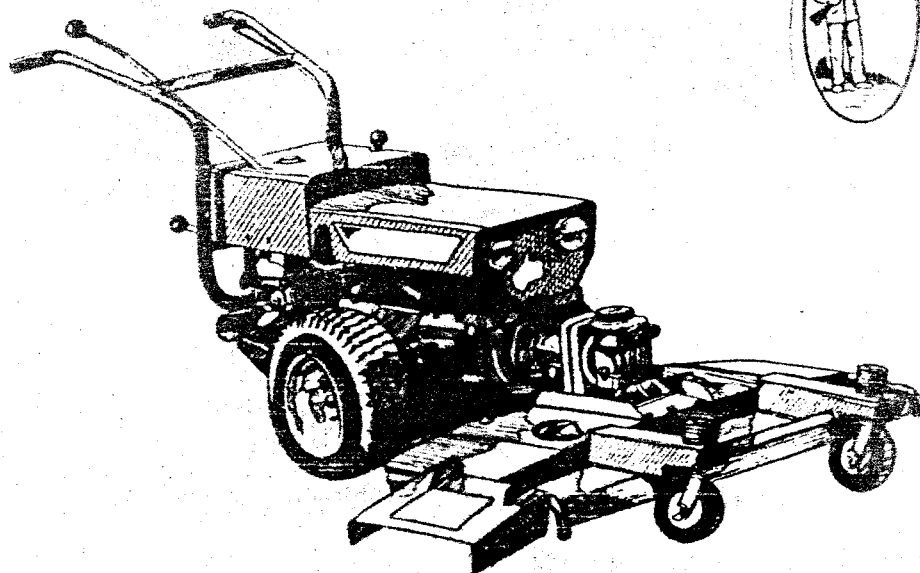


MOUNTAINEER



TRACTOR OPERATOR'S MANUAL

**MODELS: 88 R/E
120 E**

UNITED FARM TOOLS, INC.
Lawn & Garden Division
4540 W. Washington Street
Charleston, WV 25313

Phone: 304-744-5865 ←
304-744-5899

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Safety Tips

Page 1

"Safety First" - This tractor and its attachments have been designed with many safety features included. However, the major portion of safe usage is dependent upon the operator. Safety precautions require only a few moments daily. Their daily practice may prevent injury to some person, or prevent possible damage to the equipment while it is in operation.

KNOW YOUR EQUIPMENT:

Respect the power and speed of this tractor and its attachments. Use great caution when operating in Reverse ground motion. Adapt your ground and PTO speeds to the field condition - with the operator's ability to maintain safe and efficient control over both the tractor and attachment being the primary concern.

Read both the tractor and attachment manuals before operating the unit or doing maintenance.

Learn the location and function of all tractor and attachment controls and instruments.

Know which controls will stop the tractor and attachment quickly.

Wear proper eye and foot protection at all times. Watch out for loose clothing when working around equipment.

WATCH OUT FOR THE FOLLOWING:

DO NOT - Let someone else operate your tractor without thoroughly covering all the operating instructions and safety precautions.

DO NOT - Operate machinery until all provided guards and safety devices are attached and in working order.

DO NOT - Leave the tractor unattended while the engine is running.

DO NOT - Engage the clutch until you are in the operators position, and everyone else is safely positioned behind you. The operator's position is centered behind the handle bars. NEVER lean into or get in between the handle bars when the tractor is running.

DO NOT - Leave the operator's position and attempt to service, adjust unclog, lubricate, or perform any function on either the tractor or the attachment without:

- (1) Disengaging the CLUTCH (off position)
- (2) Disengaging the TOOL (attachment)
- (3) Putting the FWD/REV control lever in neutral position.
- (4) Turning the engine off.
- (5) If on an incline, locking the tractor tires from rolling by putting the FWD/REV control lever in FWD position, and stopping the tractor so that it points across the hill rather than up or down it.

DO NOT - Have to be sorry for carelessness. Remember SAFETY FIRST ALWAYS!

