T400 Concrete Mixer

Owners Manual

Operating Instructions & Spare Parts

AGRICULTURAL IMPLEMENT WHOLESALERS
30 Hurlstone Drive P O Box 578 NEW PLYMOUTH
Ph (06) 759 8402 Fax (06) 753 2741

Safe Working Instructions

The machine may only be used, serviced and maintained by persons who are aware of all the dangers. All other persons may not operate or maintain the machine.

This operating manual must be read and observed by all people that are to service, maintain or control the machine so that hazards are avoided.

All safety points in this manual are indicated by this sign:

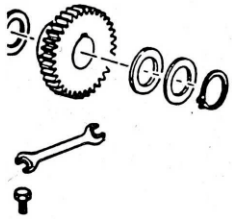
★ Pass on all safety precautions to other users! All warning and recommendation plates as well as pictograms that are to be found on the machine or appliance, are of utmost importance for danger-free operation - they are intended for your safety.

NOTE: If decals are missing, damaged or unreadable replace them

★ The machine may only be used for its designed use. Otherwise, all warrantees are no longer valid and neither the manufacturer nor Agriquip are liable for any resultant injuries or damage.

★ All DOL-OSH guidelines are to be followed and all other general safety, medical and traffic regulations are to be adhered to!

The manufacturer's original parts and accessories have been designed especially for the machine. The installation and/or use of non-original parts and accessories can adversely effect the safe operation of the machine. Neither the manufacturer nor Agriquip are liable for any resultant injuries or damage caused by the use of parts and accessories that have not been supplied by Agriquip.

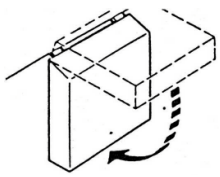


Alterations and the use of auxiliary parts not approved in writing by Agriquip are not permitted. In the event of unauthorised alterations or attachments all warrantees are null and void.

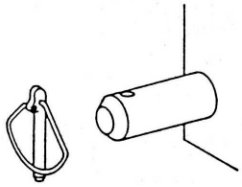
Switch-off towing vehicle motor and allow all moving parts to come to a complete standstill before entering the filler/unloading area and while connecting/disconnecting machine.

Perform the connecting and disconnecting operations with the mixer resting on the ground.

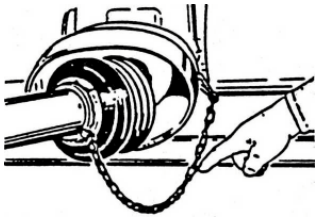
All guards must be attached to the machine and maintained in good order. All warn and damaged guards must be replaced or repaired before continuing operations



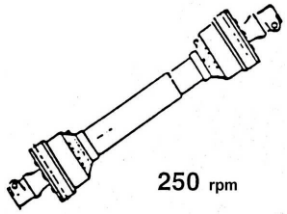
The connection bolts must be secured with the key after connection to the tractor.



Secure the drive shaft guard with the chain to prevent it rotating with the drive shaft.



Before engaging the power take-off, ensure that the PTO speed is 250 rpm and rotates in the correct direction.



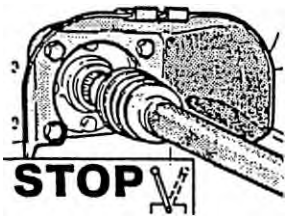
Safe Working Instructions *(continued)*

During operation do not place hands, etc. into the mixer opening.

During transport and operation do not climb onto the machine.

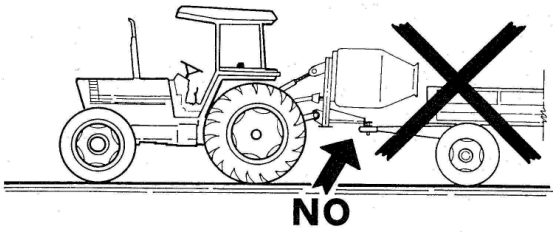
Always disengage the power take-off when transporting.

Before taking the machine onto public roads, ensure all reflectors and required lights are fitted and operational.



Do not exceed the maximum overall dimensions and weights as stated in LTSA regulations.

Do not tow any vehicle, trailer or implement behind the mixer.



Preparation for Use

1. Connect the mixer to the tractor using the bottom two links of the three-point linkage.
2. Raise the three-point linkage, steadying the mixer by hand, until the input shaft is in-line with the power take-off. (fig 1)
3. Stop raising the three-point linkage when this position has been reached.
4. Connect the hydraulic cylinder to the third point of the tractor three-point linkage (fig 2).
5. Manually tilt the front (mouth) of the mixer until the mixer is in the lowest position (emptying position). Unthread the cylinder completely and locate it into the suitable hole of the mixer. (fig 3).
   If the cylinder, completely unthreaded, is still short, it will be necessary to connect an extension between the cylinder and the mixer connection point. (fig 4).
6. Once the hydraulic hose is connected to the tractor tilt the mixer using the hydraulic controls until you active the highest position (*load position*) (fig. 5).
7. When the mixer is this position, insert the drive shaft (fig 6).
   It is better before you insert the drive shaft to measure the distance between the power take-off and the input shaft. The drive shaft should be less than 3 cm shorter in length than this distance in order to allow sufficient play in the drive shaft during assembly and operation. If this is not possible because of the excessive length of the PTO shaft then follow the operations described in the following section. (*Length adjustment*)

