

OPERATION MANUAL

PARTS CATALOGUE

DRUM CONCRETE MIXER

TDCM125/175

LIMITED WARRANTY

Warranty is voided by products abuse, alternations, and use of equipments in applications for which it was not intended use of non-manufacturer parts, or failure to follow documented service instructions. The forgoing warranty is exclusive of all other warranties whether written or oral, expressed or implied No warranty of merchant-ability or fitness for a particular purpose shall apply. The agents, dealer and employees of Manufacturer are not authorized to make modifications to this warranty, or additional warranties binding on

Manufacturer. Therefore additional statements, whether oral or written, do not constitute warranty and should not be relied upon

The manufacturer's sole responsibility for any breach of the forgoing provision of this contract, with respect to any product or part not conforming to the Warranty or the description herein contained, is at its option

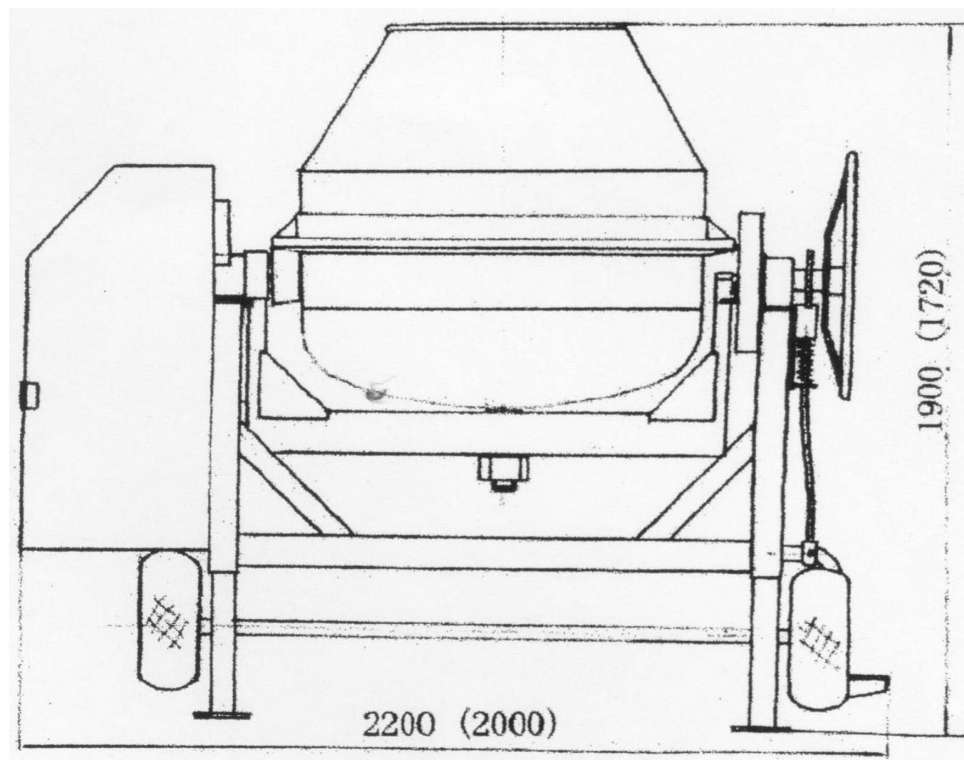
(a)To repair, replace or refund such product or parts upon the prepaid return thereof to location designated specifically by the Manufacturer Product returns not shipped prepaid or on an economical transportation basis will be refused

(b)As an alternative to the forgoing modes of settlement-the Manufacturers dealer to repair defective units with reimbursement for expenses, except labor, and be reviewed with the Manufacturer prior to repair A Warranty Evaluation Form must accompany all warranty claims

Except as set forth herein above and without imitation of the above. There are no warranties or other affirmations which extend beyond the description of the products and the fact hereof, or as to operational efficiency, products reliability or maintain ability or compatibility with products furnished by others. In no event whether as result of breach of contract or warranty or alleged negligence, shall the manufacturer be liable for special or consequential damages including but not limited to: Loss of profits or revenues, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services or claims of customers

No claim will be allowed for products lost or damaged in transit. Such claims should be filed with the carrier within fifteen days

TECHNICAL DATA		Specifications
TDCM125, TDCM175 Mixer-Specifications		
Model	TDCM 125	TDCM 175
Mix Capacity(bags)	3/4bag	1bag
Batching Capacity(litre)	500litre(drum)	600litre(drum)
	125litre(mixed)	175litre(mixed)
	200litre(unmixed)	280litre(unmixed)
Lx WxH	2000*1060*1720mm	2200*1160*1900mm
Power Source	9hp-180 diesel engine	9hp-180 diesel engine
	5hp-EY20 Robin gas engine	7.5hp-EY28 Robin gas engine
	3hp-Electric motor, 3phase, 380V	4hp-Electric motor, 3phase, 380V



HEALTH& SAFETY

- Safety Precautions

Before using this equipment, read this entire manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized persons for service.

