as 16-2-9, 16-3-9, and 16-5-9, in Section 16)	-	- - -
-	- - -	Belting for 12", 10" and 7" Width (Same as 16-5-4, 16-3-4, and 16-2-4, in Section 16)	-	- - -
-	- - -	Lacing for 12", 10" and 7" Width Belting (Same as 16-2-8, 16-3-8, and 16-5-8, in Section 16)	-	- - -
*	19-1-17	Belt, Fan, 38" Long (use only when 60 amp Heavy Duty Ford Generator, #B6A-10002-G is used)	1	- - -
*	19-1	Suspension, Overload Springs	1 set	- - -
*	0115003	Battery Box (2 Battery Arrangement)	1	- - -
*	0115004	Battery Box Lid (2 Battery Arrangement)	1	- - -
*	0115005	Frame, Battery Hold-down (2 Battery Arrangement)	1	- - -
*	0115007	Battery Cable (2 Battery Arrangement)	2	- - -
*	0115009	Bolt, Battery Retainer (2 Battery Arrangement)	2	- - -
*	0119020	Cab Heater	1	- - -
*	0101326	Bushing, 3/4 to 3/8 NPT	2	- - -
*	0119021	Nipple, 5/8 Hose, 3/8 Pipe	6	- - -
*	0119019	V-8 Heat Booster	1	- - -
*	0119018	5/8 Hose, 4" Long	1	- - -
*	0101329	Hose Clamp	13	- - -
*	0101324	Coupling, 1/2 NPT	1	- - -
*	0101323	Nipple, 1/2 NPT x 1 1/2	2	- - -

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
*	0101322	Tee, 1/2 NPT	1	- - -
*	0101321	Bushing, 1 to 1/2 NPT	1	- - -
*	0101320	Bushing, 1/2 to 3/8 NPT	1	- - -
*	0119012	Hose Wye, 5/8 Hose, Everhot, H875	1	- - -
*	0119034	1 3/4 Elbow, 5/8 Hose, Connection	1	- - -
*	6-2-27	Street Elbow, 3/8 Pipe	1	- - -
*	0119011	5/8 Hose, 32 Long	1	- - -
*	0119010	5/8 Hose, 49" Long	1	- - -
*	0119007	5/8 Hose, 16 Long	1	- - -
*	0101319	Bushing, 1 to 3/8 Pipe	1	- - -
*	0119023	Spare Tire Mount	1	- - -
*	- - -	Spare Tire (See Group 5)	1	- - -
*	0119024	Battery Warmer	1	- - -
*	0119025	Oil Pan Heater	1	- - -
*	0119031	Crank Dog	1	- - -
*	0101259	Clevis Bolt, AN-26-29, 3/8 - 24 NF x 1 13/16 Long	10	- - -
*	0119029	Kim Heater	1	- - -
*	0119028	Pump	1	- - -
*	0119030	Thermostat	1	- - -
*	0119033	Battery, 12 volt	-	- - -
*	0119013	Suppressor, Left Mounting (9/32 Hole)	-	- - -
*	0119014	Suppressor, Right Mounting (9/32 Hole)	-	- - -
*	0119040	Hose, Lower, Radiator	-	- - -
*	0119015	Suppressor, in Line	-	- - -
*	0119053	Pump Support Strap	-	- - -
*	0119056	Frame, Escape Hatch	-	- - -
*	0119016	Supressor, Left Mounting (11/32 Hole)	-	- - -
*	0119036	Horn Bracket (Modified)	-	- - -
*	0119057	Horn	-	- - -
*	0119009	Wiring Assembly, Harness, Special	-	- - -
*	0119058	Pad, Jerry Can	-	- - -
*	0119059	Jerry Can	-	- - -
*	0119006	110 Volt Power Supply Receptacle	-	- - -
*	0119060	Jerry Can Holder	-	- - -
*	0119039	Crossover, Double Connection	-	- - -
*	0119061	110 Volt Terminal Block, Modified	-	- - -
*	0119027	Crossover, Single Connection	-	- - -
*	0119062	Oil Pan Thermostat	-	- - -
*	0119064	Striker Plate, Escape Hatch	-	- - -
*	0119120	110 Volt Extension Assembly	-	- - -
*	0119121	Head Light Protector	-	- - -

* Not Shown

MODEL 4T TRACKMASTER
GROUP 22 - POWER SELECTOR ASSY.