Fig 1

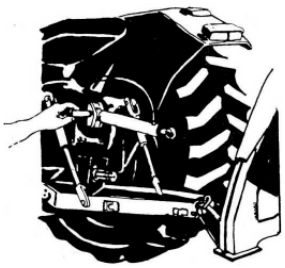


Fig 2

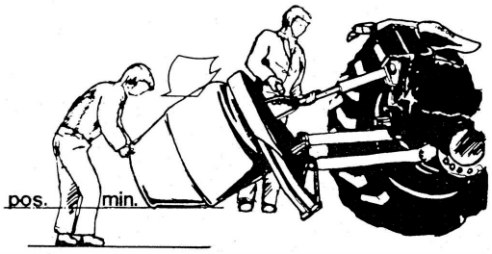


Fig 3

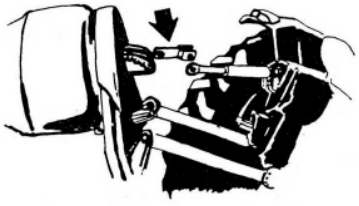


Fig 4

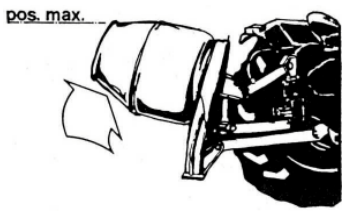


Fig 5

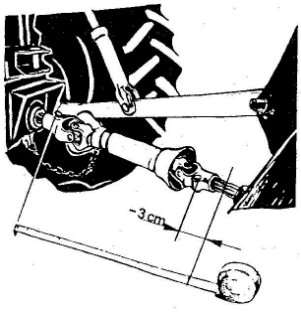
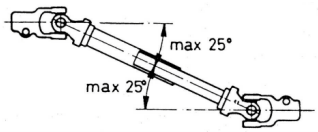


Fig 6

CAUTION: To avoid breaking or bending of the forks and crosses the PTO shaft when working must never exceed a 25° angle



Length Adjustment (*of Drive Shaft*)

1. Hold the half-shafts close to each other in the shortest working position and mark them. (Fig 8)
2. Shorten working inner and outer guard tubes equally. (Fig 9)
3. Shorten inner and outer sliding profiles each by the same amount as the guard tubes. (Fig 10)
4. Round off all sharp edges and remove burrs (Fig 11). Grease sliding profiles.

NOTE: No other changes may be made to the PTO drive shaft and guard.

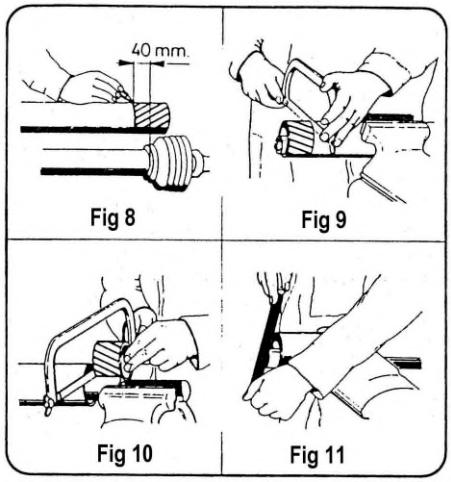


Fig 8 Fig 9 Fig 10 Fig 11

Use and Maintenance

In order to avoid side vibrations during mixer operation, stop the side arms of the tractor moving up and down. (fig 12)

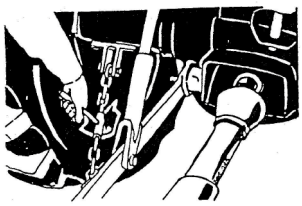
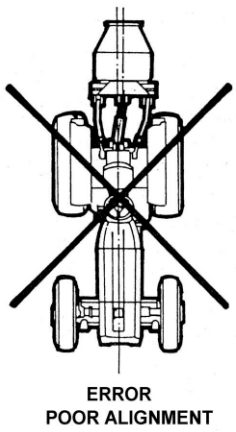


Fig 12

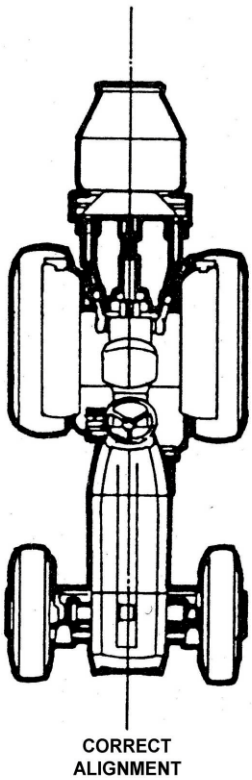
Check that the top cylinder and the mixer are in line with the tractor (*see illustration at extreme right*) in order to avoid excess strain and movement on the mixer hitch with resultant wear of the pivot pin and enlargement of the hitching fork of the mixer.