Product Warranty

United Farm Tools, Inc. products are warranted against all defects and workmanship, including all parts and accessories supplied with them as original equipment by the factory. This warranty is in force to the original home-owner only for a period of one year from the date of purchase. For commercial purposes, warranty period is 90 days from date of purchase.

The company will replace without charge any original part that is returned to the factory and found to be defective under the terms of this warranty. Transportation costs and labor charges in making replacement are not covered in this warranty.

The company makes no warranty whatever in respect to standard parts purchased from other manufacturers or suppliers inasmuch as they are warranted by their respective manufacturers. All parts adjustments on parts supplied by other manufacturers will be applied for by the Company for the customer. Each claim when filed for in this manner is subject to the original manufacturers adjustment findings and the decisions as to warranty is final.

There are no other warranties, express or implied, and in no event shall the Company be liable for delay caused by defects, for consequential damages, or for any charges or expenses of any product which has been repaired or altered outside of our Charleston factory, in any respect which in our judgement effects its condition or operation.

This warranty is not subject to change or modification by field representatives or United Farm Tools, Inc. dealers.

Walter Jenkins
304 744 5865

owner register
Tractor Serial Number <u>14722</u>
Engine Model Number <u>K321</u>
Engine Specification Number _____
Date Purchased <u>AUGUST 7, 1985</u>
Dealer <u>SUMMERS & SONS</u>

Lubrication (Cont)

Change engine oil after first five hours of operation----thereafter each 25 hours of operation under normal conditions. If extremely dusty or dirty conditions prevail, change oil more frequently.

Transmission - Capacity - 6 U.S. Quarts

Above 30 F	F	SAE 80-90 W API classification GL-6 gear lube
Below 30 F	F	API classification GL-5

With tractor in a level position, operating oil level may be checked by pulling chassis dipstick located on right axle housing. Transmission oil may be drained through the bottom front bolt in the right axle housing. While regular draining of the transmission oil is not necessary, it is suggested that the transmission oil be replaced at least once a season.

TRANSMISSION BAND ADJUSTMENTS:

(Good service can be anticipated from the friction lining. Minor adjustments result from an initial seating in, during the first hours of service, however, tractors are pre-adjusted at factory and should require little or no adjustment until several hours of operation have occurred).

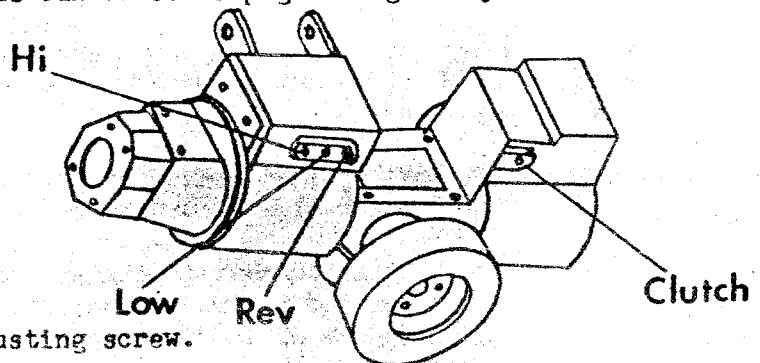
Band Adjusting Screws:

See Fig. 2 for location of adjusting screws.

All band adjusting screws are located on the left side of the chassis casting. To adjust an adjusting screw, first loosen the lock nut, then turn the adjusting screw clockwise to tighten, counter-clockwise to loosen band. After making adjustments, retighten lock nut. Locations of the (4) adjusting screws are illustrated below. AVOID overtightening. Normal adjustments would be 1/2 - 3/4 turns, then check performance before adjusting further.

Note: overtightening of the bands can cause warpage and greatly decrease band life.

