

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 6/28/2012

P.O. NO.:
Order/Line NO.: 21936 MN

TO:

Model Number: DR37
Catalog Number:
DR37, TEFC, PRE, AC MTR
60 HZ, 230 / 460 V, MEXMARKT
UTEF, 3 HP, 4 P, 182TC FTLS

REVISIONS:
(NONE)

**ALL DOCUMENTS HEREIN ARE CONSIDERED CERTIFIED BY NIDEC MOTOR CORPORATION.
THANK YOU FOR YOUR ORDER AND THE OPPORTUNITY TO SERVE YOU.**

Features:

| | |
|---|-------------------------|
| HorsePower | 3 |
| Enclosure. | TE |
| Poles. | 04 |
| RPM (Full Load). | 1765 |
| Motor Frame Size | 182TC |
| Phase. | 3 |
| Frequency. | 60 |
| Voltage. | 460-230 |
| Motor Type Code. | UTEF |
| Rotor Inertia (LB-FT ²) | .293 LB-FT ² |
| Qty. of Bearings PE (Shaft) | 1 |
| Qty. of Bearings SE (OPP) | 1 |
| Bearing Number PE (Shaft) | 6206-2Z-J/C3 |
| Bearing Number SE (OPP) | 6205-2Z-J/C3 |

Nidec trademarks followed by the ® symbol are registered with the U.S. Patent and Trademark Office.