ERROR
POOR ALIGNMENT

Now the machine is ready to be used, all the loading and unloading operations are to be made exclusively with the hydraulic controls actuating the top cylinder without lifting the bottom two three-point linkage. If these lifting bars operate when the top cylinder is actuated it means the linkage lifting is not independent to the oil delivery to the cylinder.

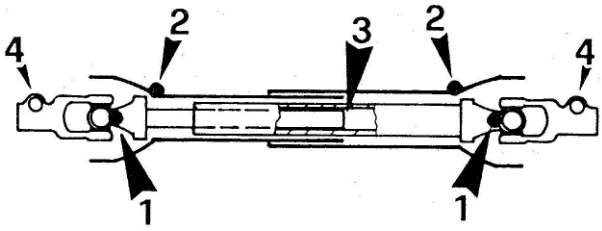
WARNING: The hydraulic systems must be independent to prevent mixer breakage.

The mixer does not require any special maintenance; but it is a good rule to wash the mixer bowl both inside and out after use in order to remove any concrete or other corrosive material that could cause irreparable damage.


CORRECT
ALIGNMENT

Lubrication

Regularly clean and grease the rim and the toothed pinion. Carefully grease carefully the drive shaft at the points indicated at the intervals stated below.

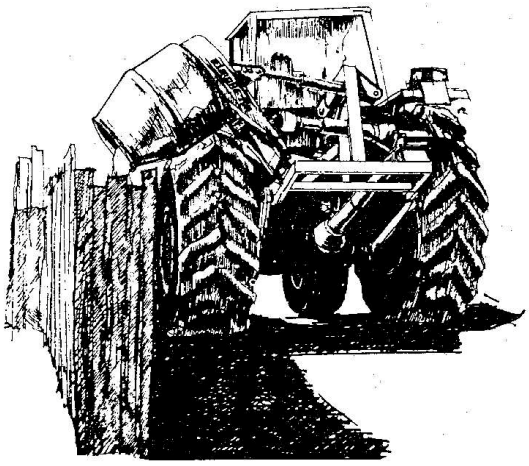


Point	Every
1	8 hrs
2	40 hrs
3	20 hrs
4	40 hrs

Mixing

For best mixing results put the ingredients into the mixer in the following sequence: water, cement and gravel.

Frame for side operation of the mixer



This device allows the mixer to be easily lifted or lowered and loaded and unloaded to the side. This increases the mixer's versatility. This easy to use accessory consists of a strong frame on which it is mounted an angle gear box with a long and flexible drive shaft for connection to the mixer in addition to the one connected to the PTO.

Decommissioning

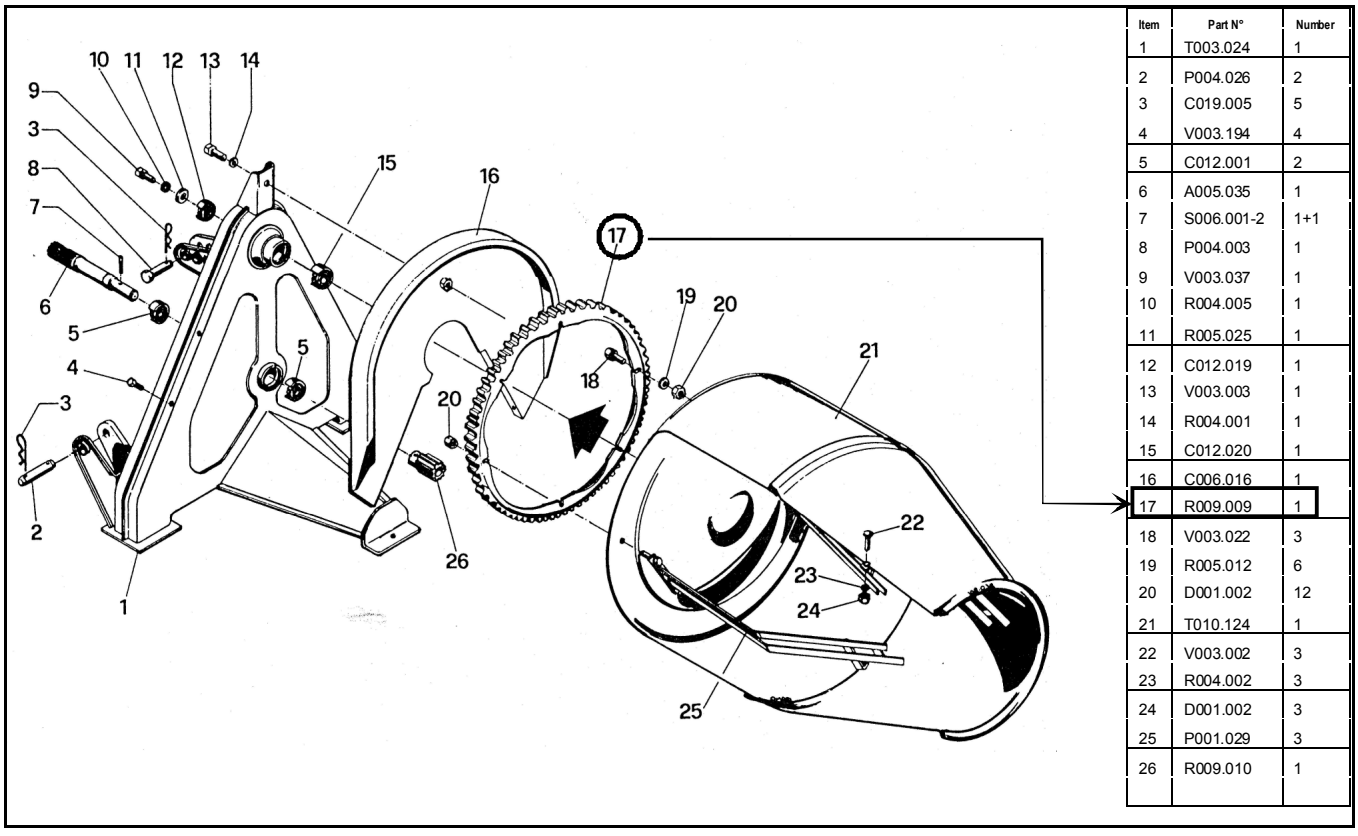
Before disposing of the mixer, remove the oil from gearbox, and then dispose of the used oil and machine in accordance with local by-laws.

