

WINGET

OPERATION, MAINTENANCE & SPARE PARTS MANUAL

225/330T MIXER

(SEE 7/200T MANUAL)

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WINGET

TILTING DRUM MIXER

225/330T

(SEE 7/200T MANUAL)

This manual is a reprint of the Winget publication applicable to the 225/330T Mixer produced under license in South Africa by Triplejay/Babcock Equipment until the late 1990's.

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**225/330 T
CONCRETE
MIXER**

SPARE PARTS BOOK

Triplejay

Introduction

The operating instructions and maintenance recommendations contained in this book will enable you to become familiar with your mixer to obtain the best results in the shortest possible time.

The life and trouble free running of your machine will depend largely on the care it receives. It is your responsibility to ensure that the maintenance instructions outlined in this book are carried out.

When replacements are required, it is essential that only genuine parts are used and that any repair or servicing work is carried out by competent mechanics.

Inleiding

Die bedieningsinstruksies en instandhoudingsvoorstelle wat in hierdie boek vervat word, sal u in staat stel om u minger te leer ken sodat u die beste resultate in die kortste tyd moontlik kan kry.

Die lewensduur en sorgelose werking van u masjien sal grootliks afhang van die versorging wat dit ontvang. Dit is u verantwoordelikheid om toe te sien dat die instandhoudingsinstruksies wat in hierdie boek beskryf word, nagekom word.

Wanneer vervangdele nodig is, is dit noodsaaklik dat slegs egte onderdele gebruik word en dat enige herstelwerk en versiening deur bedrewe werktuigkundiges verrig word.

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Guarantee

As every reasonable care is taken that goods supplied by the Seller are free of defect in material and workmanship the Seller undertakes to deliver free of charge to the rail-head in the Republic of South Africa or in South West Africa nearest the place where such goods are operating, any part which as a result of normal use and service, appears to the Seller's satisfaction to have been at the time of delivery defective in workmanship or material. The Seller's standard guarantee does not include the provision of labour for rectifying defective equipment, but where the Seller does agree to provide labour, access to the defective equipment must be given by the Purchaser during normal working hours. In such cases it is expressly understood that the cost of travel and of accommodation for such labour is for the Purchaser's account.

At its entire discretion, the Seller may agree to repair or install any part alleged to be faulty free of charge, provided:-

- (a) The part is returned by the Purchaser to the Seller's Works, carriage paid, and the Seller is satisfied upon inspection of such part that it is faulty, and that it has not been subjected to abnormal use or service.
- (b) The Seller is notified of such fault within 6 (six) months from delivery of such part or after 1,000 working hours, whichever may be the earlier.
- (c) Written notice is given to the Seller within 7 (seven) days of the discovery of the fault.
- (d) No part which is not of the Seller's manufacture has been fitted, otherwise than by it or on its behalf, or with its written approval.
- (e) No unauthorised alteration or modification has been made to the part which is the subject of the complaint.
- (f) The manufacturer's instructions for the use and maintenance of the equipment have been strictly adhered to.
- (g) All replaced parts shall become the property of the Seller.

This guarantee is personal to the Purchaser and may not be assigned.

Waarborg

Aangesien elke moontlike sorg gedra word dat die goedere wat deur die Verkoper voorsien is vry is van defekte materiaal en vakmanskap, verbind die Verkoper hom om enige onderdeel wat as gevolg van gewone gebruik en diens, tot die Verkoper se bevrediging ten tyde van aflewering defek in vakmanskap of materiaal te gewees het, gratis na die spoorweghoof in die Republiek van Suid-Afrika of Suidwes-Afrika af te lewer wat die naaste is aan die plek waar die goedere werk. Die Verkoper se standaard waarborg sluit nie die verskaffing van arbeid in om defekte uitrusting te herstel nie, maar waar die Verkoper instem om arbeid te verskaf moet toegang tot die defekte uitrusting gedurende gewone werkure gegee word. In gevalle soos die word dit uitdruklik verstaan dat die reis- en verblyf-koste ten opsigte van sodanige arbeid vir rekening van die Koper is.

Die Verkoper kan volkome na eie goeddunke instem om enige onderdeel wat na bewering defek is gratis te herstel of installeer, mits:-

- (a) Die Koper die onderdeel na die Verkoper se fabriek stuur, vrag betaal, en die Verkoper na die ondersoek van sodanige onderdeel tevrede is dat dit defek is en dat dit nie aan abnormale gebruik of diens blootgestel is nie.
- (b) Die Verkoper in kennis gestel word van sodanige defek binne 6 (ses) maande nadat sodanige onderdeel afgelewer is of na 1,000 werkure, wat ook al die vroegste is.
- (c) Skriftelike kennisgewing binne 7 (sewe) dae vanaf die ontdekking van sodanige defek aan die Verkoper gegee word.
- (d) Geen onderdeel wat nie deur die Verkoper vervaardig is aangebring is nie, behalwe deur die Verkoper self of namens hom of met sy skriftelike toestemming.
- (e) Geen ongemagtigde verandering of wysiging aan die onderdeel gedoen is wat die onderwerp van die klage is nie.
- (f) Die vervaardiger se instruksies ten opsigte van die gebruik en instandhouding van die uitrusting streng nagekom is.
- (g) Alle vervangde onderdele die eiendom van die Verkoper word.

Hierdie waarborg is eie aan die Koper en kan nie oorge- dra word nie.

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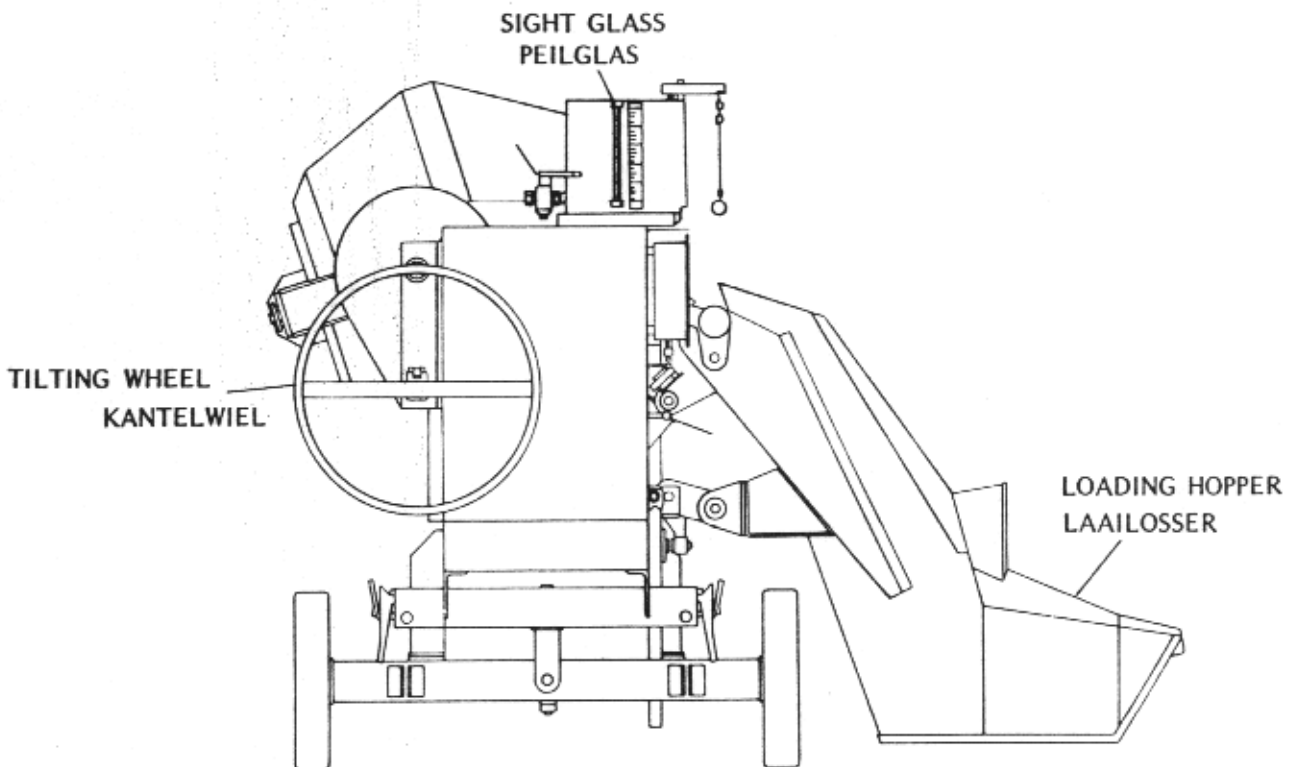
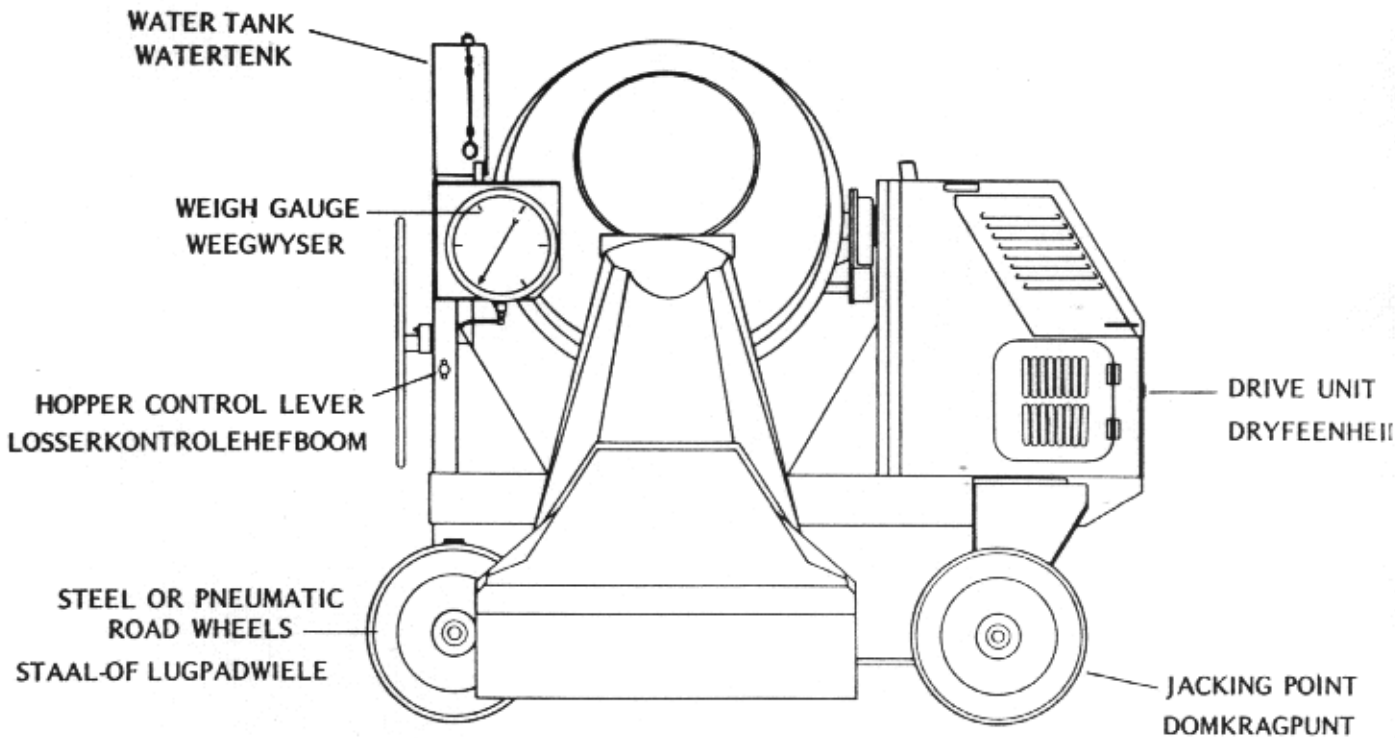
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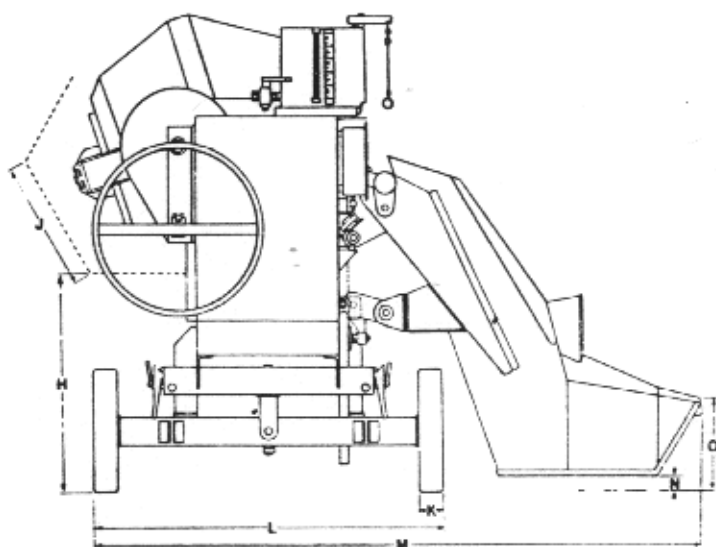
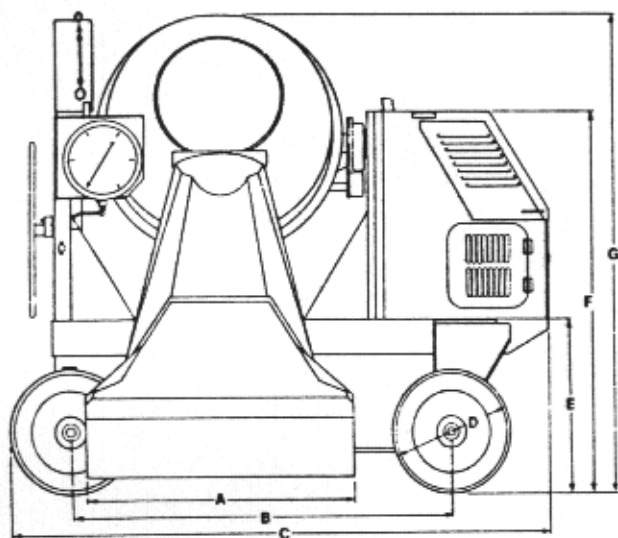
General Arrangement Algemene Reëlings



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Dimensions

Afmetings



	225 T	330 T
A	1220 mm.	1230 mm.
B	1725 mm.	1725 mm.
C	2525 mm.	2525 mm.
D	640 mm.	640 mm.
E	785 mm.	785 mm.
F	1740 mm.	1740 mm.
G	2130 mm.	2200 mm.

	225 T	330 T
H	960 mm.	925 mm.
J	530 mm.	588 mm.
K	125 mm.	125 mm.
L	1675 mm.	1675 mm.
M	2930 mm.	3160 mm.
N	50 mm.	50 mm.
O	460 mm.	540 mm.

Description & Operation

Triplejay

DESCRIPTION AND OPERATION
BESKRYWING EN BEDIENING

DESCRIPTION AND OPERATING INSTRUCTIONS

INSTALLING YOUR MIXER ON THE SITE

Ensure that the mixer is sited on firm ground and standing level in both directions. If the ground is loose or made up, it is recommended that the mixer be stood on stout timbers.

If pneumatic roadwheels are fitted, place a stout timber under each pair of stabilizing jacks, attached to the front and rear axles, lower the stabilizing jacks until they come firmly into contact with the timber, lock in position. Engage sprags, screw up to lock the front axle and chock the wheels firmly in position. Remove and stow the towing bar. Release the hopper safety prop. This is done by turning the engine by hand with the hopper control lever held in the "RAISE" position until the weight of the hopper is taken off the prop. Turn retaining latch upwards and swing the prop downwards into its lowest position. Hold the hopper control in the LOWER position and allow the hopper to come down under its own weight. If a batch weigher is fitted, ensure at least 50mm (2 in.) clearance between the base of the hopper and the ground to ensure accurate readings to be obtained.

(If a drag feeder is used assemble jib and cable support. It is necessary when a dragline is fitted to use a loading ramp or to erect a barrier of boards in front of the loading hopper so that materials may easily be tipped into it. This is particularly important when using a mixer fitted with a batch weigher, to prevent the build up of aggregate underneath the hopper, as this will cause faulty batch weights to be given.

Assemble the portable feed apron, if one is to be used, placing it squarely in front of the mixer so that the hopper does not foul it when being raised or lowered. The horizontal rubber flap is pushed forward by the dragline shovel when charging the hopper; the flap preventing material from falling between the hopper and ramp. Finally, stake the apron securely in position, using the four picketing lugs on the sides. Extend the centre position of the ramp to separate the aggregate by fitting boards.

TRANSPORTING THE MIXER

To reduce the overall height of the mixer, it is sometimes necessary to dismantle the dragline jib and remove the loading hopper from its cradle. Ensure the stabilizing jacks are raised fully or removed and stowed.

Assembling Dragline Jib

Bolt the mounting bracket to the inside of the hopper with the lugs toward the front edge of the hopper. Place the jib assembly in the hopper with the fairlead against the mounting bracket. Fit the mounting hooks loosely in position. Attach a stout rope to the jib. Turn the drum upright.

Raise the hopper, either by running the engine or turning it by hand, until the jib assembly takes up a new

BESKRYWING EN BEDIEN- INSTRUKSIES

INSTALLEER VAN MENGER OP TERREIN

Maak seker dat die menger op vaste grond staan en in albei rigtings waterpas is. As die grond los of opgevol is, moet dit liefers op stewige balke geplaas word.

As die menger lugbande aan het, moet 'n sterk balk onder elke paar stabiliseerderkrame aan die voor- en agterasse gesit word. Laat sak die domkrame totdat hulle styf teen die houtbalke druk en grendel hulle in die posisie. Koppel die remlukke en draai die skroef vas sodat die vooras sluit. Stopplokke moet gebruik word om die wiele deeglik in posisie te hou. Haal die sleepstang af en bêre dit. Verwyder die lossers se veiligheidstut. Dit word gedoen deur die enjin met die hand te draai terwyl die losserskontrolehefboom in die „LIG"-stand gehou word tot die lossergewig nie meer op die stut rus nie. Draai die borgknip na bo en swaai die stut na onder tot in sy laagste stand. Hou die losserskontrole in die „LAAT SAK"-stand en laat die lossers met sy eie gewig sak as die menger 'n lotweegtoestel aan het, maak seker dat daar 'n vry ruimte van minstens 50mm (2 dm) tussen die onderkant van die lossers en die grond is om te verseker dat die lesings noukeurig is.

(As 'n sleepvoerder gebruik word, moet die kraanarm- en kabelsteun gemonteer word. Wanneer 'n sleeptou gebruik word, moet 'n laaioprit of 'n skut van bord voor die laailosser opgerig word sodat die materiaal maklik daarin gestort kan word. Dit is besonder belangrik as 'n menger met 'n lotweegtoestel toegerus is, want dan moet voorkom word dat aggregeat onder die lossers ophoop anders word foutiewe lotgewigte verkry).

Monteer die draagbare voerskort as een gebruik gaan word, en plaas dit reghoekig voor die menger sodat dit die lossers nie steur wanneer dit lig of sak nie. Die horisontale rubberklap word deur die sleeptougraaf vorentoe gestoot wanneer die lossers gelaai word. Die klap voorkom dat materiaal tussen die oprit en die lossers beland. Pen die skort laastens stewig in posisie deur die vier penore aan die kante te gebruik. Verleng die middelposisie van die oprit deur borde aan te bring om die aggregeat te skei.

VERVOER VAN MENGER

Om die totale hoogte van die menger te verminder, is dit soms nodig om die sleeptouarm af te haal en die laailosser uit sy wieg te verwyder. Maak seker dat die stabiliseerderkrame heeltemal gelig of afgehaal en gebêre is.

Monteer van sleeptouarm

Bout die montersteun aan die binnekant van die lossers vas met die ore na die voorkant van die lossers. Plaas die kraanarmsamestel in die lossers met die touleier teen die montersteun. Sit die monterhake los in posisie. Heg 'n sterk tou aan die kraanarm. Draai die drom regop. Lig die lossers deur die enjin te laat loop of dit met die hand te draai, totdat die kraanarmsamestel in 'n nuwe

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DESCRIPTION AND OPERATION BESKRYWING EN BEDIENING

position, retained there by the mounting hooks, Continue to raise the hopper until the ends of the front legs of the jib are beside the mating legs already attached to the mixer. Stop engine if running.

With a man on either side of the hopper lift the front legs of the jib and drop the mounting tongues of each into the fixed legs. Insert a long bolt through the upper hole in each of the fixed legs engaging it with a hole in the mounting tongues to provide a loose hinge. Remove the mounting hooks. Move the drum as far as possible towards the charging position, secure the rope attached to the jib to the centre of the drum trunnion. Place pieces of wood between the rope and the edge of the drum to increase the leverage. Raise the jib by turning the handwheel until the cable support socket is just above the front edge of the hopper, insert the cable support complete with pulley fixed to tip. Thread electric control cable through pulley. Continue to raise the jib until it is fully up.

(Note) Keep the rope taut until the rear leg support clamps are in position. Thread the dragline cable through the rear leg of the jib assembly. Fit the rear leg support clamps loosely in position. Remove the hinge bolts from the front legs and fit support clamps, tighten the bolts of the rear clamps.

(Note) The support clamps for the front and rear legs are different in as much that there are only three locating pins on the two front clamps.

Complete the fitting of the cable through the jib fairlead and to the dragline shovel. Plug in the electric control cable to the mixer. Remove the mounting bracket from the hopper, and secure the mounting hooks to it. Stow the assembled items in the compartment in the end of the frame below the engine housing.

Dismantling Dragline Jib

Disconnect, and remove from the mixer the electric control cable and the dragline shovel. Withdraw the dragline cable from the jib and fairlead, by winding it back on to the winch drum. Fit a stout rope to the jib and to the drum trunnion, making certain that the drum is in the upright position. Insert blocks of wood as before. Bolt the mounting bracket into the base of the hopper.

(Note) The rope should be held taut by the handwheel until the jib is secured in the hopper.

Remove the four support leg clamps. Insert the two hinge bolts as described.

Raise the hopper until the base is vertical, this can be done by running the engine or turning it by hand. Stop engine if running. Lower the jib towards the hopper (lifting the rear legs slightly will allow the weight of the jib to carry it forward). It may be found necessary to lower the hopper a little to allow the jib fairlead to enter. Remove the cable support from its mounting when it is close to the front edge of the hopper. Continue to lower jib until the fairlead rests in the hopper, against the mounting bracket.

Fit the mounting hooks, remove the hinge bolts and lift the tongues of the front legs clear of the fixed legs. Lower the hopper slowly, steadying the jib as it takes up its final position against the front edge of the hopper. Remove jib from hopper.

stand is en deur die monterhake daar gehou word. Lig die losser totdat die ente van die voorbene van die kraanarm langs die passende bene aan die menger is. Sit die enjin af as dit gewerk het.

Die voorbene van die kraanarm moet gelig word deur 'n man aan weerskante van die losser sodat elkeen se monteertonge in die vaste bene val. Steek 'n lang bout deur die boonste gat in elke been en deur 'n gat in die monteertonge om 'n los skarnier te vorm. Haal die monterhake af. Beweeg die drom so ver moontlik na die laaistand en sit die tou van die kraanarm vas by die middelpunt van die dromdratap. Plaas stukkie hout tussen die tou en die rand van die drom om die hefkrag te verhoog. Lig die kraanarm deur die handwiel te draai totdat die kabelsteunsok reg bo die voorrand van die losser is en steek die kabelsteun met die katrolwiel aan die ent heeltemal in. Ryg die elektriese kontrolekabel deur die katrolwiel. Lig die kraanarm totdat dit heeltemal bo is.

(Opmerking) Hoë die tou styf totdat die agterbeensteunklemme in posisie is. Ryg die sleeptoukabel deur die agterbeen van die kraanarmsamestel. Sit die agterbeensteunklem los in posisie. Haal die skarnierboute uit die voorbene, sit die steunklemme vas en draai die boue van die agterklemme vas.

(Opmerking) Die steunklemme vir die voor- en agterbene verskil in die opsig dat die twee voorklemme net drie standpenne het.

Sit nou die kabel deur die kraanarmtouleier en aan die sleeptougraaf. Prop die elektriese kontrolekabel in die menger. Verwyder die montersteun van die losser en sit die monterhake vas. Bêre die gemonteerde items in die kompartement van die ent van die raam onder die enjinomhulsel.

Aftakel van sleeptoukraanarm

Ontkoppel en verwyder die elektriese kontrolekabel en sleeptougraaf. Trek die sleeptoukabel uit die kraanarm en touleier deur dit op die wenastol terug te draai. Sit 'n sterk tou aan die kraanarm en die dromdratap en maak seker dat die drom in die regopstand is. Steek weer houtblokke in. Bout die montersteun aan die basis van die losser vas.

(Opmerking) Die tou moet met die handwiel styf gehou word totdat die kraanarm aan die losser vas is.

Verwyder die vier steunbeenklemme. Steek die twee skarnierboute in soos beskryf. Lig die losser totdat die basis vertikaal is. Dit kan gedoen word deur die enjin te laat loop of met die hand te draai. Stop die enjin as dit gewerk het. Laat sak die kraanarm na die losser (lig die agterbene effens sodat die kraanarm se gewig hom na voor kan laat sak). Dit mag nodig wees om die losser effens te laat sak sodat die kraanarmtouleier kan ingaan. Haal die kabelsteun af van sy montering wanneer dit na aan die voorrand van die losser is. Laat die kraanarm steeds sak totdat die touleier in die losser teen die montersteun rus.

Sit die monterhake vas, haal die skarnierboute af en lig die tonge van die voorbene weg van die vaste bene. Laat sak die losser stadig en stuit die kraanarm teen die voorent van die losser wanneer hy finaal daar in posisie kom. Haal die kraanarm uit die losser.



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Replace the support leg clamps on the fixed jib legs to avoid loss. Secure mounting hooks to mounting bracket and stow.

(Note) If flare plates are fitted to the hopper, these must be removed before attempting to erect or dismantle the jib assembly by the method described.

Removing the Hopper

Under certain circumstances it may be desirable to remove the hopper. This is readily effected by removing the eight bolts attaching the hopper to the cradle. Alternatively it might be desired that the hopper be removed with the cradle still attached. In this case the hopper pivot shaft and the two upper ram yoke pins should be removed allowing the hopper and cradle to be detached. It is advisable to replace the hopper pivot shaft in the cradle and the ram yoke pins in the yoke to avoid loss in transit.

Lifting the Mixer

Lifting eyes are provided for using crane hooks when loading for transporting. They are located, one in the left hand side of the hopper cradle, when looking at the machine from the hopper side, the second one at the top of the trunnion pedestal next to the engine housing. Lifting the mixer should be carried out with the hopper up, or if the hopper has been removed for transporting, with the cradle in the up position.

DRUM CONTROLS

Any of three pre-set positions CHARGE-MIX-DIS-CHARGE can be obtained.

Tilting Wheel Lock

A lever type locking mechanism, located in the hub of the tilting handwheel gives positive locking in any of the three pre-set positions. To release, hold handwheel firmly, push the locking lever upwards. The handwheel is then turned one complete revolution either way to locate drum position. The handwheel is then locked by pushing the locking lever downwards into the horizontal position.

WARNING. Do not hold the locking lever in the engaging position and turn the handwheel to engage the lock, as this will cause damage to the locking mechanism.

HOPPER OPERATION

Control

The hydraulic control valve for operating the hopper is mounted on the trunnion pedestal near to the tilting handwheel.

To Raise Hopper

Lift the control lever and hold it until the hopper is fully up. Do not hold the control in the RAISE position with the hopper up for more than a few moments or overheating and loss of efficiency will result.

Sit die steunbeenklemme aan die vaste kraanarmbene vas om te voorkom dat hulle verloor. Sit die monteershake aan die monteersteun en bêre.

(Opmerking) As kaatsplate aan die losser gesit word, moet hulle verwyder word voor gepoog word om die kraanarmsamestel op te rig of af te takel, volgens die metode wat hierbo beskryf is.

Afhaal van losser

In bepaalde omstandighede kan dit nodig wees om die losser af te haal. Dit word redelik maklik gedoen deur die ag bout te verwyder wat die losser aan die wieg hou. Andersins kan dit wenslik wees om die losser met die wieg daaraan af te haal. In die geval moet die losserspilas en twee boonste ramjukpenne uitgehaal word sodat die losser en wieg verwyder kan word. Dit is raadsaam om die losserspilas in die wieg en die ramjukpenne in die juk terug te sit om te voorkom dat dit onderweg verloor.

Oplig van menger

Ligoë word verskaf sodat kraanhake gebruik kan word om die menger vir vervoer te laai. Daar is een aan die linkerkant van die losserswieg as daar van die losser na die masjien gekyk word. Die ander een is bokant die dratapvoetstuk langs die enjinhulsel. Die menger moet met die losser na bo gelig word of as die losser afgehaal word, met die wieg na bo.

DROMKONTROLE

Enigee van drie voorafgestelde stande - LAAI - MENG - ONTLAAI kan gebruik word.

Kantelwielgrendel

'n Hefboomtipe grendelmeganisme in die naaf van die kantelhandwiel verleen positiewe grendeling vir enigeen van die drie voorafgestelde stande. Om die handwiel vry te stel, moet die grendelhefboom net opgestoot word. Die handwiel word dan een omwenteling na enige kant gedraai om die dromstand te stel. Die handwiel word dan gegrendel deur die grendelhefboom af te druk na die horisontale stand.

WAARSKUWING. Moenie die grendelhefboom in die koppelstand hou en die handwiel draai om die grendel te koppel nie - dit kan die grendelmeganisme beskadig.

WERKING VAN LOSSER

Kontrole

Die hidrouliese kontroleklep vir die werk van die losser is op die tapasvoetstuk na aan die kantelhandwiel.

Om die losser te lig

Lig die kontrolehefboom en hou dit totdat die losser heeltemal gelig is. Moenie die hefboom langer as 'n paar oomblikke in die LIG-stand hou terwyl die losser bo is nie aangesien dit tot oorverhitting of ondoeltreffendheid kan lei.

Triplejay DESCRIPTION AND OPERATION

BESKRYWING EN BEDIENING

To Lower Hopper

Push the control lever downwards; releasing the lever will check the descent of the hopper as necessary.

(NOTE) The hopper must not be lifted and lowered with aggregate as this can damage the loadcell and also cause false reading on the weigh dial.

WATER TANK

The water tank is a cistern type which automatically shows the quantity of water from 4 to 57 litres on the graduated scale at the side of the tank.

Filling and discharging the tank are simple operations. The main supply comes into the tank through a stop cock. As soon as the indicator float in the sight glass tube begins to rise, sufficient water is available for a measured amount of water to be discharged. Close the stop cock. When the drum is in the charge position, pull the chain which in turn lifts the valve from its lower seat allowing the required amount of water to be discharged into the mixing drum. After discharging, release the chain-pull and refill the tank.

Optional - Water Pump

Water pump should never be run dry or the seal may be damaged.

Draining the Tank

During periods of frosty weather, to avoid damage, it is advisable to drain the tank at the end of each day's working. To do this set the drum in the "CHARGE" position, close the stop cock and drain the water into the drum, then disconnect the water supply to the mixer. Finally empty the water from the drum.

BATCH WEIGHER - if fitted

The weigher gauge mounted in a box on the tilt end pedestal is connected by hydraulic piping to the load-cell mounted near the hopper lower pivot arm. The hydraulic circuit is primed and sealed on leaving the works and on no account should it be tampered with. The gauge gives accurate indication of batch weights. The adjustable coloured pointers mounted on the rim of the gauge can be set by the operator to the aggregate proportions required. A protective lid is provided for the gauge box to prevent damage when not in use.

It is important that the mixer is standing firm and level and that there is at least 50mm (2 in.) clearance between the ground and the base of the hopper at all times. If aggregate is allowed to build up inaccurate gauge readings will be obtained.

Normal Operation

Set the pointers on the gauge to the aggregate proportions you require. With the engine running lower the hopper **SLOWLY ONTO THE LOADCELL**. Hold the hopper control lever fully down for a few seconds until the gauge needle begins to move up to "O" then release. The hopper is then ready to load. If you cannot get an "O" reading adjust the gauge as described in the following paragraph:

Om die lossers te laat sak

Druk die kontrolehefboom af. Stel die hefboom vry om die afgang van die lossers na vereiste te beheer.

(OPMERKING) Die lossers moet nie gelig of laat sak word met aggreëat daarin nie aangesien dit die lassel kan beskadig en foutiewe aflesings op die skaalwysers kan veroorsaak.

WATERTENK

Die watertenk is 'n spoelbaktipe wat outomaties die hoeveelheid water van 4 tot 57 liter toon op 'n geëgradeerde skaal aan die kant van die tenk.

Dit is maklik om die tenk vol of leeg te maak. Die hoof-toevoer lei na die tenk deur 'n afsluitkraan. Sodra die wyservlot in die peilglas styg, is daar genoeg water om 'n gemete hoeveelheid vry te stel. Draai die afsluitkraan toe. As die drom in die laaistand is, trek die ketting wat die klep uit sy bed lig sodat die vereiste hoeveelheid water in die mengdrom loop. Nadat die water uitgeloopt het, moet die ketting gelos word en die tenk volgemaak word.