When warning decals are destroyed or missing, contact the manufacturer immediately for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.

Follow safety instructions.

Carefully read all safety messages and decals in their manual and on your machine. Keep decals in good condition. Replace missing or damaged decals. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs and decals are available through your dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and / or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.

Understand signal words : A signal word—danger, warning, or caution—is used with the safety-alert symbol. Danger identifies the most serious hazard.

Danger or warning safety signs are located near specific hazards. General precautions are listed on Caution safety signs. Caution also calls attention to safety messages in this manual.

△ This notation appears before warnings in the text. It means that the step which follows must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid any potential hazards encountered in the normal service procedures. We strongly recommend that the reader take advantage of the information provided to prevent personal injury or injury to others.

Use common sense when handling fuels. Transport and handle fuel only when contained in approved safety container. Do not smoke when refueling or during any other fuel handling operation. Do not refuel while the engine is running or while it is still hot if fuel is spilled during refueling, wipe it off of the engine immediately and discard the rag in a safe place.

Do not operate the equipment if fuel or oil leaks exist—repair immediately.

Never operate this equipment in an explosive atmosphere.

Always use the proper size grounded extension cord conforming to the National Electric Code and Local Ordinances.

Inspect all extensions and electrical cords for cuts, frayed wire and broken connectors before use.
Do not use cords if not in good confusion

Do not route extension cords through standing water

When cleaning the mixer never spray water on the electric motor

Hot surfaces:

Avoid contact with hot exhaust systems and engines

Allow all components in the engine compartment to cool before performing any service work

Never leave mixer unattended while running

Mix only concrete

Never perform any work on the mixer while it is running

Before working on the mixer, stop the engine and disconnect the spark plug wire(s) to prevent accidental starting

On electric models disconnect the electric cord at the mixer

Keep cowl closed and latched during the operation close and latch cowl immediately after starting

Keep hands, clothing and jewelry away from all moving parts

Keep all guards in place, including drum guards

Never place your hands or any solid object into the drum while the mixer is in operation

Wear protective clothing :

Wear close fitting clothing and safety equipment appropriate to the job

Prolonged exposure to loud noise can cause impairment or loss of hearing

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises

Operating equipment safety requires the full attention of the operator. Do not wear radio or music headphones while operating machine

Prepare for emergencies : Be prepared if a fire starts

Keep a first aid kit and fire extinguisher handy

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone

Eye protection : Always wear splash goggles when operating mixer

Towing: Do not tow the mixer with drum in the dump position

Mixer may become unstable and tip over when hitting a curb porthole, or other obstruction

Always setup the mixing drum uprightly and completed released the brake pedal

before mixer is towed. Maximum towing speed is 13.75 mph(22.5 km/hr)

△ Starting fluid (ether) is highly flammable. Do not use an explosion or fire may result

Never operate unit in a poorly ventilated or enclosed area

void prolonged breathing of exhaust gases

Engine exhaust fumes can cause sickness or death

Practice safe maintenance

Understand service procedure before doing work

Keep area clean and dry

Never lubricate service or adjust machine while it is moving

Keep hands, feet, and clothing from power-driven parts

Disengage all power and operate controls to relieve pressure

Lower equipment to the ground

Stop the engine

Remove the key

Allow machine to cool

Securely support any machine elements that must be raised for service work

Keep all parts in good condition and properly installed

Repair damage immediately Replace worn or broken parts

Remove any buildup of grease, oil or debris

Disconnect battery ground cable(-)before making adjustments on electrical system or welding on machine

Dispose of waste property

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with equipment includes items such as oil, fuel, coolant, brake fluid filter, and batteries

Use leak-proof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them

Do not pour water onto the ground, down a drain, or into any water source

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere

Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycle center

Before starting

Mixers are completely assembled and tested before shipping, and then some may be dismantled down for containerization so it needs to be reassembled before use

Each product will enclose an illustration for assembling with the shipment, so please read it thoroughly before the assembling

Oil levels and lubrication

Be sure to check the oil levels in the engine and engine reduction unit before starting this unit. The engine warranty is void if it is run without oil. Consult the engine manual supplied with the unit for specific instructions and oil recommendations

Also check the bearings to make sure they have been greased. Consult the lubrication section of the manual for the specific instructions if greasing is required