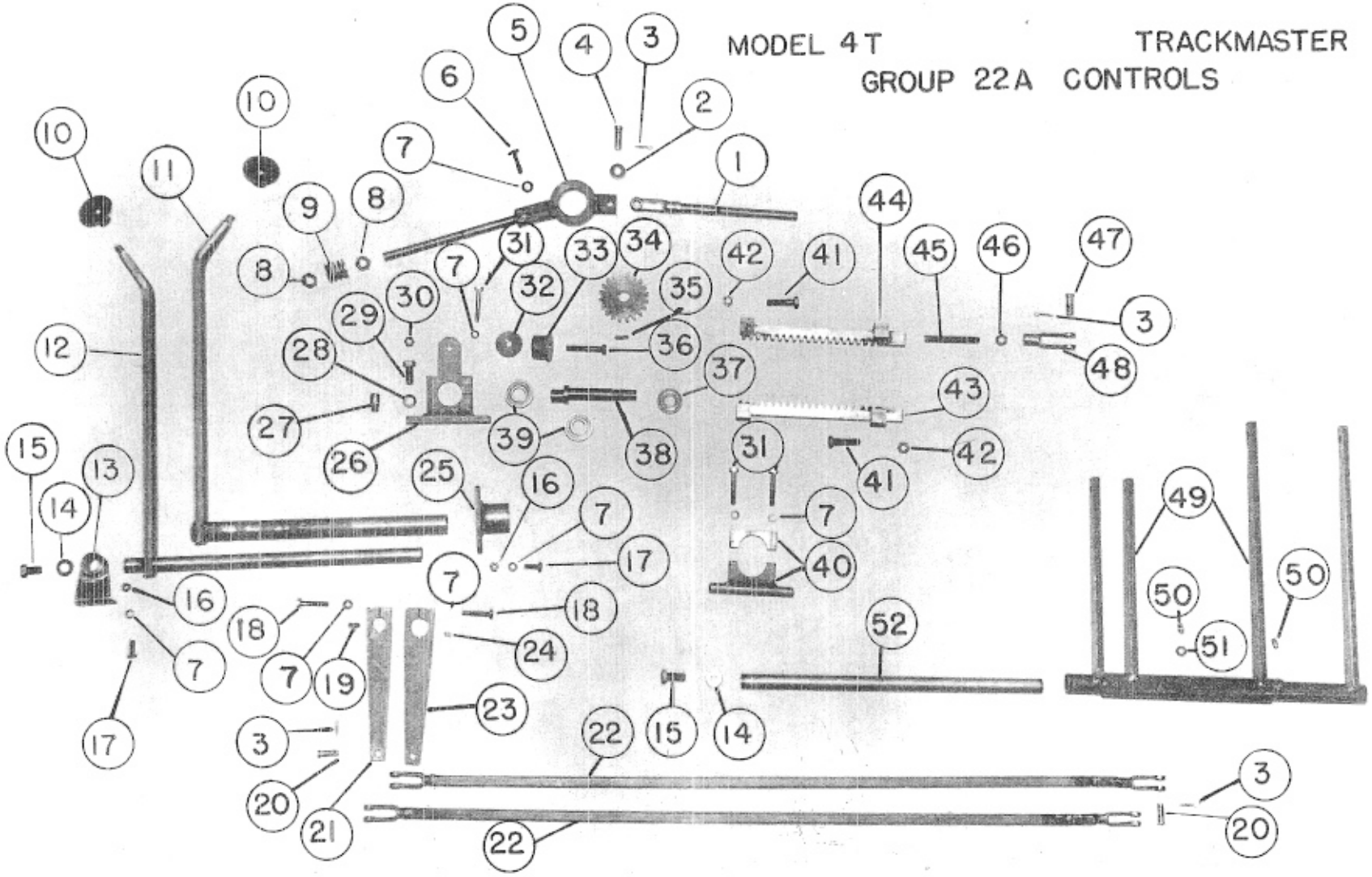
Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	22-5-84	Connector, Clutch Activating	4	All
2	0122028	Shim Pack	As Required	All
3	0101211	Lockwasher, 3/8 Standard	69	All
4	0101247	Hex Head Capscrew, 3/8 - 16 NC x 1 1/4	66	All
5	- - -	End Yoke, Input Shaft (See Group 18)	1	- - -
6	0122011	Seal, Oil	1	All
7	0122019	Shaft Input	1	All
8	0122072	Flange, Bearing and Seal Retainer	1	All
9	0101256	Setscrew, Allen 5/16 - 18 NC x 3/8	4	Not Applicable
10	0101257	Setscrew, Allen 5/16 - 18 NC x 5/8	8	All
11	0122020	Bushing, Compensating Yoke	16	All
12	0122021	Retaining Ring, Outer	4	All
13	0122022	Retaining Ring, Inner	4	All
14	0122030	Shaft, Output	2	All
15	0122031	Bearing	4	All
16	0122032	Carrier, Clutch Activating Linkage	4	All
17	0122045	Yoke, Compensating	4	All
18	0101258	Lockwasher, Spring, 7/16 Standard	16	All
19	0101288	Capscrew, 7/16 - 20 NF x 1" Long	16	All
20	0122046	Pressure Plate, Clutch	4	All
21	0101309	Capscrew, 1/4 - 28 NF x 3/4 Long	48	All
22	0101208	Lockwasher, 1/4	60	All
23	0122047	Spacer, Pressure Plate	48	All
24	0122048	Drum, Clutch	4	All
25	0122049	Retaining Ring	8	All
26	0122050	Bearing No. 99509	10	All
27	0122051	Plate, Clutch Backing	4	All
28	0122052	Spider, Clutch Driving	4	All
29	0122053	Bearing, No. 2499512	4	All
30	0101332	Rivet, 5/16 x 1 1/2, Round Head	32	All
31	- - -	Not Applicable	-	- - -
32	- - -	Not Applicable	-	- - -
33	0122054	Hub, Driven Gear Mounting	4	All
34	0101210	Nut, Hex, 3/8 - 24 NF	21	All
35	0122055	Bolt, Aligning	2	All
36	0122056	Ring, Oil Slinger	4	All
37	0122057	Flange, Bearing Retaining	4	All
38	0101333	Capscrew Socket Head, 1/4 - 20 NC x 3/4	32	All
39	0122058	Disc, Steel Clutch	24	All
40	0122059	Disc, Asbestos, Clutch — (JOHN DEERE # M3293T THINNER BUT WILL WORK)	24	All
41	0122060	Spacer, Bearing	4	All
42	0122061	Retaining Ring	4	All
43	0122062	Retaining Ring	2	All
44	22-5-30	Flange, Rear Bearing Support	2	All
45	H2A-4F	Nut, Hex, 1/4 - 28 NF	12	All
46	H1A-4-12F	Capscrew, 1/4 - 28 NF x 1 1/2 Long	12	All
47	0122010	End Yoke, Modified	2	All
48	0122026	Plate, Support	1	All