Opsioneel - waterpomp

Die waterpomp moet nooit leeg werk nie, aangesien dit die seël kan beskadig.

Leegmaak van tenk

Dit is wenslik om die tenk gedurende koue weer leeg te maak na die dag se werk om skade te voorkom. Om dit te doen, moet die drom in die laai-stand gestel word en die afsluitkraan toegedraai word. Die water moet dan na die drom vloei. Ontkoppel daarna die watertoevoer na die menger en laat die water uit die drom loop.

LOTWEEGTOESTEL - as daar een is

Die weegmeter in 'n kas aan die kantelentvoetstuk is met hidrouliese pype aan die lassel verbind wat na aan die onderste losserspilarm gemonteer is. Die hidrouliese kring is ingestel en verseël in die fabriek en daar moet glad nie daarmee gepeuter word nie. Die meter gee noukeurige aanwysings van elke lot se gewig. Die stelbare gekleurde pyle aan die raam van die meter kan deur die operateur gestel word vir die vereiste aggreëatverhoudings. 'n Beskermende deksel word voorsien om die meterkas te beskerm wanneer dit nie gebruik word nie. Dit is belangrik dat die menger stewig en gelyk staan en dat daar te alle tye 'n vry ruimte van minstens 50mm (2 dm) tussen die grond en die basis van die lossers is. As aggreëat hier ophoop, is die meteraflesings foutief.

Normale werking

Stel die pyle op die meter volgens die aggreëatverhoudings wat u vereis. Terwyl die enjin werk, moet die lossers **STADIG OP DIE LASSEL LAAT SAK WORD**. Hou die losserskontrolehefboom heeltemal af vir 'n paar sekondes totdat die meternaald na nul begin beweeg en los dit dan. Die lossers is dan gereed vir laai. As 'n O-aflesing nie verkry kan word nie, stel die meter soos beskryf in die volgende paragraaf.



Triplejay DESCRIPTION AND OPERATION BESKRYWING EN BEDIENING

To Zero the Weighing Gauge

With the mixer engine running carry out the following:

- Lower the hopper on to the loadcell as described.
- Check that the hopper is clear of the ground, taking care not to stand on any part of the hopper.
- Adjust the knurled knob on the side of the gauge to set the point to "O"
- Repeat, lowering the hopper three to four times to check that you obtain a consistent "O" reading.

DRAGLINE FEEDER - if fitted

The winch unit is mounted on the discharge side of the mixer, and is hydraulically driven. It is fitted with an hydraulic Solenoid valve which is controlled by a push-switch button on the shovel handle. The electrical circuit is energized by a 12 volt dynamo driven by the engine, which energizes the Solenoid valve.

Operation

With the engine running, pull the shovel back over the aggregate away from the mixer. Depressing the push-button switch on the shovel handle will operate the winch by activating the Solenoid valve and start to drag the shovel towards the mixer. Ensure downward angle of shovel is not too steep. To stop the loaded shovel when it has reached the hopper, simply release the push button switch and tip the contents of the shovel into the hopper. After rigging the electric control cable, a trial run of the shovel may show that the slack of the electric cable is not taken up by the bottom free pulley as the shovel moves into the mixer. To prevent this, increase the size of the weight on the bottom free pulley; if the pulley then comes too close to the ground wind a couple of turns of cable on to the stowage arms on the shovel.

WARNING

The hoist must not be operated whilst a mix is in the drum or overloading will result.

BEFORE STARTING UP

Read carefully the engine manufacturer's handbook supplied with this mixer. Check the amount of fuel in tank and the level of lubricating oil in engine sump. With the hopper down check the level of oil in header tank.

TO MIX CONCRETE

Set the coloured points on the weigher gauge (if fitted) to the aggregate proportions you require and load hopper.

Move the drum into the CHARGE position. Operate water tank, fill and discharge into drum. Raise the hopper to tip the aggregate into the drum. When all the materials are in the drum, lower the hopper and load for next batch, and set drum in the MIX position.

After allowing a short interval for mixing, the concrete in the drum should be discharged.

Om die weegmeter op O te stel

Terwyl die mengerjin werk, moet die volgende gedoen word:

- Laat sak die losser op die lassel soos beskryf.
- Maak seker dat die losser weg van die grond is en dat u nie op enige deel van die losser staan nie.
- Stel die kartelknop aan die kant van die meter sodat die pyl op O is.
- Herhaal drie tot vier keer om te verseker dat u deur-gaans 'n O-aflesing kry.

SLEEPTOUVOERDER - as daar een is

Die wenaseenheid is aan die vrystelkant van die menger gemonteer en word hidroulies gedryf. Dit het 'n hidrouliese solenoideklep wat deur 'n drukkakelaarknop aan die graafhandvatseel beheer word. Die elektriese kring kry krag uit 'n 12-voltdinamo wat deur die enjin gedryf word - die kring voorsien die solenoideklep van krag.

Werkling

Trek die graaf terug oor die aggremaat terwyl die enjin werk en weg van die menger. As die drukknoopskakelaar aan die graafhandvatseel gedruk word, werk die wenaseenheid omdat die solenoideklep geaktiveer word. Die wenaseenheid trek die graaf na die menger. Maak seker dat die vertikale skuinste van die graaf nie te veel is nie. Om die vol graaf te stop wanneer dit die losser bereik het, los die drukknoopskakelaar en kantel die inhoud van die graaf in die losser. Na oprigting van die elektriese kontrolekabel kan 'n toetslopie met die graaf toon dat die onderste vry katrolwiel nie die slapte in die elektriese kabel opneem terwyl die graaf in die menger in beweeg nie. Om dit te voorkom, moet die grootte van die gewig aan die onderste vry katrolwiel verhoog word. As die katrolwiel te na aan die grond kom, moet die kabel 'n paar keer om die bergarms van die graaf gedraai word.

WAARSKUWING

Die kraan moet nie gebruik word terwyl die drom gelaai is nie, aangesien dit tot oorbelasting kan lei.

VOOR AANSKAKELING

Lees die enjinvervaardiger se handboek wat saam met die masjien verskaf word, versigtig deur. Gaan die hoeveelheid brandstof in die tenk asook die stand van smeerolie in die enjinoliebak na. Kontroleer die hoeveelheid olie in die botenk terwyl die losser onder is.

OM BETON TE MENG

Stel die gekleurde pyle op die weegmeter (as daar een is) volgens die aggremaatverhoudings wat u vereis en laai die losser.

Beweeg die drom na die LAAI-stand. Bedien die water-tenk, maak dit vol en laat die water in die drom loop. Lig die losser om die aggremaat in die drom te stort. As al die materiaal in die drom is, laat sak die losser en laai dit vir die volgende lot. Stel die drom in die MENG-stand.

Na 'n kort rukkie vir menging toegelaat is, moet die beton in die drom uitgelaat word.



Triplejay

DESCRIPTION AND OPERATION BESKRYWING EN BEDIENING

WHEN WORKING IS FINISHED

- (a) Thoroughly clean out the drum with water and gravel.
- (b) Clean out the hopper and wash down the outside of the mixer.
- (c) Drain water tank if frost is likely.
- (d) Raise hopper, place safety prop in position and lock.
- (e) Stop engine.
- (f) Grease up machine for next day's working.
- (g) Replace cover on weigher gauge box.
- (h) Lock engine housing to prevent tampering and loss of tools.

AS DIE WERK KLAAR IS

- (a) Maak die drom deeglik skoon met gruis en water.
- (b) Maak die lossers skoon en was die buitekant van die menger.
- (c) Maak die watertenk leeg as dit moontlik gaan ryp.
- (d) Lig die lossers, plaas die veiligheidsteun in posisie en grendel dit.
- (e) Skakel die enjin af.
- (f) Smeer die masjien vir die volgende dag se werk.
- (g) Plaas deksel op weegmeterkas terug.
- (h) Sluit enjinkabel om te voorkom dat daar met die masjien gepeuter word en gereedskap verlore raak.

Maintenance

Triplejay MAINTENANCE INSTANDHOUDING

MAINTENANCE

LUBRICATION

General

All main running parts are lubricated through drilled shafts and special greaseways by the provision of grease nipples. The lubrication diagram, gives the location of these points. Get into the habit of greasing the nipples each day, and refill with a good quality medium grease when empty. Pay particular attention to nipples fitted to ram pivots, bevel pinion shaft, trunnion bearings and jockey sprockets. The use of a grease gun will ensure that the greaseways are kept clear. Be clean about greasing nipples, do not allow sand or cement to become mixed with the grease. Keep grease tin lids closed when not in use. Apply a little engine oil from time to time on pin joints on water tank controls, track rods on steering assembly and hinges on housings, etc. Bearings must not be allowed to run dry; when greasing it is better to give a little often rather than a lot at long intervals.

Transmission

Lubricate the main bevel pinion drive chain and the pump drive chain once a week with a little engine oil. Check chain tension and adjust if necessary.

CHAIN TENSIONING

On no account must chains be over tightened. Undue tightness puts excessive strains on pump and engine bearings causing vibration and considerable wear. A very rough guide to chain tension is to allow the equivalent amount of one chain pitch free movement on the slack side of the chain, i.e. 19mm ($\frac{3}{4}$ in.) chain pitch - 19mm ($\frac{3}{4}$ in.) slack, etc.

HYDRAULIC SYSTEM

Header Tank

This is mounted inside the drive end trunnion pedestal, easily accessible through the door in the pedestal. Check the level of the oil weekly (50 hrs. running) with the hopper down and engine stopped. Remember to clean the area around the cap before removing it, to prevent dirt falling into the tank. Ensure that oil level is 8cm (3 in.) from top of tank.

Recommended Oils

Top up the system as necessary using an oil of the correct grade, do not mix different grades of oil. The approximate capacity of the system is 3 gallons and it is filled with Shell Tellus 27 at the works, the particular grade of oil being shown on a label attached to the top of the tank.

SAE 30 oil for temperatures above 32.8°C. (90°F).

Dismantling the System

Do not remove or expose any part of the internal hydraulic gear in the event of breakdown, unless so

INSTANDHOUDING

SMERING

Algemeen

Alle hoofbeweegdele word deur geboorde skagte en spesiale ghriesgange gesmeer met behulp van ghriesnippel. Die smeerdiagram gee die ligging van hierdie nippels daaglik te ghries en vul hulle met 'n goeie gehalt mediumghries wanneer hulle leeg is. Gee in besonder aandag aan nippels by ramspille, keelkleinrat, drataplae en tussenkettingratte, 'n ghriespomp sal verseker dat die ghriesgange oop bly. Werk skoon wanneer nippels ge-ghries word - moenie dat sand en sement in die ghrieskom kom nie. Hou die ghriesblikdeksel toe wanneer dit nie gebruik word nie. Sit 'n bietjie enjinolie van tyd tot tyd aan penlase by watertenkcontroles, spoorstange aan die stuursamestel en skarniers aan hulsels, ens. Laers moenie droog werk nie. In smering is dit beter om gereeld 'n bietjie aan te sit as baie met ongereelde tussenpose.

Transmissie

Smeer die hoofkeelkleinratdryfketting en die pompdryfketting een keer per week met 'n bietjie enjinolie. Gaar die kettingspanning na en verstel waar nodig.

KETTINGSpanning

Kettings moet glad nie te styf gespan word nie. Onnodige styfheid plaas te veel spanning op die pomp- en enjinlaers en veroorsaak vibrasie en aansienlike styfheid. 'n Rowwe aanduiding is om dieselfde afstand as eersettingsteek vry beweging aan die slap kant van die ketting te laat, d.w.s. 19mm ($\frac{3}{4}$ dm) kettingsteek, 19mm ($\frac{3}{4}$ dm) slapte, ens.

HIDROULIESE STELSEL

Botenk

Dit is aan die binnekant van die dryfentdratapvoetstuk gemonteer en kan maklik bygekom word deur die deur in die voetstuk. Gaan die stand van die olie weeklik na (na 50 uur se werk) met die losser na onder en die enjin afgeskakel. Onthou om rondom die dop skoon te maak voor dit afgehaal word, om te voorkom dat vuilgoed in die tenk val. Maak seker dat die oliestand 8cm (3 dm) van die bokant van die tenk is.

Aanbevole olie

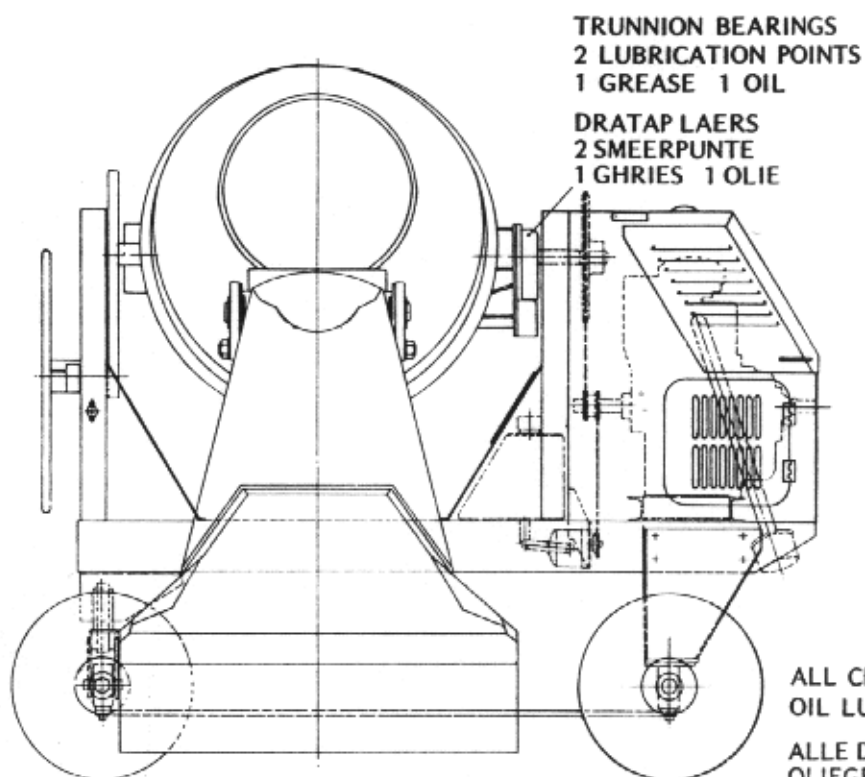
Vul die stelsel by na gelang dit nodig is en gebruik olie van die regte graad. Moenie verskillende grade olie meng nie. Die benaderde inhoud van die stelsel is 3 gelling en dit moet op die terrein met Shell Tellus 27 gevul word. Die soort olie in die tenk moet met 'n etiket aan die bokant van die tenk aangedui word.

SAE 30-olie vir temperature bo 32.8°C (90°).

Aftakeling van die stelsel

Geen deel van die interne hidrouliese gerei moet verwyder of blootgestel word in geval van onklaarraking nie.

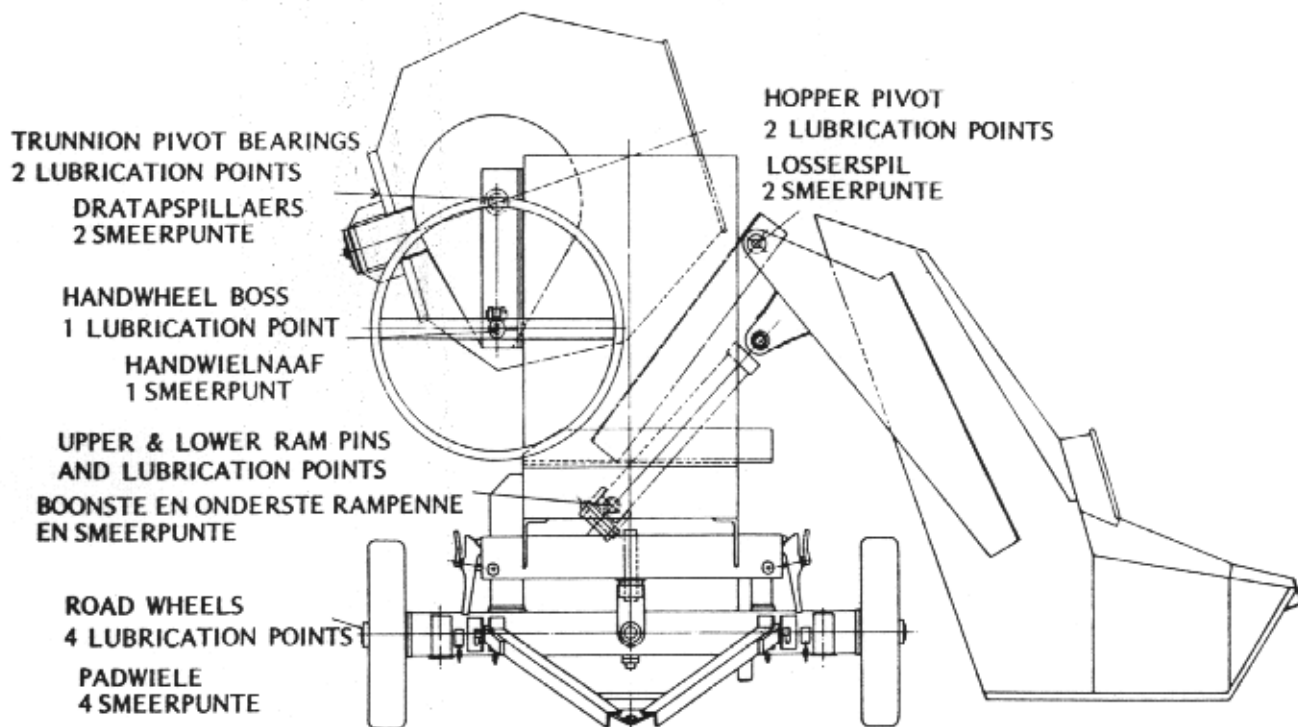
Triplejay MAINTENANCE INSTANDHOUDING



TRUNNION BEARINGS
2 LUBRICATION POINTS
1 GREASE 1 OIL

DRATAP LAERS
2 SMEERPUNTE
1 GHRIES 1 OLIE

ALL CHAIN DRIVES
OIL LUBRICATED
ALLE DRYF-KETTINGS
OLIEGESMEER



TRUNNION PIVOT BEARINGS
2 LUBRICATION POINTS
DRATAPSPILLAERS
2 SMEERPUNTE

HANDWHEEL BOSS
1 LUBRICATION POINT
HANDWIELNAAF
1 SMEERPUNT

UPPER & LOWER RAM PINS
AND LUBRICATION POINTS
BOONSTE EN ONDERSTE RAMPENNE
EN SMEERPUNTE

ROAD WHEELS
4 LUBRICATION POINTS
PADWIELE
4 SMEERPUNTE

HOPPER PIVOT
2 LUBRICATION POINTS
LOSSERSPIL
2 SMEERPUNTE

Triplejay MAINTENANCE INSTANDHOUDING

instructed, as this may lead to further complications when correcting the fault.

Remember you have a TRIPLEJAY SERVICE BRANCH near you which is always ready to assist.

BATCH WEIGHER - if fitted

Include the grease nipples on the upper hopper pivot links in your daily servicing.

To allow accurate functioning, keep the mechanism as clean as possible, special attention being paid to the lower link pivot. Clean the ground under the hopper frequently to avoid any build up of aggregate.

(Note) On no account must the loadcell be disconnected from the weighing dial. No responsibility will be accepted by us, if the lead seals attached to the pipe unions are broken.

Dynamo

The dynamo is belt driven. To adjust the belt the general method is to slacken the dynamo fixing bolts and pivot it in its mounting to tension the drive, afterwards re-tightening the fixing bolts.

Check the brushes periodically.

Greasers are provided on the two rope sheaves on the jib, include these in your daily servicing. If the electric cable to the shovel needs repairing, it should not be shortened by more than 1524mm (5 ft.).

The regulator cut-out voltage should be maintained at 12½ to 13 volts.

GENERAL MAINTENANCE

Check for tightness from time to time, all bolts, nuts, keys, etc. especially during the first few weeks of operation. Pay particular attention to engine fixing bolts. Clean top of header tank before removing filler cap. Add oil of recommended grade.

Drain water tank during frosty weather.

When not in use, keep weigher gauge box lid on, and engine housing locked to prevent tampering and loss of tools.

TYRE PRESSURES

These should be checked at regular intervals and before transportation from site to site. Recommended tyre pressures 35 psi all round.

tensy so gelas word aangesien dit tot verdere komplikasies kan lei wanneer die fout reggestel word.

Onthou dat daar 'n TRIPLEJAY-VERSIENINGSTAK naby u en altyd gereed is.

LOTWEEGTOESTEL - as daar een is

Sluit die ghriesnippels aan die boonste losserspijskakels by u daaglikse versiening in. Hou die meganisme so skoon as moontlik om noukeurige werking te verseker. Spesiale aandag moet aan die onderste skakelspil gegee word. Maak die grond onder die lossers gereeld skoon om te voorkom dat die aggregaat ophoop.

(Opmerking) Die lassel moet in geen omstandighede van die weegwyserplaat ontkoppel word nie. Ons aanvaar geen aanspreeklikheid as die seëls aan die pypverbindinge verbreek is nie.

Dinamo

Die dinamo word met 'n band aangedryf. Om die band te verstel, is daar 'n algemene metode waarvolgens die dinamohegboute losgedraai word, sodat die dinamo in sy montering kan draai. Stel die bandspanning en draai die hegboute.

Gaan die borsels gereeld na. Ghriespunte is voorsien by die twee toubundels aan die kraanarm. Sluit hulle by u daaglikse versiening in.

As die elektriese kabel na die graaf herstel moet word, moet dit met hoogstens 1524mm (5 vt.) verkort word. Die reëlaar se afskakelspanning moet op 12½ - 13 volt gehou word.

ALGEMENE ONDERHOUD

Gaan gereeld alle boue, moere, spy, ens. vir stewigheid na, veral gedurende die eerste paar weke wat die masjien gebruik word. Skenk in besonder aandag aan die enjinhegboute. Maak die bokant van die botenk skoon voor die dop afgehaal word. Voeg olie van 'n aanbevole graad by. Maak die watertenk leeg as dit baie koud is.

As die menger rus, moet die weegmeterkasdeksel in posisie wees en die enjinhulsel gesluit word om te voorkom dat daarmee gepeuter word en gereedskap verlore raak.

BANDDRUK

Die banddruk moet gereeld nagegaan word en voor die menger na 'n ander terrein verskuif word. Die aanbevole druk is 35 lb/vk dm vir al die bande.

Triplejay MAINTENANCE INSTANDHOUDING

SERVICING SCHEDULE

DAILY

MIXER
Lubricate daily through grease nipples using a good quality medium grease. Alvania Grease 2 is used at works - see lubrication diagram. Thoroughly clean out drum when mixing is finished, with water and gravel. Wash out hopper and hose down mixer. Keep access doors and panels closed. Drain water tank if frost is likely.
ENGINE SUMP LUBRICATION FUEL TANK
See Engine Handbook.

NOTE

IT IS IN THE USERS OWN INTEREST TO MAINTAIN ENGINE AIR, LUBRICATING OIL AND FUEL FILTERS AT THE MANUFACTURER'S RECOMMENDED INTERVALS, TOPPING UP WITH CLEAN OIL AND FUEL FROM CLEAN CONTAINERS AS NECESSARY. RUNNING THE ENGINE WITH DEFECTIVE AIR OR OIL FILTERS WILL RESULT IN RAPID WEAR, HIGH RUNNING COSTS AND LOSS OF RELIABILITY.

WEEKLY

DRIVE CHAIN
Check tension, adjust if necessary. Check and top up chain case using Shell Talpa 30 Oil (Capacity 0,5683 litre), (1 pt.).
DRUM AND TRUNNION
Apply oil to Bevel Gear, Guard and Pinion Guard.
HYDRAULIC HEADER TANK
Clean top of tank - remove filler cap and check level. Check with hopper down and engine stopped.
DRAGLINE DYNAMO
Check belt tension, adjust if necessary as described.
GENERAL
Apply a little engine oil to pin joints on water tank controls, axle pivots, etc. Check two screws on hydraulic valve (Hopper).

VERSIENINGSKEDULE

DAAGLIKS

MENGER
Smeer daaglik deur ghriesnippels met 'n goeie gehalte mediumghries. Alvania Ghries 2 word by werke gebruik - kyk smeediagram. Maak die drom deeglik skoon as mengwerk klaar is - gebruik water en gruisklip. Was die losser uit en spuit die menger af. Hou toegangsluik en panele toe. Maak watertenk leeg as dit moontlik gaan ryp.
ENJIN OLIEBAK SMERING BRANDSTOFTENK
Kyk Handboek.

OPMERKING

DIT IS IN DIE GEBRUIKER SE BELANG OM DIE ENJIN-, LUG-, SMEEROLIE- EN BRANDSTOFFILTERS MET DIE TUSSENPOSE SOOS DEUR DIE VERVAARDIGER AANBEVEEL TE ONDERHOU. VUL MET SKOON OLIE EN BRANDSTOF UIT SKOON HOERS SOOS BENODIG. AS DIE ENJIN MET DEFEKTE LUG- OF OLIEFILTERS WERK, WORD SLYTASIE VERSNEL, WERKKOSTE VERHOOG EN BETROUBAARHEID GAAN VERLORE.

WEEKLIKS

DRYFKETTING
Gaan spanning na, verstel as dit nodig is. Gaan kettingkas na en vul met Shell Talpa 30 Olie (Inhoud 0,5683 litre), (1 pt.).
DROM EN DRATAP
Wend olie aan op Keëlrat, Skut en Kleinratskut.
HIDROULIESE BOTENK
Maak bokant van tenk skoon - haal vuldop af en gaan stand na met die losser na onder en die enjin afgesluit.
SLEEPLYNDINAMO
Gaan bandspanning na, verstel as dit nodig is, soos voorgeskryf.
ALGEMEEN
Sit 'n bietjie enjinolie aan penlase aan watertenk-kontrole, asspille, ens. Gaan twee skroewe aan hidrouliese klep na (Losser).

Triplejay MAINTENANCE INSTANDHOUDING

SERVICING SCHEDULE

MONTHLY

BREATHER FILTER ON HYDRAULIC TANK

Remove breather filter and rinse in clean petrol, air dry thoroughly before refitting.
Cover aperture while filter is being cleaned.

THREE MONTHLY

GEAR RING

Lubricate with Shell Cardium "D" compound every three months.

HYDRAULIC HEADER TANK FILLING FILTER

Remove, clean and inspect.

SIX MONTHLY

BREATHER FILTER ON HYDRAULIC TANK

Renew breather filter.

EQUIVALENT GRADES OF OIL

APPLICATION GEBRUIK	SHELL	BP	ESSO	MOBIL	CASTROL
Chain Drive Kettingdrywing	Talpa 30	Energol OE175	Esstic 65	Mobilgear 628	Magna XH
Open Gears, Bevel Gears Oop Ratte, Keëlratte	Cardium Fluid D Cardium Vloeistof D	Energol BL 450/2	Surret N850	Mobil Tac E	Grippa 605
Hydraulic System - up to 90°F Hidrouliese Stelsel - tot 90°F	Tellus Oil 27 Olie 27	Energol HLP 80	Nuto H54	Mobil D.T.E. 25	Hyspin AW 532
Hydraulic System - above 90°F Hidrouliese Stelsel - bo 90°F	Tellus Oil 33 Olie 33	Energol HLP 100	Nuto H54	Mobil D.T.E. 26	Hyspin AW 568
Grease Points Ghriesplekke	Alvanid Grease 2 Ghries 2	Energrease LS2	Beacon 2	Mobilplex 47	Spheerol APT 2

NOTE:- In the above we list the lubricant specifications as recommended by various companies. These are intended as a guide only and should your site conditions be in any way abnormal your local oil supplier should be consulted.

VERSIENINGSKEDULE

MAANDELIKS

ONTLUGTERFILTER AAN HIDROULIESE TENK

Haal ontlugterfilter af en spoel dit in petrol af. Maak dit deeglik lugdroog voor terugplasing. Maak die opening toe solank die filter skoonge-maak word.

ELKE DRIE MAANDE

RATRING

Smeer met Shell Cardium D-mengsel elke drie maande.

HIDROULIESE BOTENK WAT FILTER VUL

Haal af, maak skoon en gaan na.

ELKE SES MAANDE

ONTLUGTERFILTER AAN HIDROULIESE TENK

Vervang ontlugterfilter.

EKWIVALENTE GRADE OLIE

OPMERKING:- In die bostaande lys word smeer-middelspesifikasies aangegee soos aanbeveel deur die onderskeie maatskappye. Dit word slegs as 'n leidraad gegee en waar u terreintoestande enigsins abnormaal is, moet u die plaaslike olieleveransier raadpleeg.

Spares

Please note that a number of components are described as being c/w screws, nuts and washers, this is no longer the case and all fixings should be ordered separately if required. Imperial fixings may no longer be available and the nearest metric equivalent will be supplied.

Triplejay

TO FIND A SPARE PART

The assemblies have been divided into groups and given identification letters A.B.C. etc. To identify a component, first find the relevant assembly in the list given. This will give you a group letter to turn to. On turning to this group the illustrations will enable you to identify the part you required and give you a reference number. Against this number in the Parts List will be found the DESCRIPTION and PART NUMBER information which we require.

To avoid delays and errors, remember always quote:-
THE MACHINE NUMBER
- which will be found stamped on a plate at the side of the machine.

DON'T RISK DELAYS & ERRORS REMEMBER

Always quote Model, Machine No.,
Part No., Description and Quantity

A full list of names and addresses is given on the next page.

To obtain spares, call and collect or arrange for their delivery by telephoning or telexing the address given overleaf. All orders must be confirmed in writing.

OPSPoor VAN RESERWEDELE

Die samestelle is in groepe verdeel wat elk 'n identifikasieletter het, bv. A.B.C. ens. Om 'n onderdeel te identifiseer, soek eers die betrokke samestel in die lys. Daar vind u 'n groepletter. In die groep sal 'n illustrasie u in staat stel om die onderdeel te vind wat u nodig het. Daarteenoor sal 'n verwysingsnommer wees. Teenoor die nommer in die onderdelelys sal die ONDERDEELNOMMER en BESKRYWING gevind word wat ons wil hê.

Om vertraging en foute te vermy, onthou om altyd **DIE MASJENNOMMER** aan te haal
- dit is op 'n plaat aan die kant van die masjien aangebring.

VERMY VERTRAGINGS EN FOUTE ONTHOU

Haal altyd die Model,
Masjiennommer, Onderdeelnommer,
Beskrywing en Hoeveelheid aan

'n Volledige lys name en adresse word op die volgende bladsy aangegee.

Om onderdele te verkry. Doen aan by of reël vir die aflewering daarvan deur te skakel of 'n teleks te stuur na een van die adresse op die volgende bladsy. Alle bestellings moet skriftelik bevestig word.