△ Before working on machine, make sure engine spark plug wire is disconnected

or, if electric, that the electric cord is disconnected, to prevent any accidental starting

Hardware

Check all the hardware on mixer and engine/motor before starting. Consult the torque chart section of this manual and tighten any loose hardware accordingly. Loose hardware will contribute to early component failure and poor performance

Fuel

If your mixer is equipped with a gasoline engine, fill the gas tank with clean gasoline from a safety can. Consult the engine manual supplied with this unit for the proper type of gasoline required

Do not mix oil with gasoline

△ Follow the guidelines found in the safety precaution section of this manual

whenever handling gasoline

To start the engine/motor

Cold start

Open the fuel valve under the gas tank all the way. Open the throttle approximately half way and apply the choke. Pull the starter rope sharply if the engine doesn't start after (3)pulls, open choke slightly to prevent flooding

When the engine starts. Open the choke and adjust the throttle as necessary to keep it running. Allow the engine to warm up for a few minutes before placing it under the load. Always operate the engine at full throttle when under load

Hot start

Open the valve under the gas tank all the way if it has been shut off. Open the throttle approximately half way. Do not apply the choke pull the starter rope sharply until the engine starts. When the engine starts, adjust the throttle. Always operate the engine speed so drum is turning between 25-29 rpm

Note: these starting instructions are general guidelines only. Since many engine options are available on the manufacturers tilting drum mixers, consult the engine manual included with this unit for specific instructions

Electric motors

Use the proper size (3)wire (grounded)extension cord, conforming to the national electric code and local ordinances. Do not use(2)wire extension cord. Check any extension cord which you plan on using carefully for broken connectors, bare wires and damaged insulation. Do not use any cord found to be in poor condition. Make sure the extension cord is not routed through standing water and that all the connections are tight. Use the shortest extension cord possible. Turn motor on

To stop the engine/motor

Gasoline engines

Depress kill switch located on stationary cowl half and hold down until engine stop completely. Consult the engine manual included with this unit for specific instructions

If the mixer is to be left unattended for any length of time or if the mixer is to be towed to a new location close the fuel valve under the gas tank

Electric motors

Turn the motor off, if the mixer is to be left unattended for any length of time disconnect the power cord

Operation

Start the engine/motor as instructed above and allow gasoline engines to reach operating temperatures

Close and latch the engine cowl. Never operate the mixer with cowl open

With drum operating between 25-29 rpm the mixer is now ready for the addition of the concrete mix. For best results proceed as follows

1. pour the required amount of water into drum
2. add the required amount of aggregate
3. add the required amount of cement
4. add the required amount of sand

By adding the water and aggregate first the drum will be kept clean and a good tumbling action will be added

To discharge concrete, grasp hand wheel firmly with two hands and release tilt brake by pushing up on the tilt handle with foot

To prevent accidental discharge, never release brake without holding the hand wheel firmly. Do not attempt to grab hand wheel to stop an accident discharge

Serious injury could result. Always make sure that the brake is fully engaged after discharge of concrete and before reloading drum

After discharge of concrete, immediately pour in the required amount of water for the next batch

Note: when servicing brake mechanism, an approximately 20-25 pounds of force is required to release the brake. This will prevent accidental discharge due to vibration

Capacities	125	175
Max batch size	3/4 bag of cement	1 bag of cement

Maximum batch size depends on mix and type of aggregate used

Sample mixer

Volume relationship of 1: 2-1/4: 3(cement: sand: aggregate)mix. The mix volume may vary depending on aggregate used

Mix volume (Cu Ft)	3	4	6
Cement (bags)	1/2	2/3	1
Water(gallon)	2-1/2	3-1/2	5-1/4
Sand(shovels)	9	12	18
Aggregate(shovels)	12	16	23

Cleaning

For consistent performance, long life and continued high quality mixing of cement. thoroughly clean the mixer inside and out at the end of each days operation

Drum may be scoured by 2 minute operation with gravel and water mixture

Discharge, then hose down drum inside and out. Keep mixer clean

Before cleaning, shut off the engine or motor and disconnect the spark plug wire or electric cord to prevent accidental starting. Spray the mixer with water before the mixer dries to remove any accumulations

Dried mix should be scraped out as necessary. Do not beat on drum with shovel, hammer or other device to break up accumulations of dried mix, as this will dent and damage the drum

Never pour or spray water over the engine or motor

Never put hands or any object in to the drum while the engine or motor is running

Always disconnect the spark plug wire or electric cord when cleaning inside drum

Never put hands or any object in to the drum while the engine or motor is running