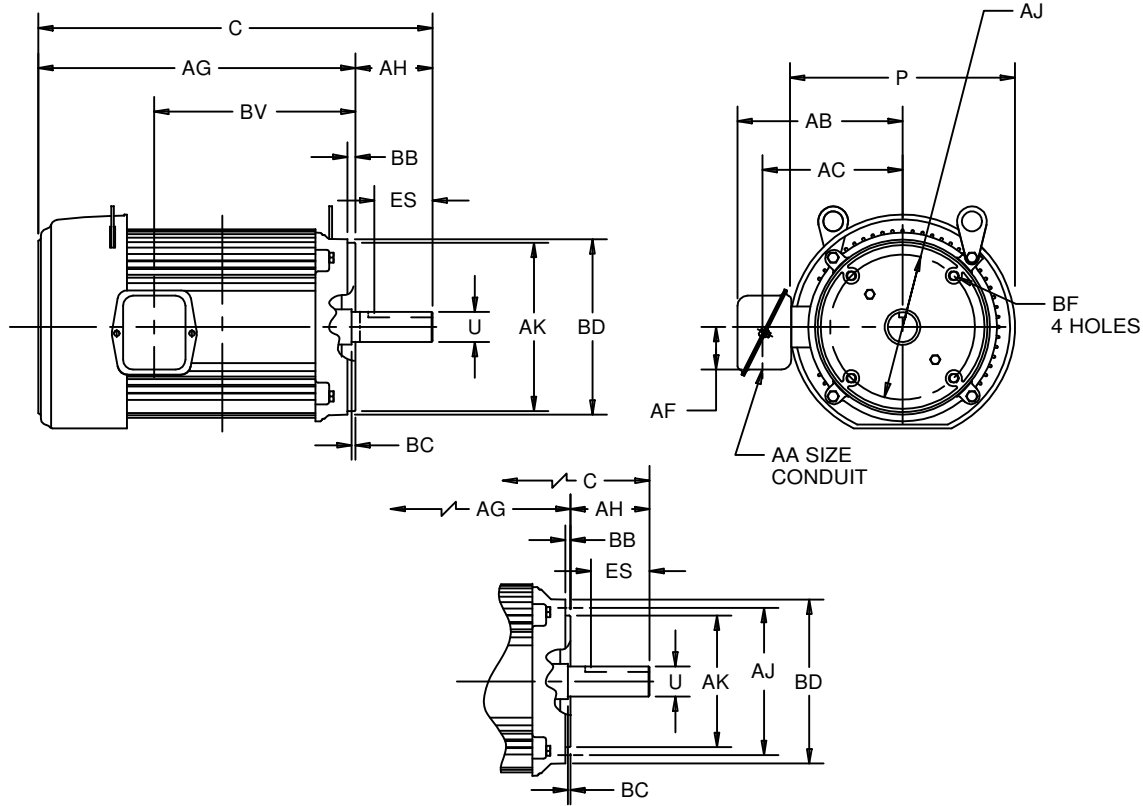
EFFECTIVE:
13-APR-11

SUPERSEDES:
19-MAR-04

HORIZONTAL MOTORS
TEFC - FOOTLESS WITH "C" FACE
FRAME: 182 THRU 215TC
BASIC TYPE: UT

PRINT:
07-2030

SHEET:
1 OF 1



FOR FRAMES
182TCH AND 184TCH

ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

| FRAME | UNITS | P ² | T | U -.0005 | AA | AB | AC | AF | AH | BC | ES MIN | SQ KEY |
|-------|-------|----------------|-----|-------------|------|------|------|------|------|-----|-----------|-----------|
| 180 | IN | 9.56 | .38 | 1.1250 | .75 | 7.50 | 6.31 | 2.13 | 2.63 | .13 | 1.78 | .250 |
| | MM | 243 | 10 | 28.575 | | 191 | 160 | 54 | 67 | 3 | 45 | 6.35 |
| 210 | IN | 11.25 | .38 | 1.3750 | 1.00 | 8.25 | 7.09 | 2.13 | 3.13 | .25 | 2.41 | .313 |
| | MM | 286 | 10 | 34.925 | | 210 | 180 | 54 | 80 | 6 | 61 | 7.95 |

| FRAME | UNITS | C | AG | AJ | AK -.003 | BB MIN | BD MAX | BF ³ | BV |
|--------|-------|-------|-------|--------|-------------|-----------|-----------|-----------------|-------|
| 182TC | IN | 16.13 | 13.50 | 7.250 | 8.500 | .25 | 9.00 | 1/2-13 X .75 | 8.44 |
| | MM | 410 | 343 | 184.15 | 215.90 | 6 | 229 | | 214 |
| 182TCH | IN | 16.13 | 13.50 | 5.875 | 4.500 | .16 | 6.50 | 3/8-16 X .56 | 8.44 |
| | MM | 410 | 343 | 149.23 | 114.30 | 4 | 165 | | 214 |
| 184TC | IN | 16.88 | 14.25 | 7.250 | 8.500 | .25 | 9.00 | 1/2-13 X .75 | 9.19 |
| | MM | 429 | 362 | 184.15 | 215.90 | 6 | 229 | | 233 |
| 184TCH | IN | 16.88 | 14.25 | 5.875 | 4.500 | .16 | 6.50 | 3/8-16 X .56 | 9.19 |
| | MM | 429 | 362 | 149.23 | 114.30 | 4 | 165 | | 233 |
| 213TC | IN | 18.63 | 15.50 | 7.250 | 8.500 | .25 | 9.00 | 1/2-13 X .75 | 9.94 |
| | MM | 473 | 394 | 184.15 | 215.90 | 6 | 229 | | 252 |
| 215TC | IN | 20.13 | 17.00 | 7.250 | 8.500 | .25 | 9.00 | 1/2-13 X .75 | 11.44 |
| | MM | 511 | 432 | 184.15 | 215.90 | 6 | 229 | | 291 |

- 1: ALL ROUGH DIMENSIONS MAY VARY BY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
- 2: LARGEST MOTOR WIDTH.
- 3: CONDUIT BOX MAY BE LOCATED ON EITHER SIDE. CONDUIT OPENINGS MAY BE LOCATED IN STEPS OF 90 DEGREES REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.
- 4: TAP SIZE AND BOLT PENETRATION ALLOWANCE.
- 5: ALL TAPPED HOLES ARE UNIFIED NATIONAL COARSE, RIGHT HAND THREAD.
- 6: TOLERANCES SHOWN ARE IN INCHES ONLY.
- 7: FRAME REFERENCE: 8.250/182//9.000/184
9.500/213//11.000/215

| TOLERANCES | |
|---|-------------|
| FACE RUNOUT | .004 T.I.R. |
| PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET | .004 T.I.R. |
| PERMISSIBLE SHAFT RUNOUT | .002 T.I.R. |