Triplejay

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SPARES ASSEMBLY

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HIDROULIESE STELSEL

WATERTENK

TREKLYNVOORDER

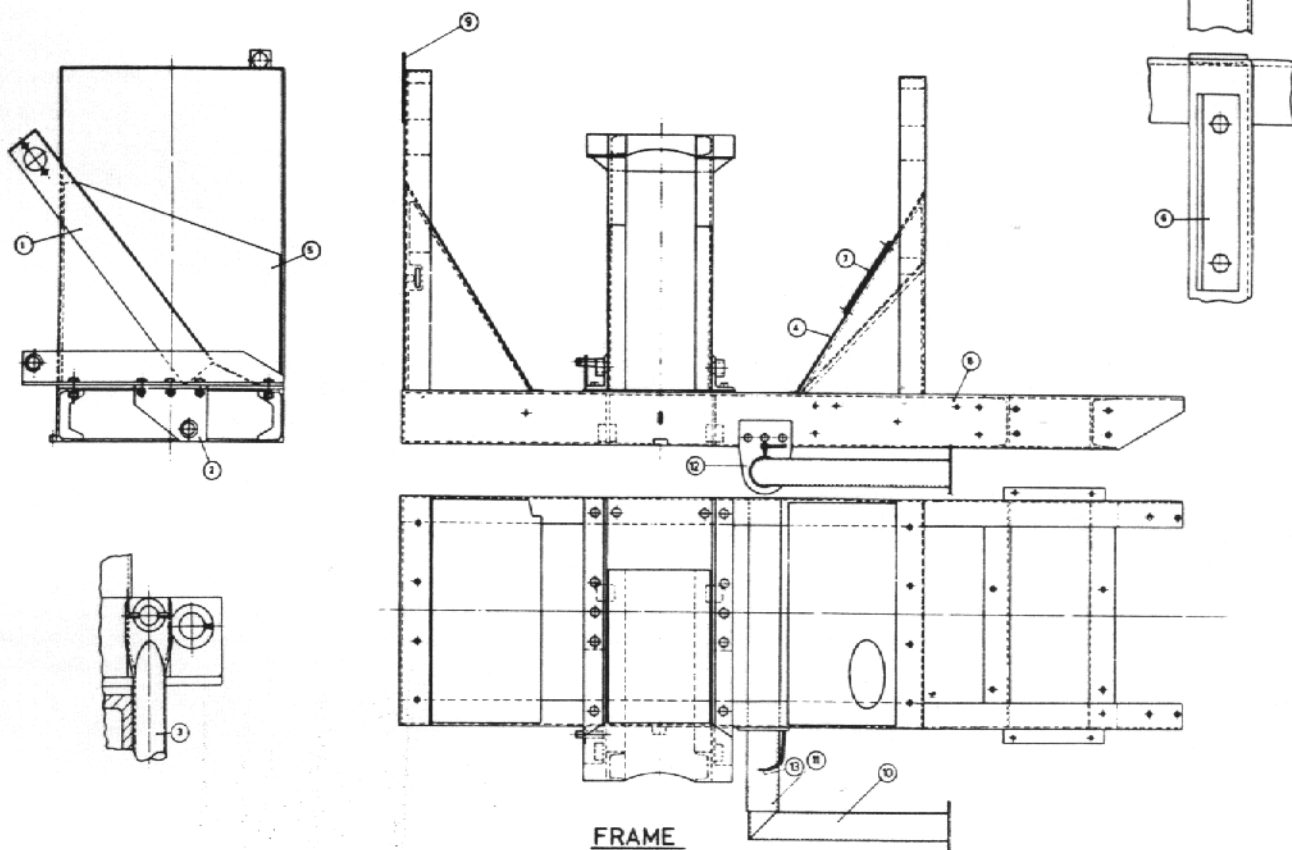
SKUT

AANDRYWING

TRIPLEJAY

SPARES

section

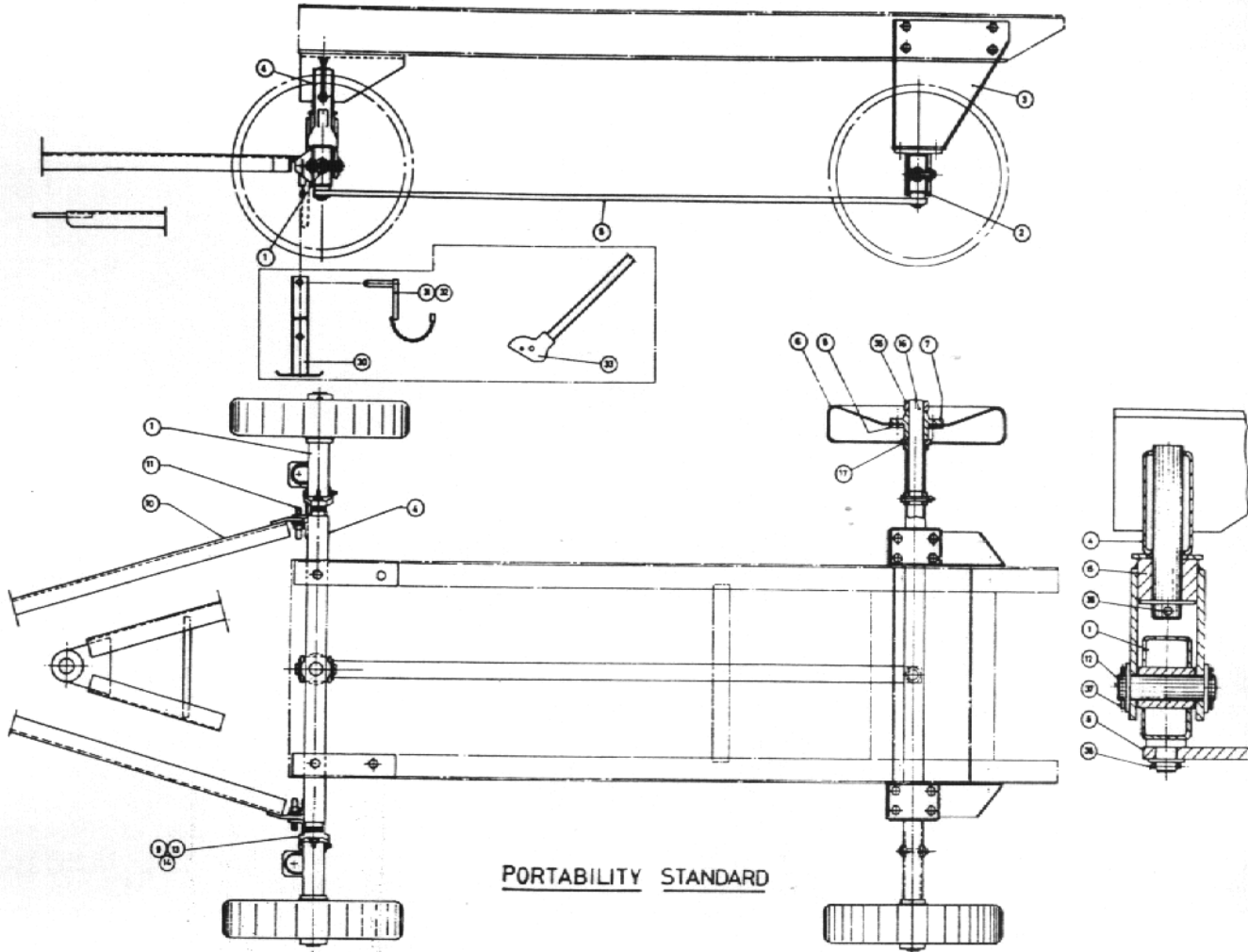


REF. NO.	QTY	IN/OUT	DESCRIPTION	PART NO.
A1	1	1	HOPPER PIVOT FRAME	513/2165
A2	1	1	HOPPER RAM BRACKET	513/2164
A3	1	1	HOPPER PROP	513/2167
A4	1	1	PEDestal COVER DRIVE END	513/2168
A5	1	1	PEDestal COVER CONTROL END	513/2169
A6	1	1	LIFTING EYE	513/2387
A7	1	1	ACCESS COVER	513/2170
A8	1	1	MAIN FRAME	513/2306
A9	1	1	LIFTING EYE	RW92001/9
A10	1	1	OUTRIGGER LEG	513/2445C
A11	1	1	OUTRIGGER SUPPORT TUBE	503/8446C
A12	1	1	OUTRIGGER SUPPORT BRACKET (OPP SHOWN)	503/1284 D
A13	1	1	LOCK-PIN & CHAIN	503/1285

TRIPLEJAY

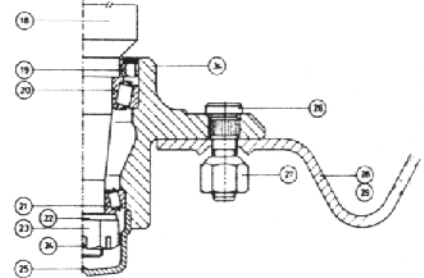
SPARES

section B



PORTABILITY STANDARD

REF. NO.	QTY.	DESCRIPTION	PART NO.	QTY.	DESCRIPTION	REF. NO.	
B1	1	FRONT AXLE	555/1027	B20	4	OIL SEAL	814007
B2	1	REAR AXLE	573/2162	B21	4	INNER BEARING	A0006 / TR6
B3	1	REAR AXLE BRACKET	573/2162	B22	4	OUTER BEARING	A0009 / TR6
B4	1	FRONT AXLE CARRIER	513/2163	B23	4	AXLE WASHER	B103
B5	1	AXLE TIE BAR	513/2164	B24	4	AXLE NUT	B104
B6	4	ROADWHEEL PRESSING	513/1422	B25	4	SPLIT PIN	C2003
B7	4	WHEEL HUB	513/1423	B26	4	GREASE CAP	C2003
B8	4	BACKING PLATE	511/1654	B27	16	WHEEL STUD	B103
B9	2	AXLE SPRAG	555/1011	B28	4	WHEEL NUT	B103
B10	1	TOW BAR	555/1012	B29	4	PRESSED STEEL RM	E4002
B11	2	TOW BAR DROP END BOLT & NUT	5108	B30	4	PNEUMATIC TYRE & TUBE	E4003
B12	1	AXLE PIVOT PIN	555/1014	B31	4	JACK LEG	513 2148
B13	2	SPRAG PIN	555/1017	B32	4	JACK LOCK PIN	555 1010
B14	2	SPRAG RETAINER	555/1018	B33	1	MANUAL JACK PIVOT PIN	555 1019
B15	1	AXLE PIVOT	555/1019	B34	1	MANUAL JACK	555 1026
B16	4	STUB AXLE (STEEL WHEELS)	555/1023	B35	4	WHEEL HUB	E4004
B17	4	STUB AXLE SPACER	555/1025	B36	1	AXLE COLLAR	145 504E
B18	4	STUB AXLE	1 00009	B37	1	SELLOCK PIN	363 803320
				B38	2	SELLOCK PIN	363 803340

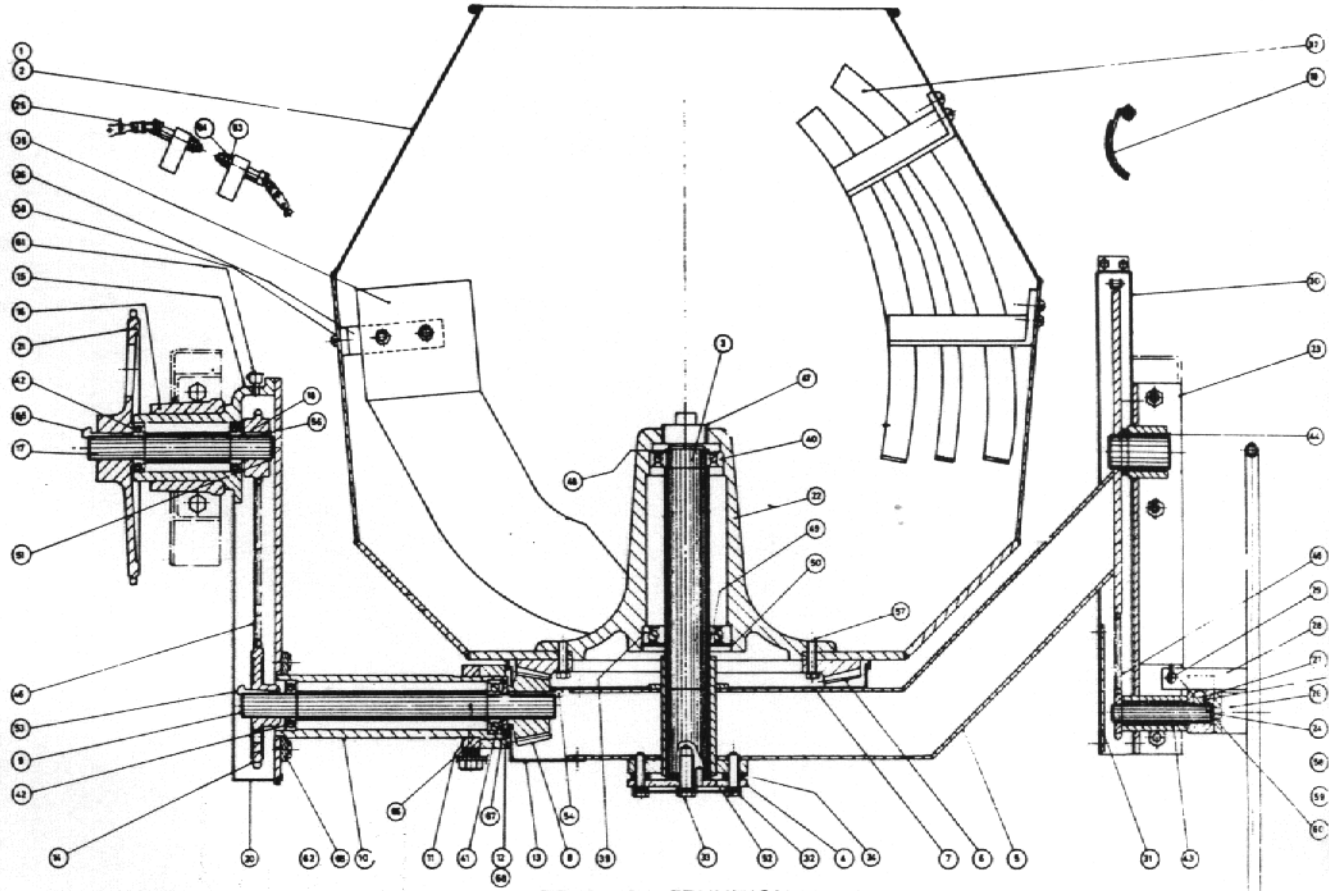


PNEUMATIC

TRIPLEJAY

SPARES

section C



DRUM & TRUNNION

REF. N°	QTY	DESCRIPTION	PART N°
C1	1	DRUM 200T TO H.C. 409209	RW7/200T/7
C2	1	DRUM 225T FROM H.C. 50760	RW7/225T/1
C3	1	DRUM SHAFT	513/2180
C4	1	DRUM SHAFT FLANGE	513/2181
C5	1	TRUNNION (COMBO)	RW7/200T/3
C6	1	BEVEL GEAR RING 102 TEETH (225 T)	502051
C7	1	BEVEL GEAR GUARD	RW7/200T/5
C8	1	BEVEL PINION 20 TEETH (225 T)	513/2188
C9	1	BEVEL PINION SHAFT	513/2183
C10	1	BEVEL PINION SHAFT HOUSING	RW7/200T/1
C11	1	CLAMP BLOCK FOR HOUSING (LONG 5008-1)	513/2176
C12	1	SEALING WASHER (UP TO SERIAL N° 2072 - 2073)	RW7/200T/10
C13	1	BEVEL PINION GUARD	513/2187
C14	1	SPROCKET ON BEVEL PINION SHAFT 30 T	F7005
C15	1	TRUNNION JOURNAL	513/2186
C16	1	TRUNNION JOURNAL BEARING	513/2152
C17	1	COUNTER SHAFT	513/2182
C18	1	SPROCKET ON COUNTER SHAFT 16 TEETH	F7007
C19	1	CHAIN SHOE	513/2226
C20	1	TRUNNION CHAIN GUARD	513/2191
C21	1	CHAINWHEEL ON COUNTER SHAFT 17 TEETH	F7008
C22	1	DRUM CENTRE	RW7/200T/6
C23	1	TILTING BRACKET	513/2197
C24	1	TILTING SHAFT & PINION ASSEMBLY	F7009
C25	2	CHAIN TENSIONER	513/2198
C26	1	HANDWHEEL & BOSS ASSEMBLY	513/2194
C27	1	COUPLER PIN	513/2194

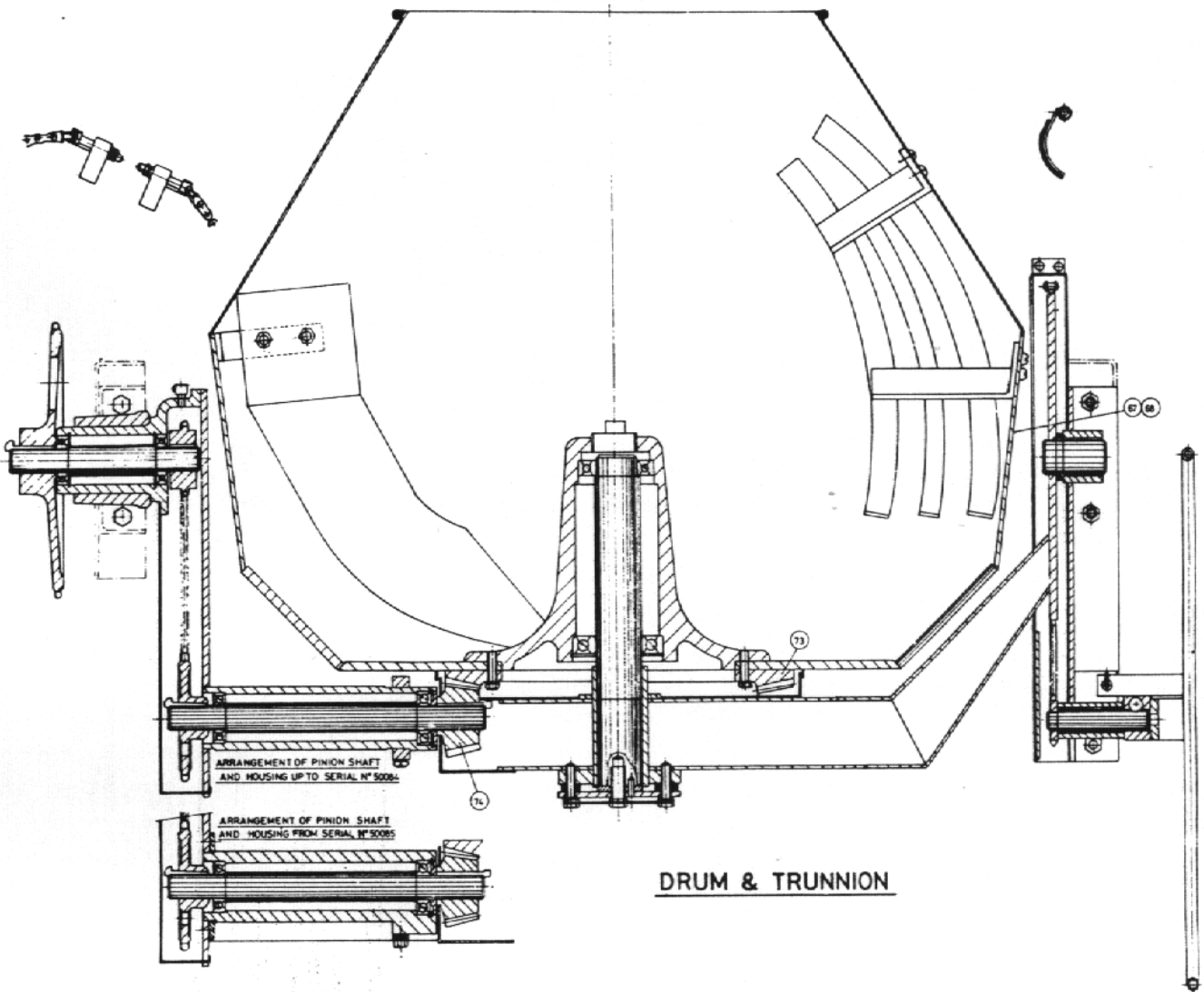
REF. N°	QTY	DESCRIPTION	PART N°
C28	1	LOCKING LATCH	513/2202
C29	1	LOCKING LATCH PIVOT PIN	513/2203
C30	1	TILTING CHAIN GUARD	513/2200
C31	1	TILTING CHAIN GUARD STRAP	513/2201
C32	2	SET SCREW FOR DRUM SHAFT FLANGE	513/2301
C33	1	SET SCREW FOR DRUM SHAFT	513/2302
C34	2	PACKING SHIM	B/1009
C35	2	LOWER DRUM BLADE	50/27728
C36	2	DRUM BLADE CLEFT	50/27754
C37	2	SKELETON BLADE	50/24764
C38	2	BOLTS FOR LOWER DRUM BLADE	B/1002
C39	1	BALL BEARING	A0001
C40	1	BALL BEARING	A0002
C41	1	BALL BEARING	A0003
C42	3	BALL BEARING	A0004
C43	2	GLACIER BEARING	A0005
C44	1	GLACIER BEARING	A0006
C45	1	CHAIN WITH 100LN LINKS	F8-001
C46	1	CHAIN WITH 100LN LINKS	F8-002
C47	1	TAPER PLUG	B/1003
C48	1	CIRCLIP (DRUM SHAFT)	G6002
C49	1	CIRCLIP (DRUM SHAFT)	G6003
C50	1	CIRCLIP (DRUM SHAFT)	G6001
C51	1	CIRCLIP (COUNTER SHAFT)	G6004
C52	1	SHAFT SPACER (DRUM)	RW7/200T/8
C53	1	GIB HEAD KEY (BEVEL PINION SHAFT)	L10001
C54	1	GIB HEAD KEY (BEVEL PINION SHAFT)	L10001

REF. N°	QTY	DESCRIPTION	PART N°
C55	1	GIB HEAD KEY (COUNTER SHAFT)	L10002
C56	1	PARALLEL KEY (COUNTER SHAFT)	L10001
C57	4	SETSCREWS (DRUM CENTRE)	B1001
C58	1	NUT	B/1004
C59	1	WASHER (SPRING TYPE)	B/1005
C60	1	CUP POINT GRUB SCREW	B/1006
C61	1	OIL HOLE COVER	C/2001
C62	3	GREASE NIPPLE	C/2002
C63	2	NUT	B/1007
C64	2	LOCKNUT	B/1008
C65	1	HOLDING FLANGE	RW7/200T/12
C66	1	PACKING SHIM	B/1006
C67	1	CIRCLIP (FROM SERIAL N° 2072 - 2073)	G 6007
C68	1	SEALING WASHER (FROM SERIAL N° 2072 - 2073)	RW7/200T/10
69			
70			
71			
72			
73			

NOTE: FOR PARTS APPLICABLE TO 200T ONLY SEE FOLLOWING PAGE

TRIPLEJAY 330T SPARES

section C



DRUM & TRUNNION

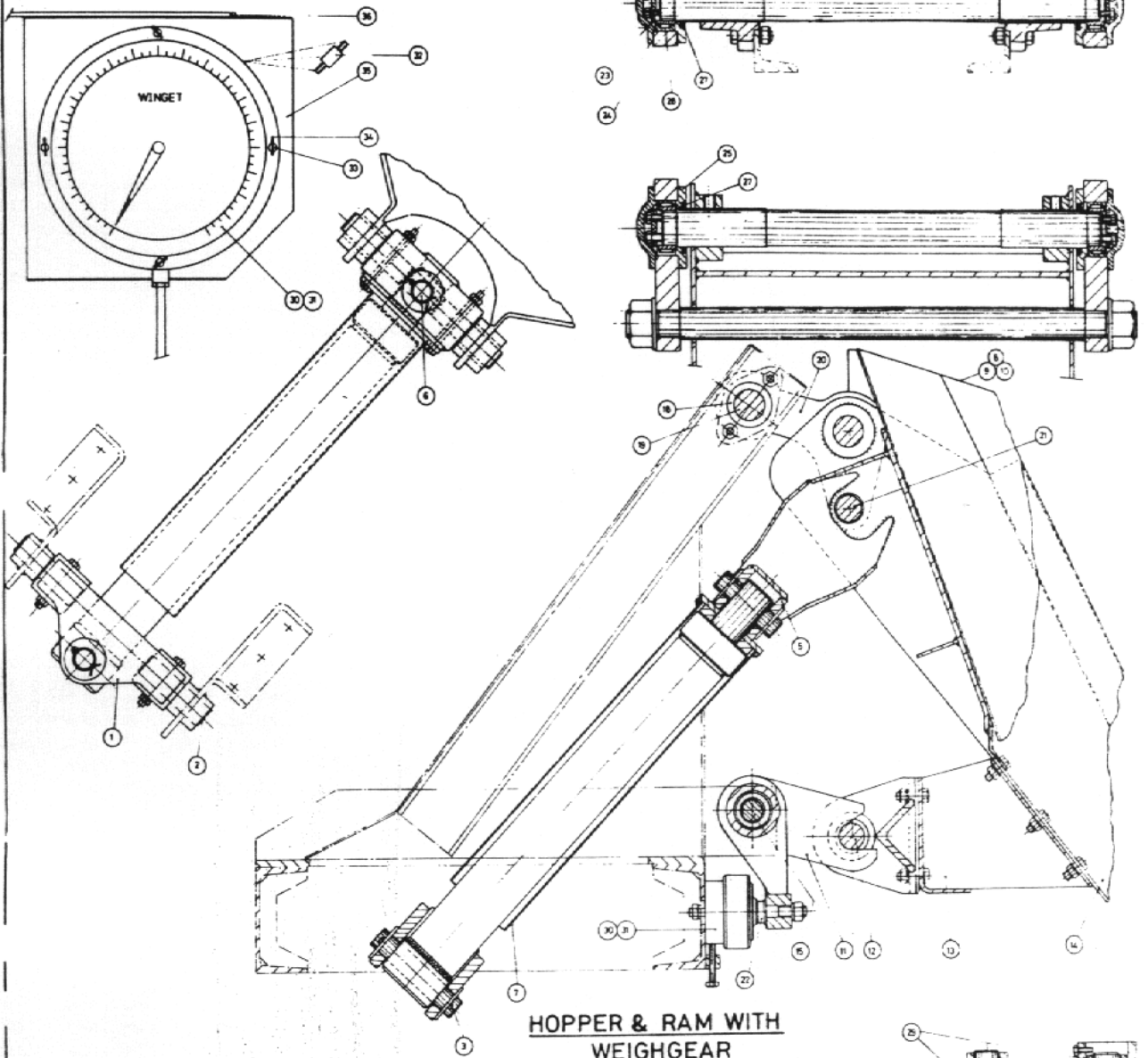
REF N°	N° OFF	DESCRIPTION	PART N°
C87	1	DRUM COMPLETE 300T TO N° N° 6043	KWT/300T/3
C88	1	DRUM COMPLETE 330T FROM N° N° 6044	KWT/330T/3
C73	1	BEVEL GEAR RING	KWT/200T/4L
C7L	1	BEVEL PINION	KWT/200T/3

ALL OTHER PARTS IDENTICAL TO 200/225 MIXER ON PRECEDING PAGE

TRIPLEJAY

SPARES

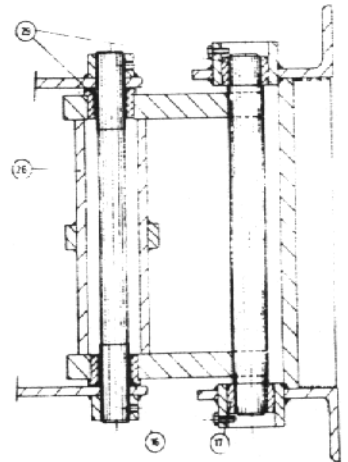
section D



HOPPER & RAM WITH WEIGHGEAR

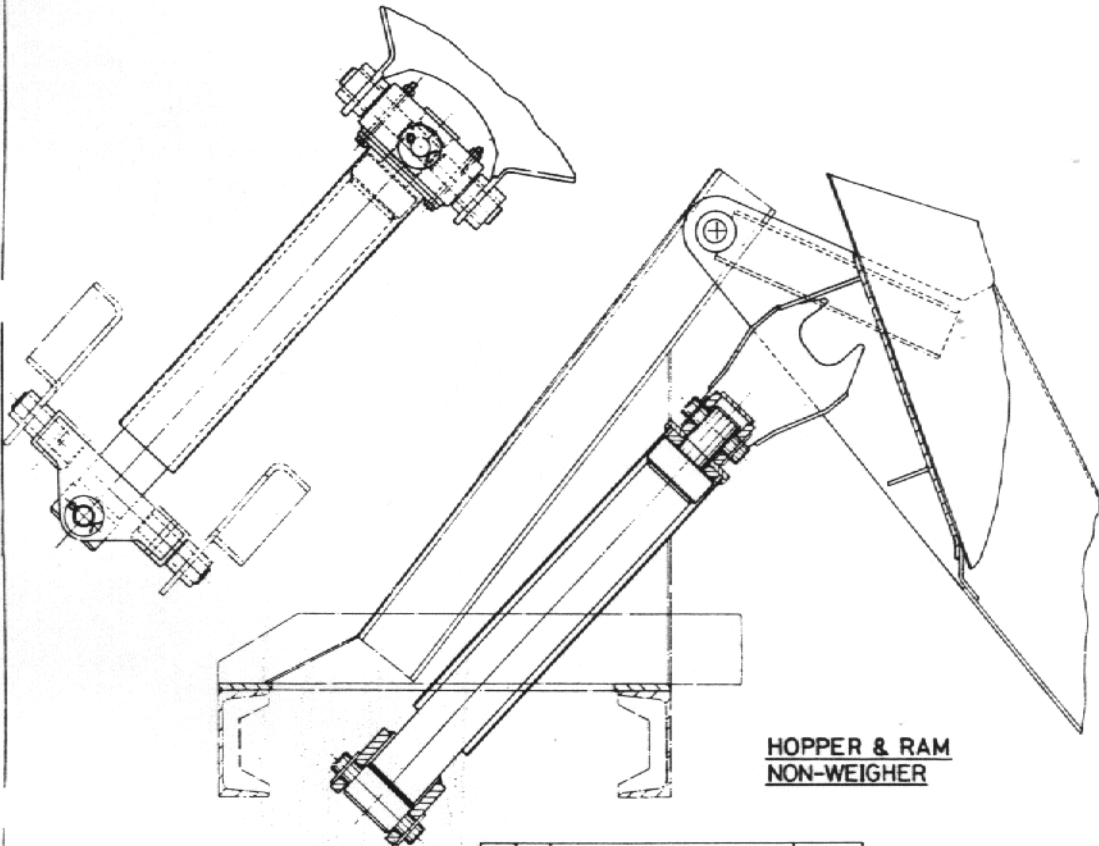
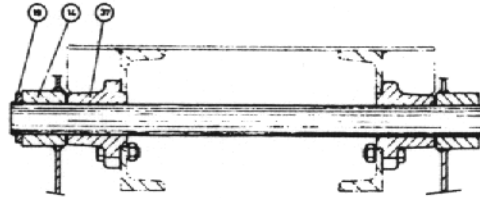
REF. NO/OFF	DESCRIPTION	PART NO.
D1	1 LOWER RAM YOKE	513/2454
D2	4 RAM YOKE PIN UPPER & LOWER	50/30537
D3	1 LOWER YOKE PIN	513/2457
D4		
D5	1 UPPER RAM YOKE	50/30515
D6	1 UPPER YOKE PIN & S.C. P.A.	50/30497
D7	1 RAM SHROUD	50/30496
D8	1 LOADING HOPPER 225T	513/1050
D9	1 LOADING HOPPER 300T	RWT 300T/72
D10	1 HOPPER COVER ASSY INTEGRAL	513/1054
D11	1 LOWER HOPPER CRADLE BRACKET	50/30214
D12	1 LOWER CRADLE SHAFT	513/2264
D13	1 CONNECT BRCT FOR HOPPER CDL BROO	513/1059
D14	1 HOPPER CRADLE (WITH WEIGHER)	513/1053
D15	1 LOWER ARM PIVOT SHAFT	513/2263
D16	2 LOWER PIVOT INSERT	513/2266
D17	2 LOWER CRADLE BRACKET INSERT	513/2267
D18	2 HOPPER PIVOT BEARING	50/3163
D19	2 TOP PIVOT SHAFT	50/3165

D20	2 UPPER LIMBS	50/3166
D21	1 TOP LINK SPACER	50/3164
D22	1 STRIKING BUSHON	50/31607
D23	4 BEARING RETAINER	50/3160
D24	4 BEARING CAP	50/3162
D25	4 SEAL HOUSING	50/3161
D26	1 LOWER ARM PIVOT	513/2265
D27	4 GACO SEAL	RH 006
D28	4 NEEDLE ROLLER BEARING	113-125
D29	4 BUSH	BF 210
D30	1 WEIGHDIAL & LOADCELL ASSEMBLY 225T	513/2613
D31	1 WEIGHDIAL & LOADCELL ASSEMBLY 300T	555/243
D32	4 FLEXIBLE MOUNTING	105/343000
D33	4 SHOULDER SCREW FOR WEIGHDIAL	407/20512
D34	1 DIAL COVER	555/1250
D35	1 WEIGHDIAL MOUNTING	513/2268
D36	1 WEIGHDIAL STAY	513/2269



TRIPLEJAY

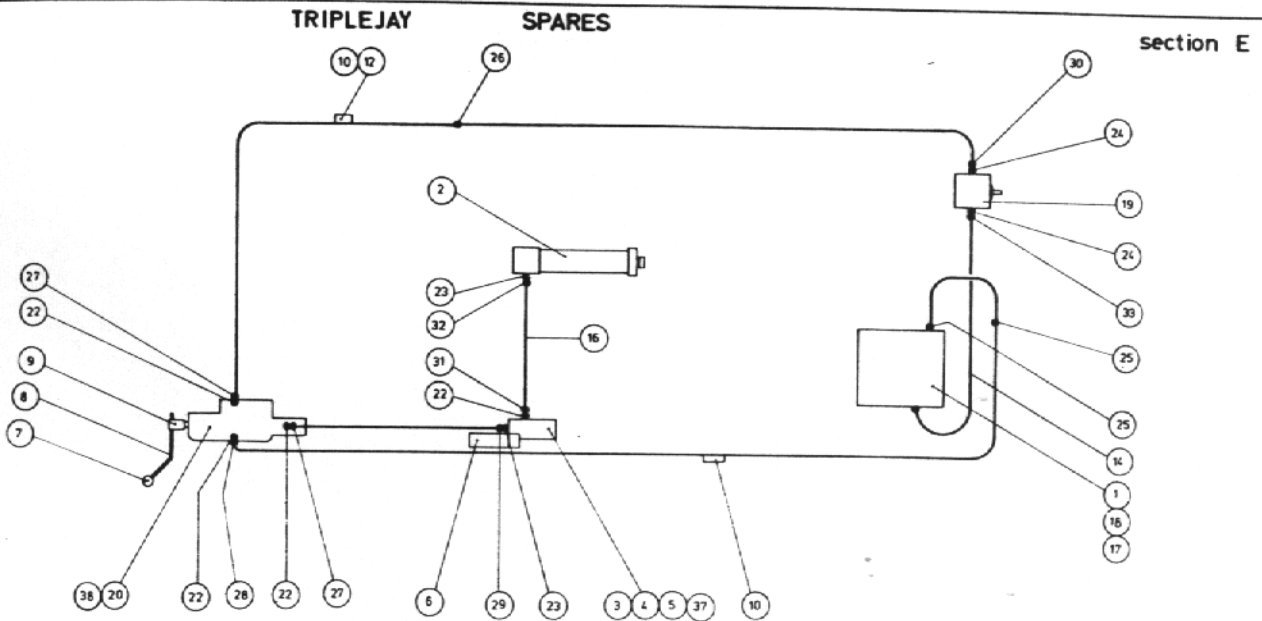
SPARES



**HOPPER & RAM
NON-WEIGHER**

REF NO	QTY	DESCRIPTION	PART NO
EQ7	2	HOPPER BEARING PINCI	50/20278
EQ8	1	HOPPER PINOT SHAFT	50/20276
EQ9	1	HOPPER CRADLE	50/2000

ITEMS SHOWN ABOVE DEPICT ONLY THOSE PARTS WHICH DIFFER FROM THE MACHINES WITH WEIGHGEAR. ALL OTHER NUMBERS SHOWN ARE DESCRIBED ON WEIGHGEAR PAGE.