Always disconnect the spark plug wire or electric cord when cleaning inside drum

Towing :

Before attempting to tow this mixer, check the state and local laws that apply to your intended route and check the following

1. Hitch attached to the towing vehicle securely
2. Tow bar bolted to mixer securely

3. Completely release the foot pedal

Do not exceed a towing speed of 13.75 miles/hr. (25km/hr. for poor road

conditions or inclement weather reduces speed accordingly

Maintenance :

Engine-daily check the oil levels in the engine and engine reduction unit. The engine warranty is void if run without oil. Since there are many engine potions available on the mixer, consult the engine manual for specific recommendation as to oil level, oil type required and frequency of oil changes required, For maximum service life from the engine, follow those recommendations

Pillow block bearings-weekly

Grease idler shaft pillow block bearings on electric drive-weekly

Trunnions drum spindle -Monthly, grease trunnions (2)places and run spindle(1) place

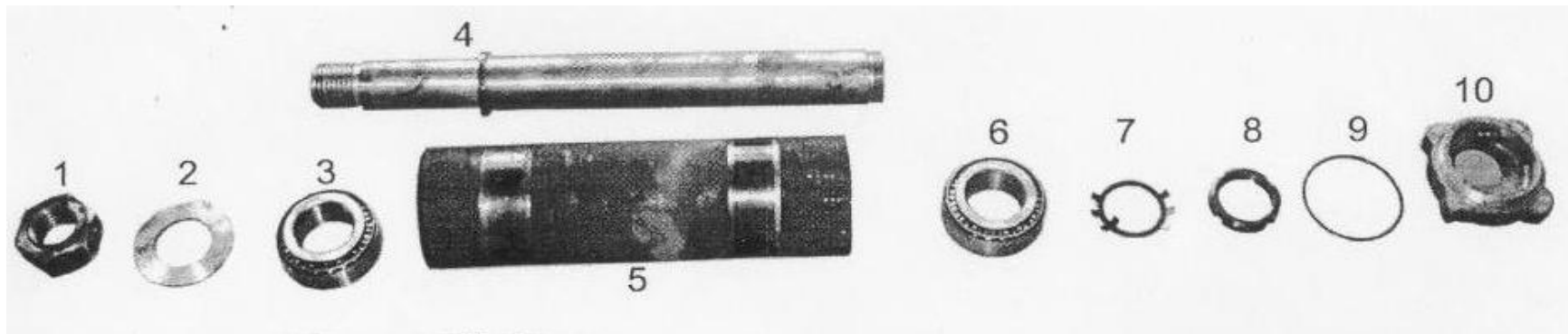
Wheel hubs- early-repack(4)taped roller bearings in wheel hubs and replace wheel seats. Install washer and nut. Torque to 20 ft. lbs. back off one turn, torque to 7 ft. lbs back off to first slot in nut and insert cotter key

Pinion ring gear- lubricate pinion and ring gear monthly, but remove sand and other abrasive material immediately if found there is any collected between the gears, as it will accelerate wear

spare parts for 180N diesel engine		
1	Cylinder gasket	缸床垫
2	inlet valve	进气门
3	outlet valve	排气门
4	inlet or outlet valve seat	进排气门座圈
5	piston	活塞
6	piston ring	活塞环
7	cylinder	缸套
8	cylinder water seal ring	阻水圈
9	water tank cap	水箱盖
10	oil filter	机油滤芯
11	diesel filter element	柴油滤芯
12	injecting element	喷油器偶件
13	injector	喷油器总成
14	pump element	柱塞
15	main bearing	主轴承

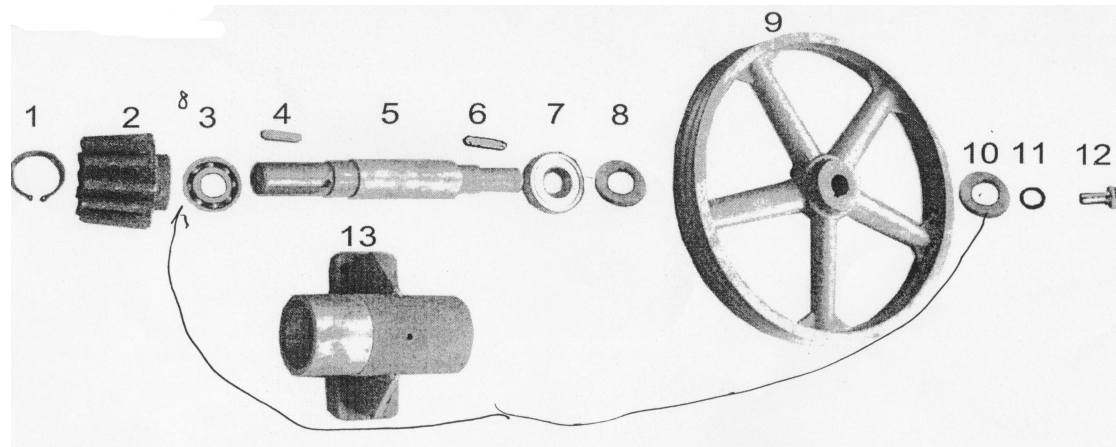
16	connecting rod bushing	连杆瓦
17	air filter	空气滤芯
19	crankshaft oil seal	曲轴油封
20	starting shaft bushing	起动轴衬套
21	crankshaft	曲轴
22	complete pads	全车垫