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
49	- - -	Not Applicable	-	- - -
50	- - -	Not Applicable	-	- - -
51	H5A-5-44S	Rivet, Round Head, 5/16 x 2 3/4	8	All
52	22-5-47	Bearing, Input Shaft	2	All
53	22-5-88	Plug, Magnetic Drain 3/8 Pipe	1	All
54	- - -	Not Applicable	-	- - -
55	- - -	Not Applicable	-	- - -
56	- - -	Not Applicable	-	- - -
57	- - -	Not Applicable	-	- - -
58	0122073	Cap, Bearing, Input Shaft	1	All
59	22-5-43	Gasket, Flange	4	All
60	0122076	Case, Power Selector	1	All
61	H1A-6-10F	Capscrew, 3/8 - 24 NF x 1 1/2	13	All
62	22-6-39	Gasket, Case	1	All
63	H2A-7F	Nut, Hex, 7/16 - 20 NF	4	All
64	H1A-7-14F	Capscrew, 7/16 - 20 NF x 1 3/4	4	All
65	0122027	Anchor, Compensating Yoke	4	All
66	H1A-6-48F	Capscrew, 3/8 - 24 x 6 Long, Modified	4	All
67	H7-3-4	Cotterpin, 3/32 x 1	2	All
[illegible]	H2B-6F	Nut, Castle, 3/8 - 24 NF	2	All
[illegible]	H4-6	Flatwasher, 3/8	As Required	All
70	H1A-6-44F	Capscrew, 3/8 - 24 NF x 5 1/2	4	All
*	22-5-93	Plug, Oil Level 1/4	1	All
*	22-5-95	Plug, Pipe Filler, 3/8	1	All
*	22-5-94	Breather, Oil	1	All
*	22-7	Low Gear Ratio Power Selector	-	- - -
49	0122017	Gear, 29 Tooth, 6 NDP, L.H. Helical	2	All
50	0122018	Gear, 18 Tooth, 6 NDP, R.H. Helical	1	All
31	0122015	Gear, 48 Tooth, 6 NDP, L.H. Helical	2	All
32	0122016	Gear, 37 Tooth, 6 NDP, R.H. Helical	2	All
*	0122071	Spacer, Between Input Shaft Gears	-	All
*	0122069	Spacer, Between Clutch Spider and Bearing	1	All
*	0122070	Spacer, Between Output Shaft Gear Bearing	1	All