NOTE: Do not just abandon the machine on a field.

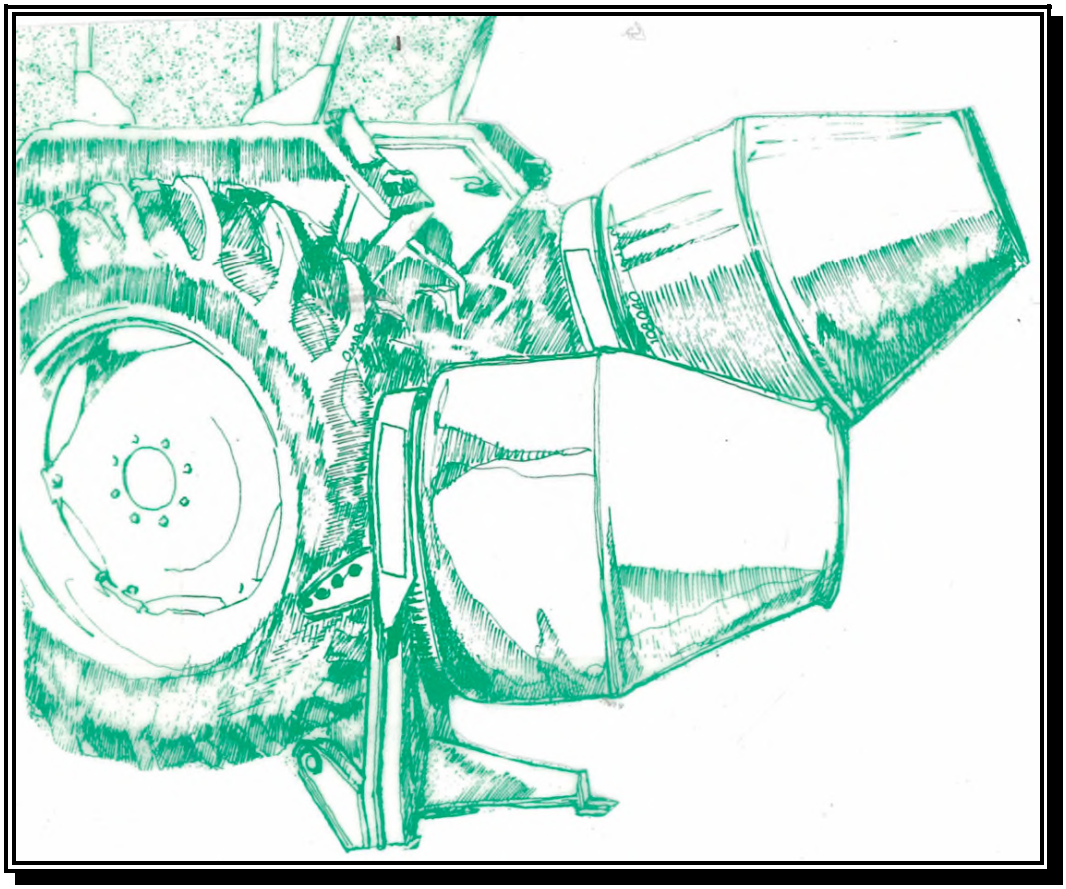
Ordering Spare Parts

Quote the Machine Model, Serial Number, Year of Manufacture, Part Number and Quantity Required.

eg. Model N°: T400
Serial N°: 12345
Year: 2006
Part N°: R009.009
Quantity: 1



Item	Part N°	Number
1	T003.024	1
2	P004.026	2
3	C019.005	5
4	V003.194	4
5	C012.001	2
6	A005.035	1
7	S006.001-2	1+1
8	P004.003	1
9	V003.037	1
10	R004.005	1
11	R005.025	1
12	C012.019	1
13	V003.003	1
14	R004.001	1
15	C012.020	1
16	C006.016	1
17	R009.009	1
18	V003.022	3
19	R005.012	6
20	D001.002	12
21	T010.124	1
22	V003.002	3
23	R004.002	3
24	D001.002	3
25	P001.029	3
26	R009.010	1