Fig. 2



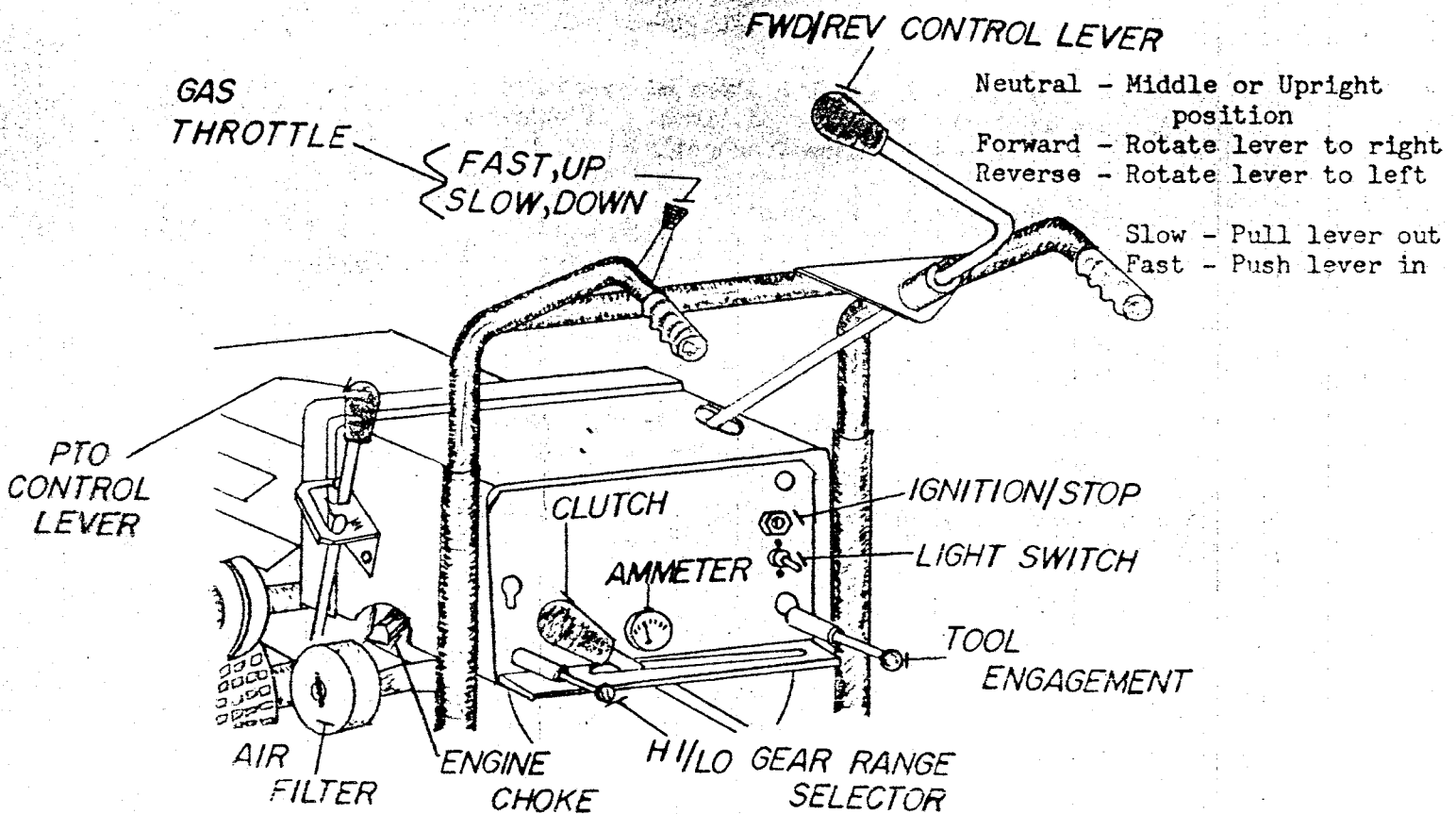
Clutch Band Adjustment:

See Figure 2 for location of adjusting screw.

If clutch slippage occurs, loss of power to the main drive will result. While this is generally most noticeable by lack of power delivered to the attachment, there should also be an appreciable drop in power for the drive wheels. NOTE: If the attachment lacks in power, but there is normal power available at the drive wheels, dismount the attachment and check for proper setting of the attachment overload slip clutch---as tractor clutch slippage is not occurring.