07-2030/C

Nidec Motor Corporation
St. Louis, Missouri

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ISSUED BY
V. PAWAR
APPROVED BY
R. KING

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

| | | | | | | | |
|---|--|---|---|---|---|--|--|
| CATALOG NUMBER: _____ | | | | NAMEPLATE PART #: 417128-001 | | | |
| MODEL | DR37 | FR | 182TC | TYPE | UTEF | ENCL | TE |
| SHAFT END BRG: 6206-2Z-J/C3 - QTY 1 | | | | OPP END BRG: 6205-2Z-J/C3 - QTY 1 | | | |
| PH | 3 | MAX AMB | 40 C | ID# | _____ | | |
| INSUL CLASS | F | Asm. Pos. | _____ | | DUTY | CONT | |
| HP | 3 | RPM | 1765 | HP | _____ | RPM | _____ |
| VOLTS | 460 | 230 | _____ | VOLTS | _____ | _____ | _____ |
| FL AMPS | 3.9 | 7.8 | _____ | FL AMPS | _____ | _____ | _____ |
| SF AMPS | 4.7 | 9.5 | _____ | SF AMPS | _____ | _____ | _____ |
| SF | 1.25 | DESIGN | B | CODE | K | DESIGN | _____ |
| NEMA NOM EFFICIENCY | 89.5 | NOM PF | 80.1 | KiloWatt | 2.238 | NOM PF | _____ |
| GUARANTEED EFFICIENCY | 87.5 | MAX KVAR | 1.4 | HZ | 60 | MAX KVAR | _____ |

UL DATA (IF APPLICABLE):

| | | | | | |
|-----------|-------|----------|-------|----------|-------|
| DIVISION | _____ | CLASS I | _____ | GROUP I | _____ |
| TEMP CODE | _____ | CLASS II | _____ | GROUP II | _____ |

VFD DATA (IF APPLICABLE):

| | | | | | |
|-------------------|---|-------------------|---|-------------------|-------|
| VOLTS | _____ | TORQUE 1 | _____ | TORQUE 2 | _____ |
| AMPS | _____ | VFD LOAD TYPE 1 | _____ | VFD LOAD TYPE 2 | _____ |
| | | VFD HERTZ RANGE 1 | _____ | VFD HERTZ RANGE 2 | _____ |
| | | VFD SPEED RANGE 1 | _____ | VFD SPEED RANGE 2 | _____ |
| SERVICE FACTOR | _____ | FL SLIP | _____ | | |
| NO. POLES | 4 | MAGNETIZING AMPS | 2.0 | | |
| VECTOR MAX RPM | _____ | Encoder PPR | _____ | | |
| Radians / Seconds | 1 | Encoder Volts | _____ | | |

TEAO DATA (IF APPLICABLE):

| | | | | | | | |
|------------------|-------|----------------------|-------|----------------------|-------|--------------------|-------|
| HP (AIR OVER) | _____ | HP (AIR OVER M/S) | _____ | RPM (AIR OVER) | _____ | RPM (AIR OVER M/S) | _____ |
| FPM AIR VELOCITY | _____ | FPM AIR VELOCITY M/S | _____ | FPM AIR VELOCITY SEC | _____ | | |

ADDITIONAL NAMEPLATE DATA:

| | | | |
|---------------------------|---------------------|---------------------------|--------|
| Decal / Plate | WD=417132 | Customer PN | |
| Notes | | Non Rev Ratchet | |
| Max Temp Rise | 80C RISE/RES@1.00SF | OPP/Upper Oil Cap | GREASE |
| Thermal (WDG) | | SHAFT/Lower Oil Cap | GREASE |
| Altitude | | | |
| Regulatory Notes | | Regulatory Compliance | |
| COS | | Marine Duty | |
| Balance | | Arctic Duty | |
| 3/4 Load Eff. | 89.7 | Inrush Limit | |
| Motor Weight (LBS) | 60 | Direction of Rotation | |
| Sound Level | | Special Note 1 | |
| Vertical Thrust (LBS) | | Special Note 2 | |
| Thrust Percentage | | Special Note 3 | |
| Bearing Life | | Special Note 4 | |
| Starting Method | | Special Note 5 | |
| Number of Starts | | Special Note 6 | |
| 200/208V 60Hz Max Amps | | SH Max. Temp. | |
| 190V 50 hz Max Amps | | SH Voltage | |
| 380V 50 Hz Max Amps | | SH Watts | |
| NEMA Inertia | | Load Inertia | |
| Sumpheater Voltage | | Sumpheater Wattage | |
| Special Accessory Note 1 | | Special Accessory Note 16 | |
| Special Accessory Note 2 | | Special Accessory Note 17 | |
| Special Accessory Note 3 | | Special Accessory Note 18 | |
| Special Accessory Note 4 | | Special Accessory Note 19 | |
| Special Accessory Note 5 | | Special Accessory Note 20 | |
| Special Accessory Note 6 | | Special Accessory Note 21 | |
| Special Accessory Note 7 | | Special Accessory Note 22 | |
| Special Accessory Note 8 | | Special Accessory Note 23 | |
| Special Accessory Note 9 | | Special Accessory Note 24 | |
| Special Accessory Note 10 | | Special Accessory Note 25 | |
| Special Accessory Note 11 | | Special Accessory Note 26 | |
| Special Accessory Note 12 | | Special Accessory Note 27 | |
| Special Accessory Note 13 | | Special Accessory Note 28 | |
| Special Accessory Note 14 | | Special Accessory Note 29 | |
| Special Accessory Note 15 | | Special Accessory Note 30 | |

**NIDEC MOTOR CORPORATION
ST. LOUIS, MO**



TYPICAL NAMEPLATE DATA
ACTUAL MOTOR NAMEPLATE LAYOUT MAY VARY
SOME FIELDS MAY BE OMITTED

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MOTOR PERFORMANCE

| MODEL NO. | CATALOG NO. | PHASE | TYPE | FRAME |
|-----------|-------------|-------|------|-------|
| DR37 | NA | 3 | UTEF | 182TC |

| ORDER NO. | 21936 | LINE NO. |
|-----------|-------|----------|
| | | |

| | | |
|-----------------------------|--------|--------|
| MPI: | 102384 | 102385 |
| HP: | 3 | 3 |
| POLES: | 4 | 4 |
| VOLTS: | 460 | 230 |
| HZ: | 60 | 60 |
| SERVICE FACTOR: | 1.25 | 1.25 |
| EFFICIENCY (%): | | |
| S.F. | 88.7 | 88.7 |
| FULL | 89.5 | 89.5 |
| 3/4 | 89.7 | 89.7 |
| 1/2 | 88.2 | 88.2 |
| 1/4 | 81.8 | 81.8 |
| POWER FACTOR (%): | | |
| S.F. | 83.4 | 83.4 |
| FULL | 80.1 | 80.1 |
| 3/4 | 73.8 | 73.8 |
| 1/2 | 61.9 | 61.9 |
| 1/4 | 40.1 | 40.1 |
| NO LOAD | 6.9 | 6.9 |
| LOCKED ROTOR | 53.2 | 53.2 |
| AMPS: | | |
| S.F. | 4.7 | 9.5 |
| FULL | 3.9 | 7.8 |
| 3/4 | 3.2 | 6.4 |
| 1/2 | 2.6 | 5.1 |
| 1/4 | 2.1 | 4.3 |
| NO LOAD | 2 | 4 |
| LOCKED ROTOR | 31 | 62 |
| NEMA CODE LETTER | K | K |
| NEMA DESIGN LETTER | B | B |
| FULL LOAD RPM | 1765 | 1765 |
| NEMA NOMINAL EFFICIENCY (%) | 89.5 | 89.5 |
| GUARANTEED EFFICIENCY (%) | 87.5 | 87.5 |
| MAX KVAR | 1.4 | 1.4 |
| AMBIENT (°C) | 40 | 40 |
| ALTITUDE (FASL) | 3300 | 3300 |
| SAFE STALL TIME-HOT (SEC) | 13 | 13 |
| SOUND PRESSURE (DBA @ 1M) | 56 | 56 |
| TORQUES: | | |
| BREAKDOWN{% F.L.} | 379 | 379 |
| LOCKED ROTOR{% F.L.} | 242 | 242 |
| FULL LOAD{LB-FT} | 8.9 | 8.9 |