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Spare Parts Manual

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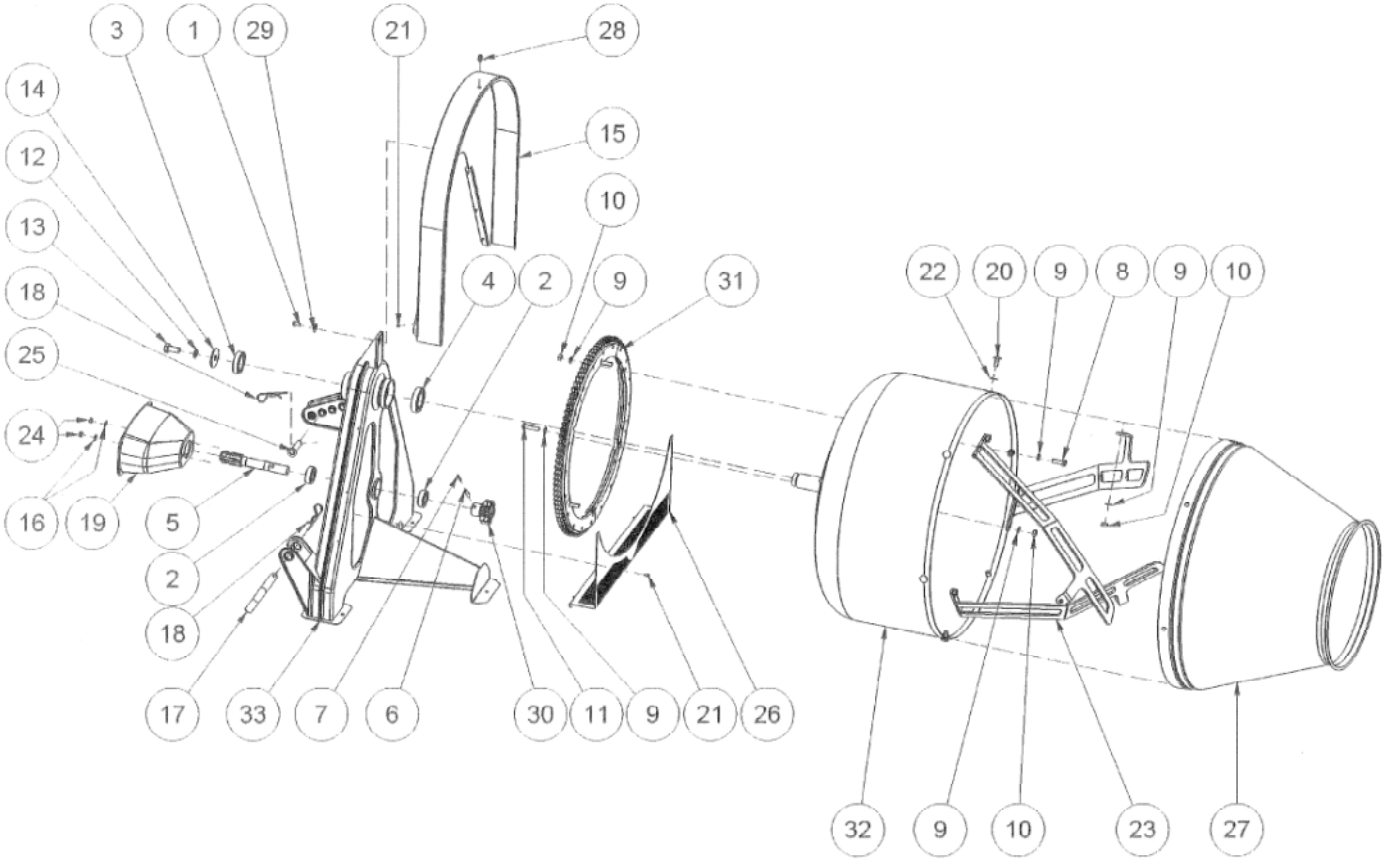

Table 1 Frame & Mixer Bowl Assembly – PTO Driven

Item	Part No	Description	No
1	V003.014	ST. STEEL HEXAGON HEAD SCREW	1
2	C012.001	BEARING	2
3	C012.019	BEARING	1
4	C012.020	BEARING	1
5	A005.035	DRIVE SHAFT T400	1
6	S006.001	SPRING PIN	1
7	5006.006	SPRING PIN	1
8	V003.268	ST. STEEL HEXAGON HEAD SCREW	3
9	R005.013	ST. STEEL FLAT WASHER	21
10	D001.005	ST. STEEL HEXAGON NUT	15
11	V003.056	ST. STEEL HEXAGON SCREW	3
12	R004.006	SPRING WASHER	1
13	V003.037	HEXAGON HEAD SCREW	1
14	R005.025	FLAT WASHER	1
15	0006.016	CARTER T400	1
16	R005.017	ST. STEEL FLAT WASHER	2
17	P004.026	LIFTING PIN	2
18	C019.005	ST. STEEL BENT COTTER PIN	3
19	P012.026	P.T.O. LINK PROTECTION	1
20	V003.171	ST. STEEL CUP SCREW	6
21	V003.194	ROUND HEAD SCREW	10
22	R005.086	NYLON WASHER	6
23	P001.029	MIXER IRON BLADE T400	3
24	D001.006	ST. STEEL HEXAGON NUT	2
25	P004.003	PIN FOR AGITATOR	1
26	0006.195	LOWER CARTER T400	1
27	C016.012	T400 OUTER DRUM SECTION	1
28	I002.001	GREASE NIPPLE	1
29	R005.080	ST. STEEL FLAT WASHER	1
30	R009.010	T400 PINION GEAR 2005	1
31	R009.009	RING GEAR T400 2005	1
32	F006.001	INNER DRUM SECTION - COMPLETE	1
33	T003.024	MIXER FRAME T400	1