spare parts for mixer		
1	bevel gear	13 牙小齿轮
2	nut	螺母套
3	o-ring 92*2.75	橡胶 O 形圈 92*2.75
4	bearing 6308-2RZ	6308-2RZ 轴承 (哈轴)
5	bearing 6209-2RZ	6209-2RZ 轴承 (哈轴)
6	bearing 33210	33210 轴承
7	nut M48*1.5	M48*1.5 圆螺母
8	nut M42	M42 螺母
9	Spring	回位弹簧



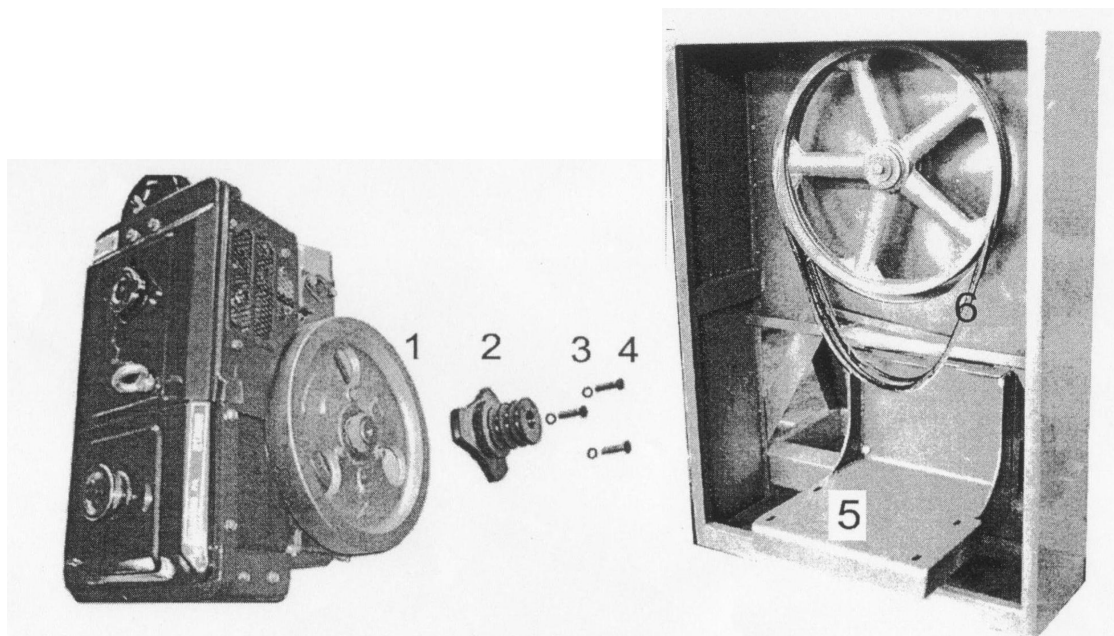
Main mixing shaft

item No.	Part No	Descriptions	Quantity	item No .	Part No.	Descriptions	Quantity
1	M42	Nut 螺母	1	7	φ48mm	Locking washer 锁圈	1
2	04.2-3	Dust blocking ring 防尘圈	1	8	M48*1.5	Locking nut 锁母	1
3/6	33210	Bearing 轴承	2	9	2.75*92	O ring O 型圈	1
4	04.2-2	Main Mixing shat 主视拌轴	1	10	04.2.2	Cap nut 螺母盖	1
5	04.1-1	Sleeve for the main shaft (it is welded on the drum)上提拌轴套	1				