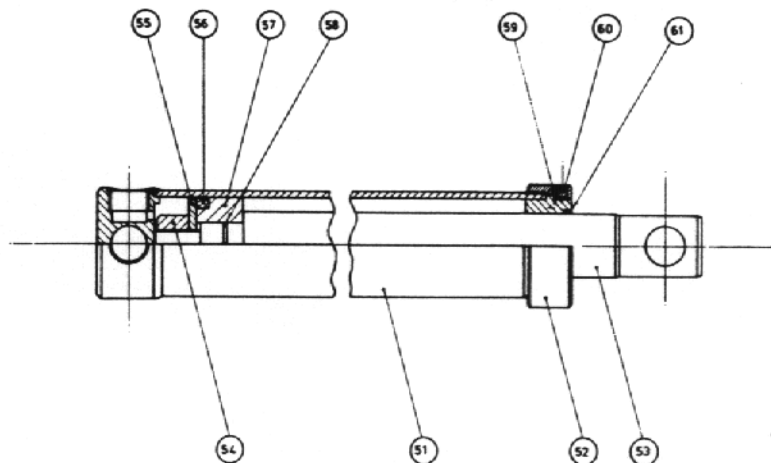


HYDRAULIC SYSTEM (STANDARD)

REF. N°	N° OFF NONWEIGHER	N° OFF WEIGHER	DESCRIPTION	PART N°
E1	1	1	HYD TANK & PUMP DRIVE ASSEMBLY	513 / 2390
E2	1	1	HOPPER RAM	513 / 2459
E3	1	1	BLEED VALVE ASSEMBLY	513 / 2388
E4	1	1	BLEED VALVE BODY	50 / 31394
E5	1	1	BLEED VALVE PLUNGER	50 / 31395
E6	1	1	BLEED VALVE SUPPORT PLATE	513 / 2370
E7	1	1	KNOB	T 16001
E8	1	1	CONTROL LEVER	513 / 2490
E9	1	1	CONTROL LEVER LINK	513 / 2491
E10	2	2	PIPE CLIP	50 / 30933
E12	1	1	PIPE CLIP BLOCK	50 / 30935
E14	1	1	MOD TO MouldING FOR PUMP INLET	513 / 2389
E16	1	1	SINGLE WIRE HOSE	U 17002
E17	1	1	FILLER BREATHER UNIT	S 15005
E18	1	1	FILTER	S 15004
E19	1	1	HYDRAULIC PUMP	S 15003
E20	1	1	HYDRAULIC CONTROL VALVE	S 15001
E22	4	4	BONDED SEAL	R 14002
E23	2	2	BONDED SEAL	R 14003
E24	2	2	BONDED SEAL	R 14004
E25	2	2	STRAIGHT COUPLING	K 9004
E26	1	1	STRAIGHT COUPLING	K 9005
E27	2	2	PARALLEL MALE STUD COUPLING	K 9006
E28	1	1	PARALLEL MALE STUD COUPLING	K 9007
E29	1	1	PARALLEL MALE STUD COUPLING	K 9008
E30	1	1	PARALLEL MALE STUD COUPLING	K 9009
E31	1	1	STUD ADAPTOR MALE	K 9010
E32	1	1	STUD ADAPTOR MALE	K 9011
E33	1	1	STUD STANDPIPE ADAPTOR	K 9012
E37	1	1	COMPRESSION SPRING	H 7001
E38	1	1	CONTROL VALVE	S 15002

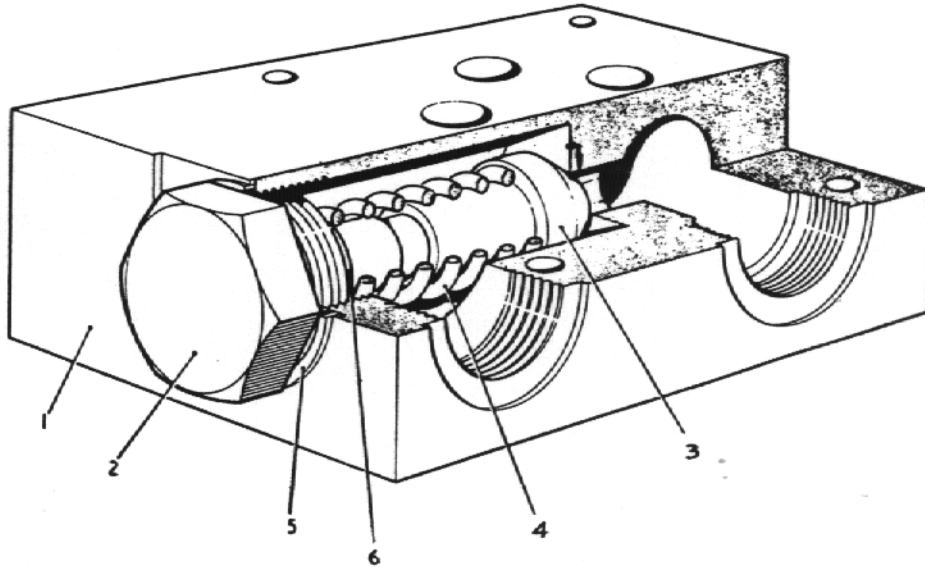
TRIPLEJAY SPARES

Section E



HOPPER RAM

REF. NO.	QTY	DESCRIPTION	PART NO.
E50	1	RAM COMPLETE	513-2459
E51	1	CYLINDER	272-127014
E52	1	TUBE CAP	272-1272
E53	1	RAM ROD	272-127017
E54	1	LOCKNUT	272-1277
E55	1	BACKING WASHER	272-1276
E56	1	PISTON SEAL	272-1278
E57	1	PISTON HEAD	272-1273
E58	1	PISTON HEAD O'RING	272-12710
E59	1	SLEEVE	272-1275
E60	1	GRUB SCREW	272-12711
E61	1	WIPER SEAL	272-1279



Relief Valve to "Blow Off" at 1000/1200 P.S.I.

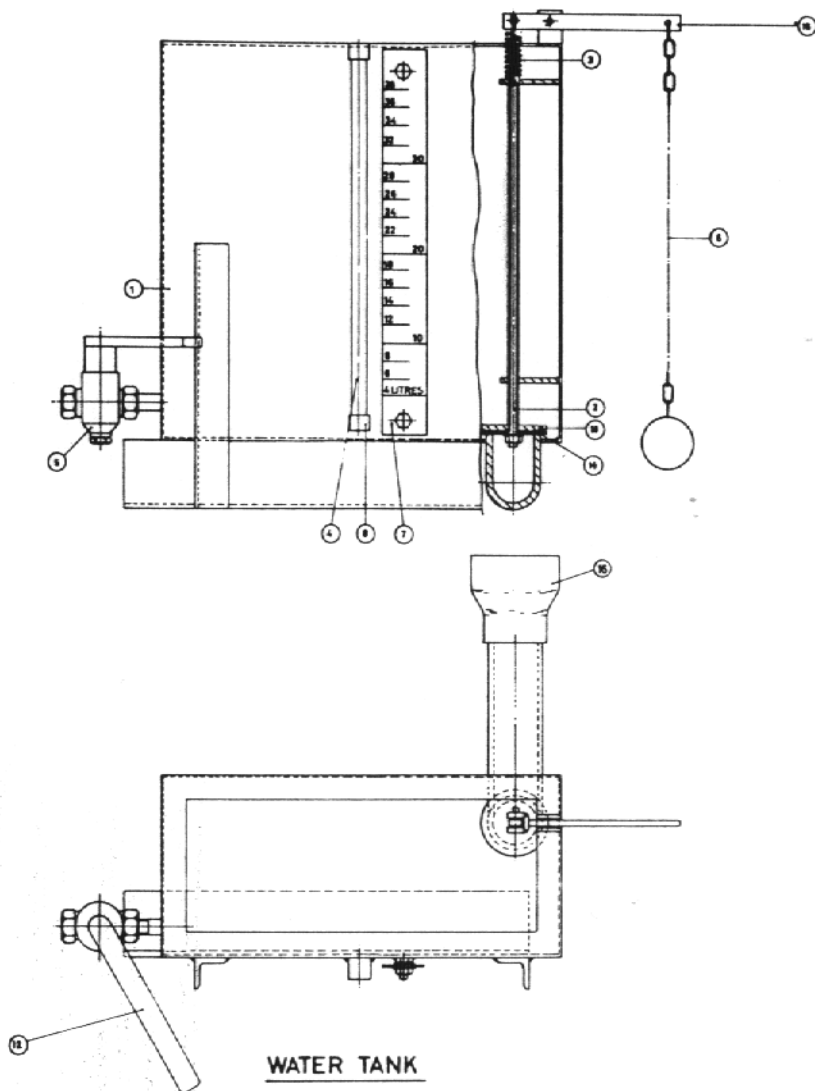
Dragline Control Block Assembly 555-1378

Ref N ^o	Description	Part N ^o	Qty
1	Dragline Control Block	555-1379	1
2	Valve Guide	555-1382	1
3	Relief Valve	555-1383	1
4	Compression Spring	555-1384	1
5	Bonded Seal	417-804	1
6	Plain Washers	463-305	As Req.

DRAGLINE CONTROL BLOCK

TRIPLEJAY 225T SPARES

section F

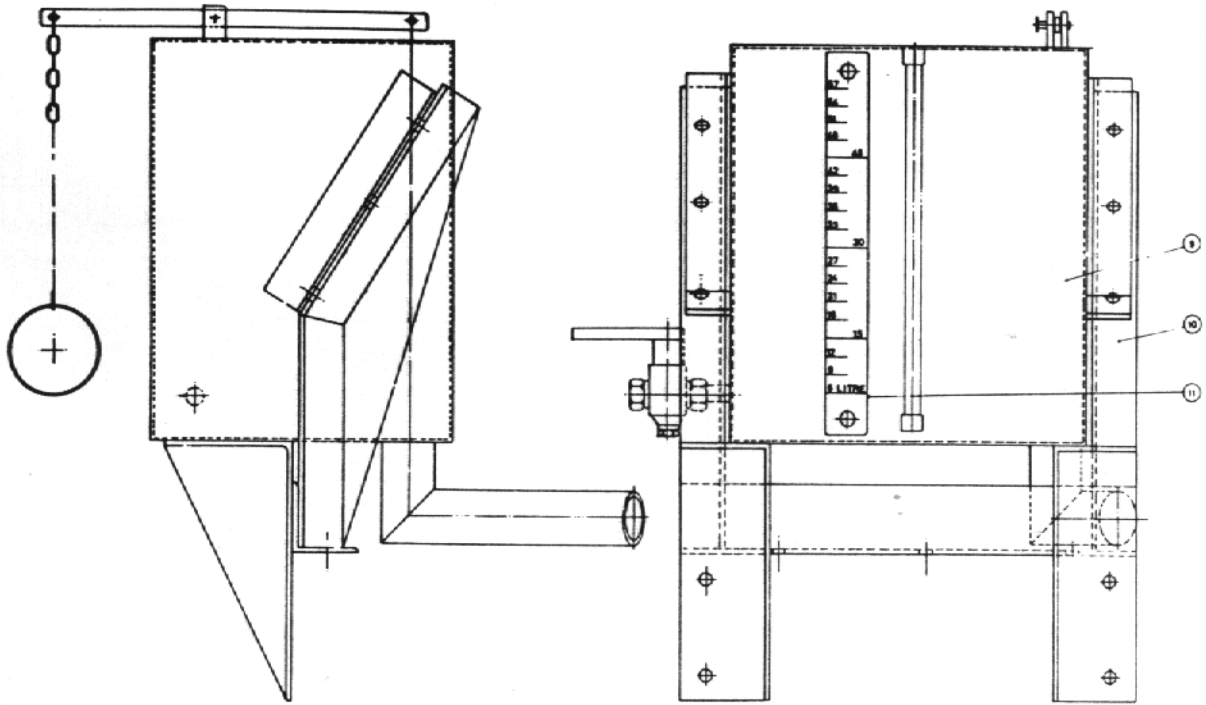


WATER TANK

REF N°	QTY	DESCRIPTION	PART N°
F1	1	TANK	KWT-200T-3
F2	1	VALVE SPINDLE	KWT-200T-3(6)
F3	1	SPRING	C173/C
F4	1	HEIGHT GAUGE	430-904 F
F5	1	STOP COCK	DD 49
F6	1	CHAIN WITH RING	P 13006
F7	1	CAPACITY PLATE	403-904
F8	2	SIGHT GLASS BLOCK	613-1041 E
F12	1	HANDLE	KWT-200T-3(19)
F13	1	FLANGE	KWT-200T-3(7)
F14	1	RUBBER SEAL	KWT-200T-3(8)
F15	1	LEVER	KWT-200T-3(11)
F16	1	RUBBER DISCHARGE NOZZLE	N 45315

TRIPLEJAY 330T SPARES

section F



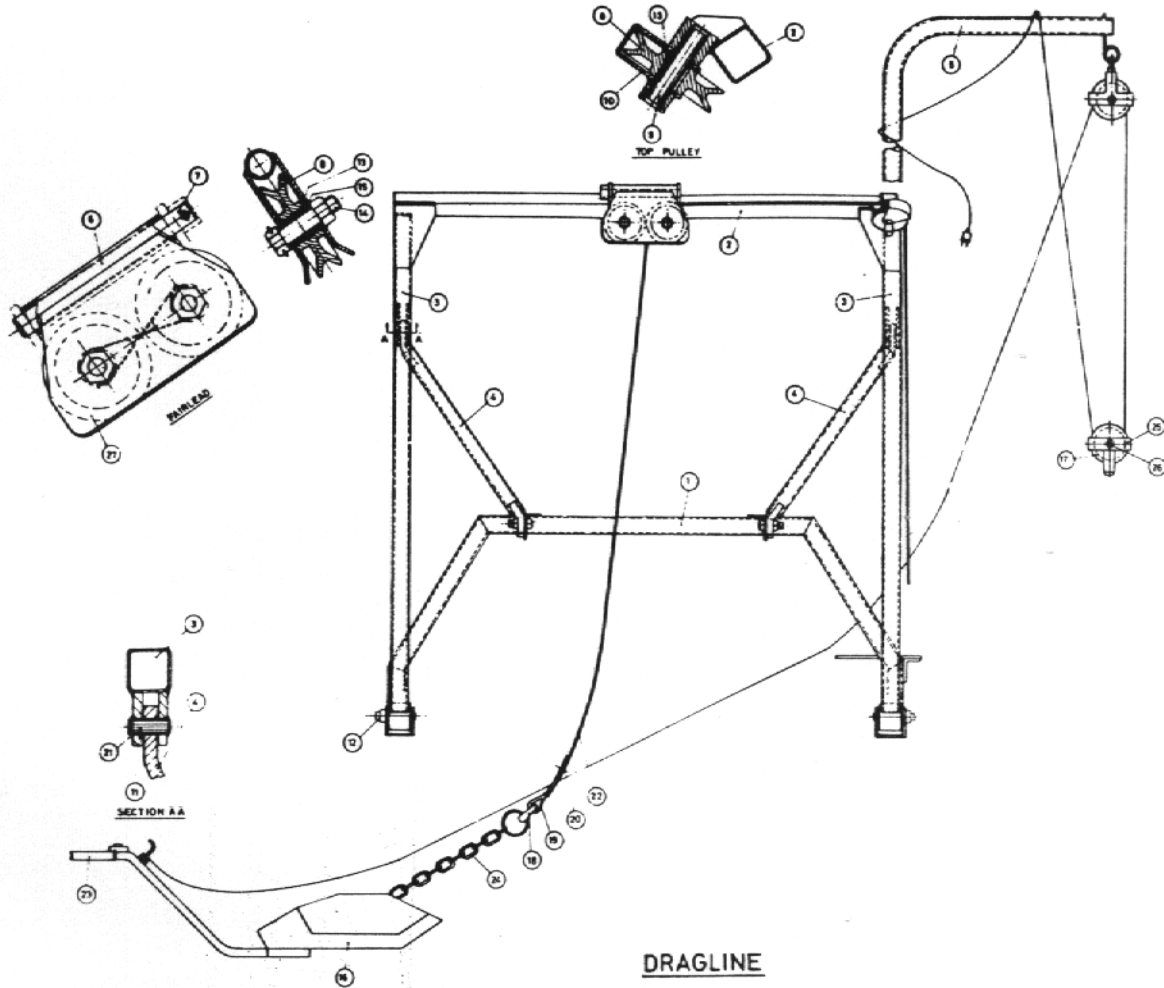
WATER TANK

NOTE - BRACKET REF 2 FOR CARRYING TANK IS
ONLY PROVIDED WHEN MIXER IS SUPPLIED
WITHOUT DRAGLINE

REF NO	QTY	DESCRIPTION	PART NO
F8	1	TANK	RWT/300T/2
F10	1	TANK BRACKET	RWT/300T/1
F11	1	CAPACITY PLATE	RWT/300T/1/2

PARTS NOT LISTED ABOVE WILL BE FOUND ON THE
225T LIST AS THE PARTS ARE COMMON TO BOTH M/C'S

TRIPLEJAY SPARES



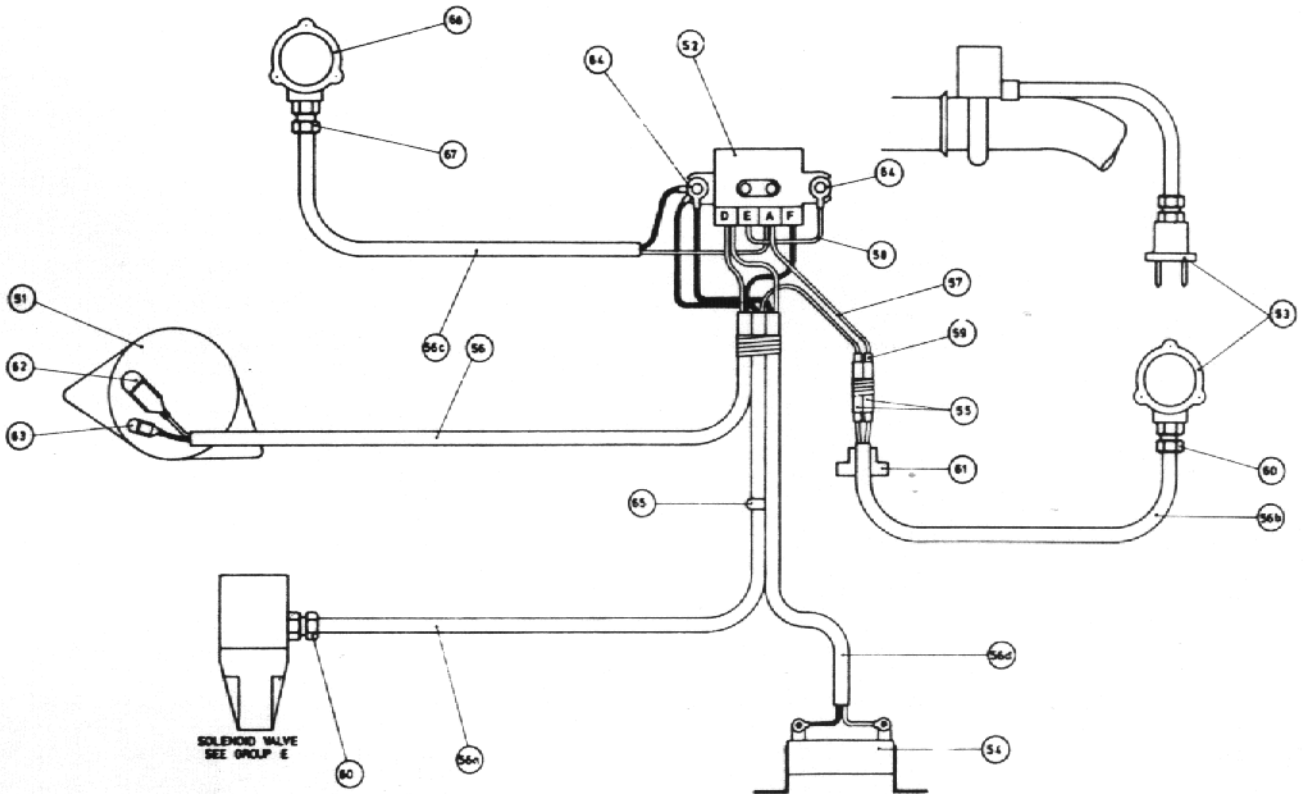
DRAGLINE

REF NO	QTY	DESCRIPTION	PART NO
H1	1	STRUCTURE FOR DRAGLINE & WINCH	510/2255
H2	1	ASSEMBLY OF TOP BEAM	510/2230
H3	2	LEG FOR JIB	513/2243
H4	1	TIE BAR FOR JIB	513/2247
H5	1	MAST FOR CABLE	510/2252
H6	1	PULLEY BRACKET	555/0214
H7	1	PULLEY BRACKET PHOTO PIN	555/0220
H8	3	PULLEY	879/1195
H9	1	PIN COMPLETE	513/2240
H10	1	GUARD FOR TOP PULLEY	513/2241
H11	2	TOP PIN FOR TIE BAR	513/2251
H12	2	BOTTOM HINGE PIN FOR LEG	513/2246
H13	3	BUSH FOR PULLEY	879/1200
H14	2	BOLTS FOR PULLEY IN BRACKET	555/1222

REF NO	QTY	DESCRIPTION	PART NO
H15	2	PULLEY SLEEVE	555/1215
H16	1	DRAGLINE SHOVEL COMPLETE	221/10900
H17	2	CABLE BLOCK PULLEY	930 B
H18	1	SHACKLE & PIN	353/85000
H19	1	THIMBLE	P13004
H20	2	WIRE ROPE CLIPS	F13005
H21	4	CIRCLIP	G6005
H22	1	WIRE ROPE	F13006
H23	1	SHOVEL HANDLE	260/3160C
H24	1	SHOVEL CHAIN & RING	105/80200
H25	2	CABLE CONTROL BLOCK BRACKET	929 A
H26	2	CABLE CONTROL SPINDLE	929 B
H27	2	DOUBLE SHEAVE BLOCK	100/952000

TRIPLEJAY SPARES

Section H



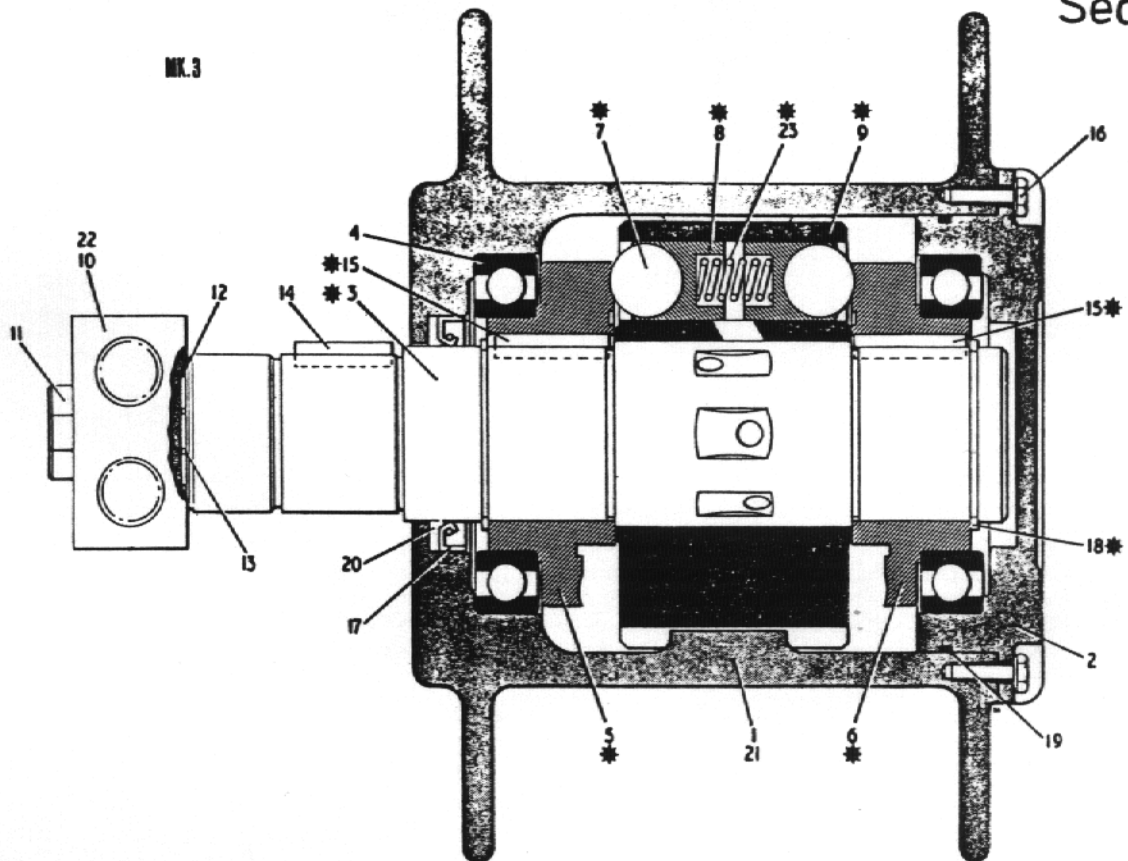
WIRING DIAGRAM

REF	N°	OFF	DESCRIPTION	PART N°
H51	1		GENERATOR	205-402000
H52	1		REGULATOR	383-208000
H53	1		PLUG & SOCKET	205-223000
H54	1		RESISTOR	207-852000
H55	2		CONNECTORS	147-804000
H56	1		P.V.C. CABLE 2M LONG (BROWN & BLUE)	144-767000
H56 a	1		P.V.C. CABLE 1.2M LONG	144-767000
H56 b	1		P.V.C. CABLE 2.1M LONG	144-767000
H56 c	1		P.V.C. CABLE 1.3M LONG	144-767000
H56 d	1		P.V.C. CABLE 3.56M LONG	144-767000
H57	1		P.V.C. CABLE 127mm LONG (RED)	144-768000
H58	1		P.V.C. CABLE 127mm LONG (GREEN)	144-768000
H59	4		NIPPLE	333-354000
H60	2		COMPRESSION GLAND	020230-C
H61	1		MALE ADAPTOR	020230-B
H62	1		TERMINAL WITH INSULATOR	181-817000
H63	1		TERMINAL WITH INSULATOR	181-818000
H64	4		TERMINAL O.B.A.	181-812000
H65	14		CLIPS	132-821000
H66	1		TWIN CORE CABLE 2.5M LONG (RED & BLACK)	144-754000
H67	1		PLUG & SOCKET (OPTIONAL)	205-223000
H68	1		COMPRESSION GLAND (OPTIONAL)	020230-C

Triplejay

Spares

Section H



Ref No	Description	Part No	Qty	
1	Casing (Winch Only) Drilled to 555-1917	1410414	480-107021	1
2	Rear Cover	3410413	480-107001	1
* 3	Shaft	1410408	480-107002	1
4	Bearing	Ref. 6015	480-105008	2
* 5	Cam (Front)	SP 2670C	480-107004	1
* 6	Cam (Rear)	SP 2671C	480-107005	1
* 7	Ball	MH3-16	480-105014	18
* 8	Piston	SP 2672B	480-107007	18
* 9	Rotor	SP 2669C	480-107008	1
10	Connection Block Single Rotation (Winch Only)	HS 2378	480-105015	1
11	Socket Head Cap Screw	MH3-2	480-105017	3
12	'O' Ring	MH3-4	480-105019	2
13	'O' Ring	MH3-3	480-105018	1
14	Key	SP2674B	480-107013	1
* 15	Key	MH3-11	480-105012	2
16	Hex Head Bolts		480-107015	8
17	Rotary Shaft Seal	MH3-7	480-105006	1
* 18	Circlip	MH3-23	480-107017	2
19	'O' Ring	R 4537	480-107018	1
20	Back-Up Ring	MH3-8	480-107007	1
21	Casing (Hoist Only) Drilled to 555-1918	1410414	480-107022	1
22	Connection Block BI-Rotational (Hoist Only)	MH3-1	480-105016	1
* 23	Anti Cavitation Spring	SP 1545	480-107023	9
24	Cartridge Assembly		480-107024	1

* Items marked thus may only be purchased as a complete cartridge assembly Ref. No. 24 owing to the close tolerances involved in the mating parts of the motor which precludes them from being interchangeable.