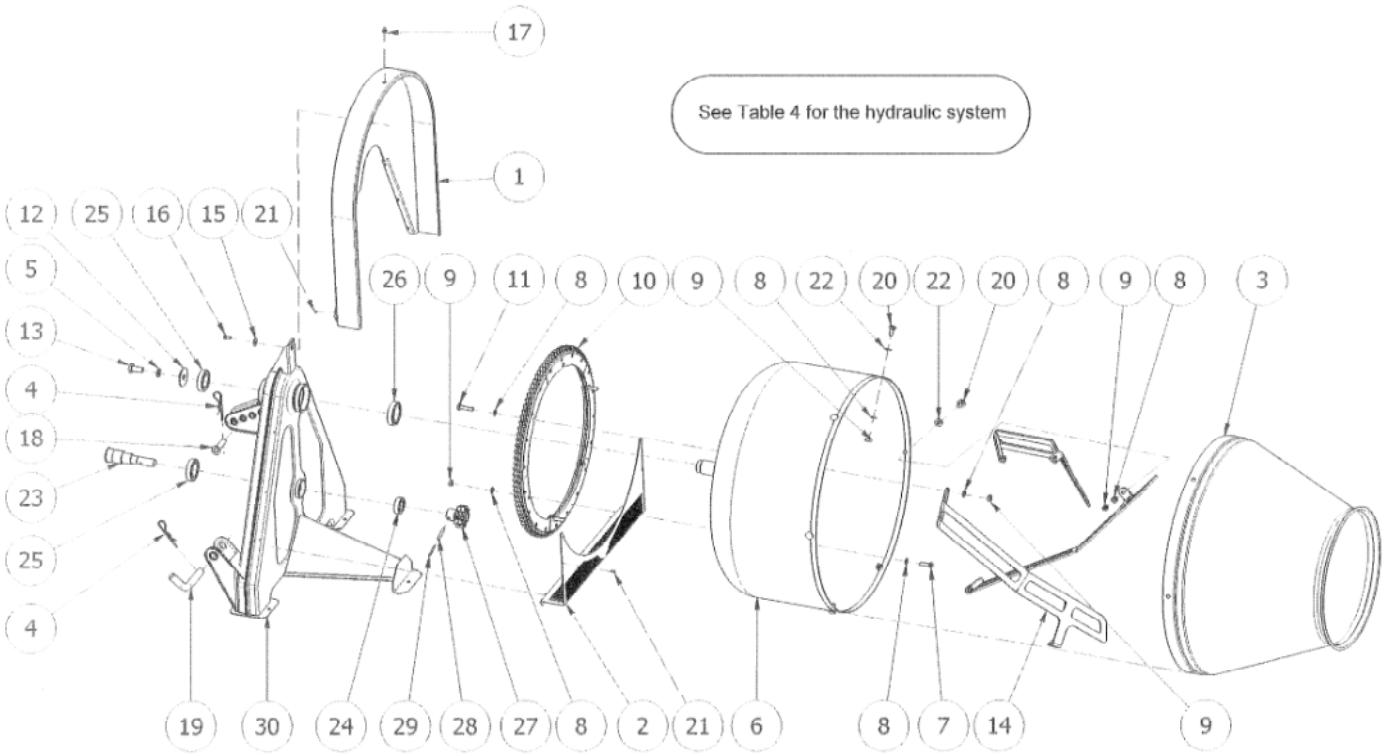

Table 2 Frame & Mixer Bowl Assembly – Hydraulically Driven

Item	Part No	Description	No
1	C006.016	CARTER T400	1
2	0006.195	LOWER CARTER T400	1
3	C016.012	T400 OUTER SECTION OF DRUM	1
4	C019.005	ST. STEEL BENT COTTER PIN DM	3
5	R004.006	SPRING WASHER	1
6	F006.001	COMPLETE DRUM INNER SECTION	1
7	V003.268	ST.STEEL HEXHEAD SCREW	3
8	R005.013	ST. STEEL FLAT WASHER	21
9	D001.005	ST. STEEL HEXAGON NUT	15
10	R009.009	RING GEAR T400 2005	1
11	V003.056	ST. STEEL HEXAGON HEAD SCREW	3
12	R005.025	FLAT WASHER	1
13	V003.037	HEXAGON HEAD SCREW	1
14	P001.029	MIXER IRON BLADE T400	3
15	R005.080	ST. STEEL FLAT WASHER	1
16	V003.014	ST. STEEL HEX HEAD SCREW	1
17	1002.001	GREASE NIPPLE	1
18	P004.003	PIN FOR AGITATOR	1
19	P004.026	LIFTING PIN	2
20	V003.171	ST. STEEL CUP SCREW	6
21	V003.194	ROUND HEAD SCREW	10
22	R005.086	NYLON WASHER	6
23	A005.223	COMPLETE DRIVE SHAFT	1
24	C012.001	BEARING	1
25	C012.019	BEARING	2
26	C012.020	BEARING	1
27	R009.010	T400 PINION GEAR 2005	1
28	S006.001	SPRING PIN	1
29	S006.006	SPRING PIN	1
30	T003.222	HYDRAULIC MIXER FRAME	1