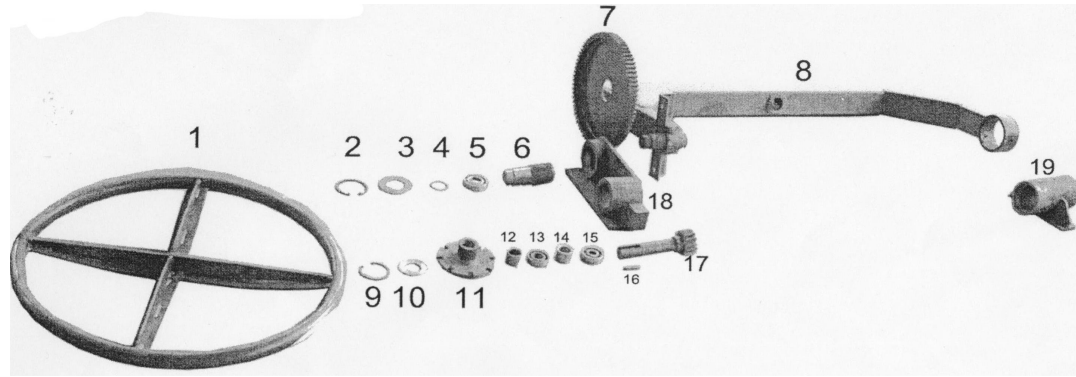
Output shaft

item No.	Part No	Descriptions	Quantity	item No.	Part No	Descriptions	Quantity
1	φ35	Clip 孔卡	1	8	03.1-3	Locating Ring 定位圈	2.
2	03.1-4	Driving gear 主动齿轮	1	9	03.1-1	Big pulley 大皮带轮	1
3	6209-2RZ	Bearing 轴承	1	10	03.1-2	Returning ring 档圈	1
4	10*60	Flat key 平键	1	11	012	Washer 垫圈	1
5	03.1-6	Output shaft 输出轴	1	12	M12x25	Bolts 螺栓	1
6	10x50	Flat key 平键	1	13	03.1-5	Output shaft Seat 输出轴座	1
7	6308-2RZ	Bearing	1				



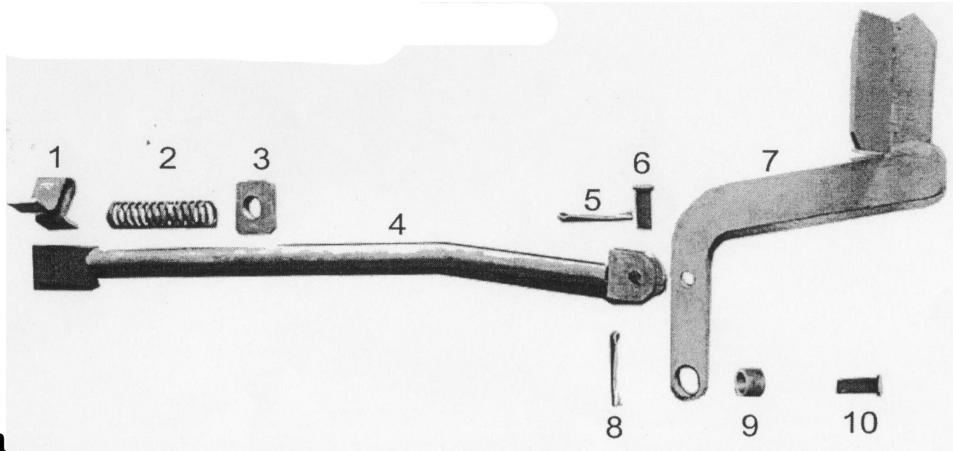
Power source

Item No.	Part No.	Descriptions	Quantity
1	180N	Diesel engine 柴油机	1
2		Pulley 皮带盘	1
3		Washer 弹垫	
4		Bolt 螺栓	3
5		Engine seat 发动机座	
6	A-1956	Belt 三角带	3