* Not Shown

MODEL 4T TRACKMASTER

GROUP 22A CONTROLS



Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
1	22A-4-6	Rod Connecting, Front	2	All
2	H4-5	Flatwasher, 5/16 Standard	2	All
3	0101253	Cotterpin, 3/32 x 3/4 Long	8	All
4	0101289	Clevis Pin, 3/8 x 29/32	2	All
5	22A-4-5	Rod, Connecting Rear	2	All
6	0101248	Hex Head Capscrew 1/4 - 28 NF x 1 Long	2	All
7	0101208	Lockwasher, 1/4 Medium	10	All
8	0101262	Nut, Hex 1/2 - 13 NC	16	All
9	0122063	Spring, Compression	4	All
10	0110029	Knob, Shifting	2	All
11	0122067	Lever, Steering, Right	1	All
12	0122068	Lever, Steering, Left	1	All
13	- - -	Not Applicable	-	- - -
14	0122064	Bearing Assembly, Self Aligning, 3/4 Bore	1	**
15	- - -	Hex Head Capscrew, 3/8 - 24 NF x 1 Long	1	- - -
16	- - -	Not Applicable	-	- - -
17	- - -	Not Applicable	-	- - -
18	- - -	Hex Head Capscrew, 1/4 - 28 NF x 1 1/2 Long	2	All
19	- - -	Not Applicable	-	- - -
20	0101289	Clevis Pin, 3/8 x 29/32 Long	4	All
21	0122014	Lever, Steering Control, Left (Splined)	1	All
22	0122033	Link, Connecting	2	All
23	0122013	Lever, Steering Control, Right (Splined)	1	All
24	- - -	Not Applicable	-	- - -
25	22A-2-50	Bushing, Self-Aligning Control Handle	1	Not Applicable
26	0122035	Post, Control Rack Mounting	2	All
27	0122036	Plug, Breather	1	All
28	0101258	Lockwasher, 7/16 Medium	8	All
29	0101266	Hex Head Capscrew, 1/4 - 28 NF x 1 3/4 Long	8	All
30	0101243	Hex Nut, 5/16 - 24 NF	2	All
31	0101266	Hex Head Capscrew, 1/4 - 28 NF x 1 3/4 Long	6	All
32	0122037	Washer Rack Guide	2	All
33	0122038	Roller, Rack Guide	2	All
34	0122039	Gear, 20 Tooth, 8 Pitch	2	All
35	0122040	Key, Control Shaft, 3/16 Square	2	All
36	H1A-5-14F	Hex Head Capscrew, 5/16 - 24 NF x 1 3/4 Long	2	All
37	0122041	Bearing	2	All
38	0122042	Shaft, Control Mounting	4	All
39	0122043	Bearing, No. 99503	2	All
40	0122044	Post, Control Shaft Mounting	4	All
41	0101335	Hex Head Capscrew, 3/8 - 16 NC x 1 1/2 Long	4	All
42	0101216	Hex Nut, 3/8 - 16 NC	1	All
43	0122077	Rack, Clutch Control, Left	1	All
44	0122075	Rack, Clutch Control, Right	2	All
45	0122082	Stud, Clutch Control Rack	2	All
46	0101210	Hex Nut, 3/8 - 24 NF	2	All
47	0101289	Clevis Pin, 3/8 x 29/32	2	All
48	22A-3-15	Yoke Brake, 3/8		

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd	Applicable Models
49	0122074	Activating Assembly, Control Rack	1	All
50	22A-1-51	Fitting, Grease	2	Not Applicable
51	H4-3	Flatwasher, 3/16	2	Not Applicable
52	0122081	Shaft, Activating Assembly Mounting	1	- - -
*	22A-1-55	Cup, Bearing, Control Handle	4	- - -
*	22A-2-56	Post, Bearing Cup Mounting	1	- - -
*	22A-4	Controls, Power Selector	-	- - -
*	0122025	Bearing Mount, Control Lever Shaft	1	***
*	0101330	Hex Head Capscrew, 5/16 - 24 NF x 2 1/2 Long	2	***
*	0101243	Hex Nut, 5/16 - 24 NF	4	***
*	0101220	Lockwasher, 5/16 Medium	4	***
*	0122029	Bearing, Outboard, Control Lever, Shaft	1	***
*	0114003	Bearing, Inboard, Control Lever, Shaft	1	***
*	0101270	Hex Head Capscrew, 5/16 - 18 NC x 1 1/2 Long	2	***
*	0114006	Bearing Assembly	1	***
*	0122065	Post, Mounting, Bearing Cup	1	****
*	0122078	Bushing, Lever, Steering	2	All
*	0122079	Bushing, Activating Rack	2	All
*	0101350	Washer, Flat	2	All
*	0122083	Spring, Steering Clutch	4	- - -

* Not Shown
** All Serial Numbers, 155 - 164
*** All Serial Numbers after 164
**** Up to Serial Number 164

Drwg. Ref. No.	Part Number	Part Description	Qty. Req'd.	Applicable Models
- -	0123006	Jack Assembly, Long	1	All
- -	0123007	Jack Assembly, Short	1	All
- -	0123008	Jack Pad	1	All
- -	0123005	Wheel Hook	1	All
- -	0123004	Tool Kit	1	All
- -	0123009	Jack Strap	1	All