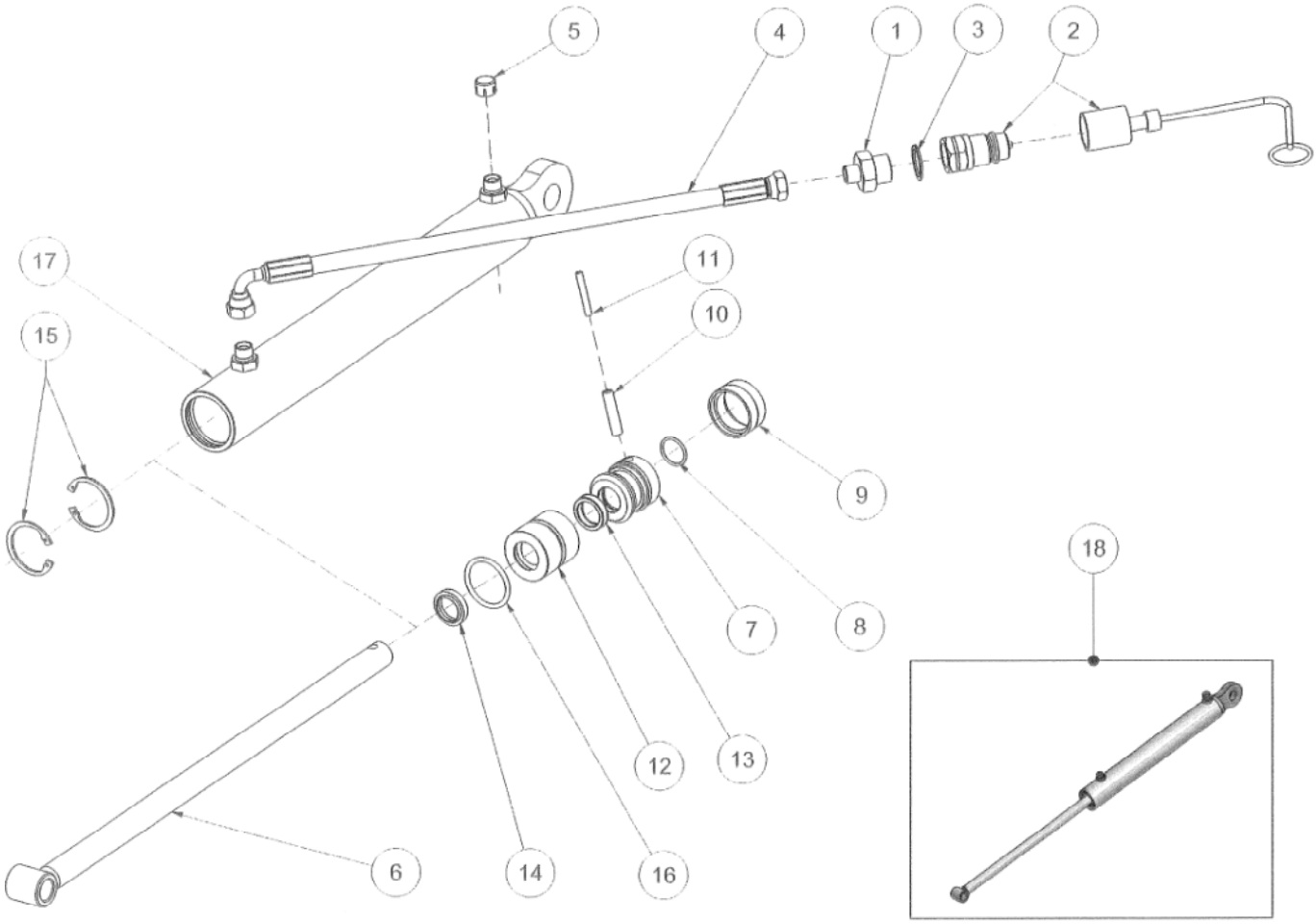

Table 3 Lifting Ram & Cylinder

Item	Part No	Description	No
1	R001.014	DOUBLE SCREW COUPLING	1
2	V004.003	VALVE WITH MALE COUPLING & CAP	1
3	R005.061	COPPER FLAT WASHER	1
4	T015.033	PIPE	1
5	T017.026	PROTECTION PLUG	1
6	S009.004	CYLINDER STEM	1
7	G007.011	CYLINDER STEM GUIDE	1
8	A003.011	OIL SEAL	1
9	A003.039	CYLINDER OIL SEAL	1
10	S006.010	SPRING PIN	1
11	S006.011	SPRING PIN	1
12	G007.006	CYLINDER FIXED ROD GUIDE	1
13	A003.009	OIL SEAL	1
14	A003.010	OIL SEAL	1
15	S011.002	CIRCLIP	2
16	A003.075	OIL SEAL	1
17	C003.004	CYLINDER COMPLETE SLEEVE	1
18	C013.005	DOUBLE ACTING CYLINDER	1