Drum tilting system

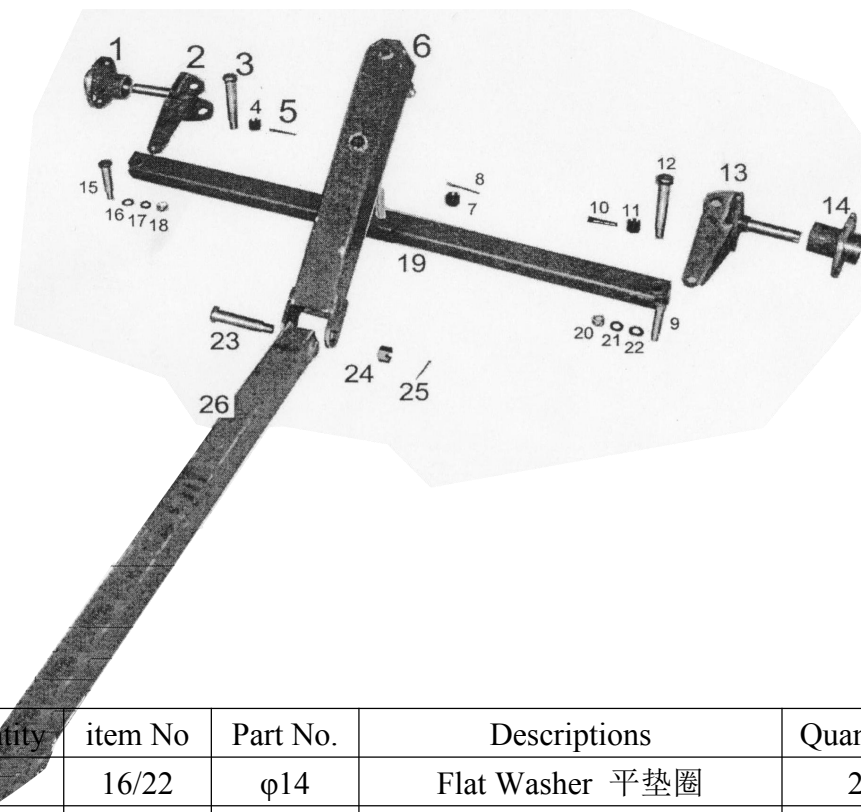
Item No.	Part No.	Descriptions	Quantity	Item No.	Part No	Descriptions	Quantity
1	05.2-1	Hand wheel 手轮	1	9	062	Clip 孔卡	1
2	φ72	Clip 孔卡	1	10		Returning ring 挡圈	1
3	05.2-3	Returning ring 挡圈	1	11	05.2-6	Ratchet wheel 棘轮	2
4	φ35	Clip 孔卡	1	12/14	05.2-7	Space sleeve 隔套	2
5	6207 2RZ	Bearing 轴承	1	13/15	6206 2RZ	Bearing 轴承	1
6	04.1-5	Back shaft 支撑轴 (welded on the rock arm》	1	16	10x50	Flat key 平键	1
7	05.2-1	Big tilting gear 倾翻齿轮	1	17	05.2-5	Hand tilting shaft 手轮轴	1
8	04.01	Rock arm 摇臂	1	18	05.2-2	Bearing seat 支撑座	1