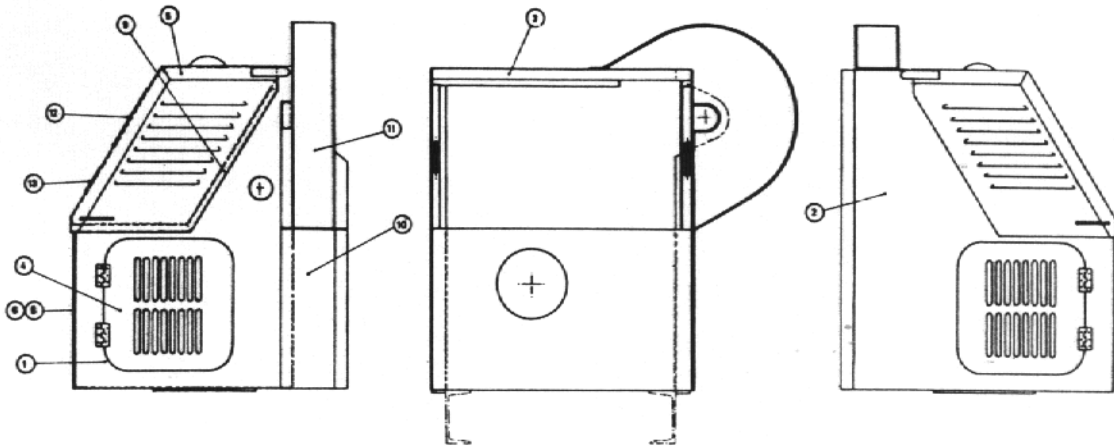
MARK III HYDRAULIC WINCH AND HOIST MECHANISM

When Ordering Always Quote --- Machine No, Part No, Description & Quantity

TRIPLEJAY

SPARES

section J



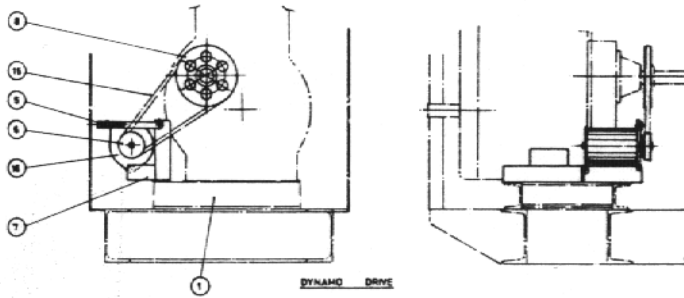
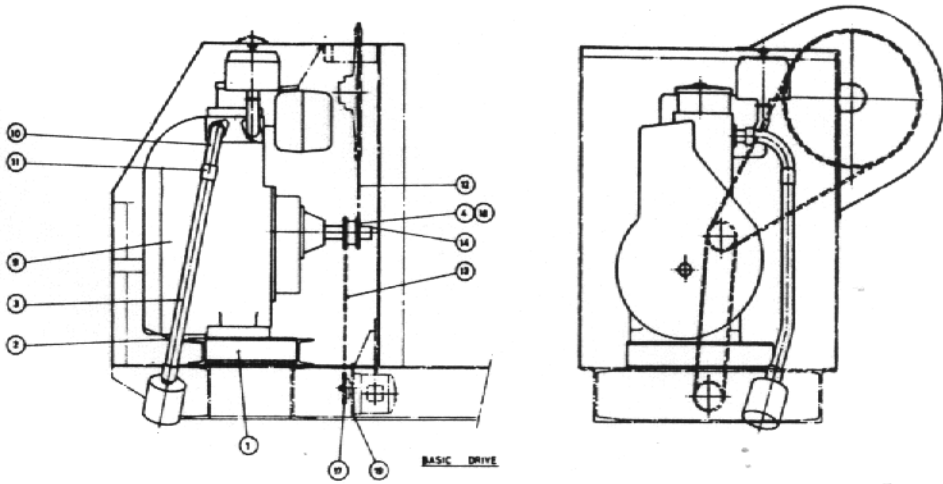
GUARD

REF N°	N° OFF	DESCRIPTION	PART N°
J1	1	DISCHARGE SIDE PANEL	513/2276
J2	1	CHARGE SIDE PANEL	513/2275
J3	1	BRIDGE PIECE	513/2286
J4	2	DOOR FOR SIDE PANELS	513/2277
J5	1	LID FOR ENGINE HOUSING	513/2287
J6	1	FRONT PANEL	513/2278
J7			
J8	1	DOOR FOR FRONT PANEL	513/2280
J9	2	LID STAY	513/2284
J10	1	CLOSING PLATE	513/2285
J11	1	CHAIN GUARD	513/2287
J12	1	NAMEPLATE	501/6460
J13	1	LABEL ENGINE HOUSE LID WARNING	501/6009

TRIPLEJAY

SPARES

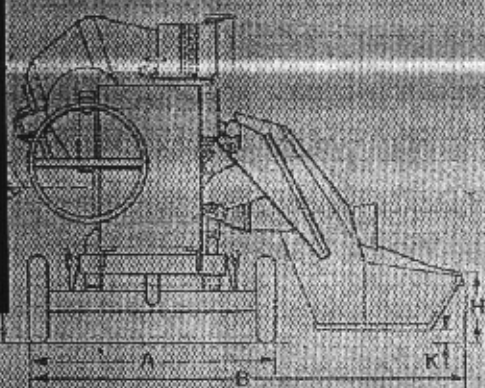
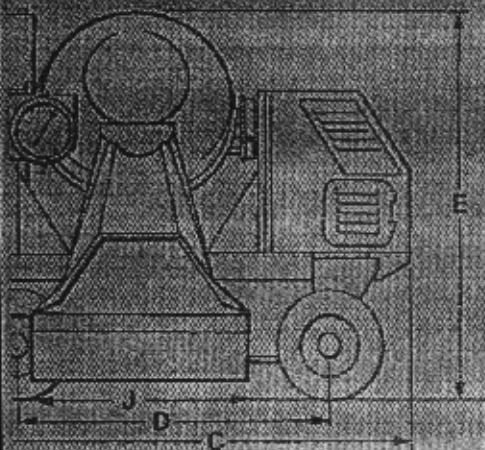
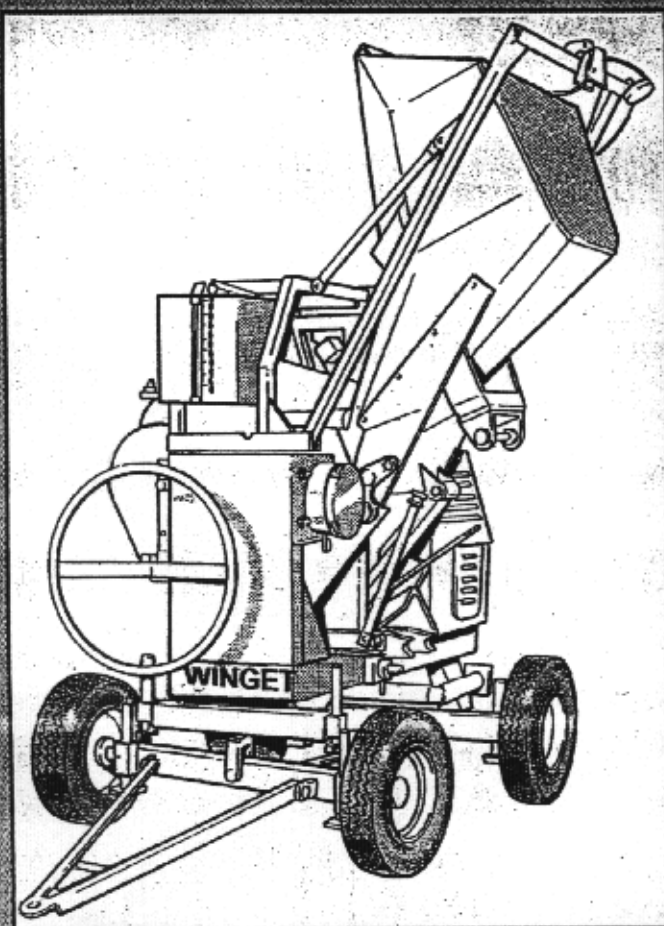
section L



DRIVE

EF#	QTY	DRIVE	DESCRIPTION	PART #
L1	1	1	ENGINE BED	513/2296
L2	1	1	EXHAUST PIPE CLIP	513/2295
L3	1	1	EXHAUST PIPE	513/2292
L4	1	1	ENGINE SPROCKET	501/30498
L5	1	1	DYNAMO ADJUSTER	555/3223
L6	1	1	DYNAMO PULLEY	555/3222
L7	1	1	DYNAMO BRACKET	501/2298
L8	1	1	PICADOR PULLEY	513/2421
L9	1	1	PETTER PILL AIR COOLED DIESEL ENGINE	N/2001
L10	1	1	WINGET STANDARD BEND	R/8002
L11	2	2	SOCKET	K/8003
L12	1	1	ROLLER CHAIN	F/8003
L13	1	1	ROLLER CHAIN	F/8004
L14	1	1	DIB HEAD KEY	L/10006
L15	1	1	BRAMER BELT	F/5005
L16	1	1	GENERATOR	N/2002
L17	1	1	PUMP SPROCKET	513/2085
L18	1	1	ENGINE SPROCKET D/LINE ONLY	KW1/2001A
L19	1	1	PUMP BRACKET	513/2172

330T CONCRETE MIXER



**OPERATORS, MAINTENANCE AND
ILLUSTRATED PARTS CATALOGUE**

**Babcock
Equipment**

330T CONCRETE MIXER

330T CONCRETE MIXER OPERATION, MAINTENANCE AND PARTS MANUAL

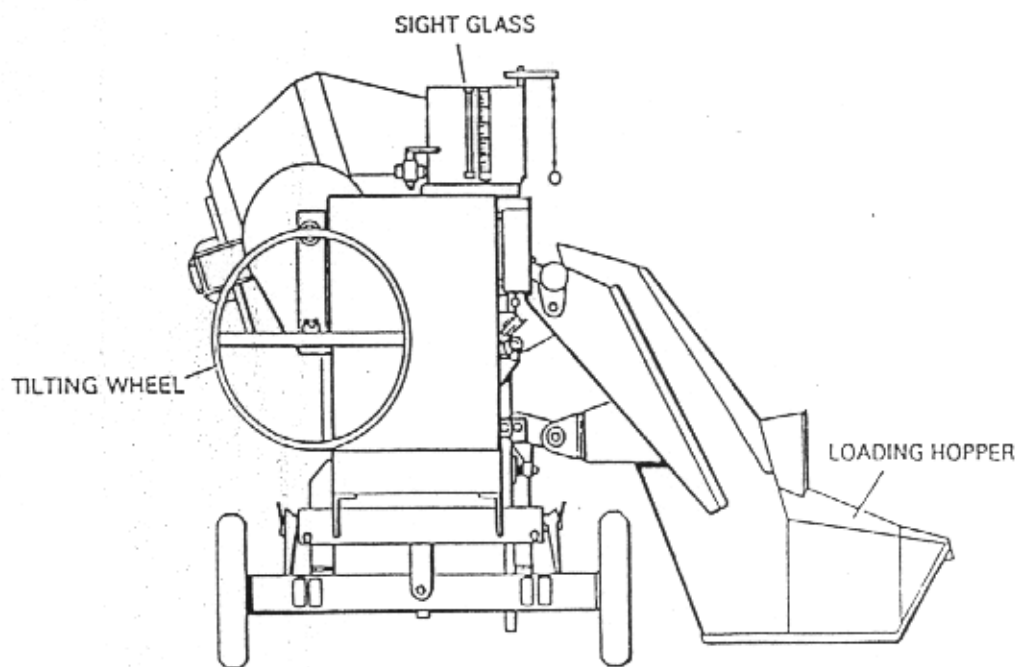
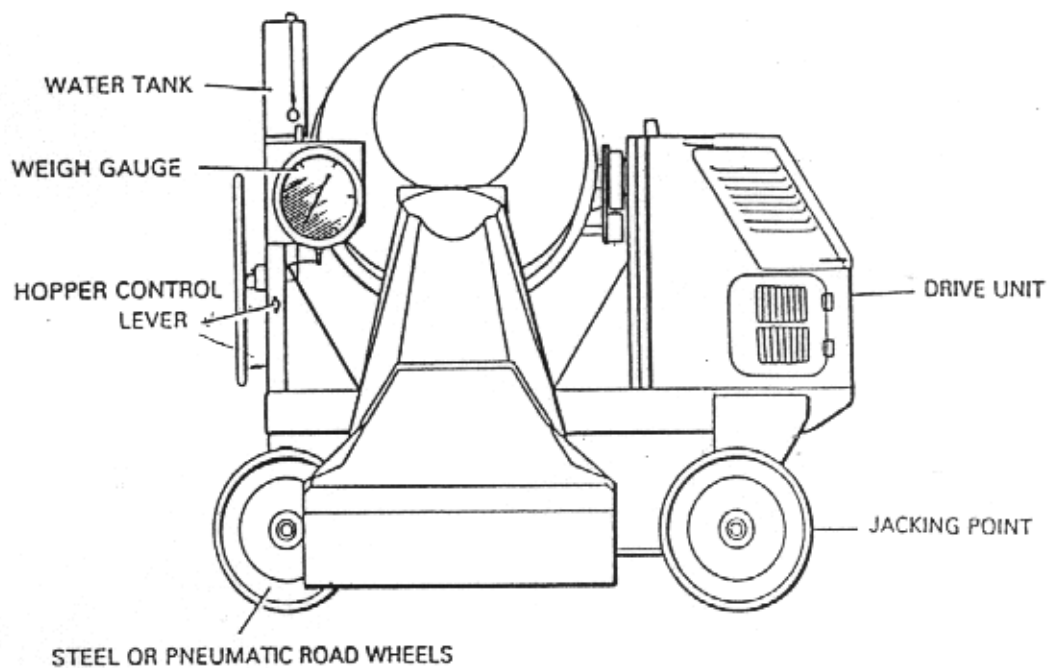


FIGURE 1: GENERAL ARRANGEMENT

330T CONCRETE MIXER
OPERATION, MAINTENANCE AND PARTS MANUAL

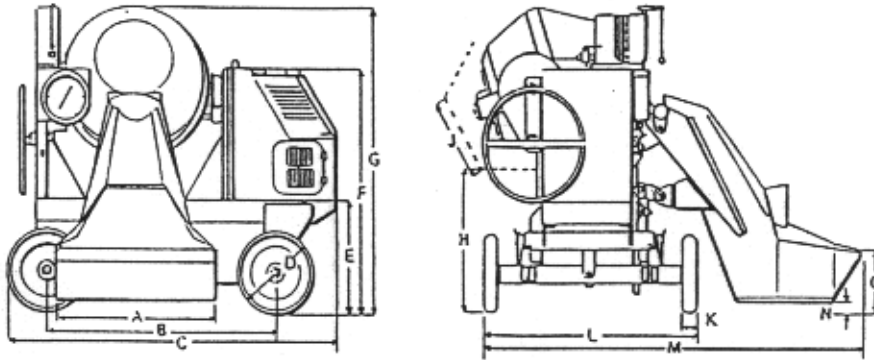


FIGURE 2: Overall Dimensions

REF	330T
A	1 230 cm
B	1 725 cm
C	2 525 cm
D	640 cm
E	785 cm
F	1 740 cm
G	2 200 cm

REF	330T
A	925 cm
B	588 cm
C	125 cm
D	1 675 cm
E	3 160 cm
F	50 cm
G	540 mm

DESCRIPTION AND OPERATING INSTRUCTIONS:

INSTALLING YOUR MIXER ON THE SITE

Ensure that the mixer is sited on firm ground and standing level in both directions. If the ground is loose or made up, it is recommended that the mixer be stood on stout timbers.

If pneumatic roadwheels are fitted, place a stout timber under each pair of stabilising jacks, attached to the front and rear axles, lower the stabilising jacks until they come firmly into contact with the timber, lock in position. Engage sprags, screw up to lock the front axle and chock the wheels firmly in position. Remove and stow the towing bar. Release the hopper safety prop. This is done by turning the engine by hand with the hopper control lever held in the "RAISE" position until the weight of the hopper is taken off the prop. Turn retaining latch upwards and swing the prop downwards into its lowest position. Hold the hopper control in the LOWER position and allow the hopper to come down under its own weight. If a batch weigher is fitted, ensure at least 50mm clearance between the base of the hopper and the ground to ensure that accurate readings are obtained.

If a drag feeder is used assemble jib and cable support. It is necessary when a dragline is fitted to use a loading ramp or to erect a barrier of boards in front of the loading hopper so that materials may be tipped into it easily. This is particularly important when using a mixer fitted with a batch weigher as it prevents the build up of aggregate underneath the hopper (as this will cause faulty batch weights to be given).

Assemble the portable feed apron, if one is used, place it squarely in front of the mixer so that the hopper does not foul it when being raised or lowered. The horizontal rubber flap is pushed forward by the dragline shovel when charging the hopper, the flap preventing material from falling between the hopper and ramp. Finally, stake the apron securely in position, using the four picketing lugs on the sides. Extend the centre position of the ramp to separate the aggregate by fitting boards.

TRANSPORTING THE MIXER

To reduce the overall height of the mixer, it is sometimes necessary to dismantle the dragline jib and remove the loading hopper from its cradle. Ensure the stabilising jacks are raised fully or removed and stowed.

Assembling Dragline Jib

Bolt the mounting bracket to the inside of the hopper with the lugs toward the front edge of the hopper. Place the jib assembly in the hopper with the fairlead against the mounting bracket. Fit the mounting hooks loosely in position. Attach a stout rope to the jib. Turn the drum upright. Raise the hopper, either by running the engine or turning it by hand, until the jib assembly takes up a new position and is retained in position by the mounting hooks. Continue to raise the hopper until the ends of the front legs of the jib are beside the mating legs already attached to the mixer. Stop engine if it is running.

With a man on either side of the hopper, lift the front legs of the jib and drop the mounting tongues into the fixed legs. Insert a long bolt through the upper hole in each of the fixed legs engaging it with a hole in the mounting tongues to provide a loose hinge. Remove the mounting hooks. Move the drum as far as possible towards the charging position, secure the rope attached to the jib to the centre of the drum trunnion. Place pieces of wood between the rope and the edge of the drum to increase the leverage. Raise the jib by turning the handwheel until the cable support socket is just above the front edge of the hopper, insert the cable support complete with pulley fixed to tip. Thread electric control cable through pulley. Continue to raise the jib until it is fully up.

Note: Keep the rope taut until the rear leg support clamps are in position. Thread the dragline cable through the rear leg of the jib assembly. Fit the rear leg support clamps loosely in position. Remove the hinge bolts from the front legs and fit support clamps, tighten the bolts of the rear clamps.

Note: The support clamps for the front and rear legs are different in as much as there are only three locating pins on the two front clamps.

Complete the fitting of the cable through the jib fairlead and to the dragline shovel. Plug in the electric control cable to the mixer. Remove the mounting bracket from the hopper, and secure the mounting hooks to it. Stow the assembled items in the compartment in the end of the frame below the engine housing.

Dismantling Dragline Jib

Disconnect and remove the electric control cable and the dragline shovel from the mixer. Withdraw the dragline cable from the jib and fairlead, by winding it back on to the winch drum. Fit a stout rope to the jib and to the drum trunnion, making certain that the drum is in the upright position. Insert blocks of wood as before. Bolt the mounting bracket into the base of the hopper.

Note: The rope should be held taut by the handwheel until the jib is secured in the hopper.

Remove the four support leg clamps. Insert the two hinge bolts as described. Raise the hopper until the base is vertical, this can be done by running the engine or turning it by hand. Stop the engine if it is running. Lower the jib towards the hopper (lifting the rear legs slightly will allow the weight of the jib to carry it forward). It may be necessary to lower the hopper slightly to allow the jib fairlead to enter. Remove the cable support from its mounting when it is close to the front edge of the hopper. Continue to lower jib until the fairlead rests in the hopper, against the mounting bracket. Fit the mounting hooks, remove the hinge bolts and lift the tongues of the front legs clear of the fixed legs. Lower the hopper slowly, steadying the jib as it takes up its final position against the front edge of the hopper. Remove jib from hopper.

Replace the support leg clamps on the fixed jib legs to avoid loss. Secure mounting hooks to mounting bracket and stow.

Note: If flare plates are fitted to the hopper, they must be removed before attempting to erect or dismantle the jib assembly by the method described.

Removing the Hopper

Under certain circumstances it may be advisable to remove the hopper. This is readily effected by removing the eight bolts attaching the hopper to the cradle. Alternatively it may be required to remove the hopper with the cradle still attached. In this case the hopper pivot shaft and the two upper ram yoke pins should be removed allowing the hopper and cradle to be detached. It is advisable to replace the hopper pivot shaft in the cradle and the ram yoke pins in the yoke to avoid loss in transit.

Lifting the Mixer

Lifting eye bolts are provided for using crane hooks when loading for transporting. They are located, on the left side of the hopper cradle, when looking at the machine from the hopper side, the second one at the top of the trunnion pedestal next to the engine housing. Lifting the mixer should be carried out with the hopper up, or if the hopper has been removed for transporting, with the cradle in the up position.

DRUM CONTROLS

There are three pre-set positions CHARGE - MIX - DISCHARGE

Tilting Wheel Lock

A lever type locking mechanism, located in the hub of the tilting handwheel gives positive locking in any of the three pre-set positions. To release, hold handwheel firmly and push the locking lever upwards. The handwheel is then turned one complete revolution either way to locate drum position. The handwheel is then locked by pushing the locking lever downwards into the horizontal position.

WARNING: Do not hold the locking lever in the engaging position and turn the handwheel to engage the lock, as this will cause damage to the locking mechanism.

HOPPER OPERATION

Control

The hydraulic control valve for operating the hopper is mounted on the trunnion pedestal near to the tilting handwheel.

CONCRETE MIXER

Normal Operation

Set the pointers on the gauge to the aggregate proportions you require. With the engine running lower the hopper SLOWLY ONTO THE LOADCELL. Hold the hopper control lever fully down for a few seconds until the gauge needle begins to move up to "0" then release. The hopper is then ready to load. If you cannot get an "0" reading adjust the gauge as described in the following paragraph:

To Zero the Weighing Gauge

With the mixer engine running, carry out the following instructions:

- a) Lower the hopper on to the loadcell as described.
- b) Check that the hopper is clear of the ground, taking care not to stand on any part of the hopper.
- c) Adjust the knurled knob on the side of the gauge to set the pointer to ZERO.
- d) Raise and lower the hopper three to four times to check that you obtain a consistent ZERO reading.

DRAGLINE FEEDER - if fitted

The hydraulically driven winch unit is mounted on the discharge side of the mixer. The winch is energised by a 12 volt dynamo driven by the engine, via a hydraulic solenoid valve which is controlled by a pushbutton switch mounted on the shovel handle.

Operation

With the engine running, pull the shovel back over the aggregate away from the mixer. Depressing the pushbutton switch to operate the winch and start to drag the shovel towards the mixer. Ensure downward angle of the shovel is not too steep. To stop the loaded shovel when it has reached the hopper, simply release the push button switch and tip the contents of the shovel into the hopper. After rigging the electric control cable, a trial run of the shovel may show that the slack of the electric cable is not taken up by the bottom free pulley as the shovel moves into the mixer. To prevent this, increase the size of the weight on the bottom free pulley; if the pulley then comes too close to the ground, wind a couple of turns of cable onto the stowage arms on the shovel.

WARNING: The hoist must not be operated whilst a mix is in the drum or overloading will result.

BEFORE STARTING UP

Carefully read the engine manufacturer's handbook supplied with this mixer. Check the amount of fuel in the tank and the level of lubricating oil in the engine sump. With the hopper down, check the level of oil in the header tank.

TO MIX CONCRETE

Set the coloured points on the weigher gauge (if fitted) to the aggregate proportions you require and load the hopper.

Move the drum into the CHARGE position. Operate the water tank, fill it and discharge the water into the drum. Raise the hopper to tip the aggregate into the drum. When all the materials are in the drum, lower the hopper and load for the next batch, set the drum in the MIX position.

After allowing a short interval for mixing, the concrete in the drum should be discharged.

To Raise Hopper

Lift the control lever and hold it until the hopper is fully up. Do not hold the control in the RAISE position with the hopper up for more than a few moments or overheating and loss of efficiency will result.

To Lower Hopper

Push the control lever downwards; releasing the lever will check the descent of the hopper as necessary.

Note: The hopper must not be lifted and lowered with aggregate as this can damage the loadcell and also cause false reading on the weight dial.

WATER TANK

The water tank is a cistern type which automatically shows the quantity of water from 4 to 57 litres on the graduated scale at the side of the tank.

Filling and discharging that tank are simple operations. The main supply comes into the tank through a stop cock. As soon as the indicator float in the sight glass tube begins to rise, sufficient water is available for a measured amount of water to be discharged. Close the stop cock. When the drum is in the charge position, pull the chain which in turn lifts the valve from its lower seat allowing the required amount of water to be discharged into the mixing drum. After discharging, release the chain-pull and refill the tank.

Optional - Water Pump

Water pump should never be run dry or the seal may be damaged.

Draining The Tank

During periods of frosty weather, to avoid damage, it is advisable to drain the tank at the end of each day's working. To do this set the drum in the "CHARGE" position, close the stop cock and drain the water into the drum, then disconnect the water supply to the mixer. Finally empty the water from the drum.

BATCH WEIGHER - if fitted

The weigher gauge mounted in a box on the tilt end pedestal is connected by hydraulic piping to the loadcell mounted near the hopper lower pivot arm. The hydraulic circuit is primed and sealed on leaving the works and on no account should it be tampered with. The gauge gives accurate indication of batch weights. The adjustable coloured pointers mounted on the rim of the gauge can be set by the operator to the aggregate proportions required. A protective lid is provided for the gauge box to prevent damage when not in use.

It is important that the mixer is standing firm and level and that there is at least 50mm clearance between the ground and the base of the hopper at all times. If aggregate is allowed to build up, inaccurate gauge readings will be obtained.

COMPLETION OF WORK PROCEDURES

- a) Thoroughly clean out the drum with water and gravel.
- b) Clean out the hopper and wash down the outside of the mixer.
- c) Drain water tank if frost is likely.
- d) Raise hopper, place safety prop in position and lock.
- e) Stop engine.
- f) Grease up machine for next day's working.
- g) Replace cover on weigher gauge box.
- h) Lock engine housing to prevent tampering and loss of tools.

MAINTENANCE

LUBRICATION

General

All main running parts are lubricated through drilled shafts and special greaseways via grease nipples. The lubrication diagram, figure 3, gives the location of these nipples which should be greased daily using a grease gun filled with ALVANID GREASE 2. Pay particular attention to nipples fitted to ram pivots, bevel pinion shaft, trunnion bearings and jockey sprockets. Be careful about greasing nipples, not allowing sand or cement to become mixed with the grease. Keep grease tin lids closed when not in use. Apply a little engine oil from time to time to pin joints on water tank controls, track rods on steering assembly and hinges on housings etc. Bearings must not be allowed to run dry; ensure greasing is carried out at regular intervals.

Transmission

Lubricate the main bevel pinion drive chain and the pump drive chain once a week with a little engine oil. Check chain tension and adjust if necessary.

CHAIN TENSIONING

On no account must chains be over tightened. Undue tightness puts excessive strains on pump and engine bearings causing vibration and considerable wear. A very rough guide to chain tension is to allow the equivalent amount of one chain pitch free movement on the slack side of the chain, i.e. 19mm chain pitch - 19mm slack, etc.

HYDRAULIC SYSTEM

Header Tank

This is mounted inside the drive end trunnion pedestal, easily accessible through the door in the pedestal. Check the level of the oil weekly (50 hrs, running) with the hopper down and engine stopped. Remember to clean the area around the cap before removing it, to prevent dirt falling into the tank. Ensure that oil level is 8cm from top of tank.

Recommended Oils

Top up the system as necessary using TELLUS OIL 26 SAE for temperatures above 32.8°C (90°F). The approximate capacity of the system is ^{13,6} litres.



GENERAL MAINTENANCE

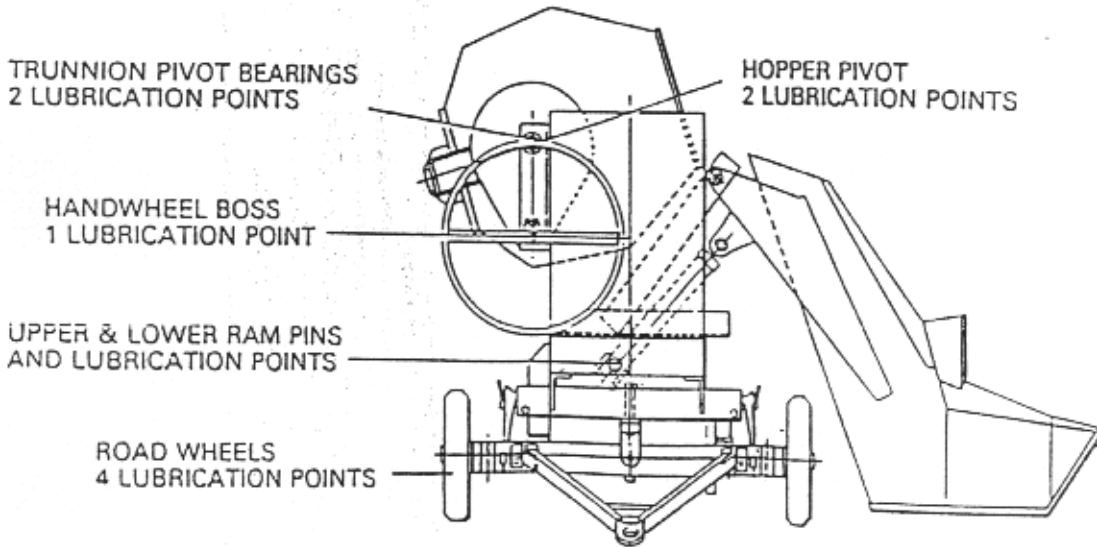
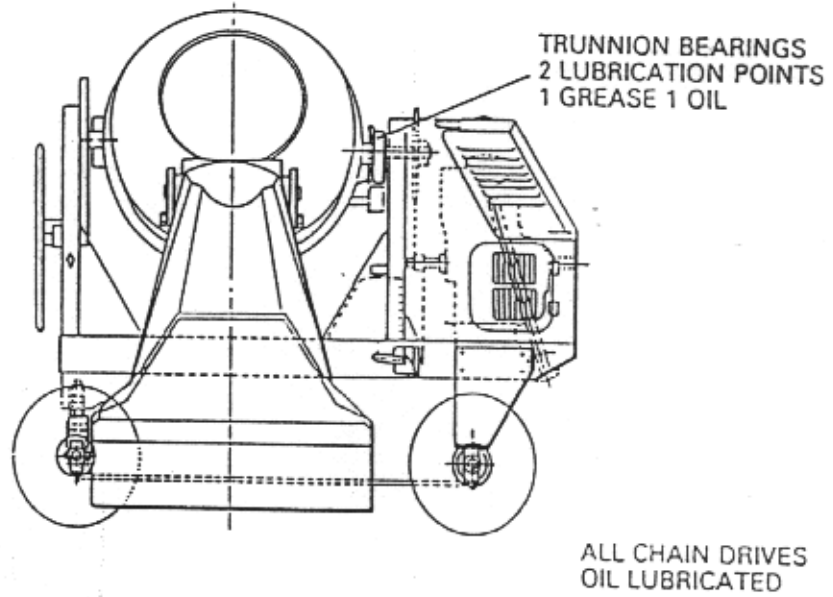
During the first few weeks of operation check the tightness of all bolts, nuts, keys etc. every other day. Pay particular attention to engine fixing bolts. Clean top of header tank before removing filler cap. Add oil of recommended grade.

Drain water during frosty weather.

When not in use, keep weigher gauge box lid on, and engine housing locked to prevent tampering and loss of tools.

TYRE PRESSURES

These should be checked at regular intervals and before transportation from site to site. Recommended tyre pressures 2,5 bars all round.



LUBRICATION DIAGRAM

CONCRETE MIXER

Dismantling the System

Do not remove or expose any part of the internal hydraulic gear in the event of breakdown, unless so instructed, as this may lead to further complications when correcting the fault. Contact the nearest Babcock Triplejay Service Branch should any assistance be required.

BATCH WEIGHER - if fitted

Include the grease nipples on the upper hopper pivot links in your daily servicing.

To allow accurate functioning, keep the mechanism as clean as possible, special attention being paid to the lower link pivot. Clean the ground under the hopper frequently to avoid any build up of aggregate.

Note: On no account must the loadcell be disconnected from the weighing dial. No responsibility will be accepted by Babcock Triplejay if the lead seals attached to the pipe unions are broken.

Dynamo

The dynamo is belt driven. To adjust the belt the general method is to slacken the dynamo fixing bolts and pivot it in its mounting to tension the drive, afterwards re-tighten the fixing bolts.

Check the brushes periodically.

Creasers are provided on the two rope sheaves on the jib, include these in your daily servicing. If the electric cable to the shovel needs repairing it should not be shortened by more than 1524mm.

The regulator cut-out voltage should be maintained at 12,5 to 13 volts.

SERVICING SCHEDULE

<p><u>DAILY:</u> MIXER</p> <p>ENGINE SUMP LUBRICATION FUEL TANK</p>	<p>Lubricate daily through the grease nipples using a good quality medium grease ALVANID GREASE 2 - see lubrication diagram.</p> <p>Thoroughly clean out the drum when mixing is finished, with water and keep access doors and panels closed. Drain water tank if frost is likely.</p> <p>See Engine Handbook.</p>
<p><u>WEEKLY:</u> DRIVE CHAIN</p> <p>DRUM AND TRUNNION</p> <p>HYDRAULIC HEADER TANK</p> <p>DRAGLINE DYNAMO</p> <p>GENERAL</p>	<p>Check tension, adjust if necessary as described. Check and top up the chain case using TALPA 30 OIL (capacity 0,5 litres).</p> <p>Apply oil to bevel gear, guard and pinion guard - see Group C.</p> <p>Clean the top of the tank - remove the filler cap and check the level. Check with the hopper down and the engine stopped.</p> <p>Check belt tension, adjust if necessary as described.</p> <p>Apply a little engine oil to the pin joints on the water tank controls, axle pivots etc. Check the two screws on the hydraulic valve (hopper).</p>
<p><u>MONTHLY:</u> BREATHER FILTER ON HYDRAULIC TANK</p>	<p>Remove the breather filter and rinse it in clean petrol, air dry thoroughly before re-fitting. Cover the aperture whilst the filter is being cleaned.</p>
<p><u>QUARTERLY:</u> GEAR RING</p> <p>HYDRAULIC HEADER TANK FILLING FILTER</p>	<p>Lubricate with SHELL CARDIUM "D" compound.</p> <p>Remove, clean and inspect - see Group E.</p>
<p><u>BI-ANNUALLY:</u> BREATHER FILTER ON HYDRAULIC TANK</p>	<p>Renew the breather filter.</p>

CAUTION: It is in the user's own interest to maintain engine air, lubricating oil and fuel filters at the manufacturer's recommended intervals, topping up with clean oil and fuel from clean containers as necessary. Running the engine with defective air or oil filters will result in rapid wear, high running costs and loss of reliability.

330T CONCRETE MIXER

EQUIVALENT GRADES OF OIL

APPLICATION	SHELL	BP	MOBIL	CASTROL
Chain Drive	Talpa 30	Energol OE175	Mobilgear 628	Magna XH
Open Gears, Bevel Gears	Cardium Fluid D	Energol BL 450/2	Mobil Tac E	Grippa 605
Hydraulic System - up to 32.8 Degrees C (90 Degrees F)	Tellus Oil 27	Energol HLP 80	Mobil D.T.E. 25	Hyspin AW 532
Hydraulic System - above 32.8 Degrees C (90 Degrees F)	Tellus Oil 33	Energol HLP 100	Mobil D.T.E. 26	Hyspin AW 568
Grease Points	Alvanid Grease 2	Energrease LS2	Mobilplex 47	Spheerol APT 2

Note: In the above list are the lubricant specifications as recommended by various companies. These are intended as a guide only and should your site conditions be in any way abnormal, you local oil supplier should be consulted.