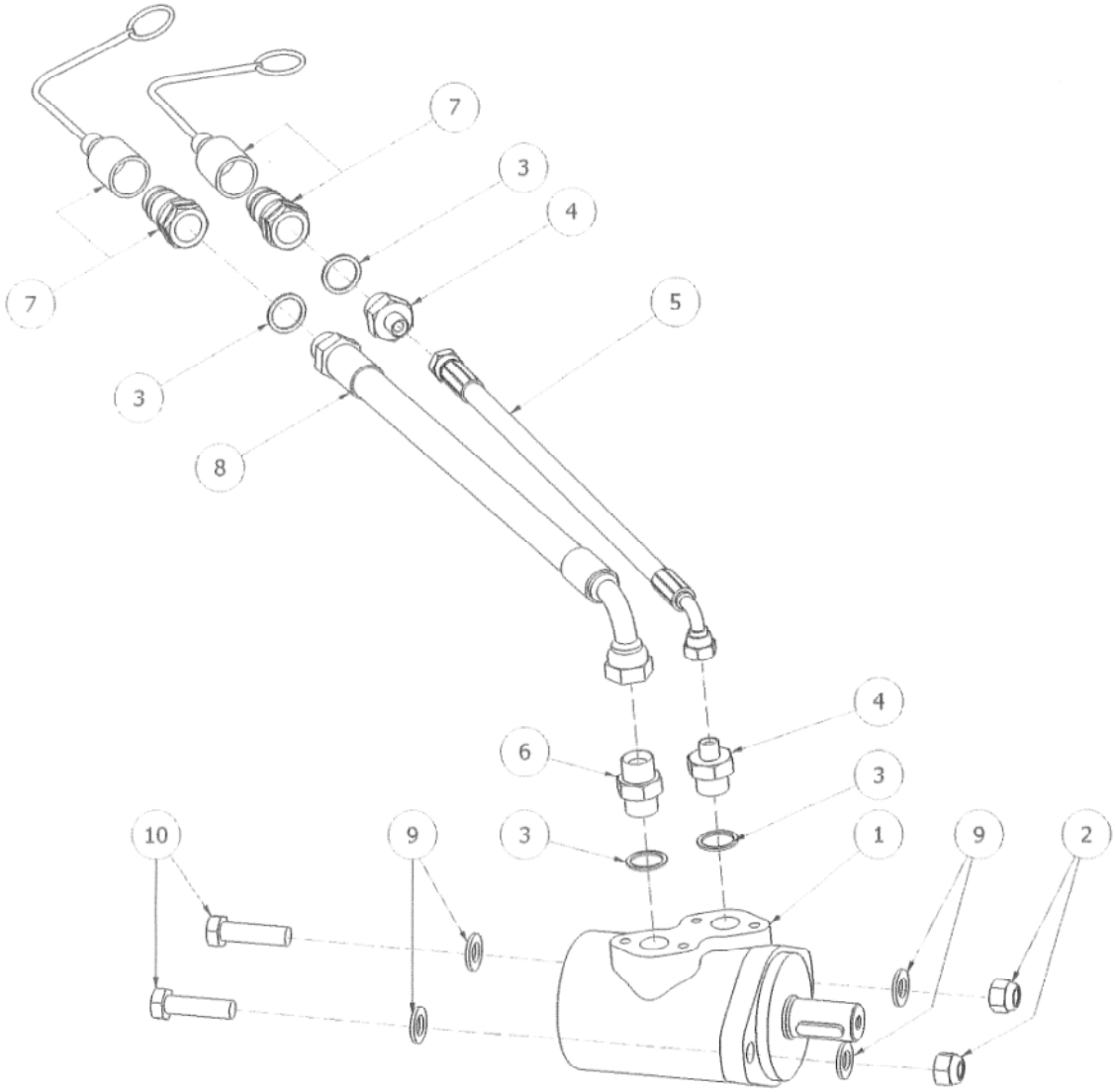

Table 4 Hydraulic Drive Components

Item	Part No	Description	No
1	M006.00	ORBITAL MOTOR	1
2	D001.03	ST. STEEL HEXAGON NUT	2
3	R005.06	COPPER FLAT WASHER	4
4	R001.01	DOUBLE SCREW COUPLING	2
5	T015.03	PIPE	1
6	R001.00	DOUBLE SCREW COUPLING	1
7	V004.00	VALVE WITH MALE COUPLING & CAP	2
8	T015.03	PIPE	1
9	R005.01	ST. STEEL FLAT WASHER	4
10	V003.03	HEXHEAD SCREW	2

Notes