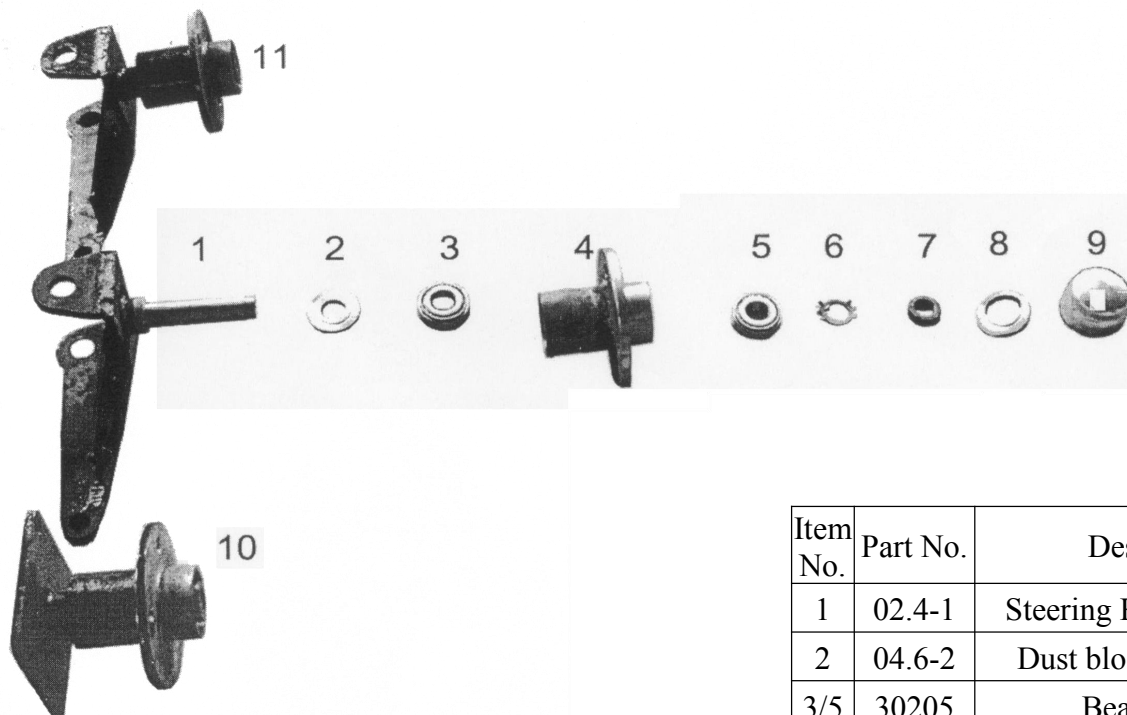
Tilting control system

Item No.	Part No.	Descriptions	Quantity	Item No.	Part No	Descriptions	Quantity
1		Holder of lock block 卡圈(welded on the frame)	1	6	12x30	Pin shaft 销轴	1
2	3.5x15	Spring 弹簧	1	7	05.1	Pedal 踏板	1
3	02.1.2-4	Returning block 挡块 (welded on the frame)	1	8	4x50	Split pin 开口销	1
4	05.3	Activate bar 联动杆	1	9	5.1.1-1	Bushing 衬套	1
5	3.2x60	Split pin 开口销	1	10	12x60	Pin shaft 销轴	1

Four tyres towing system

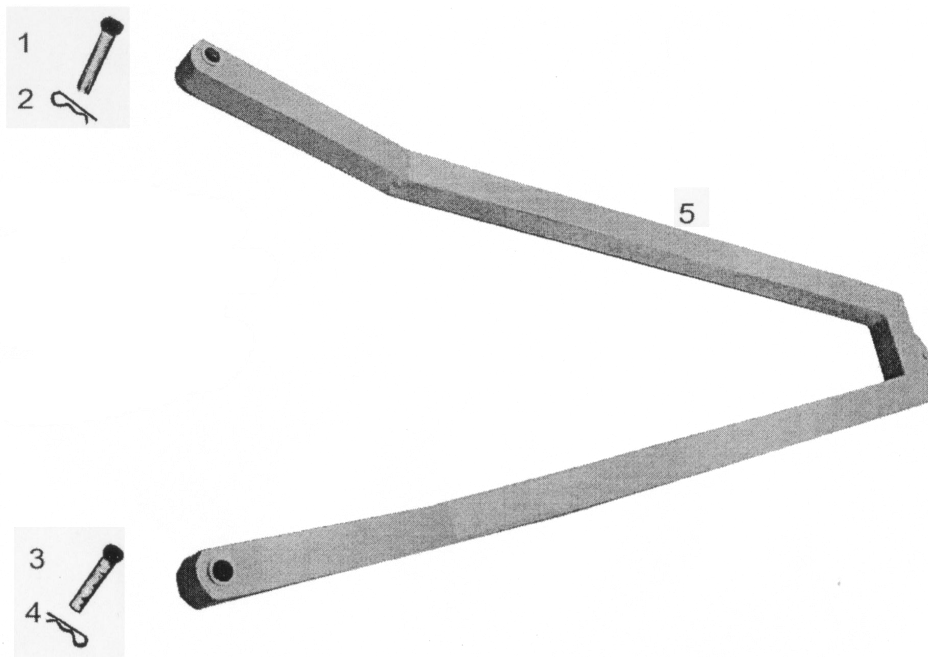


item No.	Part No.	Descriptions	Quantity	item No	Part No.	Descriptions	Quantity
1/14	04.6-1	Wheel hub	2	16/22	φ14	Flat Washer 平垫圈	2
2/13	02.4-1	Steering Knuckle	2	17/21	φ14	Washer 弹垫	2
3/12	02-2	Kingpin	2	18/20	M14x1.5	Nut 螺母	2
1947-11-24	M20x2	Nut	4	19	02.4-2	Connecting bar 连杆	1
5/8/10/25	4x50	Split pin	4	23	02.4.3-2	Pivot pin 铰接销	1
6	02.4.3-1	Front towing bar 牵引杆端	3	26	02.3-1	Rear towing bar 牵引杆后段	1
15/9	02-3	Pin shaft 连杆销轴	2				



Wheel hub assembly

Item No.	Part No.	Descriptions	Quantity
1	02.4-1	Steering Knuckle 转向节	1
2	04.6-2	Dust block ring 档尘圈	1
3/5	30205	Bearing 轴承	2
4	04.6-1	Wheel hub 轮壳	1
6	φ24mm	Locking washer 锁圈	1
7	M24x1.5	Locking nut 锁母	1
8	04.6-1	Liner of cap 轮壳帽内衬	1
9		Cap 轮壳帽	1
10		Fix wheel hub 固定轮壳	
10		Steering wheel hub 转向轮壳	



Item No.	Part No.	Descriptions	Quantity
1/3		Pin shaft 销轴	2
2/4		Clip 卡簧	2
5		Towing bar 拖杆	1

Two wheel towing system