

BEARING E PRAKAR
&
SERVICE PROTRACTOR

INTRODUCTION

- ❑ IS LESSON MEIN AAP BEARING, USKA BADLNA AUR SERICVE PROTECTOR KE BARE MEIN JANKARI HASIL KARENGE.**
- ❑ JESSE AAP KO BATAYA HAI BEARING COMPASS SE LI JATI HAI**
- ❑ BEARING SE HUM KO EK JAGAH SE DUSARI JAGAH KE BICH KA DEGREE KE BARE MAIN PATA CHLTA HAI AUR USSE DISHA KA GYAT HOTA HAI.**
- ❑ BEARING KO GHADI KE SIDHE RUKH MEIN PADA JATA HAI.**
- ❑ BEARING KAYI PRAKAR KI HO SAKTI HAIN**

PREVIEW

- **UDDESH**
- **PART - I - BEARING AUR USKA BADLNA**
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- **PART - II - SERVICE PROTRACTOR**
- **CONCLUSION**

UDDESH

**IS LECTURE KA UDDESH HAI BEARING
KE PRAKAR AUR SERVICE
PROTRACTOR KE BARE MEIN SIKHNA.**

PART - I

BEARING KR PRAKAR

BEARING KYA HAI

- **DIRECTION HOTA HAI N,S,E AND W.**
- **BEARING DEGREE MEIN PADE JATA HAI.**
- **BEARING WOH ANGLE HAI JO KI IN DO KE BICHH BANTA HAI**
 - **EK SIDHI LINE JO DO NISHAN KO JODTI HAIN**
AUR
 - **NORTH KA DIRECTION**

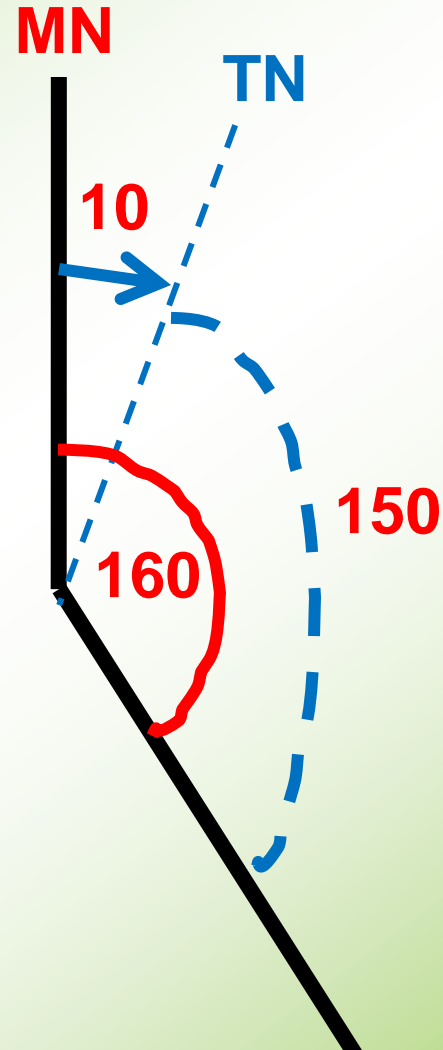
TEEN PRAKAR

- **GRID BEARING.** YEAH MAP PAR DO JAGOH KE BICH KE LINE OR GRID NORTH KE BICH KE ANGLE KA BEARING HAI. YEAH PROTRACTOR SE NAPI JATI HAI.
- **MAGNETIC BEARING.** YEAH ZAMIN PAR DO JAGOH KE BICH KE LINE OR MAGNETIC NORTH KE BICH KE ANGLE KA BEARING HAI. YEAH COMPASS SE NAPI JATI HAI
- **TRUE BEARING.** YEAH DO JAGOH KE LINE AUR GHADI KE SIDHE RUKH MEIN TRUE NORTH KE BICH KA ANGLE HAIN.