CONTROLS:

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"LO" - Used for Flowing, Tilling - Forward position
 "HI" - Used for Mowing - Rear Position

The PTO Shift lever is used to change the RPM of the drive shaft, which in turn increases or decreases the attachment spindle speed and the tractor ground speed. Shifting from one speed range to another should be done when the engine is not running. To facilitate shifting, it may be helpful to jog the engine while shifting the lever control arm with a clear, quick hand action.

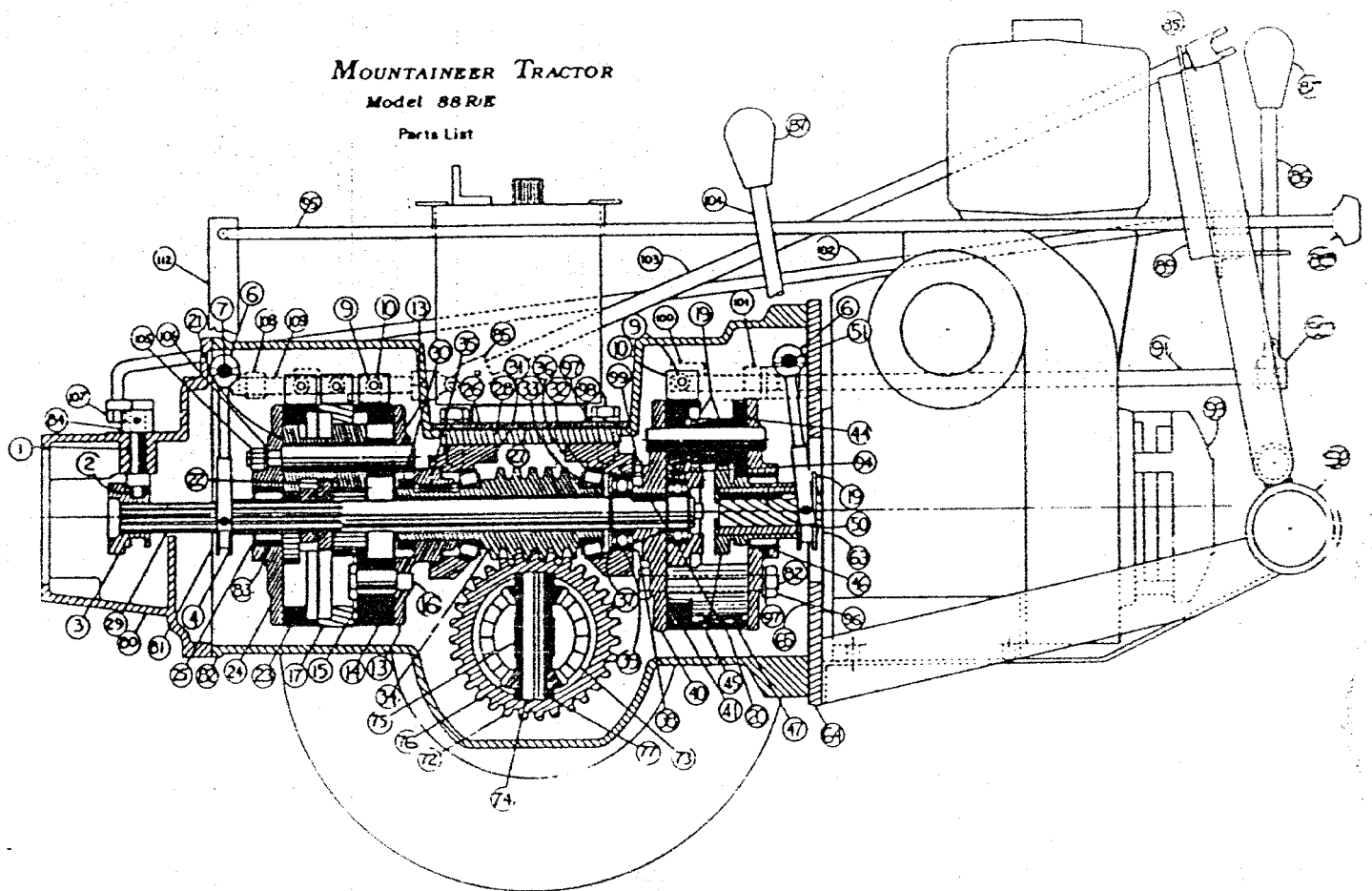
CLUTCH - To engage power train, push clutch control down and to the left ("ON"), locking in slot. To disengage, rotate control to the right and locate in slot. See Figure 3

HI/LO GEAR SHIFT - HI or fast ground speed, push in and lock behind slot in dash.
 LO or slow ground speed, pull out and lock in front of dash.