Spares

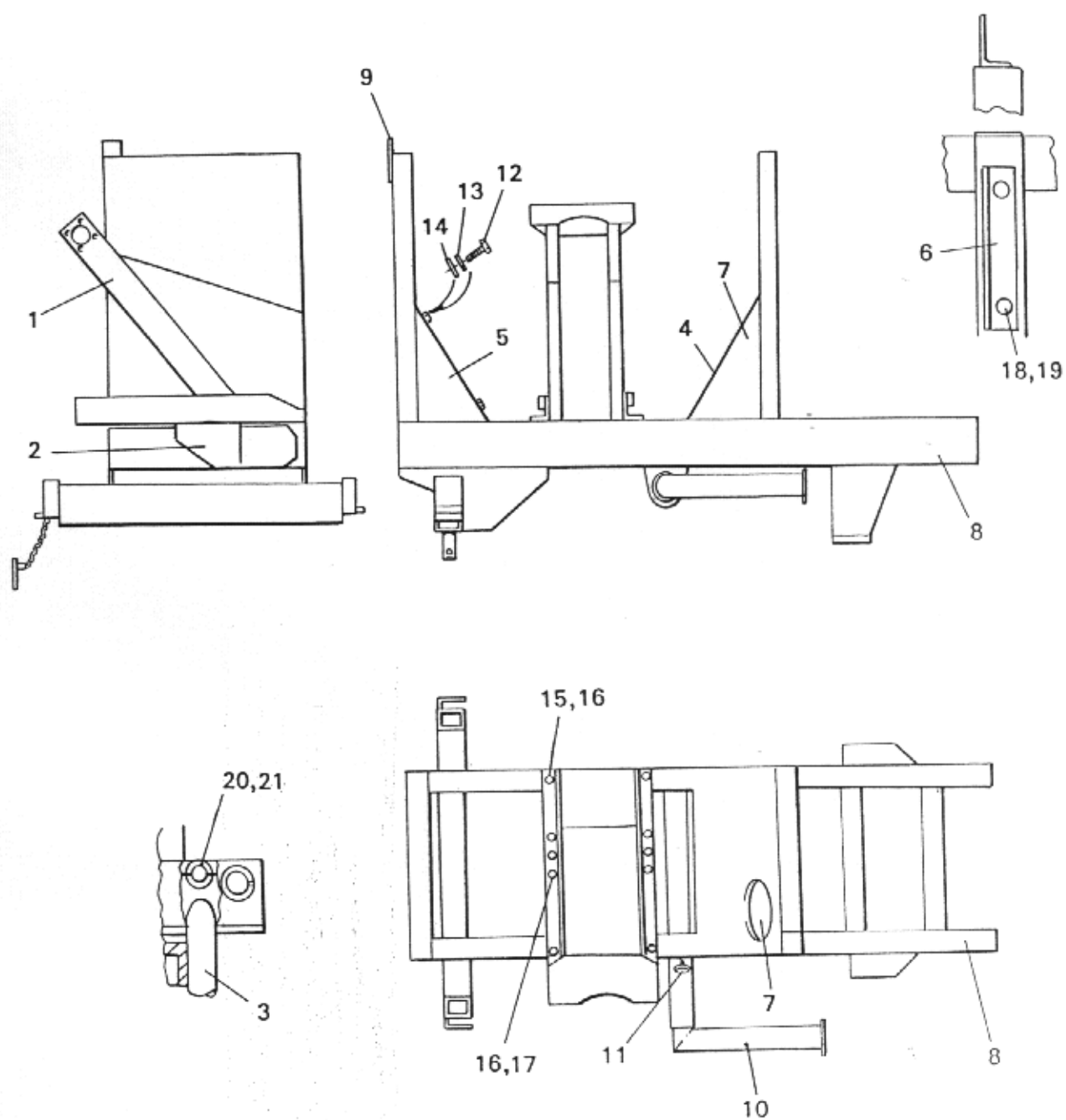
Please note that a number of components are described as being c/w screws, nuts and washers, this is no longer the case and all fixings should be ordered separately if required. Imperial fixings may no longer be available and the nearest metric equivalent will be supplied.

330T CONCRETE MIXER**ILLUSTRATED PARTS SECTION - INDEX**

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GROUP 01

330T CONCRETE MIXER



330T CONCRETE MIXER

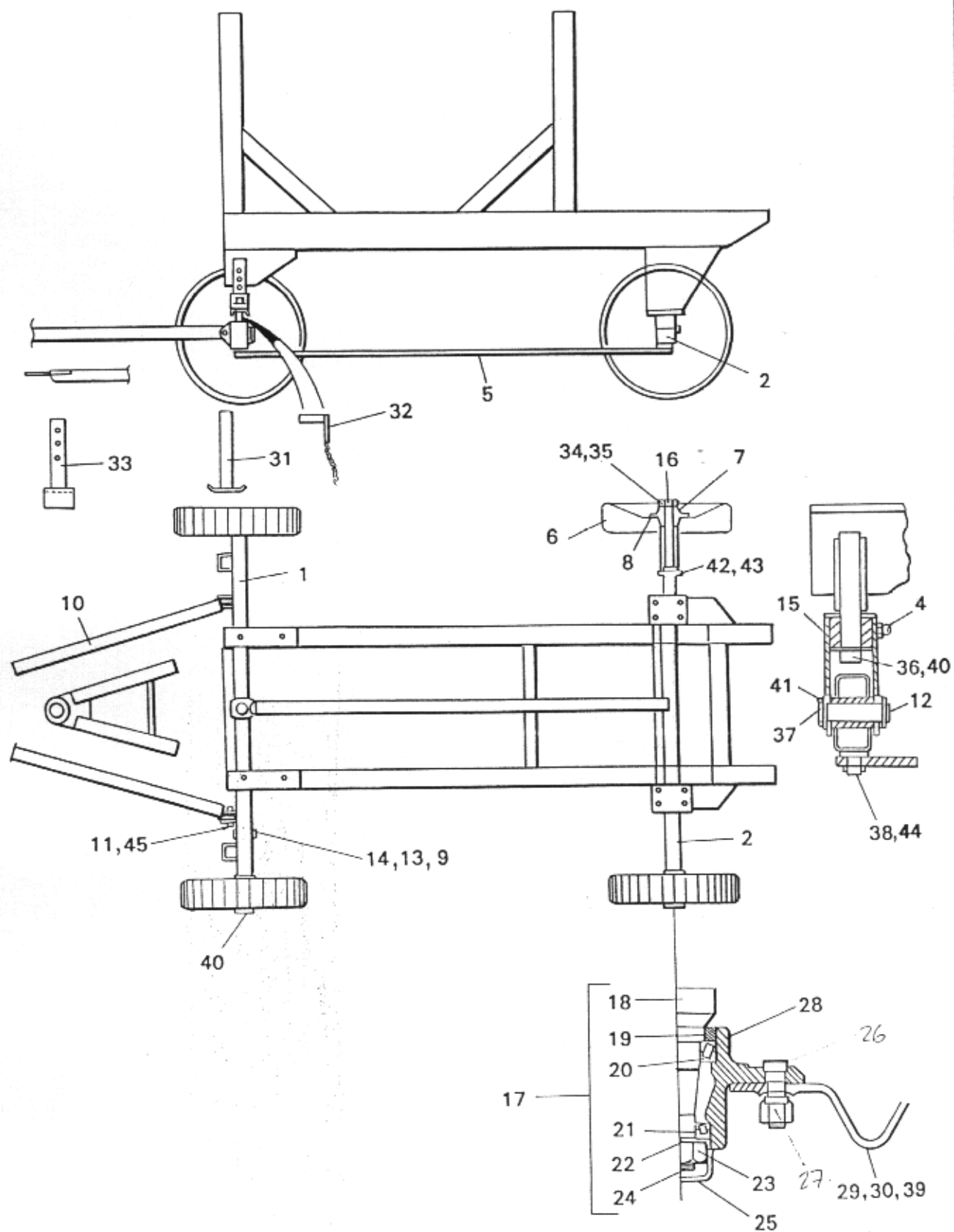
GROUP: 1a		MAINFRAME		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	513-2165-00	HOPPER PIVOT FRAME	N = 1 PAIR
2	N	513-2166-00	HOPPER RAM BRKT. - LH/RH	
3	1	513-2167-00	HOPPER PROP	
4	1	513-2168-00	PEDESTAL COVER - DRIVE END	
5	1	513-2169-00	PEDESTAL COVER - CONTROL END	
6	1	513-2387-00	LIFTING EYE	
7	1	513-2170-00	ACCESS COVER	
8	1	513-2306-00	MAINFRAME	
9	1	KWT-200T-9	LIFTING EYE - FLAT	
10	1	513-2445-00	OUTRIGGER LEG	
11	1	513-1285-00	LOCK PIN & CHAIN	
12	8	07140818	HEX. HD. SETSCREW	
13	8	08530815	WASHER - SPRING	
14	8	08510817	WASHER	
15	4	07141652	HEX. HD. SETSCREW	
16	10	08131621	NUT - NYLOC	
17	6	07141644	HEX. HD. SETSCREW	
18	4	07141234	HEX. HD. SETSCREW	
19	4	08131218	NUT - NYLOC	
20	1	08512136	WASHER	
21	1	09170407	SPLIT PIN	

330T CONCRETE MIXER

GROUP: 1b		PORTABILITY STANDARD/PNEUMATIC		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	555-1027-01	FRONT AXLE	555-1027-00
2	1	513-2161-00	REAR AXLE	
3	4	C2004	GREASE NIPPLE - S/W ONLY	NOT ILLUSTR.
4	1	C2002	GREASE NIPPLE	
5	1	513-2164-00	AXLE TIE BAR	
6	4	024-005-00	STEEL WHEEL	003-031-00
7	4	KWT-R-12	HUB ASSEMBLY	STEEL WHEELS
8	4	511-1654-00	BACKING PLATE	
9	2	555-1011-00	AXLE SPRAG	
10	1	555-1012-00	TOW BAR	
11	2	07142048	HEX. HD. SETSCREW	
12	1	555-1014-00	AXLE PIVOT PIN	
13	2	555-1017-00	SPRAG PIN	
14	2	555-1018-00	SPRAG RETAINER	
15	1	555-1019-00	AXLE PIVOT	
16	4	KWT-R-11	AXLE STUB	STEEL WHEELS
17	4	003-001-0	HUB ASSEMBLY - PNEUMATIC	CONSISTING OF
18	4	-	* STUB AXLE	REF 18 - REF 28
19	4	-	* OIL SEAL	
20	4	-	* INNER BEARING	
21	4	-	* OUTER BEARING	
22	4	-	* WASHER	
23	4	-	* NUT - AXLE	
24	4	-	* SPLIT PIN	
25	4	-	* GREASE CAP	
26 *	16	-	* WHEEL STUD	
27 *	16	-	* WHEEL NUT	
28	4	-	* WHEEL HUB	

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330T CONCRETE MIXER

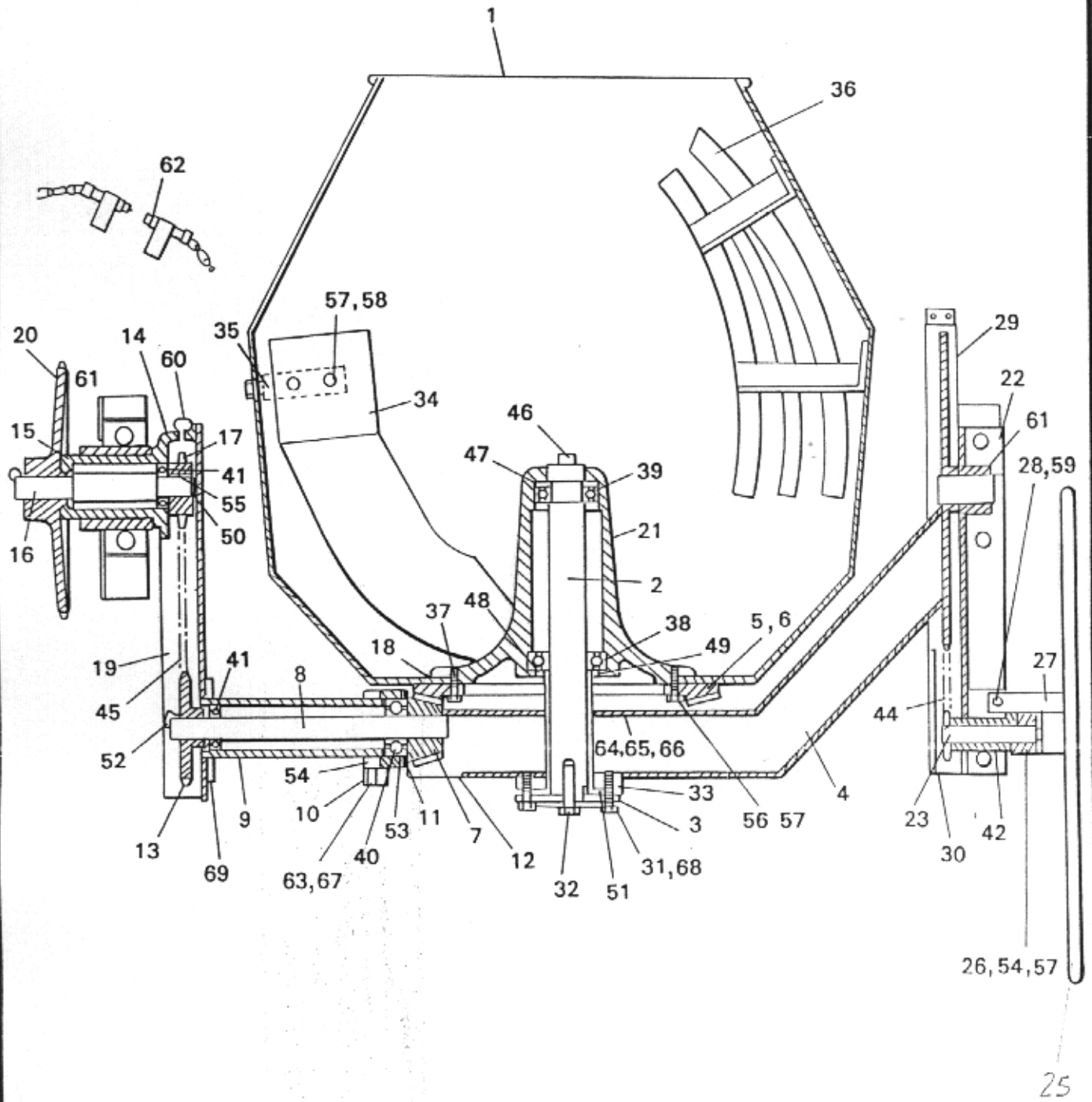


330T CONCRETE MIXER

GROUP: 1b		PORTABILITY STANDARD/PNEUMATIC (Continued)		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
29	4	LP598	WHEEL RIM	PNEUMATIC
30	4	475-6000-17	TYRE	PNEUMATIC
31	4	555-1029-00	JACK LEG	PNEUMATIC
32	4	555-1030-00	JACK PIN	PNEUMATIC
33	2	KWT-330T-36	FRONT AXLE STABILISER LEG	STEEL WHEELS
34	4	07130856	HEX. HD. BOLT	STEEL WHEELS
35	4	KWT-R-10	AXLE COLLAR	STEEL WHEELS
36	1	07140829	HEX. HD. BOLT	157P205-16
37	2	09170504	SPLIT PIN	PS113630
38	2	09170406	SPLIT PIN	L10005
39	4	F516C	TUBE	PNEUMATIC
40	5	08130813	NUT - NYLOC	145P2
41	2	26P12	WASHER	
42	4	07131256	HEX. HD. BOLT	
43	4	08131218	NUT - NYLOC	
44	2	26P10	WASHER	
45	2	08132026	NUT - NYLOC	

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330T CONCRETE MIXER



330T CONCRETE MIXER

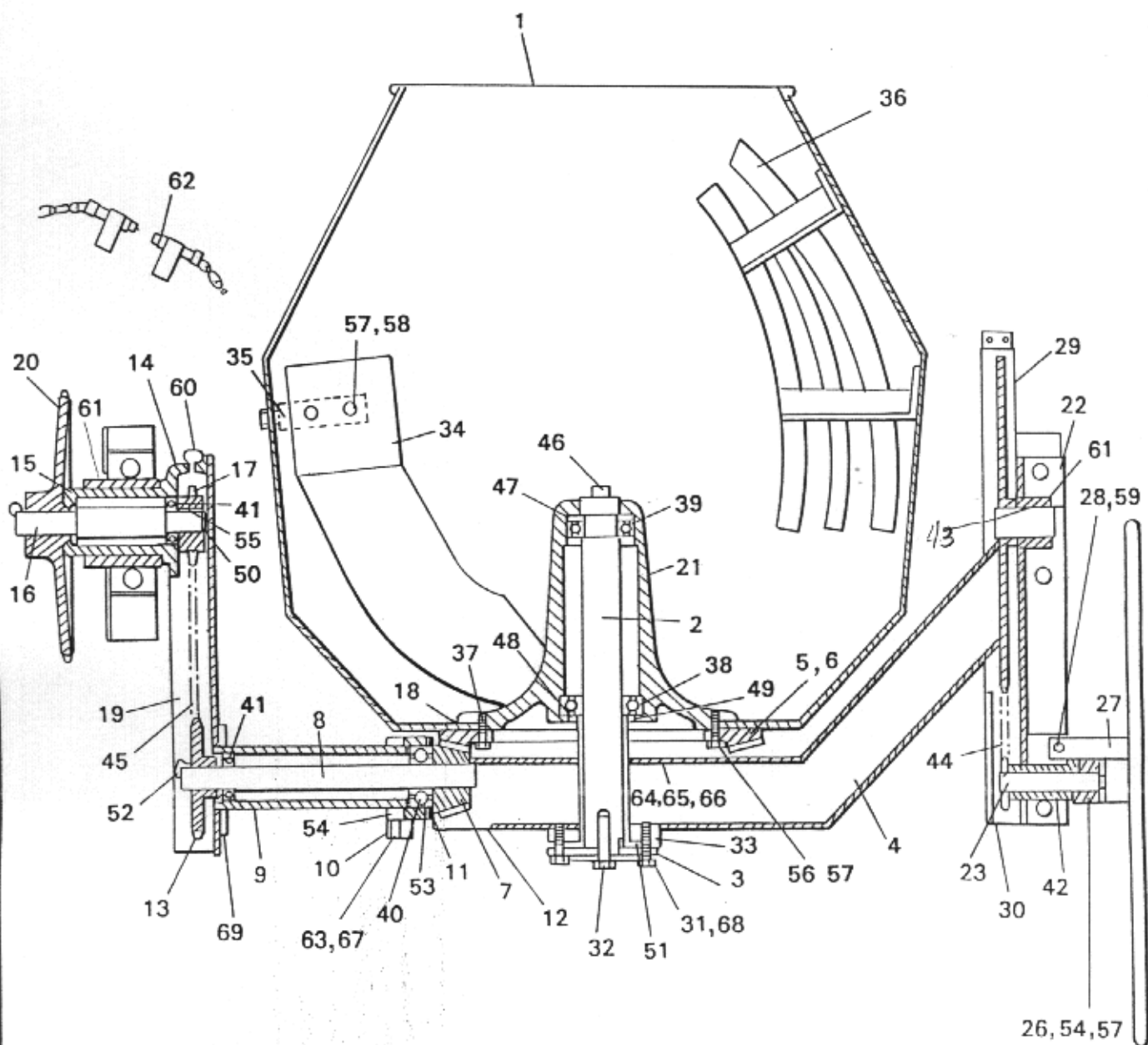
GROUP: 1b		PORTABILITY STANDARD/PNEUMATIC (Continued)		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
29	4	LP598	WHEEL RIM	PNEUMATIC
30	4	475-6000-17	TYRE	PNEUMATIC
31	4	555-1029-00	JACK LEG	PNEUMATIC
32	4	555-1030-00	JACK PIN	PNEUMATIC
33	2	KWT-330T-36	FRONT AXLE STABILISER LEG	STEEL WHEELS
34	4	07130856	HEX. HD. BOLT	STEEL WHEELS
35	4	KWT-R-10	AXLE COLLAR	STEEL WHEELS
36	1	07140829	HEX. HD. BOLT	157P205-16
37	2	09170504	SPLIT PIN	PS113630
38	2	09170406	SPLIT PIN	L10005
39	4	F516C	TUBE	PNEUMATIC
40	5	08130813	NUT - NYLOC	145P2
41	2	26P12	WASHER	
42	4	07131256	HEX. HD. BOLT	
43	4	08131218	NUT - NYLOC	
44	2	26P10	WASHER	
45	2	08132026	NUT - NYLOC	

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330T CONCRETE MIXER

GROUP: 1c		DRUM & TRUNNION ASSEMBLY - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	KWT-330T-1	MIXING DRUM	
2	1	513-2180-00	DRUM SHAFT	
3	1	513-2181-00	DRUM SHAFT FLANGE	
4	1	KWT-300T-13	TRUNNION	
5	1	KWT-200T-14	BEVEL GEAR RING	
6	1	513-2186-00	BEVEL GEAR GUARD	
7	1	KWT-200T-13	BEVEL PINION	
8	1	513-2183-00	BEVEL PINION SHAFT	
9	1	KWT-200T-1	BEVEL PINION SHAFT HSG.	
10	1	KWT-300T-17	TRUNNION BLOCK	
11	1	KWT-200T-19	SEALING WASHER	
12	1	513-2187-00	BEVEL PINION GUARD	
13	1	F5006	COUNTERSHAFT SPROCKET	
14	1	513-2156-00	TRUNNION JOURNAL	
15	1	513-2152-00	TRUNNION BEARING	
16	1	513-2182-00	COUNTERSHAFT	
17	1	F5007	COUNTERSHAFT SPROCKET	
18	1	R14013	SEAM SEALER (PRESTIK)	
19	1	513-2191-00	TRUNNION CHAIN GUARD	
20	1	003-105-00	COUNTERSHAFT DRIVE SPROCKET	F5008
21	1	KWT-200T-15	DRUM CENTRE	
22	1	513-2192-00	TILTING BRACKET	
23	1	F5009	TILT PINION & SHAFT	
24	1	513-2199-00	CHAIN TENSIONER	NOT ILLUSTR. 003-023-00
25*	1	513-2198-00	HANDWHEEL	
26	1	513-2196-00	COTTER PIN	
27	1	513-2202-00	LOCKING LATCH	
28	1	513-2203-00	LOCK LATCH PIVOT PIN	
29	1	513-2200-00	TILTING CHAIN GUARD	
30	1	513-2201-00	TILT CHAIN GUARD STRAP	
31	2	156P110-16	HEX. HD. SETSCREW	DRUM SHAFT FLANGE
32	1	07142048	HEX. HD. SETSCREW	DRUM SHAFT
33	N	08511730	PACKING WASHER	N = AS REQUIRED
34	2	502-7728-00	LOWER DRUM BLADES	
35	2	502-7758-00	LOWER DRUM BLADE CLEAT	

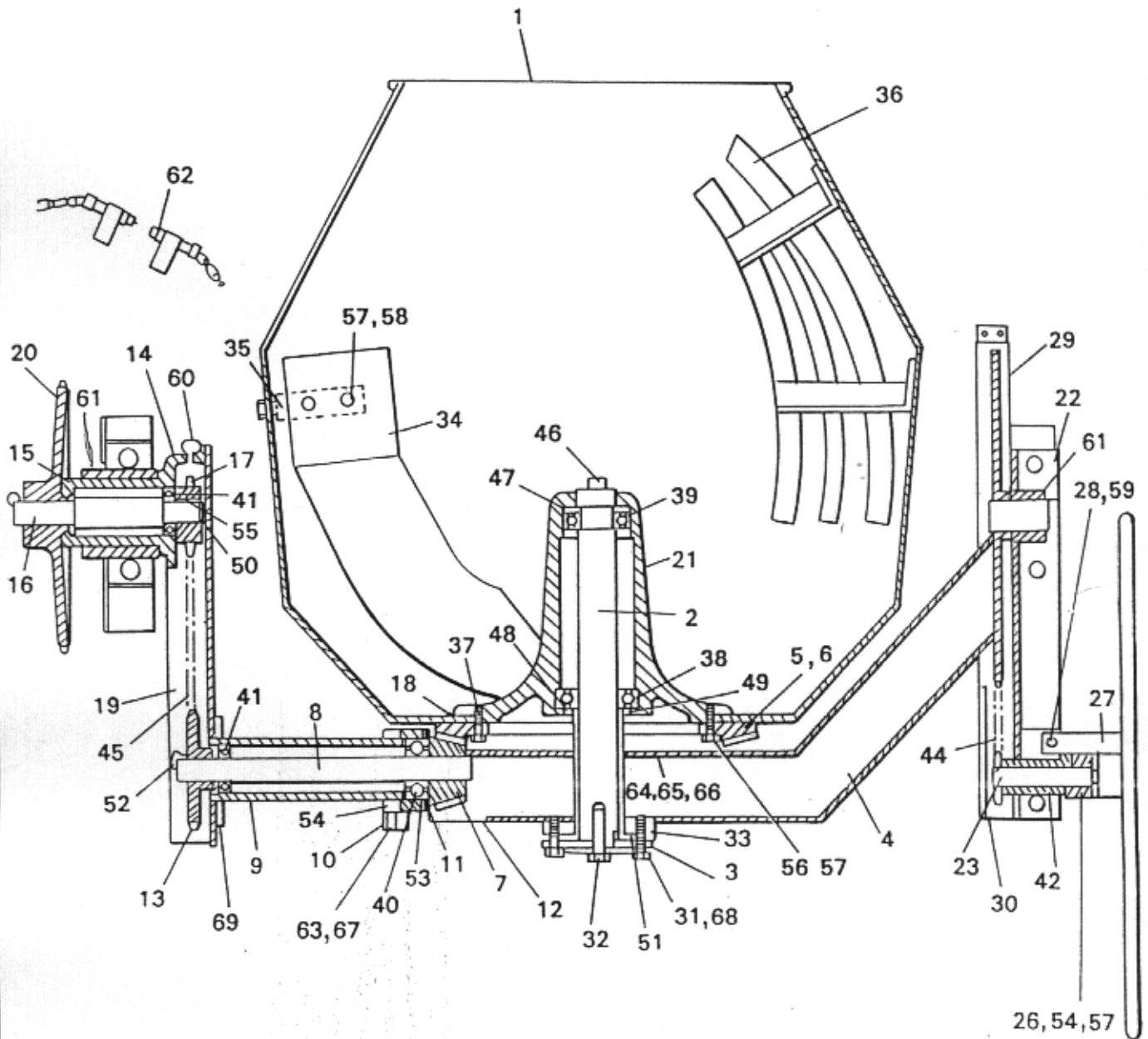
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 1c		DRUM & TRUNNION ASSEMBLY - HATZ ENGINE (Continued)		ISSUE: 1995	
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE	
36	2	502-4764-00	SKELETON BLADE	DRUM/BEVEL G ASSEMBLY DRUM CENTRE DRUM CENTRE B.P. HOUSING B/P/ HSG./ T-JOURNAL	
37	4	07141248	HEX. HD. SETSCREW		
38	1	BBB-6215-2RS	BALL BEARING		
39	1	BBB-6212-2RS	BALL BEARING		
40	1	BBB-6307-2RS	BALL BEARING		
41	3	BBB-6207-2RS	BALL BEARING		
42	2	A0005	TILTING BRKT. BUSH		
43	1	A0006	VESCONITE BUSH		
44	1	F5001	CHAIN C/W MASTER LINK		
45	1	F5002	CHAIN C/W MASTER LINK		
46	1	B1003	TAPER PLUG		
47	1	G6002	CIRCLIP - DRUM SHAFT		
48	1	G6003	CIRCLIP - DRUM SHAFT		
49	1	G6001	CIRCLIP - DRUM SHAFT		
50	1	G6005	CIRCLIP - COUNTER SHAFT		
51	1	KWT-200T-16	DRUM SHAFT SPACER		
52	1	L10001	GIB HEAD KEY		
53	1	G6007	CIRCLIP		
54	5	08511324	WASHER		
55	1	L10007	KEY		
56	1	07141265	HEX. HD. SETSCREW		DRUM CENTRE
57	21	08131218	NUT - NYLOC		
58	18	07141234	HEX. HD. SETSCREW		
59	1	B1006	GRUB SCREW		
60	1	315-8031-00	LUBRICATING PLUG		
61	5	C2002	GREASE NIPPLE		
62	1	08131016	NUT - NYLOC		
63	2	07141238	HEX. HD. SETSCREW		
64	4	07140824	HEX. HD. SETSCREW		
65	4	08510817	WASHER		
66	4	08530815	SPRING WASHER		
67	4	08531221	SPRING WASHER		
68	2	08531627	SPRING WASHER		
69	1	KWT-200T-2	ADJUSTING PLATE		

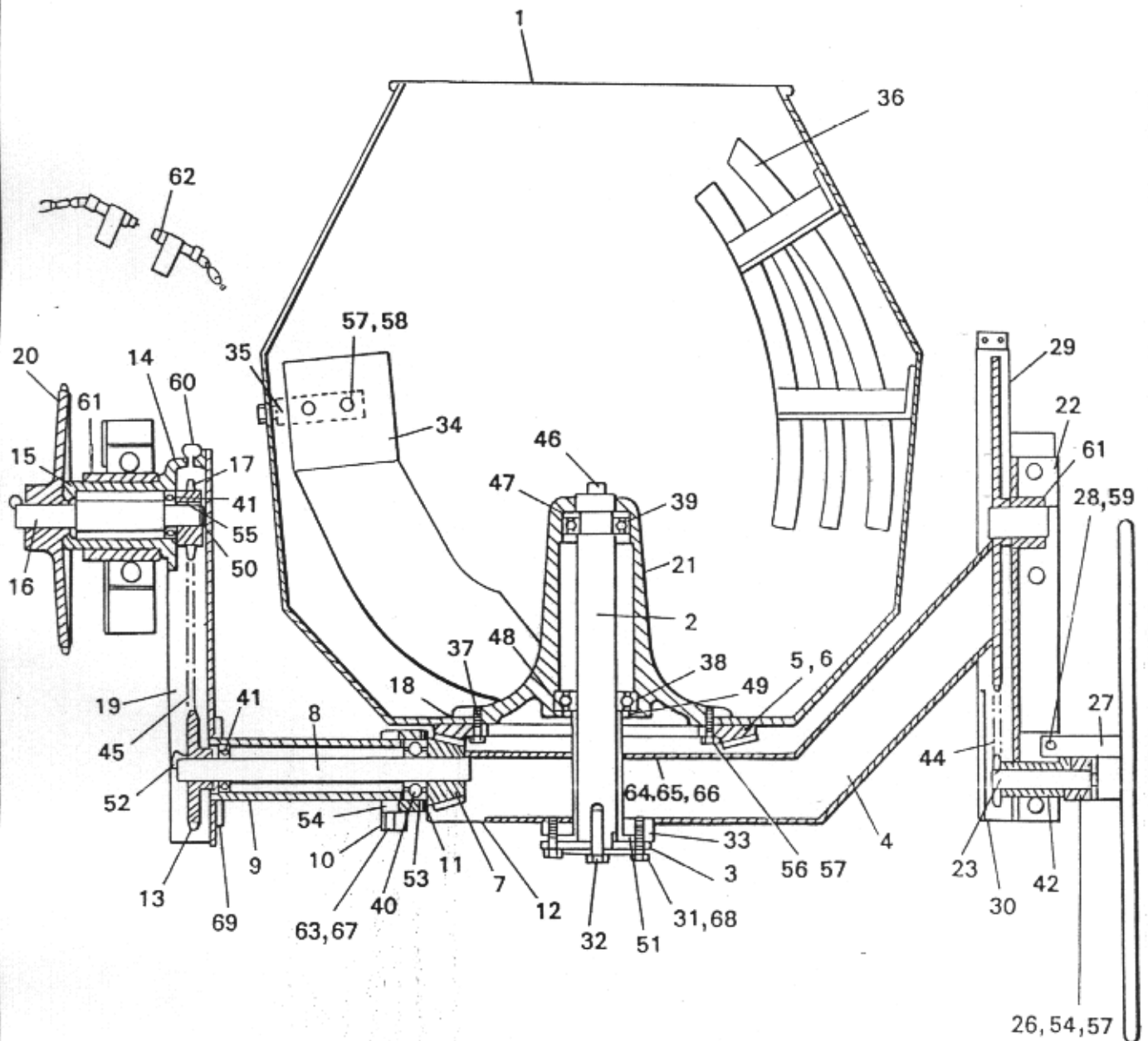
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 1d		DRUM & TRUNNION ASSEMBLY - TRI ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	KWT-330T-1	MIXING DRUM	
2	1	513-2180-00	DRUM SHAFT	
3	1	513-2181-00	DRUM SHAFT FLANGE	
4	1	KWT-300T-13	TRUNNION	
5	1	KWT-200T-14	BEVEL GEAR RING	
6	1	513-2186-00	BEVEL GEAR GUARD	
7	1	KWT-200T-13	BEVEL PINION	
8	1	513-2183-00	BEVEL PINION SHAFT	
9	1	KWT-200T-1	BEVEL PINION SHAFT HSG.	
10	1	KWT-300T-17	TRUNNION BLOCK	
11	1	KWT-200T-19	SEALING WASHER	
12	1	513-2187-00	BEVEL PINION GUARD	
13	1	F5006	COUNTERSHAFT SPROCKET	
14	1	513-2156-00	TRUNNION JOURNAL	
15	1	513-2152-00	TRUNNION BEARING	
16	1	513-2182-00	COUNTERSHAFT	
17	1	003-114-00	COUNTERSHAFT SPROCKET	F5007
18	1	R14013	SEAM SEALER (PRESTIK)	
19	1	513-2191-00	TRUNNION CHAIN GUARD	
20	1	003-112-00	COUNTERSHAFT DRIVE SPROCKET	F5008
21	1	KWT-200T-15	DRUM CENTRE	
22	1	513-2192-00	TILTING BRACKET	
23	1	F5009	TILT PINION & SHAFT	
24	1	513-2199-00	CHAIN TENSIONER	NOT ILLUSTR.
25	1	513-2198-00	HANDWHEEL	003-023-00
26	1	513-2196-00	COTTER PIN	
27	1	513-2202-00	LOCKING LATCH	
28	1	513-2203-00	LOCK LATCH PIVOT PIN	
29	1	513-2200-00	TILTING CHAIN GUARD	
30	1	513-2201-00	TILT CHAIN GUARD STRAP	
31	2	156P110-16	HEX. HD. SETSCREW	DRUM SHAFT FLANGE
32	1	07142048	HEX. HD. SETSCREW	DRUM SHAFT
33	N	08511730	PACKING WASHER	N = AS REQUIRED
34	2	502-7728-00	LOWER DRUM BLADES	
35	2	502-7758-00	LOWER DRUM BLADE CLEAT	