BEARING KO BADALNA

MB TO TB

- MANLO APNE COMAPSS SE EK JAGAH KI BEARING LI = 160 DEGREE .
- YEAH MB HAI.
- ISKO HAMNE AGAR TB MEIN BADALNA TOH AEESA DIAGRAM BANAYEN



TOH US ZAMINI NISHAN KA
TB 150 DEGREE HAI

GB TO MB

- MANLO MAP PAR EK JAGAH KI APNE BEARING LI = 150 DEGREE .
- YEAH GB HAI.
- ISKO HAMNE AGAR MB MEIN BADALNA TOH AEESA DIAGRAM BANAYEN
- IS HAAL MEIN MB GB SE JYADA HOGI IS LIYE



BACK BEARING

- **MAP PAR HUM APNE JAGAH SE EK ZAMINI NISHAN KI BEARING LETE HAIN.**
- **AGAR HUM JANNA CHHATE HAI KI US NISHAN SE HAMRE MAUJUDA POSITION KI BEARING KYA HAI TOH HUM KO WAHAN JANE KI ZARURAT NAHIN HAI. IS BEARING KO BACK BEARING KEHTE HAIN.**
- **HUM BACK BEARING AEESE PATA KAR SAKTE HAIN**
 - **AGAR ZAMINI NISHAN KI BEARING 180 DEGREE SE KAM HAI TOH USME 180 DEGREE ADD KARENGE**
 - **AGAR ZAMINI NISHAN KI BEARING 180 DEGREE SE JYADA HAI TOH HUM US MEIN SE 180 DEGREE MINUS KARENGE**
- **IS PRAKAR HUM KO BACK BEARING MIL JAYEGI**

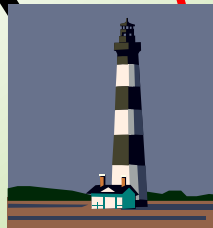
APNA POSITION

FORWARD BEARING

160

**AGAR ZAMINI NISHAN
KI BEARING 180
DEGREE SE KAM HAI
TOH USME 180 DEGREE
ADD KARENGE**

ZAMINI NISHAN



BACK BEARING

$160 + 180 = 340$

APNA POSITION

FORWARD BEARING

200

200

BACK BEARING

$200 - 180 = 20$

**AGAR ZAMINI NISHAN
KI BEARING 180
DEGREE SE JYADA HAI
TOH HUM US MEIN SE
180 DEGREE MINUS
KARENGE**

ZAMINI NISHAN



PART II

SERVICE PROTRACTOR

SERVICE PROTRACTOR

- **SERVICE PROTRACTOR “A” MARK IV EK YANTRA HAI KO KI MAP PAR BEARING PADNE AUR UNKO MARK KARNE MEIN KAM AATA HAI.**
- **YEAH COMPASS AUR MAP KE BICH KA EK SAMPARK KA SADHAN HAI.**
- **PROTRACTOR KI MADAD SE MAGNETIC BEARINGS, KO GRID BEARING MEIN BADALKE MAP PAR LAGAYA JATA HAI.**
- **PROTRACTOR PLASTIC YAH IRON KA BANA HOTA HAI AUR 6 INCHES LAMBA AUR 2 INCHES CHHODA HOTA HAI. PROTRACTOR SEMI CIRCLE KE BHI HO SAKTE HAIN.**

SERVICE PROTRACTOR

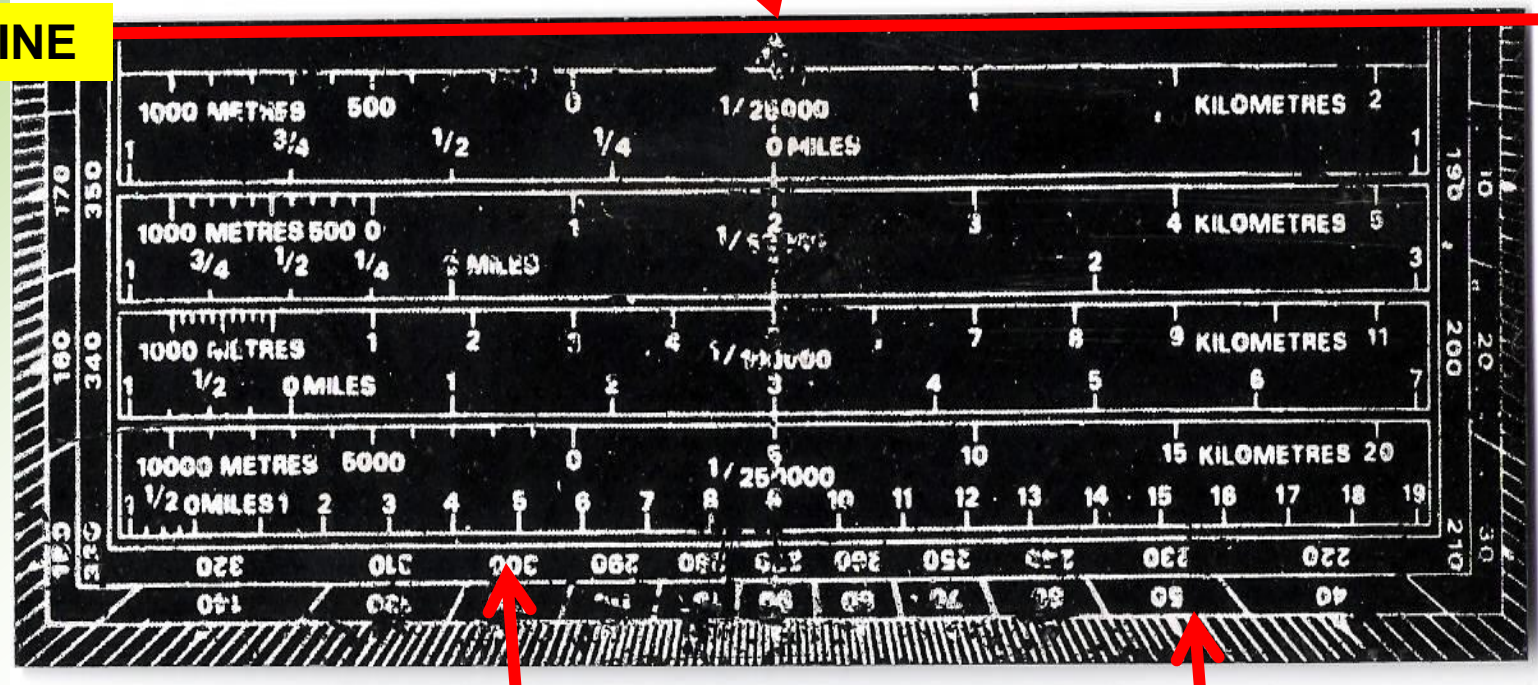
- **IS PAR DO LINE MEIN MARKING HOTI HAIN**
 - **EK BAHAR KI LINE JISME 0 SE 180 DEGREE KI MARKING HOTI HAI**
 - **EK ANDAR KI LINE JISME 180 TO 360 KI MARKING HOTI HAIN.**
- **SAB DEGREE GHADI KE SIDHE RULH MEIN MARK HOTI HAIN KYONKI DEGREE NORTH SE EAST KI TARAF PADI JATI HAIN (CLOCKWISE).**

SERVICE PROTRACTOR

ARROW HEAD



BASE LINE



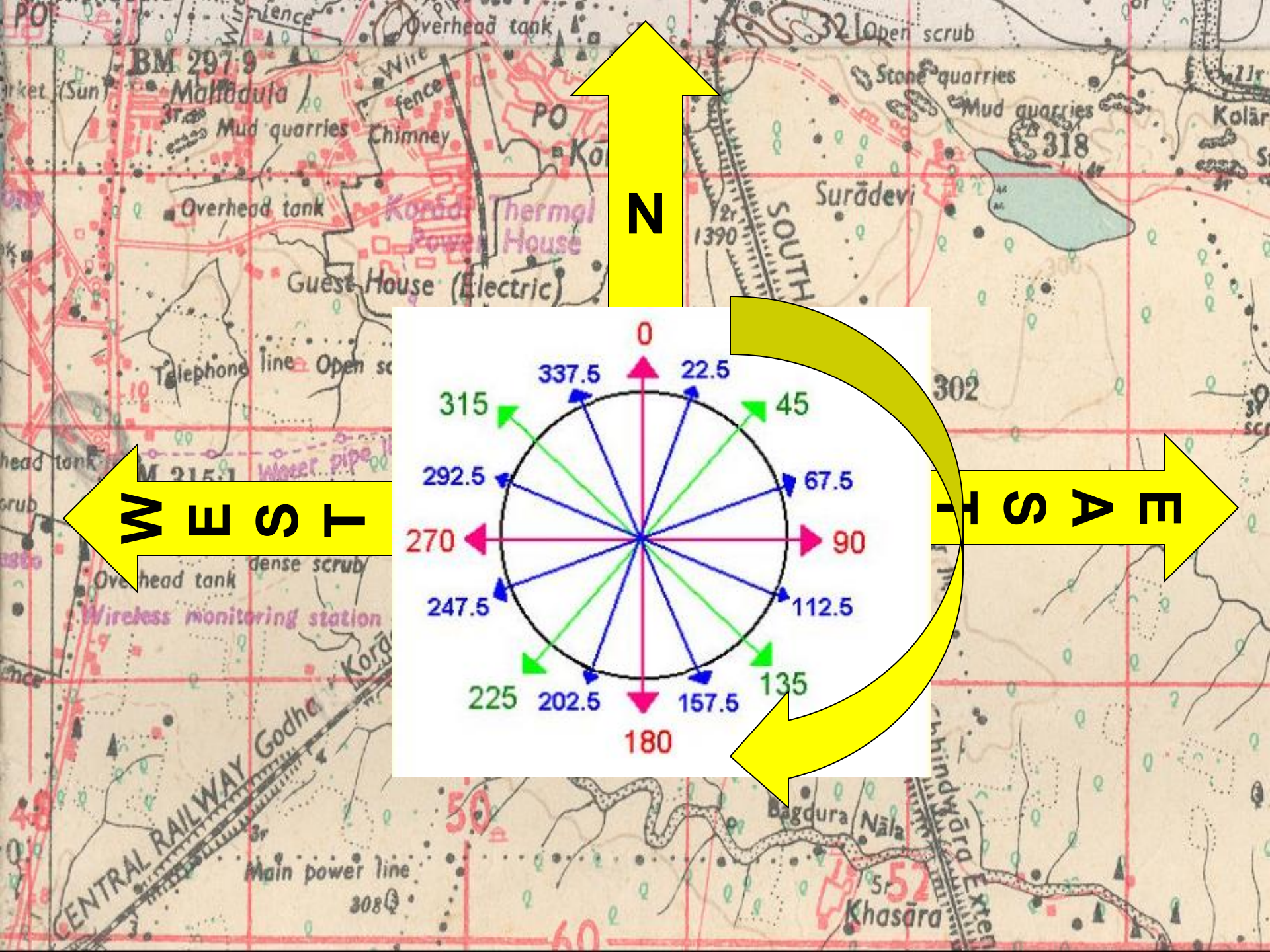
ANDAR KI LINE = 180 SE 360 DEGREE

BAHAR LI LINE = 0 SE 180 DEGREE

PROTRACTOR KA ISTEMAL

BEARING KO MAP PAR MARK KARNA


- ☐ **JAB MAP PAR BEARING KO PLOT KARNA HO YAH USKI BEARING PADNI HO TOH DONO ZAMINI NISHAN KE BICH MEIN LINE KHICHHE.**
- ☐ **PROTRACTOR KE ARROW HEAD KO NISHAN MEIN RAKHE.**
- ☐ **AGAR DEGREE 180 DEGREE SE KAM HAI TOH ARROW HEAD WEST KI TARAF POINT KARNA CHHAIYE**
- ☐ **AGAR DEGREE 180 DEGREE SE JYADA HAI TOH ARROW HEAD EAST KE TARAF POINT KARNA CHHAIYE.**



N

WEST

EAST

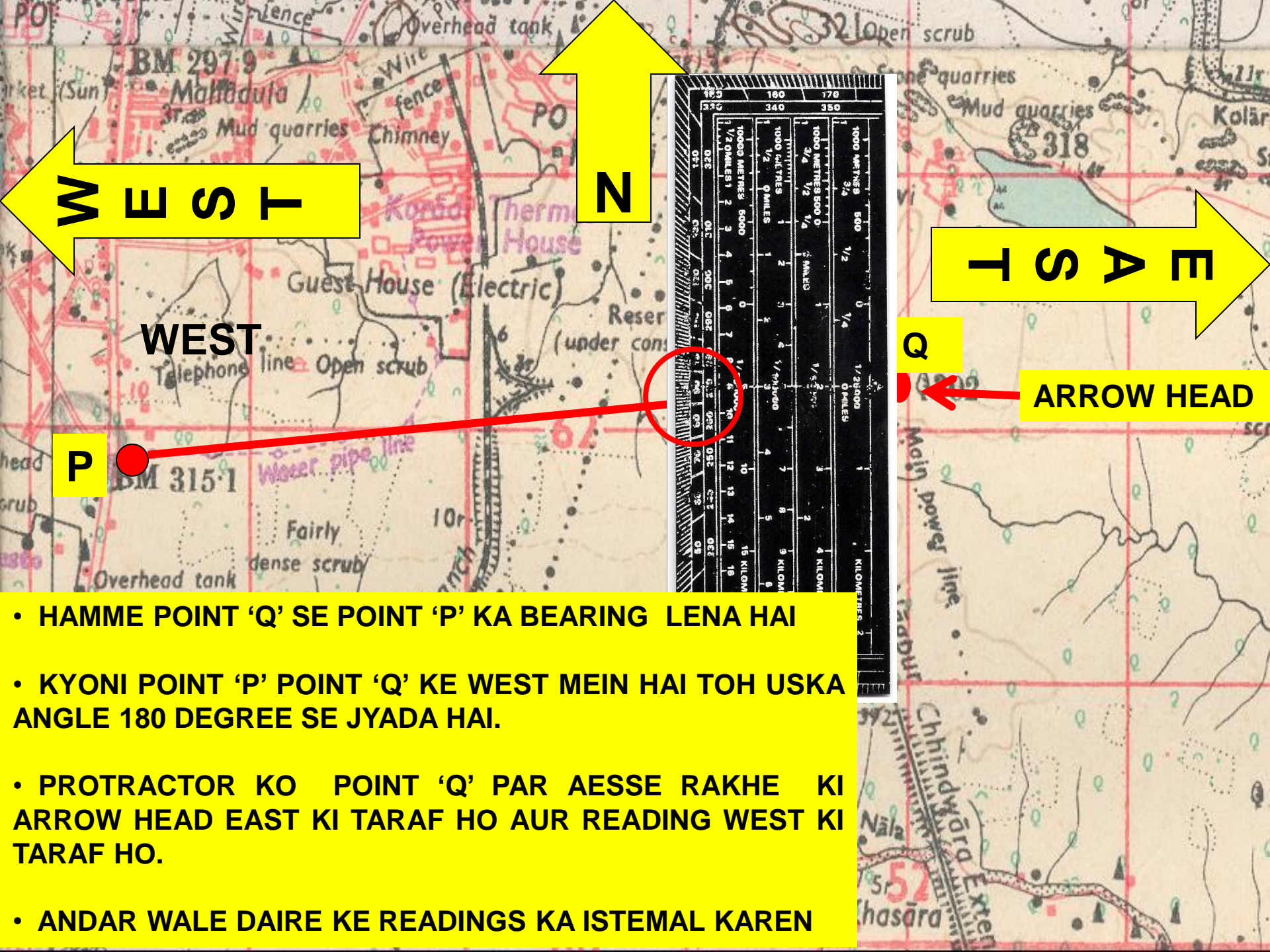


ARROW HEAD

P

Q

- HAMME POINT 'P' SE POINT 'Q' KA BEARING LENA HAI
- KYONI POINT 'Q' POINT 'P' KE EAST MEIN HAI TOH USKA ANGLE 180 DEGREE SE KAM HAI.
- PROTRACTOR KO POINT 'P' PAR AESSE RAKHE KI ARROW HEAD WEST KI TARAF HO AUR READING EAST KI TARAF HO.
- BAHAR WALE READINGS KA ISTEMAL KAREN



- HAMME POINT 'Q' SE POINT 'P' KA BEARING LENA HAI
- KYONI POINT 'P' POINT 'Q' KE WEST MEIN HAI TOH USKA ANGLE 180 DEGREE SE JYADA HAI.
- PROTRACTOR KO POINT 'Q' PAR AESSE RAKHE KI ARROW HEAD EAST KI TARAF HO AUR READING WEST KI TARAF HO.
- ANDAR WALE DAIRE KE READINGS KA ISTEMAL KAREN

- **DHYAN RAKHE**

**PROTRACTOR KO MAP RAKTE SAMAY
PROTRACTOR KA BASE LINE GRID LINE KE
SAMATAR HONA CHAAIYE.**