TOOL ENGAGEMENT - The attachment is engaged or "ON" by pushing rod in and locking the rod behind the dash in the slot provided. Engage tool with CLUTCH off. Disengagement of TOOL is obtained by pulling the knob out, locking the spacer on the outside of the dash in the slot provided.

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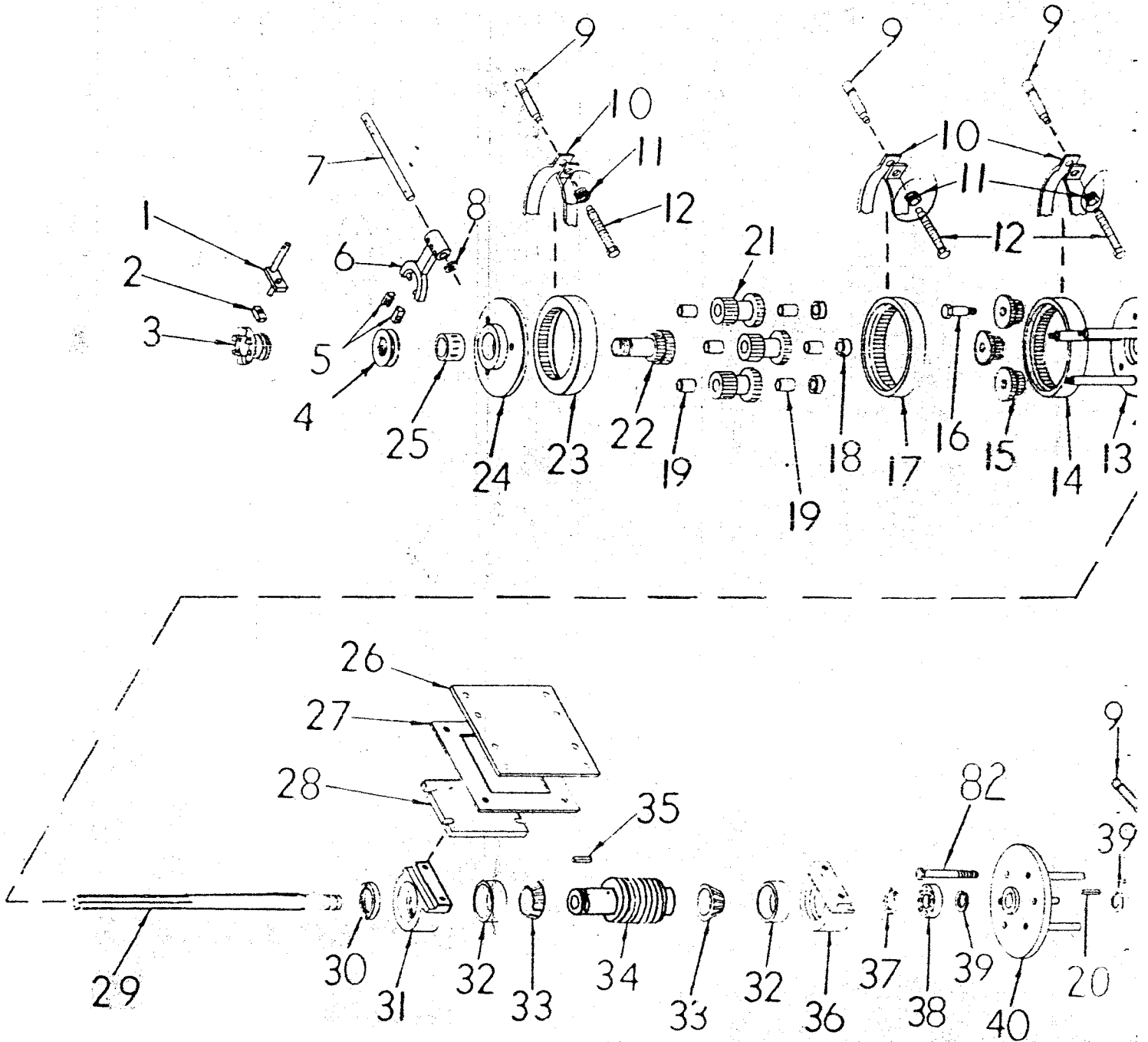
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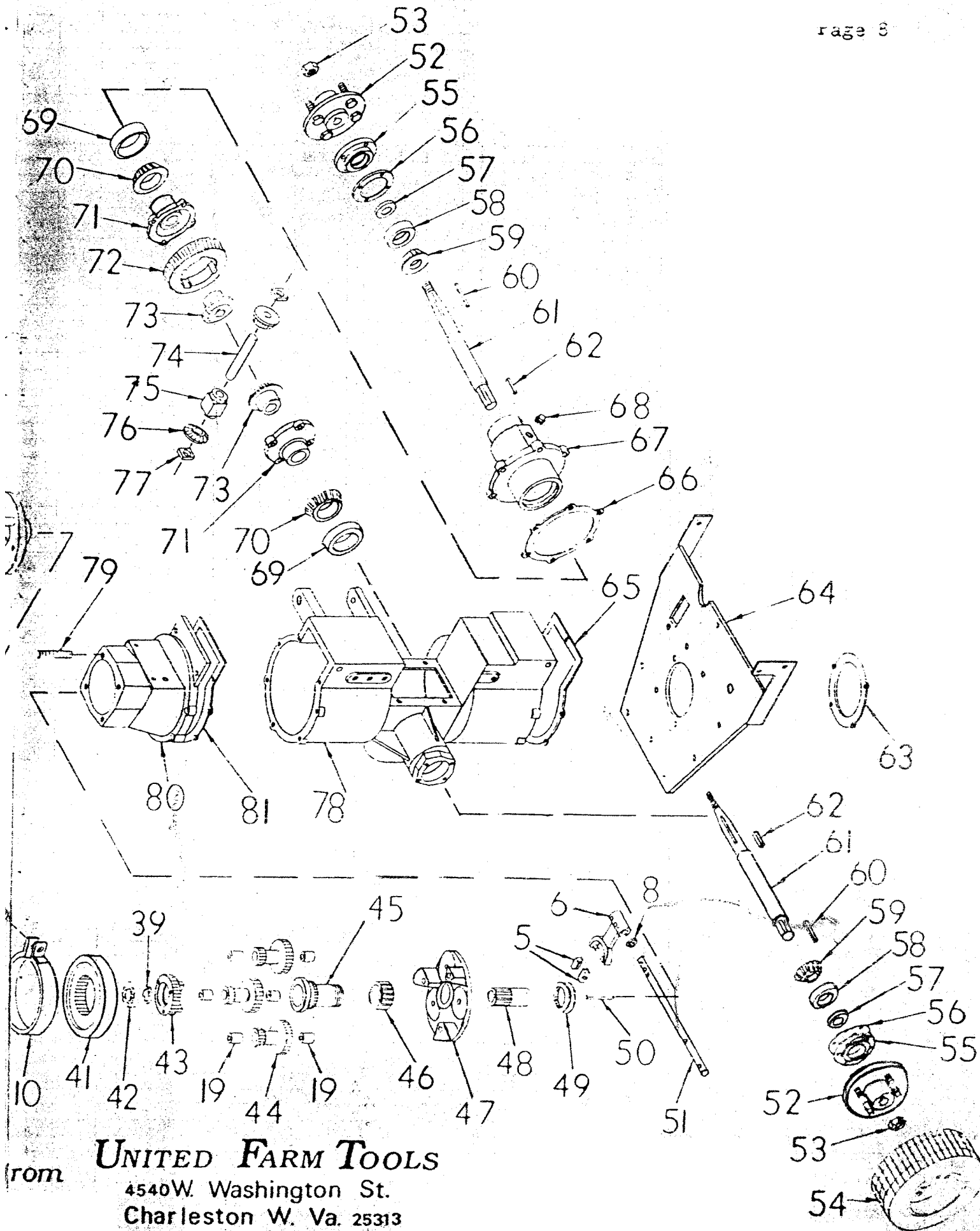
MOUNTAINEER TRACTOR

MODEL 88R/E

Assembly Drawing (Drive Train)



Another **QUALITY** Product



from

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4540 W. Washington St.
Charleston W. Va. 25313

Clutch Bank Adjustment (Cont.)

If clutch slippage is occurring, the adjustment screw should be tightened such that when the clutch control lever is rotated counterclockwise through the slot in the dash approximately 1" from the leftmost engaged position, the control rod will meet sufficient resistance to spring back into a disengaged position.

Forward Low, Forward High, & Reverse Speed Bank Adjustments:

First ensure that the main clutch is not slipping. Then, if there is lack of power in any or all of the three speed modes, while clutch slippage is not occurring, adjustments may be required of the forward adjusting screws. With an attachment mounted and engaged, position the tractor on concrete against a solid wall, lock the FWD/REV control rod in the desired position----and slowly tighten the matching adjusting screw until the wheels begin to break traction. CAUTION - Do Not overtighten as it will make it difficult to engage the FWD/REV cam shaft lobes over center. Caution: If possible, this should be a two person operation, with one located at the operators station.

ATTACHMENT MOUNTING

Front mounted attachments are securely fastened to the tractor power unit by two extended studs and two hex bolts. A gasket is provided to minimize oil seepage between tractor and attachment. Finger tighten all four bolts before snugging them down evenly. DO NOT try to align tractor and attachment by drawing down only one bolt----most likely you will break attachment casting. HINT: Before dismounting attachment, push down on handlebars for 30 seconds to allow the oil in the advance casting to run back in the chassis. Oil loss will then be minimal when changing attachment.

TIRE PRESSURE:

Regularly check and maintain tire pressure at 18 PSI

ROUTINE ENGINE MAINTENANCE -

Summary service schedule is tabulated below. Consult attached Kohler Engine Owner's Manual for specific instructions and procedures to follow.

*****NOTE*****

Under the extreme DIRTY AND DUSTY CONDITIONS THIS TRACTOR WILL BE OPERATED, DAILY CLEANING THE ENGINE AIR CLEANER WILL EXTEND THE ENGINE LIFE GREATLY.

Routine Engine Maintenance (continue)

Engine Service Sched.	EACH DAY	EVERY 25 HRS	EVERY 50 HRS	EVERY 100 HRS	EVERY 500 HRS
Check Oil Level (Maintain in safe operating range)-----	X				
Clean Air Intake Screen (plus other external surfaces)-----	X				
Replenish Fuel Supply (Use clean, fresh fuel)-----	X				
Change Oil (Use API Service S C of proper weight)-----			X		
Service Fuel Filter (Remove and clean sediment bowl)-----			X		
Service Air Cleaner (per instructions - page 5)-----			X		
Check Air Cleaner Element (dry type only)-----				X	
Service Spark Plug (gap .025" for gasoline)-----				X	
Service Breaker Points (gap .020")-----					X

NOTE: Intervals stated are for good, clean operating conditions — perform services more frequently if dusty or dirty conditions prevail.

How To Start/Stop Tractor Engine

STARTING THE ENGINE:

- (1) Before starting engine, control levers must be set as follows:

CLUTCH - "OFF" position
 TOOL (Attachment) - "OFF" position
 FWD/REV - "Neutral" or upright position
 PTO - The PTO shift lever must be engaged in either the "HI" or "LO" position.

- (2) CHOKER - If engine is cold, rotate choke control counterclockwise as required.

- (3) THROTTLE LEVER - Open gas throttle - lever half-way.