330T CONCRETE MIXER

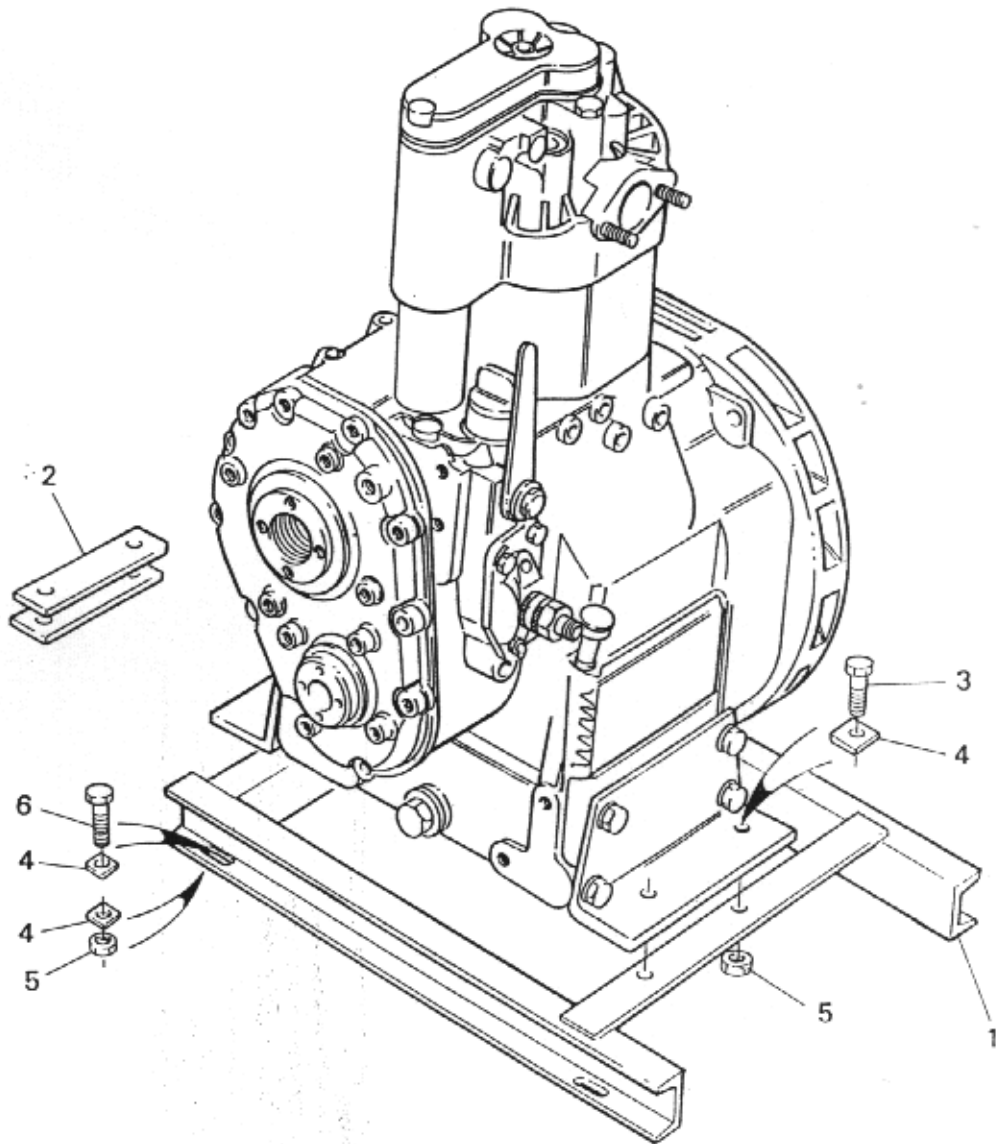


330T CONCRETE MIXER

GROUP: 1d		DRUM & TRUNNION ASSEMBLY - TRI ENGINE (Continued)		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
36	2	502-4764-00	SKELETON BLADE	DRUM/BEVEL G ASSEMBLY
37	4	07141248	HEX. HD. SETSCREW	
38	1	BBB-6215-2RS	BALL BEARING	DRUM CENTRE
39	1	BBB-6212-2RS	BALL BEARING	DRUM CENTRE
40	1	BBB-6307-2RS	BALL BEARING	B.P. HOUSING
41	3	BBB-6207-2RS	BALL BEARING	B/P/ HSG./ T-JOURNAL
42	2	A0005	TILTING BRKT. BUSH	
43	1	A0006	VESCONITE BUSH	
44	1	F5001	CHAIN C/W MASTER LINK	
45	1	003-117-00	CHAIN C/W MASTER LINK	F5002
46	1	B1003	TAPER PLUG	
47	1	G6002	CIRCLIP - DRUM SHAFT	
48	1	G6003	CIRCLIP - DRUM SHAFT	
49	1	G6001	CIRCLIP - DRUM SHAFT	
50	1	G6005	CIRCLIP - COUNTER SHAFT	
51	1	KWT-200T-16	DRUM SHAFT SPACER	
52	1	L10001	GIB HEAD KEY	
53	1	G6007	CIRCLIP	
54	5	08511324	WASHER	
55	1	L10007	KEY	
56	1	07141265	HEX. HD. SETSCREW	DRUM CENTRE
57	21	08131218	NUT - NYLOC	
58	18	07141234	HEX. HD. SETSCREW	
59	1	B1006	GRUB SCREW	
60	1	315-8031-00	LUBRICATING PLUG	
61 *	5	C2002	GREASE NIPPLE	
62	1	08131016	NUT - NYLOC	
63	2	07141238	HEX. HD. SETSCREW	
64	4	07140824	HEX. HD. SETSCREW	
65	4	08510817	WASHER	
66	4	08530815	SPRING WASHER	
67	4	08531221	SPRING WASHER	
68	2	08531627	SPRING WASHER	
69	1	KWT-200T-2	ADJUSTING PLATE	

GROUP 02

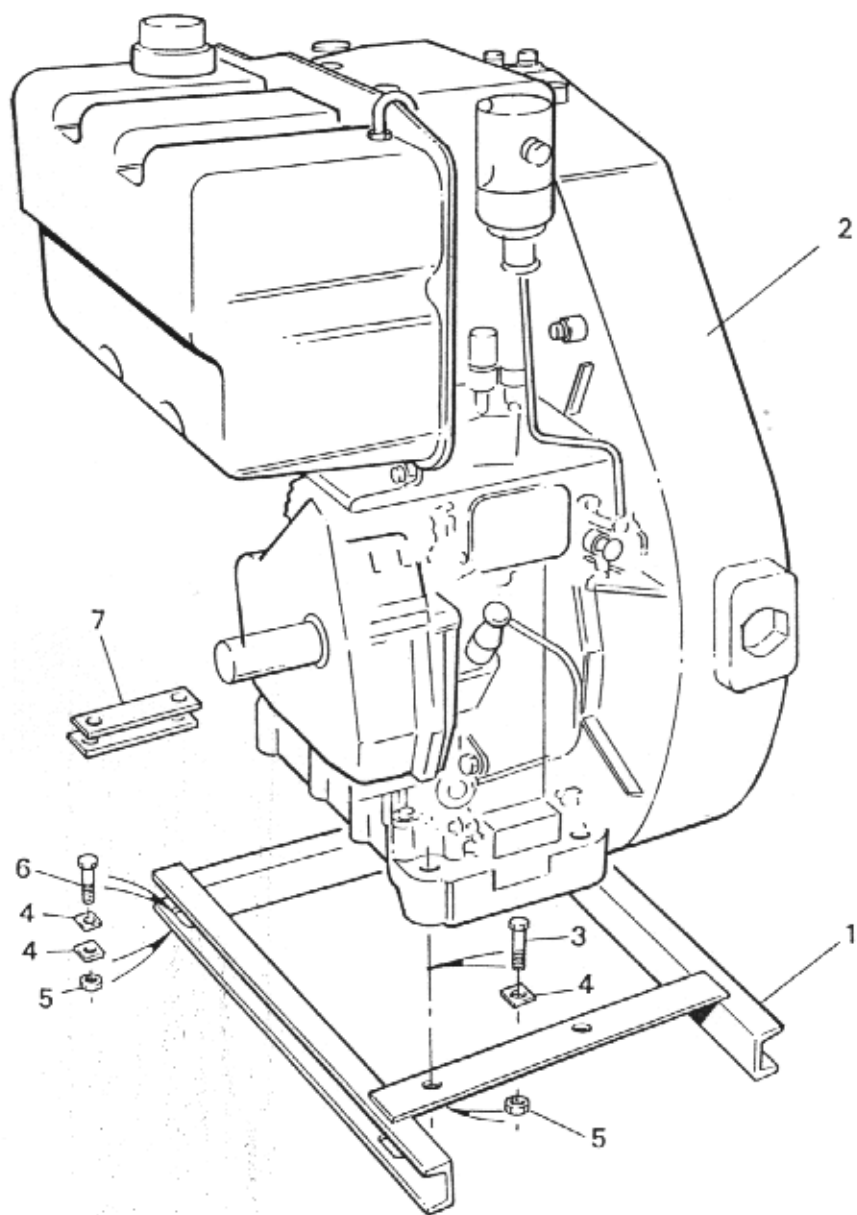
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2a		ENGINE MOUNTING - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	513-2296-OA	ENGINE BED - MOD.	513-2296-00
2	A/R	003-110-00	ENGINE PACKER SET	
3	4	07141238	HEX. HD. SETSCREW	
4	12	30P5	TAPER WASHER	
5	8	08131218	NUT - NYLOC	
6	4	07141256	HEX. HD. SETSCREW	

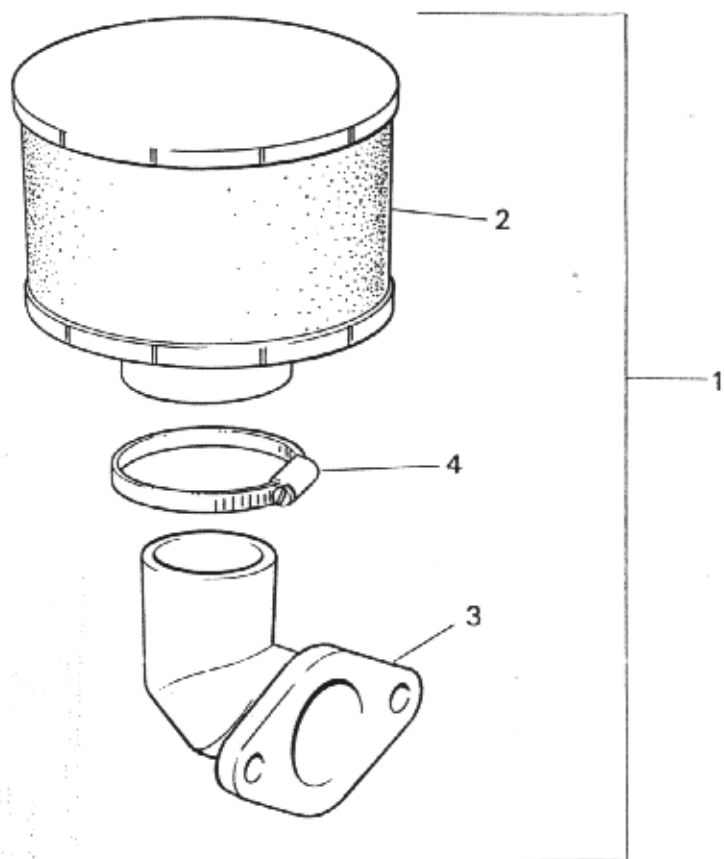
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2b		ENGINE MOUNTING - TRI ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	513-2296-OA	ENGINE BED - MOD.	513-2296-00
2	1	003-111-00	ENGINE	
3	4	07141238	HEX. HD. SETSCREW	
4	12	30P5	TAPER WASHER	
5	8	08131218	NYLOC NUT	
6	4	07141256	HEX. HD. SETSCREW	
7	A/R	003-110-00	ENGINE PACKERS	

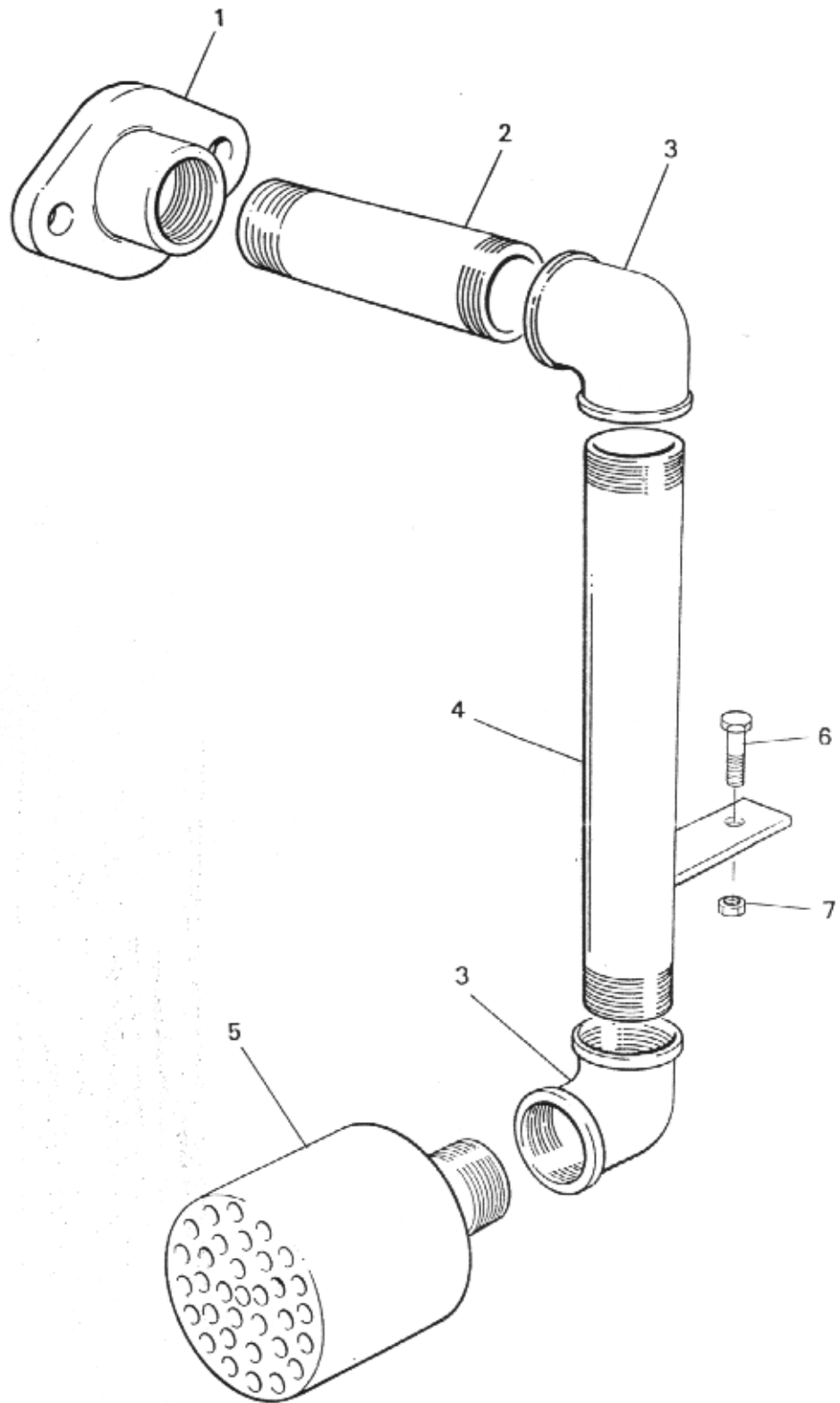
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2c		AIRCLEANER SYSTEM - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	ECC05-5003	AIRCLEANER ASSEMBLY COMPLETE	
2	1	N.S.S.	AIRCLEANER	
3	1	N.S.S.	AIRCLEANER PIPE	
4	1	N.S.S.	HOSE CLAMP	

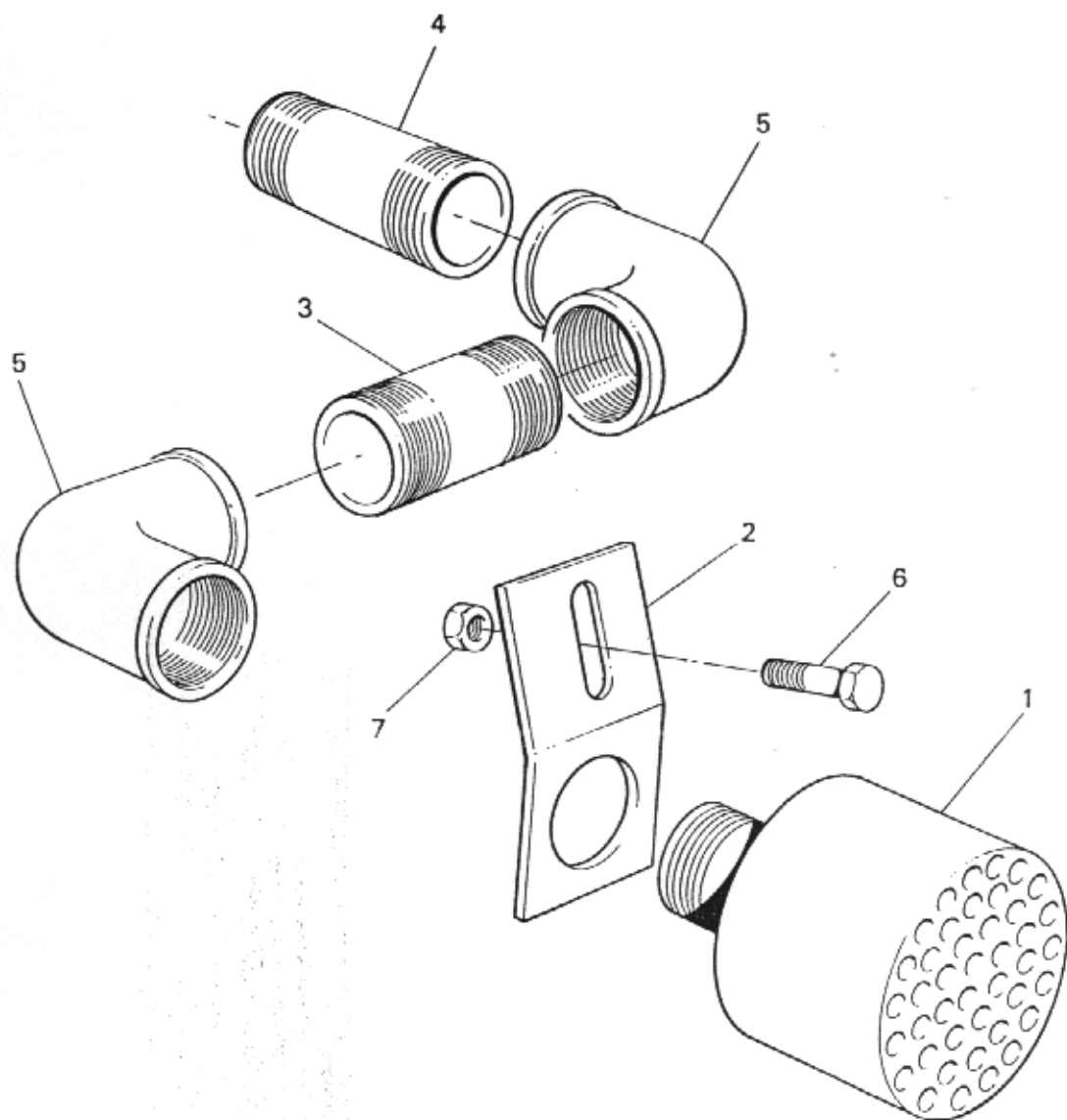
330T
CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2d		EXHAUST SYSTEM - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	038-291-00	EXHAUST FLANGE (SUPPLIED WITH	ENGINE)
2	1	003-108-00	EXHAUST PIPE	KWT-330T-22
3	2	K9070	ELBOW	
4	1	008-109-00	EXHAUST PIPE	
5	1	008-722-00	SILENCER (SUPPLIED WITH	ENGINE)
6	1	07140824	HEX. HD. SETSCREW	
7	1	08130813	NUT - NYLOC	

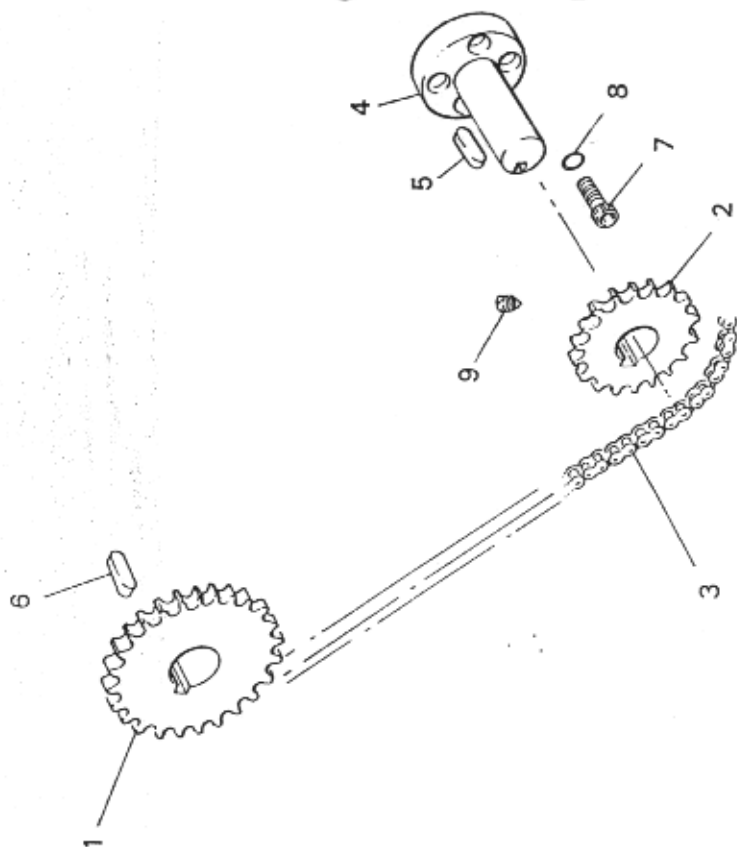
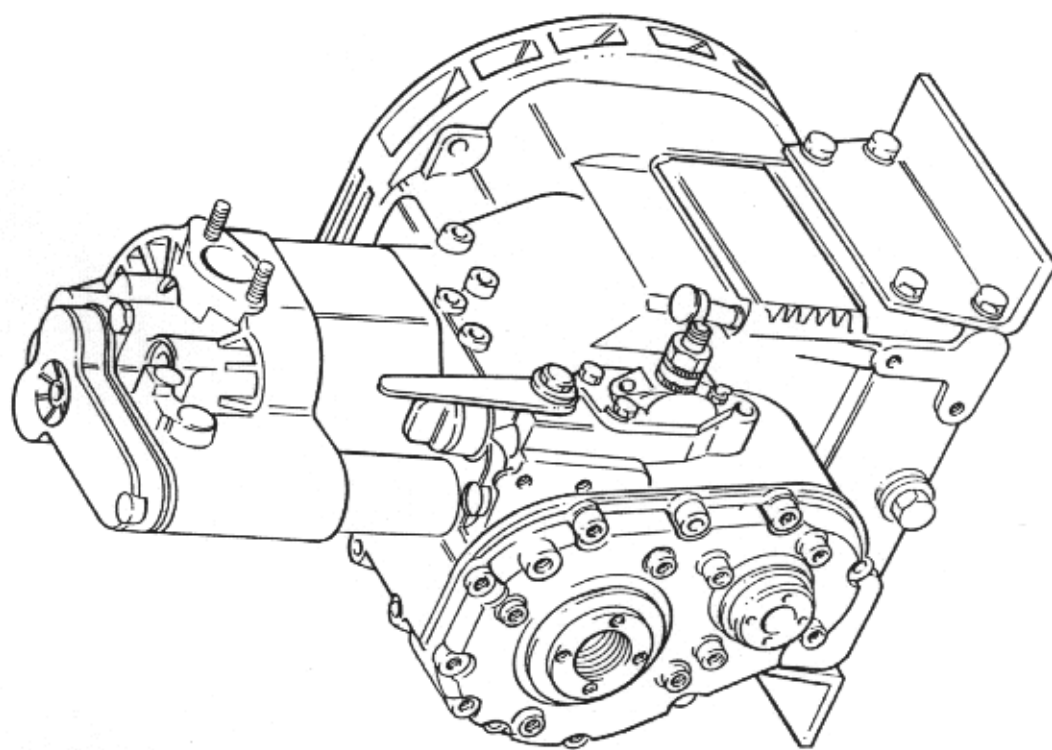
330T
CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2e		EXHAUST SYSTEM - TRI ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	003-120-00	MOD. SILENCER	
2	1	003-118-00	EXHAUST STAY	
3	1	003-119-00	EXHAUST PIPE	
4	1	K9088	NIPPLE	
5	2	K9097	ELBOW	
6	1	07140842	HEX. HD. SETSCREW	
7	1	08130813	NYLOC NUT	

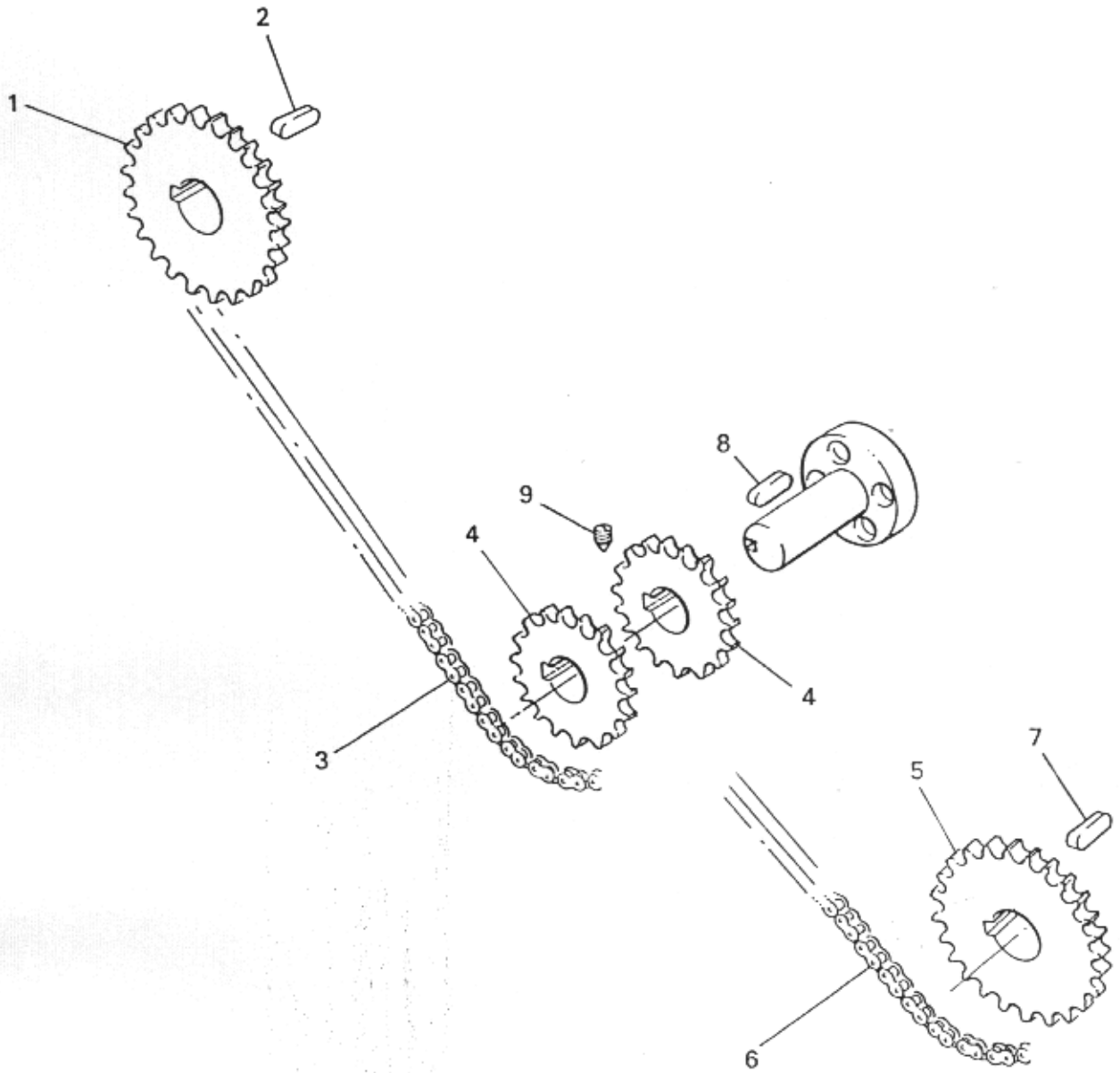
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 2f		ENGINE DRIVE ASSEMBLY - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	003-105-00	C/SHAFT DRIVE SPROCKET	F5008
2	1	003-104-00	ENGINE DRIVE SPROCKET	503-0499-00
3	1		CHAIN	
4	1	SUPP. WITH ENG.	DRIVE FLANGE	
5	1	09181606	KEY	
6	1	L10001	KEY	
7	4	07230821	ALLEN CAP SCREW	
8	4	08530813	SPRING WASHER	
9	1	07551000	GRUB SCREW	