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

NIDEC MOTOR CORPORATION
ST. LOUIS, MO

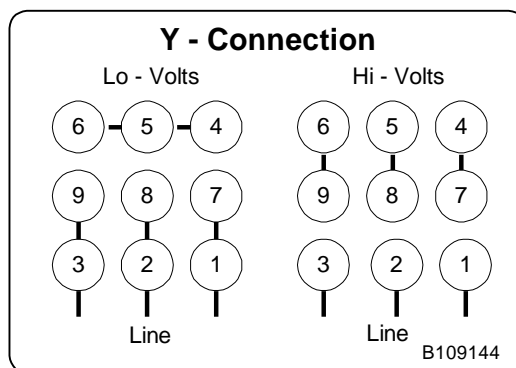
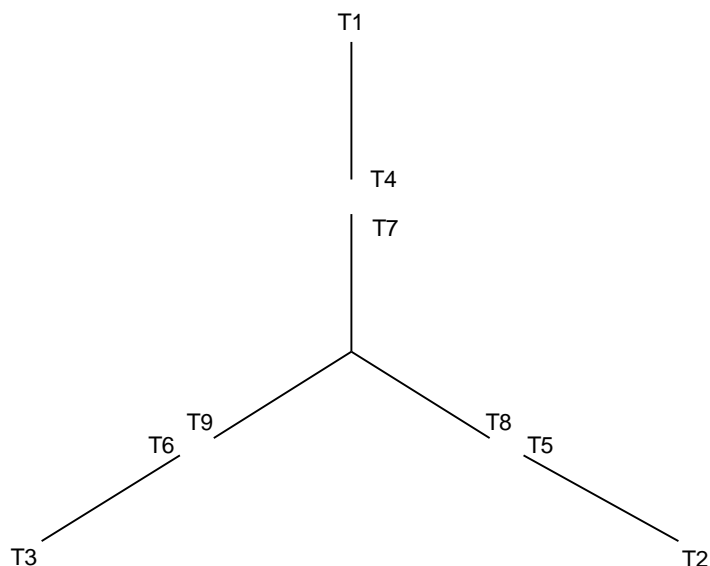


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B109144

Motor Wiring Diagram 9 Lead, Dual Voltage (WYE Conn.)



To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.
In such case each cable will be marked with the appropriate lead number.

RENEWAL PARTS

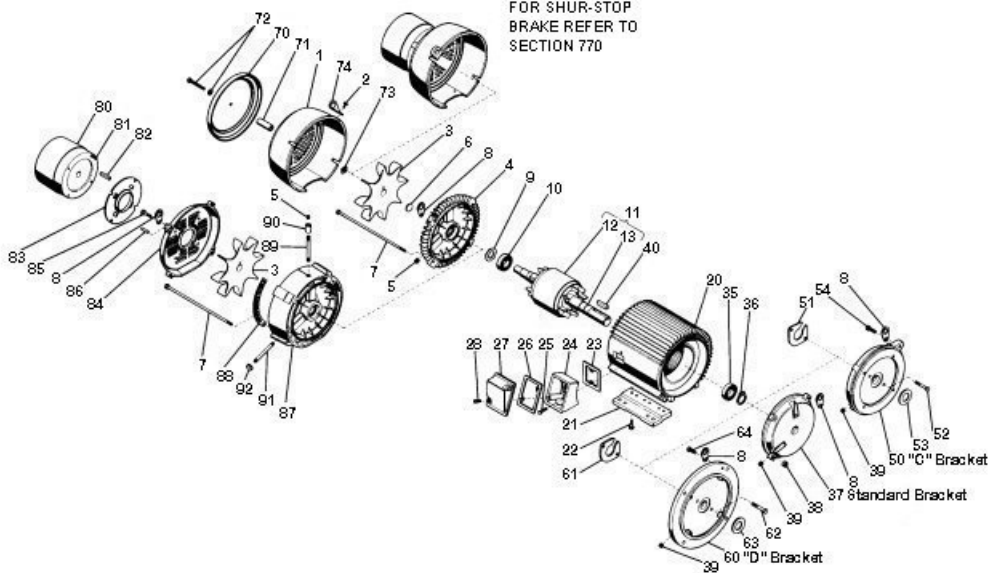
FRAMES - 182 THRU B256

UNIMOUNT TOTALLY ENCLOSED MOTORS

TYPES: FUT, FUT4, FUTF, FUTF4, FUTFN, FUTN, UT, UT1, UT2, UT3, UT4, UTE, UTE1, UTE3, UTE4, UTEF, UTEF1, UTEF4, UTEN, UTF, UTF1, UTF4, UTFI, UTFN, UTI, UTI1, UTI4, UTN, UTN1, UTQ, UTV

THIS PARTS LIST IS GOOD FOR THE FOLLOWING TYPES:

| Types | Frames | Types | Frames |
|---------------|--|-------|---|
| UT | 182T, TC, TCH, TD, TCZ 184T, TC, TCH, TD, TCZ 213T, TC, TD, TCZ 215T, TC, TD, TCZ 254T, TC, TD, TCZ 256T, TC, TD, TCZ B215TC, TCZ B256TC, TCZ | UTF | 182TC, TCH, TD 184TC, TCH, TD 213TC, TD 215TC, TD 254TC, TD 256TC, TD |
| UT-1 | 182, 184, B184, 213, 215, B215, 254, 256, B256JP | UTV | 182TCV, TCHV, JMV, JPV, JPYV 184TCV, TCHV, JMV, JPV, JPYV 213TCV, JMV, JPV 215TCV, JMV, JPV B215TCV, JMV, JPV 254TCV, JMV, JPV 256TCV, JMV, JPV |
| UT-2 | 182, 184, B184JPY | | |
| UT-3 | 213, 215, B215JPZ | | |
| UT-4 | 182, 184, B184, 213, 215, B215, 254, 256, B256JM | | |
| UTE, UTN, UTQ | 182, 184, 213, 215, 254, 256T | | |



WARNING:

Any disassembly or repair work on explosionproof motors will void the Underwriters Laboratories, Inc. label unless done by the manufacturer, or a facility approved by the Underwriters Laboratories, Inc. Refer to your nearest sales office for assistance.

BEARINGS:

Refer to motor nameplate for the bearing numbers.

PRICES:

Parts stocking distributors: refer to renewal parts numerical index. All Others: refer to your nearest parts distributor.

reference: Renewal Parts Section 700, Pages 14 & 15

RENEWAL PARTS

FRAMES - 182 THRU B256 UNIMOUNT TOTALLY ENCLOSED MOTORS

TYPES: FUT, FUT4, FUTF, FUTF4, FUTFN, FUTN, UT, UT1, UT2, UT3, UT4, UTE, UTE1, UTE3, UTE4, UTEF, UTEF1, UTEF4, UTEN, UTF, UTF1, UTF4, UTFI, UTFN, UTI, UTI1, UTI4, UTN, UTNI, UTQ, UTU

| ITEM NO. | QTY | NAME OF PART |
|--|-----|--|
| 1 | 1 | Fan Cover (not used on type UTN) |
| 2 | 4 | Self Tapping Screw (not used on type UTN) |
| 3 | 1 | Fan Assembly (not used on type UTN) |
| 4 | 1 | Bracket Assembly |
| 5 | 2 | Hex Countersunk Pipe Plug |
| 6 | 1 | Bracket Plug (type UTN only) |
| 7 | 4 | Hex Head Cap Screw |
| 8 | 2 | Lifting Lug (not used on type UTV) |
| 9 | 1 | Spring Wave Washer (not used on types UT-1, UT-2, UT-3, UT-4 and UTV) |
| 10 | 1 | Ball Bearing |
| 11 | 1 | Rotor Assembly (includes items 12 and 13) |
| 12 | 1 | Rotor Core |
| 13 | 1 | Shaft |
| 14-19 | - | Not Used |
| 20 | 1 | Wound Stator Assembly (includes items 21 and 22 if used) |
| 21 | 2 | Mounting Foot (not used on types UTF and UTV) |
| 22 | 6 | Hex Head Cap Screw (not used on types UTF and UTV) |
| 23 | 1 | Gasket |
| 24 | 1 | Outlet Box Base |
| 25 | 2 | Hex Head Cap Screw |
| 26 | 1 | Gasket |
| 27 | 1 | Outlet Box Cover |
| 28 | 2 | Self Tapping Screw |
| 29-34 | - | Not Used |
| 35 | 1 | Ball Bearing |
| 36 | 1 | Retaining Snap Ring (qty. 2 on frames 182 & 184T, TC, TCH, TCV, TCHV, types UT, UTE, UTF, UTQ & UTV) (not used on frames 213T thru 256T, type UTN) |
| 37 | 1 | Bracket Assembly (type UT, UTE, UTN and UTQ only) |
| 38 | 4 | Hex Nut |
| 39 | 2 | Hex Countersunk Pipe Plug |
| 40 | 1 | Square Key |
| 41-49 | - | Not Used |
| For types UT, UTF and UTV with "C" bracket, and types UT-1, UT-3 and UT-4 omit items 9 & 37 and items 38 on frames 182 & 182TC, JPV, types UT, UT-2 and UTF, and add the following parts | | |
| 50 | 1 | "C" Bracket Assembly |
| 51 | 1 | Clamping Plate |

| ITEM NO. | QTY | NAME OF PART |
|--|-----|--|
| 52 | 2 | Hex Head Cap Screw |
| 53 | 1 | Water Deflector |
| 54 | 1 | Hex head Cap Screw (used on frames 182 & 184JC, JPV, types UT, UT-2 and UTF) |
| 55-59 | - | Not Used |
| For types UT and UTF with "D" bracket, omit items 9 & 37, and item 38 on frames 182 & 182 & 184TD, and add the following parts | | |
| 60 | 1 | "D" Bracket Assembly |
| 61 | 1 | Clamping Plate |
| 62 | 2 | Hex Head Cap Screw |
| 63 | 1 | Water Deflector |
| 64 | 1 | Hex Head Cap Screw (used on 182 & 184 TD) |
| 65-69 | - | Not Used |
| For type UTV and units with canopy cap, omit item 8 and add the following | | |
| 70 | 1 | Canopy Cap |
| 71 | 3 | Spacer (qty. 1 on frames 182 and 184) |
| 72 | 3 | Hex Head Cap Screw and Lockwasher (qty. 1 on frames 182 and 184) |
| 73 | 3 | Square Nut (qty. 1 on frames 182 and 184) |
| 74 | 2 | Lifting Lug |
| 75-79 | - | Not Used |
| For SHUR-STOP brakes, omit items 1 & 3, and qty. one of item 8. Refer to section 770 for part addition | | |
| For Dings and Stearns beake, omit items 1, 2 and 4, and qty. one of items 5, and add the following | | |
| 80 | 1 | Brake (for replacement parts for brake, refer to brake manufacturer) |
| 81 | 4 | Socket Head Cap Screw (qty. 2 on brakes under 10 lb.ft.) |
| 82 | 1 | Key |
| 83 | 1 | Baffle Plate |
| 84 | 4 | Brake Mounting Bracket |
| 85 | 4 | Hex Head Cap Screw |
| 86 | 2 | Groove Pin |
| 87 | 1 | Brake Adaptor Bracket |
| 88 | 2 | Screen |
| 89 | 1 | Nipple Fitting |
| 90 | 1 | Pipe Coupling |
| 91 | 1 | Nipple Fitting |
| 92 | 1 | Pipe Cap |

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reference: Renewal Parts Section 700, Pages 14 & 15