- (4) IGNITION

RECOIL- Grasp recoil starter handle and pull with a continuous motion. IMMEDIATELY AFTER ENGINE FIRES, OPERATOR MUST STATION HIMSELF IN OPERATOR'S POSITION BEHIND HANDLEBARS TO REGULATE THROTTLE.

ELECTRIC - In operators position, put the key in the ignition switch. Turn the key in the ignition switch to "START" position. When the engine starts, release the key. Do not hold starter engaged over 15 seconds without allowing a cooling period for the starter.

Operating the tractor (Cont.)

GROUND SPEED SELECTION:

Eight (8) "Forward" ground speeds are obtainable with the MOUNTAINEER Tractor. To achieve this requires only three controls:

- (1) PTO CONTROL LEVER - Select either "HI" (back position) or "LO" (forward position). Remember, shifting of PTO lever should only be done when engine is not running (review Operating the Tool sections pertaining to PTO).
- (2) GEAR RANGE SELECTION ROD - Select either "HI" (the in position) or "LO" (out position). For best results, shifting should be done with engine running at low RPM, the CLUTCH and TOOL disengaged, and FWD/REV control in "NEUTRAL".
- (3) FWD/REV CONTROL LEVER - Select either the fast range (with control rod in the "IN" position) or slower range (with control rod in the "OUT" position), CAUTION: Shifting can only be done with the lever in "NEUTRAL" or upright position, to allow free movement of the shift lever.

Study the table of ground speeds. In first learning how to operate the tractor stay with lower ground speeds, Example: for third gear, set the controls as follows:

- (1) PTO - "LO" or in the forward position
- (2) GEAR RANGE - "HI" or in the in position
- (3) FWD/REV - "OUT" position

Typically, mowing would be done with the PTO in "HI" or the back position. For flat terrain and light cutting where maximum ground speed is desired, select 8th Gear by pushing and locking the GEAR Range selector behind the dash, and push the FWD/REV control lever in the forward position. However, if the mowing was very heavy, hilly terrain, or in tight quarters, 5th gear may prove better. To obtain 5th gear, pull the GEAR RANGE control rod out and lock in front of the dash, while pulling the FWD/REV control to the back most position in the index guide.

Cultivating generally requires much slower attachment speeds, so as not to break the soil up too fine----but simply to turn it over, churn it, aerate it whether putting the mulch into the ground or preparing a seedbed. Select "LO" PTO range. For mulching try 4th gear with the GEAR RANGE in "HI" position locked behind the dash and the FWD/REV control in "HI" or forward position. To prepare a deep seedbed in virgin soil, one could try the Lowest Speed range-1st gear. With the PTO in "LO", pull Gear Range control out in front of dash and lock in position, and pull FWD/REV control back to "LO" position.

	GROUND SPEED							
	L	2	3	4	5	6	7	H
FWD* REV	OUT	IN	OUT	IN	OUT	IN	OUT	IN
PTO	LO	LO	LO	LO	HI	HI	HI	HI
GEAR	LO	LO	HI	HI	LO	LO	HI	HI

How To Engage Tool

(1) PTO - Before starting the engine, decide which PTO speed range will best handle the job at hand. Remember, "HI" range is 1280 RPM input to the attachment, while "LO" range is 540 RPM. Shifting from one speed range to the other should be done while the engine is not running, and may be facilitated by jogging the engine while shifting lever arm.

(2) ENGINE - Follow engine starting procedures.

(3) Engaging the TOOL -
Tractor should be stationary with engine running at slow throttle.

CLUTCH must be in the "OFF" position.

Engage TOOL by pushing rod through dash and locking spacer behind dash. This is the "ON" or operating position.

Move throttle lever to half-way position.

Engage CLUTCH control slowly and lock in "ON" position.

(4) Disengaging the TOOL - Simply lift TOOL lever slightly, and pull knob toward operator. Lock Spacer on operator's side of Dash.

CAUTION: TOOL IS 100% DISENGAGED ONLY WHEN TOOL LEVER IS IN THE "OFF" POSITION. DO NOT RELY ON CLUTCH TO TOTALLY DISENGAGE TOOL.