330T CONCRETE MIXER



330T CONCRETE MIXER

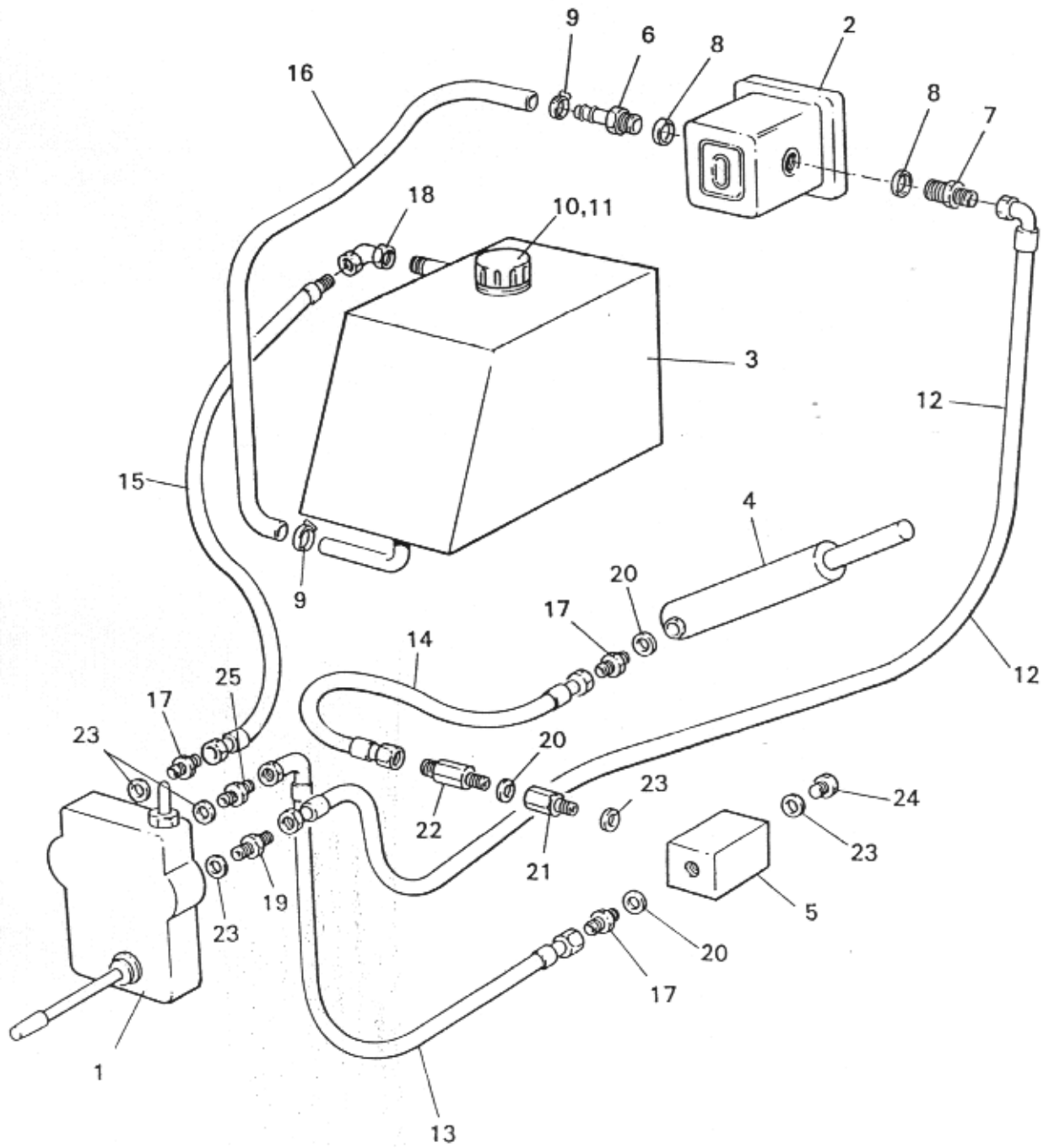
GROUP: 2g		ENGINE DRIVE ASSEMBLY - TRI ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	003-112-00	C/SHAFT DRIVE SPROCKET	
2	1	L10001	KEY	
3	1	003-115-00	CHAIN - ENGINE TO D/SPROCKET	
4	2	003-113-00	DRIVE SPROCKET	
5	1	003-121-00	PUMP SPROCKET	
6	1	003-116-00	CHAIN - ENGINE TO PUMP	
7	1	SUPPLIED WITH PUMP	KEY	
8	1	L10006	KEY	
9	2	07550604	GRUB SCREW	

GROUP 03

330T CONCRETE MIXER

GROUP: 3a		HYDRAULIC CIRCUIT - HATZ ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	004-097-00	CONTROL VALVE	
2 †	1	003-101-00	HYDRAULIC PUMP	
3	1	513-2171-00	HYDRAULIC TANK	
4	1	003-100-00	HYDRAULIC RAM	
5	1	503-1394-0A	BLEED VALVE BLOCK ASSEMBLY	
6	1	003-107-00	PORT FLANGE (PRESSURE)	
7	1	003-106-00	PORT FLANGE (SUCTION)	
8	1	06220244	'O' RING (SUCTION)	
9	1	06220205	'O' RING (PRESSURE)	
10	1	S15005	FILLER BREATHER	
11	1	S15004	SUCTION STRAINER	
12	1	513-2917-0A	PRESSURE HOSE	
13	1	513-2915-0A	RAM HOSE	
14	1	U17002	RAM HOSE	
15	1	513-2916-00	RETURN HOSE	
16 *	1	U17022	SUCTION HOSE	
16A	1	U17022A	SUCTION HOSE	
17 *	1-2	B1050	HOSE CLAMP	
18	1	209P6	ELBOW	
19	1	102-012-00	ADAPTOR	
20	4	330P4	BONDED SEAL	
21	1	446-6110-00	MALE STUD ADAPTOR	
22	1	555-2469-00	RAM RESTRICTOR	
23	6	330P3	BONDED SEAL	
24	1	K9069	HEX. HD. PLUG	
25	1	3/8"BSP - 3/8"BSP	ADAPTOR	
26	2	102-004-00	ADAPTOR	
27	3	3/8"BSP - 1/2"BSP	ADAPTOR	
28	8	07230623	ALLEN CAP SCREW	
29	8	08530612	SPRING WASHER	

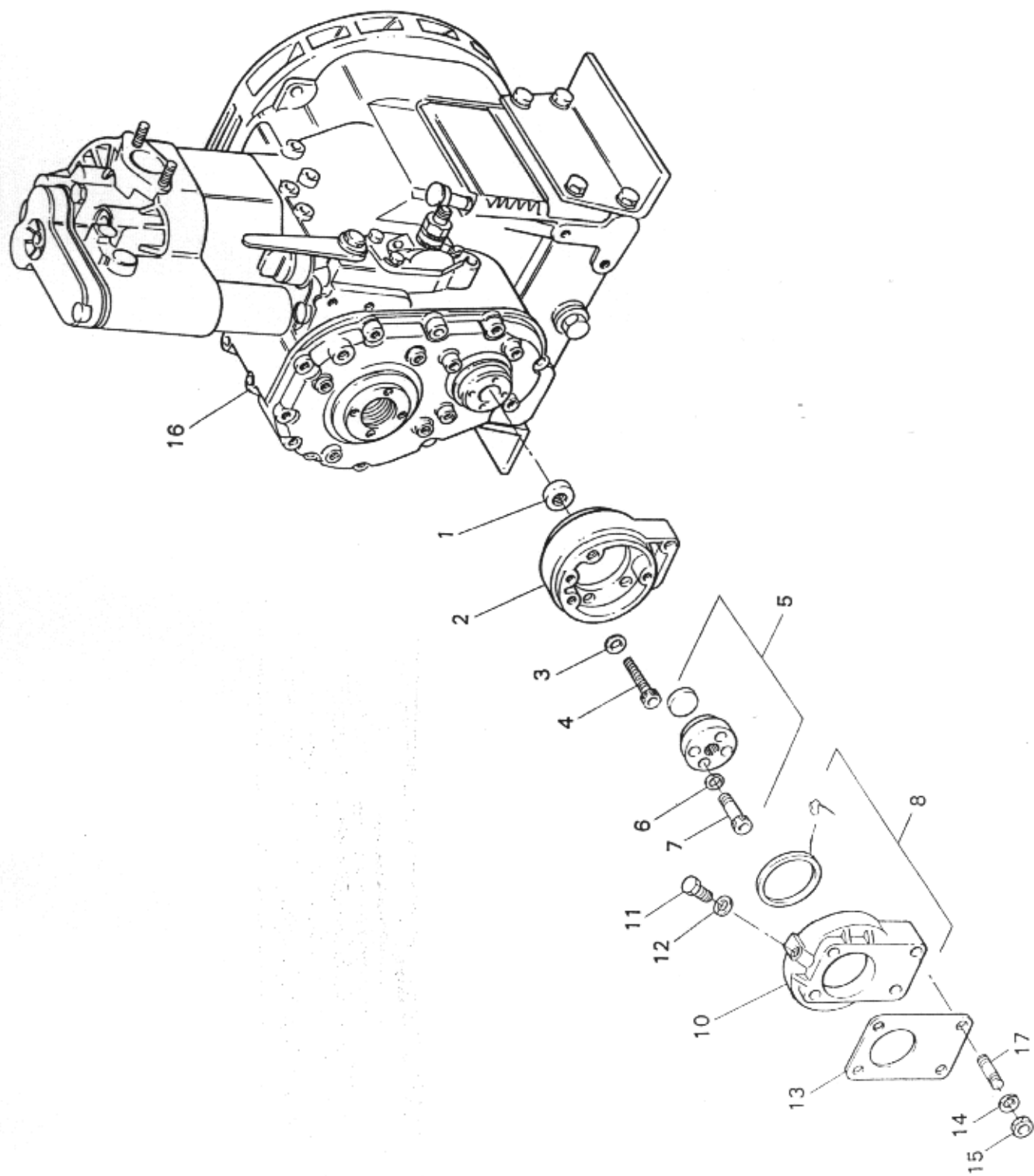
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 3b		HYDRAULIC CIRCUIT - TRI ENGINE		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	004-097-00	CONTROL VALVE	
2	1	361-1350-00	HYDRAULIC PUMP	
3	1	513-2171-00	HYDRAULIC TANK	
4	1	003-100-00	HYDRAULIC RAM	
5	1	503-1394-0A	BLEED VALVE BLOCK	
6	1	446-6600-00	HOSE TAIL	
7	1	50026-12-6	ADAPTOR	
8	2	330P6	BONDED SEAL	
9	2	B1050	HOSE CLAMP	
10	1	S15005	FILLER BREATHER	
11	1	S15004	SUCTION STRAINER	
12	1	513-2917-0A	PRESSURE HOSE	
13	1	513-2915-0A	RAM HOSE	
14	1	U17002	RAM HOSE	
15	1	513-2916-00	RETURN HOSE	
16	1	U17022	SUCTION HOSE	
17	3	3/8"BSP - 1/2" BSP	ADAPTOR	
18	1	209P6	ELBOW	
19	1	102-004-00	ADAPTOR	
20	4	330P4	BONDED SEAL	
21	1	446-6110-00	MALE STUD ADAPTOR	
22	1	555-2469-00	RAM RESTRICTOR	
23	5	330P3	BONDED SEAL	
24	1	K9069	HEX. HD. PLUG	
25	1	3/8"BSP - 3/8"BSP	ADAPTOR	

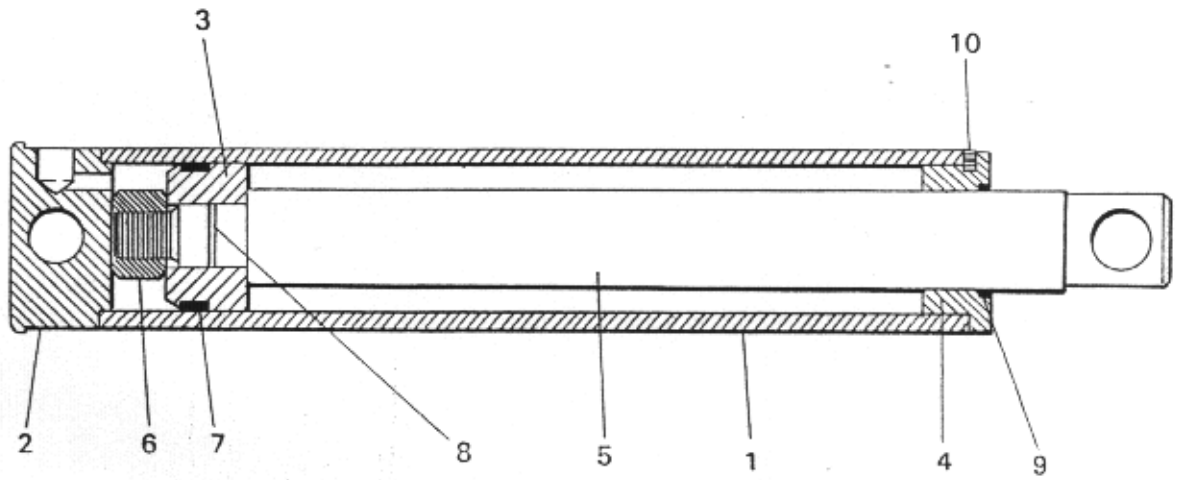
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 3c		MOUNTING FLANGE - HYDRAULIC PUMP - HATZ		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	039-036-00	SPACER	
2	1	038-664-01	FLANGE - REAR	
3	4	500-028-00	SPRING WASHER	
4	4	500-521-00	ALLEN CAP SCREW	
5	1	011-226-00	FLANGE DRIVE ASSEMBLY	CONSISTING OF REF 6,7
6	4	500-010-00	COPPER WASHER	
7	4	500-535-00	ALLEN CAP SCREW	
8	1	011-249-00	FLANGE ASSEMBLY - FRONT	CONSISTING OF REF 9,10
9 *	1	502-866-00	OIL SEAL	
10	1	-	-	
11	2	500-962-00	HEX. HD. SETSCREW	
12	2	501-629-00	COPPER WASHER	
13	1	035-680-00	GASKET - PUMP	
14	4	500-951-00	SPRING WASHER	
15	4	501-480-00	HEX. HD. NUT	
16	1	003-103-00	ENGINE ASSEMBLY	
17	4	500-386-00	STUD	

330T
CONCRETE MIXER

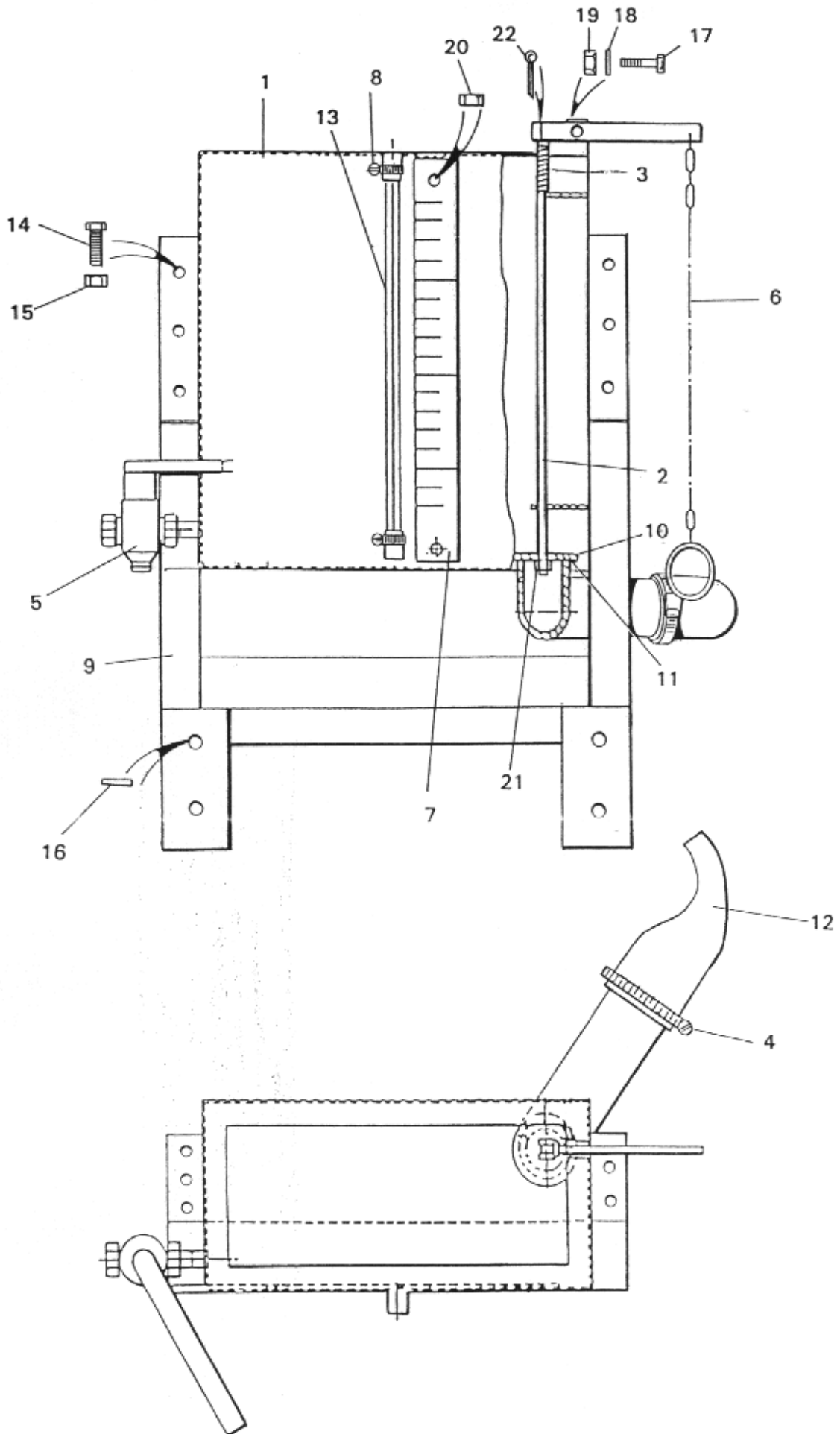


330T CONCRETE MIXER

GROUP: 3d		HOPPER RAM ASSEMBLY		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
	1	003-100-00	HOPPER RAM COMPLETE	S15054
1	1	003-100-01	TUBE	
2	1	003-100-02	END CAP	
3	1	004-098-05	PISTON	
4	1	004-098-03	GLAND NUT	
5	1	003-100-05	PISTON ROD	
6	1	08132431	NUT - NYLOC	
7	1	004-098-07	PISTON SEAL	
8	1	004-098-06	'O' RING	
9	1	004-098-04	SCRAPER	
10	1	07560604	GRUB SCREW	

GROUP 04

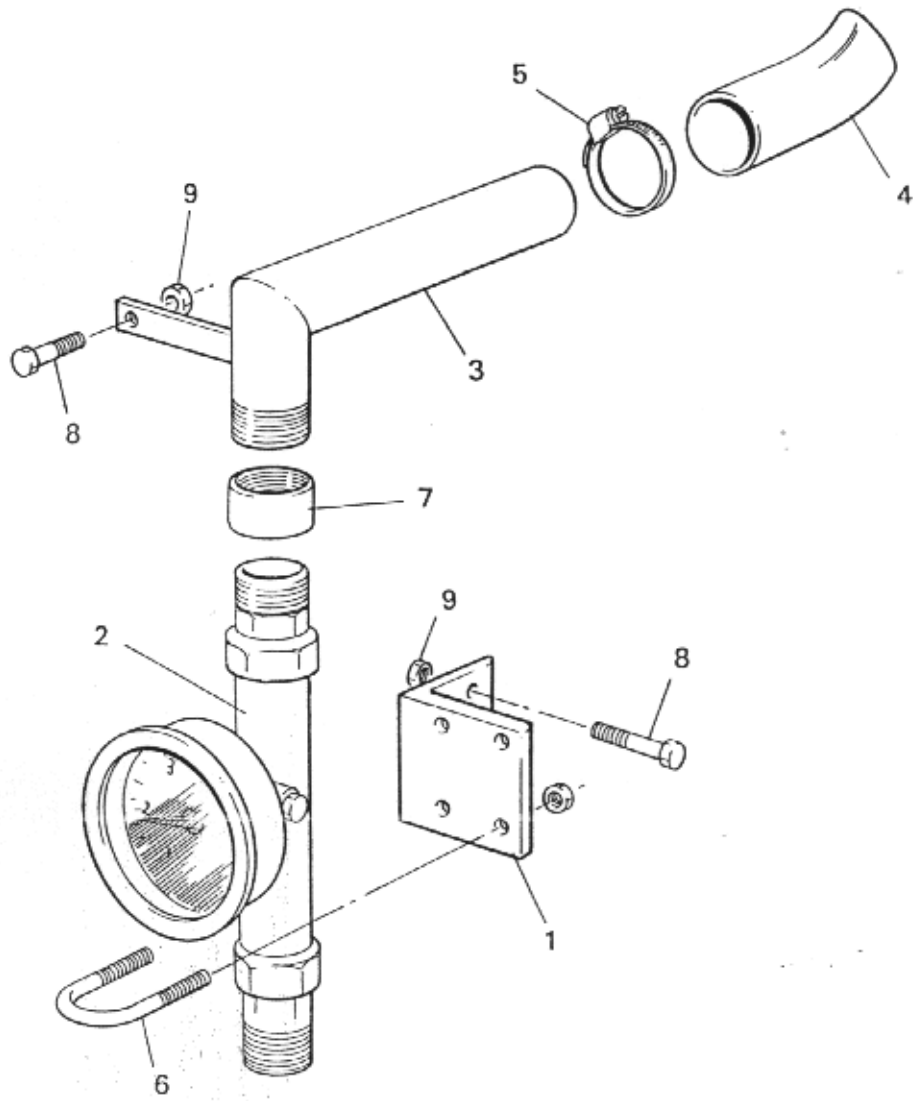
330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 4a		WATER TANK ASSEMBLY		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	KWT-300T-16	WATER TANK BARE	
2	1	KWT-200T-3-06	SPINDLE	
3 *	1	C173C	SPRING	
4	1	B1018	HOSE CLAMP	
5	1	K9079	BALL VALVE	
6	1	KWT-300T-16-11	ARM, CHAIN & RING	
7	1	KWT-300T-4	WATER TANK SCALE	
8	2	B1032	HOSE CLAMP	
9	1	KWT-300T-15	WATER TANK BRACKET	
10	1	KWT-200T-3-07	FLANGE	
11	1	KWT-200T-3-08	RUBBER WASHER	
12	1	504-5315-00	RUBBER NOZZLE	
13	1	430-9040-00	CLEAR TUBE	
14	13	07141234	HEX. HD. SETSCREW	
15	13	08131218	NUT - NYLOC	
16	4	08511324	CUT WASHER	
17	1	07140842	HEX. HD. SETSCREW	
18	2	08510817	WASHER	
19	1	08130813	NUT - NYLOC	
20	2	145P22	NUT - NYLOC	
21	2	08111015	HEX. NUT	
22	1	09170407	SPLIT PIN	

330T CONCRETE MIXER

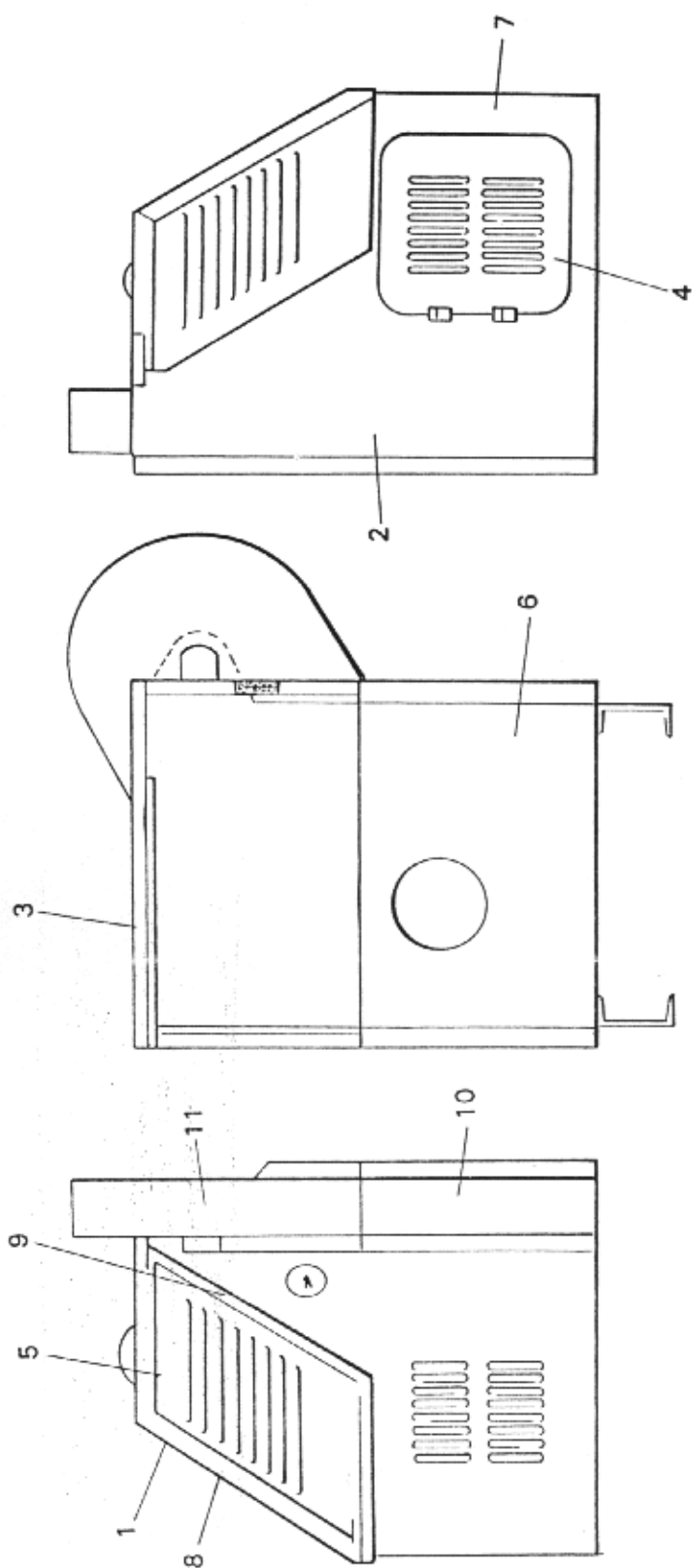


330T CONCRETE MIXER

GROUP: 4b		FLOW METER ASSEMBLY		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	003-122-00	MOUNTING BRKT.	
2	1	MADDALENE - 200LT	FLOWMETER	
3	1	003-123-00	DISCHARGE PIPE	
4	1	504-5315-00	RUBBER NOZZLE	
5	1	B1018	HOSE CLAMP	
6	2	004-153-00	U-BOLT	
7	1	513-2034-02	SOCKET	
8	3	07141242	HEX. HD. SETSCREW	
9	3	08131218	NYLOC NUT	

GROUP 05

330T CONCRETE MIXER

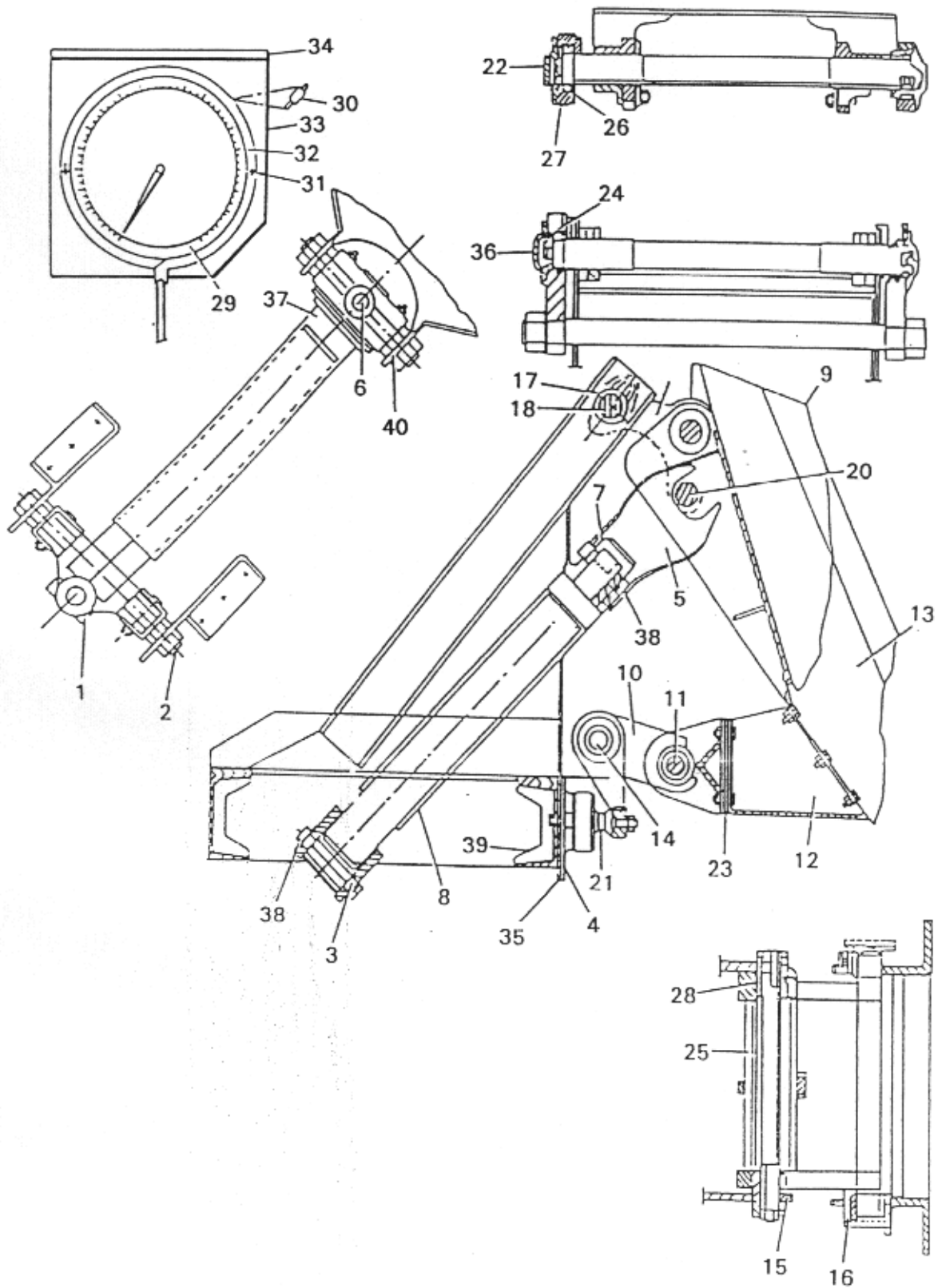


330T CONCRETE MIXER

GROUP: 5a		ENGINE COVERS		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	513-2281-04	ENG. HSG. SUPPORT BRACKET	
2	1	513-2275-00	CHARGE SIDE PANEL	
3	1	513-2286-00	BRIDGE PIECE	
4	1	513-2277-00	SIDE PANEL DOOR	
5	1	513-2281-00	ENGINE HOUSING LID	
6	1	513-2278-00	FRONT PANEL	
7	1	KWT-225T-7	DISCHARGE SIDE PANEL LOCK	
8	1	50-50-46009	LABEL, WARNING, ENG. HSG. LID	
9	1	513-2284-00	LID STAY ASSEMBLY	
10	1	513-2285-00	CLOSING PLATE	
11	1	513-2287-00	CHAIN GUARD	
12	40	07141027	* HEX. HD. SETSCREW	* FOR ALL
13	40	08131016	* NUT - NYLOC	ENGINE
14	40	08511021	* WASHER	COVERS

GROUP 06

330T CONCRETE MIXER



330T CONCRETE MIXER

GROUP: 6a		HOPPER AND RAM WITH OPTIONAL WEIGHGEAR		ISSUE: 1995
REF NO.	QTY	PART NO.	DESCRIPTION	SUPERCEDED NO./NOTE
1	1	513-2454-00	LOWER RAM YOKE	
2	4	503-0537-00	RAM YOKE PIN	UPPER & LOWER
3	1	513-2457-00	LOWER YOKE PIN	
4	1	513-2309-00	* LOADCELL ADJ. SCREW BLOCK	WEIGH BATCH ONLY
5	1	503-0515-00	UPPER RAM YOKE	
6	1	503-0497-00	UPPER YOKE PIN	
7	4	C180B	STEEL WASHER	
8	1	503-0496-00	RAM SHROUD	
9	1	KWT-300T-12	LOADING HOPPER	
10	1	503-1204-00	* LOWER HOPPER CRADLE BRKT.	WEIGH BATCH ONLY
11	1	513-2264-00	* LOWER CRADLE SHAFT	WEIGH BATCH ONLY
12	1	513-1099-00	* CONNECTING HOPPER BRKT.	WEIGH BATCH ONLY
13	1	513-1093-00	HOPPER CRADLE	
14	1	513-2263-00	* LOWER ARM PIVOT SHAFT	WEIGH BATCH ONLY
15	2	513-2266-00	* LOWER PIVOT INSERT	WEIGH BATCH ONLY
16	2	513-2267-00	* LOWER CRADLE BRKT. INSERT	WEIGH BATCH ONLY
17	2	503-1163-00	RAM BEARING	
18	2	003-032-00	TOP PIVOT SHAFT	503-1165-00
19	2	503-1166-00	UPPER LINKS	
20	1	503-1164-00	TOP LINK SPACER	
21	1	503-1507-00	STRIKING BUTTON	
22	4	003-030-00	BEARING CAP	503-1162-00
23	2	KWT-330T-21	* LOWER CRADLE BRACKET	WEIGH BATCH ONLY
24	4	503-1161-00	SEAL HOUSING	
25	1	* 003-076-00	LOWER ARM PIVOT	WEIGH BATCH ONLY
26	4	R14010	'O' RING	463-6010-00SA
27	4	113-1250-00	NEEDLE ROLLER BEARING	
28	4	A0005	* BUSH	WEIGH BATCH ONLY
29	1	555-2424-14	* WEIGHDIAL & LOADCELL ASSY.	WEIGH BATCH ONLY
30	4		* FLEXIBLE MOUNTING	WEIGH BATCH ONLY
31	4	062-001-00	* SHOULDERED SCREW	WEIGH BATCH ONLY
32	1	555-1250-00	* DIAL COVER	WEIGH BATCH ONLY
33	1	513-2268-00	* WEIGHDIAL MOUNTING	WEIGH BATCH ONLY
34	1	513-2269-00	* WEIGHDIAL STAY	WEIGH BATCH ONLY
35	1	418-2508-32	* HEX. HD. SETSCREW	WEIGH BATCH ONLY
36	4	C2004	GREASE NIPPLE	
37	1	503-0035-00	RUBBER BUFFER	
38	4	C2002	GREASE NIPPLE	
39	1	KWT-330T-4	CHANNEL - WEIGHER	
40	2	105-2100-00	VESCONITE BUSH	

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm